Fenster und Verglasungen wärmegedämmt
Fenêtres et vitrages à isolation thermique
Windows and glazing with thermal break



forsterunico 2

forster

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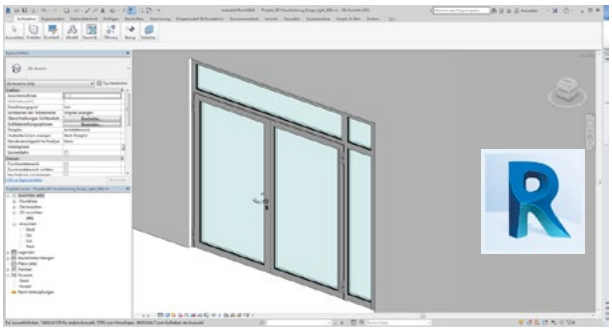
BIM-Modelle
Für die BIM Planungsmethode stehen Ihnen zahlreiche Modelle der Türen Forster omnia in Revit und ArchiCAD unter **www.forster-profile.ch/Downloads** zur Verfügung.

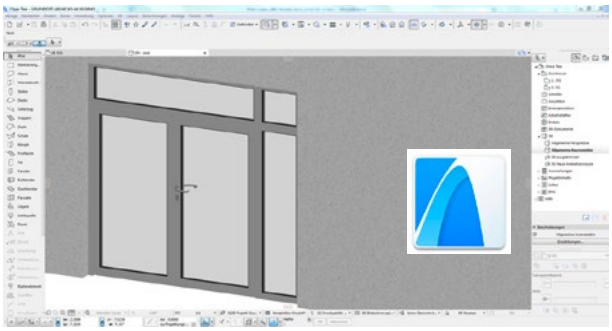
Téléchargement

Modèles BIM
Nombreux modèles des portes Forster omnia pour la méthode de planification BIM sont disponibles en Revit et ArchiCAD sous **www.forster-profile.ch/téléchargement.**

Downloads

BIM models
For the BIM planning method, numerous models of Forster omnia doors are available for Revit and ArchiCAD on **www.forster-profile.ch/Downloads.**





Zeichnungsdaten – dwg
Die in dieser Dokumentation gezeigten Schnitte und Pläne mit nachstehenden Bezeichnungen stehen als dwg-Daten unter **www.forster-profile.ch/downloads** zur Verfügung.

In der PDF-Version der Dokumentation sind diese Zeichnungen mit einem Link versehen.

un_ep_xxxx Einbaupläne
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un_sd_xxxx Systemdetails
un_sp_xxxx Systempläne
un_wa_xxxx Wandanschlüsse

Dessins en dwg
Les coupes et les plans présentés dans cette documentation avec les désignations ci-dessous sont disponibles au format DWG sous **www.forster-profile.ch/téléchargement.**

Dans la version PDF de la documentation, ces dessins sont dotés d'un lien.

un_ep_xxxx Plans de la mise en œuvre
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Drawing data – dwg
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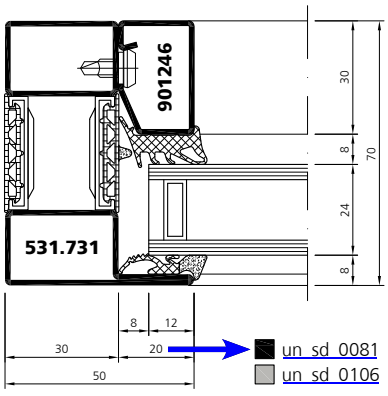

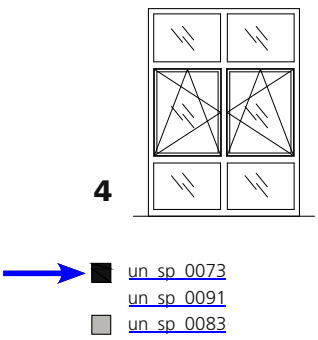

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Statik

Die Geometrischen Querschnittswerte um die y-Achse verändern sich mit zunehmender Länge, die um die z-Achse nicht. Die Geometrischen Querschnittswerte werden aus diesem Grund längenabhängig für jedes Profil in einer Tabelle dargestellt.

Beispiel:
Ein Profil mit einer Länge von 2535 [mm] hat gemäss der unten stehenden Tabelle einen ly-Wert von 29.44 [cm^4] und einen Wy von 8.53 [cm^3].

Statique

Les valeurs de résistance de l'axe y varient avec la longueur, celles de l'axe z ne changent pas. Les valeurs de résistance sont par conséquent répertoriées par longueur pour chaque profilé.

Exemple:
un profilé d'une longueur de 2535 [mm] a suivant le tableau ci-dessous une valeur ly de 29,44 [cm^4] et une valeur Wy de 8,53 [cm^3].

Static

The mechanical strength properties of the y-axis change with increasing length, those of the z-axis do not. The mechanical strength properties are therefore listed for every profile in the table according to length.

Example:
A profile with a length of 2535 [mm] has according to the table below a ly-value of 29.44 [cm^4] and a Wy of 8.53 [cm^3].

L [mm]	**G** [kg/m]	$\mathbf{I_y}$ [cm^4]	$\mathbf{W_y}$ [cm^3]	$\mathbf{I_z}$ [cm^4]	$\mathbf{W_z}$ [cm^3]	$\mathbf{e_y}$ [mm]	$\mathbf{e_z}$ [mm]	**O** [m^2/m]
6000	4.325			20.57	4.57	27.37	45.00	0.350
- 1999 mm		22.51	8.04					
2000 - 2499 mm		26.76	8.37					
2500 - 2999 mm		**29.44**	**8.53**					
3000 - 3499 mm		32.32	8.63					
3500 - 3999 mm		33.13	8.69					
4000 - 6000 mm		33.70	8.73					

Der Werkstoff der Halbschale definiert den E-Modul des Profils. Somit ist für die Stahlprofile (obwohl der Isolator aus Edelstahl ist) der E-Modul für Stahl zu verwenden. Da es sich bei den Edelstahlprofilen um keine Werkstoffkombination handelt, wird für die Edelstahlprofile der E-Modul von Edelstahl eingesetzt.

E-Module
E-Modul Stahlprofile: 210'000 [N/mm^2]
E-Modul Edelstahlprofile: 170'000 [N/mm^2]

Le matériau du semi-profilé définit le module E du profilé. Pour les profilés en acier, il faut ainsi utiliser le module E de l'acier (bien que l'isolant soit en acier inox). Pour les profilés en acier inox, on utilisera le module E de l'acier inox puisque ces profilés ne sont pas formés de matériaux combinés.

Modules E
Module E des profilés en acier: 210'000 [N/mm^2]
Module E des profilés en acier inox: 170'000 [N/mm^2]

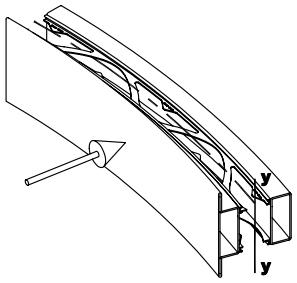
The material of the semi shell defines the E-module of the profile. Therefore for the steel profile (even though the insulator is made of stainless steel) the E-module for steel must be used. As stainless steel profiles are not a combination of materials, the E-module for stainless steel profiles is used for stainless steel profiles.

E-modules
E-module steel profiles: 210'000 [N/mm^2]
E-module stainless steel profiles: 170'000 [N/mm^2]

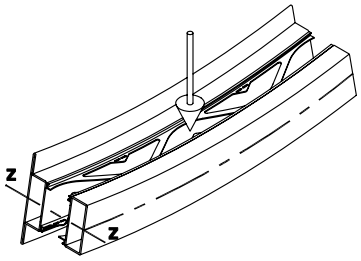
Statik

Belastungen

Profile, welche als Pfosten eingesetzt werden, sind im Regelfall mit Verkehrslasten beaufschlagt. Für diese Belastung sind die Werte bezüglich der y-Achse zu wählen.



Profile, welche als Riegel eingesetzt werden, sind im Regelfall mit der Belastung vom Glasgewicht beaufschlagt. Für diese Belastung sind die Werte bezüglich der z-Achse zu wählen.



Statique

Charges

Les profilés utilisés comme montants subissent en général des charges vives. Pour cette charge, il faut choisir les valeurs relatives à l'axe y.

Les profilés utilisés comme traverses subissent en général une charge équivalent au poids du verre. Pour cette charge, il faut choisir les valeurs relatives à l'axe z.

Static

Loads

Profiles, used as transom are normally subjected to traffic loads. For these loads, select the value in respect to the y-axis.

Profiles, used as mullion are normally subjected to the loads of the weight of the glass. For these loads, select the value in respect to the z-axis.

Wärmedämmwerte

Coefficients de transmission thermique

Thermal transmittance values



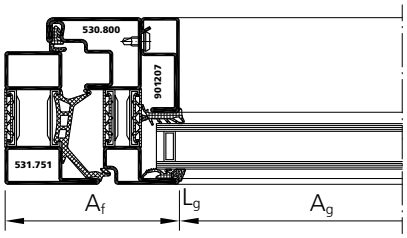
Centre Hospitalier Intercommunal, FR-Villeneuve-Saint-George

VUF 01/19

Berechnung der U-Werte
für ein gesamtes Element gemäss EN 10077 - 1

Die Element U-Werte werden gemäss Norm EN 10077-1 mit folgenden Formeln berechnet

$$U_W = \frac{A_f \times U_f + A_g \times U_g + L_g \times \psi_g}{A_f + A_g}$$



U_w	=	U-Wert Fenster	[W/(m²K)]
A_f	=	Sichtbare Fläche Rahmen	[m²]
U_f	=	U-Wert der Rahmenkombination	[W/(m²K)]
A_g	=	Sichtbare Fläche Glas	[m²]
U_g	=	U-Wert des Glases	[W/(m²K)]
L_g	=	Umfang des sichtbaren Glasanteils	[m]
ψ_g	=	Längenbezogener Wärmedurchgangskoeffizient	[W/(mK)]

Tabelle E1der EN 10077-1 (2006)

Calcule des valeurs U
pour tout l'élément selon la norme EN 10077 - 1

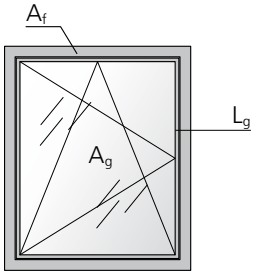
Les valeurs U sont calculées selon la norme EN 10077-1 avec la formule suivante

U_w	=	Coefficient de transmission thermique de la fenêtre	[W/(m²K)]
A_f	=	Surface de l'encadrement	[m²]
U_f	=	Coefficient de transmission thermique de l'encadrement	[W/(m²K)]
A_g	=	Surface du vitrage	[m²]
U_g	=	Coefficient de transmission thermique du vitrage	[W/(m²K)]
L_g	=	Périmètre du vitrage visible	[m]
ψ_g	=	Valeurs du coefficient de transmission thermique linéique pour les intercalaires du vitrage	[W/(mK)]

Tableau E1 EN ISO 10077-1 (2006)

Calculation of U-value
of the complete unit according to EN 10077 - 1

The U-value of the unit will be calculated according to EN 10077-1 with following computation formula



U_w	=	Thermal transmittance of the window	[W/(m²K)]
A_f	=	Area of the frame	[m²]
U_f	=	Thermal transmittance of the frame	[W/(m²K)]
A_g	=	Area of the glazing	[m²]
U_g	=	Thermal transmittance of the glazing	[W/(m²K)]
L_g	=	Perimeter of the visible glazing	[m]
ψ_g	=	Values of linear thermal transmittance for common types of glazing spacer bars	[W/(mK)]

Table E1 EN ISO 10077-1 (2006)

Längenbezogener Wärmedurchgangskoeffizient für Abstandhalter aus Aluminium und Stahl, Tabellen E.1 und E.2 der EN 10077-1 (2010) für Abstandhalter mit wärmetechnisch verbesserter Leistungsfähigkeit.

Valeurs du coefficient de transmission thermique linéique pour les intercalaires de vitrages en aluminium et en acier, tableaux E.1 et E.2 selon EN ISO 10077-1 (2010) pour intercalaires de vitrages avec une efficacité thermique plus performante.

Values of linear thermal transmittance for common types of glazing spacer bars (aluminium or steel) tables E1 and E.2 according to EN ISO 10077-1 (2010) for glazing spacer bars with higher thermal efficiency.

	2- oder 3 Scheiben Isolierverglasung, unbeschichtetes Glas, Luft oder Gaszwischenraum Vitrage double ou triple, verre non revêtu, lame d'air ou de gaz Double or triple glazing uncoated glass air- or gas-filled	2- oder 3 Scheiben Isolierverglasung, mit niedrigem Emissionsgrad, Luft oder Gaszwischenraum Vitrage double à faible émissivité, vitrage triple avec deux couches à faible émissivité, lame d'air ou gaz Double or triple glazing low-emissivity glass air- or gas-filled
Metallrahmen mit wärmetechnischer Trennung Cadre avec isolation thermique Frame with thermal break	**a) 0.08** **b) 0.06**	**a) 0.11** **b) 0.08**

a) Abstandhalter aus Aluminium und Stahl
b) Abstandhalter mit wärmetechnisch verbesserter Leistungsfähigkeit

a) intercalaire de vitrage en aluminium et en acier
b) intercalaire de vitrage avec une efficacité thermique plus performante

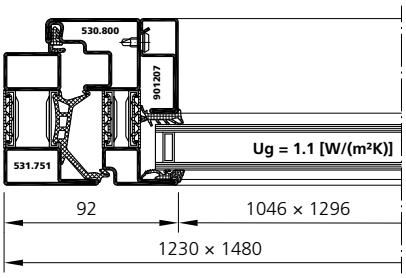
a) glazing spacer bars in aluminium or steel
b) glazing spacer bar with higher thermal efficiency

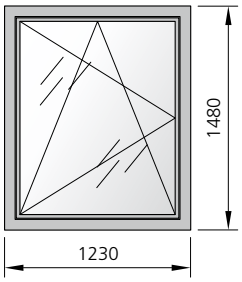
Berechnung der U-Werte
für ein gesamtes Element gemäss EN 10077 - 1

Calcule des valeurs U
pour tout l'élément selon la norme EN 10077 - 1

Calculation of U-value
of the complete unit according to EN 10077 - 1

Beispiel / Exemple / Example





A_w = Fläche gesamtes Element
1.23 × 1.48 = 1.820 [m^2]

A_g = Sichtbare Fläche Glas
1.046 × 1.296 = 1.356 [m^2]

A_f = Sichtbare Fläche Rahmen
A_w - A_g
1.820 - 1.356 = 0.464 [m^2]

L_g = Umfang des sichtbaren Glasanteils
2 × 1.046 + 2 × 1.296 = 4.684 [m]

U_f = U-Wert der Rahmenkombination
2.9 [W/(m^2K)]

U_g = U-Wert des Glases
1.1 [W/(m^2K)]

ψ_g = Längenbezogener Wärmedurchgangskoeffizient
gemäss EN 10077-1 (2010)
0.11 [W/(mK)]

A_w = Surface de l'élément
1.23 × 1.48 = 1.820 [m^2]

A_g = Surface du vitrage
1.046 × 1.296 = 1.356 [m^2]

A_f = Surface de l'encadrement
A_w - A_g
1.820 - 1.356 = 0.464 [m^2]

L_g = Périmètre du vitrage visible
2 × 1.046 + 2 × 1.296 = 4.684 [m]

U_f = Coefficient de transmission thermique de l'encadrement
2.9 [W/(m^2K)]

U_g = Coefficient de transmission thermique du vitrage
1.1 [W/(m^2K)]

ψ_g = Coefficient de transmission thermique linéique
selon EN 10077-1 (2010)
0.11 [W/(mK)]

A_w = Area of the element
1.23 × 1.48 = 1.820 [m^2]

A_g = Area of the glazing
1.046 × 1.296 = 1.356 [m^2]

A_f = Area of the frame
A_w - A_g
1.820 - 1.356 = 0.464 [m^2]

L_g = Perimeter of the visible glazing
2 × 1.046 + 2 × 1.296 = 4.684 [m]

U_f = Thermal transmittance of the frame
2.9 [W/(m^2K)]

U_g = Thermal transmittance of the glazing
1.1 [W/(m^2K)]

ψ_g = Linear thermal transmittance according to EN 10077-1 (2010)
0.11 [W/(mK)]

$$U_w = \frac{A_f \times U_f + A_g \times U_g + L_g \times \psi_g}{A_f + A_g}$$

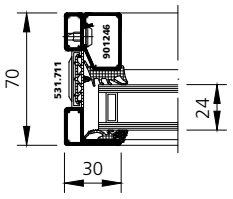
$$U_w = \frac{0.464 \times 2.9 + 1.356 \times 1.1 + 4.684 \times 0.11}{0.464 + 1.356}$$

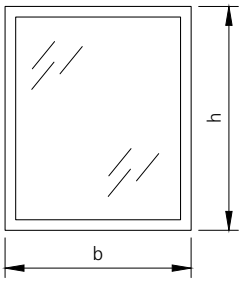
= 1.84 [W/(m^2K)]

Element – U-Werte
U-Werte Festfeld U_W

Élément – Coefficient de transmission thermique
Coefficient de transmission thermique du vitrage fixe U_W

Element – Thermal transmittance
Thermal transmittance of fixed glazing U_W





U_f = 3.0 [W/(m² · K)]
ψ = 0.06 [W/(m · K)]

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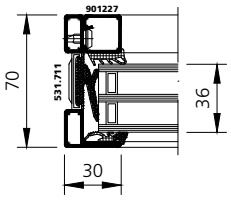
U_g-Wert Glas 1.1 Valeur U_g verre 1.1 U_g-value glass 1.1		Breite b / largeur b / width b [mm]								
		800	1000	1200	1400	1600	1800	2000	2200	2400
Höhe h / hauteur h / height h [mm]	800	1.65	1.60	1.57	1.54	1.52	1.51	1.50	1.49	1.48
	1000	1.60	1.55	1.51	1.49	1.47	1.45	1.44	1.43	1.42
	1200	1.57	1.51	1.48	1.45	1.43	1.42	1.40	1.39	1.39
	1400	1.54	1.49	1.45	1.42	1.40	1.39	1.38	1.37	1.36
	1600	1.52	1.47	1.43	1.40	1.38	1.37	1.36	1.35	1.34
	1800	1.51	1.45	1.42	1.39	1.37	1.35	1.34	1.33	1.32
	2000	1.50	1.44	1.40	1.38	1.36	1.34	1.33	1.32	1.31
	2200	1.49	1.43	1.39	1.37	1.35	1.33	1.32	1.31	1.30
	2400	1.48	1.42	1.39	1.36	1.34	1.32	1.31	1.30	1.29
	2600	1.47	1.42	1.38	1.35	1.33	1.32	1.30	1.29	1.28
	2800	1.47	1.41	1.37	1.35	1.33	1.31	1.30	1.29	1.28
	3000	1.46	1.40	1.37	1.34	1.32	1.30	1.29	1.28	1.27

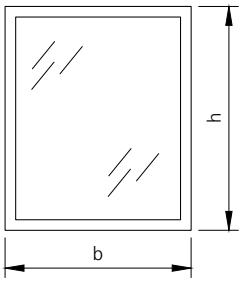
U_g-Wert Glas 0.9 Valeur U_g verre 0.9 U_g-value glass 0.9		Breite b / largeur b / width b [mm]								
		800	1000	1200	1400	1600	1800	2000	2200	2400
Höhe h / hauteur h / height h [mm]	800	1.48	1.43	1.39	1.36	1.34	1.33	1.32	1.31	1.30
	1000	1.43	1.37	1.33	1.31	1.29	1.27	1.26	1.25	1.24
	1200	1.39	1.33	1.29	1.27	1.25	1.23	1.22	1.21	1.20
	1400	1.36	1.31	1.27	1.24	1.22	1.20	1.19	1.18	1.17
	1600	1.34	1.29	1.25	1.22	1.20	1.18	1.17	1.16	1.15
	1800	1.33	1.27	1.23	1.20	1.18	1.17	1.15	1.14	1.13
	2000	1.32	1.26	1.22	1.19	1.17	1.15	1.14	1.13	1.12
	2200	1.31	1.25	1.21	1.18	1.16	1.14	1.13	1.12	1.11
	2400	1.30	1.24	1.20	1.17	1.15	1.13	1.12	1.11	1.10
	2600	1.29	1.23	1.19	1.16	1.14	1.13	1.11	1.10	1.09
	2800	1.29	1.23	1.19	1.16	1.14	1.12	1.11	1.10	1.09
	3000	1.28	1.22	1.18	1.15	1.13	1.11	1.10	1.09	1.08

Element – U-Werte
U-Werte Festfeld U_W

Élément – Coefficient de transmission thermique
Coefficient de transmission thermique du vitrage fixe U_W

Element – Thermal transmittance
Thermal transmittance of fixed glazing U_W





U_f = 2.1 [W/(m² · K)]
ψ = 0.04 [W/(m · K)]

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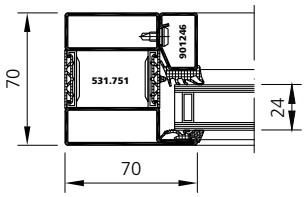
U_g-Wert Glas 0.7 Valeur U_g verre 0.7 U_g-value glass 0.7		Breite b / largeur b / width b [mm]								
		800	1000	1200	1400	1600	1800	2000	2200	2400
Höhe h / hauteur h / height h [mm]	800	1.09	1.05	1.03	1.01	1.00	0.99	0.98	0.97	0.97
	1000	1.05	1.01	0.99	0.97	0.96	0.95	0.94	0.93	0.93
	1200	1.03	0.99	0.96	0.95	0.93	0.92	0.91	0.91	0.90
	1400	1.01	0.97	0.95	0.93	0.91	0.90	0.89	0.89	0.88
	1600	1.00	0.96	0.93	0.91	0.90	0.89	0.88	0.87	0.87
	1800	0.99	0.95	0.92	0.90	0.89	0.88	0.87	0.86	0.86
	2000	0.98	0.94	0.91	0.89	0.88	0.87	0.86	0.85	0.85
	2200	0.97	0.93	0.91	0.89	0.87	0.86	0.85	0.85	0.84
	2400	0.97	0.93	0.90	0.88	0.87	0.86	0.85	0.84	0.83
	2600	0.96	0.92	0.90	0.88	0.86	0.85	0.84	0.84	0.83
	2800	0.96	0.92	0.89	0.87	0.86	0.85	0.84	0.83	0.82
	3000	0.95	0.91	0.89	0.87	0.85	0.84	0.83	0.83	0.82

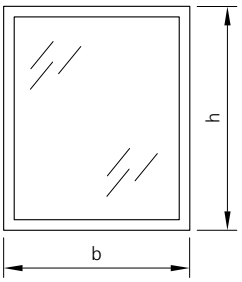
U_g-Wert Glas 0.5 Valeur U_g verre 0.5 U_g-value glass 0.5		Breite b / largeur b / width b [mm]								
		800	1000	1200	1400	1600	1800	2000	2200	2400
Höhe h / hauteur h / height h [mm]	800	0.92	0.88	0.85	0.83	0.82	0.81	0.80	0.79	0.79
	1000	0.88	0.84	0.81	0.79	0.78	0.77	0.76	0.75	0.74
	1200	0.85	0.81	0.78	0.76	0.75	0.74	0.73	0.72	0.71
	1400	0.83	0.79	0.76	0.74	0.73	0.72	0.71	0.70	0.69
	1600	0.82	0.78	0.75	0.73	0.71	0.70	0.69	0.69	0.68
	1800	0.81	0.77	0.74	0.72	0.70	0.69	0.68	0.67	0.67
	2000	0.80	0.76	0.73	0.71	0.69	0.68	0.67	0.66	0.66
	2200	0.79	0.75	0.72	0.70	0.69	0.67	0.66	0.66	0.65
	2400	0.79	0.74	0.71	0.69	0.68	0.67	0.66	0.65	0.64
	2600	0.78	0.74	0.71	0.69	0.67	0.66	0.65	0.65	0.64
	2800	0.78	0.73	0.70	0.68	0.67	0.66	0.65	0.64	0.63
	3000	0.77	0.73	0.70	0.68	0.67	0.65	0.64	0.64	0.63

Element – U-Werte
U-Werte Festfeld U_W

Élément – Coefficient de transmission thermique
Coefficient de transmission thermique du vitrage fixe U_W

Element – Thermal transmittance
Thermal transmittance of fixed glazing U_W





U_f = 2.5 [W/(m² · K)]
ψ = 0.06 [W/(m · K)]

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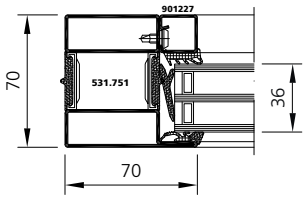
U_g-Wert Glas 1.1 Valeur U_g verre 1.1 U_g-value glass 1.1		Breite b / largeur b / width b [mm]								
		800	1000	1200	1400	1600	1800	2000	2200	2400
Höhe h / hauteur h / height h [mm]	800	1.79	1.73	1.69	1.67	1.64	1.63	1.61	1.60	1.59
	1000	1.73	1.67	1.63	1.60	1.58	1.56	1.54	1.53	1.52
	1200	1.69	1.63	1.58	1.55	1.53	1.51	1.50	1.48	1.47
	1400	1.67	1.60	1.55	1.52	1.50	1.48	1.46	1.45	1.44
	1600	1.64	1.58	1.53	1.50	1.47	1.45	1.44	1.42	1.41
	1800	1.63	1.56	1.51	1.48	1.45	1.43	1.42	1.40	1.39
	2000	1.61	1.54	1.50	1.46	1.44	1.42	1.40	1.39	1.38
	2200	1.60	1.53	1.48	1.45	1.42	1.40	1.39	1.37	1.36
	2400	1.59	1.52	1.47	1.44	1.41	1.39	1.38	1.36	1.35
	2600	1.59	1.51	1.47	1.43	1.40	1.38	1.37	1.35	1.34
	2800	1.58	1.51	1.46	1.42	1.40	1.38	1.36	1.35	1.34
	3000	1.57	1.50	1.45	1.42	1.39	1.37	1.35	1.34	1.33

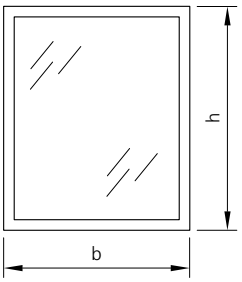
U_g-Wert Glas 0.9 Valeur U_g verre 0.9 U_g-value glass 0.9		Breite b / largeur b / width b [mm]								
		800	1000	1200	1400	1600	1800	2000	2200	2400
Höhe h / hauteur h / height h [mm]	800	1.66	1.59	1.55	1.52	1.49	1.48	1.46	1.45	1.44
	1000	1.59	1.52	1.48	1.44	1.42	1.40	1.38	1.37	1.36
	1200	1.55	1.48	1.43	1.39	1.37	1.35	1.33	1.32	1.31
	1400	1.52	1.44	1.39	1.36	1.33	1.31	1.29	1.28	1.27
	1600	1.49	1.42	1.37	1.33	1.30	1.28	1.27	1.25	1.24
	1800	1.48	1.40	1.35	1.31	1.28	1.26	1.25	1.23	1.22
	2000	1.46	1.38	1.33	1.29	1.27	1.25	1.23	1.21	1.20
	2200	1.45	1.37	1.32	1.28	1.25	1.23	1.21	1.20	1.19
	2400	1.44	1.36	1.31	1.27	1.24	1.22	1.20	1.19	1.18
	2600	1.43	1.35	1.30	1.26	1.23	1.21	1.19	1.18	1.17
	2800	1.42	1.34	1.29	1.25	1.22	1.20	1.18	1.17	1.16
	3000	1.42	1.34	1.28	1.24	1.22	1.19	1.18	1.16	1.15

Element – U-Werte
U-Werte Festfeld U_W

Élément – Coefficient de transmission thermique
Coefficient de transmission thermique du vitrage fixe U_W

Element – Thermal transmittance
Thermal transmittance of fixed glazing U_W





U_f = 2.1 [W/(m² · K)]
ψ = 0.04 [W/(m · K)]

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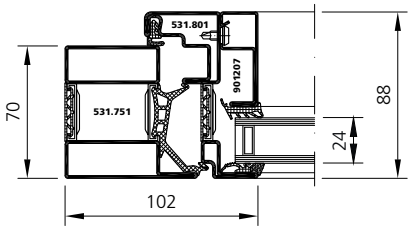
U_g-Wert Glas 0.7 Valeur U_g verre 0.7 U_g-value glass 0.7		Breite b / largeur b / width b [mm]								
		800	1000	1200	1400	1600	1800	2000	2200	2400
Höhe h / hauteur h / height h [mm]	800	1.31	1.26	1.22	1.20	1.18	1.16	1.15	1.14	1.13
	1000	1.26	1.20	1.16	1.14	1.12	1.10	1.09	1.08	1.07
	1200	1.22	1.16	1.13	1.10	1.08	1.06	1.05	1.04	1.03
	1400	1.20	1.14	1.10	1.07	1.05	1.03	1.02	1.01	1.00
	1600	1.18	1.12	1.08	1.05	1.03	1.01	0.99	0.98	0.97
	1800	1.16	1.10	1.06	1.03	1.01	0.99	0.98	0.97	0.96
	2000	1.15	1.09	1.05	1.02	0.99	0.98	0.96	0.95	0.94
	2200	1.14	1.08	1.04	1.01	0.98	0.97	0.95	0.94	0.93
	2400	1.13	1.07	1.03	1.00	0.97	0.96	0.94	0.93	0.92
	2600	1.13	1.06	1.02	0.99	0.97	0.95	0.93	0.92	0.91
	2800	1.12	1.06	1.01	0.98	0.96	0.94	0.93	0.92	0.91
	3000	1.12	1.05	1.01	0.98	0.95	0.94	0.92	0.91	0.90

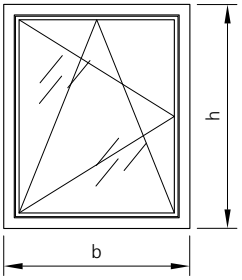
U_g-Wert Glas 0.5 Valeur U_g verre 0.5 U_g-value glass 0.5		Breite b / largeur b / width b [mm]								
		800	1000	1200	1400	1600	1800	2000	2200	2400
Höhe h / hauteur h / height h [mm]	800	1.18	1.12	1.08	1.05	1.03	1.01	1.00	0.99	0.98
	1000	1.12	1.05	1.01	0.98	0.96	0.94	0.93	0.92	0.91
	1200	1.08	1.01	0.97	0.94	0.92	0.90	0.88	0.87	0.86
	1400	1.05	0.98	0.94	0.91	0.88	0.86	0.85	0.84	0.83
	1600	1.03	0.96	0.92	0.88	0.86	0.84	0.83	0.81	0.80
	1800	1.01	0.94	0.90	0.86	0.84	0.82	0.81	0.79	0.78
	2000	1.00	0.93	0.88	0.85	0.83	0.81	0.79	0.78	0.77
	2200	0.99	0.92	0.87	0.84	0.81	0.79	0.78	0.77	0.75
	2400	0.98	0.91	0.86	0.83	0.80	0.78	0.77	0.75	0.74
	2600	0.97	0.90	0.85	0.82	0.79	0.77	0.76	0.75	0.73
	2800	0.96	0.89	0.85	0.81	0.79	0.77	0.75	0.74	0.73
	3000	0.96	0.89	0.84	0.81	0.78	0.76	0.74	0.73	0.72

Element – U-Werte
U-Werte Fenster U_W

Élément – Coefficient de transmission thermique
Coefficient de transmission thermique de la fenêtre U_W

Element – Thermal transmittance
Thermal transmittance of the window U_W





U_f = 2.9 [W/(m² · K)]
ψ = 0.06 [W/(m · K)]

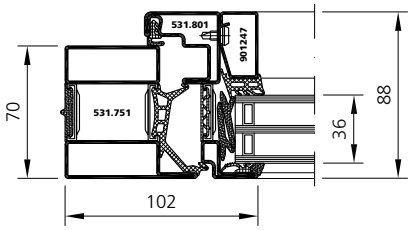
U_g-Wert Glas 1.1 Valeur U_g verre 1.1 U_g-value glass 1.1		Breite b / largeur b / width b [mm]					
		600	800	1000	1200	1400	1600
Höhe h / hauteur h / height h [mm]	600	2.38	2.26	2.19	2.15		
	800	2.26	2.12	2.04	1.99	1.95	
	1000	2.19	2.04	1.95	1.89	1.85	1.81
	1200	2.15	1.99	1.89	1.83	1.78	1.75
	1400	2.11	1.95	1.85	1.78	1.73	1.70
	1600	2.09	1.92	1.81	1.75	1.70	1.66
	1800	2.07	1.89	1.79	1.72	1.67	1.63
	2000	2.05	1.88	1.77	1.70	1.65	
	2200	2.04	1.86	1.75	1.68	1.63	
	2400	2.03	1.85	1.74	1.67	1.61	
	2600	2.02	1.84	1.73	1.65	1.60	

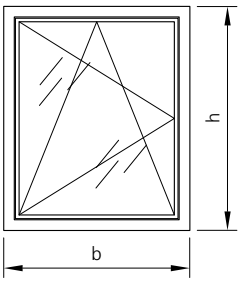
U_g-Wert Glas 0.9 Valeur U_g verre 0.9 U_g-value glass 0.9		Breite b / largeur b / width b [mm]					
		600	800	1000	1200	1400	1600
Höhe h / hauteur h / height h [mm]	600	2.29	2.16	2.09	2.04		
	800	2.16	2.01	1.92	1.86	1.82	
	1000	2.09	1.92	1.82	1.76	1.71	1.68
	1200	2.04	1.86	1.76	1.69	1.64	1.60
	1400	2.00	1.82	1.71	1.64	1.59	1.55
	1600	1.97	1.79	1.68	1.60	1.55	1.51
	1800	1.95	1.76	1.65	1.57	1.52	1.48
	2000	1.93	1.74	1.63	1.55	1.49	
	2200	1.92	1.72	1.61	1.53	1.47	
	2400	1.91	1.71	1.59	1.51	1.46	
	2600	1.90	1.70	1.58	1.50	1.44	

Element – U-Werte
U-Werte Fenster U_W

Élément – Coefficient de transmission thermique
Coefficient de transmission thermique de la fenêtre U_W

Element – Thermal transmittance
Thermal transmittance of the window U_W





U_f = 2.1 [W/(m² · K)]
ψ = 0.04 [W/(m · K)]

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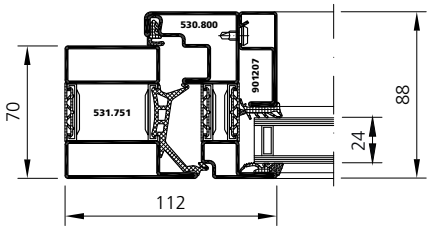
U_g-Wert Glas 0.7 Valeur U_g verre 0.7 U_g-value glass 0.7		Breite b / largeur b / width b [mm]					
		600	800	1000	1200	1400	1600
Höhe h / hauteur h / height h [mm]	600	1.67	1.58	1.52	1.49		
	800	1.58	1.47	1.41	1.37	1.34	
	1000	1.52	1.41	1.34	1.29	1.26	1.24
	1200	1.49	1.37	1.29	1.25	1.21	1.19
	1400	1.46	1.34	1.26	1.21	1.18	1.15
	1600	1.44	1.31	1.24	1.19	1.15	1.12
	1800	1.43	1.30	1.22	1.17	1.13	1.10
	2000	1.42	1.28	1.20	1.15	1.11	
	2200	1.41	1.27	1.19	1.14	1.10	
	2400	1.40	1.26	1.18	1.13	1.09	
	2600	1.39	1.25	1.17	1.12	1.08	

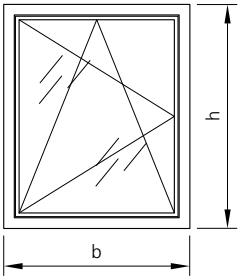
U_g-Wert Glas 0.5 Valeur U_g verre 0.5 U_g-value glass 0.5		Breite b / largeur b / width b [mm]					
		600	800	1000	1200	1400	1600
Höhe h / hauteur h / height h [mm]	600	1.58	1.48	1.42	1.38		
	800	1.48	1.36	1.29	1.24	1.21	
	1000	1.42	1.29	1.21	1.16	1.13	1.10
	1200	1.38	1.24	1.16	1.11	1.07	1.04
	1400	1.35	1.21	1.13	1.07	1.03	1.00
	1600	1.33	1.18	1.10	1.04	1.00	0.97
	1800	1.31	1.16	1.08	1.02	0.98	0.95
	2000	1.30	1.15	1.06	1.00	0.96	
	2200	1.29	1.14	1.05	0.99	0.94	
	2400	1.28	1.13	1.03	0.97	0.93	
	2600	1.27	1.12	1.02	0.96	0.92	

Element – U-Werte
U-Werte Fenster U_W

Élément – Coefficient de transmission thermique
Coefficient de transmission thermique de la fenêtre U_W

Element – Thermal transmittance
Thermal transmittance of the window U_W





U_f = 2.7 [W/(m² · K)]
ψ = 0.06 [W/(m · K)]

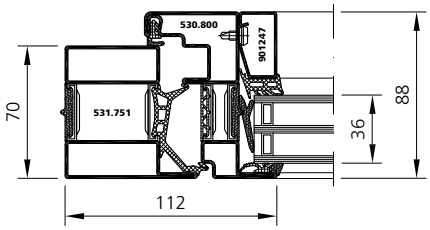
U_g-Wert Glas 1.1 Valeur U_g verre 1.1 U_g-value glass 1.1		Breite b / largeur b / width b [mm]					
		600	800	1000	1200	1400	1600
Höhe h / hauteur h / height h [mm]	600	2.32	2.22	2.15	2.11		
	800	2.22	2.09	2.01	1.96	1.92	
	1000	2.15	2.01	1.92	1.87	1.82	1.79
	1200	2.11	1.96	1.87	1.80	1.76	1.73
	1400	2.08	1.92	1.82	1.76	1.72	1.68
	1600	2.06	1.89	1.79	1.73	1.68	1.65
	1800	2.04	1.87	1.77	1.70	1.65	1.62
	2000	2.02	1.85	1.75	1.68	1.63	
	2200	2.01	1.84	1.73	1.67	1.62	
	2400	2.00	1.83	1.72	1.65	1.60	
	2600	2.00	1.82	1.71	1.64	1.59	

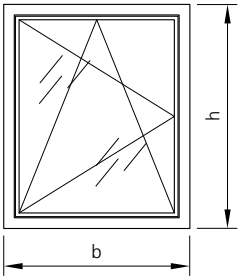
U_g-Wert Glas 0.9 Valeur U_g verre 0.9 U_g-value glass 0.9		Breite b / largeur b / width b [mm]					
		600	800	1000	1200	1400	1600
Höhe h / hauteur h / height h [mm]	600	2.24	2.13	2.06	2.01		
	800	2.13	1.98	1.90	1.84	1.80	
	1000	2.06	1.90	1.80	1.74	1.69	1.66
	1200	2.01	1.84	1.74	1.67	1.62	1.59
	1400	1.97	1.80	1.69	1.62	1.57	1.54
	1600	1.95	1.77	1.66	1.59	1.54	1.50
	1800	1.93	1.74	1.63	1.56	1.51	1.47
	2000	1.91	1.73	1.61	1.54	1.48	
	2200	1.90	1.71	1.60	1.52	1.46	
	2400	1.89	1.70	1.58	1.50	1.45	
	2600	1.88	1.69	1.57	1.49	1.44	

Element – U-Werte
U-Werte Fenster U_W

Élément – Coefficient de transmission thermique
Coefficient de transmission thermique de la fenêtre U_W

Element – Thermal transmittance
Thermal transmittance of the window U_W





U_f = 2.2 [W/(m² · K)]
ψ = 0.04 [W/(m · K)]

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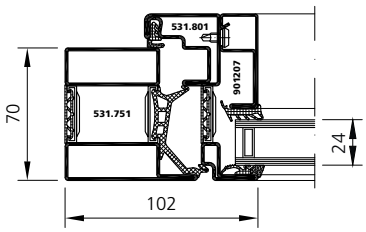
U_g-Wert Glas 0.7 Valeur U_g verre 0.7 U_g-value glass 0.7		Breite b / largeur b / width b [mm]					
		600	800	1000	1200	1400	1600
Höhe h / hauteur h / height h [mm]	600	1.78	1.68	1.62	1.59		
	800	1.68	1.57	1.50	1.45	1.42	
	1000	1.62	1.50	1.42	1.37	1.33	1.31
	1200	1.59	1.45	1.37	1.32	1.28	1.25
	1400	1.56	1.42	1.33	1.28	1.24	1.21
	1600	1.54	1.39	1.31	1.25	1.21	1.18
	1800	1.52	1.37	1.29	1.23	1.18	1.15
	2000	1.51	1.36	1.27	1.21	1.17	
	2200	1.50	1.35	1.25	1.19	1.15	
	2400	1.49	1.34	1.24	1.18	1.14	
	2600	1.48	1.33	1.23	1.17	1.13	

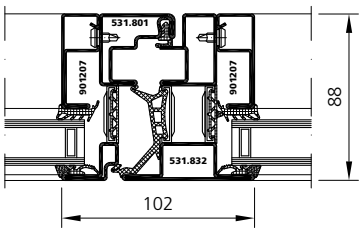
U_g-Wert Glas 0.5 Valeur U_g verre 0.5 U_g-value glass 0.5		Breite b / largeur b / width b [mm]					
		600	800	1000	1200	1400	1600
Höhe h / hauteur h / height h [mm]	600	1.70	1.59	1.53	1.48		
	800	1.59	1.46	1.39	1.33	1.30	
	1000	1.53	1.39	1.30	1.24	1.20	1.17
	1200	1.48	1.33	1.24	1.18	1.14	1.11
	1400	1.45	1.30	1.20	1.14	1.10	1.06
	1600	1.43	1.27	1.17	1.11	1.06	1.03
	1800	1.41	1.25	1.15	1.08	1.04	1.00
	2000	1.40	1.23	1.13	1.06	1.02	
	2200	1.39	1.22	1.12	1.05	1.00	
	2400	1.38	1.20	1.10	1.03	0.99	
	2600	1.37	1.19	1.09	1.02	0.97	

Element – U-Werte
U-Werte Fenster U_W



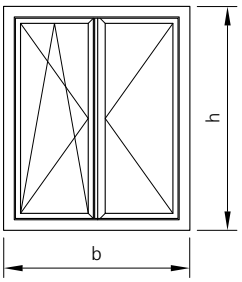
U_f = 2.8 [W/(m² · K)]
ψ = 0.06 [W/(m · K)]

Élément – Coefficient de transmission thermique
Coefficient de transmission thermique de la fenêtre U_W



U_f = 3.1 [W/(m² · K)]

Element – Thermal transmittance
Thermal transmittance of the window U_W



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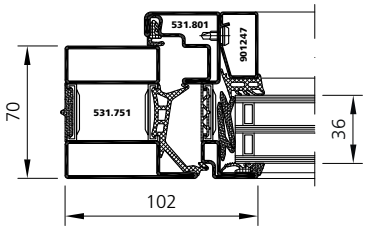
U_g-Wert Glas 1.1 Valeur U_g verre 1.1 U_g-value glass 1.1		Breite b / largeur b / width b [mm]												
		800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200
Höhe h / hauteur h / height h [mm]	600	2.47	2.35	2.27	2.21	2.17	2.14	2.11	2.09	2.07				
	800	2.37	2.23	2.14	2.08	2.03	1.99	1.96	1.93	1.91				
	1000	2.32	2.17	2.07	1.99	1.94	1.90	1.87	1.84	1.82	1.80	1.78	1.77	1.75
	1200	2.28	2.12	2.01	1.94	1.88	1.84	1.80	1.78	1.75	1.73	1.71	1.70	1.69
	1400	2.25	2.09	1.98	1.90	1.84	1.80	1.76	1.73	1.71	1.68	1.67	1.65	1.64
	1600	2.23	2.06	1.95	1.87	1.81	1.76	1.73	1.70	1.67	1.65	1.63	1.62	1.60
	1800	2.21	2.04	1.93	1.85	1.79	1.74	1.70	1.67	1.64	1.62	1.60	1.59	1.57
	2000	2.20	2.03	1.91	1.83	1.77	1.72	1.68	1.65	1.62	1.60	1.58		
	2200	2.19	2.02	1.90	1.81	1.75	1.70	1.66	1.63	1.61	1.58	1.56		
	2400	2.18	2.01	1.89	1.80	1.74	1.69	1.65	1.62	1.59	1.57	1.55		
	2600	2.18	2.00	1.88	1.79	1.73	1.68	1.64	1.61	1.58	1.56	1.54		

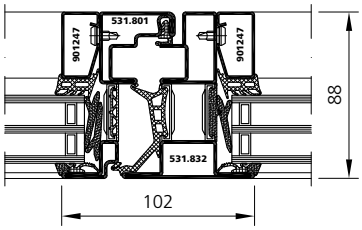
U_g-Wert Glas 0.9 Valeur U_g verre 0.9 U_g-value glass 0.9		Breite b / largeur b / width b [mm]												
		800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200
Höhe h / hauteur h / height h [mm]	600	2.39	2.26	2.17	2.11	2.07	2.03	2.00	1.98	1.96				
	800	2.28	2.13	2.03	1.96	1.91	1.87	1.83	1.81	1.78				
	1000	2.22	2.06	1.95	1.87	1.81	1.77	1.73	1.70	1.68	1.66	1.64	1.62	1.61
	1200	2.18	2.00	1.89	1.81	1.75	1.70	1.66	1.63	1.61	1.59	1.57	1.55	1.54
	1400	2.15	1.97	1.85	1.77	1.70	1.65	1.62	1.58	1.56	1.53	1.51	1.50	1.48
	1600	2.12	1.94	1.82	1.73	1.67	1.62	1.58	1.55	1.52	1.50	1.48	1.46	1.44
	1800	2.11	1.92	1.80	1.71	1.64	1.59	1.55	1.52	1.49	1.47	1.45	1.43	1.41
	2000	2.09	1.90	1.78	1.69	1.62	1.57	1.53	1.49	1.47	1.44	1.42		
	2200	2.08	1.89	1.76	1.67	1.61	1.55	1.51	1.48	1.45	1.42	1.40		
	2400	2.07	1.88	1.75	1.66	1.59	1.54	1.49	1.46	1.43	1.41	1.39		
	2600	2.06	1.87	1.74	1.65	1.58	1.52	1.48	1.45	1.42	1.39	1.37		

Element – U-Werte
U-Werte Fenster U_W



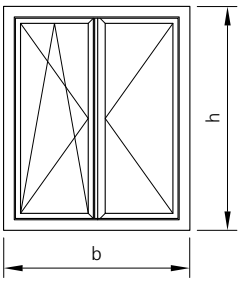
U_f = 2.1 [W/(m² · K)]
ψ = 0.04 [W/(m · K)]

Élément – Coefficient de transmission thermique
Coefficient de transmission thermique de la fenêtre U_W



U_f = 2.1 [W/(m² · K)]

Element – Thermal transmittance
Thermal transmittance of the window U_W



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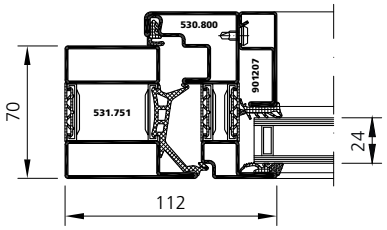
U_g-Wert Glas 0.7 Valeur U_g verre 0.7 U_g-value glass 0.7		Breite b / largeur b / width b [mm]												
		800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200
Höhe h / hauteur h / height h [mm]	600	1.74	1.66	1.60	1.56	1.53	1.50	1.48	1.47	1.45				
	800	1.67	1.56	1.50	1.45	1.41	1.38	1.36	1.34	1.33				
	1000	1.62	1.51	1.44	1.38	1.34	1.31	1.29	1.27	1.25	1.24	1.22	1.21	1.20
	1200	1.59	1.47	1.39	1.34	1.30	1.26	1.24	1.22	1.20	1.18	1.17	1.16	1.15
	1400	1.57	1.45	1.37	1.31	1.26	1.23	1.20	1.18	1.16	1.15	1.13	1.12	1.11
	1600	1.55	1.43	1.34	1.28	1.24	1.21	1.18	1.15	1.14	1.12	1.11	1.09	1.08
	1800	1.54	1.41	1.33	1.27	1.22	1.19	1.16	1.13	1.11	1.10	1.08	1.07	1.06
	2000	1.53	1.40	1.31	1.25	1.21	1.17	1.14	1.12	1.10	1.08	1.07		
	2200	1.52	1.39	1.30	1.24	1.19	1.16	1.13	1.10	1.08	1.07	1.05		
	2400	1.51	1.38	1.29	1.23	1.18	1.15	1.12	1.09	1.07	1.06	1.04		
	2600	1.51	1.37	1.28	1.22	1.17	1.14	1.11	1.08	1.06	1.05	1.03		

U_g-Wert Glas 0.5 Valeur U_g verre 0.5 U_g-value glass 0.5		Breite b / largeur b / width b [mm]												
		800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200
Höhe h / hauteur h / height h [mm]	600	1.66	1.57	1.50	1.45	1.42	1.39	1.37	1.35	1.34				
	800	1.57	1.46	1.39	1.33	1.29	1.26	1.23	1.21	1.20				
	1000	1.52	1.40	1.32	1.26	1.21	1.18	1.15	1.13	1.11	1.10	1.08	1.07	1.06
	1200	1.49	1.36	1.27	1.21	1.16	1.13	1.10	1.07	1.05	1.04	1.02	1.01	1.00
	1400	1.46	1.33	1.24	1.17	1.13	1.09	1.06	1.03	1.01	1.00	0.98	0.97	0.96
	1600	1.44	1.31	1.21	1.15	1.10	1.06	1.03	1.00	0.98	0.97	0.95	0.94	0.93
	1800	1.43	1.29	1.19	1.13	1.08	1.04	1.01	0.98	0.96	0.94	0.93	0.91	0.90
	2000	1.42	1.27	1.18	1.11	1.06	1.02	0.99	0.96	0.94	0.92	0.91		
	2200	1.41	1.26	1.17	1.10	1.05	1.01	0.97	0.95	0.93	0.91	0.89		
	2400	1.40	1.25	1.16	1.09	1.03	0.99	0.96	0.93	0.91	0.89	0.88		
	2600	1.39	1.25	1.15	1.08	1.02	0.98	0.95	0.92	0.90	0.88	0.87		

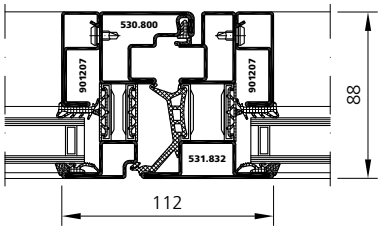
Element – U-Werte
U-Werte Fenster U_W

Élément – Coefficient de transmission thermique
Coefficient de transmission thermique de la fenêtre U_W

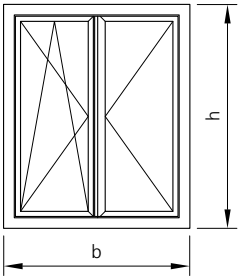
Element – Thermal transmittance
Thermal transmittance of the window U_W



U_f = 2.7 [W/(m² · K)]
ψ = 0.06 [W/(m · K)]



U_f = 3.0 [W/(m² · K)]



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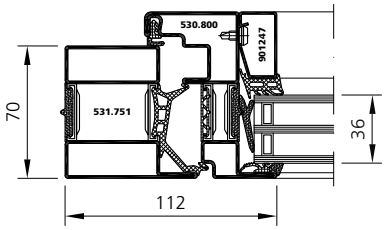
U_g-Wert Glas 1.1 Valeur U_g verre 1.1 U_g-value glass 1.1		Breite b / largeur b / width b [mm]												
		800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200
Höhe h / hauteur h / height h [mm]	600	2.46	2.35	2.28	2.22	2.18	2.15	2.12	2.10	2.09				
	800	2.38	2.24	2.15	2.09	2.04	2.00	1.97	1.94	1.92				
	1000	2.32	2.18	2.08	2.00	1.95	1.91	1.88	1.85	1.83	1.81	1.79	1.78	1.76
	1200	2.29	2.13	2.03	1.95	1.89	1.85	1.81	1.79	1.76	1.74	1.72	1.71	1.70
	1400	2.26	2.10	1.99	1.91	1.85	1.81	1.77	1.74	1.72	1.69	1.68	1.66	1.65
	1600	2.25	2.08	1.96	1.88	1.82	1.78	1.74	1.71	1.68	1.66	1.64	1.62	1.61
	1800	2.23	2.06	1.94	1.86	1.80	1.75	1.71	1.68	1.65	1.63	1.61	1.60	1.58
	2000	2.22	2.04	1.93	1.84	1.78	1.73	1.69	1.66	1.63	1.61	1.59		
	2200	2.21	2.03	1.91	1.83	1.76	1.71	1.67	1.64	1.61	1.59	1.57		
	2400	2.20	2.02	1.90	1.81	1.75	1.70	1.66	1.63	1.60	1.58	1.56		
	2600	2.19	2.01	1.89	1.80	1.74	1.69	1.65	1.62	1.59	1.56	1.54		

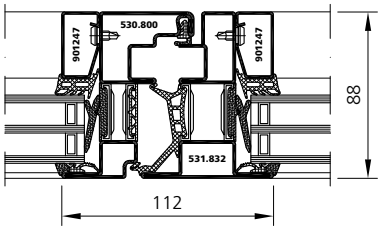
U_g-Wert Glas 0.9 Valeur U_g verre 0.9 U_g-value glass 0.9		Breite b / largeur b / width b [mm]												
		800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200
Höhe h / hauteur h / height h [mm]	600	2.39	2.27	2.19	2.13	2.08	2.05	2.02	2.00	1.98				
	800	2.29	2.15	2.05	1.98	1.92	1.88	1.85	1.82	1.80				
	1000	2.23	2.07	1.96	1.89	1.83	1.78	1.75	1.72	1.69	1.67	1.65	1.64	1.63
	1200	2.19	2.02	1.91	1.83	1.77	1.72	1.68	1.65	1.62	1.60	1.58	1.57	1.55
	1400	2.17	1.99	1.87	1.78	1.72	1.67	1.63	1.60	1.57	1.55	1.53	1.51	1.50
	1600	2.15	1.96	1.84	1.75	1.69	1.64	1.59	1.56	1.53	1.51	1.49	1.47	1.46
	1800	2.13	1.94	1.82	1.73	1.66	1.61	1.57	1.53	1.50	1.48	1.46	1.44	1.43
	2000	2.12	1.93	1.80	1.71	1.64	1.59	1.54	1.51	1.48	1.46	1.43		
	2200	2.11	1.91	1.78	1.69	1.62	1.57	1.52	1.49	1.46	1.44	1.41		
	2400	2.10	1.90	1.77	1.68	1.61	1.55	1.51	1.47	1.44	1.42	1.40		
	2600	2.09	1.89	1.76	1.67	1.60	1.54	1.50	1.46	1.43	1.41	1.38		

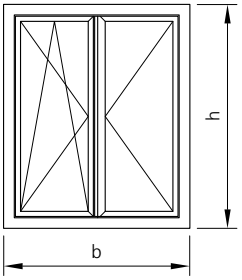
Element – U-Werte
U-Werte Fenster U_W

Élément – Coefficient de transmission thermique
Coefficient de transmission thermique de la fenêtre U_W

Element – Thermal transmittance
Thermal transmittance of the window U_W







U_f = 2.2 [W/(m² · K)]
ψ = 0.04 [W/(m · K)]

U_f = 2.2 [W/(m² · K)]

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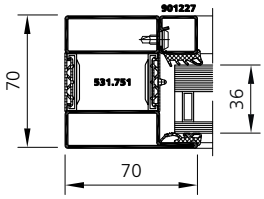
U_g-Wert Glas 0.7 Valeur U_g verre 0.7 U_g-value glass 0.7		Breite b / largeur b / width b [mm]												
		800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200
Höhe h / hauteur h / height h [mm]	600	1.86	1.76	1.70	1.66	1.63	1.60	1.58	1.56	1.55				
	800	1.78	1.66	1.59	1.54	1.50	1.47	1.44	1.42	1.41				
	1000	1.73	1.60	1.52	1.46	1.42	1.39	1.36	1.34	1.32	1.30	1.29	1.28	1.27
	1200	1.69	1.56	1.48	1.42	1.37	1.33	1.31	1.28	1.26	1.25	1.23	1.22	1.21
	1400	1.67	1.54	1.45	1.38	1.33	1.30	1.27	1.24	1.22	1.20	1.19	1.18	1.17
	1600	1.65	1.51	1.42	1.36	1.31	1.27	1.24	1.21	1.19	1.17	1.16	1.14	1.13
	1800	1.64	1.50	1.40	1.34	1.29	1.25	1.21	1.19	1.17	1.15	1.13	1.12	1.11
	2000	1.63	1.48	1.39	1.32	1.27	1.23	1.20	1.17	1.15	1.13	1.11		
	2200	1.62	1.47	1.38	1.31	1.25	1.21	1.18	1.15	1.13	1.11	1.10		
	2400	1.61	1.46	1.37	1.30	1.24	1.20	1.17	1.14	1.12	1.10	1.08		
	2600	1.61	1.46	1.36	1.29	1.23	1.19	1.16	1.13	1.11	1.09	1.07		

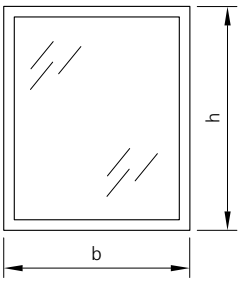
U_g-Wert Glas 0.5 Valeur U_g verre 0.5 U_g-value glass 0.5		Breite b / largeur b / width b [mm]												
		800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200
Höhe h / hauteur h / height h [mm]	600	1.78	1.68	1.61	1.56	1.53	1.50	1.47	1.46	1.44				
	800	1.69	1.57	1.49	1.43	1.38	1.35	1.32	1.30	1.28				
	1000	1.64	1.50	1.41	1.35	1.30	1.26	1.23	1.21	1.19	1.17	1.15	1.14	1.13
	1200	1.60	1.46	1.36	1.29	1.24	1.20	1.17	1.14	1.12	1.10	1.09	1.07	1.06
	1400	1.57	1.42	1.32	1.25	1.20	1.16	1.13	1.10	1.08	1.06	1.04	1.03	1.02
	1600	1.55	1.40	1.30	1.23	1.17	1.13	1.09	1.07	1.04	1.02	1.01	0.99	0.98
	1800	1.54	1.38	1.28	1.20	1.15	1.10	1.07	1.04	1.02	1.00	0.98	0.96	0.95
	2000	1.53	1.37	1.26	1.18	1.13	1.08	1.05	1.02	1.00	0.97	0.96		
	2200	1.52	1.35	1.25	1.17	1.11	1.07	1.03	1.00	0.98	0.96	0.94		
	2400	1.51	1.34	1.24	1.16	1.10	1.05	1.02	0.99	0.96	0.94	0.92		
	2600	1.50	1.34	1.23	1.15	1.09	1.04	1.01	0.98	0.95	0.93	0.91		

Element – U-Werte
U-Werte Festfeld U_W

Élément – Coefficient de transmission thermique
Coefficient de transmission thermique du vitrage fixe U_W

Element – Thermal transmittance
Thermal transmittance of fixed glazing U_W





U_f = 2.4 [W/(m² · K)]
ψ = 0.06 [W/(m · K)]

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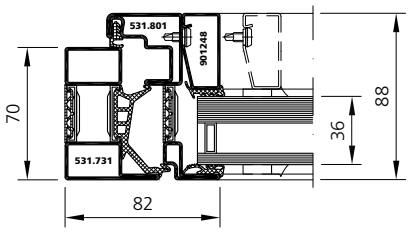
U_g-Wert Glas 1.1 Valeur U_g verre 1.1 U_g-value glass 1.1		Breite b / largeur b / width b [mm]								
		800	1000	1200	1400	1600	1800	2000	2200	2400
Höhe h / hauteur h / height h [mm]	800	1.76	1.71	1.67	1.64	1.62	1.60	1.59	1.58	1.57
	1000	1.71	1.64	1.60	1.58	1.55	1.54	1.52	1.51	1.50
	1200	1.67	1.60	1.56	1.53	1.51	1.49	1.48	1.47	1.46
	1400	1.64	1.58	1.53	1.50	1.48	1.46	1.45	1.43	1.42
	1600	1.62	1.55	1.51	1.48	1.45	1.44	1.42	1.41	1.40
	1800	1.60	1.54	1.49	1.46	1.44	1.42	1.40	1.39	1.38
	2000	1.59	1.52	1.48	1.45	1.42	1.40	1.39	1.37	1.36
	2200	1.58	1.51	1.47	1.43	1.41	1.39	1.37	1.36	1.35
	2400	1.57	1.50	1.46	1.42	1.40	1.38	1.36	1.35	1.34
	2600	1.57	1.50	1.45	1.42	1.39	1.37	1.36	1.34	1.33
	2800	1.56	1.49	1.44	1.41	1.38	1.36	1.35	1.34	1.32
	3000	1.55	1.48	1.44	1.40	1.38	1.36	1.34	1.33	1.32

Die länderspezifischen Zulassungen sind zu beachten!

Tenir compte des normes et homologations nationales!

Refer to the country specific approvals!

Element – U-Werte
U-Werte Fenster U_W



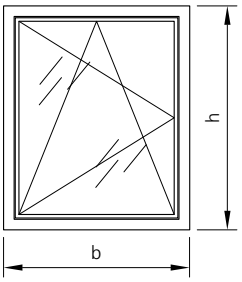
U_f = 3.1 [W/(m² · K)]

Élément – Coefficient de transmission thermique
Coefficient de transmission thermique de la fenêtre U_W

Randverbund aus Edelstahl
Intercalaire périphérique en acier inox
Perimeter sandwich structure of stainless steel
ψ = 0.065 [W/(m · K)]

Randverbund aus Stahl
Intercalaire périphérique en acier
Perimeter sandwich structure of steel
ψ = 0.11 [W/(m · K)]

Element – Thermal transmittance
Thermal transmittance of the window U_W



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U_w-Werte bei / Valeurs U_w avec / U_w-values with
ψ = 0.065 [W/(m · K)]

U_g-Wert Glas 1.1 Valeur U_g verre 1.1 U_g-value glass 1.1		Breite b / largeur b / width b [mm]			
		600	800	1000	1200
Höhe h / hauteur h / height h [mm]	600	2.36	2.23	2.16	2.11
	800	2.23	2.09	2.01	1.95
	1000	2.16	2.01	1.92	1.86
	1200	2.11	1.95	1.86	1.80
	1400	2.08	1.91	1.82	1.75
	1600	2.05	1.88	1.78	1.72
	1800	2.03	1.86	1.76	1.69
	2000	2.01	1.84	1.74	1.67

U_w-Werte bei / Valeurs U_w avec / U_w-values with
ψ = 0.11 [W/(m · K)]

U_g-Wert Glas 1.1 Valeur U_g verre 1.1 U_g-value glass 1.1		Breite b / largeur b / width b [mm]			
		600	800	1000	1200
Höhe h / hauteur h / height h [mm]	600	2.58	2.44	2.35	2.30
	800	2.44	2.27	2.18	2.11
	1000	2.35	2.18	2.07	2.00
	1200	2.30	2.11	2.00	1.93
	1400	2.25	2.06	1.95	1.87
	1600	2.22	2.03	1.91	1.83
	1800	2.20	2.00	1.88	1.80
	2000	2.18	1.98	1.86	1.78

Die länderspezifischen Zulassungen sind zu beachten!

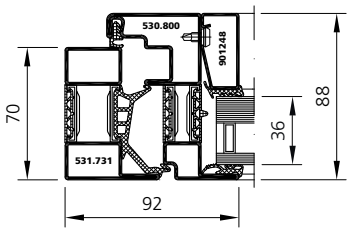
Tenir compte des normes et homologations nationales!

Refer to the country specific approvals!

Element – U-Werte
U-Werte Fenster U_W

Élément – Coefficient de transmission thermique
Coefficient de transmission thermique de la fenêtre U_W

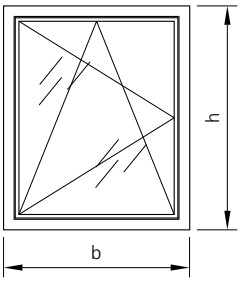
Element – Thermal transmittance
Thermal transmittance of the window U_W



U_f = 3.1 [W/(m² · K)]

Randverbund aus Edelstahl
Intercalaire périphérique en acier inox
Perimeter sandwich structure of stainless steel
ψ = 0.065 [W/(m · K)]

Randverbund aus Stahl
Intercalaire périphérique en acier
Perimeter sandwich structure of steel
ψ = 0.11 [W/(m · K)]



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U_w-Werte bei / Valeurs U_w avec / U_w-values with
ψ = 0.065 [W/(m · K)]

U_g-Wert Glas 1.1 Valeur U_g verre 1.1 U_g-value glass 1.1		Breite b / largeur b / width b [mm]			
		600	800	1000	1200
Höhe h / hauteur h / height h [mm]	600	2.44	2.31	2.24	2.18
	800	2.31	2.16	2.08	2.02
	1000	2.24	2.08	1.98	1.92
	1200	2.18	2.02	1.92	1.85
	1400	2.15	1.98	1.87	1.80
	1600	2.12	1.94	1.84	1.77
	1800	2.10	1.92	1.81	1.74
	2000	2.08	1.90	1.79	1.72

U_w-Werte bei / Valeurs U_w avec / U_w-values with
ψ = 0.11 [W/(m · K)]

U_g-Wert Glas 1.1 Valeur U_g verre 1.1 U_g-value glass 1.1		Breite b / largeur b / width b [mm]			
		600	800	1000	1200
Höhe h / hauteur h / height h [mm]	600	2.65	2.51	2.42	2.36
	800	2.51	2.34	2.24	2.17
	1000	2.42	2.24	2.13	2.05
	1200	2.36	2.17	2.05	1.98
	1400	2.32	2.12	2.00	1.92
	1600	2.29	2.09	1.96	1.88
	1800	2.27	2.06	1.93	1.85
	2000	2.25	2.04	1.91	1.82

Die länderspezifischen Zulassungen sind zu beachten!

Tenir compte des normes et homologations nationales!

Refer to the country specific approvals!

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

U_f-Werte
Festfeld

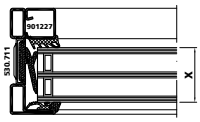
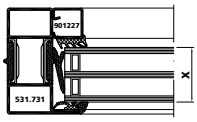
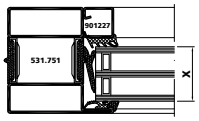
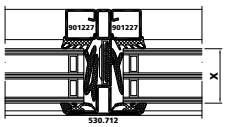
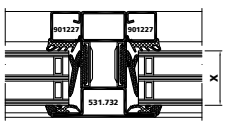
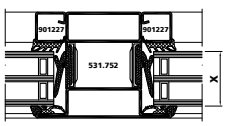
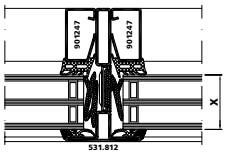
Valeurs U_f
Vitrage fixe

U_f-values
Fixed glazing



EN ISO 10077-2:2012

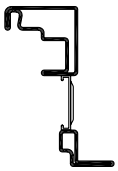
Nass- und trockenverglast / Vitrage à sec et au silicone / Dry and silicone glazing

	Glasdicke **Ep. du verre** **Glass thickness** X [mm]	**Verglasung** **Vitrage** **Glazing**	**Dichtung** **Joint** **Sealing**	**U_f Stahl** **U_f Acier** **U_f Steel** [W/(m²·K)]	**U_f CrNi** [W/(m²·K)]
	24	2-fach / double	Standard	**3.0**	—
	36	3-fach / triple	Hi	**2.1**	—
	42	3-fach / triple	Hi	**2.0**	—
	48	3-fach / triple	Hi	**2.0**	—
	24	2-fach / double	Standard	**2.9**	**2.7**
	36	3-fach / triple	Hi	**2.3**	**2.1**
	42	3-fach / triple	Hi	**2.2**	**2.1**
	48	3-fach / triple	Hi	**2.2**	**2.0**
	24	2-fach / double	Standard	**2.5**	**2.3**
	36	3-fach / triple	Hi	**2.1**	**1.9**
	42	3-fach / triple	Hi	**2.1**	**1.9**
	48	3-fach / triple	Hi	**2.0**	**1.9**
	24	2-fach / double	Standard	**2.9**	—
	36	3-fach / triple	Hi	**1.7**	—
	42	3-fach / triple	Hi	**1.7**	—
	48	3-fach / triple	Hi	**1.7**	—
	24	2-fach / double	Standard	**2.8**	**2.5**
	36	3-fach / triple	Hi	**2.0**	**1.9**
	42	3-fach / triple	Hi	**1.9**	**1.8**
	48	3-fach / triple	Hi	**1.9**	**1.8**
	24	2-fach / double	Standard	**2.5**	**2.3**
	36	3-fach / triple	Hi	**1.9**	**1.8**
	42	3-fach / triple	Hi	**1.9**	**1.7**
	48	3-fach / triple	Hi	**1.9**	**1.7**
	24	2-fach / double	Standard	**3.4**	—
	36	3-fach / triple	Hi	**1.8**	—
	42	3-fach / triple	Hi	**1.7**	—
	48	3-fach / triple	Hi	**1.7**	—

U_f-Werte
Fenster

Valeurs U_f
Fenêtre

U_f-values
Window



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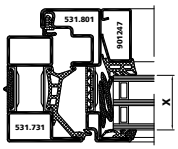
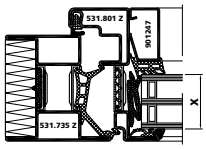
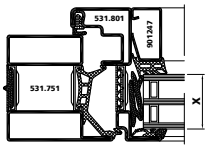
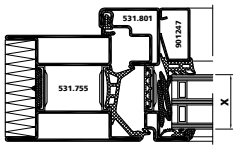
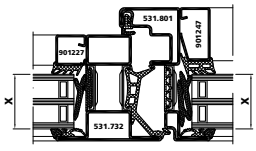
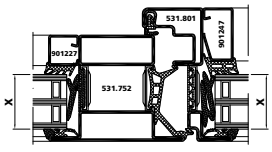
EN ISO 10077-2:2012

Nass- und trockenverglast / Vitrage à sec et au silicone / Dry and silicone glazing

Glasdicke **Ep. du verre** **Glass thickness** X [mm]	**Verglasung** **Vitrage** **Glazing**	**Dichtung** **Joint** **Sealing**	**U_f Stahl** **U_f Acier** **U_f Steel** [W/(m²·K)]	**U_f CrNi** [W/(m²·K)]
				
24	2-fach / double	Standard	**3.1**	
36	3-fach / triple	Hi	**2.2**	
42	3-fach / triple	Hi	**2.2**	
48	3-fach / triple	Hi	**2.1**	
				
24	2-fach / double	Standard	**2.7**	
36	3-fach / triple	Hi	**2.0**	
42	3-fach / triple	Hi	**2.0**	
48	3-fach / triple	Hi	**2.0**	
				
24	2-fach / double	Standard	**2.8**	
36	3-fach / triple	Hi	**2.1**	
42	3-fach / triple	Hi	**2.1**	
48	3-fach / triple	Hi	**2.1**	
				
24	2-fach / double	Standard	**2.6**	
36	3-fach / triple	Hi	**1.9**	
42	3-fach / triple	Hi	**1.9**	
48	3-fach / triple	Hi	**1.9**	
				
24	2-fach / double	Standard	**3.0**	
36	3-fach / triple	Hi	**2.1**	
42	3-fach / triple	Hi	**2.1**	
48	3-fach / triple	Hi	**2.0**	
				
24	2-fach / double	Standard	**2.8**	
36	3-fach / triple	Hi	**2.0**	
42	3-fach / triple	Hi	**2.0**	
48	3-fach / triple	Hi	**2.0**	

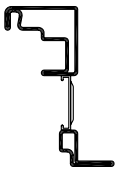
Dämmung λ = 0.04 [W/m · K)] Isolation λ = 0.04 [W/m · K)] Insulation λ = 0.04 [W/m · K)]

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

U_f-Werte
Fenster

Valeurs U_f
Fenêtre

U_f-values
Window



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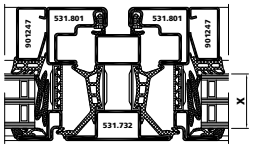
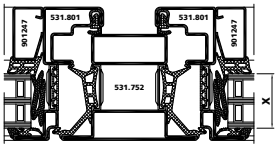
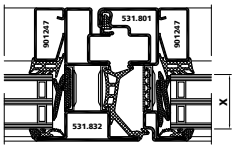
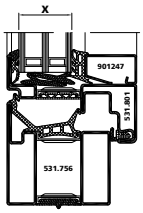
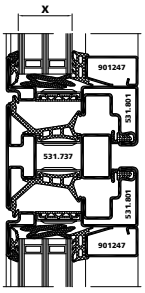








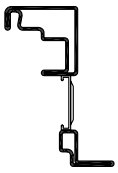


EN ISO 10077-2:2012				
Nass- und trockenverglast / Vitrage à sec et au silicone / Dry and silicone glazing				
Glasdicke **Ep. du verre** **Glass thickness** X [mm]	**Verglasung** **Vitrage** **Glazing**	**Dichtung** **Joint** **Sealing**	**U_f Stahl** **U_f Acier** **U_f Steel** [W/(m²·K)]	**U_f CrNi** [W/(m²·K)]
24	2-fach / double	Standard	**3.2**	
36	3-fach / triple	Hi	**2.1**	
42	3-fach / triple	Hi	**2.1**	
48	3-fach / triple	Hi	**2.1**	
24	2-fach / double	Standard	**2.9**	
36	3-fach / triple	Hi	**2.0**	
42	3-fach / triple	Hi	**2.0**	
48	3-fach / triple	Hi	**2.0**	
24	2-fach / double	Standard	**3.1**	
36	3-fach / triple	Hi	**2.1**	
42	3-fach / triple	Hi	**2.1**	
48	3-fach / triple	Hi	**2.1**	
24	2-fach / double	Standard	**2.8**	
36	3-fach / triple	Hi	**2.1**	
42	3-fach / triple	Hi	**2.1**	
48	3-fach / triple	Hi	**2.0**	
24	2-fach / double	Standard	**3.1**	
36	3-fach / triple	Hi	**2.1**	
42	3-fach / triple	Hi	**2.1**	
48	3-fach / triple	Hi	**2.0**	

U_f-Werte
Fenster

Valeurs U_f
Fenêtre

U_f-values
Window



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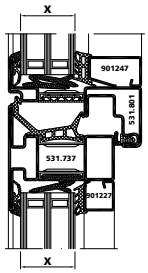
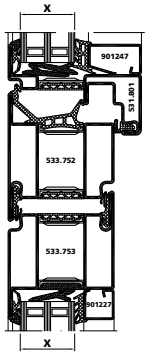
EN ISO 10077-2:2012

Nass- und trockenverglast / Vitrage à sec et au silicone / Dry and silicone glazing

Glasdicke **Ep. du verre** **Glass thickness** X [mm]	**Verglasung** **Vitrage** **Glazing**	**Dichtung** **Joint** **Sealing**	**U_f Stahl** **U_f Acier** **U_f Steel** [W/(m²·K)]	**U_f CrNi** [W/(m²·K)]
24	2-fach / double	Standard	**3.0**	
36	3-fach / triple	Hi	**2.1**	
42	3-fach / triple	Hi	**2.1**	
48	3-fach / triple	Hi	**2.0**	



24	2-fach / double	Standard	**2.7**	
36	3-fach / triple	Hi	**2.1**	
42	3-fach / triple	Hi	**2.0**	
48	3-fach / triple	Hi	**2.0**	

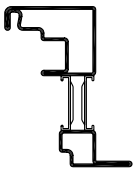


Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

U_f-Werte
Fenster

Valeurs U_f
Fenêtre

U_f-values
Window



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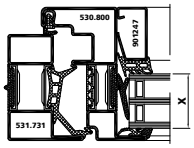
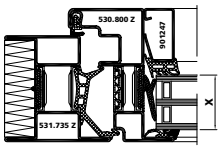
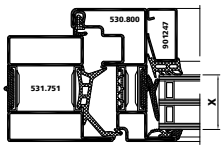
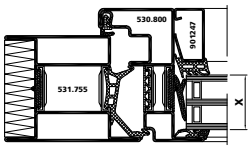
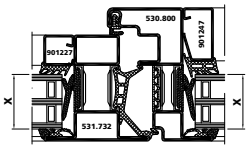
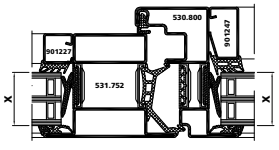
EN ISO 10077-2:2012

Nass- und trockenverglast / Vitrage à sec et au silicone / Dry and silicone glazing

Glasdicke **Ep. du verre** **Glass thickness** X [mm]	**Verglasung** **Vitrage** **Glazing**	**Dichtung** **Joint** **Sealing**	**U_f Stahl** **U_f Acier** **U_f Steel** [W/(m²·K)]	**U_f CrNi** [W/(m²·K)]
				
24	2-fach / double	Standard	**2.9**	**2.6**
36	3-fach / triple	Hi	**2.3**	**2.3**
42	3-fach / triple	Hi	**2.2**	**2.0**
48	3-fach / triple	Hi	**2.2**	**2.0**
				
24	2-fach / double	Standard	**2.6**	**2.4**
36	3-fach / triple	Hi	**2.1**	**1.9**
42	3-fach / triple	Hi	**2.1**	**1.9**
48	3-fach / triple	Hi	**2.0**	**1.9**
				
24	2-fach / double	Standard	**2.7**	**2.4**
36	3-fach / triple	Hi	**2.2**	**2.0**
42	3-fach / triple	Hi	**2.1**	**1.9**
48	3-fach / triple	Hi	**2.1**	**1.9**
				
24	2-fach / double	Standard	**2.5**	**2.2**
36	3-fach / triple	Hi	**2.0**	**1.8**
42	3-fach / triple	Hi	**2.0**	**1.8**
48	3-fach / triple	Hi	**2.0**	**1.8**
				
24	2-fach / double	Standard	**2.9**	**2.6**
36	3-fach / triple	Hi	**2.2**	**2.0**
42	3-fach / triple	Hi	**2.1**	**2.0**
48	3-fach / triple	Hi	**2.1**	**1.9**
				
24	2-fach / double	Standard	**2.7**	**2.2**
36	3-fach / triple	Hi	**2.1**	**1.9**
42	3-fach / triple	Hi	**2.1**	**1.9**
48	3-fach / triple	Hi	**2.0**	**1.9**

Dämmung λ = 0.04 [W/m · K)]

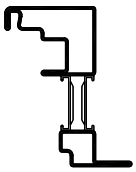
Isolation λ = 0.04 [W/m · K)]

Insulation λ = 0.04 [W/m · K)]

U_f-Werte
Fenster

Valeurs U_f
Fenêtre

U_f-values
Window

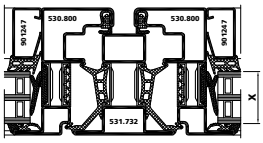
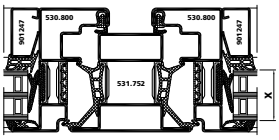
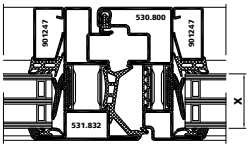
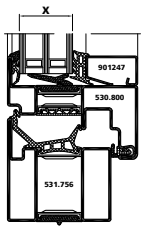
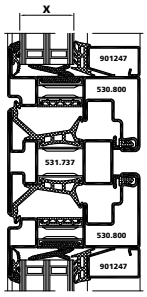


530.800



EN ISO 10077-2:2012

Nass- und trockenverglast / Vitrage à sec et au silicone / Dry and silicone glazing

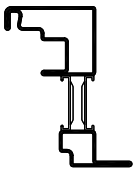
Glasdicke **Ep. du verre** **Glass thickness** X [mm]	**Verglasung** **Vitrage** **Glazing**	**Dichtung** **Joint** **Sealing**	**U_f Stahl** **U_f Acier** **U_f Steel** [W/(m²·K)]	**U_f CrNi** [W/(m²·K)]
				
24	2-fach / double	Standard	**3.0**	**2.6**
36	3-fach / triple	Hi	**2.2**	**2.0**
42	3-fach / triple	Hi	**2.2**	**2.0**
48	3-fach / triple	Hi	**2.2**	**2.0**
				
24	2-fach / double	Standard	**2.8**	**2.5**
36	3-fach / triple	Hi	**2.1**	**1.9**
42	3-fach / triple	Hi	**2.1**	**1.9**
48	3-fach / triple	Hi	**2.1**	**1.9**
				
24	2-fach / double	Standard	**3.0**	**2.7**
36	3-fach / triple	Hi	**2.2**	**2.0**
42	3-fach / triple	Hi	**2.2**	**2.0**
48	3-fach / triple	Hi	**2.1**	**1.9**
				
24	2-fach / double	Standard	**2.7**	**—**
36	3-fach / triple	Hi	**2.2**	**—**
42	3-fach / triple	Hi	**2.1**	**—**
48	3-fach / triple	Hi	**2.1**	**—**
				
24	2-fach / double	Standard	**2.9**	**—**
36	3-fach / triple	Hi	**2.3**	**—**
42	3-fach / triple	Hi	**2.2**	**—**
48	3-fach / triple	Hi	**2.2**	**—**

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

U_f-Werte
Fenster

Valeurs U_f
Fenêtre

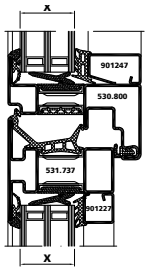
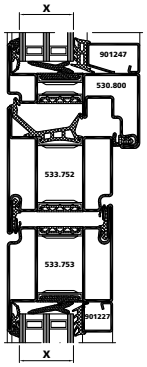
U_f-values
Window



530.800

EN ISO 10077-2:2012

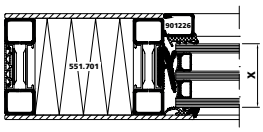
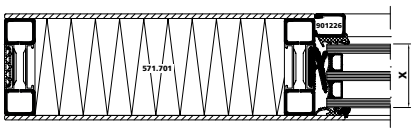
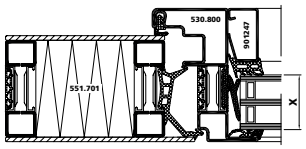
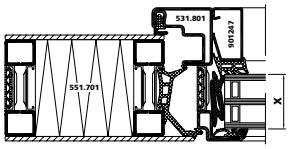
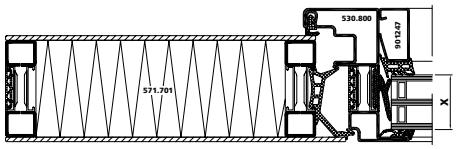
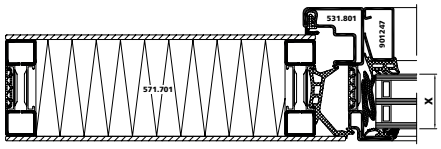
Nass- und trockenverglast / Vitrage à sec et au silicone / Dry and silicone glazing

Glasdicke **Ep. du verre** **Glass thickness** X [mm]	**Verglasung** **Vitrage** **Glazing**	**Dichtung** **Joint** **Sealing**	**U_f Stahl** **U_f Acier** **U_f Steel** [W/(m²·K)]	**U_f CrNi** [W/(m²·K)]
				
24	2-fach / double	Standard	**2.9**	**—**
36	3-fach / triple	Hi	**2.2**	**—**
42	3-fach / triple	Hi	**2.1**	**—**
48	3-fach / triple	Hi	**2.1**	**—**
				
24	2-fach / double	Standard	**2.6**	**npd**
36	3-fach / triple	Hi	**2.1**	**npd**
42	3-fach / triple	Hi	**2.1**	**npd**
48	3-fach / triple	Hi	**2.1**	**npd**

U_f-Werte
Rahmenverbreiterungen

Valeurs U_f
Elargissements de vantail

U_f-values
Line frame extensions

	EN ISO 10077-2:2012				
	Nass- und trockenverglast / Vitrage à sec et au silicone / Dry and silicone glazing				
	Glasdicke **Ep. du verre** **Glass thickness** X [mm]	**Verglasung** **Vitrage** **Glazing**	**Dichtung** **Joint** **Sealing**	**U_f Stahl** **U_f Acier** **U_f Steel** [W/(m²·K)]	**U_f isoliert** **U_f isolé** **U_f insulated** [W/(m²·K)]
	24	2-fach / double	Standard	**2.7**	**2.1**
	36	3-fach / triple	Hi	**2.5**	**1.9**
	42	3-fach / triple	Hi	**2.5**	**1.8**
	48	3-fach / triple	Hi	**2.5**	**1.8**
	24	2-fach / double	Standard	**2.4**	**1.5**
	36	3-fach / triple	Hi	**2.3**	**1.3**
	42	3-fach / triple	Hi	**2.2**	**1.3**
	48	3-fach / triple	Hi	**2.2**	**1.3**
	24	2-fach / double	Standard	**2.8**	**2.4**
	36	3-fach / triple	Hi	**2.4**	**2.0**
	42	3-fach / triple	Hi	**2.4**	**2.0**
	48	3-fach / triple	Hi	**2.4**	**2.0**
	24	2-fach / double	Standard	**2.8**	**2.4**
	36	3-fach / triple	Hi	**2.5**	**2.0**
	42	3-fach / triple	Hi	**2.5**	**2.0**
	48	3-fach / triple	Hi	**2.5**	**2.0**
	24	2-fach / double	Standard	**2.5**	**1.8**
	36	3-fach / triple	Hi	**2.2**	**1.5**
	42	3-fach / triple	Hi	**2.2**	**1.5**
	48	3-fach / triple	Hi	**2.2**	**1.5**
	24	2-fach / double	Standard	**2.5**	**1.8**
	36	3-fach / triple	Hi	**2.3**	**1.5**
	42	3-fach / triple	Hi	**2.3**	**1.5**
	48	3-fach / triple	Hi	**2.3**	**1.5**

Die Profile werden ohne Isolation geliefert.
Dämmung λ = 0.04 [W/m · K)]

Les profilés sont livrés sans isolation.
Isolation λ = 0.04 [W/m · K)]

The profiles are delivered without insulation.
Insulation λ = 0.04 [W/m · K)]

U_f-Werte
Festfeld / Fenster
E30 / EW30

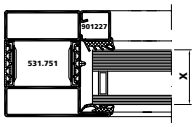
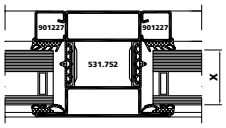
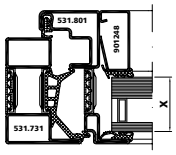
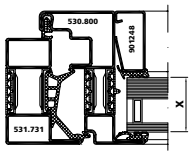
Valeurs U_f
Vitrage fixe / fenêtre
E30 / EW30

U_f-values
Fixed glazing / window
E30 / EW30



EN ISO 10077-2:2012

Nass- und trockenverglast / Vitrage à sec et au silicone / Dry and silicone glazing

	Glasdicke **Ep. du verre** **Glass thickness** X [mm]	**Verglasung** **Vitrage** **Glazing**	**Dichtung** **Joint** **Sealing**	**U_f Stahl** **U_f Acier** **U_f Steel** [W/(m²·K)]
	36	2-fach / triple	CR	**2.4**
	36	2-fach / triple	CR	**2.4**
	36	2-fach / triple	CR	**3.1**
	36	2-fach / triple	CR	**3.1**



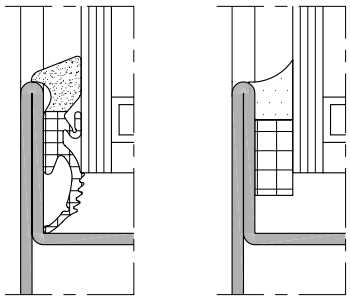
Hôtel Crowne Plaza, BE-Liège

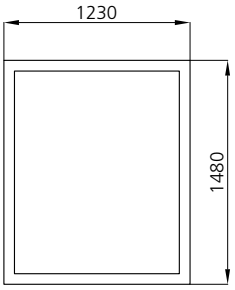
VUF 01/19

Schalldämmwerte
Werte gültig für Stahl- und Edelstahlprofile

Coefficients d'isolation phonique
Valeurs valables pour profilés en acier et en acier inox

Sound insulation factor
Values valid for steel and stainless steel profiles





A_w = 1.23 [m] x 1.48 [m]
= 1.82 [m²]

	R_w (Element) R_w (Element) R_w (Element)	Spektrum - Anpassungswerte (C und Ctr) Termes d' adaptation à un spectre (C et Ctr) Spectrum adaptation terms (C and Ctr)
R_w (Glas) R_w (Verre) 32 [dB] R_w (Glass)	$R_{w\,(Element)}$ = **32** [dB]	C = -1 [dB] C_{tr} = -5 [dB]
R_w (Glas) R_w (Verre) 38 [dB] R_w (Glass)	$R_{w\,(Element)}$ = **39** [dB]	C = -2 [dB] C_{tr} = -5 [dB]
R_w (Glas) R_w (Verre) 45 [dB] R_w (Glass)	$R_{w\,(Element)}$ = **44** [dB]	C = -1 [dB] C_{tr} = -4 [dB]
R_w (Glas) R_w (Verre) 50 [dB] R_w (Glass)	$R_{w\,(Element)}$ = **47** [dB]	C = -1 [dB] C_{tr} = -4 [dB]

Korrekturwerte flächenabhängig (gemäss EN 14351 Tabelle B.3)

Valeurs de correction dépendant de la surface (selon EN 14351 tableau B.3)

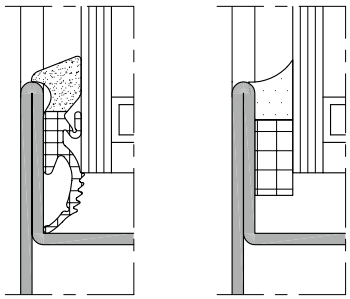
Correction values depend on area (according to EN 14351 table B.3)

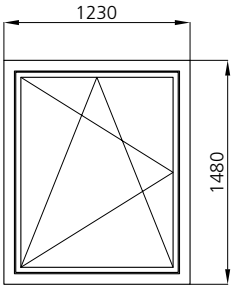
A_w < 2.7 [m²]	$R_{w\,(Element)}$ **- 0 [dB]**
2.7 [m²] < A_w < 3.6 [m²]	$R_{w\,(Element)}$ **- 1 [dB]**
3.6 [m²] < A_w < 4.6 [m²]	$R_{w\,(Element)}$ **- 2 [dB]**
4.6 [m²] < A_w	$R_{w\,(Element)}$ **- 3 [dB]**

Schalldämmwerte
Werte gültig für Stahl- und Edelstahlprofile

Coefficients d'isolation phonique
Valeurs valables pour profilés en acier et en acier inox

Sound insulation factor
Values valid for steel and stainless steel profiles





Aw = 1.23 [m] x 1.48 [m]
= 1.82 [m²]

	Rw (Element) Rw (Elément) Rw (Element)	Spektrum - Anpassungswerte (C und Ctr) Termes d' adaptation à un spectre (C et Ctr) Spectrum adaptation terms (C and Ctr)
Rw (Glas) Rw (Verre) 32 [dB] Rw (Glass)	$R_{w\,(Element)}$ = **33** [dB]	C = -1 [dB] C_{tr} = -5 [dB]
Rw (Glas) Rw (Verre) 38 [dB] Rw (Glass)	$R_{w\,(Element)}$ = **40** [dB]	C = -2 [dB] C_{tr} = -5 [dB]
Rw (Glas) Rw (Verre) 45 [dB] Rw (Glass)	$R_{w\,(Element)}$ = **44** [dB]	C = -1 [dB] C_{tr} = -4 [dB]
Rw (Glas) Rw (Verre) 50 [dB] Rw (Glass)	$R_{w\,(Element)}$ = **47** [dB]	C = -1 [dB] C_{tr} = -4 [dB]

Korrekturwerte
flächenabhängig
(gemäss EN 14351 Tabelle B.3)

Valeurs de correction
dépendant de la surface
(selon EN 14351 tableau B.3)

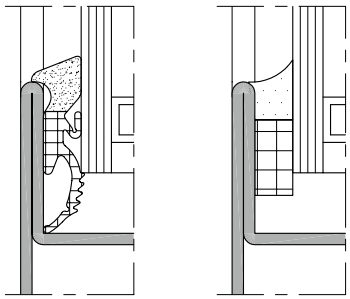
Correction values
depend on area
(according to EN 14351 table B.3)

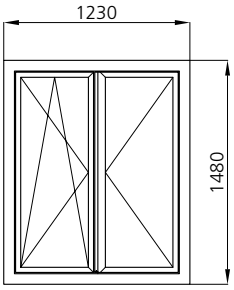
Aw < 2.7 [m²]	$R_{w\,(Element)}$ **- 0 [dB]**
2.7 [m²] < Aw < 3.6 [m²]	$R_{w\,(Element)}$ **- 1 [dB]**
3.6 [m²] < Aw < 4.6 [m²]	$R_{w\,(Element)}$ **- 2 [dB]**
4.6 [m²] < Aw	$R_{w\,(Element)}$ **- 3 [dB]**

Schalldämmwerte
Werte gültig für Stahl- und Edelstahlprofile

Coefficients d'isolation phonique
Valeurs valables pour profilés en acier et en acier inox

Sound insulation factor
Values valid for steel and stainless steel profiles





Aw = 1.23 [m] x 1.48 [m]
= 1.82 [m²]

	Rw (Element) Rw (Elément) Rw (Element)	Spektrum - Anpassungswerte (C und Ctr) Termes d' adaptation à un spectre (C et Ctr) Spectrum adaptation terms (C and Ctr)
Rw (Glas) Rw (Verre) 32 [dB] Rw (Glass)	$R_{w\,(Element)}$ = **33** [dB]	C = -1 [dB] Ctr = -5 [dB]
Rw (Glas) Rw (Verre) 38 [dB] Rw (Glass)	$R_{w\,(Element)}$ = **40** [dB]	C = -2 [dB] Ctr = -5 [dB]
Rw (Glas) Rw (Verre) 45 [dB] Rw (Glass)	$R_{w\,(Element)}$ = **43** [dB]	C = -1 [dB] Ctr = -4 [dB]
Rw (Glas) Rw (Verre) 50 [dB] Rw (Glass)	$R_{w\,(Element)}$ = **46** [dB]	C = -1 [dB] Ctr = -4 [dB]

Korrekturwerte
flächenabhängig
(gemäss EN 14351 Tabelle B.3)

Valeurs de correction
dépendant de la surface
(selon EN 14351 tableau B.3)

Correction values
depend on area
(according to EN 14351 table B.3)

Aw < 2.7 [m²]	**$R_{w\,(Element)}$ - 0 [dB]**
2.7 [m²] < Aw < 3.6 [m²]	**$R_{w\,(Element)}$ - 1 [dB]**
3.6 [m²] < Aw < 4.6 [m²]	**$R_{w\,(Element)}$ - 2 [dB]**
4.6 [m²] < Aw	**$R_{w\,(Element)}$ - 3 [dB]**



Edificio Mediapro, ES-Barcelona

Allgemeine Verarbeitungsrichtlinien

1. Normen

Grundlage dieser "Technischen Dokumentation" für den Tür-/Fensterbau bilden die gültigen Richtlinien und Normen der Landes-Fachverbände SZFF-, SIA- sowie DIN- und EN-Normen. Spezielle Verarbeitungshinweise für Edelstahlprofile sind den Dokumentationen der Informationsstelle Edelstahl Rostfrei, Düsseldorf zu entnehmen.

Massgebend sind ausschliesslich die für Ihr Land gültigen Zulassungen.

2. Werkstoffe

Die von uns gelieferten Werkstoffe entsprechen den heute gültigen Normen. Materialien aus Werkstoffen, die ausserhalb unseres Einflussbereiches liegen, sind vom Verarbeitungsbetrieb eigenverantwortlich auf Qualitäts- und Funktionseignung zu prüfen.

Kohlenstoffstahl:
- Oberfläche unico-Profile:
  - blank = geölt oder gebondert
  - Z = im Schmelzverfahren bandverzinkter Überzug, Schichtdicke ca. 20 µm
- Oberfläche Glashalteleisten/Wetterschenkel:
  - im Schmelzverfahren bandverzinkter Überzug, Schichtdicke ca. 20 µm

Edelstahl-Isolator:
- Edelstahl walzblank

Aluminium:
- Oberfläche Glashalteleisten/Wetterschenkel:
  - pressblank

Edelstahl:
- unico-Profile:
  - Qualität 1.4301
  - geschliffen (Korn 220-240), mit Schutzfolie
- Glashalteleisten:
  - Qualität 1.4301
  - geschliffen (Korn 220-240), mit Schutzfolie

Directives relatives à la mise en œuvre

1. Normes

Les directives et normes en vigueur des associations professionnelles suisses CSFF, SIA, ainsi que les normes DIN et EN, constituent la base de cette «documentation technique», pour la construction de portes / fenêtres. Des indications spéciales, au sujet de la mise en œuvre pour des profilés en acier inoxydable, figurent dans les documentations du service d'information concernant l'acier inoxydable, Düsseldorf.

Nous vous demanderons de vous reporter aux procès-verbaux de classement en cours de validité dans votre pays.

2. Matières premières

Les matières premières que nous fournissons correspondent aux normes actuellement en vigueur. Les qualités et la convenance de matériaux réalisés à partir de matières premières qui sont hors de notre zone d'influence doivent être vérifiées.

Acier au carbone :
- Surface des profilés unico
  - bruts = huilés ou bondérisés
  - Z = Revêtement zingué de feuillard dans le procédé de fusion, épaisseur de couche d'env. 20 µm
- Surface des parcloses / renvois d'eau :
  - Revêtement de zinc à chaud, épaisseur de couche d'env. 20 µm

Isolation en acier inox :
- Inox décapé

Aluminium :
- Surface des parcloses / renvois d'eau : pressée à blanc

Acier inoxydable :
- Profilés unico :
  - qualité 1.4301
  - meulés (grain 220-240), avec film adhésif
- Parcloses :
  - qualité 1.4301
  - meulés (grain 220-240), avec film adhésif

General processing guidelines

1. Standards

This "Technical Documentation" for the construction of doors/windows is based on the directives and standards of the Swiss National Trades Associations SZFF and SIA currently in force, as well as on DIN and EN standards. Special processing hints for stainless steel profiles will be found in the documentation supplied by the Information Centre for Stainless Steel, Düsseldorf.

Only the certificates valid in your country are relevant.

2. Materials

The materials we deliver meet the requirements of today's standards. The processing company is responsible for checking materials made from stock that is beyond our control, with regard to suitability of quality and function.

Carbon steel:
- Surface unico profiles:
  - raw = oiled or bonded
  - Z = hot-dipped galvanised coating by fusion, thickness of coat approx. 20 µm
- Surface glazing beads / weatherboard:
  - hot-dipped galvanised coating by fusion, thickness of coat approx. 20 µm

Stainless steel insulation:
- Stainless steel plain-rolled bank

Aluminium:
- Surface glazing beads/weatherboard: cold-pressed

Stainless steel:
- unico profiles:
  - quality 1.4301
  - brushed (grade 220-240), with adhesive protection tape
- Glazing beads:
  - quality 1.4301
  - brushed (grade 220-240), with adhesive protection tape

Allgemeine Verarbeitungsrichtlinien

3. Transport / Lagerung

- Zum Abladen am besten geeignet ist ein Kran mit Traverse und zwei Gurten mit mind. 80 mm Breite. Wird mit Stapler abgeladen, so nur mit breiten, auf grossen Abstand eingestellten Gabelzinken.
- Zur Vermeidung von Eindrücken oder Deformationen empfehlen wir, Kunststoff- oder Holz-Zwischenlagen zu verwenden.
- Saubere Auf- und Unterlagen verhindern Deformationen von kleinen Profilquerschnitten. Die Entnahme aus Lagergestellen darf nur durch Herausheben erfolgen.
- Sämtliche Systemkomponenten sind in geeigneten Räumen trocken zu lagern.
- Stahl- und Edelstahlprofile müssen getrennt gelagert werden, um Korrosionsgefahr durch Fremdrost-Partikel auf nichtrostendem Stahl auszuschliessen.

4. Verarbeitung

Allgemein dem Fachbetrieb und Fachhandwerk bekannte Verarbeitungshinweise werden nicht speziell erwähnt.

Hilfreiche Videos zur Verarbeitung der Forster Systeme stehen auf unserer Website www.forster-profile.ch zur Verfügung.

4.1 Zuschneiden allgemein

- Der Einspannung von Profilstahlrohren und Glashalteleisten ist besondere Beachtung zu schenken. Der Druck der hydraulischen oder pneumatischen Spannvorrichtungen sollte von Hand auf die einzuspannenden Materialien einreguliert und angepasst werden können.

Directives relatives à la mise en œuvre

3. Transport / stockage

- Une grue avec traverse et deux sangles d'une largeur d'au moins 80 mm convient le mieux pour le déchargement. Si le déchargement a lieu au moyen d'un élévateur, en l'occurrence seulement avec des fourches larges réglées avec un grand écartement.
- Pour éviter des enfoncements ou des déformations, nous recommandons d'utiliser des pièces intercalaires en matières plastiques ou en bois.
- Des cales et bases propres empêchent des déformations de petites sections profilées. Le prélèvement sur des étagères d'entreposage peut seulement avoir lieu en soulevant et déplaçant soigneusement les éléments.
- Tous les composants du système doivent être stockés au sec dans des locaux adéquats.
- Des profilés en acier et en acier inoxydable doivent être entreposés séparément, afin d'exclure le risque de corrosion par des particules de rouille erratique sur de l'acier ne rouillant pas.

4. Mise en œuvre

Des indications de mise en œuvre généralement connues de l'entreprise spécialisée et des artisans spécialisés ne sont pas spécialement mentionnées.

Des vidéos très utiles de la mise en œuvre des systèmes Forster sont disponibles sur notre site web www.forster-profile.ch.

4.1 Coupe en général

- Il faut vouer une attention particulière au débitage de tubes profilés en acier et de parcloses. La pression des dispositifs de serrage hydrauliques ou pneumatiques devrait pouvoir être réglée et ajustée à la main en fonction des matériaux à encastrer.

General processing guidelines

3. Transport / Storage

- The most suitable means of transport is a crane with a cross-arm and two belts at least 80 mm wide. If unloading with a high-lift truck, then only with broad fork-arms set wide apart.
- In order to avoid dents or deformations we recommend inserting plastic or wooden supports in between.
- Clean covers and supports prevent small-profiled cross-sections from becoming deformed. When removing from storage racks, always lift the profiles.
- All components of the system must be stored in dry, suitable rooms.
- Steel and stainless steel profiles must be stored separately in order to avoid all risk of corrosion due to extraneous rust particles on non-rusting steel.

4. Processing

Processing procedures that are generally known in the industry are not specifically mentioned.

Helpful videos for processing of the Forster systems are available on our website www.forster-profile.ch.

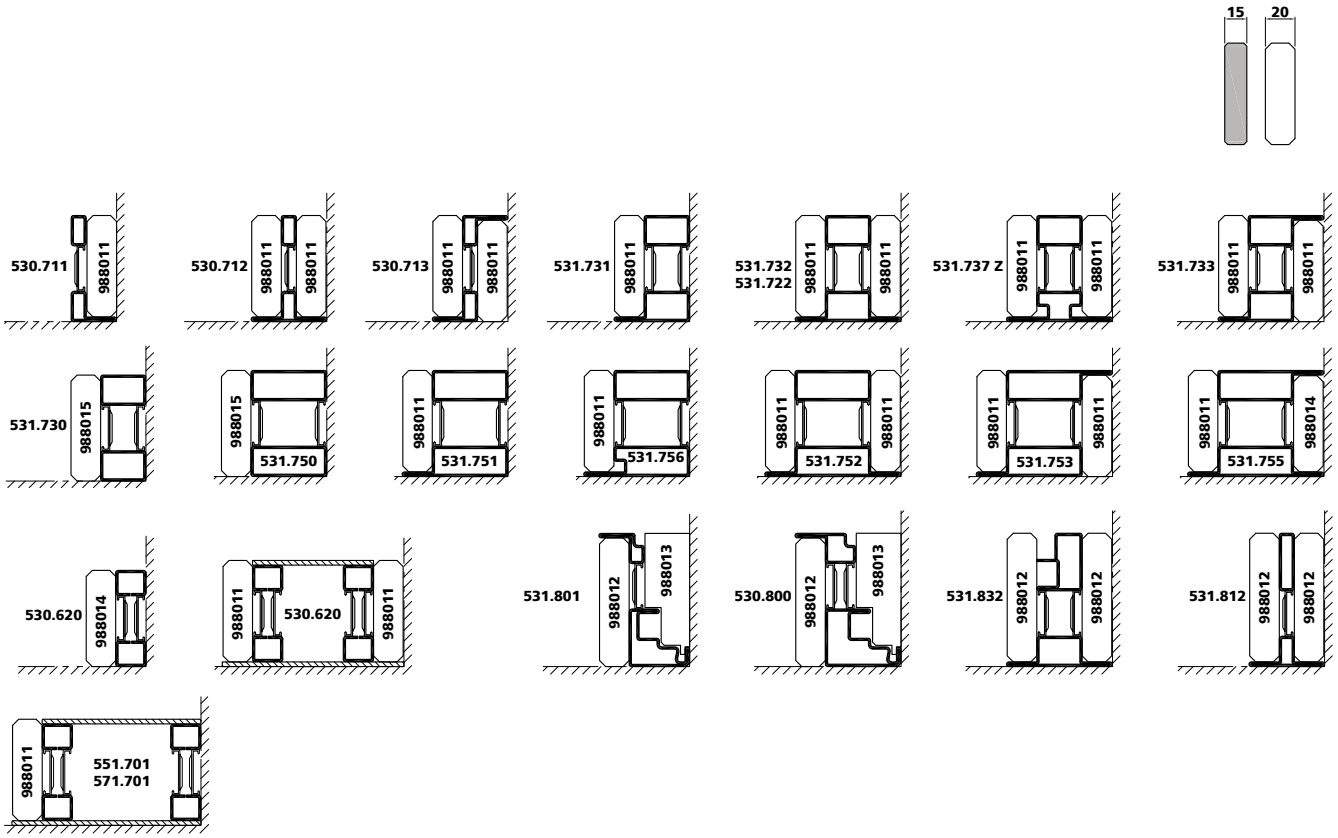
4.1 Cutting to size in general

- Pay particular attention when clamping profiled steel tubes and glazing beads. It must be possible to adjust by hand the pressure exerted by hydraulic or pneumatic clamping devices to suit the material to be clamped.

Allgemeine Verarbeitungsrichtlinien

Directives relatives à la mise en œuvre

General processing guidelines



- Beim Zuschneiden der verschiedenen Profilarten wird empfohlen, der Profilform entsprechende Sägehilfen aus POM (988010 - 988015) zu verwenden.
- Speziell zu beachten ist auch die Winkelgenauigkeit beim Zuschneiden und beim Zusammenbau.

- Lors de la coupe des divers genres de profilés, il est recommandé d'utiliser des supports de débitage en POM (988010 - 988015), correspondants à la forme du profilé.
- Pretez une attention particulière à l'exactitude des angles, lors de la coupe ainsi qu'au moment de l'assemblage.

- When cutting the various kinds of profiled section to size, we recommend that you use suitable sawing aids made from POM (988010 - 988015).
- Pay particular attention to the accuracy of the angle both in cutting to size and during assembly.

4.1.1 Zuschneiden Blendrahmen

Bei der Fabrikation der Blendrahmen sind folgende Einbautoleranzen (Falzspiel) für den Einbau von Flügelrahmen vorgegeben:
Nennmass +1 / -0 mm

4.1.1 Coupe des cadres dormants

Lors de la fabrication des cadres dormants, les tolérances de montage suivantes (jeu de la feuillure), pour le montage de cadres de vantaux, sont prédéfinies :
Dimension nominale +1 / -0 mm

4.1.1 Cutting the outer frame to size

During the manufacture of the outer frame, the following location deviations (rebate play) are prescribed for the installation of leaf-frames.
Nominal dimension +1 / -0 mm

4.1.2 Zuschneiden Flügelrahmen

Bei der Fabrikation der Flügelrahmen sind die Einbautoleranzen (Falzspiel) im Zusammenbau mit den Blendrahmen abzustimmen:
Zuschnitt-Toleranz +0 / -1 mm.

4.1.2 Coupe de cadres de vantaux

Lors de la fabrication des cadres de vantaux, il faut adapter les tolérances de montage (jeu de la feuillure) au moment de l'assemblage avec les cadres dormants :
Tolérance pour coupe de +0 / -1 mm.

4.1.2 Cutting leaf frames to size

During the manufacture of leaf frames the location deviations (rebate play) must be determined during assembly including outer frames.
Cutting tolerance +0 / -1 mm.

Allgemeine Verarbeitungsrichtlinien

4.2 Verarbeitung Stahlprofile

Das Zuschneiden von Profilen mit Stahlhalbschalen und Glashalteleisten erfolgt in der Regel mit Metallkreissägen:

Schnittgeschwindigkeit:	ca. 25 m / min
Vorschub:	150 - 200 mm / min
Zahnteilung:	6 - 8 mm
Sägeblattdicke:	4 mm
Kühlung:	Emulsion / Sprühkühlung

Das Bohren in Profile mit Stahlhalbschalen erfolgt mit Spiralbohrern aus Schnellarbeitsstahl:

Schnittgeschwindigkeit:	25 m / min
Vorschub max.:	0.12 - 0.25 mm / U
Kühlung:	Emulsion / Sprühkühlung

Das Fräsen in Stahlprofile erfolgt mit Schaftfräsern aus Schnellarbeitsstahl:

Schnittgeschwindigkeit:	25 m / min
Vorschub max.:	0.05 mm / Zahn
Kühlung:	Emulsion / Sprühkühlung

Die oben aufgeführten Angaben sind Richtwerte und sind mit dem verwendeten Werkzeug abzustimmen.

Bei der Verarbeitung von Forster Profilstahlrohren ist auf eine plane Arbeitsfläche zu achten, d.h. die Profile müssen plan und parallel aufliegen. Vor dem Schweissen sind die Rahmen auf der Ober- und Unterseite mass- und winkelgerecht zu heften (Diagonale überprüfen!). Beim Schweissen kann dem Verziehen der Elemente durch die Schweissrichtung entgegengewirkt werden (siehe Kapitel 6).

Folgende Schweiss-Empfehlungen werden abgegeben:

Schutzgas-Schweissung:	MAG-Verfahren
Draht-Ø:	0,6 bis 0,8 mm
Schutzgas:	82% Ar, 18% CO_2

Der Schweissarbeitsplatz sollte gut belüftet sein oder mit einer Rauchgasabsaugunganlage (z.B. Schildabsaugung oder mobile Absauganlage) ausgerüstet sein.

Directives relatives à la mise en œuvre

4.2 Mise en œuvre des profilés en acier

La coupe de profilés avec des coques en acier et de parcloses a en général lieu au moyen de scies circulaires pour métaux :

Vitesse de coupe :	env. 25 m / min.
Avance :	150 - 200 mm / min
Pas de dent :	6 - 8 mm
Épaisseur de la lame de scie :	4 mm
Refroidissement :	émulsion / refroidissement par aspersion

Le perçage dans des profilés avec des coques en acier est réalisé au moyen de forets hélicoïdaux en acier pour usinage grande vitesse:

Vitesse de coupe :	25 m / min.
Avance max. :	0.12 - 0.25 mm / U
Refroidissement :	émulsion / refroidissement par aspersion

Le fraisage dans des profilés en acier est réalisé au moyen de fraises deux tailles en acier pour usinage grande vitesse :

Vitesse de coupe :	25 m / min.
Avance max. :	0.05 mm / dent
Refroidissement :	émulsion / refroidissement par aspersion

Les indications figurant ci-dessus sont des valeurs de référence et doivent être adaptées à l'outil utilisé.

Lors de la mise en œuvre de tubes profilés en acier Forster, il faut veiller à avoir une surface de travail plane, c.-à-d. que les profilés doivent reposer à plat et en parallèle. Avant le soudage, il convient de pointer les cadres sur la face supérieure et inférieure en respectant les dimensions et d'équerre (contrôler les diagonales !). Lors du soudage, il est possible de prévenir toute déformation des éléments en veillant au sens de la soudure (voir chapitre 6).

Les recommandations de soudage suivantes sont données :

Soudage sous protection gazeuse :	procédé MAG
Ø du fil :	0,6 à 0,8 mm
Gaz de protection :	82% Ar, 18% CO_2

Le poste de travail pour le soudage devrait être bien aéré ou être équipé d'une installation d'aspiration de gaz (telle qu'aspiration à bouclier ou installation d'aspiration mobile).

General processing guidelines

4.2 Processing steel profiles

Profiles with steel tubes and glazing beads are generally cut to size using a metal circular saw:

Cutting speed:	approx. 25 m / min
Forward feed:	150 - 200 mm / min
Spacing:	6 - 8 mm
Thickness of saw blade:	4 mm
Cooling:	emulsion / spray cooling

Profiles with steel tubes are drilled using twist drills made of high-speed steel:

Cutting speed:	25 m / min
Forward feed max.:	0.12 - 0.25 mm / rev
Cooling:	emulsion / spray cooling

Steel profiles are milled using end-mill cutters made of high-speed steel:

Cutting speed:	25 m / min
Forward feed max.:	0.05 mm / tooth
Cooling:	emulsion / spray cooling

The figures given above are guidelines and must be determined individually for each tool used.

When processing Forster profiled steel sections, make sure that the working surface is level, i.e. the sections must lie flat and parallel to one another. Before welding, tack the frames on the top and bottom sides to secure the size and angles (check the diagonals!). You can counteract the distortion of the elements during welding by working in the right direction (see chapter 6).

The following is recommended for welding:

Shielded arc welding:	MAG process
Wire Ø:	0,6 to 0,8 mm
Inert gas:	82% Ar, 18% CO_2

The welding work place should be well ventilated or equipped with a smoke-collecting unit (e.g. shield or mobile smoke-collecting unit).

Allgemeine Verarbeitungsrichtlinien

Schweissnähte (Sprossenstösse, Rahmenecken, usw.) werden üblicherweise mit der Tellerschleifscheibe und Schleifscheiben verputzt. Schleifspuren sind zu vermeiden, da diese nach der Oberflächenbehandlung sichtbar werden. Die Kantenradien der geschweissten Sprossenstösse und Rahmenecken sind mit der Feile leicht nachzubearbeiten.

4.3 Verarbeitung Aluminium-Glashalteleisten

Das Zuschneiden von Aluminium-Glashalteleisten erfolgt in der Regel mit einer Aluminium-Kreissäge oder Doppelgehrungssäge.

Schnittgeschwindigkeit:	180 - 240 m / min
Zahnteilung:	8 - 10 mm
Sägeblattdicke:	4 - 6 mm
Kühlung:	Emulsion / Sprühkühlung

Diese Angaben sind Richtwerte und sind mit dem verwendeten Werkzeug abzustimmen.

4.4 Verarbeitung Edelstahlprofile

Anwendungsbereich Edelstahlprofile/ Haftungsausschluss für nicht systemkonforme Anwendung

Profilstahlrohre aus Edelstahl sind ausschliesslich für die Anwendung in Forster-Konstruktionen wie Türen, Festfeldern etc. einzusetzen. Die Schweissnahtlage ist hierbei so definiert, dass diese im nicht sichtbaren Bereich zu liegen kommt. (>Glasfalz/Wandanschluss). Für Anwendungen ausserhalb von Forster-Konstruktionen, wo die Schweissnahtlage in den Sichtbereich zu stehen kommen kann, übernimmt „Forster" keinerlei Haftung/Gewährleistung.

Werkzeuge, die für die Bearbeitung von unlegiertem Stahl verwendet werden, dürfen nicht für Edelstahl Rostfrei benützt werden.

Alle nachfolgenden Angaben sind Richtwerte und sind mit dem verwendeten Werkzeug abzustimmen.

Directives relatives à la mise en œuvre

Les cordons de soudure (raccords de traverses, angles de cadres, etc.) sont généralement polis au moyen d'une meule à disque et équipée de disques de meulage et de disques en fibres. Il convient d'éviter les traces de meulage, car ces dernières demeurent visibles après le traitement de surface. L'intérieur des arêtes des angles des cadres et des raccords de traverses doit ensuite légèrement être meulé.

4.3 Mise en œuvre des parcloses en aluminium

La coupe de parcloses en aluminium a en général lieu au moyen d'une scie circulaire pour aluminium ou au moyen d'une tronçonneuse à double tête pour coupes en biais.

Vitesse de coupe :	180 - 240 m / min
Pas de dent :	8 - 10 mm
Épaisseur de la lame de scie :	4 - 6 mm
Refroidissement :	émulsion / refroidissement par aspersion

Ces indications sont des valeurs de référence et doivent être adaptées à l'outil utilisé.

4.4 Mise en œuvre de profilés en acier inoxydable

Champs d'application pour profilés en acier inox / Clause de non-responsabilité lors d'applications non conformes des systèmes

Les profilés en acier inox doivent être utilisés exclusivement pour des éléments Forster tels que les portes, vitrages fixes, etc. L'emplacement des soudures est défini et positionné dans la zone invisible (>fond de feuillure/raccord mural). Pour des applications hors construction Forster où les soudures sont situées en zone visible, «Forster» exclut toute responsabilité ou garantie de fonctionnement.

Des outils utilisés pour l'usinage d'acier non allié ne doivent pas être employés pour l'acier inoxydable.

Toutes les indications ci-après sont des valeurs de référence et doivent être adaptées à l'outil utilisé.

General processing guidelines

Welds (transom joints, corners of frames etc.) are usually trimmed with the disk-grinding machine and grinding disk and coarse-grained grinding wheel. Stress marks should be avoided as they become visible after the surface treatment. Gently trim the edges of the welded transom joints and frame corners with a file.

4.3 Processing aluminium glazing beads

Aluminium glazing beads are usually cut to size using an aluminium circular saw or double-mitring saw.

Cutting speed:	180 - 240 m / min
Spacing:	8 - 10 mm
Thickness of saw blade:	4 - 6 mm
Cooling:	emulsion / spray cooling

The figures given above are guidelines and must be determined individually for each tool used.

4.4 Processing stainless steel profiles

Application stainless steel profiles / exclusion of liability for non-conforming application

Stainless steel profiles are exclusively for use in Forster constructions such as doors, fixed glazings, etc. The position of the welding seam is defined for the non-visible area. (> glass rebate /wall connection). For applications outside of Forster constructions, where the position of the welding seam can be in the visible area, „Forster" assumes no liability whatsoever.

Tools used for processing unalloyed steel must not be used for stainless steel.

All the figures given below are guidelines and must be determined individually for each tool used.

Allgemeine Verarbeitungsrichtlinien

Das Zuschneiden der Edelstahlprofile und Glashalteleisten erfolgt mit einer Metallkreissäge.

Sägeblätter:	HSS
Schnittgeschwindigkeit:	ca. 10 m / min
Zahnteilung:	4 - 6 mm
Vorschub bis max.:	50 mm / min
Sägeblattdicke:	3 - 4 mm
Kühlung:	Emulsion / Sprühkühlung

Für Bohrungen in Edelstahlprofile empfehlen wir Spiralbohrer aus Schnellarbeitsstahl. Vorteilhaft werden TiN-beschichtete Werkzeuge verwendet.

Schnittgeschwindigkeit:	6 - 12 m / min
Vorschub max.:	0.05 - 0.15 mm / U
Kühlung:	Emulsion / Sprühkühlung

Das Fräsen in Edelstahlprofile erfolgt mit Schaftfräsern aus Schnellarbeitsstahl.

Schnittgeschwindigkeit:	10 - 20 m / min
Vorschub max.:	0.08 - 0.3 mm / Zahn
Kühlung:	Emulsion / Sprühkühlung

Schweissen

Die austenitischen Edelstähle lassen sich mit nahezu allen in der Praxis üblichen Verfahren schmelz- und widerstandsschweissen. Vom Gasschweissen (Sauerstoff-Azetylen) ist abzuraten. Die Schweiss-Zusatzwerkstoffe entsprechen weitgehend den Grundwerkstoffen.

Gegenüber den unlegierten Stählen sind für das Schweissen folgende Abweichungen zu beachten:

- Die Wärmeausdehnung ist ca. 50 % grösser (ausreichend fest einspannen).
- Die Wärmeleitfähigkeit ist geringer (33%). Wärmeableitende Schweissbeilagen begünstigen die Schweissung.
- Der elektrische Widerstand ist etwa 6 x grösser.

Directives relatives à la mise en œuvre

La coupe des profilés en acier inoxydable et de parcloses a lieu au moyen d'une scie circulaire pour métaux.

Lames de scies :	HSS
Vitesse de coupe :	env. 10 m / min
Pas de dent :	4 - 6 mm
Avance jusqu'à max. :	50 mm / min
Épaisseur de la lame de scie :	3 - 4 mm
Refroidissement :	émulsion / refroidissement par aspersion

Pour des perçages dans des profilés en acier inoxydable, nous recommandons des forets hélicoïdaux en acier pour usinage grande vitesse. Des outils enduits en titane seront de préférence utilisés.

Vitesse de coupe :	6 - 12 m / min.
Avance max. :	0.05 - 0.15 mm / U
Refroidissement :	émulsion / refroidissement par aspersion

Le fraisage dans des profilés en acier inoxydable est réalisé au moyen de fraises deux tailles en acier pour usinage grande vitesse.

Vitesse de coupe :	10 - 20 m / min.
Avance max.:	0.08 - 0.3 mm / dent
Refroidissement :	émulsion / refroidissement par aspersion

Soudage

Les aciers inoxydables austénitiques peuvent être soudés par fusion ou par résistance, avec presque toutes les méthodes habituelles utilisées dans la pratique. Le soudage au gaz (oxygène - acétylène) est déconseillé. Les métaux d'apport correspondent en grande partie aux métaux de base.

Par rapport aux aciers non alliés, les écarts suivants doivent être pris en considération pour le soudage :

- La dilatation thermique est supérieure d'env. 50 % (serrer suffisamment et avec fermeté).
- La conductivité thermique est inférieure (33%). Des cales de soudage dissipant la chaleur favorisent le soudage.
- La résistance électrique est à peu près 6 x plus grande.

General processing guidelines

Stainless steel profiles and glazing beads are cut to size with a metal circular saw.

Saw blades:	HSS
Cutting speed:	aprox. 10 m / min
Spacing:	4 - 6 mm
Forward feed max.:	50 mm / min
Thickness of saw blade:	3 - 4 mm
Cooling:	emulsion / spray cooling

For drilling stainless steel profiles we recommend twist drills made from high-speed steel. TiN-coated tools are preferable.

Cutting speed:	6 - 12 m / min
Forward feed max.:	0.05 - 0.15 mm / U
Cooling:	emulsion / spray cooling

Stainless steel profiles are milled using end-mill cutters made of high-speed steel.

Cutting speed:	10 - 20 m / min
Forward feed max.:	0.08 - 0.3 mm / tooth
Cooling:	emulsion / spray cooling

Welding

Austenitic stainless steels can be welded using practically any of the customary fusion and resistance welding processes. Gas welding (oxyacetylene) is not recommended. The filler metals used are largely identical to the parent metals.

Regarding unalloyed steels, please note the following deviations when welding:

- Thermal expansion is approx. 50 % greater (clamp tightly enough).
- Thermal conductivity is lower (33%). Heat dissipating added material improve welding.
- The electrical resistance is approx. 6 x greater.

Allgemeine Verarbeitungsrichtlinien

Diese Unterschiede beeinflussen die Wahl und die Durchführung des Schweissverfahrens. Sie erfordern Schweissen mit deutlich niedrigeren Stromstärken.

Um Verzug und Verzunderung gering zu halten, sollte mit möglichst geringer Wärmeeinbringung geschweisst werden. Damit werden schmale Schweissnähte mit engem Anlauffarbbereich erreicht, die weniger Nacharbeit erfordern.

Für einwandfreie Schweissungen sind fettfreie, glatte Schnittkanten und Oberflächen erforderlich.

Nach dem Schweissen sind Zunder und Anlauffarben vom Werkstück zu entfernen, da sonst solche Stellen nicht mehr die optimale Korrosionsbeständigkeit aufweisen.

Mechanische Nachbehandlung

Zum Entfernen von Anlauffarben und Zunder kommen Bürsten, Schleifen oder Strahlen in Betracht. Die Schleif- und Strahlmittel müssen eisenfrei sein, d.h. sie dürfen auch nicht vorher zum Bearbeiten unlegierter Stähle verwendet worden sein.

Nach dem Strahlen ist zum Erzielen einer guten Korrosionsbeständigkeit ein anschliessendes Beizen erforderlich.

Chemische Nachbehandlung

Zum Entfernen von Anlauffarben und Zunder verwendet man handelsübliche Beizpasten. Säurereste dürfen keinesfalls an den Profilen zurückbleiben (Flächen, Spalten, Hohlräume).

Nach der Beizbehandlung muss mit Wasser kräftig nachgespült werden.

Korrosion

Die Korrosionsbeständigkeit der Edelstähle beruht auf einer sehr dünnen passiven Oberflächendeckschicht aus Chromoxyden. Nach mechanischer Zerstörung bildet sich diese Schicht bei Anwesenheit von Sauerstoff (Luft) oder oxidierenden Medien erneut aus.

Wird diese Schutzschicht unter Einwirkung agressiver Medien zerstört, beginnt der Korrosionsvorgang.

Directives relatives à la mise en œuvre

Ces différences influencent le choix et la réalisation du procédé de soudage. Elles nécessitent un soudage avec des intensités de courant nettement plus faibles.

Pour minimaliser la distorsion et l'oxydation, il faudrait souder avec le moins possible d'apport thermique. De minces cordons de soudage avec des zones de couleurs de métal chauffé réduites, qui nécessiteront moins de travail par la suite, sont ainsi obtenus.

Pour des soudures parfaites, il faut que les coupes et surfaces soient à bords vifs, non gras et lisses.

Après le soudage, il faut débarrasser la pièce à usiner de toutes projections et couleurs du métal chauffé, sous peine que ces endroits ne présentent plus une résistance optimale à la corrosion.

Traitement mécanique subséquent

Pour éliminer les couleurs du métal chauffé on peut procéder par brossage, ponçage ou grenaillage. Les produits de ponçage ou de grenaillage ne doivent pas contenir de fer, c'est-à-dire qu'ils ne doivent pas avoir été précédemment utilisés pour le traitement d'aciers non alliés.

Après le grenaillage, il faut décaper l'élément, si l'on veut obtenir une bonne résistance à la corrosion.

Traitement chimique subséquent

Pour éliminer les couleurs du métal chauffé et l'oxydation ou impureté, on utilise des pâtes de décapage du commerce. Des résidus acides sur les profilés doivent à tout prix disparaître (surfaces, fentes, espaces creux).

Après le traitement au décapant, il faut bien rincer à l'eau.

Corrosion

La résistance à la corrosion des aciers inoxydables repose sur une couche de surface passive extrêmement mince en oxyde de chrome. Après destruction mécanique, cette couche se reforme en présence d'oxygène (air) ou au contact d'oxydants.

Si cette couche de protection est détruite sous l'effet de milieux agressifs, le processus de corrosion commence.

General processing guidelines

These differences affect the choice of welding method and how it is performed. They require welding methods with distinctly lower voltages.

To keep distortion and scale at a minimum, as little heat as possible should be introduced during welding. This results in thin weld seams with only a narrow strip of discoloration, which require less retouching.

For perfect welds cut edges and surfaces must be free of grease and smooth.

After welding remove all scale and tarnish from the workpiece, otherwise these areas will no longer be optimally resistant to corrosion.

Mechanical reworking

Brushing, grinding or blasting are suitable ways of removing tarnish and scale. The abrasives used for grinding and blasting must be nonferrous, i.e. they must not have been used previously for treating unalloyed steel.

After blasting, pickling is necessary to ensure good resistance to corrosion.

Chemical Aftertreatment

To remove discoloration and scale, use commercial mordant pastes. On no account must any acid residue be left on the profiles (surfaces, crevices, hollow spaces).

After the pickling treatment, rinse well with water.

Corrosion

The corrosion resistance of stainless steel depends on a very thin passive surface top coat of chromium oxide. When destroyed mechanically, this layer develops again in the presence of oxygen (air) or oxidising media.

Should this layer be destroyed by aggressively acting media, corrosion will set in.

Allgemeine Verarbeitungsrichtlinien

Oberflächenbeschaffenheit

Die dem chemischen Angriff ausgesetzte Edelstahloberfläche muss möglichst glatt sein. Die Oberfläche muss frei von Verunreinigungen aller Art sein. Die bei der Bearbeitung in die Oberfläche eingedrückten Fremdstoffe wie z.B. Schleifmittelrückstände oder Werkzeugabrieb vermindern die Korrosionsbeständigkeit.

Interkristalline Korrosion

Sie kann entstehen bei Wärmebehandlung oder Schweissvorgängen.
Beachten:

- Richtige Materialwahl (mit niederem C-Gehalt)
- Anlauffarben bearbeiten

Fremdrost

Unter Fremdrost versteht man Ablagerungen von Rostteilchen, die nicht an der betreffenden Stelle entstanden, sondern von irgendwo anders her hinzugetragen wurden. Fremdrost tritt bevorzugt auf bei nichtgetrennter Lagerung und Verarbeitung von "schwarzem" und „weissem" Stahl. Aber auch Werkzeugabrieb kann zu Fremdrost führen. Durch Ablagerungen von Fremdrost können die Bedingungen für Spaltkorrosion erfüllt sein.

Beachten:

- Verarbeitung und Lagerung von Edelstahl Rostfrei und unlegiertem Stahl in getrennten Räumen.
- Werkzeuge nur für Edelstahl Rostfrei oder unlegierten Stahl verwenden.

Mechanische Oberflächenbehandlung (Schleifen, Polieren, Strahlen)

Da die Wärmeleitfähigkeit von austenitischen Edelstählen geringer ist als bei unlegiertem Stahl, darf nicht mit zu grossem Andruck gearbeitet werden, sonst könnten sich wegen örtlicher Erwärmung Verwerfungen oder Anlauffarben bilden. Die Schleif- und Strahlmittel müssen eisenfrei sein, um Fremdrost zu vermeiden. Für Schleifscheiben, Schleifbänder oder Schleifkorn dürfen also nur eisenoxidfreie Schleifmittel verwendet werden.

Schleifscheiben oder -bänder sowie Strahlmittel, die für Teile aus unlegiertem Stahl

Directives relatives à la mise en œuvre

Caractéristiques de la surface

La surface en acier inox exposée à l'attaque chimique doit être la plus lisse possible. La surface doit être exempte d'impuretés de toute nature. Tous matériaux étrangers insérés au moment du traitement dans la surface, tels que résidus de produits abrasifs ou déchets de meulage, diminuent la résistance à la corrosion.

Corrosion intergranulaire

Elle peut survenir lors d'un traitement thermique ou de procédés de soudage.
Veiller à :

- sélectionner des matériaux adéquats (avec une faible teneur en C)
- travailler les couleurs de métal chauffé

Rouille erratique

Par rouille erratique, on entend des dépôts de petites particules de rouille qui ne proviennent pas de l'endroit concerné, mais viennent d'ailleurs. La rouille erratique apparaît surtout en cas de stockage non isolé et de traitement de l'acier «noir» et "blanc". Mais les déchets de meulage peuvent également entraîner l'apparition de rouille erratique. Les dépôts de rouille erratique peuvent donner lieu à une corrosion des fissures.

Veiller à :

- traiter et stocker de l'acier inoxydable et de l'acier non allié dans des locaux séparés.
- utiliser des outils soit pour l'acier inoxydable soit pour l'acier non allié.

Traitement mécanique des surfaces (ponçage, polissage, grenaillage)

étant donné que la conductivité thermique d'aciers inoxydables austénitiques est inférieure à celle de l'acier non allié, il ne faut pas travailler avec une trop grande pression, faute de quoi le matériau pourrait changer de couleur ou gauchir en raison de l'échauffement local. Les produits de ponçage ou de grenaillage ne doivent pas contenir de fer, afin d'éviter de la rouille erratique. Seuls des produits de ponçage exempts d'oxyde de fer peuvent donc être utilisés pour les disques de meulage, des bandes abrasives ou le grain abrasif.

Des disques de meulage ou des bandes abrasives, ainsi que des produits de grenaillage

General processing guidelines

Surface structure

The stainless steel surface exposed to the chemical attack must be as smooth as possible and free from contamination of any kind. Any foreign substances such as abrasive residue or tool attrition that gets pressed into the surface during the treatment will adversely affect resistance to corrosion.

Intercrystalline corrosion

This can occur during heat treatment or welding.
Note:

- Correct choice of material (with low C-content)
- Treat discoloration

Extraneous rust

Extraneous rust refers to deposits of rust particles that did not start at the spot in question but were brought there from somewhere else. Extraneous rust occurs mainly when "white" and "black" steel are not stored and processed separately. However, particles rubbed off tools (attrition) can also lead to extraneous rust. Deposits of extraneous rust can provide the basic conditions for crevice corrosion.

Note:

- Processing and storage of stainless steel and unalloyed steel in separate rooms.
- Use tools for stainless steel only or for unalloyed steel only.

Mechanical surface treatment (grinding, polishing, blasting)

Since the thermal conductivity of austenitic steels is lower that that of unalloyed steel, applied pressure during processing must not be too great or else the material could discolour or become distorted due to uneven warming. The abrasives used for grinding and blasting must be nonferrous in order to prevent extraneous rust. For grinding wheels, grinding belts or abrasive grain, therefore, only abrasives that are free of iron oxide may be used.

Grinding wheels, grinding belts and abrasives used for parts made of unalloyed steel

Allgemeine Verarbeitungsrichtlinien

verwendet werden, dürfen nicht auch für Edelstahl Rostfrei benutzt werden, da sie Fremdrost verursachen.

Für das Nachbearbeiten von Schweissnähten benutzt man Handschleifmaschinen mit Schleifscheiben oder Schleifsteinen.

Nähere Angaben finden Sie in den Publikationen von EURO INOX, 241 route d'Arlon, L-1150 Luxembourg.

5 Abdichten der Rahmen- / Flügelzonen

Für die Abdichtung von nicht durch Schweissen geschlossene Flügelzonen bei Rahmenverbindungen (stumpf und auf Gehrung) empfehlen wir dringend die Verwendung des hierfür in unserem Programm vorgesehenen Dichtstoffs (Art. Nr. 908005), da bei diesem Produkt ein optimales kapillares Eindringen in die Fugen und eine gute Haftung auf allen Oberflächen sichergestellt ist.

Directives relatives à la mise en œuvre

qui sont utilisés pour des éléments en acier non allié, ne peuvent pas aussi être employés pour de l'acier inoxydable, vu qu'ils occasionnent de la rouille erratique.

Pour le traitement subséquent de cordons de soudage, on utilise des meuleuses portatives avec disques de meulage ou meules.

Des indications plus détaillées figurent dans les publications de EURO INOX, 241 route d'Arlon, L-1150 Luxembourg.

5 Étanchement des cadres / zones de vantails

Pour l'étanchement de zones non soudées lors d'assemblages avec les cadres (droites ou en onglets), nous recommandons (instamment) d'utiliser le produit d'étanchéité pour joints spécialement prévu à cet effet dans notre programme (art nr 908005), étant donné qu'une pénétration capillaire optimale dans les joints et une bonne adhérence sur toutes les surfaces sont garanties par ce produit.

General processing guidelines

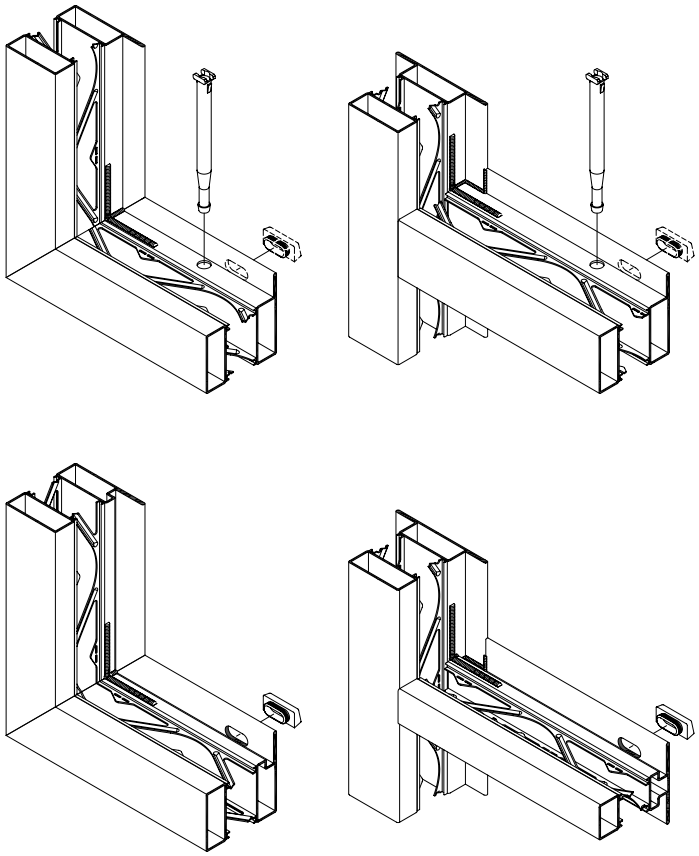
must not also be used for stainless steel, as they will cause extraneous rust.

For the subsequent treatment of welding seams, use manual grinding machines with grinding wheels or stones.

You will find more detailed information in the publications of EURO INOX, 241 route d'Arlon, L-1150 Luxembourg.

5 Sealing frames / leaf zones

For sealing leaf zones that are not welded when joining frames (butt or mitred joints) we strongly recommend using the joint sealing compound included in our range (art. no. 908005), as this product ensures optimum capillary penetration in the joints and good adhesion on all surfaces.



Allgemeine Verarbeitungsrichtlinien

6 Oberflächenbehandlung

Grundsätzlich sind die Beschichtungsvorgaben des Beschichtungsunternehmens, abgestimmt auf das jeweilige verwendete Beschichtungssystems, abzustimmen bzw. zu berücksichtigen.
Das Vorbehandlungsverfahren und das Beschichtungssystem sind ebenso von der Korrosionsbelastung des Bauteiles abhängig. In der Regel kann von der Korrosionsschutzklasse III in Abhängigkeit der zu erwartenden Schutzdauer nach EN ISO 12944 „Korrosionsschutz von Stahlbauteilen durch Beschichtungssysteme" Teil 2 „Einteilung der Umgebungsbedingungen" bzw. der DIN 55928 -8 ausgegangen werden. Für die Innenanwendung ohne erhöhte „Belastungen" wie erhöhte Luftfeuchtigkeit, aggressive Medien in der Umgebungsluft usw. kann auch die Korrosionsschutzklasse II voraus gesetzt werden.

Vorbehandlungsverfahren:

Allgemein:
Als Grundlage dienen die Angaben aus der EN ISO 12944-4 „Korrosionsschutz von Stahlbauteilen durch Beschichtungssysteme" Teil 4 „Arten der Oberflächen und Oberflächenvorbehandlungen". Hier sind die Oberflächenvorbehandlungen in Abhängigkeit auf die jeweilige Metalloberfläche beschrieben.
Wir, Forster Profilsysteme, empfehlen die Richtlinie „Internationale Qualitätssicherung für Bauteilbeschichtung aus Stahl „ GSB ST 663 der GSB International in der Ausgabe Januar 2006 zu berücksichtigen bzw. anzuwenden.
In Auszügen kann auch die Richtlinie „Industrielle Beschichtung von feuerverzinkten Bauteilen des Deutschen Institutes für Gütesicherung und Kennzeichnung E.V." die RAL –GZ 663 herangezogen werden.

Directives relatives à la mise en œuvre

6 Traitement des surfaces

On prendra en compte/adaptera les indications de traitement des entreprises de revêtement en fonction du revêtement utilisé.
La méthode de préparation et le système de revêtement dépendent aussi de la sensibilité à la corrosion de l'élément. En général, on peut présupposer la classe anticorrosion III en fonction de la durée de protection attendue selon EN ISO 12944 „Anticorrosion des structures en acier par systèmes de peinture" partie 2 „Classification des environnements" ou DIN 55928 -8. En cas d'usage intérieur sans „contraintes" accrues, comme par exemple une humidité de l'air accrue, des gaz agressifs dans l'air ambiant, etc. on peut aussi prendre la classe anticorrosion II comme base.

Méthode de préparation:

Général:
Les indications EN ISO 12944-4 „Anticorrosion des structures en acier par systèmes de peinture" partie 4 „Types de surfaces et préparation de surfaces" servent de base. Elles décrivent les méthodes de préparation en fonction de la surface métallique traitée.
Forster Systèmes profilés recommande de tenir compte de/d'appliquer la directive „Assurance qualité internationale pour revêtement de pièces en acier" GSB ST 663 de GSB International, édition janvier 2006.
On peut aussi se référer à certains extraits de la directive sur le revêtement de pièces galvanisées à chaud du „Deutsche Institut für Gütesicherung und Kennzeichnung E.V.", RAL –GZ 663.

General processing guidelines

6 Surface treatment

Generally, the coating specifications of the coating company which is adapted to the specific coating system used, may still have to be adjusted.
The pretreatment process and the coating system to be used also depend on the degree of corrosion the component is subjected to. As a rule, the assumptions can be based on Corrosion Protection class III, in dependence on the expected period of protection according to EN ISO 12944 „Corrosion protection of steel components by coating systems" part 2 „Classification of the environmental conditions" or DIN 55928 -8. For interior applications without increased „loads" such as air humidity, aggressive mediums in the air etc, the assumptions can be based on Corrosion Protection class II.

Pretreament process:

In general:
The specifications EN ISO 12944-4 „Corrosion protection of steel components by coating systems" part 4 „Types of surfaces and pretreatments" serve as a basis. Surface pretreatments in dependence of the specific metal surfaces are described here.
We, Forster Profile Systems, recommend applying or taking into consideration the „International quality assurance for the coating of steel components" GSB ST 663 guidelines in the GSB International January 2006 edition.
Excerpts of the RAL –GZ 663 guidelines „Industrial coating of hot-galvanized components by the German Institute for quality assurance and markings E.V." can also be consulted.

Allgemeine Verarbeitungsrichtlinien

Beschichtungssysteme:

Nasslackbeschichtung:
Beschichtungssysteme in Abhängigkeit der zu erwartenden Schutzdauer und Korrosivitätskategorie sind in der EN ISO 12944 „Korrosionsschutz von Stahlbauteilen durch Beschichtungssysteme" Teil 5 „Beschichtungssysteme" sowie der DIN 55928-8 beschrieben.
Die Auswahl des Beschichtungssystems erfolgt in Eigenverantwortung durch das ausführende Beschichtungsunternehmen.
Sollten entsprechende Nachweise bzw. Gewährleistungen des Beschichtungsunternehmens nicht vorliegen, empfehlen wir eine Muster- bzw. Probebeschichtung an einem repräsentativen Element mit anschliessender Güteüberprüfung der Beschichtung, (an verdeckten Bereichen des Elementes) entsprechend den Prüfmethoden der RAL Gütesicherung nach RAL-GZ 663.

Pulverlackbeschichtung:
Die Auswahl des Beschichtungssystems erfolgt in Eigenverantwortung durch das ausführende Beschichtungsunternehmen.
Aufgrund der energieverzehrenden Wirkung der Spezialisolatoren muss die Einbrenndauer bzw. Haltezeit der Profile bzw. Elemente im Ofen erhöht werden. Um die notwendige Oberflächentemperatur, welche für die Aushärtung des Pulverlackes massgebend ist zu erreichen, empfehlen wir für herkömmliche Pulverbeschichtungssysteme eine Ofentemperatur von ca. 200-230°C bei einer Standardhaltezeit von ca. 1500s und einer Schichtdicke von 80-120µ entsprechend der ISO 2360. Bei Niedertemperaturbeschichtungssystemen können sich die vorgenannten Werte entsprechend verringern.

Zur Sicherstellung der Beschichtungsqualität bzw. Gebrauchsfähigkeit empfehlen wir folgende Prüfmethoden:
- Glanz nach Gardner entsprechend ISO 2813
- Eindruckhärte nach ISO 2815
- Gitterschnitt nach ISO 2409

an repräsentativen Elementen (an verdeckten Bereichen des Elementes) mit anschliessender Dokumentierung durch den Beschichtungsunternehmer.

Directives relatives à la mise en œuvre

Systèmes de revêtement:

Revêtement à peinture liquide:
Les systèmes de revêtement en fonction de la durée de protection attendue et de la catégorie de corrosivité sont décrits dans la norme EN ISO 12944 „Anticorrosion de structures en acier par systèmes de peinture" partie 5 „Systèmes de peinture" de même que dans la norme DIN 55928-8.
Le système de revêtement est choisi par l'entreprise de revêtement mandatée sous la seule responsabilité de cette dernière.
Si les attestations ou garanties de l'entreprise de revêtement font défaut, nous recommandons d'effectuer un essai de revêtement sur un élément représentatif avec contrôle consécutif de la qualité du revêtement, (sur surfaces cachées de l'élément) conformément aux méthodes d'essai du contrôle qualité RAL selon RAL-GZ 663.

Revêtement à peinture en poudre:
Le système de revêtement est choisi par l'entreprise de revêtement mandatée sous la seule responsabilité de cette dernière.
En raison de l'effet énergétique particulier des isolants spéciaux, il faut augmenter la durée de cuisson, de séjour des profilés ou éléments dans le four. Pour atteindre la température de surface nécessaire, déterminante pour le durcissement de la peinture en poudre, nous recommandons pour les systèmes de revêtement par poudre standard une température de four d'environ 200-230°C pour une durée de séjour d'environ 1500 s et une épaisseur de couche de 80-120µ selon ISO 2360. En cas d'utilisation de systèmes de revêtement à basses températures, les valeurs mentionnées peuvent diminuer en conséquence.

Pour garantir la qualité de revêtement ou l'utilisabilité, nous recommandons les méthodes d'essai suivantes:
- Brillance selon Gardner conformément à ISO 2813
- Résistance à l'indentation selon ISO 2815
- Essai de quadrillage selon ISO 2409

sur des éléments représentatifs (surfaces cachées de l'élément) avec documentation consécutive par l'entreprise de revêtement.

General processing guidelines

Coating systems:

Wet paint coating:
Coating systems in dependence of the expected period of protection and category of corrosion are described in EN ISO 12944 „Corrosion protection of steel components by coating systems", part 5 „Coating systems" as well as in DIN 55928-8.
The selection of the coating system falls within the area of responsibility of the company that carries out the coating.
Should the coating company fail to submit valid proof of performance or any corresponding warranty, we recommend requesting a sample or test coating of a representative element, followed by a quality inspection of the coating (on hidden areas of the elements), corresponding to the RAL test method for quality assurance according to RAL-GZ 663.

Powder coating:
The selection of the coating system falls within the area of responsibilities of the company that carries out the coating.
Due to the energy consumption of the special insulators, the burn-in period or dwell time in the oven for profiles or elements must be increased. In order to attain the necessary surface temperature required to correctly cure the powder coating, we recommend an oven temperature of approximately 200-230°C for conventional powder coating systems for the standard dwell time of approx. 1500s and a layer thickness of 80-120µ according to ISO 2360. For low temperature coating systems, these values can be reduced accordingly.

To assure the coating quality or serviceability, we recommend the following test methods:
- Gloss according to Gardner corresponding to ISO 2813
- Indentation hardness according to ISO 2815
- Cross cut according to ISO 2409

on representative elements (on hidden areas of the element) which is then documented by the coating company.

Allgemeine Verarbeitungsrichtlinien

Als Vorbehandlung empfehlen wir Sweepen (siehe Vorbemerkungen). Eine Handreinigen mit geeigneten Entfettungsflüssigkeiten wie z.B. „Lesonal" ist unter geregelten Bedingungen ebenfalls möglich. Bei dieser Vorbehandlungsmethode ist mit grösster Sorgfalt vorzugehen um die Beschichtungsqualität nicht negativ zu beeinflussen.

Allgemeiner Hinweis:

Die Oberflächenbehandlung nach dem Schweissen und Schleifen der Elemente zur Sicherstellung des temporären (Lager und Transport der Elemente nach der Fertigung) Oberflächenschutzes ist mit dem Beschichtungsbetrieb abzustimmen und entsprechend vorzusehen.

Stahl- und Aluminium-Glashalteleisten:
Keine Einschränkungen bei der Vorbehandlung und der Beschichtung.

Die Profile müssen bis zum Beschichtungsvorgang vor Wasser (Regen, Kondenswasser, etc.) in jeder Form geschützt werden. Bei der Pulverbeschichtung ist zu beachten, dass im Isolationsbereich die Sichtflächen bedingt durch einen zu hohen Wassergehalt infolge unsachgemässer Lagerung, die Oberflächen leichte Blasenbildung (Nadelstiche) aufweisen können. Minimiert werden kann dies, indem die Profile im Umluftofen vorgetrocknet werden und Verzögerungsmittel dem Pulver beigemischt wird.

Edelstahlprofile werden mit blanker Isolatorenoberfläche ausgeliefert. Soll der Isolator beschichtet werden, muss er gleichmässig mit eckigem Korn staubgestrahlt werden um einen Verankerungsgrund zu schaffen.

Für Edelstahlglashalteleisten ohne Schliff empfiehlt sich die Verwendung von Primern und / oder ein Aufrauhen durch Schleifen oder Strahlen.

Directives relatives à la mise en œuvre

Nous recommandons Sweepen (voir remarques préliminaires) pour la préparation. Un nettoyage manuel avec des dégraissants liquides appropriés, par ex. „Lesonal", est également possible dans des conditions contrôlées. En cas d'utilisation de cette méthode de préparation, procéder avec soin pour ne pas influencer négativement la qualité du revêtement.

Informations générales:

Prévoir en concertation avec l'entreprise de revêtement un traitement de surface après le soudage et le ponçage des éléments, afin de garantir la protection temporaire des surfaces (stockage et transport des éléments après la fabrication).

Parcloses en acier et en aluminium :
Aucunes restrictions pour le traitement préalable et le revêtement.

Les profilés doivent être protégés contre l'eau sous toutes ses formes (pluie, eau de condensation, etc.), jusqu'à ce que le procédé de revêtement ait lieu. Lors du revêtement par pulvérisation, il faut tenir compte du fait que de légères formations de boursouflures (points) peuvent apparaître sur les surfaces visibles dans la zone de l'isolation, à cause d'une trop grande teneur en eau consécutive à un stockage inapproprié. Ceci peut être minimisé en séchant au préalable les profilés dans le four à circulation d'air et en ajoutant à la poudre un agent retardateur.

Les profilés en acier inoxydable sont livrés avec une surface d'isolateur brute. Si l'isolateur doit être revêtu, il doit uniformément être grenaillé avec un grain ferme, afin de créer un fond d'ancrage.

Pour des parcloses en acier inoxydable sans polissage, l'utilisation de couches de fond et / ou un ponçage ou sablage est conseillé pour obtenir un aspect rugueux .

General processing guidelines

As pretreatment, we recommend the Sweep method (see the preliminary remarks). Manual cleaning with a suitable degreasing liquid such as „Lesonal" is possible under controlled conditions. Proceed with care when using this pretreatment method in order not to degrade the coating quality.

General notice:

Provide for an incorporate suitable surface protection during the surface treatment process after welding and grinding the elements, to safeguard them temporarily (for the storage and during the transportation of the elements after production).

Steel- and aluminium glazing beads:
no restrictions with regard to pre-treatment and coating.

The profiles must be protected from water in any shape or form (rain, condensation, etc.) until the coating process has taken place. In the case of powder coating, it must be borne in mind that inappropriate storage may result in excessive water content, causing a slightly blistered appearance (pin holes) on the visible surfaces in the insulation area. This can be minimised by drying the profiles beforehand in a forced-air oven and adding a retarding agent to the powder.

Stainless steel profiles are delivered with a raw insulator surface. Should the insulator be coated, it must be uniformly powder-blasted with angular grain to provide a basic anchoring surface.

For stainless steel glazing beads without polish we recommend using primers and/ or roughing by means of grinding or sand blasting.

Allgemeine Verarbeitungsrichtlinien

7 Verglasung und Füllungen

Die Verglasung von Glasscheiben und Füllungen ist nach DIN 18 361-Verglasungsarbeiten vorzunehmen. Zu beachten sind die Verglasungsrichtlinien der Glashersteller. Weiter empfehlen wir die "Informationsschriften" des Instituts des Glashandwerks für Verglasungstechnik und Fensterbau, D-65589 Hadamar.

Zur verbesserten Krafteinleitung empfehlen wir, die unteren Tragklötze zusätzlich durch seitlich angeschweisste Stahlauflagen zu unterlegen (siehe Skizze).

Directives relatives à la mise en œuvre

7 Vitrage et remplissages

Le vitrage de vitres et de remplissages doit être effectué selon la DIN 18 361- Travaux de vitrage. Il faut tenir compte des directives en matière de vitrage des fabricants de verres. Nous recommandons par ailleurs les «brochures d'informations» de l'Institut des professions du verre pour la technique de vitrages et la construction de fenêtres, D-65589 Hadamar.

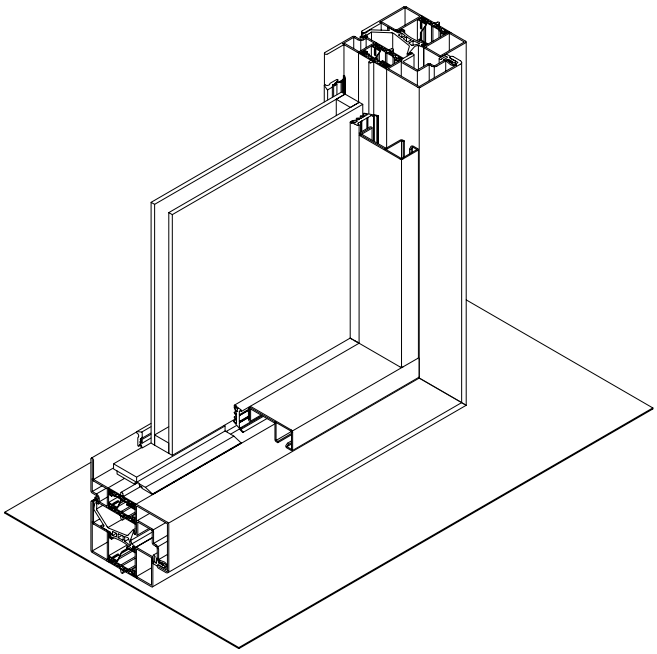
Pour améliorer l'introduction de la force, nous recommandons de renforcer en sus les cales d'assise inférieures en plaçant dessous des supports en acier soudés latéralement (voir croquis).

General processing guidelines

7 Glazing and panel infills

Carry out glazing and the insertion of panel infills according to DIN 18 361-glazing. Pay particular attention to the glazing instructions of the glass manufacturer. We also recommend the "Information documentation" of the Institut des Glashandwerks für Verglasungstechnik und Fensterbau, D-65589 Hadamar.

To improve the distribution of forces we recommend reinforcing the bottom glazing supports by additional steel supports welded on at the side (see sketch).



Allgemeine Verarbeitungsrichtlinien

Teilschritte der Trockenverglasung (mit Falzentspannung zur Aussenseite):

- Reinigung des Glasfalzes
- Aufkleben der Verglasungsdichtung Art. Nr. 985302, 905712, 985702 an die Profillappen (unmittelbar vor dem Glaseinsatz)
- Entfernen der Schutzfolie
- Die Benetzung des Butylbandes mit Wasser-Sprüher erleichtert die genaue Positionierung des Glaselementes. Ohne Spül-Zusätze! Kein Seifenwasser verwenden!
- Positionieren der Tragklötze auf Stahlauflagen (siehe Skizze)
- Glaselement einsetzen und gemäss Verklotzungsrichtlinien spannungsfrei verklotzen.
- Einklipsen der Glashalteleisten
- Nach Austrocknen des Wassers baut sich der Klebeverbund zwischen Glas und Dichtungsprofil wieder auf.
- Eindrücken der auf Gehrung zugeschnittenen oder um die Ecke gezogenen inneren Verglasungsdichtung Art. Nr. 905385-387, 905784-786 (Zuschnitt mit 1% Längenzuschlag)

Teilschritte Nassverglasung (ohne Falzentspannung zur Aussenseite):

- Reinigung des Glasfalzes
- Vor dem Einsatz: Reinigen der Glasfälze, inkl. Glashalteleisten
- Aufkleben der Vorlegebänder (Lappen + Glashalteleisten) (988002-006, 948003-010)
- Positionieren der Tragklötze auf Aluauflagen 986701-702 (siehe Skizze)
- Glaselement einsetzen und gemäss Verklotzungsrichtlinien spannungsfrei verklotzen.
- Einklipsen der Glashalteleisten
- Einbringen der Dichtungsmasse
- Glätten der Dichtungsmasse

Directives relatives à la mise en œuvre

Phases partielles du vitrage à sec (avec décompression de la feuillure par rapport à la face extérieure) :

- Nettoyage de la feuillure de verre
- Collage du joint de vitrage (art. no. 985302, 905712, 985702) contre les battues du profilé (immédiatement avant l'insertion du verre)
- Enlèvement de la feuille de protection
- L'humidification de la bande en butyle avec un vaporisateur d'eau facilite le positionnement précis de l'élément en verre. Sans additifs de rinçage ! N'utiliser aucune eau savonneuse !
- Positionnement des cales d'assise sur des supports en acier (voir croquis)
- Insertion de l'élément en verre et calage exempt de contrainte selon directives pour le calage.
- Clipser les parcloses
- Après le séchage de l'eau, l'assemblage collé entre le verre et le joint d'étanchéité profilé se reconstitue.
- Enfoncement du joint de vitrage intérieur sur l'onglet coupé - art. no. 905385-387, 905784-786 (coupe avec dans la longueur un surplus de 1%)

Phases partielles du vitrage au silicone (sans décompression de la feuillure par rapport à la face extérieure) :

- Nettoyage de la feuillure de verre
- Avant l'insertion : nettoyage des feuillures de verre, y incl. parcloses
- Collage des bandes d'écartement (languettes + parcloses) (988002-006, 948003-010)
- Positionnement des cales d'assise sur des supports en alu 986701-702 (voir croquis)
- Insertion de l'élément en verre et calage exempt de contrainte selon directives pour le calage.
- Clipser les parcloses
- Introduire la masse à étancher
- Égaliser la masse à étancher
- Égaliser la masse à étancher

General processing guidelines

Steps in dry glazing (with rebate relief on the outside):

- Clean the glazing groove
- Stick the glazing gasket (art. no. 985302, 905712, 985702) onto the profile lip (immediately before inserting the glass)
- Remove the protective foil
- Spraying the butyl strip with water makes it easier to position the glass element more precisely. Without rinsing additive. Do not use soapy water.
- Position the glazing supports on steel supports (see sketch)
- Insert glass and cushion it without stress according to instructions.
- Clip glazing beads in place.
- When the water has dried up, the adhesive bond between glass and weatherstripping forms again.
- Press the inner glazing weatherstripping (mitred) art. no. 905385-387, 905784-786 into place. (Allow 1% extra length when cutting to size)

Steps in wet glazing (without rebate run-off towards outside):

- Clean the glass rebate
- Before inserting glass: clean the glass rebates incl. glazing beads
- Stick packing strips in place (lips + glazing beads) (988002-006, 948003-010)
- Position the glazing supports on the alu supports 986701-702 (see sketch)
- Insert glass element and cushion it without stress according to instructions.
- Clip glazing beads in place.
- Apply sealing compound.
- Smooth sealing compound.

Allgemeine Verarbeitungsrichtlinien

8 Bauliche Gegebenheiten / Statische Erfordernisse

Sämtliche Elemente, einschliesslich der Verbindungselemente, müssen alle auf sie einwirkenden Kräfte aufnehmen und an die Tragwerke des Baukörpers abgeben können. Die Verbindungen und Befestigungen müssen so konstruiert sein, dass ein Toleranzausgleich gegenüber dem Rohbau möglich ist.

Wir möchten darauf hinweisen, dass die jeweils gültigen länderspezifischen Normen und Richtlinien (z.B. SIA, DIN, SZFF) zur Anwendung gebracht werden müssen.

9 Funktionstüchtigkeit / Wartung

Bewegliche Beschläge müssen gewartet werden, damit sich der Verschleiss sowie deren Korrosionsanfälligkeit reduziert. Die Intervalle der Reinigung und Pflege sind vom Ausmass der chemischen und mechanischen Belastung der Umgebung abhängig. Sie sind jedoch jährlich mindestens 1 x durchzuführen.

Wartungsarbeiten bei grösseren Objekten und bei öffentlichen Bauten gehören in die Hand des Fachmanns. Hier kann der Verarbeiter durch den Abschluss eines Wartungsvertrages mit der Bauherrschaft sicherstellen, dass die Qualität seiner Arbeit über einen langen Nutzungszeitraum zur Zufriedenheit des Kunden erhalten bleibt.

Directives relatives à la mise en œuvre

8 Données de construction / exigences statiques

Tous les éléments, y inclus les raccords, doivent absorber toutes les forces agissant sur eux et pouvoir les diffuser aux structures porteuses du corps de construction. Les raccords et les fixations doivent être construits de sorte à ce qu'une compensation de tolérances latérales soit possible par rapport au gros œuvre.

Nous signalons que les normes et directives respectives en vigueur dans les divers pays et spécifiques à ceux-ci (telles que SIA, DIN, CSFF) doivent être appliquées.

9 Aptitude de fonctionnement / maintenance

Des ferrements mobiles doivent être entretenus, afin que l'usure ainsi que leur sensibilité à la corrosion se réduisent. Les intervalles du nettoyage et de l'entretien dépendent de l'étendue de la sollicitation chimique et mécanique de l'environnement. Ils doivent toutefois au moins être effectués une fois par an.

Des travaux de maintenance dans des ouvrages assez grands et dans des bâtiments publics doivent être confiés au spécialiste. En concluant un contrat de maintenance avec le maître d'ouvrage, le façonnier peut en l'occurrence garantir que la qualité de son travail soit maintenue durant une longue période d'utilisation, à l'entière satisfaction du client.

General processing guidelines

8 Structural conditions / static requirements

All elements, including connecting parts, must be able to absorb the forces likely to affect them and transmit these to the supporting system of the structure. The connections and fastenings must be constructed in such a way that tolerance compensation is possible in relation to the shell.

We would like to point out that the national standards and directives in force in the country concerned (e.g. SIA, DIN, SZFF) must be applied.

9 Operational efficiency / maintenance

Mobile fittings have to be maintained in order to keep down wear and tear as well as reduce susceptibility to corrosion. The intervals between cleaning and maintenance jobs depend on the extent of chemical and mechanical environmental stress. However, they should be carried out at least once a year.

Maintenance work on large structures and in public buildings is a job for the expert. In these cases, the processing company can conclude a contract with the building sponsor or owner to ensure that the quality of the work is performed to the satisfaction of the client over a long period of time.

Allgemeine Verarbeitungsrichtlinien

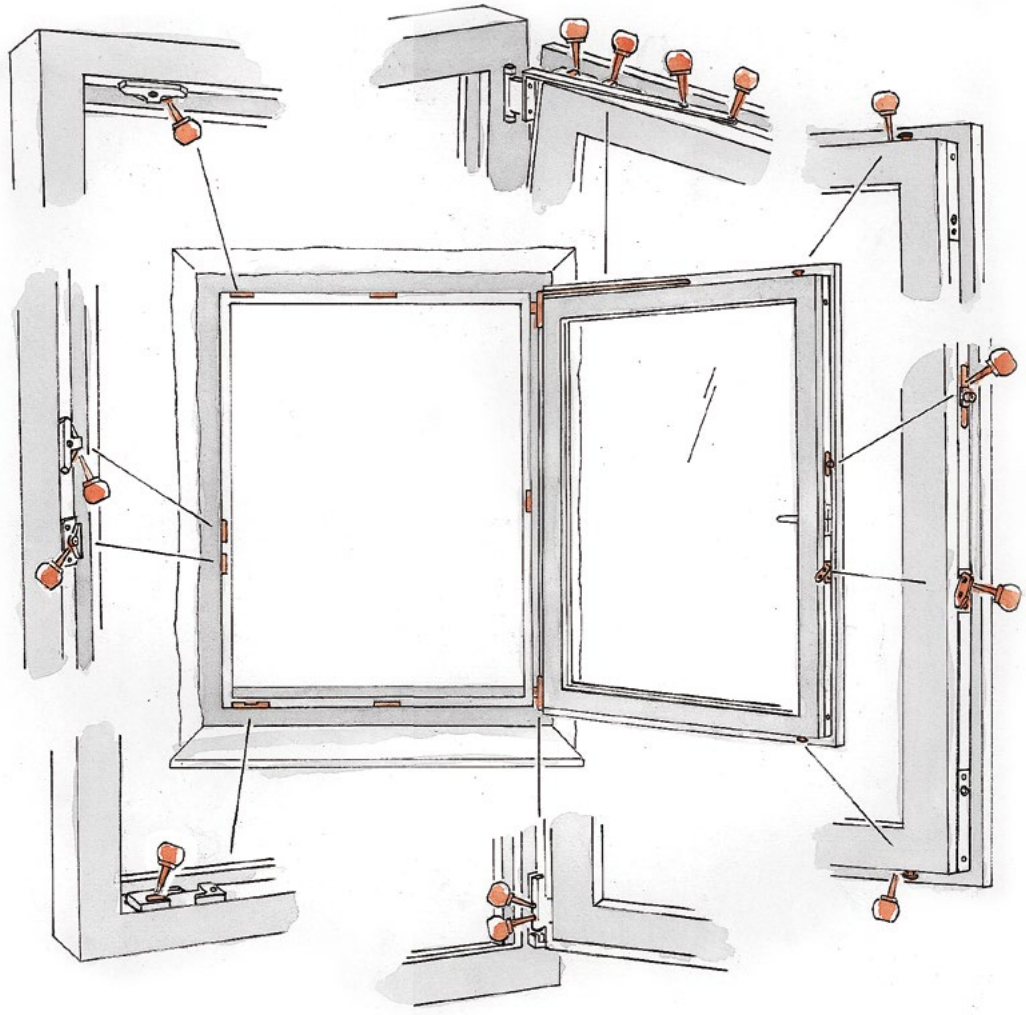
Wartungsanleitung funktionsrelevanter Bauteile des Fensterbeschlages

Directives relatives à la mise en œuvre

Instructions d'entretien pour les pièces ayant un impact sur le fonctionnement de la quincaillerie de la fenêtre

General processing guidelines

Maintenance instructions of function relevant components of the window fittings



Durch regelmässiges Fetten und Ölen* (mind. 1x jährlich) aller funktionsrelevanten Bauteile in Flügel und Rahmen erhalten Sie sich die Leichtgängigkeit Ihrer Forster-Beschläge und schützen Sie vor vorzeitigem Verschleiss. Sicherheitsschliessstücke aus Stahl erfordern ständiges Einfetten, um unnötigen Abrieb zu vermeiden. Darüber hinaus ist der Sitz der einzelnen Schrauben zu überprüfen. Eventuell gelockerte Schrauben oder abgerissene Schraubenköpfe sind umgehend anzuziehen oder zu erneuern.

Un graissage et une lubrification* réguliers (au moins 1x par an) de toutes les pièces ayant un impact sur le fonctionnement dans le vantail et le cadre garantissent une mobilité durable de la quincaillerie Forster et freinent l'usure. Les gâches de sécurité en acier exigent un graissage permanent pour ne pas s'user. Par ailleurs il faut contrôler la fixation des vis. Serrer les vis mal serrées et remplacer les têtes de vis arrachées immédiatement.

Regular greasing and lubrication* (min. 1x annually) of all function relevant components in leaves and frames maintains the easy moving characteristics of your Forster-fittings and protect them against premature wear. Safety strikers made of steel, require constant lubrication to prevent unnecessary abrasion. Moreover, the fit and seat of individual screws must be checked. Loose screws or torn off screw heads must be tightened or replaced immediately

* Verwenden Sie hierzu bitte säure- und harzfreies Fett bzw. Öl aus dem Fachhandel.

* Utiliser à cet effet une graisse ou une huile exempte d'acide et de résine disponible dans le commerce.

* Use acid and non-resinous commercial greases or lubricants

Allgemeine Verarbeitungsrichtlinien

Detaillierte Informationen und Dokumente zur Inbetriebnahme und Wartung stehen auf unserer Website www.forster-profile.ch zur Verfügung.



- Montage- und Wartungsanleitung für Fenster und Türen



- Ergänzende Montage- und Wartungsanleitung für Feuer- und Rauchschutzabschlüsse



- Bedienungs- und Sicherheitsanleitung für Fenster und Türen

Directives relatives à la mise en œuvre

Des informations détaillées et des documents pour la mise en service et la maintenance sont disponibles sur notre site web www.forster-profile.ch.



- Instructions de montage et de maintenance pour fenêtres et portes



- Instructions complémentaires de montage et de maintenance pour cloisons coupe-feux et pare-flammes



- Instructions d'emploi et de sécurité pour fenêtres et portes

General processing guidelines

Detailed information and documents to commissioning and maintenance are available on our website www.forster-profile.ch.



- Installation and maintenance instructions for windows and doors



- Additional installation and maintenance instructions for fire and smoke protection closures

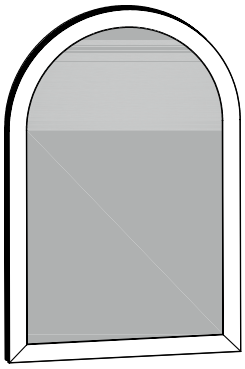


- Operating and safety manual for windows and doors

Biegeradien
Rahmenprofile

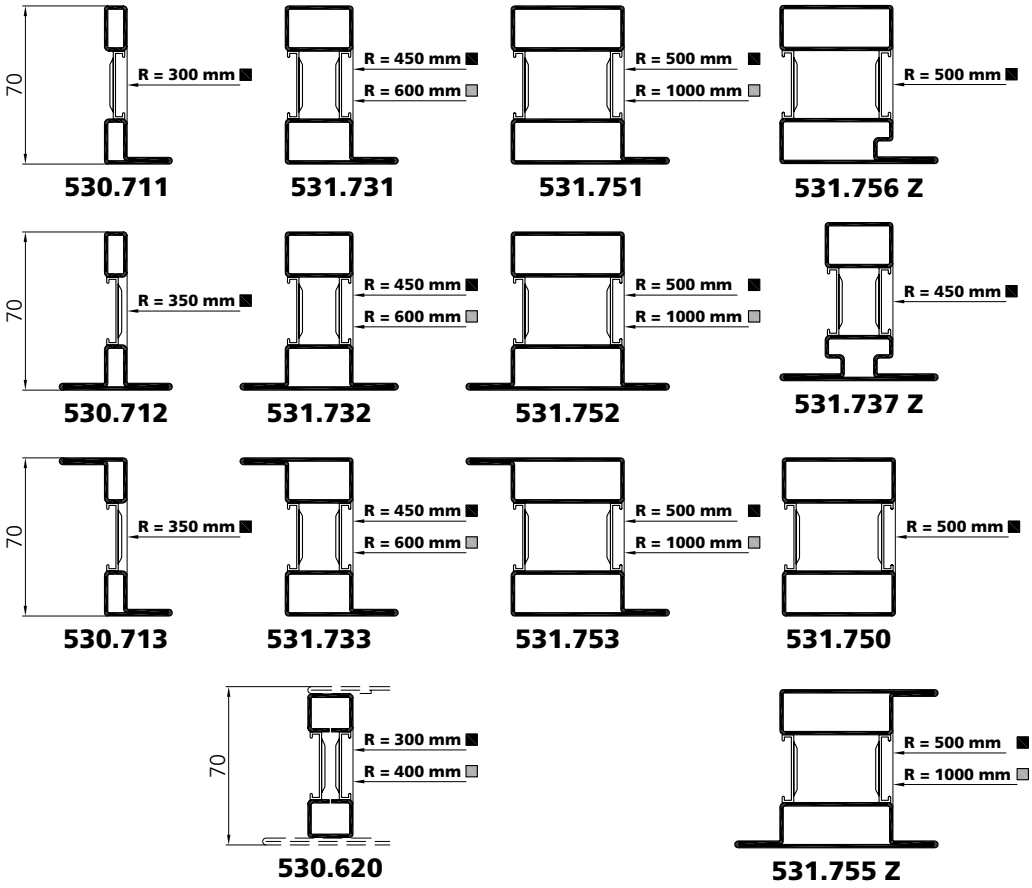
Rayon de cintrage
Profilés du cadre

Bending radius
Frame profiles



Stahl / Acier / Steel

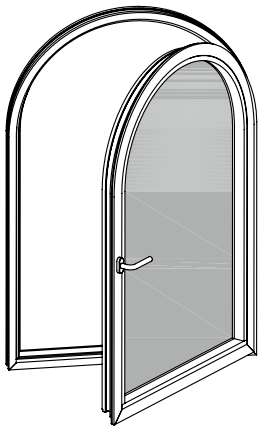
Edelstahl / Acier inox / Stainless steel



Biegeradien
Tür- und Fensterflügel

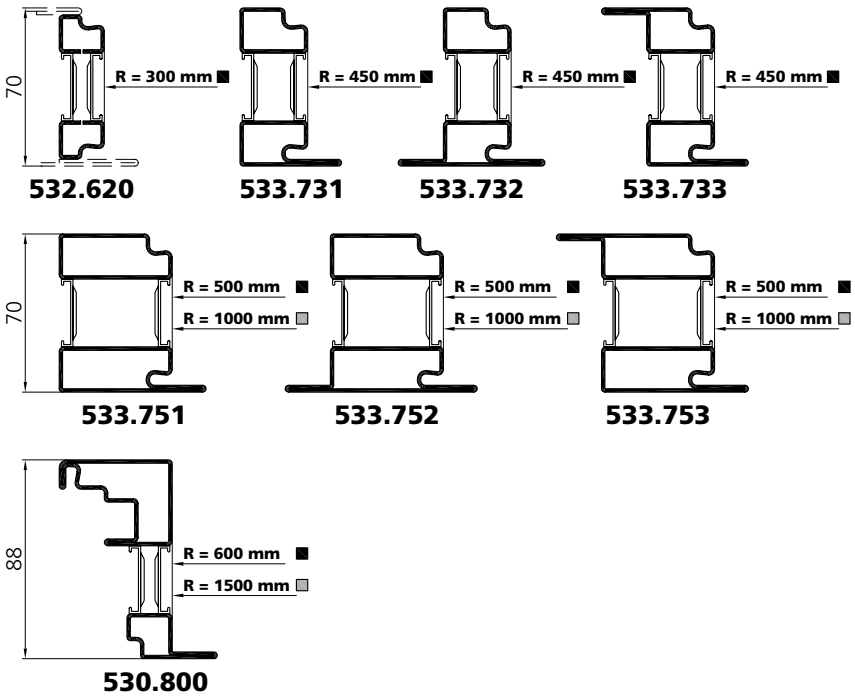
Rayon de cintrage
Vantaux de portes et fenêtres

Bending radius
Door and window leaves



Stahl / Acier / Steel

Edelstahl / Acier inox / Stainless steel



Biegen

1
Halbschalen mit Sand füllen, zwischen den Halbschalen mit druckfestem Kunststoff ausfüllen

biegen

2 + 3
Sand und druckfester Kunststoff entfernen

Cintrage

1
Remplir les demi-coques de sable, mettre de la matière plastique résistante à la pression entre les demi-coques

courber

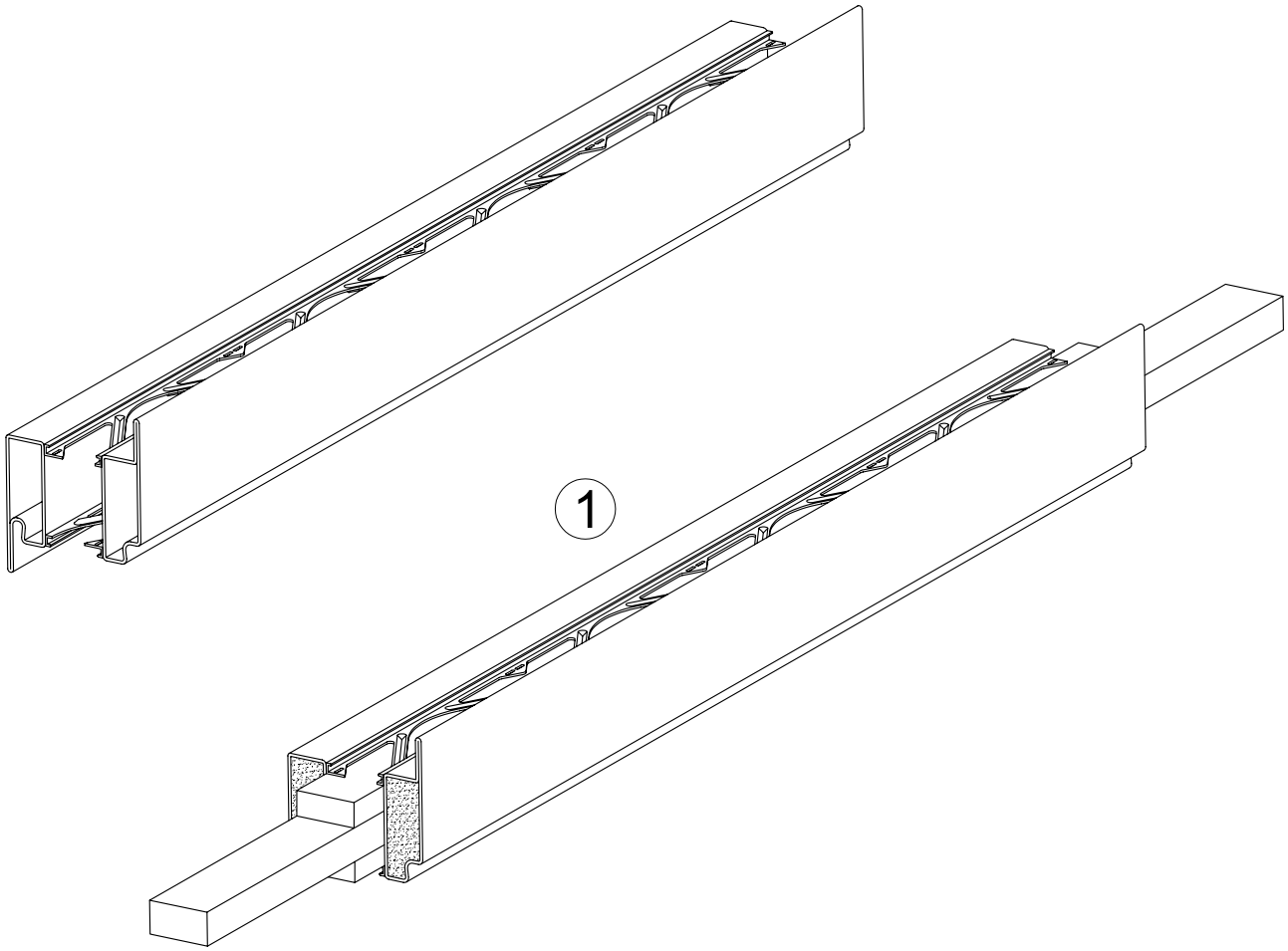
2 + 3
Enlever le sable et la matière plastique résistante à la pression

Bending

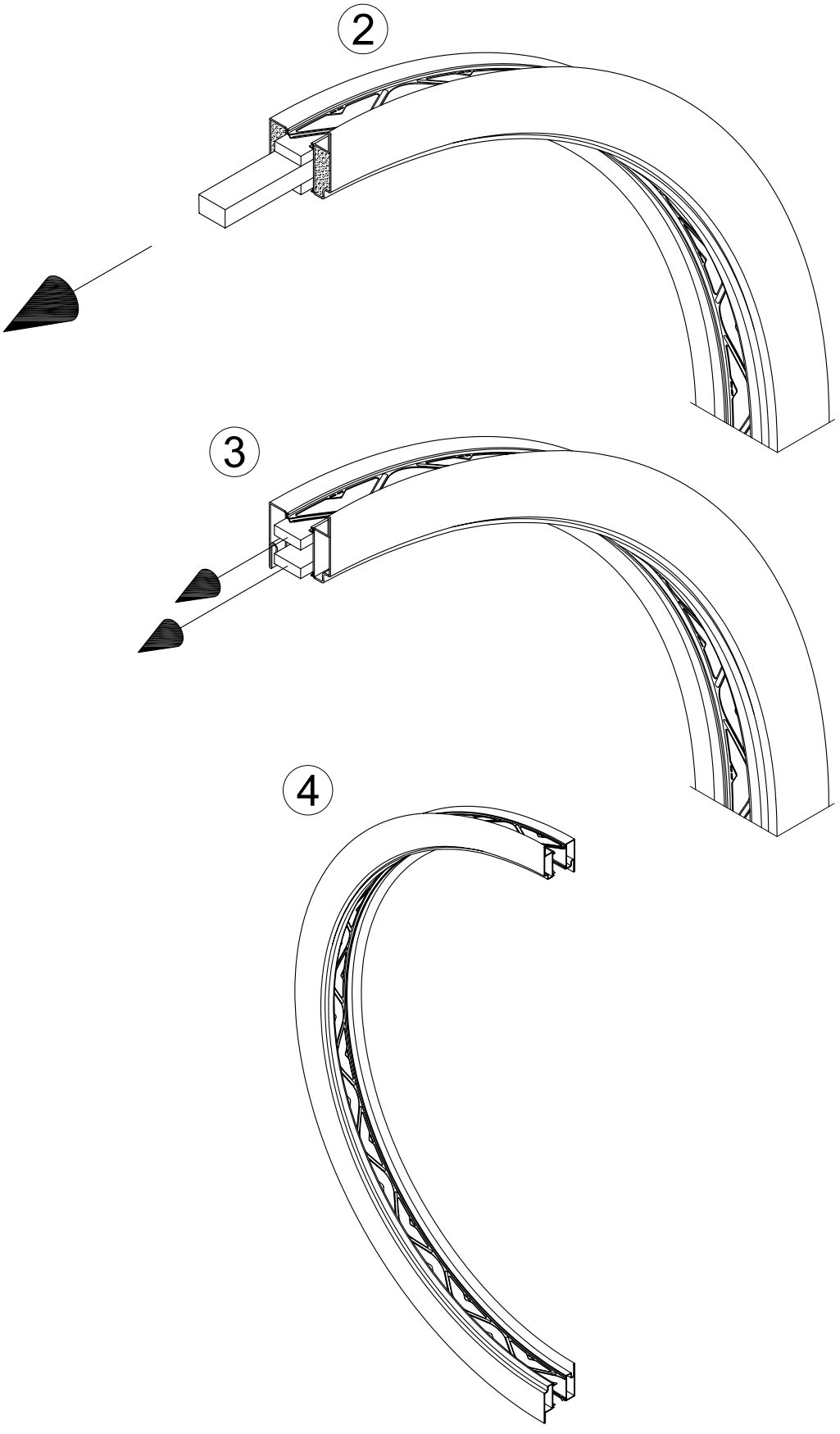
1
Fill the spherical shells with sand, fill pressure proof plastic in-between the spherical shells

bend

2 + 3
Remove the sand and the pressure proof plastic



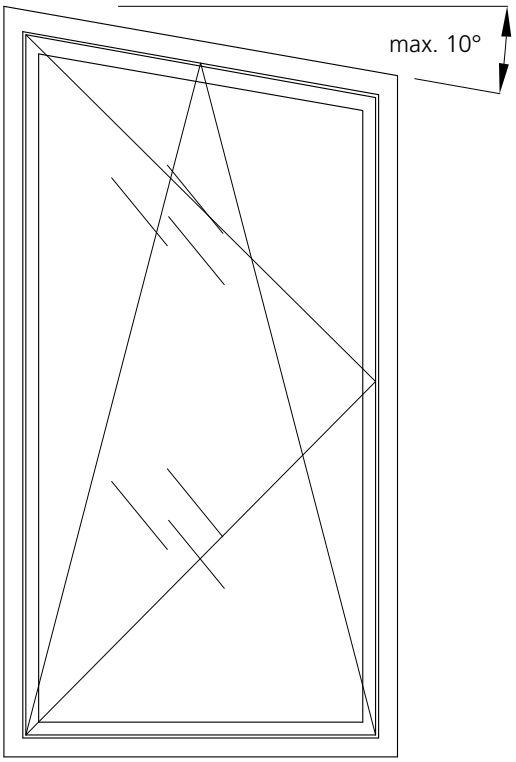
Biegen **Cintrage** **Bending**

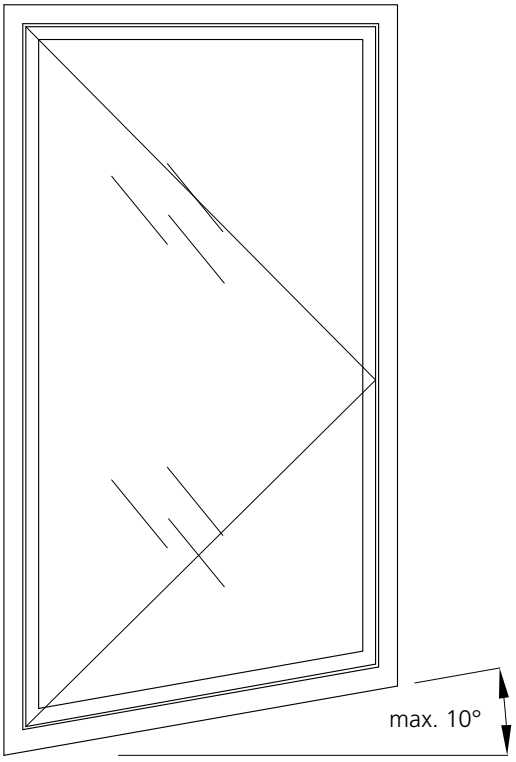


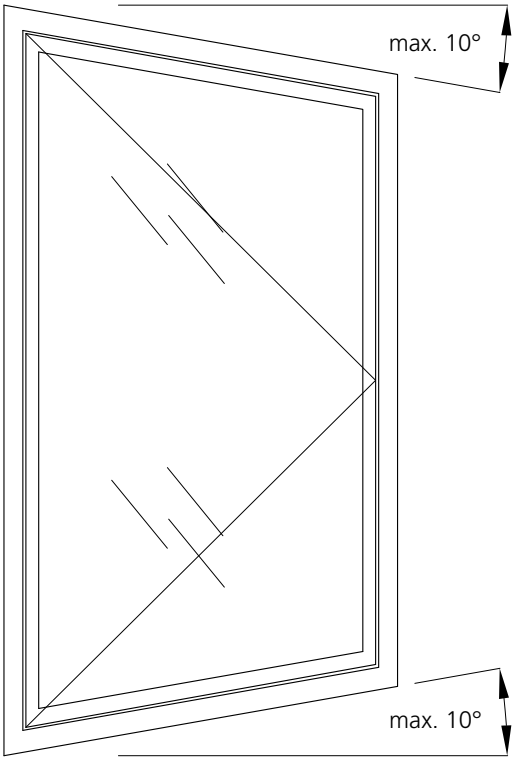
Schrägfenster

Fenêtres asymétriques

Angled windows







Bei diesen Geometrien können Dichtungen, Zubehör und Beschläge aus dem Standard-Sortiment verwendet werden.

Pour cette géométrie, on peut utiliser les joints, les accessoires et la quincaillerie de la gamme standard.

For these shapes, standard weatherstrippings, accessories and fittings can be used.

Allgemeine Hinweise

Die Forster-Profilstahlrohr-Serien und das entsprechende Zubehör sind für unterschiedliche Anwendungsmöglichkeiten im Metall- und Fassadenbau entwickelt. Die Serien sind bestimmt für die Verarbeitung durch Fachbetriebe des Metallbaus, der Fensterherstellung und dergleichen, welche vertraut sind mit den anerkannten Regeln der Technik, insbesondere auf dem Gebiet des Metall-, Türen-, Fenster- und Fassadenbaus und bei denen die Kenntnisse aller einschlägigen Normen, Richtlinien und Verarbeitungshinweise der Profillieferanten vorausgesetzt werden kann.

Alle von uns herausgegebenen Unterlagen, die sich mit der Kombination, dem Zusammenbau, der Anordnung, Verarbeitung, Veredelung und Montage der angebotenen Artikel befassen, sind freiwillige Dienstleistungen, die dem Facharbeiter Anregungen und Vorschläge bieten sollen oder aber einen Bericht über bereits ausgeführte Kombinationen und Anlagen zum Inhalt haben. Dabei muss der Facharbeiter bei Benutzung solcher Unterlagen stets selber kritisch prüfen, ob die hier gemachten Vorschläge für seinen Fall in jeder Hinsicht geeignet und zutreffend sind, da die Vielzahl der in der Praxis vorkommenden Einbau- und Belastungsfälle in derartigen Unterlagen nicht erfasst werden kann.

Généralités

Les séries de profilés en acier Forster et les accessoires correspondants sont développés en vue d'offrir diverses possibilités d'applications pour les constructions métalliques et les façades. Ces séries sont destinées à la mise en œuvre par des entreprises spécialisées dans la construction métallique, la fabrication de fenêtres et autres secteurs similaires, et qui connaissent les règles reconnues de la technique, notamment dans le domaine de la construction de portes, fenêtres et façades métalliques, et qui disposent des connaissances nécessaires sur toutes les normes, directives et indications de mise en œuvre applicables des fournisseurs de profilés.

Tous les documents publiés par nos soins et qui portent sur les possibilités de combinaison, l'assemblage, l'implantation, la mise en œuvre, la finition et le montage des articles que nous proposons, constituent des prestations de plein gré censées fournir au spécialiste des suggestions et des solutions ou rendre compte des combinaisons et installations déjà réalisées. En utilisant cette documentation, le spécialiste devra toujours l'examiner de manière critique et vérifier que les propositions qu'elle présente sont bien pertinentes et adaptées à son propre cas à tous égards, car il est impossible de résumer dans une documentation de ce type la multitude des cas de figure rencontrés dans la pratique tant en termes d'installations que de sollicitations.

General advice

Forster's series of profiled steel sections and the corresponding accessories have been developed for a wide range of applications in the manufacture of metal structures and façades. These series are designed for processing by specialist firms in the metal-working industry, window construction and similar, who are familiar with the appropriate technical standards, particularly in the field of metal working, door, window and façade construction and where an adequate knowledge of all relevant standards, directives and suppliers' processing instructions can safely be assumed.

All the documentation published by us concerning the combination, erection, arrangement, processing, refinement and assembly of the articles on offer are voluntary services intended as suggestions and ideas for the expert, or else represent a report on combinations and installations already assembled. In all cases when using this documentation, the expert must always critically study whether the suggestions and ideas are suitable and appropriate for the case in point, since loads and stresses vary so greatly that it is impossible in this kind of documentation to cover every eventuality occurring in practice.

Allgemeine Hinweise

Technische Beratung bei Planung und Projektierung

Die kostenlose technische Beratung bei Planung und Projektierung sind weder als Haupt- noch als Nebenpflicht Gegenstand unserer Angebotes bzw. des Kaufvertrages. Die Forster Profilsysteme AG hat diesbezüglich keinen Rechtsbindungswillen.

Alle Anregungen, Ausschreibungs-, Konstruktions- und Einbauvorschläge, statische Berechnungen, Materialkalkulationen, etc., die im Rahmen der Beratung und Diskussion, in Skizzenform, Zeichnungen, Schriftwechsel oder Ausarbeitung von Mitarbeitern unseres Hauses gemacht werden, erfolgen nach bestem Wissen und sind als kostenlose und unverbindliche Dienstleistung zu verstehen, für die wir keine Haftung übernehmen. Die Planungshoheit liegt jederzeit ausschliesslich beim Bauherrn und Architekten. Bauseitige Vorgaben werden durch die Forster Profilsysteme AG nicht geprüft.

Werden verbindliche Auskünfte erwünscht, insbesondere über den Einbau der Elemente und über bauphysikalische Probleme, wie z. B. Statik, Befestigung, Wärme-, Feuchtigkeits-, Brand-, Rauch- oder Schallschutz, etc. oder über den Einbau von Komponenten anderer Hersteller in den Fassaden- bzw. Metallbaukonstruktionen von Forster Profilsysteme AG muss ein gesonderter entgeltlicher Beratervertrag in schriftlicher Form abgeschlossen werden.

Généralités

Conseil technique lors de la planification et de l'établissement du projet

Le conseil technique gratuit fourni lors de la planification et de l'établissement du projet ne constitue ni une obligation principale ni une obligation secondaire de notre offre ou du contrat de vente. Forster Systèmes de profilés SA n'exprime pas la volonté de se lier juridiquement à ce sujet.

Toutes les idées, propositions de soumission, de construction et de montage, de même que tous les calculs statiques, calculs de matériel, etc. fournis par nos collaborateurs dans le cadre des prestations de conseil ou discussions, sous forme de croquis, de dessins, de correspondance ou d'une étude, sont donnés en toute bonne foi et s'entendent comme service gratuit non contractuel pour lequel nous déclinons toute responsabilité. A tout moment, la planification relève exclusivement des compétences du maître de l'ouvrage et de l'architecte. Forster Systèmes de profilés SA ne contrôle pas les exigences incombant à ces autorités.

La demande de renseignements contractuels, notamment en relation avec le montage des éléments et les questions relatives à la physique des constructions, comme la statique, la fixation, la protection contre la chaleur, l'humidité, le feu ou le bruit, etc. ou concernant le montage de composants d'autres fabricants dans les façades ou les constructions métalliques de Forster Systèmes de profilés SA exige la conclusion d'un contrat de conseil payant établi séparément par écrit.

General advice

Technical support in planning and project work

Free of charge technical consultation during planning and project preparation does not form part of our quotation or contract of sale as either a primary or secondary obligation. Forster Profile Systems Ltd. has no intention to create legal relations in this regard.

All ideas, suggestions for tender, design and installation, static calculations, material calculations, etc. provided within the context of consultation and discussion, in the form of sketches, drawings, correspondence or plans drawn up by our employees are made to the best of our knowledge and ability and shall be considered a free of charge service without any obligation for which we do not accept any liability. The responsibility for the planning lies at all times exclusively with the builder and architect. On-site plans will not be verified by Forster Profile Systems Ltd.

A separate consultancy contract involving payment must be concluded in the written form if information of a binding nature is required, especially with regard to the installation of the elements and the building physics involved in problems such as static calculations, fastenings, thermal insulation, waterproofing, fire, smoke and sound protection, etc. or to the installation of components from other manufacturers in the façades or metal structures from Forster Profile Systems Ltd.

Allgemeine Hinweise

Gewährleistung

Sofern nicht schriftlich eine andere Vereinbarung getroffen wird, besteht eine Gewährleistung der Forster Profilsysteme AG lediglich im Rahmen der dem Käufer bekannten „Allgemeinen Verkaufs- und Lieferbedingungen der Forster Profilsysteme AG".

Voraussetzung ist in jedem Fall die ausschliessliche Verwendung von Original-Konstruktionsteilen (Profile, Zubehör, Beschläge) aus dem jeweils gültigen Forster-Lieferprogramm. Für Mängel, welche aus der Verwendung von anderen Artikeln als Forster-Original-Artikeln herrühren, wird jede Haftung abgelehnt. Werden nicht Original-Konstruktionsteile zur Anwendung gebracht, verlieren die an Forster verliehenen Prüfzeugnisse und Atteste für derartig ausgeführte Konstruktionen ihre Gültigkeit.

Hinweis

Die Aktualität, Vollständigkeit oder Qualität der Inhalte wird nicht gewährleistet. Wir behalten uns vor, den technischen Inhalt ohne Vorankündigung ganz oder teilweise zu ändern. Für Schäden irgendwelcher Art, die aufgrund der Verwendung der Informationen in diesem Dokument oder aufgrund deren Unvollständigkeit entstehen, wird keinerlei Haftung übernommen.

Die Nichtbeachtung der jeweils aktuellen auf der Herstellerhomepage abrufbaren produktspezifischen sowie allgemeinen Informationen, insbesondere betreffend bestimmungsgemässe Verwendung, Sicherheitsbestimmungen, Produktleistung und -wartung sowie Informations- und Instruktionspflichten, entbindet den Hersteller von seiner Produkthaftung.

Généralités

Garantie

Dans la mesure où aucune autre convention par écrit n'a été passée, la garantie de la société Forster Systèmes de profilés SA n'est applicable que dans le cadre des «Conditions générales de vente et de livraison de Forster Systèmes de profilés SA», qui sont connues de l'acheteur.

Cela suppose dans chaque cas l'utilisation exclusive d'éléments de construction d'origine (profilés, accessoires, quincailleries) provenant du programme de fournitures Forster respectivement applicable. Toute responsabilité est déclinée dans le cas de vices résultant de l'utilisation de tout autre article que les éléments d'origine Forster. Dans l'éventualité où les éléments utilisés ne sont pas des pièces de construction d'origine, les certificats d'essais et attestations attribués à Forster pour les constructions de ce type perdent toute validité.

Remarque

Nous ne garantissons pas l'actualité, l'exhaustivité ou la qualité des contenus. Nous nous réservons le droit de modifier le contenu technique, en partie ou en totalité, sans préavis. Nous déclinons toute responsabilité pour les dommages de quelque nature que ce soit, résultant de l'utilisation des informations contenues dans le présent document ou de leur caractère incomplet.

Le non-respect des informations spécifiques aux produits et générales qui sont consultables sur le site du fabricant dans leur version actualisée, en particulier concernant l'utilisation conforme aux dispositions, les consignes de sécurité, les caractéristiques et l'entretien du produit, de même que les obligations d'informations et d'instructions, dégage le fabricant de sa responsabilité du fait des produits.

General advice

Warranty

Unless a written agreement on the contrary has been concluded, the warranty granted by Forster Profile Systems Ltd. applies solely to the extent of the "General Conditions of Sale and Delivery of Forster Profile Systems Ltd." with which the customer is already familiar.

In all cases the warranty only applies provided that original construction parts (profiles, accessories, fittings) are used from the currently valid Forster range. All liability is declined for any damage arising from the use of articles other than Forster original articles. If articles other than Forster original articles are used, test certificates and attestations granted to Foster for constructions built using such articles are deemed to be invalid.

Note

The up-to-dateness, completeness or quality of the contents are not guaranteed. We reserve the right to make technical alterations in the content wholly or partially with no prior notice. We are not liable for damages of any kind, which arise from the use of the information in this document or on the basis of its incompleteness.

The non-observance of the information on the home page of the manufacturer which is currently retrievable, specific for the product, as well as general, in particular with regard to the use for the purpose intended, safety regulations, product performance, product maintenance as well as the duty to inform and instruct, releases the manufacturer from his liability for his product.

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Schweiz

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Plasma-Oberflächentechnik • Materialphysik
Metallkunde • Metallographie
Analytik • Umweltanalytik

Datum 08.12.06
Zeichen 7K06233/JKd
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UNTERSUCHUNGSBERICHT

(Auszug)

Betr.: Qualifizierung von Laserschweißverbindungen für unico-Systemprofile

AUFTRAGSNUMMER: 7K06233

Eingegangen am: 22.09.2006 Probenahme durch: Auftraggeber

Datum der Prüfung: 25.09. – 17.11.2006 Probe(n) für die Prüfung geeignet

Beschreibung und Bezeichnung der Probe(n)
Etwa 25 cm lange Abschnitte lasergeschweißter Fensterrahmenprofile (im Bereich der vorgesehenen Schweißnaht entzinkter Baustahl verschweißt mit rostbeständigem Stahl => „Schwarz-Weiß-Verbindung")

Beschreibung des Untersuchungsauftrags
Metallkundlich metallurgische Qualifizierung der Fügungen im Hinblick auf deren Güte sowie im Hinblick auf deren voraussichtliches Korrosionsverhalten

Bezeichnung und Beschreibung der durchgeführten Untersuchungsverfahren
Schliff SOP 7-MET-9201
Strauß-Test an Schliffen angelehnt an DIN 50914:1996 und DIN EN ISO 3651-2:1998*
24-stündiger Korrosionstest an polierten Schliffen mit dem Kühlschmierstoff CUTOL MS*
* = nicht akkreditierte Prüfverfahren

Mitteilungen des Auftraggebers/Motivation für die **fem**-Untersuchungen

Der Auftraggeber als Hersteller u.a. von lasergeschweißten Metallverbindungen wandte sich an das **fem**, um die metallurgische Qualität spezieller Laserfügungen ermitteln zu lassen, die aufgrund der angestrebten Materialpaarung allgemein als kritisch angesehen werden. Zur Sicherstellung einer eingeschränkten thermischen Leitfähigkeit (i.S. der Bildung sog. Kältebrücken), d.h. also einer ausreichenden thermischen Isolation bei stahltypisch guter mechanischer Festigkeit, wurden Schweißproben zwischen verschiedenen Materialpaarungen mittels Laserschweißung hergestellt und als ca. 25 cm lange Profile ins **fem** eingeliefert.

Laut Auftraggeberangabe soll folgende Materialpaarung vorliegen:
Fügung von partiell entzinktem Baustahl (1.0332) mit rostbeständigem Stahl (1.4301)
=> „Schwarz-Weiß-Verbindung"

Interpretation der Untersuchungsergebnisse

Die im **fem** durchgeführten Untersuchungen an den eingelieferten lasergeschweißten Fensterrahmenprofilen führen zu folgender Interpretation für die Schweißverbindung CrNi-Stahl/Baustahl (blank, d.h. mit zuvor entfernter Zinkschicht im Schweißnahtbereich):

1. Im Vermischungsbereich der gefügten Schweißnaht der beteiligten Fügepartner aus Baustahl und aus CrNi-Stahl konnten keine metallurgischen Fehlstellen nachgewiesen werden, von denen zu erwarten ist, dass sie die Festigkeitseigenschaften des Gesamtbauteils beeinflussen können.

2. Das Ätzverhalten der getesteten metallographischen Schliffe lässt sich dahingehend interpretieren, dass sich der Ätzangriff im Sinne einer Korrosion auf das schlechtere Korrosionsverhalten des an der Fügung beteiligten Baustahls sowie auf dessen Anteile im Vermischungsbereich der gefügten Schweißnaht beschränkt. Die Schweißnaht als solche weist aufgrund der metallurgischen Vermischung der beiden Stähle somit dort stets eine höhere Widerstandsfähigkeit gegen Korrosion auf als der an der Fügung beteiligte Baustahl, wo es sich um nahezu unverändert erhalten gebliebenen CrNi-Stahl handelt. Der am metallographischen Schliff getestete Kühlschmierstoff bewirkt weder am Fügepartner aus Baustahl noch am Fügepartner aus dem CrNi-Stahl einen Ätzangriff im Sinne einer Korrosion. Das Korrosionsverhalten des lasergeschweißten Bauteils wird somit unter dem Einfluss des getesteten Kühlschmierstoffes nicht verändert.

Schwäbisch Gmünd, den 08.12.06

Institutsleiter

Dr. Andreas Zielonka

stellv. Abteilungsleiter/Bearbeiter

Dr. Joachim Kinder

Dieser Bericht stellt einen Auszug aus dem Untersuchungsbericht 7K06233 dar und wurde auf ausdrücklichen Wunsch des Auftraggebers ausgefertigt. Der Auszug ist beschränkt auf die Interpretation der wesentlichen Ergebnisse. Die interpretierten Ergebnisse beziehen sich ausschließlich auf die untersuchten Proben.

forschungsinstitut
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Elektrochemie • Galvanotechnik • Korrosion
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RAPPORT D'EXAMEN

(extrait)

Concerne : qualités d'assemblages soudés au laser pour systèmes de profilés unico

Numéro de commande : 7K06233

Réception le : 22 septembre 2006 Prélèvement par: Donneur d'ordre

Durée de l'examen : 25 sept. – 17 nov. 2006 Spécimen(s) approprié(s) aux examens

Description et désignation du/des spécimen(s)
Sections de profilés de châssis de fenêtre soudés au laser d'une longueur d'environ 25 cm (acier de construction dégalvanisé dans la zone prévue pour le cordon de soudure et assemblé par soudure avec de l'acier inoxydable => « soudure noir et blanc »)

Description de l'examen à mettre en œuvre
Appropriation qualificative, métallographique et métallurgique des structures en considération de leur qualité et de leur tenue à la corrosion envisagée.

Désignation et description des méthodes d'examen mises en œuvre
Section polie / coupe de l'object SOP 7-MET-9201
Test de STRAUSS sur les sections polies en s'appuyant sur les normes DIN 50914:1996 et DIN EN ISO 3651-2:1998*
Test de tenue à la corrosion d'une durée de 24 heures effectué sur les sections polies au moyen du lubrifiant caloporteur CUTOL MS*
* = méthode d'examen non accrediteé

Informations du donneur d'ordre et motivation pour la mise en œuvre des examens par **fem**

Le donneur d'ordre, qui fabrique entre autres choses des assemblages métalliques soudés au laser, s'était adressé à **fem** en vue de la détermination de la qualité métallurgique de structures spéciales soudées au laser généralement considérées comme critiques en raison de l'assemblage envisagée des matériaux. Des spécimens composés de différents assemblages de matériaux ont été réalisés par soudure au laser et fournis comme profilés d'une longueur d'environ 25 cm à **fem,** afin de garantir une conductivité thermique restreinte (dans l'esprit de la formation de points dits faiblement thermiques), donc une isolation thermique suffisante tout en offrant la bonne résistance mécanique typique pour l'acier.

Les assemblages de matériaux suivants ont été fournis selon les indications du donneur d'ordre : structure d'acier de construction (1.0332), partiellement dégalvanisé, avec de l'acier inoxydable (1.4301) => « soudure noir et blanc »

Interprétation des résultats des examens

Les examens effectués par **fem** sur les profilés de châssis de fenêtre fournis ont mené à l'interprétation suivante pour l'assemblage par soudage entre l'acier au chrome-nickel et l'acier de construction (dépoli, soit après enlèvement de la couche protectrice de zinc dans la zone du cordon de soudure):

1. Aucun défaut métallurgique de soudure susceptible d'avoir une influence sur les résistances de l'élément de construction dans l'ensemble n'a été constaté dans la zone de mélange du cordon de soudure assemblé des deux matériaux participants à la structure composée d'acier de construction et d'acier au chrome-nickel.

2. L'interprétation du comportement à la corrosion des sections polies métallographiques examinées permet de constater que l'attaque corrosive, dans l'esprit d'une corrosion de l'acier de construction intégré à la structure d'une tenue plus faible à la corrosion et de ses parts, est limitée à la zone du mélange du cordon de soudure de l'assemblage. Il est évident, en raison du mélange métallurgique des deux aciers, que le cordon de soudure en soi présente toujours une résistance à la corrosion plus élevée que l'acier de construction intégré à l'assemblage aux emplacements où l'acier au chrome-nickel est pratiquement demeuré intact. Le lubrifiant caloporteur testé sur la section polie métallographique n'a pas provoqué d'attaques corrosives ni sur l'acier de construction en tant que matériau intégré à l'assemblage ni sur l'acier au chrome-nickel. La tenue à la corrosion de l'élément de construction soudé au laser ne s'est dont pas modifiée sous l'influence du lubrifiant caloporteur testé.

SCHWÄBISCH GMÜND, le 08.12.06

Directeur d'institut

Dr Andreas ZIELONKA

Chef de service suppléant/
responsable du dossier

Dr Joachim KINDER

Ce rapport a été extrait du rapport d'examen 7K06233 et élaboré à la demande expresse du donneur d'ordre. Cet extrait est limité à l'interprétation des principaux résultats. Les résultats interprétés s'appliquent exclusivement aux spécimens examinés.

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TESTING REPORT

(Excerpt)

Ref.: Qualification of laser-welds for unico system profiles

ORDER NUMBER: 7K06233

Samples received: 2006-09-22 Samples taken by: Customer

Date of testing: 2006-09-25 – 2006-11-17 Sample(s) suitable for testing

Description of sample(s)
About 25 cm long laser welded profiles for window frames (mild steel with mechanically removed zinc coating in the region of the aspired welding zone welded with stainless steel => „black-white combination")

Description of the order/test
Metallurgical qualification of the welds regarding their quality and regarding their corrosion behaviour

Description of the investigations executed
Cross section SOP 7-MET-9201
Strauss-test on cross sections following DIN 50914:1996 and DIN EN ISO 3651-2:1998*
Corrosion test for 24 hours on polished cross sections with cooling lubricant CUTOL MS*
* = testing procedure not accredited

Information provided by the customer/motivation for **fem**-examinations

The customer a producer of laser welded metallic structures commissioned **fem** to examine the metallurgical quality of special laser weldings which are known to be crucial because of the aspired combination of chemically different steels. To obtain a reduced thermal conductivity (i.e. to avoid so called cold bridges) and to obtain good mechanical strength being typical for steel structures different welded profiles for window frames were produced and delivered to **fem** being about 25 cm long.

According to the customer the following welded steel combinations were delivered:
Mild steel (1.0332) with removed zinc coating welded with stainless steel (1.4301)
=> „black-white combination"

Interpretation of the examination results

The examinations being conducted in **fem** on the laser welded profiles of window frames are leading to the following interpretation for the welding of CrNi-steel/mild steel (blank, i.e. with mechanically removed zinc coating in the region of the welding):

1. The mixing zone of the weldseam being composed by the mild steel and the stainless CrNi-steel showed no localized metallurgical failures which may be expected to influence the mechanical behaviour of the construction.

2. The etching behaviour of the tested metallographic cross sections can be interpreted as follows: The etching attack as a certain kind of corrosion attack is restricted to those parts of the mixture zone in the weldseam which are composed chemically close to the mild steel. The welding itself shows in the polished cross section a high resistance against any etching attack in the mixture zone where it is composed chemically almost equal to the stainless CrNi-steel. The cooling lubricant being tested on the weldseams causes neither an attack on the mild steel nor an attack on the CrNi-steel in the sense of a corrosion attack. The corrosion behaviour of the laser welded profiles therefore is not altered by the lubricating cooling agent tested.

Schwaebisch Gmuend, 2006-12-08

Director

Dr Andreas Zielonka

Deputy head of Department /
Person in charge / Official responsible

Dr Joachim Kinder

This report is an excerpt of the testing report 7K06233 and was formulated explicitly according to the request of the client. This excerpt is limited on the interpretation of the essential results. The interpreted results are related on the specimens being examined in **fem**.

CSTB
le futur en construction
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FORSTER ROHR & Profiltechnik AG
Forster Systèmes de profilés
34, rue de Fontainebleau
BP 40042 BREAU
77722 MORMANT CEDEX
A l'attention de Monsieur ROUSSEL

Champs sur Marne, le jeudi 29 septembre 2005
DER/BV - N° 05 393
HL/CL

Cher Monsieur,

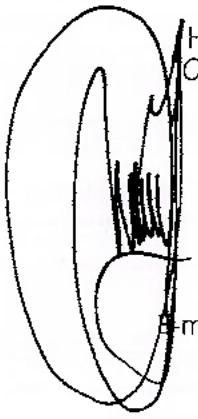
Nous vous remercions pour notre rencontre du 15 courant et la présentation de votre système de menuiserie en acier avec treillis soudé.

Après examen des normes existantes, nous considérons que ce système ne relève pas de la procédure d'Avis Technique.

Votre système de menuiserie, bien que nouveau sur le marché, est explicitement prévu dans la norme NF P 24-301 « Spécifications Techniques des fenêtres, portes-fenêtres et châssis métalliques » qui prévoit dans son paragraphe 4.2.3.2 la reconstitution de profilés acier par soudure continue ou discontinue.

Restant à votre disposition pour tout renseignement complémentaire,

Veuillez croire, Cher Monsieur, à l'assurance de notre considération distinguée.



Hubert LAGIER
Chef de Division

E-mail : lagier@cstb.fr

Copie : G. SIMONATO (CSTB)

	1
System Forster unico Fenster	
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Das System

Forster unico ist das wärmegedämmte Profilsystem mit Beschlägen und Zubehörteilen für ein- und zweiflügelige Türen, für Fenster sowie für Verglasungen im Aussenbereich.

Die Grundprofile bestehen zu 100 % aus rezyklierbarem Stahl und enthalten keine umweltbelastenden Kunststoffisolatoren – im Gegensatz zu herkömmlichen isolierten Systemen.

Diese Innovation in einzigartiger Fachwerk-Anmutung erfüllt die höchsten Ansprüche an technische und bauphysikalische Funktionen.

Höhere Isolationswerte mit Forster unico Hi

Nur zwei Komponenten werden zusätzlich benötigt, um aus Forster unico ein hochwärmegedämmtes Forster unico Hi-Element zu machen.

Le système

Forster unico est un système de profilés à isolation thermique, qui permet la réalisation de portes, de fenêtres et de vitrages fixes.

Les profilés sont fabriqués entièrement en acier, sans aucun isolant en matière synthétique, système novateur ne portant pas atteinte à l'environnement.

Cette technologie permet grâce à la conception structurelle et alvéolaire du profilé de répondre aux exigences les plus élevées de la physique du bâtiment.

Valeurs d'isolation thermique plus élevées avec Forster unico Hi

Seuls deux composants additionnels sont nécessaires pour faire de Forster unico un système Forster unico Hi à haute isolation thermique.

The system

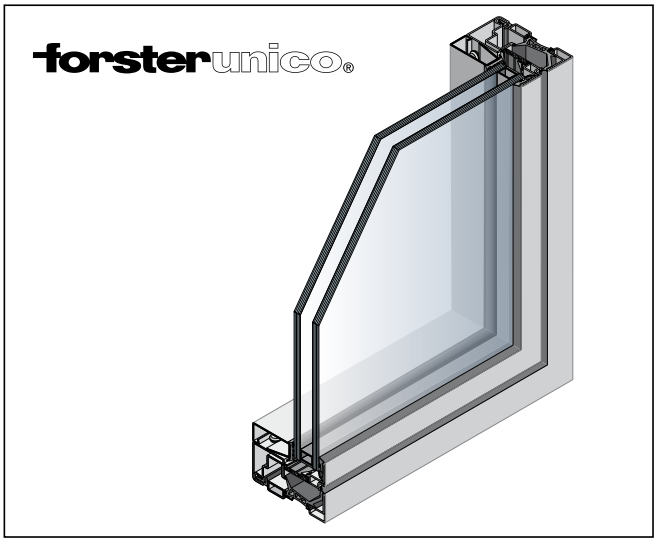
Forster unico is the thermally insulated profile system with fittings and accessories for single and double leaved doors, for windows as well as for external glazing.

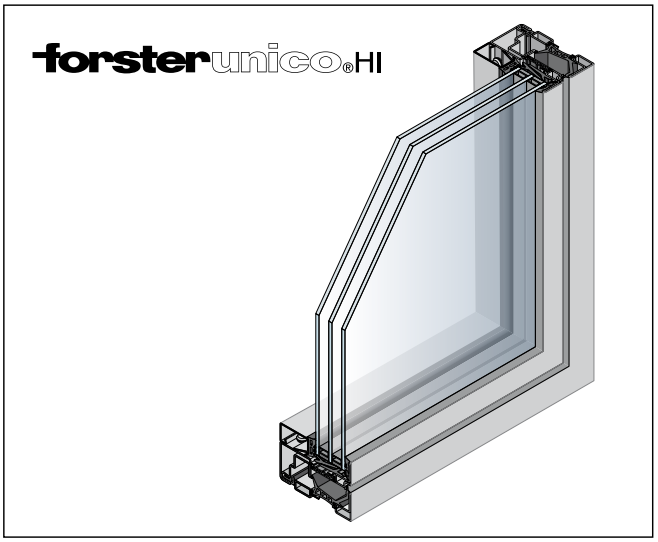
The base profiles comprise 100 % recyclable steel and contain no environmentally-polluting, synthetic insulating materials – in contrast to all other insulated systems.

This innovation, uniquely evocative of a framework style of construction, satisfies the most stringent demands relating to physical and structural functions.

Higher insulation parameters with Forster unico Hi

Only two additional components are needed to make Forster unico into a very efficient heat insulating Forster unico Hi element.





Die Vorteile

Einzigartig
Das erste komplett aus Stahl gefertigte wärmegedämmte Profilsystem ohne Kunststoffisolatoren.

High-tech
Eine absolut neue Verbindungstechnologie mittels Laserschweiss-Verfahren ermöglicht die Herstellung dieser aussergewöhnlichen Stahl-Systemprofile.

Wärmedämmend
Die Profile erreichen die heute üblichen Dämmwerte, vergleichbar mit herkömmlichen isolierten Profilserien.

Leicht und stark
Dank der speziellen Tragwerk-Geometrie erreichen die Profile höchste statische Werte. Die Gewichtseinsparung erleichtert gleichzeitig das Handling in der Werkstatt und bei der Montage.

Ökologisch
100 % Stahl, 100 % rezyklierbar

Ästhetisch
Die clevere Verbindungstechnik ermöglicht schlankste Profilquerschnitte.

Sicher
Sämtliche Systemprüfungen entsprechen der Produktnorm EN 14351-1 und erfüllen damit die Anforderungen der CE-Kennzeichnung.

Effizient
Dank einzigartigem Produktionsverfahren können die Profile innerhalb engster Toleranzen hergestellt werden. Sie lassen sich problemlos zusammenfügen.

Sauber
Beim Schweissen und Schleifen entstehen keine Emissionen durch Kunststoffe.

Einfach
Keine aufwändigen Ausnehmungen beim Schlosseinbau. Zudem bieten die Profile genügend Raum für den – auch nachträglichen – Einbau einer Türautomation.

Schnell
Das Befestigen der Elemente am Mauerwerk kann ohne zusätzliche Bohrungen durch einen Eindrehanker am Rahmen erfolgen.

Les avantages

Unique
Le premier système de profilés à isolation thermique fabriqué entièrement en acier sans isolant en matière synthétique.

Haute technologie
Une technologie absolument révolutionnaire par soudage au rayon laser permet la fabrication des profilés de ce système unique.

Isolation thermique
Ces profilés permettent de respecter sans problèmes les valeurs d'isolation usuelles.

Légèreté et solidité
Grâce à la géométrie spéciale de l'ossature, les profilés atteignent des valeurs statiques particulièrement élevées. L'économie de poids facilite en même temps la manipulation à l'atelier et lors du montage.

Respect de l'environnement
100% acier, 100% recyclable

Esthétique
La technique de raccordement intelligente permet des sections de profilés d'une grande finesse.

Sécurité
Tous les contrôles des systèmes effectués satisfont à la norme produit EN 14351-1 et répondent ainsi aux exigences du marquage CE.

Efficacité
Ce procédé de fabrication unique fait que les profilés sont de dimensions absolument exactes. Ils peuvent ainsi être assemblés sans problème.

Propreté
Aucune émission de matière synthétique n'a lieu lors du soudage et du ponçage.

Simplicité
Aucun usinage compliqué pour le montage de la serrure. Les profilés offrent en outre suffisamment d'espace libre pour le montage ultérieur d'une automatisation de la porte.

Rapidité
Grâce à une fixation par ancrage sur le cadre, la fixation des châssis n'occasionne pas de perçage additionnel.

The benefits

Unique
The first ever thermally-insulated profile system made entirely from steel and devoid of all synthetic insulating materials.

High-tech
An entirely new joining method employing a laser welding process allows the manufacture of these extraordinary steel system profiles.

Thermally insulating
These profiles achieve today's customary insulation values, comparable with conventional, insulated profile series.

Light and strong
Thanks to the special geometry of the supporting framework, the profiles attain extremely high statical values. The weight reduction simultaneously facilitates handling in the workshop and on-site during installation.

Environmentally-friendly
100 % steel, 100 % recyclable

Aesthetically appealing
The advanced joining method facilitates extremely narrow profile cross sections.

Secure
All system tests comply with the EN 14351-1 product standard and thereby fulfil the requirements of CE-marking.

Efficient
Thanks to a unique production process, the profiles are 100% true to dimension. Assembly of profiles is so easy as to be practically child's play.

Clean
No emissions are produced during welding or grinding.

Simple
No time-consuming cutouts for lock installation. The profiles also offer sufficient space for the installation – as well as the retrofit fitting – of door automation systems.

Fast
Fixing of elements can take place with a turn-in anchor, without having to drill additional holes through the frames.

Technische Merkmale

Werkstoffe
- Stahl blank
- Stahl bandverzinkt
- Edelstahl

Ansichtsbreiten
- Rahmenprofil 30, 50, 70 und 90 [mm]
- Schmalste Ansichtsbreiten für Fensterflügel und Stulpflügel
- Gleiche Ansichtsbreite wie Forster Brand- und Rauchschutzsysteme

Beschläge
- Verdeckt liegende Forster Systembeschläge für Fenster erhältlich

Oberflächenbehandlung
- Freie Wahl des Beschichtungssystems

Wärmedämmung
- Forster unico: nach EN 10077-2
  $U_f > 1.9$ [W/(m²·K)]
- Forster unico Hi: nach EN 10077-1
  U_W bis 1.0 [W/(m²·K)]
  U_D bis 1.1 [W/(m²·K)]

Einbruchhemmung (EN 1627-1630)
- WK 1, RC 2-3 (siehe Kapitel 9)

Durchschusshemmung (EN 1522)
- FB4 NS (siehe Kapitel 10)

Brandschutz (EN 13501-2)
- E30 / EW30 (siehe Kapitel 11)

Das System Forster unico ist erfolgreich als Brandschutzanwendung in der Klasse EI30 geprüft. Eine separate Dokumentation ist in Vorbereitung. Im Falle eines konkreten Objekts wenden Sie sich bitte an Ihren Technischen Berater.

NRWG
- Dreh- und Kippfenster (siehe Kapitel 13)

Caractéristiques techniques

Matières premières
- acier brut
- acier en feuillard galvanisé
- acier inox

Largeurs des faces vues
- Profilés de cadre 30, 50, 70 et 90 [mm]
- Largeurs de vue encore plus étroites pour vantaux de fenêtres et vantaux semi-fixes
- Compatibilité avec les dimensions des systèmes coupe-feu et pare-flamme Forster

Quincaillerie
- Quincaillerie encastrée Forster disponible pour fenêtres

Traitement de surface
- Libre choix du traitement de surface

Isolation thermique
- Forster unico: selon EN 10077-2
  $U_f > 1.9$ [W/(m²·K)]
- Forster unico Hi: selon EN 10077-1
  U_W jusqu'à 1.0 [W/(m²·K)]
  U_D jusqu'à 1.1 [W/(m²·K)]

Anti-effraction (EN 1627-1630)
- CR 1, RC 2-3 (voir chapitre 9)

Résistance aux balles (EN 1522)
- FB4 NS (voir chapitre 10)

Pare-flammes (EN 1522)
- E30 / EW30 (voir chapitre 11)

Le système Forster unico est testé avec succès pour coupe-feu EI30. Une documentation séparée est en préparation. En cas d'un projet concret, veuillez contacter votre conseiller technique.

DENFC
- Fenêtres ouvrant à la française et à soufflet (voir chapitre 13)

Technical characteristics

Materials
- Steel, bright
- Steel, continuously galvanized
- Stainless steel

Facing widths
- Frame profile 30, 50, 70 and 90 [mm]
- Narrowest facing widths for casements and overlapping casements
- Compatible with Forster Fire and Smoke Protection Systems

Fittings
- Concealed Forster system fittings available for windows

Surface treatments
- Free choice of coating system

Thermal insulation
- Forster unico: according to EN 10077-2
  $U_f > 1.9$ [W/(m²·K)]
- Forster unico Hi: according to EN 10077-1
  U_W up to 1.0 [W/(m²·K)]
  U_D up to 1.1 [W/(m²·K)]

Burglar resistance (EN 1627-1630)
- RC 1-3 (see chapter 9)

Bullet resistance (EN 1522)
- FB4 NS (see chapter 10)

Fire resistance (EN 1522)
- E30 / EW30 (see chapter 11)

The system Forster unico is successfully tested for fire resistence EI30. A separate documentation is in progress. For specific projects, please contact your country distributor of Forster representative for specific country approvals.

SHEVS
- Side-hung and tilt only windows (see chapter 13)

Übersicht Eigenschaften nach EN 14351-1

Tableau des charactéristiques selon EN 14351-1

Synopsis of characteristics according to EN 14351-1

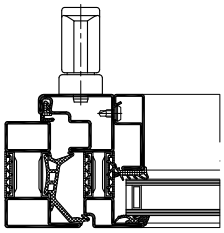
Nr. No.	Geprüfte Eigenschaften Charactéristiques testées Tested characteristics		Normen Normes Standards	Fenster – Klasse / Wert Fenêtres – Classe / Valeur Windows – Class / Value
4.2		Widerstand bei Windlast Résistance au vent Resistance to wind load	**EN 12210**	**bis / jusqu'à / up to** **C5 / B5**
4.5		Schlagregendichtheit Etanchéité à la pluie battante Watertightness	**EN 12208**	**bis / jusqu'à / up to** **E1050**
4.7		Stossfestigkeit Résistance au chocs Impact resistance	**EN 13049**	**3**
4.8		Tragfähigkeit von Sicherheitsvorrichtungen Capacité portante des dispositifs de sécurité Load-bearing capacity of safety devices	**EN 14351**	**Anforderung erfüllt** **Exigence satisfaite** **Requirement fulfilled**
4.11		Schallschutz Performance acoustique Acoustic performance	**EN ISO 140-3**	**bis / jusqu'à / up to** **Rw 48 dB**
4.12		Wärmedurchgangskoeffizient Coefficient de transmission thermique Thermal transmittance	**EN 10077-1**	**bis / jusqu'à / up to** **U_w 1.0 [W/(m²·K)]**
4.14		Luftdurchlässigkeit Perméabilité à l'air Air permeability	**EN 12207**	**bis / jusqu'à / up to** **4**
4.16		Bedienkräfe Forces de manœuvre Operating forces	**EN 12217**	**1**
4.17		Mechanische Festigkeit Résistance mécanique Mechanical strength	**EN 13115**	**4**
4.19		Durchschusshemmung Résistance aux balles Bullet resistance	**EN 1522**	**FB4 NS**
4.21		Dauerfunktion Résistance à l'ouverture et fermeture répétées Durability test	**EN 12400**	**2** (10'000 Zyklen / cycles)
4.22		Differenzklimaverhalten Comportement entre climats différents Behaviour between different climates	**EN 12219**	**---**
4.23		Einbruchhemmung Résistance à l'effraction Burglar resistance	**EN 1627**	**RC1-3**
		Brandschutz Résistance aux feu Fire resistance	**EN 13501-2**	**E30 / EW30**

Wesentliche Eigenschaften / Caractéristiques essentielles / Essential characteristics

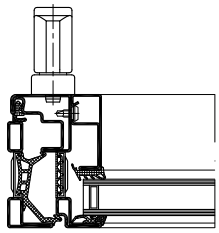
Systemvarianten Fenster

Variantes du système Fenêtres

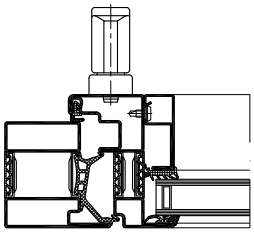
System variations Windows



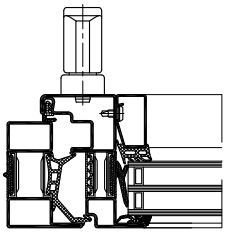
Mit schmalem Flügelprofil
Avec profilé de vantail étroit
With narrow leaf profile



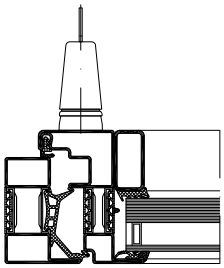
Ausführung Frankreich
Exécution France
Execution France



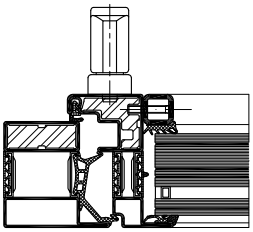
Forster unico Hi



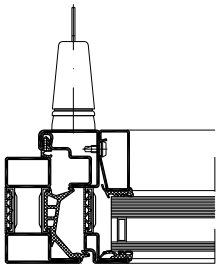
Einbruchhemmend RC1-3
Anti-effraction RC1-3
Burglary resistant RC1-3



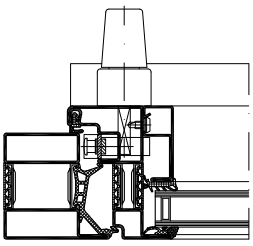
Durchschusshemmend FB4 NS
Pare-balles FB4 NS
Bullet resistant FB4 NS



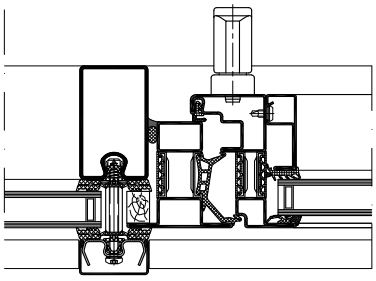
E30/EW30



Parallel-Schiebe-Kipp (PSK)
Coulissant parallèle (FCP)
Parallel slide and tilt (PST)

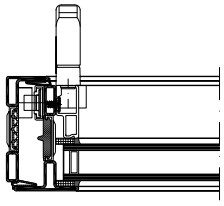


Integriert in Fassade
Intégré dans la façade
Integrated in curtain wall



Auswärts öffnendes Fenster (Forster unico XS)
Fenêtre ouvrant vers l'extérieur (Forster unico XS)
Outward opening window (Forster unico XS)

(siehe seperate Dokumentation)
(voir documentation spéciale)
(see separate documentation)



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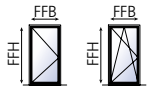
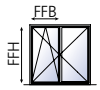
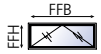
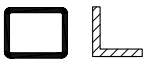
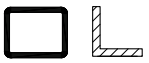
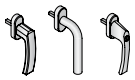
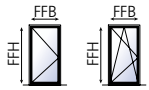
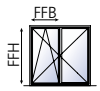
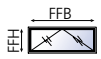
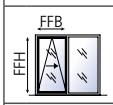
Systemvarianten Fenster
Variantes du système Fenêtres
System variations Windows

	Standard	RC1	RC2	RC3
Werkstoffe Matières premières Materials				
Stahl / Acier / Steel	✔	✔	✔	✔
CrNi	✔	✔	✔	✔
Elementgrössen Dim. des éléments Element dimensions				
	FFB: 290 – 1600 mm FFH: 520 – 2400 mm G: max. 150 kg	FFB: 290 – 1400 mm FFH: 520 – 2400 mm G: max. 150 kg	FFB: 310 – 1400 mm FFH: 520 – 2400 mm G: max. 150 kg	FFB: 310 – 1400 mm FFH: 520 – 2400 mm G: max. 150 kg
	FFB: 290 – 1600 mm FFH: 520 – 2400 mm G: max. 150 kg	FFB: 290 – 1400 mm FFH: 750 – 2400 mm G: max. 150 kg	FFB: 310 – 1400 mm FFH: 750 – 2400 mm G: max. 150 kg	FFB: 310 – 1400 mm FFH: 750 – 2400 mm G: max. 150 kg
	FFB: 520 – 2400 mm FFH: 350 – 1200 mm G: max. 80 kg	FFB: 520 – 2400 mm FFH: 350 – 1200 mm G: max. 80 kg	FFB: 520 – 2400 mm FFH: 370 – 1200 mm G: max. 80 kg	FFB: 520 – 2400 mm FFH: 370 – 1200 mm G: max. 80 kg
Verglasung Vitrage Glazing				
Trockenverglasung Vitrage à sec Dry glazing				
Nassverglasung Vitrage au silicone Silicone glazing				
Glas / Paneele Verres / Panneaux Glass / Panels				
Isolierglas Vitrage isolant Insulating glass	20 – 60 mm	P1A – EN 356	P4A – EN 356	P5A – EN 356 P6B – EN 356
Paneele / Panneaux / Panels	20 – 54.5 mm	24 mm	34 mm	34 mm
Beschläge Quincaillerie Fittings				
Systembeschläge Quincaillerie du système System fittings	- aufgesetzt / apparent / surface-mounted - verdeckt / invisible / concealed	- aufgesetzt / apparent / surface-mounted	- aufgesetzt / apparent / surface-mounted	- aufgesetzt / apparent / surface-mounted
Griffe Poignées Handles				

FFB: Flügelfalzbreite / Largeur de feuillure de vantail / Leaf rebate width
FFH: Flügelfalzhöhe / Hauteur de feuillure de vantail / Leaf rebate height

Systemvarianten Fenster
Variantes du système Fenêtres
System variations Windows

	E30 / EW30	**FB4 NS**	**PSK (Parallel-Schiebe-Kipp) FCP (coulissante parallèle) PST (parallel slide and tilt)**	**NRWG (Rauch- und Wärmeabzug) DENFC (évacuation des fumées et de la chaleur) SHEVS (smoke- and heat exhaust)**
Werkstoffe Matières premières Materials				
Stahl / Acier / Steel	✔	✔	✔	✔
CrNi		✔	✔	✔
Elementgrössen Dim. des éléments Element dimensions				
	FFB: 310 – 946 mm 310 – 1094 mm (France) FFH: 520 – 1531 mm 520 – 1767 mm (France) G: max. 150 kg	FFB: 290 – 1400 mm FFH: 520 – 2400 mm	---	FFB: 290 – 1400 mm FFH: 520 – 2400 mm (nur Drehflügel / seulement ouvrant à la française / only turn window
	---	FFB: 290 – 1400 mm FFH: 750 – 2400 mm	---	---
	---	FFB: 520 – 2400 mm FFH: 350 – 1200 mm	---	FFB: 520 – 2400 mm FFH: 350 – 1000 mm
	---	---	FFB: 600 – 2000 mm FFH: 900 – 2400 mm G: max. 200 kg	---
Verglasung Vitrage Glazing				
Trockenverglasung Vitrage à sec Dry glazing				
Nassverglasung Vitrage au silicone Silicone glazing				
Glas / Paneele Verres / Panneaux Glass / Panels				
Isolierglas Vitrage isolant Insulating glass	- Pilkington Pyrodur 30-25, 30-26, 30-27, 30-28 France: - Pilkington Pyrodur 30-200 VI - Pyroguard T-EW30/6 VI/TVI/VF	20 – 57 mm (siehe Liste Kapitel 10) (voir tableau chapitre 10) (see table chapter 10)	20 – 60 mm	20 – 60 mm
Paneele / Panneaux / Panels	33 mm	54 mm	20 – 54.5 mm	20 – 60 mm
Beschläge Quincaillerie Fittings				
Systembeschläge Quincaillerie du système System fittings	- aufgesetzt / apparent / surface-mounted - verdeckt / invisible / concealed	- aufgesetzt / apparent / surface-mounted	PSK Beschlag quincaillerie FCP PST fitting	aufgesetzt + Antrieb / apparent + système d'entraînement / surface-mounted + actuator
Bänder Paumelles Hinges	---	(> 150 kg Drehflügel / ouverture à la française / turn window) (> 80 kg Kippflügel / ouverture à soufflet / bottom hung window)	Wenden Sie sich bitte an Ihren Technischen Berater. Veuillez contacter votre conseiller technique. Please contact your country distributor of Forster representative.	Drehflügel / ouverture à la française / turn window
Griffe Poignées Handles				---

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Übersicht Fenstertypen

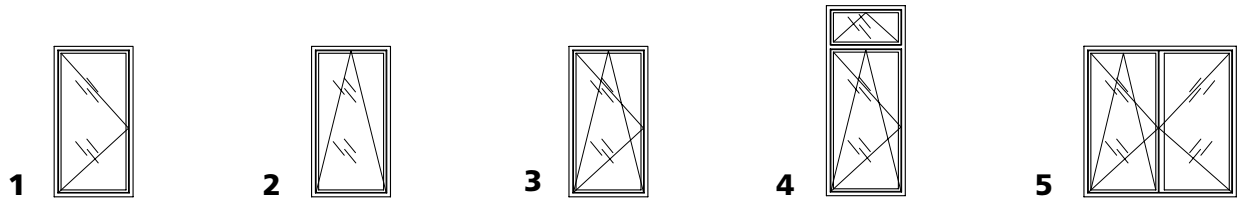
1 Drehflügel
2 Kippflügel
3 Drehkippflügel
4 1-flügeliges Fenster mit Kippflügel-Oberlicht
5 Stulpfenster 2-flügelig
6 1-flügeliges Fenster mit Stichbogen-Oberlicht
7 1-flügeliges Stichbogenfenster
8 2-flügeliges Fenster mit Stichbogen-Oberlicht
9 2-flügeliges Stichbogenfenster
10 2-flügeliges Fenster mit Festverglasung
11 Parallel-Schiebekipp-Fenster
12 Fenster, abgeschrägt, kurze Bandseite Drehkipp/Dreh
13 Fenster, abgeschrägt, lange Bandseite Drehkipp/Dreh

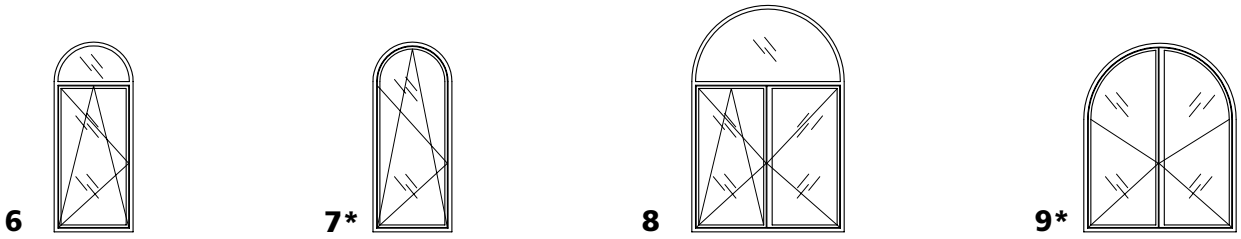
Types de fenêtres

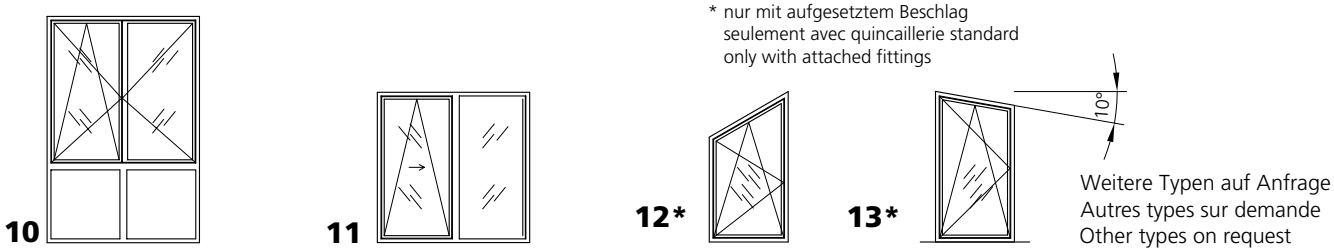
1 Ouvrant à la française
2 Ouvrant à soufflet
3 Ouvrant oscillo-battant
4 Fenêtre à 1 vantail avec imposte ouvrant à soufflet
5 à 2 vantaux
6 Fenêtre à 1 vantail avec imposte arc bombé
7 Fenêtre à 1 vantail arc bombé
8 Fenêtre à 2 vantaux avec imposte arc bombé
9 Fenêtre à 2 vantaux arc bombé
10 Fenêtre à 2 vantaux avec vitrage fixe
11 Fenêtre à translation coulissant
12 Fenêtre trapézoïdale, côté paumelles court, ouvrant oscillant-battant/à la française
13 Fenêtre trapézoïdale, côté paumelles long, ouvrant oscillant-battant/à la française

Types of windows

1 Side-hung window
2 Tilt only window
3 Tilt-turn window
4 Single leaved window bottomhung leaved fanlight
5 Double sash window
6 Single leaved window with fanlight as segmental arch
7 Single leaved window as segmental arch
8 Double leaved window with fanlight as segmental arch
9 Double leaved window as segmental arch
10 Double leaved window with fixed glazing
11 Parallel sliding window
12 Window, sloped, short hinge side, tilt-turn/turn
13 Window, sloped, long hinge side, tilt-turn/turn



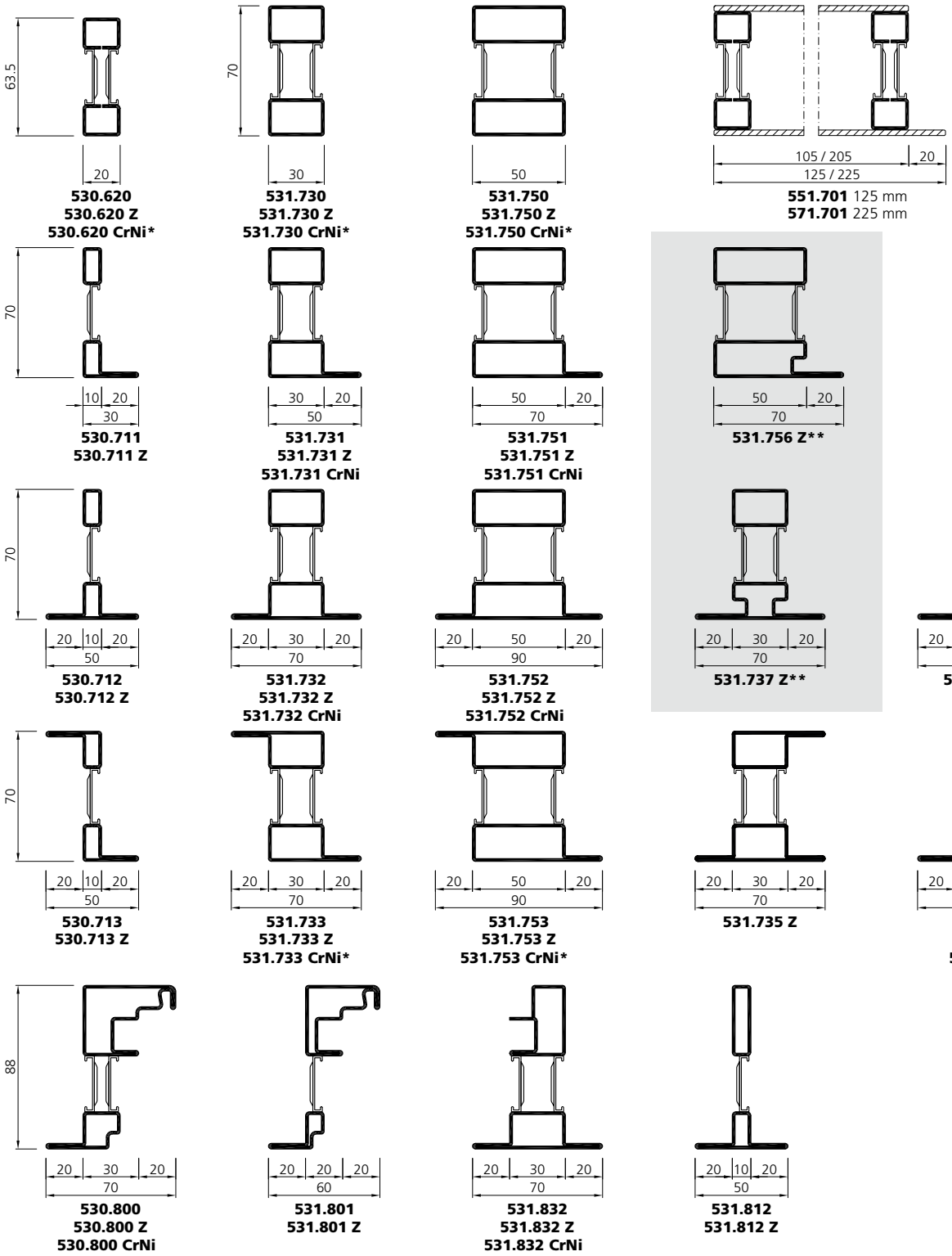




* nur mit aufgesetztem Beschlag
seulement avec quincaillerie standard
only with attached fittings

Weitere Typen auf Anfrage
Autres types sur demande
Other types on request

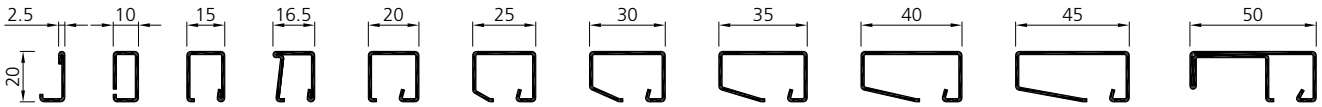
Systemübersicht — Tableau du système — Synopsis of system



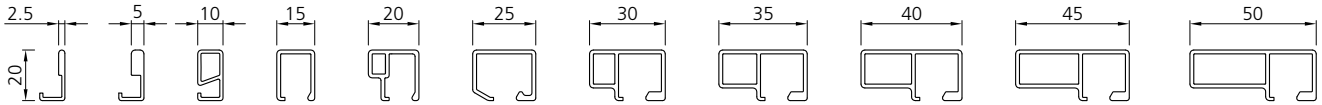
* auf Anfrage
sur demande
on request

** Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove

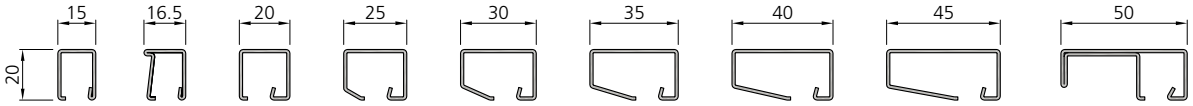
Systemübersicht — Tableau du système — Synopsis of system



901245 **901241** **901226** **901231** **901227** **901228** **901246** **901247** **901248** **901249** **901207**



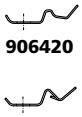
901332 **901333** **901334** **901326** **901327** **901328** **901335** **901336** **901337** **901338** **901343**



901526 **901531** **901527** **901528** **901546** **901547** **901548** **901549** **901507**



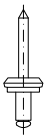
906577 (VE 100 Stk/pcs)
906578 (VE 1000 Stk/pcs)
906579 (Mag. 200 Stk/pcs)



906420
906421



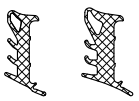
906583



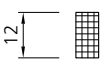
906574



985302**
5 mm



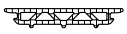
905385 5-6 mm
905386 7-8 mm
905387 9-10 mm



988002 4 mm
988003 5 mm
988004 6 mm
988006 8 mm



980101



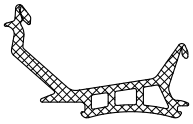
985304**



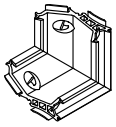
985305**



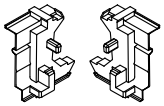
985300



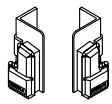
985303**



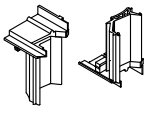
985601



985602



985603



985318



985314



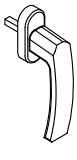
985315



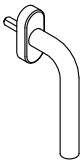
900100



900103



987300



987301



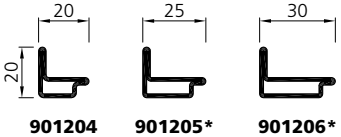
987302



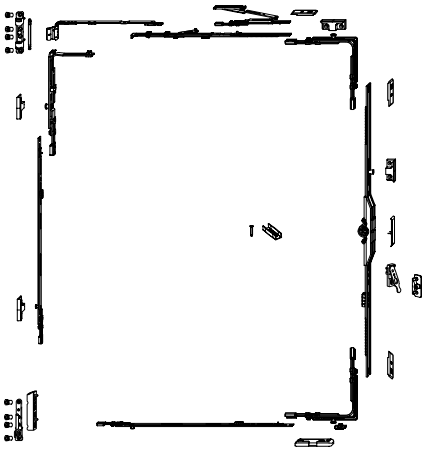
987073



987074



901204 **901205*** **901206***



987101 - 987176 **987113C - 987170C**
987900 - 987966 **987911C - 987966C**
987181 - 987186 **987181C - 987192C**

* auf Anfrage
sur demande
on request

** Silikon schwarz, andere Farben auf Anfrage
Silicon noir, autres couleurs sur demande
Silicon black, other colors on request

2

Profile

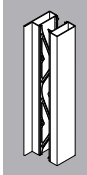
Profile Stahl	2.1.1 - 2.1.4
Profile Edelstahl	2.2.1 - 2.2.3

Profilés

Profilés en acier	2.1.1 - 2.1.4
Profilés en acier inox	2.2.1 - 2.2.3

Profiles

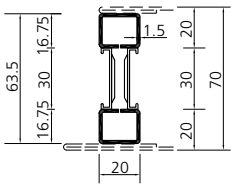
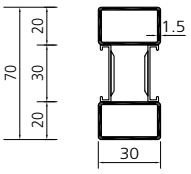
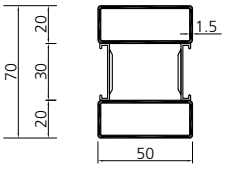
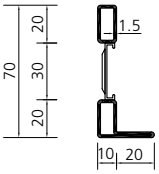
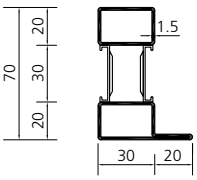
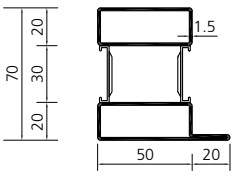
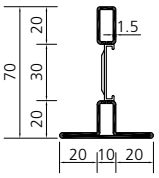
Steel profiles	2.1.1 - 2.1.4
Stainless steel profiles	2.2.1 - 2.2.3



Profile
Stahl

Profilés
Acier

Profiles
Steel

Profile / Profilés / Profiles (1:4)	Art. Nr. art. no.	m	L [mm]	G [kg/m]	I_y [cm⁴]	W_y [cm³]	I_z [cm⁴]	W_z [cm³]	e_y [mm]	e_z [mm]	O [m²/m]
	530.620 530.620 Z	blank brut bright bandverzinkt sendzimir galvanized	6000	1.835			0.60	0.60	31.75	10.00	0.200
			- 1999 mm		9.70	3.67					
			2000 - 2499 mm		10.71	3.77					
			2500 - 2999 mm		11.26	3.82					
			3000 - 3499 mm		11.59	3.85					
			3500 - 3999 mm		11.79	3.86					
			4000 - 6000 mm		11.93	3.87					
	531.730 531.730 Z	blank brut bright bandverzinkt sendzimir galvanized	6000	2.531			1.71	1.41	35.00	15.00	0.230
			- 1999 mm		13.34	5.00					
			2000 - 2499 mm		15.04	5.17					
			2500 - 2999 mm		16.01	5.25					
			3000 - 3499 mm		16.98	5.30					
			3500 - 3999 mm		17.24	5.33					
			4000 - 6000 mm		17.42	5.35					
	531.750 531.750 Z	blank brut bright bandverzinkt sendzimir galvanized	6000	3.461			6.09	2.44	35.00	25.00	0.270
			- 1999 mm		17.47	7.03					
			2000 - 2499 mm		20.31	7.33					
			2500 - 2999 mm		22.02	7.48					
			3000 - 3499 mm		23.10	7.57					
			3500 - 3999 mm		23.81	7.62					
			4000 - 6000 mm		24.30	7.63					
	530.711 530.711 Z	blank brut bright bandverzinkt sendzimir galvanized	6000	1.848			6.09	2.44	27.01	8.61	0.220
			- 999 mm		3.54	0.09					
			1000 - 1499 mm		7.56	0.35					
			1500 - 2000 mm		10.53	0.80					
	531.731 531.731 Z	blank brut bright bandverzinkt sendzimir galvanized	6000	2.979			4.44	1.58	29.11	19.38	0.270
			- 1999 mm		16.55	5.60					
			2000 - 2499 mm		18.95	5.78					
			2500 - 2999 mm		20.35	5.87					
			3000 - 3499 mm		21.21	5.92					
			3500 - 3999 mm		21.77	5.95					
			4000 - 6000 mm		22.15	5.95					
	531.751 531.751 Z	blank brut bright bandverzinkt sendzimir galvanized	6000	3.922			11.78	3.15	30.69	29.49	0.310
			- 1999 mm		20.40	7.65					
			2000 - 2499 mm		24.02	7.96					
			2500 - 2999 mm		26.26	8.12					
			3000 - 3499 mm		27.69	8.22					
			3500 - 3999 mm		28.64	8.27					
			4000 - 6000 mm		29.30	8.31					
	530.712 530.712 Z	blank brut bright bandverzinkt sendzimir galvanized	6000	2.290			3.22	1.28	22.11	24.97	0.260
			- 999 mm		3.86	0.08					
			1000 - 1499 mm		8.41	0.35					
			1500 - 2000 mm		11.96	0.80					



Schwerpunktabstand
Distance au centre de gravité
Distance of center of gravity

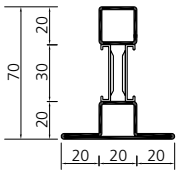
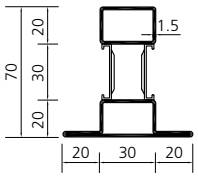
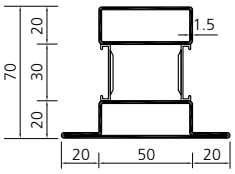
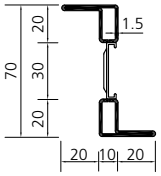
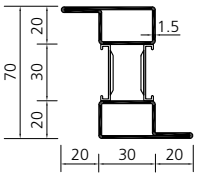
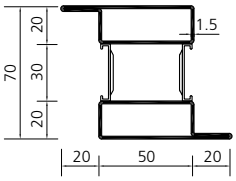
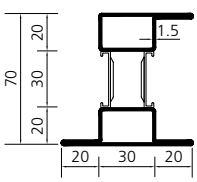
m = Material
Matériau
Material

O = Umlaufende Oberfläche per Laufmeter
Surface périphérique par mètre courant
Outlying surface per running meter

Profile
Stahl

Profilés
Acier

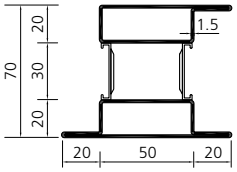
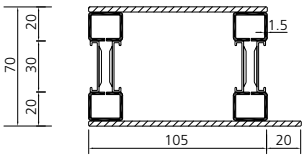
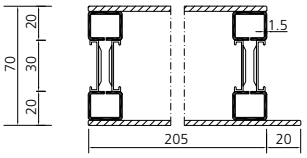
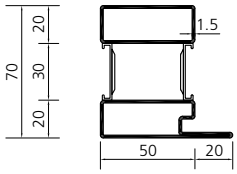
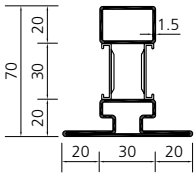
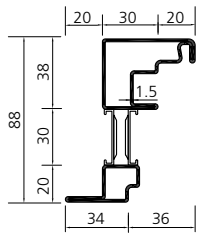
Profiles
Steel

Profile / Profilés / Profiles (1:4)	Art. Nr. art. no.	m	L [mm]	G [kg/m]	I_y [cm⁴]	W_y [cm³]	I_z [cm⁴]	W_z [cm³]	e_y [mm]	e_z [mm]	O [m²/m]
	531.722	blank brut bright	6000	2.941			5.49	1.83	25.04	30.00	0.290
			- 1999 mm		16.38	4.83					
			2000 - 2499 mm		18.63	4.96					
			2500 - 2999 mm		19.92	5.02					
			3000 - 3499 mm		20.71	5.06					
			3500 - 3999 mm		21.22	5.08					
			4000 - 6000 mm		21.57	5.09					
	531.732	blank brut bright	6000	3.422			9.17	2.62	25.04	35.00	0.310
			- 1999 mm		18.68	5.93					
	531.732 Z	bandverzinkt sendzimir galvanized	*2000 - 2499 mm*		21.60	6.12					
			2500 - 2999 mm		23.34	6.21					
			3000 - 3499 mm		24.42	6.27					
			3500 - 3999 mm		25.13	6.30					
			4000 - 6000 mm		25.62	6.32					
	531.752	blank brut bright	6000	4.357			20.57	4.57	27.37	45.00	0.350
			- 1999 mm		22.51	8.04					
			2000 - 2499 mm		26.76	8.37					
	531.752 Z	bandverzinkt sendzimir galvanized	*2500 - 2999 mm*		29.44	8.53					
			3000 - 3499 mm		32.32	8.63					
			3500 - 3999 mm		33.13	8.69					
			4000 - 6000 mm		33.70	8.73					
	530.713	blank brut bright	6000	2.307			1.11	0.59	35.00	24.97	0.260
			- 999 mm		4.31	0.09					
			1000 - 1499 mm		9.72	0.35					
	530.713 Z	bandverzinkt sendzimir galvanized	*1500 - 2000 mm*		14.29	0.80					
	531.733	blank brut bright	6000	3.427			4.44	1.58	35.00	35.00	0.310
			- 1999 mm		20.57	8.58					
			2000 - 2499 mm		24.02	8.85					
	531.733 Z	bandverzinkt sendzimir galvanized	*2500 - 2999 mm*		26.10	8.99					
			3000 - 3499 mm		27.41	9.07					
			3500 - 3999 mm		28.27	9.12					
			4000 - 6000 mm		28.87	9.15					
	531.753	blank brut bright	6000	4.383			20.57	4.57	35.00	45.00	0.350
			- 1999 mm		23.80	10.53					
			2000 - 2499 mm		28.74	10.97					
	531.753 Z	bandverzinkt sendzimir galvanized	*2500 - 2999 mm*		31.44	11.19					
			3000 - 3499 mm		33.37	11.32					
			3500 - 3999 mm		34.67	11.37					
			4000 - 6000 mm		35.58	10.95					
	531.735 Z	bandverzinkt sendzimir galvanized	6000	3.869			9.17	2.62	34.12	35.64	0.350
			- 1999 mm		23.28	9.04					
			2000 - 2499 mm		27.56	9.34					
			2500 - 2999 mm		30.21	9.48					
			3000 - 3499 mm		31.90	9.56					
			3500 - 3999 mm		33.03	9.61					
			4000 - 6000 mm		33.81	9.64					

Profile
Stahl

Profilés
Acier

Profiles
Steel

Profile / Profilés / Profiles (1:4)	Art. Nr. art. no.	m	L [mm]	G [kg/m]	I_y [cm⁴]	W_y [cm³]	I_z [cm⁴]	W_z [cm³]	e_y [mm]	e_z [mm]	O [m²/m]
	531.755 531.755 Z	blank brut bright bandverzinkt sendzimir galvanized	6000	4.817			20.57	4.57	31.58	48.57	0.390
			- 1999 mm		26.27	11.04					
			2000 - 2499 mm		31.80	11.49					
			2500 - 2999 mm		35.40	11.72					
			3000 - 3499 mm		37.77	11.85					
			3500 - 3999 mm		38.12	11.93					
			4000 - 6000 mm		38.78	11.56					
	551.701	blank brut bright	3000	9.081			115.00	3.35	34.36	53.70	0.440
			- 999 mm		22.00	11.00					
			1000 - 1999 mm		49.00	24.50					
			2000 - 2999 mm		73.00	36.50					
	571.701	blank brut bright	3000	13.797			625.00	18.14	34.46	104.31	0.640
			- 999 mm		25.00	12.50					
			1000 - 1999 mm		82.00	41.00					
			2000 - 2999 mm		115.00	57.50					
	531.756 Z **	bandverzinkt sendzimir galvanized	6000	4.054			11.78	3.15	29.63	30.02	0.320
			- 1999 mm		20.40	7.65					
			2000 - 2499 mm		24.02	7.96					
			2500 - 2999 mm		26.26	8.12					
			3000 - 3499 mm		27.69	8.22					
			3500 - 3999 mm		28.64	8.27					
			4000 - 6000 mm		29.30	8.31					
	531.737 Z **	bandverzinkt sendzimir galvanized	6000	3.739			9.17	2.62	23.24	35.00	0.340
			- 1999 mm		18.68	5.93					
			2000 - 2499 mm		21.60	6.12					
			2500 - 2999 mm		23.34	6.21					
			3000 - 3499 mm		24.42	6.27					
			3500 - 3999 mm		25.13	6.30					
			4000 - 6000 mm		25.62	6.32					
	530.800 530.800 Z	blank brut bright bandverzinkt sendzimir galvanized	6000	4.063			5.49	1.83	49.72	35.87	0.390
			- 999 mm		19.45	3.99					
			1000 - 1499 mm		21.71	4.66					
			1500 - 1999 mm		26.02	6.29					
			2000 - 2499 mm		30.19	8.30					
			2500 - 2999 mm		33.76	8.10					
			3000 - 3499 mm		36.63	7.72					
			3500 - 4000 mm		38.90	7.49					

** Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove



Schwerpunktabstand
Distance au centre de gravité
Distance of center of gravity

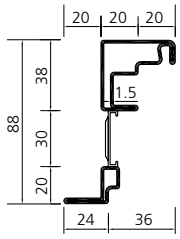
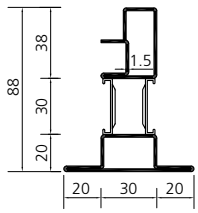
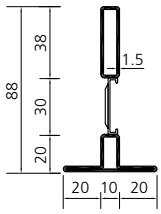
m = Material
Matériau
Material

O = Umlaufende Oberfläche per Laufmeter
Surface périphérique par mètre courant
Outlying surface per running meter

Profile
Stahl

Profilés
Acier

Profiles
Steel

Profile / Profilés / Profiles (1:4)	Art. Nr. art. no.	m	L [mm]	G [kg/m]	I_y [cm⁴]	W_y [cm³]	I_z [cm⁴]	W_z [cm³]	e_y [mm]	e_z [mm]	O [m²/m]
	531.801 531.801 Z	blank brut bright bandverzinkt sendzimir galvanized	6000	3.408			1.43	0.57	47.76	28.68	0.360
			- 999 mm		8.97	3.76					
			1000 - 1499 mm		12.55	4.20					
			1500 - 2000 mm		16.66	4.52					
	531.832 531.832 Z	blank brut bright bandverzinkt sendzimir galvanized	6000	3.969			9.17	2.62	33.37	36.06	0.370
			- 999 mm		13.62	4.41					
			1000 - 1499 mm		19.38	5.41					
			1500 - 1999 mm		26.79	6.35					
			2000 - 2499 mm		31.45	6.81					
			2500 - 2999 mm		34.33	7.06					
			3000 - 3499 mm		36.16	7.20					
			3500 - 4000 mm		37.38	7.29					
	531.812 531.812 Z	blank brut bright bandverzinkt sendzimir galvanized	6000	2.714			3.22	1.29	31.22	24.97	0.300
			- 999 mm		6.76	0.09					
			1000 - 1499 mm		13.96	0.36					
			1500 - 1999 mm		20.40	0.80					
			2000 - 2499 mm		24.96	1.43					
			2500 - 2999 mm		28.00	2.24					
			3000 - 3499 mm		30.04	3.25					
			3500 - 4000 mm		31.44	4.45					



Schwerpunktabstand
Distance au centre de gravité
Distance of center of gravity

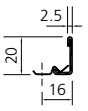
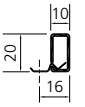
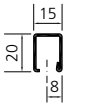
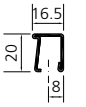
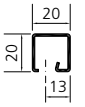
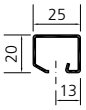
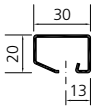
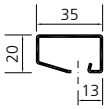
m = Material
Matériau
Material

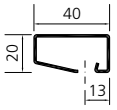
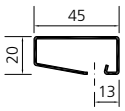
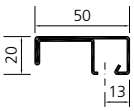
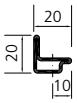
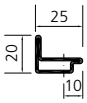
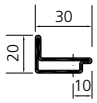
O = Umlaufende Oberfläche per Laufmeter
Surface périphérique par mètre courant
Outlying surface per running meter

Glashalteleisten
Stahl

Parcloses
Acier

Glazing beads
Steel

Profile Profilés Profiles (1:4)								
Art. Nr. art. no.	**901245**	**901241**	**901226**	**901231**	**901227**	**901228**	**901246**	**901247**
m	bandverzinkt / zingué de feuillard / hot-dippet galvanized							
L [mm]	6000							
G [kg/m]	0.329	0.496	0.568	0.603	0.657	0.734	0.829	0.922
O [m²/m]	0.038	0.052	0.059	0.064	0.067	0.075	0.083	0.095

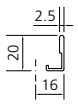
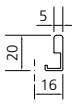
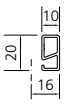
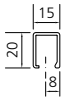
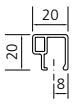
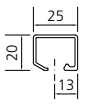
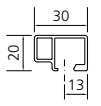
Profile Profilés Profiles (1:4)						
Art. Nr. art. no.	**901248**	**901249**	**901207**	**901204**	**901205***	**901206***
m	bandverzinkt / zingué de feuillard / hot-dippet galvanized				GV / GC	
L [mm]	6000					
G [kg/m]	1.020	1.118	1.467	0.844	0.956	1.074
O [m²/m]	0.104	0.113	0.336	0.064	0.069	0.074

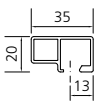
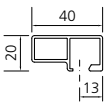
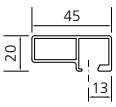
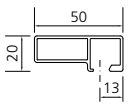
* auf Anfrage / sur demande / on request

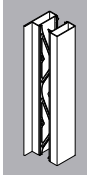
Glashalteleisten
Aluminium

Parcloses
Aluminium

Glazing beads
Aluminium

Profile Profilés Profiles (1:4)							
Art. Nr. art. no.	**901332**	**901333**	**901334**	**901326**	**901327**	**901328**	**901335**
L [mm]	6000						
G [kg/m]	0.135	0.197	0.200	0.221	0.299	0.325	0.415
O [m²/m]	0.064	0.069	0.087	0.109	0.128	0.146	0.147

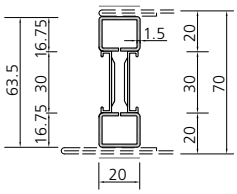
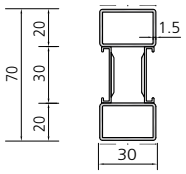
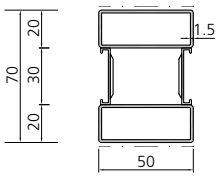
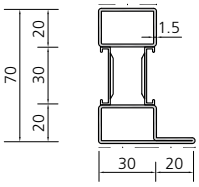
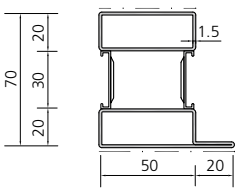
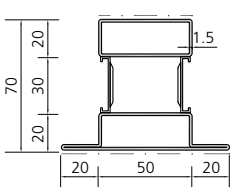
Profile Profilés Profiles (1:4)				
Art. Nr. art. no.	**901336**	**901337**	**901338**	**901343**
L [mm]	6000			
G [kg/m]	0.455	0.496	0.536	0.578
O [m²/m]	0.157	0.167	0.177	0.187



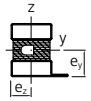
Profile
Edelstahl

Profilés
Acier inox

Profiles
Stainless steel

Profile / Profilés / Profiles (1:4)	Art. Nr. art. no.	m	L [mm]	G [kg/m]	I_y [cm⁴]	W_y [cm³]	I_z [cm⁴]	W_z [cm³]	e_y [mm]	e_z [mm]	O [m²/m]	mo [cm]
	530.620 CrNi* 1.4301	CrNi 1.4301	6000	1.885			0.60	0.60	31.75	10.00	0.200	0.040
				- 1999 mm	9.75	3.35						
				2000 - 2499 mm	10.53	3.40						
				2500 - 2999 mm	10.93	3.42						
				3000 - 3499 mm	11.17	3.42						
				3500 - 3999 mm	11.31	3.43						
				4000 - 6000 mm	11.41	3.44						
	531.730 CrNi* 1.4301	CrNi 1.4301	6000	2.613			1.73	1.15	35.00	15.00	0.230	0.060
				- 1999 mm	14.07	5.10						
				2000 - 2499 mm	15.61	5.25						
				2500 - 2999 mm	16.47	5.32						
				3000 - 3499 mm	16.98	5.36						
				3500 - 3999 mm	17.30	5.25						
				4000 - 6000 mm	17.42	5.06						
	531.750 CrNi* 1.4301	CrNi 1.4301	6000	3.579			6.41	2.46	35.00	25.00	0.270	0.100
				- 1999 mm	18.62	7.17						
				2000 - 2499 mm	21.24	7.44						
				2500 - 2999 mm	22.76	7.57						
				3000 - 3499 mm	23.70	7.64						
				3500 - 3999 mm	24.31	6.66						
				4000 - 6000 mm	24.41	6.36						
	531.731 CrNi 1.4301	CrNi 1.4301	6000	3.078			4.44	1.58	29.11	19.38	0.270	0.080
				- 1999 mm	17.55	5.71						
				2000 - 2499 mm	19.73	5.87						
				2500 - 2999 mm	20.97	5.95						
				3000 - 3499 mm	21.72	5.99						
				3500 - 3999 mm	22.20	5.96						
				4000 - 6000 mm	22.53	5.76						
	531.751 CrNi 1.4301	CrNi 1.4301	6000	4.056			11.78	3.15	30.69	29.49	0.310	0.120
				- 1999 mm	21.83	7.81						
				2000 - 2499 mm	25.20	8.08						
				2500 - 2999 mm	27.21	8.22						
				3000 - 3499 mm	28.46	8.30						
				3500 - 3999 mm	29.28	7.37						
				4000 - 6000 mm	29.26	7.04						
	531.752 CrNi 1.4301	CrNi 1.4301	6000	4.499			20.57	4.57	27.37	45.00	0.350	0.140
				- 1999 mm	24.18	8.21						
				2000 - 2499 mm	28.17	8.50						
				2500 - 2999 mm	30.58	8.64						
				3000 - 3499 mm	32.09	8.72						
				3500 - 3999 mm	33.09	7.96						
				4000 - 6000 mm	33.72	7.48						

— · — · — geschliffen, Korn 220-240, mit Schutzfolie
meulé, grain 220-240, avec film adhésif
grinded, 220-240 grain, with adhesive protection tape



Schwerpunktabstand
Distance au centre de gravité
Distance of center of gravity

m = Material
Matériau
Material

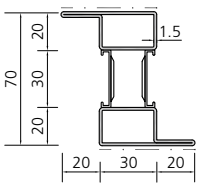
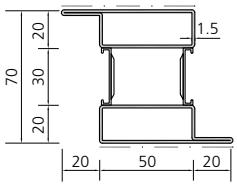
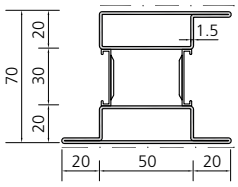
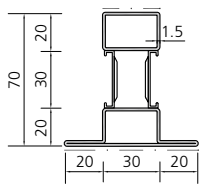
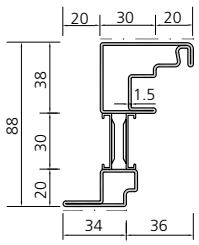
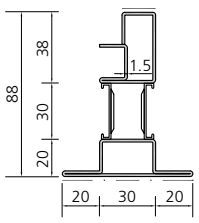
O = Umlaufende Oberfläche per Laufmeter
Surface périphérique par mètre courant
Outlying surface per running meter

mo = Schleifbare Oberfläche
Surface ponçable
Grindable surface

Profile
Edelstahl

Profilés
Acier inox

Profiles
Stainless steel

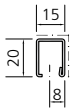
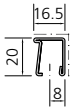
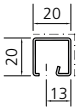
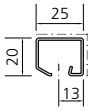
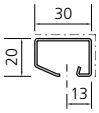
Profile / Profilés / Profiles (1:4)	Art. Nr. art. no.	m	L [mm]	G [kg/m]	I_y [cm⁴]	W_y [cm³]	I_z [cm⁴]	W_z [cm³]	e_y [mm]	e_z [mm]	O [m²/m]	mo [cm]
	531.733 CrNi* 1.4301	CrNi	6000	3.531			4.44	1.58	35.00	35.00	0.310	0.100
			- 1999 mm		21.95	8.71						
			2000 - 2499 mm		25.12	8.95						
			2500 - 2999 mm		26.97	9.07						
			3000 - 3499 mm		28.11	9.14						
			3500 - 3999 mm		28.85	8.77						
			4000 - 6000 mm		29.36	7.99						
	531.753 CrNi* 1.4301	CrNi	6000	4.533			11.78	3.15	35.00	45.00	0.350	0.140
			- 1999 mm		25.61	10.73						
			2000 - 2499 mm		29.99	11.11						
			2500 - 2999 mm		32.67	11.29						
			3000 - 3499 mm		34.37	11.40						
			3500 - 3999 mm		35.49	10.65						
			4000 - 6000 mm		35.65	9.09						
	531.755 CrNi 1.4301	CrNi	6000	4.976			20.57	4.57	31.58	48.57	0.390	0.160
			- 1999 mm		28.40	11.25						
			2000 - 2499 mm		33.63	11.64						
			2500 - 2999 mm		36.89	11.84						
			3000 - 3499 mm		38.98	11.89						
			3500 - 3999 mm		39.45	11.81						
			4000 - 6000 mm		39.91	11.55						
	531.732 CrNi 1.4301	CrNi	6000	3.536			9.17	2.62	25.04	35.00	0.310	0.100
			- 1999 mm		19.89	6.06						
			2000 - 2499 mm		22.58	6.22						
			2500 - 2999 mm		24.13	6.31						
			3000 - 3499 mm		25.07	6.35						
			3500 - 3999 mm		25.68	6.37						
			4000 - 6000 mm		26.09	6.17						
	530.800 CrNi 1.4301	CrNi	6000	4.230			2.61	1.04	49.72	35.87	0.390	0.084
			- 999 mm		20.04	4.11						
			1000 - 1499 mm		22.65	4.97						
			1500 - 1999 mm		27.49	6.94						
			2000 - 2499 mm		31.98	8.41						
			2500 - 2999 mm		35.68	7.86						
			3000 - 3499 mm		38.58	7.54						
			3500 - 4000 mm		40.81	7.34						
	531.832 CrNi* 1.4301	CrNi	6000	4.057			9.17	2.62	31.58	48.57	0.370	0.088
			- 999 mm		15.19	4.71						
			1000 - 1499 mm		21.30	5.68						
			1500 - 1999 mm		28.62	6.55						
			2000 - 2499 mm		32.94	6.95						
			2500 - 2999 mm		35.51	7.17						
			3000 - 3499 mm		37.11	7.29						
			3500 - 4000 mm		38.16	7.36						

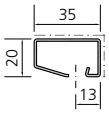
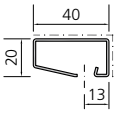
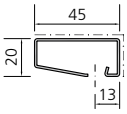
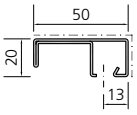
* auf Anfrage / sur demande / on request

Glashalteleisten
Edelstahl

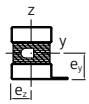
Parcloses
Acier inox

Glazing beads
Stainless steel

Profile **Profilés** **Profiles** **(1:4)**					
Art. Nr. **art. no.**	**901526**	**901531**	**901527**	**901528**	**901546**
m	CrNi 1.4301				
L [mm]	6000				
G [kg/m]	0.572	0.613	0.661	0.735	0.834
O [m²/m]	0.059	0.064	0.067	0.075	0.083
mo [m²/m]	0.035	0.036	0.040	0.045	0.050

Profile **Profilés** **Profiles** **(1:4)**				
Art. Nr. **art. no.**	**901547**	**901548**	**901549**	**901507**
m	CrNi 1.4301			
L [mm]	6000			
G [kg/m]	0.927	1.026	1.124	1.475
O [m²/m]	0.093	0.104	0.113	0.336
mo [m²/m]	0.055	0.060	0.065	0.070

— · — · — geschliffen, Korn 220-240, mit Schutzfolie
meulé, grain 220-240, avec film adhésif
grinded, 220-240 grain, with adhesive protection tape



Schwerpunktabstand
Distance au centre de gravité
Distance of center of gravity

m = Material
Matériau
Material

O = Umlaufende Oberfläche per Laufmeter
Surface périphérique par mètre courant
Outlying surface per running meter

mo = Schleifbare Oberfläche
Surface poncable
Grindable surface

3

Beschläge

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Aufgesetzte Beschläge	3.2.1 - 3.2.16
Verdeckt liegende Beschläge	3.3.1 - 3.3.8
Griffe und Zubehör	3.4.1 - 3.4.6
Bestellformulare	3.5.1 - 3.5.3

Quincaillerie

Introduction quincaillerie	3.1.1 - 3.1.2
Quincaillerie standard	3.2.1 - 3.2.16
Quincaillerie cachée	3.3.1 - 3.3.8
Poignées de fenêtre et accessoires	3.4.1 - 3.4.6
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Fittings

Introduction fittings	3.1.1 - 3.1.2
Attached fittings	3.2.1 - 3.2.16
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Window handles and accessories	3.4.1 - 3.4.6
Ordering form	3.5.1 - 3.5.3

Beschläge

Systembeschläge für Forster unico werden als Komplettgarnituren geliefert. Der Beschlag ist so abgestimmt worden, dass für Dreh- und Drehkipp-Fenster derselbe Beschlag verwendet werden kann.

Die beiden unterschiedlichen Funktionen werden über einen Hubbegrenzer im Bereich der unteren Eckumlenkung gesteuert. Die Verabeitung und Montage sind von der Funktion unabhängig und vereinfachen den Beschlagseinbau. Dieses Prinzip wurde auch für den Stulpflügel übernommen.

Der Stulpflügel-Beschlag unterscheidet sich nur in der Funktion des Getriebes vom Standard-Dreh-/Drehkipp-Beschlag. Damit unterscheidet sich die Montage des Stulp-Beschlages unwesentlich von der Montage des 1. öffnenden Flügels.

Einsatzbereich des Forster Standardbeschlages:

1 flügelige Fenster
FFB: 290 - 1600 [mm]
FFH: 520 - 2400 [mm]
GH: 260 - 1200 [mm]
Gewicht: 150 [kg]

2 flügelige Fenster
FFB: 290 - 1600 [mm]
FFH: 520 - 2400 [mm]
GH: 311 - 1200 [mm]
Gewicht: 150 [kg]

SFB: 290 - 1600 [mm]
SFH: 520 - 2400 [mm]
Gewicht: 150 [kg]

Kipp-Fenster
FFB: 520 - 2400 [mm]
FFH: 350 - 1200 [mm]
Gewicht: 80 [kg]

Beschlag-Oberfläche: Silberoptik

Quincaillerie

La quincaillerie du système Forster unico est livrée en garniture complète. Elle est conçue de telle façon qu'il est possible d'utiliser le même ferrement pour les fenêtres ouvrant à la française et ouvrant oscillo-battant.

Les deux fonctions différentes sont commandées par un limitateur de course dans la zone du renvoi d'angle inférieur. Le traitement et le montage sont indépendants de la fonction et simplifient le montage de la quincaillerie. Ce principe a été repris pour le vantail semi-fixe.

La quincaillerie du vantail semi-fixe se différencie seulement au niveau de la fonction de la crémone. Le montage de la quincaillerie du vantail semi-fixe ne se différencie presque pas du montage du 1er vantail ouvrant.

Domaine d'application de la quincaillerie Forster standard:

Fenêtre 1 vantail
FFB: 290 - 1600 [mm]
FFH: 520 - 2400 [mm]
GH: 260 - 1200 [mm]
Poids: 150 [kg]

Fenêtre 2 vantaux
FFB: 290 - 1600 [mm]
FFH: 520 - 2400 [mm]
GH: 311 - 1200 [mm]
Poids: 150 [kg]

SFB: 290 - 1600 [mm]
SFH: 520 - 2400 [mm]
Poids: 150 [kg]

Fenêtre ouverture à soufflet
FFB: 520 - 2400 [mm]
FFH: 350 - 1200 [mm]
Poids: 80 [kg]

Surface de quincaillerie: aspect argent

Fittings

System fittings for Forster unico are supplied as complete sets. The same fittings can be used for turn windows as well as for tilt and turn windows.

The two different functions are controlled via a travel restrictor in the area of the lower corner drive. Processing and assembly are not dependent on the function and therefore simplify the installation of the fittings. This principal was also used for the double sash.

The double sash fittings only differ from the standard turn/tilt and turn fittings in the way the drive functions. This makes assembling the double sash fittings insignificantly different from assembling the first active leaf.

Area of application of the Forster standard fittings:

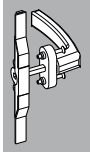
Window 1 leaf
FFB: 290 - 1600 [mm]
FFH: 520 - 2400 [mm]
GH: 260 - 1200 [mm]
Weight: 150 [kg]

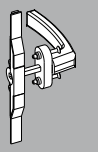
Double sash window
FFB: 290 - 1600 [mm]
FFH: 520 - 2400 [mm]
GH: 311 - 1200 [mm]
Weight: 150 [kg]

SFB: 290 - 1600 [mm]
SFH: 520 - 2400 [mm]
weight: 150 [kg]

Tilt only window
FFB: 520 - 2400 [mm]
FFH: 350 - 1200 [mm]
Weight: 80 [kg]

Fittings surface: silver





Beschläge Fenster

Flügelgrössen und Griffhöhen, welche ausserhalb des Anwendungsbereichs liegen, können bei positiver Prüfung der Machbarkeit mittels Sonderbestellungen bestellt werden. Ebenfalls sind verdecktliegende Beschläge, alternative Fenstergeometrien über Sonderbestellung und gegebenenfalls einer Machbarkeitsabklärung erhältlich. Für die Machbarkeitsabklärung und die daraus folgende Bestellung sind die entsprechenden Formulare in diesem Kapitel zu verwenden.

Notwendige Artikel für 1-flügelige Fenster:
- **Dreh-/Drehkipp-Beschlag**
- **Fenstergriff**
- **Abdeckkappen** (nur bei aufgesetzen Beschlägen)

Notwendige Artikel für 2-flügelige Fenster:
- **Dreh-/Drehkipp-Beschlag**
- **Stulp-Beschlag**
- **Fenstergriff**
- **Abdeckkappen** (nur bei aufgesetzen Beschlägen)

Auf Anfrage können die Beschläge auch geschüttet geliefert werden.

Quincaillerie fenêtres

Les dimensions de vantaux et hauteurs de poignée en dehors du domaine d'application peuvent faire l'objet d'une commande spéciale après une étude de faisabilité. De la quincaillerie cachée de même que des géométries de fenêtre alternatives peuvent également faire l'objet d'une commande spéciale avec une étude de faisabilité. Pour l'étude de faisabilité et la commande résultante, utiliser les formulaires dans ce chapitre.

Articles nécessaires pour fenêtres à 1 vantail:
- **Quincaillerie pour ouverture à la française/ouverture oscillo-battant**
- **Poignée de fenêtre**
- **Caches** (seulement pour la quincaillerie standard)

Articles nécessaires pour fenêtres à 2 vantaux:
- **Quincaillerie pour ouverture à la française/ouverture oscillo-battant**
- **Quincaillerie de vantail semi-fixe**
- **Poignée de fenêtre**
- **Caches** (seulement pour la quincaillerie standard)

Sur demande la quincaillerie peut être fournie en vrac.

Window fittings

Leaf sizes and handle heights outside of the specified area of application can be ordered if found feasible by special order. Also hidden fittings, alternative window shapes can be ordered if found feasible by special order. The forms to be used for feasibility studies and corresponding special orders are included in this chapter.

Necessary items single leaf windows:
- **Turn/ tilt and turn fittings**
- **Window handles**
- **Cover caps** (only for attached fittings)

Necessary items double leaved windows:
- **Turn/ tilt and turn fittings**
- **Double sash fittings**
- **Window handles**
- **Cover caps** (only for attached fittings)

Upon request, unsorted fittings can also be supplied.

Schliesszapfenvarianten

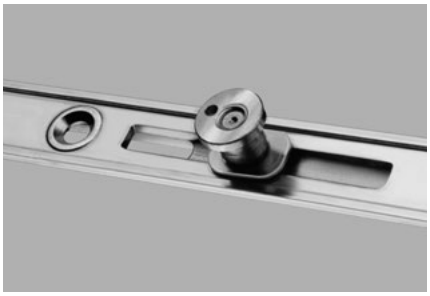


Schliesszapfen E
anpressdruckverstellbarer Zapfen

Galet excentrique E
pression de fermeture réglable

Locking cam E
gasket-compression adjustable cam

Variantes de galets de verrouillage



Schliesszapfen V
höhen- und anpressdruckverstellbarer Sicherheits-Pilzzapfen

Galet de sécurité V
à tête champignon avec hauteur et pression de fermeture réglable

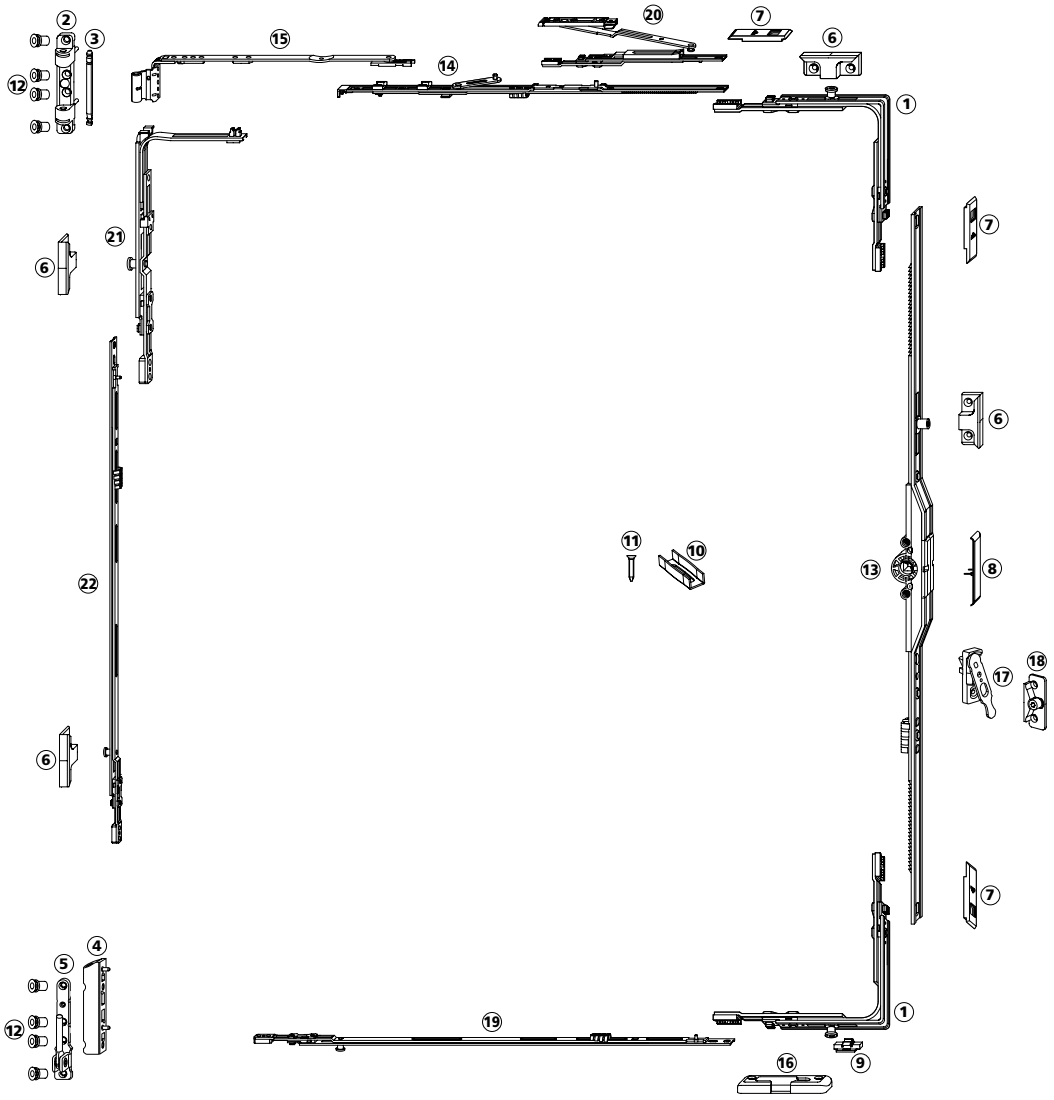
Locking cam V
height and gasket-compression adjustable security cam

Locking cam versions

Beschläge
Dreh- / Drehkipp - Flügel

Quincaillerie
Vantail / OB / OF

Leaf fittings
Turn / tilt and turn leaf

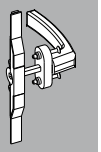


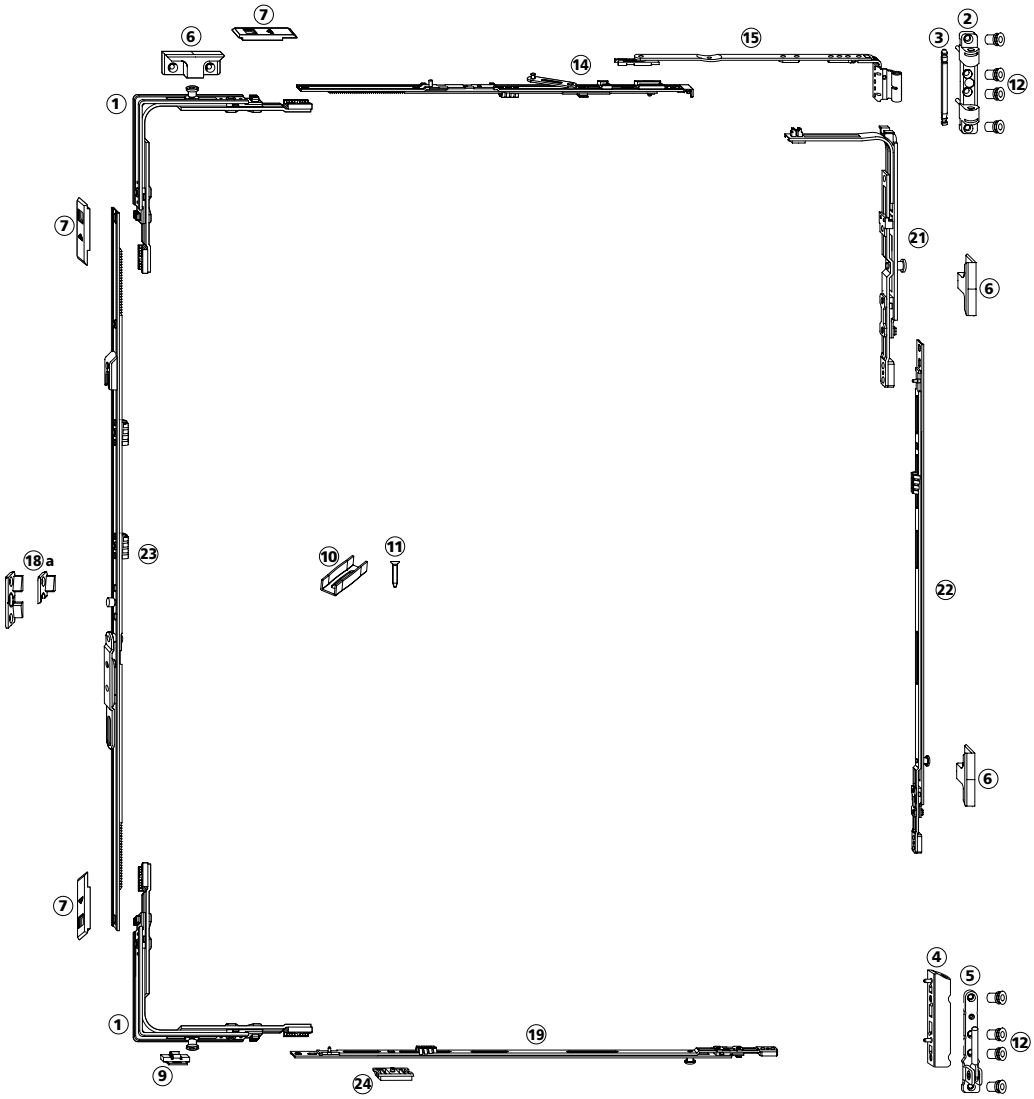
1 Eckumlenkung V
2 Axerlager spezial
3 Axerlager – Stift
4 Eckband K3 / 100
5 Ecklager K6 / 100
6 Schliessstück
7 Verbindungslasche
8 Infoclip "Forster"
9 Hubbegrenzer (90°)
10 Beschlags-Distanzstück
11 Beschlagsschraube M4 x 21
12 Einnietmutter M4
13 DK-Getriebe mittig, Dornmass 8
14 Axerstulp
15 Axerarm
16 Kipplager
17 Niveau-Schaltsperre Flügelteil
18 Niveau-Schaltsperre Rahmenteil
19 Verlängerung horizontal (FFB > 1200)
20 Zweitschere (FFB > 1400)
21 Eckumlenkung Axer (FFH > 1200)
22 Verlängerung vertikal (FFH >1200 1x, FFH > 2000 2x)

1 Transmission équerre V
2 Palier de compas spécial
3 Tige d'axe
4 Pivot d'angle K3 / 100
5 Palier d'angle K6 / 100
6 Gâche
7 Plaquette de liaison
8 Infoclip "Forster"
9 Limitateur de course (90°)
10 Pièce de distance pour ferrement
11 Vis de ferrement M4 x 21
12 Rivet taraudé M4
13 Crémone oscillo-battant centrale, fouillot 8
14 Têtière de compas
15 Bras de compas
16 Gâche de basculement
17 Anti-fausse manœuvre partie ouvrant
18 Anti-fausse manœuvre partie dormant
19 Extension horizontale (FFB > 1200)
20 Deuxième compas (FFB > 1400)
21 Renvoi de compas (FFH > 1200)
22 Extension verticale (FFH >1200 1x, FFH > 2000 2x)

1 Corner drive V
2 Sash stay bearing special
3 Sash stay bearing pin
4 Corner hinge K3 / 100
5 Corner pivot rest K6 / 100
6 Striker
7 Link piece
8 Infoclip "Forster"
9 Travel – restrictor (90°)
10 Distance piece for fittings
11 Fitting screw M4 x 21
12 Clench rivet M4
13 Tilt-turn central drive, mandrel size 8
14 Sash stay guide
15 Sash stay arm
16 Tilt-turn striker
17 Lifting mishandling device sash component
18 Lifting mishandling device frame part
19 Horizontal extension (FFB > 1200)
20 Additional scissors-stay (FFB > 1400)
21 Stay corner drive (FFH > 1200)
22 Vertical extension (FFH >1200 1x, FFH > 2000 2x)

Beschläge Stulpflügel — Quincaillerie vantail semi-fixe — Double sash fittings





1	Eckumlenkung V	**1**	Transmission équerre V	**1**	Corner drive V
2	Axerlager spezial	**2**	Palier de compas spécial	**2**	Sash stay bearing special
3	Axerlager – Stift	**3**	Tige d'axe	**3**	Sash stay bearing pin
4	Eckband K3 / 100	**4**	Pivot d'angle K3 / 100	**4**	Corner hinge K3 / 100
5	Ecklager K6 / 100	**5**	Palier d'angle K6 / 100	**5**	Corner pivot rest K6 / 100
6	Schliessstück	**6**	Gâche	**6**	Striker
7	Verbindungslasche	**7**	Plaquette de liaison	**7**	Link piec
10	Beschlags-Distanzstück	**10**	Pièce de distance pour ferrement	**10**	Distance piece for fittings
11	Beschlagsschraube M4 x 21	**11**	Vis de ferrement M4 x 21	**11**	Fitting screw M4 x 21
12	Einnietmutter M4	**12**	Rivet taraudé M4	**12**	Clench rivet M4
14	Axerstulp DF	**14**	Têtière de compas DF	**14**	Sash stay guide DF
15	Axerarm	**15**	Bras de compas	**15**	Sash stay arm
18a	Niveau-Schaltsperre Stulpteil	**18a**	Anti-fausse manœuvre partie semi-fixe	**18a**	Lifting mishandling passive leaf part
19	Verlängerung horizontal (FFB > 1200)	**19**	Extension horizontale (FFB > 1200)	**19**	Horizontal extension (FFB > 1200)
21	Eckumlenkung Axer (FFH > 1200)	**21**	Renvoi d'angle de compas (FFH > 1200)	**21**	Stay corner drive (FFH > 1200)
22	Verlängerung vertikal (FFH >1200 1x, FFH > 2000 2x)	**22**	Extension verticale (FFH >1200 1x, FFH > 2000 2x)	**22**	Vertical extension (FFH >1200 1x, FFH > 2000 2x)
23	Stulpgetriebe mittig	**23**	Crémone centrale pour vantail semi-fixe	**23**	Central double sash drive
24	Auflaufkeil	**24**	Support glissiére vantail semi fixe	**24**	Run up block

Beschläge
Bestellanleitung

Für die Bestellung des Fensterbeschlages sind nicht die Flügelaussenmasse, sondern die Flügelfalzmasse massgebend. In den folgenden Darstellungen werden die für die Bestellung notwendigen Masse definiert und dargestellt.

Flügelfalzgrössen
Dreh-/Drehkipp-Beschlag
FB: Flügelbreite
FFB: Flügelfalzbreite
FH: Flügelhöhe
FFH: Flügelfalzhöhe
GH: Griffhöhe

Quincaillerie
Instructions de commande

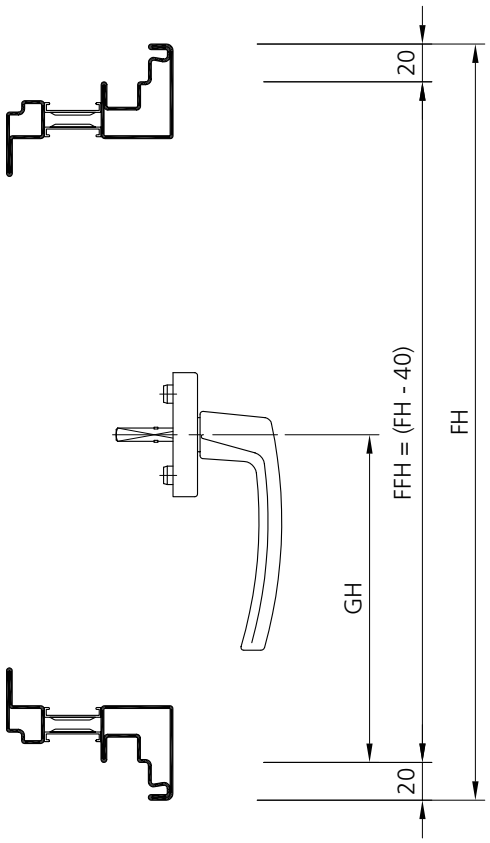
Pour la commande de quincaillerie de fenêtre, les cotes de feuillure de vantail sont déterminantes et non les cotes extérieures de vantail. Les cotes nécessaires à la commande sont définies et représentées dans les illustrations suivantes.

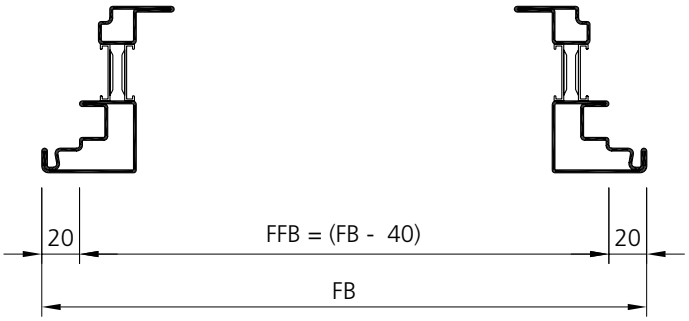
Tailles de feuillure de vantail
Quincaillerie pour ouverture à la française/ ouverture oscillo-battant
FB: largeur de vantail
FFB: largeur de feuillure de vantail
FH: hauteur de vantail
FFH: hauteur de feuillure de vantail
GH: hauteur de poignée

Fittings
Ordering instructions

To order window fittings, the outer dimensions of the windows are not significant, but the sizes of the leaf rebate are. In the following presentation, the dimensions required for ordering are defined and listed.

Sizes of leaf rebates
Turn/ tilt and turn-fittings
FB: leaf width
FFB: leaf rebate width
FH: leaf height
FFH: leaf rebate height
GH: handle height





Beschläge
Bestellanleitung

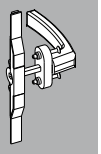
Flügelfalzgrössen
Stulpflügel-Beschlag
SB: Stulpbreite
SFB: Stulpfalzbreite
SH: Stulphöhe
SFH: Stulpfalzhöhe

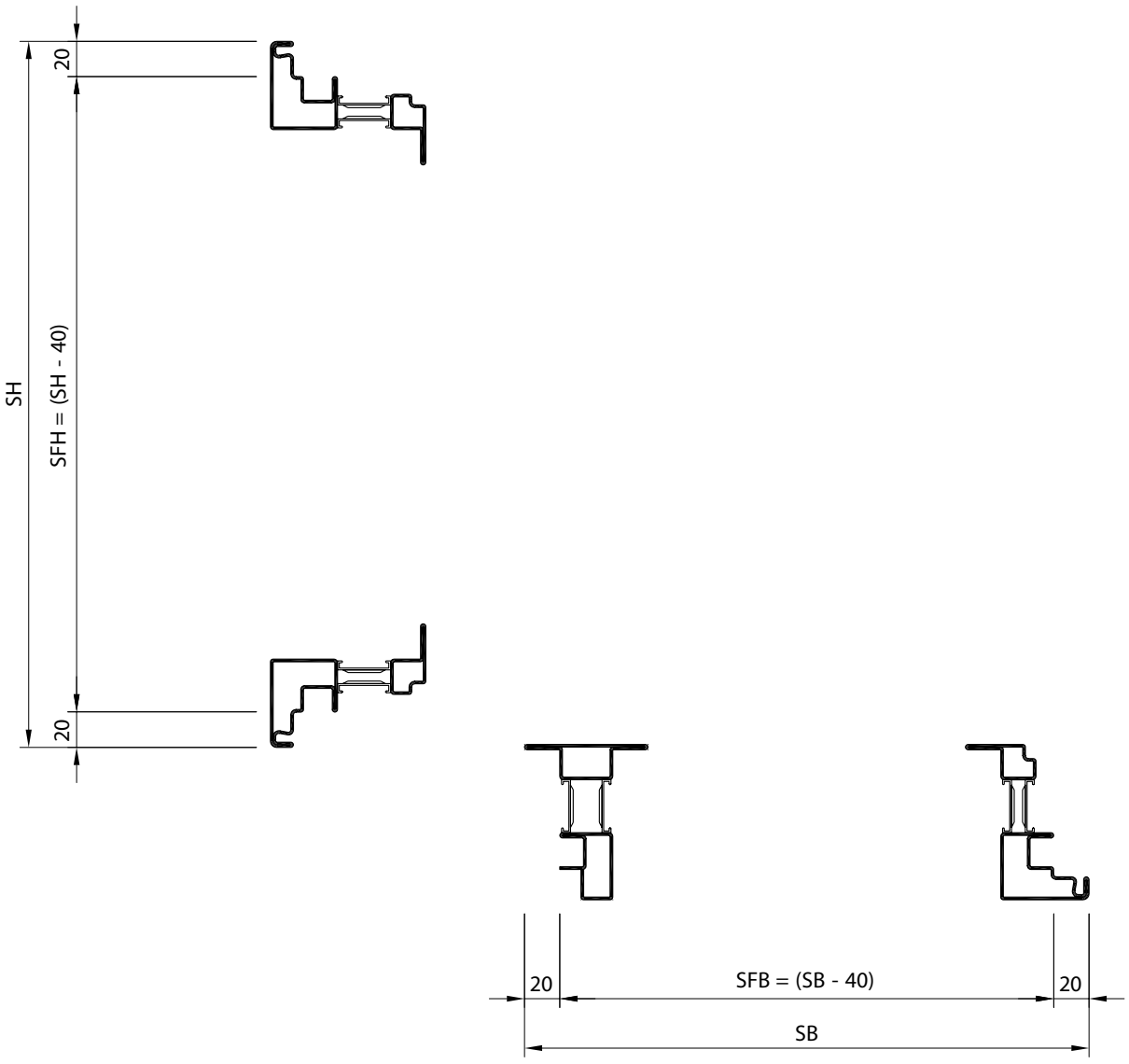
Quincaillerie
Instructions de commande

Tailles de feuillure de vantail
Quincaillerie pour vantail semi-fixe
SB: largeur de vantail semi-fixe
SFB: largeur de feuillure de vantail semi-fixe
SH: hauteur de vantail semi-fixe
SFH: hauteur de feuillure de vantail semi-fixe

Fittings
Ordering instructions

Sizes of leaf rebates
Double sash fittings
SB: double sash width
SFB: double sash rebate width
SH: double sash height
SFH: double sash rebate height





Beschläge
Bestellanleitung

Da zwischen der Flügelfalzhöhe und der Griffhöhe eine direkte Abhängigkeit besteht, muss einer Bestellung die Richtigkeit der ausgewählten Beschläge anhand der folgenden Diagramme überprüft werden. Liegt der Schnittpunkt der Griffhöhe (GH) und der Flügelfalzhöhe (FFH) im grau hinterlegten Bereich der Diagramme, kann der Forster Standardbeschlag eingesetzt werden. Für alle anderen Fälle verwenden Sie bitte die Formulare in diesem Kapitel.

Anwendungsbeispiele für die Kontrolle:

Beispiel 1: Möglich mit Standard-Beschlag
FFH: 900 [mm]
GH: 450 [mm]

Beispiel 2: Muss über Sonderformulare angefragt werden.
FFH: 900 [mm]
GH: 550 [mm]

Quincaillerie
Instructions de commande

Comme il existe une relation directe entre la hauteur de feuillure du vantail et la hauteur de la poignée, il faut vérifier lors d'une commande de l'exactitude de la quincaillerie sélectionnée à l'aide des diagrammes suivants. Si le point d'intersection de la hauteur de poignée (GH) et de la hauteur de feuillure de vantail (FFH) se trouve dans la zone grise des diagrammes, il est possible d'utiliser une quincaillerie Forster standard. Dans tous les autres cas, utiliser les formulaires indiqués dans ce chapitre. Exemples d'application pour le contrôle:

Exemple 1: possible avec une quincaillerie standard
FFH: 900 [mm]
GH: 450 [mm]

Exemple 2: demande au moyen de formulaires spéciaux.
FFH: 900 [mm]
GH: 550 [mm]

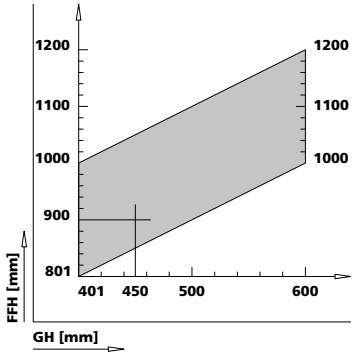
Fittings
Ordering instructions

As there is a direct dependence between the height of the leaf rebate and the height of the handle, every order has to be checked for correctness of the selected fittings against the following diagrams. If the point of intersection of the handle height (GH) and the leaf rebate (FFH) is within the gray background of the diagrams, then Forster standard fittings can be used. For all other cases, please use the special ordering form in this chapter. Sample applications of how to perform the checks.

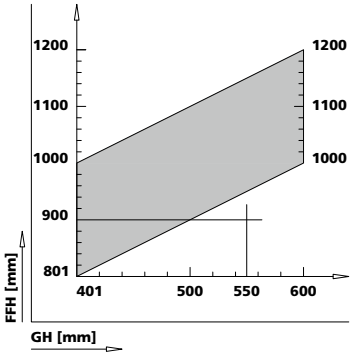
Example 1: possible with standard fittings
FFH: 900 [mm]
GH: 450 [mm]

Example 2: must be requested with the special ordering form
FFH: 900 [mm]
GH: 550 [mm]

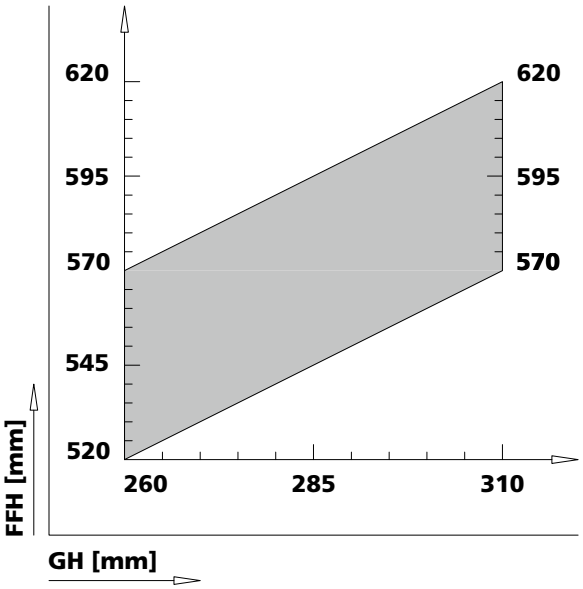
Beispiel 1:
Exemple 1:
Example 1:



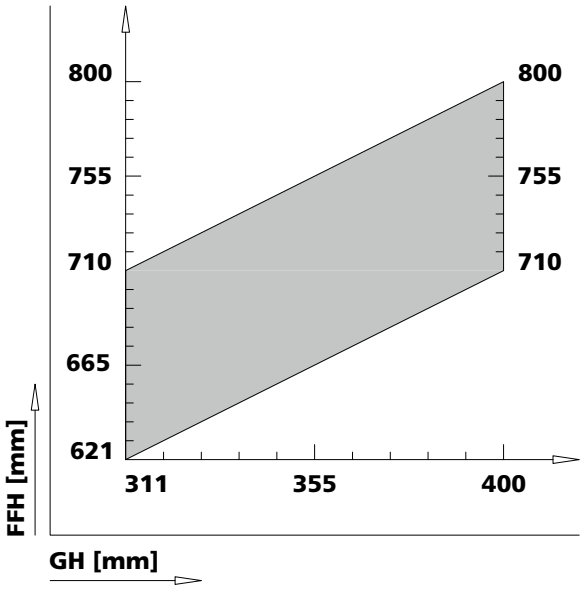
Beispiel 2:
Exemple 2:
Example 2:



FFH 520 - 620 [mm]



FFH 621 - 800 [mm]

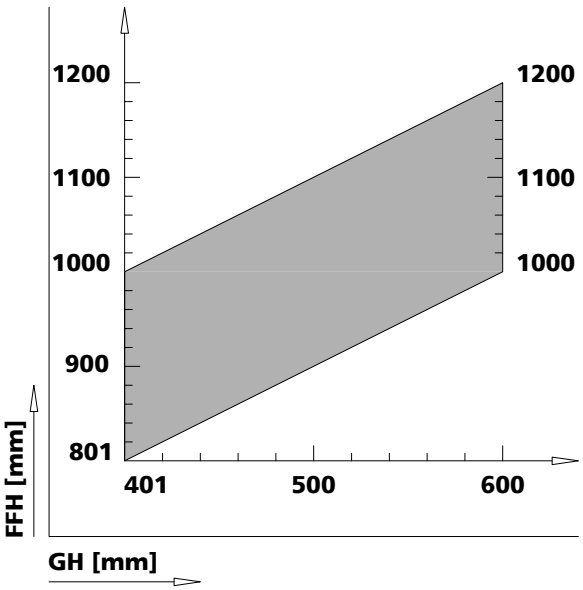


Beschläge
Bestellanleitung

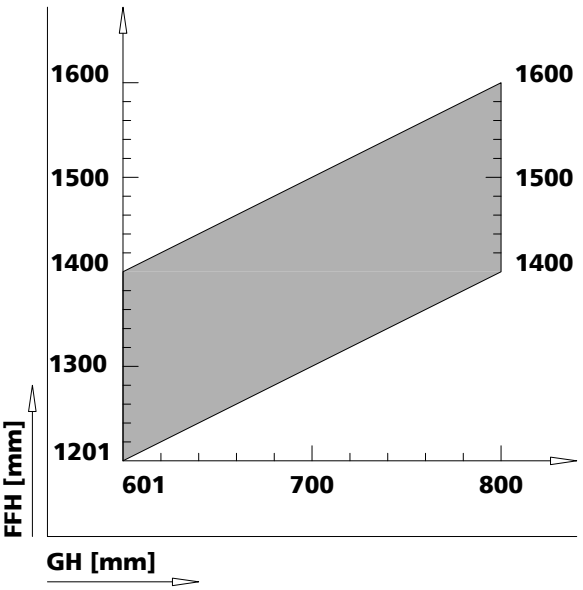
Quincaillerie
Instructions de commande

Fittings
Ordering instructions

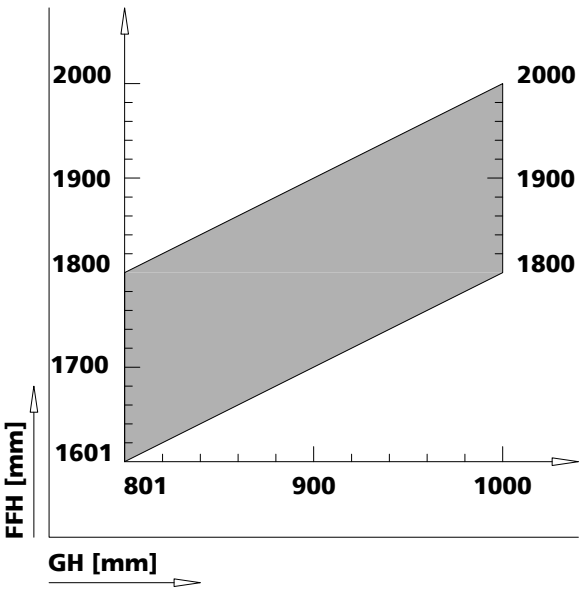
FFH 801 - 1200 [mm]



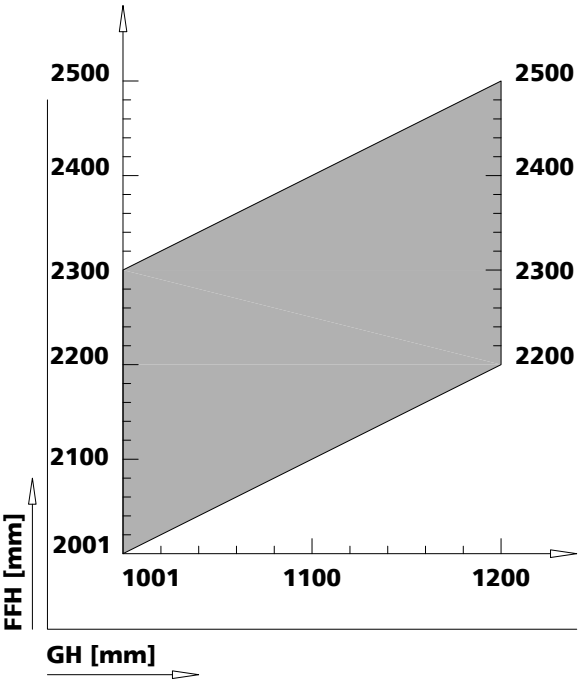
FFH 1201 - 1600 [mm]



FFH 1601 - 2000 [mm]



FFH 2001 - 2500 [mm]



Beschläge
Bestellnummern

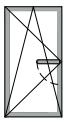
Dreh(*)- / Drehkipp-Beschlag mit Profil 531.801
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN links (Komplett-Beschlag)
max. 150 [kg]

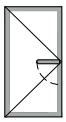
Quincaillerie
Références

Quincaillerie pour ouverture à la française(*)/ ouverture oscillo-battant avec profilé 531.801
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux,
DIN gauche (ferrement complet)
max. 150 [kg]

Fittings
Order numbers

Turn(*)/ tilt and turn fittings with profile 531.801
Single leaf windows
1. active leaf on double sash windows
DIN left (complete fittings)
max. 150 [kg]





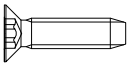
		531.801 **531.801 z**			**FFB [mm]**				**GH [mm]**
		290 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	1401 - 1600	
FFH [mm]	520 - 620	**987101** (a 2x M4 x 10 2x M4 x 16	**987113** (a 2x M4 x 10 2x M4 x 16	**987125** (a 2x M4 x 10 2x M4 x 16	**987137** (a 2x M4 x 10 2x M4 x 16	**987149** (a 2x M4 x 10 2x M4 x 16			260 - 310
	621 - 800	**987103** 6x M4 x 10 2x M4 x 16	**987115** 6x M4 x 10 2x M4 x 16	**987127** 6x M4 x 10 2x M4 x 16	**987139** 6x M4 x 10 2x M4 x 16	**987151** 6x M4 x 10 2x M4 x 16	**987161** 10x M4 x 10 2x M4 x 16		311 - 400
	801 - 1200	**987105** 6x M4 x 10 2x M4 x 16	**987117** 6x M4 x 10 2x M4 x 16	**987129** 6x M4 x 10 2x M4 x 16	**987141** 6x M4 x 10 2x M4 x 16	**987153** 6x M4 x 10 2x M4 x 16	**987163** 10x M4 x 10 2x M4 x 16	**987171** 8x M4 x 10 5x M4 x 16	401 - 600
	1201 - 1600	**987107** 12x M4 x 10 2x M4 x 16	**987119** 12x M4 x 10 2x M4 x 16	**987131** 12x M4 x 10 2x M4 x 16	**987143** 12x M4 x 10 2x M4 x 16	**987155** 12x M4 x 10 2x M4 x 16	**987165** 16x M4 x 10 2x M4 x 16	**987173** 14x M4 x 10 5x M4 x 16	601 - 800
	1601 - 2000	**987109** 12x M4 x 10 2x M4 x 16	**987121** 12x M4 x 10 2x M4 x 16	**987133** 12x M4 x 10 2x M4 x 16	**987145** 12x M4 x 10 2x M4 x 16	**987157** 12x M4 x 10 2x M4 x 16	**987167** 16x M4 x 10 2x M4 x 16	**987175** 14x M4 x 10 5x M4 x 16	801 - 1000
	2001 - 2400	**987111** 18x M4 x 10 2x M4 x 16	**987123** 18x M4 x 10 2x M4 x 16	**987135** 18x M4 x 10 2x M4 x 16	**987147** 18x M4 x 10 2x M4 x 16	**987159** 18x M4 x 10 2x M4 x 16	**987169** 22x M4 x 10 2x M4 x 16		1001 - 1200
	2401 - 2500	**987111** **+987177** 18x M4 x 10 2x M4 x 16	**987123** **+987177** 18x M4 x 10 2x M4 x 16	**987135** **+987177** 18x M4 x 10 2x M4 x 16	**987147** **+987177** 18x M4 x 10 2x M4 x 16	**987159** **+987177** 18x M4 x 10 2x M4 x 16	**987169** **+987177** 22x M4 x 10 2x M4 x 16		1001 - 1200

M4 x 10



900020 Zusätzlich bestellen
900020 Commander séparément
900020 Order separately

M4 x 16



900019 Zusätzlich bestellen
900019 Commander séparément
900019 Order separately

* = Dreh-Beschlag mit Hubbegrenzer
(a = ohne Niveauschaltsperre)

* = Quincaillerie pour ouverture à la française avec limitateurs de course
(a = sans anti-fausse manœuvre)

* = Turn fittings with travel restrictor
(a = without lifting mishandling)

Beschläge
Bestellnummern

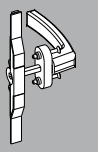
Dreh(*)- / Drehkipp-Beschlag
mit Profil 531.801
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN rechts (Komplett-Beschlag)
max. 150 [kg]

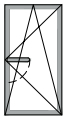
Quincaillerie
Références

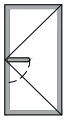
Quincaillerie pour ouverture à la fran-
çaise(*)/ ouverture oscillo-battant avec
profilé 531.801
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux,
DIN droite (ferrement complet)
max. 150 [kg]

Fittings
Order numbers

Turn(*)/ tilt and turn fittings
with profile 531.801
Single leaf windows
1. active leaf on double sash windows
DIN right (complete fittings)
max. 150 [kg]

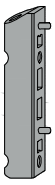






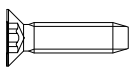


FFH [mm]		531.801 / 531.801 z FFB [mm] 290 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	1401 - 1600	GH [mm]
	520 - 620	**987102** (a 2x M4 x 10 2x M4 x 16	**987114** (a 2x M4 x 10 2x M4 x 16	**987126** (a 2x M4 x 10 2x M4 x 16	**987138** (a 2x M4 x 10 2x M4 x 16	**987150** (a 2x M4 x 10 2x M4 x 16			260 - 310
	621 - 800	**987104** 6x M4 x 10 2x M4 x 16	**987116** 6x M4 x 10 2x M4 x 16	**987128** 6x M4 x 10 2x M4 x 16	**987140** 6x M4 x 10 2x M4 x 16	**987152** 6x M4 x 10 2x M4 x 16	**987162** 10x M4 x 10 2x M4 x 16		311 - 400
	801 - 1200	**987106** 6x M4 x 10 2x M4 x 16	**987118** 6x M4 x 10 2x M4 x 16	**987130** 6x M4 x 10 2x M4 x 16	**987142** 6x M4 x 10 2x M4 x 16	**987154** 6x M4 x 10 2x M4 x 16	**987164** 10x M4 x 10 2x M4 x 16	**987172** 8x M4 x 10 5x M4 x 16	401 - 600
	1201 - 1600	**987108** 12x M4 x 10 2x M4 x 16	**987120** 12x M4 x 10 2x M4 x 16	**987132** 12x M4 x 10 2x M4 x 16	**987144** 12x M4 x 10 2x M4 x 16	**987156** 12x M4 x 10 2x M4 x 16	**987166** 16x M4 x 10 2x M4 x 16	**987174** 14x M4 x 10 5x M4 x 16	601 - 800
	1601 - 2000	**987110** 12x M4 x 10 2x M4 x 16	**987122** 12x M4 x 10 2x M4 x 16	**987134** 12x M4 x 10 2x M4 x 16	**987146** 12x M4 x 10 2x M4 x 16	**987158** 12x M4 x 10 2x M4 x 16	**987168** 16x M4 x 10 2x M4 x 16	**987176** 14x M4 x 10 5x M4 x 16	801 - 1000
	2001 - 2400	**987112** 18x M4 x 10 2x M4 x 16	**987124** 18x M4 x 10 2x M4 x 16	**987136** 18x M4 x 10 2x M4 x 16	**987148** 18x M4 x 10 2x M4 x 16	**987160** 18x M4 x 10 2x M4 x 16	**987170** 22x M4 x 10 2x M4 x 16		1001 - 1200
	2401 - 2500	**987112 +987177** 18x M4 x 10 2x M4 x 16	**987124 +987177** 18x M4 x 10 2x M4 x 16	**987136 +987177** 18x M4 x 10 2x M4 x 16	**987148 +987177** 18x M4 x 10 2x M4 x 16	**987160 +987177** 18x M4 x 10 2x M4 x 16	**987170 +987177** 22x M4 x 10 2x M4 x 16		1001 - 1200



M4 x 10 

900020 Zusätzlich bestellen
900020 Commander séparément
900020 Order separately

M4 x 16 

900019 Zusätzlich bestellen
900019 Commander séparément
900019 Order separately

* = Dreh-Beschlag mit Hubbegrenzer
(a = ohne Niveauschaltsperre)

* = Quincaillerie pour ouverture à la française
avec limitateurs de course
(a = sans anti-fausse manœuvre)

* = Turn fittings with travel restrictor
(a = without lifting mishandling)

Beschläge
Bestellnummern

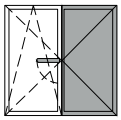
Stulpflügel-Beschlag mit Profil 531.801
2. öffnender Flügel passend zu
1. öffnendem Flügel **DIN links**
(Komplett-Beschlag)
max. 150 [kg]

Quincaillerie
Références

Quincaillerie de vantail semi-fixe avec profilé 531.801
2e vantail ouvrant adapté au
1er vantail ouvrant **DIN gauche**
(ferrement complet)
max. 150 [kg]

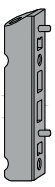
Fittings
Order numbers

Double sash-fittings with profile 531.801
2. active leaf appropriate for
1.active leaf **DIN left** (complete fittings)
max. 80 [kg]



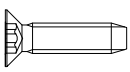


SFH [mm]	531.801 / 531.801 z		531.832 / 531.832 z			SFB [mm]		GH [mm]
	290 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	1401 - 1600	
520 - 750	**987900** (a 2x M4 x 16							260 - 375
751 - 900	**987902** 2x M4 x 10 (a	**987912** 2x M4 x 10 (a	**987922** 2x M4 x 10 (a	**987932** 2x M4 x 10 (a	**987942** 2x M4 x 10 (a	**987952** 8x M4 x 10 (a		376 - 450
901 - 1200	**987904** 2x M4 x 10	**987914** 2x M4 x 10	**987924** 2x M4 x 10	**987934** 2x M4 x 10	**987944** 2x M4 x 10	**987954** 8x M4 x 10	**987962** 10x M4 x 10	451 - 600
1201 - 1600	**987906** 4x M4 x 10	**987916** 4x M4 x 10	**987926** 4x M4 x 10	**987936** 4x M4 x 10	**987946** 4x M4 x 10	**987956** 10x M4 x 10	**987964** 12x M4 x 10	601 - 800
1601 - 2000	**987908** 4x M4 x 10	**987918** 4x M4 x 10	**987928** 4x M4 x 10	**987938** 4x M4 x 10	**987948** 4x M4 x 10	**987958** 10x M4 x 10	**987966** 12x M4 x 10	801 - 1000
2001 - 2400	**987910** 2x M4 x 10	**987920** 2x M4 x 10	**987930** 2x M4 x 10	**987940** 2x M4 x 10	**987950** 2x M4 x 10	**987960** 8x M4 x 10		1001 - 1200
2401 - 2500	**987910 +987177** 2x M4 x 10	**987920 +987177** 2x M4 x 10	**987930 +987177** 2x M4 x 10	**987940 +987177** 2x M4 x 10	**987950 +987177** 2x M4 x 10	**987960 +987177** 8x M4 x 10		1001 - 1200



M4 x 10 

900020 Zusätzlich bestellen
900020 Commander séparément
900020 Order separately

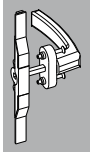
M4 x 16 

900019 Zusätzlich bestellen
900019 Commander séparément
900019 Order separately

(a = ohne Niveauschaltsperre)

(a = sans anti-fausse manœuvre)

(a = without lifting mishandling)



Beschläge
Bestellnummern

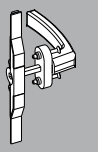
Stulpflügel-Beschlag mit Profil 531.801
2. öffnender Flügel passend zu
1. öffnendem Flügel **DIN rechts**
(Komplett-Beschlag)
max. 150 [kg]

Quincaillerie
Références

Quincaillerie de vantail semi-fixe avec profilé 531.801
2e vantail ouvrant adapté au
1er vantail ouvrant **DIN droite**
(ferrement complet)
max. 150 [kg]

Fittings
Order numbers

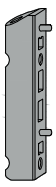
Double sash-fittings with profile 531.801
2. active leaf appropriate for
1. active leaf **DIN right** (complete fittings)
max. 150 [kg]





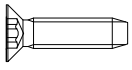


SFH [mm]	GH [mm]	531.801 / 531.801 z 290 - 410	411 - 600	531.832 / 531.832 z 601 - 800	801 - 1000	1001 - 1200	SFB [mm] 1201 - 1400	1401 - 1600
520 - 750	260 - 375	**987900** (a 2x M4 x 16						
751 - 900	376 - 450	**987901** 2x M4 x 10 (a	**987911** 2x M4 x 10 (a	**987921** 2x M4 x 10 (a	**987931** 2x M4 x 10 (a	**987941** 2x M4 x 10 (a	**987951** 8x M4 x 10 (a	
901 - 1200	451 - 600	**987903** 2x M4 x 10	**987913** 2x M4 x 10	**987923** 2x M4 x 10	**987933** 2x M4 x 10	**987943** 2x M4 x 10	**987953** 8x M4 x 10	**987961** 10x M4 x 10
1201 - 1600	601 - 800	**987905** 4x M4 x 10	**987915** 4x M4 x 10	**987925** 4x M4 x 10	**987935** 4x M4 x 10	**987945** 4x M4 x 10	**987955** 10x M4 x 10	**987963** 12x M4 x 10
1601 - 2000	801 - 1000	**987907** 4x M4 x 10	**987917** 4x M4 x 10	**987927** 4x M4 x 10	**987937** 4x M4 x 10	**987947** 4x M4 x 10	**987957** 10x M4 x 10	**987965** 12x M4 x 10
2001 - 2400	1001 - 1200	**987909** 2x M4 x 10	**987919** 2x M4 x 10	**987929** 2x M4 x 10	**987939** 2x M4 x 10	**987949** 2x M4 x 10	**987959** 8x M4 x 10	
2401 - 2500	1001 - 1200	**987909 +987177** 2x M4 x 10	**987919 +987177** 2x M4 x 10	**987929 +987177** 2x M4 x 10	**987939 +987177** 2x M4 x 10	**987949 +987177** 2x M4 x 10	**987959 +987177** 8x M4 x 10	



M4 x 10 

900020 Zusätzlich bestellen
900020 Commander séparément
900020 Order separately

M4 x 16 

900019 Zusätzlich bestellen
900019 Commander séparément
900019 Order separately

(a = ohne Niveauschaltsperre)

(a = sans anti-fausse manœuvre)

(a = without lifting mishandling)

Beschläge
Bestellnummern

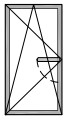
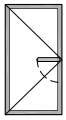
Dreh(*)- / Drehkipp-Beschlag
mit Profil 530.800
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN links (Komplett-Beschlag)
max. 150 [kg]

Quincaillerie
Références

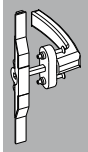
Quincaillerie pour ouverture à la fran-
çaise(*)/ ouverture oscillo-battant avec
profilé 530.800
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux,
DIN gauche (ferrement complet)
max. 150 [kg]

Fittings
Order numbers

Turn(*)/ tilt and turn fittings
with profile 530.800
Single leaf windows
1. active leaf on double sash windows
DIN left (complete fittings)
max. 150 [kg]

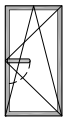
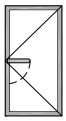
		530.800 530.800 z 530.800 CrNi1 FFB [mm]							GH [mm]
		290 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	1401 - 1600	
FFH [mm]	520 - 620	**987101** (a	**987113** (a	**987125** (a	**987137** (a	**987149** (a			260 - 310
	621 - 800	**987103**	**987115**	**987127**	**987139**	**987151**	**987161**		311 - 400
	801 - 1200	**987105**	**987117**	**987129**	**987141**	**987153**	**987163**	**987171**	401 - 600
	1201 - 1600	**987107**	**987119**	**987131**	**987143**	**987155**	**987165**	**987173**	601 - 800
	1601 - 2000	**987109**	**987121**	**987133**	**987145**	**987157**	**987167**	**987175**	801 - 1000
	2001 - 2400	**987111**	**987123**	**987135**	**987147**	**987159**	**987169**		1001 - 1200



Dreh(*)- / Drehkipp-Beschlag
mit Profil 530.800
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN rechts (Komplett-Beschlag)
max. 150 [kg]

Quincaillerie pour ouverture à la fran-
çaise(*)/ ouverture oscillo-battant avec
profilé 530.800
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux
semi-fixe, **DIN droite** (ferrement complet)
max. 150 [kg]

Turn(*)/ tilt and turn fittings
with profile 530.800
Single leaf windows
1. active leaf on double sash windows
DIN right (complete fittings)
max. 150 [kg]

		530.800 530.800 z 530.800 CrNi1 FFB [mm]							GH [mm]
		290 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	1401 - 1600	
FFH [mm]	520 - 620	**987102** (a	**987114** (a	**987126** (a	**987138** (a	**987150** (a			260 - 310
	621 - 800	**987104**	**987116**	**987128**	**987140**	**987152**	**987162**		311 - 400
	801 - 1200	**987106**	**987118**	**987130**	**987142**	**987154**	**987164**	**987172**	401 - 600
	1201 - 1600	**987108**	**987120**	**987132**	**987144**	**987156**	**987166**	**987174**	601 - 800
	1601 - 2000	**987110**	**987122**	**987134**	**987146**	**987158**	**987168**	**987176**	801 - 1000
	2001 - 2400	**987112**	**987124**	**987136**	**987148**	**987160**	**987170**		1001 - 1200

* = Dreh-Beschlag mit Hubbegrenzer
(a = ohne Niveauschaltsperre)

* = Quincaillerie pour ouverture à la française
avec limitateurs de course
(a = sans anti-fausse manœuvre)

* = Turn fittings with travel restrictor
(a = without lifting mishandling)

Beschläge
Bestellnummern

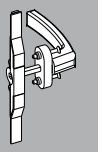
Stulpflügel-Beschlag mit Profil 530.800
2. öffnender Flügel passend zu
1. öffnendem Flügel **DIN links**
(Komplett-Beschlag)
max. 150 [kg]

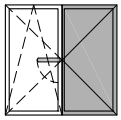
Quincaillerie
Références

Quincaillerie de vantail semi-fixe avec profilé 530.800
2e vantail ouvrant adapté au
1er vantail ouvrant **DIN gauche**
(quincaillerie complète)
max. 150 [kg]

Fittings
Order numbers

Double sash-fittings with profile 530.800
2. active leaf appropriate for
1. active leaf **DIN left** (complete fittings)
max. 150 [kg]







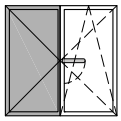
SFH [mm]	530.800 530.800 z 530.800 CrNi1 / 531.832 531.832 z 531.832 CrNi1 SFB [mm]							GH [mm]
	290 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	1401 - 1600	
520 - 750	**987900** a)							260 - 375
751 - 900	**987902** a)	**987912** a)	**987922** a)	**987932** a)	**987942** a)	**987952** a)		376 - 450
901 - 1200	**987904**	**987914**	**987924**	**987934**	**987944**	**987954**	**987962**	451 - 600
1201 - 1600	**987906**	**987916**	**987926**	**987936**	**987946**	**987956**	**987964**	601 - 800
1601 - 2000	**987908**	**987918**	**987928**	**987938**	**987948**	**987958**	**987966**	801 - 1000
2001 - 2400	**987910**	**987920**	**987930**	**987940**	**987950**	**987960**		1001 - 1200

(a = ohne Niveauschaltsperre)

Stulpflügel-Beschlag mit Profil 530.800
2. öffnender Flügel passend zu
1. öffnendem Flügel **DIN rechts**
(Komplett-Beschlag)
max. 150 [kg]

Quincaillerie de vantail semi-fixe avec profilé 530.800
2e vantail ouvrant adapté au
1er vantail ouvrant **DIN droite**
(quincaillerie complète)
max. 150 [kg]

Double sash-fittings with profile 530.800
2. active leaf appropriate for
1. active leaf **DIN right** (complete fittings)
max. 150 [kg]





SFH [mm]	530.800 530.800 z 530.800 CrNi1 / 531.832 531.832 z 531.832 CrNi1 SFB [mm]							GH [mm]
	290 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	1401 - 1600	
520 - 750	**987900** a)							260 - 375
751 - 900	**987901** a)	**987911** a)	**987921** a)	**987931** a)	**987941** a)	**987951** a)		376 - 450
901 - 1200	**987903**	**987913**	**987923**	**987933**	**987943**	**987953**	**987961**	451 - 600
1201 - 1600	**987905**	**987915**	**987925**	**987935**	**987945**	**987955**	**987963**	601 - 800
1601 - 2000	**987907**	**987917**	**987927**	**987937**	**987947**	**987957**	**987965**	801 - 1000
2001 - 2400	**987909**	**987919**	**987929**	**987939**	**987949**	**987959**		1001 - 1200

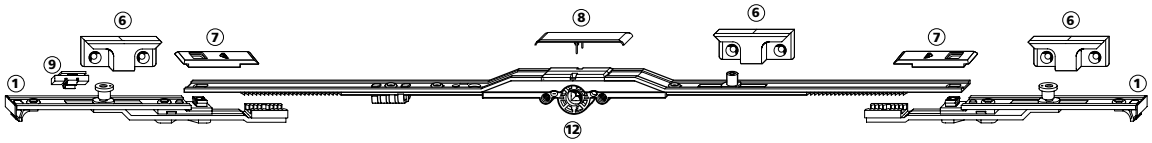
(a = sans anti-fausse manœuvre)

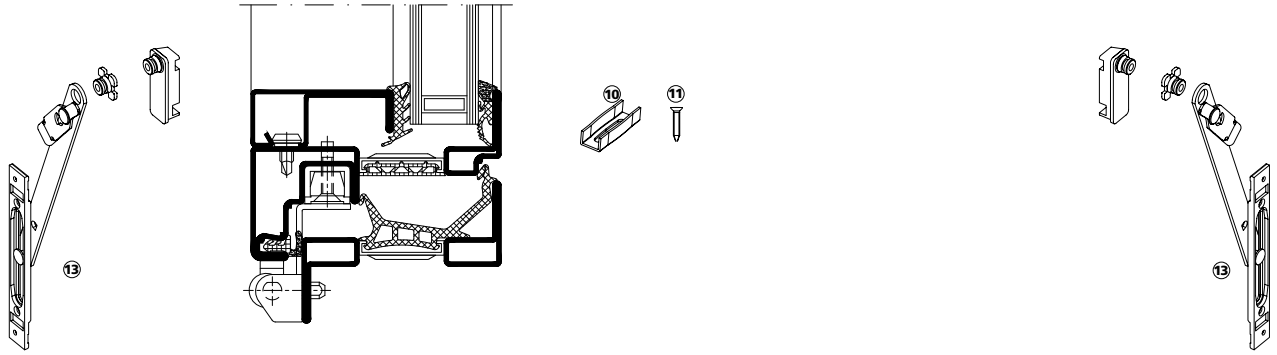
(a = without lifting mishandling)

Beschläge
Kippflügel

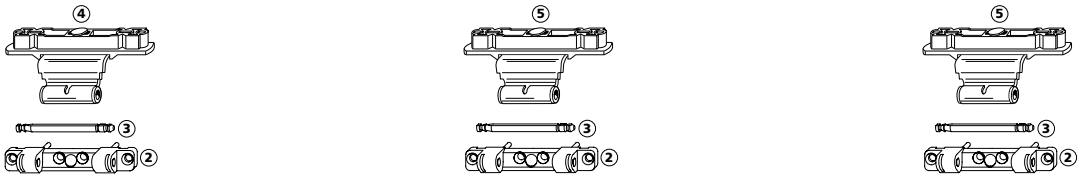
Quincaillerie
Ouverture à soufflet

Fittings
Tilt only





FFB 1201 - 2400



1	Getriebeanschluss V
2	Axerlager spezial
3	Axerlager – Stift
4	Kippflügelband ohne Ausgleich
5	Kippflügelband mit Ausgleich
6	Schliessstück
7	Verbindungslasche
8	Infoclip "Forster"
9	Hubbegrenzer (90°)
10	Beschlags-Distanzstück
11	Beschlagsschraube M4 x 21
12	DK-Getriebe mittig, Dornmass 8
13	Falzschere mit Flügellager

1	Raccord d'équerre V
2	Palier de compas spécial
3	Tige d'axe
4	Paumelle OF fixe
5	Paumelle OF mobile
6	Gâche
7	Liaison avec plaquette de liaison
8	Infoclip "Forster"
9	Limitateur de course (90°)
10	Pièce de distance pour ferrement
11	Vis de ferrement M4 x 21
12	Crémone oscillo-battant centrale, fouillot 8
13	Compas tombant avec palier de compas vantail

1	Espagnolette-connector V
2	Sash stay bearing special
3	Sash stay bearing pin
4	Tilt-only rebate hinge without alignment
5	Tilt-only rebate hinge with alignment
6	Striker
7	Splice plate
8	Infoclip "Forster"
9	Travel – restrictor (90°)
10	Distance piece for fittings
11	Fitting screw M4 x 21
12	Tilt-turn central drive, mandrel size 8
13	Tilt-stay with leaf bracket

Beschläge
Bestellnummern

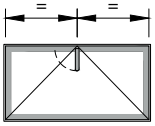
Kipp-Beschlag mit Profil 531.801
Griffsitz mittig (Komplett-Beschlag)
max. 80 [kg]

Quincaillerie
Références

Quincaillerie pour ouverture à soufflet avec profilé 531.801
Poignées aux milieu (ferrement complet)
max. 80 [kg]

Fittings
Order numbers

Tilt fittings with profile 531.801
Handle in the middle (complete fittings)
max. 80 [kg]



		531.801 / 531.801 z FFB [mm]					
		520 - 620	621 - 800	801 - 1200	1201 - 1600	1601 - 2000	2001 - 2400
FFH [mm]	350 - 1200	**987181** 6x M4 x 10	**987182** 6x M4 x 10	**987183** 6x M4 x 10	**987184** 8x M4 x 10	**987185** 8x M4 x 10	**987186** 12x M4 x 10

M4 x 10

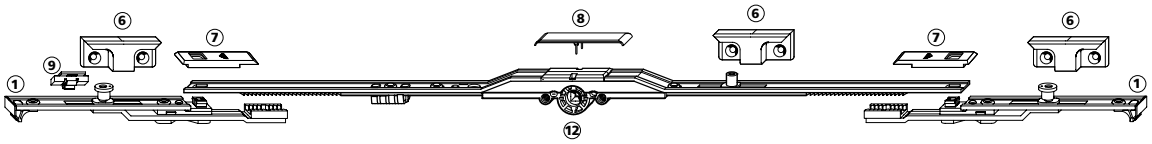
900020 Zusätzlich bestellen
900020 Commander séparément
900020 Order separately

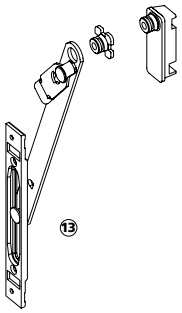
VUF 01/19

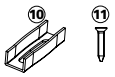
Beschläge
Kippflügel

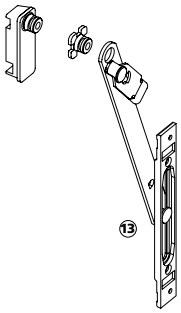
Quincaillerie
Ouverture à soufflet

Fittings
Tilt only

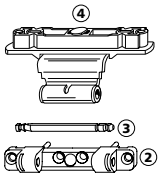


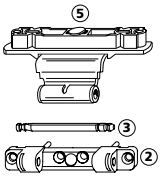


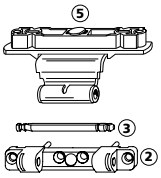




FFB 1201 - 2400







1	Getriebeanschluss V	**1**	Raccord d'équerre V	**1**	Espagnolette-connector V
2	Axerlager spezial	**2**	Palier de compas spécial	**2**	Sash stay bearing special
3	Axerlager – Stift	**3**	Tige d'axe	**3**	Sash stay bearing pin
4	Kippflügelband ohne Ausgleich	**4**	Paumelle OF fixe	**4**	Tilt-only rebate hinge without alignment
5	Kippflügelband mit Ausgleich	**5**	Paumelle OF mobile	**5**	Tilt-only rebate hinge with alignment
6	Schliessstück	**6**	Gâche	**6**	Striker
7	Verbindungslasche	**7**	Liaison avec plaquette de liaison	**7**	Splice plate
8	Infoclip "Forster"	**8**	Infoclip "Forster"	**8**	Infoclip "Forster"
9	Hubbegrenzer (90°)	**9**	Limitateur de course (90°)	**9**	Travel – restrictor (90°)
10	Beschlags-Distanzstück	**10**	Pièce de distance pour ferrement	**10**	Distance piece for fittings
11	Beschlagsschraube M4 x 21	**11**	Vis de ferrement M4 x 21	**11**	Fitting screw M4 x 21
12	DK-Getriebe mittig, Dornmass 8	**12**	Crémone oscillo-battant centrale, fouillot 8	**12**	Tilt-turn central drive, mandrel size 8
13	Falzschere mit Flügellager	**13**	Compas tombant avec palier de compas vantail	**13**	Tilt-stay with leaf bracket

Beschläge
Bestellnummern

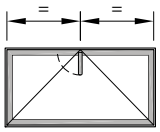
Kipp-Beschlag
mit Profil 530.800
Griffsitz mittig
(Komplett-Beschlag)
max. 80 [kg]

Quincaillerie
Références

Quincaillerie pour ouverture
à soufflet avec profilé 530.800
(ferrement complet)
poignées aux milieu
max. 80 [kg]

Fittings
Order numbers

Tilt only Fittingsets
with profile 530.800
(complete fittings)
handle in the middle
max. 80 [kg]



		530.800 530.800 z 530.800 CrNi1 FFB [mm]					
		520 - 620	621 - 800	801 - 1200	1201 - 1600	1601 - 2000	2001 - 2400
FFH [mm]	350 - 1200	**987181**	**987182**	**987183**	**987184**	**987185**	**987186**

Beschläge
Bestellnummern

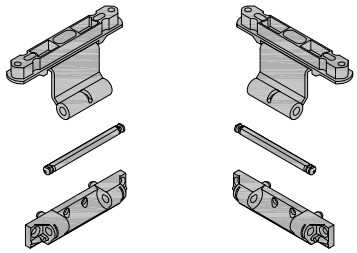
Kipp-Bänder Garnitur für Einsatz Oberlicht-öffner
987187 VE 2 Bänder
2 Stifte
2 Lager
max. Gewicht pro Flügel 80 [kg]

Quincaillerie
Références

Garniture de paumelle ouverture à soufflet pour ferme imposte unico
987187 UV 2 paumelles
2 tige d'axe
2 palier
Poids maximale par vantail 80 [kg]

Fittings
Order numbers

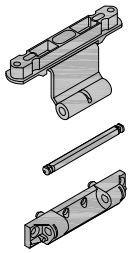
Tilt hinge set for fanlight opener unico
987187 SU 2 hinges
2 pins
2 pivots
Maximal weight each leaf 80 [kg]



Kipp-Bänder Garnitur
(zusätzliches Band für **987187**)
987188 VE 1 Band
1 Stift
1 Lager
max. Gewicht pro Flügel 80 [kg]

Complément de Garniture
(pour paumelle ouverture à soufflet **987187**)
987188 UV 1 paumelle
1 tige d'axe
1 palier
Poids maximale par vantail 80 [kg]

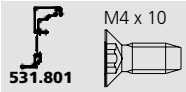
Tilt fitting-set
(additional hinge for **987187**)
987188 SU 1 hinge
1 pin
1 pivot
Maximal weight each leaf 80 [kg]



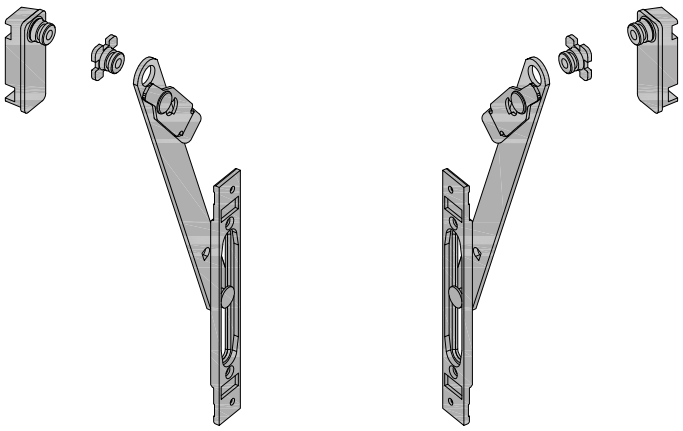
Falz- und Putzschere mit Flügellager
987854 VE 2 Stück
max. Gewicht pro Flügel 80 [kg]

Compas de feuillure avec palier raccord pour le vantail
987854 UV 2 pce
Poids maximale par vantail 80 [kg]

Tilt-stays with leaf bracket
987854 SU 2 pce
Maximal weight each leaf 80 [kg]



900020 8 Stück zusätzlich bestellen
900020 8 pièces commander séparément
900020 8 pieces order separately



Beschläge Verschlüsse

Mittelverschluss als Verlängerung für alternative Griff- und Fensterhöhen

987830 Mittelverschluss 200
l = 200 [mm]
(ohne Zapfen)

987831 Mittelverschluss 400 V
l = 400 [mm]
(mit Zapfen)

987832 Mittelverschluss 600 V
l = 600 [mm]
(mit Zapfen)

Quincaillerie Fermetures

Extension pour fermeture centrale pour hauteurs de poignée et de fenêtre (non standard)

987830 Verrouilleur médian 200
l = 200 [mm]
(sans tenon)

987831 Verrouilleur médian 400 V
l = 400 [mm]
(avec tenon)

987832 Verrouilleur médian 600 V
l = 600 [mm]
(avec tenon)

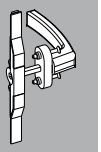
Fittings Locks

Center locks as extension for alternative handle and window heights

987830 Multipart center lock 200
l = 200 [mm]
(without pivot)

987831 Multipart center lock 400 V
l = 400 [mm]
(with pivot)

987832 Multipart center lock 600 V
l = 600 [mm]
(with pivot)





Mittelverschluss für alternative Stulpflügelhöhen

987833 Stulpflügelverlängerung unten
l = 400 [mm]
(Falls der Stulpflügel unterhalb der Griffhöhe verlängert werden muss)

987834 Stulpflügelverlängerung oben
l = 400 [mm]
(Falls der Stulpflügel oberhalb der Griffhöhe verlängert werden muss)

Fermeture centrale pour hauteurs de vantail semi-fixes (non standard)

987833 Extension de vantail semi-fixe en bas
l = 400 [mm]
(en cas d'extension du vantail semi-fixe en dessous de la poignée)

987834 Extension de vantail semi-fixe en haut
l = 400 [mm]
(en cas d'extension du vantail semi-fixe au-dessus de la poignée)

Center locks for alternative double sash leaf height

987833 double sash leaf extension below
l = 400 [mm]
(if the double sash has to be extended below the handle height)

987834 double sash leaf extension top = 400 [mm]
(if the double sash has to be extended above the handle height)



987833

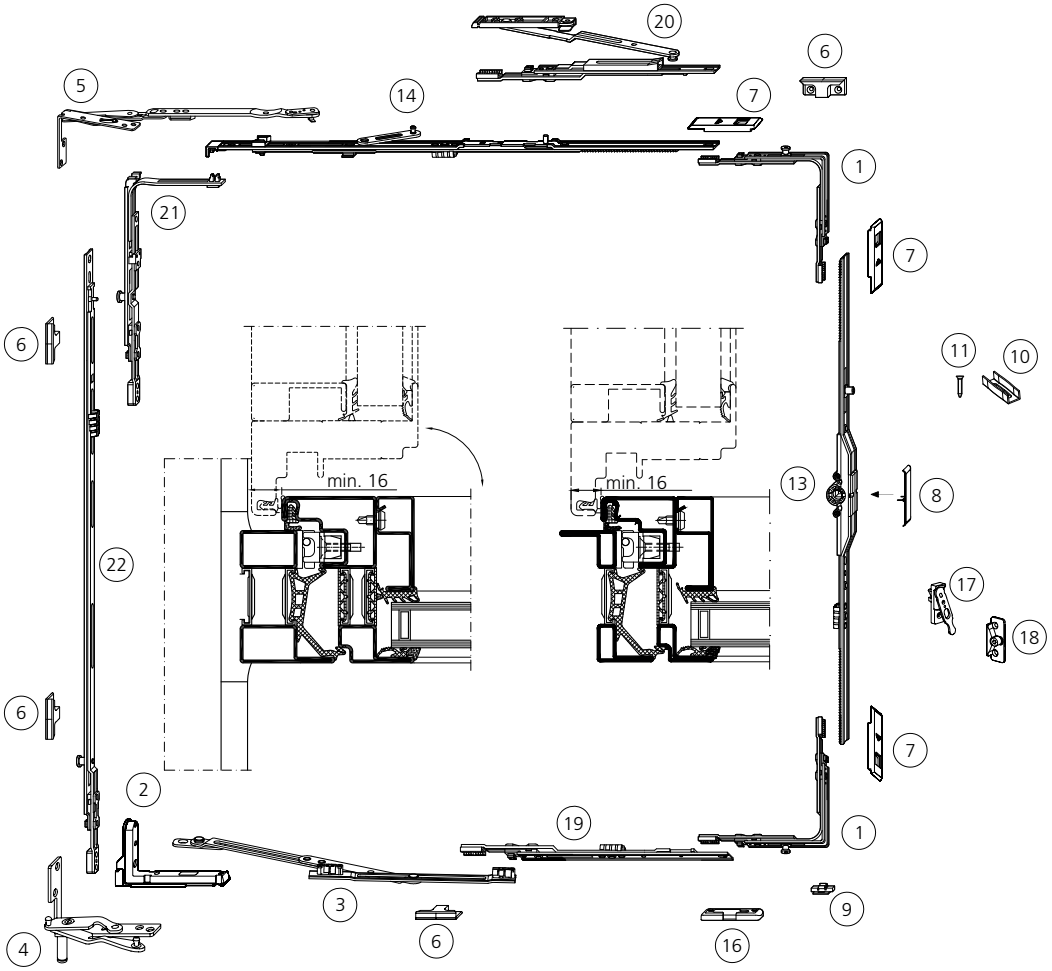


987834

Verdeckt liegende Beschläge
Dreh- / Drehkipp - Flügel

Quincaillerie cachée
Vantail / OB / OF

Concealed fittings
Turn / tilt and turn leaf



1 Eckumlenkung V
2 Eckband verdeckt
3 Drehbegrenzer verdeckt (FBB>1200)
4 Ecklager verdeckt
5 Axerarm verdeckt
6 Schliessstück
7 Verbindungslasche
8 Infoclip "Forster"
9 Hubbegrenzer (90°)
10 Beschlags-Distanzstück
11 Beschlagsschraube M4 x 21
13 DK-Getriebe mittig, Dornmass 8
14 Axerstulp
16 Kipplager
17 Niveau-Schaltsperre Flügelteil
18 Niveau-Schaltsperre Rahmenteil
19 Verlängerung horizontal (FFB > 1200)
20 Zweitschere (FFB > 1200)
21 Eckumlenkung Axer (FFH > 520)
22 Verlängerung vertikal
(FFH >1200 1x, FFH > 2000 2x)

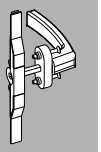
1 Transmission équerre V
2 Pivot d'angle caché
3 Limitateur d'ouverture caché (FBB>1200)
4 Palier d'angle caché
5 Bras de compas caché
6 Gâche
7 Plaquette de liaison
8 Infoclip "Forster"
9 Limitateur de course (90°)
10 Pièce de distance pour ferrement
11 Vis de ferrement M4 x 21
13 Crémone oscillo-battant centrale, fouillot 8
14 Têtière de compas
16 Gâche de basculement
17 Anti-fausse manœuvre partie ouvrant
18 Anti-fausse manœuvre partie dormant
19 Extension horizontale (FFB > 1200)
20 Deuxième compas (FFB > 1200)
21 Renvoi de compas (FFH > 520)
22 Extension verticale
(FFH >1200 1x, FFH > 2000 2x)

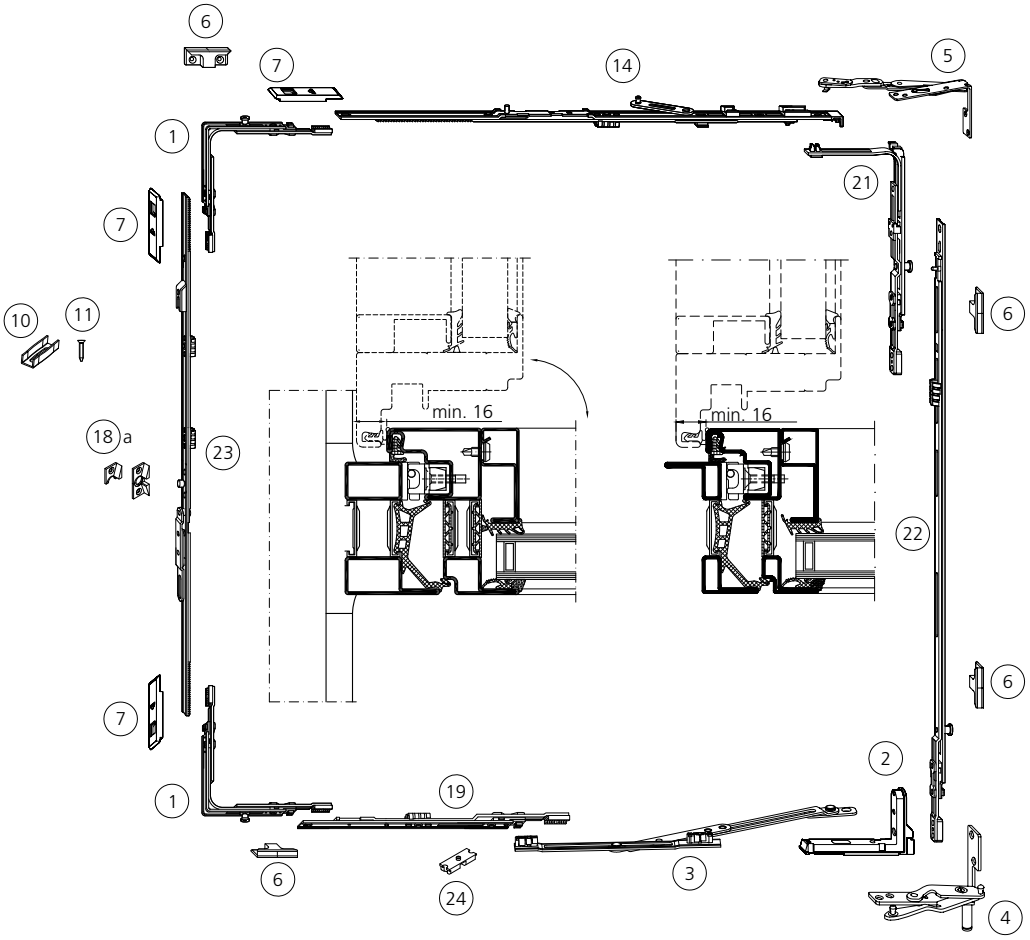
1 Corner drive V
2 Corner hinge concealed
3 Leafopeningrestrictorconcealed(FBB>1200)
4 Corner pivot rest concealed
5 Sash stay arm concealed
6 Striker
7 Link piece
8 Infoclip "Forster"
9 Travel – restrictor (90°)
10 Distance piece for fittings
11 Fitting screw M4 x 21
13 Tilt-turn central drive, mandrel size 8
14 Sash stay guide
16 Tilt-turn striker
17 Lifting mishandling device sash component
18 Lifting mishandling device frame part
19 Horizontal extension (FFB > 1200)
20 Additional scissors-stay (FFB > 1200)
21 Stay corner drive (FFH > 520)
22 Vertical extension
(FFH >1200 1x, FFH > 2000 2x)

Verdeckt liegende Beschläge Stulpflügel

Quincaillerie cachée Vantail semi-fixe

Concealed fittings Double sash





1 Eckumlenkung V
2 Eckband verdeckt
3 Drehbegrenzer verdeckt (FFB > 1000)
4 Ecklager verdeckt
5 Axerarm verdeckt
6 Schliessstück
7 Verbindungslasche
10 Beschlags-Distanzstück
11 Beschlagsschraube M4 x 21

14 Axerstulp DF

18a Niveau-Schaltsperre Stulpteil
19 Verlängerung horizontal (SFB > 1200)

21 Eckumlenkung Axer (SFH > 520)
22 Verlängerung vertikal (SFH >1200 1x, SFH > 2000 2x)
23 Stulpgetriebe mittig
24 Auflaufkeil

1 Transmission équerre V
2 Pivot d'angle caché
3 Limitateur d'ouverture caché (FFB > 1000)
4 Palier d'angle caché
5 Bras de compas caché
6 Gâche
7 Plaquette de liaison
10 Pièce de distance pour ferrement
11 Vis de ferrement M4 x 21

14 Têtière de compas DF

18a Anti-fausse manœuvre partie semi-fixe
19 Extension horizontale (SFB > 1200)

21 Renvoi d'angle de compas (SFH > 520)
22 Extension verticale (SFH >1200 1x, SFH > 2000 2x)
23 Crémone centrale pour vantail semi-fixe
24 Support glissiére vantail semi fixe

1 Corner drive V
2 Corner hinge concealed
3 Leaf opening restrictor concealed (FFB > 1000)
4 Corner pivot rest concealed
5 Sash stay arm concealed
6 Striker
7 Link piece
10 Distance piece for fittings
11 Fitting screw M4 x 21

14 Sash stay guide DF

18a Lifting mishandling passive leaf part
19 Horizontal extension (SFB > 1200)

21 Stay corner drive (SFH > 520)
22 Vertical extension (SFH >1200 1x, SFH > 2000 2x)
23 Central double sash drive
24 Run up block

Verdeckt liegende Beschläge Bestellnummern

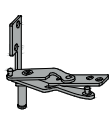
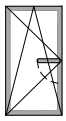
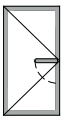
Dreh(*)- / Drehkipp-Beschlag mit Profil 531.801
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN links (Komplett-Beschlag)
max. 150 [kg]
Ab 80-150 kg mit Lastabtragung 987893

Quincaillerie cachée Références

Quincaillerie pour ouverture à la française(*)/ ouverture oscillo-battant avec profilé 531.801
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux,
DIN gauche (ferrement complet)
max. 150 [kg]
De 80-150 kg avec transmission de la charge 987893

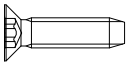
Concealed fittings Order numbers

Turn(*)/ tilt and turn fittings with profile 531.801
Single leaf windows
1. active leaf on double sash windows
DIN left (complete fittings)
max. 150 [kg]
From 80-150 kg with load transmitting 987893

FFH [mm]		531.801 531.801 z FFB [mm] 430 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
	520 - 620	**987113 C** (a 14x M4 x 10 2x M4 x 16	**987125 C** (a 14x M4 x 10 2x M4 x 16	**987137 C** (a 16x M4 x 10 2x M4 x 16	**987149 C** (a 16x M4 x 10 4x M4 x 16		260 - 310
	621 - 800	**987115 C** 18x M4 x 10 2x M4 x 16	**987127 C** 18x M4 x 10 2x M4 x 16	**987139 C** 20x M4 x 10 2x M4 x 16	**987151 C** 20x M4 x 10 4x M4 x 16	**987161 C** 22x M4 x 10 8x M4 x 16	311 - 400
	801 - 1200	**987117 C** 18x M4 x 10 2x M4 x 16	**987129 C** 18x M4 x 10 2x M4 x 16	**987141 C** 20x M4 x 10 2x M4 x 16	**987153 C** 20x M4 x 10 4x M4 x 16	**987163 C** 22x M4 x 10 8x M4 x 16	401 - 600
	1201 - 1600	**987119 C** 22x M4 x 10 2x M4 x 16	**987131 C** 22x M4 x 10 2x M4 x 16	**987143 C** 24x M4 x 10 2x M4 x 16	**987155 C** 24x M4 x 10 4x M4 x 16	**987165 C** 26x M4 x 10 8x M4 x 16	601 - 800
	1601 - 2000	**987121 C** 22x M4 x 10 2x M4 x 16	**987133 C** 22x M4 x 10 2x M4 x 16	**987145 C** 24x M4 x 10 2x M4 x 16	**987157 C** 24x M4 x 10 4x M4 x 16	**987167 C** 26x M4 x 10 8x M4 x 16	801 - 1000
	2001 - 2400	**987123 C** 28x M4 x 10 2x M4 x 16	**987135 C** 28x M4 x 10 2x M4 x 16	**987147 C** 30x M4 x 10 2x M4 x 16	**987159 C** 30x M4 x 10 4x M4 x 16	**987169 C** 32x M4 x 10 8x M4 x 16	1001 - 1200
	2401 - 2500	**987123 C +987177** 28x M4 x 10 2x M4 x 16	**987135 C +987177** 28x M4 x 10 2x M4 x 16	**987147 C +987177** 30x M4 x 10 2x M4 x 16	**987159 C +987177** 30x M4 x 10 4x M4 x 16	**987169 C +987177** 32x M4 x 10 8x M4 x 16	1001 - 1200

M4 x 10 
900020 Zusätzlich bestellen
900020 Commander séparément
900020 Order separately

M4 x 16 
900019 Zusätzlich bestellen
900019 Commander séparément
900019 Order separately

* = Dreh-Beschlag mit Hubbegrenzer
(a = ohne Niveauschaltsperre)

* = Quincaillerie pour ouverture à la française avec limitateurs de course
(a = sans anti-fausse manœuvre)

* = Turn fittings with travel restrictor
(a = without lifting mishandling)

Verdeckt liegende Beschläge Bestellnummern

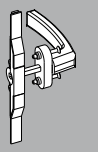
Dreh(*)- / Drehkipp-Beschlag mit Profil 531.801
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN rechts (Komplett-Beschlag)
max. 150 [kg]
Ab 80-150 kg mit Lastabtragung 987893

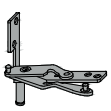
Quincaillerie cachée Références

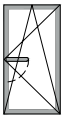
Quincaillerie pour ouverture à la française(*)/ ouverture oscillo-battant avec profilé 531.801
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux,
DIN droite (ferrement complet)
max. 150 [kg]
De 80-150 kg avec transmission de la charge 987893

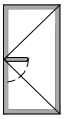
Concealed fittings Order numbers

Turn(*)/ tilt and turn fittings with profile 531.801
Single leaf windows
1. active leaf on double sash windows
DIN right (complete fittings)
max. 150 [kg]
From 80-150 kg with load transmitting 987893





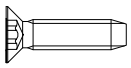




FFH [mm]	531.801 531.801 z FFB [mm] 430 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
520 - 620	**987114 C** (a 14x M4 x 10 2x M4 x 16	**987126 C** (a 14x M4 x 10 2x M4 x 16	**987138 C** (a 16x M4 x 10 2x M4 x 16	**987150 C** (a 16x M4 x 10 4x M4 x 16		260 - 310
621 - 800	**987116 C** 18x M4 x 10 2x M4 x 16	**987128 C** 18x M4 x 10 2x M4 x 16	**987140 C** 20x M4 x 10 2x M4 x 16	**987152 C** 20x M4 x 10 4x M4 x 16	**987162 C** 22x M4 x 10 8x M4 x 16	311 - 400
801 - 1200	**987118 C** 18x M4 x 10 2x M4 x 16	**987130 C** 18x M4 x 10 2x M4 x 16	**987142 C** 20x M4 x 10 2x M4 x 16	**987154 C** 20x M4 x 10 4x M4 x 16	**987164 C** 22x M4 x 10 8x M4 x 16	401 - 600
1201 - 1600	**987120 C** 22x M4 x 10 2x M4 x 16	**987132 C** 22x M4 x 10 2x M4 x 16	**987144 C** 24x M4 x 10 2x M4 x 16	**987156 C** 24x M4 x 10 4x M4 x 16	**987166 C** 26x M4 x 10 8x M4 x 16	601 - 800
1601 - 2000	**987122 C** 22x M4 x 10 2x M4 x 16	**987134 C** 22x M4 x 10 2x M4 x 16	**987146 C** 24x M4 x 10 2x M4 x 16	**987158 C** 24x M4 x 10 4x M4 x 16	**987168 C** 26x M4 x 10 8x M4 x 16	801 - 1000
2001 - 2400	**987124 C** 28x M4 x 10 2x M4 x 16	**987136 C** 28x M4 x 10 2x M4 x 16	**987148 C** 30x M4 x 10 2x M4 x 16	**987160 C** 30x M4 x 10 4x M4 x 16	**987170 C** 32x M4 x 10 8x M4 x 16	1001 - 1200
2401 - 2500	**987124 C +987177** 28x M4 x 10 2x M4 x 16	**987136 C +987177** 28x M4 x 10 2x M4 x 16	**987148 C +987177** 30x M4 x 10 2x M4 x 16	**987160 C +987177** 30x M4 x 10 4x M4 x 16	**987170 C +987177** 32x M4 x 10 8x M4 x 16	1001 - 1200

M4 x 10 

900020 Zusätzlich bestellen
900020 Commander séparément
900020 Order separately

M4 x 16 

900019 Zusätzlich bestellen
900019 Commander séparément
900019 Order separately

* = Dreh-Beschlag mit Hubbegrenzer
(a = ohne Niveauschaltsperre)

* = Quincaillerie pour ouverture à la française avec limitateurs de course
(a = sans anti-fausse manœuvre)

* = Turn fittings with travel restrictor
(a = without lifting mishandling)

Verdeckt liegende Beschläge
Bestellnummern

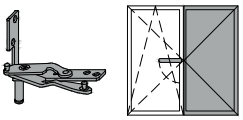
Stulpflügel-Beschlag mit Profil 531.801
2. öffnender Flügel passend zu
1. öffnendem Flügel **DIN links**
(Komplett-Beschlag)
max. 150 [kg]
Ab 80-150 kg mit Lastabtragung 987893

Quincaillerie cachée
Références

Quincaillerie de vantail semi-fixe avec profilé 531.801
2e vantail ouvrant adapté au
1er vantail ouvrant **DIN gauche**
(quincaillerie complète)
max. 150 [kg]
De 80-150 kg avec transmission de la charge
987893

Concealed fittings
Order numbers

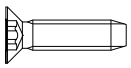
Double sash-fittings with profile 531.801
2. active leaf appropriate for
1.active leaf **DIN left** (complete fittings)
max. 80 [kg]
From 80-150 kg with load transmitting
987893



		531.801 531.801 z			**531.832 531.832 z**	**SFB [mm]**		**GH [mm]**
		430 - 510	511 - 710	711 - 910	911 - 1110	1111 - 1310	1310 - 1400	
SFH [mm]	520 - 750	**987900 C** (a 14x M4 x 10 4x M4 x 16						260 - 375
	751 - 900	**987912 C** 12x M4 x 10	**987922 C** 12x M4 x 10	**987932 C** 12x M4 x 10	**987942 C** 14x M4 x 10 2x M4 x 16	**987952 C** 16x M4 x 10 2x M4 x 16		376 - 450
	901 - 1200	**987914 C** 12x M4 x 10	**987924 C** 12x M4 x 10	**987934 C** 12x M4 x 10	**987944 C** 14x M4 x 10 2x M4 x 16	**987954 C** 16x M4 x 10 2x M4 x 16	**987962 C** 16x M4 x 10 2x M4 x 16	451 - 600
	1201 - 1600	**987916 C** 12x M4 x 10	**987926 C** 12x M4 x 10	**987936 C** 12x M4 x 10	**987946 C** 14x M4 x 10 2x M4 x 16	**987956 C** 16x M4 x 10 2x M4 x 16	**987964 C** 16x M4 x 10 2x M4 x 16	601 - 800
	1601 - 2000	**987918 C** 12x M4 x 10	**987928 C** 12x M4 x 10	**987938 C** 12x M4 x 10	**987948 C** 14x M4 x 10 2x M4 x 16	**987958 C** 16x M4 x 10 2x M4 x 16	**987966 C** 16x M4 x 10 2x M4 x 16	801 - 1000
	2001 - 2400	**987920 C** 10x M4 x 10	**987930 C** 10x M4 x 10	**987940 C** 10x M4 x 10	**987950 C** 12x M4 x 10 2x M4 x 16	**987960 C** 14x M4 x 10 2x M4 x 16		1001 - 1200
	2401 - 2500	**987920 C +987177** 10x M4 x 10	**987930 C +987177** 10x M4 x 10	**987940 C +987177** 10x M4 x 10	**987950 C +987177** 12x M4 x 10 2x M4 x 16	**987960 C +987177** 14x M4 x 10 2x M4 x 16		1001 - 1200

M4 x 10 

900020 Zusätzlich bestellen
900020 Commander séparément
900020 Order separately

M4 x 16 

900019 Zusätzlich bestellen
900019 Commander séparément
900019 Order separately

(a = ohne Niveauschaltsperre) (a = sans anti-fausse manœuvre) (a = without lifting mishandling)

Verdeckt liegende Beschläge Bestellnummern

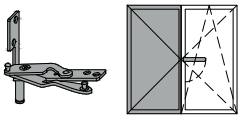
Stulpflügel-Beschlag mit Profil 531.801
2. öffnender Flügel passend zu
1. öffnendem Flügel **DIN rechts**
(Komplett-Beschlag)
max. 150 [kg]
Ab 80-150 kg mit Lastabtragung 987893

Quincaillerie cachée Références

Quincaillerie de vantail semi-fixe avec profilé 531.801
2e vantail ouvrant adapté au
1er vantail ouvrant **DIN droite**
(quincaillerie complète)
max. 150 [kg]
De 80-150 kg avec transmission de la charge 987893

Concealed fittings Order numbers

Double sash-fittings with profile 531.801
2. active leaf appropriate for
1. active leaf **DIN right** (complete fittings)
max. 150 [kg]
From 80-150 kg with load transmitting 987893



SFH [mm]	SFB [mm] 531.801 / 531.801 z / 531.832 / 531.832 z: 430 - 510	511 - 710	711 - 910	911 - 1110	1111 - 1310	1310 - 1400	GH [mm]
520 - 750	**987969 C** (a 14x M4 x 10 4x M4 x 16						260 - 375
751 - 900	**987911 C** 12x M4 x 10	**987921 C** 12x M4 x 10	**987931 C** 12x M4 x 10	**987941 C** 14x M4 x 10 2x M4 x 16	**987951 C** 16x M4 x 10 2x M4 x 16		376 - 450
901 - 1200	**987913 C** 12x M4 x 10	**987923 C** 12x M4 x 10	**987933 C** 12x M4 x 10	**987943 C** 14x M4 x 10 2x M4 x 16	**987953 C** 16x M4 x 10 2x M4 x 16	**987961 C** 16x M4 x 10 2x M4 x 16	451 - 600
1201 - 1600	**987915 C** 12x M4 x 10	**987925 C** 12x M4 x 10	**987935 C** 12x M4 x 10	**987945 C** 14x M4 x 10 2x M4 x 16	**987955 C** 16x M4 x 10 2x M4 x 16	**987963 C** 16x M4 x 10 2x M4 x 16	601 - 800
1601 - 2000	**987917 C** 12x M4 x 10	**987927 C** 12x M4 x 10	**987937 C** 12x M4 x 10	**987947 C** 14x M4 x 10 2x M4 x 16	**987957 C** 16x M4 x 10 2x M4 x 16	**987965 C** 16x M4 x 10 2x M4 x 16	801 - 1000
2001 - 2400	**987919 C** 10x M4 x 10	**987929 C** 10x M4 x 10	**987939 C** 10x M4 x 10	**987949 C** 12x M4 x 10 2x M4 x 16	**987959 C** 14x M4 x 10 2x M4 x 16		1001 - 1200
2401 - 2500	**987919 C +987177** 10x M4 x 10	**987929 C +987177** 10x M4 x 10	**987939 C +987177** 10x M4 x 10	**987949 C +987177** 12x M4 x 10 2x M4 x 16	**987959 C +987177** 14x M4 x 10 2x M4 x 16		1001 - 1200

M4 x 10 
900020 Zusätzlich bestellen
900020 Commander séparément
900020 Order separately

M4 x 16 
900019 Zusätzlich bestellen
900019 Commander séparément
900019 Order separately

(a = ohne Niveauschaltsperre) (a = sans anti-fausse manœuvre) (a = without lifting mishandling)

Verdeckt liegende Beschläge Bestellnummern

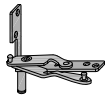
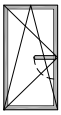
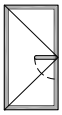
Dreh(*)- / Drehkipp-Beschlag verdeckt mit Profil 530.800
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN links (Komplett-Beschlag),
max. 150 [kg], ab 80-150 kg mit Lastabtragung 987893

Quincaillerie cachée Références

Quincaillerie pour ouverture à la française(*) cachée / ouverture oscillo-battant avec profilé 530.800
Fenêtres à 1 vantail / 1er ouvrant des fenêtres à 2 vantaux, **DIN gauche** (ferrement complet), max. 150 [kg], de 80-150 kg avec transmission de la charge 987893

Concealed fittings Order numbers

Turn(*)/ tilt and turn fittings concealed with profile 530.800
Single leaf windows
1. active leaf on double sash windows
DIN left (complete fittings), max. 150 [kg], from 80-150 kg with load transmitting 987893

FFH [mm]	530.800 530.800 z 530.800 CrNi1 FFB [mm] 430 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
520 - 620	**987113 C** (a	**987125 C** (a	**987137 C** (a	**987149 C** (a		260 - 310
621 - 800	**987115 C**	**987127 C**	**987139 C**	**987151 C**	**987161 C**	311 - 400
801 - 1200	**987117 C**	**987129 C**	**987141 C**	**987153 C**	**987163 C**	401 - 600
1201 - 1600	**987119 C**	**987131 C**	**987143 C**	**987155 C**	**987165 C**	601 - 800
1601 - 2000	**987121 C**	**987133 C**	**987145 C**	**987157 C**	**987167 C**	801 - 1000
2001 - 2400	**987123 C**	**987135 C**	**987147 C**	**987159 C**	**987169 C**	1001 - 1200

* = Dreh-Beschlag mit Hubbegrenzer
(a = ohne Niveauschaltsperre)

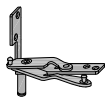
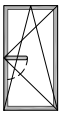
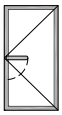
* = Quincaillerie pour ouverture à la française avec limitateurs de course
(a = sans anti-fausse manœuvre)

* = Turn fittings with travel restrictor
(a = without lifting mishandling)

DIN rechts (Komplett-Beschlag),
max. 150 [kg], ab 80-150 kg mit Lastabtragung 987893

DIN droite (ferrement complet), max. 150 [kg], de 80-150 kg avec transmission de la charge 987893

DIN right (complete fittings), max. 150 [kg], from 80-150 kg with load transmitting 987893

FFH [mm]	530.800 530.800 z 530.800 CrNi1 FFB [mm] 430 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
520 - 620	**987114 C** (a	**987126 C** (a	**987138 C** (a	**987150 C** (a		260 - 310
621 - 800	**987116 C**	**987128 C**	**987140 C**	**987152 C**	**987162 C**	311 - 400
801 - 1200	**987118 C**	**987130 C**	**987142 C**	**987154 C**	**987164 C**	401 - 600
1201 - 1600	**987120 C**	**987132 C**	**987144 C**	**987156 C**	**987166 C**	601 - 800
1601 - 2000	**987122 C**	**987134 C**	**987146 C**	**987158 C**	**987168 C**	801 - 1000
2001 - 2400	**987124 C**	**987136 C**	**987148 C**	**987160 C**	**987170 C**	1001 - 1200

Verdeckt liegende Beschläge Bestellnummern

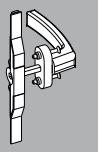
Stulpflügel-Beschlag verdeckt mit Profil 530.800
2. öffnender Flügel passend zu
1. öffnendem Flügel **DIN links**
(Komplett-Beschlag)
max. 150 [kg], ab 80-150 kg mit Lastabtragung 987893

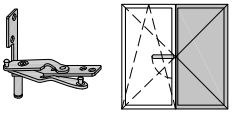
Quincaillerie cachée Références

Quincaillerie de vantail semi-fixe cachée avec profilé 530.800
2e vantail ouvrant adapté au
1er vantail ouvrant **DIN gauche**
(quincaillerie complète)
max. 150 [kg], de 80-150 kg avec transmission de la charge 987893

Concealed fittings Order numbers

Double sash-fittings concealed with profile 530.800
2. active leaf appropriate for
1. active leaf **DIN left** (complete fittings)
max. 150 [kg],
from 80-150 kg with load transmitting 987893





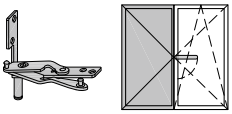
SFH [mm]	530.800 530.800 z / 531.832 531.832 z SFB [mm]						GH [mm]
	430 - 510	511 - 710	711 - 910	911 - 1110	1111 - 1310	1310 - 1400	
520 - 750	**987900 C (a**						260 - 375
751 - 900	**987912 C (a**	**987922 C (a**	**987932 C (a**	**987942 C (a**	**987952 C (a**		376 - 450
901 - 1200	**987914 C**	**987924 C**	**987934 C**	**987944 C**	**987954 C**	**987962 C**	451 - 600
1201 - 1600	**987916 C**	**987926 C**	**987936 C**	**987946 C**	**987956 C**	**987964 C**	601 - 800
1601 - 2000	**987918 C**	**987928 C**	**987938 C**	**987948 C**	**987958 C**	**987966 C**	801 - 1000
2001 - 2400	**987920 C**	**987930 C**	**987940 C**	**987950 C**	**987960 C**		1001 - 1200

(a = ohne Niveauschaltsperre)

Stulpflügel-Beschlag verdeckt mit Profil 530.800
2. öffnender Flügel passend zu
1. öffnendem Flügel **DIN rechts**
(Komplett-Beschlag)
max. 150 [kg], ab 80-150 kg mit Lastabtragung 987893

Quincaillerie de vantail semi-fixe cachée avec profilé 530.800
2e vantail ouvrant adapté au
1er vantail ouvrant **DIN droite**
(quincaillerie complète)
max. 150 [kg], de 80-150 kg avec transmission de la charge 987893

Double sash-fittings concealed with profile 530.800
2. active leaf appropriate for
1. active leaf **DIN right** (complete fittings)
max. 150 [kg],
from 80-150 kg with load transmitting 987893



SFH [mm]	530.800 530.800 z / 531.832 531.832 z SFB [mm]						GH [mm]
	430 - 510	511 - 710	711 - 910	911 - 1110	1111 - 1310	1310 - 1400	
520 - 750	**987969 C (a**						260 - 375
751 - 900	**987911 C (a**	**987921 C (a**	**987931 C (a**	**987941 C (a**	**987951 C (a**		376 - 450
901 - 1200	**987913 C**	**987923 C**	**987933 C**	**987943 C**	**987953 C**	**987961 C**	451 - 600
1201 - 1600	**987915 C**	**987925 C**	**987935 C**	**987945 C**	**987955 C**	**987963 C**	601 - 800
1601 - 2000	**987917 C**	**987927 C**	**987937 C**	**987947 C**	**987957 C**	**987965 C**	801 - 1000
2001 - 2400	**987919 C**	**987929 C**	**987939 C**	**987949 C**	**987959 C**		1001 - 1200

(a = sans anti-fausse manœuvre)

(a = without lifting mishandling)

Beschläge
Fenstergriffe

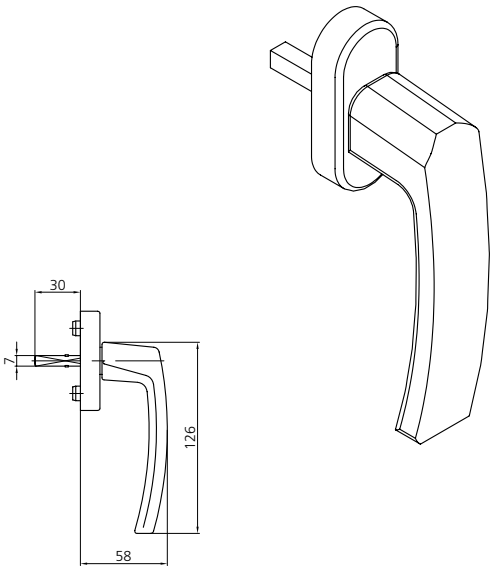
Fenstergriff
Aluminium E6 EV1, farblos eloxiert
987300 VE 1 Stück
inkl. Befestigungsschrauben M5 x 40
Vierkantdorn 7 mm
Höhe: ca. 126 mm
Tiefe: ca. 58 mm

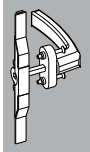
Quincaillerie
Poignées de fenêtre

Poignée de fenêtre
Aluminium E6 EV1, anodisé naturel
987300 UV 1 pièce
avec vis de fixation M5 x 40
Boulon carré 7 mm
Hauteur: env. 126 mm
Profondeur: env. 58 mm

Fittings
Window handles

Window handle
Aluminium E6 EV1, colourless anodized
987300 SU 1 piece
incl. fastening screws M5 x 40
Rectangular mandrel 7 mm
Height: approx. 126 mm
Depth: approx. 58 mm

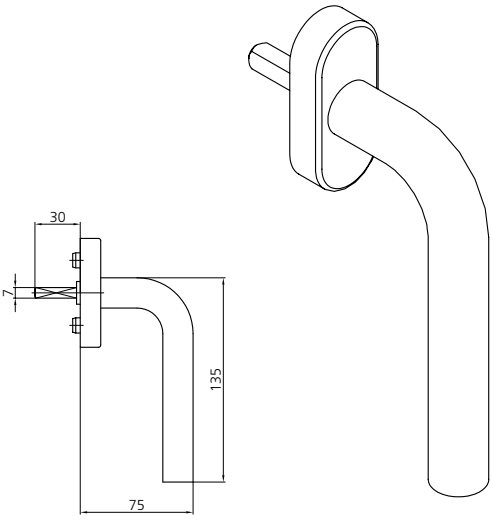




Fenstergriff
Edelstahl geschliffen (INOX 304)
987301 VE 1 Stück
inkl. Befestigungsschrauben M5 x 40
Vierkantdorn 7 mm
Höhe: ca. 135 mm
Tiefe: ca. 75 mm

Poignée de fenêtre
Acier inox poli (INOX 304)
987301 UV 1 pièce
avec vis de fixation M5 x 40
Boulon carré 7 mm
Hauteur: env. 135 mm
Profondeur: env. 75 mm

Window handle
Stainless steel polished (INOX 304)
987301 SU 1 piece
incl. fastening screws M5 x 40
Rectangular mandrel 7 mm
Height: ca. 135 mm
Depth: ca. 75 mm



Beschläge
Fenstergriffe / Zubehör

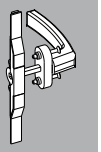
Quincaillerie
Poignées de fenêtre / Accessoires

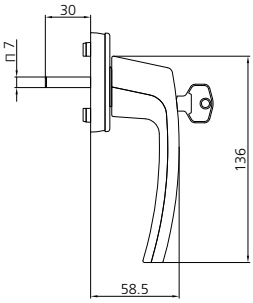
Fittings
Window handles / Accessories

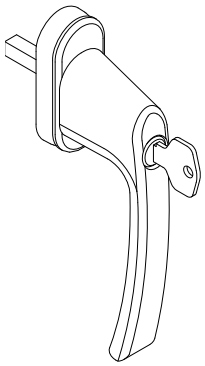
Fenstergriff
Aluminium, farblos eloxiert
987302 VE 1 Stück
inkl. Befestigungsschrauben M5 x 40
Vierkantdorn 7 mm
Höhe: ca. 136 mm
Tiefe: ca. 59 mm

Poignée de fenêtre
Aluminium, anodisé naturel
987302 UV 1 pièce
avec vis de fixation M5 x 40
carré 7 mm
Hauteur: env. 136 mm
Profondeur: env. 59 mm

Window handle
Aluminium, colourless anodized
987302 SU 1 piece
incl. fastening screws M5 x 40
Rectangular mandrel 7 mm
Height: approx. 136 mm
Depth: approx. 59 mm







Lastabtragung
für verdecktliegenden Beschlag
Für Flügelgewicht bis max. 150 kg
987893 VE 1 Stück
inkl. Befestigungsschrauben

Transmission de la charge
pour quincaillerie cachée
Pour poids de vantail max. 150 kg
987893 UV 1 pièce
avec vis de fixation

Load transfer for concealed fitting

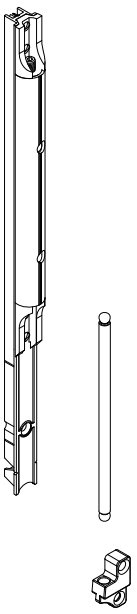
For leaf weight up to 150 kg
987893 SU 1 piece
incl. fastening screws





M4 x 10

900020 2 Stück zusätzlich bestellen
900020 2 pièces commander séparément
900020 2 pieces order separately



Beschläge Zubehör

Quincaillerie Accessoires

Fittings Accessories

Drehbegrenzer
für aufgesetzten Beschlag
987892 VE 1 Stück
inkl. Befestigungsschrauben

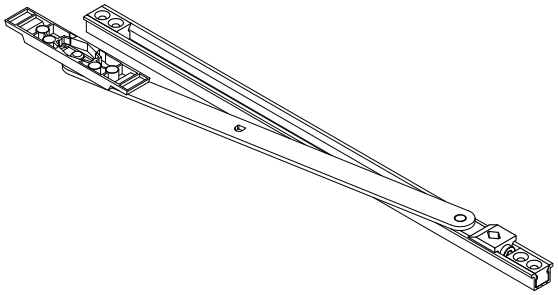
Limitateur d'ouverture
pour quincaillerie standard
987892 UV 1 pièce
avec vis de fixation

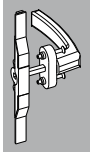
Leaf opening restrictor
for attached window fitting
987892 SU 1 piece
incl. fastening screws




M4 x 10

900020 4 Stück zusätzlich bestellen
900020 4 pièces commander séparément
900020 4 pieces order separately





Drehbegrenzer
für verdecktliegenden Beschlag
987891 VE 1 Stück
inkl. Befestigungsschrauben

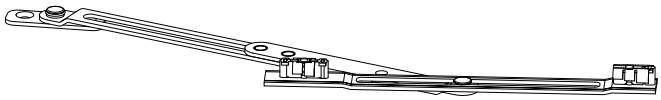
Anwendungsbereich:
FFB 520 bis 1200 mm
ab FFB 1200 mm im Lieferumfang enthalten

Limitateur d'ouverture
pour quincaillerie cachée
987891 UV 1 pièce
avec vis de fixation

Domaine d'utilisation:
FFB 520 jusqu'à 1200 mm
dès FFB 1200 mm compris dans la fourniture

Leaf opening restrictor
for concealed fitting
987891 SU 1 piece
incl. fastening screws

Application Area:
FFB 520 to 1200 mm
from FFB 1200 mm included in the delivery package

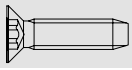


Schnäppersatz für Standard- und verdecktliegenden Beschlag
987855 VE 1 Stück
inkl. Befestigungsschrauben

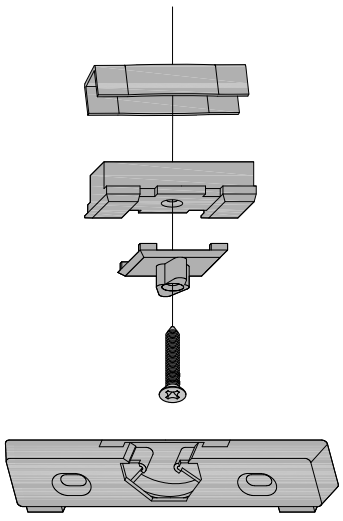
Blocage à pion pour quincaillerie standard ou cachée
987855 UV 1 pièce
avec vis de fixation

Bullet catch for standard and concealed fitting
987855 SU 1 piece
incl. fastening screws




M4 x 16

900019 2 Stück zusätzlich bestellen
900019 2 pièces à commander séparément
900019 2 pieces to be ordered separately



Beschläge Zubehör

Abdeckkappen-Garnitur
Für Dreh- / Drehkipp-Fenster
Abdeckkappen für Axerlager, Eckband, Ecklager
Ecklagerlasche und Eckband
VE = 25 Stück (Abdeckkappen für 5 Flügel)

987600	Weiss (auf Anfrage)
987601	Natursilber
987602	Titan

Quincaillerie Accessoires

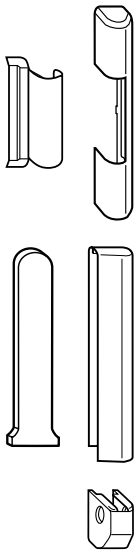
Garnitures de caches
Pour vantail à la française et OB
Caches pour palier de compas, pivot d'angle, palier d'angle
Plaque pour palier d'angle et pivot d'angle
UV = 25 pièces (caches pour 5 vantaux)

987600	Blanc (sur demande)
987601	Argent nature
987602	Titane

Fittings Accessories

Sets of cover caps
For turn / tilt and turn windows
Cover cap for sash stay bearing, corner hinge, corner pivot rest
Corner pivot rest strip and corner hinge
SU = 25 pieces (cover caps for 5 leaves)

987600	white (upon request)
987601	natural silver
987602	Titan



Abdeckkappen-Garnitur
Für Kipp-Fenster
Abdeckkappen für Axerlager und Kippband
VE = 20 Stück (Abdeckkappen für 10 Bänder)

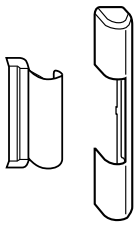
987603	Weiss (auf Anfrage)
987604	Natursilber
987605	Titan

Garnitures de caches
Pour fenêtre à soufflet
Caches pour palier de compas et paumelle
UV = 20 pièces (caches pour 10 paumelles)

987603	Blanc (sur demande)
987604	Argent nature
987605	Titane

Sets of cover caps
For tilt-only windows
Cover cap for sash stay bearing and tilt only rebate hinge
SU = 20 pieces (cover caps for 10 hinges)

987603	white (upon request)
987604	natural silver
987605	Titan



Beschläge Zubehör

Distanzstück für Beschlagsmontage aus Kunststoff für Einsatz in Beschlagsnut

927001 VE = 100 Stk.
927028 VE = 10 Stk.

Quincaillerie Accessoires

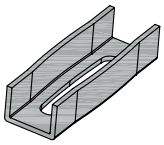
Entretoise en matière plastique pour le montage dans la gorge de la quincaillerie

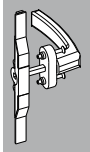
927001 UV = 100 pièces
927028 UV = 10 pièces

Fittings Accessories

Distancer made of plastic to be inserted into the fittings groove to mount the fittings

927001 SU = 100 pieces
927028 SU = 10 pieces





Beschlagsschraube selbstfurchend M4 x 21

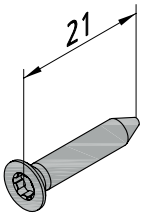
900011 VE = 100 Stk.
900018 VE = 10 Stk.

Vis de fixation autotaraudeuses M4 x 21

900011 UV = 100 pièces
900018 UV = 10 pièces

Fitting screw self-tapping M4 x 21

900011 SU = 100 pieces
900018 SU = 10 pieces



Beschlagsschraube selbstfurchend M4 x 30
Einsatz
- Stulpgetriebe
- Niveauschaltsperre

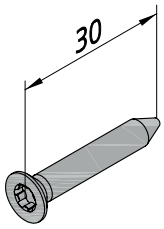
900013 VE = 100 Stk.
900017 VE = 20 Stk.

Vis de fixation autotaraudeuses M4 x 30
Insertion
- Crémone pour vantail semi-fixe
- Anti-fausse manœuvre

900013 UV = 100 pièces
900017 UV = 20 pièces

Fitting screw self-tapping M4 x 30
Insert
- Double sash drive
- Lifting misshandling device

900013 SU = 100 pieses
900017 SU = 20 pieces



Einnietmutter Edelstahl M4 versenkt für Lagermontage auf Rahmen (Ersatz)

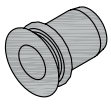
986851 VE = 100 Stk.
986852 VE = 10 Stk.

Rivet fileté acier inox M4 pour installation sur le cadre (en remplacement)

986851 UV = 100 pièces
986852 UV = 10 pièces

Countersink of the clunch nut M4 for mounting bracket of the frame (reserves)

986851 SU = 100 pieces
986852 SU = 10 pieces



Beschläge Zubehör

Beschlagsschraube selbstfurchend M4 x 16

900019 VE = 100 Stk.
900025 VE = 10 Stk.

Quincaillerie Accessoires

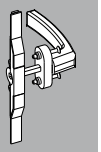
Vis de fixation autotaraudeuses M4 x 16

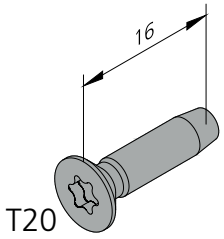
900019 UV = 100 pièces
900025 UV = 10 pièces

Fittings Accessories

Fitting screw self-tapping M4 x 16

900019 SU = 100 pieces
900025 SU = 10 pieces





Beschlagsschraube selbstfurchend M4 x 10

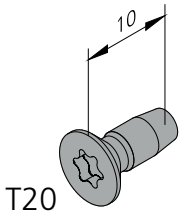
900020 VE = 100 Stk.

Vis de fixation autotaraudeuses M4 x 10

900020 UV = 100 pièces

Fitting screw self-tapping M4 x 10

900020 SU = 100 pieces



Verlängerung 987177
FFH 2401 - 2500 mm

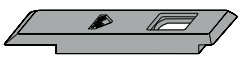
bestehend aus:
2 x Verlängerung 200
2 x Verbindungslaschen
2 x Beschlags-Distanzstück

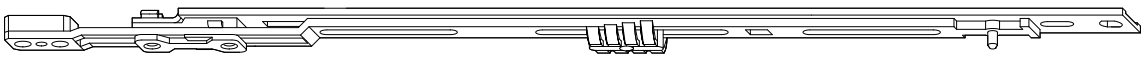
Extension 987177
FFH 2401 - 2500 mm

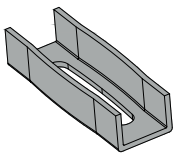
comprenant:
2 x Extension 200
2 x Plaquette de liaison
2 x Pièce de distance pour ferrement

Extension 987177
FFH 2401 - 2500 mm

composed of:
2 x Extension 200
2 x Link piece
2 x Distance piece for fittings







Beschläge
Bestellformulare

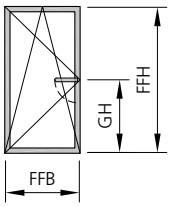
Quincailleries
Formulaire de commande

Fittings
Ordering form

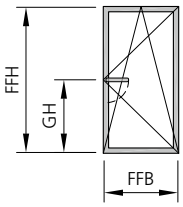
Sondergrössen
1-flügelig
(Ansicht von innen)

Dimensions spéciales
1 vantail
(vue de l'intérieur)

Alternative dimensions
Single leaf
(inside view)



Typ 1.1



Typ 1.2

☐ Anfrage (Machbarkeit)
Demande (faisabilité)
Request (feasibility)

☐ Bestellung
Commande
Order

☐ Verdecktliegend max 80 [kg]
Cachée max 80 [kg]
Concealed max 80 [kg]
} +987893 max. 150 [kg]

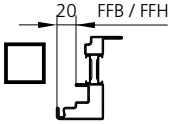
☐ Kipp vor Dreh / Oscillo-battant inversé / Tilt first

☑ Standard
☐ WK / CR 1
☐ RC 2
☐ RC 3

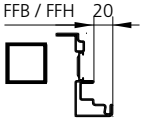
Kunde:
Client:
Customer: _____

Kontaktperson:
Responsable de projet:
Project responsibility: _____

Objekt:
Projet:
Project: _____



530.800



531.801

							für / pour / for 531.801	
Pos.	**Typ**	**Stück Qté. Piece**	**FFB [mm]**	**FFH [mm]**	**GH [mm]**	**Gewicht (*) Poids (*) Weight (*)**	**M4x10 900020 [Stk/pcs]**	**M4x16 900019 [Stk/pcs]**
Pos. 1								
Pos. 2								
Pos. 3								
Pos. 4								
Pos. 5								
Pos. 6								
Pos. 7								
Pos. 8								

(*) = Flügelgewicht, von der Geometrie abhängig.

(*) = Poids dépendant de la géométrie du vantail

(*) = Leaf-weight depending of the geometry

Beschläge
Bestellformulare

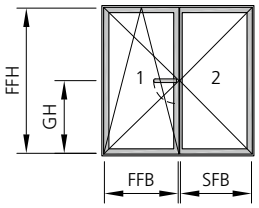
Quincailleries
Formulaire de commande

Fittings
Ordering form

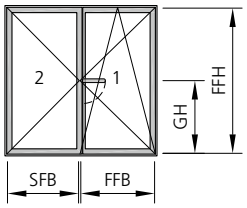
Sondergrössen
2-flügelig
(Ansicht von innen)

Dimensions spéciales
2 vantaux
(vue de l'intérieur)

Alternative dimensions
double-leaf
(inside view)



Typ 2.1



Typ 2.2

☐ Anfrage (Machbarkeit)
Demande (faisabilité)
Request (feasibility)

☐ Bestellung
Commande
Order

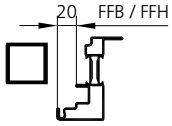
☐ Verdecktliegend max 80 [kg]
Cachée max 80 [kg]
Concealed max 80 [kg]
} +987893 max. 150 [kg]

☐ Kipp vor Dreh / Oscillo-battant inversé / Tilt first

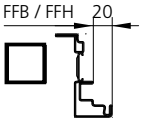
☐ Standard
☐ WK / CR 1
☐ RC 2
☐ RC 3

Kunde:
Client:
Customer: _____

Kontaktperson:
Responsable de projet:
Project responsibility: _____



☐ 530.800



☐ 531.801

Objekt:
Projet:
Project: _____

Pos.	Typ	Stück Qté. Piece	FFB [mm]	SFB [mm]	FFH [mm]	GH [mm]	Gewicht (*) Poids (*) Weight (*)	für / pour / for 531.801 M4x10 900020 [Stk/pcs]	für / pour / for 531.801 M4x16 900019 [Stk/pcs]
Pos. 1									
Pos. 2									
Pos. 3									
Pos. 4									
Pos. 5									
Pos. 6									
Pos. 7									
Pos. 8									

(*) = Flügelgewicht, von der Geometrie abhängig.

(*) = Poids dépendant de la géométrie du vantail

(*) = Leaf-weight depending of the geometry

Beschläge
Bestellformulare

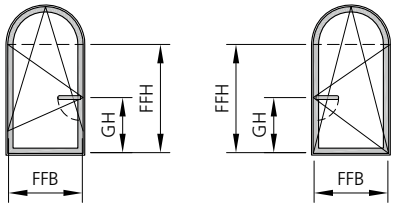
Quincailleries
Formulaire de commande

Fittings
Ordering form

Aufgesetzter Fensterbeschlag
Rundbogenfenster
(Ansicht von innen)

Quincaillerie de fenêtre
Fenêtre cintrée
(vue de l'intérieur)

Attached window fittings
Window with segmental arch
(inside view)



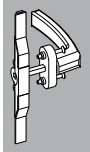
Typ 3.3 Typ 3.4

☐ Anfrage (Machbarkeit)
Demande (faisabilité)
Request (feasibility)

☐ Bestellung
Commande
Order

Biegeradien der Profile beachten
Rayon de cintrage des profilés à respecter
Pay attention to the bending radius

FFH:	500 - 1900 [mm]
FFB:	400 - 1300 [mm]
max. (*):	80 [kg]



Kunde:
Client:
Customer: _____

Kontaktperson:
Responsable de projet:
Project responsibility: _____



530.800 531.801

Objekt:
Projet:
Project: _____

Pos.	Typ	Stück Qté. Piece	FFB [mm]	FFH [mm]	GH [mm]	Gewicht (*) Poids (*) Weight (*)
Pos. 1						
Pos. 2						
Pos. 3						
Pos. 4						
Pos. 5						
Pos. 6						
Pos. 7						
Pos. 8						

(*) = Flügelgewicht, von der Geometrie abhängig.

(*) = Poids dépendant de la géométrie du vantail

(*) = Leaf-weight depending of the geometry

	4
Zubehör	
Dichtungen, Befestigungsmaterial, Entwässerung	4.1.1 - 4.1.8
Verarbeitungshilfen	4.2.1 - 4.2.6

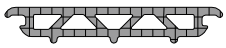
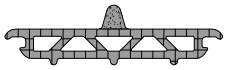
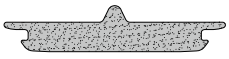
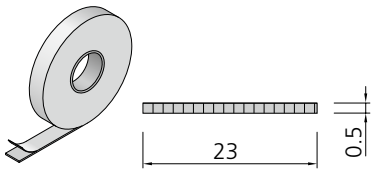
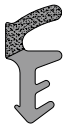
Accessoires	
Joints, matériaux de fixation, evacuation d'eau	4.1.1 - 4.1.8
Aides à la mise en œuvre	4.2.1 - 4.2.6

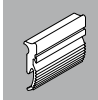
Accessories	
Weatherstrippings, fixing material, drainage	4.1.1 - 4.1.8
Processing aids	4.2.1 - 4.2.6

Zubehör
Dichtungen

Accessoires
Joints

Accessories
Weatherstrippings

Abbildung **Figure** **Figure**	**Bezeichnung** **Désignation** **Designation**	**Verkaufseinheit** **Unité de vente** **Sales unit**	**Art. Nr.** **art. no.** **art. no.**
	Falzabdeckung aus EPDM Shore-Härte ca. 93, schwarz Recouvrement de feuillure en EPDM Dureté Shore env. 93, noir Rebate cover EPDM Shore hardness approx. 93, black	100 m	**985304**
	Falzabdeckung aus EPDM Shore-Härte ca. 75, schwarz Recouvrement de feuillure en EPDM Dureté Shore env. 75, noir Rebate cover EPDM Shore hardness approx 75, black	100 m	**985305**
	Dämmkeil Hi aus PE, grau Joint d'isolation Hi en PE, gris Insulation wedge Hi PE, gray	100 m	**985314**
	Falzabdeckung Hi aus PE, grau Recouvrement de feuillure Hi en PE, gris Rebate cover Hi PE, gray	100 m	**985315**
	Falzabdeckung Kunstoff (ABS) Recouvrement de feuillure, matière plastique (ABS) Rebate cover, plastics (ABS)	48 m	**985605**
	Falzdichtband (Butyl) Ruban d'étanchéité de feuillure (butyle) Rebate sealing tape (Butyl)	100 m (4 Rollen à 25 m) (4 rouleaux à 25 m) (4 rolls à 25 m)	**988001**
	Anschlagdichtung Fenster innen EPDM und EPDM geschäumt (coextrudiert) Joint de butée fenêtre à l'intérieur EPDM et EPDM expansé (coextrudé) Weatherstripping windows inside EPDM and EPDM foamed (coextruded)	100 m	**985300**



Dichtungen
Bestellformulare

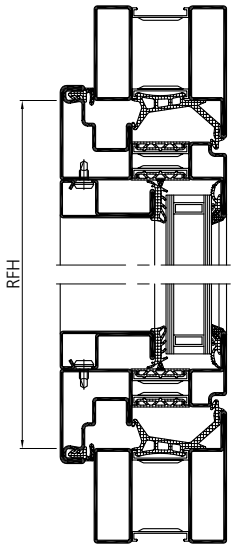
Bestellformular für geklebte Dichtungsrahmen Art. Nr. 9912010 (aus 985303)

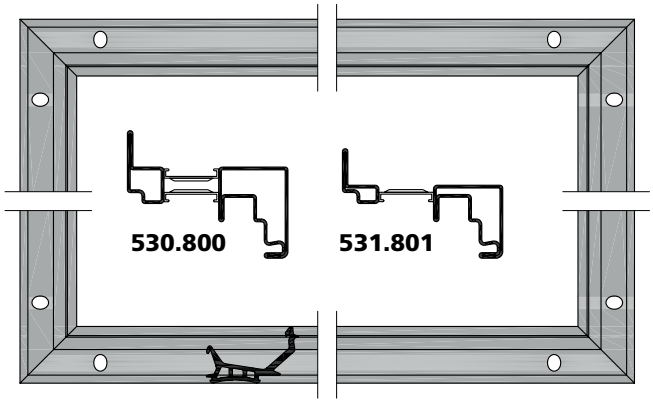
Joints
Formulaire de commande

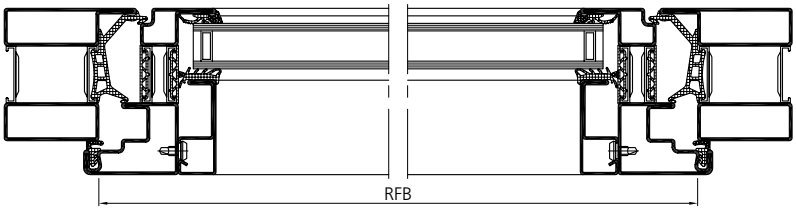
Formulaire de commande pour cadres collés art. no. 9912010 (avec 985303)

Weatherstrippings
Ordering form

Order form for bonded seal frame art. no. 9912010 (with 985303)







Kunde:
Client:
Customer: _____

Objekt:
Projet:
Project: _____

Kontaktperson:
Responsable de projet:
Project responsibility: _____

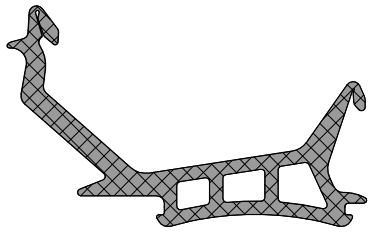
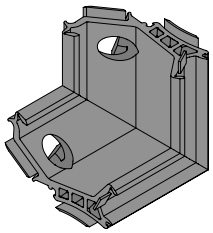
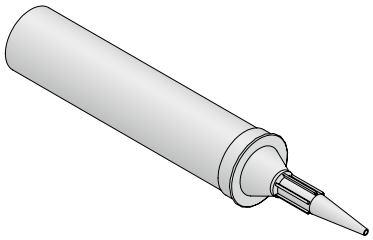
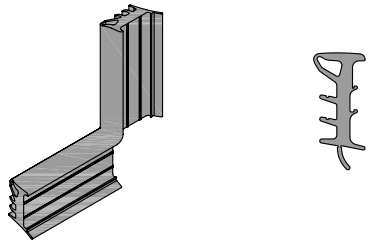
Pos.	Stück Qté. Piece	RFB [mm]	RFH [mm]
Pos. 1			
Pos. 2			
Pos. 3			
Pos. 4			
Pos. 5			

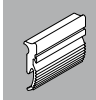
Pos.	Stück Qté. Piece	RFB [mm]	RFH [mm]
Pos. 6			
Pos. 7			
Pos. 8			
Pos. 9			
Pos. 10			

Zubehör
Dichtungen

Accessoires
Joints

Accessories
Weatherstrippings

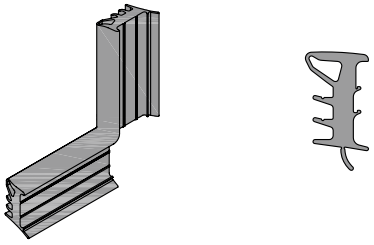
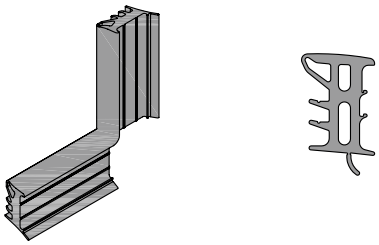
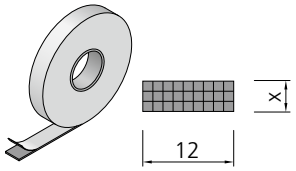
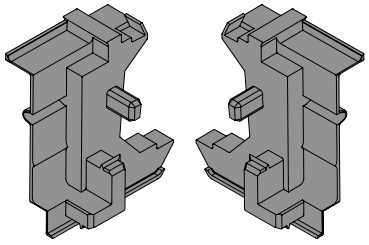
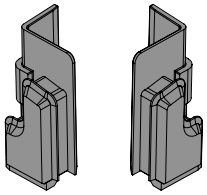
Abbildung **Figure** **Figure**	**Bezeichnung** **Désignation** **Designation**	**Verkaufseinheit** **Unité de vente** **Sales unit**	**Art. Nr.** **art. no.** **art. no.**
	Mitteldichtung Fenster EPDM und EPDM geschäumt (coextrudiert) mit Butyl-Klebestreifen, schwarz Joint central fenêtre EPDM et EPDM expansé (coextrudé) avec rubans adhésifs en butyle, noir Central seal windows EPDM and EPDM foamed (coextruded) with butyl-Adhesive tape, black	75 m (5 Rollen à 15 m) (5 rouleaux à 15 m) (5 rolls à 15 m)	**985303**
	Eckstück für Mitteldichtung Fenster EPDM, schwarz Pièce d'angle pour joint central fenêtre EPDM, noir Corner piece for central seal windows EPDM, black	12 Stk./pcs	**985601**
	Dichtungsmasse für Dichtungsüberlappungen zum Abdichten der Kreuzpunkte, auf Hybriodpolymerbasis, schwarz, Inhalt Kartusche 290 ml Mastic pour chevauchements de joints, destiné à l'étanchéité des croisements, à base de polymère hybride, noir, contenance de cartouche 290 ml Sealing compound for weatherstripping overlapping to seal the crossing points, based on hybriodpolymere, black, content cartridge 290 ml	12 Kartuschen Cartouches Cartridges 1 Kartusche Cartouche Cartridge	**908001** **908005**
	Verglasungsdichtung aussen EPDM und EPDM geschäumt (coextrudiert), selbstklebend, schwarz, silikonfrei, Fugenbreite 5 mm Joint de vitrage extérieur EPDM et EPDM expansé (coextrudé), autoadhésif, noir, sans silicone, largeur de joint de 5 mm Glazing seals outside EPDM and EPDM foamed (coextruded), self-adhesive, black, silicon free, joint width of 5 mm	100 m	**985302**
	Verglasungsdichtung innen EPDM, perforiert, schwarz, für Fugenbreite 5 und 6 mm mit Gleitlack, silikonfrei Joint de vitrage intérieur EPDM, perforé, noir, largeur de joint de 5 et 6 mm avec laque lubrifiante (sans silicone) Inner glazing seal EPDM, perforated, black, for joint widths of 5 and 6 mm anti-friction coating, silicon free	100 m	**905385**



Zubehör
Dichtungen

Accessoires
Joints

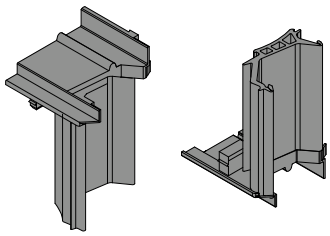
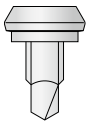
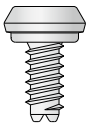
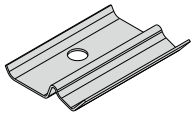
Accessories
Weatherstrippings

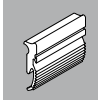
Abbildung **Figure** **Figure**	**Bezeichnung** **Désignation** **Designation**	**Verkaufseinheit** **Unité de vente** **Sales unit**	**Art. Nr.** **art. no.** **art. no.**
	Verglasungsdichtung innen EPDM, perforiert, schwarz, für Fugenbreite 7 und 8 mm mit Gleitlack, silikonfrei Joint de vitrage intérieur EPDM, perforé, noir, largeur de joint de 7 et 8 mm avec laque lubrifiante (sans silicone) Inner glazing seal EPDM, perforated, black, for joint widths of 7 and 8 mm with anti-friction coating, silicon free	75 m	**905386**
	Verglasungsdichtung innen EPDM, perforiert, schwarz, für Fugenbreite von 9 und 10 mm mit Gleitlack, silikonfrei Joint de vitrage intérieur EPDM, perforé, noir, largeur de joint de 9 et 10 mm avec laque lubrifiante (sans silikone) Glazing seals inside EPDM, perforated, black, for joint widths of 9 and 10 mm with anti-friction coating, silicon free	75 m	**905387**
	Vorlegeband aus PE für Nassverglasung selbstklebend, grau Bande en PE pour vitrage à silicone autoadhésive, grise Preformed tape made of PE for wet glazing self-adhesive, gray	x = 4 mm 50 m x = 5 mm 50 m x = 6 mm 50 m x = 8 mm 50 m	**988002** **988003** **988004** **988006**
	Mitteldichtstück für Stulpfenster EPDM, schwarz Pièce d'étanchéité médiane pour vantail semi-fixe EPDM, noir Centre sealing piece for double sash windows EPDM, black	10 Stk./pcs 5 links / 5 rechts 5 gauche / 5 droite 5 left / 5 right	**985602**
	Innendichtstück für Stulpfenster EPDM, schwarz Pièce d'étanchéité intérieure pour vantail semi-fixe EPDM, noir Inner sealing piece for double sash windows EPDM, black	10 Stk./pcs 5 links / 5 rechts 5 gauche / 5 droite 5 left / 5 right	**985603**

Zubehör
Klemmknöpfe / Federn

Accessoires
Boutons de fixation / ressorts

Accessories
Stud fasteners / springs

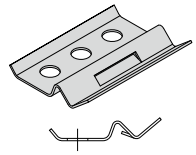
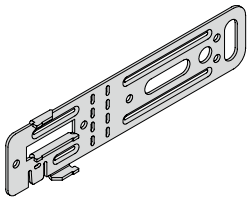
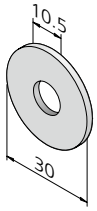
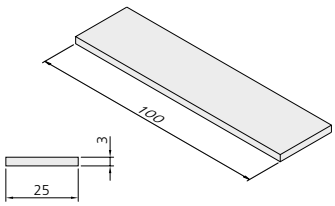
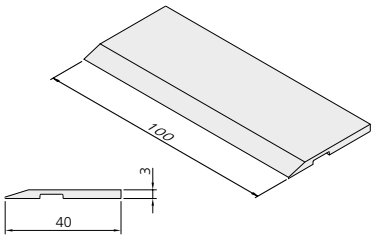
Abbildung **Figure** **Figure**	**Bezeichnung** **Désignation** **Designation**	**Verkaufseinheit** **Unité de vente** **Sales unit**	**Art. Nr.** **art. no.** **art. no.**
	Mitteldichtstück für Stulpfenster EPDM, schwarz, für Mitteldichtung 985303 Pièce d'étanchéité médiane pour vantail semi-fixe EPDM, noir, pour joint central 985303 Centre sealing piece for double sash windows EPDM, black, for central seal 985303	10 Stk./pcs 5 links / 5 rechts 5 gauche / 5 droite 5 left / 5 right	**985318**
	Klemmknopf selbstbohrend Stahl chromatiert Bouton de fixation autotaraudeur acier chromaté Stud fastener self drilling chromated steel	100 Stk./pcs 1000 Stk./pcs Mag. 200 Stk./pcs	**906577** **906578** **906579**
	Klemmknopf selbstschneidend Edelstahl 1.4405 Bouton de fixation autotaraudeur acier inox 1.4405 Stud fastener self cutting stainless steel 1.4405	100 Stk./pcs	**906583**
	Klemmknopf-Niet Edelstahl 1.4567 Bouton de fixation, rivet pop acier inox 1.4567 Stud fastener, pop-rivet stainless steel 1.4567	100 Stk./pcs	**906574**
	Befestigungsfeder Edelstahl Ressort de fixation acier inox Fastening spring stainless steel	100 Stk./pcs	**906420**



Zubehör
Maueranker / Auflager

Accessoires
Ancre murale / Support

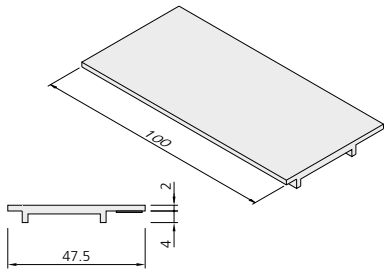
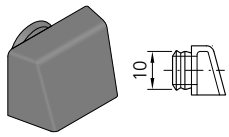
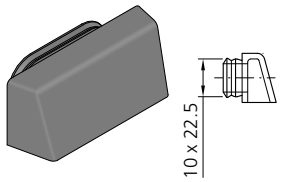
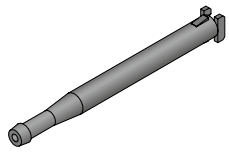
Accessories
Wall anchors / supports

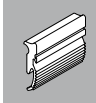
Abbildung **Figure** **Figure**	**Bezeichnung** **Désignation** **Designation**	**Verkaufseinheit** **Unité de vente** **Sales unit**	**Art. Nr.** **art. no.** **art. no.**
	Feder für Glashalteleisten mit Haltehaken, Edelstahl Ressort pour parcloses avec crochet de retenue, acier inox Spring for glazing beads with retaining clamp, stainless steel Hinweis: keine zerstörungsfreie Demontage der Glashalteleiste möglich Remarque: pas de démontage possible des parcloses sans destruction Notice: non-destructive removing of glazing beads not possible	100 Stk./pcs	**906421**
	Eindrehanker Stahl bandverzinkt Ancre à tourner Acier galvanisé en continu Turn in anchor Steel continuously galvanized	50 Stk./pcs	**987073**
	Unterlagsscheibe für verdeckte Rahmenbefestigung Stahl verzinkt Rondelle pour fixation de cadre cachée Acier zingué Washer for hidden frame attachments Steel galvanized	100 Stk./pcs	**987074**
	Glasfalzbrücke, schmal Aluminium, einseitig klebend Pont feuillure pour verre, fin Aluminium, collant d'un côté Glass rebate bridge, narrow Aluminium, one side self adhesive	12 Stk./pcs	**986701**
	Glasfalzbrücke breit Aluminium, einseitig klebend Pont feuillure pour verre, large Aluminium, collant d'un côté Glass rebate bridge wide Aluminium, one side self adhesive	12 Stk./pcs	**986702**

Zubehör
Entwässerung

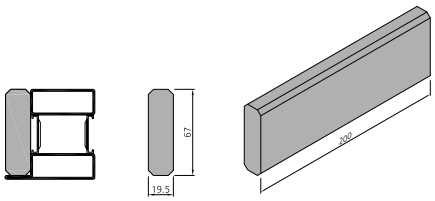
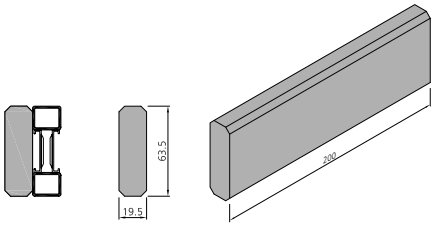
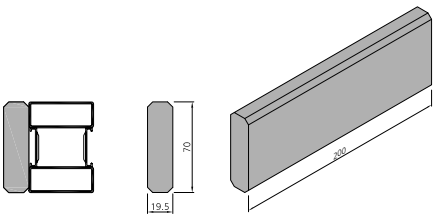
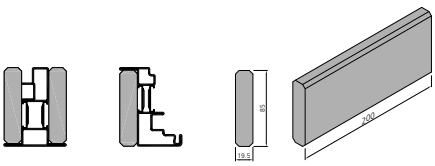
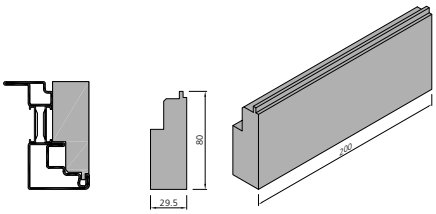
Accessoires
Evacuation d'eau

Accessories
Drainage

Abbildung **Figure** **Figure**	**Bezeichnung** **Désignation** **Designation**	**Verkaufseinheit** **Unité de vente** **Sales unit**	**Art. Nr.** **art. no.** **art. no.**
	Glasfalzbrücke für Flügelprofil 531.801 Aluminium, einseitig klebend Pont feuillure pour verre, pour profilé de vantail 531.801 Aluminium, collant d'un côté Glass rebate bridge, for leaf profile 531.801 Aluminium, one side self adhesive	12 Stk./pcs	**986703**
	Wasserablauftülle Ø 10 mm, PA 6, schwarz Douille d'écoulement Ø 10 mm, PA 6, noir Draining pipe Ø 10 mm, PA 6, black	10 Stk./pcs	**900100**
	Wasserablauftülle Langloch 22.5 x 10 mm, PA 6, schwarz Douille d'écoulement trou oblong 22.5 x 10 mm, PA 6, noir Draining pipe oblong hole 22.5 x 10 mm, PA 6, black	10 Stk./pcs	**900103**
	Entspannungs- und Entwässerungsröhrchen für verdeckte Entspannung und Entwässerung Tubulure invisible de décompression et d'évacuation d'eau Decompression and drainage pipe for hidden decompression and drainage	10 Stk./pcs	**980101**

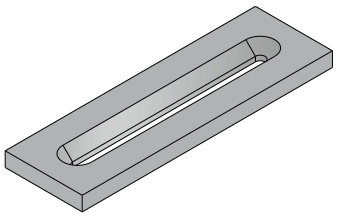
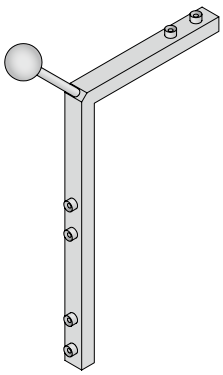
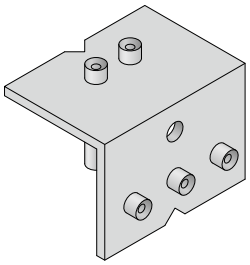
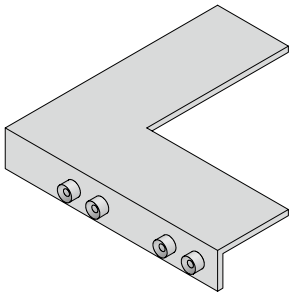
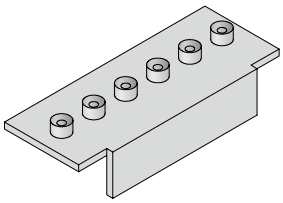


Verarbeitungshilfen Aides à la mise en œuvre Processing aids

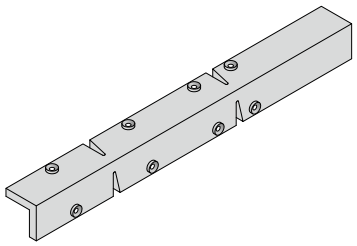
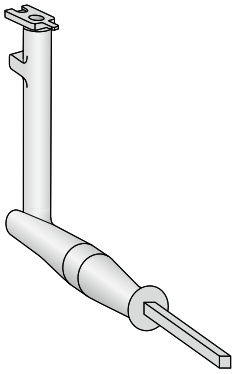
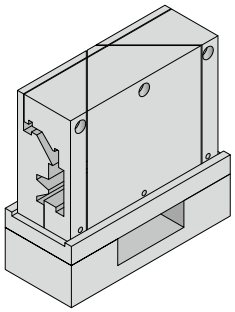
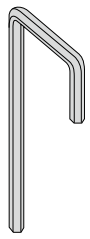
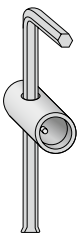
Abbildung Figure Figure	Bezeichnung Désignation Designation	Verkaufseinheit Unité de vente Sales unit	Art. Nr. art. no. art. no.
	Sägehilfe für Rahmenprofile Kunststoff (POM) Cale de débitage pour profilés de cadre Matière plastique (POM) Sawing aid for frame profile Plastics (POM)	2 Stk./pcs	**988011**
	Sägehilfe für Blechprofile Kunststoff (POM) Cale de débitage pour profilés en tôle Matière plastique (POM) Sawing aid for steel sheet profiles Plastics (POM)	2Stk./pcs	**988014**
	Sägehilfe für Rahmenprofile Kunststoff (POM) Cale de débitage pour profilés de cadre Matière plastique (POM) Sawing aid for frame profile Plastics (POM)	2 Stk./pcs	**988015**
	Sägehilfe für Fenster- und Stulpprofil Kunststoff (POM) Cale de débitage pour profilé de fenêtre et profilé de vantail semi-fixe Matière plastique (POM) Sawing aid for windows and double sash profile Plastics (POM)	2 Stk./pcs	**988012**
	Sägehilfe für Fensterprofil Kunststoff (POM) Cale de débitage pour profilé de fenêtre Matière plastique (POM) Sawing aid for window profile Plastics (POM)	2 Stk./pcs	**988013**



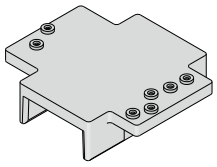
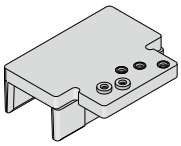
Verarbeitungshilfen Aides à la mise en œuvre Processing aids

Abbildung Figure Figure	Bezeichnung Désignation Designation	Verkaufseinheit Unité de vente Sales unit	Art. Nr. art. no. art. no.
	Schweisshilfe für Edelstahl Kupfer Aide de soudage pour acier inox cuivre Welding template for stainless steel copper	1 Stk/pce	**909025**
	Bohrlehre Eckumlenkung Gabarit de perçage pour équerre de transmission Drilling jig for corner drive	1 Stk/pce	**989100**
	Bohrlehre Getriebe Dornmass 8 mm Gabarit de perçage pour crémone Distance de boulon 8 mm Drilling jig for espagnolette Mandrel size 8 mm	1 Stk/pce	**989101**
	Bohrlehre Flügelband Gabarit de perçage pour paumelle de vantail Drilling jig for corner hinge	1 Stk/pce	**989102**
	Bohrlehre Axer- und Ecklager Gabarit de perçage pour palier de compas et d'angle Drilling jig for sash stay bearing and corner pivot rest	1 Stk/pce	**989103**

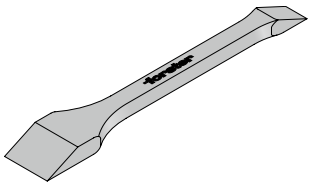
Verarbeitungshilfen Aides à la mise en œuvre Processing aids

Abbildung Figure Figure	Bezeichnung Désignation Designation	Verkaufseinheit Unité de vente Sales unit	Art. Nr. art. no. art. no.
	Bohrlehre für Schliessstücke, Kipplager, Niveauschaltsperre Rahmenteil Gabarit de perçage pour gâche, gâche de basculement, anti-fausse manœuvre cadre dormant Drilling jig for striker, horizontal T&T striker, lifting mishandling device frame part	1 Stk/pce	**989104**
	Ziehgriff für Ein- und Aushängen des Fensterflügels Outil d'extraction pour accrochage et décrochage du vantail Extractor handle for hinging and unhinging the sash	1 Stk./pce	**989105**
	Ersatzklinge Lame de rechange Replacement blade	1 Stk./pce	**989404**
	Zuschnittwerkzeug Mitteldichtung Gehrung, Art. Nr. 985303, 985320, 985703 Outil de découpe pour joint central onglet, art. no. 985303, 985320, 985703 Cutting tools central seal mitre, art. no. 985303, 985320, 985703	1 Stk./pce	**989201**
	Einstellwerkzeug für Fensterband Clef de réglage pour pivot d'angle Allen-key for adjusting the corner hinge	1 Stk/pce	**989106**
	Einstellwerkzeug für Schliesszapfen Clef de réglage pions de fermeture Adjusting tool for locking cams	1 Stk/pce	**989107**

Verarbeitungshilfen Aides à la mise en œuvre Processing aids

Abbildung Figure Figure	Bezeichnung Désignation Designation	Verkaufseinheit Unité de vente Sales unit	Art. Nr. art. no. art. no.
	Bohrlehre Gabarit de perçage Drilling template Klemmknopf, Art. Nr. 906577/906578 Befestigungsfeder, Art.Nr. 906420/906421 bouton-pression, art. no. 906577/906578 ressort de fixation, art. no. 906420/906421 stud fastener, art. no. 906577/906578 fastening spring, art. no. 906420/906421	1 Stk./pce	**909104**
	Bohrlehre Gabarit de perçage Drilling template Befestigungsfeder, Art. Nr. 906420/906421 Klemmknopf, Art. Nr. 906583 Klemmniete, Art. Nr. 906574 ressort de fixation, art. no. 906420/906421 bouton-pression, art. no. 906583 rivet de serrage, art. no. 906574 fastening spring, art. no. 906420/906421 stud fastener, art. no. 906583 clamping rivet, art. no. 906574	1 Stk/pce	**909105**
	Bohrschrauben-Setzgerät (230 V) komplett, inklusive Koffer Appareil à poser les vis autotaraudeuses (230 V) complet, avec coffret Power driver for self-cutting screws (230 V) complete incl. case	1 Stk/pce	**909203**
	Schrauben-Vorsatzgerät (Ersatz) Adaptateur pour tournevis (rechange) Power driver adapter (replacement)	1 Stk/pce	**909204**
	Schrauben-Einsatz (passend zu Art. Nr. 909203) Jeu de tournevis (pour art. no. 909203) Screwdriver bit (fitting art. no. 909203)	2 Stk/pcs	**909205**

Verarbeitungshilfen Aides à la mise en œuvre Processing aids

Abbildung Figure Figure	Bezeichnung Désignation Designation	Verkaufseinheit Unité de vente Sales unit	Art. Nr. art. no. art. no.
	Set Spiralbohrer Spiralbohrer Ø 4 mm mit Sechskantschaft, inkl. Montageanleitung Kit Mèche hélicoïdal mèche hèlicoïdal Ø 4 mm avec tige à six pans, avec instructions de montage Spiral bit set spiral bit Ø 4 mm with hex shaft, incl. fitting instruction	1 Stk/pce	**909216**
	Spiralbohrer Ø 4 mm mit Sechskantschaft Mèche hélicoïdal Ø 4 mm avec tige à six pans Spiral bit Ø 4 mm with hex shaft	5 Stk/pcs	**909217**
	Glaskelle Main en bois pour vitrage Glazing wedge	1 Stk/pce	**909218**
	Einrollwerkzeug für Dichtung Art. Nr. 985304, 985305, 985315, 985319 Rouleau pour joint art. no. 985304, 985305, 985315, 985319 Rolling tool for seal art. no. 985304, 985305, 985315, 985319	1 Stk./pce	**989000**
	Einrollwerkzeug für Dichtung Art. Nr. 985303, 985320 Rouleau pour joint art. no. 985303, 985320 Rolling tool for seal art. no. 985303, 985320	1 Stk./pce	**909007**
	Zuschnittwerkzeug Mitteldichtung Outil de découpe pour joint central Cutting tools central seal	1 Stk./pce	**989410**

Verarbeitungshilfen Aides à la mise en œuvre Processing aids

Abbildung Figure Figure	Bezeichnung Désignation Designation	Verkaufseinheit Unité de vente Sales unit	Art. Nr. art. no. art. no.
	Zuschnittwerkzeug Entwässerung Outil de découpe pour évacuation d'eau Cutting tool drainage	1 Stk./pce	**989411**
	Ersatz Lochklingen Lames de rechange Replacement blades	4 Stk./pcs	**989413**
	Schweisstisch für Rahmen forster CREASWISS Table à souder pour cadre forster CREASWISS Welding table for frames forster CREASWISS	auf Anfrage sur demande on request	
	Starter-Kit für Gehrungsschleifen von CrNi-Profilen Appareils et materiels de ponçage pour profilés en acier inox Toolings and materials for stainless steel profiles	1 Kit	**909005**

5

Anwendungszeichnungen

Systemschnitte	5.1.1 - 5.1.16
Systempläne	5.2.1 - 5.2.22
Konstruktionsdetails	5.3.1 - 5.3.8
Wandanschlüsse	5.4.1 - 5.4.10

Coupes et plans

Coupes du système	5.1.1 - 5.1.16
Plans du système	5.2.1 - 5.2.22
Détails de construction	5.3.1 - 5.3.8
Raccords muraux	5.4.1 - 5.4.10

Sections and plans

System sections	5.1.1 - 5.1.16
System plans	5.2.1 - 5.2.22
Construction details	5.3.1 - 5.3.8
Wall abutments	5.4.1 - 5.4.10

Anwendungszeichnungen Coupes et plans Sections and plans



Verwaltungsgebäude Matterhorn Gotthard Bahn, CH-Brig

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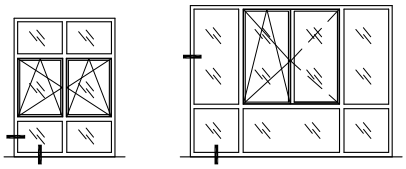
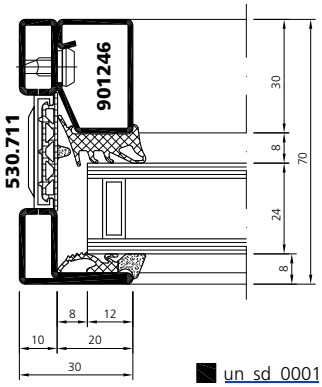
Systemschnitte | Coupes du système | System sections

■ Stahl / Acier / Steel
□ Edelstahl / Acier inox / Stainless steel





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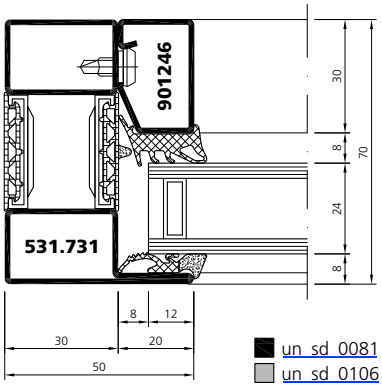

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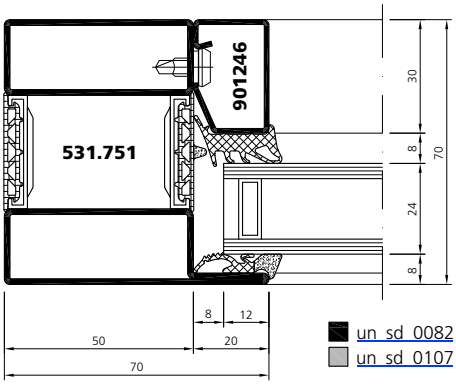

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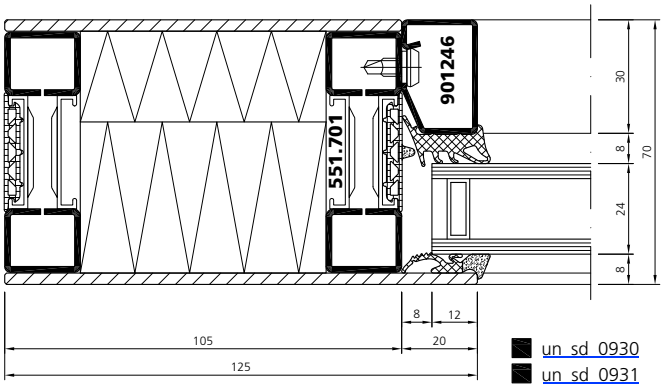

■ un_sd_0930
■ un_sd_0931
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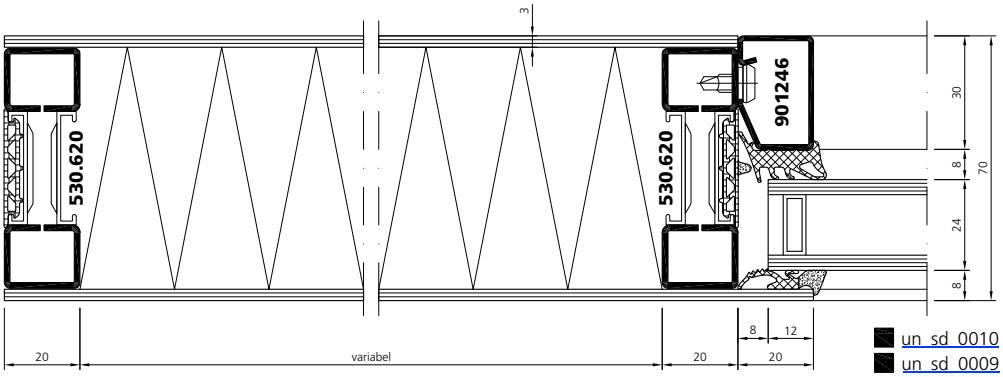

■ un_sd_0010
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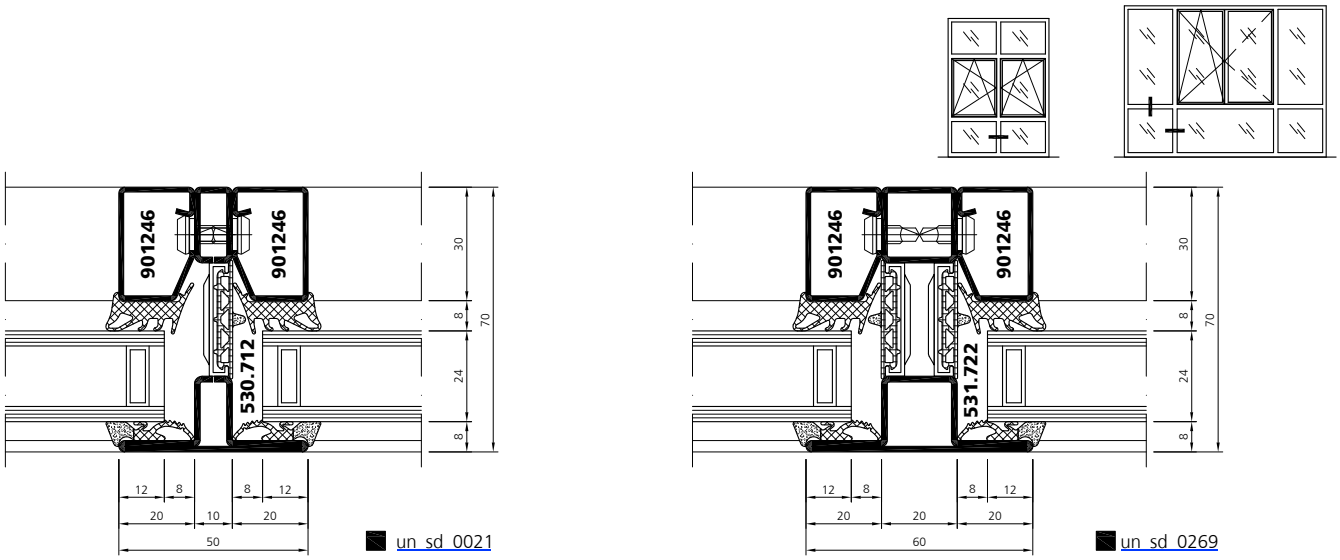
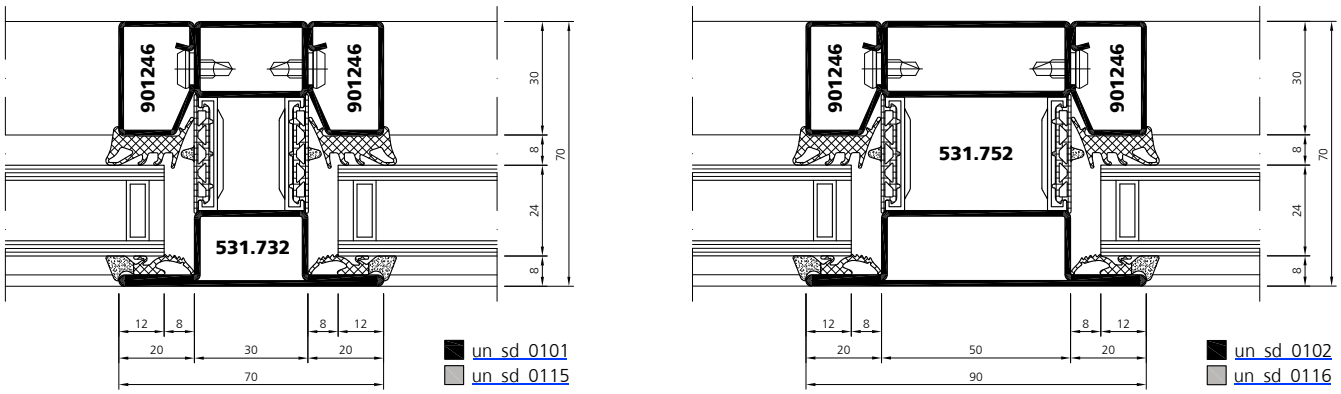
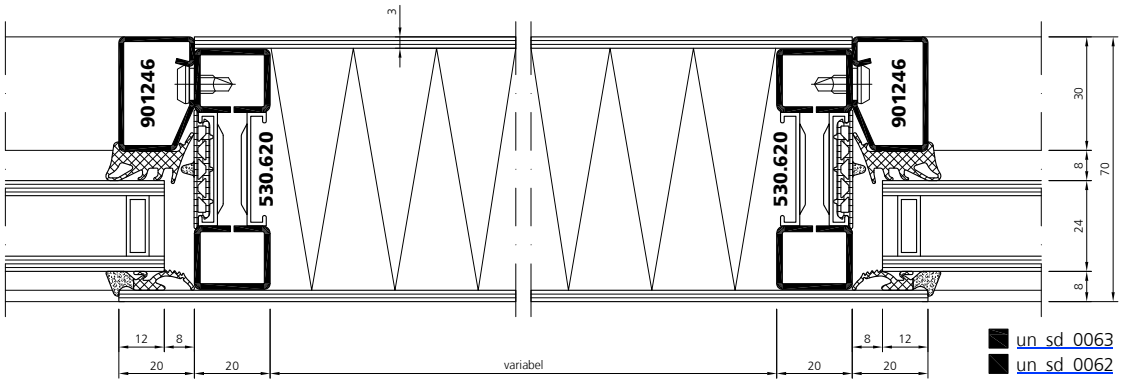
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

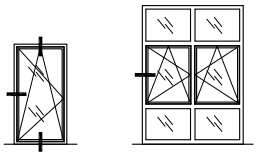
Systemschnitte | Coupes du système | System sections

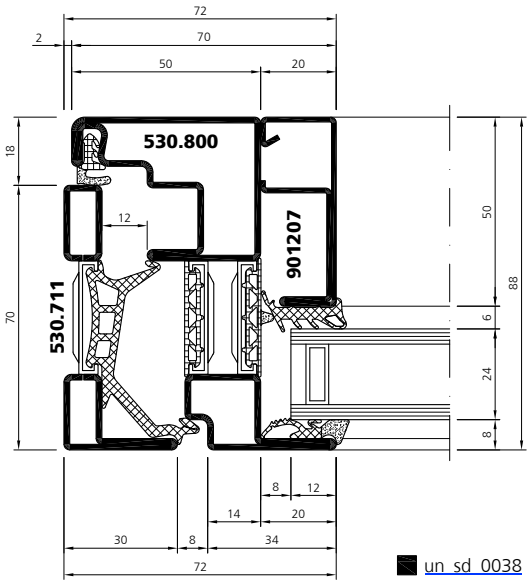


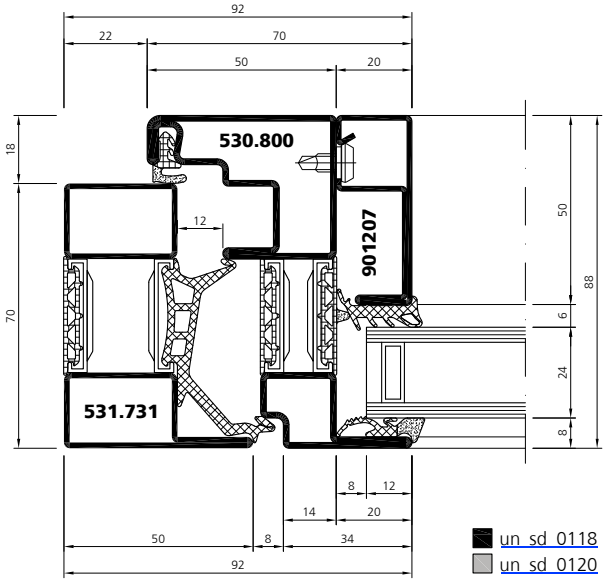


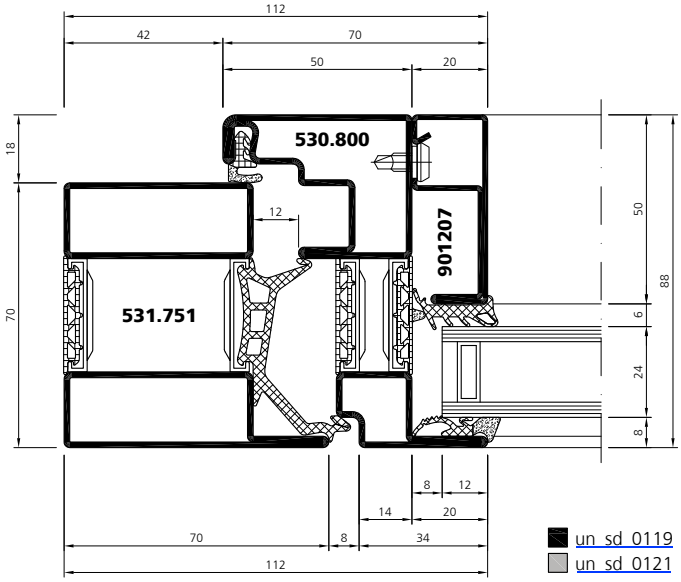


Systemschnitte | Coupes du système | System sections









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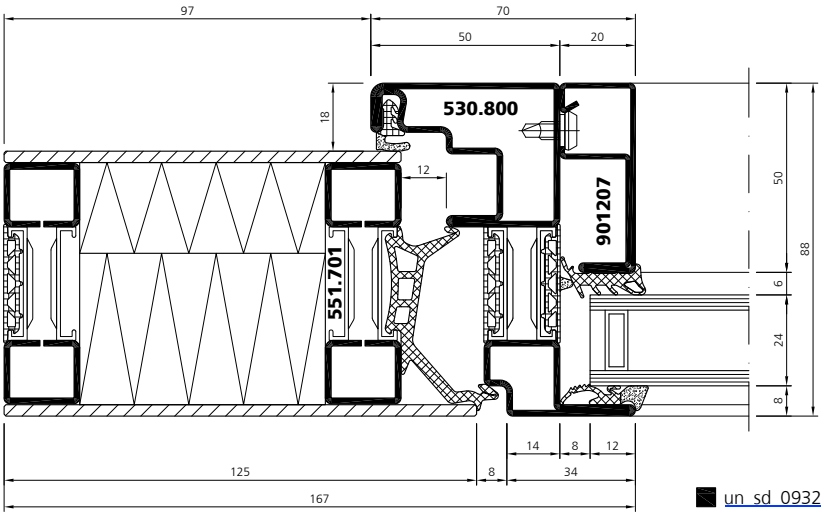
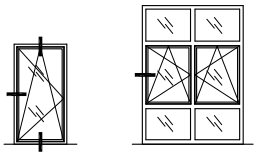
Systemschnitte | Coupes du système | System sections





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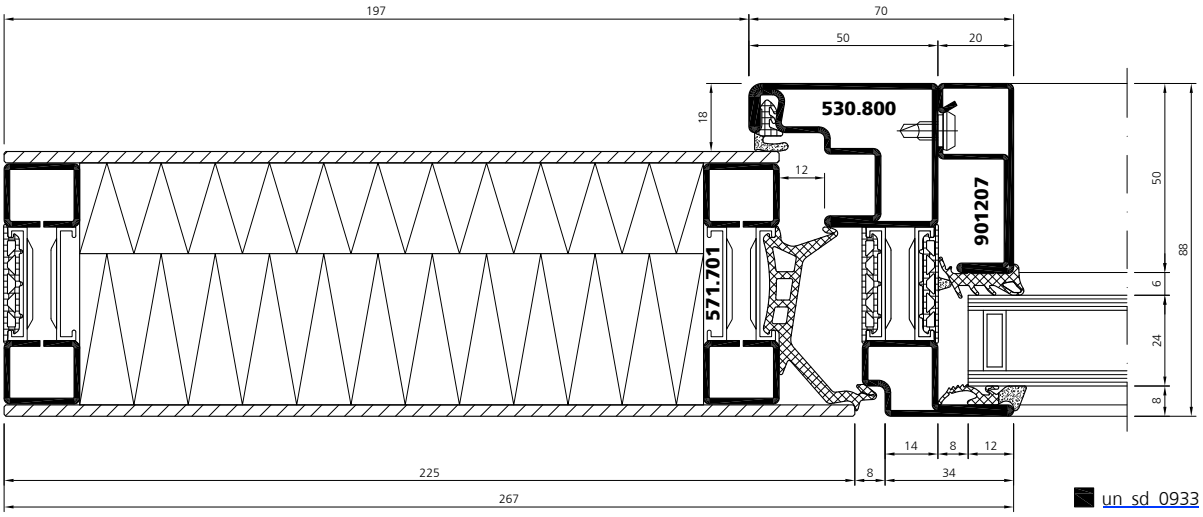

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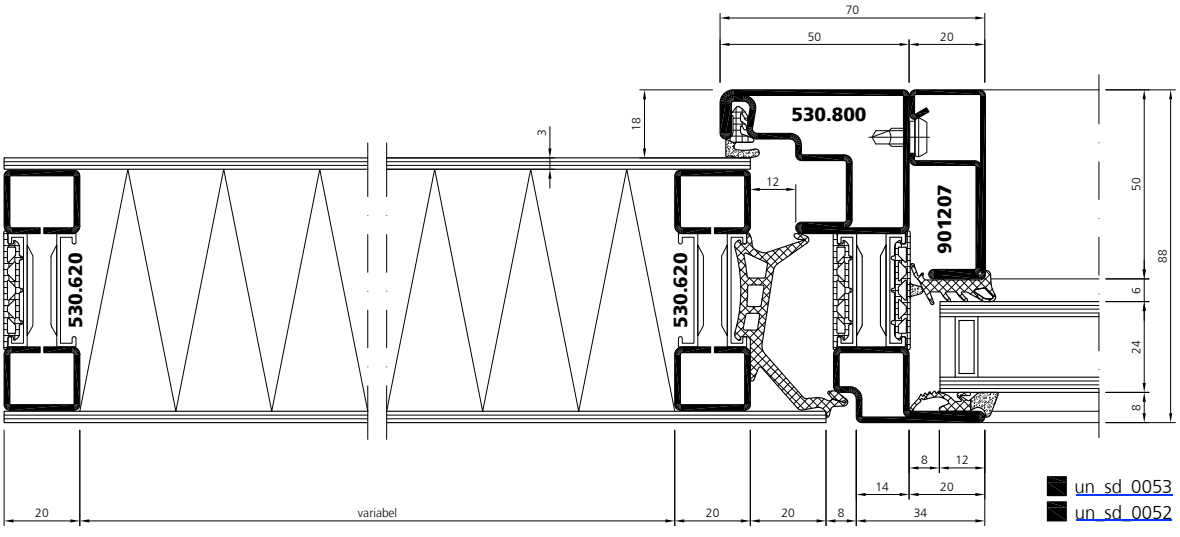
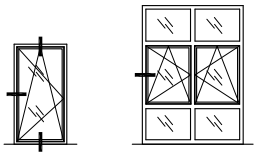
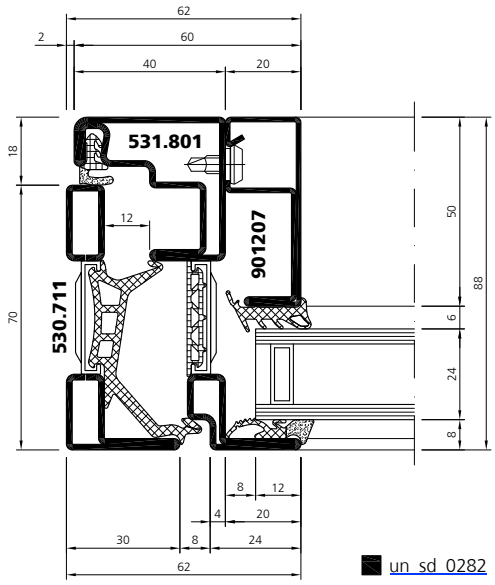


un_sd_0053
un_sd_0052

VUF 01/19

Systemschnitte | Coupes du système | System sections





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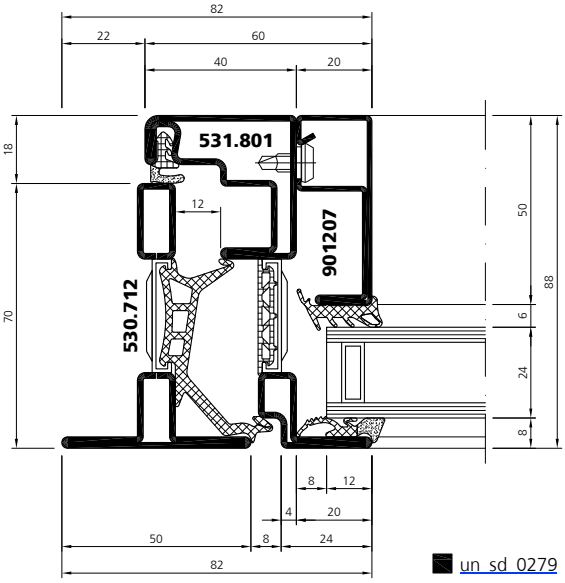

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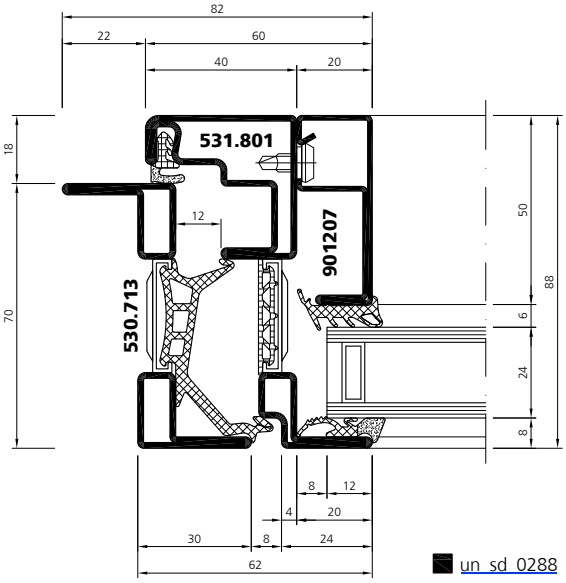

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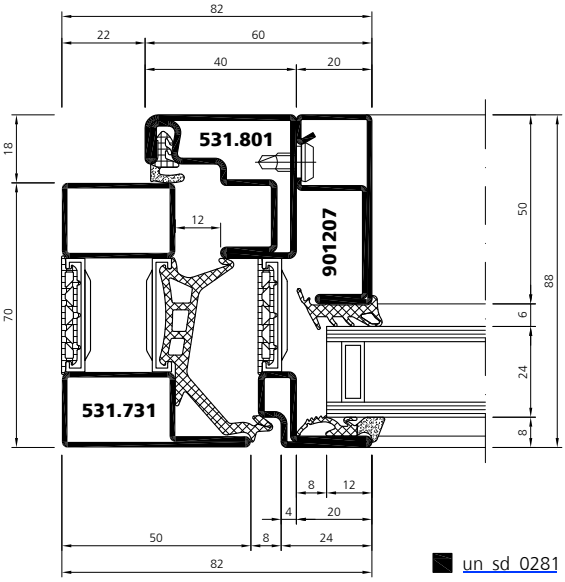

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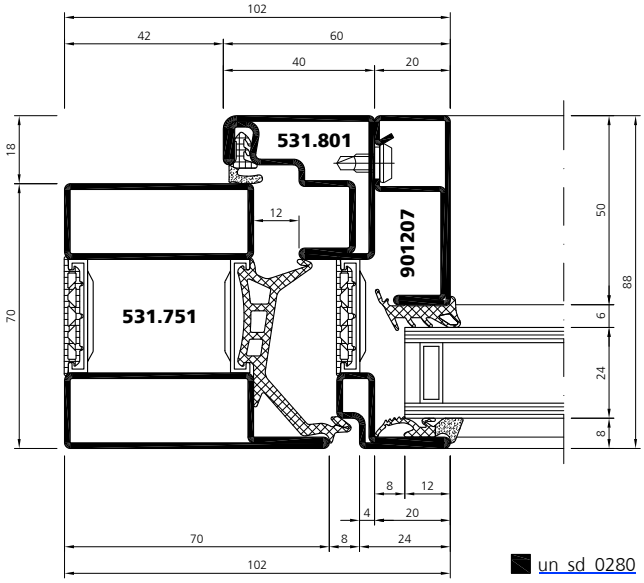
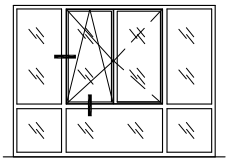
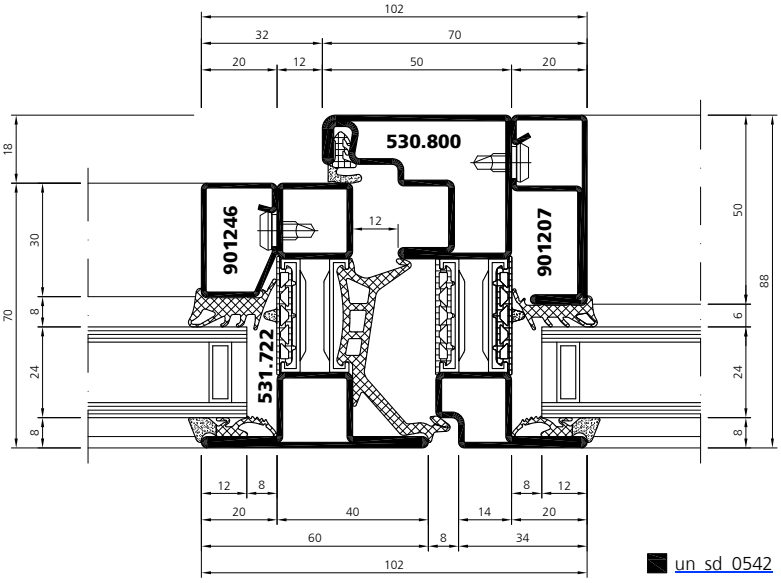


un_sd_0280

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Systemschnitte | Coupes du système | System sections





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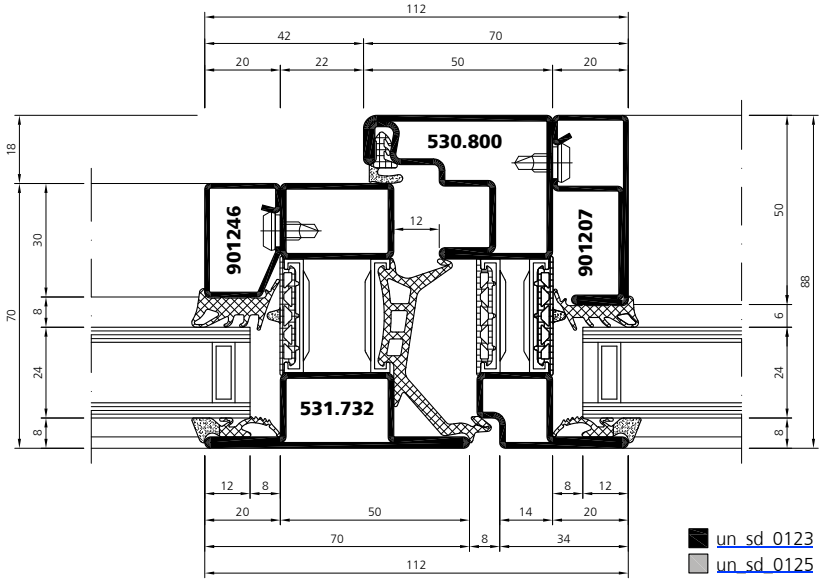
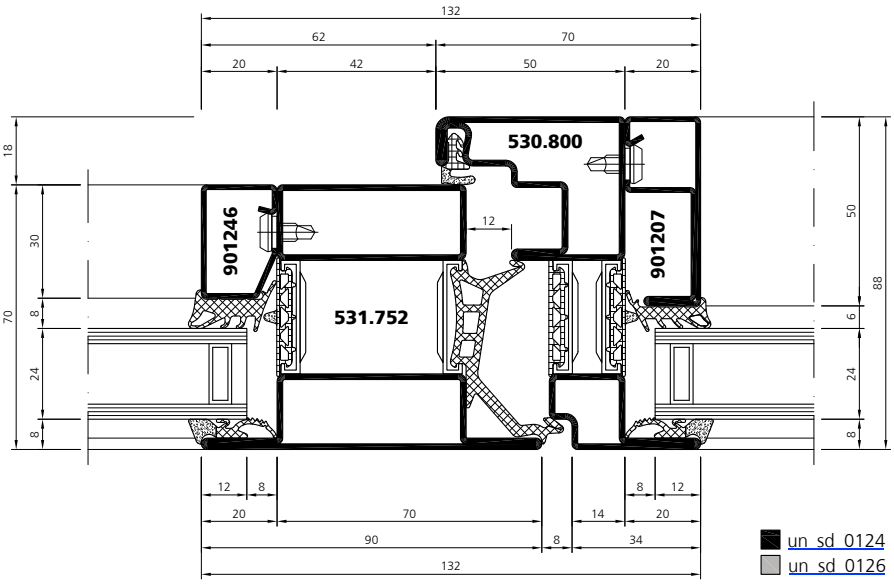


un_sd_0123
un_sd_0125



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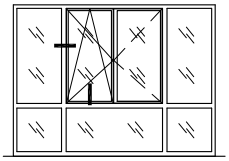
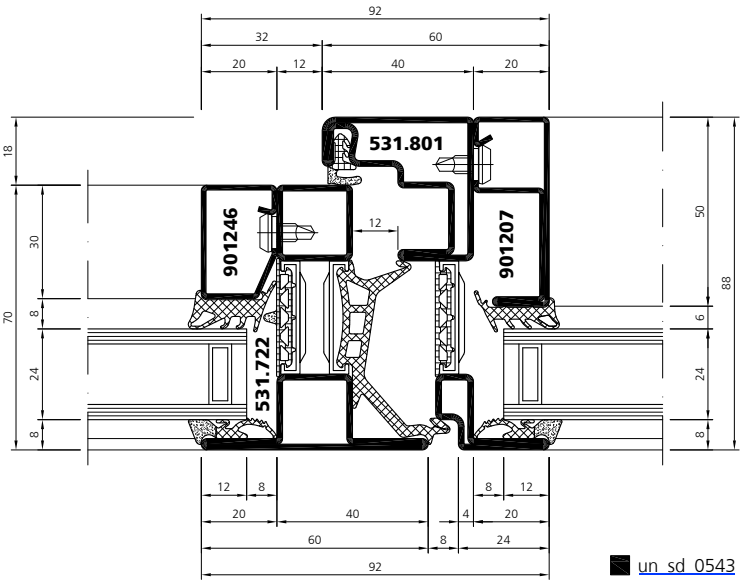
un_sd_0126

Systemschnitte | Coupes du système | System sections





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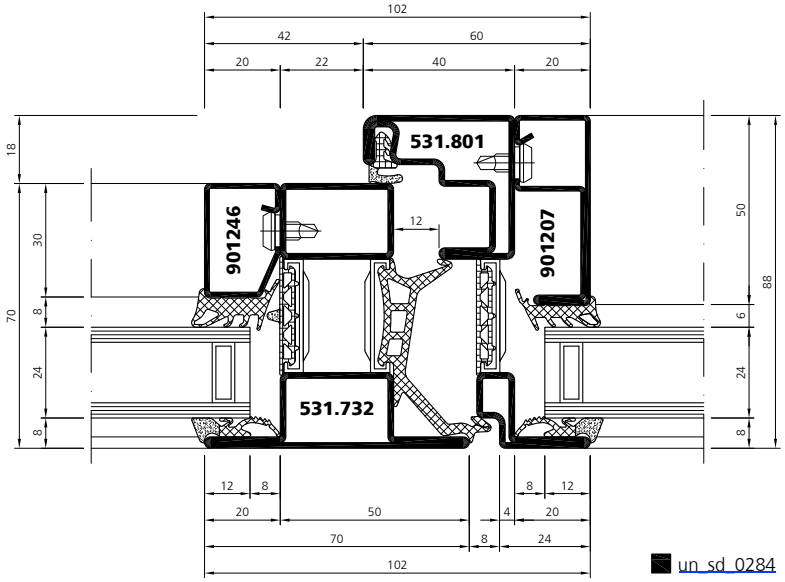

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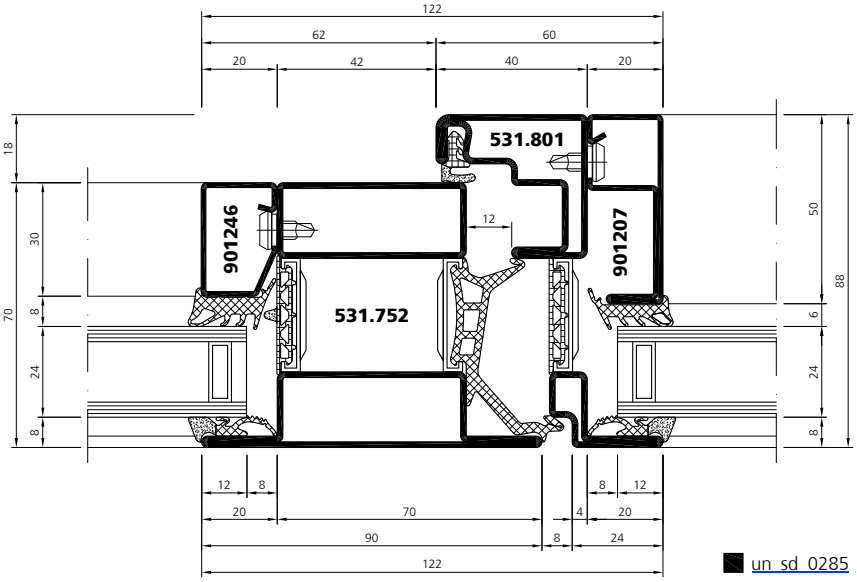
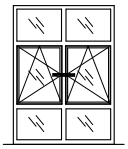
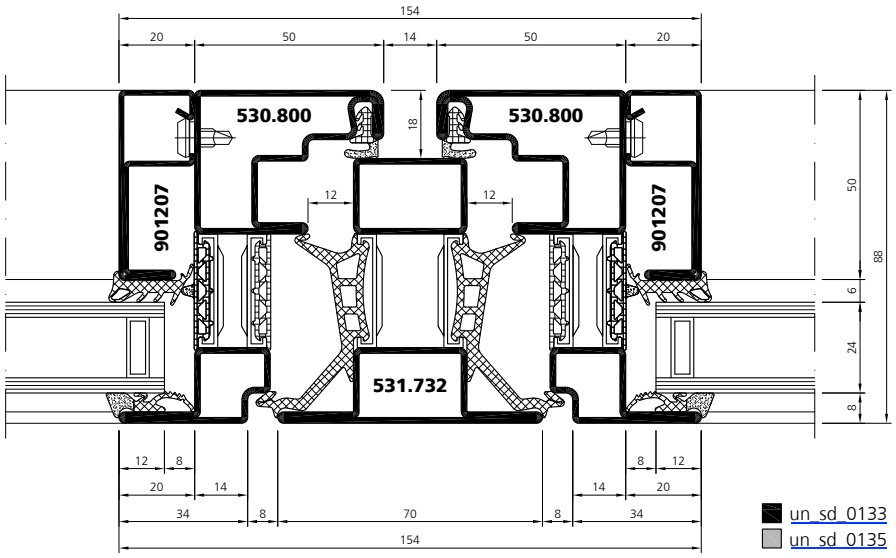


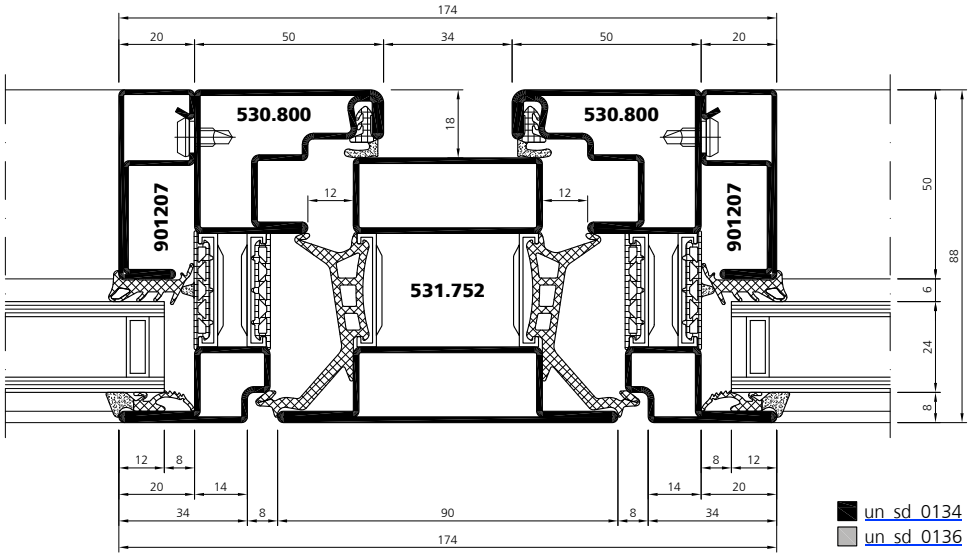
un_sd_0285

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

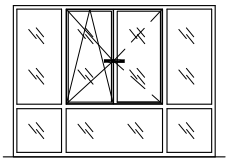
Systemschnitte | Coupes du système | System sections

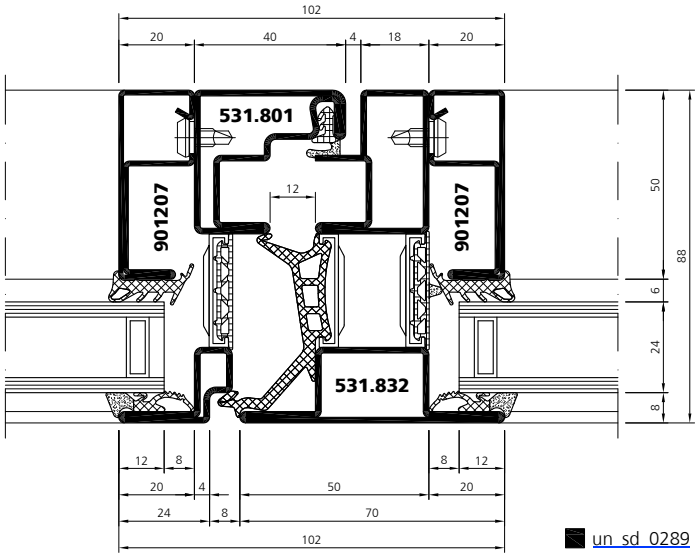






Systemschnitte | Coupes du système | System sections





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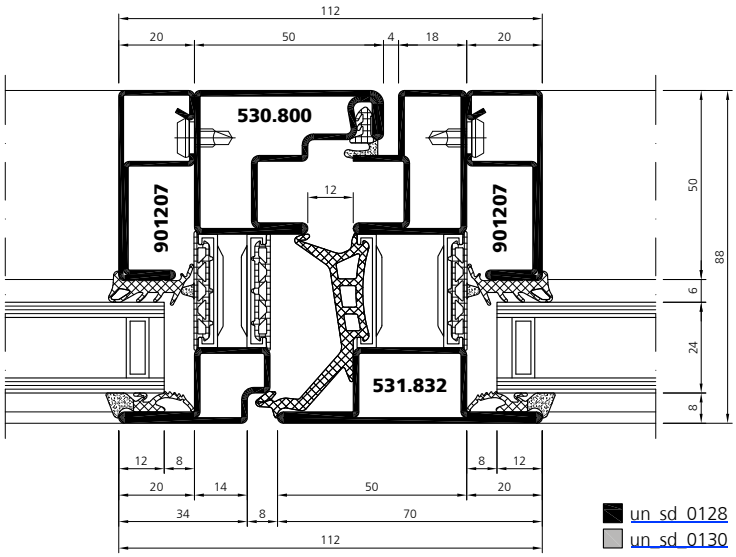

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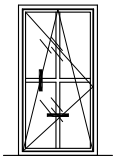
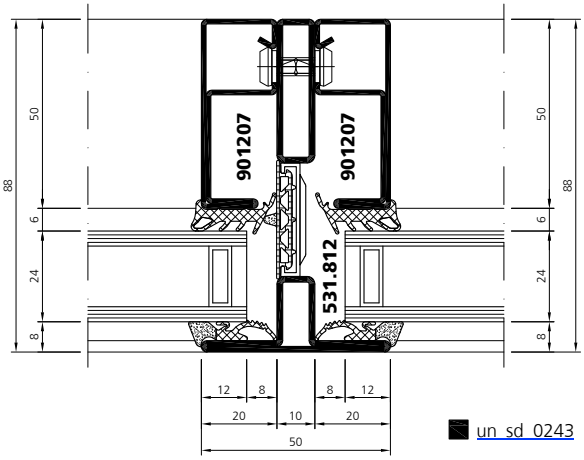
un_sd_0130



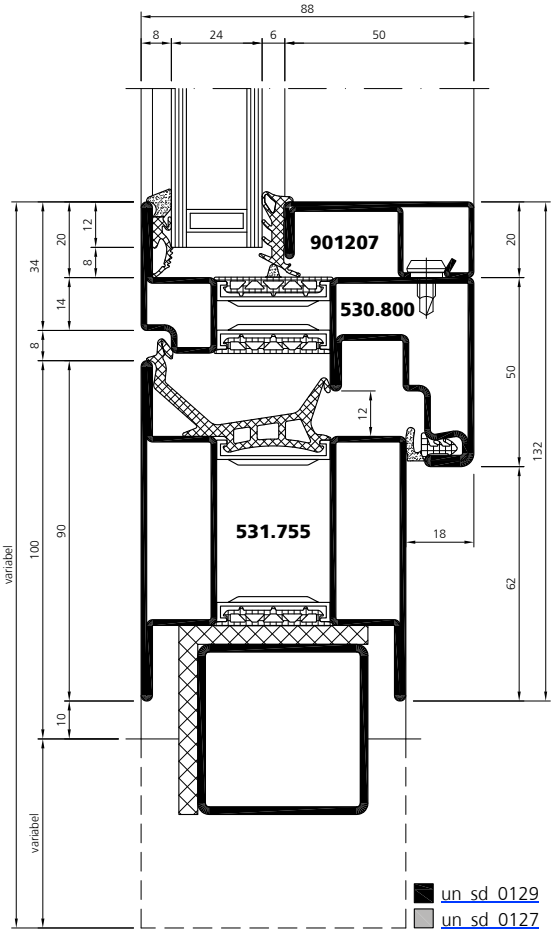


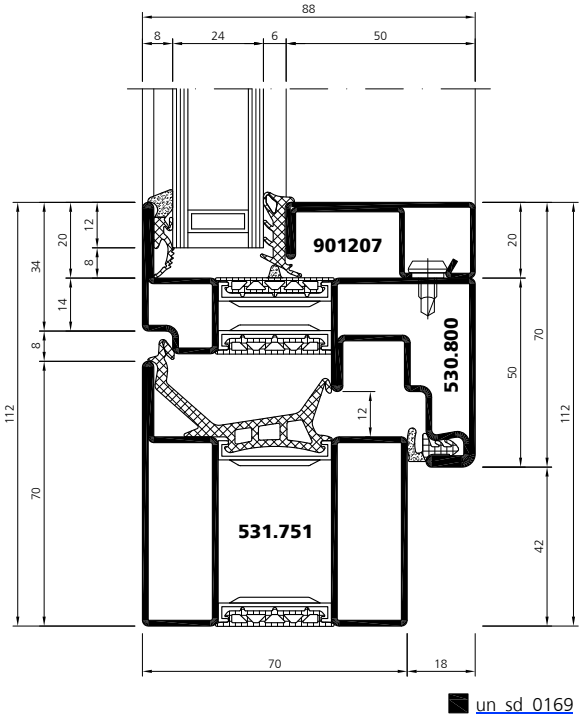
un_sd_0243

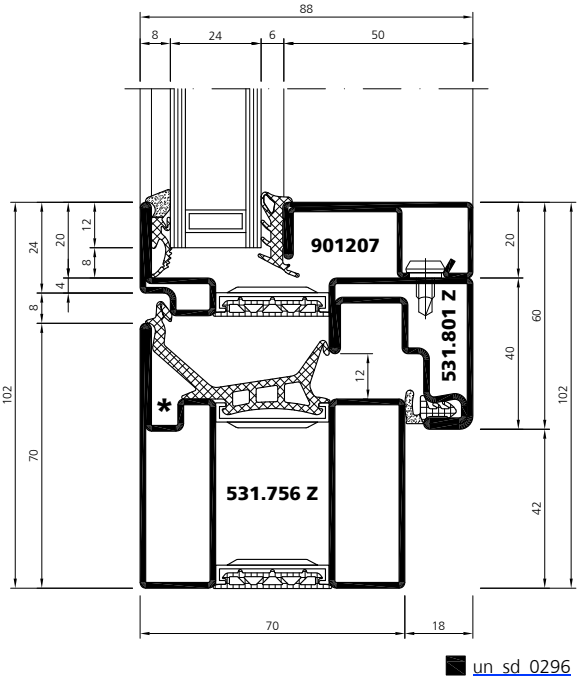
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

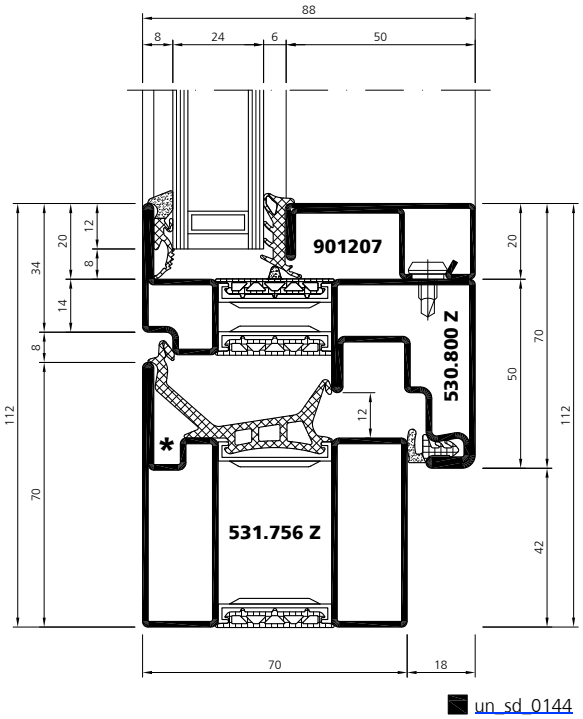
Systemschnitte | Coupes du système | System sections

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove



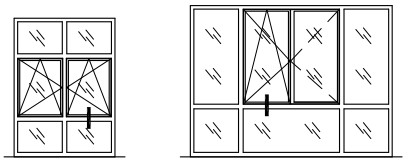


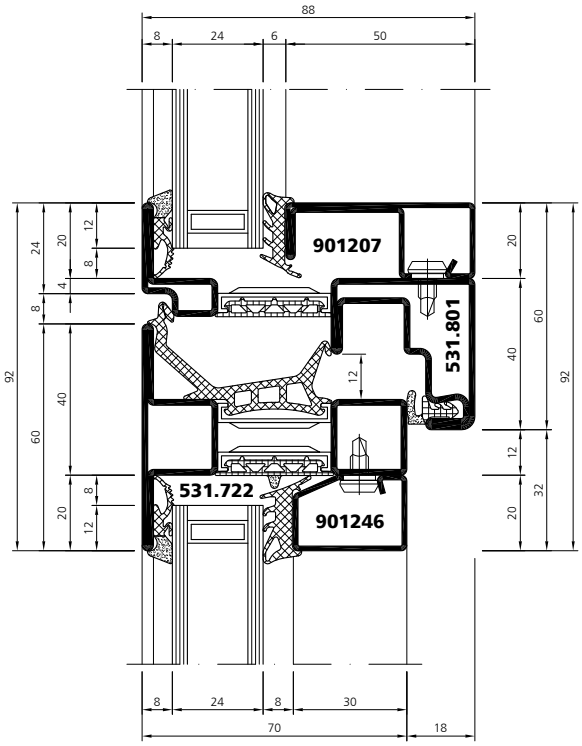




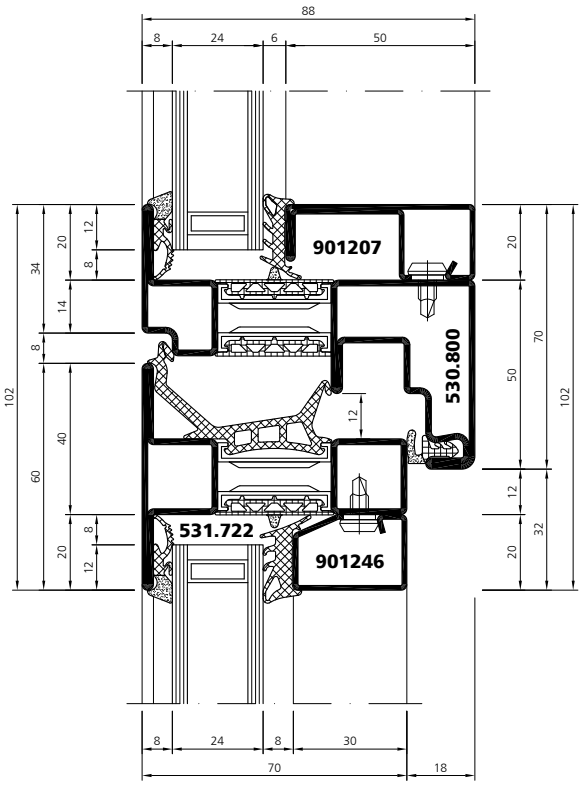
VUF 01/19

Systemschnitte | Coupes du système | System sections





un_sd_0545



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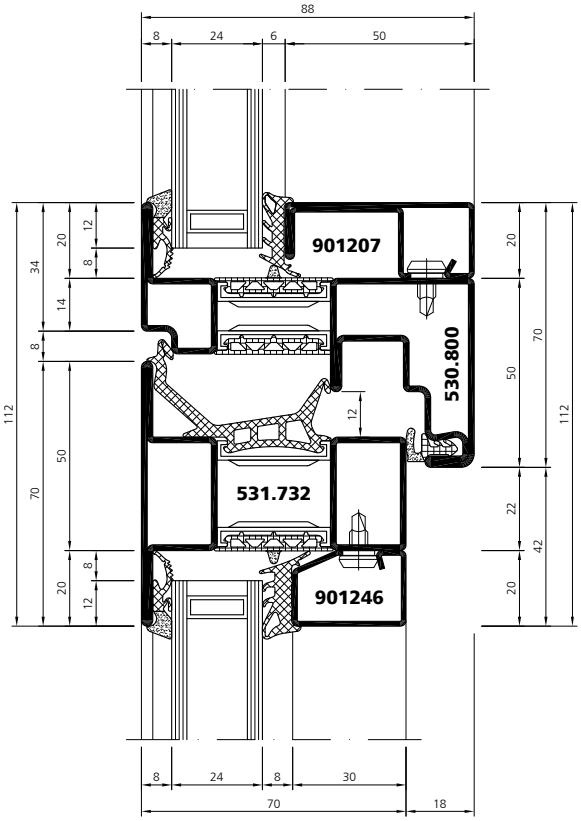
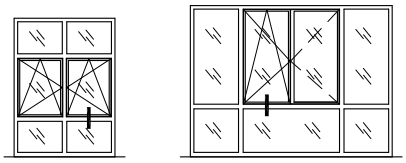
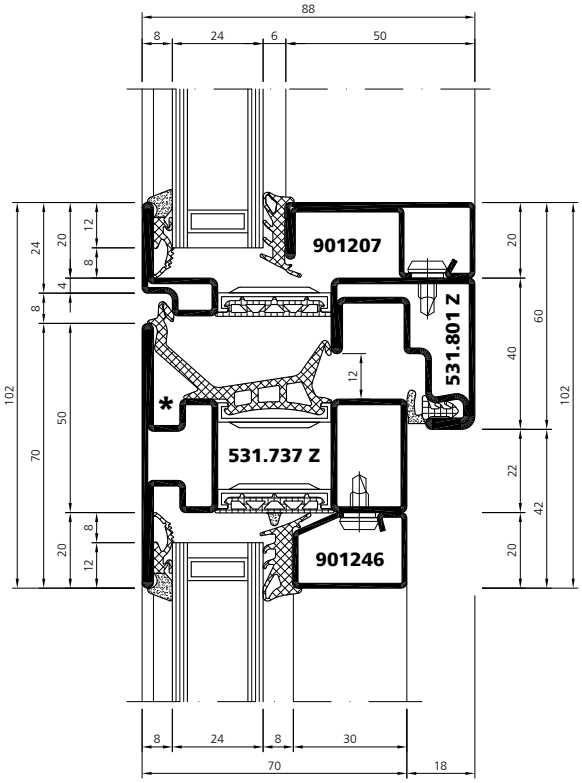


un_sd_0170

Systemschnitte | Coupes du système | System sections

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove





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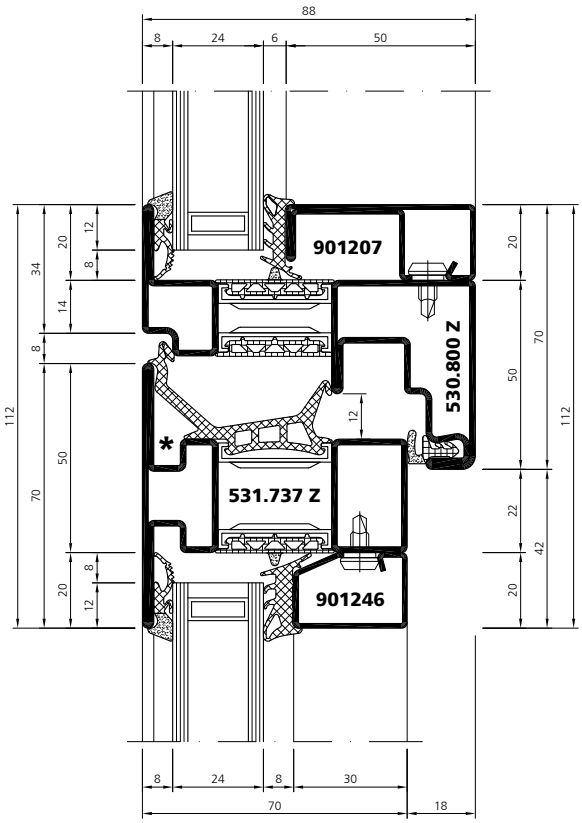


un_sd_0145

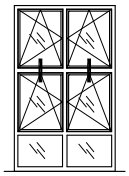
VUF 01/19

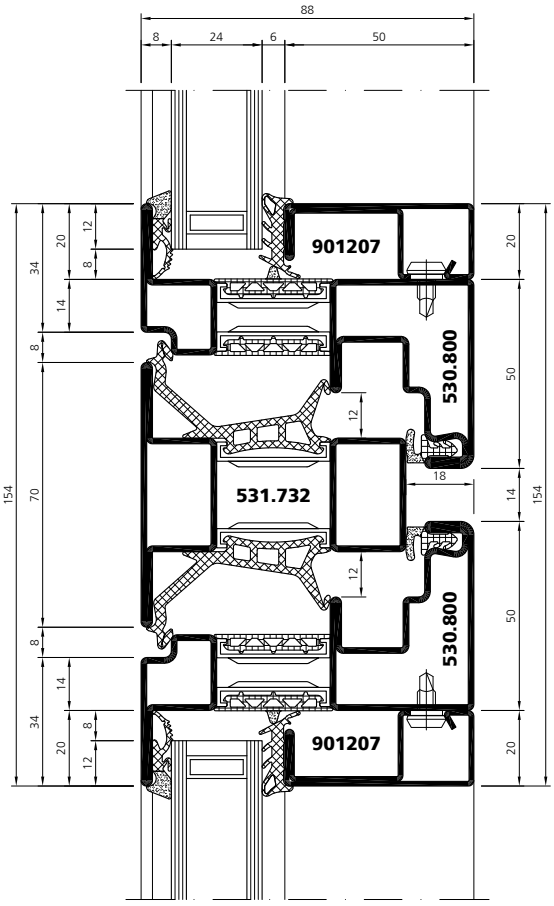
Systemschnitte

Coupes du système

System sections

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove





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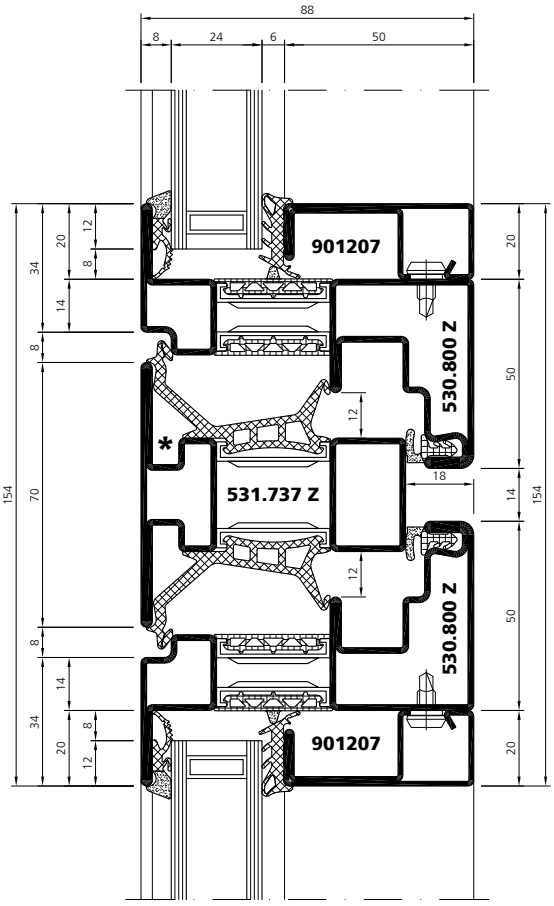
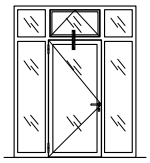
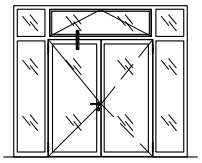


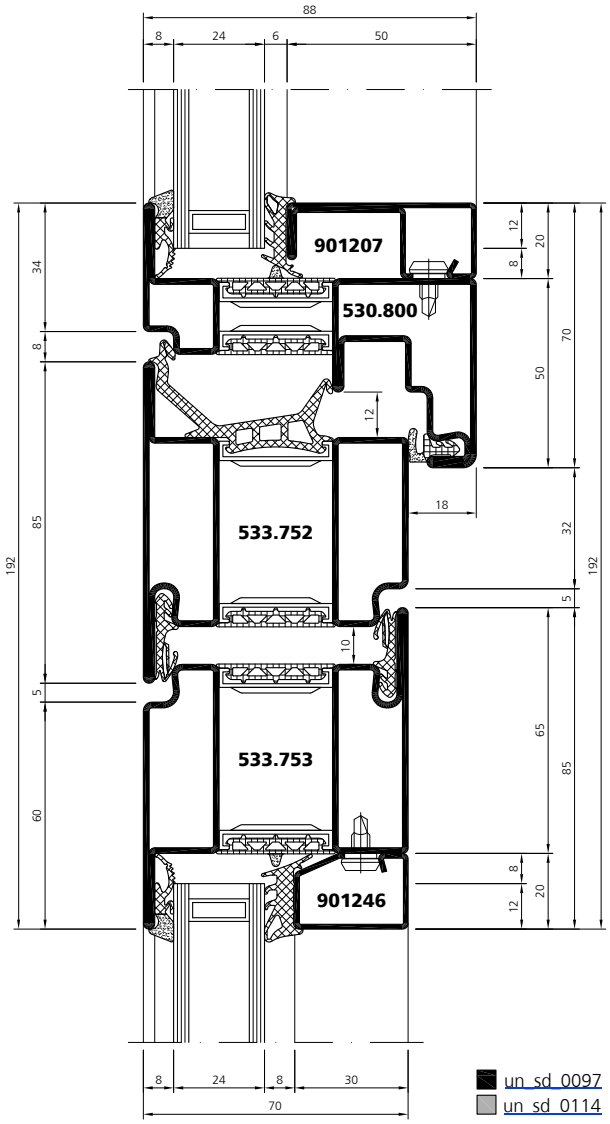
un_sd_0147

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Systemschnitte | Coupes du système | System sections



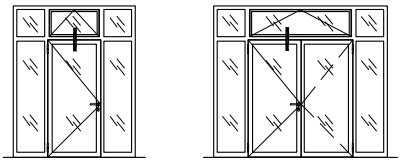


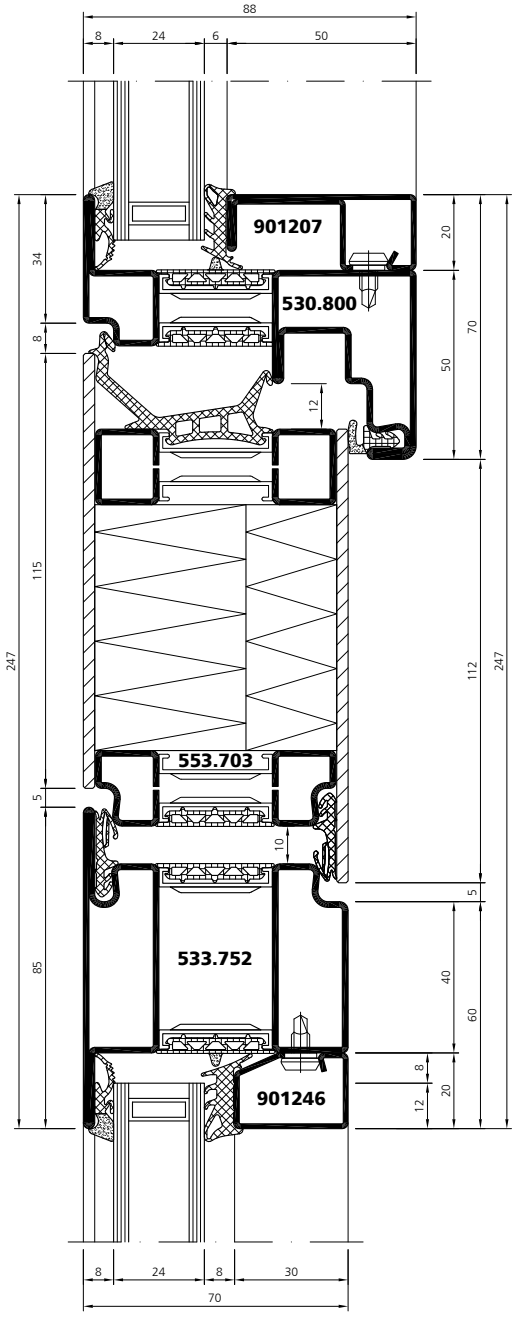


Systemschnitte

Coupes du système

System sections





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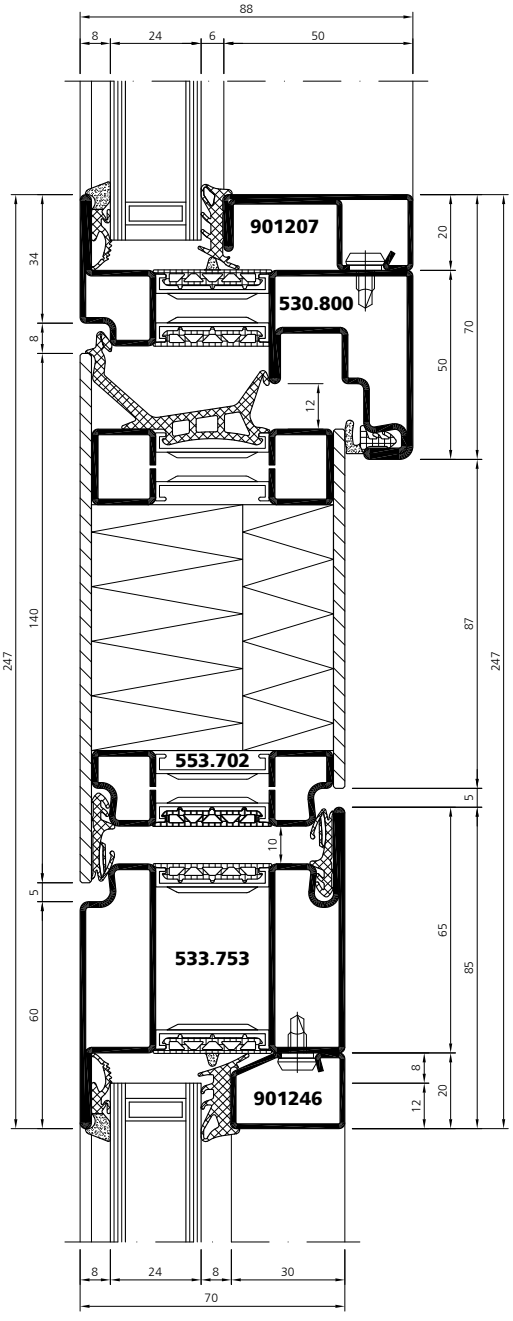


un_sd_0949

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

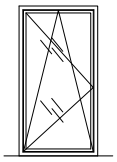
Übersicht Systempläne

1	Drehkipp-Flügel
2	Drehkipp-/Drehkipp-Flügel
3	Kippflügel
4	Stulpflügel Dreh/Drehkipp
5	Stulpflügel Dreh/Drehkipp mit Seitenteilen
6	Festverglasung

■ Stahl / Acier / Steel

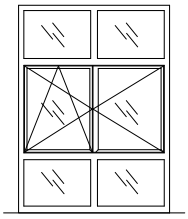
□ Edelstahl / Acier inox / Stainless steel

1



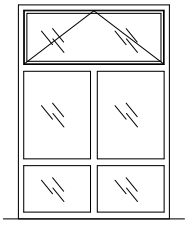
■ un_sp_0072
un_sp_0090
□ un_sp_0082

2



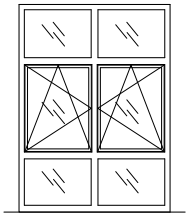
■ un_sp_0075
un_sp_0088
□ un_sp_0085

3



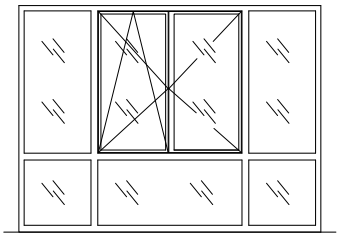
■ un_sp_0074
un_sp_0087
□ un_sp_0084

4



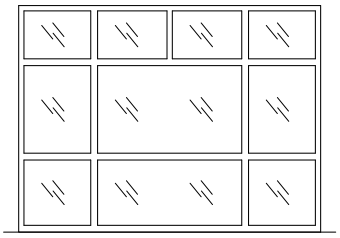
■ un_sp_0073
un_sp_0091
□ un_sp_0083

5



■ un_sp_0076
un_sp_0089
□ un_sp_0086

6



■ un_sp_0056
□ un_sp_0071

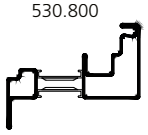
Tableau des plans du système

	Ouvrant oscillo-battant
	Ouvrant oscillo-battant/oscillo-battant
	Ouverture à soufflet
	Ouvrant semi-fixe à la française/oscillo-battant
	Ouvrant semi-fixe à la française/oscillo-battant avec parties latérales fixes
	Vitrage fixe

Synopsis of system plans

	Tilt-turn window
	Tilt-turn/tilt-turn window
	Bottom hung window
	Double sash window turn/tilt-turn
	Double sash window turn/tilt-turn with screen abutments
	Fixed glazing

530.800

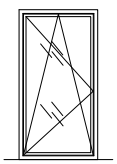


1	Drehkippflügel
2	Stulpflügel Dreh/Drehkipp
3	Festverglasung

■ Stahl / Acier / Steel

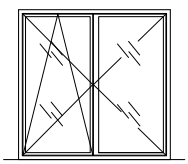
weitere Typen auf Anfrage
autres types sur demande
other types on request

1



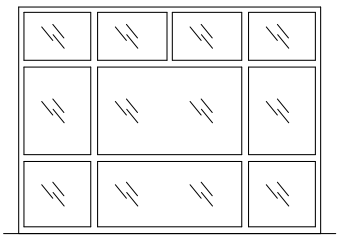
■ un_sp_0201

2



■ un_sp_0202

3

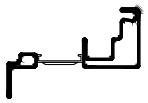


■ un_sp_0200

	Ouvrant oscillo-battant
	Ouvrant semi-fixe à la française/ oscillo-battant
	Vitrage fixe

	Tilt-turn window
	Double sash window turn/tilt-turn
	Fixed glazing

531.801 Z



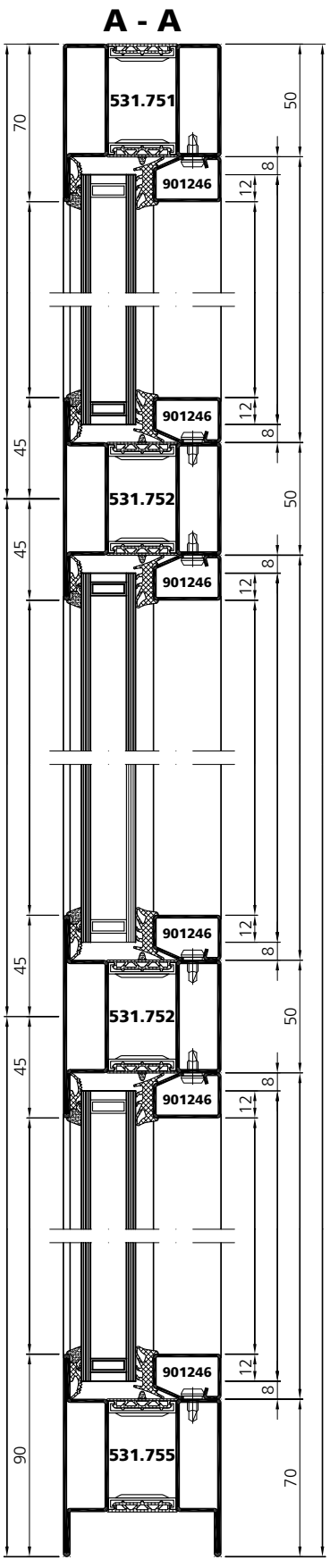
VUF 01/19

Systemplan

Plan du système

System plan

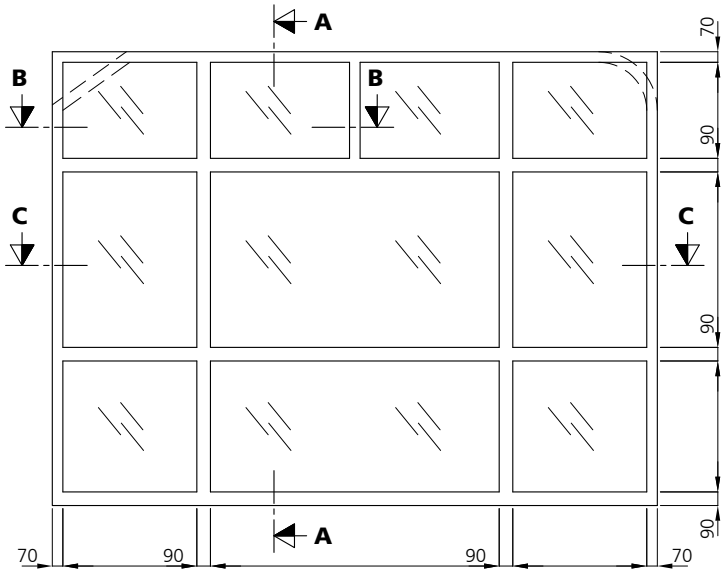
un_sp_0056
un_sp_0071



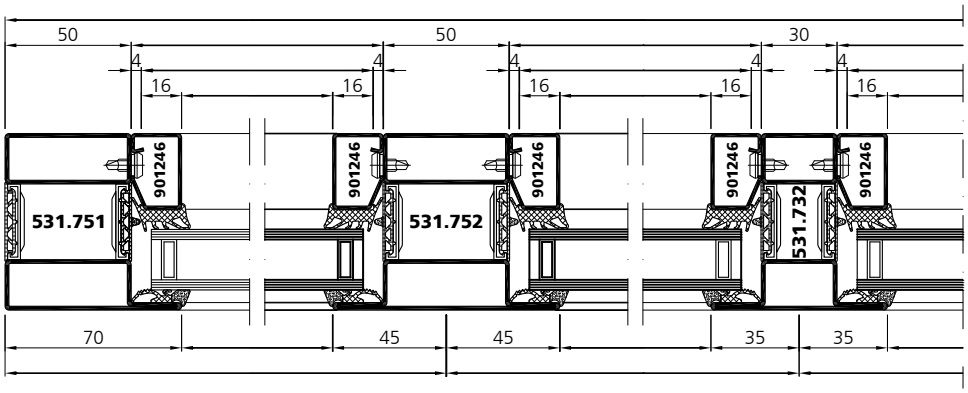
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Systemplan | Plan du système | System plan

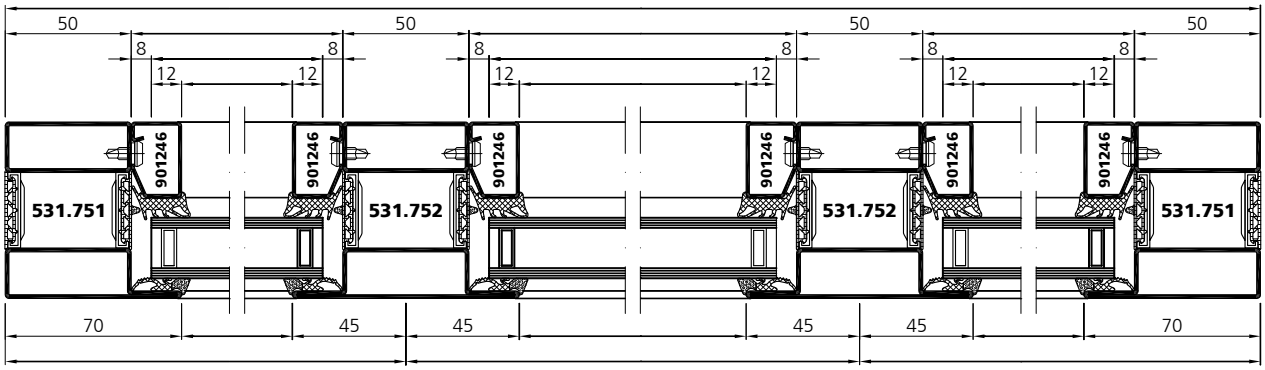
un_sp_0056
un_sp_0071



B - B



C - C



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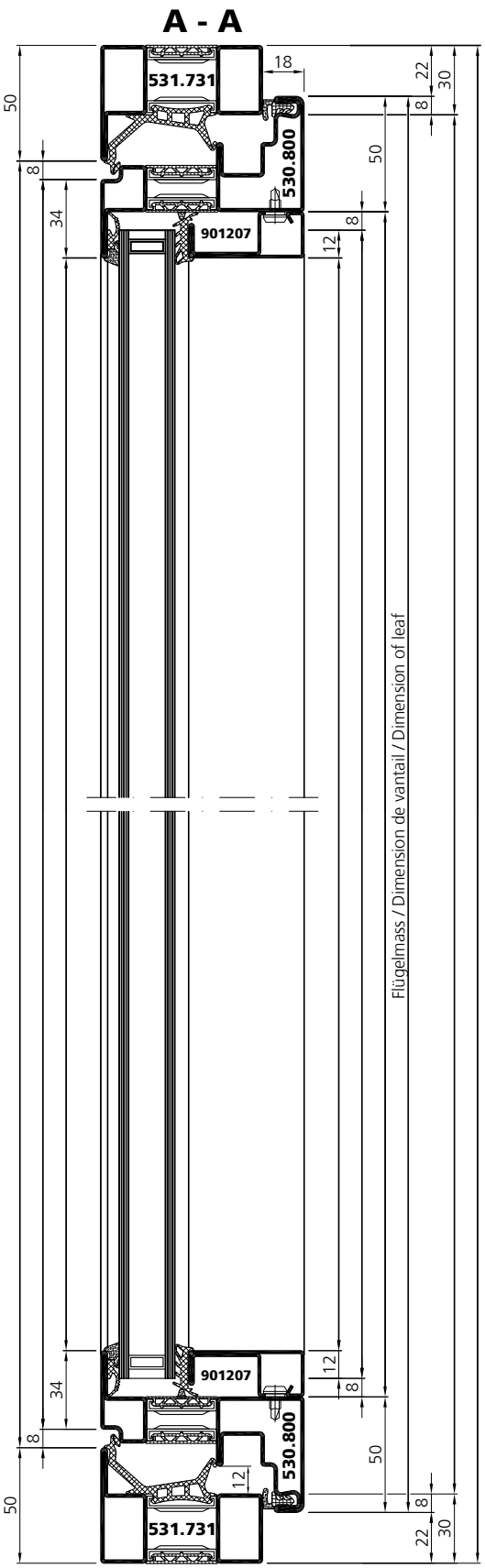
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Systemplan | Plan du système | System plan

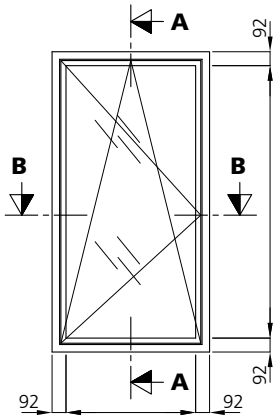
un_sp_0072
un_sp_0082



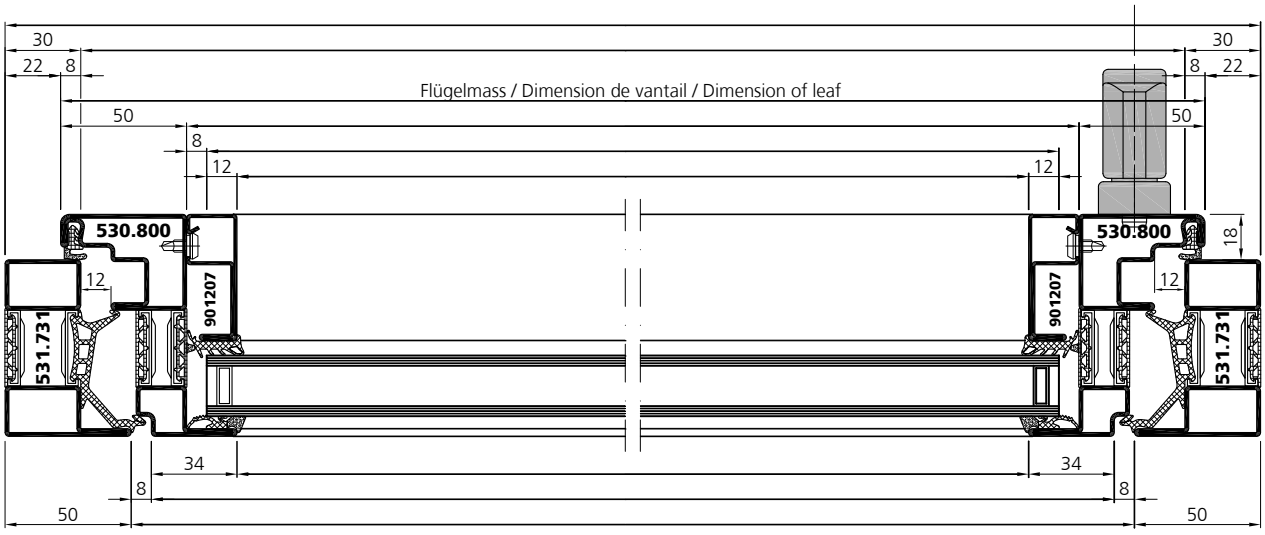
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Systemplan | Plan du système | System plan

un_sp_0072
un_sp_0082



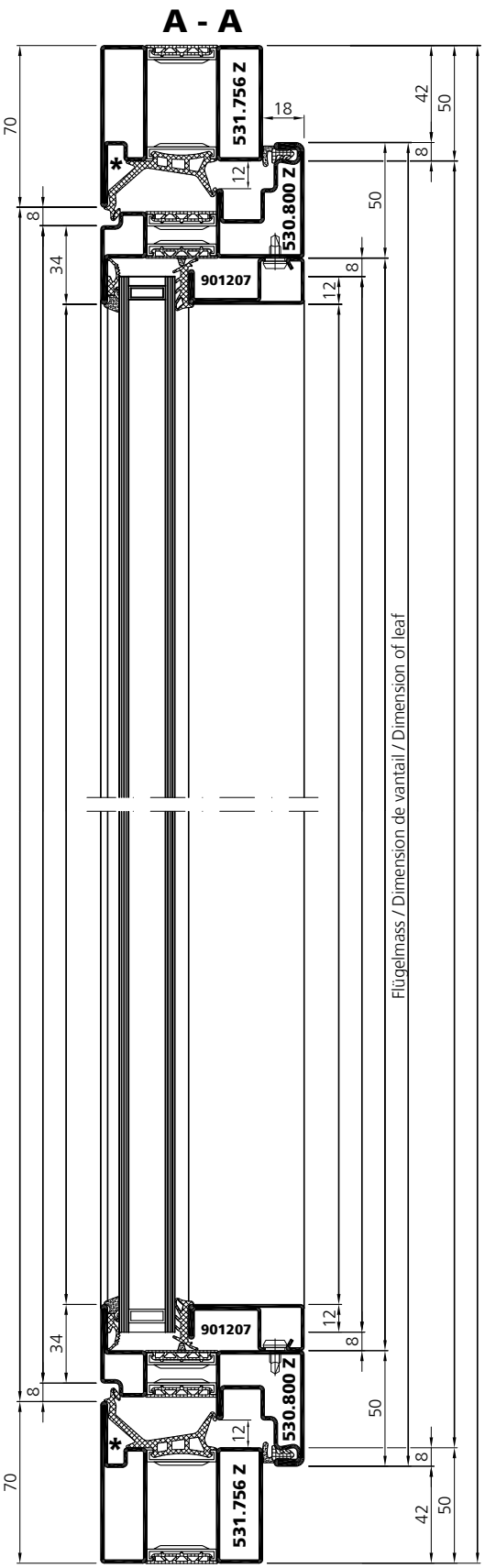
B - B



Systemplan | Plan du système | System plan

un_sp_0090

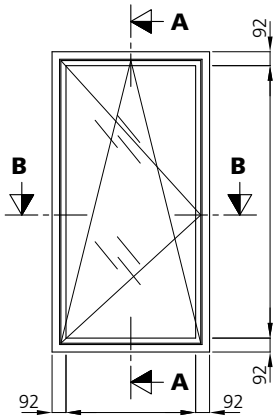
* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove



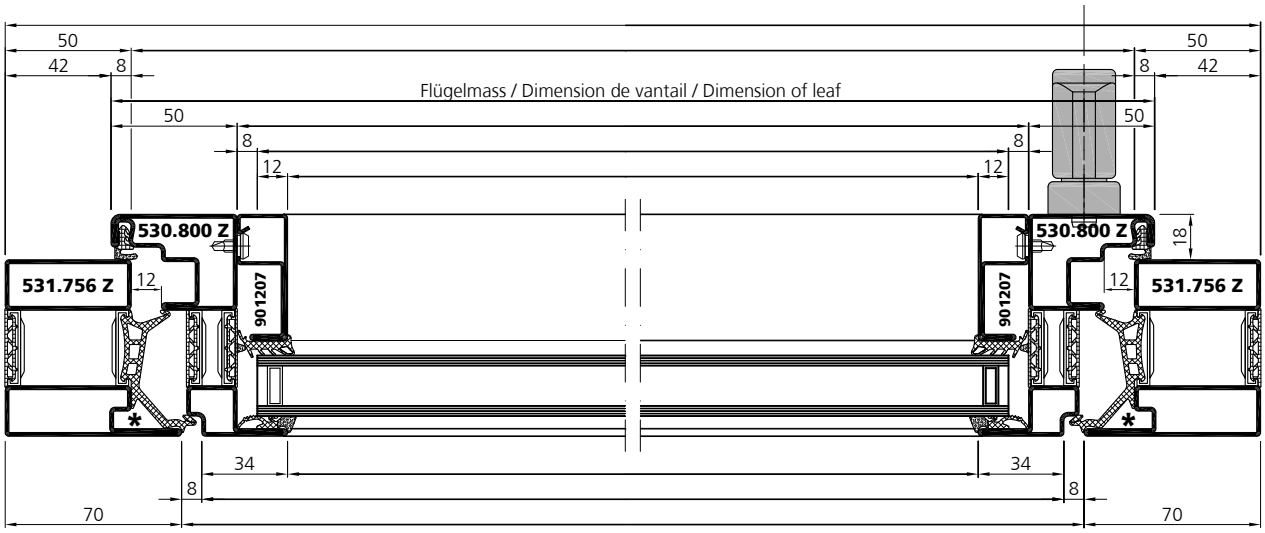
Systemplan | Plan du système | System plan

un_sp_0090

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove



B - B

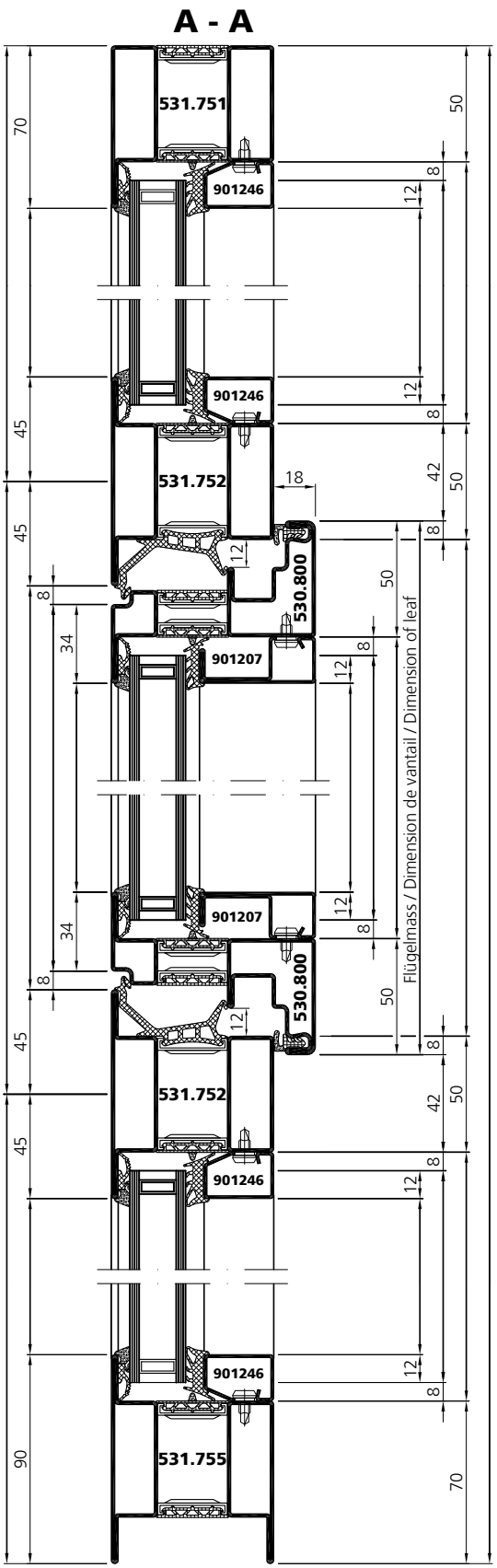


Systemplan

Plan du système

System plan

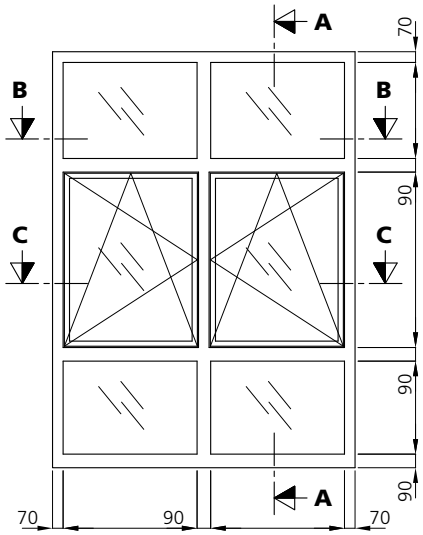
un_sp_0073
un_sp_0083



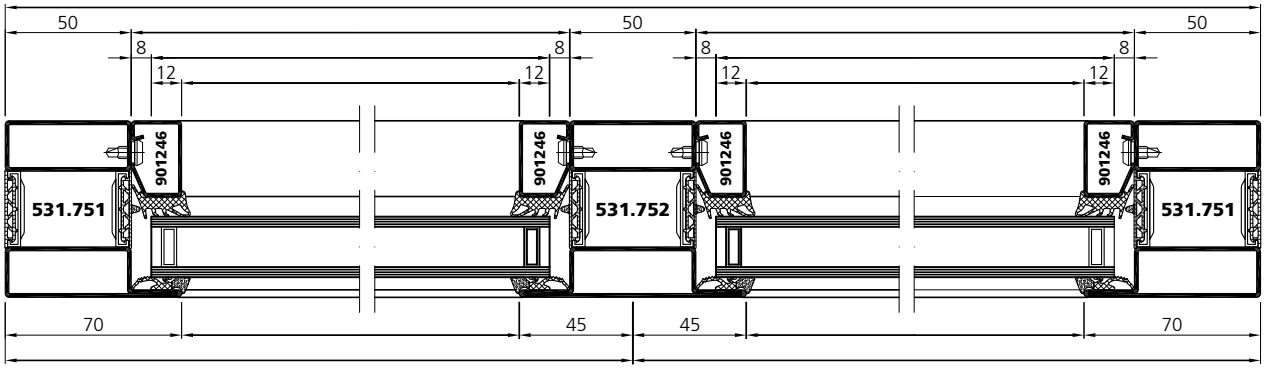
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Systemplan | Plan du système | System plan

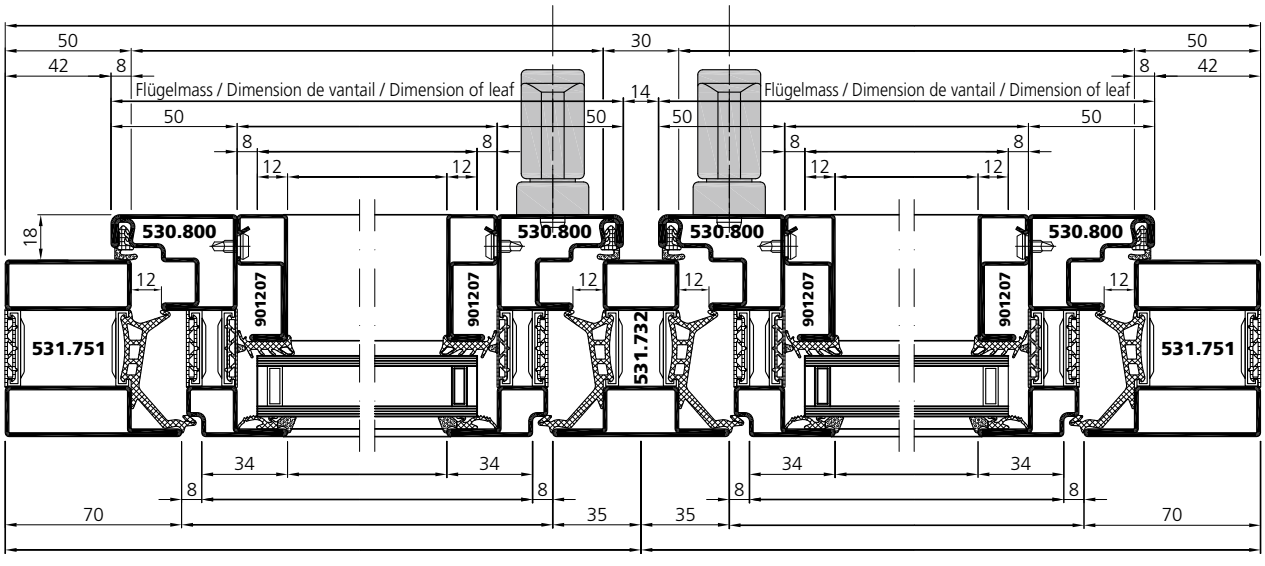
un_sp_0073
un_sp_0083



B - B



C - C

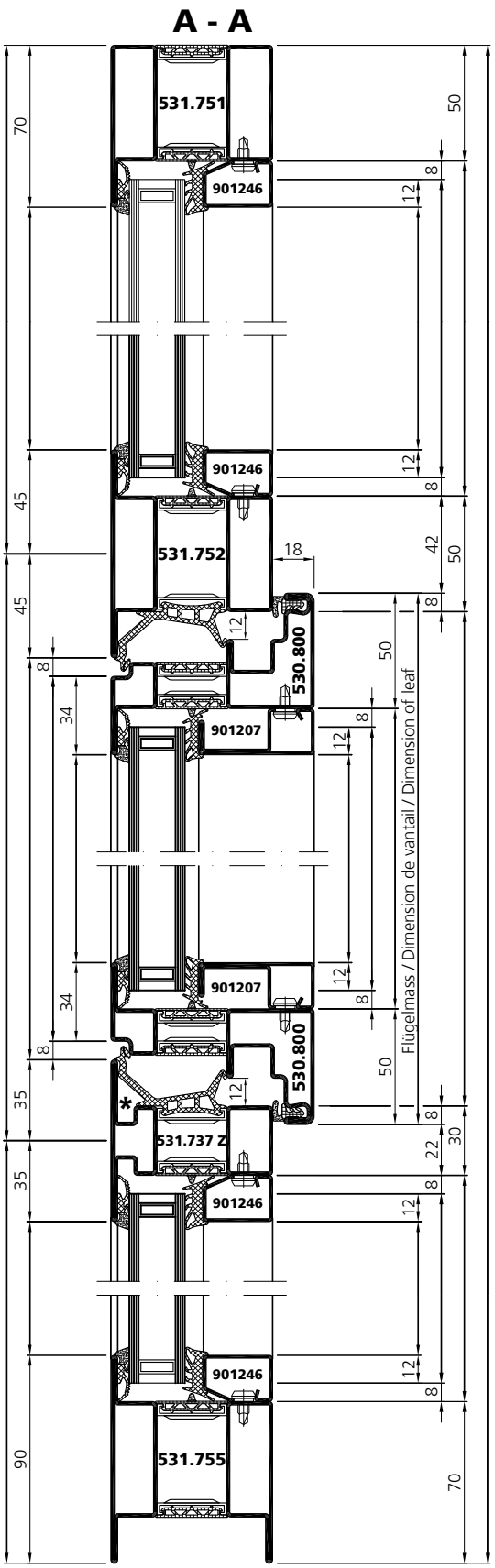


VUF 01/19

Systemplan | Plan du système | System plan

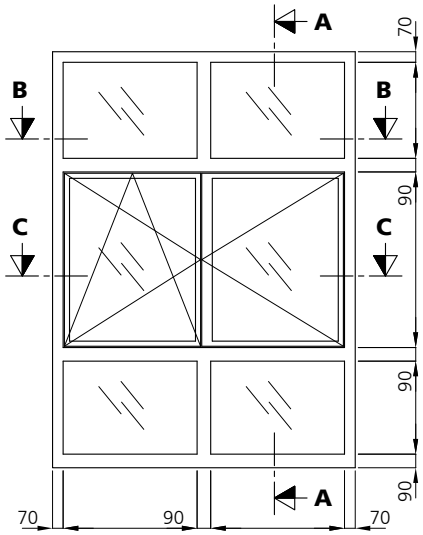
un_sp_0091

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove

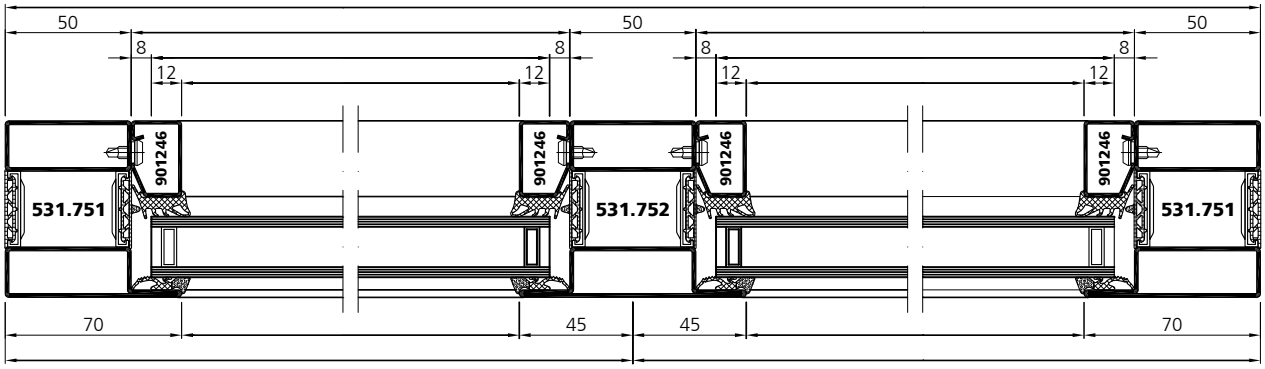


Systemplan | Plan du système | System plan

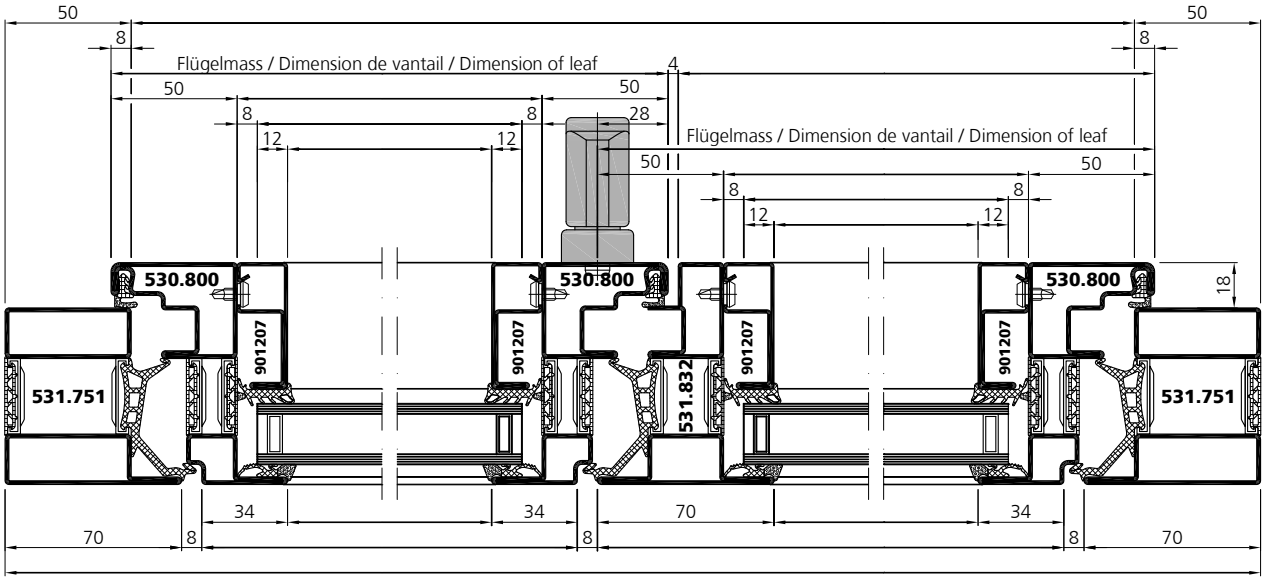
un_sp_0091



B - B



C - C

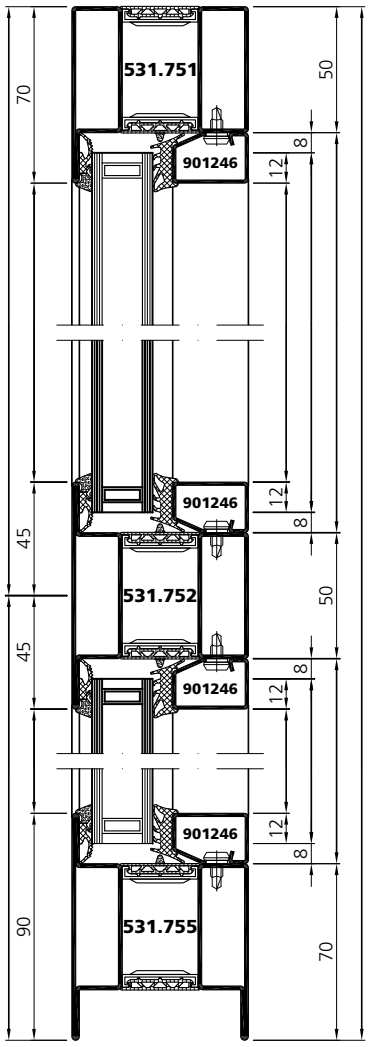


VUF 01/19

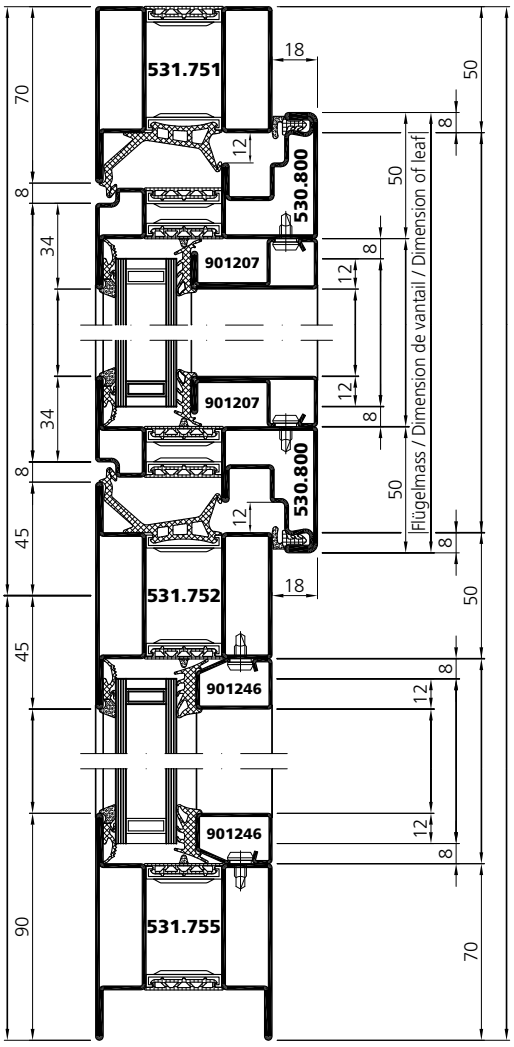
Systemplan | Plan du système | System plan

un_sp_0076
un_sp_0086

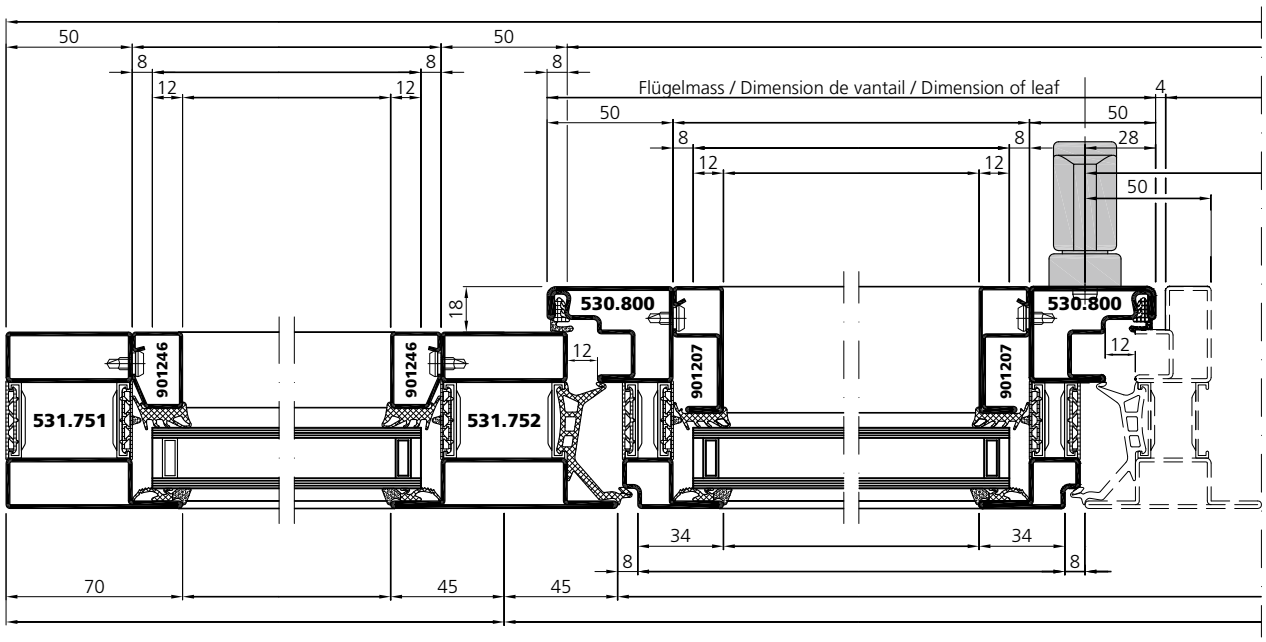
A - A



B - B



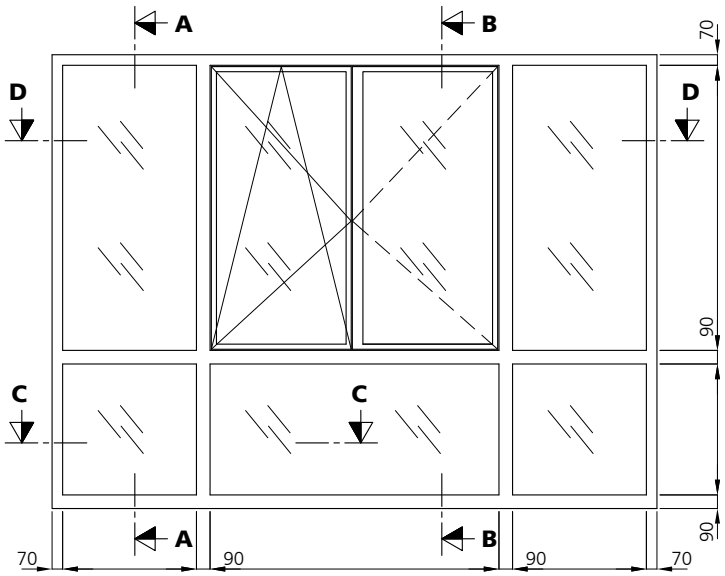
D - D



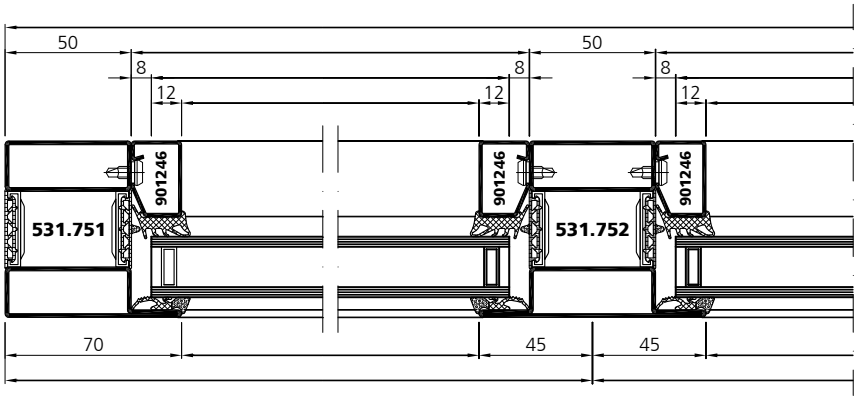
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Systemplan | Plan du système | System plan

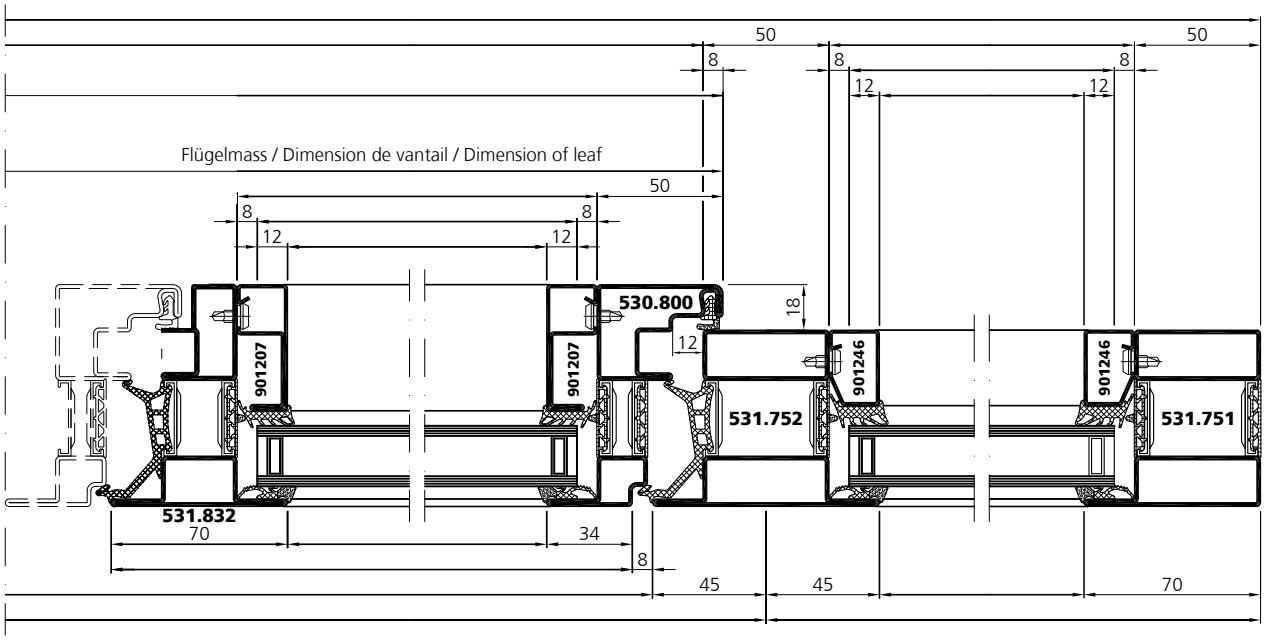
un_sp_0076
un_sp_0086



C - C



D - D



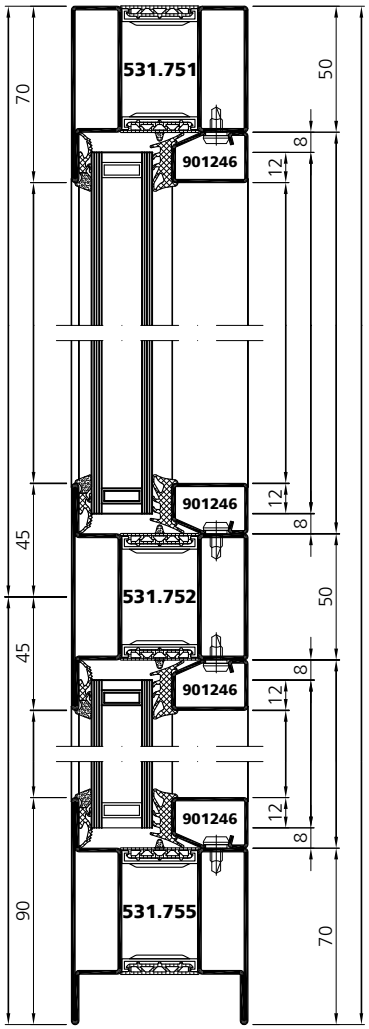
VUF 01/19

forsterunico

Systemplan | Plan du système | System plan

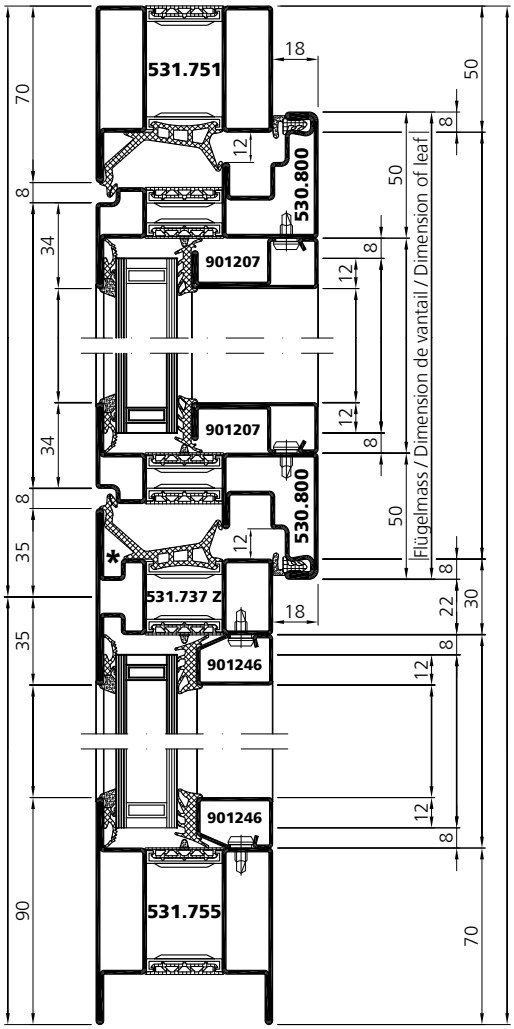
un_sp_0089

A - A

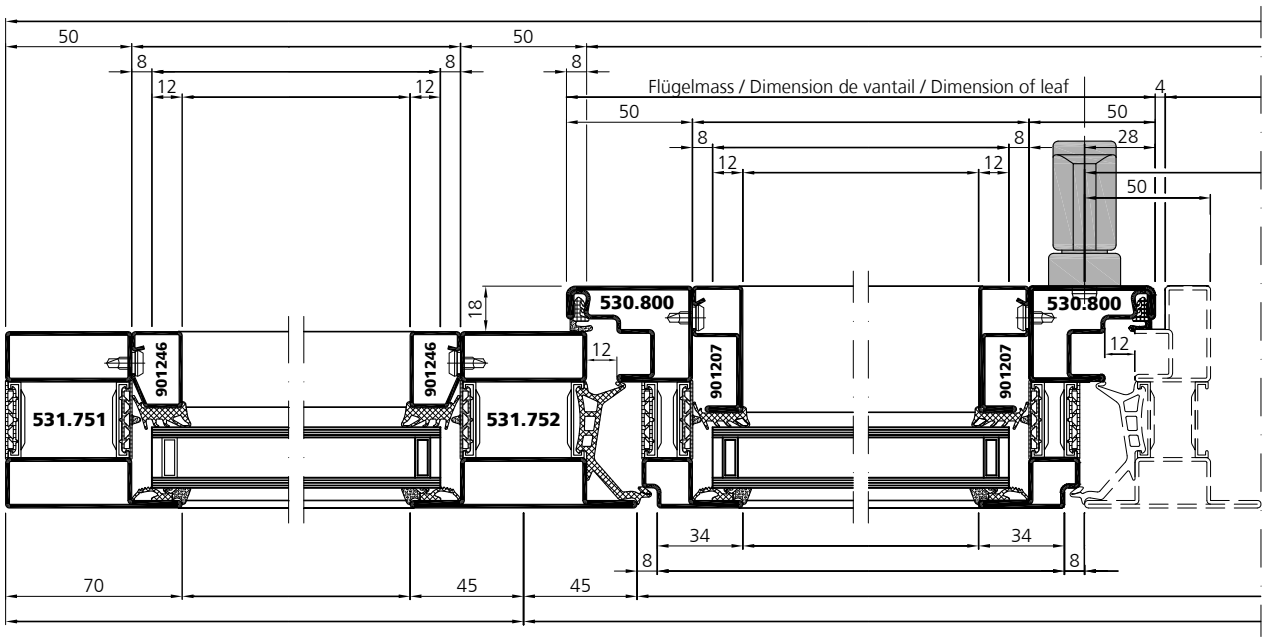


*
Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove

B - B



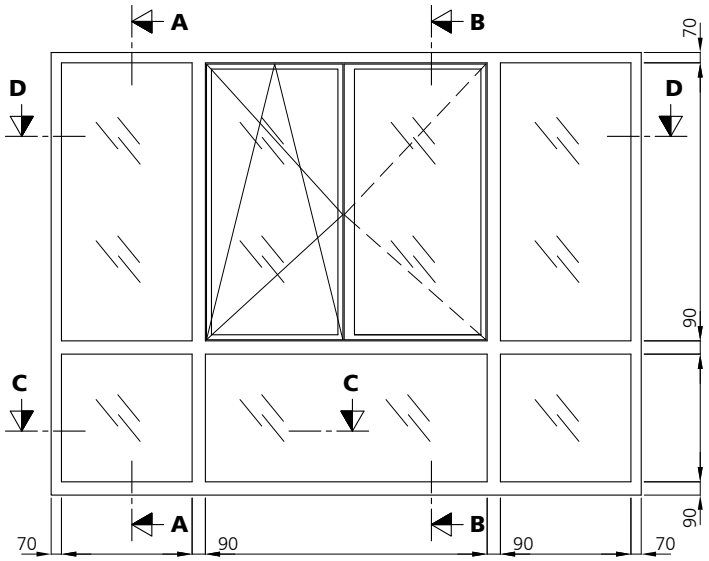
D - D



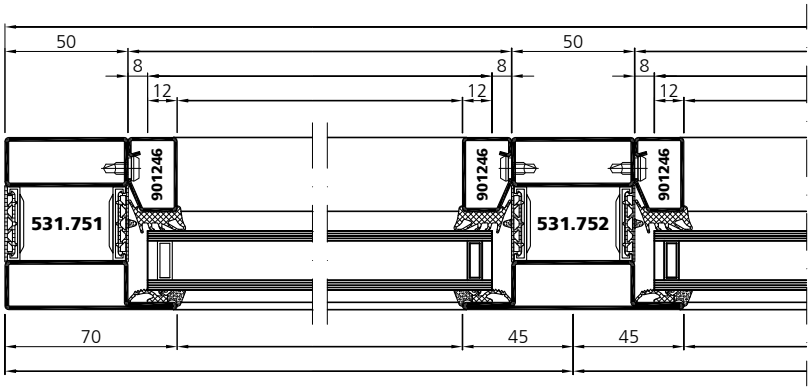
VUF 01/19

Systemplan | Plan du système | System plan

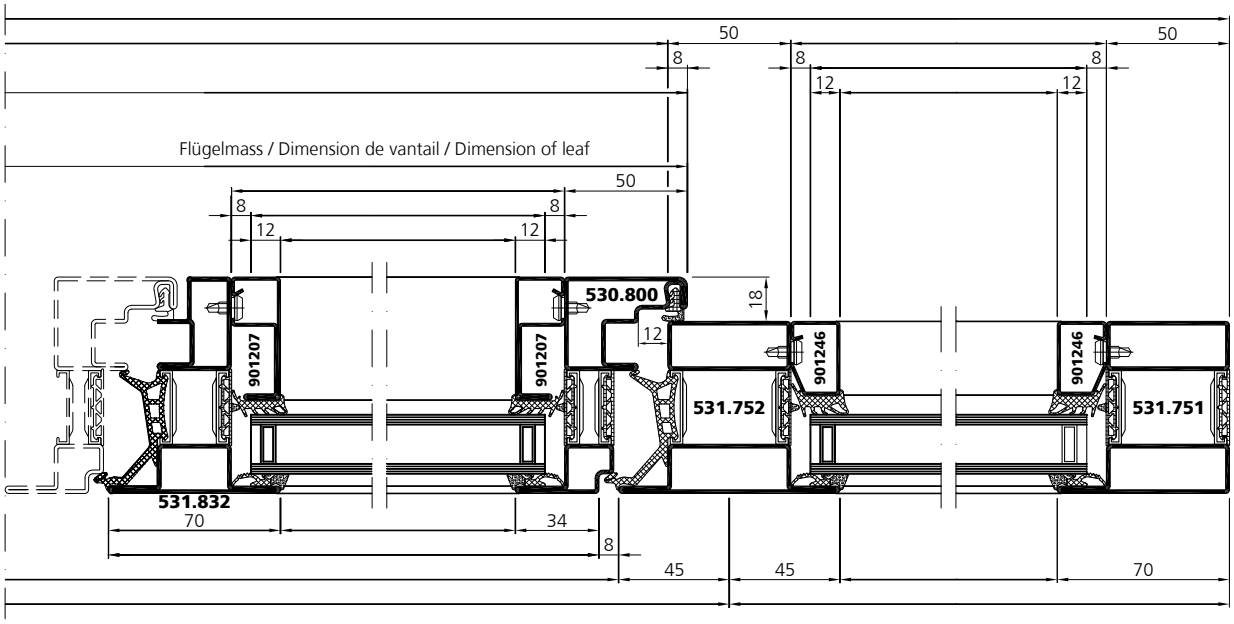
un_sp_0089



C - C



D - D

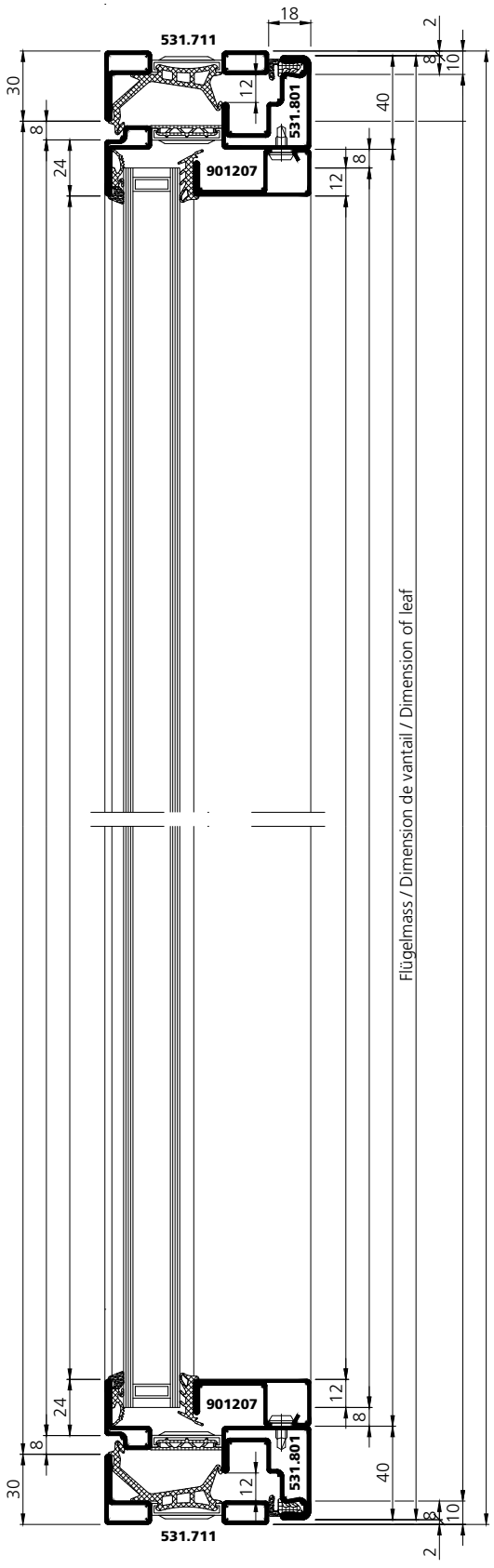


VUF 01/19

Systemplan | Plan du système | System plan

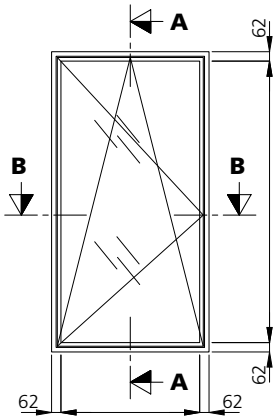
■ un_sp_0201

A - A

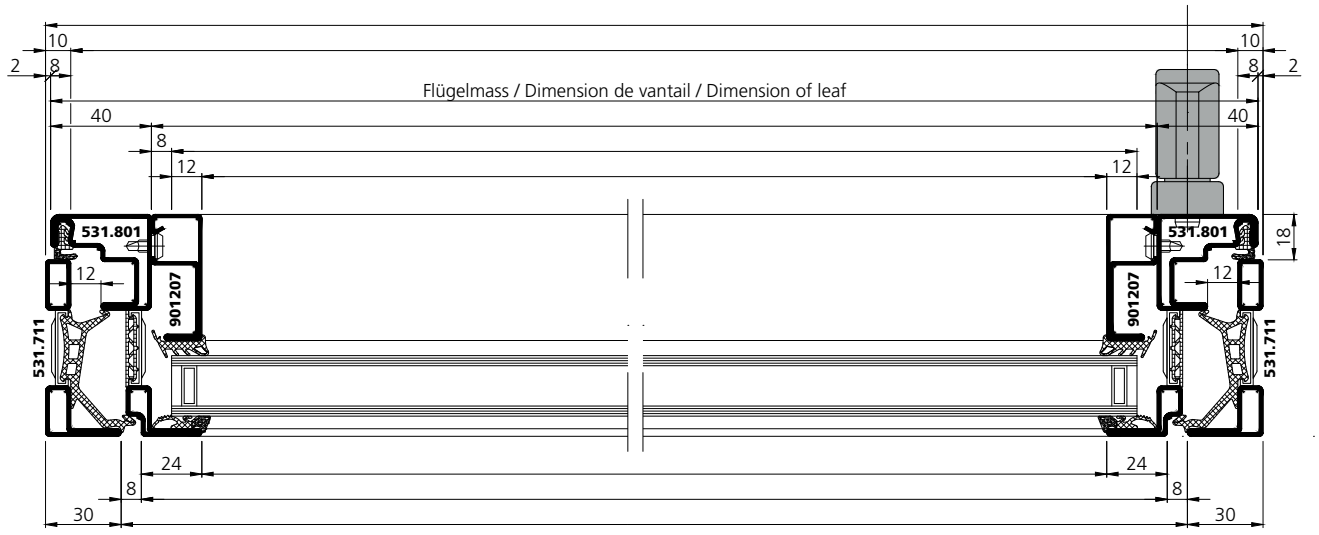


Systemplan | Plan du système | System plan

un_sp_0201



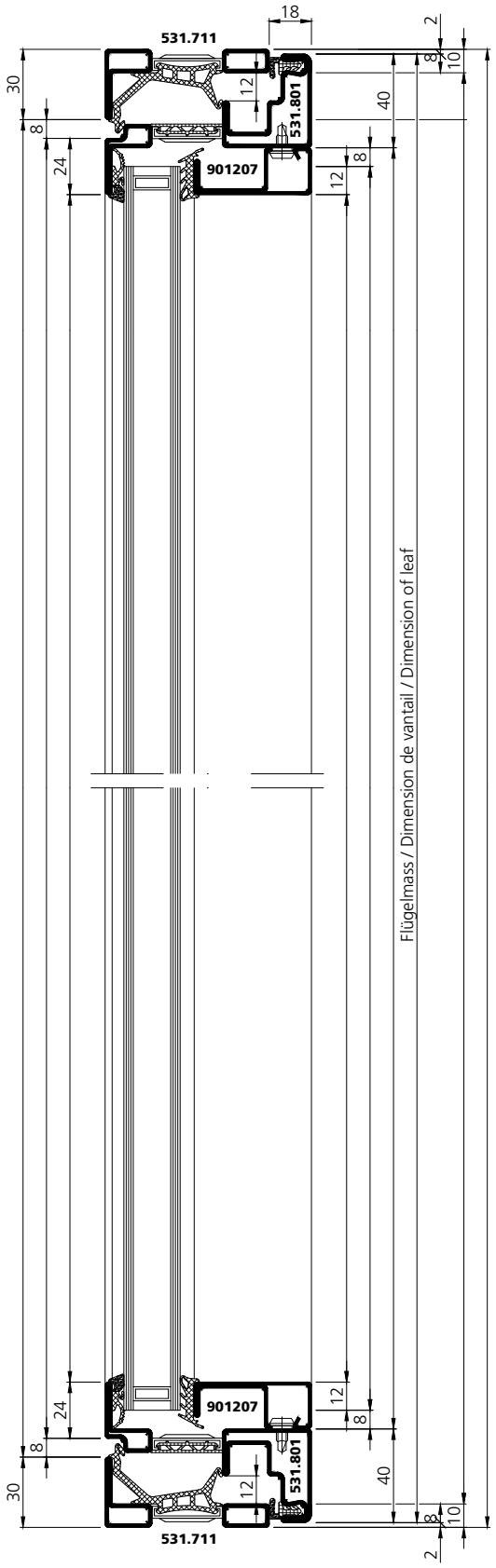
B - B



Systemplan | Plan du système | System plan

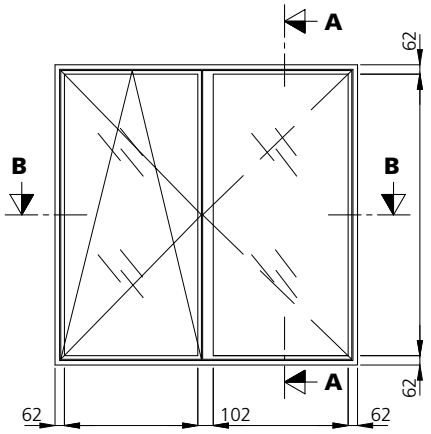
■ un_sp_0202

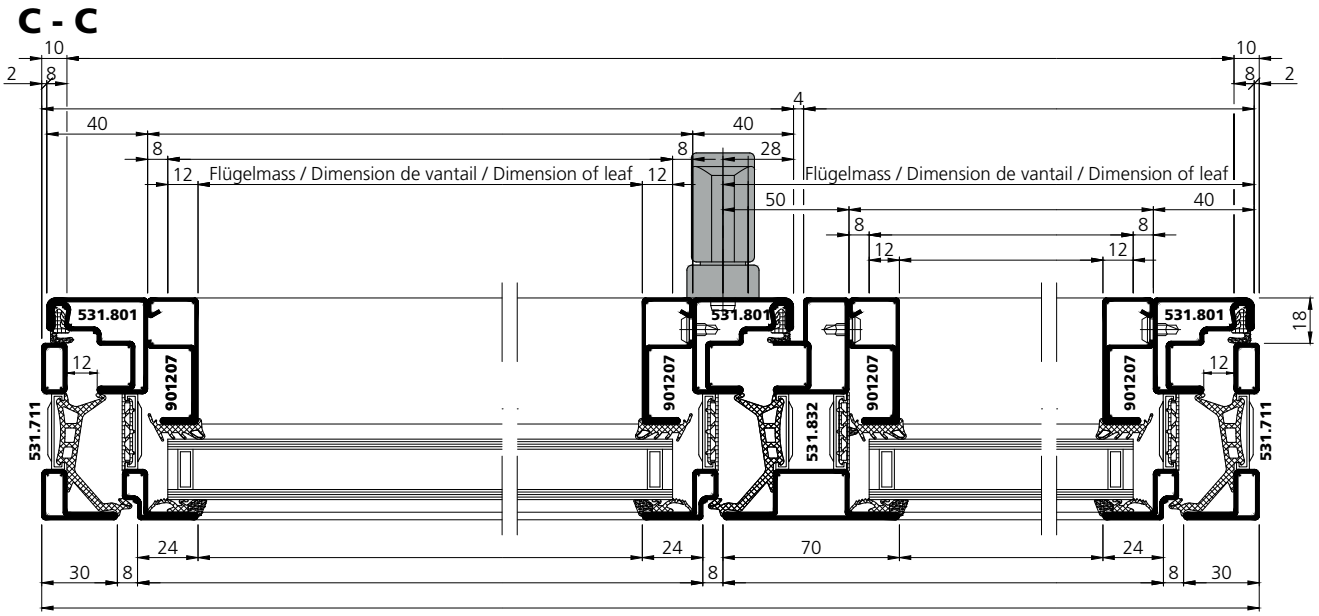
A - A



Systemplan | Plan du système | System plan

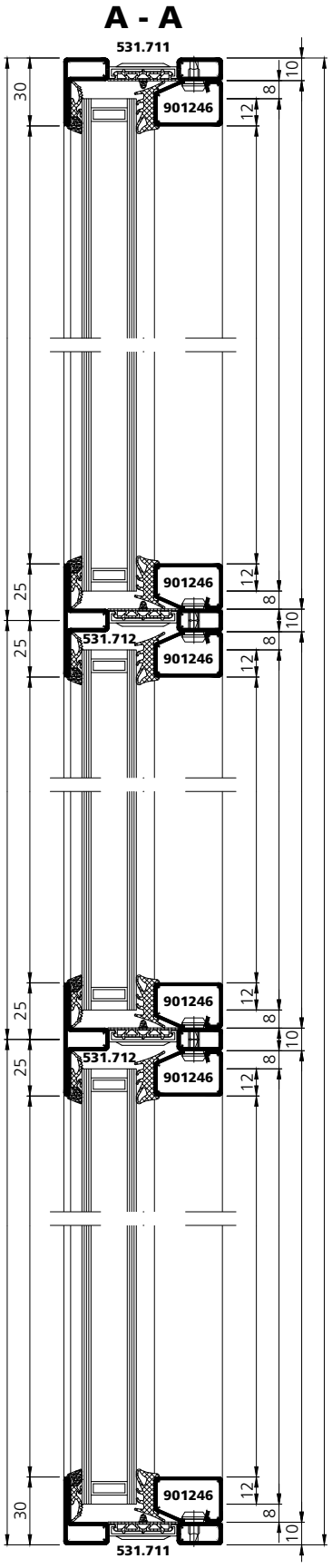
un_sp_0202





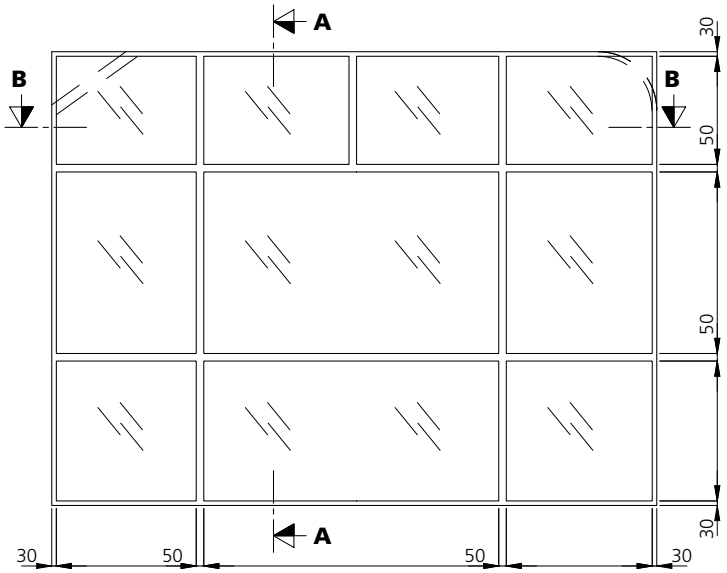
Systemplan | Plan du système | System plan

■ un_sp_0200

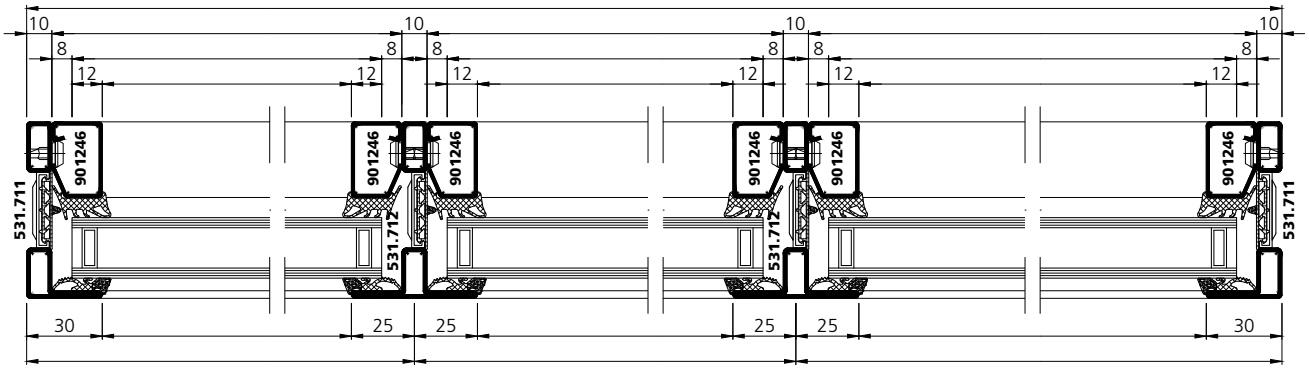


Systemplan | Plan du système | System plan

un_sp_0200



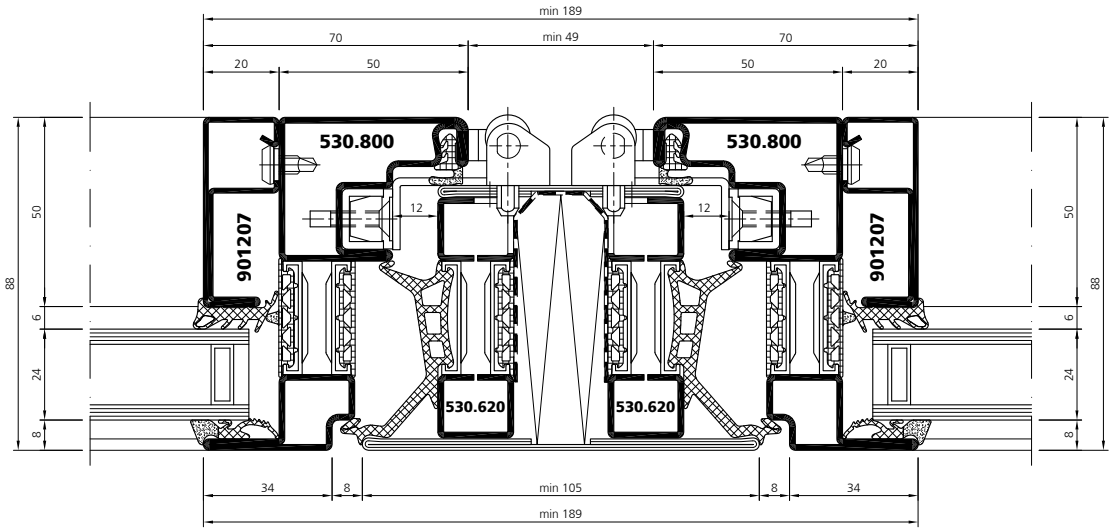
B - B



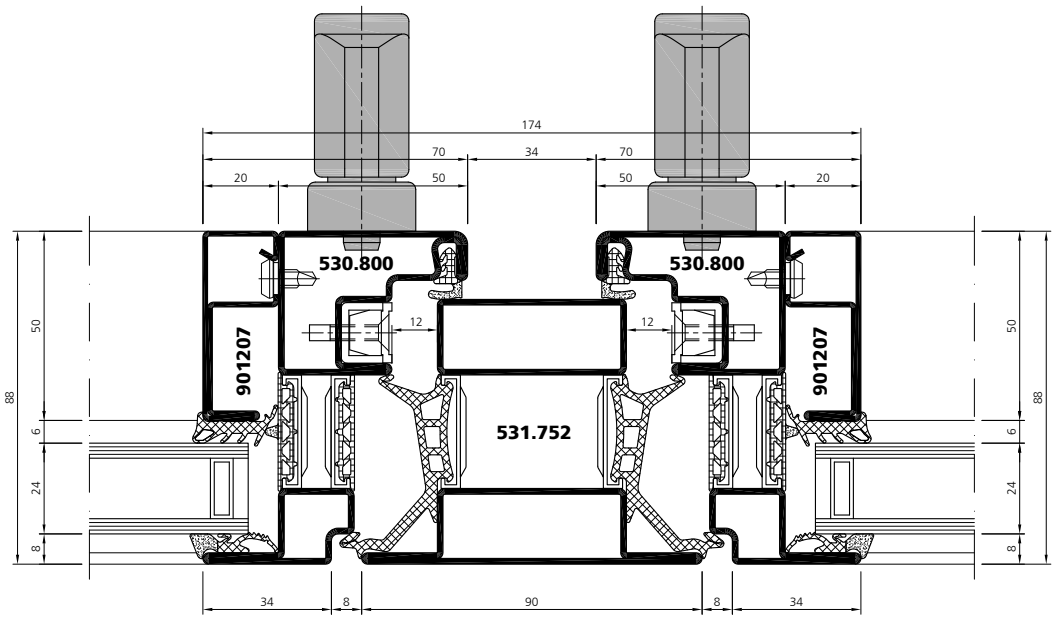


Edificio Mediapro, ES-Barcelona

Konstruktionsdetails Détails de construction Construction details

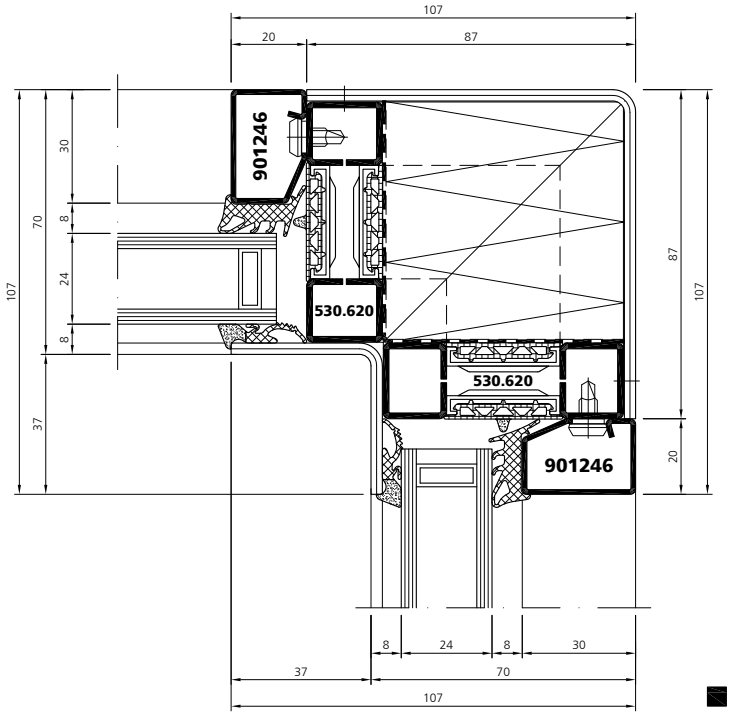


un_kd_0017

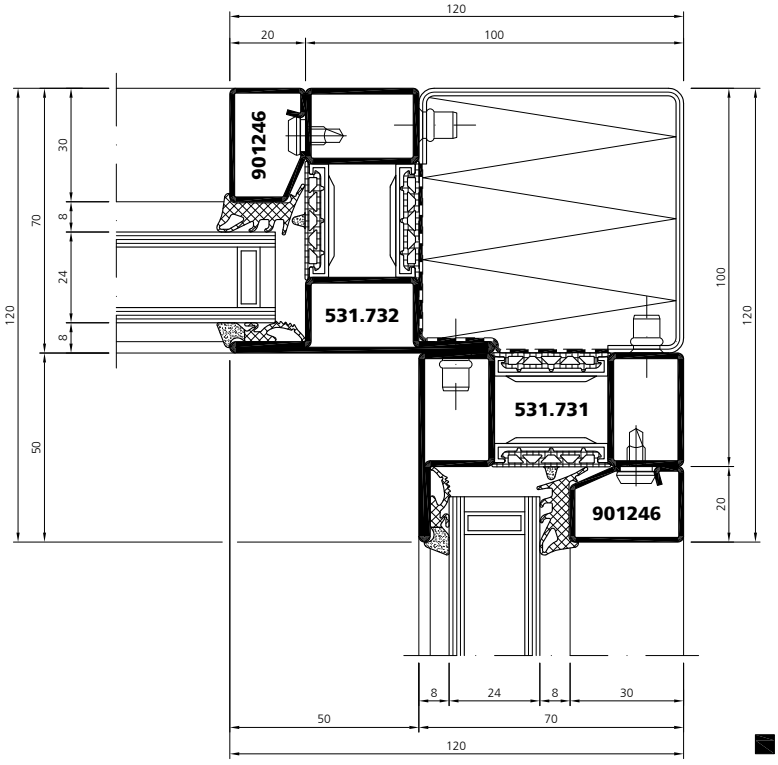


un_kd_0031

Konstruktionsdetails | Détails de construction | Construction details

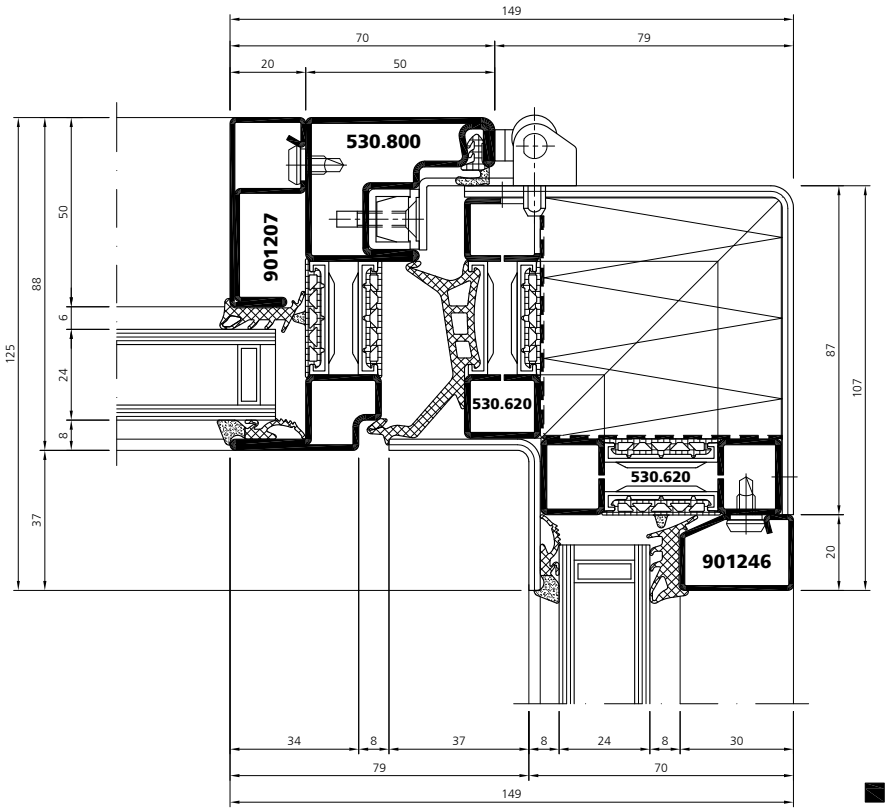


un_kd_0001

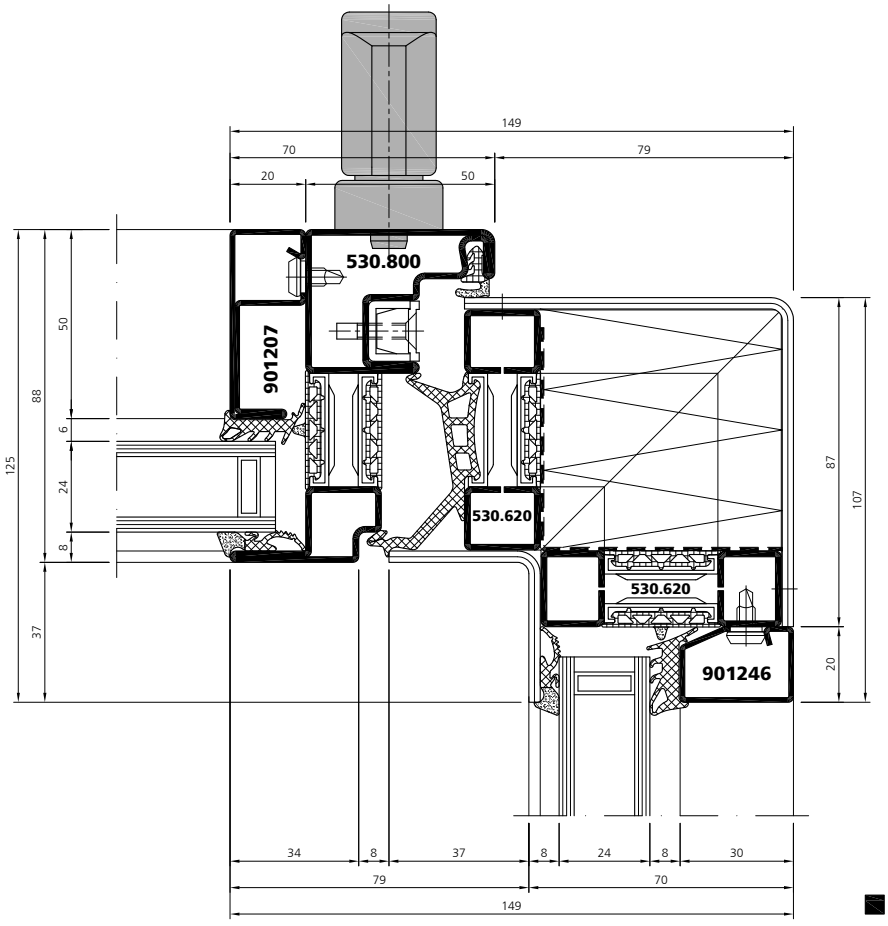


un_kd_0009

Konstruktionsdetails Détails de construction Construction details

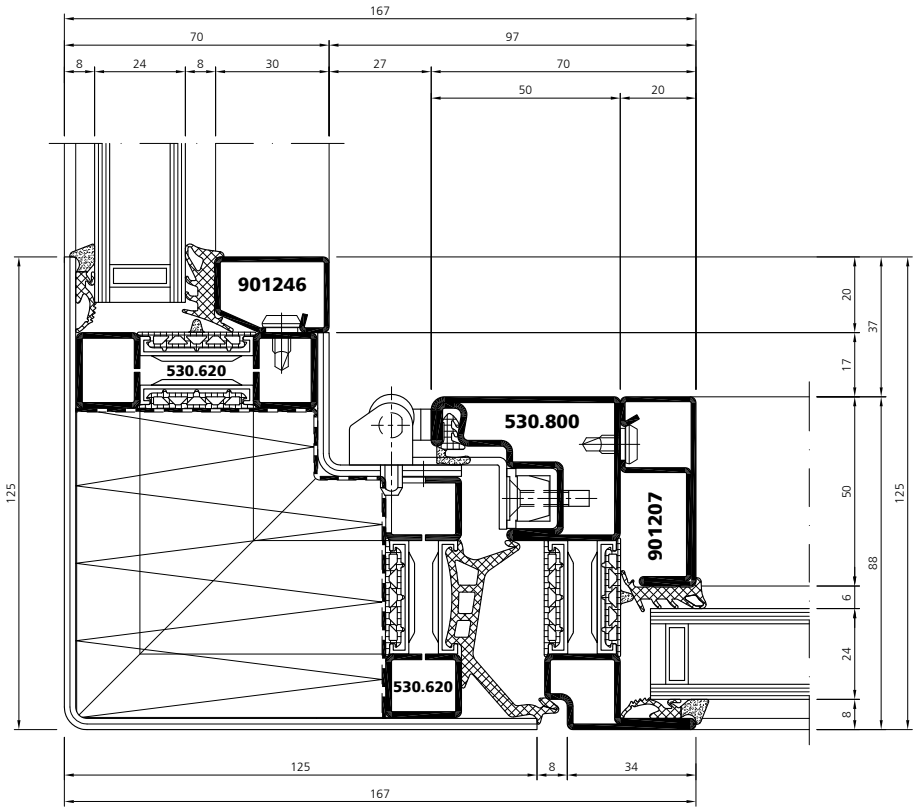


un_kd_0015

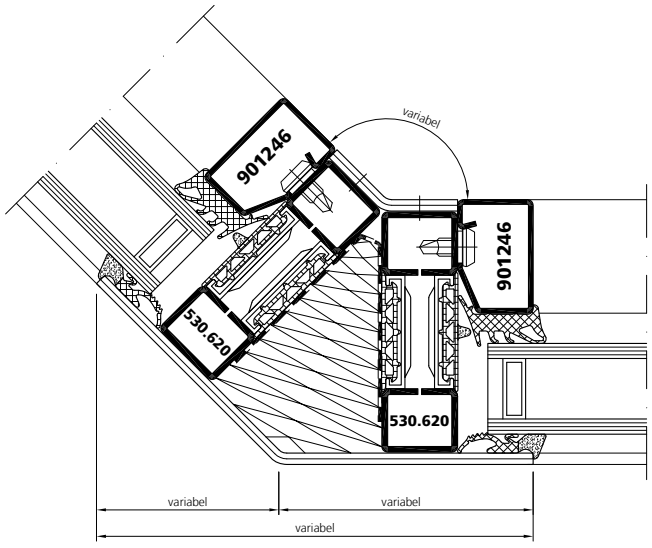


un_kd_0016

Konstruktionsdetails | Détails de construction | Construction details



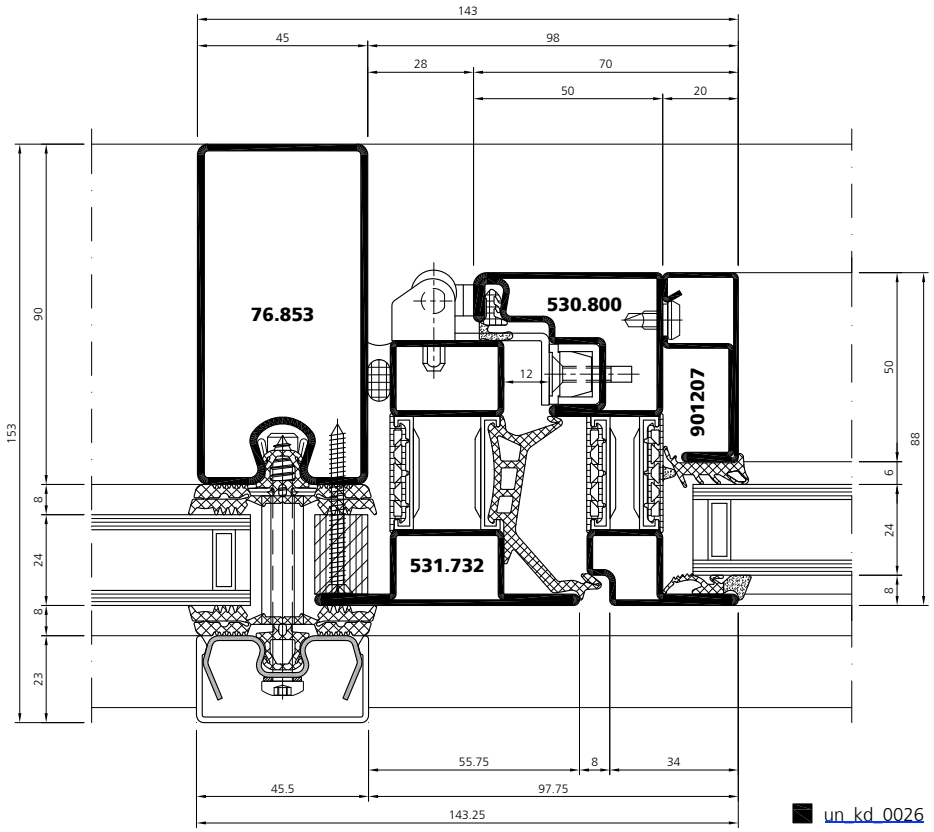
un_kd_0024



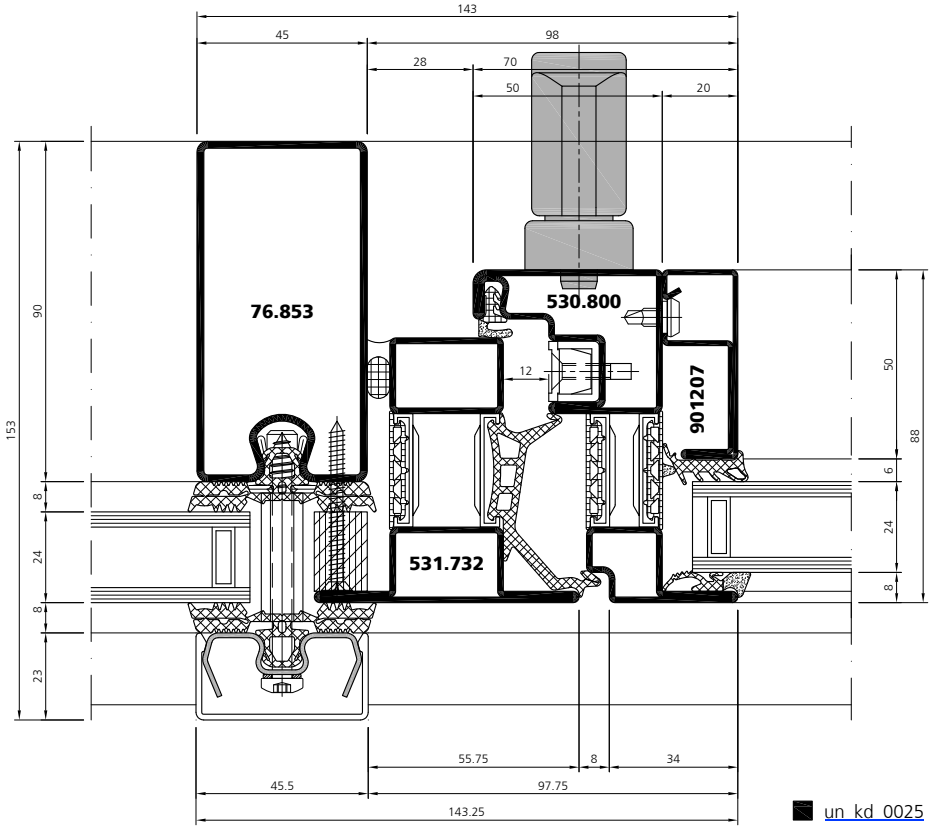
un_kd_0003

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Konstruktionsdetails Détails de construction Construction details

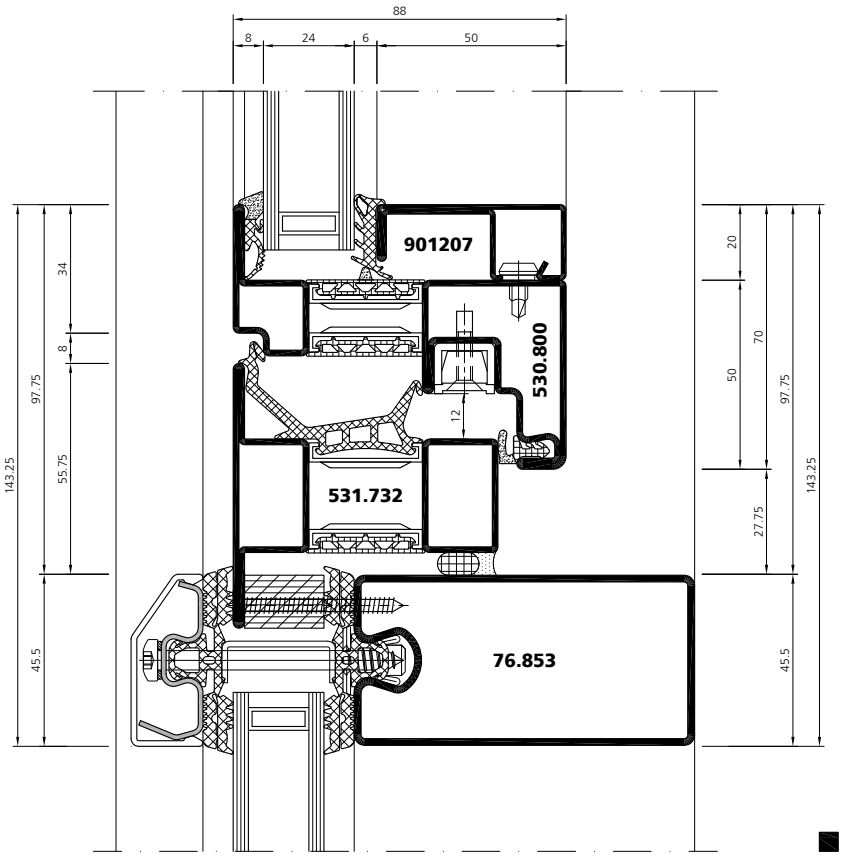


un_kd_0026



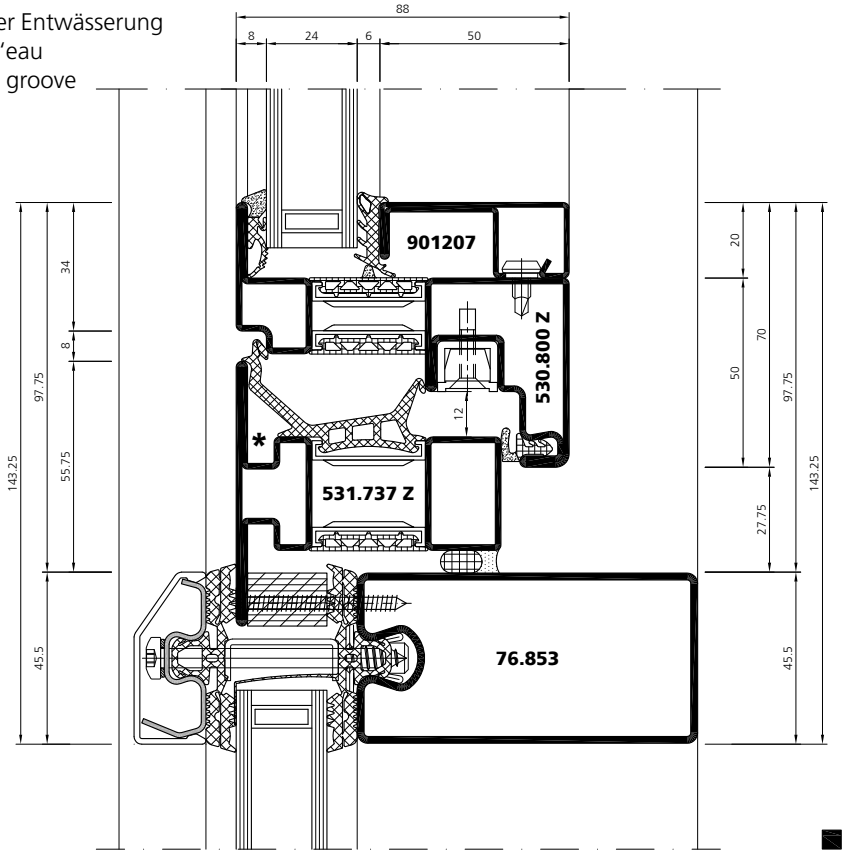
un_kd_0025

Konstruktionsdetails Détails de construction Construction details



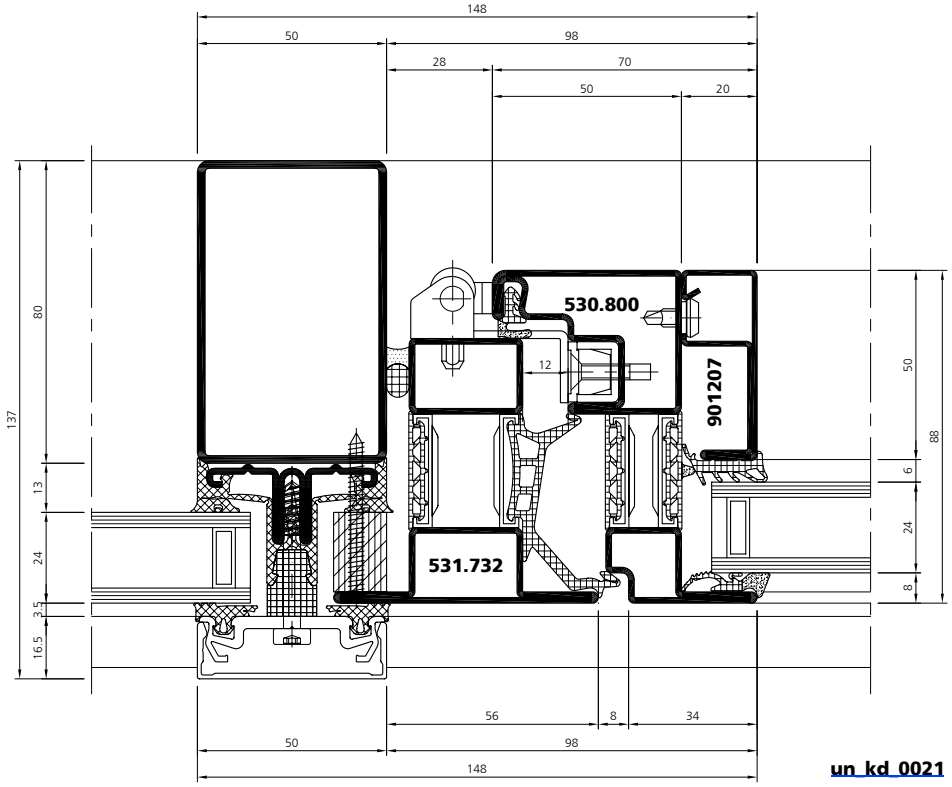
un_kd_0014

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove

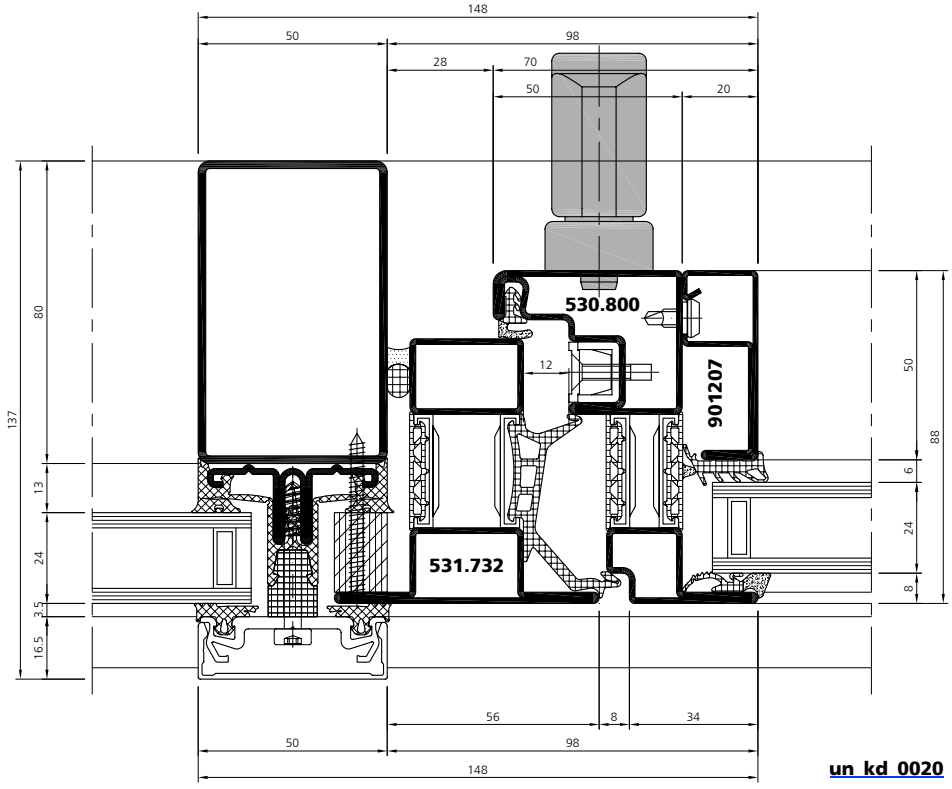


un_kd_0027

Konstruktionsdetails Détails de construction Construction details

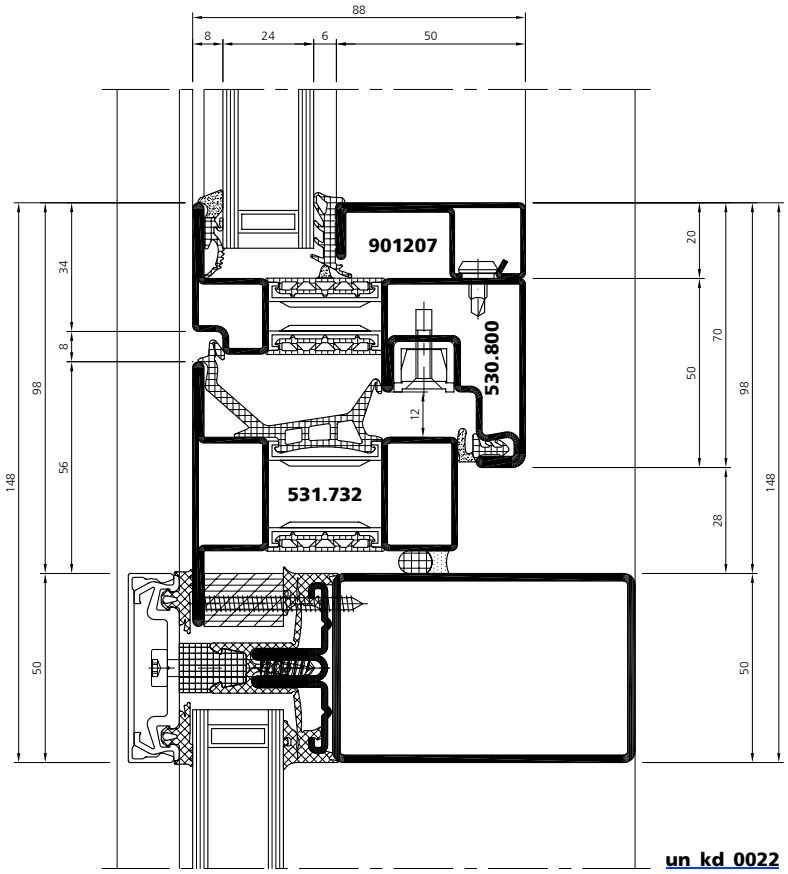


un_kd_0021



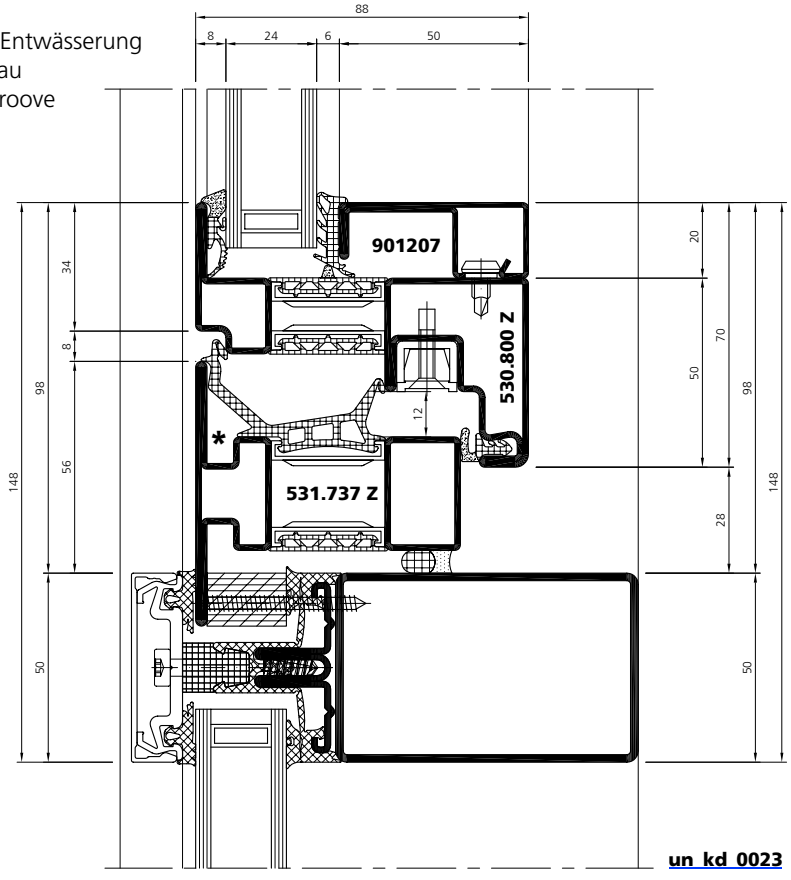
un_kd_0020

Konstruktionsdetails Détails de construction Construction details



un_kd_0022

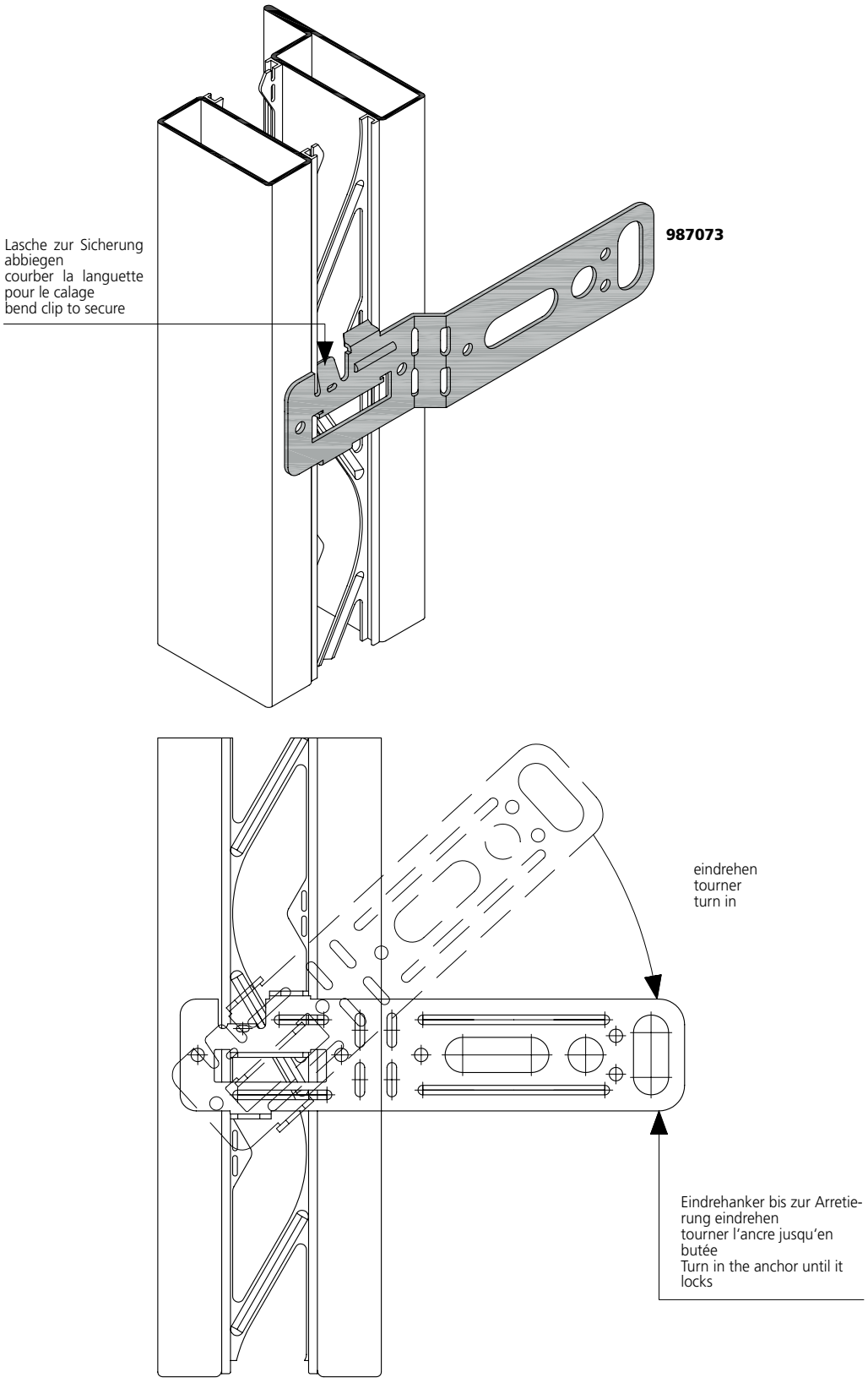
* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove



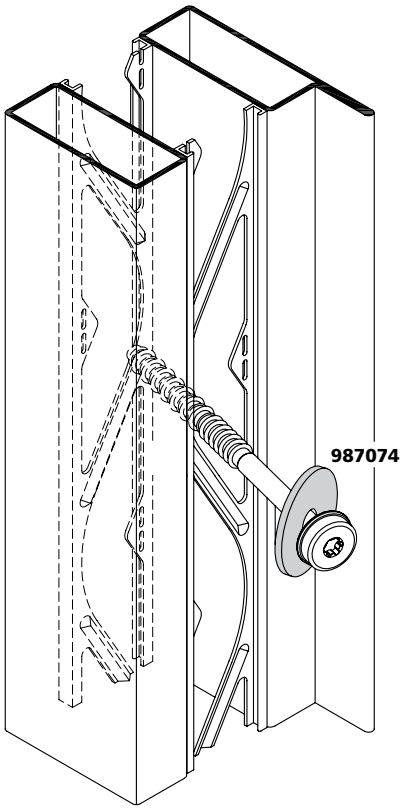
un_kd_0023

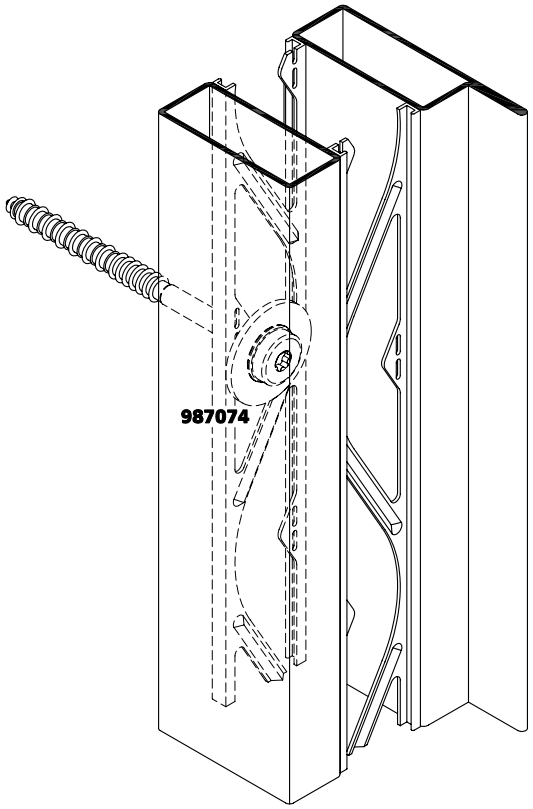
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

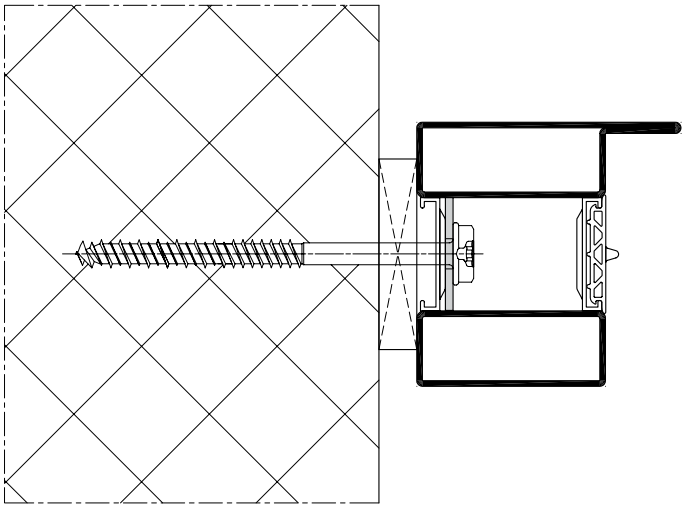
Wandbefestigung Raccords muraux Wall connections



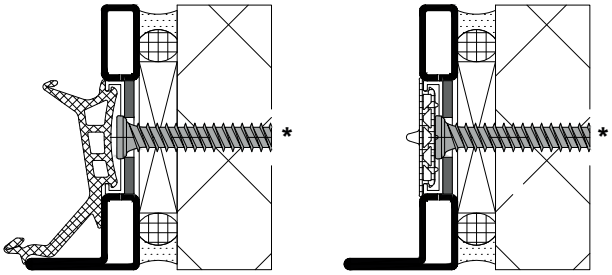
Wandbefestigung Raccords muraux Wall connections



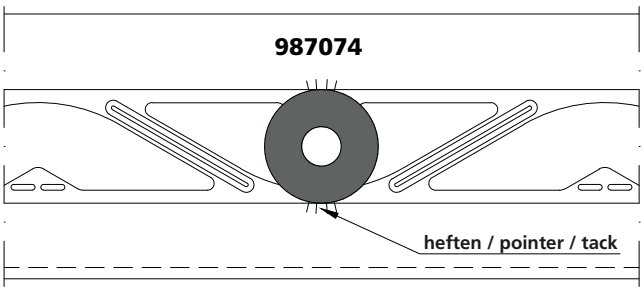




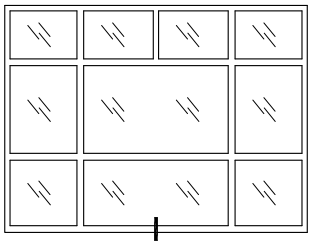
Wandbefestigung | Raccords muraux | Wall connections

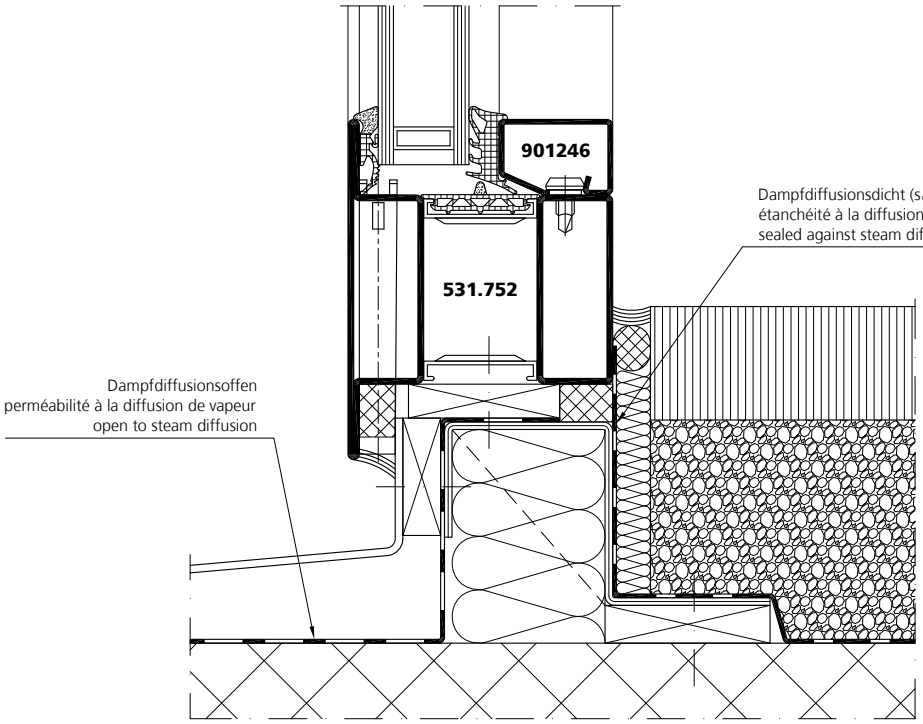


*** z. B./p.ex./e.g. Hilti HUS 6, Ø 7.5 mm**



Bauanschlüsse | Raccords muraux | Wall abutments

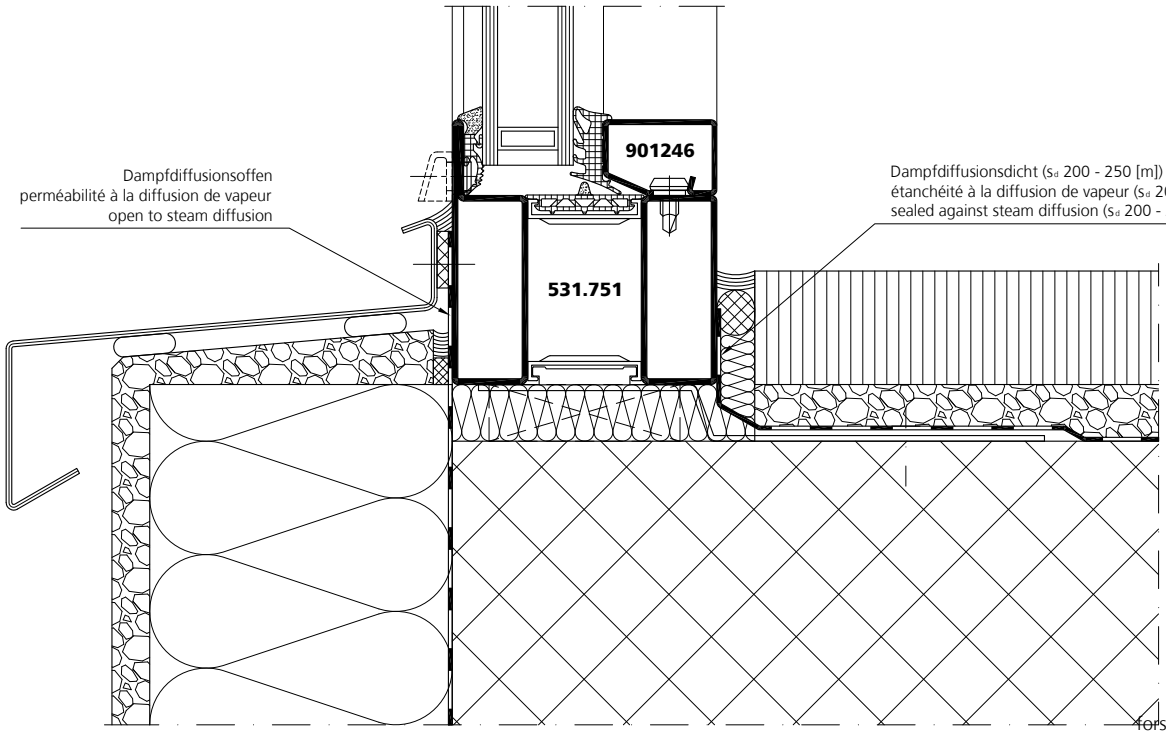




- un_wa_0050
- un_wa_0122 (531.737)
- un_wa_0120 (531.712)

forster unico Hi

- un_wa_0076
- un_wa_0123 (531.737)
- un_wa_0121 (531.712)



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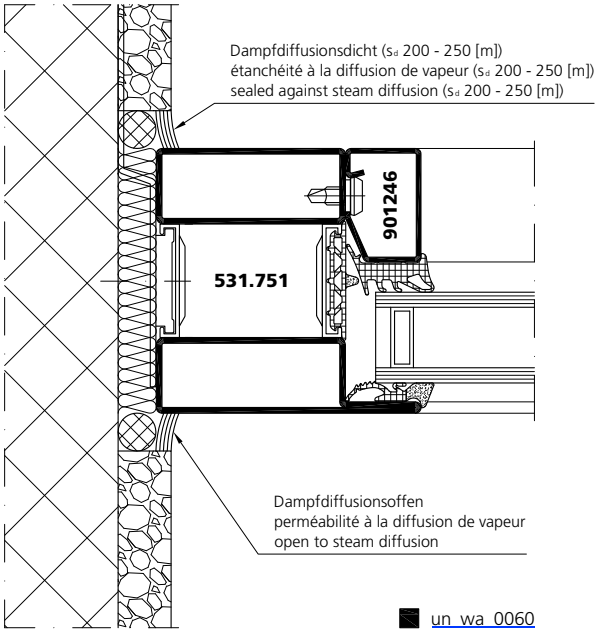
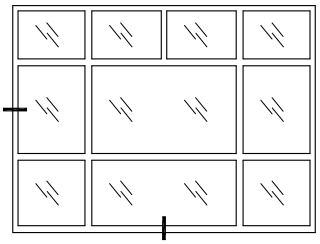
forster unico Hi

- un_wa_0077

Bauanschlüsse Raccords muraux Wall abutments





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forster unico Hi
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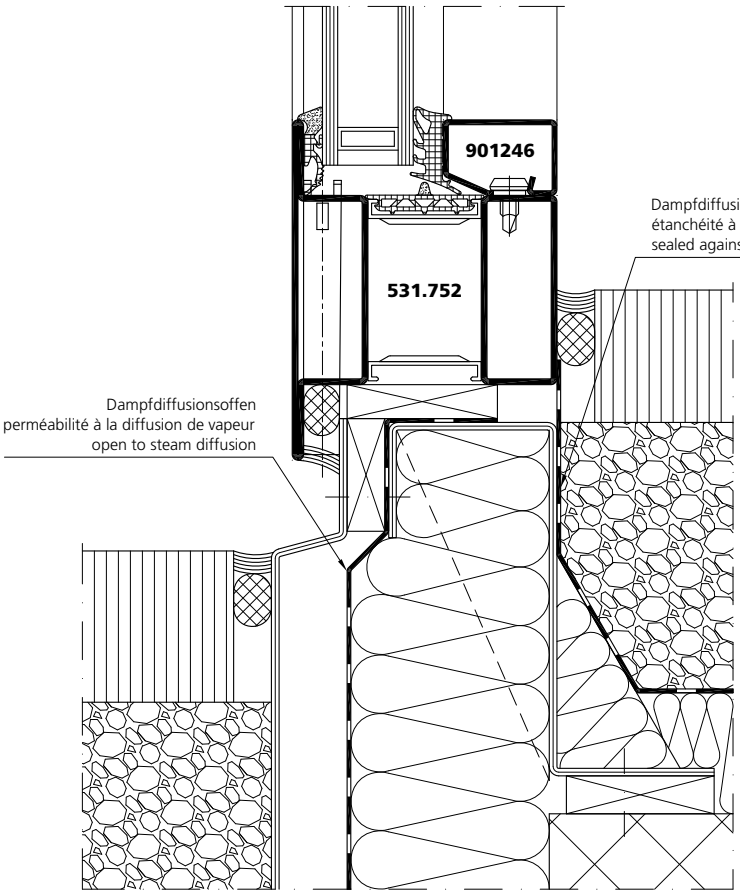

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forster unico Hi
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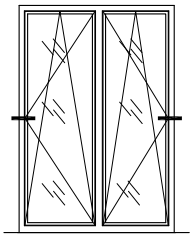
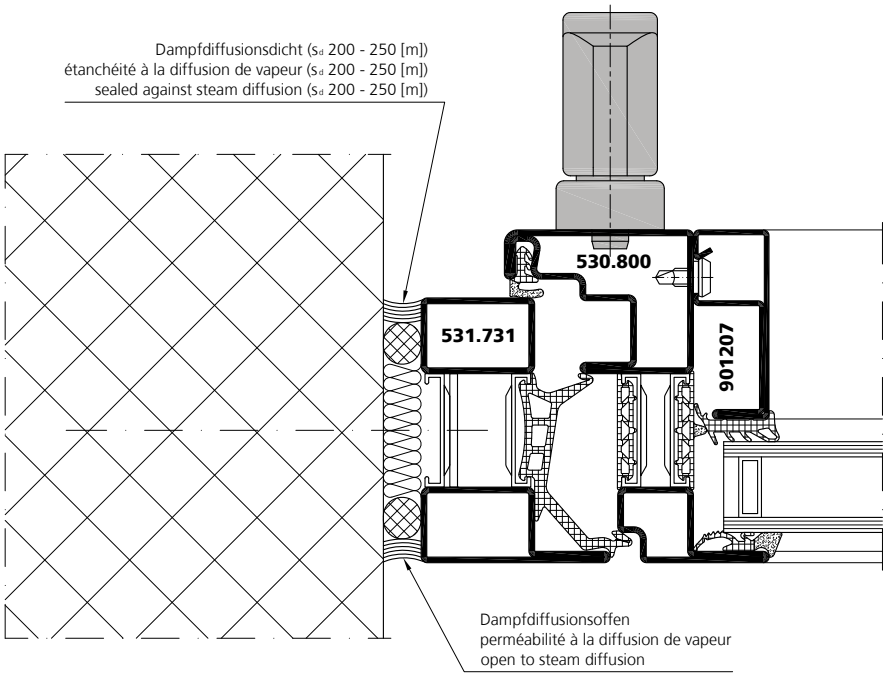
un_wa_0125 (530.712)

VUF 01/19

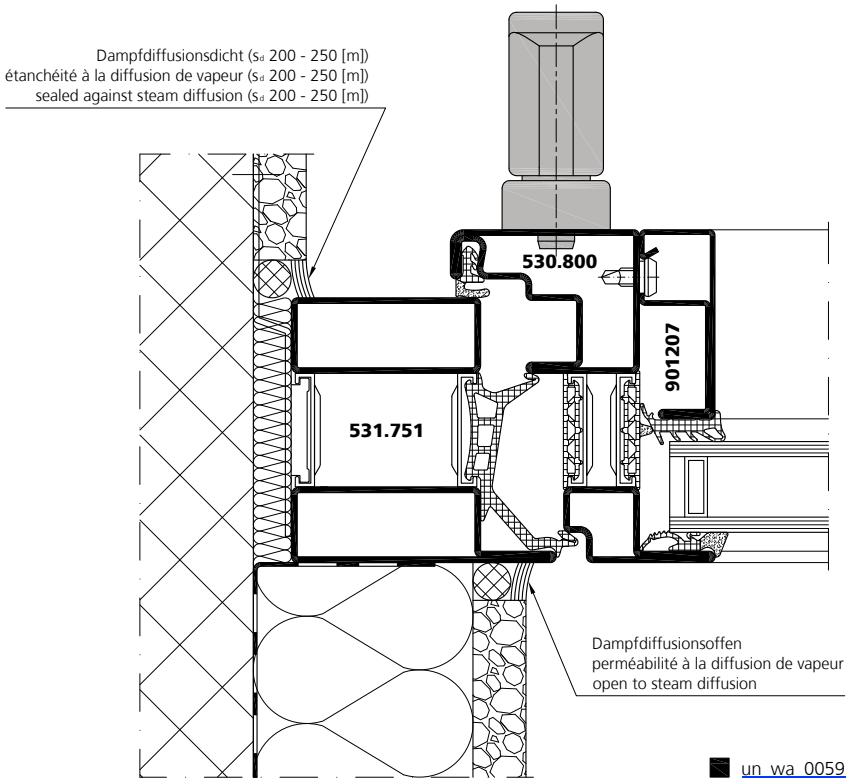
Bauanschlüsse | Raccords muraux | Wall abutments





forster unico Hi

un_wa_0058 un_wa_0084

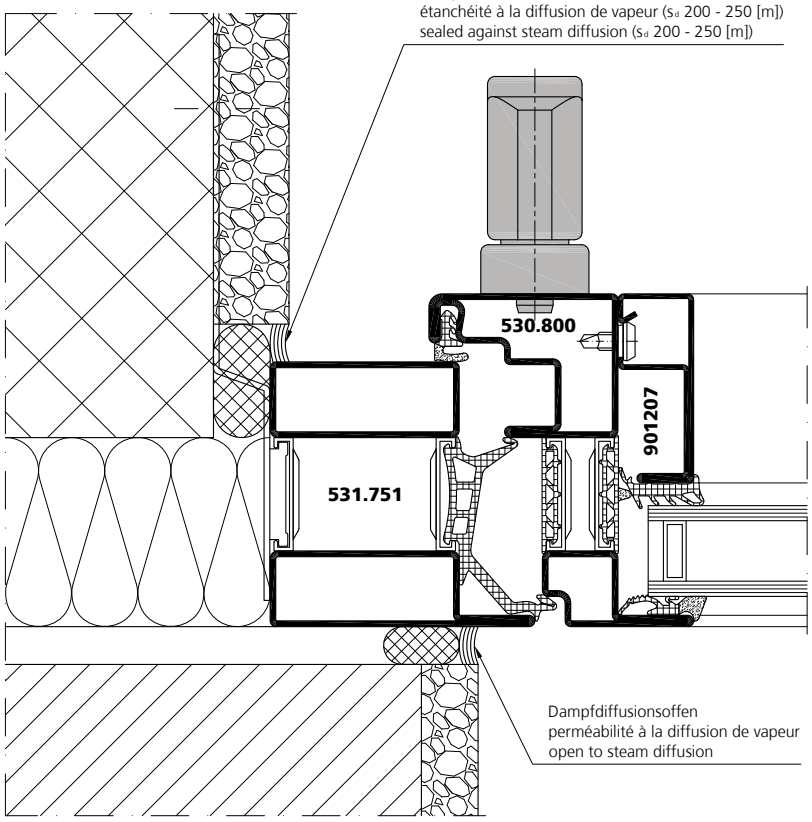


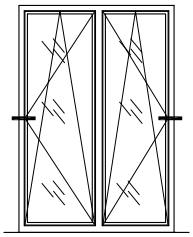
forster unico Hi

un_wa_0059 un_wa_0085

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Bauanschlüsse Raccords muraux Wall abutments





- un_wa_0052
- un_wa_0130 (530.711/531.801)

forster unico Hi

- un_wa_0078
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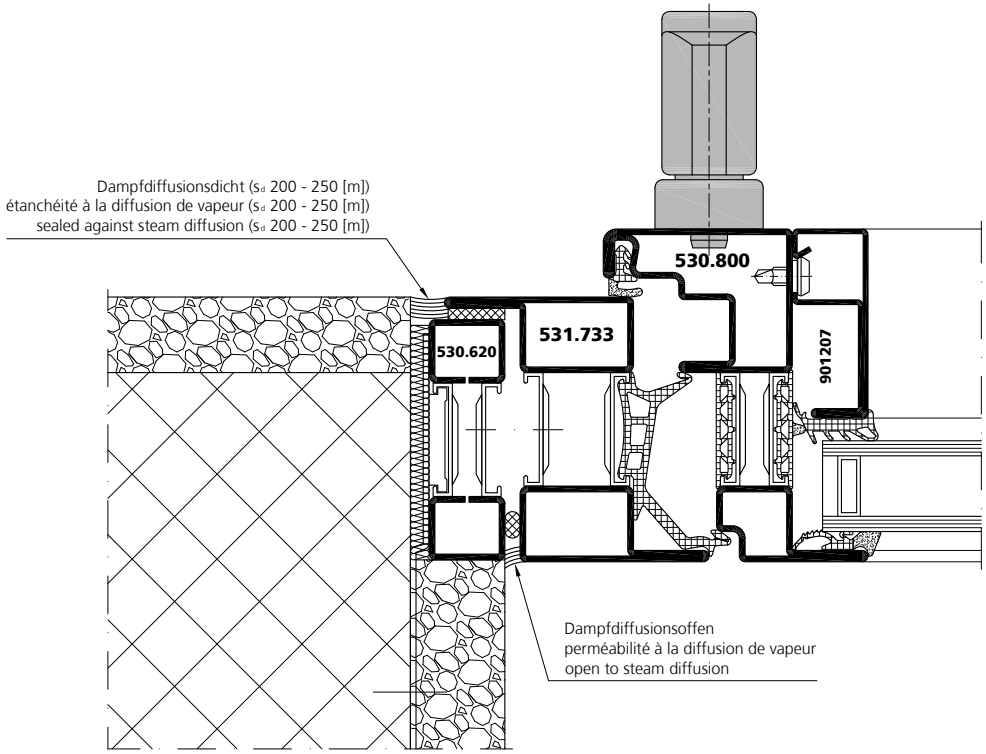


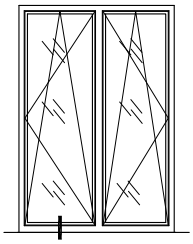
- un_wa_0061
- un_wa_0129 (530.713/531.801)

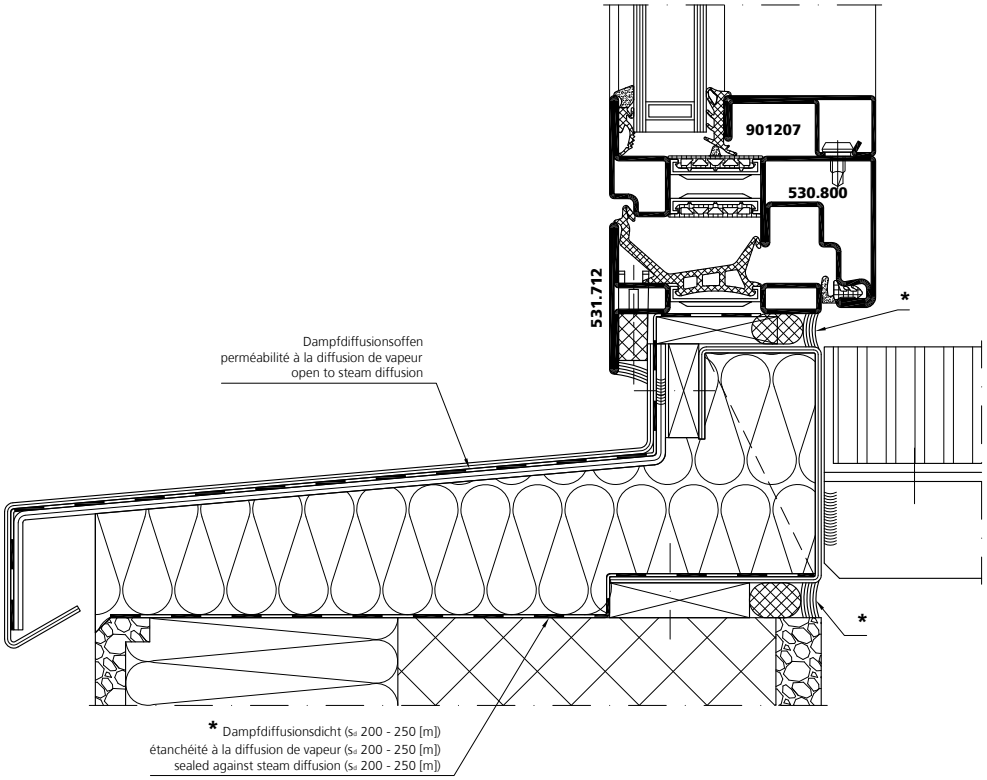
forster unico Hi

- un_wa_0087
- un_wa_0138 (530.713/531.801)

VUF 01/19

Bauanschlüsse | Raccords muraux | Wall abutments





- un_wa_0054
- un_wa_0131 (531.801)

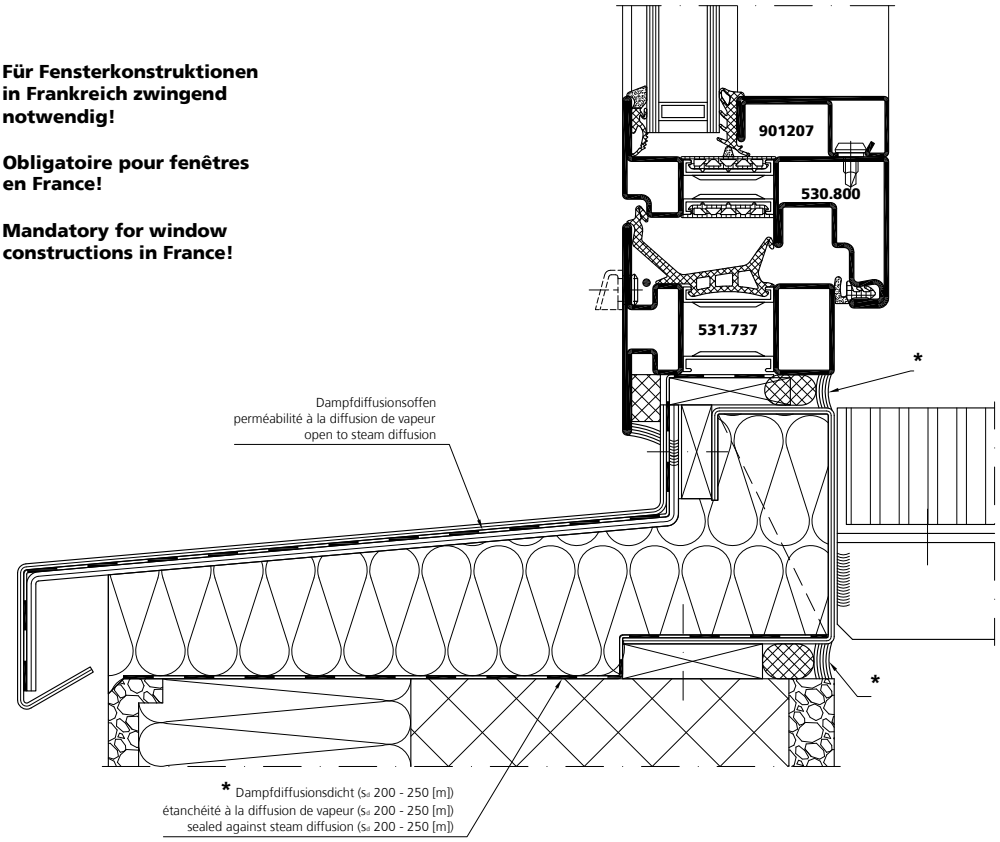
forster unico Hi

- un_wa_0080
- un_wa_0132 (531.801)

- **Für Fensterkonstruktionen in Frankreich zwingend notwendig!**

  Obligatoire pour fenêtres en France!

  Mandatory for window constructions in France!

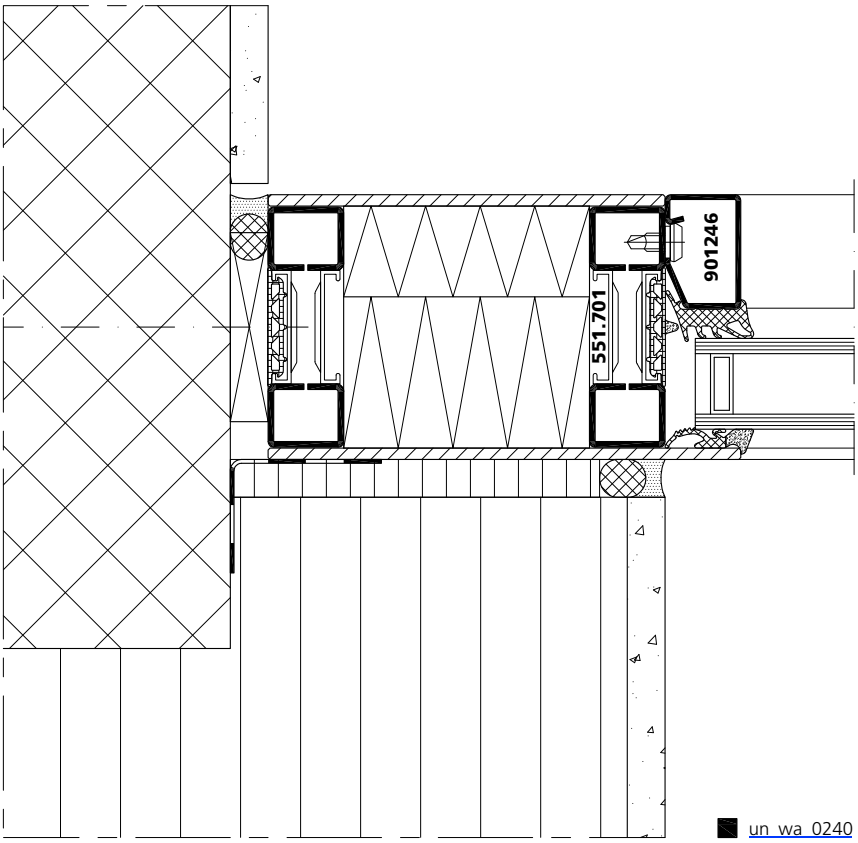


- un_wa_0065
- un_wa_0133 (531.801)

forster unico Hi

- un_wa_0091
- un_wa_0134 (531.801)

Bauanschlüsse Raccords muraux Wall abutments



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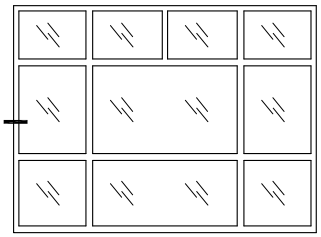
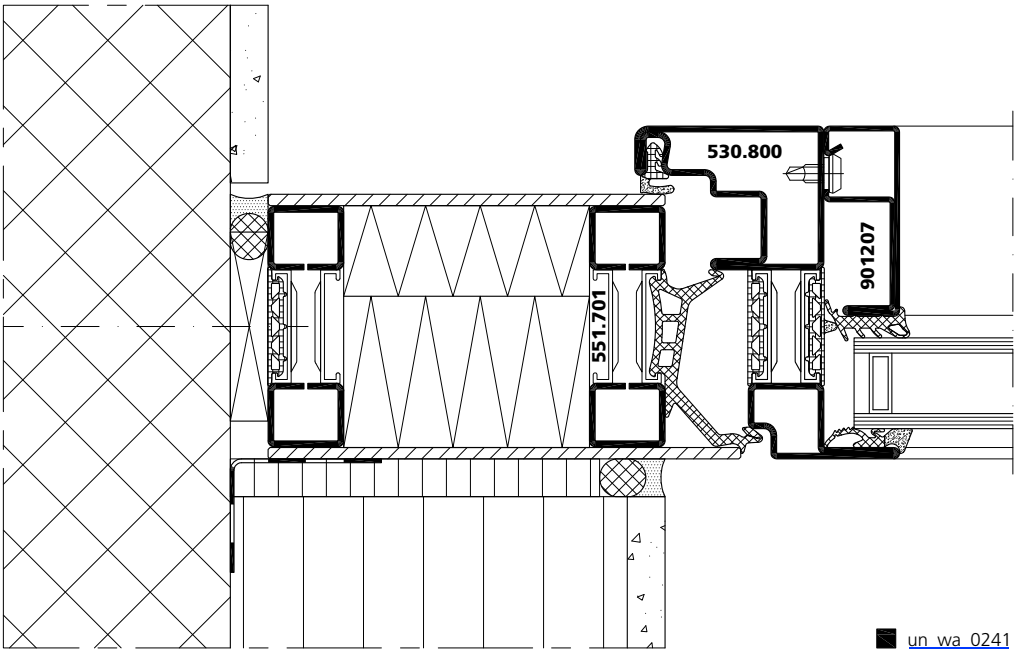
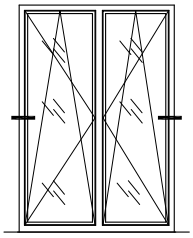
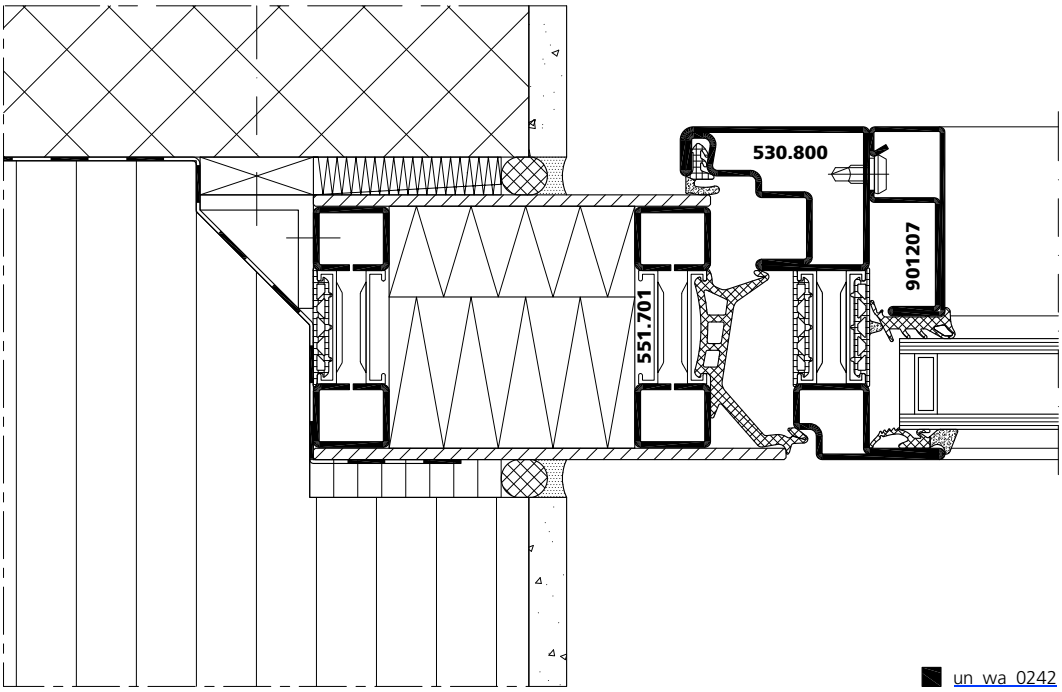


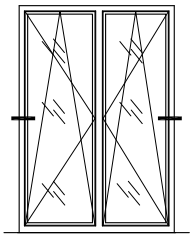


un_wa_0241



Bauanschlüsse | Raccords muraux | Wall abutments





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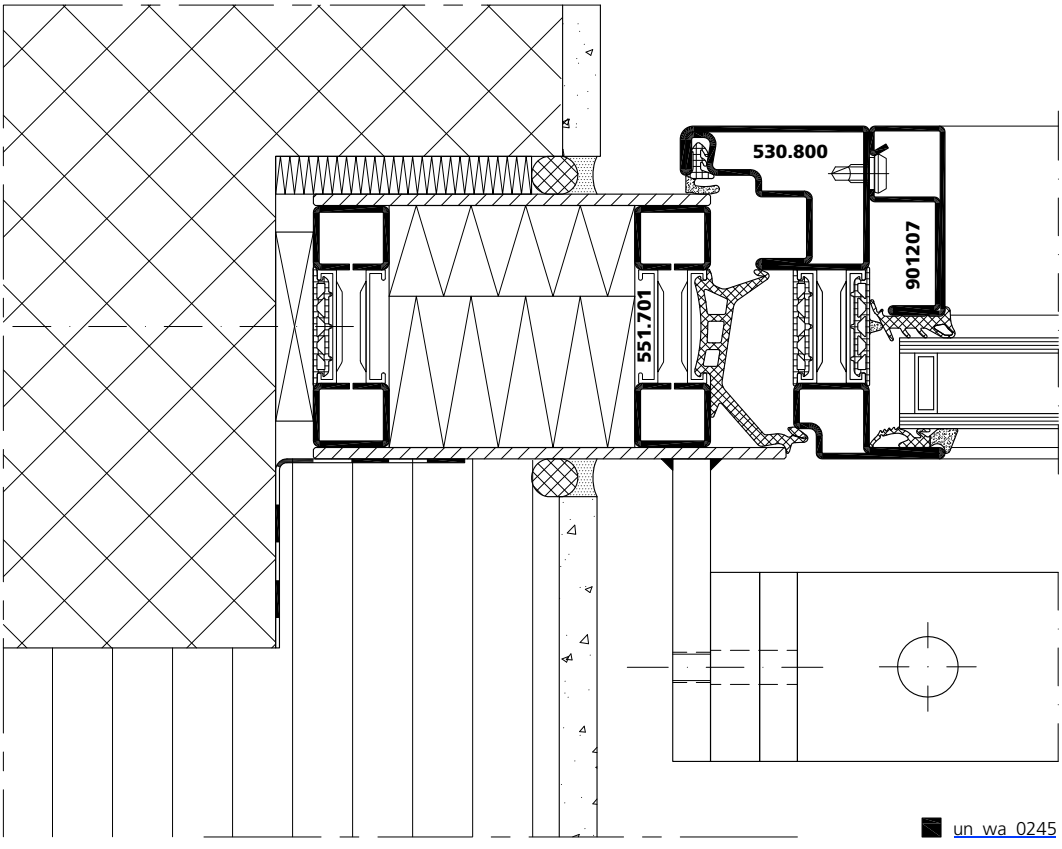


un_wa_0245

	6
Verarbeitung Profile	
Zuschnitt und Profilbearbeitung	6.1.1 - 6.1.16
Schweissempfehlung	6.2.1 - 6.2.11
Mise en œuvre profilés	
Débitage et usinage	6.1.1 - 6.1.16
Soudage	6.2.1 - 6.2.11
Processing profiles	
Cutting and processing of profiles	6.1.1 - 6.1.16
Welding procedure	6.2.1 - 6.2.11

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Zuschnitt
Schneidehilfen

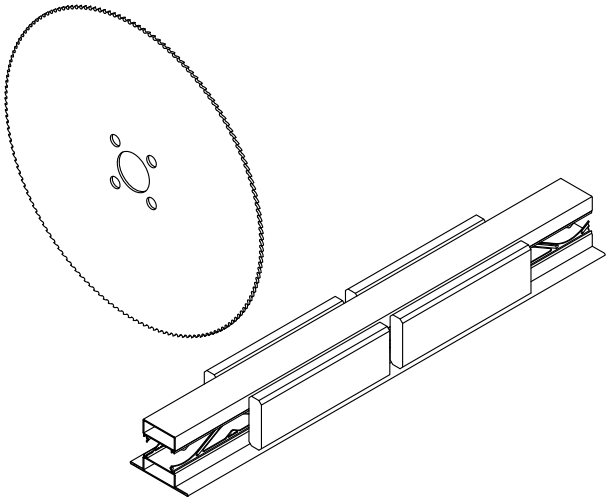
Débitage
Cales de débitage

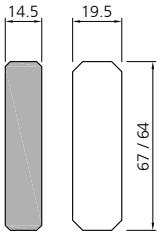
Cutting
Cutting aids

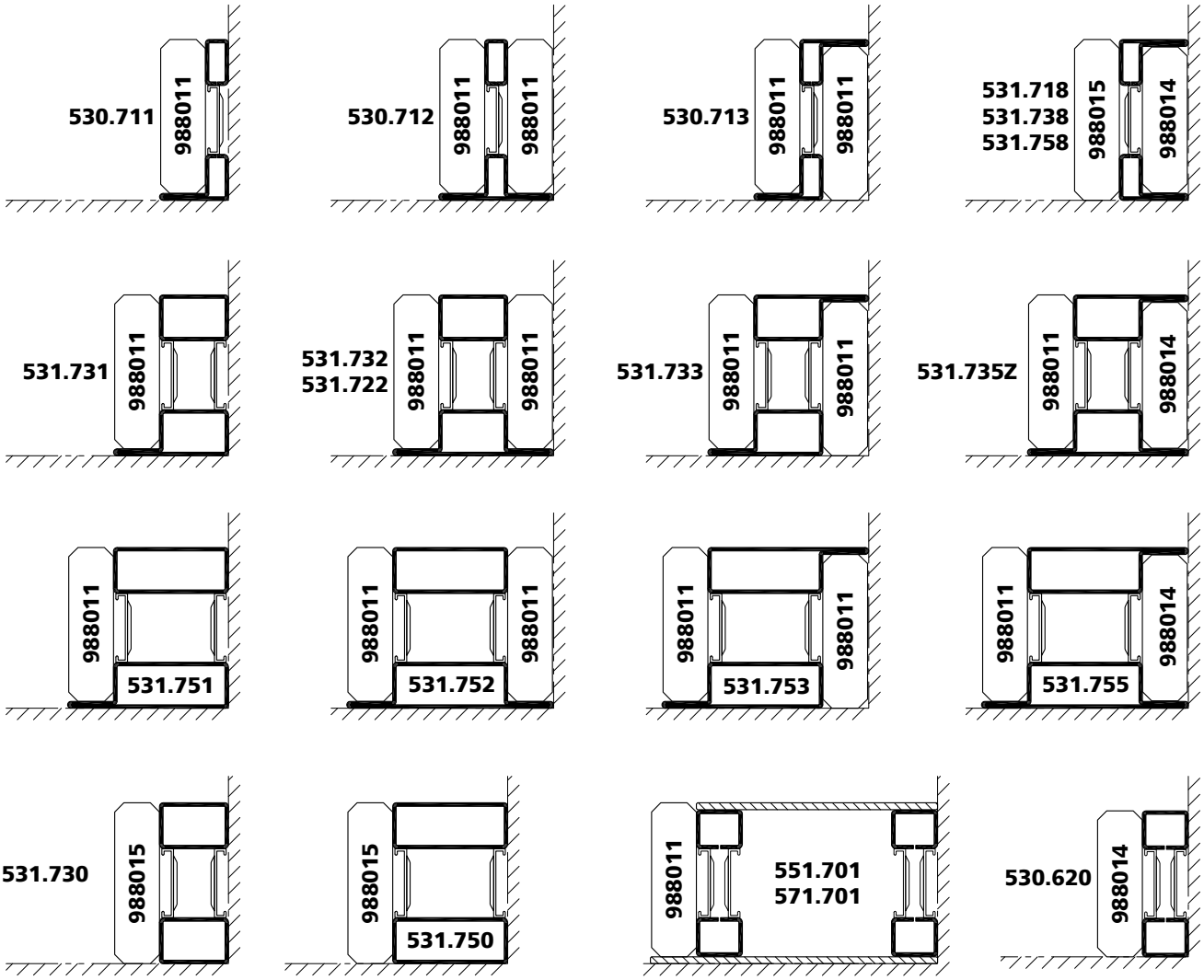
Übersicht Rahmenprofile

Tableau des profilés pour cadre

Overview of frame profiles







Schneidehilfen auch für die Edelstahlprofile anwendbar.

Cales de débitage aussi utilisables pour les profilés en acier inox.

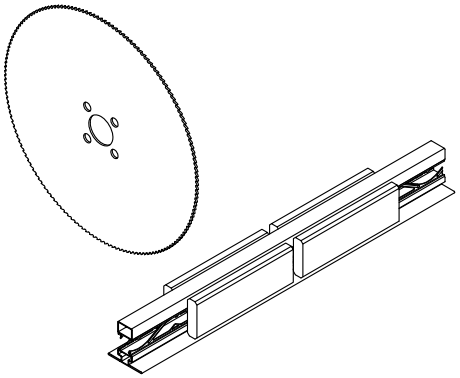
Cutting aids usable also for stainless steel profiles.

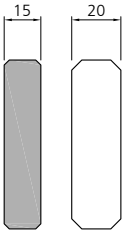
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

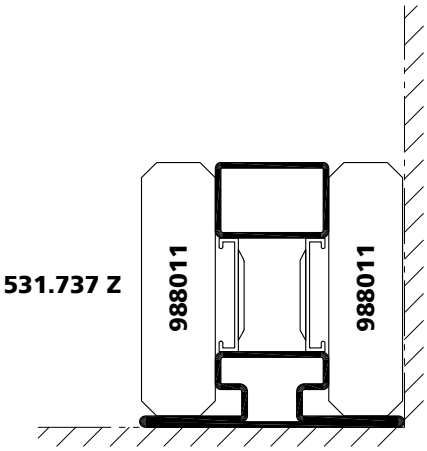
Zuschnitt
Schneidehilfen

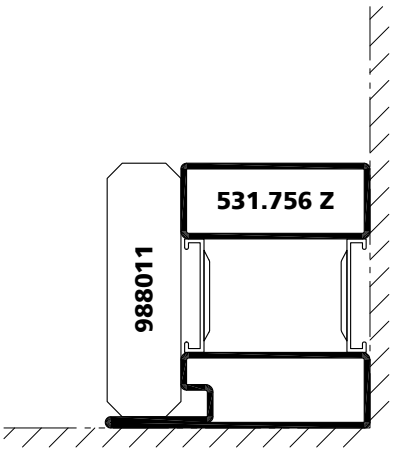
Débitage
Cales de débitage

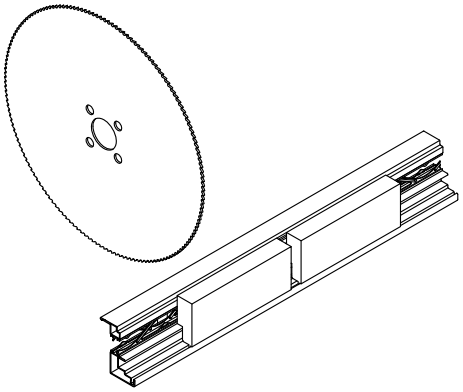
Cutting
Cutting aids

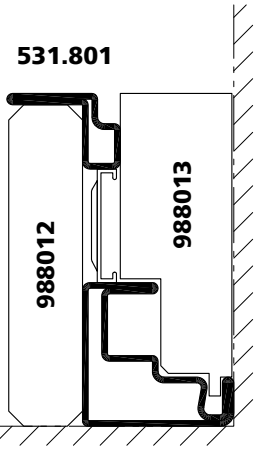


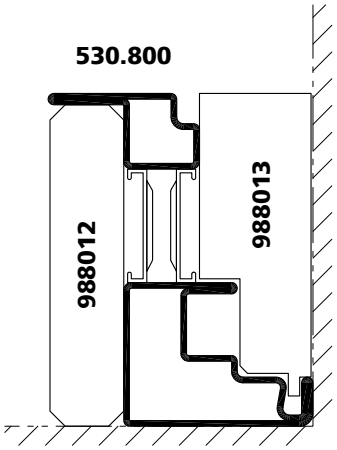


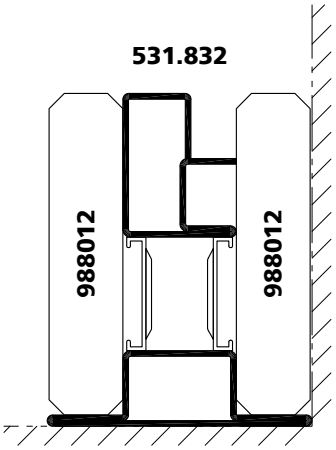


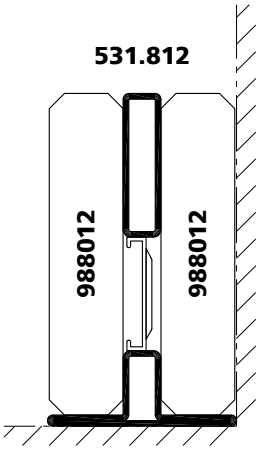












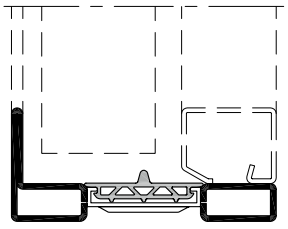
Zuschnitt
Profile 10 mm

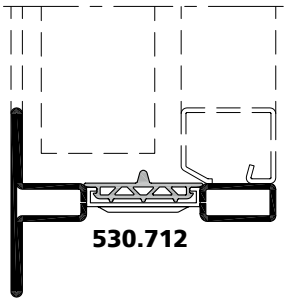
Débitage
Profilés 10 mm

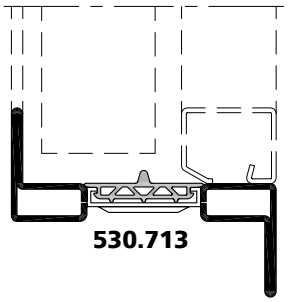
Cutting
Profiles 10 mm

Festfelder / Vitrage fixe / Fixed glazing

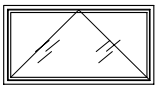


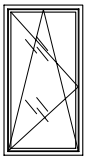


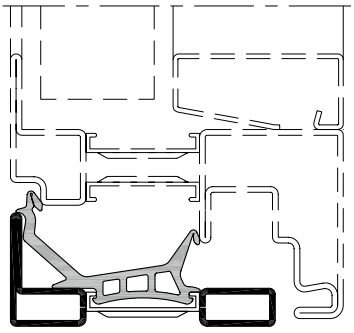


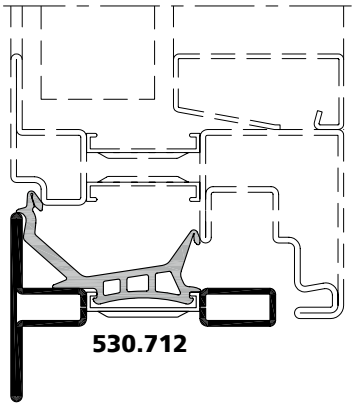


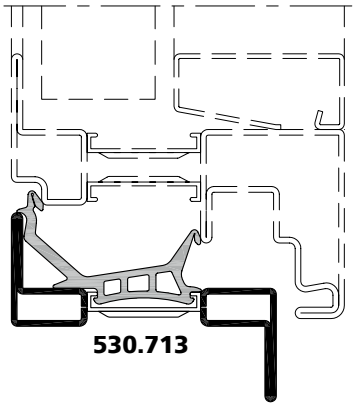
Fensterrahmen / Cadre de fenêtre / Window frame



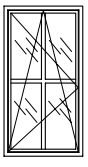




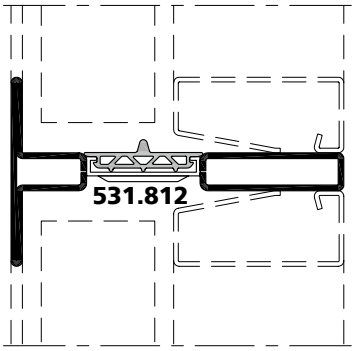




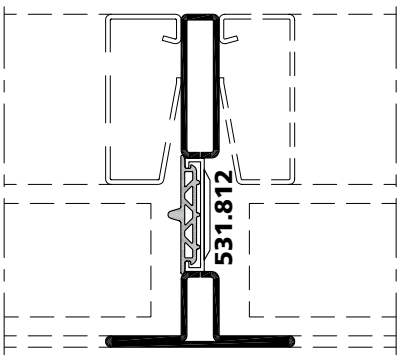
Fenstersprossen / Traverse de fenêtre / Window transom



horizontal / horizontale / horizontal



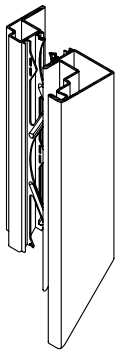
vertikal / vertical / vertical

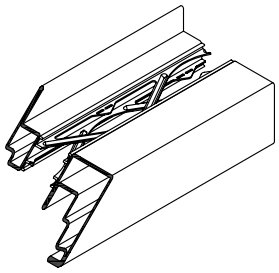


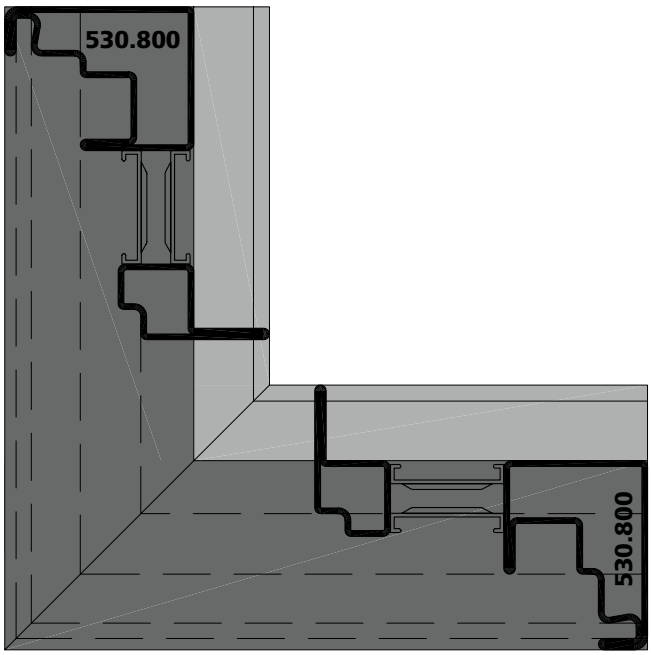
Zuschnitt
Fensterflügel

Débitage
Vantail de fenêtre

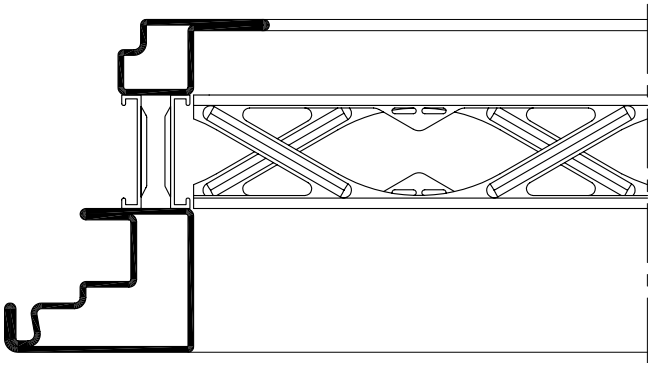
Cutting
Window leaf







Ansicht A / Vue A / View A

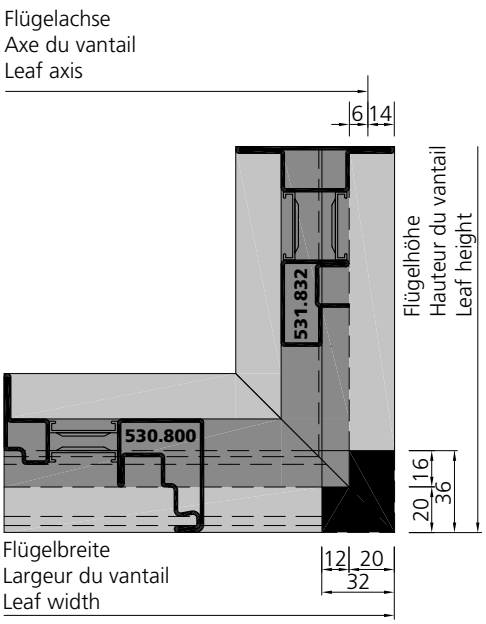


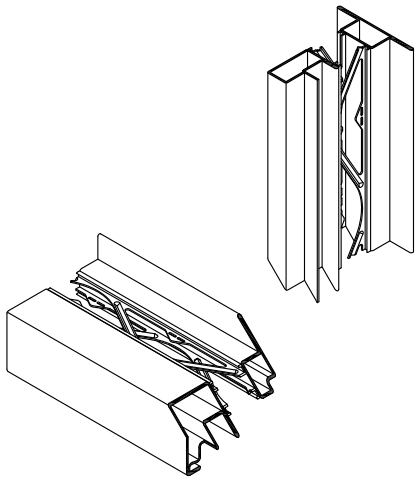
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Zuschnitt Stulpflügel

Usinage Vantail semi-fixe

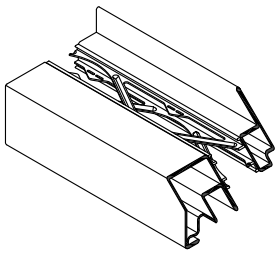
Cutting Double sash

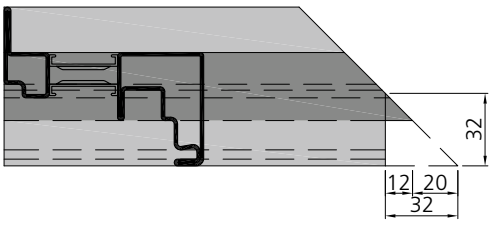


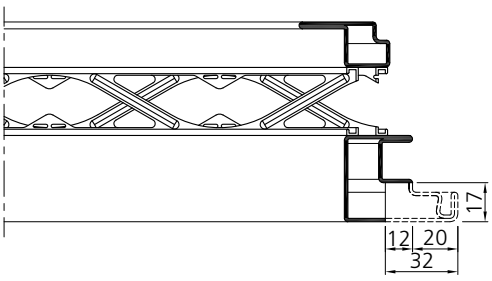


mit geeignetem Werkzeug ausklinken
encocher avec un outil approprié
cut out with an appropriate tool

530.800







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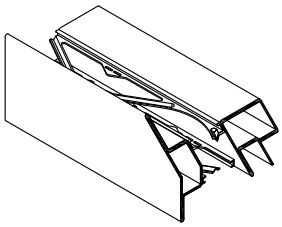
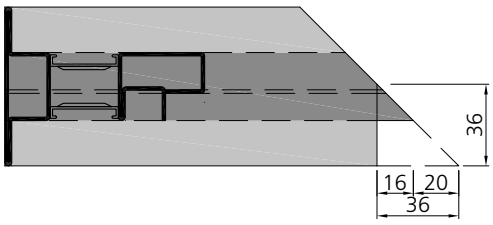
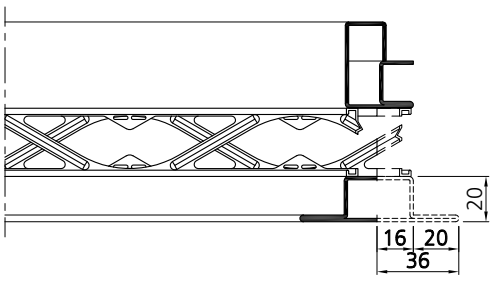


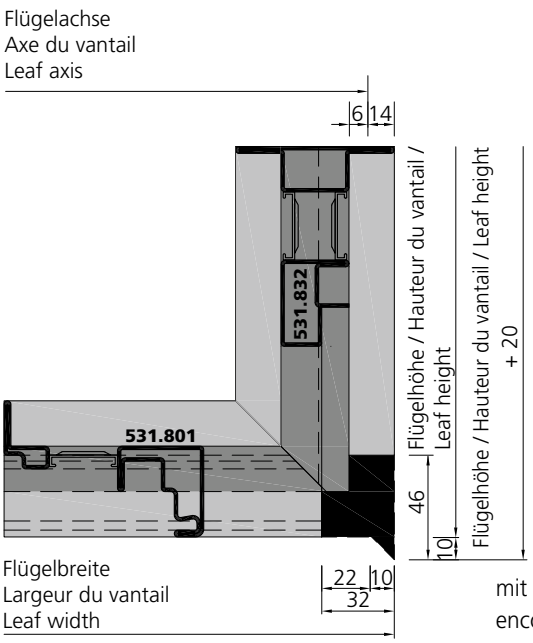


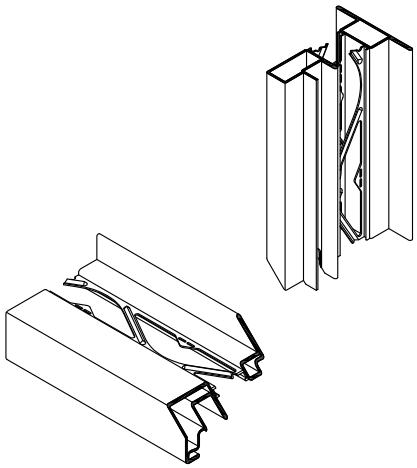


Zuschnitt
Stulpflügel

Usinage
Vantail semi-fixe

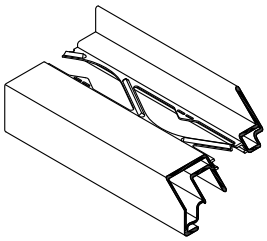
Cutting
Double sash

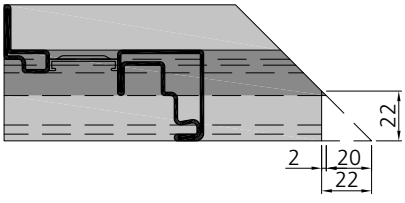


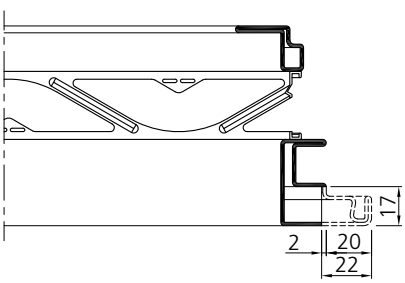


mit geeignetem Werkzeug ausklinken
encocher avec un outil approprié
cut out with an appropriate tool

531.801







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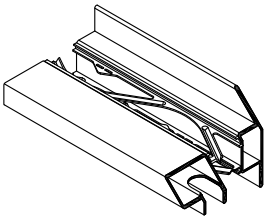
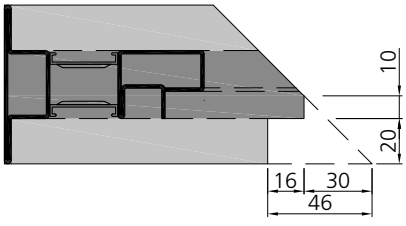
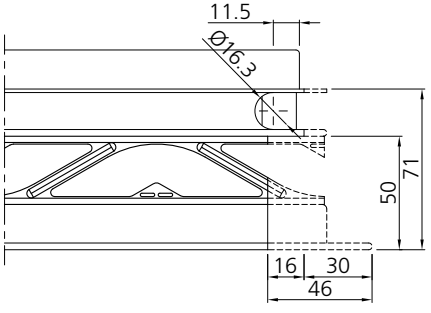




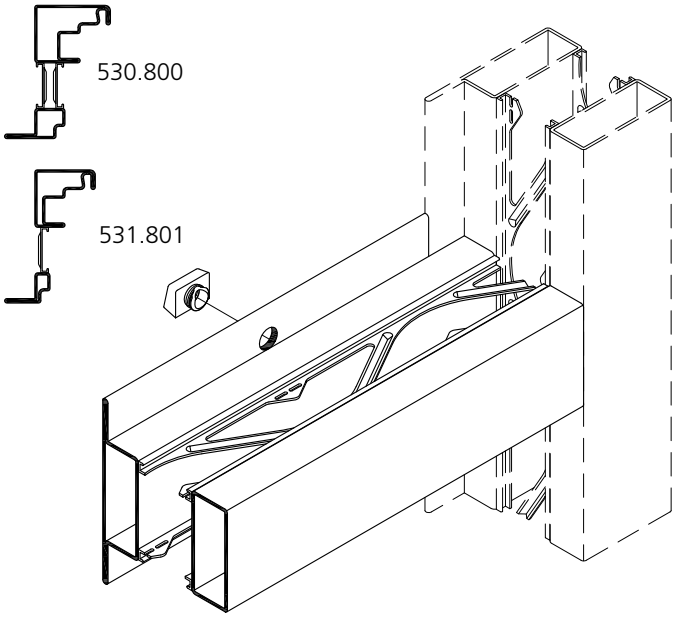


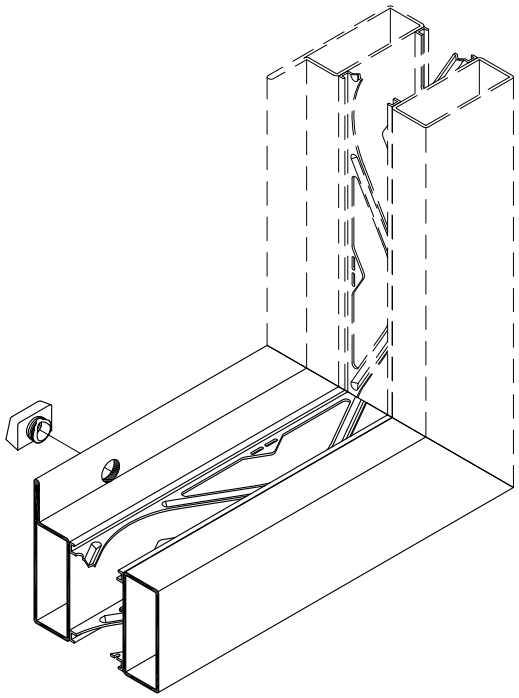
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Profilbearbeitung
Einbau direkte Entwässerung
Rahmen/Sprosse

Mise en œuvre des profilés
Montage d'une évacuation d'eau directe
Cadre/traverse

Profile processing
Installation of direct drainage
Frame/transom





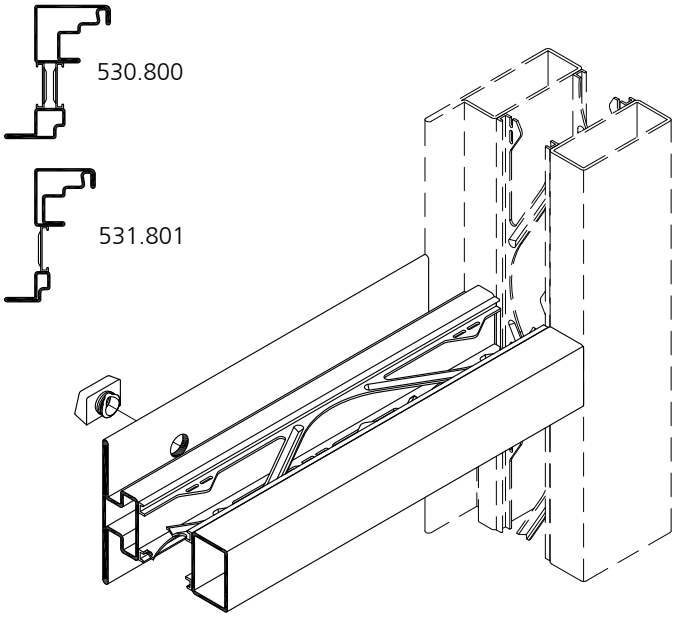


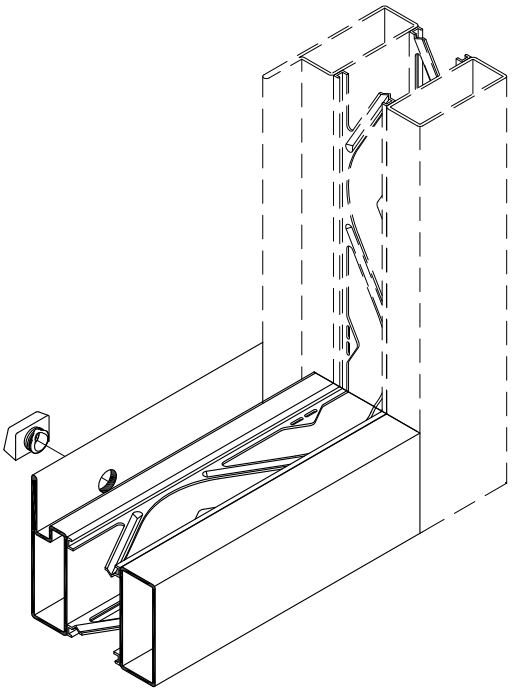
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

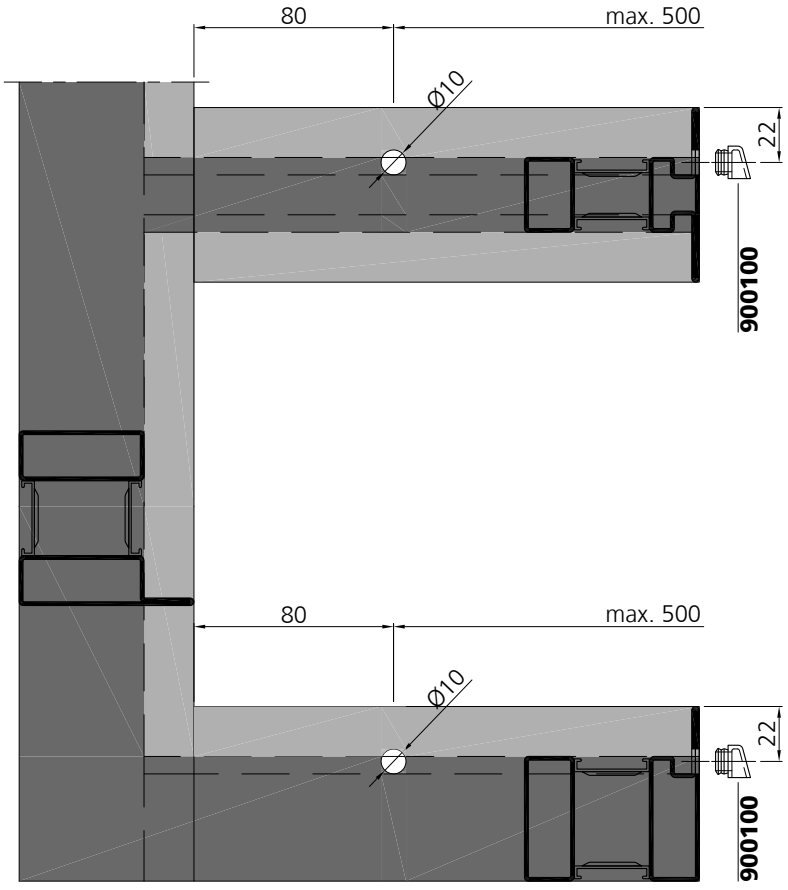
Profilbearbeitung
Einbau direkte Entwässerung
Rahmen/Sprosse

Mise en œuvre des profilés
Montage d'une évacuation d'eau directe
Cadre/traverse

Profile processing
Installation of direct drainage
Frame/transom





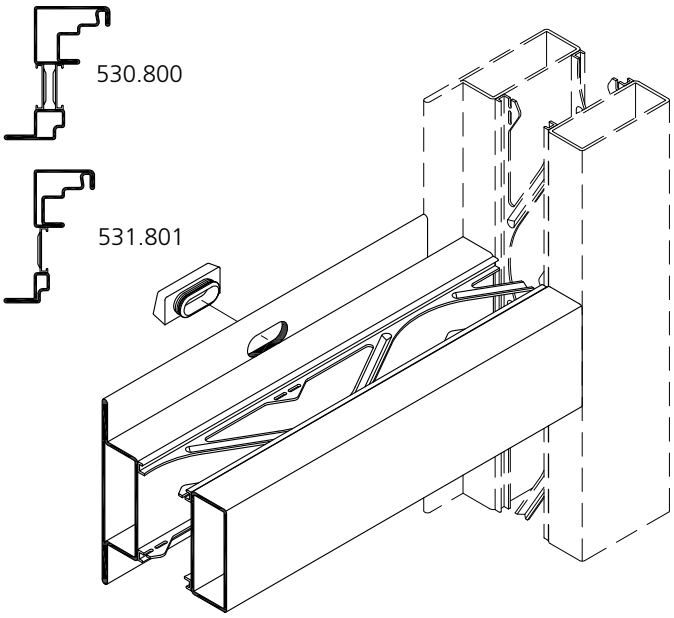


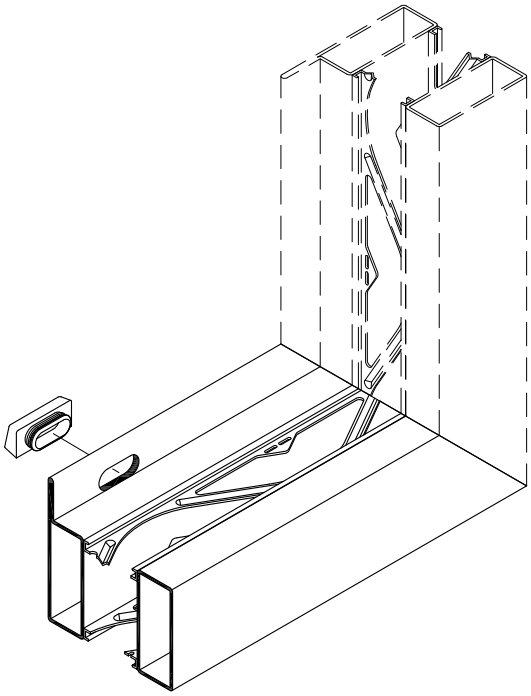
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

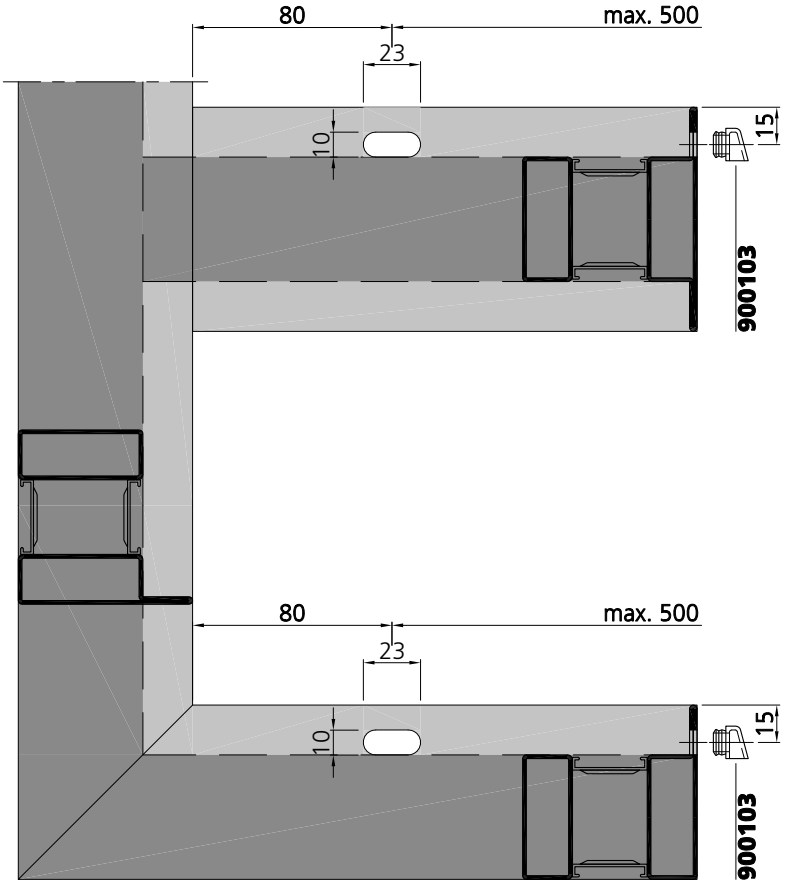
Profilbearbeitung
Einbau direkte Entwässerung
Rahmen/Sprosse

Mise en œuvre des profilés
Montage d'une évacuation d'eau directe
Cadre/traverse

Profile processing
Installation of direct drainage
Frame/transom





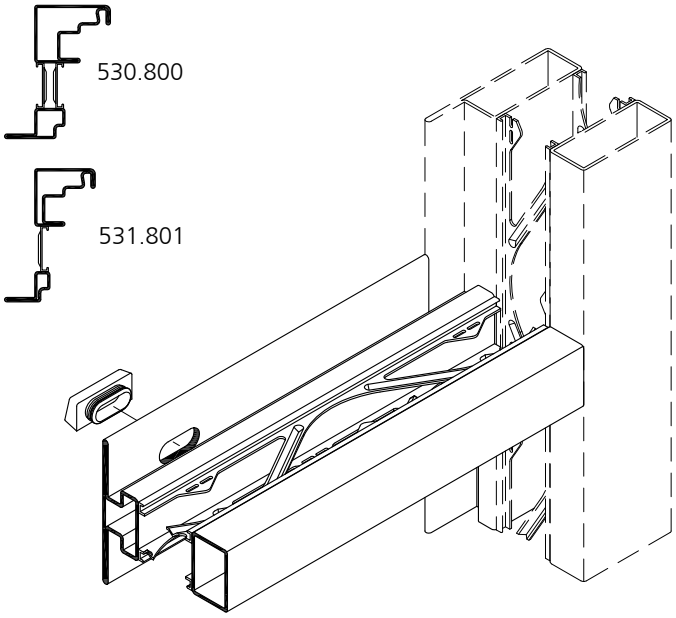


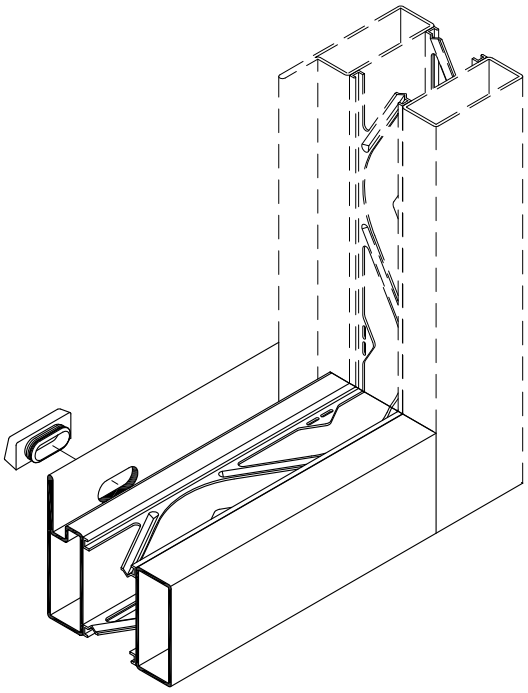
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

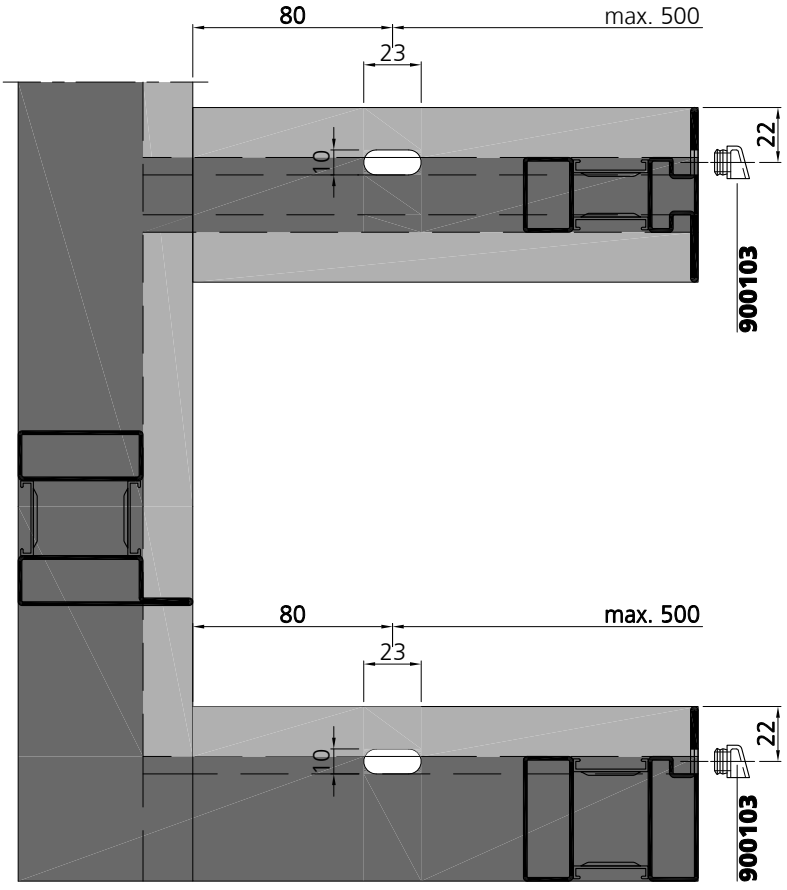
Profilbearbeitung
Einbau direkte Entwässerung
Rahmen/Sprosse

Mise en œuvre des profilés
Montage d'une évacuation d'eau directe
Cadre/traverse

Profile processing
Installation of direct drainage
Frame/transom





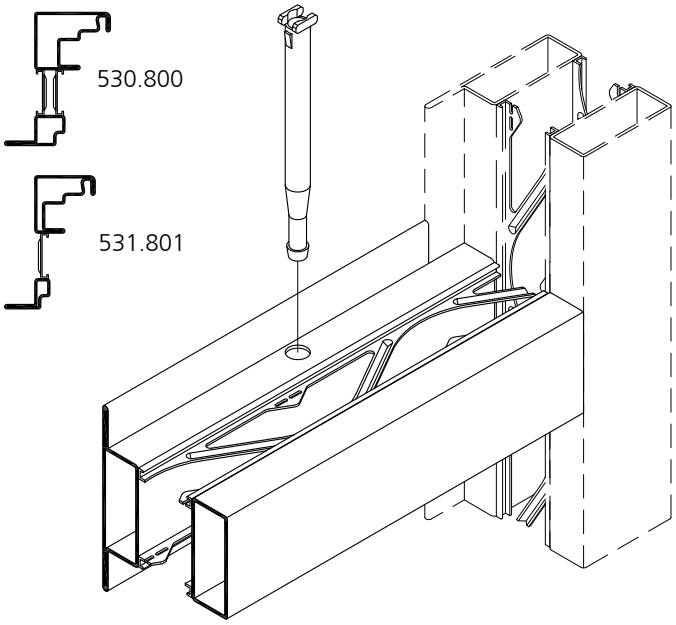


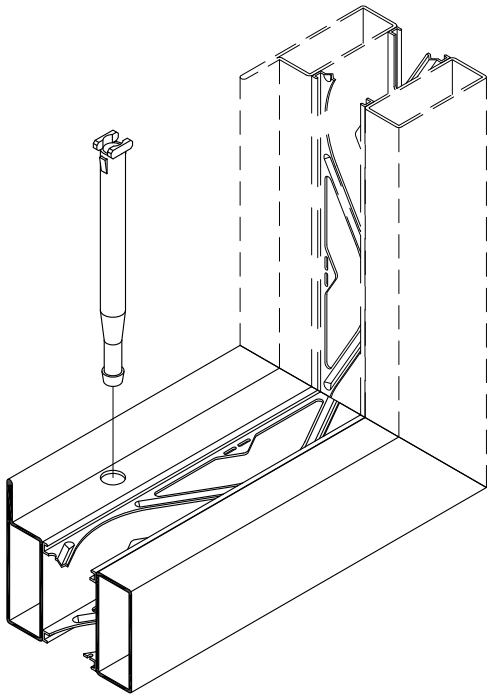
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

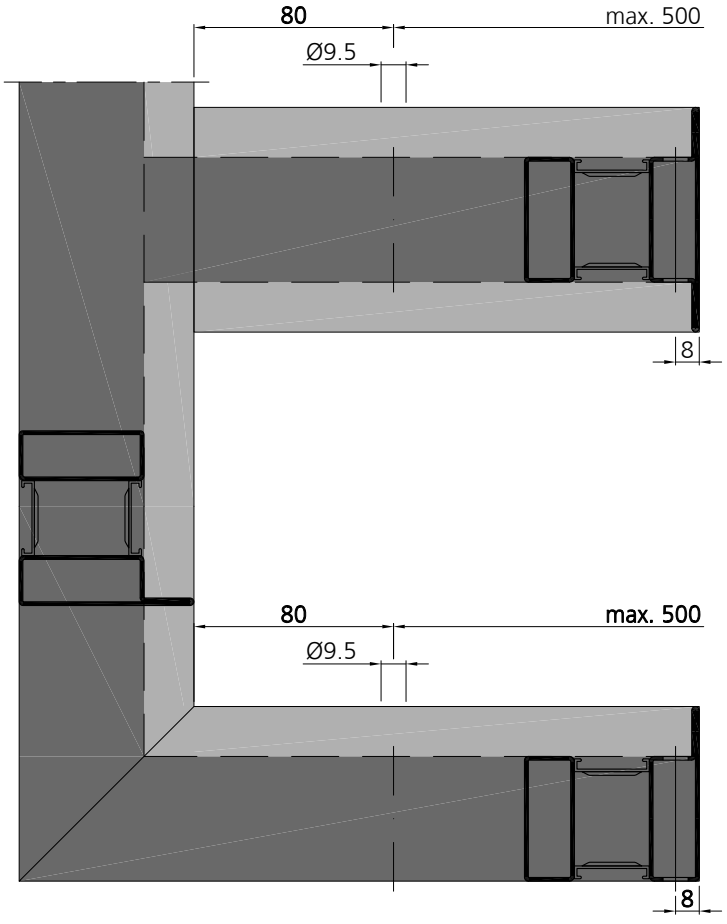
Profilbearbeitung
Einbau indirekte Entwässerung
Rahmen/Sprosse

Mise en œuvre des profilés
Montage d'une évacuation d'eau indirecte
Cadre/traverse

Profile processing
Installation of indirect drainage
Frame/transom



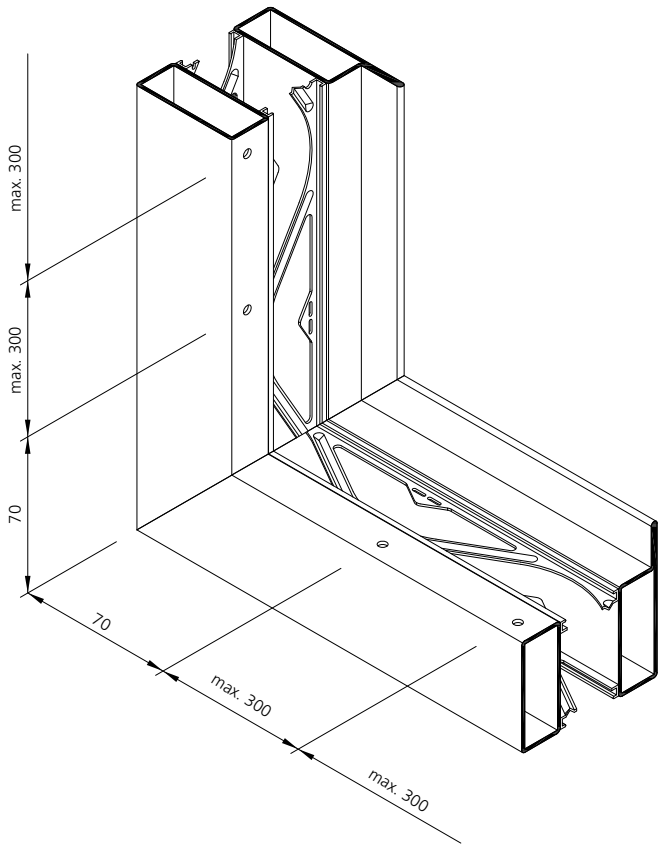


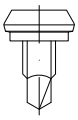


Profilbearbeitung
Klemmknöpfe
Festfeld (Stahl)

Mise en œuvre des profilés
Boutons de fixation
Cadre fixe (acier)

Profile processing
Stud fasteners
Fixed glazing (steel)





906577 (VE/100 Stk./pcs)
906578 (VE/1000 Stk./pcs)
906579 (VE/Mag. 200 Stk./pcs)

Klemmknöpfe
Bohrschraubensetzgerät Art. Nr. 909203 alternativ Bohrlehre Art. Nr. 909104, Bohrdurchmesser 3.5 mm

Boutons de serrage
Appareil à poser les vis art. no. 909203 alternatif gabarit de perçage art. no. 909104, diamètre de perçage 3.5 mm

Steel studs
Power driver for screws art. no. 909203 alternative drilling template art. no. 909104, drilling diametre 3.5 mm





Feder
Bohrlehre Art. Nr. 909105, Bohrdurchmesser 3.3 mm, Befestigung mit handelsüblichem Blindniet aus Stahl verzinkt, Ø 3.2 mm, Klemmlänge 1.5 - 3 mm



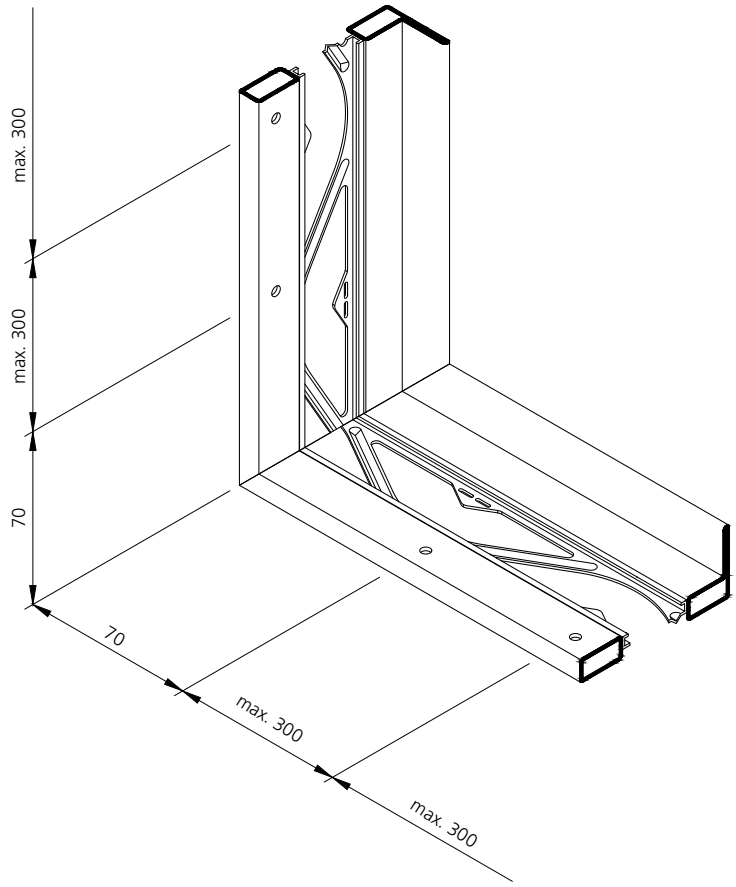
Ressort
Gabarit de perçage art. no. 909105, diamètre de perçage 3.3 mm fixation avec rivet borgne du commerce en acier galvanisé, Ø 3.2 mm, longueur de serrage 1.5 - 3 mm

Spring
Drilling template art. no. 909105, drilling diametre 3.3 mm assembly with commercial blind rivets galvanized steel Ø 3.2 mm, clamping length 1.5 - 3 mm

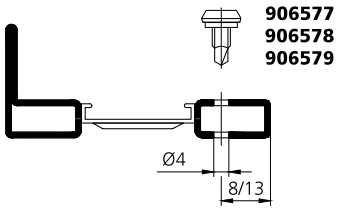
Profilbearbeitung
Klemmknöpfe
Festfeld (Stahl)

Mise en œuvre des profilés
Boutons de fixation
Cadre fixe (acier)

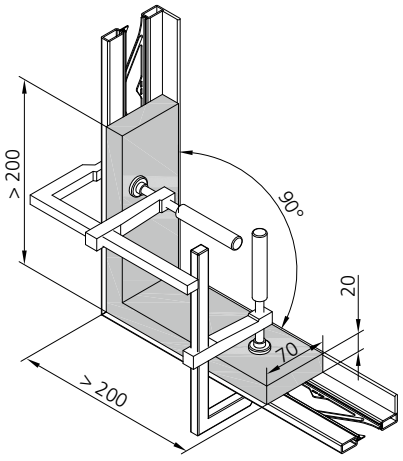
Profile processing
Stud fasteners
Fixed glazing (steel)

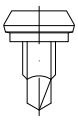


durchgehend 4.0 mm bohren
percer 4.0 mm traversant
4.0 mm drilling through



Schweisshilfe: Eigenfertigung
Aide de soudage: propre fabrication
Welding template: in-house production





906577 (VE/100 Stk./pcs)
906578 (VE/1000 Stk./pcs)
906579 (VE/Mag. 200 Stk./pcs)

Klemmknöpfe
Bohrschraubensetzgerät Art. Nr. 909203 alternativ Bohrlehre Art. Nr. 909104, Bohrdurchmesser 3.5 mm

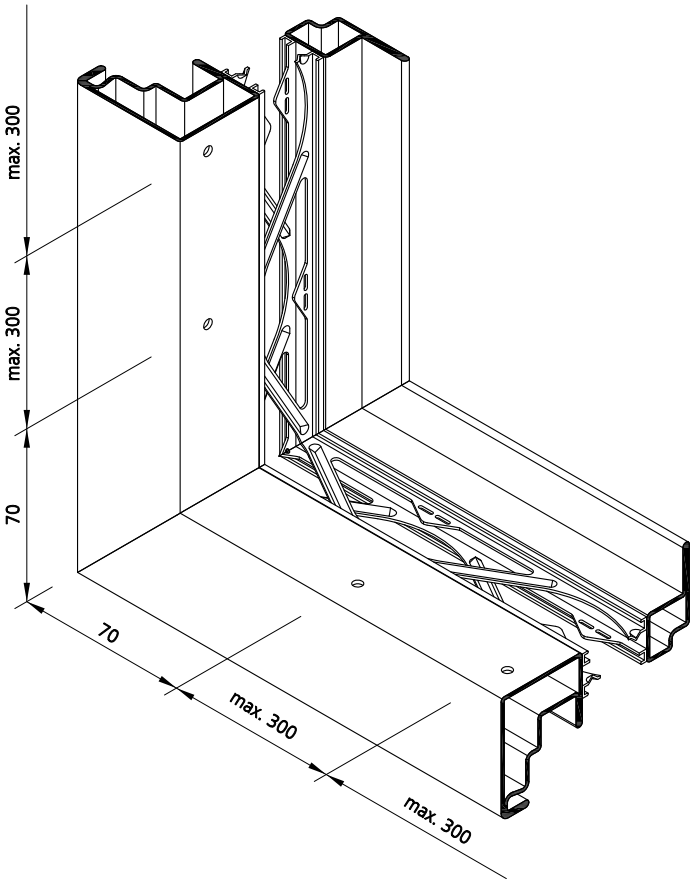
Boutons de serrage
Appareil à poser les vis art. no. 909203 alternatif gabarit de perçage art. no. 909104, diamètre de perçage 3.5 mm

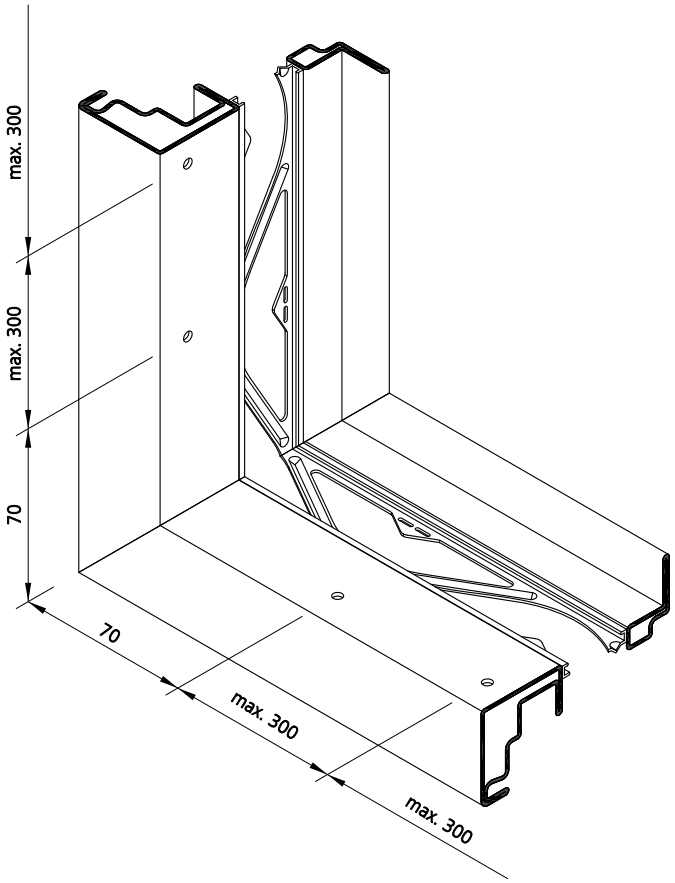
Steel studs
Power driver for screws art. no. 909203 alternative drilling template art. no. 909104, drilling diametre 3.5 mm

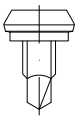
Profilbearbeitung
Klemmknöpfe
Flügel (Stahl)

Mise en œuvre des profilés
Boutons de fixation
Vantail (acier)

Profile processing
Stud fasteners
Leaf (steel)







906577 (VE/100 Stk./pcs)
906578 (VE/1000 Stk./pcs)
906579 (VE/Mag. 200 Stk./pcs)

Klemmknöpfe
Bohrschraubensetzgerät Art. Nr. 909203 alternativ Bohrlehre Art. Nr. 909104, Bohrdurchmesser 3.5 mm

Boutons de serrage
Appareil à poser les vis art. no. 909203 alternatif gabarit de perçage art. no. 909104, diamètre de perçage 3.5 mm

Steel studs
Power driver for screws art. no. 909203 alternative drilling template art. no. 909104, drilling diametre 3.5 mm





Feder
Bohrlehre Art. Nr. 909105, Bohrdurchmesser 3.3 mm, Befestigung mit handelsüblichem Blindniet aus Stahl verzinkt, Ø 3.2 mm, Klemmlänge 1.5 - 3 mm



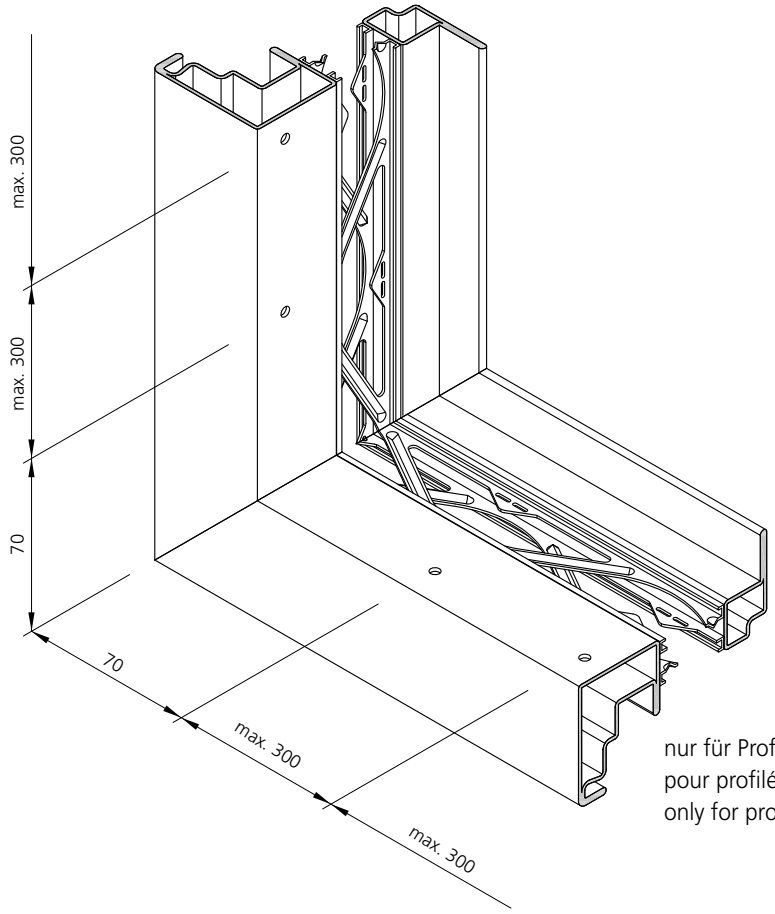
Ressort
Gabarit de perçage art. no. 909105, diamètre de perçage 3.3 mm fixation avec rivet borgne du commerce en acier galvanisé, Ø 3.2 mm, longueur de serrage 1.5 - 3 mm

Spring
Drilling template art. no. 909105, drilling diametre 3.3 mm assembly with commercial blind rivets galvanized steel Ø 3.2 mm, clamping length 1.5 - 3 mm

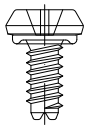
Profilbearbeitung
Klemmknöpfe
Flügel (Edelstahl)

Mise en œuvre des profilés
Boutons de fixation
Vantail (acier inox)

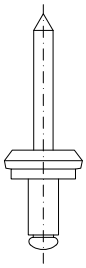
Profile processing
Stud fasteners
Leaf (stainless steel)



nur für Profile in CrNi 1.4301
pour profilés CrNi 1.4301 seulement
only for profiles CrNi 1.4301



906583 (VE/100 Stk./pcs)
CrNi 1.4404



906574 (VE/100 Stk./pcs)
CrNi 1.4567
für Profile CrNi 1.4301
pour profilés en acier inox 1.4301
for profiles in stainless steel 1.4301

Bohrung Klemmknopf-Schraube und Klemmknopf-Niet
Bohrschraubensetzgerät Art.Nr. 909203 und Set Spiralbohrer Art.Nr. 909216 alternativ mit Bohrlehre Art.Nr. 909105, Bohrdurchmesser 4.1 mm

Forage des boutons de fixation à vis et des rivets de fixation
Appareil à poser les vis art. no. 909203 et kit mèche hélicoidal art. no. 909216, alternative avec gabarit de perçage art no 909105, diamètre percé 4.1 mm

Drilling of stud fastener screw, stud fastener pop rivet
Power driver for screws art.no. 909203 and spiral bit set art. no. 909216, alternatively with drilling template art. no. 909105, drilling diameter 4.1 mm



Centre Hospitalier Intercommunal, FR-Villeneuve-Saint-George

Schweissempfehlung Rahmen

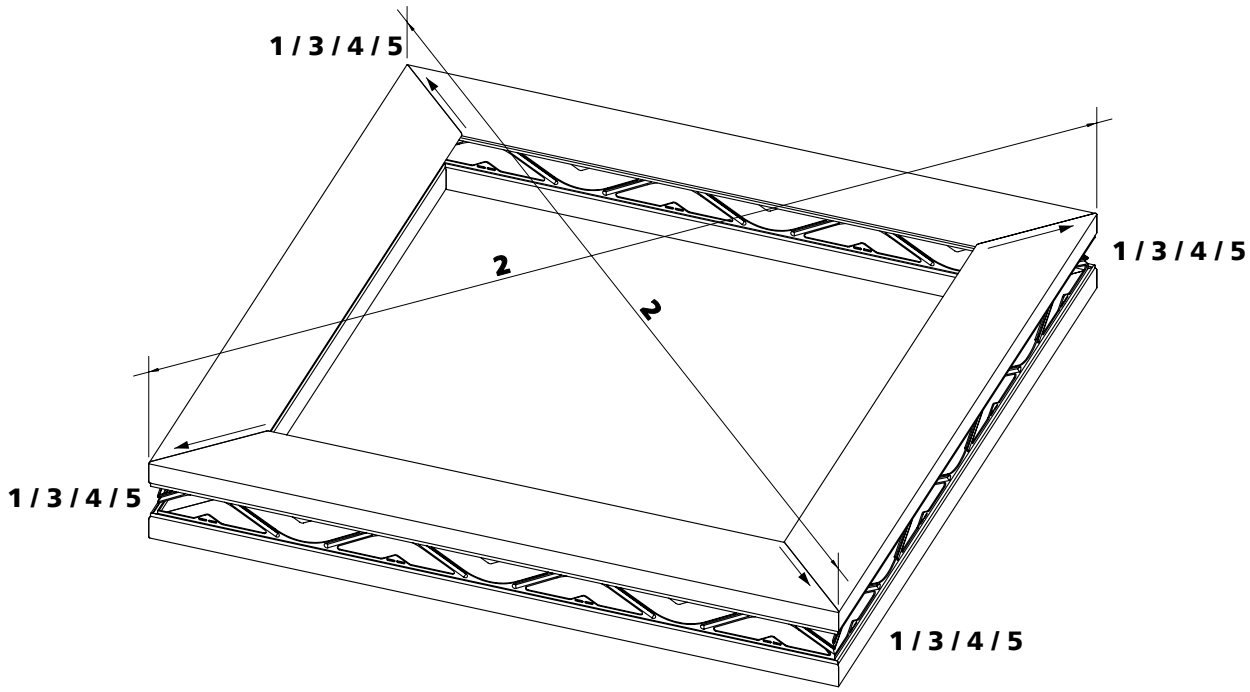
1 Ecken Haftschweissen
2 Diagonalen messen
3 Sichtflächen heften
4 Ecken schweissen
5 Sichtflächen schweissen

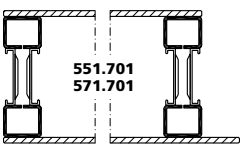
Soudage Cadre

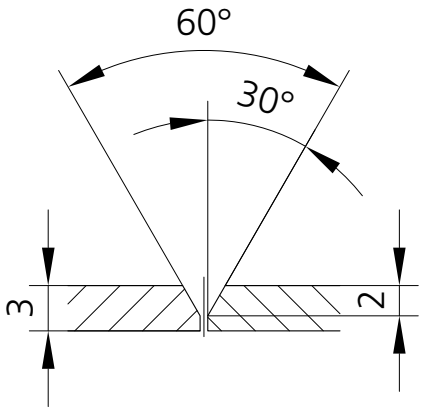
1 Souder les angles par adhérence
2 Mesurer les diagonales
3 Attacher les surfaces visibles
4 Souder les angles
5 Souder les surfaces visibles

Welding procedure Frame

1 Tack weld the corners
2 Measure diagonals
3 Tack visible parts
4 Weld corners
5 Weld visible parts







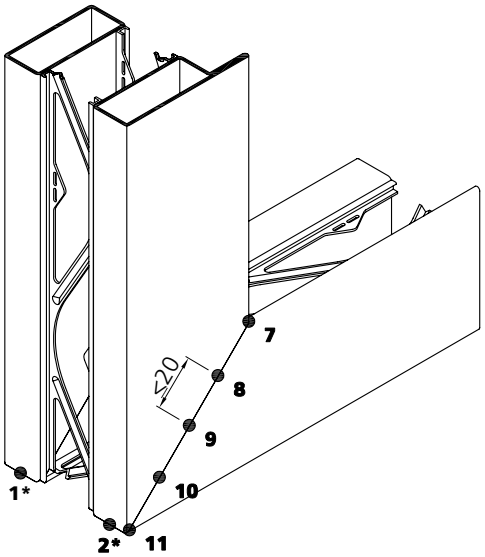
Schweisskanten 2 mm / 30° anfasen

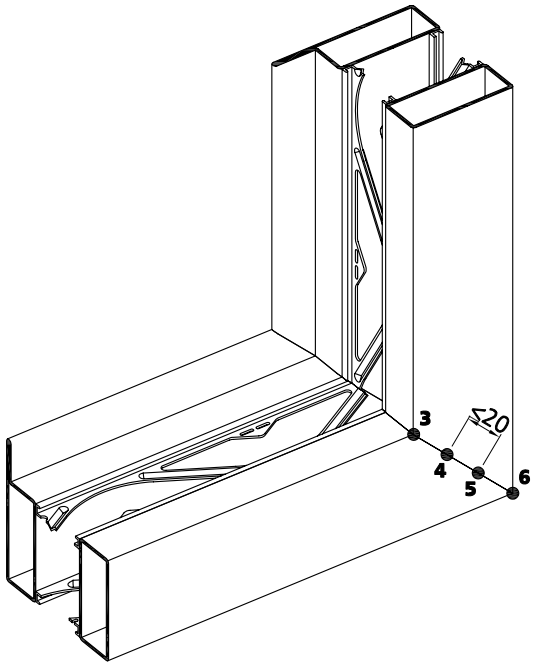
Chanfreiner les bords de soudage 2mm / 30°

Chamfer weld edges 2 mm / 30°

Schweissempfehlung Rahmen
Soudage Cadre
Welding procedure Frame

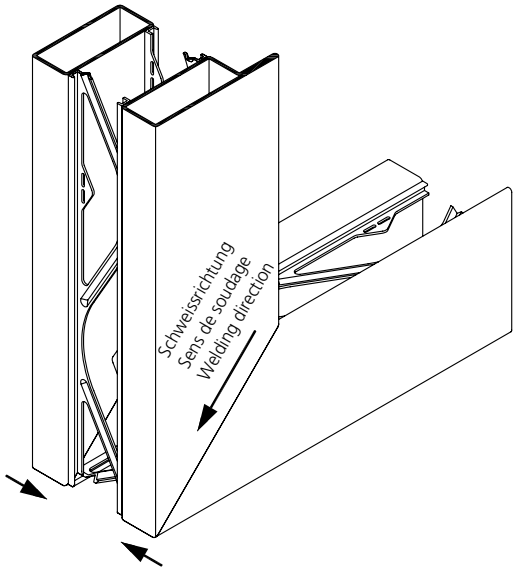
Haftpunkte / Points d'adhérence / Tacking points

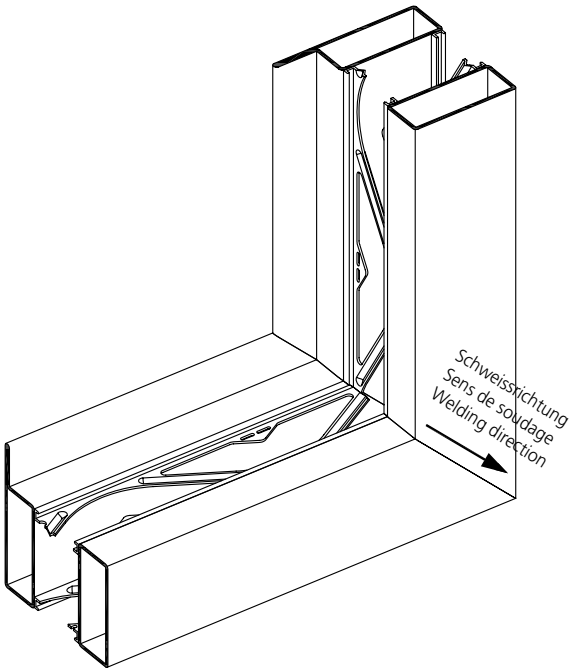




* anschliessend Diagonale kontrollieren
contrôler ensuite la diagonale
then check the diagonal

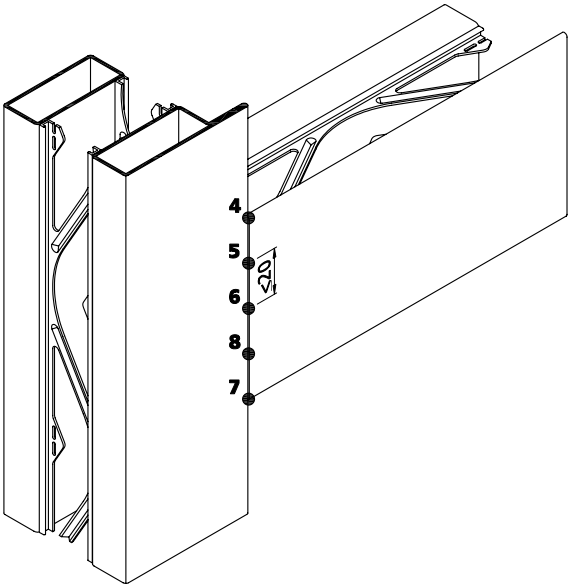
Schweissrichtung / Sens de soudage / Welding direction

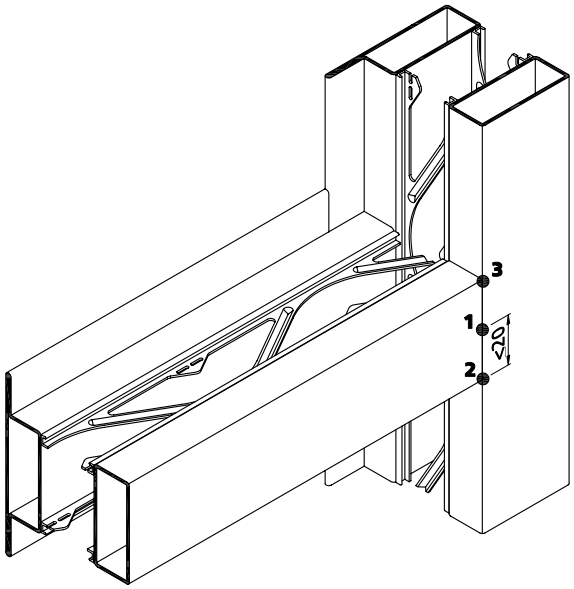




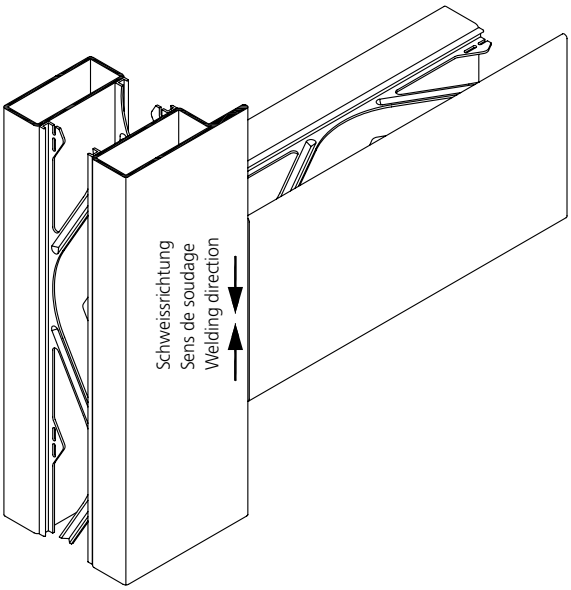
Schweissempfehlung Rahmen
Soudage Cadre
Welding procedure Frame

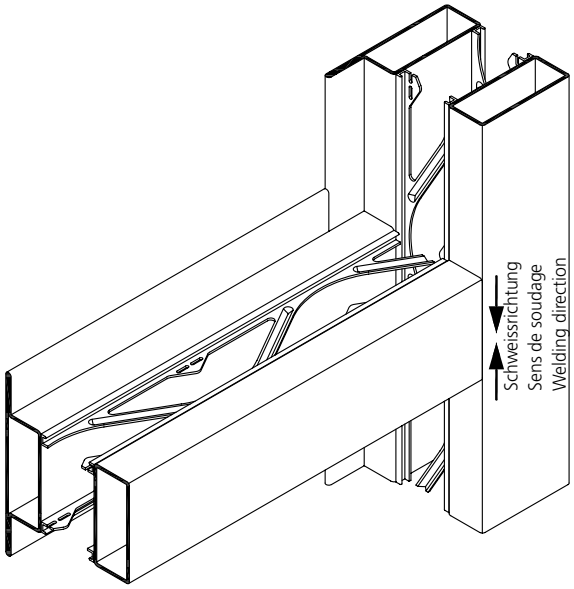
Haftpunkte / Points d'adhérence / Tacking points





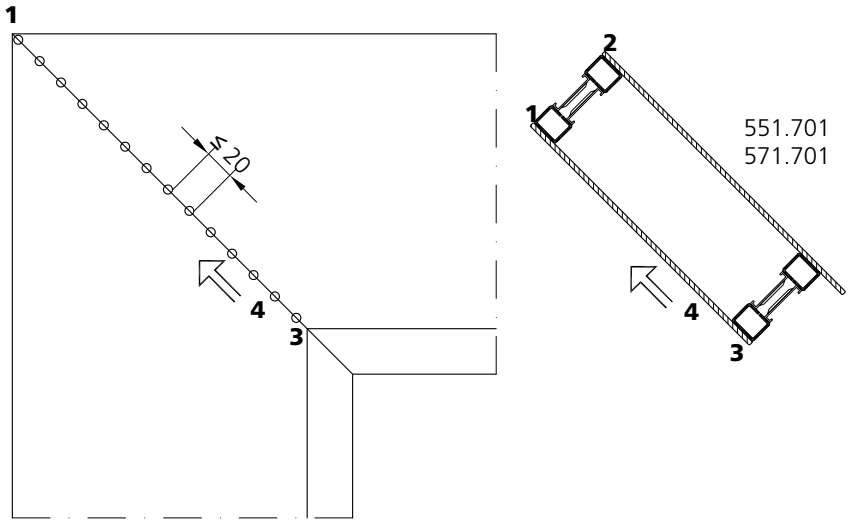
Schweissrichtung / Sens de soudage / Welding direction





Schweissempfehlung Rahmenverbreiterung
Soudage Elargissement de cadre
Welding procedure Frame enlargement

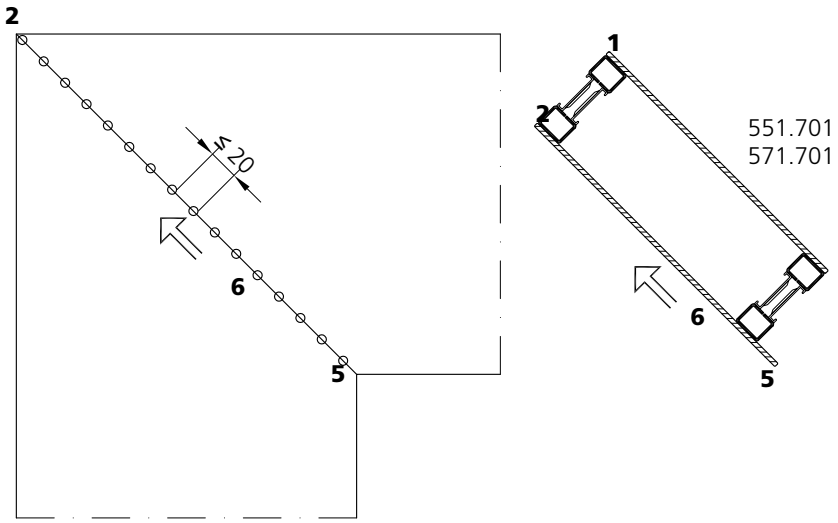
Haftpunkte / Points de soudure / Tacking points



1+2 Stirnseite aussen heften, anschliessend Diagonale kontrollieren
3 Innere Ecke heften
4 Von innen nach aussen heften
5 Innere Ecke heften
6 Von innen nach aussen heften

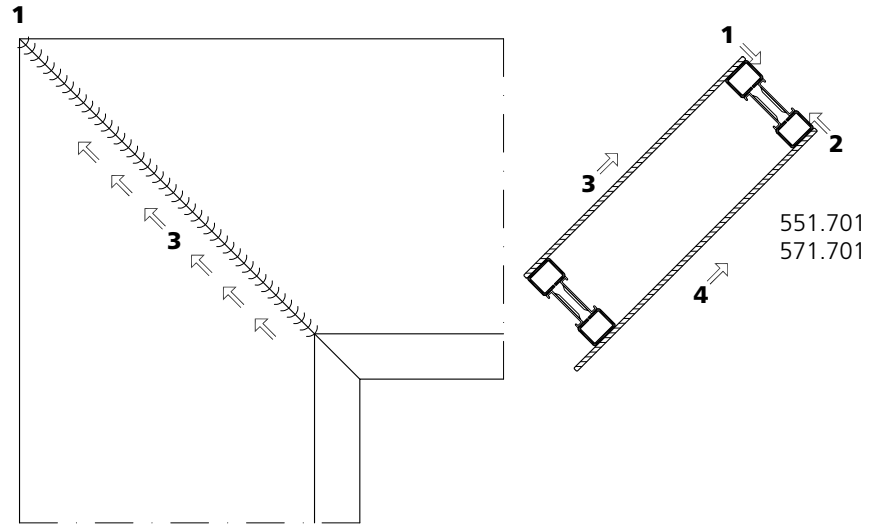
1+2 Attacher la face à l'extérieur, ensuite contrôler les diagonales
3 Attacher l'angle intérieur
4 Attacher de l'intérieur à l'extérieur
5 Attacher l'angle intérieur
6 Attacher de l'intérieur à l'extérieur

1+2 Tack outer face side, then control diagonals
3 Tack inner corner
4 Tack from inside to outside
5 Tack inner corner
6 Tack from inside to outside



Schweissempfehlung Rahmenverbreiterung
Soudage Elargissement de cadre
Welding procedure Frame enlargement

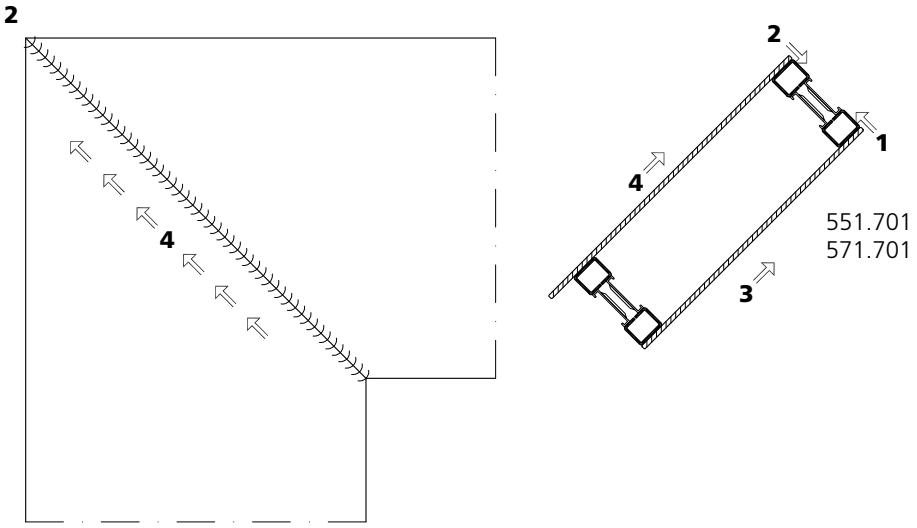
Schweissrichtung / Sens de soudage / Welding direction



1+2 Stirnseite aussen schweissen
3 Von innen nach aussen schweissen, Rahmen wenden
4 Von innen nach aussen schweissen

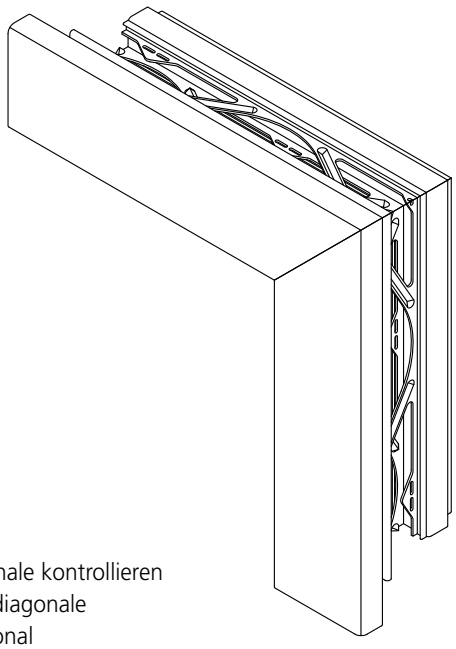
1+2 Souder la face à l'extérieur
3 Souder de l'intérieur à l'extérieur, tourner le cadre
4 Souder de l'intérieur à l'extérieur

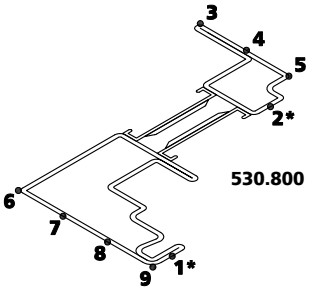
1+2 Weld outer face side
3 Weld from inside to outside, turn the frame
4 Weld from inside to outside



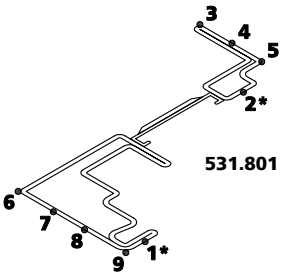
Schweissempfehlung Fensterflügel
Soudage Vantail
Welding procedure Leaf

Haftpunkte / Points d'adhérence / Tacking points

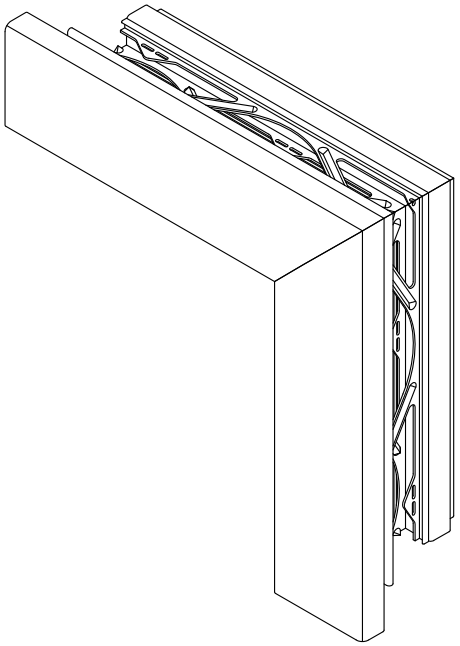


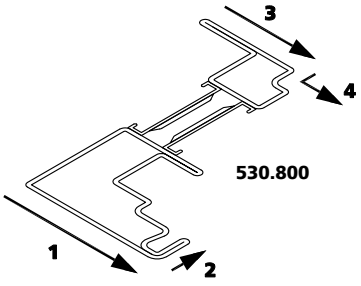


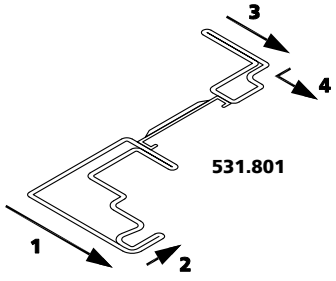
* anschliessend Diagonale kontrollieren
contrôler ensuite la diagonale
then check the diagonal



Schweissrichtung / Sens de soudage / Welding direction





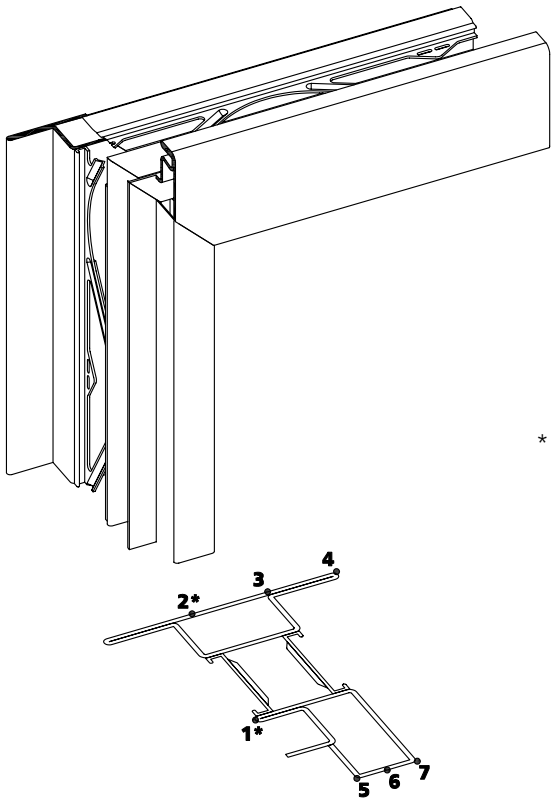


Schweissvorgang Stulpflügel

Soudage Vantail semi-fixe

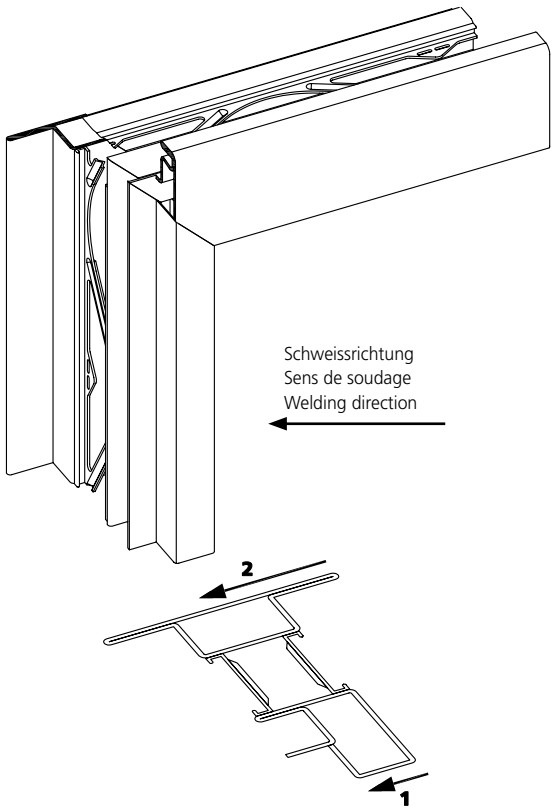
Welding procedure Double sash

Haftpunkte / Points d'adhérence / Tacking points



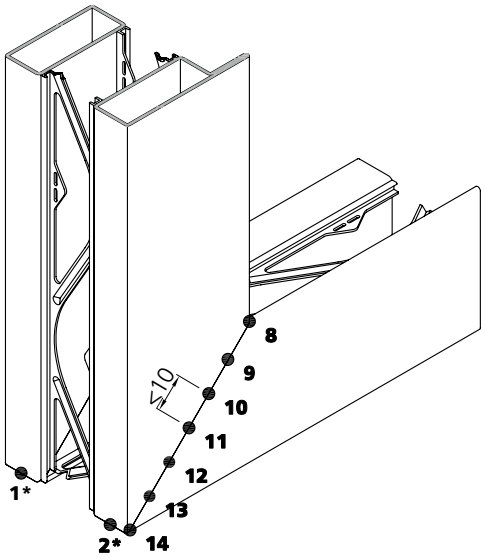
* anschliessend Diagonale kontrollieren
contrôler ensuite la diagonale
then check the diagonal

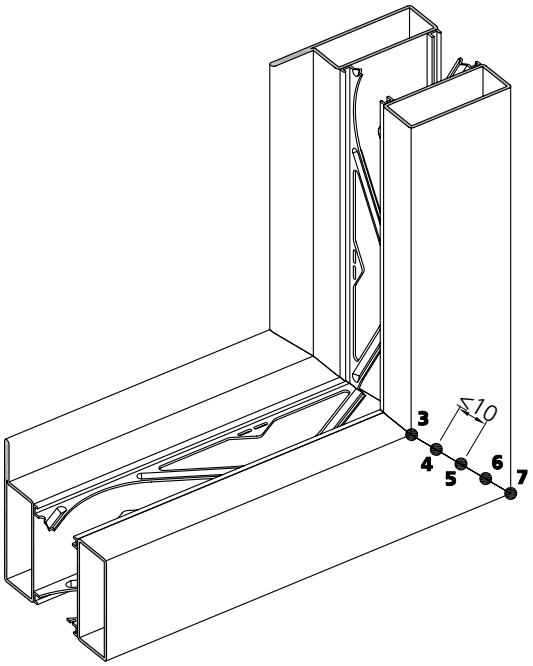
Schweissrichtung / Sens de soudage / Welding direction



Schweissempfehlung Rahmen
Soudage Cadre
Welding procedure Frame

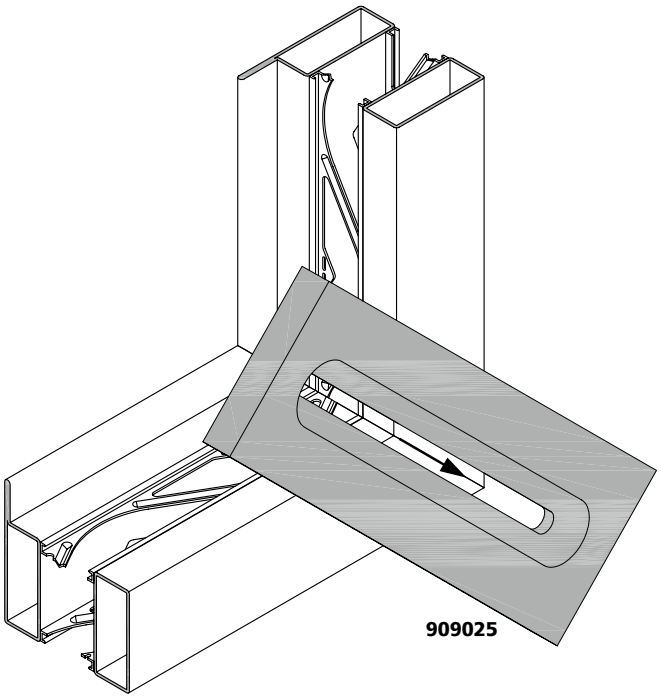
Haftpunkte / Points d'adhérence / Tacking points

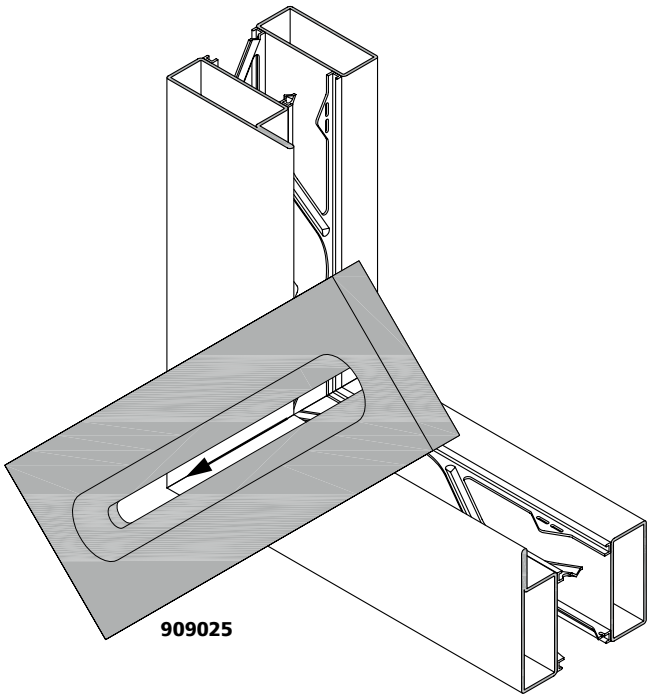




* anschliessend Diagonale kontrollieren
contrôler ensuite la diagonale
then check the diagonal

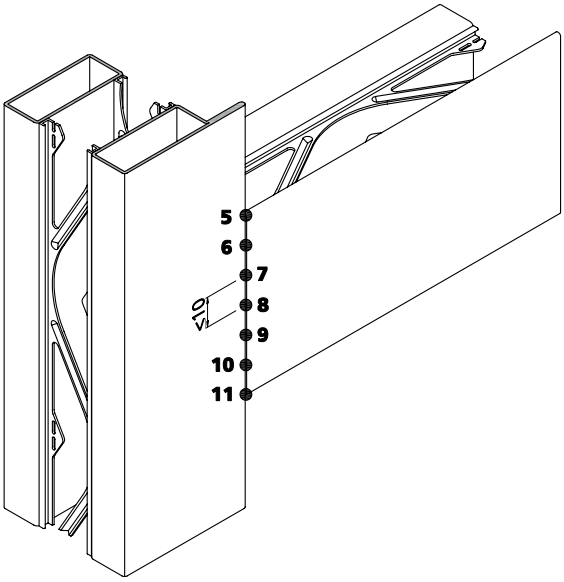
Schweissrichtung / Sens de soudage / Welding direction

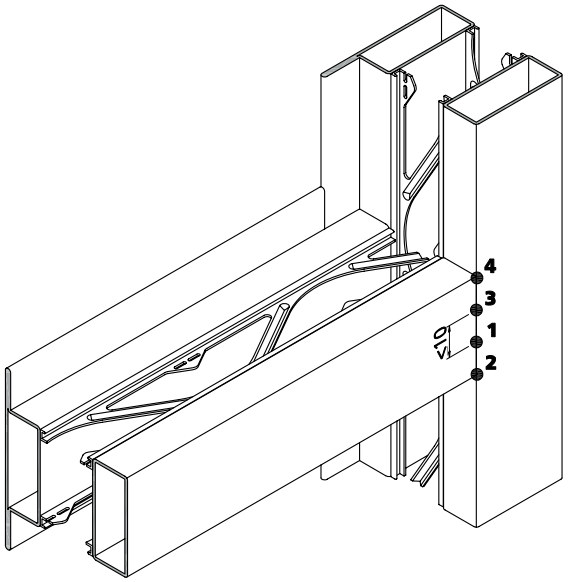




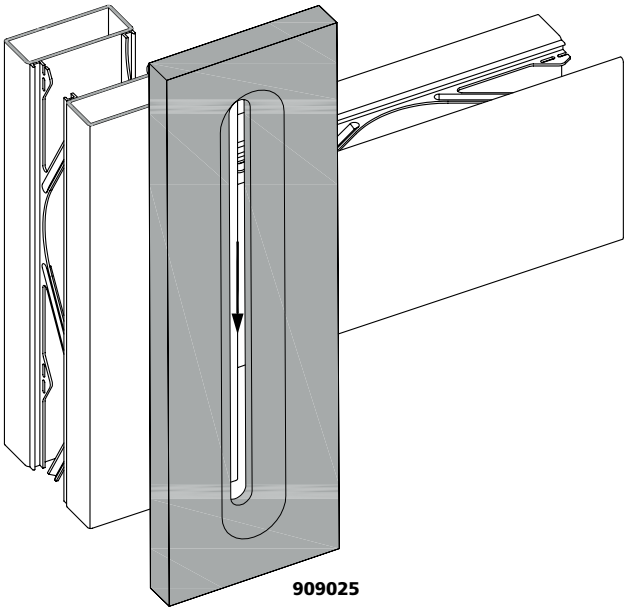
Schweissempfehlung Rahmen
Soudage Cadre
Welding procedure Frame

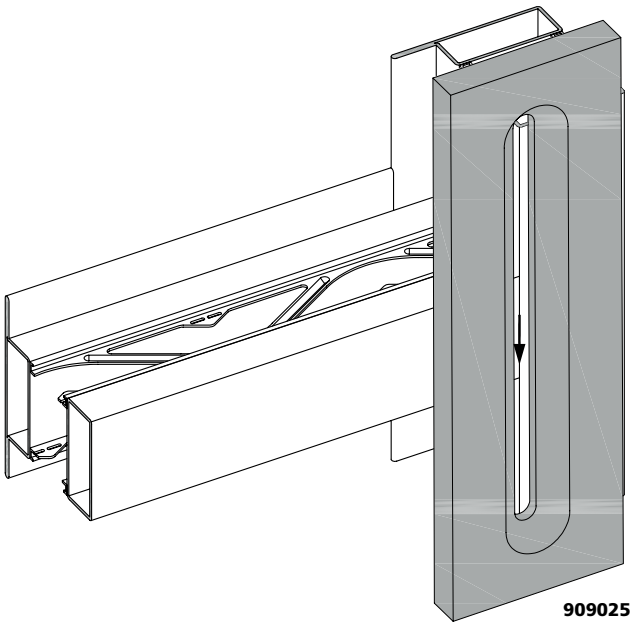
Haftpunkte / Points d'adhérence / Tacking points





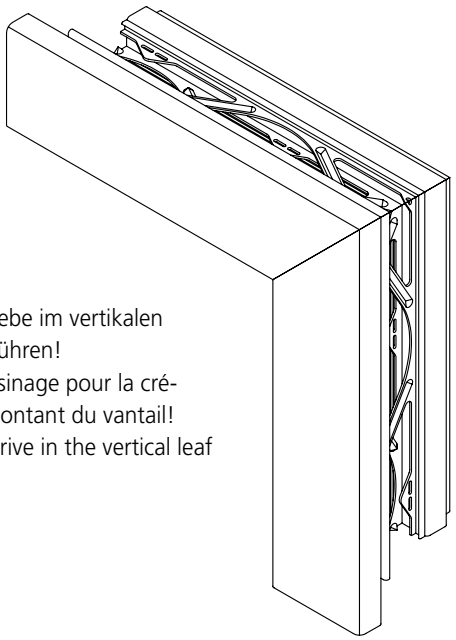
Schweissrichtung / Sens de soudage / Welding direction





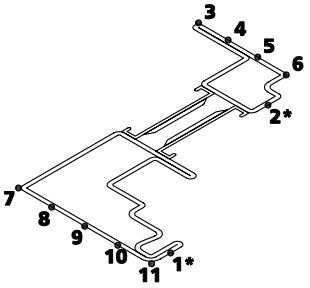
Schweissempfehlung Fensterflügel
Soudage Vantail
Welding procedure Leaf

Haftpunkte / Points d'adhérence / Tacking points

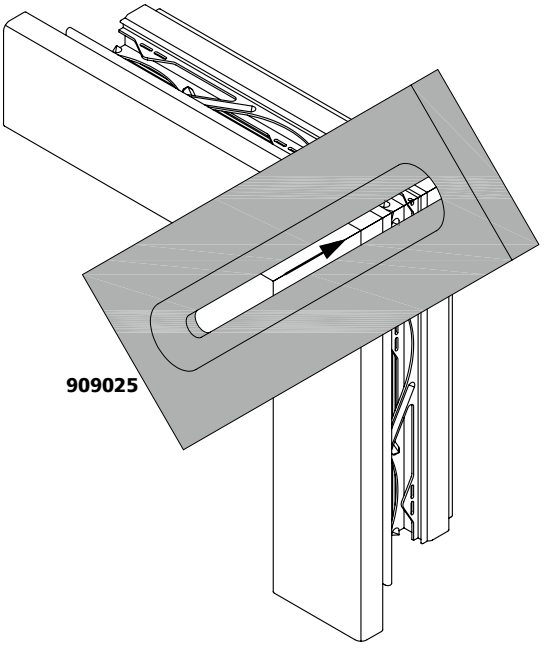


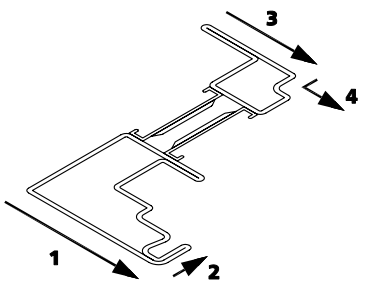
Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter préalablement l'usinage pour la crémone de fenêtre dans le montant du vantail!
Make the cut-out for the drive in the vertical leaf profile first!

* anschliessend Diagonale kontrollieren
contrôler ensuite la diagonale
then check the diagonal



Schweissrichtung / Sens de soudage / Welding direction

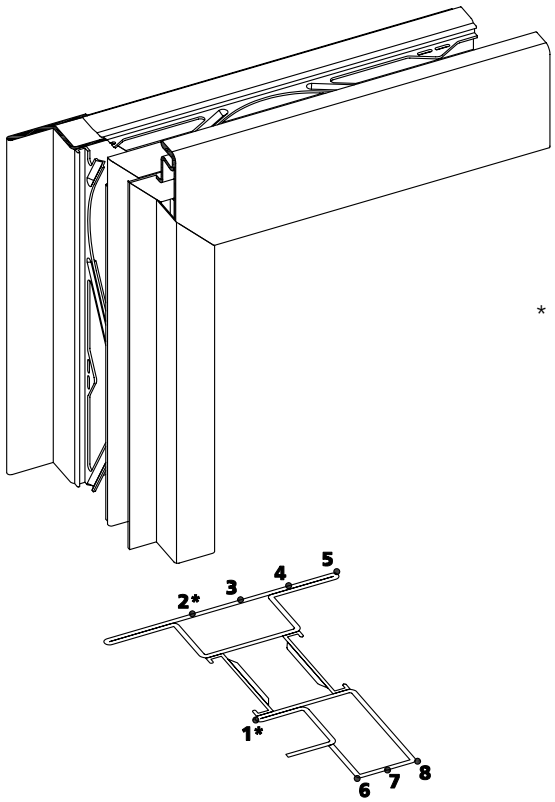




Edelstahl
Acier inox
Stainless steel

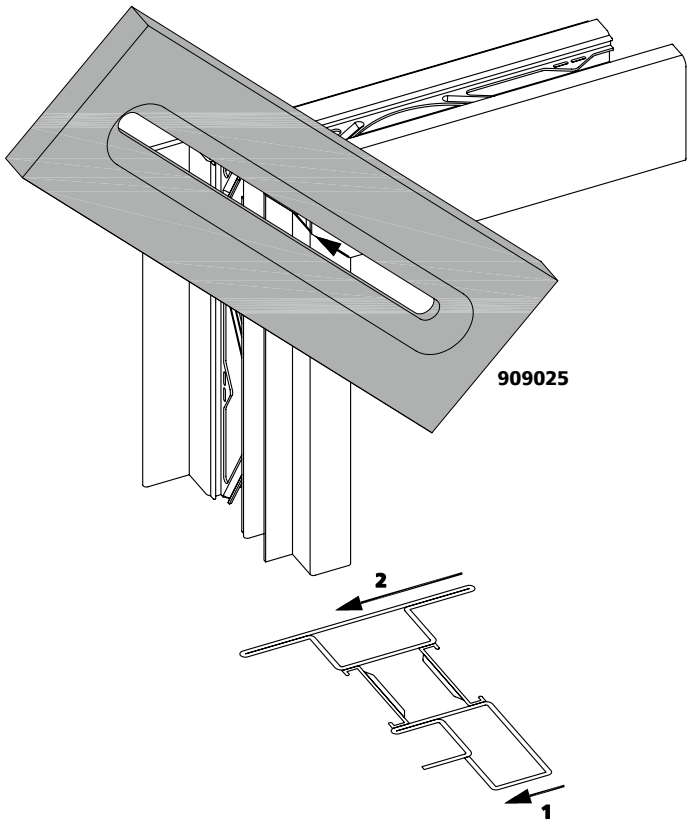
Schweissempfehlung Stulpflügel
Soudage Vantail semi-fixe
Welding procedure Double sash

Haftpunkte / Points d'adhérence / Tacking points



* anschliessend Diagonale kontrollieren
contrôler ensuite la diagonale
then check the diagonal

Schweissrichtung / Sens de soudage / Welding direction



7

Verarbeitung Beschläge

Beschlagseinbau 1-flügeliges Fenster	7.1.1 - 7.1.30
Beschlagseinbau 2-flügeliges Fenster	7.2.1 - 7.2.36
Beschlagseinbau Kippflügel	7.3.1 - 7.3.20

Mise en œuvre quincaillerie

Montage de la quincaillerie fenêtre à 1 vantail	7.1.1 - 7.1.30
Montage de la quincaillerie fenêtre à 2 vantaux	7.2.1 - 7.2.36
Montage de la quincaillerie ouvrant à soufflet	7.3.1 - 7.3.20

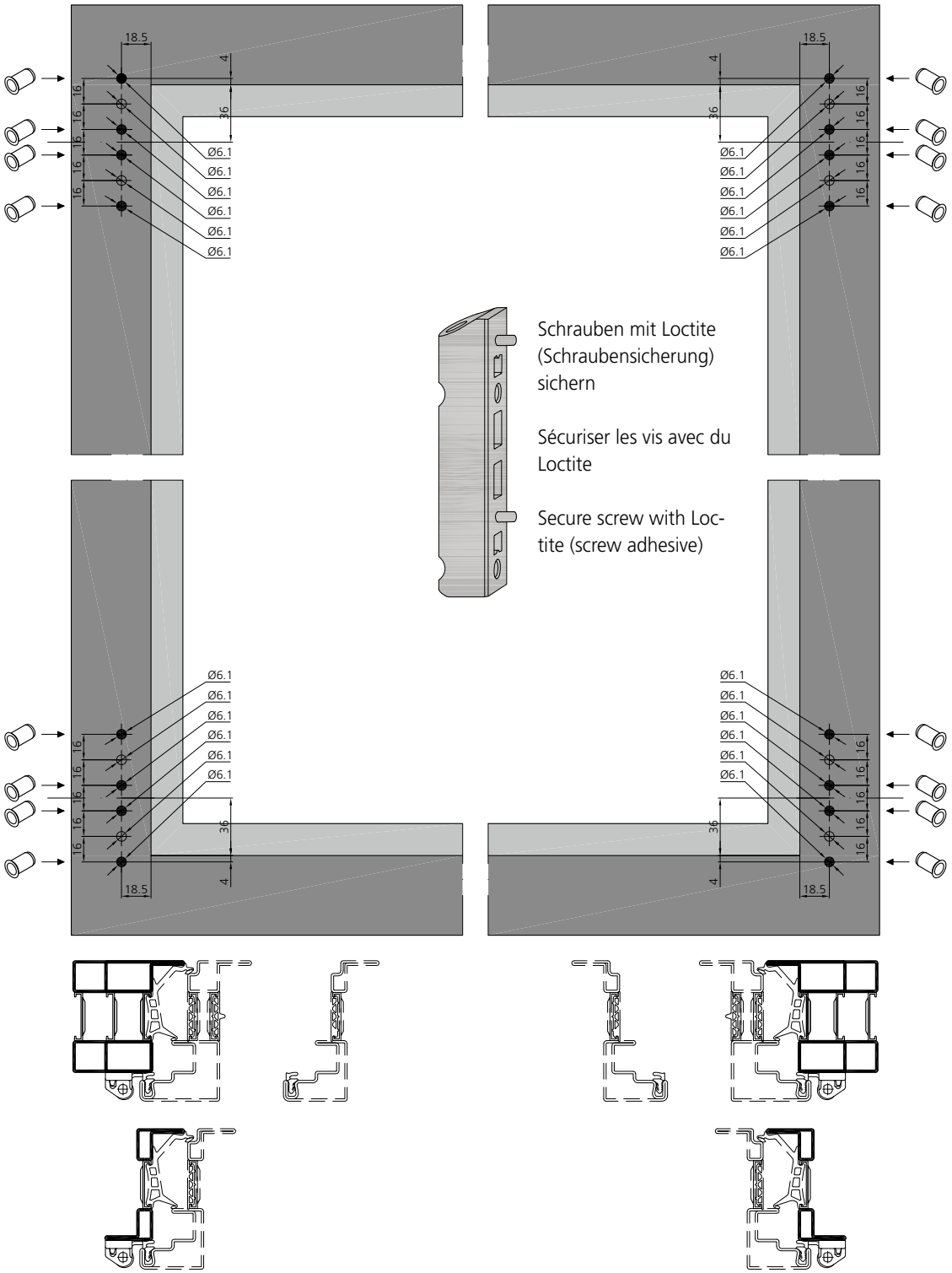
Processing fittings

Installation of the fittings window 1 leaf	7.1.1 - 7.1.30
Installation of the fittings double sash window	7.2.1 - 7.2.36
Installation of the fittings tilt only window	7.3.1 - 7.3.20

Beschlagseinbau 1-flügeliges Fenster
Montage de la quincaillerie Fenêtre à 1 vantail
Installation of the fittings Window 1 leaf

DIN links
DIN gauche
DIN left

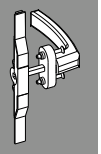
DIN rechts
DIN droite
DIN right

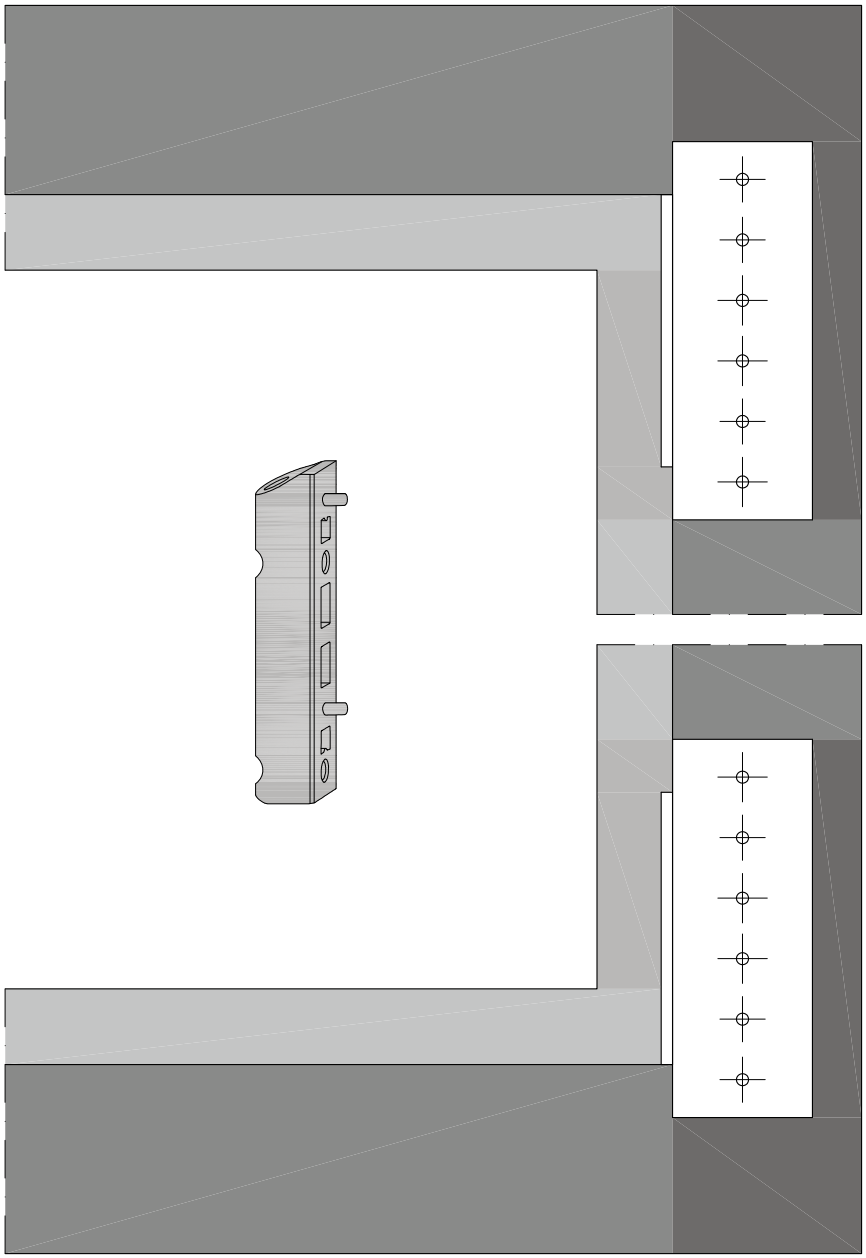


Beschlagseinbau
1-flügeliges Fenster

Montage de la quincaillerie
Fenêtre à 1 vantail

Installation of the fittings
Window 1 leaf

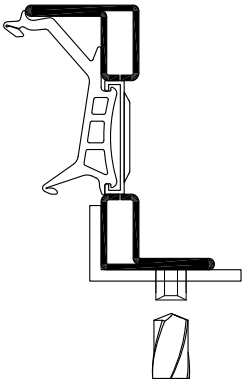


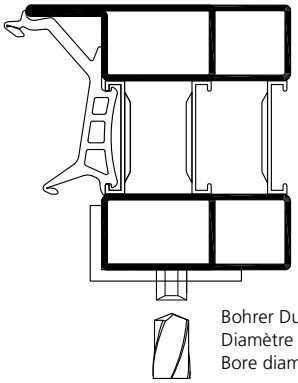


Bohrlehre **Art. Nr. 989103**
zu Axer- und Ecklager

Gabarit de perçage **art. no. 989103** pour
palier d'angle et palier de compas

Drilling template **art. no. 989103** for
sash stay bearing and corner pivot rest





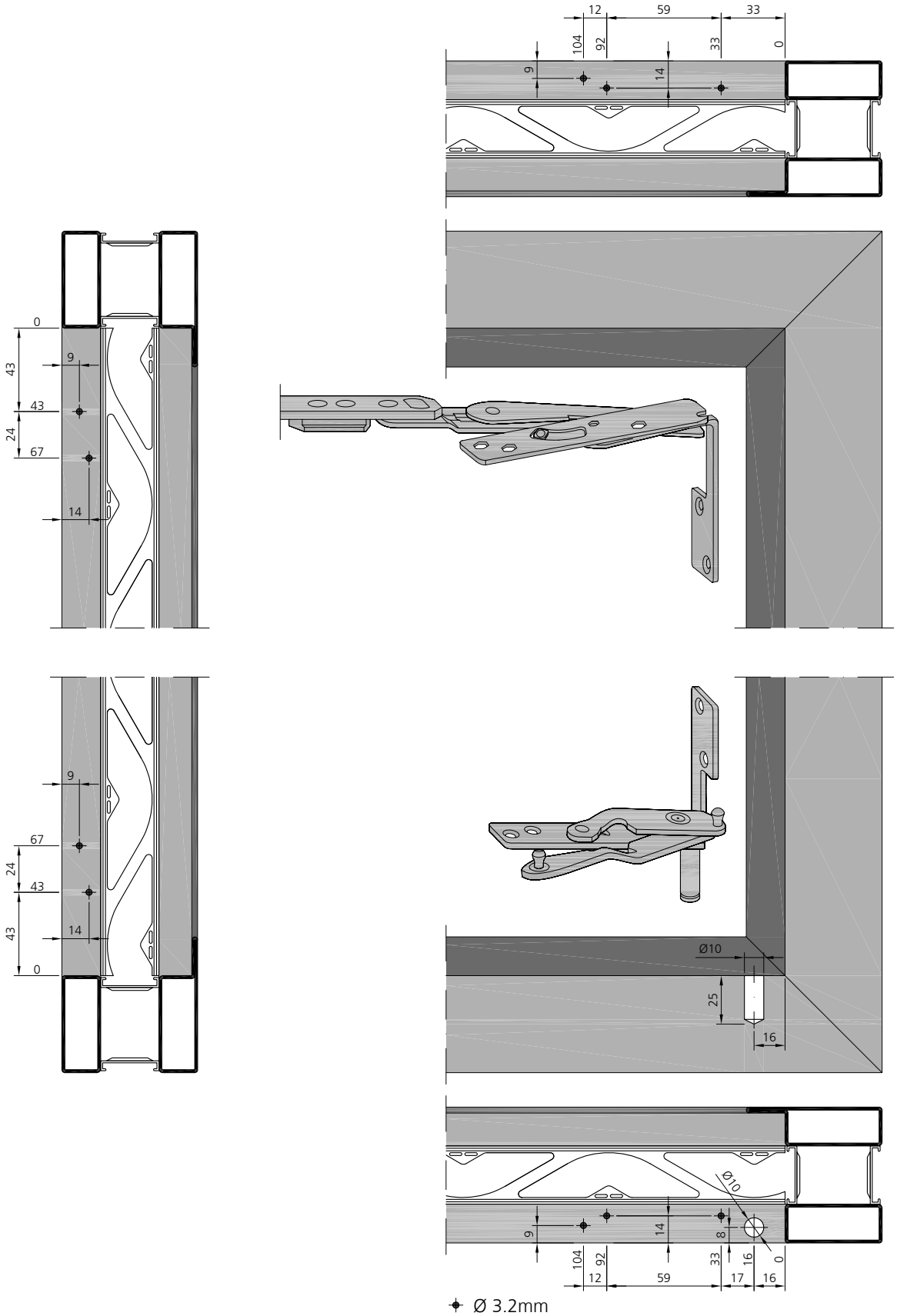
Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau
1-flügeliges Fenster

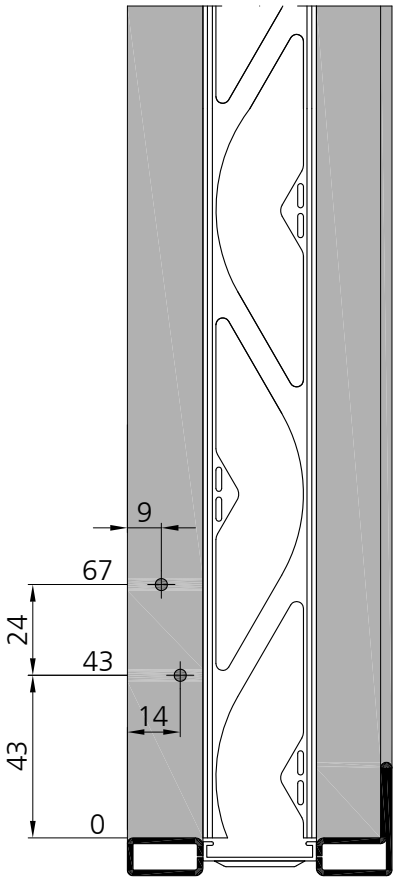
Montage de la quincaillerie
Fenêtre à 1 vantail

Installation of the fittings
Window 1 leaf

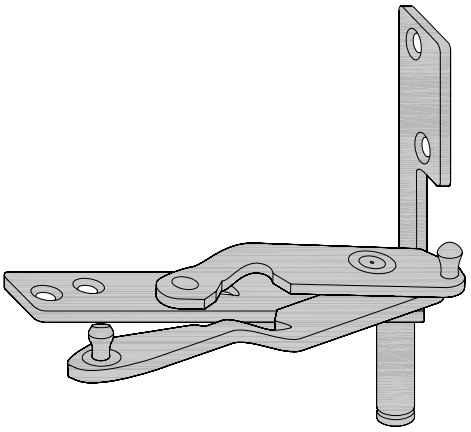


✦ Ø 3.2mm

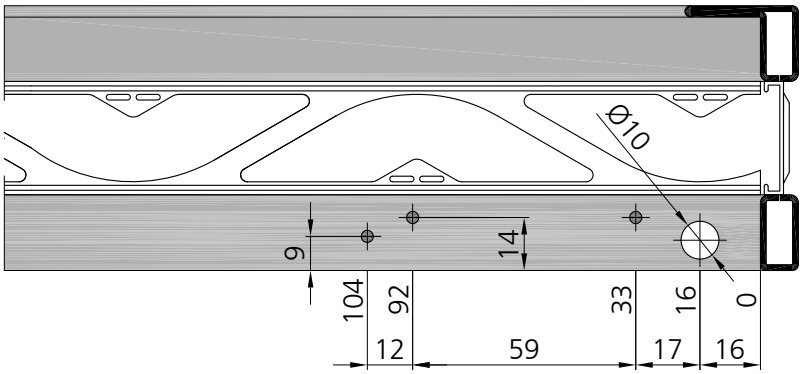
Beschlagseinbau 1-flügeliges Fenster



Montage de la quincaillerie Fenêtre à 1 vantail



Installation of the fittings Window 1 leaf



*** Wichtig** !

Bandzapfen steht im eingebauten Zustand 15 mm vor. Darf nicht abgeschnitten werden!

*** Important** !

A l'état monté, la penture de la paumelle présente une saillie de 15 mm. Ne pas couper!

*** Important** !

When fitted, the hinge pin protrudes by 15 mm. This must not be cut off!

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

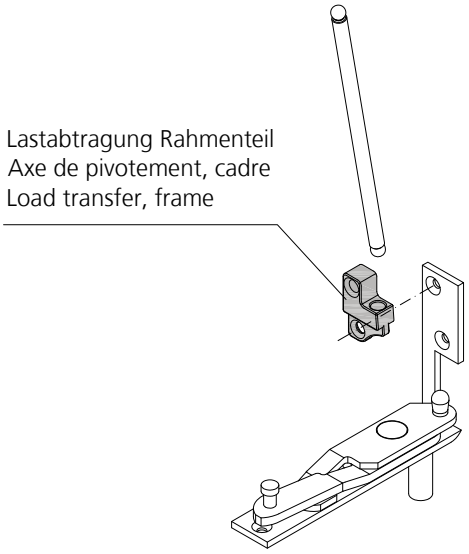
Beschlagseinbau 1-flügeliges Fenster

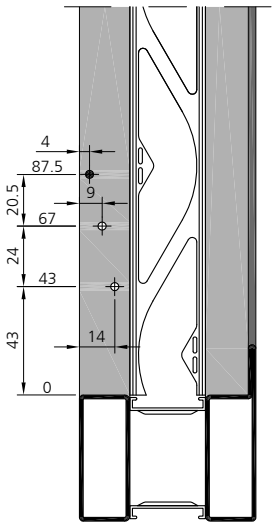
Montage de la quincaillerie Fenêtre à 1 vantail

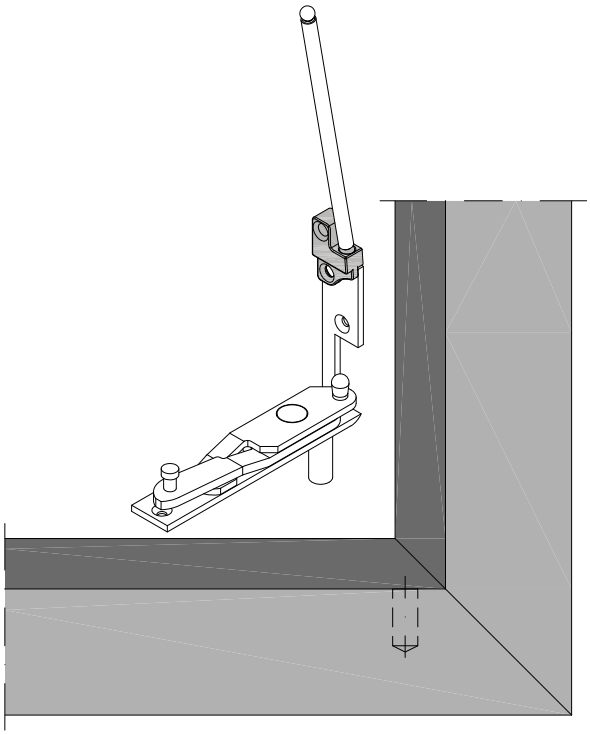
Installation of the fittings Window 1 leaf

Flügelgewicht bis 150 kg
Poids du vantail jusqu'à 150 kg
Leaf weight up to 150 kg

Lastabtragung Rahmenteil
Axe de pivotement, cadre
Load transfer, frame







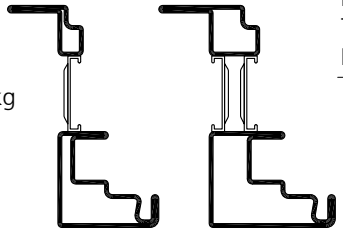
⌖ Ø 3.2mm

Beschlagseinbau 1-flügeliges Fenster

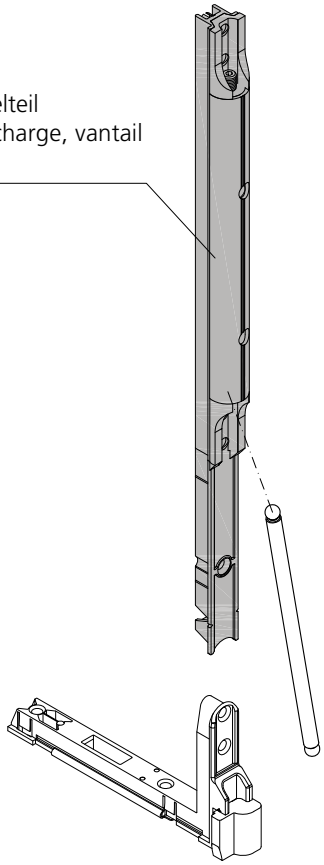
Montage de la quincaillerie Fenêtre à 1 vantail

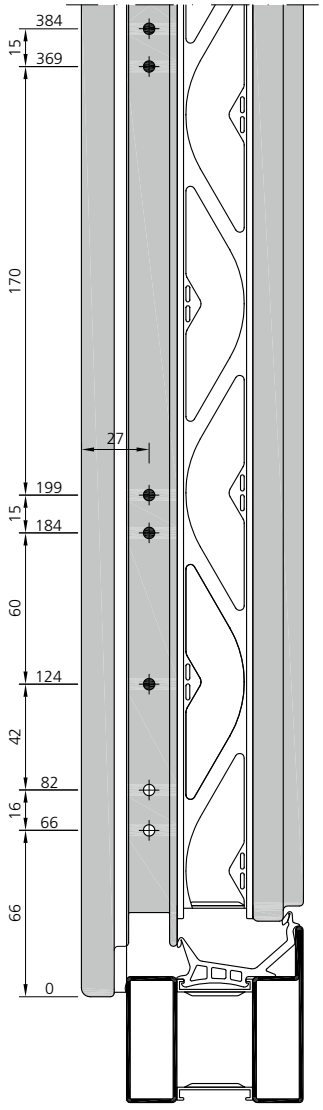
Installation of the fittings Window 1 leaf

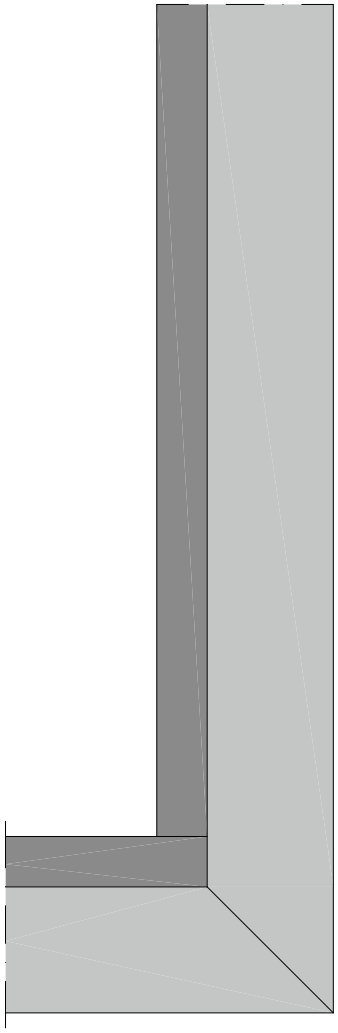
Flügelgewicht von 80 kg bis 150 kg
Poids du vantail de 80 kg jusqu'à 150 kg
Leaf weight from 80 kg up to 150 kg

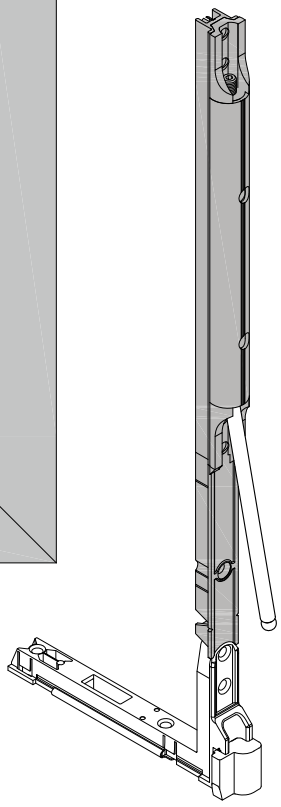


Lastabtragung Flügelteil
Transmission de la charge, vantail
Load transfer, leaf





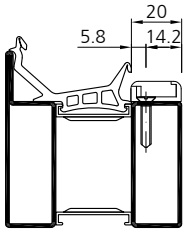




✦ Ø 3.2mm

Beschlagseinbau 1-flügeliges Fenster

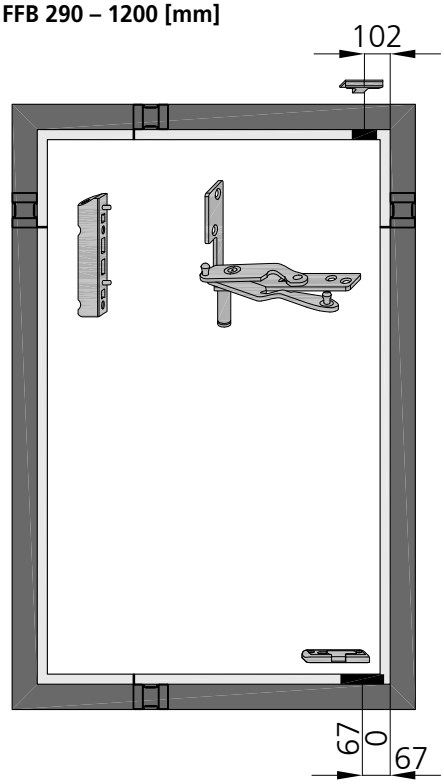
Anordnung Schliessstücke
1 flg. in Abhängigkeit der Flügelfalz-Breite
FFB 290 – 1200 [mm]



Gezeichnet DIN links, DIN rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Montage de la quincaillerie Fenêtre à 1 vantail

Disposition des gâches
1 vantail selon la largeur de la feuillure du vantail
FFB 290 – 1200 [mm]

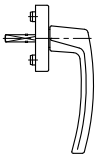


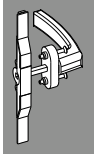
Bandseite
Côté paumelle
Hinge side

Getriebeseite
Côté crémone
Drive side

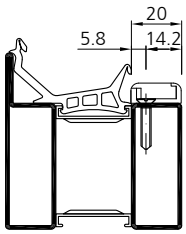
Installation of the fittings Window 1 leaf

Arrangement of the strikers
1 leaf, depending on the width of the leaf rebate
FFB 290 – 1200 [mm]



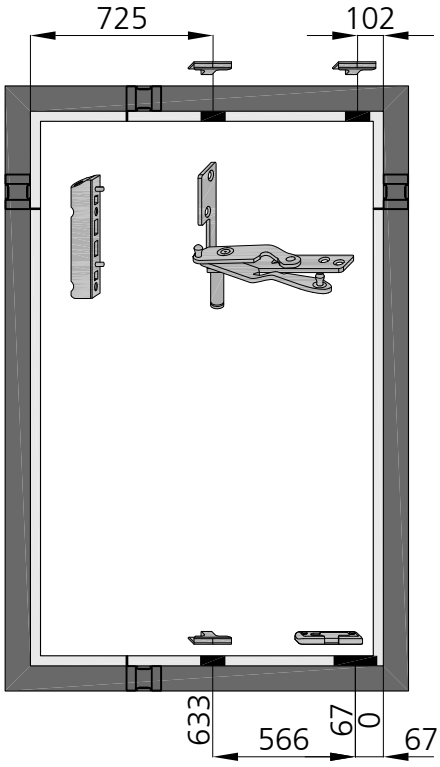


Anordnung Schliessstücke
FFB 1201 – 1600 [mm]



Gezeichnet DIN links, DIN rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

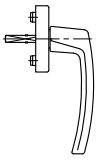
Disposition des gâches
FFB 1201 – 1600 [mm]



Bandseite
Côté paumelle
Hinge side

Getriebeseite
Côté crémone
Drive side

Arrangement of the strikers
FFB 1201 – 1600 [mm]



Beschlagseinbau 1-flügeliges Fenster

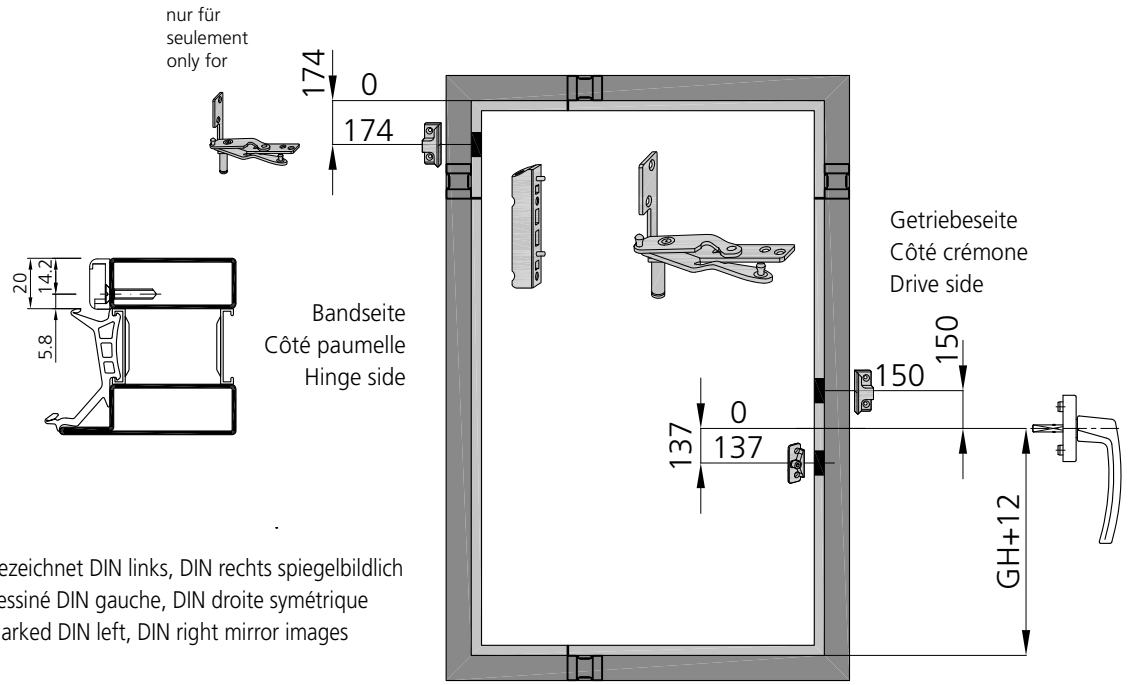
Anordnung Schliessstücke
1 flg. in Abhängigkeit der Flügelfalz-Höhe
FFH 621 – 1200 [mm]
GH 311 – 600 [mm]

Montage de la quincaillerie Fenêtre à 1 vantail

Disposition des gâches
1 vantail selon la hauteur de la feuillure du vantail
FFH 621 – 1200 [mm]
GH 311 – 600 [mm]

Installation of the fittings Window 1 leaf

Arrangement of the strikers
1 leaf, depending on the height of the leaf rebate
FFH 621 – 1200 [mm]
GH 311 – 600 [mm]

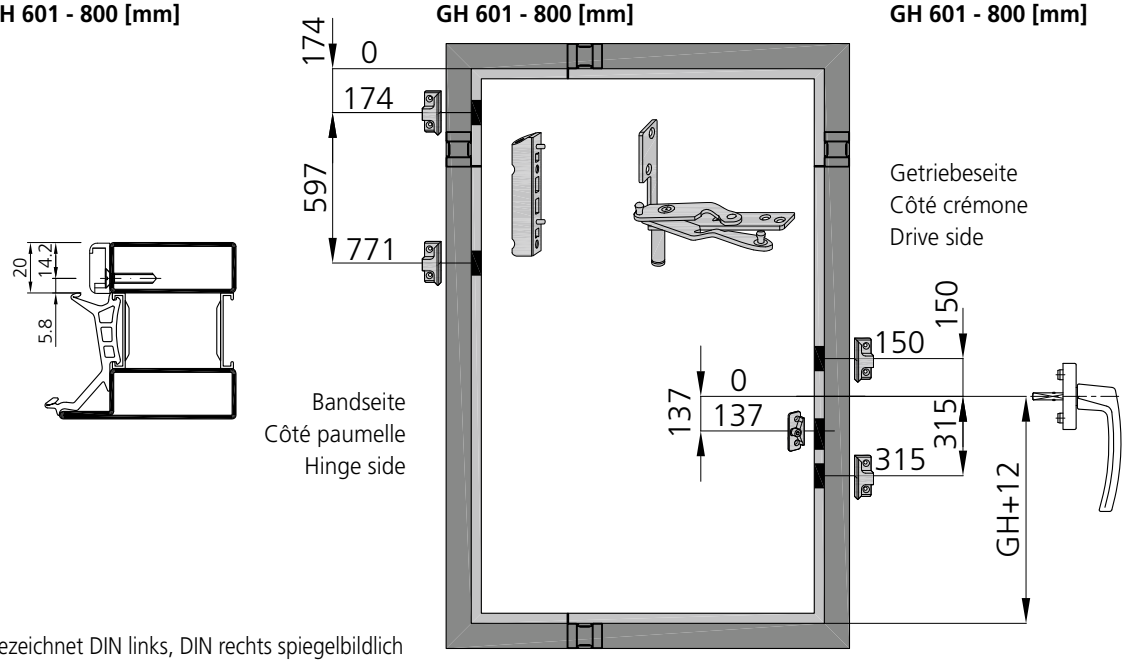


Gezeichnet DIN links, DIN rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Anordnung Schliessstücke
FFH 1201 – 1600 [mm]
GH 601 - 800 [mm]

Disposition des gâches
FFH 1201 – 1600 [mm]
GH 601 - 800 [mm]

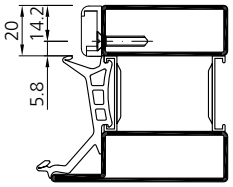
Arrangement of the strikers
FFH 1201 – 1600 [mm]
GH 601 - 800 [mm]

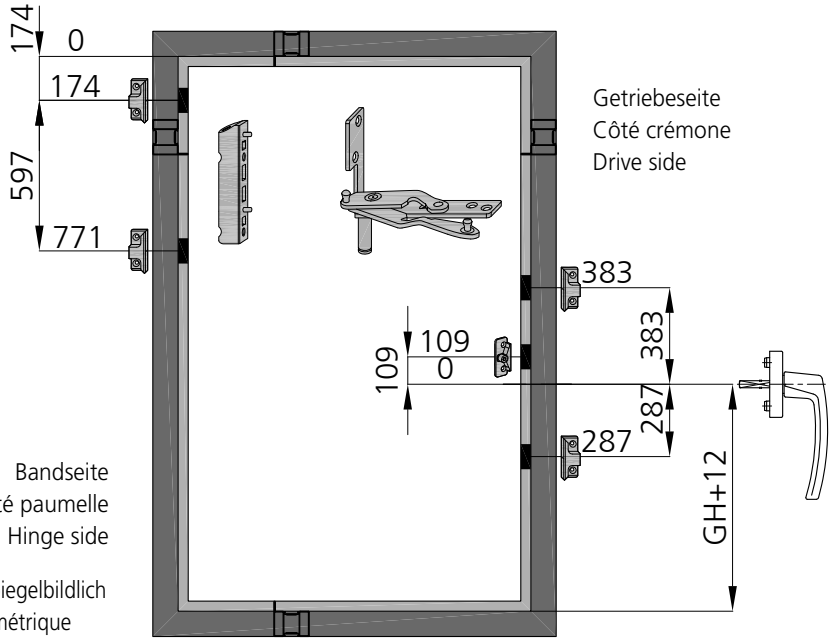


Gezeichnet DIN links, DIN rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Beschlagseinbau 1-flügeliges Fenster

Anordnung Schliessstücke
1 flg. in Abhängigkeit der Flügelfalz-Höhe
FFH 1601 – 2000 [mm]
GH 801 - 1000 [mm]





Gezeichnet DIN links, DIN rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

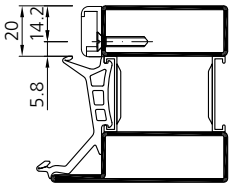
Montage de la quincaillerie Fenêtre à 1 vantail

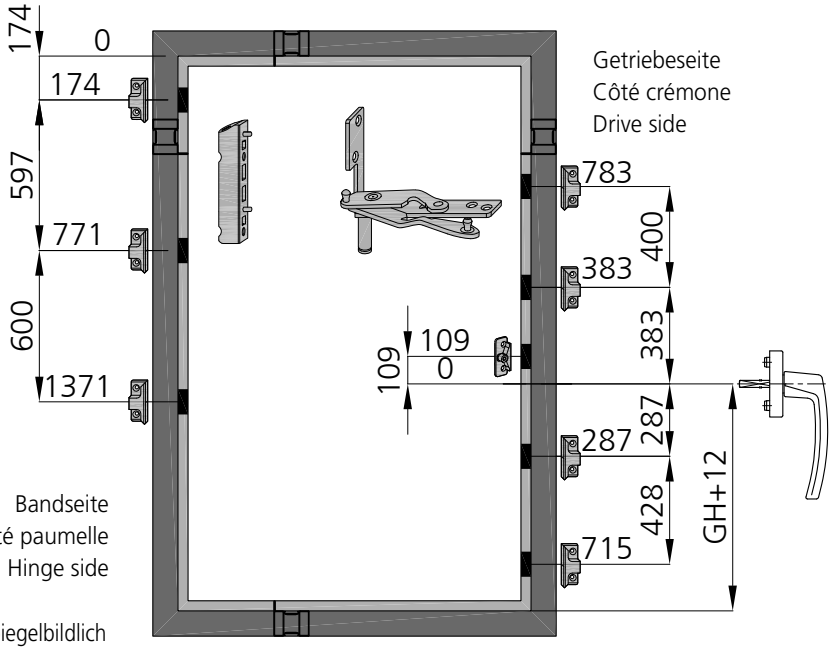
Disposition des gâches
1 vantail selon la hauteur de la feuillure du vantail
FFH 1601 – 2000 [mm]
GH 801 - 1000 [mm]

Installation of the fittings Window 1 leaf

Arrangement of the strikers
1 leaf, depending on the height of the leaf rebate
FFH 1601 – 2000 [mm]
GH 801 - 1000 [mm]

Anordnung Schliessstücke
FFH 2001 – 2400 [mm]
GH 1001 – 1200 [mm]





Gezeichnet DIN links, DIN rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Disposition des gâches
FFH 2001 – 2400 [mm]
GH 1001 – 1200 [mm]

Arrangement of the strikers
FFH 2001 – 2400 [mm]
GH 1001 – 1200 [mm]

Beschlagseinbau 1-flügeliges Fenster

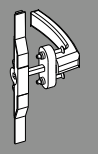
Bohrlehre **Art. Nr. 989104**
1 flügelige Fenster

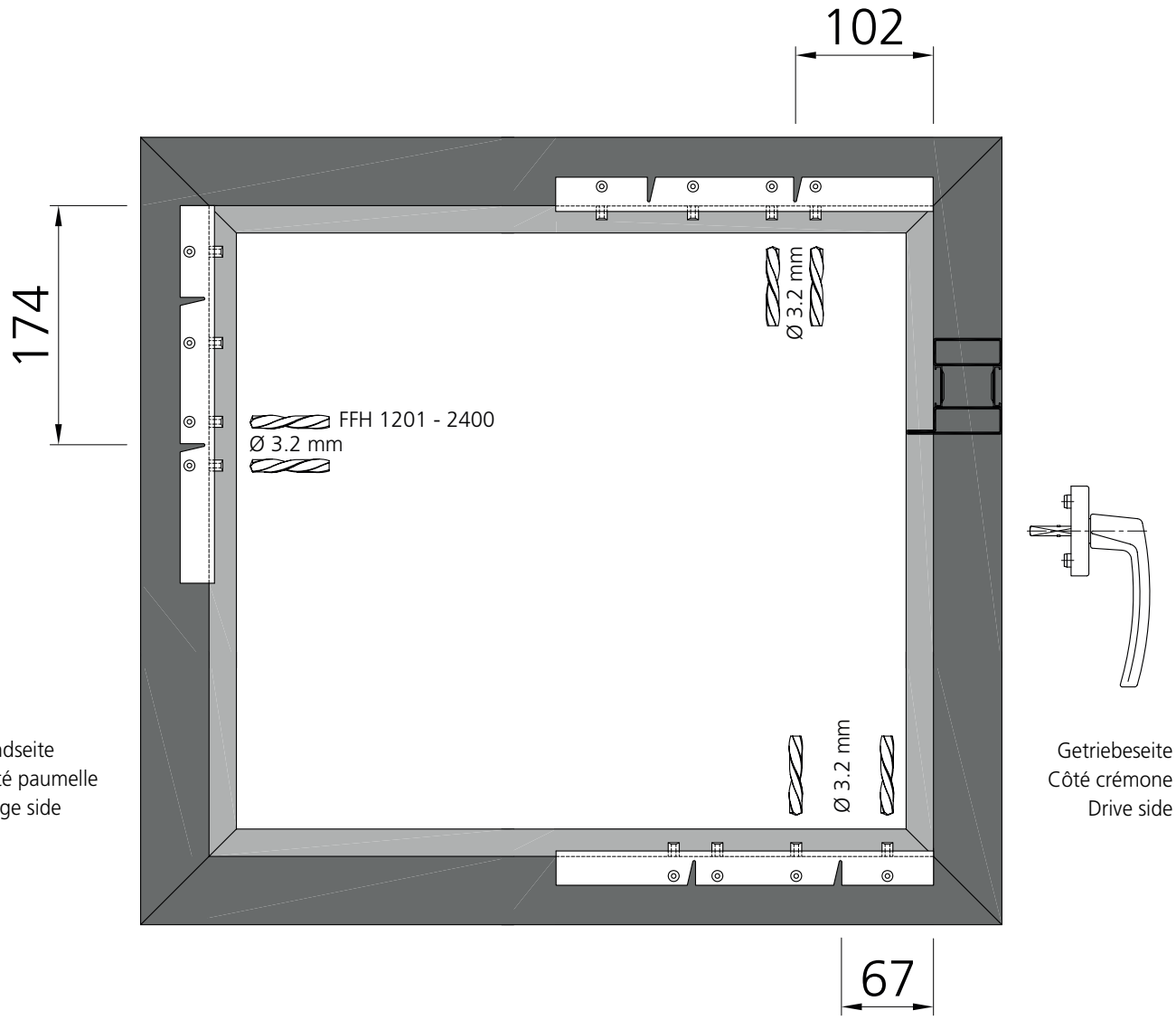
Montage de la quincaillerie Fenêtre à 1 vantail

Gabarit de perçage **art. no. 989104**
fenêtre à 1 vantail

Installation of the fittings Window 1 leaf

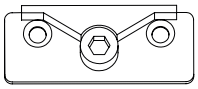
Drilling template **art. no. 989104**
single leaved windows





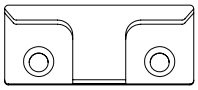
Bandseite
Côté paumelle
Hinge side

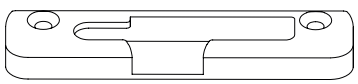
Getriebeseite
Côté crémone
Drive side



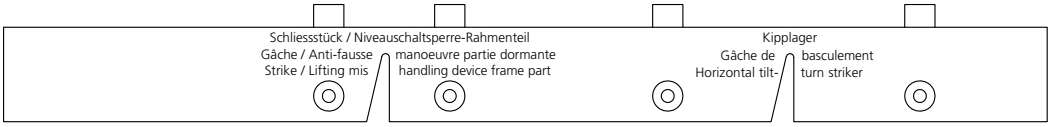
Niveauschaltsperre Rahmen
Anti-fausse manœuvre partie cadre dormant
Lifting mishandling device frame part

Schliessstücke
Gâches
Strikers





Kipplager
Gâche de basculement
Tilt-turn striker



Markierung Zentrum Schliessstück / NSP
Marque centre gâche / AFM
Marking on the center of the striker / LMD

Markierung Zentrum Kipplager
Marque centre gâche de basculement
Marking on the center of the tilt-turn striker

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

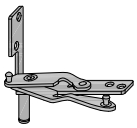
Beschlagseinbau
1-flügeliges Fenster
Zweitschere

Montage de la quincaillerie
Fenêtre à 1 vantail
Deuxième compas

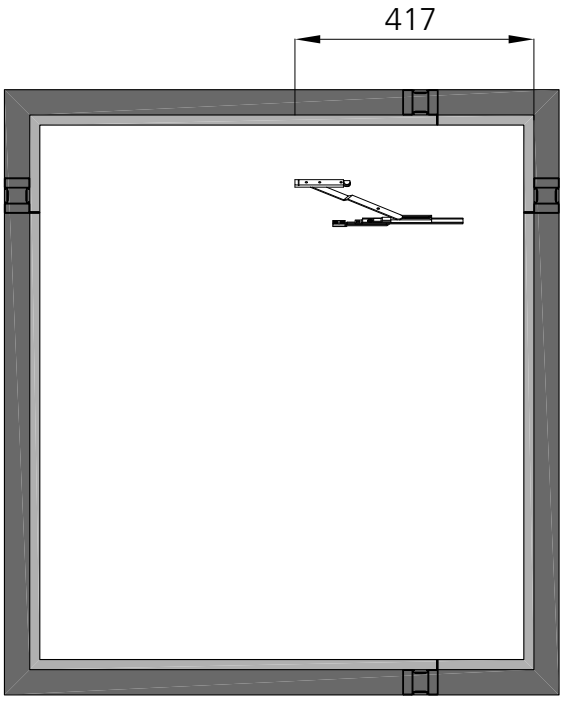
Installation of the fittings
Window 1 leaf
Additional scissors-stay

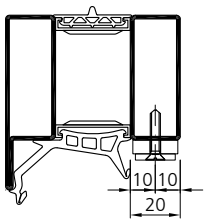


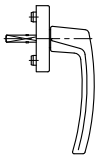
FFB = 1401-1600 [mm]

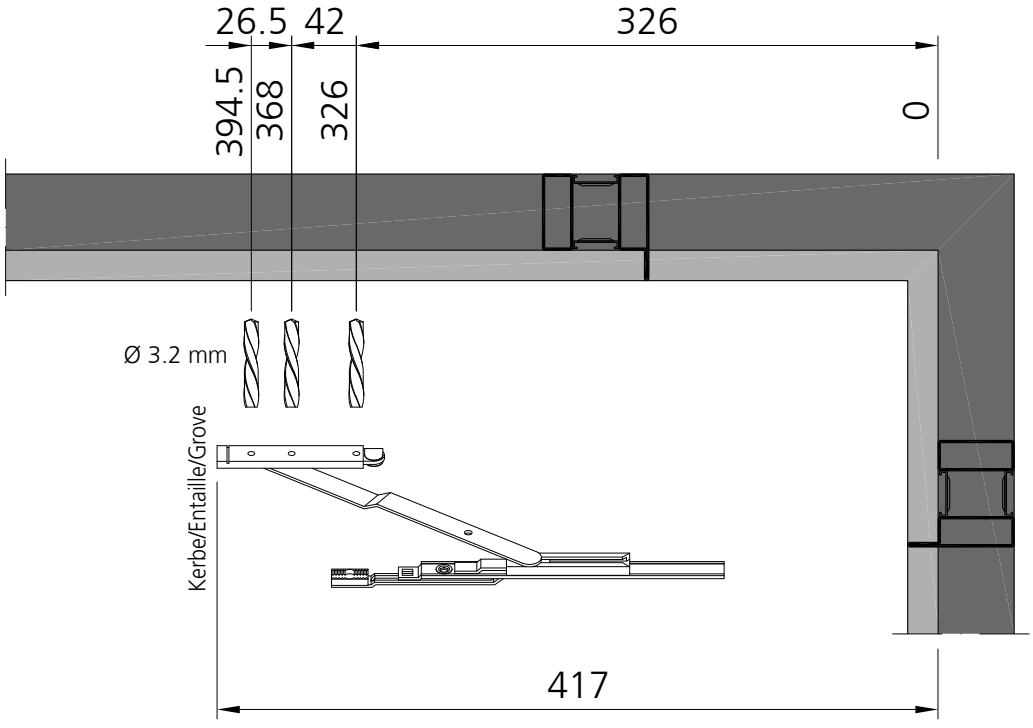


FFB = 1201-1400 [mm]





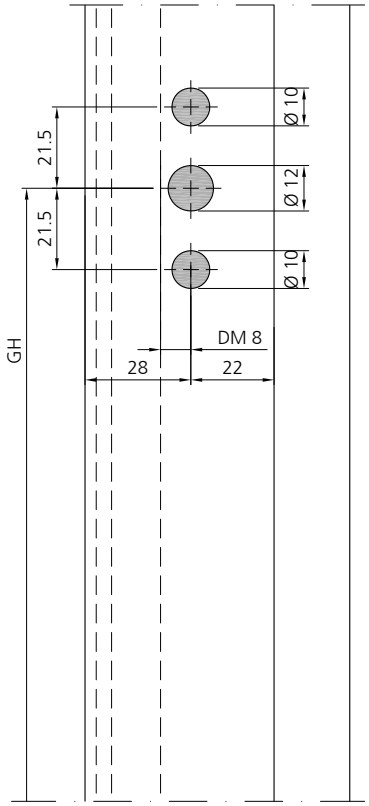


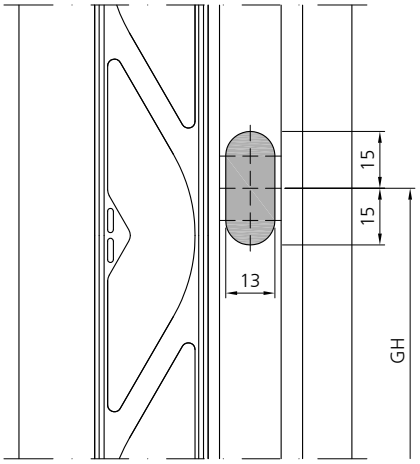


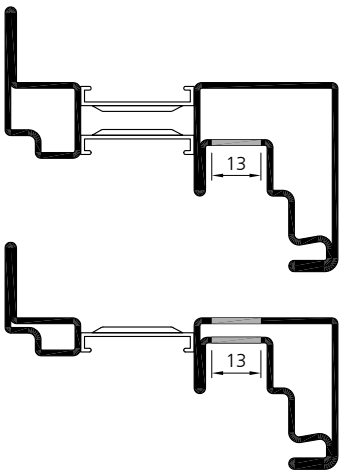
Beschlagseinbau
1-flügeliges Fenster
Getriebeausnehmung

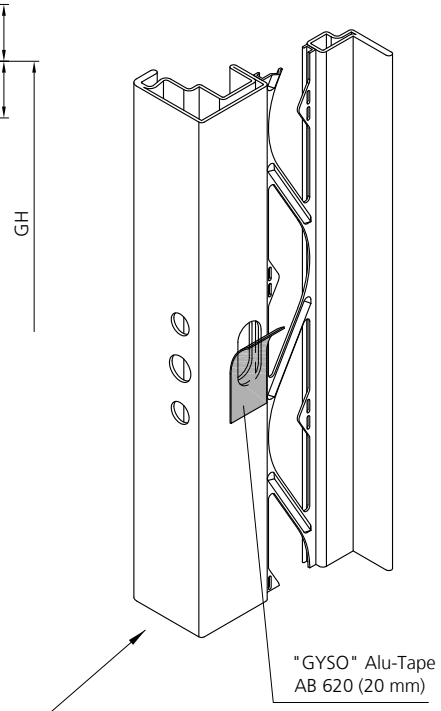
Montage de la quincaillerie
Fenêtre à 1 vantail
Usinage pour la crémone

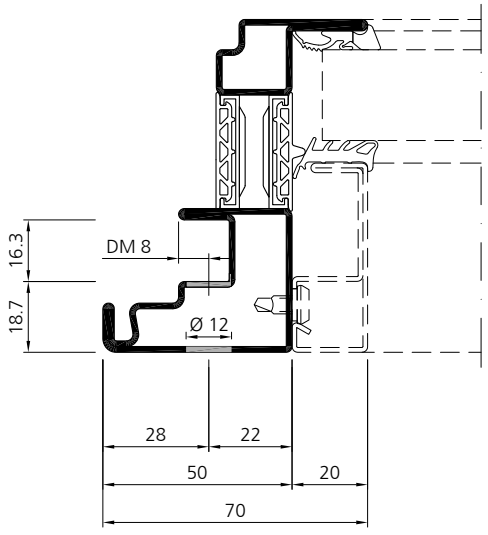
Installation of the fittings
Window 1 leaf
Cut out for drive

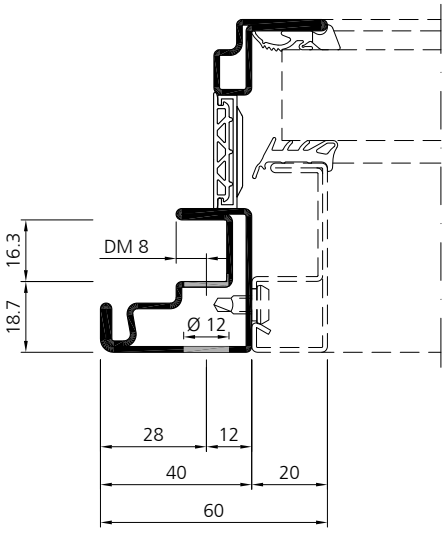








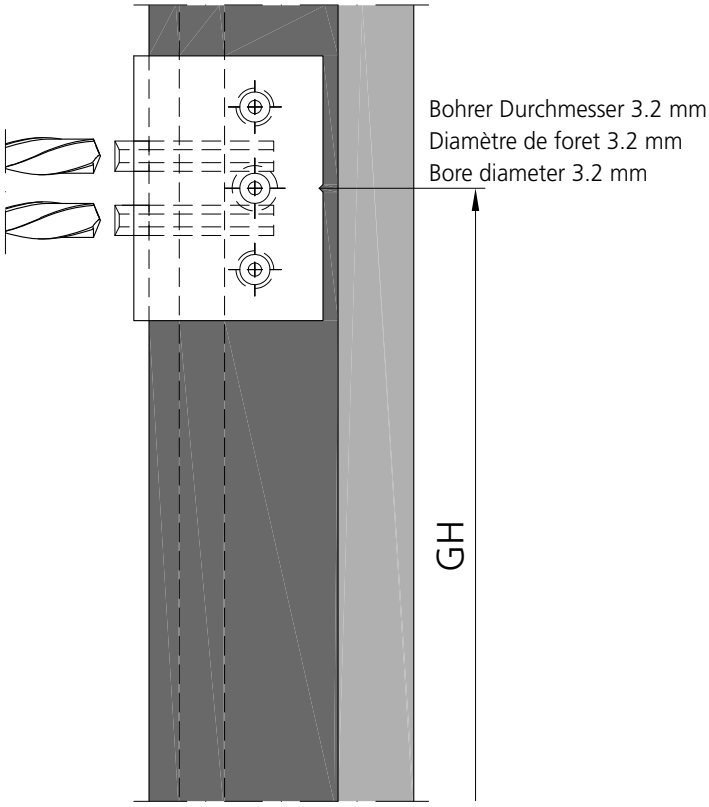


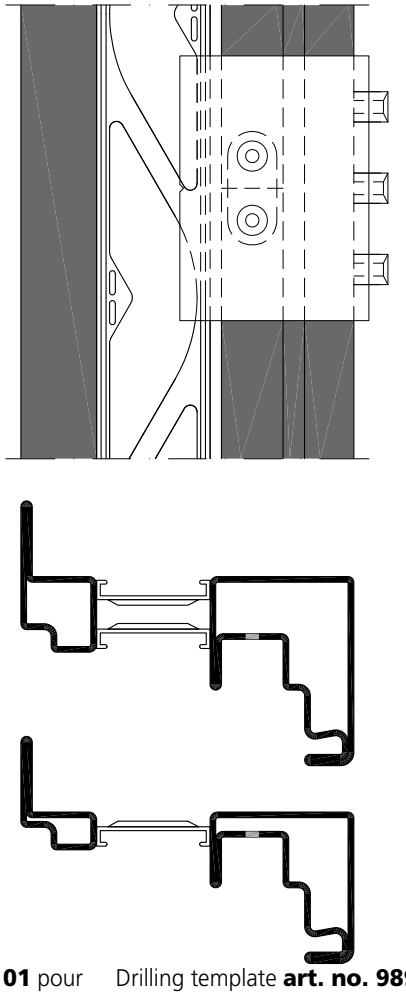


Beschlagseinbau
1-flügeliges Fenster
Getriebeausnehmung

Montage de la quincaillerie
Fenêtre à 1 vantail
Usinage pour la crémone

Installation of the fittings
Window 1 leaf
Cut out for drive

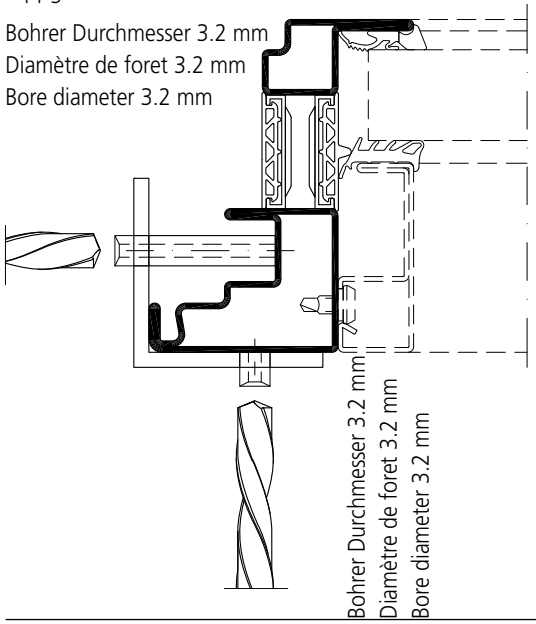


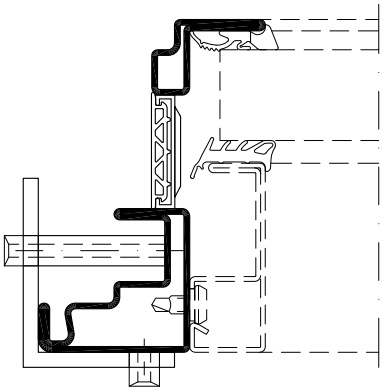


Bohrlehre **Art. Nr. 989101** zu Dreh-Kippgetriebe.

Gabarit de perçage **art. no. 989101** pour crémone oscillo-battant.

Drilling template **art. no. 989101** for tilt-turn drive.





Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter préalablement l'usinage pour la crémone de fenêtre dans le montant du vantail!
Make the cut-out for the drive in the vertical leaf profile first!

Beschlagseinbau 1-flügeliges Fenster

- Schraube M4 x 21 (selbstfurchend)
- Bohrloch 3.2 mm
- Bei Edelstahlprofil muss das M4 Gewinde geschnitten werden. Alternative: Bohrloch auf 3.5 aufbohren, Schraube ohne M4 Gewindeschnitt einsetzen.

Bei jeder Verschraubung muss ein Distanzstück **927001** eingesetzt werden.

Montage de la quincaillerie Fenêtre à 1 vantail

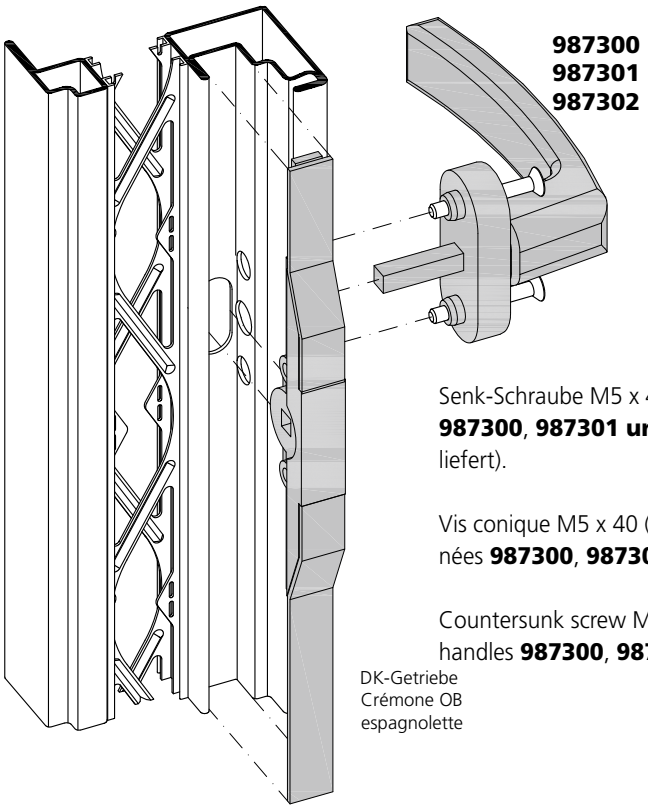
- Vis M4 x 21 (autotaraudeuse)
- Perçage 3.2 mm
- Avec le profilé en acier inox, la vis M4 doit être coupée. Alternative: agrandir le trou à 3.5, taraudage M4 pas necessaire.

La pièce d'entretoise **927001** doit être insérée sous toutes les fixations et assemblages.

Installation of the fittings Window 1 leaf

- Screw M4 x 21 (self tapping)
- Drill hole 3.2 mm
- In stainless steel profiles, the M4 thread needs to be cut case. Alternative: drill out the drilling hole of 3.5, use screw without M4 thread.

The spacer **927001** must be placed under all screw connections.

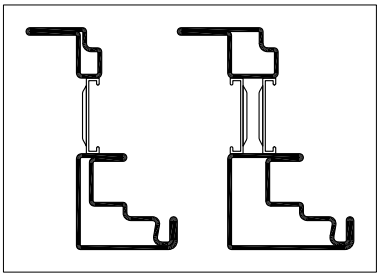


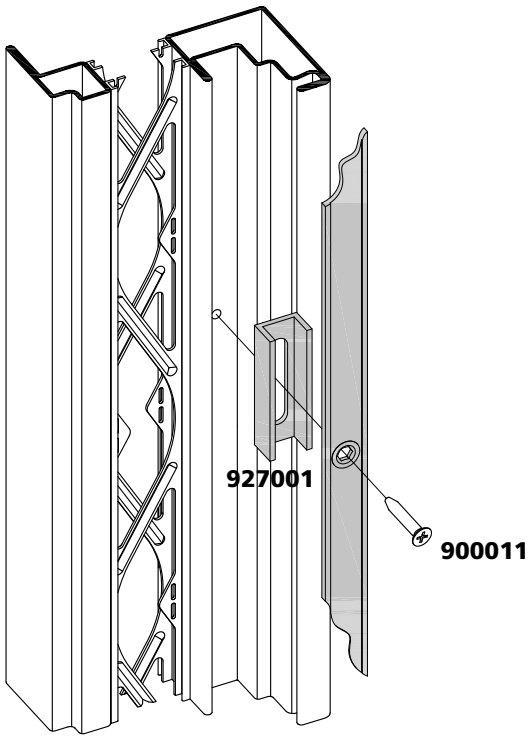
Senk-Schraube M5 x 40 (Wird mit Griffen **987300**, **987301 und 987302** mitgeliefert).

Vis conique M5 x 40 (livrées avec les poignées **987300**, **987301 et 987302**).

Countersunk screw M5 x 40 (supplied with handles **987300**, **987301 and 987302**).

Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter préalablement l'usinage pour la crémone de fenêtre dans le montant du vantail!
Make the cut-out for the drive in the vertical leaf profile first!





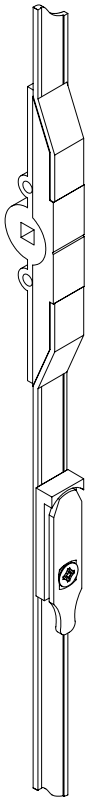
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau
1-flügeliges Fenster
Niveau-Schaltsperre

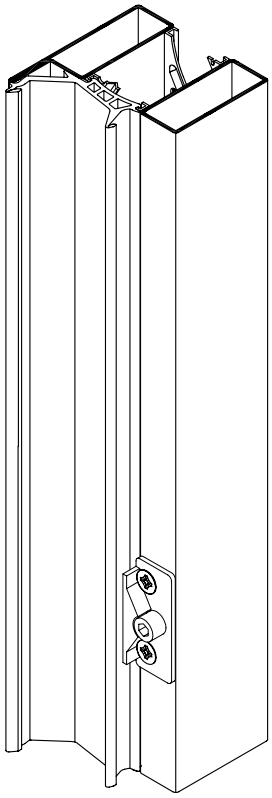
Montage de la quincaillerie
Fenêtre à 1 vantail
Anti-fausse manœuvre

Installation of the fittings
Window 1 leaf
Lifting mishandling device

GH 311 - 800

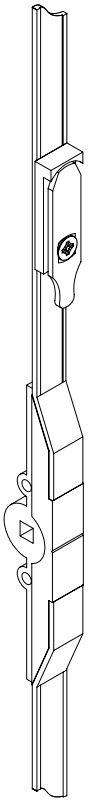


DK-Getriebe
Crémone oscillo-battant
Turn-tilt drive

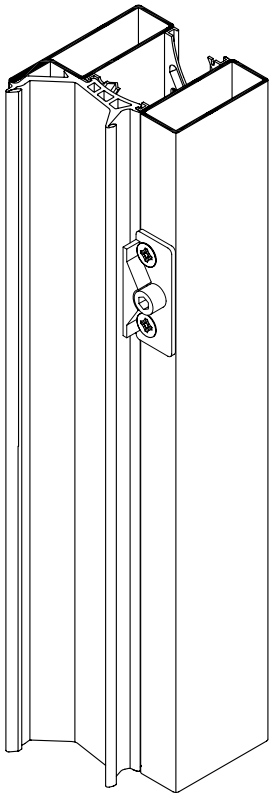


Rahmen
Cadre
Frame

GH 801 - 1200

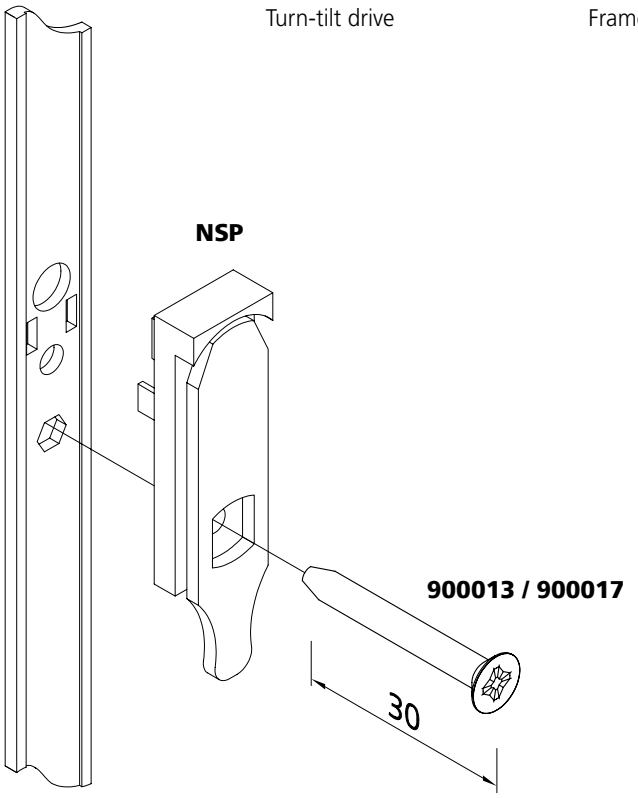


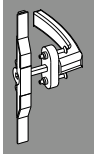
DK-Getriebe
Crémone oscillo-battant
Turn-tilt drive



Rahmen
Cadre
Frame

NSP

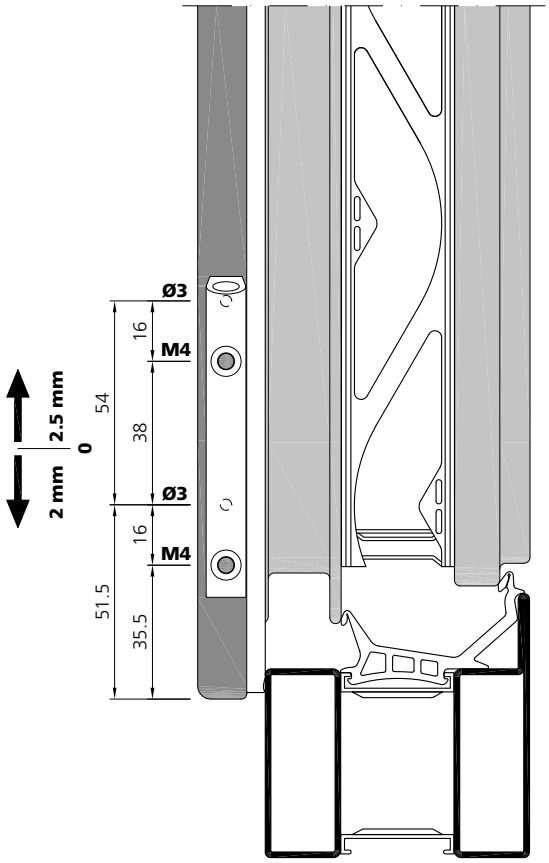


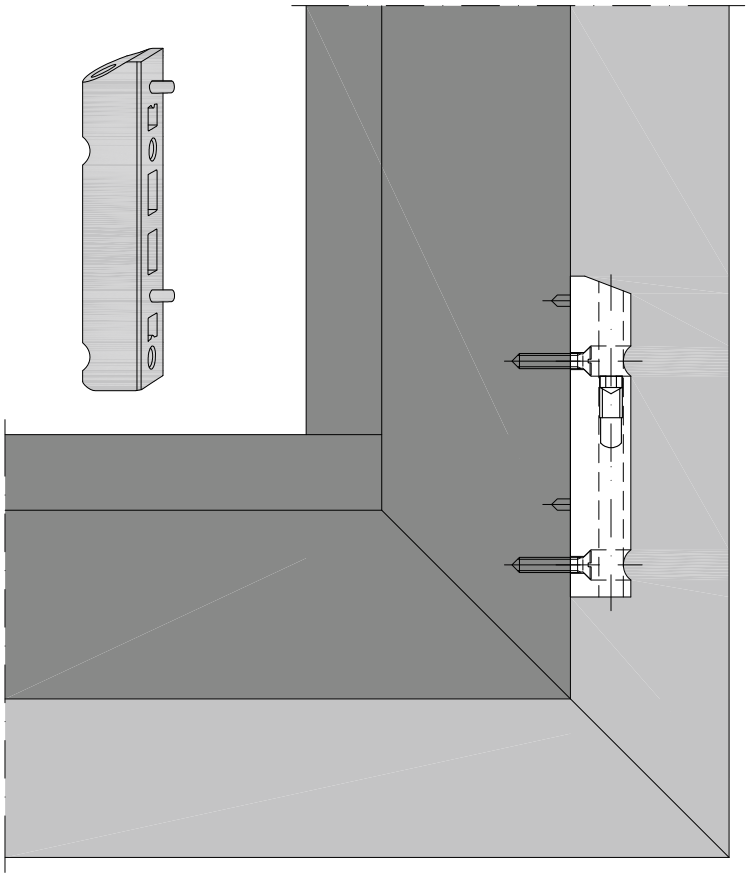


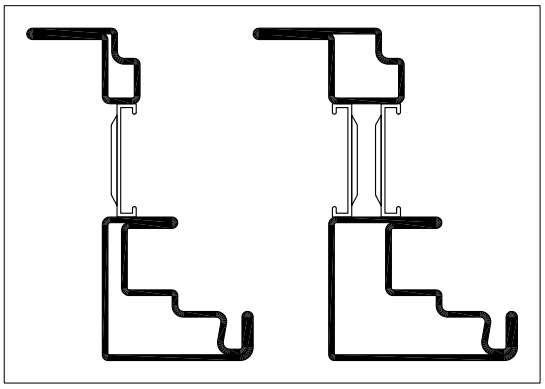
Beschlagseinbau
1-flügeliges Fenster
Eckband

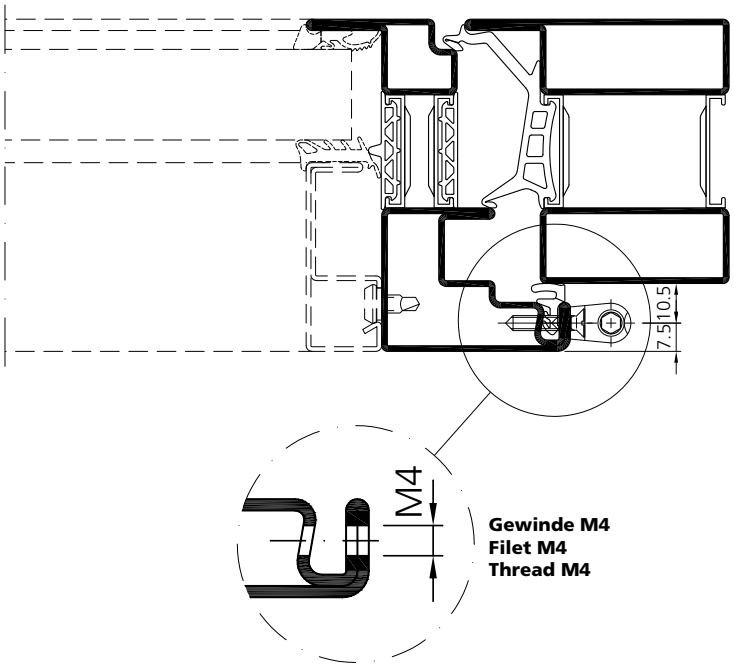
Montage de la quincaillerie
Fenêtre à 1 vantail
Pivot d'angle

Installation of the fittings
Window 1 leaf
Corner hinge









Das Eckband wird durch die Anschlagdichtung **985300** verschraubt.

Le pivot d'angle est vissé à travers le joint de butée **985300**.

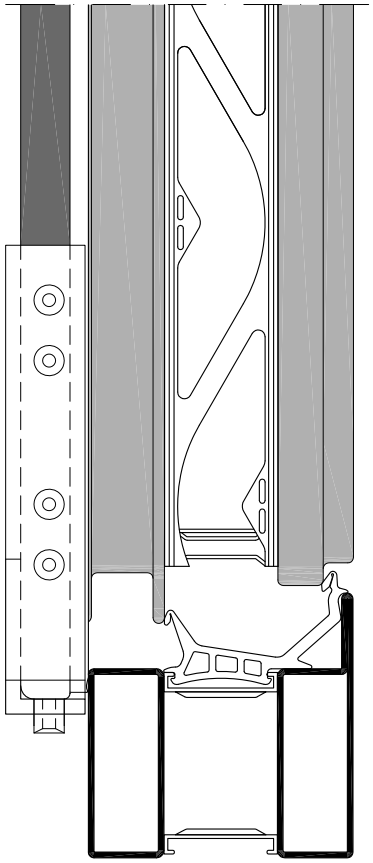
The corner hinge is screwed through the **985300** weatherstripping

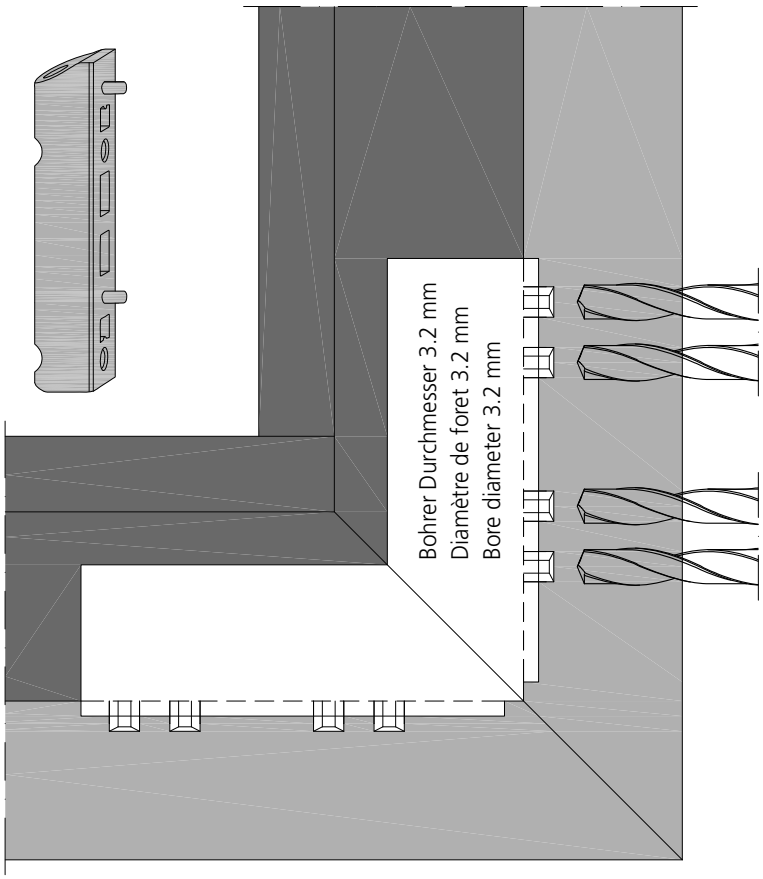
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

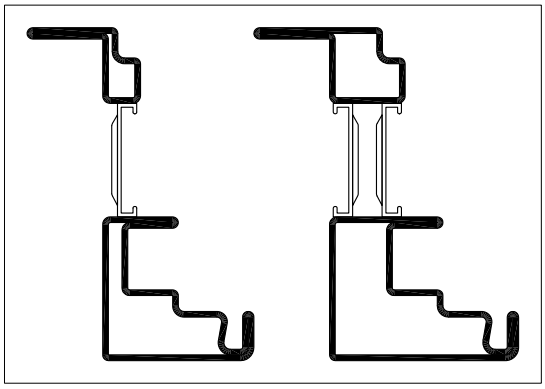
Beschlagseinbau
1-flügeliges Fenster
Eckband

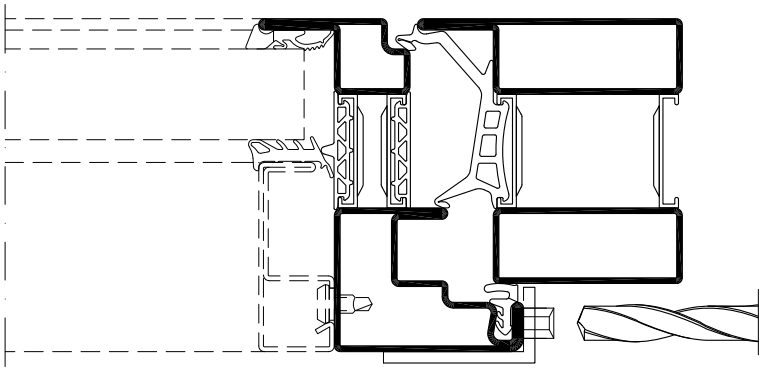
Montage de la quincaillerie
Fenêtre à 1 vantail
Pivot d'angle

Installation of the fittings
Window 1 leaf
Corner hinge









Bohrlehre **Art. Nr. 989102** zu Eckband.

Gabarit de perçage **art. no. 989102** pour pivot d'angle.

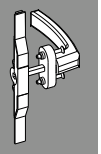
Drilling template **art. no. 989102** for corner hinge.

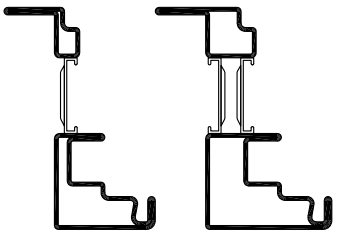
Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

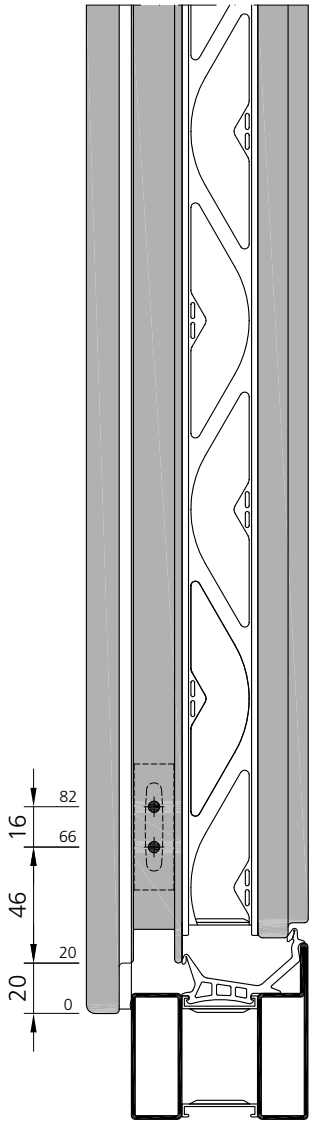
Beschlagseinbau
1-flügeliges Fenster
Ecklager verdeckt

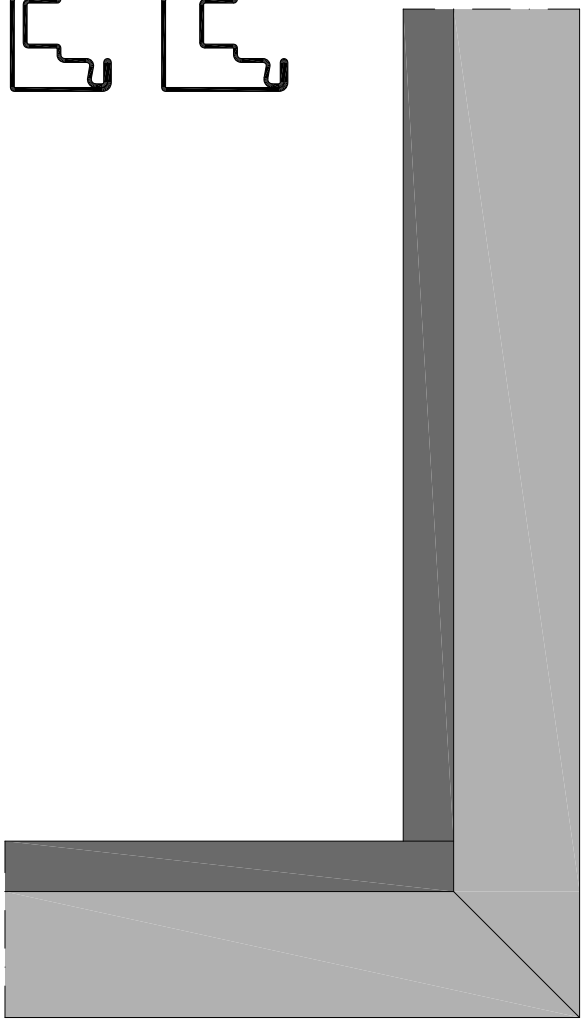
Montage de la quincaillerie
Fenêtre à 1 vantail
Palier d'angle caché

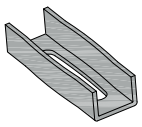
Installation of the fittings
Window 1 leaf
Corner pivot rest concealed



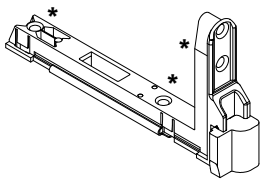


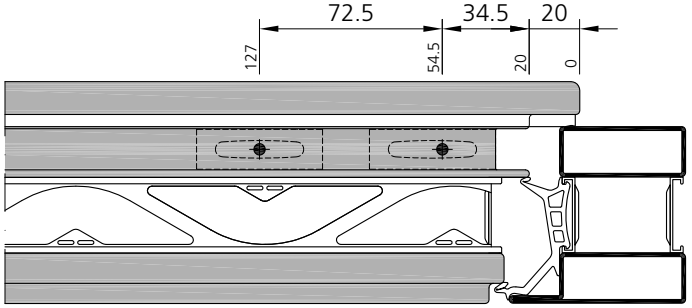






*** 927028 / 927001**
Beim Vorbohren berücksichtigen!
Tenir compte au pré-perçage!
Consider for pre-drilling!





Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau 1-flügeliges Fenster

Einsatz der Forster Bohrlehren für den Standard Beschlag auf dem 1. öffnenden Flügel (Gez. DIN links, DIN rechts spiegelbildlich)

FFH 520 - 2400 mm

Montage de la quincaillerie Fenêtre à 1 vantail

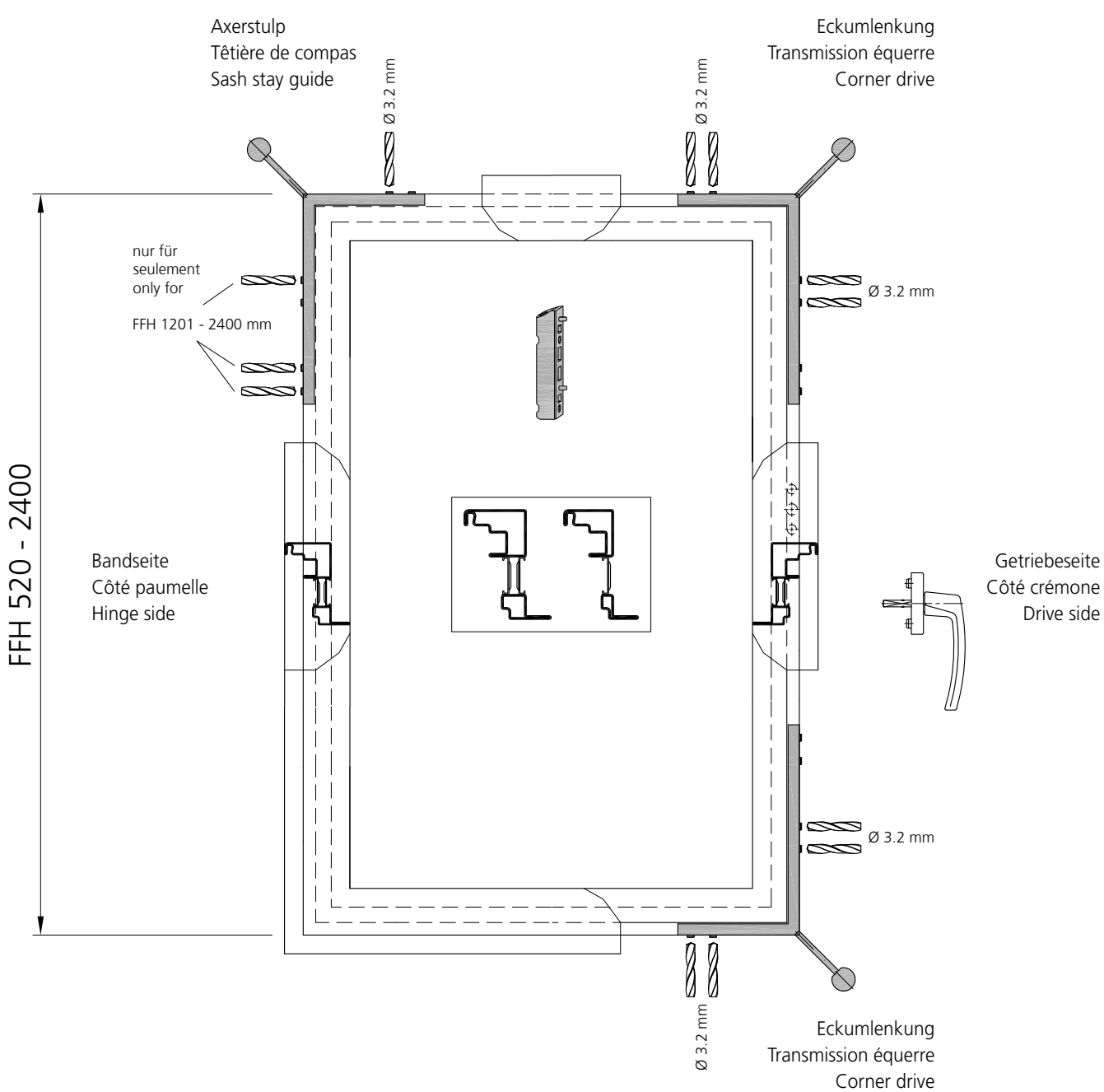
Utilisation des gabarits de perçage Forster pour la quincaillerie standard sur le vantail principal (Dessiné DIN gauche, DIN droite symétrique)

FFH 520 - 2400 mm

Installation of the fittings Window 1 leaf

Use the Forster drilling template for the standard fittings on 1st active leaf (marking DIN left, DIN right mirror image)

FFH 520 - 2400 mm



Beschlagseinbau 1-flügeliges Fenster

Einsatz der Forster Bohrlehren für den Standard Beschlag auf dem 1. öffnenden Flügel (Gez. DIN links, DIN rechts spiegelbildlich)

FFH 520 - 2400 mm

Montage de la quincaillerie Fenêtre à 1 vantail

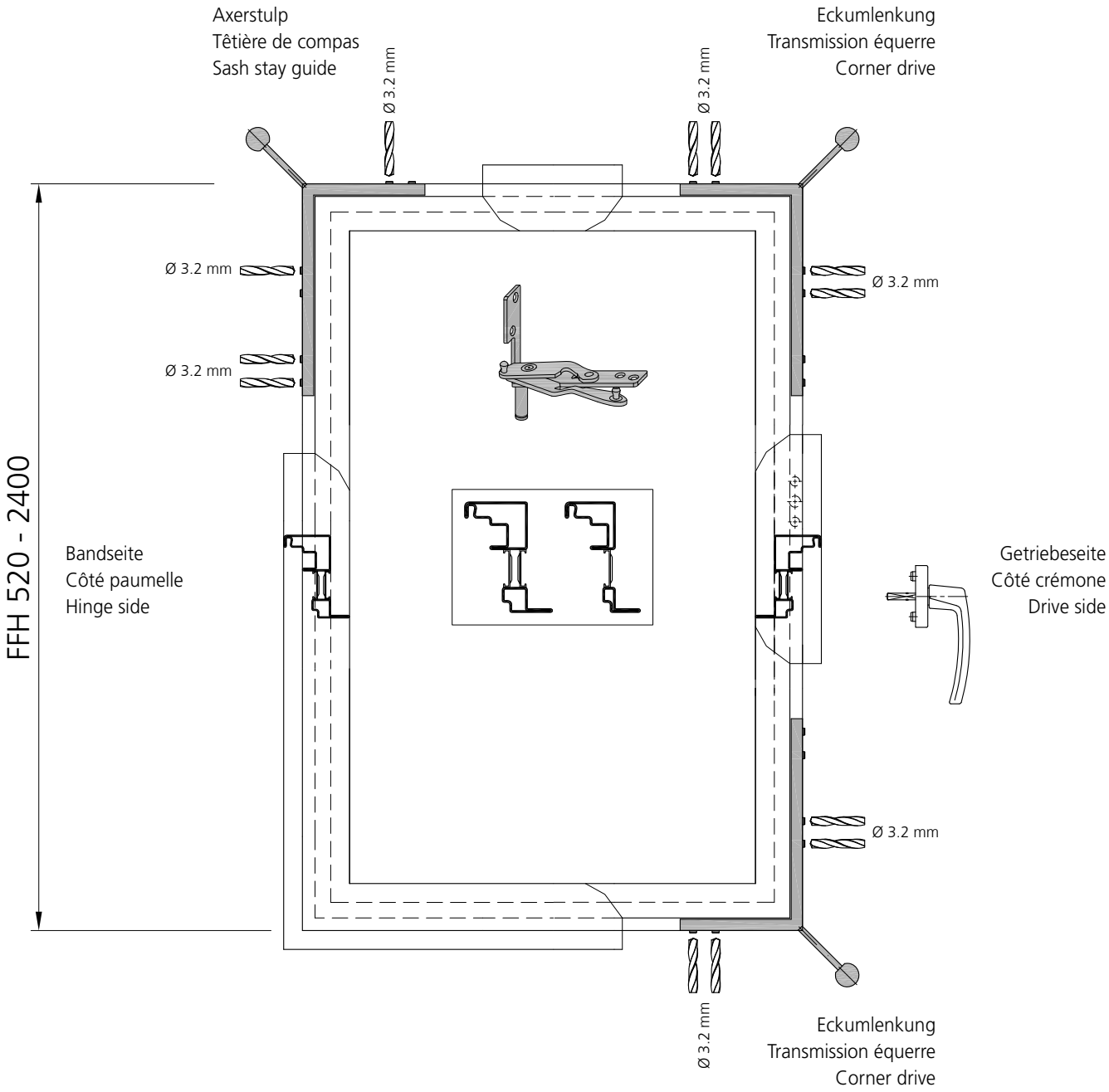
Utilisation des gabarits de perçage Forster pour la quincaillerie standard sur le vantail principal (Dessiné DIN gauche, DIN droite symétrique)

FFH 520 - 2400 mm

Installation of the fittings Window 1 leaf

Use the Forster drilling template for the standard fittings on 1st active leaf (marking DIN left, DIN right mirror image)

FFH 520 - 2400 mm

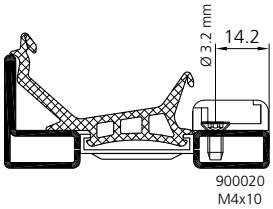


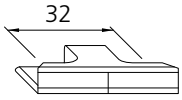
Beschlagseinbau
1-flügeliges Fenster
Beschlag aufgesetzt

Montage de la quincaillerie
Fenêtre à 1 vantail
Quincaillerie standard

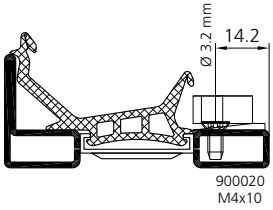
Installation of the fittings
Window 1 leaf
Standard fittings

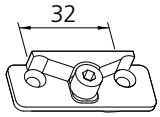
Schliessstück
Gâche
Striker



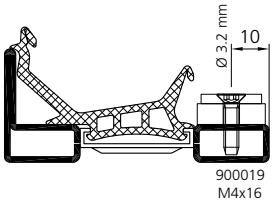


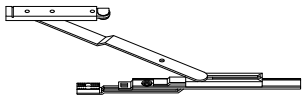
Niveau-Schaltsperre Flügelteil
Anti-fausse manoeuvre partie ouvrant
Lifting mishandling device sash component



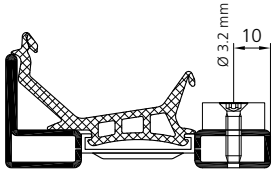


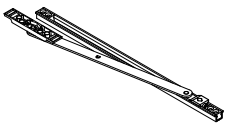
Zweitschere
Deuxième compas
Additional scissors-stay



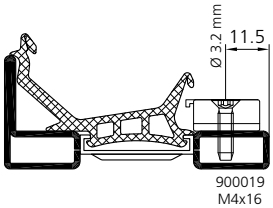


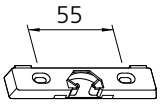
Drehbegrenzer
Limitateur d`ouverture
Leaf opening restrictor



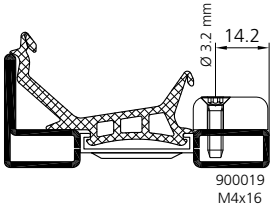


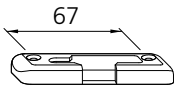
Schnäpperzapfen
Blocage à pion
Bullet catch

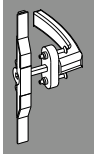




Kipplager
Gâche de basculement
Tilt-turn striker





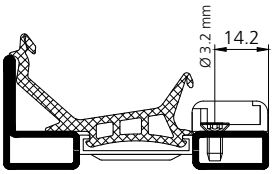


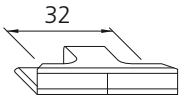
Beschlagseinbau
1-flügeliges Fenster
Verdeckt liegender Beschlag

Montage de la quincaillerie
Fenêtre à 1 vantail
Quincaillerie cachée

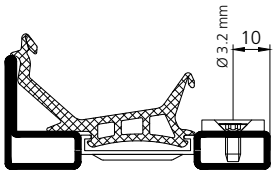
Installation of the fittings
Window 1 leaf
Concealed fittings

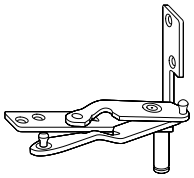
Schliessstück
Gâche
Striker



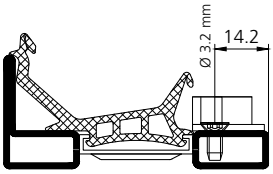


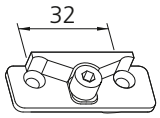
Ecklager verdeckt
Palier d`angle caché
Corner pivot rest concealed



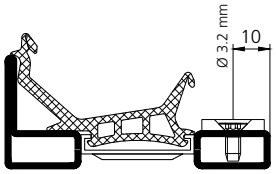


Niveau-Schaltsperre Flügelteil
Anti-fausse manoeuvre partie ouvrant
Lifting mishandling device sash component



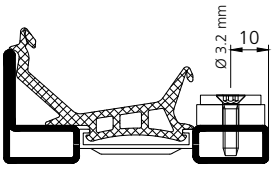


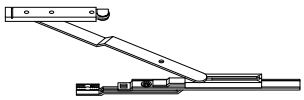
Axerarm verdeckt
Bras de compas caché
Sash stay arm concealed



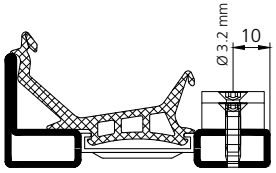


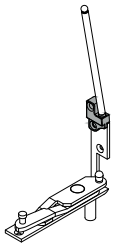
Zweitschere
Deuxième compas
Additional scissors-stay



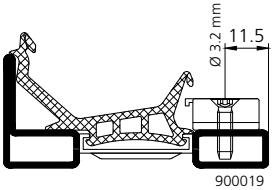


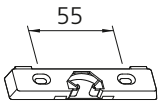
Lastabtragung
Axe de pivotement
Load transfer



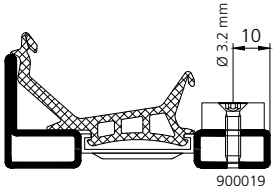


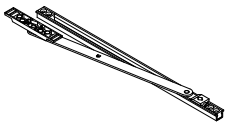
Schnäpperzapfen
Blocage à pion
Bullet catch



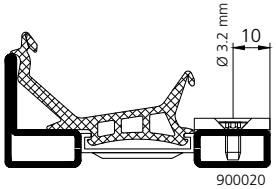


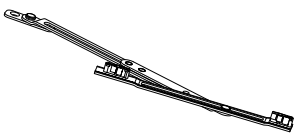
Drehbegrenzer
Limitateur d`ouverture
Leaf opening restrictor





Drehbegrenzer
Limitateur d`ouverture
Leaf opening restrictor

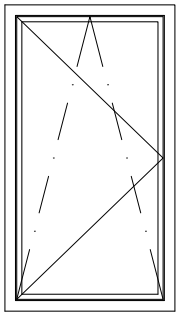


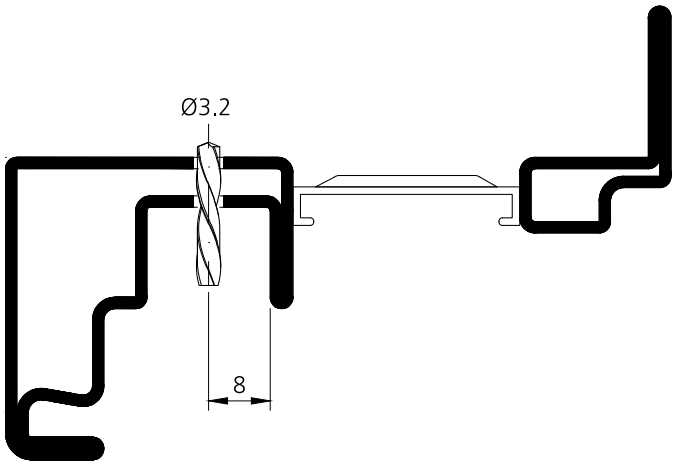


Beschlagseinbau
1-flügeliges Fenster

Montage de la quincaillerie
Fenêtre à 1 vantail

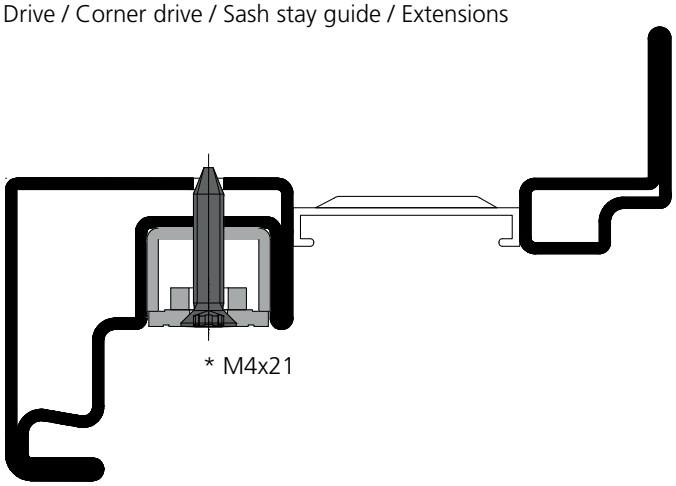
Installation of the fittings
Window 1 leaf





Befestigung / Montage / Mounting

Getriebe / Eckumlenkung / Axerstulp / Verlängerungen
Crémone / Transmission équerre / Têtière de compas / Extensions
Drive / Corner drive / Sash stay guide / Extensions

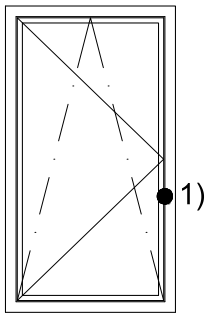


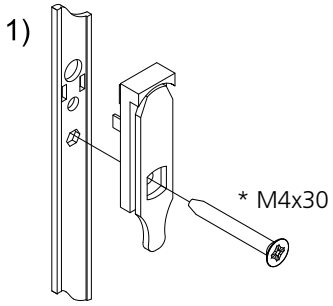
* in der Garnitur enthalten / comprises dans la garniture / included in the fittings set

Beschlagseinbau
1-flügeliges Fenster
Niveau-Schaltsperre

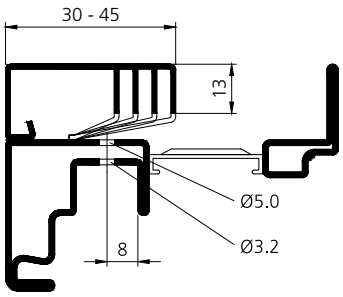
Montage de la quincaillerie
Fenêtre à 1 vantail
Anti-fausse manoeuvre

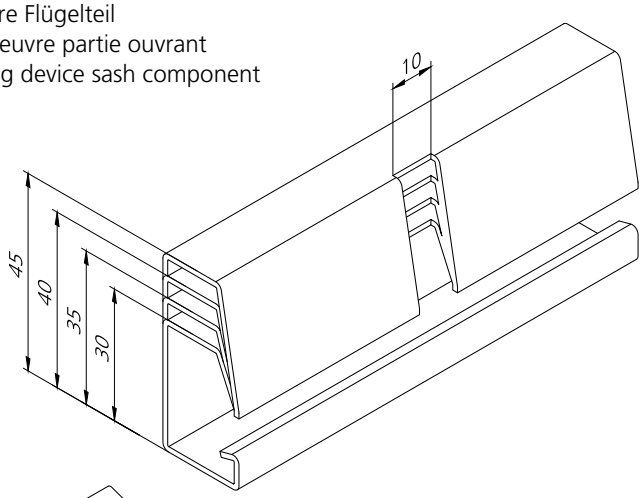
Installation of the fittings
Window 1 leaf
Lifting mishandling device



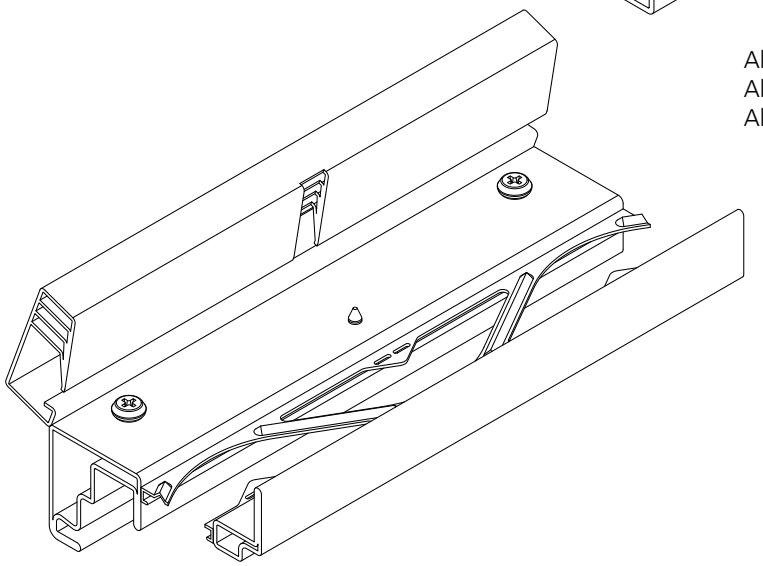


1) Niveau-Schaltsperre Flügelteil
Anti-fausse manoeuvre partie ouvrant
Lifting mishandling device sash component





Alternativ: Schrauben kürzen
Alternative: couper les vis
Alternative: shorten screws



* in der Garnitur enthalten / comprises dans la garniture / included in the fittings set

Beschlagseinbau 1-flügeliges Fenster

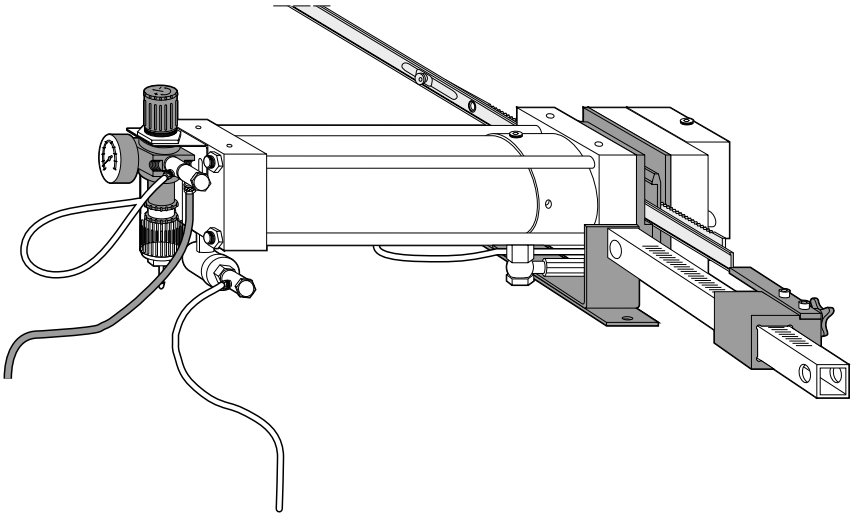
Ablängen mit pneumatischer Stanze (Lochstanzung)

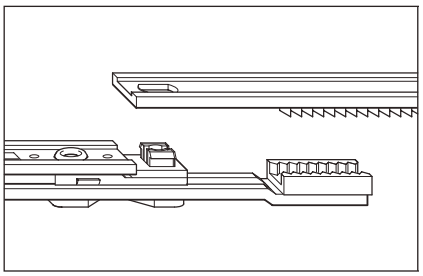
Montage de la quincaillerie Fenêtre à 1 vantail

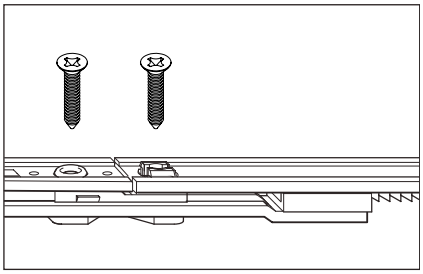
Couper à la longueur requise avec un dispositif de poinçonnage pneumatique

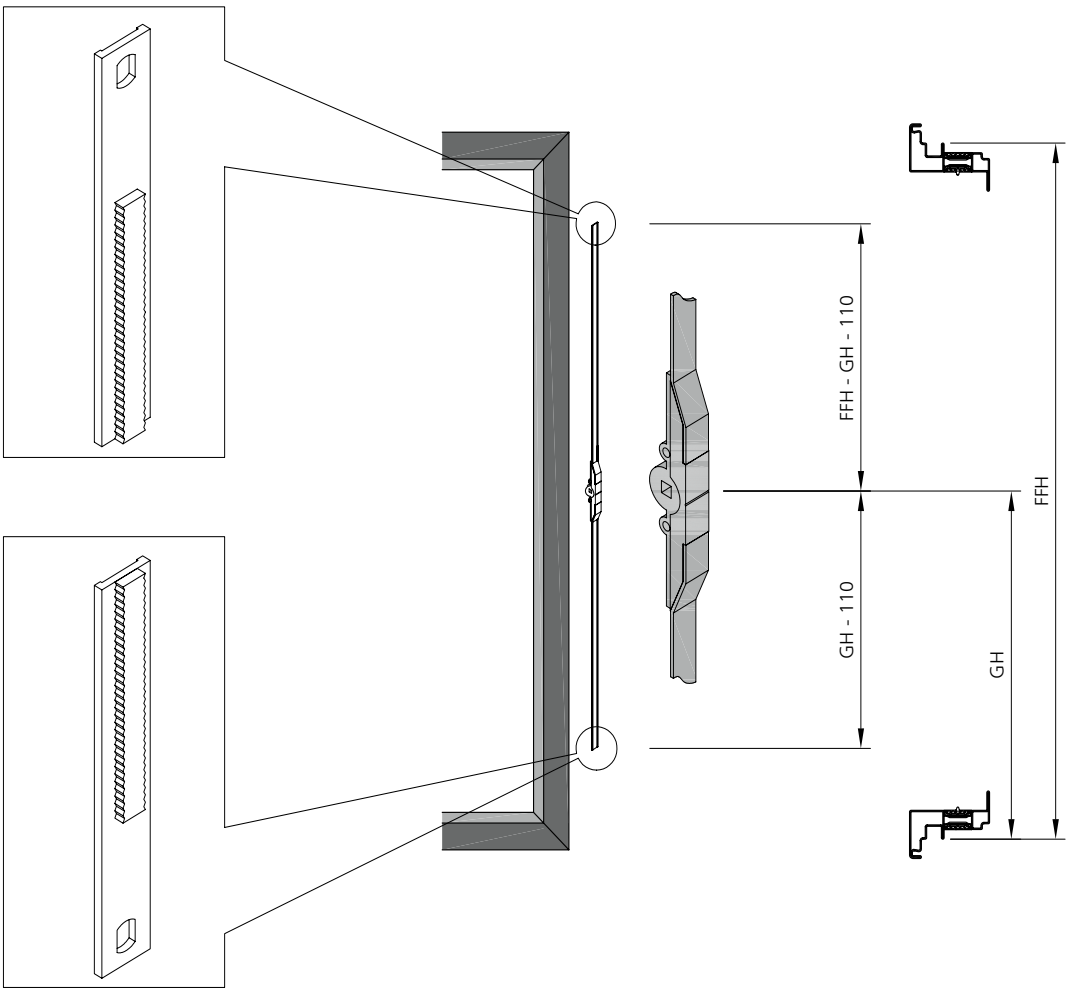
Installation of the fittings Window 1 leaf

Cut to length with a pneumatic punch tool (hole puncher)









Beschlagseinbau 1-flügeliges Fenster

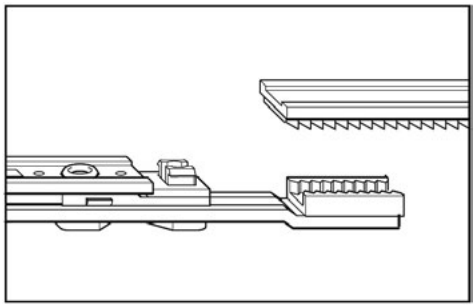
Ablängen mit Säge und Einsatz mit Verbindungslasche

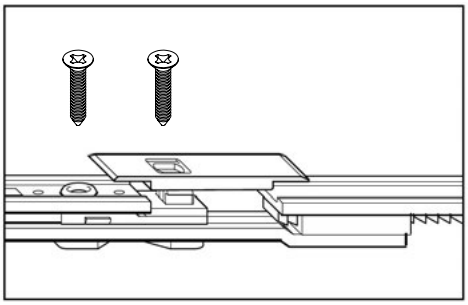
Montage de la quincaillerie Fenêtre à 1 vantail

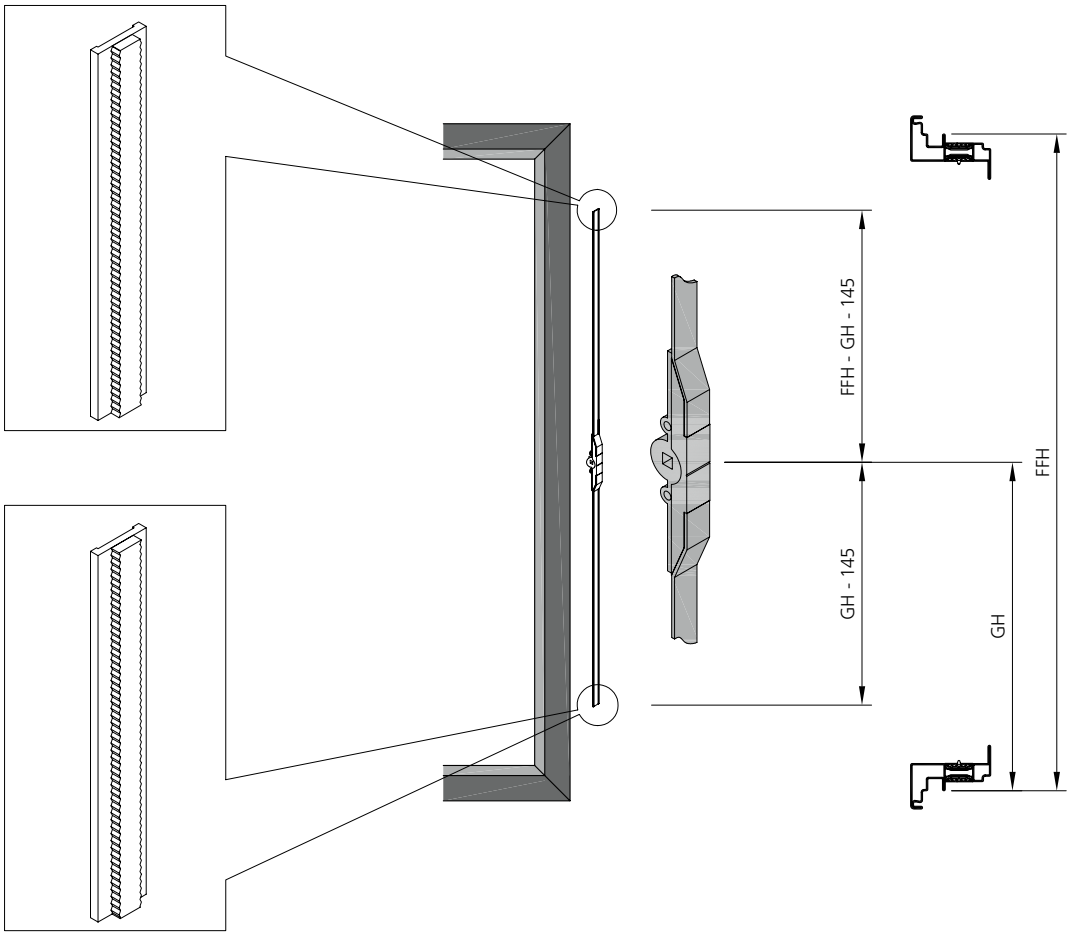
Couper à la longueur requise avec une scie et monter avec une plaque de liaison

Installation of the fittings Window 1 leaf

Cut to length with saw and use with connecting link





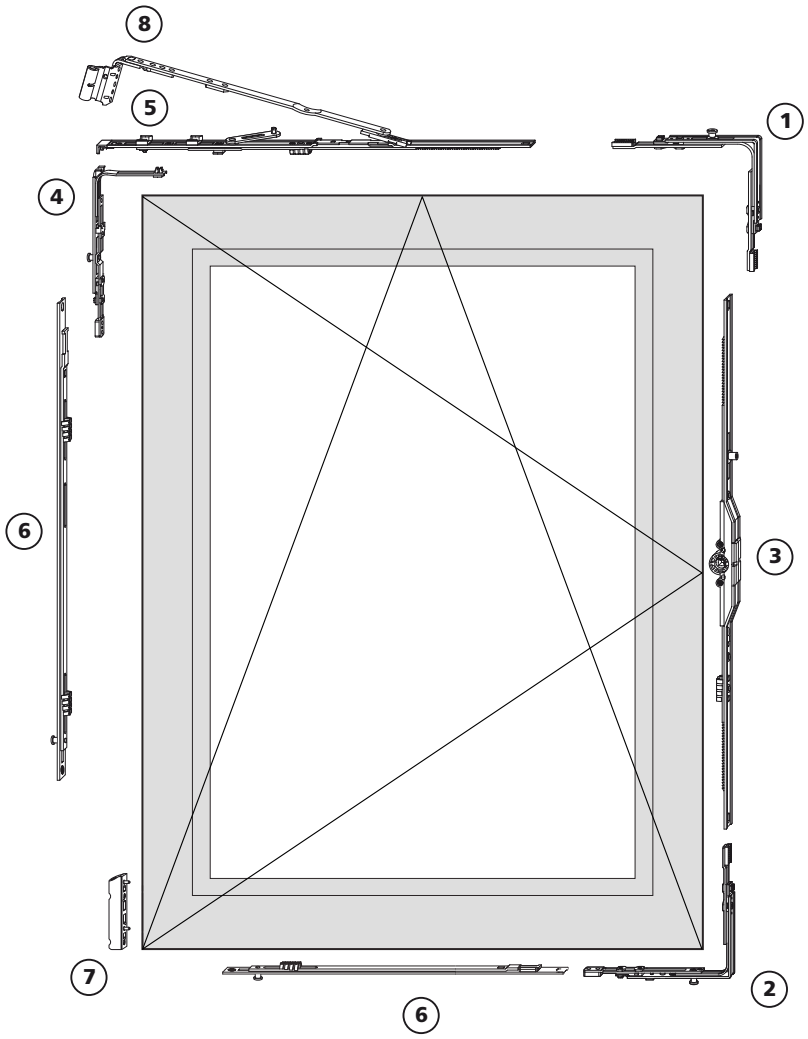


Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau
1-flügeliges Fenster
Einbauablauf
(Vorschlag)

Montage de la quincaillerie
Fenêtre à 1 vantail
Ordre de montage
(proposition)

Installation of the fittings
Window 1 leaf
Installation process
(proposal)



1. Eckumlenkung / Transmission équerre / Corner drive
2. Eckumlenkung / Transmission équerre / Corner drive
3. DK-Getriebe / Cremone OB / Tilt-turn drive
4. Eckumlenkung Axer (FFH 1201 - 2400) / Renvoi d'angle de compas (FFH 1201 - 2400) / Stay corner drive (FFH 1201 - 2400)
5. Axerstulp / Têtière de compas / Sash stay guide
6. Mittelverschluss, senkrecht und waagerecht (FFH 1201 - 2400 / FFB 1201 - 1600)
   Extension horizontale et verticale (FFH 1201 - 2400 / FFB 1201 - 1600)
   Extension horizontal and vertical (FFH 1201 - 2400 / FFB 1201 - 1600)
7. Eckband K / Pivot d'angle K / Corner hinge K
8. Axerarm / Compas / Sash stay arm

Beschlagseinbau 1-flügeliges Fenster

Montage de la quincaillerie Fenêtre à 1 vantail

Installation of the fittings Window 1 leaf

Kippweiten für Dreh-/Drehkippflügel

Plage de basculement pour vantail à ouverture à la française/oscillo-battant

Tilt distances for turn/turn-tilt leaves

Kippweite reduziert (80 mm)

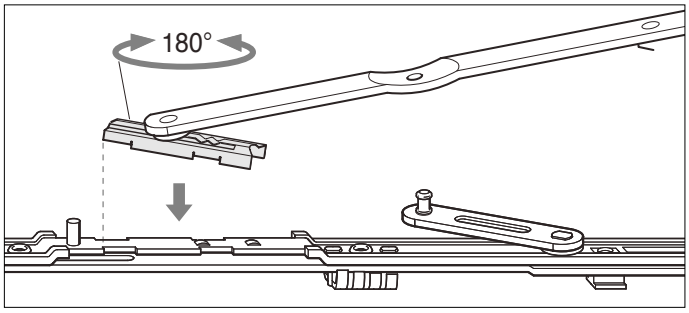
Plage de basculement réduite (80 mm)

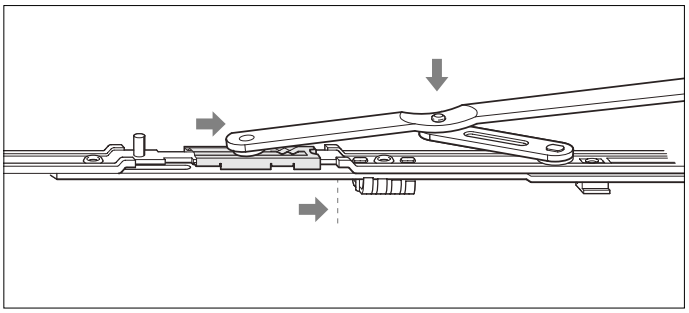
Reduced tilt distances (80 mm)

Zwingend für Flügel mit
FFB: 290 – 410 mm

Obligatoire pour vantail avec
FFB: 290 – 410 mm

Required for leaves with
FFB: 290 – 410 mm

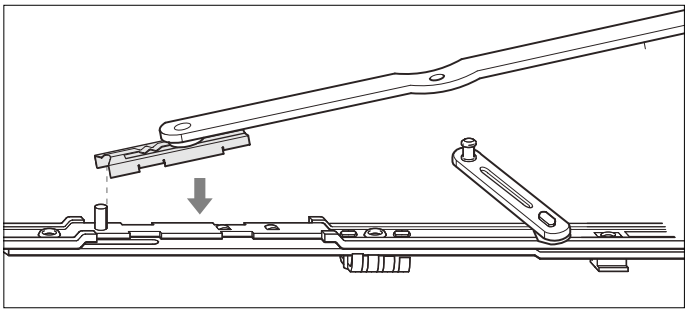


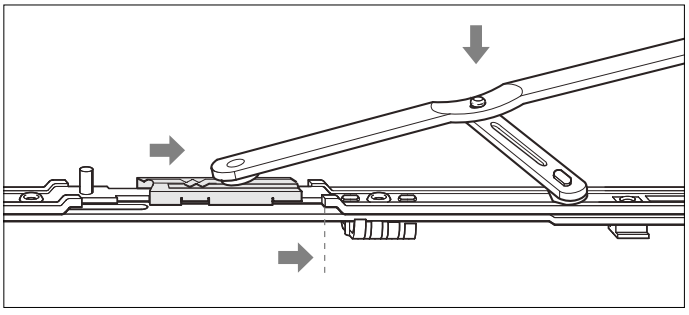


Kippweite Standard (140 mm)

Plage de basculement standard (140 mm)

Standard tilt distances (140 mm)





Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau 1-flügeliges Fenster

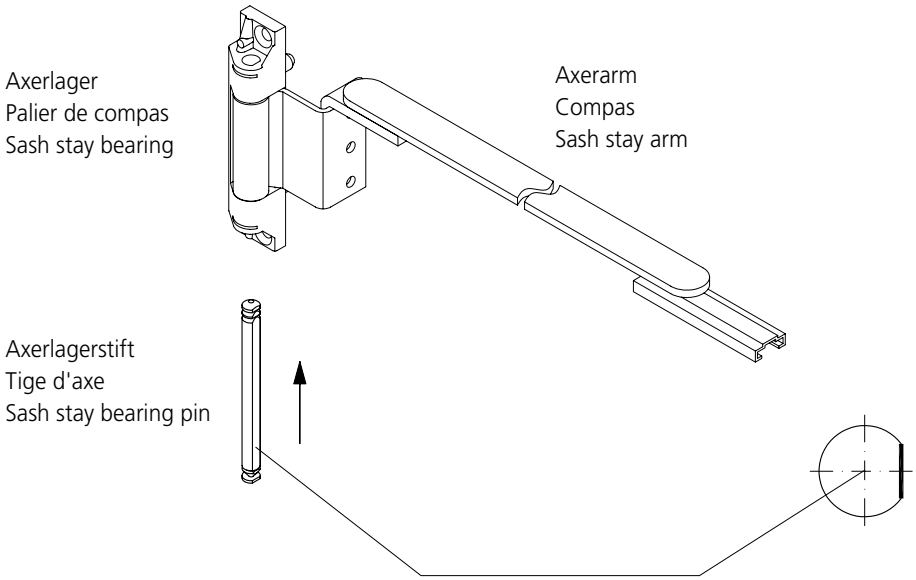
ACHTUNG! Fassung des Axerlagerstiftes beim Einführen in das Axerlager berücksichtigen!

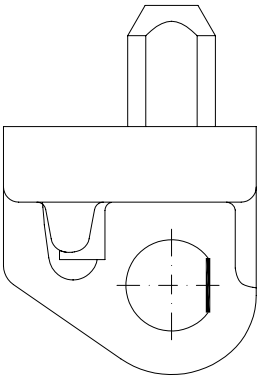
Montage de la quincaillerie Fenêtre à 1 vantail

ATTENTION! Faire attention au sens de montage de la tige du palier de compas lors de l'introduction dans le palier!

Installation of the fittings Window 1 leaf

ATTENTION! Pay attention to the mount of the Axer hinge pin when inserting it into the axer hinge!

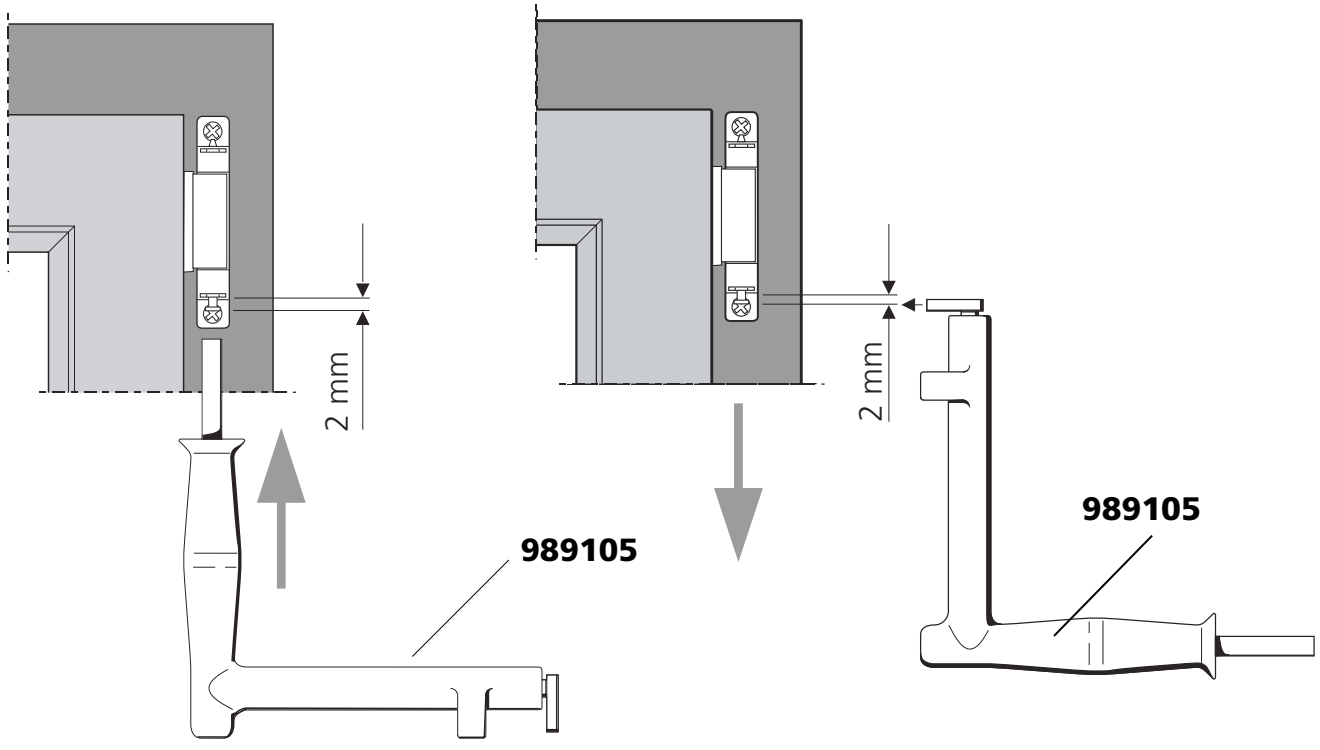




Einhängen des Flügels
Axerlagerstift nur in Verschlussstellung einschiebbar

Accrochage du vantail
Tige de palier de compas pouvant seulement être introduite en position de fermeture

Mounting the leaf
The sash stay bearing pin can only be inserted in lock position



Beschlagseinbau 1-flügeliges Fenster

Umstellung der Öffnungsart von Drehkipp auf Dreh.

Die Änderung der Funktion von Drehkipp auf Dreh wird mit Hilfe des Hubbegrenzers ausgeführt.
Dieser wird beim Schliesszapfen der unteren Eckumlenkung eingesetzt.
Somit kann auch jederzeit die Funktion von Dreh auf Drehkipp durch Entfernen des Hubbegrenzers zurückgestellt werden.

Montage de la quincaillerie Fenêtre à 1 vantail

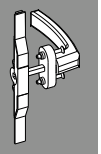
Commutation du type d'ouverture - ouverture oscillo-battant sur ouverture à la française.

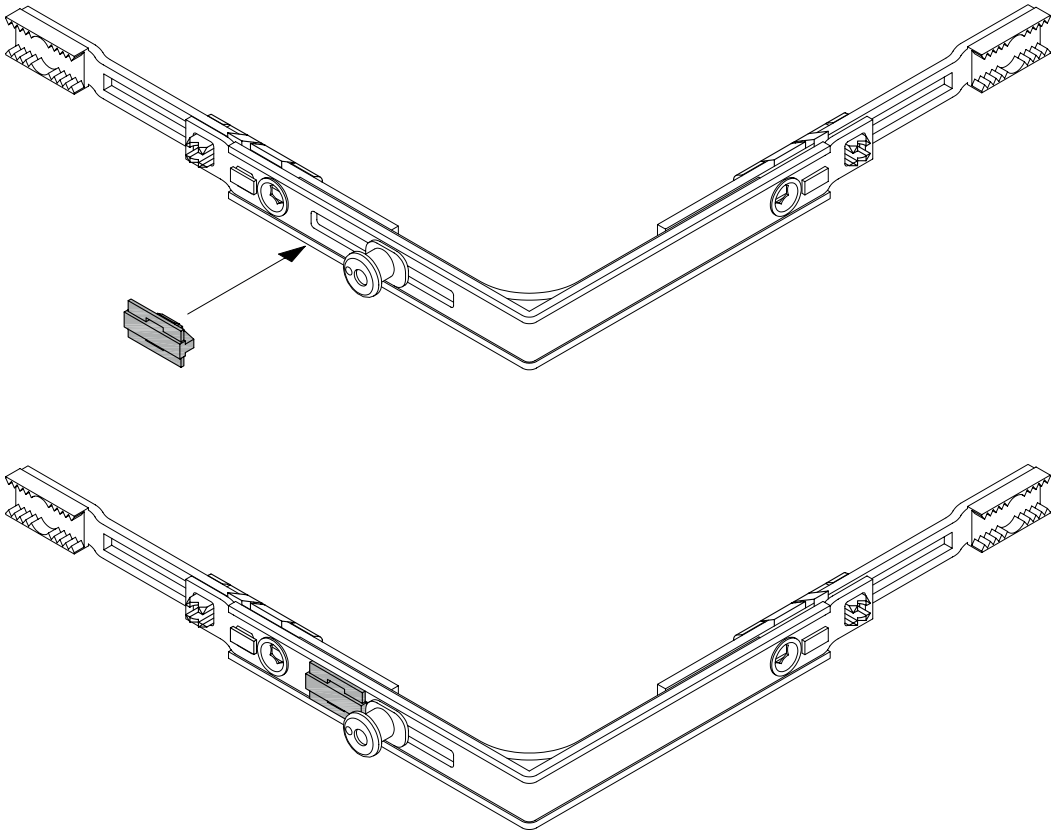
La modification de la fonction ouverture oscillo-battant/ouverture à la française est exécutée à l'aide du limitateur de course.
Celui-ci est monté dans le tenon de fermeture du renvoi d'angle inférieur.
On peut ainsi modifier à tout moment l'ouverture à la française par l'ouverture oscillo-battant par retrait du limitateur de course.

Installation of the fittings Window 1 leaf

Switching the opening mode from turn-tilt to turn.

Switching the function from turn-tilt to turn is done with the help of the travel restrictor.
It is inserted into the pivot lock in the lower corner guide.
Therefore, the function can be reset from turn to tilt-turn at any time by removing the travel restrictor.





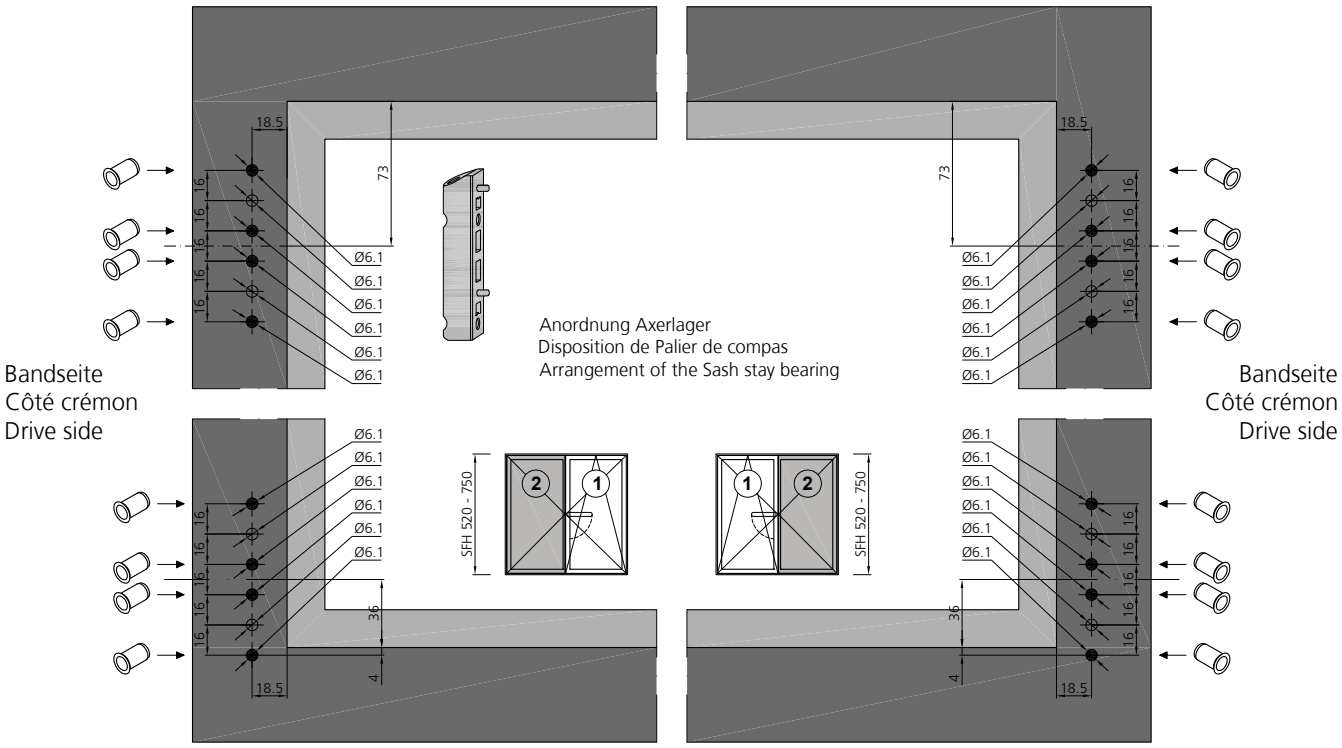
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau 2-flügeliges Fenster

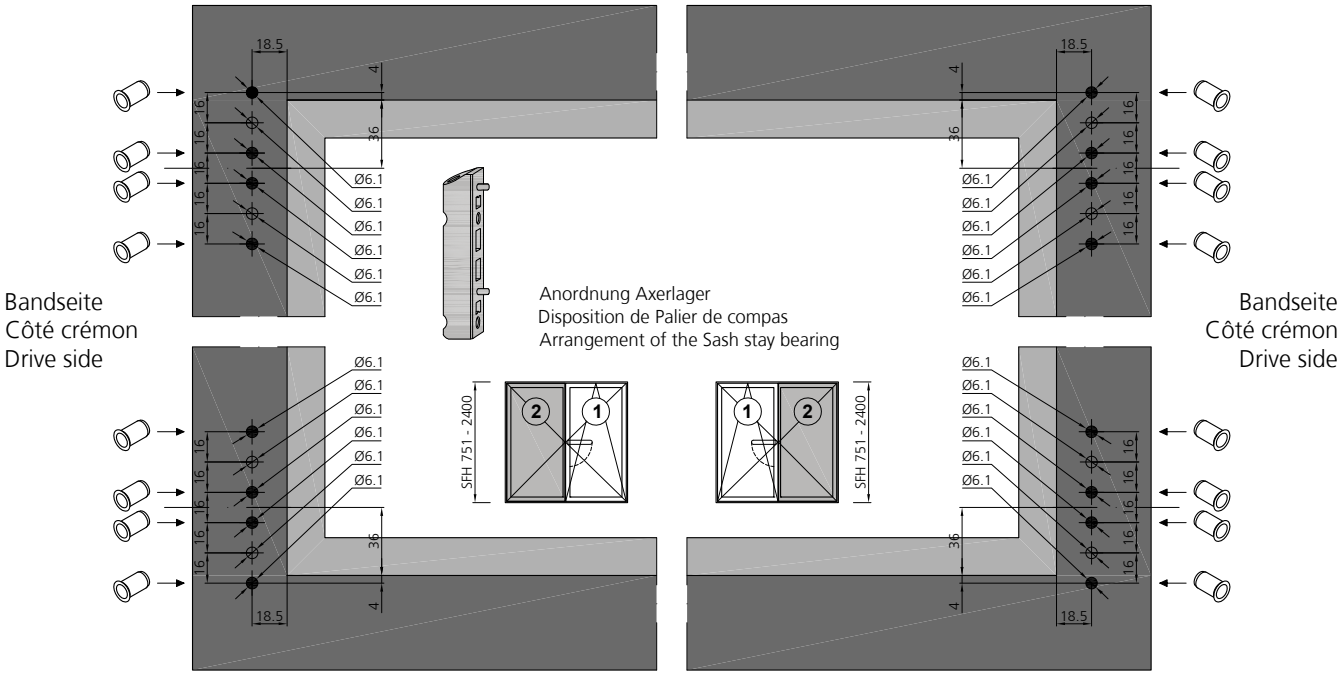
Montage de la quincaillerie Fenêtre à 2 vantaux

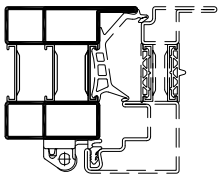
Installation of the fittings Double sash window

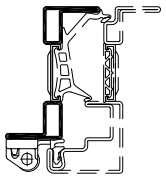
SFH 520 - 750 mm



SFH 751 - 2400 mm



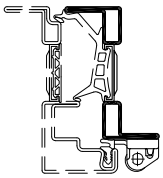


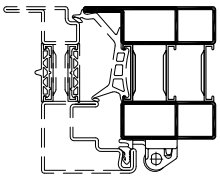


Schrauben mit Loctite (Schraubensicherung) sichern

Sécuriser les vis avec du Loctite

Secure screw with Loctite (screw adhesive)

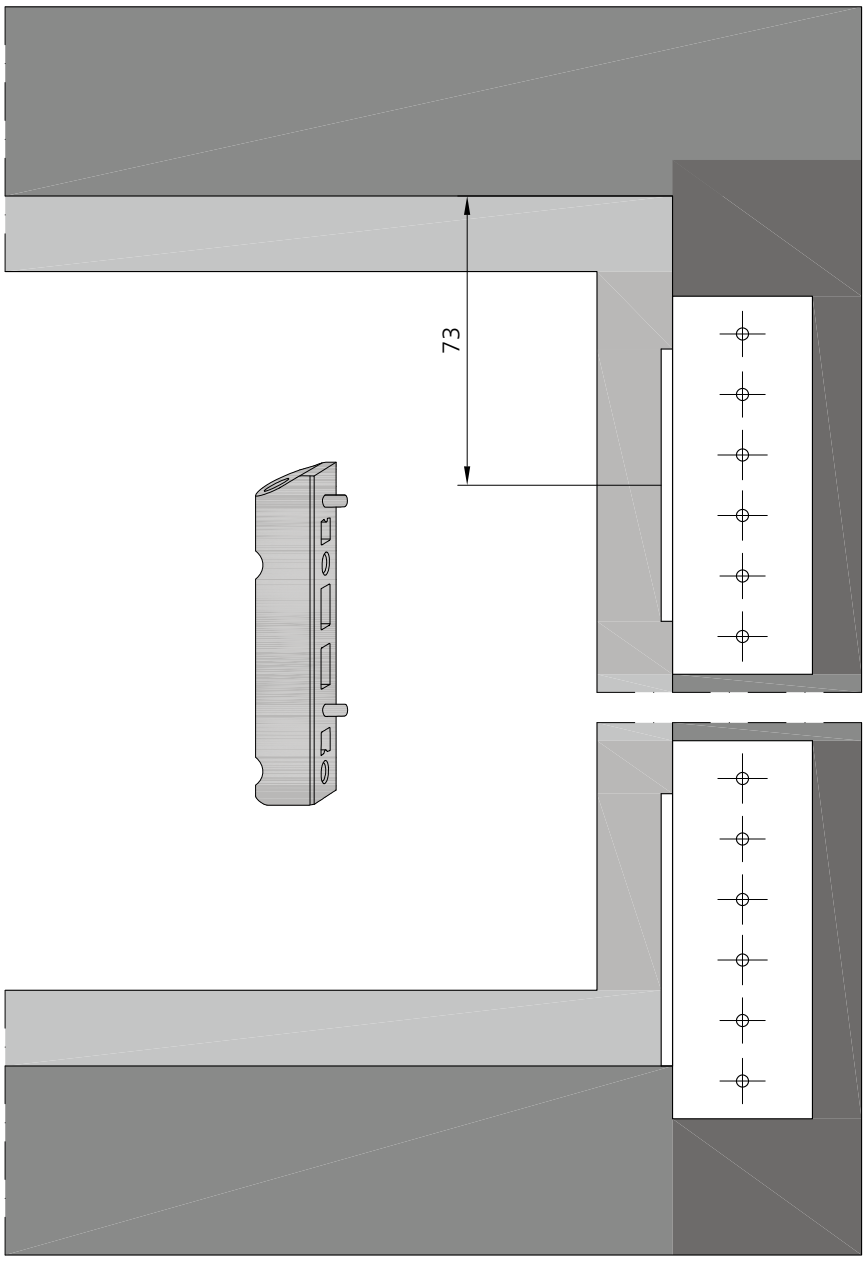


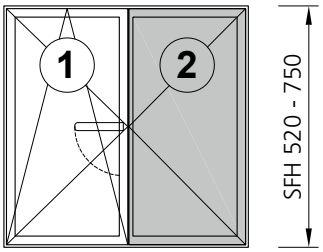


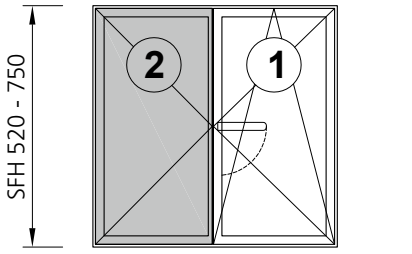
Beschlagseinbau
2-flügeliges Fenster
SFH 520 - 750

Montage de la quincaillerie
Fenêtre à 2 vantaux
SFH 520 - 750

Installation of the fittings
Double sash window
SFH 520 - 750



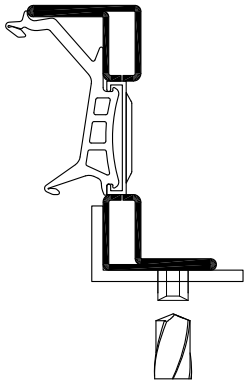


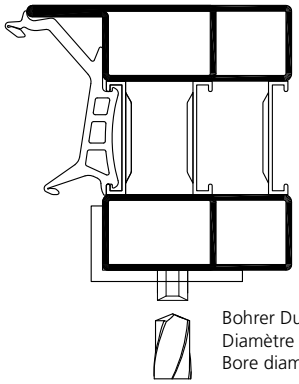


Bohrlehre **Art.Nr 989103**
zu Axer- und Ecklager

Gabarit de perçage **art. no. 989103** pour
palier d'angle et palier de compas

Drilling template **art. no. 989103** for
sash stay bearing and corner pivot rest





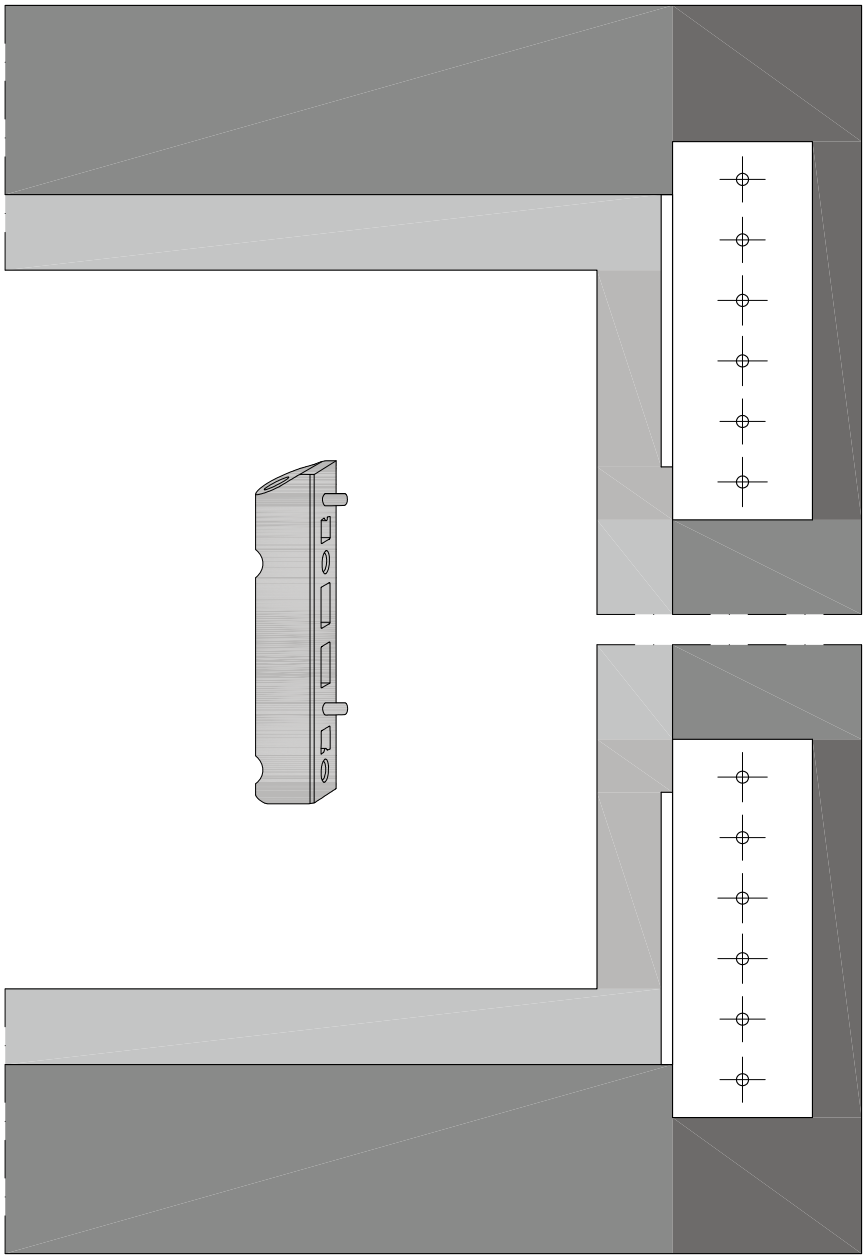
Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau 2-flügeliges Fenster SFH 751 - 2400

Montage de la quincaillerie Fenêtre à 2 vantaux SFH 751 - 2400

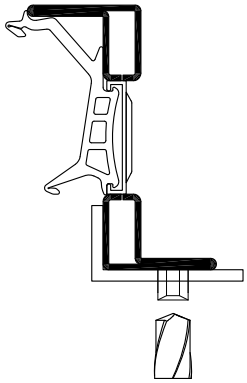
Installation of the fittings Double sash window SFH 751 - 2400

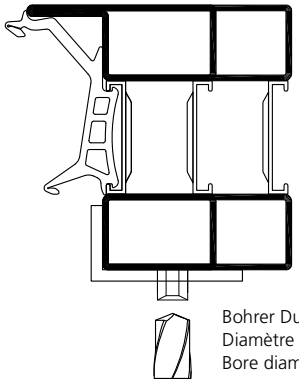


Bohrlehre **Art. Nr. 989103**
zu Axer- und Ecklager

Gabarit de perçage **art. no. 989103** pour palier d'angle et palier de compas

Drilling template **art. no. 989103** for sash stay bearing and corner pivot rest



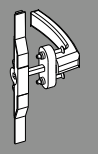


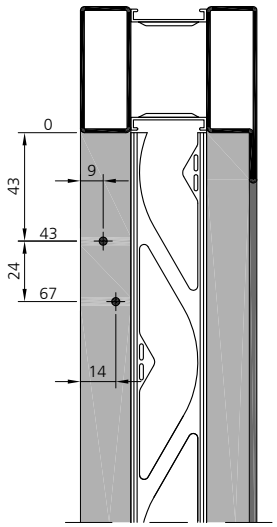
Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

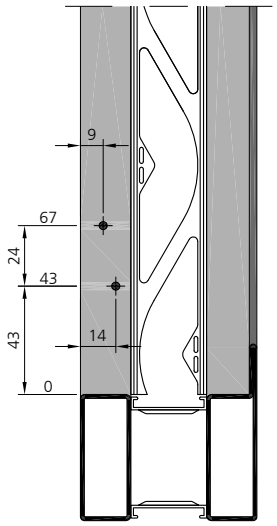
Beschlagseinbau 2-flügeliges Fenster

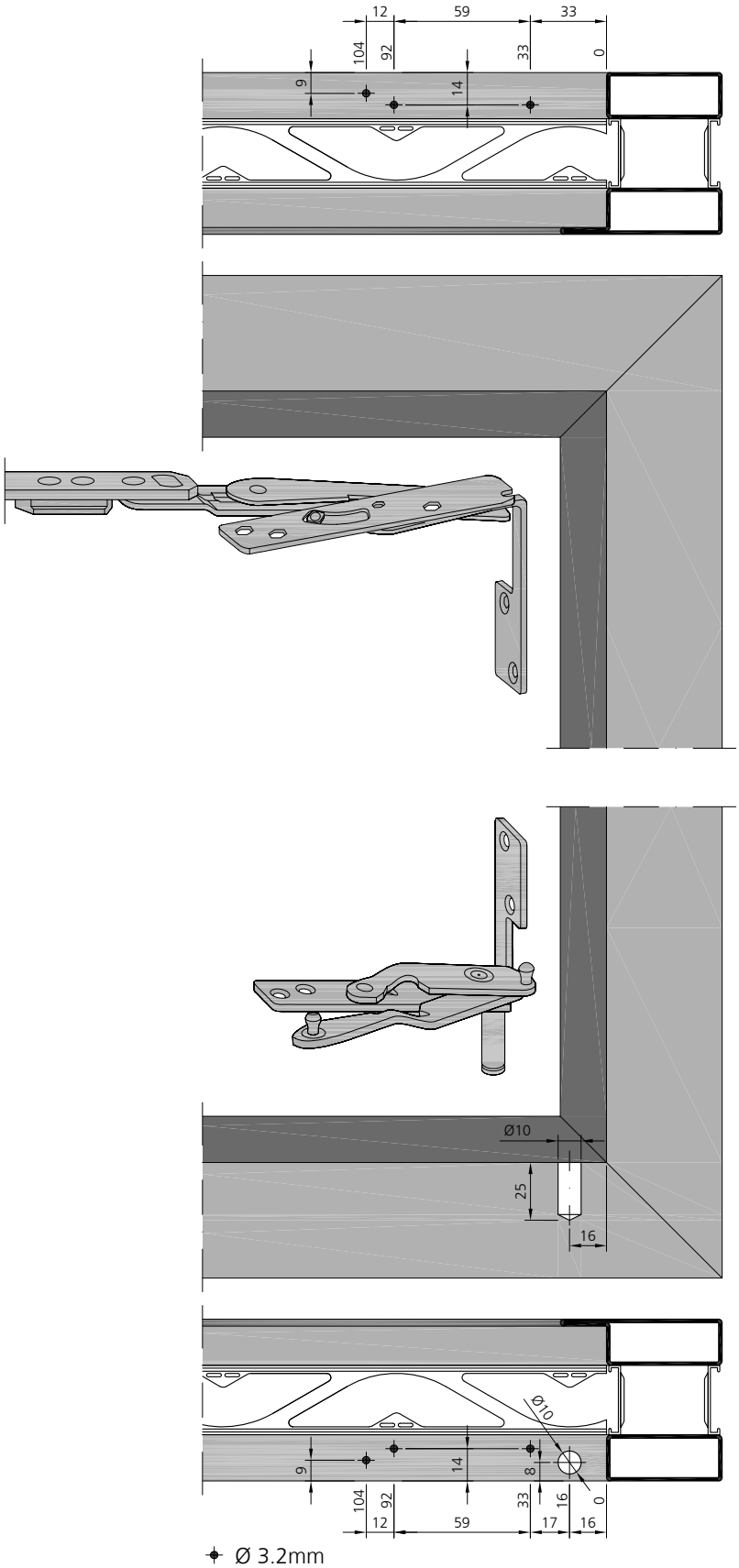
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Double sash window



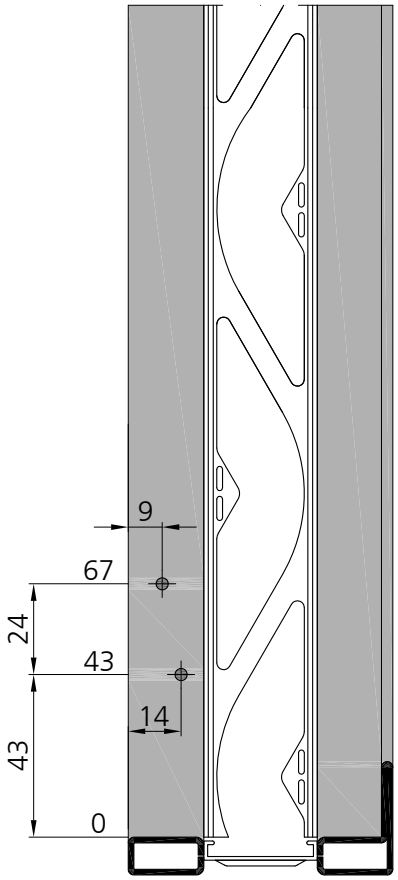




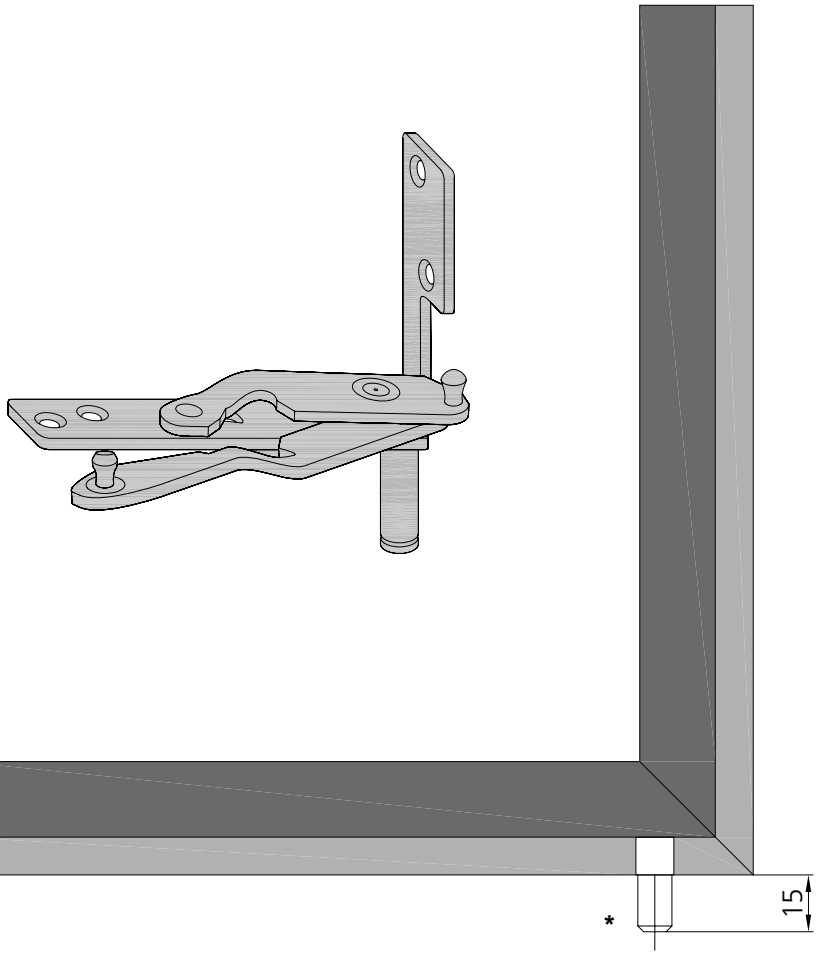


✦ Ø 3.2mm

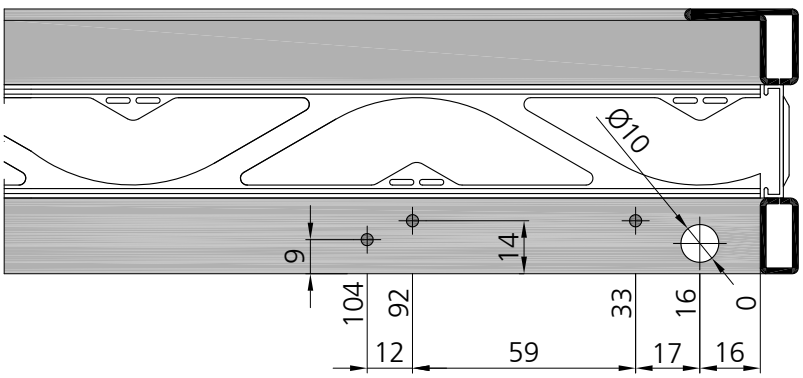
Beschlagseinbau
2-flügeliges Fenster



Montage de la quincaillerie
Fenêtre à 2 vantaux



Installation of the fittings
Double sash window



*** Wichtig** !

Bandzapfen steht im eingebauten Zustand 15 mm vor. Darf nicht abgeschnitten werden!

*** Important** !

A l'état monté, la penture de la paumelle présente une saillie de 15 mm. Ne pas couper!

*** Important** !

When fitted, the hinge pin protrudes by 15 mm. This must not be cut off!

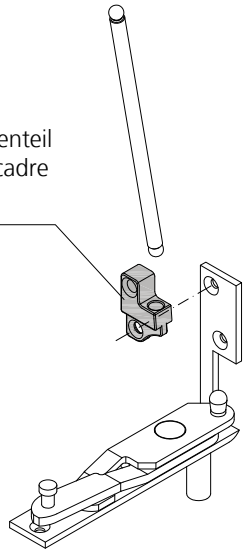
Beschlagseinbau 2-flügeliges Fenster

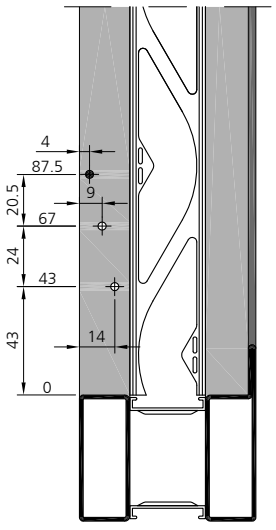
Montage de la quincaillerie Fenêtre à 2 vantaux

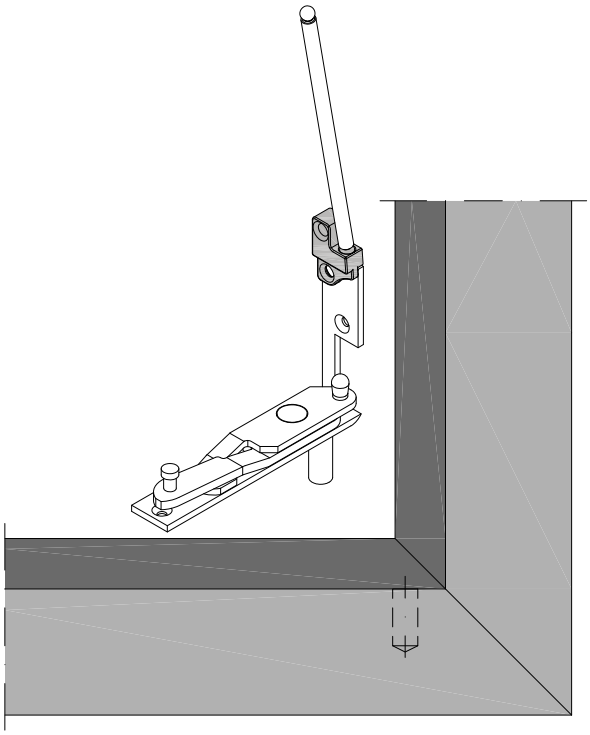
Installation of the fittings Double sash window

Flügelgewicht bis 150 kg
Poids du vantail jusqu'à 150 kg
Leaf weight up to 150 kg

Lastabtragung Rahmenteil
Axe de pivotement, cadre
Load transfer, frame







⌖ Ø 3.2mm

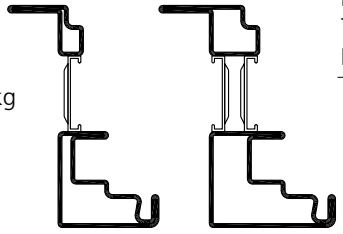
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau 2-flügeliges Fenster

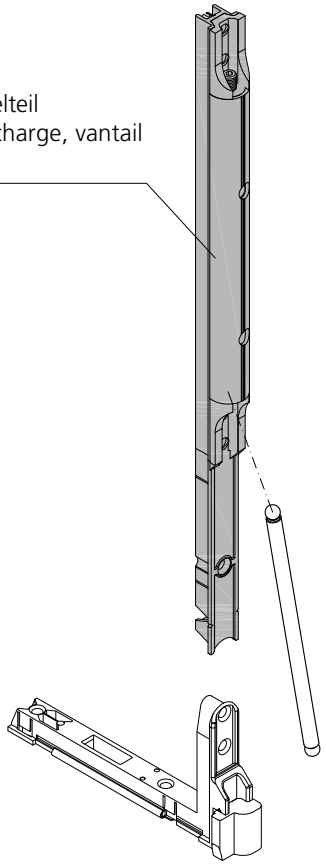
Montage de la quincaillerie Fenêtre à 2 vantaux

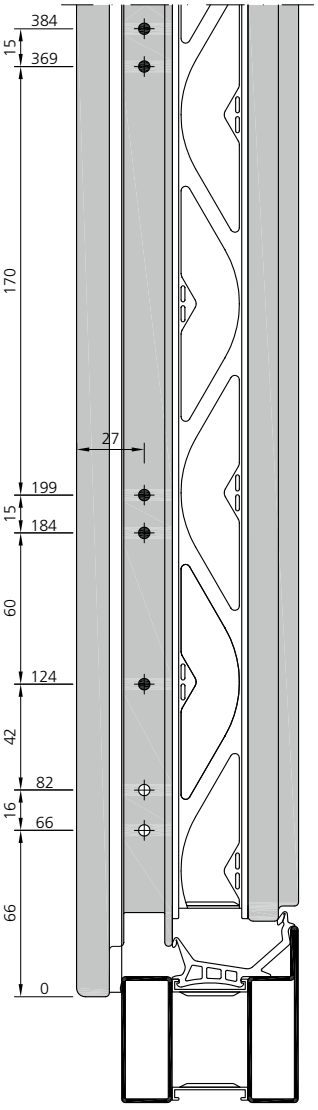
Installation of the fittings Double sash window

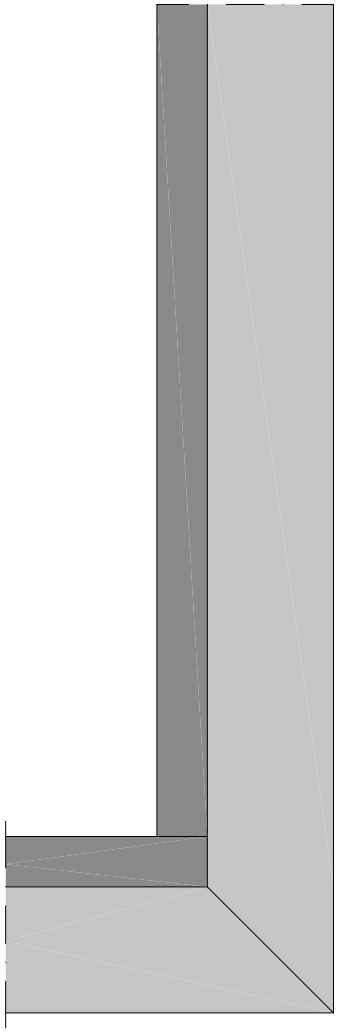
Flügelgewicht von 80 kg bis 150 kg
Poids du vantail de 80 kg jusqu'à 150 kg
Leaf weight from 80 kg up to 150 kg

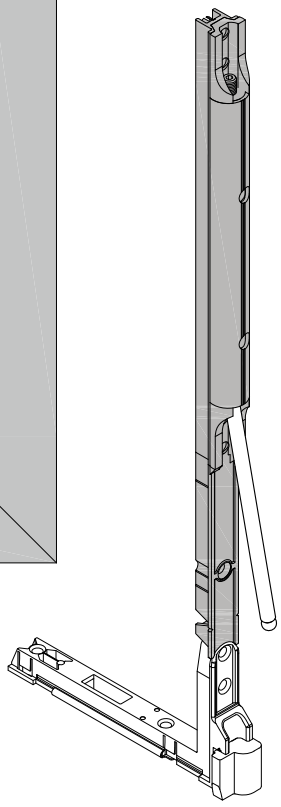


Lastabtragung Flügelteil
Transmission de la charge, vantail
Load transfer, leaf







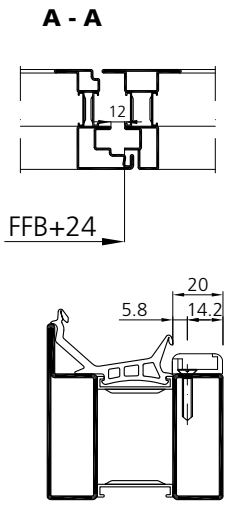


Ø 3.2mm

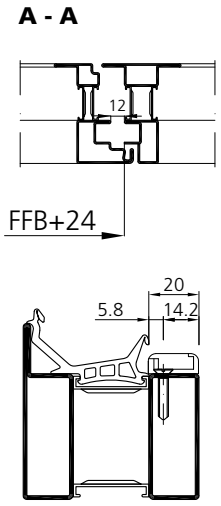
Beschlagseinbau 2-flügeliges Fenster

Anordnung der Schliessstücke
1. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Flügelfalz-Breite

Anordnung Schliessstücke
1. öffnender Flügel
FFB 290 – 1200 [mm]



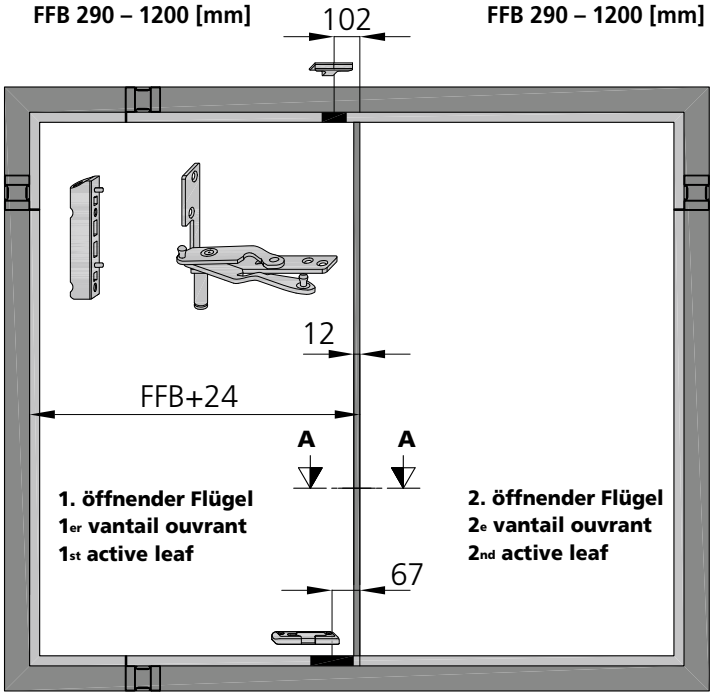
Anordnung Schliessstücke
1. öffnender Flügel
FFB 1201 – 1600 [mm]



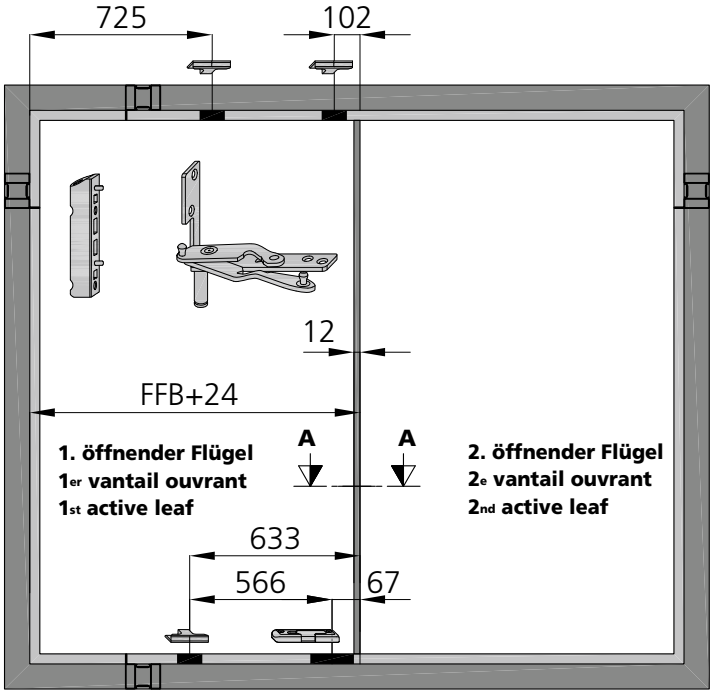
Montage de la quincaillerie Fenêtre à 2 vantaux

Disposition des gâches
1er vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail

Disposition des gâches
1er vantail ouvrant
FFB 290 – 1200 [mm]



Disposition des gâches
1er vantail ouvrant
FFB 1201 – 1600 [mm]



Installation of the fittings Double sash window

Arrangement of the strikers
1st active leaf on 2 leaved windows in dependence on the width of the leaf rebate

Arrangement of the strikers
1st active leaf
FFB 290 – 1200 [mm]

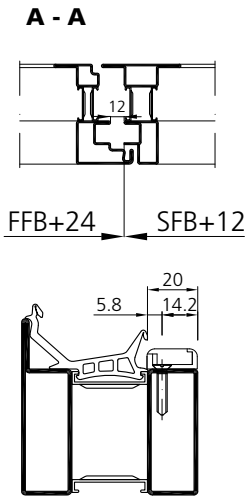
Arrangement of the strikers
1st active leaf
FFB 1201 – 1600 [mm]

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau 2-flügeliges Fenster

Anordnung der Schliessstücke
2. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Stulpfalz-Breite

Anordnung Schliessstücke
1. öffnender Flügel
SFB 290 – 1200 [mm]



Montage de la quincaillerie Fenêtre à 2 vantaux

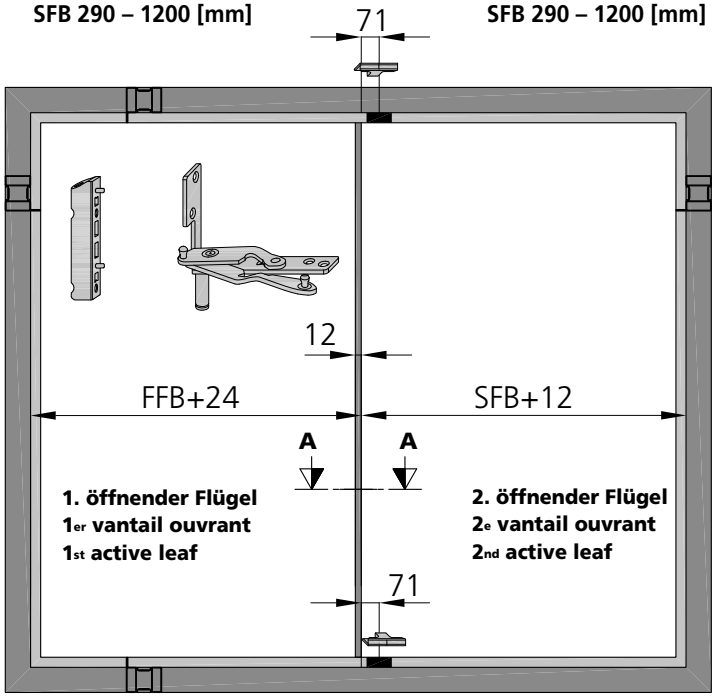
Disposition des gâches
2e vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail semi-fixe

Disposition des gâches
1er vantail ouvrant
SFB 290 – 1200 [mm]

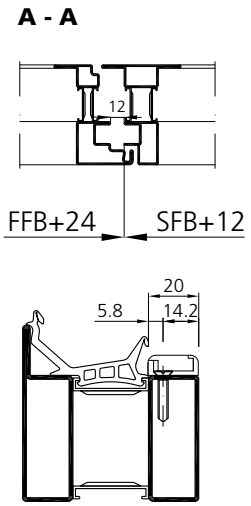
Installation of the fittings Double sash window

Arrangement of the strikers
2nd active leaves on 2 leaved windows in dependence on the width of the double sash rebate

Arrangement of the strikers
1st active leaf
SFB 290 – 1200 [mm]

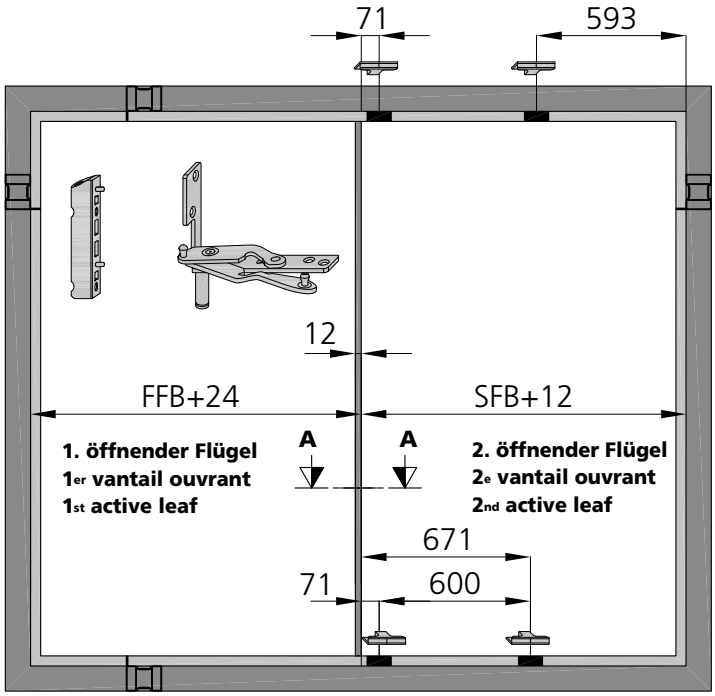


Anordnung Schliessstücke
2. öffnender Flügel
SFB 1201 – 1600 [mm]



Disposition des gâches
2e vantail ouvrant
SFB 1201 – 1600 [mm]

Arrangement of the strikers
2nd active leave
SFB 1201 – 1600 [mm]



Beschlagseinbau 2-flügeliges Fenster

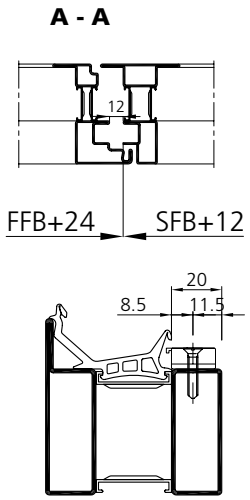
Anordnung Schnäpper
2. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Stulpfalzhöhe
SFH 520 - 750

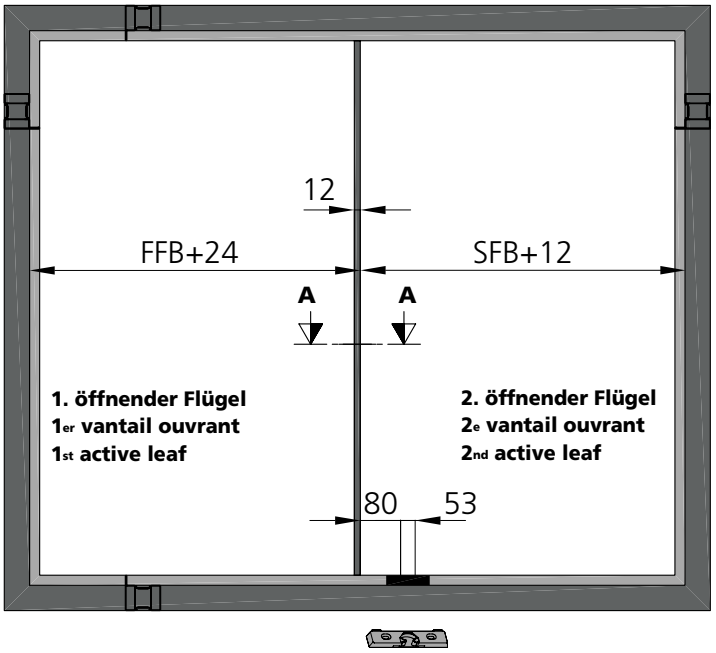
Montage de la quincaillerie Fenêtre à 2 vantaux

Disposition de blocage à pion
2e vantail ouvrant sur fenêtre à 2 vantaux selon la hauteur de feuillure du vantail semi-fixe
SFH 520 - 750

Installation of the fittings Double sash window

Arrangement of the bullet catch
2nd active leaves on 2 leaved windows in dependence on the height of the double sash rebate
SFH 520 - 750

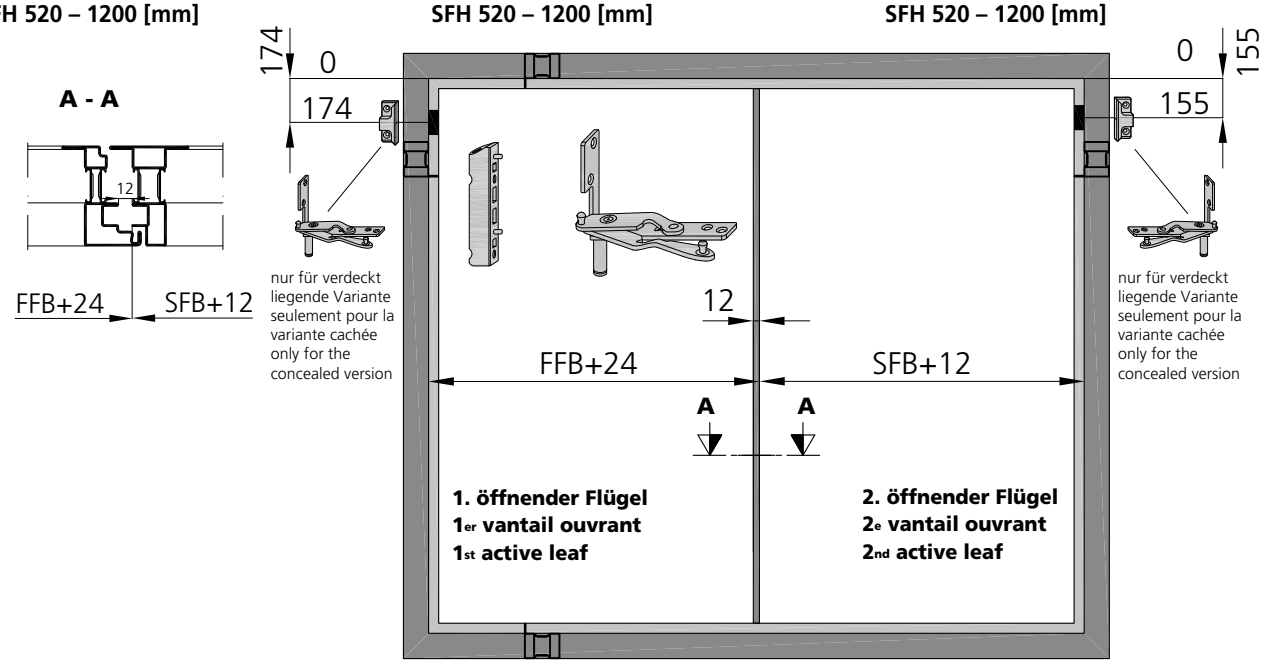




Beschlagseinbau 2-flügeliges Fenster

Anordnung der Schliessstücke
bandseitig 2-flg. in Abhängigkeit der Flügelfalz-Höhe

Anordnung Schliessstücke
FFH 520 – 1200 [mm]
SFH 520 – 1200 [mm]



Montage de la quincaillerie Fenêtre à 2 vantaux

Disposition des gâches
Côté paumelle 2 vantaux selon la hauteur de la feuillure du vantail

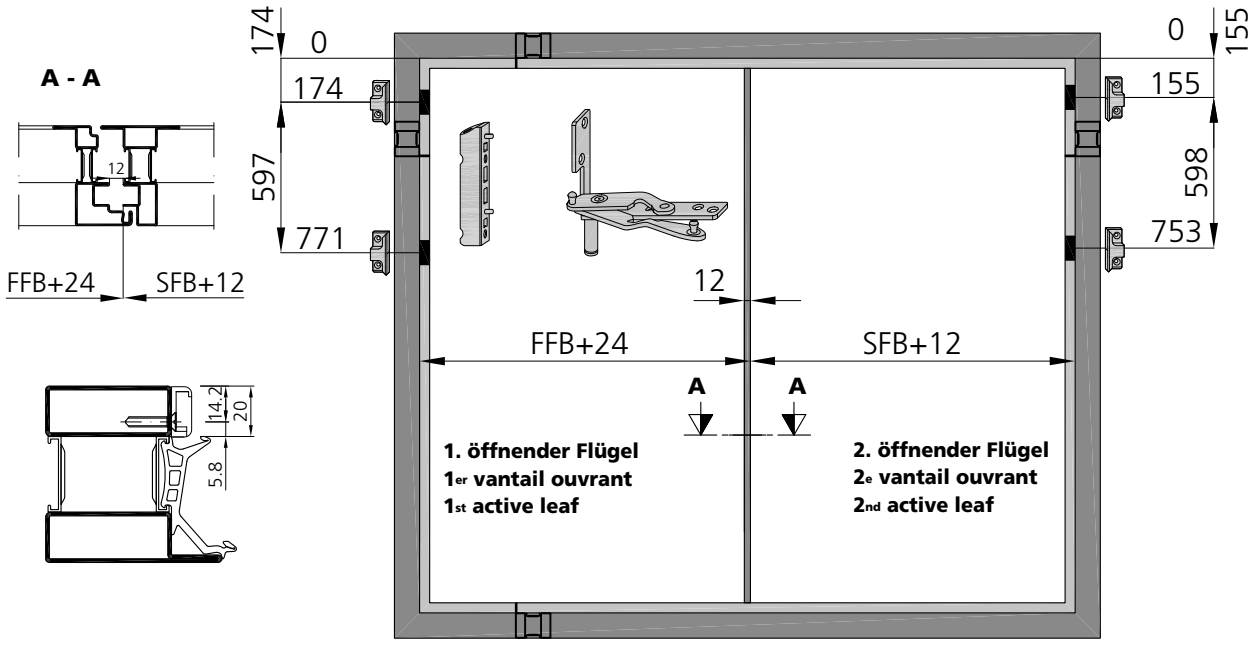
Disposition des gâches
FFH 520 – 1200 [mm]
SFH 520 – 1200 [mm]

Installation of the fittings Double sash window

Arrangement of the strikers
Hinge side, 2 leaved in dependence on the height of the leaf rebate

Arrangement of the strikers
FFH 520 – 1200 [mm]
SFH 520 – 1200 [mm]

Anordnung Schliessstücke
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]



Disposition des gâches
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]

Arrangement of the strikers
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]

Schliessstücke auf Getriebeseite sind fix auf Stulpgetriebe montiert

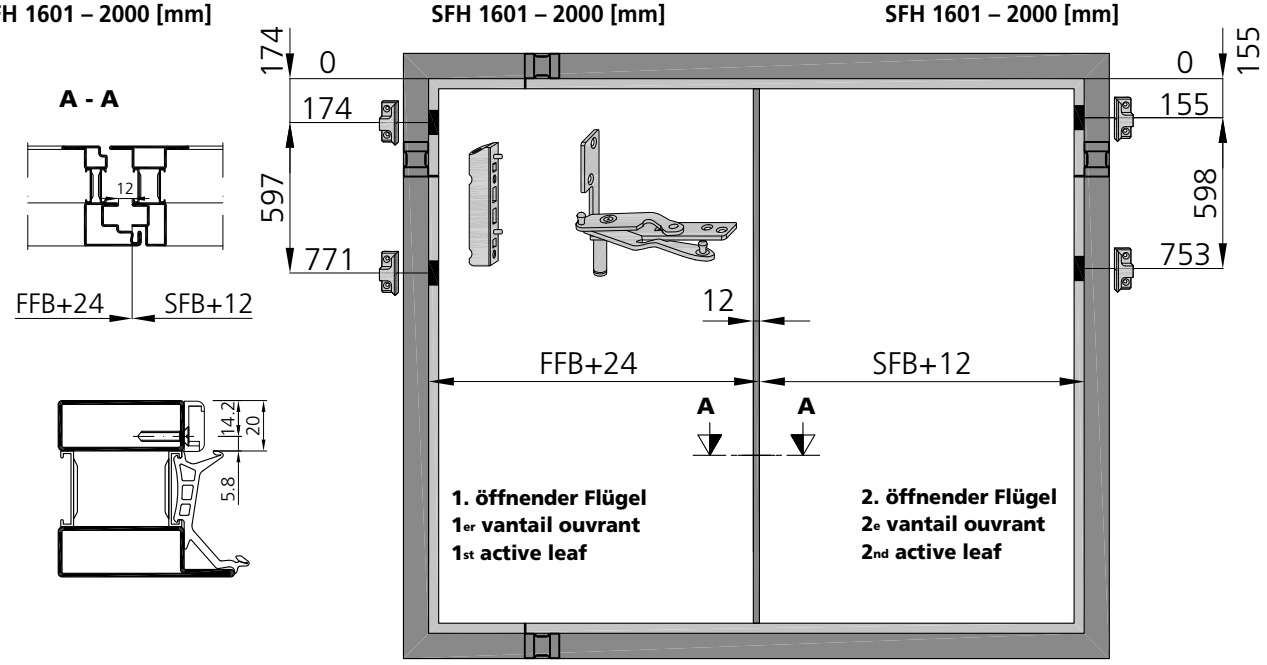
Les gâches du côté crémone sont montées de façon fixe sur la crémone

Keeps on the drive side are firmly mounted on the face plate drive

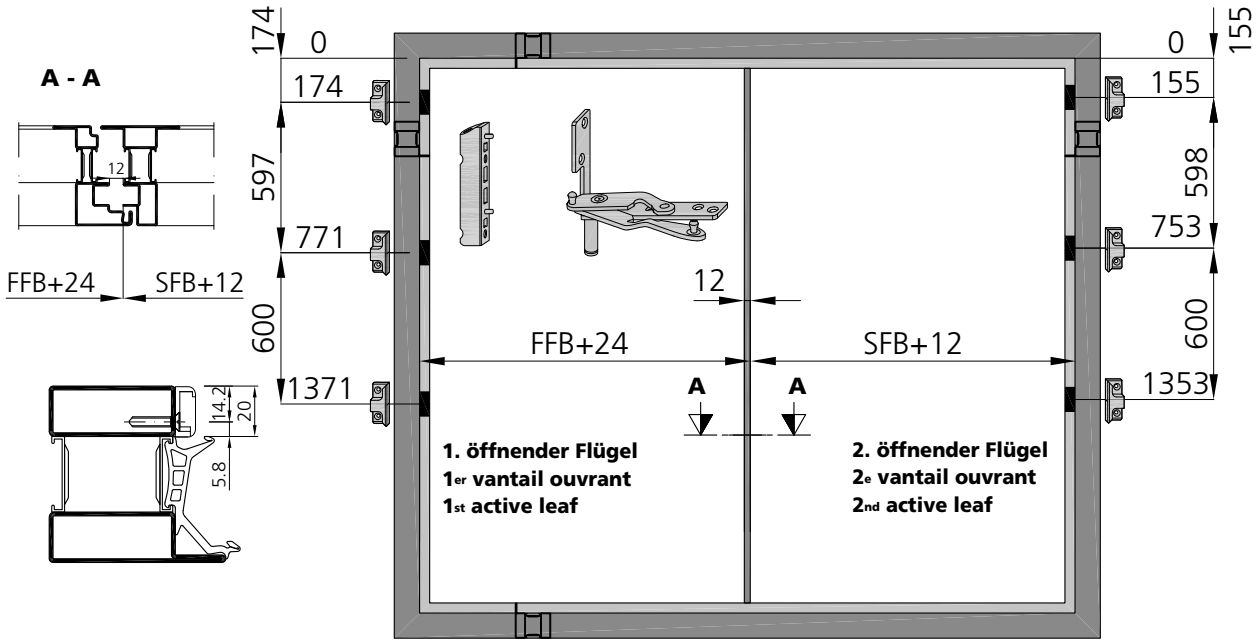
Beschlagseinbau 2-flügeliges Fenster

Anordnung der Schliessstücke
bandseitig 2-flg. in Abhängigkeit der Flügelfalz-Höhe

Anordnung Schliessstücke
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]



Anordnung Schliessstücke
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]



Schliessstücke auf Getriebeseite sind fix auf Stulpgetriebe montiert

Montage de la quincaillerie Fenêtre à 2 vantaux

Disposition des gâches
Côté paumelle 2 vantaux selon la hauteur de la feuillure du vantail

Disposition des gâches
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]

Disposition des gâches
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]

Les gâches du côté crémone sont montées de façon fixe sur la crémone

Installation of the fittings Double sash window

Arrangement of the strikers
hinge side 2-flg.in dependence on the height of the leaf rebate

Arrangement of the strikers
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]

Arrangement of the strikers
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]

Keeps on the drive side are firmly mounted on the face plate drive

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau 2-flügeliges Fenster

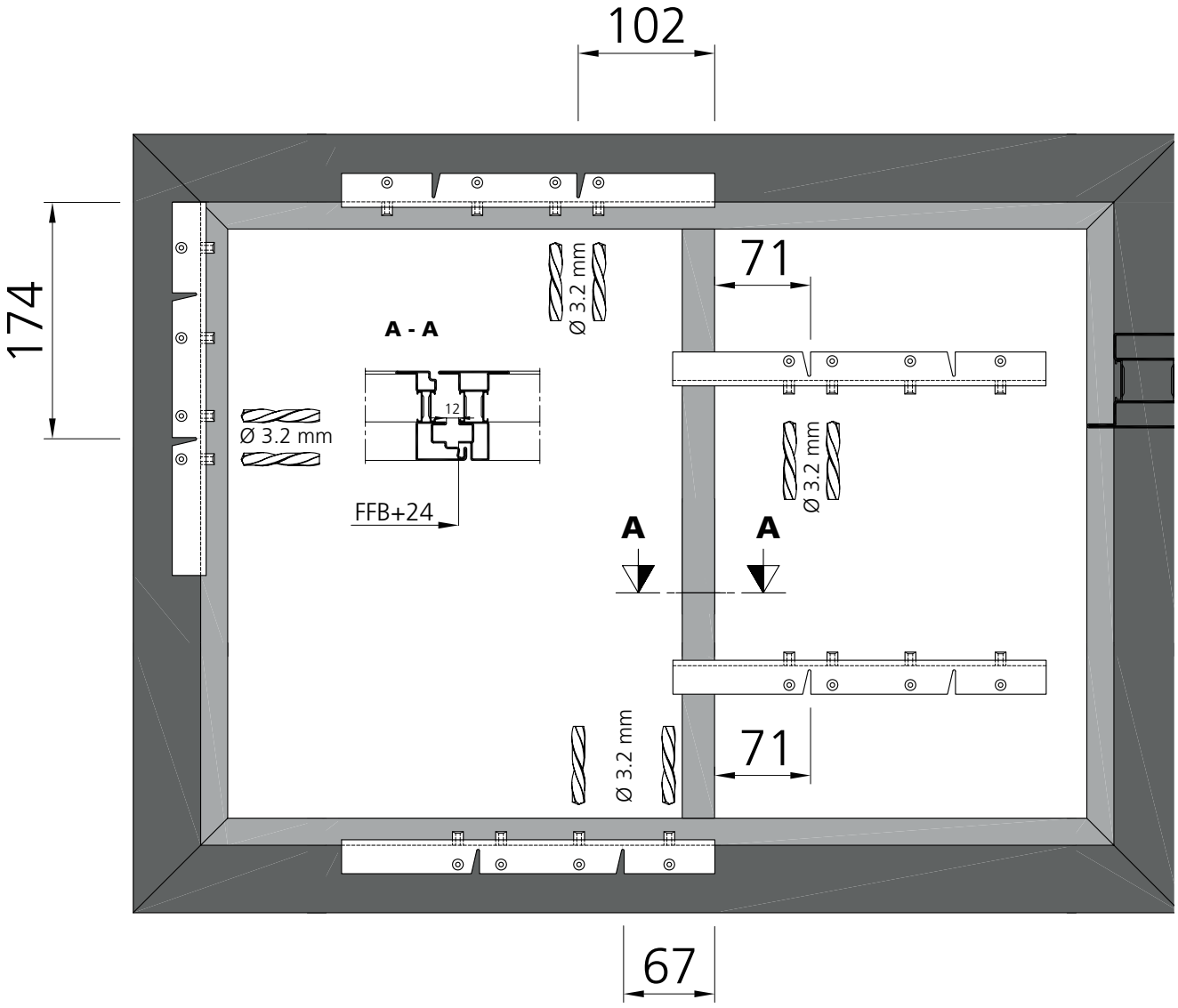
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Double sash window

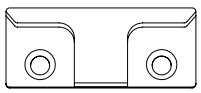
Bohrlehre **Art. Nr. 989104**

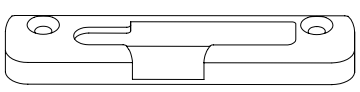
Gabarit de perçage **art. no. 989104**

Drilling template **art. no. 989104**

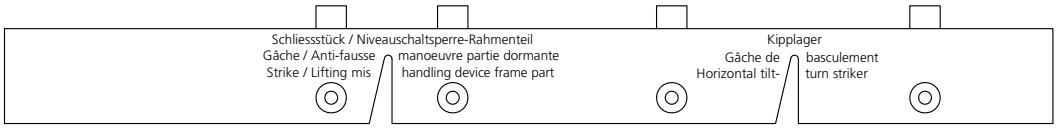


Schliessstücke
Gâches
Strikers





Kipplager
Gâche de basculement
Tilt-turn striker



Markierung Zentrum Schliessstück
Marque centre gâche
Marking on the center of the striker

Markierung Zentrum Kipplager
Marque centre gâche de basculement
Marking on the center of the tilt-turn striker

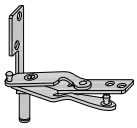
Beschlagseinbau
2-flügeliges Fenster
Zweitschere



FFB = 1401-1600 [mm]

Zweitschere
FFB >1400 [mm]

Montage de la quincaillerie
Fenêtre à 2 vantaux
Deuxième compas

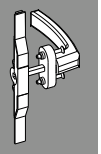


FFB = 1201-1400 [mm]

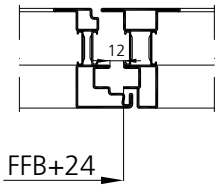
Deuxième compas
FFB >1400 [mm]

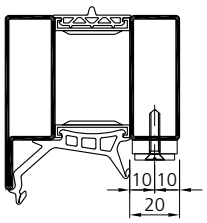
Installation of the fittings
Double sash window
Additional scissors-stay

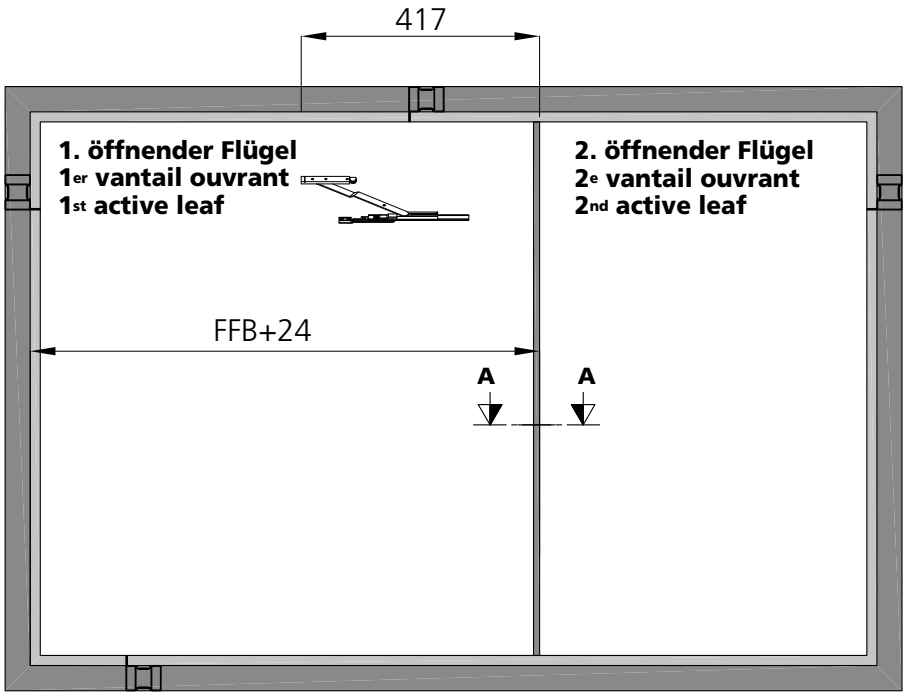
Additional scissors-stay
FFB >1400 [mm]

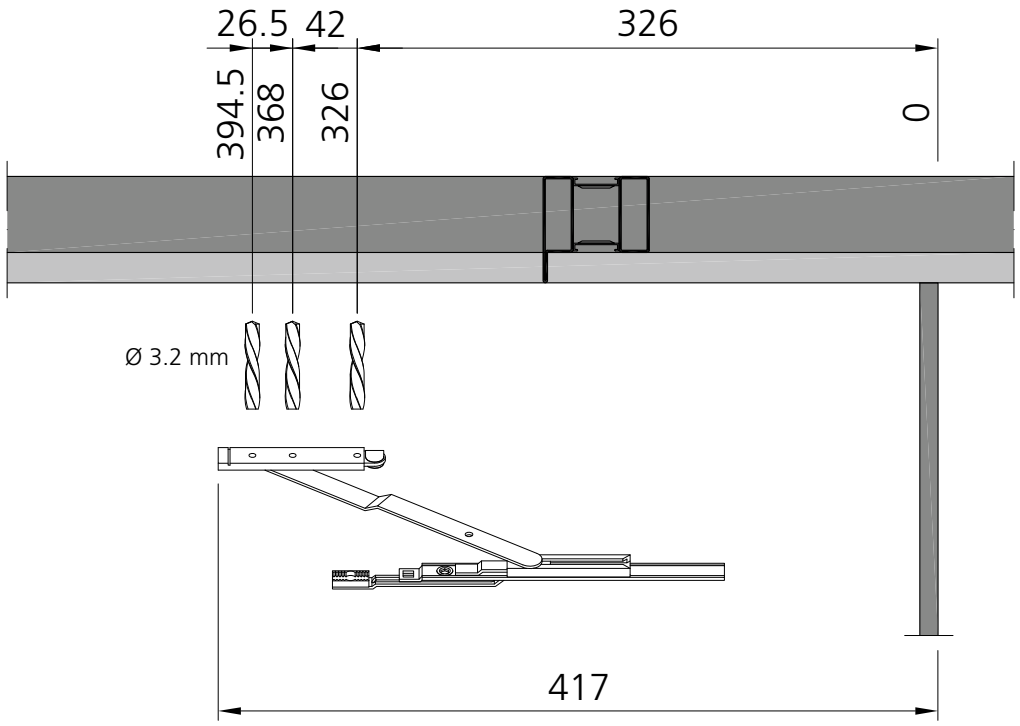


Schnitt A-A









Beschlagseinbau 2-flügeliges Fenster

- Schraube M4 x 21 (selbstfurchend)
- Bohrloch 3.2 mm
- Bei Edelstahlprofil muss das M4 Gewinde geschnitten werden. Alternative: Bohrloch auf 3.5 aufbohren, Schraube ohne M4 Gewindeschnitt einsetzen.

Bei jeder Verschraubung muss ein Distanzstück **927001** eingesetzt werden.

Montage de la quincaillerie Fenêtre à 2 vantaux

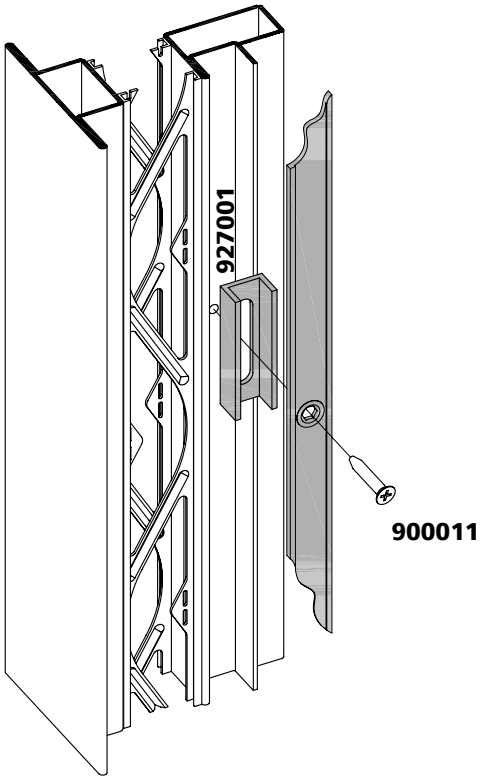
- Vis M4 x 21 (autotaraudeuse)
- Perçage 3.2 mm
- Avec le profilé en acier inox, la vis M4 doit être coupée. Alternative: agrandir le trou à 3.5, taraudage M4 pas necessaire.

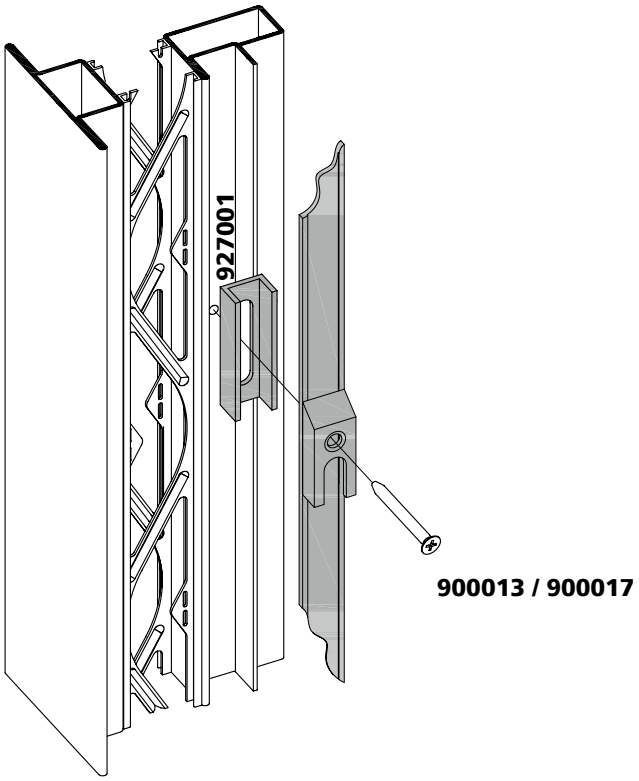
La pièce d'entretoise **927001** doit être insérée sous toutes les fixations et assemblages.

Installation of the fittings Double sash window

- Screw M4 x 21 (self tapping)
- Drill hole 3.2 mm
- In stainless steel profiles, the M4 thread needs to be cut. Alternative: drill out the drilling hole of 3.5, use screw without M4 thread.

The spacer **927001** must be placed under all screw connections.



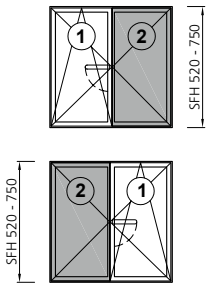


Beschlagseinbau
2-flügeliges Fenster
Niveau-Schaltsperre

Montage de la quincaillerie
Fenêtre à 2 vantaux
Anti-fausse manœuvre

Installation of the fittings
Double sash window
Lifting mishandling device

GH 311 - 375 mm



DK-Getriebe
Crémone oscillo-battant
Turn-tilt drive

137

927001

900011

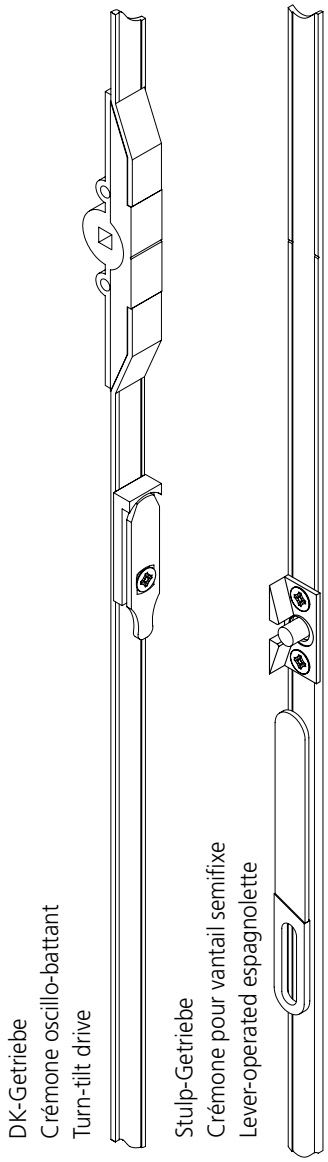
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau
2-flügeliges Fenster
Niveau-Schaltsperre

Montage de la quincaillerie
Fenêtre à 2 vantaux
Anti-fausse manœuvre

Installation of the fittings
Double sash window
Lifting mishandling device

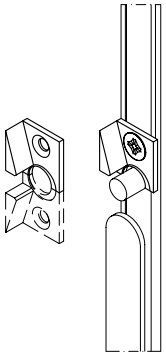
GH 376-800

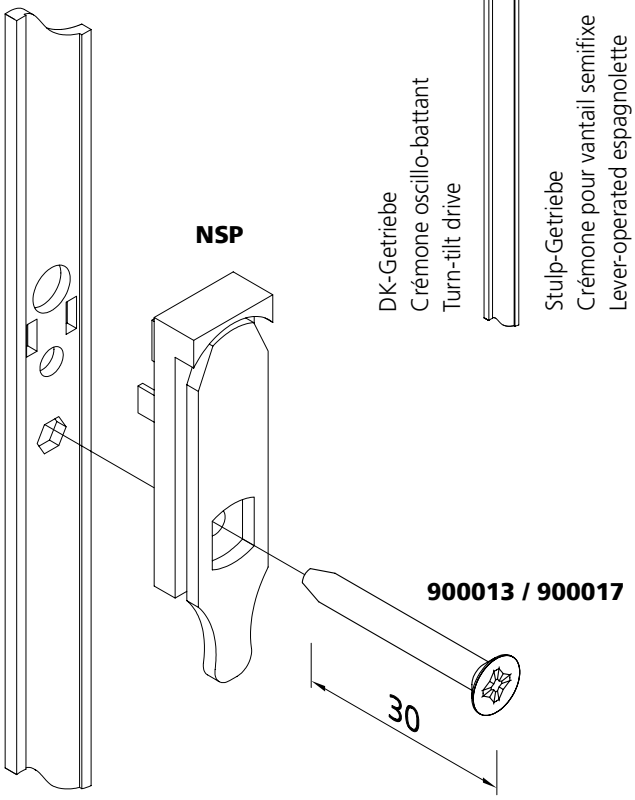


Niveauschaltsperre Stulpteil halbierbar (Kunststoff)

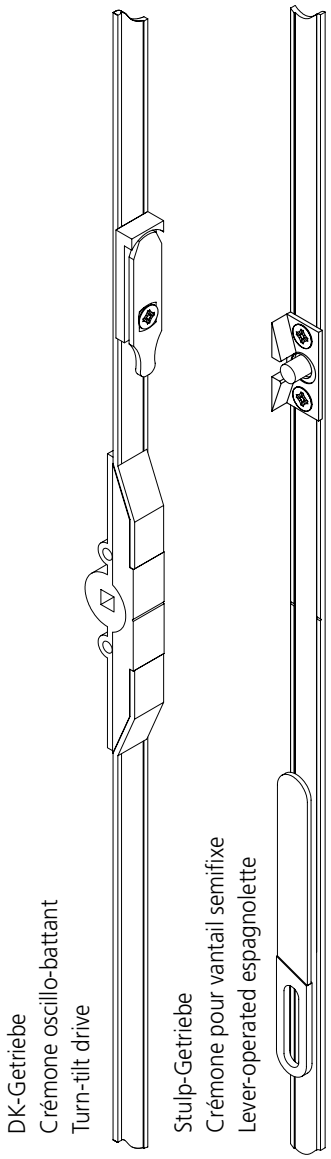
Anti-fausse manoeuvre, partie support, pouvant être divisée (matière plastique)

Lifting mishandling device, reducible by half (plastic)





GH 801-1200



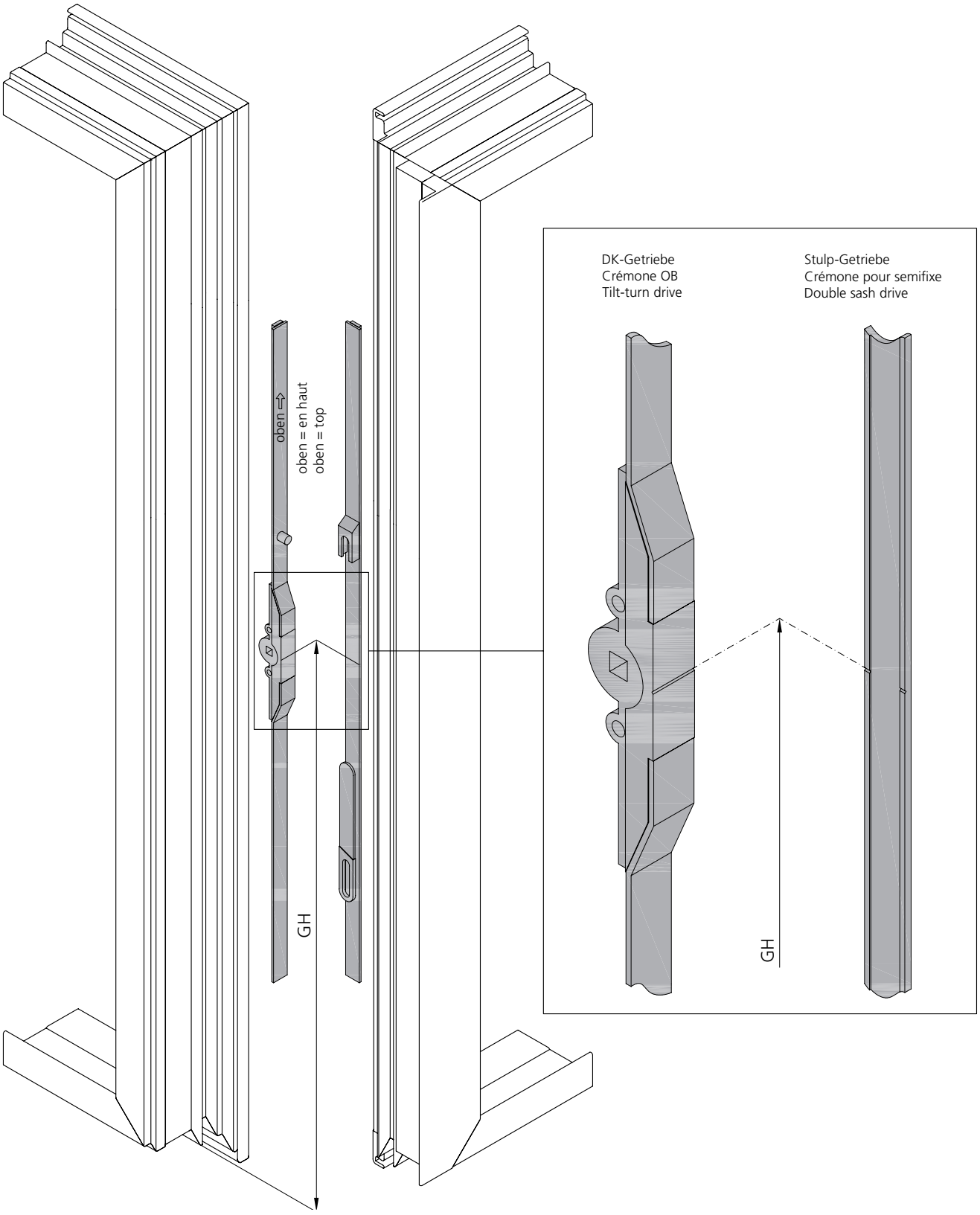
Beschlagseinbau 2-flügeliges Fenster

Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Double sash window

1. öffnender Flügel
1er vantail ouvrant
1st active leaf

2. öffnender Flügel
2e vantail ouvrant
2nd active leaf

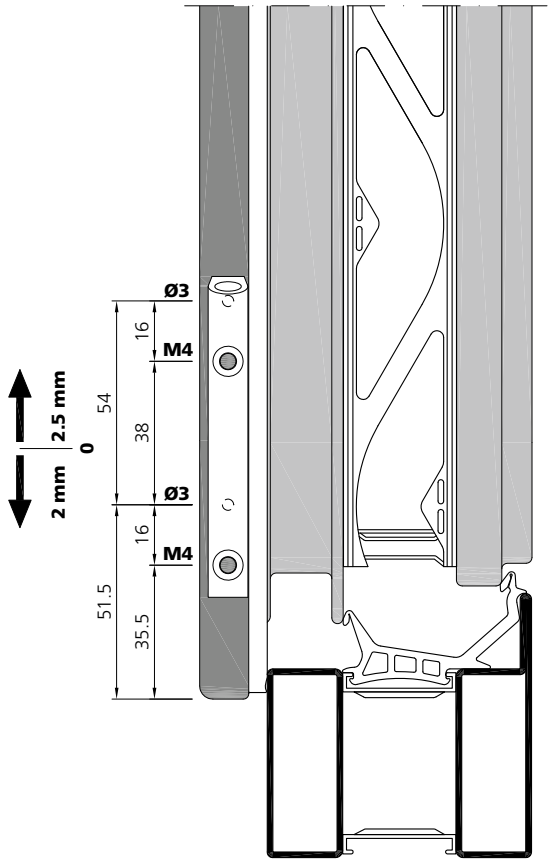


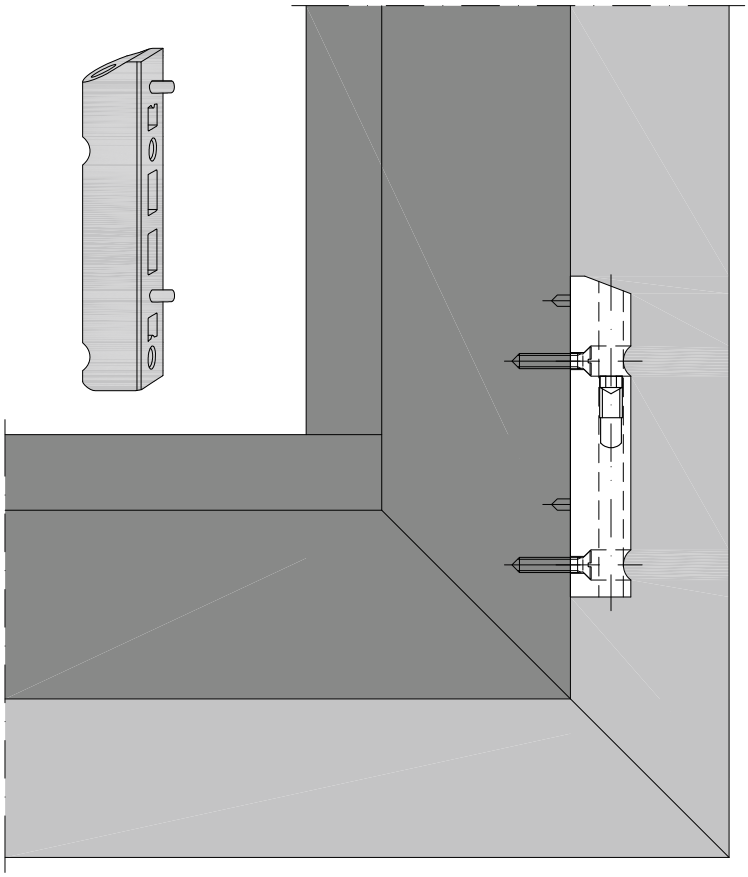
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

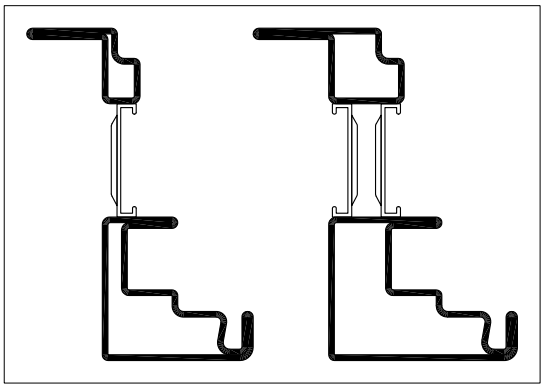
Beschlagseinbau
2-flügeliges Fenster
Eckband

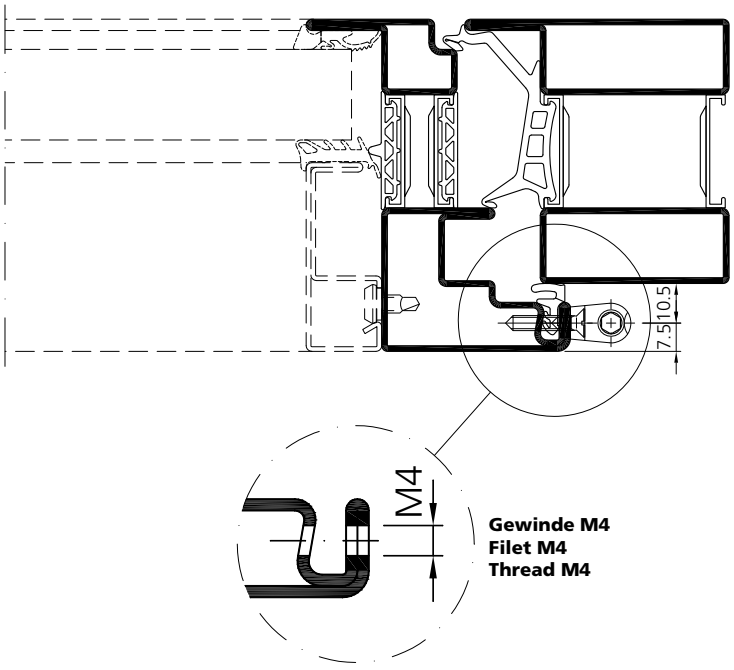
Montage de la quincaillerie
Fenêtre à 2 vantaux
Pivot d'angle

Installation of the fittings
Double sash window
Corner hinge









Das Eckband wird durch die Anschlagdichtung **985300** verschraubt.

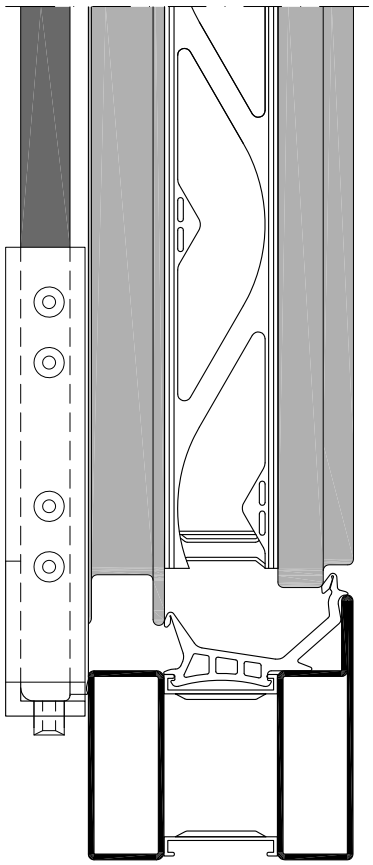
Le pivot d'angle est vissé à travers le joint de butée **985300**.

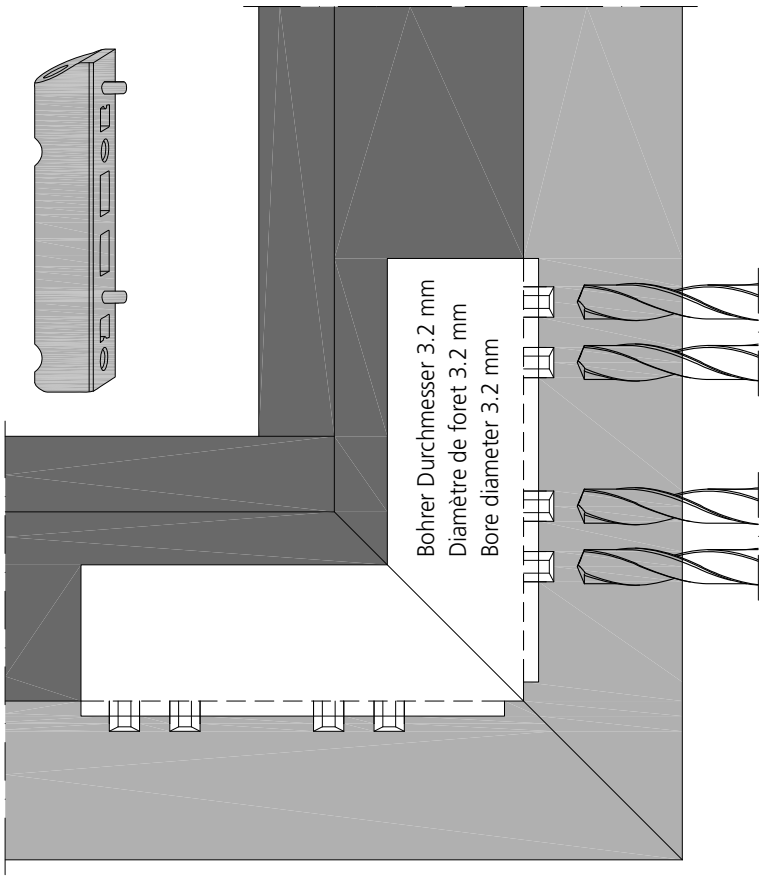
The corner hinge is screwed through the **985300** weatherstripping

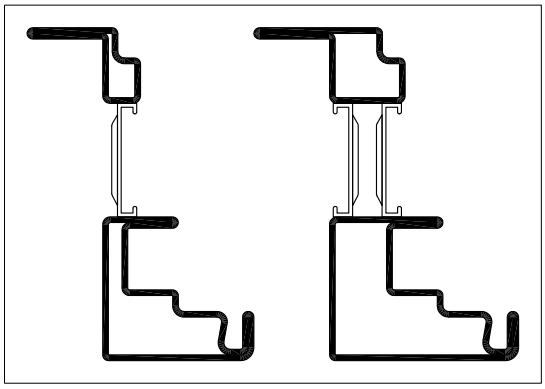
Beschlagseinbau
2-flügeliges Fenster
Eckband

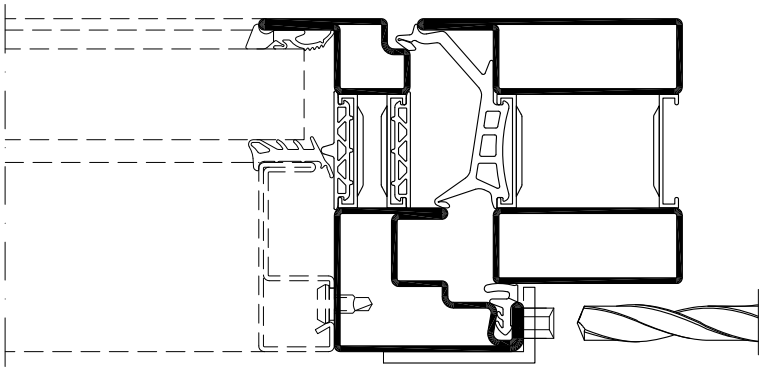
Montage de la quincaillerie
Fenêtre à 2 vantaux
Pivot d'angle

Installation of the fittings
Double sash window
Corner hinge









Bohrlehre **Art. Nr. 989102** zu Eckband.

Gabarit de perçage **art. no. 989102** pour pivot d'angle.

Drilling template **art. no. 989102** for corner hinge.

Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Beschlagseinbau 2-flügeliges Fenster

Einsatz der Forster Bohrlehren für den Standard Beschlag auf dem 2. öffnenden Flügel (Gez. Bandseite rechts, Bandseite links spiegelbildlich)

SFH 520 - 750

1. Löcher 1 und 2 bohren
2. Schrauben 1 und 2 montieren
3. Flügel einhängen und ausrichten
4. Löcher 3 und 4 bohren
5. Schrauben 3 und 4 montieren

Montage de la quincaillerie Fenêtre à 2 vantaux

Utilisation des gabarits de perçage Forster pour la quincaillerie standard sur le vantail semi-fixe (dessiné côté paumelle à droite, côté paumelle à gauche symétrique)

SFH 520 - 750

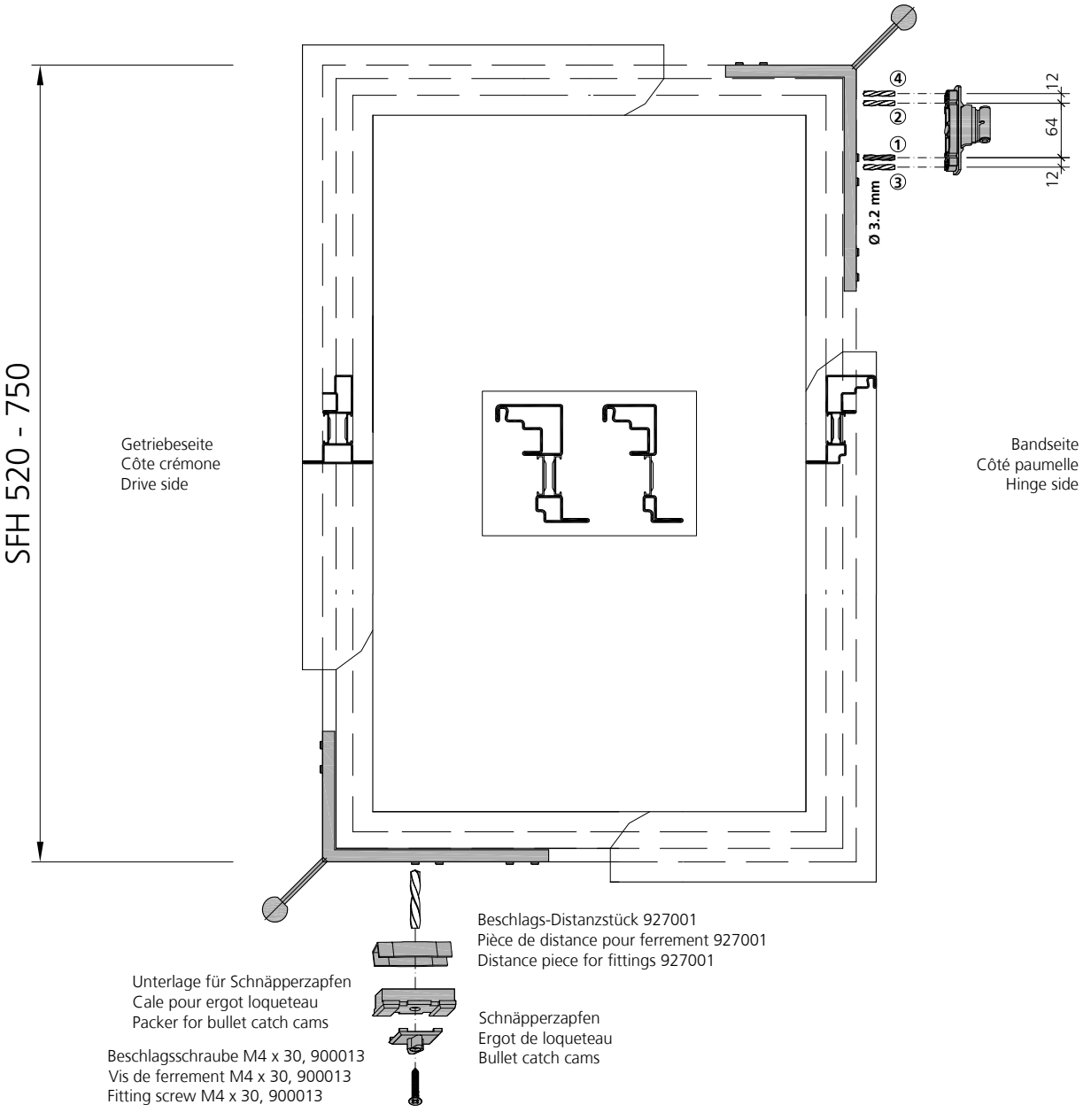
1. Percer les trous 1 et 2
2. Visser les vis 1 et 2
3. Accrocher et aligner le vantail
4. Percer les trous 3 et 4
5. Visser les vis 3 et 4

Installation of the fittings Double sash window

Use the Forster drilling templates for standard fittings on the 2nd active leaf (marking hinge side right, hinge side left mirror image)

SFH 520 - 750

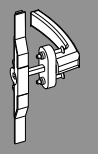
1. Drilling hole 1 and 2
2. Fixing screw 1 and 2
3. Hinge the leaf then straighten
4. Drilling hole 3 and 4
5. Fixing screw 3 and 4

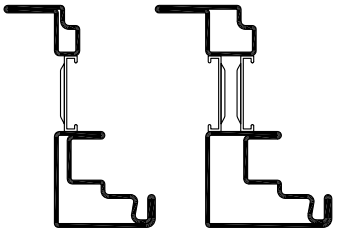


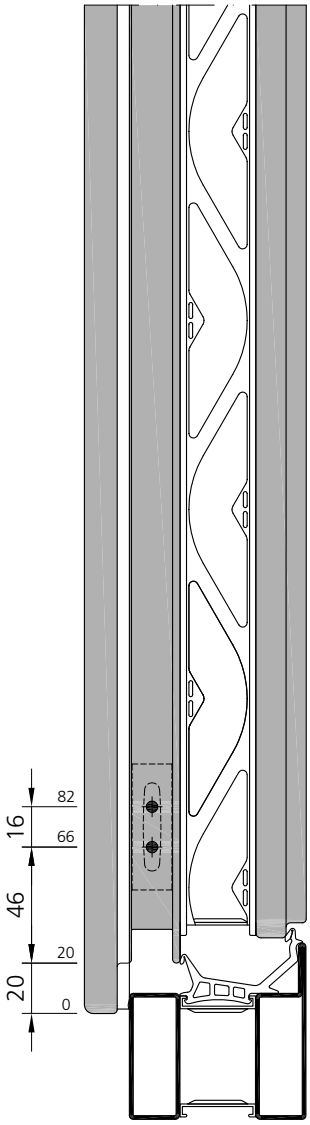
Beschlagseinbau
2-flügeliges Fenster
Ecklager verdeckt

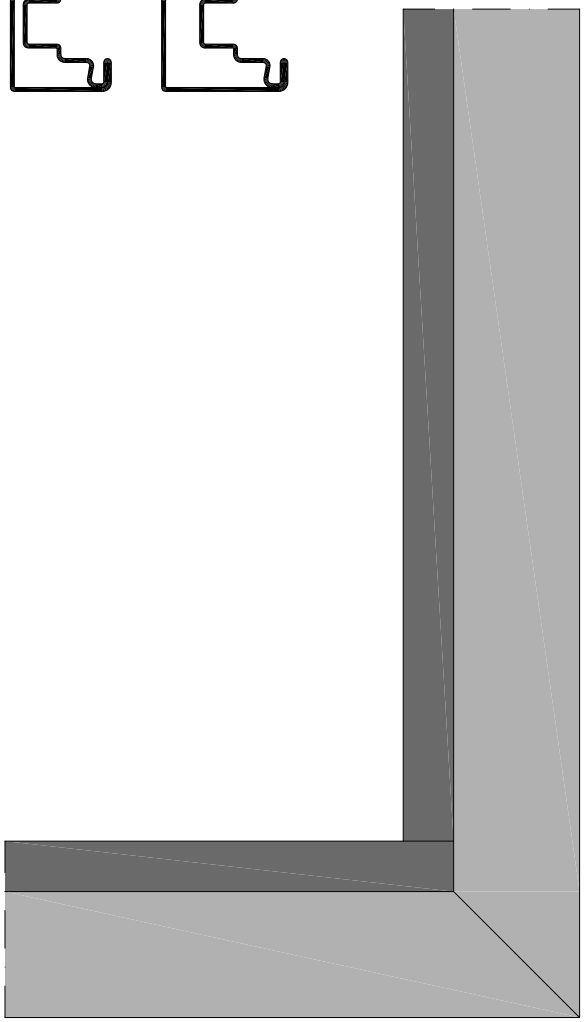
Montage de la quincaillerie
Fenêtre à 2 vantaux
Palier d'angle caché

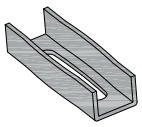
Installation of the fittings
Double sash window
Corner pivot rest concealed



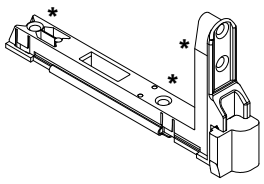


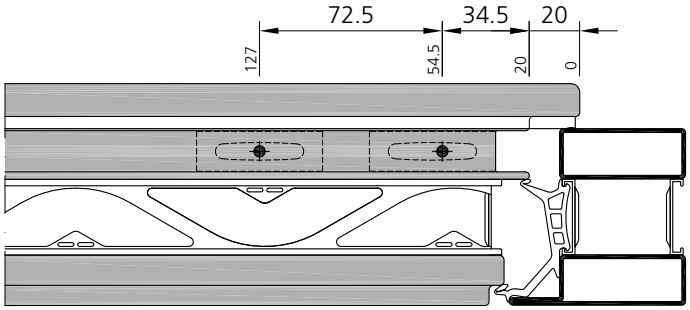






*** 927028 / 927001**
Beim Vorbohren berücksichtigen!
Tenir compte au pré-perçage!
Consider for pre-drilling!





Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau 2-flügeliges Fenster

Einsatz der Forster Bohrlehren für den Standard Beschlag auf dem 2. öffnenden Flügel (Gez. Bandseite rechts, Bandseite links spiegelbildlich)

SFH 751 - 2400

Montage de la quincaillerie Fenêtre à 2 vantaux

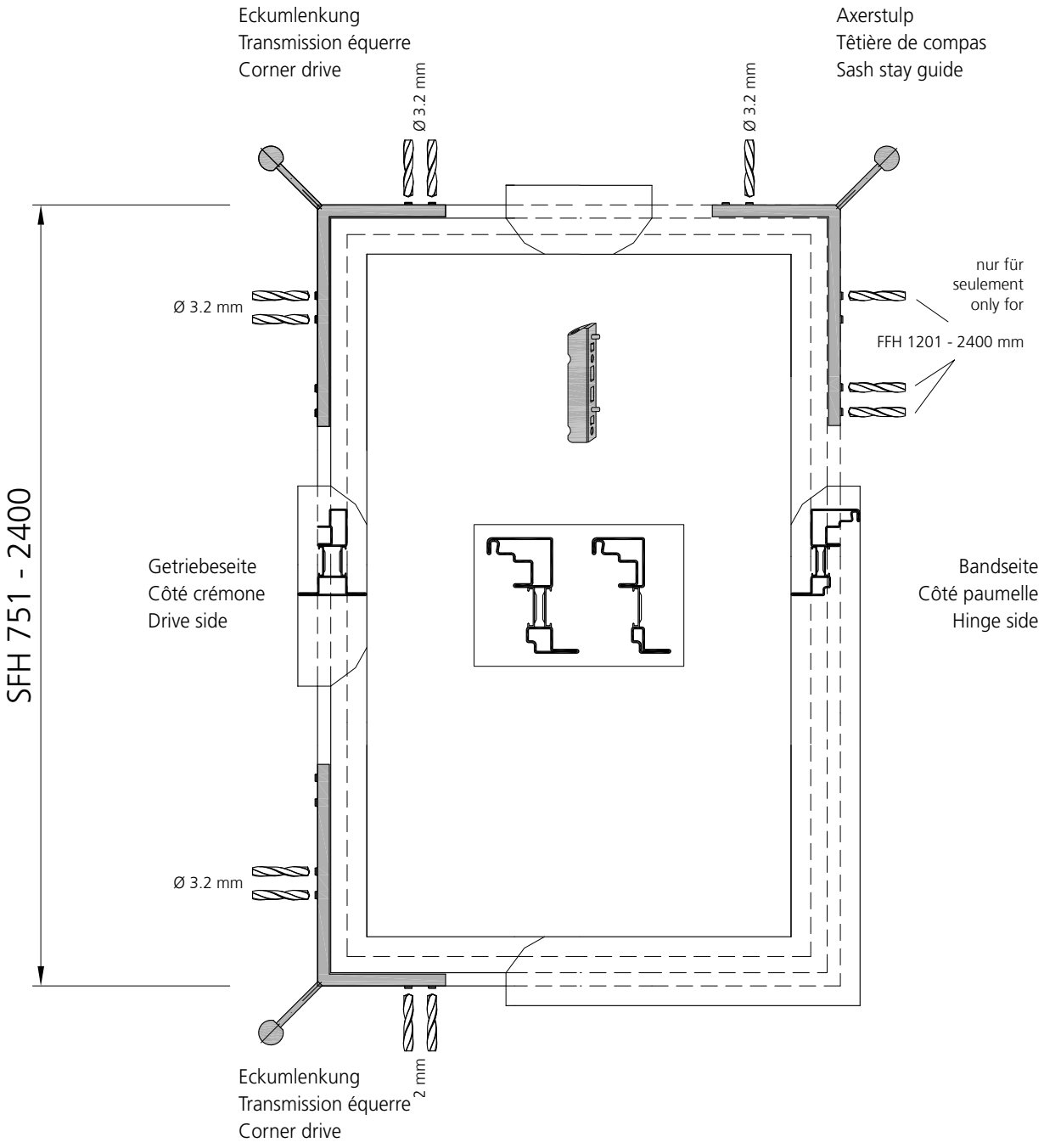
Utilisation des gabarits de perçage Forster pour la quincaillerie standard sur le vantail semi-fixe (dessiné côté paumelle à droite, côté paumelle à gauche symétrique)

SFH 751 - 2400

Installation of the fittings Double sash window

Use the Forster drilling templates for standard fittings on the 2nd active leaf (marking hinge side right, hinge side left mirror image)

SFH 751 - 2400



Beschlagseinbau 2-flügeliges Fenster

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SFH 751 - 2400

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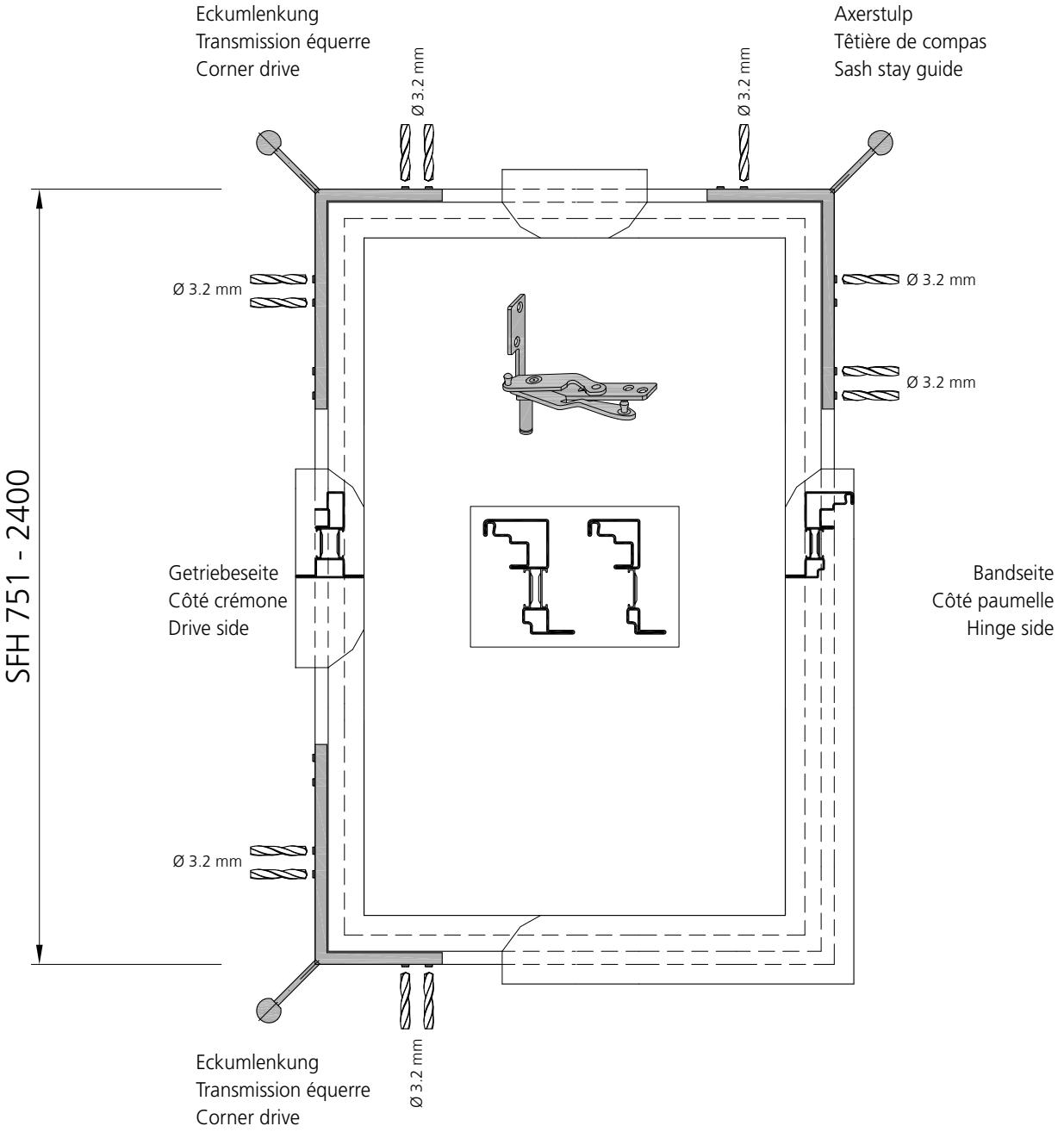
SFH 751 - 2400

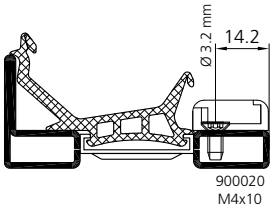


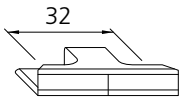
Beschlagseinbau
2-flügeliges Fenster
Beschlag aufgesetzt

Montage de la quincaillerie
Fenêtre à 2 vantaux
Quincaillerie standard

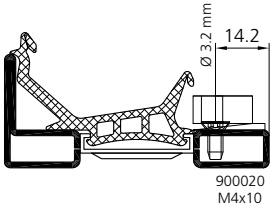
Installation of the fittings
Double sash window
Standard fittings

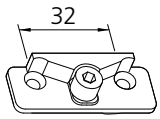
Schliessstück
Gâche
Striker



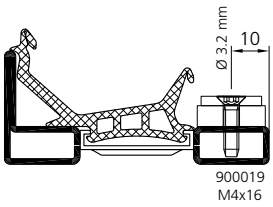


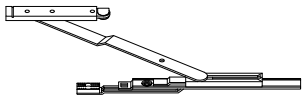
Niveau-Schaltsperre Flügelteil
Anti-fausse manoeuvre partie ouvrant
Lifting mishandling device sash component



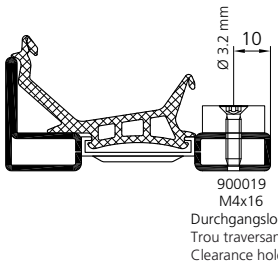


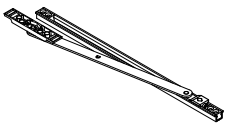
Zweitschere
Deuxième compas
Additional scissors-stay



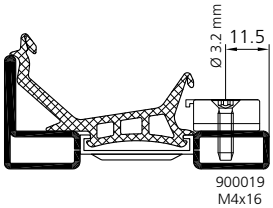


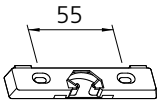
Drehbegrenzer
Limitateur d`ouverture
Leaf opening restrictor



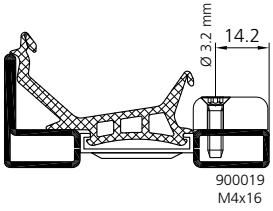


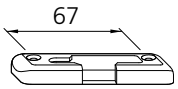
Schnäpperzapfen
Blocage à pion
Bullet catch

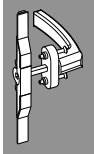




Kipplager
Gâche de basculement
Tilt-turn striker





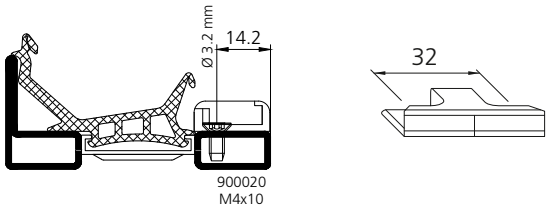


Beschlagseinbau
2-flügeliges Fenster
Verdeckt liegender Beschlag

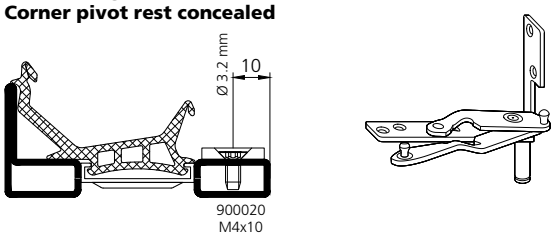
Montage de la quincaillerie
Fenêtre à 2 vantaux
Quincaillerie cachée

Installation of the fittings
Double sash window
Concealed fittings

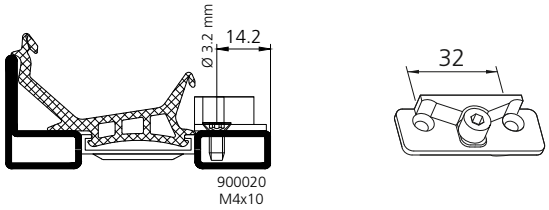
Schliessstück
Gâche
Striker



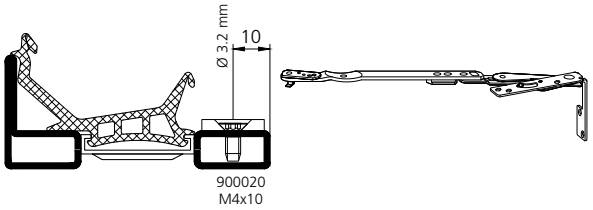
Ecklager verdeckt
Palier d`angle caché
Corner pivot rest concealed



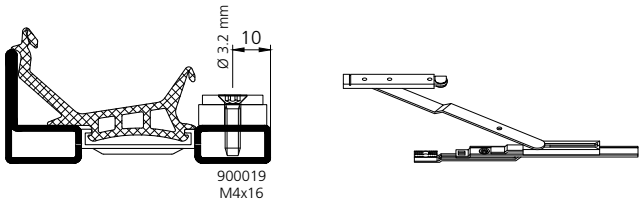
Niveau-Schaltsperre Flügelteil
Anti-fausse manoeuvre partie ouvrant
Lifting mishandling device sash component



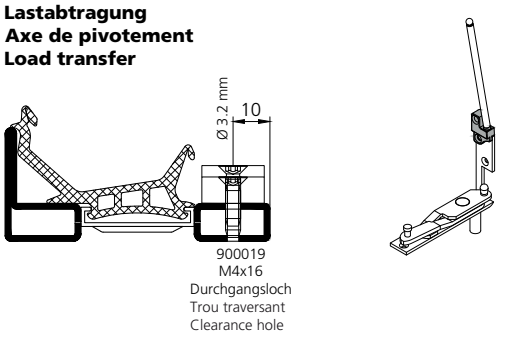
Axerarm verdeckt
Bras de compas caché
Sash stay arm concealed



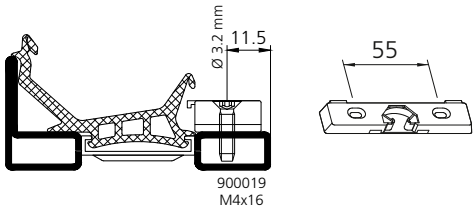
Zweitschere
Deuxième compas
Additional scissors-stay



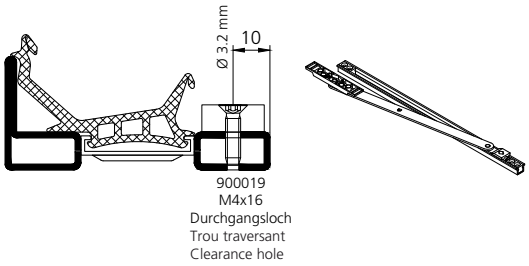
Lastabtragung
Axe de pivotement
Load transfer



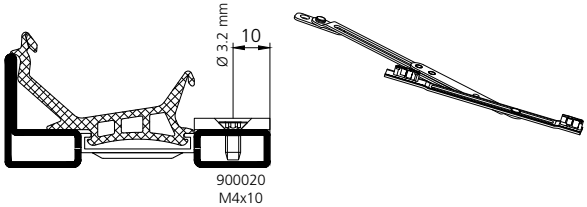
Schnäpperzapfen
Blocage à pion
Bullet catch



Drehbegrenzer
Limitateur d`ouverture
Leaf opening restrictor



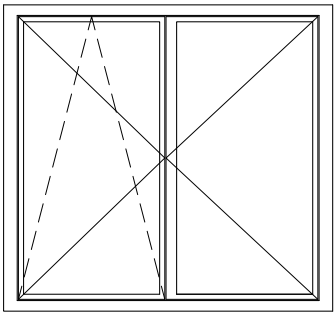
Drehbegrenzer
Limitateur d`ouverture
Leaf opening restrictor

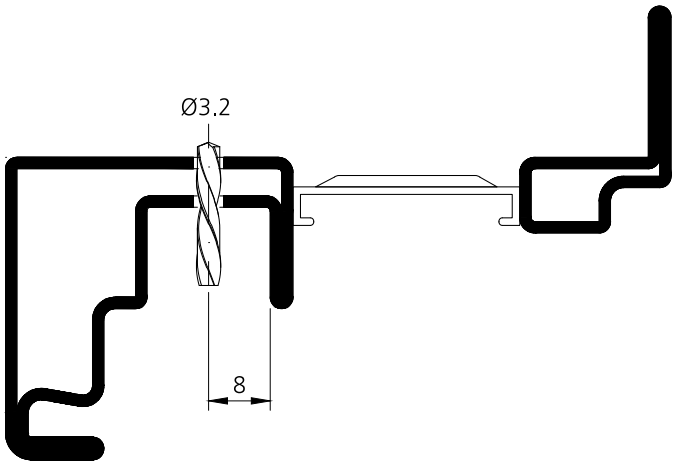


Beschlagseinbau
2-flügeliges Fenster

Montage de la quincaillerie
Fenêtre à 2 vantaux

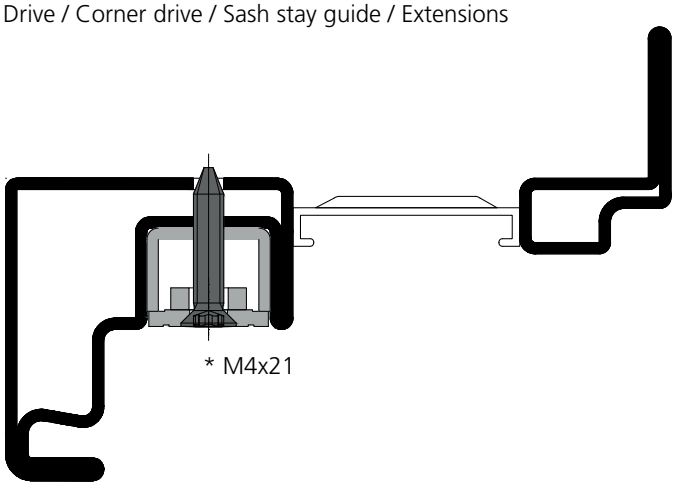
Installation of the fittings
Double sash window





Befestigung / Montage / Mounting

Getriebe / Eckumlenkung / Axerstulp / Verlängerungen
Crémone / Transmission équerre / Têtière de compas / Extensions
Drive / Corner drive / Sash stay guide / Extensions

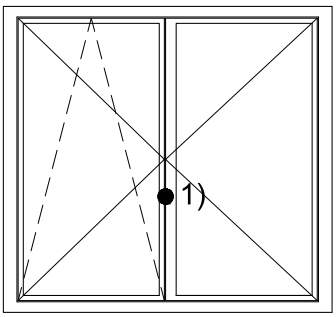


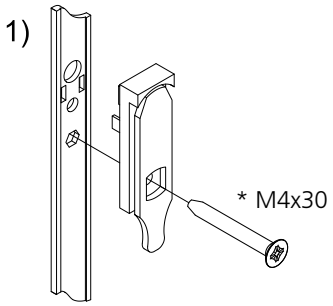
* in der Garnitur enthalten / comprises dans la garniture / included in the fittings set

Beschlagseinbau
2-flügeliges Fenster
Niveau-Schaltsperre

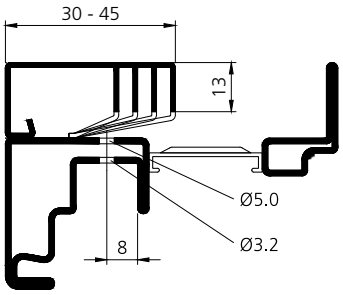
Montage de la quincaillerie
Fenêtre à 2 vantaux
Anti-fausse manoeuvre

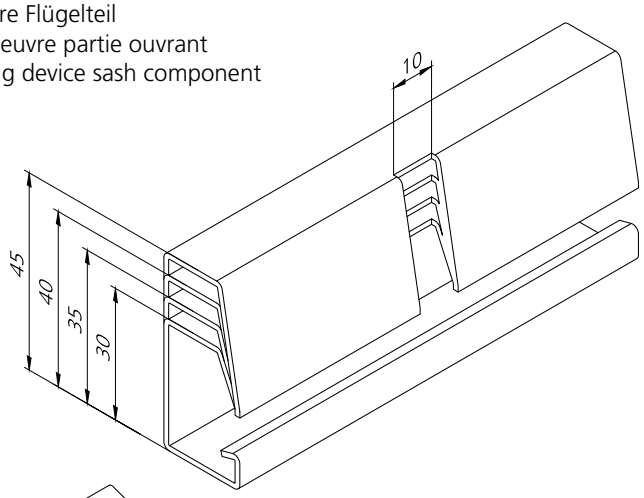
Installation of the fittings
Double sash window
Lifting mishandling device

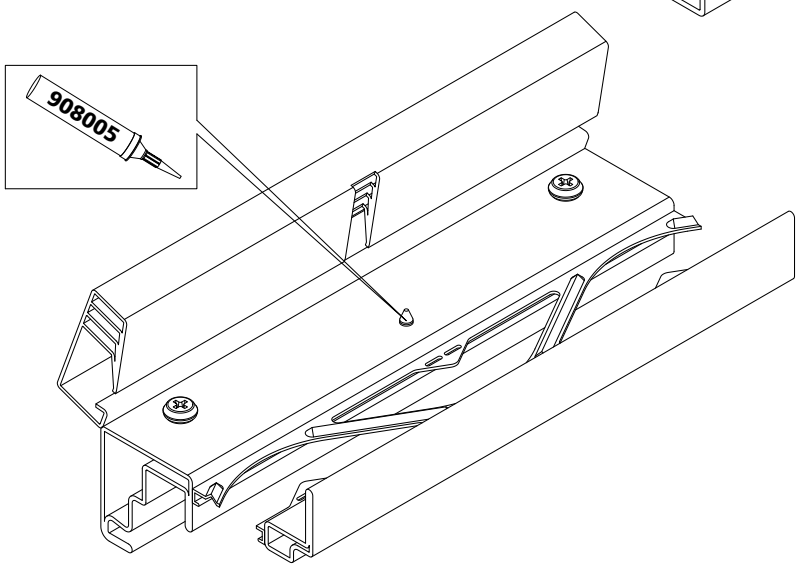




1) Niveau-Schaltsperre Flügelteil
Anti-fausse manoeuvre partie ouvrant
Lifting mishandling device sash component







* in der Garnitur enthalten / comprises dans la garniture / included in the fittings set

Beschlagseinbau 2-flügeliges Fenster

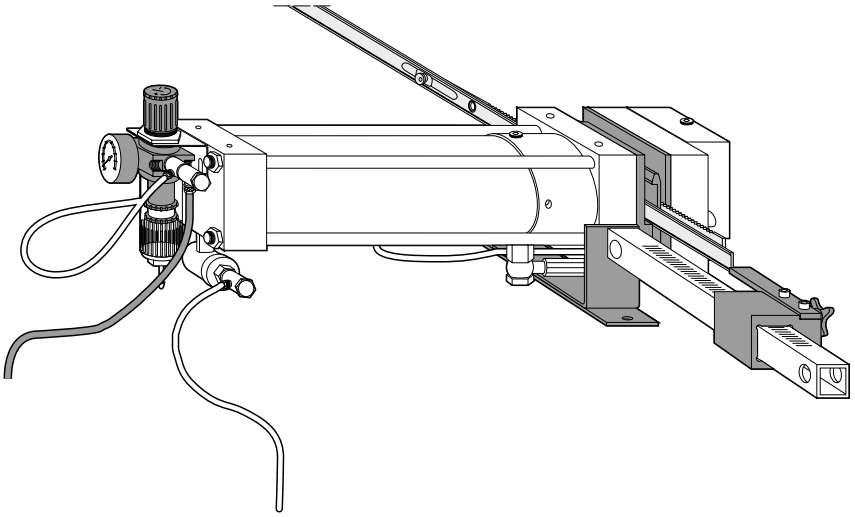
Ablängen mit pneumatischer Stanze (Lochstanzung)

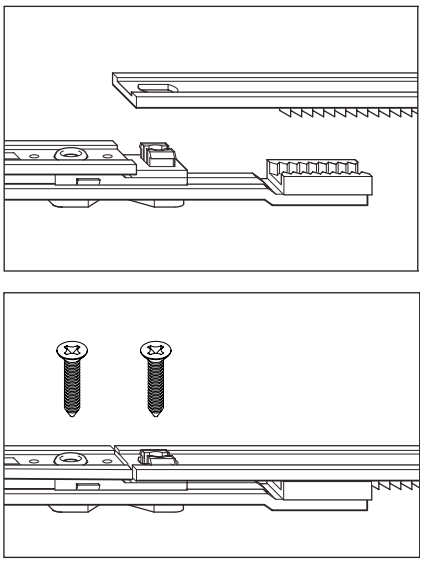
Montage de la quincaillerie Fenêtre à 2 vantaux

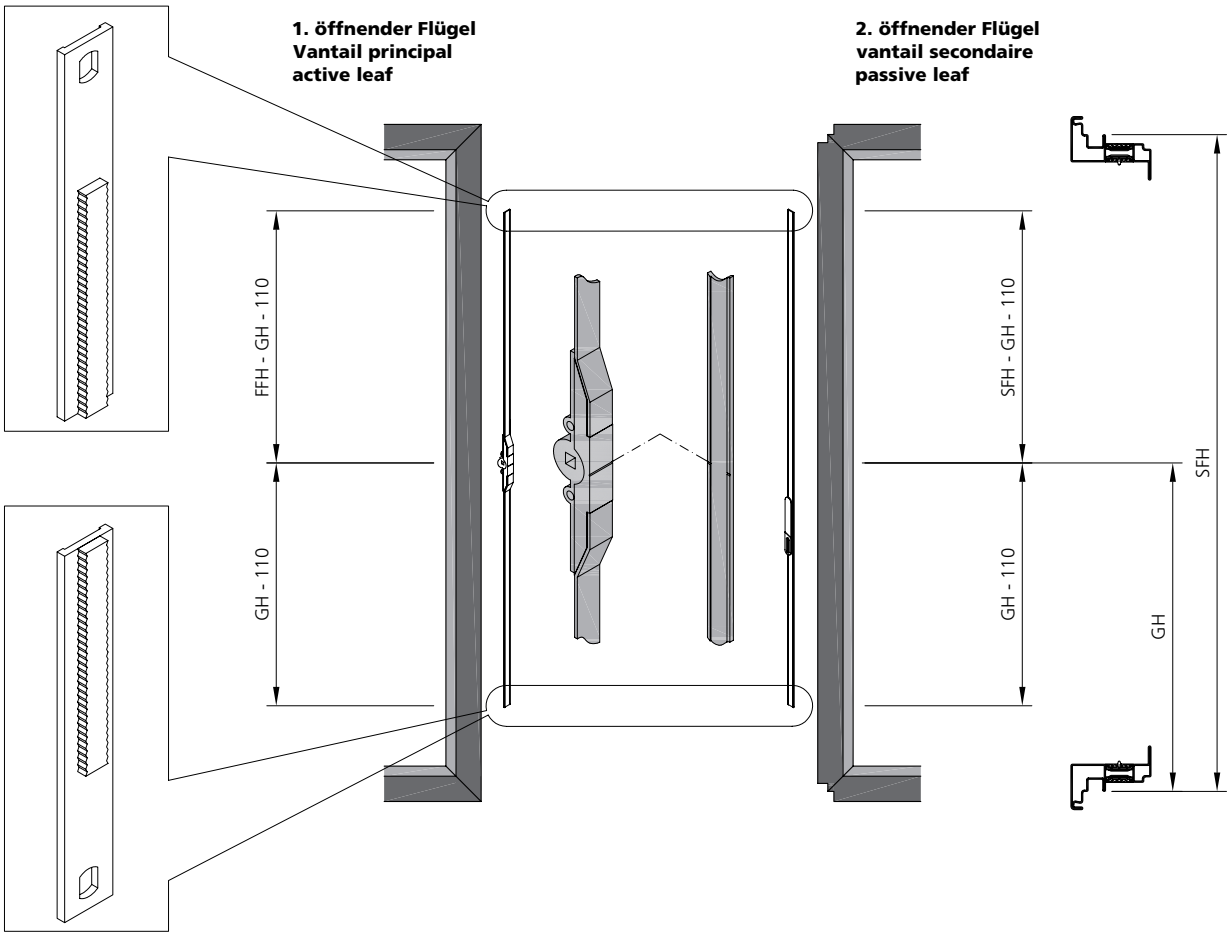
Couper à la longueur requise avec un dispositif de poinçonnage pneumatique

Installation of the fittings Double sash window

Cut to length with pneumatic punching tool (hole punching)







Beschlagseinbau 2-flügeliges Fenster

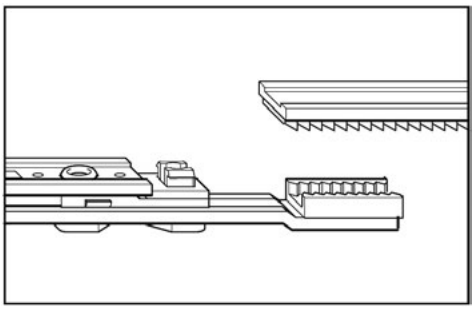
Ablängen mit Säge und Einsatz mit Verbindungslasche

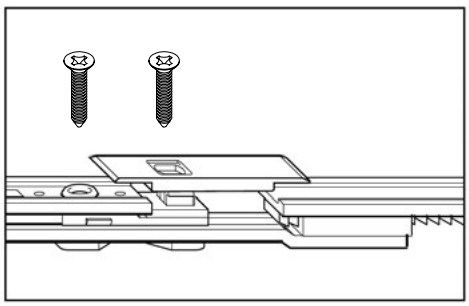
Montage de la quincaillerie Fenêtre à 2 vantaux

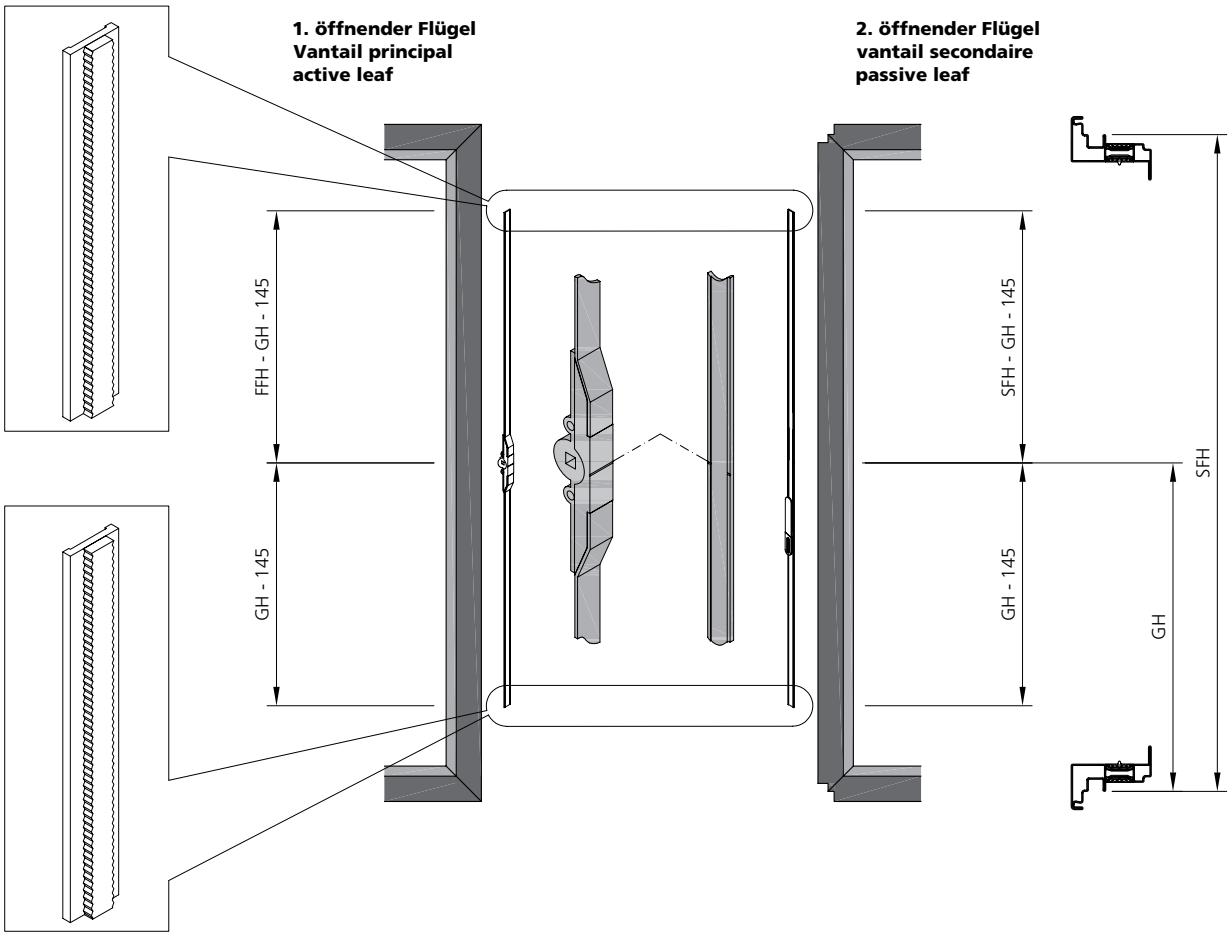
Couper à la longueur requise avec une scie et monter avec une plaque de liaison

Installation of the fittings Double sash window

Cut to length with saw and use with connecting link







Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau 2-flügeliges Fenster

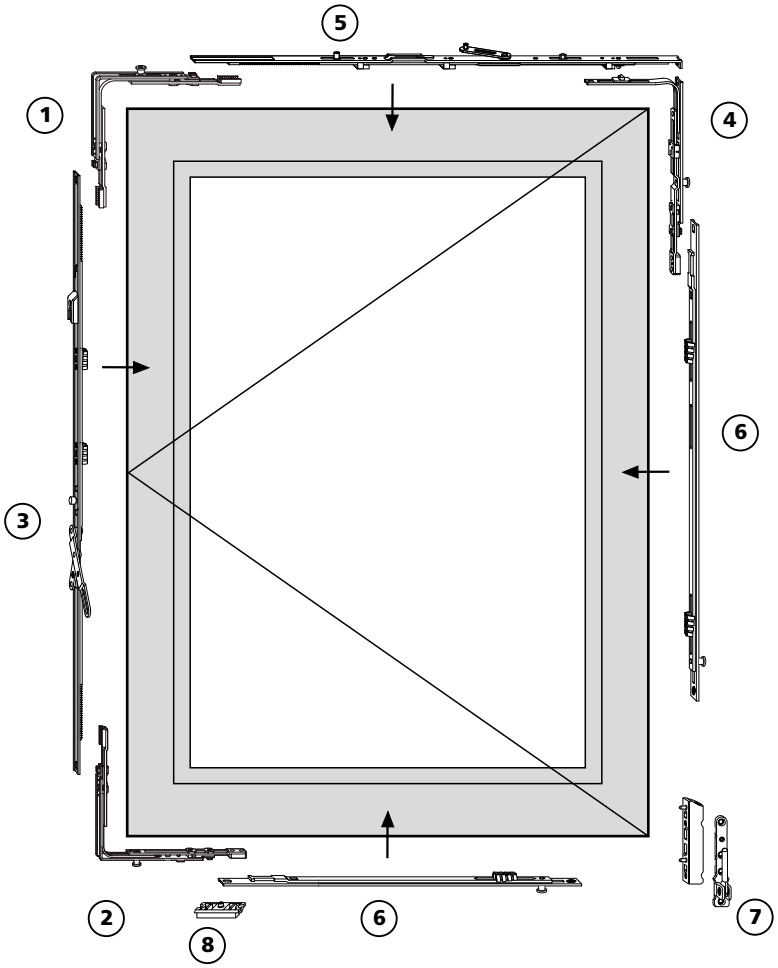
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Double sash window

Montagereihenfolge
Stulpbeschlag

Ordre de montage
Quincaillerie pour vantail semi-fixe

Sequence of assembly
Fittings for double sash



1. Eckumlenkung / Transmission équerre / Corner drive
2. Eckumlenkung / Transmission équerre / Corner drive
3. Stulp-Getriebe / Cremone vantail semi-fixe / Double sash drive
4. Eckumlenkung Axer / Renvoi d'angle de compas / Stay corner drive
5. Axerstulp / Têtière de compas / Sash stay guide
6. Mittelverschluss, senkrecht und waagerecht
   Extension horizontale et verticale
   Extension horizontal and vertical
7. Eckband K / Pivot d'angle K / Corner hinge K
8. Auflaufkeil / Support glissière / Run up block

Beschlagseinbau 2-flügeliges Fenster

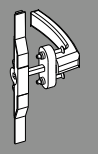
ACHTUNG! Fassung des Axerlagerstiftes beim Einführen in das Axerlager berücksichtigen!

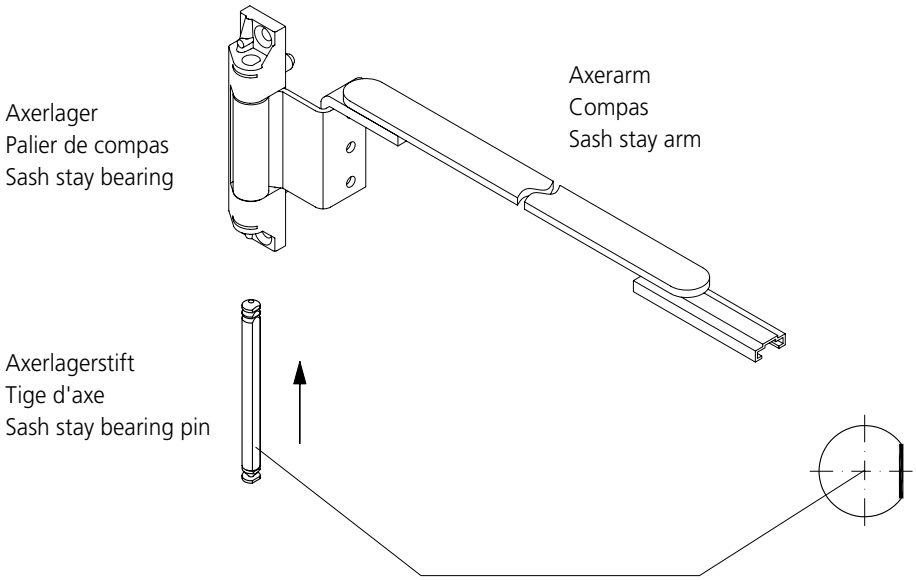
Montage de la quincaillerie Fenêtre à 2 vantaux

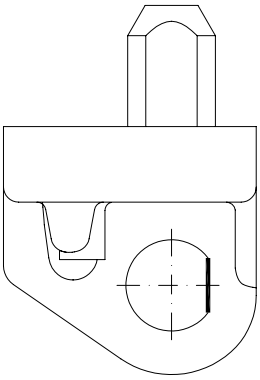
ATTENTION! Faire attention au sens de montage de la tige du palier de compas lors de l'introduction dans le palier!

Installation of the fittings Double sash window

ATTENTION! Pay attention to the mount of the Axer hinge pin when inserting it into the axer hinge!



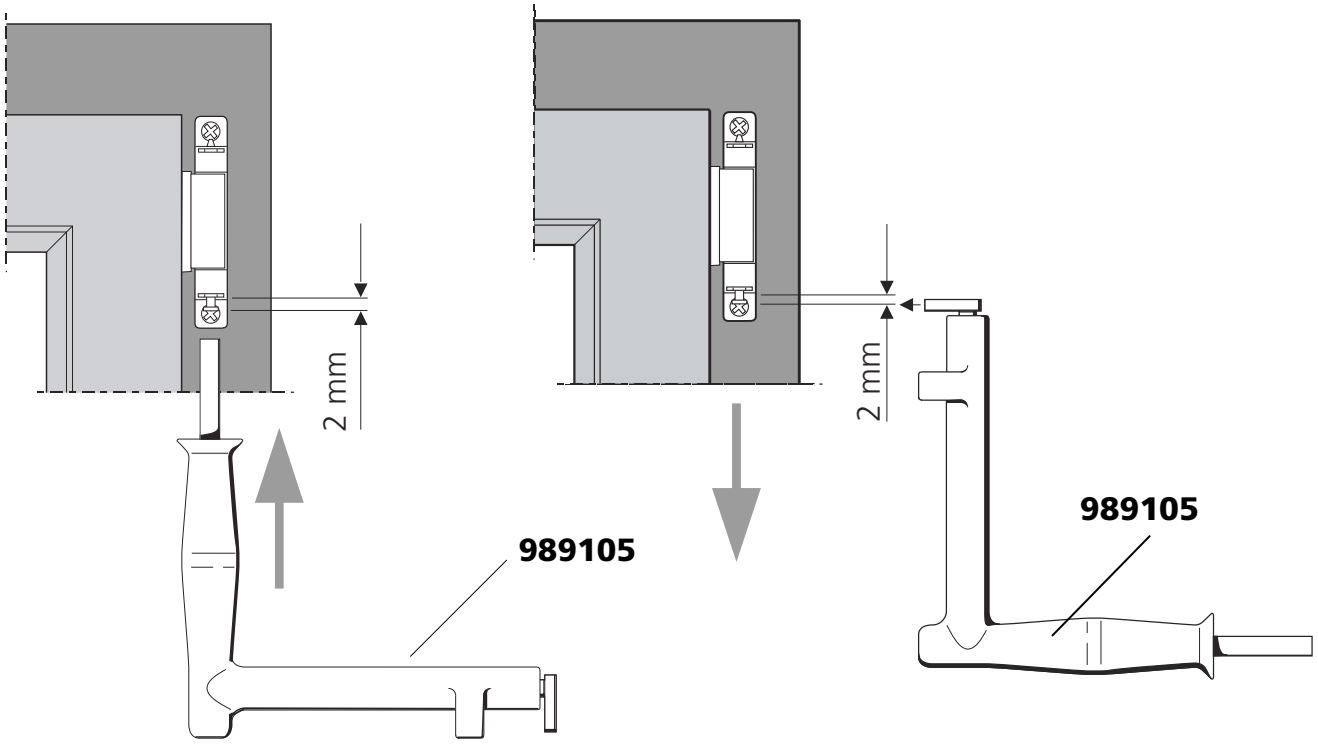




Einhängen des Flügels
Axerlagerstift nur in Verschlussstellung einschiebbar

Accrochage du vantail
Tige de palier de compas pouvant seulement être introduite en position de fermeture

Mounting the leaf
The sash stay bearing pin can only be inserted in lock position



Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau 2-flügeliges Fenster

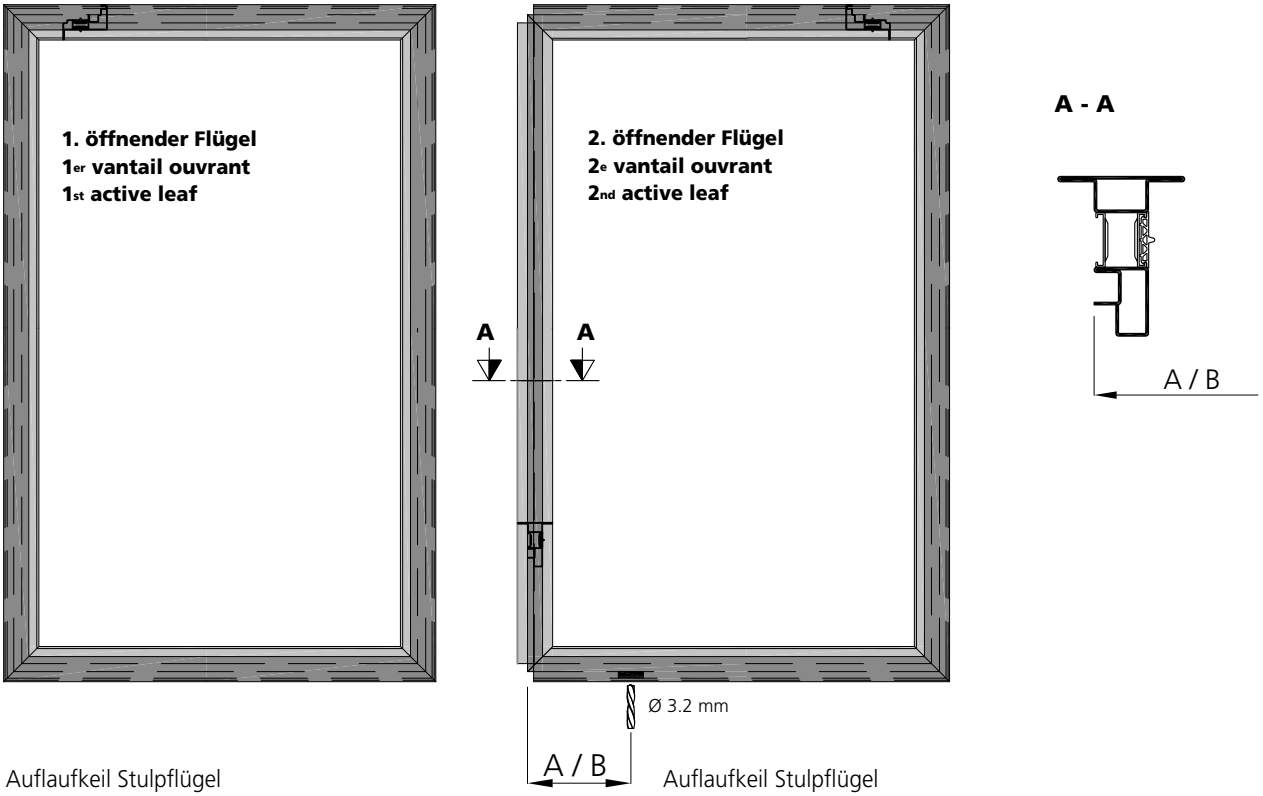
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Double sash window

Anordnung Auflaufkeil
2. öffnender Flügel

Disposition du support glissière
vantail semi-fixe

Arrangement of the run-up block
2nd active leaf

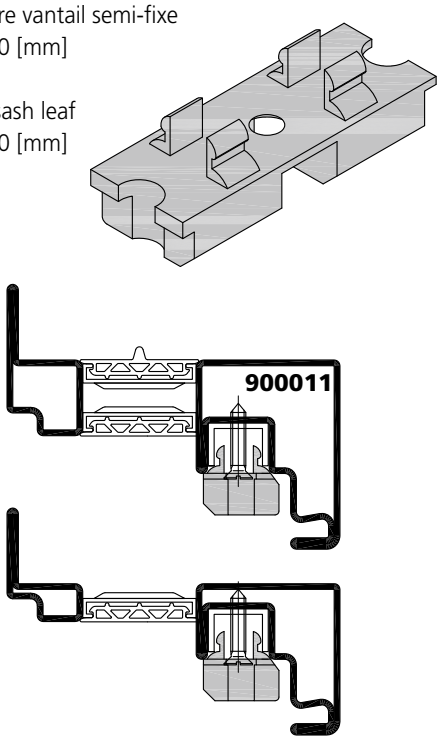


Auflaufkeil Stulpflügel
SFB 290 – 1200 [mm]

A = 220 mm

Support glissière vantail semi-fixe
SFB 290 – 1200 [mm]

Run-up block sash leaf
SFB 290 – 1200 [mm]

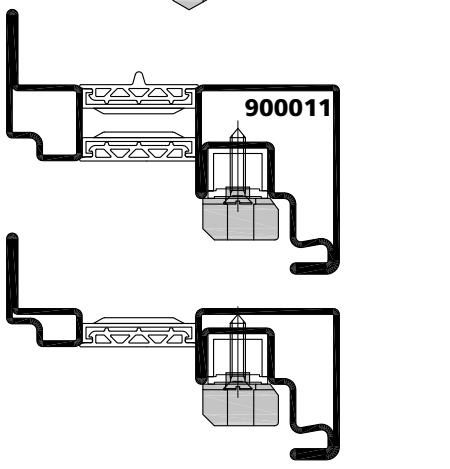


Auflaufkeil Stulpflügel
SFB 1201 – 1600 [mm]

B = 205 mm

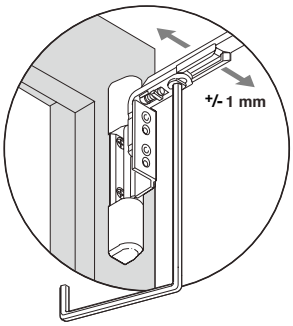
Support glissière vantail semi-fixe
SFB 1201 – 1600 [mm]

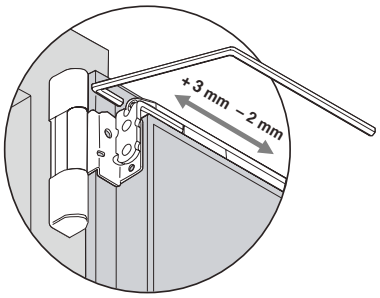
Run-up block sash leaf
SFB 1201 – 1600 [mm]



Beschlagseinbau

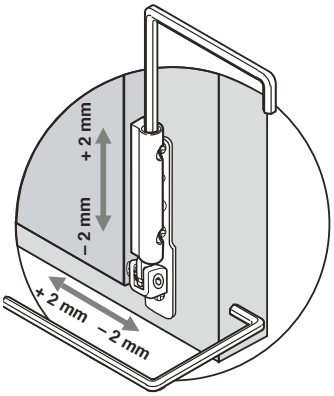
Nachregulierung (falls erforderlich)





Montage de la quincaillerie

Réglage (si nécessaire)



Installation of the fittings

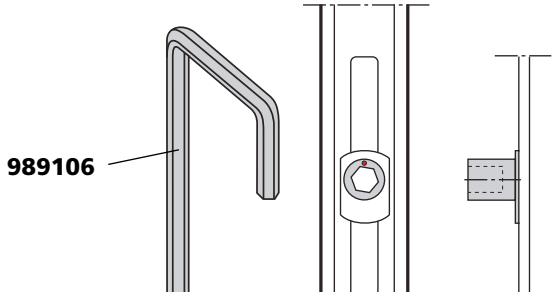
Readjustment (if required)

Verstellhinweise Schliesszapfen E

Instructions de réglage pour le goujon de fermeture E

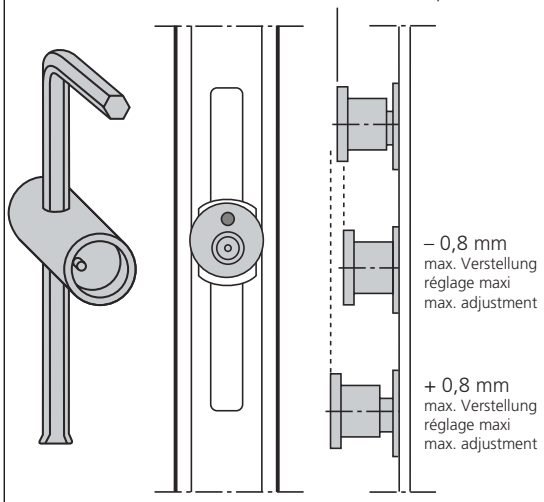
Notice for locking cam adjustment E

Schliesszapfen Goujons de fermeture Locking cam	Verstellweg in ° Plage de réglage en ° Degree of adjustment in °	Anpressdruckverstellung in mm Ajustage de la pression d'application en mm Contact pressure adjustment in mm
	Grundstellung Position de base Default position	–
	90° 90°	+/- 0,8



Beschlagseinbau | Montage de la quincaillerie | Installation of the fittings

Verstellhinweise Schliesszapfen V | Instructions de réglage pour le tenon de fermeture V | Notice for striker adjustment V

Schliesszapfen Goujons de fermeture Locking cam	Verstellweg in ° Plage de réglage en ° Degree of adjustment in °	Anpressdruckverstellung in mm Ajustage de la pression d'application en mm Contact pressure adjustment in mm	Höhenverstellung in mm Réglage en hauteur en mm Height adjustment in mm
0 = Grundstellung Position de base Default position 	Grundstellung Position de base Default position	–	–
	90° 90°	+/- 0,8	+/- 0,2
	180° 180°	–	+/- 0,4
	270° 270°	+/- 0,8	+/- 0,6
	360° 360°	–	+/- 0,8

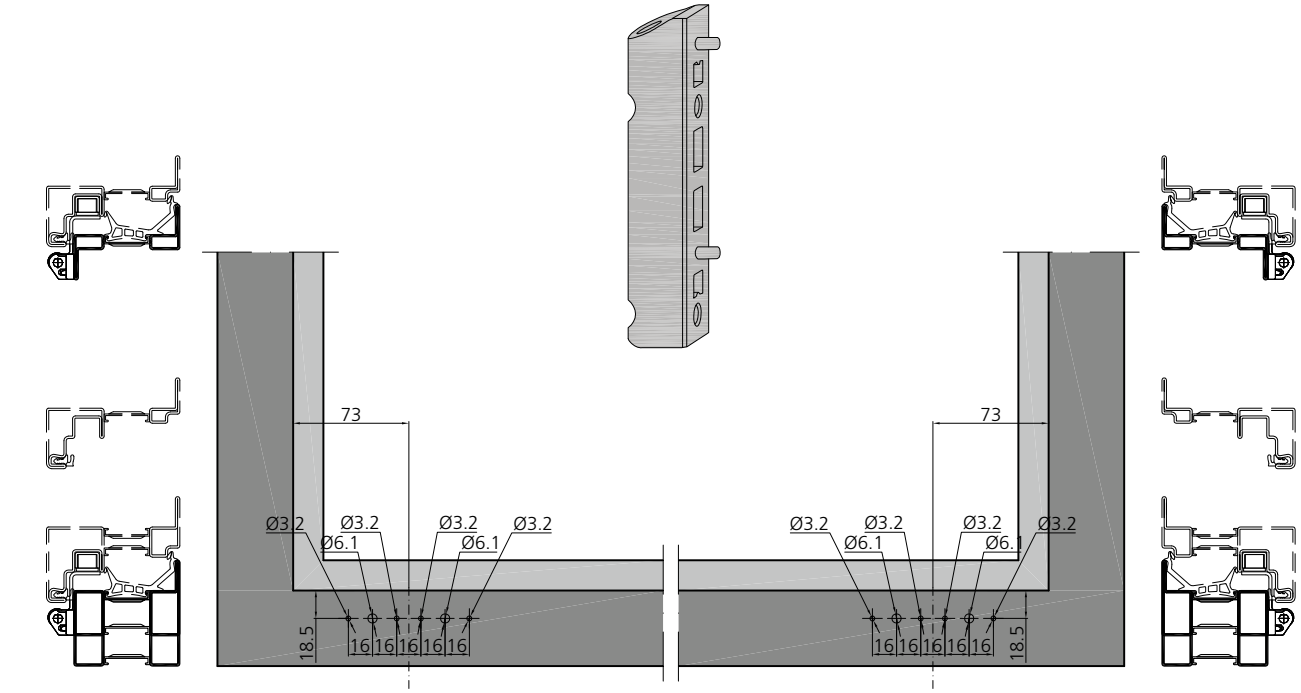

forster
GR.980

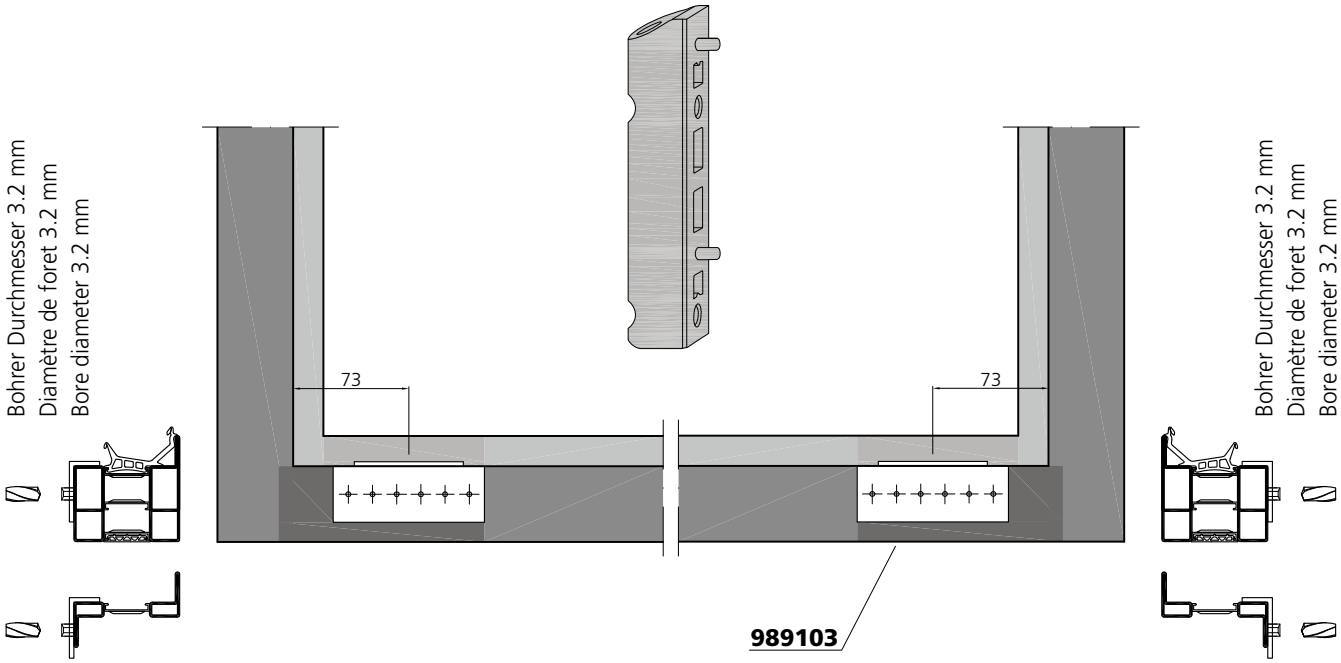
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau Kippflügel FFB 520-1200

Montage de la quincaillerie Ouvrant à soufflet FFB 520-1200

Installation of the fittings Tilt only window FFB 520-1200





Bohrlehre **Art. Nr. 989103** zu Axer- Eckband.

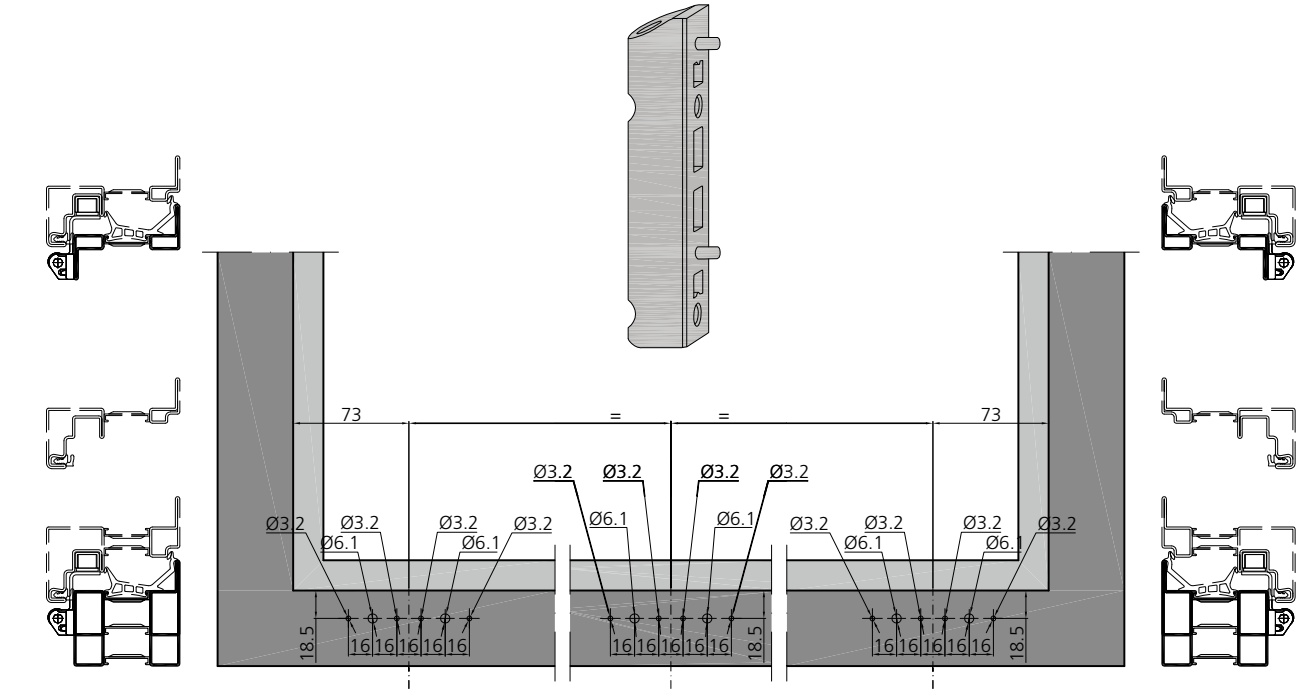
Gabarit de perçage **art. no. 989103** pour pivot d'angle.

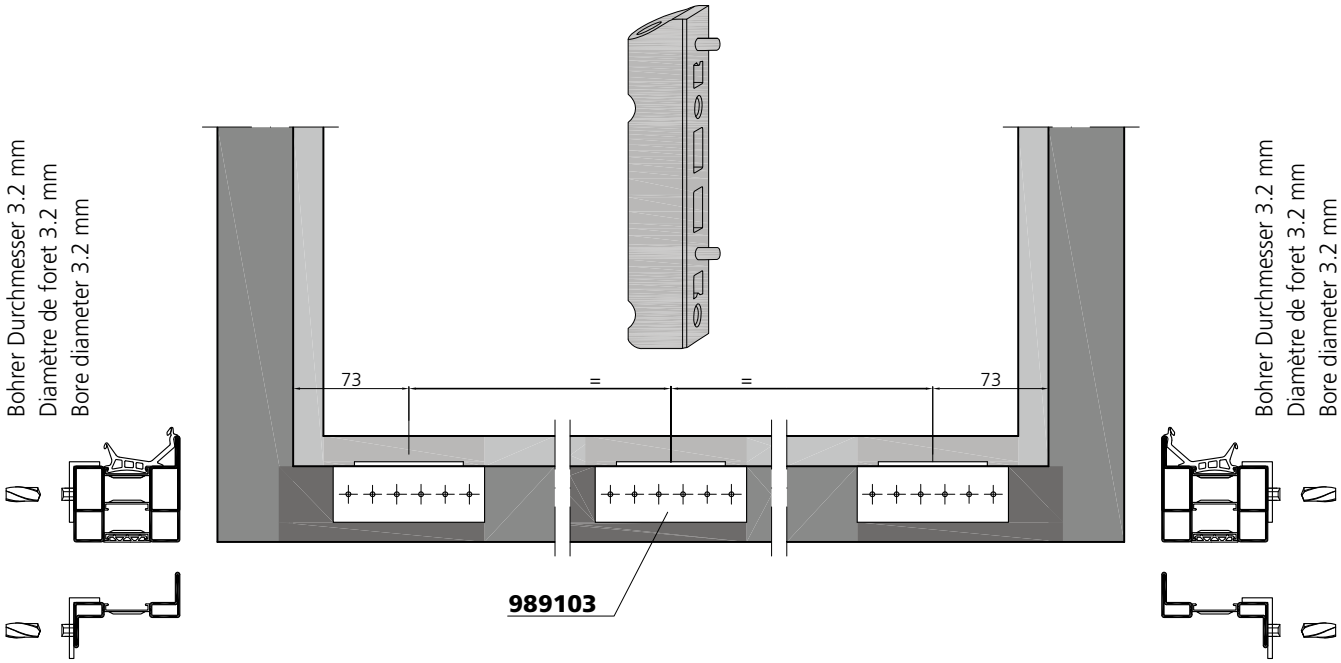
Drilling template **art. no. 989103** for corner hinge.

Beschlagseinbau Kippflügel FFB 1201-2400

Montage de la quincaillerie Ouvrant à soufflet FFB 1201-2400

Installation of the fittings Tilt only window FFB 1201-2400





Bohrlehre **Art. Nr. 989103**
zu Axer- und Ecklager.

Gabarit de perçage **art. no. 989103**
pour palier de compas et d'angle.

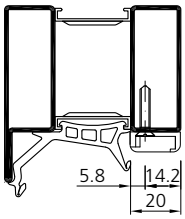
Drilling template **art. no. 989103**
for sash stay bearing and corner pivot rest.

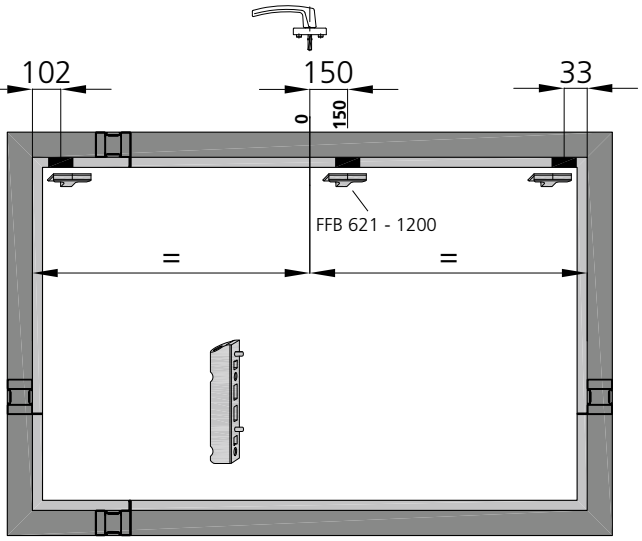
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau Kippflügel

Anordnung der Schliessstücke
Kippflügel in Abhängigkeit der Flügelfalzbreite

Anordnung Schliessstücke
FFB 520 - 1200 [mm]





Montage de la quincaillerie Ouvrant à soufflet

Disposition des gâches
Ouvrant à soufflet selon la largeur de la feuillure du vantail

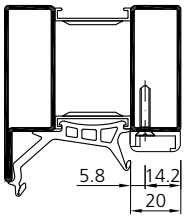
Disposition des gâches
FFB 520 - 1200 [mm]

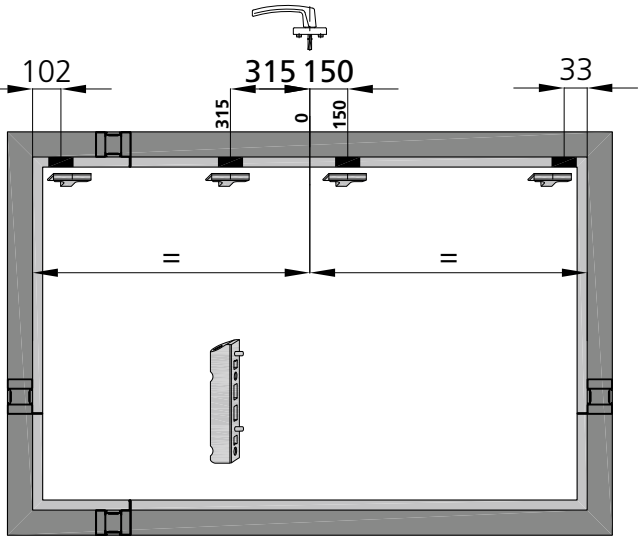
Installation of the fittings Tilt only window

Arrangement of the strikers
Tilt only window depending on the width of the leaf rebate

Arrangement of the strikers
FFB 520 - 1200 [mm]

Anordnung Schliessstücke
FFB 1201 - 1600 [mm]





Disposition des gâches
FFB 1201 - 1600 [mm]

Arrangement of the strikers
FFB 1201 - 1600 [mm]

Beschlagseinbau Kippflügel

Anordnung der Schliessstücke
Kippflügel in Abhängigkeit der Flügelfalzbreite

Anordnung Schliessstücke
FFB 1601-2000 [mm]

Montage de la quincaillerie Ouvrant à soufflet

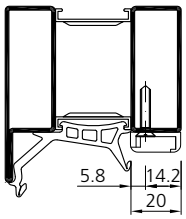
Disposition des gâches
Ouvrant à soufflet selon la largeur de la feuillure du vantail

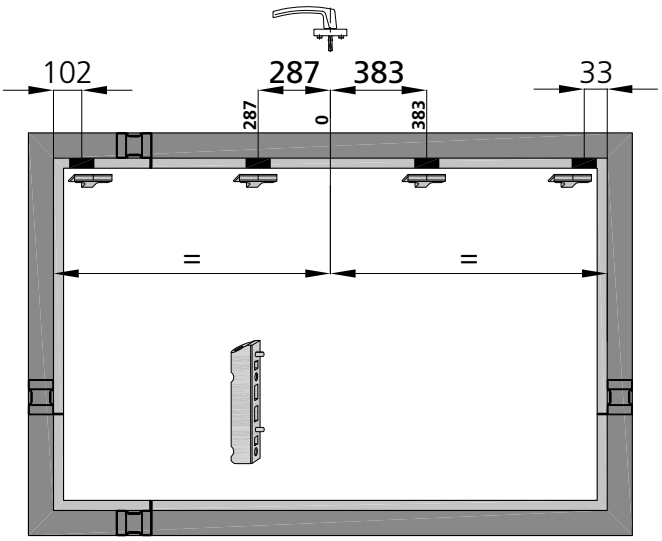
Disposition des gâches
FFB 1601-2000 [mm]

Installation of the fittings Tilt only window

Arrangement of the strikers
Tilt only window depending on the width of the leaf rebate

Arrangement of the strikers
FFB 1601-2000 [mm]

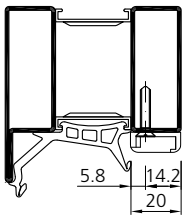


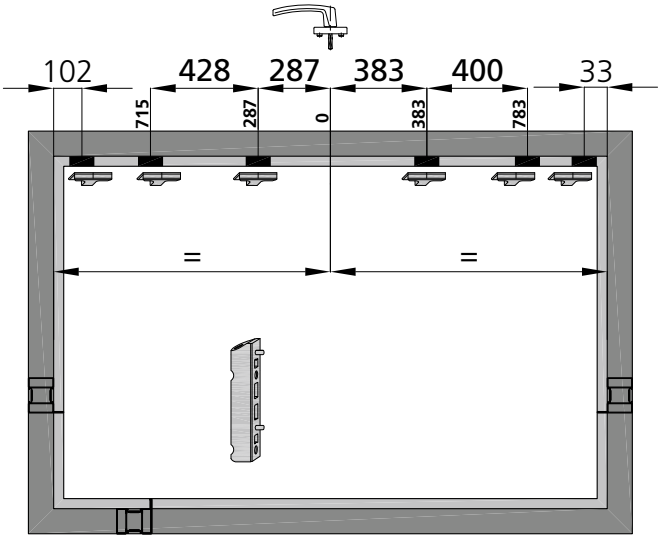


Anordnung Schliessstücke
FFB 2001-2400 [mm]

Disposition des gâches
FFB 2001-2400 [mm]

Arrangement of the strikers
FFB 2001-2400 [mm]



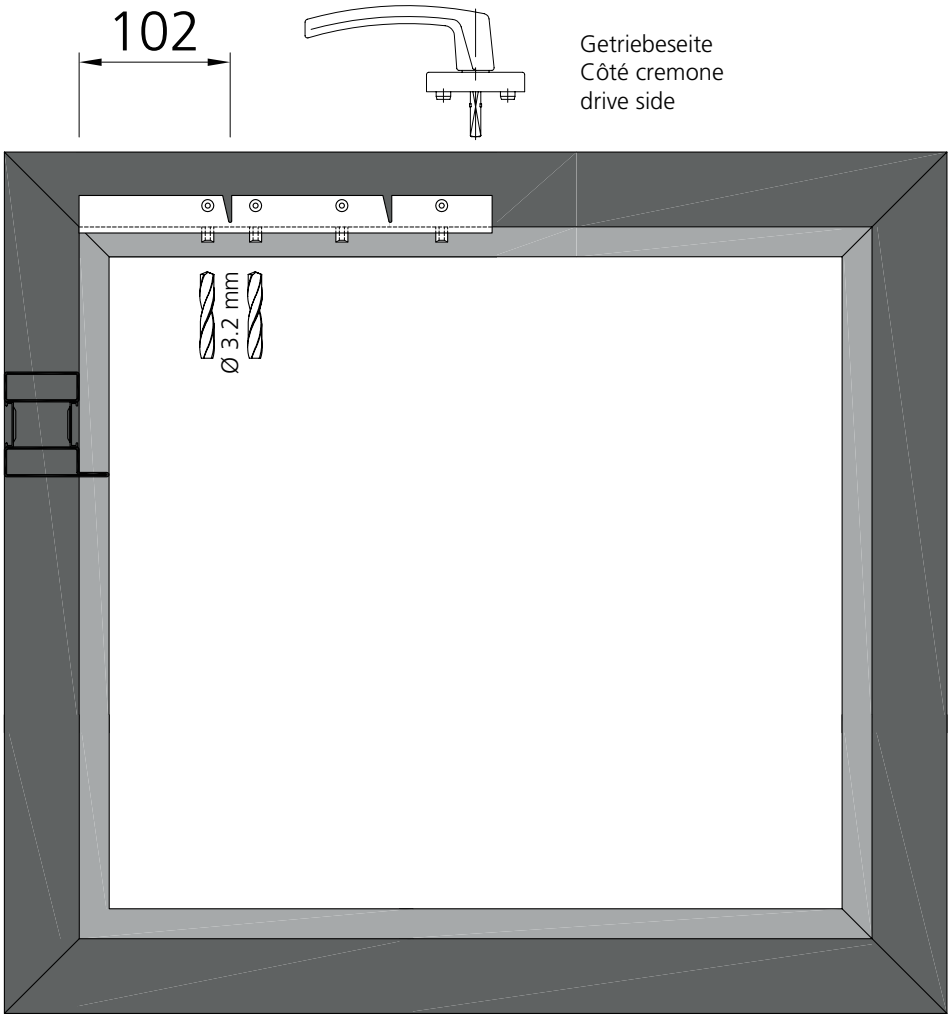


Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau Kippflügel

Montage de la quincaillerie Ouvrant à soufflet

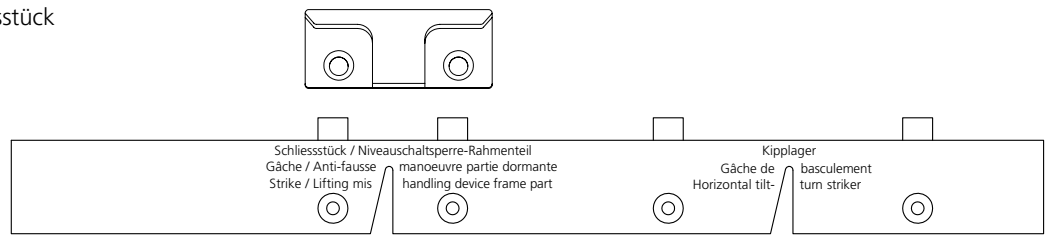
Installation of the fittings Tilt only window



Getriebeseite
Côté cremone
drive side

Bandseite
Côté paumelle
hinge side

Schliessstück
Gâches
Strikers

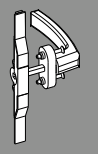


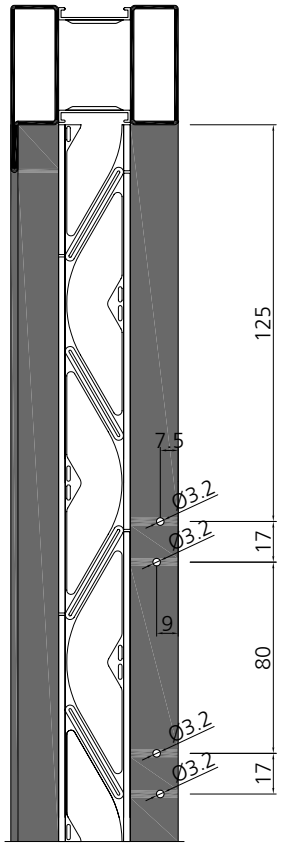
Markierung Zentrum Schliessstück
Marque centre gâche
Marking on the center of the striker

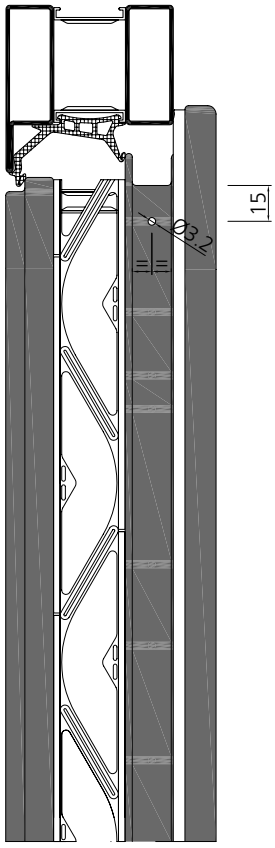
Beschlagseinbau Kippflügel

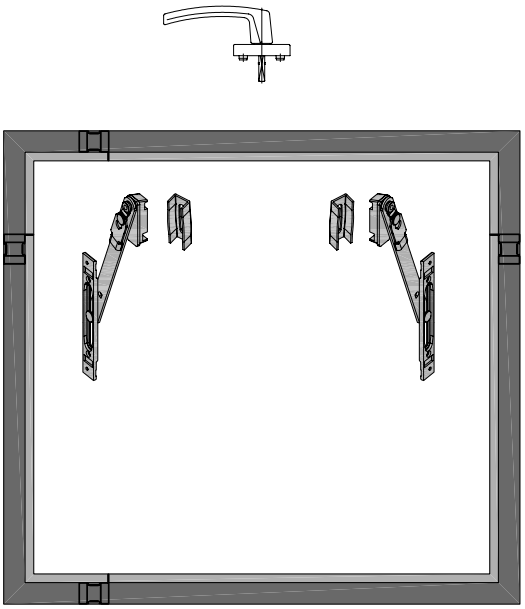
Montage de la quincaillerie Ouvrant à soufflet

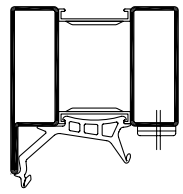
Installation of the fittings Tilt only window

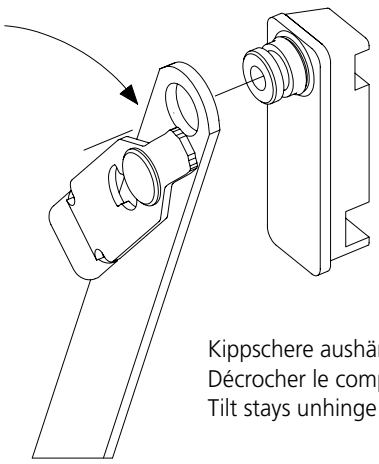












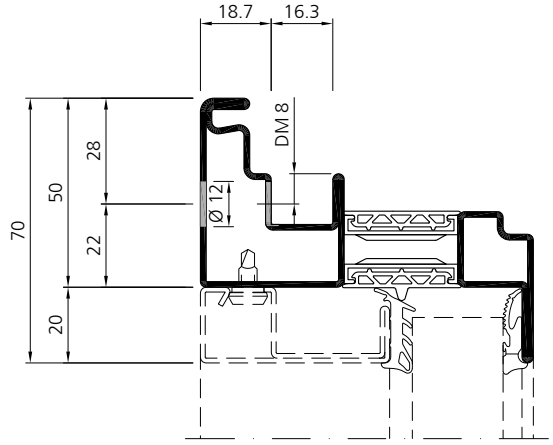
Kippschere aushängen
Décrocher le compas
Tilt stays unhinge

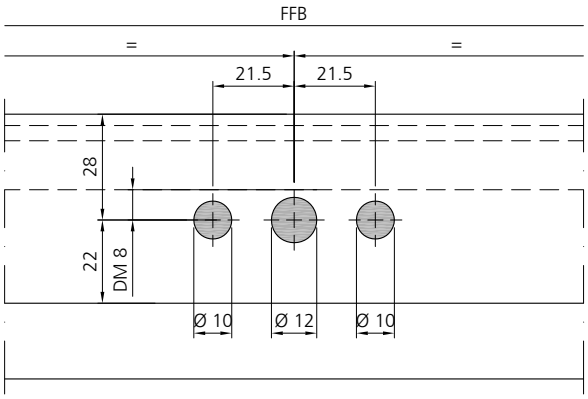
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

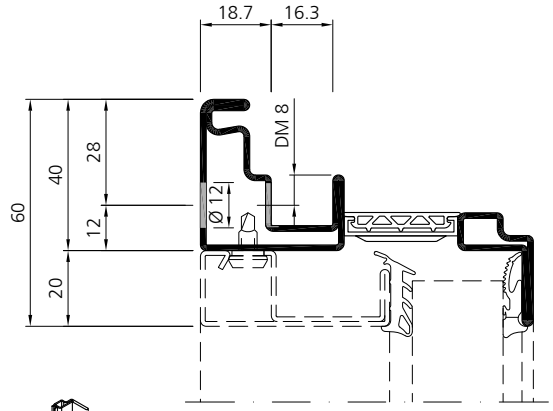
Beschlagseinbau Kippflügel

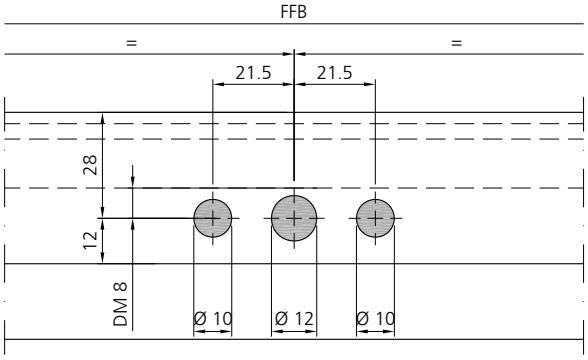
Montage de la quincaillerie Ouvrant à soufflet

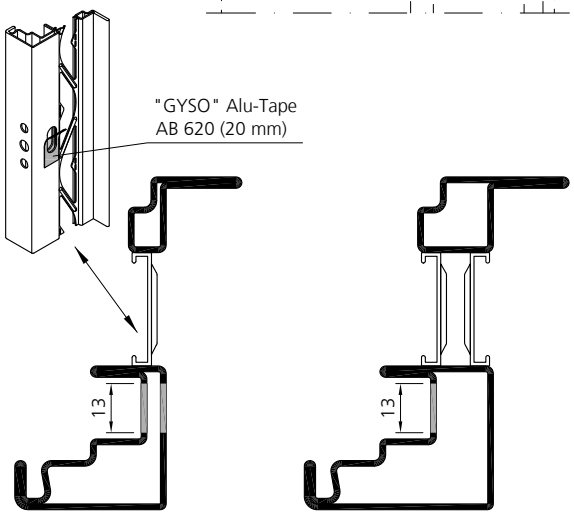
Installation of the fittings Tilt only window

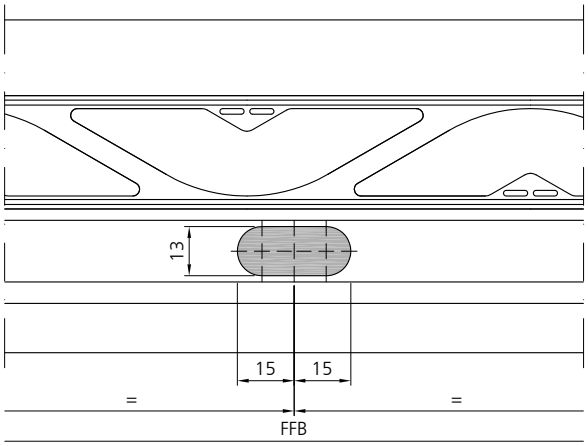










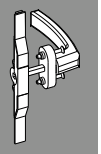


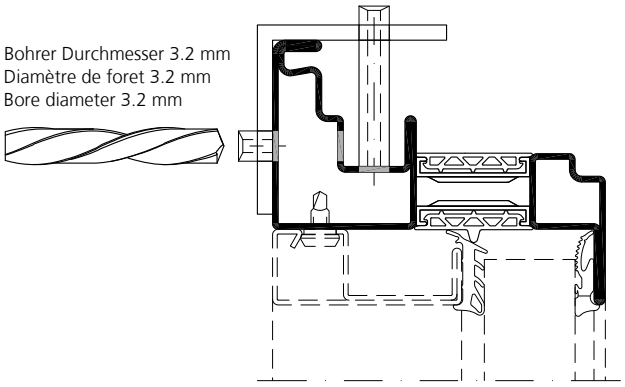
Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter préalablement l'usinage pour la crémone de fenêtre dans le montant du vantail!
Make the cut-out for the drive in the vertical leaf profile first!

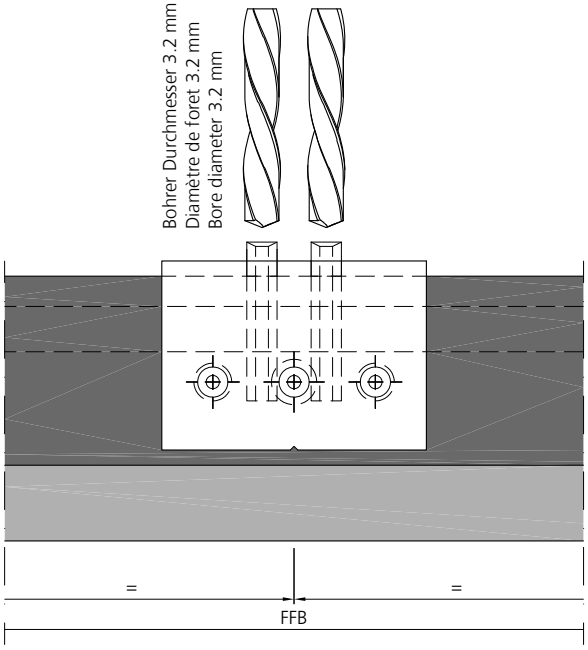
Beschlagseinbau Kippflügel

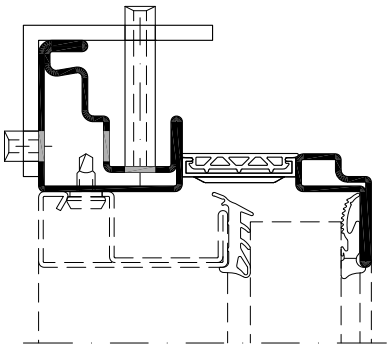
Montage de la quincaillerie Ouvrant à soufflet

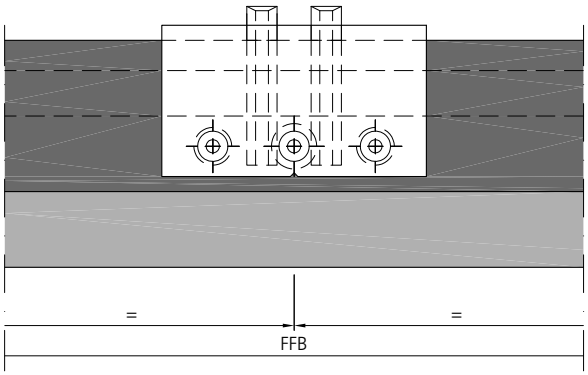
Installation of the fittings Tilt only window

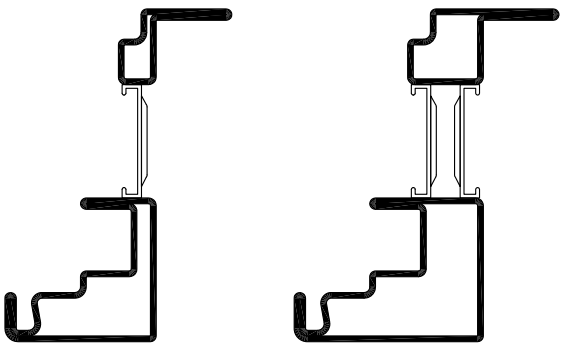


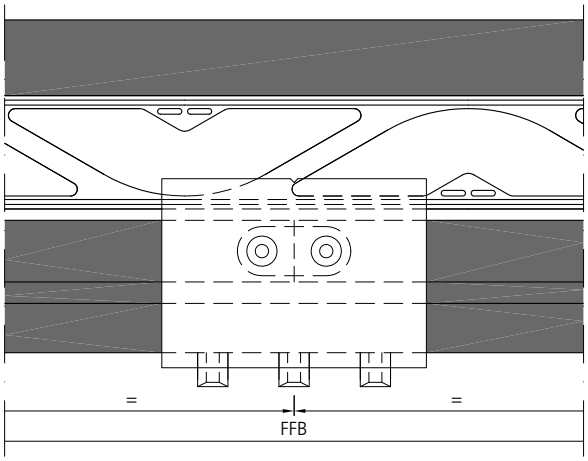












Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter préalablement l'usinage pour la crémone de fenêtre dans le montant du vantail!
Make the cut-out for the drive in the vertical leaf profile first!

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau Kippflügel

Montage de la quincaillerie Ouvrant à soufflet

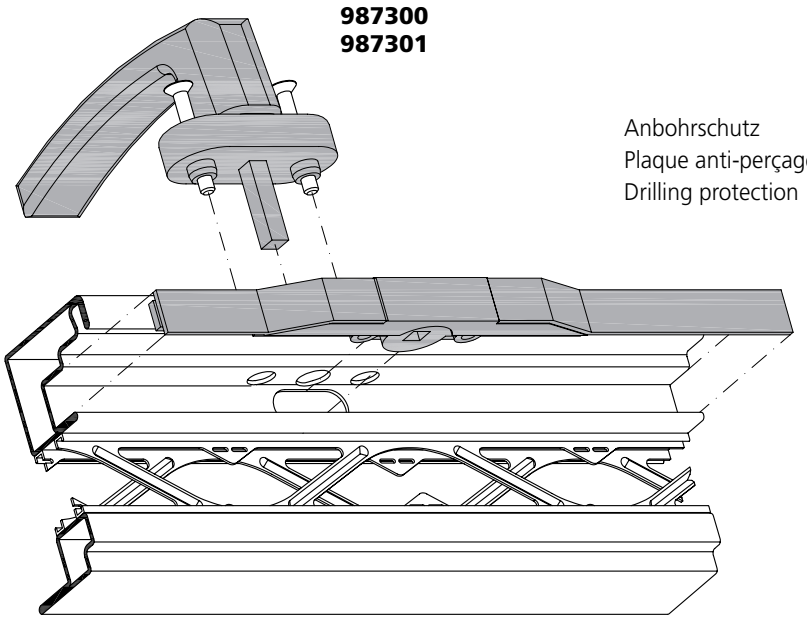
Installation of the fittings Tilt only window

Senk-Schraube M5 x 40 (wird mit Griffen **987300** und **987301** geliefert).

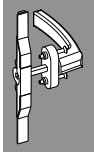
Vis conique M5 x 40 (livrées avec les poignées **987300** et **987301**).

Countersunk screw M5 x 40 (supplied with handles **987300** and **987301**).

Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter préalablement l'usinage pour la crémone de fenêtre dans le montant du vantail!
Make the cut-out for the drive in the vertical leaf profile first!



Anbohrschutz
Plaque anti-perçage
Drilling protection



- Schraube M4 x 21 (selbstfurchend)
- Bohrloch 3.2 mm
- Bei Edelstahlprofil muss das M4 Gewinde geschnitten werden. Alternative: Bohrloch auf 3.5 aufbohren, Schraube ohne M4 Gewindeschnitt einsetzen.

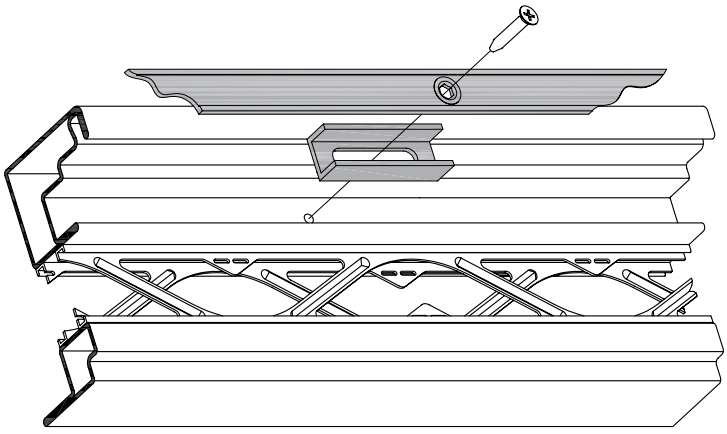
Bei jeder Verschraubung muss ein Distanzstück **927001** eingesetzt werden.

- Vis M4 x 21 (autotaraudeuse)
- Perçage 3.2 mm
- Avec le profilé en acier inox, la vis M4 doit être coupée. Alternative: agrandir le trou à 3.5, taraudage M4 pas necessaire.

La pièce d'entretoise **927001** doit être insérée sous toutes les fixations et assemblages.

- Screw M4 x 21 (self tapping)
- Drill hole 3.2 mm
- In stainless steel profiles, the M4 thread needs to be cut case. Alternative: drill out the drilling hole of 3.5, use screw without M4 thread.

The spacer **927001** must be placed under all screw connections.

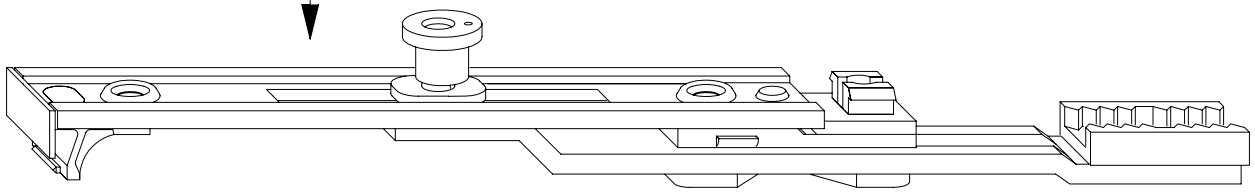


Beschlagseinbau Kippflügel

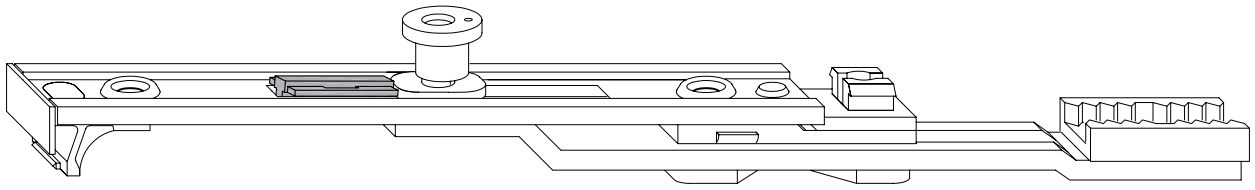
Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window

Hubbegrenzer (90°)
Limitateur de course (90°)
Travel - restrictor (90°)



Getriebeanschluss V
Raccord de crémone V
espagnolette-connector V

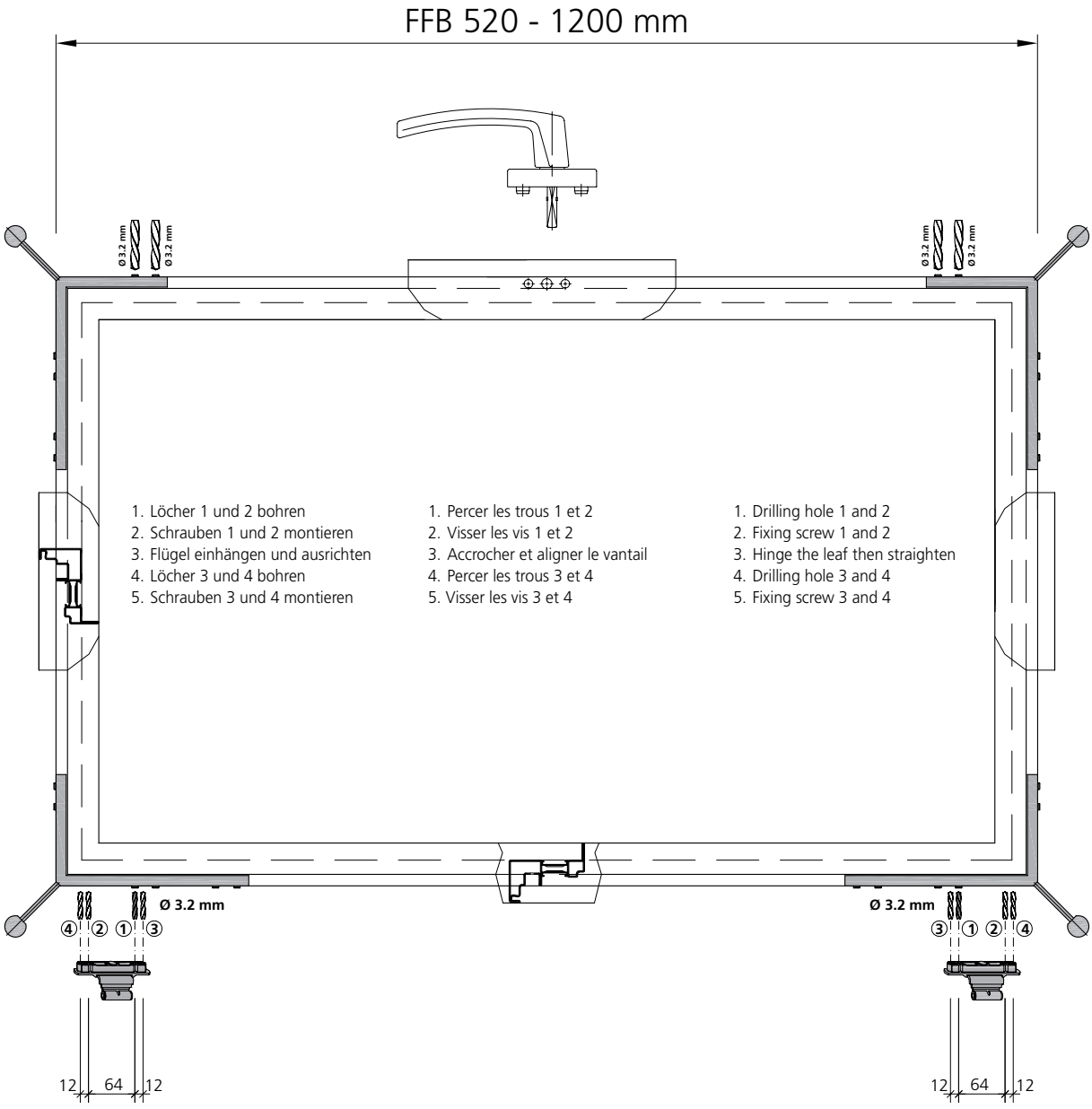


Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau Kippflügel

Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window



1. Löcher 1 und 2 bohren
2. Schrauben 1 und 2 montieren
3. Flügel einhängen und ausrichten
4. Löcher 3 und 4 bohren
5. Schrauben 3 und 4 montieren

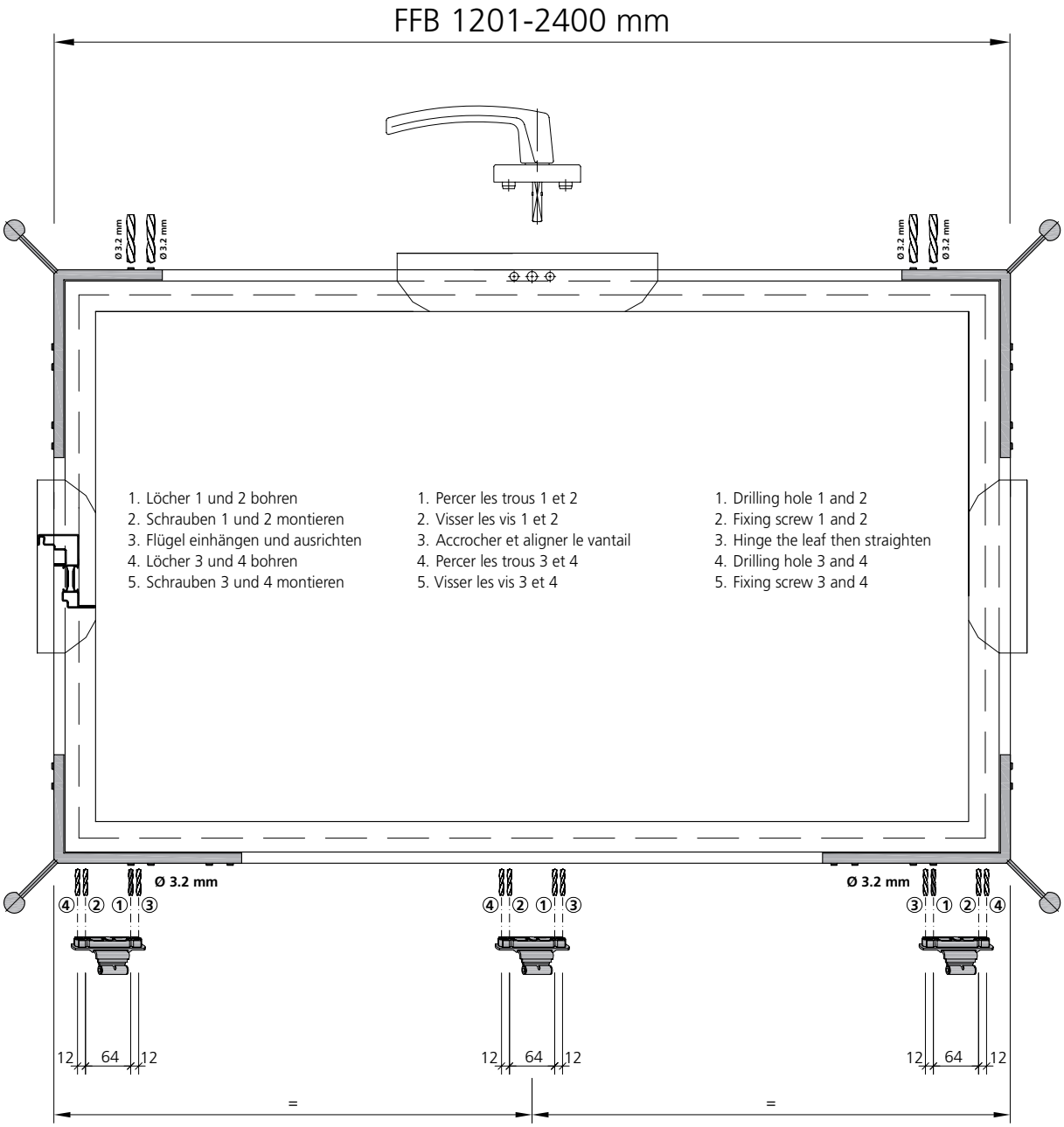
1. Percer les trous 1 et 2
2. Visser les vis 1 et 2
3. Accrocher et aligner le vantail
4. Percer les trous 3 et 4
5. Visser les vis 3 et 4

1. Drilling hole 1 and 2
2. Fixing screw 1 and 2
3. Hinge the leaf then straighten
4. Drilling hole 3 and 4
5. Fixing screw 3 and 4

Beschlagseinbau Kippflügel

Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window

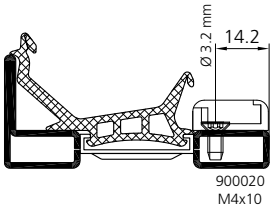


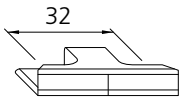
Beschlagseinbau Kippflügel Beschlag aufgesetzt

Montage de la quincaillerie Ouvrant à soufflet Quincaillerie standard

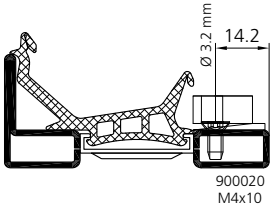
Installation of the fittings Tilt only window Standard fittings

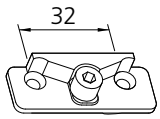
Schliessstück
Gâche
Striker



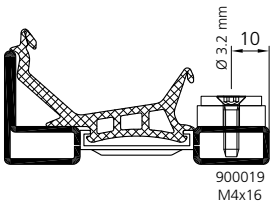


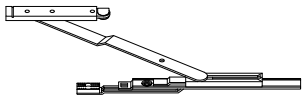
Niveau-Schaltsperre Flügelteil
Anti-fausse manoeuvre partie ouvrant
Lifting mishandling device sash component



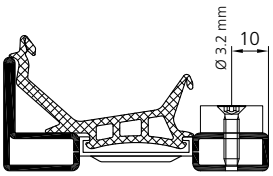


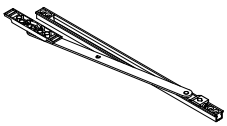
Zweitschere
Deuxième compas
Additional scissors-stay



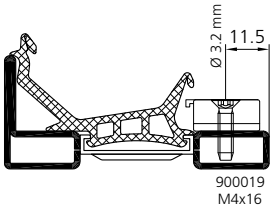


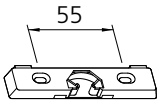
Drehbegrenzer
Limitateur d`ouverture
Leaf opening restrictor

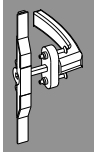




Schnäpperzapfen
Blocage à pion
Bullet catch



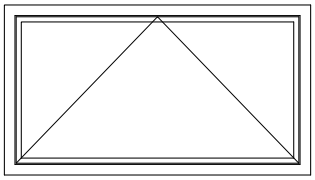


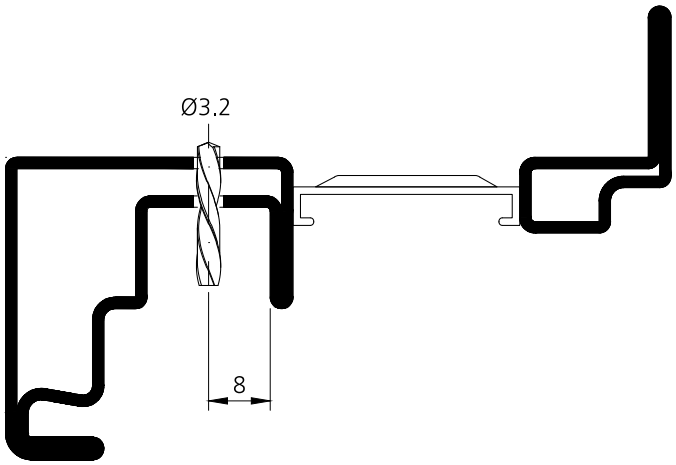


Beschlagseinbau Kippflügel

Montage de la quincaillerie Ouvrant à soufflet

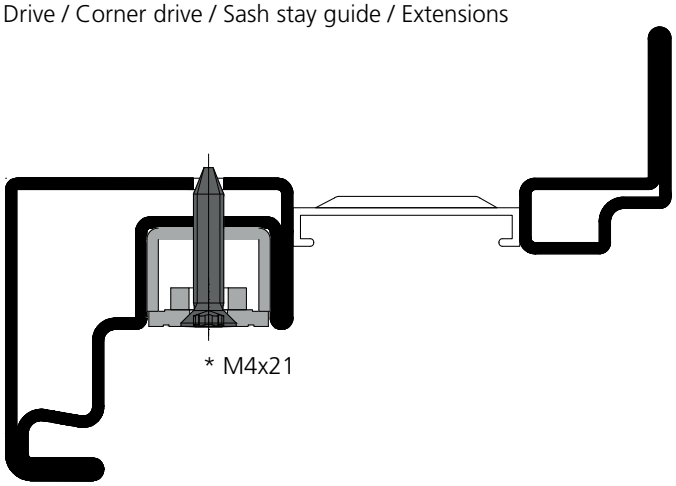
Installation of the fittings Tilt only window





Befestigung / Montage / Mounting

Getriebe / Eckumlenkung / Axerstulp / Verlängerungen
Crémone / Transmission équerre / Têtière de compas / Extensions
Drive / Corner drive / Sash stay guide / Extensions

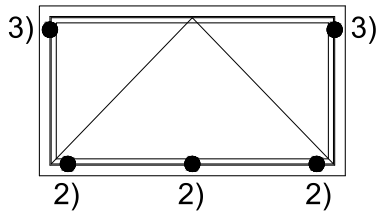


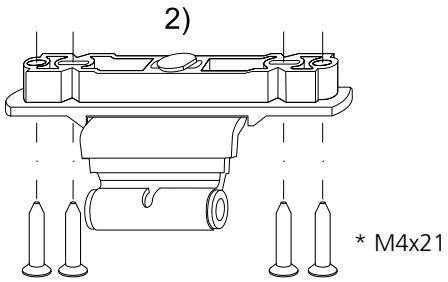
* in der Garnitur enthalten / comprises dans la garniture / included in the fittings set

Beschlagseinbau
Kippflügel
Kippband / Falzschere

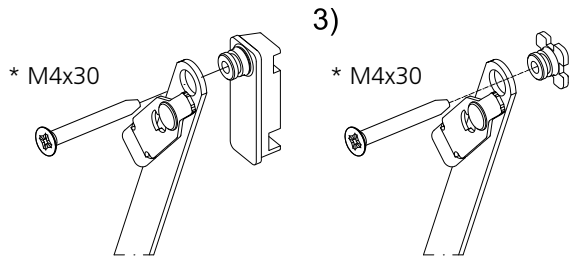
Montage de la quincaillerie
Ouvrant à soufflet
Paumelle / compas

Installation of the fittings
Tilt only window
Tilt hinge / tilt-stays

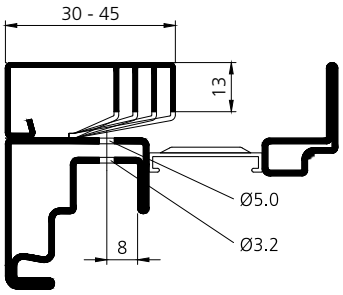


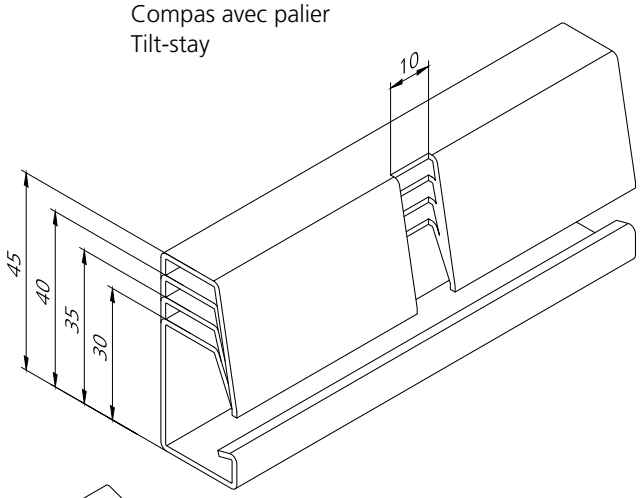


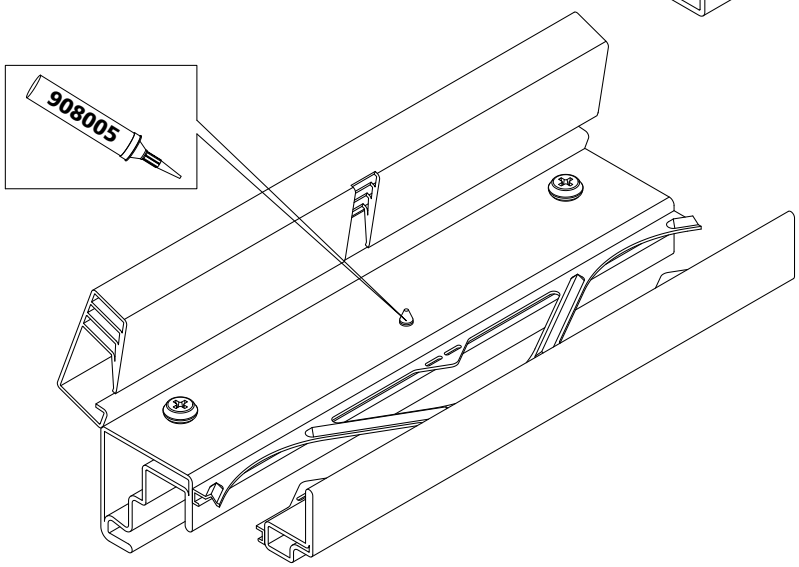
2) Kippflügelband
Paumelle OF
Tilt-only rebate hinge



3) Falzschere
Compas avec palier
Tilt-stay







* in der Garnitur enthalten / comprises dans la garniture / included in the fittings set

Beschlagseinbau Kippflügel

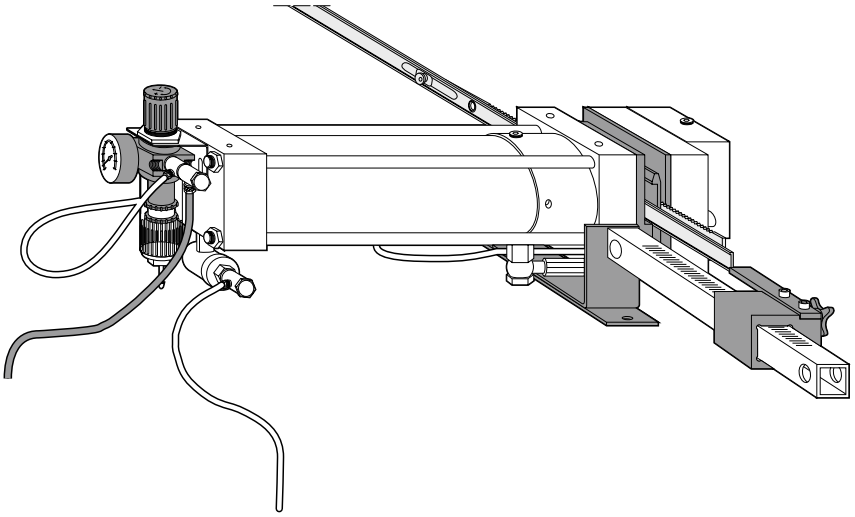
Ablängen mit pneumatischer Stanze (Lochstanzung)

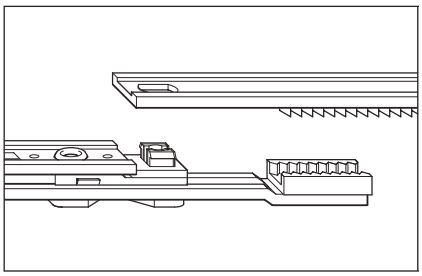
Montage de la quincaillerie Ouvrant à soufflet

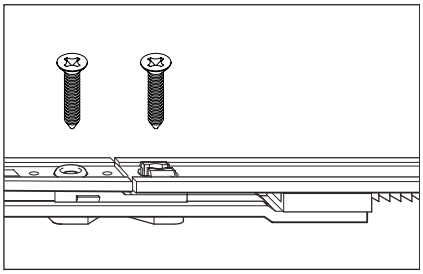
Couper à la longueur requise avec un dispositif de poinçonnage pneumatique

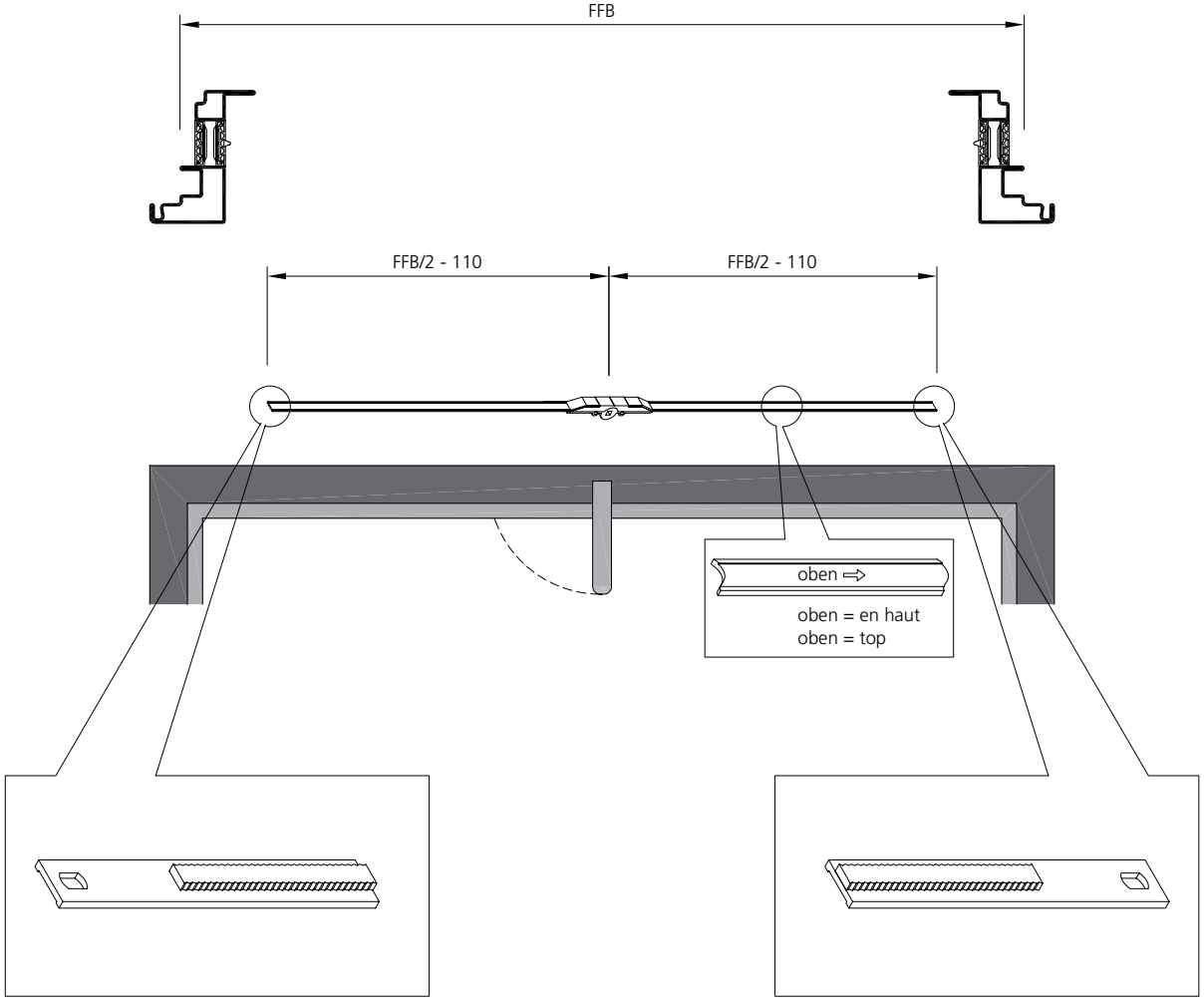
Installation of the fittings Tilt only window

Cut to lenght with pneumatic punching tool (hole punching)









Beschlagseinbau Kippflügel

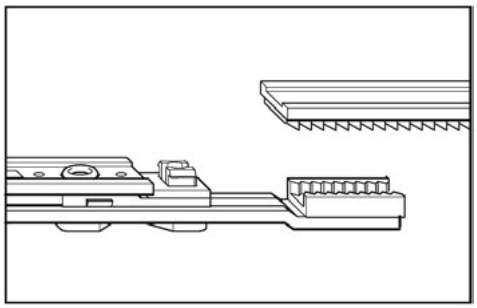
Ablängen mit Säge und Einsatz mit Verbindungslasche

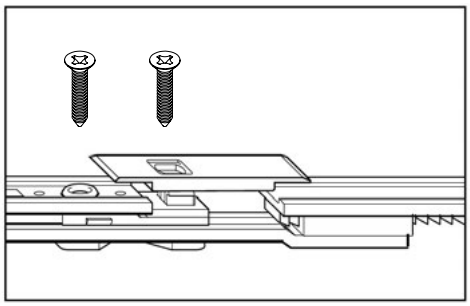
Montage de la quincaillerie Ouvrant à soufflet

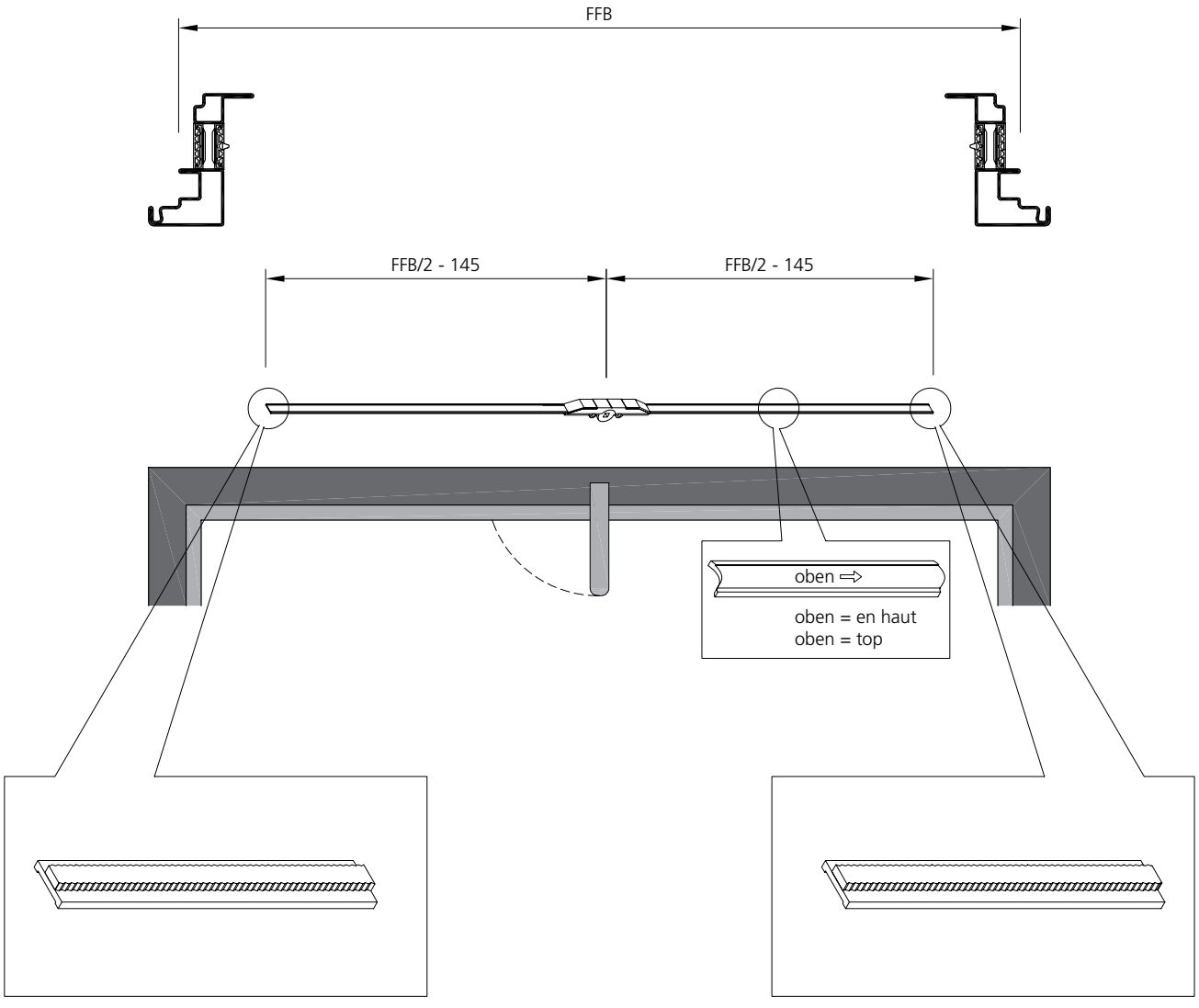
Couper à la longueur requise avec une scie et assembler avec une plaque de liaison

Installation of the fittings Tilt only window

Cut to lenght with saw and use with connecting link



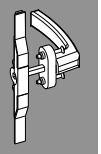


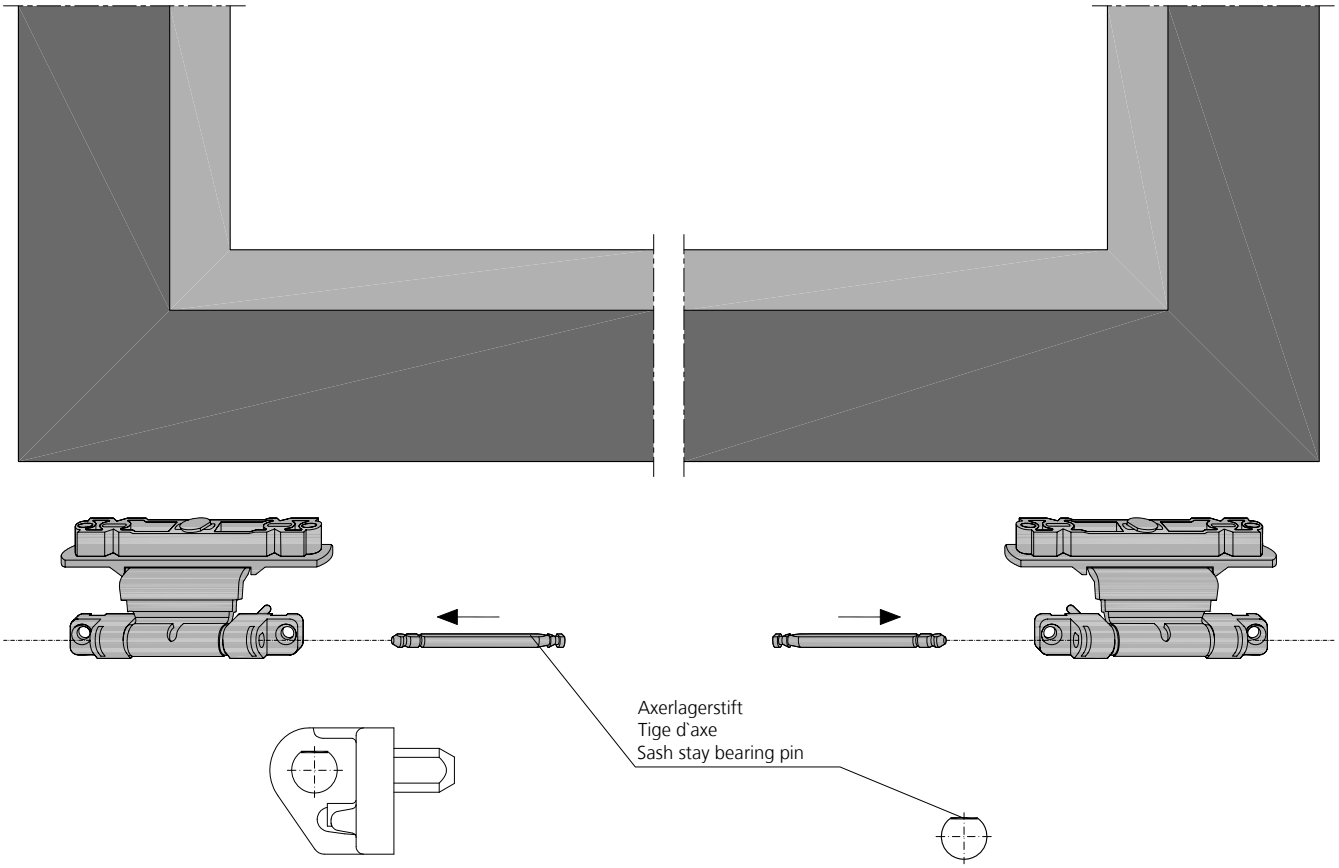


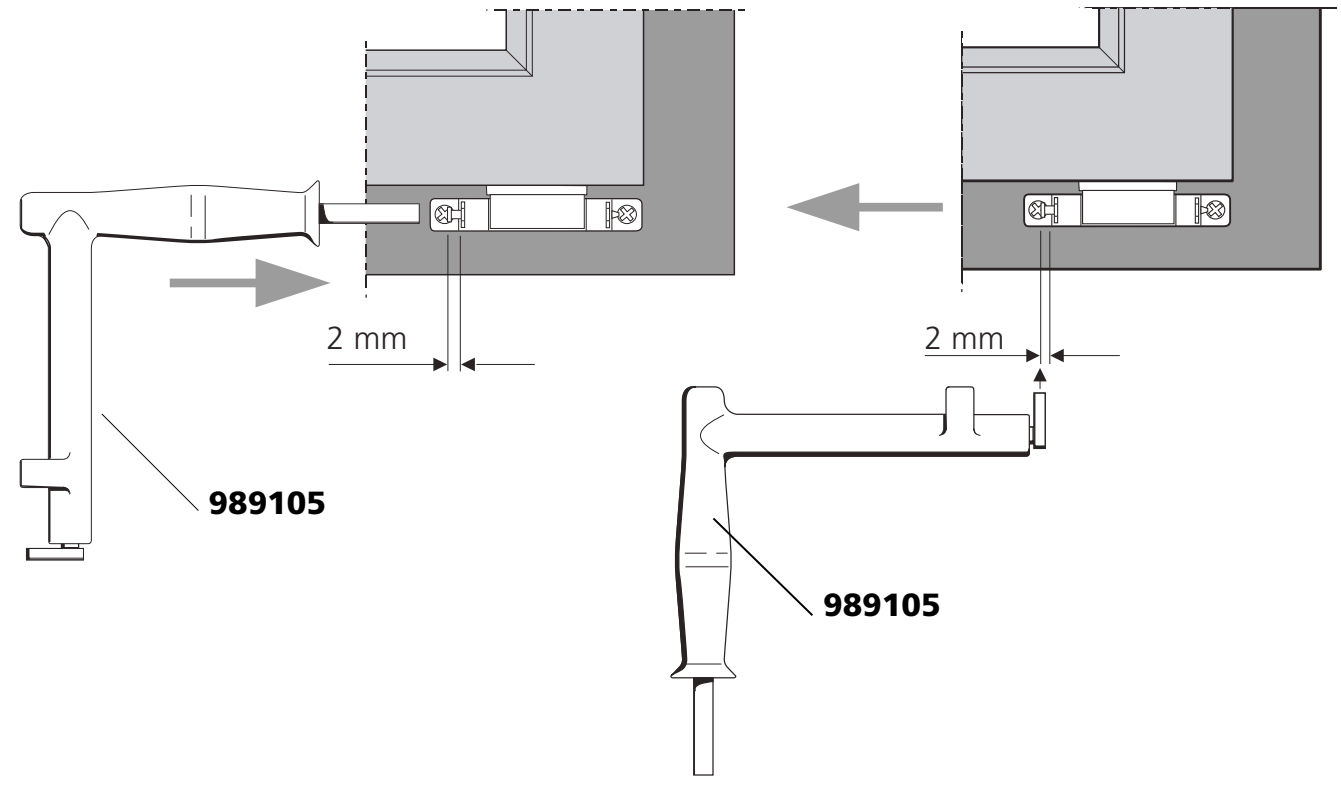
Beschlagseinbau Kippflügel

Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window





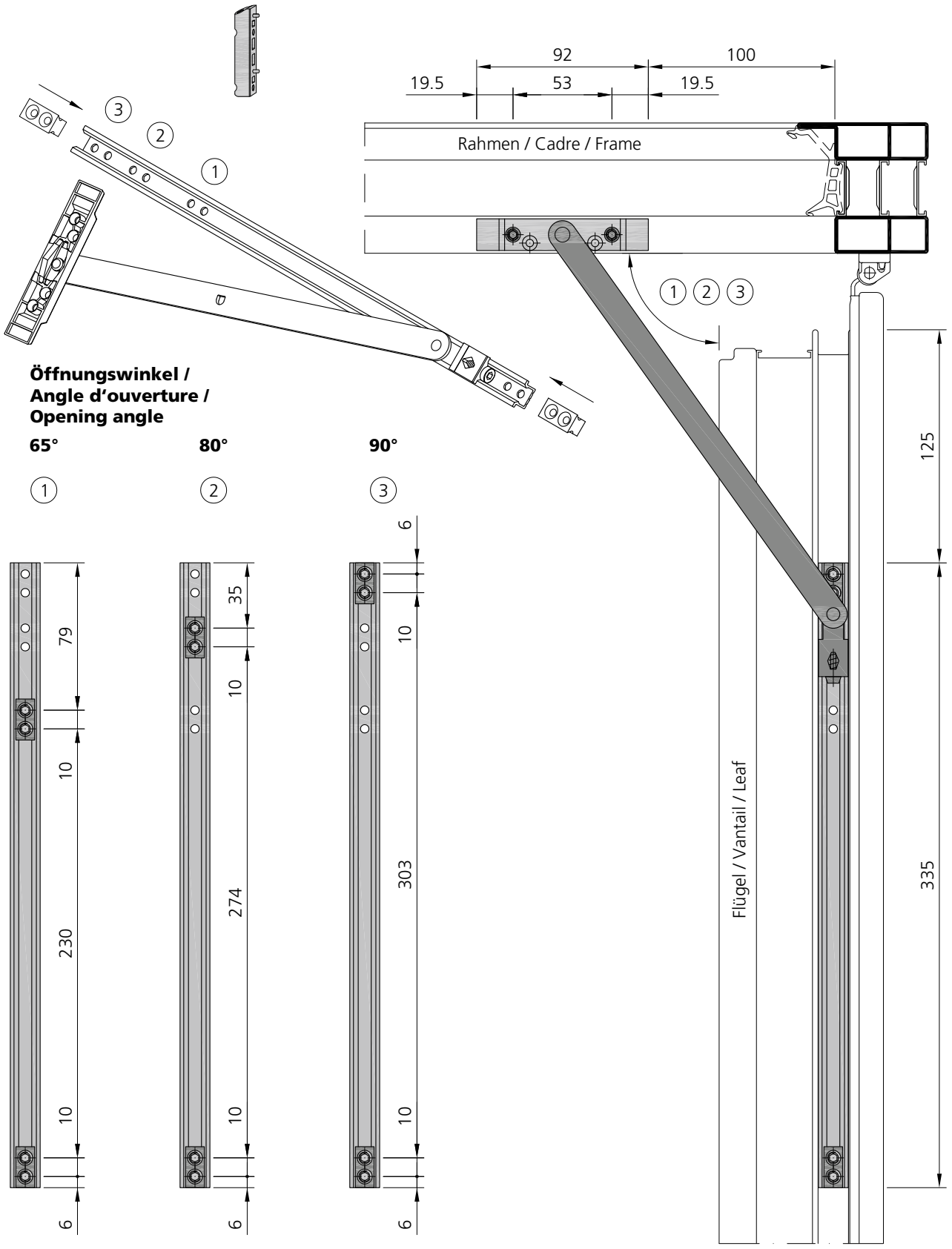


Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Beschlagseinbau Drehbegrenzer

Montage de la quincaillerie Limitateur d'ouverture

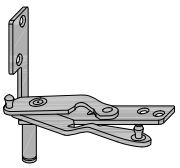
Installation of the fittings Leaf opening restrictor

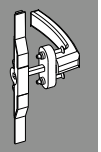


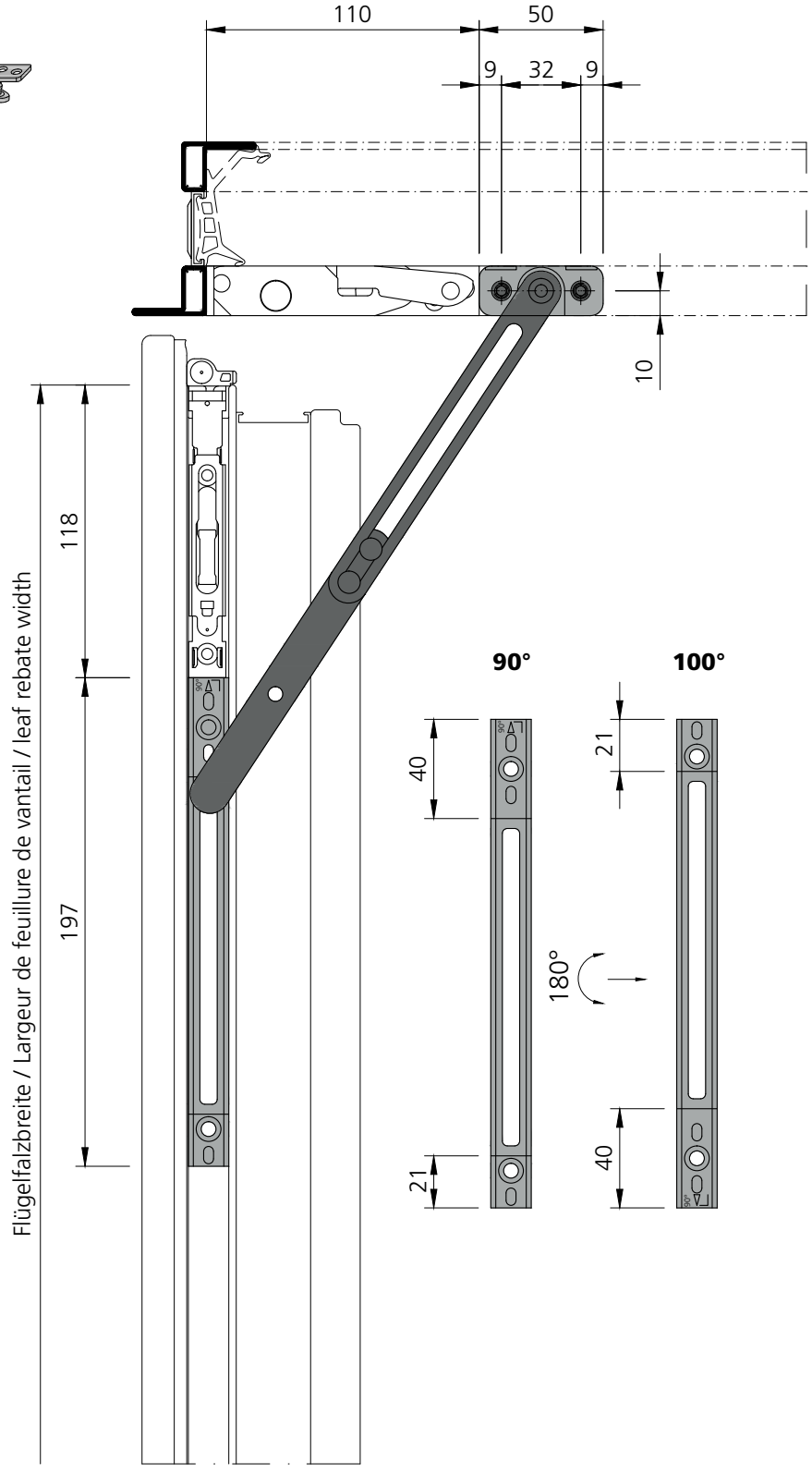
Beschlagseinbau Drehbegrenzer zu verdeckt liegendem Fensterbeschlag

Montage de la quincaillerie Limitateur d'ouverture pour quincaillerie cachée

Installation of the fittings Leaf opening restrictor for concealed window fittings







	8
Verarbeitung Zubehör	
Dichtungseinbau	8.1.1 - 8.1.25
Verglasung	8.2.1 - 8.2.14

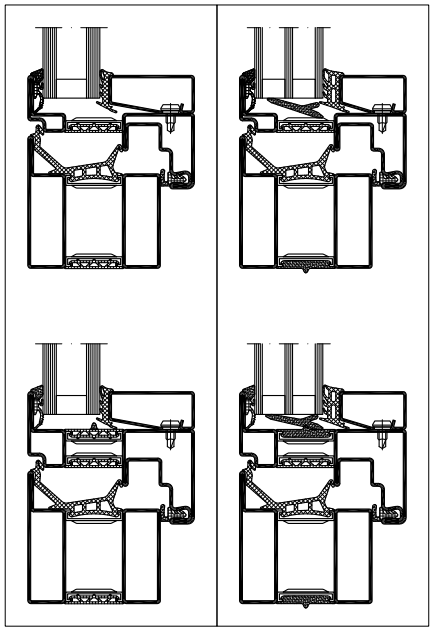
Mise en œuvre accessoires	
Montage des joints	8.1.1 - 8.1.25
Vitrage	8.2.1 - 8.2.14

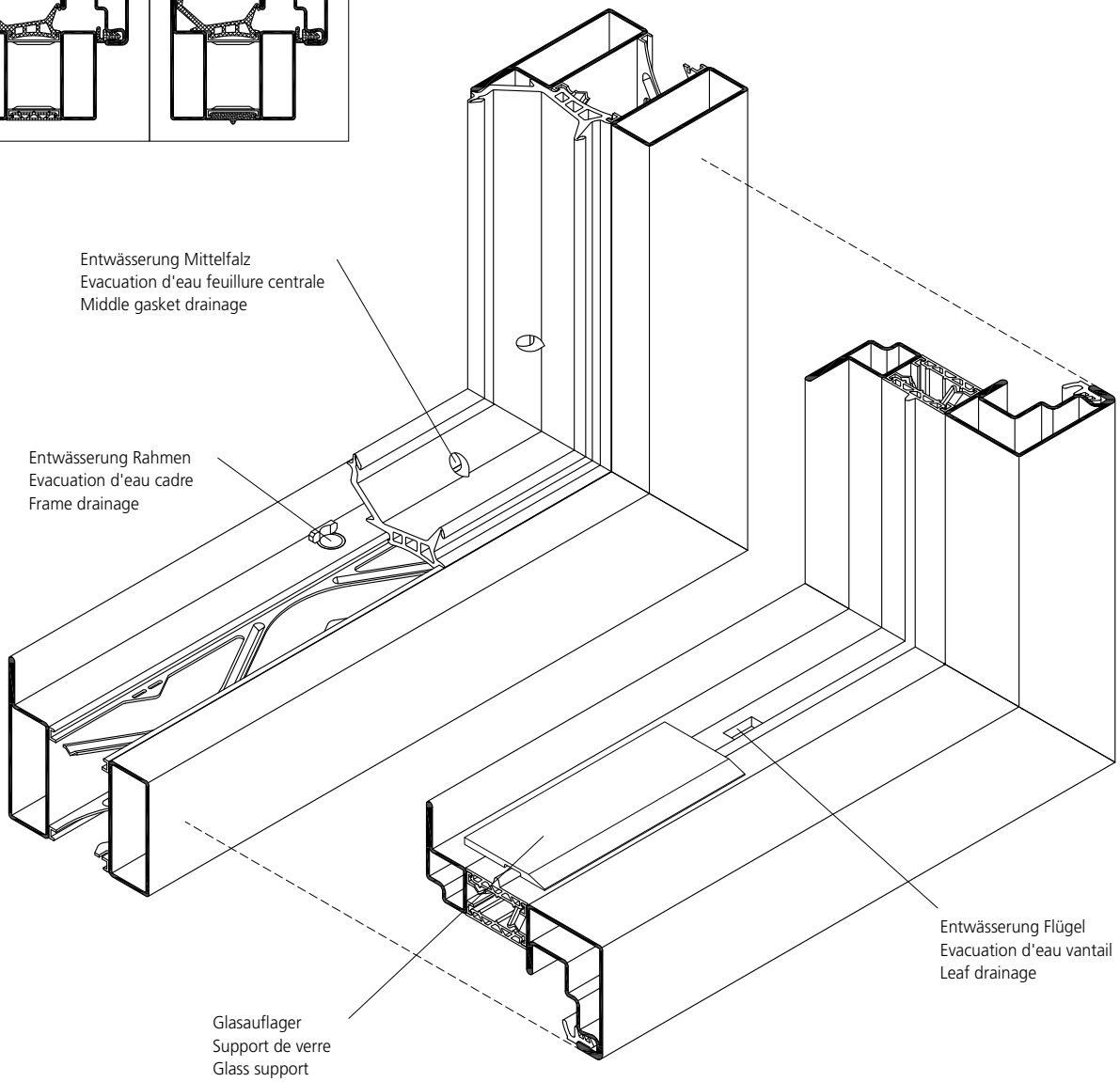
Processing accessories	
Installation of seal	8.1.1 - 8.1.25
Glazing	8.2.1 - 8.2.14

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Entwässerung Evacuation d'eau Drainage

forsterunico forsterunico HI





Dichtungseinbau Falzabdeckung

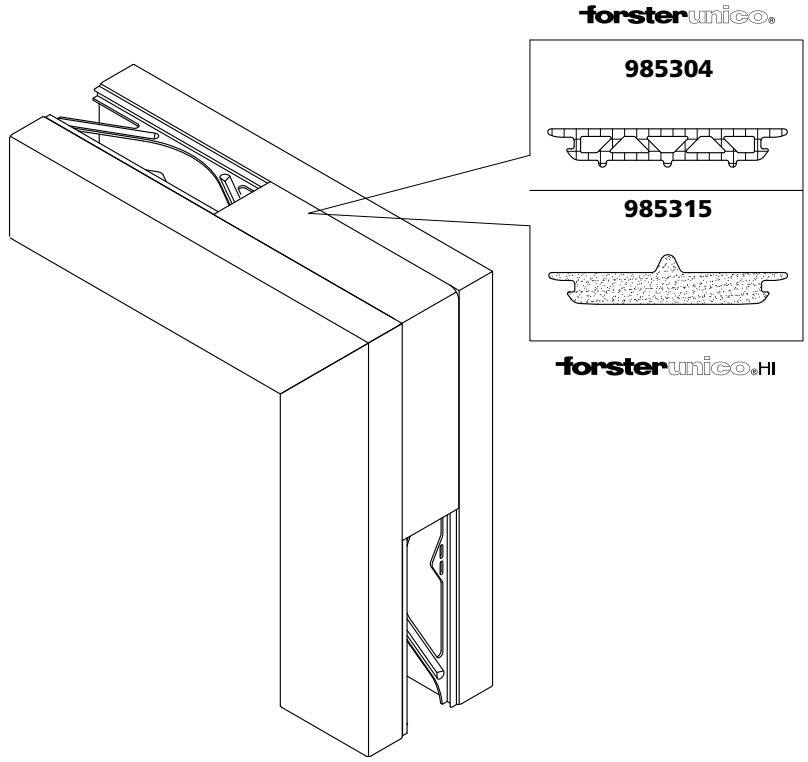
Montage du joint Recouvrement de feuillure

Installation of seal Rebate cover

Die Dichtung **985304** oder **985315** wird um die Aussenecke herum durchgehend geführt.

Poser en continu le recouvrement de feuillure **985304** ou **985315** autour des angles extérieurs.

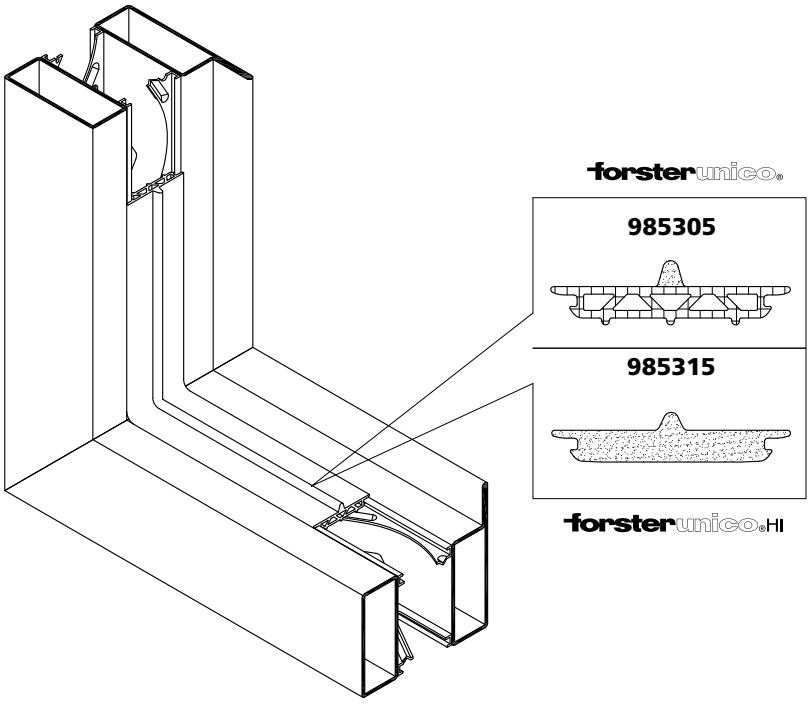
The seal **985304** or **985315** is placed continiously around the outer corner.



Die Dichtung **985305** oder **985315** wird in der Innenecke durchgehend geführt.

Poser en continu le recouvrement de feuillure **985305** ou **985315** dans les angles intérieurs.

The seal **985305** or **985315** is placed continiously around the inner corner.



Dichtungseinbau Falzabdeckung

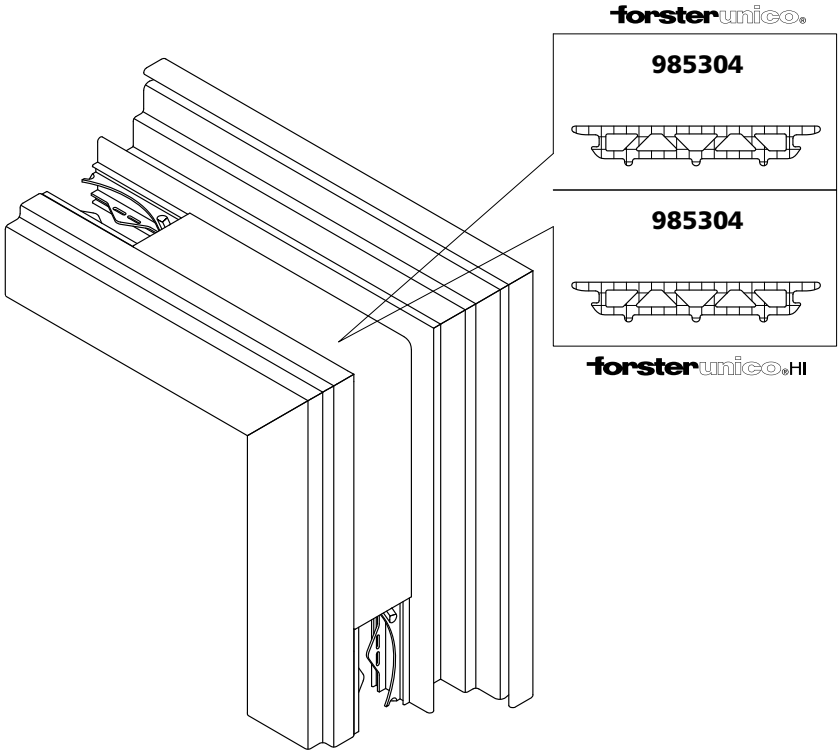
Montage du joint Recouvrement de feuillure

Installation of seal Rebate cover

Die Dichtung **985304** wird um die Aussenecke herum durchgehend geführt.

Poser en continu le recouvrement de feuillure **985304** autour des angles extérieurs.

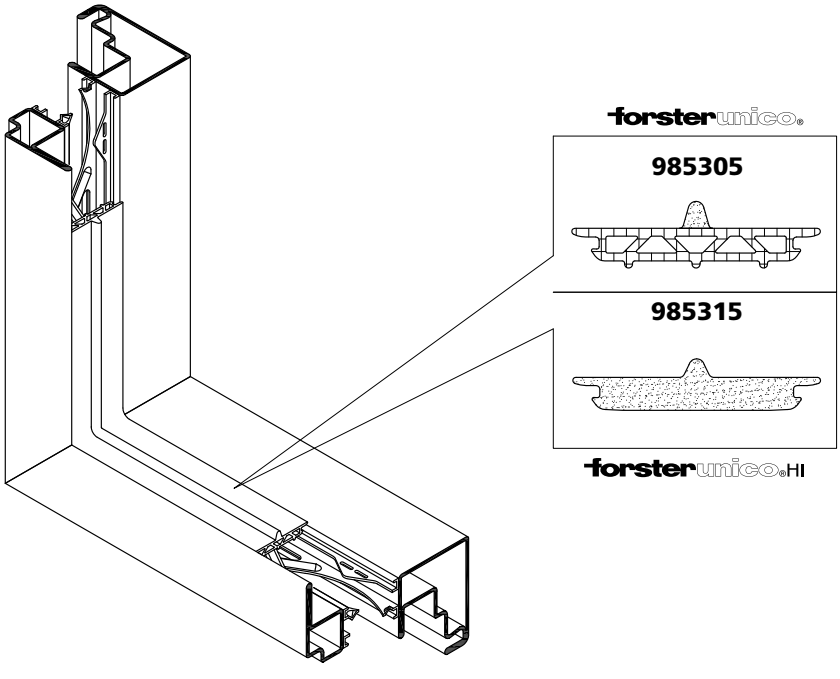
The seal **985304** is placed continiously around the outer corner.



Die Dichtung **985305** oder **985315** wird in der Innenecke durchgehend geführt.

Poser en continu le recouvrement de feuillure **985305** ou **985315** dans les angles intérieurs.

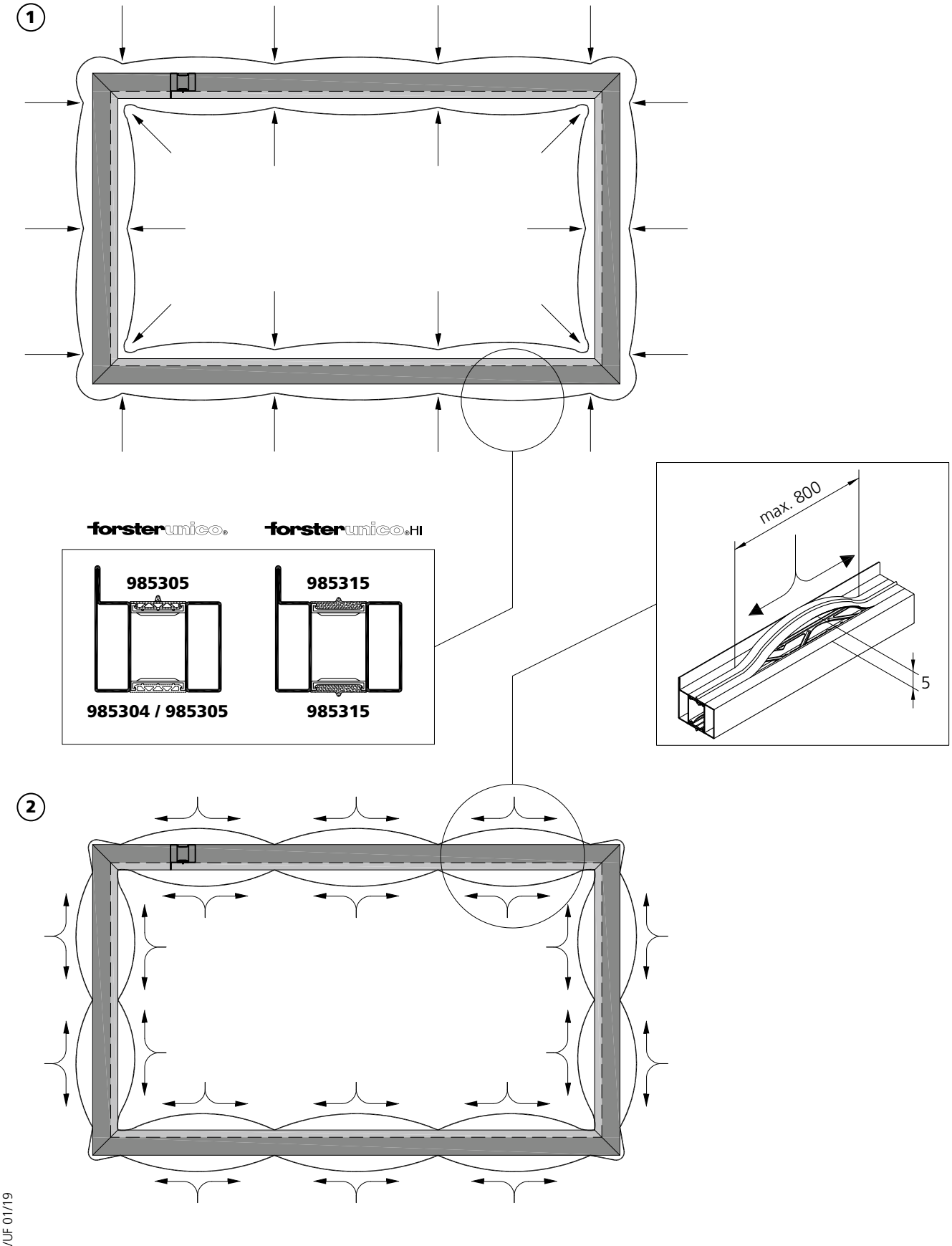
The seal **985305** or **985315** is placed continiously around the inner corner.



Dichtungseinbau
Falzabdeckung

Montage du joint
Recouvrement de feuillure

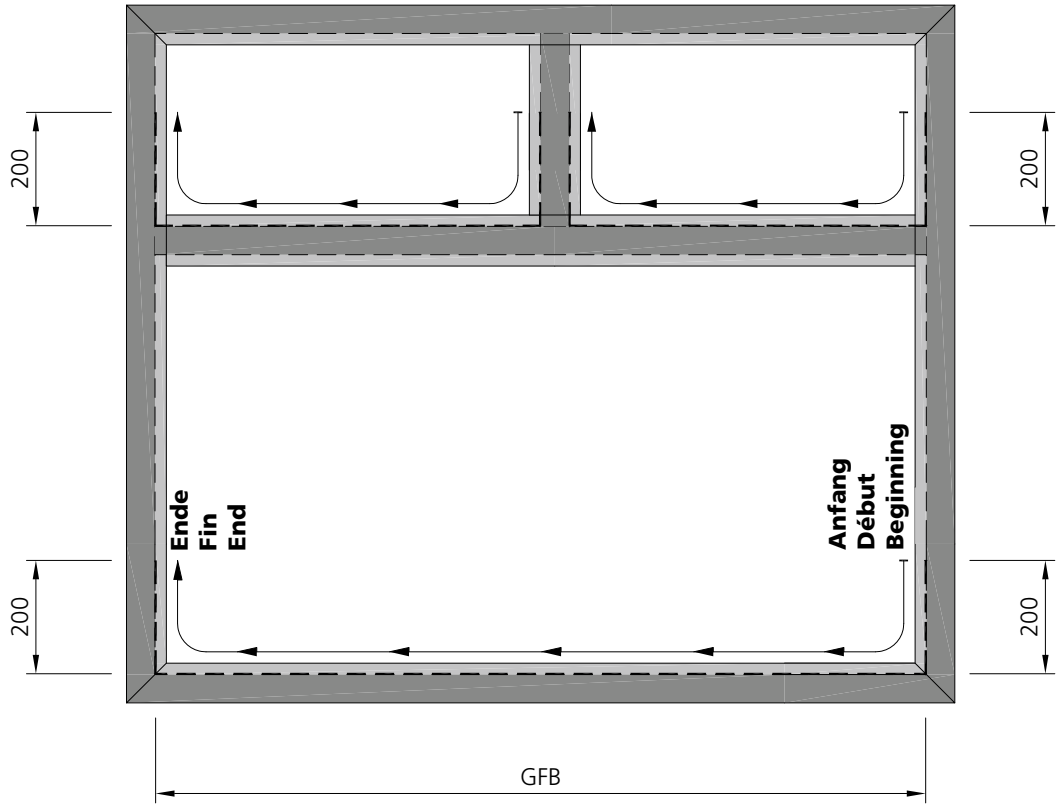
Installation of seal
Rebate cover

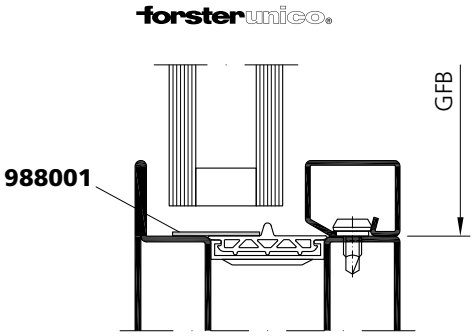


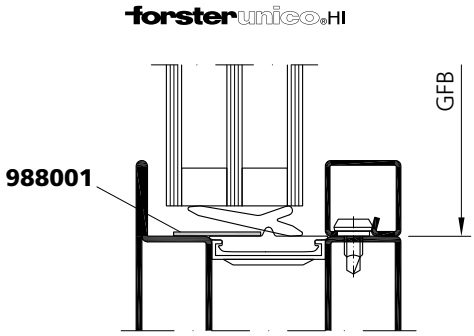
Dichtungseinbau Falzabdichtung Festfeld

Montage du joint Etanchéité de la feuillure du vitrage fixe

Installation of seal Rebate seal fixed glazing

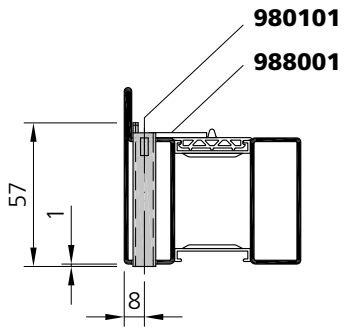




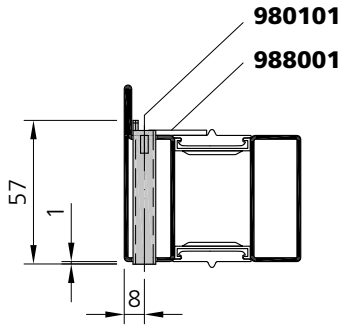


Dichtungseinbau
Bearbeitung Falzabdeckung
Rahmen

forsterunico

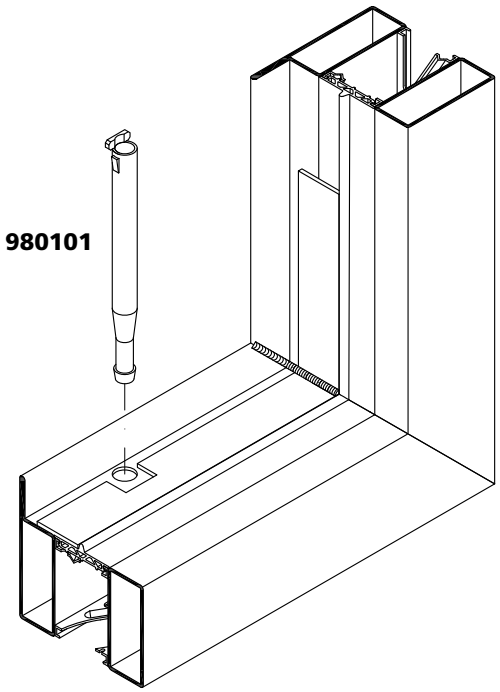


forsterunico HI



Das Butylband **Art. Nr. 988001** wird in den Ecken zusätzlich mit **Art. Nr. 908005** abgeklebt.

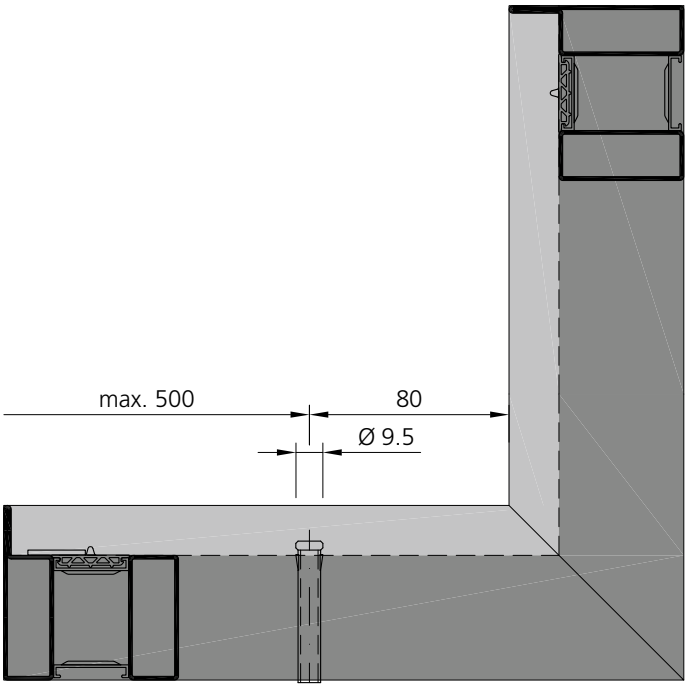
Montage du joint
Recouvrement de feuillure
du cadre



Coller le ruban de butyle **art. no. 988001** dans les angles avec le produit **art. no. 908005**.

Installation of seal
Rebate cover of frame

The butyl tape **art. no. 988001** is bond additionally in the corners with **art. no. 908005**.



Das indirekte Entspannungsröhrchen **Art. Nr. 980101** wird durch das Rahmenprofil gesteckt und auf der Austrittseite mit 1 mm Überstand abgeschnitten.

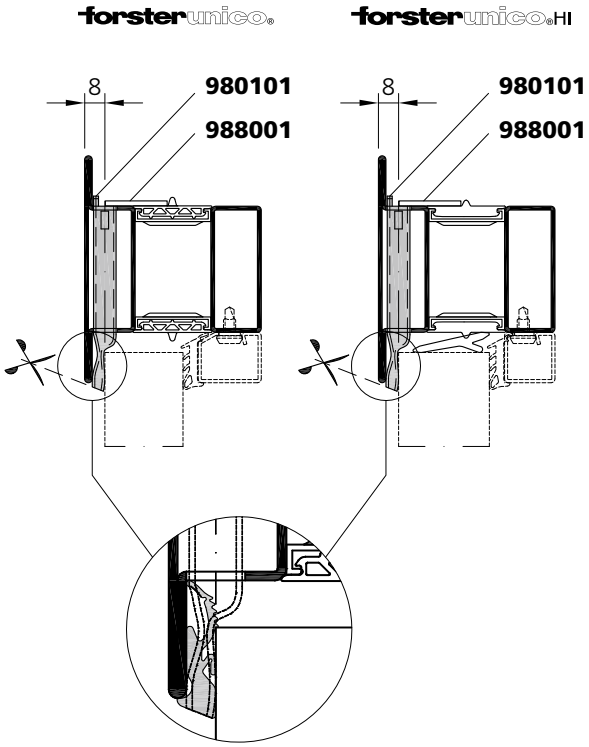
Faire passer la tubulure de décompression indirecte **art. no. 980101** à travers le profilé de cadre et la couper sur le côté sortie avec une saillie de 1 mm.

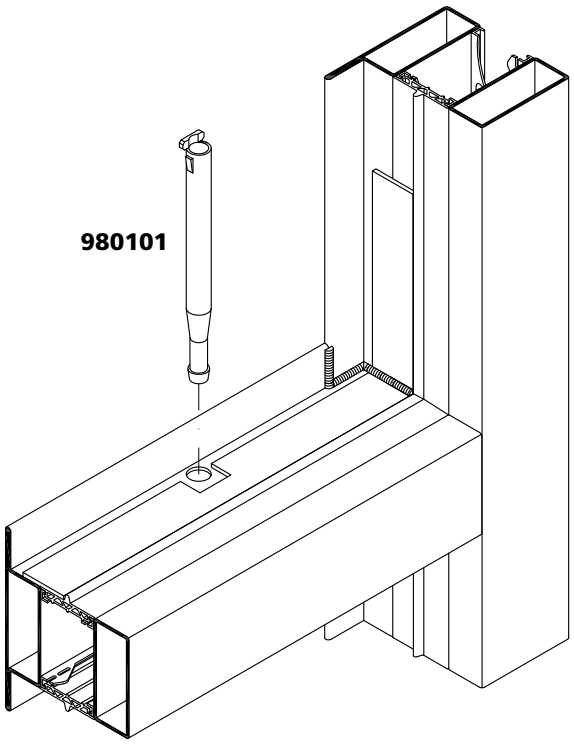
The indirect decompression pipe **art. no. 980101** is plugged in through the frame profile and cut off at the exit side, leaving an overhang of 1mm.

Dichtungseinbau
Bearbeitung Falzabdeckung
Sprossen

Montage du joint
Recouvrement de feuillure
de la traverse

Installation of seal
Rebate cover of transom

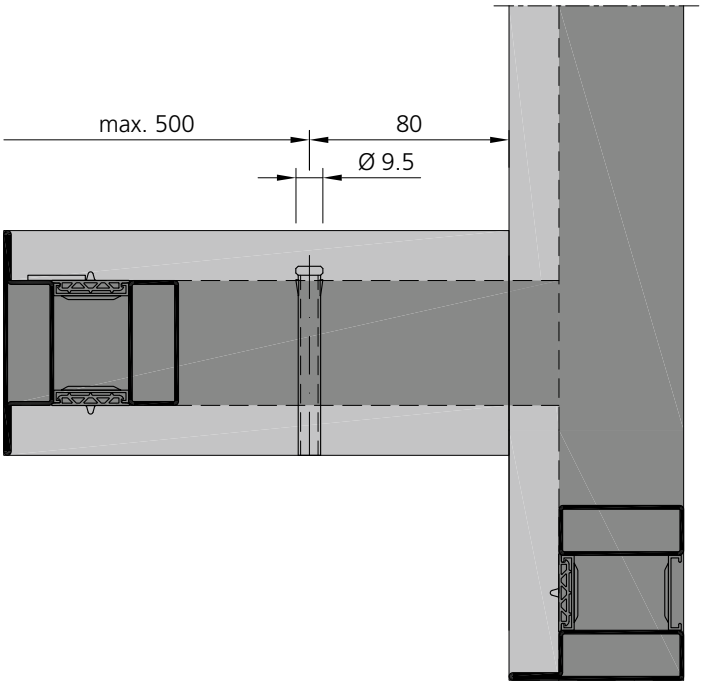




Das Butylband **Art. Nr. 988001** wird in den Ecken zusätzlich mit **Art. Nr. 908005** abgeklebt.

Coller le ruban de butyle **art. no. 988001** dans les angles avec le produit **art. no. 908005**.

The butyl tape **art. no. 988001** is bond additionally in the corners with **art. no. 908005.**



Das indirekte Entspannungsröhrchen **Art. Nr. 980101** wird durch das Rahmenprofil gesteckt und nach der Verglasung zum Profillappen hin zurückgeschnitten.

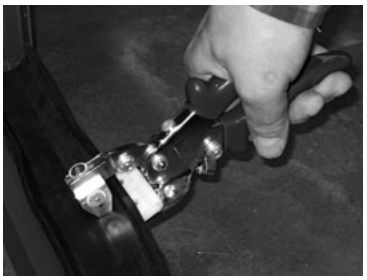
Faire passer la tubulure de décompression indirecte **art. no. 980101** à travers le profilé de cadre et couper la languette après le vitrage.

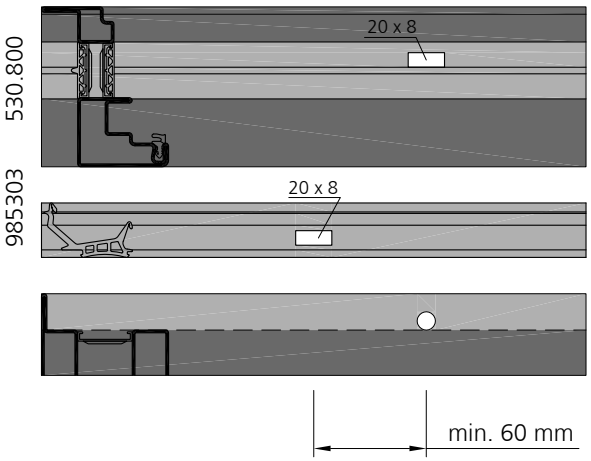
The indirect decompression pipe **art. no. 980101** is pushed through the frame profile and cut to length along the profile after the glazing.

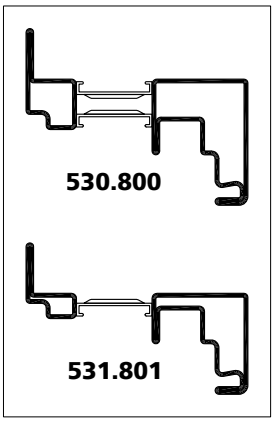
Entwässerung
Mittelfalzdichtung mit ganzen Rahmen (1-flügelig)

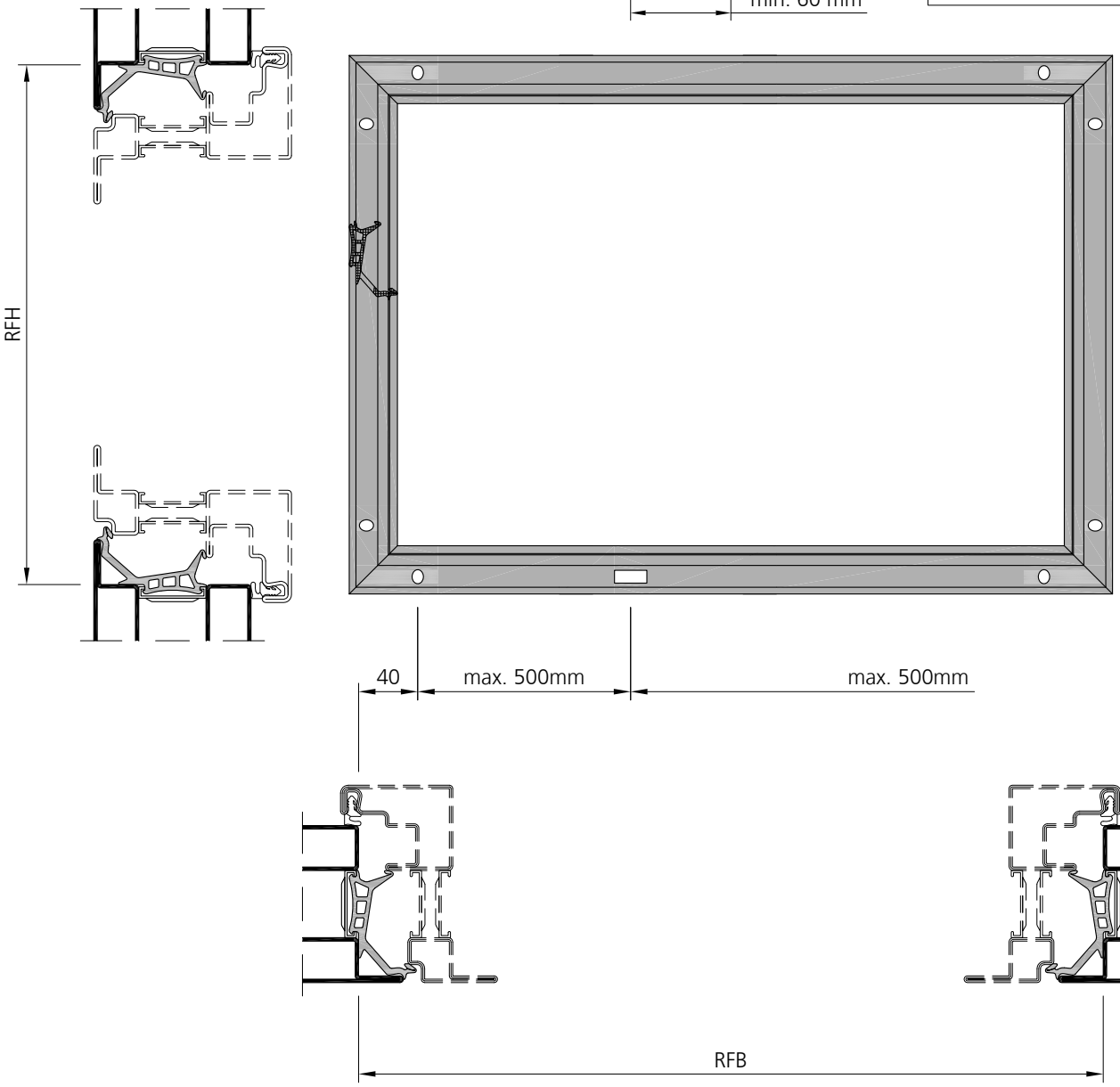
Evacuation d'eau
Joint central cadres collés (1 vantail)

Drainage
Middle rebate seal with complete frames (1 leaf)





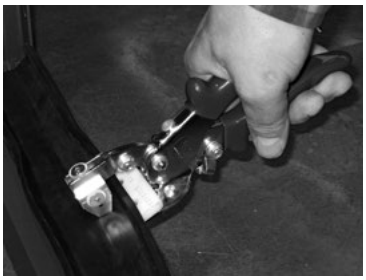


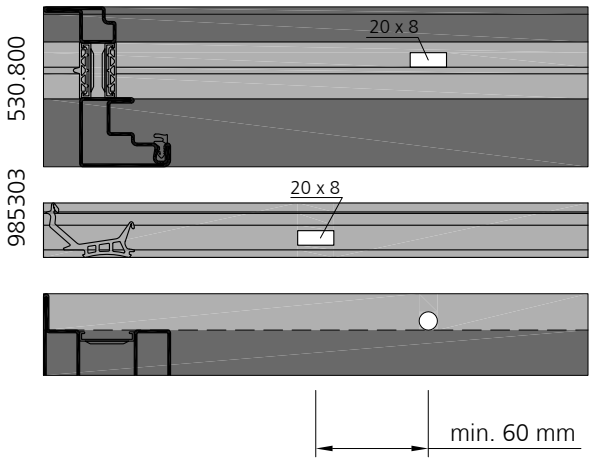


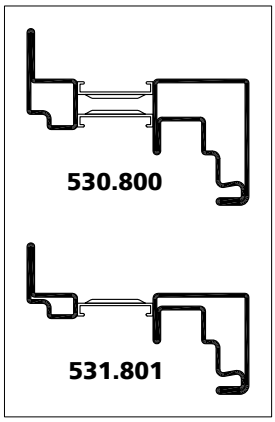
Entwässerung Mittelfalzdichtung mit Eckstücken (1-flügelig)

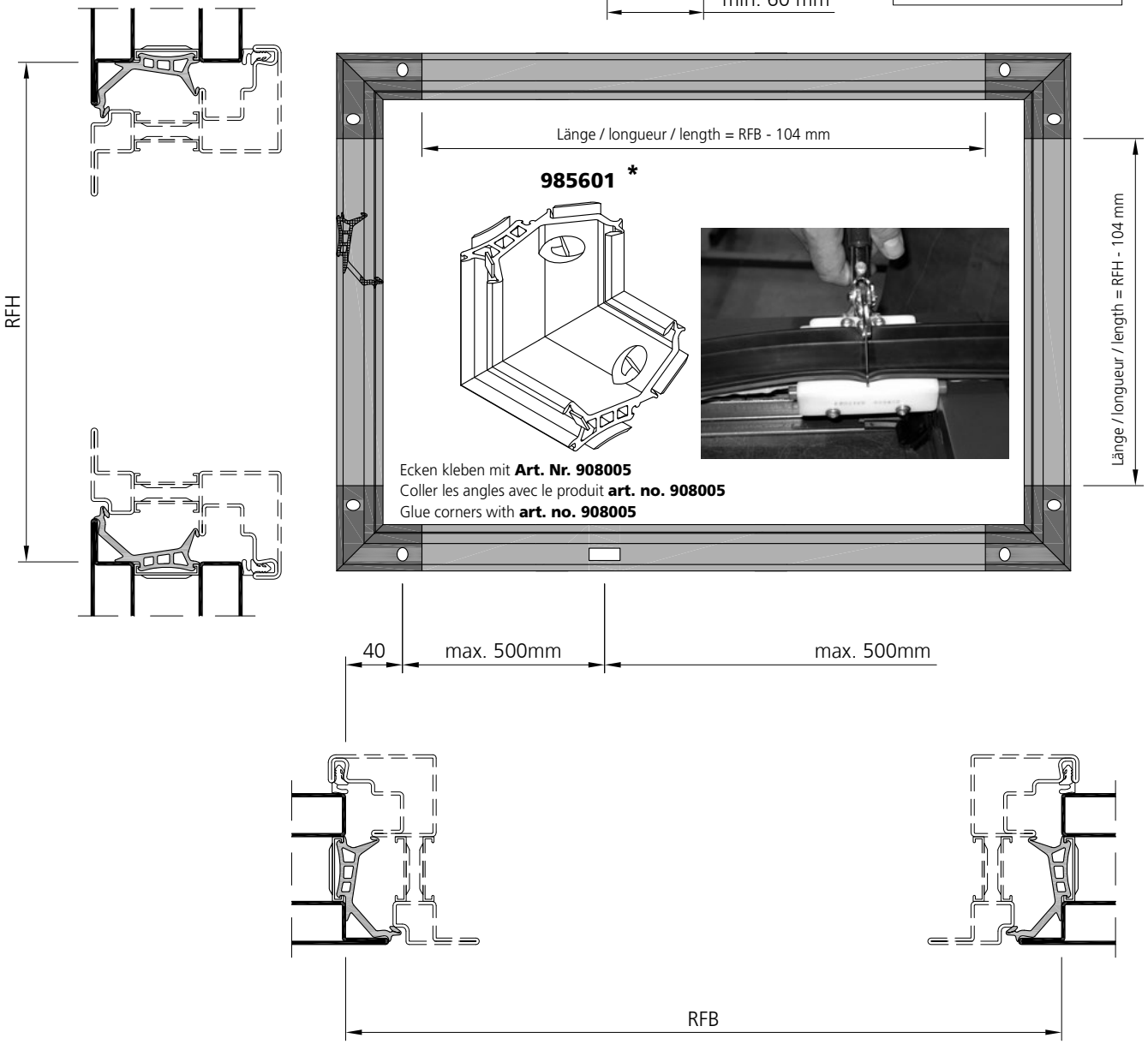
Evacuation d'eau Joint central avec pièces d'angle (1 vantail)

Drainage Middle rebate seal with corner pieces (1 leaf)







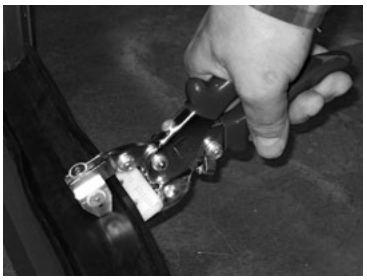


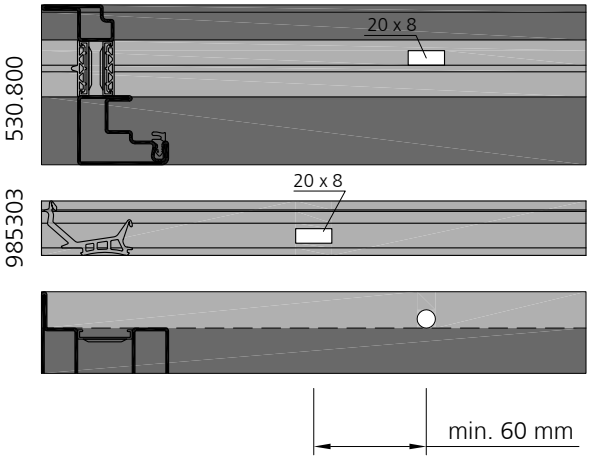
***** Alternativ kann die Dichtung in Gehrung geschnitten (Zuschnittwerkzeug 989201) und verklebt (Dichtungsmasse 908005) werden.
On peut aussi biseauter le joint (outil de découpe 989201) et le coller (mastic 908005).
Alternatively the seal can be mitred (cutting tool 989201) and bonded (sealing compound 908005).

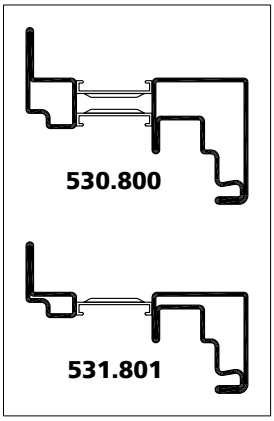
Entwässerung
Mittelfalzdichtung mit ganzen Rahmen (2-flügelig)

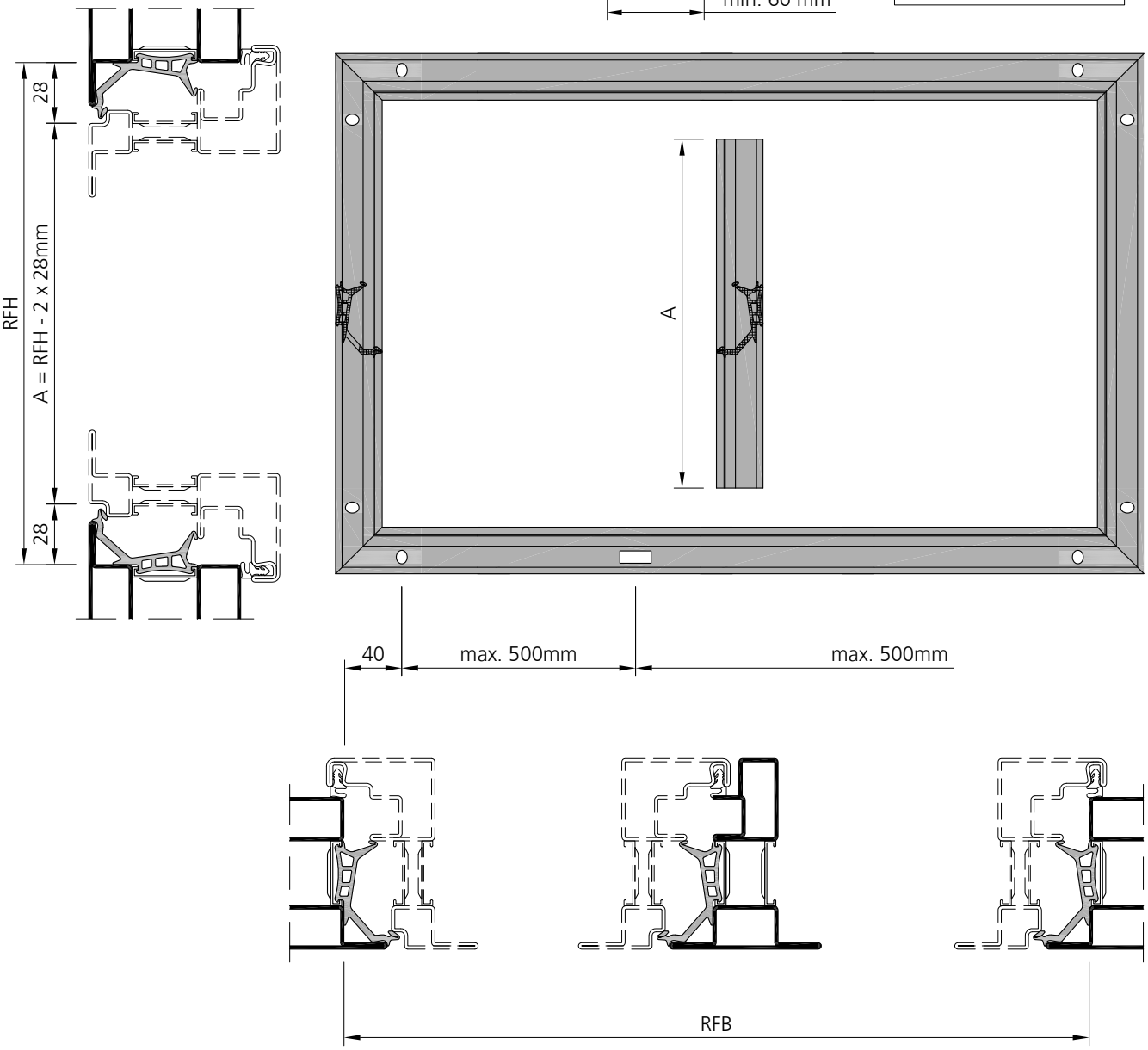
Evacuation d'eau
Joint central cadres collés (2 vantaux)

Drainage
Middle rebate seal with complete frames (2 leaves)







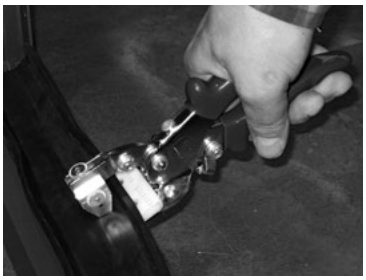


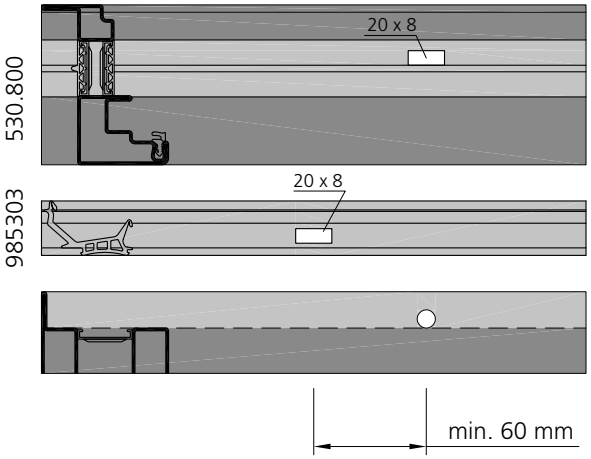
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

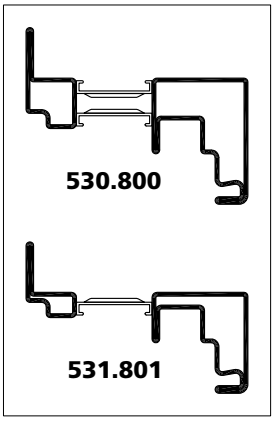
Entwässerung
Mittelfalzdichtung mit Eckstücken (2-flügelig)

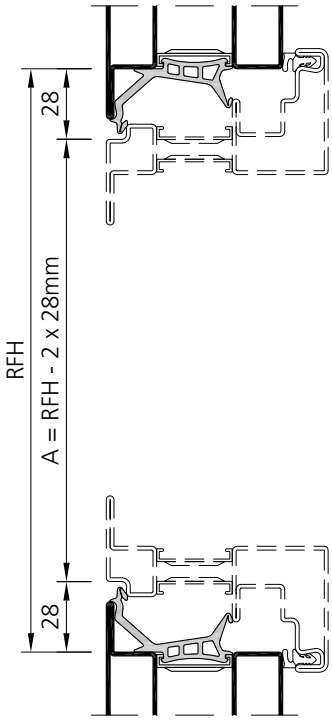
Evacuation d'eau
Joint central avec pièces d'angle (2 vantaux)

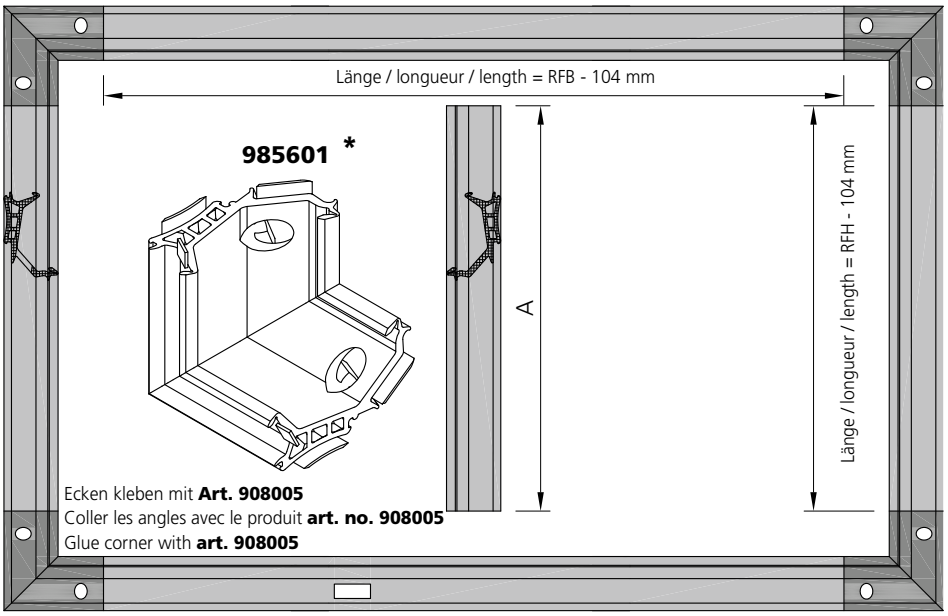
Drainage
Middle rebate seal with corner pieces (2 leaves)



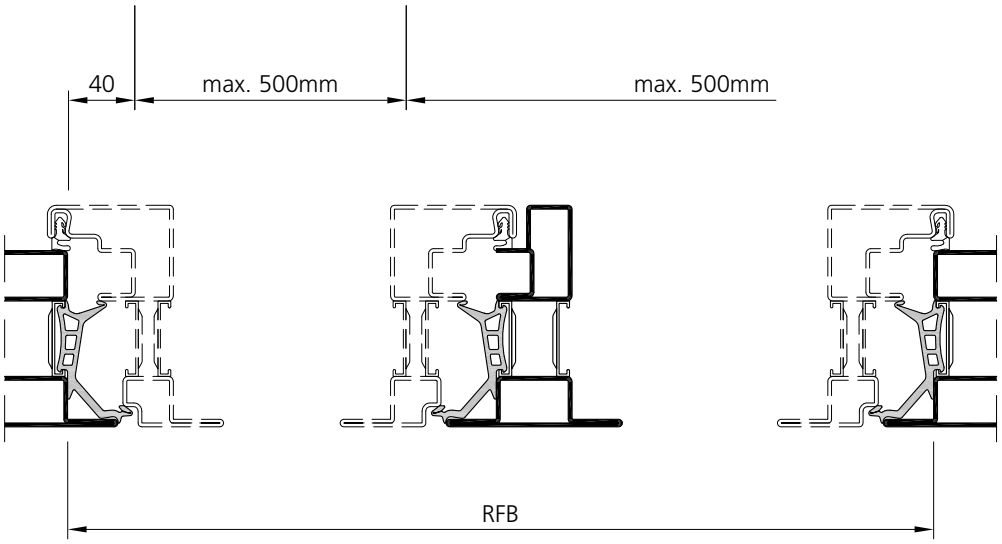










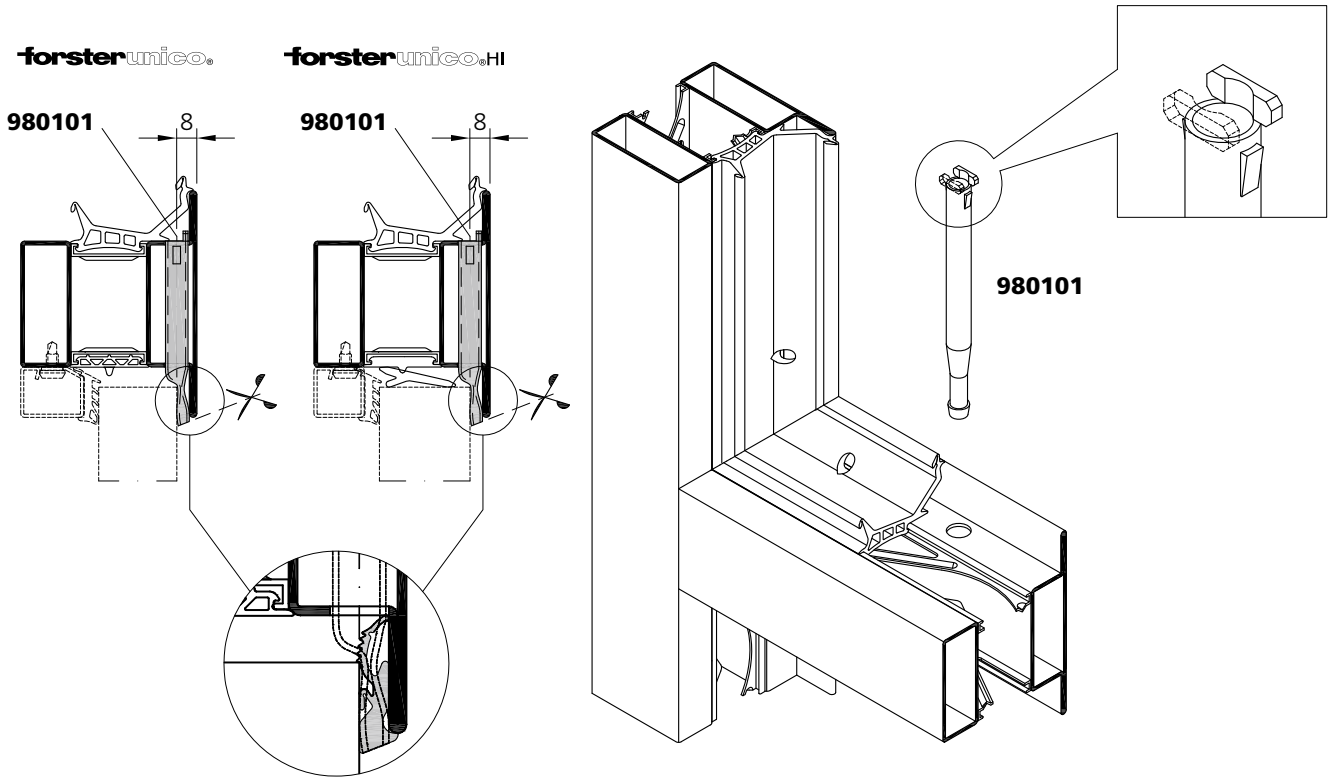


***** Alternativ kann die Dichtung in Gehrung geschnitten (Zuschnittwerkzeug 989201) und verklebt (Dichtungsmasse 908005) werden.
On peut aussi biseauter le joint (outil de découpe 989201) et le coller (mastic 908005).
Alternatively the seal can be mitred (cutting tool 989201) and bonded (sealing compound 908005).

Entwässerung Mittelfalzdichtung

Evacuation d'eau Joint central

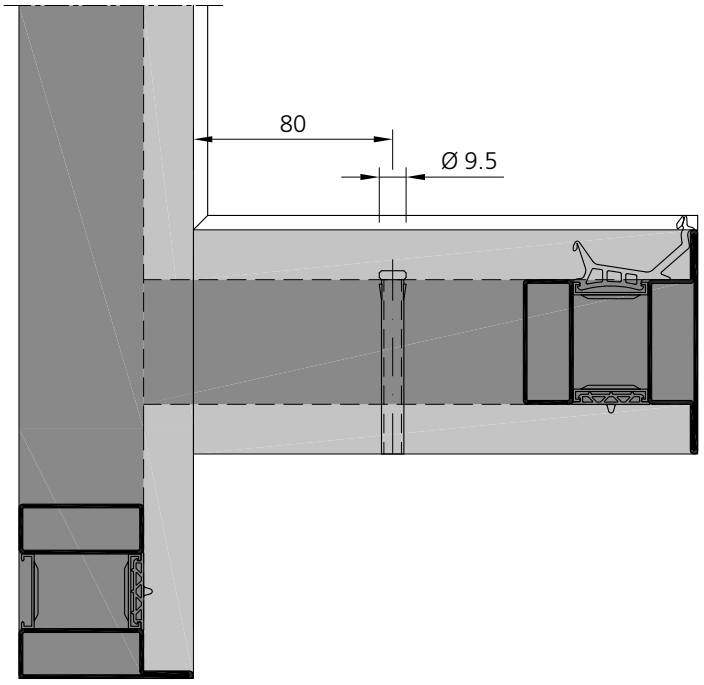
Drainage Middle rebate seal



Das indirekte Entspannungsröhrchen **Art. Nr. 980101** wird durch das Rahmenprofil gesteckt und nach der Verglasung zum Profillappen hin zurückgeschnitten.

Faire passer la tubulure de décompression indirecte **art. no. 980101** à travers le profilé de cadre et couper la languette après le vitrage.

The indirect decompression pipe **art. no. 980101** is pushed through the frame profile and cut to length along the profile after the glazing.



Im Bereich der Mitteldichtung **Art. Nr. 985303** muss am eingeklebten Entspannungsröhrchen **980101** ein Stopper abgetrennt werden.

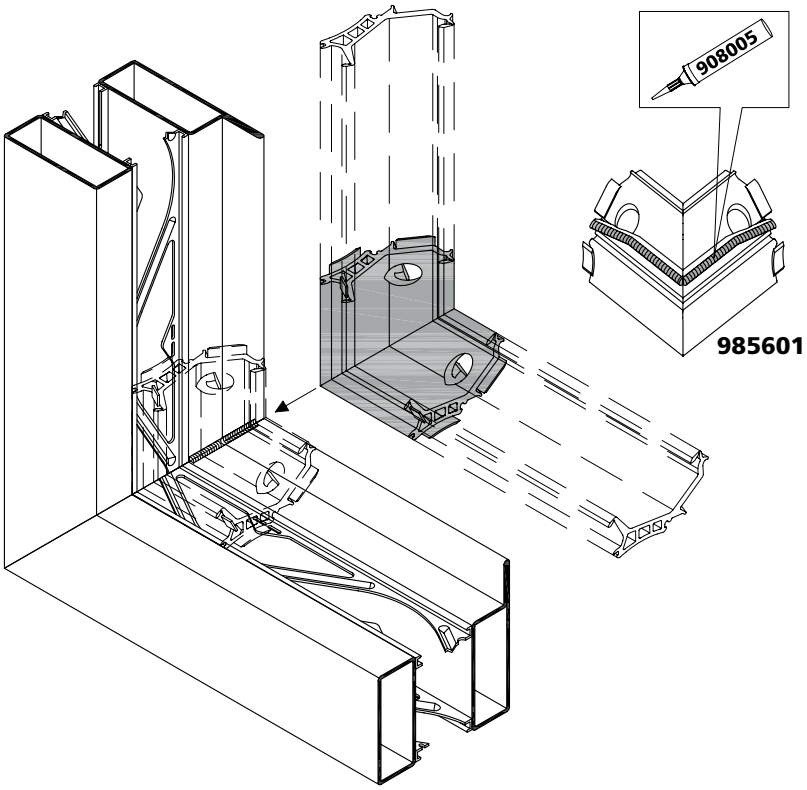
Dans la zone du joint du milieu **art. no. 985303**, il faut couper un butoir de la tubulure de décompression **980101** collée.

Around the middle seal **art. no. 985303** a stopper has to be cut away from the bonded on decompression pipe **980101**.

Dichtungseinbau
Eckstücke eingeklebt

Montage du joint
Pièces d'angle collées

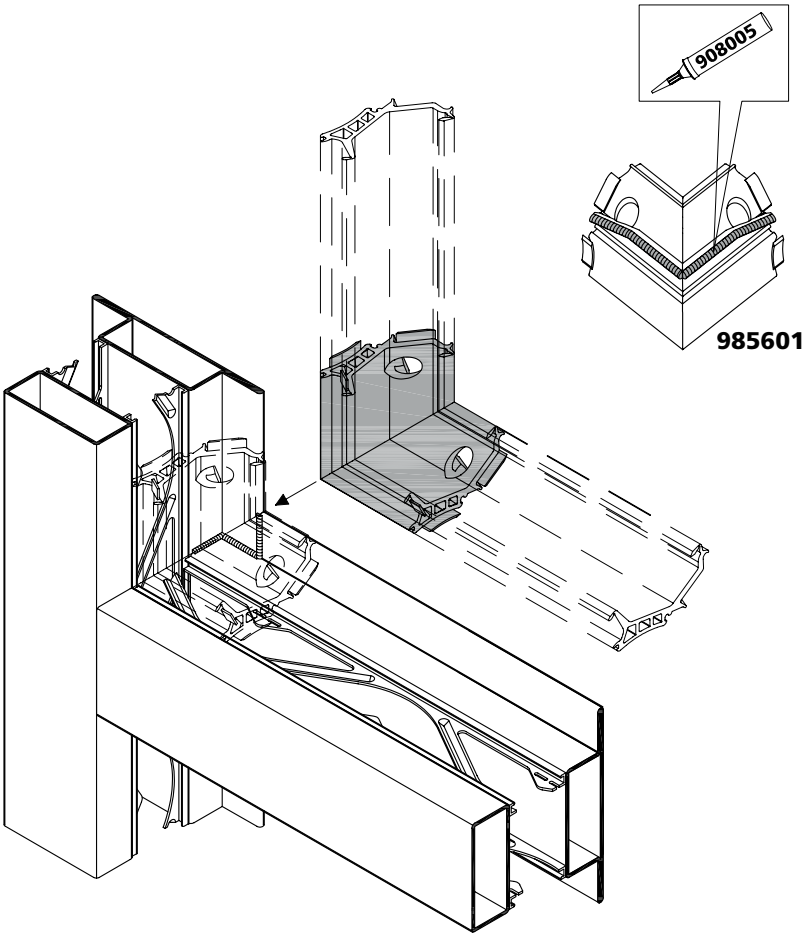
Installation of seal
Corner pieces are bonded in



Der Fensterrahmen wird in der Gehrung und im Bereich der Eckstückauflage zusätzlich mit Dichtungsmasse **Art. Nr. 908005** abgedichtet.

Etancher le cadre de fenêtre dans l'angle et dans la zone du support de pièce d'angle avec du mastic **art. no. 908005**.

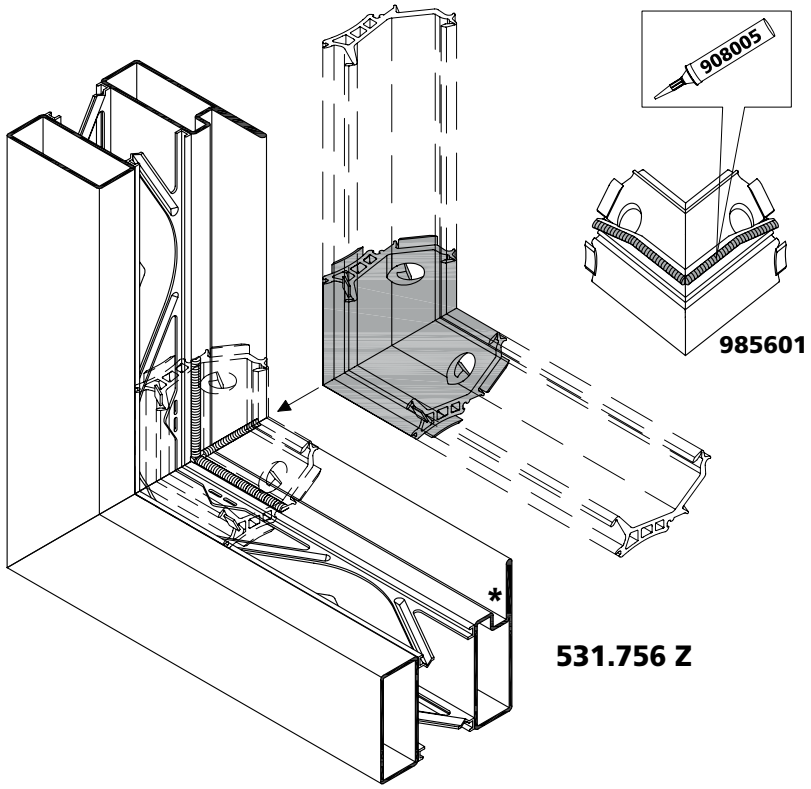
Seal the window frame with additional sealing compound **art. no. 908005** in the mitred joint and around the corner piece support.



Dichtungseinbau Eckstücke eingeklebt im Profil mit Wasserführung

Montage du joint Pièces d'angle collées dans le profilé avec garde à l'eau

Installation of seal Corner pieces bonded in profile with drainage groove

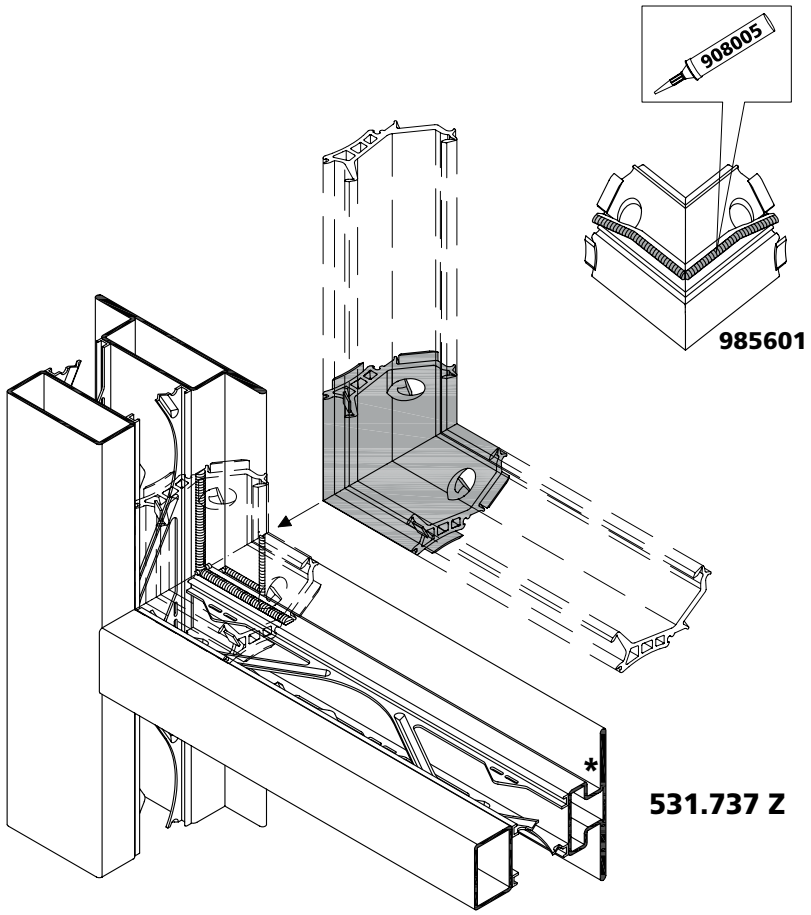


Der Fensterrahmen wird in der Gehrung und im Bereich der Eckstückauflage zusätzlich mit Dichtungsmasse **Art. Nr. 908005** abgedichtet.

Etancher le cadre de fenêtre dans l'angle et dans la zone du support de pièce d'angle avec du mastic **art. no. 908005**.

Seal the window frame with additional sealing compound **art. no. 908005** in the mitred joint and around the corner piece support.

* Für Fensterkonstruktionen in Frankreich zwingend notwendig!
Obligatoire pour fenêtres en France!
Mandatory for windows construction in France!



Dichtungseinbau Verbindung Eckstücke Mittelfalzdichtung

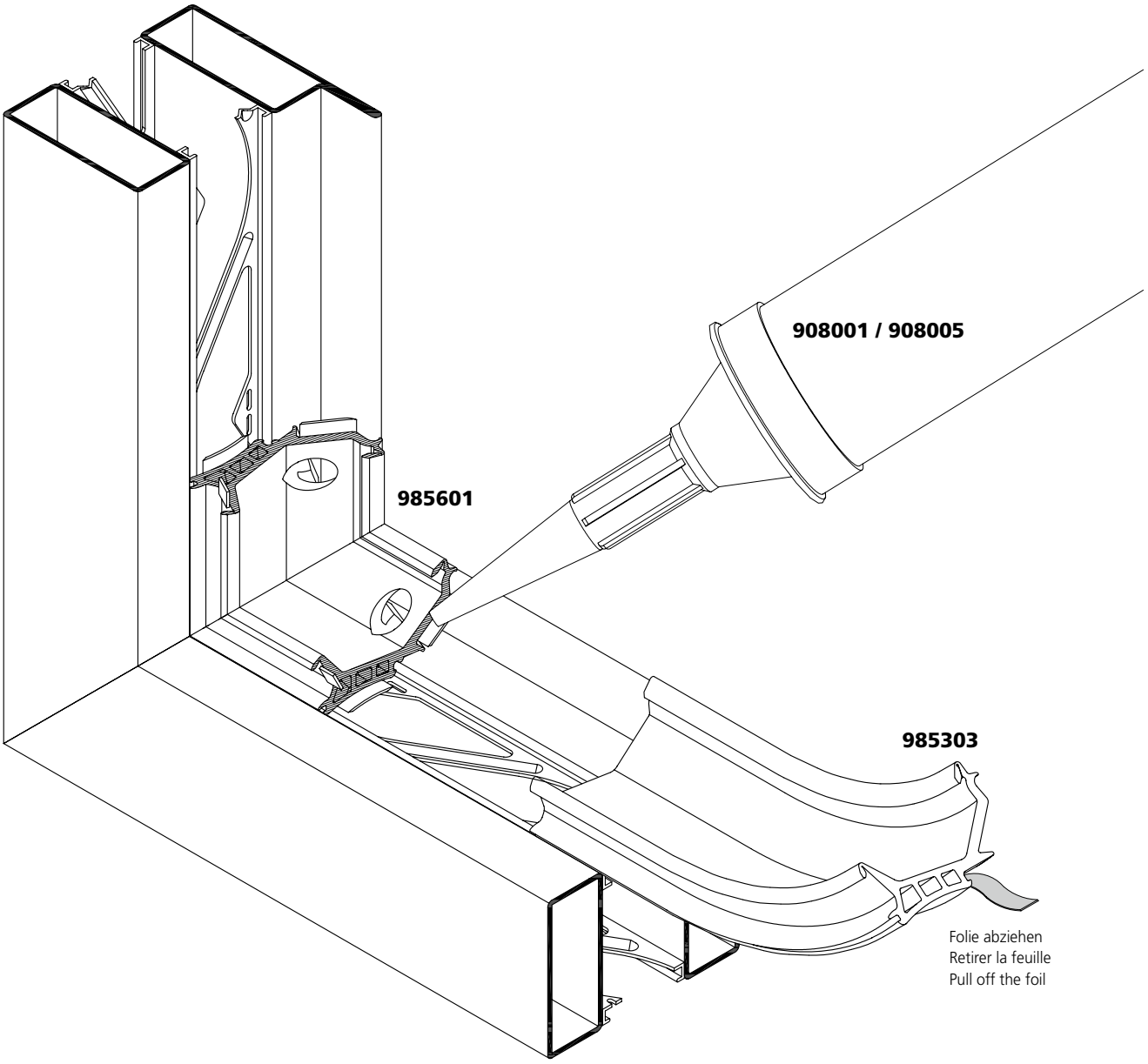
Das Eckstück **985601** wird mittels Dichtungsmasse **Art. Nr. 908005** mit der Mittelfalzdichtung **985303** verklebt. Überquellende Dichtungsmasse wird abgezogen.

Montage du joint Liaison pièces d'angle Joint central

Coller la pièce d'angle **985601** au mastic **art. no. 908005** avec le joint de feuillure central **985303**. Enlever le mastic en trop.

Installation of seal Link corner pieces middle rebate seal

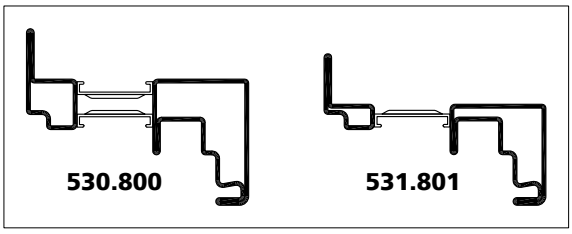
The corner piece **985601** is bonded with the sealing compound **art. no. 908005** to the middle rebate seal **985303**. Overflowing sealing compound is drawn off.

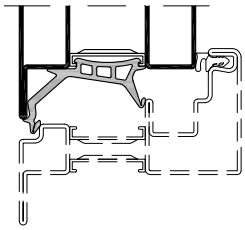


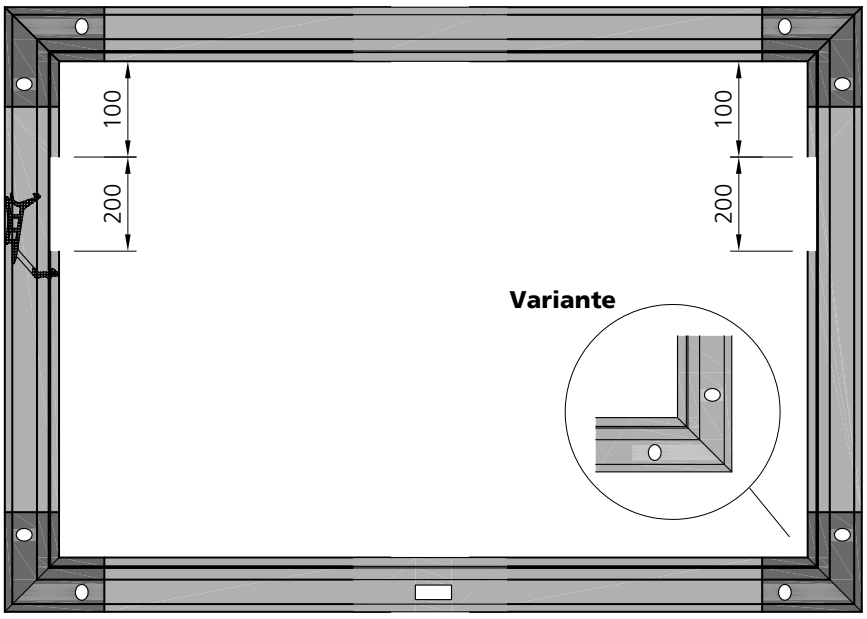
Entspannung Mittelfalzdichtung 1-flügelig

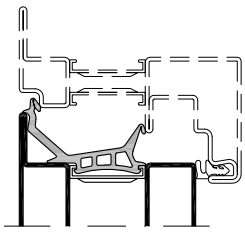
Décompression Joint central 1 vantail

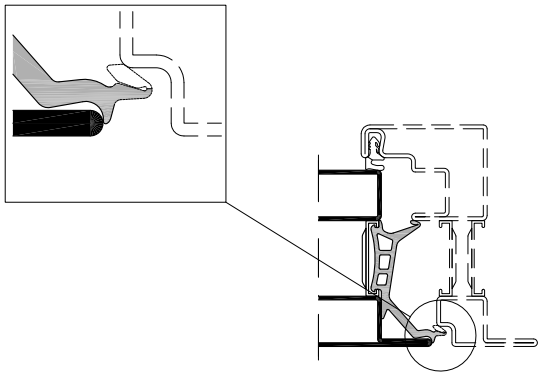
Decompression Middle rebate seal 1 leaf

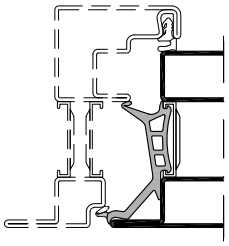












Zur Falzentspannung wird die Mittelfalzdichtung auf einer Länge von 200 mm ausgeklinkt.

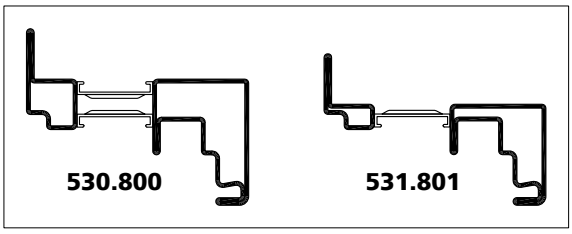
Pour la décompression de la feuillure, encocher le joint de feuillure central sur une longueur de 200 mm.

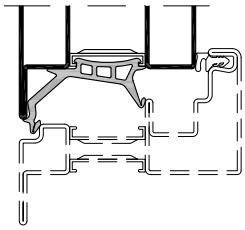
To decompress the rebate, the middle rebate seal is notched out at a length of 200 mm.

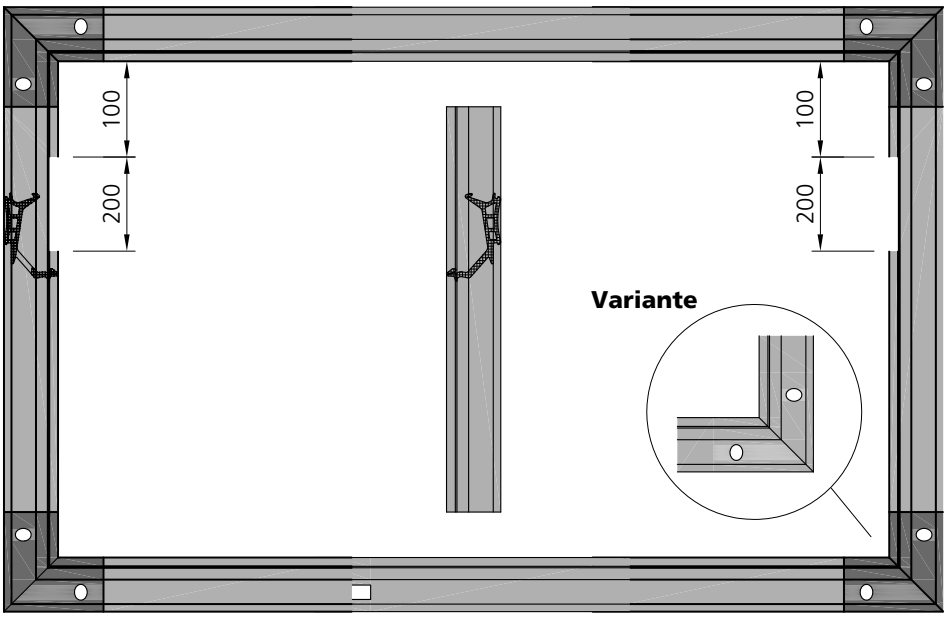
Entspannung Mittelfalzdichtung 2-flügelig

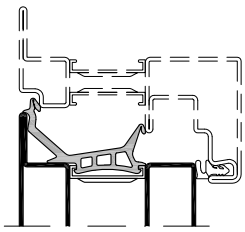
Décompression Joint central 2 vantaux

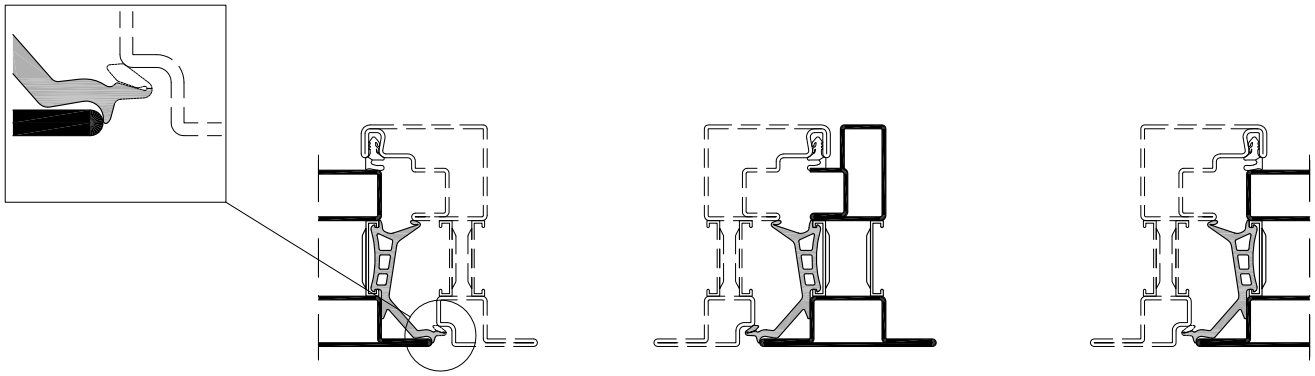
Decompression Middle rebate seal 2 leaved











Zur Falzentspannung wird die Mittelfalzdichtung auf einer Länge von 200 mm ausgeklinkt.

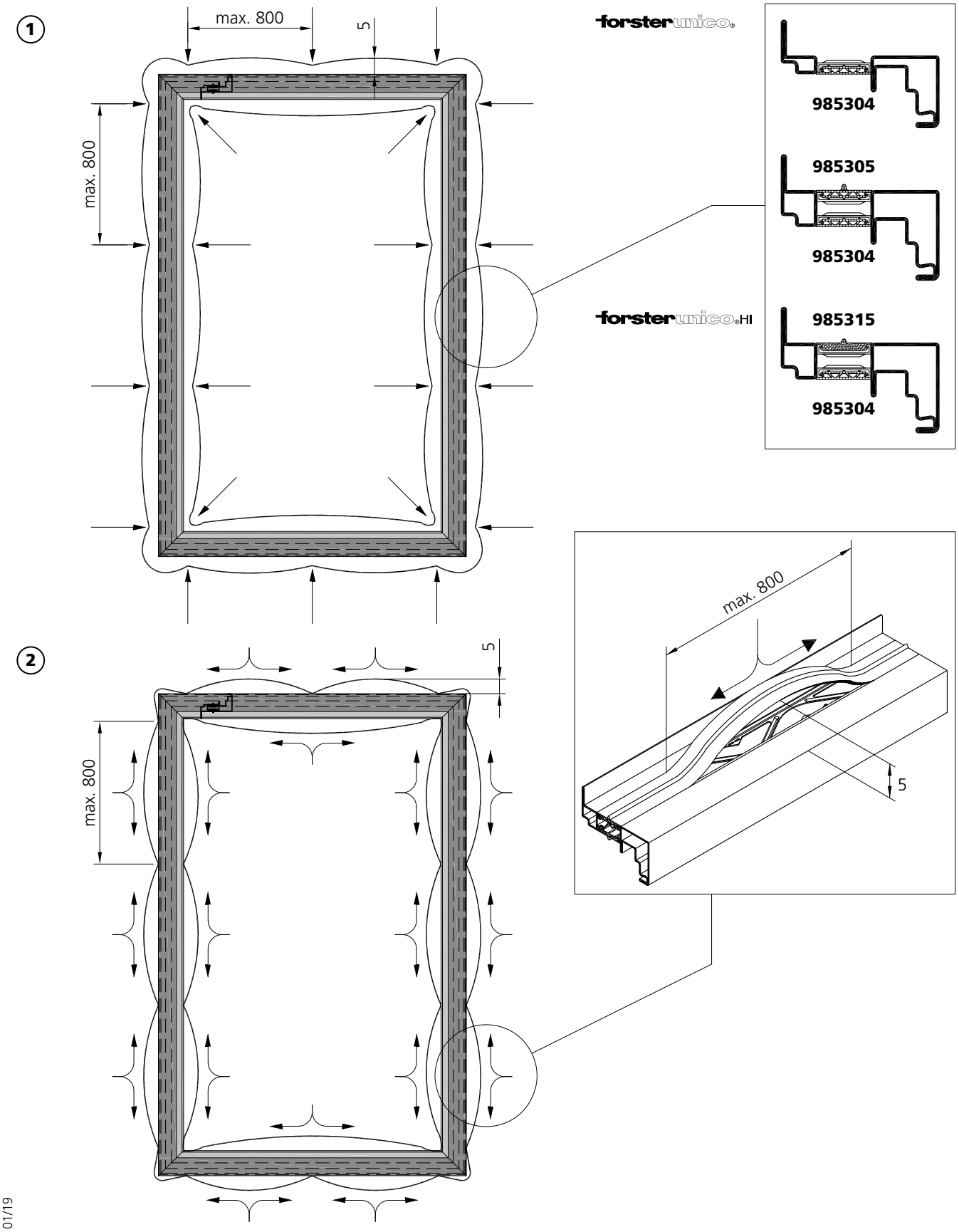
Pour la décompression de la feuillure, encocher le joint de feuillure central sur une longueur de 200 mm.

To decompress the rebate, the middle rebate seal is notched out at a length of 200 mm.

Dichtungseinbau
Falzabdeckung Flügel

Montage du joint
Recouvrement de feuillure vantail

Installation of seal
Rebate cover of double sash leaf

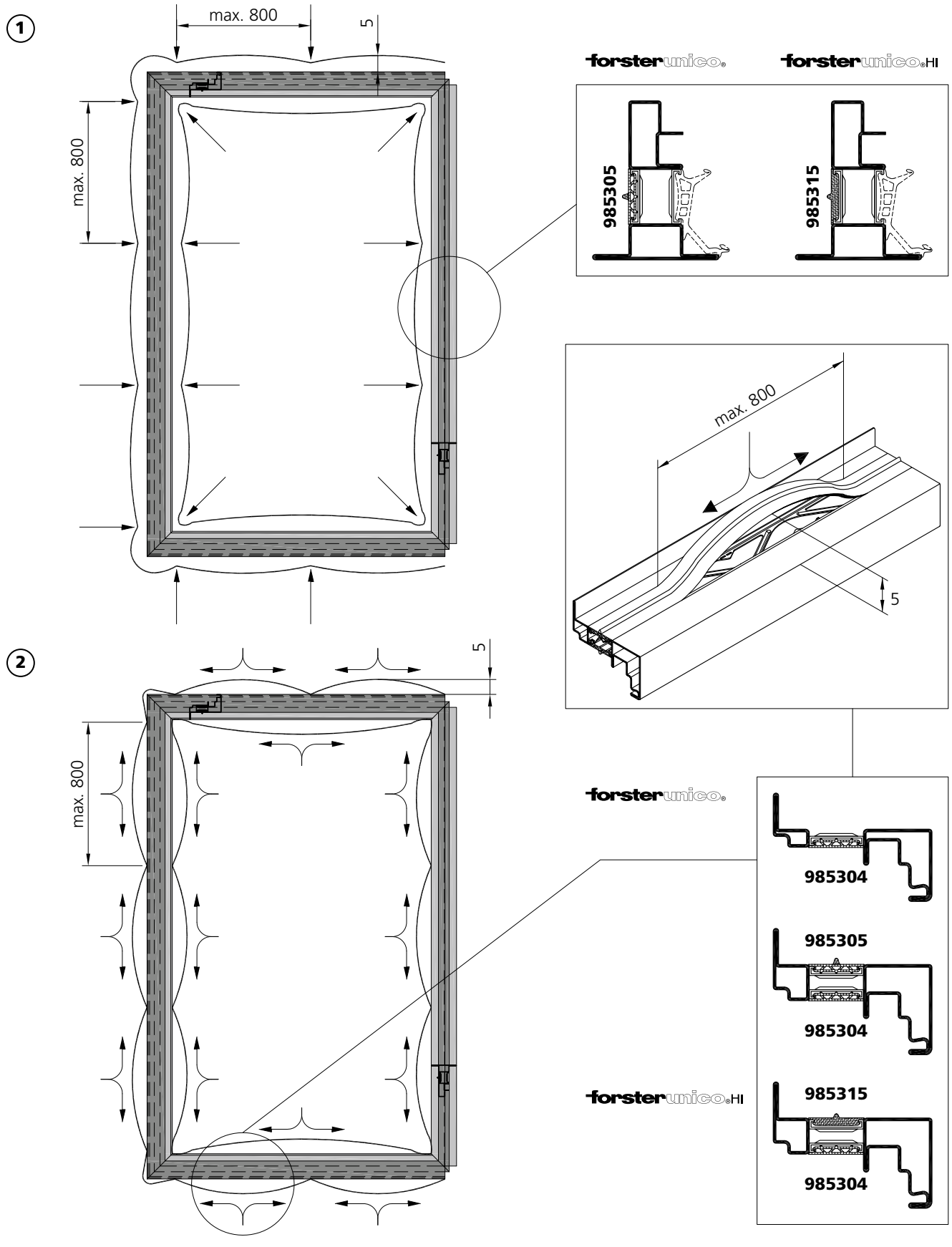


Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

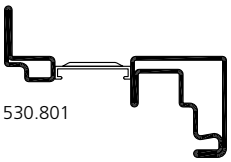
Dichtungseinbau
Falzabdeckung Stulpflügel

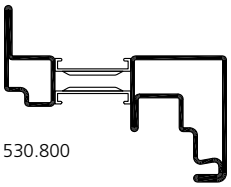
Montage du joint
Recouvrement de feuillure vantail semi-fixe

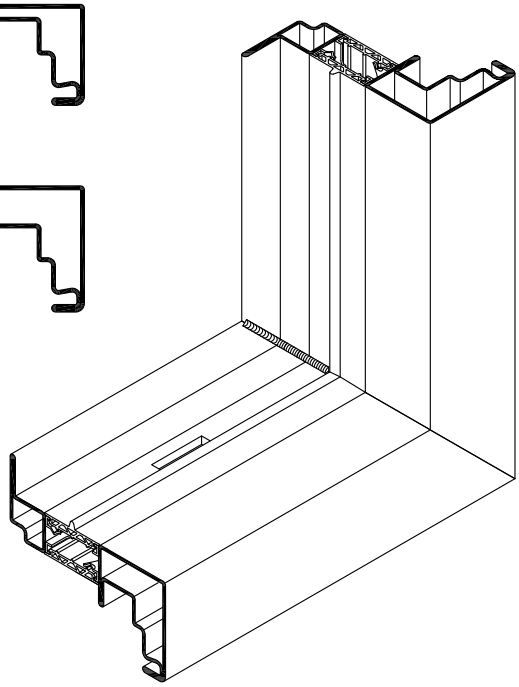
Installation of seal
Rebate cover of double sash leaf



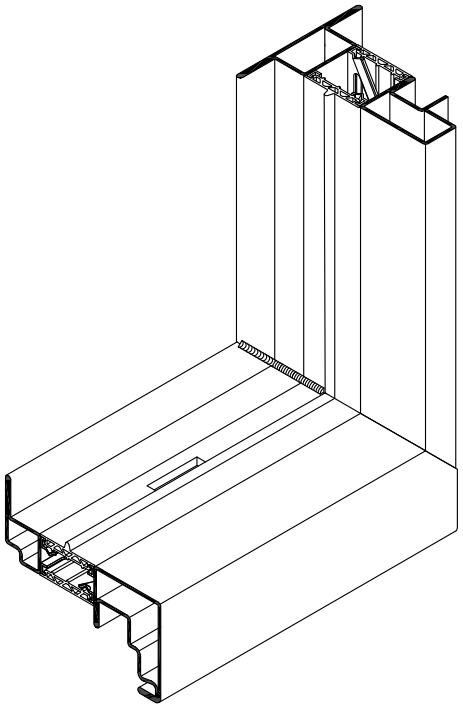
Dichtungseinbau
Entspannung Flügel



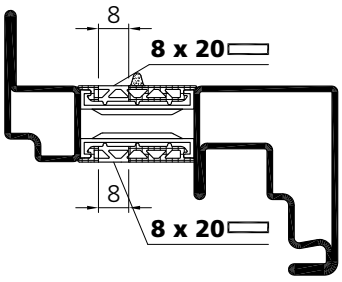


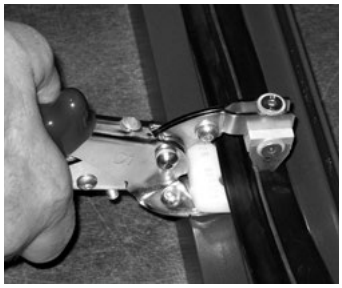


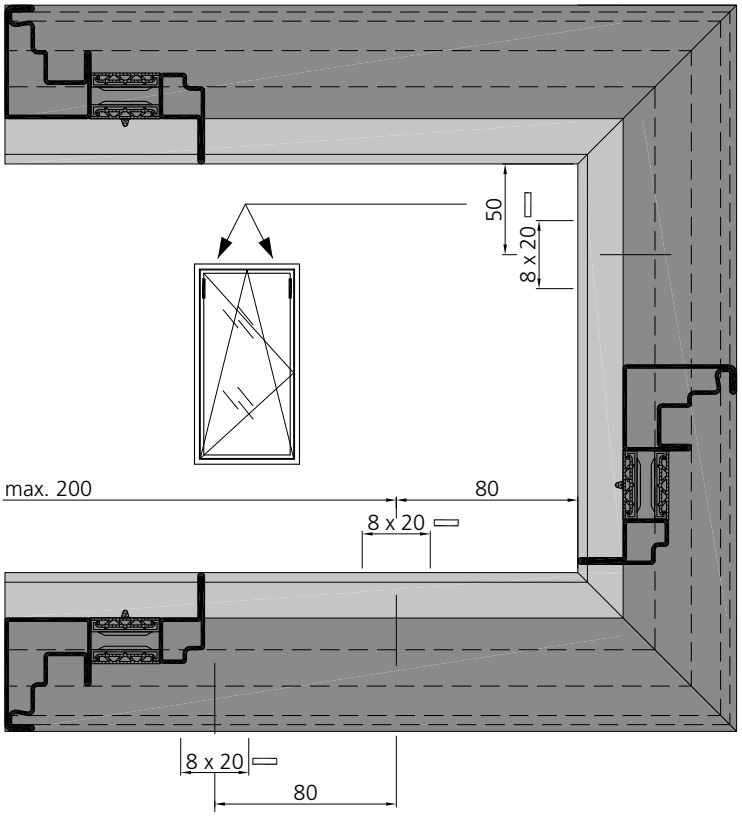
Montage du joint
Décompression du vantail



Installation of seal
Tension release leaf







Ausklinkung 8 x 20 mm mittels Zuschnittwerkzeug Entwässerung
Art. Nr. 989401

Poinçonner des ouvertures 8 x 20 mm pour le drainage avec l'outillage de découpe
art. no. 989401

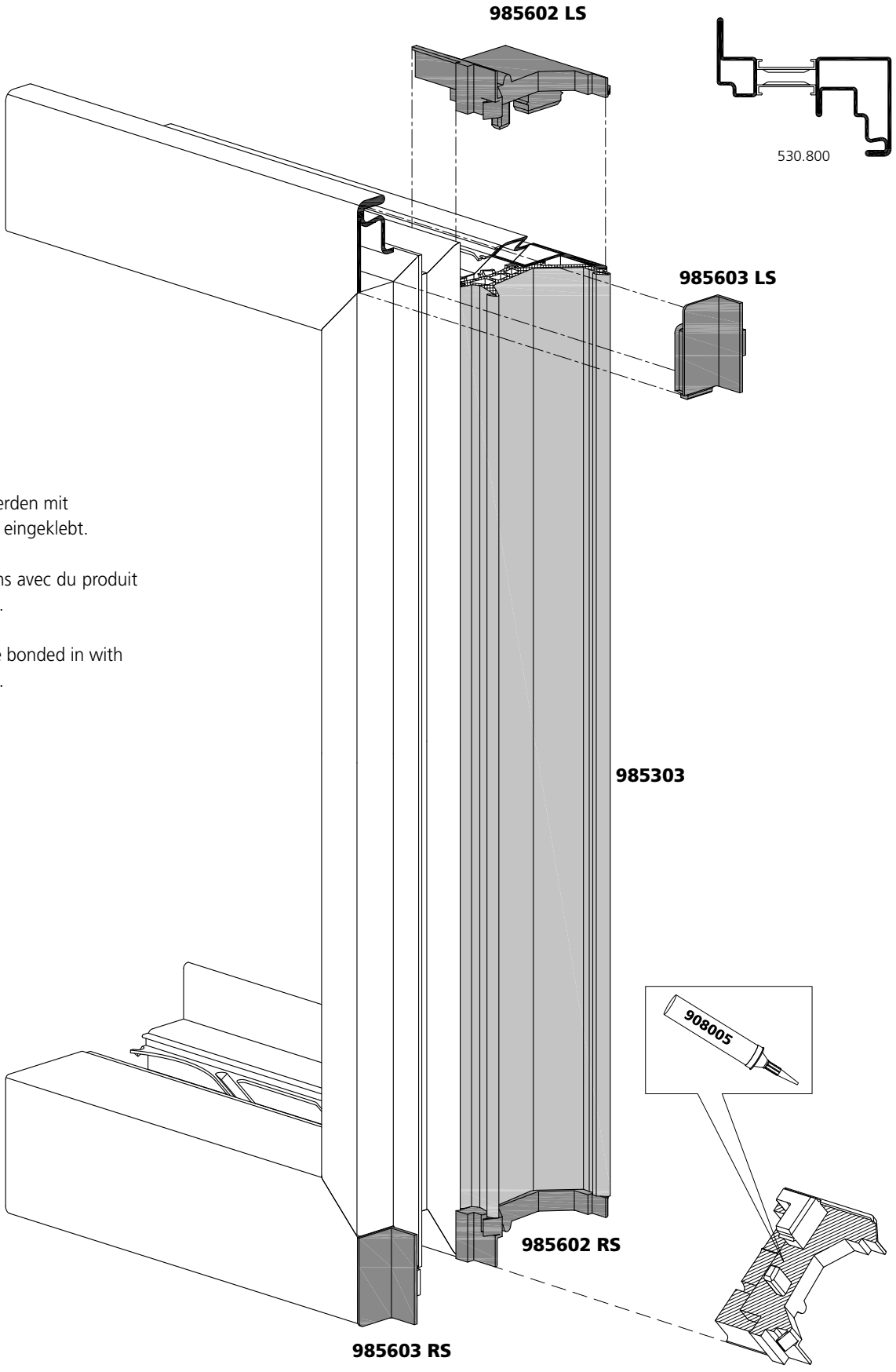
Notch 8 x 20 mm with cutter for drainage
art. no. 989401

Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Dichtungseinbau Stulp Endkappe

Montage du joint Bouchon pour vantail semi-fixe

Installation of seal Cover cap for double sash leaf



Die Endkappen werden mit **Art. Nr. 908005** eingeklebt.

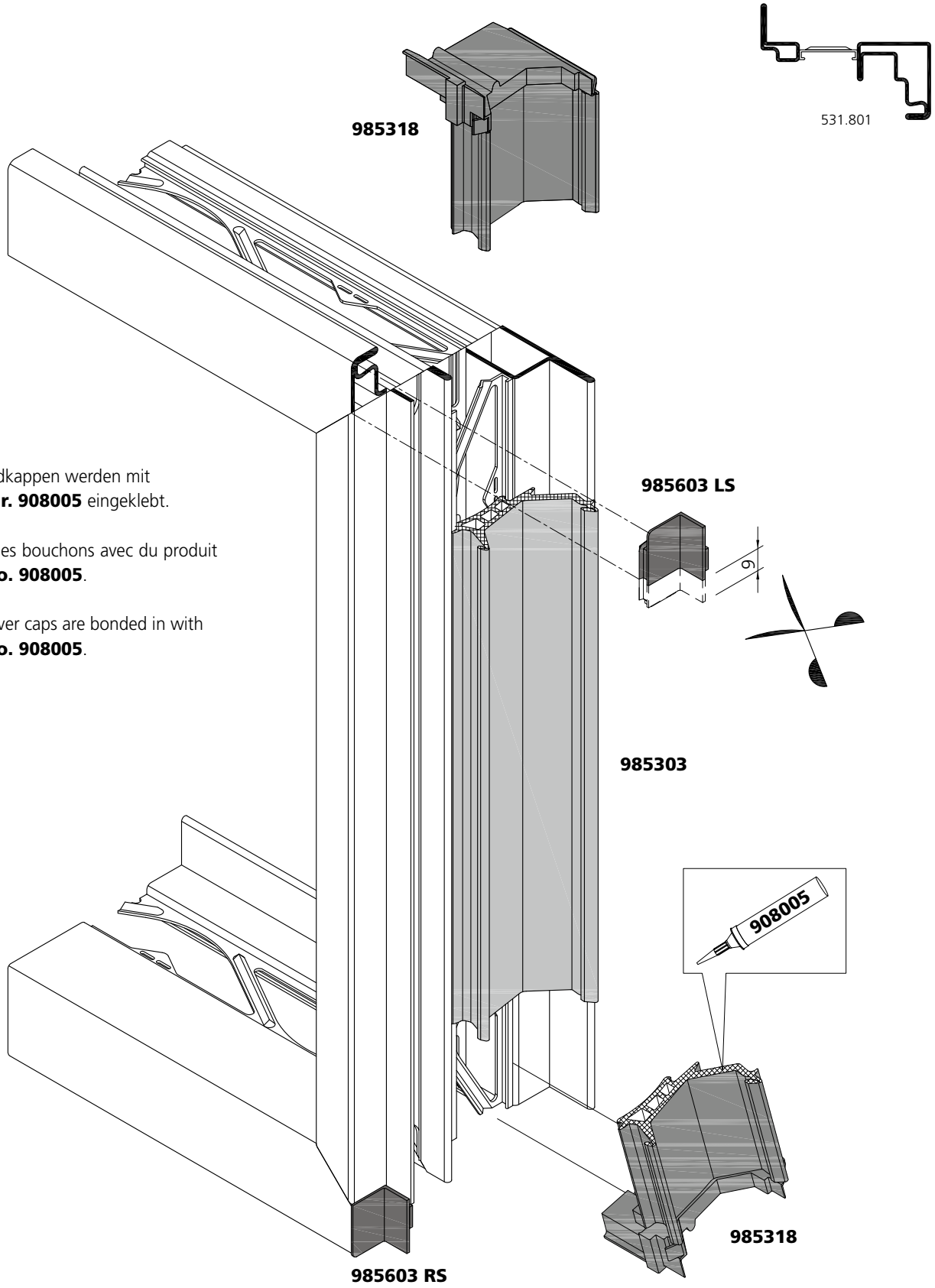
Coller les bouchons avec du produit **art. no. 908005**.

The cover caps are bonded in with **art. no. 908005**.

Dichtungseinbau Stulp Endkappe

Montage du joint Bouchon pour vantail semi-fixe

Installation of seal Cover cap for double sash leaf



Die Endkappen werden mit **Art. Nr. 908005** eingeklebt.

Coller les bouchons avec du produit **art. no. 908005**.

The cover caps are bonded in with **art. no. 908005**.

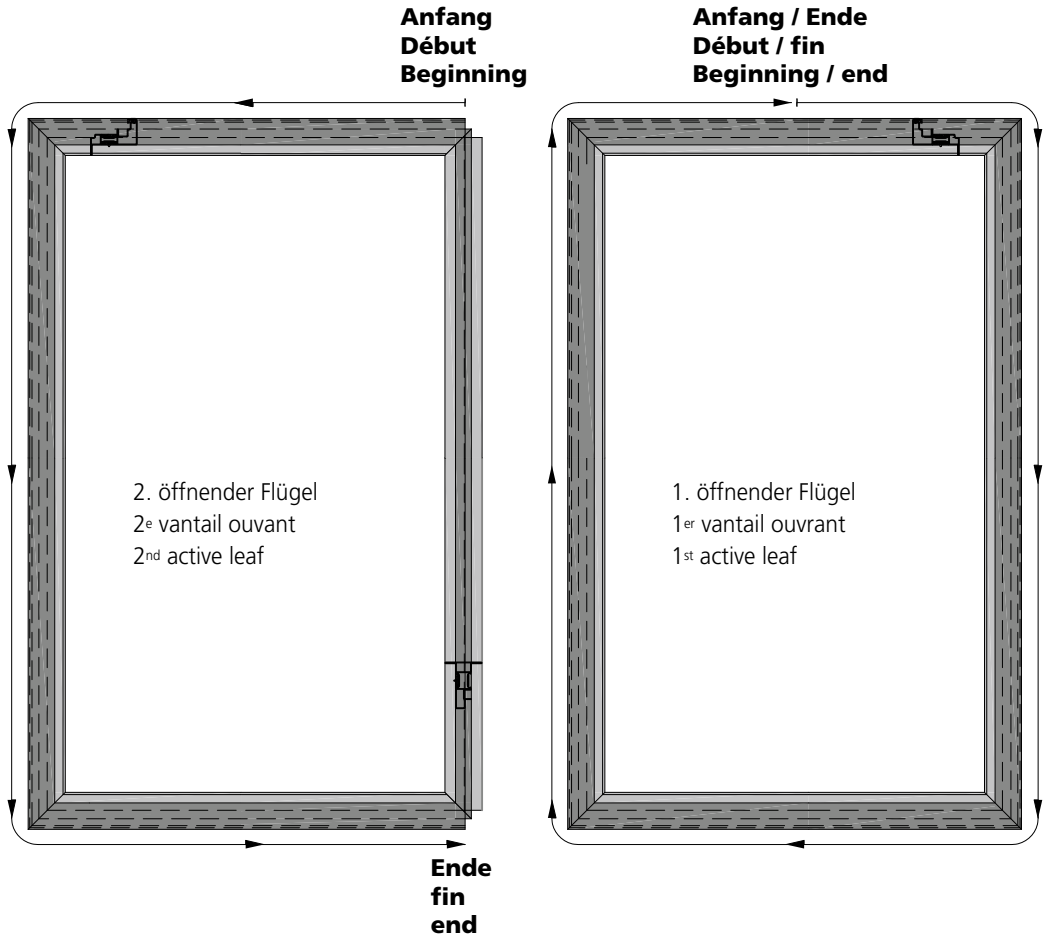
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Dichtungseinbau
Anschlagdichtung

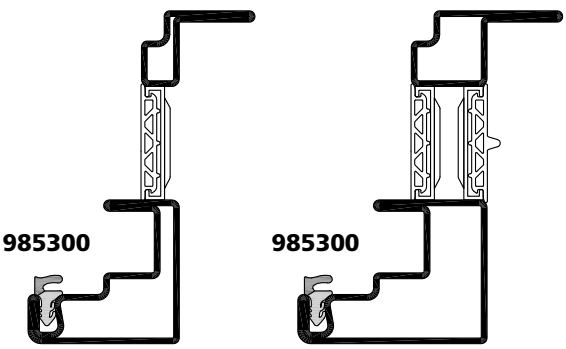
Montage du joint
Joint de butée

Installation of seal
Weatherstripping

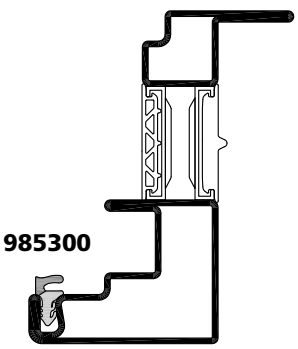
Flügel **Vantail** **Leaf**



forsterunico



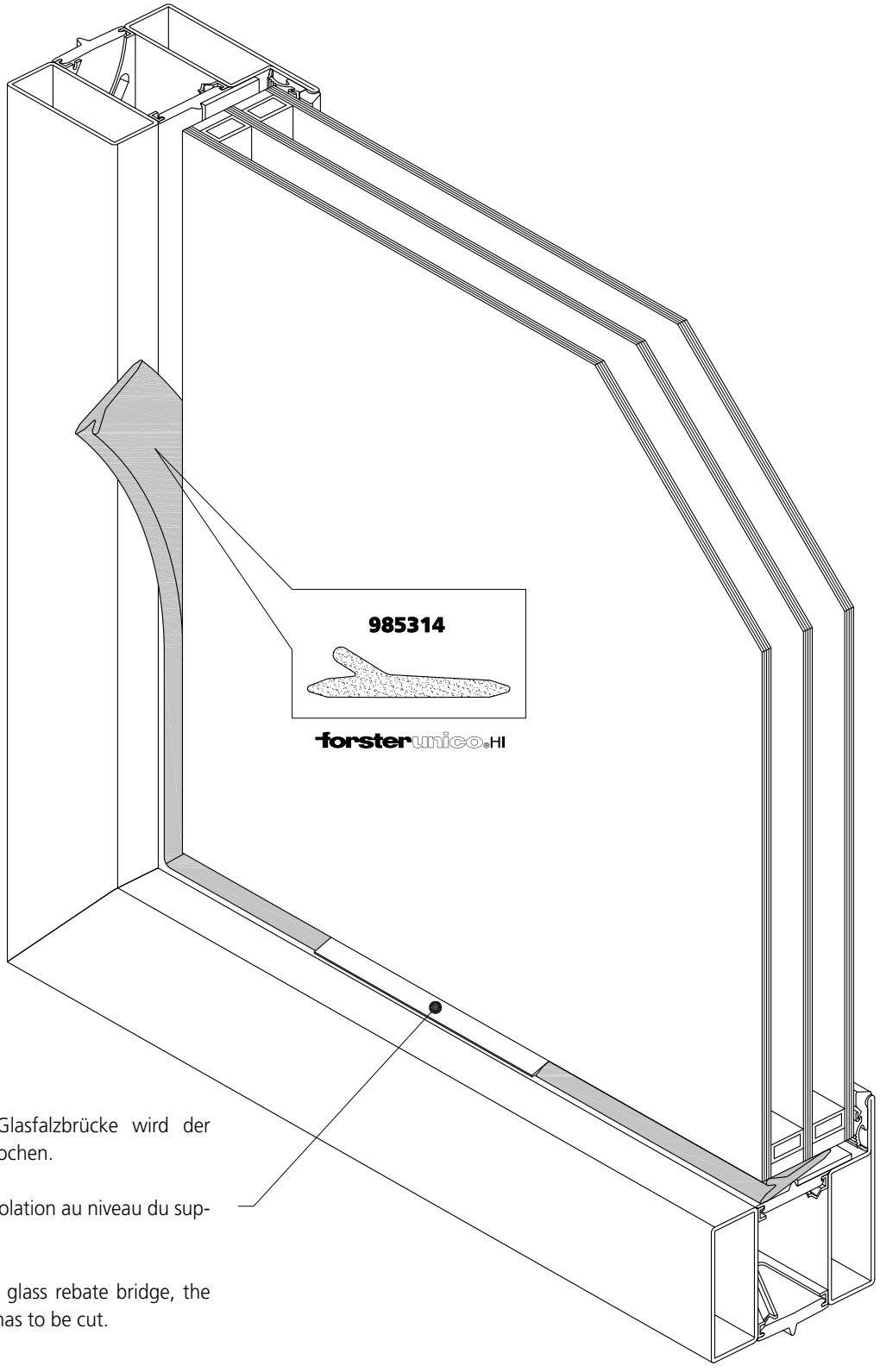
forsterunico HI



Fenster
Einbau
Dämmkeil

Fenêtres
Montage de la cale
d'isolation

Windows
Installation of the
insulation wedge



Im Bereich der Glasfalzbrücke wird der Dämmkeil unterbrochen.

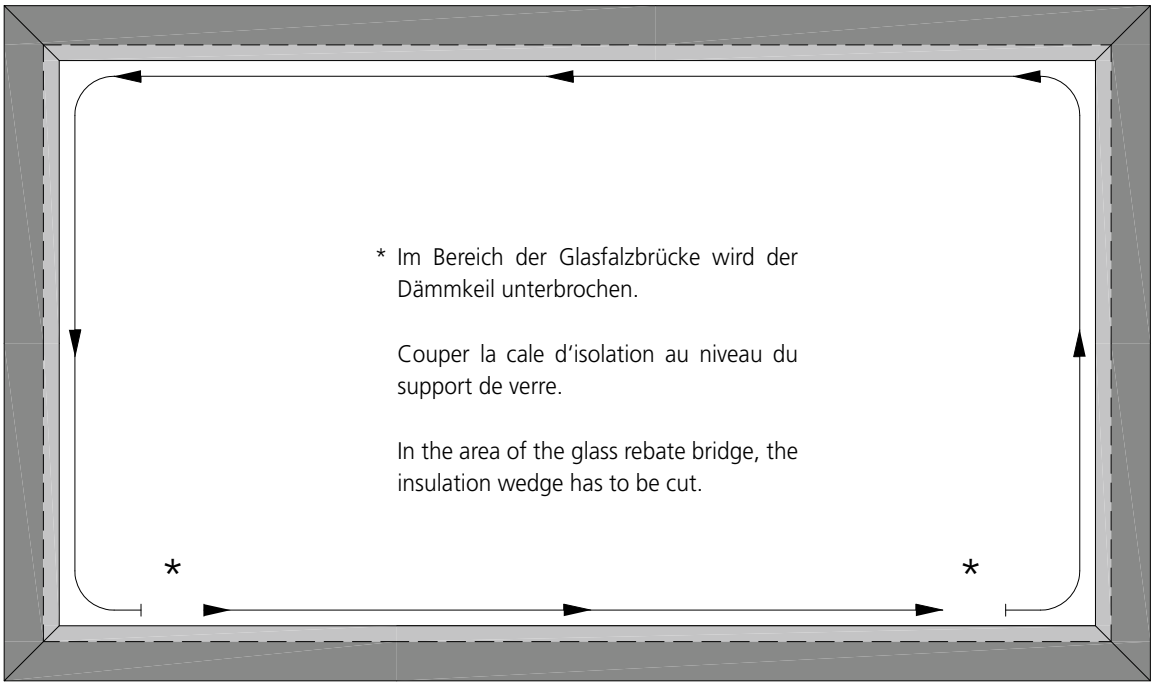
Couper la cale d'isolation au niveau du support de verre.

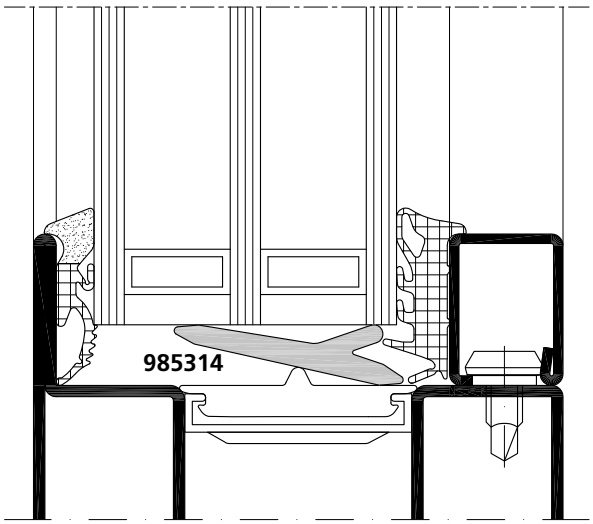
In the area of the glass rebate bridge, the insulation wedge has to be cut.

Fenster
Einbau
Dämmkeil

Fenêtres
Montage de la cale d'isolation

Windows
Installation of the insulation wedge







Heath West, GB-London

Verarbeitung Zubehör
Mise en œuvre accessoires
Assembly accessories

VUF 01/19

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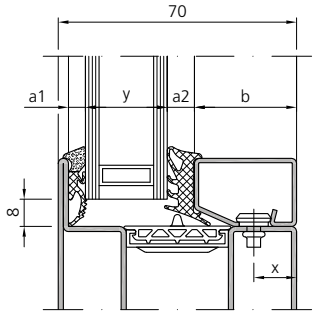
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Trockenverglasung
Bautiefe 70

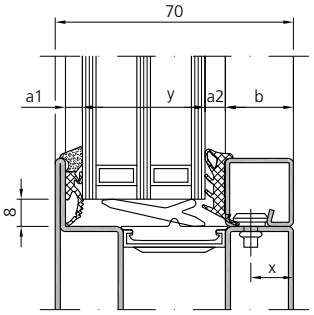
Vitrage à sec
Profondeur 70

Dry glazing
Depth 70

forsterunico
y= 20 - 42



forsterunico HI
y= 32 - 42



Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No. Edelstahl /Acier Inox / Stainless steel: No.	Glashalteleiste Aluminium Parclose en Aluminium Glazing beads Aluminium Aluminium: No.	Aussendichtung Joint extérieur Outer weatherstr. 985302 a1 = 5 [mm]	Innendichtung Joint intérieur Inner weatherstripping 905385 a2 = 5-6 [mm] 905386 a2 = 7-8 [mm] 905387 a2 = 9-10 [mm] y [mm]						Bohrmass x Trusquinage x Hole distance x
20 - 22	b = 35 901247 901547	b = 35 901336	5 [mm]	**22**	**21**	**20**	-	-	-	13 [mm]
22 - 27	b = 30 b = 30 901206* 901246 901546	b = 30 901335		**27**	**26**	**25**	**24**	**23**	**22**	10 [mm] 13 [mm]
27 - 32	b = 25 b = 25 901205* 901228 901528	b = 25 901328		**32**	**31**	**30**	**29**	**28**	**27**	10 [mm] 13 [mm]
32 - 37	b = 20 b = 20 901204 901227 901527			**37**	**36**	**35**	**34**	**33**	**32**	10 [mm] 13 [mm]
32 - 37		b = 20 901327		**37**	**36**	**35**	**34**	**33**	**32**	8 [mm]
37 - 42	b = 15 901226 901526	b = 15 901326		**42**	**41**	**40**	**39**	**38**	**37**	8 [mm]

* auf Anfrage / sur demande / on request

Diese theoretischen Verglasungstabellen gelten nur für flächenbündig gesetzte Glashalteleisten (Bohrmass x).
Bei versetzter Anordnung der Glashalteleisten sowie Toleranzen bei den Füllelementen sind Vorversuche durchzuführen.

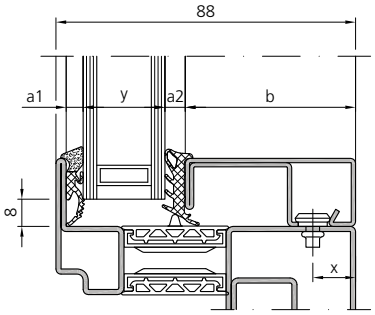
Ces tableaux théoriques de vitrage sont seulement valables pour des parcloses affleurées (trusquinage x).
Lors d'une disposition décalée des parcloses, ainsi que pour les tolérances concernant les éléments de remplissage, des essais préalables doivent être effectués.

These theoretical glazing tables apply only to flush-fitting glazing beads (distance between holes x).
Where glazing beads are placed alternately and where there are tolerances in the infill element, a trial run is necessary before.

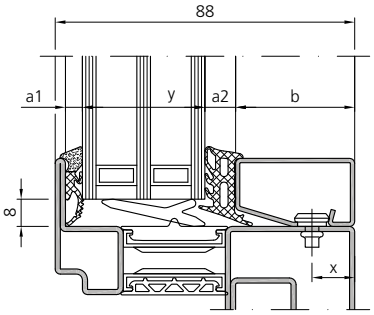
Trockenverglasung
Vitrage à sec
Dry glazing

Bautiefe 88
Profondeur 88
Depth 88

forsterunico®
y= 21 - 60



forsterunico®HI
y= 32 - 60



Glas-dicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No. Edelstahl /Acier Inox / Stainless steel: No.	Glashalteleiste Aluminium Parclose en Aluminium Glazing beads Aluminium Aluminium: No.	Aussendichtung Joint extérieur Outer weatherstr. 985302 a1 = 5 [mm]	Innendichtung Joint intérieur Inner weatherstripping 905385 a2 = 5-6 [mm] 905386 a2 = 7-8 [mm] 905387 a2 = 9-10 [mm] y [mm]						Bohr-mass x Trusqui-nage x Hole dis-tance x
20 - 25	b = 50 901207 901507	b = 50 901343		**25**	**24**	**23**	**22**	**21**	**20**	13 [mm]
25 - 30	b = 45 901249 901549	b = 45 901338		**30**	**29**	**28**	**27**	**26**	**25**	13 [mm]
30 - 35	b = 40 901248 901548	b = 40 901337		**35**	**34**	**33**	**32**	**31**	**30**	13 [mm]
35 - 40	b = 35 901247 901547	b = 35 901336		**40**	**39**	**38**	**37**	**36**	**35**	13 [mm]
40 - 45	b = 30 b = 30 901206* 901246 901546	b = 30 901335	5 [mm]	**45**	**44**	**43**	**42**	**41**	**40**	10 [mm] 13 [mm]
45 - 50	b = 25 b = 25 901205* 901228 901528	b = 25 901328		**50**	**49**	**48**	**47**	**46**	**45**	10 [mm] 13 [mm]
50 - 55	b = 20 b = 20 901204 901227 901527			**55**	**54**	**53**	**52**	**51**	**50**	10 [mm] 13 [mm]
50 - 55		b = 20 901327		**55**	**54**	**53**	**52**	**51**	**50**	8 [mm]
55 - 60	b = 15 901226 901526	b = 15 901326		**60**	**59**	**58**	**57**	**56**	**55**	8 [mm]

* auf Anfrage / sur demande / on request

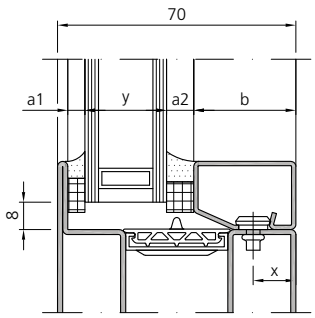
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Nassverglasung
Bautiefe 70

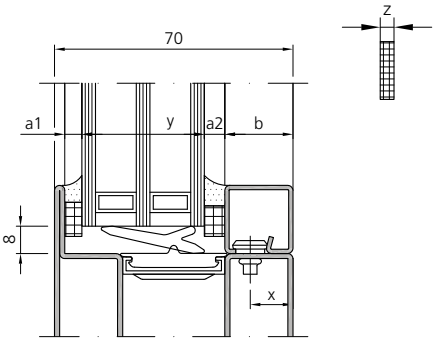
Vitrage à silicone
Profondeur 70

Wet glazing
Depth 70

forsterunico
y= 20 - 54.5



forsterunico HI
y= 32 - 54.5



z	Art. Nr.:
4 [mm]	988002
5 [mm]	988003
6 [mm]	988004
8 [mm]	988006

Glas-dicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No. Edelstahl /Acier Inox / Stainless steel: No.	Glashalteleiste Aluminium Parclose en Aluminium Glazing beads Aluminium Aluminium: No.	Vorlegeband Bande de vitrage Glazing tape a1 = 5 [mm] a2 = 5 [mm]	a1 = 5 [mm] a2 = 6 [mm]	a1 = 6 [mm] a2 = 6 [mm]	a1 = [5mm] a2 = 8 [mm]	a1 = 6 [mm] a2 = 8 [mm] y [mm]	Bohr-mass x Trusquinage x Hole distance x
20 - 22	b = 35 901247 901547	b = 35 901336	**22**	**21**	**20**	**-**	**-**	13 [mm]
23 - 27	b = 30 b = 30 901206* 901246 901546	b = 30 901335	**27**	**26**	**25**	**24**	**23**	10 [mm] 13 [mm]
28 - 32	b = 25 b = 25 901205* 901228 901528	b = 25 901328	**32**	**31**	**30**	**29**	**28**	10 [mm] 13 [mm]
33 - 37	b = 20 b = 20 901204 901227 901527		**37**	**36**	**35**	**34**	**33**	10 [mm] 13 [mm]
33 - 37		b = 20 901327	**37**	**36**	**35**	**34**	**33**	8 [mm]
38 - 42	b = 15 901226 901526	b = 15 901326	**42**	**41**	**40**	**39**	**38**	8 [mm]
43 - 47	b = 10 901241	b = 10 901334	**47**	**46**	**45**	**44**	**43**	16 [mm]
48 - 52		b = 5 901333	**52**	**51**	**50**	**49**	**48**	16 [mm]
50.5 - 54.5	b = 2.5 901245	b = 2.5 901332	**54.5**	**53.5**	**52.5**	**51.5**	**50.5**	16 [mm]

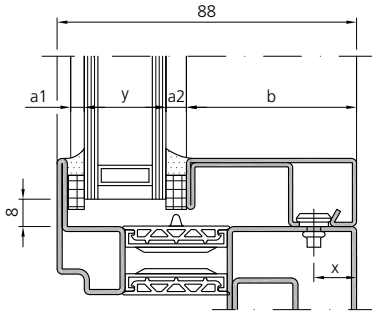
* auf Anfrage / sur demande / on request

Nassverglasung
Bautiefe 88

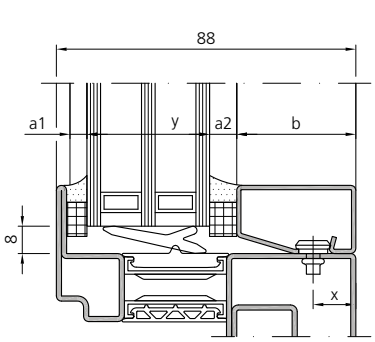
Vitrage à silicone
Profondeur 88

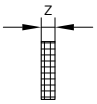
Wet glazing
Depth 88

forsterunico®
y= 21 - 60



forsterunico®HI
y= 32 - 60





z	Art. Nr.:
4 [mm]	988002
5 [mm]	988003
6 [mm]	988004
8 [mm]	988006

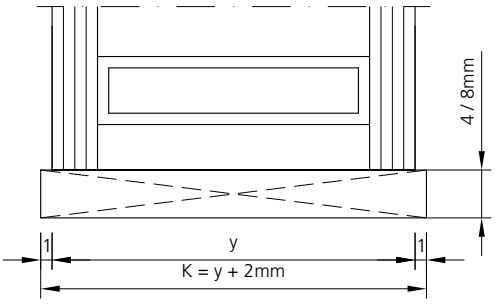
Glas-dicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel — Stahl / Acier / Steel: No. — Edelstahl /Acier Inox / Stainless steel: No.	Glashalteleiste Aluminium Parclose en Aluminium Glazing beads Aluminium — Aluminium: No.	Vorlegeband Bande de vitrage Glazing tape — a1 = 5 [mm] a2 = 5 [mm]	a1 = 5 [mm] a2 = 6 [mm]	a1 = 6 [mm] a2 = 6 [mm]	a1 = [5mm] a2 = 8 [mm]	a1 = 6 [mm] a2 = 8 [mm] — y [mm]	Bohr-mass x Trusquinage x Hole distance x
21 - 25	b = 50 — 901207 / 901507	b = 50 — 901343	**25**	**24**	**23**	**22**	**21**	13 [mm]
26 - 30	b = 45 — 901249 / 901549	b = 45 — 901338	**30**	**29**	**28**	**27**	**26**	13 [mm]
31 - 35	b = 40 — 901248 / 901548	b = 40 — 901337	**35**	**34**	**33**	**32**	**31**	13 [mm]
36 - 40	b = 35 — 901247 / 901547	b = 35 — 901336	**40**	**39**	**38**	**37**	**36**	13 [mm]
41 - 45	b = 30, b = 30 — 901206* / 901246 / 901546	b = 30 — 901335	**45**	**44**	**43**	**42**	**41**	13 [mm]
46 - 50	b = 25, b = 25 — 901205* / 901228 / 901528	b = 25 — 901328	**50**	**49**	**48**	**47**	**46**	13 [mm]
51 - 55	b = 20, b = 20 — 901204 / 901227 / 901527		**55**	**54**	**53**	**52**	**51**	13 [mm]
51 - 55		b = 20 — 901327	**55**	**54**	**53**	**52**	**51**	8 [mm]
56 - 60	b = 15 — 901226 / 901526	b = 15 — 901326	**60**	**59**	**58**	**57**	**56**	8 [mm]

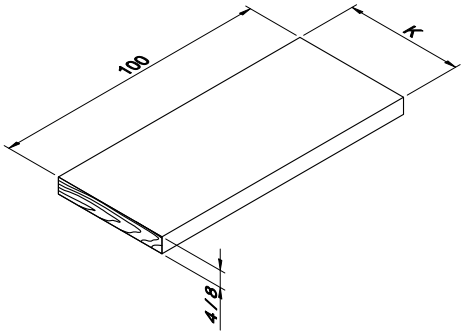
* auf Anfrage / sur demande / on request

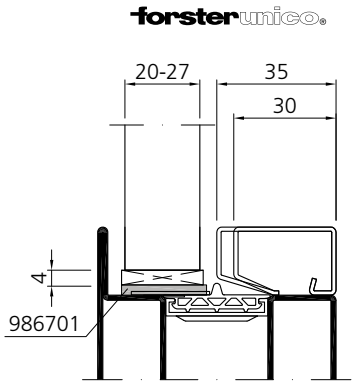
Verglasung
Glasfalzbrücke
Bautiefe 70

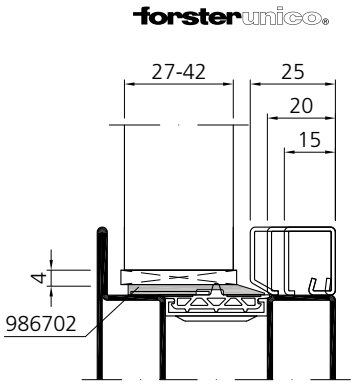
Vitrage
Pont feuillure pour verre
profondeur 70

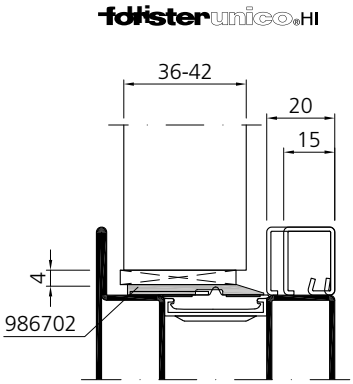
Glazing
Glass rebate bridge
structural depth 70











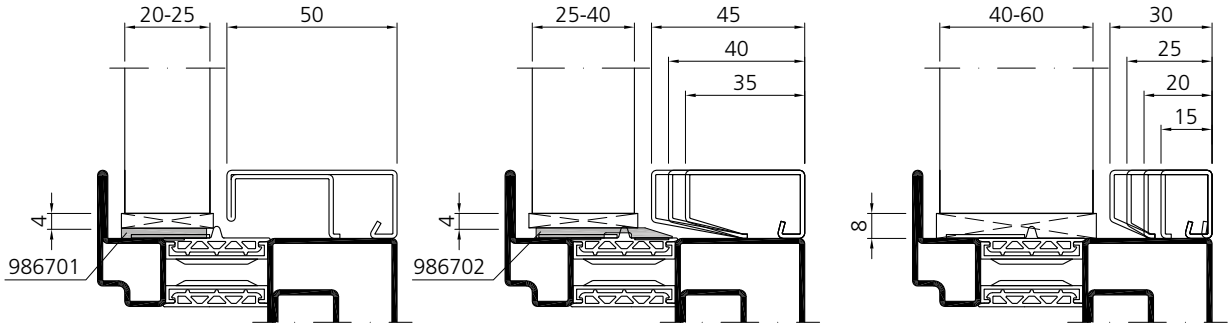
Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No. Edelstahl /Acier Inox / Stainless steel: No.	Glashalteleiste Aluminium Parclose en Aluminium Glazing beads Aluminium Aluminium: No.	Glasfalzbrücke Pont feuillure en verre Glass rebate bridge Art. No.	Verglasungsklotz 4 [mm] Mass K Cale de vitrage 4 [mm] Cote K Glazing block 4 [mm] Size K
20 - 22	b = 35 901247 901547	b = 35 901336	986701	**22 - 24**
22 - 27	b = 30 b = 30 901206* 901246 901546	b = 30 901335	986701	**24 - 29**
27 - 32	b = 25 b = 25 901205* 901228 901528	b = 25 901328	986702	**29 - 34**
32 - 37	b = 20 b = 20 901204 901227 901527		986702	**34 - 39**
32 - 37		b = 20 901327	986702	**34 - 39**
37 - 42	b = 15 901226 901526	b = 15 901326	986702	**39 - 44**

* auf Anfrage / sur demande / on request

Verglasung
Glasfalzbrücke
Bautiefe 88

Vitrage
Pont feuillure pour verre
profondeur 88

Glazing
Glass rebate bridge
structural depth 88



Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No. Edelstahl /Acier Inox / Stainless steel: No.	Glashalteleiste Aluminium Parclose en Aluminium Glazing beads Aluminium Aluminium: No.	Glasfalzbrücke Pont feuillure en verre Glass rebate bridge Art. No.	Verglasungsklotz 4 [mm] Mass K Cale de vitrage 4 [mm] Cote K Glazing block 4 [mm] Size K	Verglasungsklotz 8 [mm] Mass K Cale de vitrage 8 [mm] Cote K Glazing block 8 [mm] Size K
20 - 25	b = 50 901207 901507	b = 50 901343	986701 986703	**22 - 27**	
25 - 30	b = 45 901249 901549	b = 45 901338	986702 986703	**27 - 32**	
30 - 35	b = 40 901248 901548	b = 40 901337	986702 986703	**32 - 37**	
35 - 40	b = 35 901247 901547	b = 35 901336	986702 986703	**37 - 42**	
40 - 45	b = 30 b = 30 901206* 901246 901546	b = 30 901335			**42 - 47**
45 - 50	b = 25 b = 25 901205* 901228 901528	b = 25 901328			**47 - 52**
50 - 55	b = 20 b = 20 901204 901227 901527				**52 - 57**
50 - 55		b = 20 901327			**52 - 57**
55 - 60	b = 15 901226 901526	b = 15 901326			**57 - 62**

* auf Anfrage / sur demande / on request

Verarbeitung Zubehör
Mise en œuvre accessoires
Assembly accessories

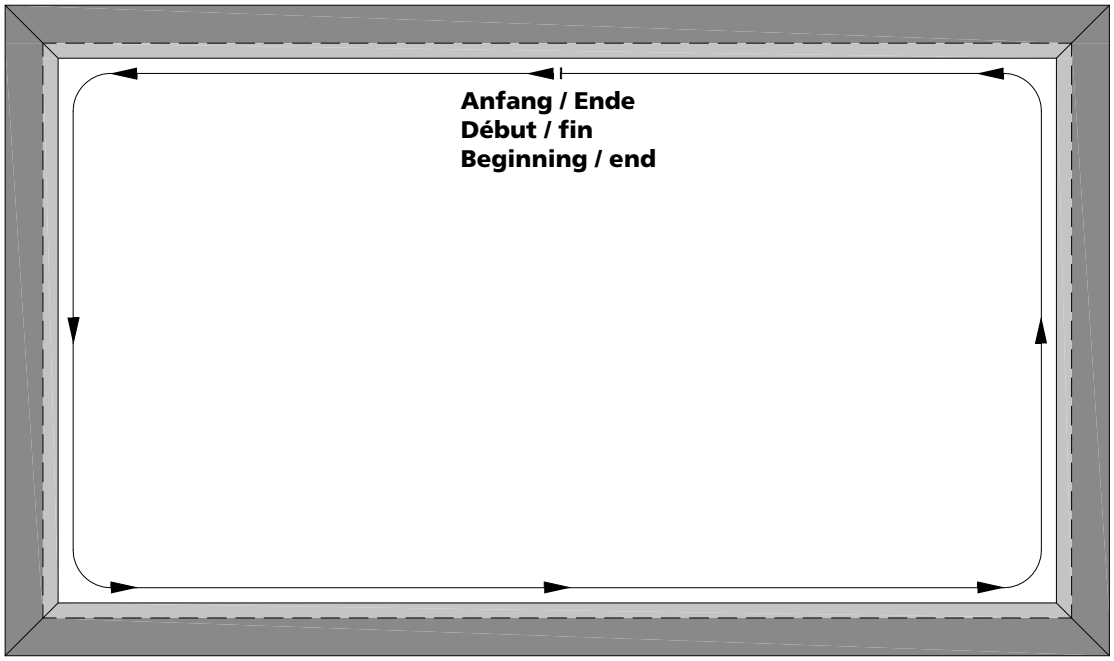
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Verglasung
Verglasungsdichtung

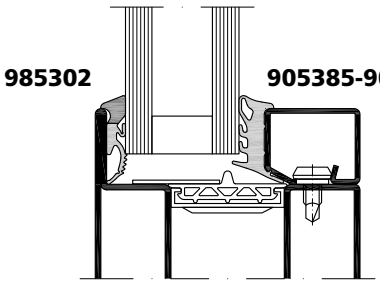
Vitrage
Joint de vitrage

Glazing
Glazing seal

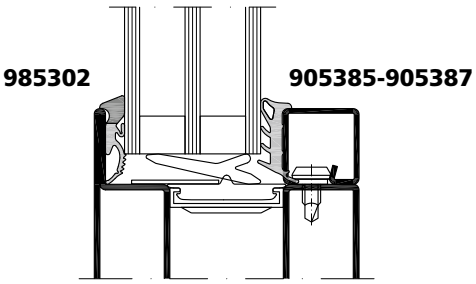
Rahmen | **Cadre** | **Frame**



forsterunico



forsterunico HI



Verglasung
Verglasungsdichtung

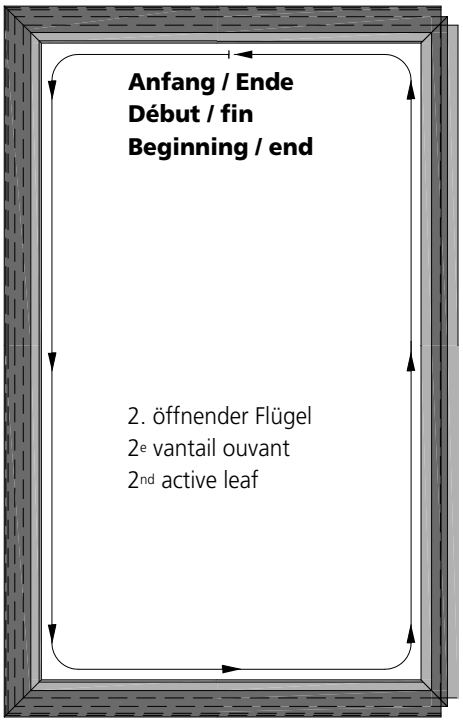
Vitrage
Joint de vitrage

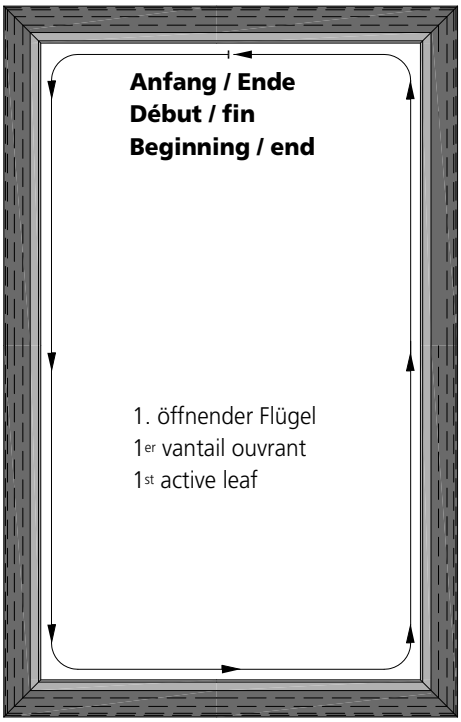
Glazing
Glazing seal

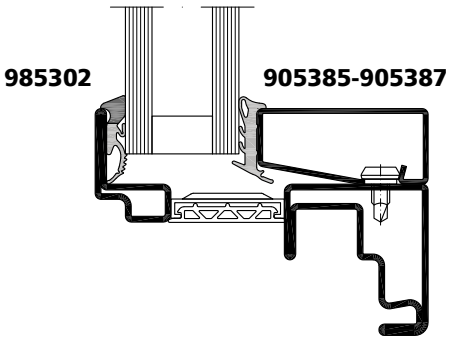
Flügel

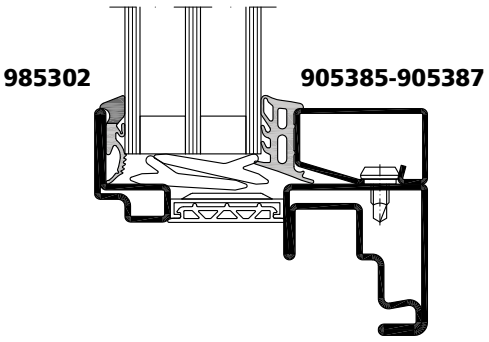
Vantail

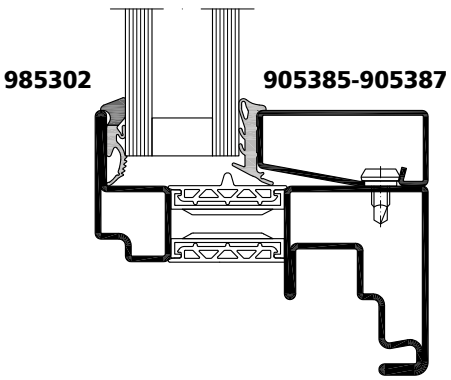
Leaf

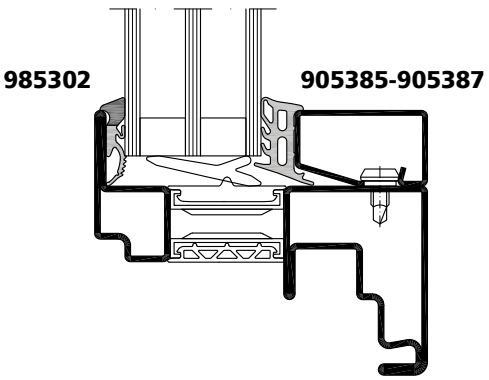








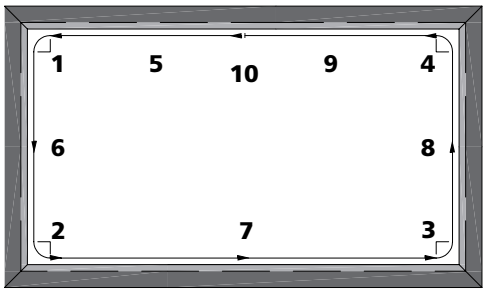




Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Verglasung
Vitrage
Glazing

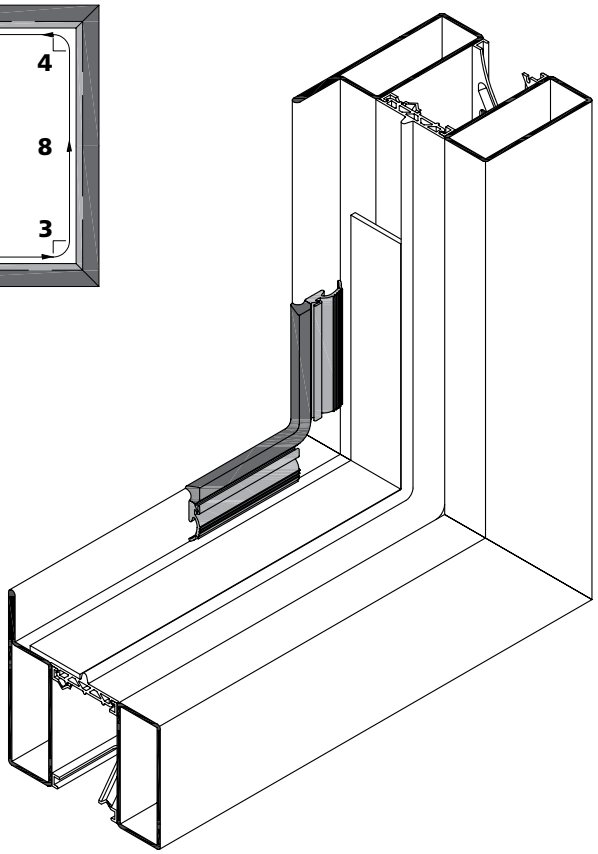
Verglasungsdichtung aussen
Joint de vitrage extérieur
Outer glazing seal



Montageablauf:
1. Dichtung einschneiden und in die Ecke kleben (1-4)
2. Längsseiten ankleben (5-9)
3. Stoss oben mittig mit geeignetem Kleber verkleben (10)

Montage:
1. Entailler le joint et le coller dans l'angle (1-4)
2. Coller les côtés longitudinaux (5-9)
3. Coller le bout en haut au milieu avec une colle appropriée (10)

Sequence of assembly:
1. Slit seal and glue in the corners (1-4)
2. Glue on the sides (5-9)
3. Bond seal ends together at the top center with suitable glue (10)

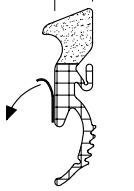


Folie abziehen!
Die Dichtung ist selbstklebend.

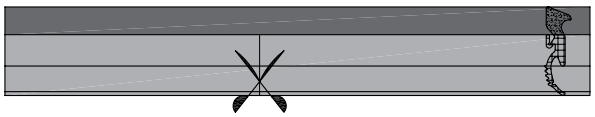
Retirer la feuille!
Le joint est autoadhésif.

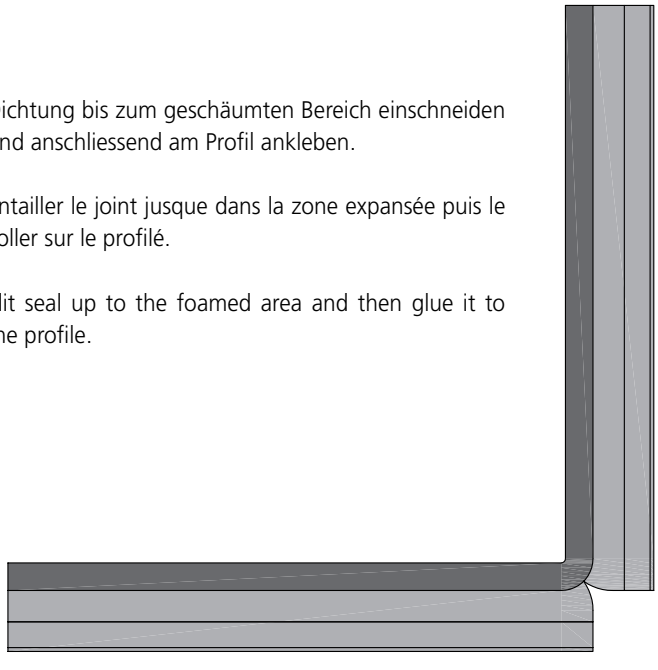
Remove foil!
The seal is self-adhesive.

985302
a1 = 5mm



985302





Dichtung bis zum geschäumten Bereich einschneiden und anschliessend am Profil ankleben.

Entailler le joint jusque dans la zone expansée puis le coller sur le profilé.

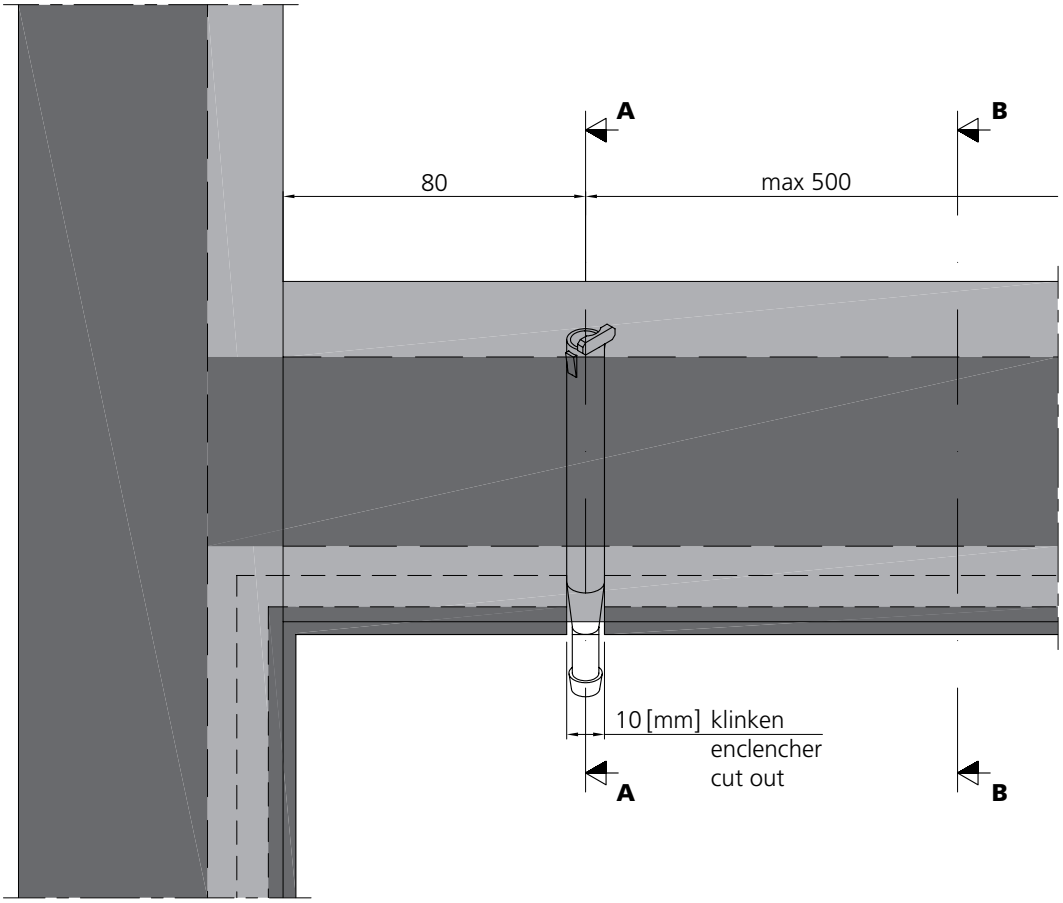
Slit seal up to the foamed area and then glue it to the profile.

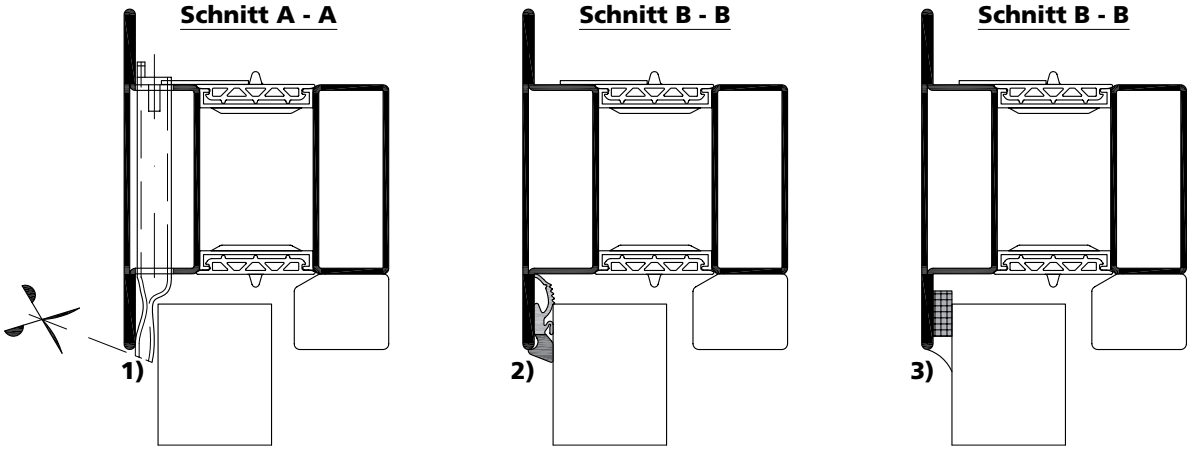


Verglasung
Verglasungsdichtung verdeckt liegende Entwässerung

Vitrage
Joint de vitrage d'évacuation d'eau cachée

Glazing
Glazing seal for hidden drainage





1) Im Bereich des Entspannungsröhrchens muss die Aussendichtung unterbrochen werden.
2/3) Verglasungsdichtung Art. Nr. 985302 bzw. Vorlegeband Art. Nr. 988003 werden im Bereich des Entspannungsröhrchens Art. Nr. 980101 unterbrochen.

1) Dans la zone de la tubulure de décompression, il faut interrompre le joint extérieur.
2/3) Le joint de vitrage art. no. 985302 ou le ruban art. no. 988003 sont interrompus dans la zone de la tubulure de décompression 980101.

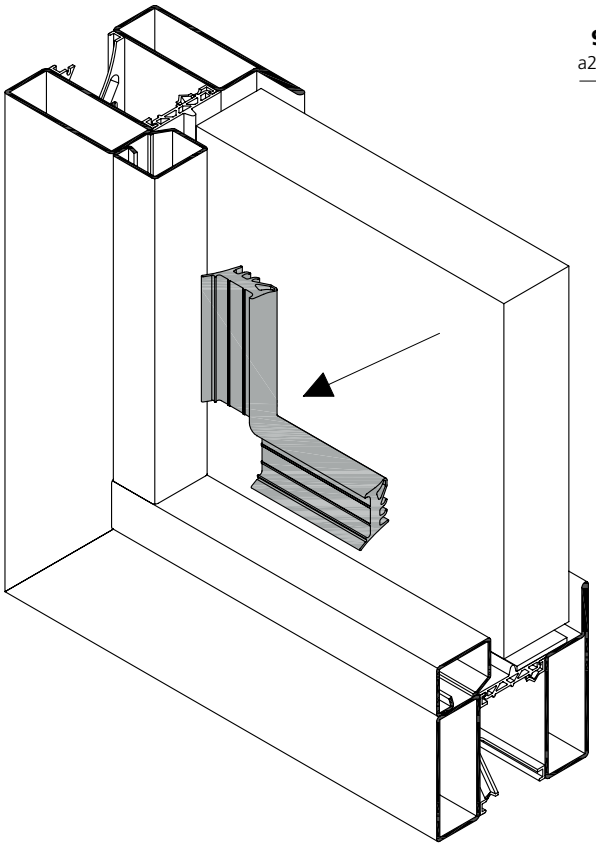
1) In the areas of the compression pipe, the outer weatherstrip must be interrupted.
2/3) Glazing seal art. no. 985302 or preformed tape art. no. 988003 are interrupted in the areas of the decompression pipe art. no. 980101.

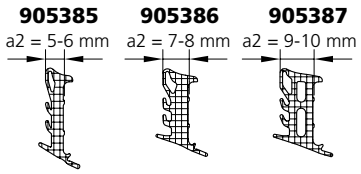
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Verglasung
Verglasungsdichtung innen

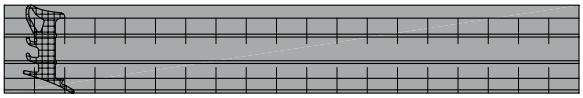
Vitrage
Joint de vitrage intérieur

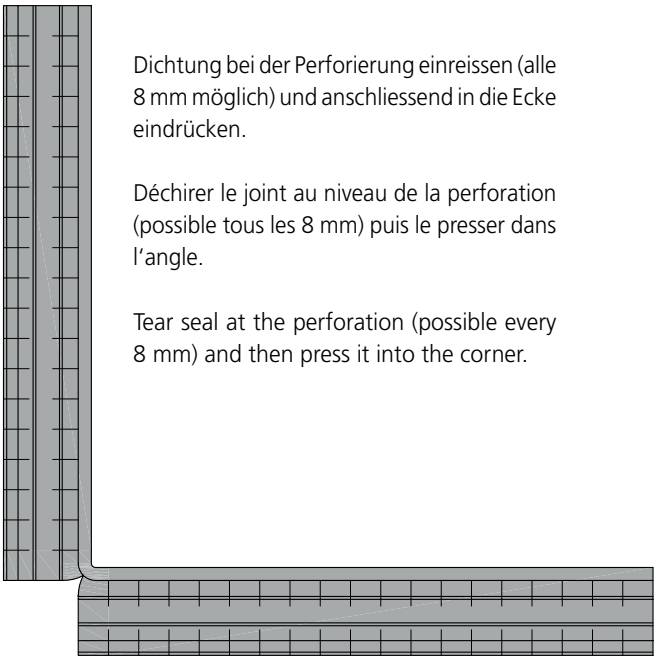
Glazing
Inner glazing seal





905385-905387

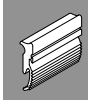




Dichtung bei der Perforierung einreissen (alle 8 mm möglich) und anschliessend in die Ecke eindrücken.

Déchirer le joint au niveau de la perforation (possible tous les 8 mm) puis le presser dans l'angle.

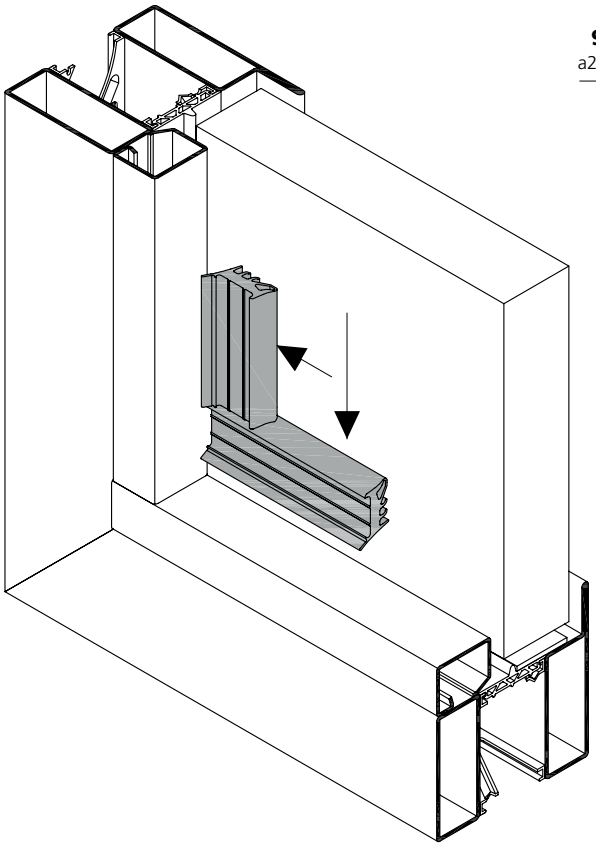
Tear seal at the perforation (possible every 8 mm) and then press it into the corner.

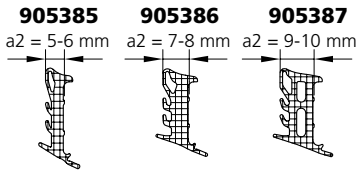


Verglasung
Verglasungsdichtung innen

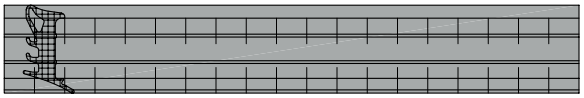
Vitrage
Joint de vitrage intérieur

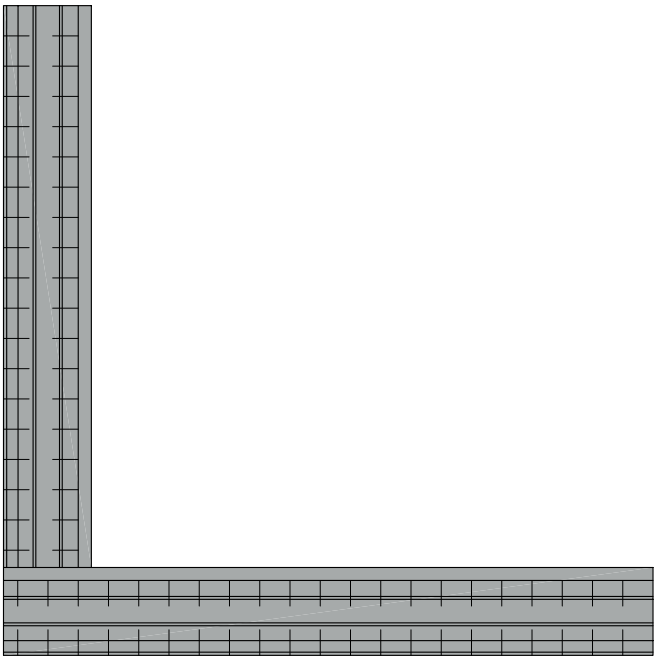
Glazing
Inner glazing seal





905385-905387



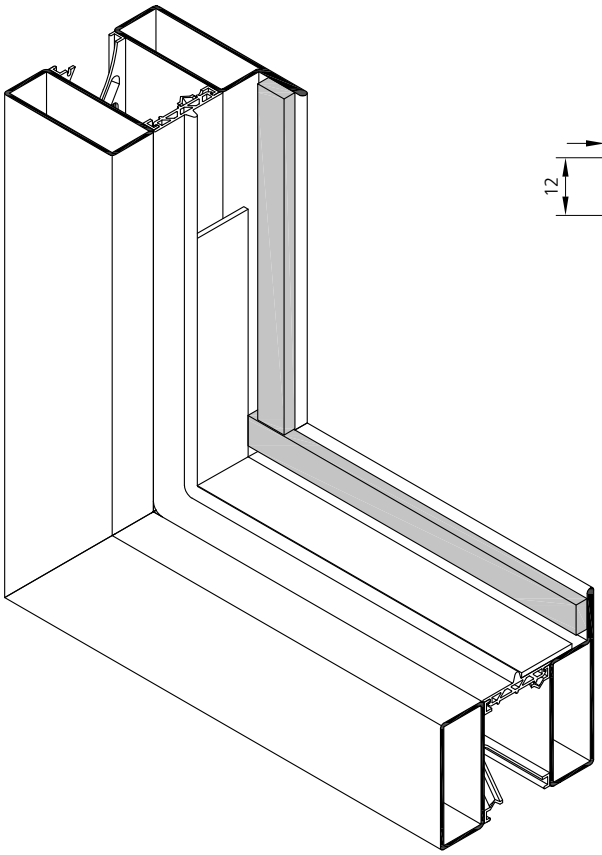


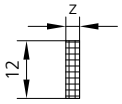
Stahl	Edelstahl
Acier	Acier inox
Steel	Stainless steel

Verglasung
Nassverglasung aussen

Vitrage
Vitrage à silicone extérieur

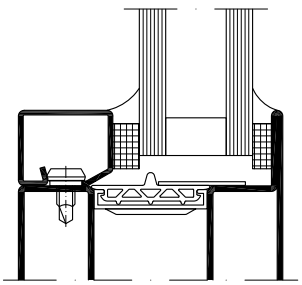
Glazing
Wet glazing outside



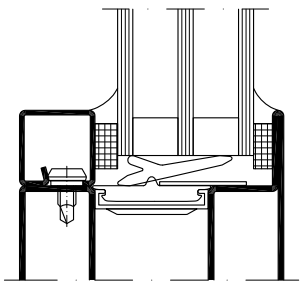


z	Art. Nr.:
4 [mm]	988002
5 [mm]	988003
6 [mm]	988004
8 [mm]	988006

forsterunico



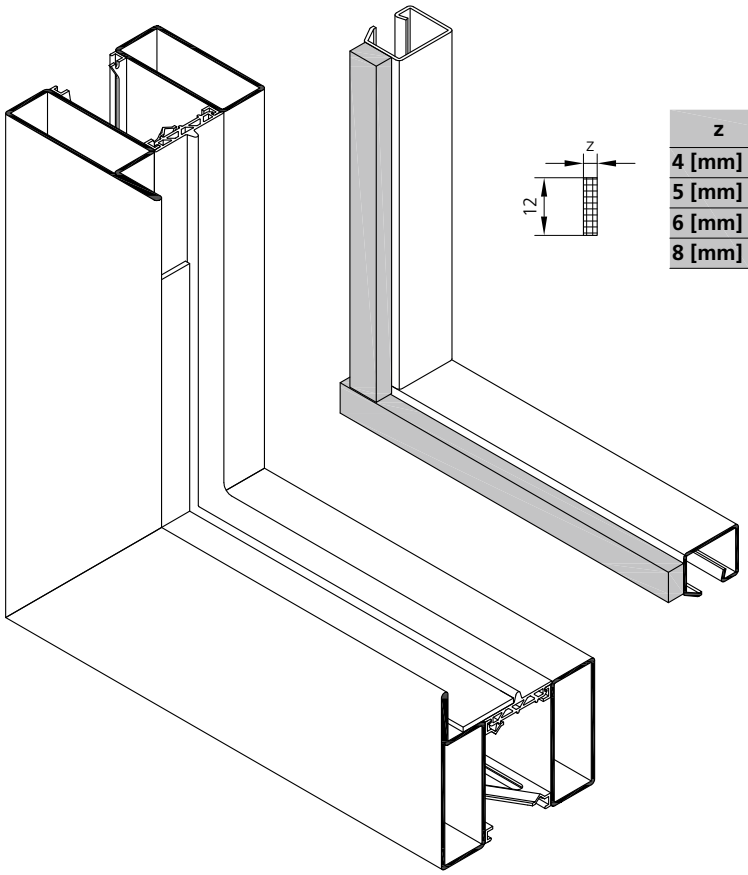
forsterunico HI



Verglasung
Nassverglasung innen

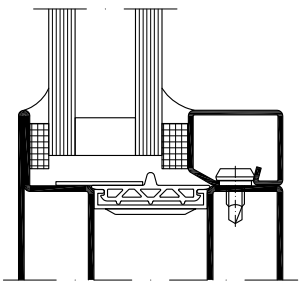
Vitrage
Vitrage à silicone intérieur

Glazing
Wet glazing inside

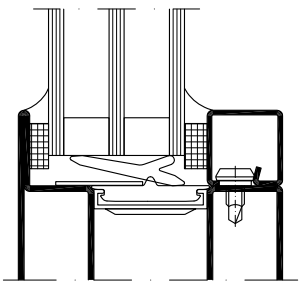


z	Art. Nr.:
4 [mm]	988002
5 [mm]	988003
6 [mm]	988004
8 [mm]	988006

forsterunico®



forsterunico®HI



9

Einbruchhemmende Fenster WK1 / RC2-3

Systemübersicht		9.1.1 - 9.1.11
Beschläge		9.2.1 - 9.2.47
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	Konstruktionsdetails	9.3.30 - 9.3.35
	Wandanschlüsse	9.3.36 - 9.3.43
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Verarbeitung Beschläge		9.5.1 - 9.5.217
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	RC2	9.5.67 - 9.5.140
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Fenêtres anti-effraction CR1 / RC2-3

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	Coupes du système	9.3.1 - 9.3.12
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	Raccords muraux	9.3.36 - 9.3.43
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Mise en œuvre quincaillerie		9.5.1 - 9.5.217
	CR1	9.5.1 - 9.5.66
	RC2	9.5.67 - 9.5.140
	RC3	9.5.141 - 9.5.217
Vitrage		9.6.1 - 9.6.19
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Burglary resistant windows RC1-3

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	System plans	9.3.13 - 9.3.29
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VUF 01/19

Übersicht Fenstertypen Forster unico WK1-RC3

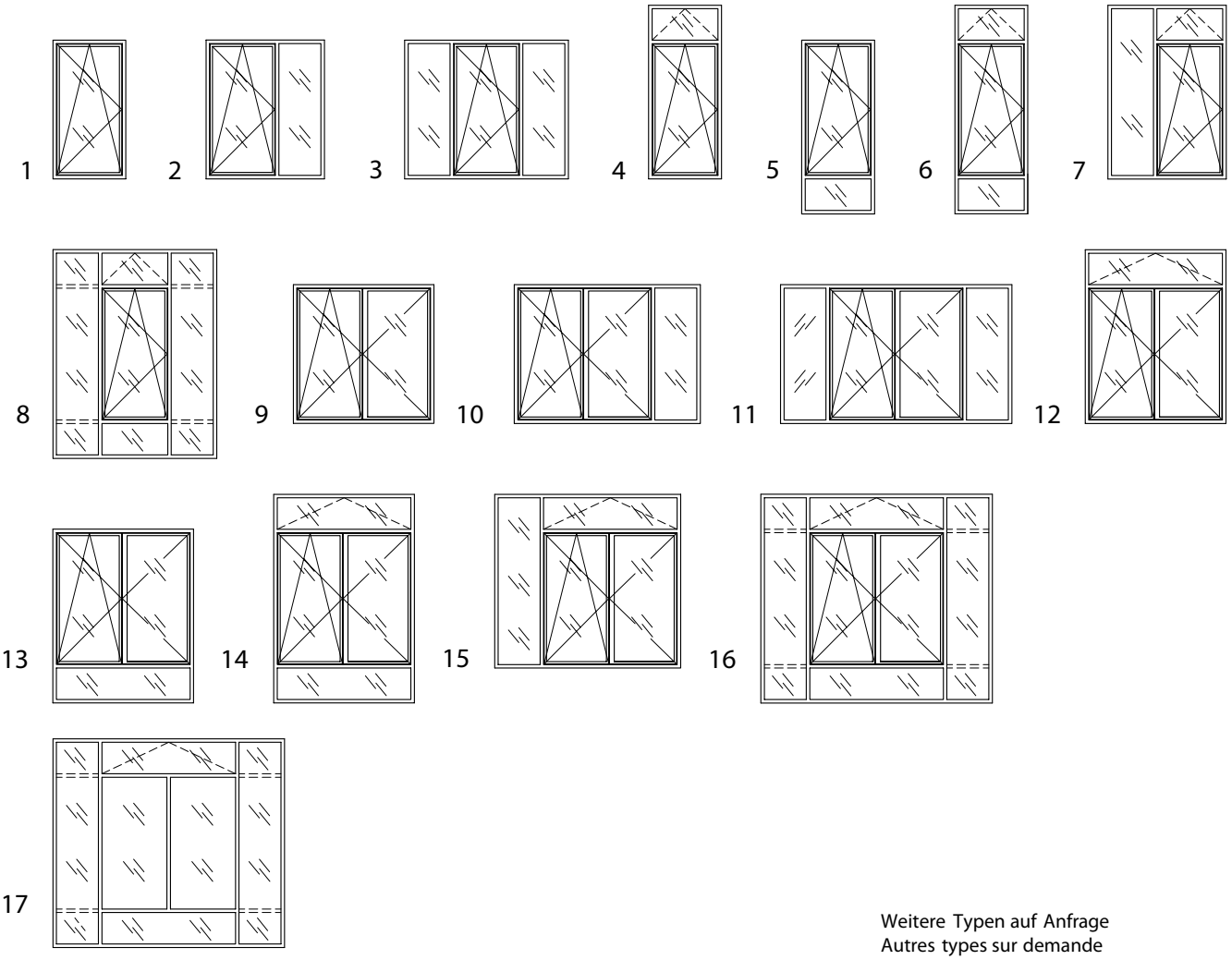
1	einflügeliges Fenster
2	• mit Seitenteil
3	• mit zwei Seitenteilen
4	• mit Oberlicht
5	• mit Unterlicht
6	• mit Ober- Unterlicht
7	• mit Oberlicht und Seitenteil
8	• mit Ober- Unterlicht und zwei Seitenteilen
9	zweiflügeliges Fenster
10	• mit Seitenteil
11	• mit zwei Seitenteilen
12	• mit Oberlicht
13	• mit Unterlicht
14	• mit Ober- Unterlicht
15	• mit Oberlicht und Seitenteil
16	• mit Ober- Unterlicht und zwei Seitenteilen
17	Festverglasung

Types de fenêtres Forster unico CR1-RC3

Fenêtre à un vantail
• avec partie latérale fixe
• avex deux parties latérales fixes
• avec imposte
• avec allège
• avec imposte et allège
• avec imposte et partie latérale fixe
• avec imposte, allège et deux parties latérales fixes
Fenêtre à deux vantaux
• avec partie latérale fixe
• avec deux parties latérales fixes
• avec imposte
• avec allège
• avec imposte et allège
• avec imposte et partie latérale fixe
• avec imposte, allège et deux parties latérales fixes
Vitrage fixe

Types of windows Forster unico RC1-3

Single leaved window
• with screen abutment
• with two screen abutments
• with fanlight
• with sublight
• with fanlight and sublight
• with fanlight and screen abutment
• with fanlight and sublight
• with two screen abutments
Double leaved window
• with screen abutment
• with two screen abutments
• with fanlight
• with sublight
• with fanlight and sublight
• with fanlight and screen abutment
• with fanlight and sublight with two screen abutments
Fixed glazing

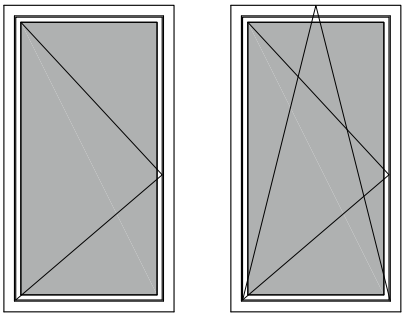


Weitere Typen auf Anfrage
Autres types sur demande
Other types on request

Zusammenfassung System Forster unico WK1

Résumé du système Forster unico CR1

Summary system Forster unico RC1

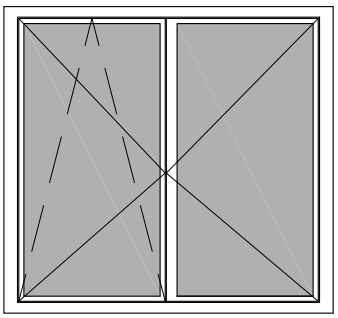


Einsatzbereich / Domaine d'application / Area of application

FFB: 290 - 1400 [mm]
FFH: 520 - 2400 [mm]
G_{max}: 150 [kg]

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side

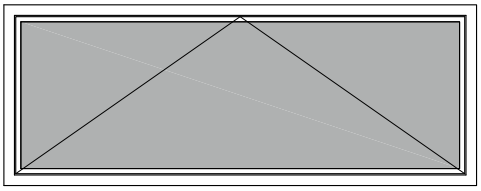


Einsatzbereich / Domaine d'application / Area of application

FFB: 290 - 1400 [mm]
FFH: 750 - 2400 [mm]
SFB: 310 - 1400 [mm]
SFH: 750 - 2400 [mm]
G_{max}: 150 [kg]

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side

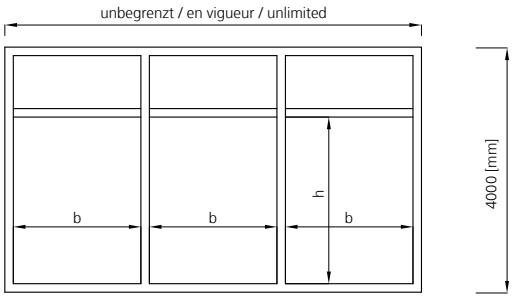


Einsatzbereich / Domaine d'application / Area of application

FFB: 520 - 2400 [mm]
FFH: 350 - 1200 [mm]
G_{max}: 80 [kg]

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side



Einsatzbereich / Domaine d'application / Area of application

b_{max} x h_{max}: 1500 [mm] x 3000 [mm] A_{max} 4.5 m²
b_{max} x h_{max}: 3000 [mm] x 1500 [mm] A_{max} 4.5 m²

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side



Profile / Profilés / Profiles

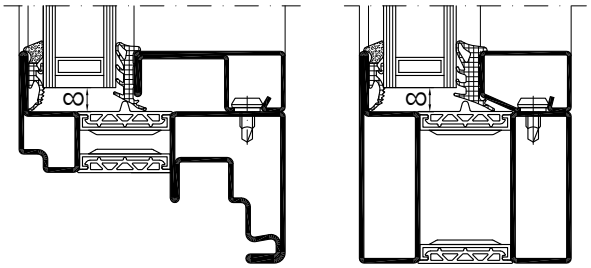
Stahl / Acier / Steel

Edelstahl / acier inox / stainless steel

Zusammenfassung System Forster unico WK1

Résumé du système Forster unico CR1

Summary system Forster unico RC1

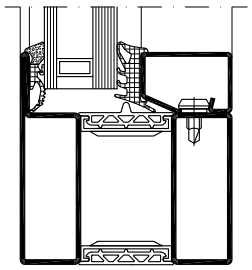


Glastyp / Vitrage / Glasstyp

Isolierglas der Klasse P1A nach EN 356
Vitrage isolant à la classe P1A selon EN 356
Insulating P1A glass in compilance with EN 356

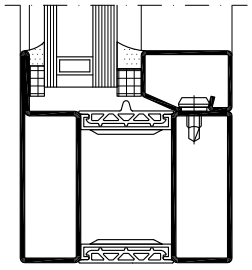
Paneel /Panneau / Glasstyp

Paneel 24 mm (Aufbau gemäss Kapitel 1.4.5)
Panneau 24 mm (Construction selon chapitre 1.4.5)
Panel 24 mm (Construction in according with 1.4.5)



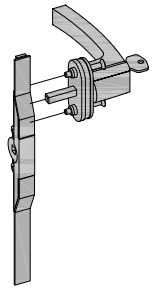
Trockenverglasung / Vitrage à sec / Dry Glazing

Mit Glashalteleisten
Avec parcloses
With Glazing beads



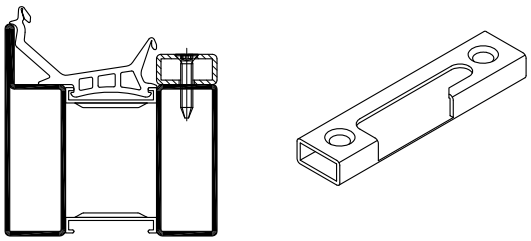
Nassverglasung / Vitrage à silicone / Wet glazing

Mit Glashalteleisten
Avec parcloses
With Glazing beads



Beschläge / Quincaillerie fenêtres / Window fittings

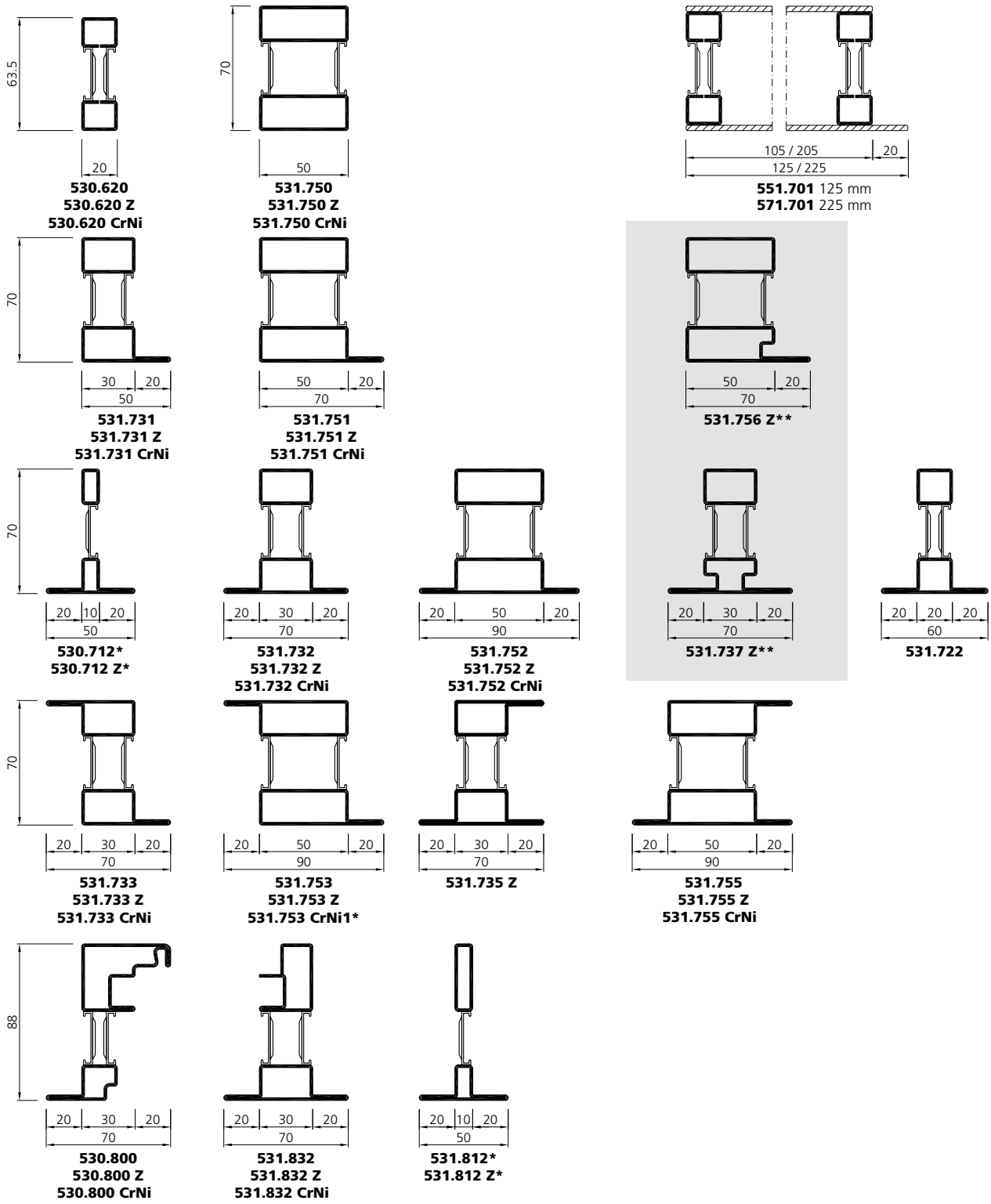
Forster Systembeschläge WK1
Quincaillerie de système Forster CR1
Forster system fittings RC1



Befestigung Schliessstücke / Montage des gâches/ striker mounting

Mit Beschlagsschraube selbstfurchend
Avec vis de fixation autotaraudeuse
With fitting screw self-tapping

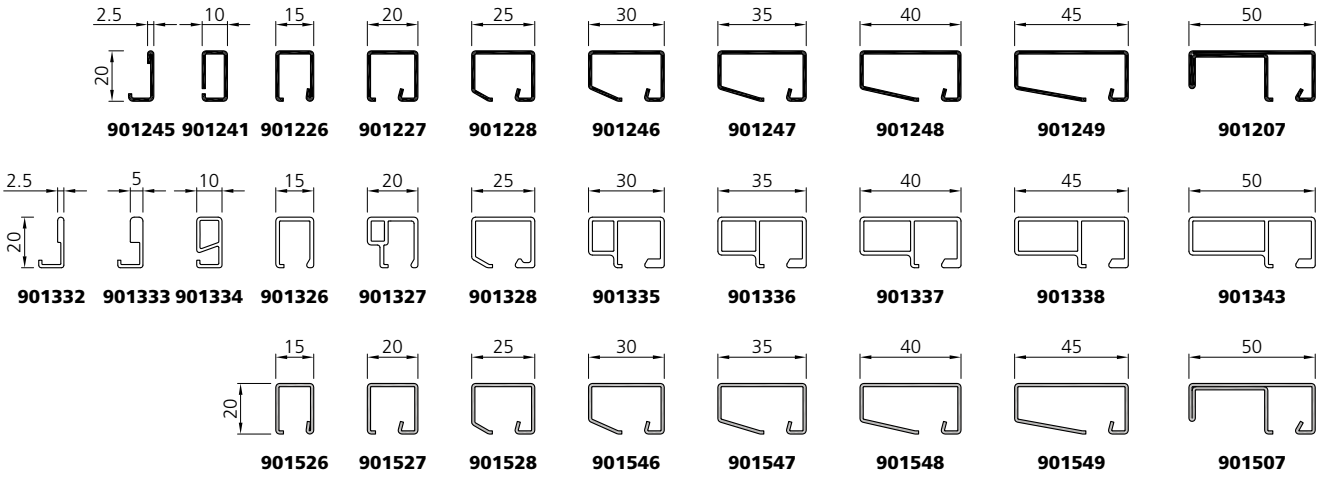
Systemübersicht — Tableau du système — Synopsis of system



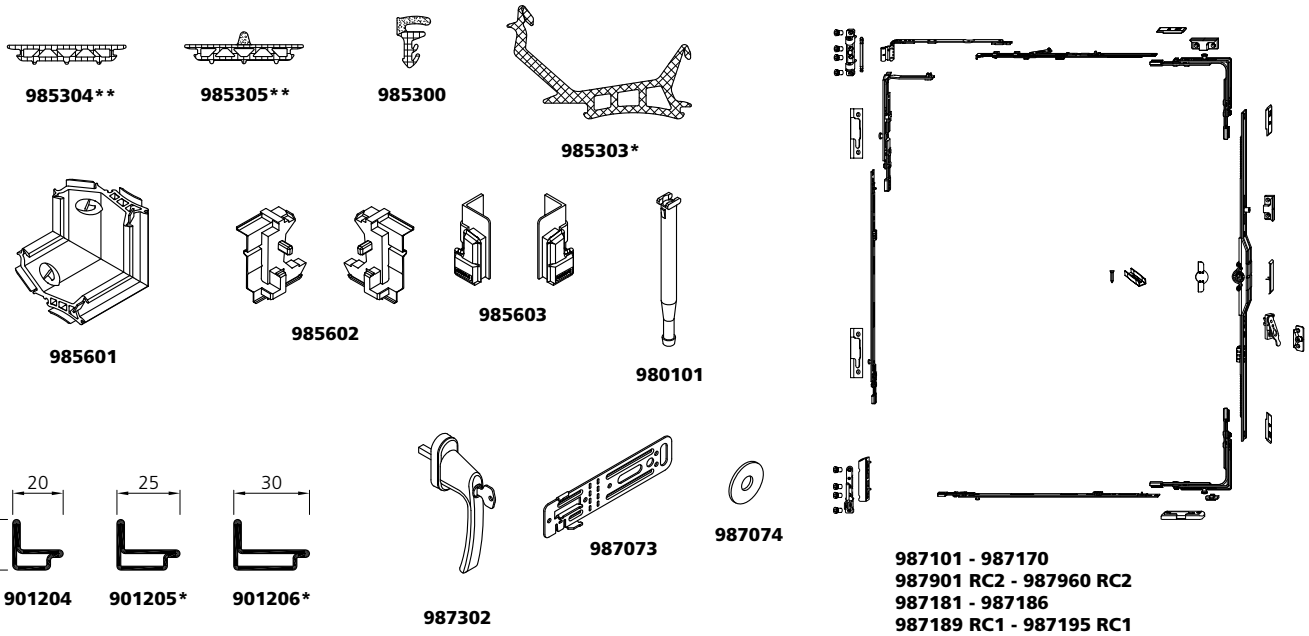
* nur als Sprossen (vertikal und horizontal)
seulement pour des traverses (verticale et horizontale)
only as transom (vertical and horizontal)

** Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove

Systemübersicht — Tableau du système — Synopsis of system







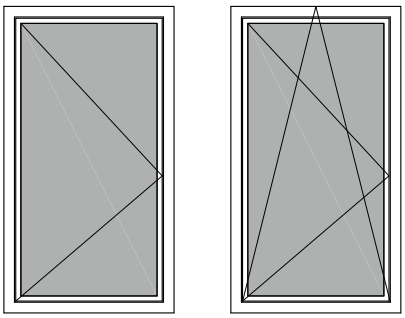
* auf Anfrage
sur demande
on request

** Silikon schwarz, andere Farben auf Anfrage
Silicon noir, autres couleurs sur demande
Silicon black, other colors on request

Zusammenfassung System Forster unico RC2

Résumé du système Forster unico RC2

Summary system Forster unico RC2

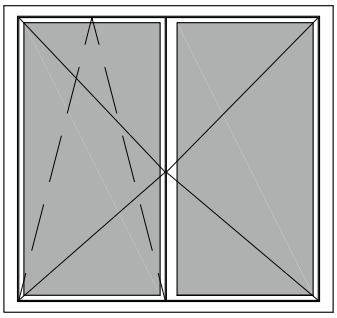


Einsatzbereich / Domaine d'application / Area of application

FFB: 310 - 1400 [mm]
FFH: 520 - 2400 [mm]
G_{max}: 150 [kg]

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side

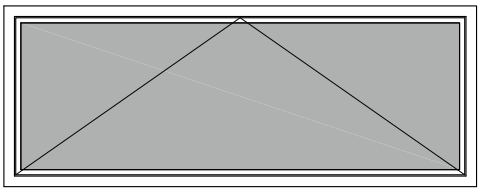


Einsatzbereich / Domaine d'application / Area of application

FFB: 310 - 1400 [mm]
FFH: 750 - 2400 [mm]
SFB: 310 - 1400 [mm]
SFH: 750 - 2400 [mm]
G_{max}: 150 [kg]

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side

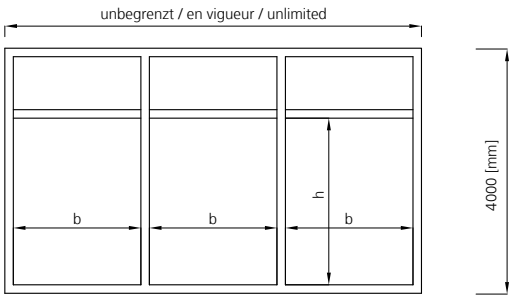


Einsatzbereich / Domaine d'application / Area of application

FFB: 520 - 2400 [mm]
FFH: 370 - 1200 [mm]
G_{max}: 80 [kg]

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side



Einsatzbereich / Domaine d'application / Area of application

b_{max} x h_{max}: 1500 [mm] x 3000 [mm] A_{max} 4.5 m²
b_{max} x h_{max}: 3000 [mm] x 1500 [mm] A_{max} 4.5 m²

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side



Profile / Profilés / Profiles

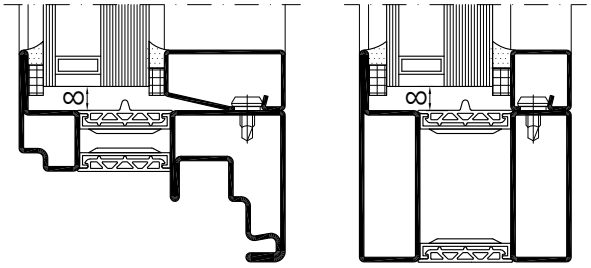
Stahl / Acier / Steel

Edelstahl / acier inox / stainless steel

Zusammenfassung System Forster unico RC2

Résumé du système Forster unico RC2

Summary system Forster unico RC2

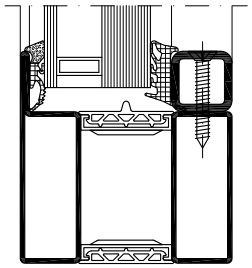


Glastyp / Vitrage / Glasstyp

Isolierglas der Klasse P4A nach EN 356
Vitrage isolant à la classe P4A selon EN 356
Insulating glass P4A in compilance with EN 356

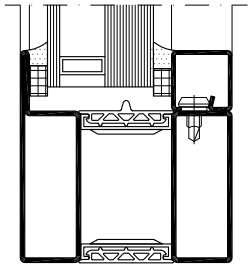
Paneel /Panneau / Glasstyp

Paneel 34 mm (Aufbau gemäss Kapitel 2.4.5)
Panneau 34 mm (Construction selon chapitre 2.4.5)
Panel 34 mm (Construction in according with 2.4.5)



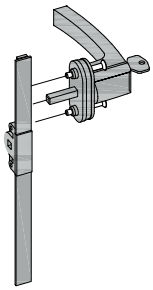
Trockenverglasung / Vitrage à sec / Dry Glazing

Mit Stahlrohr
Avec tube en acier
With steel tube



Nassverglasung / Vitrage à silicone / Wet glazing

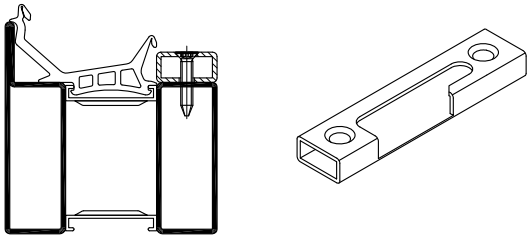
Mit Glashalteleisten
Avec parcloses
With Glazing beads



Beschläge / Quincaillerie fenêtres / Window fittings

Forster Systembeschläge WK2
Quincaillerie de système Forster CR2
Forster system fittings RC2

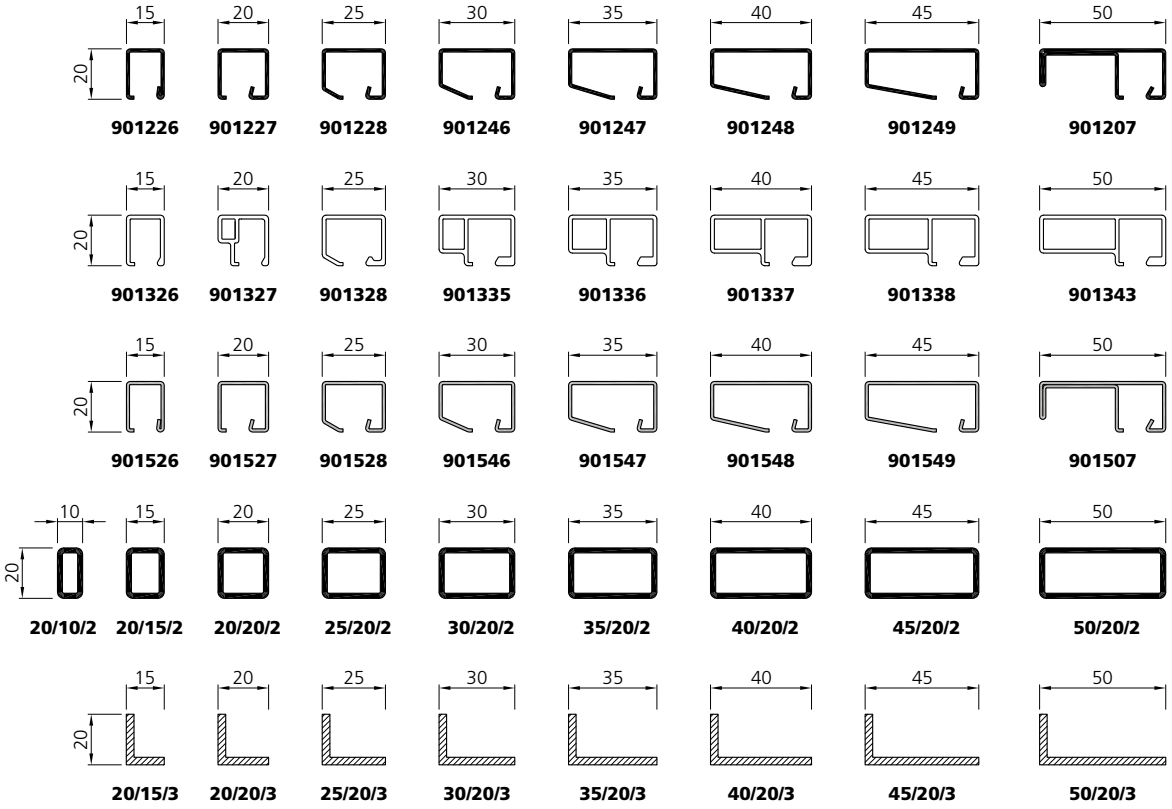
- Alternative: Unico Kippbeschlag WK2 mit "GEZE OL 100" mit abnehmbarer Kurbelstange als Oberlichtöffner
- Autre possibilité : quincaillerie ouvrant à soufflet CR2 avec «GEZE OL 100» et manivelle amovible pour ouverture en imposte .
- Alternative: with tilt only fitting with"GEZE OL 100" with detachable connecting rod as fanlight opener



Befestigung Schliessstücke / Montage des gâches/ striker mounting

Mit Beschlagsschraube selbstfurchend
Avec vis de fixation autotaraudeuse
With fitting screw self-tapping

Systemübersicht — Tableau du système — Synopsis of system





906577 (VE 100 Stk/pcs)
906578 (VE 1000 Stk/pcs)
906579 (Mag. 200 Stk/pcs)



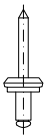
906420



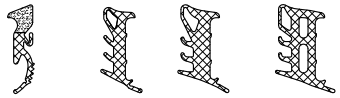
906421



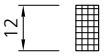
906583



906574



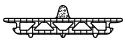
985302** 5 mm
905385 5-6 mm
905386 7-8 mm
905387 9-10 mm



988002 4 mm
988003 5 mm
988004 6 mm
988006 8 mm



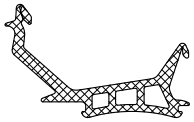
985304**



985305**



985300



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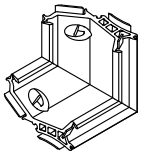

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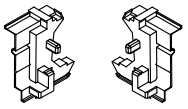

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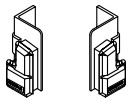

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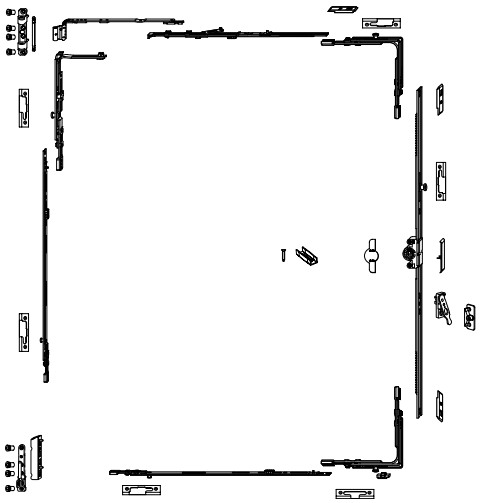
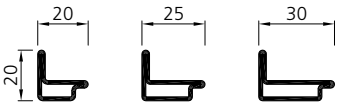


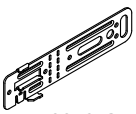
987101 RC2 - 987170 RC2
9879001 RC2 - 987960 RC2
987181 RC2 - 987186 RC2



901204 **901205*** **901206***



987302



987073



987074

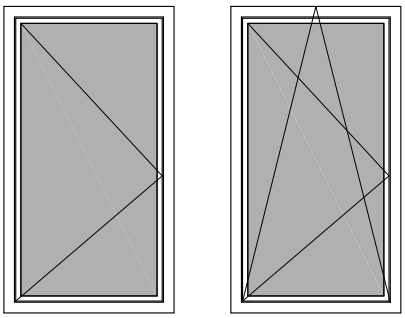
* auf Anfrage
sur demande
on request

** Silikon schwarz, andere Farben auf Anfrage
Silicon noir, autres couleurs sur demande
Silicon black, other colors on request

Zusammenfassung System Forster unico RC3

Résumé du système Forster unico RC3

Summary system Forster unico RC3

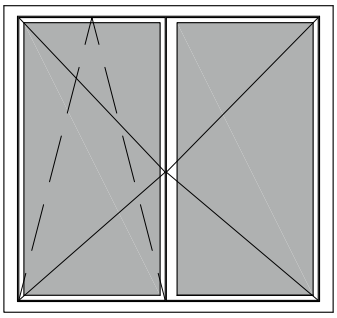


Einsatzbereich / Domaine d'application / Area of application

FFB: 310 - 1400 [mm]
FFH: 520 - 2400 [mm]
G_{max}: 150 [kg]

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side

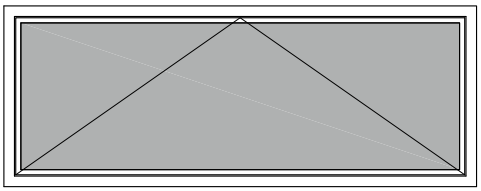


Einsatzbereich / Domaine d'application / Area of application

FFB: 310 - 1400 [mm]
FFH: 750 - 2400 [mm]
SFB: 310 - 1400 [mm]
SFH: 750 - 2400 [mm]
G_{max}: 150 [kg]

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side

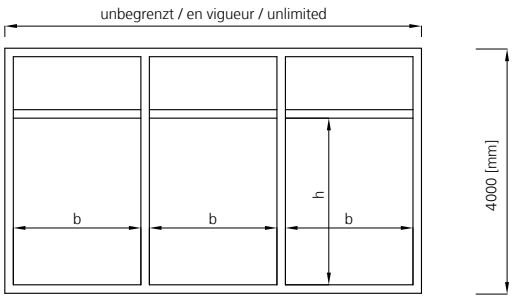


Einsatzbereich / Domaine d'application / Area of application

FFB: 520 - 2400 [mm]
FFH: 370 - 1200 [mm]
G_{max}: 80 [kg]

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side



Einsatzbereich / Domaine d'application / Area of application

b_{max} x h_{max}: 1500 [mm] x 3000 [mm]; A_{max} 4.5 m²
b_{max} x h_{max}: 3000 [mm] x 1500 [mm] A_{max} 4.5 m²

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side



Profile / Profilés / Profiles

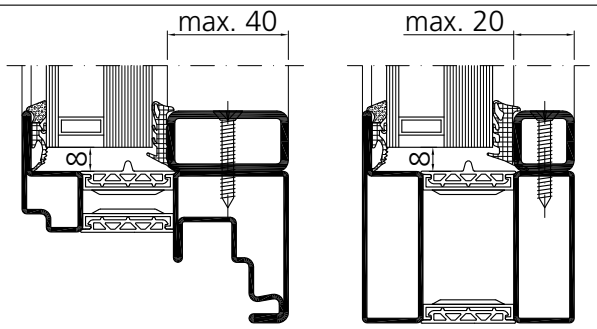
Stahl / Acier / Steel

Edelstahl / acier inox / stainless steel

Zusammenfassung System Forster unico RC3

Résumé du système Forster unico RC3

Summary system Forster unico RC3

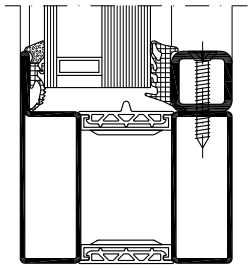


Glastyp / Vitrage / Glasstyp

Isolierglas der Klasse P5A oder P6B nach EN 356
Vitrage isolant à la classe P5A ou P6B selon EN 356
Insulating glass P5A or P6B in compilance with EN 356

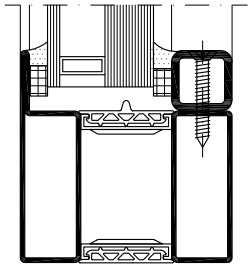
Paneel /Panneau / Glasstyp

Paneel 34 mm (Aufbau gemäss Kapitel 3.4.5)
Panneau 34 mm (Construction selon chapitre 3.4.5)
Panel 34 mm (Construction in according with 3.4.5)



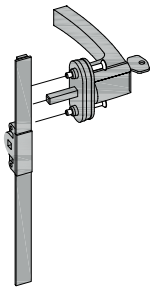
Trockenverglasung / Vitrage à sec / Dry Glazing

Mit Stahlrohr
Avec tube en acier
With steel tube



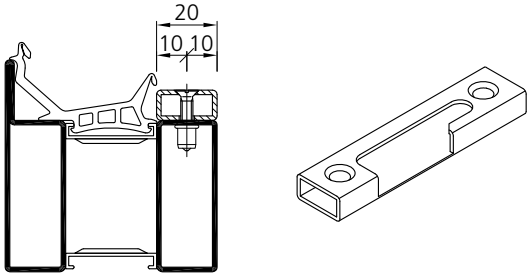
Nassverglasung / Vitrage à silicone / Wet glazing

Mit Stahlrohr
Avec tube en acier
With steel tube



Beschläge / Quincaillerie fenêtres / Window fittings

Forster Systembeschläge WK3
Quincaillerie de système Forster CR3
Forster system fittings RC3



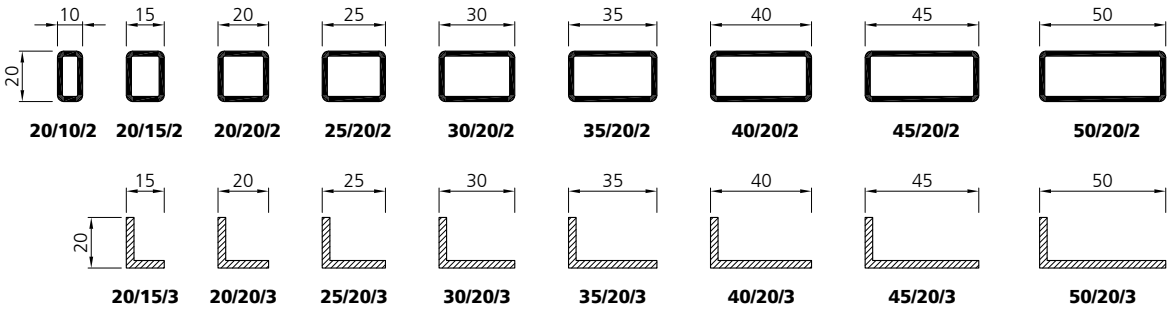
Befestigung Schliessstücke / Montage des gâches/ striker mounting

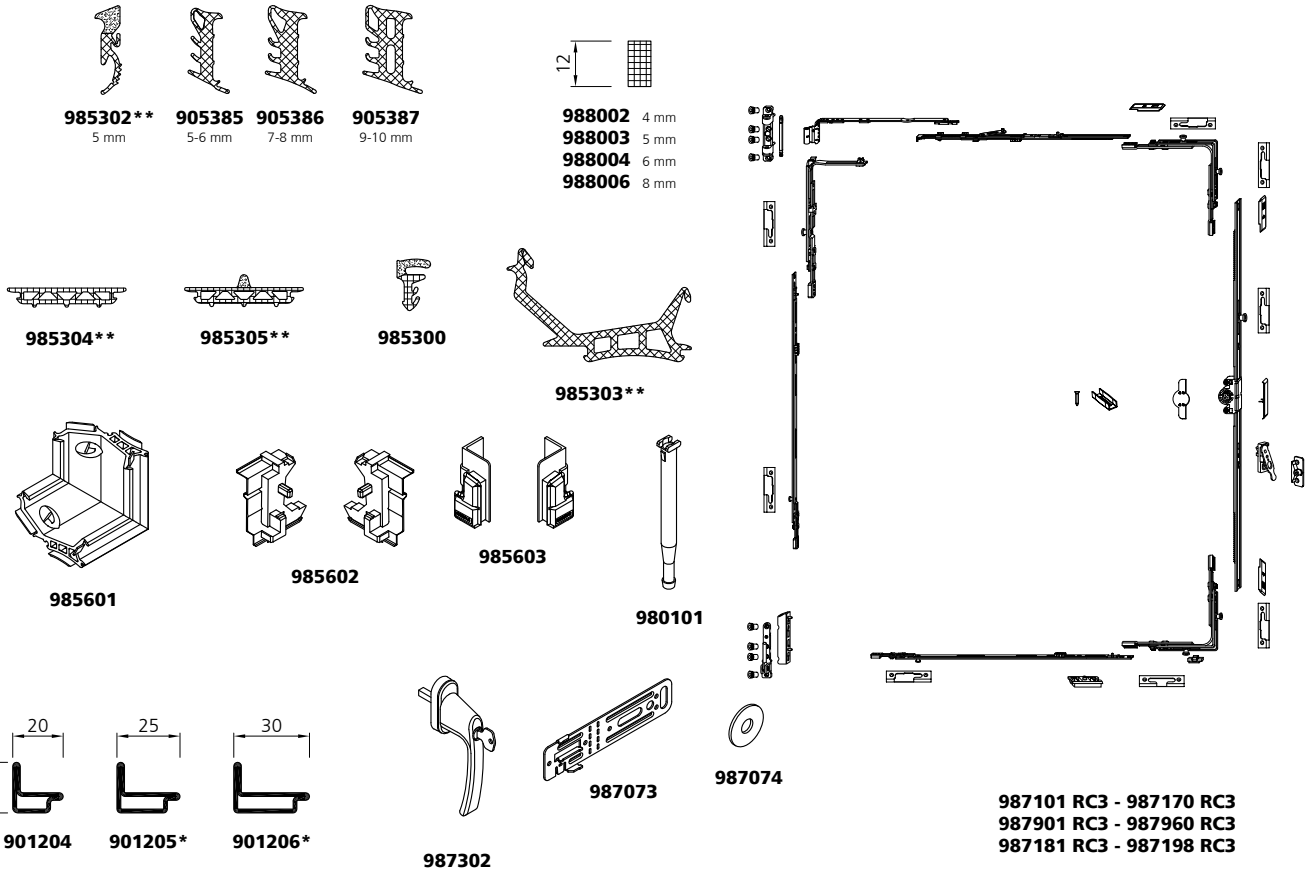
Mit Beschlagsschraube in Einnietmutter M4
Avec vis de fixation dans rivet fileté M4
With fitting screw in clench rivet M4

Oder / ou / or

Mit Beschlagsschraube und Flowdrill (Thermo Fließbohr Technologie)
Avec vis de fixation et Flowdrill (thermo-fluoperçage)
With fitting screw and Flowdrill (thermal-Friction-Drilling)

Systemübersicht — Tableau du système — Synopsis of system





* auf Anfrage
sur demande
on request

** Silikon schwarz, andere Farben auf Anfrage
Silicon noir, autres couleurs sur demande
Silicon black, other colors on request



KBA NotaSys SA, CH-Lausanne

Beschläge Fenster | Quincaillerie fenêtres | Window fittings



Bermondsey Street, GB-London

Beschläge Fenster

Systembeschläge WK1 für Forster unico werden als Komplettgarnituren geliefert. Der Beschlag ist so abgestimmt worden, dass für Dreh- und Drehkipp-Fenster derselbe Beschlag verwendet werden kann.

Die beiden unterschiedlichen Funktionen werden über einen Hubbegrenzer im Bereich der unteren Eckumlenkung gesteuert. Die Verabeitung und Montage sind von der Funktion unabhängig und vereinfachen den Beschlagseinbau. Dieses Prinzip wurde auch für den Stulpflügel übernommen.

Der Stulpflügel-Beschlag unterscheidet sich nur in der Funktion des Getriebes vom Standard-Dreh-/Drehkipp-Beschlag. Damit unterscheidet sich die Montage des Stulp-Beschlages unwesentlich von der Montage des 1. öffnenden Flügels.

Einsatzbereich des Forster Standardbeschlages:

1 flügelige Fenster
FFB: 290 - 1400 [mm]
FFH: 520 - 2400 [mm]
GH: 260 - 1200 [mm]
Gewicht: 150 [kg]

2 flügelige Fenster
FFB: 290 - 1400 [mm]
FFH: 750 - 2400 [mm]
GH: 375 - 1200 [mm]
Gewicht: 150 [kg]

SFB: 310 - 1400 [mm]
SFH: 750 - 2400 [mm]
Gewicht: 150 [kg]

Kipp-Fenster
FFB: 520 - 2400 [mm]
FFH: 350 - 1200 [mm]
Gewicht: 80 [kg]

Beschlag-Oberfläche: Silberoptik

Quincaillerie fenêtres

La quincaillerie CR1 du système Forster unico est livrée en garniture complète. Elle est conçue de telle façon qu'il est possible d'utiliser le même ferrement pour les fenêtres ouvrant à la française et ouvrant oscillo-battant.

Les deux fonctions différentes sont commandées par un limitateur de course dans la zone du renvoi d'angle inférieur. Le traitement et le montage sont indépendants de la fonction et simplifient le montage de la quincaillerie. Ce principe a été repris pour le vantail semi-fixe.

La quincaillerie du vantail semi-fixe se différencie seulement au niveau de la fonction de la crémone. Le montage de la quincaillerie du vantail semi-fixe ne se différencie presque pas du montage du 1er vantail ouvrant.

Domaine d'application de la quincaillerie Forster standard:

Fenêtre 1 vantail
FFB: 290 - 1400 [mm]
FFH: 520 - 2400 [mm]
GH: 260 - 1200 [mm]
Poids: 150 [kg]

Fenêtre 2 vantaux
FFB: 290 - 1400 [mm]
FFH: 750 - 2400 [mm]
GH: 375 - 1200 [mm]
Poids: 150 [kg]

SFB: 310 - 1400 [mm]
SFH: 750 - 2400 [mm]
Poids: 150 [kg]

Fenêtre ouverture à soufflet
FFB: 520 - 2400 [mm]
FFH: 350 - 1200 [mm]
Poids: 80 [kg]

Surface de quincaillerie: optique argent

Window fittings

System fittings RC1 for Forster unico are supplied as complete sets. The same fittings can be used for turn windows as well as for tilt and turn windows.

The two different functions are controlled via a travel restrictor in the area of the lower corner drive. Processing and assembly are not dependent on the function and therefore simplify the installation of the fittings. This principal was also used for the double sash.

The double sash fittings only differ from the standard turn/tilt and turn fittings in the way the drive functions. This makes assembling the double sash fittings insignificantly different from assembling the first active leaf.

Area of application of the Forster standard fittings

Window 1 leaf
FFB: 290 - 1400 [mm]
FFH: 520 - 2400 [mm]
GH: 260 - 1200 [mm]
weight: 150 [kg]

Window 2 leaves
FFB: 290 - 1400 [mm]
FFH: 750 - 2400 [mm]
GH: 375 - 1200 [mm]
weight: 150 [kg]

SFB: 310 - 1400 [mm]
SFH: 750 - 2400 [mm]
weight: 150 [kg]

Tilt only window
FFB: 520 - 2400 [mm]
FFH: 350 - 1200 [mm]
weight: 80 [kg]

Fittings surface: silver

Beschläge Fenster

Flügelgrössen und Griffhöhen, welche ausserhalb des Anwendungsbereichs liegen, können bei positiver Prüfung der Machbarkeit mittels Sonderbestellungen bezogen werden. Ebenfalls sind verdecktliegende Beschläge, alternative Fenstergeometrien über Sonderbestellung und gegebenenfalls einer Machbarkeitsabklärung erhältlich. Für die Machbarkeitsabklärung und die daraus folgende Bestellung sind die entsprechenden Formulare in diesem Kapitel zu verwenden.

Notwendige Artikel für 1-flügelige Fenster:
- **Dreh-/Drehkipp-Beschlag**
- **Fenstergriff**
- **Abdeckkappen**

Notwendige Artikel für 2-flügelige Fenster:
- **Dreh-/Drehkipp-Beschlag**
- **Stulp-Beschlag**
- **Fenstergriff**
- **Abdeckkappen**

Auf Anfrage können die Beschläge auch geschüttet geliefert werden.

Quincaillerie fenêtres

Les dimensions de vantaux et hauteurs de poignée en dehors du domaine d'application peuvent faire l'objet d'une commande spéciale après une étude de faisabilité. De la quincaillerie cachée de même que des géométries de fenêtre alternatives peuvent également faire l'objet d'une commande spéciale avec une étude de faisabilité. Pour l'étude de faisabilité et la commande résultante, utiliser les formulaires dans ce chapitre.

Articles nécessaires pour fenêtres à 1 vantail:
- **Quincaillerie pour ouverture à la française/ouverture oscillo-battant**
- **Poignée de fenêtre**
- **Caches**

Articles nécessaires pour fenêtres à 2 vantaux:
- **Quincaillerie pour ouverture à la française/ouverture oscillo-battant**
- **Quincaillerie de vantail semi-fixe**
- **Poignée de fenêtre**
- **Caches**

Sur demande la quincaillerie peut être fournie en vrac.

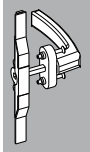
Window fittings

Leaf sizes and handle heights outside of the specified area of application can be ordered if found feasible by special order. Also hidden fittings, alternative window shapes can be ordered if found feasible by special order. The forms to be used for feasibility studies and corresponding special orders are included in this chapter.

Necessary items single leaf windows:
- **Turn/ tilt and turn fittings**
- **Window handles**
- **Cover caps**

Necessary items double leaved windows:
- **Turn/ tilt and turn fittings**
- **Double sash fittings**
- **Window handles**
- **Cover caps**

Upon request, unsorted fittings can also be supplied.



Schliesszapfenvarianten

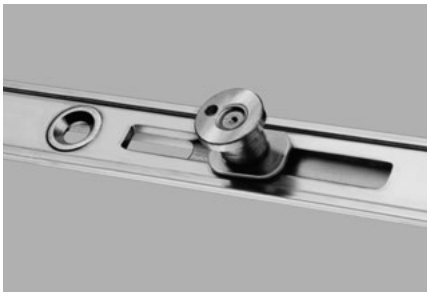


Schliesszapfen E
anpressdruckverstellbarer Zapfen

Galet excentrique E
pression de fermeture réglable

Locking cam E
gasket-compression adjustable cam

Variantes de galets de verrouillage



Schliesszapfen V
höhen- und anpressdruckverstellbarer Sicherheits-Pilzzapfen

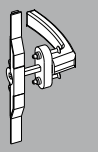
Galet de sécurité V
à tête champignon avec hauteur et pression de fermeture réglable

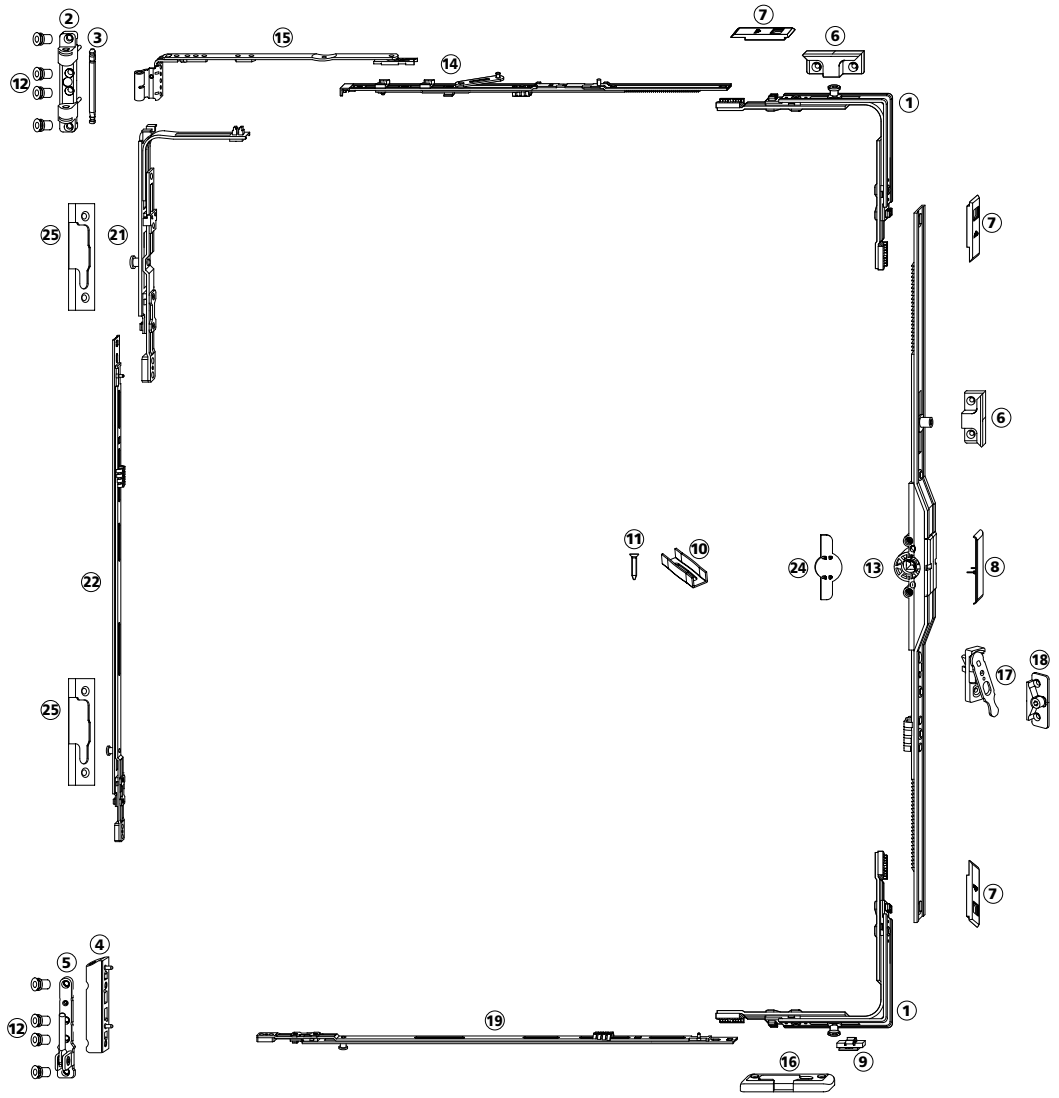
Locking cam V
height and gasket-compression adjustable security cam

Beschläge Dreh- / Drehkipp - Flügel

Quincaillerie Vantail / OB / OF

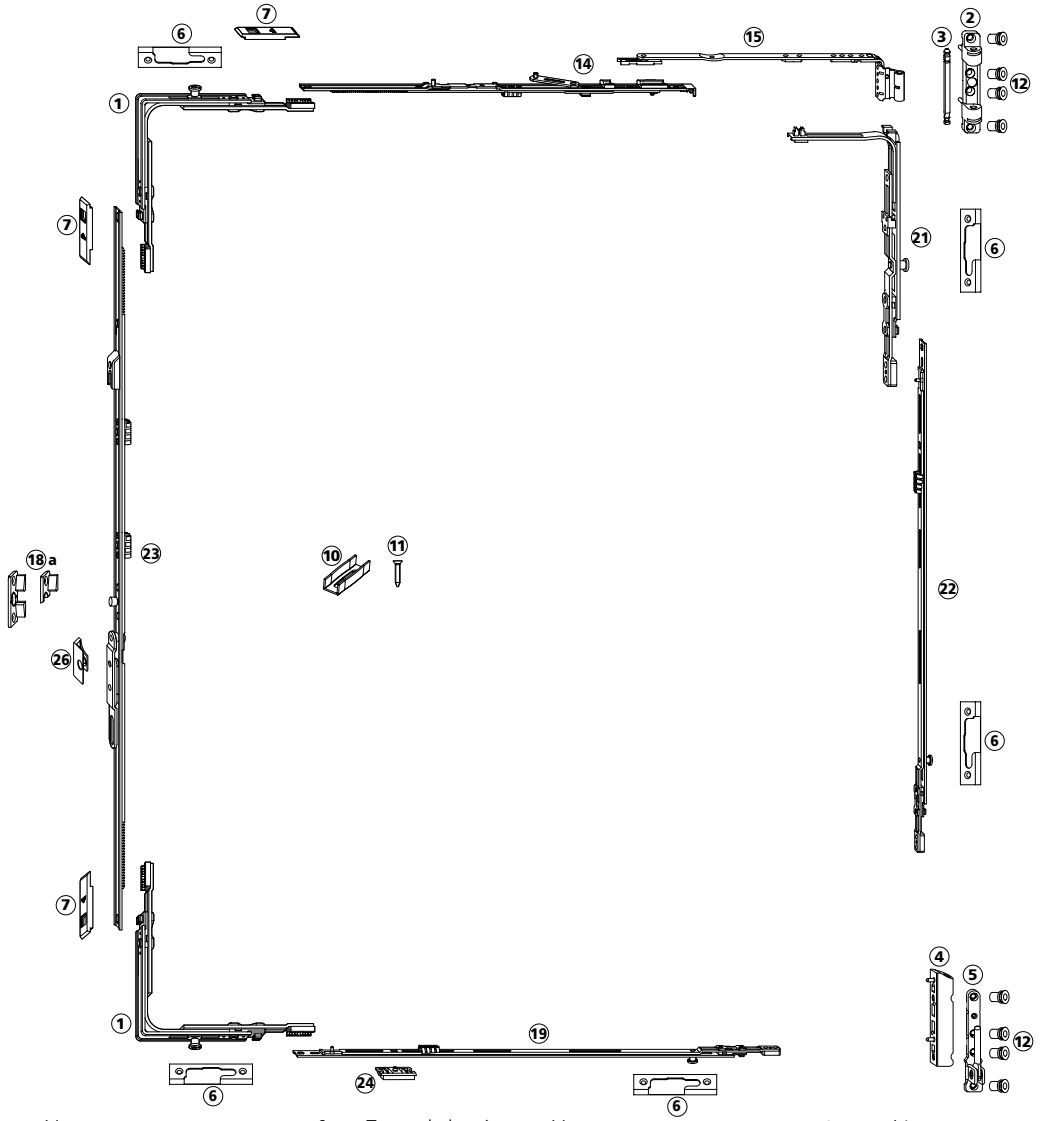
Leaf fittings Turn / tilt and turn leaf





1	Eckumlenkung V	**1**	Transmission équerre V	**1**	Corner drive V
2	Axerlager spezial	**2**	Palier de compas spécial	**2**	Sash stay bearing special
3	Axerlager – Stift	**3**	Tige d'axe	**3**	Sash stay bearing pin
4	Eckband K3 / 100	**4**	Pivot d'angle K3 / 100	**4**	Corner hinge K3 / 100
5	Ecklager K6 / 100	**5**	Palier d'angle K6 / 100	**5**	Corner pivot rest K6 / 100
6	Schliessstück	**6**	Gâche	**6**	Striker
7	Verbindungslasche	**7**	Plaquette de liaison	**7**	Link piece
8	Infoclip "Forster"	**8**	Infoclip "Forster"	**8**	Infoclip "Forster"
9	Hubbegrenzer (90°)	**9**	Limitateur de course (90°)	**9**	Travel – restrictor (90°)
10	Beschlags-Distanzstück	**10**	Pièce de distance pour ferrement	**10**	Distance piece for fittings
11	Beschlagsschraube M4 x 21	**11**	Vis de ferrement M4 x 21	**11**	Fitting screw M4 x 21
12	Einnietmutter M4	**12**	Rivet taraudé M4	**12**	Clench rivet M4
13	DK-Getriebe mittig, Dornmass 8	**13**	Crémone oscillo-battant centrale, fouillot 8	**13**	Tilt-turn central drive, mandrel size 8
14	Axerstulp	**14**	Têtière de compas	**14**	Sash stay guide
15	Axerarm	**15**	Bras de compas	**15**	Sash stay arm
16	Kipplager	**16**	Gâche de basculement	**16**	Tilt-turn striker
17	Niveau-Schaltsperre Flügelteil	**17**	Anti-fausse manœuvre partie ouvrant	**17**	Lifting mishandling device sash component
18	Niveau-Schaltsperre Rahmenteil	**18**	Anti-fausse manœuvre partie dormant	**18**	Lifting mishandling device frame part
19	Verlängerung horizontal	**19**	Extension horizontale	**19**	Horizontal extension
21	Eckumlenkung Axer	**21**	Renvoi de compas	**21**	Stay corner drive
22	Verlängerung vertikal	**22**	Extension verticale	**22**	Vertical extension
24	Anbohrschutz	**24**	Protection contre perçage	**24**	Drilling protection
25	Schliessstück WK	**25**	Gâche CR	**25**	Striker RC

Beschläge Stulpflügel — Quincaillerie vantail semi-fixe — Double sash fittings



1	Eckumlenkung V	**1**	Transmission équerre V	**1**	Corner drive V
2	Axerlager spezial	**2**	Palier de compas spécial	**2**	Sash stay bearing special
3	Axerlager – Stift	**3**	Tige d'axe	**3**	Sash stay bearing pin
4	Eckband K3 / 100	**4**	Pivot d'angle K3 / 100	**4**	Corner hinge K3 / 100
5	Ecklager K6 / 100	**5**	Palier d'angle K6 / 100	**5**	Corner pivot rest K6 / 100
6	Schliessstück WK	**6**	Gâche CR	**6**	Striker RC
7	Verbindungslasche	**7**	Plaquette de liaison	**7**	Link piece
10	Beschlags-Distanzstück	**10**	Pièce de distance pour ferrement	**10**	Distance piece for fittings
11	Beschlagsschraube M4 x 21	**11**	Vis de ferrement M4 x 21	**11**	Fitting screw M4 x 21
12	Einnietmutter M4	**12**	Rivet taraudé M4	**12**	Clench rivet M4
14	Axerstulp DF WK	**14**	Têtière de compas DF CR	**14**	Sash stay guide DF RC
15	Axerarm	**15**	Bras de compas	**15**	Sash stay arm
18a	Niveau-Schaltsperre Stulpteil	**18a**	Anti-fausse manœuvre partie semi-fixe	**18a**	Lifting mishandling passive leaf part
19	Verlängerung horizontal	**19**	Extension horizontale	**19**	Horizontal extension
21	Eckumlenkung Axer	**21**	Renvoi d'angle de compas	**21**	Stay corner drive
22	Verlängerung vertikal	**22**	Extension verticale	**22**	Vertical extension
23	Stulpgetriebe mittig	**23**	Crémone centrale pour vantail semi-fixe	**23**	Central double sash drive
24	Auflaufkeil	**24**	Support glissiére vantail semi fixe	**24**	Run up block
26	Sicherungsbügel 2-flg	**26**	Etrier de sécurité	**26**	Retainer-clasp

Beschläge
Bestellanleitung

Für die Bestellung des Fensterbeschlages sind nicht die Flügelaussenmasse, sondern die Flügelfalzmasse massgebend. In den folgenden Darstellungen werden die für die Bestellung notwendigen Masse definiert und dargestellt.

Flügelfalzgrössen
Dreh-/Drehkipp-Beschlag
FB: Flügelbreite
FFB: Flügelfalzbreite
FH: Flügelhöhe
FFH: Flügelfalzhöhe
GH: Griffhöhe

Quincaillerie
Instructions de commande

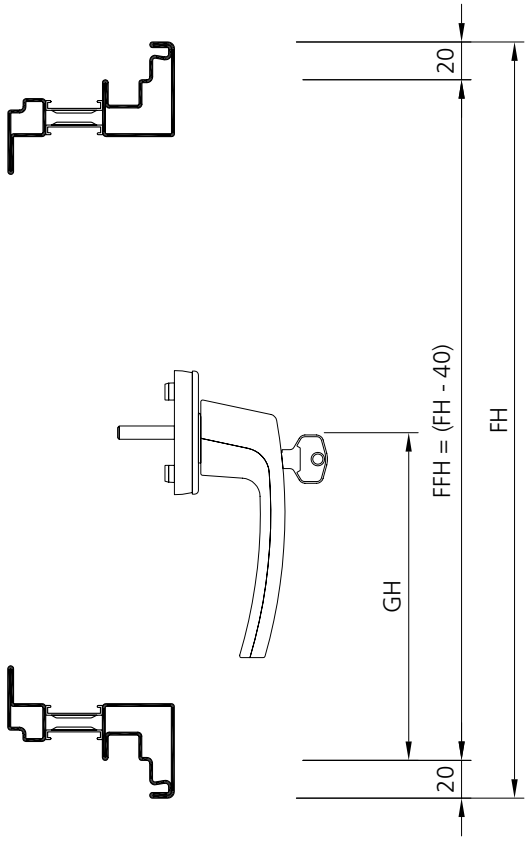
Pour la commande de quincaillerie de fenêtre, les cotes de feuillure de vantail sont déterminantes et non les cotes extérieures de vantail. Les cotes nécessaires à la commande sont définies et représentées dans les illustrations suivantes.

Tailles de feuillure de vantail
Quincaillerie pour ouverture à la française/ ouverture oscillo-battant
FB: largeur de vantail
FFB: largeur de feuillure de vantail
FH: hauteur de vantail
FFH: hauteur de feuillure de vantail
GH: hauteur de poignée

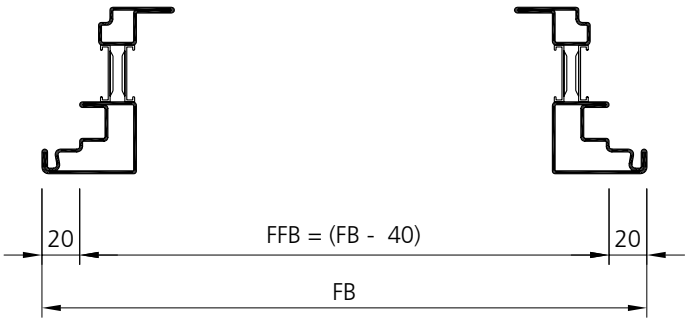
Fittings
Ordering instructions

To order window fittings, the outer dimensions of the windows are not significant, but the sizes of the leaf rebate are. In the following presentation, the dimensions required for ordering are defined and listed.

Sizes of leaf rebates
Turn/ tilt and turn-fittings
FB: leaf width
FFB: leaf rebate width
FH: leaf height
FFH: leaf rebate height
GH: handle height



FFB	min:	290	[mm]
	max:	1400	[mm]
FFH	min:	520	[mm]
	max:	2400	[mm]
GH:	min:	260	[mm]
	max:	1200	[mm]
G:	max:	150	[kg]



Beschläge
Bestellanleitung

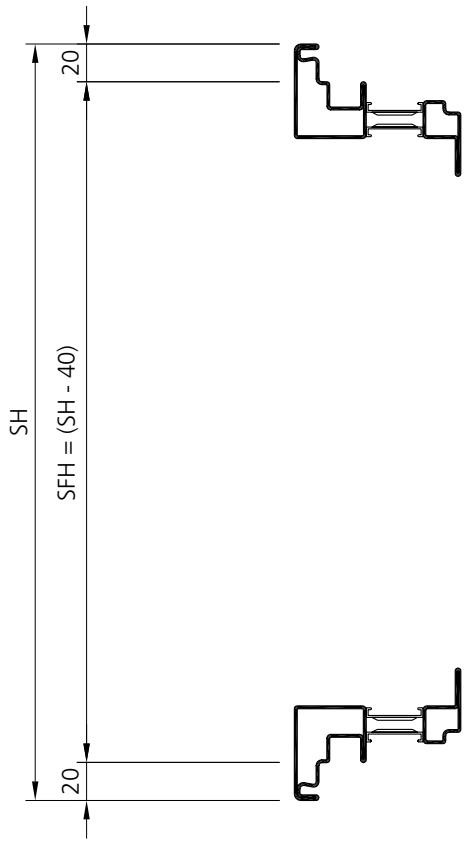
Flügelfalzgrössen
Stulpflügel-Beschlag
SB: Stulpbreite
SFB: Stulpfalzbreite
SH: Stulphöhe
SFH: Stulpfalzhöhe

Quincaillerie
Instructions de commande

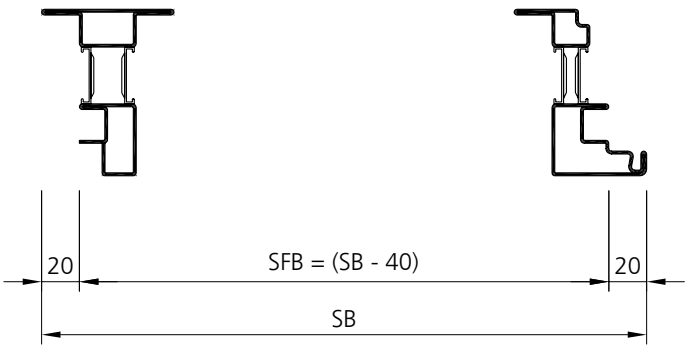
Tailles de feuillure de vantail
Quincaillerie pour vantail semi-fixe
SB: largeur de vantail semi-fixe
SFB: largeur de feuillure de vantail semi-fixe
SH: hauteur de vantail semi-fixe
SFH: hauteur de feuillure de vantail semi-fixe

Fittings
Ordering instructions

Sizes of leaf rebates
Double sash fittings
SB: double sash width
SFB: double sash rebate width
SH: double sash height
SFH: double sash rebate height



SFB	min:	310	[mm]
	max:	1400	[mm]
SFH	min:	750	[mm]
	max:	2400	[mm]
G:	max:	150	[kg]



Beschläge Bestellanleitung

Da zwischen der Flügelfalzhöhe und der Griffhöhe eine direkte Abhängigkeit besteht, muss einer Bestellung die Richtigkeit der ausgewählten Beschläge anhand der folgenden Diagramme überprüft werden. Liegt der Schnittpunkt der Griffhöhe (GH) und der Flügelfalzhöhe (FFH) im grau hinterlegten Bereich der Diagramme, kann der Forster Standardbeschlag eingesetzt werden. Für alle anderen Fälle verwenden Sie bitte die Formulare in diesem Kapitel.

Anwendungsbeispiele für die Kontrolle:

Beispiel 1: Möglich mit Standard-Beschlag
FFH: 900 [mm]
GH: 450 [mm]

Beispiel 2: Muss über Sonderformulare angefragt werden.
FFH: 900 [mm]
GH: 550 [mm]

Quincaillerie Instructions de commande

Comme il existe une relation directe entre la hauteur de feuillure du vantail et la hauteur de la poignée, il faut vérifier lors d'une commande l'exactitude de la quincaillerie sélectionnée à l'aide des diagrammes suivants. Si le point d'intersection de la hauteur de poignée (GH) et de la hauteur de feuillure de vantail (FFH) se trouve dans la zone grise des diagrammes, il est possible d'utiliser une quincaillerie Forster standard. Dans tous les autres cas, utiliser les formulaires indiqués dans ce chapitre. Exemples d'application pour le contrôle:

Exemple 1: possible avec une quincaillerie standard
FFH: 900 [mm]
GH: 450 [mm]

Exemple 2: demande au moyen de formulaires spéciaux.
FFH: 900 [mm]
GH: 550 [mm]

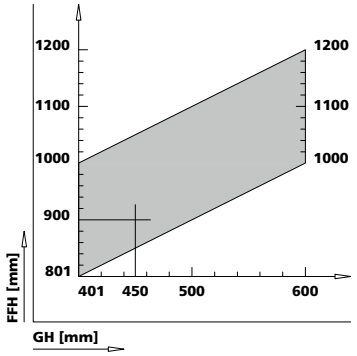
Fittings Ordering instructions

As there is a direct dependence between the height of the leaf rebate and the height of the handle, every order has to be checked for correctness of the selected fittings against the following diagrams. If the point of intersection of the handle height (GH) and the leaf rebate (FFH) is within the gray background of the diagrams, then Forster standard fittings can be used. For all other cases, please use the special order form in this chapter. Sample applications of how to perform the checks.

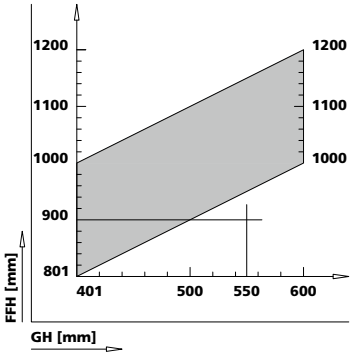
Example 1: possible with standard fittings
FFH: 900 [mm]
GH: 450 [mm]

Example 2: must be requested with the special order form
FFH: 900 [mm]
GH: 550 [mm]

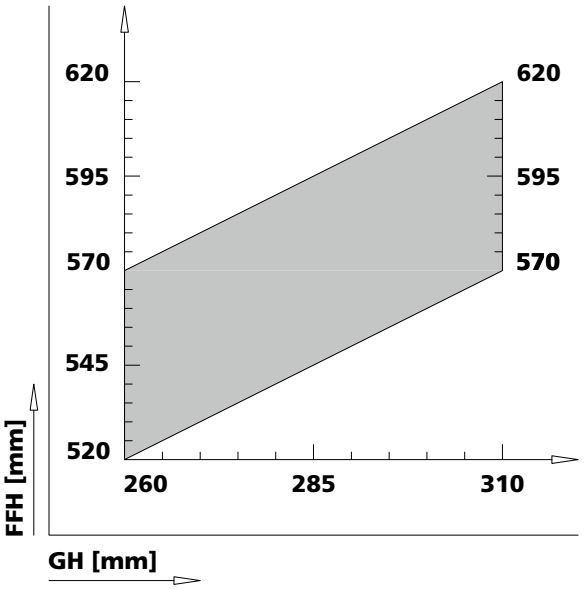
Beispiel 1:
Exemple 1:
Example 1:



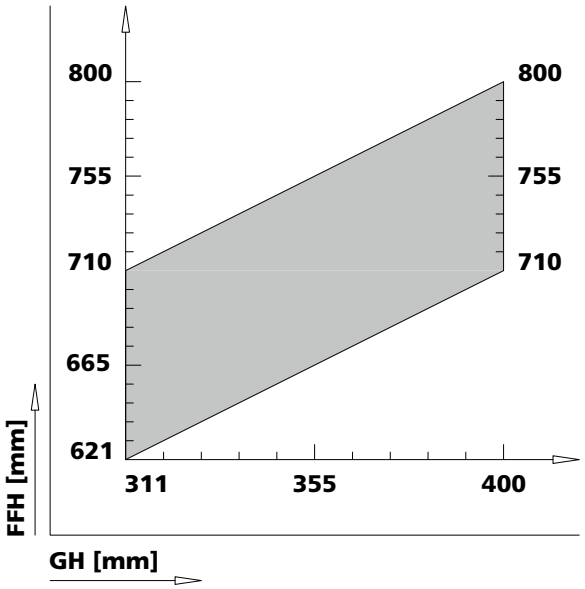
Beispiel 2:
Exemple 2:
Example 2:



FFH 520 - 620 [mm]



FFH 621 - 800 [mm]

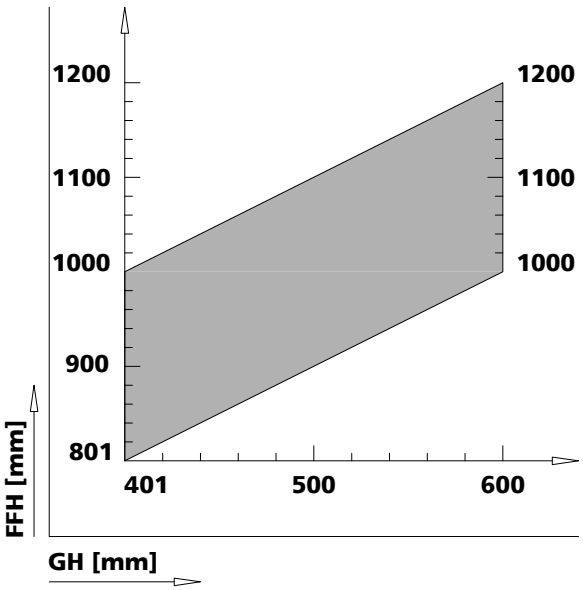


Beschläge
Bestellanleitung

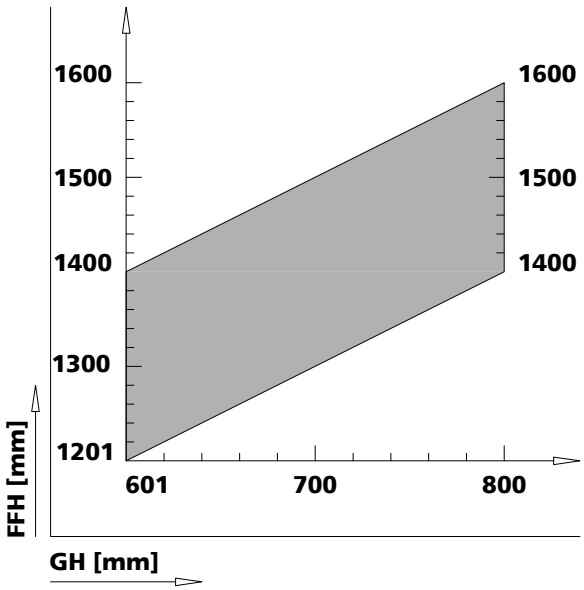
Quincaillerie
Instructions de commande

Fittings
Ordering instructions

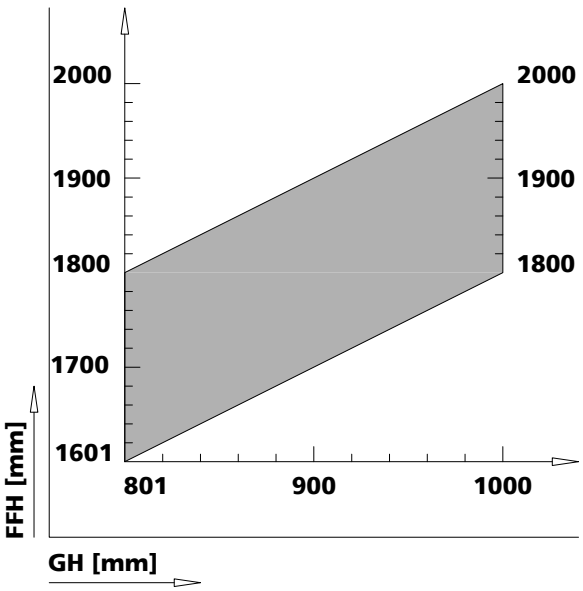
FFH 801 - 1200 [mm]



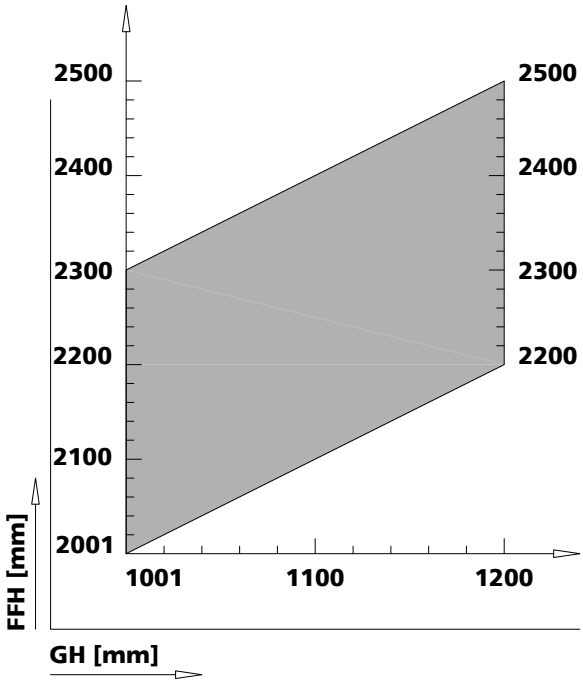
FFH 1201 - 1600 [mm]



FFH 1601 - 2000 [mm]



FFH 2001 - 2500 [mm]



Beschläge Bestellnummern

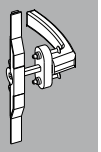
Dreh(*)- / Drehkipp-Beschlag WK1
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN links (Komplett-Beschlag)
max. 150 [kg]

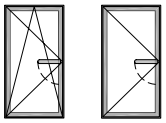
Quincaillerie Références

Quincaillerie pour ouverture à la française(*)/ouverture oscillo-battant CR1
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux, **DIN gauche** (ferrement complet)
max. 150 [kg]

Fittings Order numbers

Turn(*)/ tilt and turn fittings RC1
Single leaf windows
1. active leaf on double sash windows
DIN left (complete fittings)
max. 150 [kg]





FFH [mm]	FFB [mm] 290 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
520 - 620 (a	**987101 + 987189 RC1**	**987113 + 987189 RC1**	**987125 + 987189 RC1**	**987137 + 987189 RC1**	**987149 + 987189 RC1**		260 - 310
621 - 800	**987103 + 987189 RC1**	**987115 + 987189 RC1**	**987127 + 987189 RC1**	**987139 + 987189 RC1**	**987151 + 987189 RC1**	**987161 + 987189 RC1**	311 - 400
801 - 1200	**987105 + 987189 RC1**	**987117 + 987189 RC1**	**987129 + 987189 RC1**	**987141 + 987189 RC1**	**987153 + 987189 RC1**	**987163 + 987189 RC1**	401 - 600
1201 - 1600	**987107 + 987191 RC1**	**987119 + 987191 RC1**	**987131 + 987191 RC1**	**987143 + 987191 RC1**	**987155 + 987191 RC1**	**987165 + 987191 RC1**	601 - 800
1601 - 2000	**987109 + 987191 RC1**	**987121 + 987191 RC1**	**987133 + 987191 RC1**	**987145 + 987191 RC1**	**987157 + 987191 RC1**	**987167 + 987191 RC1**	801 - 1000
2001 - 2400	**987111 + 987193 RC1**	**987123 + 987193 RC1**	**987135 + 987193 RC1**	**987147 + 987193 RC1**	**987159 + 987193 RC1**	**987169 + 987193 RC1**	1001 - 1200

* = Dreh-Beschlag mit Hubbegrenzer
(a = ohne Niveauschaltsperre)

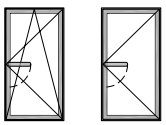
* = Quincaillerie pour ouverture à la française avec limitateurs de course
(a = sans anti-fausse manœuvre)

* = Turn fittings with travel restrictor
(a = without lifting mishandling)

Dreh(*)- / DrehKipp-Beschlag WK1
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN rechts (Komplett-Beschlag)
max. 150 [kg]

Quincaillerie pour ouverture à la française(*)/ouverture oscillo-battant CR1
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux
DIN droite (quincaillerie complète)
max. 150 [kg]

Turn(*)/ tilt and turn fittings RC1
Single leaf windows
1. active leaf on double sash windows
DIN right (complete fittings)
max. 150 [kg]



FFH [mm]	FFB [mm] 290 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
520 - 620 (a	**987102 + 987190 RC1**	**987114 + 987190 RC1**	**987126 + 987190 RC1**	**987138 + 987190 RC1**	**987150 + 987190 RC1**		260 - 310
621 - 800	**987104 + 987190 RC1**	**987116 + 987190 RC1**	**987128 + 987190 RC1**	**987140 + 987190 RC1**	**987152 + 987190 RC1**	**987162 + 987190 RC1**	311 - 400
801 - 1200	**987106 + 987190 RC1**	**987118 + 987190 RC1**	**987130 + 987190 RC1**	**987142 + 987190 RC1**	**987154 + 987190 RC1**	**987164 + 987190 RC1**	401 - 600
1201 - 1600	**987108 + 987192 RC1**	**987120 + 987192 RC1**	**987132 + 987192 RC1**	**987144 + 987192 RC1**	**987156 + 987192 RC1**	**987166 + 987192 RC1**	601 - 800
1601 - 2000	**987110 + 987192 RC1**	**987122 + 987192 RC1**	**987134 + 987192 RC1**	**987146 + 987192 RC1**	**987158 + 987192 RC1**	**987168 + 987192 RC1**	801 - 1000
2001 - 2400	**987112 + 987194 RC1**	**987124 + 987194 RC1**	**987136 + 987194 RC1**	**987148 + 987194 RC1**	**987160 + 987194 RC1**	**987170 + 987194 RC1**	1001 - 1200

Beschläge Bestellnummern

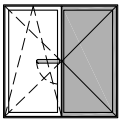
Stulpflügel-Beschlag WK1 und RC2
2. öffnender Flügel passend zu
1. öffnendem Flügel **DIN links**
(Komplett-Beschlag)
max. 150 [kg]

Quincaillerie Références

Quincaillerie de vantail semi-fixe CR1 et RC2
2e vantail ouvrant adapté au
1er vantail ouvrant **DIN gauche** (quincaillerie complète)
max. 150 [kg]

Fittings Order numbers

Double sash-fittings RC1 and RC2
2. active leaf appropriate for
1.active leaf **DIN left** (complete fittings)
max. 150 [kg]

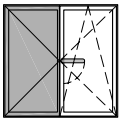


SFH [mm]	SFB [mm] 310 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
750 - 900	**987902 RC2**	**987912 RC2**	**987922 RC2**	**987932 RC2**	**987942 RC2**	**987952 RC2**	375 - 450
901 - 1200	**987904 RC2**	**987914 RC2**	**987924 RC2**	**987934 RC2**	**987944 RC2**	**987954 RC2**	451 - 600
1201 - 1600	**987906 RC2**	**987916 RC2**	**987926 RC2**	**987936 RC2**	**987946 RC2**	**987956 RC2**	601 - 800
1601 - 2000	**987908 RC2**	**987918 RC2**	**987928 RC2**	**987938 RC2**	**987948 RC2**	**987958 RC2**	801 - 1000
2001 - 2400	**987910 RC2**	**987920 RC2**	**987930 RC2**	**987940 RC2**	**987950 RC2**	**987960 RC2**	1001 - 1200

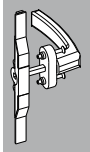
Stulpflügel-Beschlag WK1 und RC2
2. öffnender Flügel passend zu
1. öffnendem Flügel **DIN rechts**
(Komplett-Beschlag)
max. 150 [kg]

Quincaillerie de vantail semi-fixe CR1 et RC2
2e vantail ouvrant adapté au
1er vantail ouvrant **DIN droite** (quincaillerie complète)
max. 150 [kg]

Double sash-fittings RC1 and RC2
2. active leaf appropriate for
1. active leaf **DIN right** (complete fittings)
max. 150 [kg]



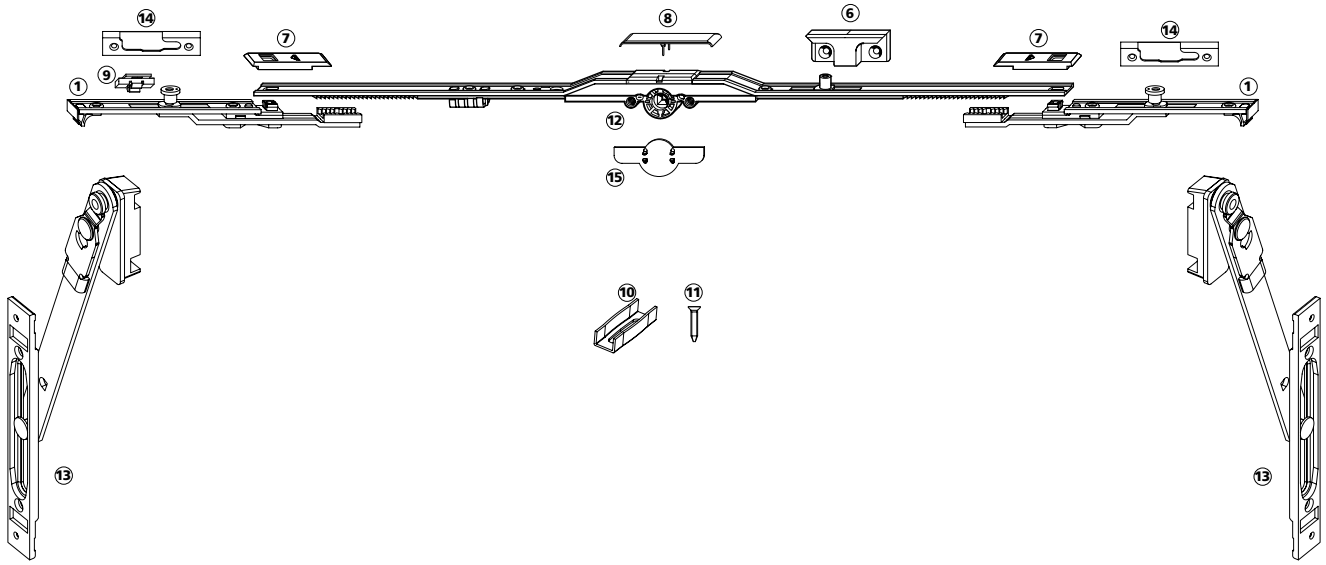
SFH [mm]	SFB [mm] 310 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
750 - 900	**987901 RC2**	**987911 RC2**	**987921 RC2**	**987931 RC2**	**987941 RC2**	**987951 RC2**	375 - 450
901 - 1200	**987903 RC2**	**987913 RC2**	**987923 RC2**	**987933 RC2**	**987943 RC2**	**987953 RC2**	451 - 600
1201 - 1600	**987905 RC2**	**987915 RC2**	**987925 RC2**	**987935 RC2**	**987945 RC2**	**987955 RC2**	601 - 800
1601 - 2000	**987907 RC2**	**987917 RC2**	**987927 RC2**	**987937 RC2**	**987947 RC2**	**987957 RC2**	801 - 1000
2001 - 2400	**987909 RC2**	**987919 RC2**	**987929 RC2**	**987939 RC2**	**987949 RC2**	**987959 RC2**	1001 - 1200

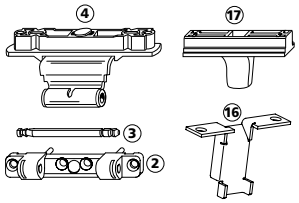


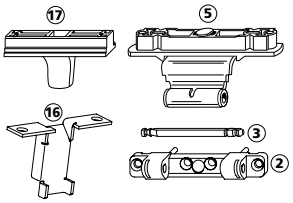
Beschläge Kippflügel

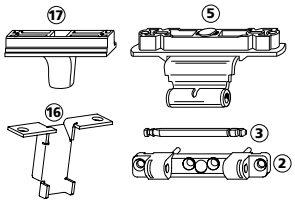
Quincaillerie ouverture à soufflet

Fittings tilt only









1 Getriebeanschluss V
2 Axerlager spezial
3 Axerlager – Stift
4 Kippflügelband ohne Ausgleich
5 Kippflügelband mit Ausgleich
6 Schliessstück
7 Verbindungslasche
8 Infoclip "Forster"
9 Hubbegrenzer (90°)
10 Beschlags-Distanzstück
11 Beschlagsschraube M4 x 21
12 DK-Getriebe mittig, Dornmass 8
13 Falzschere
14 Schliessstück WK
15 Anbohrschutz
16 Hintergreifermulde
17 Mittelschliesser

1 Raccord d'équerre V
2 Palier de compas spécial
3 Tige d'axe
4 Paumelle OF fixe
5 Paumelle OF mobile
6 Gâche
7 Liaison avec plaquette de liaison
8 Infoclip "Forster"
9 Limitateur de course (90°)
10 Pièce de distance pour ferrement
11 Vis de ferrement M4 x 21
12 Crémone oscillo-battant centrale, fouillot 8
13 Compas tombant
14 Gâche CR
15 Protection contre perçage
16 Gâche pour boulon central
17 Boulon central

1 Espagnolette-connector V
2 Sash stay bearing special
3 Sash stay bearing pin
4 Tilt-only rebate hinge without alignment
5 Tilt-only rebate hinge with alignment
6 Striker
7 Splice plate
8 Infoclip "Forster"
9 Travel – restrictor (90°)
10 Distance piece for fittings
11 Fitting screw M4 x 21
12 Tilt-turn central drive, mandrel size 8
13 Tilt-stay
14 Striker RC
15 Drilling protection
16 Striker for central bolt
17 Central bolt

Beschläge Kippflügel Bestellnummern

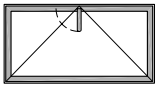
Quincaillerie ouverture à soufflet Références

Fittings tilt only Order numbers

Kipp-Beschlag WK1
Griffsitz mittig
(Komplett-Beschlag)
max. 80 [kg]

Quincaillerie ouverture à soufflet CR1
(ferrement complet)
poignées aux milieu
max. 80 [kg]

Tilt only Fittingsets RC1
(complete fittings)
handle in the middle
max. 80 [kg]



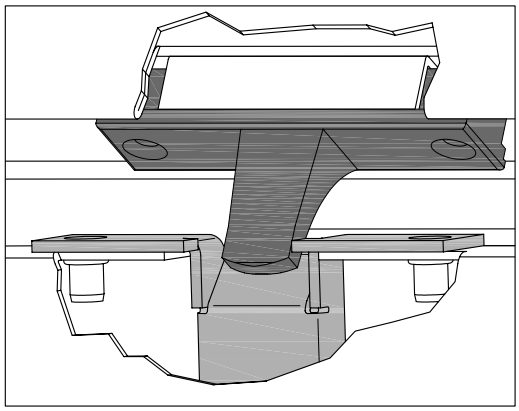
		FFB [mm]					
		520 - 620	621 - 800	801 - 1200	1201 - 1600	1601 - 2000	2001 - 2400
FFH [mm]	350 - 1200	**987181 + 987195 RC1**	**987182 + 987195 RC1**	**987183 + 987195 RC1**	**987184 + 987195 RC1**	**987185 + 987195 RC1**	**987186 + 987195 RC1**

Zusätzlich bestellen:
Hintergreifer-Set WK
987880 (30 mm) / 987878 (50 mm)
VE
1 Hintergreifermulde
1 Mittelschliesser
2 Einnietmuttern M4
2 Beschlagschrauben M4 x 21

Pièces supplémentaires à commander:
Garniture de verrou CR
987880 (30 mm) / 987878 (50 mm)
UV
1 Gâche pour boulon central
1 Boulon central
2 Rivet taraudé M4
2 Vis de ferrement M4 x 21

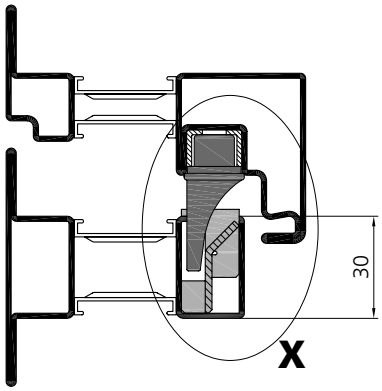
Additional order:
Striker-set RC
987880 (30 mm) / 987878 (50 mm)
SU
1 Striker for central bolt
1 Central bolt
2 Clech rivet M4
2 Fitting screw M4 x 21

Detail X

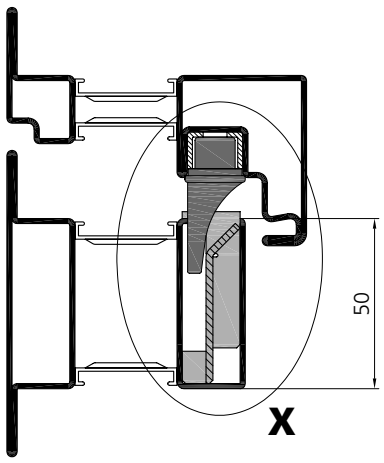


FFB	987878 oder / ou / or 987880	
520 - 1200	**2**	VE UV SU
1201 - 2400	**3**	VE UV SU

Art. Nr.: 987880 (30mm)



Art. Nr.: 987878 (50mm)



Beschläge
Verstärkungsgarnitur WK1
für Dreh- / Drehkippbeschlag

FFH 520 - 1200
FFB 290 - 1400

Bestehend aus:
Eckumlenkung Axer
Mittelverschluss 200 mm
Anbohrschutz
Schliesstücke WK (2 Stk)
Beschlagsschrauben
Beschlagsdistanzstücke

DIN links: **987189 RC1**
DIN rechts: **987190 RC1**

Quincaillerie
Garniture de renforce CR1
pour ouverture à la française/ouverture oscillo-battant

FFH 520 - 1200
FFB 290 - 1400

Comprenant:
Renvoie de compas
Extension verticale 200 mm
Protection contre perçage
Gâche CR (2 pcs)
Vise de ferrement
Pièce de distance pour ferrement

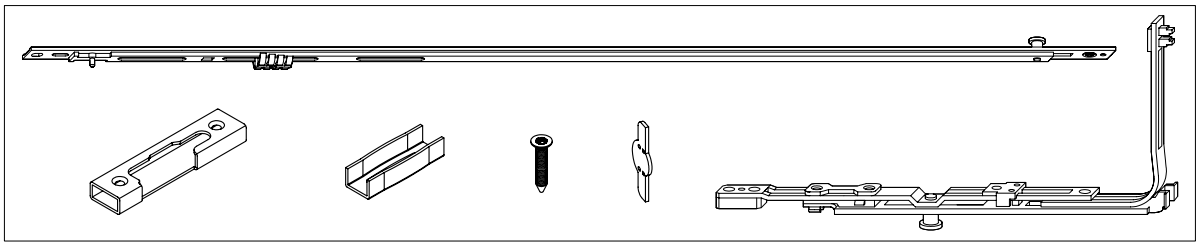
DIN gauche: **987189 RC1**
DIN droite: **987190 RC1**

Fittings
Reinforcement set RC1
for turn / tilt and turn fitting

FFH 520 - 1200
FFB 290 - 1400

Consists of:
Stay corner drive
Vertical extension 200 mm
Drilling protection
Striker RC (2 pcs)
Fitting screws
Distance piece for fittings

DIN left: **987189 RC1**
DIN right: **987190 RC1**



FFH 1201 - 2000
FFB 290 - 1400

Bestehend aus:
Mittelverschluss 400 mm
Anbohrschutz
Schliesstücke WK (3 Stk)
Beschlagsschrauben
Beschlagsdistanzstücke

DIN links: **987191 RC1**
DIN rechts: **987192 RC1**

FFH 1201 - 2000
FFB 290 - 1400

Comprenant:
Extension verticale 400 mm
Protection contre perçage
Gâche CR (3 pcs)
Vise de ferrement
Pièce de distance pour ferrement

DIN gauche: **987191 RC1**
DIN droite: **987192 RC1**

FFH 1201 - 2000
FFB 290 - 1400

Consists of:
Vertical extension 400 mm
Drilling protection
Striker RC (3 pcs)
Fitting screws
Distance piece for fittings

DIN left: **987191 RC1**
DIN right: **987192 RC1**

FFH 2001 - 2400
FFB 290 - 1400

Bestehend aus:
Mittelverschluss 600 mm
Anbohrschutz
Schliesstücke WK (4 Stk)
Beschlagsschrauben
Beschlagsdistanzstücke

DIN links: **987193 RC1**
DIN rechts: **987194 RC1**

FFH 1201 - 2400
FFB 290 - 1400

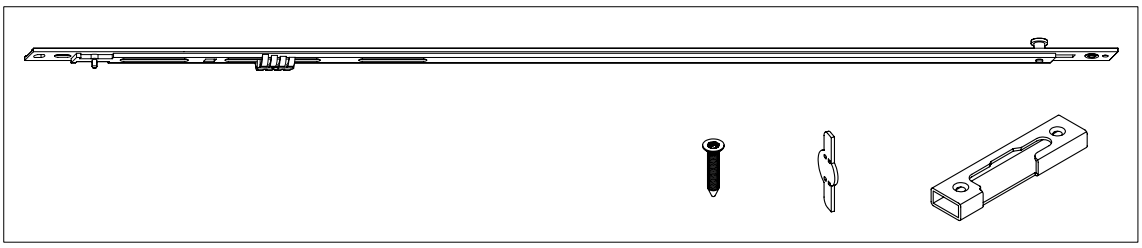
Comprenant:
Extension verticale 600 mm
Protection contre perçage
Gâche CR (4 pcs)
Vise de ferrement
Pièce de distance pour ferrement

DIN gauche: **987193 RC1**
DIN droite: **987194 RC1**

FFH 1201 - 2400
FFB 290 - 1400

Consists of:
Vertical extension 600 mm
Drilling protection
Striker RC (4 pcs)
Fitting screws
Distance piece for fittings

DIN left: **987193 RC1**
DIN right: **987194 RC1**



Beschläge
Verstärkungsgarnitur WK1
für Kippbeschlag

FFB 520 - 2400
FFH 350- 1200

Bestehend aus:
Anbohrschutz
Schliesstücke WK (2 Stk)
Beschlagsschrauben
Beschlagsdistanzstücke

987195 RC1

Quincaillerie
Garniture de renforce CR1
pour ouverture à soufflet

FFH 520 - 1200
FFH 350- 1200

Comprenant:
Protection contre perçage
Gâche CR (2 pcs)
Vise de ferrement
Pièce de distance pour ferrement

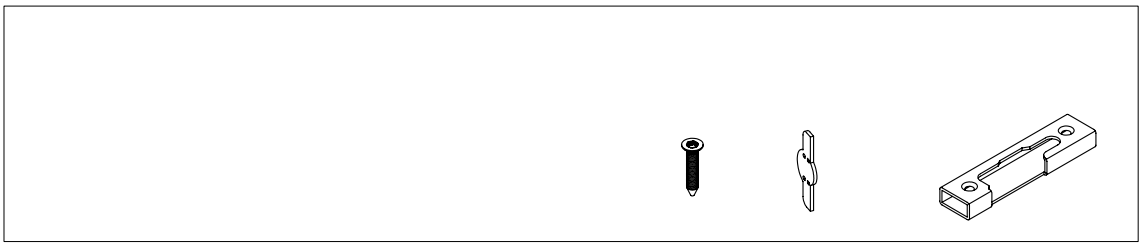
987195 RC1

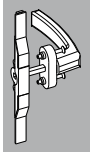
Fittings
Reinforcement set RC1
for tilt only

FFH 520 - 1200
FFH 350- 1200

Consists of:
Drilling protection
Striker RC (2 pcs)
Fitting screws
Distance piece for fittings

987195 RC1





Beschläge Bestellnummern

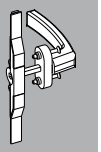
Kipp-Bänder Garnitur für Einsatz Oberlichtöffner
987187 VE 2 Bänder
2 Stifte
2 Lager
max. Gewicht pro Flügel 80 [kg]

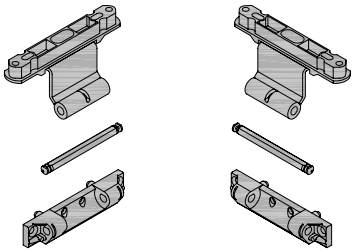
Quincaillerie Références

Garniture de paumelle ouverture à soufflet pour ferme imposte unico
987187 UV 2 paumelles
2 tige d'axe
2 palier
Poids maximale par vantail 80 [kg]

Fittings Order numbers

Tilt only hinge set for fanlight opener unico
987187 SU 2 hinges
2 pins
2 pivots
Maximal weight each leaf 80 [kg]

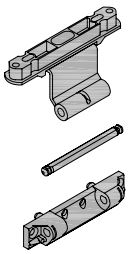




Kipp-Bänder Garnitur
(zusätzliches Band für 987187)
987188 VE 1 Band
1 Stift
1 Lager
max. Gewicht pro Flügel 80 [kg]

Complément de Garniture
(pour paumelle ouverture à soufflet 987187)
987188 UV 1 paumelle
1 tige d'axe
1 palier
Poids maximale par vantail 80 [kg]

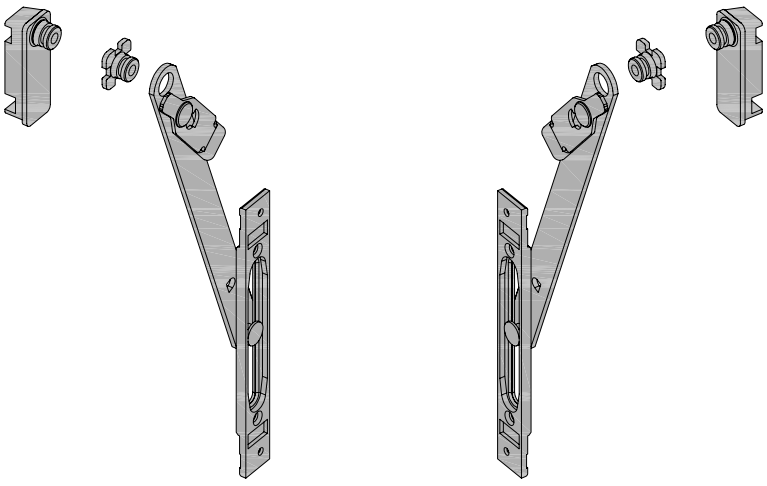
Tilt only fitting-set
(additional hing for 987187)
987188 SU 1 hinge
1 pin
1 pivot
Maximal weight each leaf 80 [kg]



Falz- und Putzschere
987854 VE 2 Stück
max. Gewicht pro Flügel 80 [kg]

Compas de feuillure unico
987854 UV 2 pcs
Poids maximale par vantail 80 [kg]

Tilt-stays
987854 SU 2 pcs
Maximal weight each leaf 80 [kg]



Beschläge Fenster

Systembeschläge RC2 für Forster unico werden als Komplettgarnituren geliefert. Der Beschlag ist so abgestimmt worden, dass für Dreh- und Drehkipp-Fenster derselbe Beschlag verwendet werden kann.

Die beiden unterschiedlichen Funktionen werden über einen Hubbegrenzer im Bereich der unteren Eckumlenkung gesteuert. Die Verabeitung und Montage sind von der Funktion unabhängig und vereinfachen den Beschlagseinbau. Dieses Prinzip wurde auch für den Stulpflügel übernommen.

Der Stulpflügel-Beschlag unterscheidet sich nur in der Funktion des Getriebes vom Standard-Dreh-/Drehkipp-Beschlag. Damit unterscheidet sich die Montage des Stulp-Beschlages unwesentlich von der Montage des 1. öffnenden Flügels.

Einsatzbereich des Forster Standardbeschlages:

1 flügelige Fenster
FFB: 310 - 1400 [mm]
FFH: 520 - 2400 [mm]
GH: 260 - 1200 [mm]
Gewicht: 150 [kg]

2 flügelige Fenster
FFB: 310 - 1400 [mm]
FFH: 750 - 2400 [mm]
GH: 375 - 1200 [mm]
Gewicht: 150 [kg]

SFB: 310 - 1400 [mm]
SFH: 750 - 2400 [mm]
Gewicht: 150 [kg]

Kipp-Fenster
FFB: 520 - 2400 [mm]
FFH: 350 - 1200 [mm]
Gewicht: 80 [kg]

Beschlag-Oberfläche: Silberoptik

Quincaillerie fenêtres

La quincaillerie RC2 du système Forster unico est livrée en garniture complète. Elle est conçue de telle façon qu'il est possible d'utiliser le même ferrement pour les fenêtres ouvrant à la française et ouvrant oscillo-battant.

Les deux fonctions différentes sont commandées par un limitateur de course dans la zone du renvoi d'angle inférieur. Le traitement et le montage sont indépendants de la fonction et simplifient le montage de la quincaillerie. Ce principe a été repris pour le vantail semi-fixe.

La quincaillerie du vantail semi-fixe se différencie seulement au niveau de la fonction de la crémone. Le montage de la quincaillerie du vantail semi-fixe ne se différencie presque pas du montage du 1er vantail ouvrant.

Domaine d'application de la quincaillerie Forster standard:

Fenêtre 1 vantail
FFB: 310 - 1400 [mm]
FFH: 520 - 2400 [mm]
GH: 260 - 1200 [mm]
Poids: 150 [kg]

Fenêtre 2 vantaux
FFB: 310 - 1400 [mm]
FFH: 750 - 2400 [mm]
GH: 375 - 1200 [mm]
Poids: 150 [kg]

SFB: 310 - 1400 [mm]
SFH: 750 - 2400 [mm]
Poids: 150 [kg]

Fenêtre ouverture à soufflet
FFB: 520 - 2400 [mm]
FFH: 350 - 1200 [mm]
Poids: 80 [kg]

Surface de quincaillerie: optique argent

Window fittings

System fittings RC2 for Forster unico are supplied as complete sets. The same fittings can be used for turn windows as well as for tilt and turn windows.

The two different functions are controlled via a travel restrictor in the area of the lower corner drive. Processing and assembly are not dependent on the function and therefore simplify the installation of the fittings. This principal was also used for the double sash.

The double sash fittings only differ from the standard turn/tilt and turn fittings in the way the drive functions. This makes assembling the double sash fittings insignificantly different from assembling the first active leaf.

Area of application of the Forster standard fittings

Window 1 leaf
FFB: 310 - 1400 [mm]
FFH: 520 - 2400 [mm]
GH: 260 - 1200 [mm]
weight: 150 [kg]

Window 2 leaves
FFB: 310 - 1400 [mm]
FFH: 750 - 2400 [mm]
GH: 375 - 1200 [mm]
weight: 150 [kg]

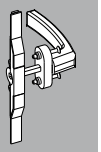
SFB: 310 - 1400 [mm]
SFH: 750 - 2400 [mm]
weight: 150 [kg]

Kipp-Fenster
FFB: 520 - 2400 [mm]
FFH: 350 - 1200 [mm]
weight: 80 [kg]

Fittings surface: silver

Beschläge Fenster

Flügelgrössen und Griffhöhen, welche ausserhalb des Anwendungsbereichs liegen, können bei positiver Prüfung der Machbarkeit mittels Sonderbestellungen bezogen werden. Für die Machbarkeitsabklärung und die daraus folgende Bestellung sind die entsprechenden Formulare in diesem Kapitel zu verwenden.



Notwendige Artikel für 1-flügelige Fenster:
- **Dreh-/Drehkipp-Beschlag RC2**
- **Fenstergriff**
- **Abdeckkappen**

Notwendige Artikel für 2-flügelige Fenster:
- **Dreh-/Drehkipp-Beschlag RC2**
- **Stulp-Beschlag RC2**
- **Fenstergriff**
- **Abdeckkappen**

Auf Anfrage können die Beschläge auch geschüttet geliefert werden.

Quincaillerie fenêtres

Les dimensions de vantaux et hauteurs de poignée en dehors du domaine d'application peuvent faire l'objet d'une commande spéciale après une étude de faisabilité. Pour l'étude de faisabilité et la commande résultante, utiliser les formulaires dans ce chapitre.

Articles nécessaires pour fenêtres à 1 vantail:
- **Quincaillerie pour ouverture à la française/ouverture oscillo-battant RC2**
- **Poignée de fenêtre**
- **Caches**

Articles nécessaires pour fenêtres à 2 vantaux:
- **Quincaillerie pour ouverture à la française/ouverture oscillo-battant RC2**
- **Quincaillerie de vantail semi-fixe RC2**
- **Poignée de fenêtre**
- **Caches**

Sur demande la quincaillerie peut être fournie en vrac.

Window fittings

Leaf sizes and handle heights outside of the specified area of application can be ordered if found feasible by special order. The forms to be used for feasibility studies and corresponding special orders are included in this chapter.

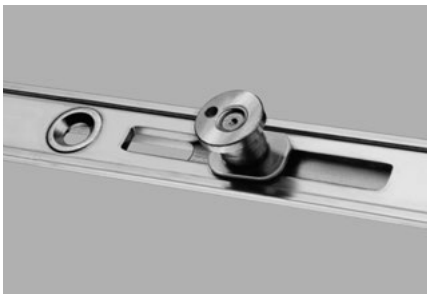
Necessary items single leaf windows:
- **Turn/ tilt and turn fittings RC2**
- **Window handles**
- **Cover caps**

Necessary items double leaved windows:
- **Turn/ tilt and turn fittings RC2**
- **Double sash fittings RC2**
- **Window handles**
- **Cover caps**

Upon request, unsorted fittings can also be supplied.

Schliesszapfenvarianten

Variantes de galets de verrouillage



Schliesszapfen V
höhen- und anpressdruckverstellbarer Sicherheits-Pilzzapfen

Galet de sécurité V
à tête champignon avec hauteur et pression de fermeture réglable

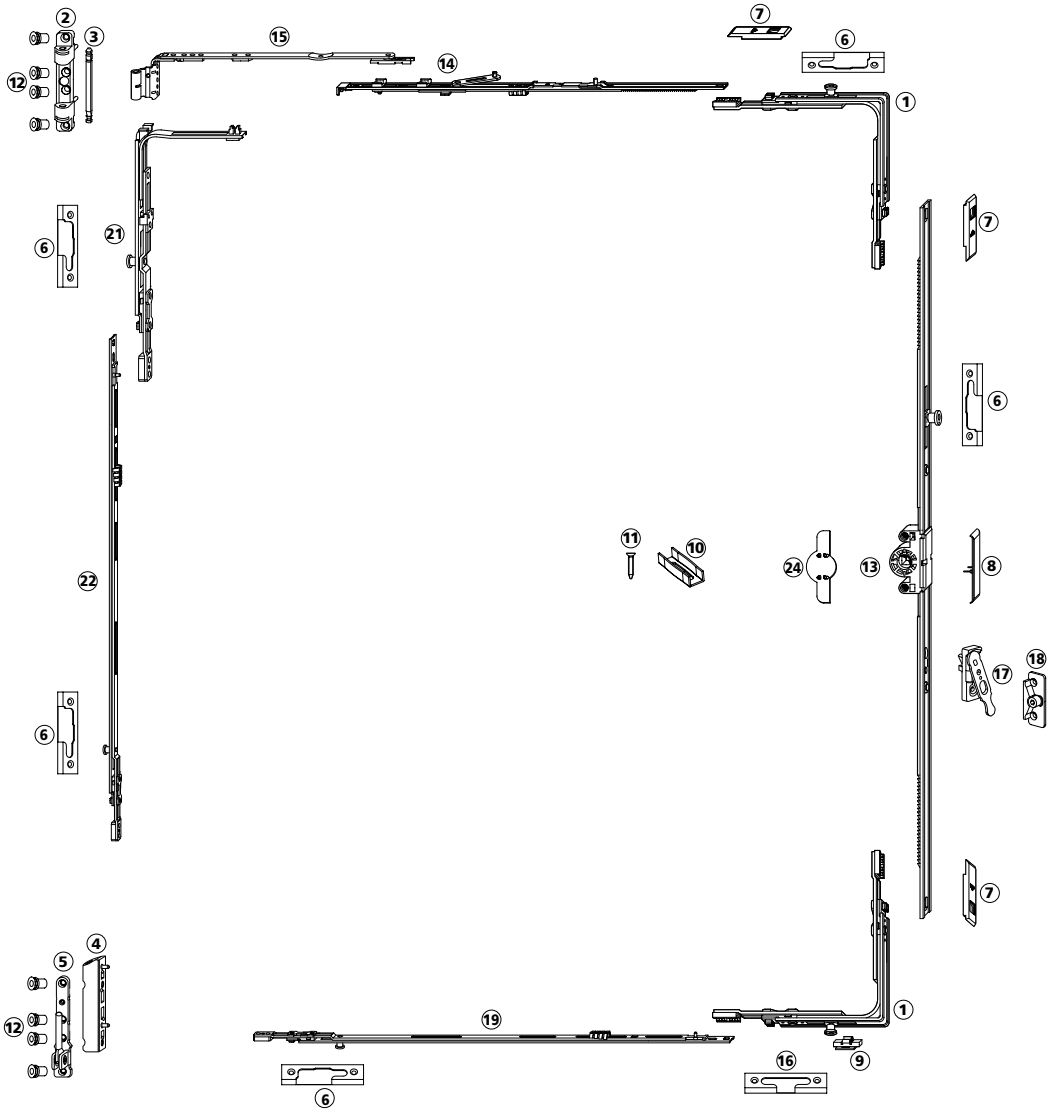
Locking cam versions

Locking cam V
height and gasket-compression adjustable security cam

Beschläge
Dreh- / Drehkipp - Flügel

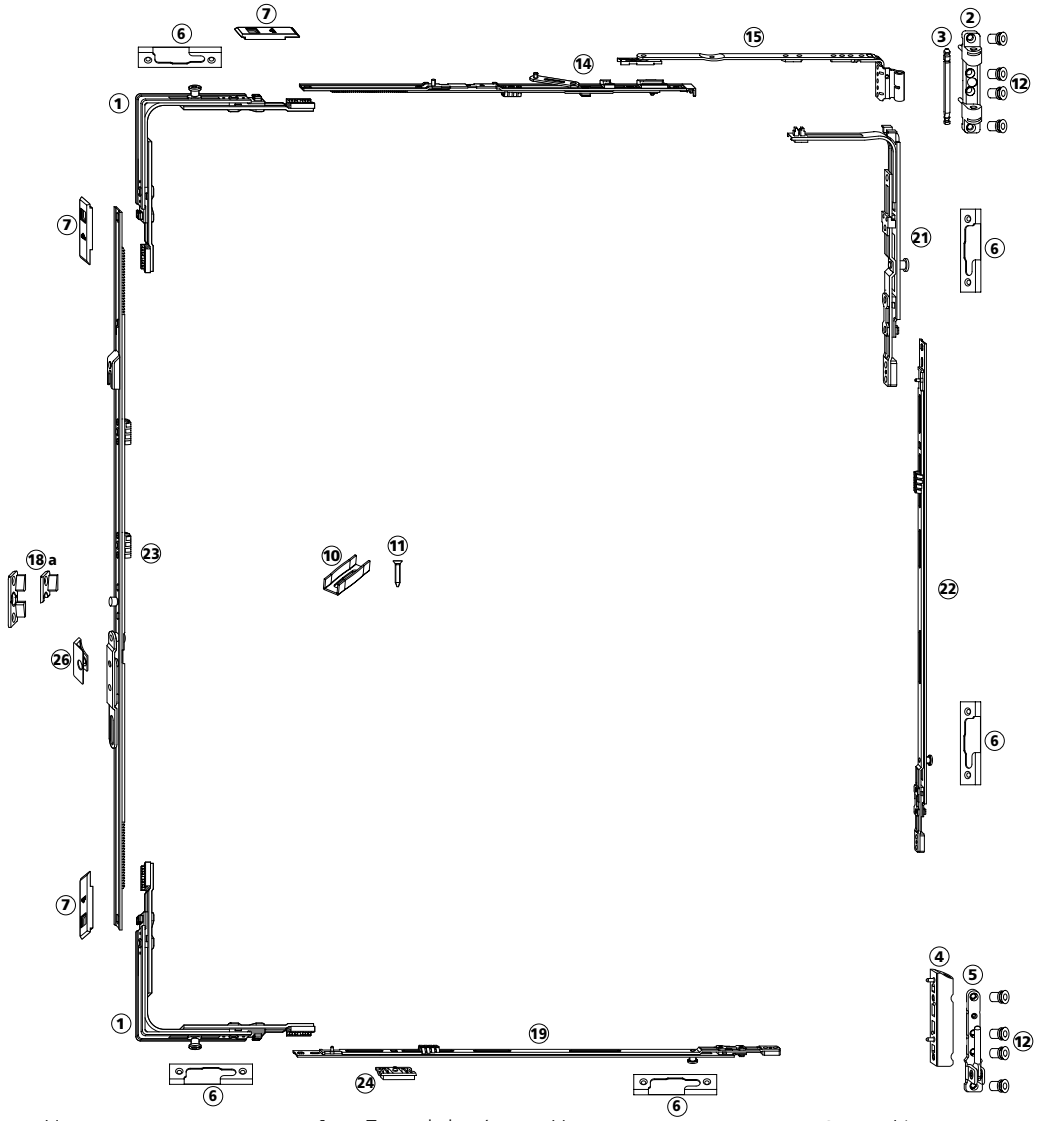
Quincaillerie
Vantail / OB / OF

Leaf fittings
Turn / tilt and turn leaf



1	Eckumlenkung V	**1**	Transmission équerre V	**1**	Corner drive V
2	Axerlager spezial	**2**	Palier de compas spécial	**2**	Sash stay bearing special
3	Axerlager – Stift	**3**	Tige d'axe	**3**	Sash stay bearing pin
4	Eckband K3 / 100	**4**	Pivot d'angle K3 / 100	**4**	Corner hinge K3 / 100
5	Ecklager K6 / 100	**5**	Palier d'angle K6 / 100	**5**	Corner pivot rest K6 / 100
6	Schliessstück RC	**6**	Gâche RC	**6**	Striker RC
7	Verbindungslasche	**7**	Plaquette de liaison	**7**	Link piece
8	Infoclip "Forster"	**8**	Infoclip "Forster"	**8**	Infoclip "Forster"
9	Hubbegrenzer (90°)	**9**	Limitateur de course (90°)	**9**	Travel – restrictor (90°)
10	Beschlags-Distanzstück	**10**	Pièce de distance pour ferrement	**10**	Distance piece for fittings
11	Beschlagsschraube M4 x 21	**11**	Vis de ferrement M4 x 21	**11**	Fitting screw M4 x 21
12	Einnietmutter M4	**12**	Rivet taraudé M4	**12**	Clench rivet M4
13	DK-Getriebe mittig, Dornmass 15	**13**	Crémone oscillo-battant centrale, fouillot 15	**13**	Tilt-turn central drive, mandrel size 15
14	Axerstulp RC	**14**	Têtière de compas RC	**14**	Sash stay guide RC
15	Axerarm	**15**	Bras de compas	**15**	Sash stay arm
16	Kipplager RC	**16**	Gâche de basculement RC	**16**	Tilt-turn striker RC
17	Niveau-Schaltsperre Flügelteil	**17**	Anti-fausse manœuvre partie ouvrant	**17**	Lifting mishandling device sash component
18	Niveau-Schaltsperre Rahmenteil	**18**	Anti-fausse manœuvre partie dormant	**18**	Lifting mishandling device frame part
19	Verlängerung horizontal	**19**	Extension horizontale	**19**	Horizontal extension
21	Eckumlenkung Axer	**21**	Renvoi de compas	**21**	Stay corner drive
22	Verlängerung vertikal	**22**	Extension verticale	**22**	Vertical extension
24	Anbohrschutz	**24**	Protection contre perçage	**24**	Drilling protection

Beschläge Stulpflügel — Quincaillerie vantail semi-fixe — Double sash fittings



1	Eckumlenkung V	**1**	Transmission équerre V	**1**	Corner drive V
2	Axerlager spezial	**2**	Palier de compas spécial	**2**	Sash stay bearing special
3	Axerlager – Stift	**3**	Tige d'axe	**3**	Sash stay bearing pin
4	Eckband K3 / 100	**4**	Pivot d'angle K3 / 100	**4**	Corner hinge K3 / 100
5	Ecklager K6 / 100	**5**	Palier d'angle K6 / 100	**5**	Corner pivot rest K6 / 100
6	Schliessstück RC	**6**	Gâche RC	**6**	Striker RC
7	Verbindungslasche	**7**	Plaquette de liaison	**7**	Link piece
8	Infoclip "Forster"	**8**	Infoclip "Forster"	**8**	Infoclip "Forster"
10	Beschlags-Distanzstück	**10**	Pièce de distance pour ferrement	**10**	Distance piece for fittings
11	Beschlagsschraube M4 x 21	**11**	Vis de ferrement M4 x 21	**11**	Fitting screw M4 x 21
12	Einnietmutter M4	**12**	Rivet taraudé M4	**12**	Clench rivet M4
14	Axerstulp DF RC	**14**	Têtière de compas DF RC	**14**	Sash stay guide DF RC
15	Axerarm	**15**	Bras de compas	**15**	Sash stay arm
18a	Niveau-Schaltsperre Stulpteil	**18a**	Anti-fausse manœuvre partie semi-fixe	**18a**	Lifting mishandling passive leaf part
19	Verlängerung horizontal	**19**	Extension horizontale	**19**	Horizontal extension
21	Eckumlenkung Axer	**21**	Renvoi d'angle de compas	**21**	Stay corner drive
22	Verlängerung vertikal	**22**	Extension verticale	**22**	Vertical extension
23	Stulpgetriebe mittig	**23**	Crémone centrale pour vantail semi-fixe	**23**	Central double sash drive
24	Auflaufkeil	**24**	Support glissiére vantail semi fixe	**24**	Run up block
26	Sicherungsbügel 2-flg	**26**	Etrier de sécurité	**26**	Retainer-clasp

Beschläge
Bestellanleitung

Für die Bestellung des Fensterbeschlages sind nicht die Flügelaussenmasse, sondern die Flügelfalzmasse massgebend. In den folgenden Darstellungen werden die für die Bestellung notwendigen Masse definiert und dargestellt.

Flügelfalzgrössen
Dreh-/Drehkipp-Beschlag
FB: Flügelbreite
FFB: Flügelfalzbreite
FH: Flügelhöhe
FFH: Flügelfalzhöhe
GH: Griffhöhe

Quincaillerie
Instructions de commande

Pour la commande de quincaillerie de fenêtre, les cotes de feuillure de vantail sont déterminantes et non les cotes extérieures de vantail. Les cotes nécessaires à la commande sont définies et représentées dans les illustrations suivantes.

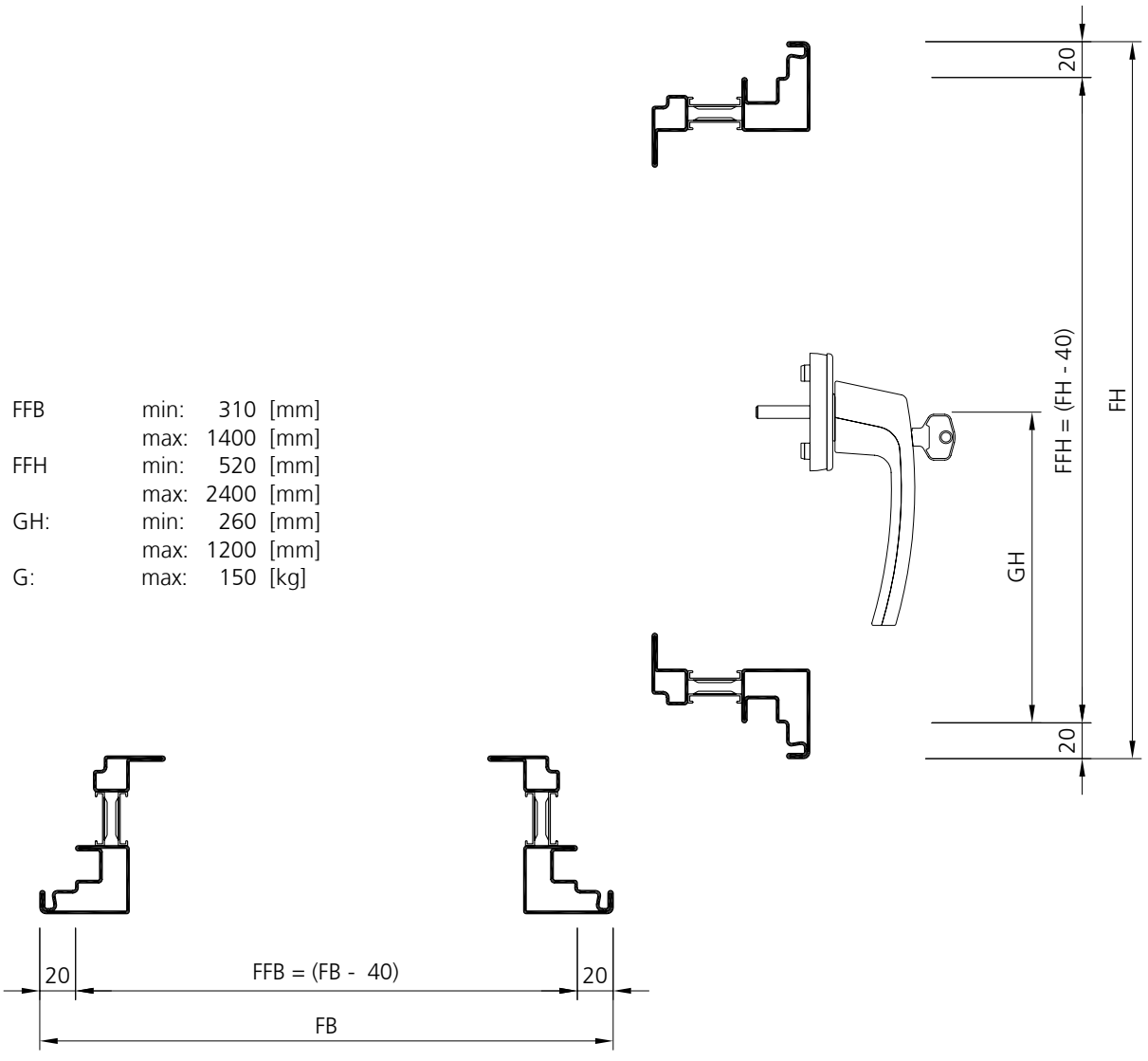
Tailles de feuillure de vantail
Quincaillerie pour ouverture à la française/ ouverture oscillo-battant
FB: largeur de vantail
FFB: largeur de feuillure de vantail
FH: hauteur de vantail
FFH: hauteur de feuillure de vantail
GH: hauteur de poignée

Fittings
Ordering instructions

To order window fittings, the outer dimensions of the windows are not significant, but the sizes of the leaf rebate are. In the following presentation, the dimensions required for ordering are defined and listed.

Sizes of leaf rebates
Turn/ tilt and turn-fittings
FB: leaf width
FFB: leaf rebate width
FH: leaf height
FFH: leaf rebate height
GH: handle height

FFB	min:	310	[mm]
	max:	1400	[mm]
FFH	min:	520	[mm]
	max:	2400	[mm]
GH:	min:	260	[mm]
	max:	1200	[mm]
G:	max:	150	[kg]



Beschläge
Bestellanleitung

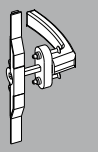
Flügelfalzgrössen
Stulpflügel-Beschlag
SB: Stulpbreite
SFB: Stulpfalzbreite
SH: Stulphöhe
SFH: Stulpfalzhöhe

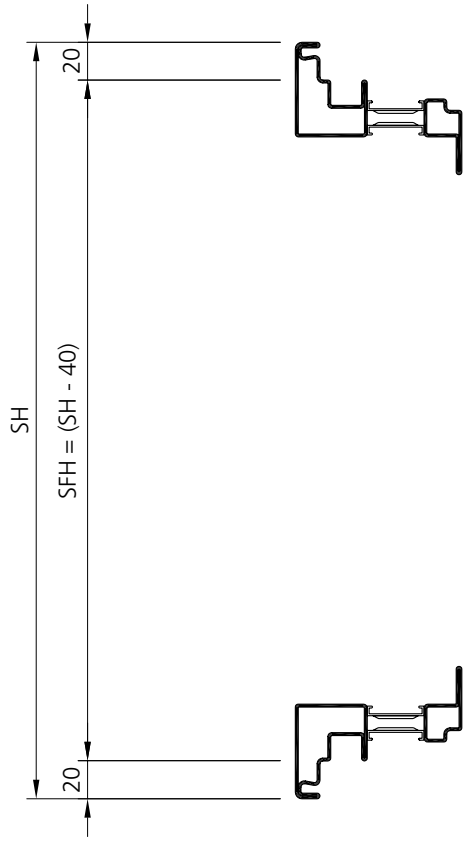
Quincaillerie
Instructions de commande

Tailles de feuillure de vantail
Quincaillerie pour vantail semi-fixe
SB: largeur de vantail semi-fixe
SFB: largeur de feuillure de vantail semi-fixe
SH: hauteur de vantail semi-fixe
SFH: hauteur de feuillure de vantail semi-fixe

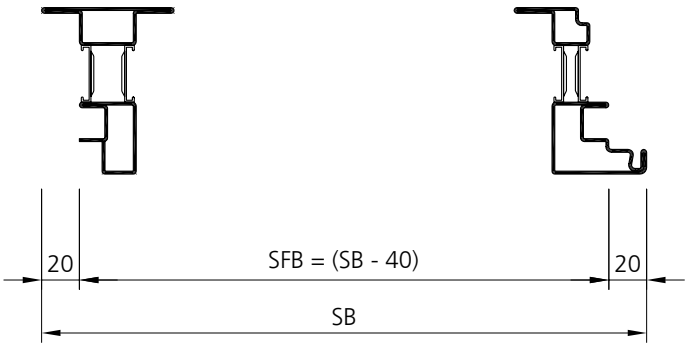
Fittings
Ordering instructions

Sizes of leaf rebates
Double sash fittings
SB: double sash width
SFB: double sash rebate width
SH: double sash height
SFH: double sash rebate height





SFB	min:	310	[mm]
	max:	1400	[mm]
SFH	min:	750	[mm]
	max:	2400	[mm]
G:	max:	150	[kg]



Beschläge
Bestellanleitung

Da zwischen der Flügelfalzhöhe und der Griffhöhe eine direkte Abhängigkeit besteht, muss einer Bestellung die Richtigkeit der ausgewählten Beschläge anhand der folgenden Diagramme überprüft werden. Liegt der Schnittpunkt der Griffhöhe (GH) und der Flügelfalzhöhe (FFH) im grau hinterlegten Bereich der Diagramme, kann der Forster Standardbeschlag eingesetzt werden. Für alle anderen Fälle verwenden Sie bitte die Formulare in diesem Kapitel.

Anwendungsbeispiele für die Kontrolle:

Beispiel 1: Möglich mit Standard-Beschlag
FFH: 900 [mm]
GH: 450 [mm]

Beispiel 2: Muss über Sonderformulare angefragt werden.
FFH: 900 [mm]
GH: 550 [mm]

Quincaillerie
Instructions de commande

Comme il existe une relation directe entre la hauteur de feuillure du vantail et la hauteur de la poignée, il faut vérifier lors d'une commande de l'exactitude de la quincaillerie sélectionnée à l'aide des diagrammes suivants. Si le point d'intersection de la hauteur de poignée (GH) et de la hauteur de feuillure de vantail (FFH) se trouve dans la zone grise des diagrammes, il est possible d'utiliser une quincaillerie Forster standard. Dans tous les autres cas, utiliser les formulaires indiqués dans ce chapitre. Exemples d'application pour le contrôle:

Exemple 1: possible avec une quincaillerie standard
FFH: 900 [mm]
GH: 450 [mm]

Exemple 2: demande au moyen de formulaires spéciaux.
FFH: 900 [mm]
GH: 550 [mm]

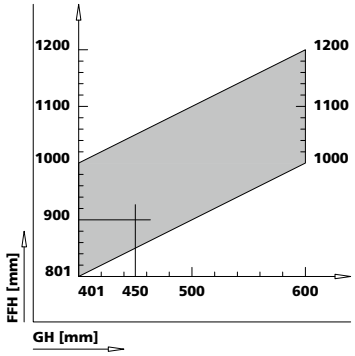
Fittings
Ordering instructions

As there is a direct dependence between the height of the leaf rebate and the height of the handle, every order has to be checked for correctness of the selected fittings against the following diagrams. If the point of intersection of the handle height (GH) and the leaf rebate (FFH) is within the gray background of the diagrams, then Forster standard fittings can be used. For all other cases, please use the special order form in this chapter. Sample applications of how to perform the checks.

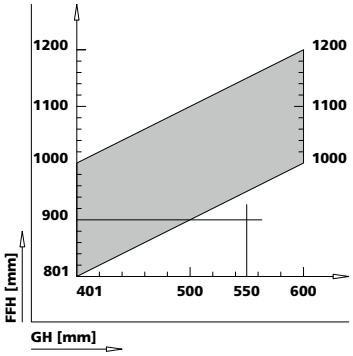
Example 1: possible with standard fittings
FFH: 900 [mm]
GH: 450 [mm]

Example 2: must be requested with the special order form
FFH: 900 [mm]
GH: 550 [mm]

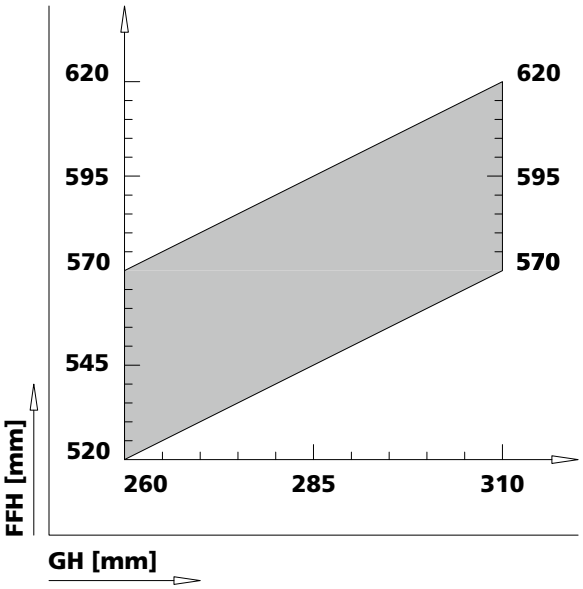
Beispiel 1:
Exemple 1:
Example 1:



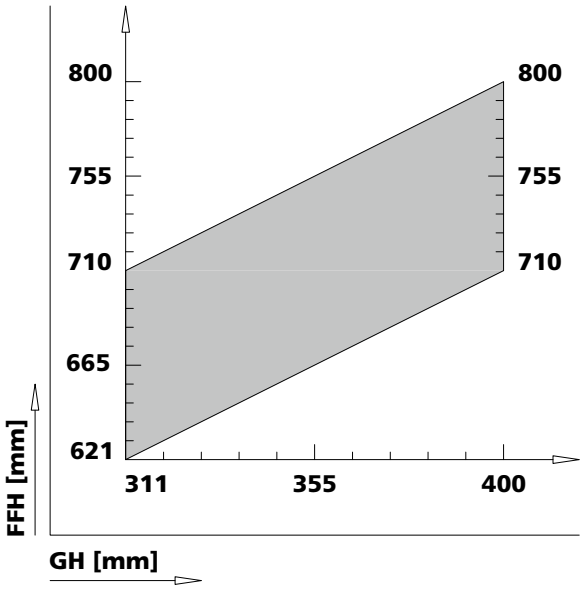
Beispiel 2:
Exemple 2:
Example 2:



FFH 520 - 620 [mm]



FFH 621 - 800 [mm]

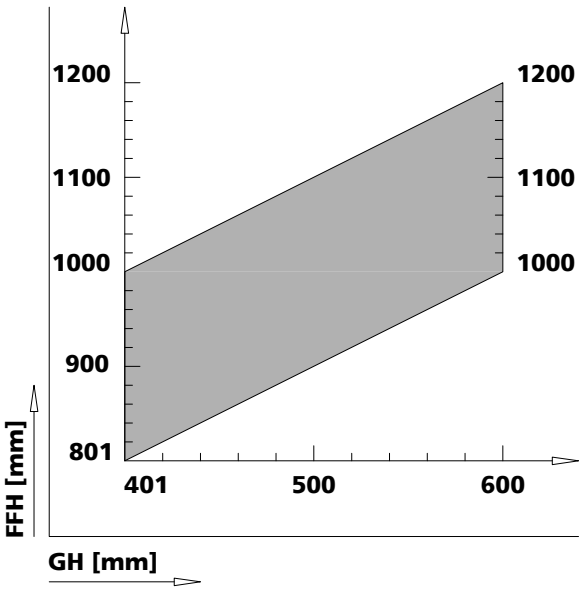


Beschläge
Bestellanleitung

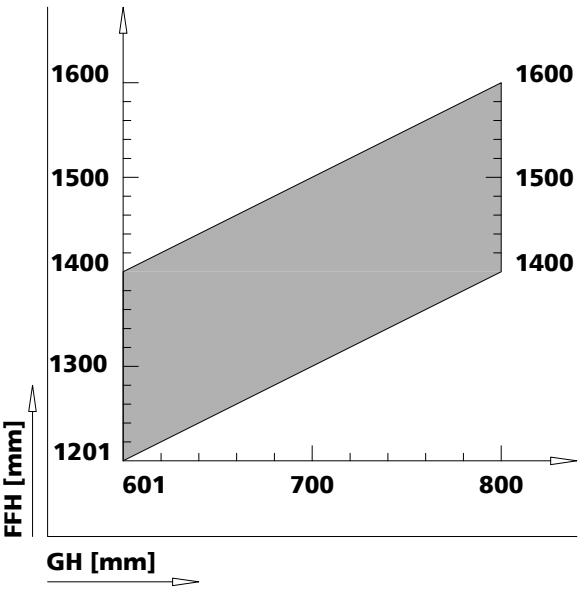
Quincaillerie
Instructions de commande

Fittings
Ordering instructions

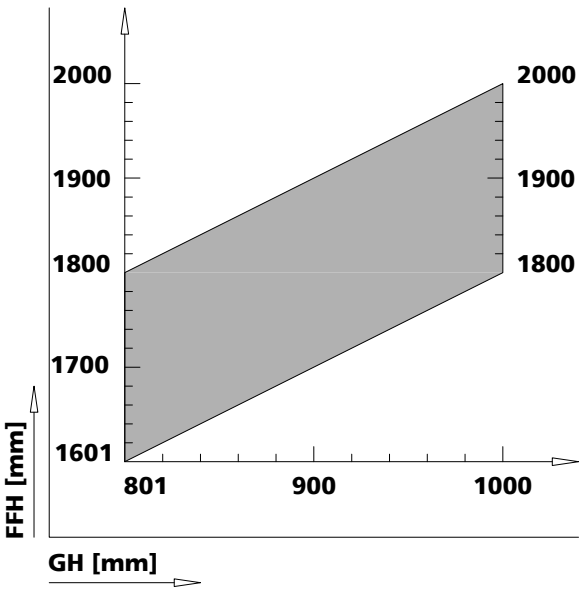
FFH 801 - 1200 [mm]



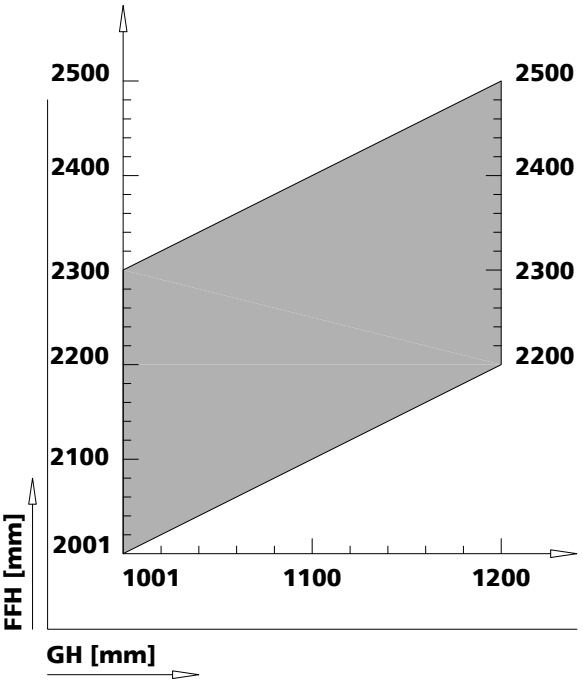
FFH 1201 - 1600 [mm]



FFH 1601 - 2000 [mm]



FFH 2001 - 2500 [mm]



Beschläge Bestellnummern

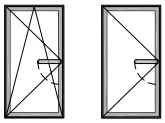
Dreh(*)- / Drehkipp-Beschlag RC2
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN links (Komplett-Beschlag)
max. 150 [kg]

Quincaillerie Références

Quincaillerie pour ouverture à la française(*)/ouverture oscillo-battant RC2
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux, **DIN gauche** (ferrement complet)
max. 150 [kg]

Fittings Order numbers

Turn(*)/ tilt and turn fittings RC2
Single leaf windows
1. active leaf on double sash windows
DIN left (complete fittings)
max. 150 [kg]

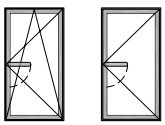


FFH [mm]	FFB [mm] 310 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
520 - 620	**987101 RC2** (a	**987113 RC2** (a	**987125 RC2** (a	**987137 RC2** (a	**987149 RC2** (a		260 - 310
621 - 800	**987103 RC2**	**987115 RC2**	**987127 RC2**	**987139 RC2**	**987151 RC2**	**987161 RC2**	311 - 400
801 - 1200	**987105 RC2**	**987117 RC2**	**987129 RC2**	**987141 RC2**	**987153 RC2**	**987163 RC2**	401 - 600
1201 - 1600	**987107 RC2**	**987119 RC2**	**987131 RC2**	**987143 RC2**	**987155 RC2**	**987165 RC2**	601 - 800
1601 - 2000	**987109 RC2**	**987121 RC2**	**987133 RC2**	**987145 RC2**	**987157 RC2**	**987167 RC2**	801 - 1000
2001 - 2400	**987111 RC2**	**987123 RC2**	**987135 RC2**	**987147 RC2**	**987159 RC2**	**987169 RC2**	1001 - 1200

Dreh(*)- / DrehKipp-Beschlag RC2
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN rechts (Komplett-Beschlag)
max. 150 [kg]

Quincaillerie pour ouverture à la française(*)/ouverture oscillo-battant RC2
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux
DIN droite (quincaillerie complète)
max. 150 [kg]

Turn(*)/ tilt and turn fittings RC2
Single leaf windows
1. active leaf on double sash windows
DIN right (complete fittings)
max. 150 [kg]

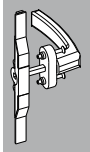


FFH [mm]	FFB [mm] 310 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
520 - 620	**987102 RC2** (a	**987114 RC2** (a	**987126 RC2** (a	**987138 RC2** (a	**987150 RC2** (a		260 - 310
621 - 800	**987104 RC2**	**987116 RC2**	**987128 RC2**	**987140 RC2**	**987152 RC2**	**987162 RC2**	311 - 400
801 - 1200	**987106 RC2**	**987118 RC2**	**987130 RC2**	**987142 RC2**	**987154 RC2**	**987164 RC2**	401 - 600
1201 - 1600	**987108 RC2**	**987120 RC2**	**987132 RC2**	**987144 RC2**	**987156 RC2**	**987166 RC2**	601 - 800
1601 - 2000	**987110 RC2**	**987122 RC2**	**987134 RC2**	**987146 RC2**	**987158 RC2**	**987168 RC2**	801 - 1000
2001 - 2400	**987112 RC2**	**987124 RC2**	**987136 RC2**	**987148 RC2**	**987160 RC2**	**987170 RC2**	1001 - 1200

* = Dreh-Beschlag mit Hubbegrenzer
(a = ohne Niveauschaltsperre)

* = Quincaillerie pour ouverture à la française avec limitateurs de course
(a = sans anti-fausse manœuvre)

* = Turn fittings with travel restrictor
(a = without lifting mishandling)



Beschläge Bestellnummern

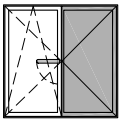
Stulpflügel-Beschlag WK1 und RC2
2. öffnender Flügel passend zu
1. öffnendem Flügel **DIN links**
(Komplett-Beschlag)
max. 150 [kg]

Quincaillerie Références

Quincaillerie de vantail semi-fixe CR1 et RC2
2e vantail ouvrant adapté au
1er vantail ouvrant **DIN gauche** (quincaillerie complète)
max. 150 [kg]

Fittings Order numbers

Double sash-fittings RC1 and RC2
2. active leaf appropriate for
1.active leaf **DIN left** (complete fittings)
max. 150 [kg]

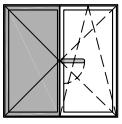


SFH [mm]	SFB [mm] 310 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
750 - 900	**987902 RC2**	**987912 RC2**	**987922 RC2**	**987932 RC2**	**987942 RC2**	**987952 RC2**	375 - 450
901 - 1200	**987904 RC2**	**987914 RC2**	**987924 RC2**	**987934 RC2**	**987944 RC2**	**987954 RC2**	451 - 600
1201 - 1600	**987906 RC2**	**987916 RC2**	**987926 RC2**	**987936 RC2**	**987946 RC2**	**987956 RC2**	601 - 800
1601 - 2000	**987908 RC2**	**987918 RC2**	**987928 RC2**	**987938 RC2**	**987948 RC2**	**987958 RC2**	801 - 1000
2001 - 2400	**987910 RC2**	**987920 RC2**	**987930 RC2**	**987940 RC2**	**987950 RC2**	**987960 RC2**	1001 - 1200

Stulpflügel-Beschlag WK1 und RC2
2. öffnender Flügel passend zu
1. öffnendem Flügel **DIN rechts**
(Komplett-Beschlag)
max. 150 [kg]

Quincaillerie de vantail semi-fixe CR1 et RC2
2e vantail ouvrant adapté au
1er vantail ouvrant **DIN droite** (quincaillerie complète)
max. 150 [kg]

Double sash-fittings RC1 and RC2
2. active leaf appropriate for
1. active leaf **DIN right** (complete fittings)
max. 150 [kg]

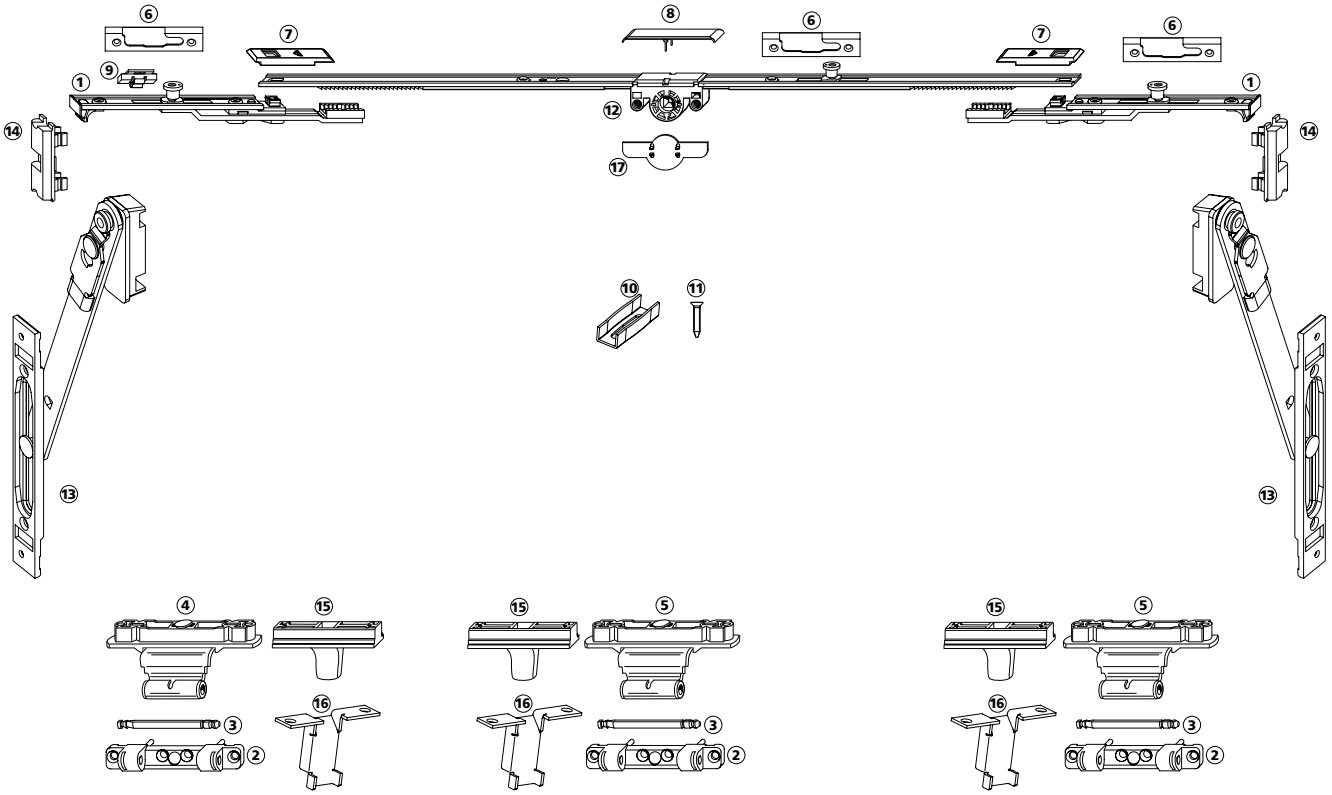


SFH [mm]	SFB [mm] 310 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
750 - 900	**987901 RC2**	**987911 RC2**	**987921 RC2**	**987931 RC2**	**987941 RC2**	**987951 RC2**	375 - 450
901 - 1200	**987903 RC2**	**987913 RC2**	**987923 RC2**	**987933 RC2**	**987943 RC2**	**987953 RC2**	451 - 600
1201 - 1600	**987905 RC2**	**987915 RC2**	**987925 RC2**	**987935 RC2**	**987945 RC2**	**987955 RC2**	601 - 800
1601 - 2000	**987907 RC2**	**987917 RC2**	**987927 RC2**	**987937 RC2**	**987947 RC2**	**987957 RC2**	801 - 1000
2001 - 2400	**987909 RC2**	**987919 RC2**	**987929 RC2**	**987939 RC2**	**987949 RC2**	**987959 RC2**	1001 - 1200

Beschläge Kippflügel

Quincaillerie ouverture à soufflet

Fittings tilt only



1 Getriebeanschluss V
2 Axerlager spezial
3 Axerlager – Stift
4 Kippflügelband ohne Ausgleich
5 Kippflügelband mit Ausgleich
6 Schliessstück RC
7 Verbindungslasche
8 Infoclip "Forster"
9 Hubbegrenzer (90°)
10 Beschlags-Distanzstück
11 Beschlagsschraube M4 x 21
12 DK-Getriebe mittig, Dornmass 15
13 Falzschere
14 Auflaufkeil
15 Mittelschliesser
16 Hintergreifermulde
17 Anbohrschutz

1 Raccord d'équerre V
2 Palier de compas spécial
3 Tige d'axe
4 Paumelle OF fixe
5 Paumelle OF mobile
6 Gâche RC
7 Liaison avec plaquette de liaison
8 Infoclip "Forster"
9 Limitateur de course (90°)
10 Pièce de distance pour ferrement
11 Vis de ferrement M4 x 21
12 Crémone oscillo-battant centrale, fouillot 15
13 Compas tombant
14 Support glissiére
15 Boulon central
16 Gâche pour boulon central
17 Protection contre perçage

1 Espagnolette-connector V
2 Sash stay bearing special
3 Sash stay bearing pin
4 Tilt-only rebate hinge without alignment
5 Tilt-only rebate hinge with alignment
6 Striker RC
7 Splice plate
8 Infoclip "Forster"
9 Travel – restrictor (90°)
10 Distance piece for fittings
11 Fitting screw M4 x 21
12 Tilt-turn central drive, mandrel size 15
13 Tilt-stay
14 Run up block
15 Central bolt
16 Striker for central bolt
17 Drilling protection

Beschläge Kippflügel Bestellnummern

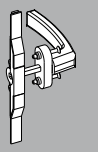
Quincaillerie ouverture à soufflet Références

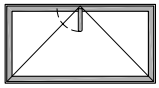
Fittings tilt only Order numbers

Kipp-Beschlag RC2
Griffsitz mittig
(Komplett-Beschlag)
max. 80 [kg]

Quincaillerie ouverture à soufflet RC2
(ferrement complet)
poignées aux milieu
max. 80 [kg]

Tilt only Fittingsets RC2
(complete fittings)
handle in the middle
max. 80 [kg]





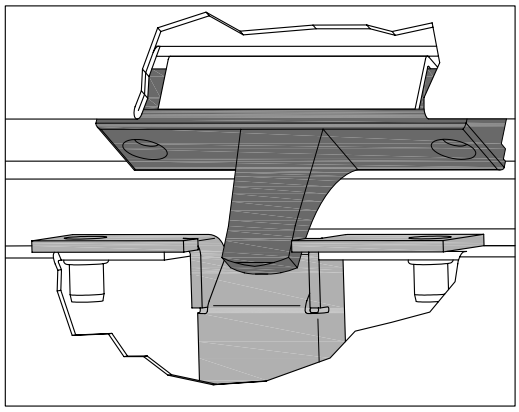
		FFB [mm]					
		520 - 620	621 - 800	801 - 1200	1201 - 1600	1601 - 2000	2001 - 2400
FFH [mm]	350 - 1200	**987181 RC2**	**987182 RC2**	**987183 RC2**	**987184 RC2**	**987185 RC2**	**987186 RC2**

Zusätzlich bestellen:
Hintergreifer-Set RC
987880 (30 mm) / 987878 (50 mm)
VE
1 Hintergreifermulde
1 Mittelschliesser
2 Einnietmuttern M4
2 Beschlagschrauben M4 x 21

Pièces supplémentaires à commander:
Garniture de verrou RC
987880 (30 mm) / 987878 (50 mm)
UV
1 Gâche pour boulon central
1 Boulon central
2 Rivet taraudé M4
2 Vis de ferrement M4 x 21

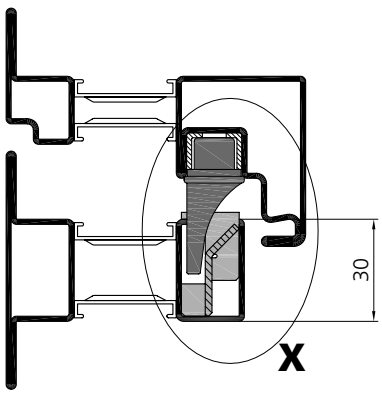
Additional order:
Striker-set RC
987880 (30 mm) / 987878 (50 mm)
SU
1 Striker for central bolt
1 Central bolt
2 Clech rivet M4
2 Fitting screw M4 x 21

Detail X

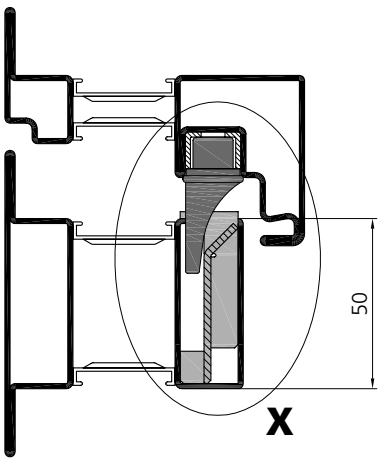


FFB	987878 oder / ou / or 987880	
520 - 1200	**2**	VE UV SU
1201 - 2400	**3**	VE UV SU

Art. Nr.: 987880 (30mm)



Art. Nr.: 987878 (50mm)



Beschläge Fenster

Systembeschläge RC3 für Forster unico werden als Komplettgarnituren geliefert. Der Beschlag ist so abgestimmt worden, dass für Dreh- und Drehkipp-Fenster derselbe Beschlag verwendet werden kann.

Die beiden unterschiedlichen Funktionen werden über einen Hubbegrenzer im Bereich der unteren Eckumlenkung gesteuert. Die Verabeitung und Montage sind von der Funktion unabhängig und vereinfachen den Beschlagseinbau. Dieses Prinzip wurde auch für den Stulpflügel übernommen.

Einsatzbereich des Forster RC3:

1 flügelige Fenster
FFB: 310 - 1400 [mm]
FFH: 520 - 2400 [mm]
GH: 260 - 1200 [mm]
Gewicht: 150 [kg]

2 flügelige Fenster
FFB: 310 - 1400 [mm]
FFH: 750 - 2400 [mm]
GH: 375 - 1200 [mm]
Gewicht: 150 [kg]

SFB: 310 - 1400 [mm]
SFH: 750 - 2400 [mm]
Gewicht: 150 [kg]

Kipp-Fenster
FFB: 520 - 2400 [mm]
FFH: 350 - 1200 [mm]
Gewicht: 80 [kg]

Beschlag-Oberfläche: Silberoptik

Quincaillerie fenêtres

La quincaillerie RC3 du système Forster unico est livrée en garniture complète. Elle est conçue de telle façon qu'il est possible d'utiliser le même ferrement pour les fenêtres ouvrant à la française et ouvrant oscillo-battant.

Les deux fonctions différentes sont commandées par un limitateur de course dans la zone du renvoi d'angle inférieur. Le traitement et le montage sont indépendants de la fonction et simplifient le montage de la quincaillerie. Ce principe a été repris pour le vantail semi-fixe.

Domaine d'application de la quincaillerie Forster RC3:

Fenêtre 1 vantail
FFB: 310 - 1400 [mm]
FFH: 520 - 2400 [mm]
GH: 260 - 1200 [mm]
Poids: 150 [kg]

Fenêtre 2 vantaux
FFB: 310 - 1400 [mm]
FFH: 750 - 2400 [mm]
GH: 375 - 1200 [mm]
Poids: 150 [kg]

SFB: 310 - 1400 [mm]
SFH: 750 - 2400 [mm]
Poids: 150 [kg]

Fenêtre ouverture à soufflet
FFB: 520 - 2400 [mm]
FFH: 350 - 1200 [mm]
Poids: 80 [kg]

Window fittings

System fittings RC3 for Forster unico are supplied as complete sets. The same fittings can be used for turn windows as well as for tilt and turn windows.

The two different functions are controlled via a travel restrictor in the area of the lower corner drive. Processing and assembly are not dependent on the function and therefore simplify the installation of the fittings. This principal was also used for the double sash.

Area of application of the Forster RC3 fittings

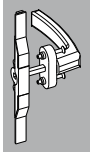
Window 1 leaf
FFB: 310 - 1400 [mm]
FFH: 520 - 2400 [mm]
GH: 260 - 1200 [mm]
weight: 150 [kg]

Window 2 leaves
FFB: 310 - 1400 [mm]
FFH: 750 - 2400 [mm]
GH: 375 - 1200 [mm]
weight: 150 [kg]

SFB: 310 - 1400 [mm]
SFH: 750 - 2400 [mm]
weight: 150 [kg]

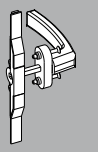
Kipp-Fenster
FFB: 520 - 2400 [mm]
FFH: 350 - 1200 [mm]
weight: 80 [kg]

Fittings surface: silver
Leaf sizes and handle heights outside of the



Beschläge Fenster

Flügelgrössen und Griffhöhen, welche ausserhalb des Anwendungsbereichs liegen, können bei positiver Prüfung der Machbarkeit mittels Sonderbestellungen bezogen werden. Für die Machbarkeitsabklärung und die daraus folgende Bestellung sind die entsprechenden Formulare in diesem Kapitel zu verwenden.



Notwendige Artikel für 1-flügelige Fenster:
- **Dreh-/Drehkipp-Beschlag RC3**
- **Fenstergriff**
- **Abdeckkappen**

Notwendige Artikel für 2-flügelige Fenster:
- **Dreh-/Drehkipp-Beschlag RC3**
- **Stulp-Beschlag RC3**
- **Fenstergriff**
- **Abdeckkappen**

Auf Anfrage können die Beschläge auch geschüttet geliefert werden.

Quincaillerie fenêtres

Surface de quincaillerie: optique argent
Les dimensions de vantaux et hauteurs de poignée en dehors du domaine d'application peuvent faire l'objet d'une commande spéciale après une étude de faisabilité. Pour l'étude de faisabilité et la commande résultante, utiliser les formulaires dans ce chapitre.

Articles nécessaires pour fenêtres à 1 vantail:
- **Quincaillerie pour ouverture à la française/ouverture oscillo-battant RC3**
- **Poignée de fenêtre**
- **Caches**

Articles nécessaires pour fenêtres à 2 vantaux:
- **Quincaillerie pour ouverture à la française/ouverture oscillo-battant RC3**
- **Quincaillerie de vantail semi-fixe RC3**
- **Poignée de fenêtre**
- **Caches**

Sur demande la quincaillerie peut être fournie en vrac.

Window fittings

specified area of application can be ordered if found feasible by special order. The forms to be used for feasibility studies and corresponding special orders are included in this chapter.

Necessary items single leaf windows:
- **Turn/ tilt and turn fittings RC3**
- **Window handles**
- **Cover caps**

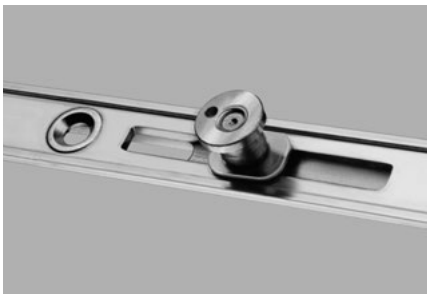
Necessary items double leaved windows:
- **Turn/ tilt and turn fittings RC3**
- **Double sash fittings RC3**
- **Window handles**
- **Cover caps**

Upon request, unsorted fittings can also be supplied.

Schliesszapfenvarianten

Variantes de galets de verrouillage

Locking cam versions



Schliesszapfen V
höhen- und anpressdruckverstellbarer Sicherheits-Pilzzapfen

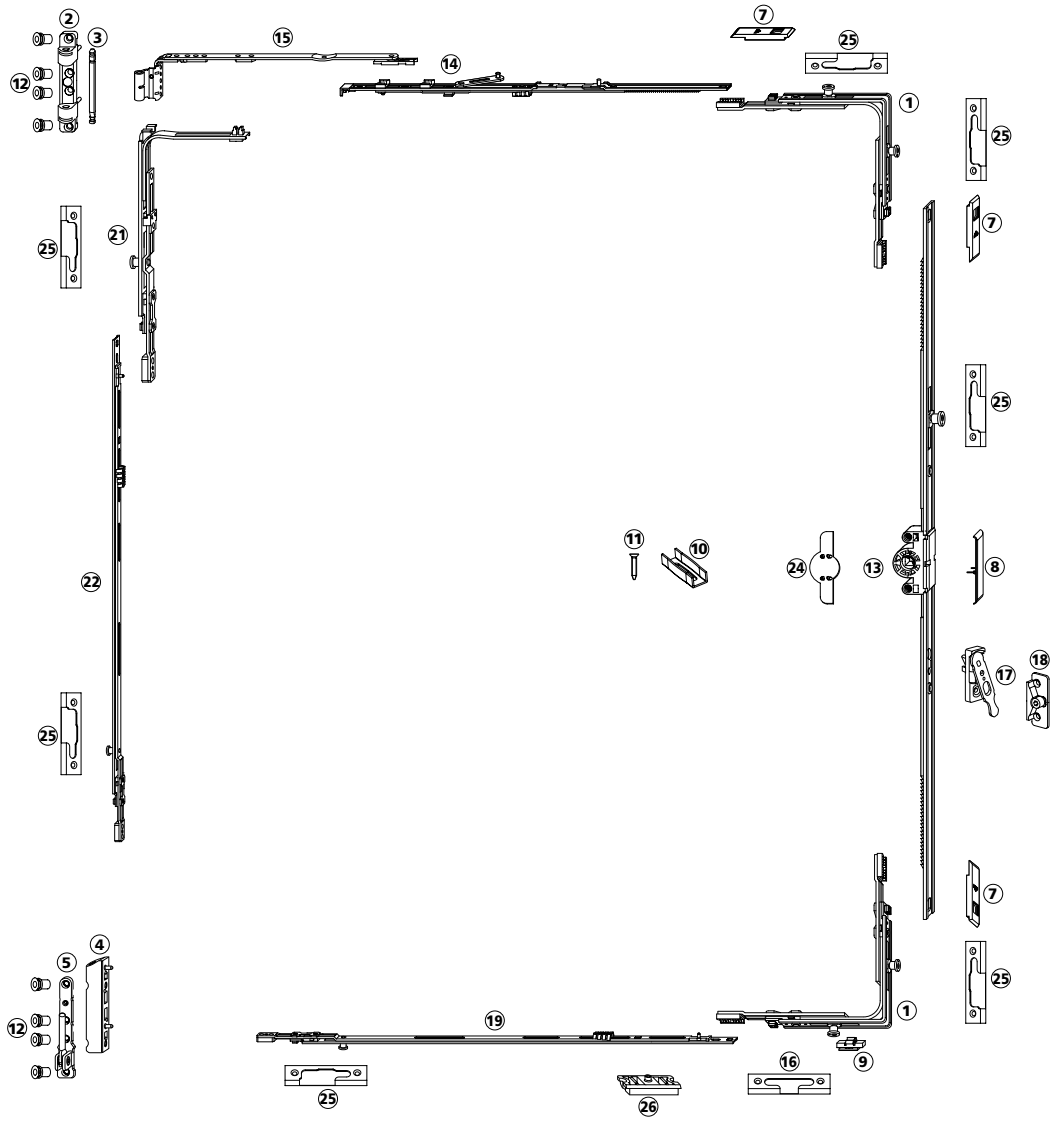
Galet de sécurité V
à tête champignon avec hauteur et pression de fermeture réglable

Locking cam V
height and gasket-compression adjustable security cam

Beschläge
Dreh- / Drehkipp - Flügel

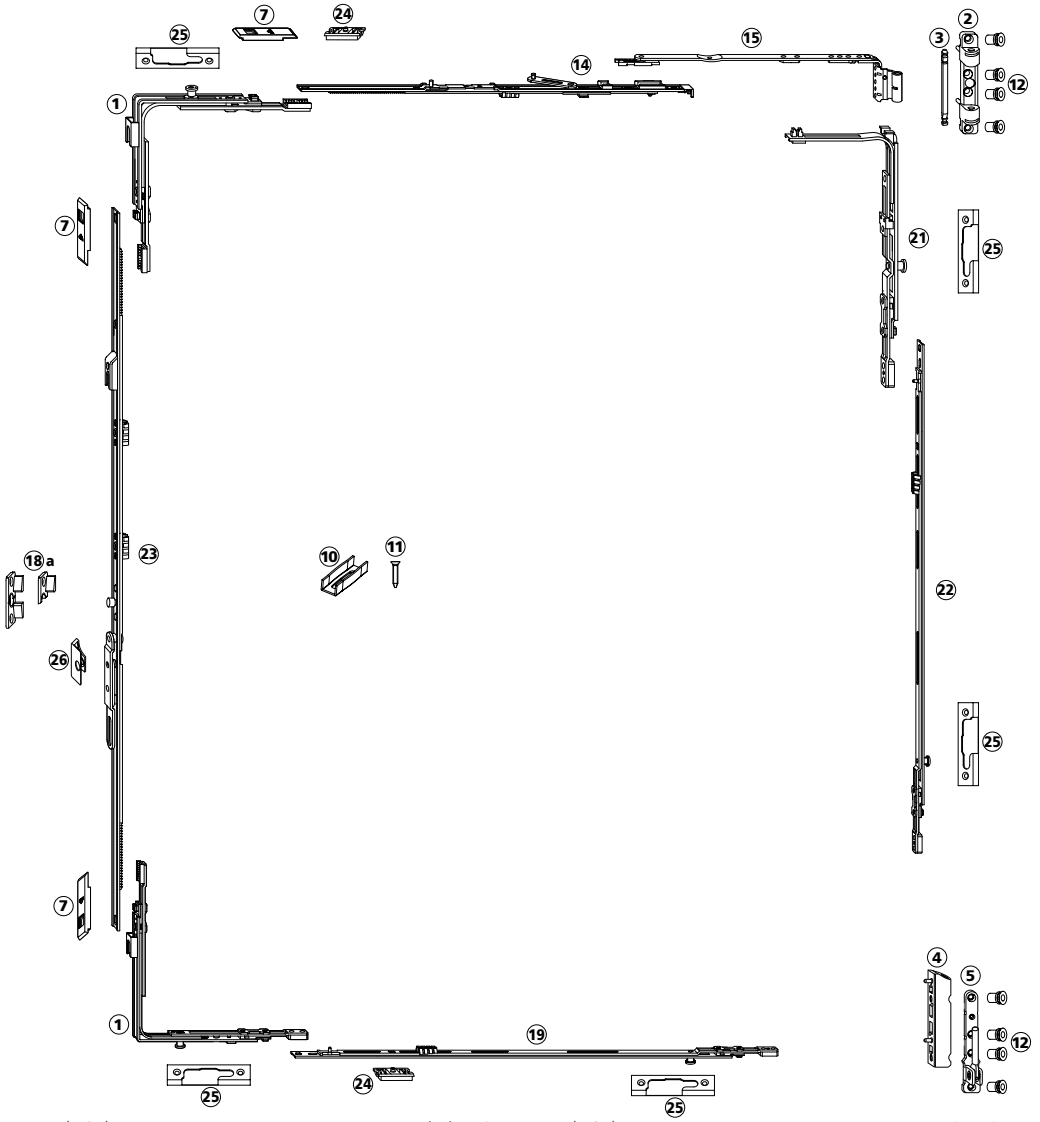
Quincaillerie
Vantail / OB / OF

Leaf fittings
Turn / tilt and turn leaf



1	Eckumlenkung 2V	**1**	Transmission équerre 2V	**1**	Corner drive 2V
2	Axerlager spezial	**2**	Palier de compas spécial	**2**	Sash stay bearing special
3	Axerlager – Stift	**3**	Tige d'axe	**3**	Sash stay bearing pin
4	Eckband K3 / 100	**4**	Pivot d'angle K3 / 100	**4**	Corner hinge K3 / 100
5	Ecklager K6 / 100	**5**	Palier d'angle K6 / 100	**5**	Corner pivot rest K6 / 100
7	Verbindungslasche	**7**	Plaquette de liaison	**7**	Link piece
8	Infoclip "Forster"	**8**	Infoclip "Forster"	**8**	Infoclip "Forster"
9	Hubbegrenzer (90°)	**9**	Limitateur de course (90°)	**9**	Travel – restrictor (90°)
10	Beschlags-Distanzstück	**10**	Pièce de distance pour ferrement	**10**	Distance piece for fittings
11	Beschlagsschraube M4 x 21	**11**	Vis de ferrement M4 x 21	**11**	Fitting screw M4 x 21
12	Einnietmutter M4	**12**	Rivet taraudé M4	**12**	Clench rivet M4
13	DK-Getriebe mittig, Dornmass 15	**13**	Crémone oscillo-battant centrale, fouillot 15	**13**	Tilt-turn central drive, mandrel size 15
14	Axerstulp RC	**14**	Têtière de compas RC	**14**	Sash stay guide RC
15	Axerarm	**15**	Bras de compas	**15**	Sash stay arm
16	Kipplager RC	**16**	Gâche de basculement RC	**16**	Tilt-turn striker RC
17	Niveau-Schaltsperre Flügelteil	**17**	Anti-fausse manœuvre partie ouvrant	**17**	Lifting mishandling device sash component
18	Niveau-Schaltsperre Rahmenteil	**18**	Anti-fausse manœuvre partie dormant	**18**	Lifting mishandling device frame part
19	Verlängerung horizontal	**19**	Extension horizontale	**19**	Horizontal extension
21	Eckumlenkung Axer	**21**	Renvoi de compas	**21**	Stay corner drive
22	Verlängerung vertikal	**22**	Extension verticale	**22**	Vertical extension
24	Anbohrschutz	**24**	Protection contre perçage	**24**	Drilling protection
25	Schliessstück RC	**25**	Gâche RC	**25**	Striker RC
26	Auflaufkeil (nur 2-flg)	**26**	Support glissiére vantail (seulement 2-vtx)	**26**	Run up block (only 2-leafs)

Beschläge Stulpflügel — Quincaillerie vantail semi-fixe — Double sash fittings



1	Eckumlenkung V (RC3)	**1**	Transmission équerre V (RC3)	**1**	Corner drive V (RC3)
2	Axerlager spezial	**2**	Palier de compas spécial	**2**	Sash stay bearing special
3	Axerlager – Stift	**3**	Tige d'axe	**3**	Sash stay bearing pin
4	Eckband K3 / 100	**4**	Pivot d'angle K3 / 100	**4**	Corner hinge K3 / 100
5	Ecklager K6 / 100	**5**	Palier d'angle K6 / 100	**5**	Corner pivot rest K6 / 100
7	Verbindungslasche	**7**	Plaquette de liaison	**7**	Link piece
10	Beschlags-Distanzstück	**10**	Pièce de distance pour ferrement	**10**	Distance piece for fittings
11	Beschlagsschraube M4 x 21	**11**	Vis de ferrement M4 x 21	**11**	Fitting screw M4 x 21
12	Einnietmutter M4	**12**	Rivet taraudé M4	**12**	Clench rivet M4
14	Axerstulp DF RC	**14**	Têtière de compas DF RC	**14**	Sash stay guide DF RC
15	Axerarm	**15**	Bras de compas	**15**	Sash stay arm
18a	Niveau-Schaltsperre Stulpteil	**18a**	Anti-fausse manœuvre partie semi-fixe	**18a**	Lifting mishandling passive leaf part
19	Verlängerung horizontal	**19**	Extension horizontale	**19**	Horizontal extension
21	Eckumlenkung Axer	**21**	Renvoi d'angle de compas	**21**	Stay corner drive
22	Verlängerung vertikal	**22**	Extension verticale	**22**	Vertical extension
23	Stulpgetriebe mittig	**23**	Crémone centrale pour vantail semi-fixe	**23**	Central double sash drive
24	Auflaufkeil	**24**	Support glissiére vantail semi fixe	**24**	Run up block
25	Schliessstück RC	**25**	Gâche RC	**25**	Striker RC
26	Sicherungsbügel 2-flg	**26**	Etrier de sécurité 2-vtx	**26**	Retainer-clasp 2-leafs

Beschläge
Bestellanleitung

Für die Bestellung des Fensterbeschlages sind nicht die Flügelaussenmasse, sondern die Flügelfalzmasse massgebend. In den folgenden Darstellungen werden die für die Bestellung notwendigen Masse definiert und dargestellt.

Flügelfalzgrössen
Dreh-/Drehkipp-Beschlag
FB: Flügelbreite
FFB: Flügelfalzbreite
FH: Flügelhöhe
FFH: Flügelfalzhöhe
GH: Griffhöhe

Quincaillerie
Instructions de commande

Pour la commande de quincaillerie de fenêtre, les cotes de feuillure de vantail sont déterminantes et non les cotes extérieures de vantail. Les cotes nécessaires à la commande sont définies et représentées dans les illustrations suivantes.

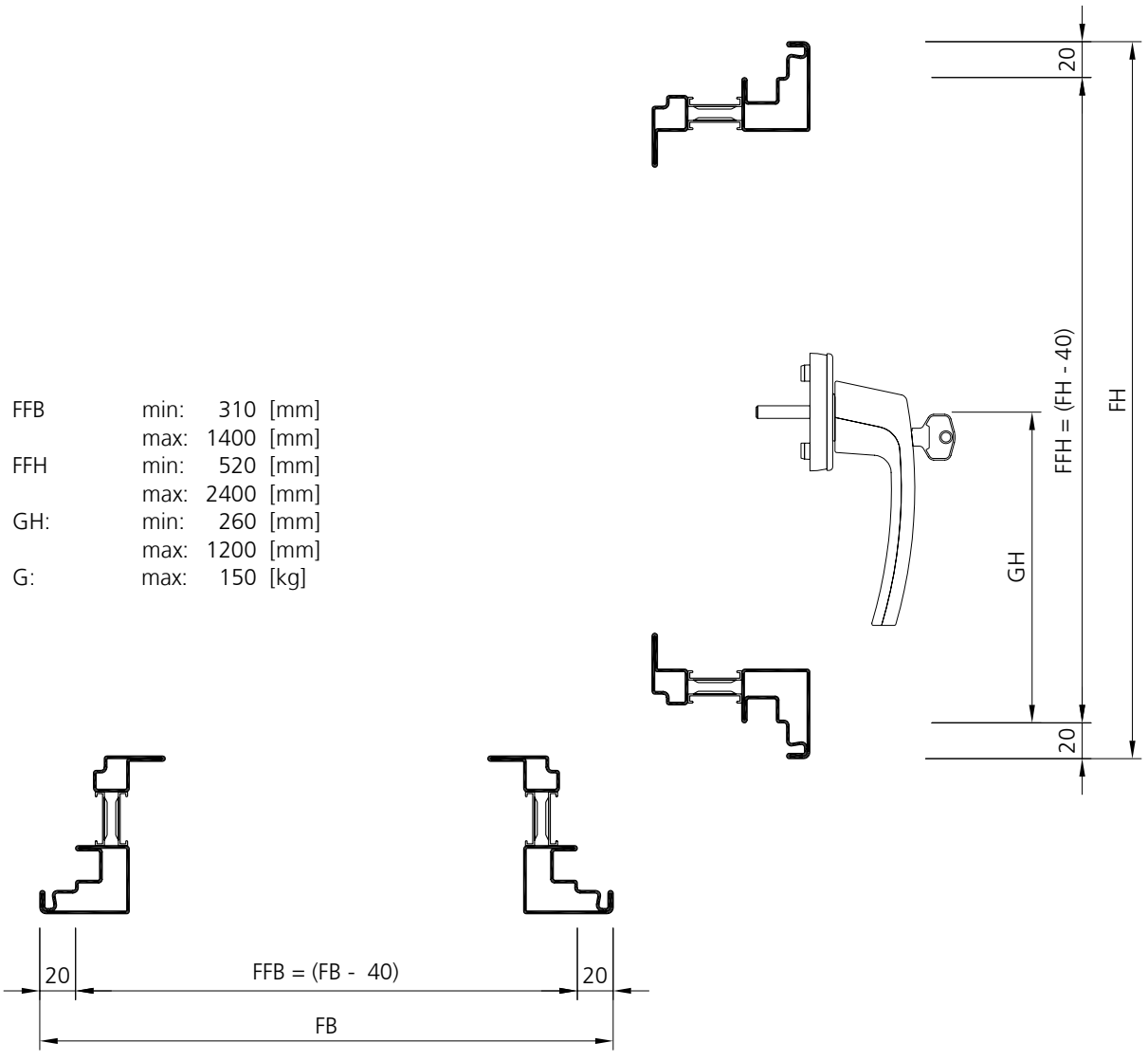
Tailles de feuillure de vantail
Quincaillerie pour ouverture à la française/ ouverture oscillo-battant
FB: largeur de vantail
FFB: largeur de feuillure de vantail
FH: hauteur de vantail
FFH: hauteur de feuillure de vantail
GH: hauteur de poignée

Fittings
Ordering instructions

To order window fittings, the outer dimensions of the windows are not significant, but the sizes of the leaf rebate are. In the following presentation, the dimensions required for ordering are defined and listed.

Sizes of leaf rebates
Turn/ tilt and turn-fittings
FB: leaf width
FFB: leaf rebate width
FH: leaf height
FFH: leaf rebate height
GH: handle height

FFB	min:	310	[mm]
	max:	1400	[mm]
FFH	min:	520	[mm]
	max:	2400	[mm]
GH:	min:	260	[mm]
	max:	1200	[mm]
G:	max:	150	[kg]



Beschläge
Bestellanleitung

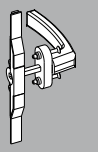
Flügelfalzgrössen
Stulpflügel-Beschlag
SB: Stulpbreite
SFB: Stulpfalzbreite
SH: Stulphöhe
SFH: Stulpfalzhöhe

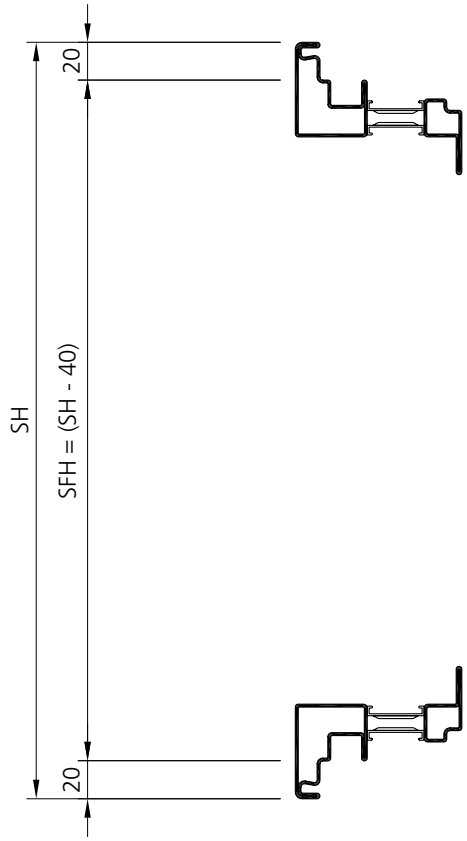
Quincaillerie
Instructions de commande

Tailles de feuillure de vantail
Quincaillerie pour vantail semi-fixe
SB: largeur de vantail semi-fixe
SFB: largeur de feuillure de vantail semi-fixe
SH: hauteur de vantail semi-fixe
SFH: hauteur de feuillure de vantail semi-fixe

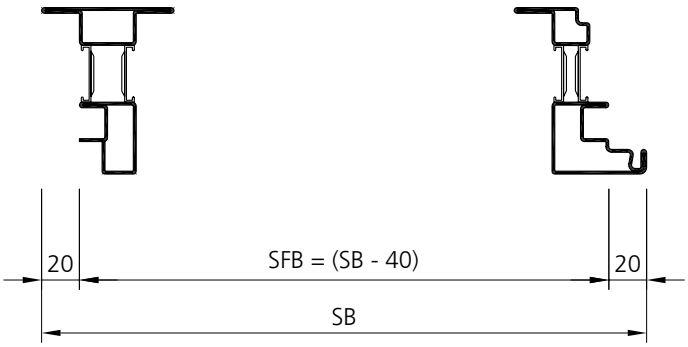
Fittings
Ordering instructions

Sizes of leaf rebates
Double sash fittings
SB: double sash width
SFB: double sash rebate width
SH: double sash height
SFH: double sash rebate height





SFB	min:	310	[mm]
	max:	1400	[mm]
SFH	min:	750	[mm]
	max:	2400	[mm]
G:	max:	150	[kg]



Beschläge
Bestellanleitung

Da zwischen der Flügelfalzhöhe und der Griffhöhe eine direkte Abhängigkeit besteht, muss einer Bestellung die Richtigkeit der ausgewählten Beschläge anhand der folgenden Diagramme überprüft werden. Liegt der Schnittpunkt der Griffhöhe (GH) und der Flügelfalzhöhe (FFH) im grau hinterlegten Bereich der Diagramme, kann der Forster Standardbeschlag eingesetzt werden. Für alle anderen Fälle verwenden Sie bitte die Formulare in diesem Kapitel.

Anwendungsbeispiele für die Kontrolle:

Beispiel 1: Möglich mit Standard-Beschlag
FFH: 900 [mm]
GH: 450 [mm]

Beispiel 2: Muss über Sonderformulare angefragt werden.
FFH: 900 [mm]
GH: 550 [mm]

Quincaillerie
Instructions de commande

Comme il existe une relation directe entre la hauteur de feuillure du vantail et la hauteur de la poignée, il faut vérifier lors d'une commande de l'exactitude de la quincaillerie sélectionnée à l'aide des diagrammes suivants. Si le point d'intersection de la hauteur de poignée (GH) et de la hauteur de feuillure de vantail (FFH) se trouve dans la zone grise des diagrammes, il est possible d'utiliser une quincaillerie Forster standard. Dans tous les autres cas, utiliser les formulaires indiqués dans ce chapitre. Exemples d'application pour le contrôle:

Exemple 1: possible avec une quincaillerie standard
FFH: 900 [mm]
GH: 450 [mm]

Exemple 2: demande au moyen de formulaires spéciaux.
FFH: 900 [mm]
GH: 550 [mm]

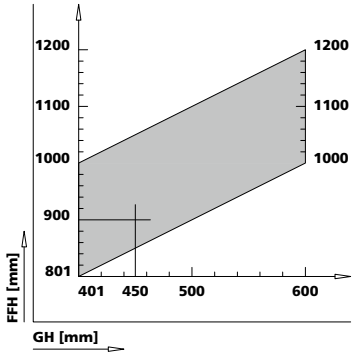
Fittings
Ordering instructions

As there is a direct dependence between the height of the leaf rebate and the height of the handle, every order has to be checked for correctness of the selected fittings against the following diagrams. If the point of intersection of the handle height (GH) and the leaf rebate (FFH) is within the gray background of the diagrams, then Forster standard fittings can be used. For all other cases, please use the special order form in this chapter. Sample applications of how to perform the checks.

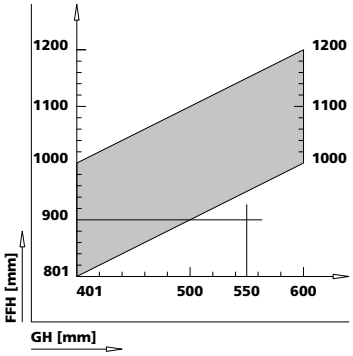
Example 1: possible with standard fittings
FFH: 900 [mm]
GH: 450 [mm]

Example 2: must be requested with the special order form
FFH: 900 [mm]
GH: 550 [mm]

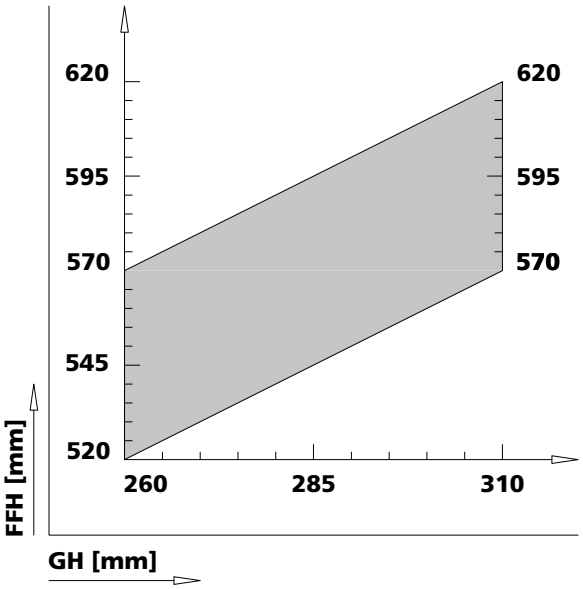
Beispiel 1:
Exemple 1:
Example 1:



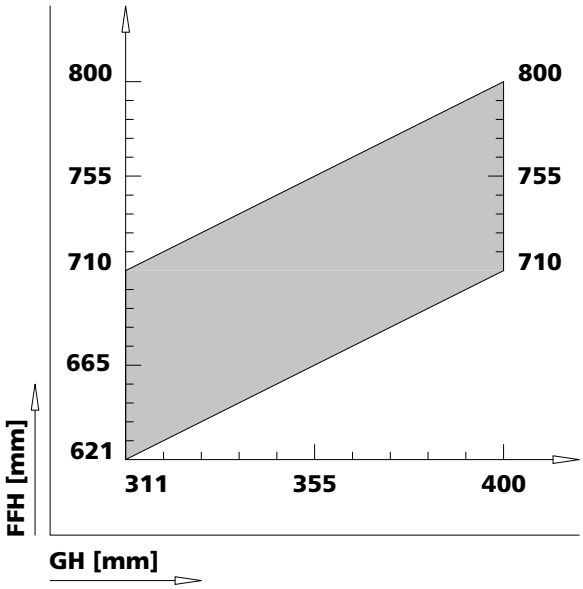
Beispiel 2:
Exemple 2:
Example 2:



FFH 520 - 620 [mm]



FFH 621 - 800 [mm]

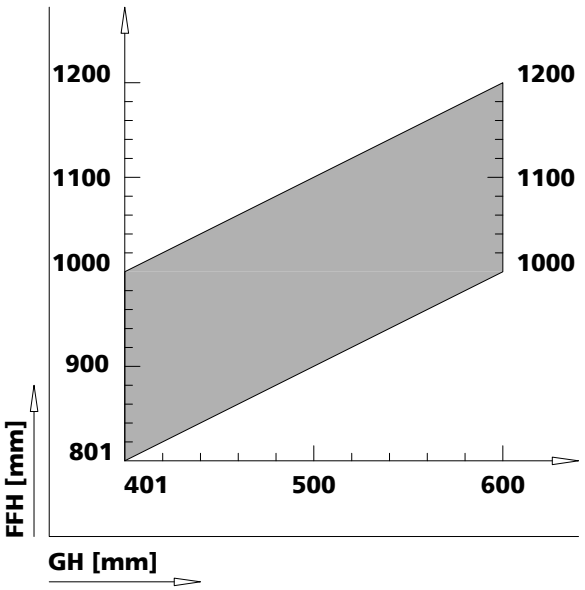


Beschläge
Bestellanleitung

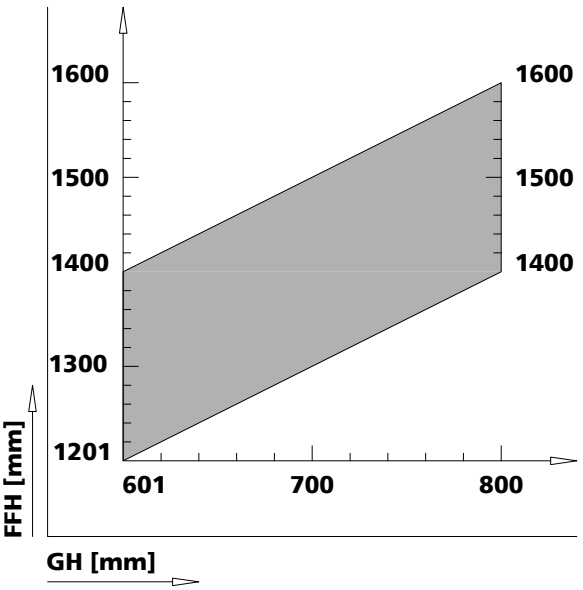
Quincaillerie
Instructions de commande

Fittings
Ordering instructions

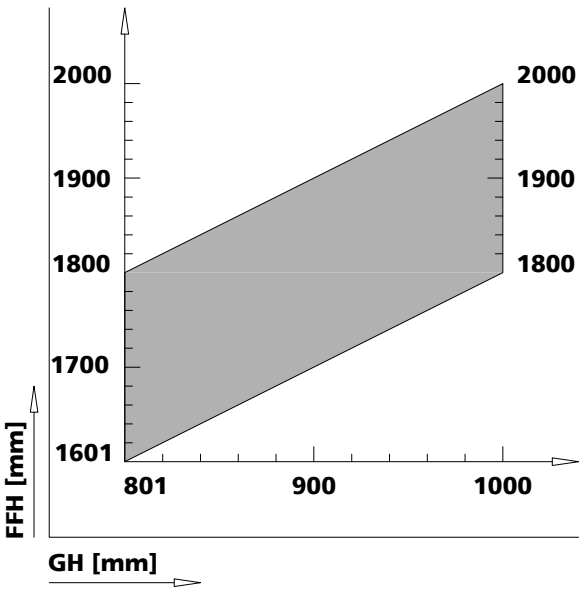
FFH 801 - 1200 [mm]



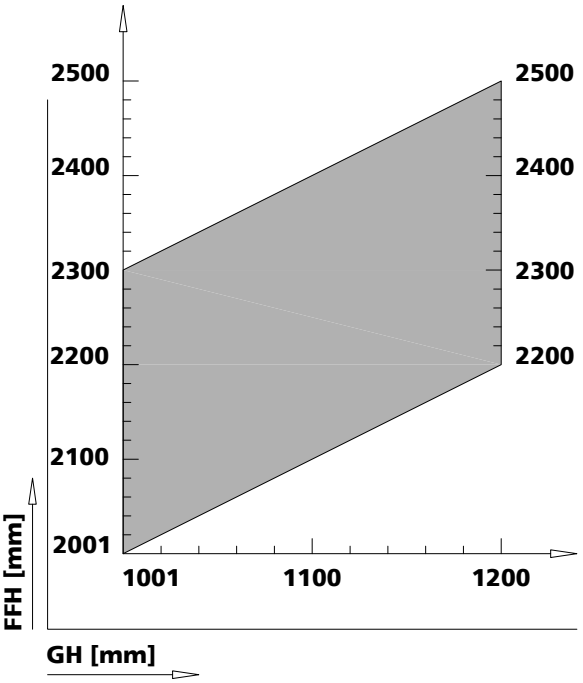
FFH 1201 - 1600 [mm]



FFH 1601 - 2000 [mm]



FFH 2001 - 2500 [mm]



Beschläge
Bestellnummern

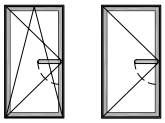
Dreh(*)- / Drehkipp-Beschlag RC3
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN links (Komplett-Beschlag)
max. 150 [kg]

Quincaillerie
Références

Quincaillerie pour ouverture à la française(*)/ouverture oscillo-battant RC3
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux, **DIN gauche** (ferrement complet)
max. 150 [kg]

Fittings
Order numbers

Turn(*)/ tilt and turn fittings RC3
Single leaf windows
1. active leaf on double sash windows
DIN left (complete fittings)
max. 150 [kg]

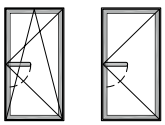


FFH [mm]	FFB [mm] 310 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
520 - 620	**987101 RC3** (a	**987113 RC3** (a	**987125 RC3** (a	**987137 RC3** (a	**987149 RC3** (a		260 - 310
621 - 800	**987103 RC3**	**987115 RC3**	**987127 RC3**	**987139 RC3**	**987151 RC3**	**987161 RC3**	311 - 400
801 - 1200	**987105 RC3**	**987117 RC3**	**987129 RC3**	**987141 RC3**	**987153 RC3**	**987163 RC3**	401 - 600
1201 - 1600	**987107 RC3**	**987119 RC3**	**987131 RC3**	**987143 RC3**	**987155 RC3**	**987165 RC3**	601 - 800
1601 - 2000	**987109 RC3**	**987121 RC3**	**987133 RC3**	**987145 RC3**	**987157 RC3**	**987167 RC3**	801 - 1000
2001 - 2400	**987111 RC3**	**987123 RC3**	**987135 RC3**	**987147 RC3**	**987159 RC3**	**987169 RC3**	1001 - 1200

Dreh(*)- / DrehKipp-Beschlag RC3
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN rechts (Komplett-Beschlag)
max. 150 [kg]

Quincaillerie pour ouverture à la française(*)/ouverture oscillo-battant RC3
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux
DIN droite (quincaillerie complète)
max. 150 [kg]

Turn(*)/ tilt and turn fittings RC3
Single leaf windows
1. active leaf on double sash windows
DIN right (complete fittings)
max. 150 [kg]

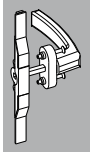


FFH [mm]	FFB [mm] 310 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
520 - 620	**987102 RC3** (a	**987114 RC3** (a	**987126 RC3** (a	**987138 RC3** (a	**987150 RC3** (a		260 - 310
621 - 800	**987104 RC3**	**987116 RC3**	**987128 RC3**	**987140 RC3**	**987152 RC3**	**987162 RC3**	311 - 400
801 - 1200	**987106 RC3**	**987118 RC3**	**987130 RC3**	**987142 RC3**	**987154 RC3**	**987164 RC3**	401 - 600
1201 - 1600	**987108 RC3**	**987120 RC3**	**987132 RC3**	**987144 RC3**	**987156 RC3**	**987166 RC3**	601 - 800
1601 - 2000	**987110 RC3**	**987122 RC3**	**987134 RC3**	**987146 RC3**	**987158 RC3**	**987168 RC3**	801 - 1000
2001 - 2400	**987112 RC3**	**987124 RC3**	**987136 RC3**	**987148 RC3**	**987160 RC3**	**987170 RC3**	1001 - 1200

* = Dreh-Beschlag mit Hubbegrenzer
(a = ohne Niveauschaltsperre)

* = Quincaillerie pour ouverture à la française avec limitateurs de course
(a = sans anti-fausse manœuvre)

* = Turn fittings with travel restrictor
(a = without lifting mishandling)



Beschläge Bestellnummern

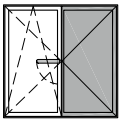
Stulpflügel-Beschlag RC3
2. öffnender Flügel passend zu
1. öffnendem Flügel **DIN links**
(Komplett-Beschlag)
max. 150 [kg]

Quincaillerie Références

Quincaillerie de vantail semi-fixe RC3
2e vantail ouvrant adapté au
1er vantail ouvrant **DIN gauche** (quincaillerie complète)
max. 150 [kg]

Fittings Order numbers

Double sash-fittings RC3
2. active leaf appropriate for
1.active leaf **DIN left** (complete fittings)
max. 150 [kg]

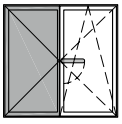


SFH [mm]	SFB [mm] 310 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
750 - 900	**987902 RC3**	**987912 RC3**	**987922 RC3**	**987932 RC3**	**987942 RC3**	**987952 RC3**	375 - 450
901 - 1200	**987904 RC3**	**987914 RC3**	**987924 RC3**	**987934 RC3**	**987944 RC3**	**987954 RC3**	451 - 600
1201 - 1600	**987906 RC3**	**987916 RC3**	**987926 RC3**	**987936 RC3**	**987946 RC3**	**987956 RC3**	601 - 800
1601 - 2000	**987908 RC3**	**987918 RC3**	**987928 RC3**	**987938 RC3**	**987948 RC3**	**987958 RC3**	801 - 1000
2001 - 2400	**987910 RC3**	**987920 RC3**	**987930 RC3**	**987940 RC3**	**987950 RC3**	**987960 RC3**	1001 - 1200

Stulpflügel-Beschlag RC3
2. öffnender Flügel passend zu
1. öffnendem Flügel **DIN rechts**
(Komplett-Beschlag)
max. 150 [kg]

Quincaillerie de vantail semi-fixe RC3
2e vantail ouvrant adapté au
1er vantail ouvrant **DIN droite** (quincaillerie complète)
max. 150 [kg]

Double sash-fittings RC3
2. active leaf appropriate for
1. active leaf **DIN right** (complete fittings)
max. 150 [kg]

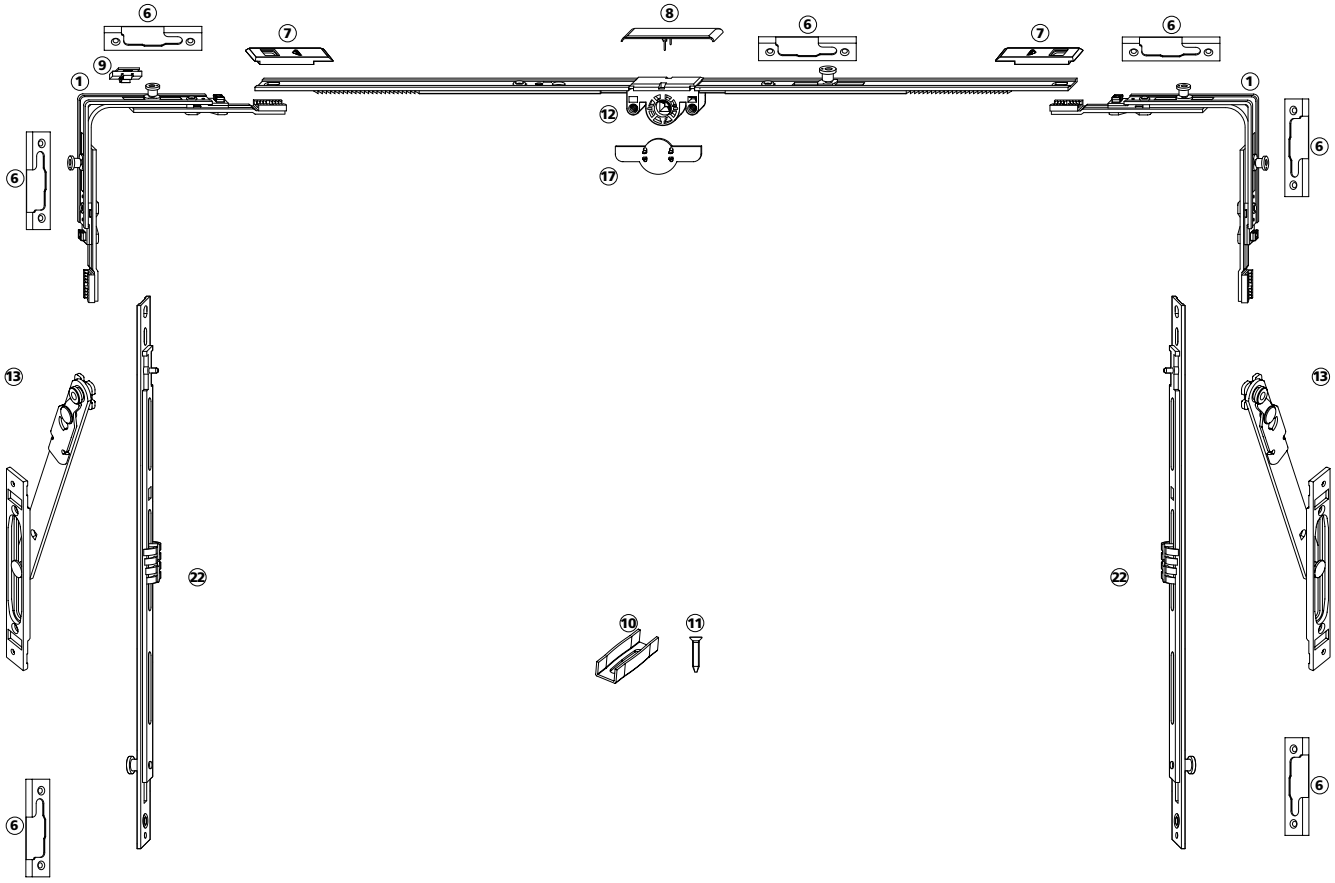


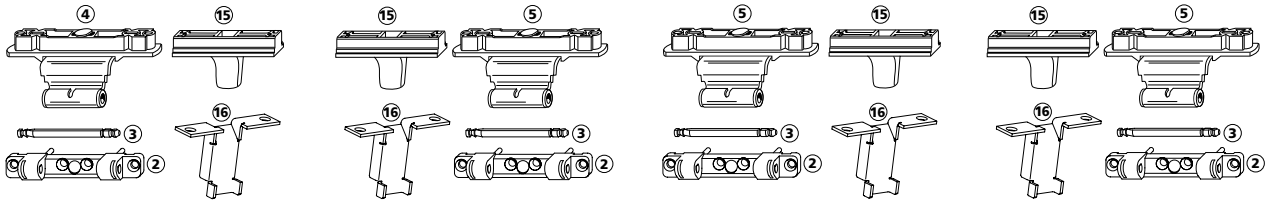
SFH [mm]	SFB [mm] 310 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	GH [mm]
750 - 900	**987901 RC3**	**987911 RC3**	**987921 RC3**	**987931 RC3**	**987941 RC3**	**987951 RC3**	375 - 450
901 - 1200	**987903 RC3**	**987913 RC3**	**987923 RC3**	**987933 RC3**	**987943 RC3**	**987953 RC3**	451 - 600
1201 - 1600	**987905 RC3**	**987915 RC3**	**987925 RC3**	**987935 RC3**	**987945 RC3**	**987955 RC3**	601 - 800
1601 - 2000	**987907 RC3**	**987917 RC3**	**987927 RC3**	**987937 RC3**	**987947 RC3**	**987957 RC3**	801 - 1000
2001 - 2400	**987909 RC3**	**987919 RC3**	**987929 RC3**	**987939 RC3**	**987949 RC3**	**987959 RC3**	1001 - 1200

Beschläge Kippflügel

Quincaillerie ouverture à soufflet

Fittings tilt only





1 Eckumlenkung 2V
2 Axerlager spezial
3 Axerlager – Stift
4 Kippflügelband ohne Ausgleich
5 Kippflügelband mit Ausgleich
6 Schliessstück RC
7 Verbindungslasche
8 Infoclip "Forster"
9 Hubbegrenzer (90°)
10 Beschlags-Distanzstück
11 Beschlagsschraube M4 x 21
12 DK-Getriebe mittig, Dornmass 15
13 Falzschere
15 Mittelschliesser
16 Hintergreifermulde
17 Anbohrschutz
22 Verlängerung vertikal

1 Transmission équerre 2V
2 Palier de compas spécial
3 Tige d'axe
4 Paumelle OF fixe
5 Paumelle OF mobile
6 Gâche RC
7 Liaison avec plaquette de liaison
8 Infoclip "Forster"
9 Limitateur de course (90°)
10 Pièce de distance pour ferrement
11 Vis de ferrement M4 x 21
12 Crémone oscillo-battant centrale, fouillot 15
13 Compas tombant
15 Boulon central
16 Gâche pour boulon central
17 Protection contre perçage
22 Extension verticale

1 Corner drive 2V
2 Sash stay bearing special
3 Sash stay bearing pin
4 Tilt-only rebate hinge without alignment
5 Tilt-only rebate hinge with alignment
6 Striker RC
7 Splice plate
8 Infoclip "Forster"
9 Travel – restrictor (90°)
10 Distance piece for fittings
11 Fitting screw M4 x 21
12 Tilt-turn central drive, mandrel size 15
13 Tilt-stay
15 Central bolt
16 Striker for central bolt
17 Drilling protection
22 Vertical extension

Beschläge Kippflügel Bestellnummern

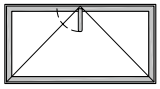
Kipp-Beschlag RC3
Griffsitz mittig
(Komplett-Beschlag)
max. 80 [kg]

Quincaillerie ouverture à soufflet Références

Quincaillerie ouverture à soufflet RC3
(ferrement complet)
poignées aux milieu
max. 80 [kg]

Fittings tilt only Order numbers

Tilt only Fittingsets RC3
(complete fittings)
handle in the middle
max. 80 [kg]



FFH [mm]	FFB [mm] 520 - 620	621 - 800	801 - 1200	1201 - 1600	1601 - 2000	2001 - 2400
350 - 620	**987181 RC3**	**987182 RC3**	**987183 RC3**	**987184 RC3**	**987185 RC3**	**987186 RC3**
621 - 910	**987187 RC3**	**987188 RC3**	**987189 RC3**	**987190 RC3**	**987191 RC3**	**987192 RC3**
911 - 1200	**987193 RC3**	**987194 RC3**	**987195 RC3**	**987196 RC3**	**987197 RC3**	**987198 RC3**

Zusätzlich bestellen:
Hintergreifer-Set WK
987880 (30 mm) / 987878 (50 mm)

VE
1 Hintergreifermulde
1 Mittelschliesser
2 Einnietmuttern M4
2 Beschlagschrauben M4 x 21

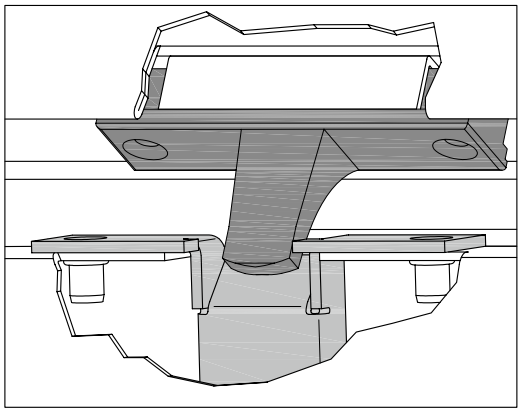
Pièces supplémentaires à commander:
Garniture de verrou CR
987880 (30 mm) / 987878 (50 mm)

UV
1 Gâche pour boulon central
1 Boulon central
2 Rivet taraudé M4
2 Vis de ferrement M4 x 21

Additional order:
Striker-set RC
987880 (30 mm) / 987878 (50 mm)

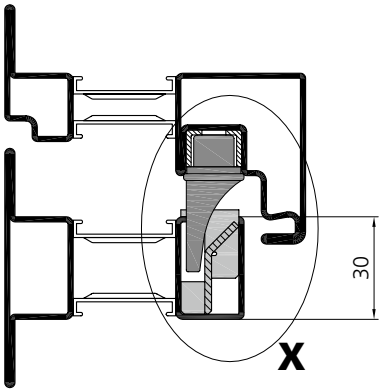
SU
1 Striker for central bolt
1 Central bolt
2 Clech rivet M4
2 Fitting screw M4 x 21

Detail X

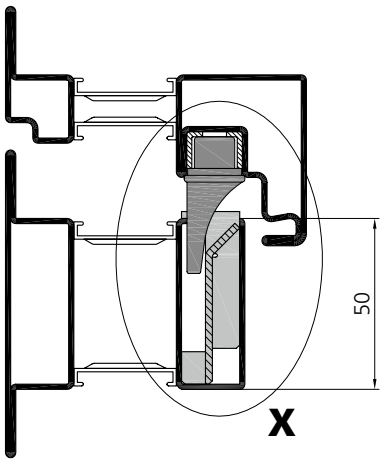


FFB	987878 oder / ou / or 987880	
520 - 1600	**3**	VE UV SU
1601 - 2400	**4**	VE UV SU

Art. Nr.: 987880 (30mm)



Art. Nr.: 987878 (50mm)



Beschläge Verschlüsse

Mittelverschluss als Verlängerung für alternative Griff- und Fensterhöhen

987830 Mittelverschluss 200
l = 200 [mm]
(ohne Zapfen)

987831 Mittelverschluss 400 V
l = 400 [mm]
(mit Zapfen)

987832 Mittelverschluss 600 V
l = 600 [mm]
(mit Zapfen)

Quincaillerie Fermetures

Extension pour fermeture centrale pour hauteurs de poignée et de fenêtre (non standard)

987830 Verrouilleur médian 200
l = 200 [mm]
(sans tenon)

987831 Verrouilleur médian 400 V
l = 400 [mm]
(avec tenon)

987832 Verrouilleur médian 600 V
l = 600 [mm]
(avec tenon)

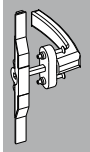
Fittings Locks

Center locks as extension for alternative handle and window heights

987830 Multipart center lock 200
l = 200 [mm]
(without pivot)

987831 Multipart center lock 400 V
l = 400 [mm]
(with pivot)

987832 Multipart center lock 600 V
l = 600 [mm]
(with pivot)





Mittelverschluss für alternative Stulpflügelhöhen

987833 Stulpflügelverlängerung unten
l = 400 [mm]
(Falls der Stulpflügel unterhalb der Griffhöhe verlängert werden muss)

987834 Stulpflügelverlängerung oben
l = 400 [mm]
(Falls der Stulpflügel oberhalb der Griffhöhe verlängert werden muss)

Fermeture centrale pour hauteurs de vantail semi-fixes (non standard)

987833 Extension de vantail semi-fixe en bas
l = 400 [mm]
(en cas d'extension du vantail semi-fixe en dessous de la poignée)

987834 Extension de vantail semi-fixe en haut
l = 400 [mm]
(en cas d'extension du vantail semi-fixe au-dessus de la poignée)

Center locks for alternative double sash leaf height

987833 double sash leaf extension below
l = 400 [mm]
(if the double sash has to be extended below the handle height)

987834 double sash leaf extension top = 400 [mm]
(if the double sash has to be extended above the handle height)



987833



987834

Beschläge
Fenstergriffe / Zubehör

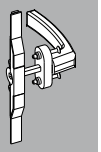
Fenstergriff
Aluminium E6 EV1, farblos eloxiert
geprüft gemäss EN 1627
987302 VE 1 Stück
inkl. Befestigungsschrauben M5 x 40
Vierkantdorn 7 mm
Höhe: ca. 136 mm
Tiefe: ca. 58 mm

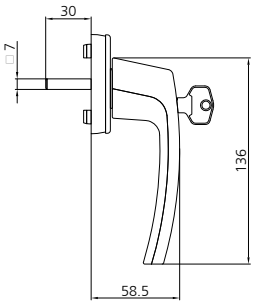
Quincaillerie
Poignées de fenêtre / Accessoires

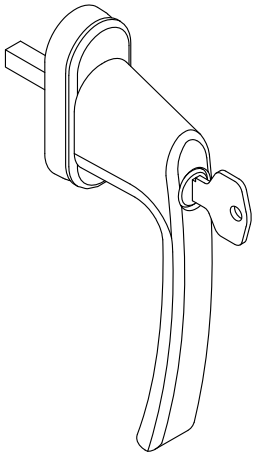
Poignée de fenêtre
Aluminium E6 EV1, anodisé naturel
testé selon EN 1627
987302 UV 1 pièce
avec vis de fixation M5 x 40
Boulon carré 7 mm
Hauteur: env. 136 mm
Profondeur: env. 58 mm

Fittings
Window handles / Accessories

Window handle
Aluminium E6 EV1, colourless anodized
tested according to EN 1627
987302 SU 1 piece
incl. fastening screws M5 x 40
Rectangular mandrel 7 mm
Height: approx. 136 mm
Depth: approx. 58 mm







Kennzeichnungsschild für Deutschland
Aluminium, eloxiert

WK1	**988701**	VE 1 Stück
RC2	**988702**	VE 1 Stück
RC3	**988703**	VE 1 Stück

Plaquette signalétique pour l'Allemagne
Aluminium, anodisé

CR1	**988701**	UV 1 pièce
RC2	**988702**	UV 1 pièce
RC3	**988703**	UV 1 pièce

Marking label for Germany
Aluminium, anodized

RC1	**988701**	SU 1 piece
RC2	**988702**	SU 1 piece
RC3	**988703**	SU 1 piece

forster unico®

Hersteller

Herstellungsjahr: 20

Kurzbericht

Nr.08/03-A062-K1 vom 6.02.2009

Bauteil: Fenster / Festfeld DIN EN 1627
Widerstandsklasse: WK 1

Prüfstelle: pfb Rosenheim

forster unico®

Hersteller

Herstellungsjahr: 20

Kurzbericht

Nr.08/03-A062-K2 vom vom 6.02.2009

Bauteil: Fenster / Festfeld DIN EN 1627
Widerstandsklasse: RC 2

Prüfstelle: pfb Rosenheim

forster unico®

Hersteller

Herstellungsjahr: 20

Kurzbericht

Nr.08/03-A062-K3 vom 6.02.2009

Bauteil: Fenster / Festfeld DIN EN 1627
Widerstandsklasse: RC 3

Prüfstelle: pfb Rosenheim

Beschläge
Zubehör

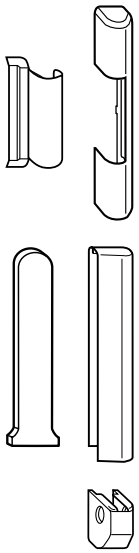
Abdeckkappen-Garnitur
Für Dreh- / Drehkipp-Fenster
Abdeckkappen für Axerlager, Eckband, Ecklager
Ecklagerlasche und Eckband
VE = 25 Stück (Abdeckkappen für 5 Flügel)

987600	Weiss (auf Anfrage)
987601	Natursilber
987602	Titan

Quincaillerie
Accessoires

Garnitures de caches
Pour vantail ouverture à la française / vantail
Caches pour palier de compas, pivot d'angle, palier d'angle
Plaque pour palier d'angle et pivot d'angle
UV = 25 pièces (caches pour 5 vantaux)

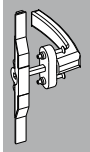
987600	Blanc (sur demande)
987601	Argent nature
987602	Titane



Fittings
Accessories

Sets of Cover caps
For tunr-tilt and turn windows
Cover cap for sash stay bearing, corner hinge, corner pivot rest
Corner pivot rest strip and corner hinge
SU = 25 pieces (cover caps for 5 leaves)

987600	white (upon request)
987601	natural silver
987602	Titan

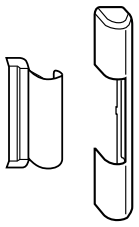


Abdeckkappen-Garnitur
Für Kipp-Fenster
Abdeckkappen für Axerlager und Kippband
VE = 20 Stück (Abdeckkappen für 10 Bänder)

987603	Weiss (auf Anfrage)
987604	Natursilber
987605	Titan

Garnitures de caches
Pour fenetre à soufflet
Caches pour palier de compas et paumelle OF
UV = 20 pièces (caches pour 10 paumelles)

987603	Blanc (sur demande)
987604	Argent nature
987605	Titane



Sets of Cover caps
For tilt-only windows
Cover cap for sash stay bearing and tilt only rebate hinge
SU = 20 pieces (cover caps for 10 hinges)

987603	white (upon request)
987604	natural silver
987605	Titan

Beschläge Zubehör

Distanzstück für Beschlagsmontage aus Kunststoff für Einsatz in Beschlagsnut

927001 VE = 100 Stk.
927028 VE = 10 Stk.

Quincaillerie Accessoires

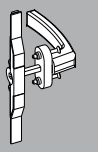
Entretoise pour le montage de quincaillerie en matière plastique dans la rainure

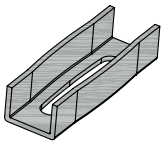
927001 UV = 100 pièces
927028 UV = 10 pièces

Fittings Accessories

Distancer made of plastic to be inserted into the fittings groove to mount the fittings.

927001 SU = 100 pieces
927028 SU = 10 pieces





Beschlagsschraube selbstfurchend M4 x 21

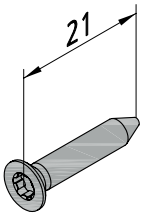
900011 VE = 100 Stk.
900018 VE = 10 Stk.

Vis de fixation autotaraudeuses M4 x 21

900011 UV = 100 pièces
900018 UV = 10 pièces

Fitting screw self-tapping M4 x 21

900011 SU = 100 pieces
900018 SU = 10 pieces



Beschlagsschraube selbstfurchend M4 x 30
Einsatz
- Stulpgetriebe
- Niveauschaltsperre

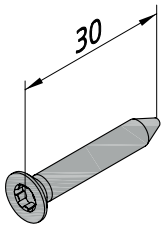
900013 VE = 100 Stk.
900017 VE = 20 Stk.

Vis de fixation autotaraudeuses M4 x 30
Insertion
- Crémone pour vantail semi-fixe
- Anti-fausse manœuvre

900013 UV = 100 pièces
900017 UV = 20 pièces

Fitting screw self-tapping M4 x 30
Insert
- Double sash drive
- Lifting misshandling device

900013 SU = 100 pieses
900017 SU = 20 pieces



Einnietmutter Edelstahl M4 versenkt für Lagermontage auf Rahmen (Ersatz)

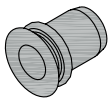
986851 VE = 100 Stk.
986852 VE = 10 Stk.

Rivet fileté acier inox M4 pour installation sur le cadre (en remplacement)

986851 UV = 100 pièces
986852 UV = 10 pièces

Countersink of the clunch nut M4 for mounting bracket of the frame (reserves)

986851 SU = 100 pieces
986852 SU = 10 pieces



Beschläge Bestellformulare

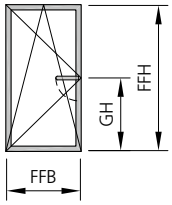
Quincailleries Formulaire de commande

Fittings Order form

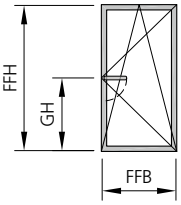
Sondergrössen
1-flügelig
(Ansicht von innen)

Dimensions spéciales
1 vantail
(vue de l'intérieur)

Alternative dimensions
Single leaf
(inside view)



Typ 1.1



Typ 1.2

☐ Anfrage (Machbarkeit)
Demande (faisabilité)
Request (feasibility)

☐ Bestellung
Commande
Order

☐ Verdecktliegend max 80 [kg]
Cachée max 80 [kg]
Concealed max 80 [kg]
} +987893 max. 150 [kg]

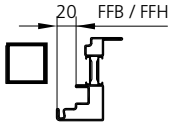
☐ Kipp vor Dreh / Oscillo-battant inversé / Tilt first

☐ Standard
☐ WK / CR 1
☐ RC 2
☐ RC 3

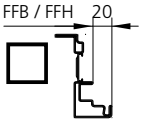
Kunde:
Client:
Customer: _____

Kontaktperson:
Responsable de projet:
Project responsibility: _____

Objekt:
Projet:
Project: _____



☐ 530.800



☐ 531.801

							für / pour / for 531.801	
Pos.	**Typ**	**Stück Qté. Piece**	**FFB [mm]**	**FFH [mm]**	**GH [mm]**	**Gewicht (*) Poids (*) Weight (*)**	**M4x10 900020 [Stk/pcs]**	**M4x16 900019 [Stk/pcs]**
Pos. 1								
Pos. 2								
Pos. 3								
Pos. 4								
Pos. 5								
Pos. 6								
Pos. 7								
Pos. 8								

(*) = Flügelgewicht, von der Geometrie abhängig.

(*) = Poids dépendant de la géométrie du vantail

(*) = Leaf-weight depending of the geometry

Beschläge
Bestellformulare

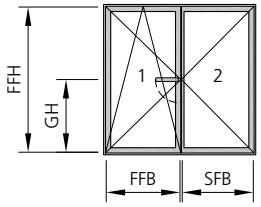
Quincailleries
Formulaire de commande

Fittings
Order form

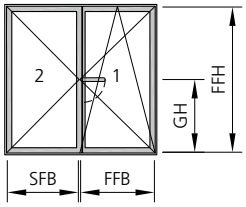
Sondergrössen
2-flügelig
(Ansicht von innen)

Dimensions spéciales
2 vantaux
(vue de l'intérieur)

Alternative dimensions
double-leaf
(inside view)



Typ 2.1



Typ 2.2

☐ Anfrage (Machbarkeit)
Demande (faisabilité)
Request (feasibility)

☐ Bestellung
Commande
Order

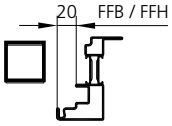
☐ Verdecktliegend max 80 [kg]
Cachée max 80 [kg]
Concealed max 80 [kg]
} +987893 max. 150 [kg]

☐ Kipp vor Dreh / Oscillo-battant inversé / Tilt first

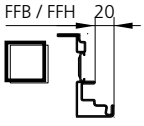
☐ Standard
☐ WK / CR 1
☐ RC 2
☐ RC 3

Kunde:
Client:
Customer: _____

Kontaktperson:
Responsable de projet:
Project responsibility: _____



530.800



531.801

Objekt:
Projet:
Project: _____

Pos.	Typ	Stück Qté. Piece	FFB [mm]	SFB [mm]	FFH [mm]	GH [mm]	Gewicht (*) Poids (*) Weight (*)	für / pour / for 531.801 M4x10 900020 [Stk/pcs]	für / pour / for 531.801 M4x16 900019 [Stk/pcs]
Pos. 1									
Pos. 2									
Pos. 3									
Pos. 4									
Pos. 5									
Pos. 6									
Pos. 7									
Pos. 8									

(*) = Flügelgewicht, von der Geometrie abhängig.

(*) = Poids dépendant de la géométrie du vantail

(*) = Leaf-weight depending of the geometry

Beschläge Bestellformulare

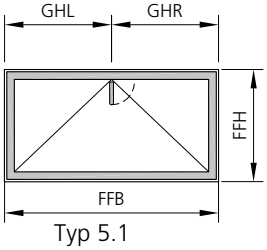
Quincailleries Formulaire de commande

Fittings Order form

Sondergrössen
Kippflügel
(Ansicht von innen)

Dimensions spéciales
Ouvrant imposte
(vue de l'intérieur)

Alternative dimensions
Tilt leaf
(inside view)



Typ 5.1

FFH: 500 - 1900 [mm]
FFB: 400 - 1300 [mm]
max. (*): 80 [kg]

☐ Standard
☐ WK / CR 1
☐ RC 2
☐ RC 3



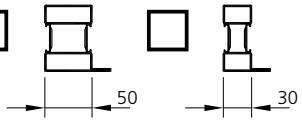
530.800 531.801

☐ Anfrage (Machbarkeit)
Demande (faisabilité)
Request (feasibility)

☐ Bestellung
Commande
Order

☐ Verdecktliegend max 80 [kg]
Cachée max 80 [kg]
Concealed max 80 [kg]
} No RC 3

☐ ☐ Rahmen
cadre
frame



Kunde:
Client:
Customer: _____

Kontaktperson:
Responsable de projet:
Project responsibility: _____

Objekt:
Projet:
Project: _____

Pos.	Stück Qté. Piece	FFB [mm]	FFH [mm]	GHL [mm]	GHR [mm]	Gewicht (*) Poids (*) Weight (*)	für / pour / for 531.801 M4x10 900020 [Stk]	für / pour / for 531.801 M4x16 900019 [Stk]
Pos. 1								
Pos. 2								
Pos. 3								
Pos. 4								
Pos. 5								
Pos. 6								
Pos. 7								
Pos. 8								

(*) = Flügelgewicht, von der Geometrie abhängig.

(*) = Poids dépendant de la géométrie du vantail

(*) = Leaf-weight depending of the geometry

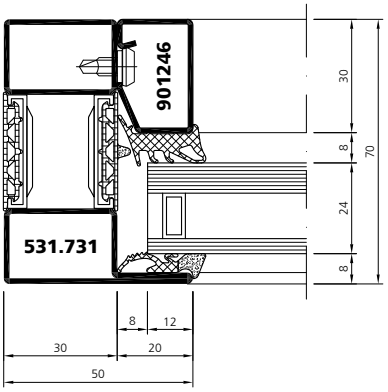


Hochschulzentrum vonRoll, Weichenbauhalle, CH-Bern

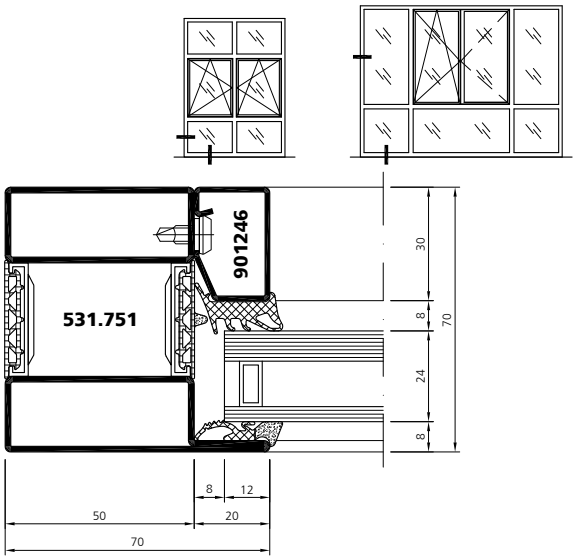
Systemschnitte | Coupes du système | System sections

Stahl / Acier / Steel

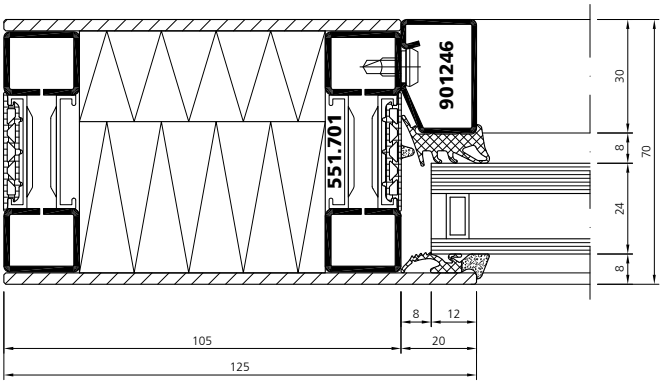
Edelstahl / Acier inox / Stainless steel



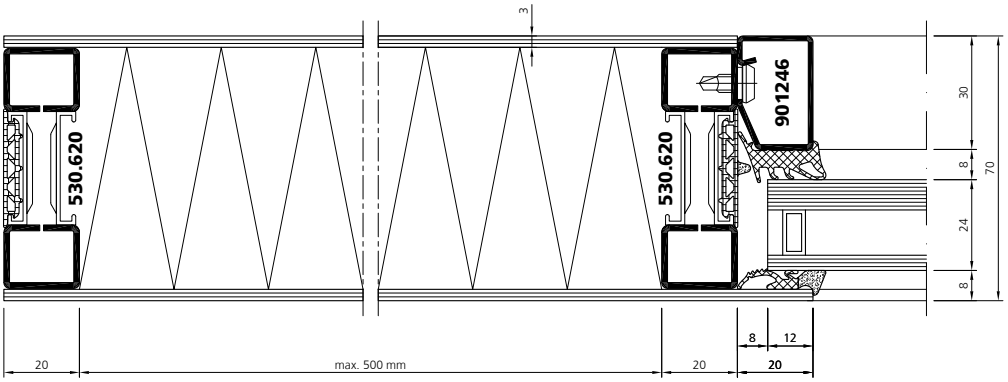
un_sd_0356 (RC1)
un_sd_0379 (RC1)
un_sd_0235 (RC2)
un_sd_0305 (RC2)
un_sd_0236 (RC3)
un_sd_0315 (RC3)



un_sd_0355 (RC1)
un_sd_0378 (RC1)
un_sd_0237 (RC2)
un_sd_0304 (RC2)
un_sd_0238 (RC3)
un_sd_0314 (RC3)

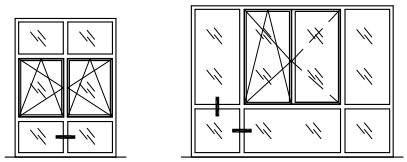


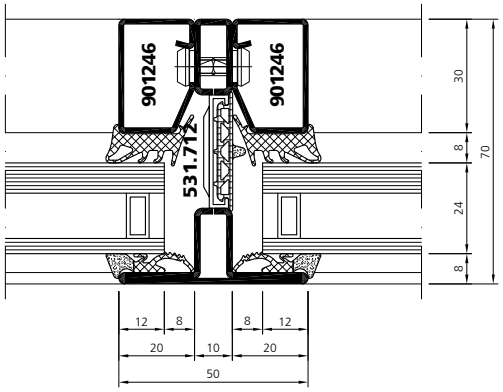
un_sd_0950 (RC1)
un_sd_0951 (RC1, 571.701)
un_sd_0970 (RC2)
un_sd_0971 (RC2, 571.701)
un_sd_0990 (RC3)
un_sd_0991 (RC3, 571.701)



un_sd_0375 (RC1)
un_sd_0374 (RC1)
un_sd_0322 (RC2)
un_sd_0321 (RC2)
un_sd_0342 (RC3)
un_sd_0341 (RC3)

Systemschnitte | Coupes du système | System sections





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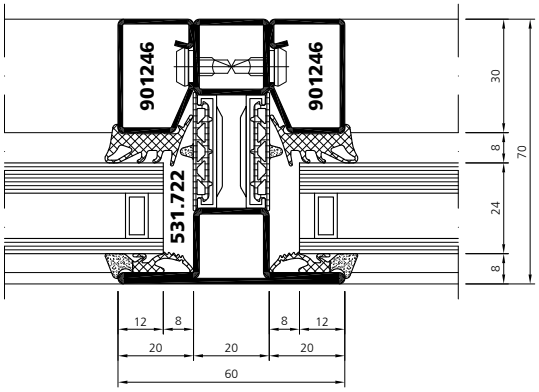
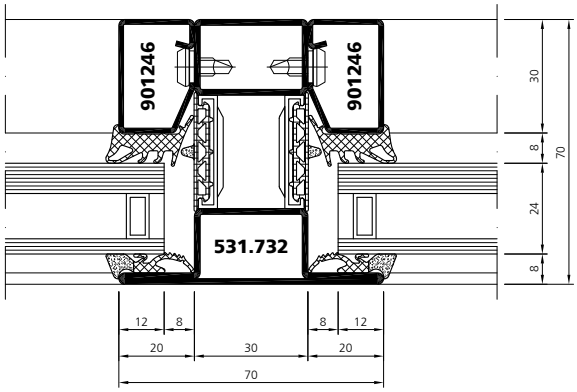
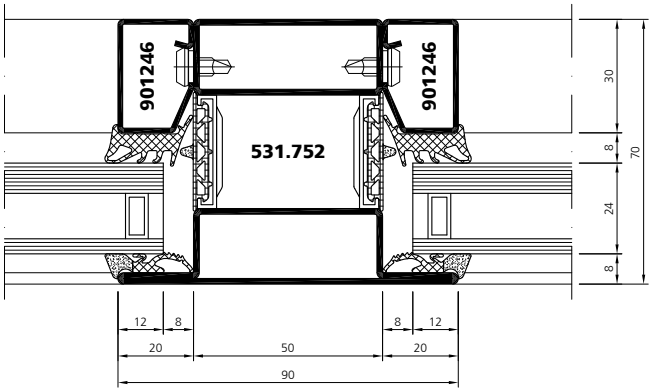


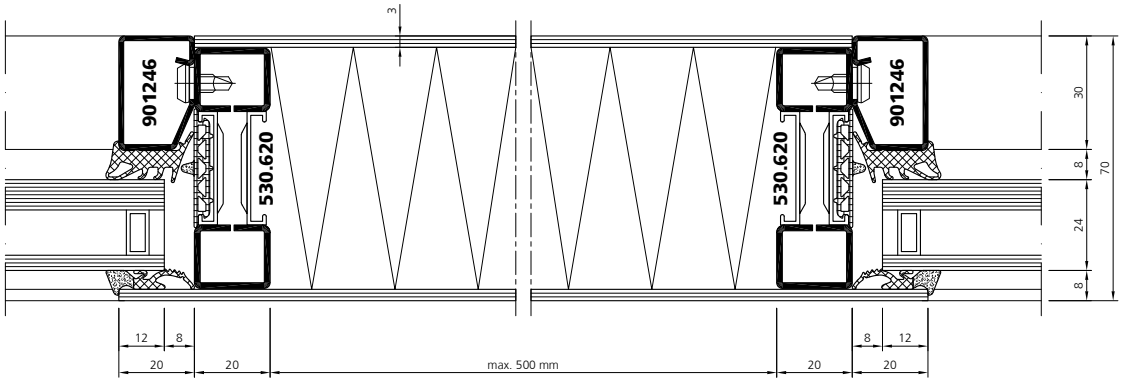
un_sd_0299 (RC1) un_sd_0317 (RC2) un_sd_0528 (RC3)



un_sd_0358 (RC1) un_sd_0301 (RC2) un_sd_0311 (RC3)
un_sd_0381 (RC1) un_sd_0307 (RC2) un_sd_0318 (RC3)

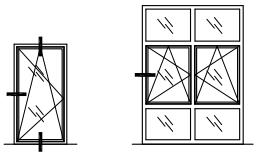


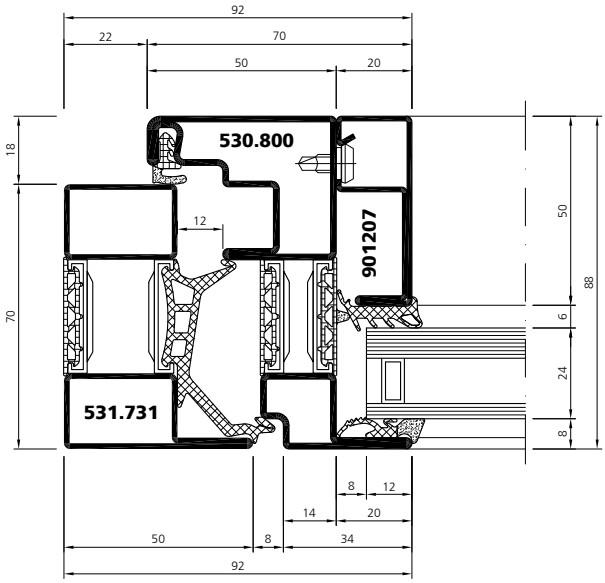
un_sd_0357 (RC1) un_sd_0300 (RC2) un_sd_0310 (RC3)
un_sd_0380 (RC1) un_sd_0306 (RC2) un_sd_0316 (RC3)



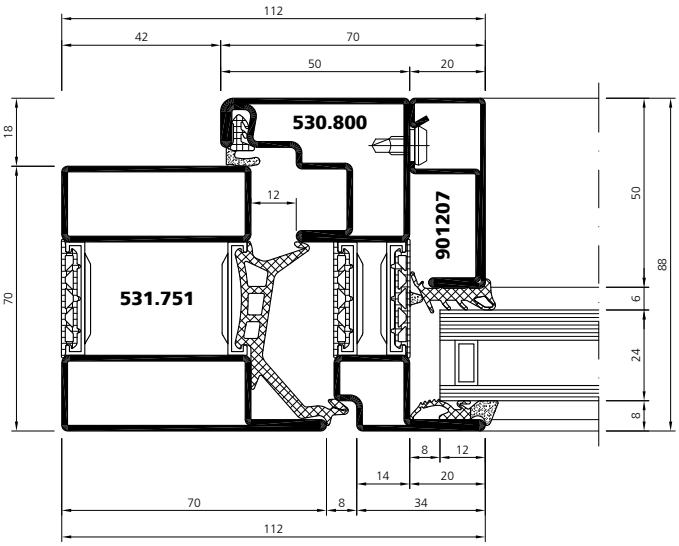
un_sd_0377 (RC1) un_sd_0324 (RC2) un_sd_0344 (RC3)
un_sd_0376 (RC1) un_sd_0323 (RC2) un_sd_0343 (RC3)

Systemschnitte | Coupes du système | System sections

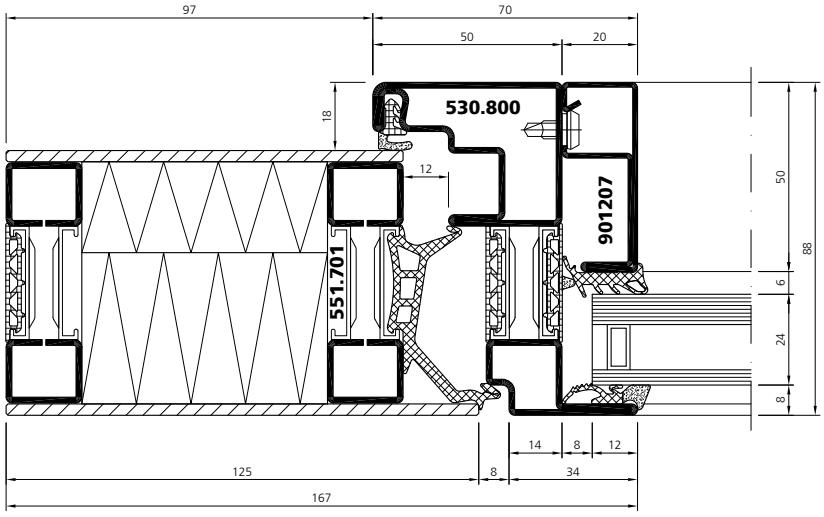




un_sd_0360 (RC1) un_sd_0179 (RC2) un_sd_0180 (RC3)
un_sd_0383 (RC1) un_sd_0193 (RC2) un_sd_0194 (RC3)

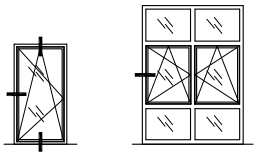


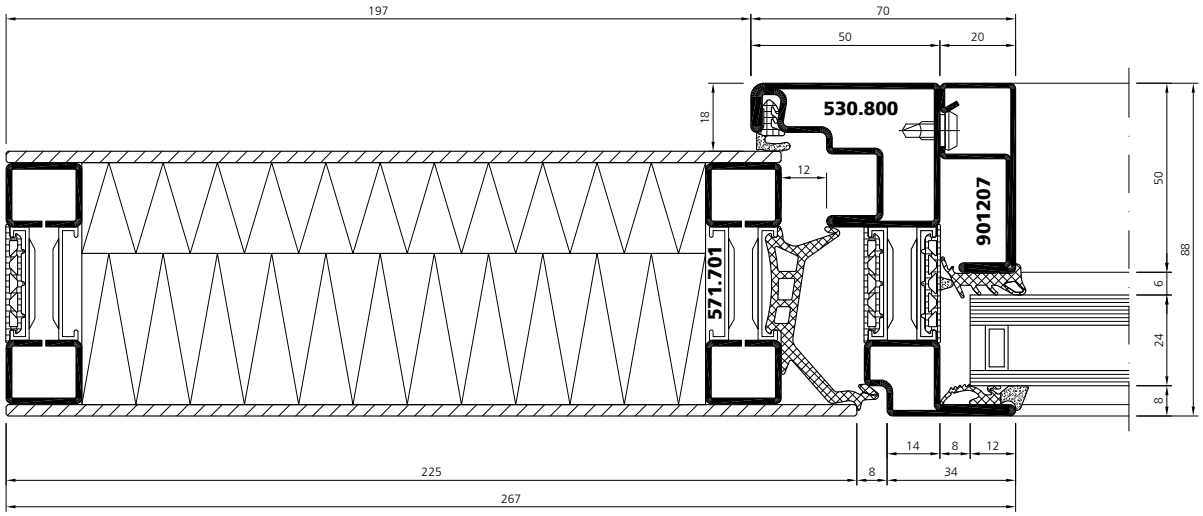
un_sd_0359 (RC1) un_sd_0191 (RC2) un_sd_0192 (RC3)
un_sd_0382 (RC1) un_sd_0195 (RC2) un_sd_0196 (RC3)



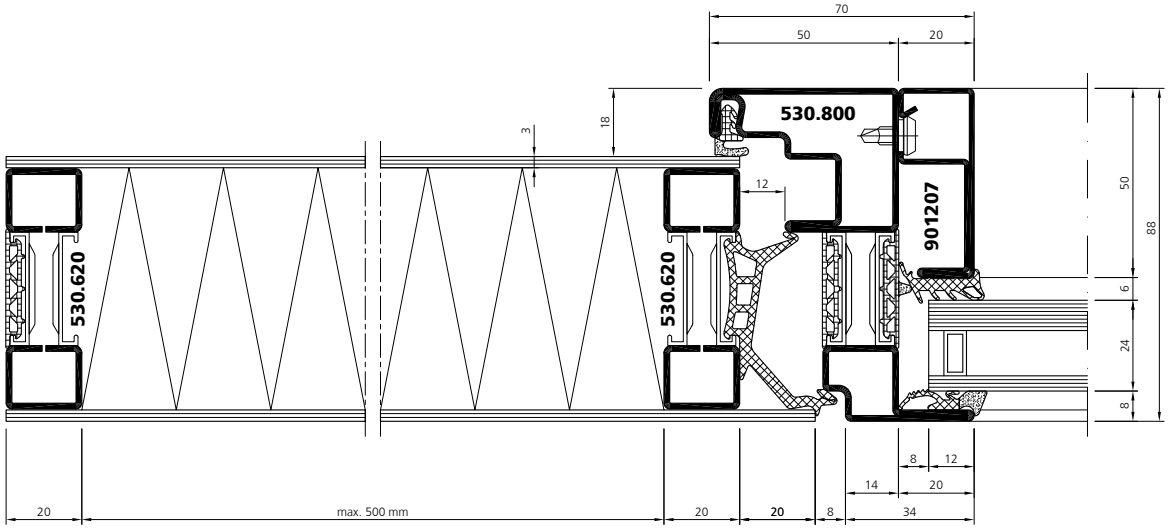
un_sd_0952 (RC1) un_sd_0972 (RC2) un_sd_0992 (RC3)

Systemschnitte | Coupes du système | System sections



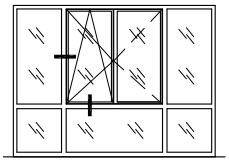


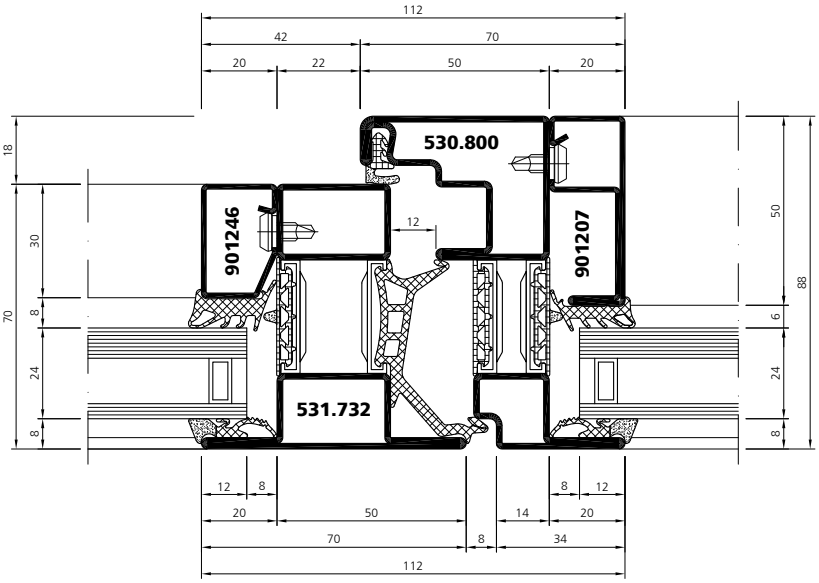
un_sd_0953 (RC1) un_sd_0973 (RC2) un_sd_0993 (RC3)



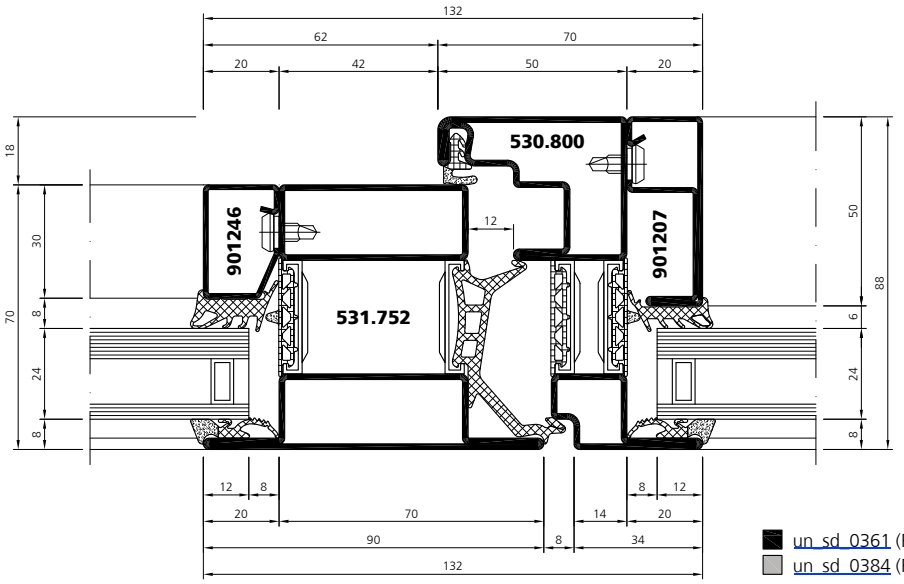
un_sd_0401 (RC1) un_sd_0409 (RC2) un_sd_0403 (RC3)
un_sd_0400 (RC1) un_sd_0408 (RC2) un_sd_0402 (RC3)

Systemschnitte | Coupes du système | System sections



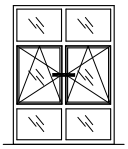


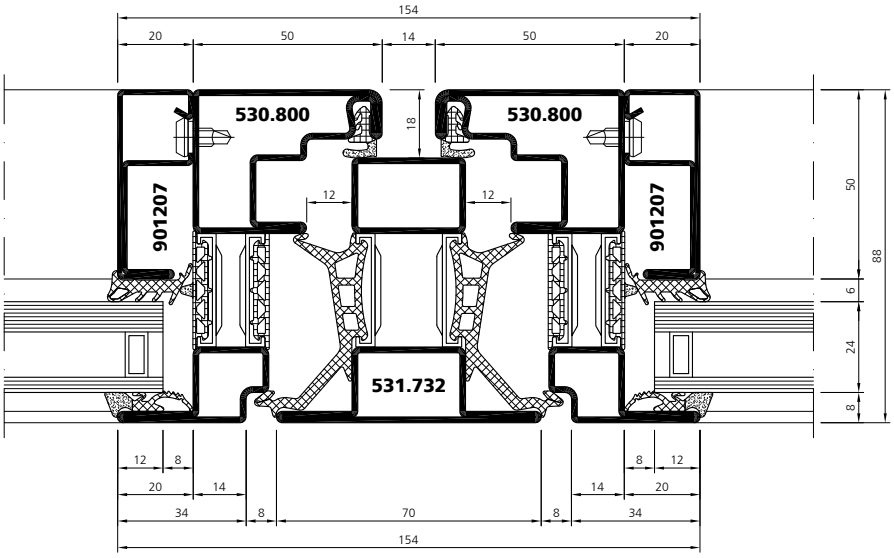
un_sd_0362 (RC1) un_sd_0197 (RC2) un_sd_0198 (RC3)
un_sd_0385 (RC1) un_sd_0181 (RC2) un_sd_0182 (RC3)



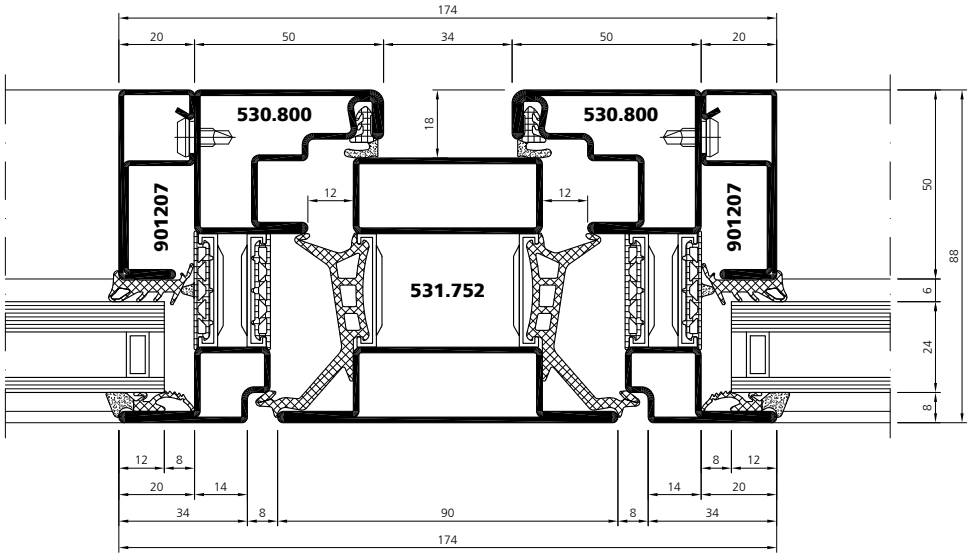
un_sd_0361 (RC1) un_sd_0199 (RC2) un_sd_0200 (RC3)
un_sd_0384 (RC1) un_sd_0183 (RC2) un_sd_0184 (RC3)

Systemschnitte | Coupes du système | System sections



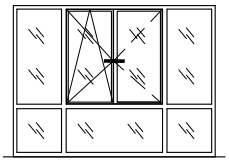


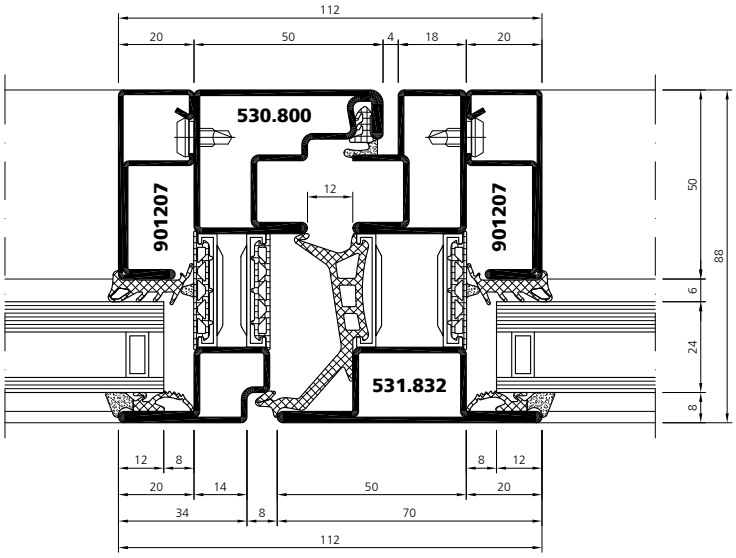
un_sd_0364 (RC1) un_sd_0229 (RC2) un_sd_0188 (RC3)
un_sd_0387 (RC1) un_sd_0203 (RC2) un_sd_0204 (RC3)



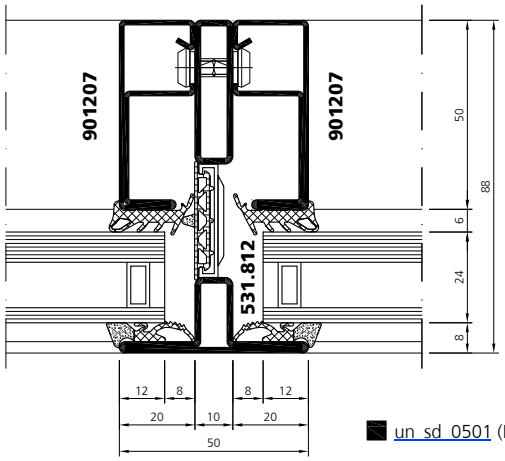
un_sd_0363 (RC1) un_sd_0231 (RC2) un_sd_0232 (RC3)
un_sd_0386 (RC1) un_sd_0308 (RC2) un_sd_0319 (RC3)

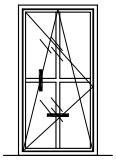
Systemschnitte | Coupes du système | System sections





un_sd_0365 (RC1) un_sd_0185 (RC2) un_sd_0186 (RC3)
un_sd_0388 (RC1) un_sd_0201 (RC2) un_sd_0202 (RC3)

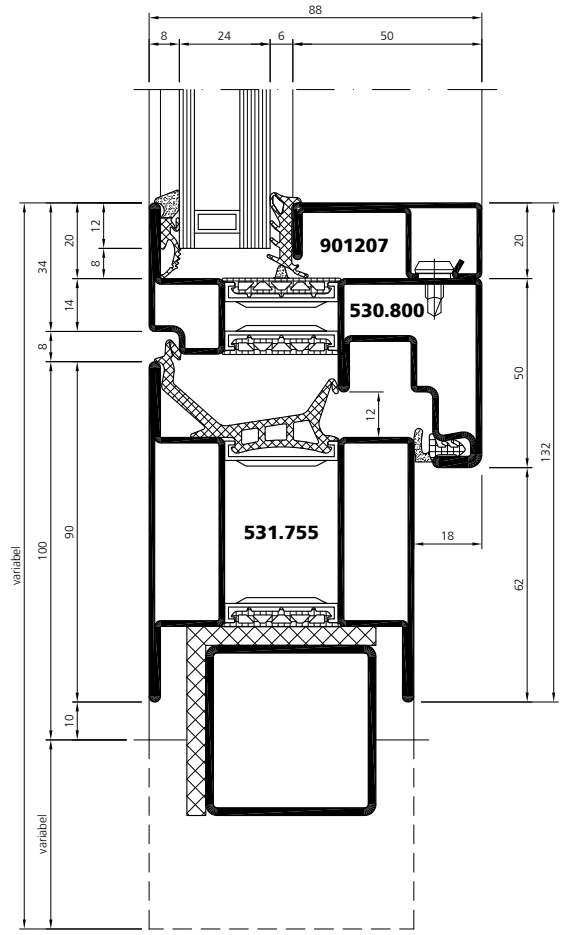




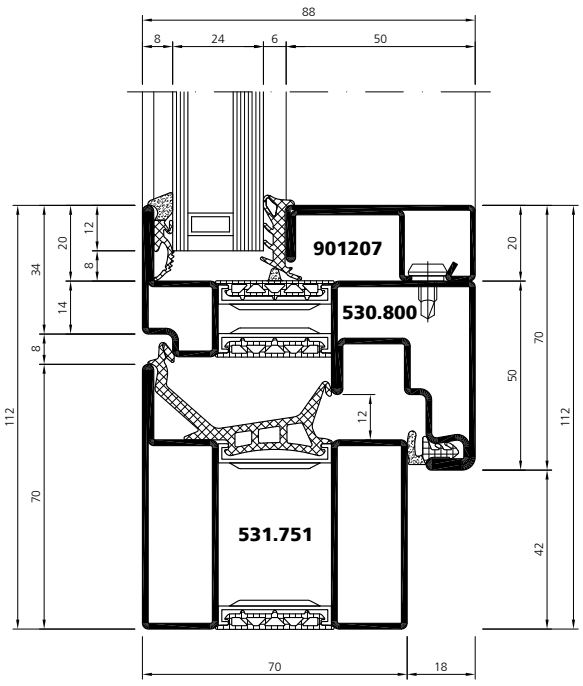
un_sd_0501 (RC1) un_sd_0411 (RC2) un_sd_0413 (RC3)

VUF 01/19

Systemschnitte | Coupes du système | System sections

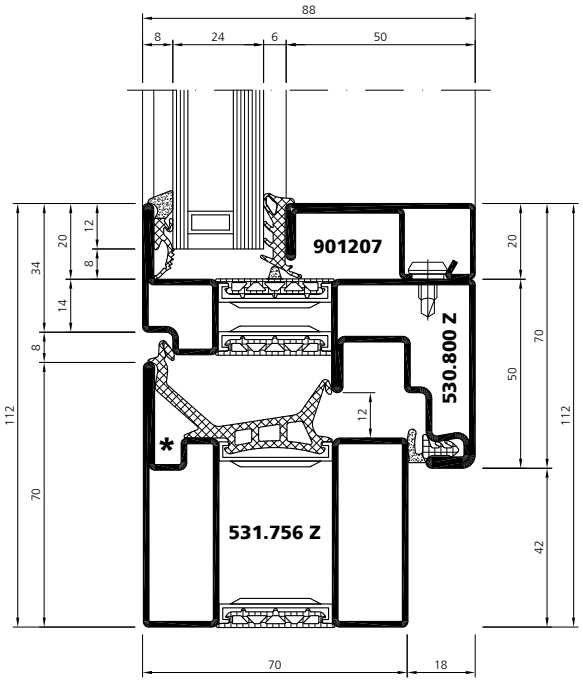


un_sd_0366 (RC1) un_sd_0207 (RC2) un_sd_0208 (RC3)
un_sd_0389 (RC1) un_sd_0205 (RC2) un_sd_0206 (RC3)



un_sd_0367 (RC1) un_sd_0223 (RC2) un_sd_0224 (RC3)
un_sd_0391 (RC1) un_sd_0347 (RC2) un_sd_0348 (RC3)

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove



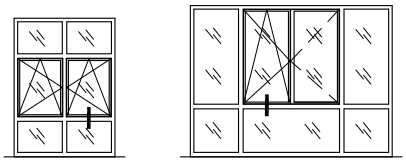
un_sd_0368 (RC1) un_sd_0189 (RC2) un_sd_0190 (RC3)

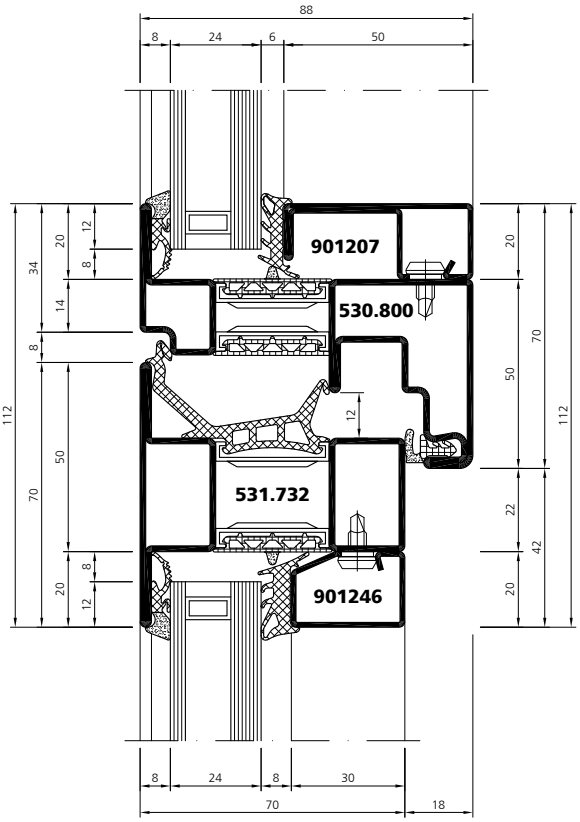
Systemschnitte

Coupes du système

System sections

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove





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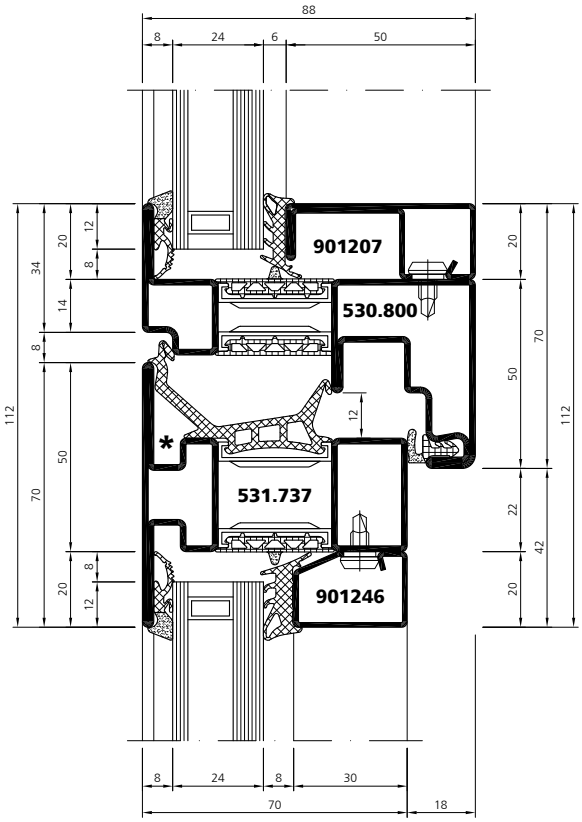
un_sd_0392 (RC1) un_sd_0346 (RC2) un_sd_0349 (RC3)



un_sd_0370 (RC1) un_sd_0209 (RC2) un_sd_0210 (RC3)

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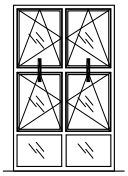
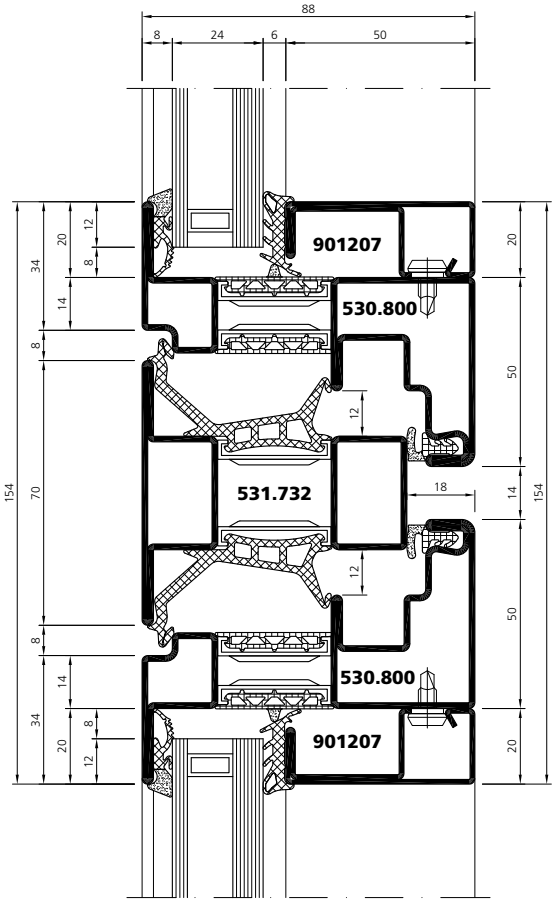
Systemschnitte

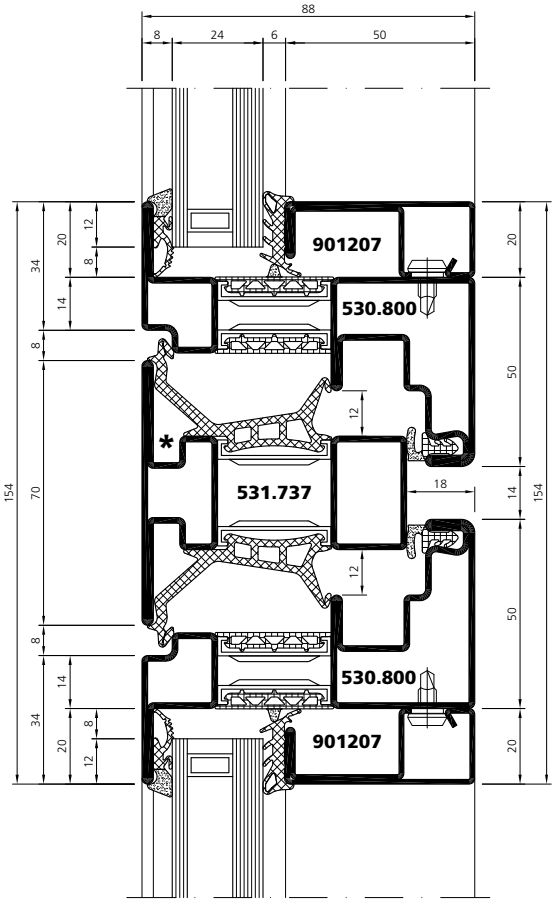
Coupes du système

System sections

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove







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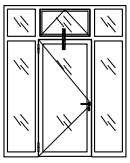
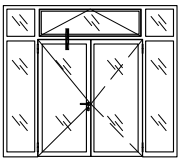
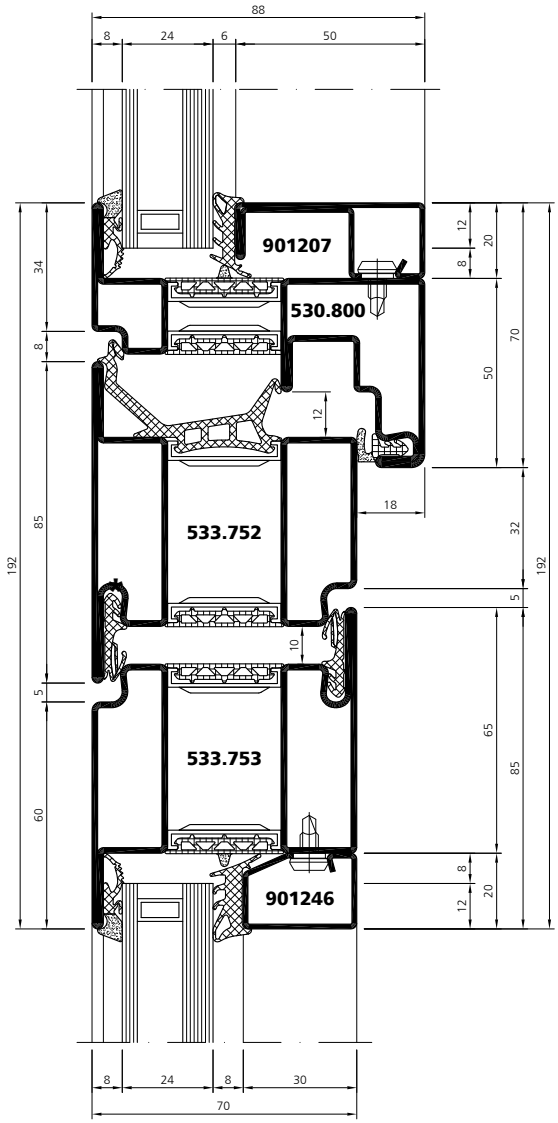
un_sd_0393 (RC1) un_sd_0345 (RC2) un_sd_0350 (RC3)

un_sd_0372 (RC1) un_sd_0213 (RC2) un_sd_0214 (RC3)

Systemschnitte | Coupes du système | System sections





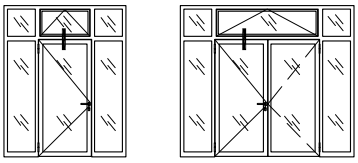


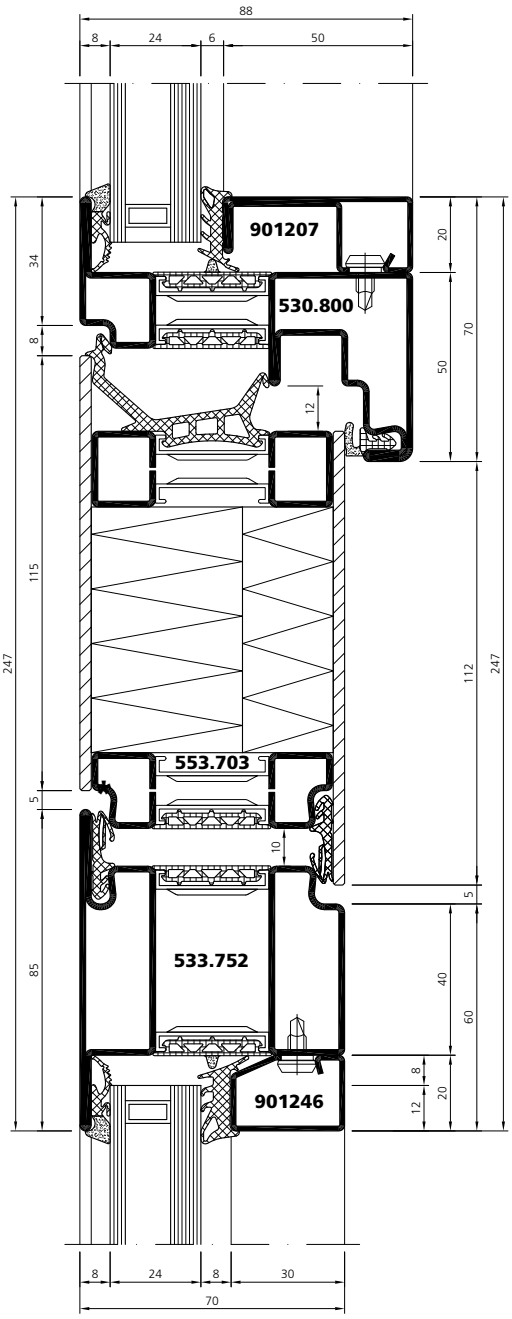
un_sd_0373 (RC1) un_sd_0303 (RC2) un_sd_0313 (RC3)
un_sd_0390 (RC1) un_sd_0309 (RC2) un_sd_0320 (RC3)

Systemschnitte

Coupes du système

System sections





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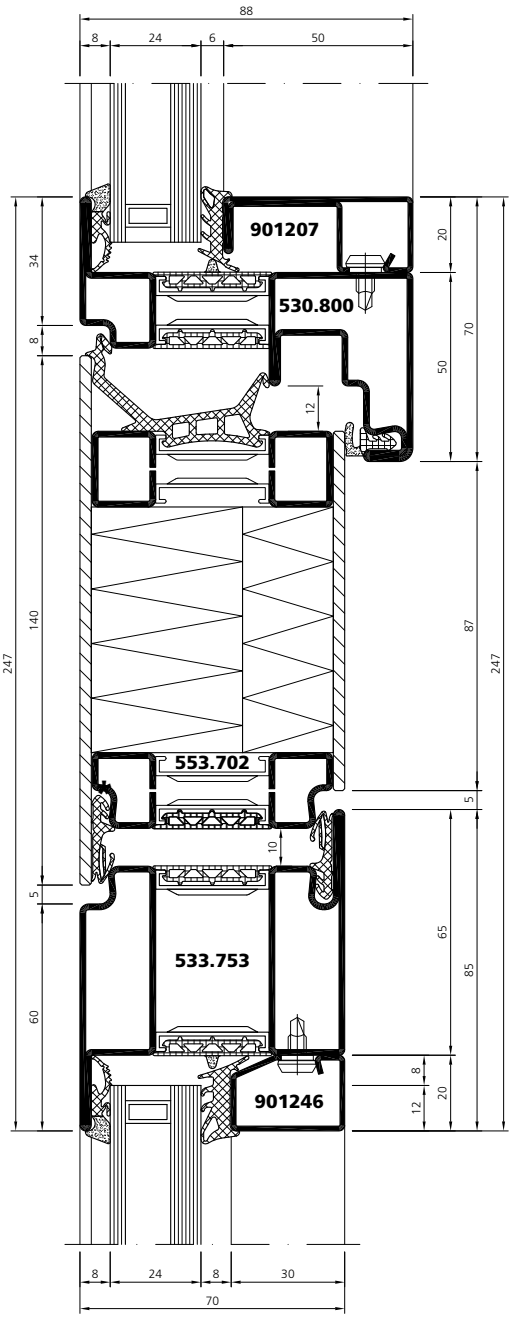


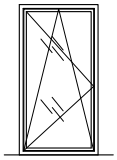
un_sd_0969 (RC1) un_sd_0989 (RC2) un_sd_1009 (RC3)

Übersicht Systempläne	Tableau des plans du système	Synopsis of system plans
1 Drehkipp-Flügel	Ouvrant oscillo-battant	Tilt-turn window
2 Drehkipp-/Drehkipp-Flügel	Ouvrant oscillo-battant/oscillo-battant	Tilt-turn/tilt-turn window
3 Kippflügel	Ouverture à soufflet	Bottom hung window
4 Stulpflügel Dreh/Drehkipp	Ouvrant semi-fixe à la française/oscillo-battant	Double sash window turn/tilt-turn
5 Stulpflügel Dreh/Drehkipp mit Seitenteilen	Ouvrant semi-fixe à la française/oscillo-battant avec parties latérales fixes	Double sash window turn/tilt-turn with screen abutments
6 Festverglasung	Vitrage fixe	Fixed glazing

■ Stahl / Acier / Steel

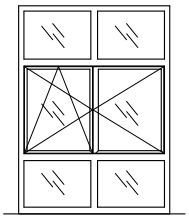
□ Edelstahl / Acier inox / Stainless steel

1



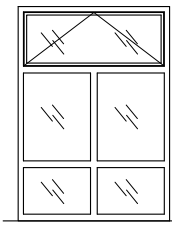
■ un_sp_0205
un_sp_0223
□ un_sp_0215

2



■ un_sp_0208
un_sp_0224
□ un_sp_0216

3



■ un_sp_0207
un_sp_0220
□ un_sp_0217

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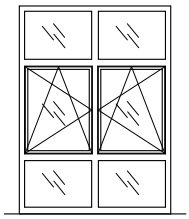

■ un_sp_0206
un_sp_0221
□ un_sp_0218

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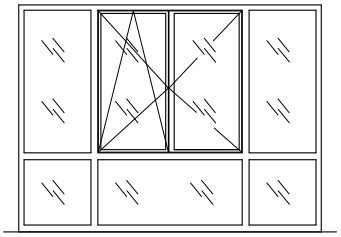
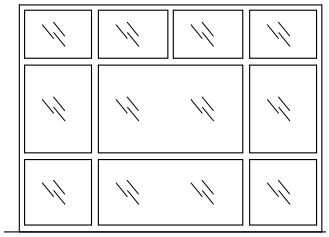


■ un_sp_0209
un_sp_0222
□ un_sp_0219

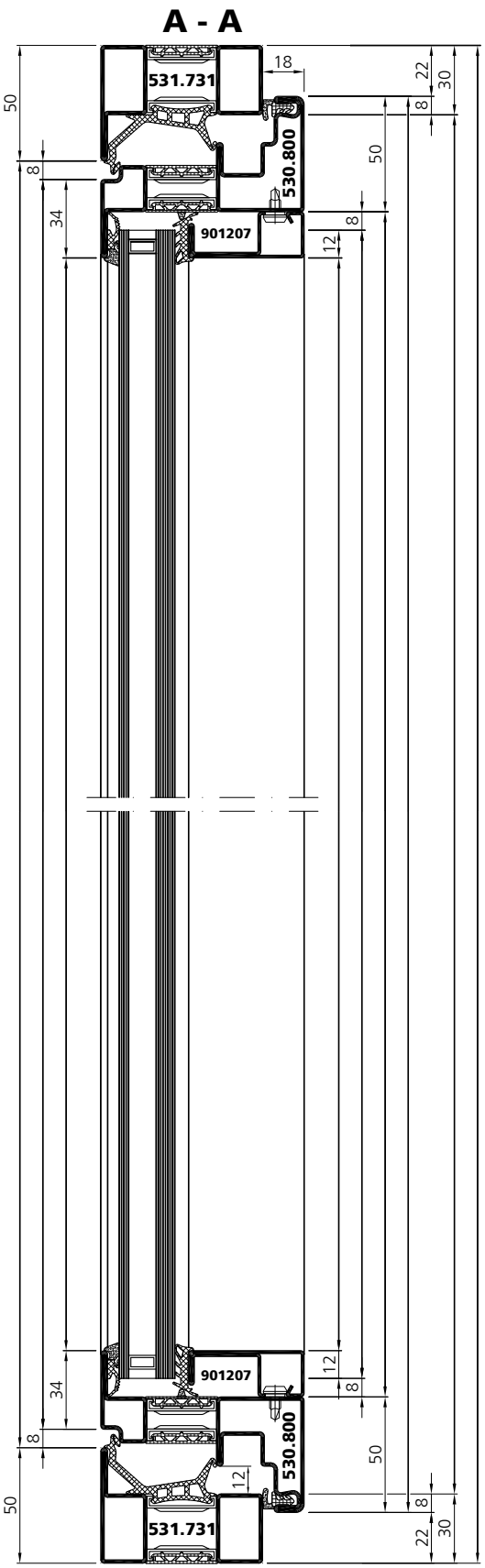
6



■ un_sp_0226
□ un_sp_0225

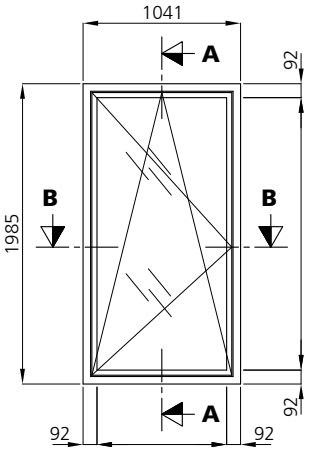
Systemplan | Plan du système | System plan

un_sp_0205
un_sp_0215

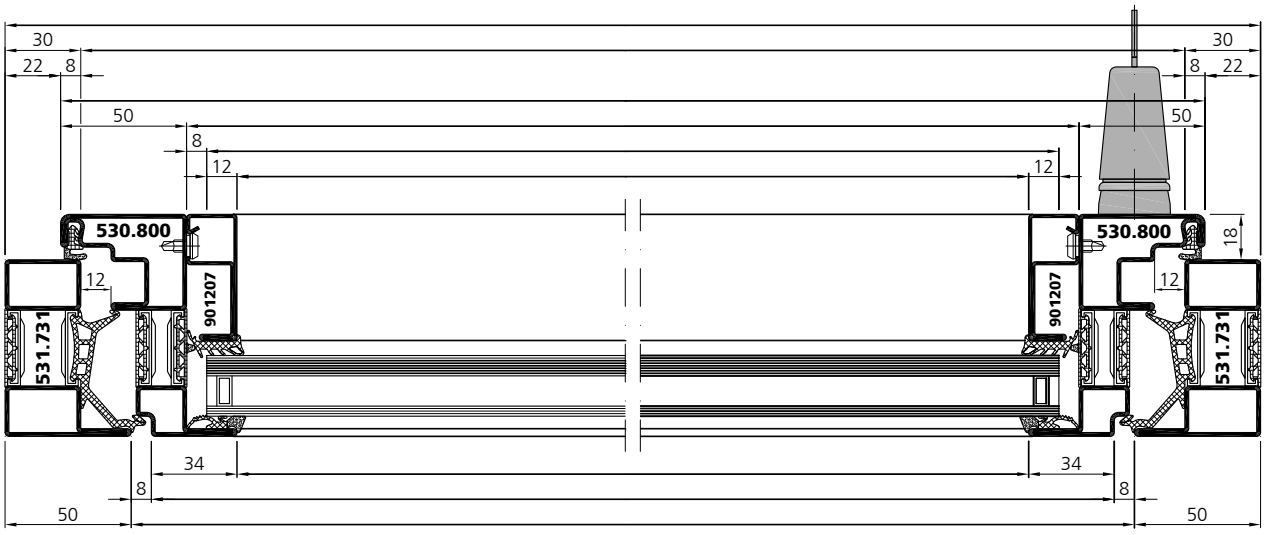


Systemplan | Plan du système | System plan

un_sp_0205
un_sp_0215



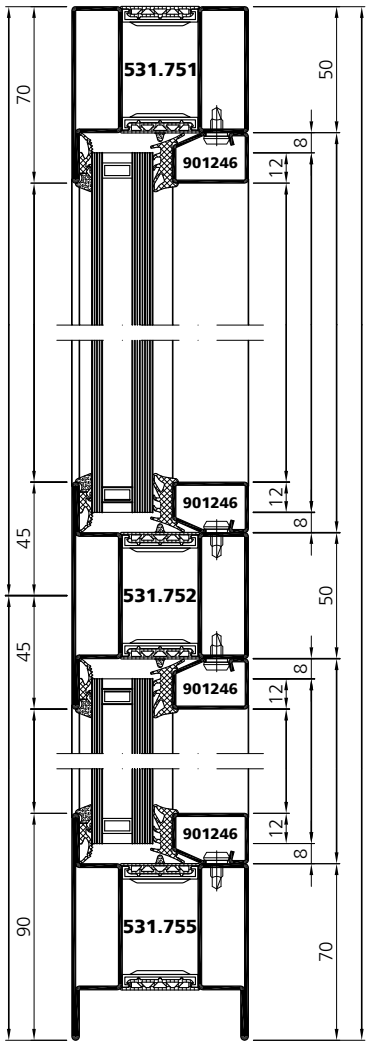
B - B



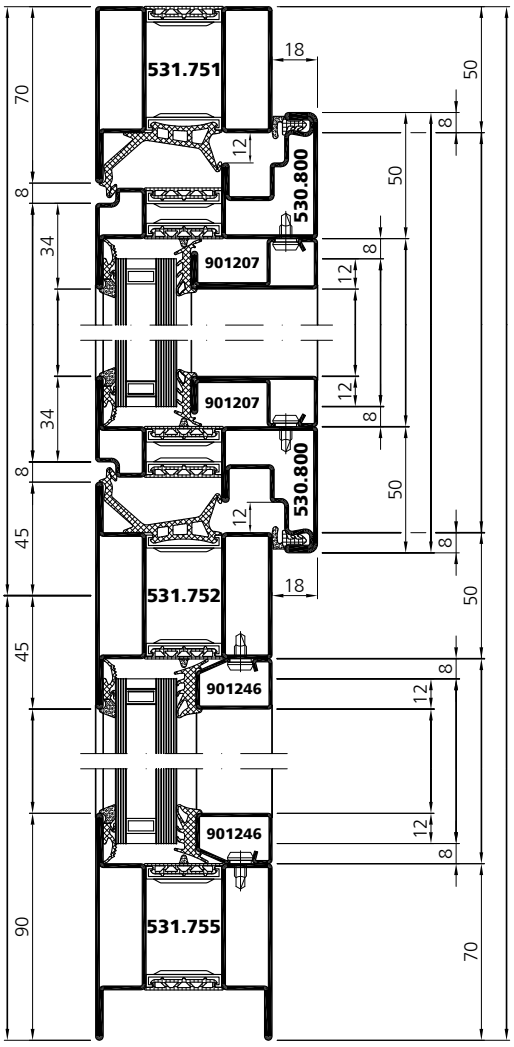
Systemplan | Plan du système | System plan

un_sp_0209
un_sp_0219

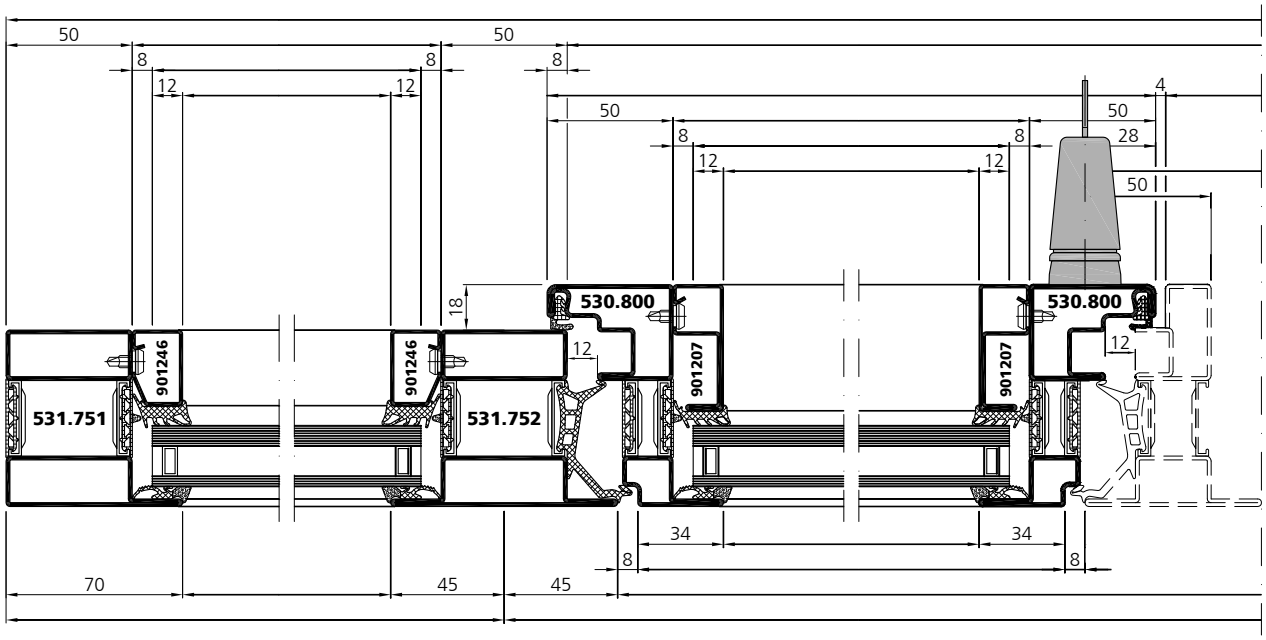
A - A



B - B



D - D



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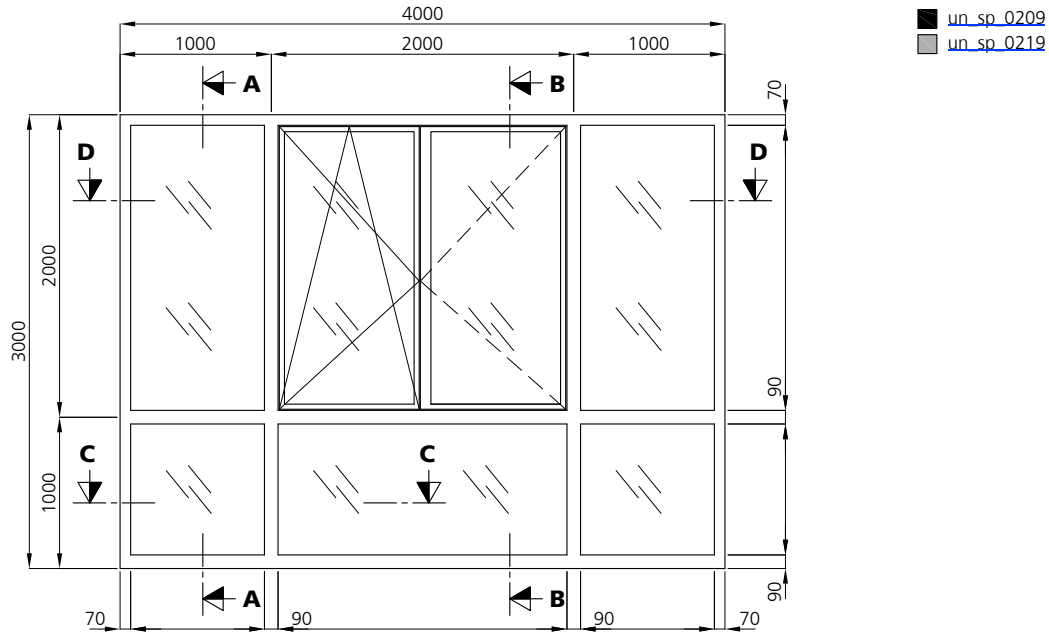
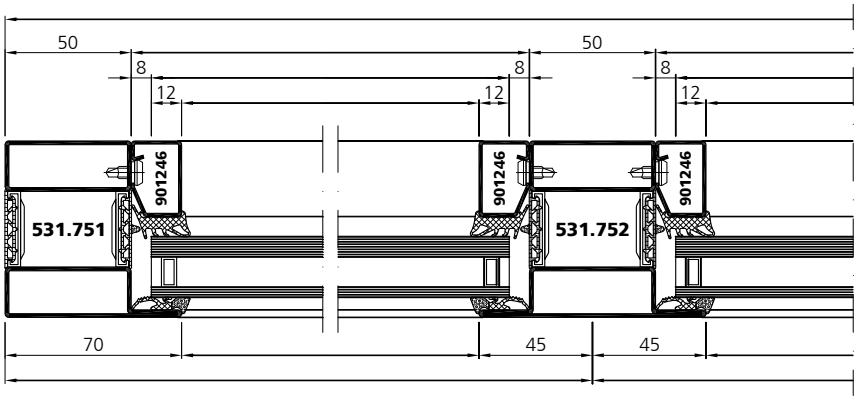
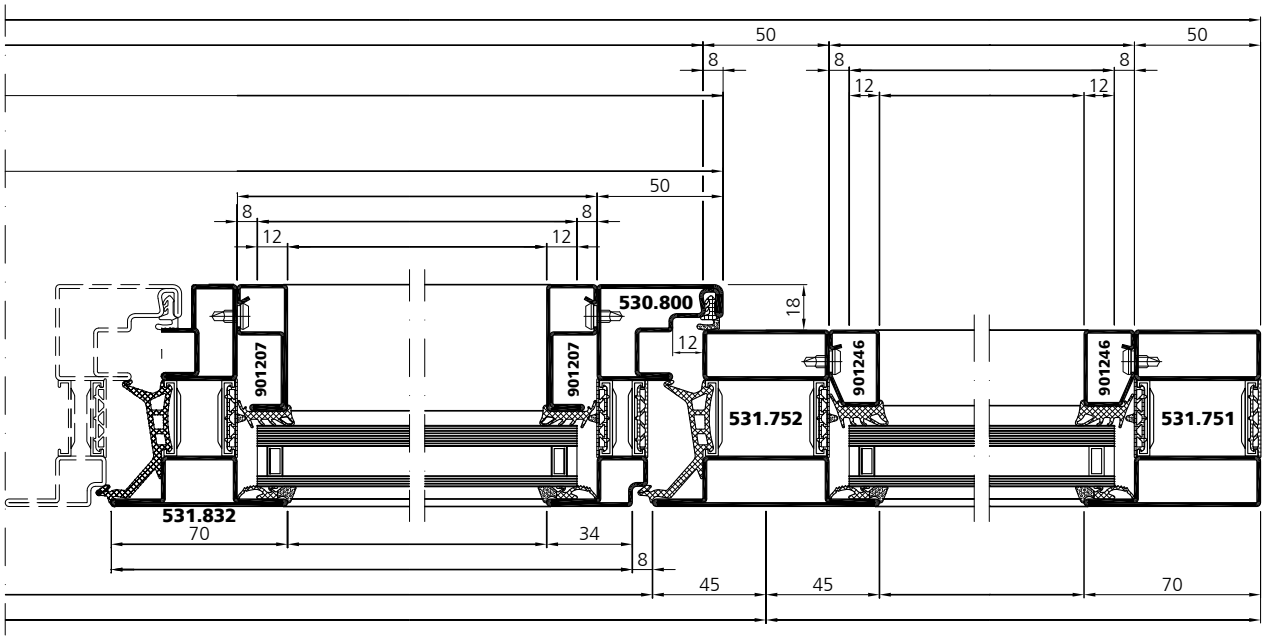
Systemplan | Plan du système | System plan



C - C



D - D



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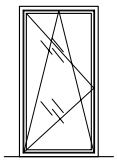
Casino de Monte Carlo, Restauration du Cabaret, MC-Monaco

1	Drehkipp-Flügel	Ouvrant oscillo-battant	Tilt-turn window
2	Drehkipp-/Drehkipp-Flügel	Ouvrant oscillo-battant/oscillo-battant	Tilt-turn/tilt-turn window
3	Kippflügel	Ouverture à soufflet	Bottom hung window
4	Stulpflügel Dreh/Drehkipp	Ouvrant semi-fixe à la française/oscillo-battant	Double sash window turn/tilt-turn
5	Stulpflügel Dreh/Drehkipp mit Seitenteilen	Ouvrant semi-fixe à la française/oscillo-battant avec parties latérales fixes	Double sash window turn/tilt-turn with screen abutments
6	Festverglasung	Vitrage fixe	Fixed glazing

Stahl / Acier / Steel

Edelstahl / Acier inox / Stainless steel

1



un_sp_0157
un_sp_0193
un_sp_0177

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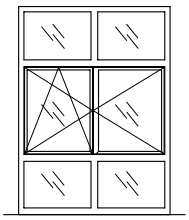

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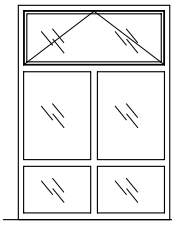

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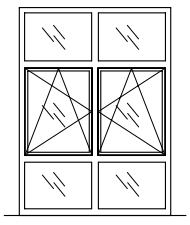

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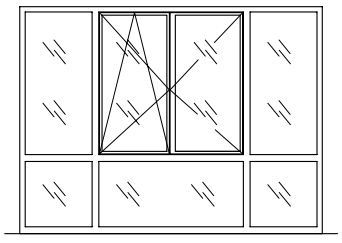

un_sp_0165
un_sp_0191
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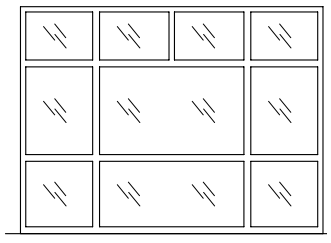
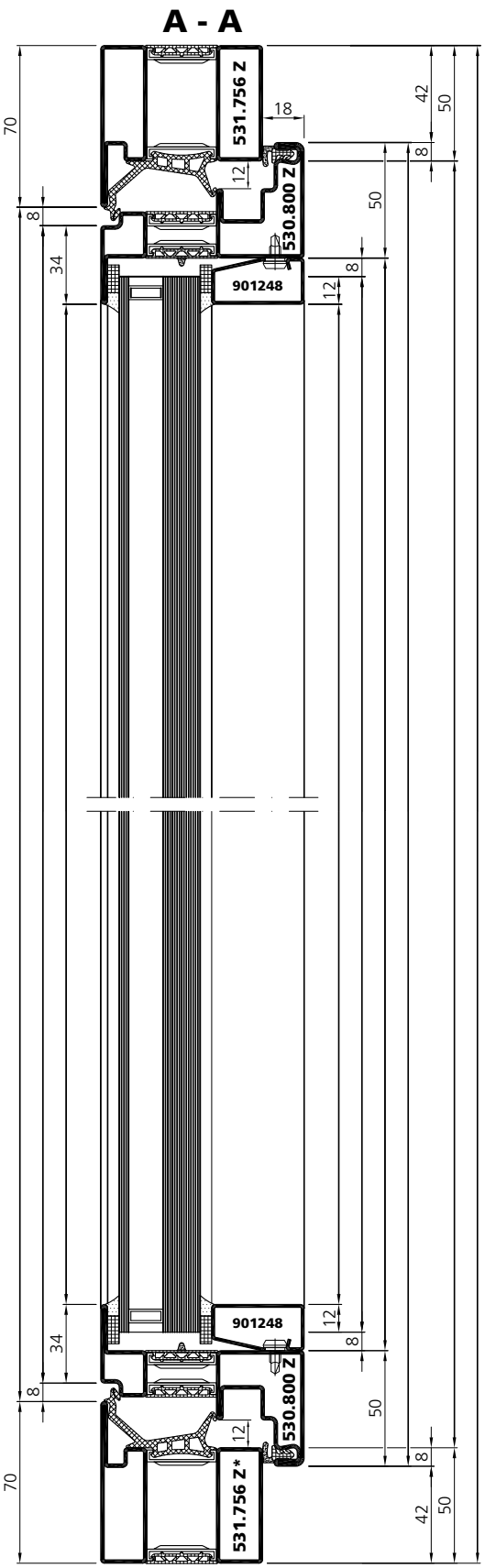


un_sp_0125
un_sp_0155

Systemplan | Plan du système | System plan

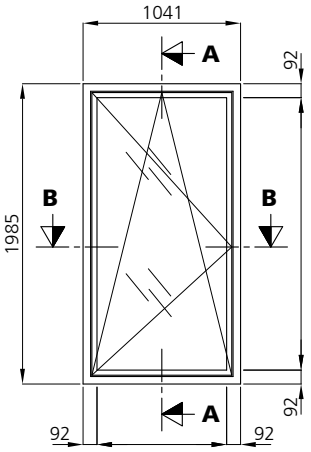
un_sp_0193

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove



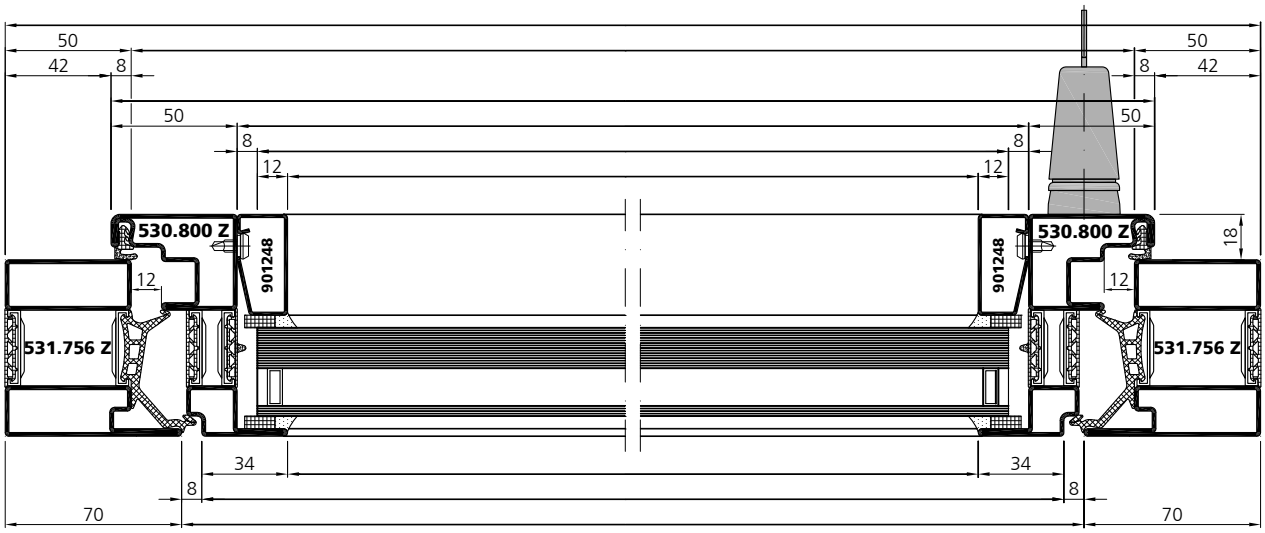
Systemplan | Plan du système | System plan

un_sp_0193



* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove

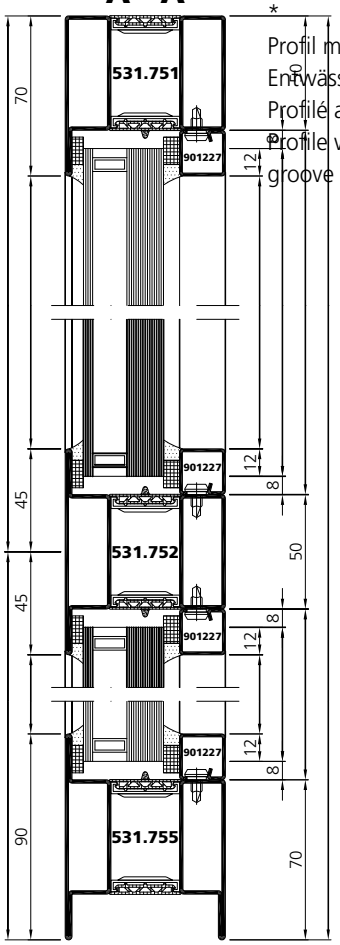
B - B



Systemplan | Plan du système | System plan

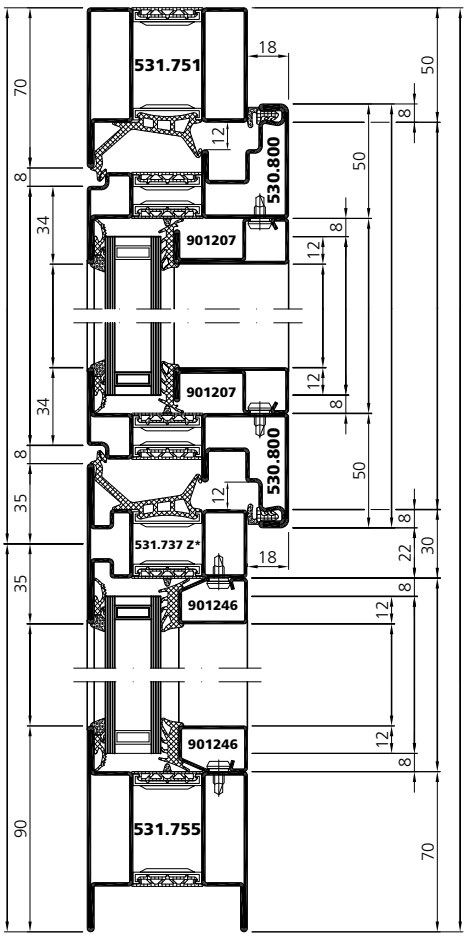
un_sp_0191

A - A

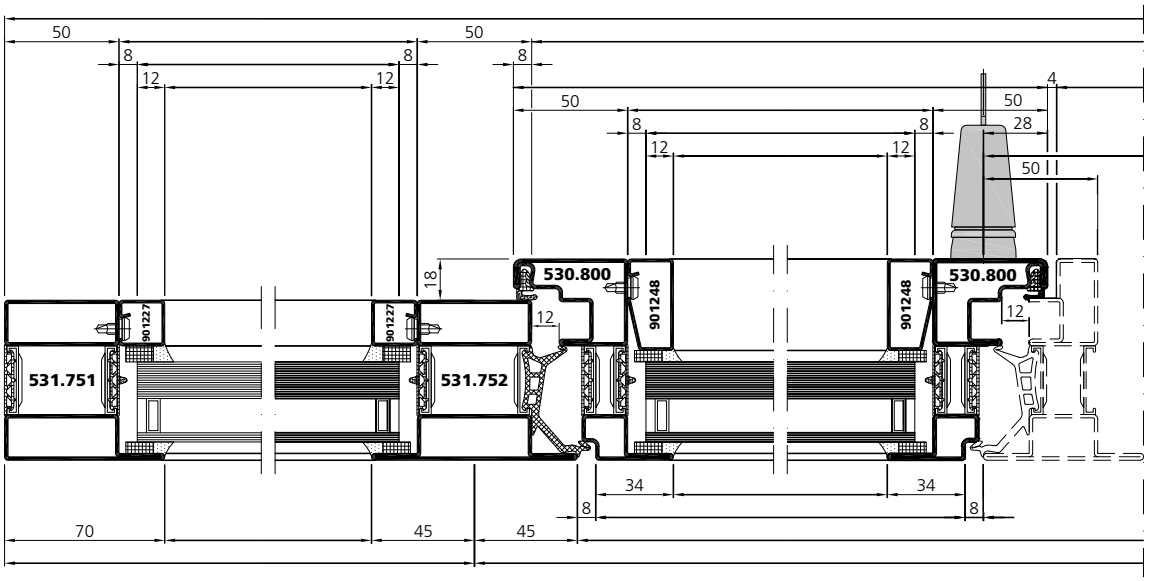


* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove

B - B



D - D



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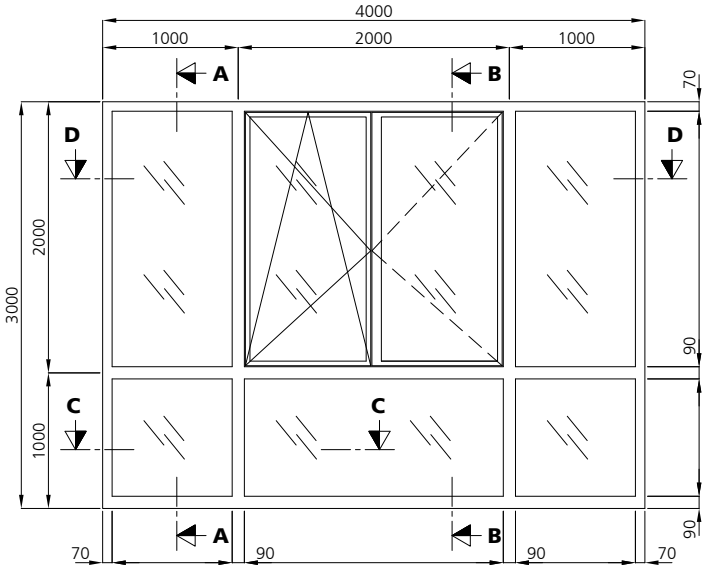
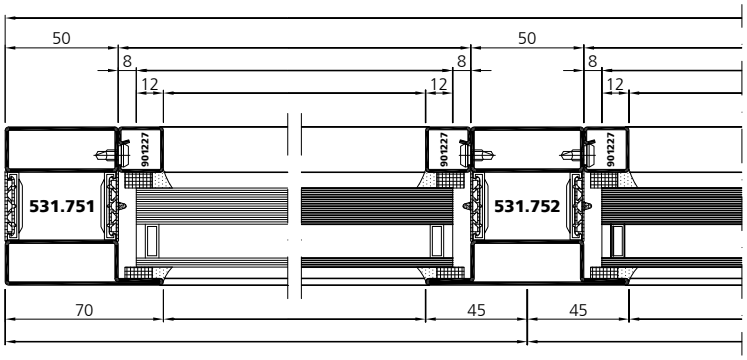
Systemplan | Plan du système | System plan

un_sp_0191

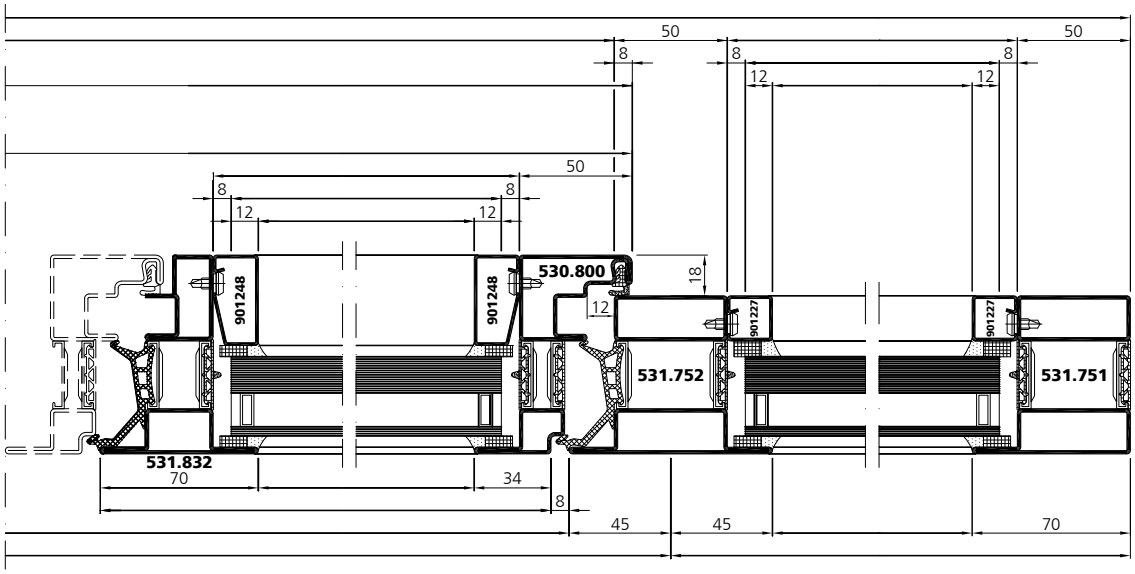
*
Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove



C - C



D - D



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Hôtel Crowne Plaza, BE-Liège

Übersicht Systempläne	Tableau des plans du système	Synopsis of system plans
1 Drehkipp-Flügel	Ouvrant oscillo-battant	Tilt-turn window
2 Drehkipp-/Drehkipp-Flügel	Ouvrant oscillo-battant/oscillo-battant	Tilt-turn/tilt-turn window
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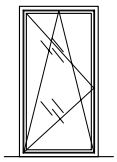
4 Stulpflügel Dreh/Drehkipp	Ouvrant semi-fixe à la française/oscillo-battant	Double sash window turn/tilt-turn
5 Stulpflügel Dreh/Drehkipp mit Seitenteilen	Ouvrant semi-fixe à la française/oscillo-battant avec parties latérales fixes	Double sash window turn/tilt-turn with screen abutments
6 Festverglasung	Vitrage fixe	Fixed glazing

■ Stahl / Acier / Steel

□ Edelstahl / Acier inox / Stainless steel

1



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un_sp_0192
□ un_sp_0176

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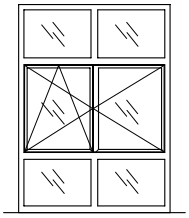
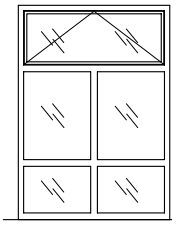


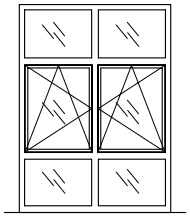
■ un_sp_0158
un_sp_0194
□ un_sp_0178

3



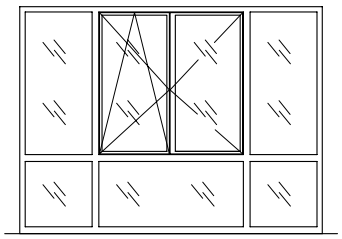
■ un_sp_0160
un_sp_0186
□ un_sp_0180

4



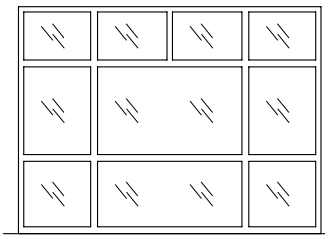
■ un_sp_0162
un_sp_0188
□ un_sp_0182

5



■ un_sp_0164
un_sp_0190
□ un_sp_0184

6



■ un_sp_0124
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Systemplan | Plan du système | System plan

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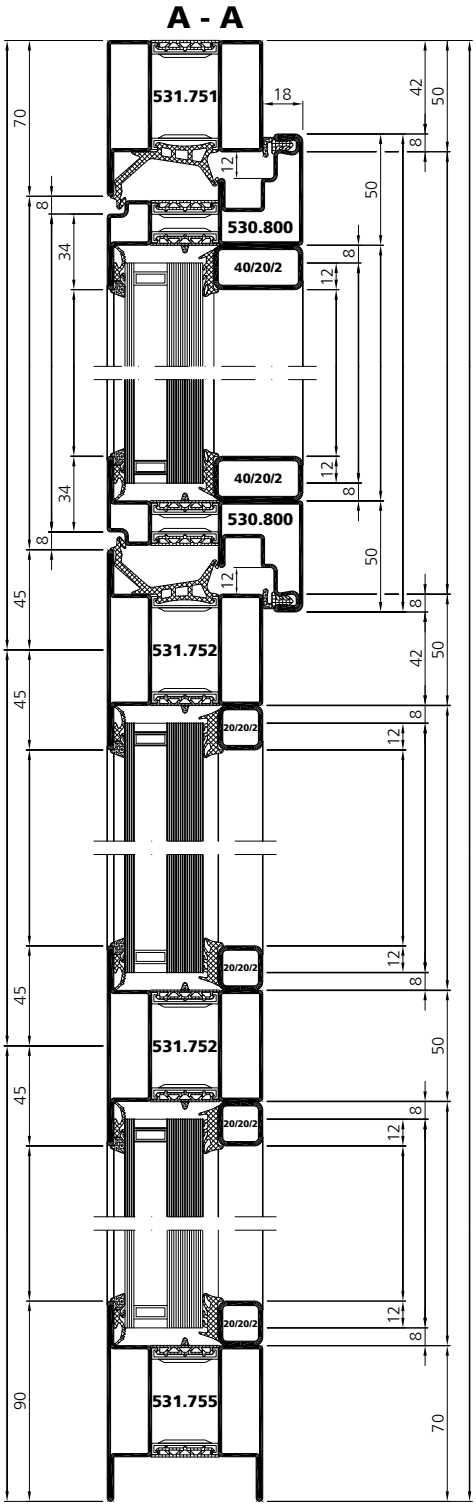

Systemplan | Plan du système | System plan

un_sp_0160
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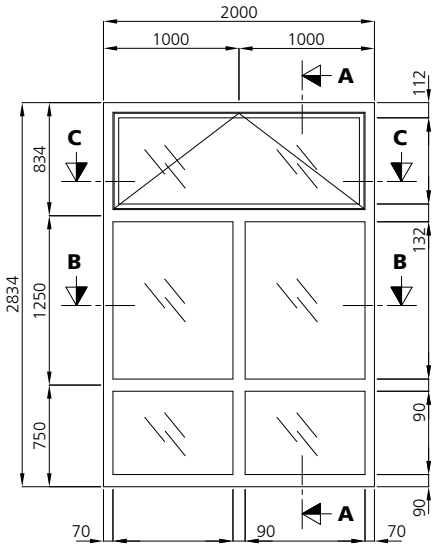
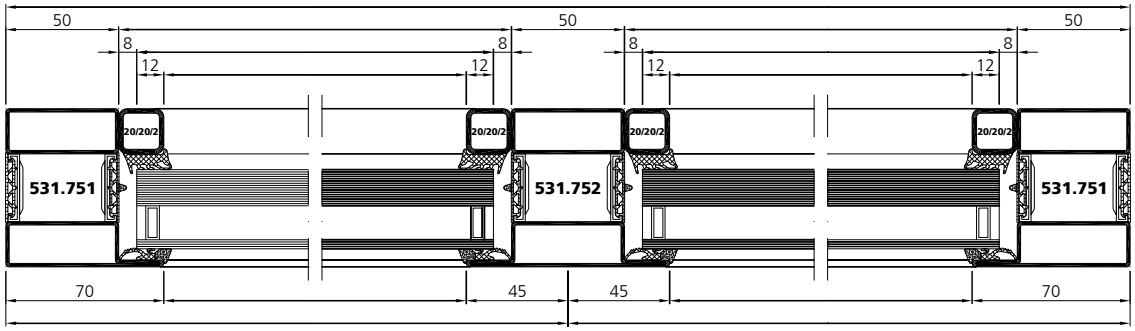
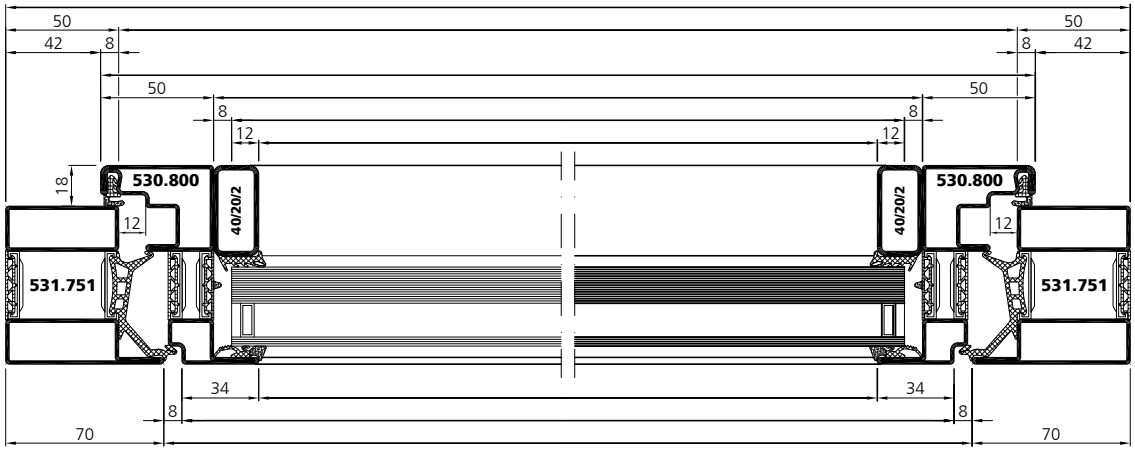


B - B



C - C

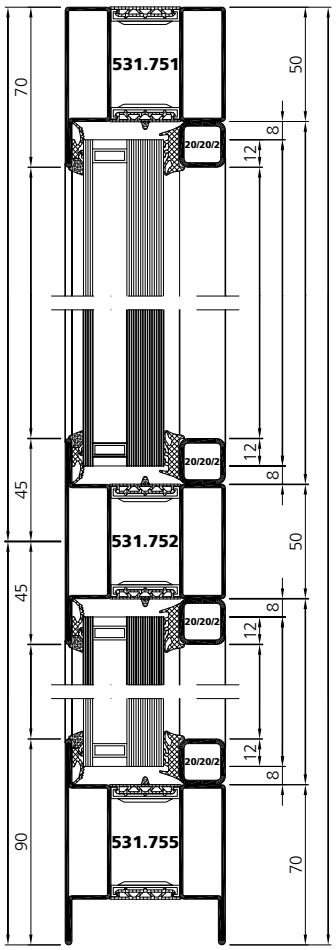


VUF 01/19

Systemplan | Plan du système | System plan

un_sp_0164
un_sp_0184

A - A



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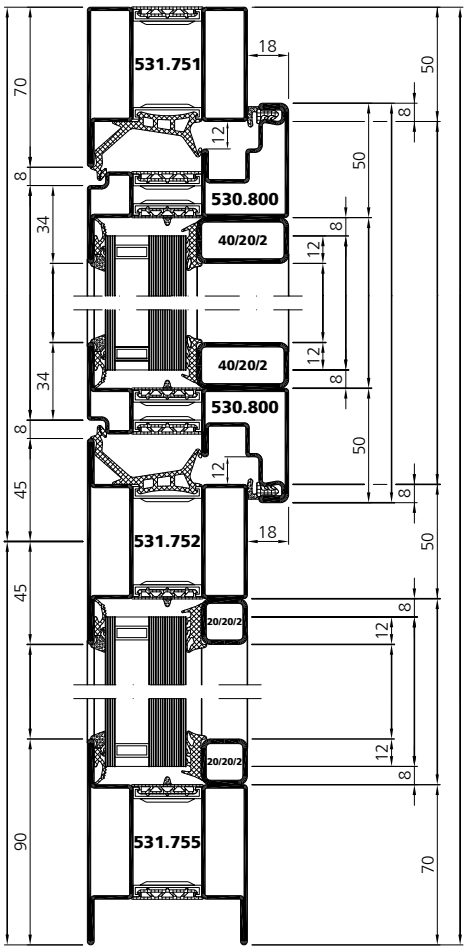

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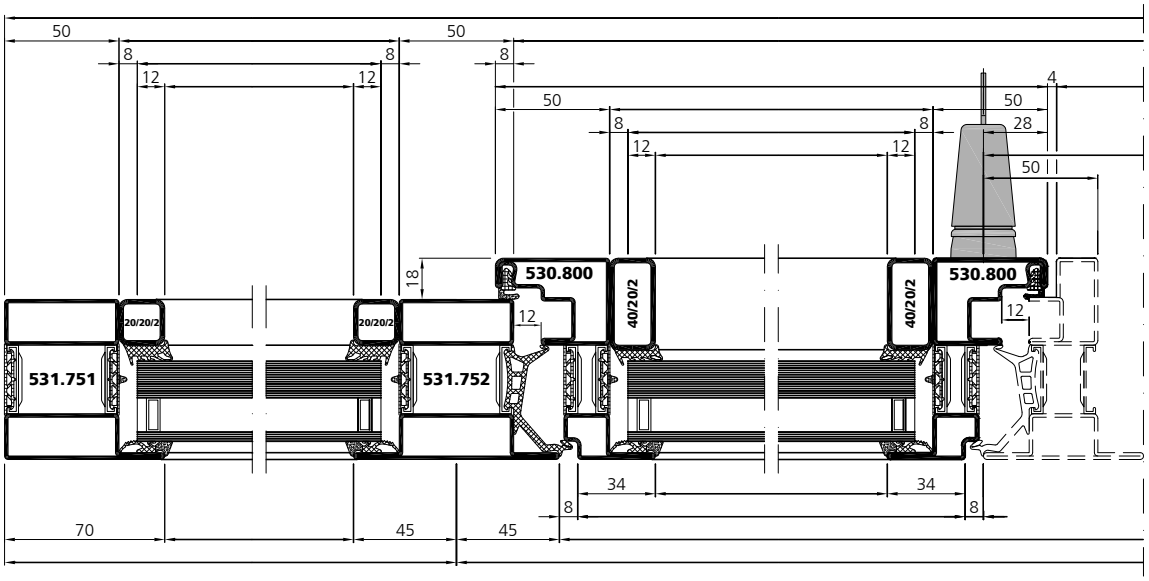
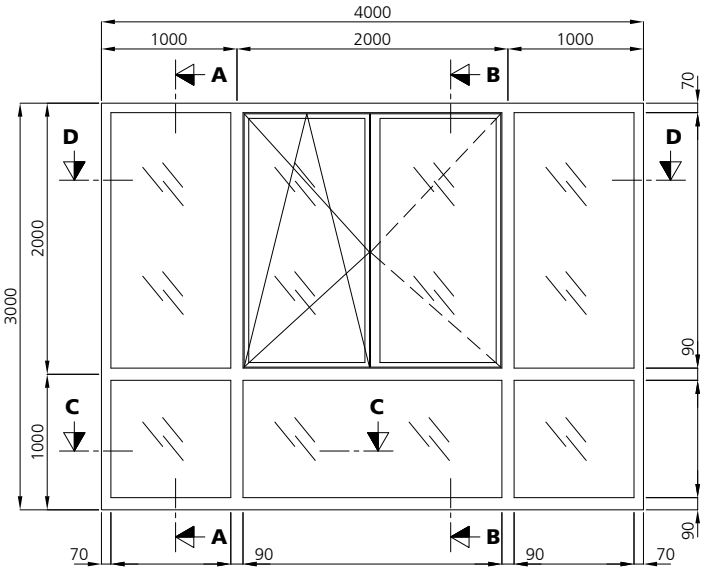
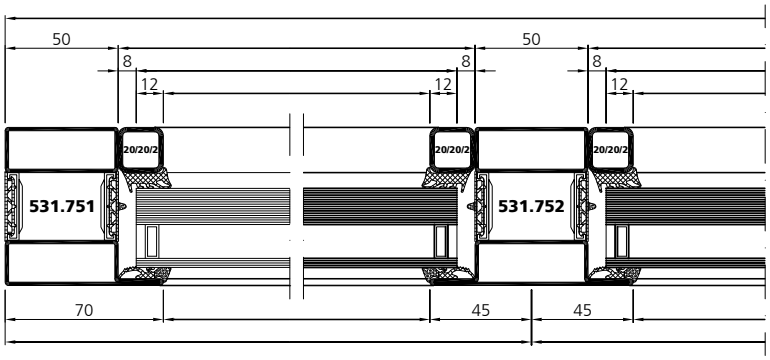


Systemplan | Plan du système | System plan

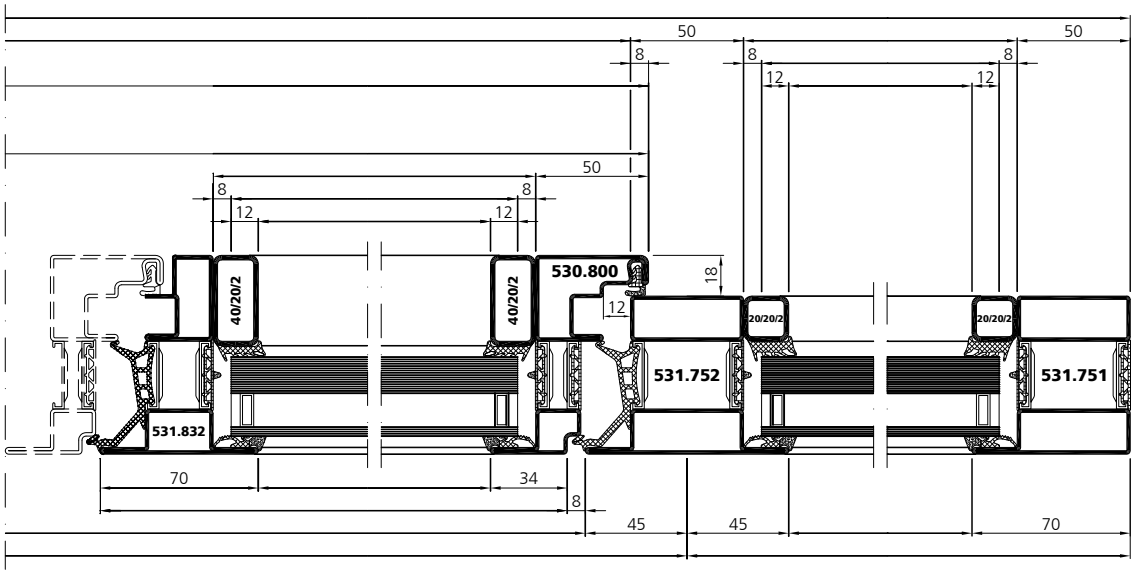
un_sp_0164
un_sp_0184



C - C

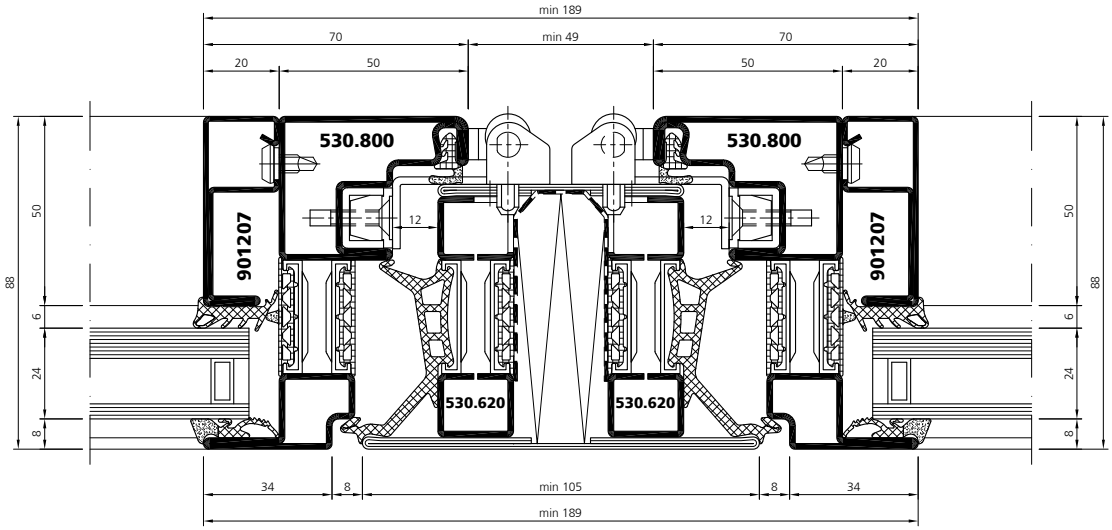


D - D



VUF 01/19

Konstruktionsdetails Détails de construction Construction details



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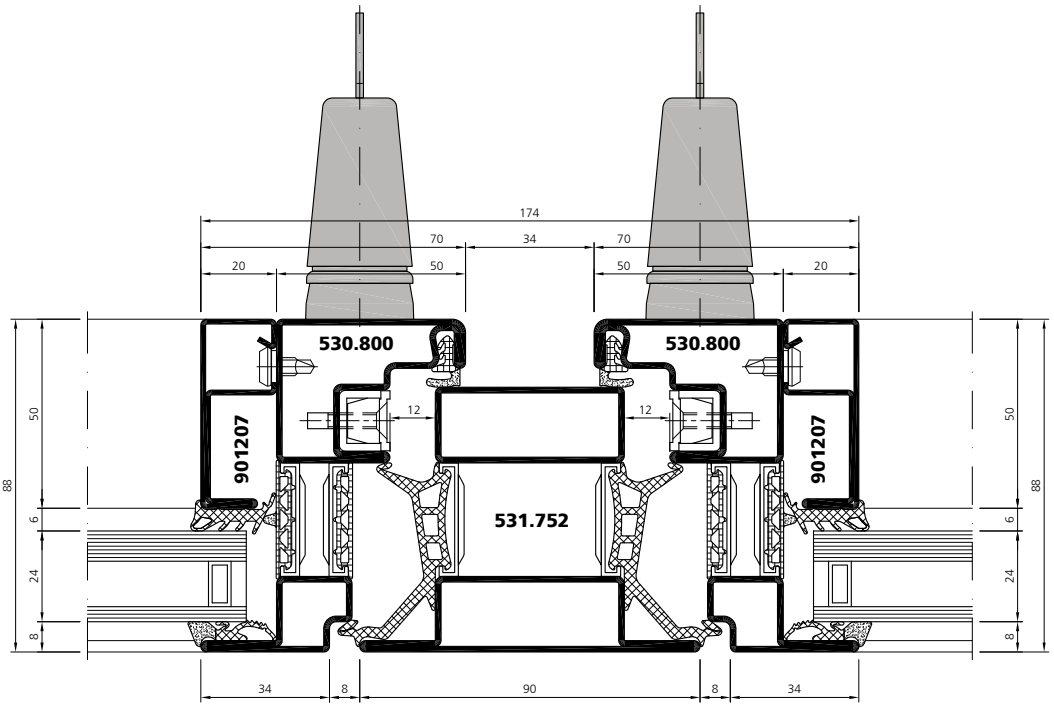

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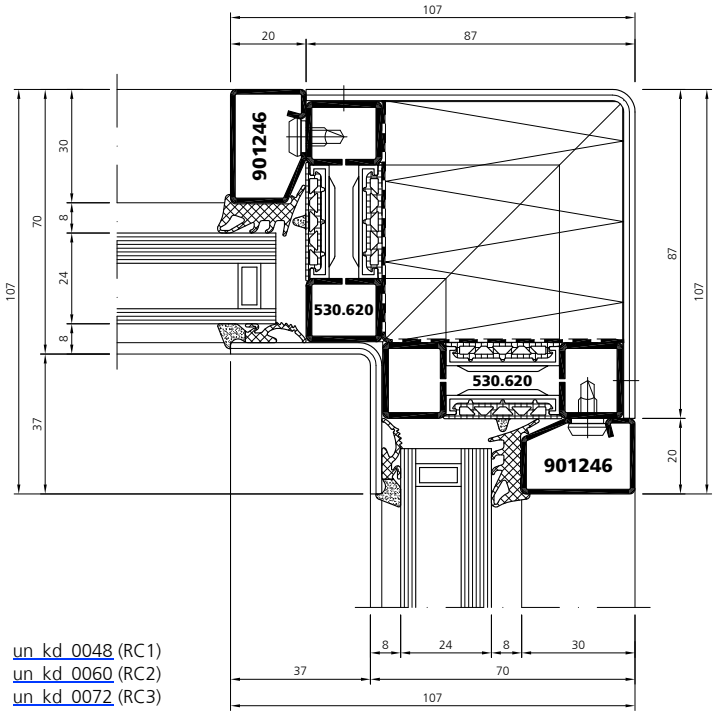
Konstruktionsdetails | Détails de construction | Construction details



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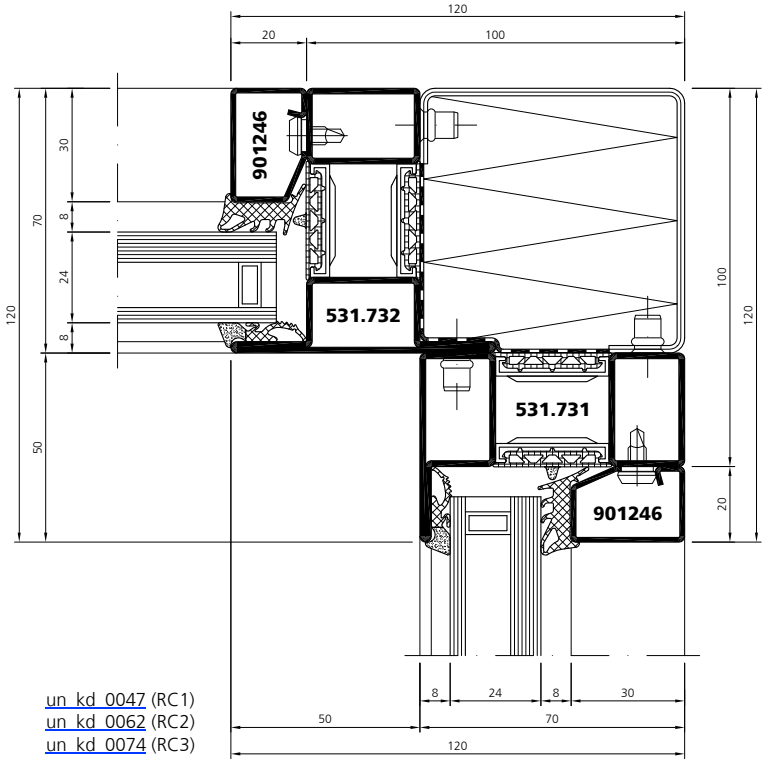
un_kd_0060 (RC2)
un_kd_0072 (RC3)



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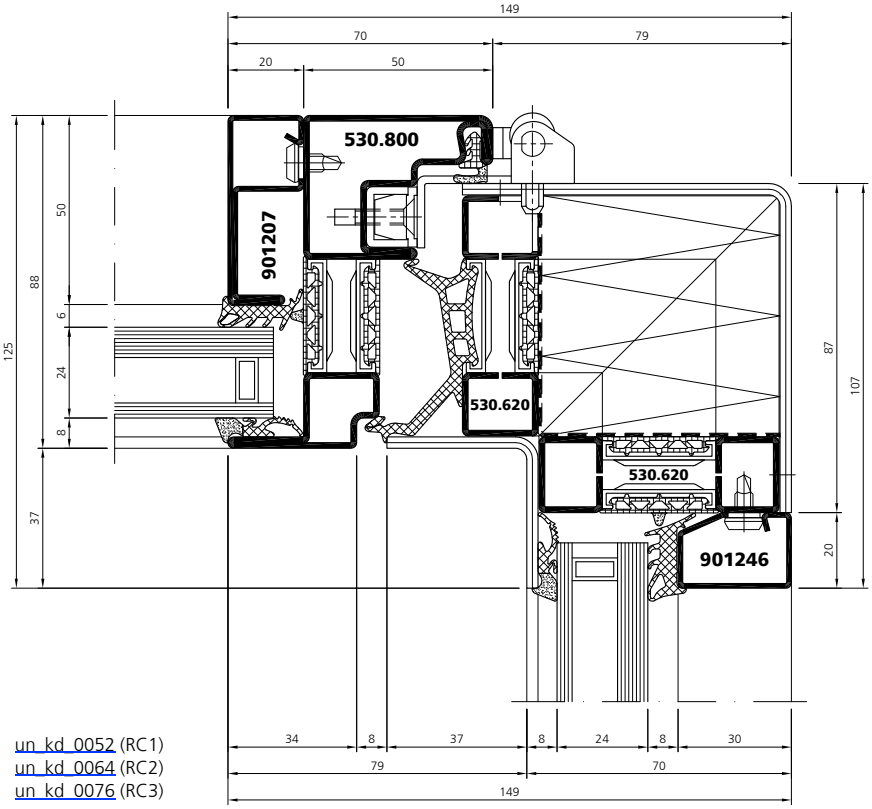
Konstruktionsdetails | Détails de construction | Construction details



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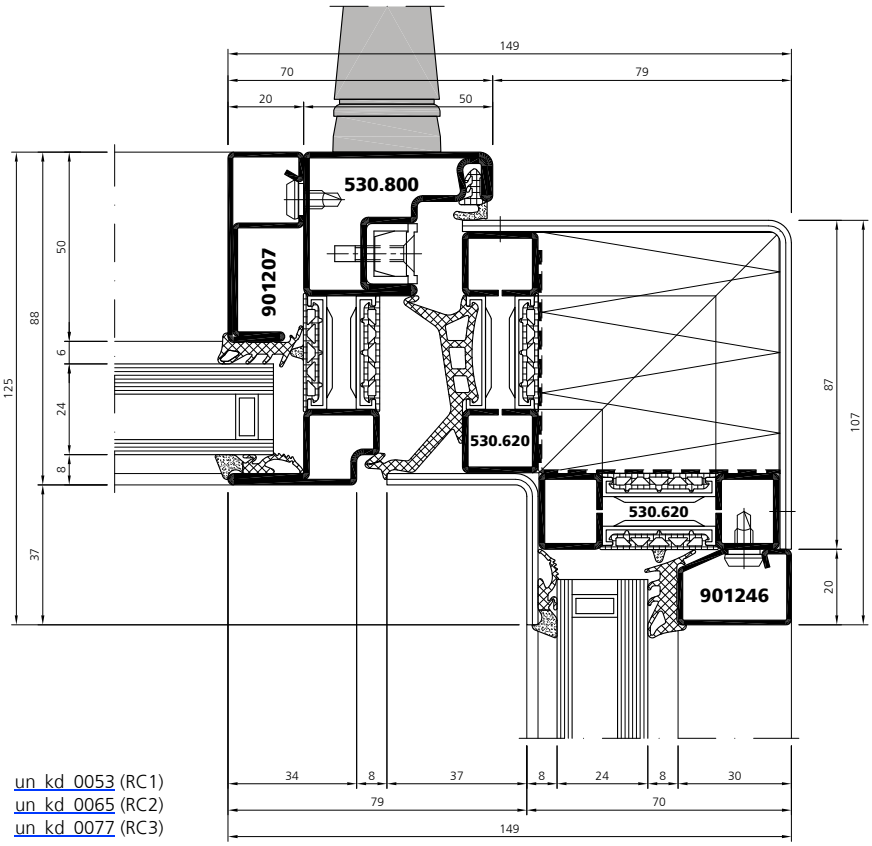

un_kd_0053 (RC1)
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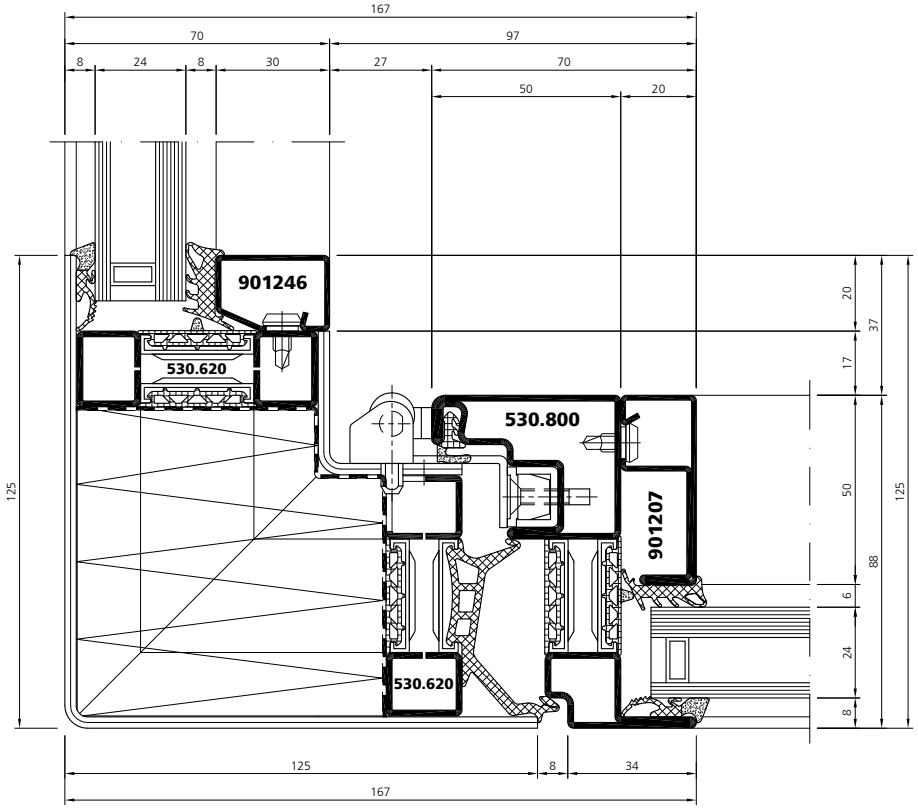
Konstruktionsdetails | Détails de construction | Construction details



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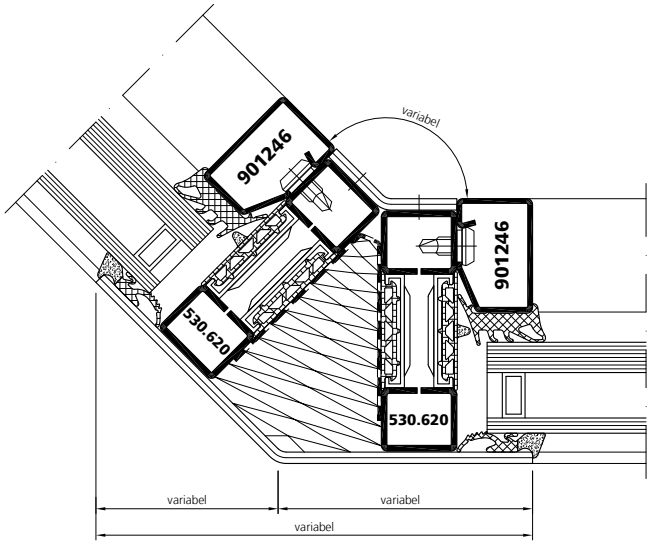


un_kd_0085 (RC1) un_kd_0061 (RC2) un_kd_0073 (RC3)

Konstruktionsdetails

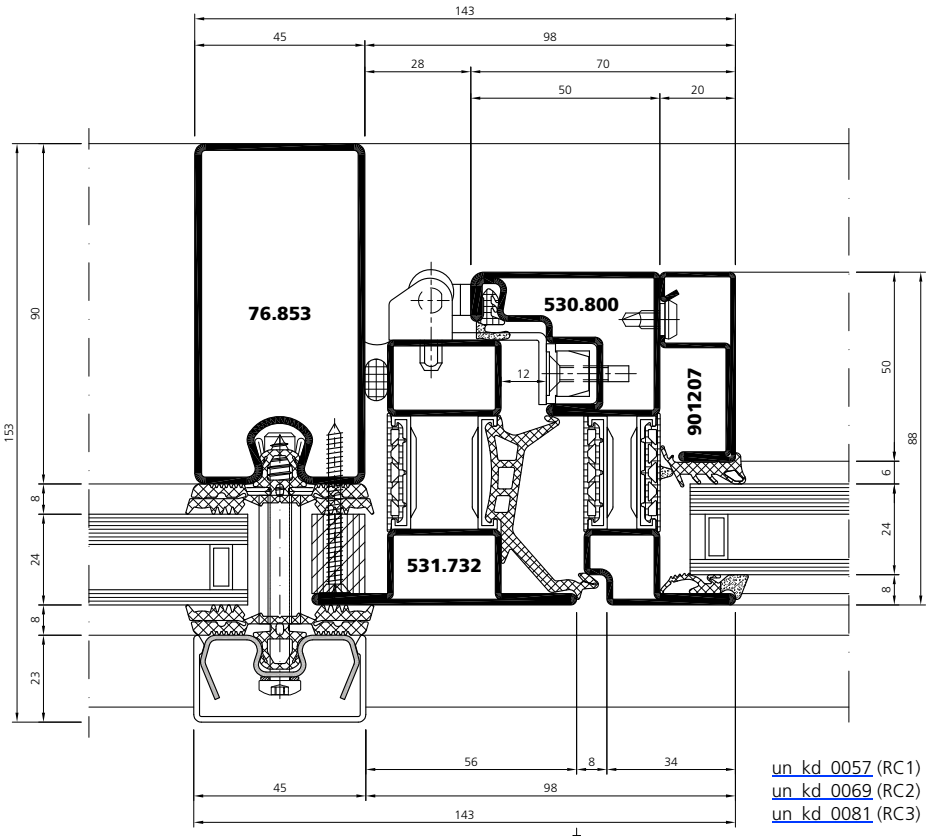
Détails de construction

Construction details

Beim Einbau des einbruchhemmenden Fensters in eine einbruchhemmende Fassade sind die Montage- und Verarbeitungsrichtlinien der Fassade zu berücksichtigen!

Si la fenêtre CR est incorporée dans un système de façade CR, la mise en oeuvre de la façade doit également respecter une classification CR!

For installation of a burglary resistent window into a burglary resistant curtain wall, please consider the mounting and processing guidelines!



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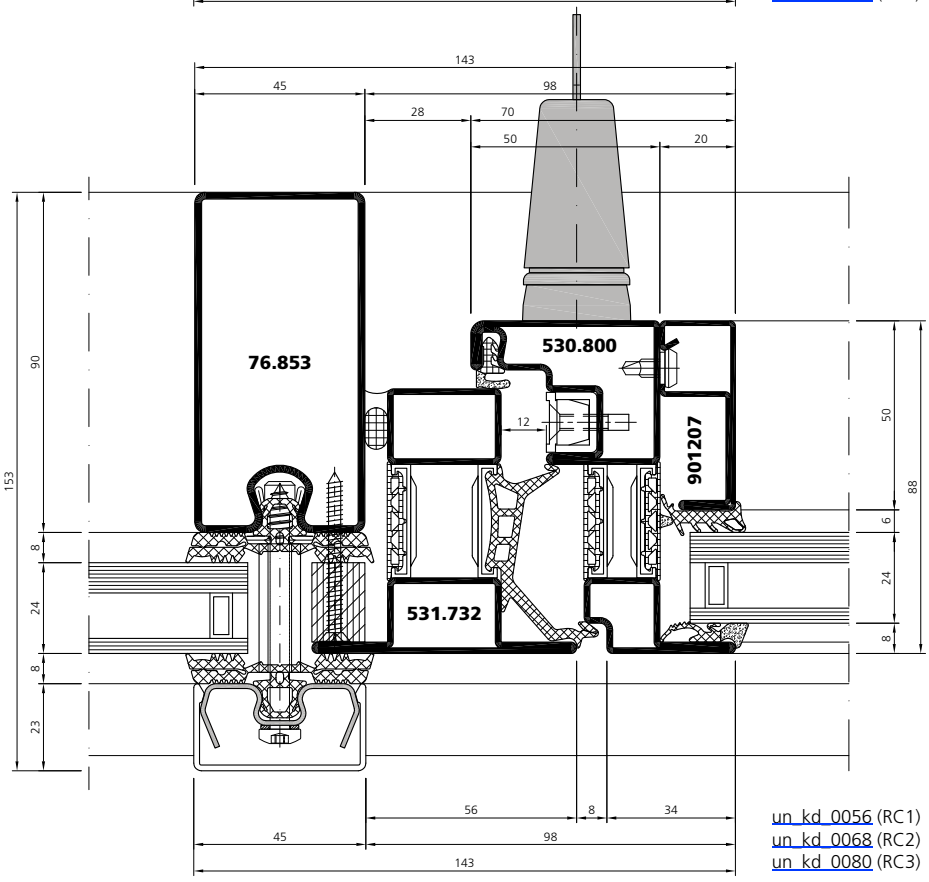

un_kd_0056 (RC1)
un_kd_0068 (RC2)
un_kd_0080 (RC3)

Konstruktionsdetails

Détails de construction

Construction details

Beim Einbau des einbruchhemmenden Fensters in eine einbruchhemmende Fassade sind die Montage- und Verarbeitungsrichtlinien der Fassade zu berücksichtigen!

Si la fenêtre CR est incorporée dans un système de façade CR, la mise en oeuvre de la façade doit également respecter une classification CR!

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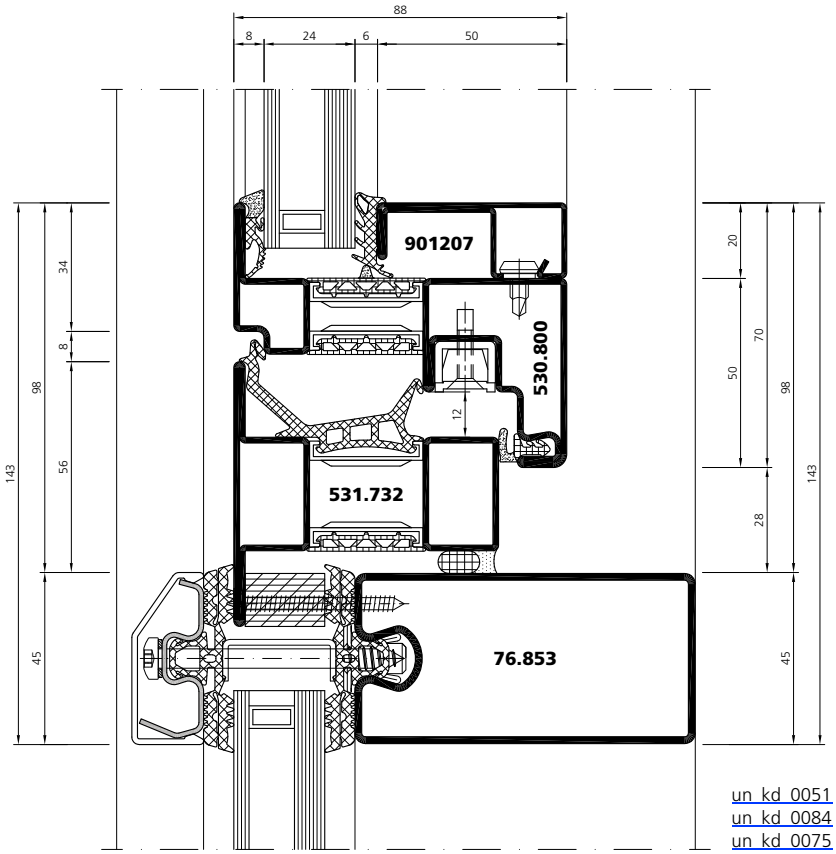

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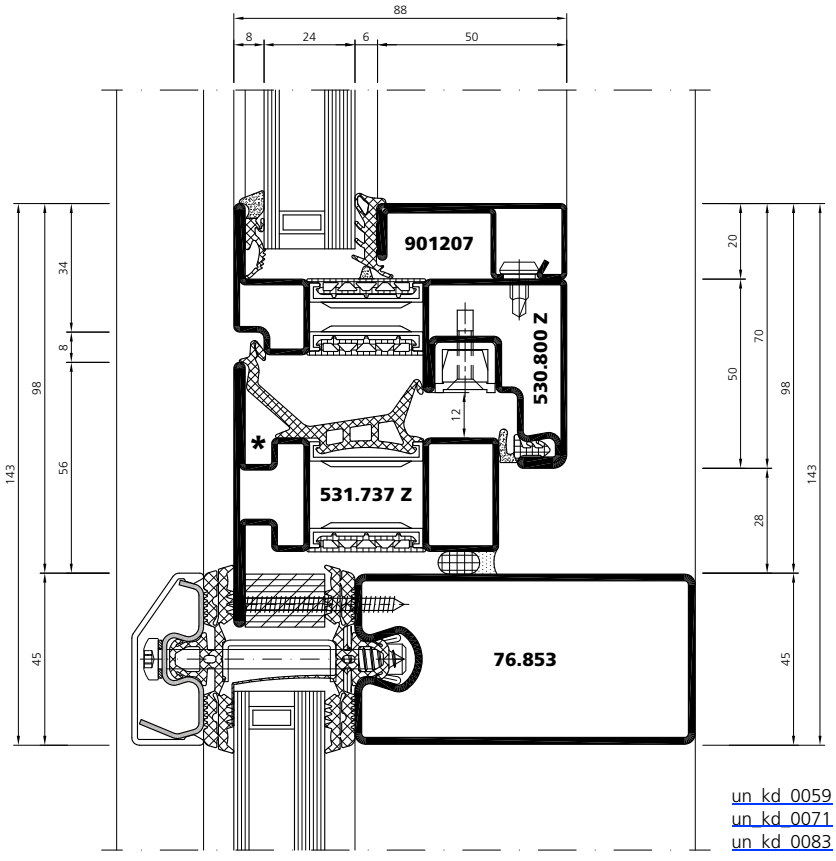


* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove

un_kd_0059 (RC1)
un_kd_0071 (RC2)
un_kd_0083 (RC3)

Wandbefestigung

Mauerwerk

Um die einbruchhemmende Wirkung der Abschlüsse sicherzustellen, müssen die umgebenden Wände folgende Mindestanforderungen erfüllen:

Fixation murale

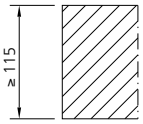
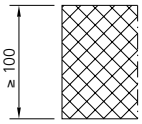
Maçonnerie

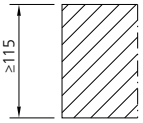
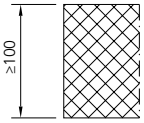
Pour garantir la protection anti-effraction des cloisons, les murs environnants doivent respecter les critères minimaux suivants :

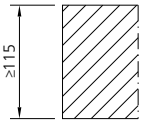
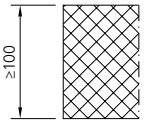
Wall mounts

Masonry

In order to guarantee the burglar resistance of the screens, the surrounding walls need to meet the following minimum requirements:

Widerstandsklasse des einbruchhemmenden Bauteils*	Umgebende Wände				
	Aus Mauerwerk nach DIN 1053 Teil1			Aus Stahlbeton nach DIN 1045	
	Nenndicke mm min.	Druckfestigkeitsklasse der Steine	Mörtelgruppe min.	Nenndicke mm min.	Festigkeitsklasse der Steine
WK1	**≥ 115**	**≥ 12**	**II**	**≥ 100**	**B15**
					

Classe de résistance du composant anti-effraction*	Murs environnants				
	En maçonnerie conforme à la norme DIN 1053 Partie 1			En béton armé confome à la norme DIN 1045	
	Epaisseur nominale mm min.	Classe de résistance à la pression des parpaings	Classe de mortier min.	Epaisseur nominale mm min.	Classe de résistance du béton
CR1	**≥115**	**≥12**	**II**	**≥100**	**B15**
					

Resistance class of burglar-resistant element*	Surrounding walls				
	Masonry according to DIN 1053 Part 1			Reinforced concrete according to DIN 1045	
	Thickness mm min.	Pressure strength class of the stones	Mortar group min.	Thickness mm min.	Mechanical strenght class of the stones
RC1	**≥ 115**	**≥ 12**	**II**	**≥ 100**	**B15**
					

* nach DIN V ENV 1627 / selon DIN V ENV 1627 / according to DIN V ENV 1627

Beispiel für zulässige Wandanschlüsse

Folgende Befestigungsmittel können zur Montage der einbruchhemmenden Elemente eingesetzt werden:

- Rahmendübel min. Ø 10 mm
- Anker, Laschen (Segmentanker min. Ø 8 mm)
- Ankerschienen oder Montageschienen
- Schrauben mit metrischem Gewinde min. M8
- HILTI HUS-Universalschraube

Exemples de profilés muraux autorisés

Les modes de fixation suivants sont utilisables pour le montage des éléments anti-effraction :

- chevilles synthétiques minimum Ø 10 mm
- chevilles d'ancrage métalliques Ø minimum 8 mm
- rails d'ancrage ou de montage
- vis à filetage métrique Ø minimum 8 mm
- vis universelle HILTI HUS

Example for permissible wall abutments

The following fasteners can be used to fit the burglar-resistant elements:

- Frame plugs min. Ø 10 mm
- Anchors, straps (segment anchor min. Ø 8 mm)
- Anchor rails or fixing rails
- Screws with a metric thread of min. Ø 8 mm
- HILTI HUS universal screw anchor

Wandbefestigung

Mauerwerk

Um die einbruchhemmende Wirkung der Abschlüsse sicherzustellen, müssen die umgebenden Wände folgende Mindestanforderungen erfüllen:

Fixation murale

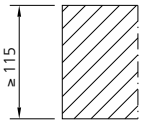
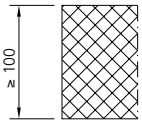
Maçonnerie

Pour garantir la protection anti-effraction des cloisons, les murs environnants doivent respecter les critères minimaux suivants :

Wall mounts

Masonry

In order to guarantee the burglar resistance of the screens, the surrounding walls need to meet the following minimum requirements:

Widerstandsklasse des einbruchhemmenden Bauteils*	Umgebende Wände				
	Aus Mauerwerk nach DIN 1053 Teil1			Aus Stahlbeton nach DIN 1045	
	Nenndicke mm min.	Druckfestigkeitsklasse der Steine	Mörtelgruppe min.	Nenndicke mm min.	Festigkeitsklasse der Steine
RC2	**≥ 115**	**≥ 12**	**II**	**≥ 100**	**B15**
					

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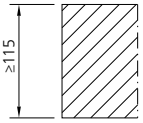
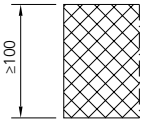
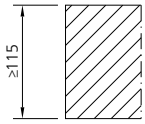
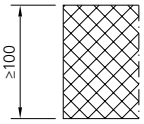
					

Resistance class of burglar-resistant element*	Surrounding walls				
	Masonry according to DIN 1053 Part 1			Reinforced concrete according to DIN 1045	
	Thickness mm min.	Pressure strength class of the stones	Mortar group min.	Thickness mm min.	Mechanical strenght class of the stones
RC2	**≥ 115**	**≥ 12**	**II**	**≥ 100**	**B15**
					

* nach DIN V ENV 1627 / selon DIN V ENV 1627 / according to DIN V ENV 1627

Beispiel für zulässige Wandanschlüsse

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- Rahmendübel min. Ø 10 mm
- Anker, Laschen (Segmentanker min. Ø 8 mm)
- Ankerschienen oder Montageschienen
- Schrauben mit metrischem Gewinde min. M8
- HILTI HUS-Universalschraube

Exemples de profilés muraux autorisés

Les modes de fixation suivants sont utilisables pour le montage des éléments anti-effraction :

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- chevilles d'ancrage métalliques Ø minimum 8 mm
- rails d'ancrage ou de montage
- vis à filetage métrique Ø minimum 8 mm
- vis universelle HILTI HUS

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- Anchors, straps (segment anchor min. Ø 8 mm)
- Anchor rails or fixing rails
- Screws with a metric thread of min. Ø 8 mm
- HILTI HUS universal screw anchor

Wandbefestigung | Fixation murale | Wall mounts

Mauerwerk

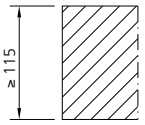
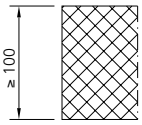
Um die einbruchhemmende Wirkung der Abschlüsse sicherzustellen, müssen die umgebenden Wände folgende Mindestanforderungen erfüllen:

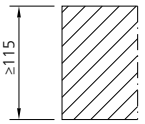
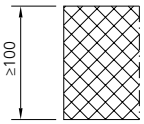
Maçonnerie

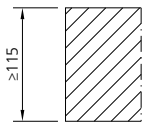
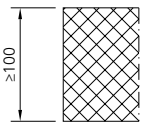
Pour garantir la protection anti-effraction des cloisons, les murs environnants doivent respecter les critères minimaux suivants :

Masonry

In order to guarantee the burglar resistance of the screens, the surrounding walls need to meet the following minimum requirements:

Widerstandsklasse des einbruchhemmenden Bauteils*	Umgebende Wände				
	Aus Mauerwerk nach DIN 1053 Teil1			Aus Stahlbeton nach DIN 1045	
	Nenndicke mm min.	Druckfestigkeitsklasse der Steine	Mörtelgruppe min.	Nenndicke mm min.	Festigkeitsklasse der Steine
RC3	**≥ 115**	**≥ 12**	**II**	**≥ 100**	**B15**
					

Classe de résistance du composant anti-effraction*	Murs environnants				
	En maçonnerie conforme à la norme DIN 1053 Partie 1			En béton armé confome à la norme DIN 1045	
	Epaisseur nominale mm min.	Classe de résistance à la pression des parpaings	Classe de mortier min.	Epaisseur nominale mm min.	Classe de résistance du béton
RC3	**≥115**	**≥12**	**II**	**≥100**	**B15**
					

Resistance class of burglar-resistant element*	Surrounding walls				
	Masonry according to DIN 1053 Part 1			Reinforced concrete according to DIN 1045	
	Thickness mm min.	Pressure strength class of the stones	Mortar group min.	Thickness mm min.	Mechanical strenght class of the stones
RC3	**≥ 115**	**≥ 12**	**II**	**≥ 100**	**B15**
					

* nach DIN V ENV 1627 / selon DIN V ENV 1627 / according to DIN V ENV 1627

Beispiel für zulässige Wandanschlüsse

Folgende Befestigungsmittel können zur Montage der einbruchhemmenden Elemente eingesetzt werden:

- Rahmendübel min. Ø 10 mm
- Anker, Laschen (Segmentanker min. Ø 8 mm)
- Ankerschienen oder Montageschienen
- Schrauben mit metrischem Gewinde min. M8
- HILTI HUS-Universalschraube

Exemples de profilés muraux autorisés

Les modes de fixation suivants sont utilisables pour le montage des éléments anti-effraction :

- chevilles synthétiques minimum Ø 10 mm
- chevilles d'ancrage métalliques Ø minimum 8 mm
- rails d'ancrage ou de montage
- vis à filetage métrique Ø minimum 8 mm
- vis universelle HILTI HUS

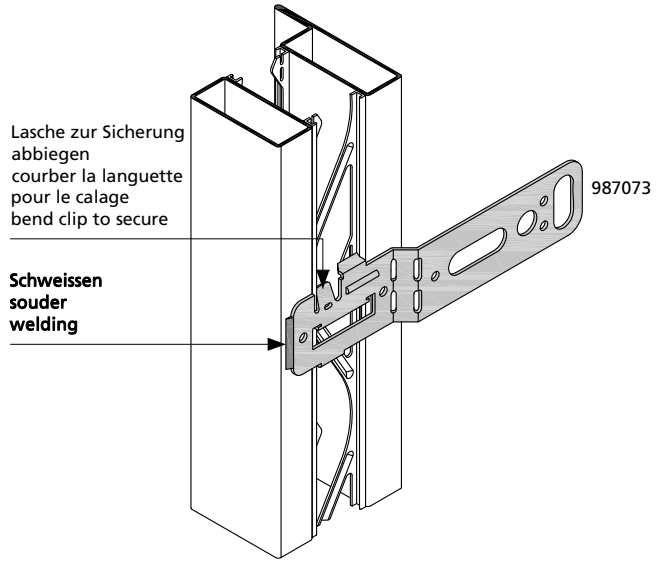
Example for permissible wall abutments

The following fasteners can be used to fit the burglar-resistant elements:

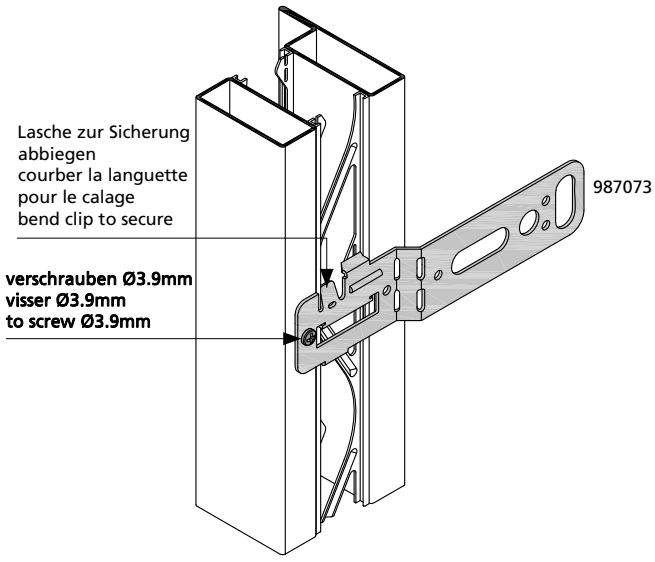
- Frame plugs min. Ø 10 mm
- Anchors, straps (segment anchor min. Ø 8 mm)
- Anchor rails or fixing rails
- Screws with a metric thread of min. Ø 8 mm
- HILTI HUS universal screw anchor

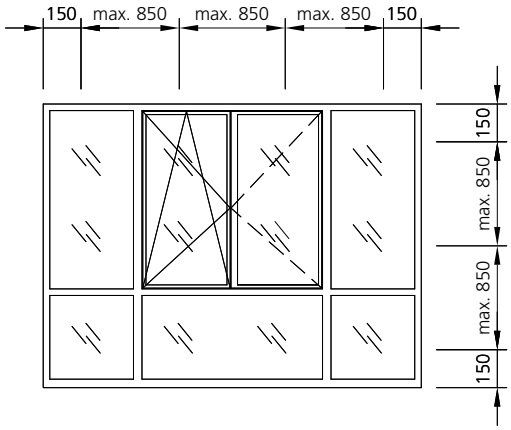
Wandbefestigung Fixation murale Wall mounts

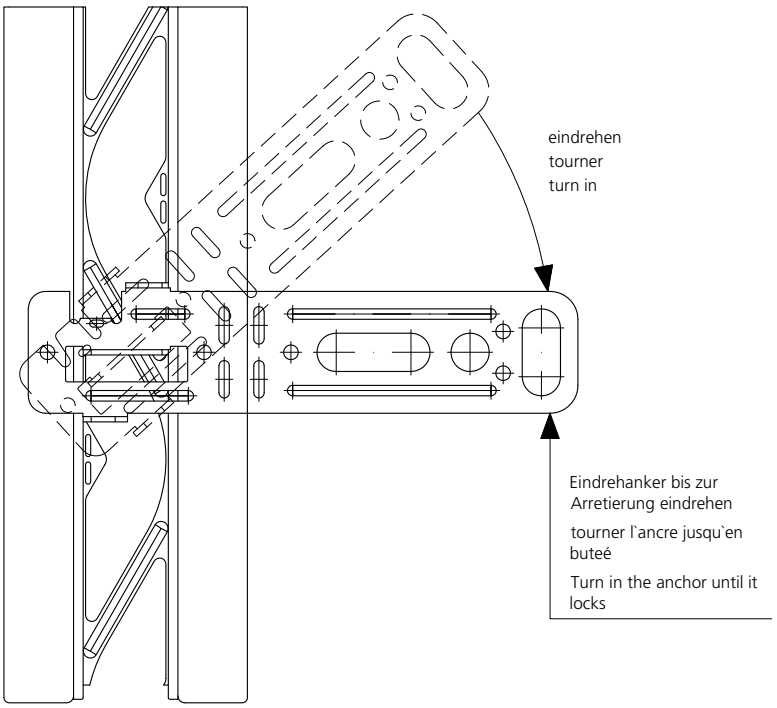
Variante 1 / Variante 1 / Variante 1



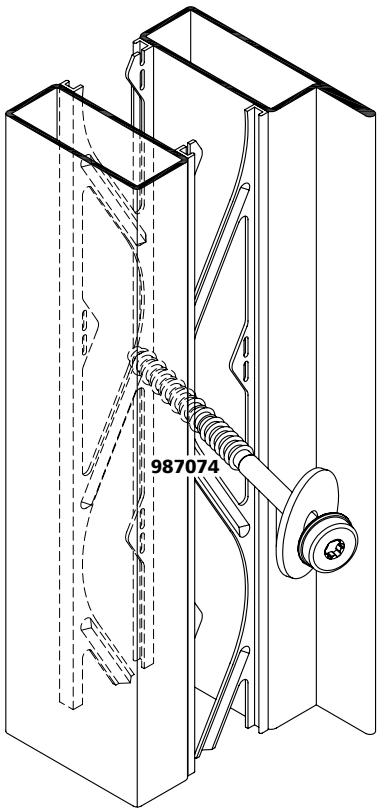
Variante 2 / Variante 2 / Variante 2

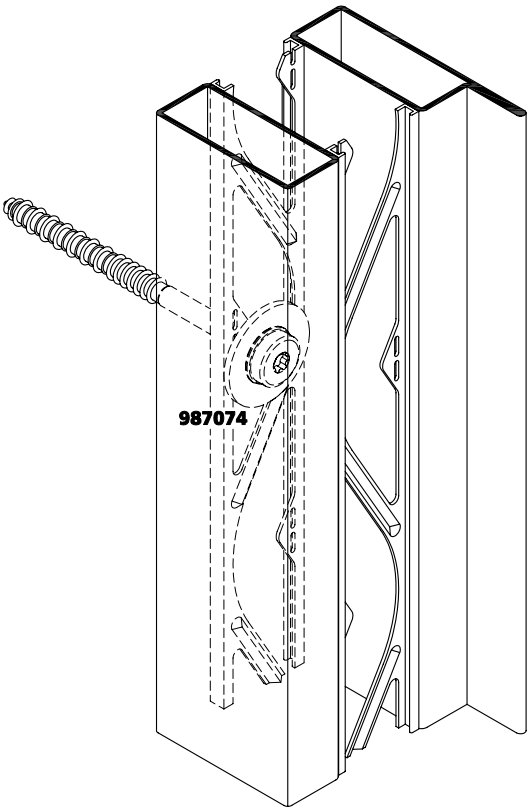


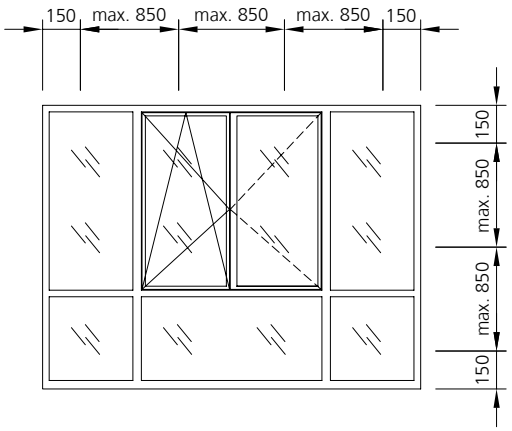


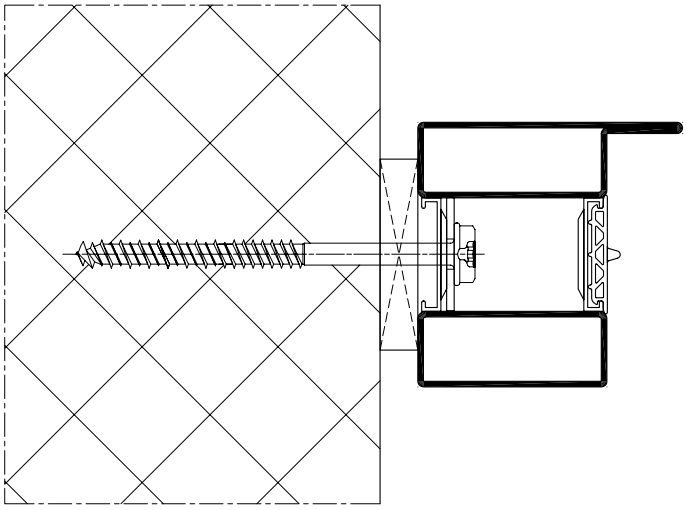


Wandbefestigung | Fixation murale | Wall mounts

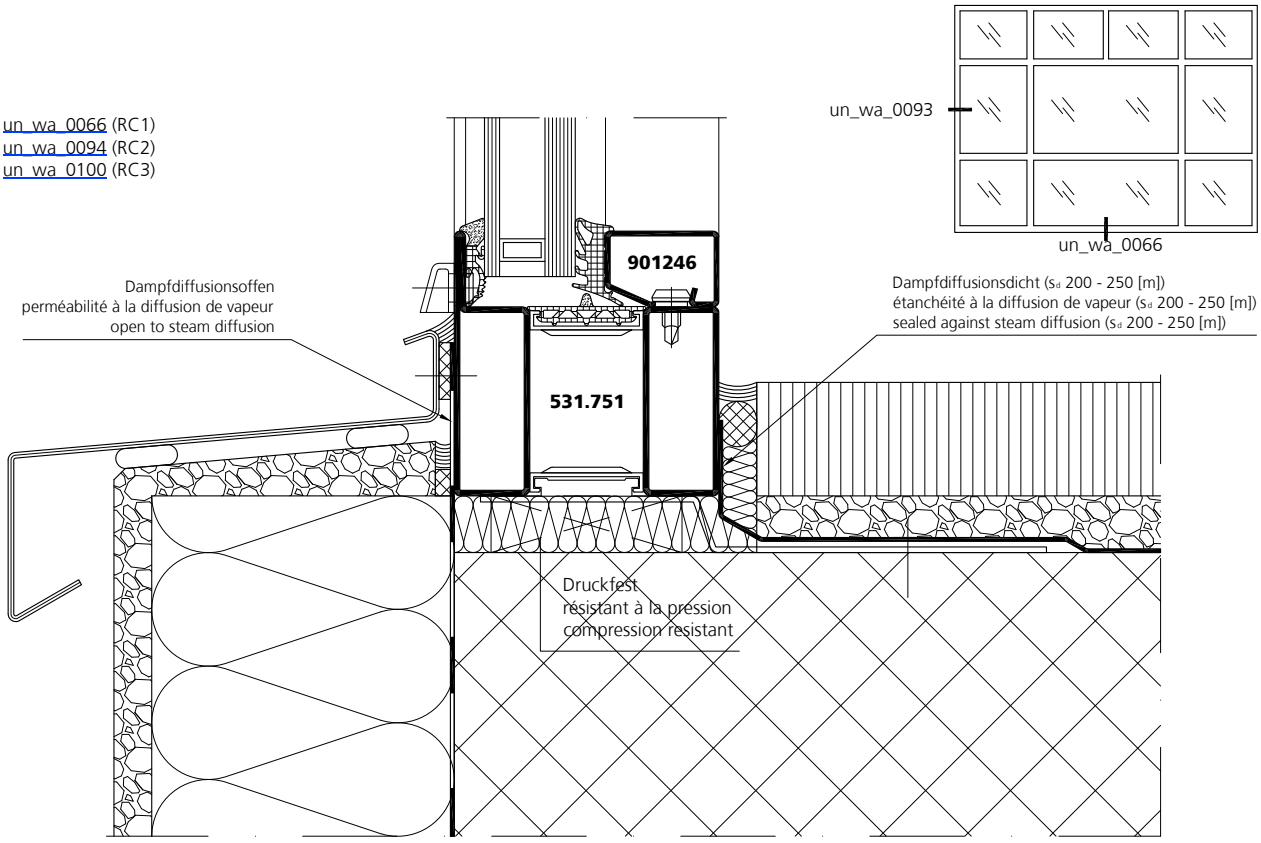


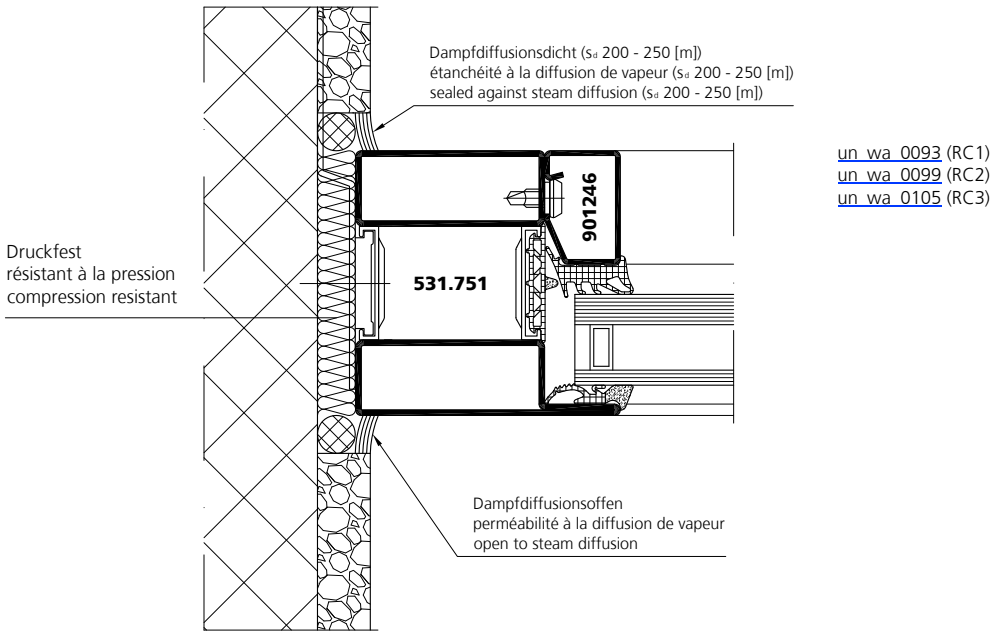






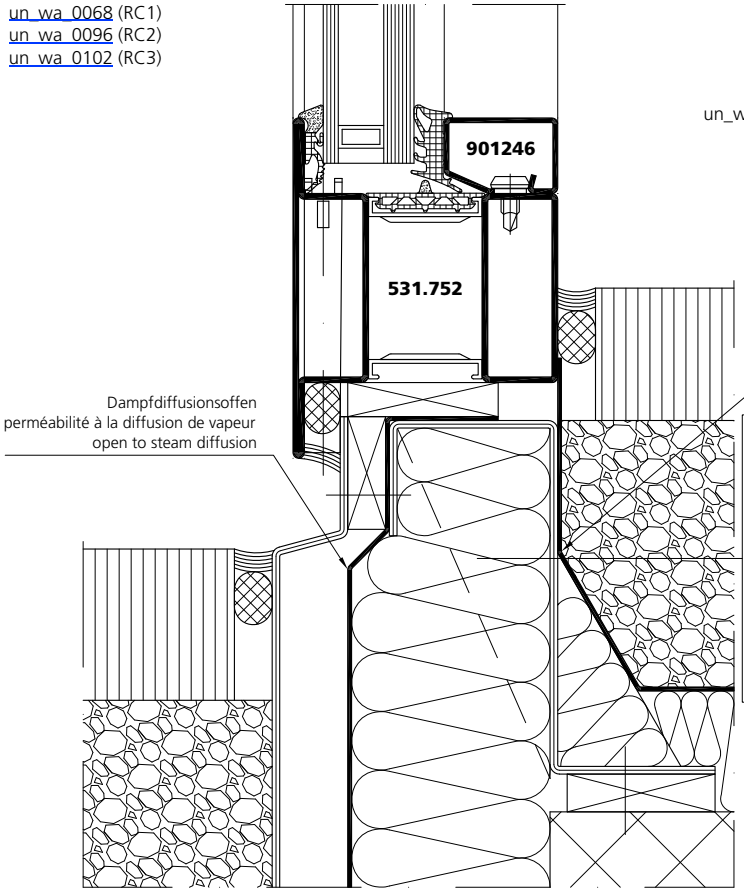
Bauanschlüsse | Raccords muraux | Wall abutments



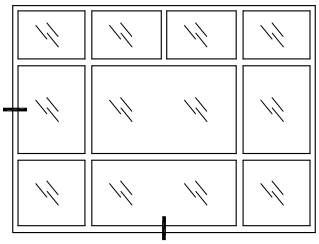


Bauanschlüsse | Raccords muraux | Wall abutments

un_wa_0068 (RC1)
un_wa_0096 (RC2)
un_wa_0102 (RC3)



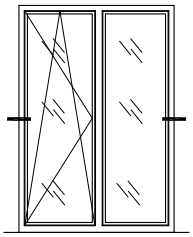
un_wa_0067



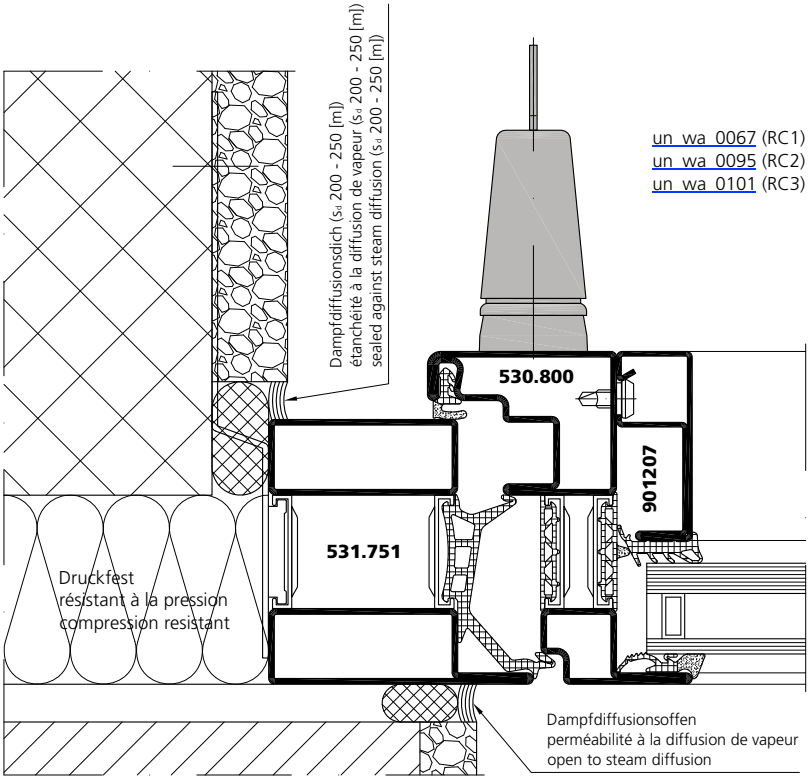
Rippe (5 mm)
- Festverglasung alle 600 mm
- Fensterflügel bei jedem Verriegelungspunkt

Gousset (5 mm)
- Chassis fixe tous les 600 mm
- Vantail au niveau des gâches

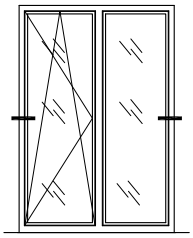
Wedge (5 mm)
- Fixed glazing each 600 mm
- leafs at striker positions

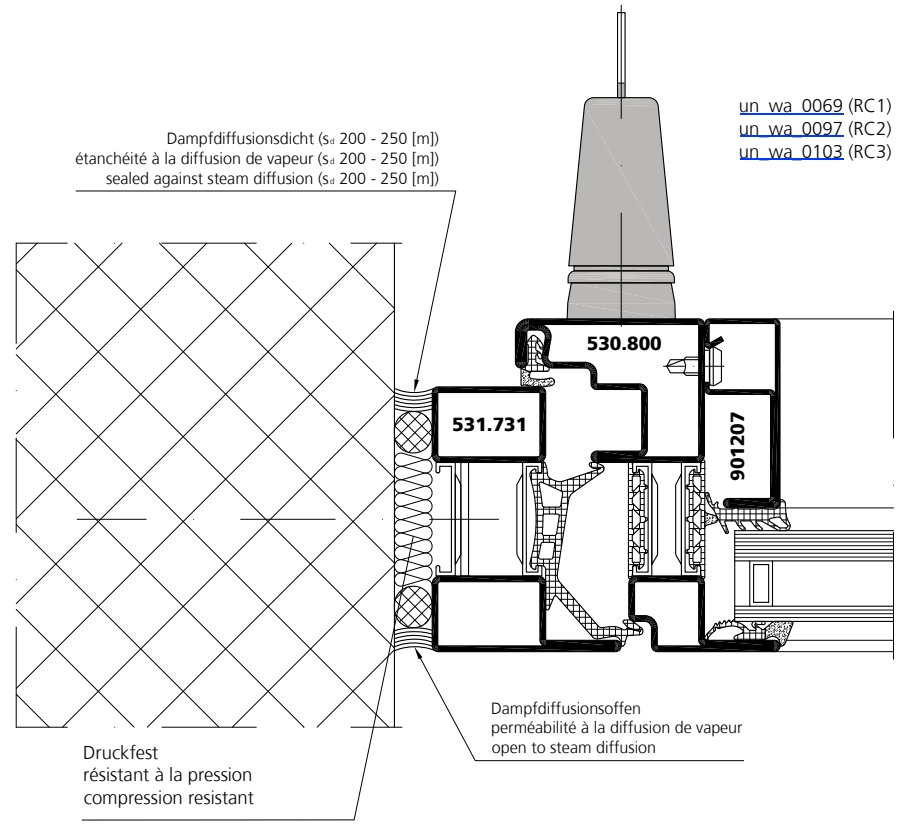


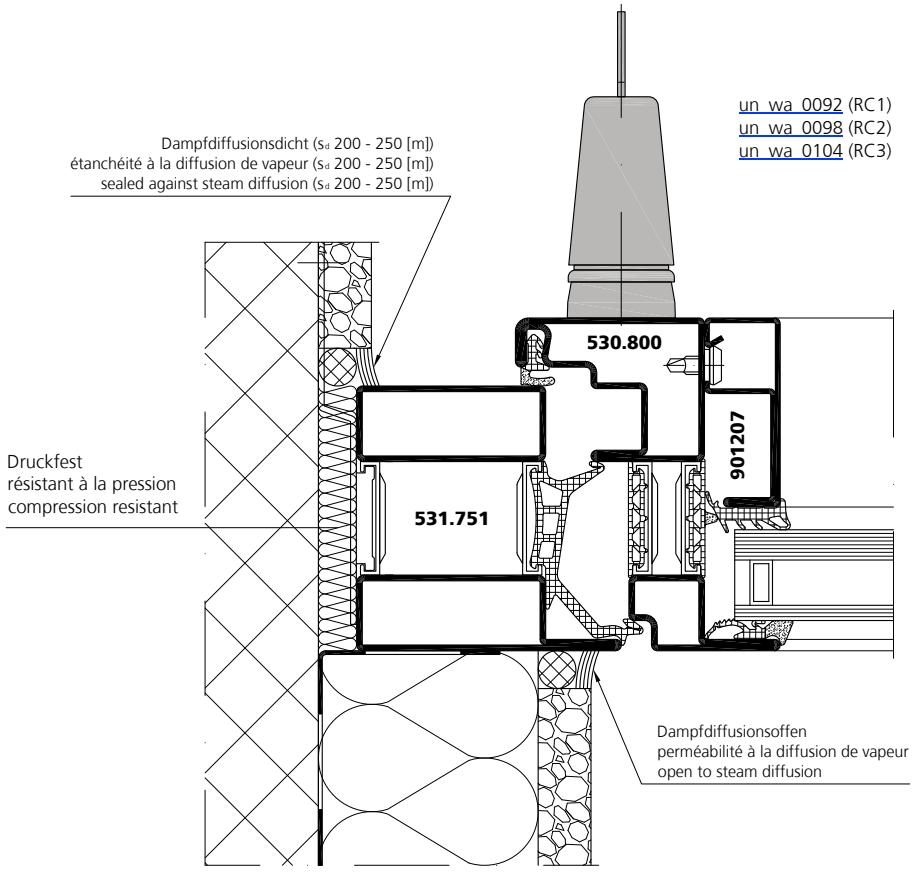
un_wa_0067 (RC1)
un_wa_0095 (RC2)
un_wa_0101 (RC3)



Bauanschlüsse Raccords muraux Wall abutments







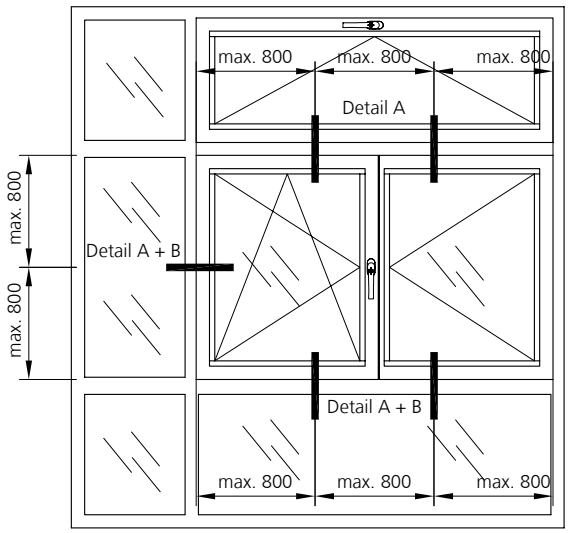


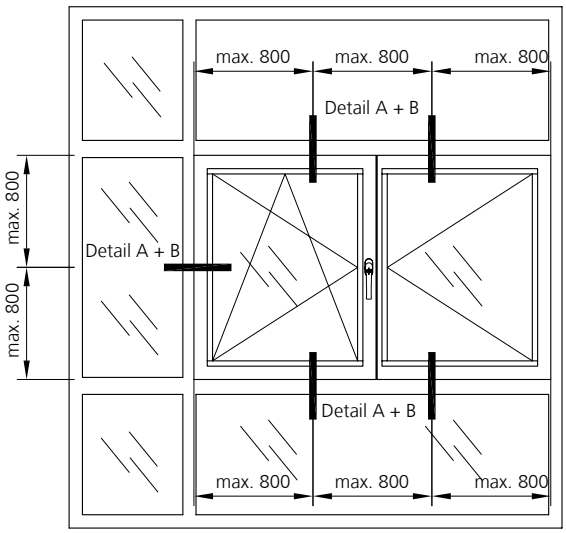
Zahnarztpraxis, CH-Zürich

Profilbearbeitung
Profilverstärkung

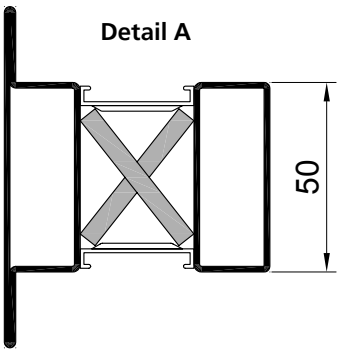
Mise en œuvre des profilés
Renforcement des profilés

Profile processing
Profile reinforcement

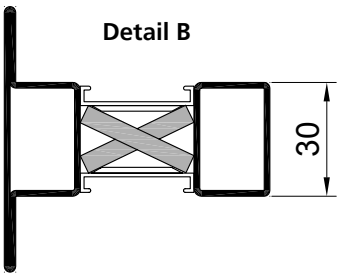


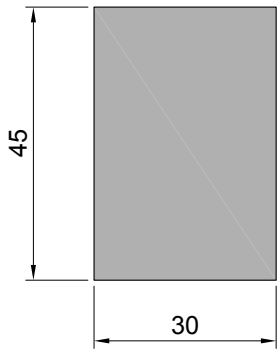


Detail A



Detail B

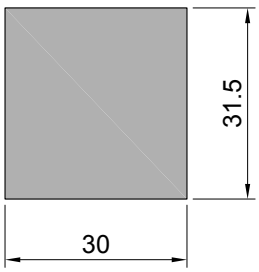


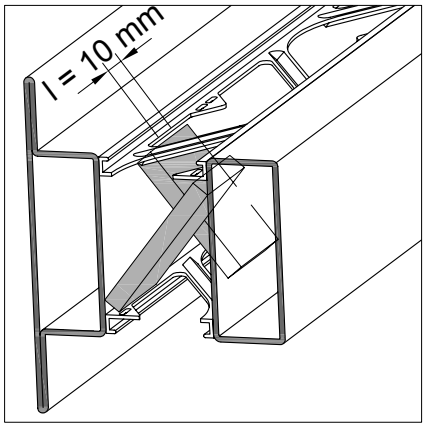


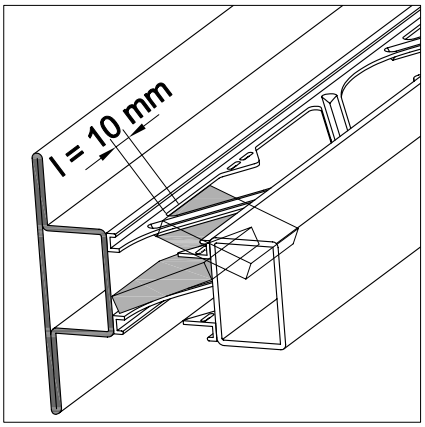
CRNI 4 mm
Eigenfertigung

Acier inox 4 mm
auto-fabrication

Stainless steel 4 mm
in house produktion



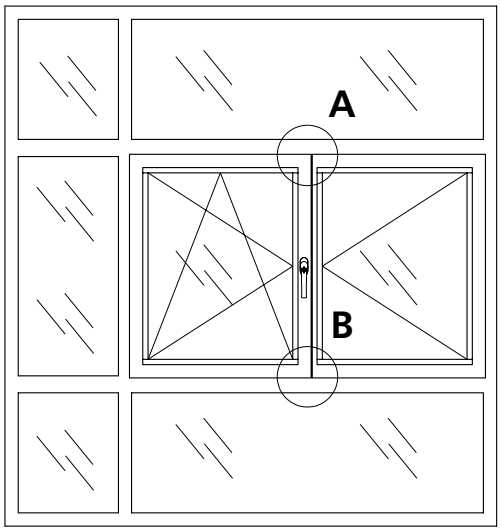




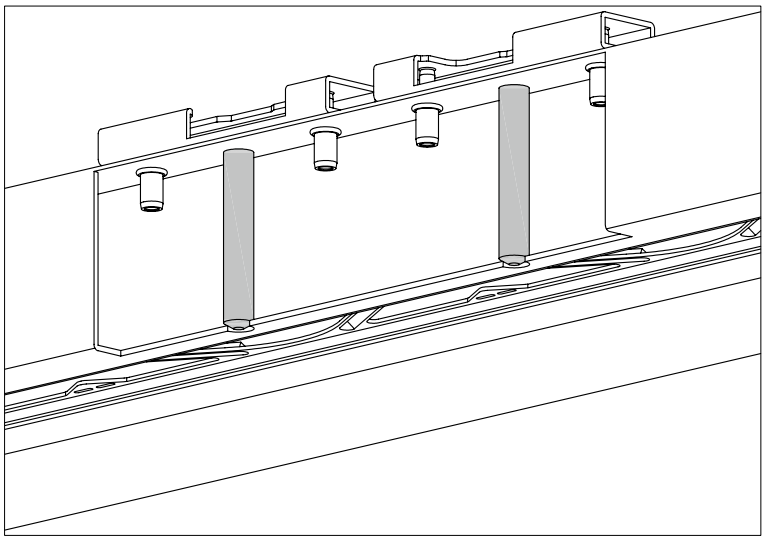
Profilbearbeitung
Profilverstärkung
Schliessstück RC
Variante 1

Mise en œuvre des profilés
Renforcement des profilés
Gâche RC
Variante 1

Profile processing
Profile reinforcement
Striker RC
Option 1

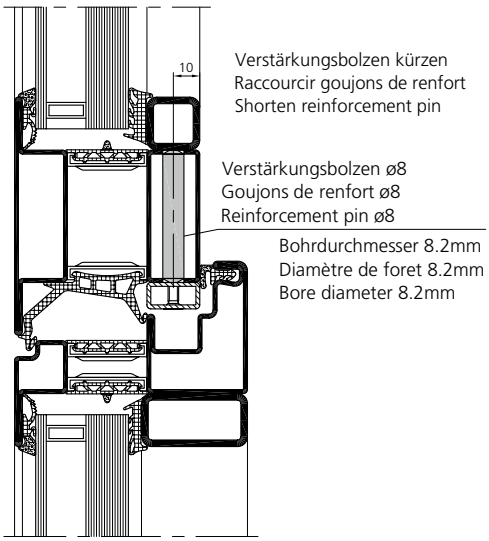


Gezeichnet Detail B / Dessiné Detail B / Marked Detail B

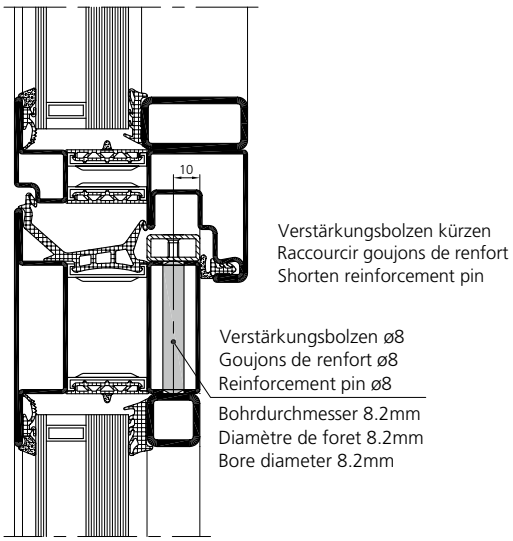


Stahl / Acier / Steel

Detail A



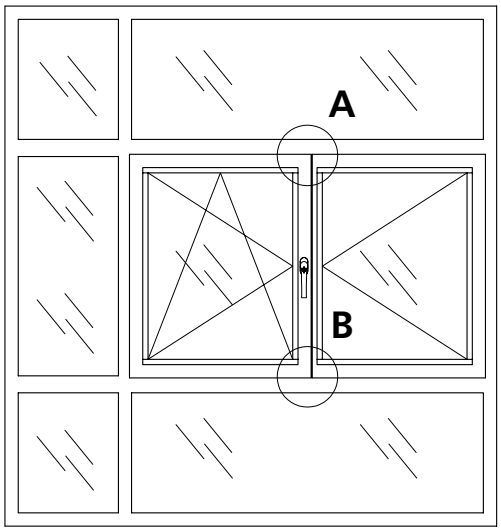
Detail B



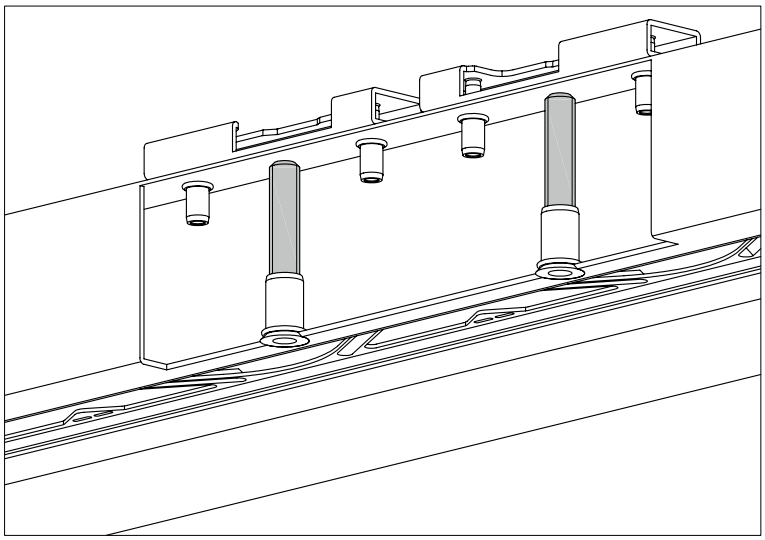
Profilbearbeitung
Profilverstärkung
Schliessstück RC
Variante 2

Mise en œuvre des profilés
Renforcement des profilés
Gâche RC
Variante 2

Profile processing
Profile reinforcement
Striker RC
Option 2

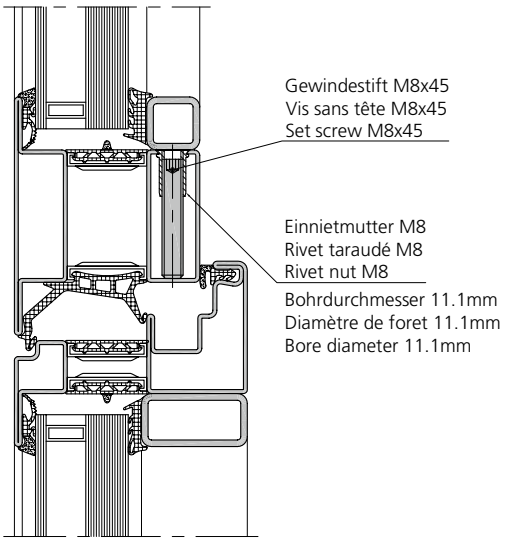


Gezeichnet Detail B / Dessiné Detail B / Marked Detail B

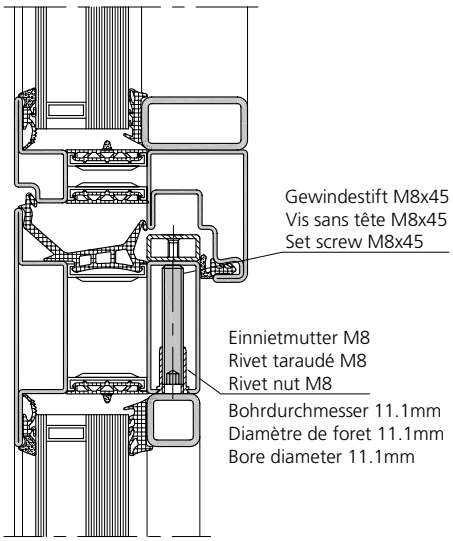


Edelstahl / Acier inox / Stainless steel

Detail A



Detail B



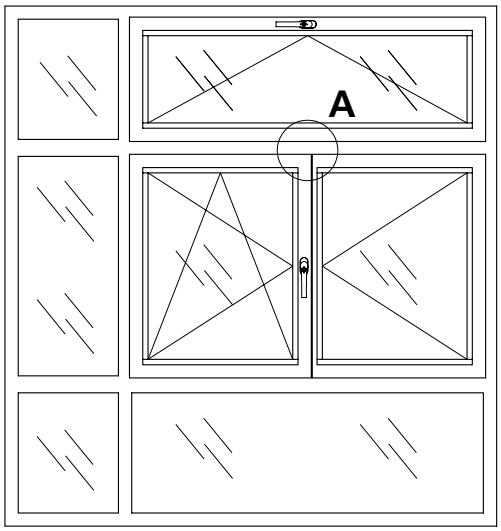
RC 3

Stahl
Acier
Steel

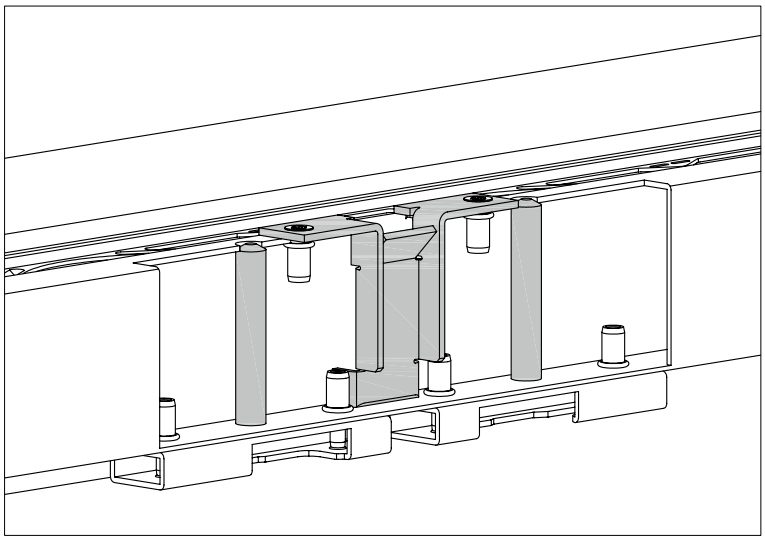
Profilbearbeitung
Profilverstärkung
Schliessstück RC
Variante 3

Mise en œuvre des profilés
Renforcement des profilés
Gâche RC
Variante 3

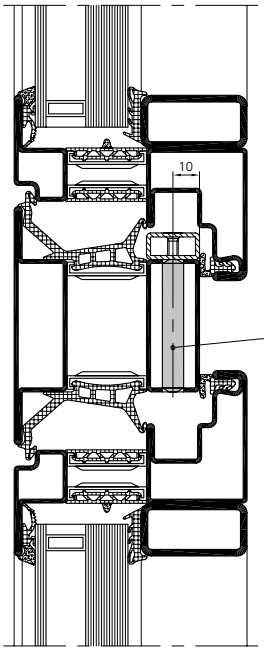
Profile processing
Profile reinforcement
Striker RC
Option 3



Gezeichnet Detail A / Dessiné Detail A / Marked Detail A



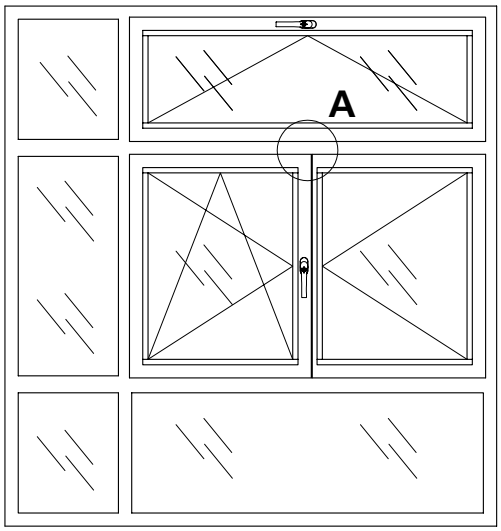
Stahl / Acier / Steel



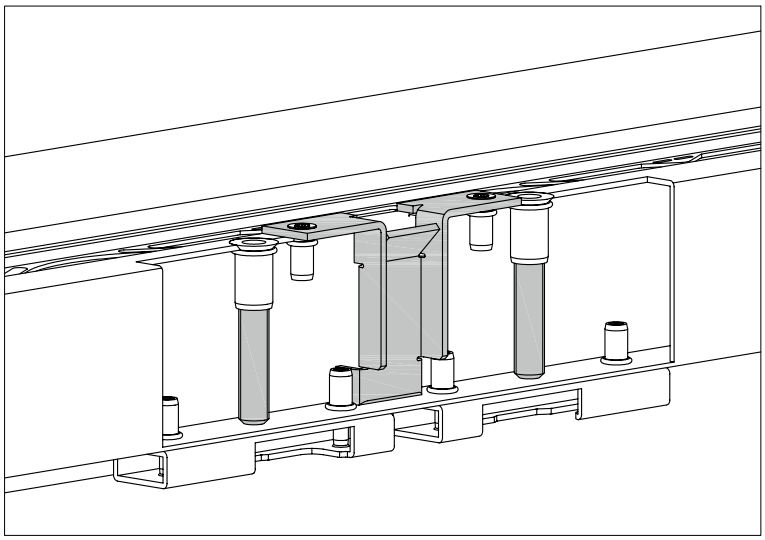
Profilbearbeitung
Profilverstärkung
Schliessstück RC
Variante 4

Mise en œuvre des profilés
Renforcement des profilés
Gâche RC
Variante 4

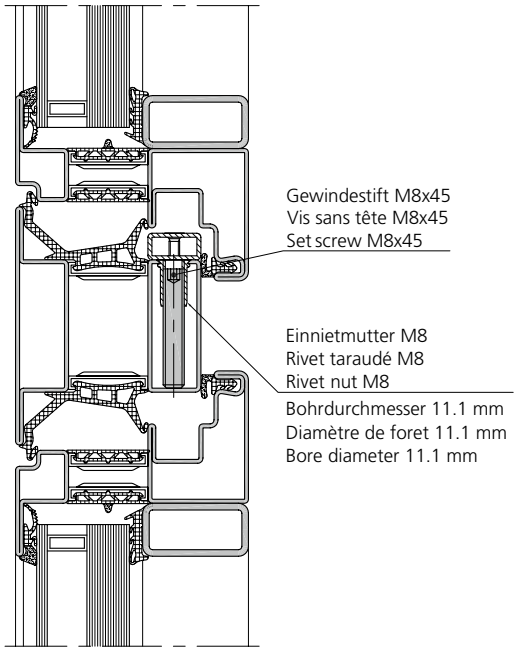
Profile processing
Profile reinforcement
Striker RC
Option 4



Gezeichnet Detail A / Dessiné Detail A / Marked Detail A



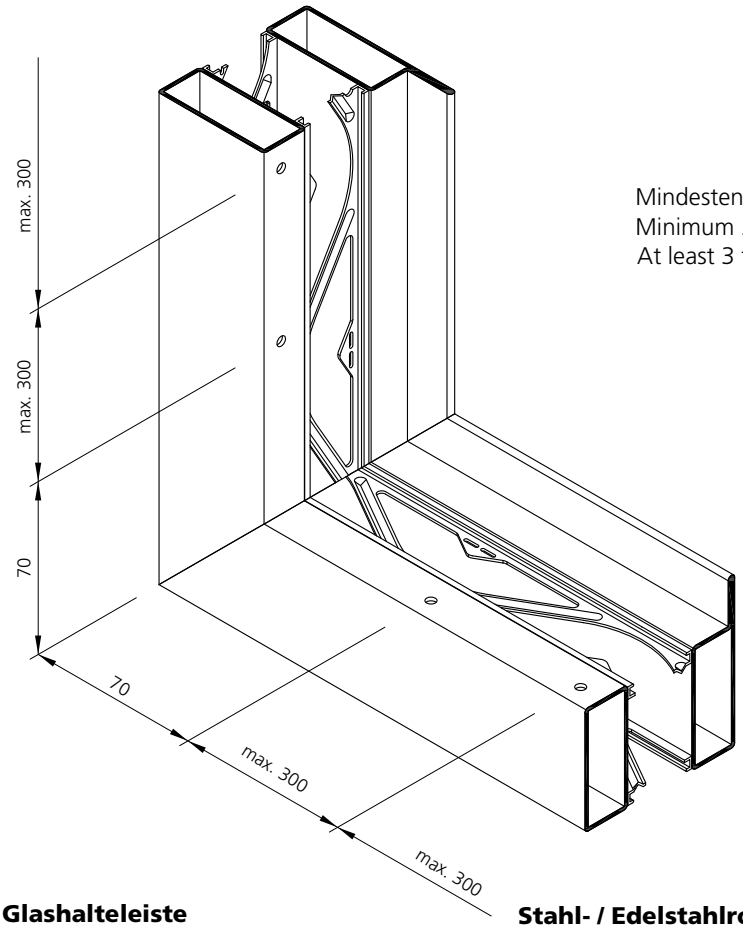
Edelstahl / Acier inox / Stainless steel



Profilbearbeitung
Bautiefe 70

Mise en œuvre des profilés
Profondeur 70

Profile processing
Depth 70

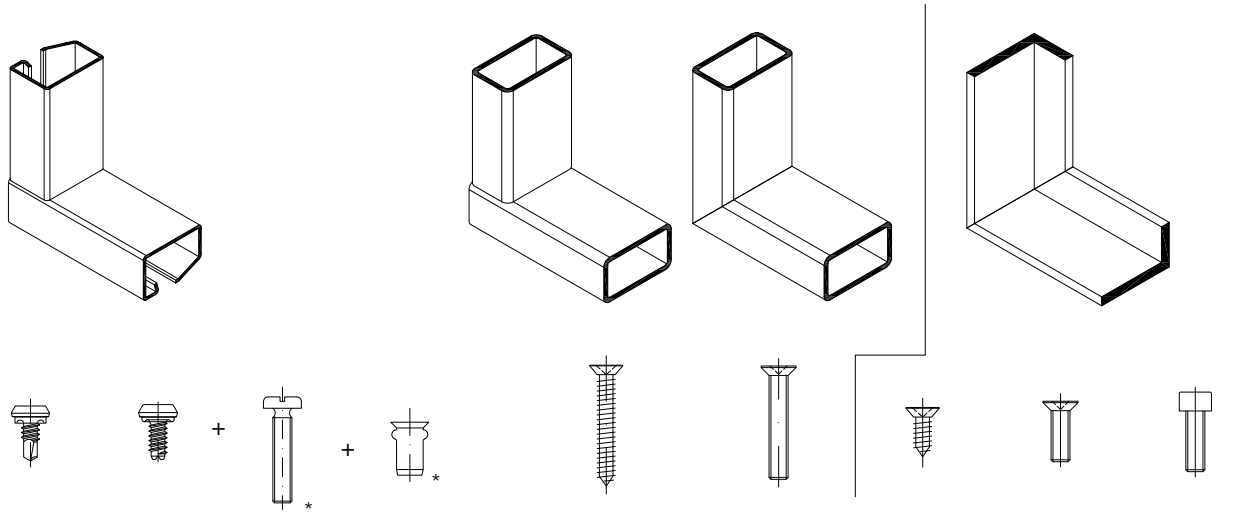


Mindestens 3 Befestigungen pro Seite
Minimum 3 fixations par côté
At least 3 fasteners per side

Glashalteleiste
Parclose
Glacing beads

Stahl- / Edelstahlrohr
Tube en acier / acier inox
Steel- / Stainless steel tube

Stahl- / Edelstahlwinkel
Equerre en acier / acier inox
Steel- / Stainless steel angle



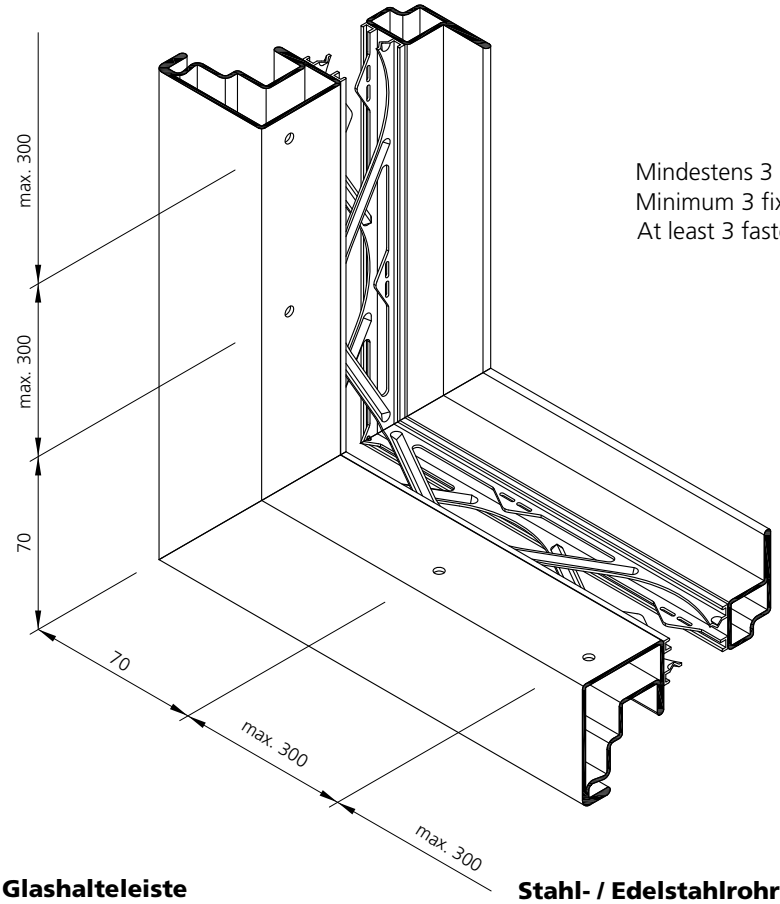
906577 **906578** **906579**	**906583** Edelstahl Acier inox Stainless steel	**M5 x 25 mm** (ISO 1580 A2)	Einnietmutter Ecrou à river Riveting nut	**4.8 x 32 mm** (ISO 7050 A2)	**M4 x 30 mm** (ISO 7045 A2)	**4.8 x 13 mm** (ISO 7050 A2)	**M4 x 16 mm** (ISO 7045 A2)	**M4 x 16 mm** (ISO 7045 A2)

* bei der Trockenverglasung zusätzlich bei jedem 2. Klemmknopf erforderlich
avec vitrage à sec, tous les deux boutons une vis est requise en supplément
with dry glazing, required for every second stud fastener

Profilbearbeitung
Bautiefe 88

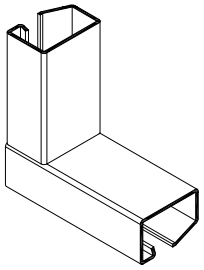
Mise en œuvre des profilés
Profondeur 88

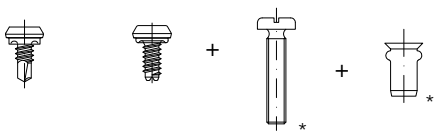
Profile processing
Depth 88



Mindestens 3 Befestigungen pro Seite
Minimum 3 fixations par côté
At least 3 fasteners per side

Glashalteleiste
Parclose
Glacing beads





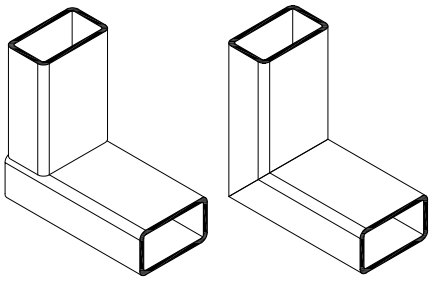
906577
906578
906579

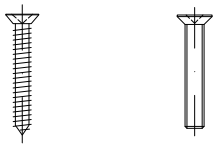
906583
Edelstahl
Acier inox
Stainless steel

M5 x 25 mm
(ISO 1580 A2)

Einnietmutter
Ecrou à river
Riveting nut

Stahl- / Edelstahlrohr
Tube en acier / acier inox
Steel- / Stainless steel tube

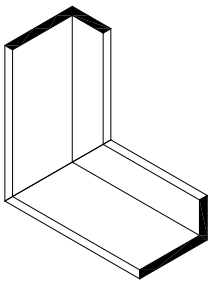


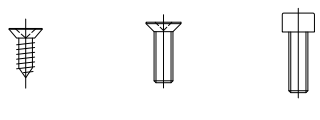


4.8 x 32 mm
(ISO 7050 A2)

M4 x 30 mm
(ISO 7045 A2)

Stahl- / Edelstahlwinkel
Equerre en acier / acier inox
Steel- / Stainless steel angle





4.8 x 13 mm
(ISO 7050 A2)

M4 x 16 mm
(ISO 7045 A2)

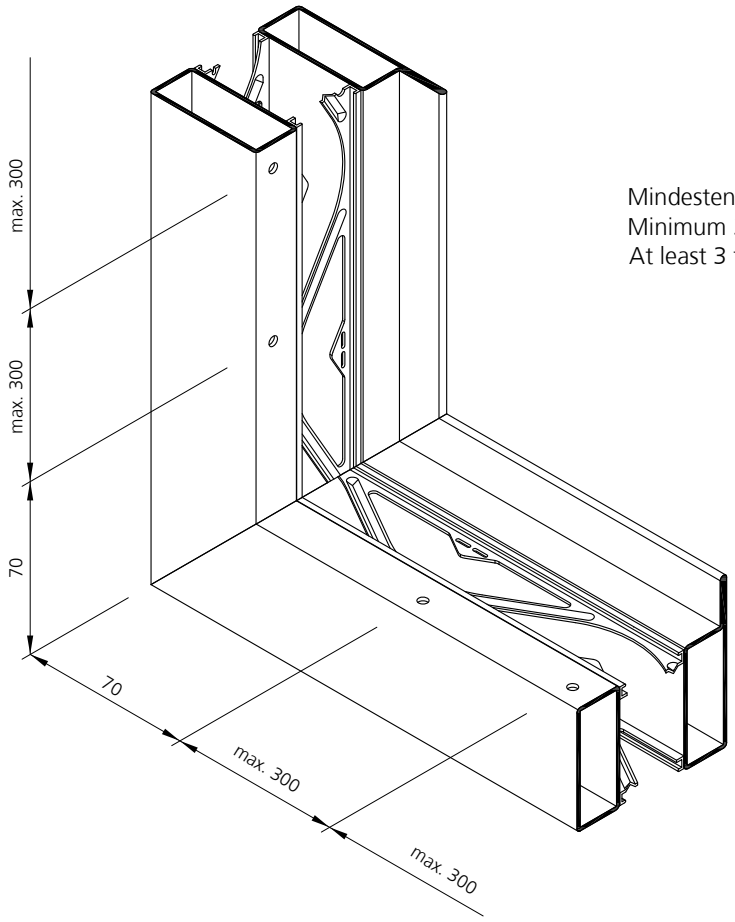
M4 x 16 mm
(ISO 7045 A2)

* bei der Trockenverglasung zusätzlich bei jedem 2. Klemmknopf erforderlich
avec vitrage à sec, tous les deux boutons une vis est requise en supplément
with dry glazing, required for every second stud fastener

Profilbearbeitung
Bautiefe 70

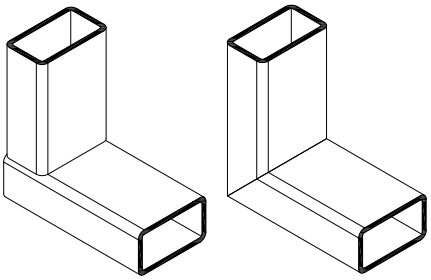
Mise en œuvre des profilés
Profondeur 70

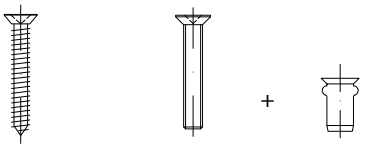
Profile processing
Depth 70



Mindestens 3 Befestigungen pro Seite
Minimum 3 fixations par côté
At least 3 fasteners per side

Stahl- / Edelstahlrohr
Tube en acier / - acier inox
Steel- / Stainless steel tube





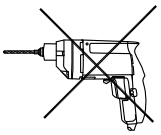
4.8 x 32 mm
(ISO 7050 A2)

M4 x 30 mm
(ISO 7045 A2)

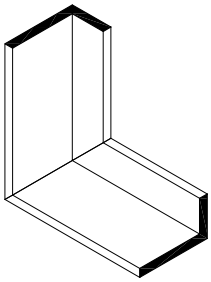
Einnietmutter
Ecrou à river
Riveting nut



Schrauben von Hand eindrehen
Visser les vis à la main
Screws manually adjustable

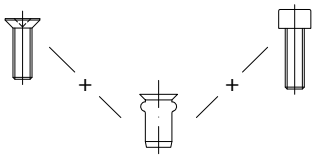


Stahl- / Edelstahlwinkel
Equerre en acier / - acier inox
Steel- / Stainless steel angle





4.8 x 13 mm
(ISO 7050 A2)



M4 x 16 mm
(ISO 7045 A2)

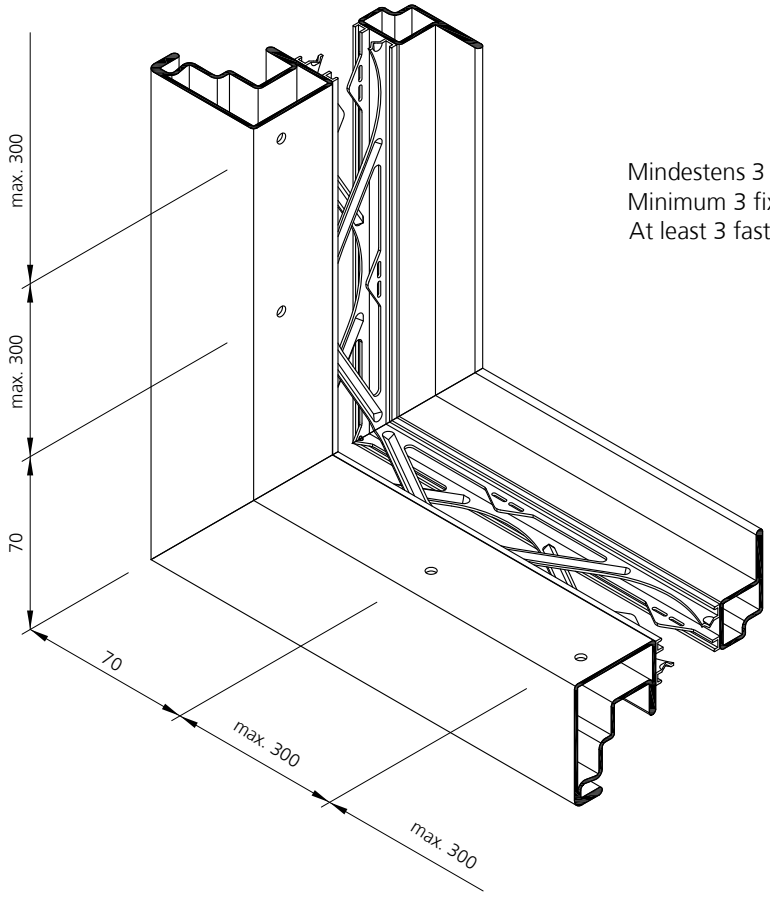
Einnietmutter
Ecrou à river
Riveting nut

M4 x 16 mm
(ISO 7045 A2)

Profilbearbeitung
Bautiefe 88

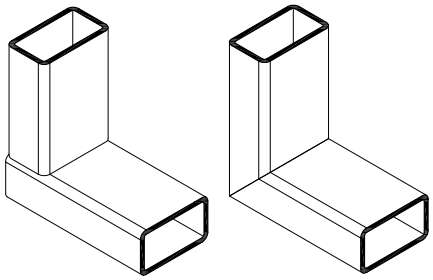
Mise en œuvre des profilés
Profondeur 88

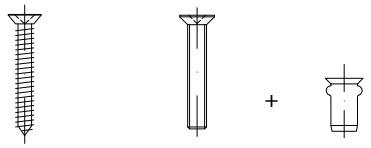
Profile processing
Depth 88



Mindestens 3 Befestigungen pro Seite
Minimum 3 fixations par côté
At least 3 fasteners per side

Stahl- / Edelstahlrohr
Tube en acier / - acier inox
Steel- / Stainless steel tube





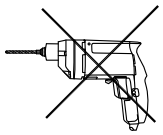
4.8 x 32 mm
(ISO 7050 A2)

M4 x 30 mm
(ISO 7045 A2)

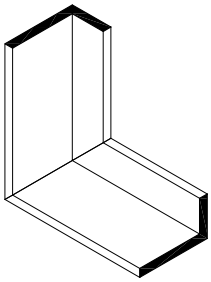
Einnietmutter
Ecrou à river
Riveting nut



Schrauben von Hand eindrehen
Visser les vis à la main
Screws manually adjustable

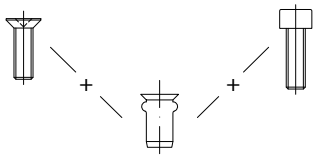


Stahl- / Edelstahlwinkel
Equerre en acier / - acier inox
Steel- / Stainless steel angle





4.8 x 13 mm
(ISO 7050 A2)



M4 x 16 mm
(ISO 7045 A2)

Einnietmutter
Ecrou à river
Riveting nut

M4 x 16 mm
(ISO 7045 A2)

VUF 01/19



Rustoord Ancro-site, BE-Wilsel

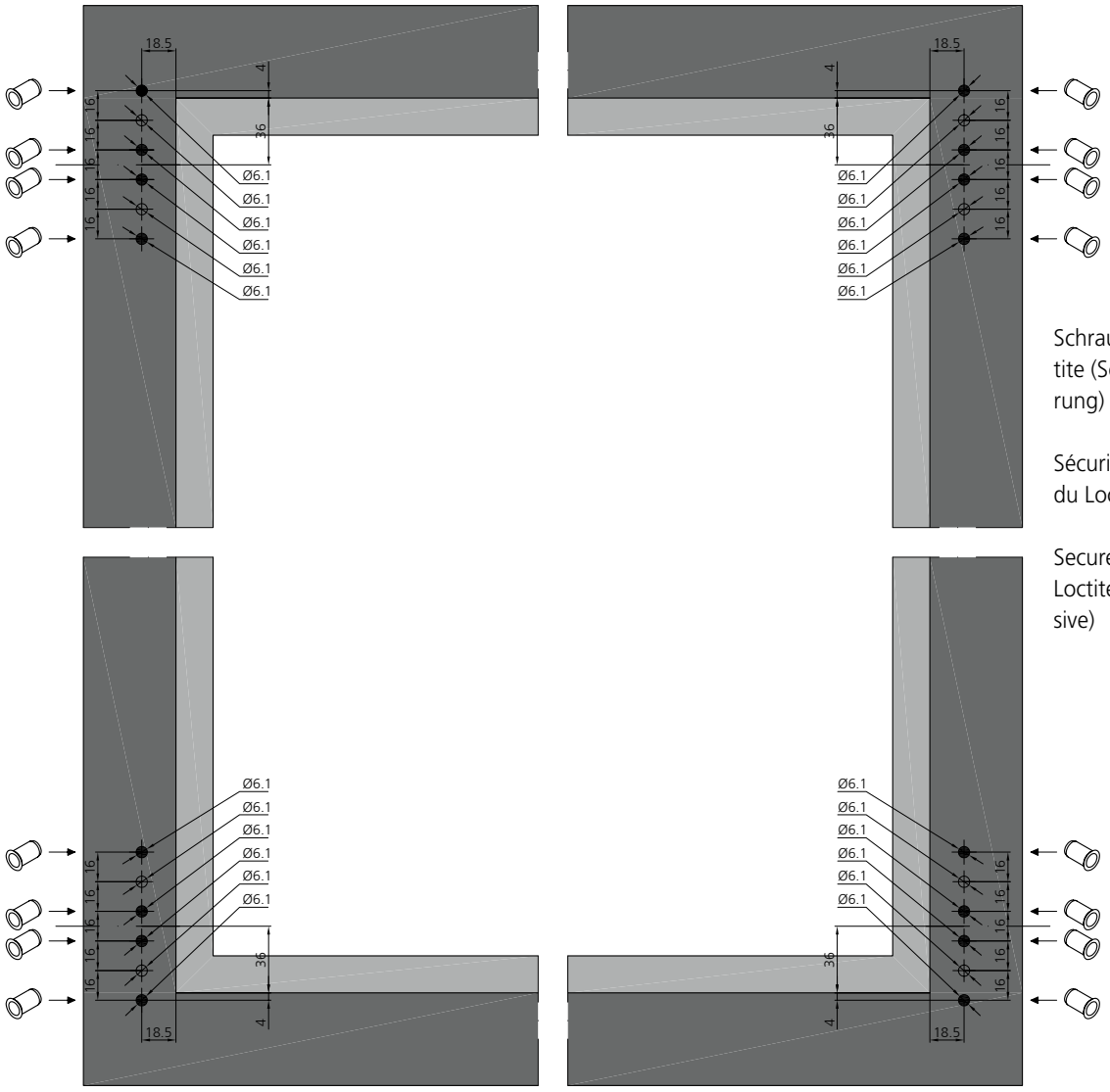
Beschlagseinbau 1-flügeliges Fenster WK1

Montage de la quincaillerie Fenêtre à 1 vantail CR1

Installation of the fittings Window 1 leaf RC1

DIN links
DIN gauche
DIN left

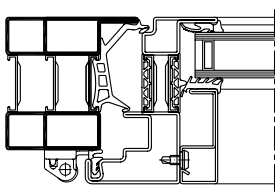
DIN rechts
DIN droite
DIN right

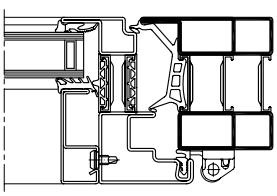


Schrauben mit Loctite (Schraubensicherung) sichern

Sécuriser les vis avec du Loctite

Secure screw with Loctite (screw adhesive)

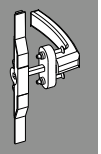


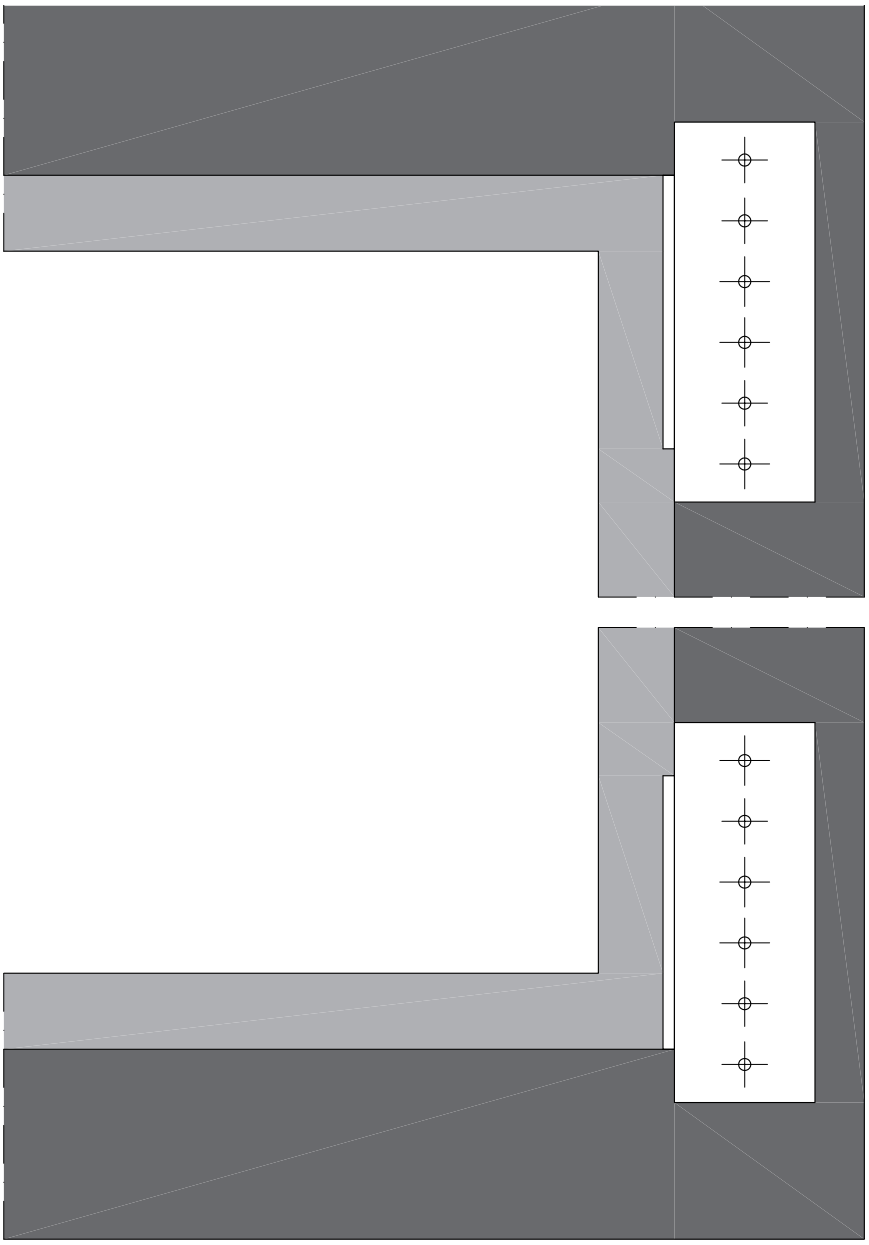


Beschlagseinbau 1-flügeliges Fenster WK1

Montage de la quincaillerie Fenêtre à 1 vantail CR1

Installation of the fittings Window 1 leaf RC1

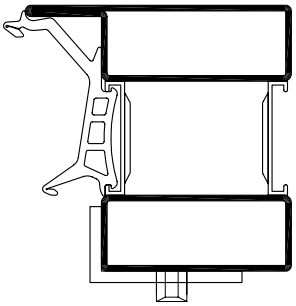




Bohrlehre **Art.Nr 989103**
zu Axer- und Ecklager

Gabarit de perçage **art no 989103** pour
palier dàngle et palier de compas

Drilling template **art. no. 989103** for
sash stay bearing and corner pivot rest



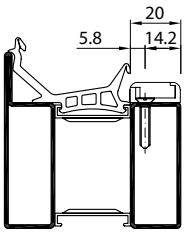


Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Beschlagseinbau 1-flügeliges Fenster WK1

Anordnung Schliessstücke
1-flg. in Abhängigkeit der Flügelfalz-Breite

Anordnung Schliesstücke
FFB 290 - 1200 mm

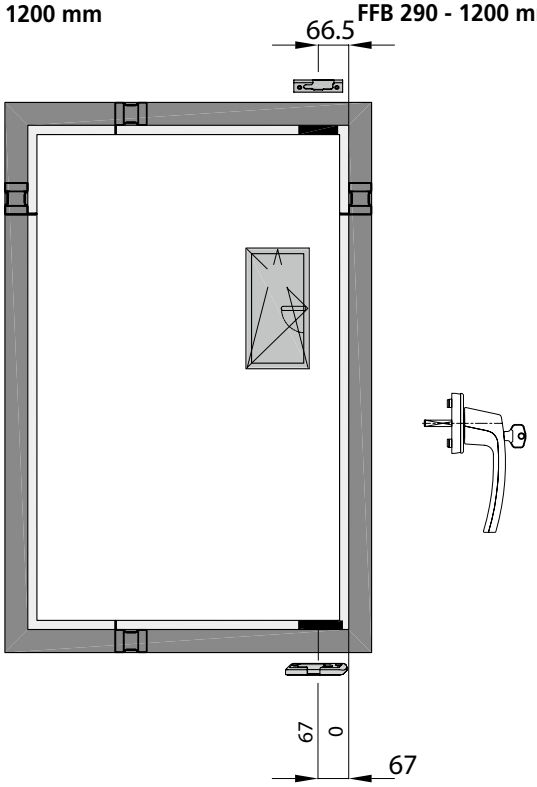


Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

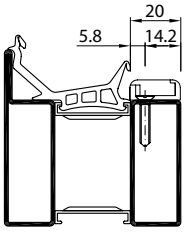
Montage de la quincaillerie Fenêtre à 1 vantail CR1

Disposition des gâches
1 vantail selon la largeur de la feuillure de vantail

Disposition des gâches
FFB 290 - 1200 mm



Anordnung Schliesstücke
FFB 1201 - 1400 mm



Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Installation of the fittings Window 1 leaf RC1

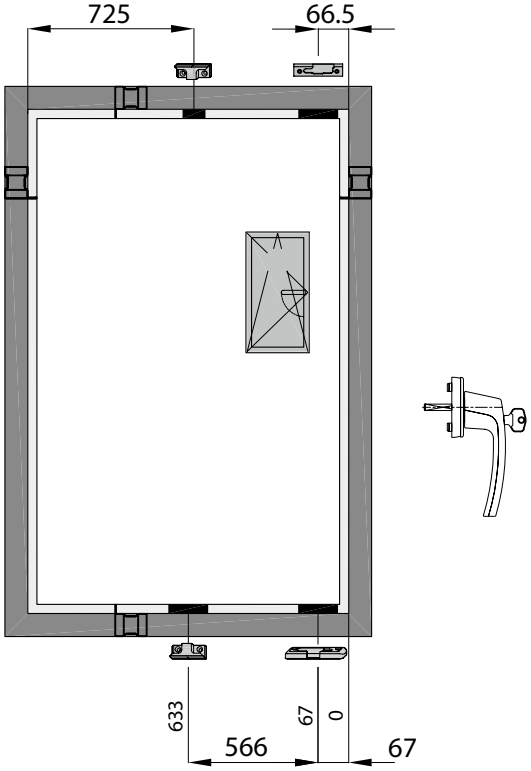
Arrangement of the strikers
1 leaf, depending on the width of the leaf rebate

Arrangement of the strikers
FFB 290 - 1200 mm

Bandseite
Côté paumelle
Hinge side

Getriebeseite
Côté crémone
Drive side

Disposition des gâches
FFB 1201 - 1400 mm



Arrangement of the strikers
FFB 1201 - 1400 mm

Bandseite
Côté paumelle
Hinge side

Getriebeseite
Côté crémone
Drive side

Beschlagseinbau 1-flügeliges Fenster WK1

Montage de la quincaillerie Fenêtre à 1 vantail CR1

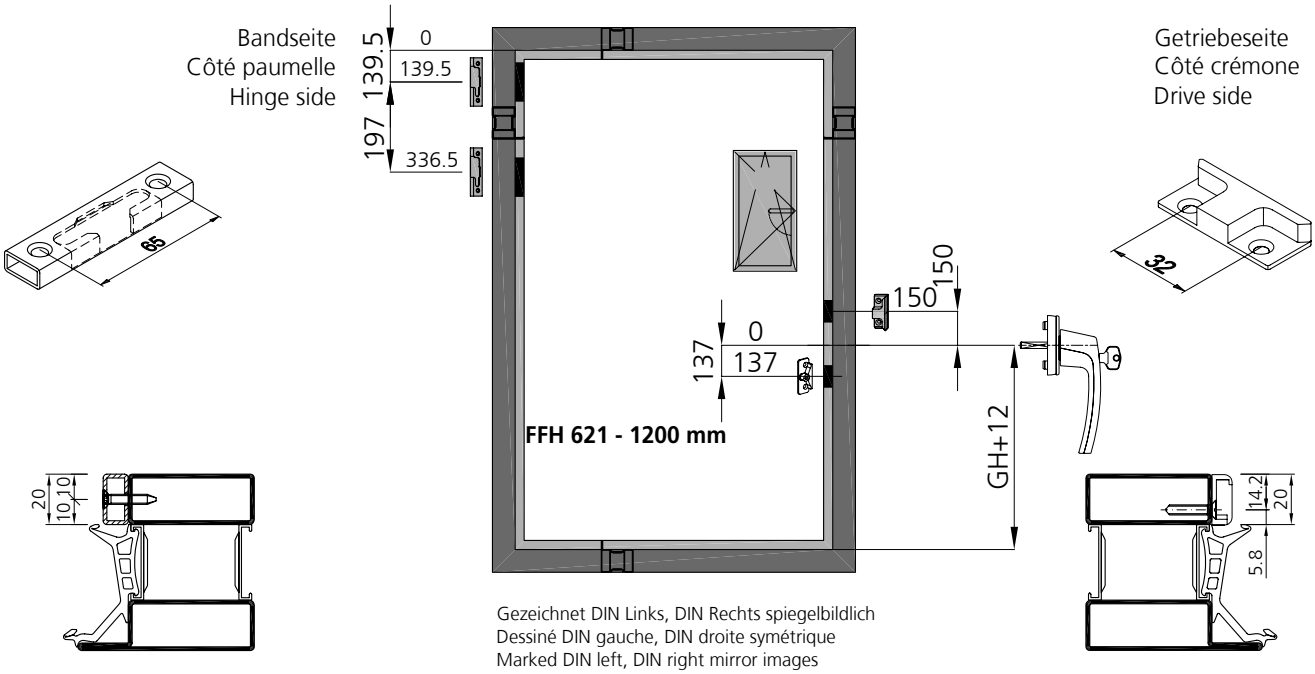
Installation of the fittings Window 1 leaf RC1

Anordnung Schliessstücke
1-flg. in Abhängigkeit der Flügelfalz-Höhe

Anordnung Schliesstücke
FFH 520 - 1200 mm
GH 260 - 600 mm

Disposition des gâches
1 vantail selon la hauteur de la feuillure de vantail
Disposition des gâches
FFH 520 - 1200 mm
GH 260 - 600 mm

Arrangement of the strikers
1 leaf, depending on the height of the leaf rebate
Arrangement of the strikers
FFH 520 - 1200 mm
GH 260 - 600 mm

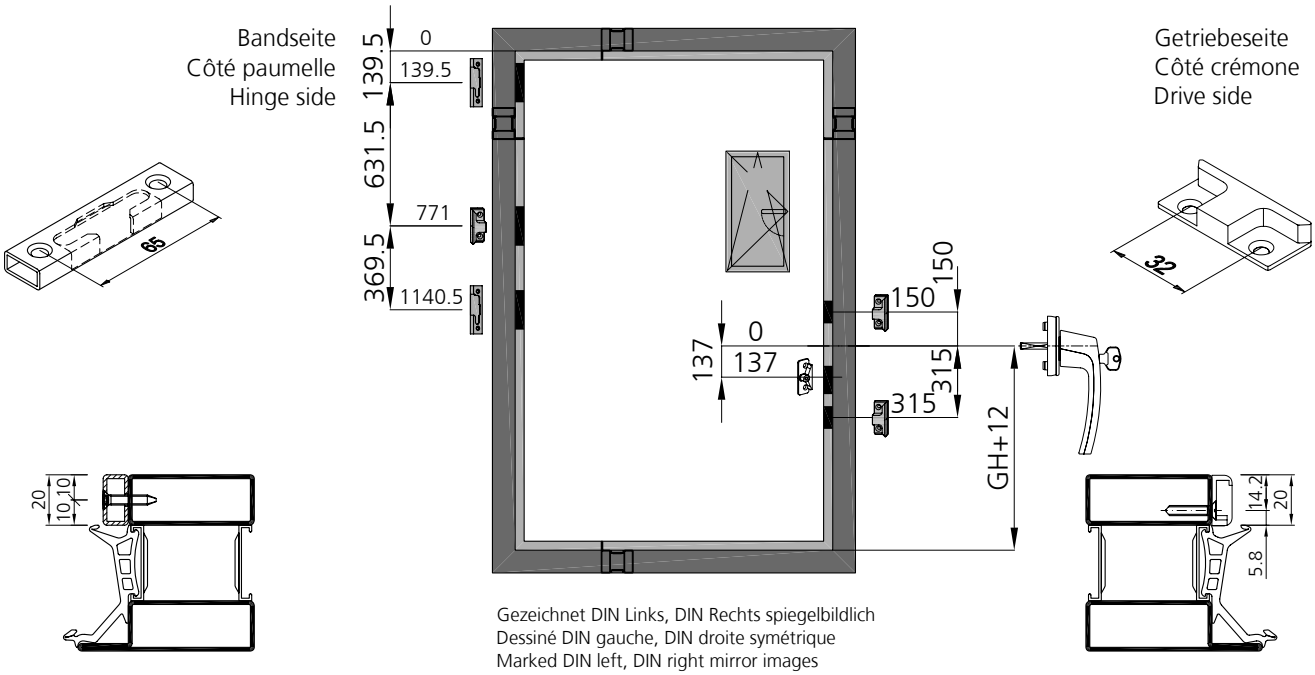


Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Anordnung Schliesstücke
FFH 1201 - 1600 mm
GH 601 - 800 mm

Disposition des gâches
FFH 1201 - 1600 mm
GH 601 - 800 mm

Arrangement of the strikers
FFH 1201 - 1600 mm
GH 601 - 800 mm



Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Beschlagseinbau 1-flügeliges Fenster WK1

Anordnung Schliessstücke
1-flg. in Abhängigkeit der Flügelfalz-Höhe

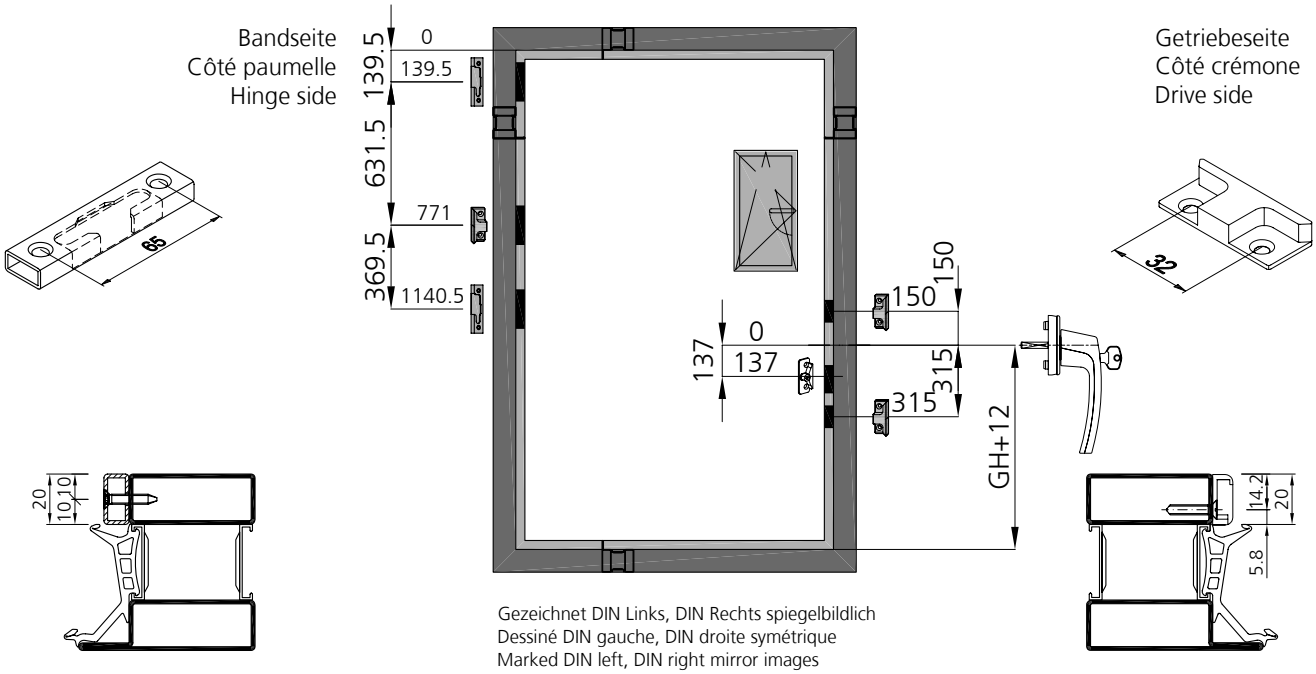
Anordnung Schliesstücke
FFH 1601 - 2000 mm
GH 801 - 1000 mm

Montage de la quincaillerie Fenêtre à 1 vantail CR1

Disposition des gâches
1 vantail selon la hauteur de la feuillure de vantail
Disposition des gâches
FFH 1601 - 2000 mm
GH 801 - 1000 mm

Installation of the fittings Window 1 leaf RC1

Arrangement of the strikers
1 leaf, depending on the height of the leaf
Arrangement of the strikers
FFH 1601 - 2000 mm
GH 801 - 1000 mm

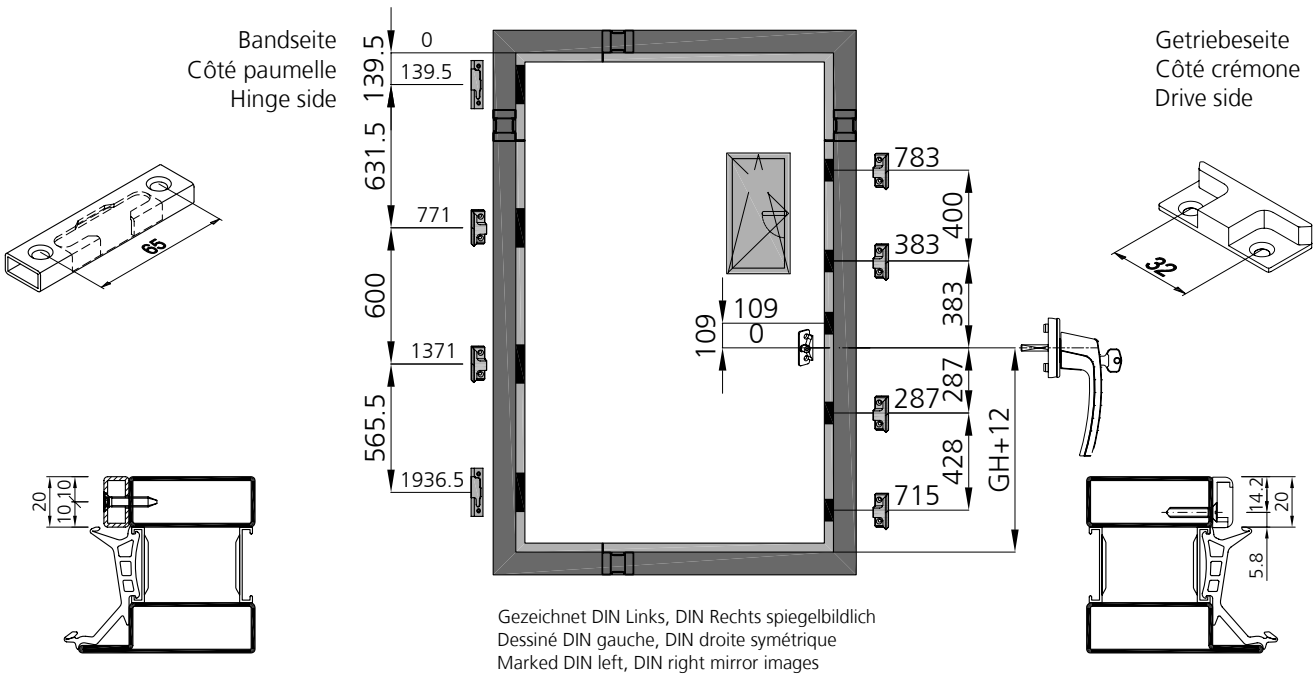


Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Anordnung Schliesstücke
FFH 2001 - 2400 mm
GH 1001 - 1200 mm

Disposition des gâches
FFH 2001 - 2400 mm
GH 1001 - 1200 mm

Arrangement of the strikers
FFH 2001 - 2400 mm
GH 1001 - 1200 mm



Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Beschlagseinbau 1-flügeliges Fenster

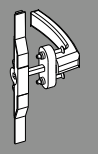
Bohrlehre **Art. Nr. 989104 / 989109**
1 flügelige Fenster

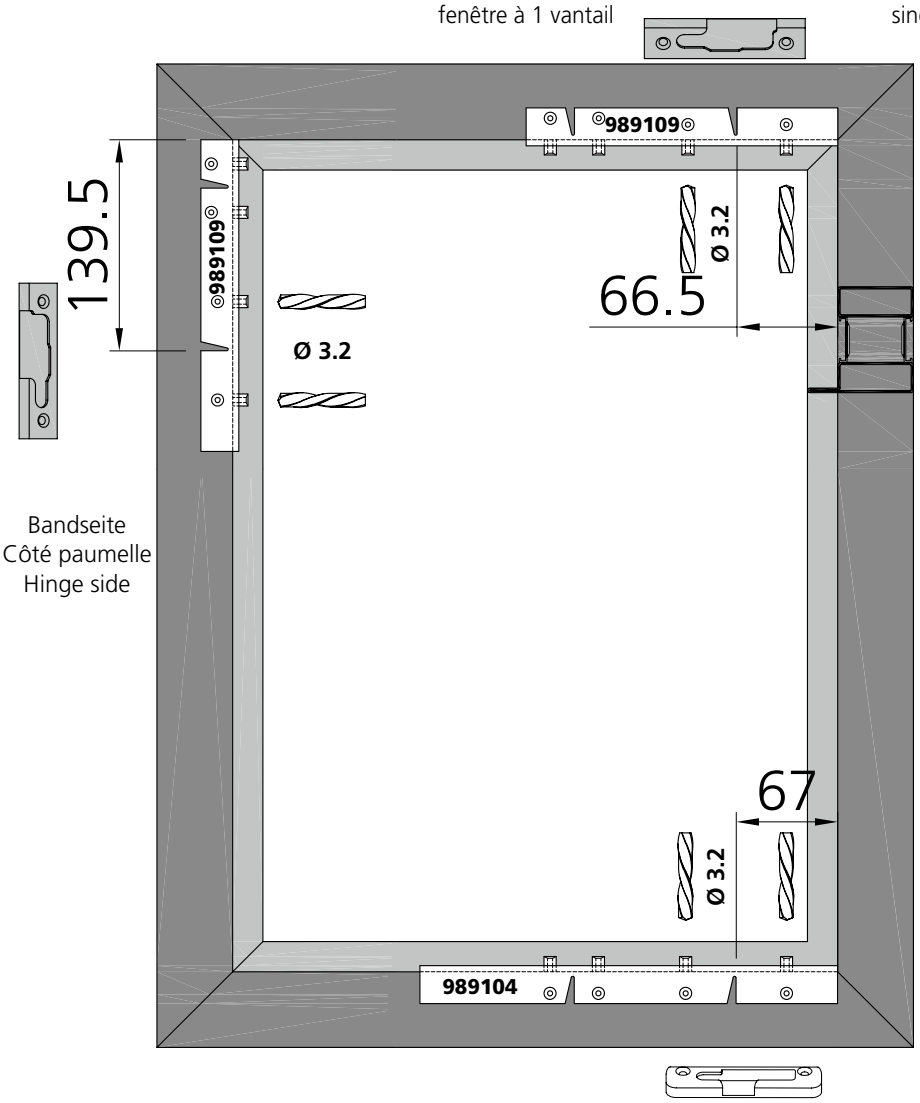
Montage de la quincaillerie Fenêtre à 1 vantail

Gabarit de perçage **art. no. 989104 / 989109**
fenêtre à 1 vantail

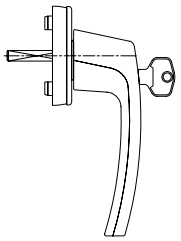
Installation of the fittings Window 1 leaf

Drilling template **art. no. 989104 / 989109**
single leaved windows

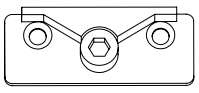


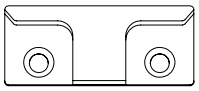


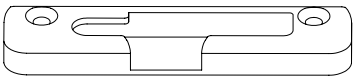
Bandseite
Côté paumelle
Hinge side

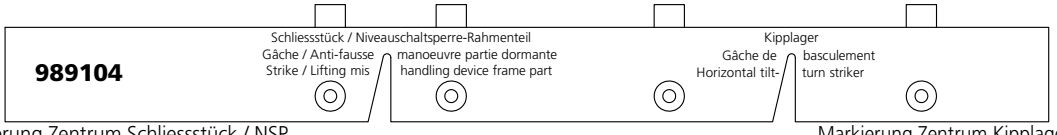


Getriebeseite
Côté crémone
Drive side









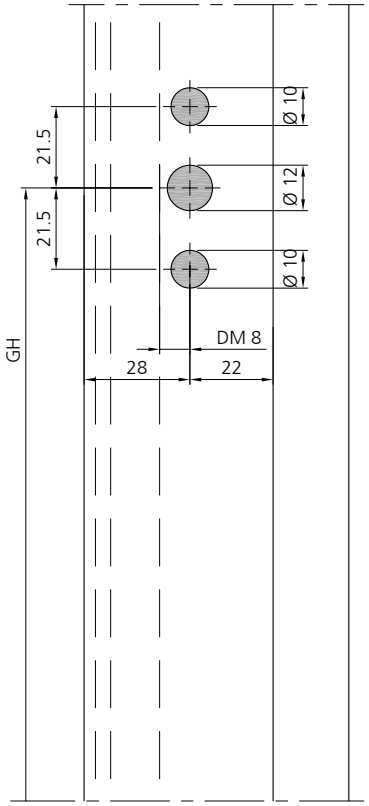
Markierung Zentrum Schliessstück / NSP
Marque centre gâche / AFM
Marking on the center of the striker / LMD

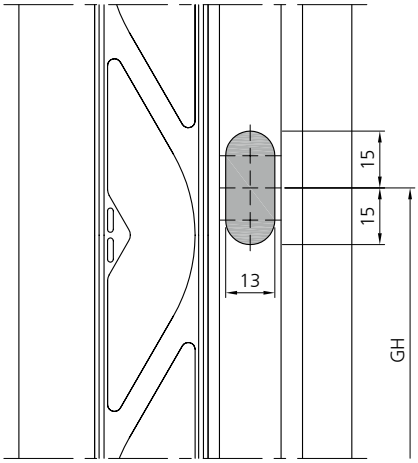
Markierung Zentrum Kipplager
Marque centre gâche de basculement
Marking on the center of the tilt-turn striker

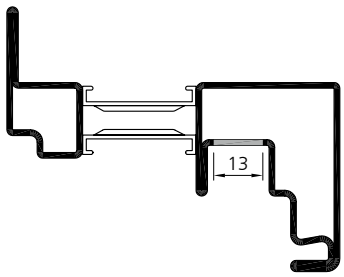
Beschlagseinbau
1-flügeliges Fenster
Getriebeausnehmung

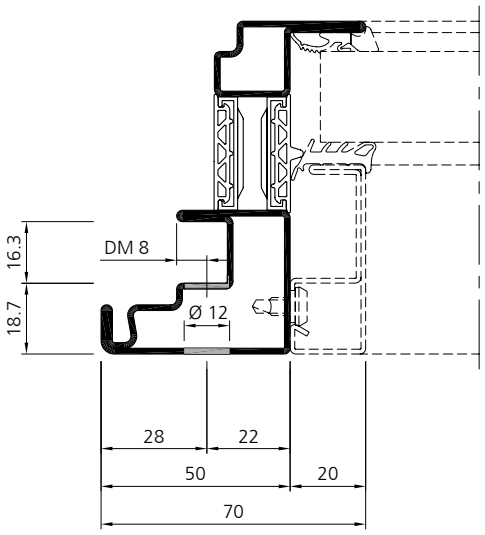
Montage de la quincaillerie
Fenêtre à 1 vantail
Usinage pour la crémone

Installation of the fittings
Window 1 leaf
Cut out for drive







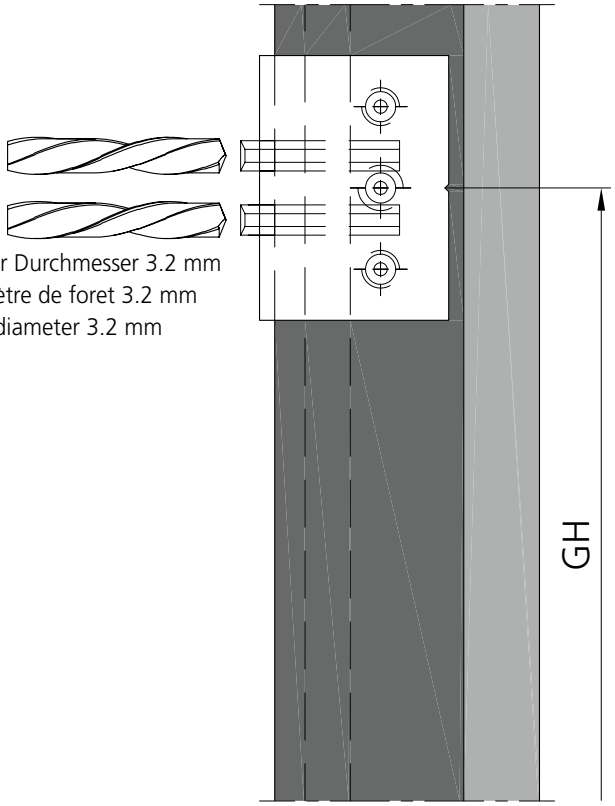


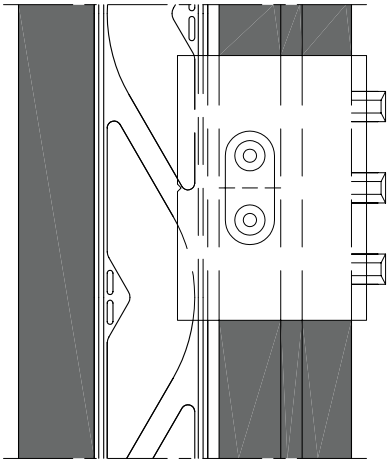
Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail vertical préalablement!
Make the cut-out for the drive in the vertical leaf profile first!

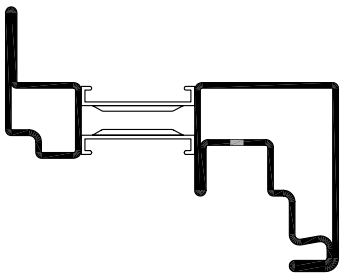
Beschlagseinbau 1-flügeliges Fenster Getriebeausnehmung

Montage de la quincaillerie Fenêtre à 1 vantail Usinage pour la crémone

Installation of the fittings Window 1 leaf Cut out for drive



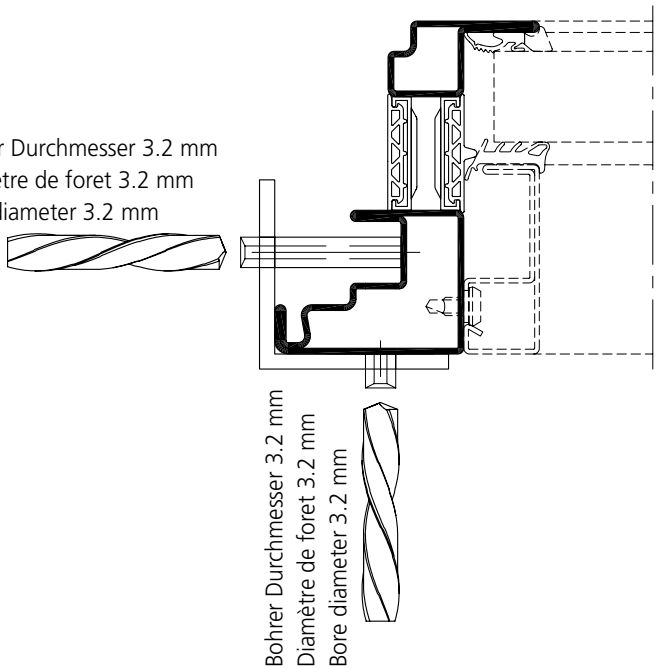




Bohrlehre **Art. Nr. 989101** zu Dreh-Kippgetreibe.

Gabarit de perçage **art. no. 989101** pour crémone oscillo-battant.

Drilling template **art. no. 989101** for turn-tilt drive.



Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail vertical préalablement!
Make the cut-out for the drive in the vertical leaf profile first!

Beschlagseinbau 1-flügeliges Fenster

- Schraube M4 x 21 (selbstfurchend)
- Bohrloch 3.2 mm
- Bei Edelstahlprofil muss das M4 Gewinde geschnitten werden. Alternative: Bohrloch auf 3.5 aufbohren, Schraube ohne M4 Gewindeschnitt einsetzen.

Bei jeder Verschraubung muss ein Distanzstück **927001** eingesetzt werden.

Montage de la quincaillerie Fenêtre à 1 vantail

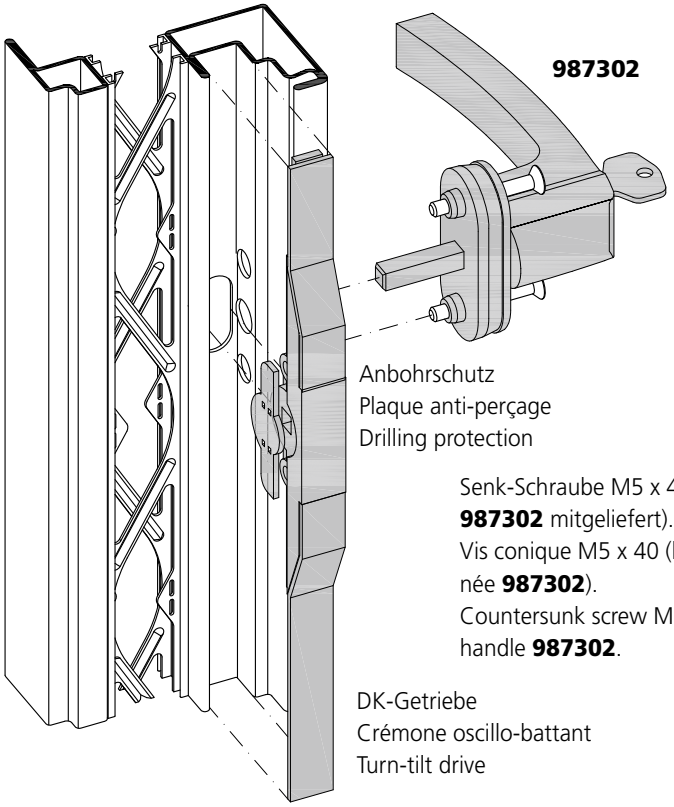
- Vis M4 x 21 (autotaraudeuse)
- Perçage 3.2 mm
- Avec le profilé en acier inox, la vis M4 doit être coupée. Alternative: agrandir le trou à 3.5, taraudage M4 pas necessaire.

La pièce d'entretoise **927001** doit être insérée sous toutes les fixations et assemblages.

Installation of the fittings Window 1 leaf

- Screw M4 x 21 (self tapping)
- Drill hole 3.2 mm
- In stainless steel profiles, the M4 thread needs to be cut case. Alternative: drill out the drilling hole of 3.5, use screw without M4 thread.

The spacer **927001** must be placed under all screw connections.

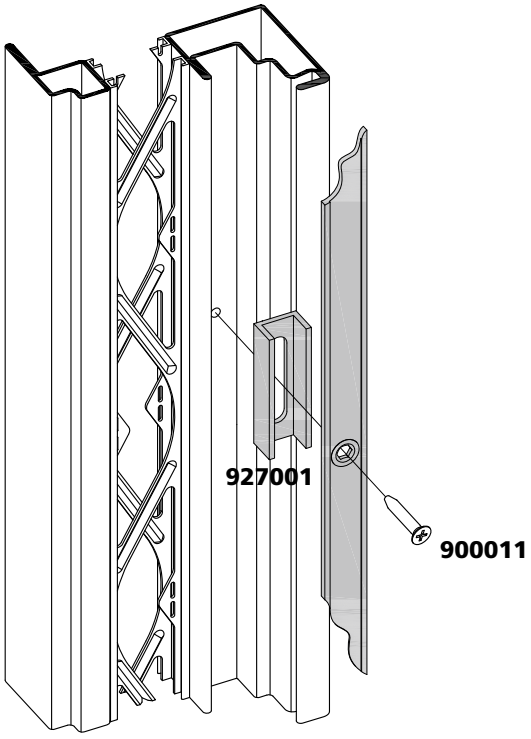


Anbohrschutz
Plaque anti-perçage
Drilling protection

Senk-Schraube M5 x 40 (Wird mit Griff **987302** mitgeliefert).
Vis conique M5 x 40 (livrées avec la poignée **987302**).
Countersunk screw M5 x 40 (supplied with handle **987302**.

DK-Getriebe
Crémone oscillo-battant
Turn-tilt drive

Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail vertical préalablement!
Make the cut-out for the drive in the vertical leaf profile first!

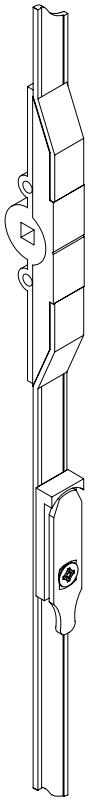


Beschlagseinbau 1-flügeliges Fenster Niveau-Schaltsperre

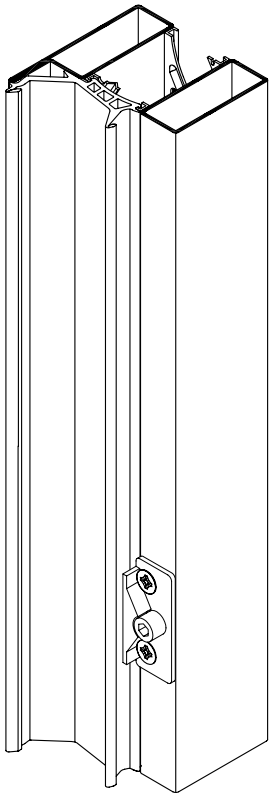
Montage de la quincaillerie Fenêtre à 1 vantail Anti-fausse manœuvre

Installation of the fittings Window 1 leaf Lifting mishandling device

GH 311 - 800

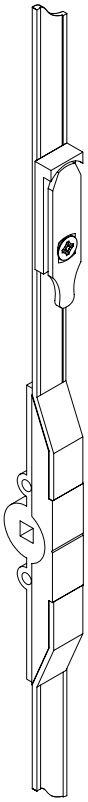


DK-Getriebe
Crémone oscillo-battant
Turn-tilt drive

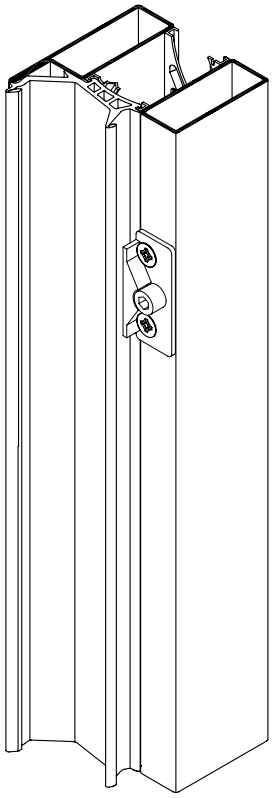


Rahmen
Cadre
Frame

GH 801 - 1200

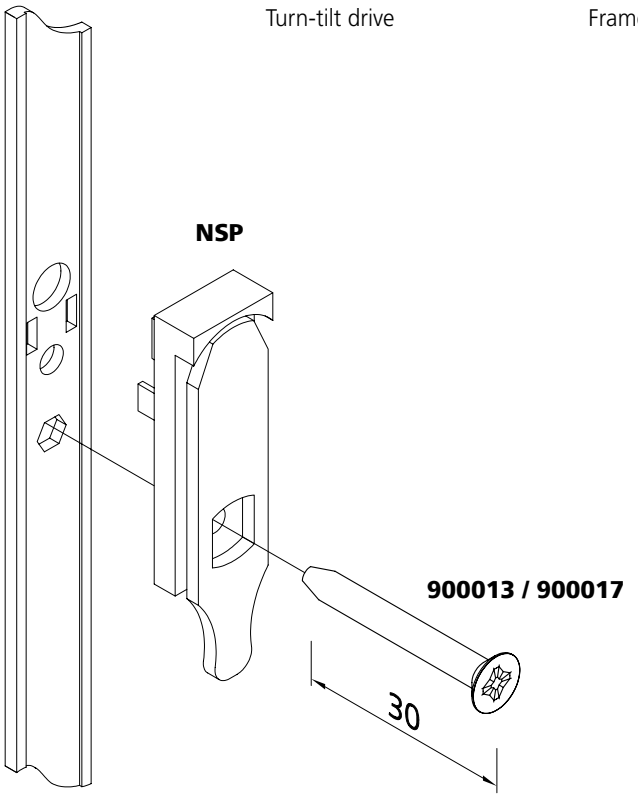


DK-Getriebe
Crémone oscillo-battant
Turn-tilt drive



Rahmen
Cadre
Frame

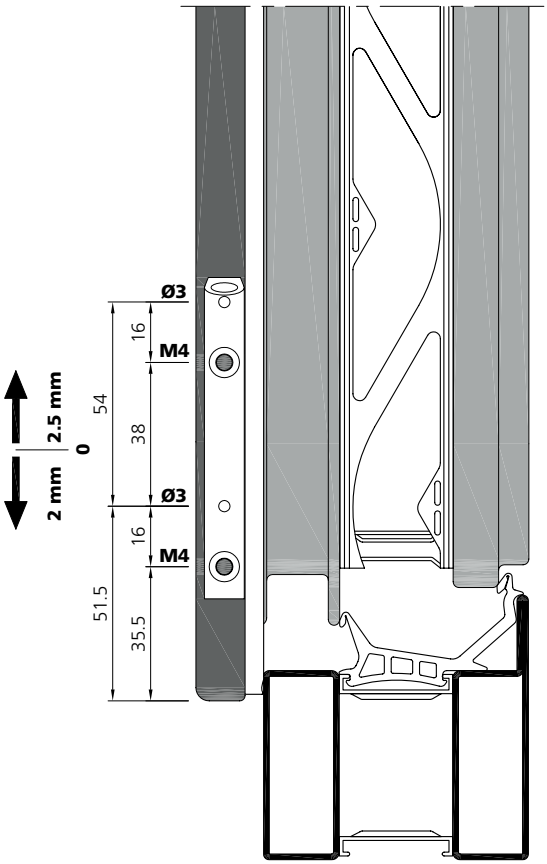
NSP

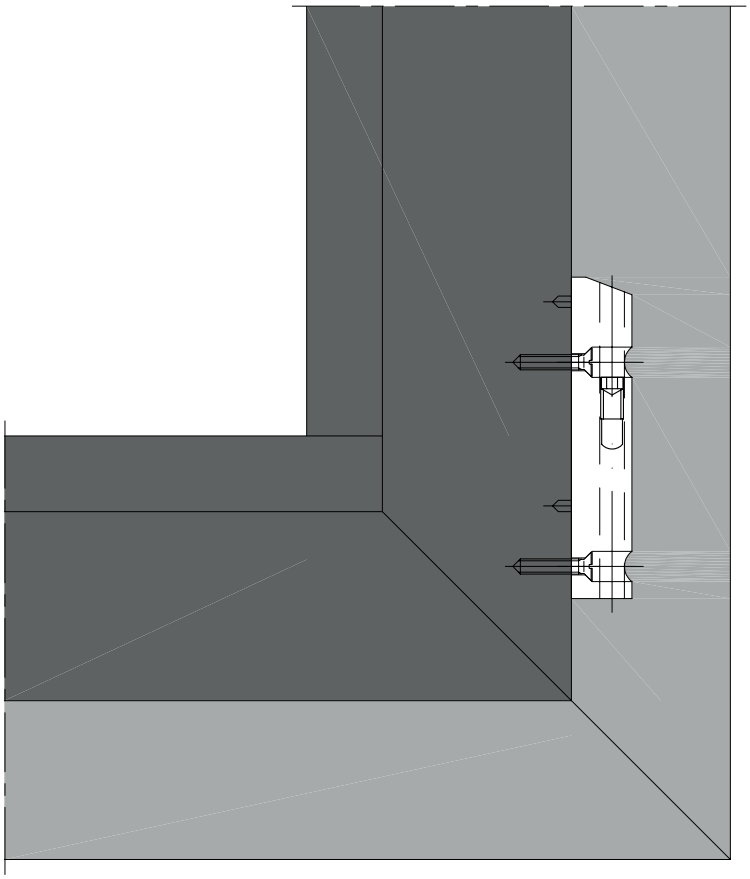


Beschlagseinbau
1-flügeliges Fenster
Eckband

Montage de la quincaillerie
Fenêtre à 1 vantail
Pivot d'angle

Installation of the fittings
Window 1 leaf
Corner hinge

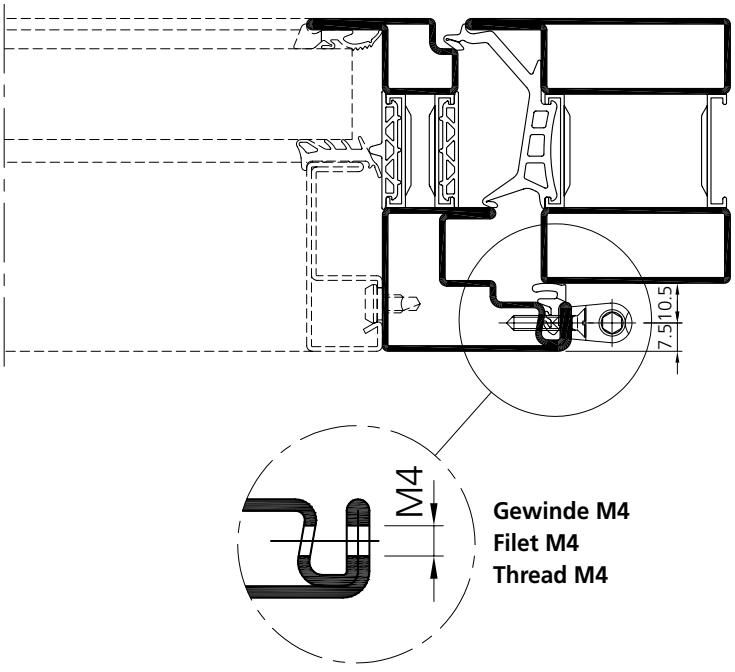




Das Eckband wird durch die Anschlagdichtung **985300** verschraubt.

Le pivot d'angle est vissé à travers le joint de butée **985300**.

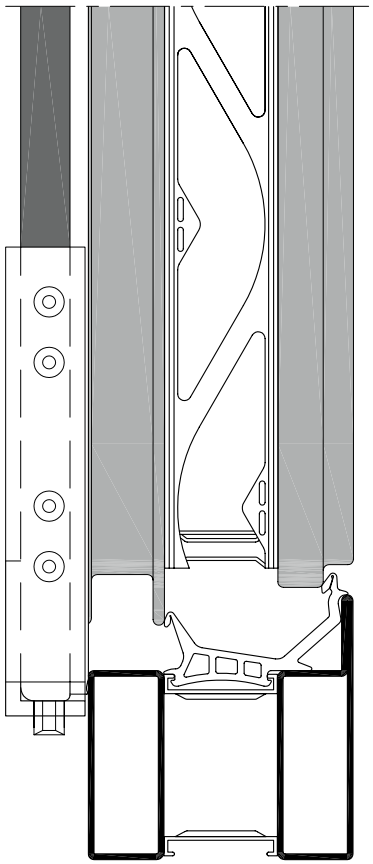
The corner hinge is screwed through the **985300** weatherstripping

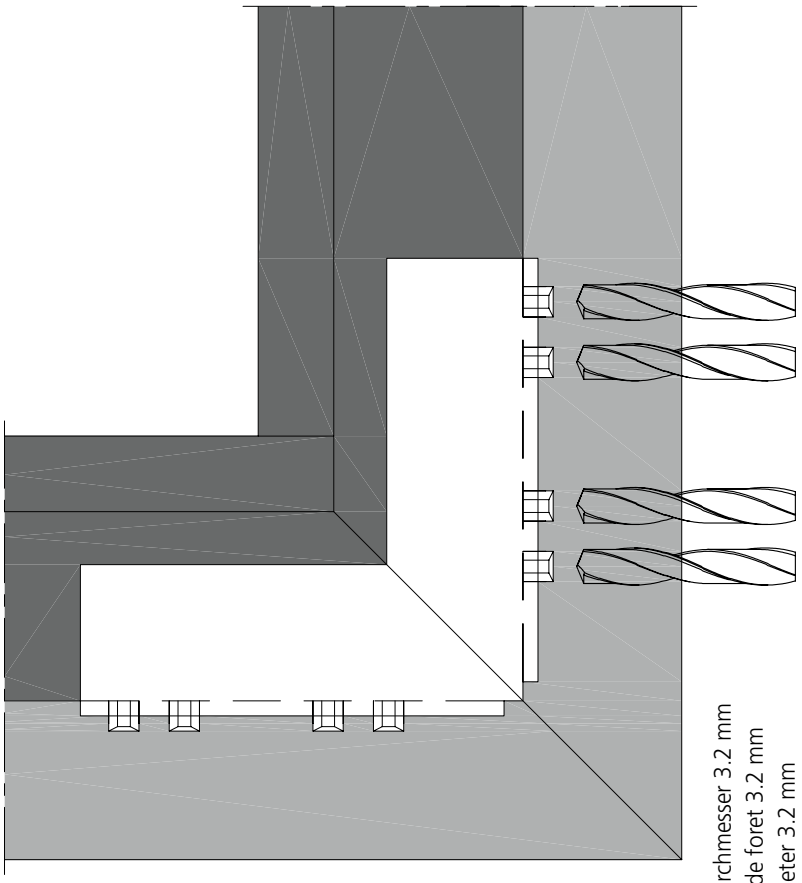


Beschlagseinbau
1-flügeliges Fenster
Eckband

Montage de la quincaillerie
Fenêtre à 1 vantail
Pivot d'angle

Installation of the fittings
Window 1 leaf
Corner hinge



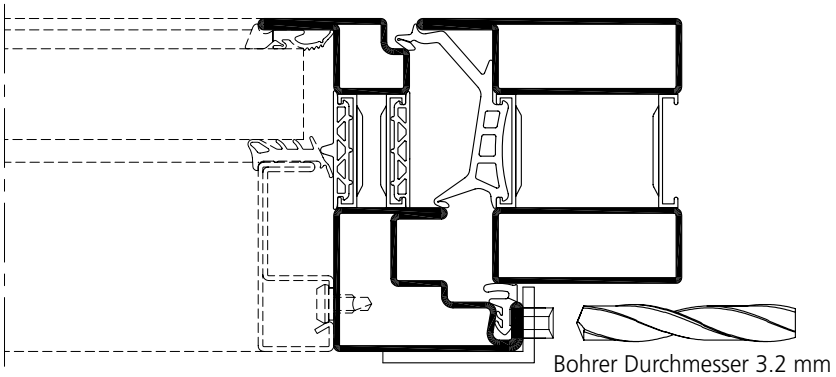


Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Bohrlehre **Art. Nr. 989102** zu Eckband.

Gabarit de perçage **art. no. 989102** pour pivot d'angle.

Drilling template **art. no. 989102** for corner hinge.



Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Beschlagseinbau 1-flügeliges Fenster

Einsatz der Forster Bohrlehre **989100** für den Standard Beschlag auf dem 1. öffnenden Flügel (Gez. DIN links, DIN rechts spiegelbildlich)

FFH 520 - 2400 mm
FFB 290 - 1400 mm

Montage de la quincaillerie Fenêtre à 1 vantail

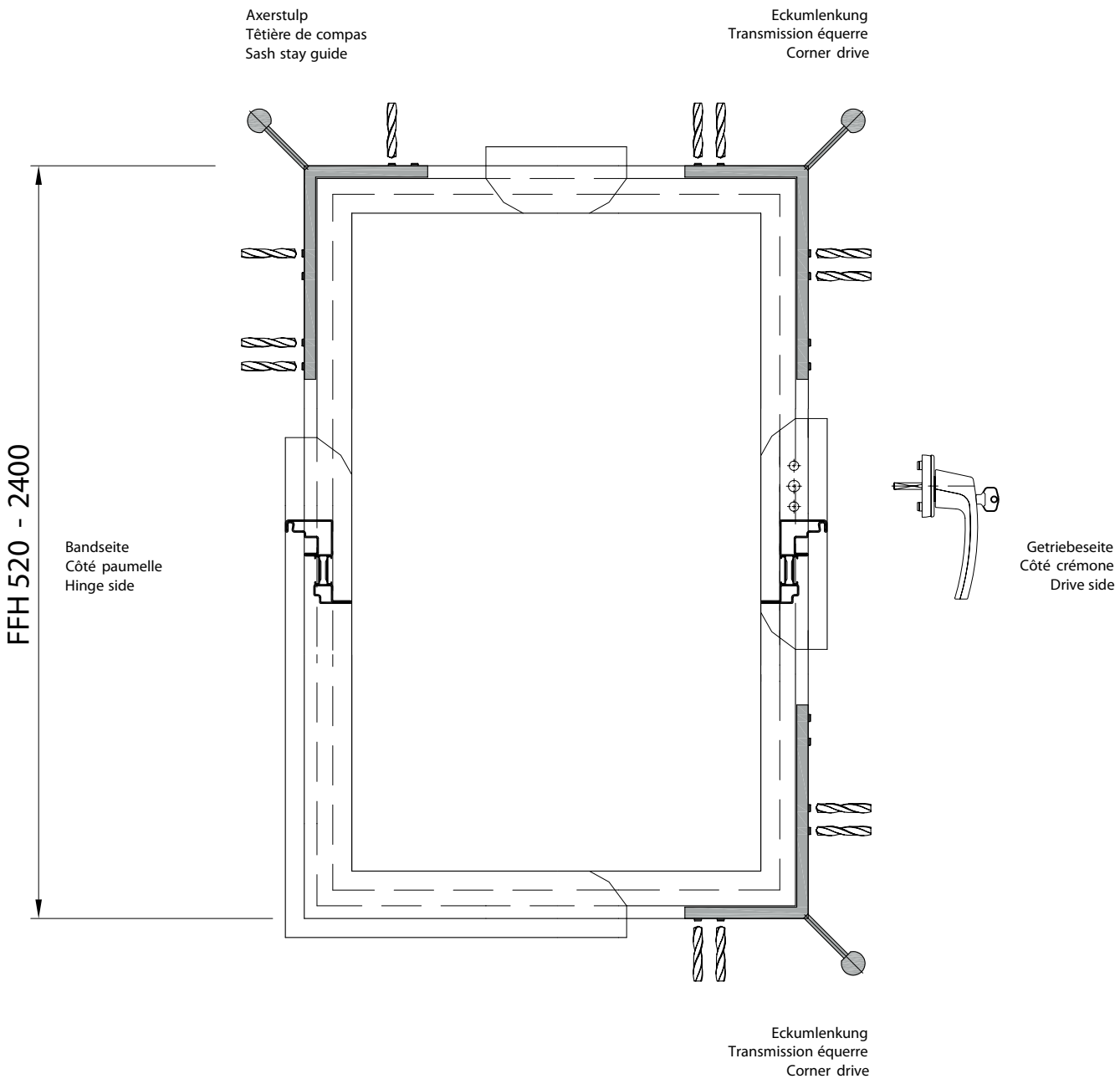
Utilisation des gabarits de perçage Forster **989100** pour la quincaillerie standard sur le 1er vantail ouvrant (Dessiné DIN gauche, DIN droite symétrique)

FFH 520 - 2400 mm
FFB 290 - 1400 mm

Installation of the fittings Window 1 leaf

Use the Forster drilling template **989100** for the standard fittings on 1st active leaf (marking DIN left, DIN right mirror image)

FFH 520 - 2400 mm
FFB 290 - 1400 mm

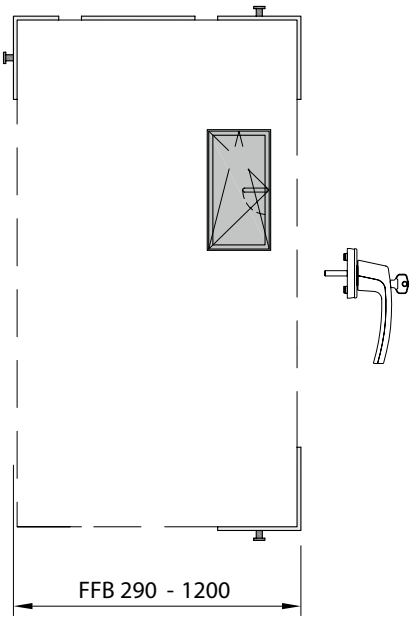


Beschlagseinbau 1-flügeliges Fenster

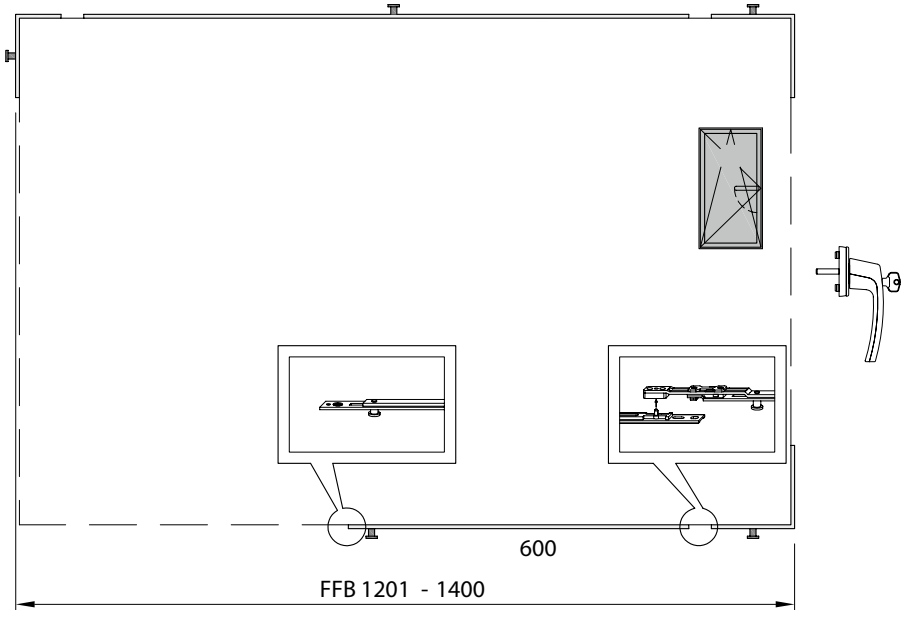
Montage de la quincaillerie Fenêtre à 1 vantail

Installation of the fittings Window 1 leaf

Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFB 290 - 1200 [mm]



Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFB 1201 - 1400 [mm]

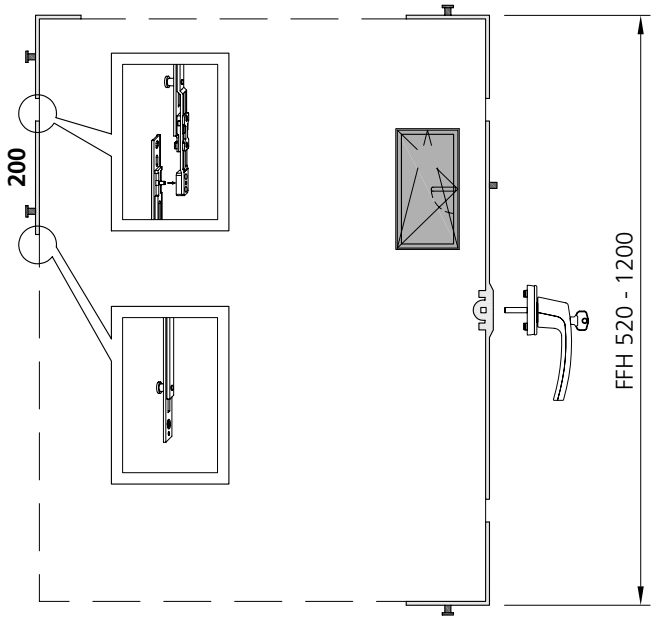


Beschlagseinbau 1-flügeliges Fenster

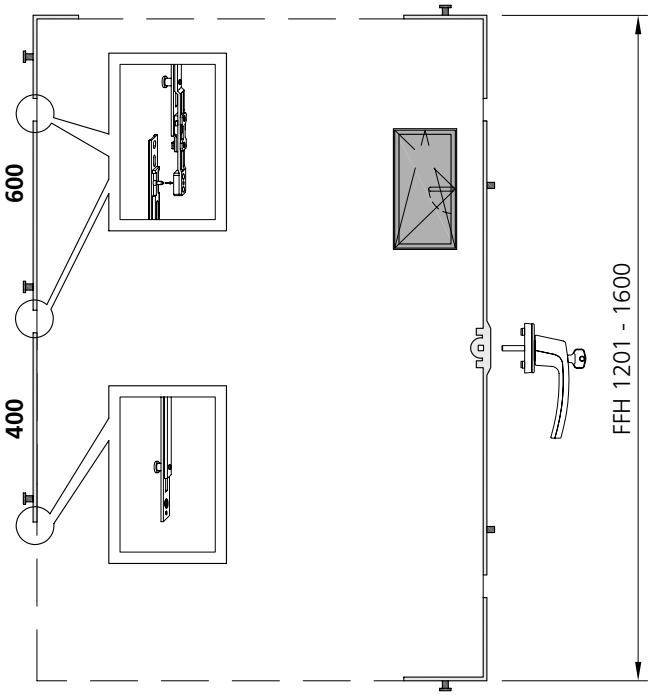
Montage de la quincaillerie Fenêtre à 1 vantail

Installation of the fittings Window 1 leaf

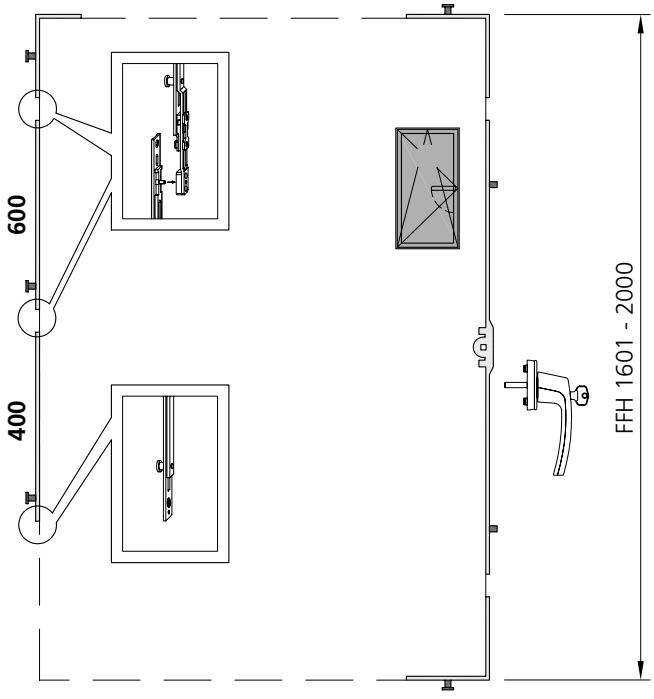
Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 520 - 1200 [mm]
GH 260 - 600 [mm]



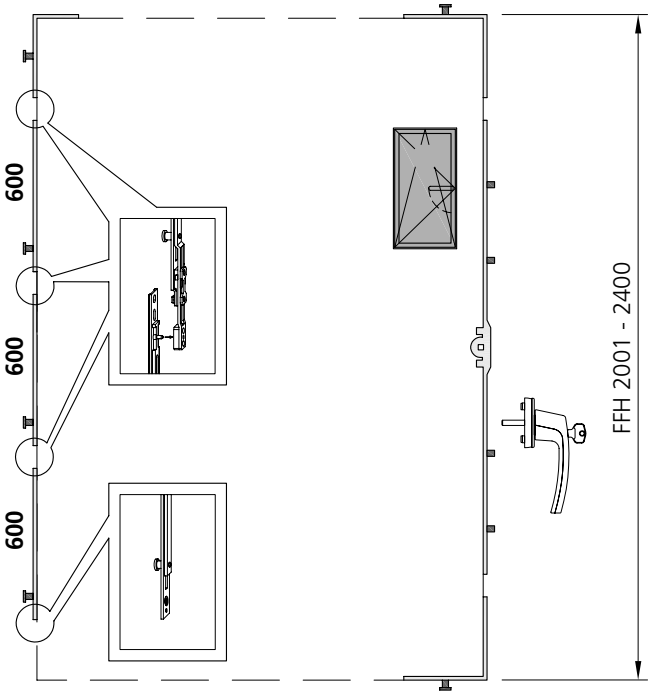
Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 1201 - 1600 [mm]
GH 601 - 800 [mm]



Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 1601 - 2000 [mm]
GH 801 - 1000 [mm]



Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 2001 - 2400 [mm]
GH 1001 - 1200 [mm]



Beschlagseinbau 1-flügeliges Fenster

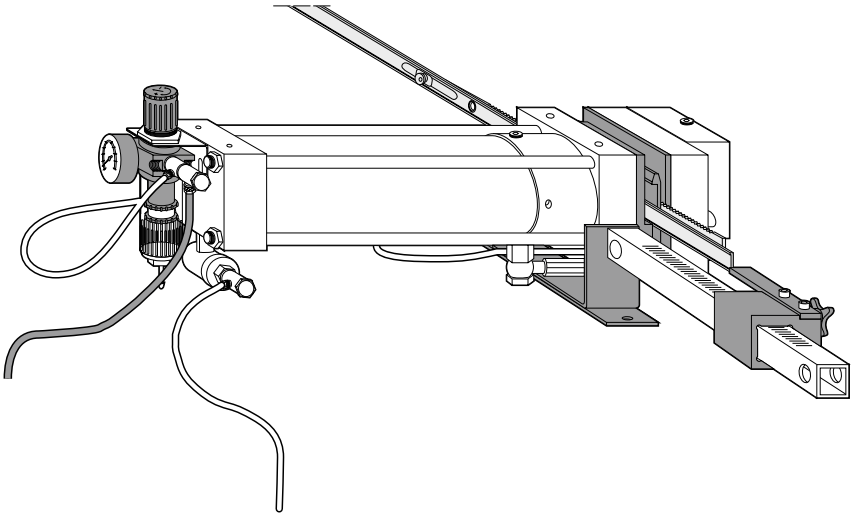
Ablängen mit pneumatischer Stanze (Lochstanzung)

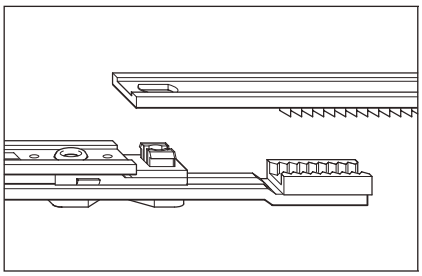
Montage de la quincaillerie Fenêtre à 1 vantail

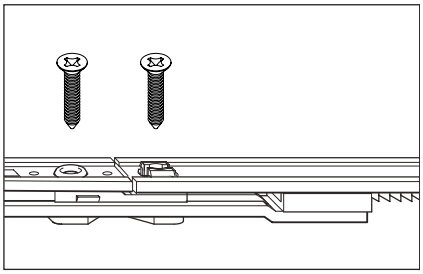
Couper à la longueur requise avec un dispositif de poinçonnage pneumatique

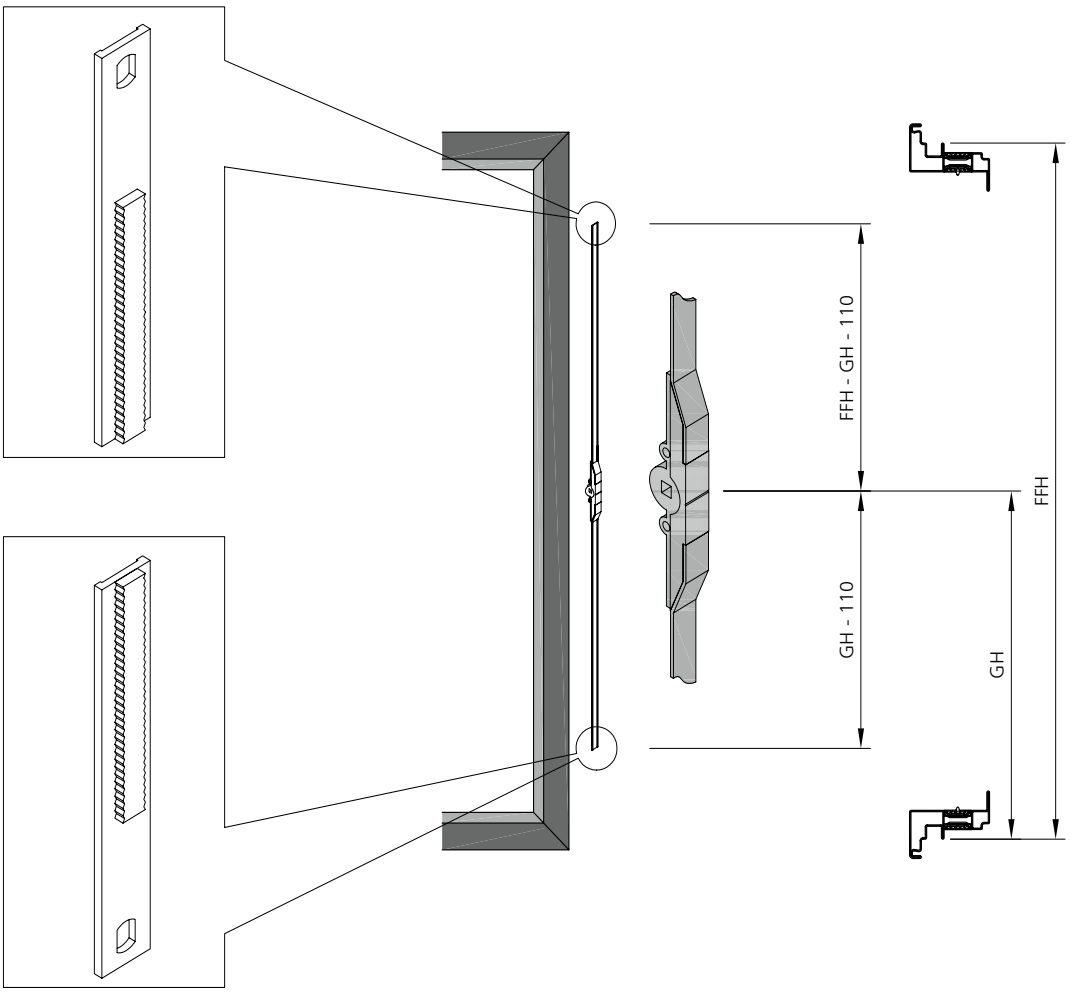
Installation of the fittings Window 1 leaf

Cut to length with a pneumatic punch tool (hole puncher)









Beschlagseinbau 1-flügeliges Fenster

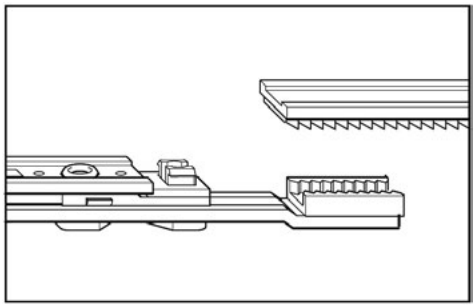
Ablängen mit Säge und Einsatz mit Verbindungslasche

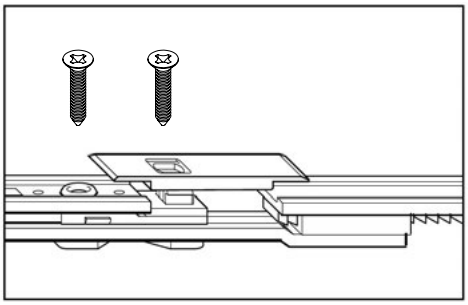
Montage de la quincaillerie Fenêtre à 1 vantail

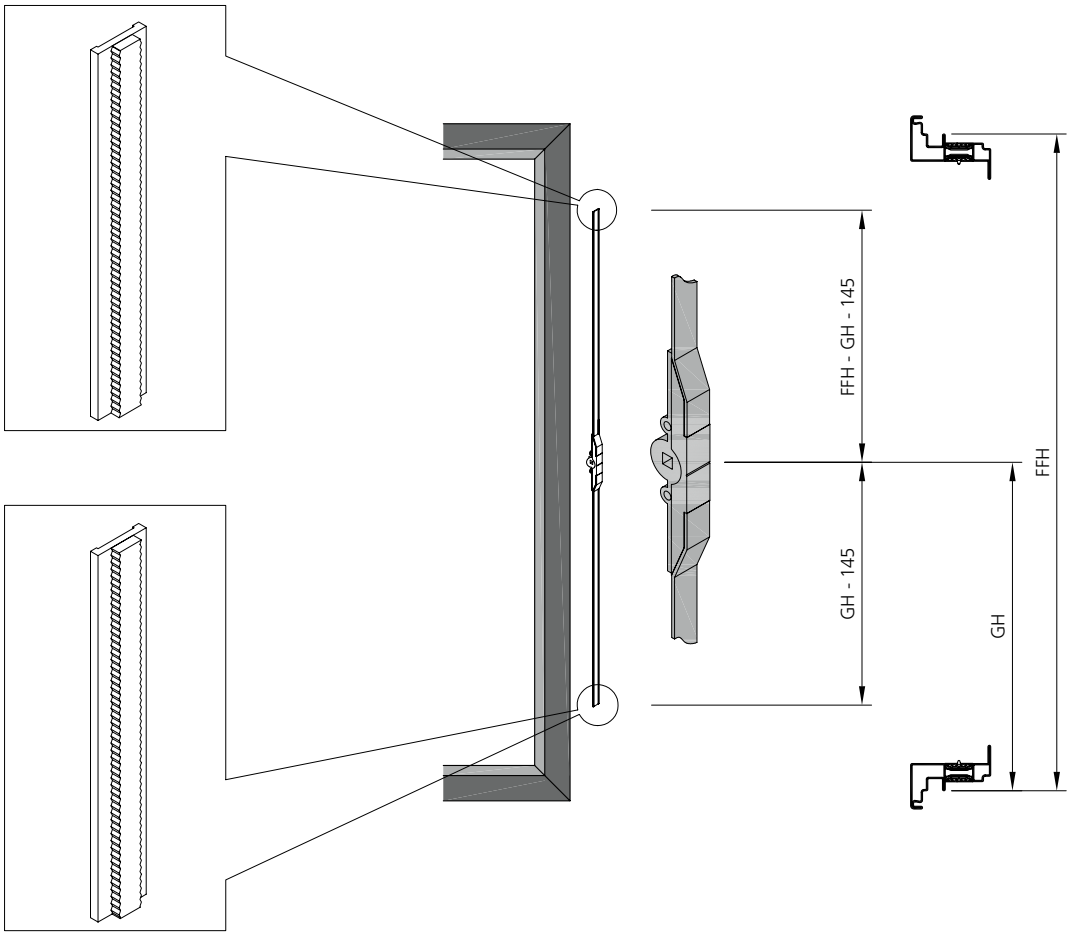
Couper à la longueur requise avec une scie et monter avec une plaque de liaison

Installation of the fittings Window 1 leaf

Cut to length with saw and use with connecting link



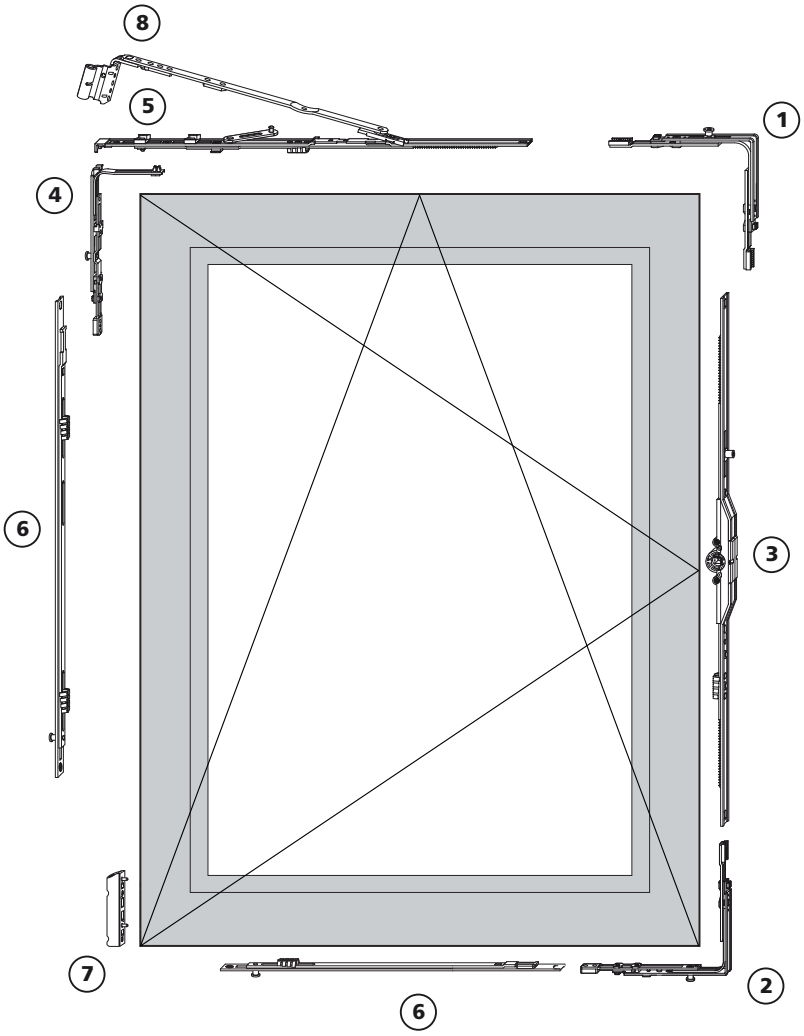




Beschlagseinbau
1-flügeliges Fenster
Einbauablauf
(Vorschlag)

Montage de la quincaillerie
Fenêtre à 1 vantail
Ordre de montage
(proposition)

Installation of the fittings
Window 1 leaf
Installation process
(proposal)



① Eckumlenkung / Transmission équerre / Corner drive
② Eckumlenkung / Transmission équerre / Corner drive
③ DK-Getriebe / Cremone OB / Tilt-turn drive
④ Eckumlenkung Axer / Renvoi d'angle de compas / Stay corner drive
⑤ Axerstulp / Têtière de compas / Sash stay guide
⑥ Mittelverschluss, senkrecht und waagerecht
Extension horizontale et verticale
Extension horizontal and vertical
⑦ Eckband K / Pivot d'angle / Corner hinge K
⑧ Axerarm / Compas / Sash stay arm

Beschlagseinbau 1-flügeliges Fenster

Kippweiten für Dreh-/Drehkippflügel

Kippweite reduziert (80 mm)

Zwingend für Flügel mit FFB: 290 – 410 mm

Montage de la quincaillerie Fenêtre à 1 vantail

Plage de basculement pour vantail à ouverture à la française/oscillo-battant

Plage de basculement réduite (80 mm)

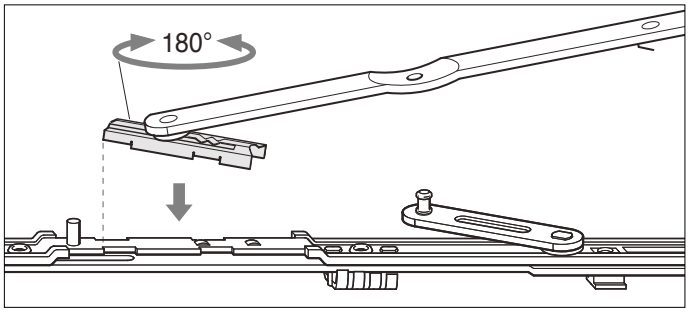
Obligatoire pour vantail avec FFB: 290 – 410 mm

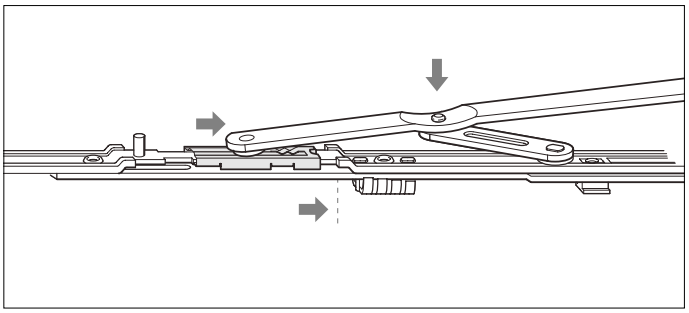
Installation of the fittings Window 1 leaf

Tilt distances for turn/turn-tilt leaves

Reduced tilt distances (80 mm)

Required for leaves with FFB: 290 – 410 mm

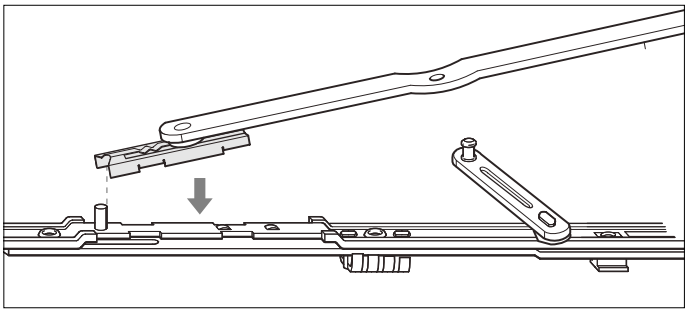


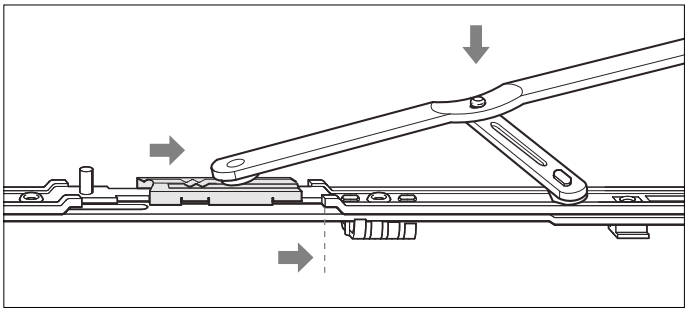


Kippweite Standard (140 mm)

Plage de basculement standard (140 mm)

Standard tilt distances (140 mm)





Beschlagseinbau 1-flügeliges Fenster

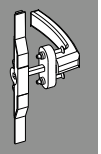
ACHTUNG! Fasung des Axerlagerstiftes beim Einführen in das Axerlager berücksichtigen!

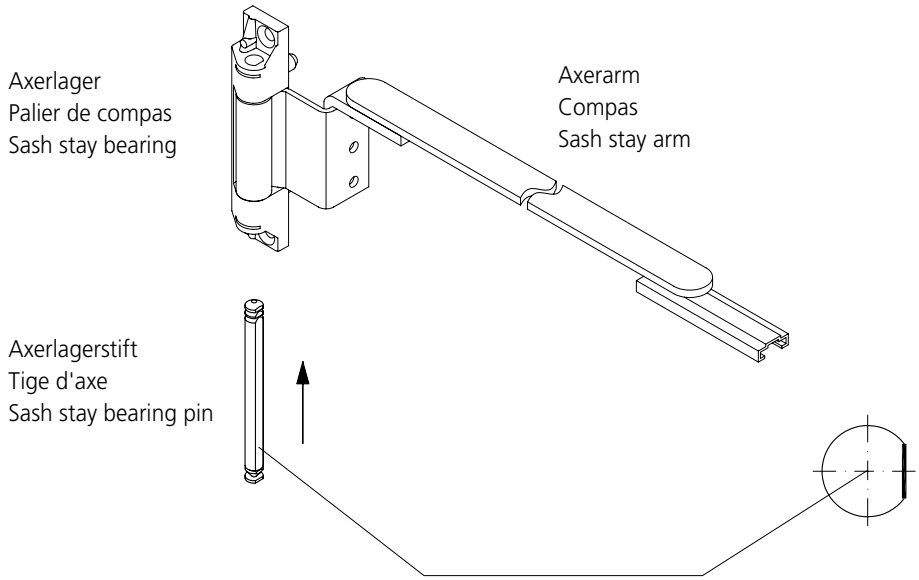
Montage de la quincaillerie Fenêtre à 1 vantail

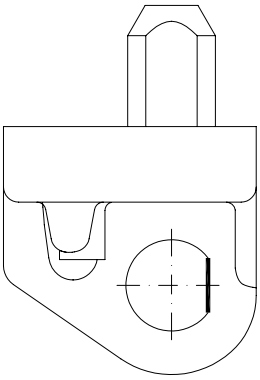
ATTENTION! Faire attention au sens de montage de la tige du palier de compas lors de l'introduction dans le palier!

Installation of the fittings Window 1 leaf

ATTENTION! Pay attention to the mount of the Axer hinge pin when inserting it into the axer hinge!



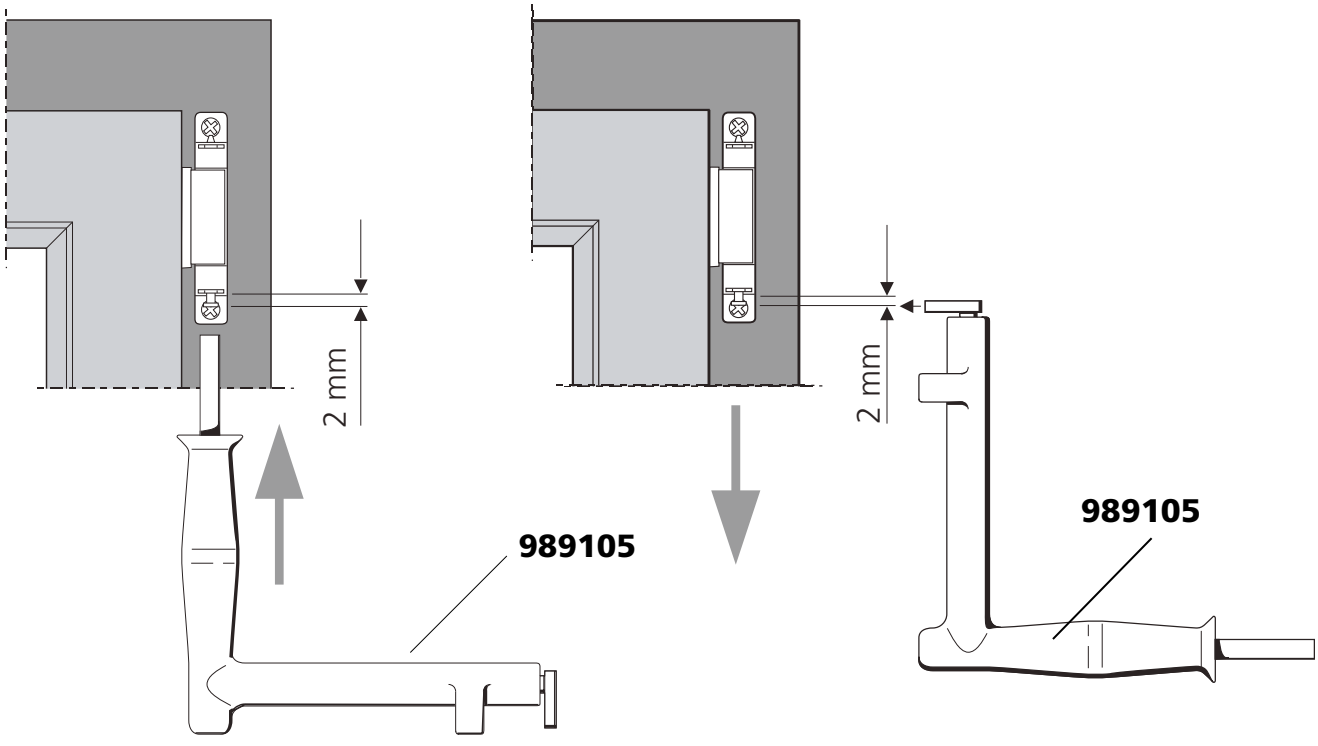




Einhängen des Flügels
Axerlagerstift nur in Verschlussstellung einschiebbar

Accrochage du vantail
Tige de palier de compas pouvant seulement être introduite en position de fermeture

Mounting the leaf
The sash stay bearing pin can only be inserted in lock position



Beschlagseinbau 1-flügeliges Fenster

Umstellung der Öffnungsart von Drehkipp auf Dreh.

Die Änderung der Funktion von Drehkipp auf Dreh wird mit Hilfe des Hubbegrenzers ausgeführt.
Dieser wird beim Schliesszapfen der unteren Eckumlenkung eingesetzt.
Somit kann auch jederzeit die Funktion von Dreh auf Drehkipp durch Entfernen des Hubbegrenzers zurückgestellt werden.

Montage de la quincaillerie Fenêtre à 1 vantail

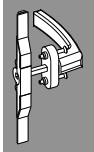
Commutation du type d'ouverture - ouverture oscillo-battant sur ouverture à la française.

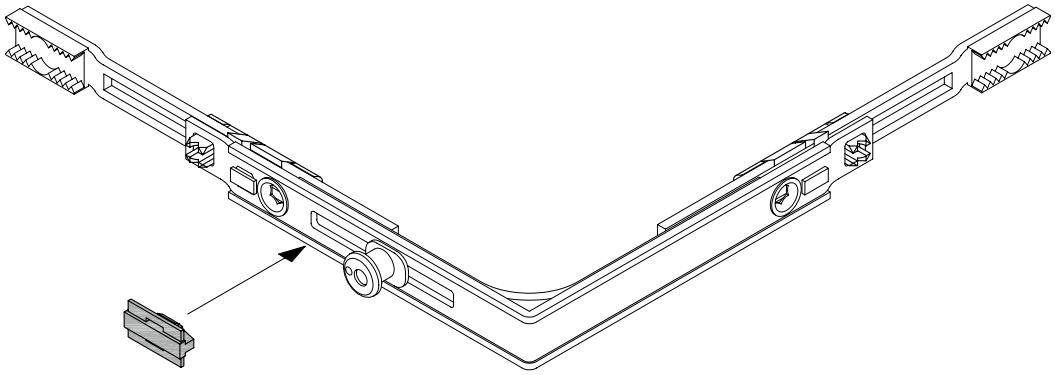
La modification de la fonction ouverture oscillo-battant/ouverture à la française est exécutée à l'aide du limitateur de course.
Celui-ci est monté dans le tenon de fermeture du renvoi d'angle inférieur.
On peut ainsi régler à tout moment l'ouverture à la française sur l'ouverture oscillo-battant par retrait du limitateur de course.

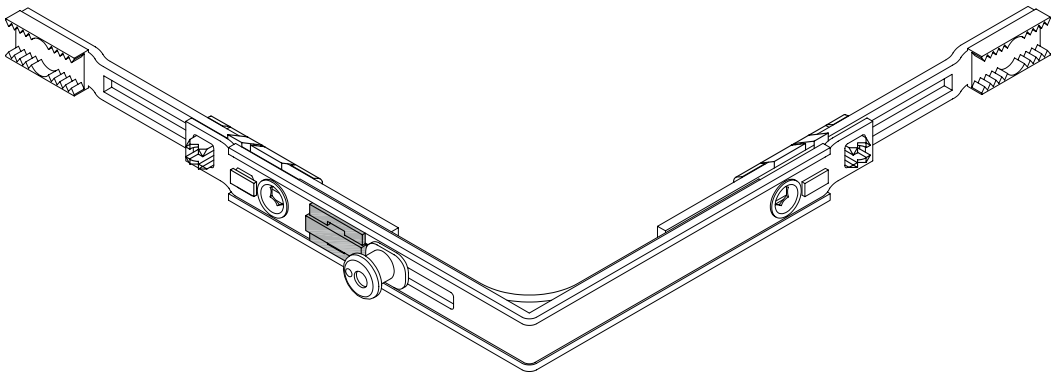
Installation of the fittings Window 1 leaf

Switching the opening mode from turn-tilt to turn.

Switching the function from turn-tilt to turn is done with the help of the travel restrictor.
It is inserted into the pivot lock in the lower corner guide.
Therefore, the function can be reset from turn to tilt-turn at any time by removing the travel restrictor.



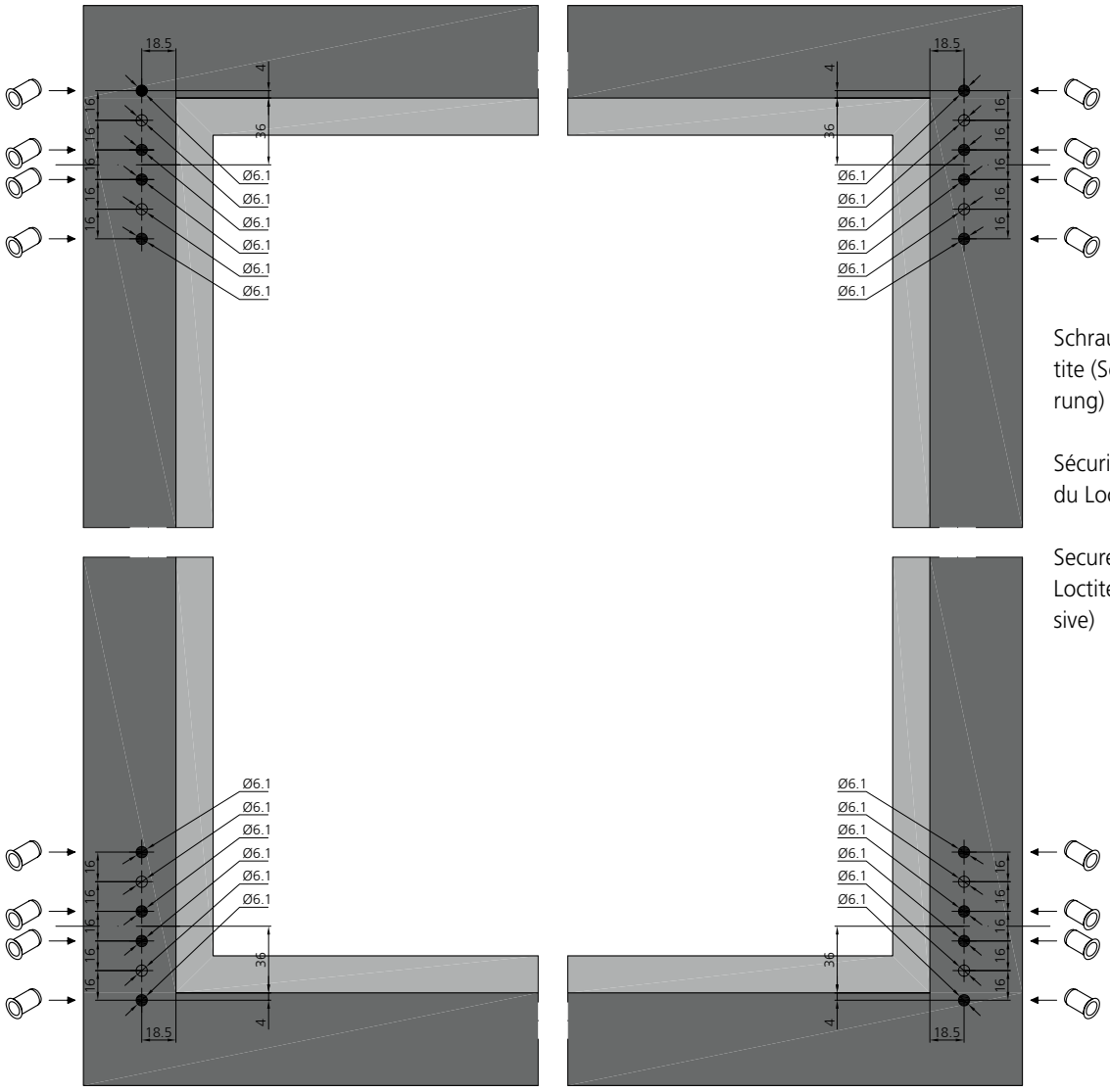




Beschlagseinbau 2-flügeliges Fenster WK1

Montage de la quincaillerie Fenêtre à 2 vantaux CR1

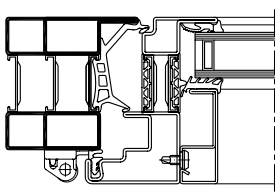
Installation of the fittings Window 2 leaves RC1

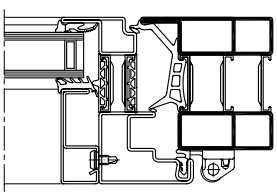


Schrauben mit Loctite (Schraubensicherung) sichern

Sécuriser les vis avec du Loctite

Secure screw with Loctite (screw adhesive)

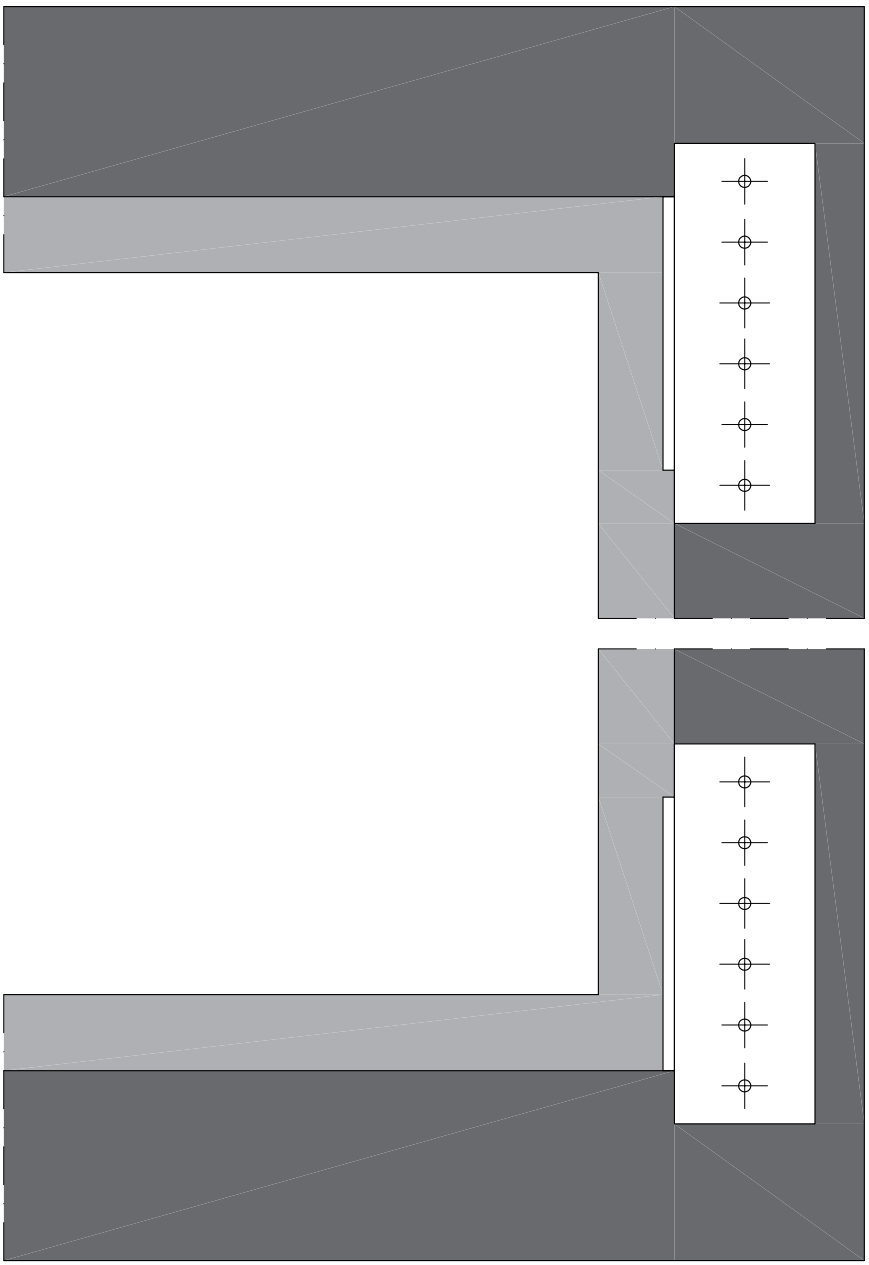




Beschlagseinbau 2-flügeliges Fenster WK1

Montage de la quincaillerie Fenêtre à 2 vantaux CR1

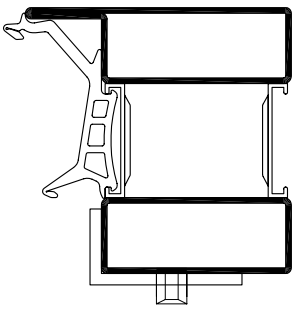
Installation of the fittings Window 2 leaves RC1



Bohrlehre **Art.Nr 989103**
zu Axer- und Ecklager

Gabarit de perçage **art no 989103** pour
palier dàngle et palier de compas

Drilling template **art. no. 989103** for
sash stay bearing and corner pivot rest

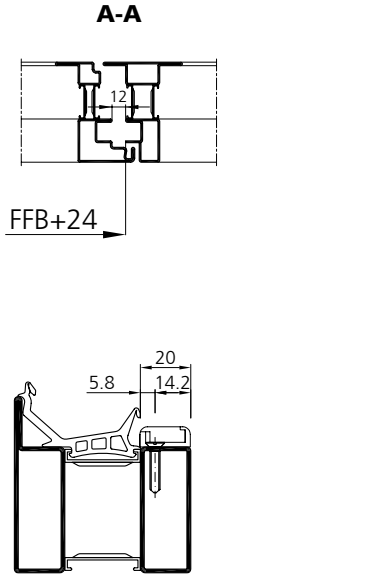




Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Beschlagseinbau 2-flügeliges Fenster WK1

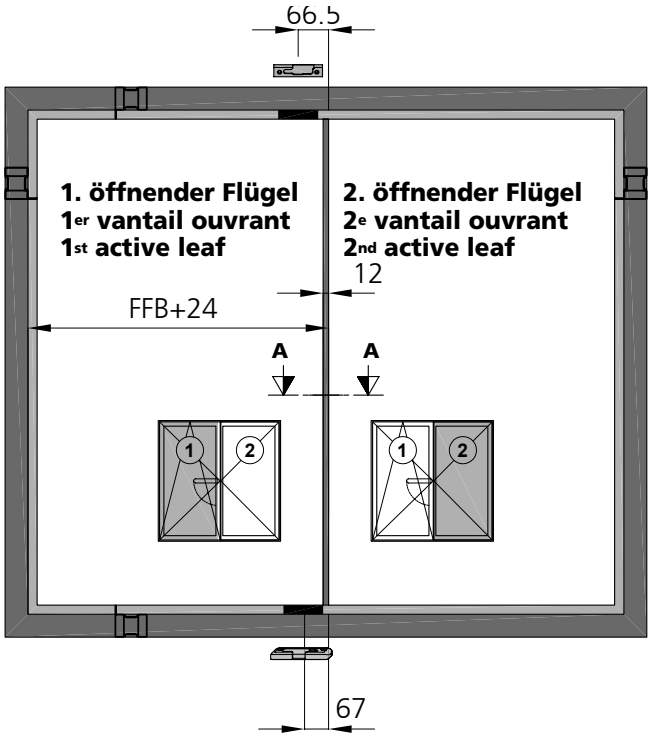
Anordnung der Schliessstücke
1. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Flügelfalz-Breite
FFB 290 – 1200 [mm]



Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Montage de la quincaillerie Fenêtre à 2 vantaux CR1

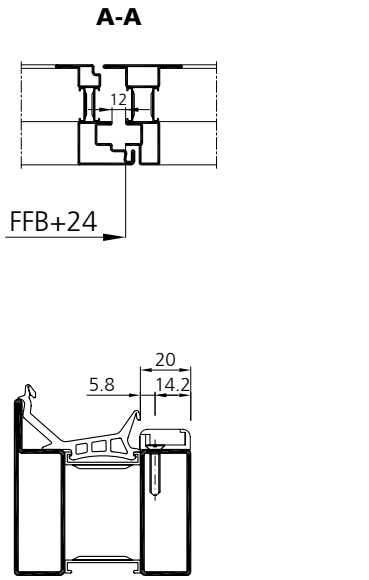
Disposition des gâches
1er vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail
FFB 290 – 1200 [mm]



Installation of the fittings Window 2 leaves RC1

Arrangement of the strikers
1st active leaf on 2 leaved windows in dependence on the width of the leaf rebate
FFB 290 – 1200 [mm]

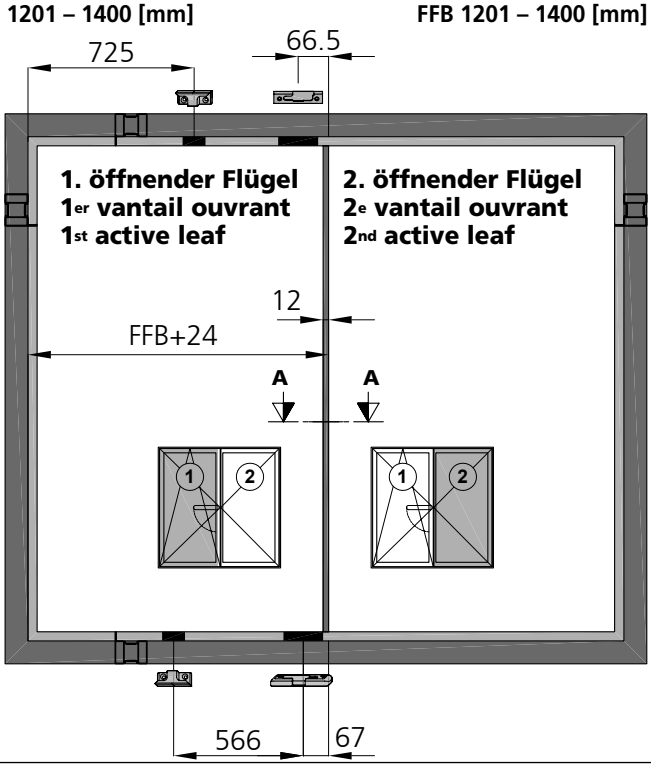
Anordnung Schliessstücke
1. öffnender Flügel
FFB 1201 – 1400 [mm]



Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

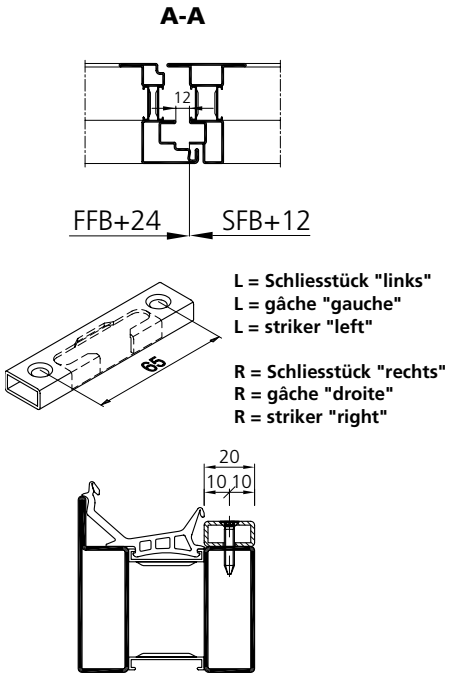
Disposition des gâches
1er vantail ouvrant
FFB 1201 – 1400 [mm]

Arrangement of the strikers
1st active leaf
FFB 1201 – 1400 [mm]



Beschlagseinbau 2-flügeliges Fenster

Anordnung der Schliessstücke
2. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Stulpfalz-Breite
SFB 310 – 600 [mm]

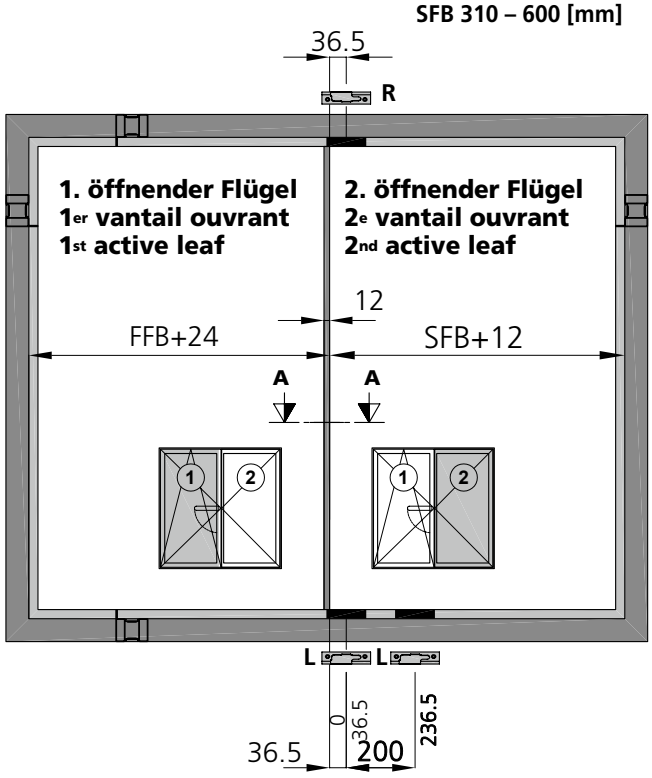


Montage de la quincaillerie Fenêtre à 2 vantaux

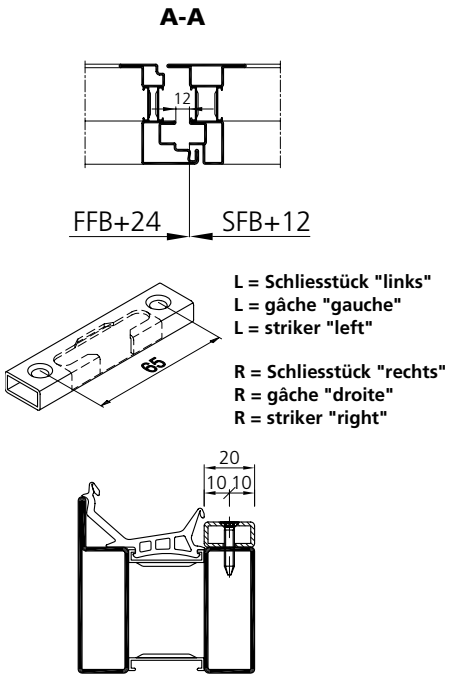
Disposition des gâches
2e vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail semi-fixe
SFB 310 – 600 [mm]

Installation of the fittings Window 2 leaves

Arrangement of the strikers
2nd active leaf on 2 leaved windows in dependence on the width of the double sash rebate
SFB 310 – 600 [mm]

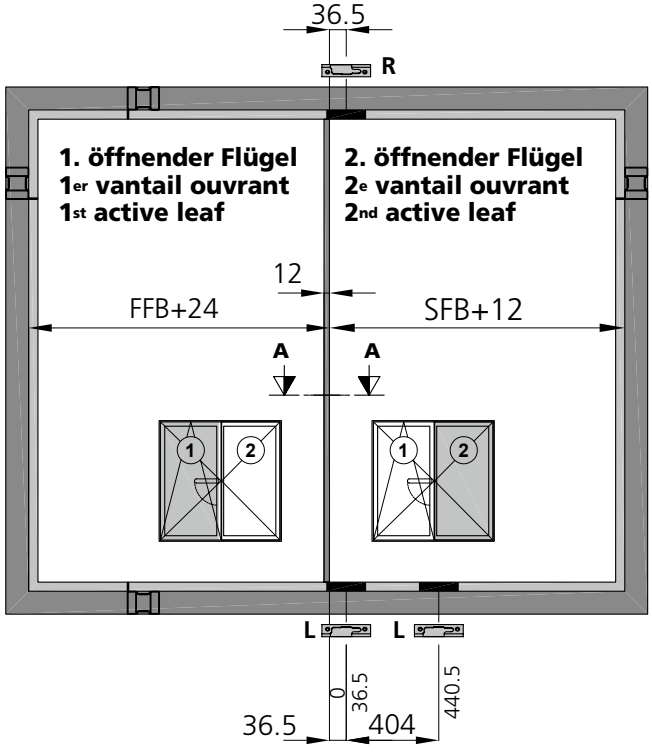


Anordnung Schliessstücke
2. öffnender Flügel
SFB 601 – 800 [mm]



Disposition des gâches
2e vantail ouvrant
SFB 601 – 800 [mm]

Arrangement of the strikers
2nd active leaf
SFB 601 – 800 [mm]



Beschlagseinbau 2-flügeliges Fenster

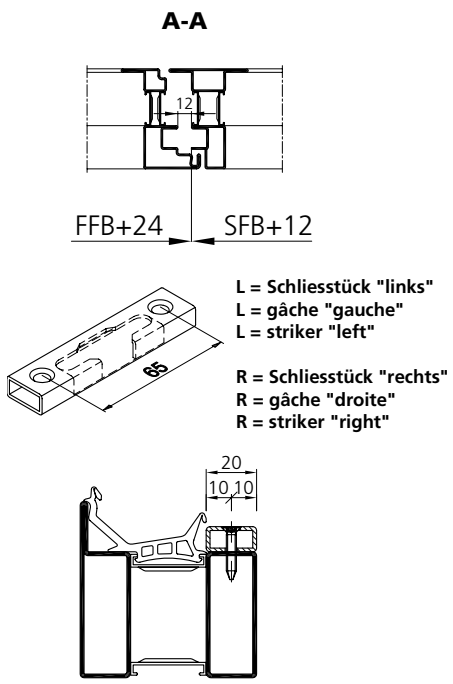
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Anordnung der Schliessstücke
2. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Stulpfalz-Breite
SFB 801 – 1000 [mm]

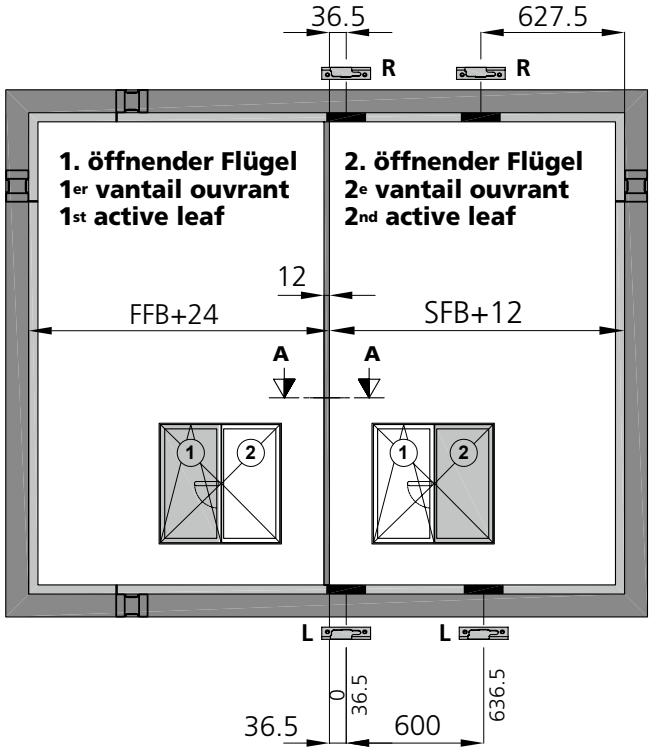
Disposition des gâches
2e vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail semi-fixe
SFB 801 – 1000 [mm]

Arrangement of the strikers
2nd active leaf on 2 leaved windows in dependence on the width of the double sash rebate **SFB 801 – 1000 [mm]**



L = Schliesstück "links"
L = gâche "gauche"
L = striker "left"

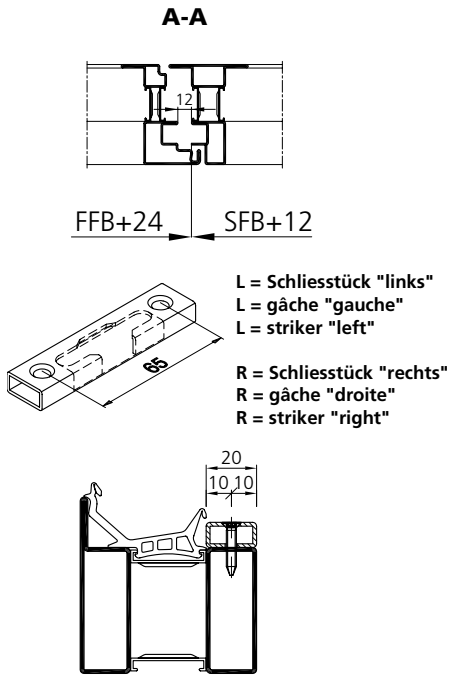
R = Schliesstück "rechts"
R = gâche "droite"
R = striker "right"



Anordnung Schliessstücke
2. öffnender Flügel
SFB 1001 – 1200 [mm]

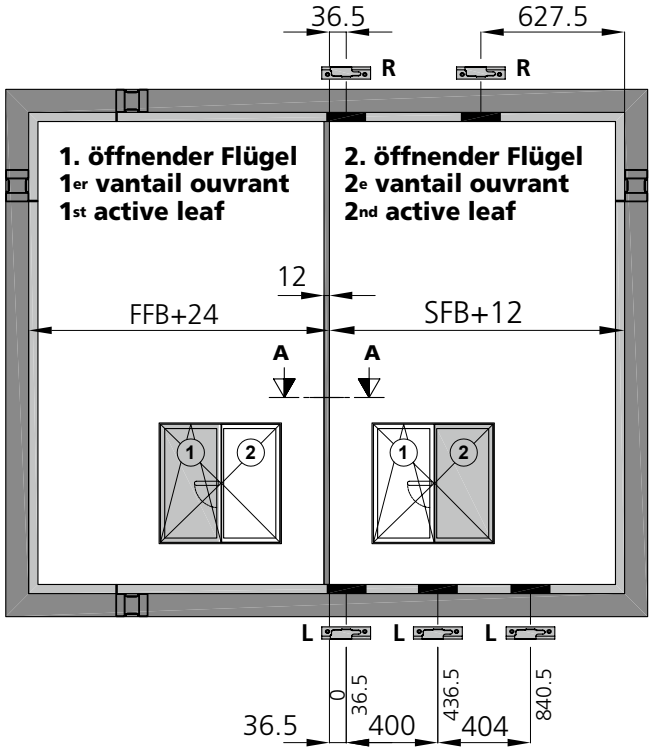
Disposition des gâches
2e vantail ouvrant
SFB 1001 – 1200 [mm]

Arrangement of the strikers
2nd active leaf
SFB 1001 – 1200 [mm]



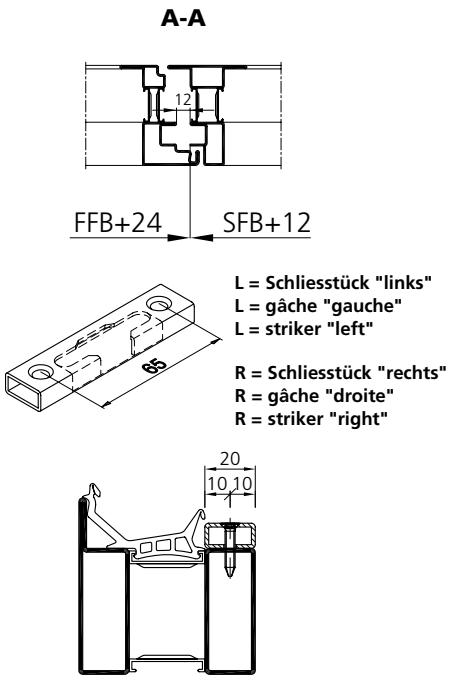
L = Schliesstück "links"
L = gâche "gauche"
L = striker "left"

R = Schliesstück "rechts"
R = gâche "droite"
R = striker "right"



Beschlagseinbau 2-flügeliges Fenster

Anordnung der Schliessstücke
2. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Stulpfalz-Breite
SFB 1201 – 1400 [mm]

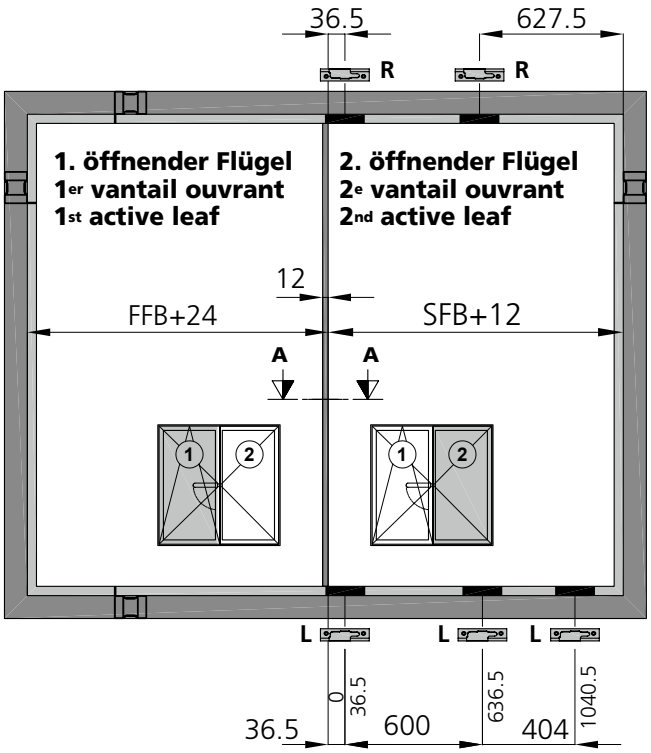


Montage de la quincaillerie Fenêtre à 2 vantaux

Disposition des gâches
2e vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail semi-fixe
SFB 1201 – 1400 [mm]

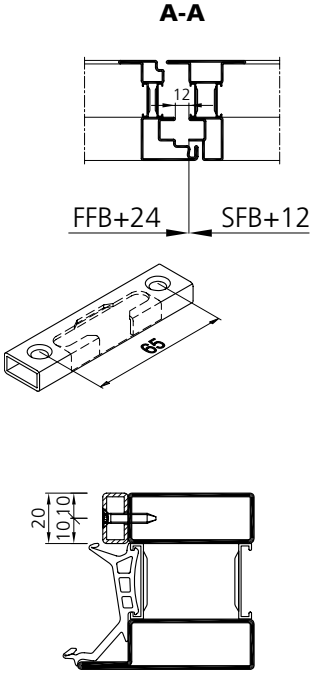
Installation of the fittings Window 2 leaves

Arrangement of the strikers
2nd active leaf on 2 leaved windows in dependence on the width of the double sash rebate **SFB 1201 – 1400 [mm]**



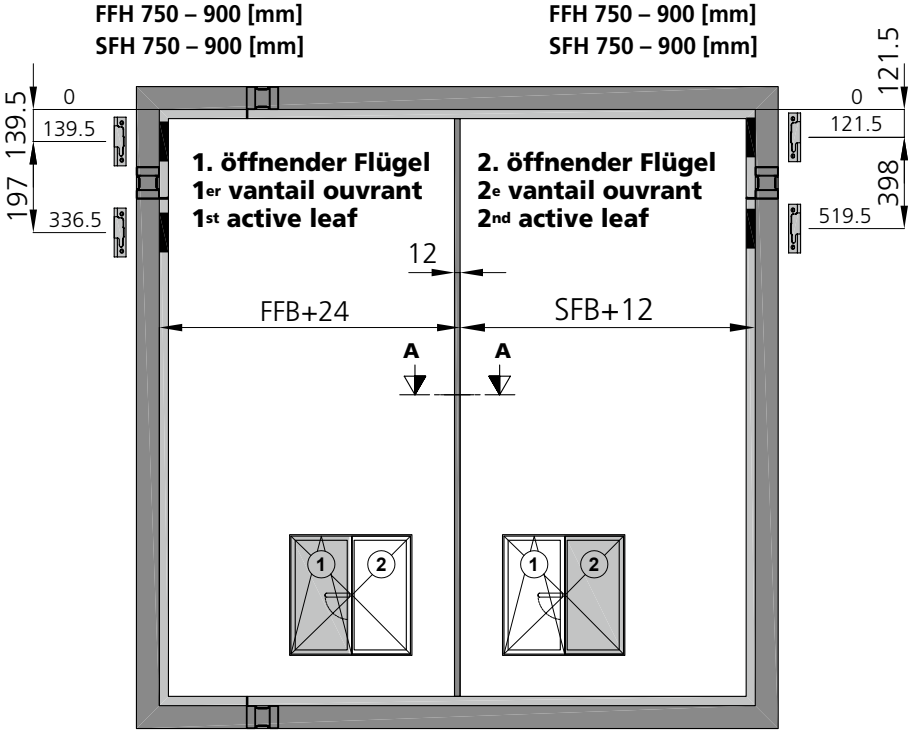
Beschlagseinbau 2-flügeliges Fenster

Anordnung der Schliessstücke
bandseitig 2-flg. in Abhängigkeit der Flügelfalz-Höhe
FFH 750 – 900 [mm]
SFH 750 – 900 [mm]



Montage de la quincaillerie Fenêtre à 2 vantaux

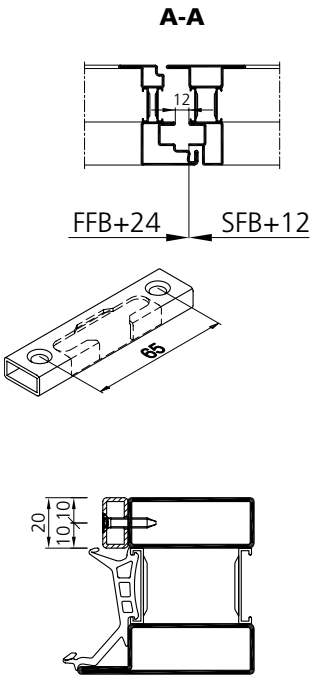
Disposition des gâches
Côté paumelle 2 vantaux selon la hauteur de la feuillure du vantail
FFH 750 – 900 [mm]
SFH 750 – 900 [mm]



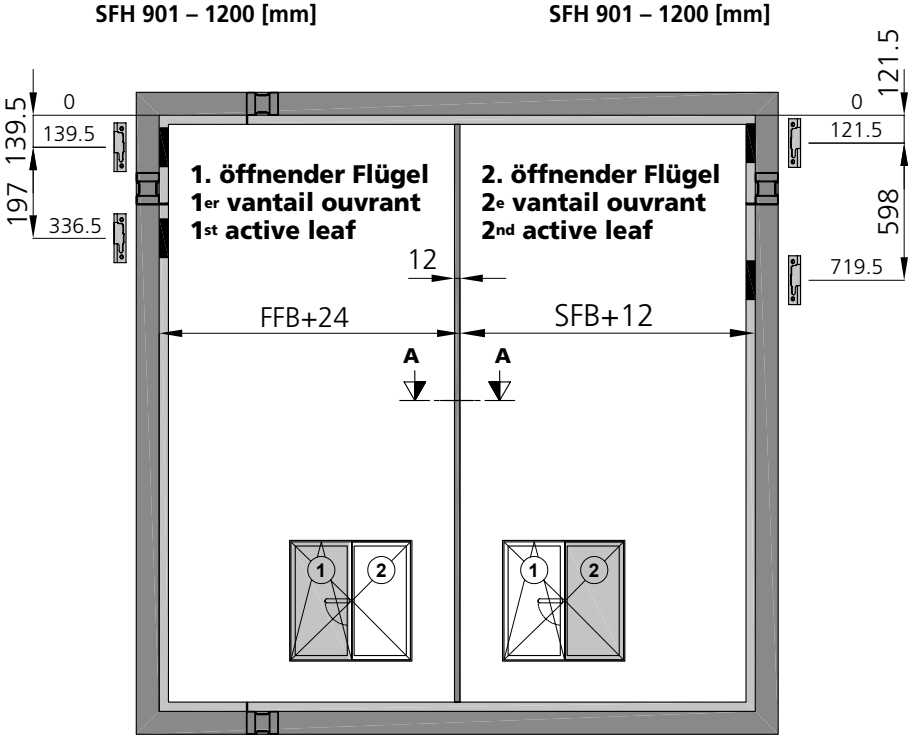
Installation of the fittings Window 2 leaves

Arrangement of the strikers
Hinge side, 2 leaved in dependence on the height of the leaf rebate
FFH 750 – 900 [mm]
SFH 750 – 900 [mm]

Anordnung Schliessstücke
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]



Disposition des gâches
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]



Arrangement of the strikers
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]

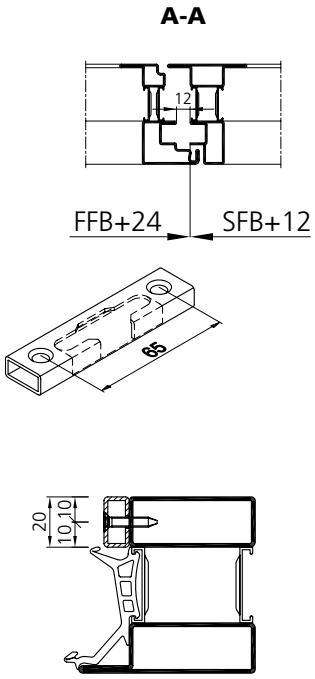
Schliessstücke auf Getriebeseite sind fix auf Stulpgetriebe montiert

Les gâches du côté crémone sont montées de façon fixe sur la crémone

Keeps on the drive side are firmly mounted on the face plate drive

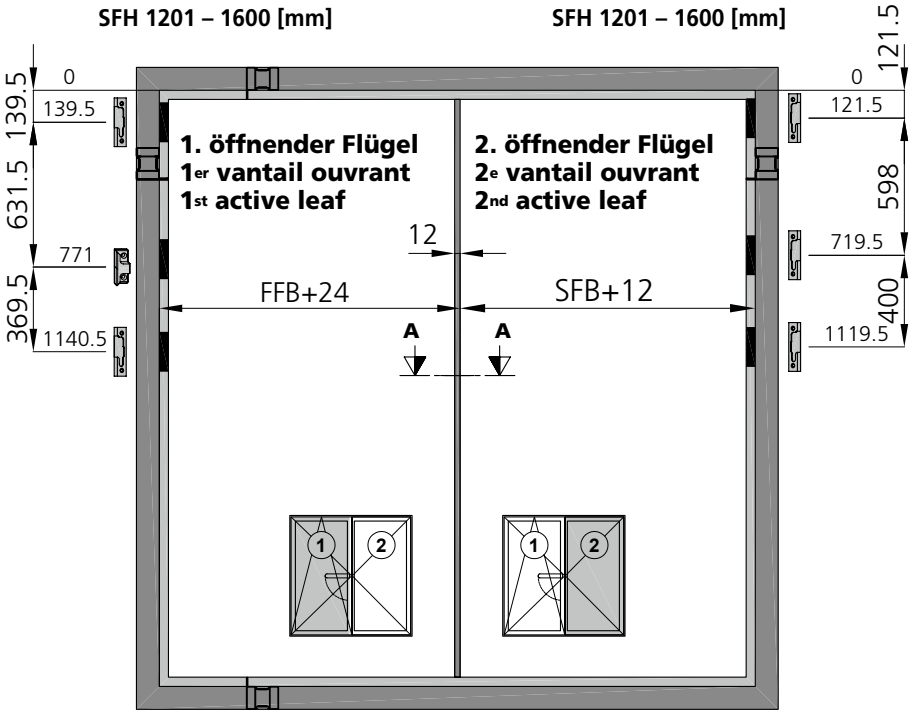
Beschlagseinbau 2-flügeliges Fenster

Anordnung der Schliessstücke
bandseitig 2-flg. in Abhängigkeit der Flügelfalz-Höhe
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]



Montage de la quincaillerie Fenêtre à 2 vantaux

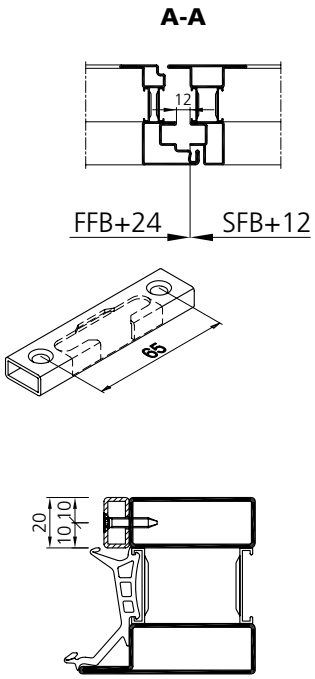
Disposition des gâches
Côté paumelle 2 vantaux selon la hauteur de la feuillure du vantail
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]



Installation of the fittings Window 2 leaves

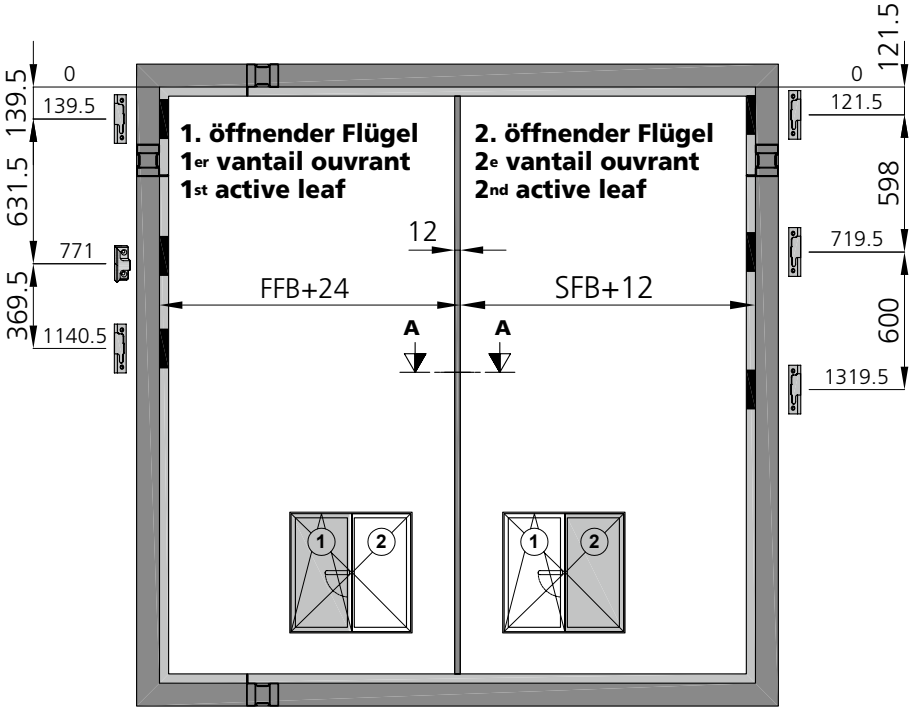
Arrangement of the strikers
Hinge side, 2 leaved in dependence on the height of the leaf rebate
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]

Anordnung Schliessstücke
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]



Schliessstücke auf Getriebeseite sind fix auf Stulpgetriebe montiert

Disposition des gâches
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]



Les gâches du côté crémone sont montées de façon fixe sur la crémone

Arrangement of the strikers
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]

Keeps on the drive side are firmly mounted on the face plate drive

Beschlagseinbau 2-flügeliges Fenster

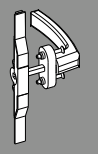
Anordnung der Schliessstücke
bandseitig 2-flg. in Abhängigkeit der Flügelfalz-Höhe
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]

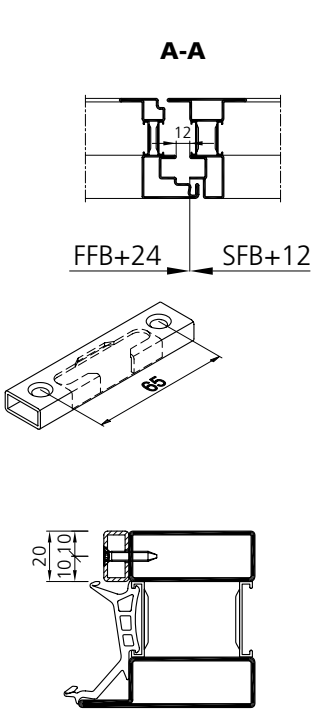
Montage de la quincaillerie Fenêtre à 2 vantaux

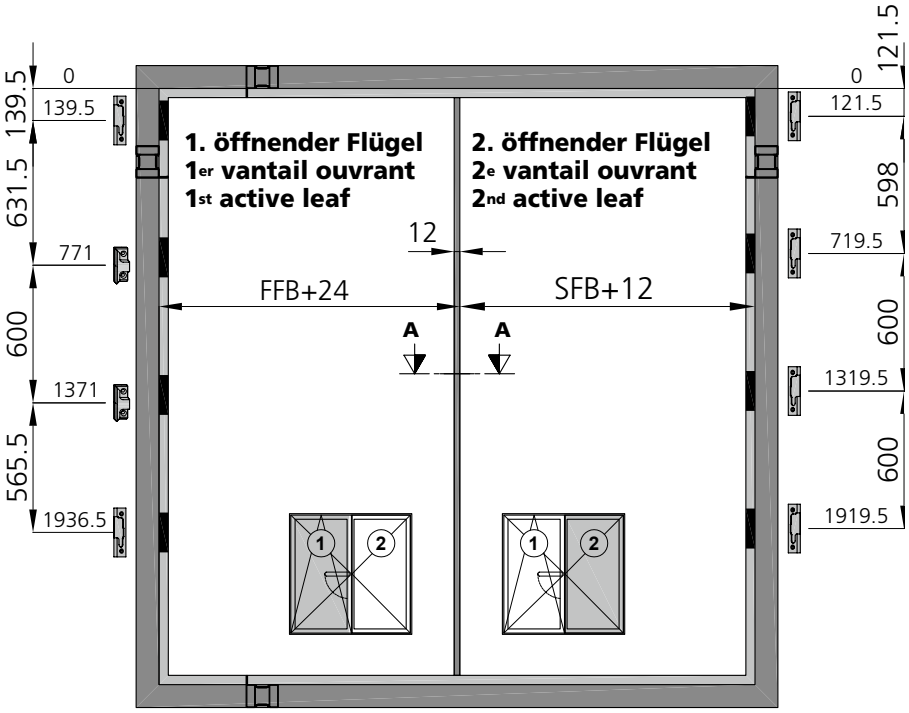
Disposition des gâches
Côté paumelle 2 vantaux selon la hauteur de la feuillure du vantail
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]

Installation of the fittings Window 2 leaves

Arrangement of the strikers
Hinge side, 2 leaved in dependence on the height of the leaf rebate
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]







Schliessstücke auf Getriebeseite sind fix auf Stulpgetriebe montiert

Les gâches du côté crémone sont montées de façon fixe sur la crémone

Keeps on the drive side are firmly mounted on the face plate drive

Beschlagseinbau 2-flügeliges Fenster

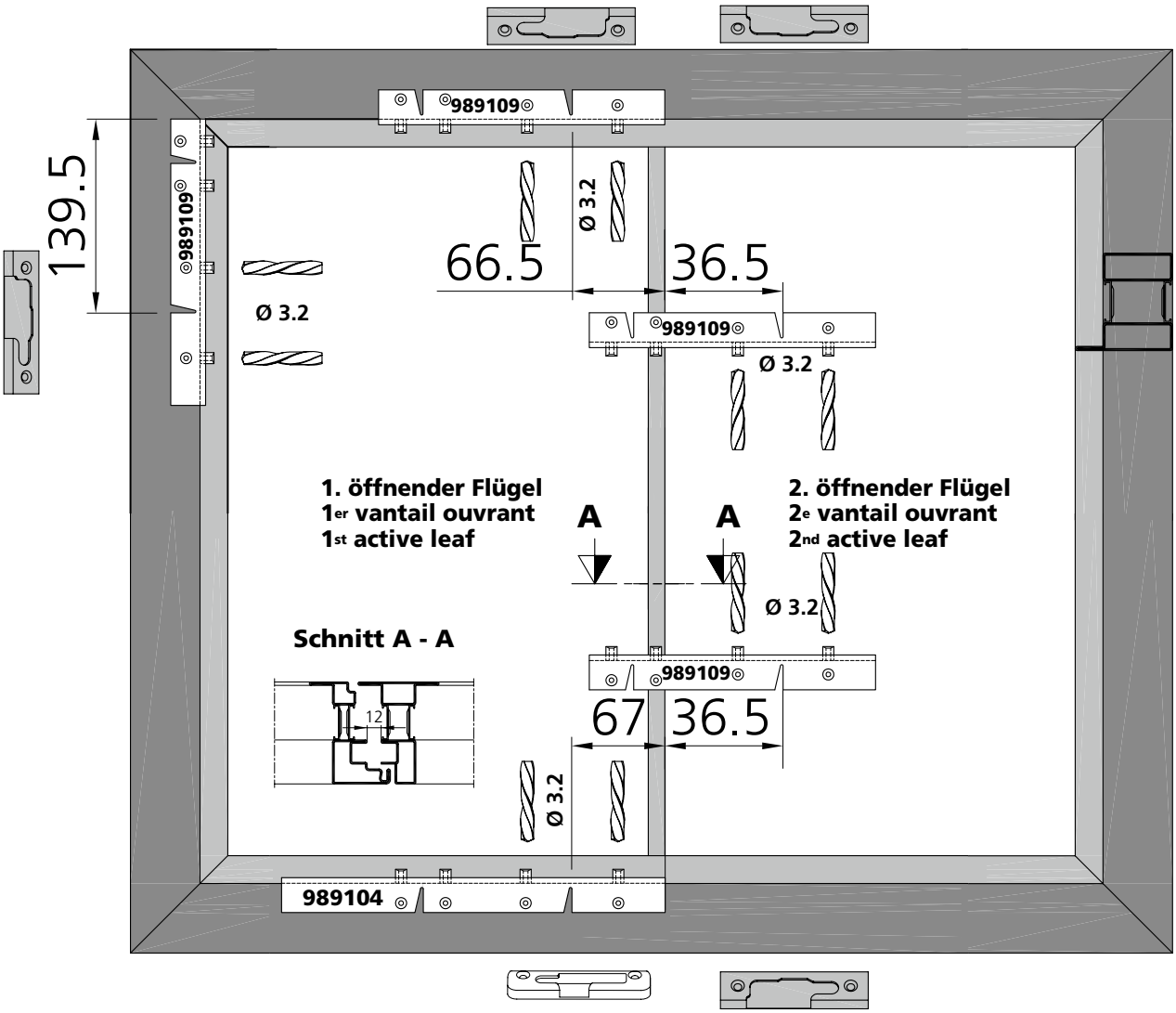
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Bohrlehre **Art. Nr. 989104 / 989109**

Gabarit de perçage **art. no. 98910 / 989109**

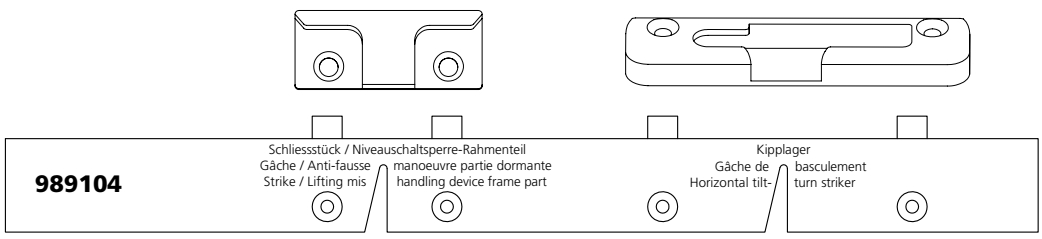
Drilling template **art. no. 989104 / 989109**



Schliessstück links
Gâche gauche
Striker left

Kipplager
Gâche de basculement
Tilt-turn striker

Schliessstück rechts
Gâche droite
Striker right



Markierung Zentrum Schliessblech / NSP
Marque centre gâche / AFM
Marking on the center of the striker / LMD

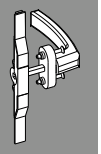
Markierung Zentrum Kipplager
Marque centre gâche de basculement
Marking on the center of the tilt-turn striker

Verarbeitung Beschläge Fenster
Mise en œuvre quincaillerie fenêtres
Assembly window fittings

Beschlagseinbau 2-flügeliges Fenster

- Schraube M4 x 21 (selbstfurchend)
- Bohrloch 3.2 mm
- Bei Edelstahlprofil muss das M4 Gewinde geschnitten werden. Alternative: Bohrloch auf 3.5 aufbohren, Schraube ohne M4 Gewindeschnitt einsetzen.

Bei jeder Verschraubung muss ein Distanzstück **927001** eingesetzt werden.



Montage de la quincaillerie Fenêtre à 2 vantaux

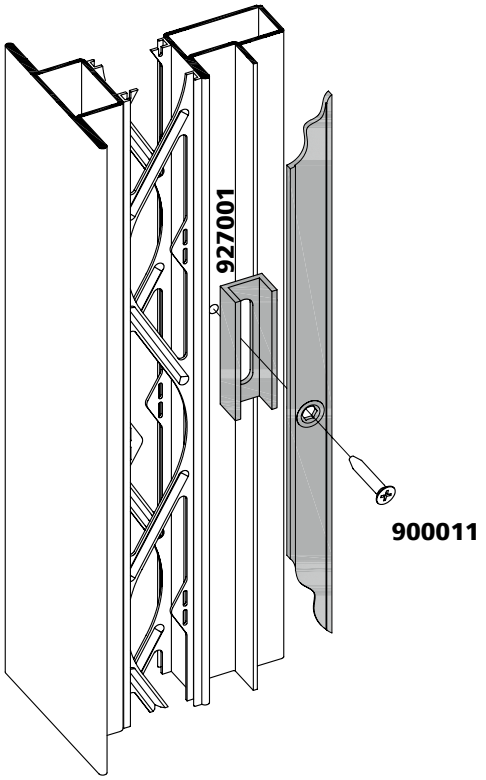
- Vis M4 x 21 (autotaraudeuse)
- Perçage 3.2 mm
- Avec le profilé en acier inox, la vis M4 doit être coupée. Alternative: agrandir le trou à 3.5, taraudage M4 pas necessaire.

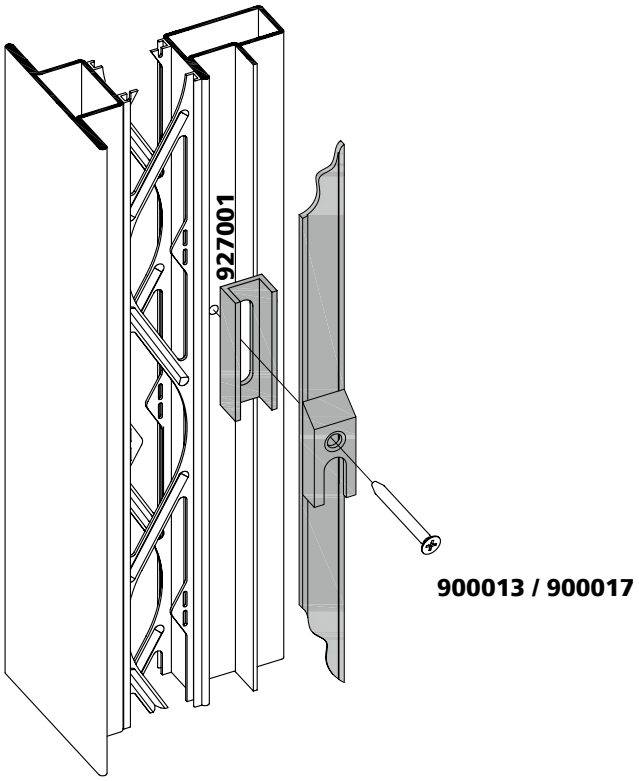
La pièce d'entretoise **927001** doit être insérée sous toutes les fixations et assemblages.

Installation of the fittings Window 2 leaves

- Screw M4 x 21 (self tapping)
- Drill hole 3.2 mm
- In stainless steel profiles, the M4 thread needs to be cut case. Alternative: drill out the drilling hole of 3.5, use screw without M4 thread.

The spacer **927001** must be placed under all screw connections.



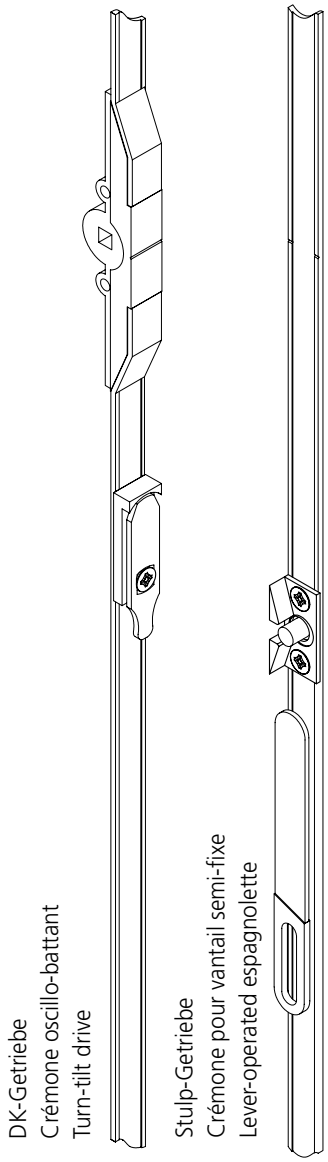


Beschlagseinbau
2-flügeliges Fenster
Niveau-Schaltsperre

Montage de la quincaillerie
Fenêtre à 2 vantaux
Anti-fausse manœuvre

Installation of the fittings
Window 2 leaves
Lifting mishandling device

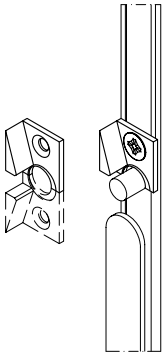
GH 376-800

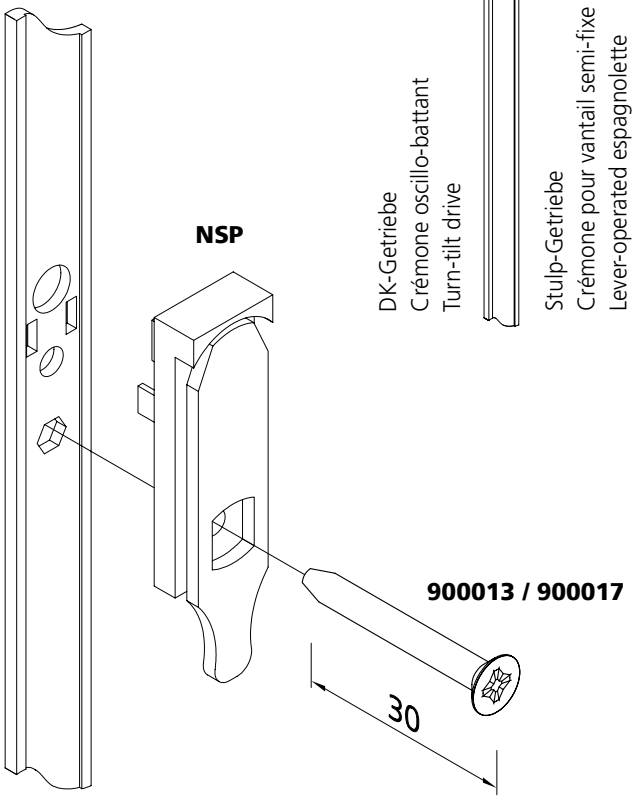


Niveauschaltsperre Stulpteil halbierbar (Kunststoff)

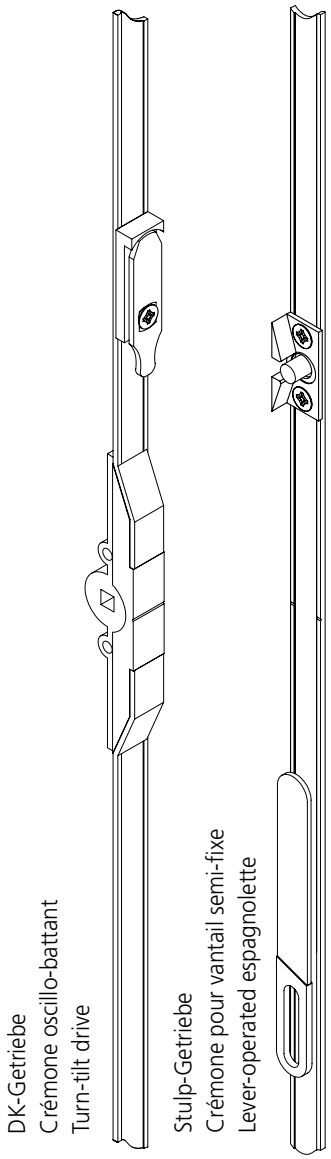
Anti-fausse manoeuvre, partie support, pouvant être divisée (matière plastique)

Lifting mishandling device, reducible by half (plastic)





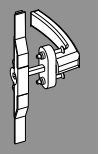
GH 801-1200

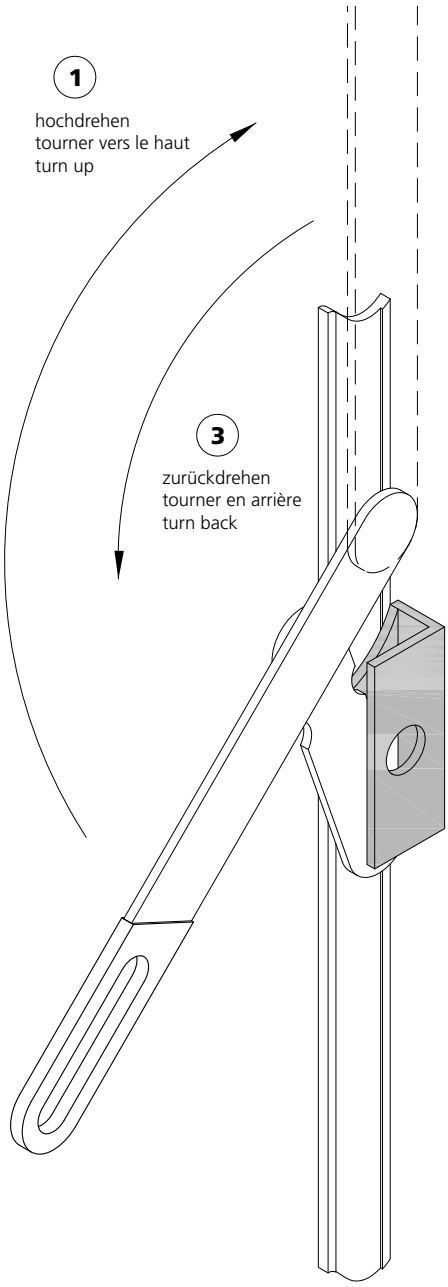


Beschlagseinbau
2-flügeliges Fenster
Montage Sicherungsbügel

Montage de la quincaillerie
Fenêtre à 2 vantaux
Montage etrier fixation crémone

Installation of the fittings
Window 2 leaves
Mounting retainer clasp

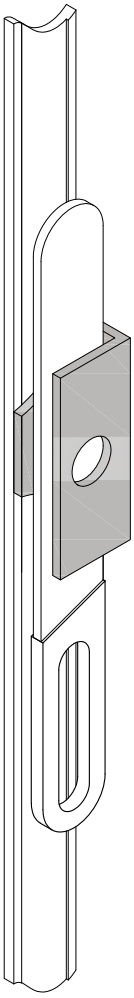


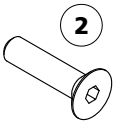


2. öffnender Flügel passend zu
1. öffnendem Flügel DIN rechts

2ème vantail ouvrant adapté au
1er vantail ouvrant DIN droite

2nd active leaf appropriate for
1st active leaf DIN right



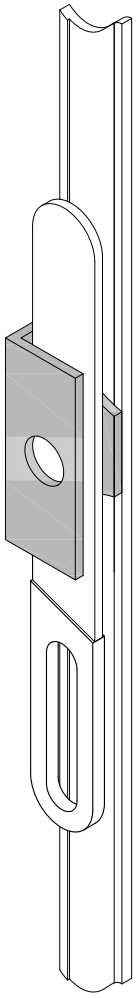


900011

2. öffnender Flügel passend zu
1. öffnendem Flügel DIN links

2ème vantail ouvrant adapté au
1er vantail ouvrant DIN gauche

2nd active leaf appropriate for
1st active leaf DIN left



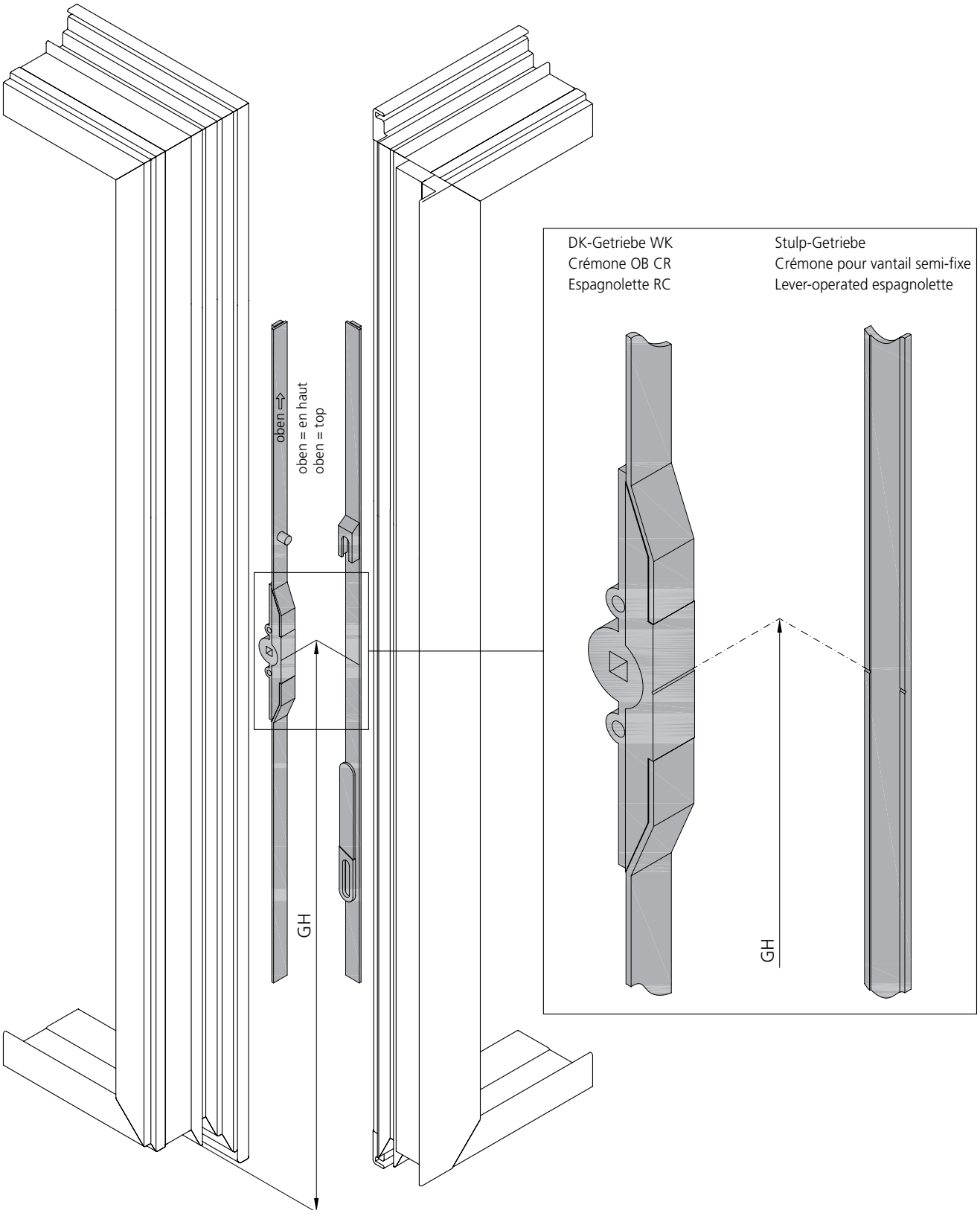
Beschlagseinbau 2-flügeliges Fenster

Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

1. öffnender Flügel
1er vantail ouvrant
1st active leaf

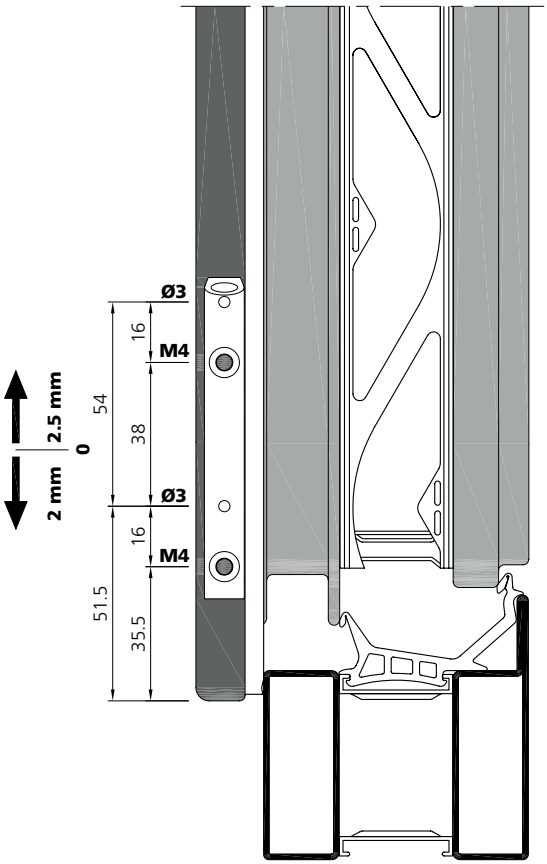
2. öffnender Flügel
2e vantail ouvrant
2nd active leaf

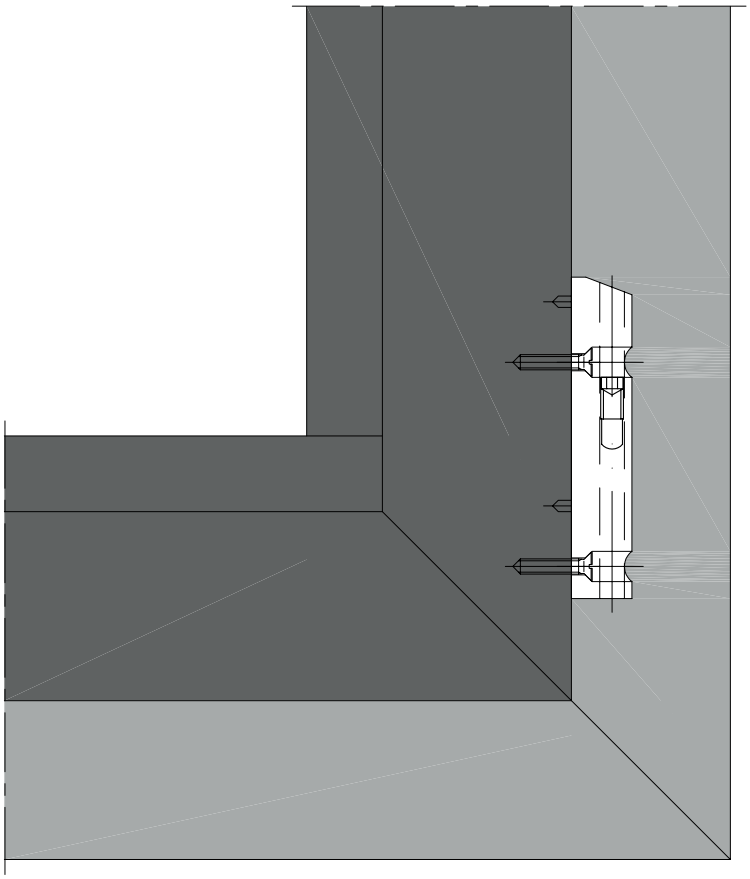


Beschlagseinbau
2-flügeliges Fenster
Eckband

Montage de la quincaillerie
Fenêtre à 2 vantaux
Pivot d'angle

Installation of the fittings
Window 2 leaves
Corner hinge

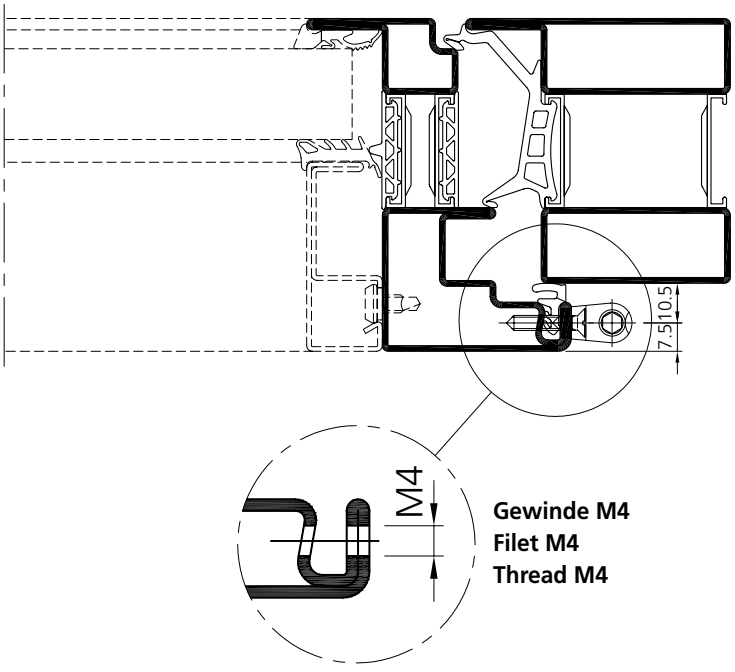




Das Eckband wird durch die Anschlagdichtung **985300** verschraubt.

Le pivot d'angle est vissé à travers le joint de butée **985300**.

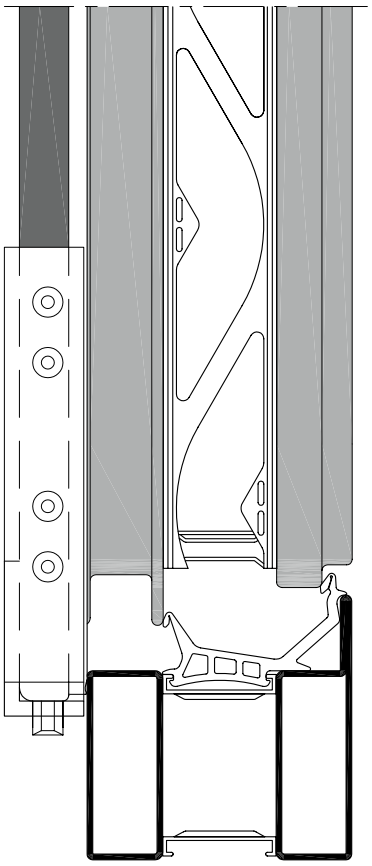
The corner hinge is screwed through the **985300** weatherstripping

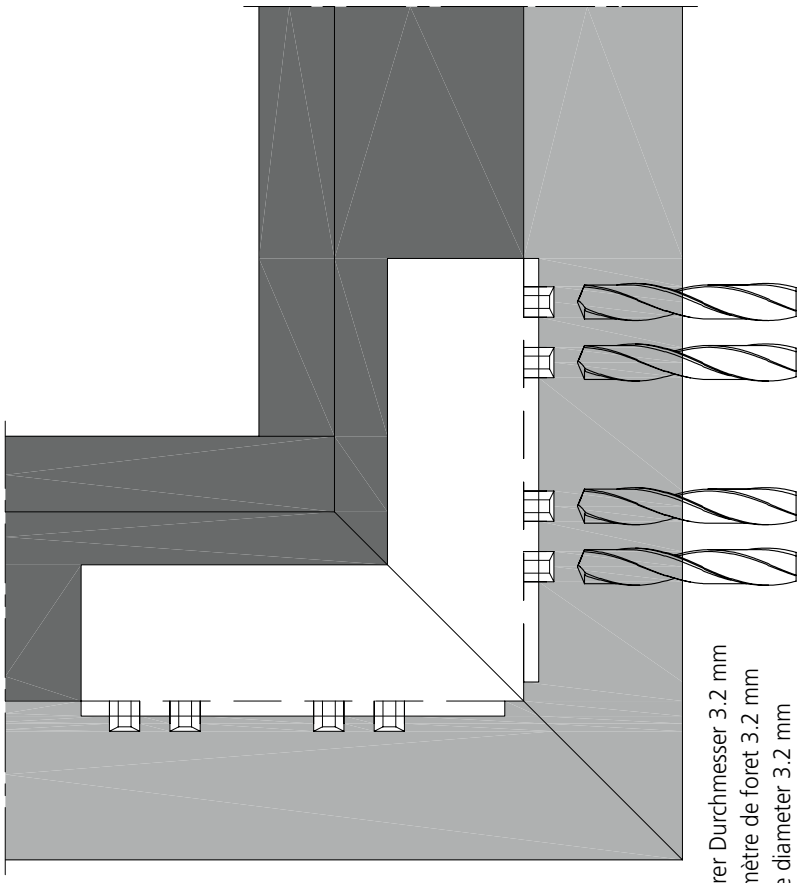


Beschlagseinbau
2-flügeliges Fenster
Eckband

Montage de la quincaillerie
Fenêtre à 2 vantaux
Pivot d'angle

Installation of the fittings
Window 2 leaves
Corner hinge



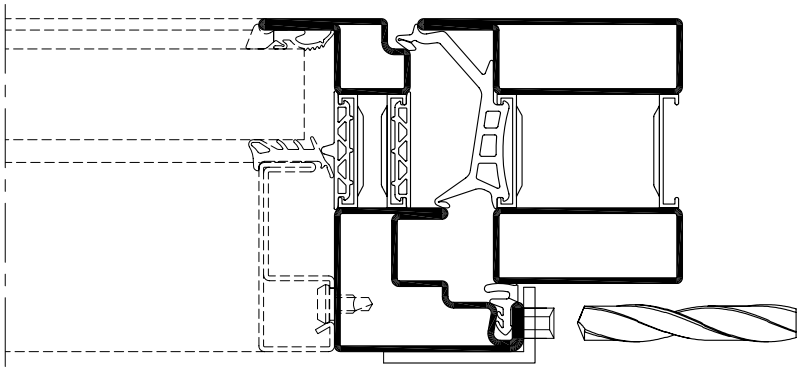


Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Bohrlehre **Art. Nr. 989102** zu Eckband.

Gabarit de perçage **art. no. 989102** pour pivot d'angle.

Drilling template **art. no. 989102** for corner hinge.



Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Beschlagseinbau 2-flügeliges Fenster

Einsatz der Forster Bohrlehren für den Standard Beschlag auf dem 2. öffnenden Flügel (Gez. Bandseite links, Bandseite rechts spiegelbildlich)

SFH 750 - 2400
SFB 310 - 1400

Montage de la quincaillerie Fenêtre à 2 vantaux

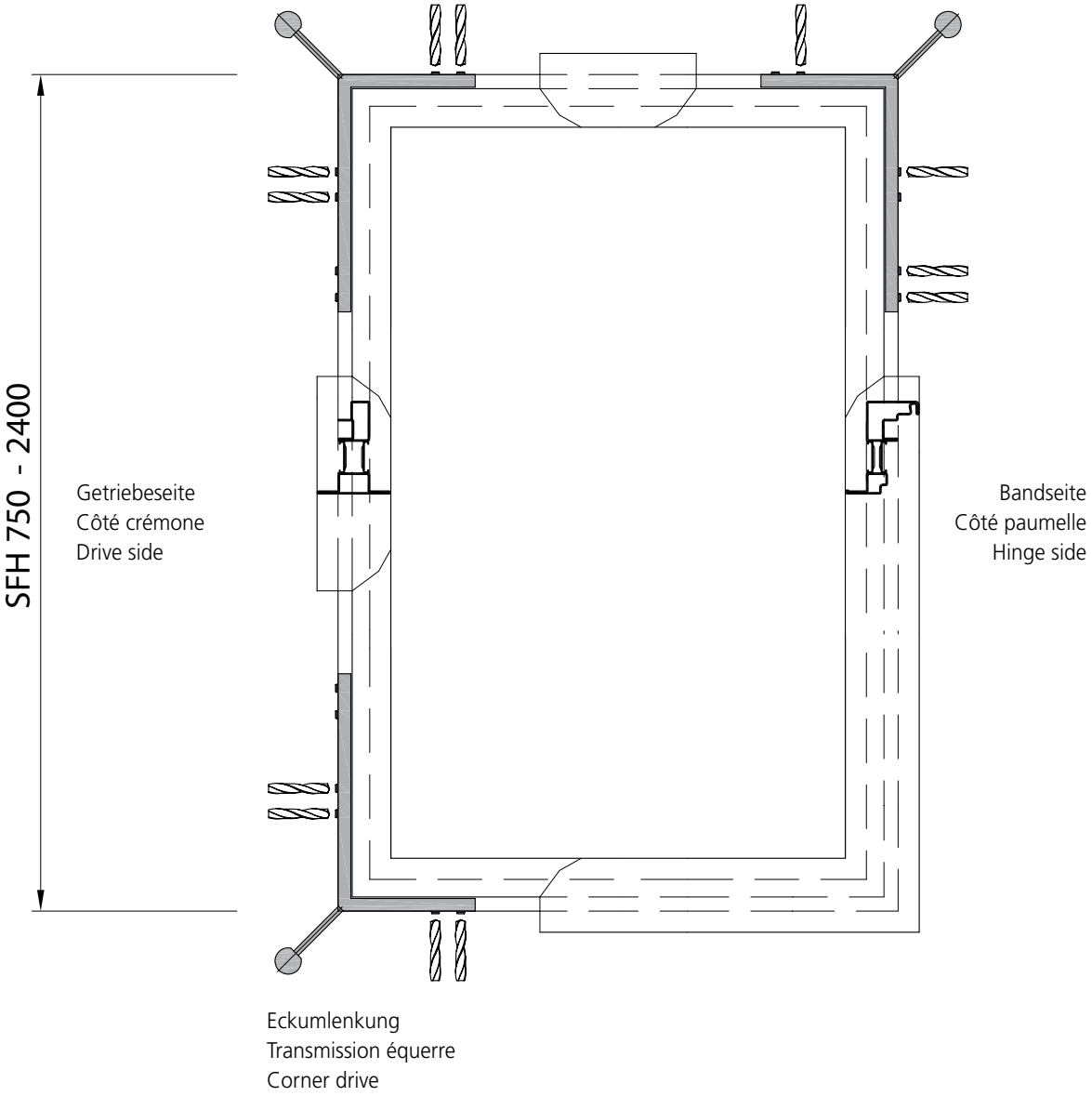
Utilisation des gabarits de perçage Forster pour la quincaillerie standard sur le vantail semi-fix (dessiné côté paumelle à gauche, côté paumelle à droite symétrique)

SFH 750 - 2400
SFB 310 - 1400

Installation of the fittings Window 2 leaves

Use the Forster drilling templates for standard fittings on the 2nd active leaf (marking hinge side left, hinge side right mirror image)

SFH 750 - 2400
SFB 310 - 1400



Beschlagseinbau 2-flügeliges Fenster

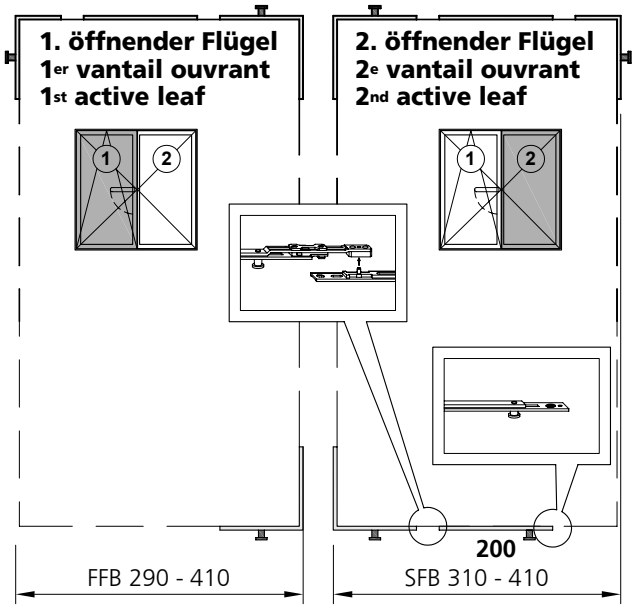
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Anordnung Verlängerungen
FFB 290 – 410 [mm]
SFB 290 – 410 [mm]

Disposition des extensions
FFB 290 – 410 [mm]
SFB 290 – 410 [mm]

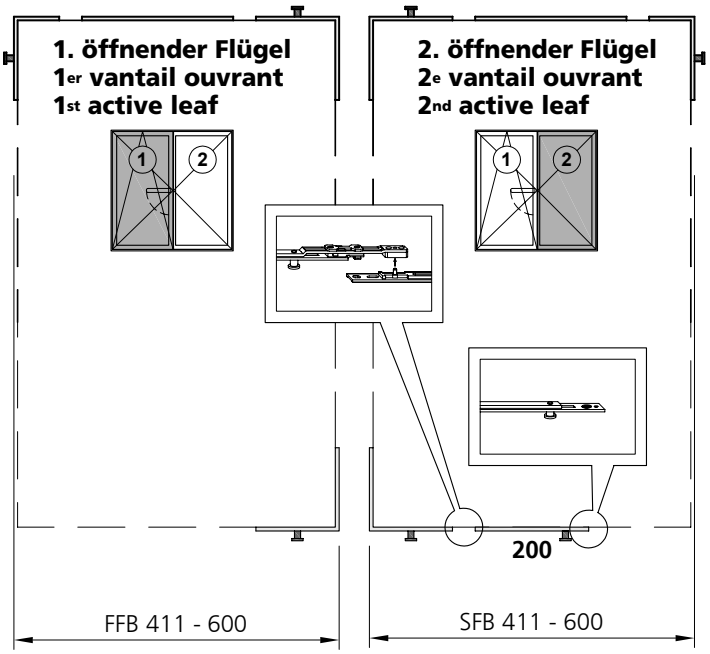
Arrangement of the extensions
FFB 290 – 410 [mm]
SFB 290 – 410 [mm]



Anordnung Verlängerungen
FFB 411 – 600 [mm]
SFB 411 – 600 [mm]

Disposition des extensions
FFB 411 – 600 [mm]
SFB 411 – 600 [mm]

Arrangement of the extensions
FFB 411 – 600 [mm]
SFB 411 – 600 [mm]



Beschlagseinbau 2-flügeliges Fenster

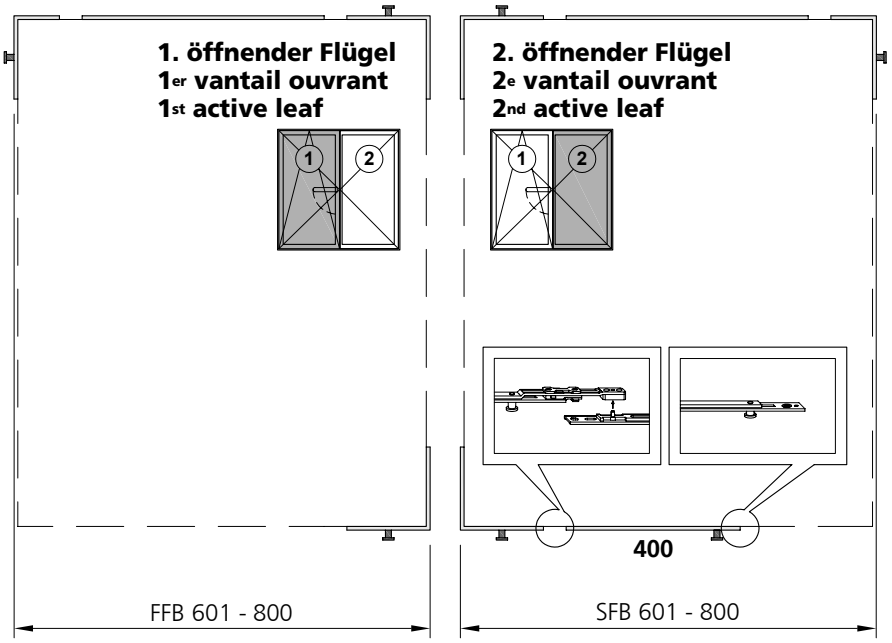
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Anordnung Verlängerungen
FFB 601 – 800 [mm]
SFB 601 – 800 [mm]

Disposition des extensions
FFB 601 – 800 [mm]
SFB 601 – 800 [mm]

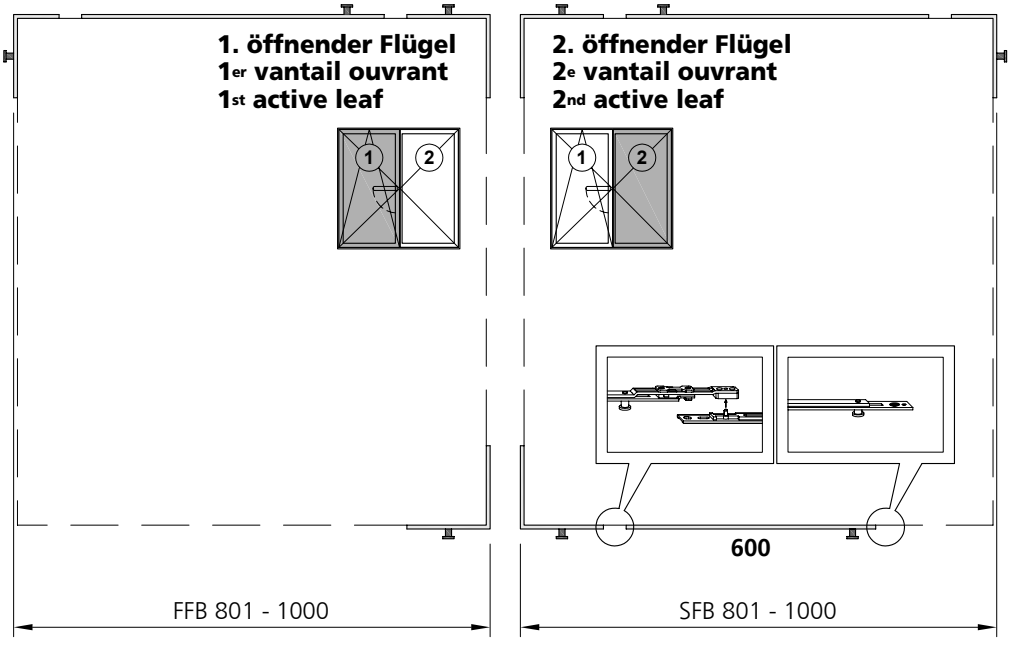
Arrangement of the extensions
FFB 601 – 800 [mm]
SFB 601 – 800 [mm]



Anordnung Verlängerungen
FFB 801 – 1000 [mm]
SFB 801 – 1000 [mm]

Disposition des extensions
FFB 801 – 1000 [mm]
SFB 801 – 1000 [mm]

Arrangement of the extensions
FFB 801 – 1000 [mm]
SFB 801 – 1000 [mm]



Beschlagseinbau 2-flügeliges Fenster

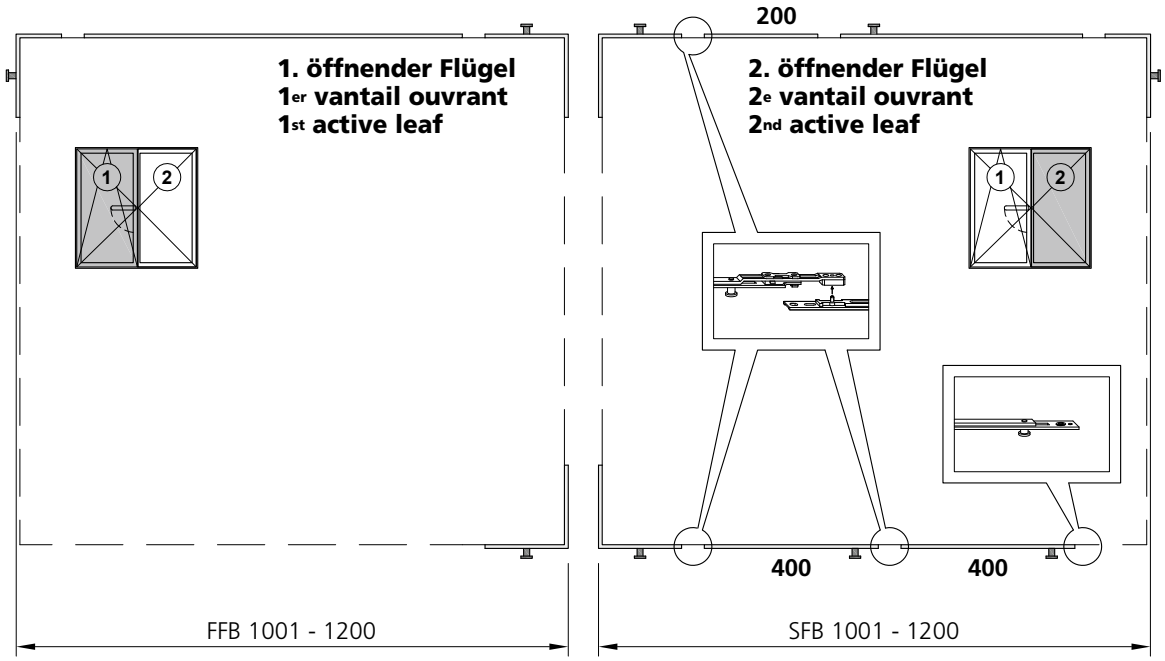
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Anordnung Verlängerungen
FFB 1001 – 1200 [mm]
SFB 1001 – 1200 [mm]

Disposition des extensions
FFB 1001 – 1200 [mm]
SFB 1001 – 1200 [mm]

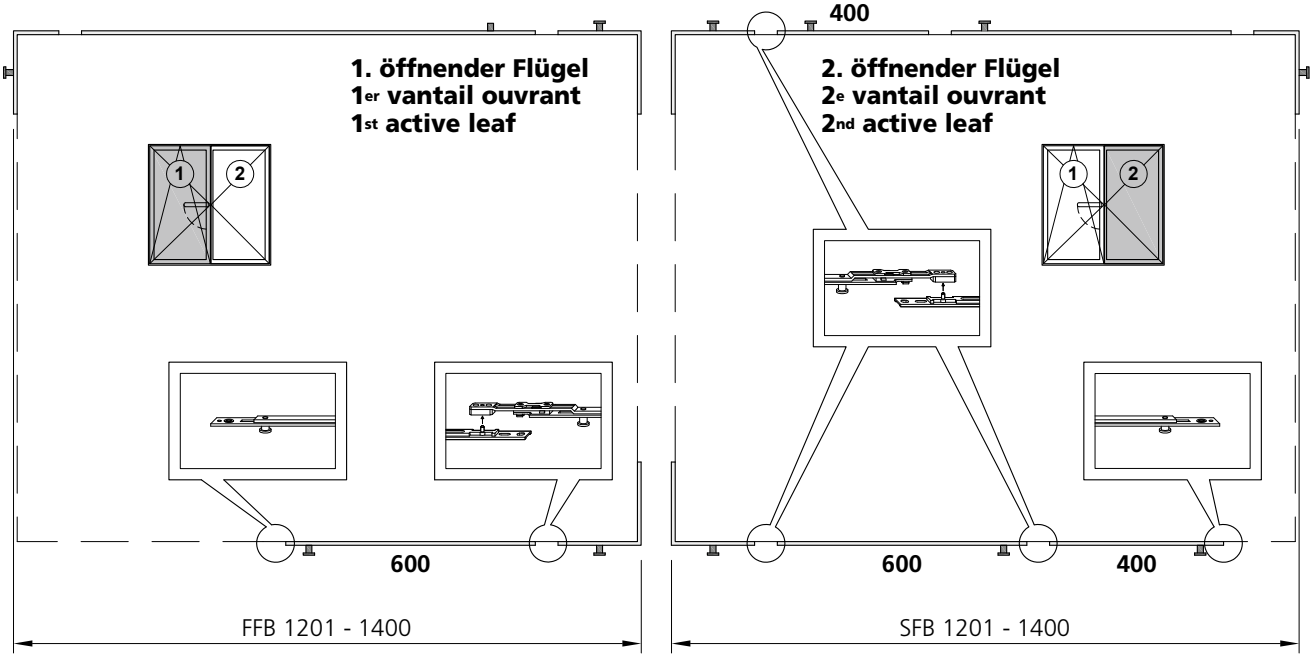
Arrangement of the extensions
FFB 1001 – 1200 [mm]
SFB 1001 – 1200 [mm]



Anordnung Verlängerungen
FFB 1201 – 1400 [mm]
SFB 1201 – 1400 [mm]

Disposition des extensions
FFB 1201 – 1400 [mm]
SFB 1201 – 1400 [mm]

Arrangement of the extensions
FFB 1201 – 1400 [mm]
SFB 1201 – 1400 [mm]



Beschlagseinbau 2-flügeliges Fenster

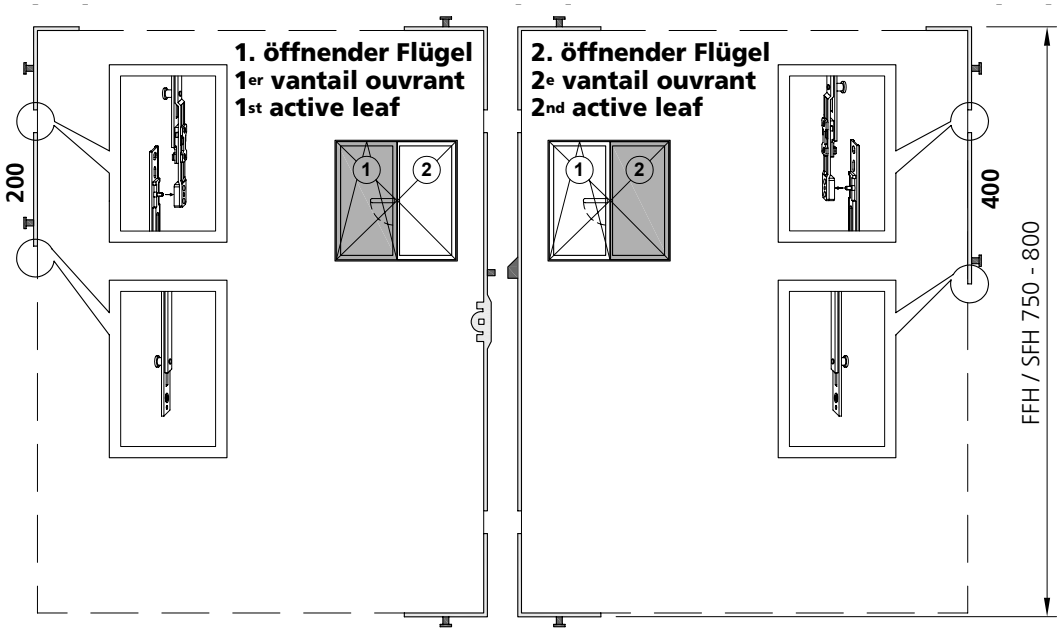
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Anordnung Verlängerungen
FFH 750 – 800 [mm]
SFH 750 – 800 [mm]

Disposition des extensions
FFH 750 – 800 [mm]
SFH 750 – 800 [mm]

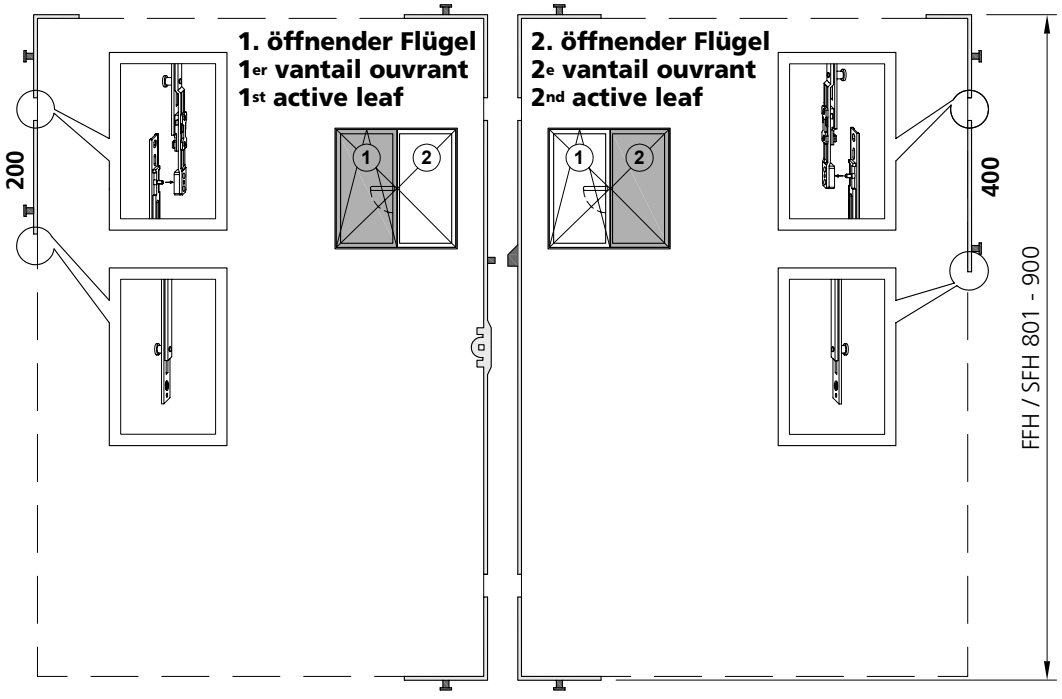
Arrangement of the extensions
FFH 750 – 800 [mm]
SFH 750 – 800 [mm]



Anordnung Verlängerungen
FFH 801 – 900 [mm]
SFH 801 – 900 [mm]

Disposition des extensions
FFH 801 – 900 [mm]
SFH 801 – 900 [mm]

Arrangement of the extensions
FFH 801 – 900 [mm]
SFH 801 – 900 [mm]



Beschlagseinbau 2-flügeliges Fenster

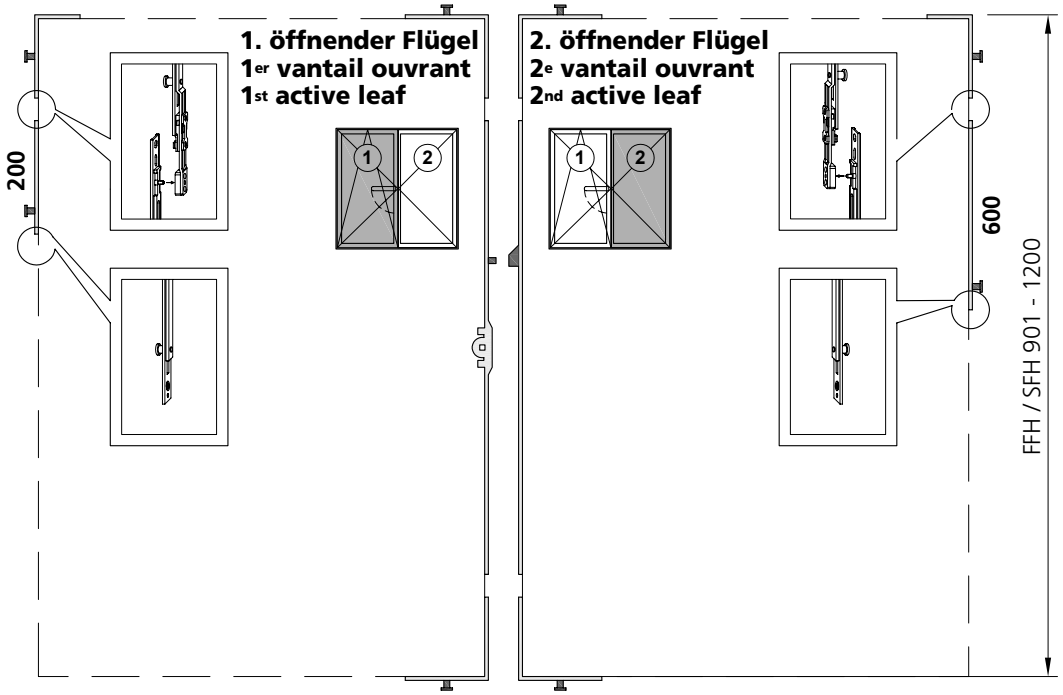
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Anordnung Verlängerungen
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]

Disposition des extensions
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]

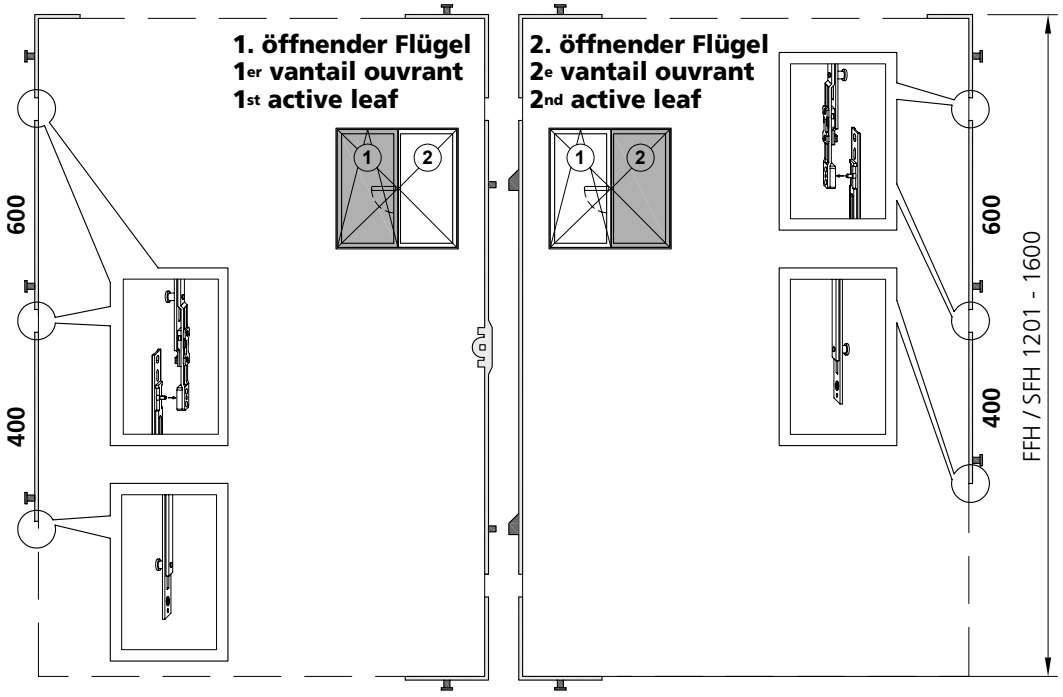
Arrangement of the extensions
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]



Anordnung Verlängerungen
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]

Disposition des extensions
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]

Arrangement of the extensions
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]



Beschlagseinbau 2-flügeliges Fenster

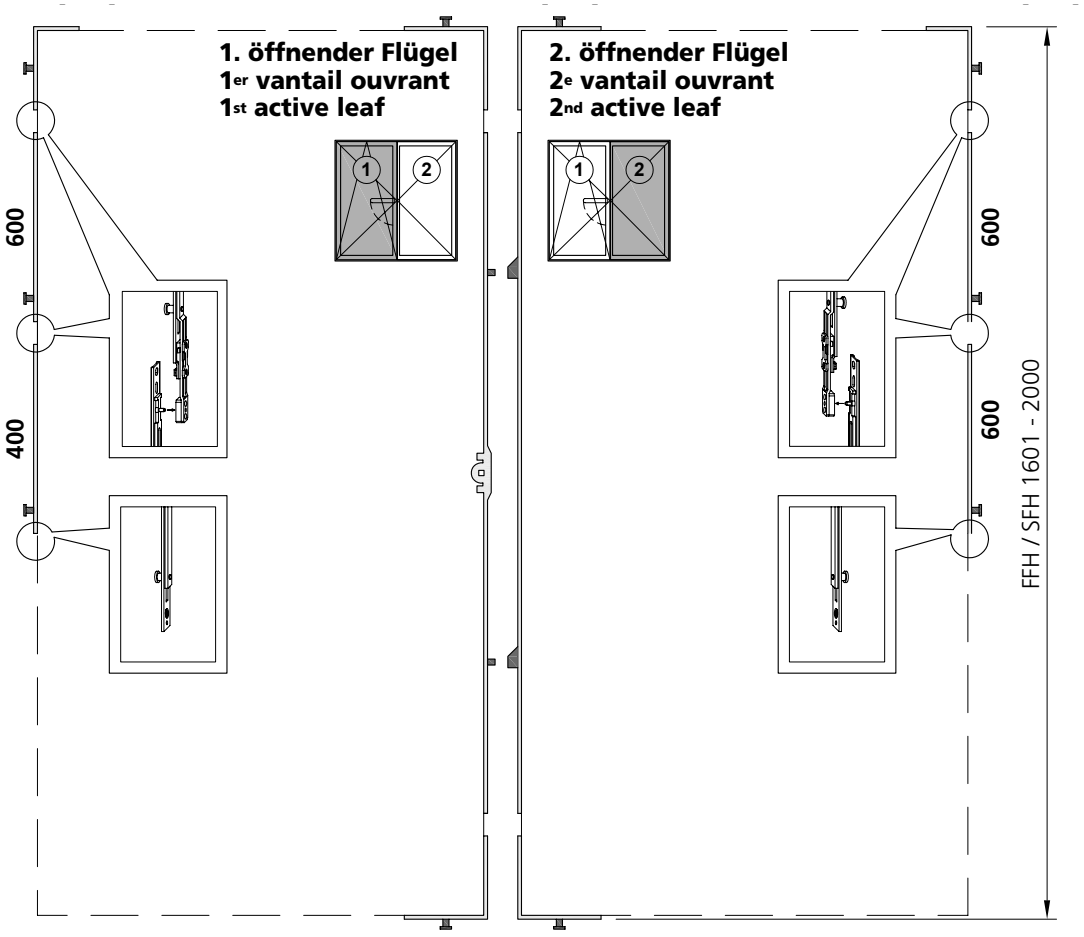
Anordnung Verlängerungen
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]

Montage de la quincaillerie Fenêtre à 2 vantaux

Disposition des extensions
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]

Installation of the fittings Window 2 leaves

Arrangement of the extensions
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]



Beschlagseinbau 2-flügeliges Fenster

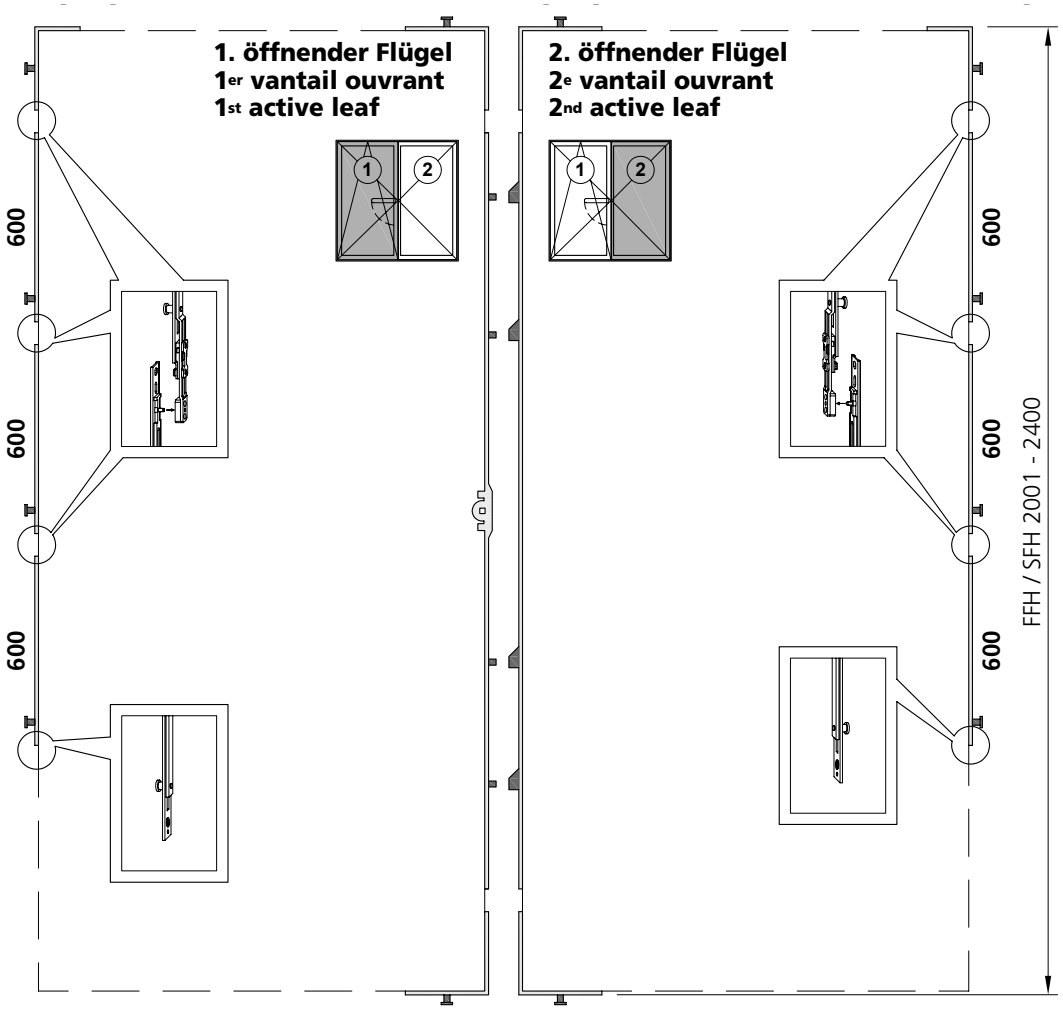
Anordnung Verlängerungen
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]

Montage de la quincaillerie Fenêtre à 2 vantaux

Disposition des extensions
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]

Installation of the fittings Window 2 leaves

Arrangement of the extensions
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]



Beschlagseinbau 2-flügeliges Fenster

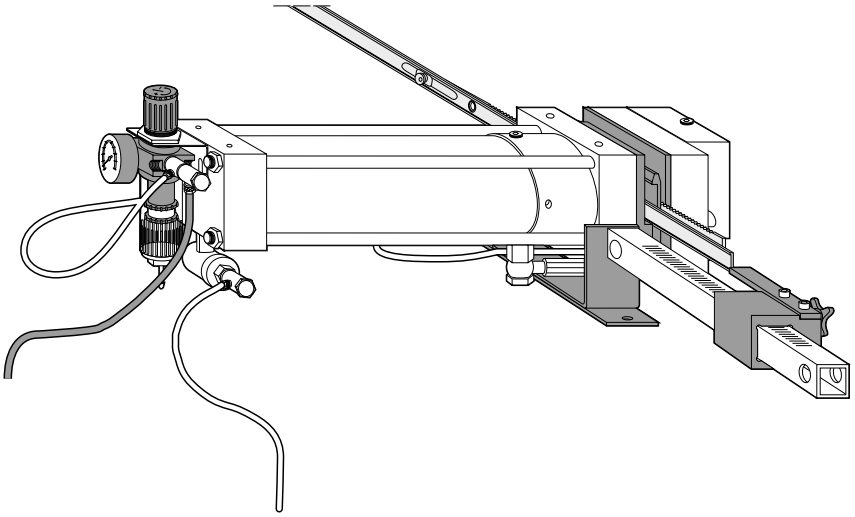
Ablängen mit pneumatischer Stanze (Lochstanzung)

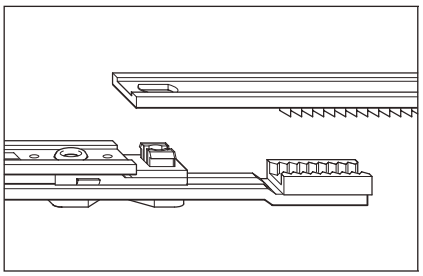
Montage de la quincaillerie Fenêtre à 2 vantaux

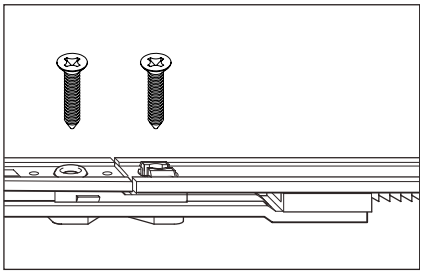
Couper à la longueur requise avec un dispositif de poinçonnage pneumatique

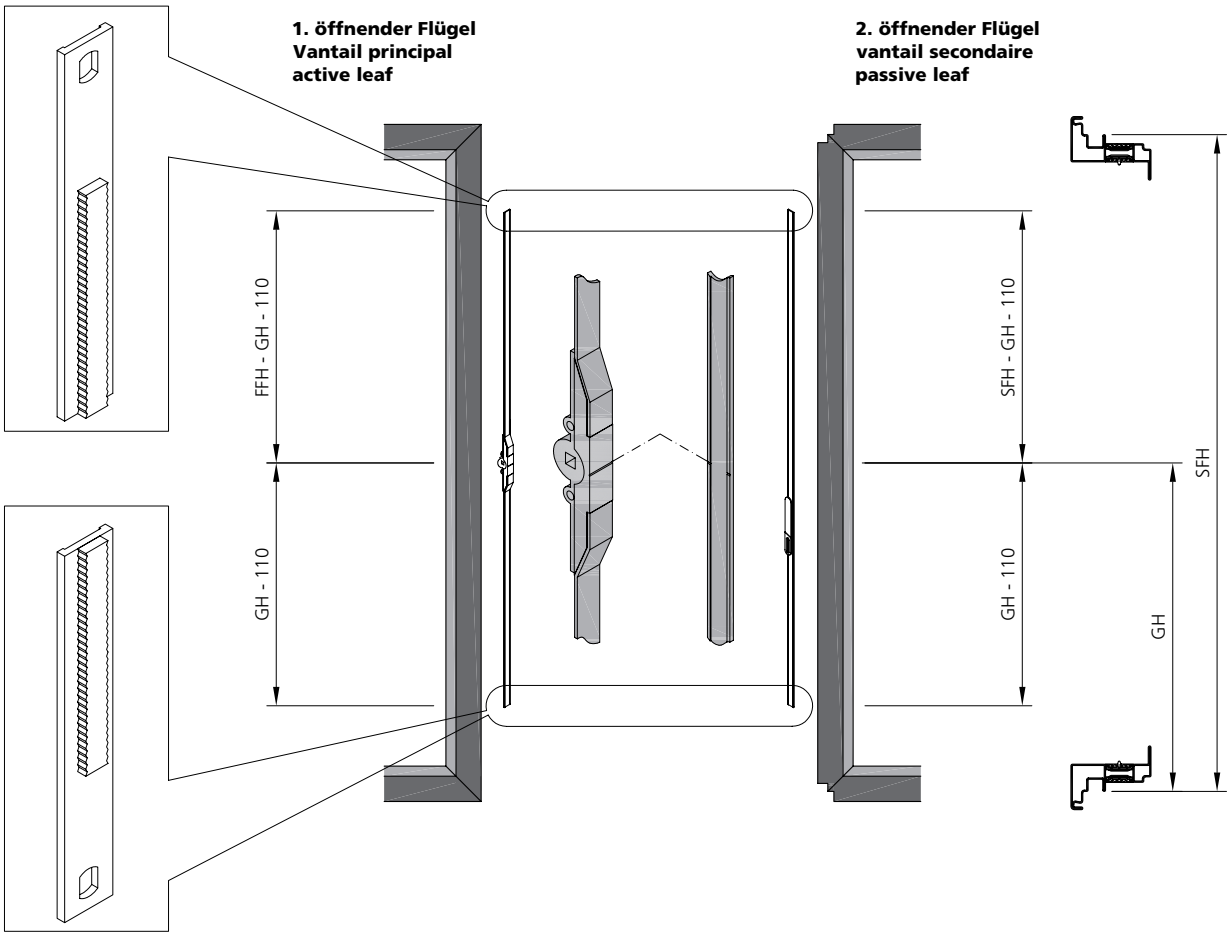
Installation of the fittings Window 2 leaves

Cut to length with pneumatic punching tool (hole punching)









Beschlagseinbau 2-flügeliges Fenster

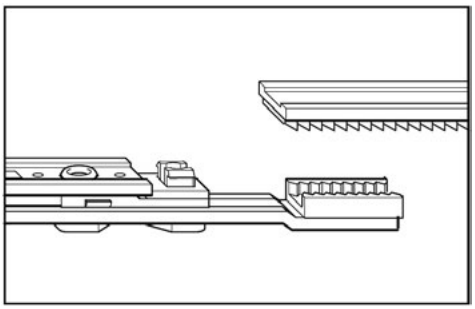
Ablängen mit Säge und Einsatz mit Verbindungslasche

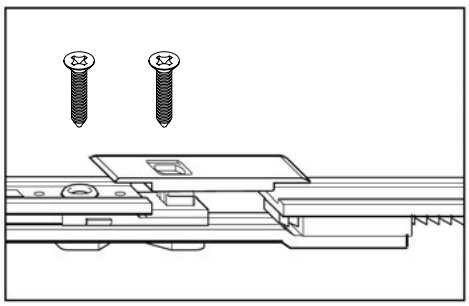
Montage de la quincaillerie Fenêtre à 2 vantaux

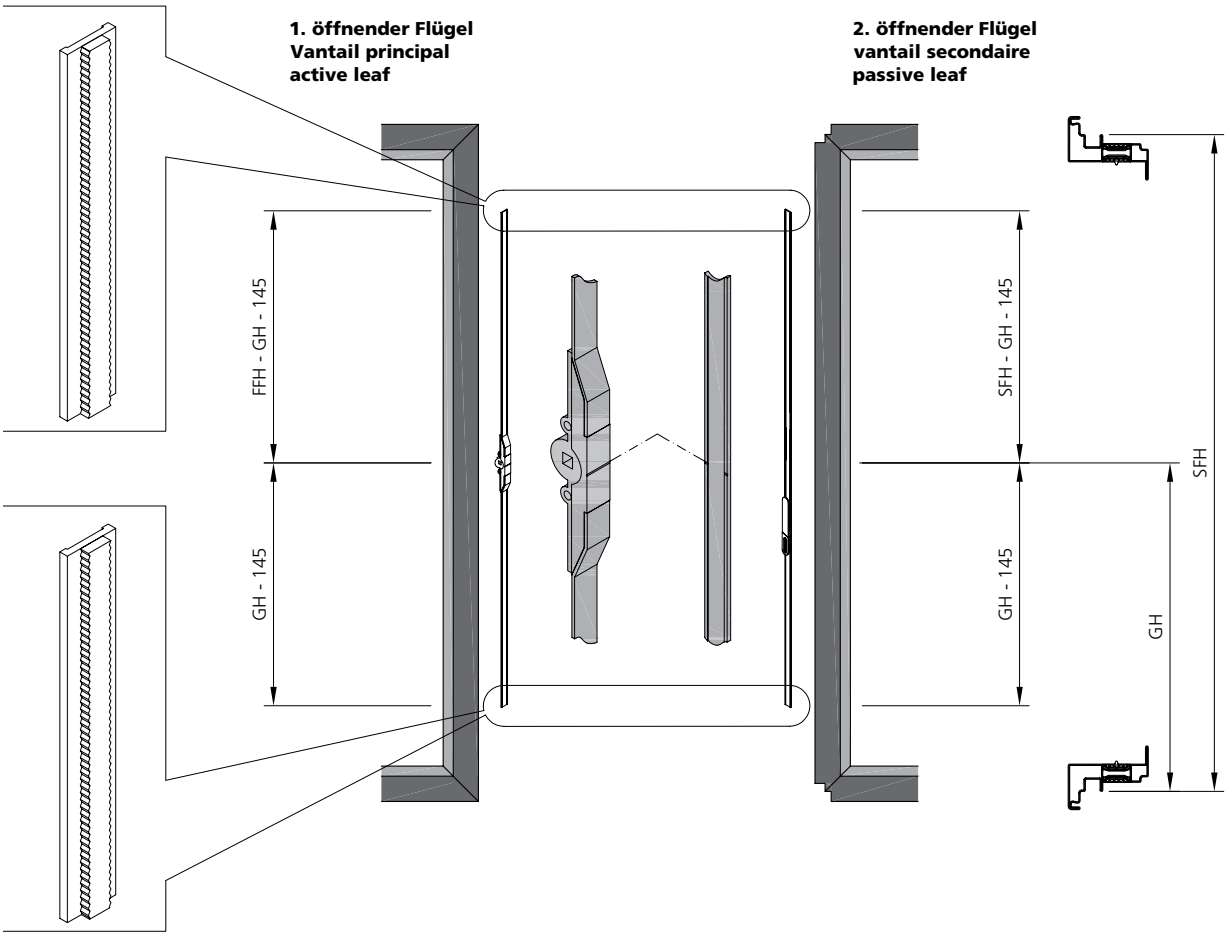
Couper à la longueur requise avec une scie et monter avec une plaque de liaison

Installation of the fittings Window 2 leaves

Cut to length with saw and use with connecting link







Beschlagseinbau 2-flügeliges Fenster

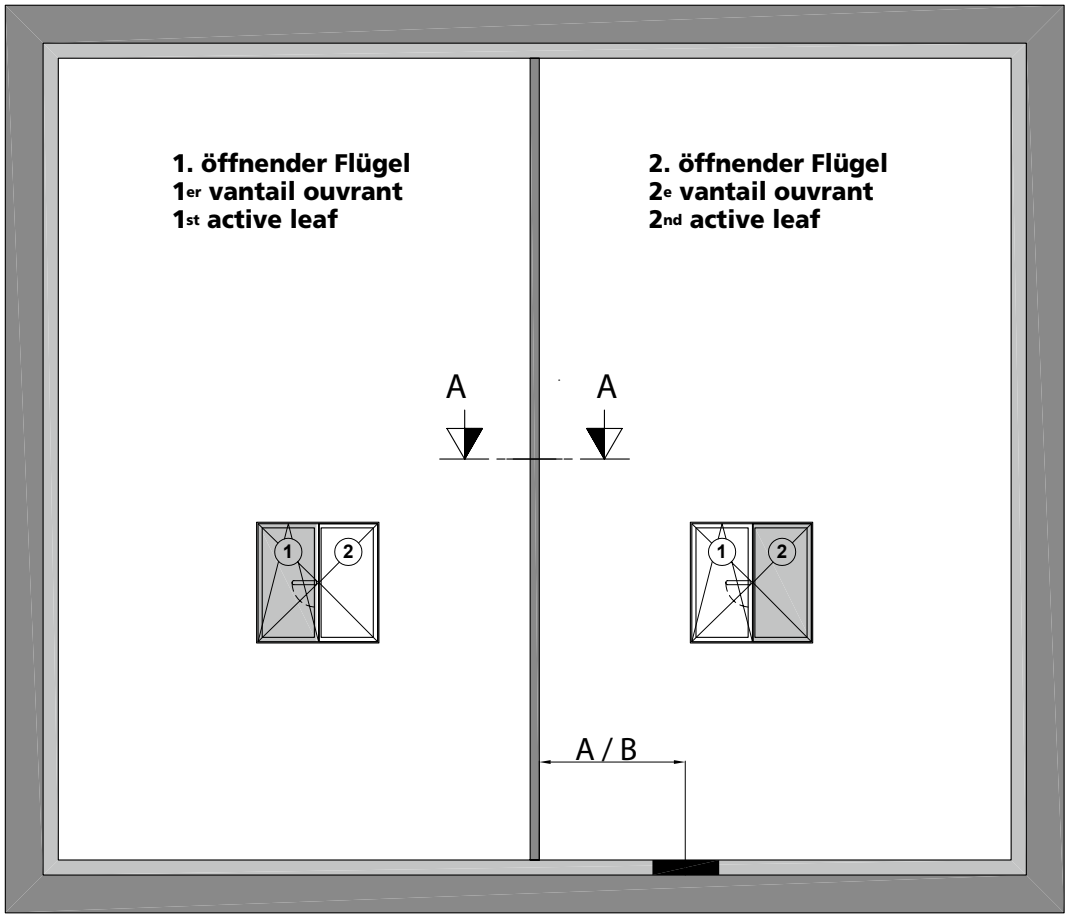
Montage de la quincaillerie Fenêtre à 2 vantaux

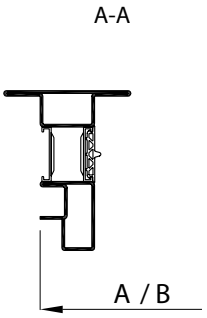
Installation of the fittings Window 2 leaves

Anordnung Auflaufkeil
2. öffnender Flügel

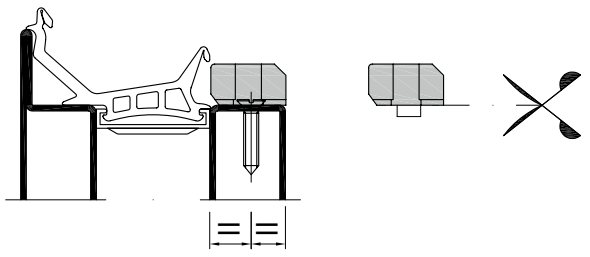
Disposition du support glissière
vantail semi-fixe

Arrangement of the run-up block
2nd active leaf

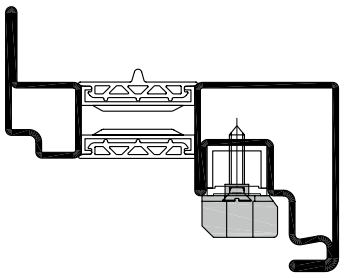




SFB 310 mm - 600 mm
A = 135 mm
Montage auf Rahmen
Montage sur cadre
Installation on the frame



SFB 601 mm - 1400 mm
B = 205 mm
Montage auf Flügel
Montage sur vantail
Installation on the leaf



Beschlagseinbau 2-flügeliges Fenster

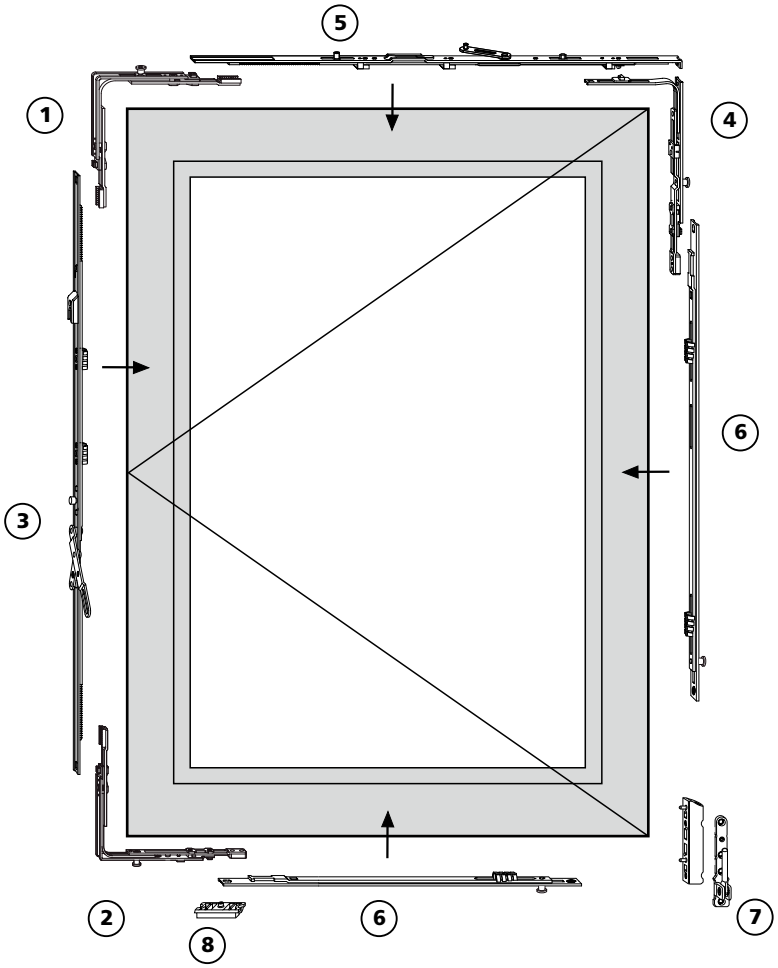
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Montagereihenfolge
Stulpbeschlag

Ordre de montage
Quincaillerie pour vantail semi-fixe

Sequence of assembly
Fittings for double sash



1. Eckumlenkung / Transmission équerre / Corner drive
2. Eckumlenkung / Transmission équerre / Corner drive
3. Stulp-Getriebe / Cremone vantail semi-fixe / Double sash drive
4. Eckumlenkung Axer / Renvoi d'angle de compas / Stay corner drive
5. Axerstulp / Têtière de compas / Sash stay guide
6. Mittelverschluss, senkrecht und waagerecht
   Extension horizontale et verticale
   Extension horizontal and vertical
7. Eckband K / Pivot d'angle K / Corner hinge K
8. Auflaufkeil / Support glissière / Run up block

Beschlagseinbau 2-flügeliges Fenster

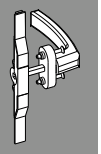
ACHTUNG! Fasung des Axerlagerstiftes beim Einführen in das Axerlager berücksichtigen!

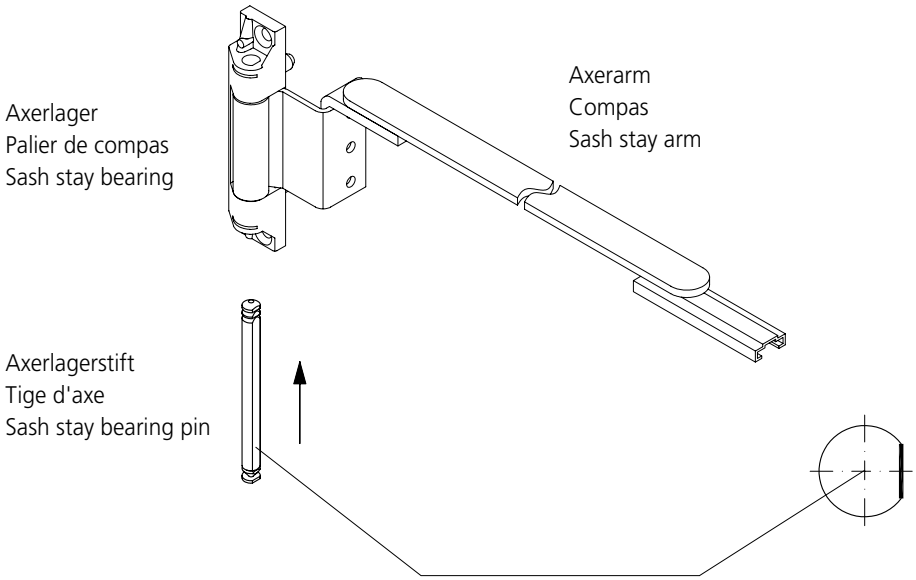
Montage de la quincaillerie Fenêtre à 2 vantaux

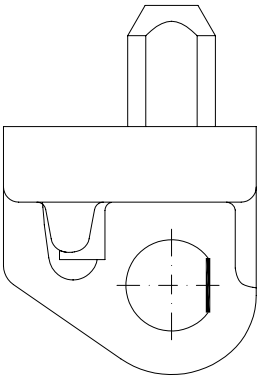
ATTENTION! Faire attention au sens de montage de la tige du palier de compas lors de l'introduction dans le palier!

Installation of the fittings Window 2 leaves

ATTENTION! Pay attention to the mount of the Axer hinge pin when inserting it into the axer hinge!



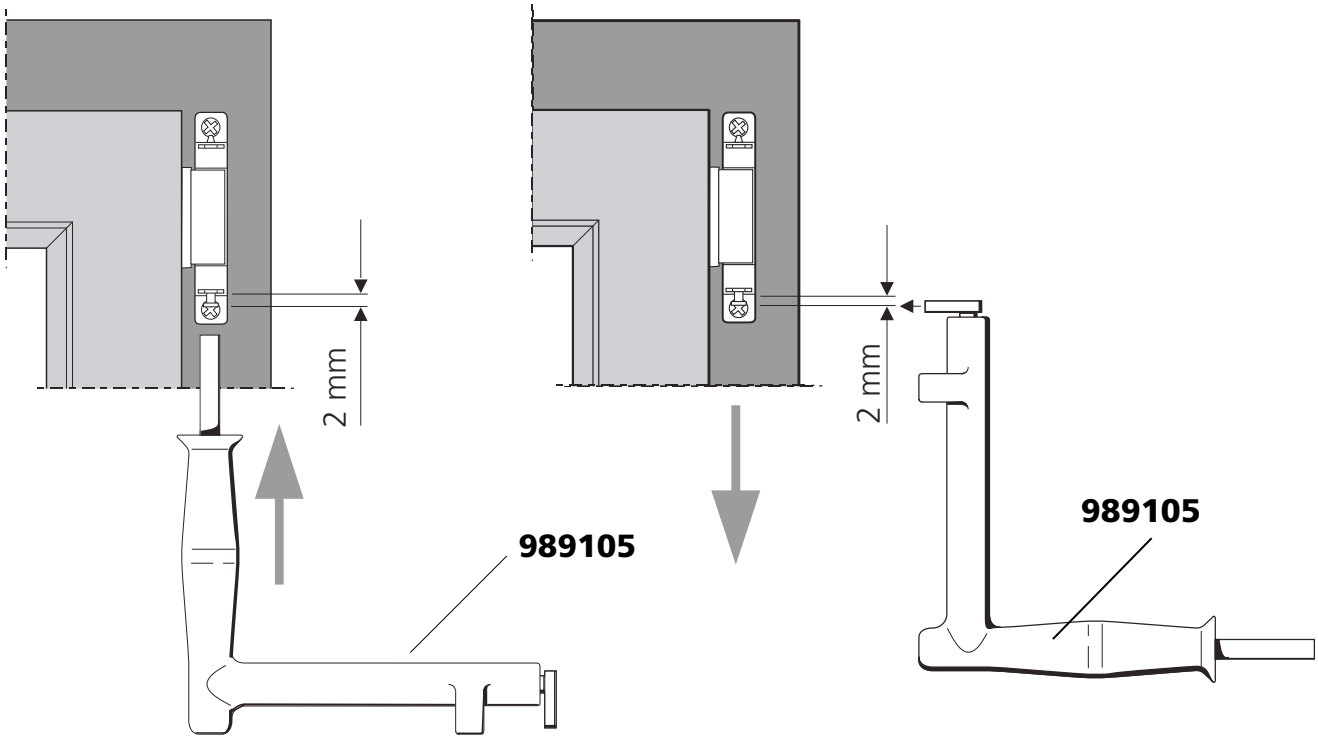




Einhängen des Flügels
Axerlagerstift nur in Verschlussstellung einschiebbar

Accrochage du vantail
Tige de palier de compas pouvant seulement être introduite en position de fermeture

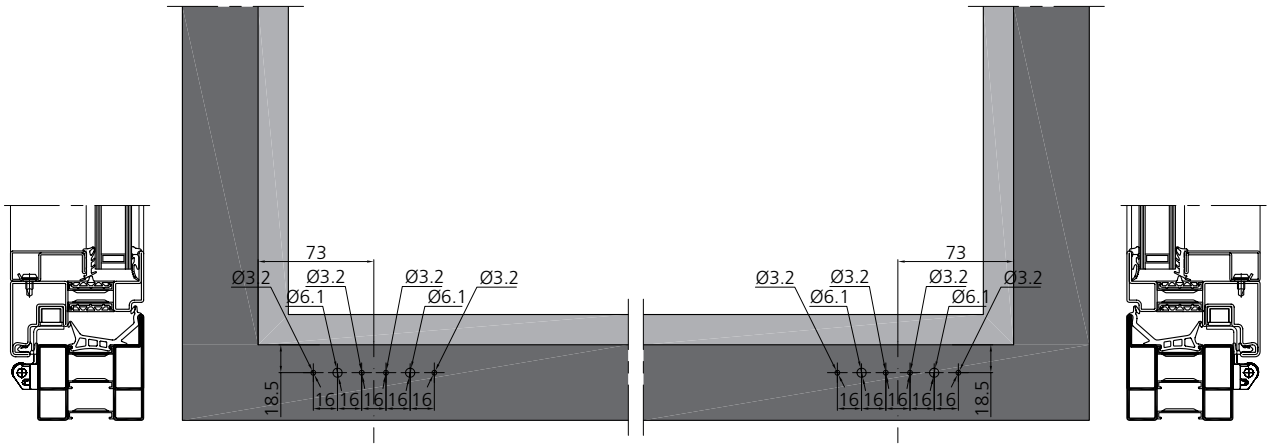
Mounting the leaf
The sash stay bearing pin can only be inserted in lock position

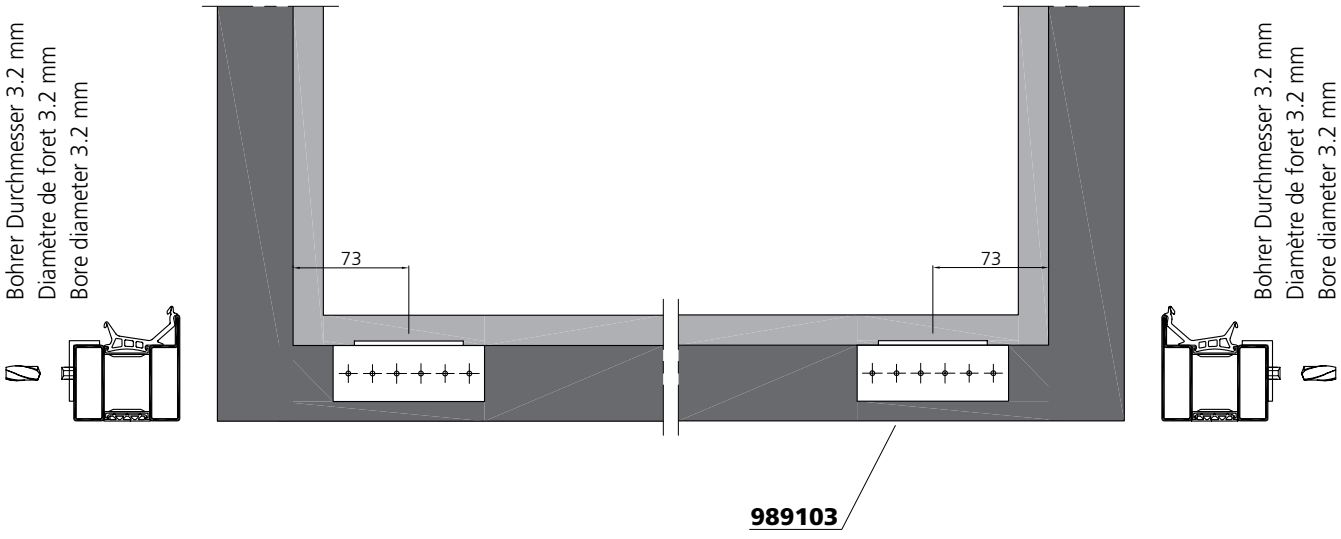


Beschlagseinbau
Kippflügel WK1
FFB 520-1200

Montage de la quincaillerie
Ouvrant à soufflet CR1
FFB 520-1200

Installation of the fittings
Tilt only window RC1
FFB 520-1200





Bohrlehre **Art. Nr. 989103**
zu Axer- Eckband.

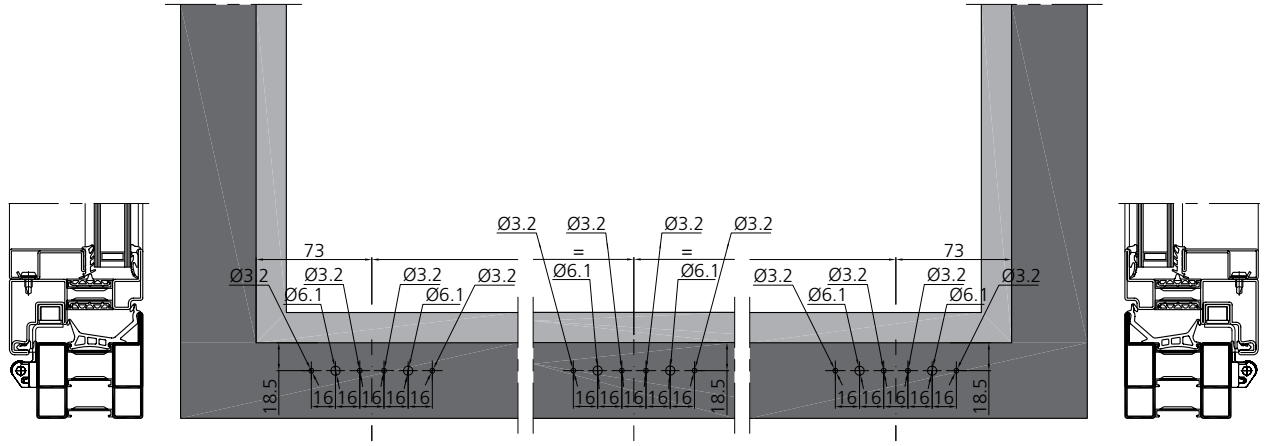
Gabarit de perçage **art. no. 989103**
pour pivot d'angle.

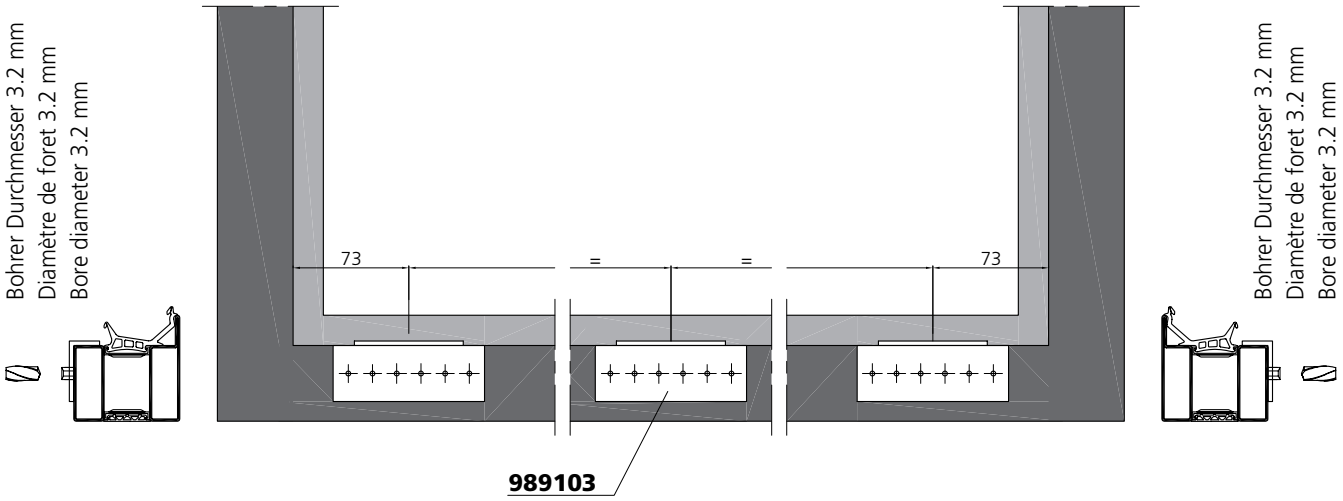
Drilling template **art. no. 989103**
for corner hinge.

Beschlagseinbau
Kippflügel WK1
FFB 1201-2400

Montage de la quincaillerie
Ouvrant à soufflet CR1
FFB 1201-2400

Installation of the fittings
Tilt only window RC1
FFB 1201-2400





Bohrlehre **Art. Nr. 989103**
zu Axer- Eckband.

Gabarit de perçage **art. no. 989103**
pour pivot d'angle.

Drilling template **art. no. 989103**
for corner hinge.

Beschlagseinbau Kippflügel

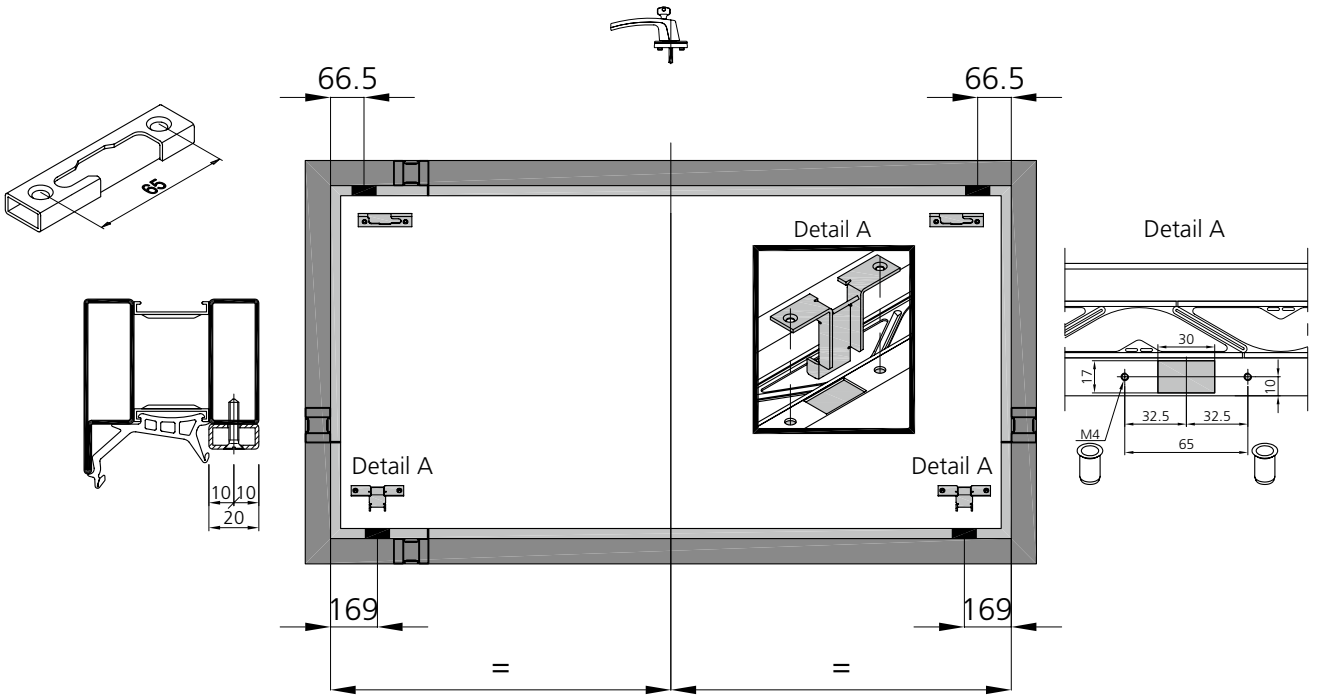
Anordnung der Schliessstücke
Kippflügel in Abhängigkeit der Flügelfalzbreite
FFB 520 - 620 [mm]

Montage de la quincaillerie Ouvrant à soufflet

Disposition des gâches
Ouvrant à soufflet selon la largeur de la feuillure du vantail
FFB 520 - 620 [mm]

Installation of the fittings Tilt only window

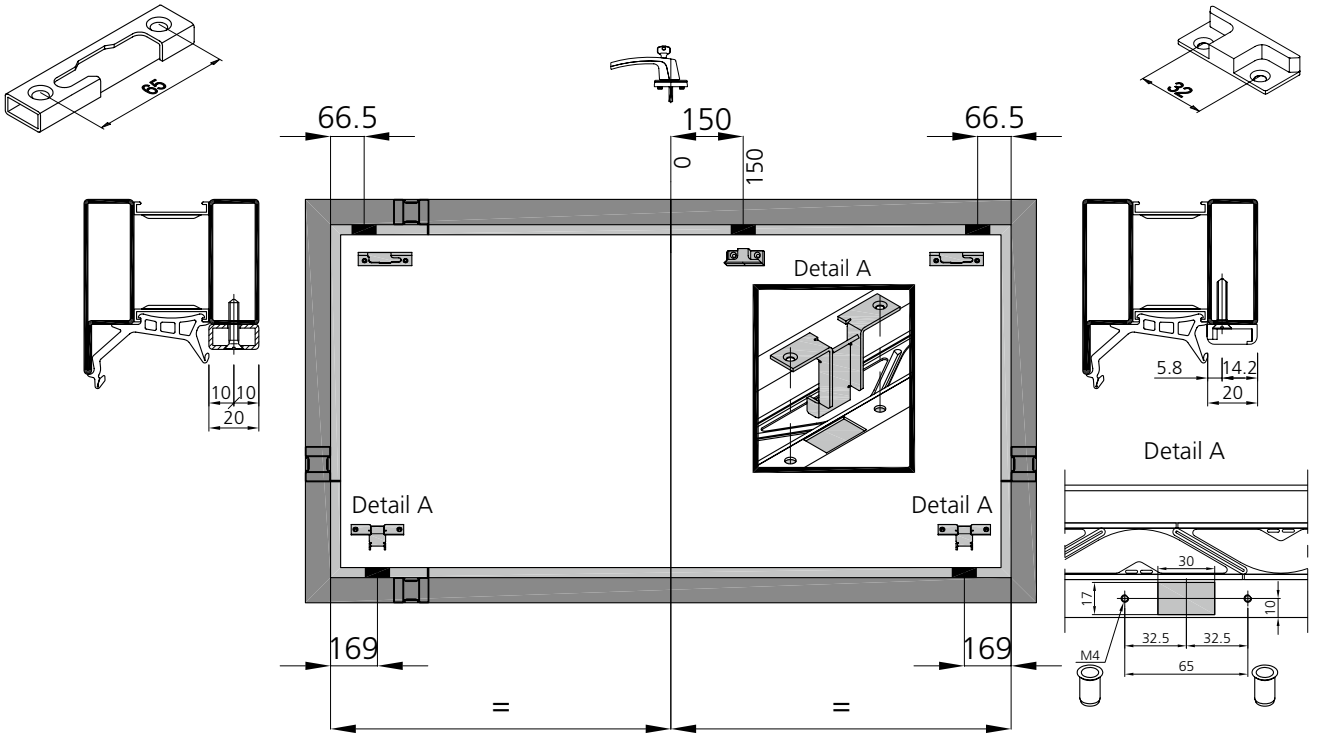
Arrangement of the strikers
Tilt only window depending on the width of the leaf rebate
FFB 520 - 620 [mm]



Anordnung Schliessstücke
FFB 621 - 1200 [mm]

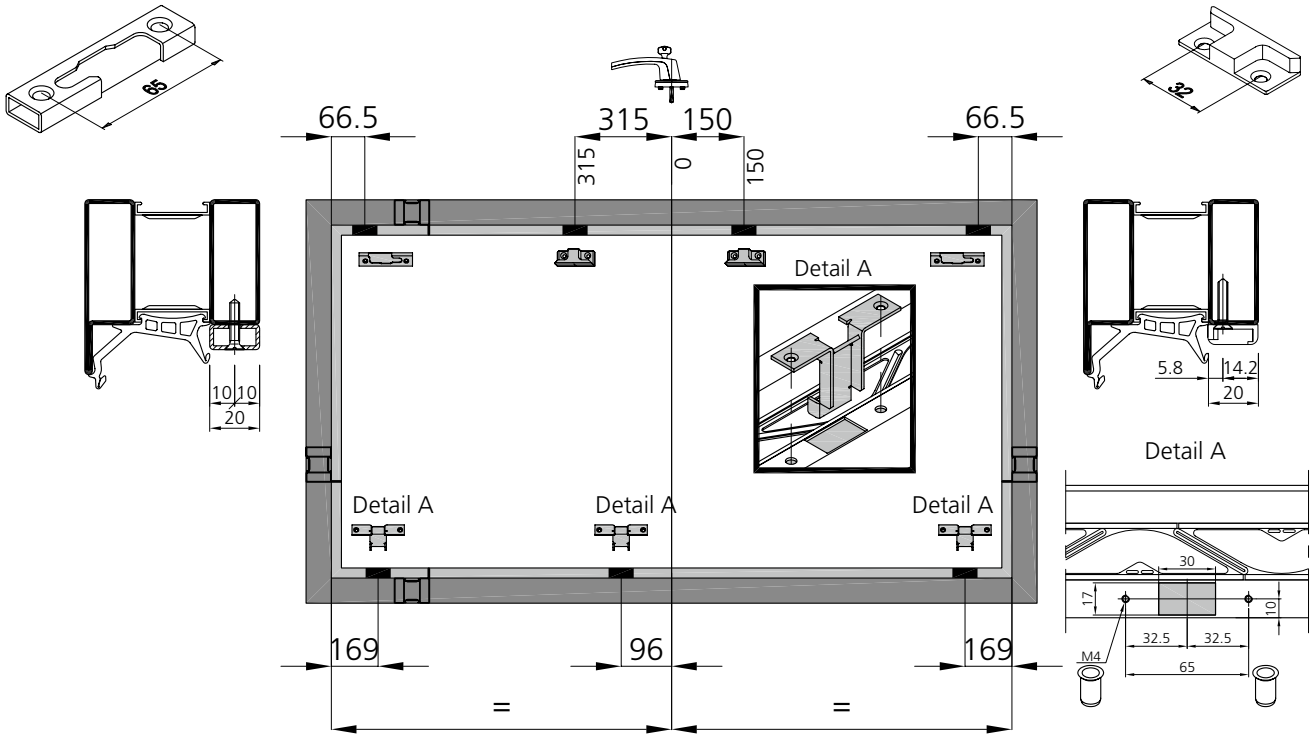
Disposition des gâches
FFB 621 - 1200 [mm]

Arrangement of the strikers
FFB 621 - 1200 [mm]

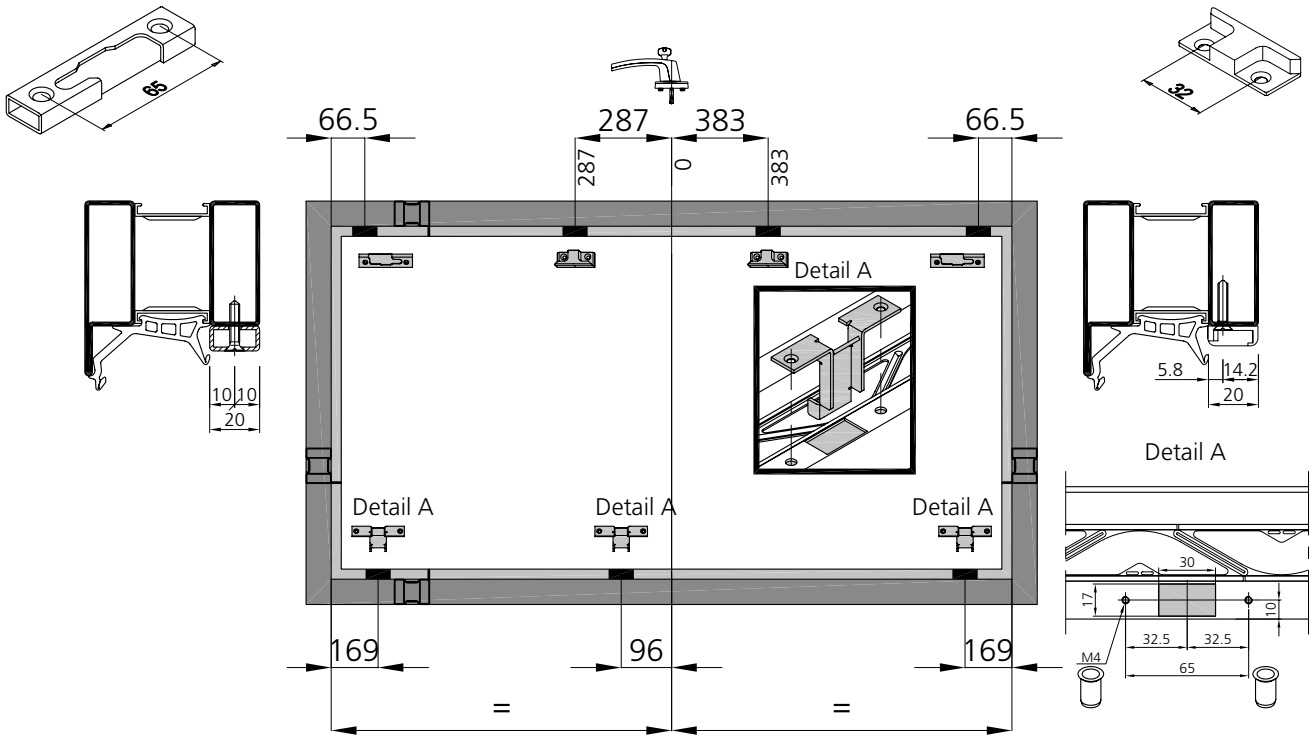


Beschlagseinbau Kippflügel

Anordnung der Schliessstücke
Kippflügel in Abhängigkeit der Flügelfalzbreite
FFB 1201 - 1600 [mm]



Anordnung Schliessstücke
FFB 1601 - 2000 [mm]



Montage de la quincaillerie Ouvrant à soufflet

Disposition des gâches
Ouvrant à soufflet selon la largeur de la feuillure du vantail
FFB 1201 - 1600 [mm]

Disposition des gâches
FFB 1601 - 2000 [mm]

Installation of the fittings Tilt only window

Arrangement of the strikers
Tilt only window depending on the width of the leaf rebate
FFB 1201 - 1600 [mm]

Arrangement of the strikers
FFB 1601 - 2000 [mm]

Beschlagseinbau Kippflügel

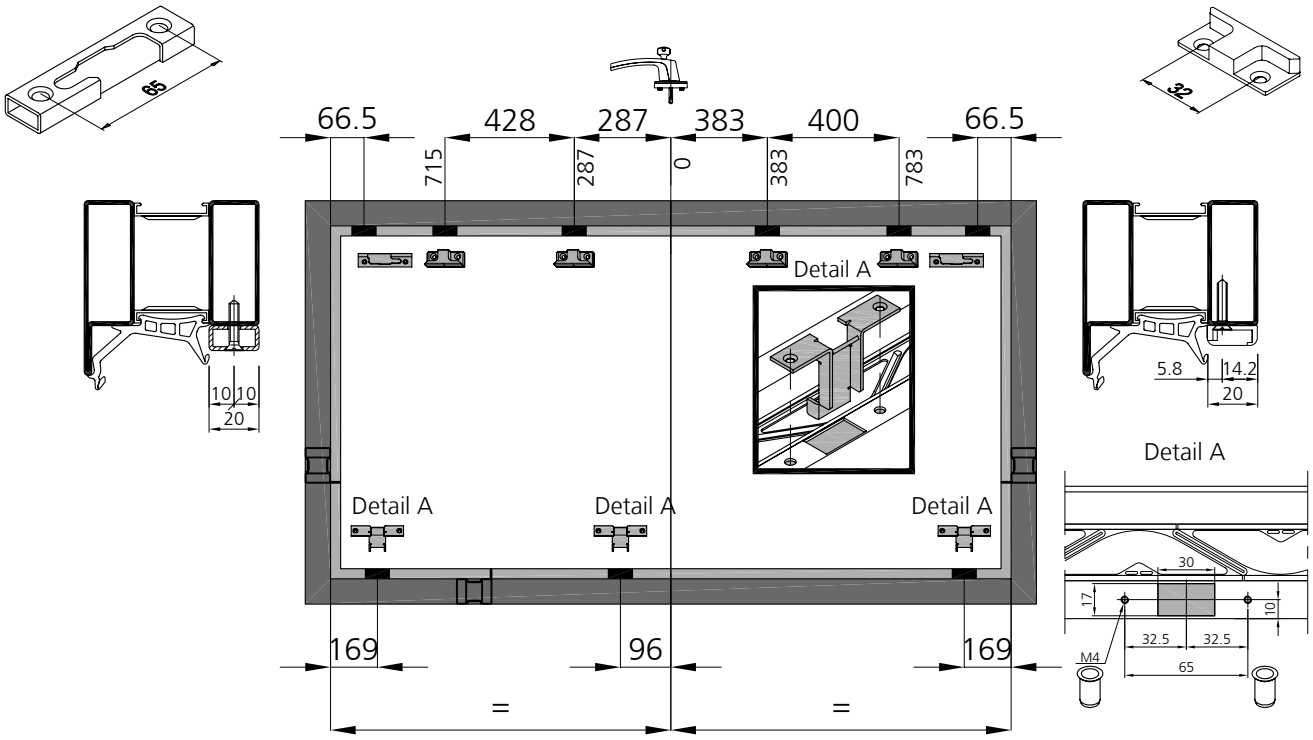
Anordnung der Schliessstücke
Kippflügel in Abhängigkeit der Flügelfalzbreite
FFB 2001 - 2400 [mm]

Montage de la quincaillerie Ouvrant à soufflet

Disposition des gâches
Ouvrant à soufflet selon la largeur de la feuillure du vantail
FFB 2001 - 2400 [mm]

Installation of the fittings Tilt only window

Arrangement of the strikers
Tilt only window depending on the width of the leaf rebate
FFB 2001 - 2400 [mm]



Beschlagseinbau Kippflügel

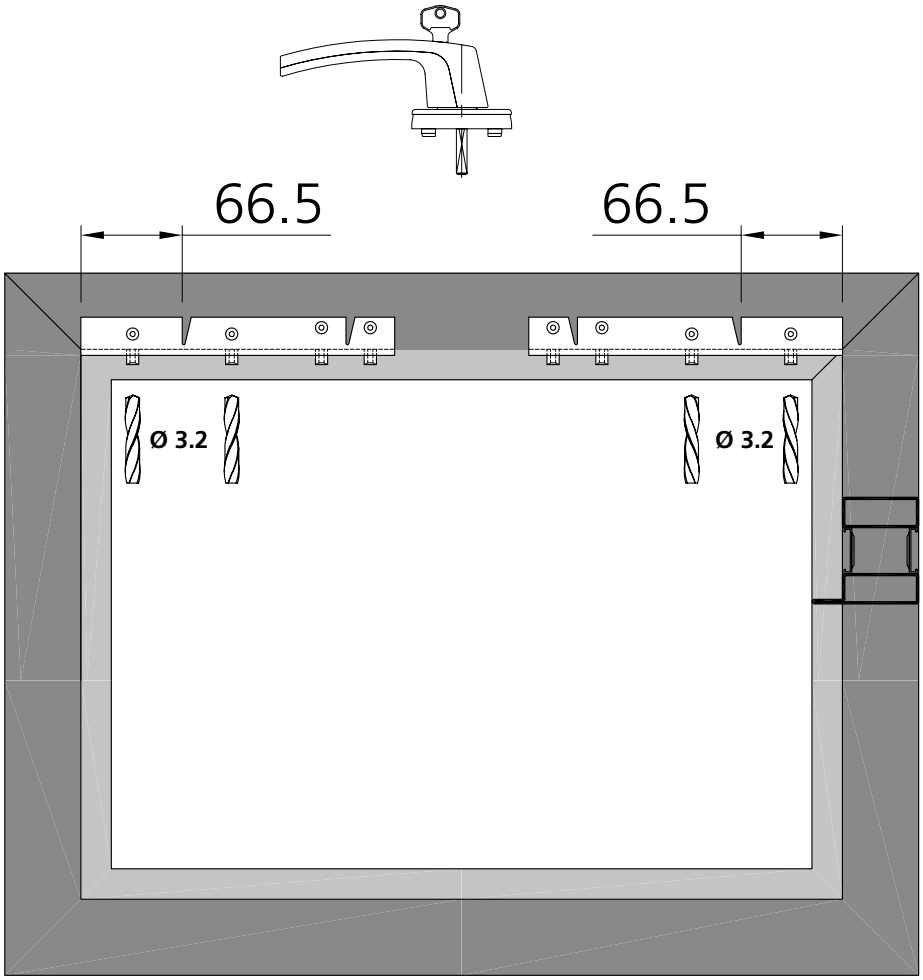
Bohrlehre Art. Nr. 989109
1-flügelige Fenster

Montage de la quincaillerie Ouvrant à soufflet

Gabarit de perçage art. no. 989109
fenêtre à 1 vantail

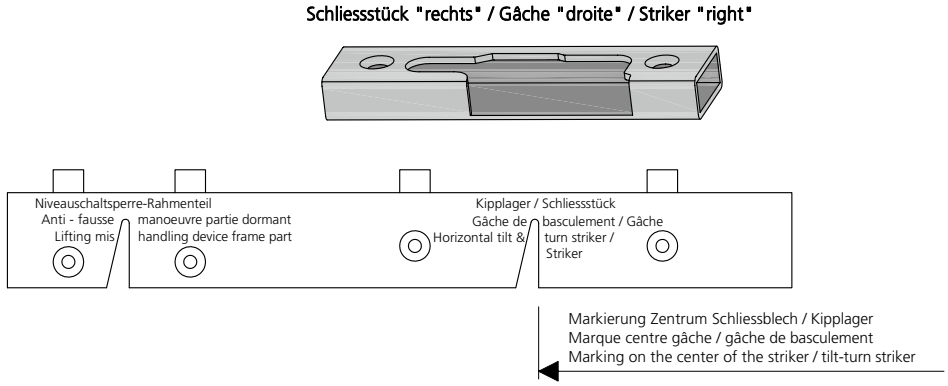
Installation of the fittings Tilt only window

Drilling template art. no. 989109
single leaved windows



Bandseite
Côté paumelle
Hinge side

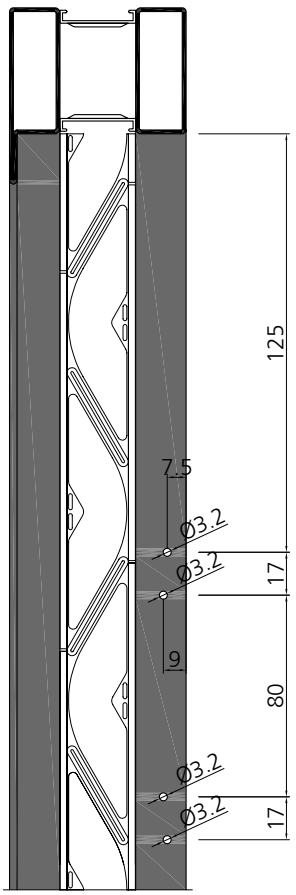
Schliessstück "rechts" / Gâche "droite" / Striker "right"

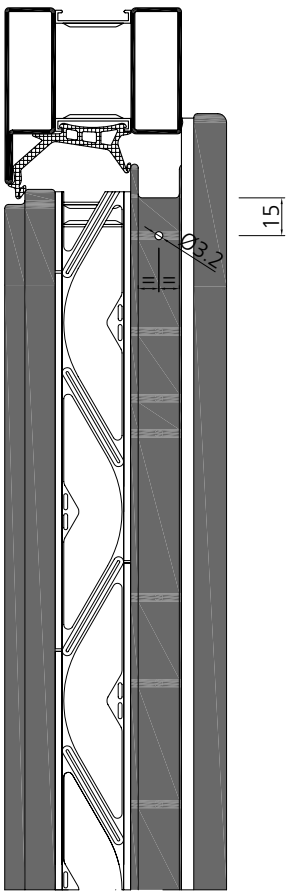


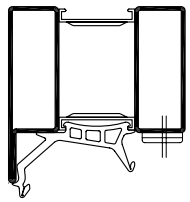
Beschlagseinbau Kippflügel

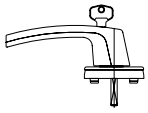
Montage de la quincaillerie Ouvrant à soufflet

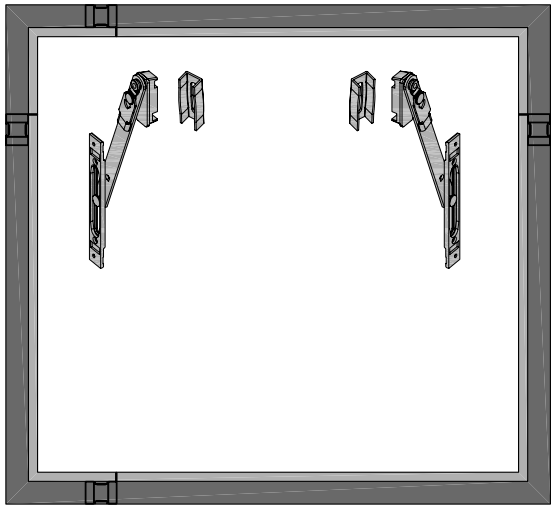
Installation of the fittings Tilt only window

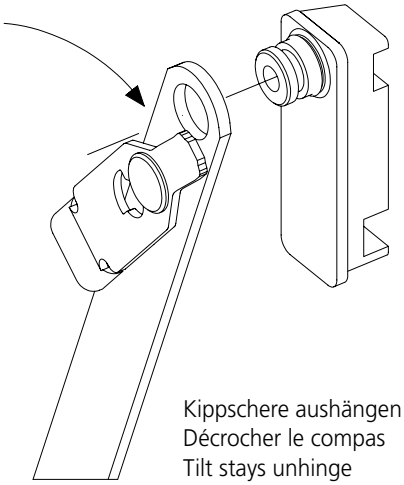










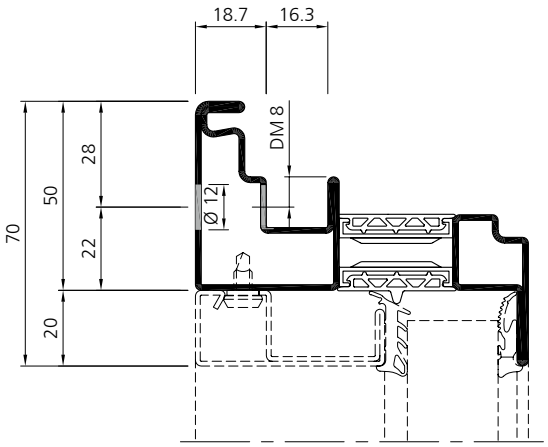


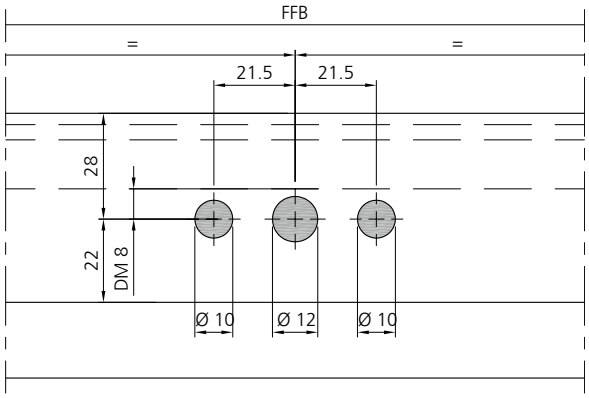
Kippschere aushängen
Décrocher le compas
Tilt stays unhinge

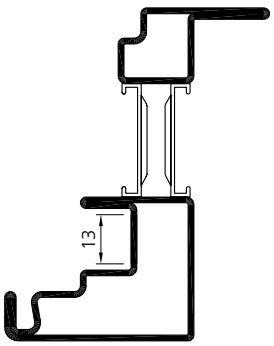
Beschlagseinbau Kippflügel

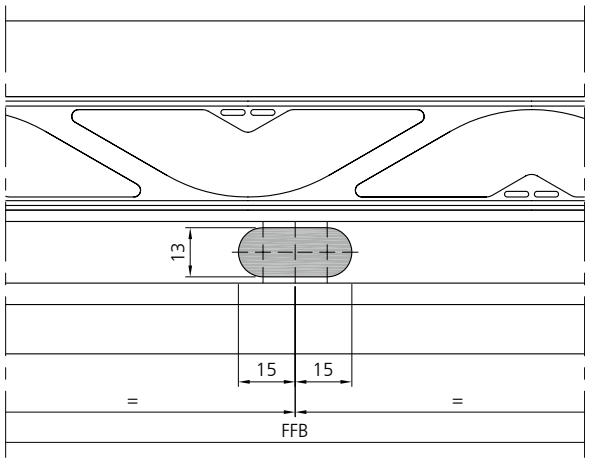
Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window







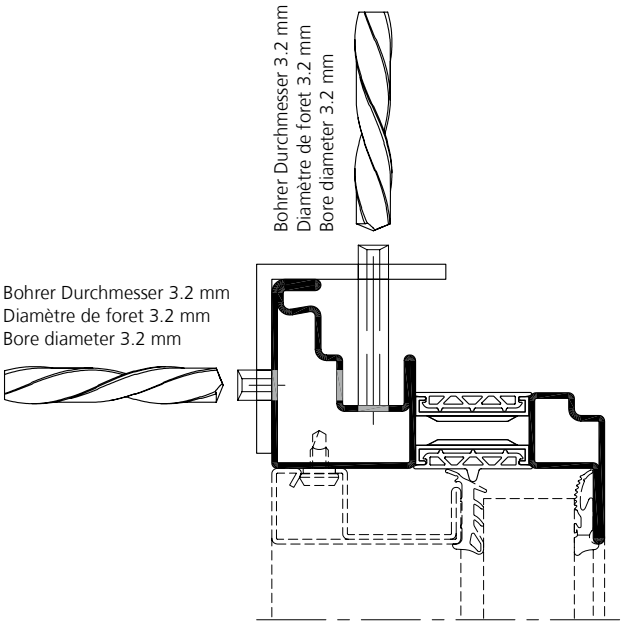


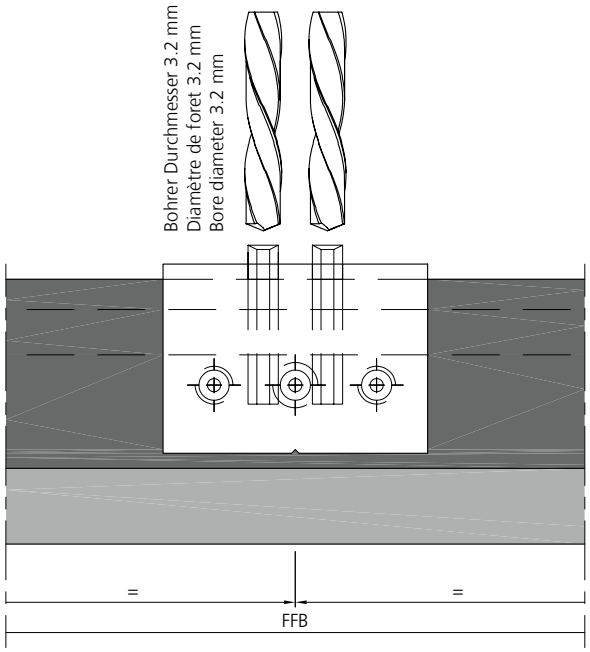
Ausnahme für Fenstergetriebe im horizontalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail horizontale préalablement!
Make the cut-out for the drive in the horizontal leaf profile first!

Beschlagseinbau Kippflügel

Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window

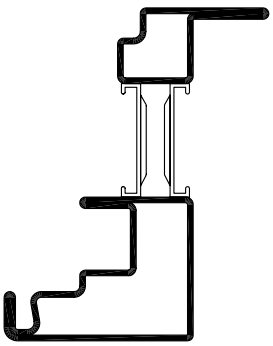


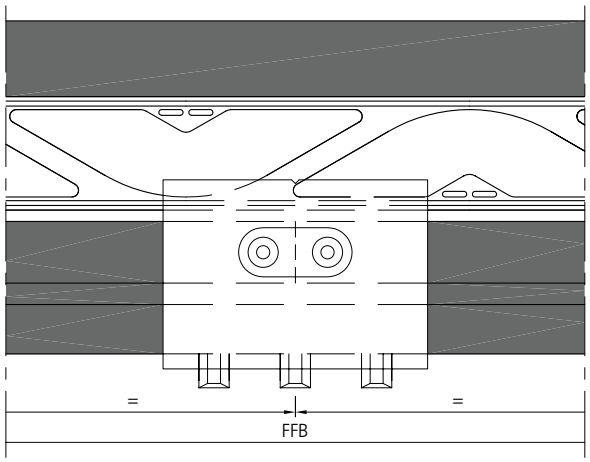


Bohrlehre **Art. Nr. 989101** zu Dreh-Kippgetreibe.

Gabarit de perçage **art. no. 989101** pour crémone oscillo-battant.

Drilling template **art. no. 989101** for turn-tilt drive.



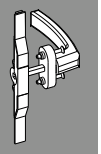


Ausnahme für Fenstergetriebe im horizontalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail horizontale préalablement!
Make the cut-out for the drive in the horizontal leaf profile first!

Beschlagseinbau Kippflügel

Montage de la quincaillerie Ouvrant à soufflet

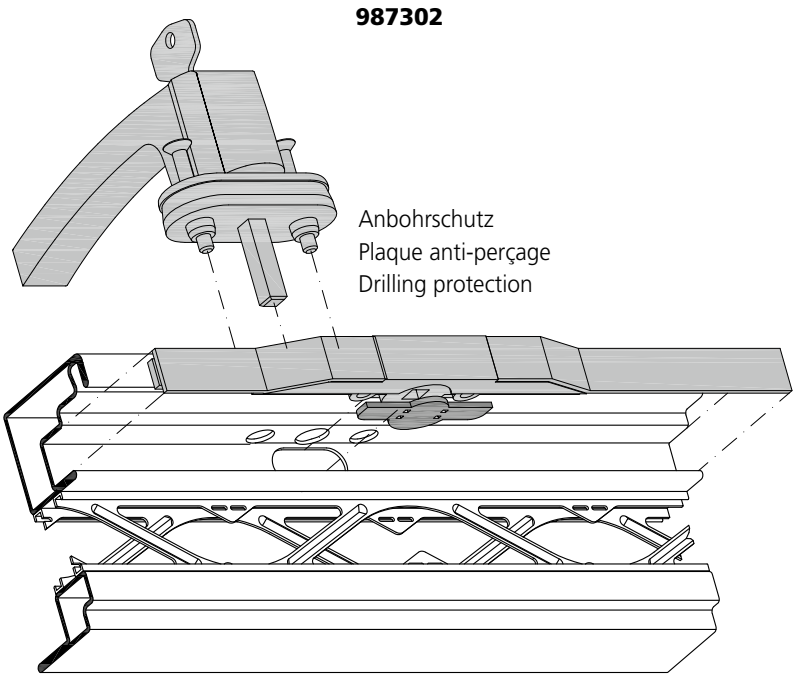
Installation of the fittings Tilt only window



Senk-Schraube M5 x 40 (wird mit Griff **987302** geliefert).

Vis conique M5 x 40 (livrées avec la poignée **987302**).

Countersunk screw M5 x 40 (supplied with handle **987302**).



- Schraube M4 x 21 (selbstfurchend)
- Bohrloch 3.2 mm
- Bei Edelstahlprofil muss das M4 Gewinde geschnitten werden. Alternative: Bohrloch auf 3.5 aufbohren, Schraube ohne M4 Gewindeschnitt einsetzen.

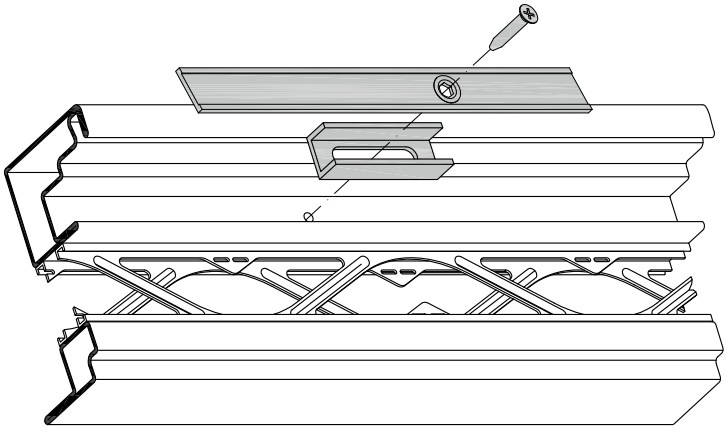
Bei jeder Verschraubung muss ein Distanzstück **927001** eingesetzt werden.

- Vis M4 x 21 (autotaraudeuse)
- Perçage 3.2 mm
- Avec le profilé en acier inox, la vis M4 doit être coupée. Alternative: agrandir le trou à 3.5, taraudage M4 pas necessaire.

La pièce d'entretoise **927001** doit être insérée sous toutes les fixations et assemblages.

- Screw M4 x 21 (self tapping)
- Drill hole 3.2 mm
- In stainless steel profiles, the M4 thread needs to be cut case. Alternative: drill out the drilling hole of 3.5, use screw without M4 thread.

The spacer **927001** must be placed under all screw connections.

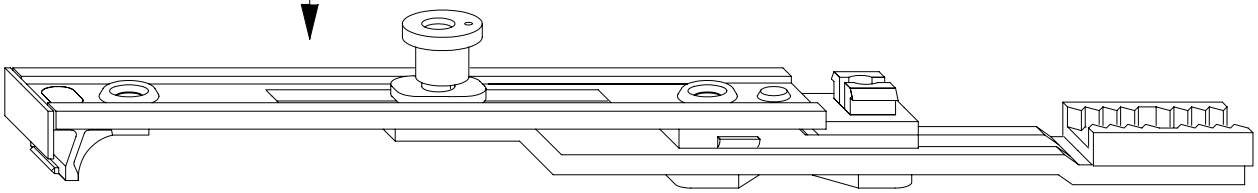


Beschlagseinbau Kippflügel

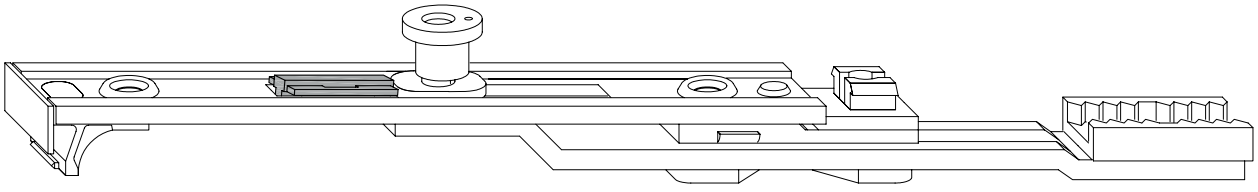
Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window

Hubbegrenzer (90°)
Limitateur de course (90°)
Travel - restrictor (90°)



Getriebeanschluss V
Raccord de crémone V
Espagnolette-connector V



Beschlagseinbau Kippflügel

Einsatz der Forster Bohrlehre **989100** für den Standard Beschlag auf dem Kippflügel

FFB 520 - 1200 mm
FFH 350 - 1200 mm

Montage de la quincaillerie Ouvrant à soufflet

Utilisation des gabarits de perçage Forster **989100** pour la quincaillerie standard sur le vantail ouvrant à soufflet

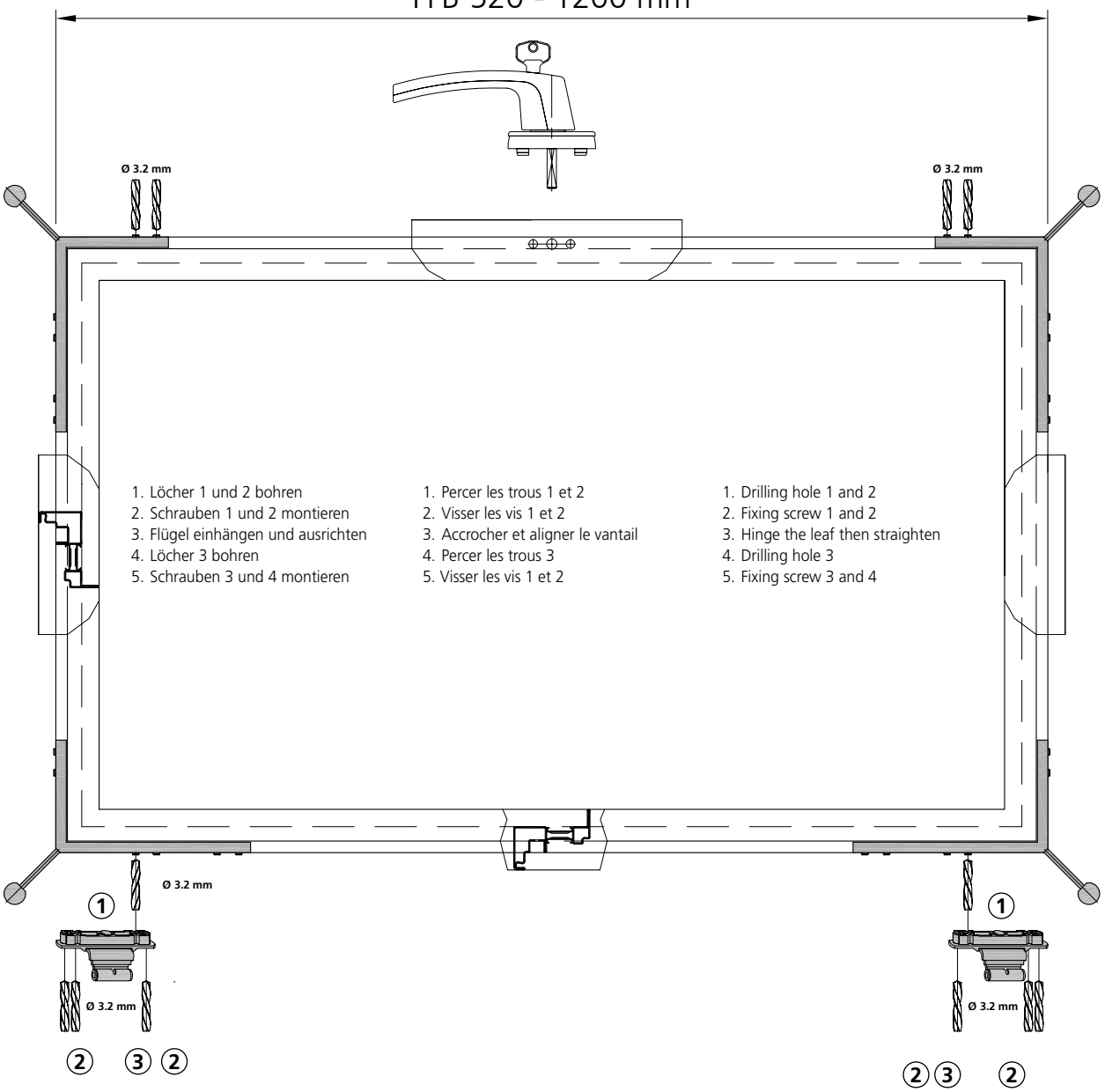
FFB 520 - 1200 mm
FFH 350 - 1200 mm

Installation of the fittings Tilt only window

Use the Forster drilling template **989100** for the standard fittings on the tilt only leaf

FFB 520 - 1200 mm
FFH 350 - 1200 mm

FFB 520 - 1200 mm



1. Löcher 1 und 2 bohren
2. Schrauben 1 und 2 montieren
3. Flügel einhängen und ausrichten
4. Löcher 3 bohren
5. Schrauben 3 und 4 montieren

1. Percer les trous 1 et 2
2. Visser les vis 1 et 2
3. Accrocher et aligner le vantail
4. Percer les trous 3
5. Visser les vis 1 et 2

1. Drilling hole 1 and 2
2. Fixing screw 1 and 2
3. Hinge the leaf then straighten
4. Drilling hole 3
5. Fixing screw 3 and 4

Beschlagseinbau Kippflügel

Einsatz der Forster Bohrlehre **989100** für den Standard Beschlag auf dem Kippflügel

FFB 1201 - 2400 mm
FFH 350 - 1200 mm

Montage de la quincaillerie Ouvrant à soufflet

Utilisation des gabarits de perçage Forster **989100** pour la quincaillerie standard sur le vantail ouvrant à soufflet

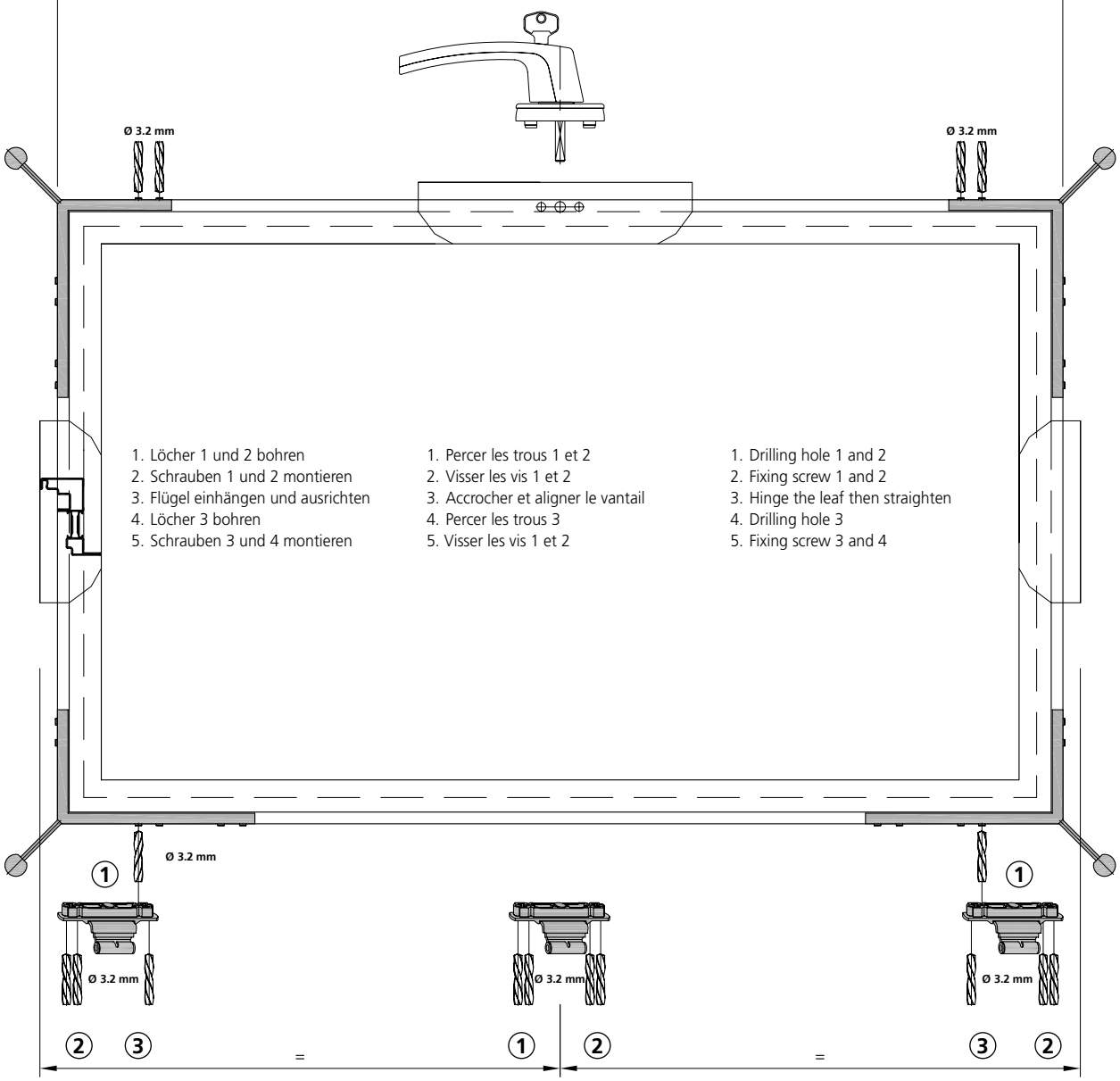
FFB 1201 - 2400 mm
FFH 350 - 1200 mm

Installation of the fittings Tilt only window

Use the Forster drilling template **989100** for the standard fittings on the tilt only leaf

FFB 1201 - 2400 mm
FFH 350 - 1200 mm

FFB 1201-2400 mm



1. Löcher 1 und 2 bohren
2. Schrauben 1 und 2 montieren
3. Flügel einhängen und ausrichten
4. Löcher 3 bohren
5. Schrauben 3 und 4 montieren

1. Percer les trous 1 et 2
2. Visser les vis 1 et 2
3. Accrocher et aligner le vantail
4. Percer les trous 3
5. Visser les vis 1 et 2

1. Drilling hole 1 and 2
2. Fixing screw 1 and 2
3. Hinge the leaf then straighten
4. Drilling hole 3
5. Fixing screw 3 and 4

Beschlagseinbau Kippflügel

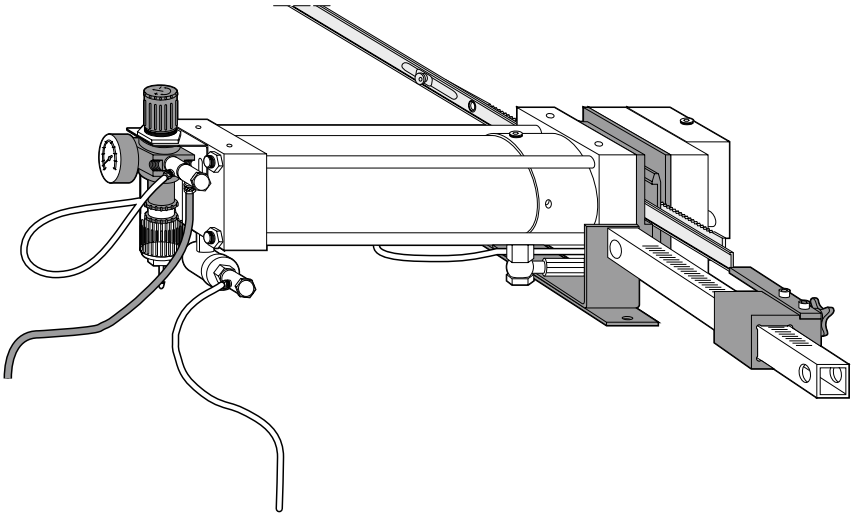
Ablängen mit pneumatischer Stanze (Lochstanzung)

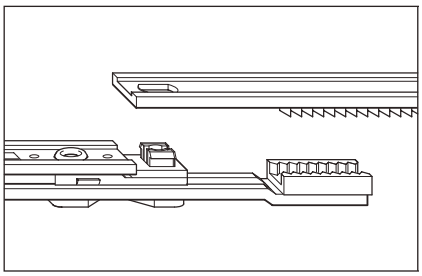
Montage de la quincaillerie Ouvrant à soufflet

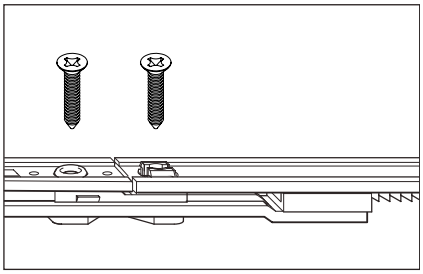
Couper à la longueur requise avec un dispositif de poinçonnage pneumatique

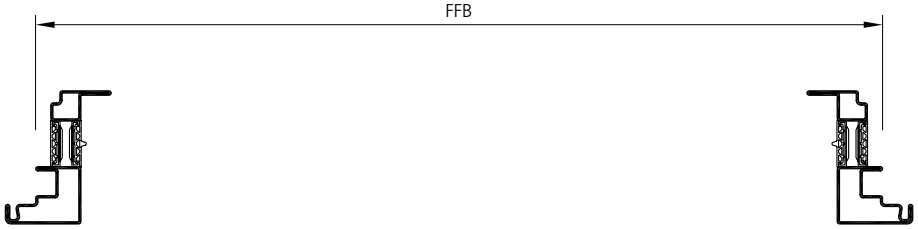
Installation of the fittings Tilt only window

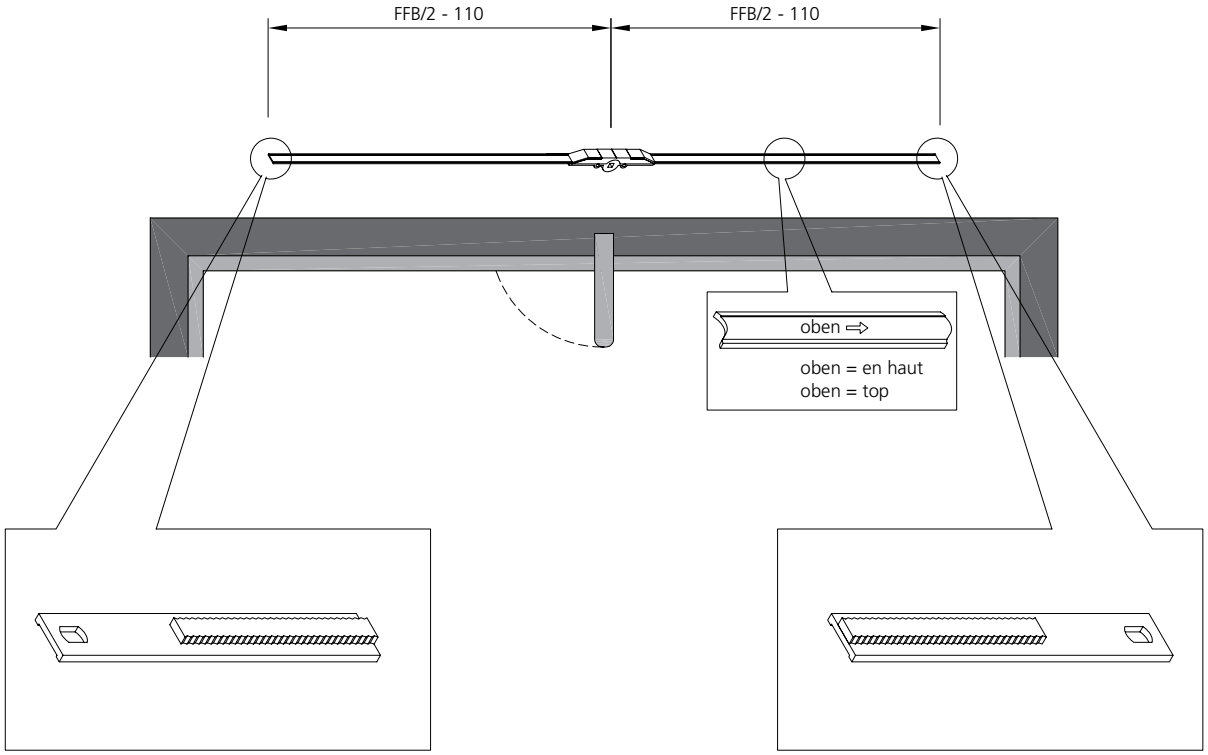
Cut to length with pneumatic punching tool (hole punching)











Beschlagseinbau Kippflügel

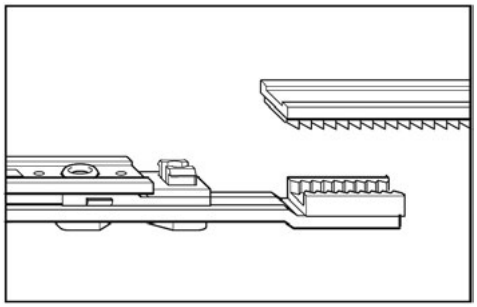
Ablängen mit Säge und Einsatz mit Verbindungslasche

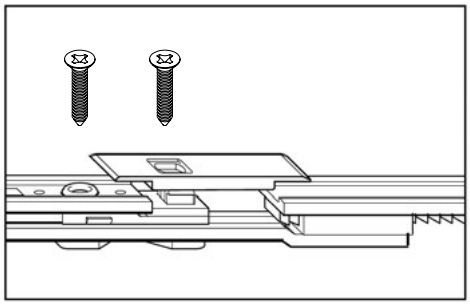
Montage de la quincaillerie Ouvrant à soufflet

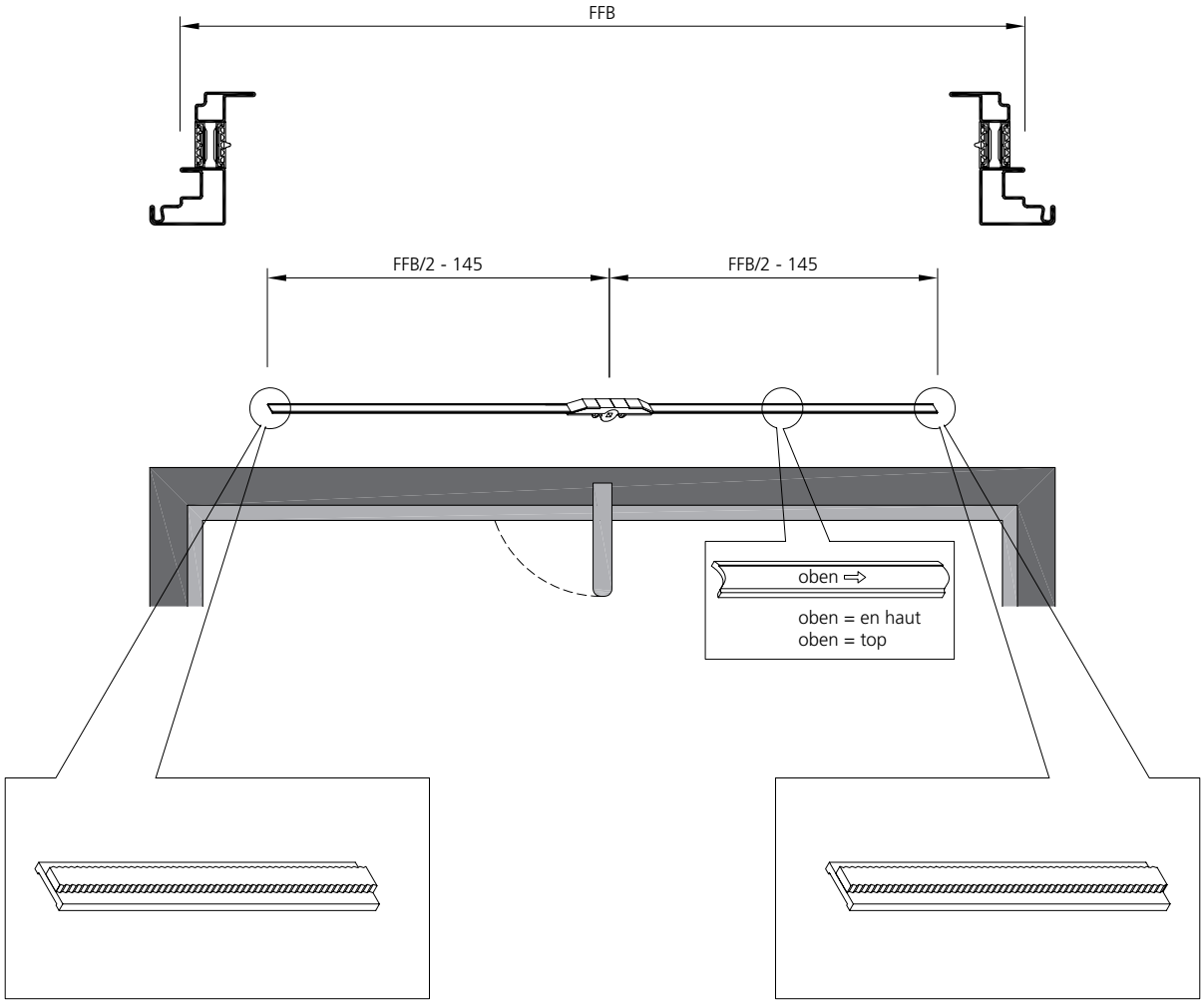
Couper à la longueur requise avec une scie et assembler avec une plaque de liaison

Installation of the fittings Tilt only window

Cut to length with saw and use with connecting link



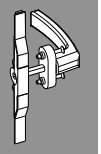


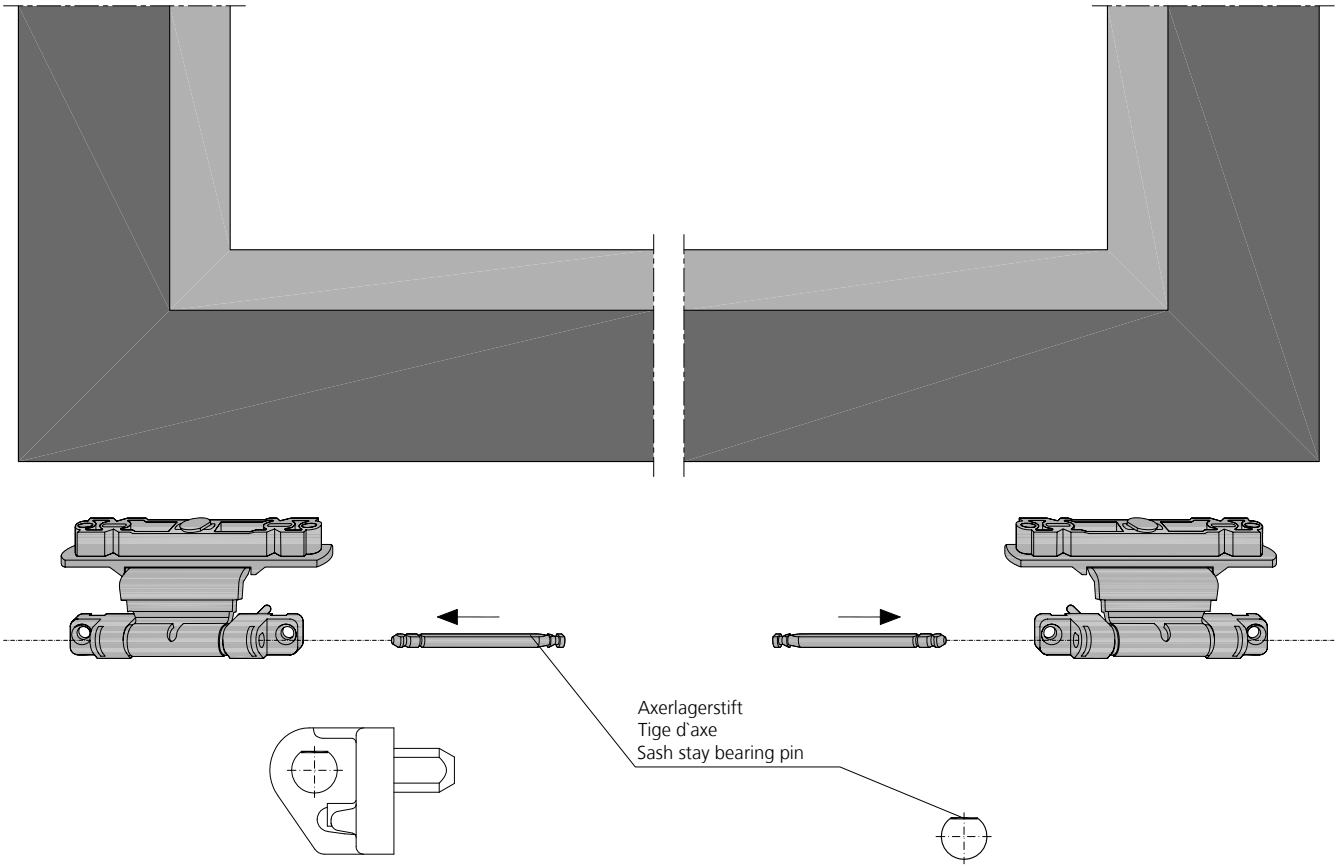


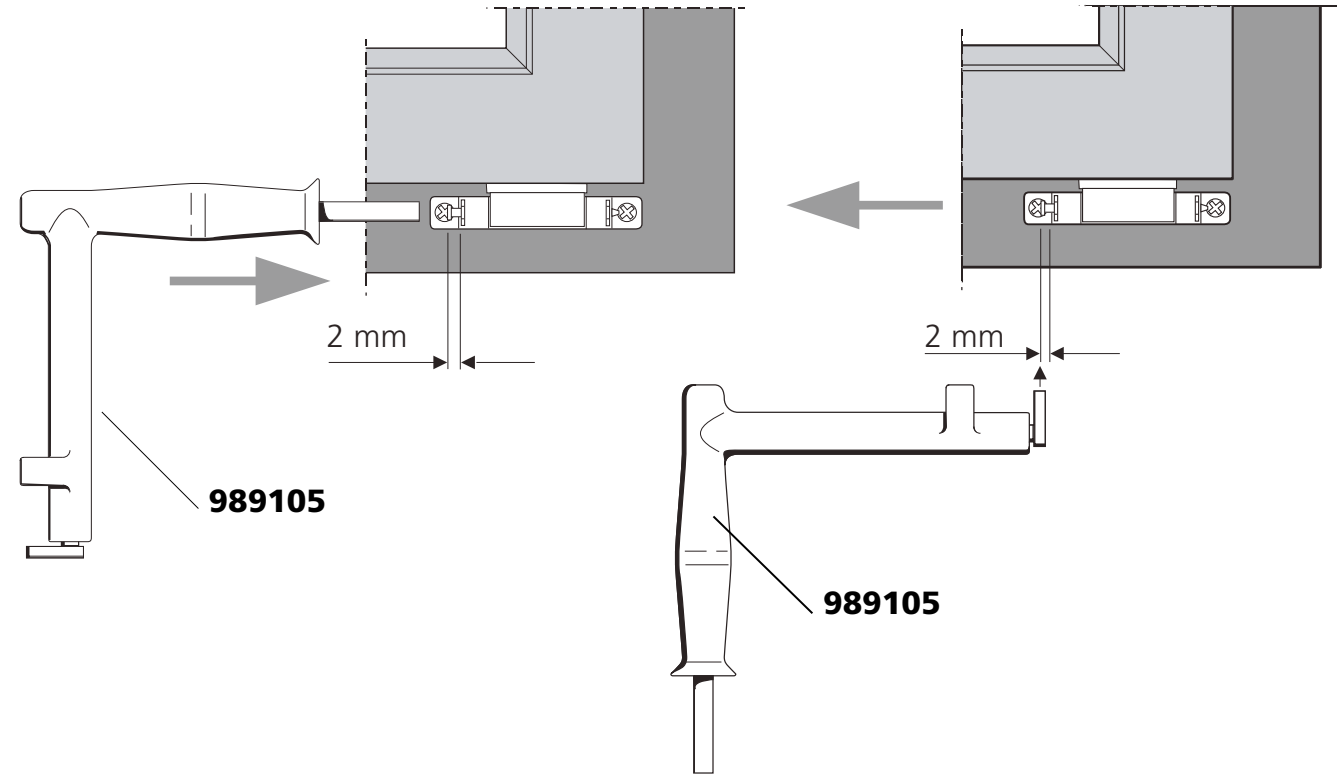
Beschlagseinbau Kippflügel

Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window







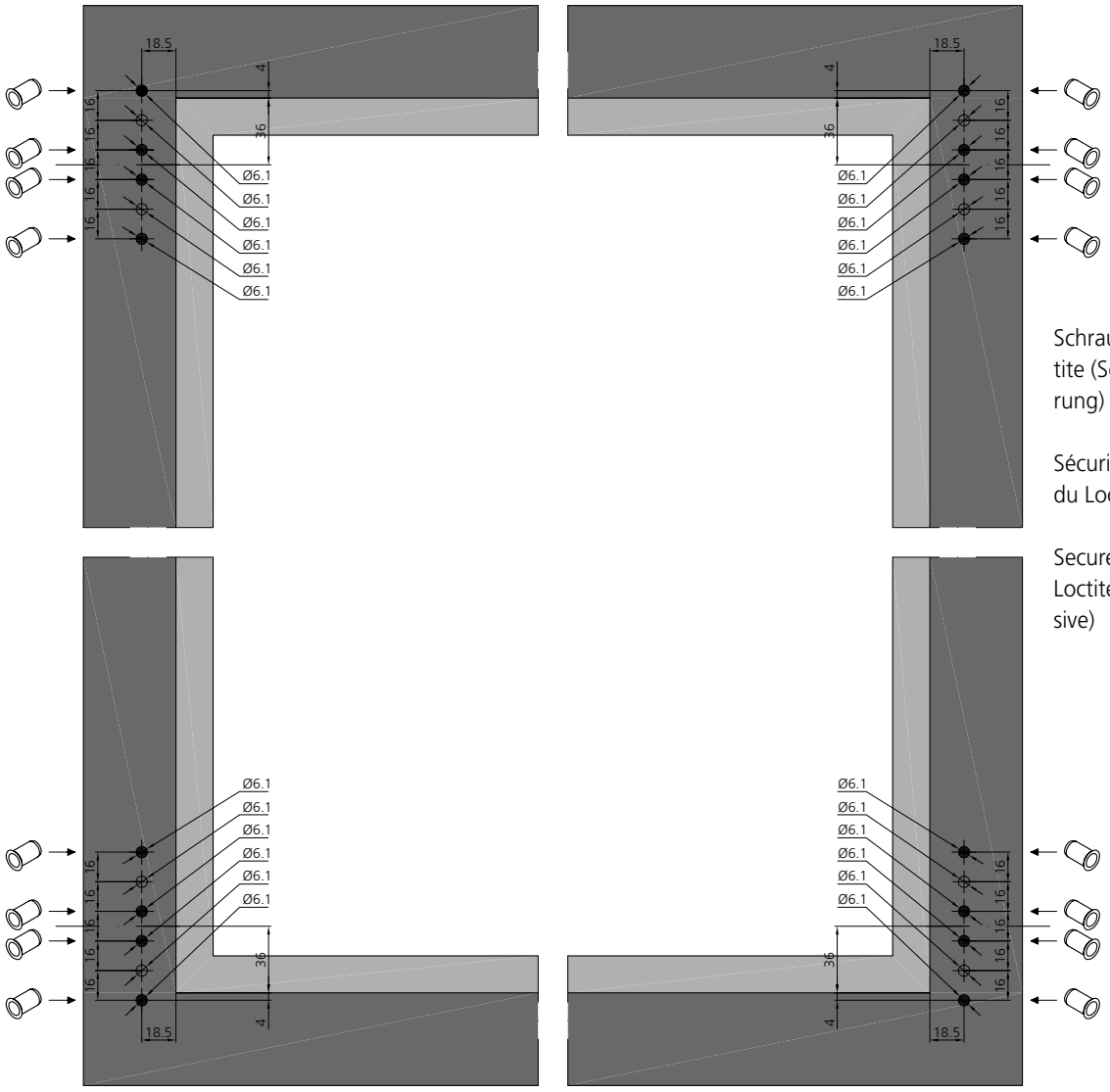
Beschlagseinbau 1-flügeliges Fenster RC2

Montage de la quincaillerie Fenêtre à 1 vantail RC2

Installation of the fittings Window 1 leaf RC2

DIN links
DIN gauche
DIN left

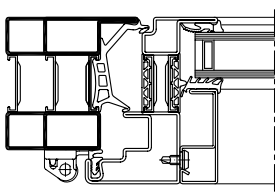
DIN rechts
DIN droite
DIN right

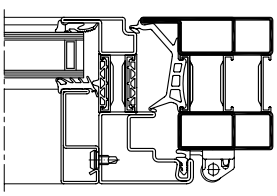


Schrauben mit Loctite (Schraubensicherung) sichern

Sécuriser les vis avec du Loctite

Secure screw with Loctite (screw adhesive)

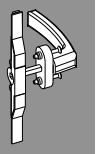


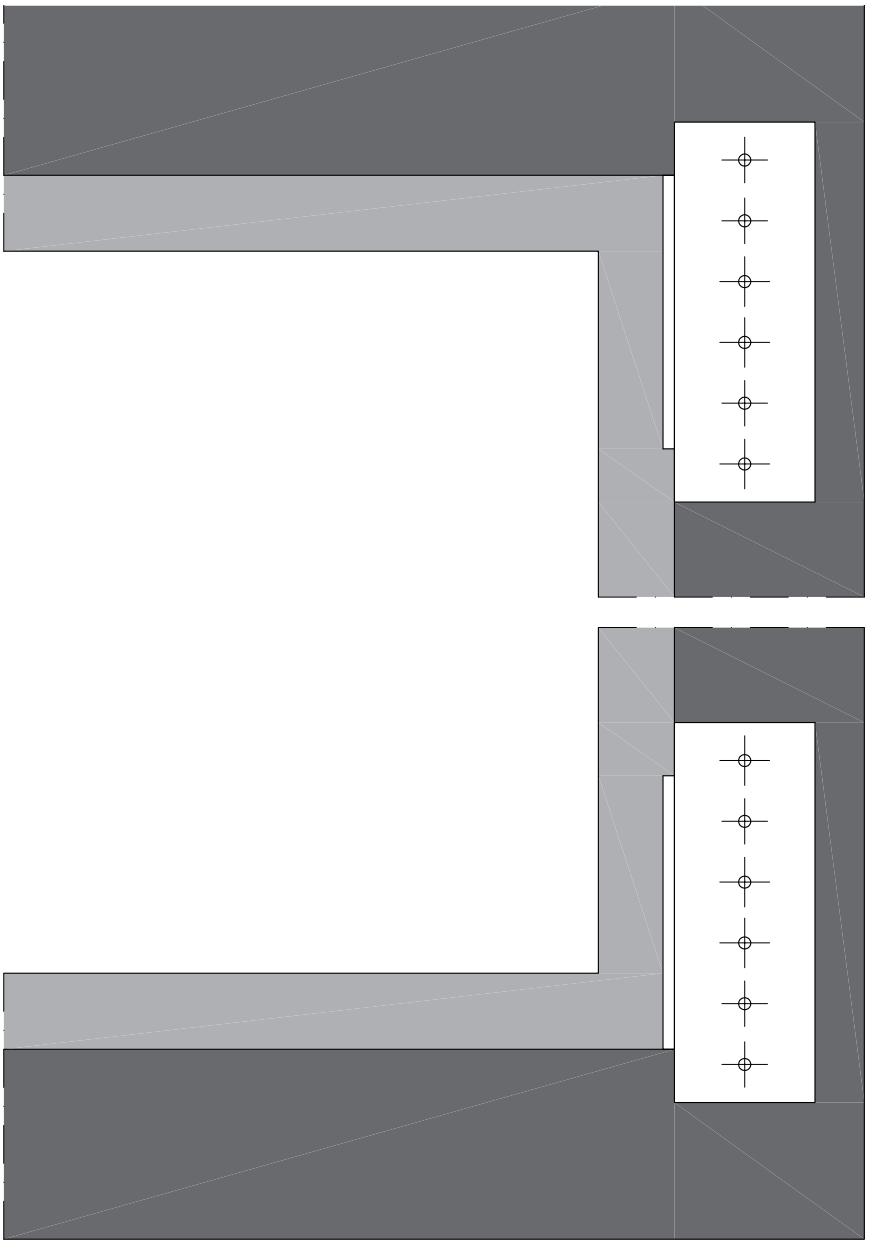


Beschlagseinbau 1-flügeliges Fenster RC2

Montage de la quincaillerie Fenêtre à 1 vantail RC2

Installation of the fittings Window 1 leaf RC2

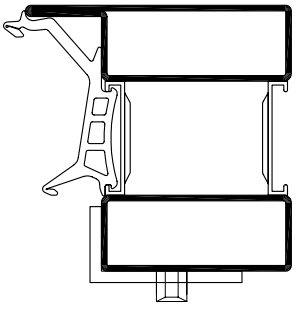




Bohrlehre **Art.Nr 989103**
zu Axer- und Ecklager

Gabarit de perçage **art no 989103** pour
palier dàngle et palier de compas

Drilling template **art. no. 989103** for
sash stay bearing and corner pivot rest





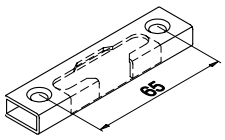
Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

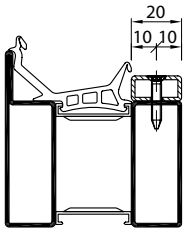
Beschlagseinbau 1-flügeliges Fenster RC2

Anordnung Schliessstücke
1-flg. in Abhängigkeit der Flügelfalz-Breite

FFB 310 – 410 mm

Bandseite
Côté paumelle
Hinge side



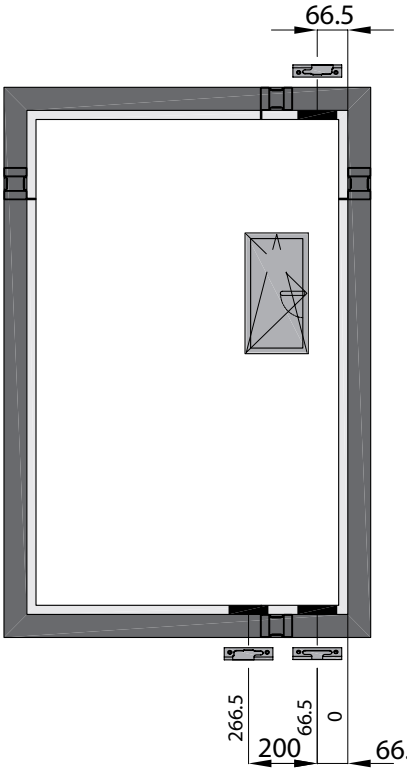


Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

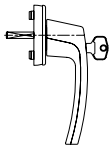
Montage de la quincaillerie Fenêtre à 1 vantail RC2

Disposition des gâches
1 vantail selon la largeur de la feuillure de vantail

FFB 310 – 410 mm



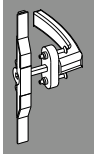
Getriebeseite
Côté crémone
Drive side



Installation of the fittings Window 1 leaf RC2

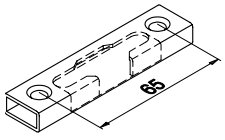
Arrangement of the strikers
1 leaf, depending on the width of the leaf rebate

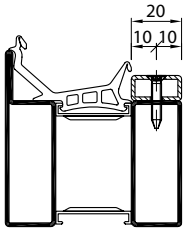
FFB 310 – 410 mm



Anordnung Schliesstücke
FFB 411 – 600 mm

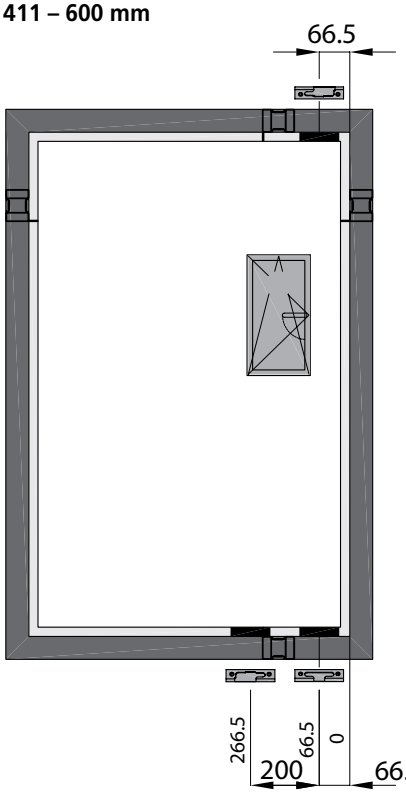
Bandseite
Côté paumelle
Hinge side





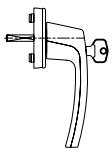
Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Disposition des gâches
FFB 411 – 600 mm



Arrangement of the strikers
FFB 411 – 600 mm

Getriebeseite
Côté crémone
Drive side

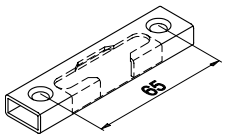


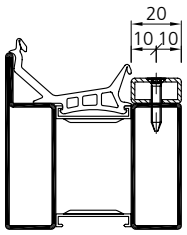
Beschlagseinbau 1-flügeliges Fenster RC2

Anordnung Schliessstücke
1-flg. in Abhängigkeit der Flügelfalz-Breite

FFB 601 – 800 mm

Bandseite
Côté paumelle
Hinge side



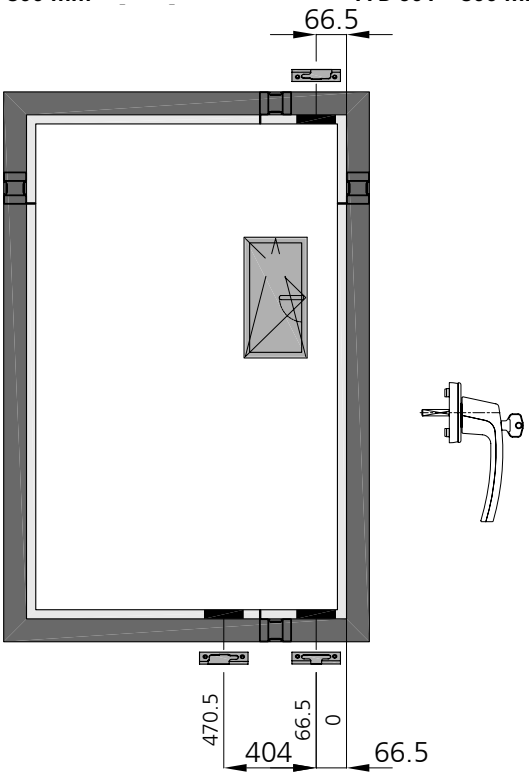


Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Montage de la quincaillerie Fenêtre à 1 vantail RC2

Disposition des gâches
1 vantail selon la largeur de la feuillure de vantail

FFB 601 – 800 mm



Getriebeseite
Côté crémone
Drive side

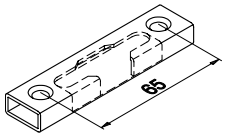
Installation of the fittings Window 1 leaf RC2

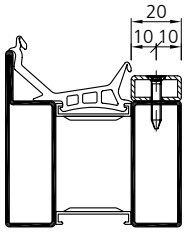
Arrangement of the strikers
1 leaf, depending on the width of the leaf rebate

FFB 601 – 800 mm

Anordnung Schliesstücke
FFB 801 – 1000 mm

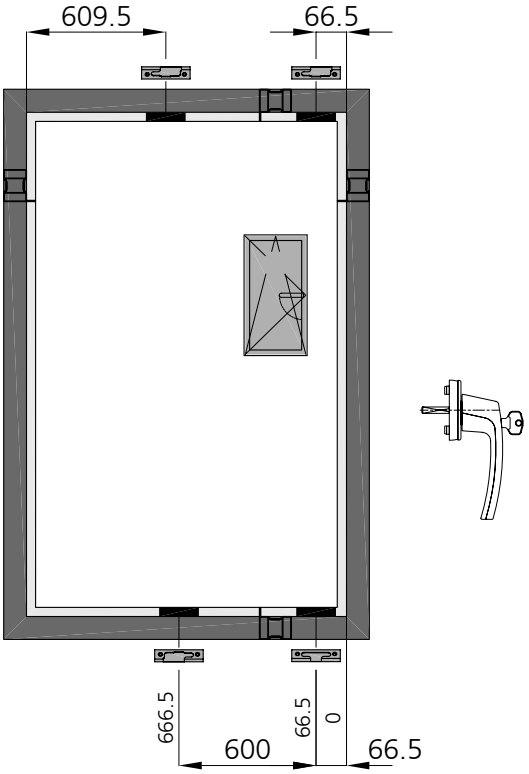
Bandseite
Côté paumelle
Hinge side





Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Disposition des gâches
FFB 801 – 1000 mm



Getriebeseite
Côté crémone
Drive side

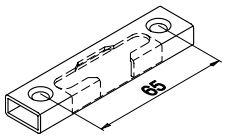
Arrangement of the strikers
FFB 801 – 1000 mm

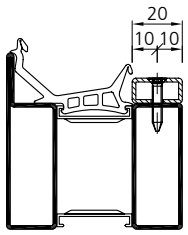
Beschlagseinbau 1-flügeliges Fenster RC2

Anordnung Schliessstücke
1-flg. in Abhängigkeit der Flügelfalz-Breite

FFB 1001 – 1200 mm

Bandseite
Côté paumelle
Hinge side



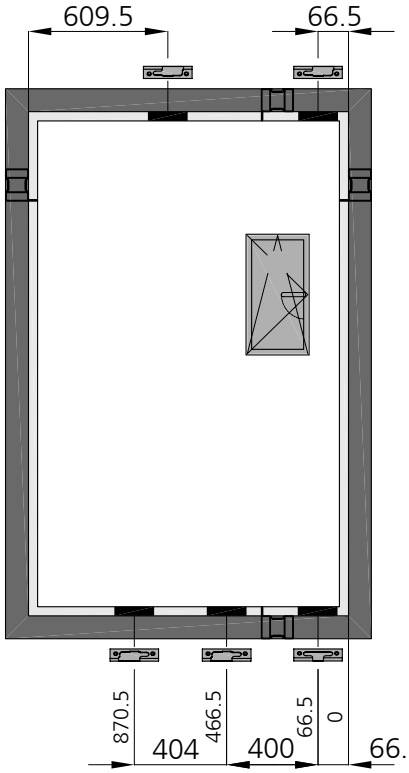


Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Montage de la quincaillerie Fenêtre à 1 vantail RC2

Disposition des gâches
1 vantail selon la largeur de la feuillure de vantail

FFB 1001 – 1200 mm

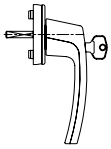


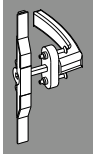
Installation of the fittings Window 1 leaf RC2

Arrangement of the strikers
1 leaf, depending on the width of the leaf rebate

FFB 1001 – 1200 mm

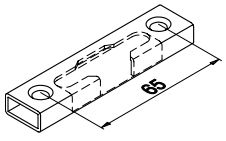
Getriebeseite
Côté crémone
Drive side

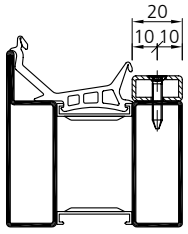




Anordnung Schliesstücke
FFB 1201 – 1400 mm

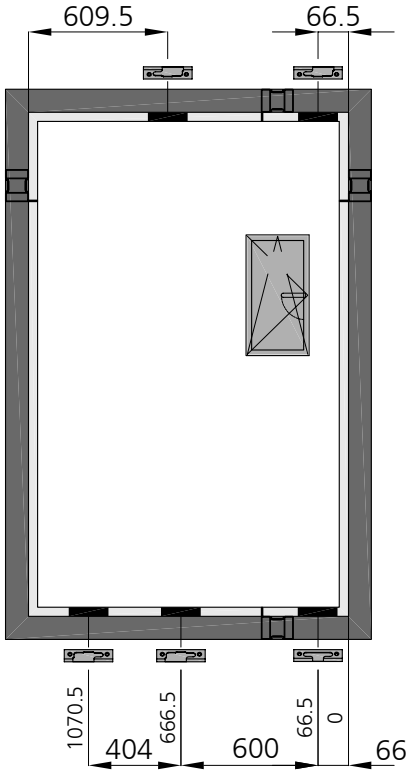
Bandseite
Côté paumelle
Hinge side





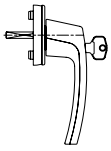
Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Disposition des gâches
FFB 1201 – 1400 mm



Arrangement of the strikers
FFB 1201 – 1400 mm

Getriebeseite
Côté crémone
Drive side

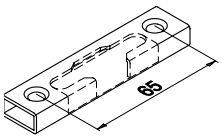


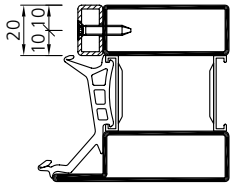
Beschlagseinbau 1-flügeliges Fenster RC2

Anordnung Schliessstücke
1-flg. in Abhängigkeit der Flügelfalz-Höhe

FFH 520 – 620 mm
GH 260 – 310 mm

Bandseite
Côté paumelle
Hinge side





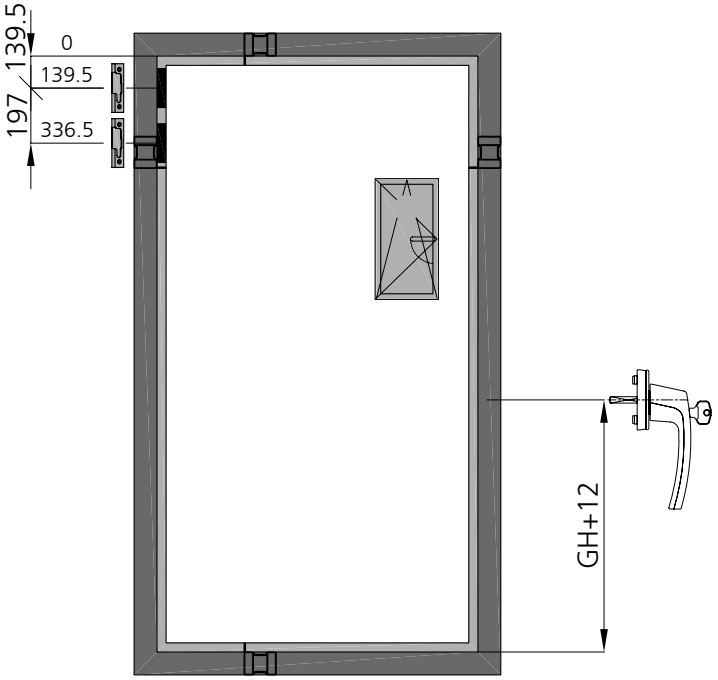
Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Montage de la quincaillerie Fenêtre à 1 vantail RC2

Disposition des gâches
1 vantail selon la hauteur de la feuillure de vantail
FFH 520 – 620 mm
GH 260 – 310 mm

Installation of the fittings Window 1 leaf RC2

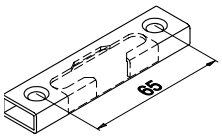
Arrangement of the strikers
1 leaf, depending on the height of the leaf rebate
FFH 520 – 620 mm
GH 260 – 310 mm

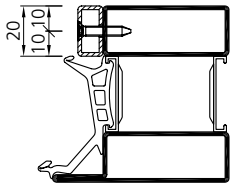


Getriebeseite
Côté crémone
Drive side

Anordnung Schliesstücke
FFH 621 – 800 mm
GH 621 – 800 mm

Bandseite
Côté paumelle
Hinge side

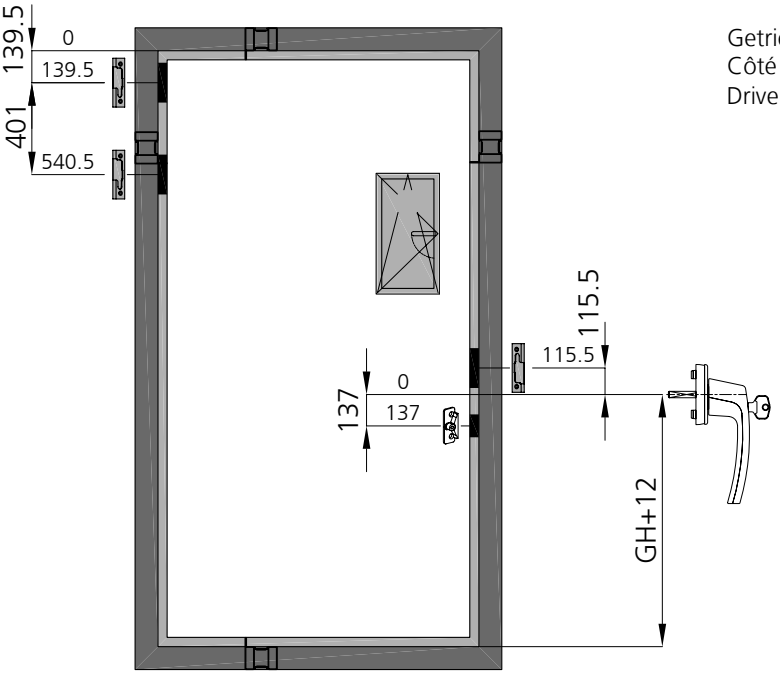




Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Disposition des gâches
FFH 621 – 800 mm
GH 621 – 800 mm

Arrangement of the strikers
FFH 621 – 800 mm
GH 621 – 800 mm



Getriebeseite
Côté crémone
Drive side

Beschlagseinbau 1-flügeliges Fenster RC2

Anordnung Schliessstücke
1-flg. in Abhängigkeit der Flügelfalz-Höhe

FFH 801 – 1200 mm
GH 401 – 600 mm

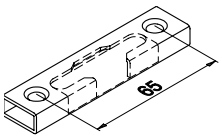
Montage de la quincaillerie Fenêtre à 1 vantail RC2

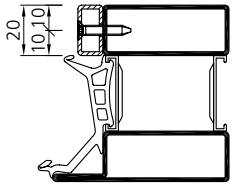
Disposition des gâches
1 vantail selon la hauteur de la feuillure de vantail
FFH 801 – 1200 mm
GH 401 – 600 mm

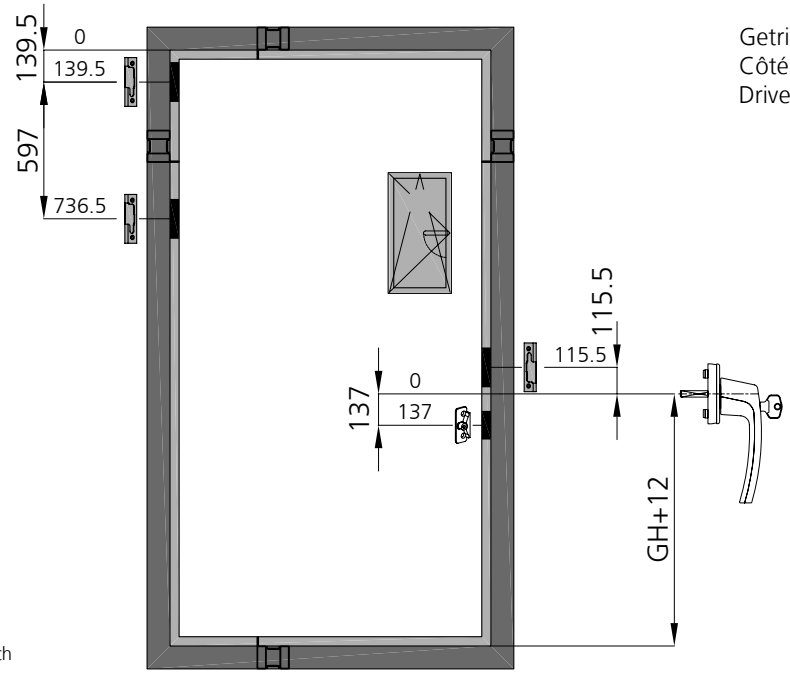
Installation of the fittings Window 1 leaf RC2

Arrangement of the strikers
1 leaf, depending on the height of the leaf rebate
FFH 801 – 1200 mm
GH 401 – 600 mm

Bandseite
Côté paumelle
Hinge side







Getriebeseite
Côté crémone
Drive side

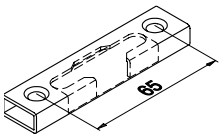
Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

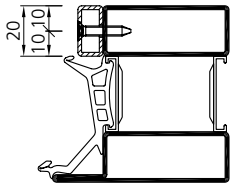
Anordnung Schliesstücke
FFH 1201 – 1600 mm
GH 601 – 800 mm

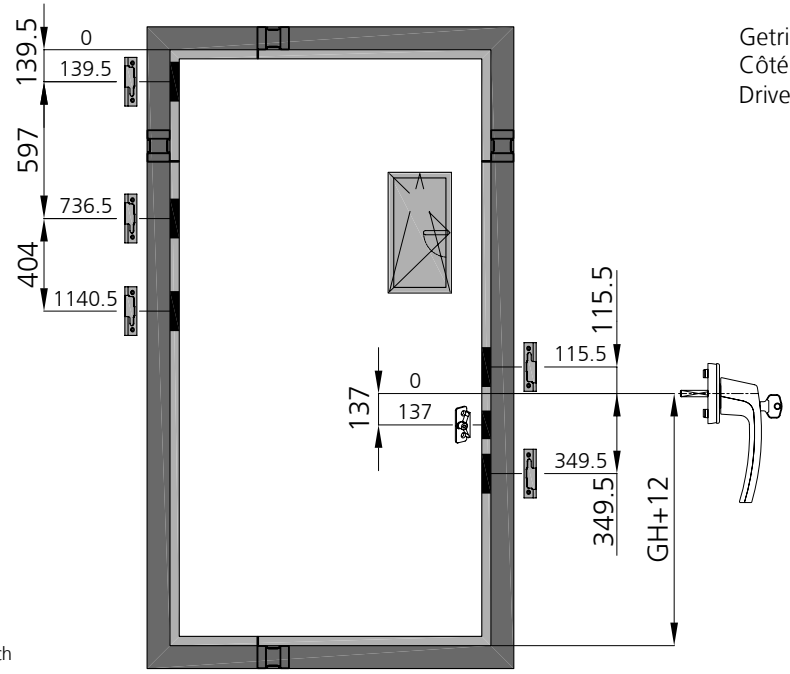
Disposition des gâches
FFH 1201 – 1600 mm
GH 601 – 800 mm

Arrangement of the strikers
FFH 1201 – 1600 mm
GH 601 – 800 mm

Bandseite
Côté paumelle
Hinge side







Getriebeseite
Côté crémone
Drive side

Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Beschlagseinbau 1-flügeliges Fenster RC2

Anordnung Schliessstücke
1-flg. in Abhängigkeit der Flügelfalz-Höhe

FFH 1601 – 2000 mm
GH 801 – 1000 mm

Montage de la quincaillerie Fenêtre à 1 vantail RC2

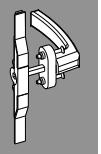
Disposition des gâches
1 vantail selon la hauteur de la feuillure de vantail

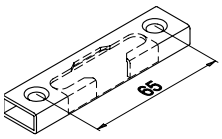
FFH 1601 – 2000 mm
GH 801 – 1000 mm

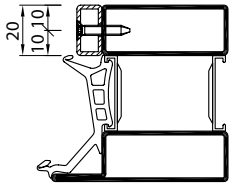
Installation of the fittings Window 1 leaf RC2

Arrangement of the strikers
1 leaf, depending on the height of the leaf rebate

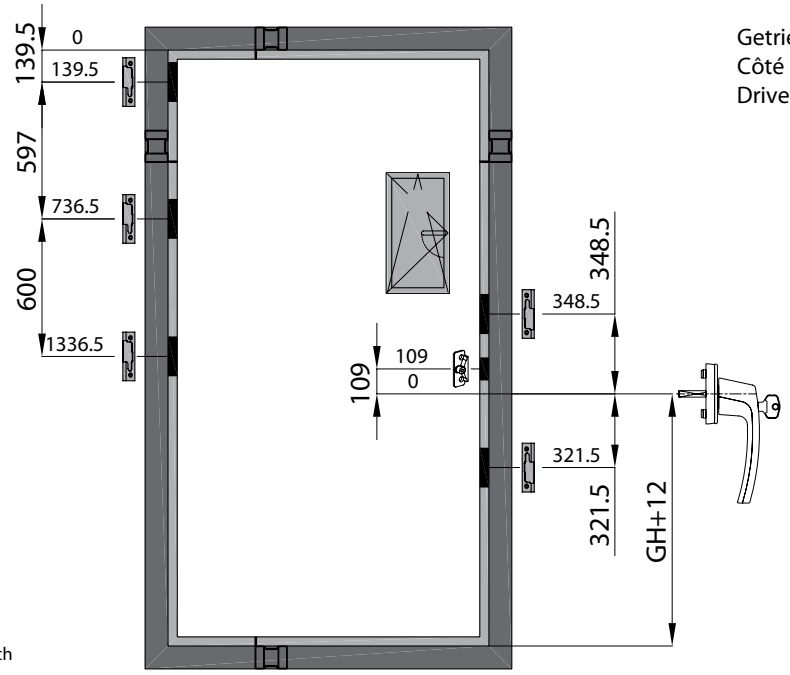
FFH 1601 – 2000 mm
GH 801 – 1000 mm







Bandseite
Côté paumelle
Hinge side



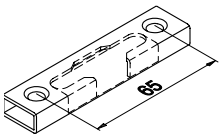
Getriebeseite
Côté crémone
Drive side

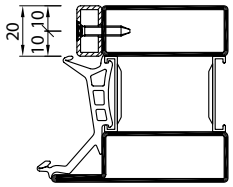
Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Anordnung Schliesstücke
FFH 2001 – 2400 mm
GH 1001 – 1200 mm

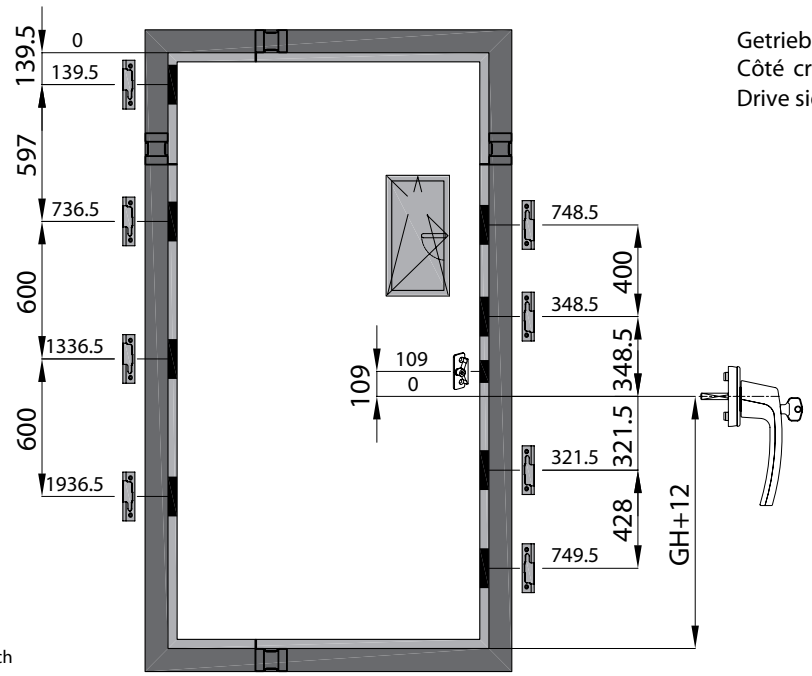
Disposition des gâches
FFH 2001 – 2400 mm
GH 1001 – 1200 mm

Arrangement of the strikers
FFH 2001 – 2400 mm
GH 1001 – 1200 mm





Bandseite
Côté paumelle
Hinge side



Getriebeseite
Côté crémone
Drive side

Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Beschlagseinbau 1-flügeliges Fenster RC2

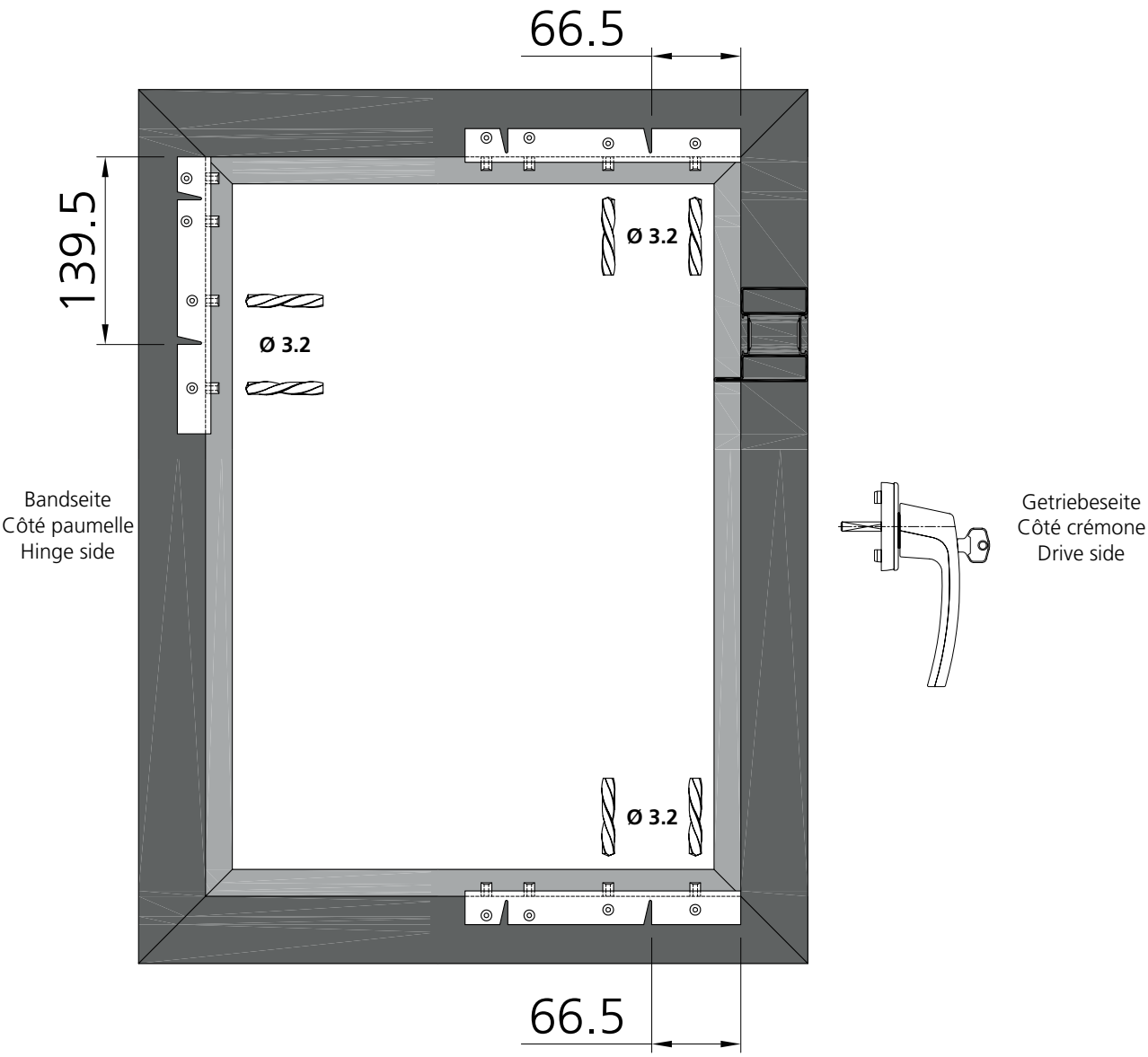
Bohrlehre **Art. Nr. 989109**
1 flügelige Fenster

Montage de la quincaillerie Fenêtre à 1 vantail RC2

Gabarit de perçage **art. no. 989109**
fenêtre à 1 vantail

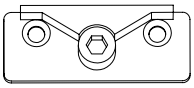
Installation of the fittings Window 1 leaf RC2

Drilling template **art. no. 989109**
single leaved windows



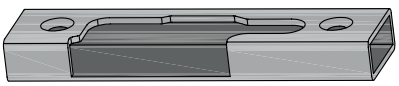
Bandseite
Côté paumelle
Hinge side

Getriebeseite
Côté crémone
Drive side

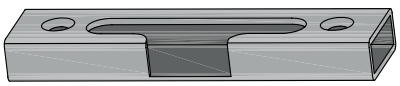


Nieveauschaltsperre Rahmen
Anti-fausse manoevre partie dormant
Lifting mishandling device frame part

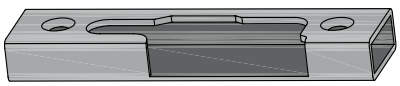
Schliessstück "links" / Gâche "gauche" / Striker "left"

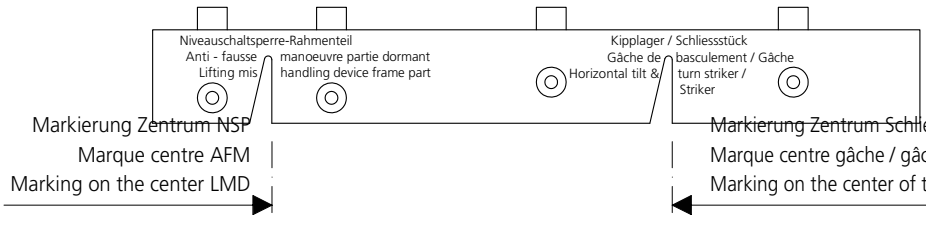


Kipplager / Gâche de basculement / Tilt-turn striker



Schliessstück "rechts" / Gâche "droite" / Striker "right"

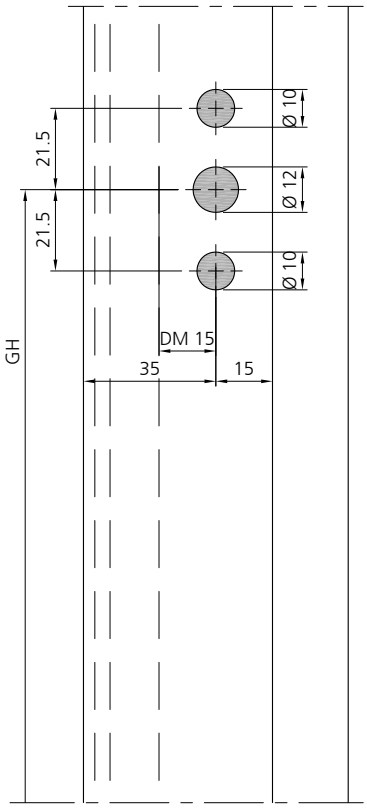


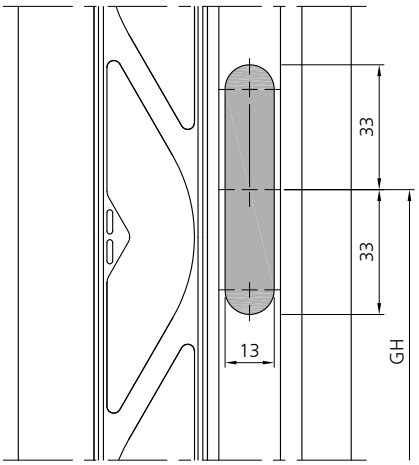


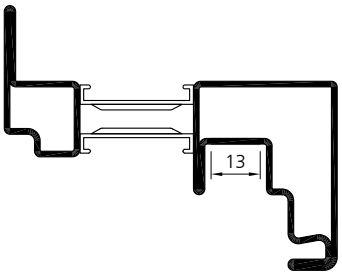
Beschlagseinbau 1-flügeliges Fenster RC2

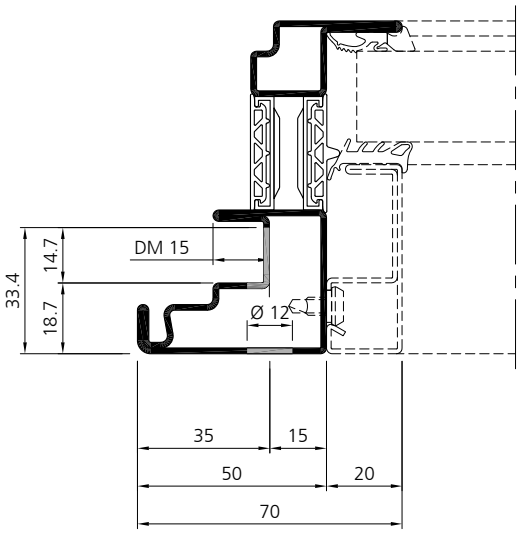
Montage de la quincaillerie Fenêtre à 1 vantail RC2

Installation of the fittings Window 1 leaf RC2







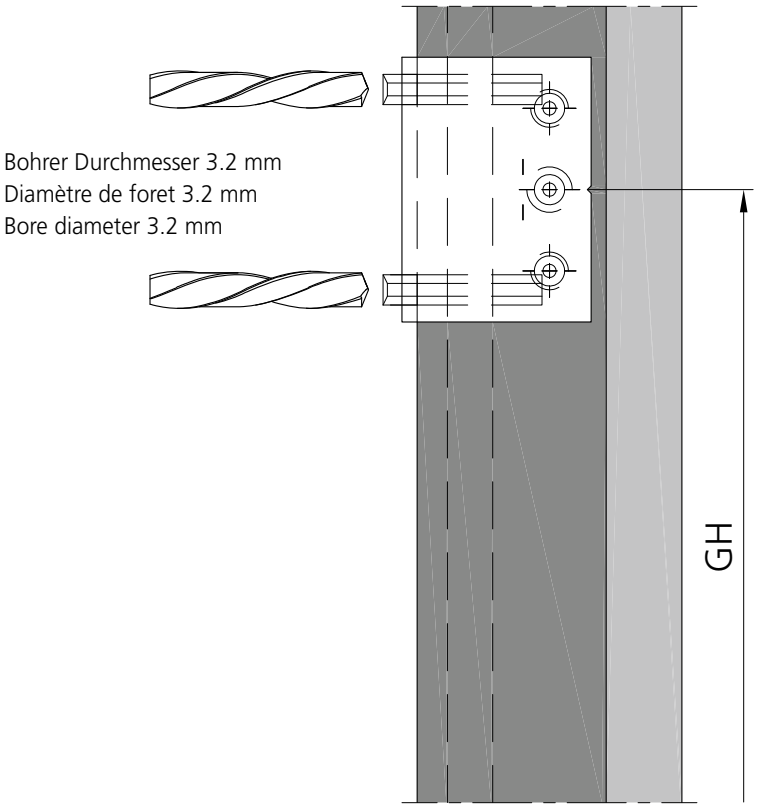


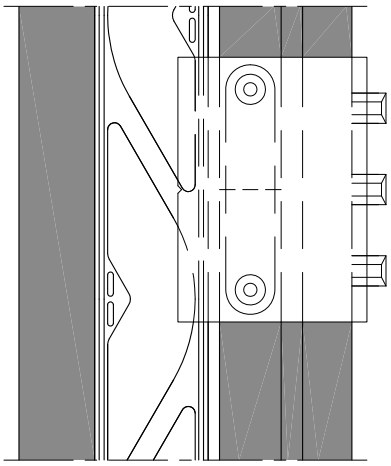
Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail vertical préalablement!
Make the cut-out for the drive in the vertical leaf profile first!

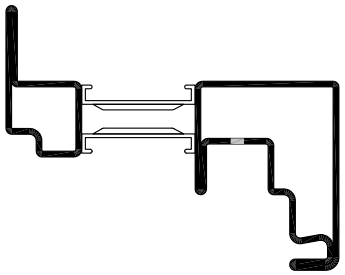
Beschlagseinbau 1-flügeliges Fenster RC2

Montage de la quincaillerie Fenêtre à 1 vantail RC2

Installation of the fittings Window 1 leaf RC2



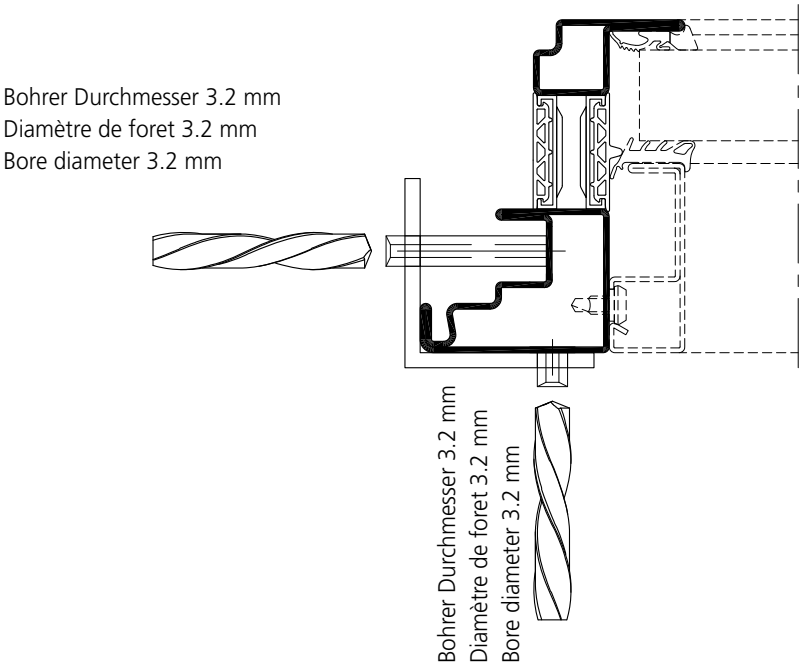




Bohrlehre **Art. Nr. 989108** zu Dreh-Kippgetreibe.

Gabarit de perçage **art. no. 989108** pour crémone oscillo-battant.

Drilling template **art. no. 989108** for turn-tilt drive.

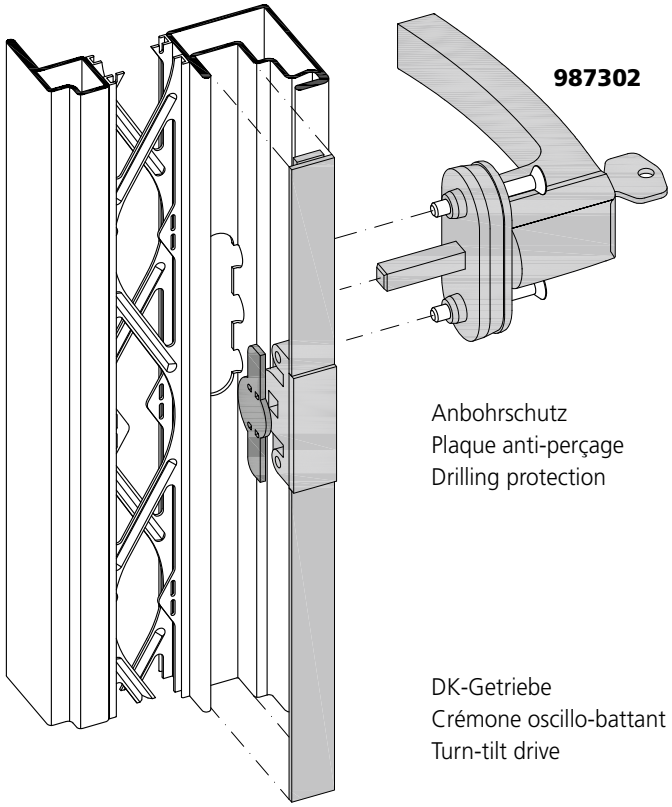


Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail vertical préalablement!
Make the cut-out for the drive in the vertical leaf profile first!

Beschlagseinbau 1-flügeliges Fenster RC2

Montage de la quincaillerie Fenêtre à 1 vantail RC2

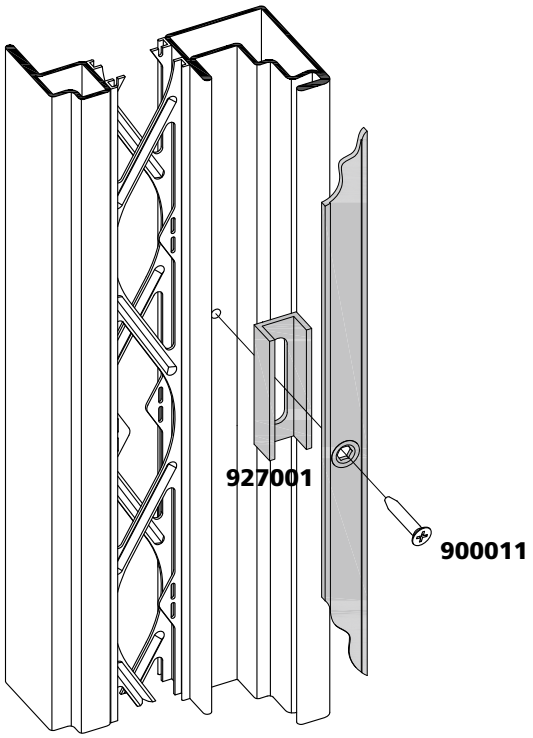
Installation of the fittings Window 1 leaf RC2



Anbohrschutz
Plaque anti-perçage
Drilling protection

DK-Getriebe
Crémone oscillo-battant
Turn-tilt drive

Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail vertical préalablement!
Make the cut-out for the drive in the vertical leaf profile first!



Senk-Schraube M5 x 40 (Wird mit Griff **987302** mitgeliefert).
Vis conique M5 x 40 (livrées avec la poignée **987302**).
Countersunk screw M5 x 40 (supplied with handle **987302**.

- Schraube M4 x 21 (selbstfurchend)
- Bohrloch 3.2 mm
- Bei Edelstahlprofil muss das M4 Gewinde geschnitten werden. Alternative: Bohrloch auf 3.5 aufbohren, Schraube ohne M4 Gewindeschnitt einsetzen.

Bei jeder Verschraubung muss ein Distanzstück **927001** eingesetzt werden.

- Vis M4 x 21 (autotaraudeuse)
- Perçage 3.2 mm
- Avec le profilé en acier inox, la vis M4 doit être coupée. Alternative: agrandir le trou à 3.5, taraudage M4 pas necessaire.

La pièce d'entretoise **927001** doit être insérée sous toutes les fixations et assemblages.

- Screw M4 x 21 (self tapping)
- Drill hole 3.2 mm
- In stainless steel profiles, the M4 thread needs to be cut case. Alternative: drill out the drilling hole of 3.5, use screw without M4 thread.

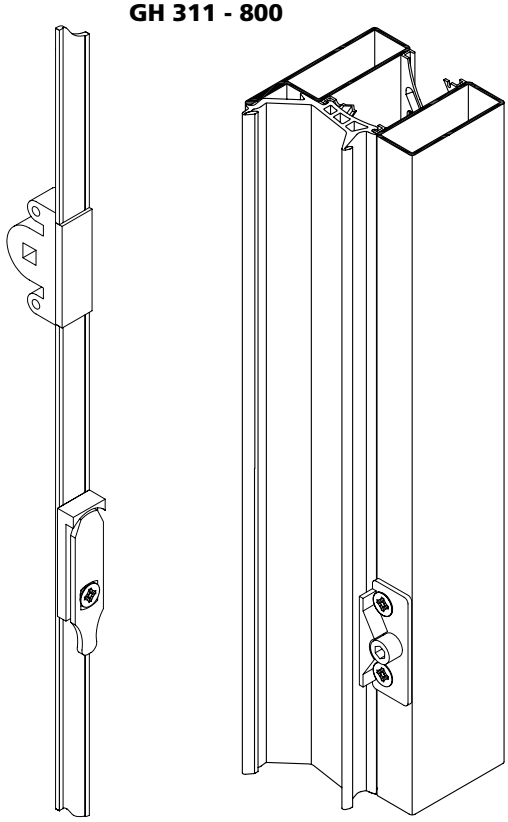
The spacer **927001** must be placed under all screw connections.

Beschlagseinbau 1-flügeliges Fenster RC2 Niveau-Schaltsperre

Montage de la quincaillerie Fenêtre à 1 vantail RC2 Anti-fausse manœuvre

Installation of the fittings Window 1 leaf RC2 Lifting mishandling device

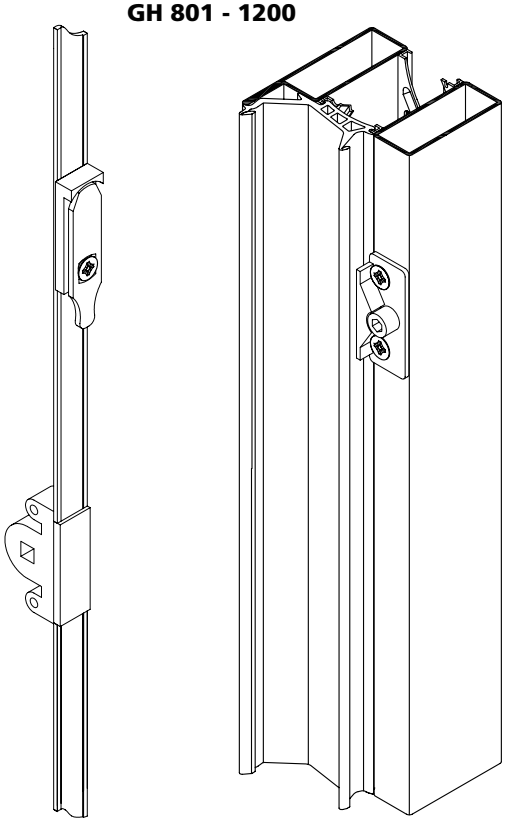
GH 311 - 800



DK-Getriebe RC
Crémone oscillo-battant RC
Turn-tilt drive RC

Rahmen
Cadre
Frame

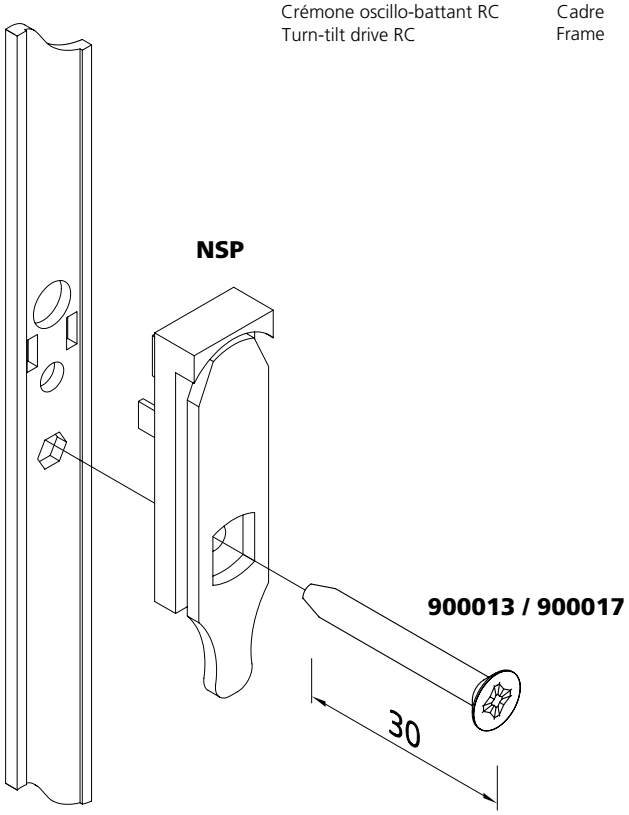
GH 801 - 1200



DK-Getriebe RC
Crémone oscillo-battant RC
Turn-tilt drive RC

Rahmen
Cadre
Frame

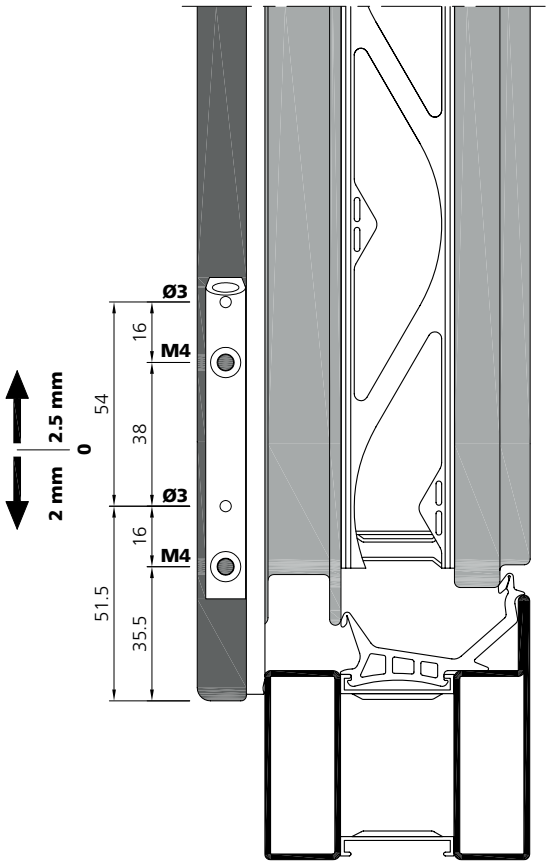
NSP

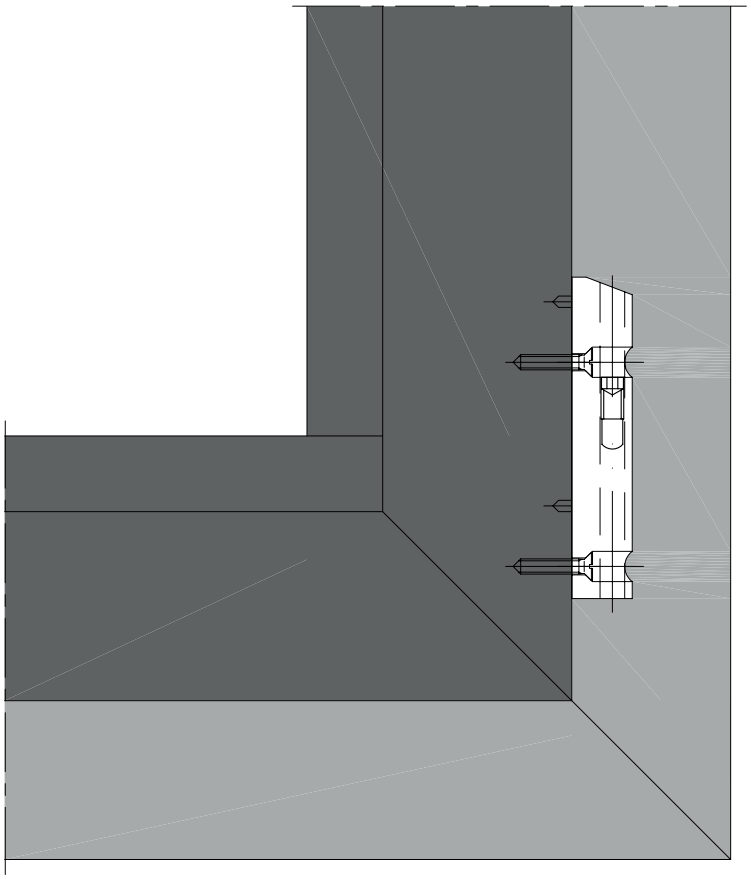


Beschlagseinbau
1-flügeliges Fenster
Eckband

Montage de la quincaillerie
Fenêtre à 1 vantail
Pivot d'angle

Installation of the fittings
Window 1 leaf
Corner hinge

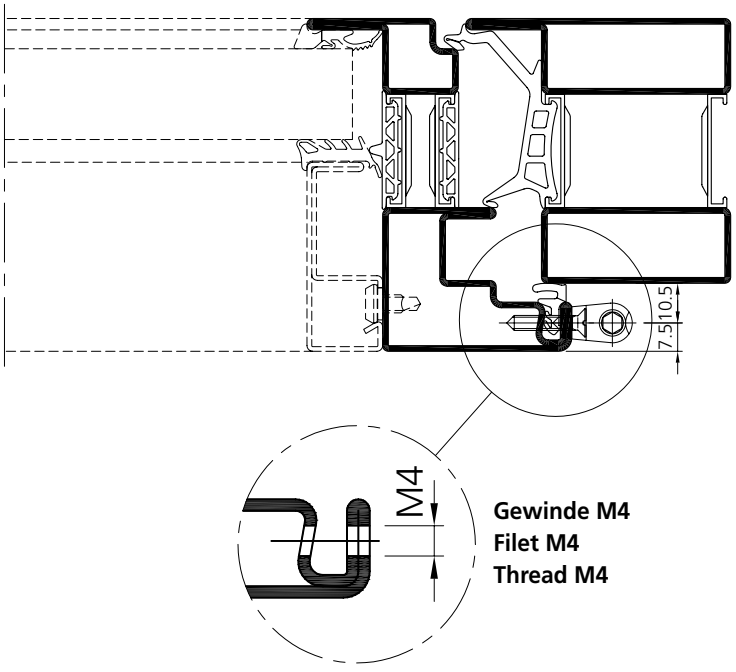




Das Eckband wird durch die Anschlagdichtung **985300** verschraubt.

Le pivot d'angle est vissé à travers le joint de butée **985300**.

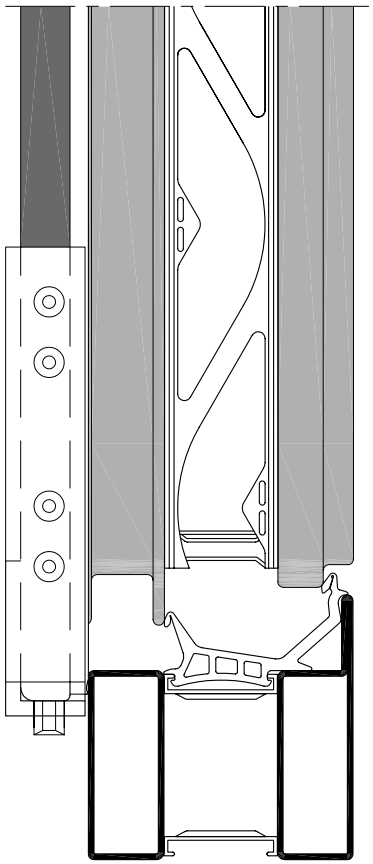
The corner hinge is screwed through the **985300** weatherstripping

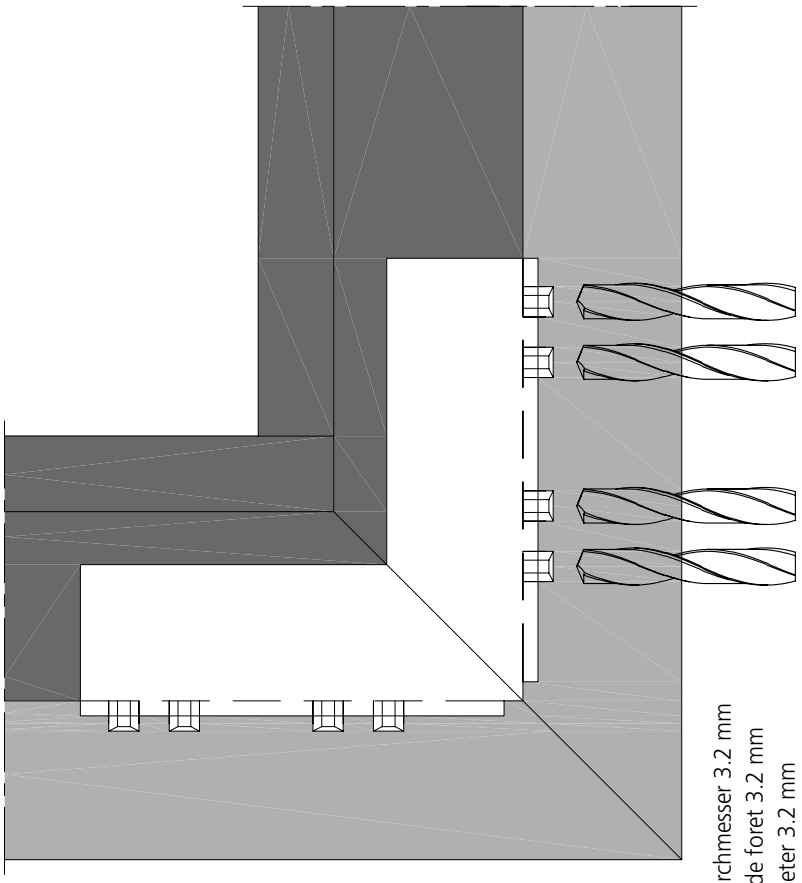


Beschlagseinbau
1-flügeliges Fenster
Eckband

Montage de la quincaillerie
Fenêtre à 1 vantail
Pivot d'angle

Installation of the fittings
Window 1 leaf
Corner hinge



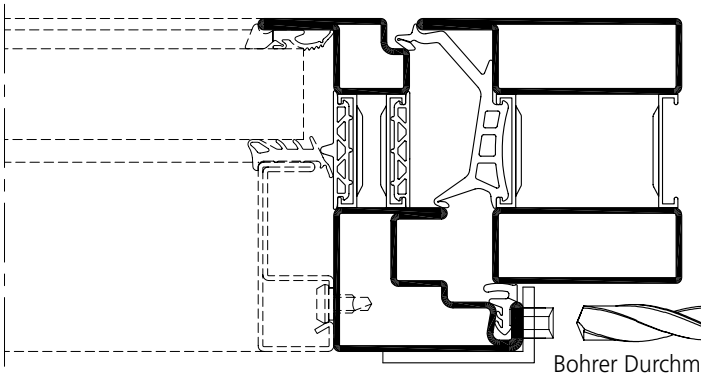


Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Bohrlehre **Art. Nr. 989102** zu Eckband.

Gabarit de perçage **art. no. 989102** pour pivot d'angle.

Drilling template **art. no. 989102** for corner hinge.



Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Beschlagseinbau 1-flügeliges Fenster

Einsatz der Forster Bohrlehre **989100** für den Standard Beschlag auf dem 1. öffnenden Flügel (Gez. DIN links, DIN rechts spiegelbildlich)

FFH 520 - 2400 mm
FFB 310 - 1400 mm

Montage de la quincaillerie Fenêtre à 1 vantail

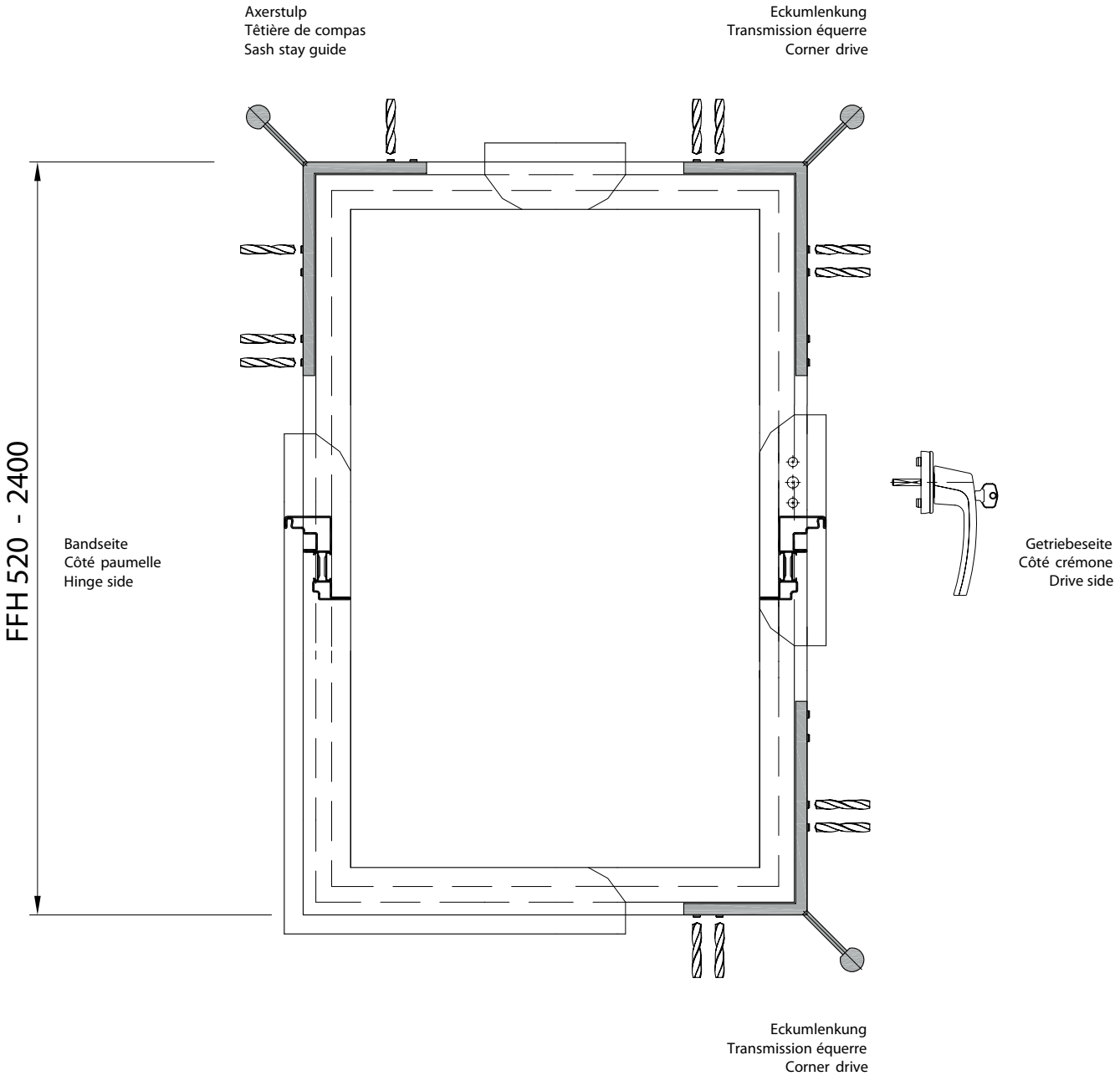
Utilisation des gabarits de perçage Forster **989100** pour la quincaillerie standard sur le 1er vantail ouvrant (Dessiné DIN gauche, DIN droite symétrique)

FFH 520 - 2400 mm
FFB 310 - 1400 mm

Installation of the fittings Window 1 leaf

Use the Forster drilling template **989100** for the standard fittings on 1st active leaf (marking DIN left, DIN right mirror image)

FFH 520 - 2400 mm
FFB 310 - 1400 mm

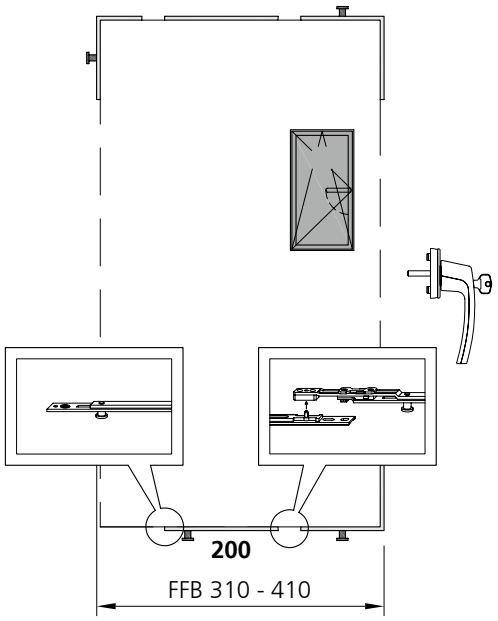


Beschlagseinbau 1-flügeliges Fenster

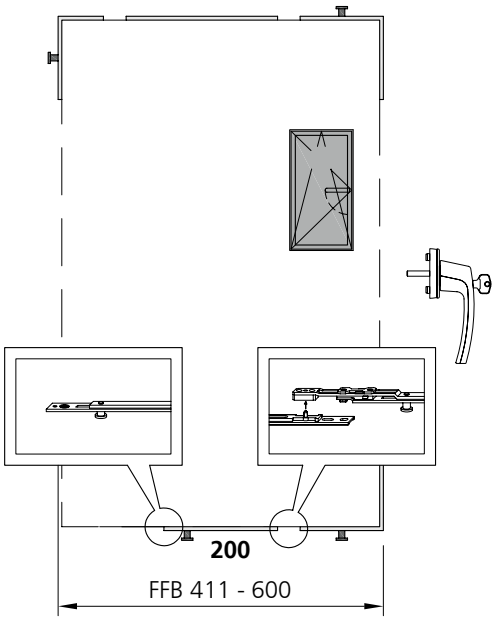
Montage de la quincaillerie Fenêtre à 1 vantail

Installation of the fittings Window 1 leaf

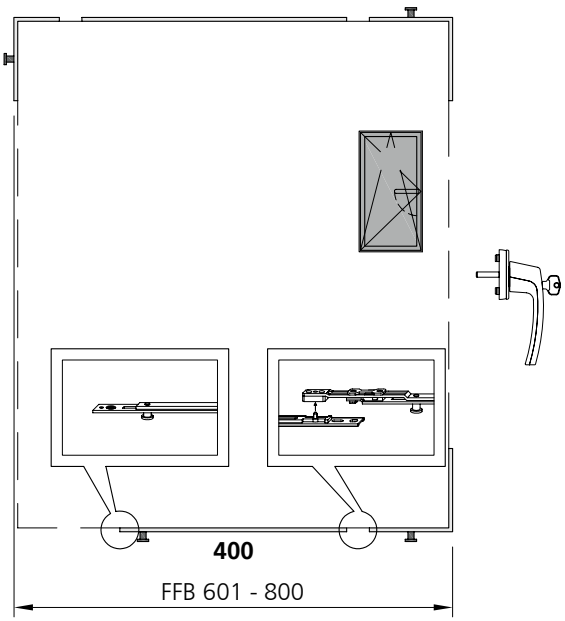
Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFB 310 - 410 [mm]



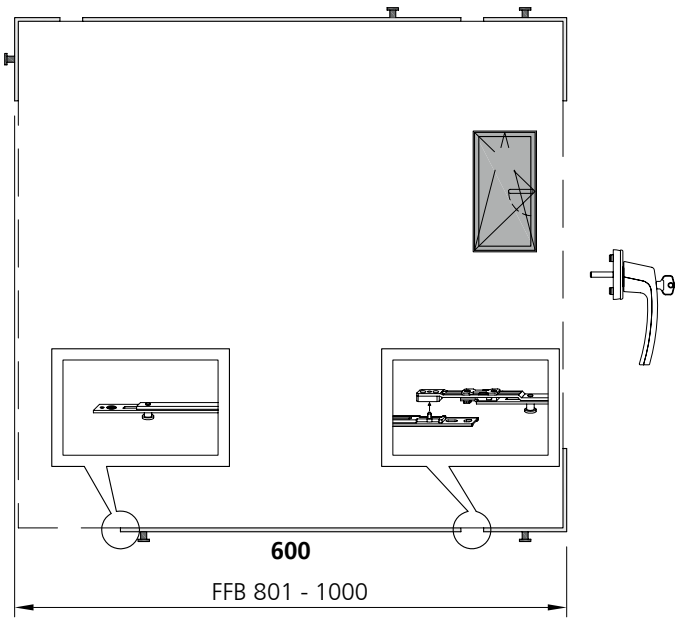
Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFB 411 - 600 [mm]



Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFB 601 - 800 [mm]



Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFB 801 - 1000 [mm]



Beschlagseinbau 1-flügeliges Fenster

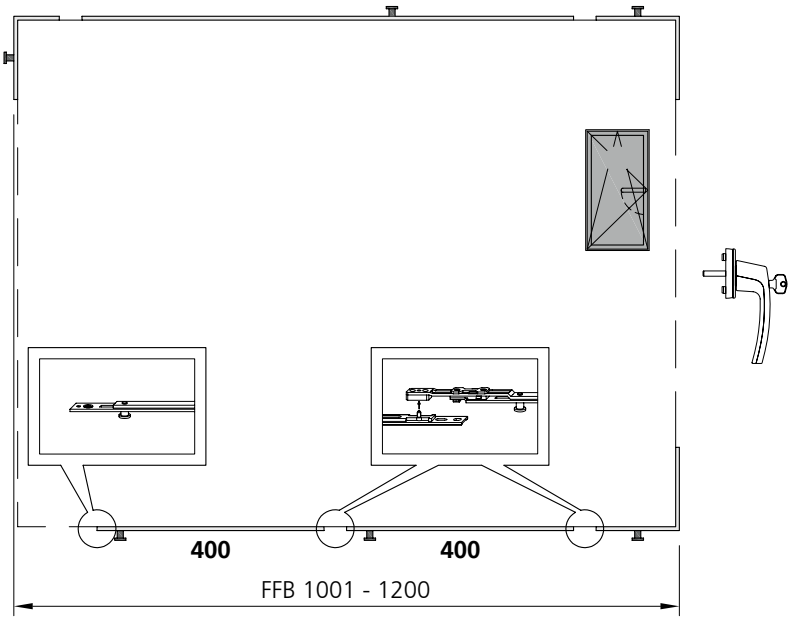
Montage de la quincaillerie Fenêtre à 1 vantail

Installation of the fittings Window 1 leaf

Anordnung Verlängerungen
FFB 1001 - 1200 [mm]

Disposition des extensions
FFB 1001 - 1200 [mm]

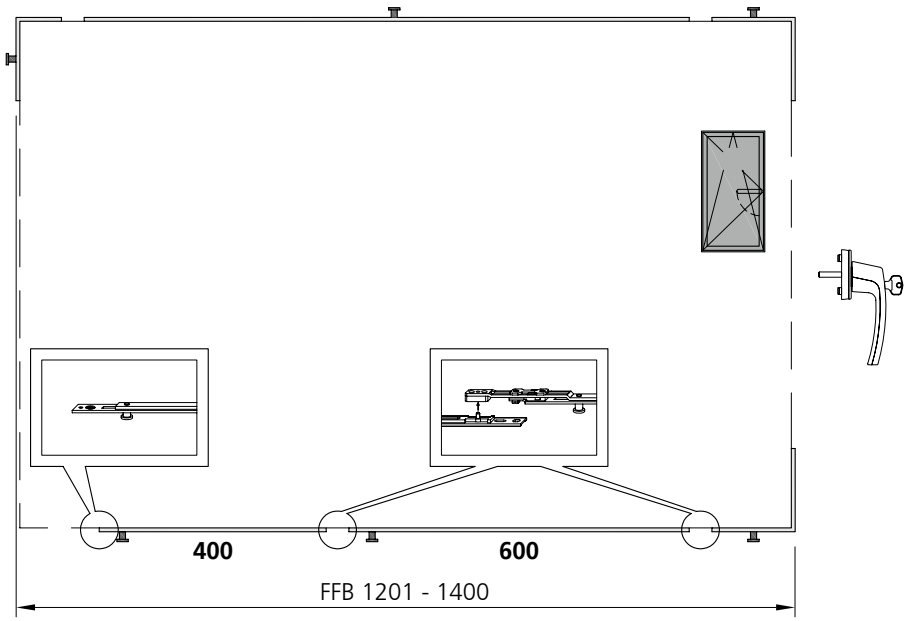
Arrangement of the extensions
FFB 1001 - 1200 [mm]



Anordnung Verlängerungen
FFB 1201 - 1400 [mm]

Disposition des extensions
FFB 1201 - 1400 [mm]

Arrangement of the extensions
FFB 1201 - 1400 [mm]

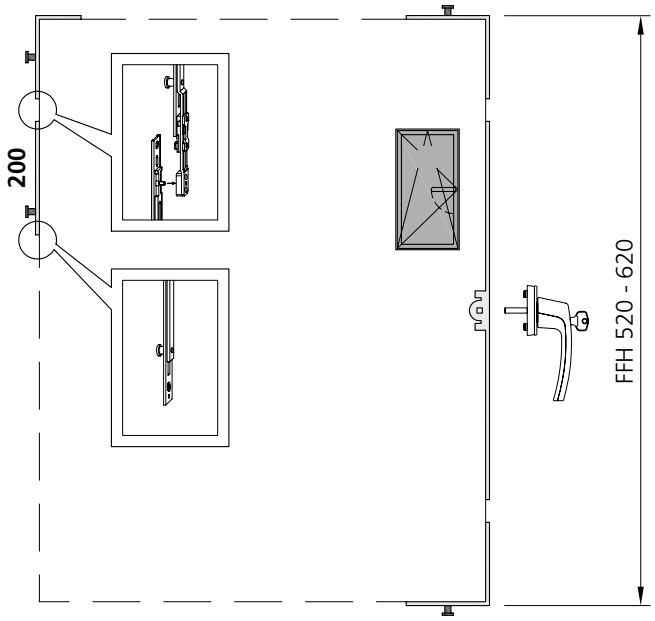


Beschlagseinbau 1-flügeliges Fenster

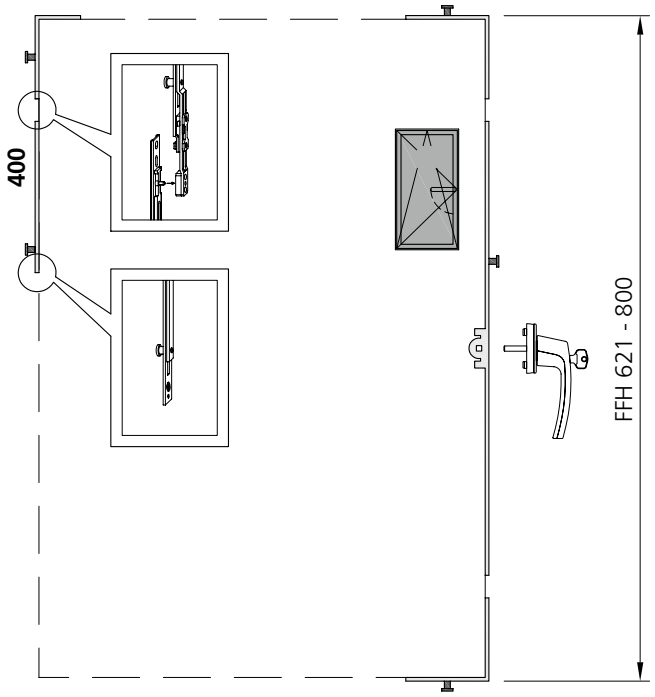
Montage de la quincaillerie Fenêtre à 1 vantail

Installation of the fittings Window 1 leaf

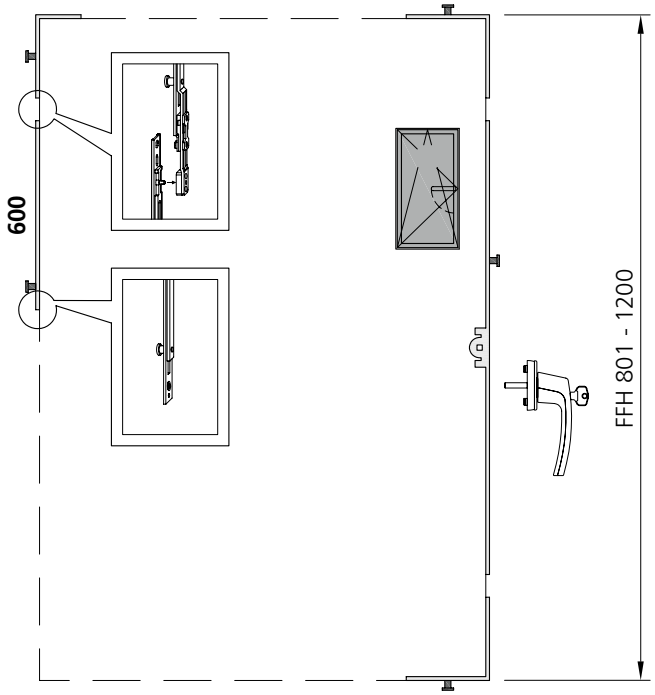
Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 520 - 620 [mm]
GH 260 - 310 [mm]



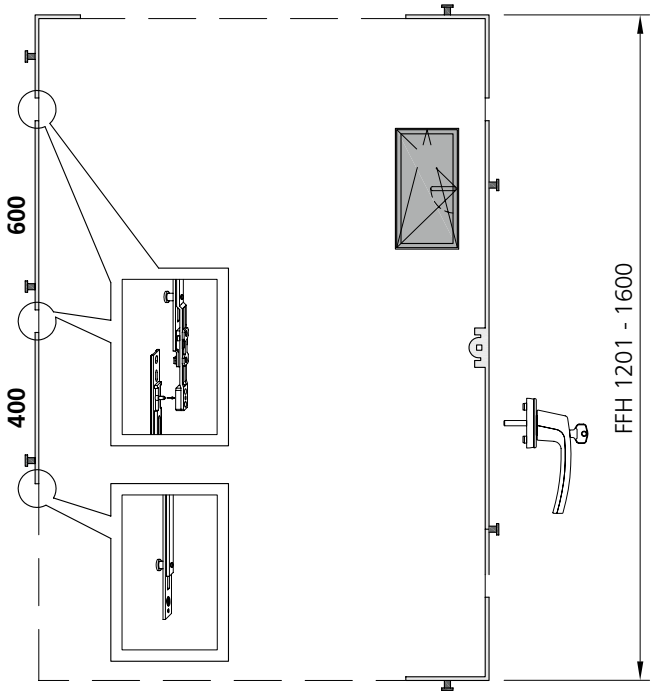
Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 621 - 800 [mm]
GH 311 - 400 [mm]



Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 801 - 1200 [mm]
GH 401 - 600 [mm]



Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 1201 - 1600 [mm]
GH 601 - 800 [mm]

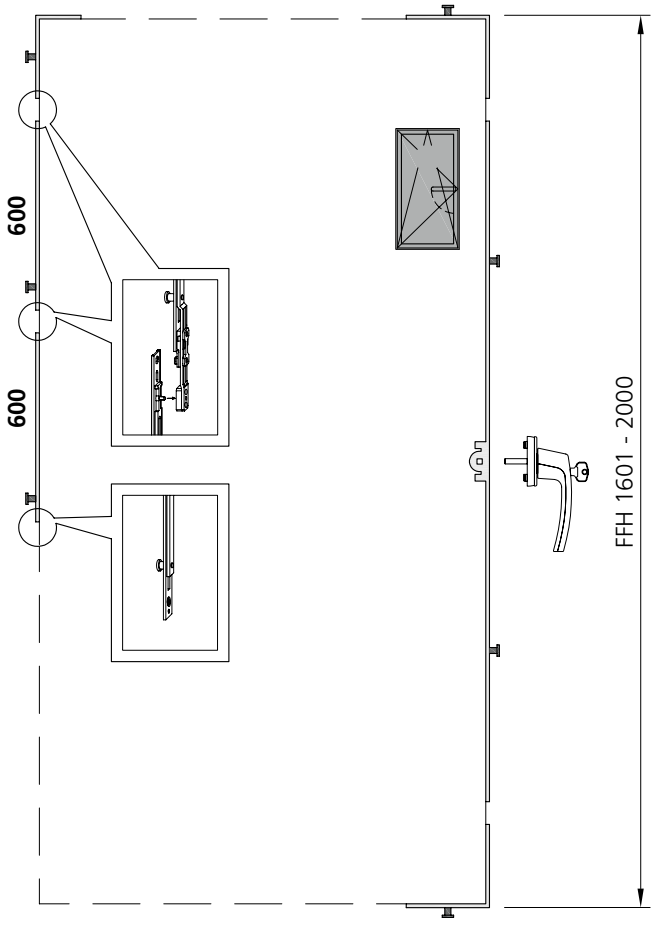


Beschlagseinbau 1-flügeliges Fenster

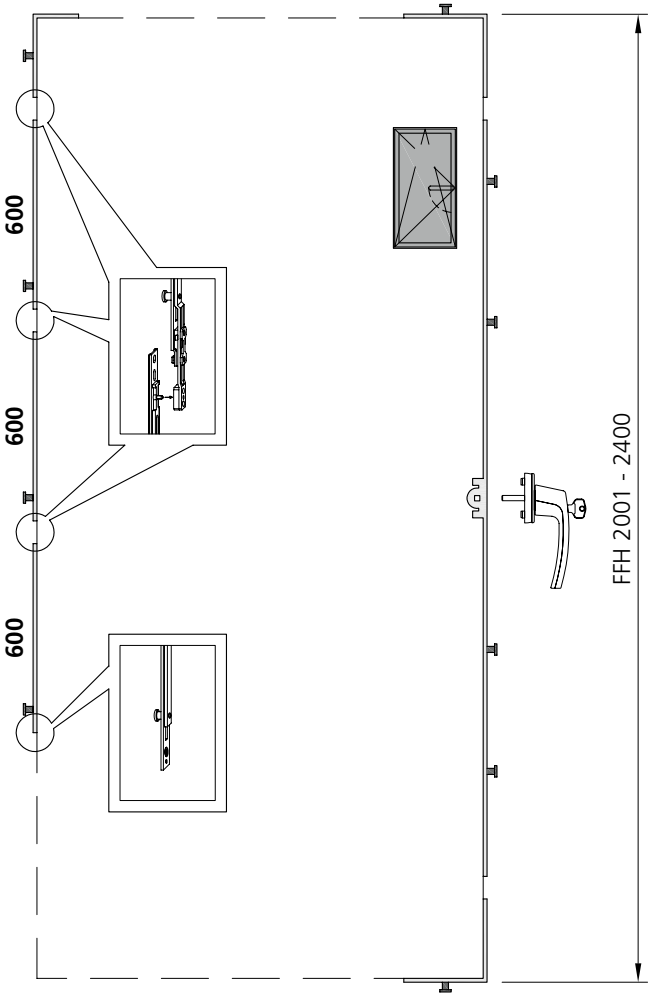
Montage de la quincaillerie Fenêtre à 1 vantail

Installation of the fittings Window 1 leaf

Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 1601 - 2000 [mm]
GH 801 - 1000 [mm]



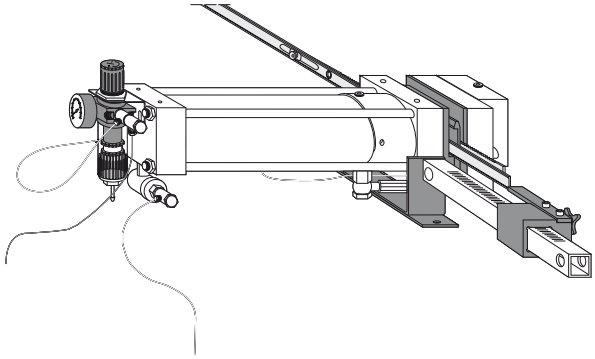
Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 2001 - 2400 [mm]
GH 1001 - 1200 [mm]



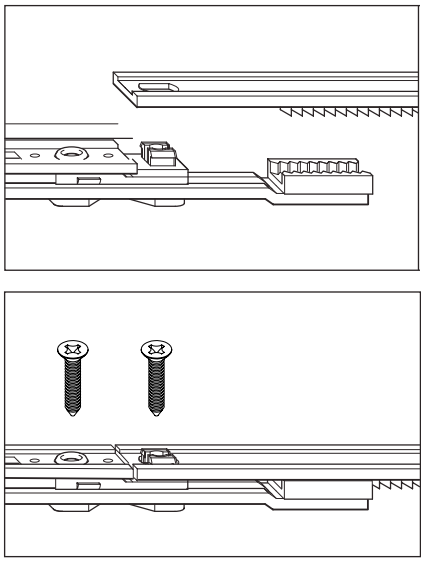
Beschlagseinbau 1-flügeliges Fenster

Montage de la quincaillerie Fenêtre à 1 vantail

Installation of the fittings Window 1 leaf

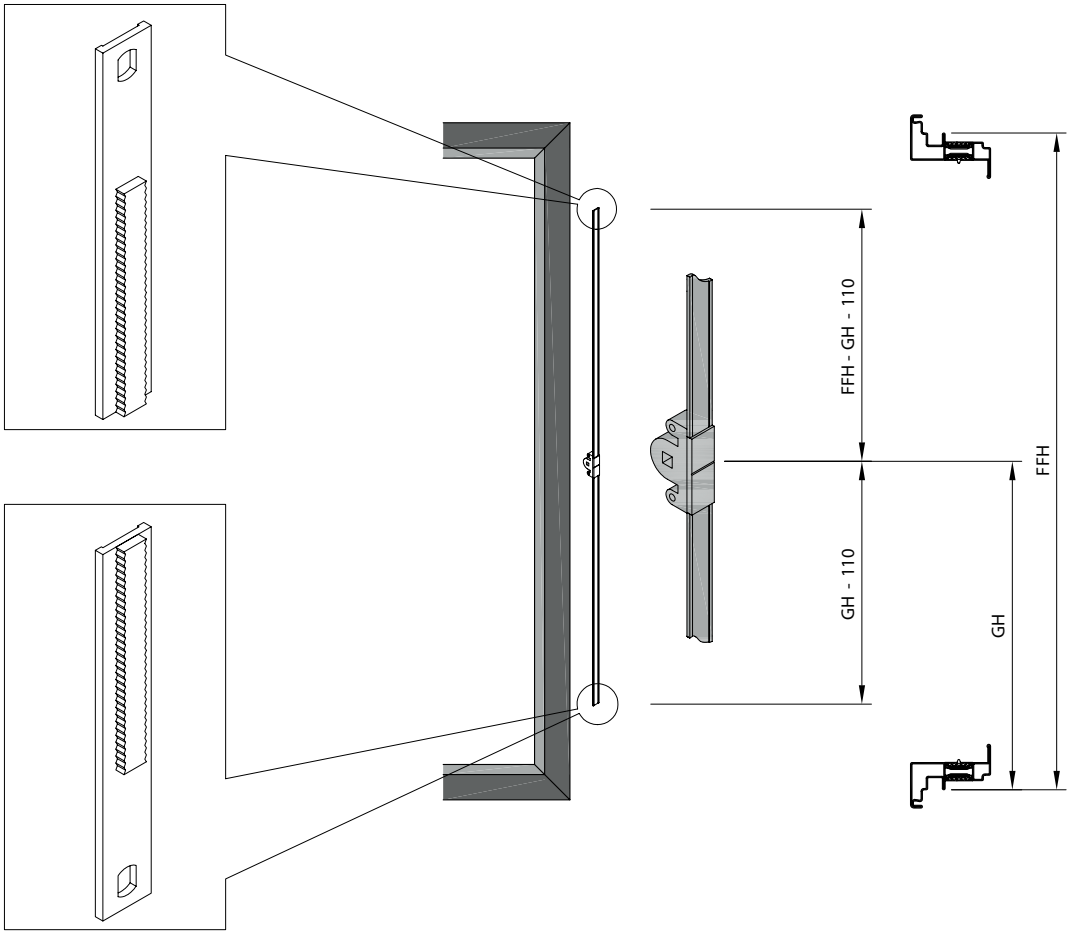


Ablängen mit pneumatischer Stanze (Lochstanzung)



Couper à la longueur requise avec un dispositif de poinçonnage pneumatique

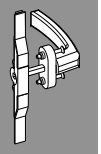
Cut to length with a pneumatic punch tool (hole puncher)

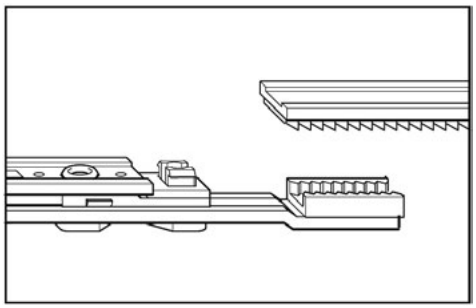


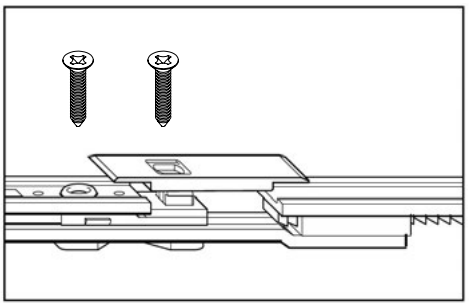
Beschlagseinbau 1-flügeliges Fenster

Montage de la quincaillerie Fenêtre à 1 vantail

Installation of the fittings Window 1 leaf



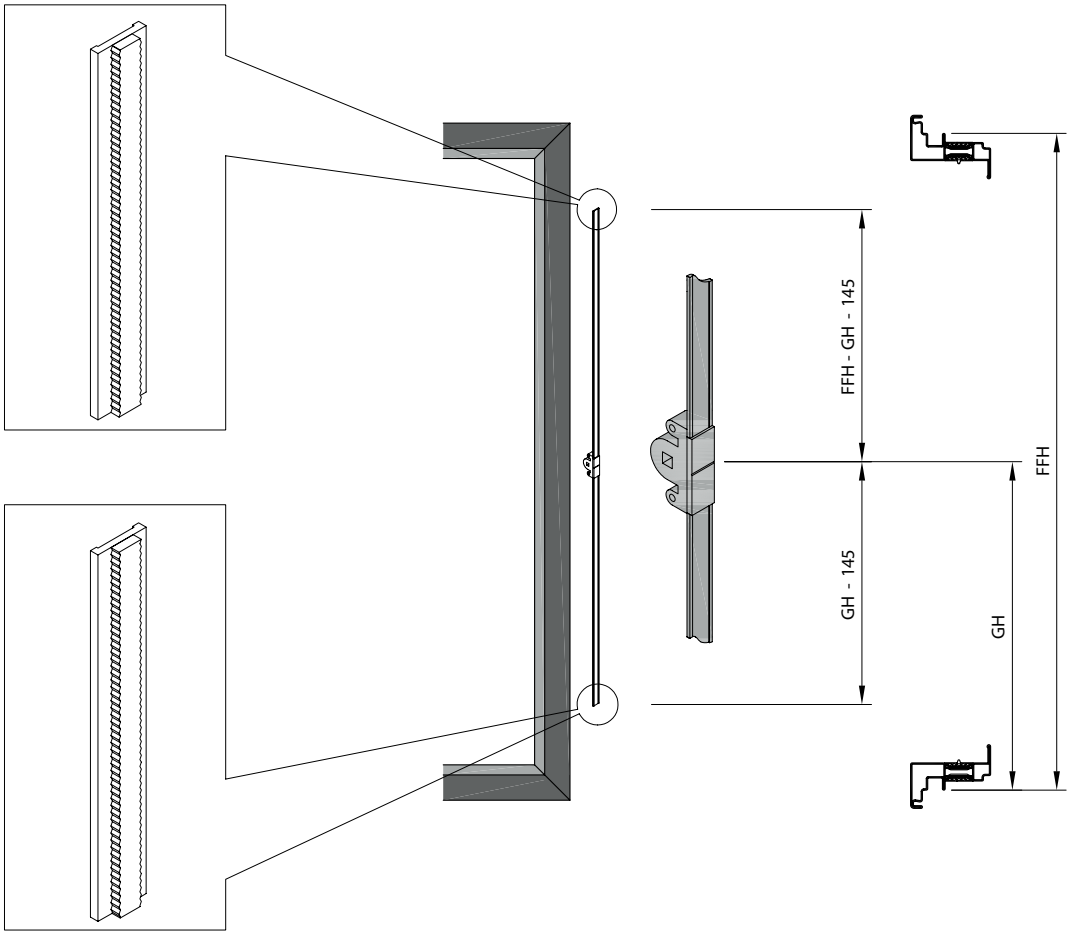




Ablängen mit Säge und Einsatz mit Verbindungslasche

Couper à la longueur requise avec une scie et monter avec une plaque de liaison

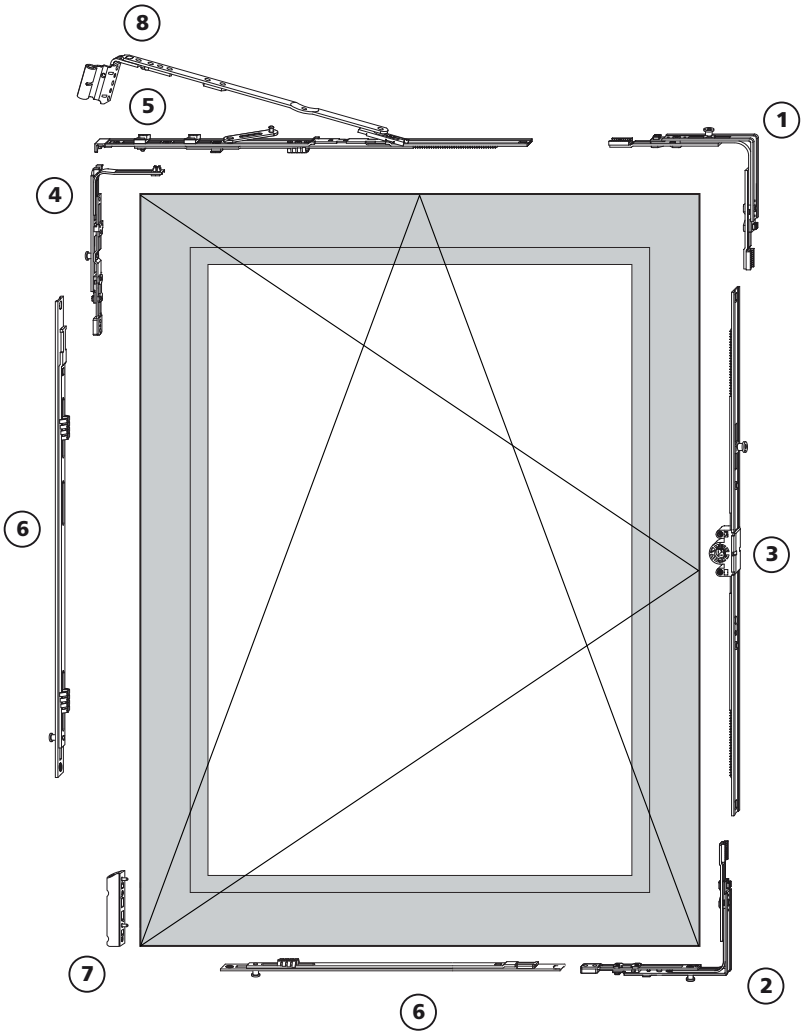
Cut to length with saw and use with connecting link



Beschlagseinbau
1-flügeliges Fenster
Einbauablauf
(Vorschlag)

Montage de la quincaillerie
Fenêtre à 1 vantail
Ordre de montage
(proposition)

Installation of the fittings
Window 1 leaf
Installation process
(proposal)



1. Eckumlenkung / Transmission équerre / Corner drive
2. Eckumlenkung / Transmission équerre / Corner drive
3. DK-Getriebe / Cremone OB / Tilt-turn drive
4. Eckumlenkung Axer / Renvoi d'angle de compas / Stay corner drive
5. Axerstulp / Têtière de compas / Sash stay guide
6. Mittelverschluss, senkrecht und waagerecht
   Extension horizontale et verticale
   Extension horizontal and vertical
7. Eckband K / Pivot d'angle K / Corner hinge K
8. Axerarm / Compas / Sash stay arm

Beschlagseinbau 1-flügeliges Fenster

Kippweiten für Dreh-/Drehkippflügel

Kippweite reduziert (80 mm)

Zwingend für Flügel mit FFB: 310 – 410 mm

Montage de la quincaillerie Fenêtre à 1 vantail

Plage de basculement pour vantail à ouverture à la française/oscillo-battant

Plage de basculement réduite (80 mm)

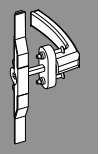
Obligatoire pour vantail avec FFB: 310 – 410 mm

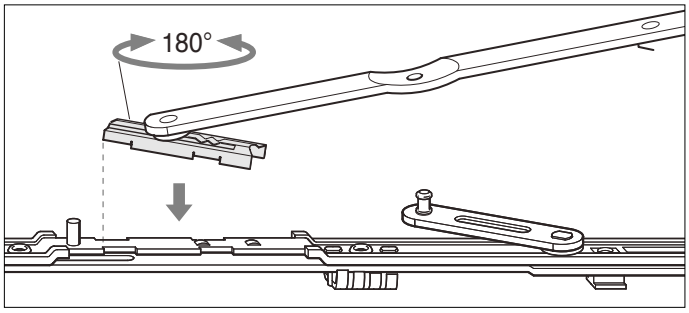
Installation of the fittings Window 1 leaf

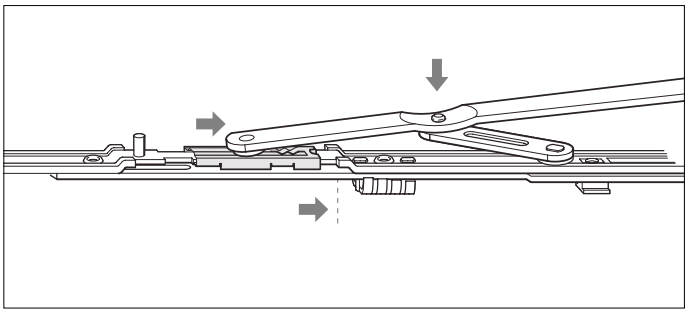
Tilt distances for turn/turn-tilt leaves

Reduced tilt distances (80 mm)

Required for leaves with FFB: 310 – 410 mm



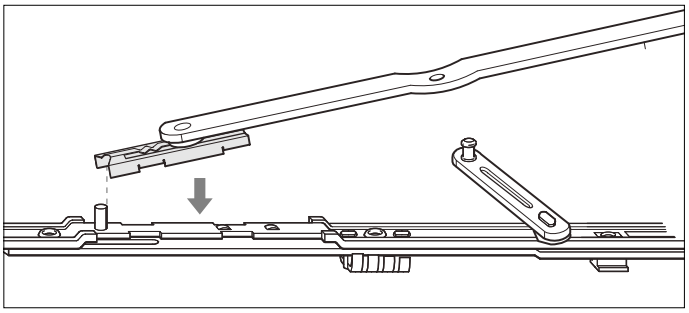


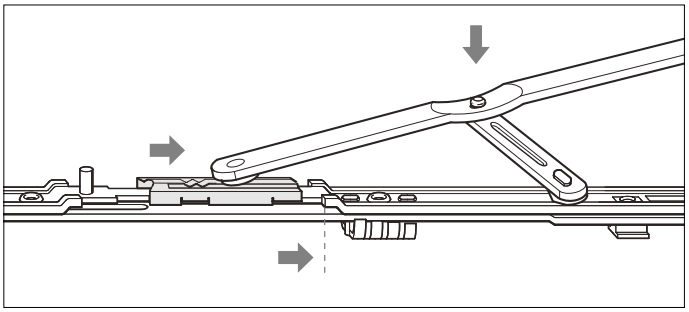


Kippweite Standard (140 mm)

Plage de basculement standard (140 mm)

Standard tilt distances (140 mm)





Beschlagseinbau 1-flügeliges Fenster

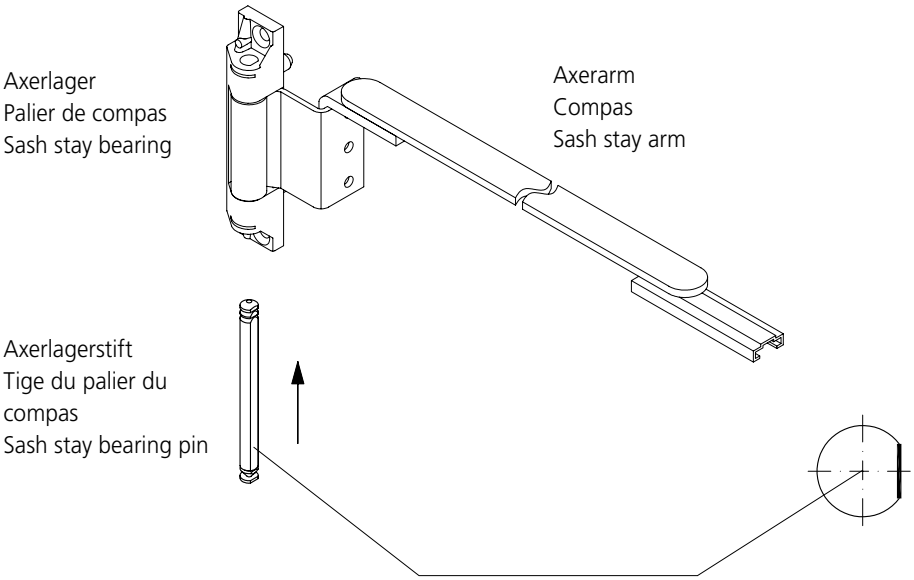
ACHTUNG! Fasung des Axerlagerstiftes beim Einführen in das Axerlager berücksichtigen!

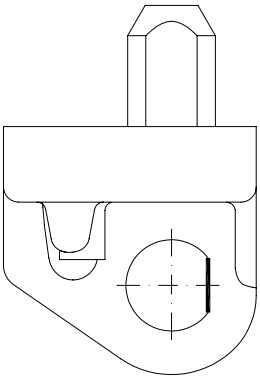
Montage de la quincaillerie Fenêtre à 1 vantail

ATTENTION! Faire attention au sens de montage de la tige du palier de compas lors de l'introduction dans le palier!

Installation of the fittings Window 1 leaf

ATTENTION! Pay attention to the mount of the sash stay bearing pin when inserting it into the sash stay bearing!

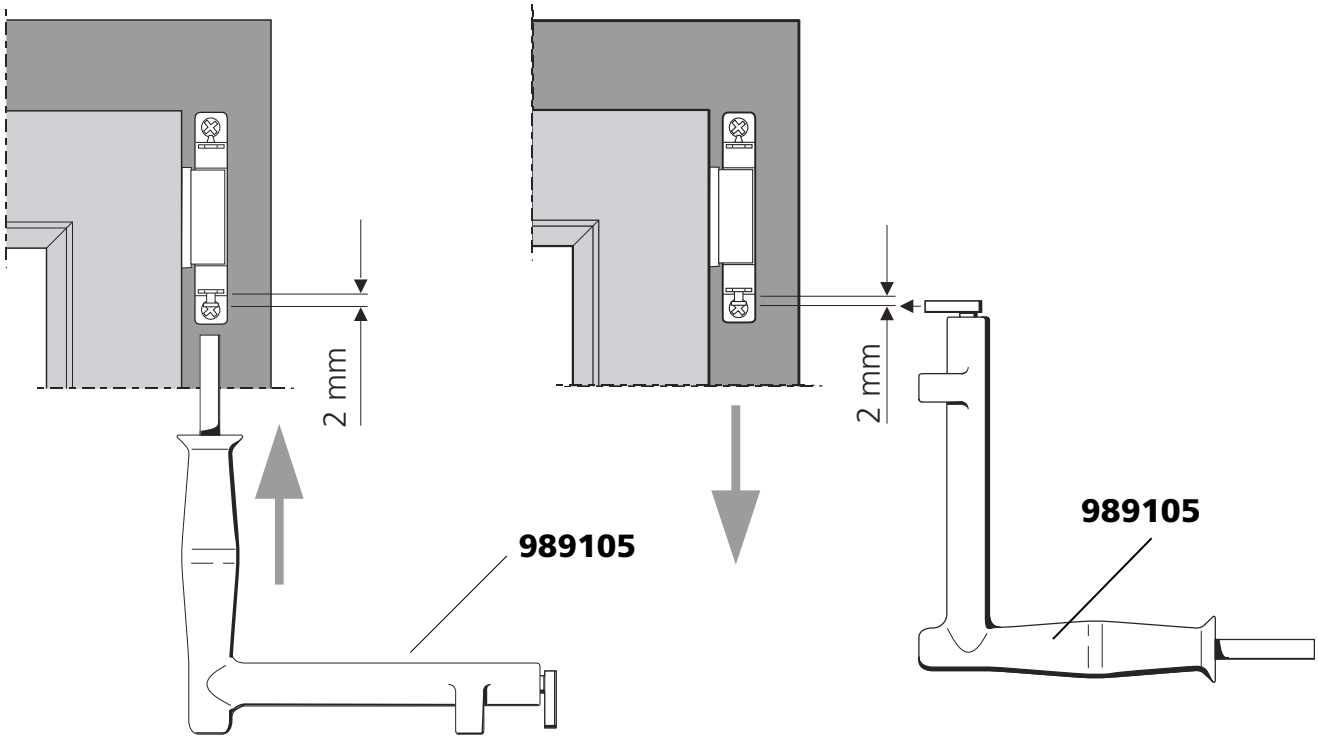




Einhängen des Flügels
Axerlagerstift nur in Verschlussstellung einschiebbar

Accrochage du vantail
Tige du palier de compas pouvant seulement être introduite en position de fermeture

Mounting the leaf
The sash stay bearing pin can only be inserted in lock position



Beschlagseinbau 1-flügeliges Fenster

Umstellung der Öffnungsart von Drehkipp auf Dreh.

Die Änderung der Funktion von Drehkipp auf Dreh wird mit Hilfe des Hubbegrenzers ausgeführt.
Dieser wird beim Schliesszapfen der unteren Eckumlenkung eingesetzt.
Somit kann auch jederzeit die Funktion von Dreh auf Drehkipp durch Entfernen des Hubbegrenzers zurückgestellt werden.

Montage de la quincaillerie Fenêtre à 1 vantail

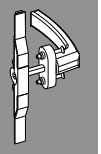
Commutation du type d'ouverture - ouverture oscillo-battant sur ouverture à la française.

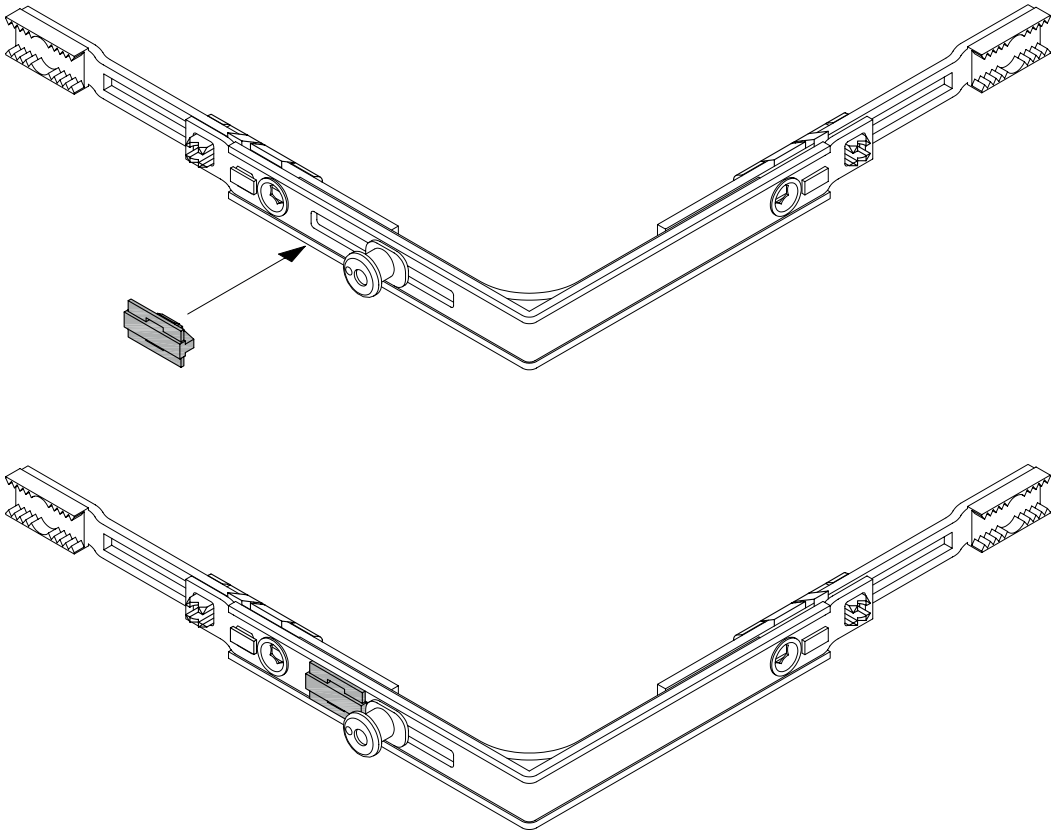
La modification de la fonction ouverture oscillo-battant/ouverture à la française est exécutée à l'aide du limitateur de course.
Celui-ci est monté dans le tenon de fermeture du renvoi d'angle inférieur.
On peut ainsi régler à tout moment l'ouverture à la française sur l'ouverture oscillo-battant par retrait du limitateur de course.

Installation of the fittings Window 1 leaf

Switching the opening mode from turn-tilt to turn.

Switching the function from turn-tilt to turn is done with the help of the travel restrictor.
It is inserted into the pivot lock in the lower corner guide.
Therefore, the function can be reset from turn to tilt-turn at any time by removing the travel restrictor.

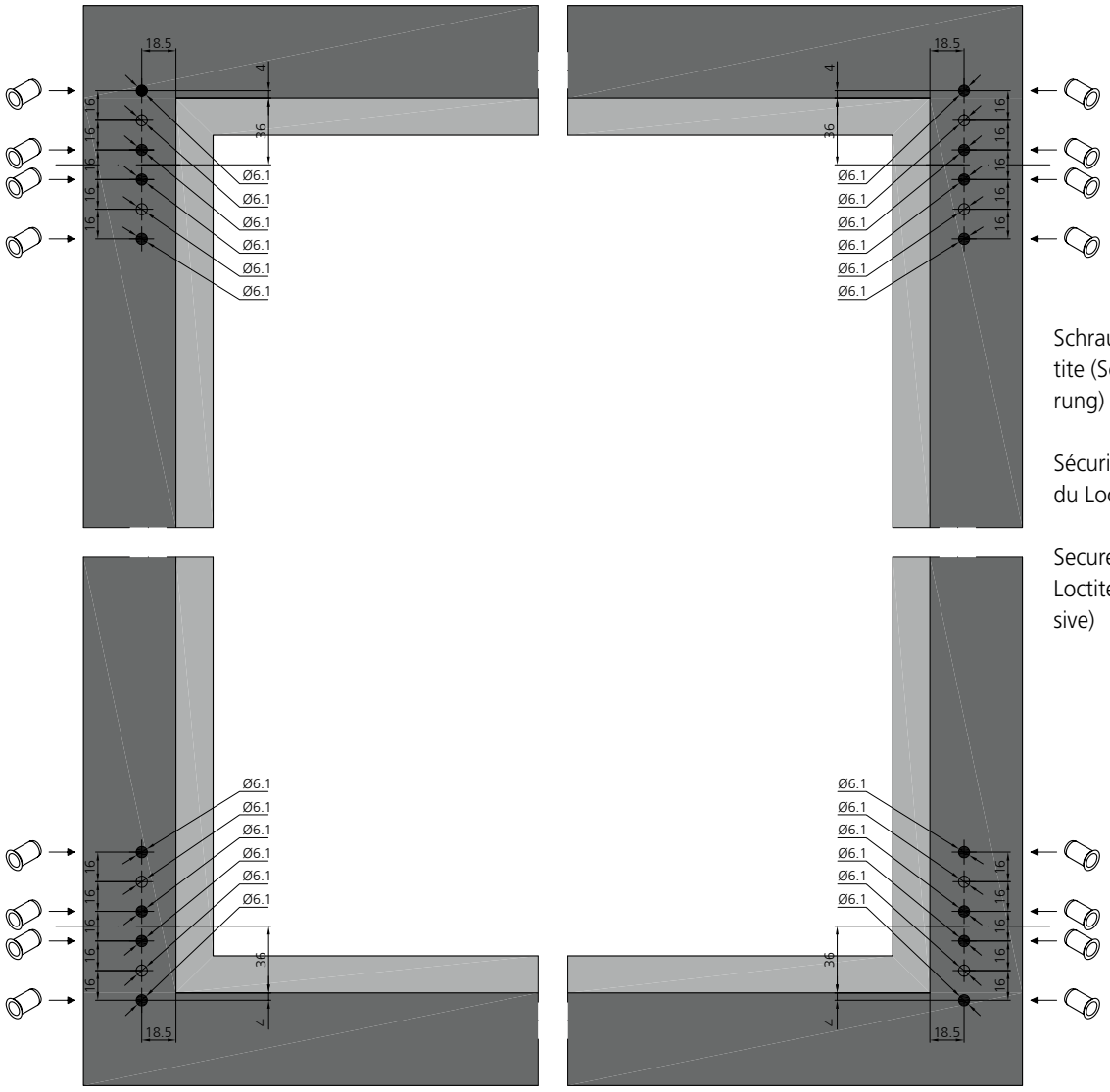




Beschlagseinbau 2-flügeliges Fenster

Montage de la quincaillerie Fenêtre à 2 vantaux

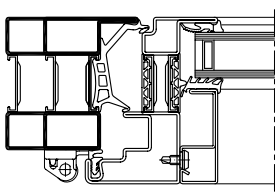
Installation of the fittings Window 2 leaves

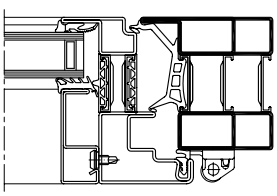


Schrauben mit Loctite (Schraubensicherung) sichern

Sécuriser les vis avec du Loctite

Secure screw with Loctite (screw adhesive)

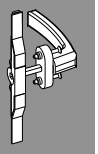


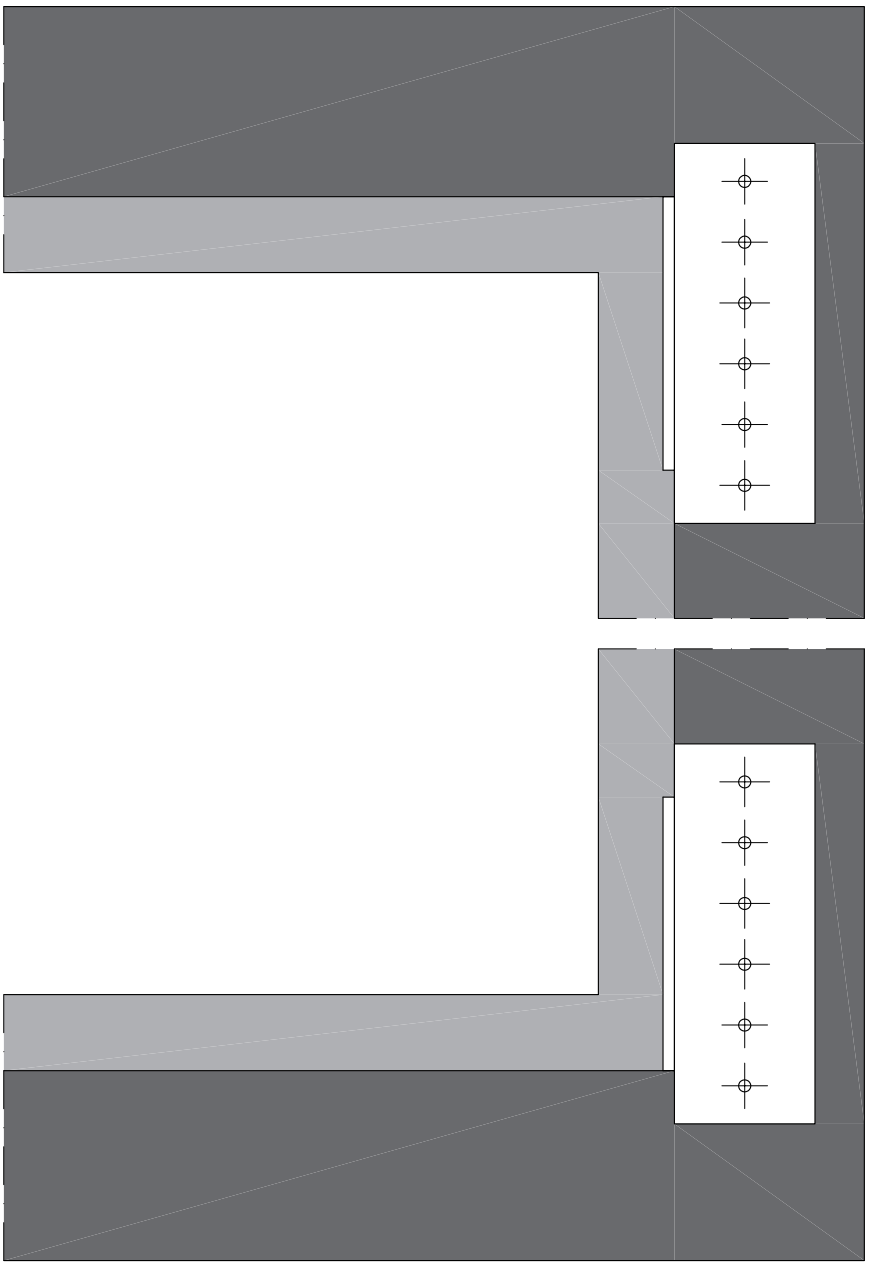


Beschlagseinbau 2-flügeliges Fenster RC2

Montage de la quincaillerie Fenêtre à 2 vantaux RC2

Installation of the fittings Window 2 leaves RC2

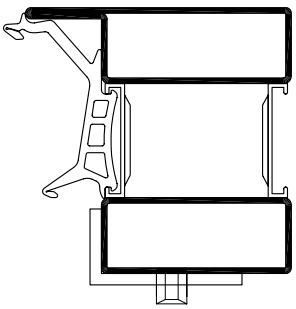




Bohrlehre **Art.Nr 989103**
zu Axer- und Ecklager

Gabarit de perçage **art no 989103** pour
palier dàngle et palier de compas

Drilling template **art. no. 989103** for
sash stay bearing and corner pivot rest



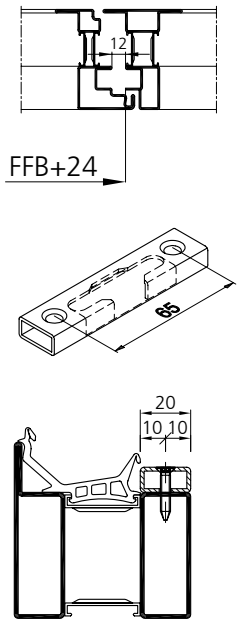


Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Beschlagseinbau 2-flügeliges Fenster RC2

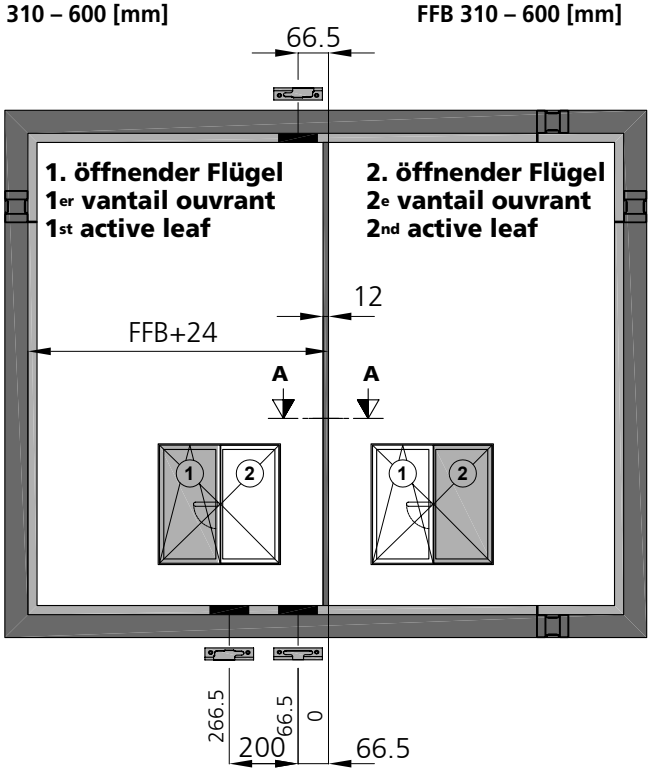
Anordnung der Schliessstücke
1. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Flügelfalz-Breite
FFB 310 – 600 [mm]

A-A



Montage de la quincaillerie Fenêtre à 2 vantaux RC2

Disposition des gâches
1er vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail
FFB 310 – 600 [mm]

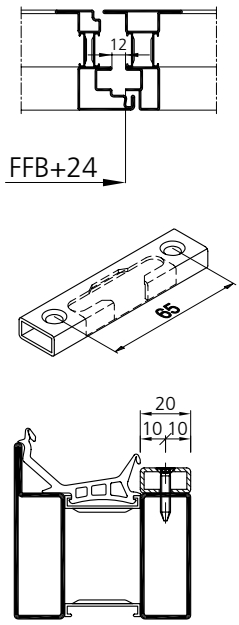


Installation of the fittings Window 2 leaves RC2

Arrangement of the strikers
1st active leaf on 2 leaved windows in dependence on the width of the leaf rebate
FFB 310 – 600 [mm]

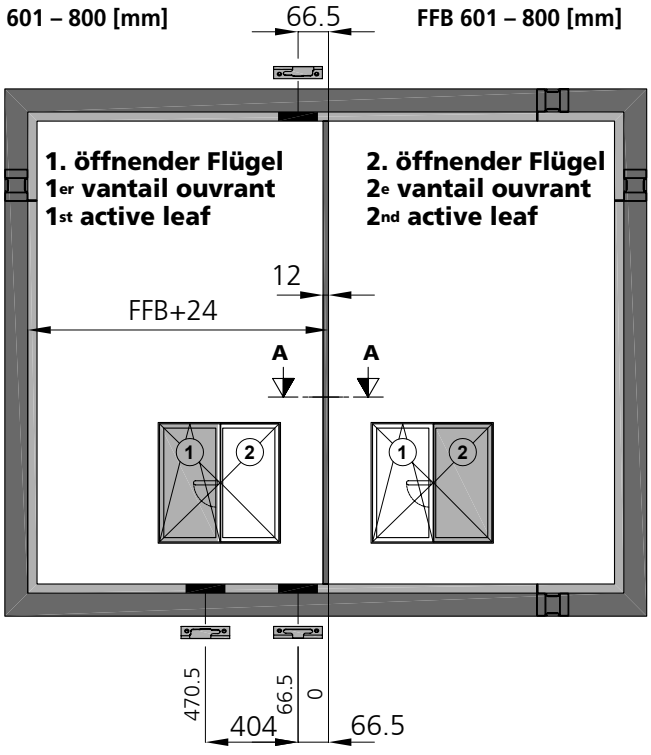
Anordnung Schliessstücke
1. öffnender Flügel
FFB 601 – 800 [mm]

A-A



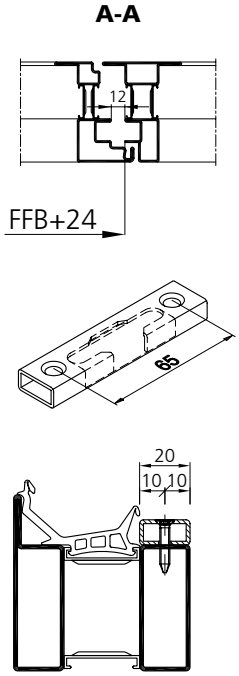
Disposition des gâches
1er vantail ouvrant
FFB 601 – 800 [mm]

Arrangement of the strikers
1st active leaf
FFB 601 – 800 [mm]

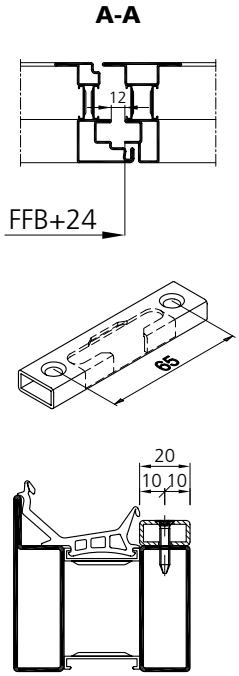


Beschlagseinbau 2-flügeliges Fenster RC2

Anordnung der Schliessstücke
1. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Flügelfalz-Breite
FFB 801 – 1000 [mm]

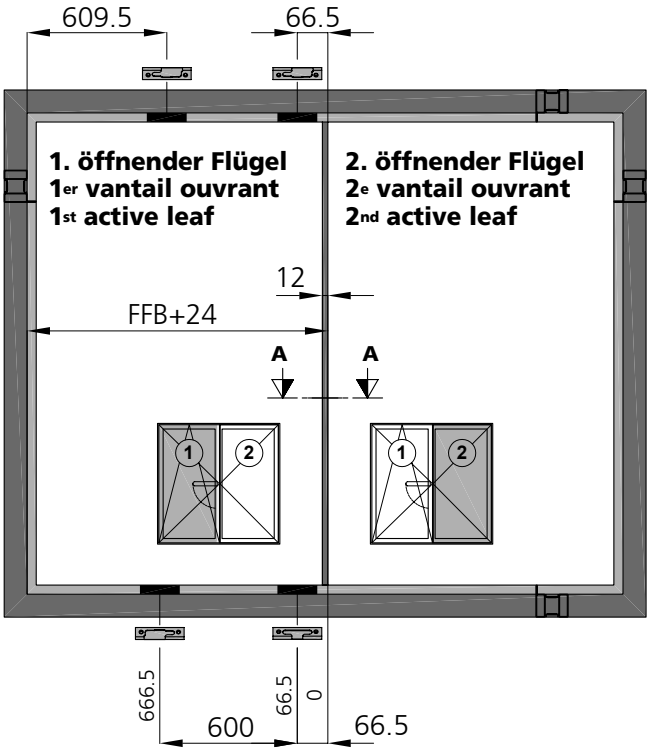


Anordnung Schliessstücke
1. öffnender Flügel
FFB 1001 – 1200 [mm]

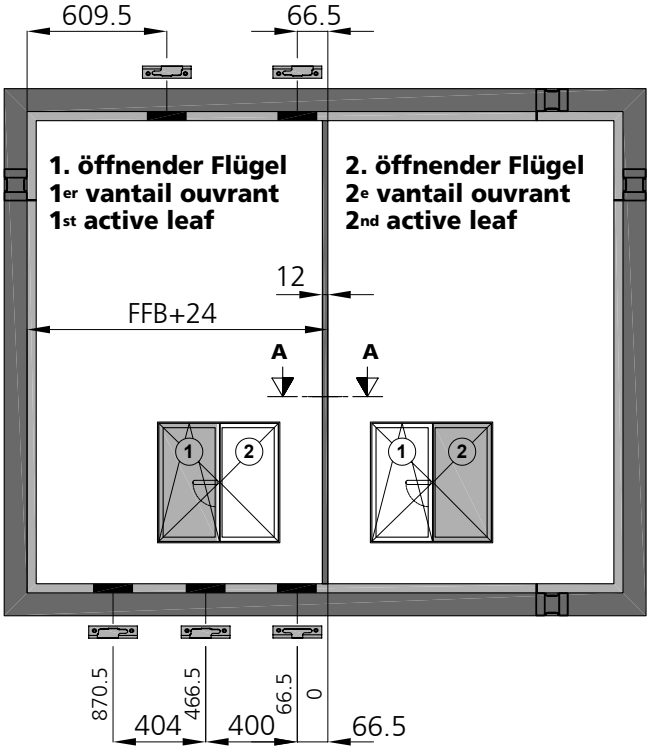


Montage de la quincaillerie Fenêtre à 2 vantaux RC2

Disposition des gâches
1er vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail
FFB 801 – 1000 [mm]



Disposition des gâches
1er vantail ouvrant
FFB 1001 – 1200 [mm]



Installation of the fittings Window 2 leaves RC2

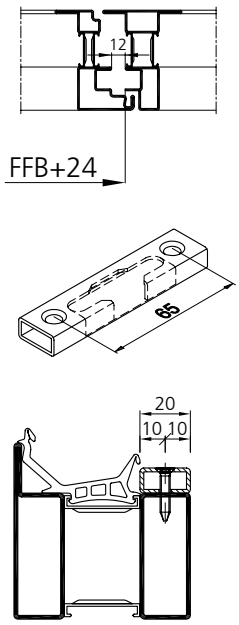
Arrangement of the strikers
1st active leaf on 2 leaved windows in dependence on the width of the leaf rebate
FFB 801 – 1000 [mm]

Arrangement of the strikers
1st active leaf
FFB 1001 – 1200 [mm]

Beschlagseinbau 2-flügeliges Fenster RC2

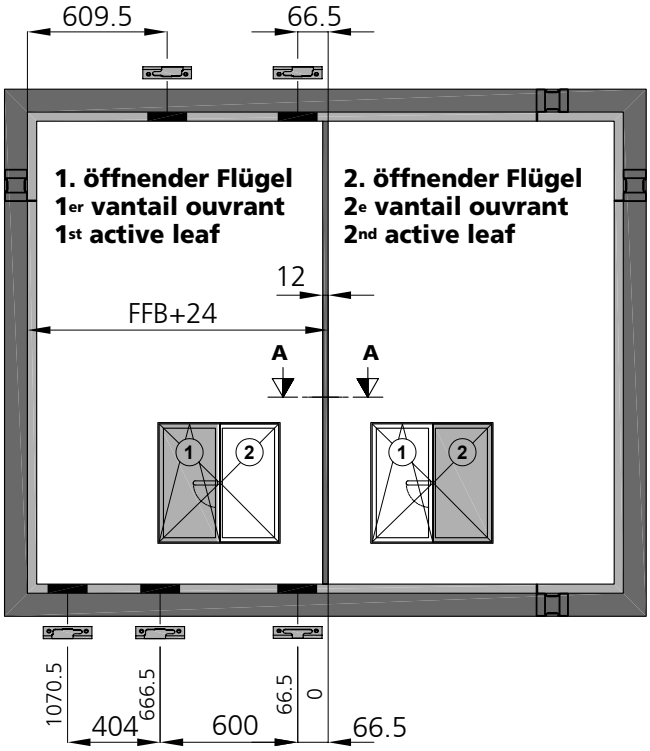
Anordnung der Schliessstücke
1. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Flügelfalz-Breite
FFB 1201 – 1400 [mm]

A-A



Montage de la quincaillerie Fenêtre à 2 vantaux RC2

Disposition des gâches
1er vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail
FFB 1201 – 1400 [mm]

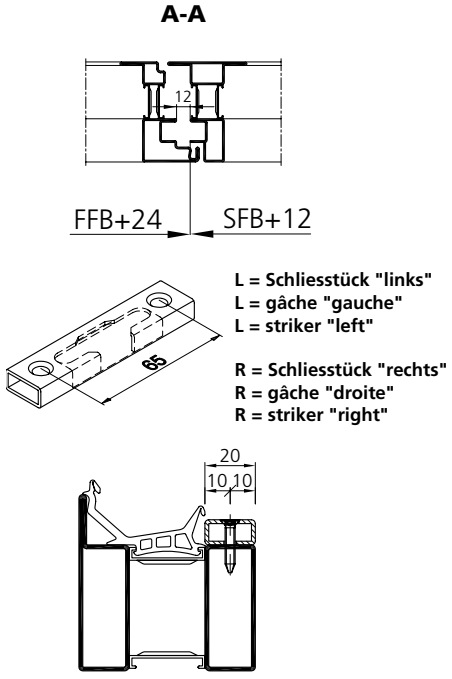


Installation of the fittings Window 2 leaves RC2

Arrangement of the strikers
1st active leaf on 2 leaved windows in dependence on the width of the leaf rebate
FFB 1201 – 1400 [mm]

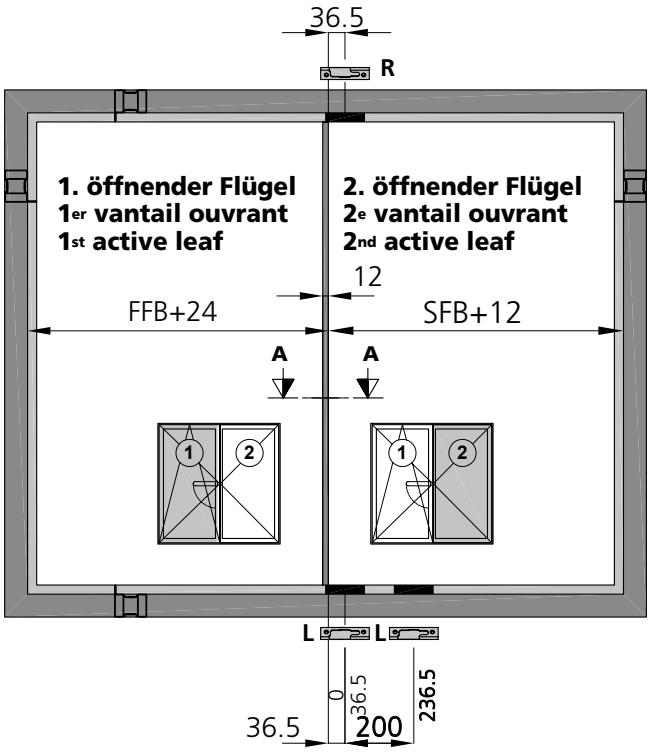
Beschlagseinbau 2-flügeliges Fenster

Anordnung der Schliessstücke
2. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Stulpfalz-Breite
SFB 310 – 600 [mm]



Montage de la quincaillerie Fenêtre à 2 vantaux

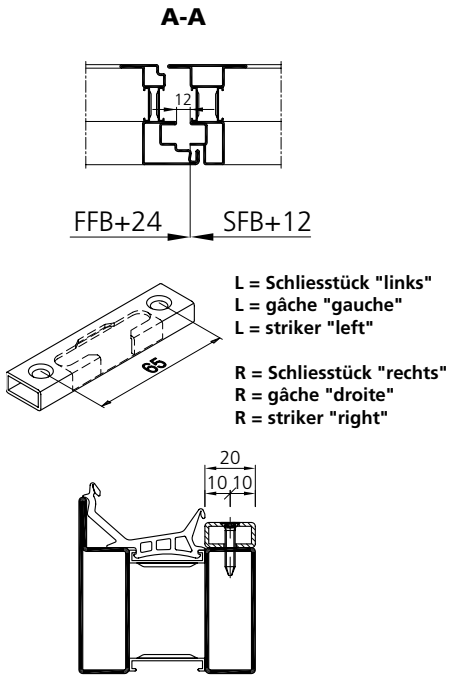
Disposition des gâches
2e vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail semi-fixe
SFB 310 – 600 [mm]



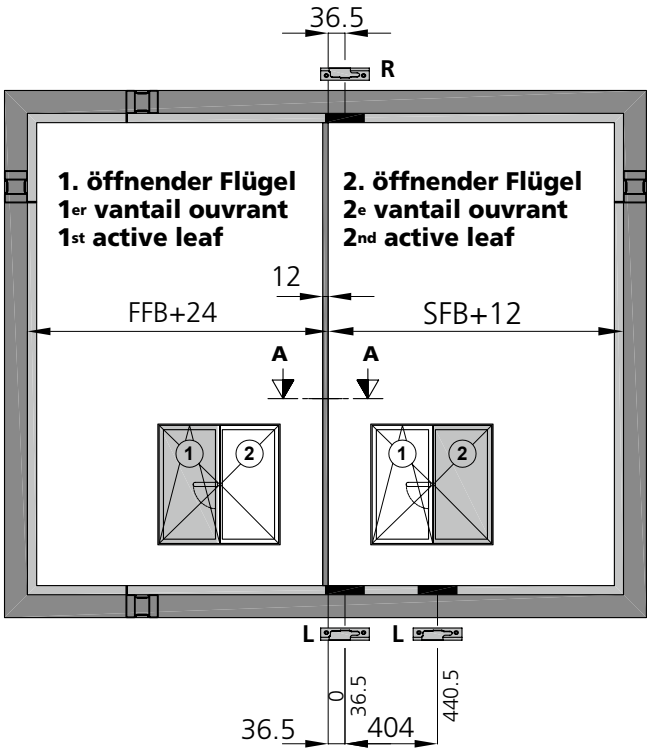
Installation of the fittings Window 2 leaves

Arrangement of the strikers
2nd active leaf on 2 leaved windows in dependence on the width of the double sash rebate **SFB 310 – 600 [mm]**

Anordnung Schliessstücke
2. öffnender Flügel
SFB 601 – 800 [mm]



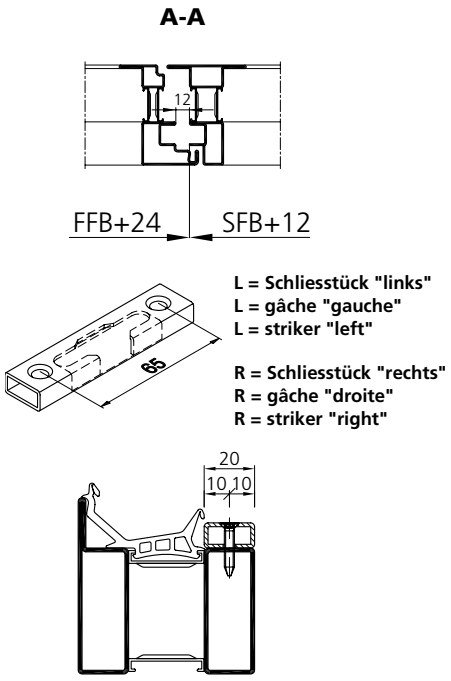
Disposition des gâches
2e vantail ouvrant
SFB 601 – 800 [mm]



Arrangement of the strikers
2nd active leaf
SFB 601 – 800 [mm]

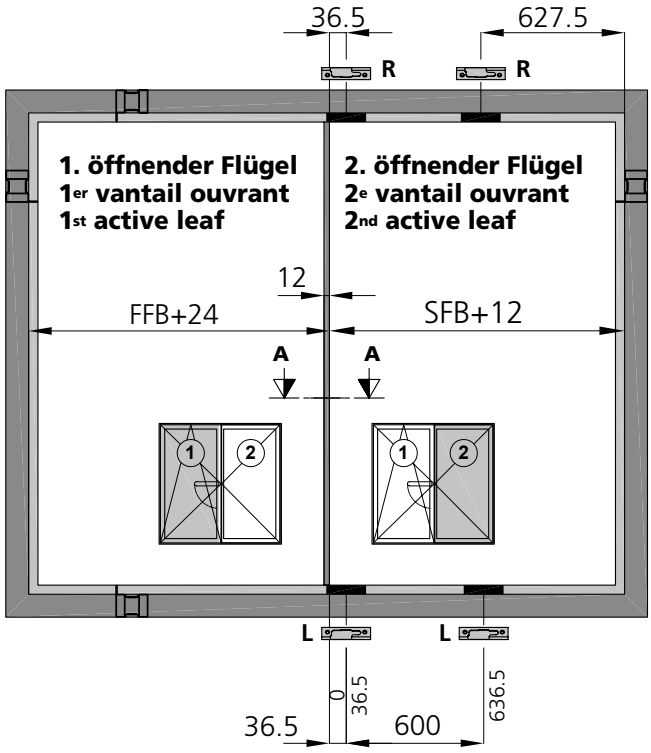
Beschlagseinbau 2-flügeliges Fenster

Anordnung der Schliessstücke
2. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Stulpfalz-Breite
SFB 801 – 1000 [mm]



Montage de la quincaillerie Fenêtre à 2 vantaux

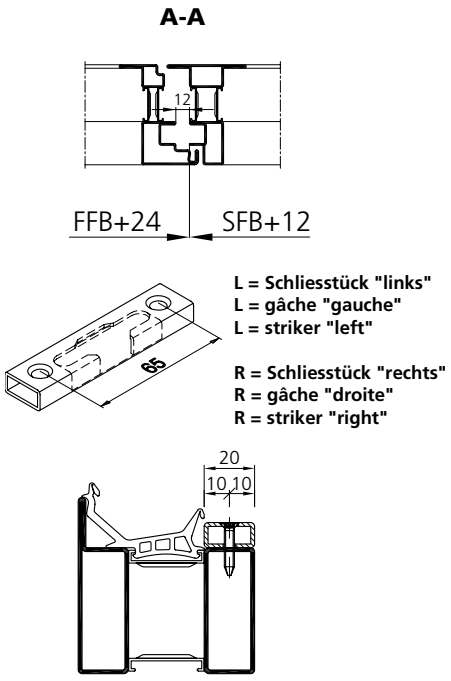
Disposition des gâches
2e vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail semi-fixe
SFB 801 – 1000 [mm]



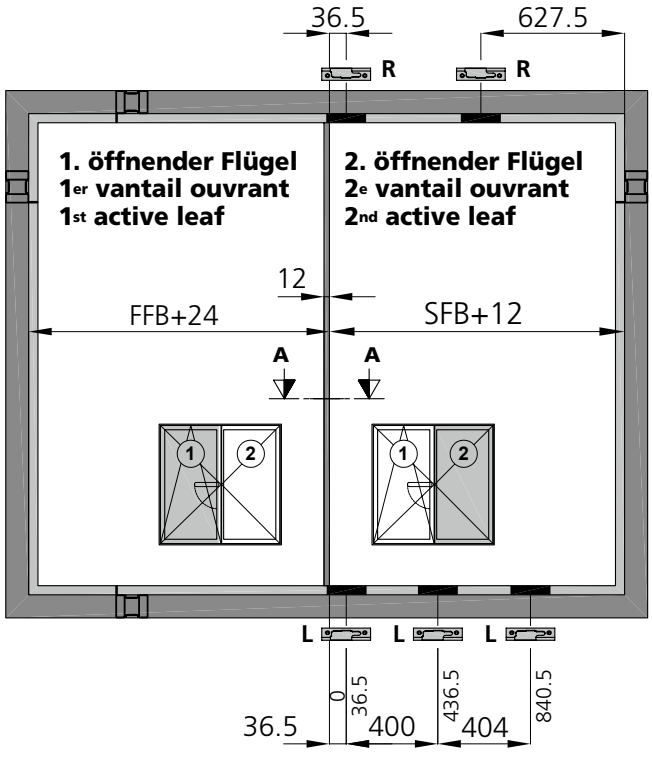
Installation of the fittings Window 2 leaves

Arrangement of the strikers
2nd active leaf on 2 leaved windows in dependence on the width of the double sash rebate **SFB 801 – 1000 [mm]**

Anordnung Schliessstücke
2. öffnender Flügel
SFB 1001 – 1200 [mm]



Disposition des gâches
2e vantail ouvrant
SFB 1001 – 1200 [mm]



Arrangement of the strikers
2nd active leaf
SFB 1001 – 1200 [mm]

Beschlagseinbau 2-flügeliges Fenster

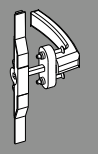
Anordnung der Schliessstücke
2. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Stulpfalz-Breite
SFB 1201 – 1400 [mm]

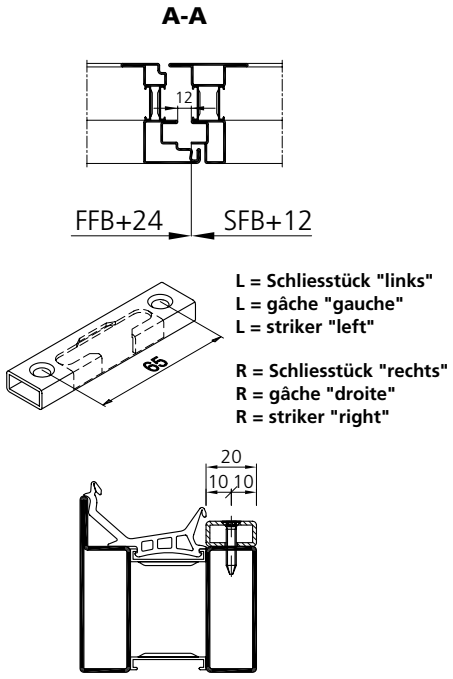
Montage de la quincaillerie Fenêtre à 2 vantaux

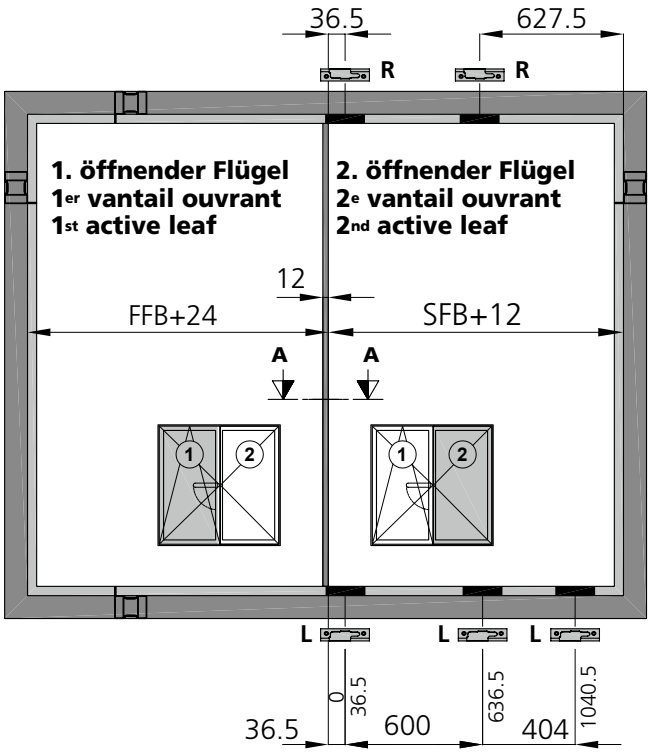
Disposition des gâches
2e vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail semi-fixe
SFB 1201 – 1400 [mm]

Installation of the fittings Window 2 leaves

Arrangement of the strikers
2nd active leaf on 2 leaved windows in dependence on the width of the double sash rebate **SFB 1201 – 1400 [mm]**

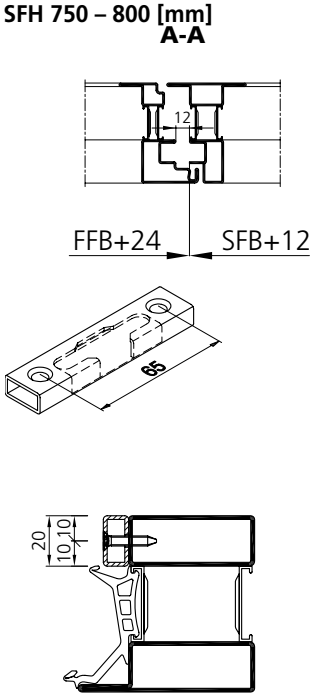






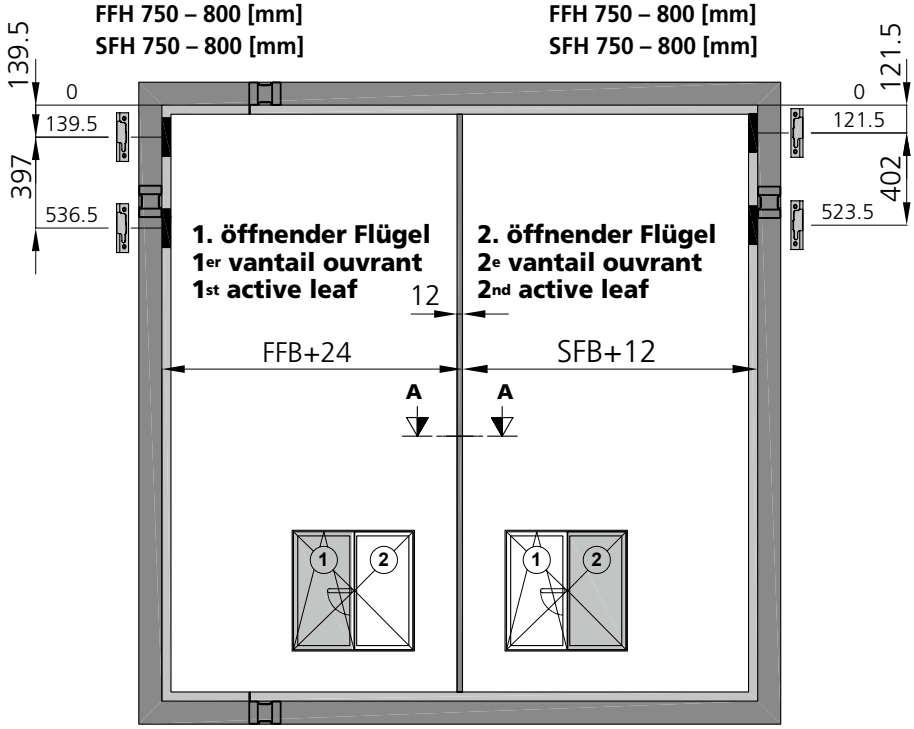
Beschlagseinbau 2-flügeliges Fenster

Anordnung der Schliessstücke
bandseitig 2-flg. in Abhängigkeit der Flügelfalz-Höhe
FFH 750 – 800 [mm]
SFH 750 – 800 [mm]



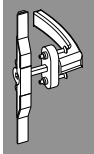
Montage de la quincaillerie Fenêtre à 2 vantaux

Disposition des gâches
Côté paumelle 2 vantaux selon la hauteur de la feuillure du vantail
FFH 750 – 800 [mm]
SFH 750 – 800 [mm]

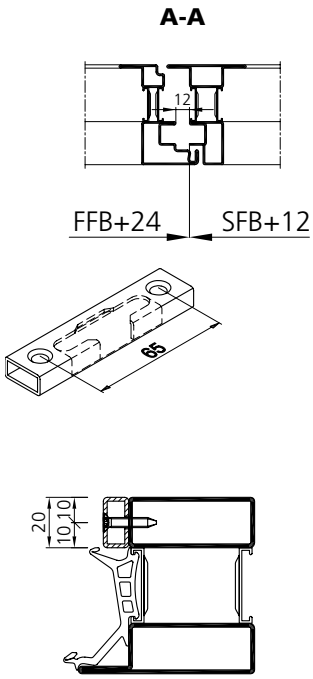


Installation of the fittings Window 2 leaves

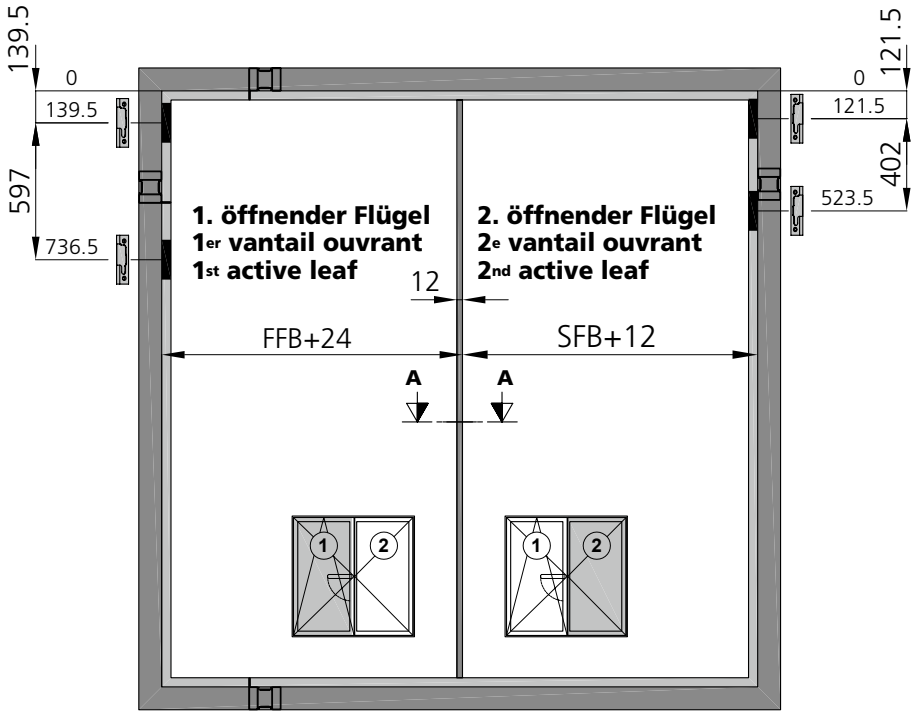
Arrangement of the strikers
Hinge side, 2 leaved in dependence on the height of the leaf rebate
FFH 750 – 800 [mm]
SFH 750 – 800 [mm]



Anordnung Schliessstücke
FFH 801 – 900 [mm]
SFH 801 – 900 [mm]



Disposition des gâches
FFH 801 – 900 [mm]
SFH 801 – 900 [mm]



Arrangement of the strikers
FFH 801 – 900 [mm]
SFH 801 – 900 [mm]

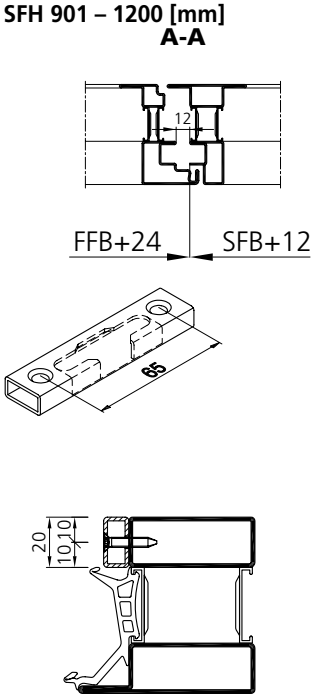
Schliessstücke auf Getriebeseite sind fix auf Stulpgetriebe montiert

Les gâches du côté crémone sont montées de façon fixe sur la crémone

Keeps on the drive side are firmly mounted on the face plate drive

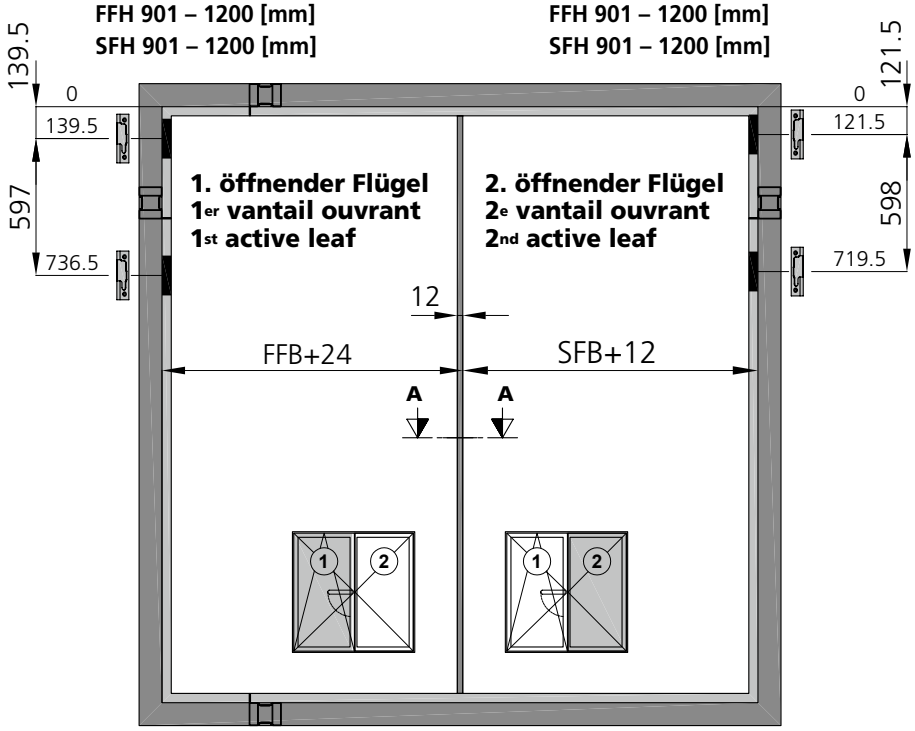
Beschlagseinbau 2-flügeliges Fenster

Anordnung der Schliessstücke
bandseitig 2-flg. in Abhängigkeit der Flügelfalz-Höhe
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]



Montage de la quincaillerie Fenêtre à 2 vantaux

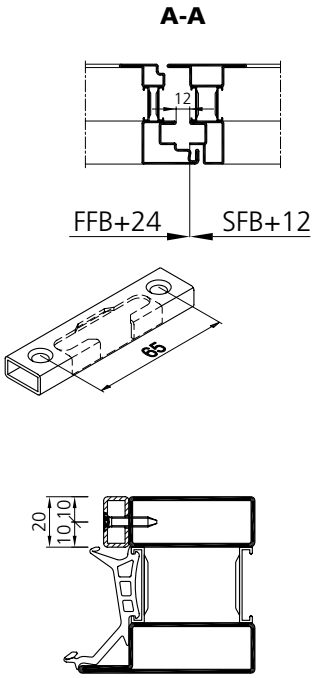
Disposition des gâches
Côté paumelle 2 vantaux selon la hauteur de la feuillure du vantail
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]



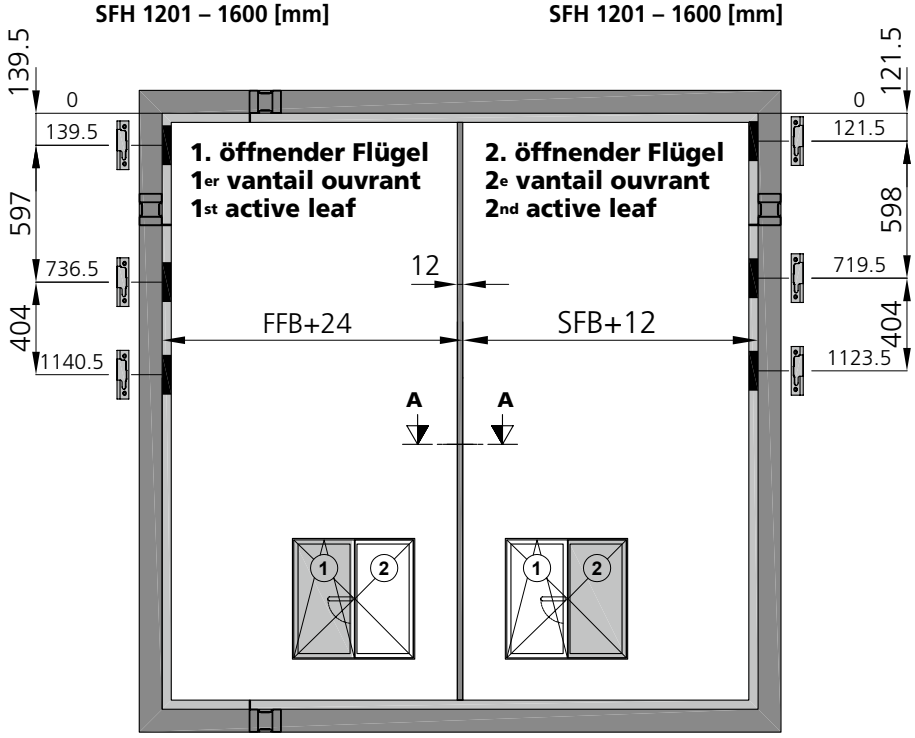
Installation of the fittings Window 2 leaves

Arrangement of the strikers
Hinge side, 2 leaved in dependence on the height of the leaf rebate
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]

Anordnung Schliessstücke
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]



Disposition des gâches
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]



Arrangement of the strikers
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]

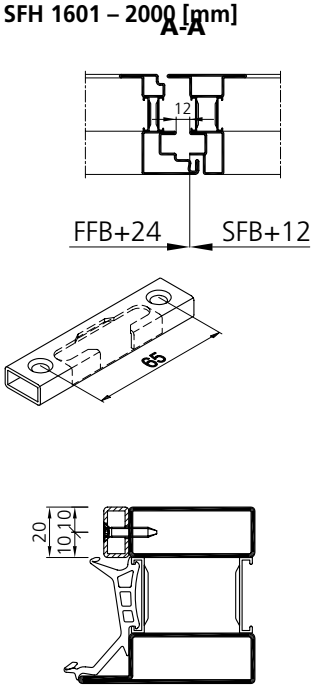
Schliessstücke auf Getriebeseite sind fix auf Stulpgetriebe montiert

Les gâches du côté crémone sont montées de façon fixe sur la crémone

Keeps on the drive side are firmly mounted on the face plate drive

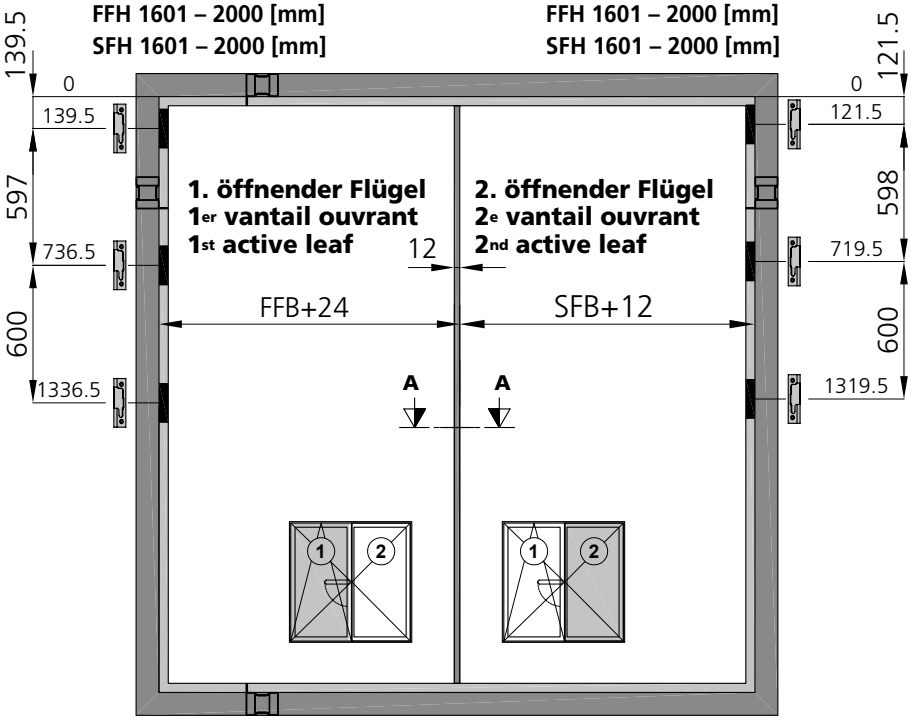
Beschlagseinbau 2-flügeliges Fenster

Anordnung der Schliessstücke
bandseitig 2-flg. in Abhängigkeit der Flügelfalz-Höhe
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]



Montage de la quincaillerie Fenêtre à 2 vantaux

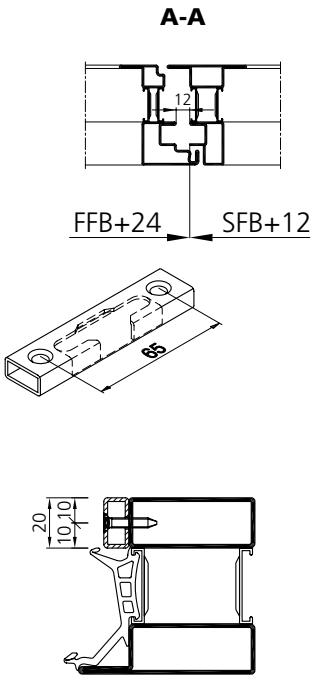
Disposition des gâches
Côté paumelle 2 vantaux selon la hauteur de la feuillure du vantail
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]



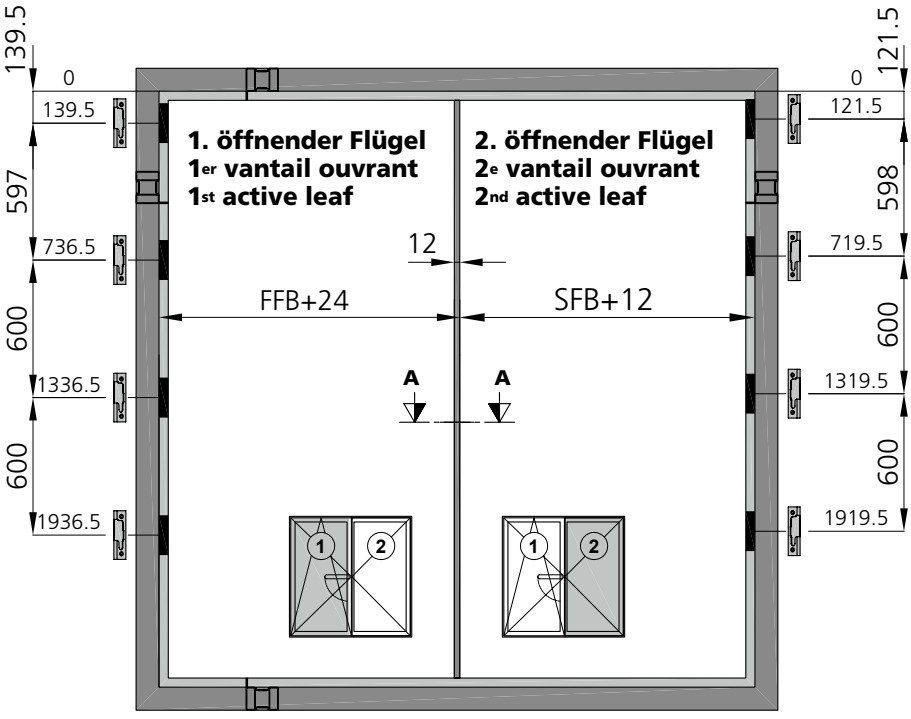
Installation of the fittings Window 2 leaves

Arrangement of the strikers
Hinge side, 2 leaved in dependence on the height of the leaf rebate
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]

Anordnung Schliessstücke
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]



Disposition des gâches
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]



Arrangement of the strikers
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]

Schliessstücke auf Getriebeseite sind fix auf Stulpgetriebe montiert

Les gâches du côté crémone sont montées de façon fixe sur la crémone

Keeps on the drive side are firmly mounted on the face plate drive

Beschlagseinbau 2-flügeliges Fenster

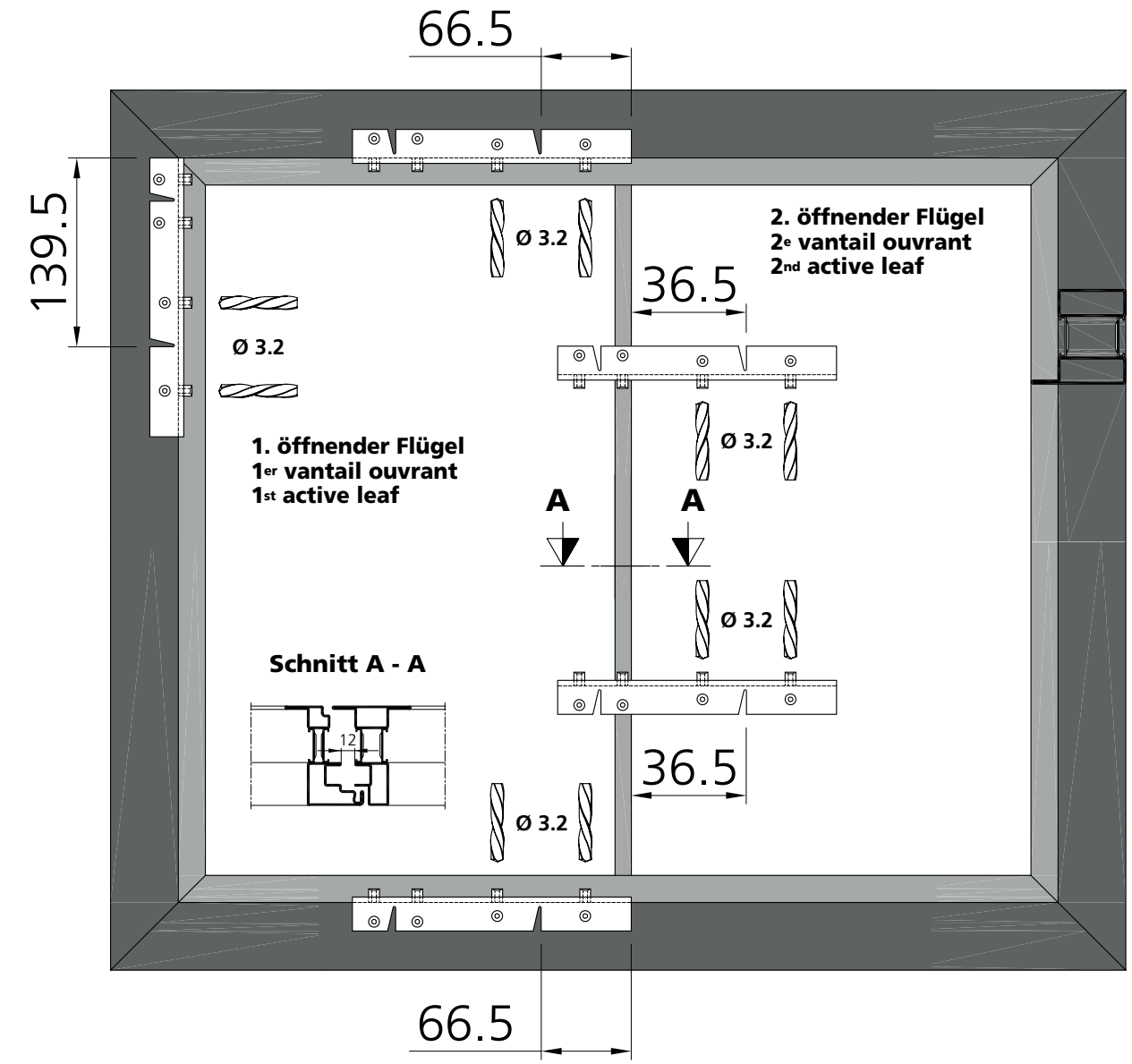
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

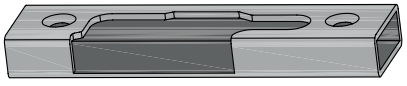
Bohrlehre **Art. Nr. 989109**

Gabarit de perçage **art. no. 989109**

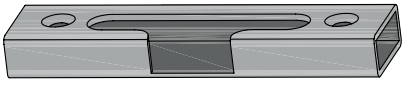
Drilling template **art. no. 989109**



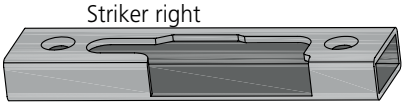
Schliessstück links
Gâche gauche
Striker left

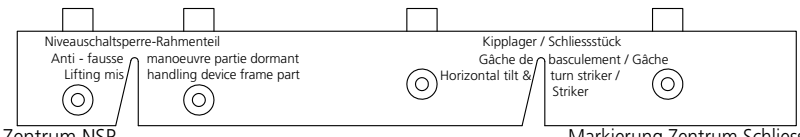


Kipplager
Gâche de basculement
Tilt-turn striker



Schliessstück rechts
Gâche droite
Striker right





Markierung Zentrum NSP
Marque gâche AFM
Marking on the center LMD

Markierung Zentrum Schliessblech /Kipplager
Marque centre gâche / gâche de basculement
Marking on the center of the striker / the tilt-turn striker

Beschlagseinbau 2-flügeliges Fenster

- Schraube M4 x 21 (selbstfurchend)
- Bohrloch 3.2 mm
- Bei Edelstahlprofil muss das M4 Gewinde geschnitten werden. Alternative: Bohrloch auf 3.5 aufbohren, Schraube ohne M4 Gewindeschnitt einsetzen.

Bei jeder Verschraubung muss ein Distanzstück **927001** eingesetzt werden.

Montage de la quincaillerie Fenêtre à 2 vantaux

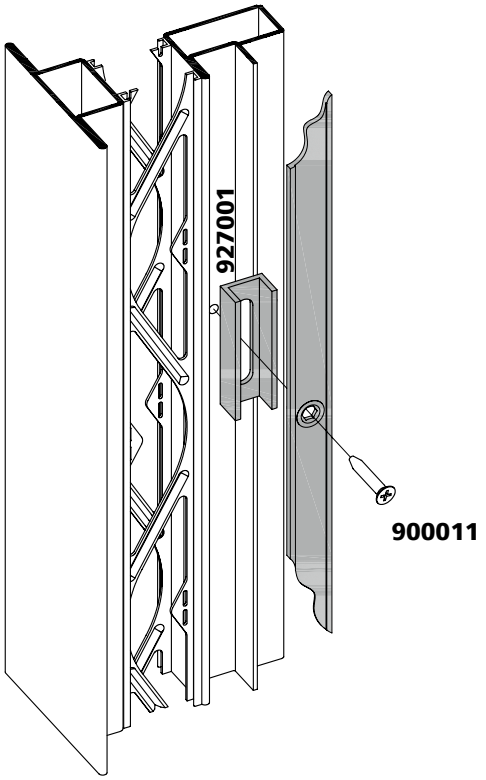
- Vis M4 x 21 (autotaraudeuse)
- Perçage 3.2 mm
- Avec le profilé en acier inox, la vis M4 doit être coupée. Alternative: agrandir le trou à 3.5, taraudage M4 pas necessaire.

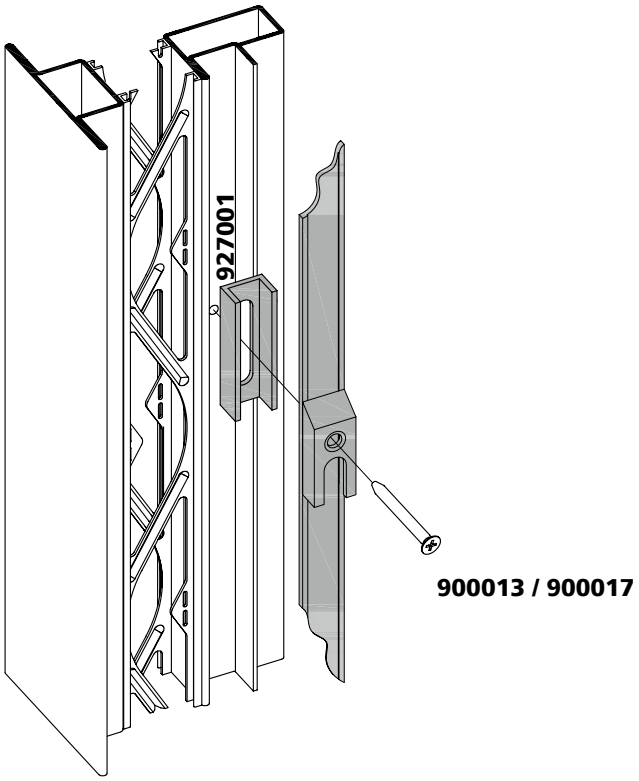
La pièce d'entretoise **927001** doit être insérée sous toutes les fixations et assemblages.

Installation of the fittings Window 2 leaves

- Screw M4 x 21 (self tapping)
- Drill hole 3.2 mm
- In stainless steel profiles, the M4 thread needs to be cut case. Alternative: drill out the drilling hole of 3.5, use screw without M4 thread.

The spacer **927001** must be placed under all screw connections.



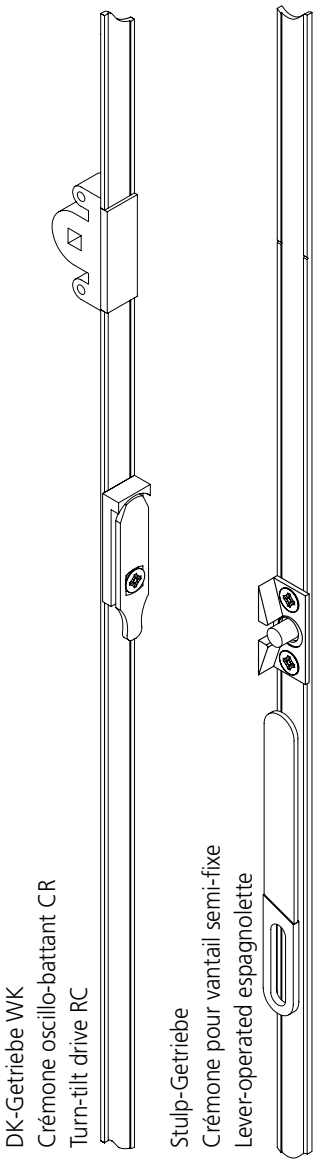


Beschlagseinbau
2-flügeliges Fenster
Niveau-Schaltsperre

Montage de la quincaillerie
Fenêtre à 2 vantaux
Anti-fausse manœuvre

Installation of the fittings
Window 2 leaves
Lifting mishandling device

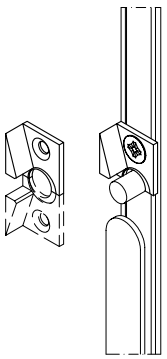
GH 376-800

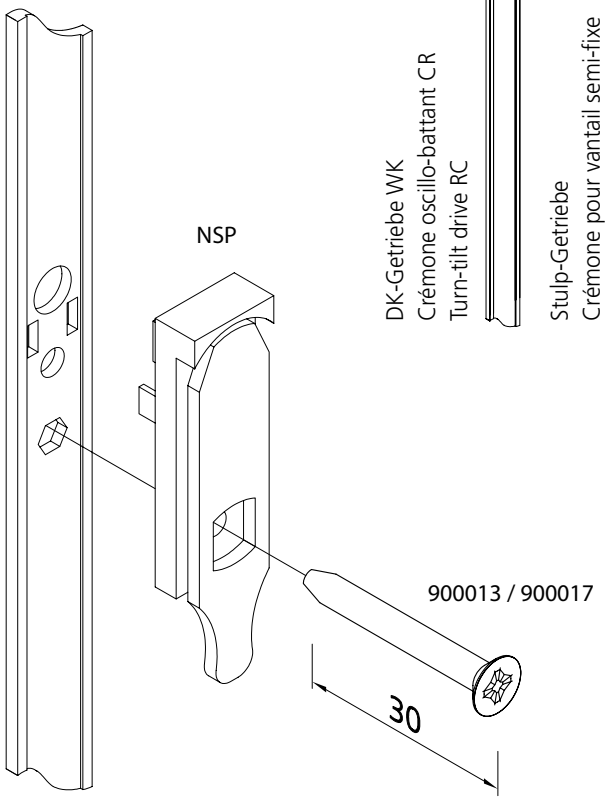


Niveauschaltsperre Stulpteil halbierbar (Kunststoff)

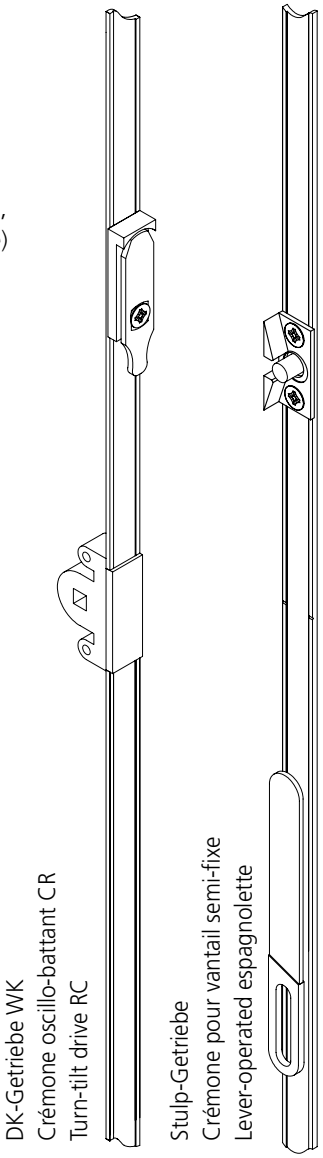
Anti-fausse manoeuvre, partie support, pouvant être divisée (matière plastique)

Lifting mishandling device, reducible by half (plastic)





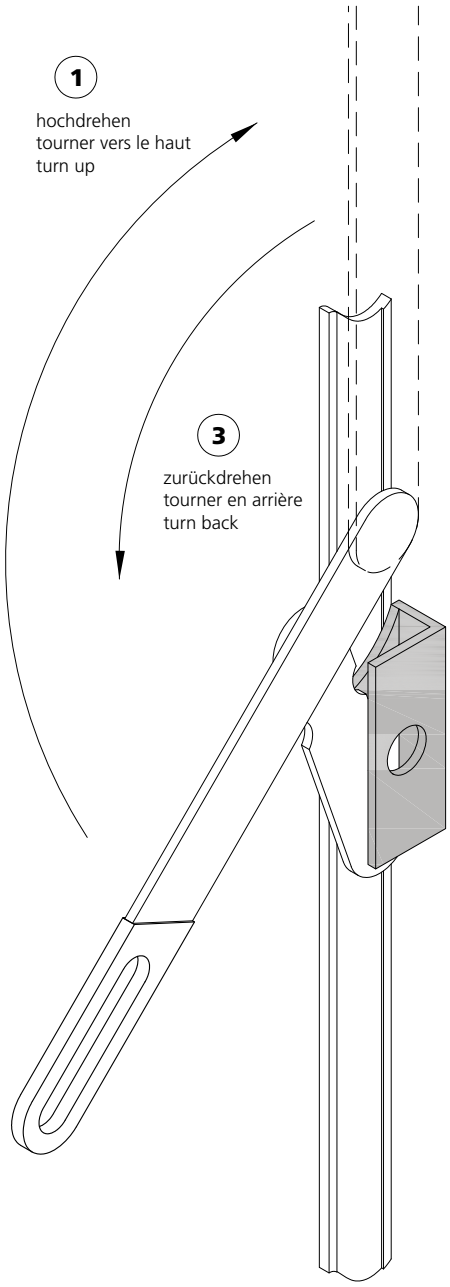
GH 801-1200



Beschlagseinbau
2-flügeliges Fenster
Montage Sicherungsbügel

Montage de la quincaillerie
Fenêtre à 2 vantaux
Montage etrier fixation crémone

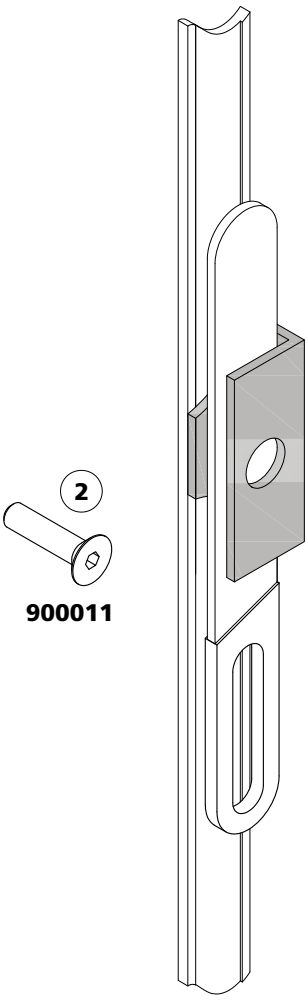
Installation of the fittings
Window 2 leaves
Mounting retainer clasp



2. öffnender Flügel passend zu
1. öffnendem Flügel DIN rechts

2ème vantail ouvrant adapté au
1er vantail ouvrant DIN droite

2nd active leaf appropriate for
1st active leaf DIN right

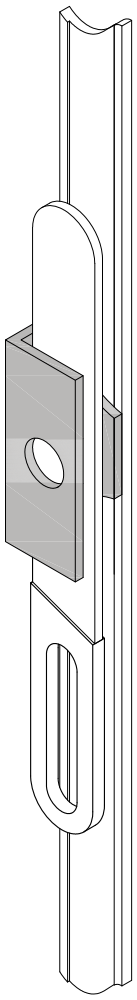


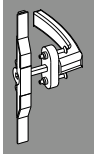
900011

2. öffnender Flügel passend zu
1. öffnendem Flügel DIN links

2ème vantail ouvrant adapté au
1er vantail ouvrant DIN gauche

2nd active leaf appropriate for
1st active leaf DIN left





Verarbeitung Beschläge Fenster
Mise en œuvre quincaillerie fenêtres
Assembly window fittings

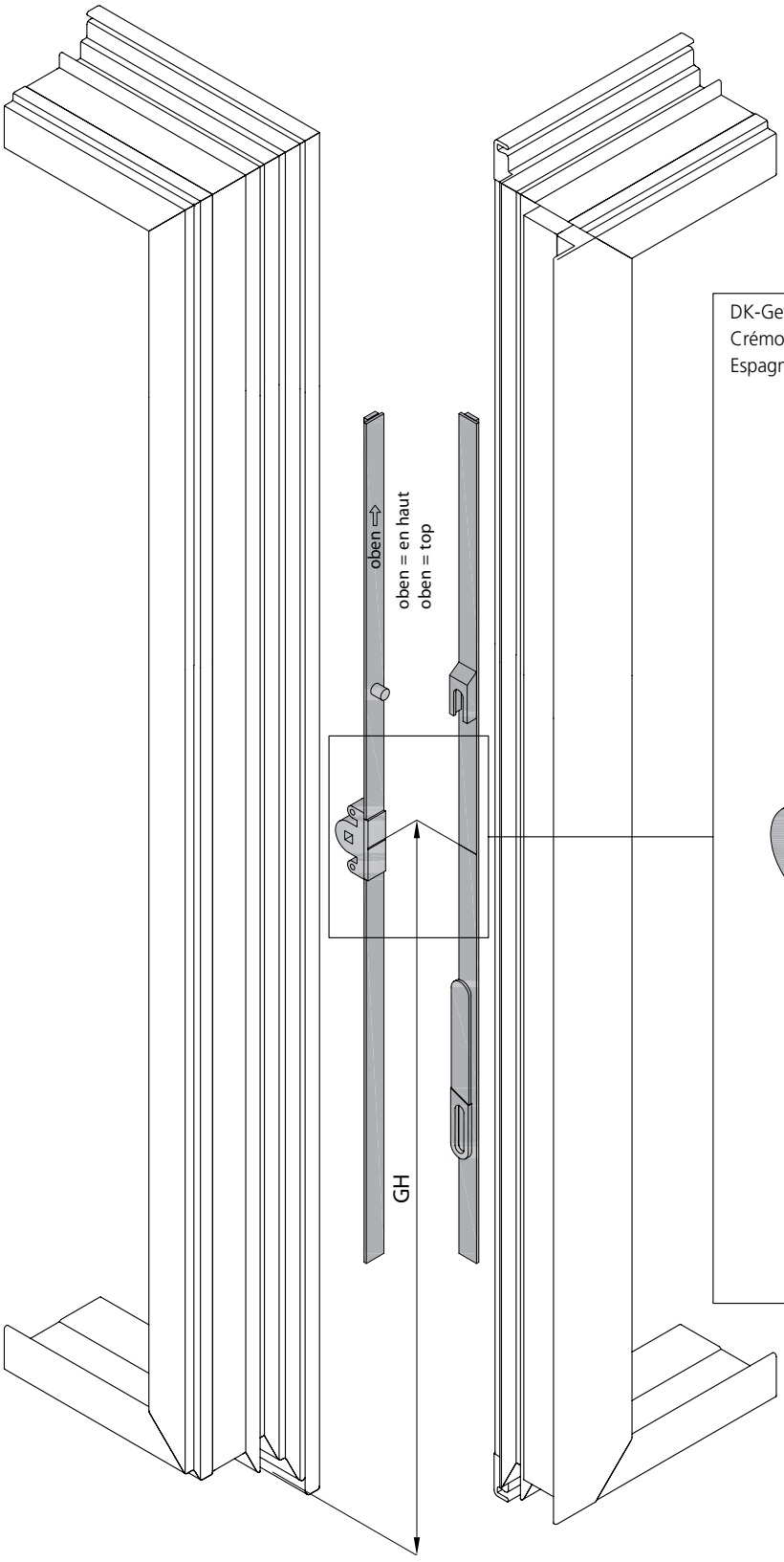
Beschlagseinbau 2-flügeliges Fenster

Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

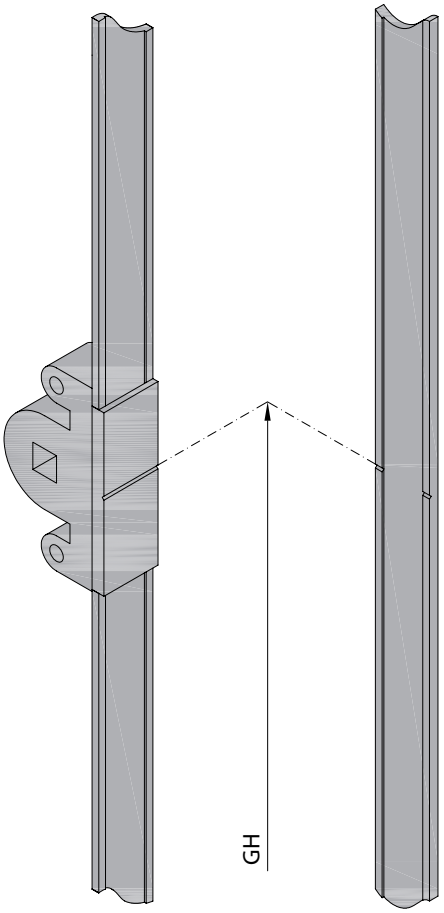
1. öffnender Flügel
1er vantail ouvrant
1st active leaf

2. öffnender Flügel
2e vantail ouvrant
2nd active leaf



DK-Getriebe RC
Crémone OB RC
Espagnolette RC

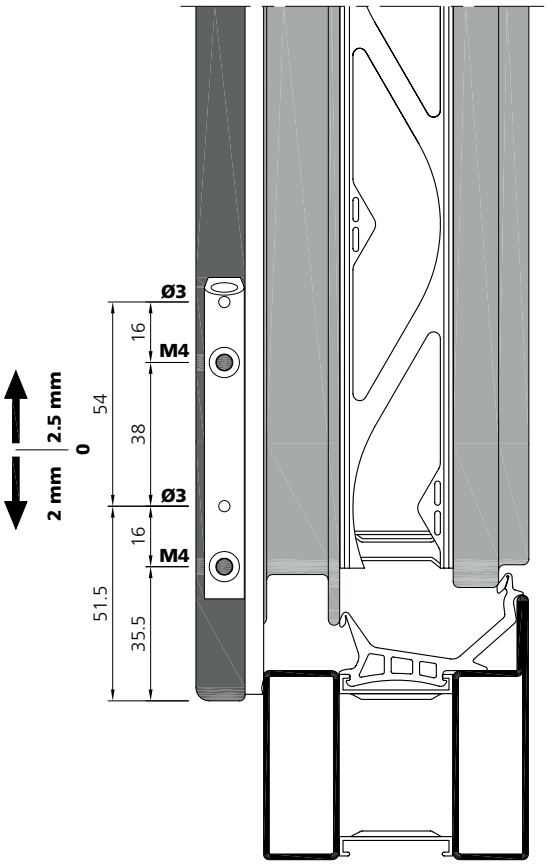
Stulp-Getriebe
Crémone pour vantail semi-fixe
Lever-operated espagnolette

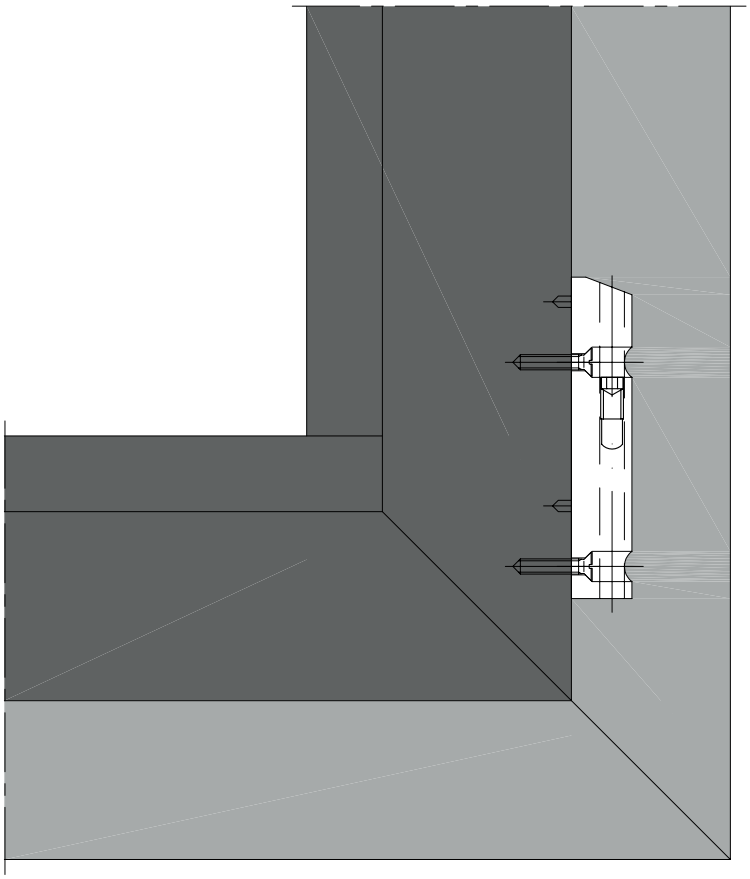


Beschlagseinbau
2-flügeliges Fenster
Eckband

Montage de la quincaillerie
Fenêtre à 2 vantaux
Pivot d'angle

Installation of the fittings
Window 2 leaves
Corner hinge

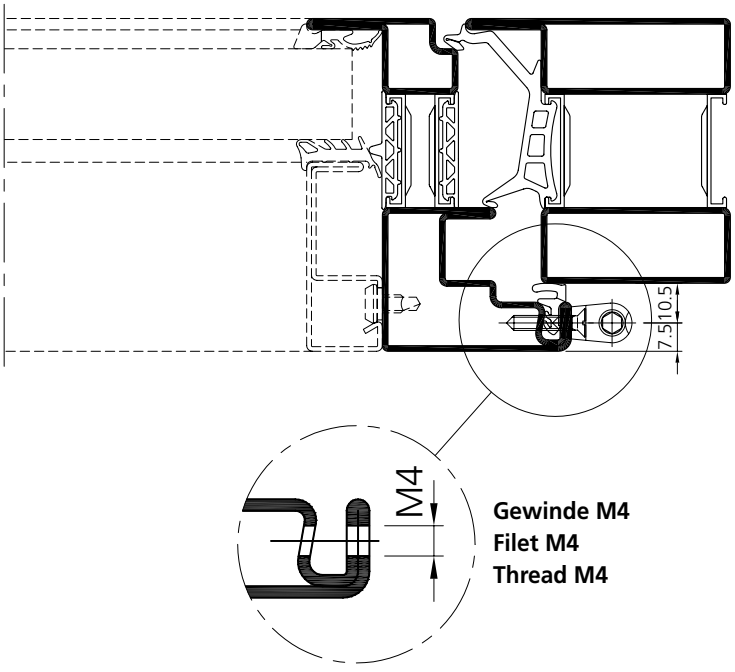




Das Eckband wird durch die Anschlagdichtung **985300** verschraubt.

Le pivot d'angle est vissé à travers le joint de butée **985300**.

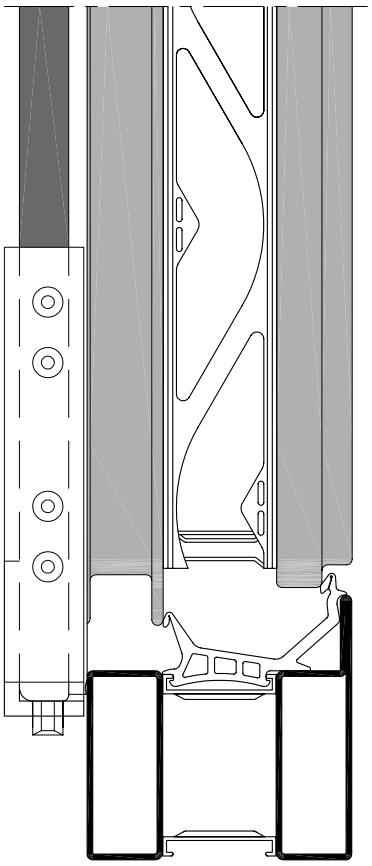
The corner hinge is screwed through the **985300** weatherstripping

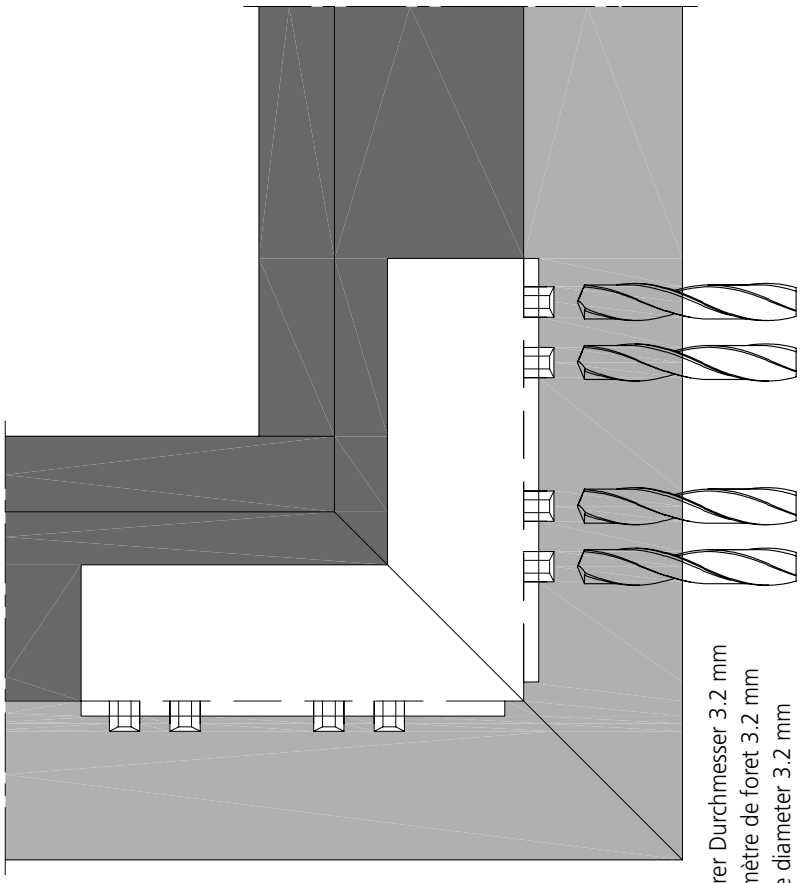


Beschlagseinbau 2-flügeliges Fenster Eckband

Montage de la quincaillerie Fenêtre à 2 vantaux Pivot d'angle

Installation of the fittings Window 2 leaves Corner hinge



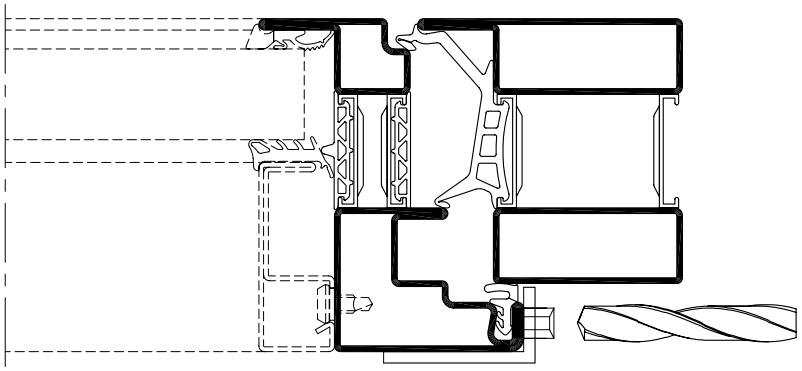


Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Bohrlehre **Art. Nr. 989102** zu Eckband.

Gabarit de perçage **art. no. 989102** pour pivot d'angle.

Drilling template **art. no. 989102** for corner hinge.



Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Beschlagseinbau 2-flügeliges Fenster

Einsatz der Forster Bohrlehren für den Standard Beschlag auf dem 2. öffnenden Flügel (Gez. Bandseite links, Bandseite rechts spiegelbildlich)

SFH 750 - 2400
SFB 310 - 1400

Montage de la quincaillerie Fenêtre à 2 vantaux

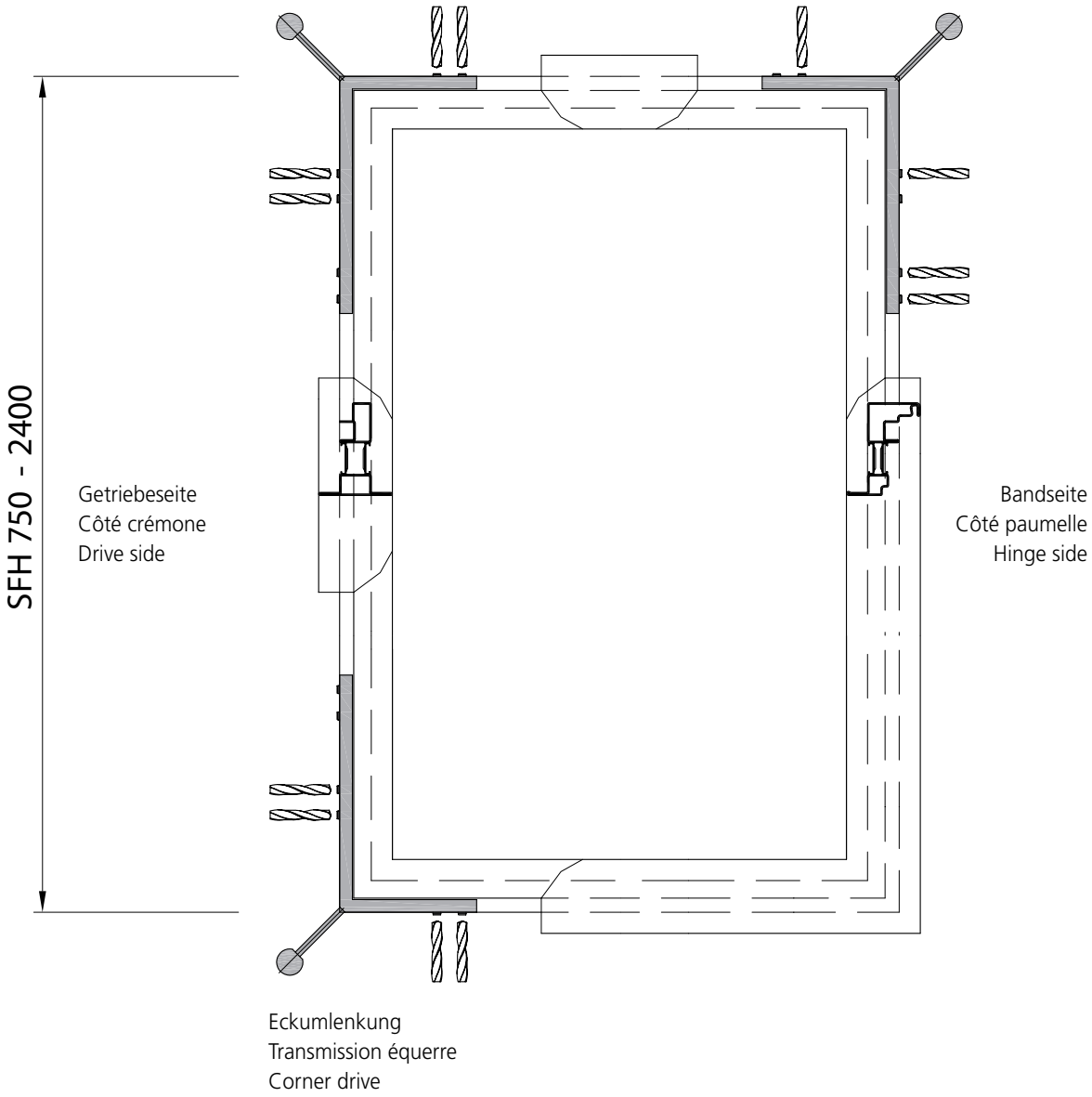
Utilisation des gabarits de perçage Forster pour la quincaillerie standard sur le vantail semi-fix (dessiné côté paumelle à gauche, côté paumelle à droite symétrique)

SFH 750 - 2400
SFB 310 - 1400

Installation of the fittings Window 2 leaves

Use the Forster drilling templates for standard fittings on the 2nd active leaf (marking hinge side left, hinge side right mirror image)

SFH 750 - 2400
SFB 310 - 1400



Beschlagseinbau 2-flügeliges Fenster

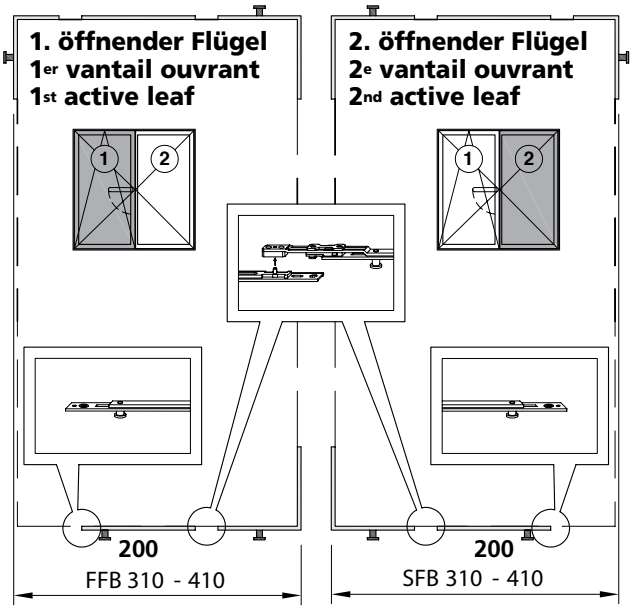
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Anordnung Verlängerungen
FFB 310 – 410 [mm]
SFB 310 – 410 [mm]

Disposition des extensions
FFB 310 – 410 [mm]
SFB 310 – 410 [mm]

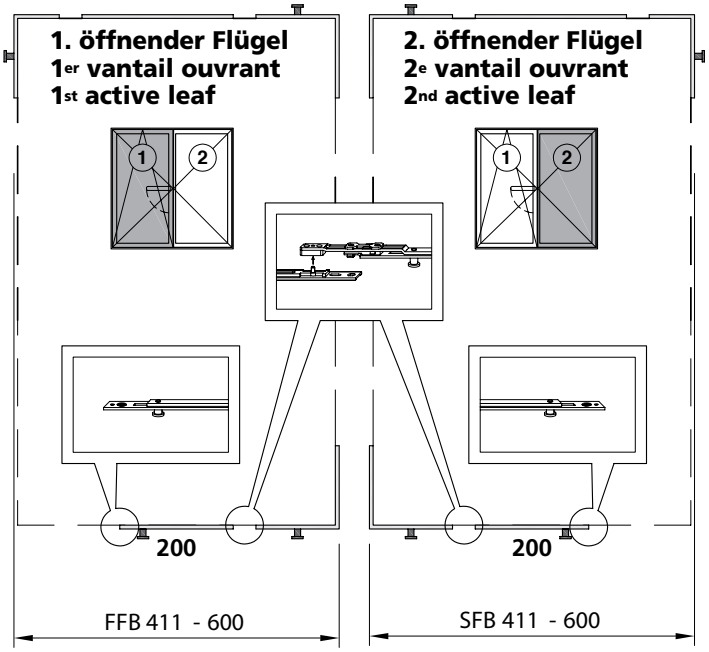
Arrangement of the extensions
FFB 310 – 410 [mm]
SFB 310 – 410 [mm]



Anordnung Verlängerungen
FFB 411 – 600 [mm]
SFB 411 – 600 [mm]

Disposition des extensions
FFB 411 – 600 [mm]
SFB 411 – 600 [mm]

Arrangement of the extensions
FFB 411 – 600 [mm]
SFB 411 – 600 [mm]



Beschlagseinbau 2-flügeliges Fenster

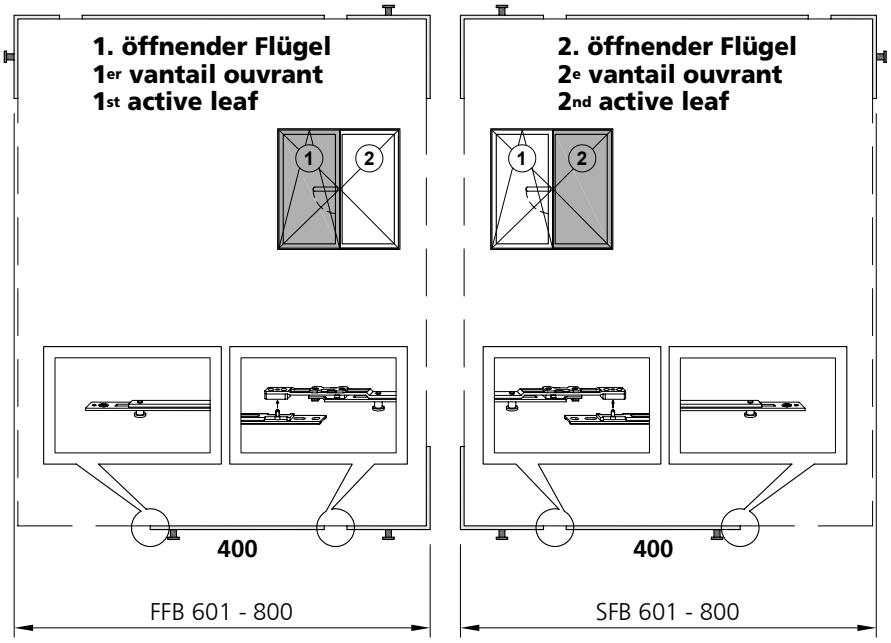
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Anordnung Verlängerungen
FFB 601 – 800 [mm]
SFB 601 – 800 [mm]

Disposition des extensions
FFB 601 – 800 [mm]
SFB 601 – 800 [mm]

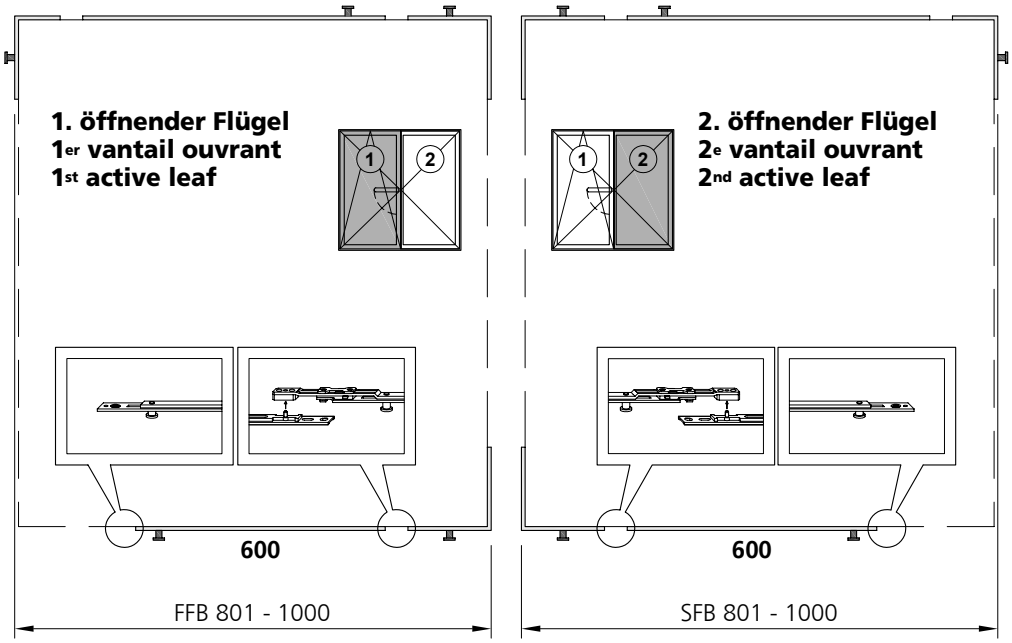
Arrangement of the extensions
FFB 601 – 800 [mm]
SFB 601 – 800 [mm]



Anordnung Verlängerungen
FFB 801 – 1000 [mm]
SFB 801 – 1000 [mm]

Disposition des extensions
FFB 801 – 1000 [mm]
SFB 801 – 1000 [mm]

Arrangement of the extensions
FFB 801 – 1000 [mm]
SFB 801 – 1000 [mm]



Beschlagseinbau 2-flügeliges Fenster

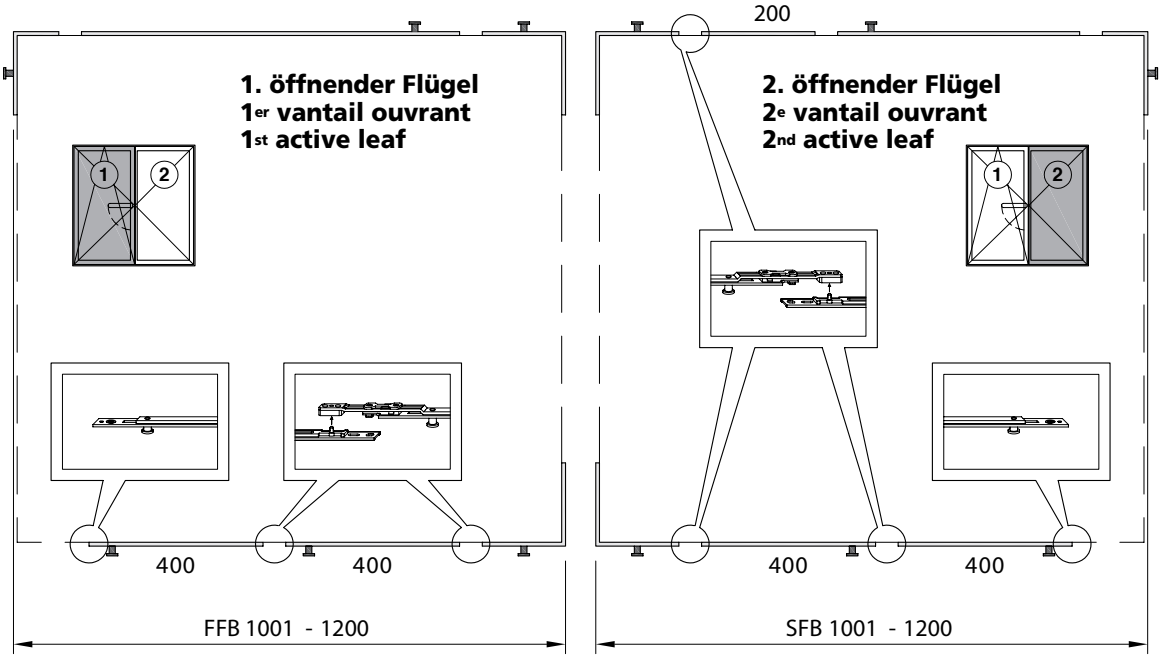
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Anordnung Verlängerungen
FFB 1001 – 1200 [mm]
SFB 1001 – 1200 [mm]

Disposition des extensions
FFB 1001 – 1200 [mm]
SFB 1001 – 1200 [mm]

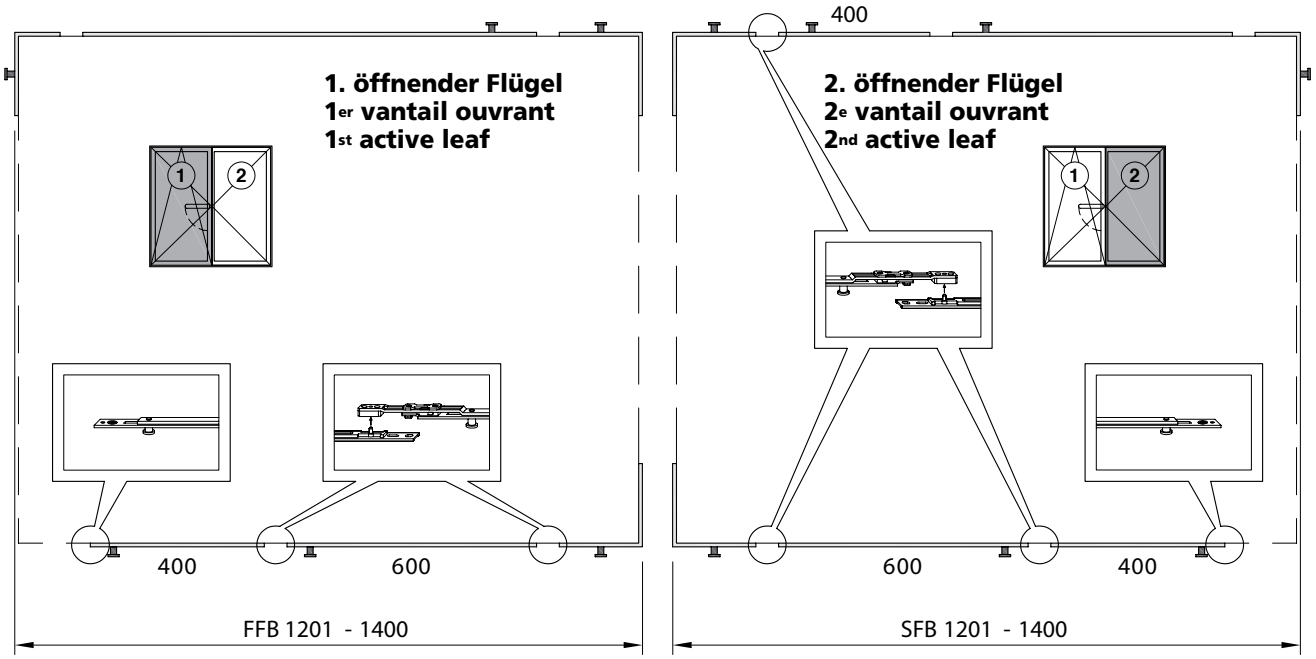
Arrangement of the extensions
FFB 1001 – 1200 [mm]
SFB 1001 – 1200 [mm]



Anordnung Verlängerungen
FFB 1201 – 1400 [mm]
SFB 1201 – 1400 [mm]

Disposition des extensions
FFB 1201 – 1400 [mm]
SFB 1201 – 1400 [mm]

Arrangement of the extensions
FFB 1201 – 1400 [mm]
SFB 1201 – 1400 [mm]



Beschlagseinbau 2-flügeliges Fenster

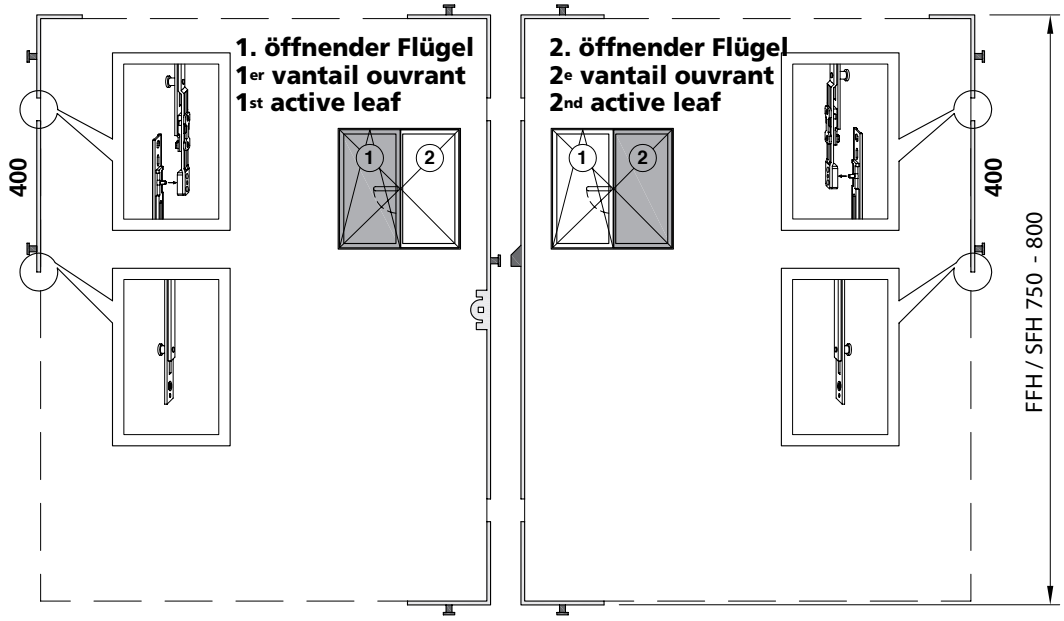
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Anordnung Verlängerungen
FFH 750 – 800 [mm]
SFH 750 – 800 [mm]

Disposition des extensions
FFH 750 – 800 [mm]
SFH 750 – 800 [mm]

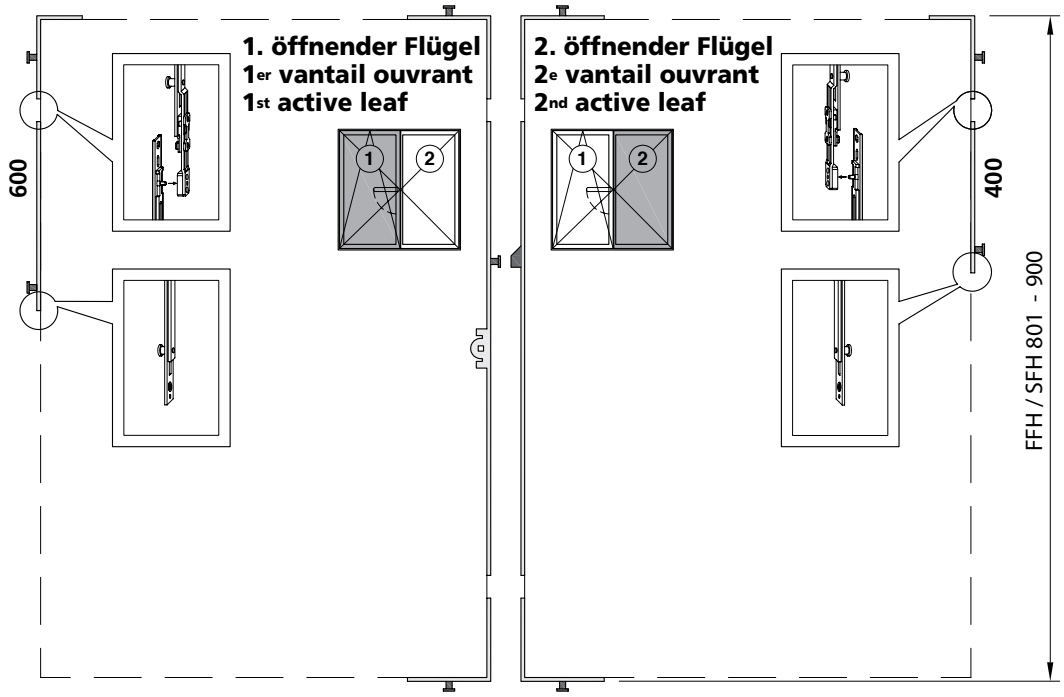
Arrangement of the extensions
FFH 750 – 800 [mm]
SFH 750 – 800 [mm]



Anordnung Verlängerungen
FFH 801 – 900 [mm]
SFH 801 – 900 [mm]

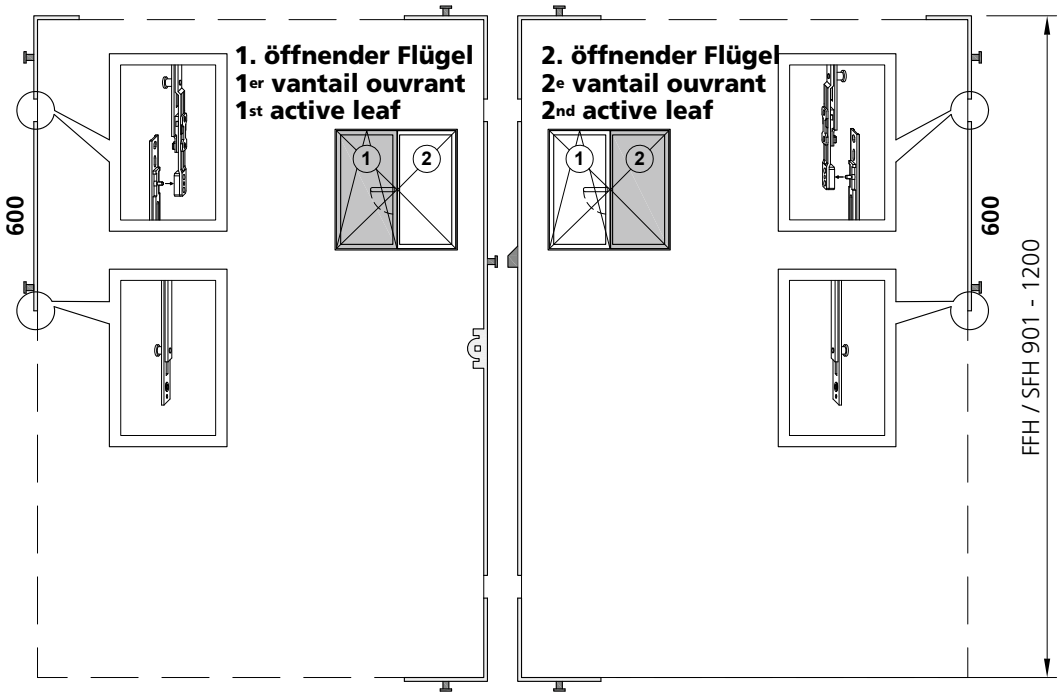
Disposition des extensions
FFH 801 – 900 [mm]
SFH 801 – 900 [mm]

Arrangement of the extensions
FFH 801 – 900 [mm]
SFH 801 – 900 [mm]

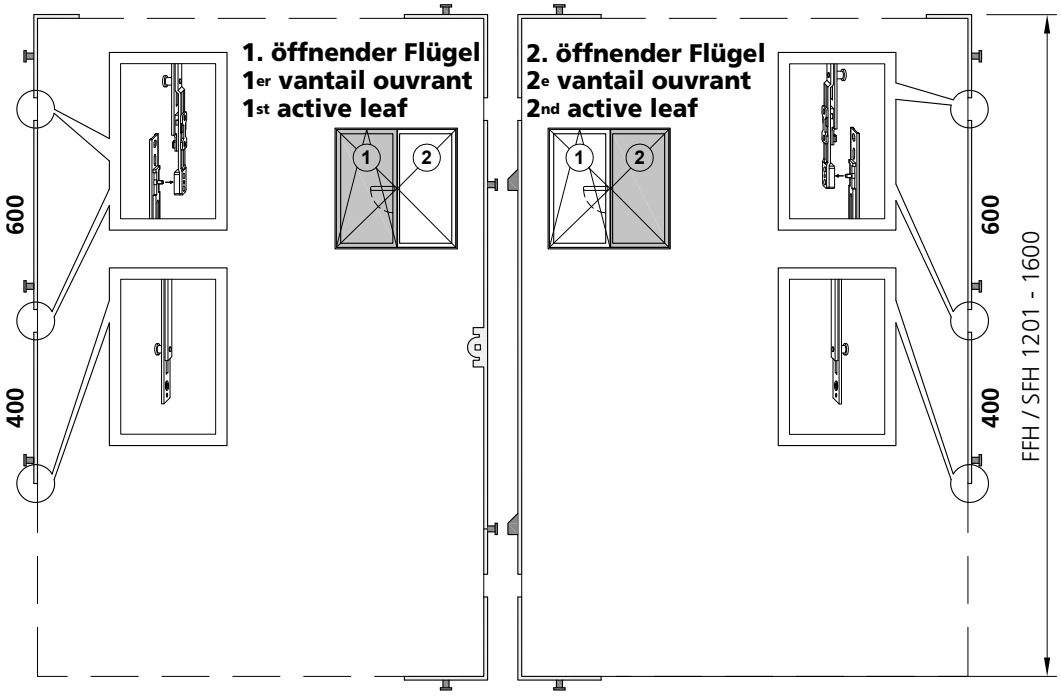


Beschlagseinbau 2-flügeliges Fenster

Anordnung Verlängerungen
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]



Anordnung Verlängerungen
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]



Montage de la quincaillerie Fenêtre à 2 vantaux

Disposition des extensions
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]

Disposition des extensions
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]

Installation of the fittings Window 2 leaves

Arrangement of the extensions
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]

Arrangement of the extensions
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]

Beschlagseinbau 2-flügeliges Fenster

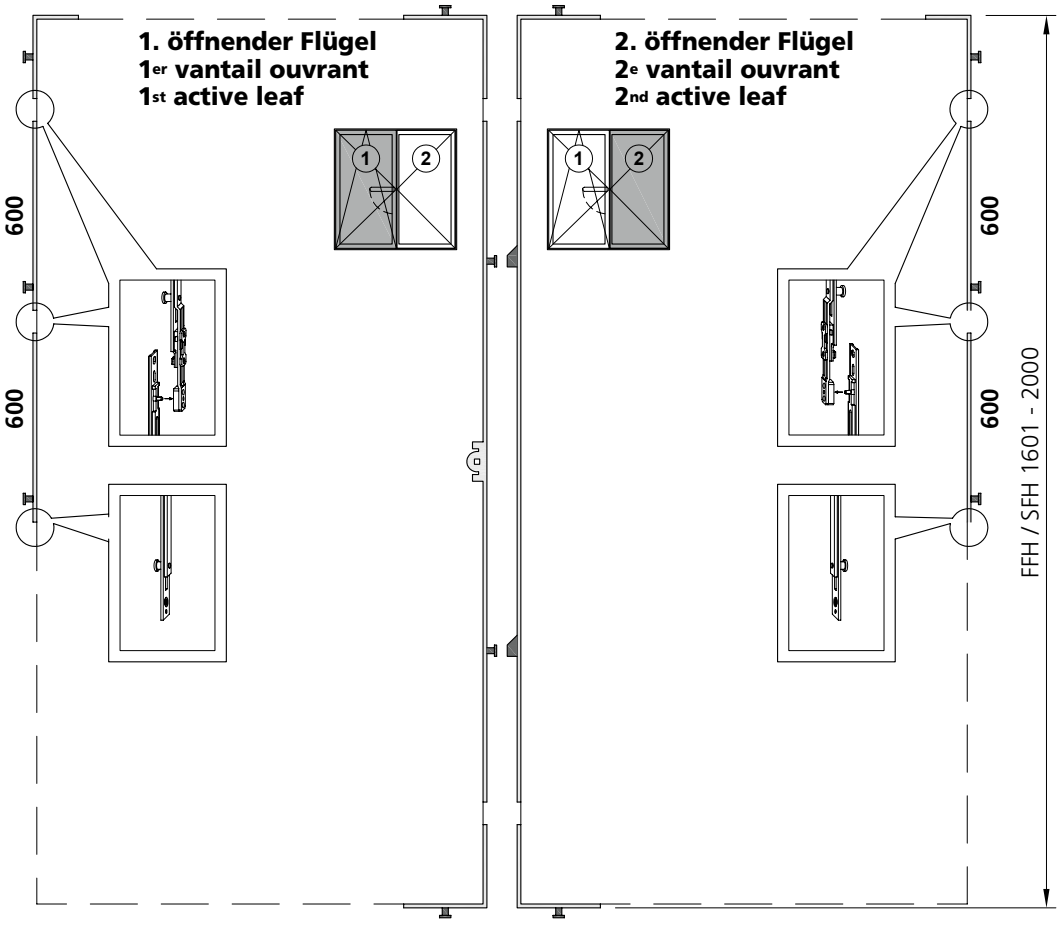
Anordnung Verlängerungen
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]

Montage de la quincaillerie Fenêtre à 2 vantaux

Disposition des extensions
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]

Installation of the fittings Window 2 leaves

Arrangement of the extensions
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]



Beschlagseinbau 2-flügeliges Fenster

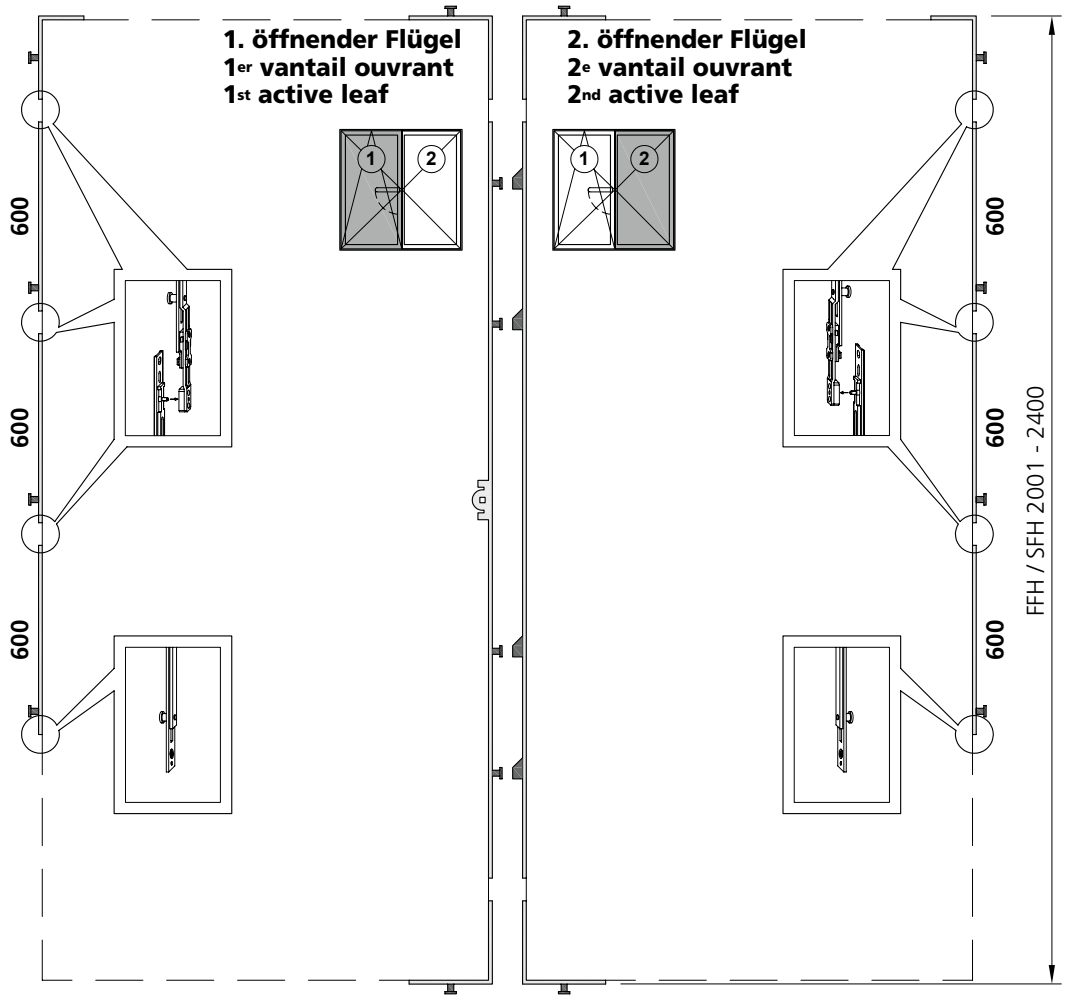
Anordnung Verlängerungen
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]

Montage de la quincaillerie Fenêtre à 2 vantaux

Disposition des extensions
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]

Installation of the fittings Window 2 leaves

Arrangement of the extensions
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]



Beschlagseinbau 2-flügeliges Fenster

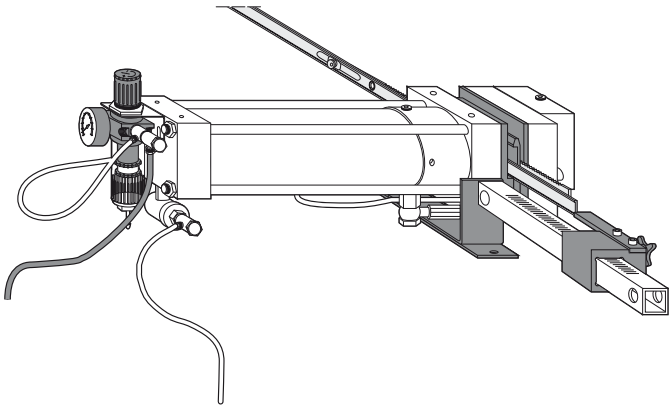
Ablängen mit pneumatischer Stanze (Lochstanzung)

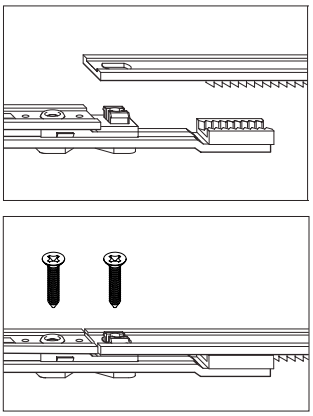
Montage de la quincaillerie Fenêtre à 2 vantaux

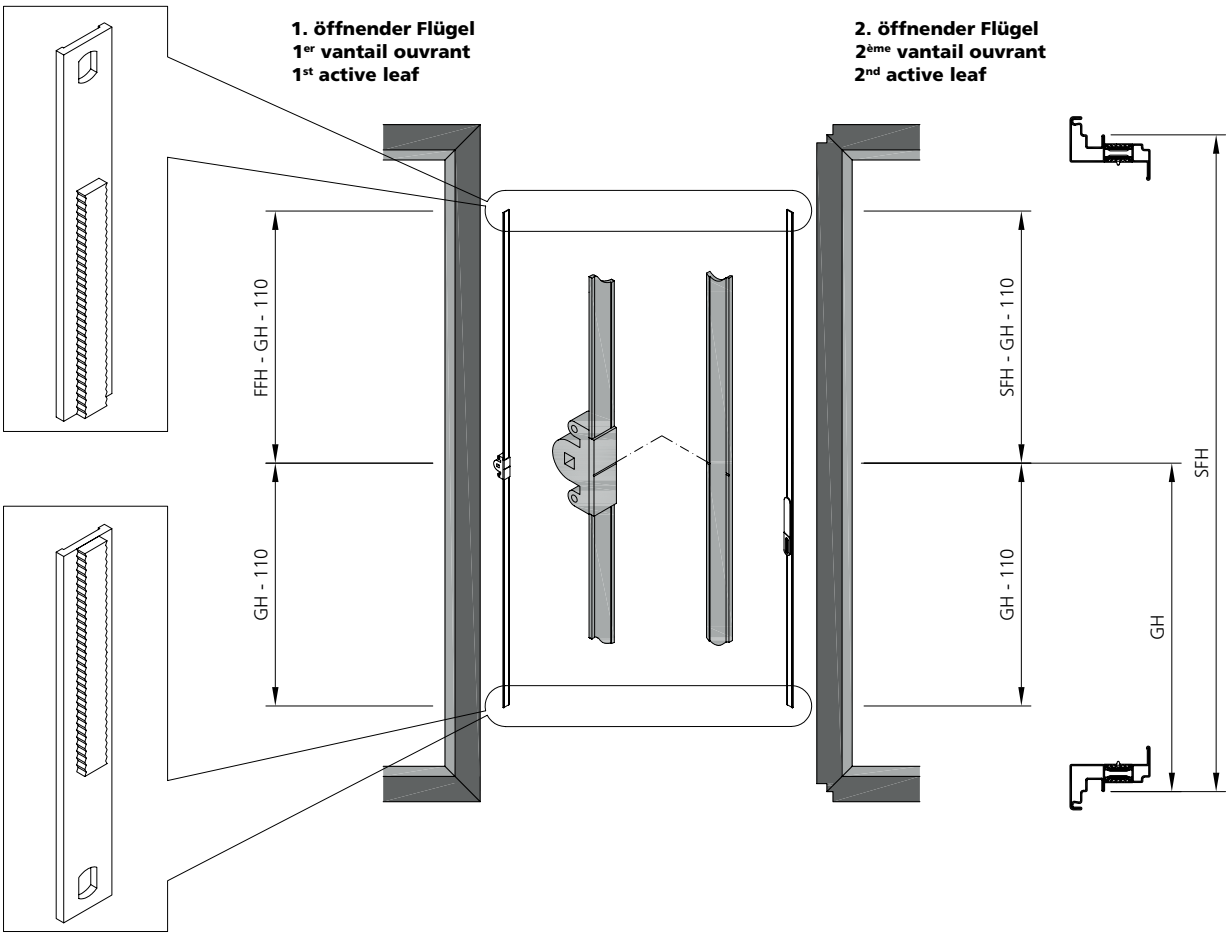
Couper à la longueur requise avec un dispositif de poinçonnage pneumatique

Installation of the fittings Window 2 leaves

Cut to length with pneumatic punching tool (hole punching)







VUF 01/19

Beschlagseinbau 2-flügeliges Fenster

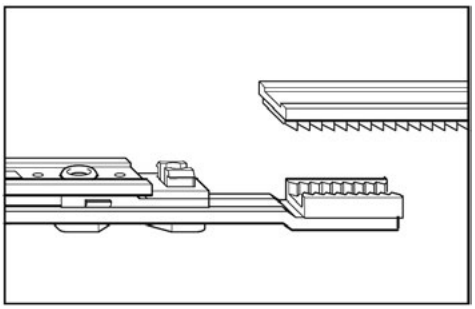
Ablängen mit Säge und Einsatz mit Verbindungslasche

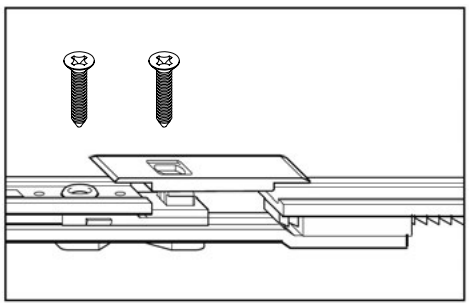
Montage de la quincaillerie Fenêtre à 2 vantaux

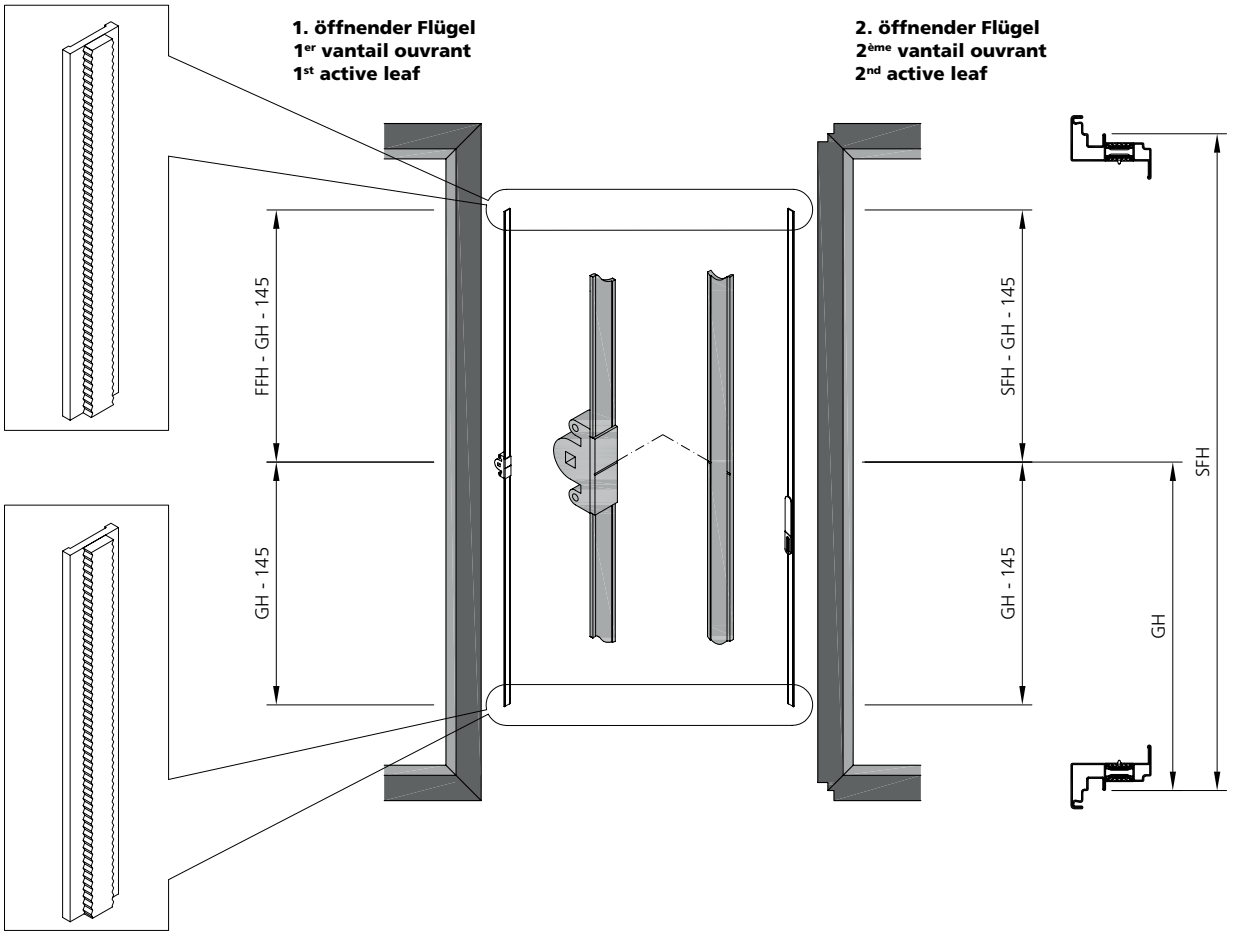
Couper à la longueur requise avec une scie et monter avec une plaque de liaison

Installation of the fittings Window 2 leaves

Cut to length with saw and use with connecting link







Beschlagseinbau 2-flügeliges Fenster

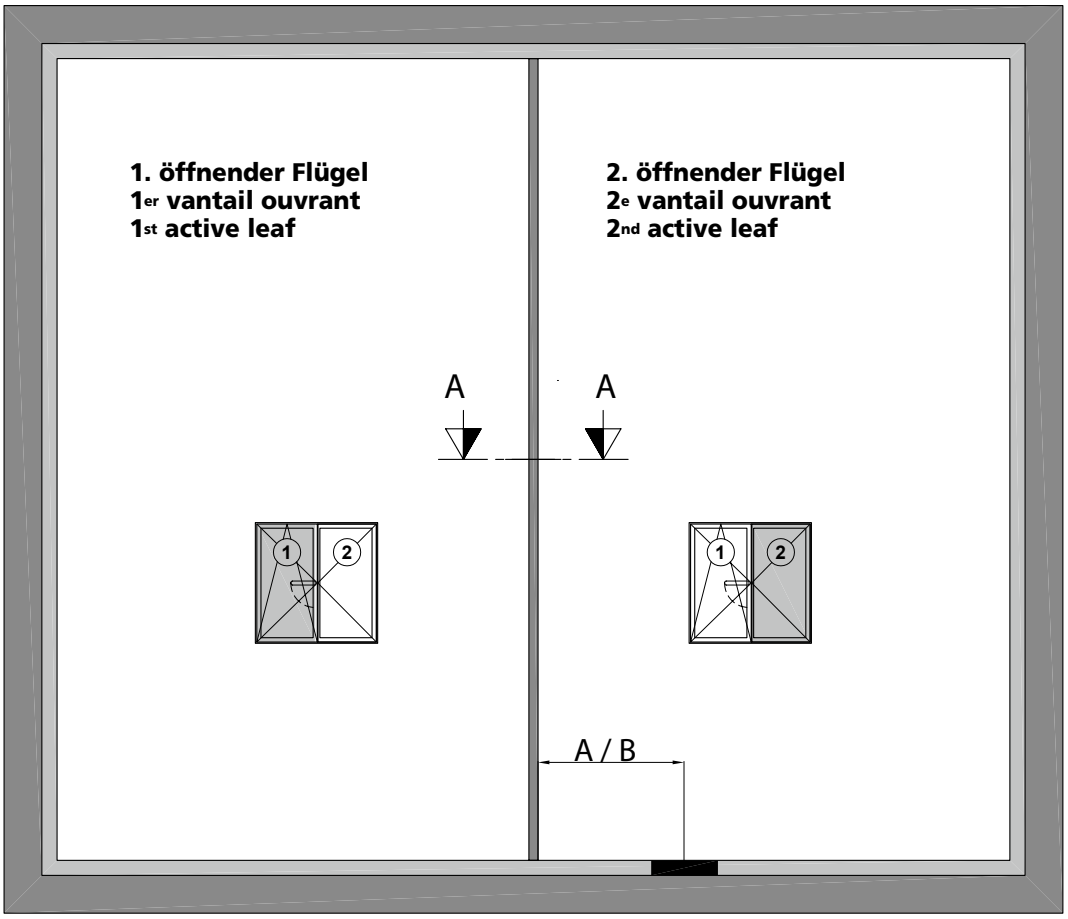
Montage de la quincaillerie Fenêtre à 2 vantaux

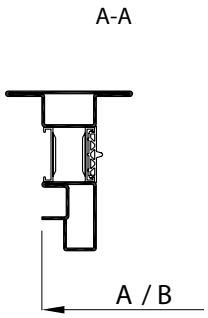
Installation of the fittings Window 2 leaves

Anordnung Auflaufkeil
2. öffnender Flügel

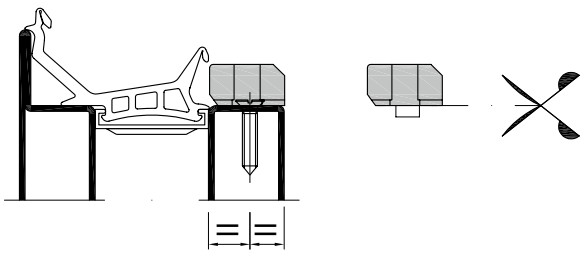
Disposition du support glissière
vantail semi-fixe

Arrangement of the run-up block
2nd active leaf

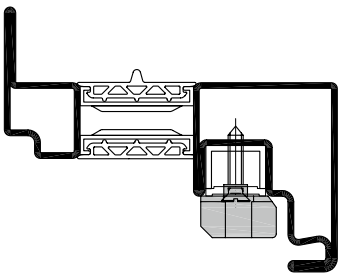




SFB 310 mm - 600 mm
A = 135 mm
Montage auf Rahmen
Montage sur cadre
Installation on the frame



SFB 601 mm - 1400 mm
B = 205 mm
Montage auf Flügel
Montage sur vantail
Installation on the leaf



Beschlagseinbau 2-flügeliges Fenster

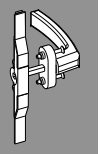
Montage de la quincaillerie Fenêtre à 2 vantaux

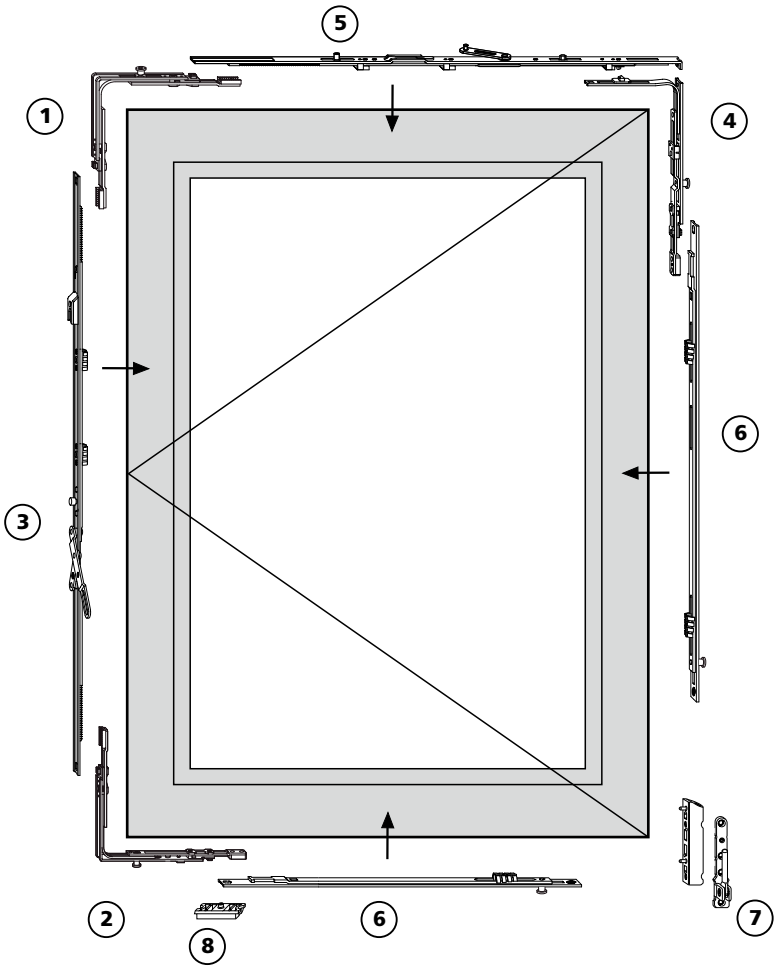
Installation of the fittings Window 2 leaves

Montagereihenfolge
Stulpbeschlag

Ordre de montage
Quincaillerie pour vantail semi-fixe

Sequence of assembly
Fittings for double sash





1. Eckumlenkung / Transmission équerre / Corner drive
2. Eckumlenkung / Transmission équerre / Corner drive
3. Stulp-Getriebe / Cremone vantail semi-fixe / Double sash drive
4. Eckumlenkung Axer / Renvoi d'angle de compas / Stay corner drive
5. Axerstulp / Têtière de compas / Sash stay guide
6. Mittelverschluss, senkrecht und waagerecht
   Extension horizontale et verticale
   Extension horizontal and vertical
7. Eckband K / Pivot d'angle K / Corner hinge K
8. Auflaufkeil / Support glissière / Run up block

Beschlagseinbau 2-flügeliges Fenster

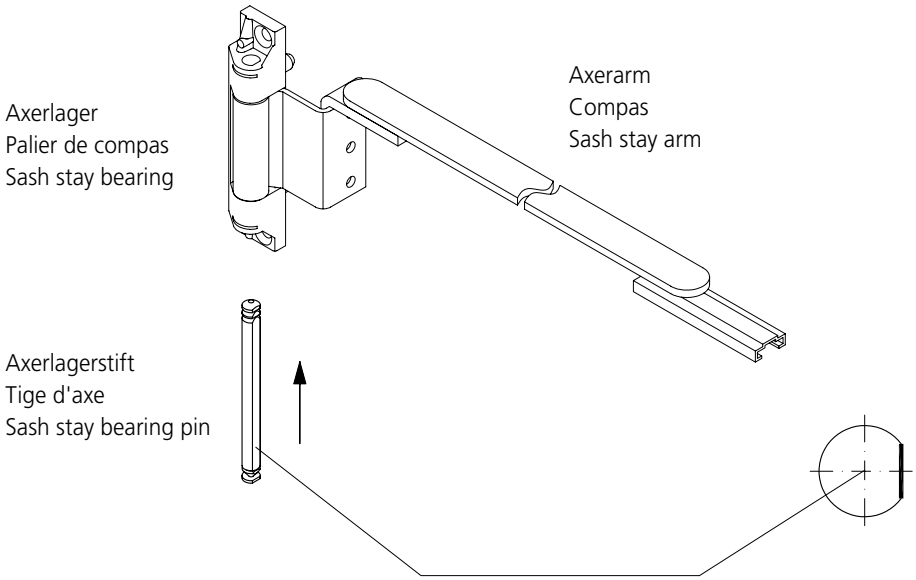
ACHTUNG! Fasung des Axerlagerstiftes beim Einführen in das Axerlager berücksichtigen!

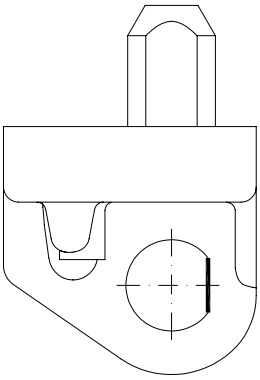
Montage de la quincaillerie Fenêtre à 2 vantaux

ATTENTION! Faire attention au sens de montage de la tige du palier de compas lors de l'introduction dans le palier!

Installation of the fittings Window 2 leaves

ATTENTION! Pay attention to the mount of the Axer hinge pin when inserting it into the axer hinge!

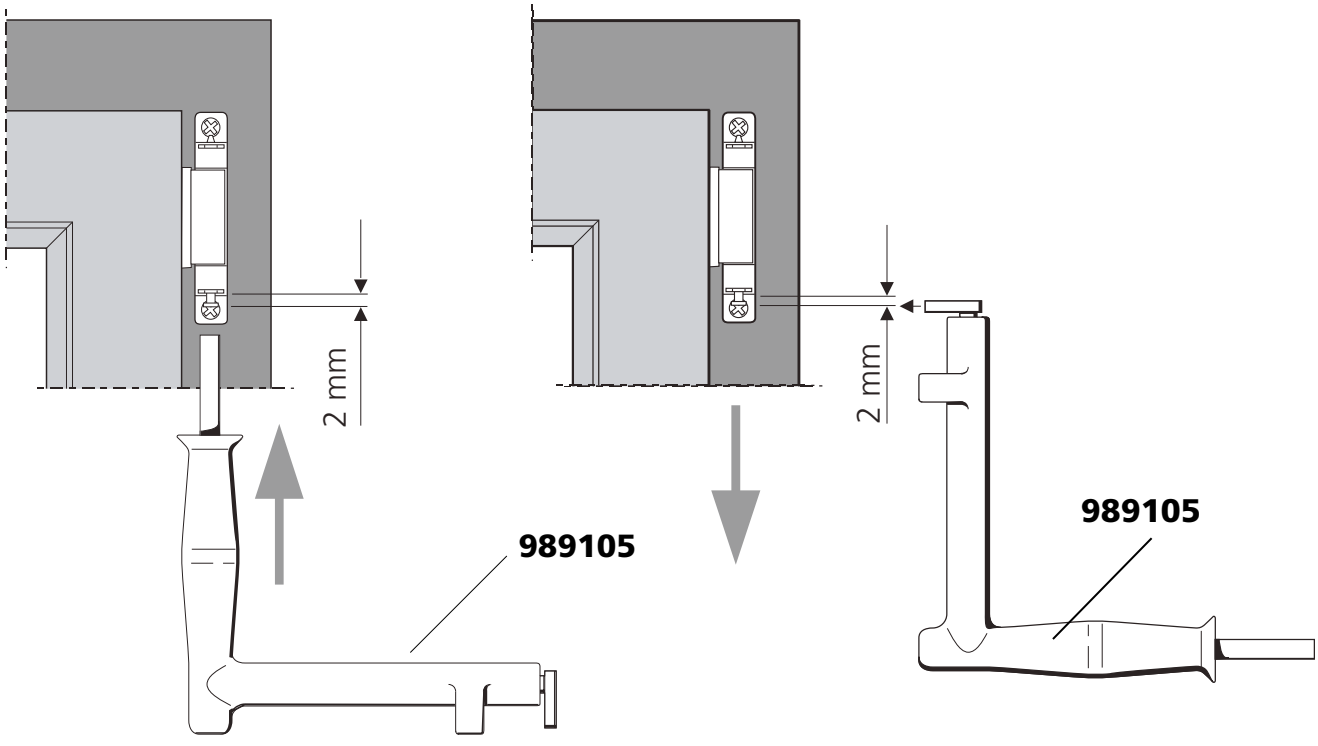




Einhängen des Flügels
Axerlagerstift nur in Verschlussstellung einschiebbar

Accrochage du vantail
Tige de palier de compas pouvant seulement être introduite en position de fermeture

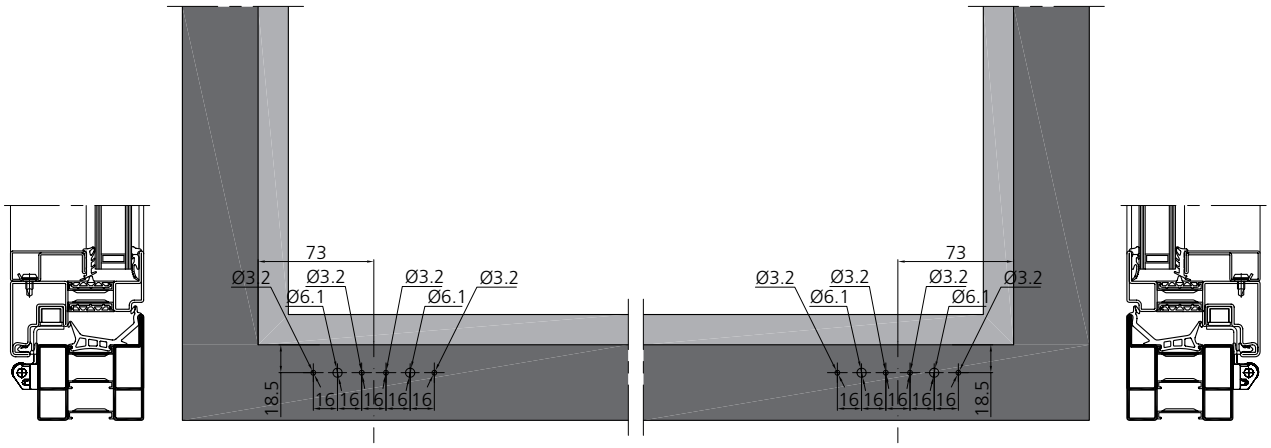
Mounting the leaf
The sash stay bearing pin can only be inserted in lock position

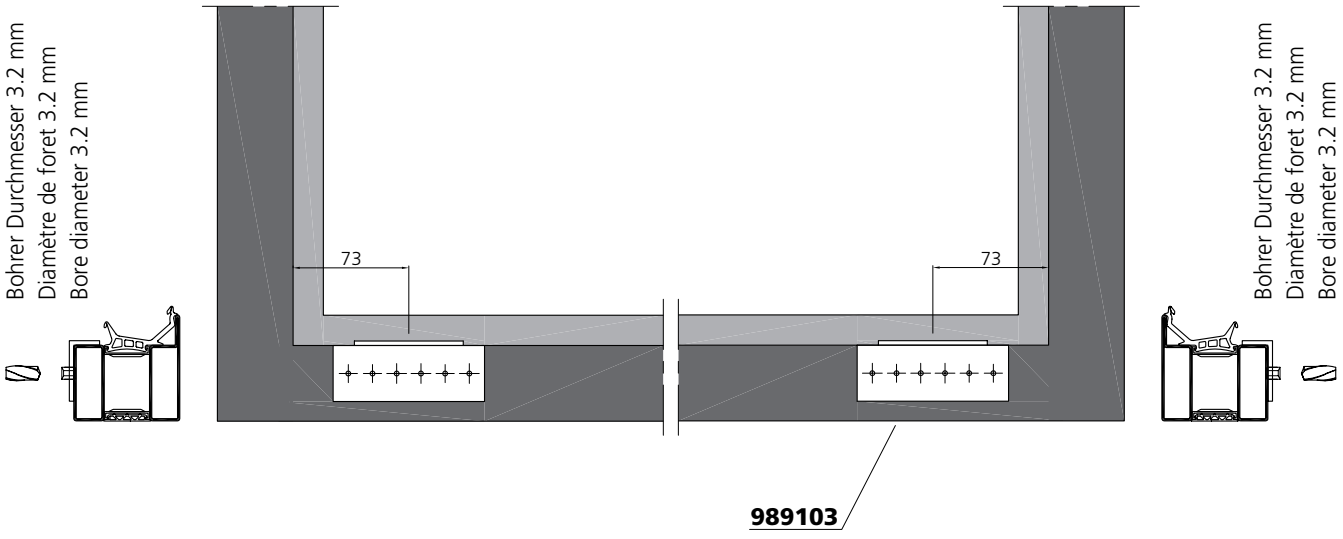


Beschlagseinbau Kippflügel RC2 FFB 520-1200

Montage de la quincaillerie Ouvrant à soufflet RC2 FFB 520-1200

Installation of the fittings Tilt only window RC2 FFB 520-1200





Bohrlehre **Art. Nr. 989103** zu Axer- Eckband.

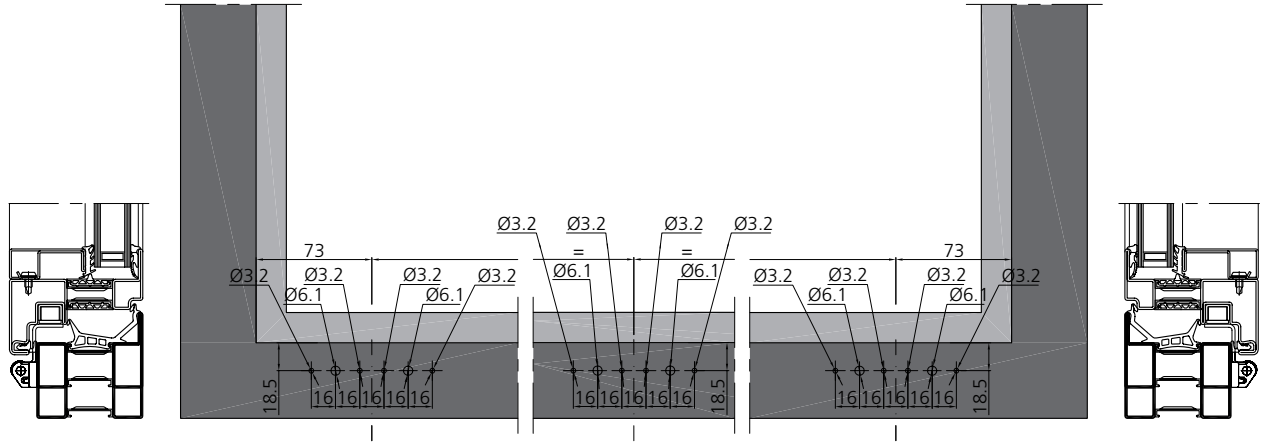
Gabarit de perçage **art. no. 989103** pour pivot d'angle.

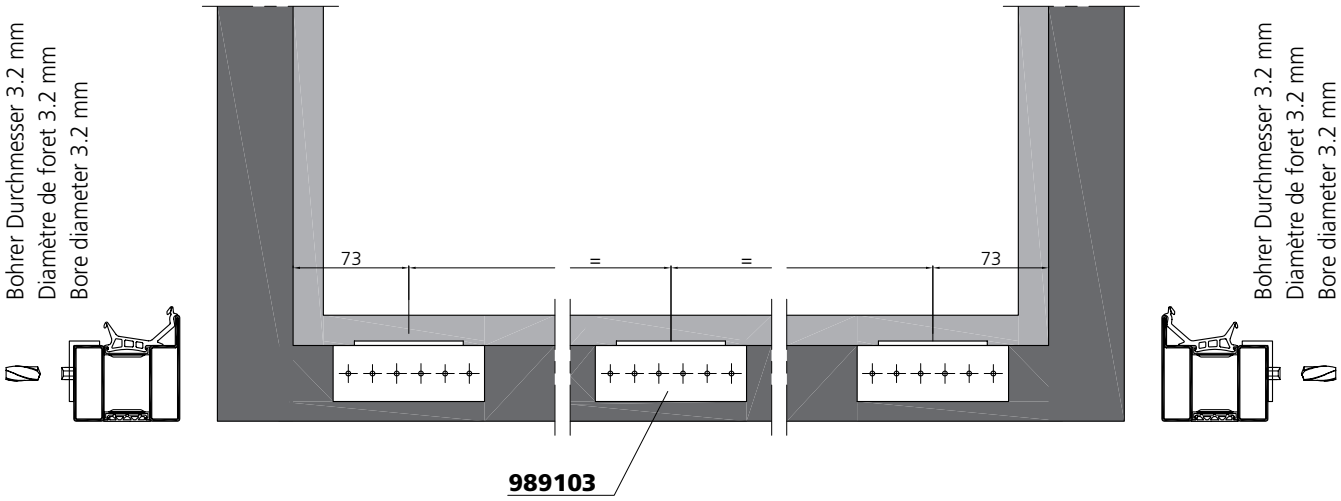
Drilling template **art. no. 989103** for corner hinge.

Beschlagseinbau Kippflügel RC2 FFB 1201-2400

Montage de la quincaillerie Ouvrant à soufflet RC2 FFB 1201-2400

Installation of the fittings Tilt only window RC2 FFB 1201-2400





Bohrlehre **Art. Nr. 989103** zu Axer- Eckband.

Gabarit de perçage **art. no. 989103** pour pivot d'angle.

Drilling template **art. no. 989103** for corner hinge.

Beschlagseinbau Kippflügel

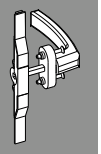
Anordnung der Schliessstücke
Kippflügel in Abhängigkeit der Flügelfalzbreite
FFB 520 - 620 [mm]

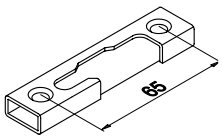
Montage de la quincaillerie Ouvrant à soufflet

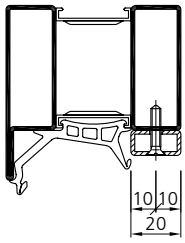
Disposition des gâches
Ouvrant à soufflet selon la largeur de la feuillure du vantail
FFB 520 - 620 [mm]

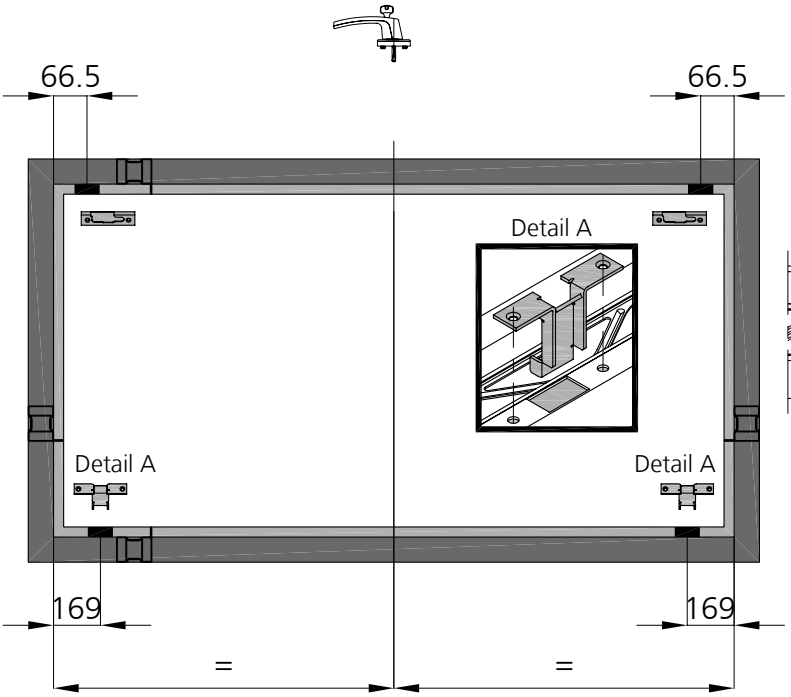
Installation of the fittings Tilt only window

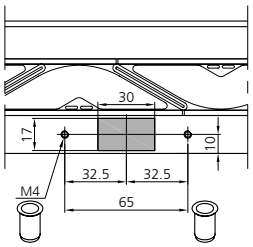
Arrangement of the strikers
Tilt only window depending on the width of the leaf rebate
FFB 520 - 620 [mm]







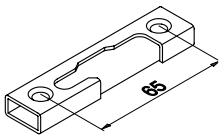


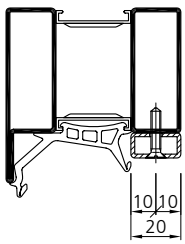


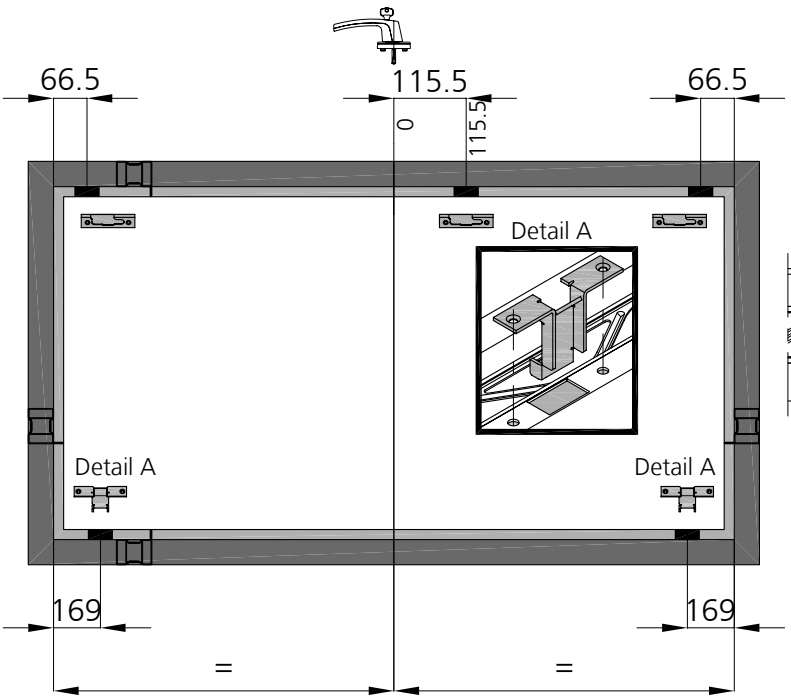
Anordnung Schliessstücke
FFB 621 - 1200 [mm]

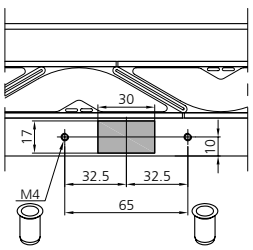
Disposition des gâches
FFB 621 - 1200 [mm]

Arrangement of the strikers
FFB 621 - 1200 [mm]









Beschlagseinbau Kippflügel

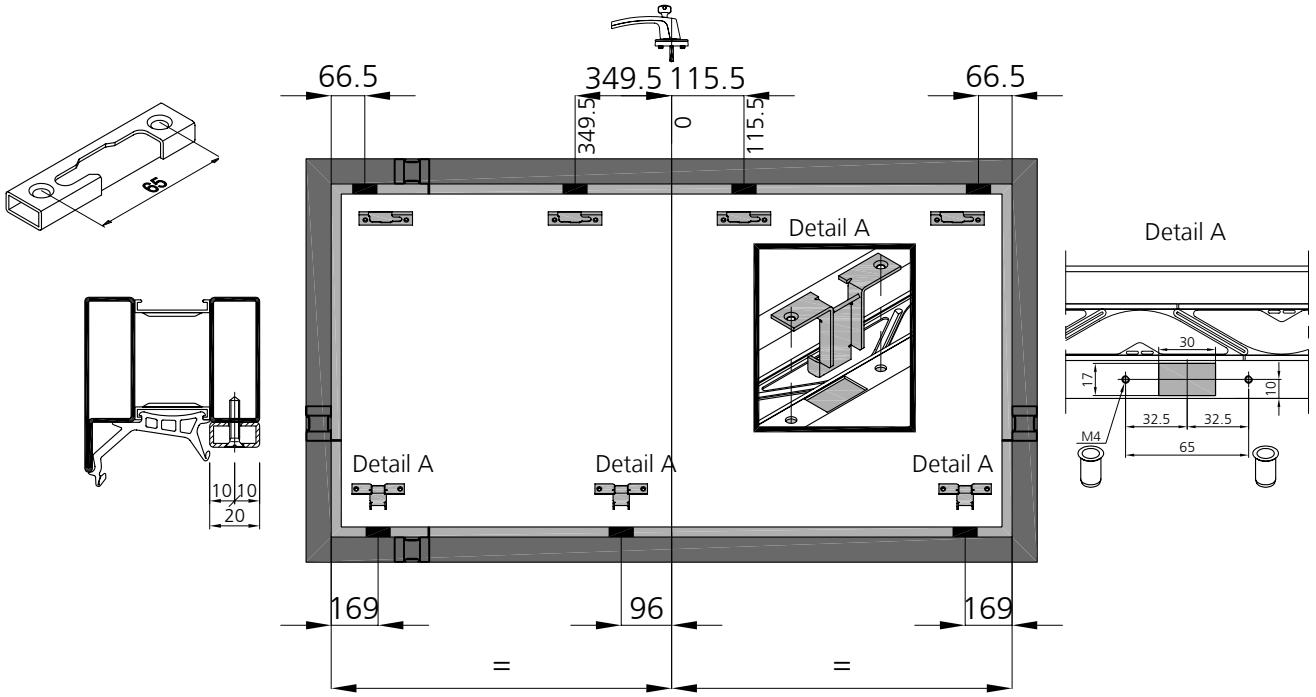
Anordnung der Schliessstücke
Kippflügel in Abhängigkeit der Flügelfalzbreite
FFB 1201 - 1600 [mm]

Montage de la quincaillerie Ouvrant à soufflet

Disposition des gâches
Ouvrant à soufflet selon la largeur de la feuillure du vantail
FFB 1201 - 1600 [mm]

Installation of the fittings Tilt only window

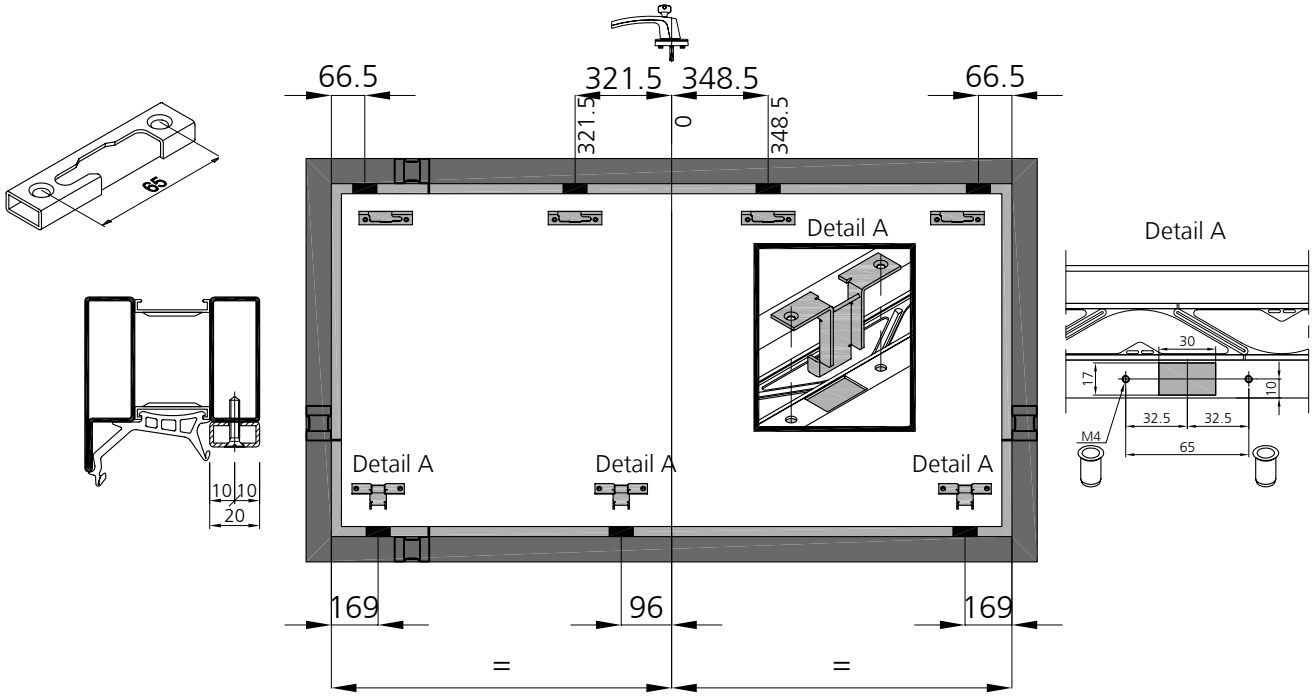
Arrangement of the strikers
Tilt only window depending on the width of the leaf rebate
FFB 1201 - 1600 [mm]



Anordnung Schliessstücke
FFB 1601 - 2000 [mm]

Disposition des gâches
FFB 1601 - 2000 [mm]

Arrangement of the strikers
FFB 1601 - 2000 [mm]



Beschlagseinbau Kippflügel

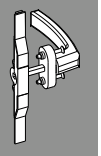
Anordnung der Schliessstücke
Kippflügel in Abhängigkeit der Flügelfalzbreite
FFB 2001 - 2400 [mm]

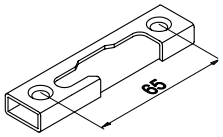
Montage de la quincaillerie Ouvrant à soufflet

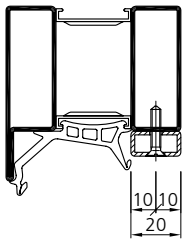
Disposition des gâches
Ouvrant à soufflet selon la largeur de la feuillure du vantail
FFB 2001 - 2400 [mm]

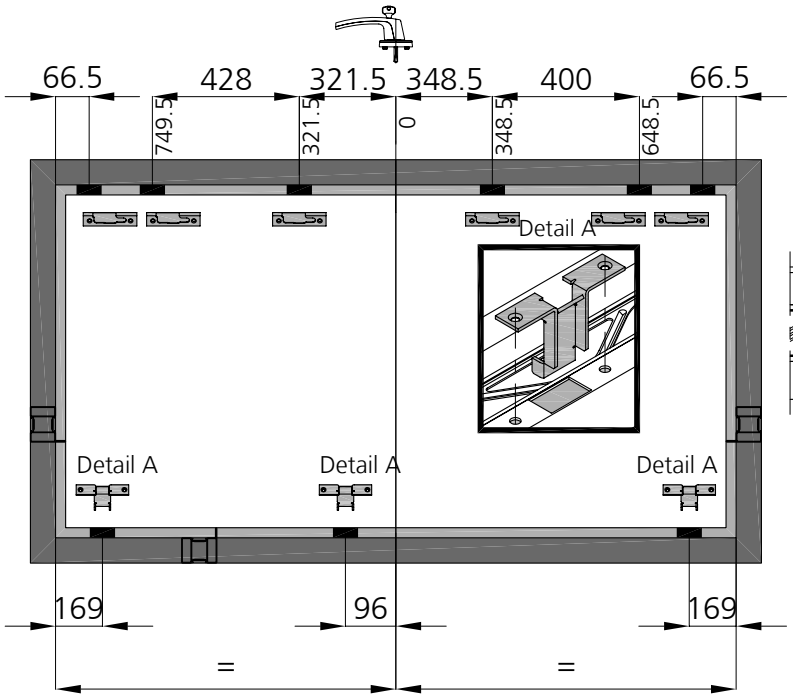
Installation of the fittings Tilt only window

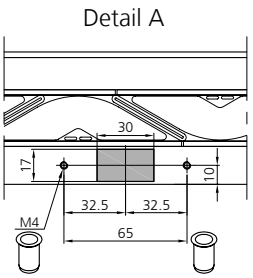
Arrangement of the strikers
Tilt only window depending on the width of the leaf rebate
FFB 2001 - 2400 [mm]











Beschlagseinbau Kippflügel

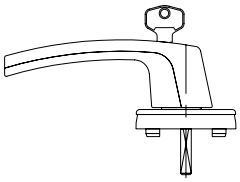
Bohrlehre Art. Nr. 989109
1-flügelige Fenster

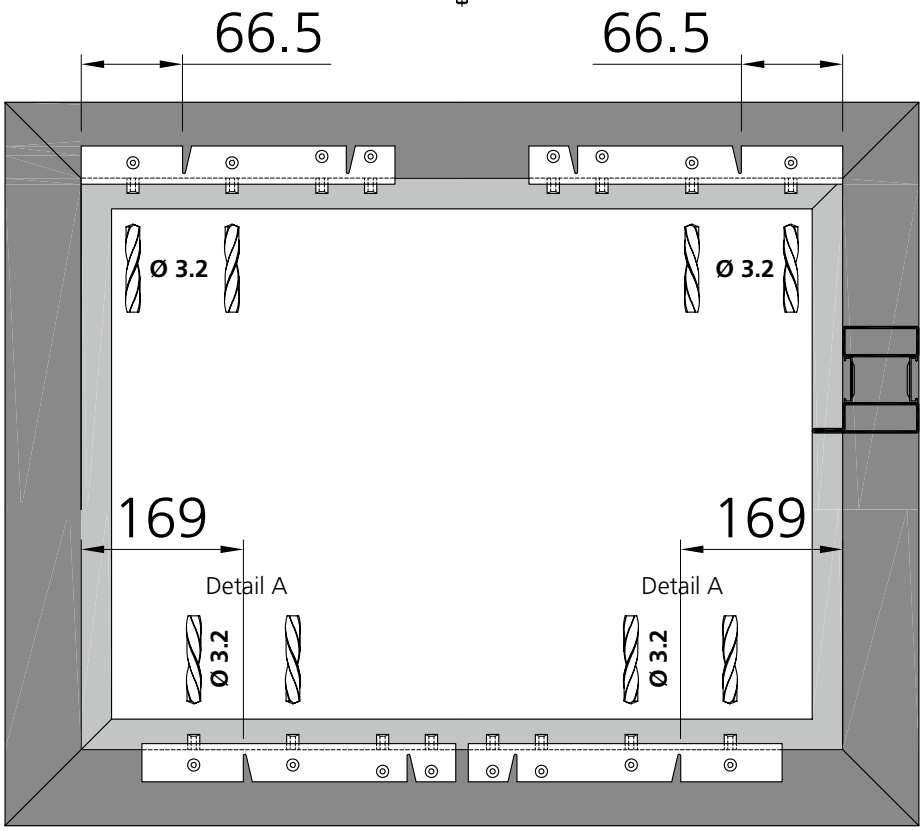
Montage de la quincaillerie Ouvrant à soufflet

Gabarit de perçage art. no. 989109
fenêtre à 1 vantail

Installation of the fittings Tilt only window

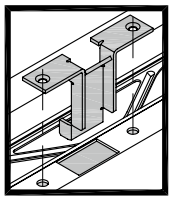
Drilling template art. no. 989109
single leaved windows



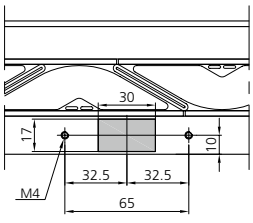


Bandseite
Côté paumelle
Hinge side

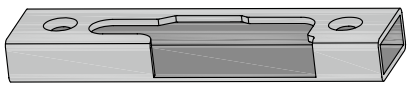
Detail A

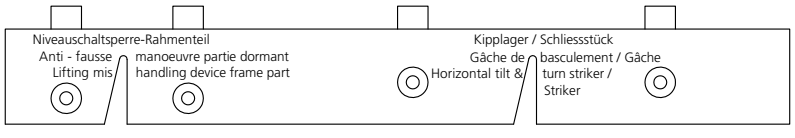


Detail A

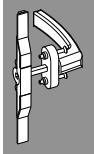


Schliessstück "rechts" / Gâche "droite" / Striker "right"





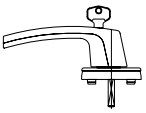
Markierung Zentrum Schliessblech / Kipplager
Marque centre gâche / gâche de basculement
Marking on the center of the striker / tilt-turn striker

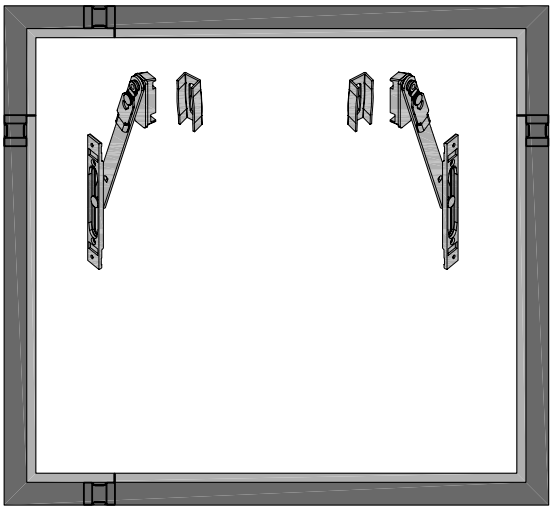


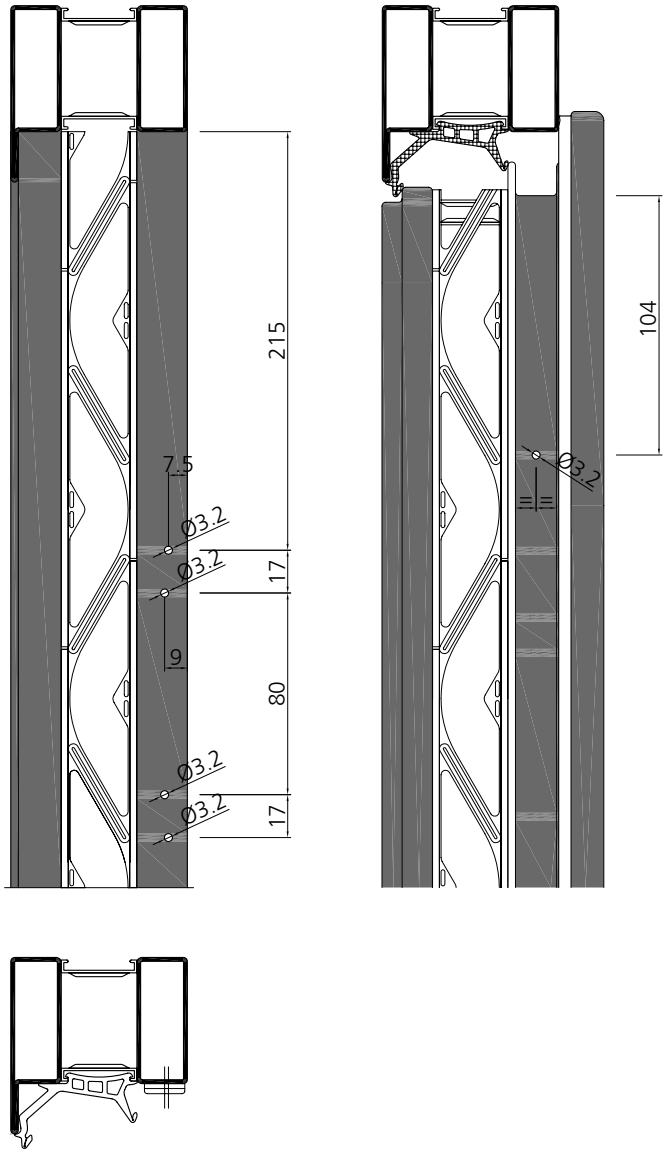
Beschlagseinbau Kippflügel

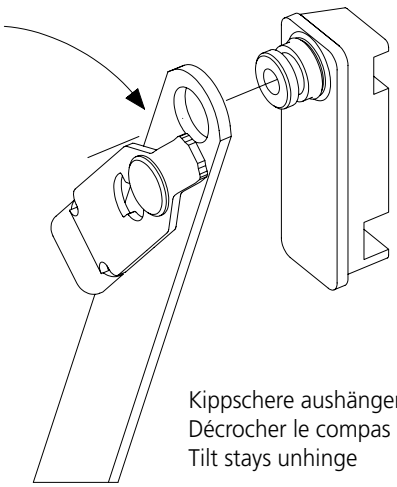
Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window







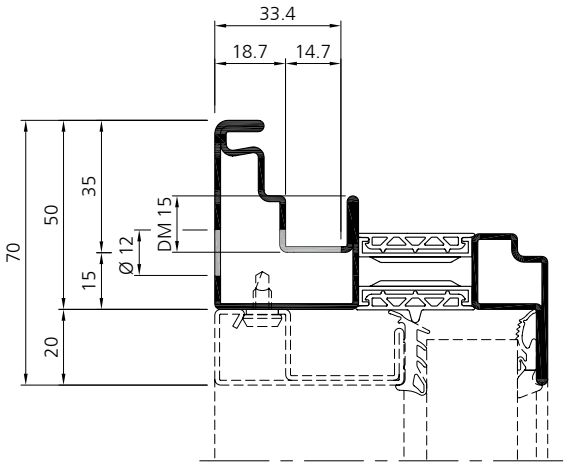


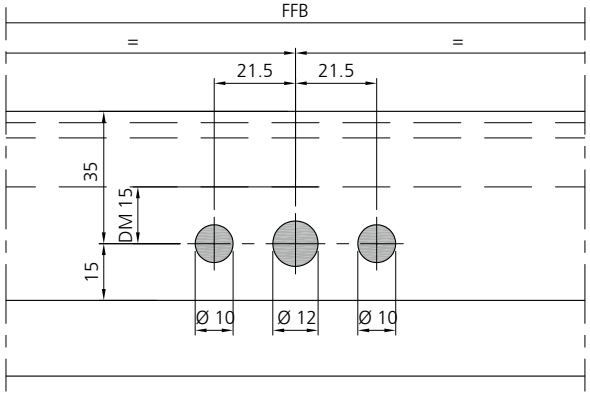
Kippschere aushängen
Décrocher le compas
Tilt stays unhinge

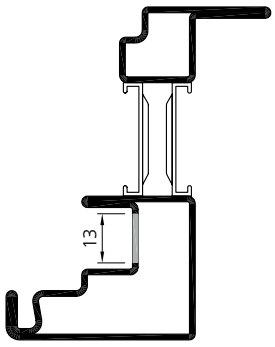
Beschlagseinbau Kippflügel

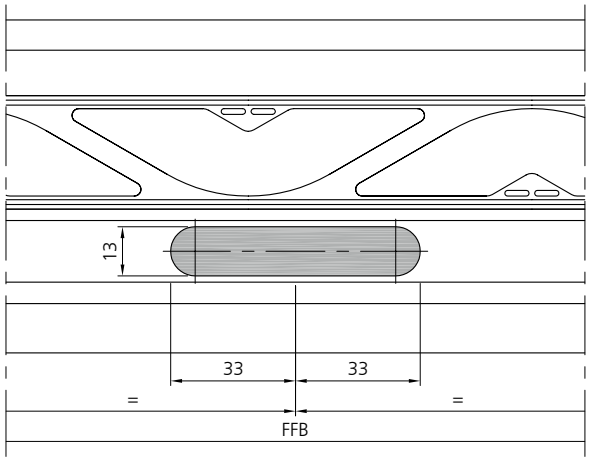
Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window

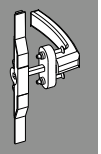








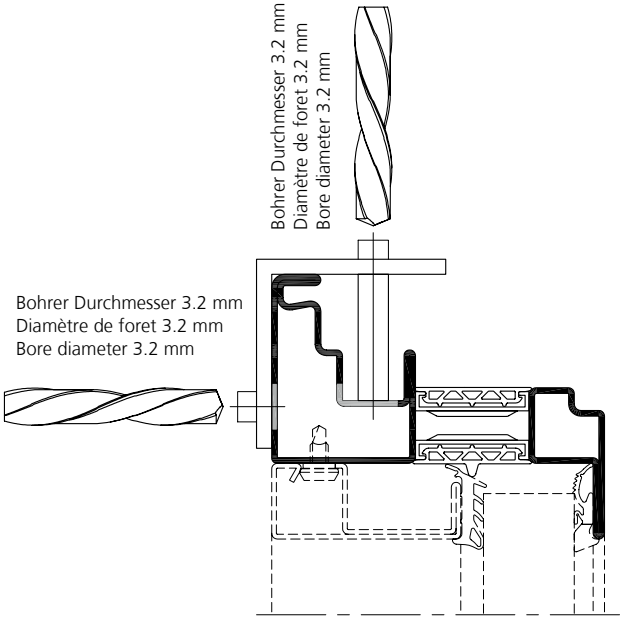
Ausnahme für Fenstergetriebe im horizontalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail horizontale préalablement!
Make the cut-out for the drive in the horizontale leaf profile first!

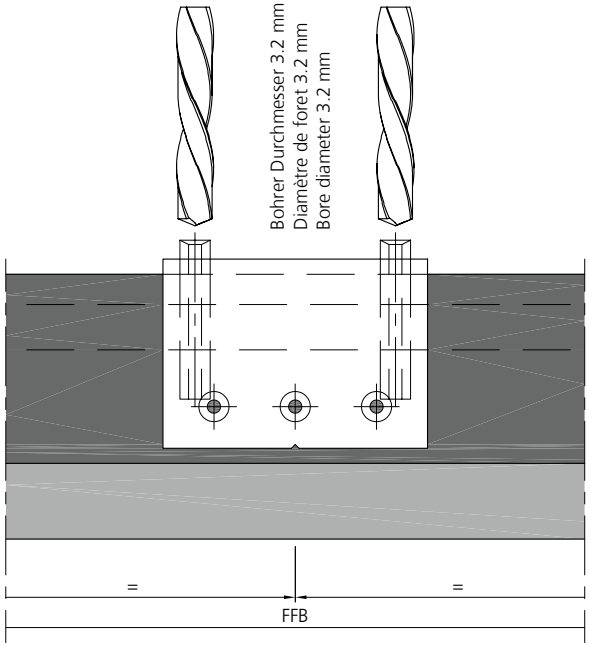


Beschlagseinbau Kippflügel

Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window

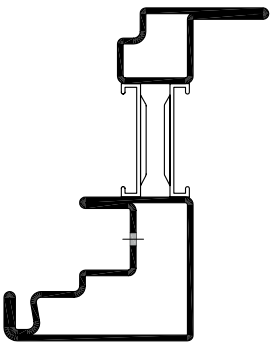


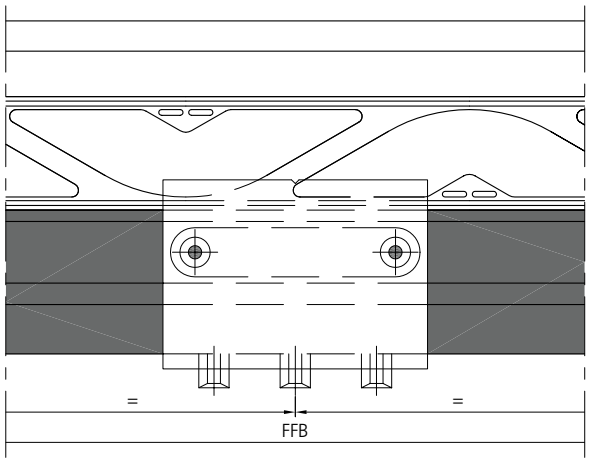


Bohrlehre **Art. Nr. 989108** zu Dreh-Kippgetreibe.

Gabarit de perçage **art. no. 989108** pour crémone oscillo-battant.

Drilling template **art. no. 989108** for turn-tilt drive.





Ausnahme für Fenstergetriebe im horizontalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail horizontale préalablement!
Make the cut-out for the drive in the horizontal leaf profile first!

Beschlagseinbau Kippflügel

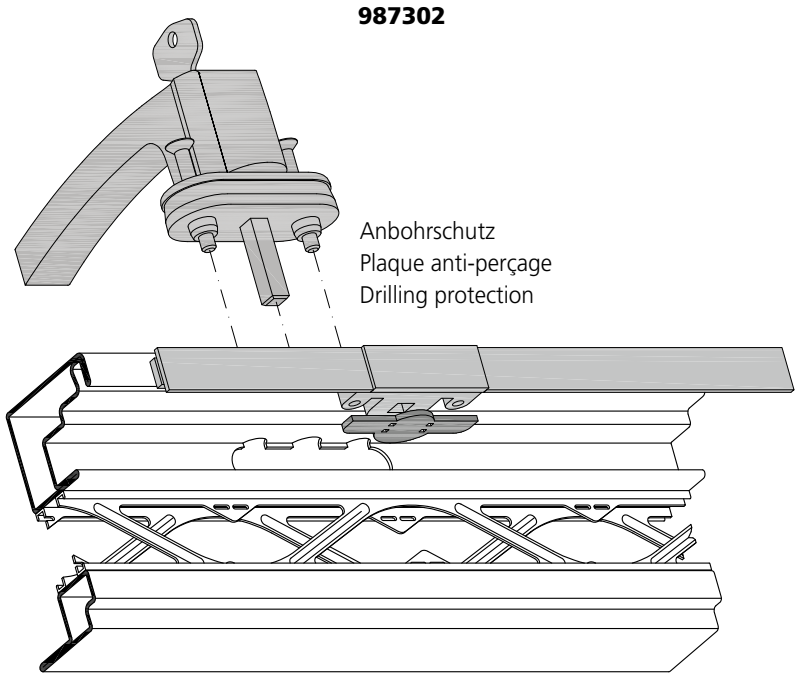
Senk-Schraube M5 x 40 (wird mit Griff **987302** geliefert).

Vis conique M5 x 40 (livrées avec la poignée **987302**).

Countersunk screw M5 x 40 (supplied with handle **987302**).

Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window



- Schraube M4 x 21 (selbstfurchend)
- Bohrloch 3.2 mm
- Bei Edelstahlprofil muss das M4 Gewinde geschnitten werden. Alternative: Bohrloch auf 3.5 aufbohren, Schraube ohne M4 Gewindeschnitt einsetzen.

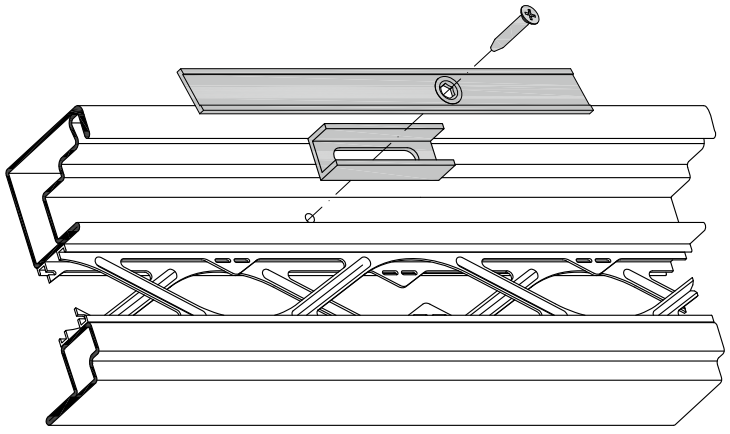
Bei jeder Verschraubung muss ein Distanzstück **927001** eingesetzt werden.

- Vis M4 x 21 (autotaraudeuse)
- Perçage 3.2 mm
- Avec le profilé en acier inox, la vis M4 doit être coupée. Alternative: agrandir le trou à 3.5, taraudage M4 pas necessaire.

La pièce d'entretoise **927001** doit être insérée sous toutes les fixations et assemblages.

- Screw M4 x 21 (self tapping)
- Drill hole 3.2 mm
- In stainless steel profiles, the M4 thread needs to be cut case. Alternative: drill out the drilling hole of 3.5, use screw without M4 thread.

The spacer **927001** must be placed under all screw connections.

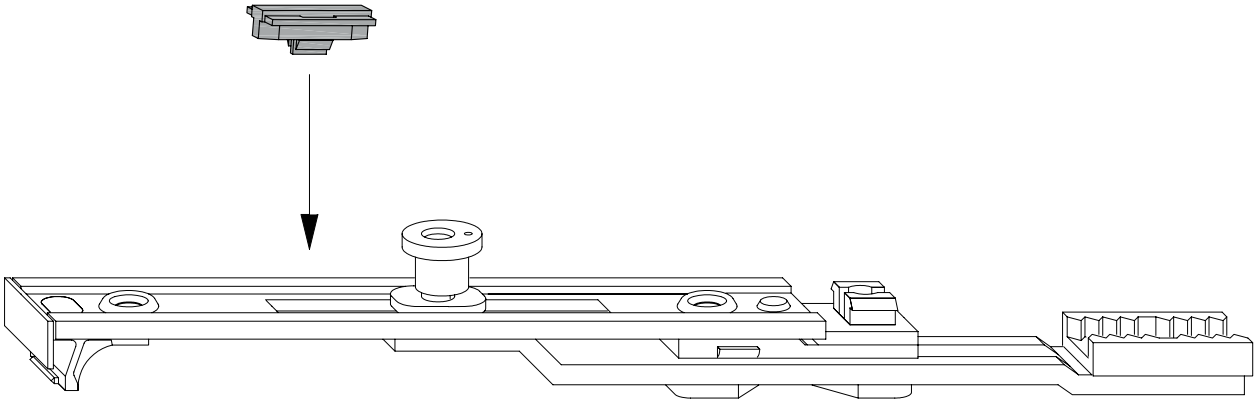


Beschlagseinbau Kippflügel

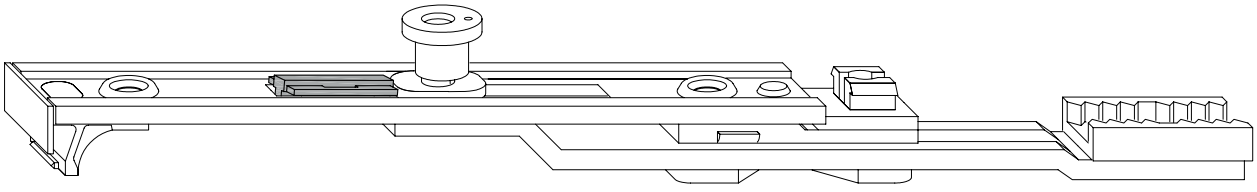
Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window

Hubbegrenzer (90°)
Limitateur de course (90°)
Travel - restrictor (90°)



Getriebeanschluss V
Raccord de crémone V
Espagnolette-connector V



Beschlagseinbau Kippflügel

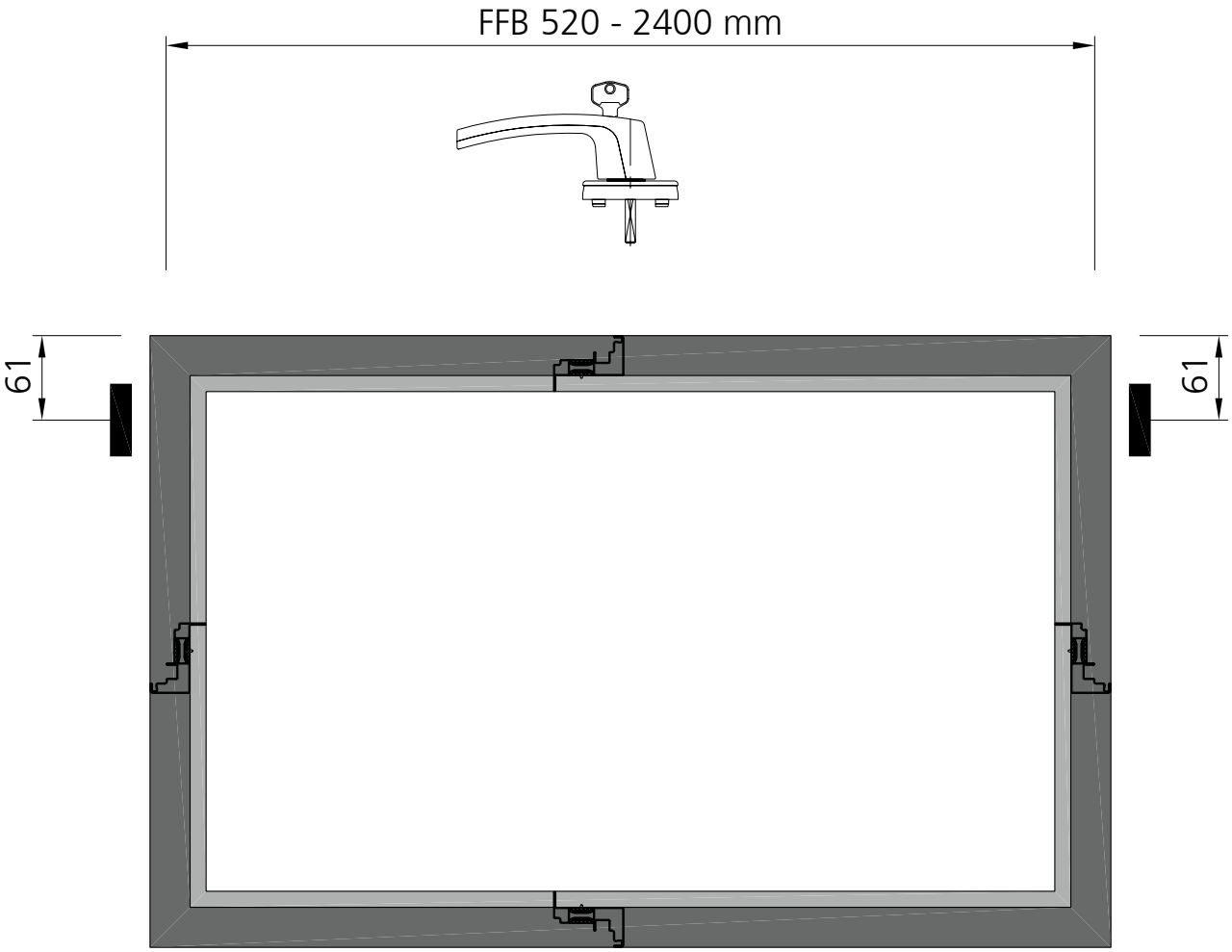
Montage de la quincaillerie Ouvrant à soufflet

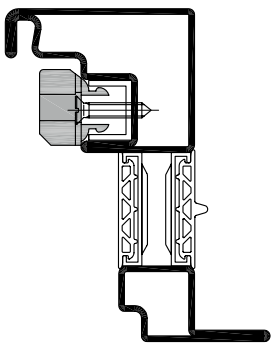
Installation of the fittings Tilt only window

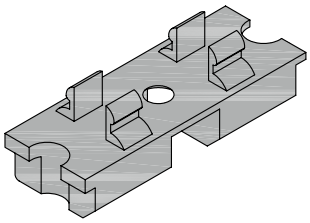
Einbau Falzluft-Begrenzer

Montage limitateur de feuillure

Mounting rebate restrictor







Beschlagseinbau Kippflügel

Einsatz der Forster Bohrlehre **989100** für den Standard Beschlag auf dem Kippflügel

FFB 520 - 1200 mm
FFH 350 - 1200 mm

Montage de la quincaillerie Ouvrant à soufflet

Utilisation des gabarits de perçage Forster **989100** pour la quincaillerie standard sur le vantail ouvrant à soufflet

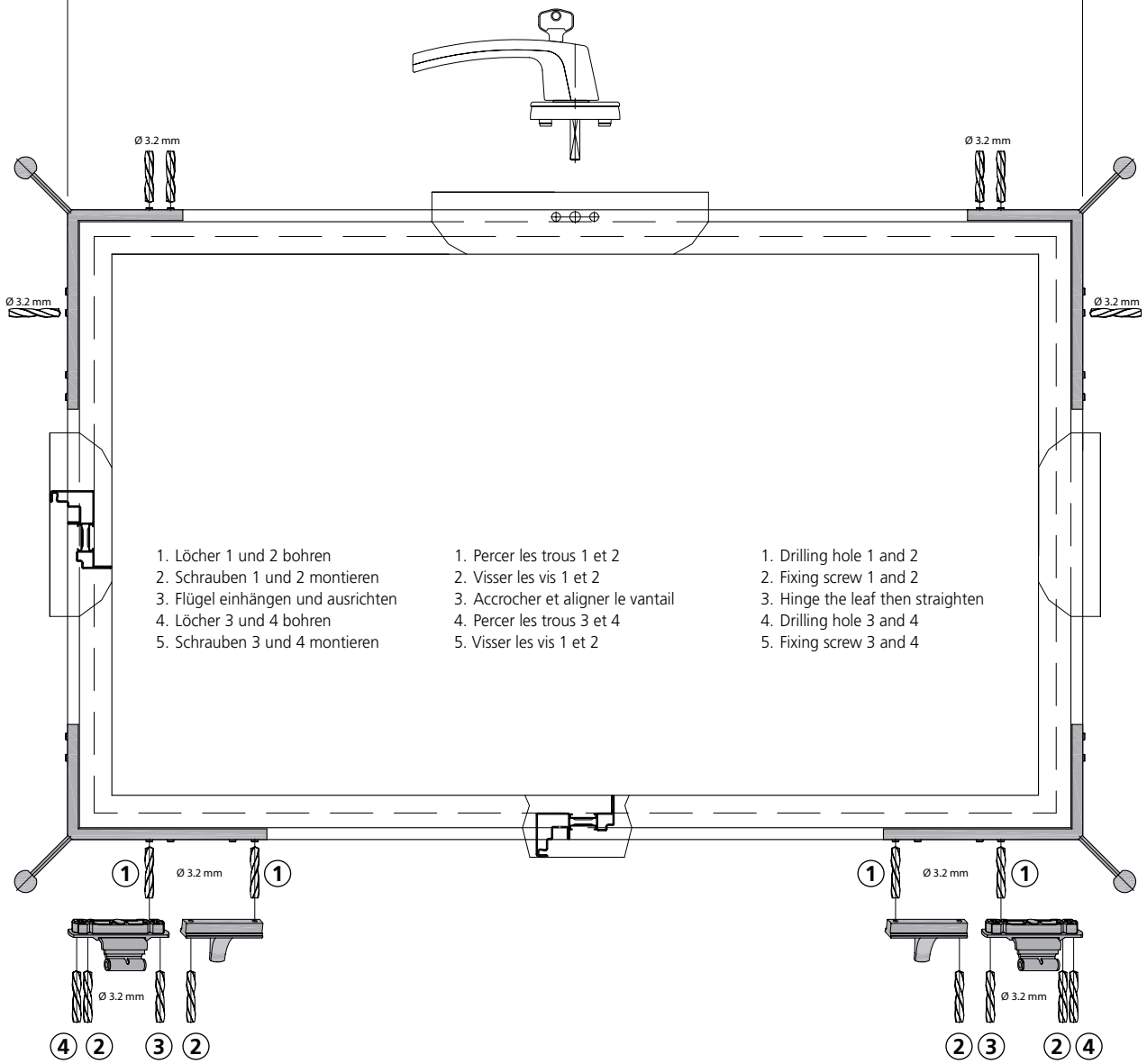
FFB 520 - 1200 mm
FFH 350 - 1200 mm

Installation of the fittings Tilt only window

Use the Forster drilling template **989100** for the standard fittings on the tilt only leaf

FFB 520 - 1200 mm
FFH 350 - 1200 mm

FFB 520 - 1200 mm



Beschlagseinbau Kippflügel

Einsatz der Forster Bohrlehre **989100** für den Standard Beschlag auf dem Kippflügel

FFB 1201 - 2400 mm
FFH 350 - 1200 mm

Montage de la quincaillerie Ouvrant à soufflet

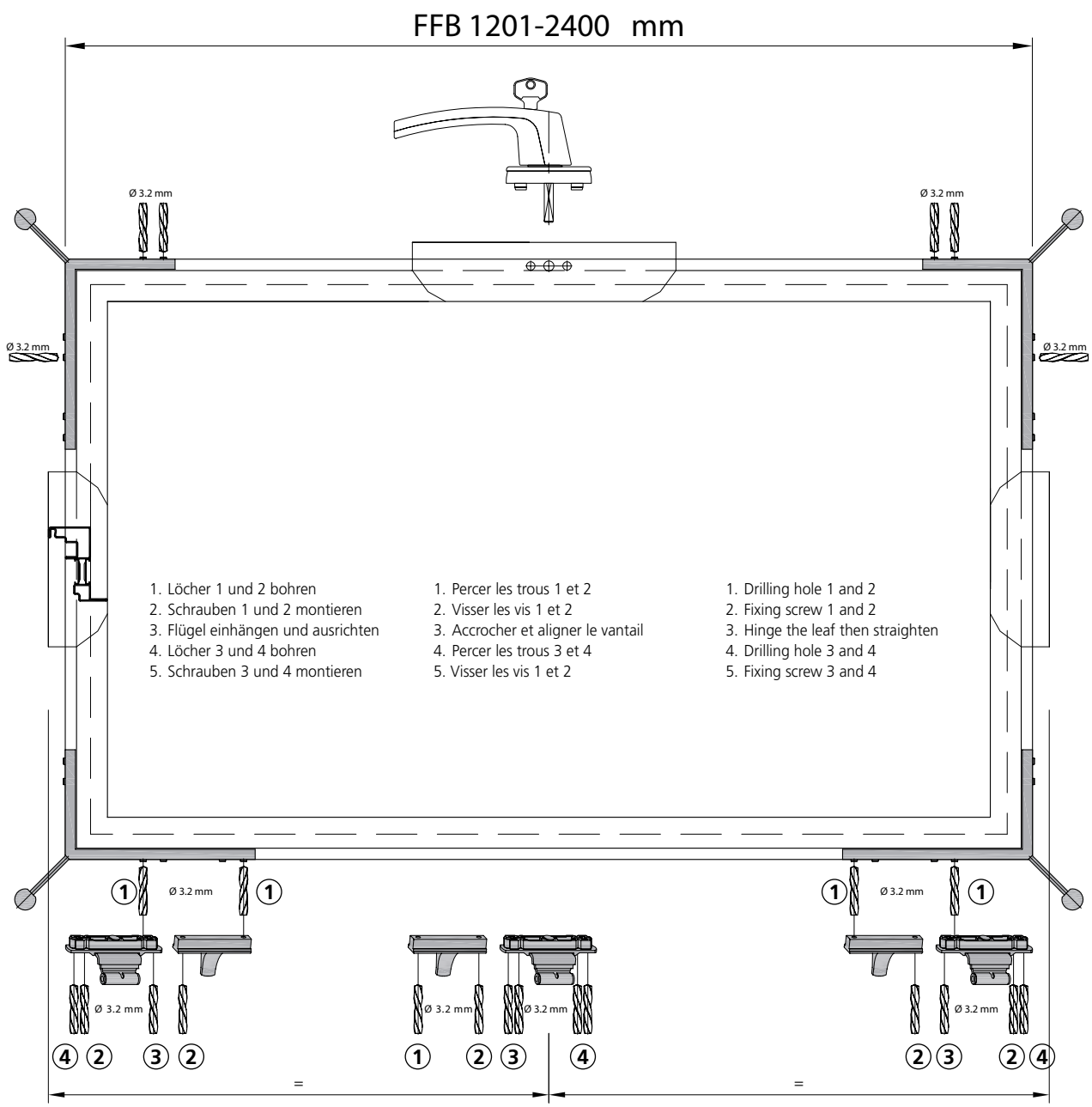
Utilisation des gabarits de perçage Forster **989100** pour la quincaillerie standard sur le vantail ouvrant à soufflet

FFB 1201 - 2400 mm
FFH 350 - 1200 mm

Installation of the fittings Tilt only window

Use the Forster drilling template **989100** for the standard fittings on the tilt only leaf

FFB 1201 - 2400 mm
FFH 350 - 1200 mm



Beschlagseinbau Kippflügel

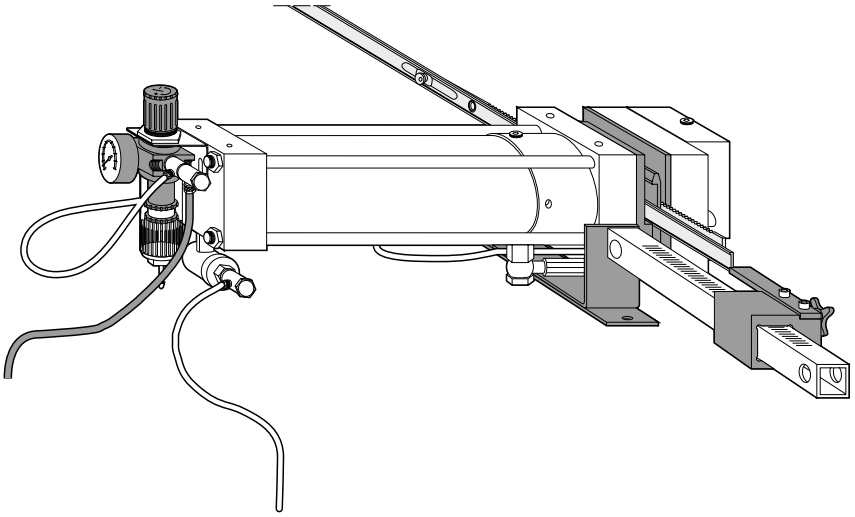
Ablängen mit pneumatischer Stanze (Lochstanzung)

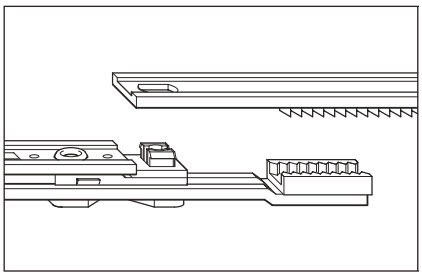
Montage de la quincaillerie Ouvrant à soufflet

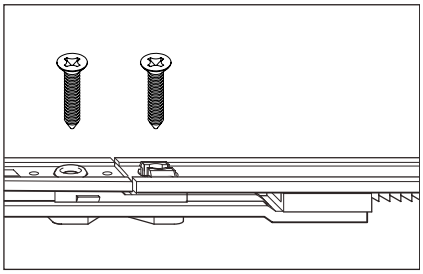
Couper à la longueur requise avec un dispositif de poinçonnage pneumatique

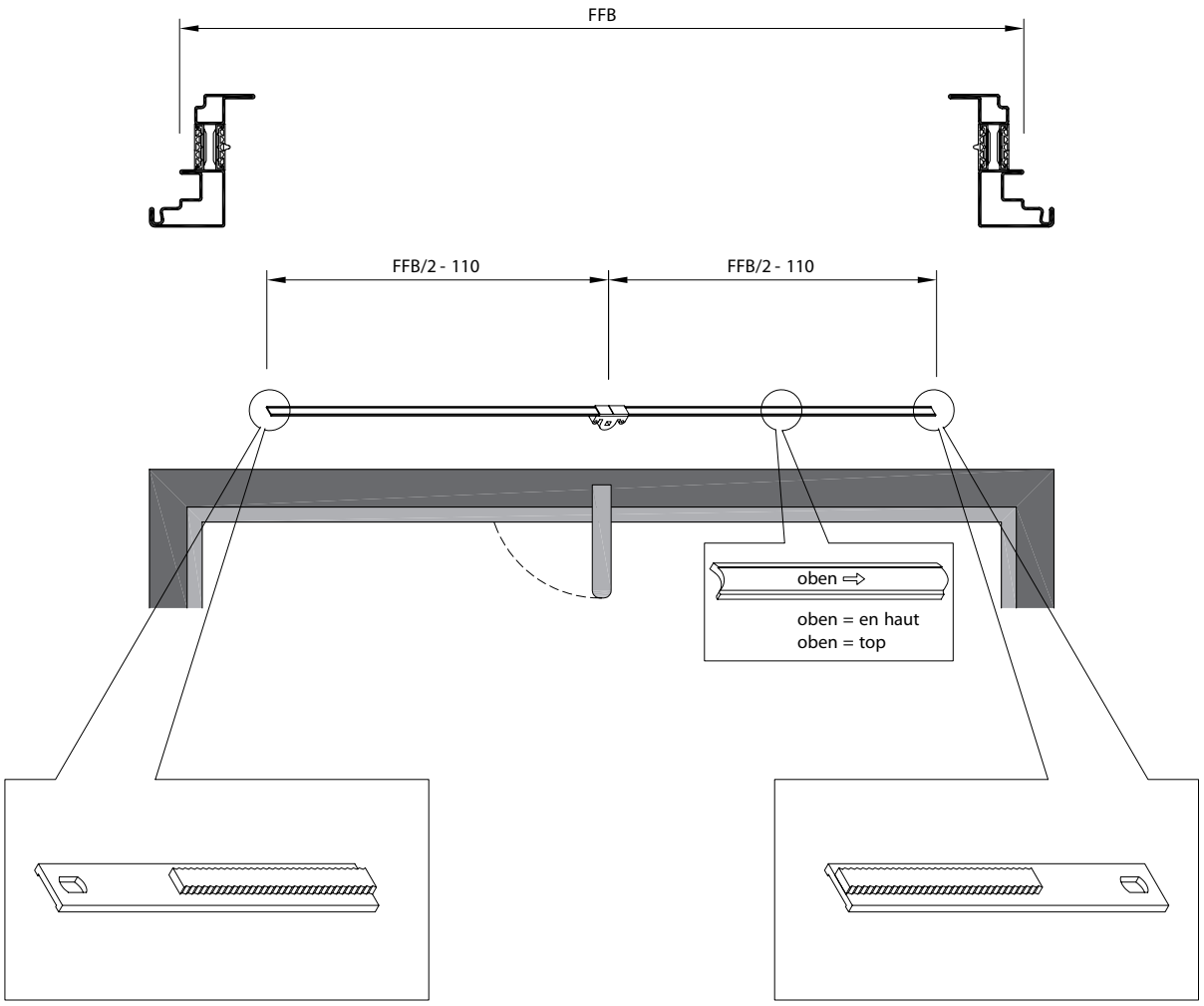
Installation of the fittings Tilt only window

Cut to length with pneumatic punching tool (hole punching)









Beschlagseinbau Kippflügel

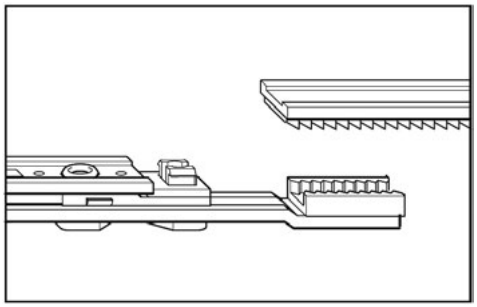
Ablängen mit Säge und Einsatz mit Verbindungslasche

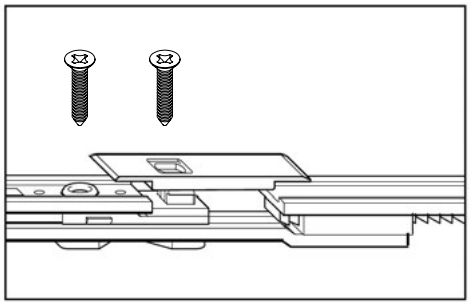
Montage de la quincaillerie Ouvrant à soufflet

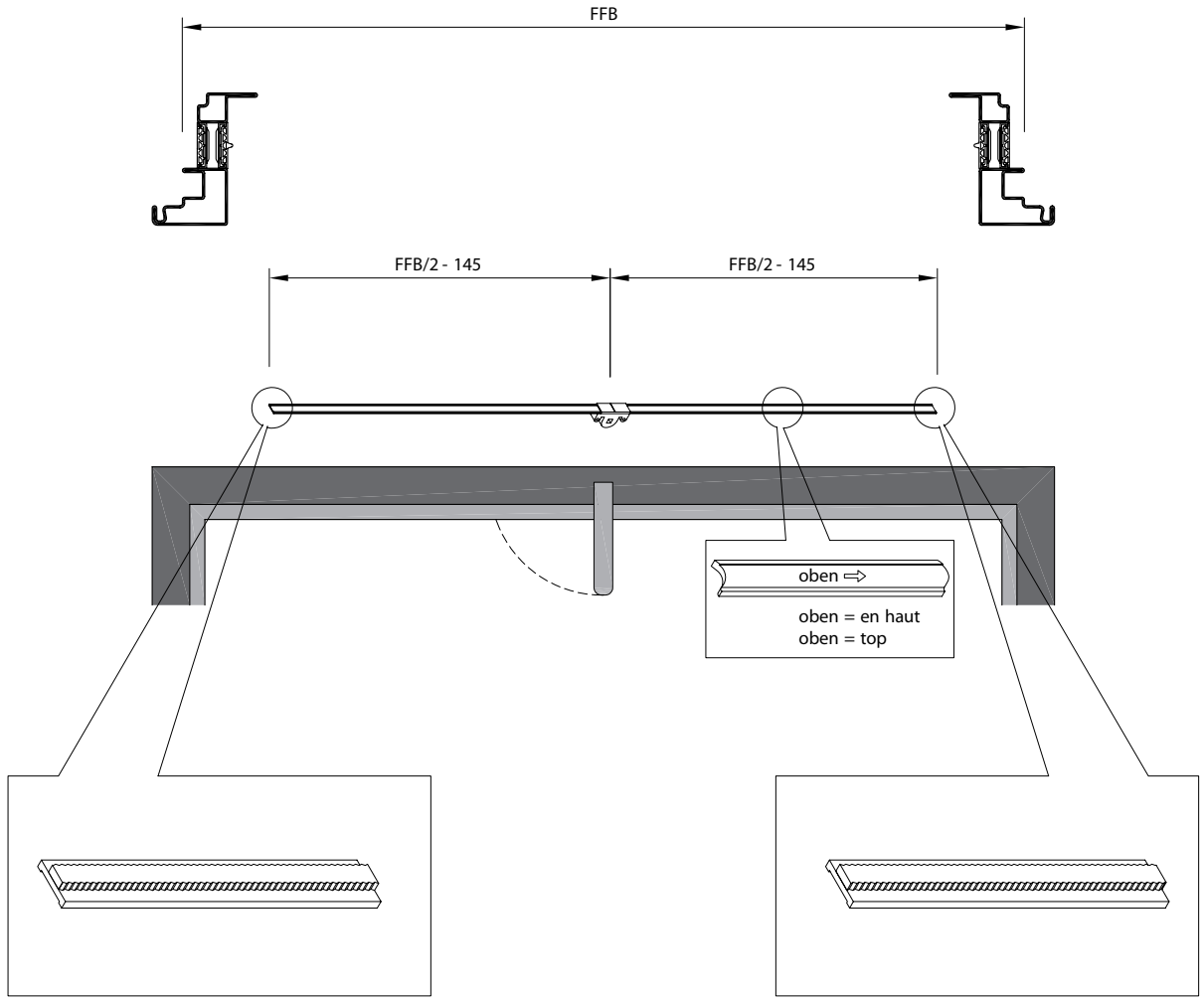
Couper à la longueur requise avec une scie et assembler avec une plaque de liaison

Installation of the fittings Tilt only window

Cut to length with saw and use with connecting link



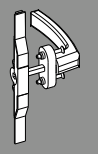


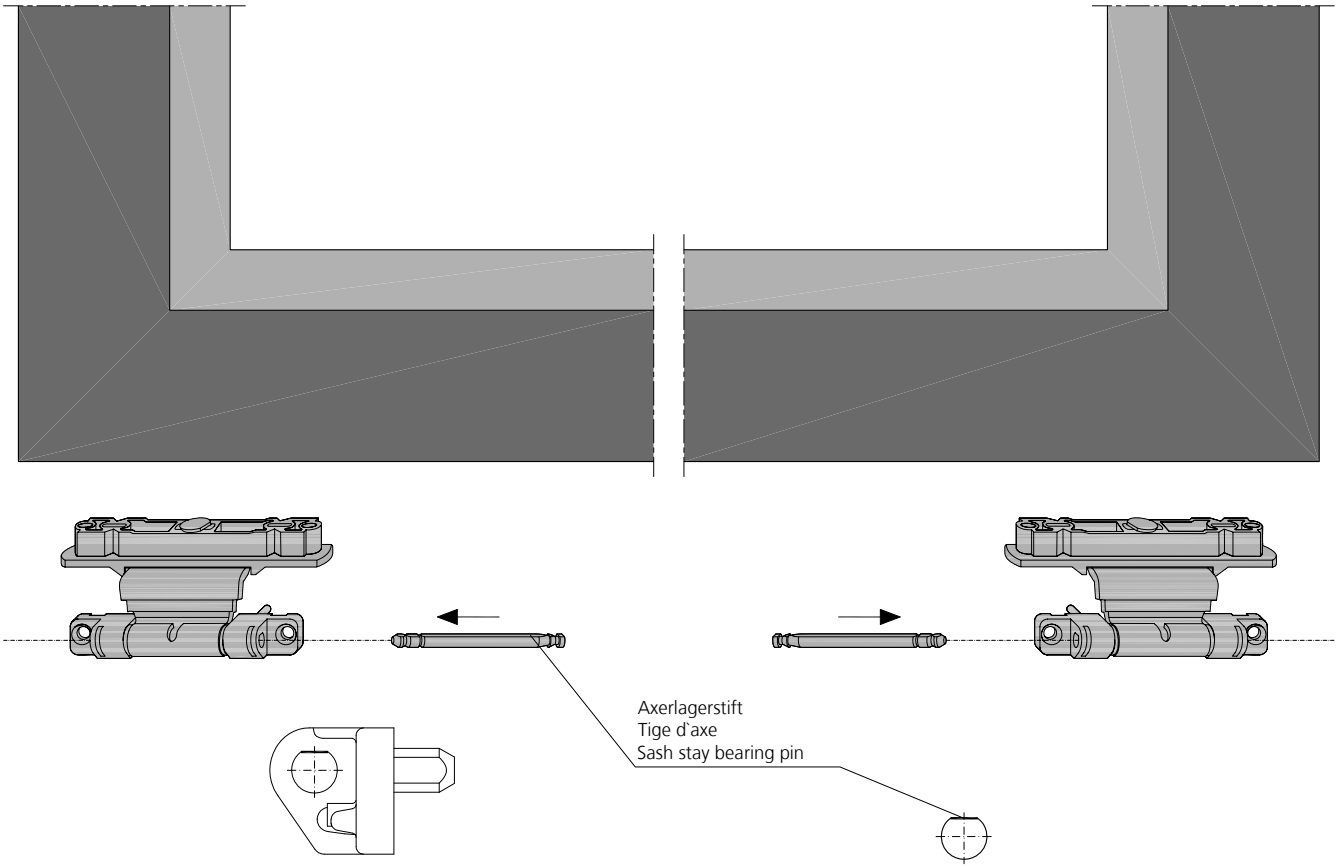


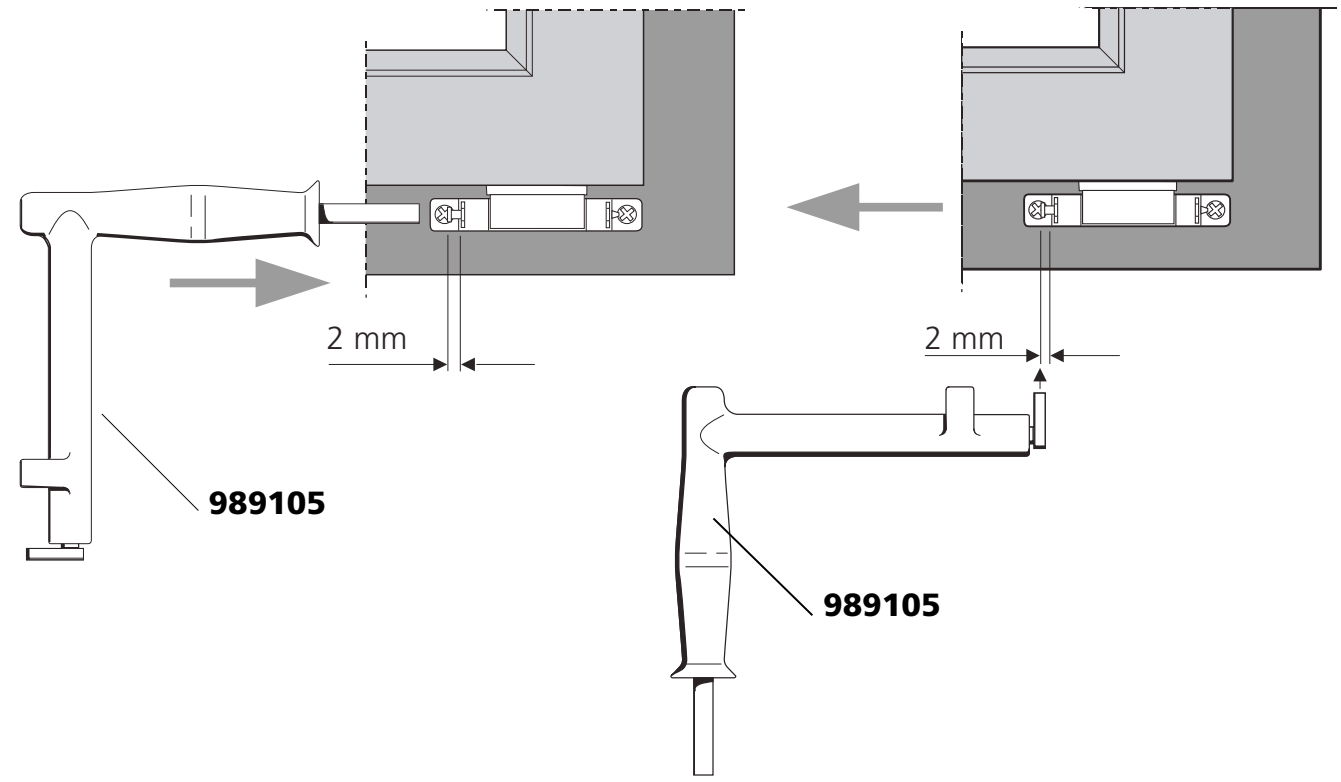
Beschlagseinbau Kippflügel

Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window







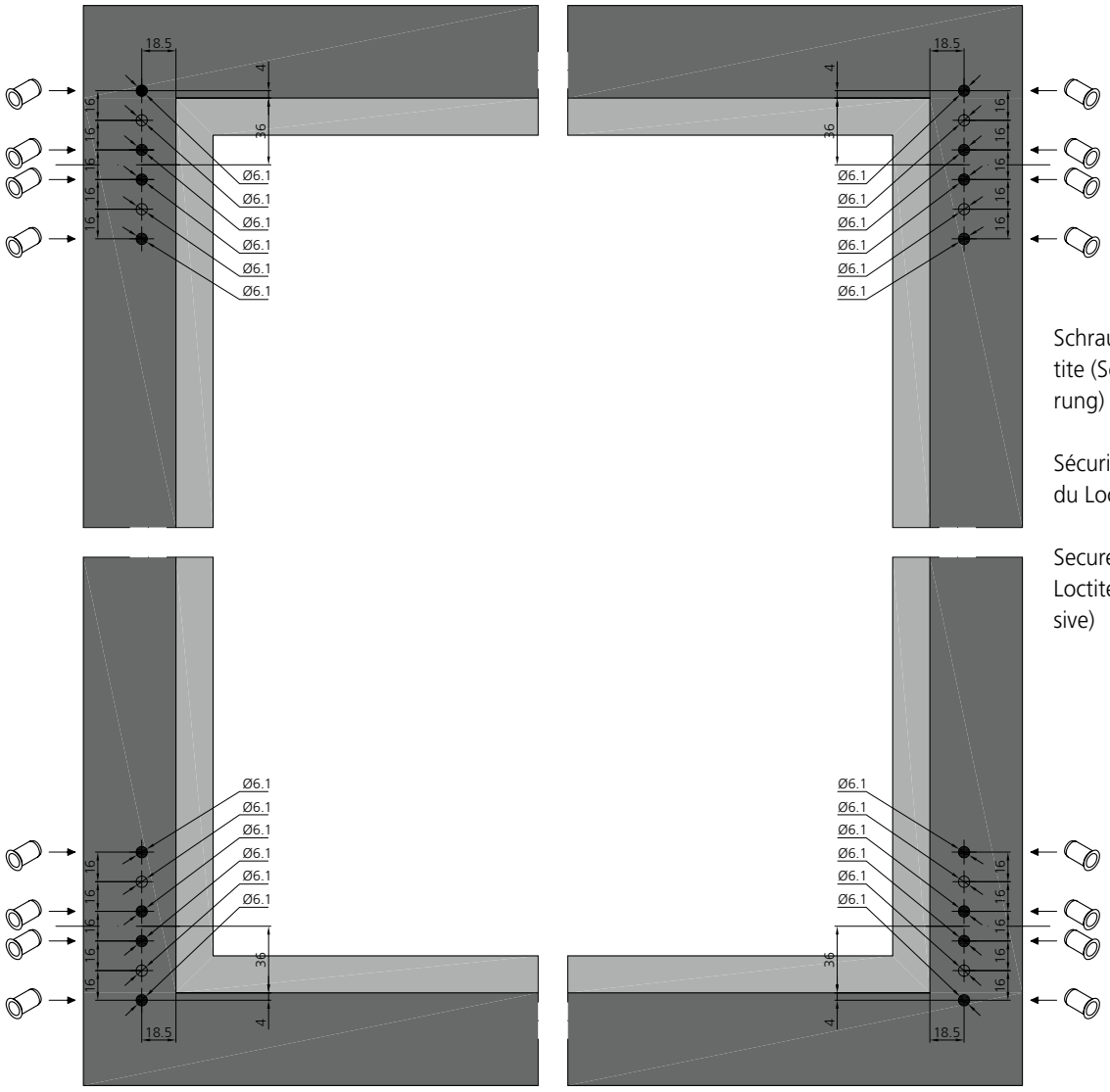
Beschlagseinbau 1-flügeliges Fenster RC3

Montage de la quincaillerie Fenêtre à 1 vantail RC3

Installation of the fittings Window 1 leaf RC3

DIN links
DIN gauche
DIN left

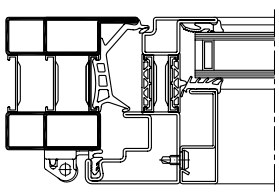
DIN rechts
DIN droite
DIN right

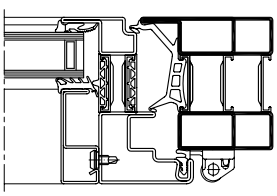


Schrauben mit Loctite (Schraubensicherung) sichern

Sécuriser les vis avec du Loctite

Secure screw with Loctite (screw adhesive)

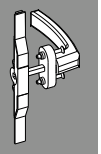


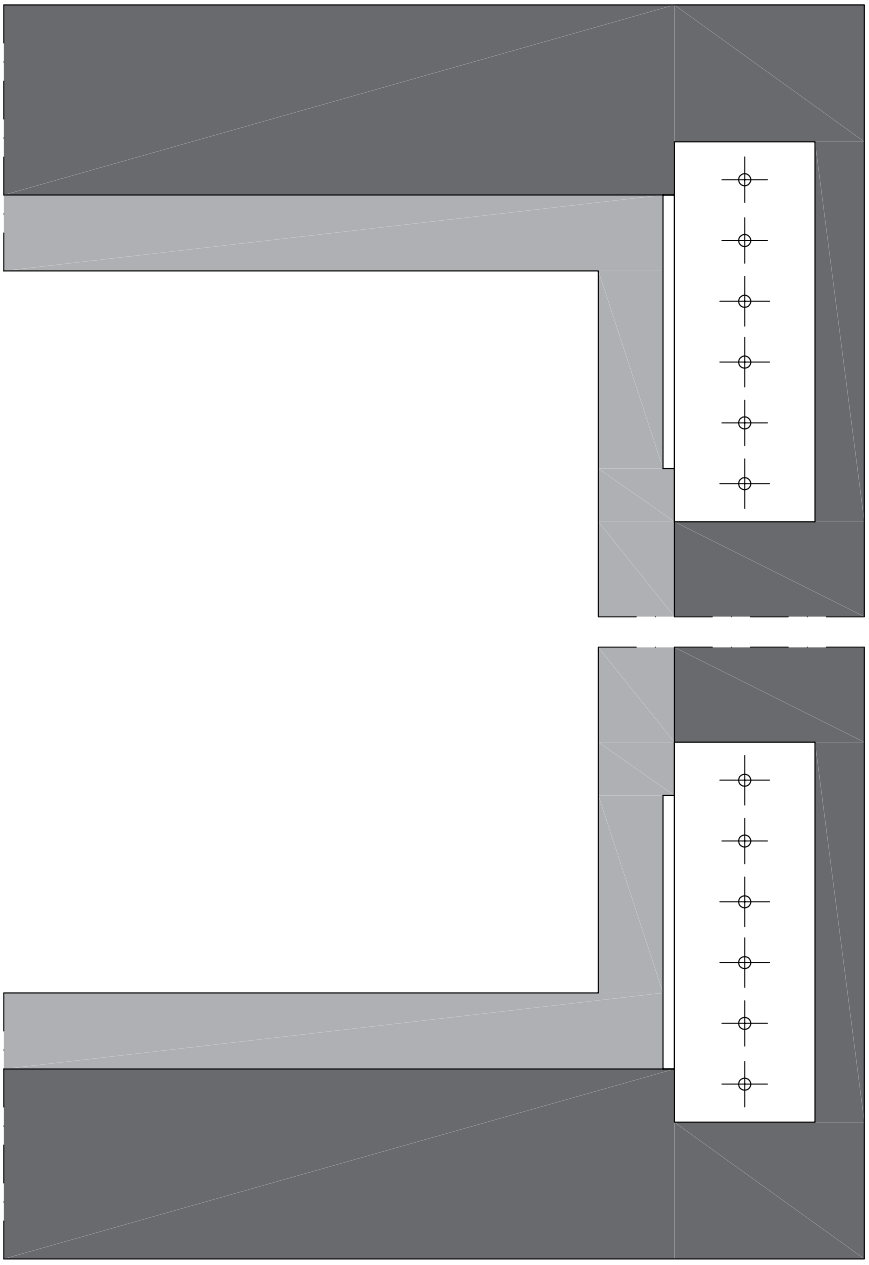


Beschlagseinbau 1-flügeliges Fenster RC3

Montage de la quincaillerie Fenêtre à 1 vantail RC3

Installation of the fittings Window 1 leaf RC3

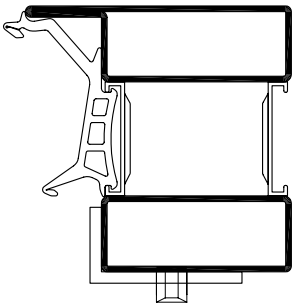




Bohrlehre **Art.Nr 989103**
zu Axer- und Ecklager

Gabarit de perçage **art no 989103** pour
palier dàngle et palier de compas

Drilling template **art. no. 989103** for
sash stay bearing and corner pivot rest





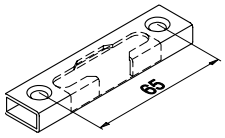
Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

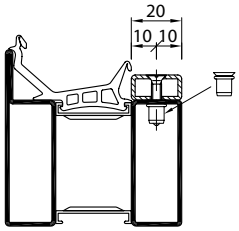
Beschlagseinbau 1-flügeliges Fenster RC3

Anordnung Schliessstücke
1-flg. in Abhängigkeit der Flügelfalz-Breite

FFB 310 – 410 mm

Bandseite
Côté paumelle
Hinge side





Einnietmutter M4
rivet taraudé M4
clinch nut M4

Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Montage de la quincaillerie Fenêtre à 1 vantail RC3

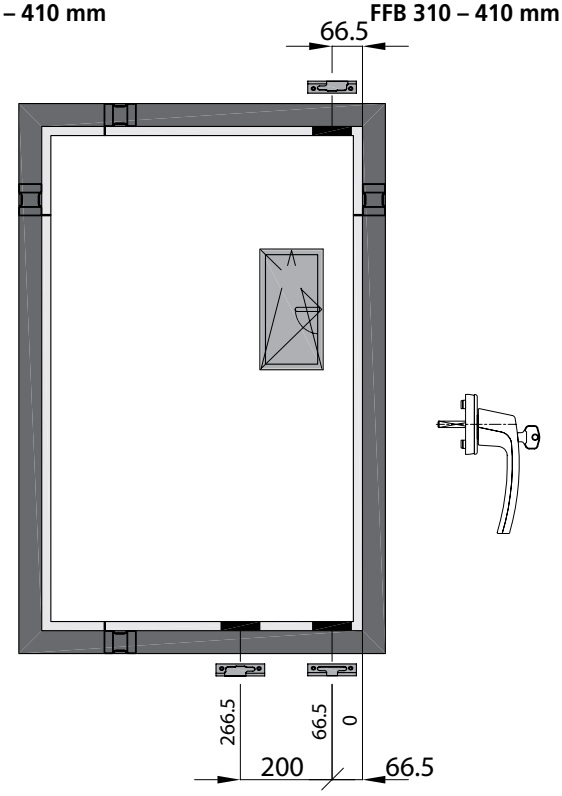
Disposition des gâches
1 vantail selon la largeur de la feuillure de vantail

FFB 310 – 410 mm

Installation of the fittings Window 1 leaf RC3

Arrangement of the strikers
1 leaf, depending on the width of the leaf rebate

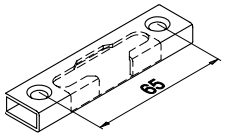
FFB 310 – 410 mm

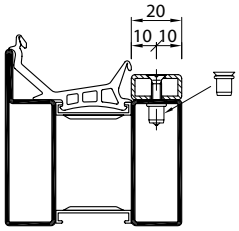


Getriebeseite
Côté crémone
Drive side

Anordnung Schliesstücke
FFB 411 – 600 mm

Bandseite
Côté paumelle
Hinge side



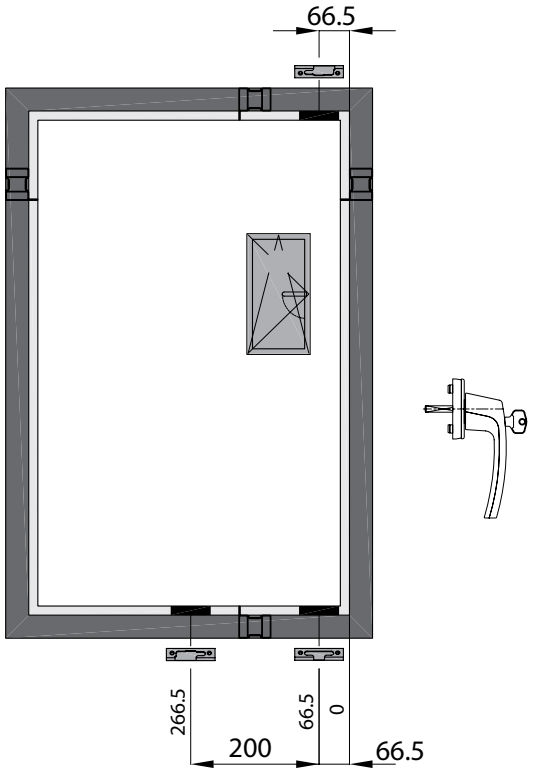


Einnietmutter M4
rivet taraudé M4
clinch nut M4

Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Disposition des gâches
FFB 411 – 600 mm

Arrangement of the strikers
FFB 411 – 600 mm



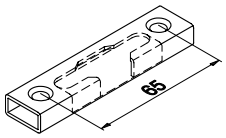
Getriebeseite
Côté crémone
Drive side

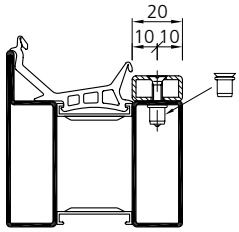
Beschlagseinbau 1-flügeliges Fenster RC3

Anordnung Schliessstücke
1-flg. in Abhängigkeit der Flügelfalz-Breite

FFB 601 – 800 mm

Bandseite
Côté paumelle
Hinge side





Einnietmutter M4
rivet taraudé M4
clinch nut M4

Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Montage de la quincaillerie Fenêtre à 1 vantail RC3

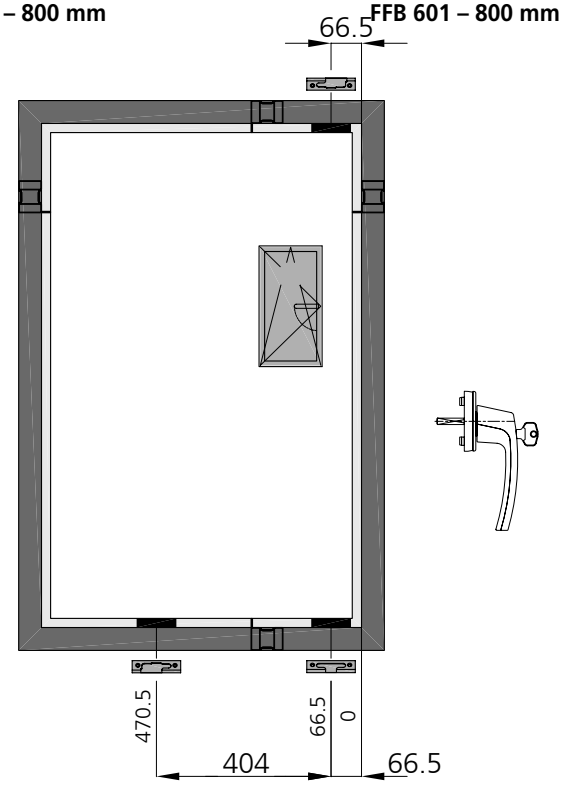
Disposition des gâches
1 vantail selon la largeur de la feuillure de vantail

FFB 601 – 800 mm

Installation of the fittings Window 1 leaf RC3

Arrangement of the strikers
1 leaf, depending on the width of the leaf rebate

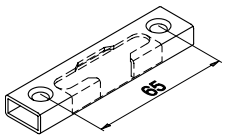
FFB 601 – 800 mm

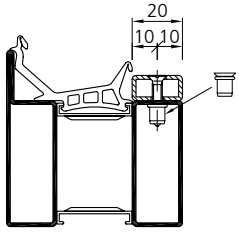


Getriebeseite
Côté crémone
Drive side

Anordnung Schliesstücke
FFB 801 – 1000 mm

Bandseite
Côté paumelle
Hinge side



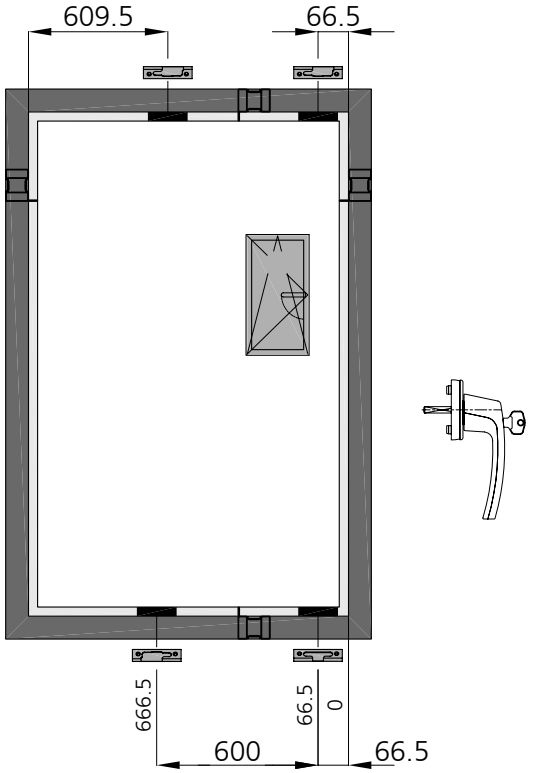


Einnietmutter M4
rivet taraudé M4
clinch nut M4

Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Disposition des gâches
FFB 801 – 1000 mm

Arrangement of the strikers
FFB 801 – 1000 mm



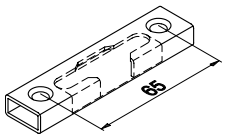
Getriebeseite
Côté crémone
Drive side

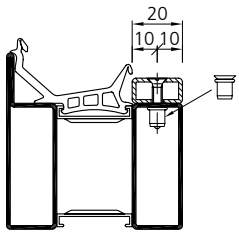
Beschlagseinbau 1-flügeliges Fenster RC3

Anordnung Schliessstücke
1-flg. in Abhängigkeit der Flügelfalz-Breite

FFB 1001 – 1200 mm

Bandseite
Côté paumelle
Hinge side





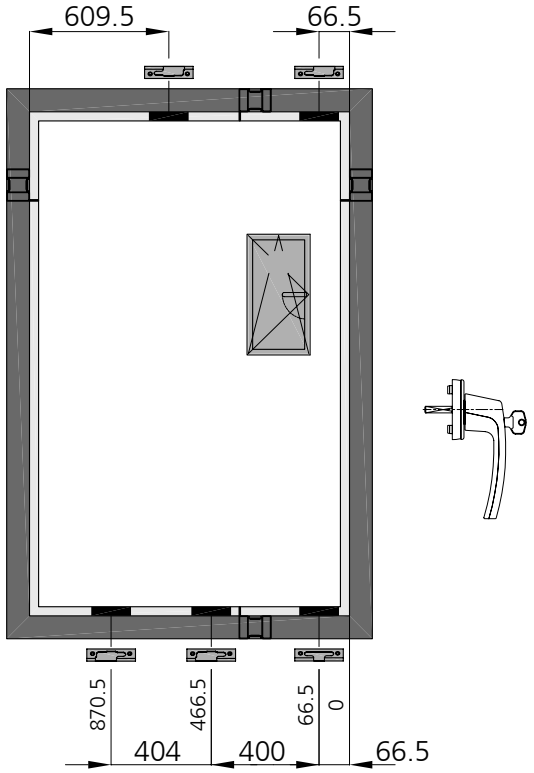
Einnietmutter M4
rivet taraudé M4
clinch nut M4

Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Montage de la quincaillerie Fenêtre à 1 vantail RC3

Disposition des gâches
1 vantail selon la largeur de la feuillure de vantail

FFB 1001 – 1200 mm

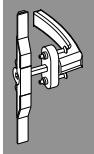


Getriebeseite
Côté crémone
Drive side

Installation of the fittings Window 1 leaf RC3

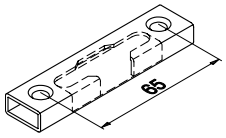
Arrangement of the strikers
1 leaf, depending on the width of the leaf rebate

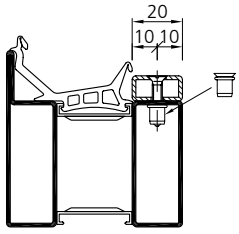
FFB 1001 – 1200 mm



Anordnung Schliesstücke
FFB 1201 – 1400 mm

Bandseite
Côté paumelle
Hinge side

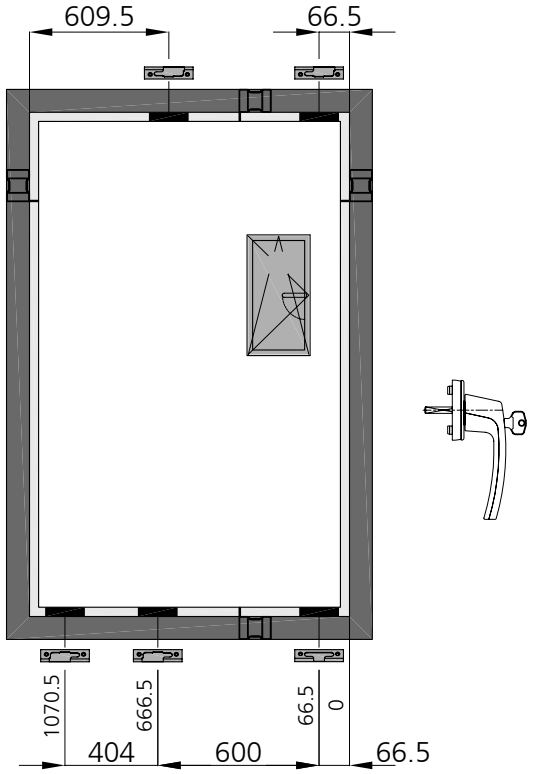




Einnietmutter M4
rivet taraudé M4
clinch nut M4

Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Disposition des gâches
FFB 1201 – 1400 mm



Getriebeseite
Côté crémone
Drive side

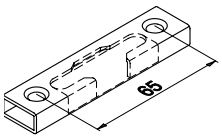
Arrangement of the strikers
FFB 1201 – 1400 mm

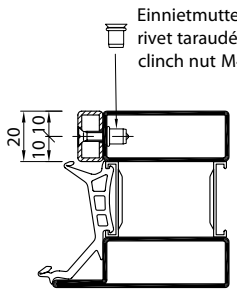
Beschlagseinbau 1-flügeliges Fenster RC3

Anordnung Schliessstücke
1-flg. in Abhängigkeit der Flügelfalz-Höhe

FFH 520 – 620 mm
GH 260 – 310 mm

Bandseite
Côté paumelle
Hinge side

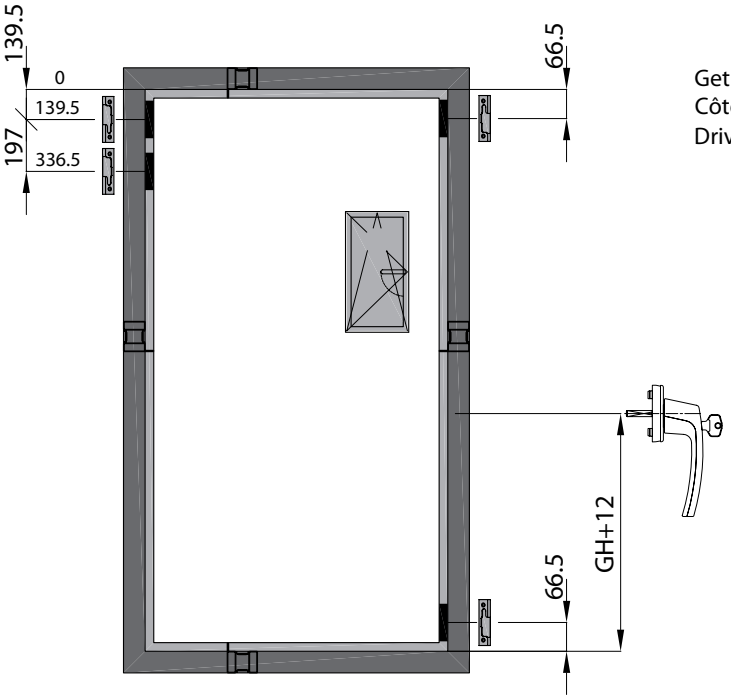




Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Montage de la quincaillerie Fenêtre à 1 vantail RC3

Disposition des gâches
1 vantail selon la hauteur de la feuillure de vantail
FFH 520 – 620 mm
GH 260 – 310 mm



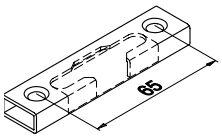
Getriebeseite
Côté crémone
Drive side

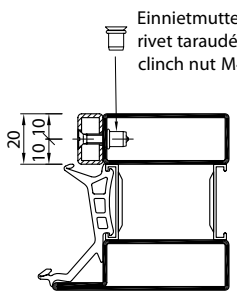
Installation of the fittings Window 1 leaf RC3

Arrangement of the strikers
1 leaf, depending on the height of the leaf rebate
FFH 520 – 620 mm
GH 260 – 310 mm

Anordnung Schliesstücke
FFH 621 – 800 mm
GH 311 – 400 mm

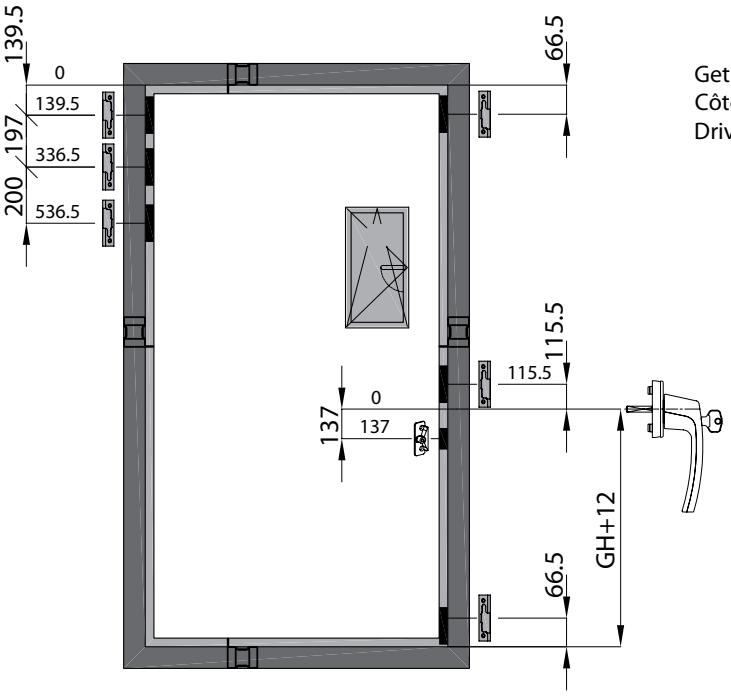
Bandseite
Côté paumelle
Hinge side





Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Disposition des gâches
FFH 621 – 800 mm
GH 311 – 400 mm



Getriebeseite
Côté crémone
Drive side

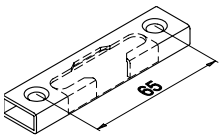
Arrangement of the strikers
FFH 621 – 800 mm
GH 311 – 400 mm

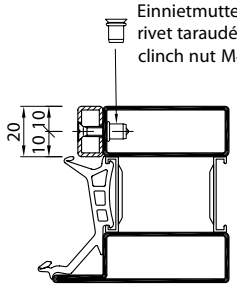
Beschlagseinbau 1-flügeliges Fenster RC3

Anordnung Schliessstücke
1-flg. in Abhängigkeit der Flügelfalz-Höhe

FFH 801 – 1200 mm
GH 401 – 600 mm

Bandseite
Côté paumelle
Hinge side





Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Montage de la quincaillerie Fenêtre à 1 vantail RC3

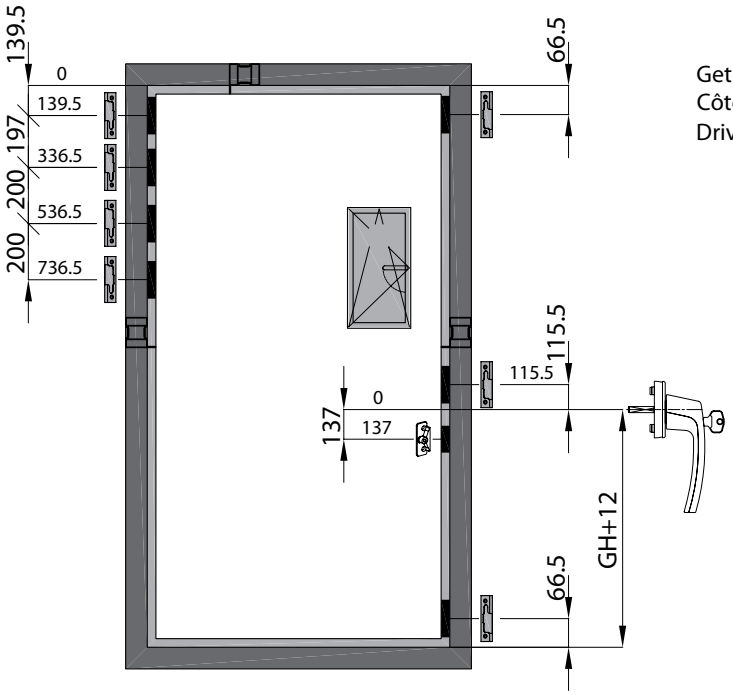
Disposition des gâches
1 vantail selon la hauteur de la feuillure de vantail

FFH 801 – 1200 mm
GH 401 – 600 mm

Installation of the fittings Window 1 leaf RC3

Arrangement of the strikers
1 leaf, depending on the height of the leaf rebate

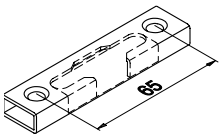
FFH 801 – 1200 mm
GH 401 – 600 mm

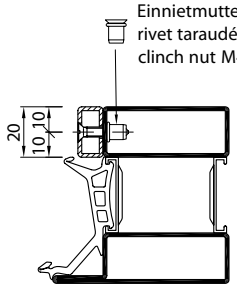


Getriebeseite
Côté crémone
Drive side

Anordnung Schliesstücke
FFH 1201 – 1600 mm
GH 601 – 800 mm

Bandseite
Côté paumelle
Hinge side

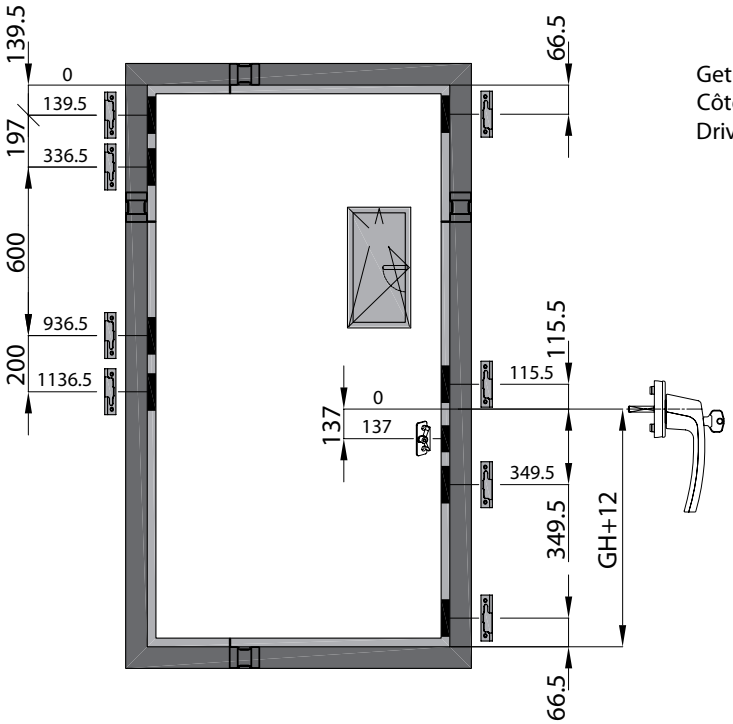




Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Disposition des gâches
FFH 1201 – 1600 mm
GH 601 – 800 mm

Arrangement of the strikers
FFH 1201 – 1600 mm
GH 601 – 800 mm



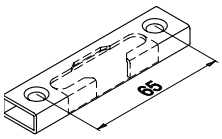
Getriebeseite
Côté crémone
Drive side

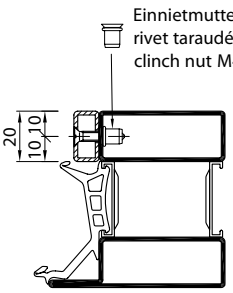
Beschlagseinbau 1-flügeliges Fenster RC3

Anordnung Schliessstücke
1-flg. in Abhängigkeit der Flügelfalz-Höhe

FFH 1601 – 2000 mm
GH 801 – 1000 mm

Bandseite
Côté paumelle
Hinge side





Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Montage de la quincaillerie Fenêtre à 1 vantail RC3

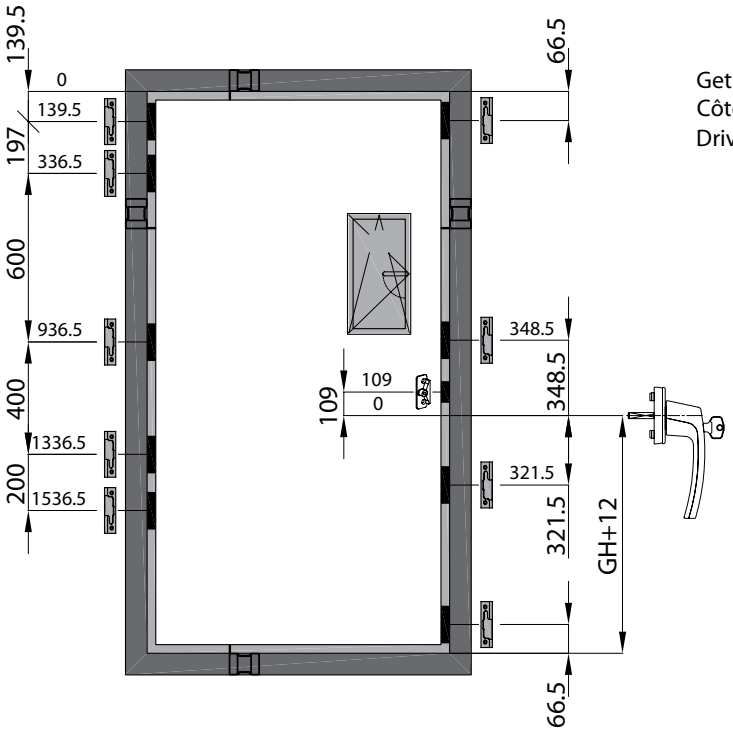
Disposition des gâches
1 vantail selon la hauteur de la feuillure de vantail

FFH 1601 – 2000 mm
GH 801 – 1000 mm

Installation of the fittings Window 1 leaf RC3

Arrangement of the strikers
1 leaf, depending on the height of the leaf rebate

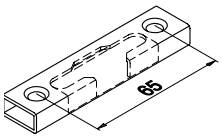
FFH 1601 – 2000 mm
GH 801 – 1000 mm

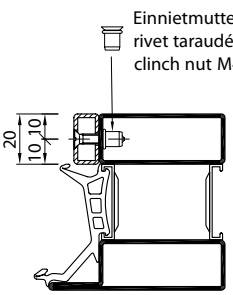


Getriebeseite
Côté crémone
Drive side

Anordnung Schliesstücke
FFH 2001 – 2400 mm
GH 1001 – 1200 mm

Bandseite
Côté paumelle
Hinge side

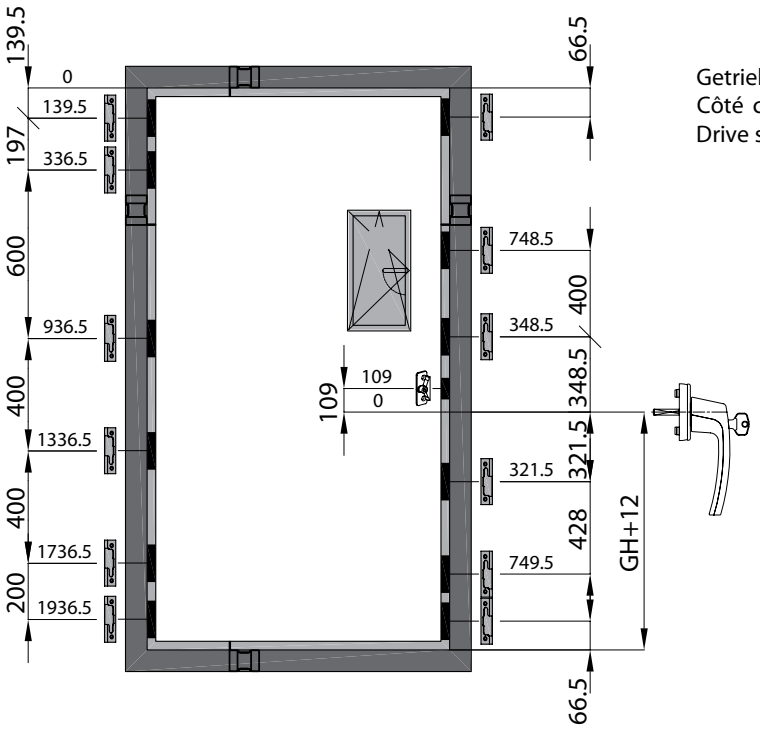




Gezeichnet DIN Links, DIN Rechts spiegelbildlich
Dessiné DIN gauche, DIN droite symétrique
Marked DIN left, DIN right mirror images

Disposition des gâches
FFH 2001 – 2400 mm
GH 1001 – 1200 mm

Arrangement of the strikers
FFH 2001 – 2400 mm
GH 1001 – 1200 mm



Getriebeseite
Côté crémone
Drive side

VUF 01/19

Beschlagseinbau 1-flügeliges Fenster RC3

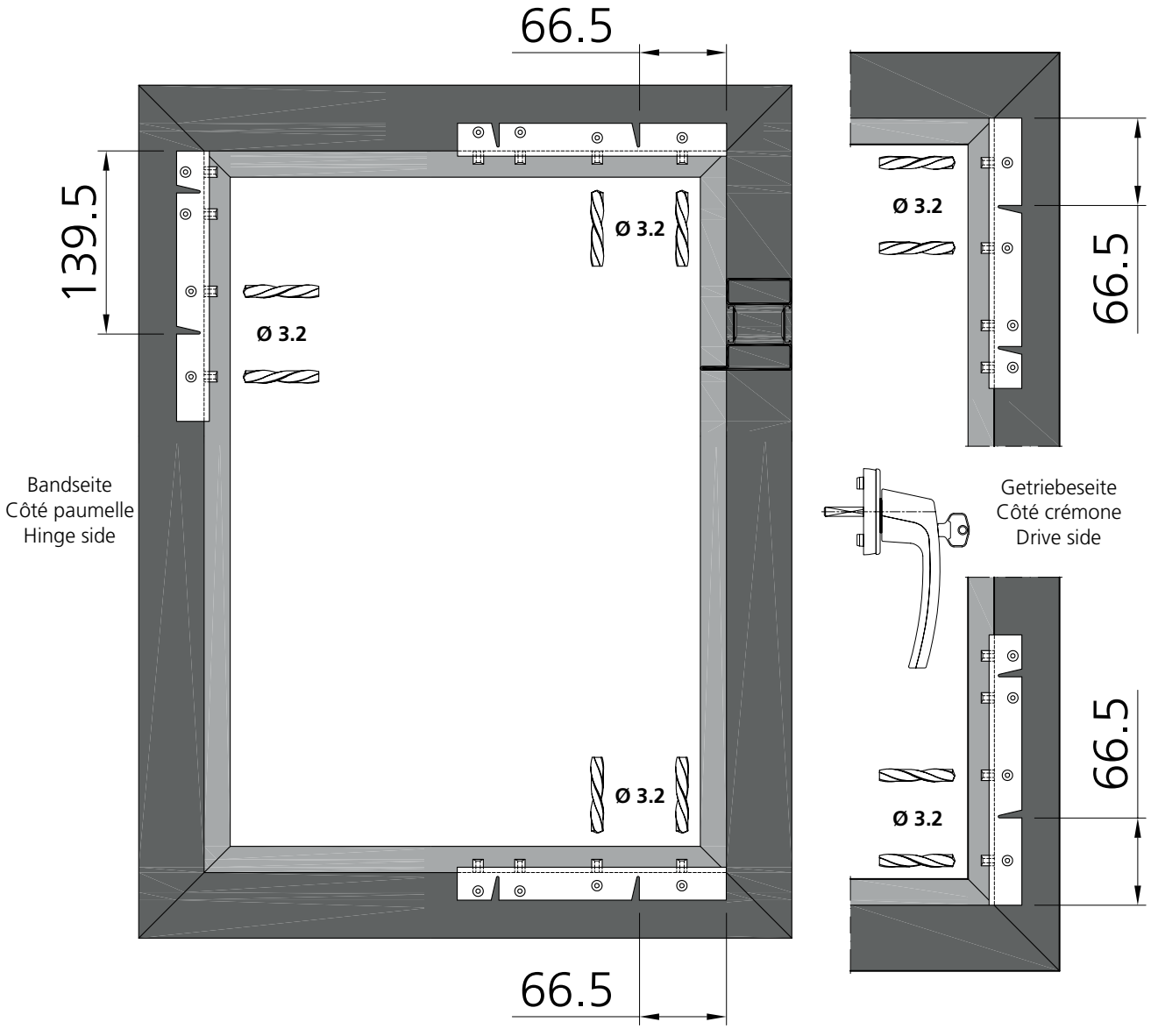
Bohrlehre **Art. Nr. 989109**
1 flügelige Fenster

Montage de la quincaillerie Fenêtre à 1 vantail RC3

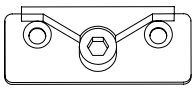
Gabarit de perçage **art. no. 989109**
fenêtre à 1 vantail

Installation of the fittings Window 1 leaf RC3

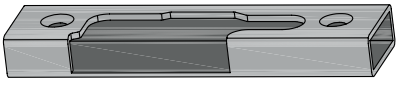
Drilling template **art. no. 989109**
single leaved windows



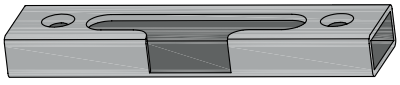
Niveauschaltsperre Rahmen
Anti-fausse manœuvre partie dormant
Lifting mishandling device frame part



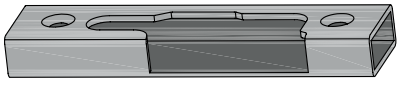
Schliessstück "links" / Gâche "gauche" / Striker "left"

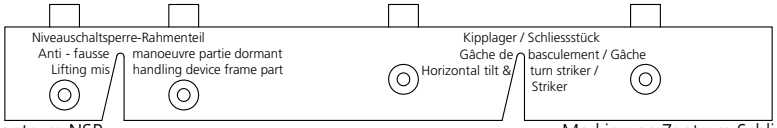


Kipplager / Gâche de basculement / Tilt-turn striker



Schliessstück "rechts" / Gâche "droite" / Striker "right"





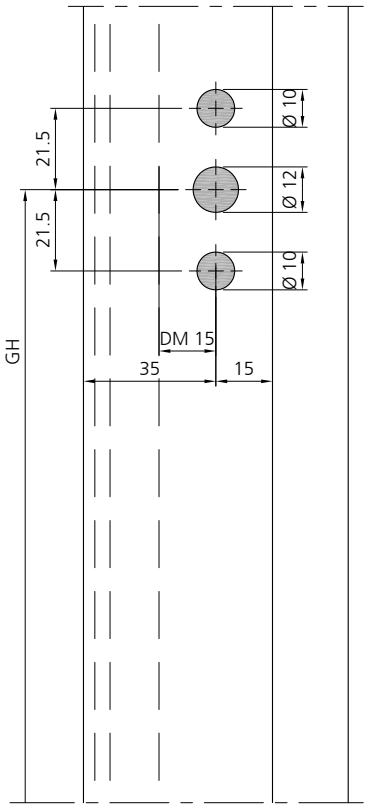
Markierung Zentrum NSP
Marque centre AFM
Marking on the center LMD

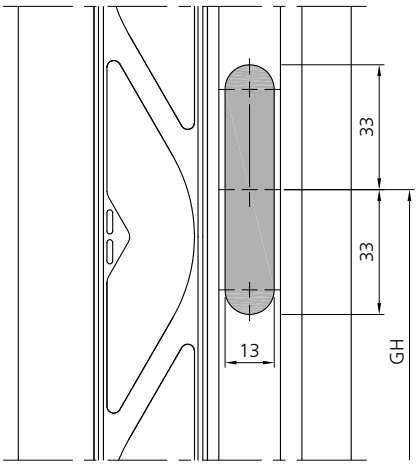
Markierung Zentrum Schliessblech / Kipplager
Marque centre gâche / gâche de basculement
Marking on the center of the striker / tilt-turn striker

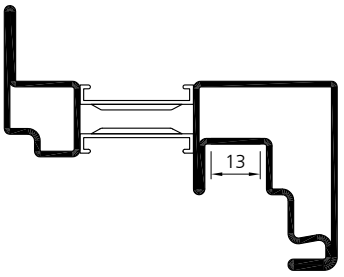
Beschlagseinbau 1-flügeliges Fenster RC3

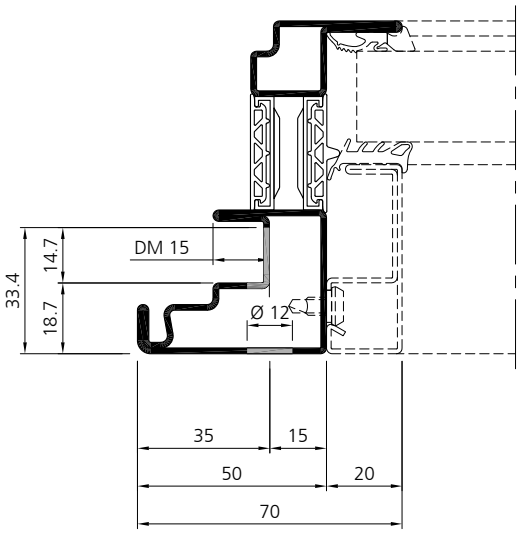
Montage de la quincaillerie Fenêtre à 1 vantail RC3

Installation of the fittings Window 1 leaf RC3







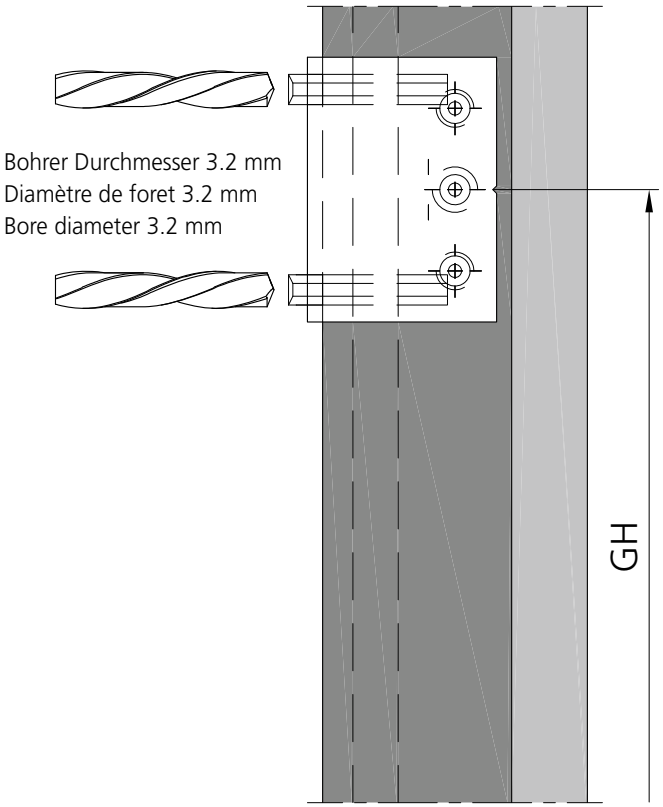


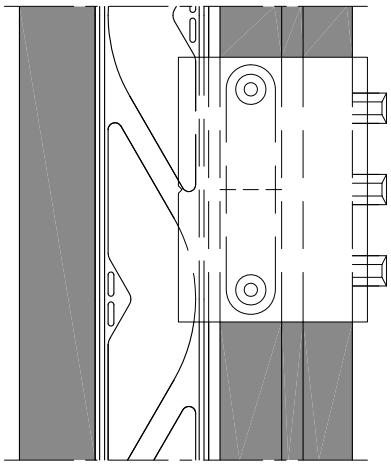
Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail vertical préalablement!
Make the cut-out for the drive in the vertical leaf profile first!

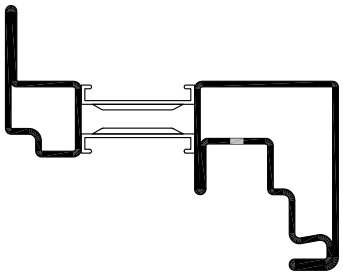
Beschlagseinbau 1-flügeliges Fenster RC3

Montage de la quincaillerie Fenêtre à 1 vantail RC3

Installation of the fittings Window 1 leaf RC3



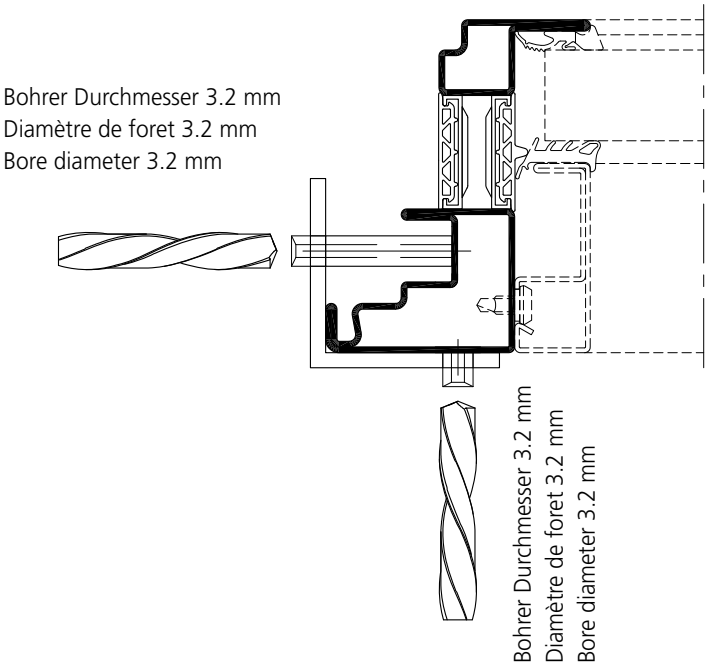




Bohrlehre **Art. Nr. 989108** zu Dreh-Kippgetreibe.

Gabarit de perçage **art. no. 989108** pour crémone oscillo-battant.

Drilling template **art. no. 989108** for turn-tilt drive.

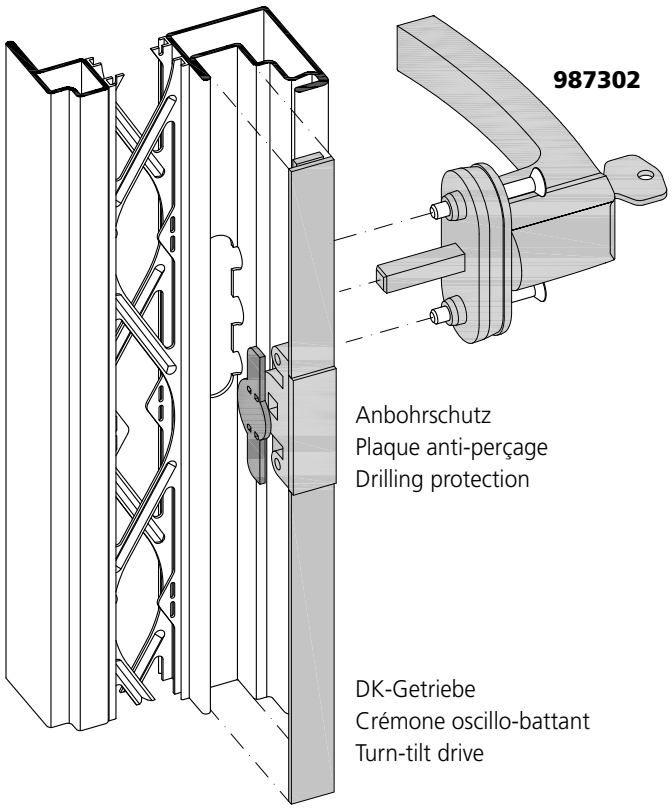


Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail vertical préalablement!
Make the cut-out for the drive in the vertical leaf profile first!

Beschlagseinbau 1-flügeliges Fenster RC3

Montage de la quincaillerie Fenêtre à 1 vantail RC3

Installation of the fittings Window 1 leaf RC3

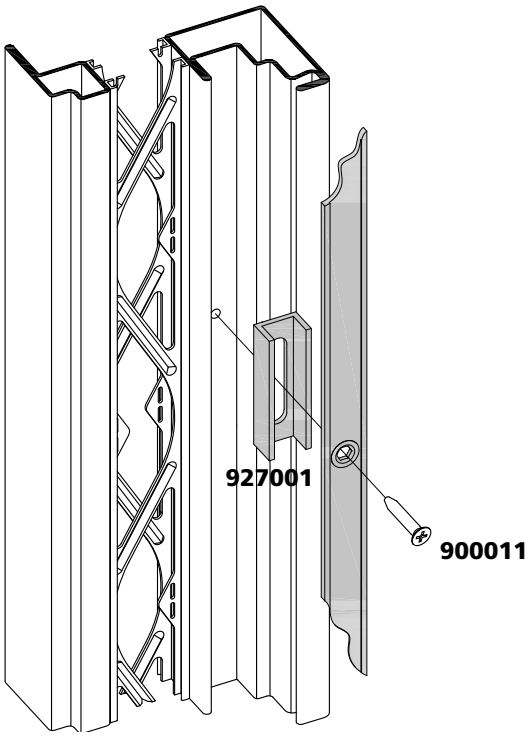


Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail vertical préalablement!
Make the cut-out for the drive in the vertical leaf profile first!

Senk-Schraube M5 x 40 (Wird mit Griff **987302** mitgeliefert).
Vis conique M5 x 40 (livrées avec la poignée **987302**).
Countersunk screw M5 x 40 (supplied with handle **987302**.

- Schraube M4 x 21 (selbstfurchend)
- Bohrloch 3.2 mm
- Bei Edelstahlprofil muss das M4 Gewinde geschnitten werden. Alternative: Bohrloch auf 3.5 aufbohren, Schraube ohne M4 Gewindeschnitt einsetzen.

Bei jeder Verschraubung muss ein Distanzstück **927001** eingesetzt werden.



- Vis M4 x 21 (autotaraudeuse)
- Perçage 3.2 mm
- Avec le profilé en acier inox, la vis M4 doit être coupée. Alternative: agrandir le trou à 3.5, taraudage M4 pas necessaire.

La pièce d'entretoise **927001** doit être insérée sous toutes les fixations et assemblages.

- Screw M4 x 21 (self tapping)
- Drill hole 3.2 mm
- In stainless steel profiles, the M4 thread needs to be cut case. Alternative: drill out the drilling hole of 3.5, use screw without M4 thread.

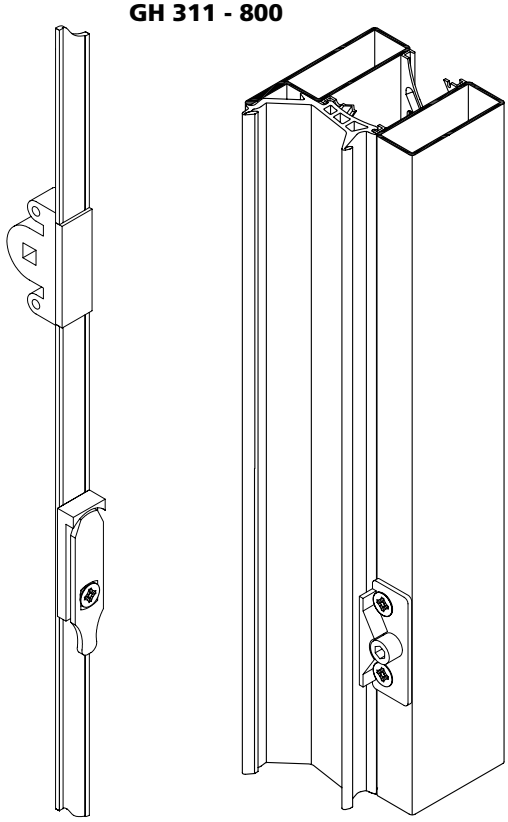
The spacer **927001** must be placed under all screw connections.

Beschlagseinbau 1-flügeliges Fenster RC3 Niveau-Schaltsperre

Montage de la quincaillerie Fenêtre à 1 vantail RC3 Anti-fausse manœuvre

Installation of the fittings Window 1 leaf RC3 Lifting mishandling device

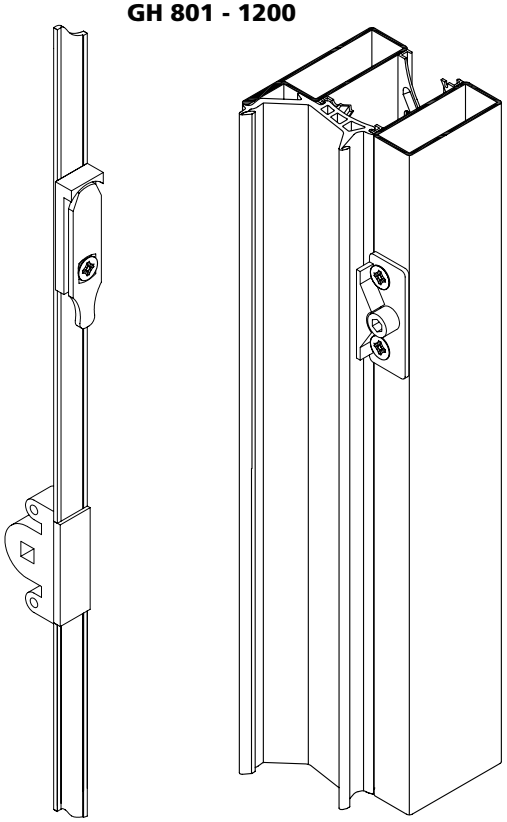
GH 311 - 800



DK-Getriebe RC
Crémone oscillo-battant RC
Turn-tilt drive RC

Rahmen
Cadre
Frame

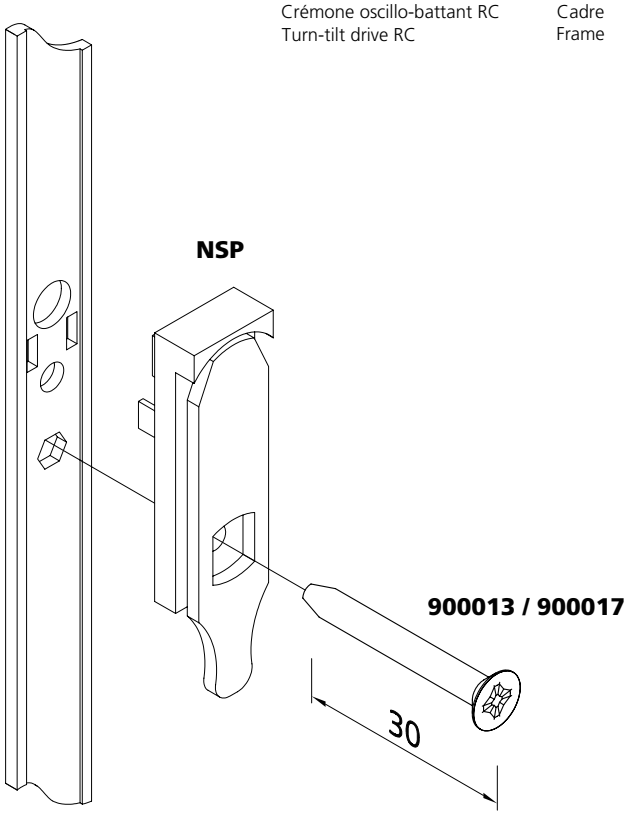
GH 801 - 1200



DK-Getriebe RC
Crémone oscillo-battant RC
Turn-tilt drive RC

Rahmen
Cadre
Frame

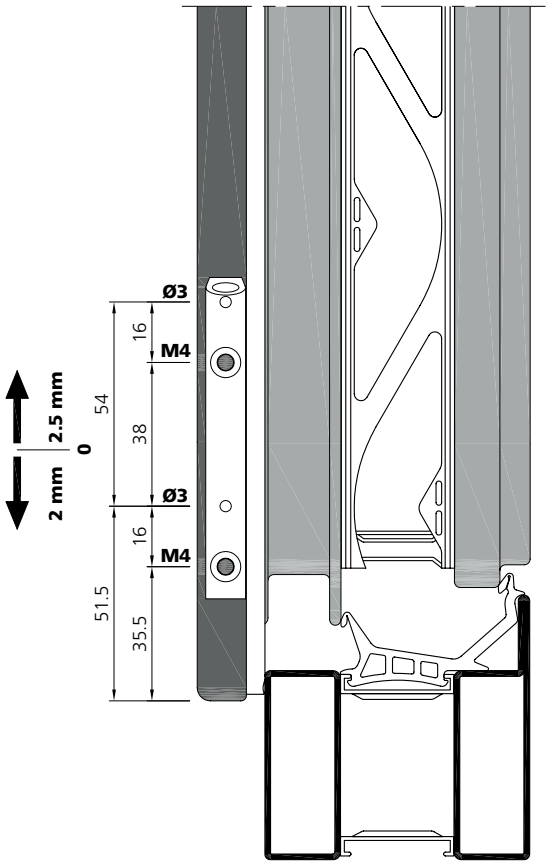
NSP

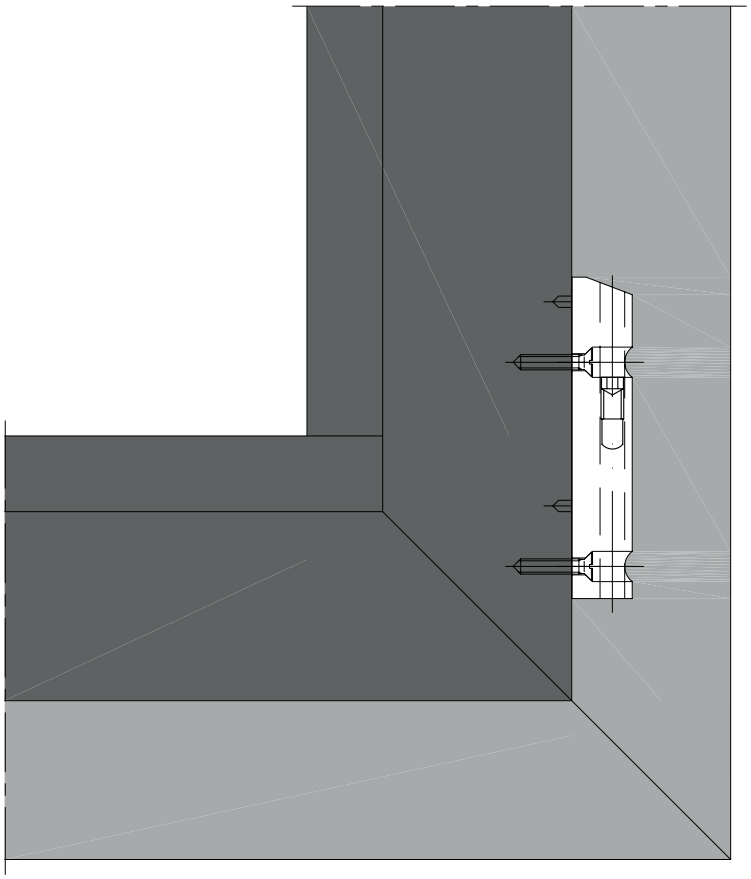


Beschlagseinbau
1-flügeliges Fenster
Eckband

Montage de la quincaillerie
Fenêtre à 1 vantail
Pivot d'angle

Installation of the fittings
Window 1 leaf
Corner hinge

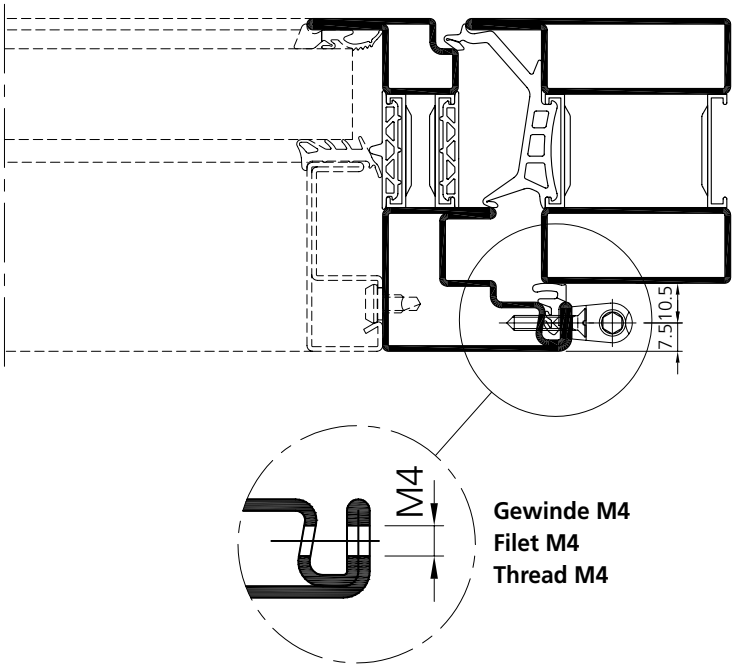




Das Eckband wird durch die Anschlagdichtung **985300** verschraubt.

Le pivot d'angle est vissé à travers le joint de butée **985300**.

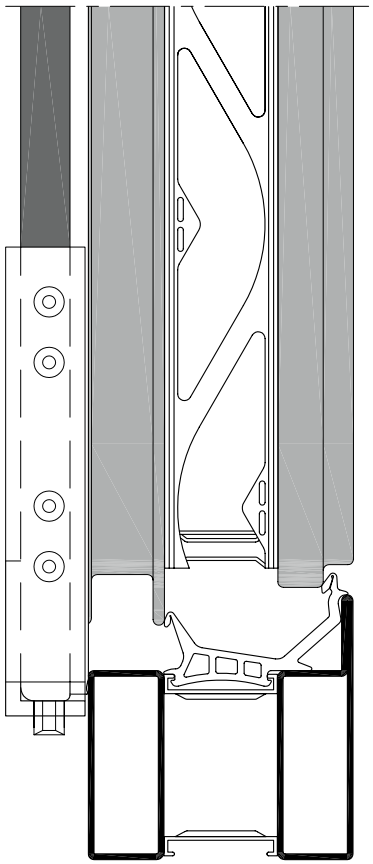
The corner hinge is screwed through the **985300** weatherstripping

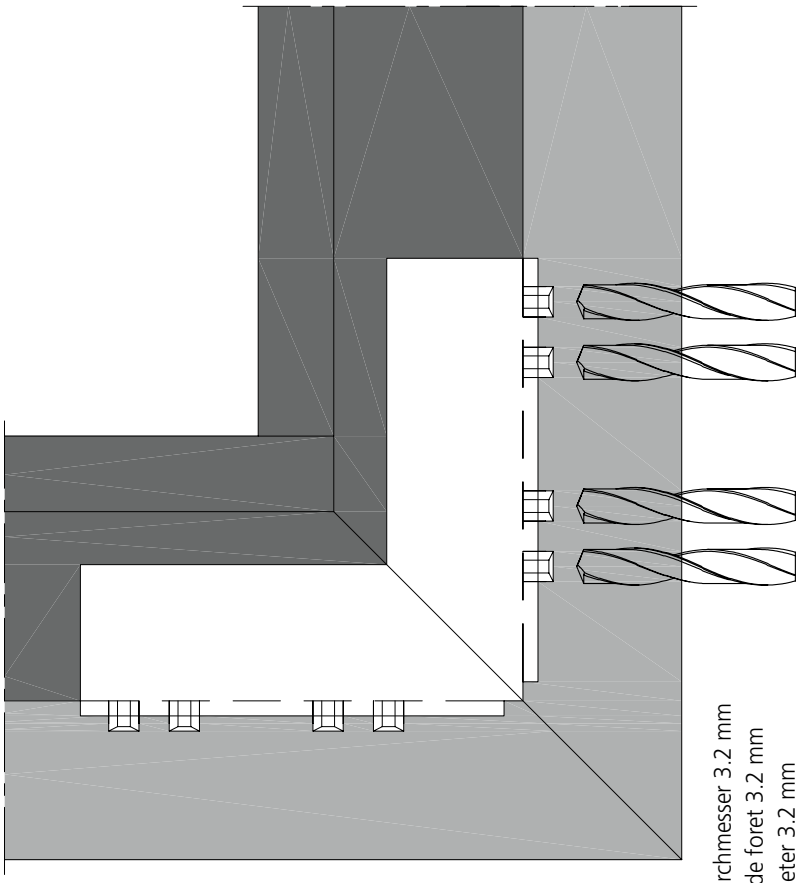


Beschlagseinbau
1-flügeliges Fenster
Eckband

Montage de la quincaillerie
Fenêtre à 1 vantail
Pivot d'angle

Installation of the fittings
Window 1 leaf
Corner hinge



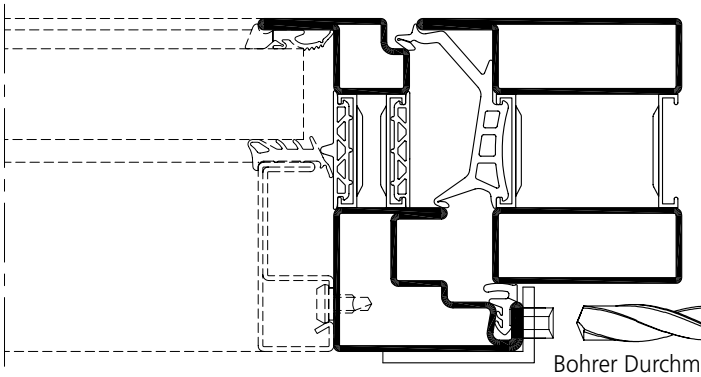


Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Bohrlehre **Art. Nr. 989102** zu Eckband.

Gabarit de perçage **art. no. 989102** pour pivot d'angle.

Drilling template **art. no. 989102** for corner hinge.



Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Beschlagseinbau 1-flügeliges Fenster

Einsatz der Forster Bohrlehre **989100** für den Standard Beschlag auf dem 1. öffnenden Flügel (Gez. DIN links, DIN rechts spiegelbildlich)

FFH 520 - 2400 mm
FFB 310 - 1400 mm

Montage de la quincaillerie Fenêtre à 1 vantail

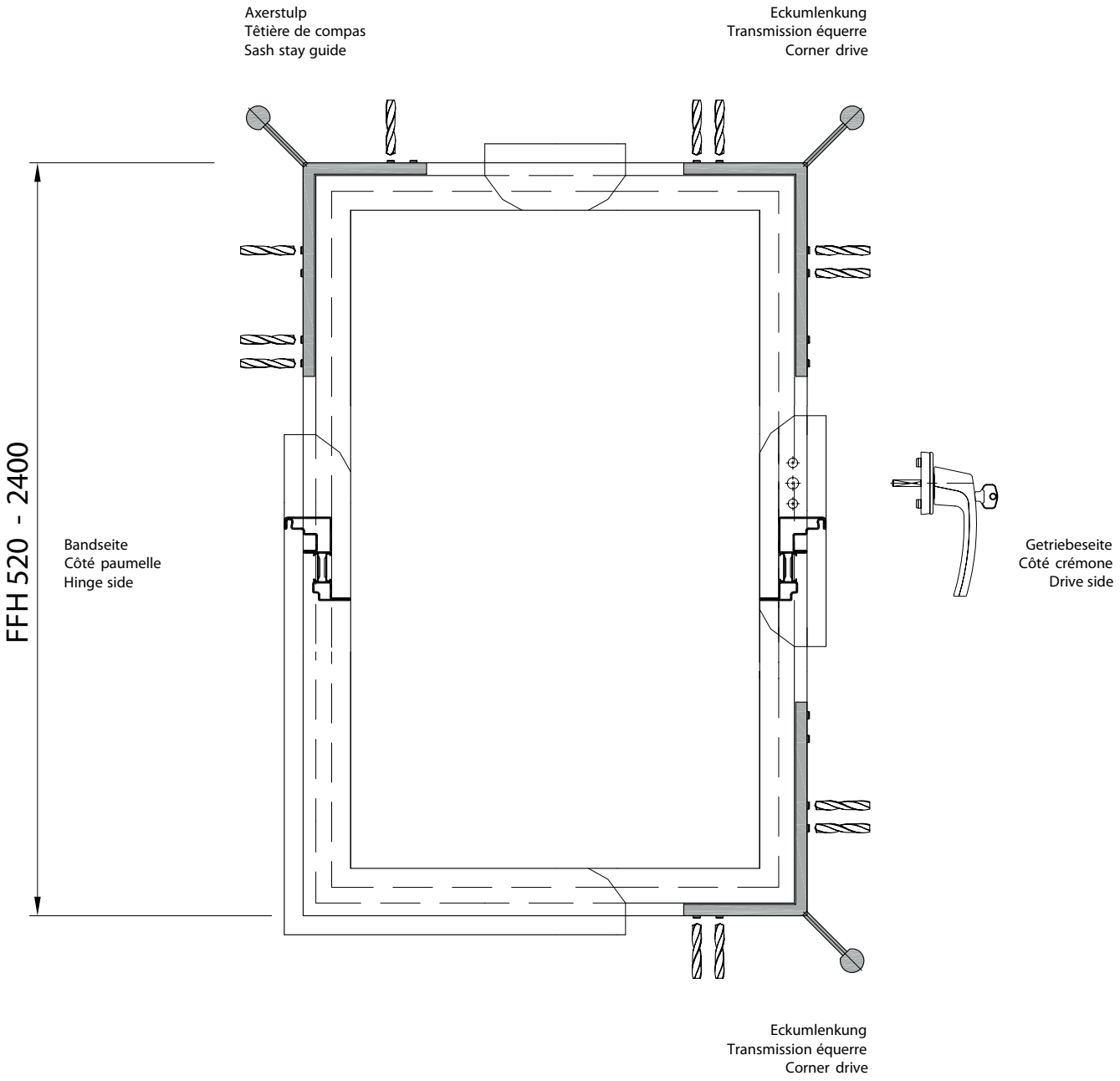
Utilisation des gabarits de perçage Forster **989100** pour la quincaillerie standard sur le 1er vantail ouvrant (Dessiné DIN gauche, DIN droite symétrique)

FFH 520 - 2400 mm
FFB 310 - 1400 mm

Installation of the fittings Window 1 leaf

Use the Forster drilling template **989100** for the standard fittings on 1st active leaf (marking DIN left, DIN right mirror image)

FFH 520 - 2400 mm
FFB 310 - 1400 mm

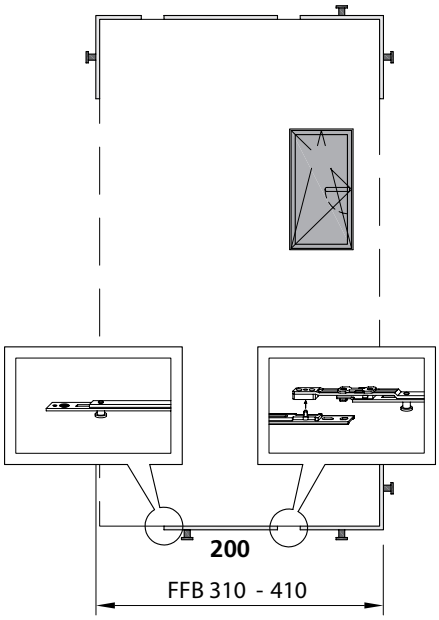


Beschlagseinbau 1-flügeliges Fenster

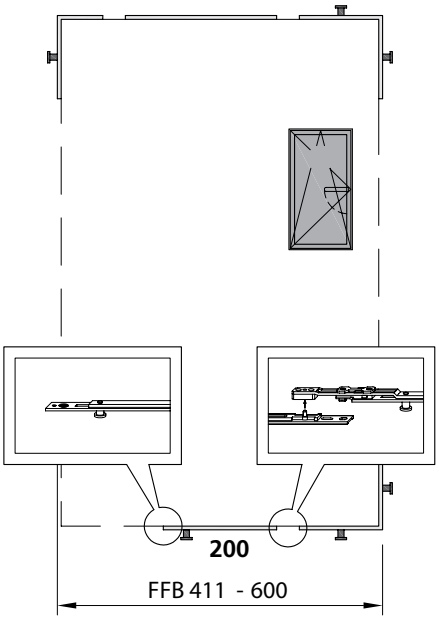
Montage de la quincaillerie Fenêtre à 1 vantail

Installation of the fittings Window 1 leaf

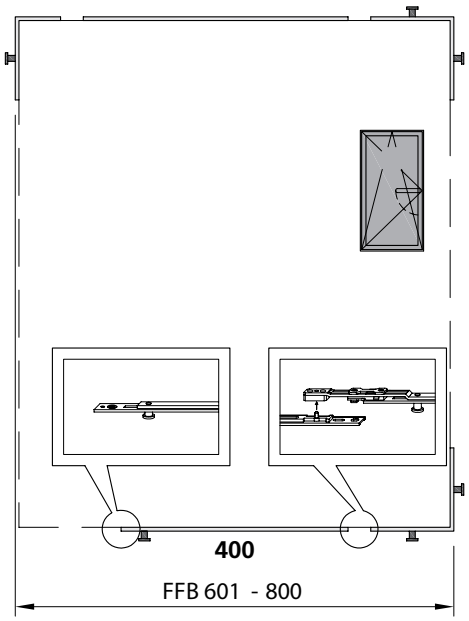
Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFB 310 - 410 [mm]



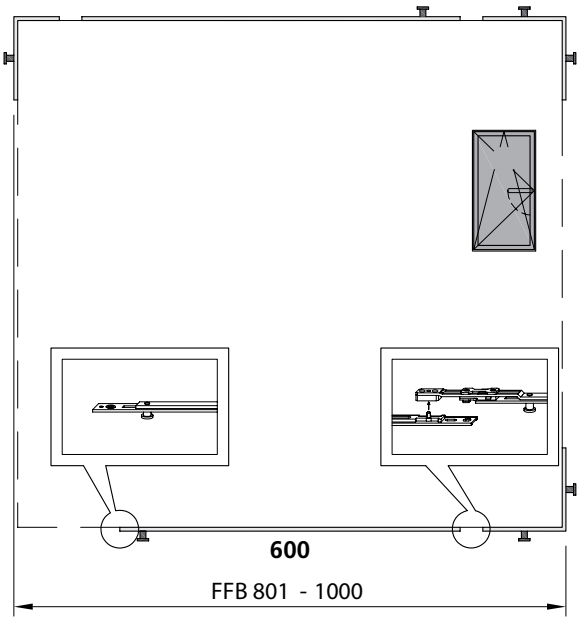
Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFB 411 - 600 [mm]



Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFB 601 - 800 [mm]



Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFB 801 - 1000 [mm]



Beschlagseinbau 1-flügeliges Fenster

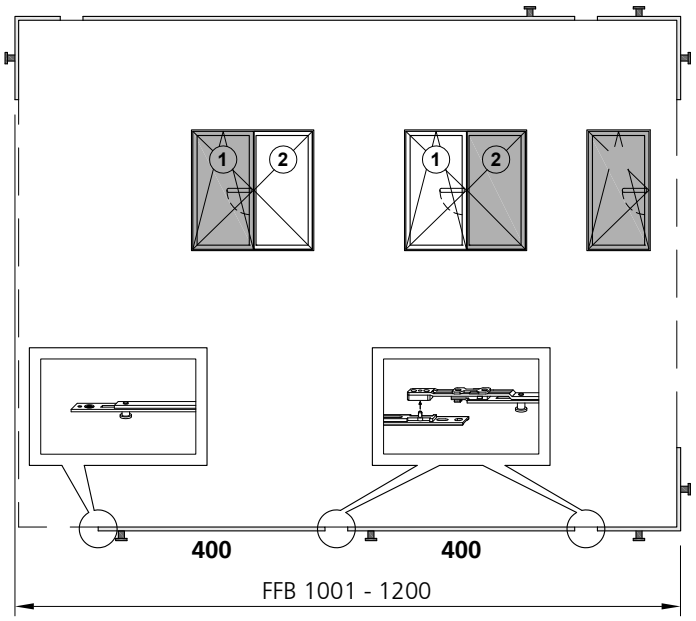
Montage de la quincaillerie Fenêtre à 1 vantail

Installation of the fittings Window 1 leaf

Anordnung Verlängerungen
FFB 1001 - 1200 [mm]

Disposition des extensions
FFB 1001 - 1200 [mm]

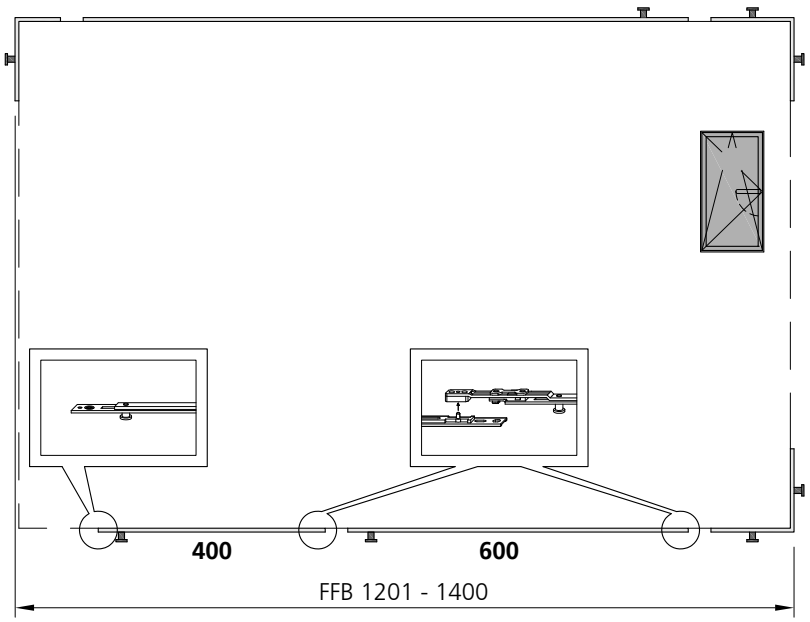
Arrangement of the extensions
FFB 1001 - 1200 [mm]



Anordnung Verlängerungen
FFB 1201 - 1400 [mm]

Disposition des extensions
FFB 1201 - 1400 [mm]

Arrangement of the extensions
FFB 1201 - 1400 [mm]

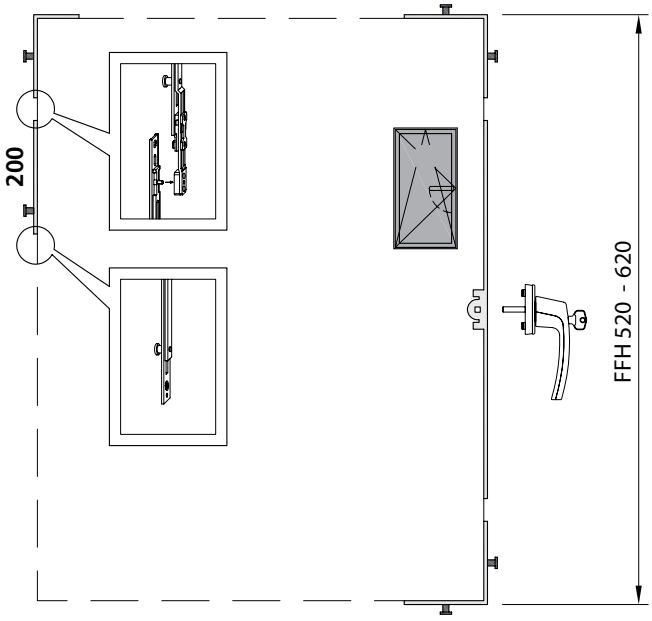


Beschlagseinbau 1-flügeliges Fenster

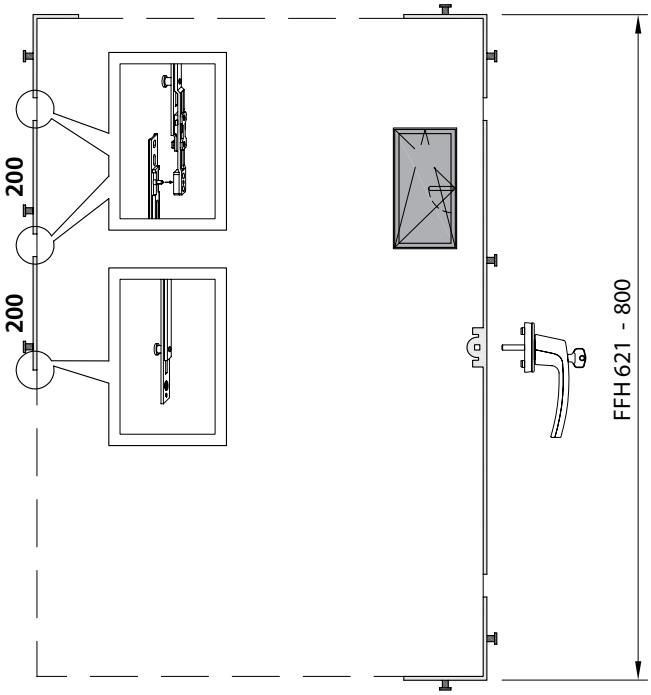
Montage de la quincaillerie Fenêtre à 1 vantail

Installation of the fittings Window 1 leaf

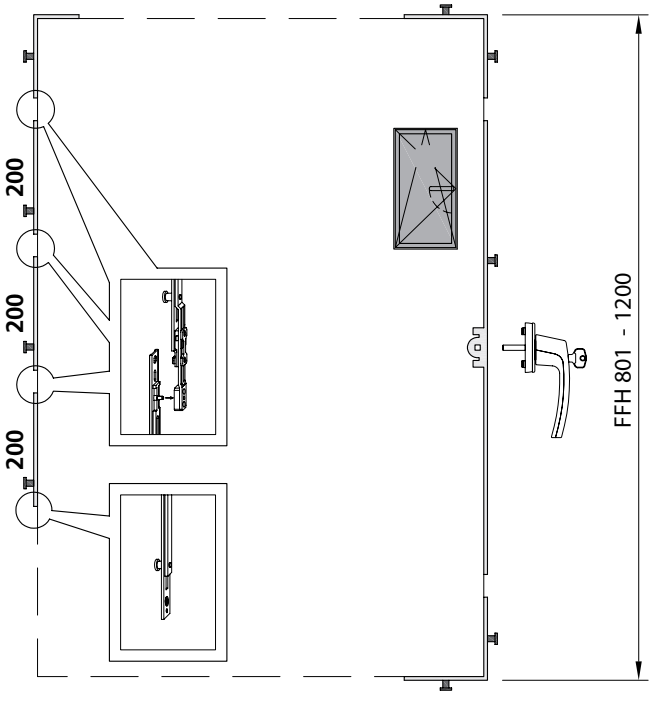
Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 520 - 620 [mm]
GH 260 - 310 [mm]



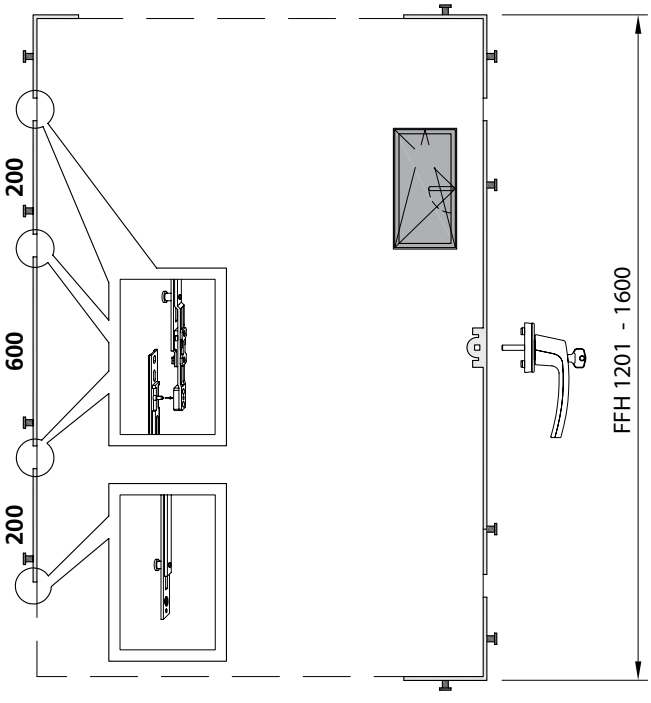
Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 621 - 800 [mm]
GH 311 - 400 [mm]



Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 801 - 1200 [mm]
GH 401 - 600 [mm]



Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 1201 - 1600 [mm]
GH 601 - 800 [mm]

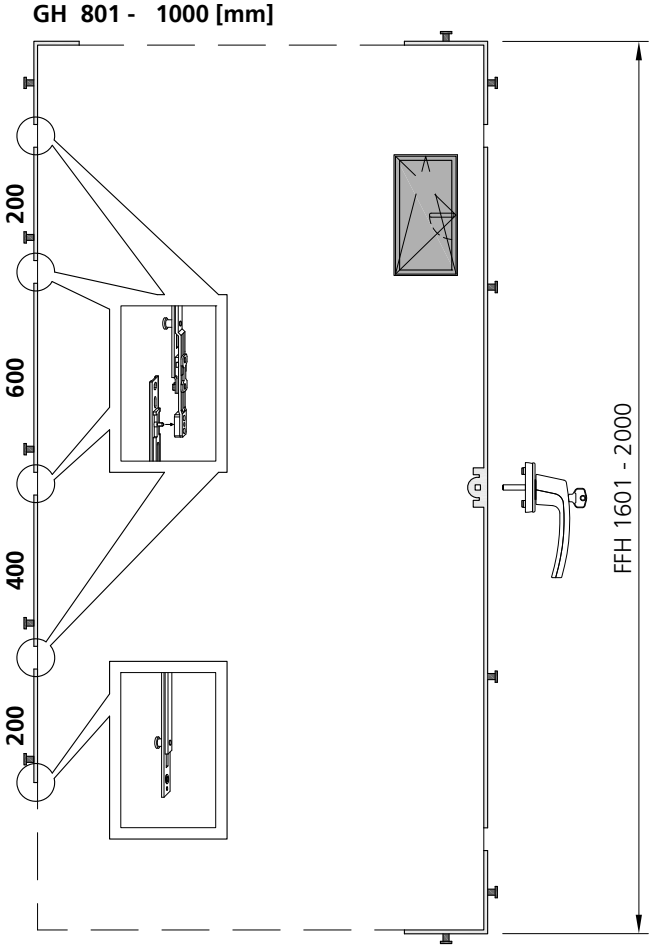


Beschlagseinbau 1-flügeliges Fenster

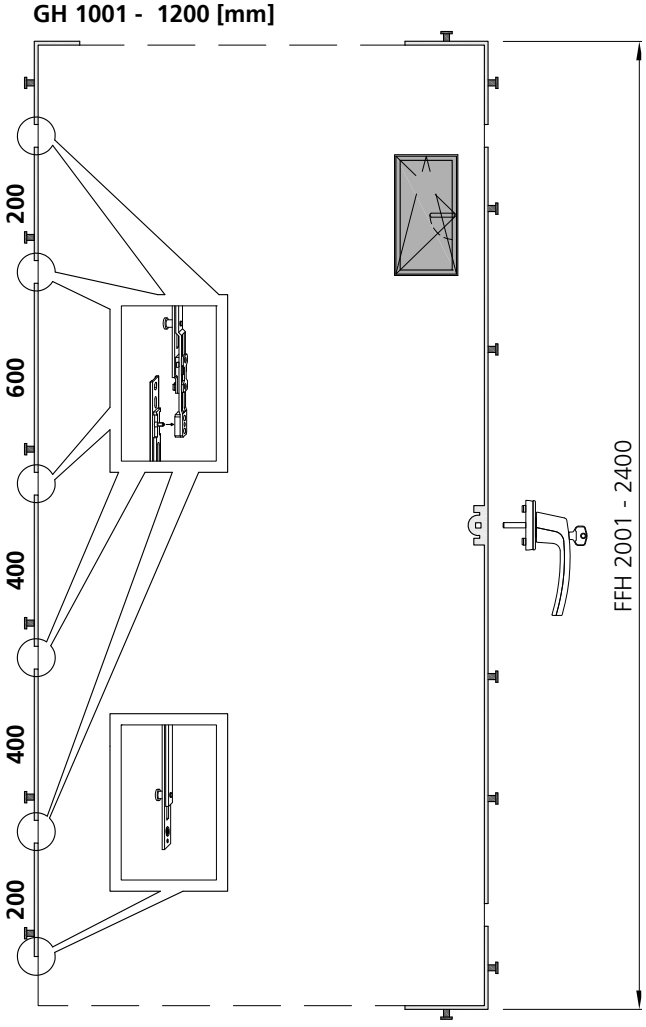
Montage de la quincaillerie Fenêtre à 1 vantail

Installation of the fittings Window 1 leaf

Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 1601 - 2000 [mm]
GH 801 - 1000 [mm]



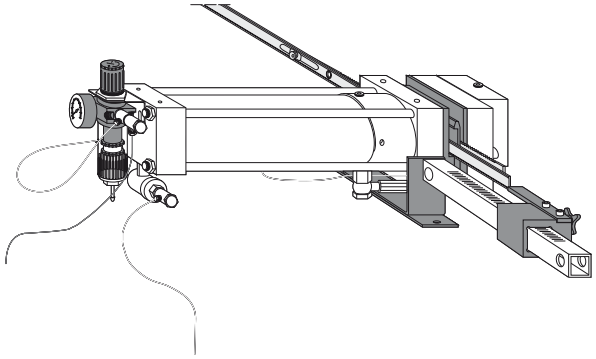
Anordnung Verlängerungen
Disposition des extensions
Arrangement of the extensions
FFH 2001 - 2400 [mm]
GH 1001 - 1200 [mm]



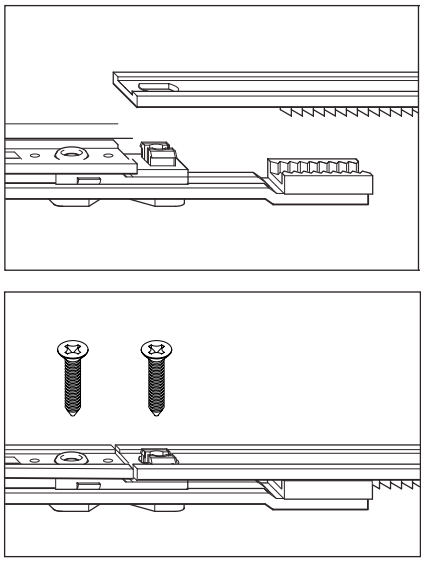
Beschlagseinbau 1-flügeliges Fenster

Montage de la quincaillerie Fenêtre à 1 vantail

Installation of the fittings Window 1 leaf

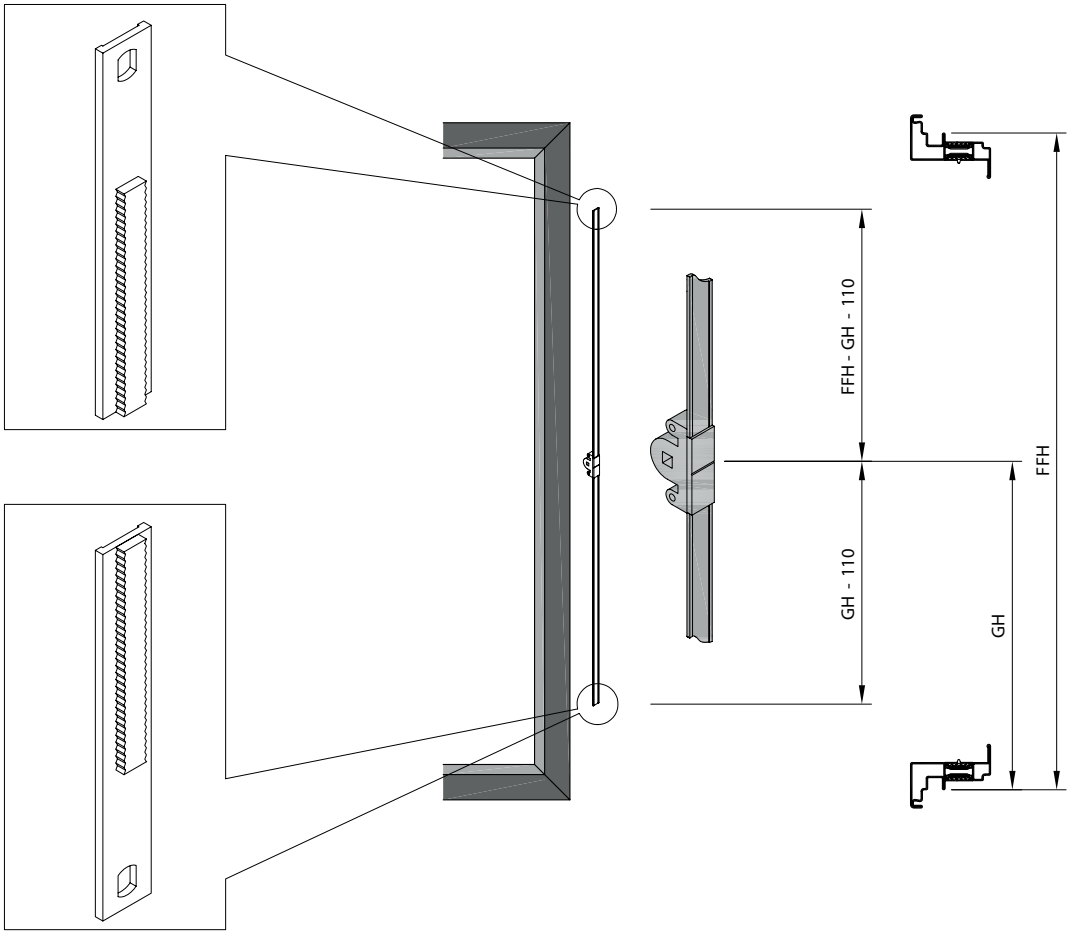


Ablängen mit pneumatischer Stanze (Lochstanzung)



Couper à la longueur requise avec un dispositif de poinçonnage pneumatique

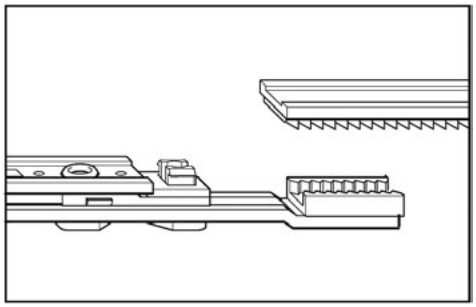
Cut to length with a pneumatic punch tool (hole puncher)

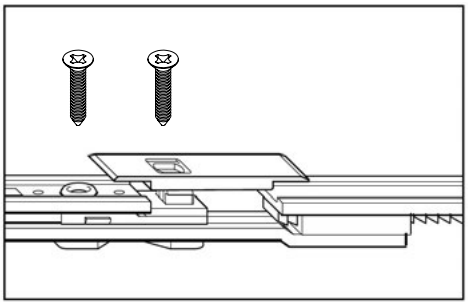


Beschlagseinbau 1-flügeliges Fenster

Montage de la quincaillerie Fenêtre à 1 vantail

Installation of the fittings Window 1 leaf

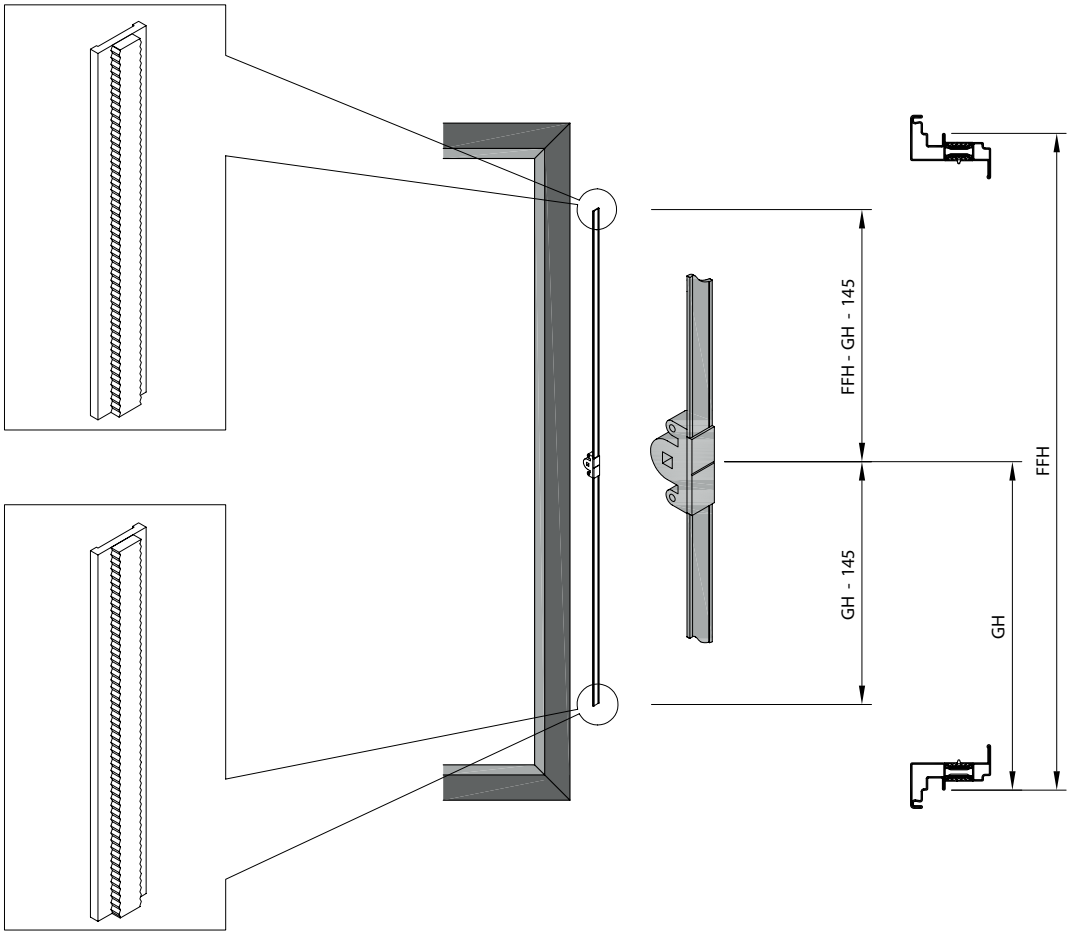




Ablängen mit Säge und Einsatz mit Verbindungslasche

Couper à la longueur requise avec une scie et monter avec une plaque de liaison

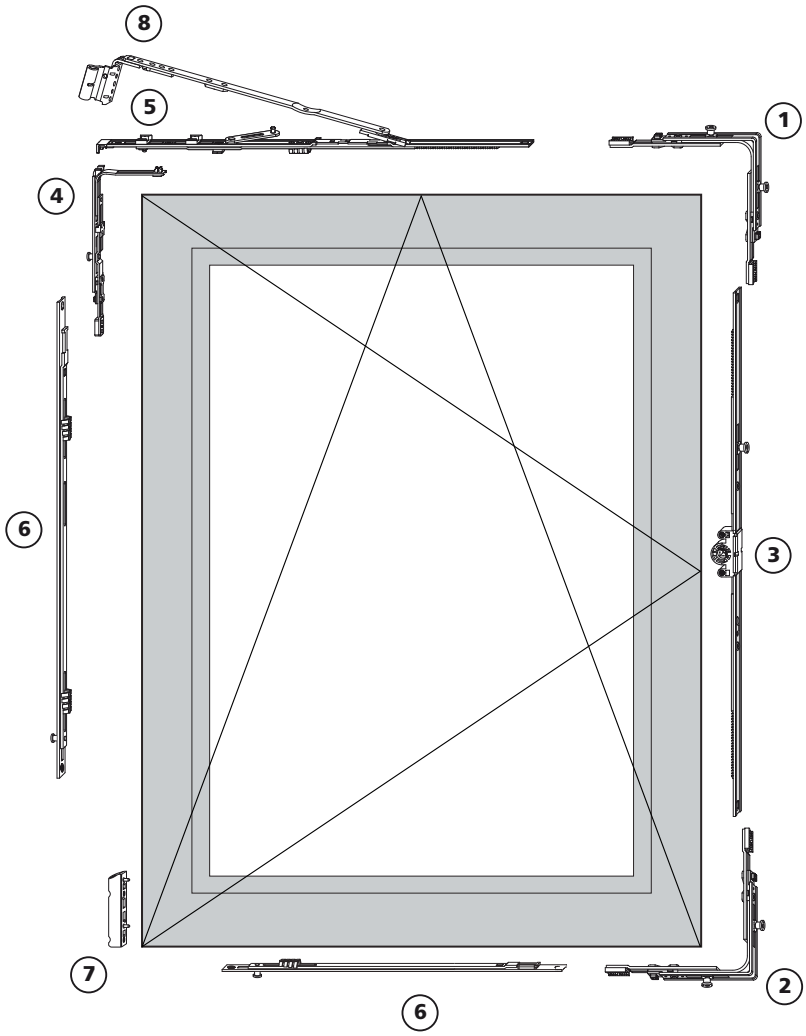
Cut to length with saw and use with connecting link



Beschlagseinbau
1-flügeliges Fenster
Einbauablauf
(Vorschlag)

Montage de la quincaillerie
Fenêtre à 1 vantail
Ordre de montage
(proposition)

Installation of the fittings
Window 1 leaf
Installation process
(proposal)



1. Eckumlenkung / Transmission équerre / Corner drive
2. Eckumlenkung / Transmission équerre / Corner drive
3. DK-Getriebe / Cremone OB / Tilt-turn drive
4. Eckumlenkung Axer / Renvoi d'angle de compas / Stay corner drive
5. Axerstulp / Têtière de compas / Sash stay guide
6. Mittelverschluss, senkrecht und waagerecht
   Extension horizontale et verticale
   Extension horizontal and vertical
7. Eckband K / Pivot d'angle K / Corner hinge K
8. Axerarm / Compas / Sash stay arm

Beschlagseinbau 1-flügeliges Fenster

Kippweiten für Dreh-/Drehkippflügel

Kippweite reduziert (80 mm)

Zwingend für Flügel mit FFB: 310 – 410 mm

Montage de la quincaillerie Fenêtre à 1 vantail

Plage de basculement pour vantail à ouverture à la française/oscillo-battant

Plage de basculement réduite (80 mm)

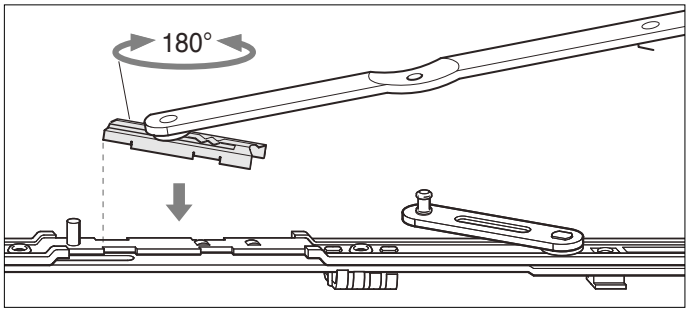
Obligatoire pour vantail avec FFB: 310 – 410 mm

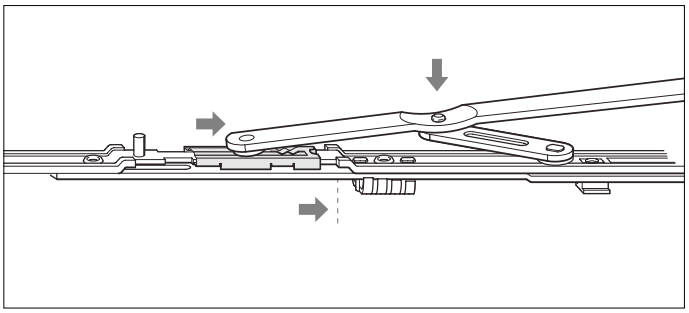
Installation of the fittings Window 1 leaf

Tilt distances for turn/turn-tilt leaves

Reduced tilt distances (80 mm)

Required for leaves with FFB: 310 – 410 mm

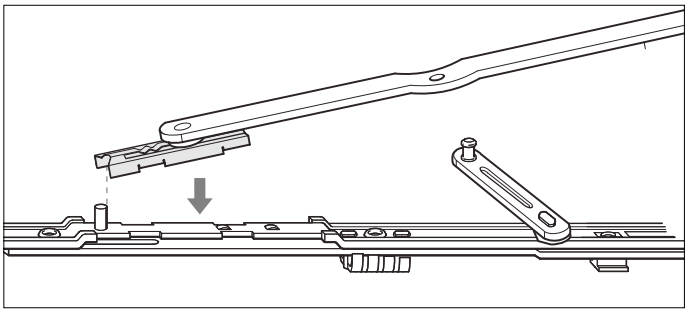


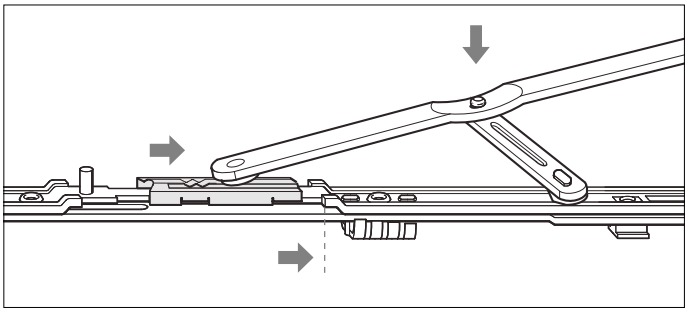


Kippweite Standard (140 mm)

Plage de basculement standard (140 mm)

Standard tilt distances (140 mm)





Beschlagseinbau 1-flügeliges Fenster

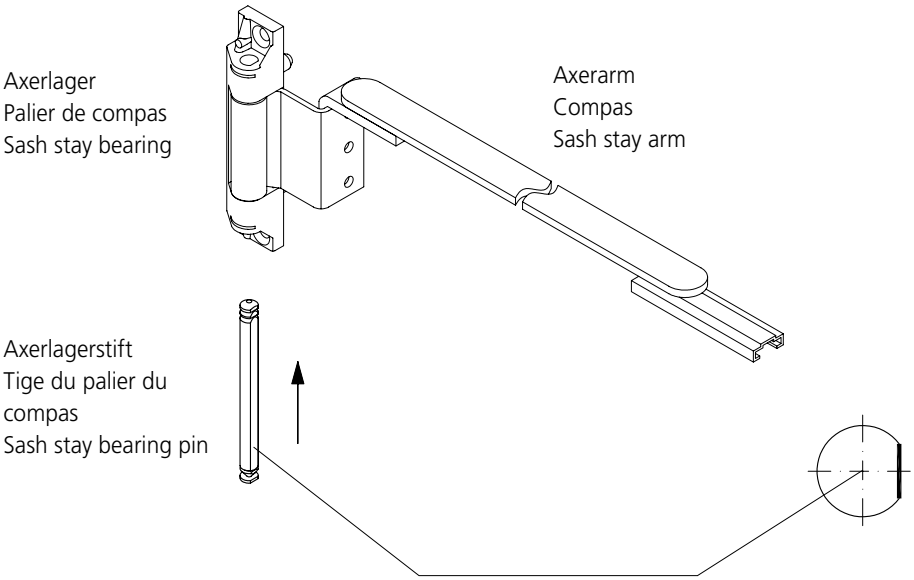
ACHTUNG! Fasung des Axerlagerstiftes beim Einführen in das Axerlager berücksichtigen!

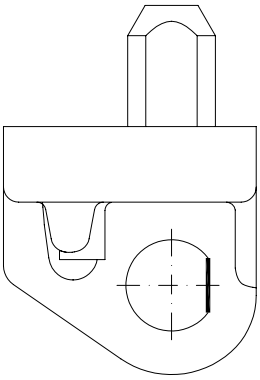
Montage de la quincaillerie Fenêtre à 1 vantail

ATTENTION! Faire attention au sens de montage de la tige du palier de compas lors de l'introduction dans le palier!

Installation of the fittings Window 1 leaf

ATTENTION! Pay attention to the mount of the sash stay bearing pin when inserting it into the sash stay bearing!

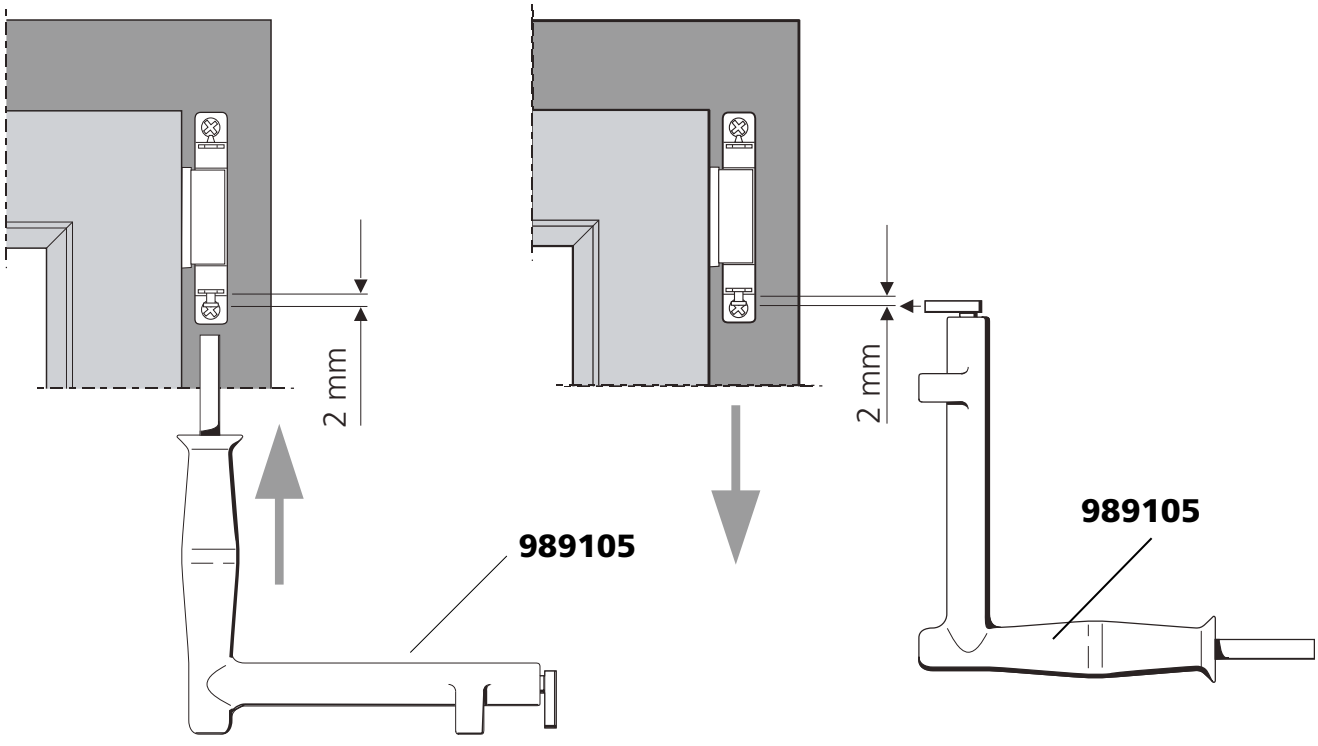




Einhängen des Flügels
Axerlagerstift nur in Verschlussstellung einschiebbar

Accrochage du vantail
Tige du palier de compas pouvant seulement être introduite en position de fermeture

Mounting the leaf
The sash stay bearing pin can only be inserted in lock position



Beschlagseinbau 1-flügeliges Fenster

Umstellung der Öffnungsart von Drehkipp auf Dreh.

Die Änderung der Funktion von Drehkipp auf Dreh wird mit Hilfe des Hubbegrenzers ausgeführt.
Dieser wird beim Schliesszapfen der unteren Eckumlenkung eingesetzt.
Somit kann auch jederzeit die Funktion von Dreh auf Drehkipp durch Entfernen des Hubbegrenzers zurückgestellt werden.

Montage de la quincaillerie Fenêtre à 1 vantail

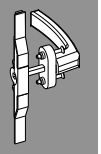
Commutation du type d'ouverture - ouverture oscillo-battant sur ouverture à la française.

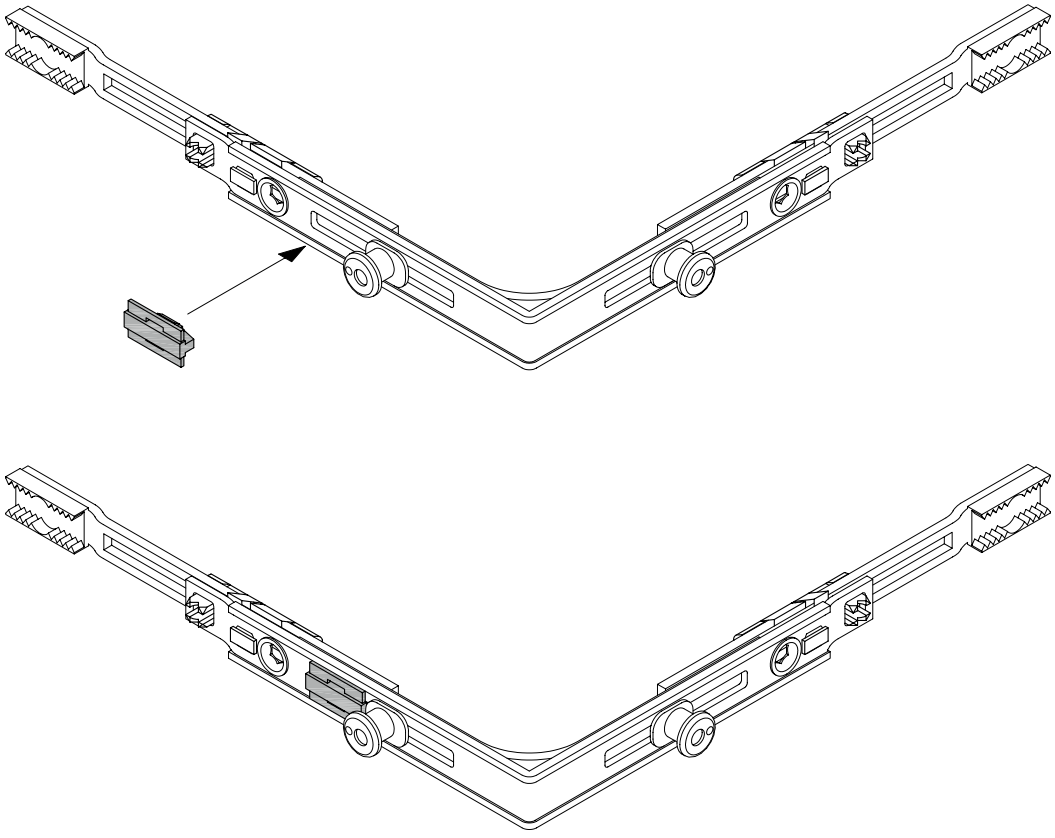
La modification de la fonction ouverture oscillo-battant/ouverture à la française est exécutée à l'aide du limitateur de course.
Celui-ci est monté dans le tenon de fermeture du renvoi d'angle inférieur.
On peut ainsi régler à tout moment l'ouverture à la française sur l'ouverture oscillo-battant par retrait du limitateur de course.

Installation of the fittings Window 1 leaf

Switching the opening mode from turn-tilt to turn.

Switching the function from turn-tilt to turn is done with the help of the travel restrictor.
It is inserted into the pivot lock in the lower corner guide.
Therefore, the function can be reset from turn to tilt-turn at any time by removing the travel restrictor.

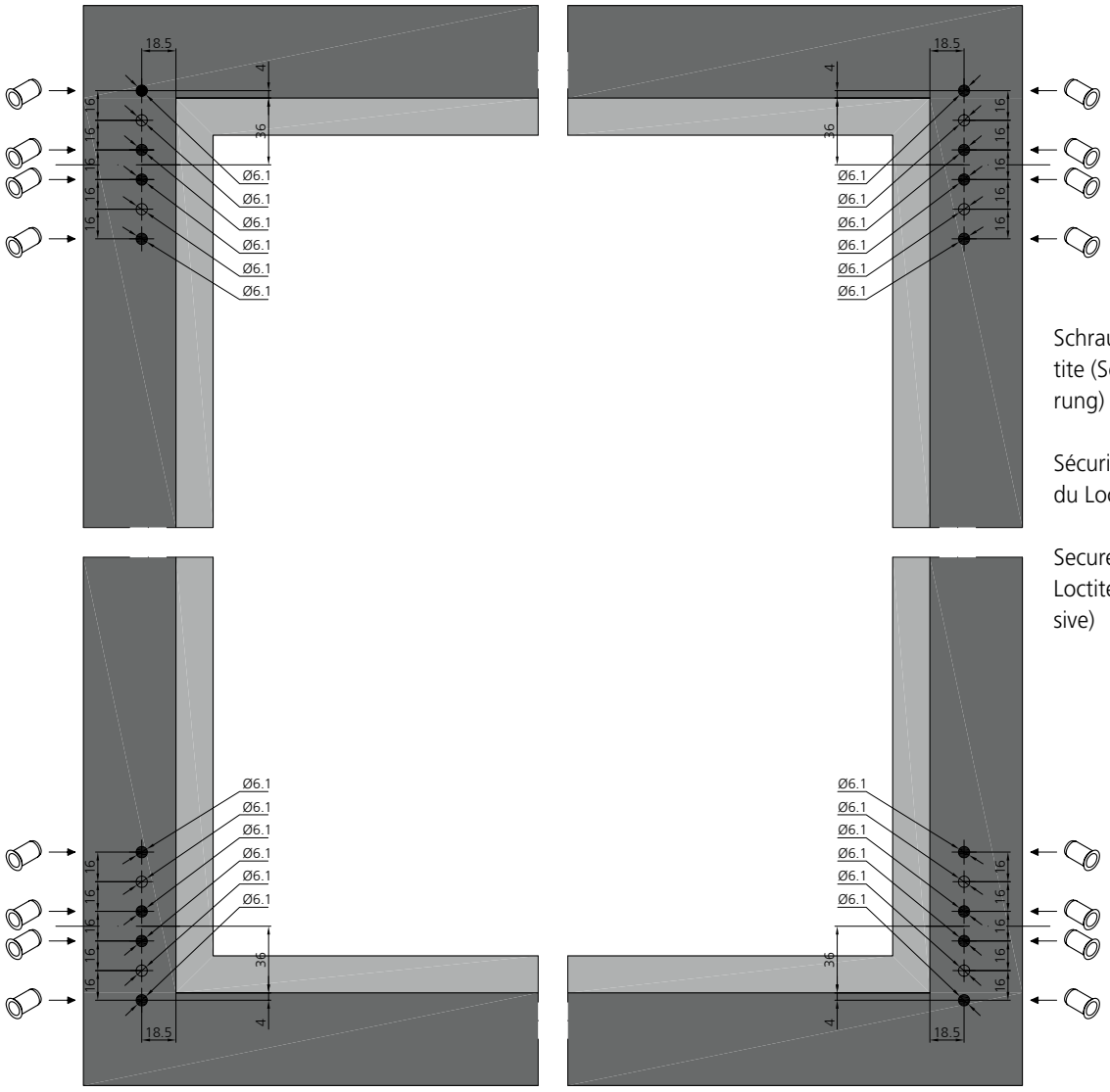




Beschlagseinbau 2-flügeliges Fenster

Montage de la quincaillerie Fenêtre à 2 vantaux

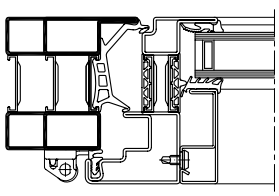
Installation of the fittings Window 2 leaves

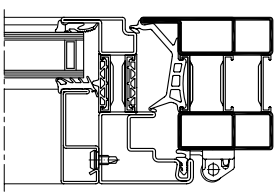


Schrauben mit Loctite (Schraubensicherung) sichern

Sécuriser les vis avec du Loctite

Secure screw with Loctite (screw adhesive)

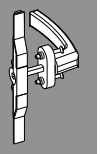


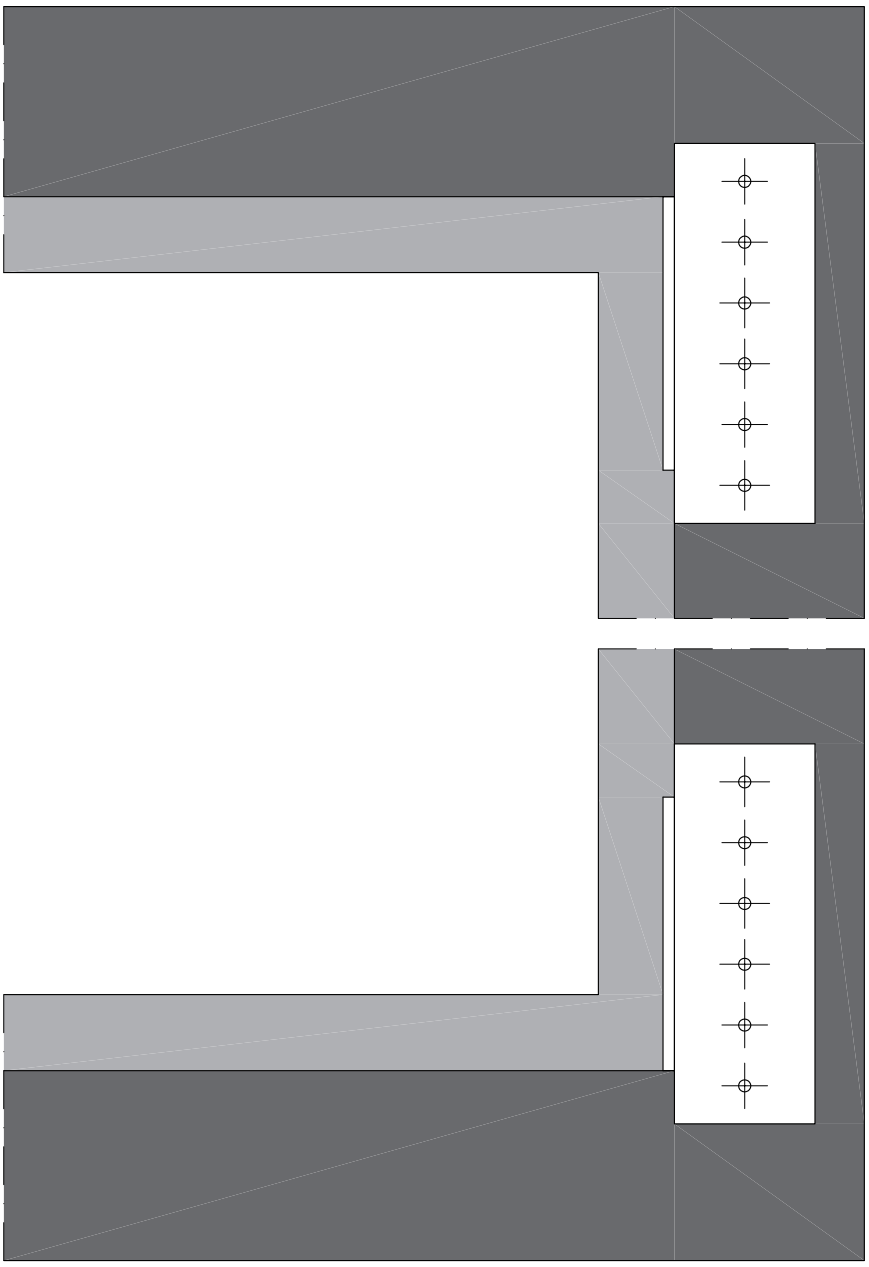


Beschlagseinbau 2-flügeliges Fenster

Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

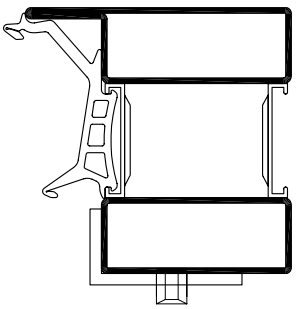




Bohrlehre **Art.Nr 989103**
zu Axer- und Ecklager

Gabarit de perçage **art no 989103** pour
palier dàngle et palier de compas

Drilling template **art. no. 989103** for
sash stay bearing and corner pivot rest



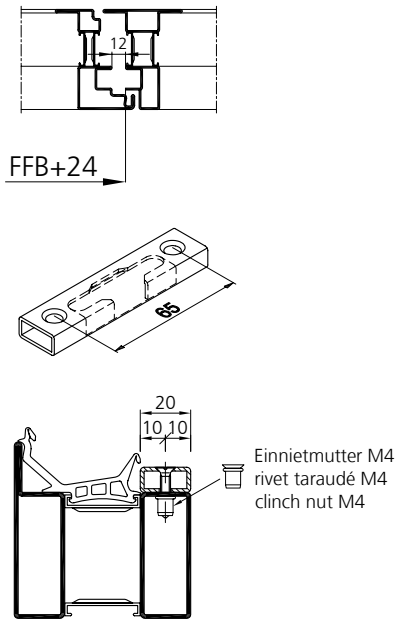


Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Beschlagseinbau 2-flügeliges Fenster RC3

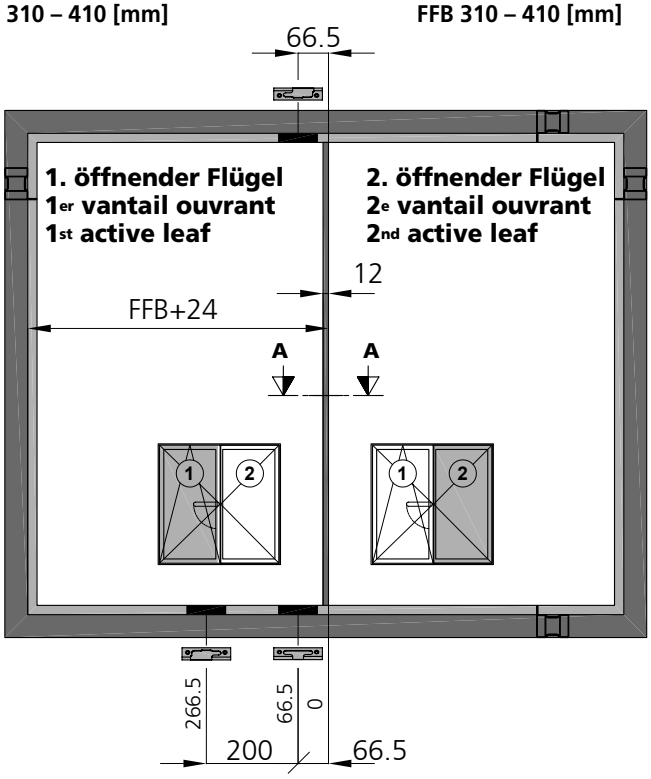
Anordnung der Schliessstücke
1. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Flügelfalz-Breite
FFB 310 – 410 [mm]

A-A



Montage de la quincaillerie Fenêtre à 2 vantaux RC3

Disposition des gâches
1er vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail
FFB 310 – 410 [mm]

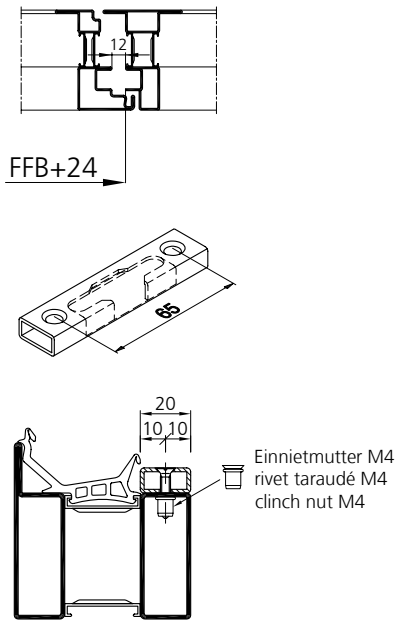


Installation of the fittings Window 2 leaves RC3

Arrangement of the strikers
1st active leaf on 2 leaved windows in dependence on the width of the leaf rebate
FFB 310 – 410 [mm]

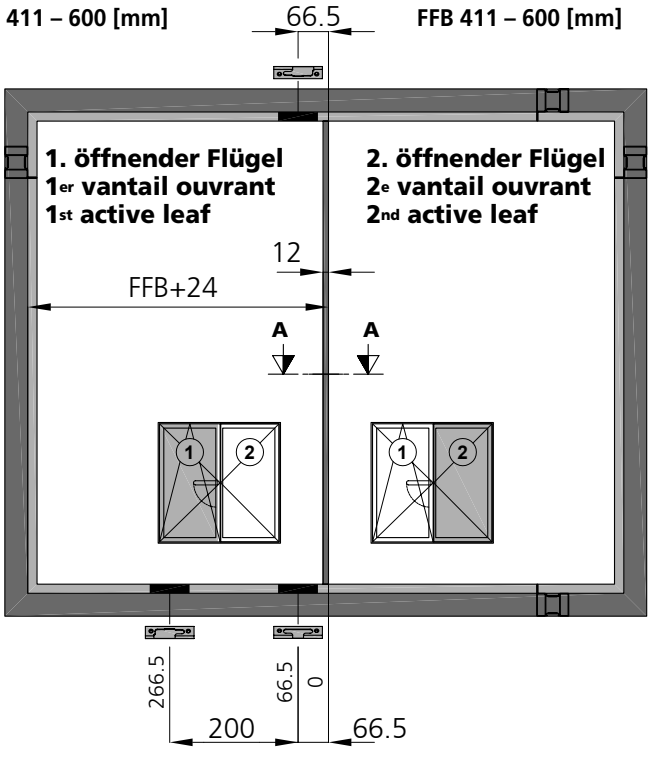
Anordnung Schliessstücke
1. öffnender Flügel
FFB 411 – 600 [mm]

A-A



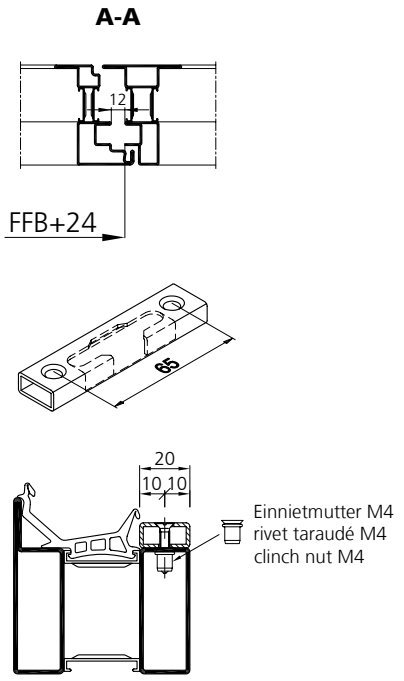
Disposition des gâches
1er vantail ouvrant
FFB 411 – 600 [mm]

Arrangement of the strikers
1st active leaf
FFB 411 – 600 [mm]



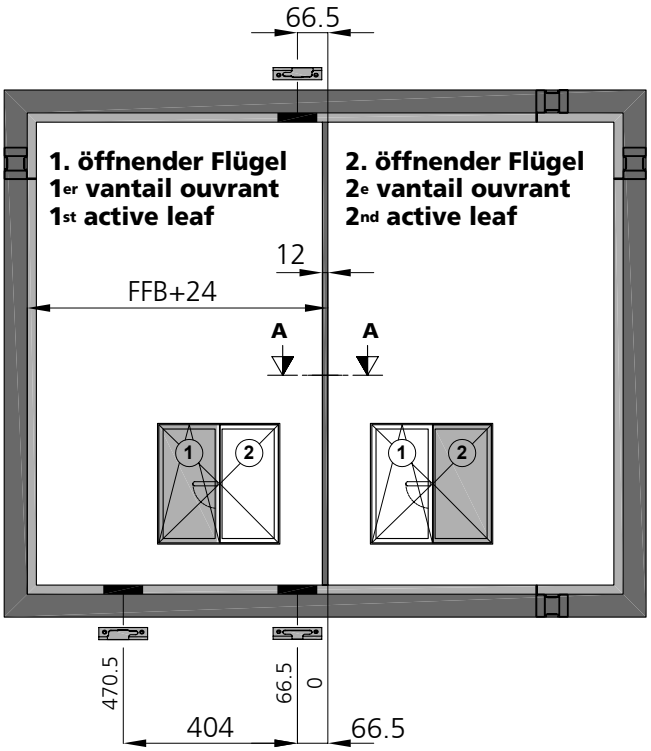
Beschlagseinbau 2-flügeliges Fenster RC3

Anordnung der Schliessstücke
1. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Flügelfalz-Breite
FFB 601 – 800 [mm]



Montage de la quincaillerie Fenêtre à 2 vantaux RC3

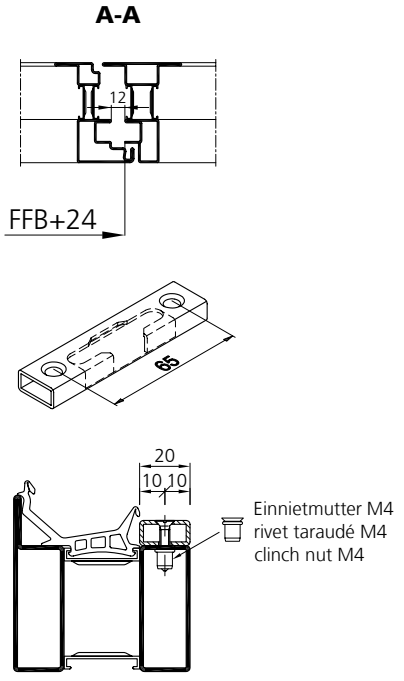
Disposition des gâches
1er vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail
FFB 601 – 800 [mm]



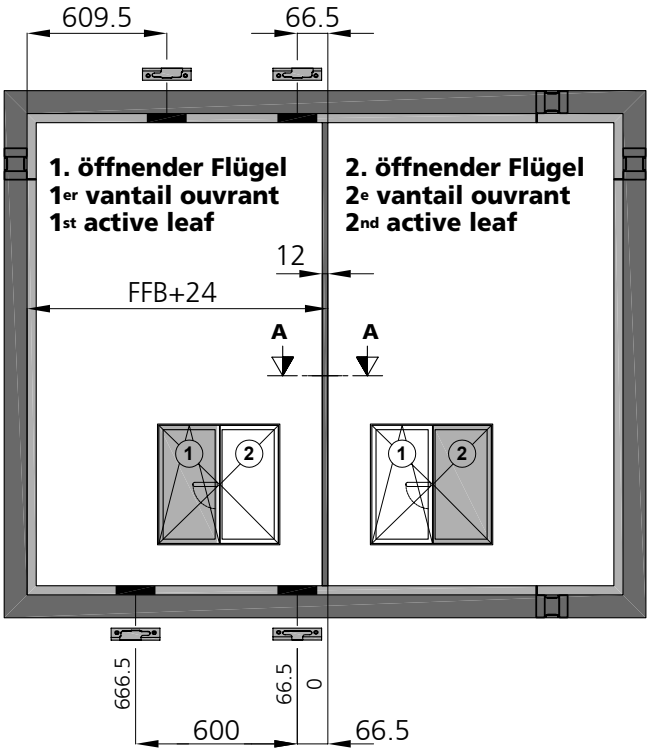
Installation of the fittings Window 2 leaves RC3

Arrangement of the strikers
1st active leaf on 2 leaved windows in dependence on the width of the leaf rebate
FFB 601 – 800 [mm]

Anordnung Schliessstücke
1. öffnender Flügel
FFB 801 – 1000 [mm]



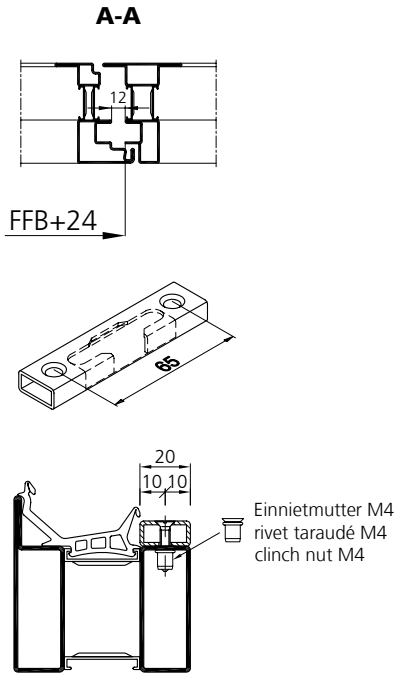
Disposition des gâches
1er vantail ouvrant
FFB 801 – 1000 [mm]



Arrangement of the strikers
1st active leaf
FFB 801 – 1000 [mm]

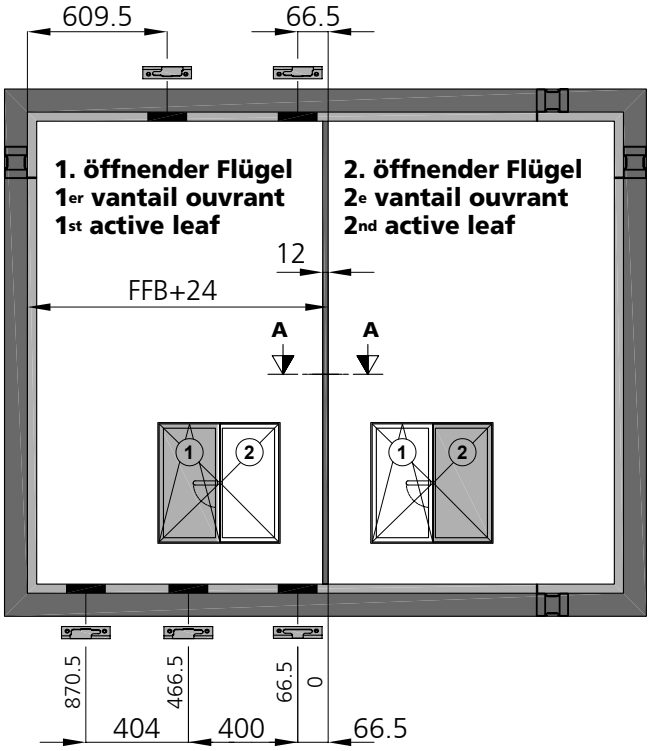
Beschlagseinbau 2-flügeliges Fenster RC3

Anordnung der Schliessstücke
1. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Flügelfalz-Breite
FFB 1001 – 1200 [mm]



Montage de la quincaillerie Fenêtre à 2 vantaux RC3

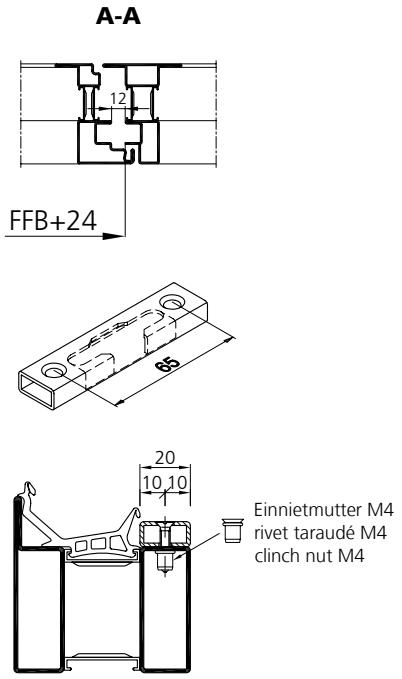
Disposition des gâches
1er vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail
FFB 1001 – 1200 [mm]



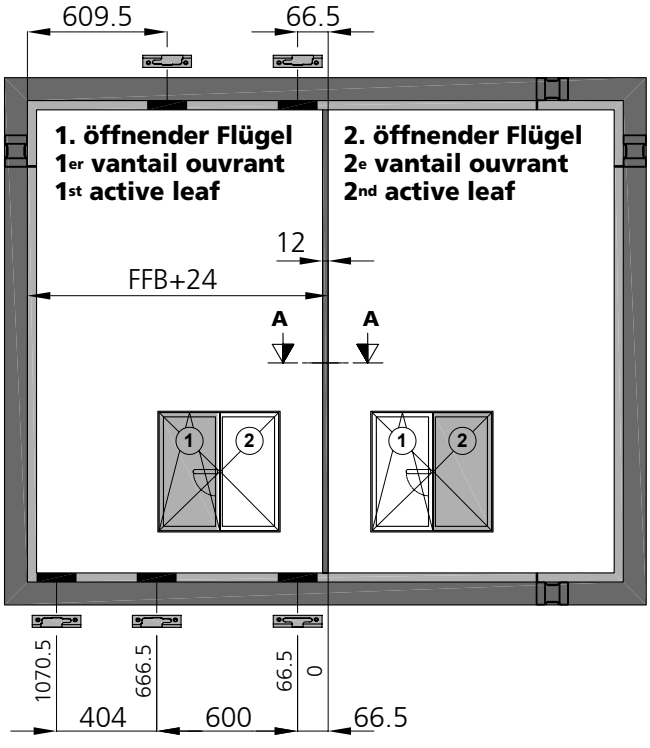
Installation of the fittings Window 2 leaves RC3

Arrangement of the strikers
1st active leaf on 2 leaved windows in dependence on the width of the leaf rebate
FFB 1001 – 1200 [mm]

Anordnung der Schliessstücke
1. öffnender Flügel bei 2 flg. Fenster in
FFB 1201 – 1400 [mm]



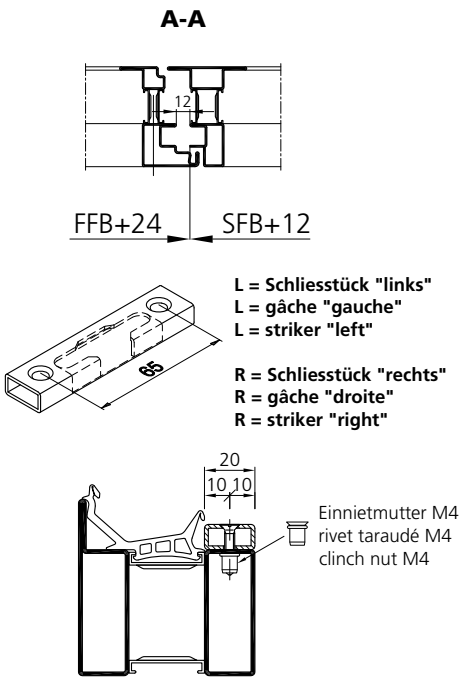
Disposition des gâches
1er vantail ouvrant sur fenêtre à 2 vantaux
FFB 1201 – 1400 [mm]



Arrangement of the strikers
1st active leaf on 2 leaved windows in
FFB 1201 – 1400 [mm]

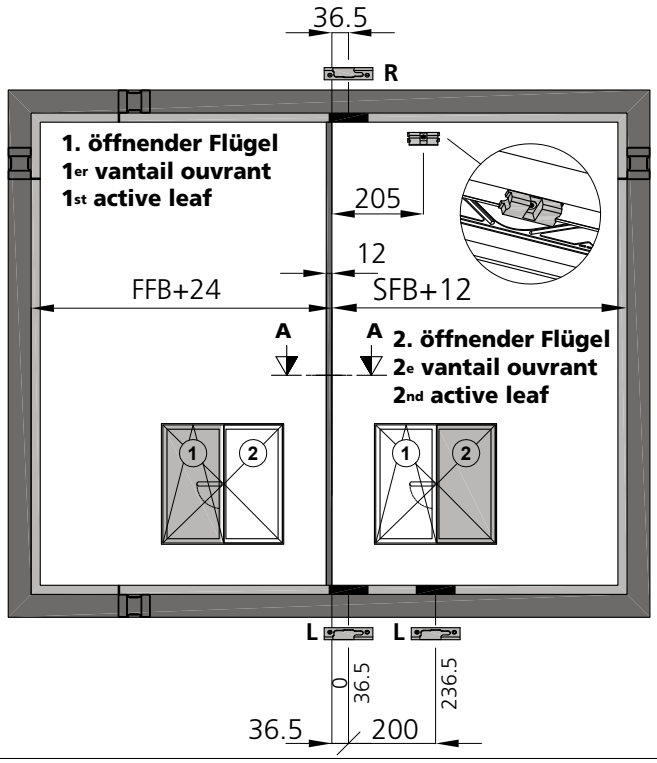
Beschlagseinbau 2-flügeliges Fenster RC3

Anordnung der Schliessstücke
2. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Stulpfalz-Breite
SFB 310 – 410 [mm]



Montage de la quincaillerie Fenêtre à 2 vantaux RC3

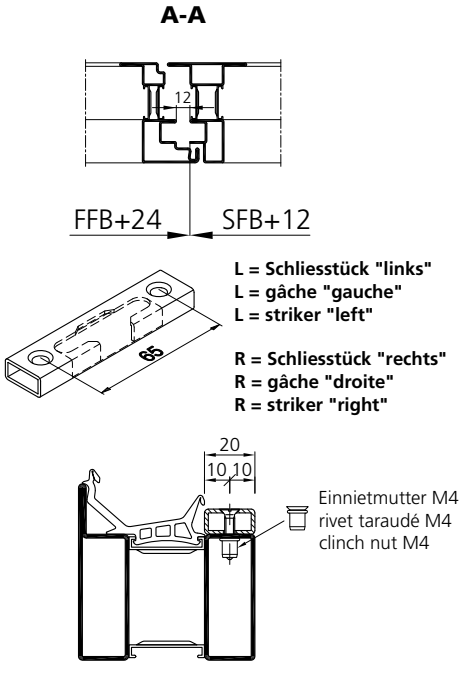
Disposition des gâches
2e vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail semi-fixe
SFB 310 – 410 [mm]



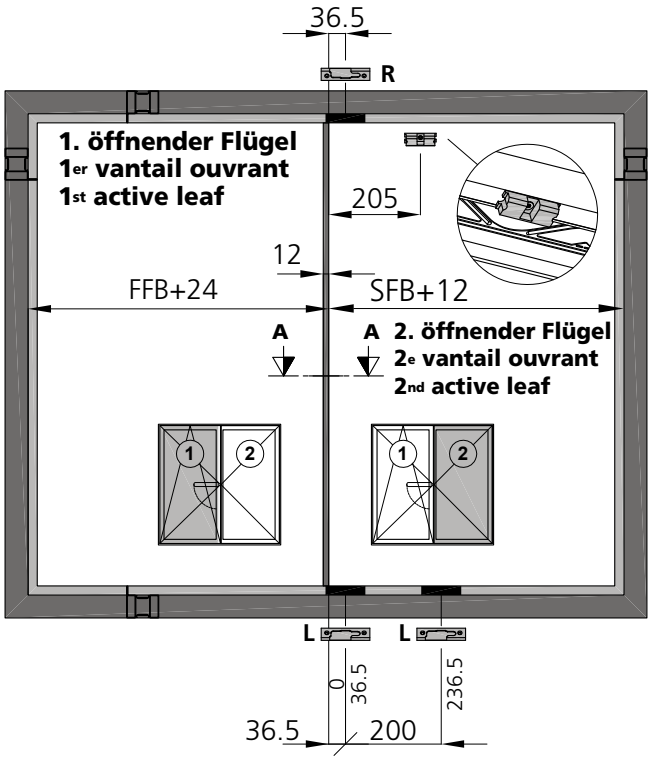
Installation of the fittings Window 2 leaves RC3

Arrangement of the strikers
2nd active leaf on 2 leaved windows in dependence on the width of the double sash rebate
SFB 310 – 410 [mm]

Anordnung Schliessstücke
2. öffnender Flügel
SFB 411 – 600 [mm]



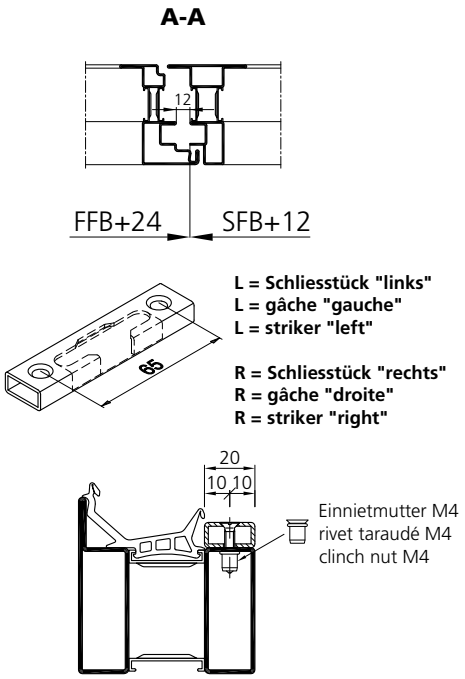
Disposition des gâches
2e vantail ouvrant
SFB 411 – 600 [mm]



Arrangement of the strikers
2nd active leaf
SFB 411 – 600 [mm]

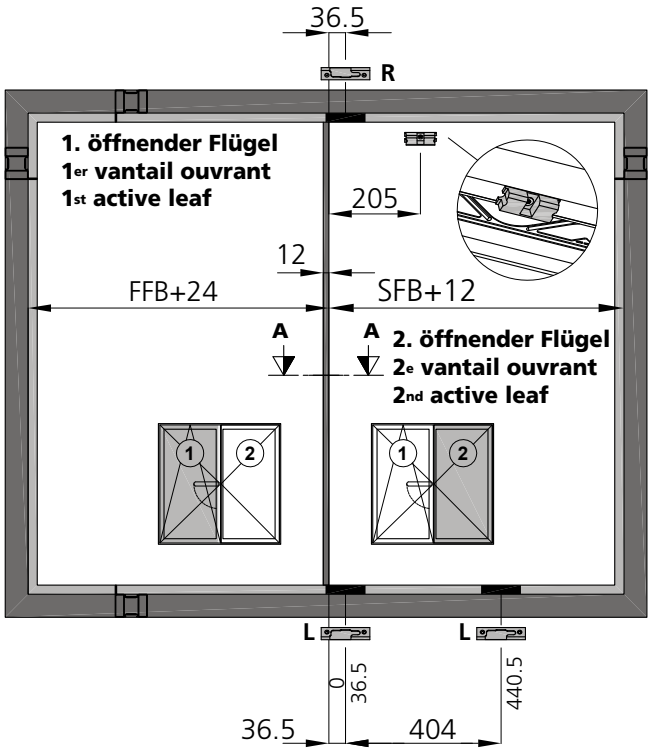
Beschlagseinbau 2-flügeliges Fenster RC3

Anordnung der Schliessstücke
2. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Stulpfalz-Breite
SFB 601 – 800 [mm]



Montage de la quincaillerie Fenêtre à 2 vantaux RC3

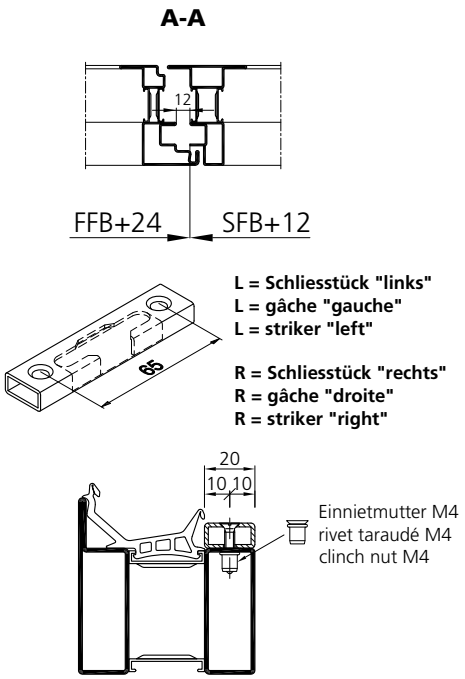
Disposition des gâches
2e vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail semi-fixe
SFB 601 – 800 [mm]



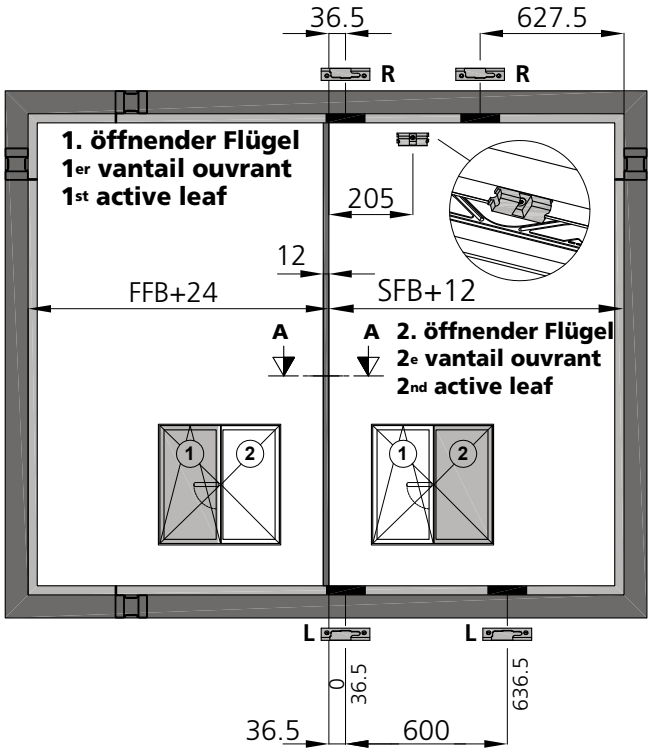
Installation of the fittings Window 2 leaves RC3

Arrangement of the strikers
2nd active leaf on 2 leaved windows in dependence on the width of the double sash rebate
SFB 601 – 800 [mm]

Anordnung Schliessstücke
2. öffnender Flügel
SFB 801 – 1000 [mm]



Disposition des gâches
2e vantail ouvrant
SFB 801 – 1000 [mm]

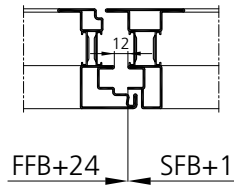


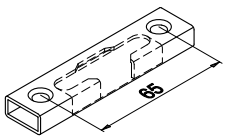
Arrangement of the strikers
2nd active leaf
SFB 801 – 1000 [mm]

Beschlagseinbau 2-flügeliges Fenster RC3

Anordnung der Schliessstücke
2. öffnender Flügel bei 2 flg. Fenster in Abhängigkeit der Stulpfalz-Breite
SFB 1001 – 1200 [mm]

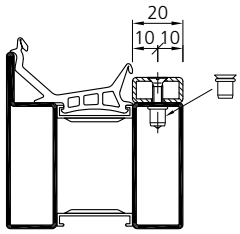
A-A





L = Schliesstück "links"
L = gâche "gauche"
L = striker "left"

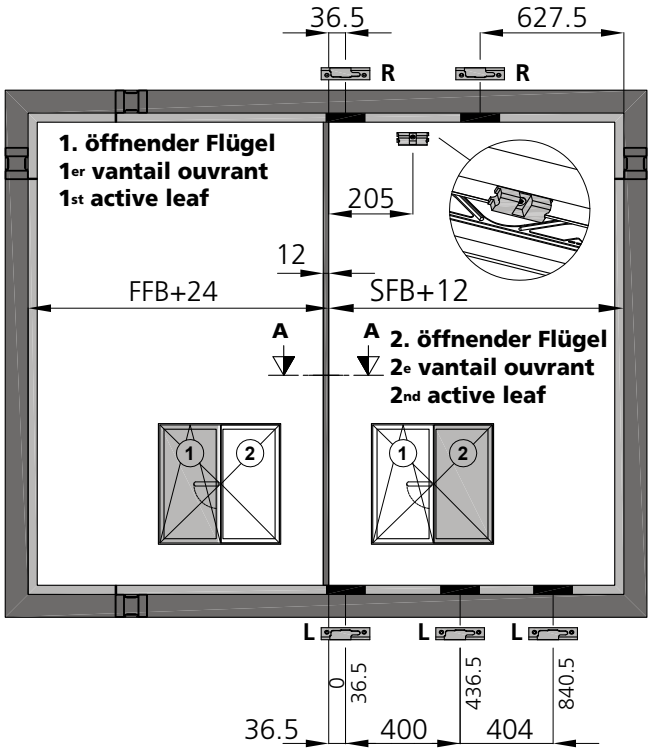
R = Schliesstück "rechts"
R = gâche "droite"
R = striker "right"



Einnietmutter M4
rivet taraudé M4
clinch nut M4

Montage de la quincaillerie Fenêtre à 2 vantaux RC3

Disposition des gâches
2e vantail ouvrant sur fenêtre à 2 vantaux selon la largeur de feuillure du vantail semi-fixe
SFB 1001 – 1200 [mm]

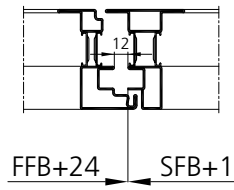


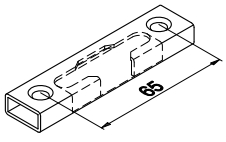
Installation of the fittings Window 2 leaves RC3

Arrangement of the strikers
2nd active leaf on 2 leaved windows in dependence on the width of the double sash rebate
SFB 1001 – 1200 [mm]

Anordnung Schliessstücke
2. öffnender Flügel
SFB 1201 – 1400 [mm]

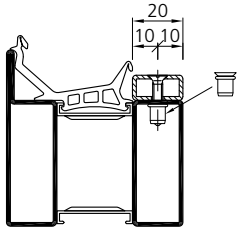
A-A





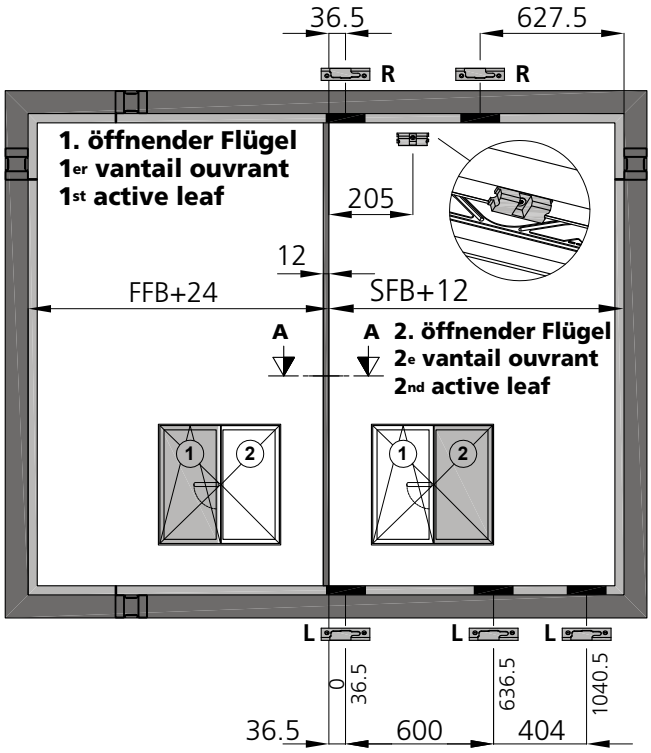
L = Schliesstück "links"
L = gâche "gauche"
L = striker "left"

R = Schliesstück "rechts"
R = gâche "droite"
R = striker "right"



Einnietmutter M4
rivet taraudé M4
clinch nut M4

Disposition des gâches
2e vantail ouvrant
SFB 1201 – 1400 [mm]



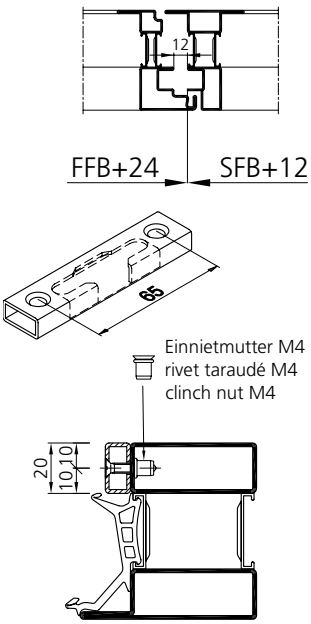
Arrangement of the strikers
2nd active leaf
SFB 1201 – 1400 [mm]

VUF 01/19

Beschlagseinbau 2-flügeliges Fenster RC3

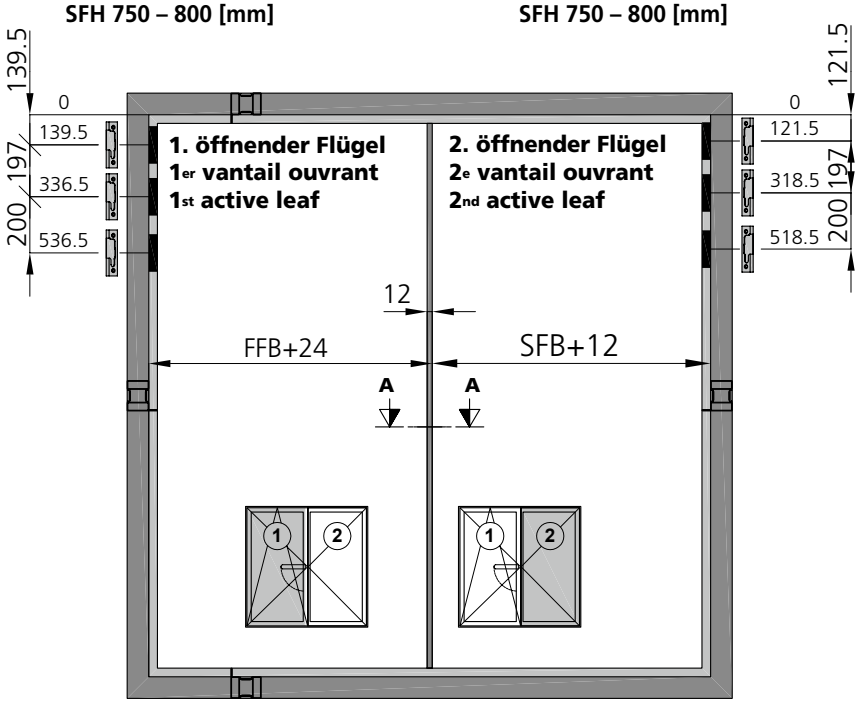
Anordnung der Schliessstücke
bandseitig 2-flg. in Abhängigkeit der Flügelfalz-Höhe
FFH 750 – 800 [mm]
SFH 750 – 800 [mm]

A-A



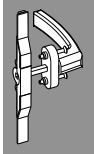
Montage de la quincaillerie Fenêtre à 2 vantaux RC3

Disposition des gâches
Côté paumelle 2 vantaux selon la hauteur de la feuillure du vantail
FFH 750 – 800 [mm]
SFH 750 – 800 [mm]



Installation of the fittings Window 2 leaves RC3

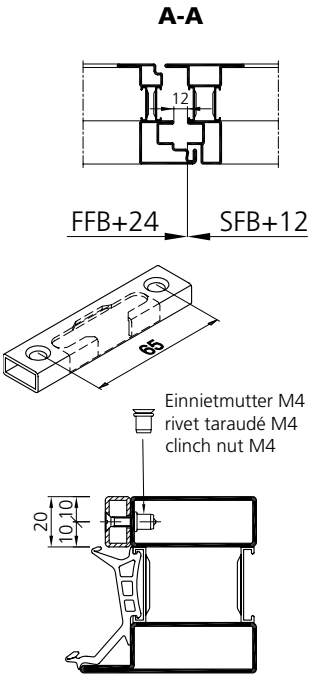
Arrangement of the strikers
Hinge side, 2 leaved in dependence on the height of the leaf rebate
FFH 750 – 800 [mm]
SFH 750 – 800 [mm]



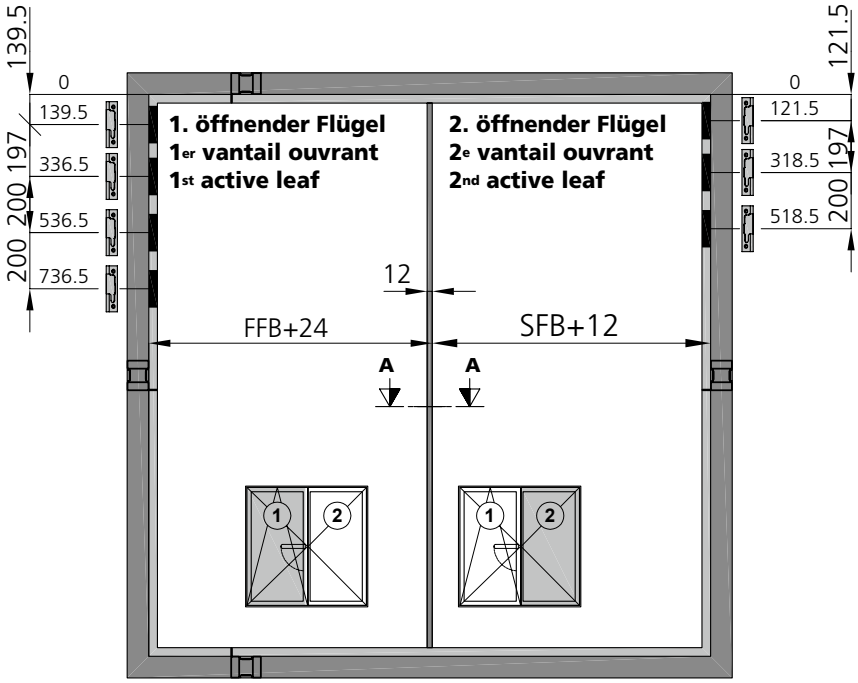
Verarbeitung Beschläge Fenster
Mise en œuvre quincaillerie fenêtres
Assembly window fittings

Anordnung Schliessstücke
FFH 801 – 900 [mm]
SFH 801 – 900 [mm]

A-A



Disposition des gâches
FFH 801 – 900 [mm]
SFH 801 – 900 [mm]



Arrangement of the strikers
FFH 801 – 900 [mm]
SFH 801 – 900 [mm]

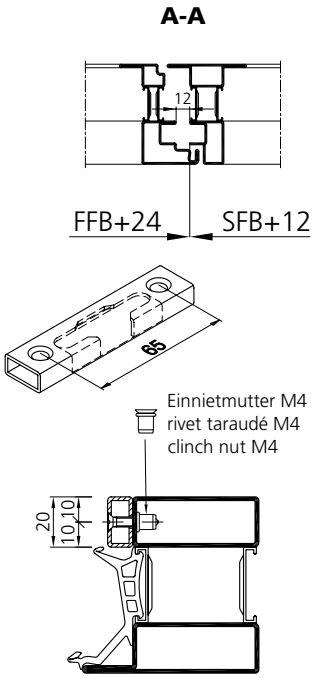
Schliessstücke auf Getriebeseite sind fix auf Stulpgetriebe montiert

Les gâches du côté crémone sont montées de façon fixe sur la crémone

Keeps on the drive side are firmly mounted on the face plate drive

Beschlagseinbau 2-flügeliges Fenster RC3

Anordnung der Schliessstücke
bandseitig 2-flg. in Abhängigkeit der Flügelfalz-Höhe
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]

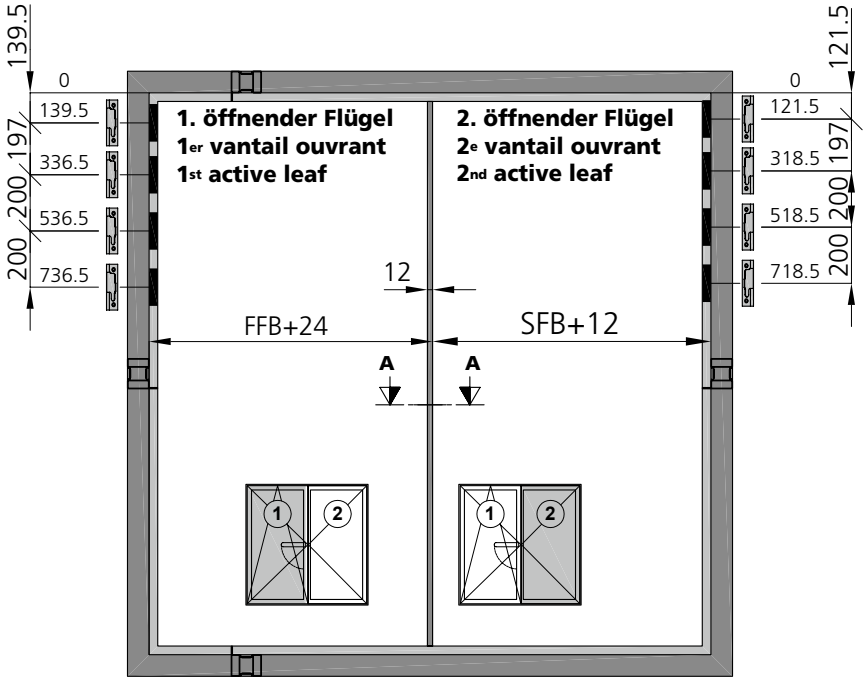


Montage de la quincaillerie Fenêtre à 2 vantaux RC3

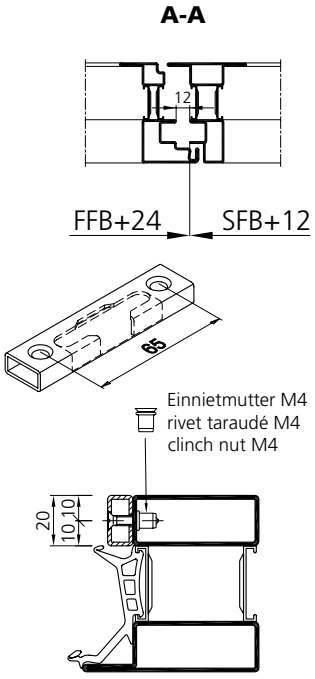
Disposition des gâches
Côté paumelle 2 vantaux selon la hauteur de la feuillure du vantail
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]

Installation of the fittings Window 2 leaves RC3

Arrangement of the strikers
Hinge side, 2 leaved in dependence on the height of the leaf rebate
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]

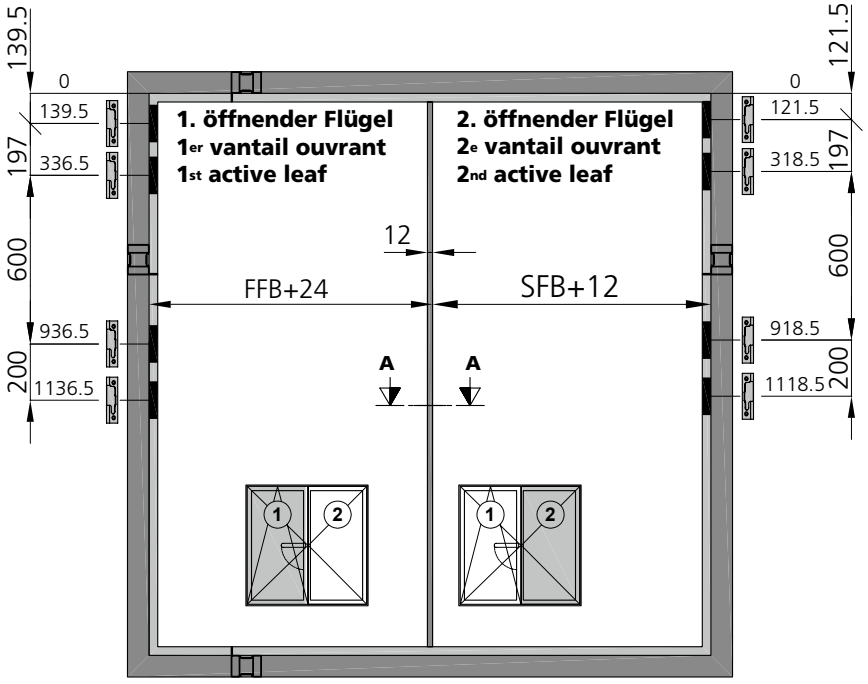


Anordnung Schliessstücke
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]



Disposition des gâches
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]

Arrangement of the strikers
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]



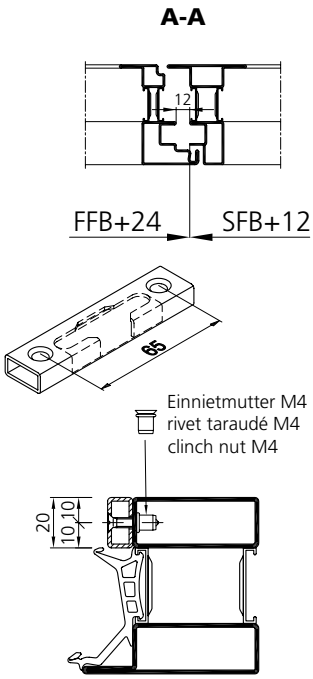
Schliessstücke auf Getriebeseite sind fix auf Stulpgetriebe montiert

Les gâches du côté crémone sont montées de façon fixe sur la crémone

Keeps on the drive side are firmly mounted on the face plate drive

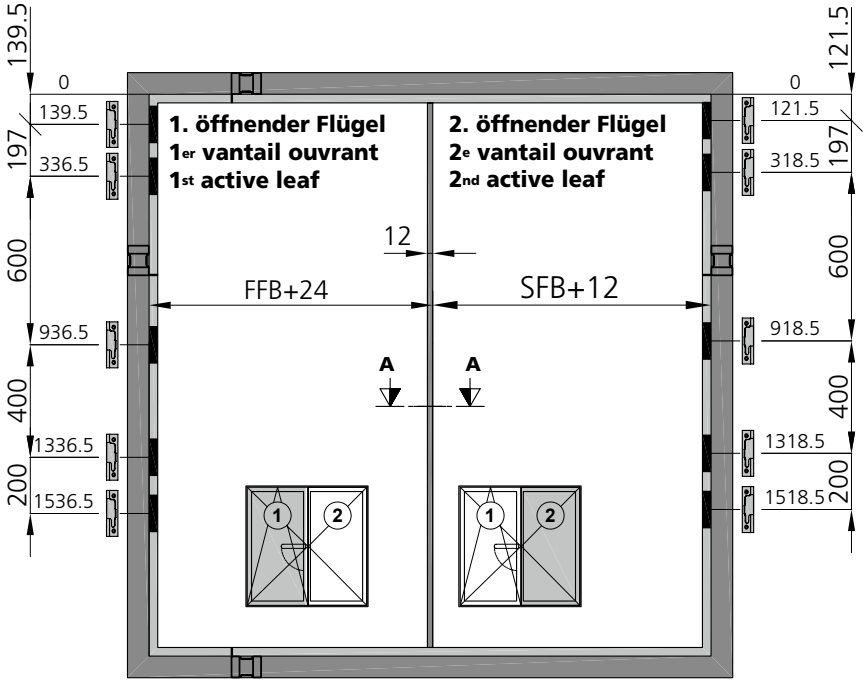
Beschlagseinbau 2-flügeliges Fenster RC3

Anordnung der Schliessstücke
bandseitig 2-flg. in Abhängigkeit der Flügelfalz-Höhe
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]



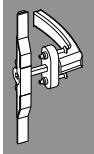
Montage de la quincaillerie Fenêtre à 2 vantaux RC3

Disposition des gâches
Côté paumelle 2 vantaux selon la hauteur de la feuillure du vantail
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]

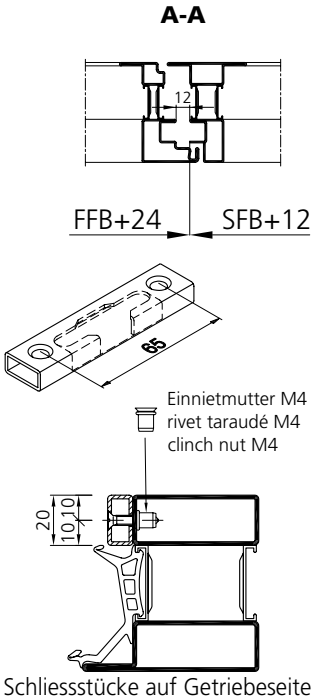


Installation of the fittings Window 2 leaves RC3

Arrangement of the strikers
Hinge side, 2 leaved in dependence on the height of the leaf rebate
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]

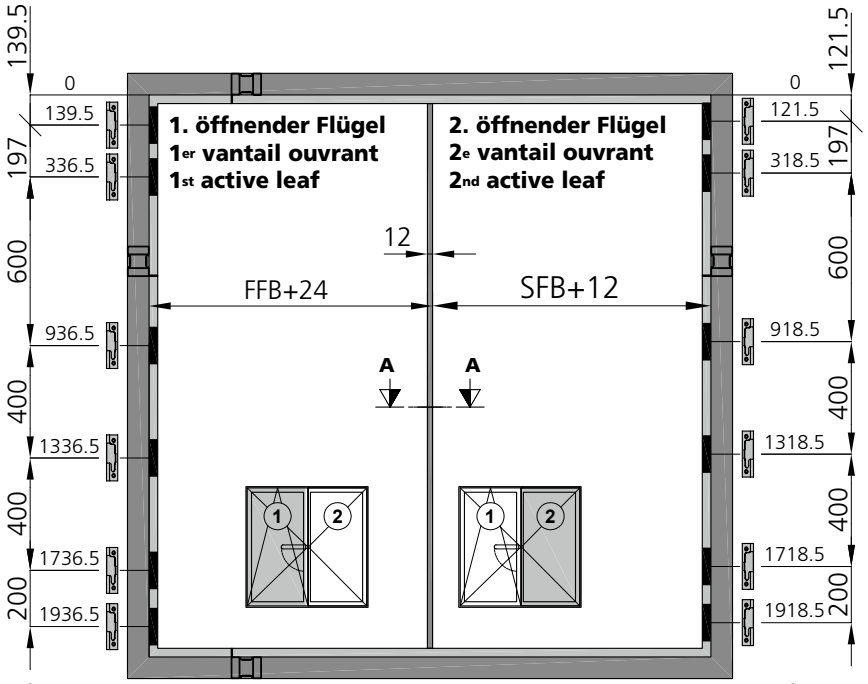


Anordnung Schliessstücke
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]



Schliessstücke auf Getriebeseite sind fix auf Stulpgetriebe montiert

Disposition des gâches
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]



Les gâches du côté crémone sont montées de façon fixe sur la crémone

Arrangement of the strikers
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]

Keeps on the drive side are firmly mounted on the face plate drive

Beschlagseinbau 2-flügeliges Fenster RC3

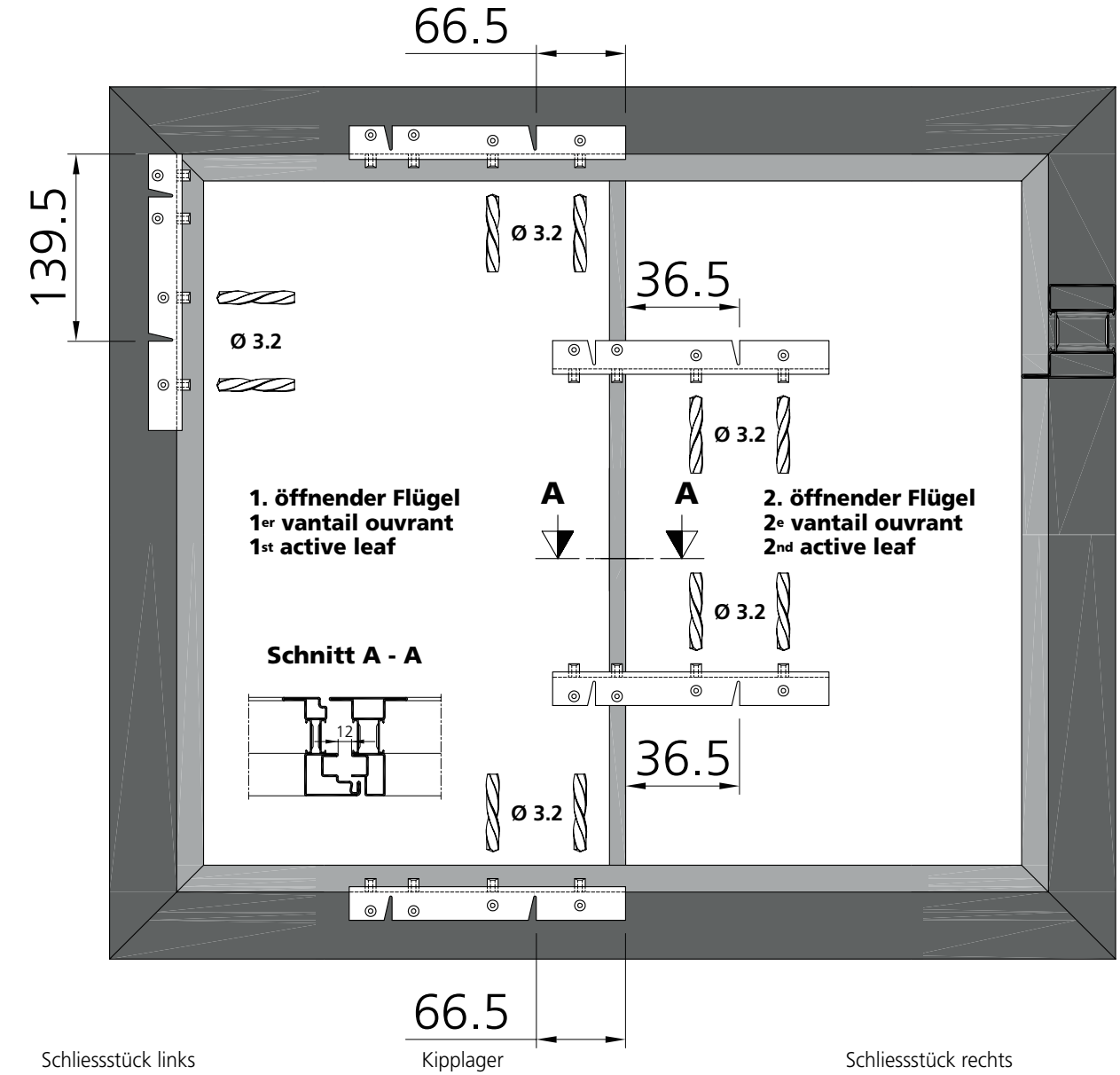
Montage de la quincaillerie Fenêtre à 2 vantaux RC3

Installation of the fittings Window 2 leaves RC3

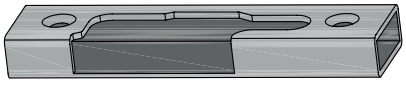
Bohrlehre **Art. Nr. 989109**

Gabarit de perçage **art. no. 989109**

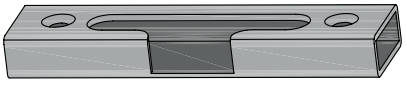
Drilling template **art. no. 989109**



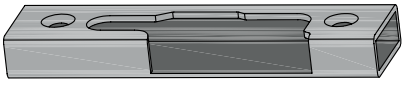
Schliessstück links
Gâche gauche
Striker left

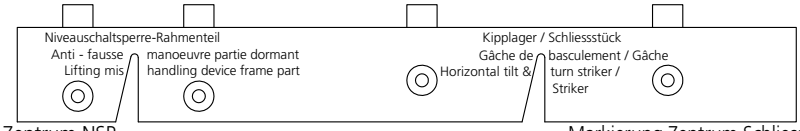


Kipplager
Gâche de basculement
Tilt-turn striker



Schliessstück rechts
Gâche droite
Striker right





Markierung Zentrum NSP
Marque gâche AFM
Marking on the center LMD

Markierung Zentrum Schliessblech /Kipplager
Marque centre gâche / gâche de basculement
Marking on the center of the striker / the tilt-turn striker

Beschlagseinbau 2-flügeliges Fenster RC3

- Schraube M4 x 21 (selbstfurchend)
- Bohrloch 3.2 mm
- Bei Edelstahlprofil muss das M4 Gewinde geschnitten werden. Alternative: Bohrloch auf 3.5 aufbohren, Schraube ohne M4 Gewindeschnitt einsetzen.

Bei jeder Verschraubung muss ein Distanzstück **927001** eingesetzt werden.

Montage de la quincaillerie Fenêtre à 2 vantaux RC3

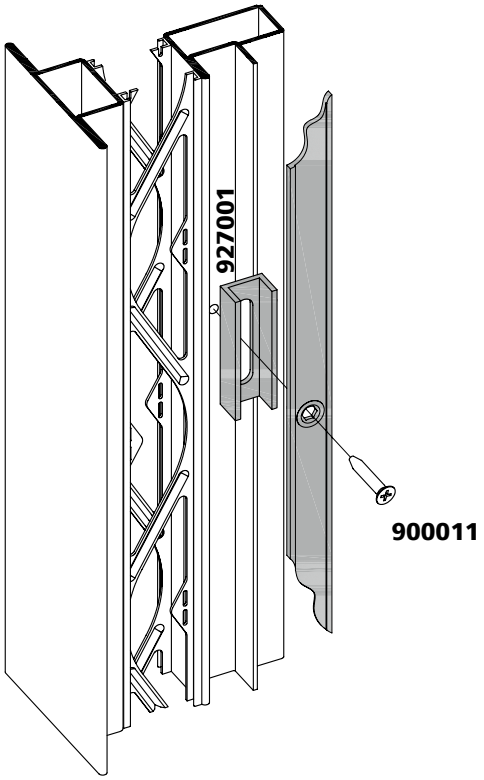
- Vis M4 x 21 (autotaraudeuse)
- Perçage 3.2 mm
- Avec le profilé en acier inox, la vis M4 doit être coupée. Alternative: agrandir le trou à 3.5, taraudage M4 pas necessaire.

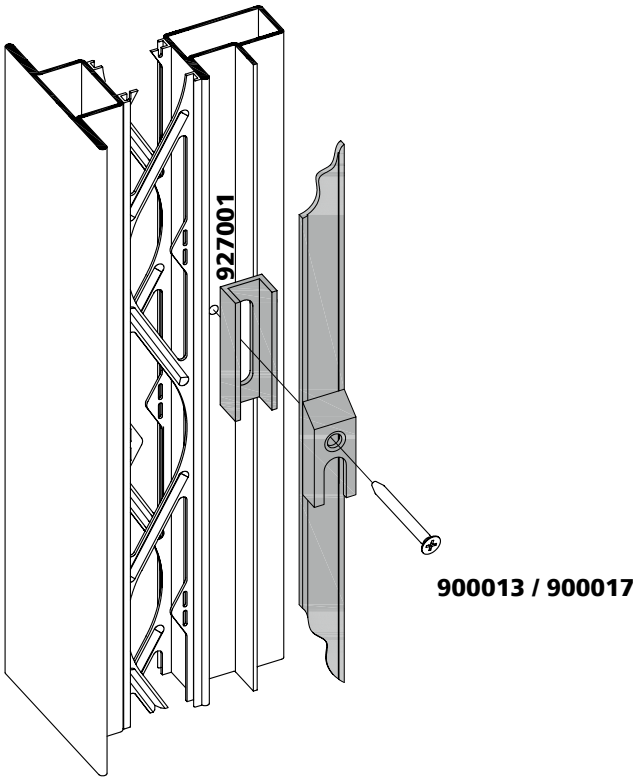
La pièce d'entretoise **927001** doit être insérée sous toutes les fixations et assemblages.

Installation of the fittings Window 2 leaves RC3

- Screw M4 x 21 (self tapping)
- Drill hole 3.2 mm
- In stainless steel profiles, the M4 thread needs to be cut case. Alternative: drill out the drilling hole of 3.5, use screw without M4 thread.

The spacer **927001** must be placed under all screw connections.



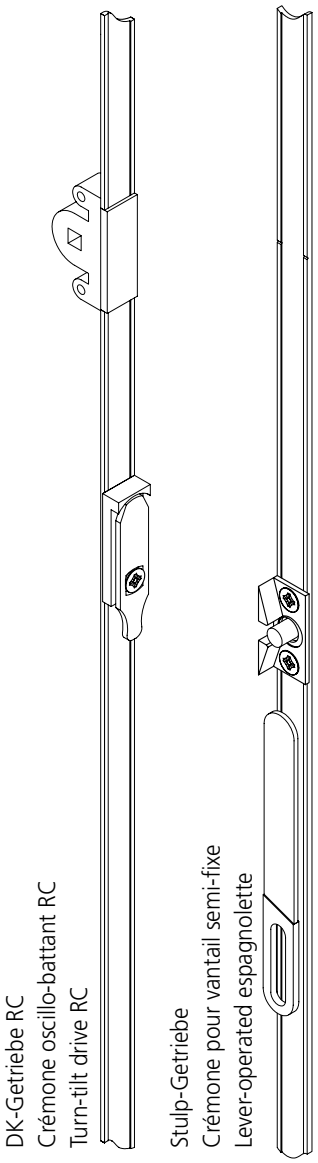


Beschlagseinbau 2-flügeliges Fenster Niveau-Schaltsperre

Montage de la quincaillerie Fenêtre à 2 vantaux Anti-fausse manœuvre

Installation of the fittings Window 2 leaves Lifting mishandling device

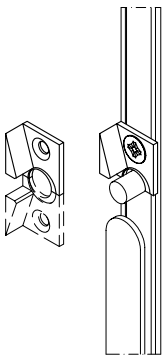
GH 376-800

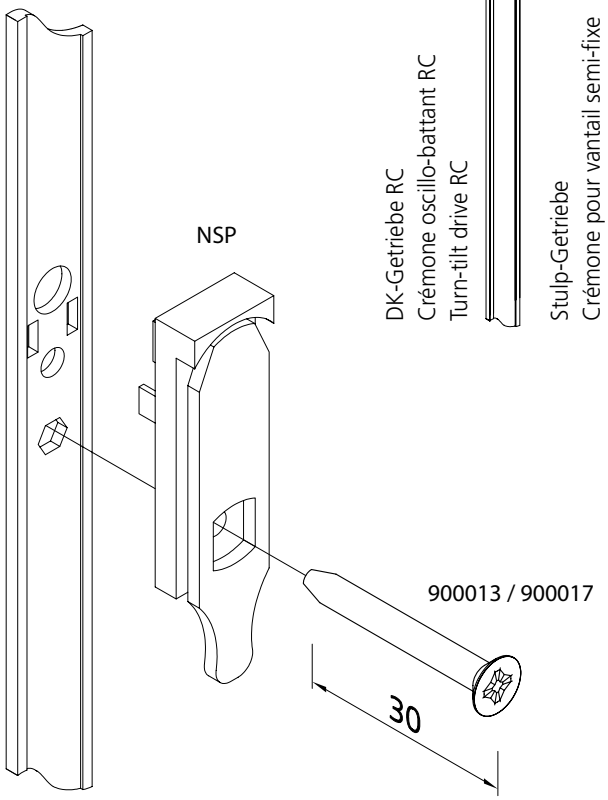


Niveauschaltsperre Stulpteil halbierbar (Kunststoff)

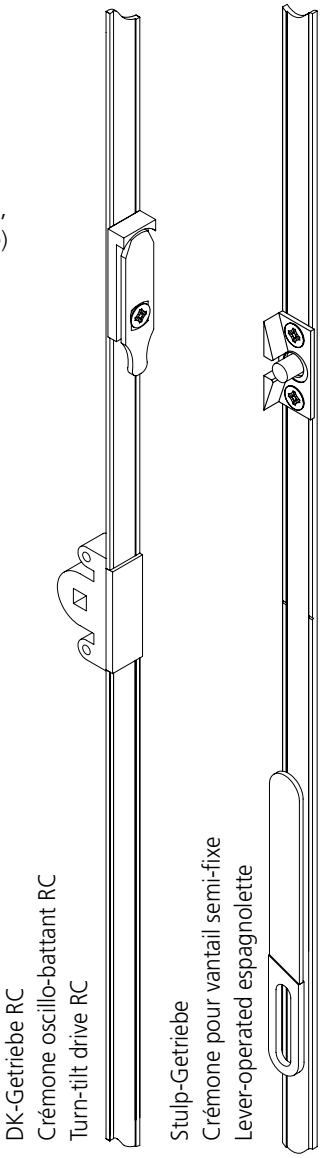
Anti-fausse manoeuvre, partie support, pouvant être divisée (matière plastique)

Lifting mishandling device, reducible by half (plastic)





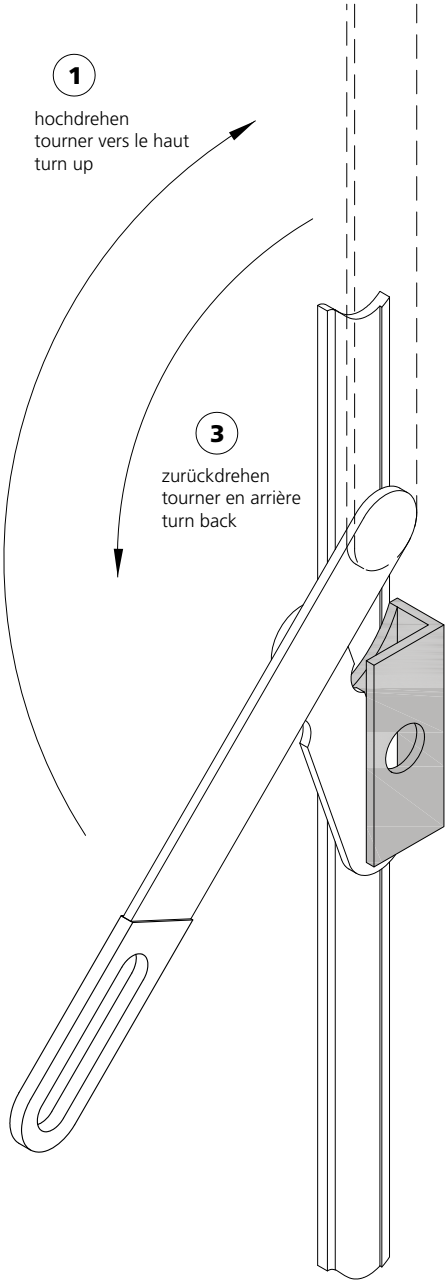
GH 801-1200

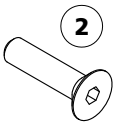


Beschlagseinbau
2-flügeliges Fenster
Montage Sicherungsbügel

Montage de la quincaillerie
Fenêtre à 2 vantaux
Montage etrier fixation crémone

Installation of the fittings
Window 2 leaves
Mounting retainer clasp



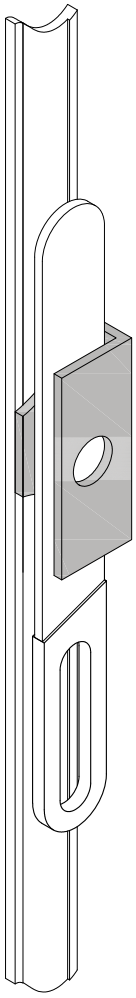


900011

2. öffnender Flügel passend zu
1. öffnendem Flügel DIN rechts

2ème vantail ouvrant adapté au
1er vantail ouvrant DIN droite

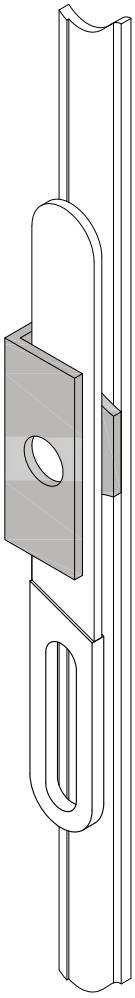
2nd active leaf appropriate for
1st active leaf DIN right

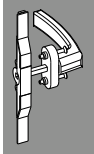


2. öffnender Flügel passend zu
1. öffnendem Flügel DIN links

2ème vantail ouvrant adapté au
1er vantail ouvrant DIN gauche

2nd active leaf appropriate for
1st active leaf DIN left





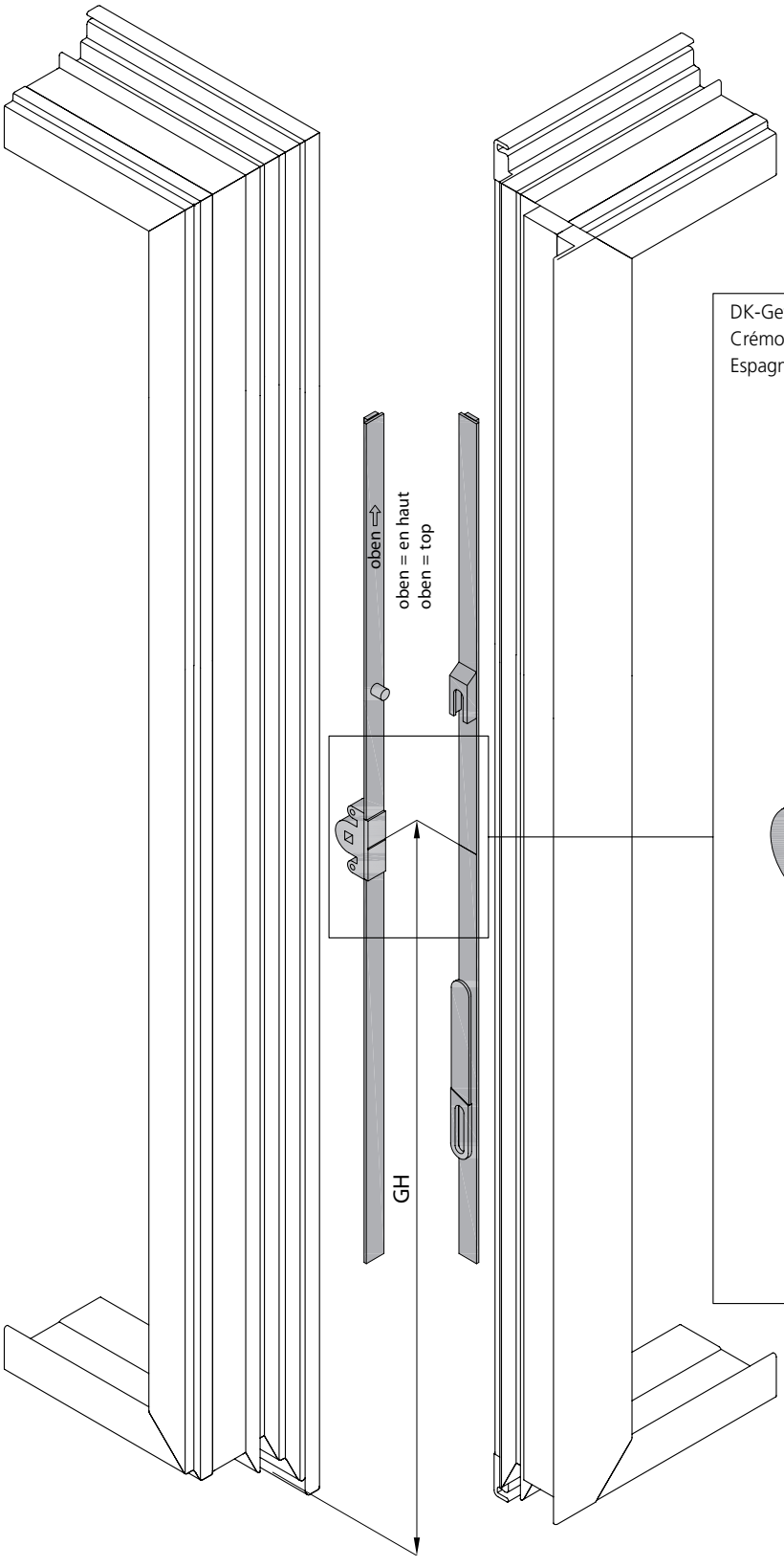
Beschlagseinbau 2-flügeliges Fenster

Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

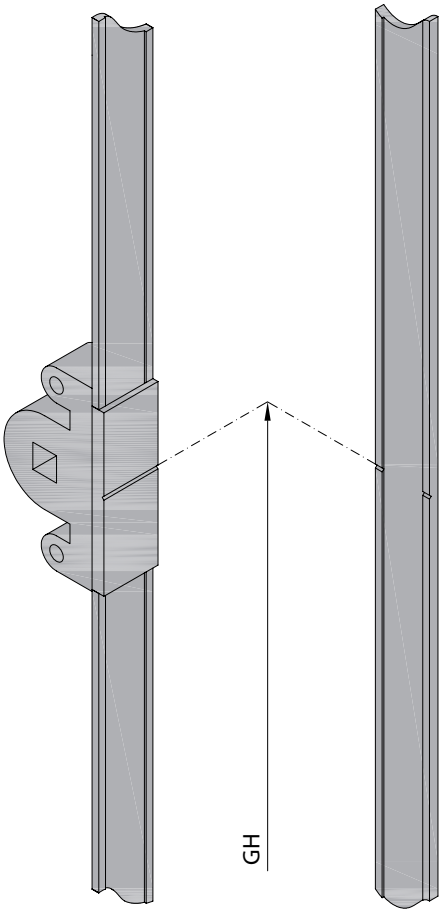
1. öffnender Flügel
1er vantail ouvrant
1st active leaf

2. öffnender Flügel
2e vantail ouvrant
2nd active leaf



DK-Getriebe RC
Crémone OB RC
Espagnolette RC

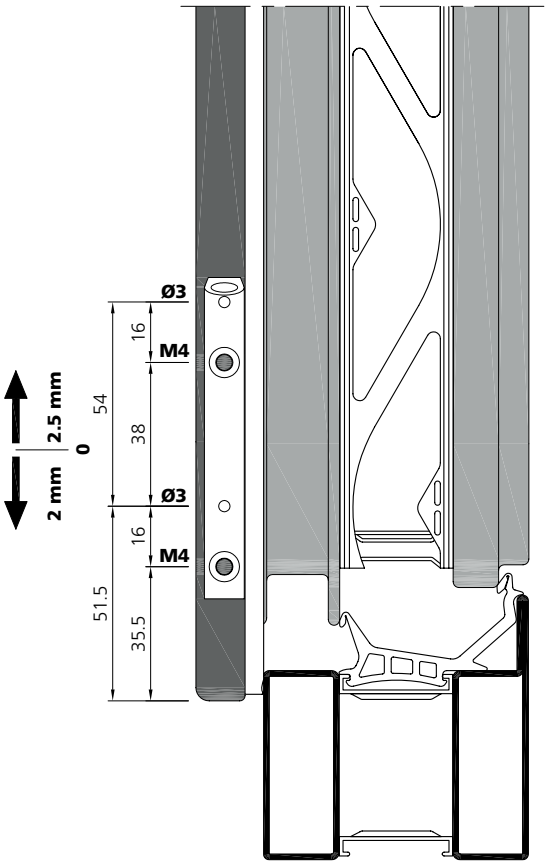
Stulp-Getriebe
Crémone pour vantail semi-fixe
Lever-operated espagnolette

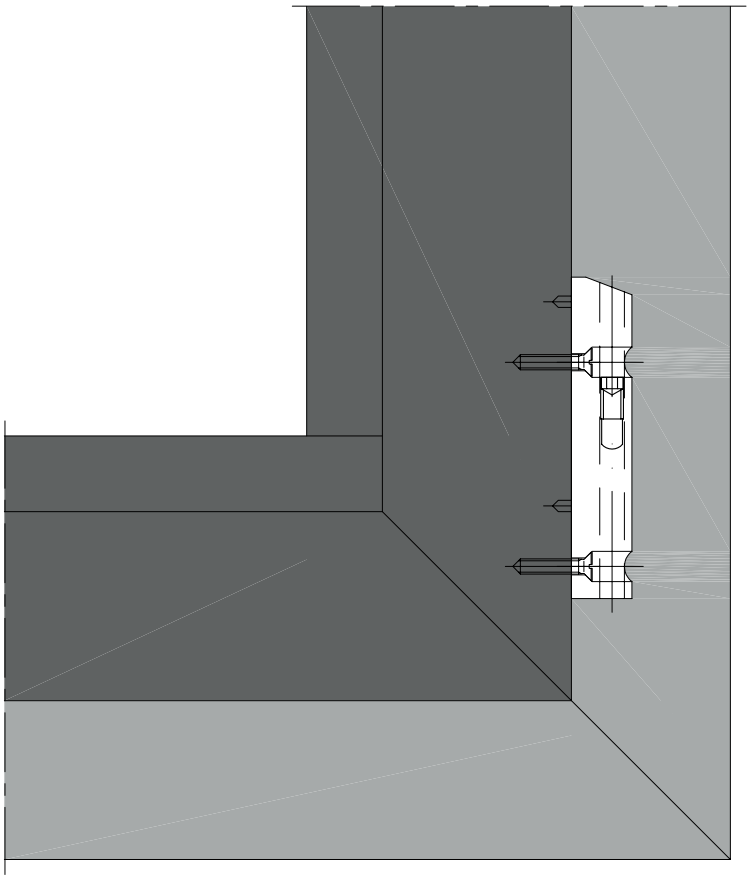


Beschlagseinbau
2-flügeliges Fenster
Eckband

Montage de la quincaillerie
Fenêtre à 2 vantaux
Pivot d'angle

Installation of the fittings
Window 2 leaves
Corner hinge

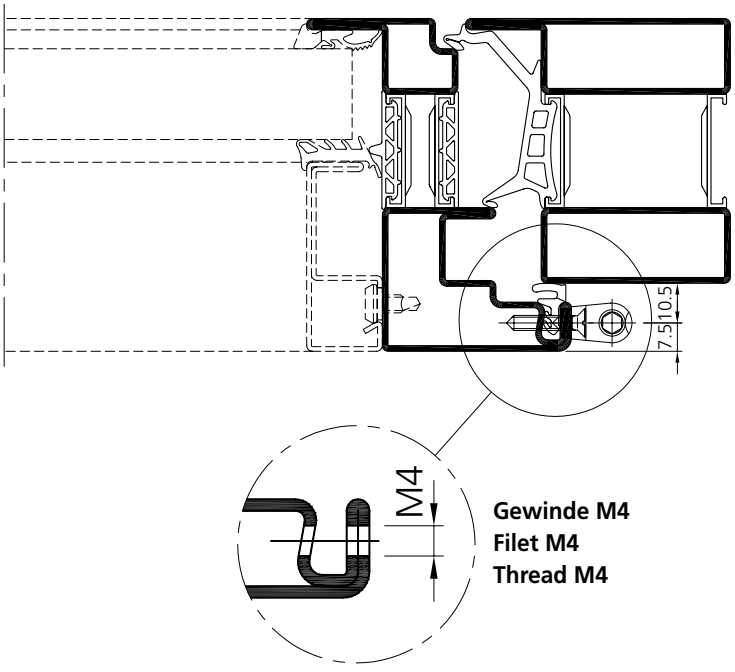




Das Eckband wird durch die Anschlagdichtung **985300** verschraubt.

Le pivot d'angle est vissé à travers le joint de butée **985300**.

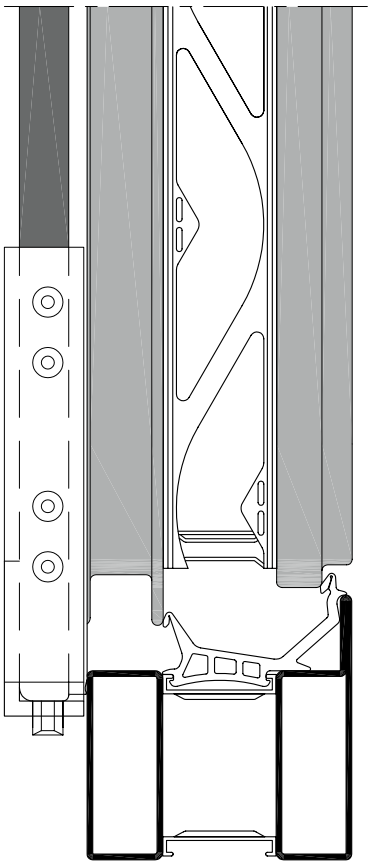
The corner hinge is screwed through the **985300** weatherstripping.

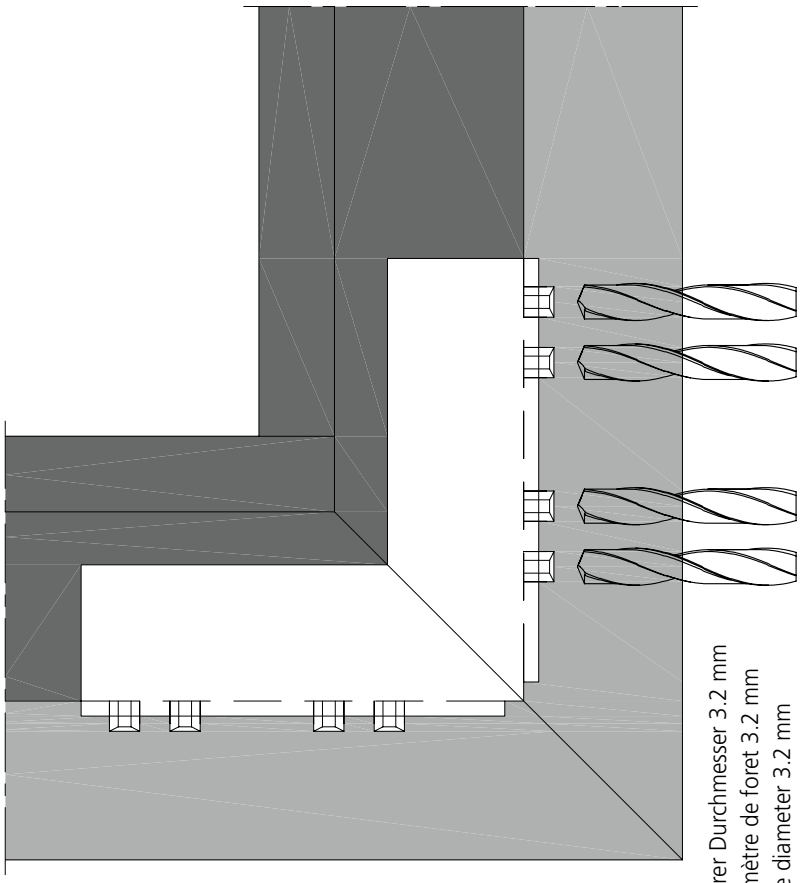


Beschlagseinbau 2-flügeliges Fenster Eckband

Montage de la quincaillerie Fenêtre à 2 vantaux Pivot d'angle

Installation of the fittings Window 2 leaves Corner hinge



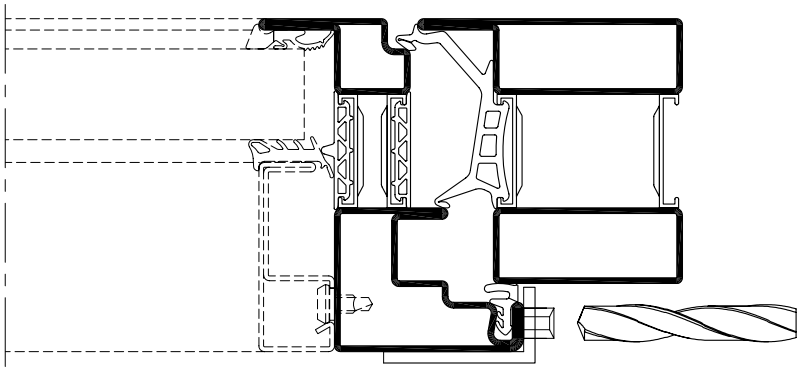


Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Bohrlehre **Art. Nr. 989102** zu Eckband.

Gabarit de perçage **art. no. 989102** pour pivot d'angle.

Drilling template **art. no. 989102** for corner hinge.



Bohrer Durchmesser 3.2 mm
Diamètre de foret 3.2 mm
Bore diameter 3.2 mm

Beschlagseinbau 2-flügeliges Fenster

Einsatz der Forster Bohrlehren für den Standard Beschlag auf dem 2. öffnenden Flügel (Gez. Bandseite links, Bandseite rechts spiegelbildlich)

SFH 750 - 2400
SFB 310 - 1400

Montage de la quincaillerie Fenêtre à 2 vantaux

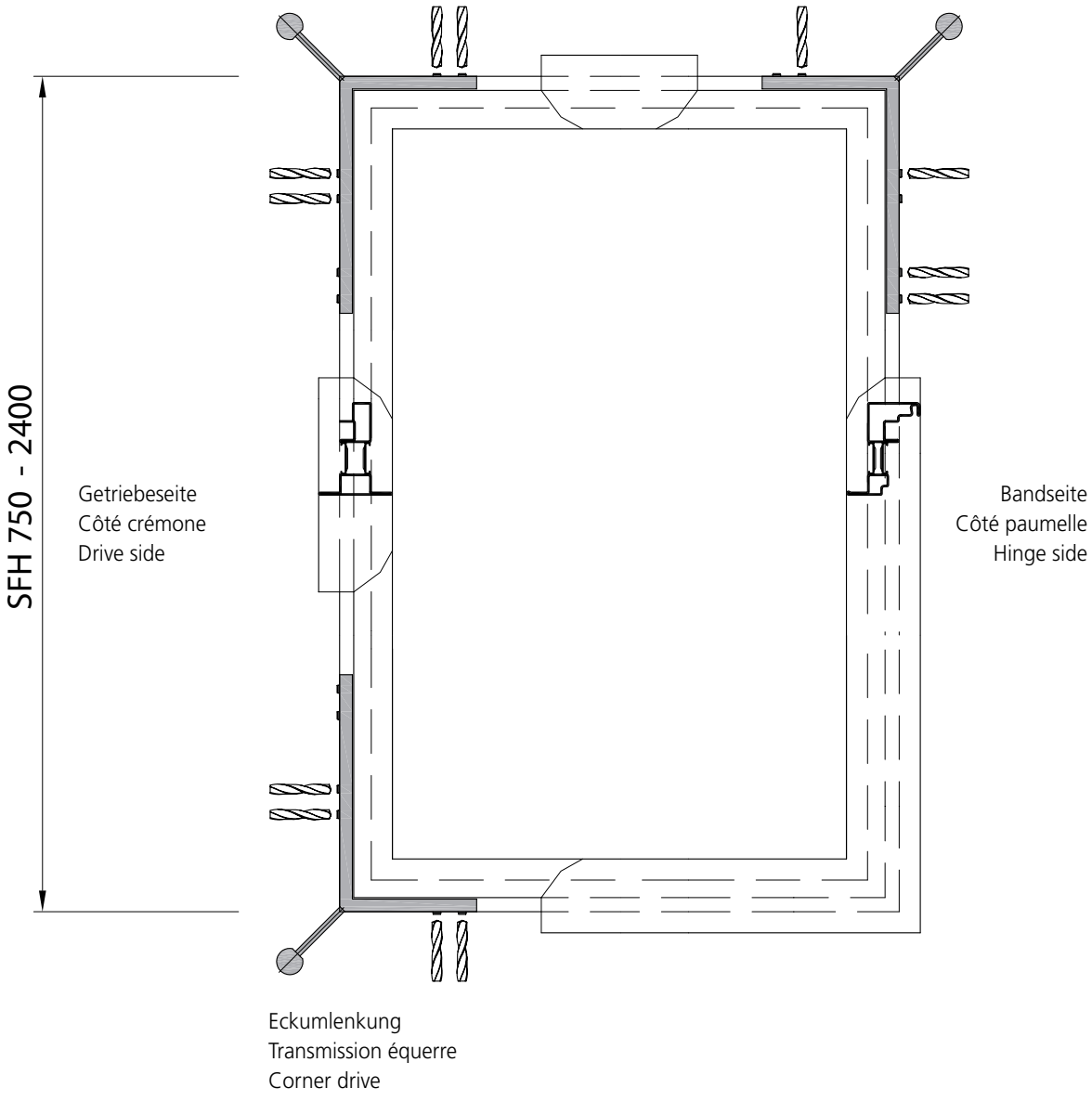
Utilisation des gabarits de perçage Forster pour la quincaillerie standard sur le vantail semi-fix (dessiné côté paumelle à gauche, côté paumelle à droite symétrique)

SFH 750 - 2400
SFB 310 - 1400

Installation of the fittings Window 2 leaves

Use the Forster drilling templates for standard fittings on the 2nd active leaf (marking hinge side left, hinge side right mirror image)

SFH 750 - 2400
SFB 310 - 1400



Beschlagseinbau 2-flügeliges Fenster

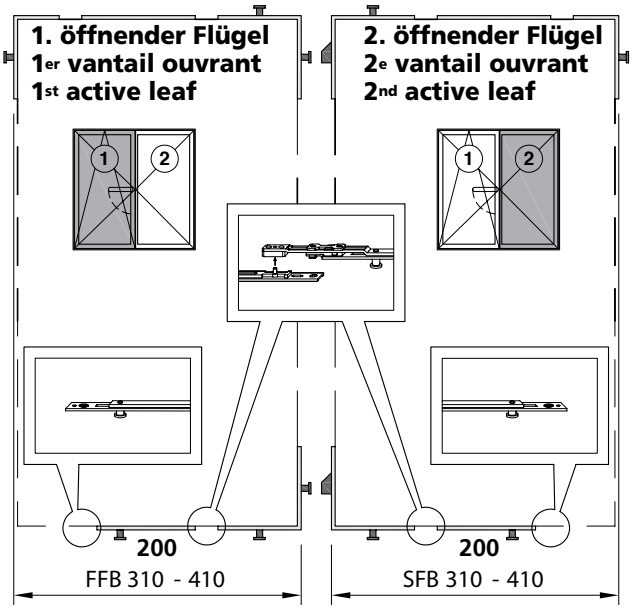
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Anordnung Verlängerungen
FFB 310 – 410 [mm]
SFB 310 – 410 [mm]

Disposition des extensions
FFB 310 – 410 [mm]
SFB 310 – 410 [mm]

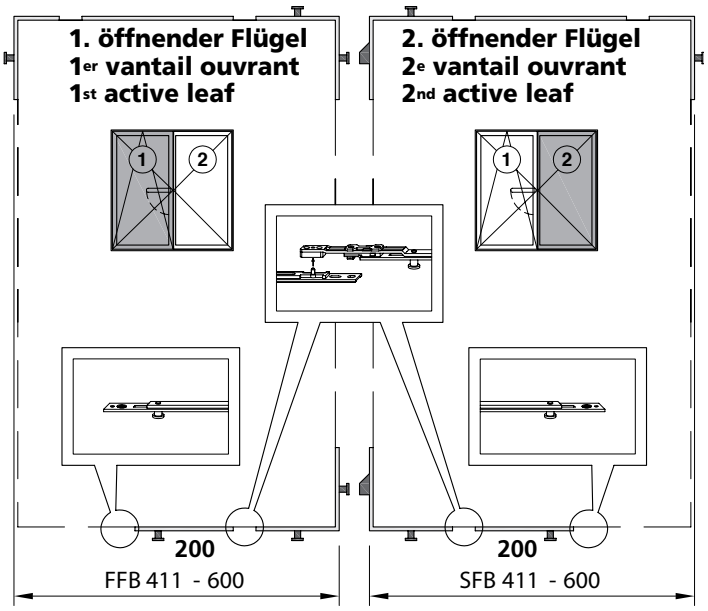
Arrangement of the extensions
FFB 310 – 410 [mm]
SFB 310 – 410 [mm]



Anordnung Verlängerungen
FFB 411 – 600 [mm]
SFB 411 – 600 [mm]

Disposition des extensions
FFB 411 – 600 [mm]
SFB 411 – 600 [mm]

Arrangement of the extensions
FFB 411 – 600 [mm]
SFB 411 – 600 [mm]



Beschlagseinbau 2-flügeliges Fenster

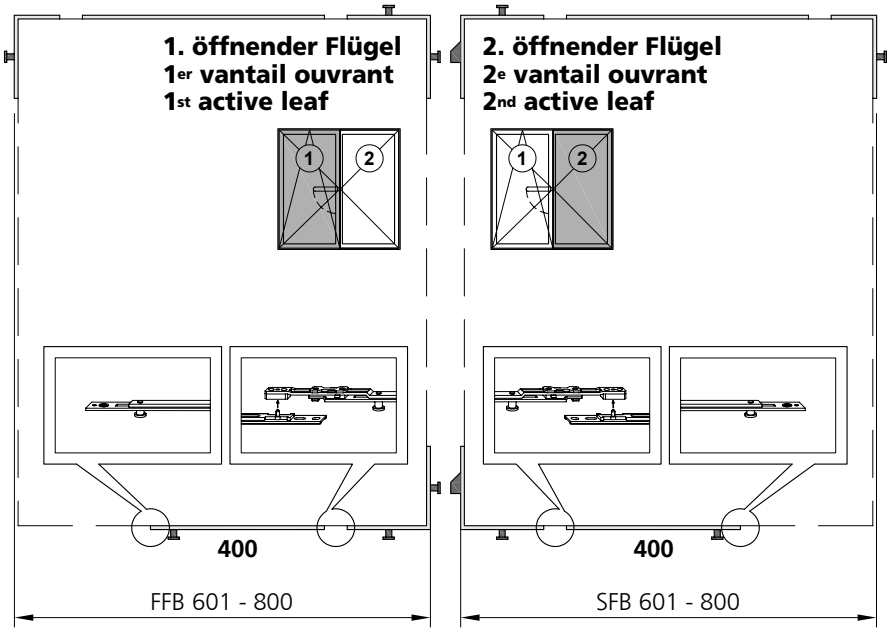
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Anordnung Verlängerungen
FFB 601 – 800 [mm]
SFB 601 – 800 [mm]

Disposition des extensions
FFB 601 – 800 [mm]
SFB 601 – 800 [mm]

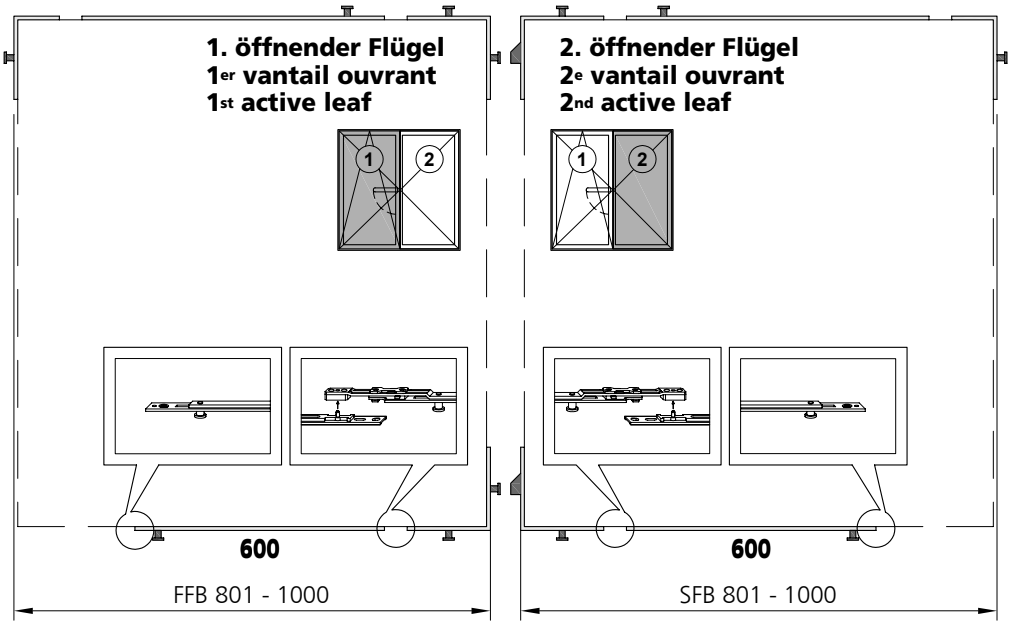
Arrangement of the extensions
FFB 601 – 800 [mm]
SFB 601 – 800 [mm]



Anordnung Verlängerungen
FFB 801 – 1000 [mm]
SFB 801 – 1000 [mm]

Disposition des extensions
FFB 801 – 1000 [mm]
SFB 801 – 1000 [mm]

Arrangement of the extensions
FFB 801 – 1000 [mm]
SFB 801 – 1000 [mm]



Beschlagseinbau 2-flügeliges Fenster

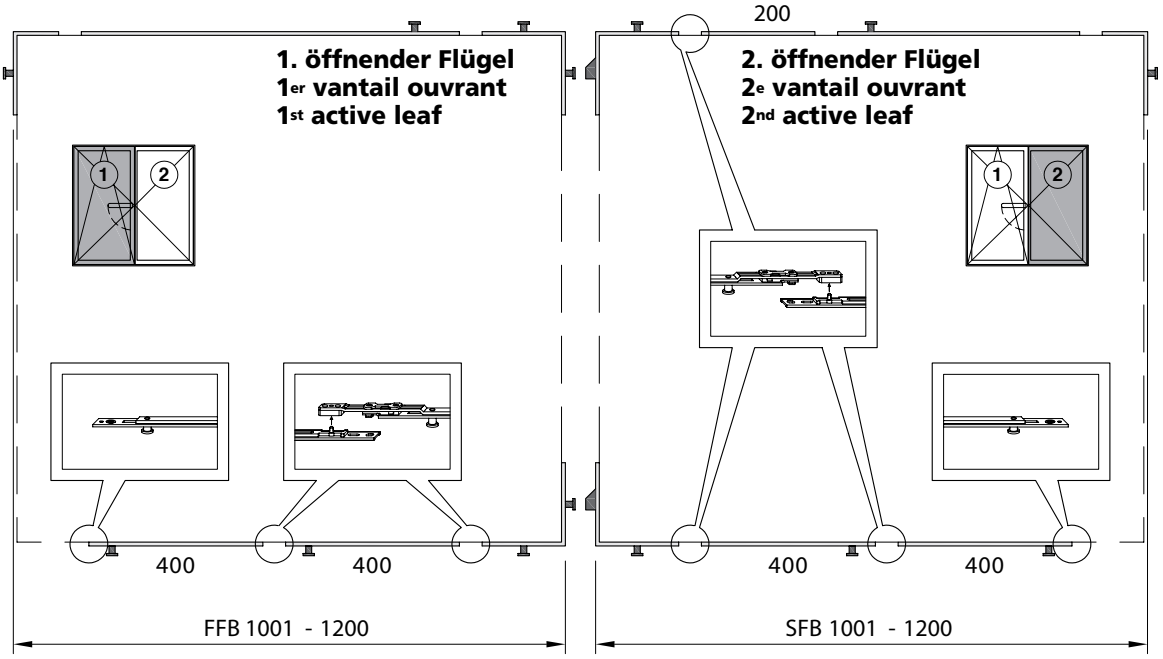
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Anordnung Verlängerungen
FFB 1001 – 1200 [mm]
SFB 1001 – 1200 [mm]

Disposition des extensions
FFB 1001 – 1200 [mm]
SFB 1001 – 1200 [mm]

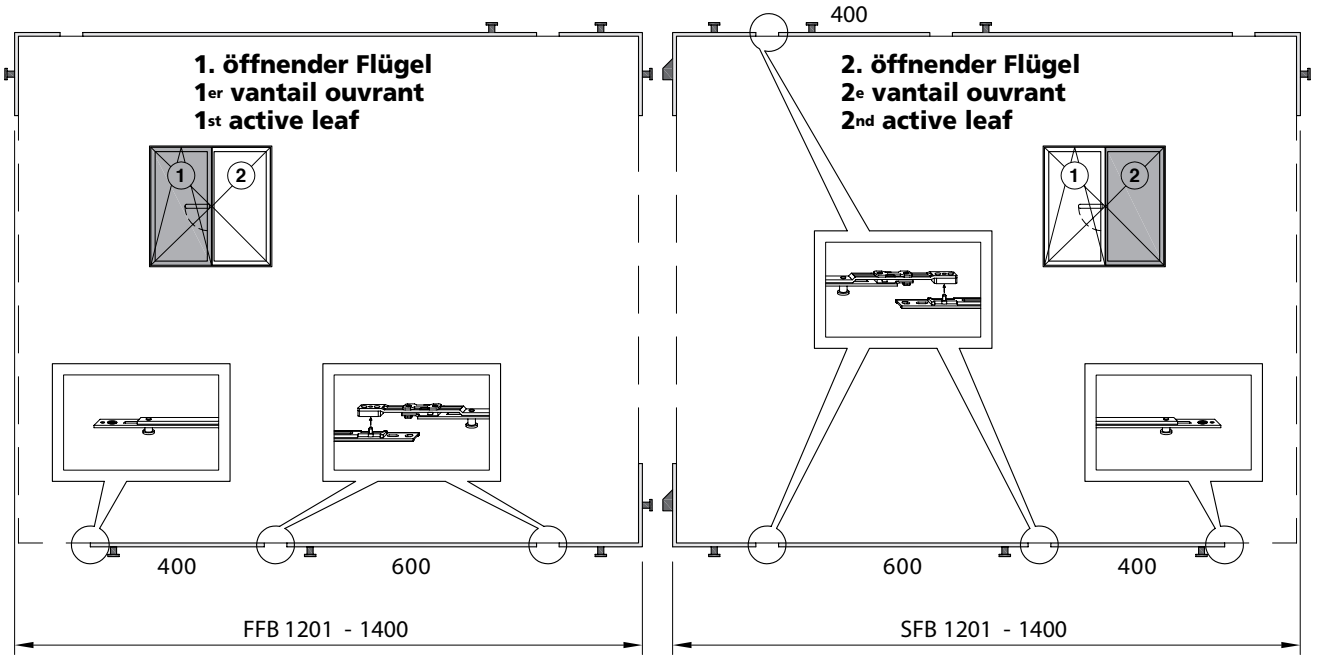
Arrangement of the extensions
FFB 1001 – 1200 [mm]
SFB 1001 – 1200 [mm]



Anordnung Verlängerungen
FFB 1201 – 1400 [mm]
SFB 1201 – 1400 [mm]

Disposition des extensions
FFB 1201 – 1400 [mm]
SFB 1201 – 1400 [mm]

Arrangement of the extensions
FFB 1201 – 1400 [mm]
SFB 1201 – 1400 [mm]



Beschlagseinbau 2-flügeliges Fenster

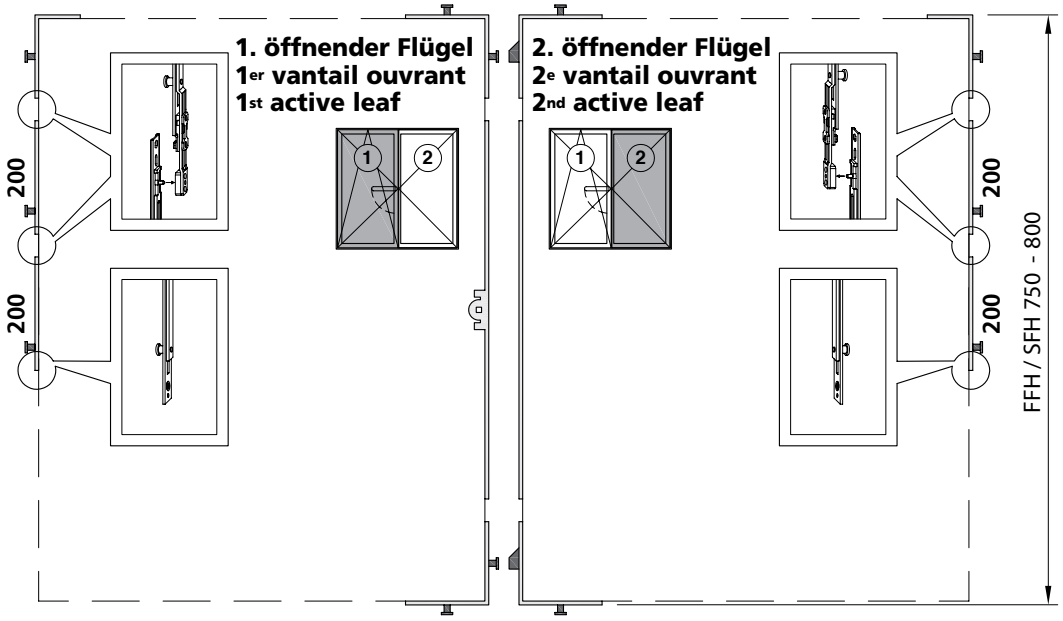
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Anordnung Verlängerungen
FFH 750 – 800 [mm]
SFH 750 – 800 [mm]

Disposition des extensions
FFH 750 – 800 [mm]
SFH 750 – 800 [mm]

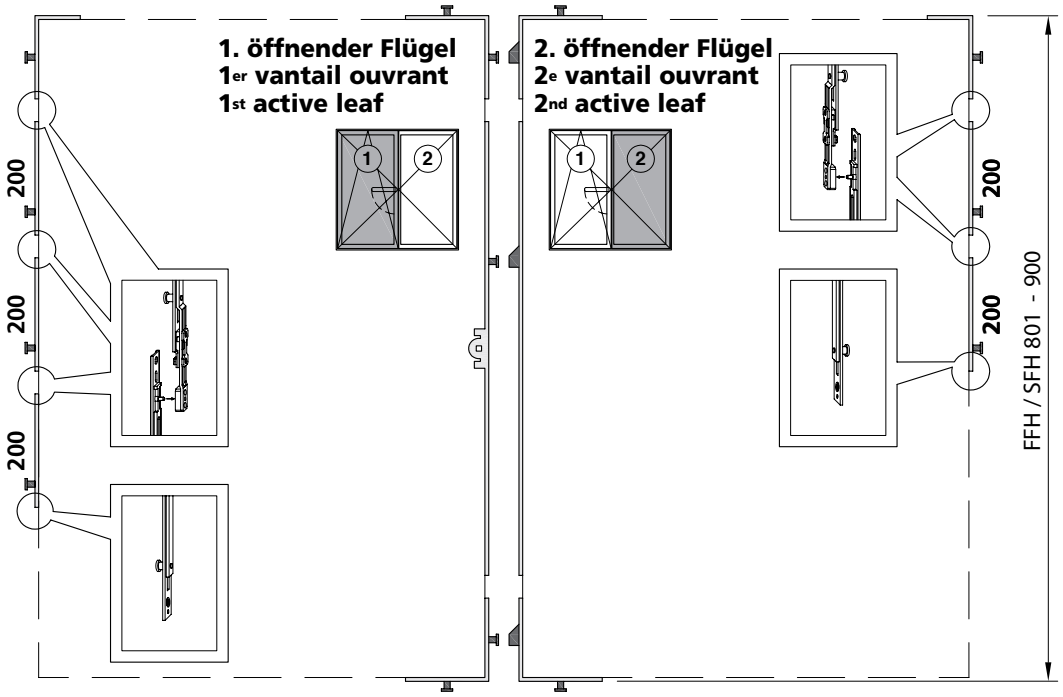
Arrangement of the extensions
FFH 750 – 800 [mm]
SFH 750 – 800 [mm]



Anordnung Verlängerungen
FFH 801 – 900 [mm]
SFH 801 – 900 [mm]

Disposition des extensions
FFH 801 – 900 [mm]
SFH 801 – 900 [mm]

Arrangement of the extensions
FFH 801 – 900 [mm]
SFH 801 – 900 [mm]



Beschlagseinbau 2-flügeliges Fenster

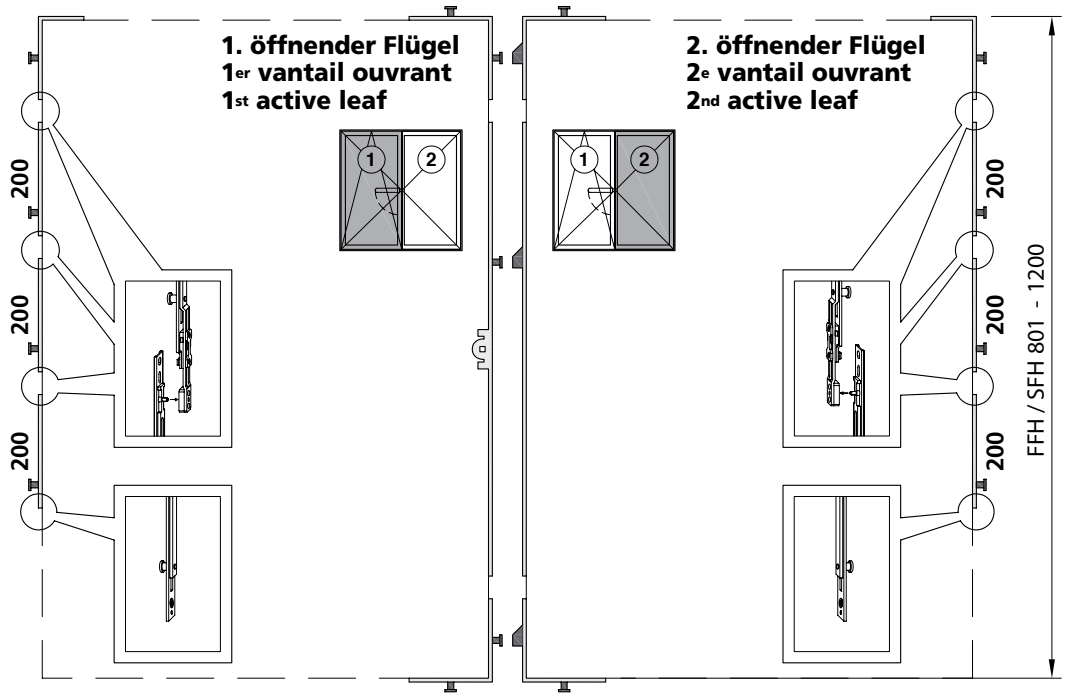
Montage de la quincaillerie Fenêtre à 2 vantaux

Installation of the fittings Window 2 leaves

Anordnung Verlängerungen
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]

Disposition des extensions
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]

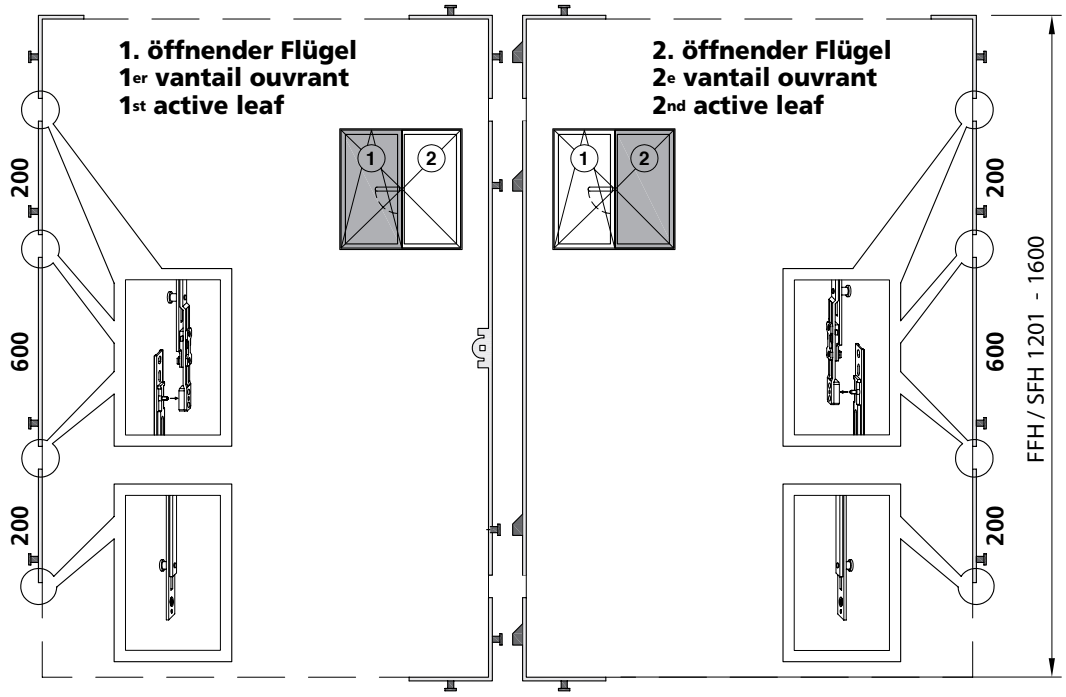
Arrangement of the extensions
FFH 901 – 1200 [mm]
SFH 901 – 1200 [mm]



Anordnung Verlängerungen
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]

Disposition des extensions
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]

Arrangement of the extensions
FFH 1201 – 1600 [mm]
SFH 1201 – 1600 [mm]



Beschlagseinbau 2-flügeliges Fenster

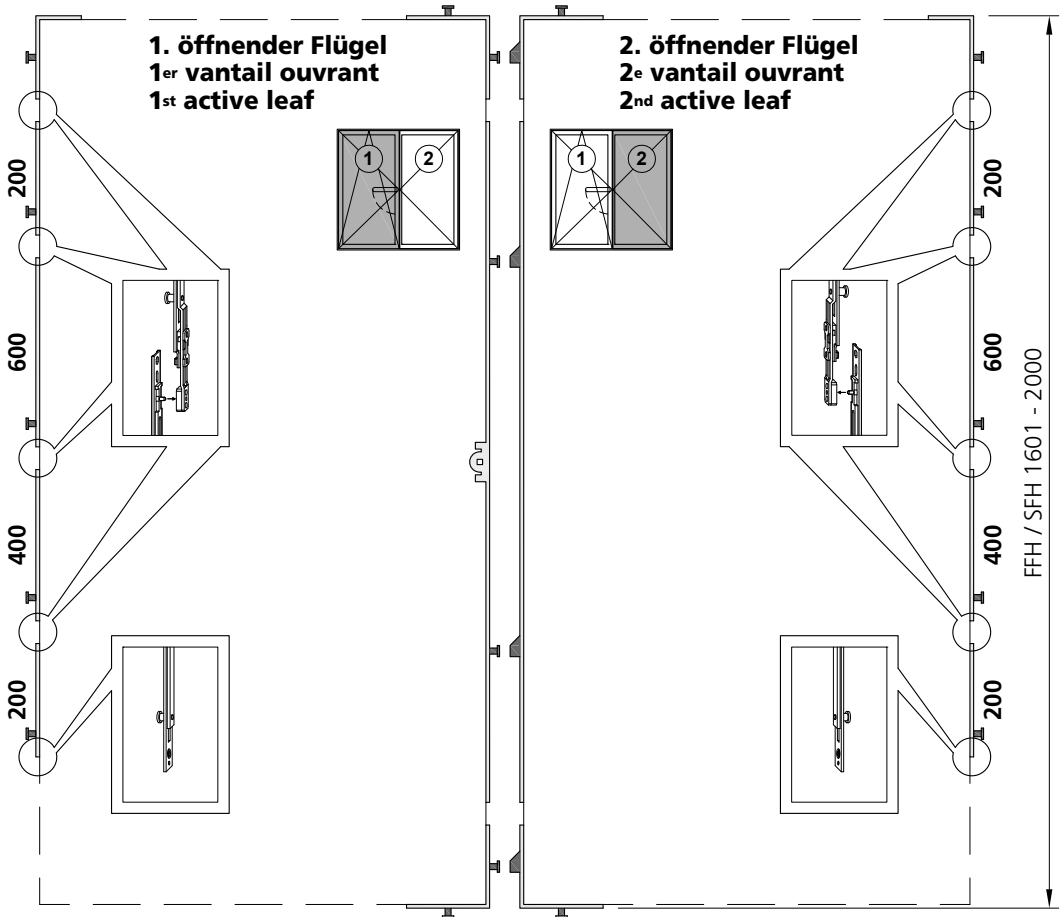
Anordnung Verlängerungen
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]

Montage de la quincaillerie Fenêtre à 2 vantaux

Disposition des extensions
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]

Installation of the fittings Window 2 leaves

Arrangement of the extensions
FFH 1601 – 2000 [mm]
SFH 1601 – 2000 [mm]



Beschlagseinbau 2-flügeliges Fenster

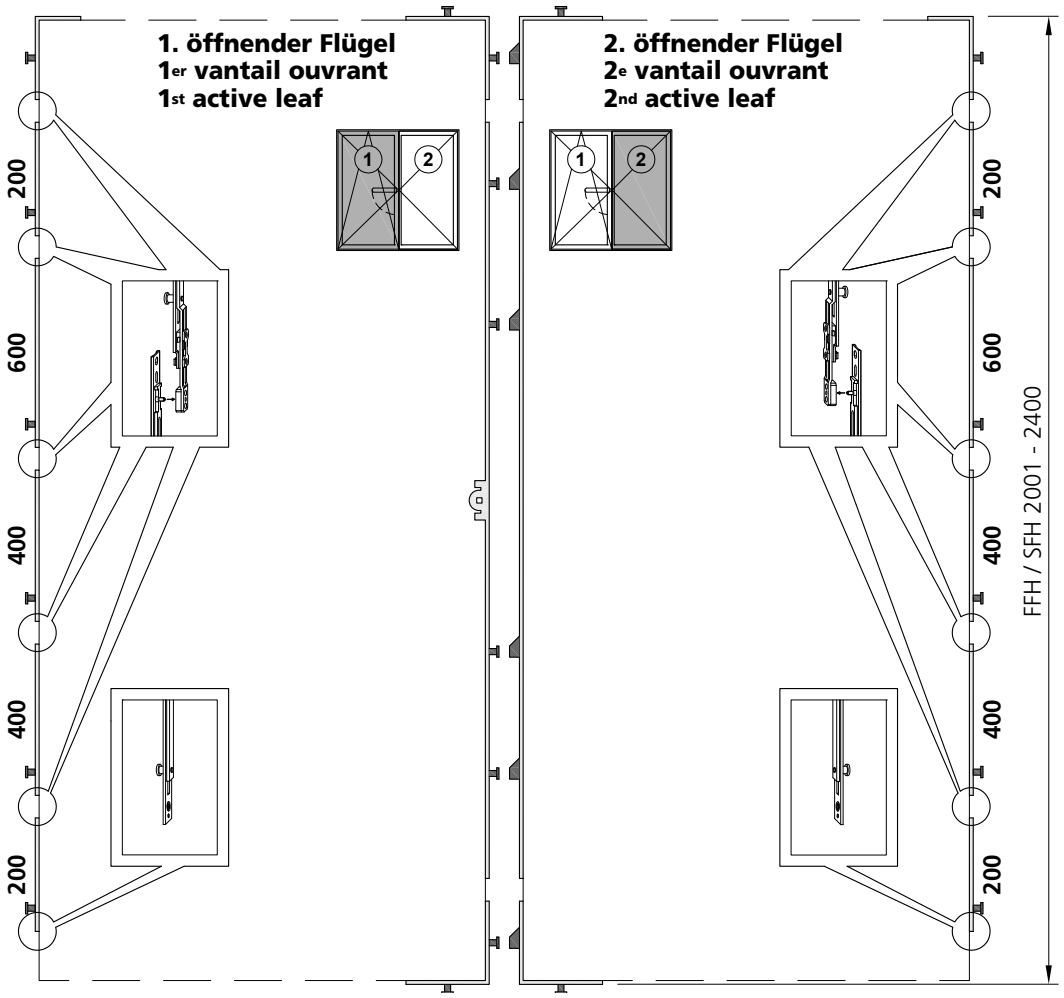
Anordnung Verlängerungen
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]

Montage de la quincaillerie Fenêtre à 2 vantaux

Disposition des extensions
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]

Installation of the fittings Window 2 leaves

Arrangement of the extensions
FFH 2001 – 2400 [mm]
SFH 2001 – 2400 [mm]



Beschlagseinbau 2-flügeliges Fenster

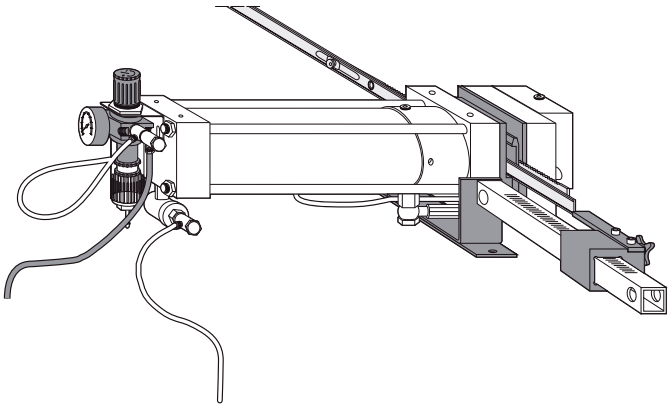
Ablängen mit pneumatischer Stanze (Lochstanzung)

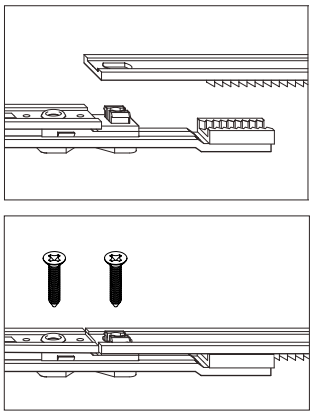
Montage de la quincaillerie Fenêtre à 2 vantaux

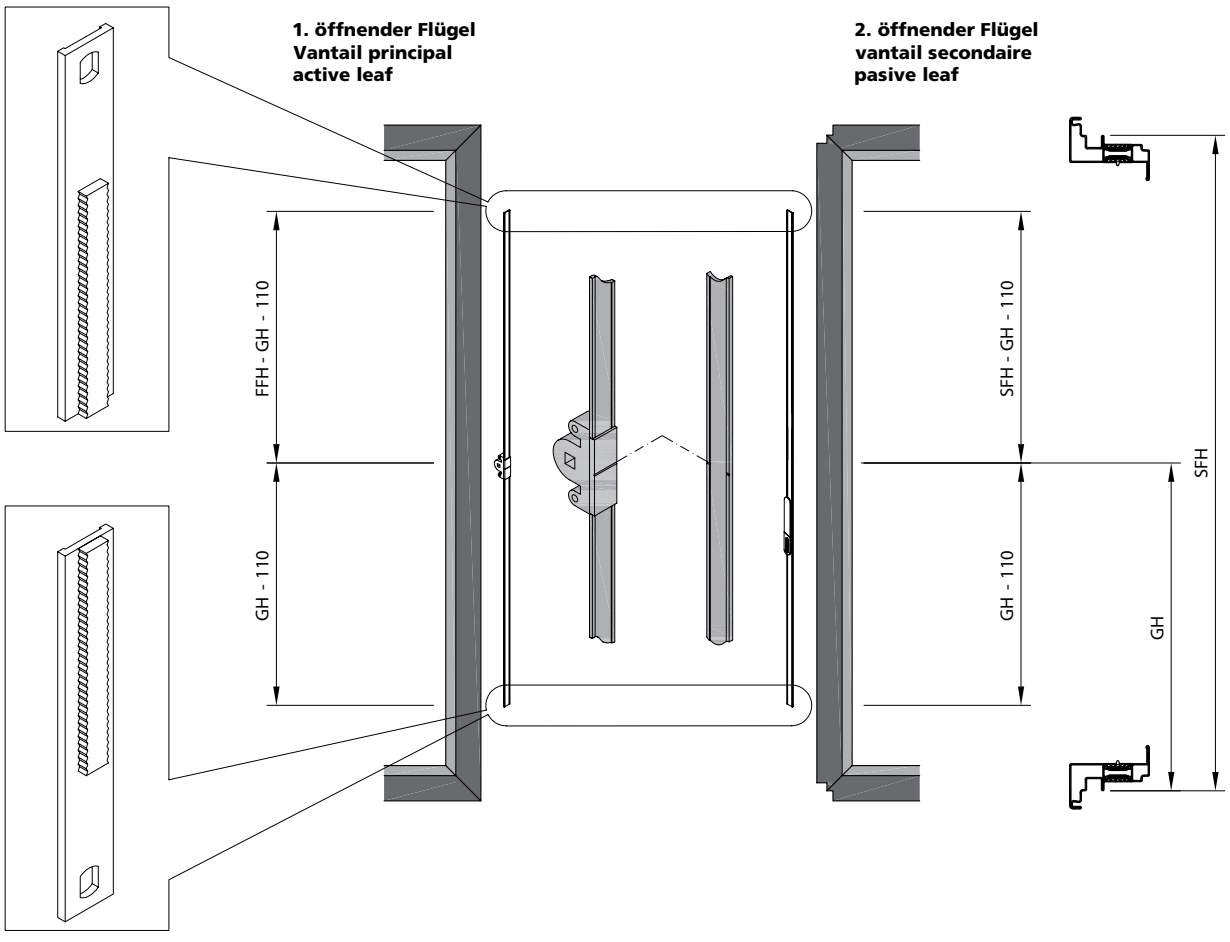
Couper à la longueur requise avec un dispositif de poinçonnage pneumatique

Installation of the fittings Window 2 leaves

Cut to length with pneumatic punching tool (hole punching)







VUF 01/19

Beschlagseinbau 2-flügeliges Fenster

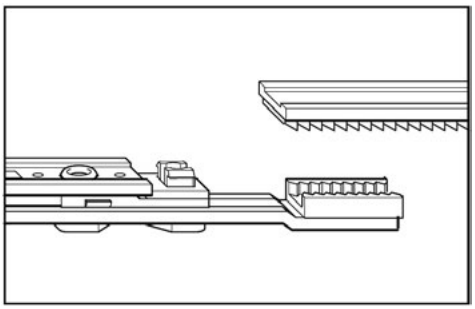
Ablängen mit Säge und Einsatz mit Verbindungslasche

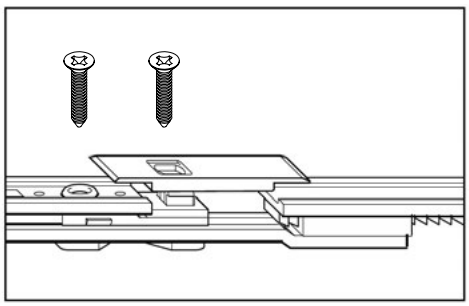
Montage de la quincaillerie Fenêtre à 2 vantaux

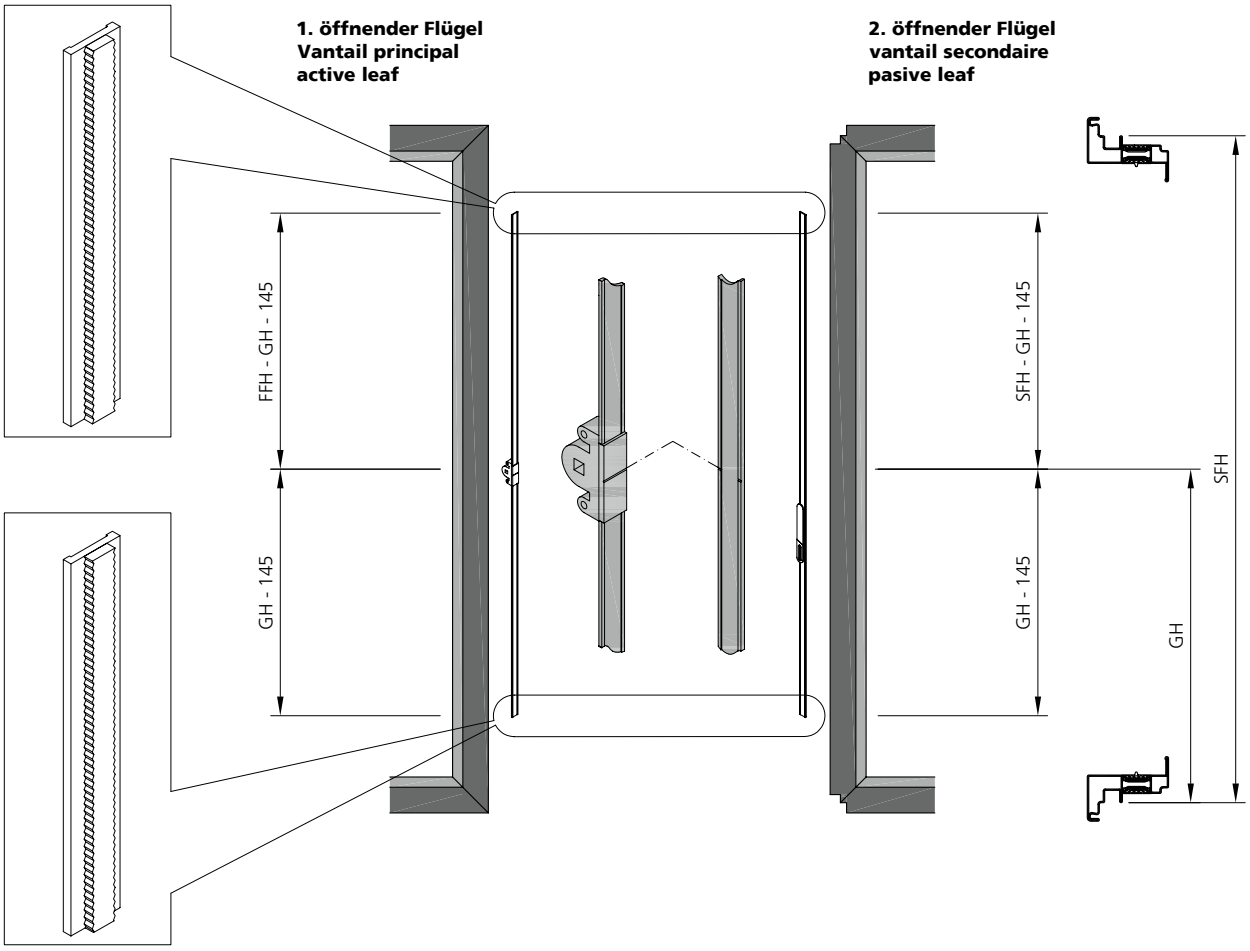
Couper à la longueur requise avec une scie et monter avec une plaque de liaison

Installation of the fittings Window 2 leaves

Cut to length with saw and use with connecting link







Beschlagseinbau 2-flügeliges Fenster

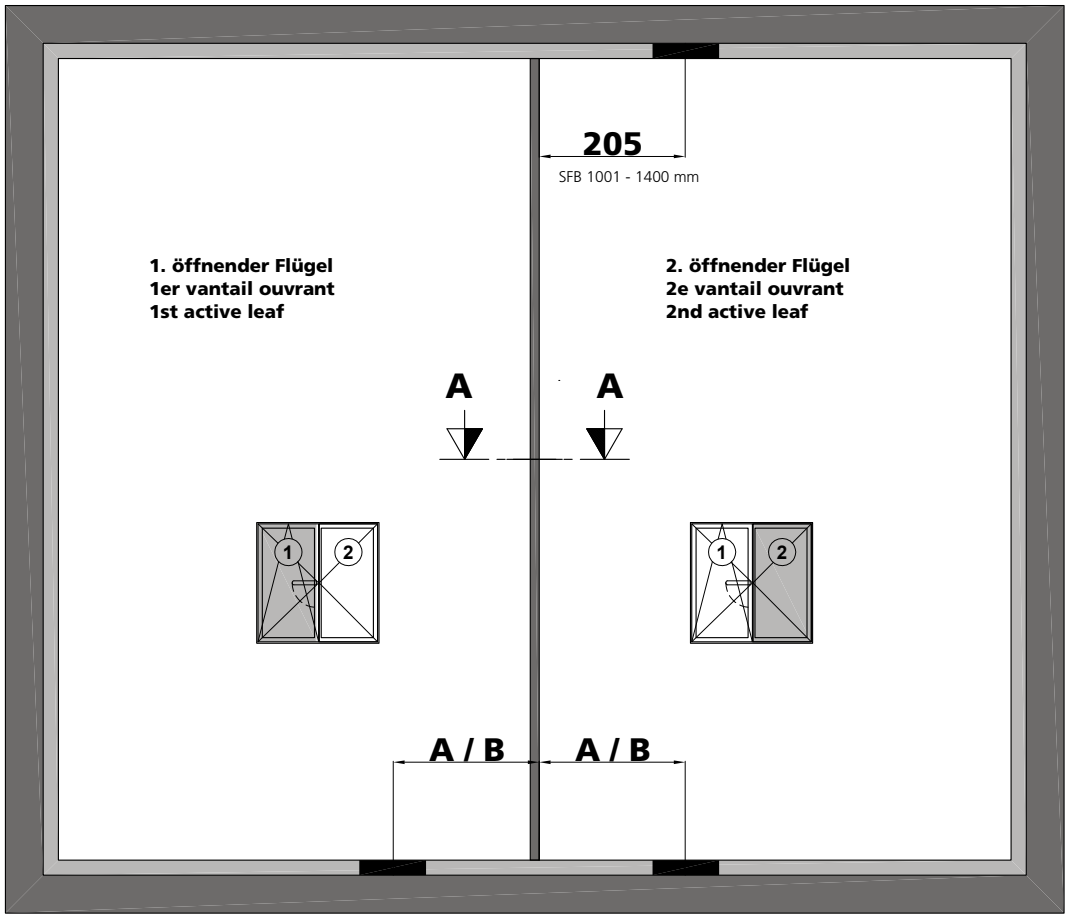
Anordnung Auflaufkeil
2. öffnender Flügel

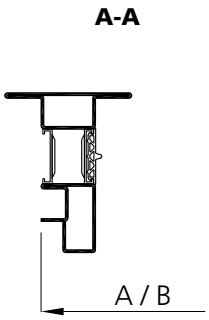
Montage de la quincaillerie Fenêtre à 2 vantaux

Disposition du support glissière
vantail semi-fixe

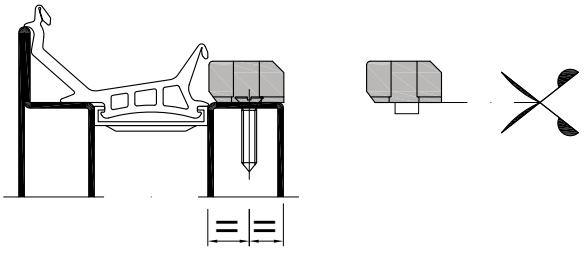
Installation of the fittings Window 2 leaves

Arrangement of the run-up block
2nd active leaf

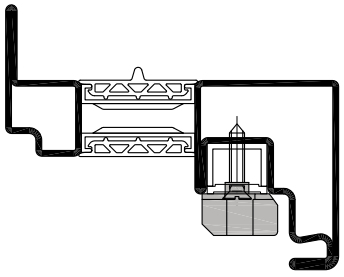




SFB 310 mm - 600 mm
A = 135 mm
Montage auf Rahmen
Montage sur cadre
Installation on the frame



SFB 601 mm - 1400 mm
B = 205 mm
Montage auf Flügel
Montage sur vantail
Installation on the leaf



Beschlagseinbau 2-flügeliges Fenster

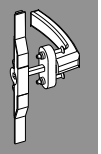
Montage de la quincaillerie Fenêtre à 2 vantaux

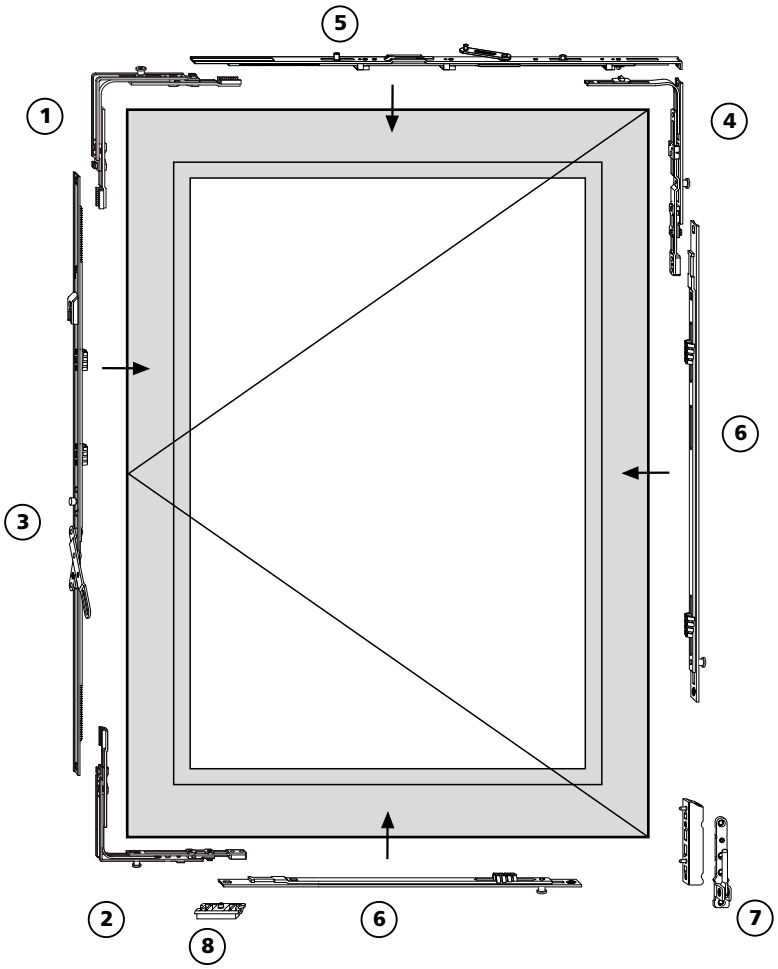
Installation of the fittings Window 2 leaves

Montagereihenfolge
Stulpbeschlag

Ordre de montage
Quincaillerie pour vantail semi-fixe

Sequence of assembly
Fittings for double sash





1. Eckumlenkung / Transmission équerre / Corner drive
2. Eckumlenkung / Transmission équerre / Corner drive
3. Stulp-Getriebe / Cremone vantail semi-fixe / Double sash drive
4. Eckumlenkung Axer / Renvoi d'angle de compas / Stay corner drive
5. Axerstulp / Têtière de compas / Sash stay guide
6. Mittelverschluss, senkrecht und waagerecht
   Extension horizontale et verticale
   Extension horizontal and vertical
7. Eckband K / Pivot d'angle K / Corner hinge K
8. Auflaufkeil / Support glissière / Run up block

Beschlagseinbau 2-flügeliges Fenster

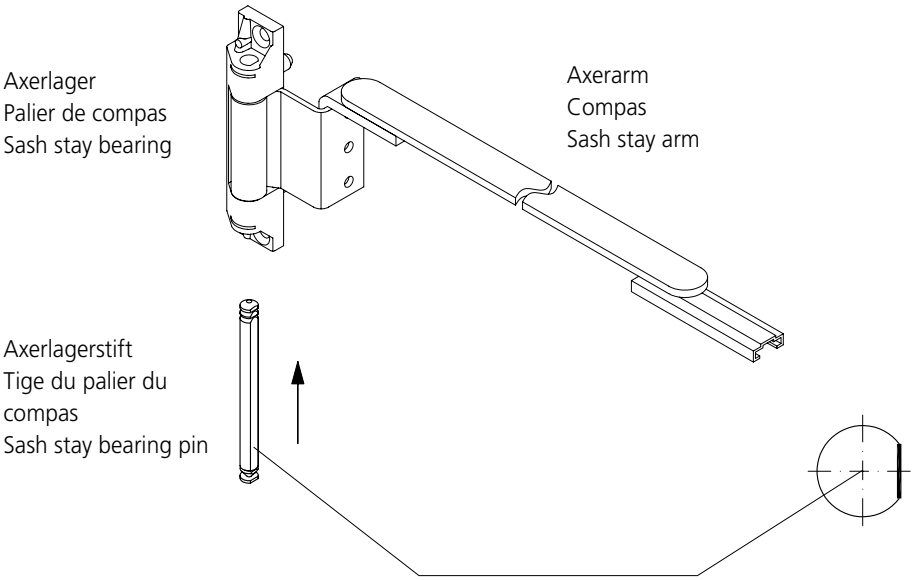
ACHTUNG! Fasung des Axerlagerstiftes beim Einführen in das Axerlager berücksichtigen!

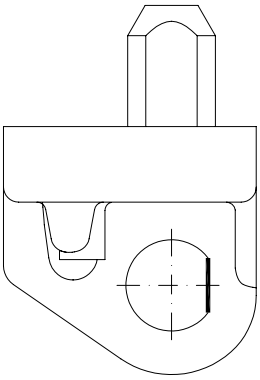
Montage de la quincaillerie Fenêtre à 2 vantaux

ATTENTION! Faire attention au sens de montage de la tige du palier de compas lors de l'introduction dans le palier!

Installation of the fittings Window 2 leaves

ATTENTION! Pay attention to the mount of the sash stay bearing pin when inserting it into the sash stay bearing!

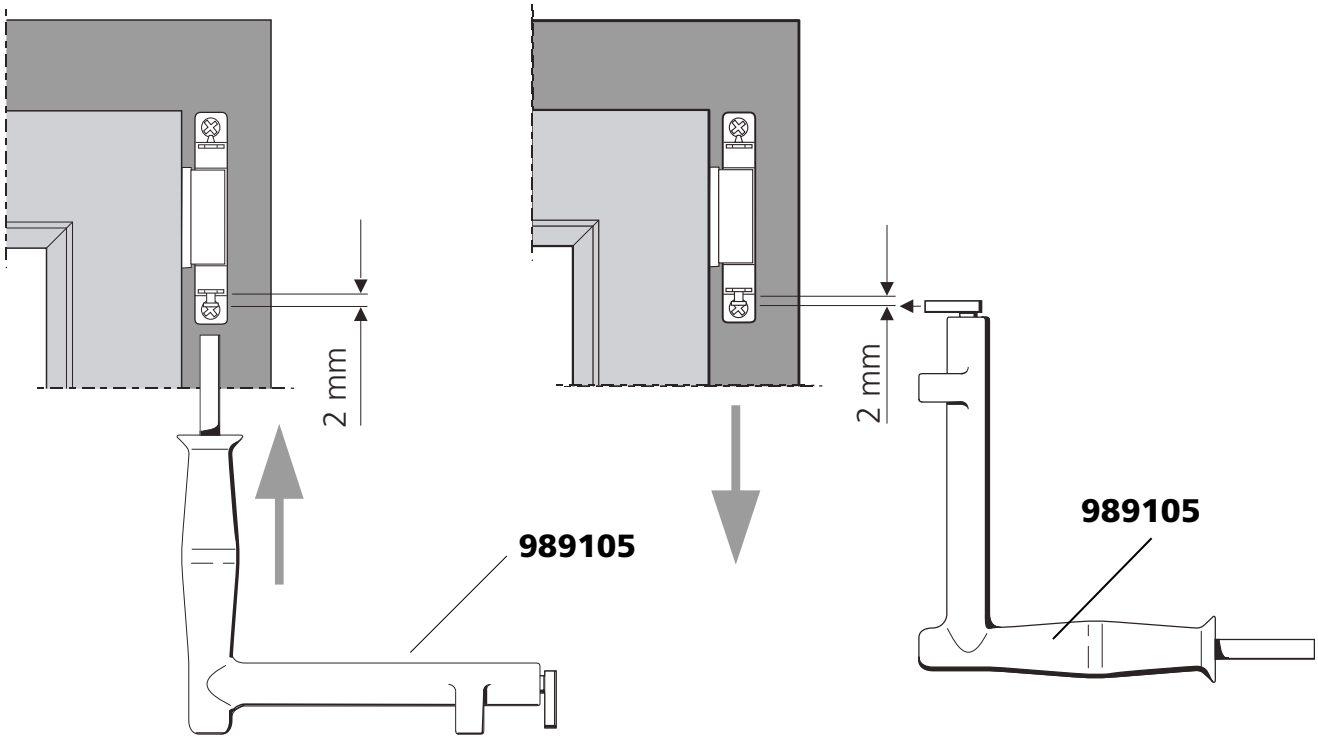




Einhängen des Flügels
Axerlagerstift nur in Verschlussstellung einschiebbar

Accrochage du vantail
Tige du palier de compas pouvant seulement être introduite en position de fermeture

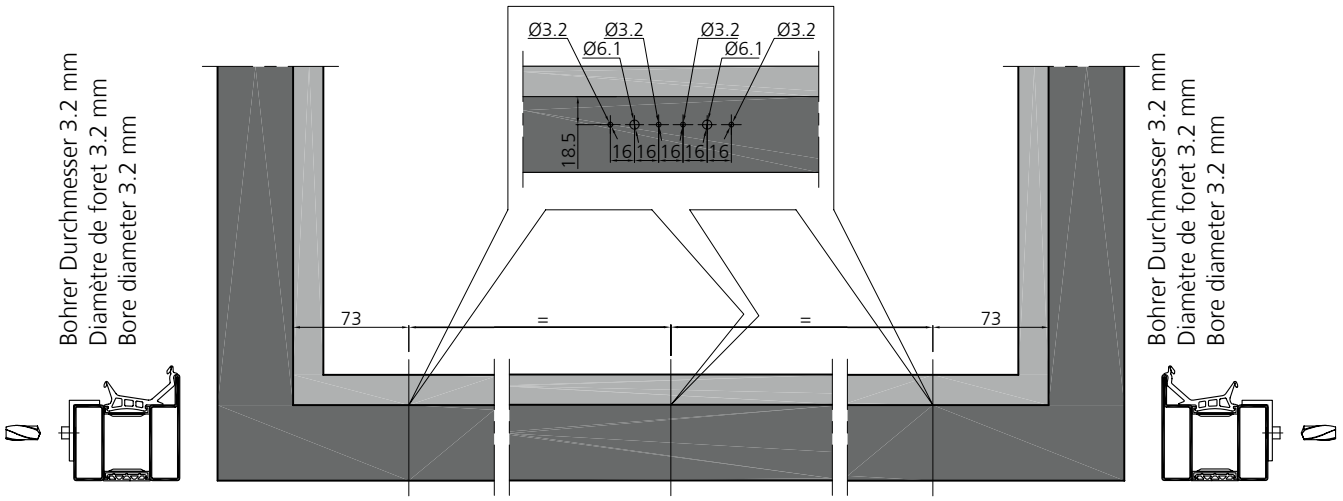
Mounting the leaf
The sash stay bearing pin can only be inserted in lock position

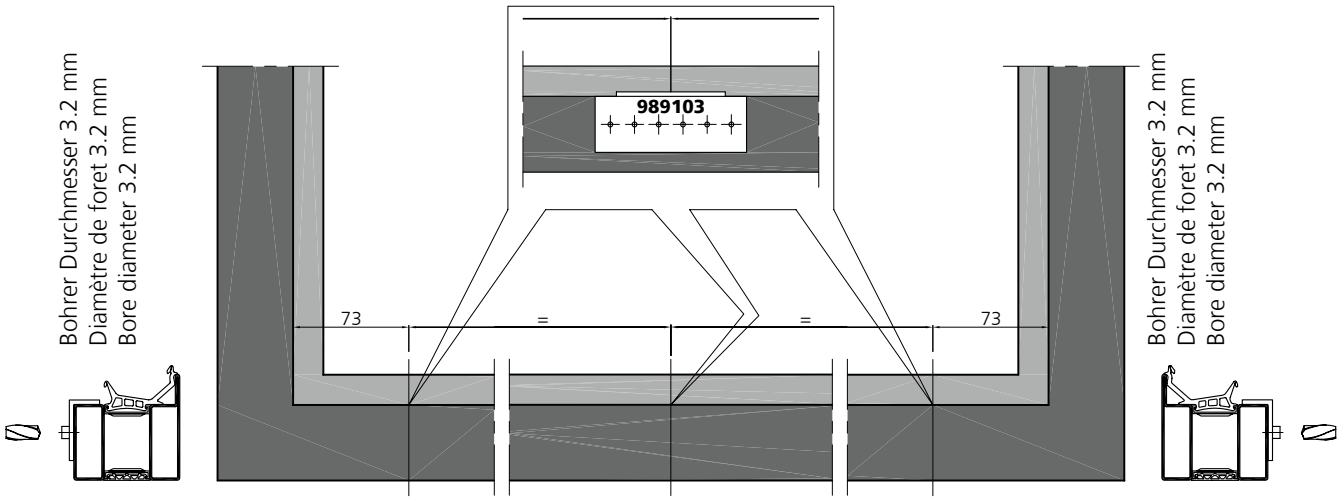


Beschlagseinbau Kippflügel RC3 FFB 520-1600

Montage de la quincaillerie Ouvrant à soufflet RC3 FFB 520-1600

Installation of the fittings Tilt only window RC3 FFB 520-1600

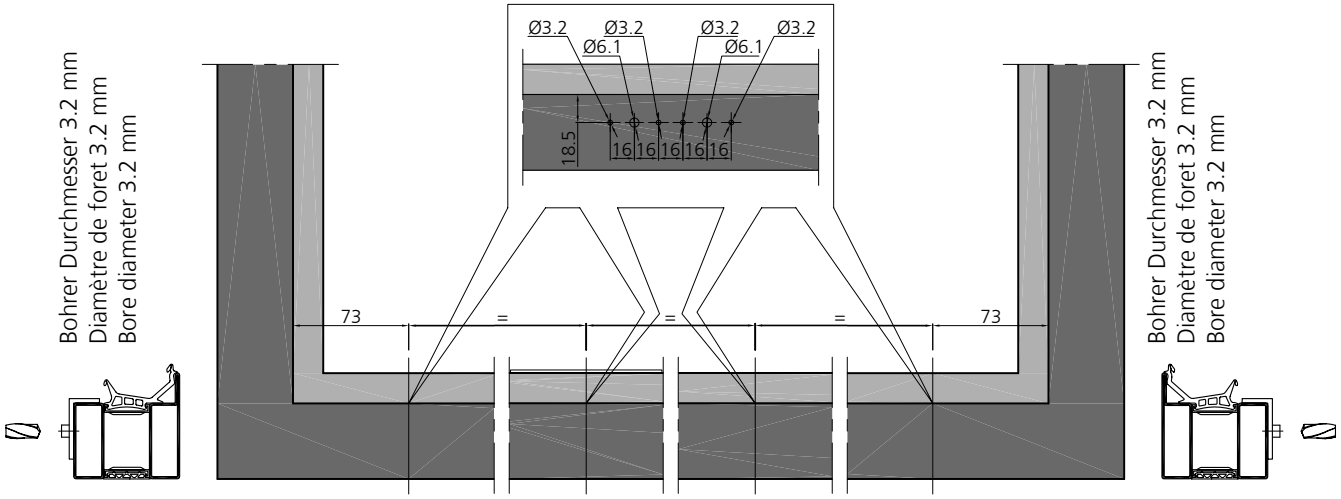


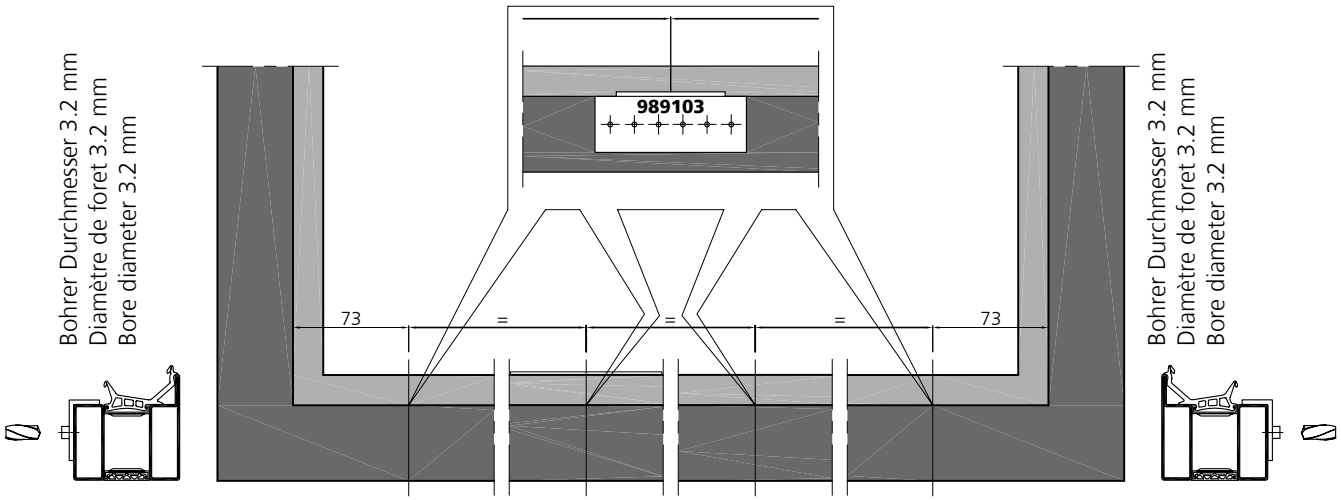


Beschlagseinbau
Kippflügel RC3
FFB 1601-2400

Montage de la quincaillerie
Ouvrant à soufflet RC3
FFB 1601-2400

Installation of the fittings
Tilt only window RC3
FFB 1601-2400





Beschlagseinbau Kippflügel

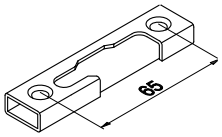
Anordnung der Schliessstücke
Kippflügel in Abhängigkeit der Flügelfalzbreite
FFB 520 - 620 [mm]

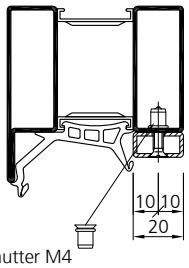
Montage de la quincaillerie Ouvrant à soufflet

Disposition des gâches
Ouvrant à soufflet selon la largeur de la feuillure du vantail
FFB 520 - 620 [mm]

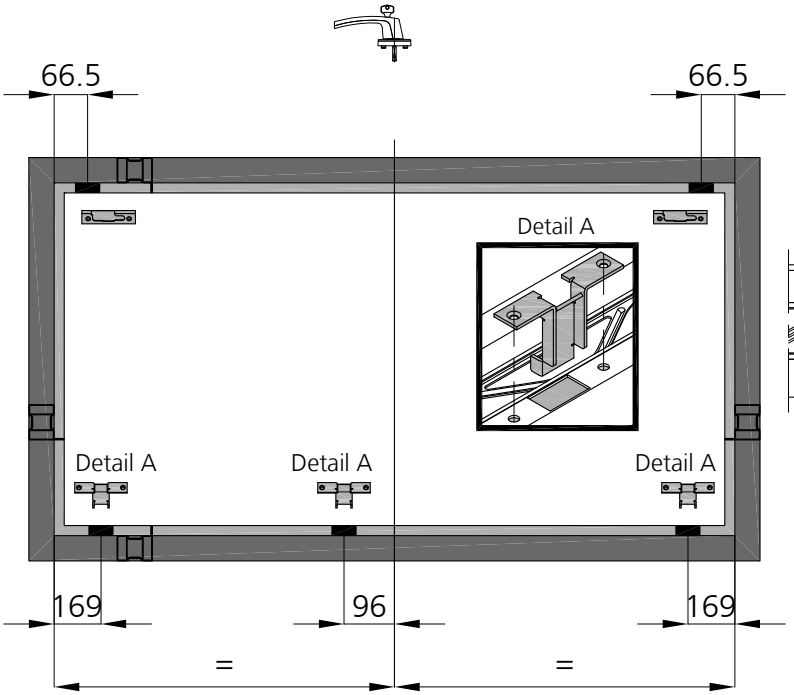
Installation of the fittings Tilt only window

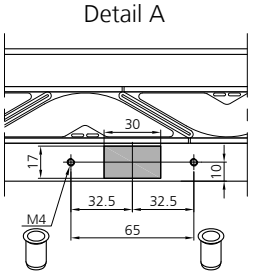
Arrangement of the strikers
Tilt only window depending on the width of the leaf rebate
FFB 520 - 620 [mm]





Einnietmutter M4
rivet taraudé M4
clinch nut M4

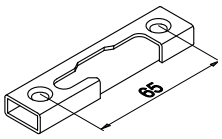


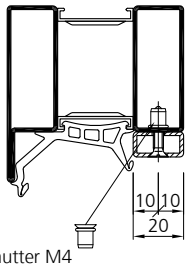


Anordnung Schliessstücke
FFB 621 - 800 [mm]

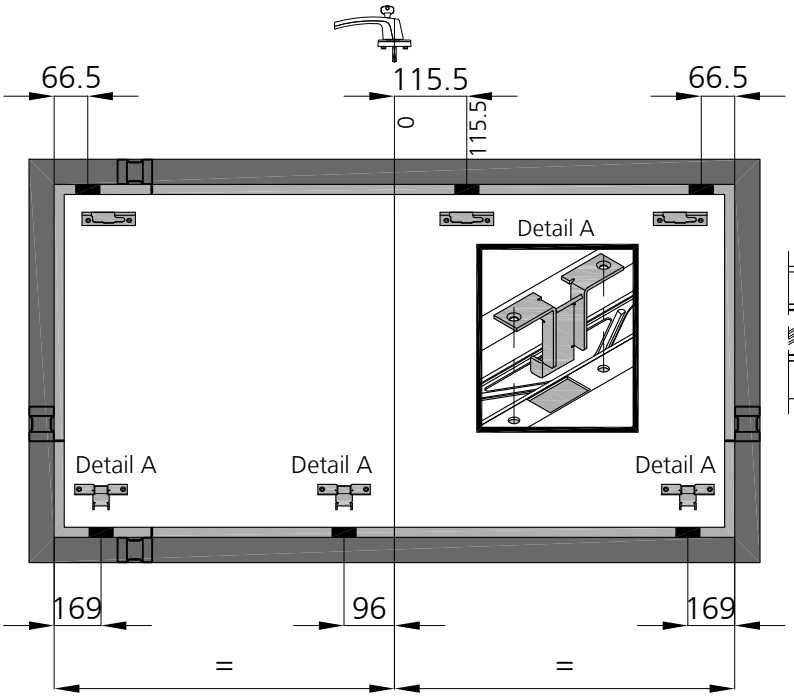
Disposition des gâches
FFB 621 - 800 [mm]

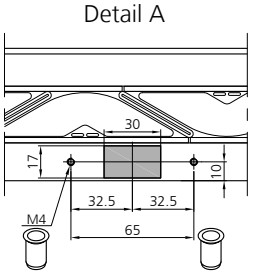
Arrangement of the strikers
FFB 621 - 800 [mm]





Einnietmutter M4
rivet taraudé M4
clinch nut M4





Beschlagseinbau Kippflügel

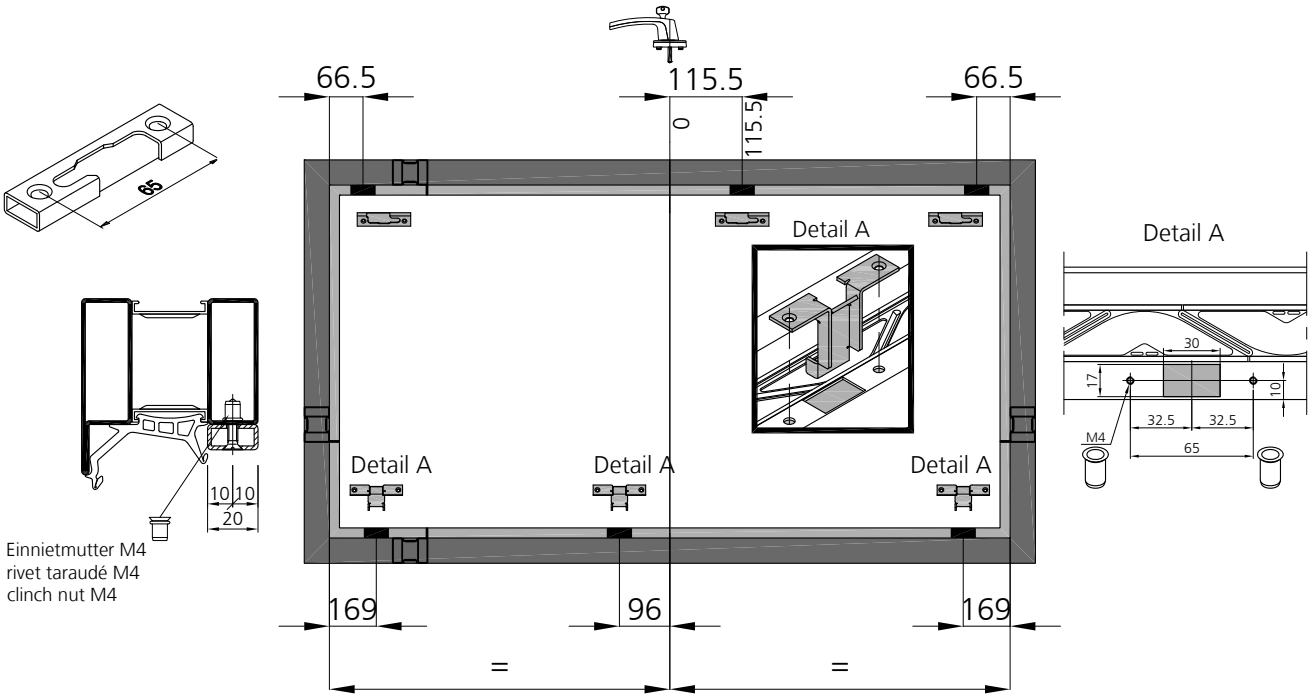
Anordnung der Schliessstücke
Kippflügel in Abhängigkeit der Flügelfalzbreite
FFB 801 - 1200 [mm]

Montage de la quincaillerie Ouvrant à soufflet

Disposition des gâches
Ouvrant à soufflet selon la largeur de la feuillure du vantail
FFB 801 - 1200 [mm]

Installation of the fittings Tilt only window

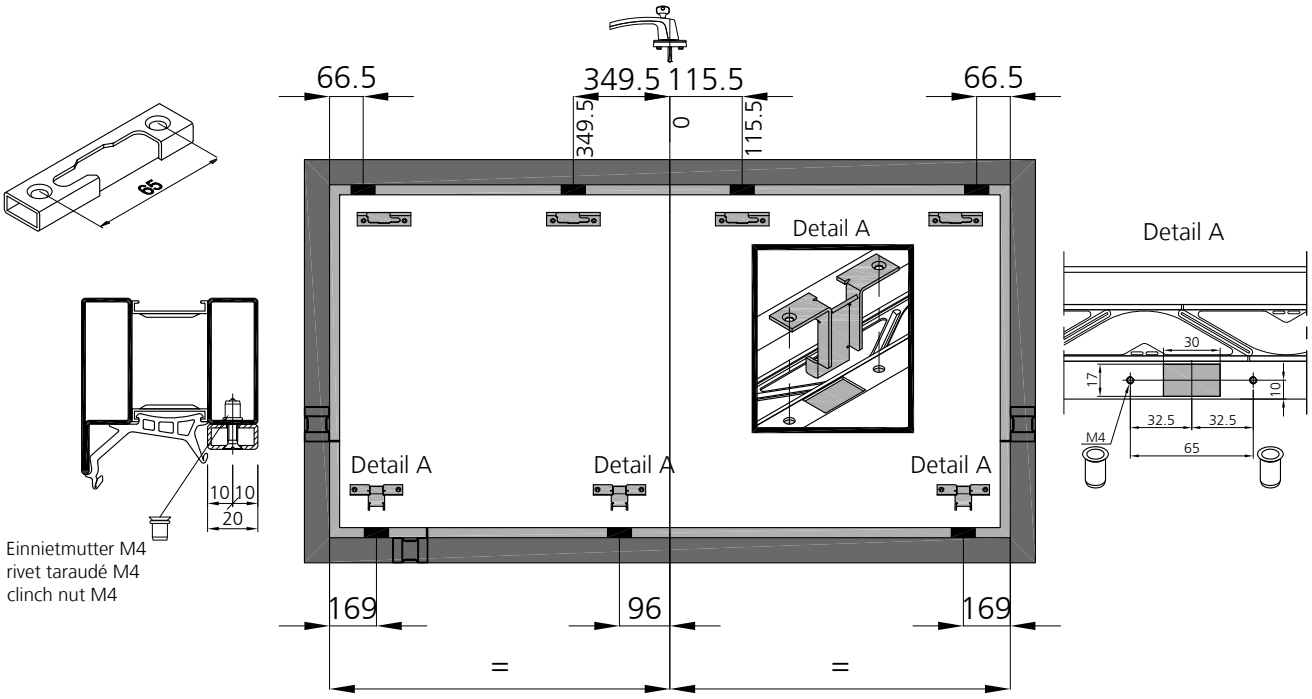
Arrangement of the strikers
Tilt only window depending on the width of the leaf rebate
FFB 801 - 1200 [mm]



Anordnung Schliessstücke
FFB 1201 - 1600 [mm]

Disposition des gâches
FFB 1201 - 1600 [mm]

Arrangement of the strikers
FFB 1201 - 1600 [mm]



Beschlagseinbau Kippflügel

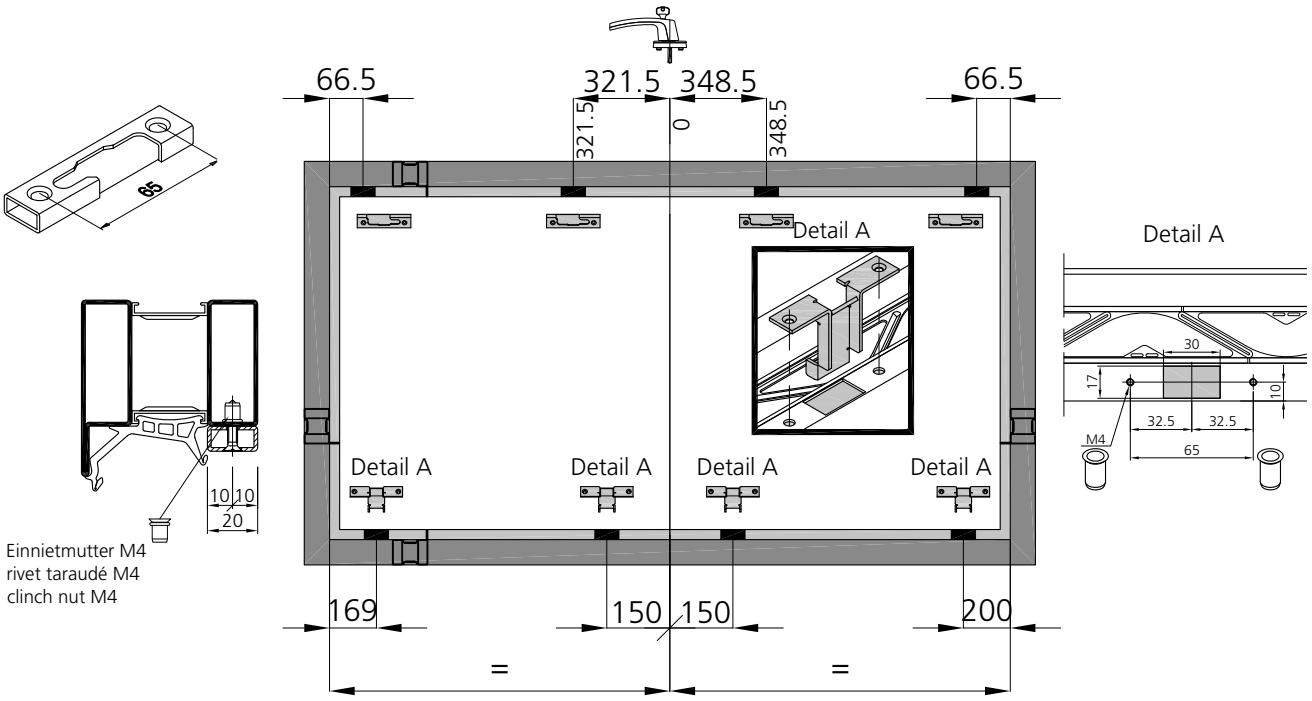
Anordnung der Schliessstücke
Kippflügel in Abhängigkeit der Flügelfalzbreite
FFB 1601 - 2000 [mm]

Montage de la quincaillerie Ouvrant à soufflet

Disposition des gâches
Ouvrant à soufflet selon la largeur de la feuillure du vantail
FFB 1601 - 2000 [mm]

Installation of the fittings Tilt only window

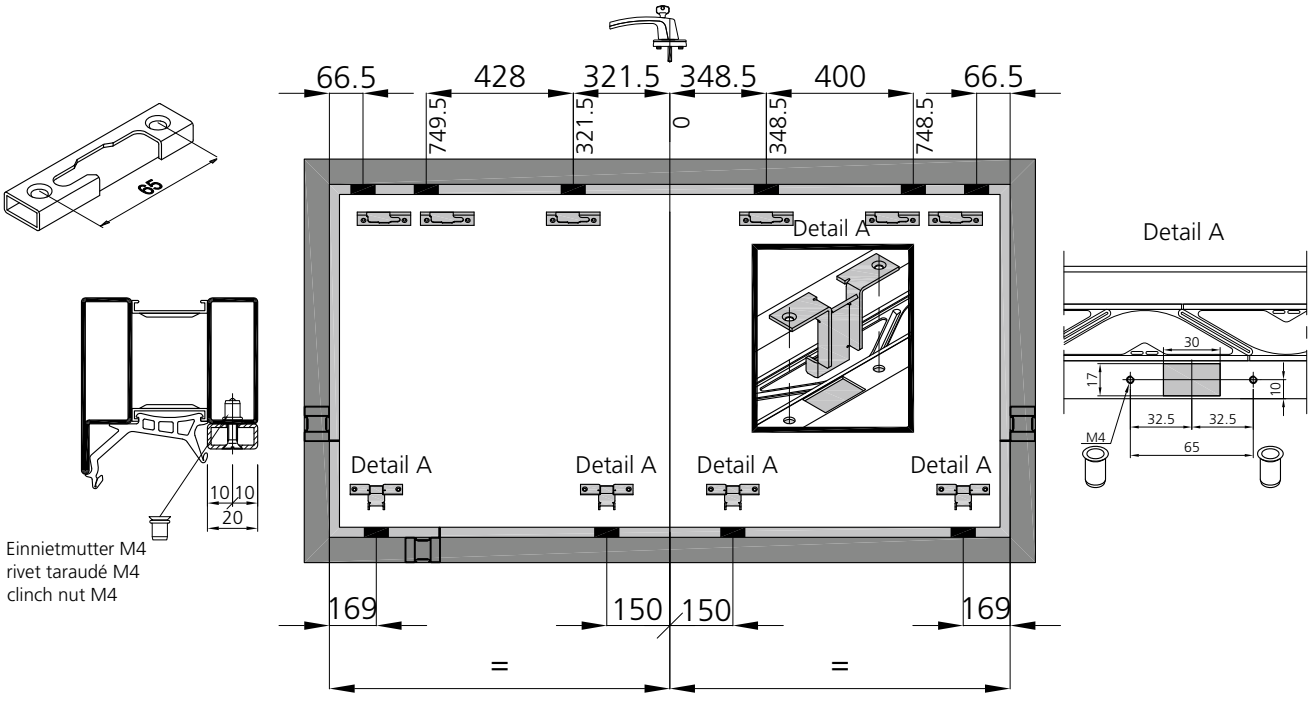
Arrangement of the strikers
Tilt only window depending on the width of the leaf rebate
FFB 1601 - 2000 [mm]



Anordnung Schliessstücke
FFB 2001 - 2400 [mm]

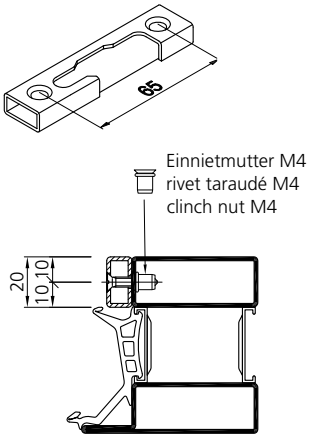
Disposition des gâches
FFB 2001 - 2400 [mm]

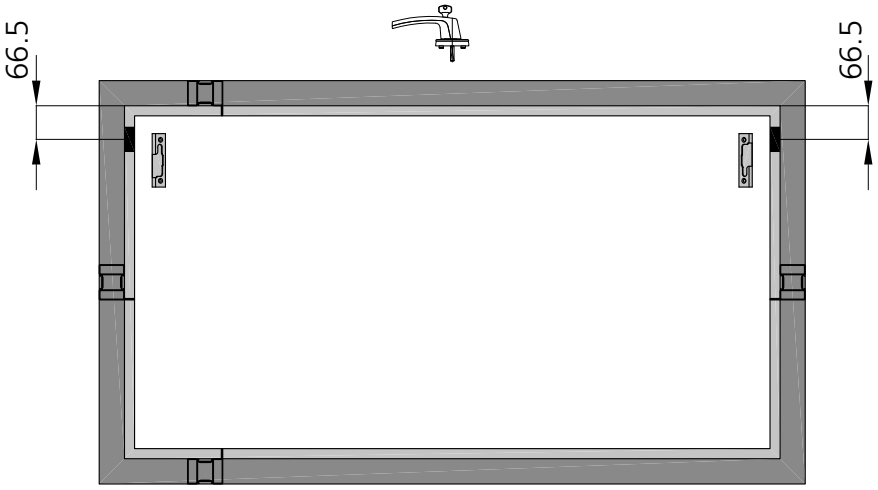
Arrangement of the strikers
FFB 2001 - 2400 [mm]



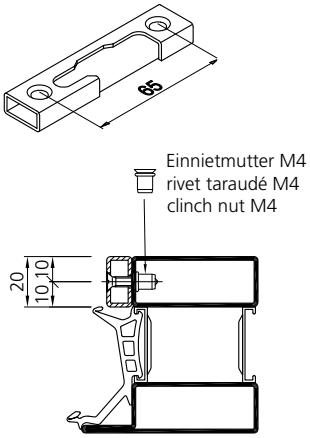
Beschlagseinbau Kippflügel

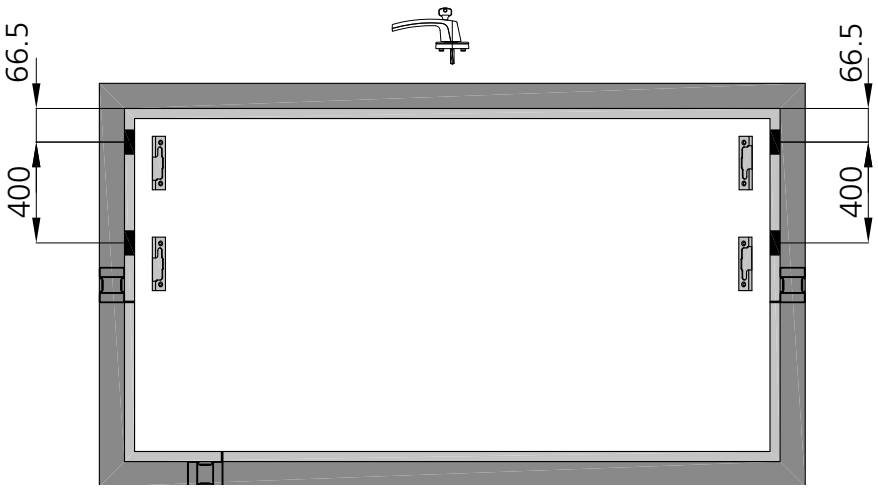
Anordnung der Schliessstücke
Kippflügel in Abhängigkeit der Flügelfalzhöhe
FFH 350 - 620 [mm]





Anordnung Schliessstücke
FFH 621 - 910[mm]





Montage de la quincaillerie Ouvrant à soufflet

Disposition des gâches
Ouvrant à soufflet selon la hauteur de la feuillure du vantail
FFH 350 - 620 [mm]

Disposition des gâches
FFH 621 - 910[mm]

Installation of the fittings Tilt only window

Arrangement of the strikers
Tilt only window depending on the high of the leaf rebate
FFH 350 - 620 [mm]

Arrangement of the strikers
FFH 621 - 910[mm]

Beschlagseinbau Kippflügel

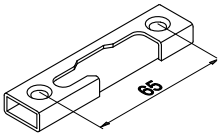
Anordnung der Schliessstücke
Kippflügel in Abhängigkeit der Flügelfalzhöhe
FFH 911 - 1200 [mm]

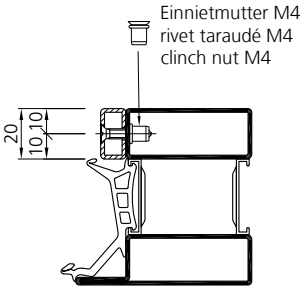
Montage de la quincaillerie Ouvrant à soufflet

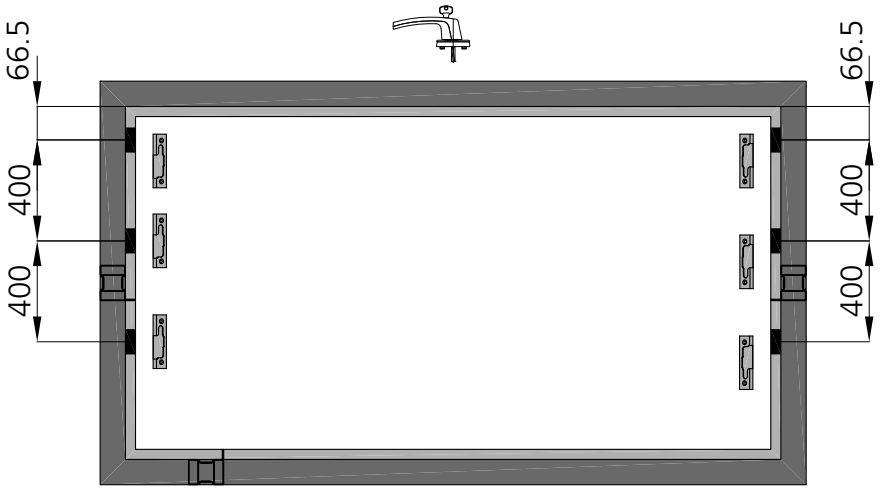
Disposition des gâches
Ouvrant à soufflet selon la hauteur de la feuillure du vantail
FFH 911 - 1200 [mm]

Installation of the fittings Tilt only window

Arrangement of the strikers
Tilt only window depending on the high of the leaf rebate
FFH 911 - 1200 [mm]







Beschlagseinbau Kippflügel

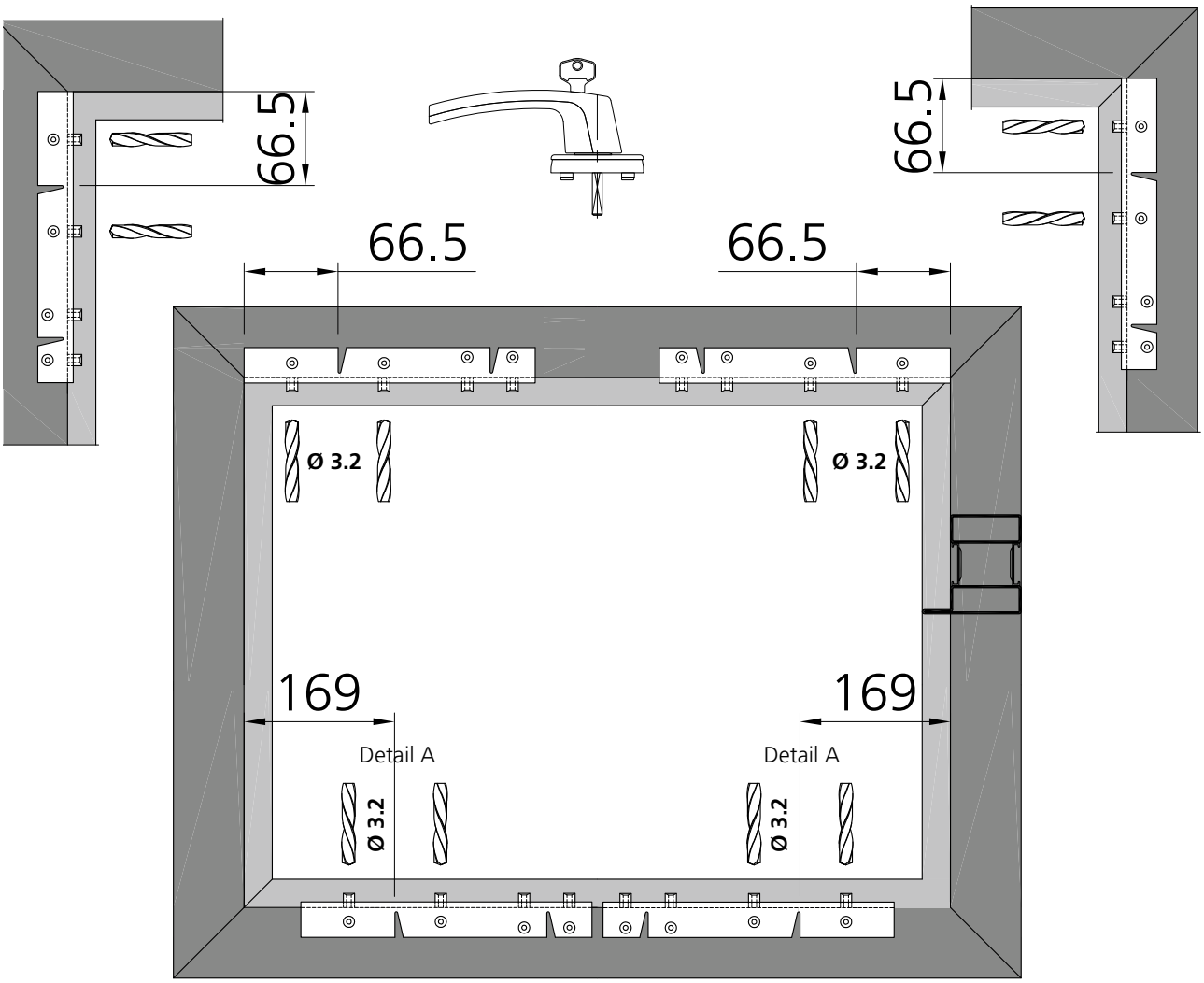
Bohrlehre Art. Nr. 989109
1-flügelige Fenster

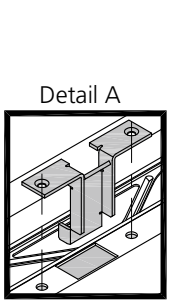
Montage de la quincaillerie Ouvrant à soufflet

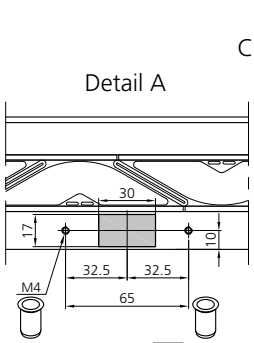
Gabarit de perçage art. no. 989109
fenêtre à 1 vantail

Installation of the fittings Tilt only window

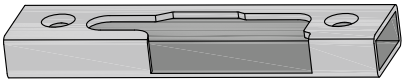
Drilling template art. no. 989109
single leaved windows

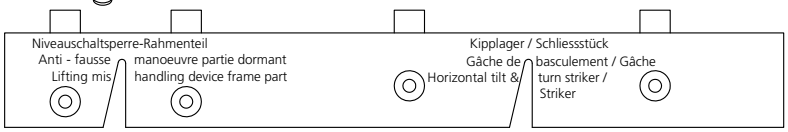






Schliessstück "rechts" / Gâche "droite" / Striker "right"



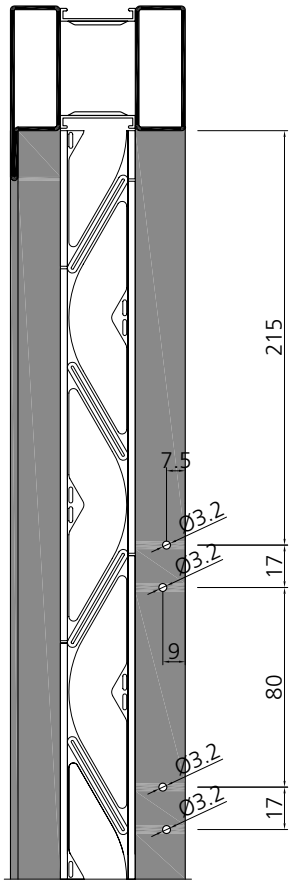


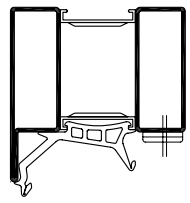
Markierung Zentrum Schliessblech / Kipplager
Marque centre gâche / gâche de basculement
Marking on the center of the striker / tilt-turn striker

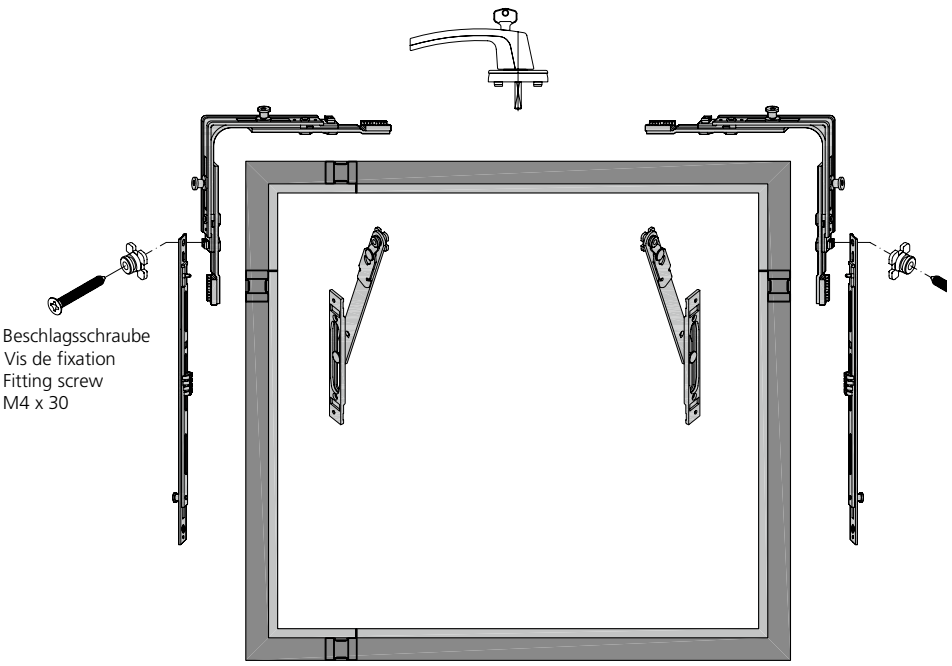
Beschlagseinbau Kippflügel

Montage de la quincaillerie Ouvrant à soufflet

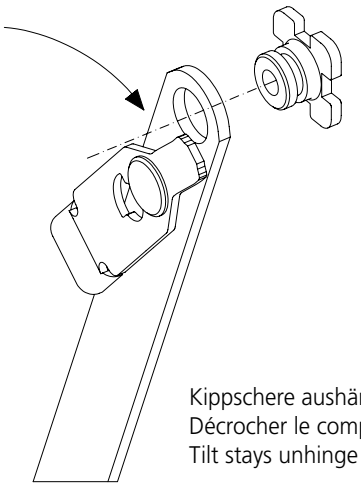
Installation of the fittings Tilt only window







Beschlagsschraube
Vis de fixation
Fitting screw
M4 x 30

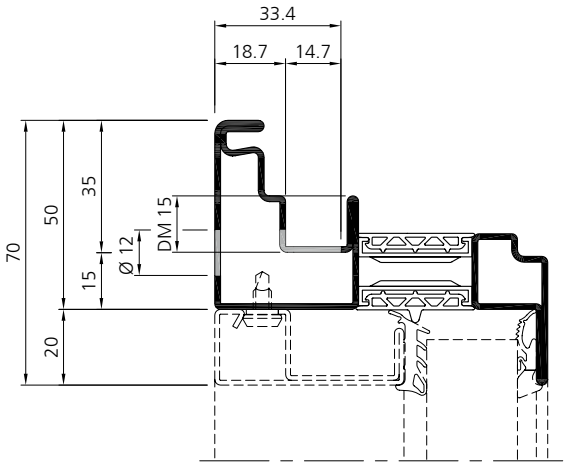


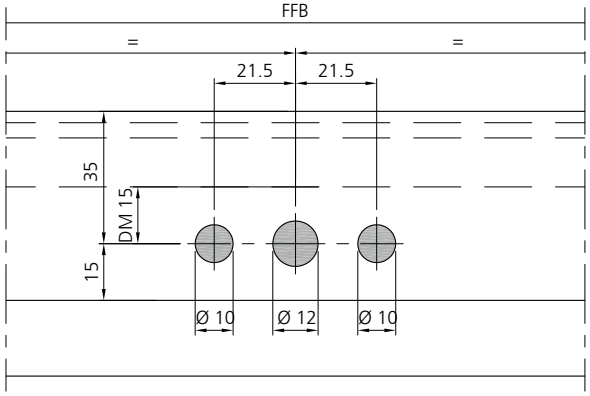
Kippschere aushängen
Décrocher le compas
Tilt stays unhinge

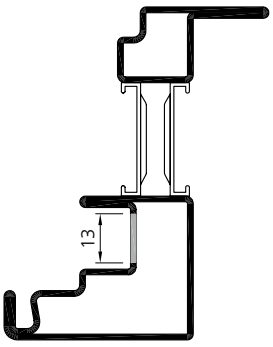
Beschlagseinbau Kippflügel

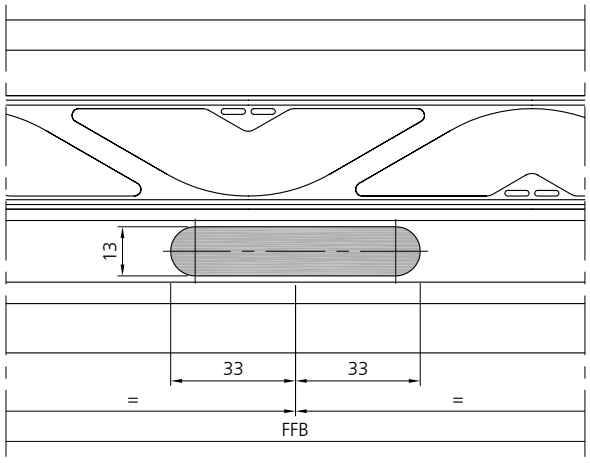
Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window







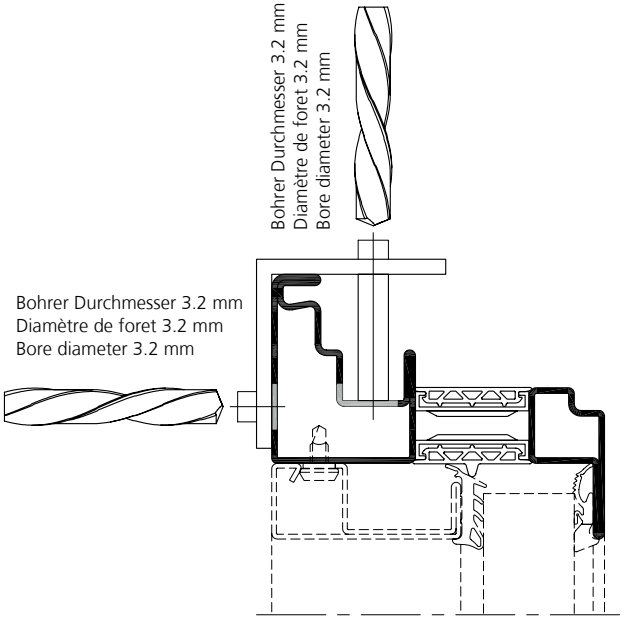


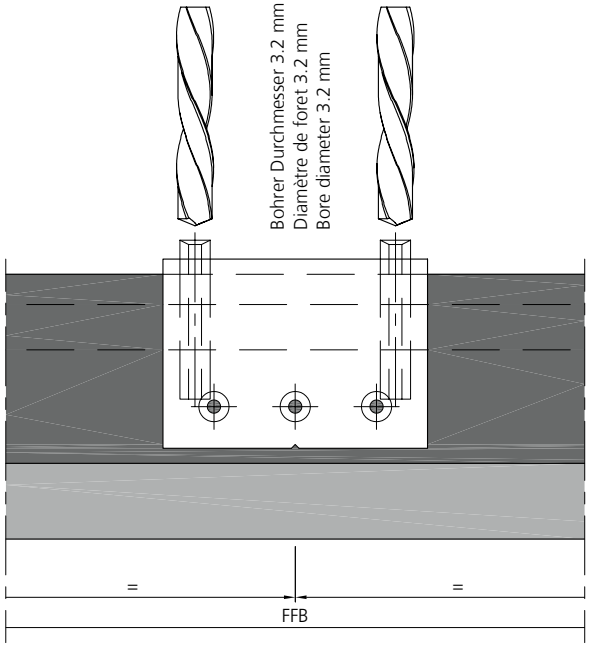
Ausnahme für Fenstergetriebe im horizontalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail horizontale préalablement!
Make the cut-out for the drive in the horizontale leaf profile first!

Beschlagseinbau Kippflügel

Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window

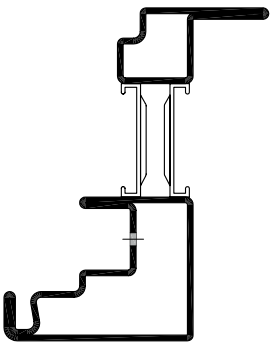


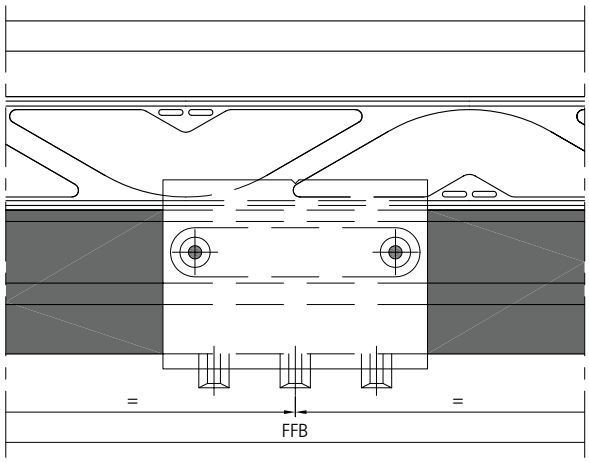


Bohrlehre **Art. Nr. 989108** zu Kippgetriebe.

Gabarit de perçage **art. no. 989108** pour crémone battant.

Drilling template **art. no. 989108** for tilt drive.





Ausnahme für Fenstergetriebe im horizontalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail horizontale préalablement!
Make the cut-out for the drive in the horizontal leaf profile first!

Beschlagseinbau Kippflügel

Montage de la quincaillerie Ouvrant à soufflet

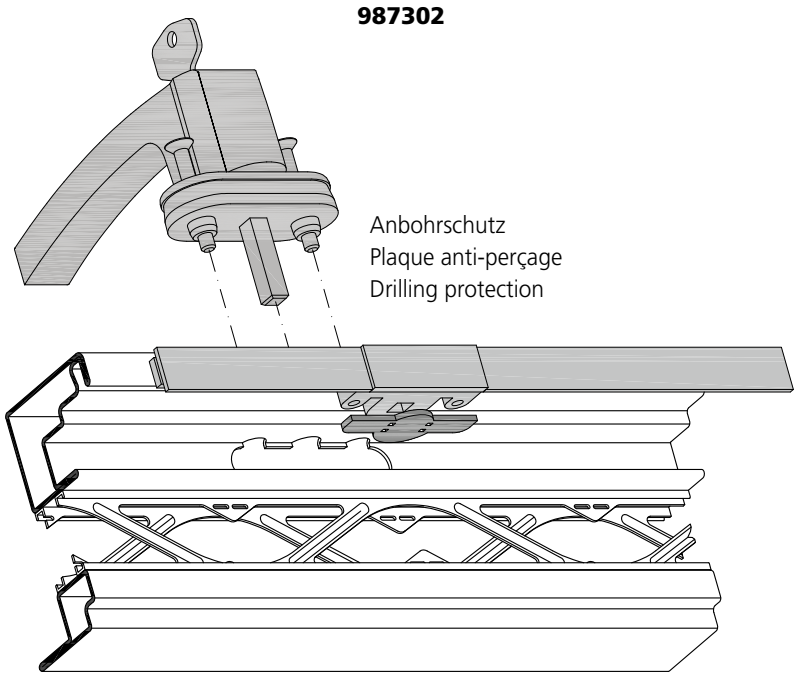
Installation of the fittings Tilt only window

Senk-Schraube M5 x 40 (wird mit Griff **987302** geliefert).

Vis conique M5 x 40 (livrées avec la poignée **987302**).

Countersunk screw M5 x 40 (supplied with handle **987302**).

Ausnahme für Fenstergetriebe im vertikalen Flügelprofil vorgängig ausführen!
Exécuter l'évidement pour la crémone de fenêtre dans le profilé de vantail vertical préalablement!
Make the cut-out for the drive in the vertical leaf profile first!



- Schraube M4 x 21 (selbstfurchend)
- Bohrloch 3.2 mm
- Bei Edelstahlprofil muss das M4 Gewinde geschnitten werden. Alternative: Bohrloch auf 3.5 aufbohren, Schraube ohne M4 Gewindeschnitt einsetzen.

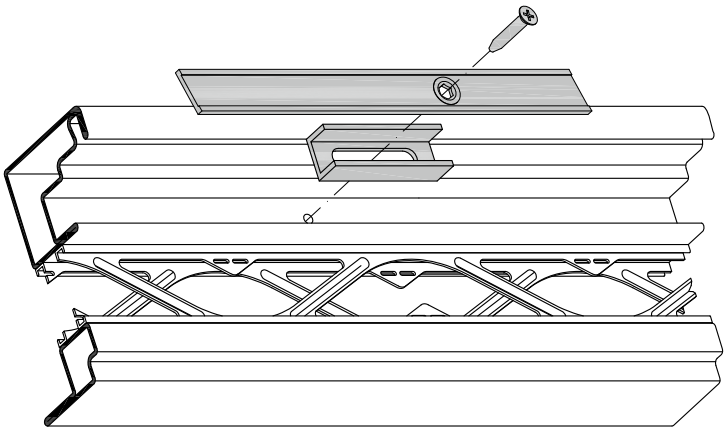
Bei jeder Verschraubung muss ein Distanzstück **927001** eingesetzt werden.

- Vis M4 x 21 (autotaraudeuse)
- Perçage 3.2 mm
- Avec le profilé en acier inox, la vis M4 doit être coupée. Alternative: agrandir le trou à 3.5, taraudage M4 pas necessaire.

La pièce d'entretoise **927001** doit être insérée sous toutes les fixations et assemblages.

- Screw M4 x 21 (self tapping)
- Drill hole 3.2 mm
- In stainless steel profiles, the M4 thread needs to be cut case. Alternative: drill out the drilling hole of 3.5, use screw without M4 thread.

The spacer **927001** must be placed under all screw connections.



Beschlagseinbau Kippflügel

Umstellung der Öffnungsart von Drehkipp auf Dreh.

Die Änderung der Funktion von Drehkipp auf Dreh wird mit Hilfe des Hubbegrenzers ausgeführt.
Dieser wird beim Schliesszapfen der unteren Eckumlenkung eingesetzt.
Somit kann auch jederzeit die Funktion von Dreh auf Drehkipp durch Entfernen des Hubbegrenzers zurückgestellt werden.

Montage de la quincaillerie Ouvrant à soufflet

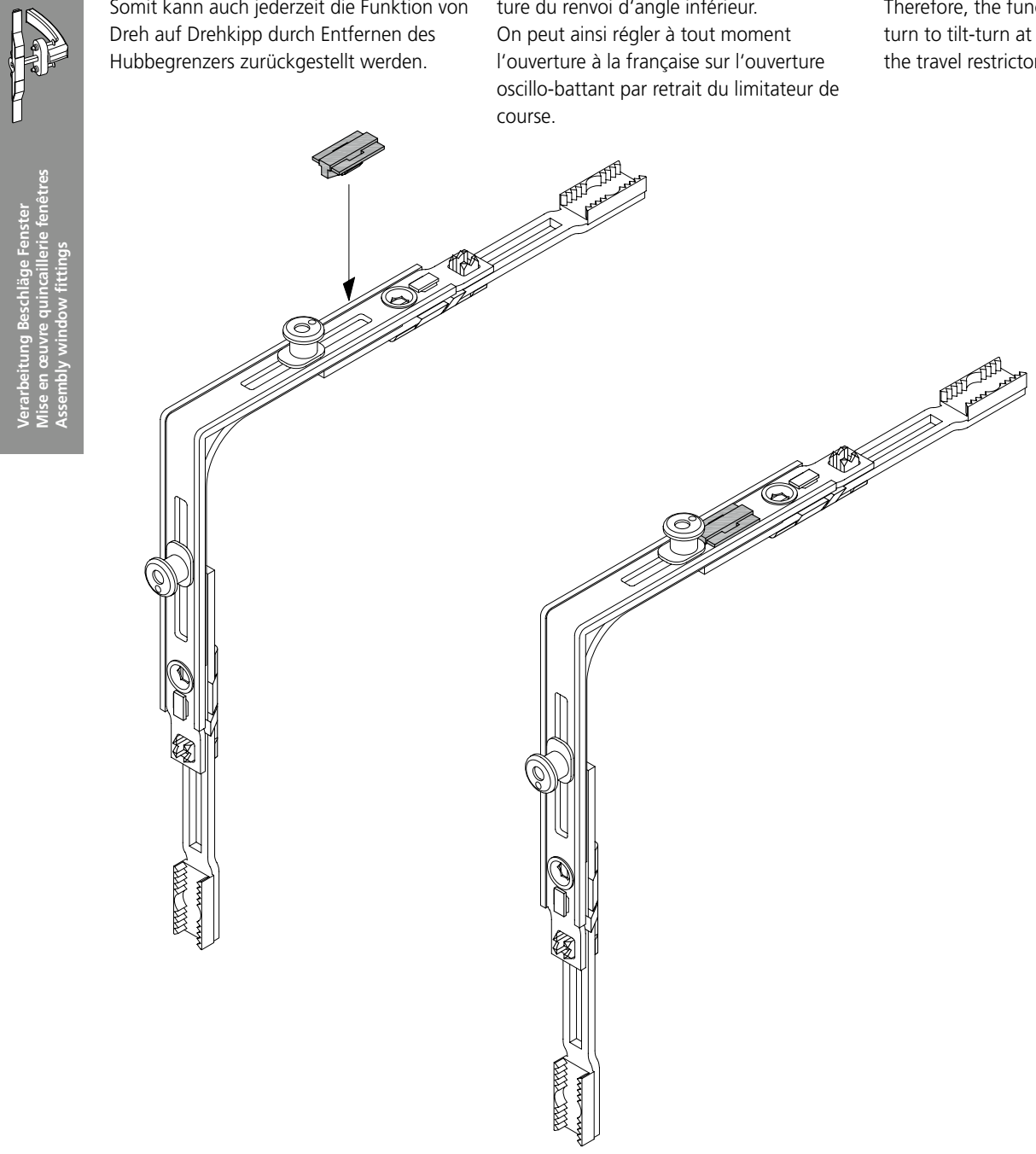
Commutation du type d'ouverture - ouverture oscillo-battant sur ouverture à la française.

La modification de la fonction ouverture oscillo-battant/ouverture à la française est exécutée à l'aide du limitateur de course.
Celui-ci est monté dans le tenon de fermeture du renvoi d'angle inférieur.
On peut ainsi régler à tout moment l'ouverture à la française sur l'ouverture oscillo-battant par retrait du limitateur de course.

Installation of the fittings Tilt only window

Switching the opening mode from turn-tilt to turn.

Switching the function from turn-tilt to turn is done with the help of the travel restrictor.
It is inserted into the pivot lock in the lower corner guide.
Therefore, the function can be reset from turn to tilt-turn at any time by removing the travel restrictor.



Beschlagseinbau Kippflügel

Einsatz der Forster Bohrlehre **989100** für den Standard Beschlag auf dem Kippflügel

FFB 520 - 1600 mm
FFH 350 - 1200 mm

Montage de la quincaillerie Ouvrant à soufflet

Utilisation des gabarits de perçage Forster **989100** pour la quincaillerie standard sur le vantail ouvrant à soufflet

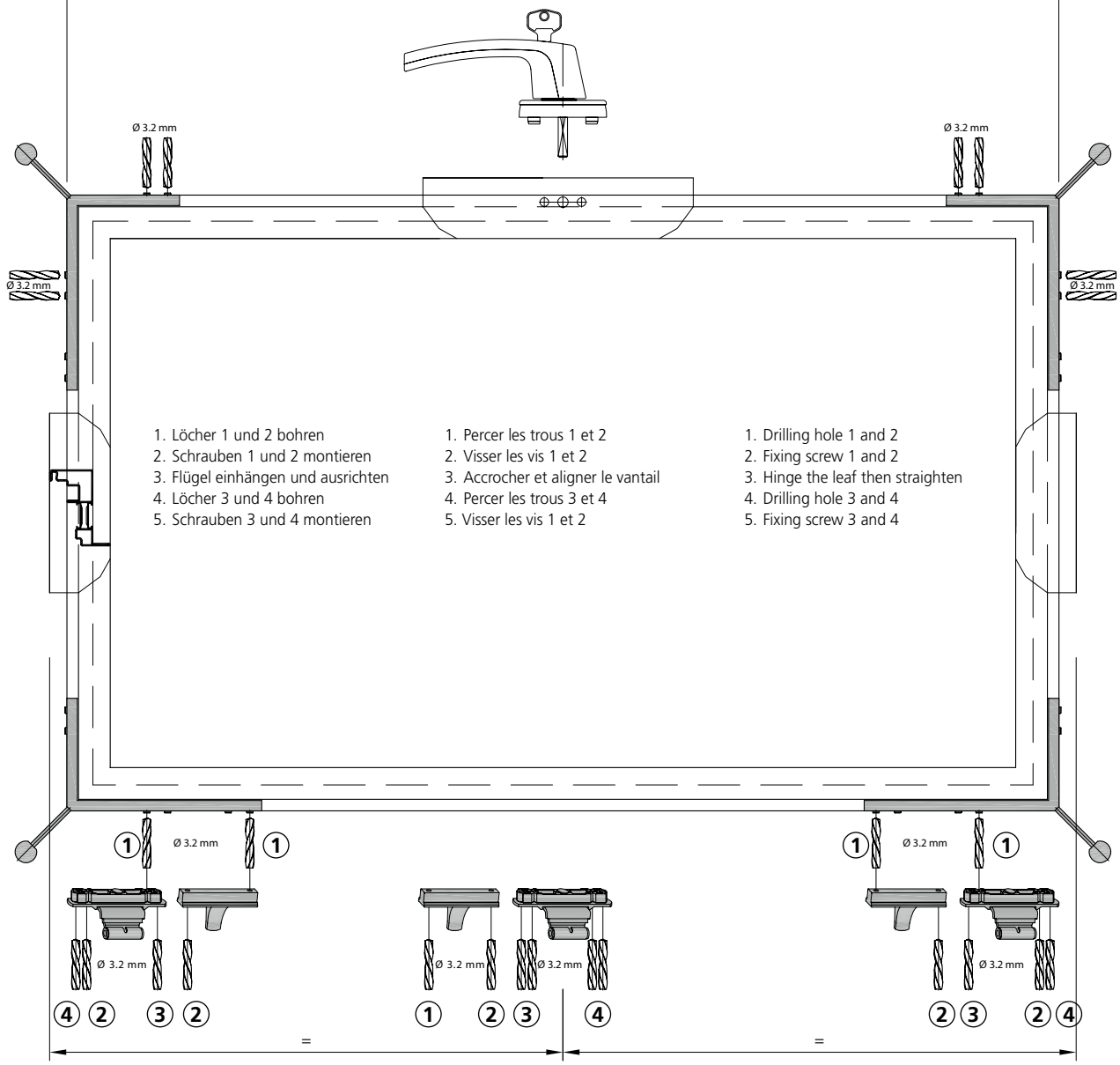
FFB 520 - 1600 mm
FFH 350 - 1200 mm

Installation of the fittings Tilt only window

Use the Forster drilling template **989100** for the standard fittings on the tilt only leaf

FFB 520 - 1600 mm
FFH 350 - 1200 mm

FFB 520 -1600 mm



1. Löcher 1 und 2 bohren
2. Schrauben 1 und 2 montieren
3. Flügel einhängen und ausrichten
4. Löcher 3 und 4 bohren
5. Schrauben 3 und 4 montieren

1. Percer les trous 1 et 2
2. Visser les vis 1 et 2
3. Accrocher et aligner le vantail
4. Percer les trous 3 et 4
5. Visser les vis 1 et 2

1. Drilling hole 1 and 2
2. Fixing screw 1 and 2
3. Hinge the leaf then straighten
4. Drilling hole 3 and 4
5. Fixing screw 3 and 4

Beschlagseinbau Kippflügel

Einsatz der Forster Bohrlehre **989100** für den Standard Beschlag auf dem Kippflügel

FFB 1601 - 2400 mm
FFH 350 - 1200 mm

Montage de la quincaillerie Ouvrant à soufflet

Utilisation des gabarits de perçage Forster **989100** pour la quincaillerie standard sur le vantail ouvrant à soufflet

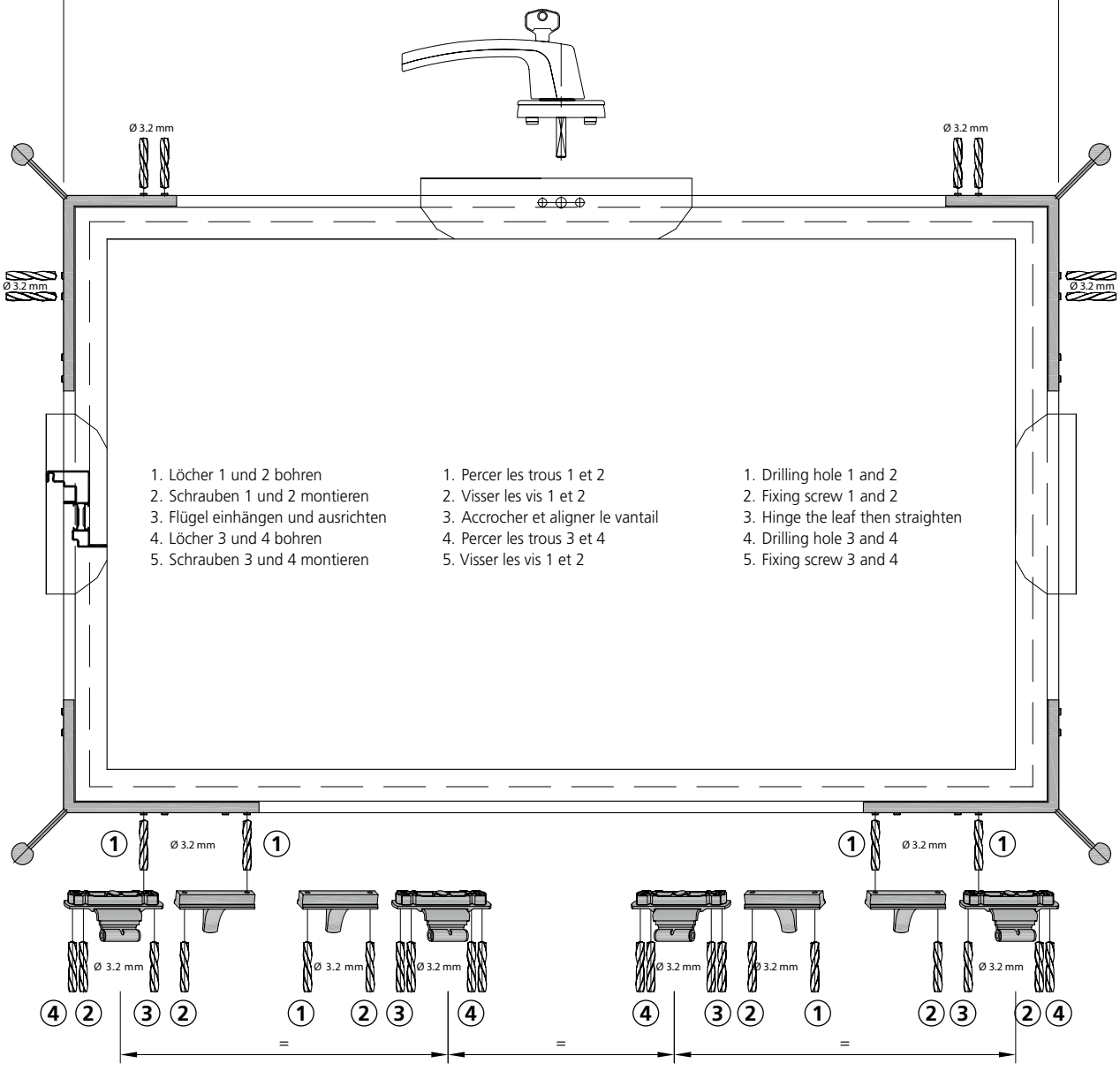
FFB 1601 - 2400 mm
FFH 350 - 1200 mm

Installation of the fittings Tilt only window

Use the Forster drilling template **989100** for the standard fittings on the tilt only leaf

FFB 1601 - 2400 mm
FFH 350 - 1200 mm

FFB 1601-2400 mm



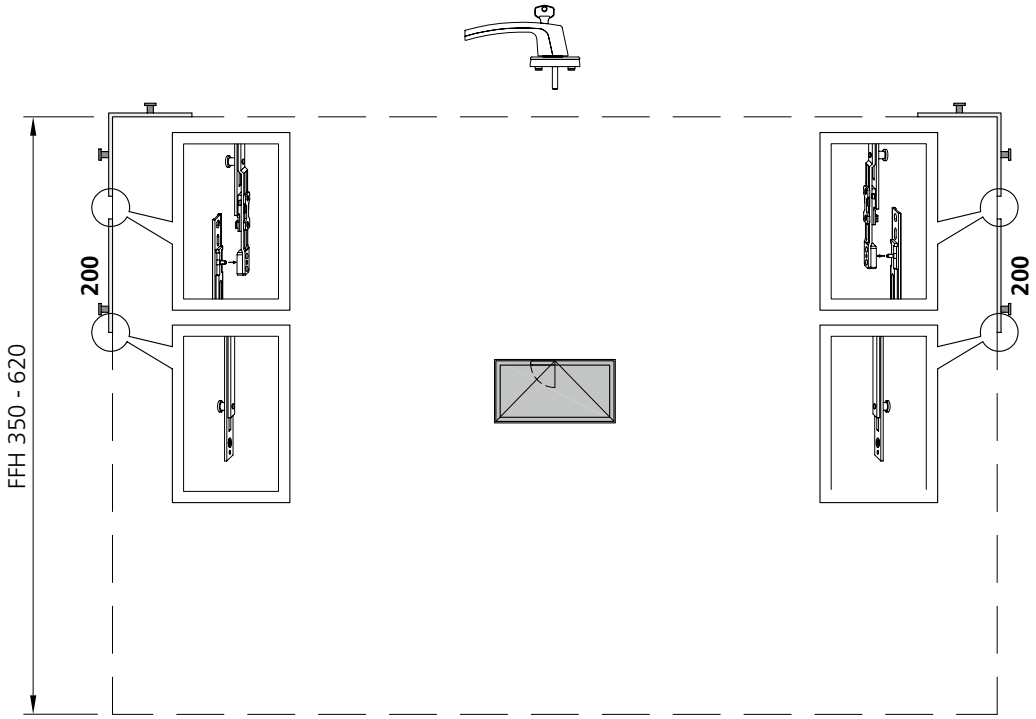
1. Löcher 1 und 2 bohren
2. Schrauben 1 und 2 montieren
3. Flügel einhängen und ausrichten
4. Löcher 3 und 4 bohren
5. Schrauben 3 und 4 montieren

1. Percer les trous 1 et 2
2. Visser les vis 1 et 2
3. Accrocher et aligner le vantail
4. Percer les trous 3 et 4
5. Visser les vis 1 et 2

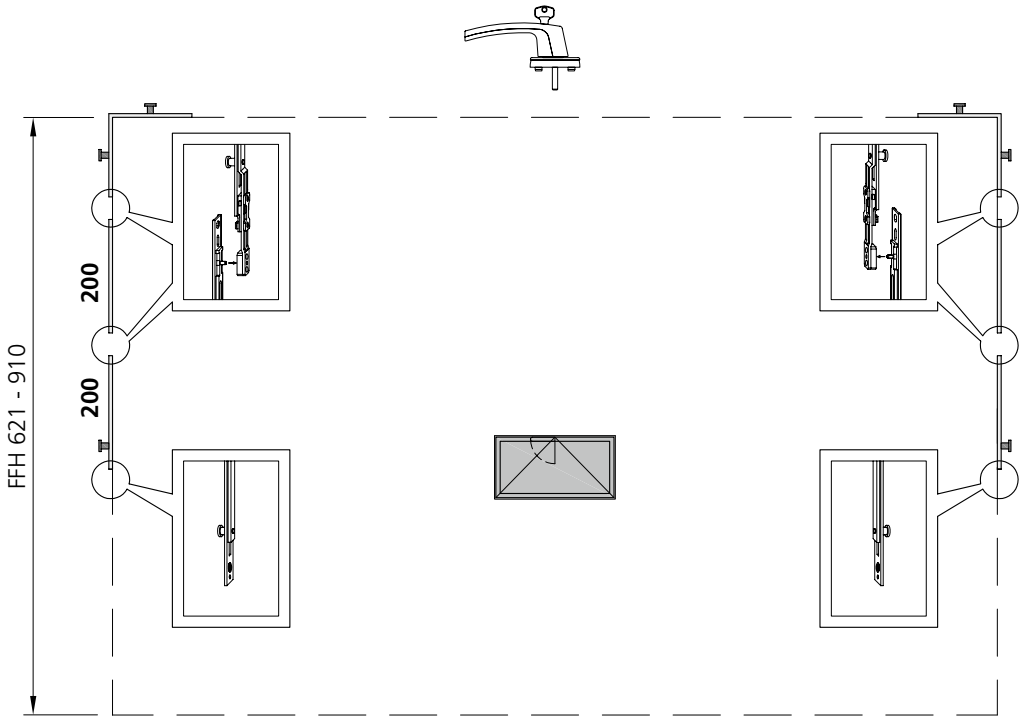
1. Drilling hole 1 and 2
2. Fixing screw 1 and 2
3. Hinge the leaf then straighten
4. Drilling hole 3 and 4
5. Fixing screw 3 and 4

Beschlagseinbau Kippflügel

Anordnung Verlängerungen
FFH 350 - 620 [mm]



Anordnung Verlängerungen
FFH 621 - 910 [mm]



Montage de la quincaillerie Ouvrant à soufflet

Disposition des extensions
FFH 350 - 620 [mm]

Disposition des extensions
FFH 621 - 910 [mm]

Installation of the fittings Tilt only window

Arrangement of the extensions
FFH 350 - 620 [mm]

Arrangement of the extensions
FFH 621 - 910 [mm]

Beschlagseinbau Kippflügel

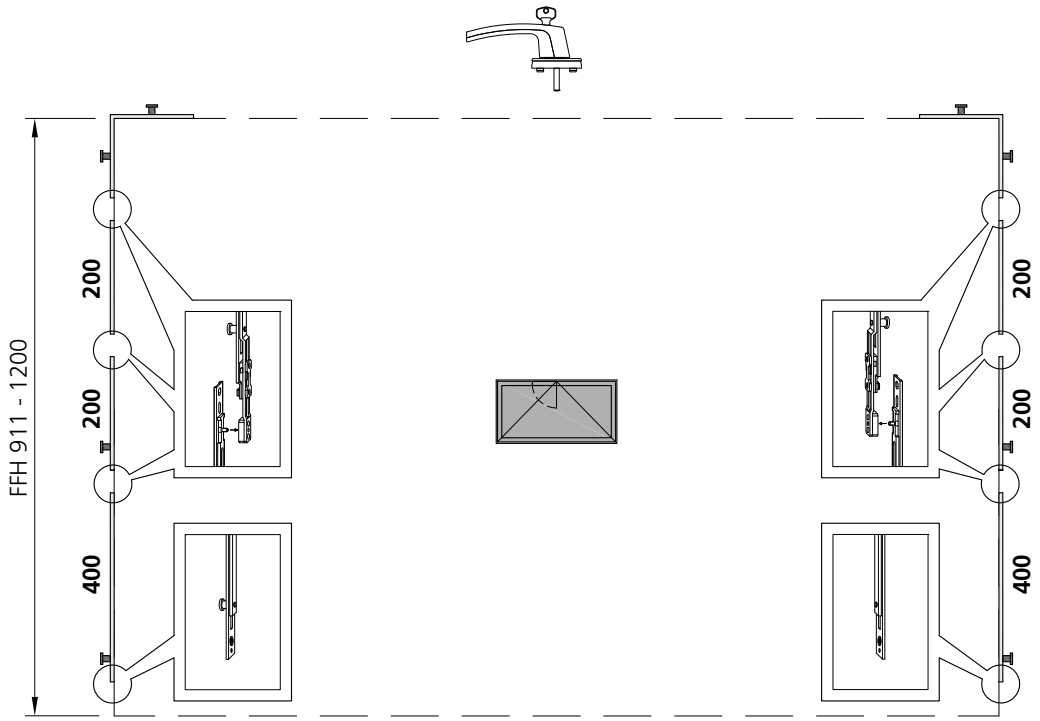
Anordnung Verlängerungen
FFH 911 - 1200 [mm]

Montage de la quincaillerie Ouvrant à soufflet

Disposition des extensions
FFH 911 - 1200 [mm]

Installation of the fittings Tilt only window

Arrangement of the extensions
FFH 911 - 1200 [mm]



Beschlagseinbau Kippflügel

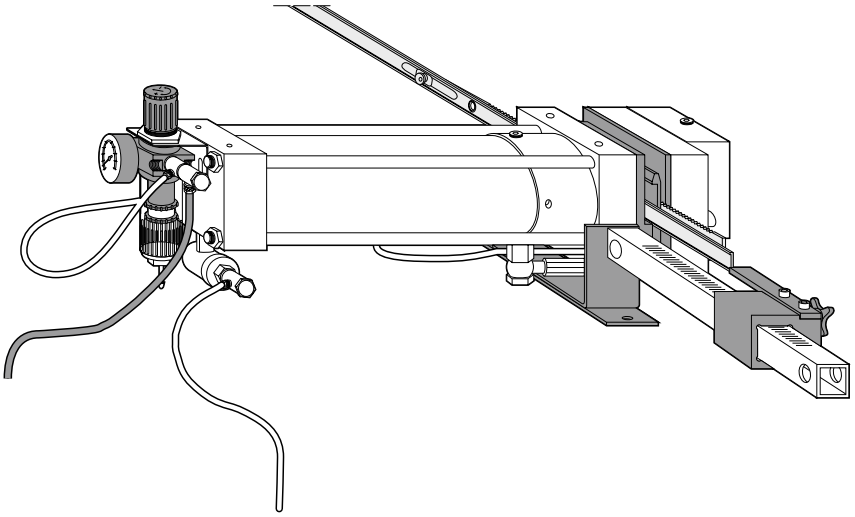
Ablängen mit pneumatischer Stanze (Lochstanzung)

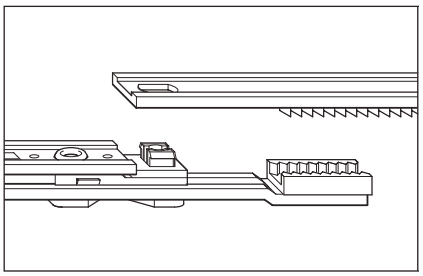
Montage de la quincaillerie Ouvrant à soufflet

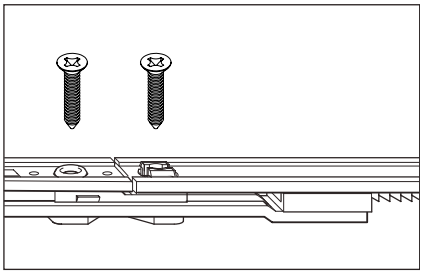
Couper à la longueur requise avec un dispositif de poinçonnage pneumatique

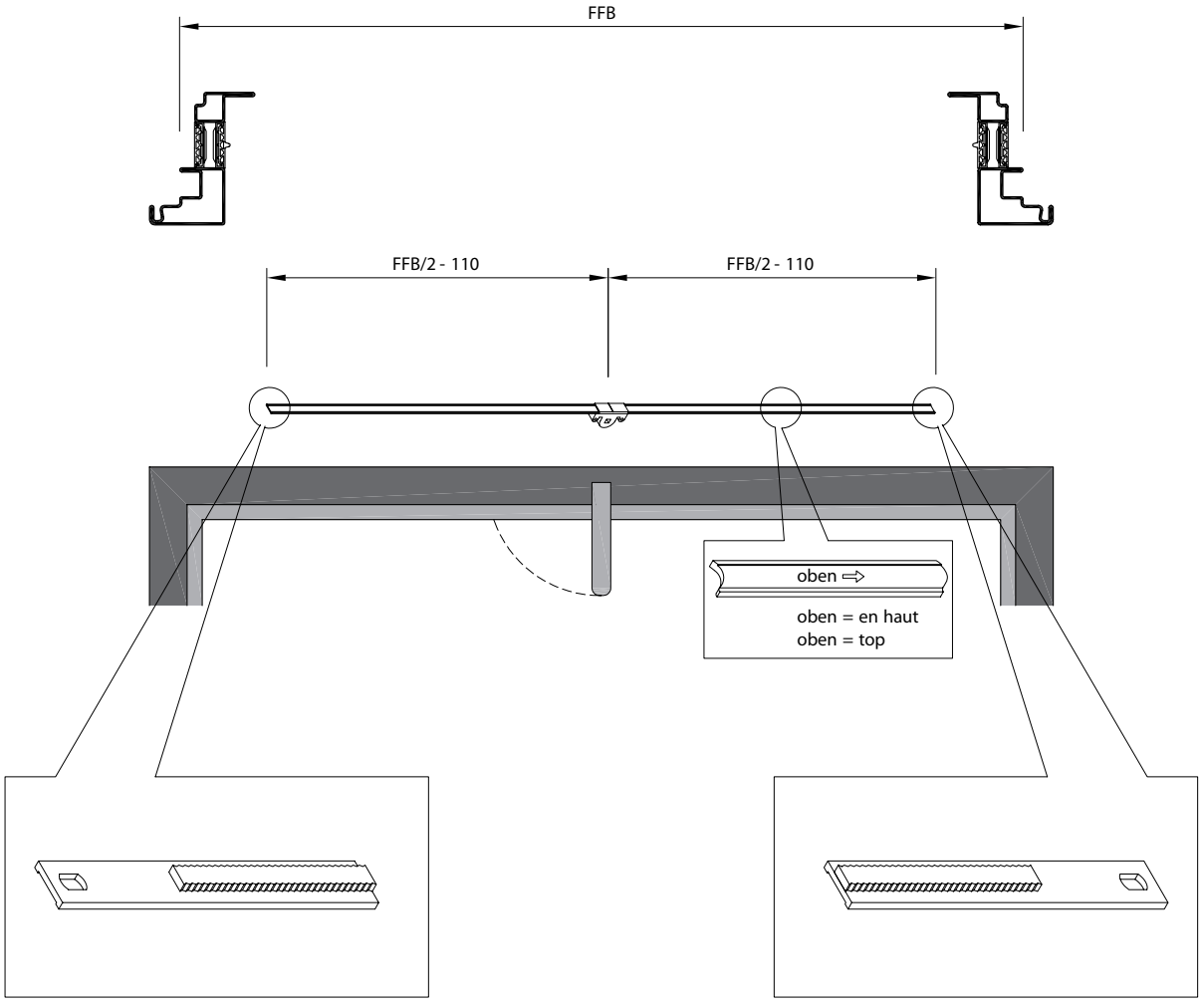
Installation of the fittings Tilt only window

Cut to length with pneumatic punching tool (hole punching)









Beschlagseinbau Kippflügel

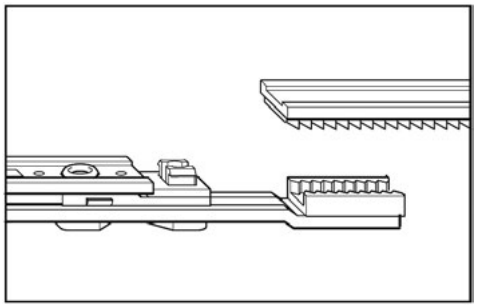
Ablängen mit Säge und Einsatz mit Verbindungslasche

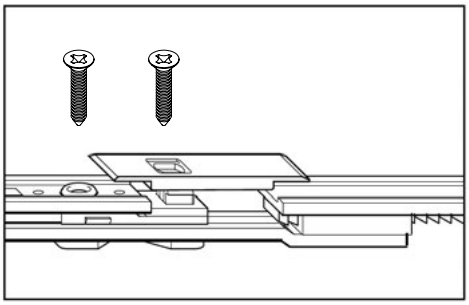
Montage de la quincaillerie Ouvrant à soufflet

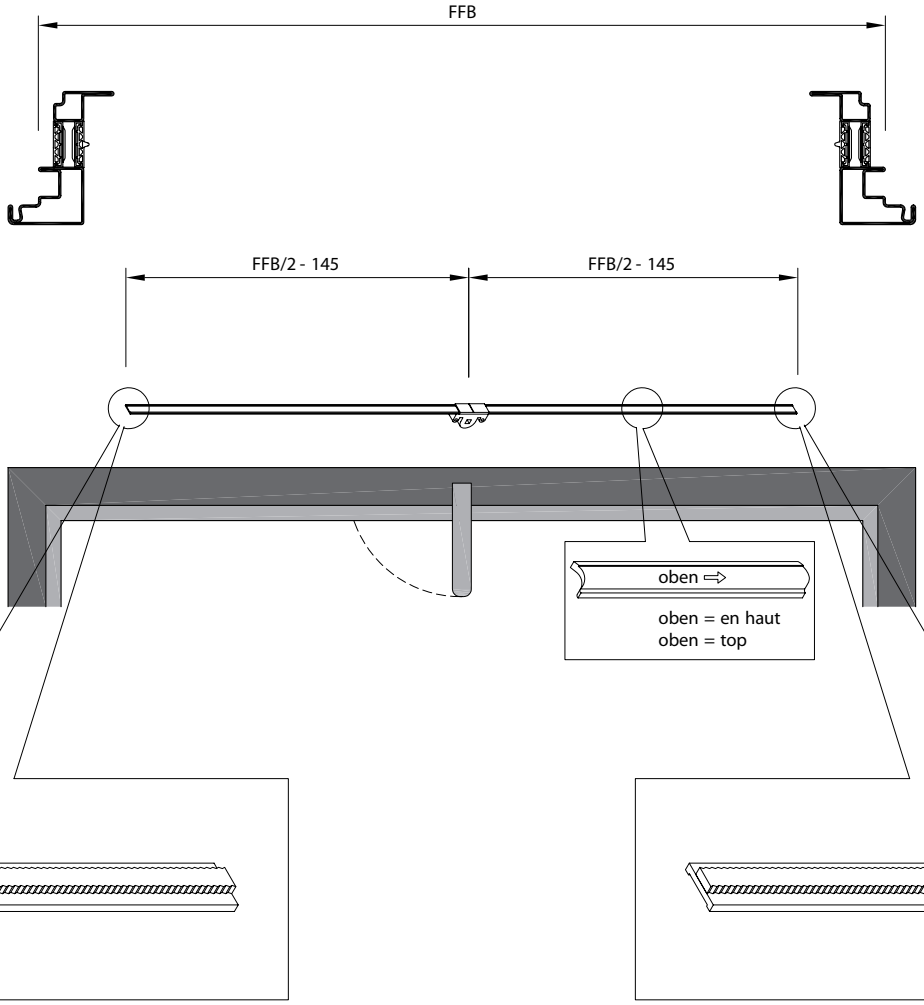
Couper à la longueur requise avec une scie et assembler avec une plaque de liaison

Installation of the fittings Tilt only window

Cut to length with saw and use with connecting link



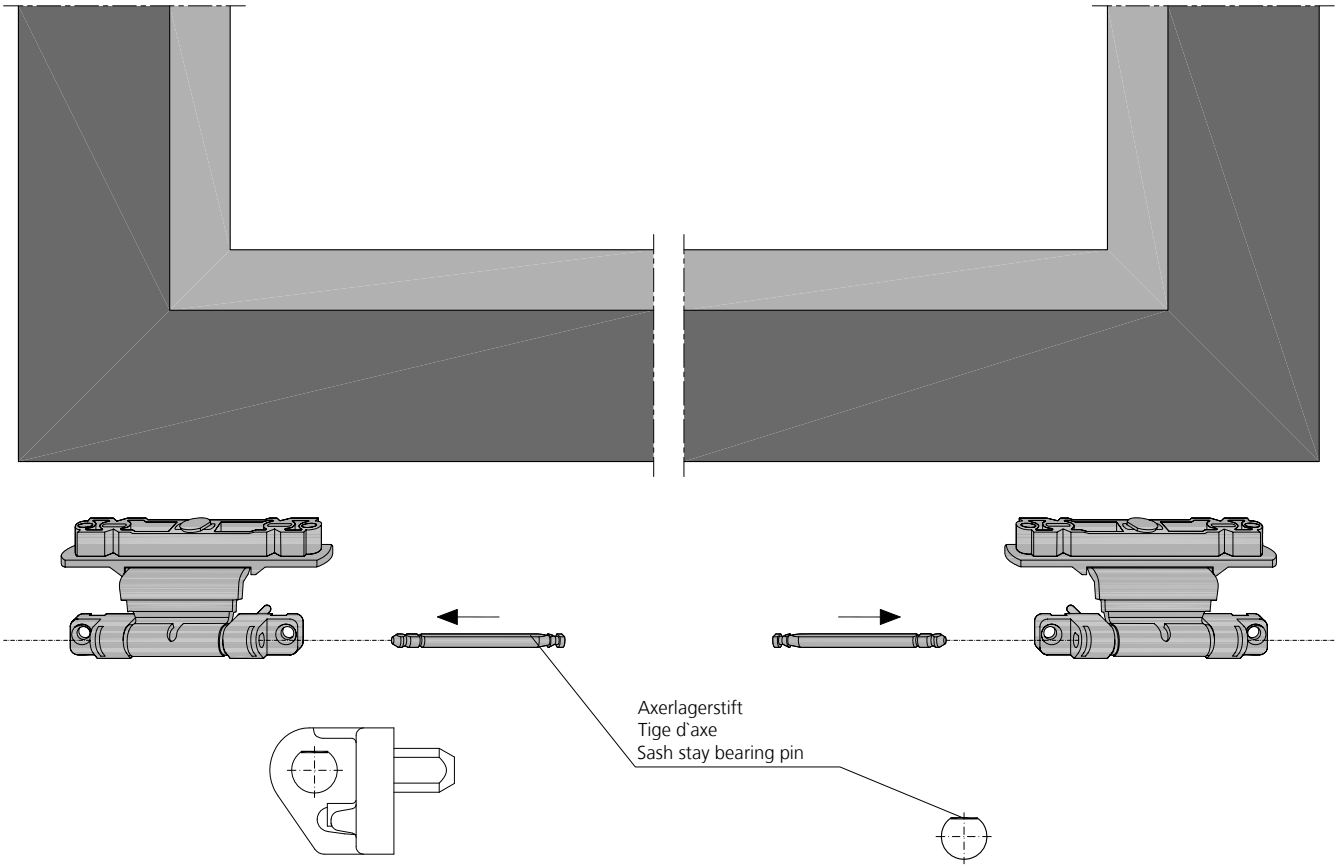


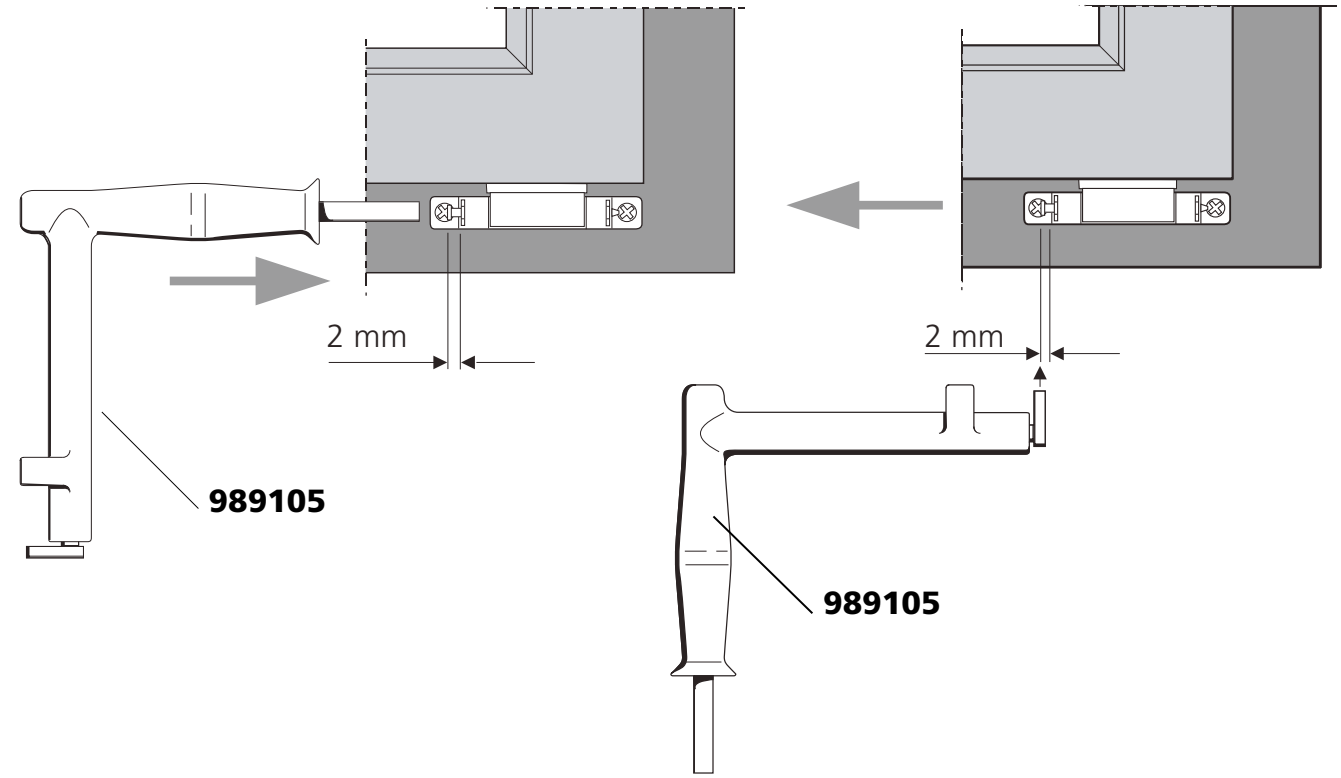


Beschlagseinbau Kippflügel

Montage de la quincaillerie Ouvrant à soufflet

Installation of the fittings Tilt only window

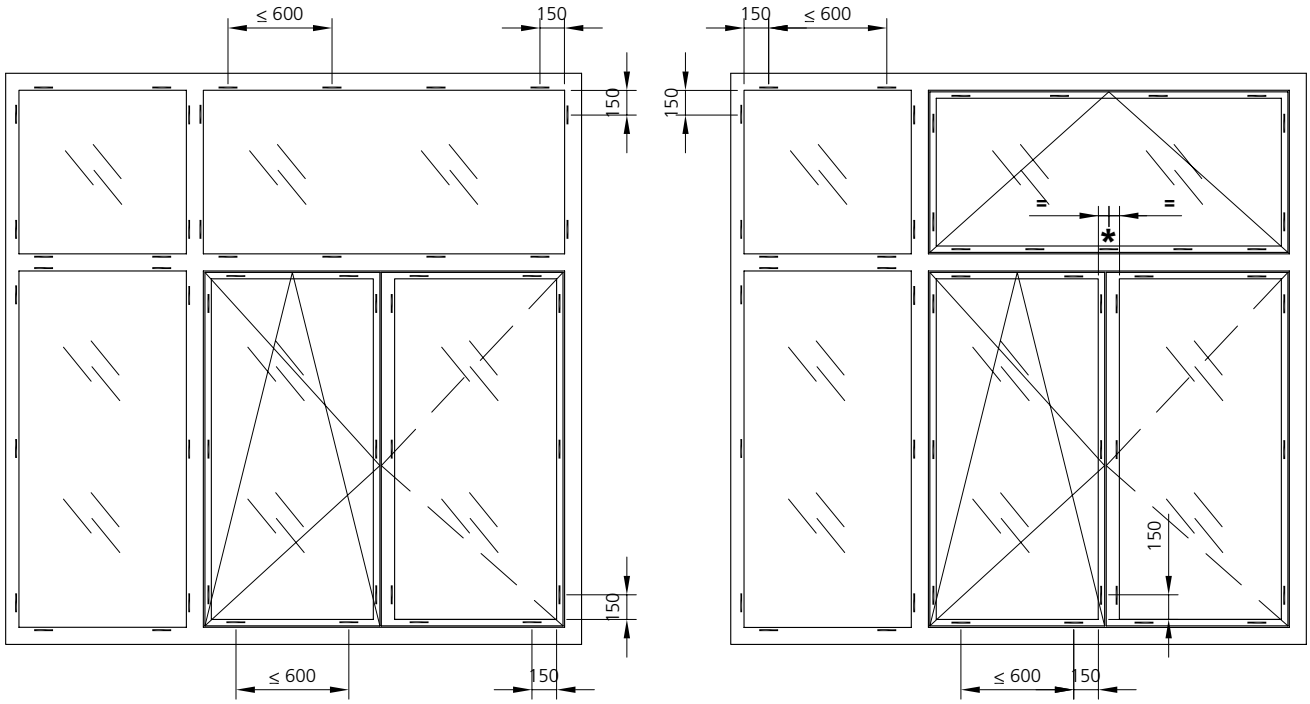




Verarbeitung Beschläge Fenster
Mise en œuvre quincaillerie fenêtres
Assembly window fittings

Casino de Monte Carlo, Restauration du Cabaret, MC-Monaco

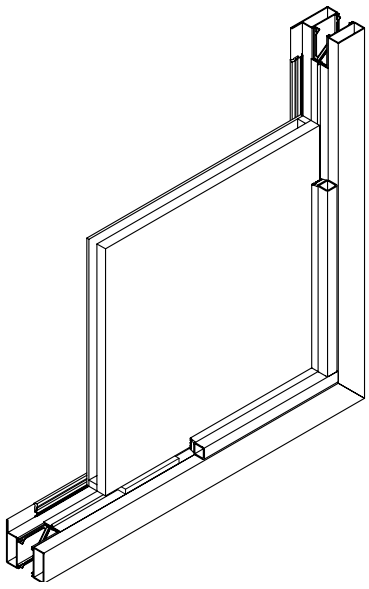
Verglasungsvarianten Variantes de vitrage Glazing options

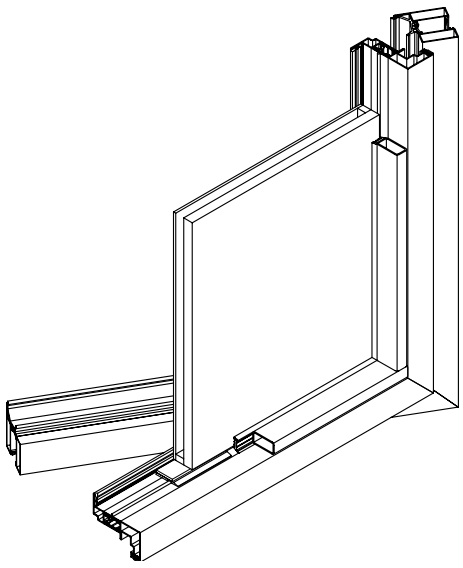


* bei Kippflügel als Oberlichter über 2-flügeligen Fenster muss immer im Stulpbereich ein Verglasungsklotz eingesetzt werden.

* Pour l'ouvrant à soufflet dans l'imposte sure une fenêtre à 2-vantaux doit toujours être mis une pont feuillure sur le plan de feuillure du vantail semifixe

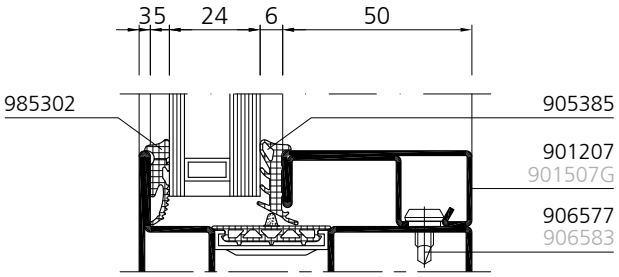
* For tilt only window used as sublights above sash windows, always a glass rebate brige must be used.

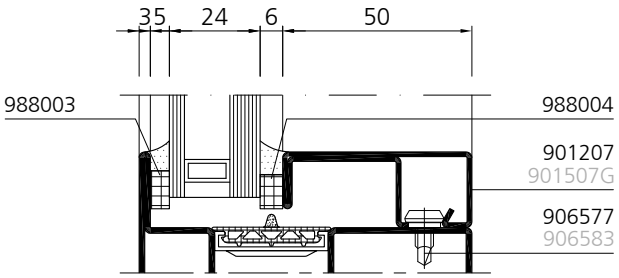


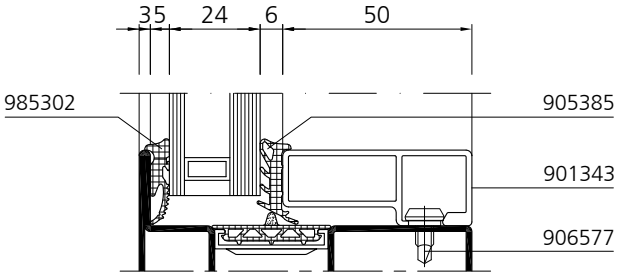


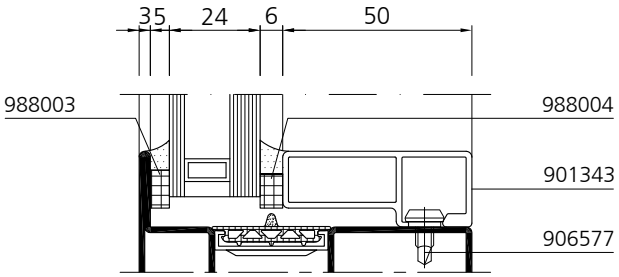
Verglasungsvarianten Glas
Variantes de vitrage Verre
Glazing options Glass

Flügel / vantail / leaf

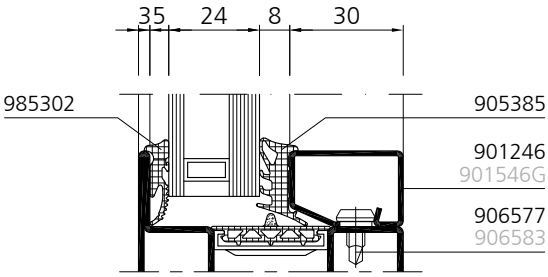


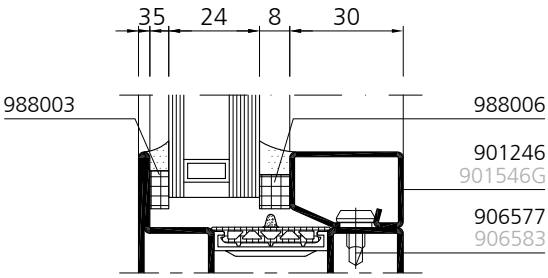


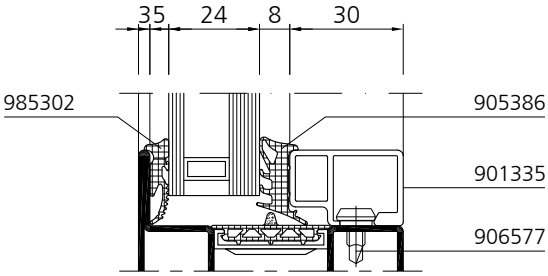


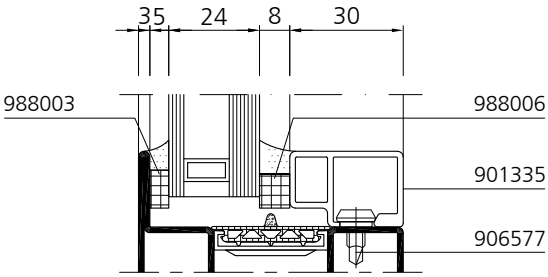


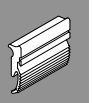
Festfeld / vitrage fixe / fixed screen











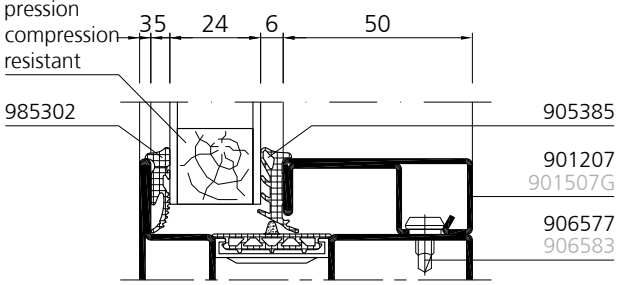
Verglasungsvarianten Paneel

Variantes de vitrage Panneau

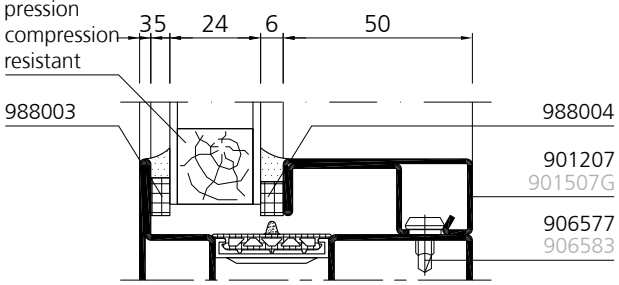
Glazing options Panel

Flügel / vantail / leaf

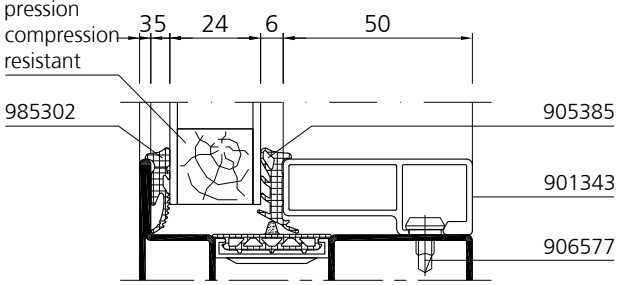
Druckfest résistant à la pression compression resistant



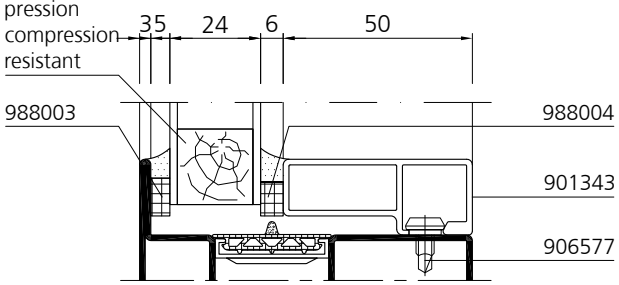
Druckfest résistant à la pression compression resistant



Druckfest résistant à la pression compression resistant

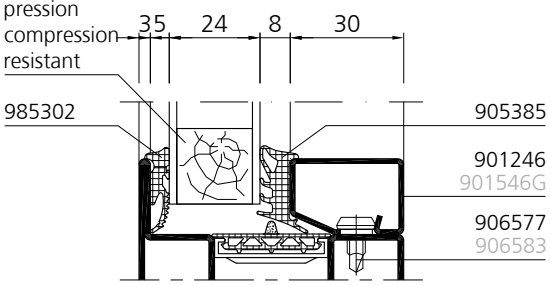


Druckfest résistant à la pression compression resistant



Festfeld / vitrage fixe / fixed screen

Druckfest résistant à la pression compression resistant



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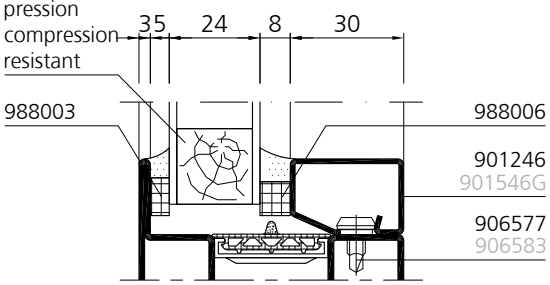
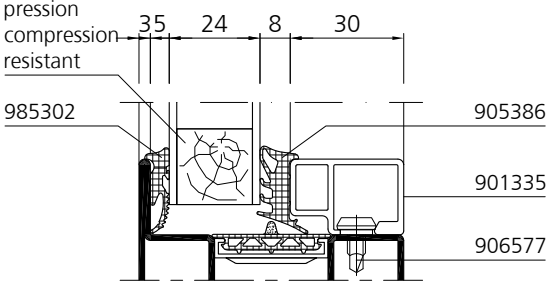


Druckfest résistant à la pression compression resistant



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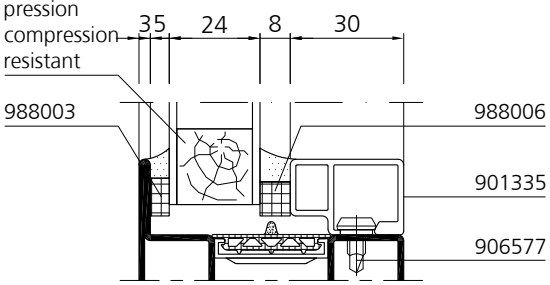
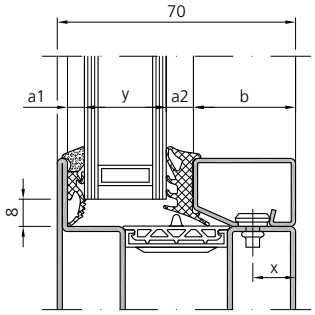


Trockenverglasung Bautiefe 70

Vitrage à sec Profondeur 70

Dry glazing Depth 70



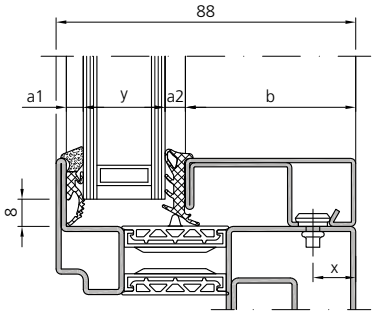
Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No. Edelstahl /Acier Inox / Stainless steel: No.	Glashalteleiste Aluminium Parclose en Aluminium Glazing beads Aluminium Aluminium: No.	Aussendichtung Joint extérieur Outer weatherstr. 985302 a1 = 5 [mm]	Innendichtung Joint intérieur Inner weatherstripping 905385 a2 = 5-6 [mm] 905386 a2 = 7-8 [mm] 905387 a2 = 9-10 [mm] y [mm]						Bohrmass x Trusquinage x Hole distance x
20 - 22	b = 35 901247 901547	b = 35 901336	5 [mm]	**22**	**21**	**20**	**-**	**-**	**-**	13 [mm]
22 - 27	b = 30 b = 30 901206* 901246 901546	b = 30 901335		**27**	**26**	**25**	**24**	**23**	**22**	10 [mm] 13 [mm]
27 - 32	b = 25 b = 25 901205* 901228 901528	b = 25 901328		**32**	**31**	**30**	**29**	**28**	**27**	10 [mm] 13 [mm]
32 - 37	b = 20 b = 20 901204 901227 901527			**37**	**36**	**35**	**34**	**33**	**32**	10 [mm] 13 [mm]
32 - 37		b = 20 901327		**37**	**36**	**35**	**34**	**33**	**32**	8 [mm]
37 - 42	b = 15 901226 901526	b = 15 901326		**42**	**41**	**40**	**39**	**38**	**37**	8 [mm]

* auf Anfrage
sur demande
on request

Trockenverglasung
Bautiefe 88

Vitrage à sec
Profondeur 88

Dry glazing
Depth 88



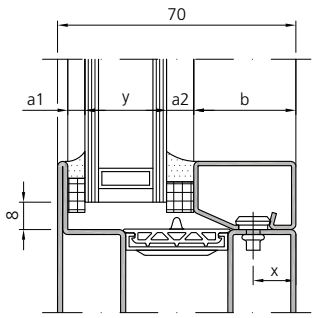
Glas-dicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No. Edelstahl /Acier Inox / Stainless steel: No.	Glashalteleiste Aluminium Parclose en Aluminium Glazing beads Aluminium Aluminium: No.	Aussendichtung Joint extérieur Outer weatherstr. 985302 a1 = 5 [mm]	Innendichtung Joint intérieur Inner weatherstripping 905385 a2 = 5-6 [mm] 905386 a2 = 7-8 [mm] 905387 a2 = 9-10 [mm] y [mm]						Bohr-mass x Trusquinage x Hole distance x
20 - 25	b = 50 901207 901507	b = 50 901343		**25**	**24**	**23**	**22**	**21**	**20**	13 [mm]
25 - 30	b = 45 901249 901549	b = 45 901338		**30**	**29**	**28**	**27**	**26**	**25**	13 [mm]
30 - 35	b = 40 901248 901548	b = 40 901337		**35**	**34**	**33**	**32**	**31**	**30**	13 [mm]
35 - 40	b = 35 901247 901547	b = 35 901336		**40**	**39**	**38**	**37**	**36**	**35**	13 [mm]
40 - 45	b = 30 b = 30 901206* 901246 901546	b = 30 901335	5 [mm]	**45**	**44**	**43**	**42**	**41**	**40**	10 [mm] 13 [mm]
45 - 50	b = 25 b = 25 901205* 901228 901528	b = 25 901328		**50**	**49**	**48**	**47**	**46**	**45**	10 [mm] 13 [mm]
50 - 55	b = 20 b = 20 901204 901227 901527			**55**	**54**	**53**	**52**	**51**	**50**	10 [mm] 13 [mm]
50 - 55		b = 20 901327		**55**	**54**	**53**	**52**	**51**	**50**	8 [mm]
55 - 60	b = 15 901226 901526	b = 15 901326		**60**	**59**	**58**	**57**	**56**	**55**	8 [mm]

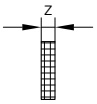
* auf Anfrage
sur demande
on request

Nassverglasung Bautiefe 70

Vitrage à silicone Profondeur 70

Wet glazing Depth 70





z	Art. Nr.:
4 [mm]	988002
5 [mm]	988003
6 [mm]	988004
8 [mm]	988006

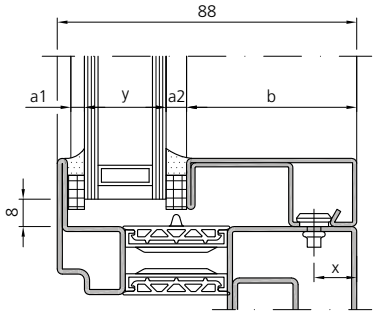
Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No. Edelstahl /Acier Inox / Stainless steel: No.	Glashalteleiste Aluminium Parclose en Aluminium Glazing beads Aluminium Aluminium: No.	Vorlegeband Bande de vitrage Glazing tape a1 = 5 [mm] a2 = 5 [mm]	a1 = 5 [mm] a2 = 6 [mm]	a1 = 6 [mm] a2 = 6 [mm]	a1 = 5 [mm] a2 = 8 [mm]	a1 = 6 [mm] a2 = 8 [mm] y [mm]	Bohrmass x Trusquinage x Hole distance x
20 - 22	b = 35 901247 901547	b = 35 901336	**22**	**21**	**20**	**-**	**-**	13 [mm]
23 - 27	b = 30 b = 30 901206* 901246 901546	b = 30 901335	**27**	**26**	**25**	**24**	**23**	10 [mm] 13 [mm]
28 - 32	b = 25 b = 25 901205* 901228 901528	b = 25 901328	**32**	**31**	**30**	**29**	**28**	10 [mm] 13 [mm]
33 - 37	b = 20 b = 20 901204 901227 901527		**37**	**36**	**35**	**34**	**33**	10 [mm] 13 [mm]
33 - 37		b = 20 901327	**37**	**36**	**35**	**34**	**33**	8 [mm]
38 - 42	b = 15 901226 901526	b = 15 901326	**42**	**41**	**40**	**39**	**38**	8 [mm]
43 - 47	b = 10 901241	b = 10 901334	**47**	**46**	**45**	**44**	**43**	16 [mm]
48 - 52		b = 5 901333	**52**	**51**	**50**	**49**	**48**	16 [mm]
50.5 - 54.5	b = 2.5 901245	b = 2.5 901332	**54.5**	**53.5**	**52.5**	**51.5**	**50.5**	16 [mm]

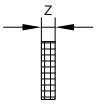
* auf Anfrage
sur demande
on request

Nassverglasung
Bautiefe 88

Vitrage à silicone
Profondeur 88

Wet glazing
Depth 88





z	Art. Nr.:
4 [mm]	988002
5 [mm]	988003
6 [mm]	988004
8 [mm]	988006

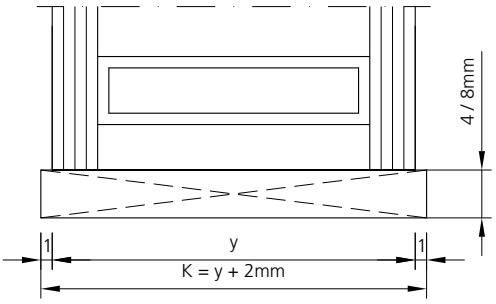
Glas-dicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No. Edelstahl /Acier Inox / Stainless steel: No.	Glashalteleiste Aluminium Parclose en Aluminium Glazing beads Aluminium Aluminium: No.	Vorlegeband Bande de vitrage Glazing tape a1 = 5 [mm] a2 = 5 [mm] a1 = 5 [mm] a2 = 6 [mm] a1 = 6 [mm] a2 = 6 [mm] a1 = 5 [mm] a2 = 8 [mm] a1 = 6 [mm] a2 = 8 [mm] y [mm]					Bohr-mass x Trusquinage x Hole distance x
21 - 25	b = 50 901207 901507	b = 50 901343	**25**	**24**	**23**	**22**	**21**	13 [mm]
26 - 30	b = 45 901249 901549	b = 45 901338	**30**	**29**	**28**	**27**	**26**	13 [mm]
31 - 35	b = 40 901248 901548	b = 40 901337	**35**	**34**	**33**	**32**	**31**	13 [mm]
36 - 40	b = 35 901247 901547	b = 35 901336	**40**	**39**	**38**	**37**	**36**	13 [mm]
41 - 45	b = 30 b = 30 901206* 901246 901546	b = 30 901335	**45**	**44**	**43**	**42**	**41**	10 [mm] 13 [mm]
46 - 50	b = 25 b = 25 901205* 901228 901528	b = 25 901328	**50**	**49**	**48**	**47**	**46**	10 [mm] 13 [mm]
51 - 55	b = 20 b = 20 901204 901227 901527		**55**	**54**	**53**	**52**	**51**	10 [mm] 13 [mm]
51 - 55		b = 20 901327	**55**	**54**	**53**	**52**	**51**	8 [mm]
56 - 60	b = 15 901226 901526	b = 15 901326	**60**	**59**	**58**	**57**	**56**	8 [mm]

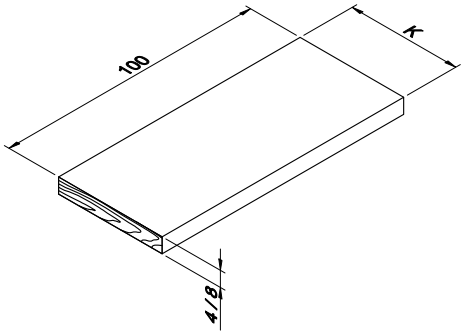
* auf Anfrage
sur demande
on request

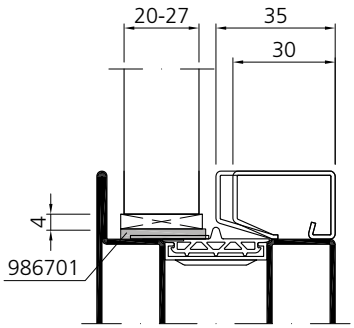
Verglasungsvarianten Bautiefe 70

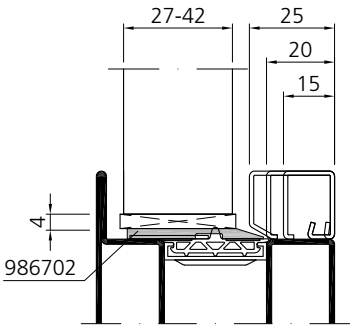
Variantes de vitrage Profondeur 70

Glazing options Depth 70









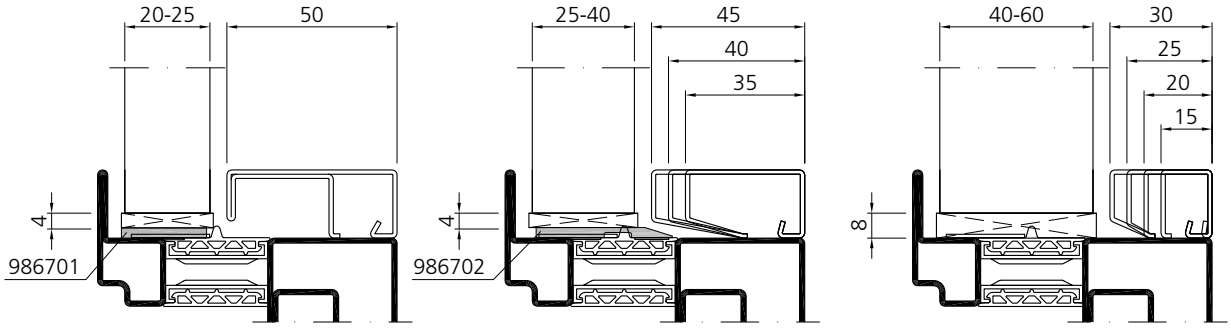
* auf Anfrage
sur demande
on request

Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No. Edelstahl /Acier Inox / Stainless steel: No.	Glashalteleiste Aluminium Parclose en Aluminium Glazing beads Aluminium Aluminium: No.	Glasfalzbrücke Pont feuillure en verre Glass rebate bridge Art. No.	Verglasungsklotz 4 [mm] Mass K Cale de vitrage 4 [mm] Cote K Glazing block 4 [mm] Size K
20 - 22	b = 35 901247 901547	b = 35 901336	986701	**22 - 24**
22 - 27	b = 30 b = 30 901206* 901246 901546	b = 30 901335	986701	**24 - 29**
27 - 32	b = 25 b = 25 901205* 901228 901528	b = 25 901328	986702	**29 - 34**
32 - 37	b = 20 b = 20 901204 901227 901527		986702	**34 - 39**
32 - 37		b = 20 901327	986702	**34 - 39**
37 - 42	b = 15 901226 901526	b = 15 901326	986702	**39 - 44**

Verglasungsvarianten Bautiefe 88

Variantes de vitrage Profondeur 88

Glazing options Depth 88

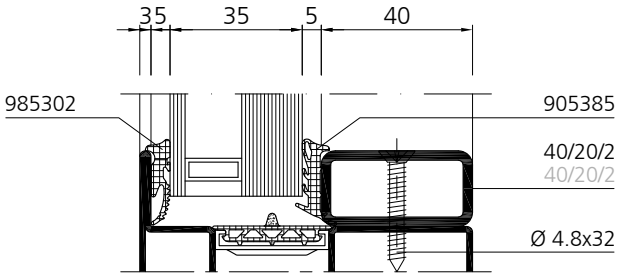


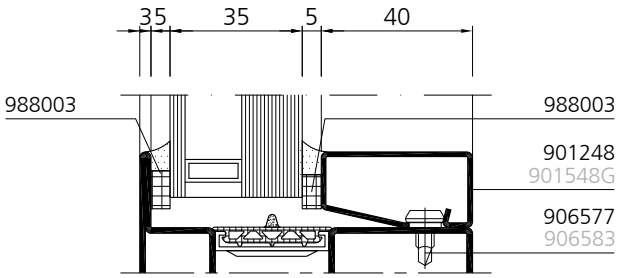
Glas-dicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No. Edelstahl /Acier Inox / Stainless steel: No.	Glashalteleiste Aluminium Parclose en Aluminium Glazing beads Aluminium Aluminium: No.	Glasfalzbrücke Pont feuillure en verre Glass rebate bridge Art. No.	Verglas-ungsklotz 4 [mm] Mass K Cale de vitrage 4 [mm] Cote K Glazing block 4 [mm] Size K	Verglas-ungsklotz 8 [mm] Mass K Cale de vitrage 8 [mm] Cote K Glazing block 8 [mm] Size K
20 - 25	b = 50 901207 901507	b = 50 901343	986701 986703	**22 - 27**	
25 - 30	b = 45 901249 901549	b = 45 901338	986702 986703	**27 - 32**	
30 - 35	b = 40 901248 901548	b = 40 901337	986702 986703	**32 - 37**	
35 - 40	b = 35 901247 901547	b = 35 901336	986702 986703	**37 - 42**	
40 - 45	b = 30 b = 30 901206* 901246 901546	b = 30 901335			**42 - 47**
45 - 50	b = 25 b = 25 901205* 901228 901528	b = 25 901328			**47 - 52**
50 - 55	b = 20 b = 20 901204 901227 901527				**52 - 57**
50 - 55		b = 20 901327			**52 - 57**
55 - 60	b = 15 901226 901526	b = 15 901326			**57 - 62**

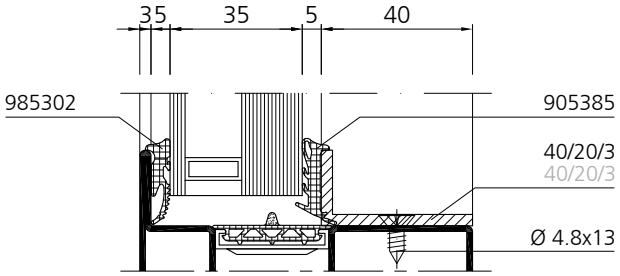
* auf Anfrage
sur demande
on request

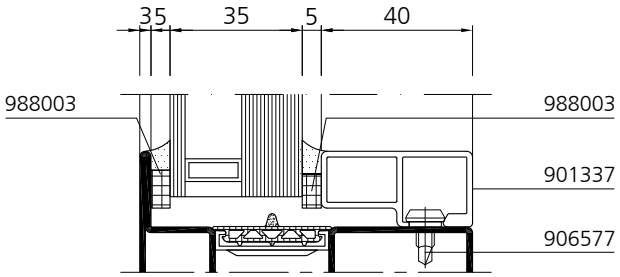
Verglasungsvarianten
Variantes de vitrage
Glazing options
Glas
Verre
Glass

Flügel / vantail / leaf

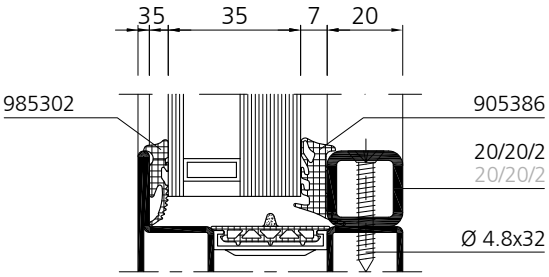


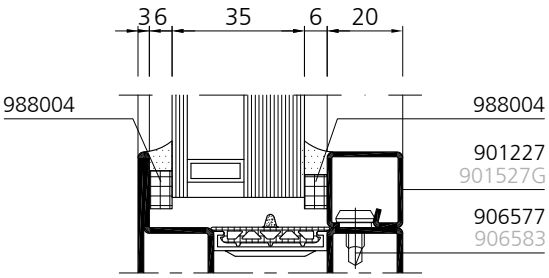


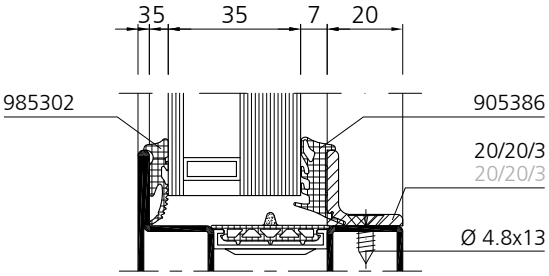


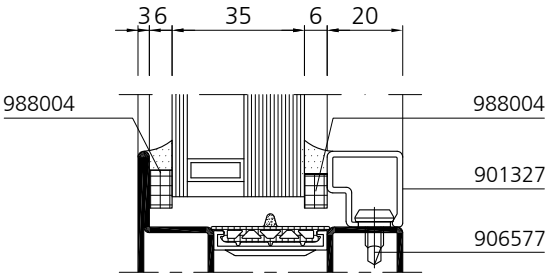


Festfeld / vitrage fixe / fixed screen









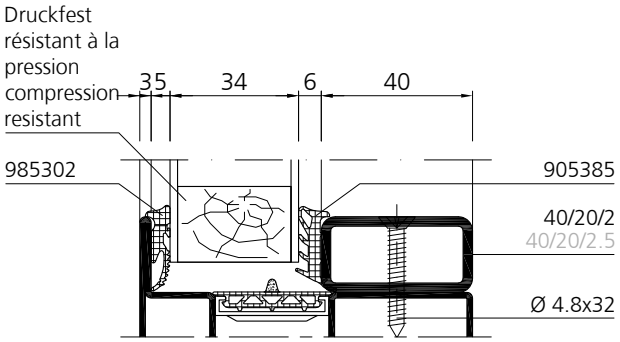
Verglasungsvarianten Paneel

Variantes de vitrage Panneau

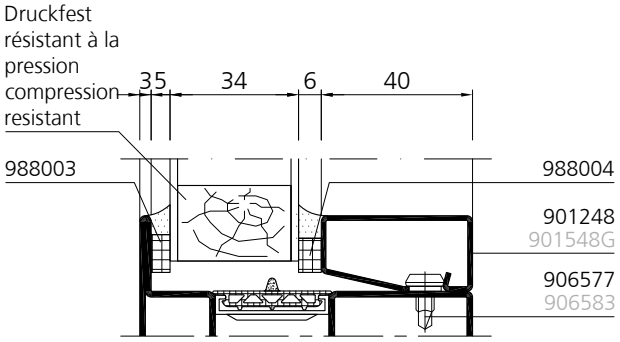
Glazing options Panel

Flügel / vantail / leaf

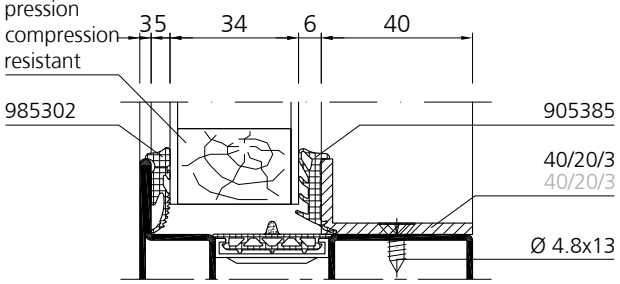
Druckfest résistant à la pression compression resistant



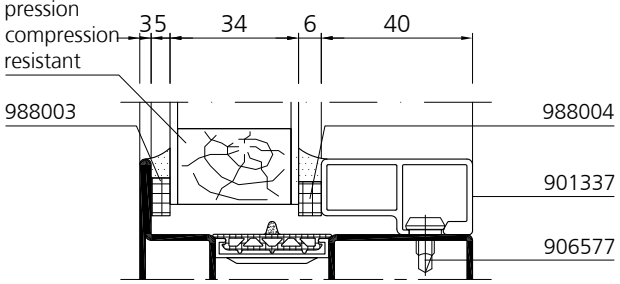
Druckfest résistant à la pression compression resistant



Druckfest résistant à la pression compression resistant

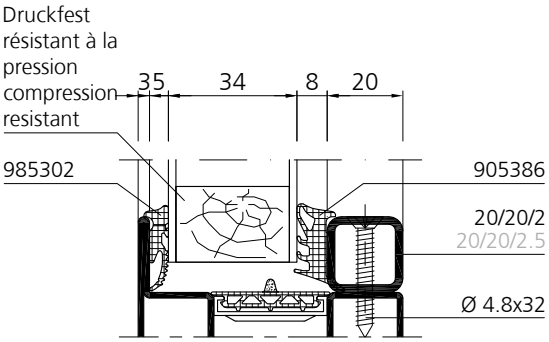


Druckfest résistant à la pression compression resistant

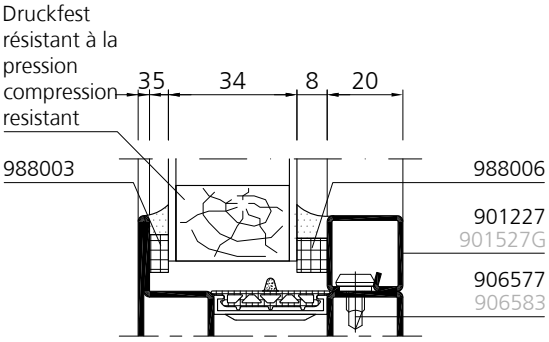


Festfeld / vitrage fixe / fixed screen

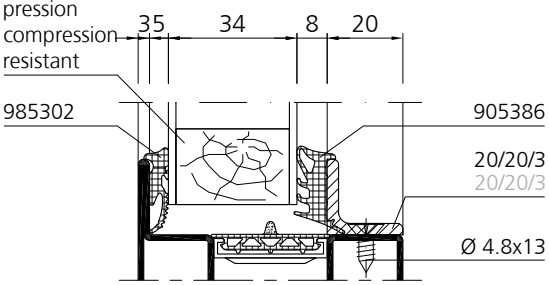
Druckfest résistant à la pression compression resistant



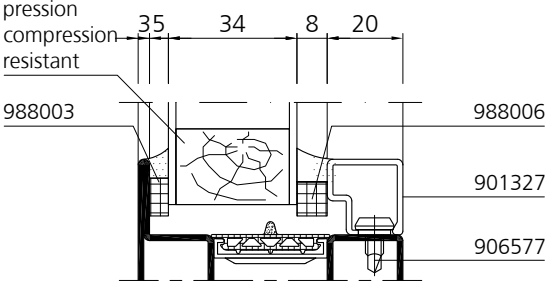
Druckfest résistant à la pression compression resistant



Druckfest résistant à la pression compression resistant

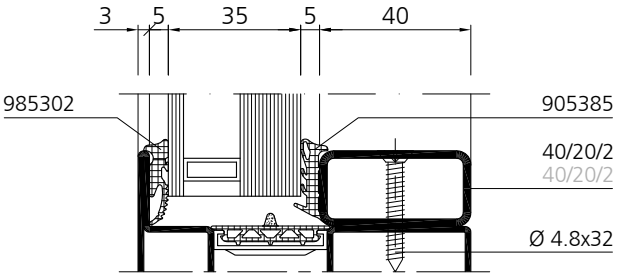


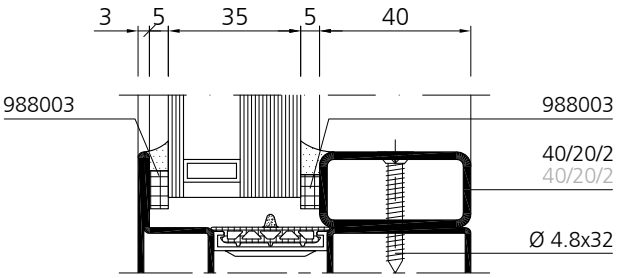
Druckfest résistant à la pression compression resistant

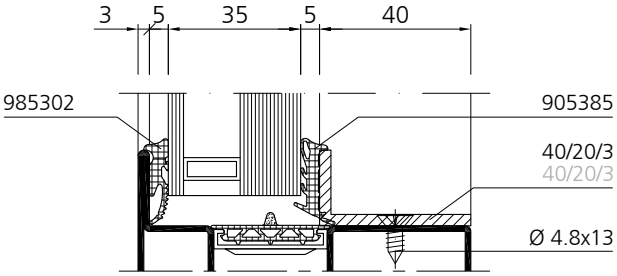


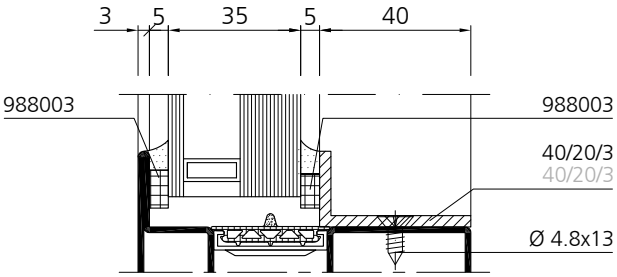
Verglasungsvarianten Glas
Variantes de vitrage Verre
Glazing options Glass

Flügel / vantail / leaf

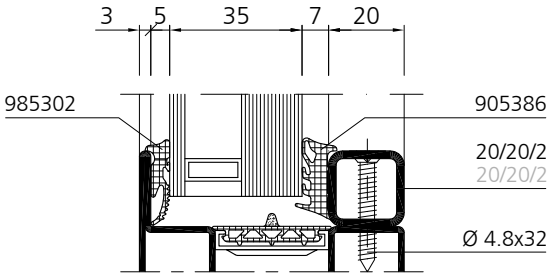


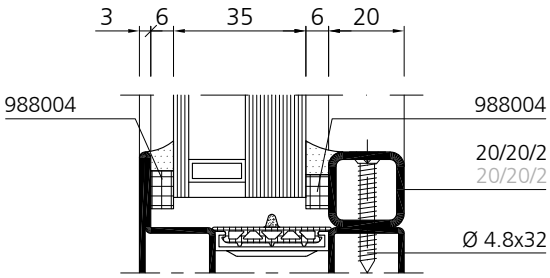


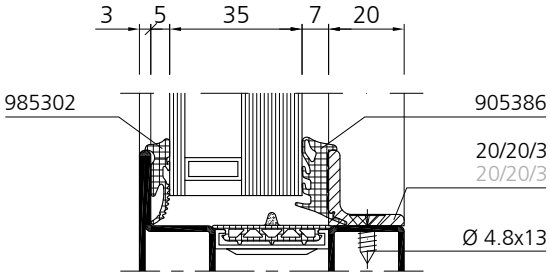


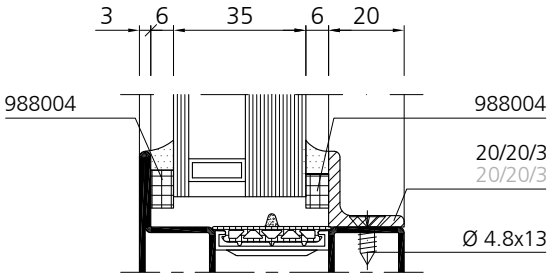


Festfeld / vitrage fixe / fixed screen



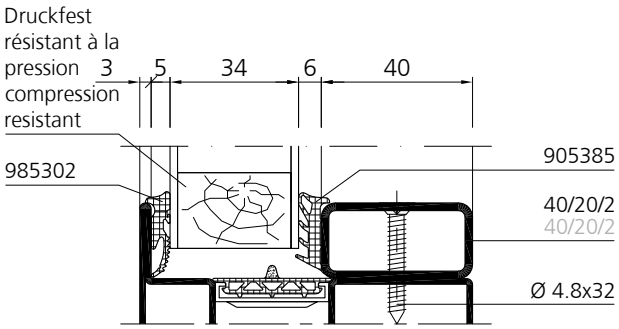


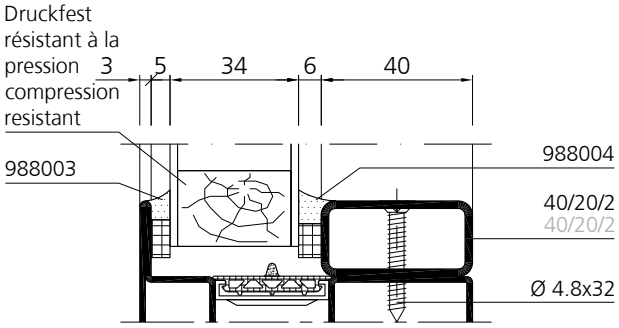


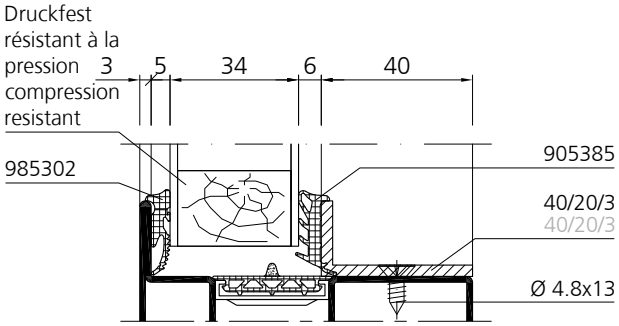


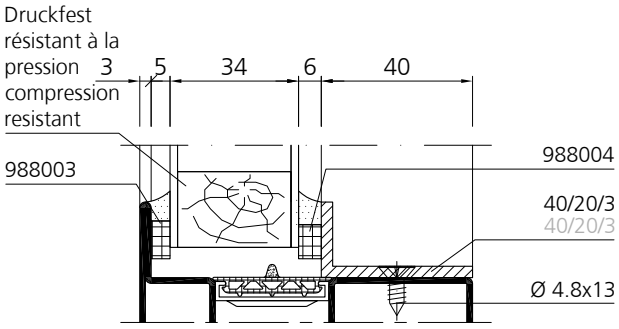
Verglasungsvarianten Paneel
Variantes de vitrage Panneau
Glazing options Panel

Flügel / vantail / leaf

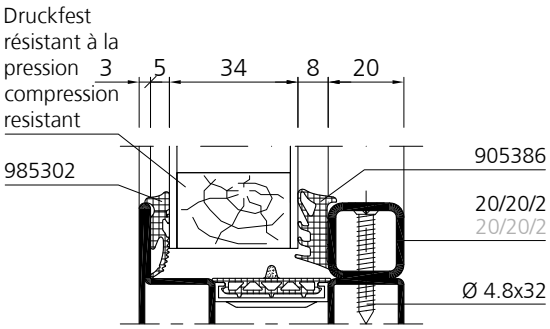


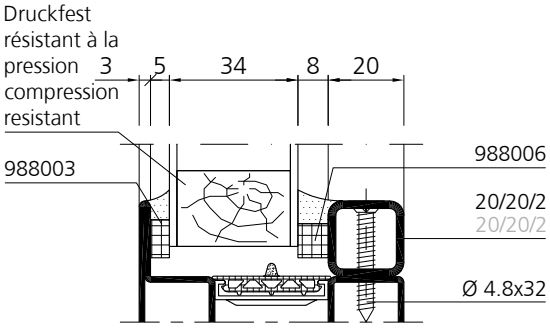


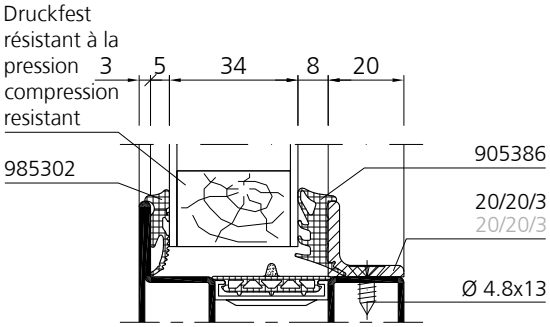


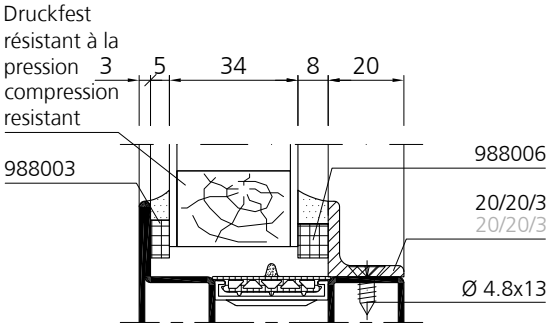


Festfeld / vitrage fixe / fixed screen





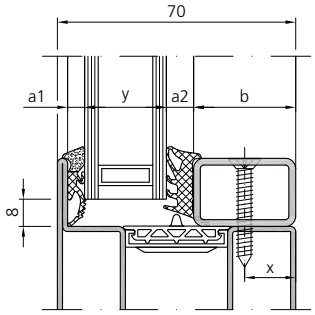




Trockenverglasung Bautiefe 70

Vitrage à sec Profondeur 70

Dry glazing Depth 70



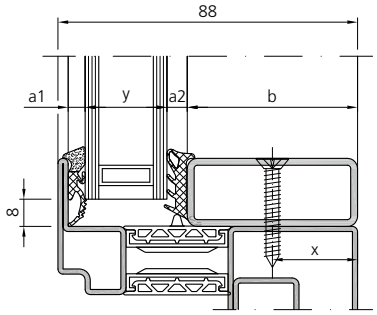
Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No.	Aussendichtung Joint extérieur Outer weatherstr. 985302 a1 = 5 [mm]	Innendichtung Joint intérieur Inner weatherstripping 905385 a2 = 5-6 [mm]	905386 a2 = 7-8 [mm]	905387 a2 = 9-10 [mm]	Bohrmass x Trusquinage x Hole distance x
			y [mm]			
20 - 22	35x20x2	5 [mm]	**22** **21**	**20** -	- -	18 [mm]
22 - 27	901206* 30x20x2		**27** **26**	**25** **24**	**23** **22**	10 [mm] 15 [mm]
27 - 32	901205* 25x20x2		**32** **31**	**30** **29**	**28** **27**	10 [mm] 13 [mm]
32 - 37	901204 20x20x2		**37** **36**	**35** **34**	**33** **32**	10 [mm]
37 - 42	20x15x2		**42** **41**	**40** **39**	**38** **37**	8 [mm]
42 - 47	20x10x2		**47** **46**	**45** **44**	**43** **42**	5 [mm]

* auf Anfrage / sur demande / on request

Trockenverglasung
Bautiefe 88

Vitrage à sec
Profondeur 88

Dry glazing
Depth 88



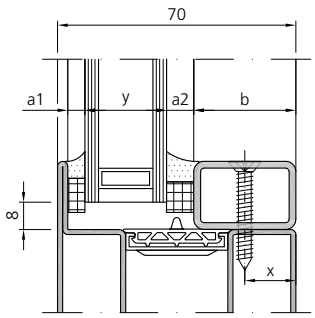
Glas-dicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No.	Aussendichtung Joint extérieur Outer weatherstr. 985302 a1 = 5 [mm]	Innendichtung Joint intérieur Inner weatherstripping 905385 a2 = 5-6 [mm]	905386 a2 = 7-8 [mm]	905387 a2 = 9-10 [mm]	y [mm]						Bohr-mass x Trusqui-nage x Hole dis-tance x
20 - 25	b = 50 50x20x2	5 [mm]				**25**	**24**	**23**	**22**	**21**	**20**	25 [mm]
25 - 30	b = 45 45x20x2					**30**	**29**	**28**	**27**	**26**	**25**	23 [mm]
30 - 35	b = 40 40x20x2					**35**	**34**	**33**	**32**	**31**	**30**	20 [mm]
35 - 40	b = 35 35x20x2					**40**	**39**	**38**	**37**	**36**	**35**	18 [mm]
40 - 45	b = 30 b = 30 901206* 30x20x2					**45**	**44**	**43**	**42**	**41**	**40**	10 [mm] 15 [mm]
45 - 50	b = 25 b = 25 901205* 25x20x2					**50**	**49**	**48**	**47**	**46**	**45**	10 [mm] 13 [mm]
50 - 55	b = 20 b = 20 901204 20x20x2					**55**	**54**	**53**	**52**	**51**	**50**	10 [mm]
55 - 60	b = 15 20x15x2					**60**	**59**	**58**	**57**	**56**	**55**	8 [mm]
60 - 65	b = 10 20x10x2					**65**	**64**	**63**	**62**	**61**	**60**	5 [mm]

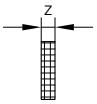
* auf Anfrage / sur demande / on request

Nassverglasung
Bautiefe 70

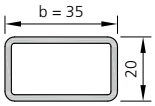
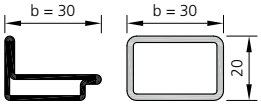
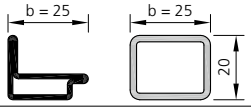
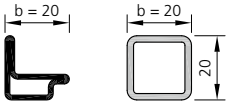
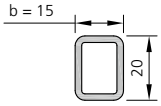
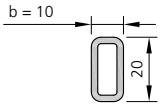
Vitrage à silicone
Profondeur 70

Wet glazing
Depth 70





z	Art. Nr.:
4 [mm]	988002
5 [mm]	988003
6 [mm]	988004
8 [mm]	988006

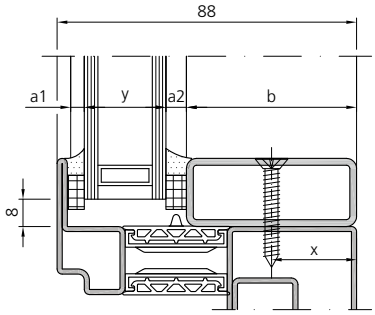
Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No.	Vorlegeband Bande de vitrage Glazing tape a1 = 5 [mm] a2 = 5 [mm]	a1 = 5 [mm] a2 = 6 [mm]	a1 = 6 [mm] a2 = 6 [mm]	a1 = 5 [mm] a2 = 8 [mm]	a1 = 6 [mm] a2 = 8 [mm]	Bohrmass x Trusquinage x Hole distance x
		y [mm]					
20 - 22	 35x20x2	**22**	**21**	**20**	**-**	**-**	13 [mm]
23 - 27	 901206* 30x20x2	**27**	**26**	**25**	**24**	**23**	10 [mm] 13 [mm]
28 - 32	 901205* 25x20x2	**32**	**31**	**30**	**29**	**28**	10 [mm] 13 [mm]
33 - 37	 901204 20x20x2	**37**	**36**	**35**	**34**	**33**	10 [mm]
38 - 42	 20x15x2	**42**	**41**	**40**	**39**	**38**	8 [mm]
43 - 47	 20x10x2	**47**	**46**	**45**	**44**	**43**	16 [mm]

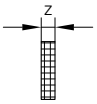
* auf Anfrage / sur demande / on request

Nassverglasung
Bautiefe 88

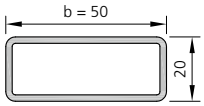
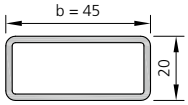
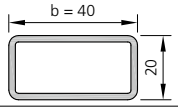
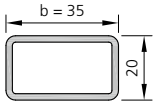
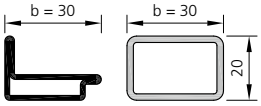
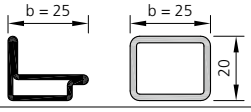
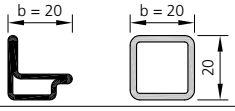
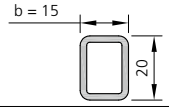
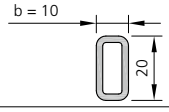
Vitrage à silicone
Profondeur 88

Wet glazing
Depth 88





z	Art. Nr.:
4 [mm]	988002
5 [mm]	988003
6 [mm]	988004
8 [mm]	988006

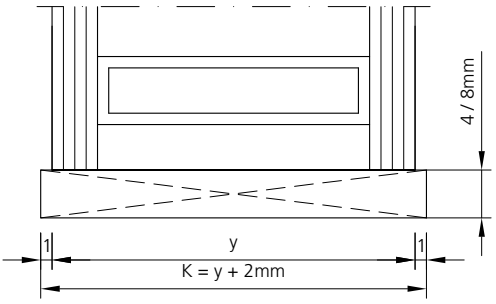
Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No.	Vorlegeband Bande de vitrage Glazing tape a1 = 5 [mm] a2 = 5 [mm]	a1 = 5 [mm] a2 = 6 [mm]	a1 = 6 [mm] a2 = 6 [mm]	a1 = 5 [mm] a2 = 8 [mm]	a1 = 6 [mm] a2 = 8 [mm]	Bohrmass x Trusquinage x Hole distance x
		y [mm]					
21 - 25	 50x20x2	**25**	**24**	**23**	**22**	**21**	25 [mm]
26 - 30	 45x20x2	**30**	**29**	**28**	**27**	**26**	23 [mm]
31 - 35	 40x20x2	**35**	**34**	**33**	**32**	**31**	20 [mm]
36 - 40	 35x20x2	**40**	**39**	**38**	**37**	**36**	18 [mm]
41 - 45	 901206* 30x20x2	**45**	**44**	**43**	**42**	**41**	10 [mm] 15 [mm]
46 - 50	 901205* 25x20x2	**50**	**49**	**48**	**47**	**46**	10 [mm] 13 [mm]
51 - 55	 901204 20x20x2	**55**	**54**	**53**	**52**	**51**	10 [mm]
56 - 60	 20x15x2	**60**	**59**	**58**	**57**	**56**	8 [mm]
61 - 65	 20x10x2	**65**	**64**	**63**	**62**	**61**	5 [mm]

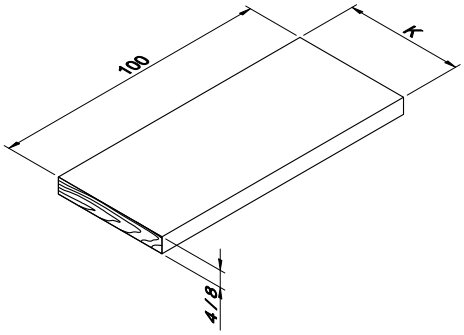
* auf Anfrage / sur demande / on request

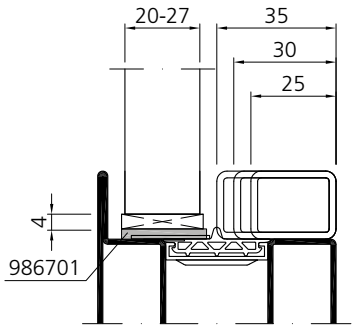
Verglasungsvarianten Bautiefe 70

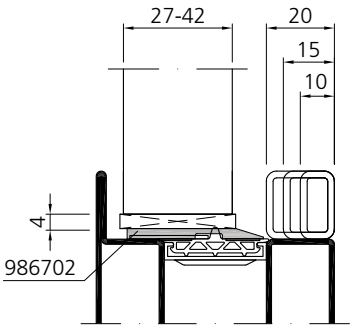
Variantes de vitrage Profondeur 70

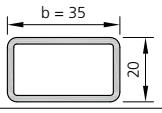
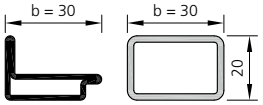
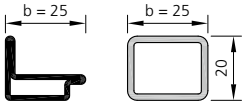
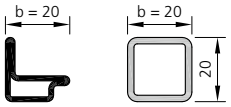
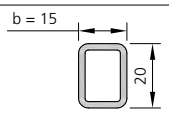
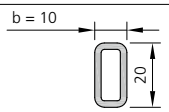
Glazing options Depth 70









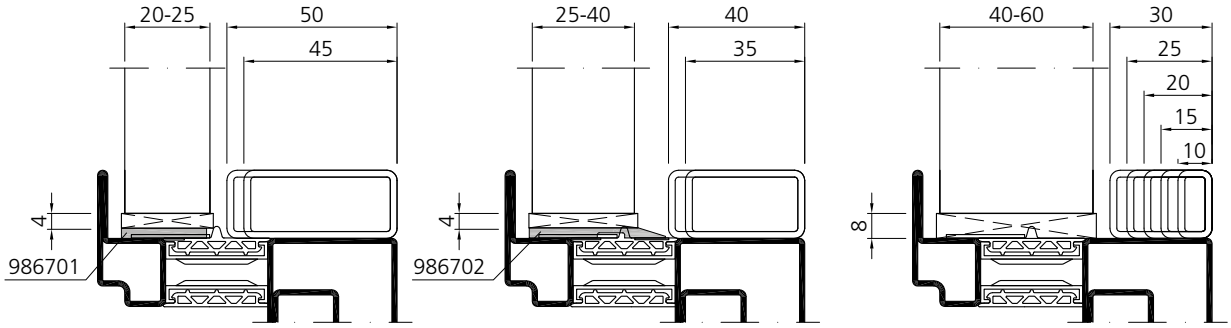
Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No.	Glasfalzbrücke Pont feuillure en verre Glass rebate bridge Art. No.	Verglasungsklotz 4 [mm] Mass K Cale de vitrage 4 [mm] Cote K Glazing block 4 [mm] Size K
20 - 22	 35x20x2	 986701	**22 - 24**
22 - 27	 901206* 30x20x2	 986701	**24 - 29**
27 - 32	 901205* 25x20x2	 986701	**29 - 34**
32 - 37	 901204 20x20x2	 986702	**34 - 39**
37 - 42	 20x15x2	 986702	**39 - 44**
42 - 47	 20x10x2	 986702	**44 - 49**

* auf Anfrage / sur demande / on request

Verglasungsvarianten Bautiefe 88

Variantes de vitrage Profondeur 88

Glazing options Depth 88



Glas-dicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl/Edelstahl Parclose acier/acier inox Glazing beads steel/stainless steel Stahl / Acier / Steel: No.	Glasfalzbrücke Pont feuillure en verre Glass rebate bridge Art. No.	Verglas-ungsklotz 4 [mm] Mass K Cale de vitrage 4 [mm] Cote K Glazing block 4 [mm] Size K	Verglas-ungsklotz 8 [mm] Mass K Cale de vitrage 8 [mm] Cote K Glazing block 8 [mm] Size K
20 - 25	b = 50 / 20 — 50x20x2	986701	**22 - 27**	
25 - 30	b = 45 / 20 — 45x20x2	986701	**27 - 32**	
30 - 35	b = 40 / 20 — 40x20x2	986702	**32 - 37**	
35 - 40	b = 35 / 20 — 35x20x2	986702	**37 - 42**	
40 - 45	b = 30, b = 30 / 20 — 901206* 30x20x2			**42 - 47**
45 - 50	b = 25, b = 25 / 20 — 901205* 25x20x2			**47 - 52**
50 - 55	b = 20, b = 20 / 20 — 901204 20x20x2			**52 - 57**
55 - 60	b = 15 / 20 — 20x15x2			**57 - 62**
60 - 65	b = 10 / 20 — 20x10x2			**62 - 67**

* auf Anfrage / sur demande / on request



Bermondsey Street, GB-London

Verarbeitung Zubehör
Mise en œuvre accessoires
Assembly accessories

VUF 01/19

Montagebescheinigung nach EN 1627

Firma: _____

Anschrift: _____

_____

bescheinigt, dass nachstehend aufgeführte einbruchhemmende Bauteile entsprechend den Vorgaben des Antragstellers (Einbauanleitung als Anlage zum Prüfzeugnis)

im Objekt: _____

Anschrift: _____

_____

eingebaut wurden.

Stück	Lage im Objekt	Widerstandsklasse	Besondere Angaben

…….. (Datum) …….. (Stempel) …….. (Unterschrift)

Attestation de montage selon EN 1627

La société: _____

Coordonnées: _____

_____

certifie que les composants anti-effraction énumérés ci-dessous ont été montés conformément aux instructions du demandeur (instructions de montage jointes au certificat de contrôle)

dans l'objet: _____

sis: _____

_____

Pièces	Situation dans de bâtiment	Classe de résistance	Remarques

…….. (Date) …….. (Cachet) …….. (Signature)

Installation certification in compliance with EN 1627

Company: _____

Address: _____

_____

confirms that the following listed burglar-resistant structural members have been fitted in accordance with the instructions of the applicant (fitting instructions as an appendix to the test certificate)

In the structure: _____

Address: _____

_____

Quantity	Position in building	Resistance class	Particular information

…….. (Date) …….. (Stamp) …….. (Signature)

Werksbescheinigung
Einbruchhemmendes Bauteil "forster unico"
Fenster EN 1627 – WK1

Die Firma: _____

Anschrift: _____

_____

bestätigt hiermit, dass das aus ihrer Produktion stammende Bauteil des Systems Forster unico dem

Kurzbericht Nr. 08/03 - A062-K1 vom 6.2.2009,

ausgestellt durch das Prüfzentrum für Bauelemente, DE-83071 Stephanskirchen (bei Rosenheim),

- ❑ entspricht. [1)]
- ❑ mit Abweichungen entspricht. [1)]

1) zutreffendes ankreuzen

Die Abweichungen sind durch gutachtliche Stellungnahme

Nr. _____ vom _____

der Prüfstelle _____

für zulässig erklärt worden.

Die Konformität des gelieferten Fensters mit den Bestimmungen der Norm EN 1627-WK1 wird bestätigt durch Eigenverantwortung des Herstellers.

Das Element wurde (Herstelljahr) _____ gefertigt. Ein Kurzbericht kann auf Anforderung als Kopie zur Verfügung gestellt werden.

_____ _____

(Ort) (Datum)

(Firmenstempel)

_____

(Rechtsverbindliche Unterschrift)

Certificat de conformité
Composant anti-effraction "forster unico"
Fenêtre EN 1627 – CR1

La société: _____

Coordonnées: _____

_____

confirme par la présente que le composant du système Forster unico issu de sa production

- ❑ correspond. [1)]
- ❑ correspond avec des écarts. [1)]

1) cocher la mention utile

au rapport succint no 08/03 - A062-K1 de 6.2.2009,

du laboratoire d'essais Prüfzentrum für Bauelemente, DE-83071 Stephanskirchen (bei Rosenheim).

Les écarts ont été déclarés recevables par le rapport d'expertise

no _____ du _____

du centre de contôle _____

La conformité de la Fenêtre livrée avec les dispositions de la norme EN 1627-CR1 est confirmée par la responsabilité engageant le fabricant.

L'élément a été fabriqué en (Année de production) _____. Un rapport succinct peut être mis à disposition sur simple demande sous forme de duplicata.

_____ _____

(Lieu) (Date)

(Cachet de l'entreprise)

_____

(Signature contractuelle)

Works certification
Burglar resistant element "forster unico"
Window EN 1627 – RC1

The company: _____

Postal address: _____

_____

herewith confirms that the structural component from its production belonging to system Forster unico

- ❑ complies with. [1)]
- ❑ complies, albeit with deviations, with. [1)]

1) mark the applicable

Abridged report no. 08/03 - A062-K1 from 6.2.2009,

issued by Prüfzentrum für Bauelemente, DE-83071 Stephanskirchen (bei Rosenheim),

The deviations have been declared as being permissible by expert opinion

No. _____ from _____

of test centre _____

The conformity of the supplied window with the requirements of Norm EN 1627-RC1 is confirmed independently by the manufacturer.

The element was manufactured in (year of manufacture) _____ . An abridged report can be made available on request as a copy.

_____ _____

(Town) (Date)

(Company stamp)

_____

(Legally-binding signature)

Montagebescheinigung nach EN 1627

Firma: _____

Anschrift: _____

_____

bescheinigt, dass nachstehend aufgeführte einbruchhemmende Bauteile entsprechend den Vorgaben des Antragstellers (Einbauanleitung als Anlage zum Prüfzeugnis)

im Objekt: _____

Anschrift: _____

_____

eingebaut wurden.

Stück	Lage im Objekt	Widerstandsklasse	Besondere Angaben

…….. (Datum) …….. (Stempel) …….. (Unterschrift)

Attestation de montage selon EN 1627

La société: _____

Coordonnées: _____

_____

certifie que les composants anti-effraction énumérés ci-dessous ont été montés conformément aux instructions du demandeur (instructions de montage jointes au certificat de contrôle)

dans l'objet: _____

sis: _____

_____

Pièces	Situation dans de bâtiment	Classe de résistance	Remarques

…….. (Date) …….. (Cachet) …….. (Signature)

Installation certification in compliance with EN 1627

Company: _____

Address: _____

_____

confirms that the following listed burglar-resistant structural members have been fitted in accordance with the instructions of the applicant (fitting instructions as an appendix to the test certificate)

In the structure: _____

Address: _____

_____

Quantity	Position in building	Resistance class	Particular information

…….. (Date) …….. (Stamp) …….. (Signature)

Werksbescheinigung
Einbruchhemmendes Bauteil "forster unico"
Fenster EN 1627 – RC2

Die Firma: _____

Anschrift: _____

_____

bestätigt hiermit, dass das aus ihrer Produktion stammende Bauteil des Systems Forster unico dem

Kurzbericht Nr. 08/03 - A062-K2 vom 6.2.2009,

ausgestellt durch das Prüfzentrum für Bauelemente, DE-83071 Stephanskirchen (bei Rosenheim),

- ❑ entspricht. [1)]
- ❑ mit Abweichungen entspricht. [1)]

1) zutreffendes ankreuzen

Die Abweichungen sind durch gutachtliche Stellungnahme

Nr. _____ vom _____

der Prüfstelle _____

für zulässig erklärt worden.

Die Konformität des gelieferten Fensters mit den Bestimmungen der Norm EN 1627-RC2 wird bestätigt durch Eigenverantwortung des Herstellers.

Das Element wurde (Herstelljahr) _____ gefertigt. Ein Kurzbericht kann auf Anforderung als Kopie zur Verfügung gestellt werden.

_____ _____

(Ort) (Datum)

(Firmenstempel)

_____

(Rechtsverbindliche Unterschrift)

Certificat de conformité
Composant anti-effraction "forster unico"
Fenêtre EN 1627 – RC2

La société: _____

Coordonnées: _____

_____

confirme par la présente que le composant du système Forster unico issu de sa production

- ❑ correspond. [1)]
- ❑ correspond avec des écarts. [1)]

1) cocher la mention utile

au rapport succint no 08/03 - A062-K2 de 6.2.2009,

du laboratoire d'essais Prüfzentrum für Bauelemente, DE-83071 Stephanskirchen (bei Rosenheim).

Les écarts ont été déclarés recevables par le rapport d'expertise

no _____ du _____

du centre de contôle _____

La conformité de la fenêtre livrée avec les dispositions de la norme EN 1627-RC2 est confirmée par la responsabilité engageant le fabricant.

L'élément a été fabriqué en (Année de production) _____. Un rapport succinct peut être mis à disposition sur simple demande sous forme de duplicata.

_____ _____

(Lieu) (Date)

(Cachet de l'entreprise)

_____

(Signature contractuelle)

Works certification
Burglar resistant element "forster unico"
Window EN 1627 – RC2

The company: _____

Postal address: _____

_____

herewith confirms that the structural component from its production belonging to system Forster unico

- ❑ complies with. [1)]
- ❑ complies, albeit with deviations, with. [1)]

1) mark the applicable

Abridged report no. 08/03 - A062-K2 from 6.2.2009,

issued by Prüfzentrum für Bauelemente, DE-83071 Stephanskirchen (bei Rosenheim),

The deviations have been declared as being permissible by expert opinion

No. _____ from _____

of test centre _____

The conformity of the supplied window with the requirements of Norm EN 1627-RC2 is confirmed independently by the manufacturer.

The element was manufactured in (year of manufacture) _____ . An abridged report can be made available on request as a copy.

_____ _____

(Town) (Date)

(Company stamp)

_____

(Legally-binding signature)

Montagebescheinigung nach EN 1627

Firma: _____

Anschrift: _____

_____

bescheinigt, dass nachstehend aufgeführte einbruchhemmende Bauteile entsprechend den Vorgaben des Antragstellers (Einbauanleitung als Anlage zum Prüfzeugnis)

im Objekt: _____

Anschrift: _____

_____

eingebaut wurden.

Stück	Lage im Objekt	Widerstandsklasse	Besondere Angaben

…….. (Datum) …….. (Stempel) …….. (Unterschrift)

VUF 01/19

Attestation de montage selon EN 1627

La société: _____

Coordonnées: _____

_____

certifie que les composants anti-effraction énumérés ci-dessous ont été montés conformément aux instructions du demandeur (instructions de montage jointes au certificat de contrôle)

dans l'objet: _____

sis: _____

_____

Pièces	Situation dans de bâtiment	Classe de résistance	Remarques

…….. (Date) …….. (Cachet) …….. (Signature)

Installation certification in compliance with EN 1627

Company: _____

Address: _____

_____

confirms that the following listed burglar-resistant structural members have been fitted in accordance with the instructions of the applicant (fitting instructions as an appendix to the test certificate)

In the structure: _____

Address: _____

_____

Quantity	Position in building	Resistance class	Particular information

…….. …….. ……..

(Date) **(Stamp)** **(Signature)**

Werksbescheinigung
Einbruchhemmendes Bauteil "forster unico"
Fenster EN 1627 – RC3

Die Firma: _____

Anschrift: _____

_____

bestätigt hiermit, dass das aus ihrer Produktion stammende Bauteil des Systems Forster unico dem

Kurzbericht Nr. 08/03 - A062-K3 vom 6.2.2009,

ausgestellt durch das Prüfzentrum für Bauelemente, DE-83071 Stephanskirchen (bei Rosenheim),

- ❑ entspricht. [1)]
- ❑ mit Abweichungen entspricht. [1)]

1) zutreffendes ankreuzen

Die Abweichungen sind durch gutachtliche Stellungnahme

Nr. _____ vom _____

der Prüfstelle _____

für zulässig erklärt worden.

Die Konformität des gelieferten Fenster mit den Bestimmungen der Norm EN 1627-RC3 wird bestätigt durch Eigenverantwortung des Herstellers.

Das Element wurde (Herstelljahr) _____ gefertigt. Ein Kurzbericht kann auf Anforderung als Kopie zur Verfügung gestellt werden.

_____ _____

(Ort) (Datum)

(Firmenstempel)

_____

(Rechtsverbindliche Unterschrift)

Certificat de conformité
Composant anti-efraction "forster unico"
Fenêtre EN 1627 – RC3

La société: _____

Coordonnées: _____

_____

confirme par la présente que le composant du système Forster unico issu de sa production

- ❑ correspond. [1)]
- ❑ correspond avec des écarts. [1)]

1) cocher la mention utile

au rapport succint no 08/03 - A062-K3 de 6.2.2009,

du laboratoire d'essais Prüfzentrum für Bauelemente, DE-83071 Stephanskirchen (bei Rosenheim).

Les écarts ont été déclarés recevables par le rapport d'expertise

no _____ du _____

du centre de contôle _____

La conformité de la fenêre livrée avec les dispositions de la norme EN 1627-RC3 est confirmée par la responsabilité engageant le fabricant.

L'élément a été fabriqué en (Année de production) _____. Un rapport succinct peut être mis à disposition sur simple demande sous forme de duplicata.

_____ _____

(Lieu) (Date)

(Cachet de l'entreprise)

_____

(Signature contractuelle)

Works certification
Burglar resistant element "forster unico"
Windows EN 1627 – RC3

The company: _____

Postal address: _____

_____

herewith confirms that the structural component from its production belonging to system Forster unico

- ❑ complies with. [1)]
- ❑ complies, albeit with deviations, with. [1)]

1) mark the applicable

Abridged report no. 08/03 - A062-K3 from 6.2.2009,

issued by Prüfzentrum für Bauelemente, DE-83071 Stephanskirchen (bei Rosenheim),

The deviations have been declared as being permissible by expert opinion

No. _____ from _____

of test centre _____

The conformity of the supplied window with the requirements of Norm EN 1627-RC3 is confirmed independently by the manufacturer.

The element was manufactured in (year of manufacture) _____ . An abridged report can be made available on request as a copy.

_____ _____

(Town) (Date)

(Company stamp)

_____

(Legally-binding signature)

10

Durchschusshemmende Fenster FB4 NS

Systemübersicht	10.1.1 - 10.1.6
Zubehör	10.2.1 - 10.2.4
Anwendungszeichnungen	10.3.1 - 10.3.24
Verarbeitung Profile	10.4.1 - 10.4.8
Einbau Beschläge	10.5.1 - 10.5.4

Fenêtres pare-balles FB4 NS

Tableau du système	10.1.1 - 10.1.6
Profilés	10.2.1 - 10.2.4
Coupes et plans	10.3.1 - 10.3.24
Mise en œuvre profilés	10.4.1 - 10.4.8
Mise en œuvre quincaillerie	10.5.1 - 10.5.4

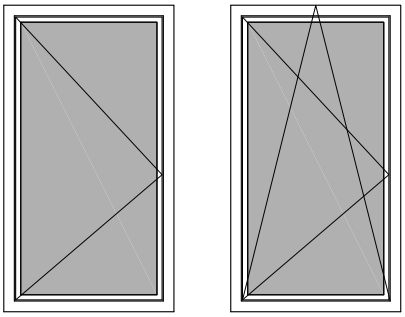
Bullet resistant windows FB4 NS

Synopsis of system	10.1.1 - 10.1.6
Profiles	10.2.1 - 10.2.4
Sections and plans	10.3.1 - 10.3.24
Processing profiles	10.4.1 - 10.4.8
Processing fittings	10.5.1 - 10.5.4

Systemübersicht Durchschusshemmung

Tableau de synthèse Résistance aux balles

Synopsis of system Bullet resistance

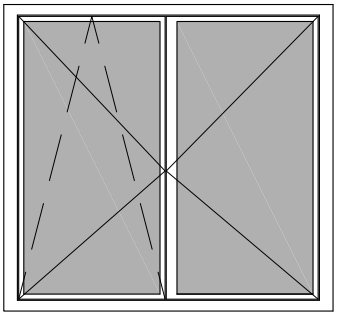


Einsatzbereich / Domaine d'application / Area of application

FFB: 290 - 1400 [mm]
FFH: 520 - 2400 [mm]

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side

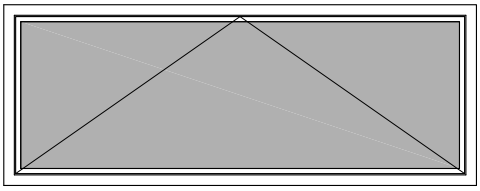


Einsatzbereich / Domaine d'application / Area of application

FFB: 290 - 1400 [mm]
FFH: 750 - 2400 [mm]
SFB: 310 - 1400 [mm]
SFH: 750 - 2400 [mm]

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side

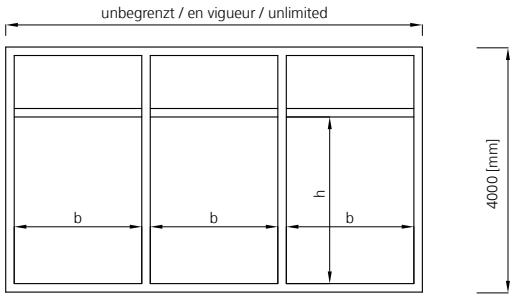


Einsatzbereich / Domaine d'application / Area of application

FFB: 520 - 2400 [mm]
FFH: 350 - 1200 [mm]

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side



Einsatzbereich / Domaine d'application / Area of application

b_{max} x h_{max}: 2200 [mm] x 3500 [mm] A_{max} 7.7 m²
b_{max} x h_{max}: 3500 [mm] x 2200 [mm] A_{max} 7.7 m²

Angriffsseite / Face d'attaque / Attack side

Lappenseite
Coté opposé au parcloses
Stop-side



Profile / Profilés / Profiles

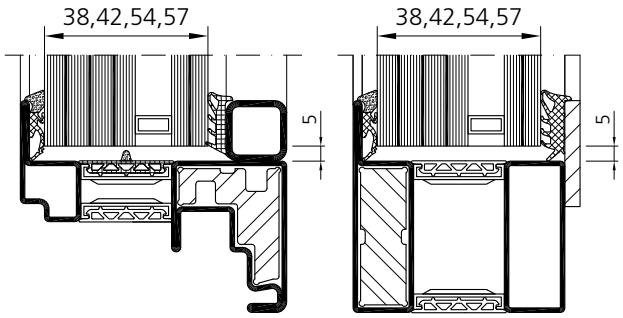
Stahl / Acier / Steel

Edelstahl / acier inox / stainless steel

Systemübersicht Durchschusshemmung

Tableau de synthèse Résistance aux balles

Synopsis of system Bullet resistance



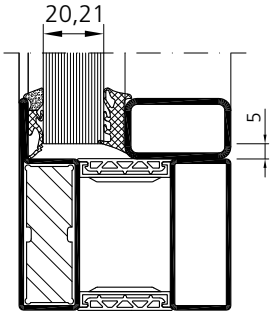
Glastyp Fensterflügel und Festfeld (EN 1063)
Vitrage vantail et partie fixe (EN 1063)
Glasstyp leaf and screens (EN 1063)

Vetrotech, Polygard PRO Climaplus BR4-NS/P8B (ISO)
Dicke / épaisseur / thickness 42 mm, (ESG 6-15-21, Argon)
58 kg / m²

Vetrotech, Vetrogard PRO Climaplus BR4-NS/P7B (ISO)
Dicke / épaisseur / thickness 54 mm (VSG 30-12-VSG 12, Argon)
102 kg / m²

Schott, NOVOLAY secure BR4-NS/15.3.0 (ISO)
Dicke / épaisseur / thickness 38 mm, (ESG 6-12-20, Argon)
56 kg / m²

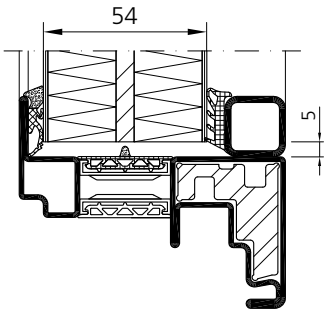
Flachglas, ALLSTOP ISO BR4-NS-22 (ISO)
Dicke / épaisseur / thickness 57 mm (ESG 6-8-VSG 43, Krypton)
123 kg / m²



Glastyp Festfeld (EN 1063)
Vitrage partie fixe (EN 1063)
Glasstyp screens (EN 1063)

Vetrotech, Polygard PRO BR4-NS/P8B (Mono)
Dicke / épaisseur / thickness 21 mm
43 kg / m²

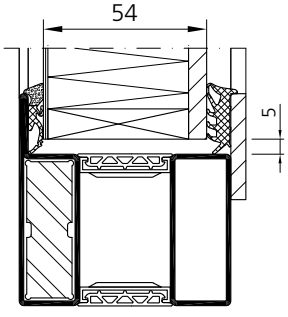
Schott, NOVOLAY secure BR4-NS/15.3.0 (Mono)
Dicke / épaisseur / thickness 20 mm
41 kg / m²



Paneel Fensterflügel / Panneau vantail / Panel leaf

54 mm

1.5 mm	Blech / tôle / sheet metal (Al, Fe, CrNi)
22 mm	Mineralwolle / laine de minéral / mineral wool
6 mm	Stahlblech / tôle en acier / sheet steel
23 mm	Mineralwolle / laine de minéral / mineral wool
1.5 mm	Blech / tôle / sheet metal (Al, Fe, CrNi)



Paneel Festfeld / Panneau partie fixe / Panel screens

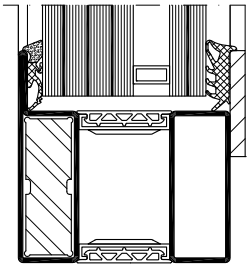
54 mm

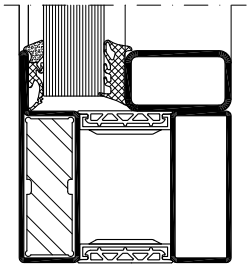
1.5 mm	Blech / tôle / sheet metal (Al, Fe, CrNi)
46.5 mm	Mineralwolle / laine de minérale / mineral wool
6 mm	Stahlblech / tôle en acier / sheet steel

Systemübersicht Durchschusshemmung

Tableau de synthèse Résistance aux balles

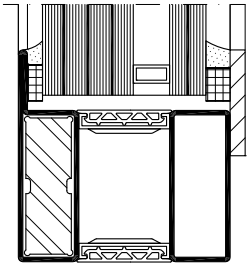
Synopsis of system Bullet resistance

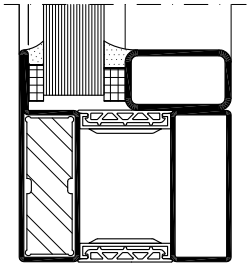




Trockenverglasung Fensterflügel und Festfeld
Vitrage à sec vantail et partie fixe
Dry Glazing leaf and screens

Mit Flach oder Stahlrohr als Glashalteleiste
Parclose avec acier plat ou tubes
With steel plat or tubes as glazing bed

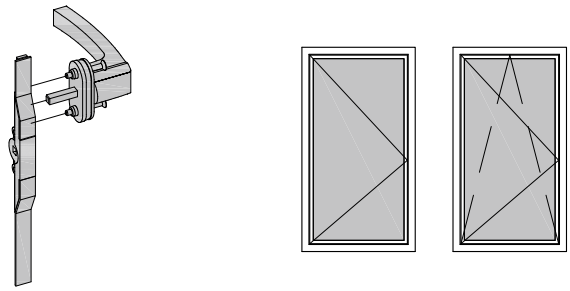
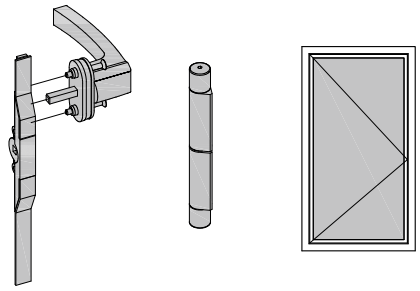
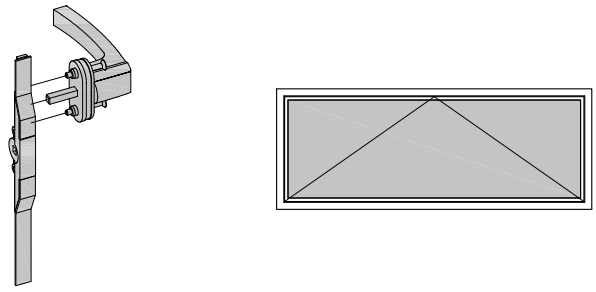
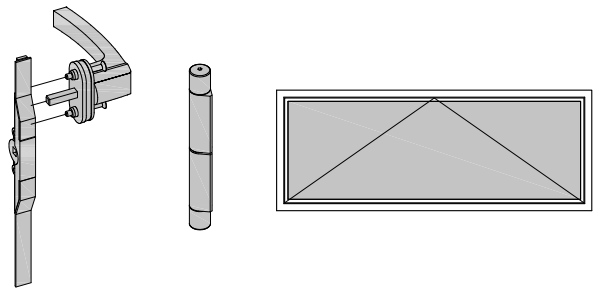




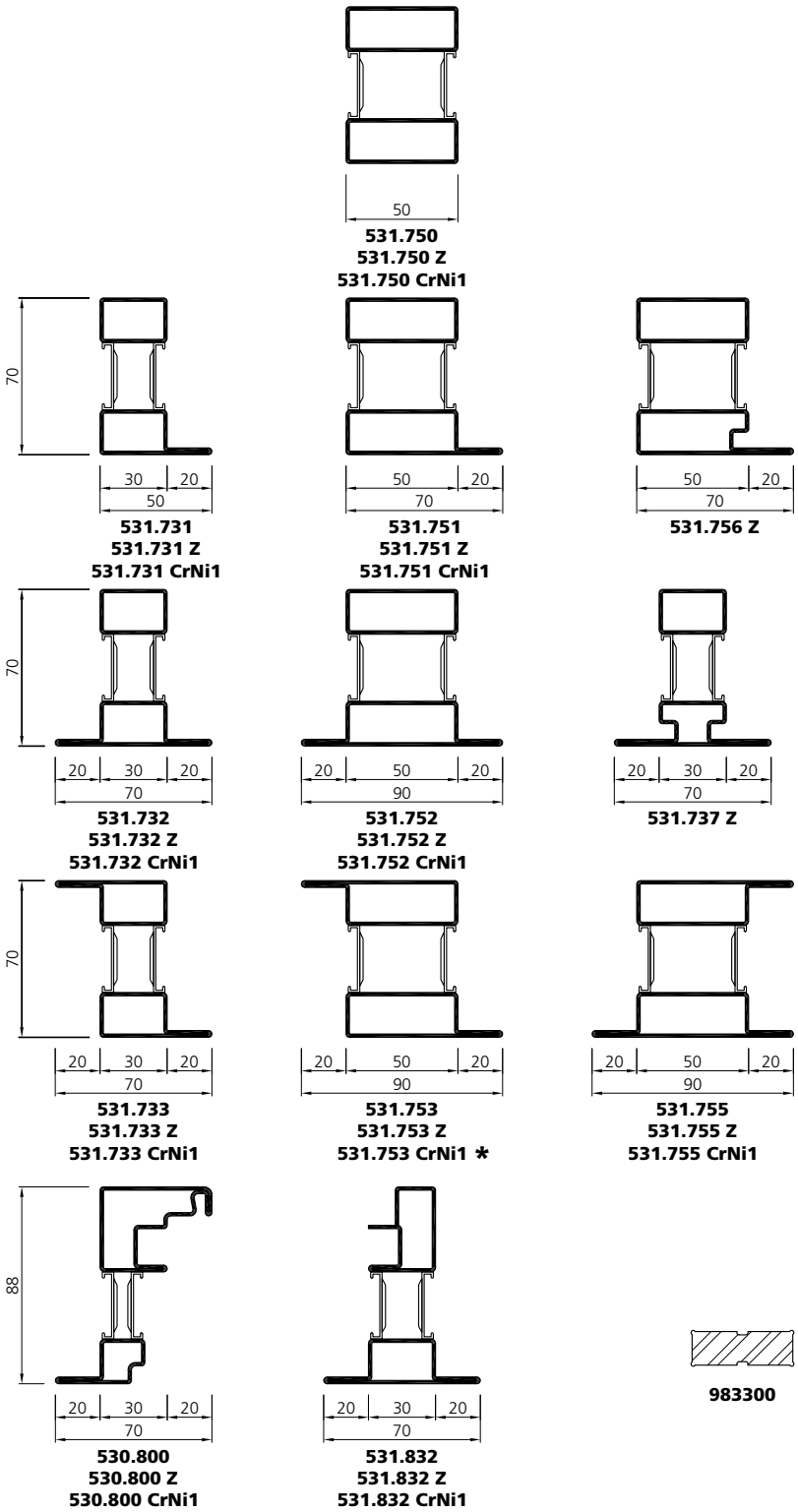
Nassverglasung Fensterflügel und Festfeld
Vitrage à silicone vantail et partie fixe
Wet glazing leaf and sreens

Mit Flach oder Stahlrohr als Glashalteleiste
Parclose avec acier plat ou tubes
With steel plat or tubes as glazing bed

Systemübersicht Durchschusshemmung
Tableau de synthèse Résistance aux balles
Synopsis of system Bullet resistance

	**Beschläge / Quincaillerie fenêtres / Window fittings** **max. 150 [kg]** Forster Standard Systembeschläge Quincaillerie standard du système Forster Forster system fittings
	**Beschläge / Quincaillerie fenêtres / Window fittings** **ab 150 [kg], plus de 150 [kg], from 150 [kg]** Forster Standard Systembeschläge + Anschweissbänder Quincaillerie standard du système Forster + paumelle à souder Forster system fittings + weld-on hinges
	**Beschläge / Quincaillerie fenêtres / Window fittings** **max. 80 [kg]** Forster Standard Systembeschläge Quincaillerie standard du système Forster Forster system fittings
	**Beschläge / Quincaillerie fenêtres / Window fittings** **ab 80 [kg], plus de 80 [kg], from 80 [kg]** Forster Standard Systembeschläge + Anschweissbänder Quincaillerie standard du système Forster + paumelle à souder Forster system fittings + weld-on hinges

Systemübersicht Durchschusshemmung
Tableau du système Résistance aux balles
Synopsis of system Bullet resistance

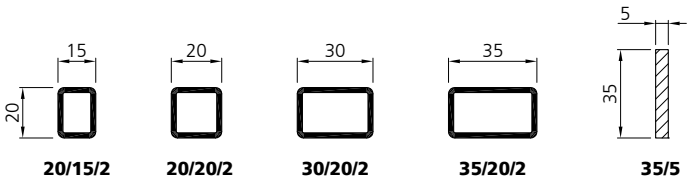


* auf Anfrage
sur demande
on request

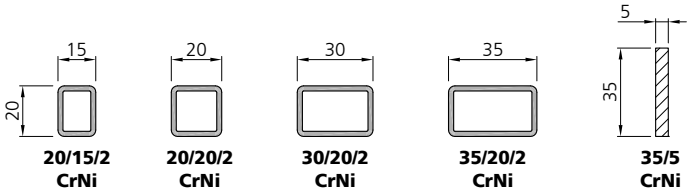
Systemübersicht Durchschusshemmung

Tableau du système Résistance aux balles

Synopsis of system Bullet resistance



20/15/2 **20/20/2** **30/20/2** **35/20/2** **35/5**



20/15/2 CrNi **20/20/2 CrNi** **30/20/2 CrNi** **35/20/2 CrNi** **35/5 CrNi**



985302**
5 mm



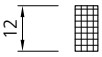
905385
5-6 mm



905386
7-8 mm



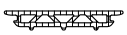
905387
9-10 mm



988002 4 mm
988003 5 mm
988004 6 mm
988006 8 mm



980101



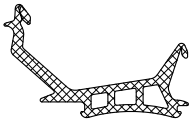
985304**



985305**



985300



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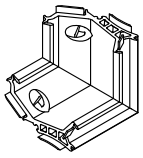

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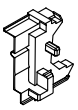

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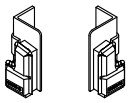

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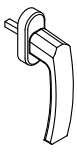
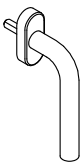


987300



987301



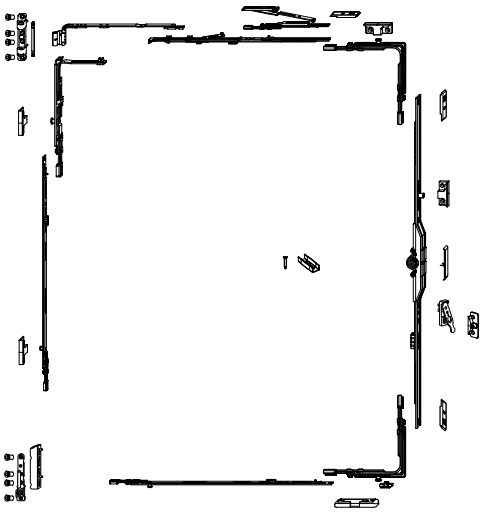
987302



987073



987074

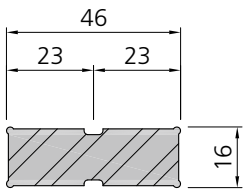
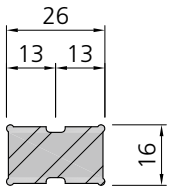
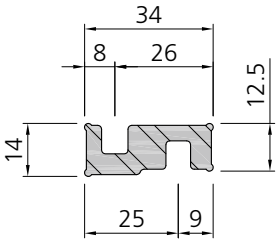
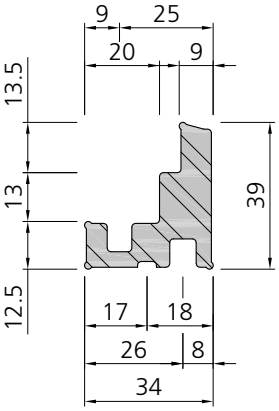


987101 - 987176 **987113C - 987170C**
987900 - 987966 **987911C - 987966C**
987181 - 986186 **987181C - 987192C**

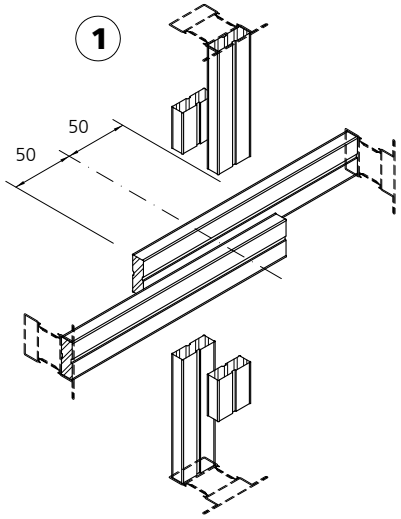
* auf Anfrage
sur demande
on request

** Silikon schwarz, andere Farben auf Anfrage
Silicon noir, autres couleurs sur demande
Silicon black, other colors on request

Zubehör Accessoires Accessories

Abbildung Figure Figure	Bezeichnung Désignation Designation	Verkaufseinheit Unité de vente Sales unit	Art. Nr. art. no. art. no.
	Einschiebling für Tür und Fenster Aluminium Renfort à insérer pour portes et fenêtres Aluminium Reinforcement insert for doors and windows Aluminium	6 m	**983300**
	Einschiebling für Tür und Fenster Aluminium Renfort à insérer pour portes et fenêtres Aluminium Reinforcement insert for doors and windows Aluminium	6 m	**983301**
	Einschiebling für Fenster Aluminium Renfort à insérer pour fenêtres Aluminium Reinforcement insert for windows Aluminium	6 m	**983303**
	Einschiebling für Fenster Aluminium Renfort à insérer pour fenêtres Aluminium Reinforcement insert for windows Aluminium	6 m	**983304**

Positionierung der Einschieblinge (1-flügelig)



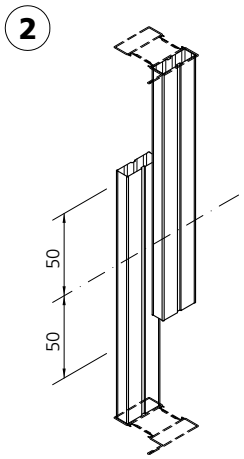
Positions des renforts à insérer (1 vantail)

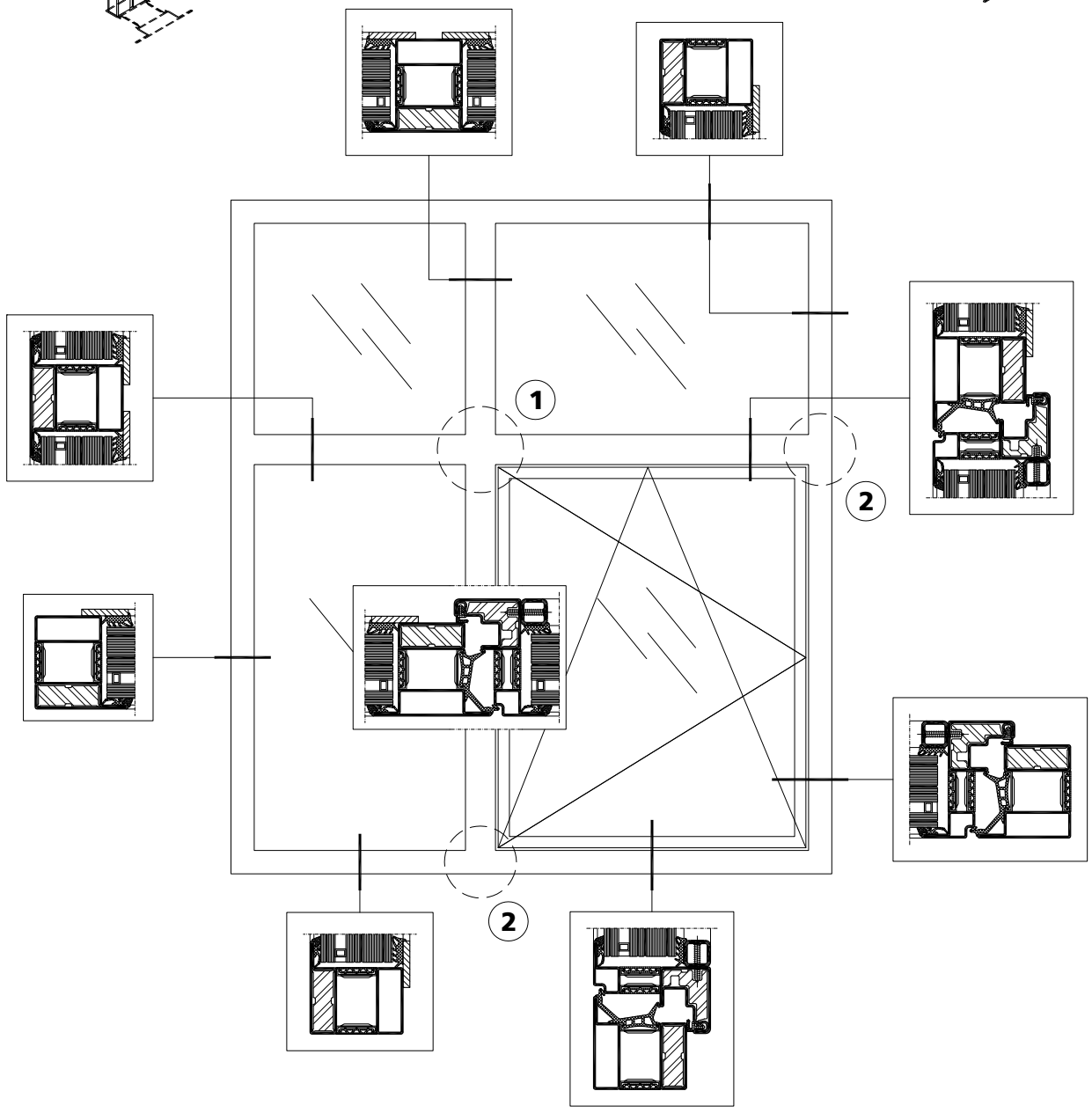
Zuschnitt der Einschieblinge:
Profillänge - 2 mm

Coupe des renforts:
Longueur du profilé - 2 mm

Cutting of reinforcement inserts:
Length of profile - 2 mm

Positioning of reinforcement inserts (1 leaf)





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Positionierung der Einschieblinge (2-flügelig)

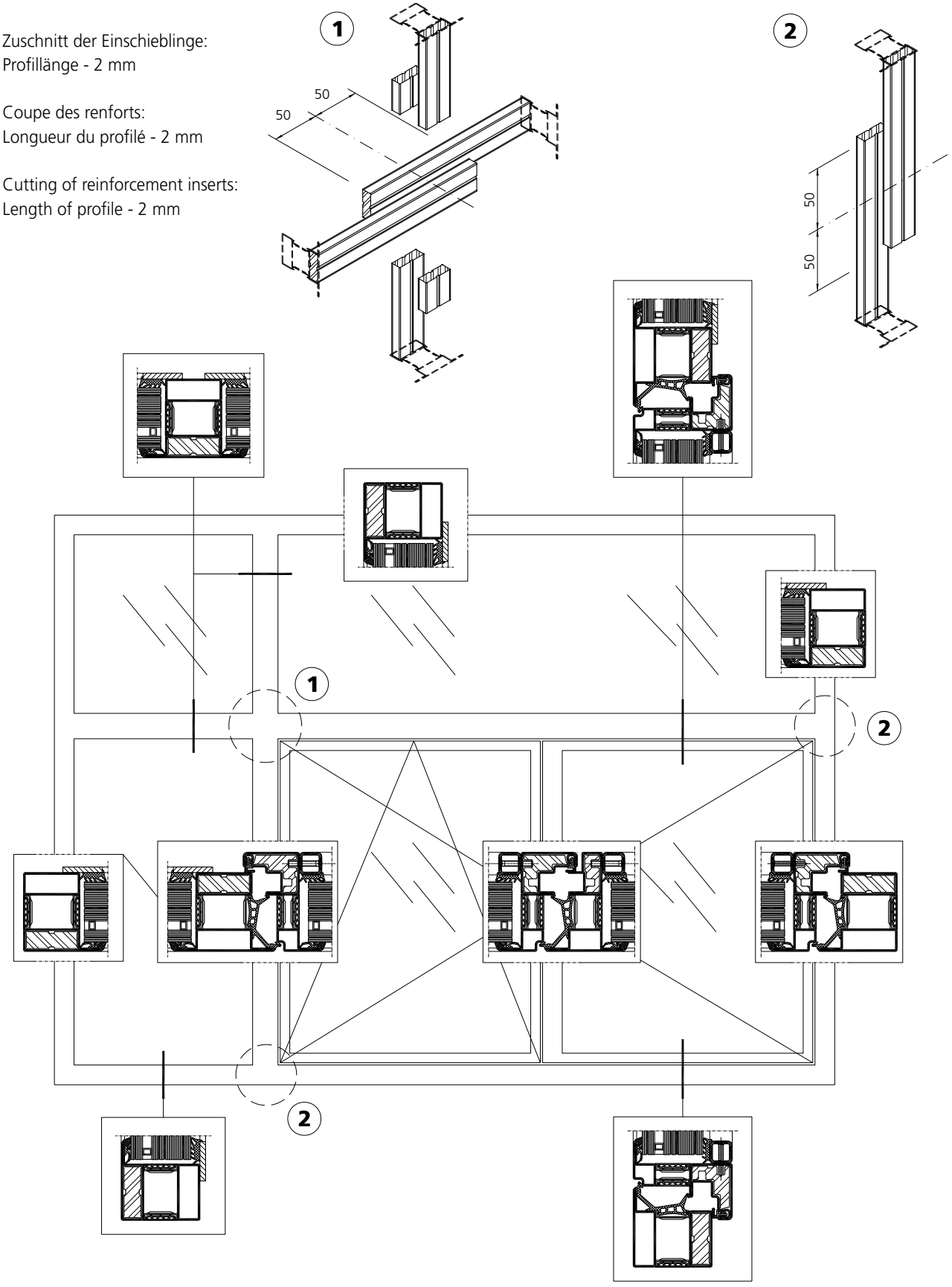
Zuschnitt der Einschieblinge:
Profillänge - 2 mm

Positions des renforts à insérer (2 vantaux)

Coupe des renforts:
Longueur du profilé - 2 mm

Positioning of reinforcement inserts (2 leaves)

Cutting of reinforcement inserts:
Length of profile - 2 mm





Jewisch Museum, GB-London

Übersicht Systempläne

Tableau des plans du système

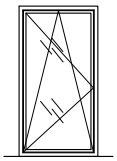
Synopsis of system plans

1	Drehkipp-Flügel	Ouvrant oscillo-battant	Tilt-turn window
2	Drehkipp-/Drehkipp-Flügel	Ouvrant oscillo-battant/oscillo-battant	Tilt-turn/tilt-turn window
3	Kippflügel	Ouverture à soufflet	Bottom hung window
4	Stulpflügel Dreh/Drehkipp	Ouvrant semi-fixe à la française/oscillo-battant	Double sash window turn/tilt-turn
5	Stulpflügel Dreh/Drehkipp mit Seitenteilen	Ouvrant semi-fixe à la française/oscillo-battant avec parties latérales fixes	Double sash window turn/tilt-turn with screen abutments
6	Festverglasung	Vitrage fixe	Fixed glazing

■ Stahl / Acier / steel

■ Edelstahl / Acier inox / stainless steel

1



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un_sp_0361
■ un_sp_0366

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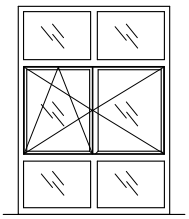

■ un_sp_0357
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■ un_sp_0367

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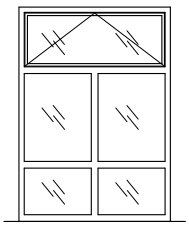

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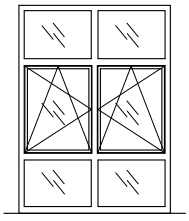

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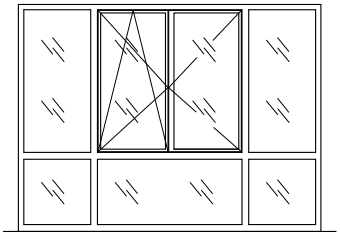
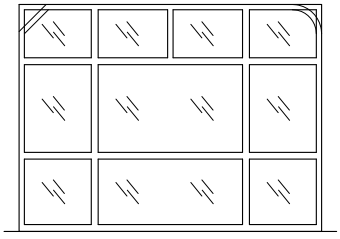


■ un_sp_0360
un_sp_0365
■ un_sp_0370

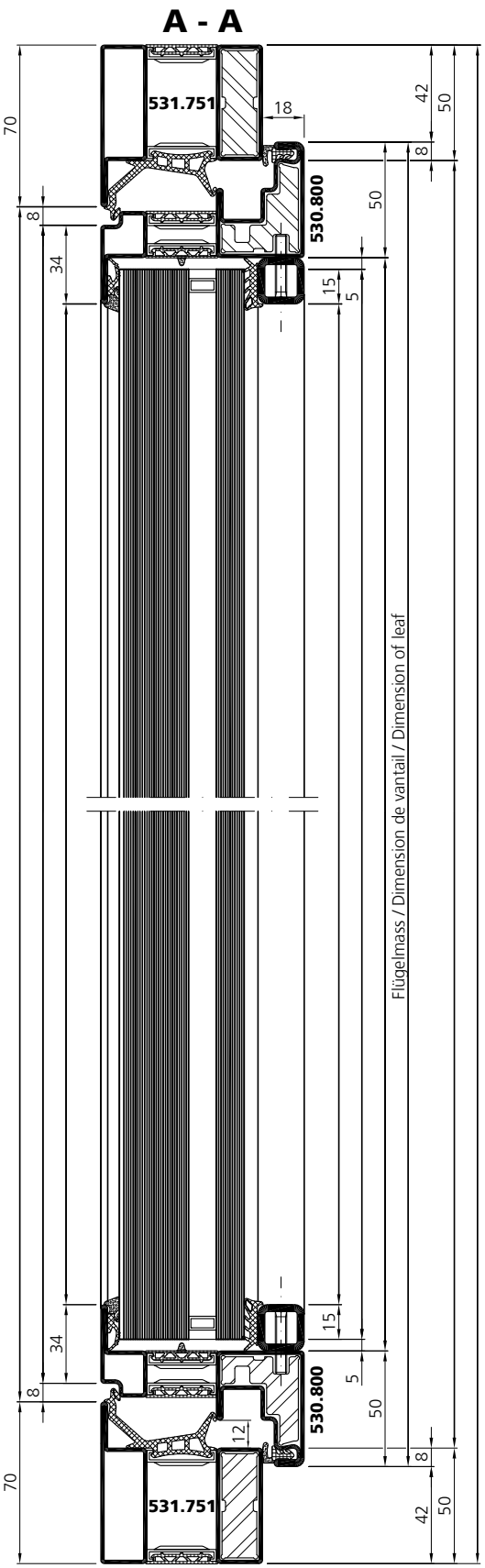
6



■ un_sp_0342
■ un_sp_0355

Systemplan | Plan du système | System plan

un_sp_0356
un_sp_0366



Systemplan | Plan du système | System plan

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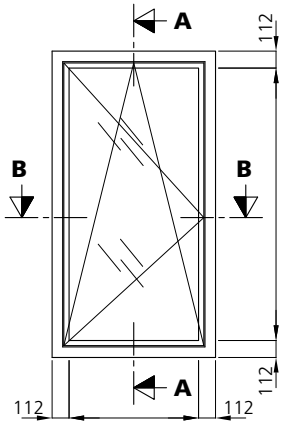
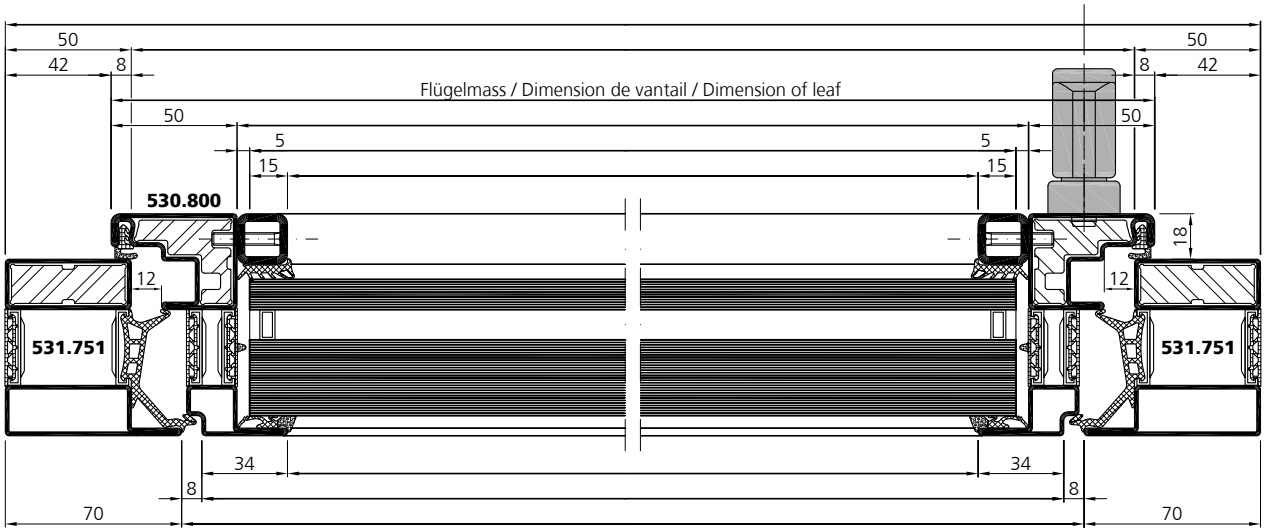


B - B



Systemplan | Plan du système | System plan

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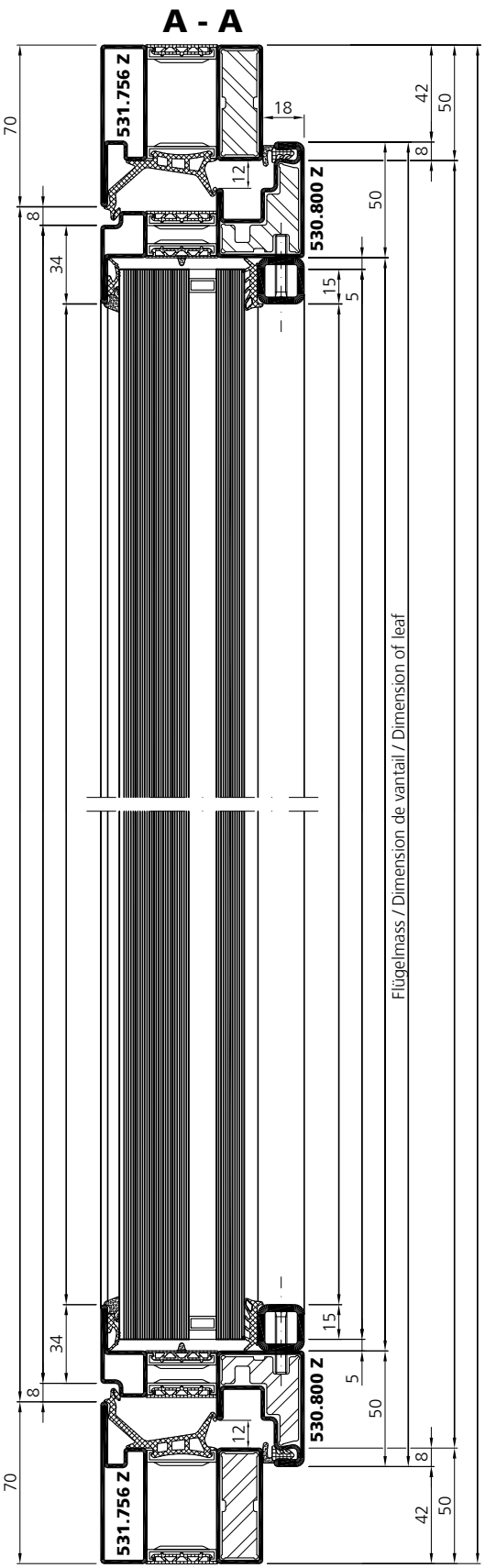

Systemplan | Plan du système | System plan

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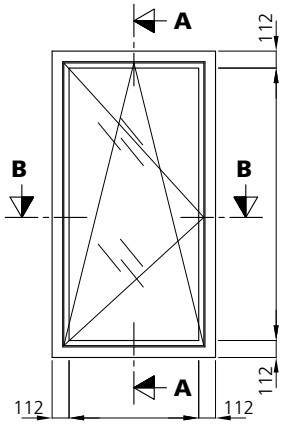

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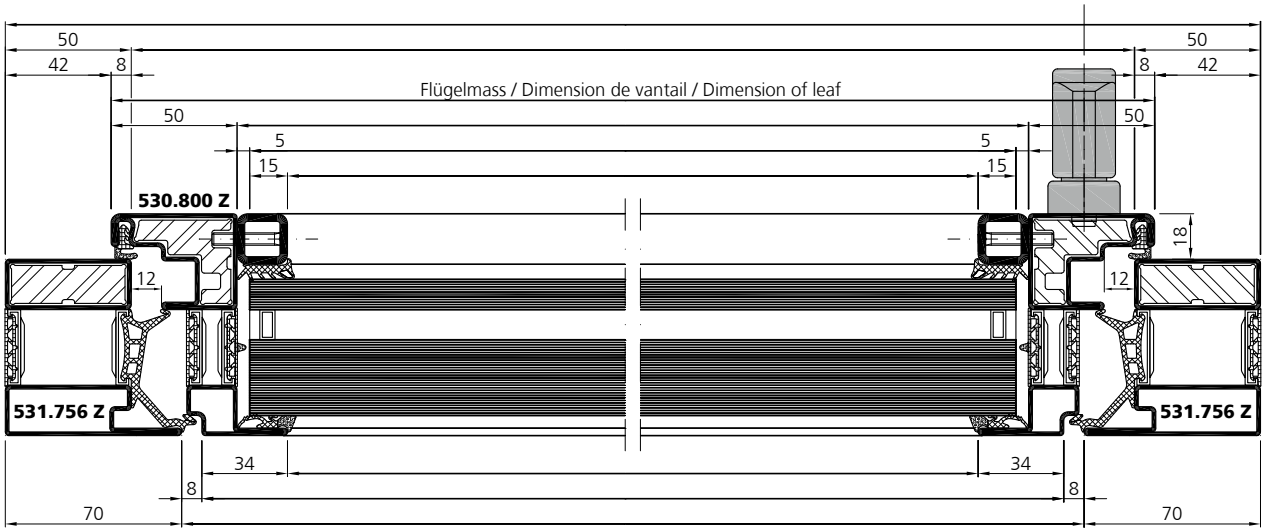

Systemplan | Plan du système | System plan

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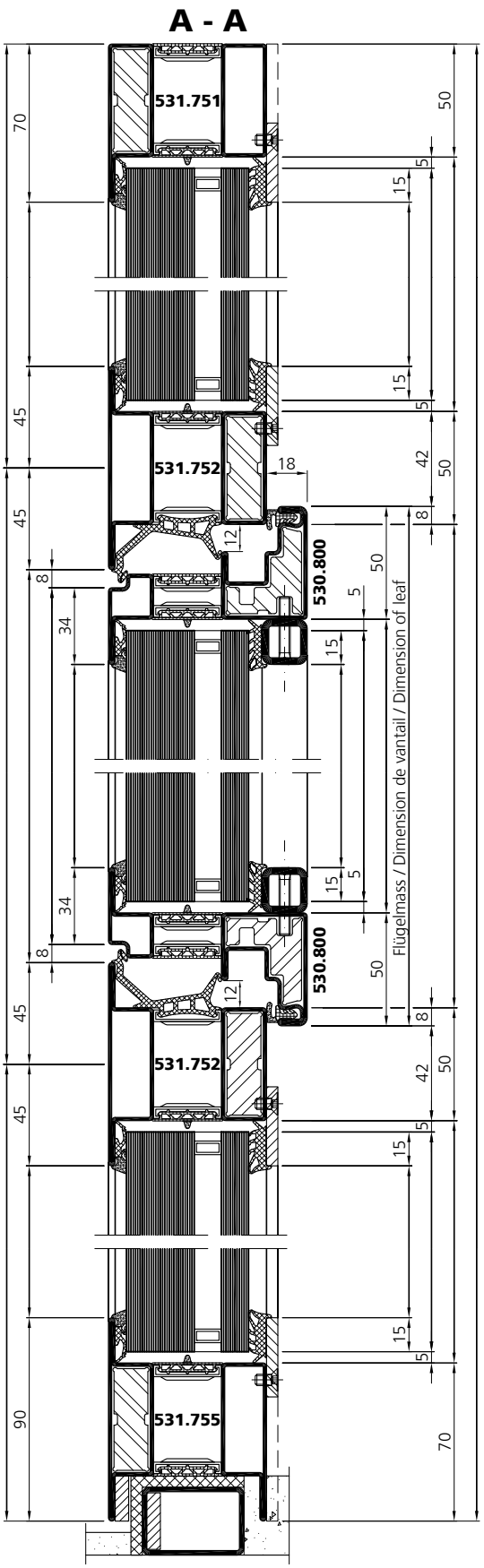

Systemplan | Plan du système | System plan

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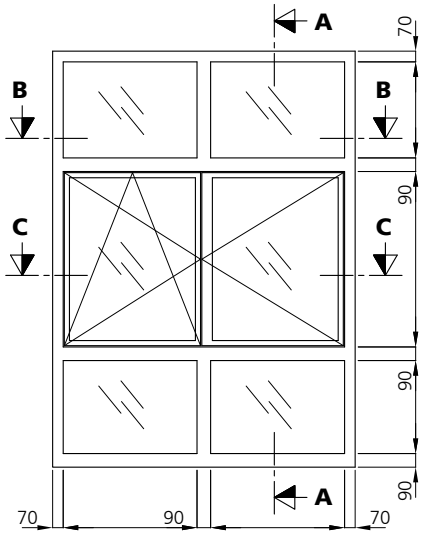

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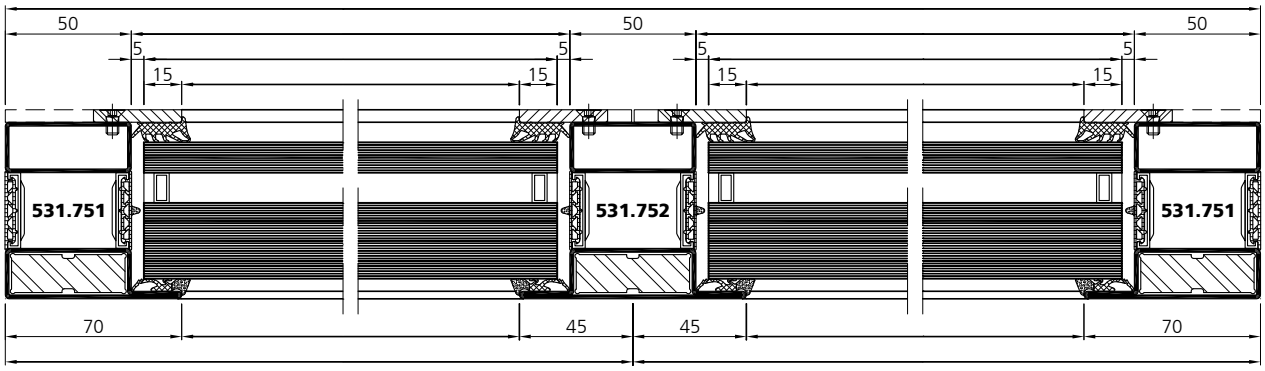
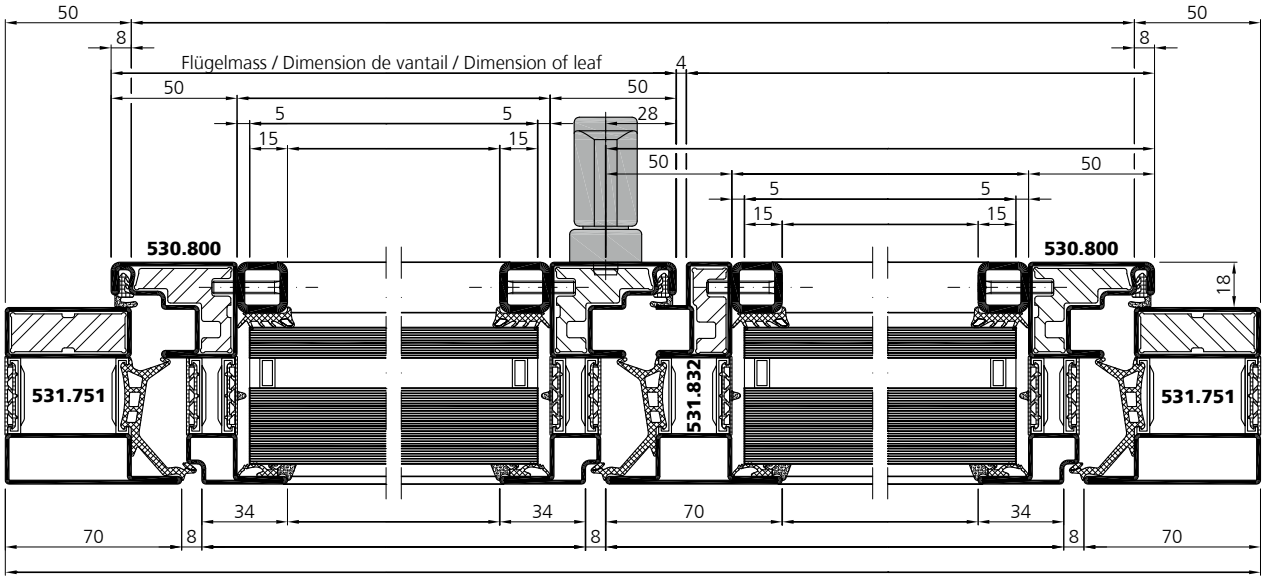


C - C



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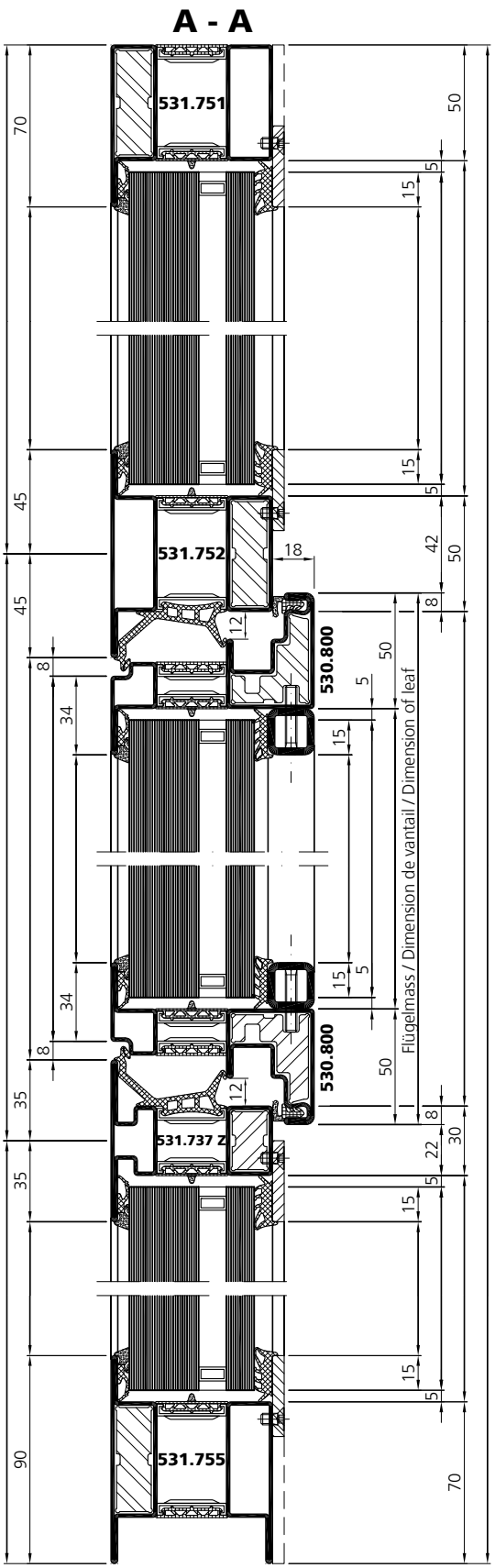
Systemplan | Plan du système | System plan

un_sp_0362



Systemplan | Plan du système | System plan

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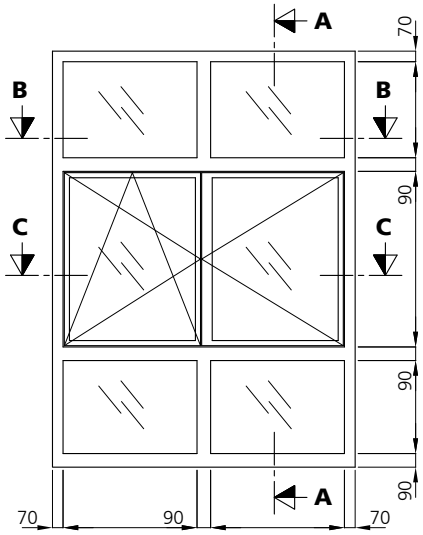
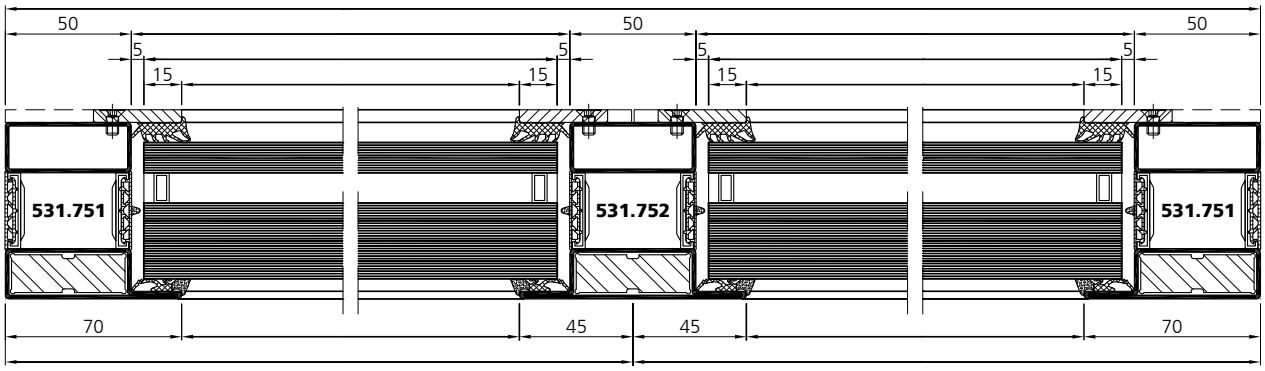
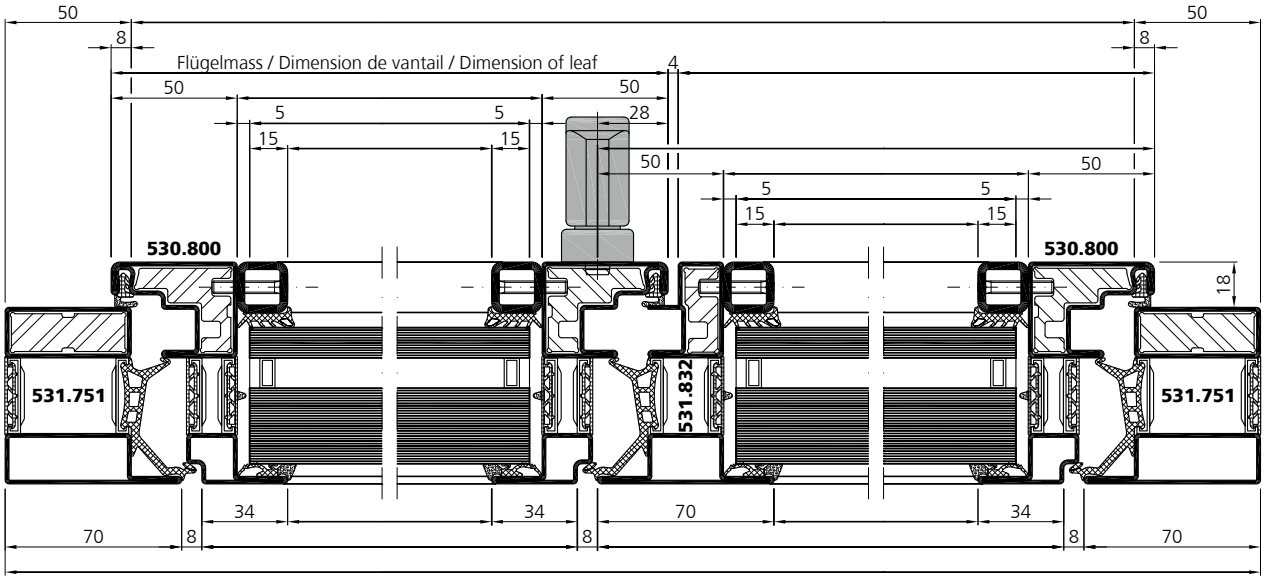


B - B



C - C



VUF 01/19

Systemplan | Plan du système | System plan

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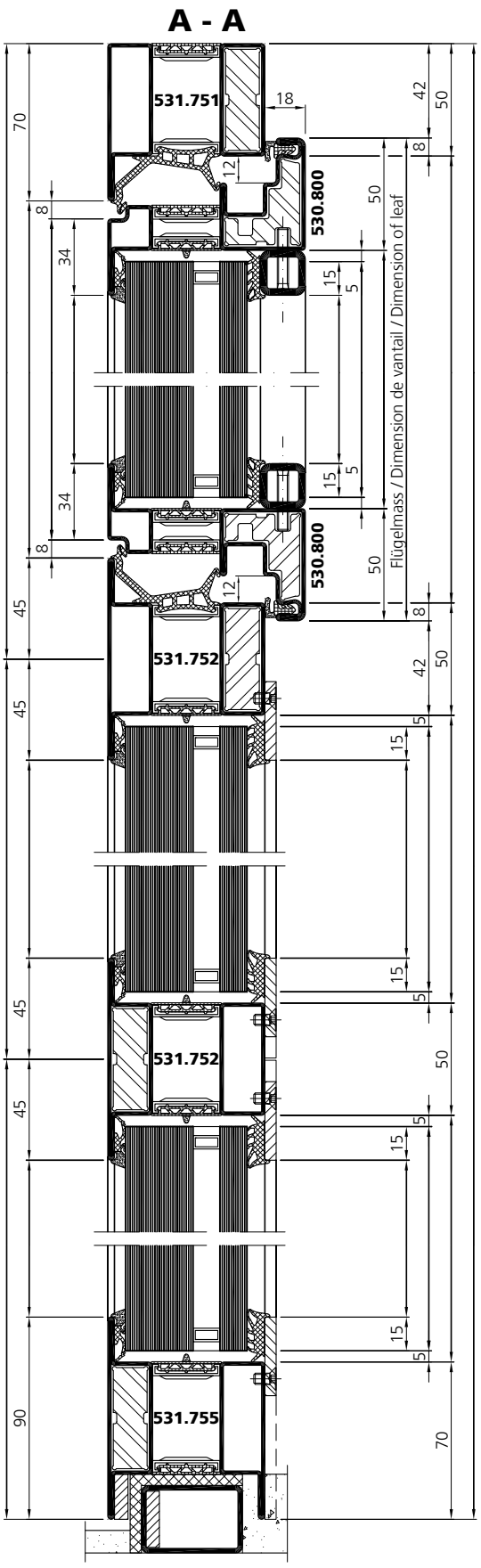
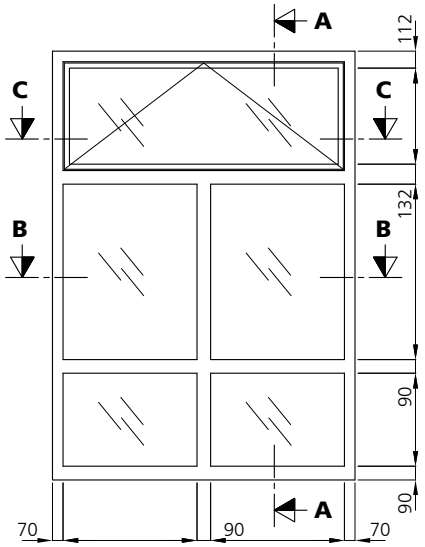
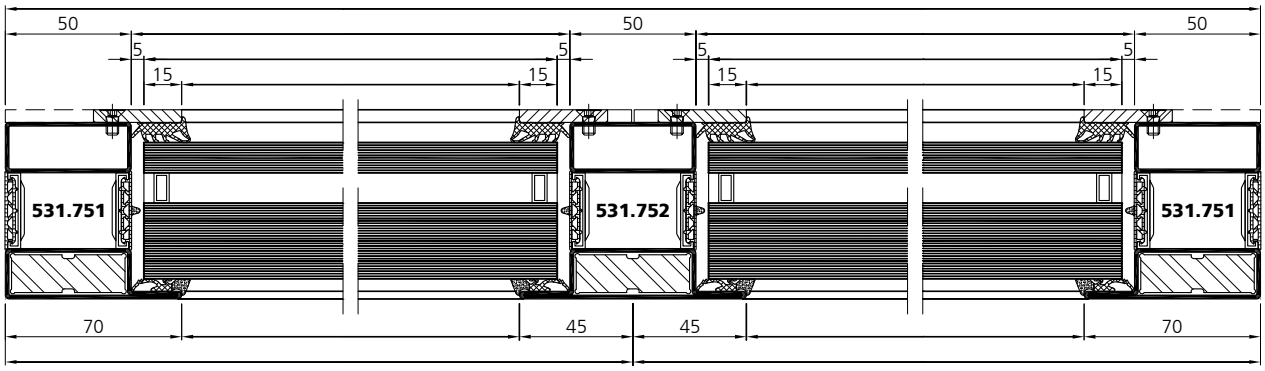


Systemplan | Plan du système | System plan

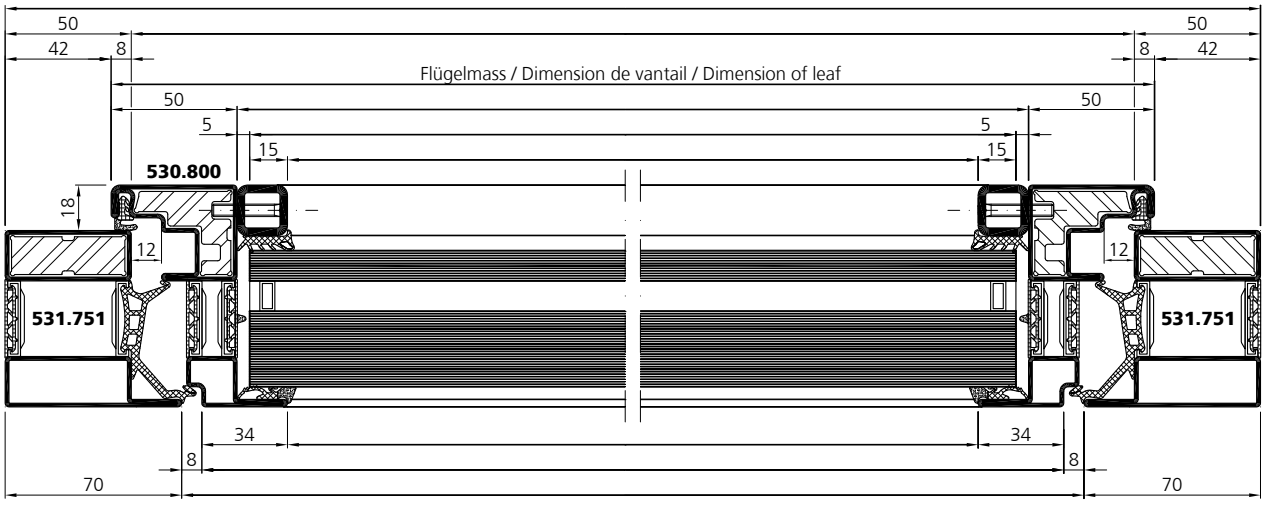
un_sp_0358
un_sp_0368



B - B



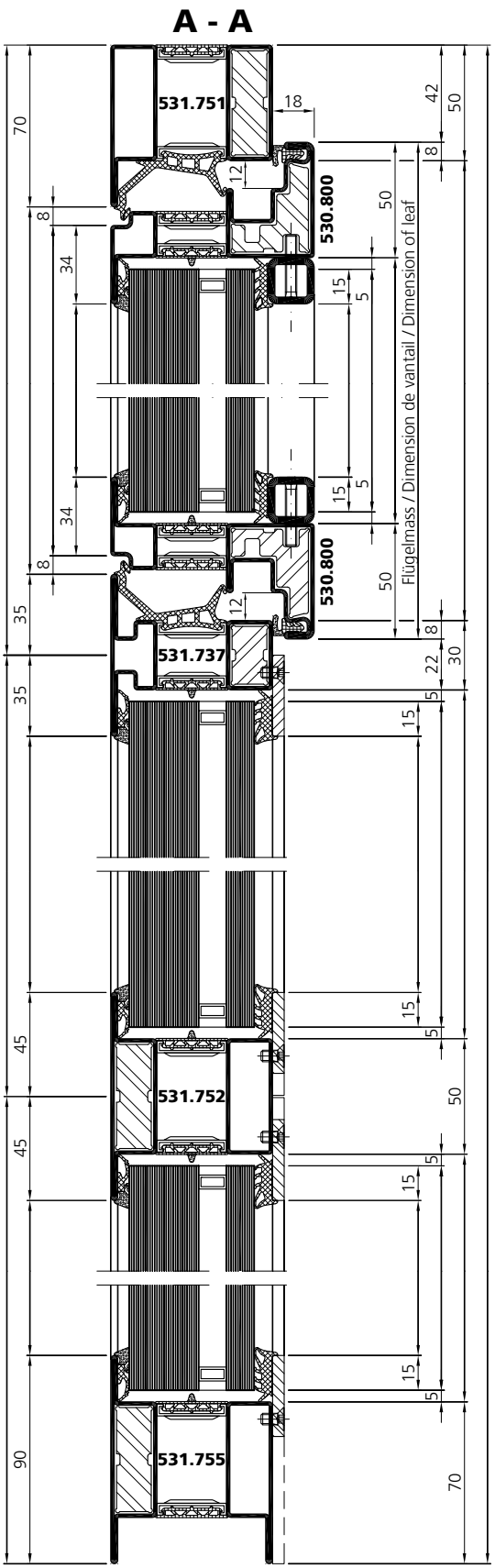
C - C



VUF 01/19

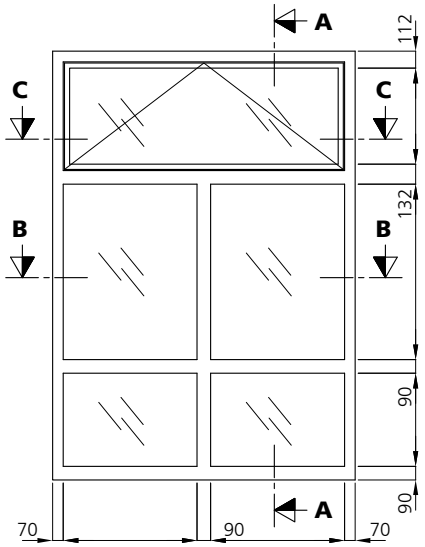
Systemplan | Plan du système | System plan

un_sp_0363

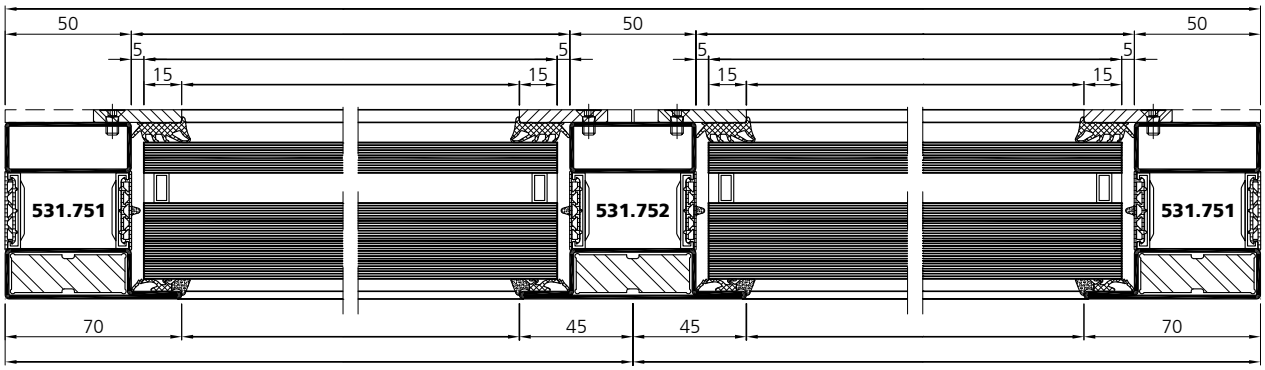


Systemplan | Plan du système | System plan

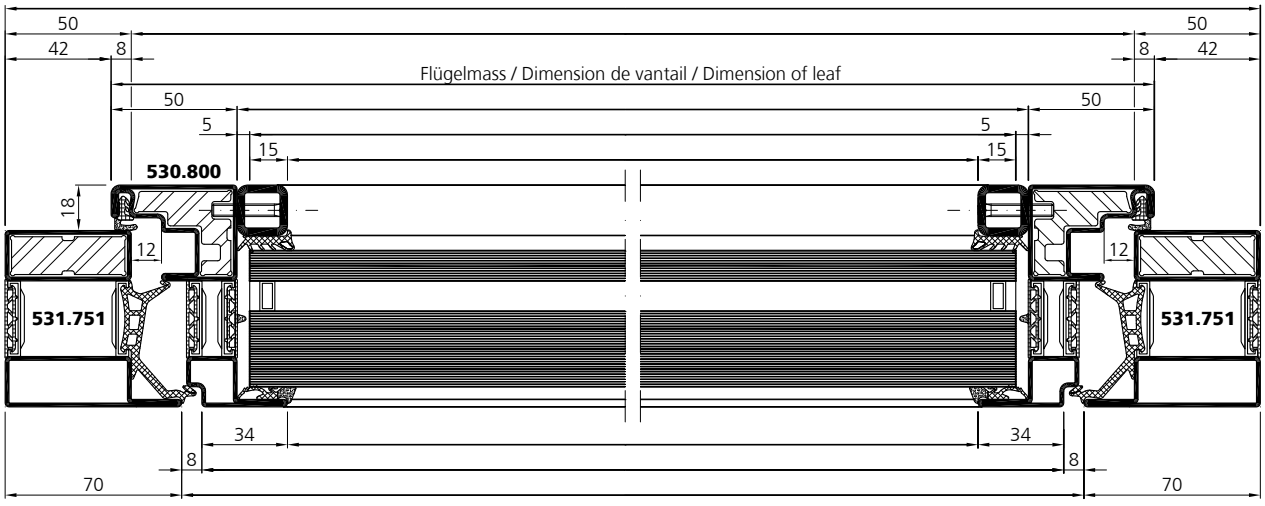
un_sp_0363



B - B



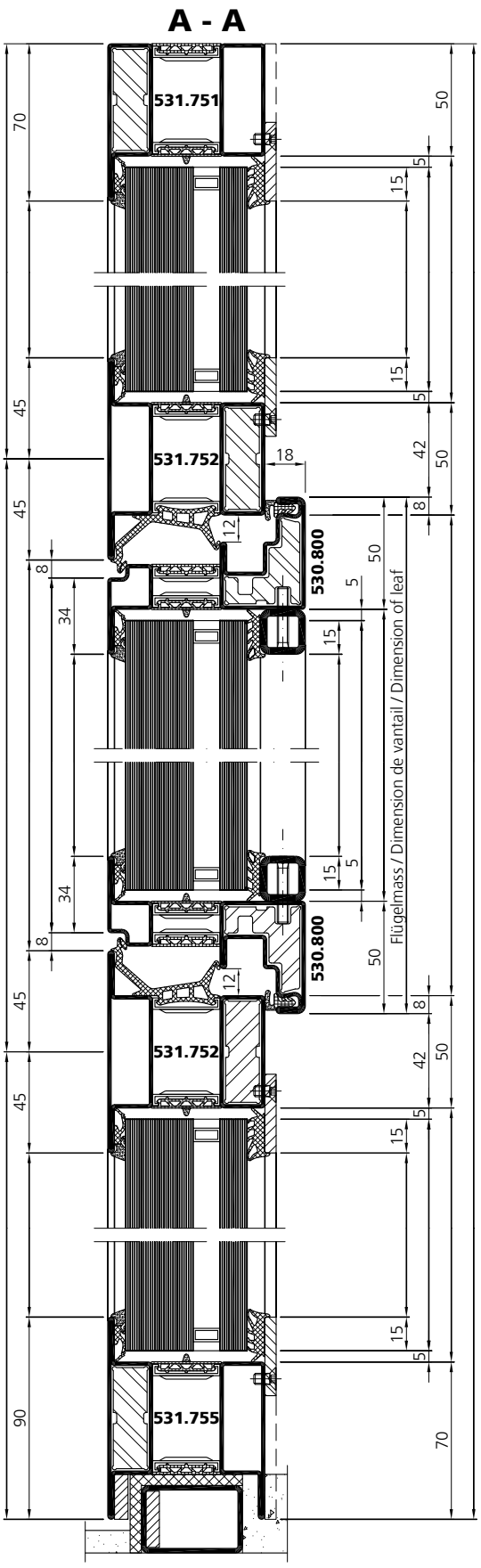
C - C



VUF 01/19

Systemplan | Plan du système | System plan

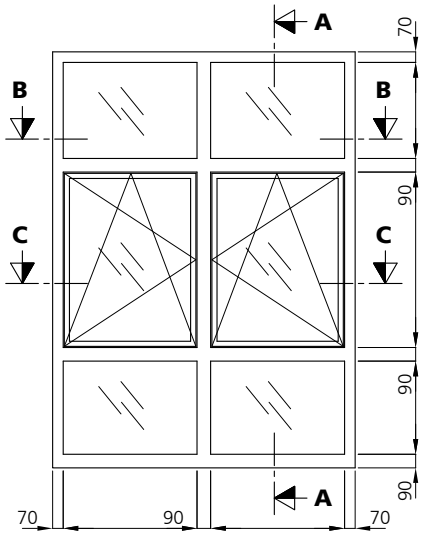
un_sp_0359
un_sp_0369



VUF 01/19

Systemplan | Plan du système | System plan

un_sp_0359
un_sp_0369



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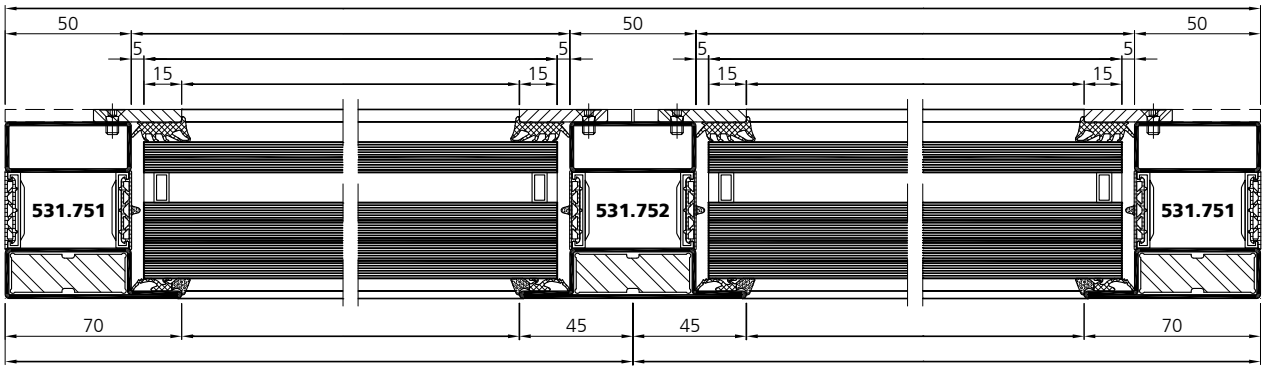
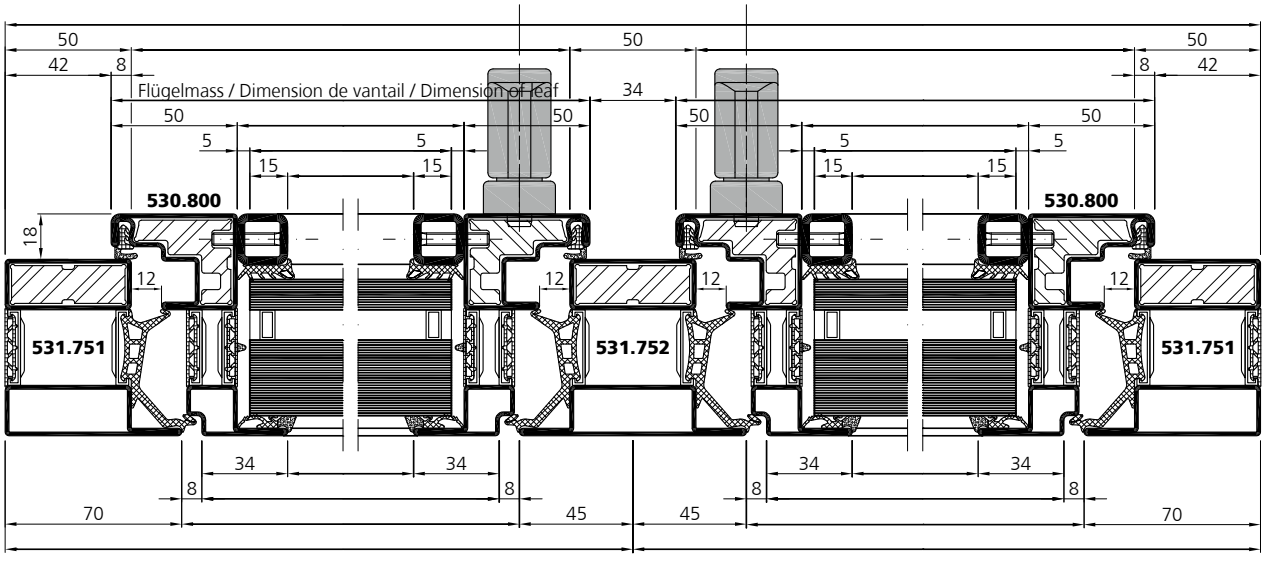


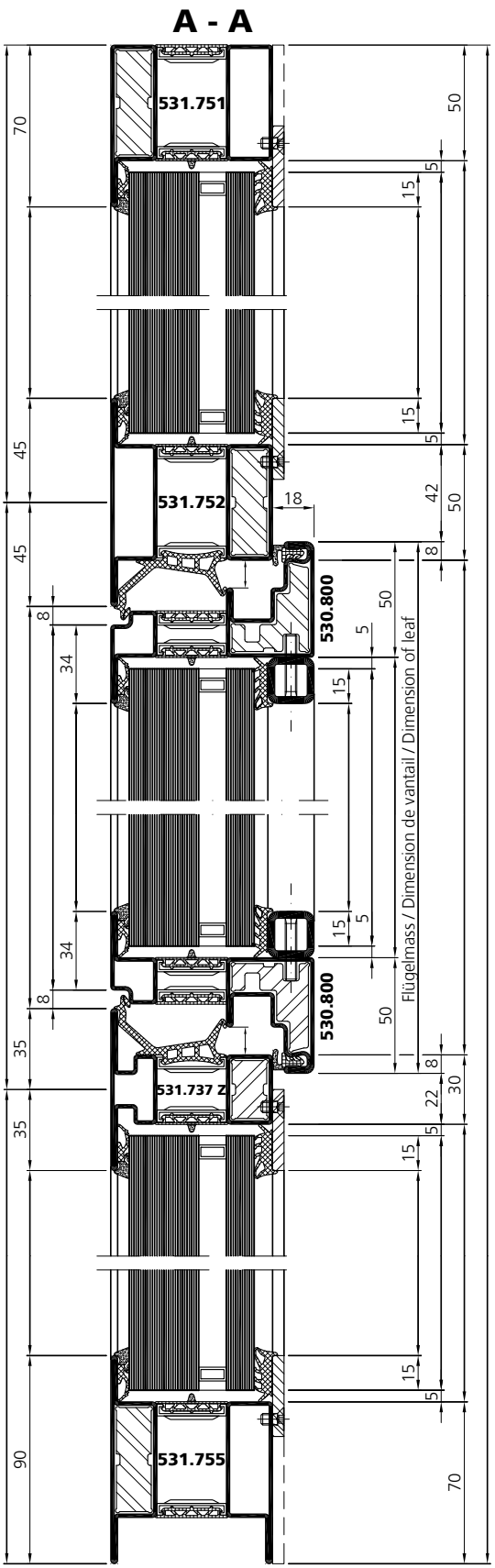
C - C



VUF 01/19

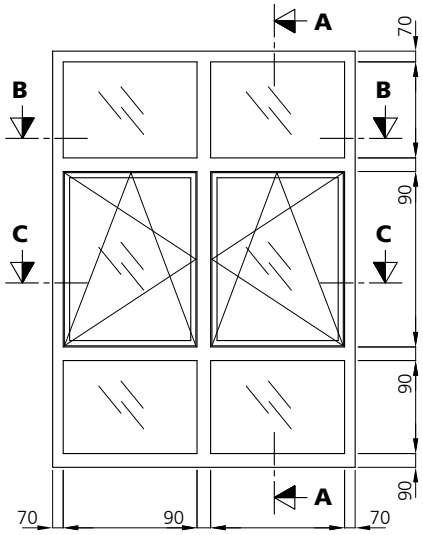
Systemplan | Plan du système | System plan

un_sp_0364



Systemplan | Plan du système | System plan

un_sp_0364



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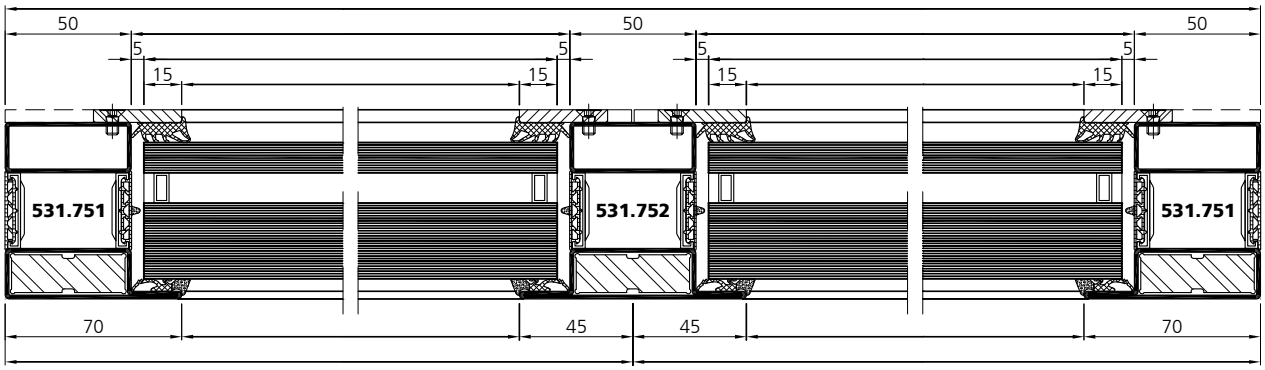
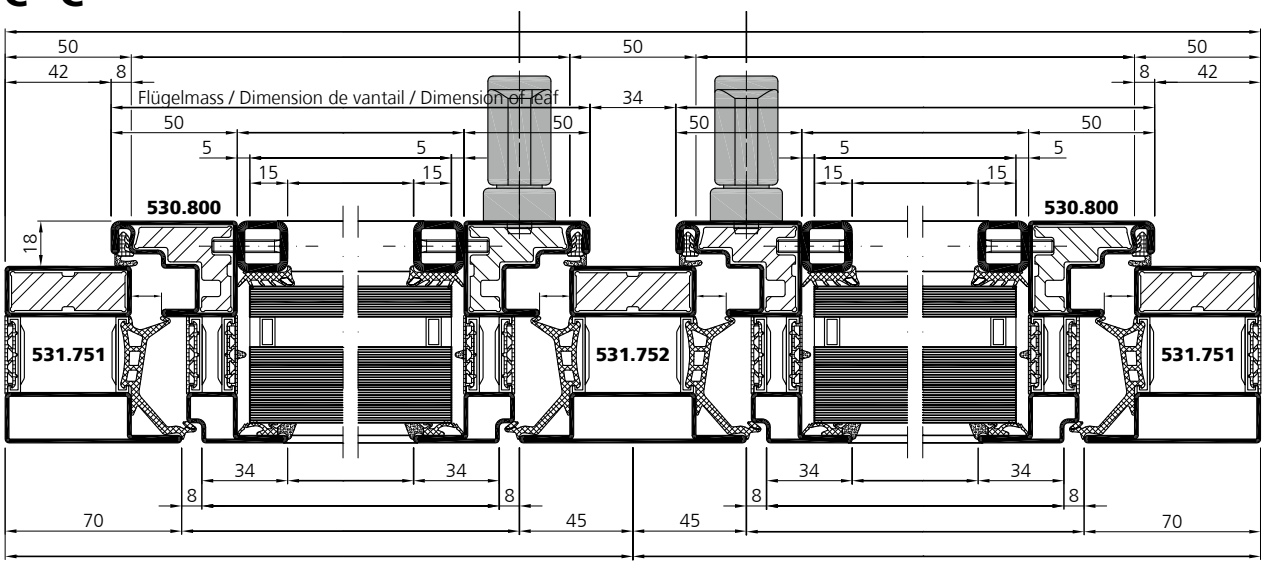


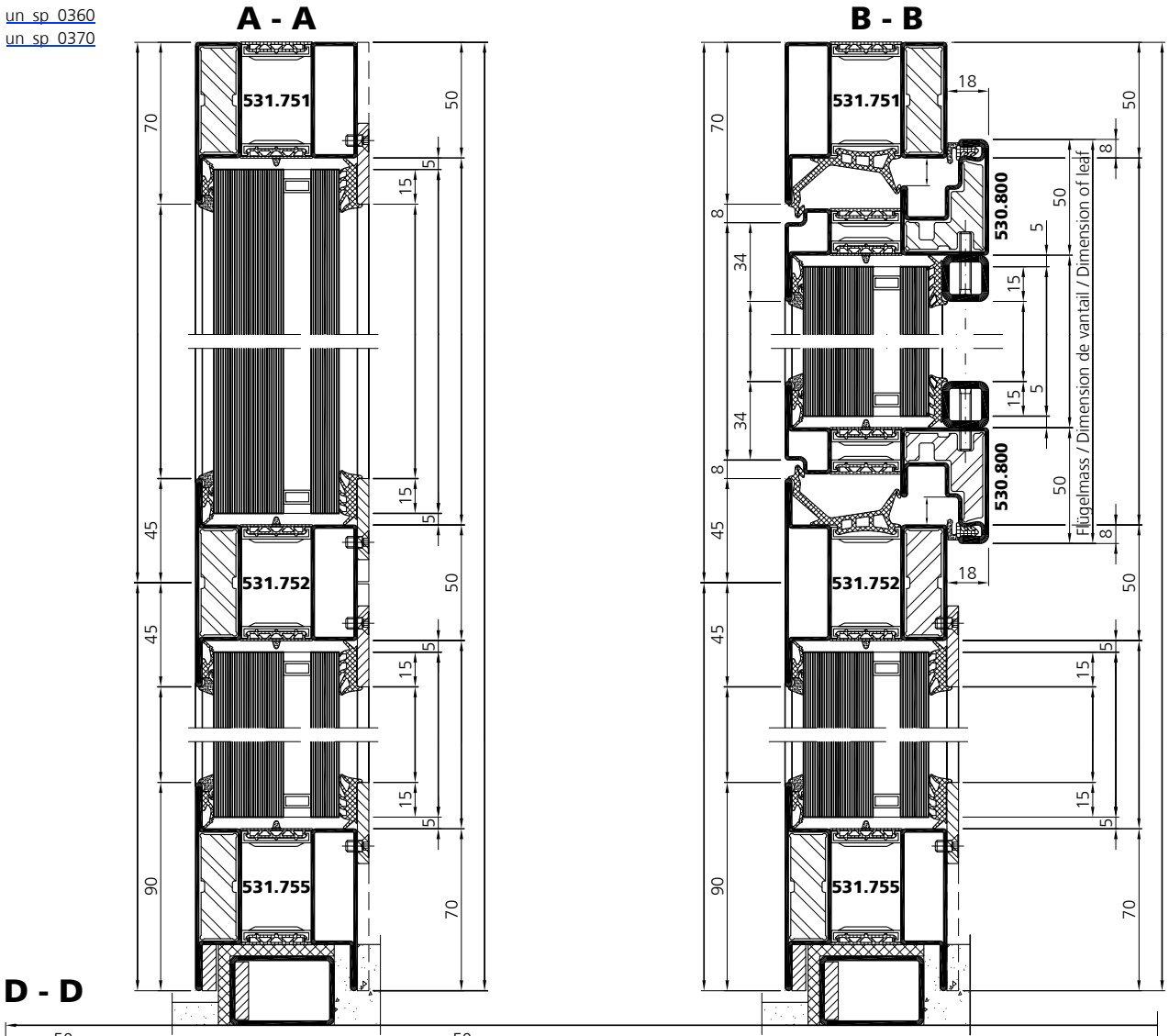
C - C

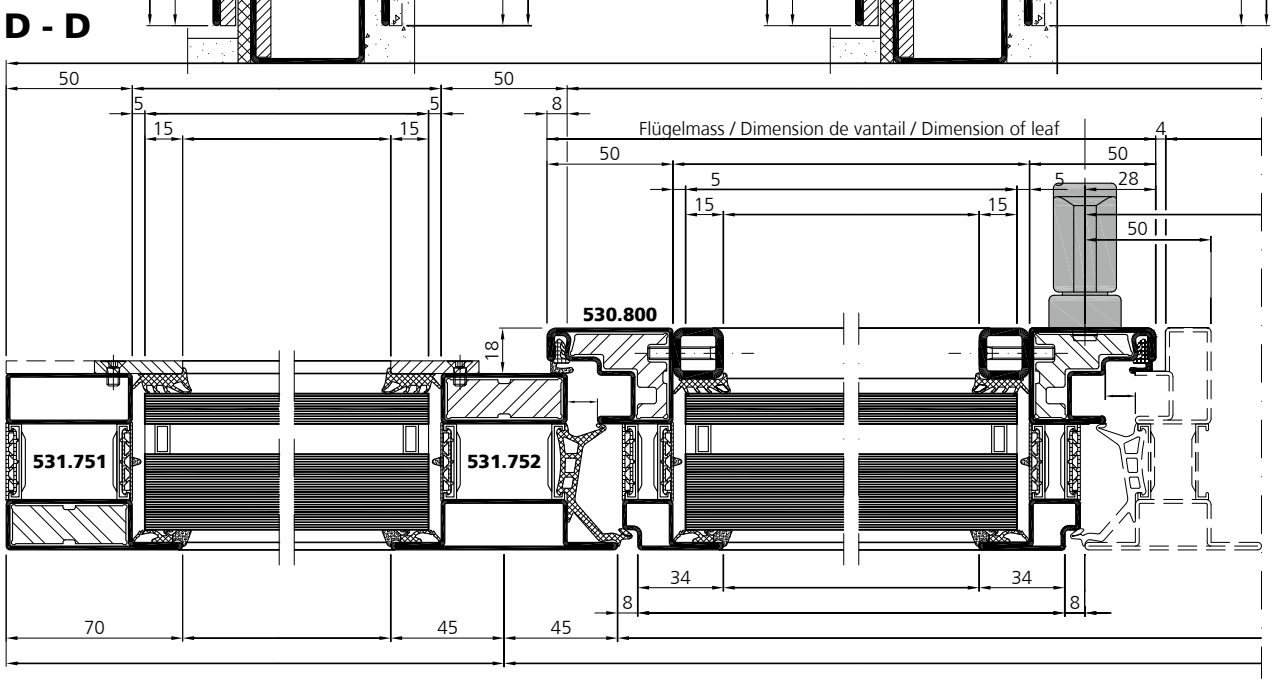


VUF 01/19

Systemplan | Plan du système | System plan

un_sp_0360
un_sp_0370

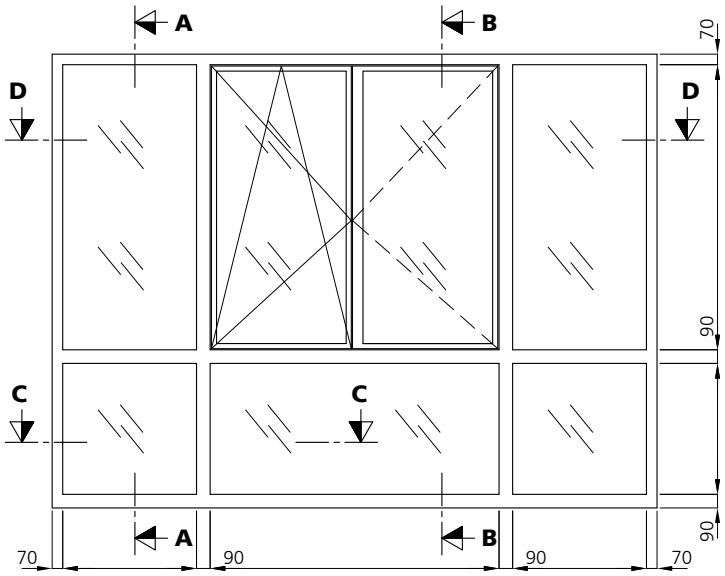




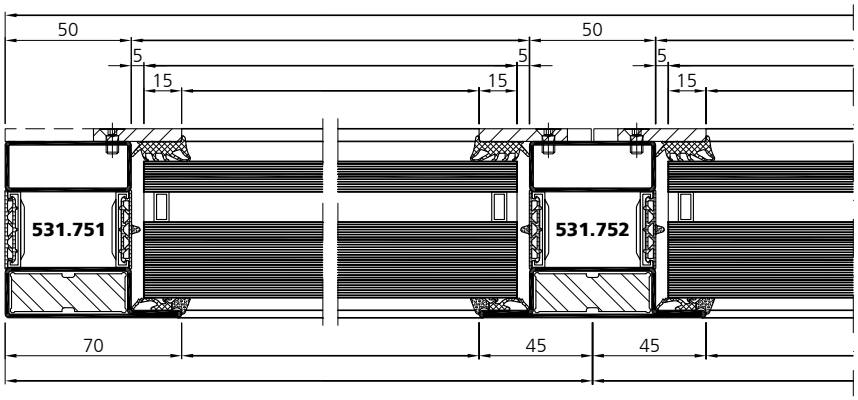
VUF 01/19

Systemplan | Plan du système | System plan

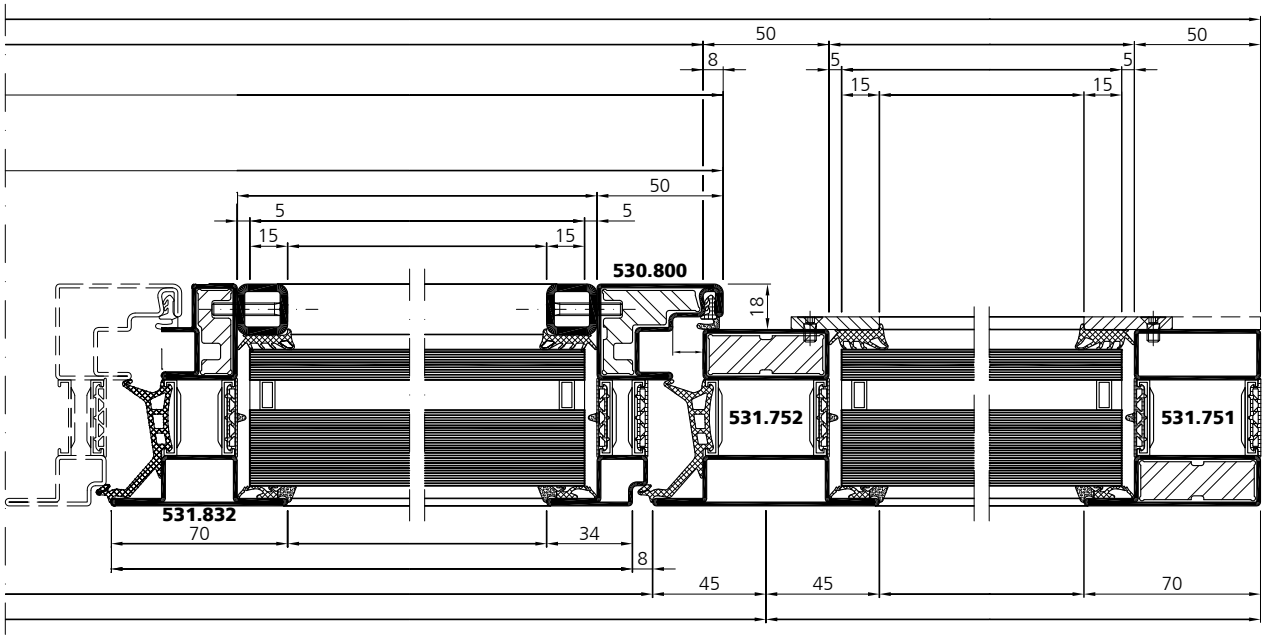
un_sp_0360
un_sp_0370



C - C



D - D

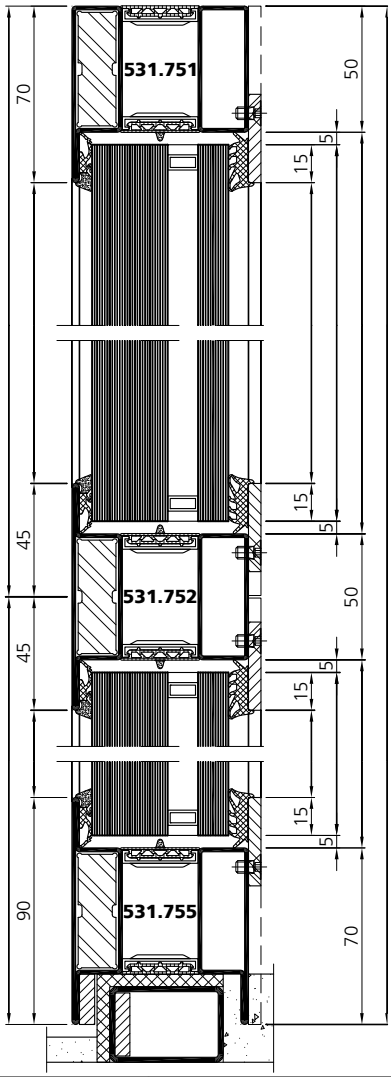


VUF 01/19

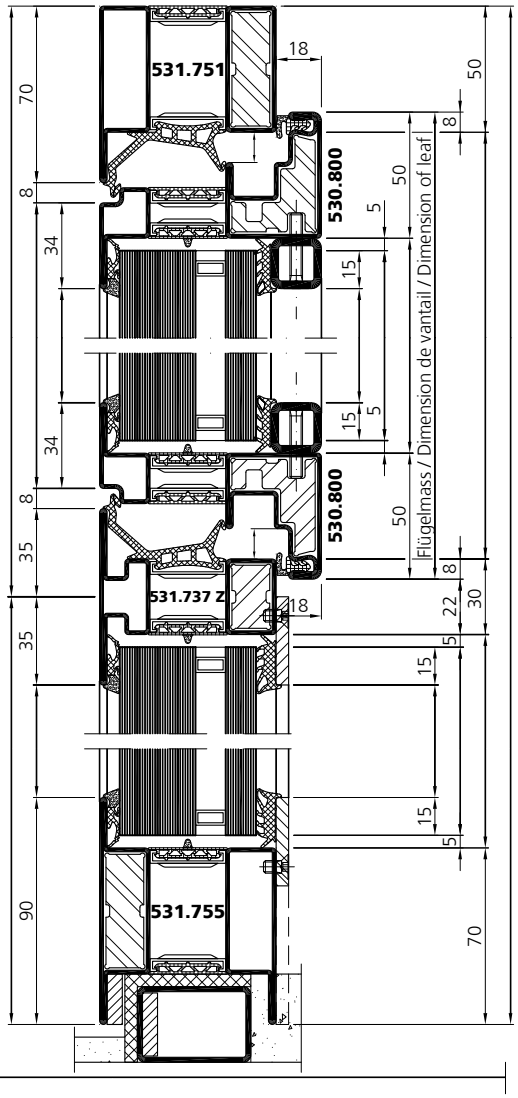
Systemplan | Plan du système | System plan

un_sp_0365

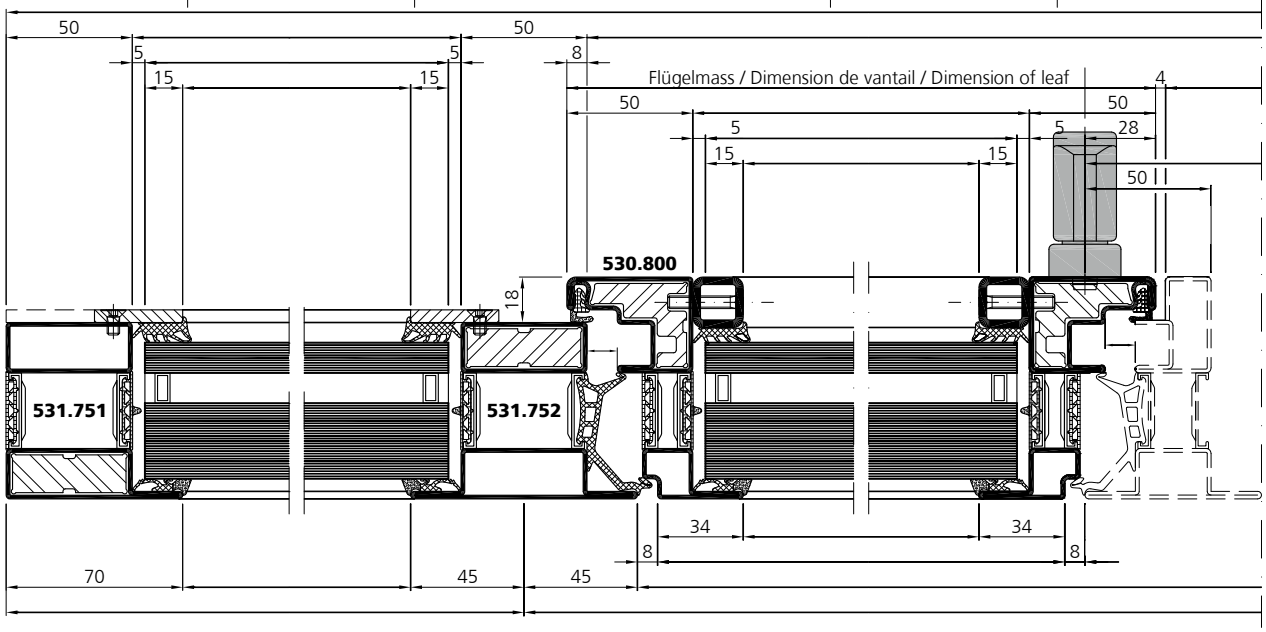
A - A



B - B



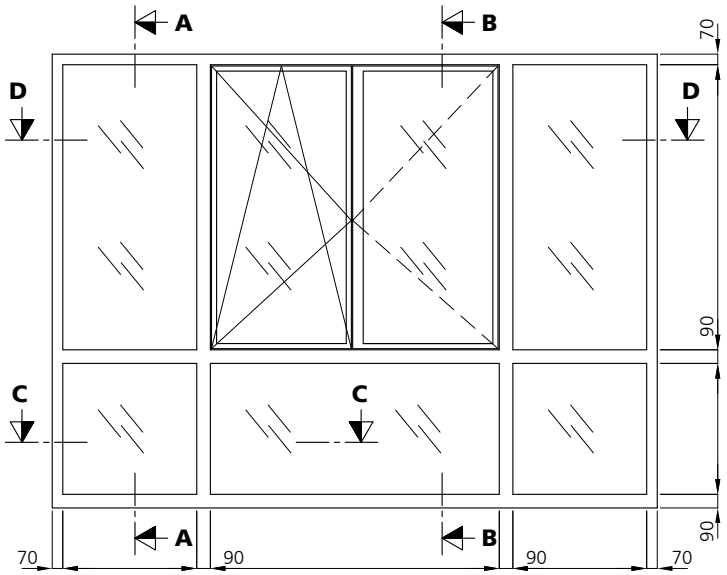
D - D



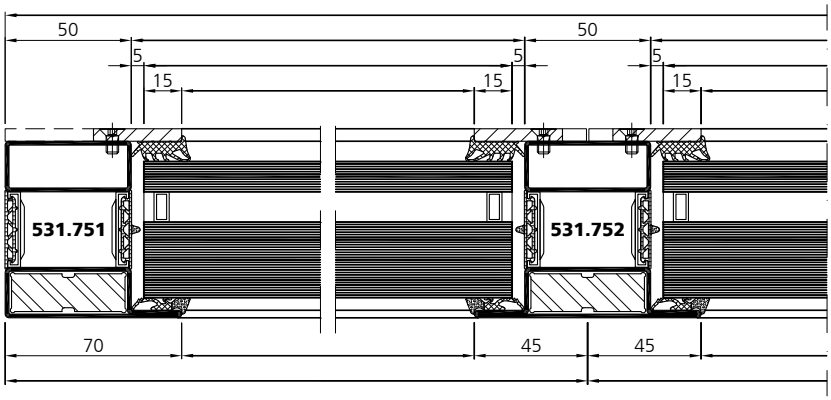
VUF 01/19

Systemplan | Plan du système | System plan

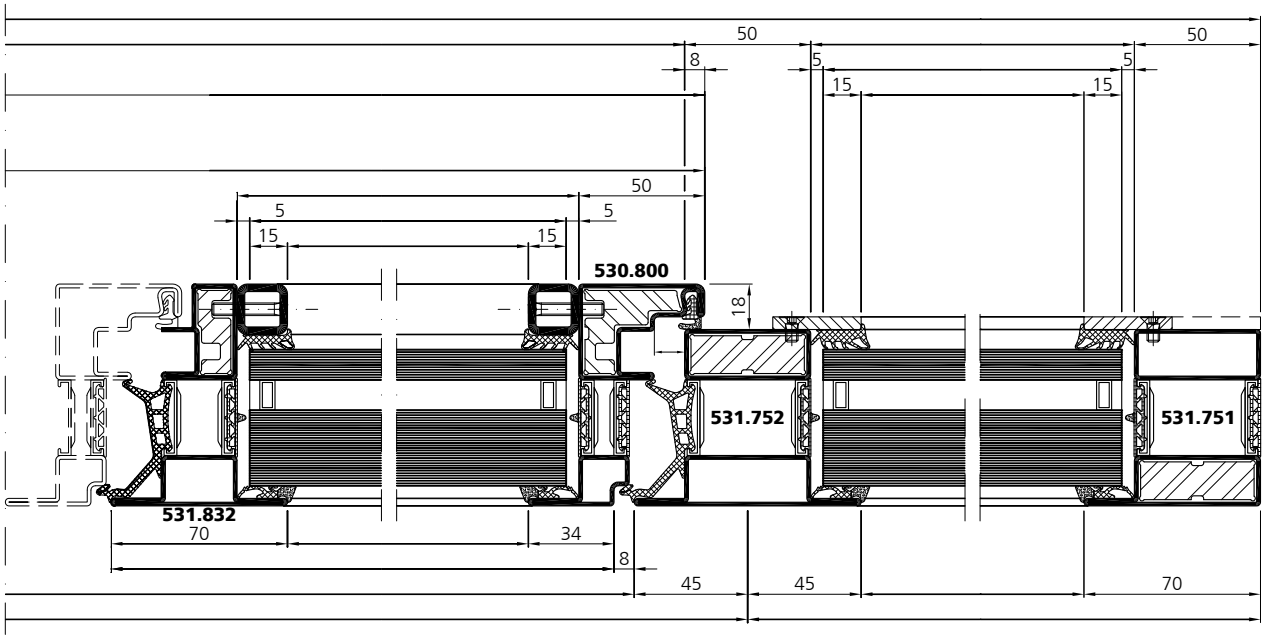
un_sp_0365



C - C



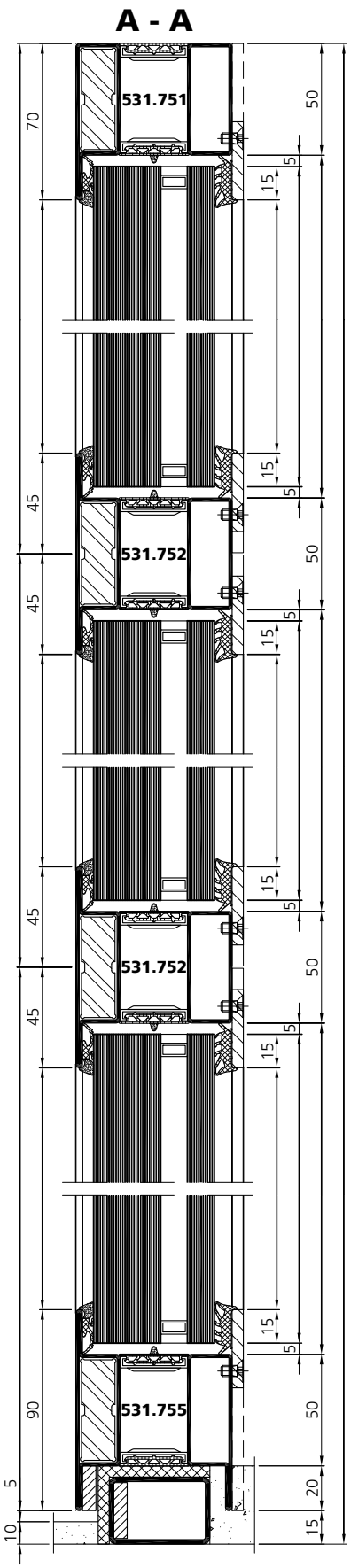
D - D



VUF 01/19

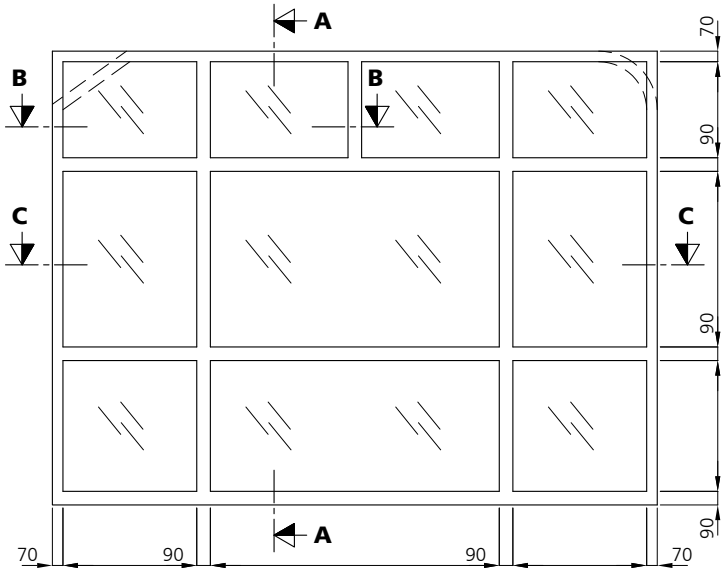
Systemplan | Plan du système | System plan

un_sp_0342
un_sp_0355



Systemplan | Plan du système | System plan

un_sp_0342
un_sp_0355



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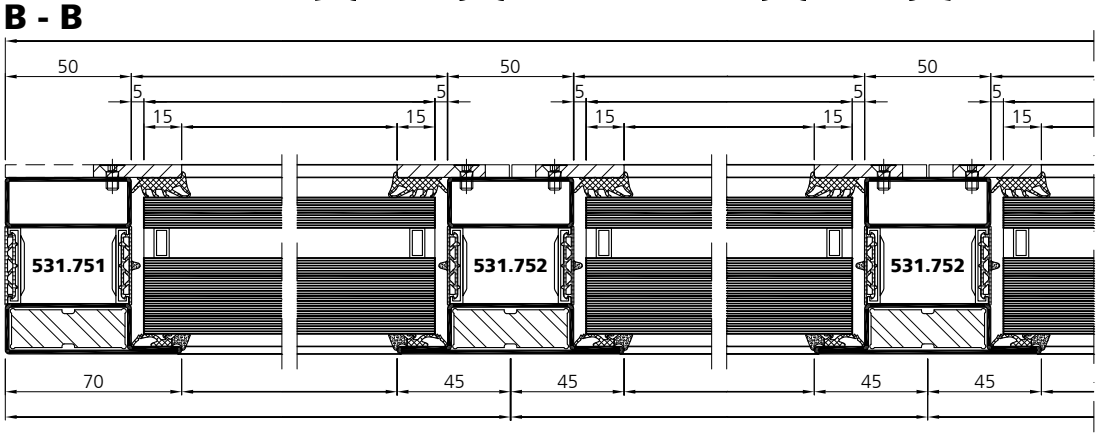
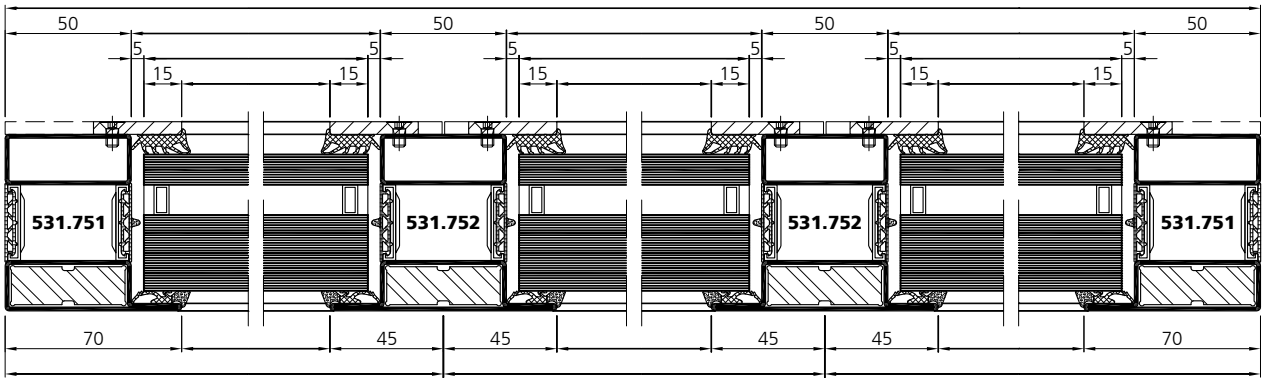


C - C



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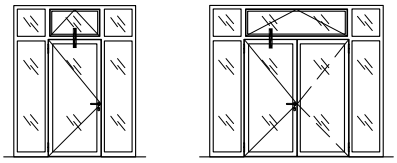
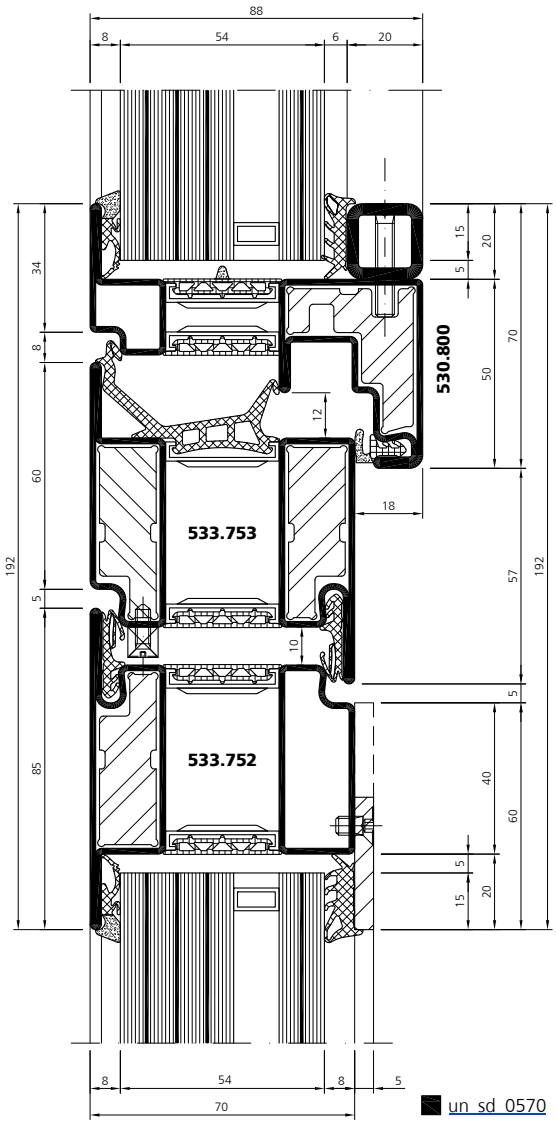
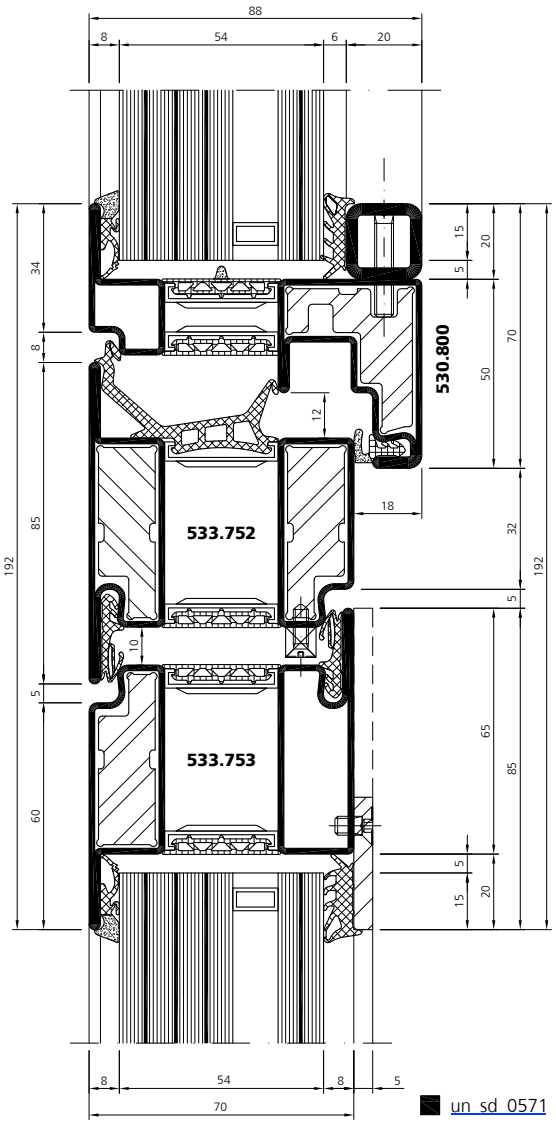
Konstruktionsdetails | Détails de construction | Construction details





un_sd_0570



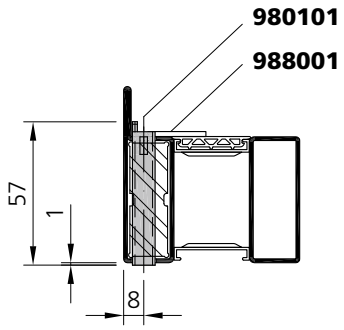
un_sd_0571

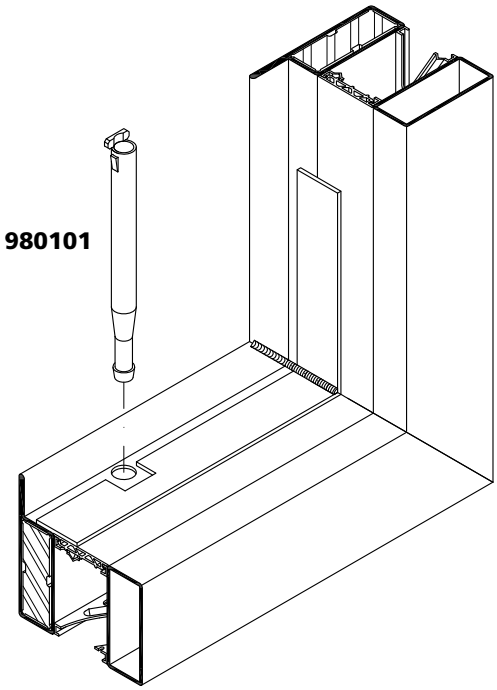
Profilbearbeitung
Einbau indirekte Entwässerung
Festfeld / Rahmen

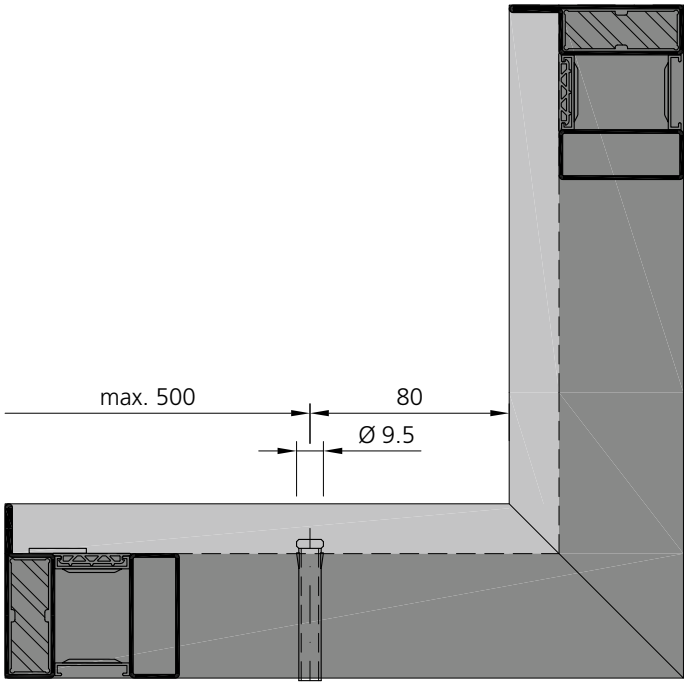
Mise en œuvre des profilés
Montage d'une évacuation d'eau indirecte
vitrage fixe / cadre

Profile processing
Installation of indirect drainage
fixed glazing / frame

forsterunico





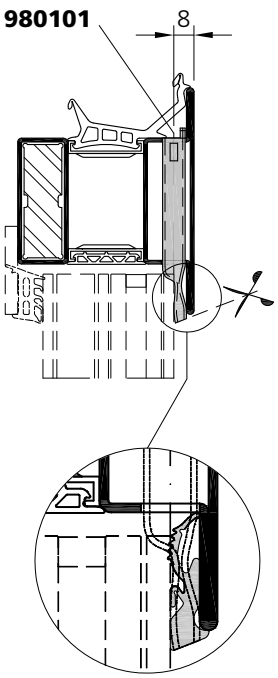


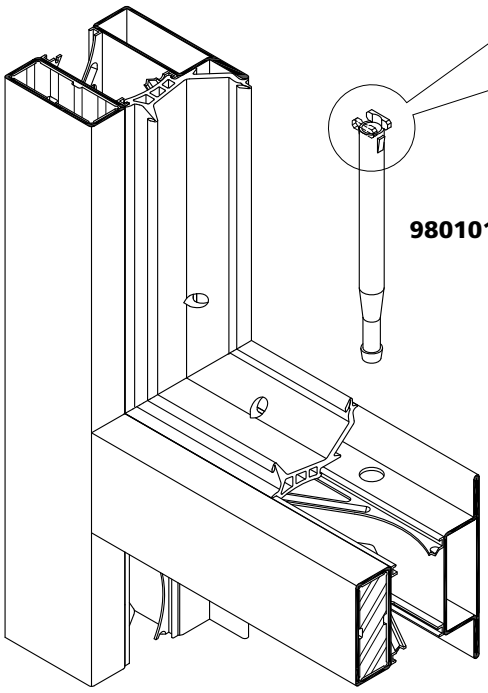
Profilbearbeitung
Einbau indirekte Entwässerung
Festfeld / Stahlsprosse

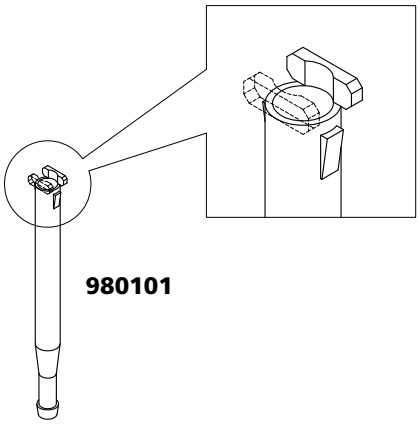
Mise en œuvre des profilés
Montage d'une évacuation d'eau indirecte
vitrage fixe / traverse en acier

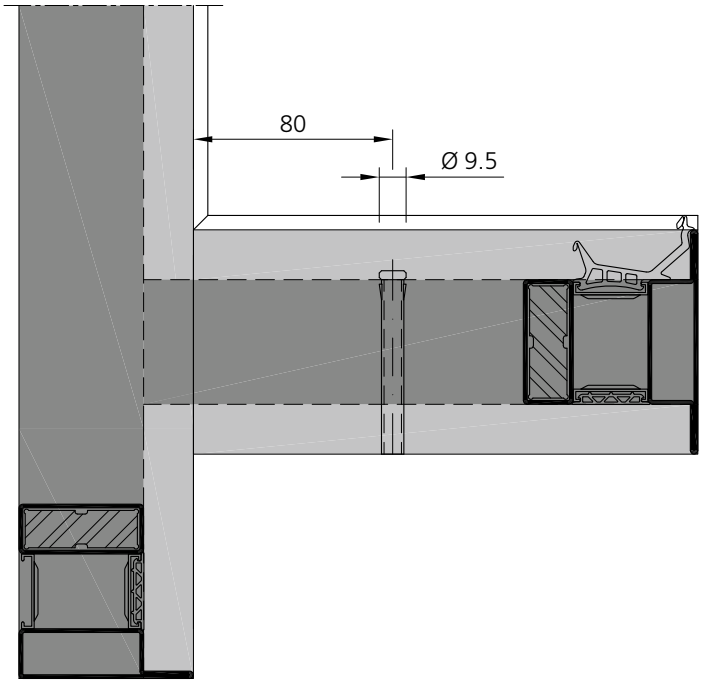
Profile processing
Installation of indirect drainage
fixed glazing / steel transom

forsterunico





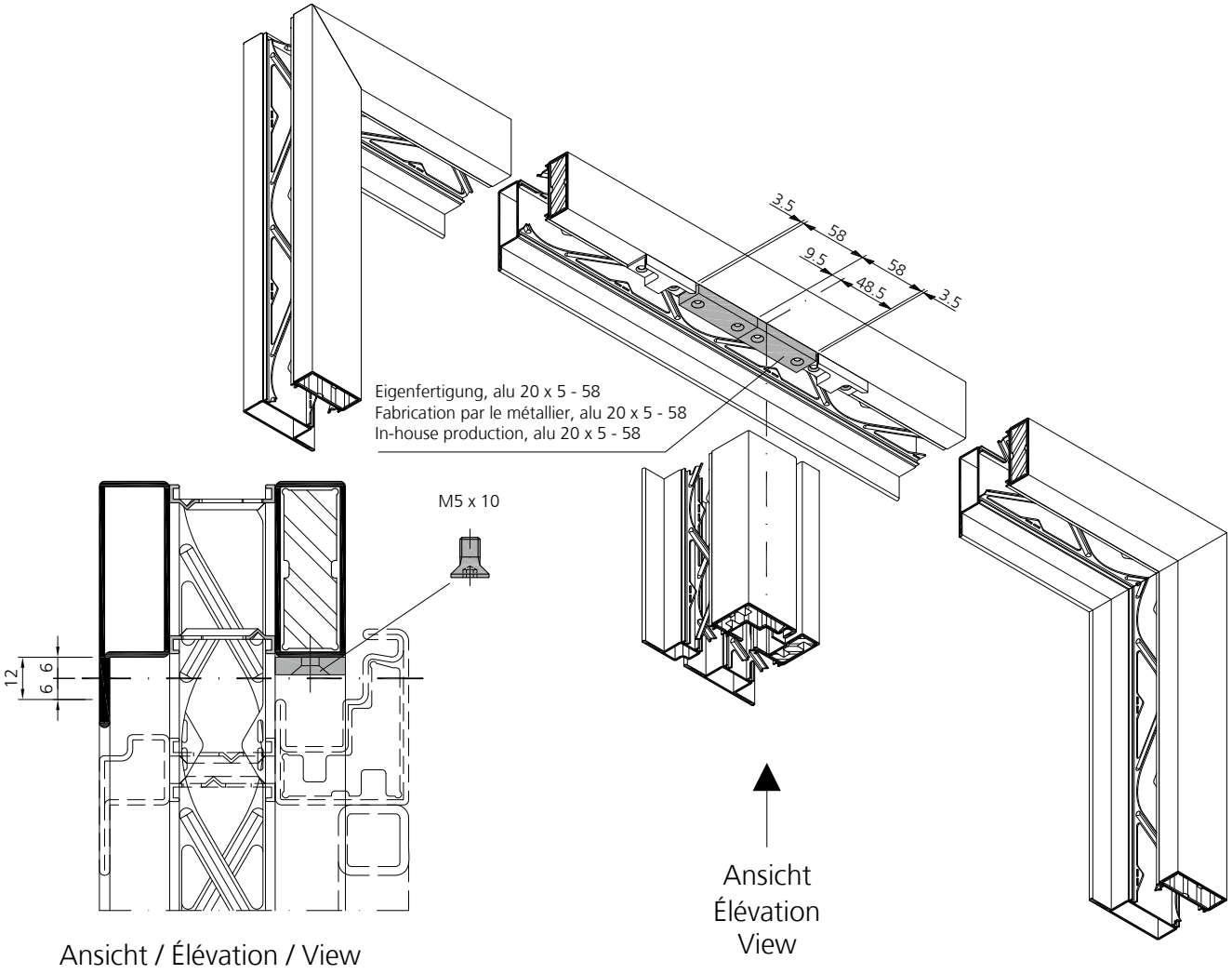




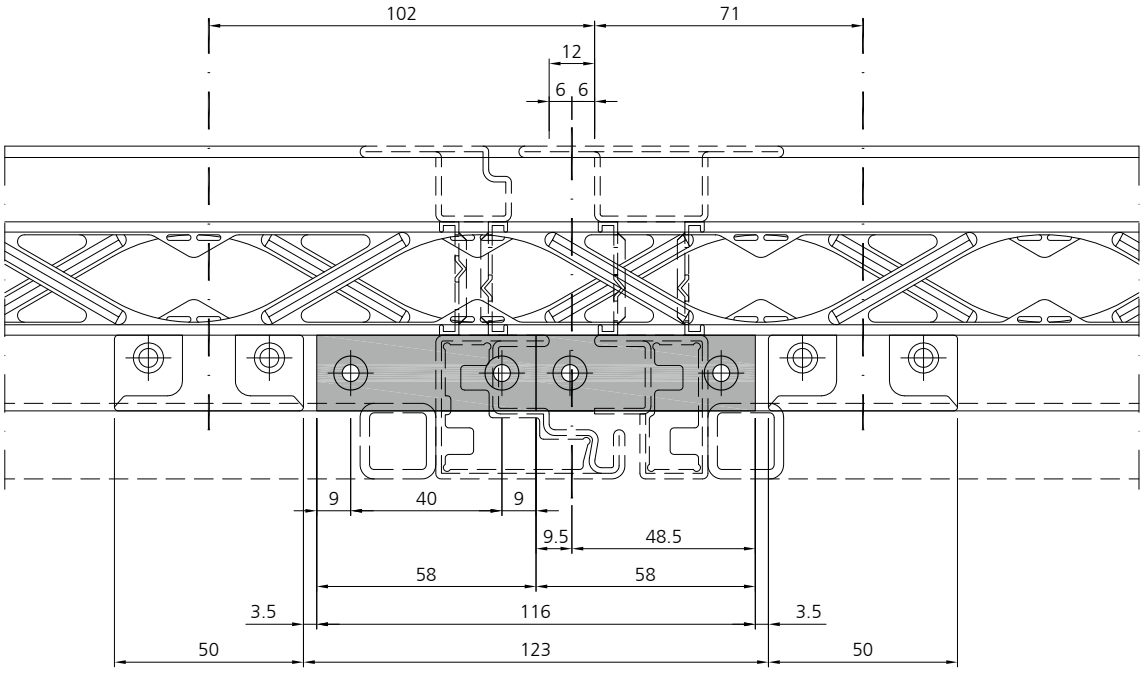
Profilbearbeitung
Verstärkung

Mise en œuvre des profilés
Renforcement

Profile processing
Reinforcement



Ansicht / Élévation / View

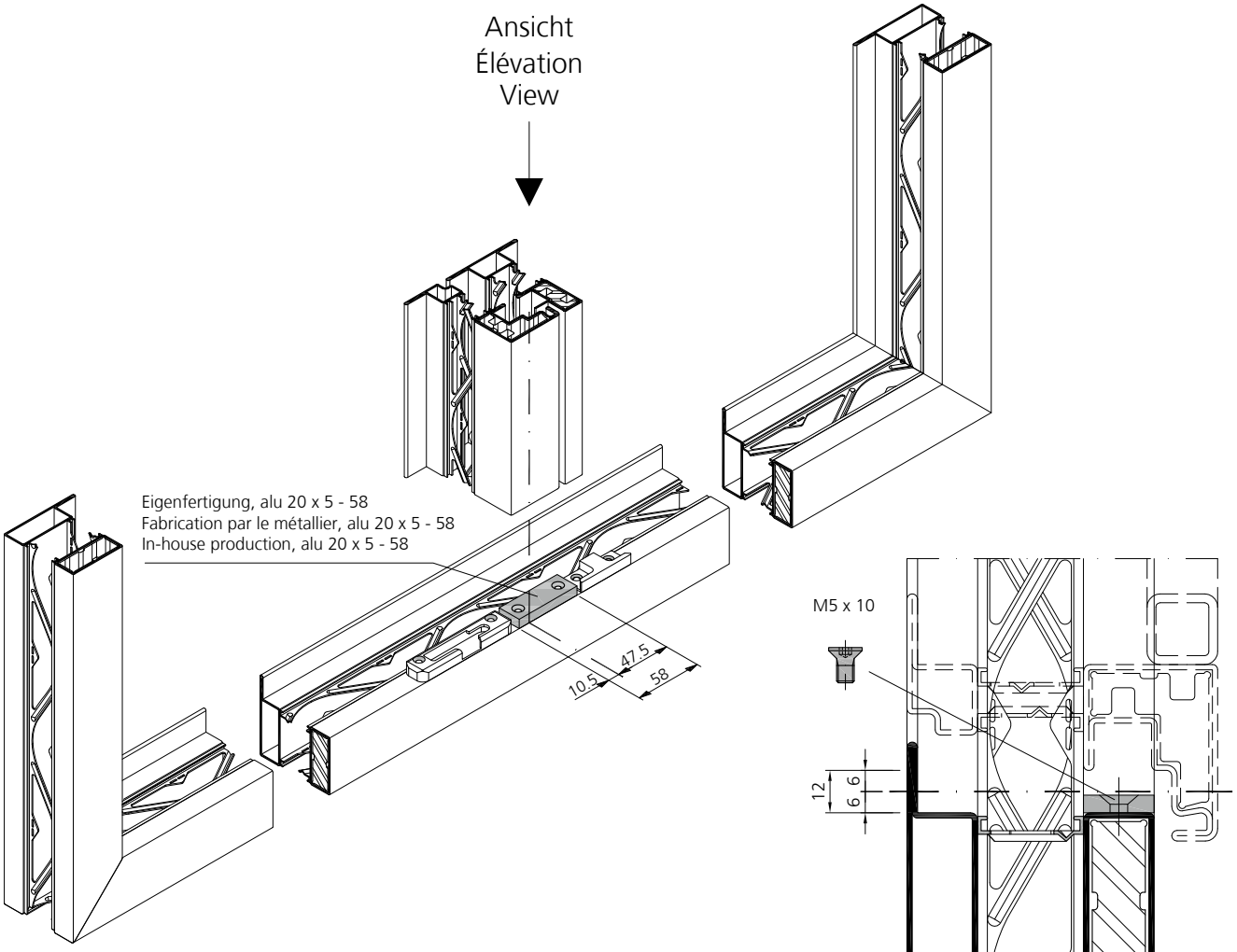


VUF 01/19

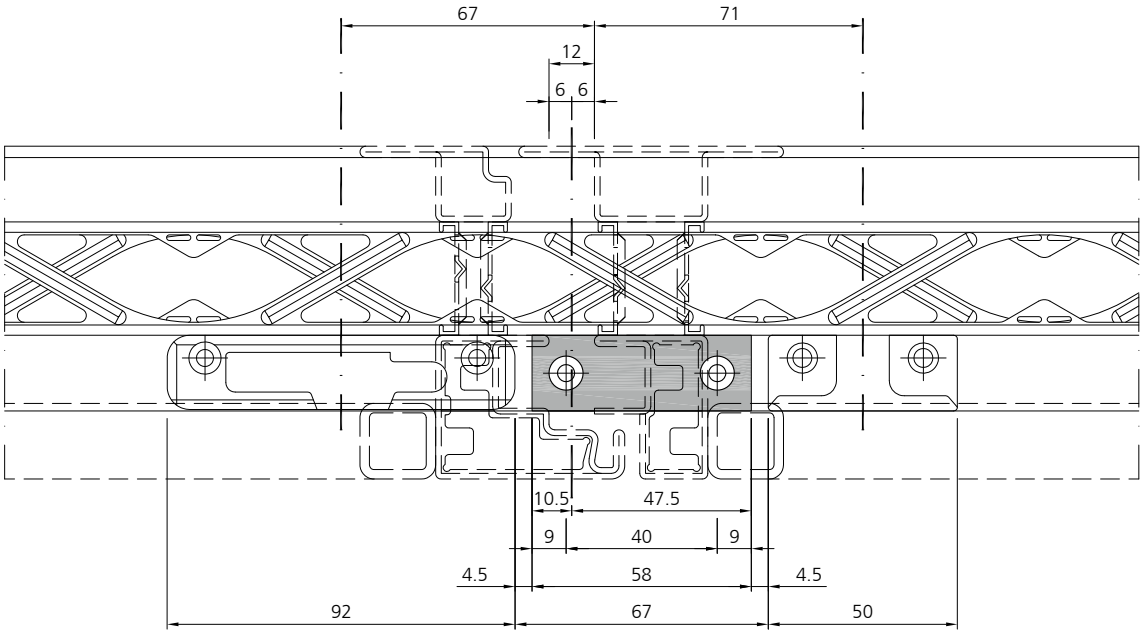
Profilbearbeitung
Verstärkung

Mise en œuvre des profilés
Renforcement

Profile processing
Reinforcement



Ansicht / Élévation / View

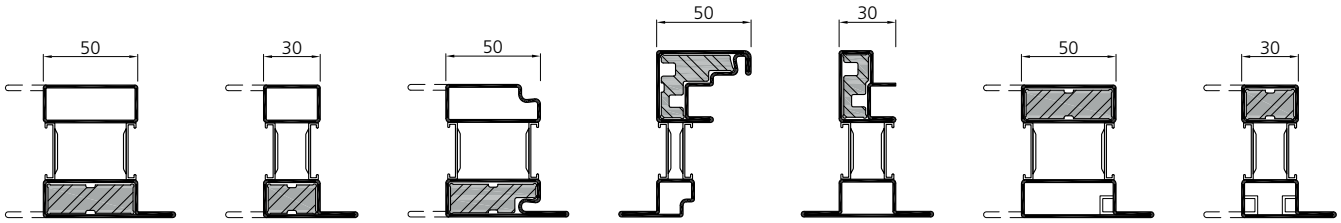


Profilbearbeitung
Montage Einschiebling

Mise en œuvre des profilés
Montage renforts à insérer

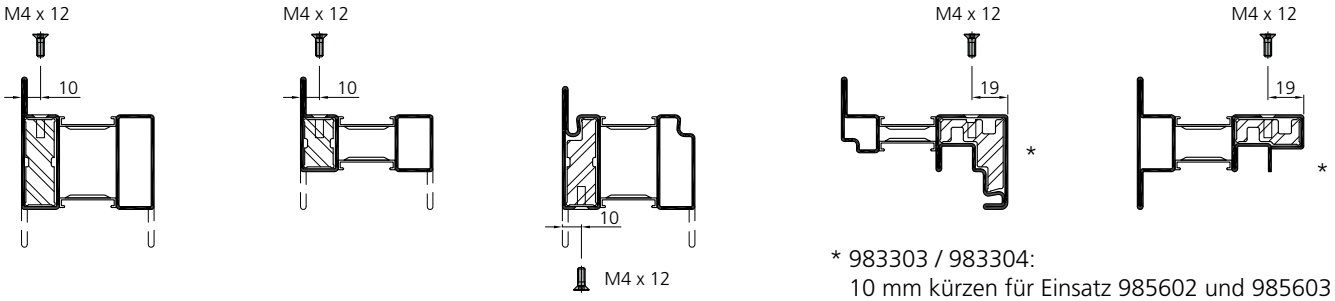
Profile processing
Mounting reinforcement inserts

Einschiebling / Ronfort à insérer / Reinforcement insert

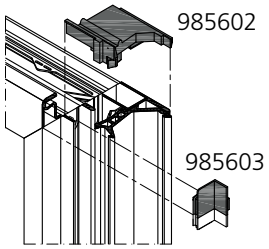


983300 | 983301 | 983302 | 983304* | 983303* | 983300 | 983301

Befestigung / Fixation / Fastening



* 983303 / 983304:
10 mm kürzen für Einsatz 985602 und 985603
couper 10 mm pour insérer 985602 et 985603
shorten 10 mm for insert 985602 and 985603

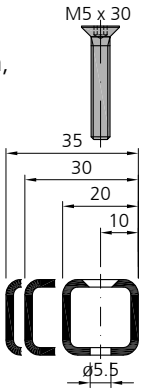


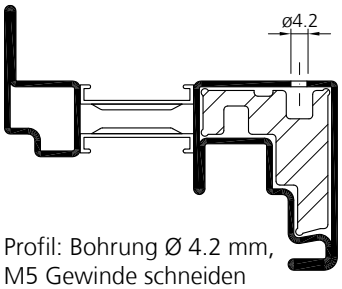
Profilbearbeitung
Befestigung Glashalteleiste

Mise en œuvre des profilés
Fixation parclose

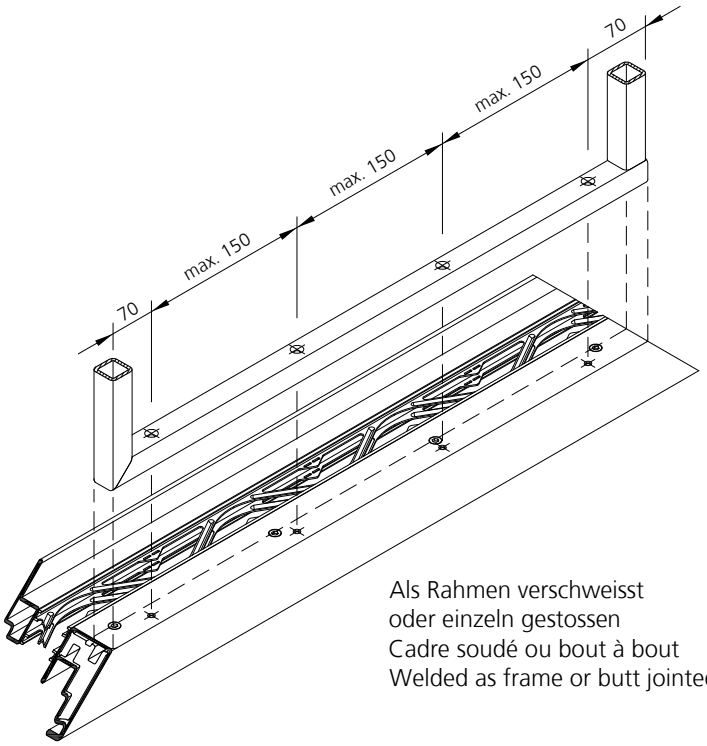
Profile processing
Fastening glazing bead

Glashalteleiste:
Bohrung Ø 5.5 mm, ansenken
Parclose:
perçage Ø 5.5 mm
Glazing beat:
drilling Ø 5.5 mm



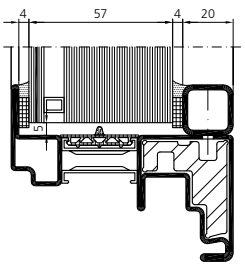


Profil: Bohrung Ø 4.2 mm,
M5 Gewinde schneiden
Profilé: perçage Ø 4.2 mm,
filetage M5
Profile drilling Ø 4.2 mm
thread cutting M5

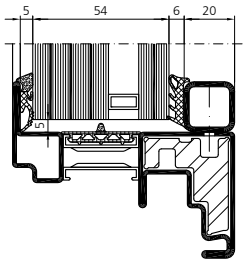


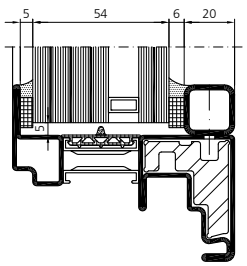
Als Rahmen verschweisst
oder einzeln gestossen
Cadre soudé ou bout à bout
Welded as frame or butt jointed

ALLSTOP ISO BR4-NS-22



Vetrogard PRO
Climaplus BR4-NS/P7B





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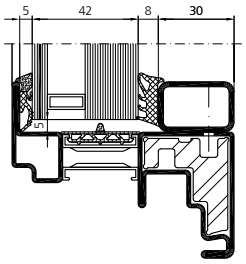
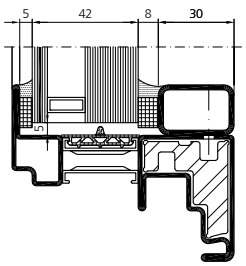
Climaplus BR4-NS/P8B





NOVOLAY
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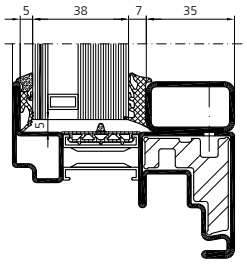
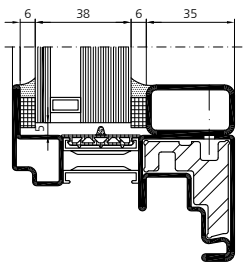


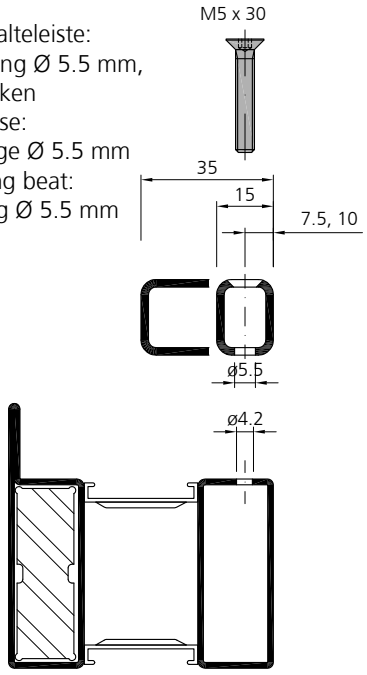


Profilbearbeitung
Befestigung Glashalteleiste

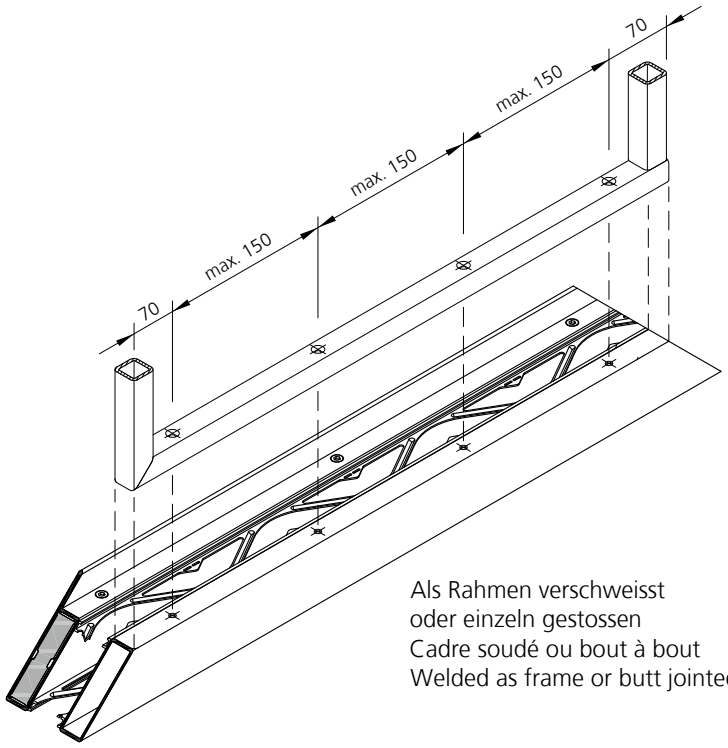
Mise en œuvre des profilés
Fixation parclose

Profile processing
Fastening glazing bead

Glashalteleiste:
Bohrung Ø 5.5 mm, ansenken
Parclose:
perçage Ø 5.5 mm
Glazing beat:
drilling Ø 5.5 mm

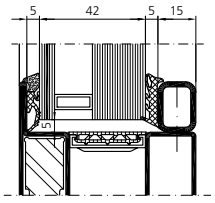


Profil: Bohrung Ø 4.2 mm,
M5 Gewinde schneiden
Profilé: perçage Ø 4.2 mm,
filetage M5
Profile drilling Ø 4.2 mm
thread cutting M5



Als Rahmen verschweisst
oder einzeln gestossen
Cadre soudé ou bout à bout
Welded as frame or butt jointed

Polygard PRO
Climaplus BR4-NS/P8B



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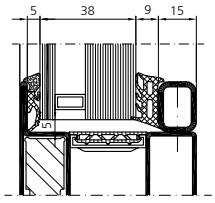
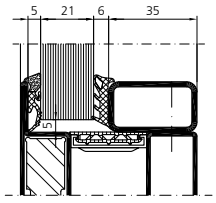
secure BR4-NS/15.3.0



Polygard PRO
Climaplus BR4-NS/P8B



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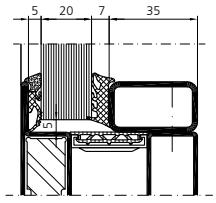
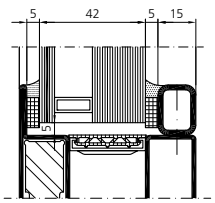
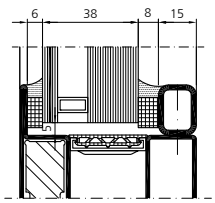
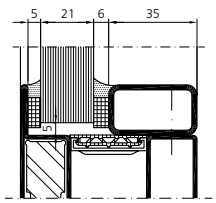
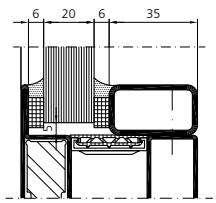










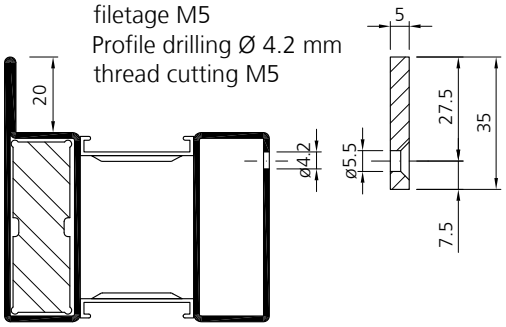
FB4 Stahl / Acier / Steel | Edelstahl / Acier inox / Stainless steel

Profilbearbeitung
Befestigung Glashalteleiste

Mise en œuvre des profilés
Fixation parclose

Profile processing
Fastening glazing bead

Profil: Bohrung Ø 4.2 mm,
M5 Gewinde schneiden
Profilé: perçage Ø 4.2 mm,
filetage M5
Profile drilling Ø 4.2 mm
thread cutting M5



Glashalteleiste:
Bohrung Ø 5.5 mm, ansenken
Parclose:
perçage Ø 5.5 mm
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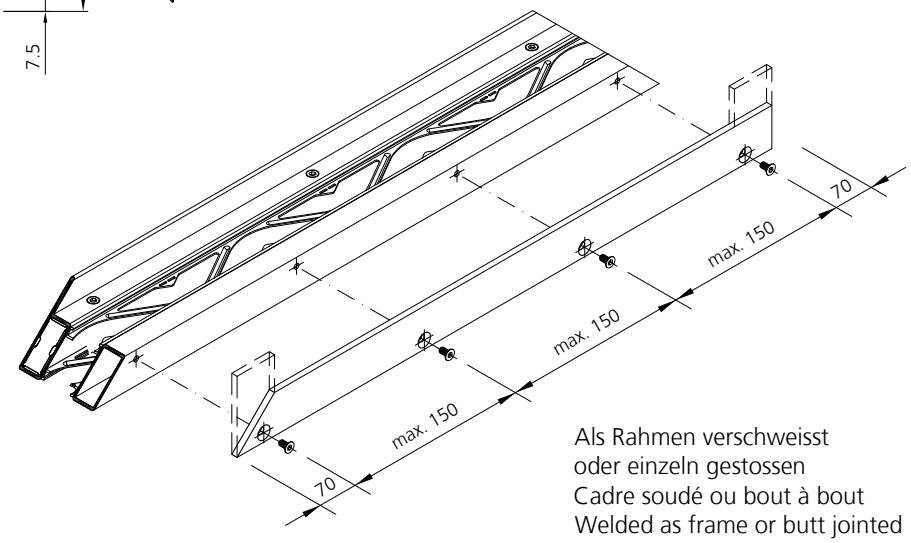

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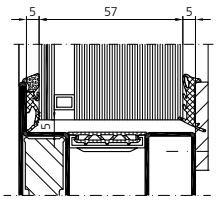
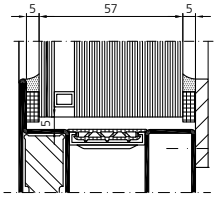
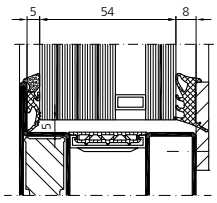
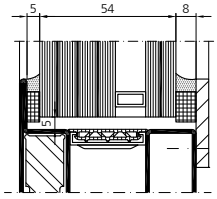
ALLSTOP ISO BR4-NS-22





Vetrogard PRO
Climaplus BR4-NS/P7B

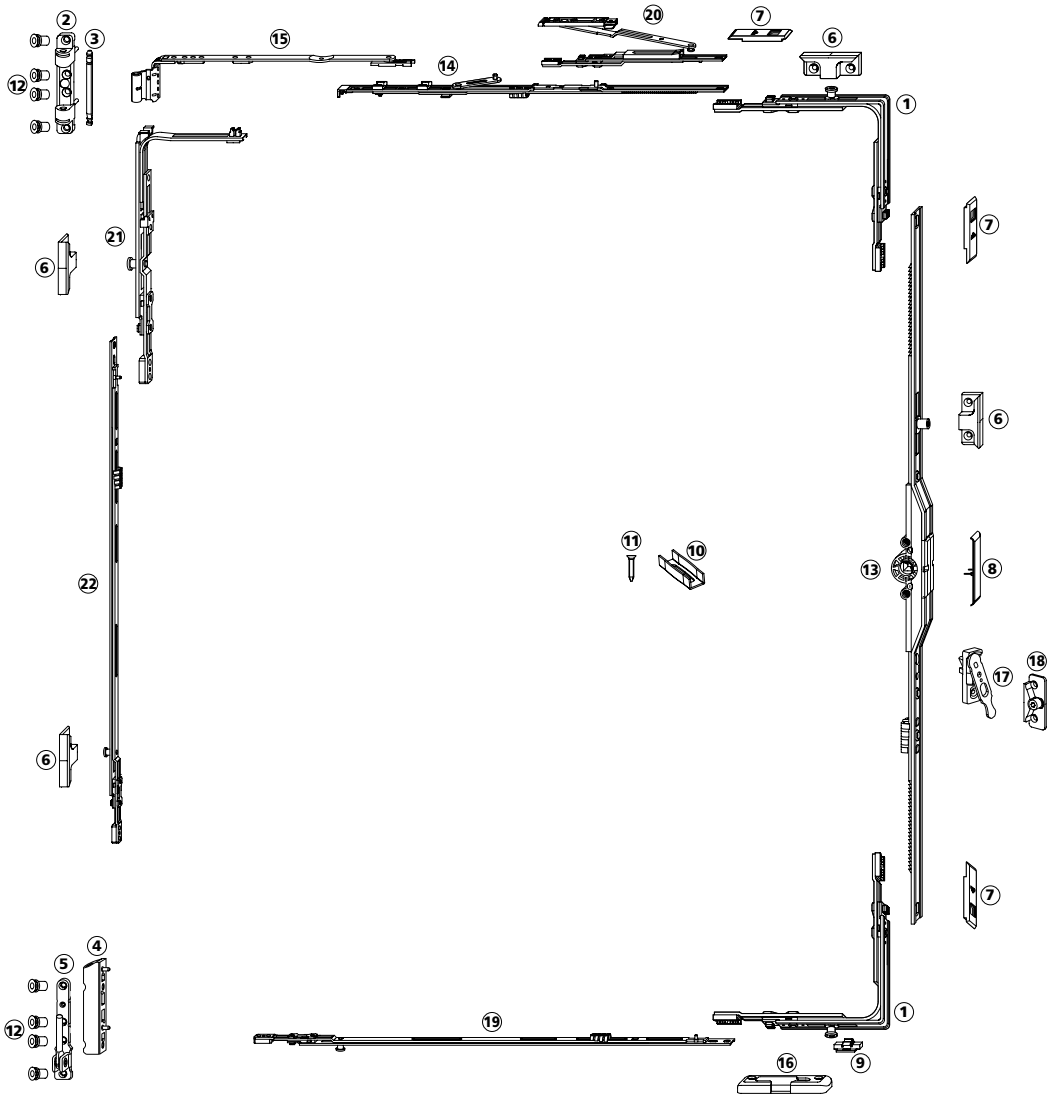




Beschläge
Dreh- / Drehkipp - Flügel

Quincaillerie
Vantail / OB / OF

Leaf fittings
Turn / tilt and turn leaf

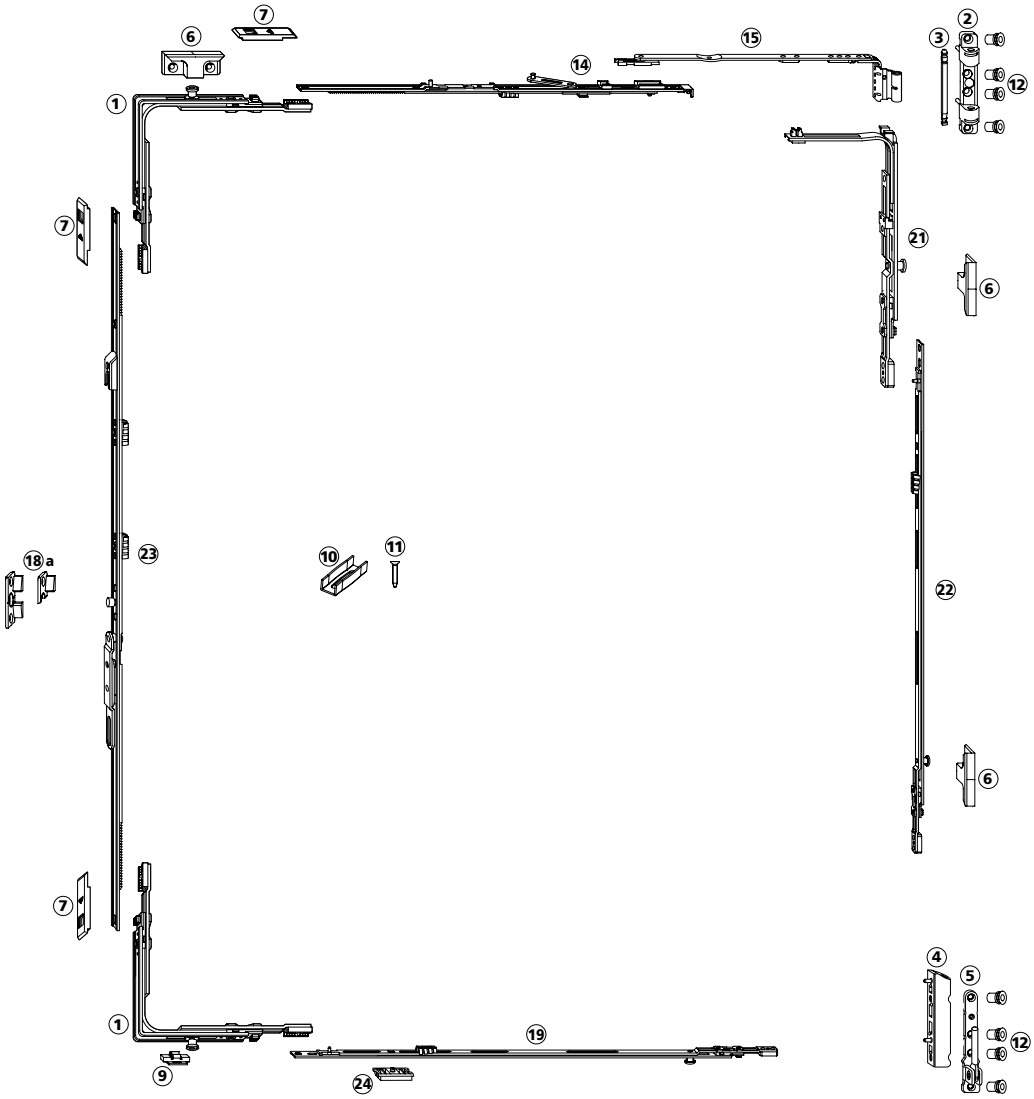


1 Eckumlenkung V
2 Axerlager spezial
3 Axerlager – Stift
4 Eckband K3 / 100
5 Ecklager K6 / 100
6 Schliessstück
7 Verbindungslasche
8 Infoclip "Forster"
9 Hubbegrenzer (90°)
10 Beschlags-Distanzstück
11 Beschlagsschraube M4 × 21
12 Einnietmutter M4
13 DK-Getriebe mittig, Dornmass 8
14 Axerstulp
15 Axerarm
16 Kipplager
17 Niveau-Schaltsperre Flügelteil
18 Niveau-Schaltsperre Rahmenteil
19 Verlängerung horizontal (FFB > 1200)
20 Zweitschere (FFB > 1400)
21 Eckumlenkung Axer (FFH > 1200)
22 Verlängerung vertikal (FFH >1200 1x, FFH > 2000 2x)

1 Transmission équerre V
2 Palier de compas spécial
3 Tige d'axe
4 Pivot d'angle K3 / 100
5 Palier d'angle K6 / 100
6 Gâche
7 Plaquette de liaison
8 Infoclip "Forster"
9 Limitateur de course (90°)
10 Pièce de distance pour ferrement
11 Vis de ferrement M4 × 21
12 Rivet taraudé M4
13 Crémone oscillo-battant centrale, fouillot 8
14 Têtière de compas
15 Bras de compas
16 Gâche de basculement
17 Anti-fausse manœuvre partie ouvrant
18 Anti-fausse manœuvre partie dormant
19 Extension horizontale (FFB > 1200)
20 Deuxième compas (FFB > 1400)
21 Renvoi de compas (FFH > 1200)
22 Extension verticale (FFH >1200 1x, FFH > 2000 2x)

1 Corner drive V
2 Sash stay bearing special
3 Sash stay bearing pin
4 Corner hinge K3 / 100
5 Corner pivot rest K6 / 100
6 Striker
7 Link piece
8 Infoclip "Forster"
9 Travel – restrictor (90°)
10 Distance piece for fittings
11 Fitting screw M4 × 21
12 Clench rivet M4
13 Tilt-turn central drive, mandrel size 8
14 Sash stay guide
15 Sash stay arm
16 Tilt-turn striker
17 Lifting mishandling device sash component
18 Lifting mishandling device frame part
19 Horizontal extension (FFB > 1200)
20 Additional scissors-stay (FFB > 1400)
21 Stay corner drive (FFH > 1200)
22 Vertical extension (FFH >1200 1x, FFH > 2000 2x)

Beschläge Stulpflügel — Quincaillerie vantail semi-fixe — Double sash fittings

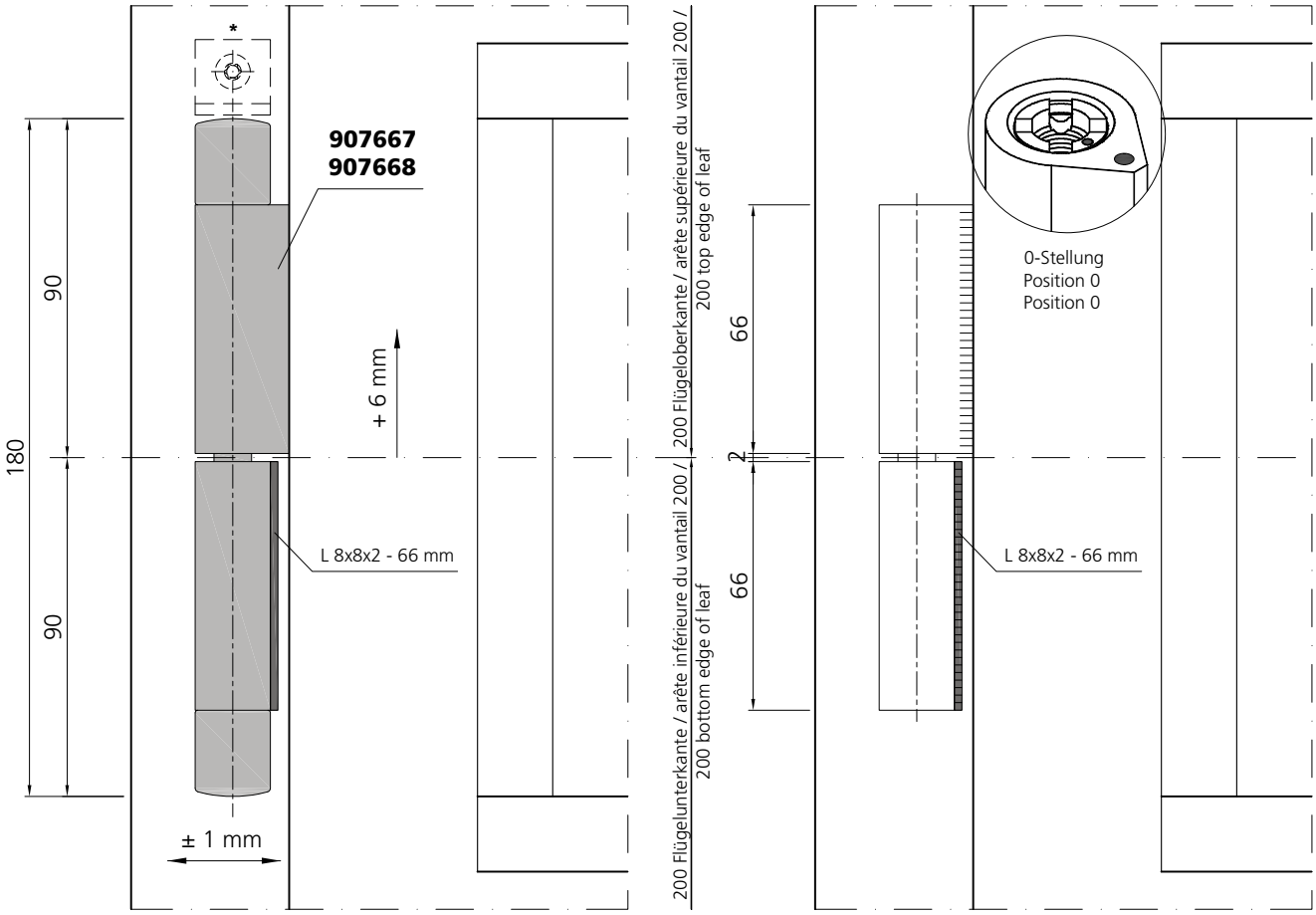


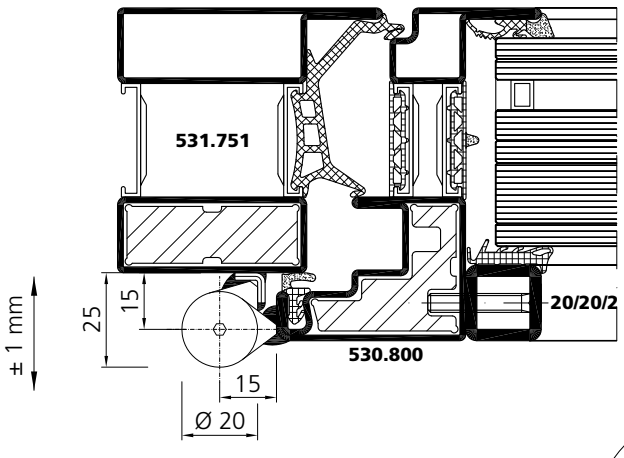
1	Eckumlenkung V	**1**	Transmission équerre V	**1**	Corner drive V
2	Axerlager spezial	**2**	Palier de compas spécial	**2**	Sash stay bearing special
3	Axerlager – Stift	**3**	Tige d'axe	**3**	Sash stay bearing pin
4	Eckband K3 / 100	**4**	Pivot d'angle K3 / 100	**4**	Corner hinge K3 / 100
5	Ecklager K6 / 100	**5**	Palier d'angle K6 / 100	**5**	Corner pivot rest K6 / 100
6	Schliessstück	**6**	Gâche	**6**	Striker
7	Verbindungslasche	**7**	Plaquette de liaison	**7**	Link piece
8	Infoclip "Forster"	**8**	Infoclip "Forster"	**8**	Infoclip "Forster"
10	Beschlags-Distanzstück	**10**	Pièce de distance pour ferrement	**10**	Distance piece for fittings
11	Beschlagsschraube M4 × 21	**11**	Vis de ferrement M4 × 21	**11**	Fitting screw M4 × 21
12	Einnietmutter M4	**12**	Rivet taraudé M4	**12**	Clench rivet M4
14	Axerstulp DF	**14**	Têtière de compas DF	**14**	Sash stay guide DF
15	Axerarm	**15**	Bras de compas	**15**	Sash stay arm
18a	Niveau-Schaltsperre Stulpteil	**18a**	Anti-fausse manœuvre partie semi-fixe	**18a**	Lifting mishandling passive leaf part
19	Verlängerung horizontal (FFB > 1200)	**19**	Extension horizontale (FFB > 1200)	**19**	Horizontal extension (FFB > 1200)
21	Eckumlenkung Axer (FFH > 1200)	**21**	Renvoi d'angle de compas (FFH > 1200)	**21**	Stay corner drive (FFH > 1200)
22	Verlängerung vertikal (FFH >1200 1x, FFH > 2000 2x)	**22**	Extension verticale (FFH >1200 1x, FFH > 2000 2x)	**22**	Vertical extension (FFH >1200 1x, FFH > 2000 2x)
23	Stulpgetriebe mittig	**23**	Crémone centrale pour vantail semi-fixe	**23**	Central double sash drive
24	Auflaufkeil	**24**	Support glissiére vantail semi fixe	**24**	Run up block

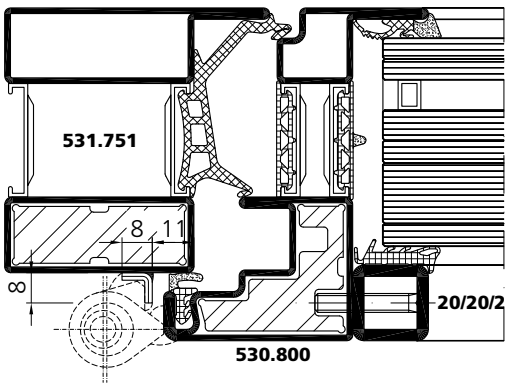
Beschlagseinbau Anschweissband 907667 / 907668

Montage de la quincaillerie Paumelle à souder 907667 / 907668

Installation of the fittings Weld-on hinge 907667 / 907668



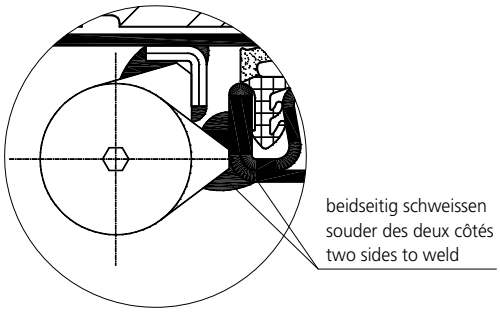




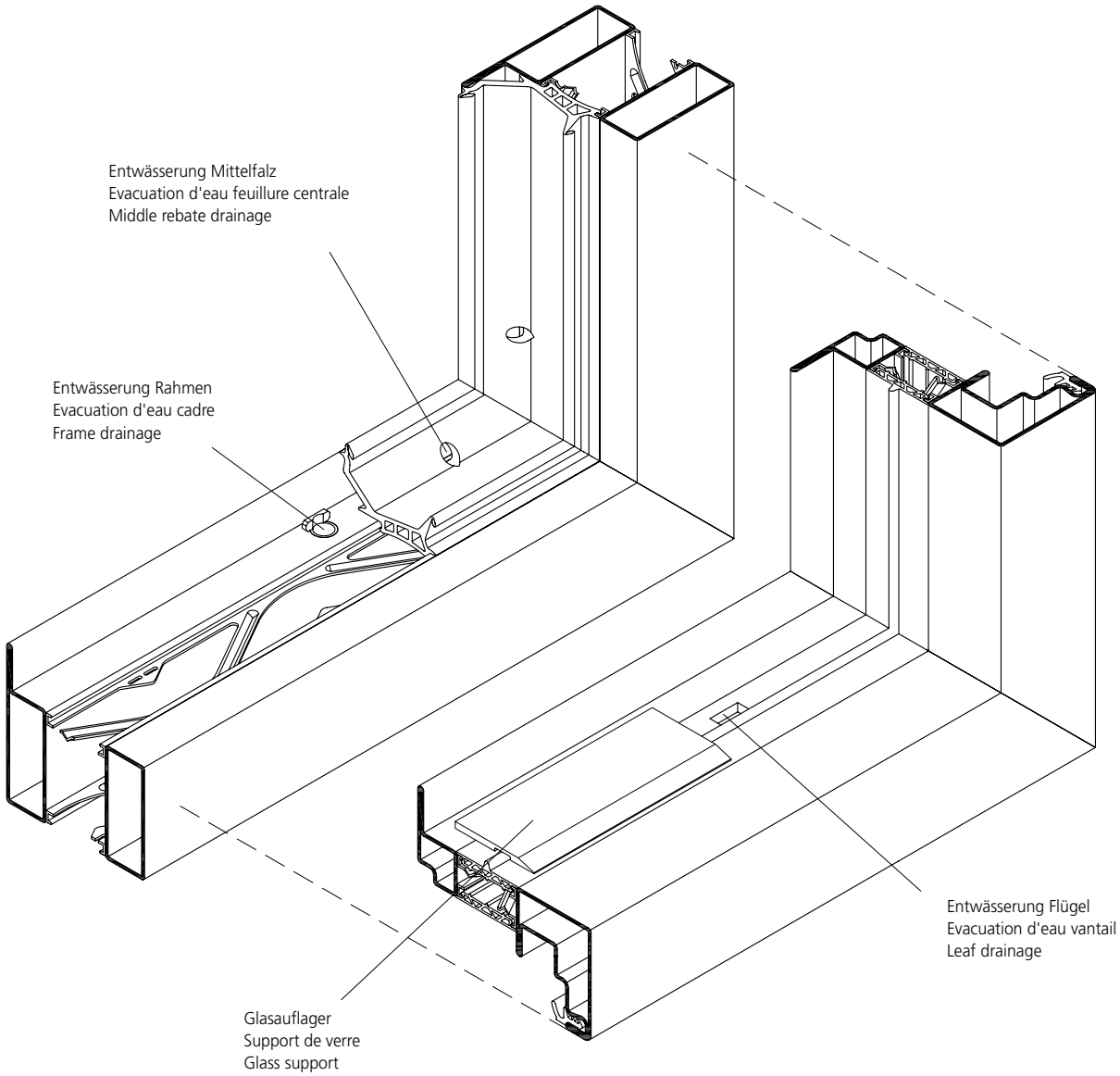
* nur bei Kipp-Ausführung:
Anschlagwinkel montieren (geschraubt)

seulement lorsque ouvrant à soufflet:
monter équerre de blocage (vissé)

only for tilt only version:
mount blocking angle (screwed)



Entwässerung Évacuation d'eau Drainage



11

Brandschutzfenster E30 / EW30

Systemübersicht		11.1.1 - 11.1.4
Beschläge		11.2.1 - 11.2.16
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	Systemschnitte	11.4.1 - 11.4.10
	Systempläne	11.4.11 - 11.4.27
	Wandanschlüsse	11.4.28 - 11.4.38
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Fenêtres pare-flammes E30 / EW30

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	Coupes du système	11.4.1 - 11.4.10
	Plans du système	11.4.11 - 11.4.27
	Raccords muraux	11.4.28 - 11.4.38
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Vitrage		11.6.1 - 11.6.6
Procès-Verbaux d'essais		11.7.1 - 11.7.4

Fire rated windows E30 / EW30

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	System plans	11.4.11 - 11.4.27
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Processing		11.5.1 - 11.5.8
Glazing		11.6.1 - 11.6.6
Test reports		11.7.1 - 11.7.4

Technische Merkmale

Werkstoffe
- Stahl blank
- Stahl bandverzinkt

Ansichtsbreiten
- Rahmenprofil 50, 70 und 90 [mm]
- Schmalste Ansichtsbreiten für Fensterflügel
- Gleiche Ansichtsbreite wie Forster Brand- und Rauchschutzsysteme

Beschläge
- Verdeckt liegende Forster Systembeschläge für Fenster erhältlich

Oberflächenbehandlung
- Freie Wahl des Beschichtungssystems

Wärmedämmung
- Forster unico: nach EN 10077-2
  U_W bis 1.4 [W/(m²·K)]

Widerstandsfähigkeit bei Windlast (EN 12210)
- Fenster C5/B5

Schlagregendichtheit (EN 12208)
- Fenster E1050

Luftdurchlässigkeit (EN 12207)
- Fenster Klasse 4

Widerstandsklasse (EN 13501-2)
- E30
- EW30

Caractéristiques techniques

Matières premières
- Acier brut
- Acier en feuillard galvanisé

Largeurs des faces vues
- Profilés de cadre 50, 70 et 90 [mm]
- Largeurs des faces vues encore plus étroites pour vantaux de fenêtres
- Compatibilité avec les dimensions des systèmes coupe-feu et pare-flamme Forster

Quincaillerie
- Quincaillerie encastrée Forster disponible pour fenêtres

Traitement de surface
- Libre choix du traitement de surface

Isolation thermique
- Forster unico: selon EN 10077-2
  U_W jusqu'a 1.4 [W/(m²·K)]

Résistance structurelle au vent (EN 12210)
- Fenêtre C5/B5

Etanchéité à l'eau (EN 12208)
- Fenêtre E1050

Perméabilité à l'air (EN 12207)
- Fenêtre classe 4

Classification (EN 13501-2)
- E30
- EW30

Technical characteristics

Materials
- Steel, bright
- Steel, continuously galvanized

Facing widths
- Frame profile 50, 70 and 90 [mm]
- Narrowes facing widths for casements
- Compatible with Forster fire and smoke protection systems

Fittings
- Concealed Forster system fittings available for windows

Surface treatments
- Free choice of coating system

Thermal insulation
- Forster unico: according to EN 10077-2
  U_W up to 1.4 [W/(m²·K)]

Resistance to wind load (EN 12210)
- Window C5/B5

Water tightness (EN 12208)
- Window E1050

Air permeability (EN 12207)
- Window class 4

Resistance class (EN 13501-2)
- E30
- EW30

Wichtig !

Einzelne Anwendungsbeispiele und Verarbeitungshinweise entsprechen nicht den in Ihrem Land gültigen Brandschutznormen.

Massgebend sind ausschliesslich die für Ihr Land gültigen Zulassungen.

Important !

Les exemples de mise en œuvre présentés ci-après ne sont pas tous conformes à la réglementation en vigueur dans votre pays.

En conséquence, nous vous demanderons de vous reporter aux procès-verbaux de classement en cours de validité dans votre pays.

Important !

Some of the construction details and processing guidelines do not correspond to the fire protecting standards in your country.

Only the certificates valid in your country are relevant.

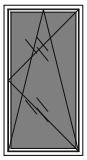
Übersicht Fenstertypen

Types de fenêtres

Types of windows

1	einflügeliges Fenster Drehkippflügel	Fenêtre à un vantail, oscillo-battant	Single leaved turn/tilt window
2	einflügeliges Fenster mit zwei Seitenteilen	Fenêtre à un vantail avec deux parties latérales fixes	Single leaved window with two screen abutments
3	einflügeliges Fenster mit Ober- und Unterlicht und zwei Seitenteilen	Fenêtre à un vantail avec imposte, allège et deux parties latérales fixes	Single leaved window with fanlight, sublight and two screen abutments
4	einflügelige Fenster mit Ober- und Unterlicht, aneinander gereiht	Fenêtres à un vantail avec imposte et allège, en continu	Single leaved windows with fanlight and sublight, aligned
5	Festverglasung	Vitrage fixe	Fixed glazing

1



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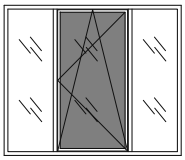

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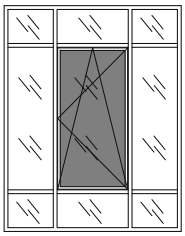

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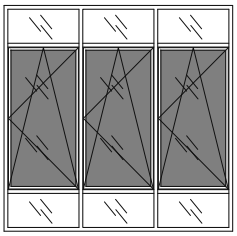

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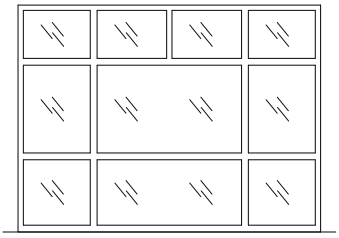
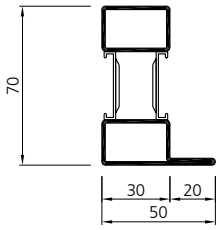


Systemübersicht | Tableau du système | Synopsis of system



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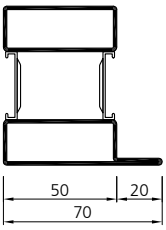
531.731 Z



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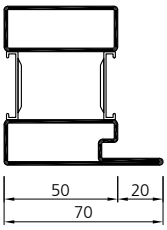

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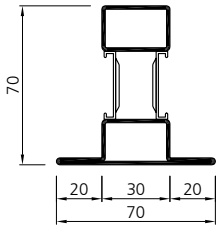

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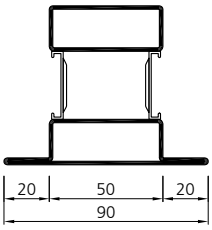

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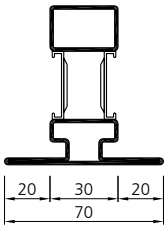

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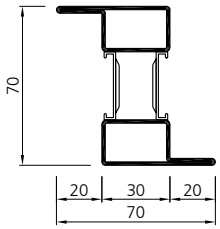

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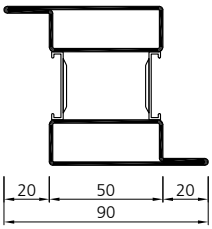

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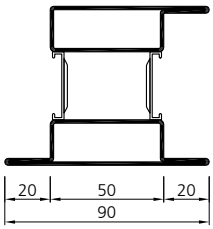

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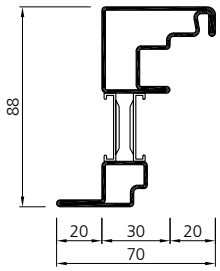

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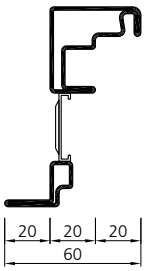
530.800 Z

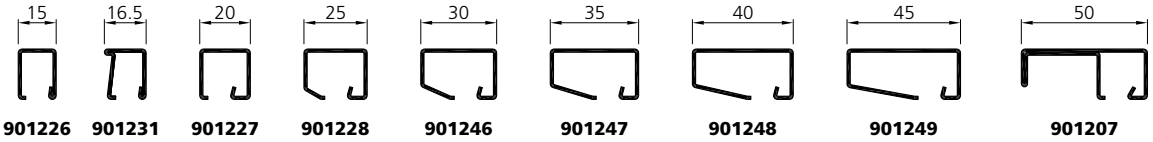


531.801
531.801 Z

E30 / EW30

Stahl
Acier
Steel

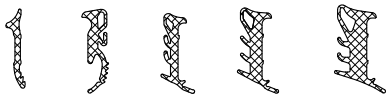
Systemübersicht | Tableau du système | Synopsis of system



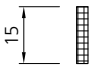
901226 **901231** **901227** **901228** **901246** **901247** **901248** **901249** **901207**



906577 (VE 100 Stk/pcs)
906578 (VE 1000 Stk/pcs)
906579 (Mag. 200 Stk/pcs)



905712 2 mm **985702** 5 mm **905784** 3-4 mm **905785** 5-6 mm **905786** 7-8 mm



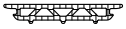
948003 3 mm
948004 4 mm
948005 5 mm
948006 6 mm



948007 3 mm
948008 4 mm
948009 5 mm
948010 6 mm



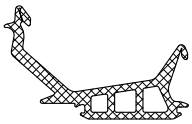
980101



985704



985705



985703



985700



900100
900103



988051



987302

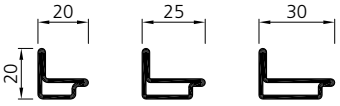


987081

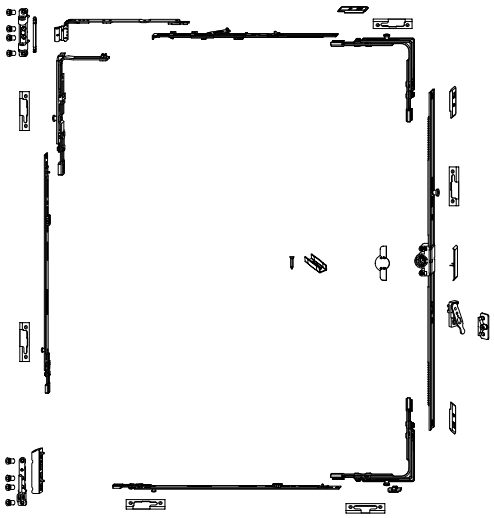


986701 **986702** **986703**

* auf Anfrage
sur demande
on request



901204 **901205*** **901206***



987101 RC3 - 987158 RC3

Beschläge Fenster | Quincaillerie fenêtres | Window fittings

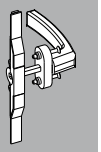


Groupe scolaire Barbey, FR-Bordeaux

Beschläge Fenster

Systembeschläge für Forster unico werden als Komplettgarnituren geliefert. Der Beschlag ist so abgestimmt worden, dass für Dreh- und Drehkipp-Fenster derselbe Beschlag verwendet werden kann.

Die beiden unterschiedlichen Funktionen werden über einen Hubbegrenzer im Bereich der unteren Eckumlenkung gesteuert. Die Verarbeitung und Montage ist von der Funktion unabhängig und vereinfacht den Beschlagseinbau.



Einsatzbereich des Forster Standardbeschlages:

1 flügelige Fenster
Massgebend für die maximal möglichen Flügelmasse sind ausschliesslich die für Ihr Land gültigen Zulassungen.

Beschlag-Oberfläche: Silberoptik

Bei Verwendung mit schmalem Flügelprofil oder als Variante mit verdecktliegendem Fensterbeschlag erfolgt die Beschlagsanfrage über das Bestellformular.

Quincaillerie fenêtres

La quincaillerie du système Forster unico est livrée en garniture complète. Elle est conçue de telle façon qu'il est possible d'utiliser le même ferrement pour les fenêtres ouvrant à la française et ouvrant oscillo-battant.

Les deux fonctions différentes sont commandées par un limitateur de course dans la zone du renvoi d'angle inférieur. Le traitement et le montage sont indépendants de la fonction et simplifient le montage de la quincaillerie.

Domaine d'application de la quincaillerie Forster standard:

Fenêtre 1 vantail
Pour les dimensions maximales du vantail, nous vous demanderons de vous reporter aux procès-verbaux dans votre pays.

Surface de quincaillerie: aspect argent

Cas d'utilisation avec un profilé de vantail fin ou avec les paumelles cachées, la demande est effectuée sur le formulaire de commande.

Window fittings

System fittings for Forster unico are supplied as complete sets. The same fittings can be used for turn windows as well as for tilt and turn windows.

The two different functions are controlled via a travel restrictor in the area of the lower corner drive. Processing and assembly are not dependent on the function and simplifies therefore the installation of the fittings.

Area of application of the Forster standard fittings:

Window 1 leaf
For the maximum possible leaf dimensions, only the certificates valid in your country are relevant.

Fittings surface: silver

For use of the narrow leaf profile or as a variant with concealed window fittings, the request has to be made on the order form.

Beschläge Fenster

Flügelgrössen und Griffhöhen, welche ausserhalb des Anwendungsbereichs liegen, können bei positiver Prüfung der Machbarkeit mittels Sonderbestellungen bezogen werden. Für die Machbarkeitsabklärung und die daraus folgende Bestellung sind die entsprechenden Formulare in diesem Kapitel zu verwenden.

Notwendige Artikel für 1-flügelige Fenster:
- **Dreh-/Drehkipp-Beschlag RC3**
- **Fenstergriff abschliessbar**
- **Abdeckkappen**

Auf Anfrage können die Beschläge auch geschüttet geliefert werden.

Quincaillerie fenêtres

Les dimensions de vantaux et hauteurs de poignée en dehors du domaine d'application peuvent faire l'objet d'une commande spéciale après une étude de faisabilité. Pour l'étude de faisabilité et la commande résultante, veuillez utiliser les formulaires dans ce chapitre.

Articles nécessaires pour fenêtres à 1 vantail:
- **Quincaillerie pour ouverture à la française/ouverture oscillo-battant RC3**
- **Poignée de fenêtre fermeture à clé**
- **Caches**

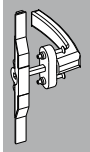
Sur demande la quincaillerie peut être fournie en vrac.

Window fittings

Leaf sizes and handle heights outside of the specified area of application can be ordered if found feasible by special order. The forms to be used for feasibility studies and corresponding special orders are included in this chapter.

Necessary items single leaf windows:
- **Turn/ tilt and turn fittings RC3**
- **Window handles lockable**
- **Cover caps**

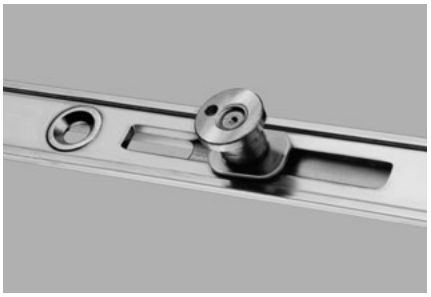
Upon request, unsorted fittings can also be supplied.



Schliesszapfenvarianten

Variantes de galets de verrouillage

Locking cam versions



Schliesszapfen V
höhen- und anpressdruckverstellbarer Sicherheits-Pilzzapfen

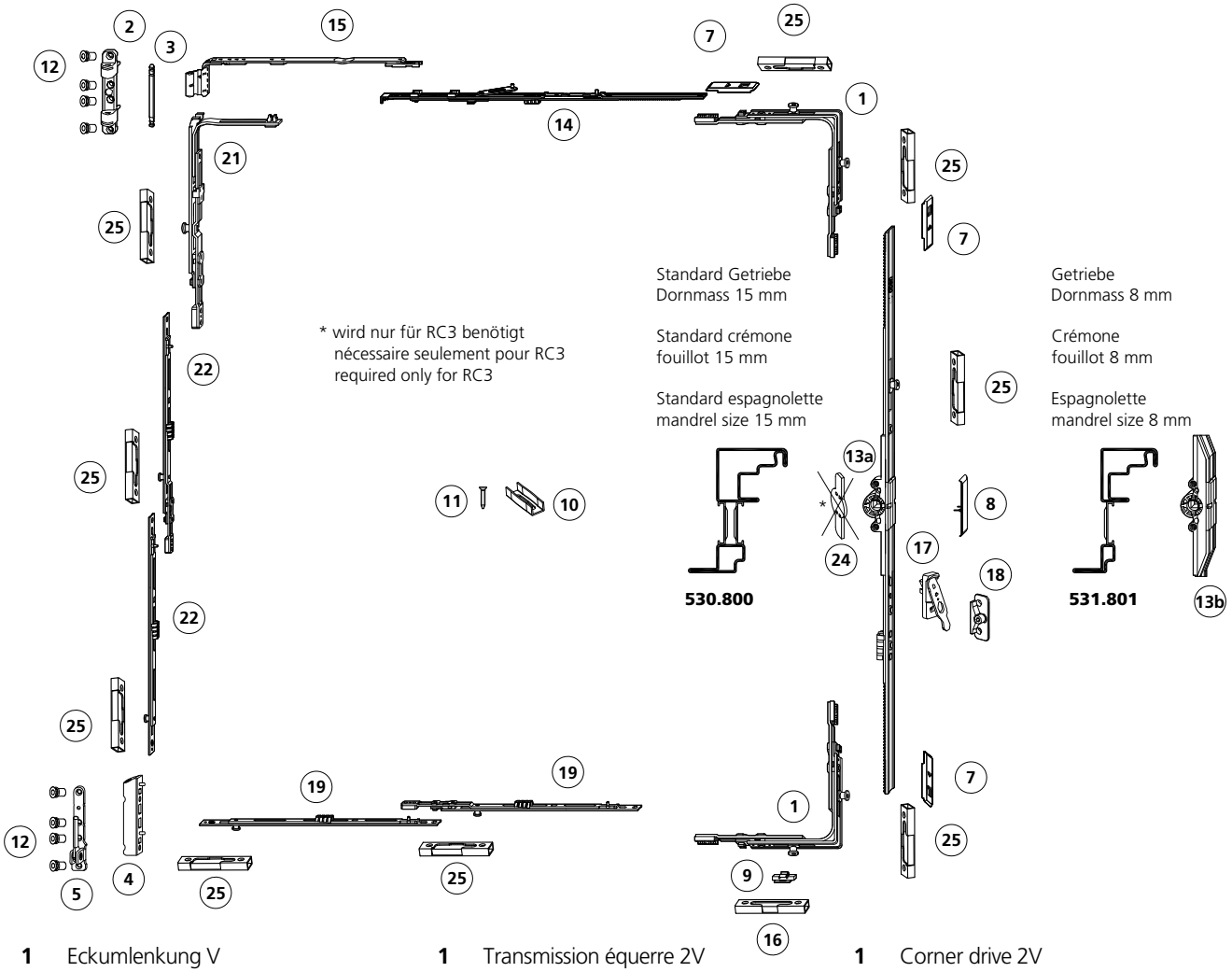
Galet de sécurité V
à tête champignon avec hauteur et pression de fermeture réglable

Locking cam V
height and gasket-compression adjustable security cam

Beschläge Dreh- / Drehkipp-Flügel

Quincaillerie Vantail / OB / OF

Leaf fittings Turn / tilt and turn leaf



1 Eckumlenkung V
2 Axerlager spezial
3 Axerlager - Stift
4 Eckband K3 / 100
5 Ecklager K6 / 100
7 Verbindungslasche
8 Infoclip "Forster"
9 Hubbegrenzer (90°)
10 Beschlags-Distanzstück
11 Beschlagsschraube M4 x 21
12 Einnietmutter M4
13a DK-Getriebe mittig, Dornmass 15
13b DK-Getriebe mittig, Dornmass 8
14 Axerstulp WK
15 Axerarm
16 Kipplager WK
17 Niveau-Schaltsperre Flügelteil
18 Niveau-Schaltsperre Rahmenteil
19 Verlängerung horizontal
21 Eckumlenkung Axer
22 Verlängerung vertikal
24 *Anbohrschutz
25 Schliessstück WK

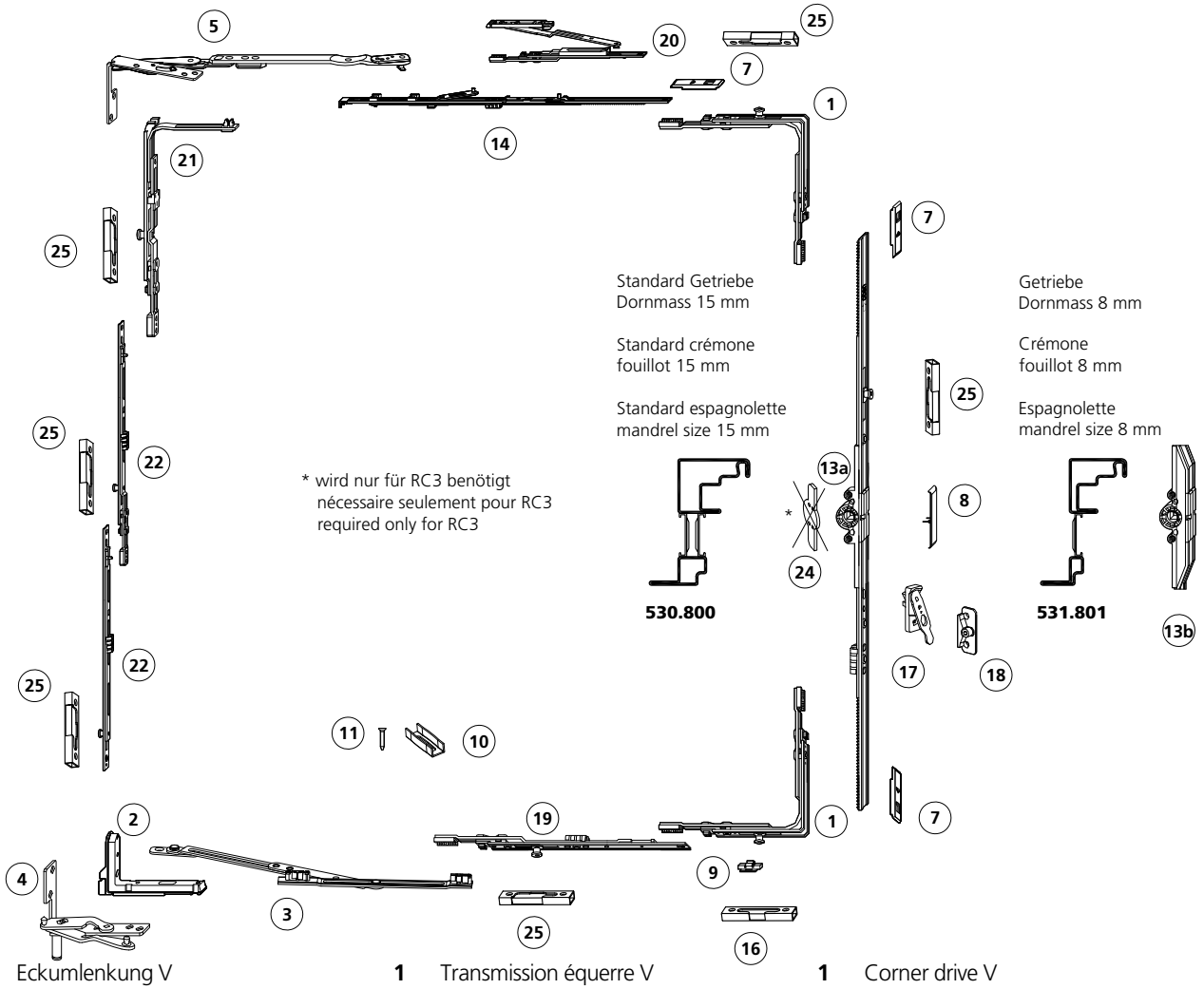
1 Transmission équerre 2V
2 Palier de compas spécial
3 Tige d'axe
4 Pivot d'angle K3 / 100
5 Palier d'angle K6 / 100
7 Plaquette de liaison
8 Infoclip "Forster"
9 Limitateur de course (90°)
10 Pièce de distance pour ferrement
11 Vis de ferrement M4 x 21
12 Rivet taraudé M4
13a Crémone oscillo-battant centrale, fouillot 15
13b Crémone oscillo-battant centrale, fouillot 8
14 Têtière de compas CR
15 Bras de compas
16 Gâche de basculement CR
17 Anti-fausse manoeuvre partie ouvrant
18 Anti-fausse manoeuvre partie dormant
19 Extension horizontale
21 Renvoi de compas
22 Extension verticale
24 *Protection contre perçage
25 Gâche CR

1 Corner drive 2V
2 Sash stay bearing special
3 Sash stay bearing pin
4 Corner hinge K3 / 100
5 Corner pivot rest K6 / 100
7 Link piece
8 Infoclip "Forster"
9 Travel - restrictor (90°)
10 Distance piece for fittings
11 Fitting screw M4 x 21
12 Clench rivet M4
13a Tilt-turn central drive, mandrel size 15
13b Tilt-turn central drive, mandrel size 8
14 Sash stay guide RC
15 Sash stay arm
16 Tilt-turn striker RC
17 Lifting mishandling device sash component
18 Lifting mishandling device frame part
19 Horizontal extension
21 Stay corner drive
22 Vertical extension
24 *Drilling protection
25 Striker RC

Verdecktliegende Beschläge Dreh- / Drehkipp-Flügel

Quincaillerie cachée Vantail / OB / OF

Concealed fittings Turn / tilt and turn leaf



1 Eckumlenkung V
2 Eckband verdeckt
3 Drehbegrenzer verdeckt (FFB>1200)
4 Ecklager verdeckt
5 Axerarm verdeckt
7 Verbindungslasche
8 Infoclip "Forster"
9 Hubbegrenzer (90°)
10 Beschlags-Distanzstück
11 Beschlagsschraube M4 x 21
13a DK-Getriebe mittig, Dornmass 15
13b DK-Getriebe mittig, Dornmass 8
14 Axerstulp WK
16 Kipplager WK
17 Niveau-Schaltsperre Flügelteil
18 Niveau-Schaltsperre Rahmenteil
19 Verlängerung horizontal (FFB > 1200)
20 Zweitschere (FFB > 1200)
21 Eckumlenkung Axer (FFH > 520)
22 Verlängerung vertikal (FFH >1200 1x, FFH > 2000 2x)
24 *Anbohrschutz
25 Schliessstück WK

1 Transmission équerre V
2 Pivot d'angle caché
3 Limitateur d'ouverture caché (FFB>1200)
4 Palier d'angle caché
5 Bras de compas caché
7 Plaquette de liaison
8 Infoclip "Forster"
9 Limitateur de course (90°)
10 Pièce de distance pour ferrement
11 Vis de ferrement M4 x 21
13a Crémone oscillo-battant central, fouillot 15
13b Crémone oscillo-battant central, fouillot 8
14 Têtière de compas CR
16 Gâche de basculement CR
17 Anti-fausse manoeuvre partie ouvrant
18 Anti-fausse manoeuvre partie dormat
19 Extension horizontale (FFB > 1200)
20 Deuxième compas (FFB > 1200)
21 Renvoi de compas (FFH > 520)
22 Extension verticale (FFH >1200 1x, FFH > 2000 2x)
24 *Protection contre perçage
25 Gâche CR

1 Corner drive V
2 Corner hinge concealed
3 Leaf opening restrictor concealed (FFB > 1200)
4 Corner pivot rest concealed
5 Sash stay arm concealed
7 Link piece
8 Infoclip "Forster"
9 Travel - restrictor (90°)
10 Distance piece for fittings
11 Fitting screw M4 x 21
13a Tilt-turn central drive, mandrel size 15
13b Tilt-turn central drive, mandrel size 8
14 Sash stay guide RC
16 Tilt-turn striker RC
17 Lifting mishandling device sash component
18 Lifting mishandling device frame part
19 Horizontal extension (FFB > 1200)
20 Additional scissors-stay (FFB > 1200)
21 Stay corner drive (FFH > 520)
22 Vertical extension (FFH >1200 1x, FFH > 2000 2x)
24 *Drilling protection
25 Striker RC

Beschläge
Bestellanleitung

Für die Bestellung des Fensterbeschlages sind nicht die Flügelaussenmasse, sondern die Flügelfalzmasse massgebend. In den folgenden Darstellungen werden die für die Bestellung notwendigen Masse definiert und dargestellt.

Flügelfalzgrössen
Dreh-/Drehkipp-Beschlag
FB: Flügelbreite
FFB: Flügelfalzbreite
FH: Flügelhöhe
FFH: Flügelfalzhöhe
GH: Griffhöhe

Quincaillerie
Instructions de commande

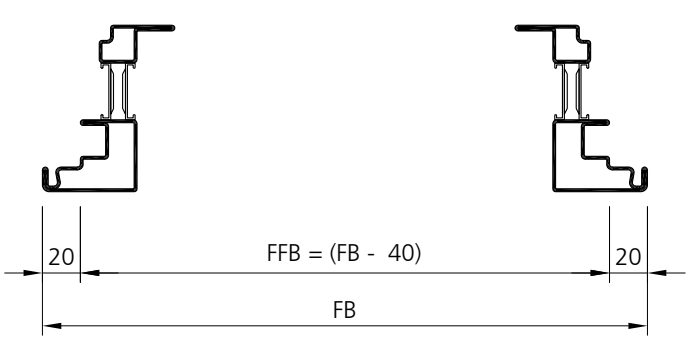
Pour la commande de quincaillerie de fenêtre, les cotes de feuillure de vantail sont déterminantes et non les cotes extérieures de vantail. Les cotes nécessaires à la commande sont définies et représentées dans les illustrations suivantes.

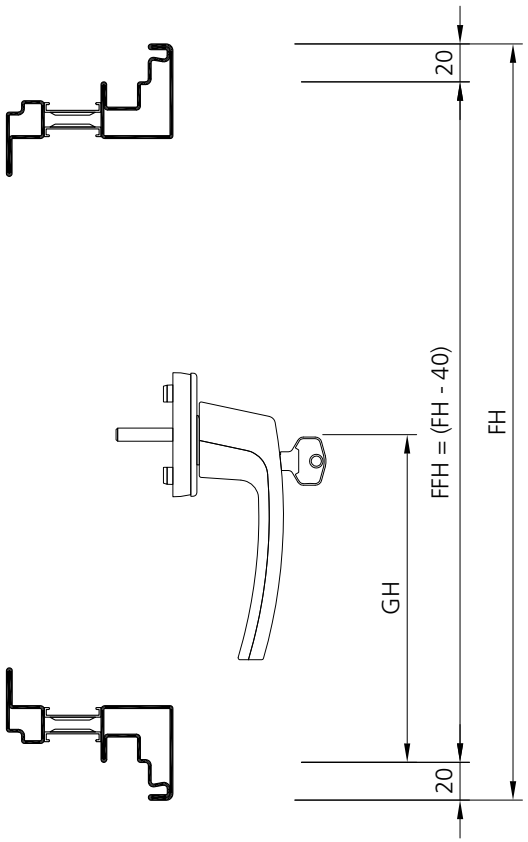
Tailles de feuillure de vantail
Quincaillerie pour ouverture à la française/ ouverture oscillo-battant
FB: largeur de vantail
FFB: largeur de feuillure de vantail
FH: hauteur de vantail
FFH: hauteur de feuillure de vantail
GH: hauteur de poignée

Fittings
Ordering instructions

To order window fittings, the outer dimensions of the windows are not significant, but the sizes of the leaf rebate are. In the following presentation, the dimensions required for ordering are defined and listed.

Sizes of leaf rebates
Turn/ tilt and turn-fittings
FB: leaf width
FFB: leaf rebate width
FH: leaf height
FFH: leaf rebate height
GH: handle height





Beschläge
Bestellanleitung

Da zwischen der Flügelfalzhöhe und der Griffhöhe eine direkte Abhängigkeit besteht, muss bei der Bestellung die Richtigkeit der ausgewählten Beschläge anhand der folgenden Diagramme überprüft werden. Liegt der Schnittpunkt der Griffhöhe (GH) und der Flügelfalzhöhe (FFH) im grau hinterlegten Bereich der Diagramme, kann der Forster Standardbeschlag eingesetzt werden. Für alle anderen Fälle verwenden Sie bitte die Formulare in diesem Kapitel.

Anwendungsbeispiele für die Kontrolle:

Beispiel 1: Möglich mit RC3-Beschlag
FFH: 900 [mm]
GH: 450 [mm]

Beispiel 2: Muss über Sonderformulare angefragt werden.
FFH: 900 [mm]
GH: 550 [mm]

Quincaillerie
Instructions de commande

Comme il existe une relation directe entre la hauteur de feuillure du vantail et la hauteur de la poignée, il faut vérifier lors d'une commande l'exactitude de la quincaillerie sélectionnée à l'aide des diagrammes suivants. Si le point d'intersection de la hauteur de poignée (GH) et de la hauteur de feuillure de vantail (FFH) se trouve dans la zone grise des diagrammes, il est possible d'utiliser une quincaillerie Forster standard. Dans tous les autres cas, utilisez les formulaires indiqués dans ce chapitre. Exemples d'application pour le contrôle:

Exemple 1: possible avec une quincaillerie RC3
FFH: 900 [mm]
GH: 450 [mm]

Exemple 2: demande au moyen de formulaires spéciaux.
FFH: 900 [mm]
GH: 550 [mm]

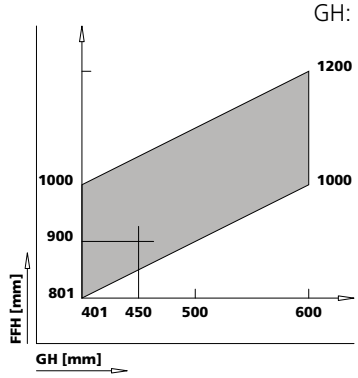
Fittings
Ordering instructions

As there is a direct dependence between the height of the leaf rebate and the height of the handle, every order has to be checked for correctness of the selected fittings against the following diagrams. If the point of intersection of the handle height (GH) and the leaf rebate (FFH) is within the gray background of the diagrams, then Forster standard fittings can be used. For all other cases, please use the special order form in this chapter. Sample applications of how to perform the checks.

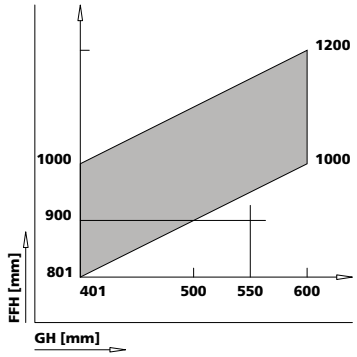
Example 1: possible with RC3 fittings
FFH: 900 [mm]
GH: 450 [mm]

Example 2: must be requested with the special order form
FFH: 900 [mm]
GH: 550 [mm]

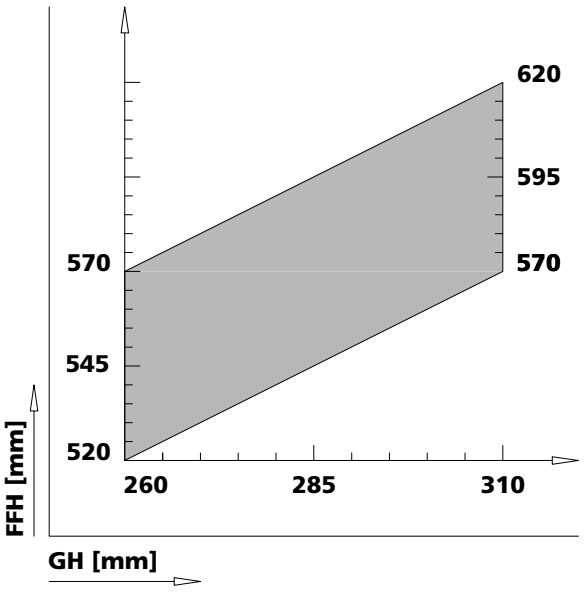
Beispiel 1:
Exemple 1:
Example 1:



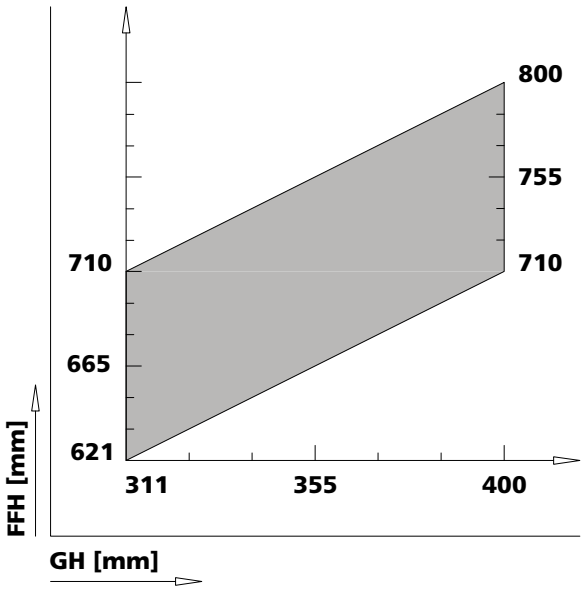
Beispiel 2:
Exemple 2:
Example 2:



FFH 520 - 620 [mm]



FFH 621 - 800 [mm]

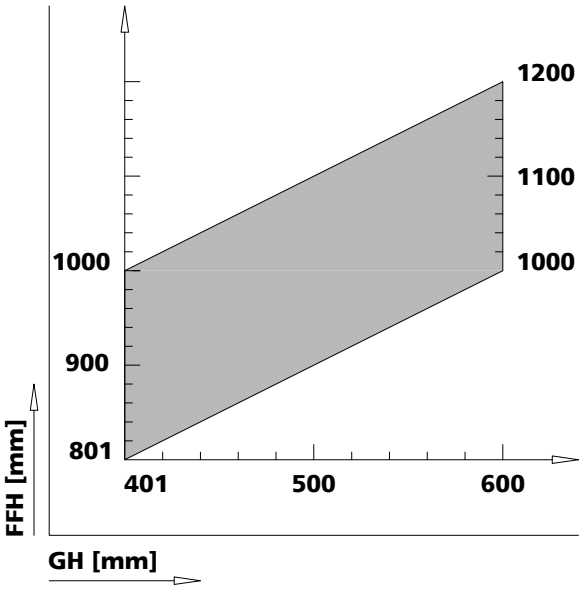


Beschläge
Bestellanleitung

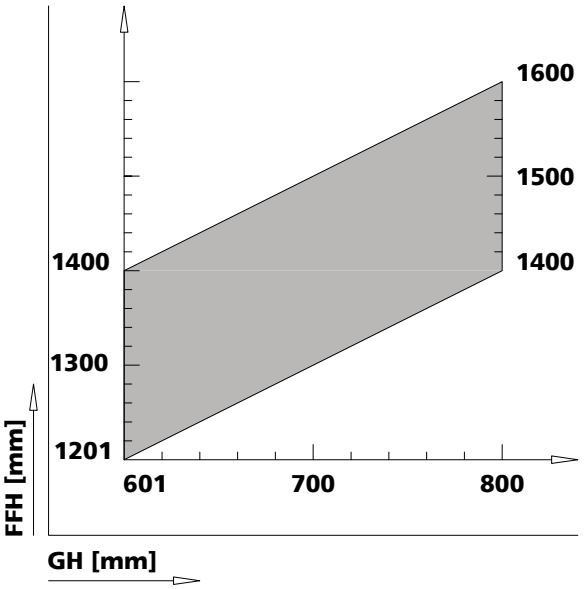
Quincaillerie
Instructions de commande

Fittings
Ordering instructions

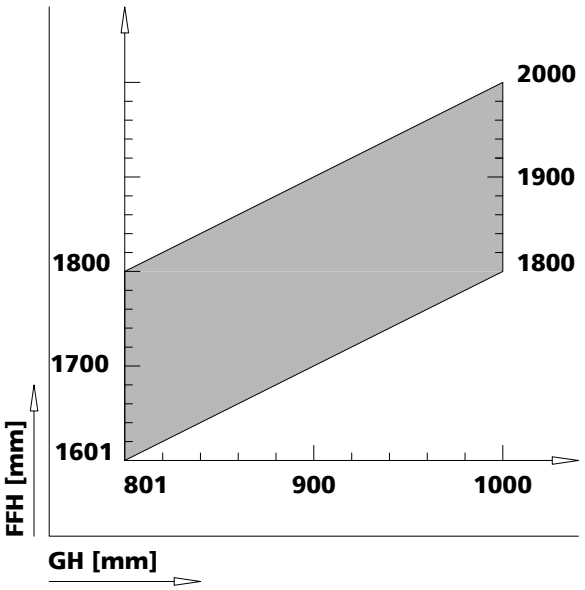
FFH 801 - 1200 [mm]



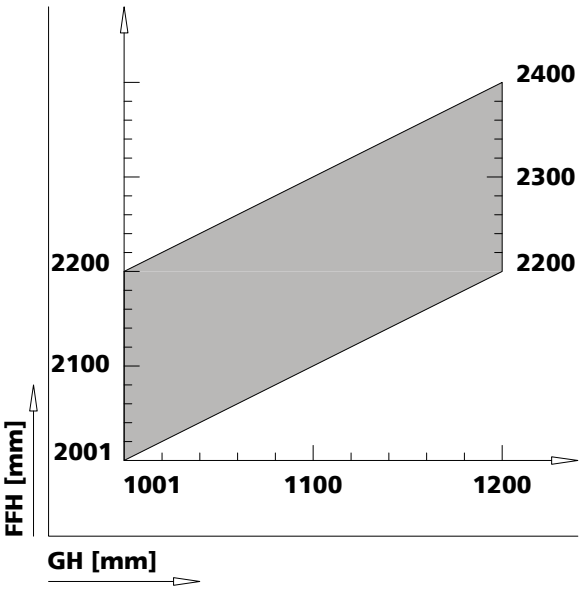
FFH 1201 - 1600 [mm]



FFH 1601 - 2000 [mm]



FFH 2001 - 2400 [mm]



Beschläge Bestellnummern

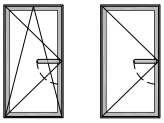
Quincaillerie Références

Fittings Order numbers

Dreh(*)- / Drehkipp-Beschlag RC3
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN links (Komplett-Beschlag)
max. 150 [kg]

Quincaillerie pour ouverture à la française(*)/ ouverture oscillo-battant RC3
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux,
DIN gauche (ferrement complet)
max. 150 [kg]

Turn(*)/ tilt and turn fittings RC3
Single leaf windows
1. active leaf on double sash windows
DIN left (complete fittings)
max. 150 [kg]

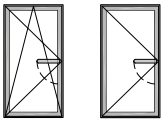


FFH [mm]	530.800 FFB [mm] 310 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	GH [mm]
520 - 620	**987101 RC3** (a	**987113 RC3** (a	**987125 RC3** (a	**987137 RC3** (a	**987149 RC3** (a	260 - 310
621 - 800	**987103 RC3**	**987115 RC3**	**987127 RC3**	**987139 RC3**	**987151 RC3**	311 - 400
801 - 1200	**987105 RC3**	**987117 RC3**	**987129 RC3**	**987141 RC3**	**987153 RC3**	401 - 600
1201 - 1600	**987107 RC3**	**987119 RC3**	**987131 RC3**	**987143 RC3**	**987155 RC3**	601 - 800
1601 - 2000	**987109 RC3**	**987121 RC3**	**987133 RC3**	**987145 RC3**	**987157 RC3**	801 - 1000

Dreh(*)- / DrehKipp-Beschlag RC3
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN rechts (Komplett-Beschlag)
max. 150 [kg]

Quincaillerie pour ouverture à la française(*)/ ouverture oscillo-battant RC3
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux,
DIN droite (quincaillerie complète)
max. 150 [kg]

Turn(*)/ tilt and turn fittings RC3
Single leaf windows
1. active leaf on double sash windows
DIN right (complete fittings)
max. 150 [kg]



FFH [mm]	530.800 FFB [mm] 310 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	GH [mm]
520 - 620	**987102 RC3** (a	**987114 RC3** (a	**987126 RC3** (a	**987138 RC3** (a	**987150 RC3** (a	260 - 310
621 - 800	**987104 RC3**	**987116 RC3**	**987128 RC3**	**987140 RC3**	**987152 RC3**	311 - 400
801 - 1200	**987106 RC3**	**987118 RC3**	**987130 RC3**	**987142 RC3**	**987154 RC3**	401 - 600
1201 - 1600	**987108 RC3**	**987120 RC3**	**987132 RC3**	**987144 RC3**	**987156 RC3**	601 - 800
1601 - 2000	**987110 RC3**	**987122 RC3**	**987134 RC3**	**987146 RC3**	**987158 RC3**	801 - 1000

* = Dreh-Beschlag mit Hubbegrenzer
(a = ohne Niveauschaltsperre)

* = Quincaillerie pour ouverture à la française
avec limitateurs de course
(a = sans anti-fausse manoeuvre)

* = Turn fittings with travel restrictor
(a = without lifting mishandling)

Massgebend für die maximal möglichen Flügelmasse sind ausschliesslich die für Ihr Land gültigen Zulassungen.

Pour les dimensions maximales du vantail, nous vous demandons de vous reporter aux procès-verbaux dans votre pays.

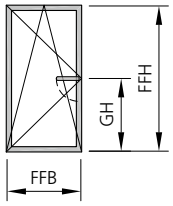
For the maximum possible leaf dimensions, only the certificates valid in your country are relevant.

Beschläge Bestellformular
Quincaillerie Formulaire de commande
Fittings Order form

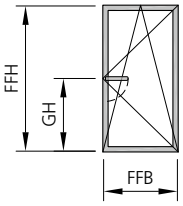
Sondergrössen
1-flügelig
(Ansicht von innen)

Dimensions spéciales
1 vantail
(vue de l'intérieur)

Alternative dimensions
Single leaf
(inside view)



Typ 1.1



Typ 1.2

☐ Anfrage (Machbarkeit)
Demande (faisabilité)
Request (feasibility)

☐ Bestellung
Commande
Order

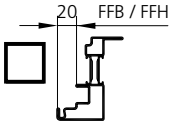
☐ Verdecktliegend max 80 [kg]
Cachée max 80 [kg]
Concealed max 80 [kg]
} +987893 max. 150 [kg]

☐ Kipp vor Dreh / Oscillo-battant inversé / Tilt first

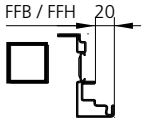
Kunde:
Client:
Customer: _____

☐ RC 3

Kontaktperson:
Responsable de projet:
Project responsibility: _____



530.800



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Objekt:
Projet:
Project: _____

Pos.	Typ	Stück Qté. Piece	FFB [mm]	FFH [mm]	GH [mm]	Gewicht (*) Poids (*) Weight (*)	für / pour / for 531.801 M4x10 900020 [Stk/pcs]	für / pour / for 531.801 M4x16 900019 [Stk/pcs]
Pos. 1								
Pos. 2								
Pos. 3								
Pos. 4								
Pos. 5								
Pos. 6								
Pos. 7								
Pos. 8								

(*) = Flügelgewicht, von der Geometrie abhängig.

(*) = Poids dépendant de la géométrie du vantail

(*) = Leaf-weight depending of the geometry

Beschläge Verschlüsse

Mittelverschluss als Verlängerung für alternative Griff- und Fensterhöhen

987830 Mittelverschluss 200
l = 200 [mm]
(ohne Zapfen)

987831 Mittelverschluss 400 V
l = 400 [mm]
(mit Zapfen)

987832 Mittelverschluss 600 V
l = 600 [mm]
(mit Zapfen)

Quincaillerie Fermetures

Extension pour fermeture centrale pour hauteurs de poignée et de fenêtre (non standard)

987830 Verrouilleur médian 200
l = 200 [mm]
(sans tenon)

987831 Verrouilleur médian 400 V
l = 400 [mm]
(avec tenon)

987832 Verrouilleur médian 600 V
l = 600 [mm]
(avec tenon)

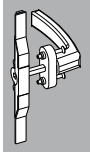
Fittings Locks

Center locks as extension for alternative handle and window heights

987830 Multipart center lock 200
l = 200 [mm]
(without pivot)

987831 Multipart center lock 400 V
l = 400 [mm]
(with pivot)

987832 Multipart center lock 600 V
l = 600 [mm]
(with pivot)





Mittelverschluss für alternative Stulpflügelhöhen

987833 Stulpflügelverlängerung unten
l = 400 [mm]
(Falls der Stulpflügel unterhalb der Griffhöhe verlängert werden muss)

987834 Stulpflügelverlängerung oben
l = 400 [mm]
(Falls der Stulpflügel oberhalb der Griffhöhe verlängert werden muss)

Fermeture centrale pour hauteurs de vantail semi-fixes (non standard)

987833 Extension de vantail semi-fixe en bas
l = 400 [mm]
(en cas d'extension du vantail semi-fixe en dessous de la poignée)

987834 Extension de vantail semi-fixe en haut
l = 400 [mm]
(en cas d'extension du vantail semi-fixe au-dessus de la poignée)

Center locks for alternative double sash leaf height

987833 double sash leaf extension below
l = 400 [mm]
(if the double sash has to be extended below the handle height)

987834 double sash leaf extension top = 400 [mm]
(if the double sash has to be extended above the handle height)



987833



987834

Beschläge
Fenstergriffe / Zubehör

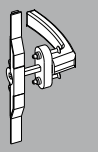
Quincaillerie
Poignées de fenêtre / Accessoires

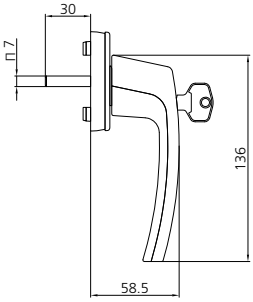
Fittings
Window handles / Accessories

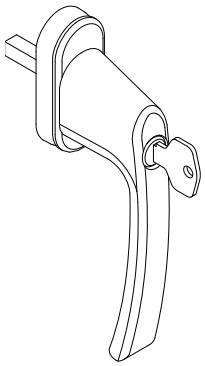
Fenstergriff
Aluminium, farblos eloxiert
987302 VE 1 Stück
inkl. Befestigungsschrauben M5 x 40
Vierkantdorn 7 mm
Höhe: ca. 136 mm
Tiefe: ca. 59 mm

Poignée de fenêtre
Aluminium, anodisé naturel
987302 UV 1 pièce
avec vis de fixation M5 x 40
carré 7 mm
Hauteur: env. 136 mm
Profondeur: env. 59 mm

Window handle
Aluminium, colourless anodized
987302 SU 1 piece
incl. fastening screws M5 x 40
Rectangular mandrel 7 mm
Height: approx. 136 mm
Depth: approx. 59 mm







Lastabtragung
für verdecktliegenden Beschlag
Für Flügelgewicht bis max. 150 kg
987893 VE 1 Stück
inkl. Befestigungsschrauben

Transmission de la charge
pour quincaillerie cachée
Pour poids de vantail max. 150 kg
987893 UV 1 pièce
avec vis de fixation

Load transfer for concealed fitting

For leaf weight up to 150 kg
987893 SU 1 piece
incl. fastening screws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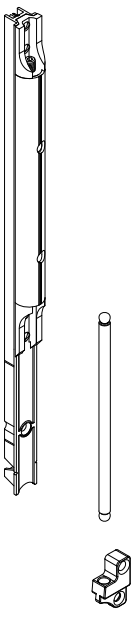
M4 x 10

900020 2 Stück zusätzlich bestellen
900020 2 pièces commander séparément
900020 2 pieces order separately



Beschläge Zubehör

Quincaillerie Accessoires

Fittings Accessories

Drehbegrenzer
für aufgesetzten Beschlag
987892 VE 1 Stück
inkl. Befestigungsschrauben

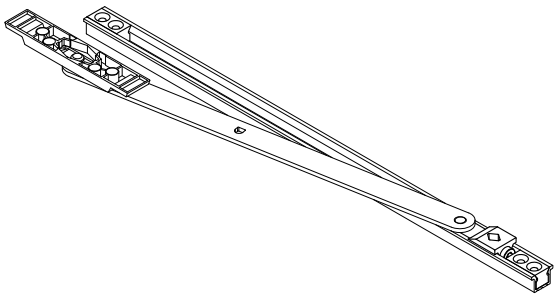



M4 x 10

900020 4 Stück zusätzlich bestellen
900020 4 pièces commander séparément
900020 4 pieces order separately

Limitateur d'ouverture
pour quincaillerie standard
987892 UV 1 pièce
avec vis de fixation

Leaf opening restrictor
for attached window fitting
987892 SU 1 piece
incl. fastening screws



Drehbegrenzer
für verdecktliegenden Beschlag
987891 VE 1 Stück
inkl. Befestigungsschrauben

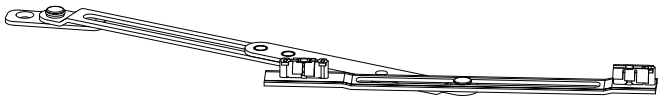
Anwendungsbereich:
FFB 520 bis 1200 mm
ab FFB 1200 mm im Lieferumfang enthalten

Limitateur d'ouverture
pour quincaillerie cachée
987891 UV 1 pièce
avec vis de fixation

Domaine d'utilisation:
FFB 520 jusqu'à 1200 mm
dès FFB 1200 mm compris dans la fourniture

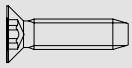
Leaf opening restrictor
for concealed fitting
987891 SU 1 piece
incl. fastening screws

Application Area:
FFB 520 to 1200 mm
from FFB 1200 mm included in the delivery package



Schnäppersatz für Standard- und verdecktliegenden Beschlag
987855 VE 1 Stück
inkl. Befestigungsschrauben

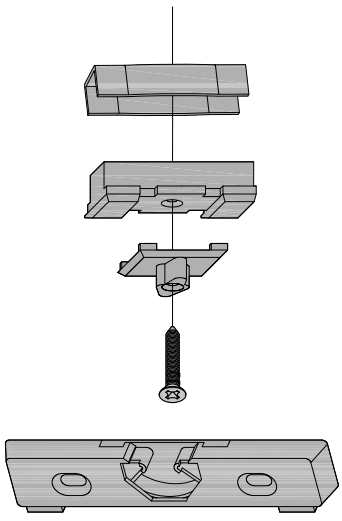


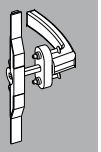

M4 x 16

900019 2 Stück zusätzlich bestellen
900019 2 pièces à commander séparément
900019 2 pieces to be ordered separately

Blocage à pion pour quincaillerie standard ou cachée
987855 UV 1 pièce
avec vis de fixation

Bullet catch for standard and concealed fitting
987855 SU 1 piece
incl. fastening screws





Beschläge Zubehör

Abdeckkappen-Garnitur
Für Dreh- / Drehkipp-Fenster
Abdeckkappen für Axerlager, Eckband, Ecklager
Ecklagerlasche und Eckband
VE = 25 Stück (Abdeckkappen für 5 Flügel)

987600	Weiss
987601	Natursilber
987602*	Titan

Quincaillerie Accessoires

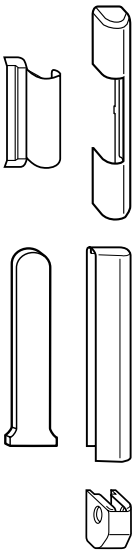
Garnitures de caches
Pour vantail à la française et OB
Caches pour palier de compas, pivot d'angle, palier d'angle
Plaque pour palier d'angle et pivot d'angle
UV = 25 pièces (caches pour 5 vantaux)

987600	Blanc
987601	Argent nature
987602*	Titane

Fittings Accessories

Sets of cover caps
For turn / tilt and turn windows
Cover cap for sash stay bearing, corner hinge, corner pivot rest
Corner pivot rest strip and corner hinge
SU = 25 pieces (cover caps for 5 leaves)

987600	white
987601	natural silver
987602*	Titan



Abdeckkappen-Garnitur
Für Kipp-Fenster
Abdeckkappen für Axerlager und Kippband
VE = 20 Stück (Abdeckkappen für 10 Bänder)

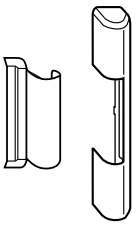
987603*	Weiss
987604	Natursilber
987605	Titan

Garnitures de caches
Pour fenêtre à soufflet
Caches pour palier de compas et paumelle
UV = 20 pièces (caches pour 10 paumelles)

987603*	Blanc
987604	Argent nature
987605	Titane

Sets of cover caps
For tilt-only windows
Cover cap for sash stay bearing and tilt only rebate hinge
SU = 20 pieces (cover caps for 10 hinges)

987603*	white
987604	natural silver
987605	Titan



* auf Anfrage
sur demande
on request

Beschläge Zubehör

Distanzstück für Beschlagsmontage aus Kunststoff für Einsatz in Beschlagsnut

927001 VE = 100 Stk.
927028 VE = 10 Stk.

Quincaillerie Accessoires

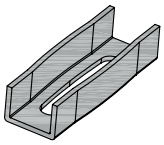
Entretoise en matière plastique pour le montage dans la gorge de la quincaillerie

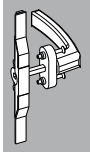
927001 UV = 100 pièces
927028 UV = 10 pièces

Fittings Accessories

Distancer made of plastic to be inserted into the fittings groove to mount the fittings

927001 SU = 100 pieces
927028 SU = 10 pieces





Beschlagsschraube selbstfurchend M4 x 21

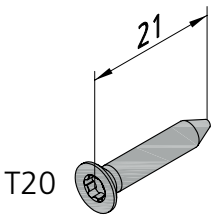
900011 VE = 100 Stk.
900018 VE = 10 Stk.

Vis de fixation autotaraudeuses M4 x 21

900011 UV = 100 pièces
900018 UV = 10 pièces

Fitting screw self-tapping M4 x 21

900011 SU = 100 pieces
900018 SU = 10 pieces



Beschlagsschraube selbstfurchend M4 x 30
Einsatz
• Niveauschaltsperre

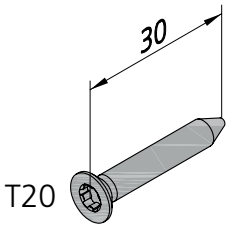
900013 VE = 100 Stk.
900017 VE = 20 Stk.

Vis de fixation autotaraudeuses M4 x 30
Insertion
• Anti-fausse manœuvre

900013 UV = 100 pièces
900017 UV = 20 pièces

Fitting screw self-tapping M4 x 30
Insert
• Lifting misshandling device

900013 SU = 100 pieses
900017 SU = 20 pieces



Einnietmutter Edelstahl M4 versenkt für Lagermontage auf Rahmen (Ersatz)

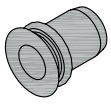
986851 VE = 100 Stk.
986852 VE = 10 Stk.

Rivet fileté acier inox M4 pour installation sur le cadre (en remplacement)

986851 UV = 100 pièces
986852 UV = 10 pièces

Countersink of the clunch nut M4 for mounting bracket of the frame (reserves)

986851 SU = 100 pieces
986852 SU = 10 pieces



Beschläge Zubehör

Quincaillerie Accessoires

Fittings Accessories

Beschlagsschraube selbstfurchend M4 x 16

900019 VE = 100 Stk.
900025 VE = 10 Stk.

Vis de fixation autotaraudeuses M4 x 16

900019 UV = 100 piéces
900025 UV = 10 piéces

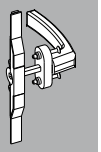
Fitting screw self-tapping M4 x 16

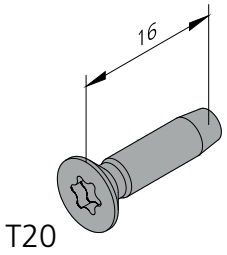
900019 SU = 100 pieces
900025 SU = 10 pieces

Bei Verwendung mit schmalem Flügelprofil:

Pour utilisation avec profilé de vantail fin.

for use with narrrow leaf profile.





Beschlagsschraube selbstfurchend M4 x 10

900020 VE = 100 Stk.

Vis de fixation autotaraudeuses M4 x 10

900020 UV = 100 piéces

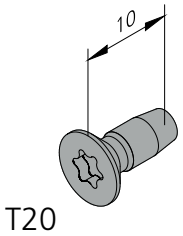
Fitting screw self-tapping M4 x 10

900020 SU = 100 pieces

Bei Verwendung mit schmalem Flügelprofil:

Pour utilisation avec profilé de vantail fin:

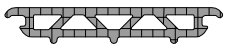
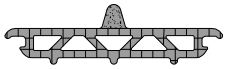
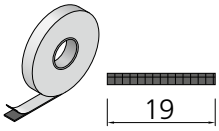
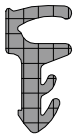
for use with narrrow leaf profile:

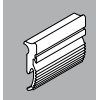


Zubehör
Dichtungen

Accessoires
Joints

Accessories
Weatherstrippings

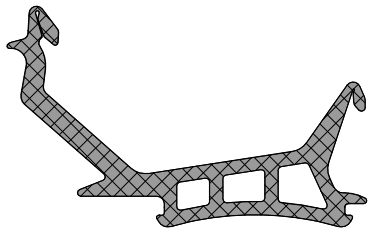
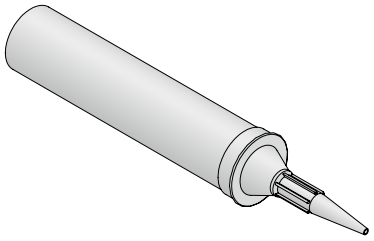
Abbildung Figure Figure	Bezeichnung Désignation Designation	Verkaufseinheit Unité de vente Sales unit	Art. Nr. art. no. art. no.
	Falzabdeckung aus CR schwarz Recouvrement de feuillure en CR noir Rebate cover CR black	100 m	**985704**
	Falzabdeckung aus CR schwarz Recouvrement de feuillure en CR noir Rebate cover CR black	100 m	**985705**
	Falzdichtband Ruban d'étanchéité de feuillure Rebate sealing tape 19 x 1.5 mm	60 m (1 Rolle à 60 m) (1 rouleau à 60 m) (1 roll à 60 m)	**988051**
	Anschlagdichtung Fenster innen, CR schwarz Joint de butée fenêtre à l'intérieur, CR noir Weatherstripping windows inside, CR black	100 m (4 Rolle à 25 m) (4 rouleau à 25 m) (4 roll à 25 m)	**985700**



Zubehör
Dichtungen

Accessoires
Joints

Accessories
Weatherstrippings

Abbildung Figure Figure	Bezeichnung Désignation Designation	Verkaufseinheit Unité de vente Sales unit	Art. Nr. art. no. art. no.
	Mitteldichtung Fenster CR, schwarz Joint central fenêtre CR, noir Central seal windows CR, black	25 m (10 Stangen à 2.5 m) (10 barres à 2.5 m) (10 bars à 2.5 m)	**985703**
	Dichtungsmasse für Dichtungsüberlappungen zum Abdichten der Kreuzpunkte, auf Hybriodpolymerbasis, schwarz, Inhalt Kartusche 290 ml Mastic pour chevauchements de joints, destiné à l'étanchéité des croisements, à base de polymère hybride, noir, contenance de cartouche 290 ml Sealing compound for weatherstripping overlapping to seal the crossing points, based on hybriodpolymere, black, content cartridge 290 ml	12 Kartuschen Cartouches Cartridges 1 Kartusche Cartouche Cartridge	**908001** **908005**

Zubehör
Dichtungen

Accessoires
Joints

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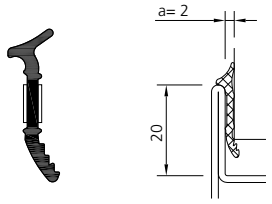
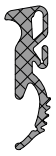
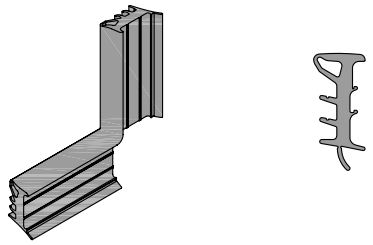
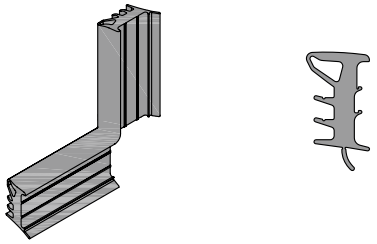
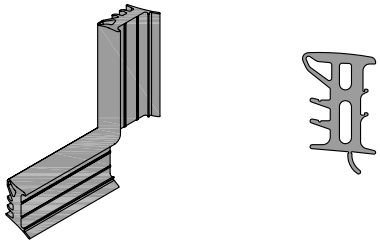
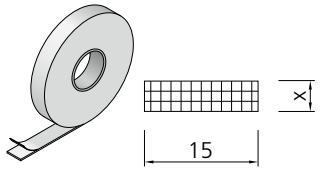
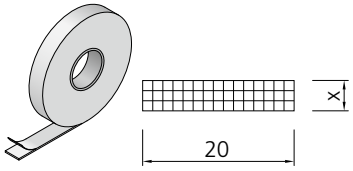
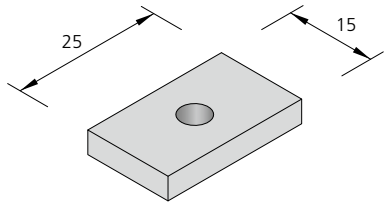
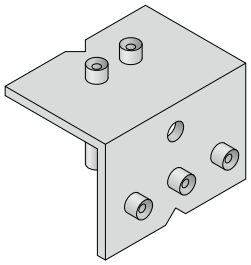
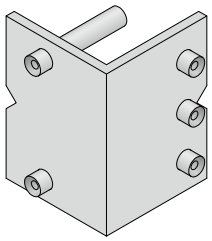
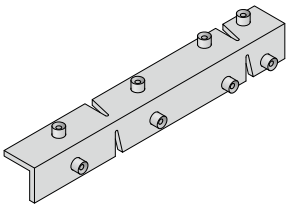
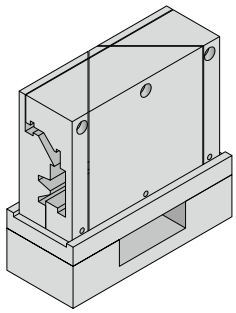
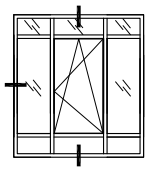
Weatherstrippings

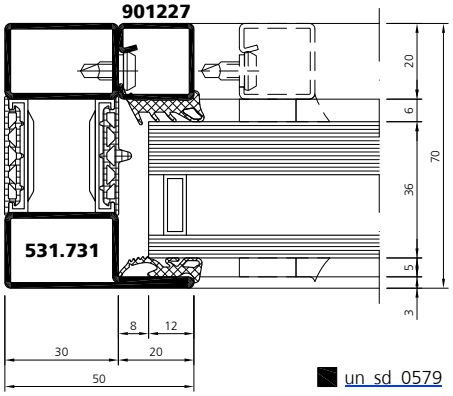
Abbildung Figure Figure	Bezeichnung Désignation Designation	Verkaufseinheit Unité de vente Sales unit	Art. Nr. art. no. art. no.
	Verglasungsdichtung aussen CR, schwarz, selbstklebend, Fugenbreite 2 mm Joint de vitrage extérieur CR, noir, auto adhésif, largeur de joint 2 mm Glazing seals outside CR, black, self-adhesive, joint widths 2 mm	100 m	**905712**
	Verglasungsdichtung aussen CR, schwarz, selbstklebend, Fugenbreite 5 mm Joint de vitrage extérieur CR, noir, auto adhésif, largeur de joint 5 mm Glazing seals outside CR, black, self-adhesive, joint widths 5 mm	100 m	**985702**
	Verglasungsdichtung innen CR, schwarz, für Fugenbreite 3 und 4 mm mit Gleitlack, silikonfrei Joint de vitrage intérieur CR, noir, largeur de joint de 3 et 4 mm avec laque lubrifiante, sans silicone Inner glazing seal CR, black, for joint widths of 3 and 4 mm antifriction coating, silicon free	100 m	**905784**
	Verglasungsdichtung innen CR, schwarz, für Fugenbreite 5 und 6 mm mit Gleitlack, silikonfrei Joint de vitrage intérieur CR, noir, largeur de joint de 5 et 6 mm avec laque lubrifiante, sans silicone Inner glazing seal CR, black, for joint widths of 5 and 6 mm antifriction coating, silicon free	100 m	**905785**
	Verglasungsdichtung innen CR, schwarz, für Fugenbreite 7 und 8 mm mit Gleitlack, silikonfrei Joint de vitrage intérieur CR, noir, largeur de joint de 7 et 8 mm avec laque lubrifiante, sans silicone Inner glazing seal CR, black, for joint widths of 7 and 8 mm antifriction coating, silicon free	75 m	**905786**
	Brandschutz-Verglasungsband selbstklebend, keramikfaserfrei, weiss Ruban de vitrage résistant au feu auto-adhésives, sans fibres céramiques, blancs Fire resistant glazing tape self-adhesive, ceramic fibre free, white	x = 3 mm 20 m x = 4 mm 20 m x = 5 mm 20 m x = 6 mm 20 m	**948003** **948004** **948005** **948006**
	Brandschutz-Verglasungsband selbstklebend, keramikfaserfrei, weiss Ruban de vitrage résistant au feu auto-adhésives, sans fibres céramiques, blancs Fire resistant glazing tape self-adhesive, ceramic fibre free, white	x = 3 mm 20 m x = 4 mm 20 m x = 5 mm 20 m x = 6 mm 20 m	**948007** **948008** **948009** **948010**

Verarbeitungshilfen Aides à la mise en œuvre Processing aids

Abbildung Figure Figure	Bezeichnung Désignation Designation	Verkaufseinheit Unité de vente Sales unit	Art. Nr. art. no. art. no.
	Unterlagsscheibe für Elementstoss und Wandbefestigung Edelstahl, M5 Gewinde Rondelle pour raccord d'assemblage et fixation mural Acier inox, M5 filetage Washer for site joint and wall mounts Stainless steel, M5 thread	10 Stk./pcs	**987081**
	Bohrlehre Getriebe Dornmass 8 mm Gabarit de perçage pour crémone Distance de boulon 8 mm Drilling jig for espagnolette Mandrel size 8 mm	1 Stk/pce	**989101**
	Bohrlehre Getriebe Dornmass 15 mm Gabarit de perçage pour crémone Distance de boulon 15 mm Drilling jig for espagnolette Mandrel size 15 mm	1 Stk/pce	**989108**
	Bohrlehre für Schliessstücke RC, Kipplager RC, Niveauschaltsperre Rahmenteil Gabarit de perçage pour gâche RC, gâche de basculement RC, anti-fausse manœuvre partie dormante Drilling jig for striker RC, horizontal T&T striker RC, lifting mishandling device frame part	1 Stk/pce	**989109**
	Zuschnittwerkzeug Mitteldichtung Gehrung, Art. Nr. 985303, 985320, 985703 Outil de découpe pour joint central onglet, art. no. 985303, 985320, 985703 Cutting tools central seal mitre, art. no. 985303, 985320, 985703	1 Stk./pce	**989201**

Systemschnitte | Coupes du système | System sections





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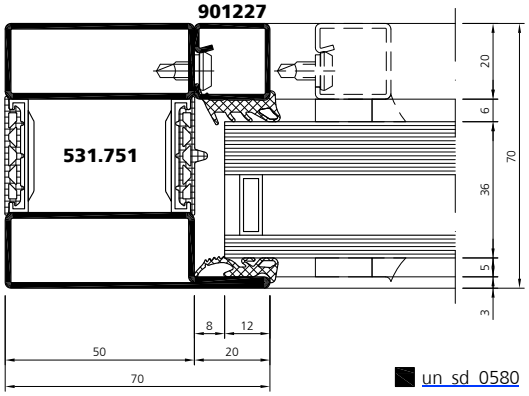

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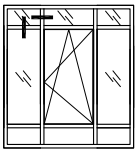

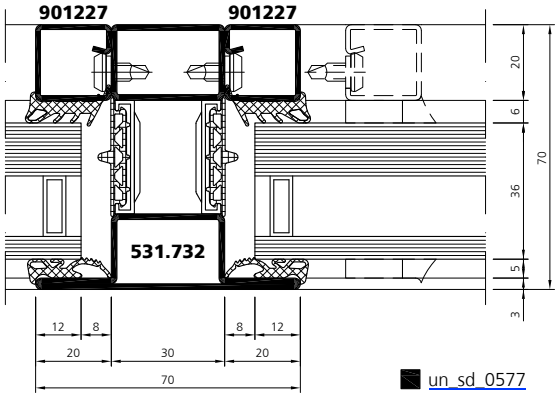

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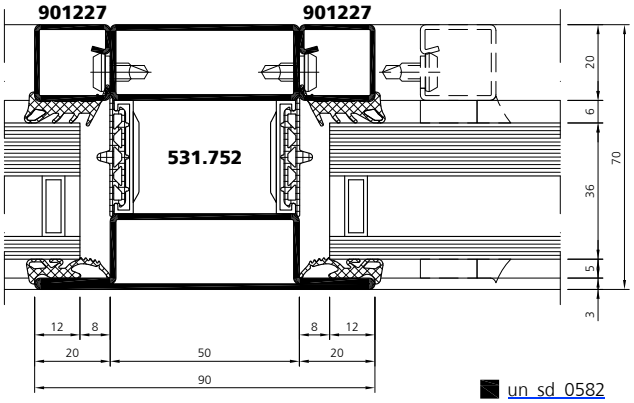
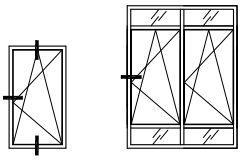
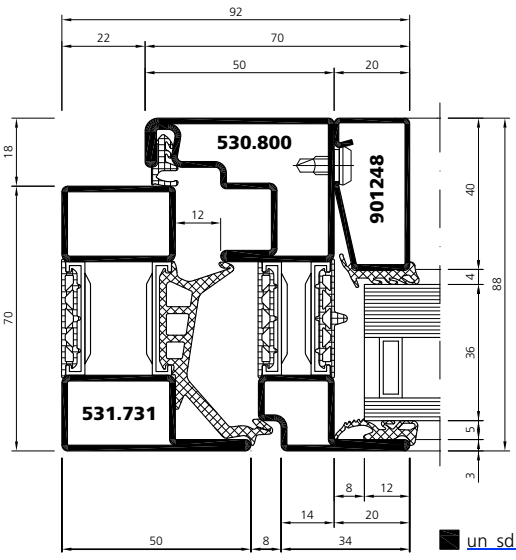


un_sd_0582

Systemschnitte | Coupes du système | System sections





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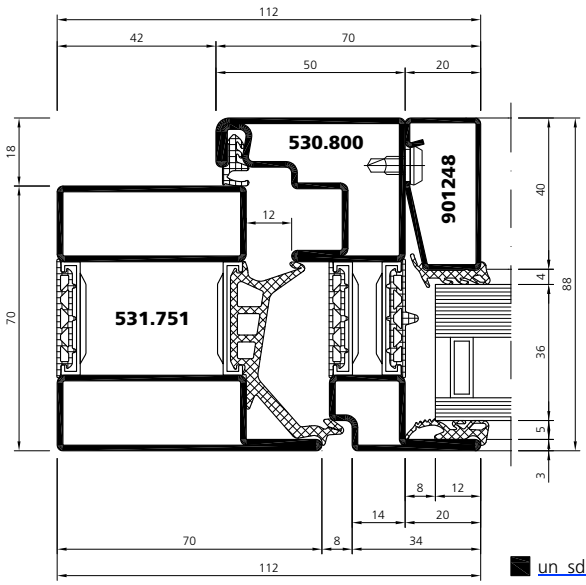

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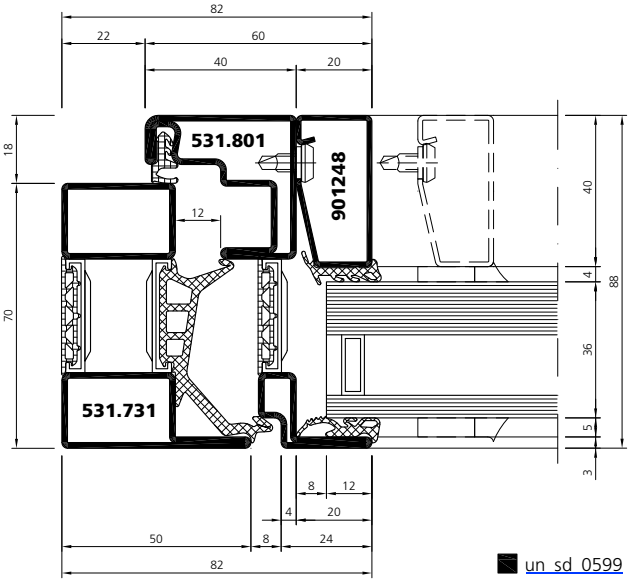

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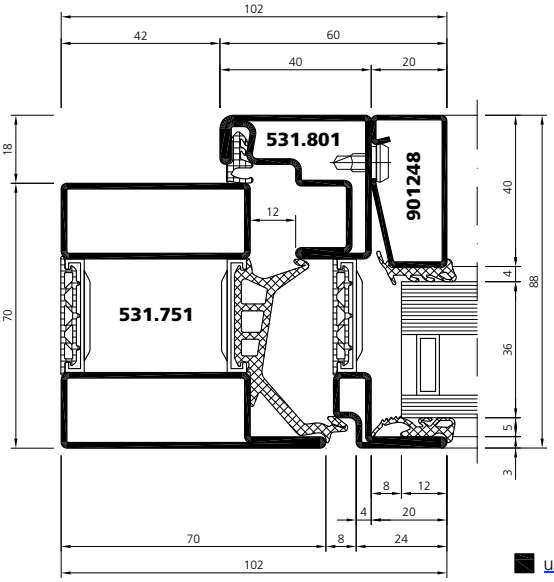

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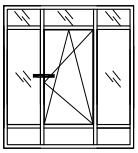
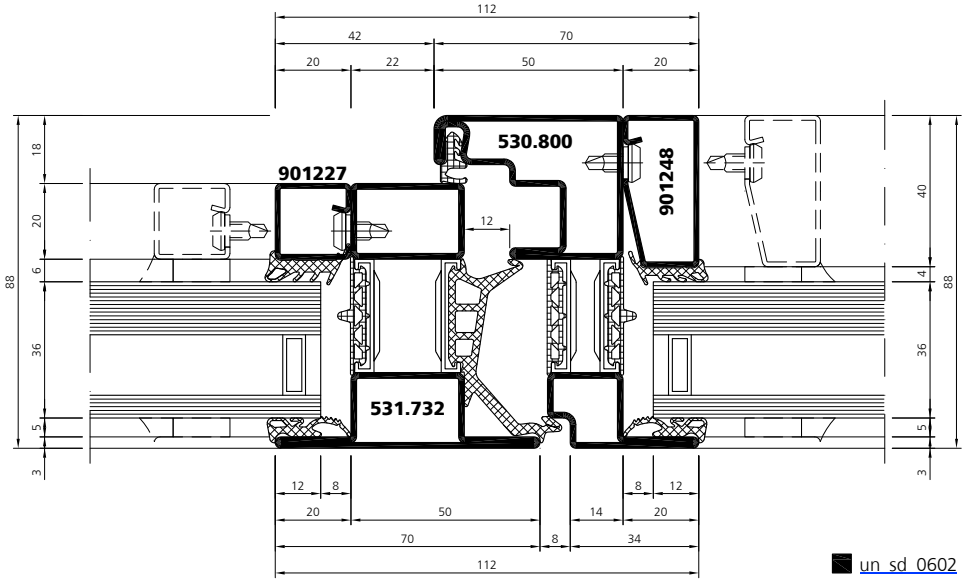
Systemschnitte | Coupes du système | System sections





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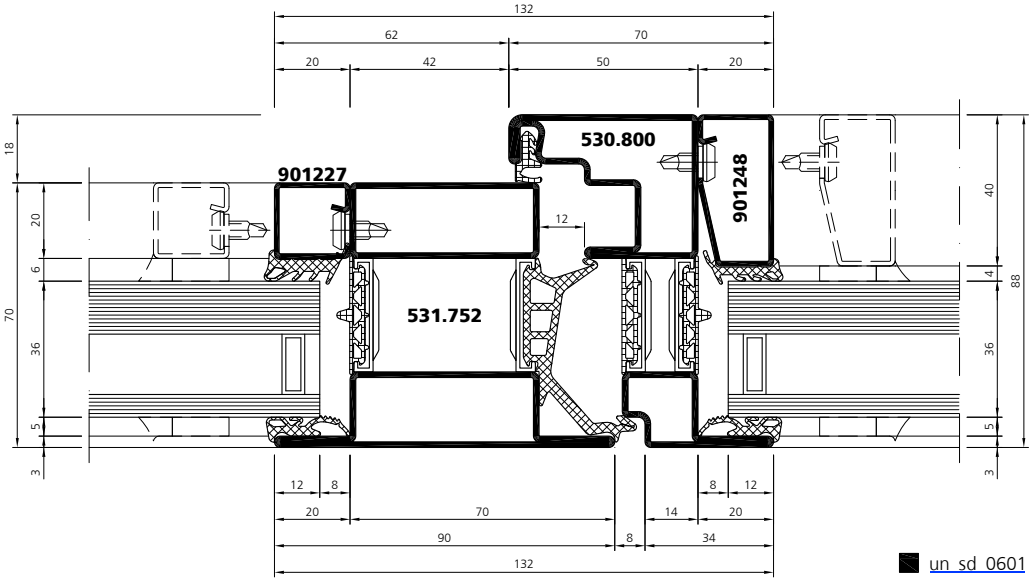

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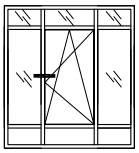
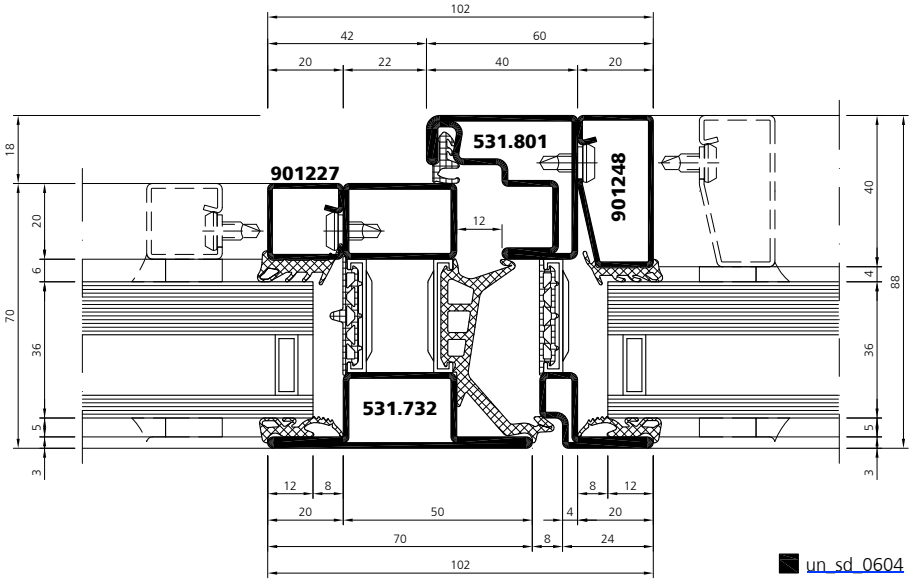
Systemschnitte | Coupes du système | System sections





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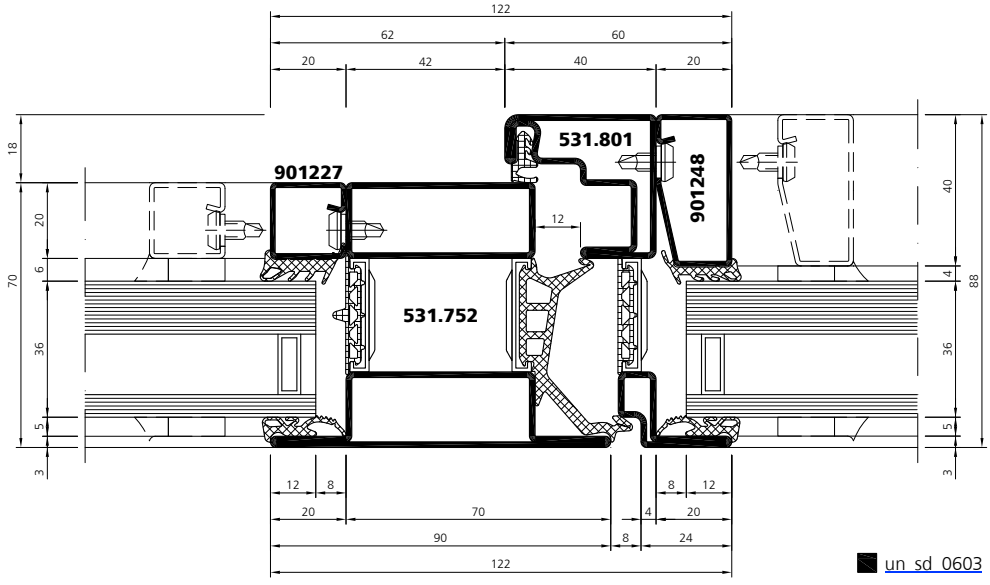

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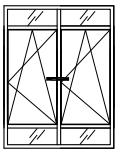
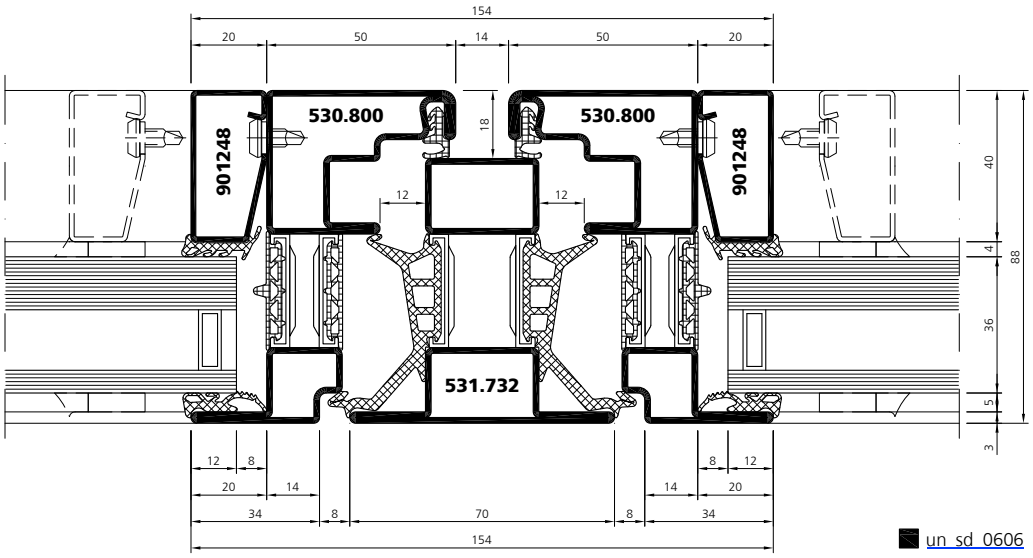
Systemschnitte | Coupes du système | System sections





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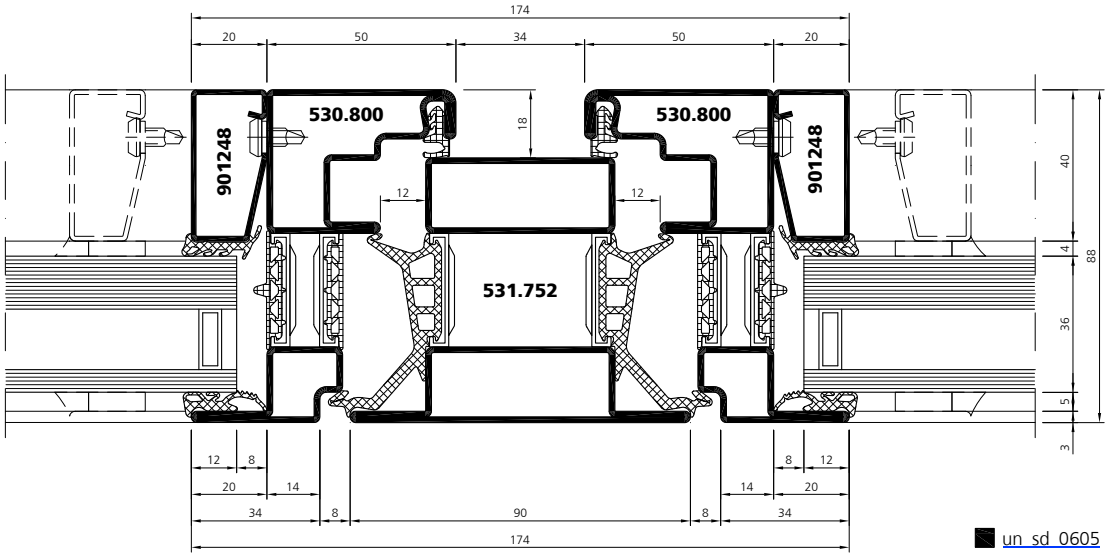

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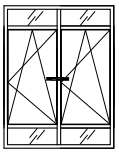
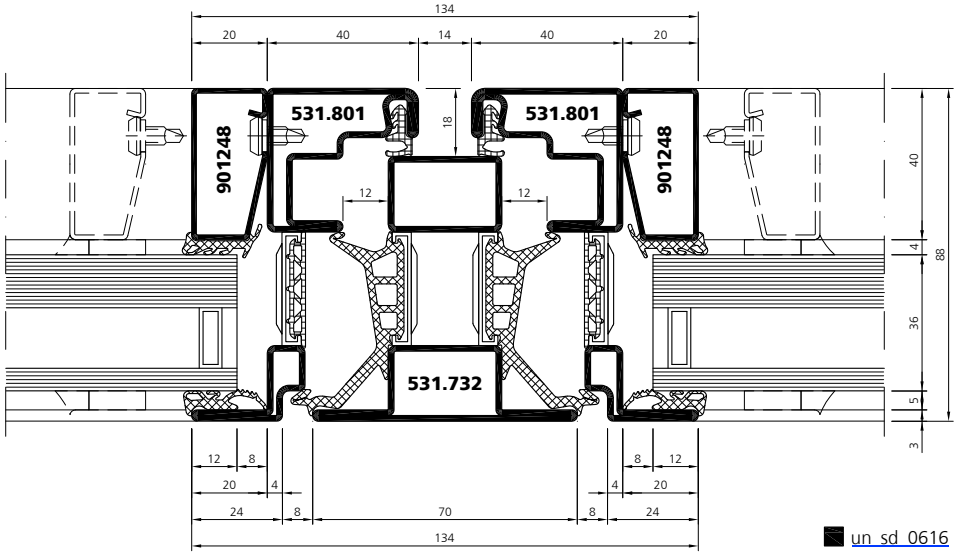
Systemschnitte | Coupes du système | System sections





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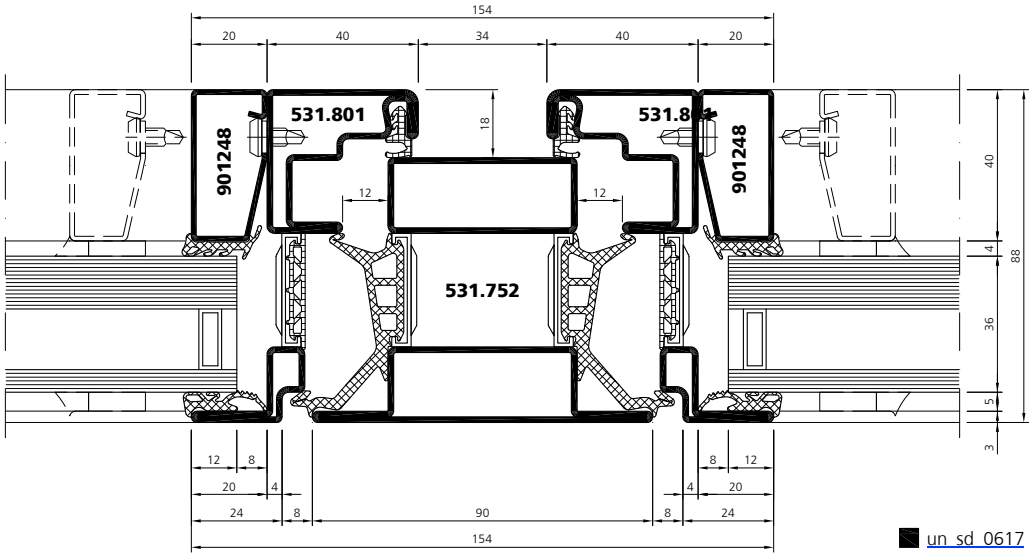

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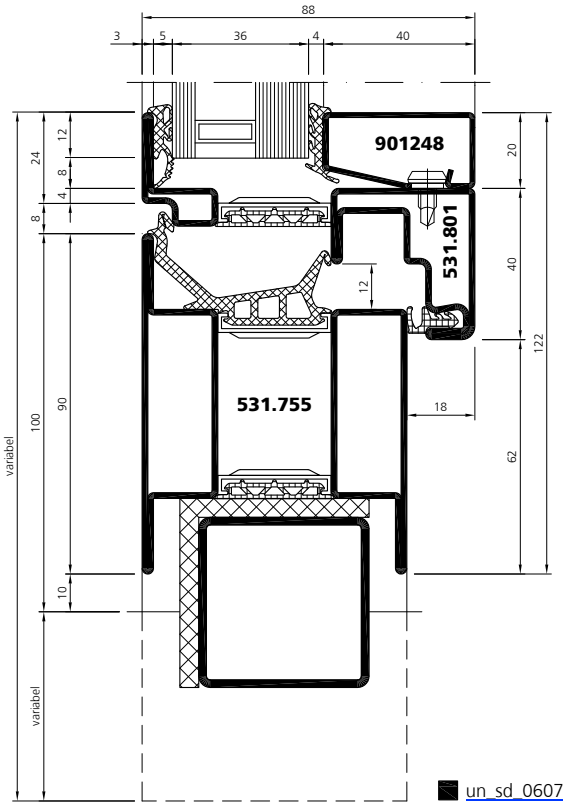
Systemschnitte | Coupes du système | System sections

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove



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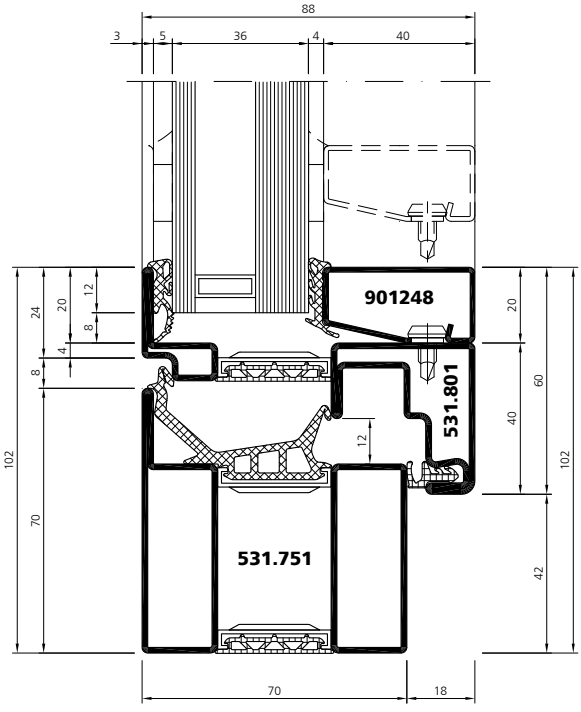

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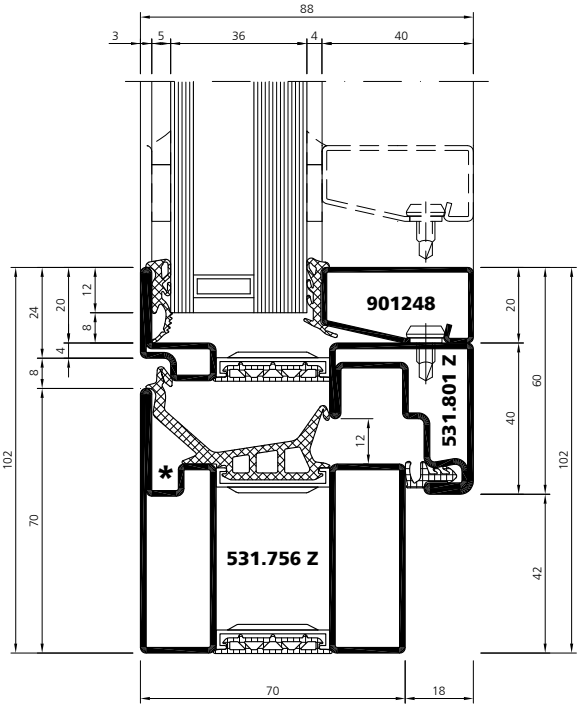
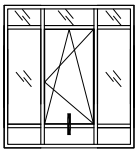
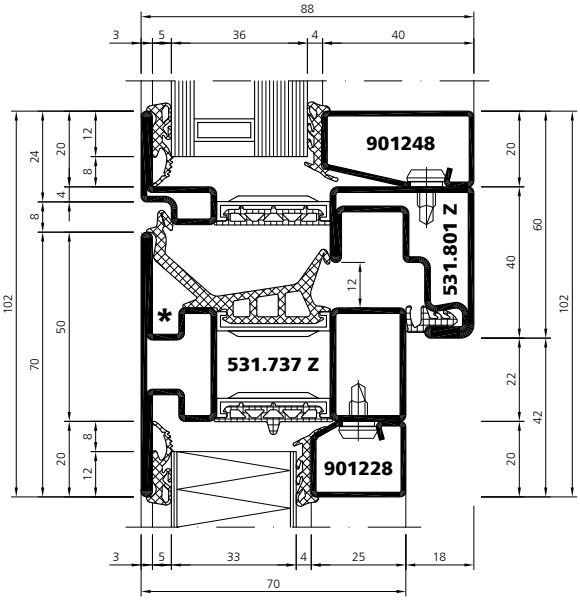


un_sd_0609

Systemschnitte | Coupes du système | System sections

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove





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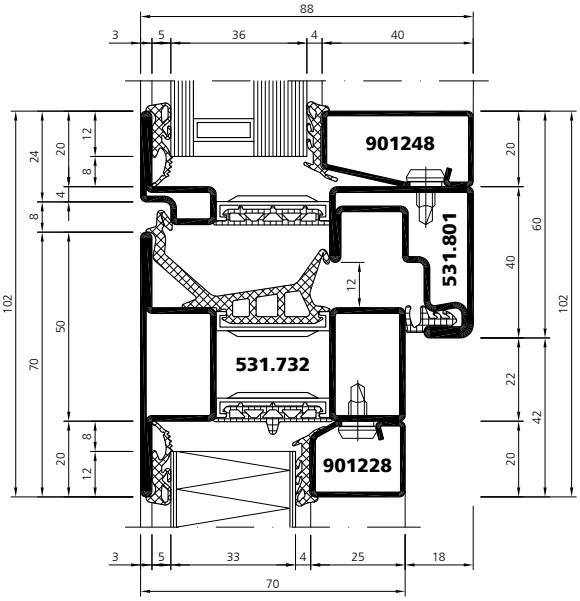
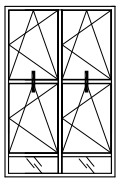
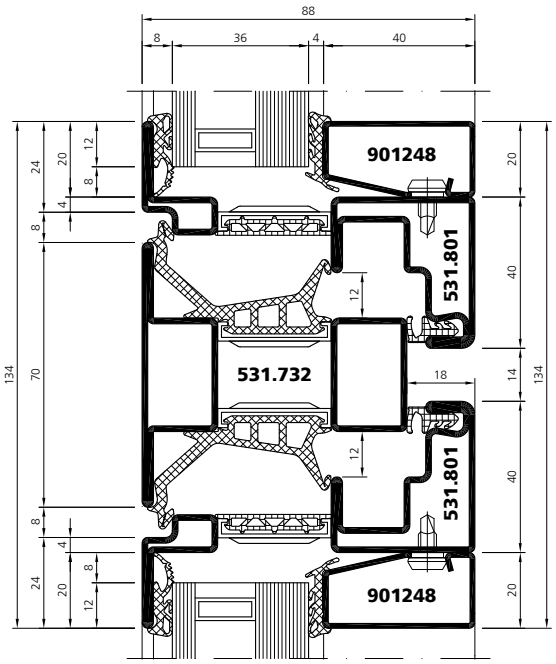


un_sd_0612

Systemschnitte | Coupes du système | System sections

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove





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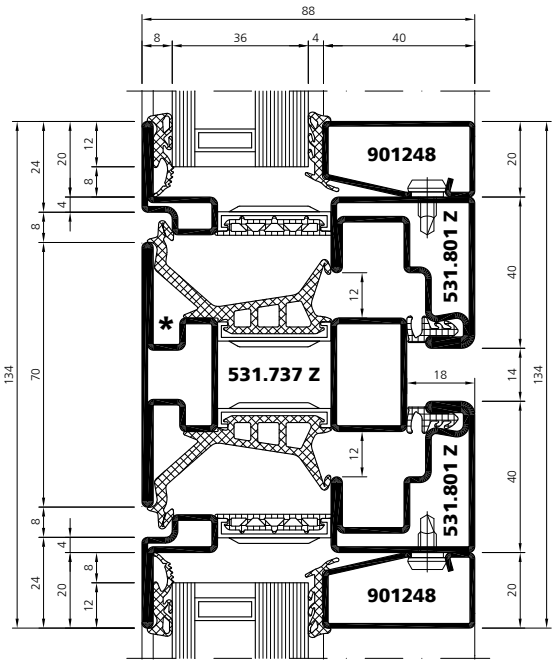


un_sd_0614



Mehrfamilienhaus Flosslände, CH-Rheinfelden

VUF 01/19

Übersicht Systempläne

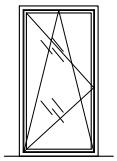
Tableau des plans du système

Synopsis of system plans

1	einflügeliges Fenster	fenêtre à un vantail	single leaved window
2	zwei einflügelige Fenster mit Ober- und Unterlicht	deux fenêtres à un vantail avec imposte et allège	two single leaved windows with fanlight and sublight
3	zwei einflügelige Fenster mit Unterlicht und zwei Seitenteilen	deux fenêtres à un vantail avec allège et deux parties latérales fixes	single leaved window with sublight and two screen abutments
4	Festverglasung	vitrage fixe	fixed glazing

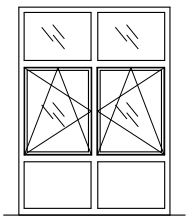
Stahl / Acier / Steel

1



un_sp_0321 ①
un_sp_0324 ②
un_sp_0322 ③
un_sp_0325 ④

2



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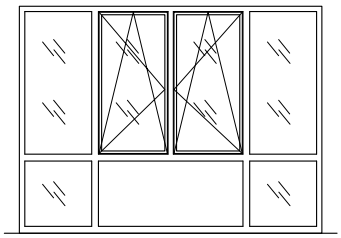
un_sp_0326 ②
un_sp_0327 ③
un_sp_0328 ④

3



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un_sp_0421 ②
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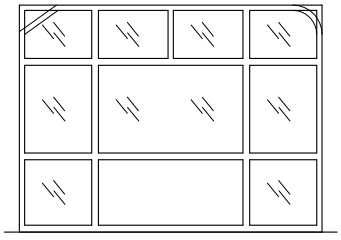
un_sp_0423 ④

4

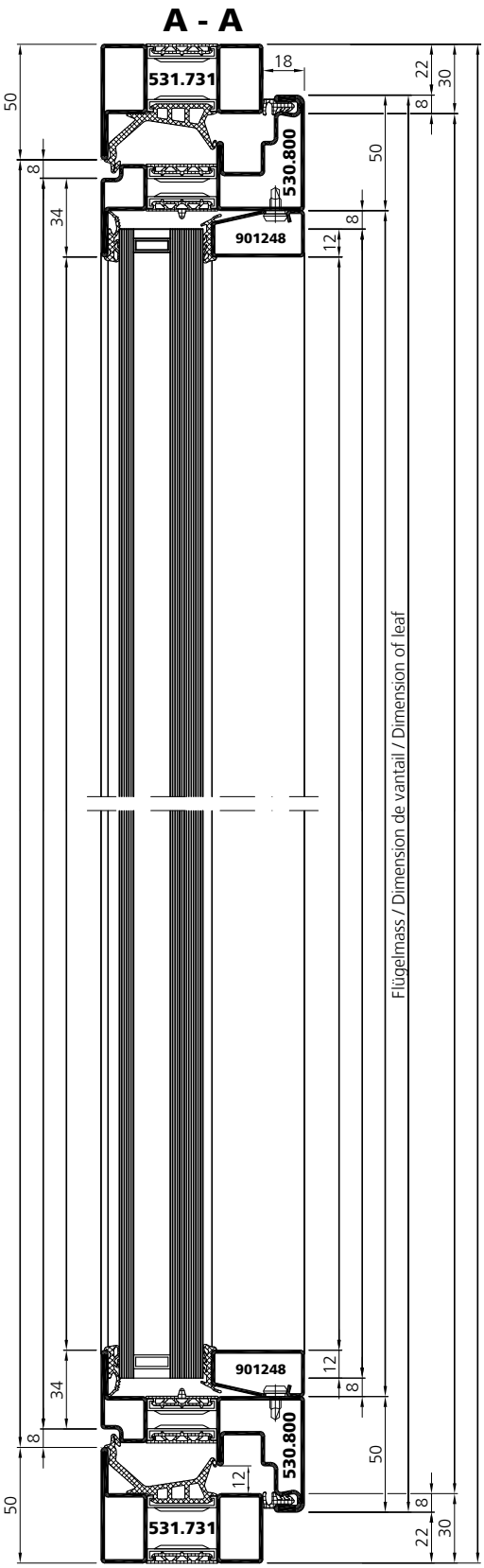


un_sp_0393

① (531.7XX, 530.800)
② (531.7XX, 531.801)
③ (531.737 Z / 756 Z, 530.800)
④ (531.737 Z / 756 Z, 531.801)

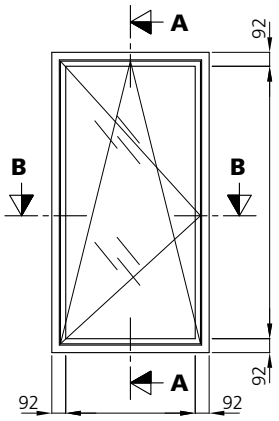
Systemplan | Plan du système | System plan

un_sp_0321

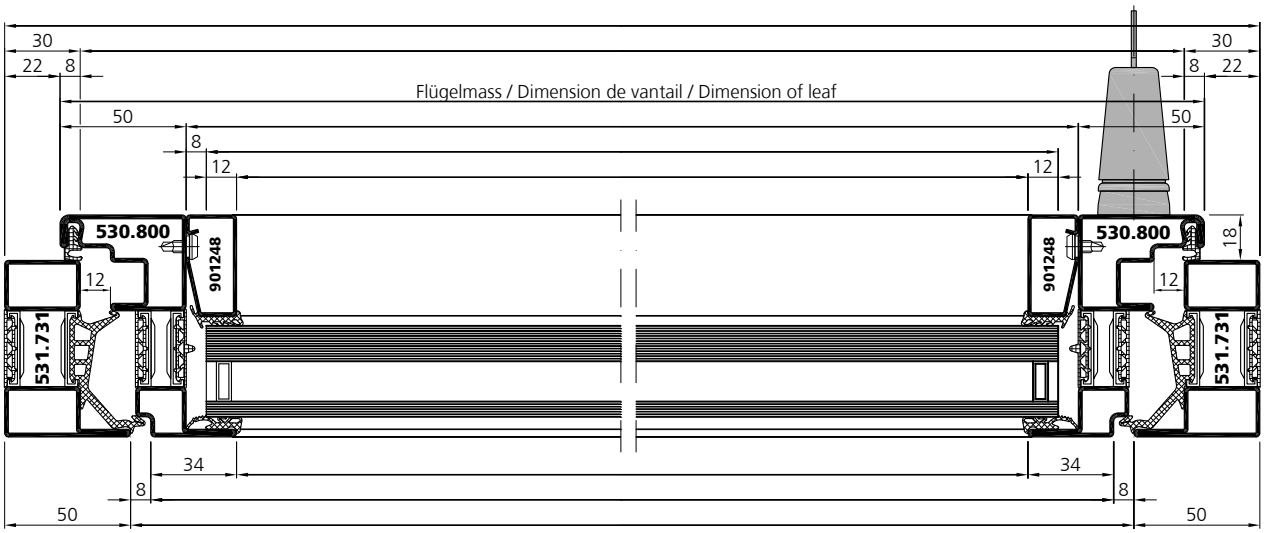


Systemplan | Plan du système | System plan

un_sp_0321

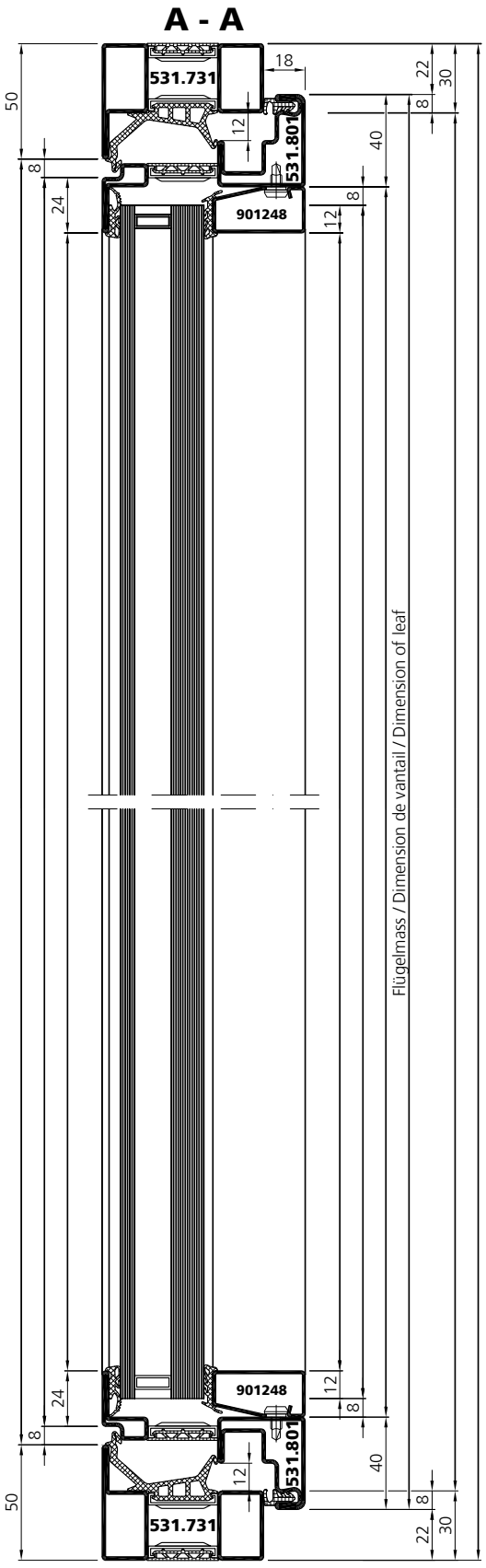


B - B



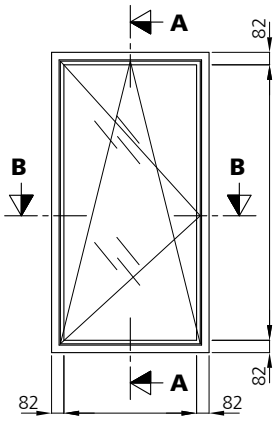
Systemplan | Plan du système | System plan

un_sp_0324

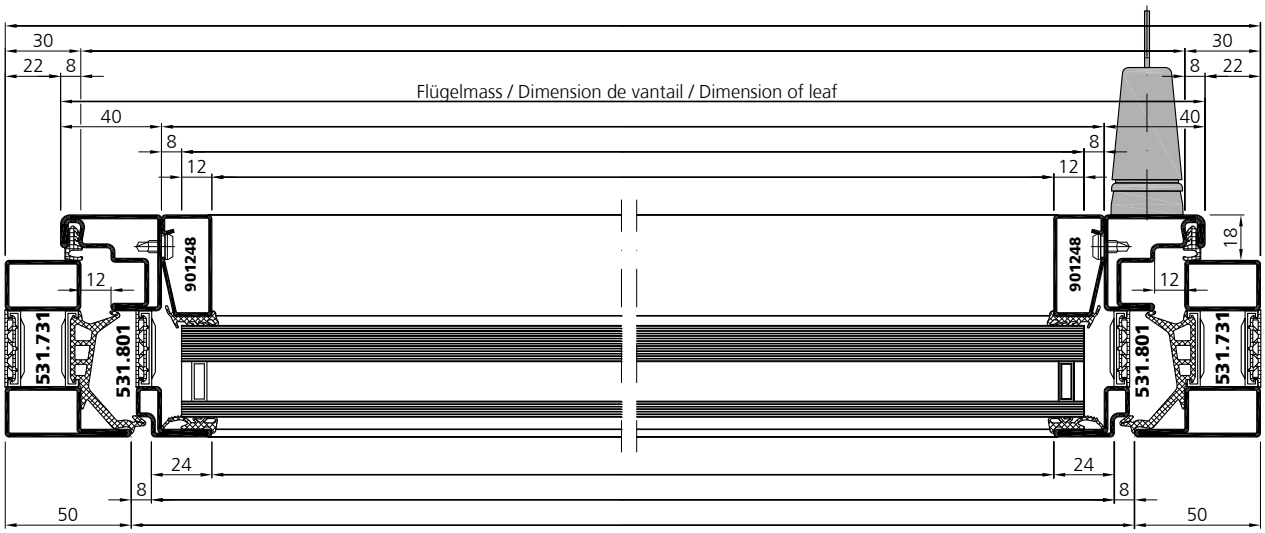


Systemplan | Plan du système | System plan

un_sp_0324



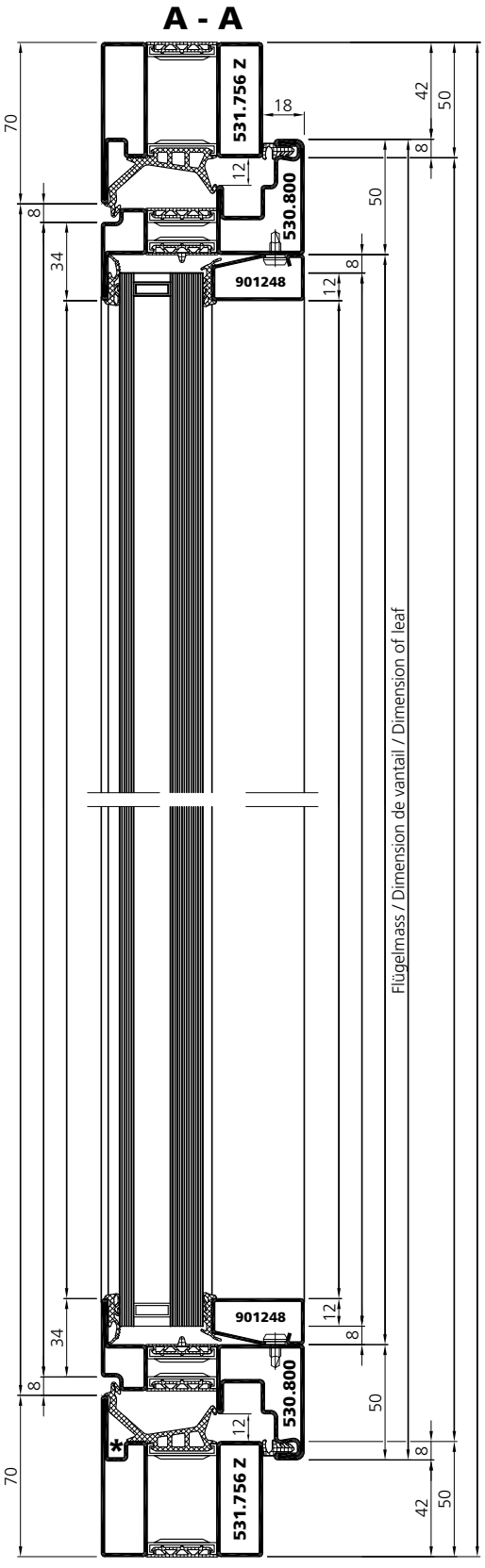
B - B



Systemplan | Plan du système | System plan

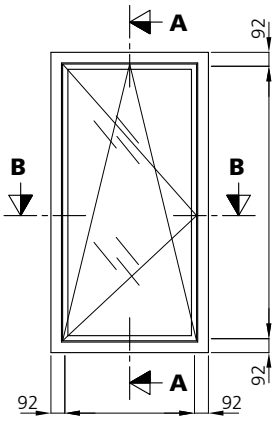
un_sp_0322

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove

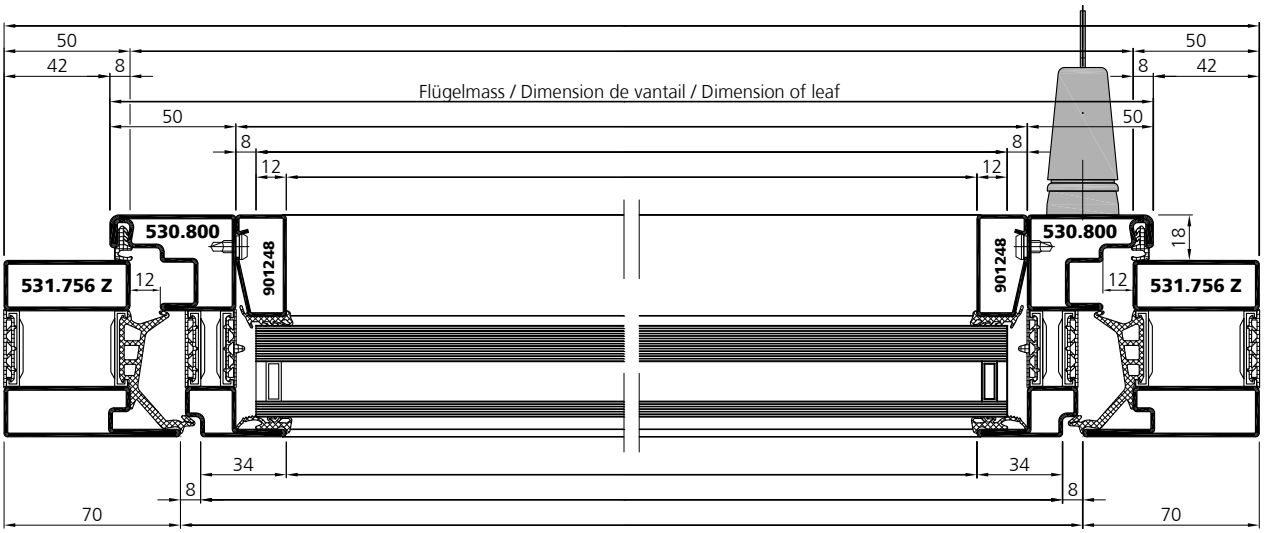


Systemplan | Plan du système | System plan

un_sp_0322



B - B



Systemplan | Plan du système | System plan

un_sp_0325

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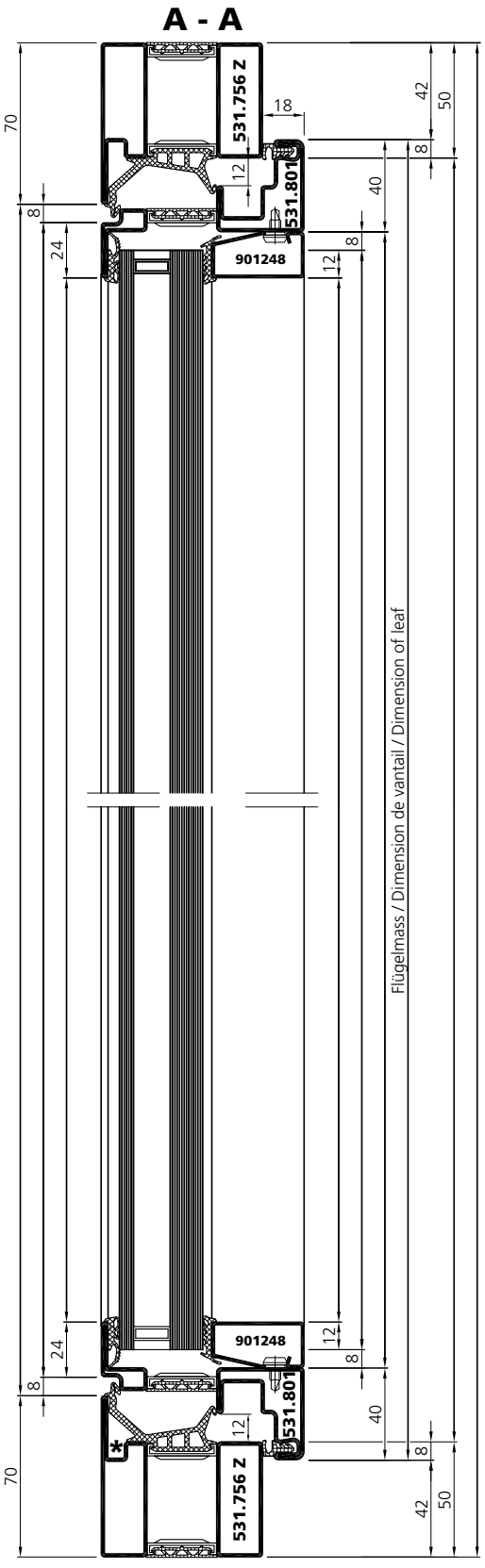
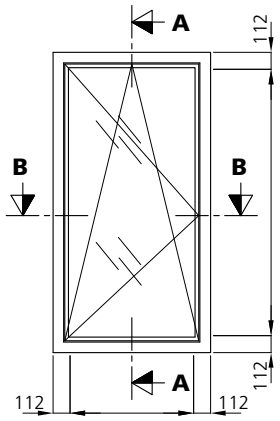
Profilé avec garde à l'eau
Profile with drainage groove

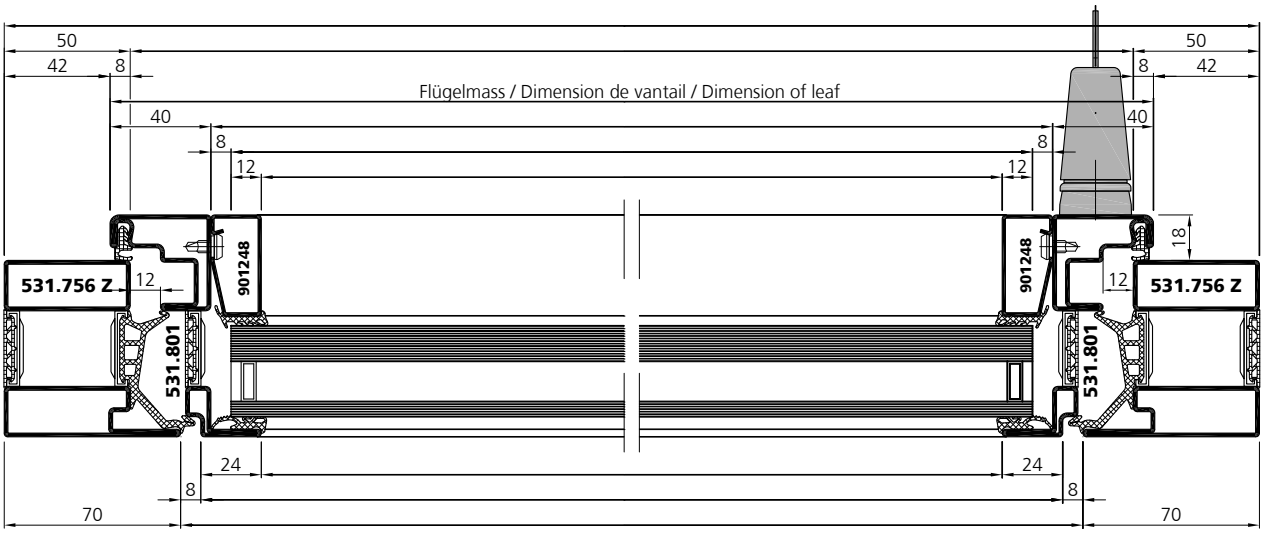


Systemplan | Plan du système | System plan

un_sp_0325

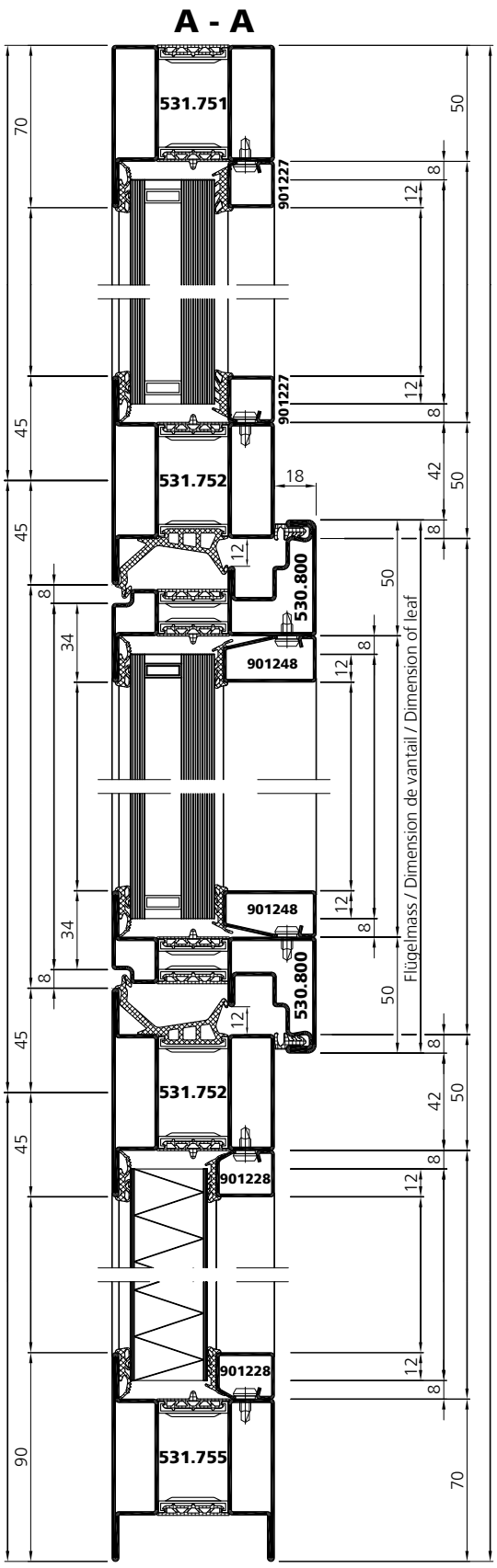


B - B



Systemplan | Plan du système | System plan

un_sp_0323



Systemplan | Plan du système | System plan

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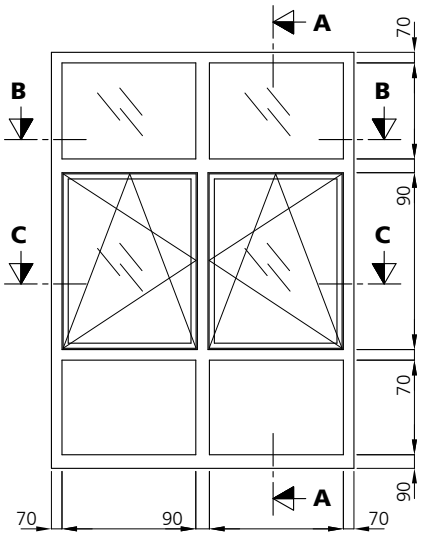

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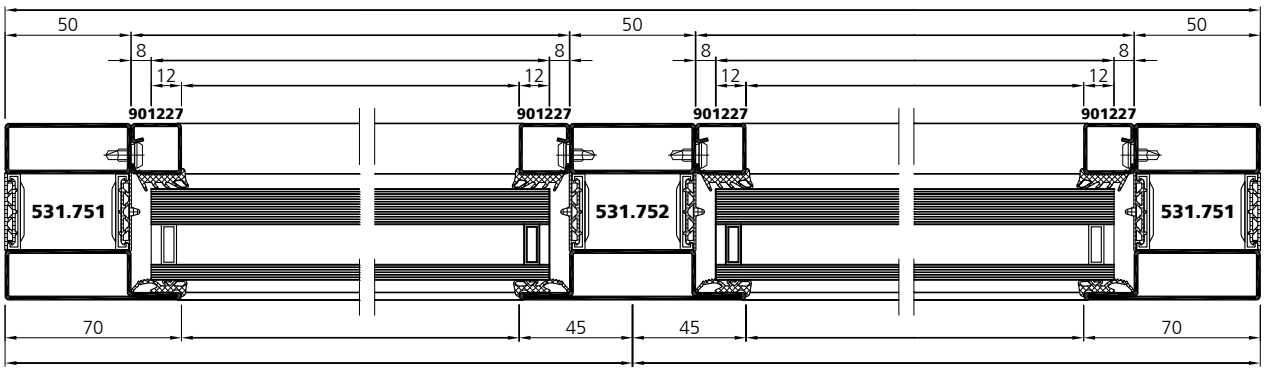
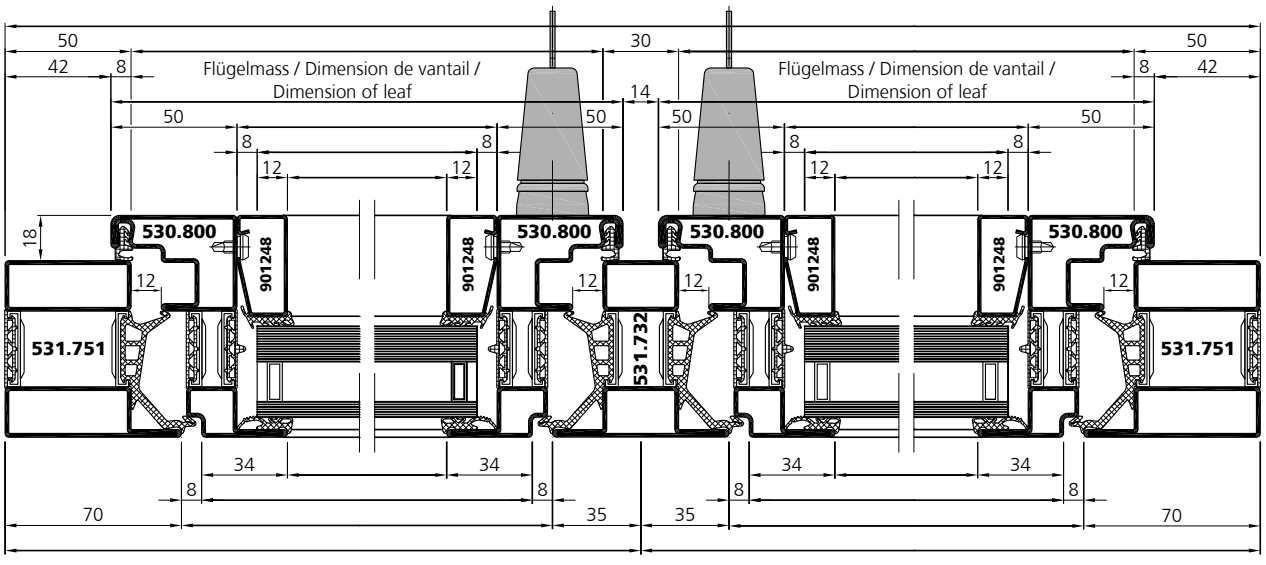


C - C



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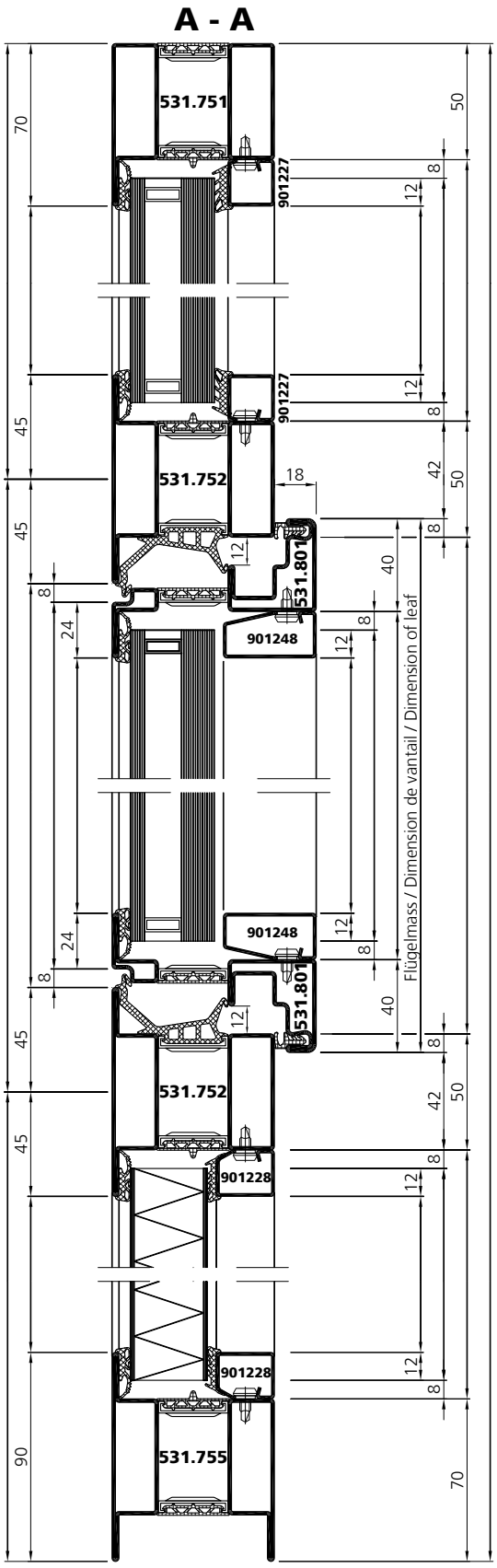
Systemplan | Plan du système | System plan

un_sp_0326



Systemplan | Plan du système | System plan

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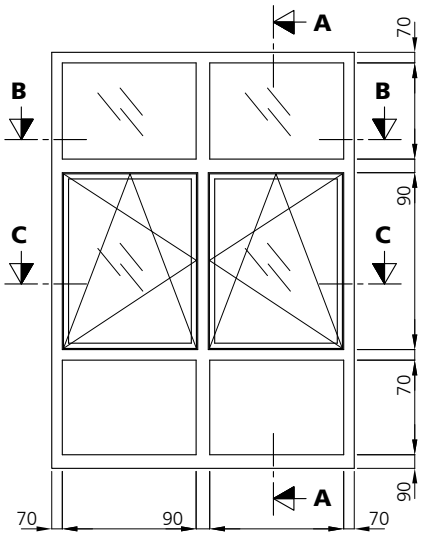

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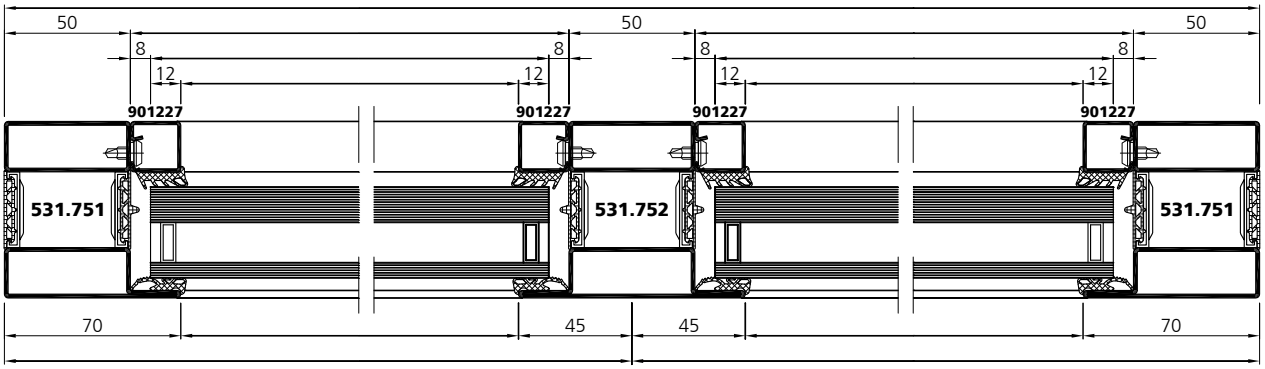
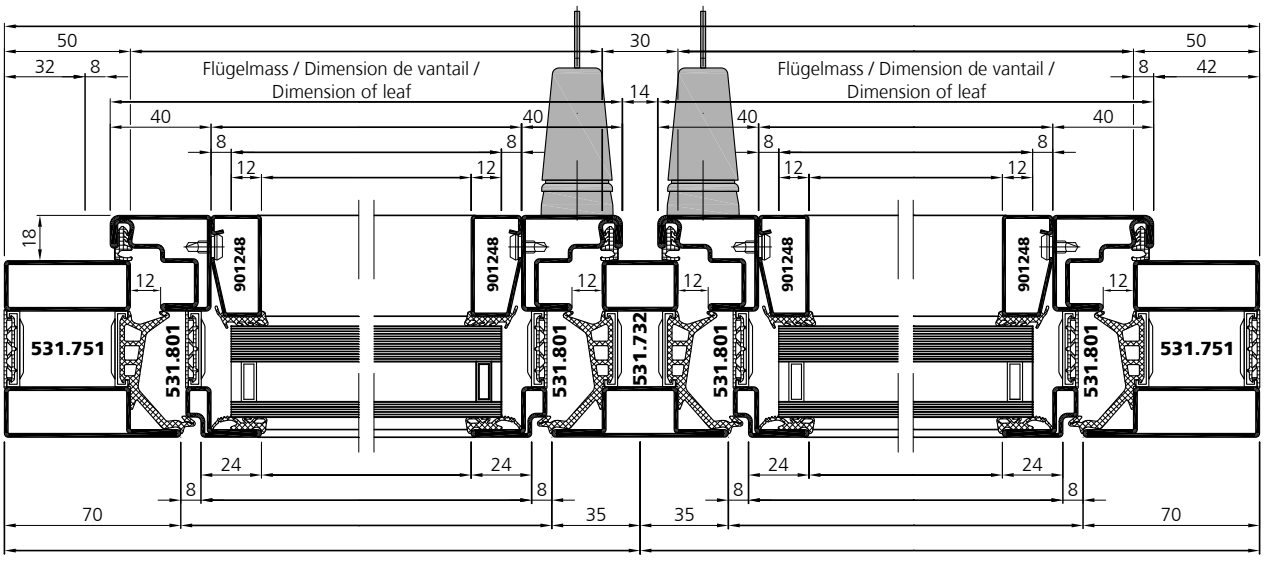


C - C

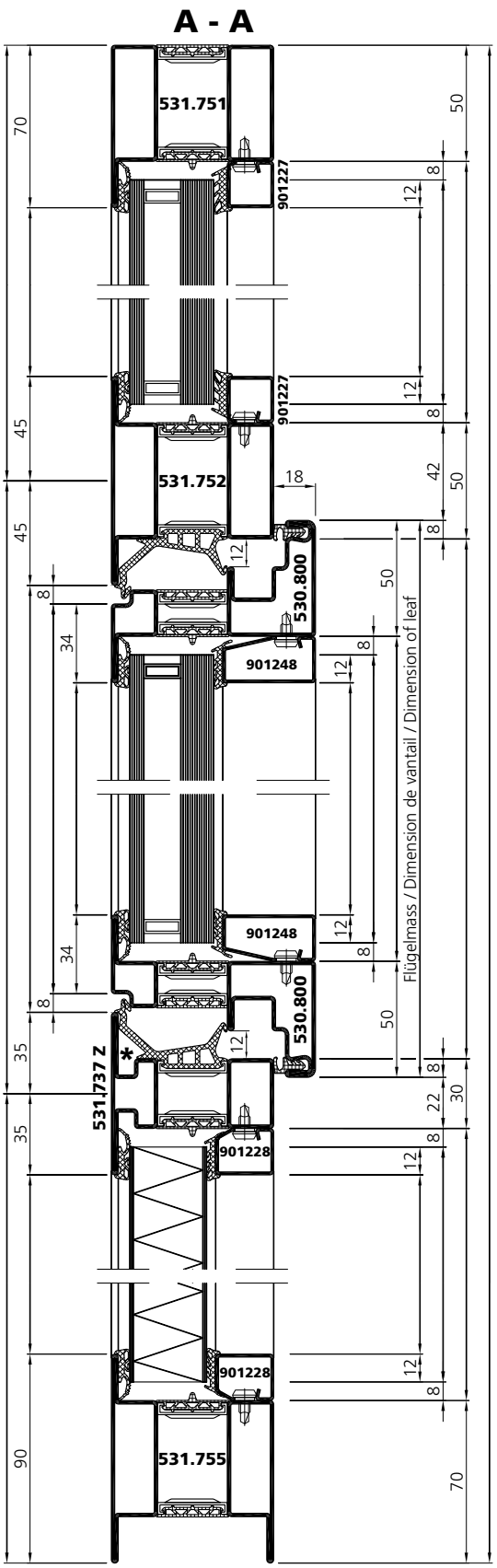


VUF 01/19

Systemplan | Plan du système | System plan

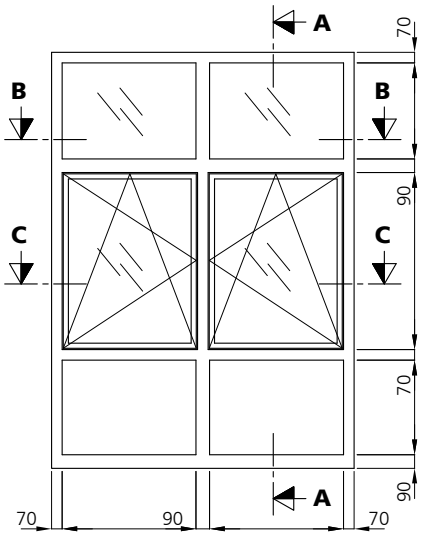
un_sp_0327

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove

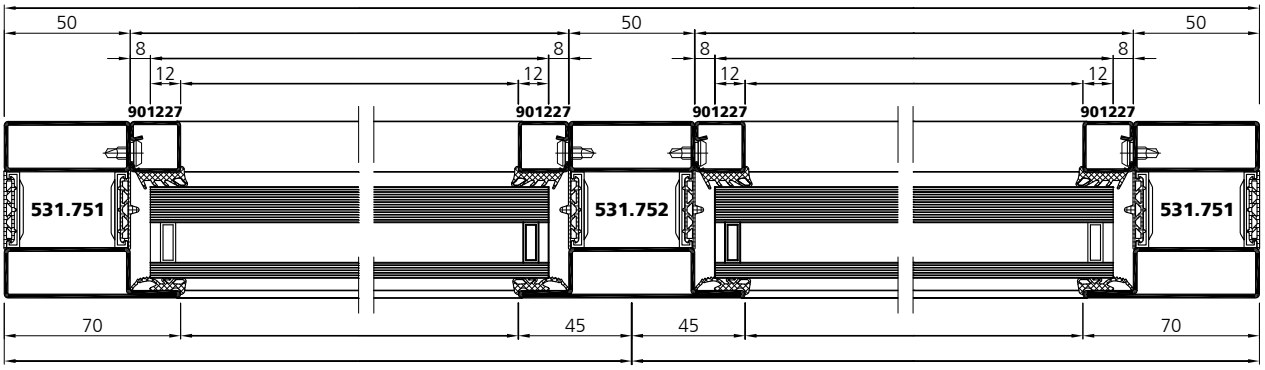


Systemplan | Plan du système | System plan

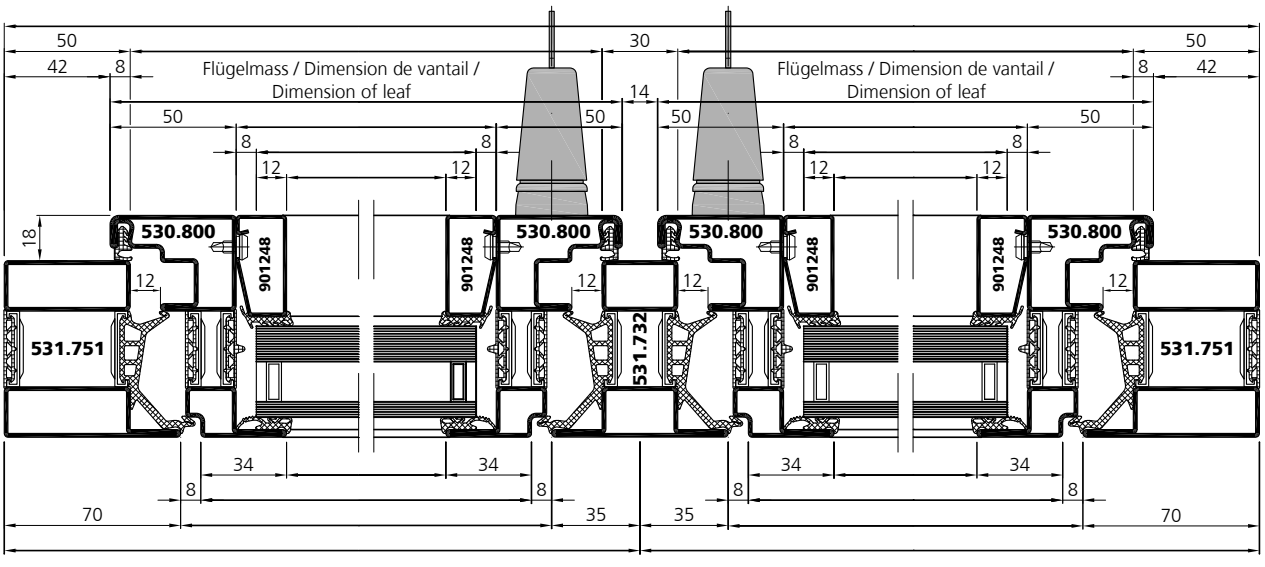
un_sp_0327



B - B



C - C

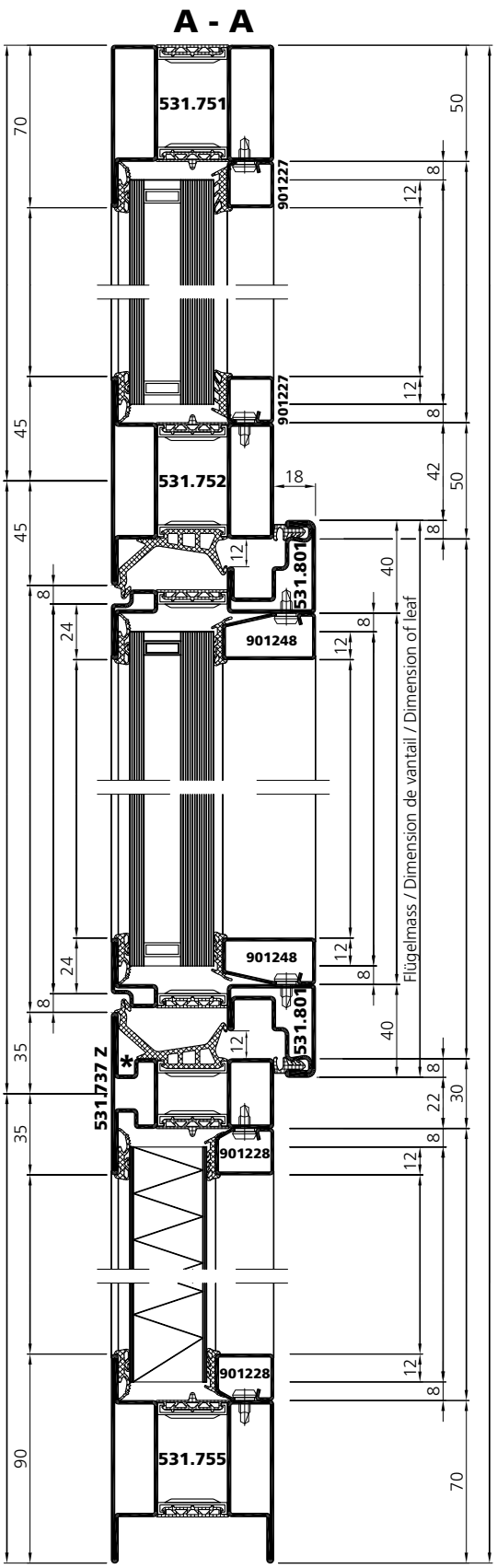


VUF 01/19

Systemplan | Plan du système | System plan

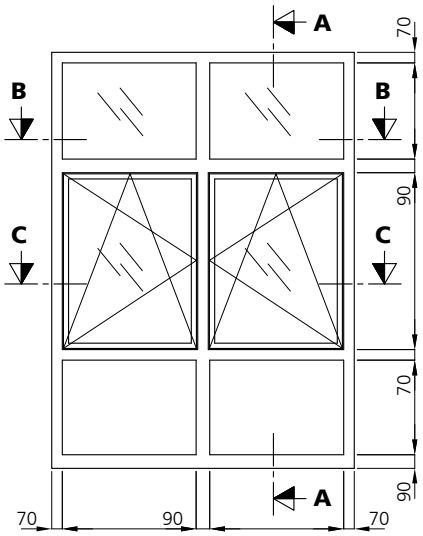
un_sp_0328

* Profil mit kontrollierter Entwässerung
Profilé avec garde à l'eau
Profile with drainage groove

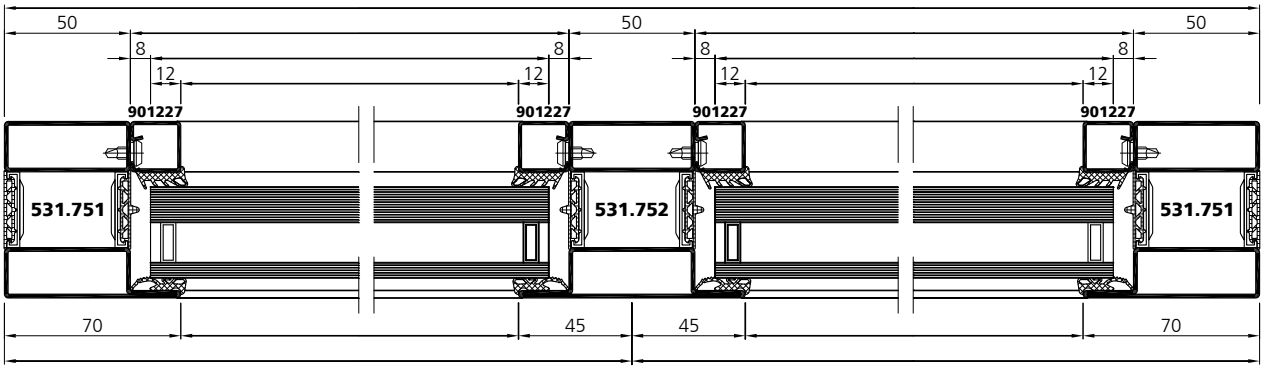


Systemplan | Plan du système | System plan

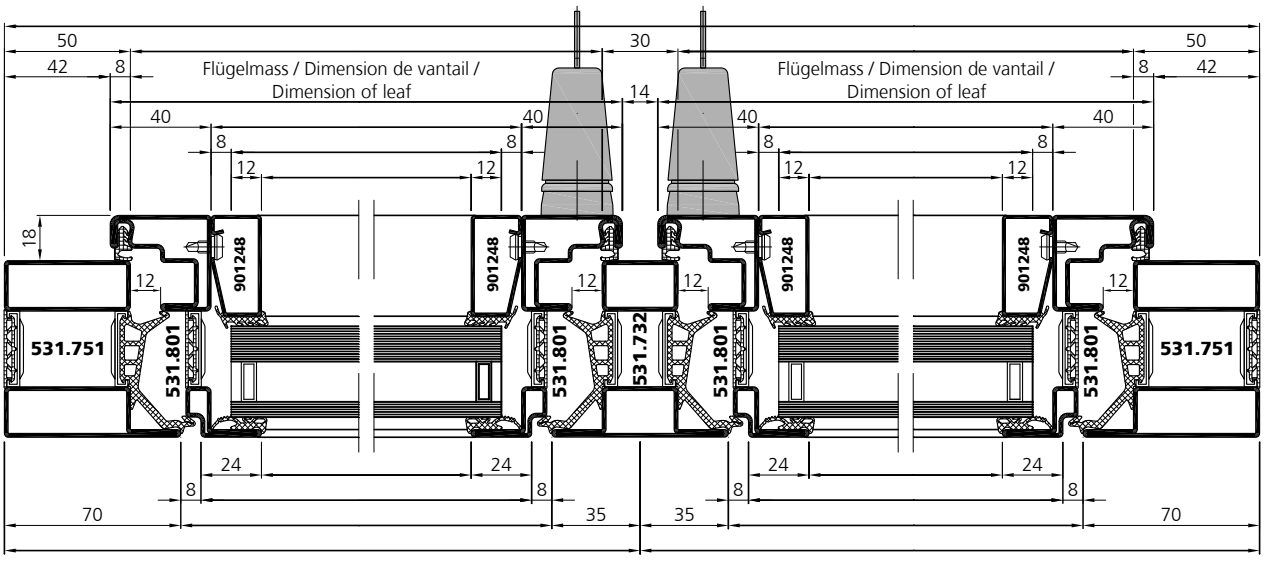
un_sp_0328



B - B

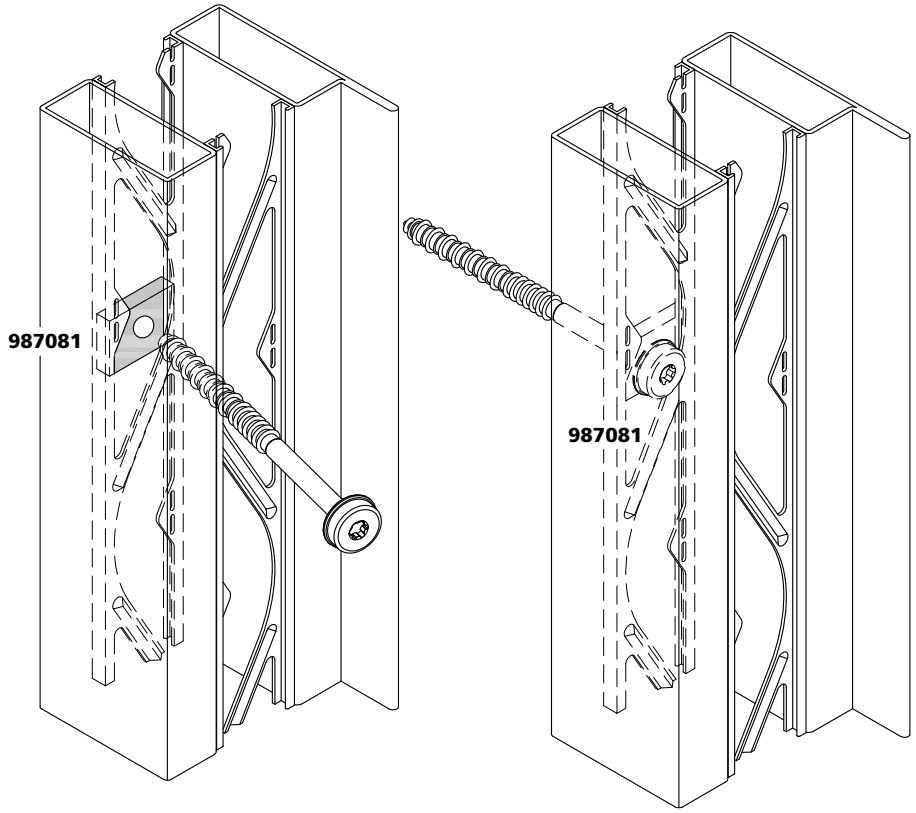


C - C

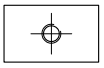


VUF 01/19

Wandbefestigung | Fixation murale | Wall mounts



987081
Gewinde M5*
filetage M5*
thread M5*

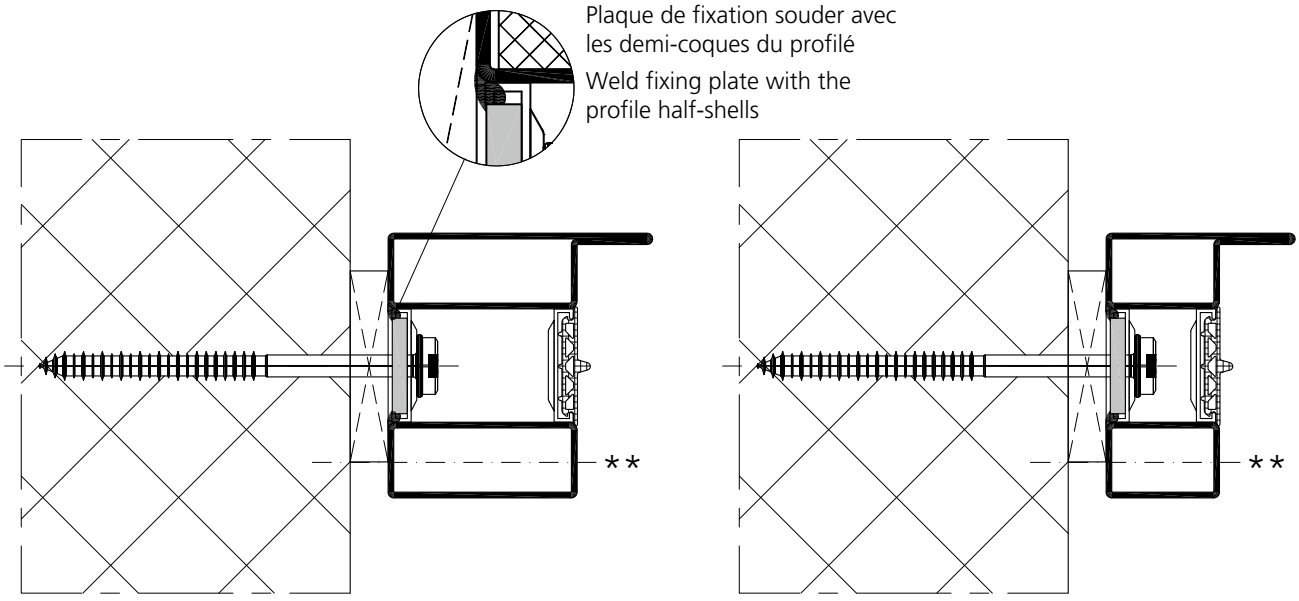


*Aufbohren
auf 10.5 mm
Percer à 10.5 mm
Drill out to 10.5 mm

Befestigungsplatte mit Profilhalbschalen verschweissen

Plaque de fixation souder avec les demi-coques du profilé

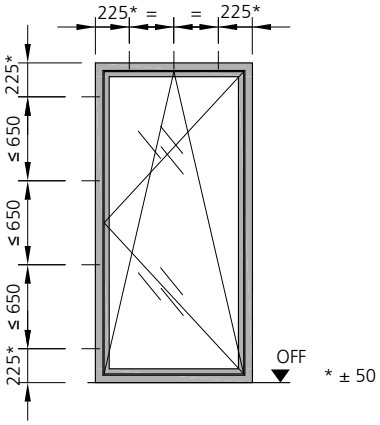
Weld fixing plate with the profile half-shells

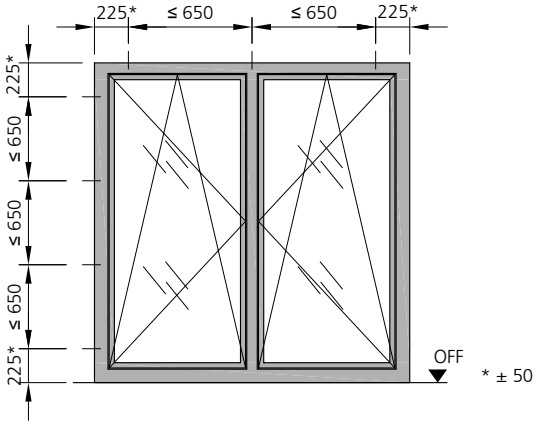


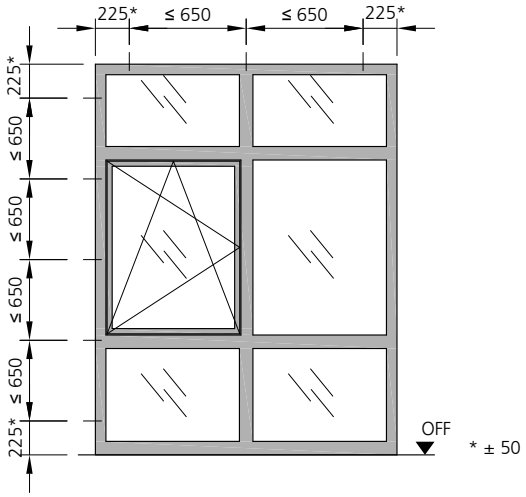
** wahlweise durch Profilschale befestigt
à choix fixation à travers le profilé
fixing optionally through the profile

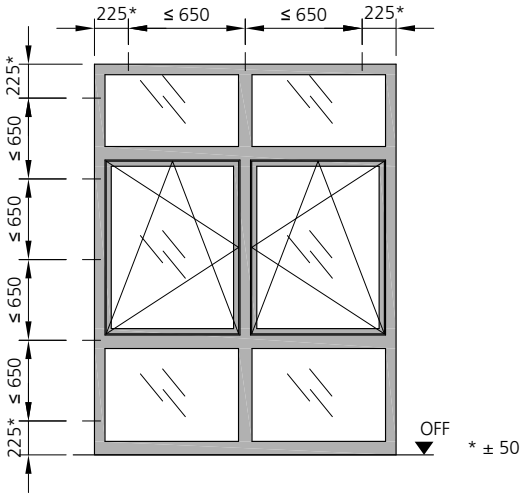
VUF 01/19

Befestigungspunkte Points de fixation Fixing points









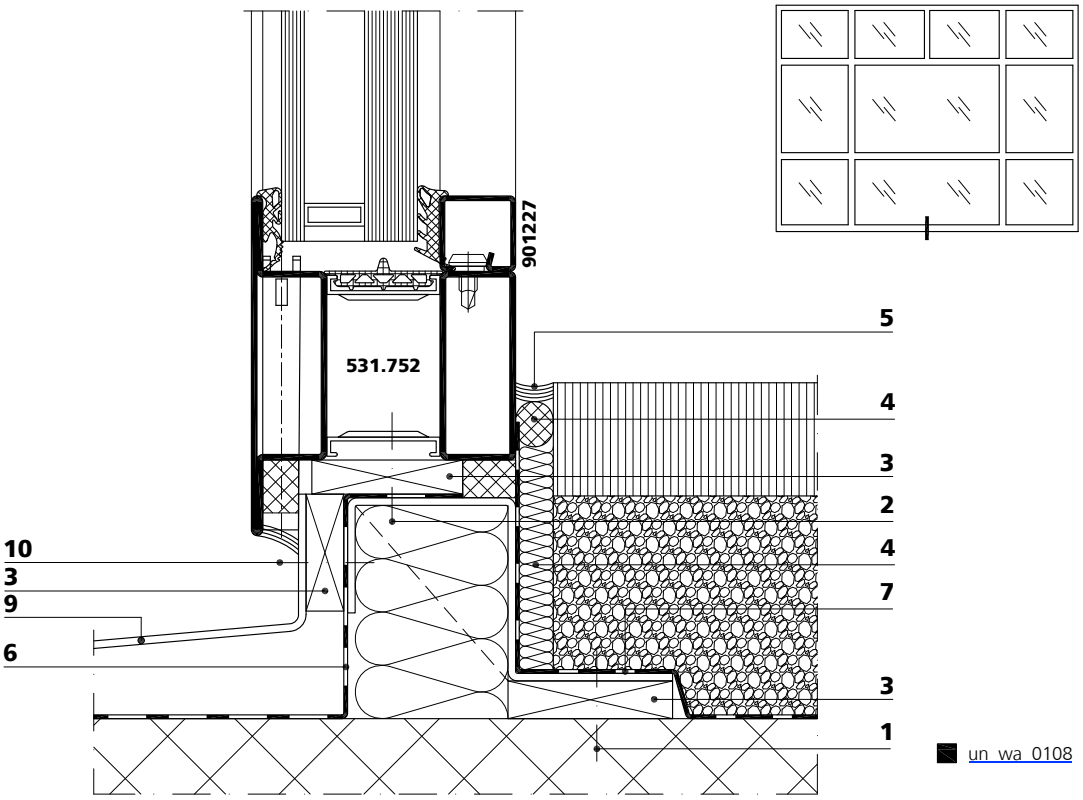
Wandanschlüsse (un_wa)
Nummernschlüssel

Raccords muraux (un_wa)
Légende

Wall abutments (un_wa)
Legend

1	**Befestigungsmittel** (an Massivbauteile z.B. Stahlträger, Mauerwerk, Beton) Wahlweise: • zugelassener KS/St-Dübel ø 10 mm mit dazugehörender Stahlschraube • Universalschraube 'HILTI HUS' • Heco Multi Monti	**Elément de fixation** (sur pièces en massif, par ex. support en acier, maçonnerie, béton) Au choix: • Cheville en acier/KS homologuée ø 10 mm avec vis en acier correspondante • Vis universelle 'HILTI HUS' • Heco Multi Monti	**Means or fastening** (to solid components e.g. steel beams, masonry, concrete) Either: • Approved KS/St plug ø 10 mm with related steel screw • Universal screw 'HILTI HUS' • Heco Multi Monti
2	**Befestigungsmittel** (an Metall-Unterkonstruktionen, Leichtbau) Wahlweise: • metrische Gewindeschraube min. M6 • selbstschneidende Gewindeschraube min. ø 6.3 mm • Blechschraube min. ø 4.2 mm	**Elément de fixation** (sur ossatures métalliques, construction légère) Au choix: • Vis métrique min. M6 • Vis autotaraudeuse min. ø 6,3 mm • Vis à tôle min. ø 4,2 mm	**Means of fastening** (to metal sub-structures, lightweight construction) Either: • Metric tapping screw min. M6 • Self-tapping screw min. ø 6.3 mm • Sheet metal screw min. ø 4.2 mm
3	**Distanzstück** Wahlweise aus Stahl/Edelstahl, Hartholz oder "Promatec H"	**Entretoise** Au choix en acier/acier inox, bois dur ou "Promatec H"	**Spacer** Either made of steel/stainless steel, hardwood or "Promatec H"
4	**Füllmaterial** Anschlüsse/Hohlräume mit nichtbrennbarem Material hinterfüttern (z.B. Steinwolle, Mörtel, "Promatec H" oder mittels Brandschutz-Fugenschnur)	**Produit de remplissage** Charger les raccords/cavités de produit ininflammable (par ex. laine minérale, mortier, "Promatec H" ou un bouche-joint anti-feu)	**Filling material** Fill joints/cavities with fire-proof material (e.g. mineral wool, mortar, "Promatec H" or using fire protection joint cord)
5	**Dichtmaterial** Wahlweise Standard-Silikon, Acryl oder PU	**Produit d'étanchéité** Au choix silicone standard, PU ou acrylique	**Sealing material** Either standard-silicone, acrylic or PU
6	**Folie** Dampfdiffusionsoffen Henkel Terofol SD3, Verklebung mit Henkel Terotech KDS	**Film d'étanchéité** Perméabilité à la diffusion de vapeur Henkel Terofol SD3, coller avec Henkel Terotech KDS	**Film** Open to steam diffusion Henkel Terofol SD3, glue with Henkel Terotech KDS
7	**Folie** Dampfdiffusionsdicht Henkel Terofol SD150, selbstklebend	**Film d'étanchéité** Etanchéité à la diffusion de vapeur Henkel Terofol SD150, autoadhésif	**Film** Sealed against steam diffusion Henkel Terofol SD150, self-adhesive
8	**Befestigungslaschen** aus Stahl/Edelstahl, Materialstärke min. 5 mm (wahlweise geschraubt oder geschweisst)	**Brides de fixation** en acier/acier inoxydable, épaisseur min. 5 mm (au choix vissées ou soudées)	**Fixing links** Made of steel/stainless steel, material thickness min. 5 mm (either screw fastened or welded)
9	**Abdeckbleche** Aus Blech 1.5 - 2.0 mm (Stahl/Edelstahl), Form freibleibend (wahlweise geschraubt, genietet, geschweisst oder geklebt)	**Tôles de recouvrement** Epaisseur 1,5 - 2,0 mm (acier/acier inox), forme libre (au choix vissées, rivetées, soudées ou collées)	**Cover plates** Made from sheet metal 1.5 - 2.0 mm (steel/stainless steel), shape as required (either screw fastened, riveted, welded or bonded)
10	**Blechbefestigungen** Wahlweise Blech/Bohrschraube min. ø 4.8 mm oder Niete min. 4.2 mm	**Eléments de fixation de tôle** Au choix tôle/vis autotaraudeuse min. ø 4.8 mm ou rivets min. 4.2 mm	**Sheet metal fastenings** Either sheet metal/drilling screw min. ø 4.8 mm or rivets min. 4.2 mm

Bauanschlüsse | Raccords muraux | Wall abutments



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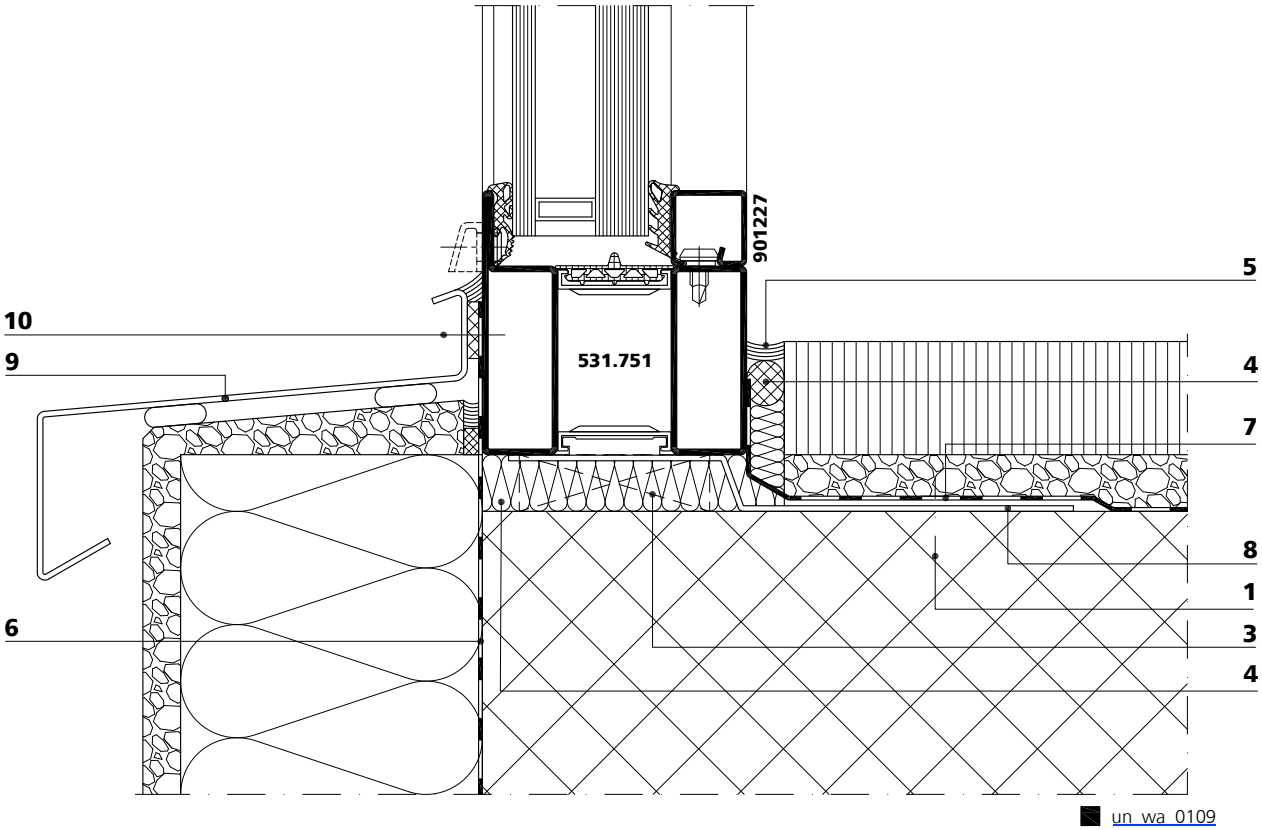
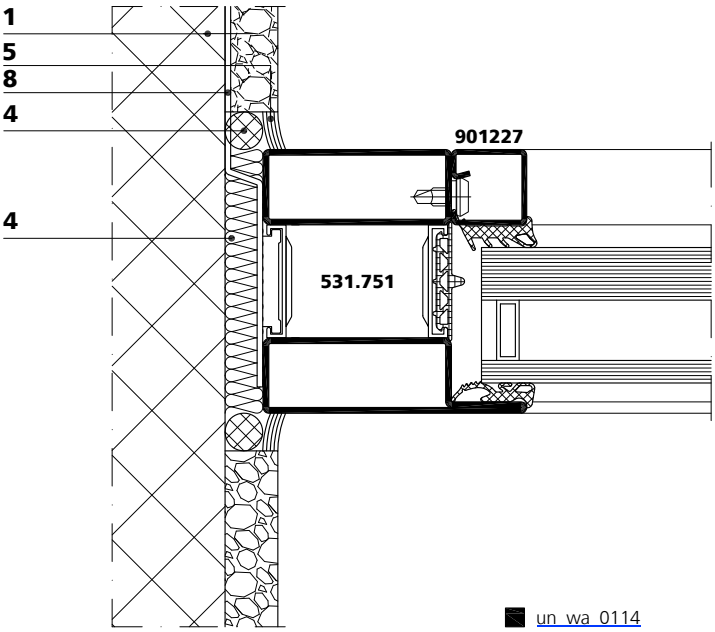
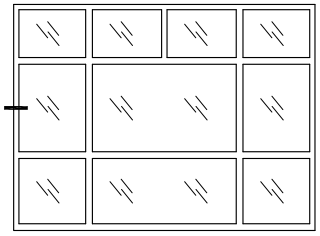


un_wa_0109

VUF 01/19

Bauanschlüsse | Raccords muraux | Wall abutments





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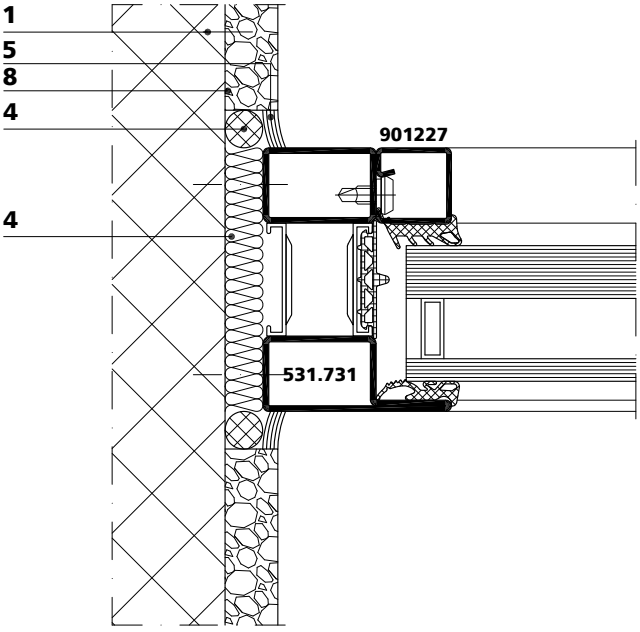
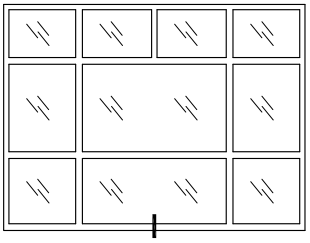
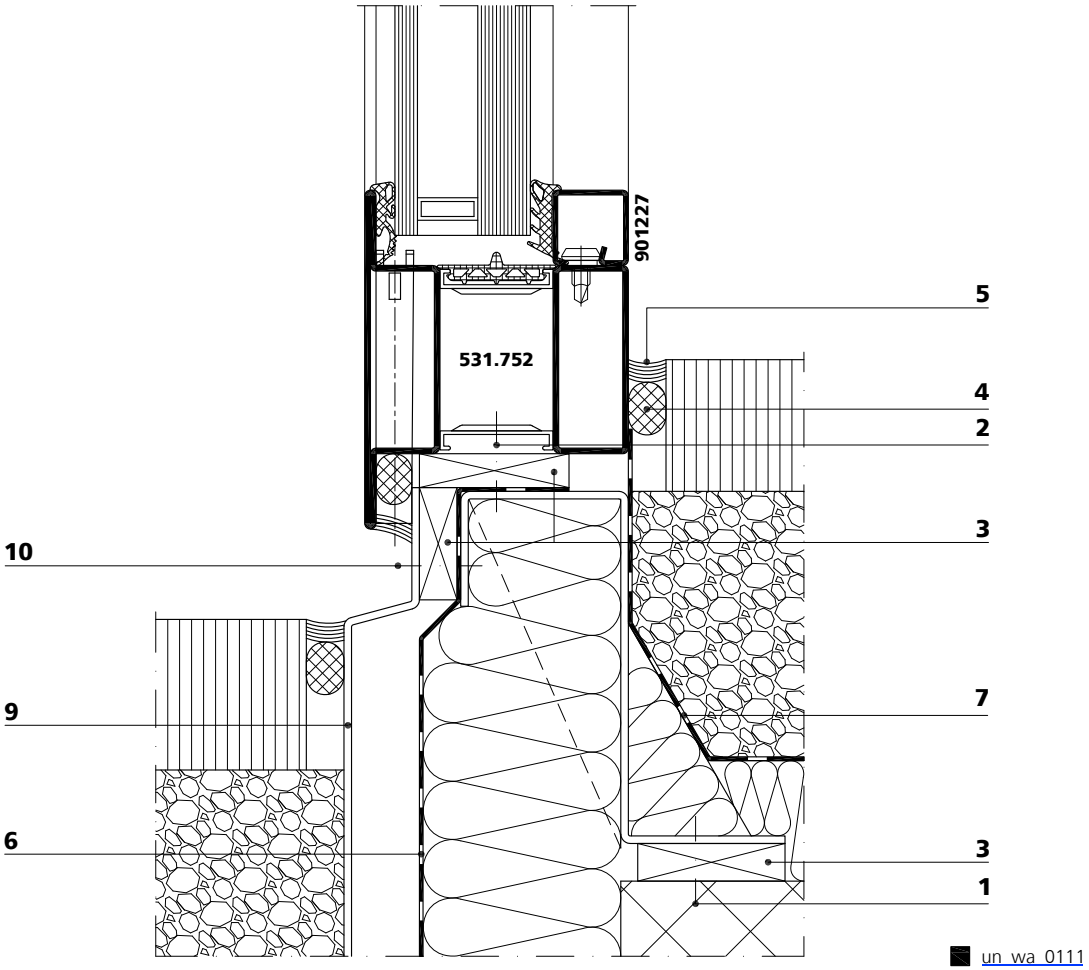


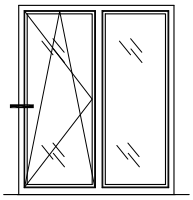
un_wa_0145

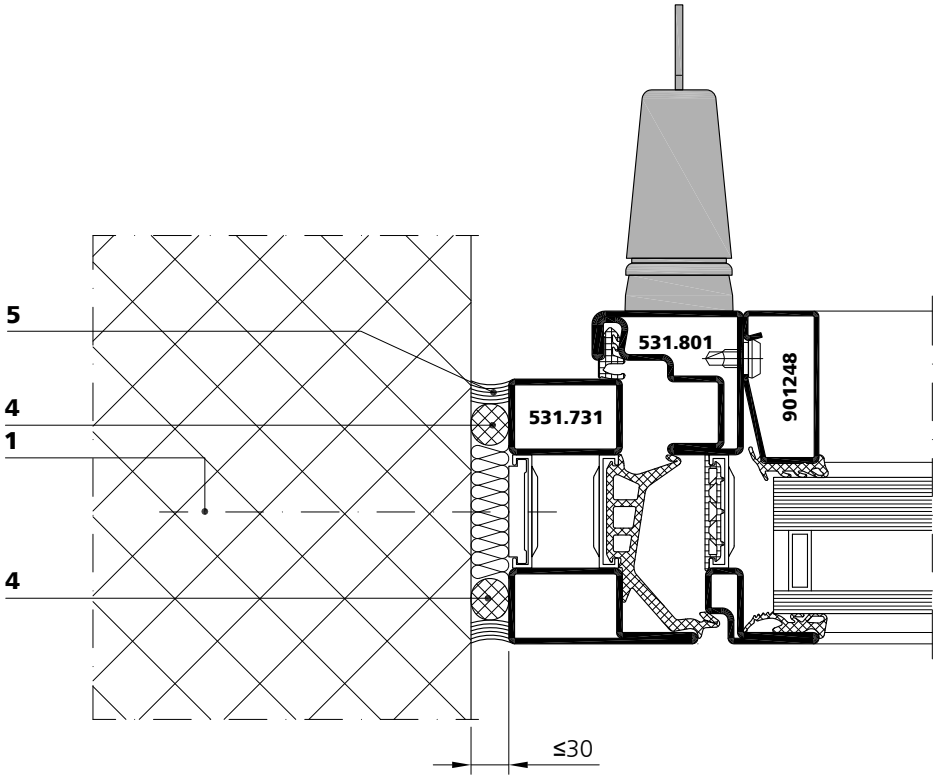
Bauanschlüsse | Raccords muraux | Wall abutments





Bauanschlüsse | Raccords muraux | Wall abutments





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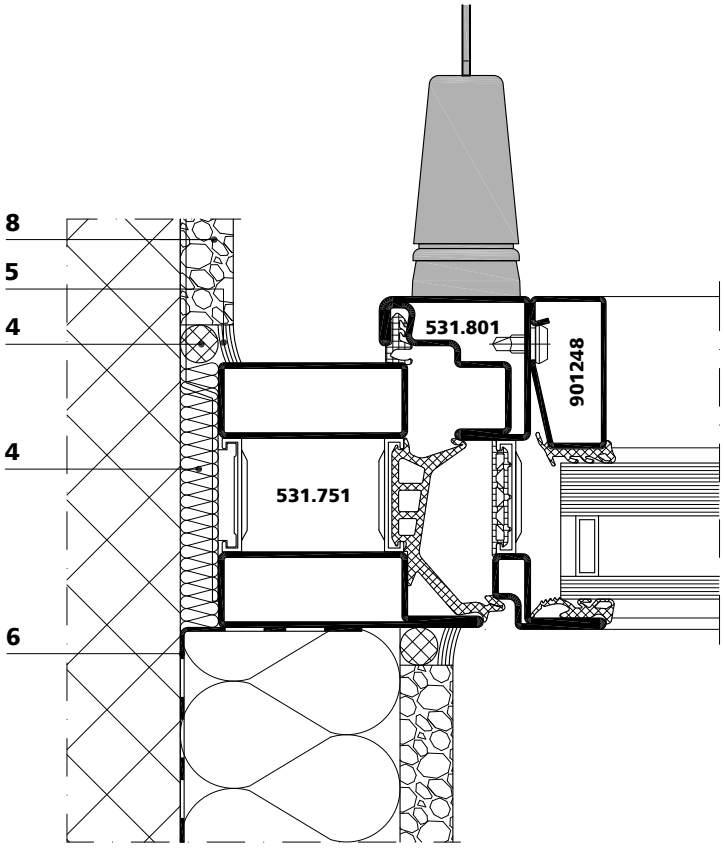

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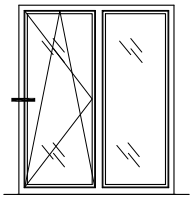
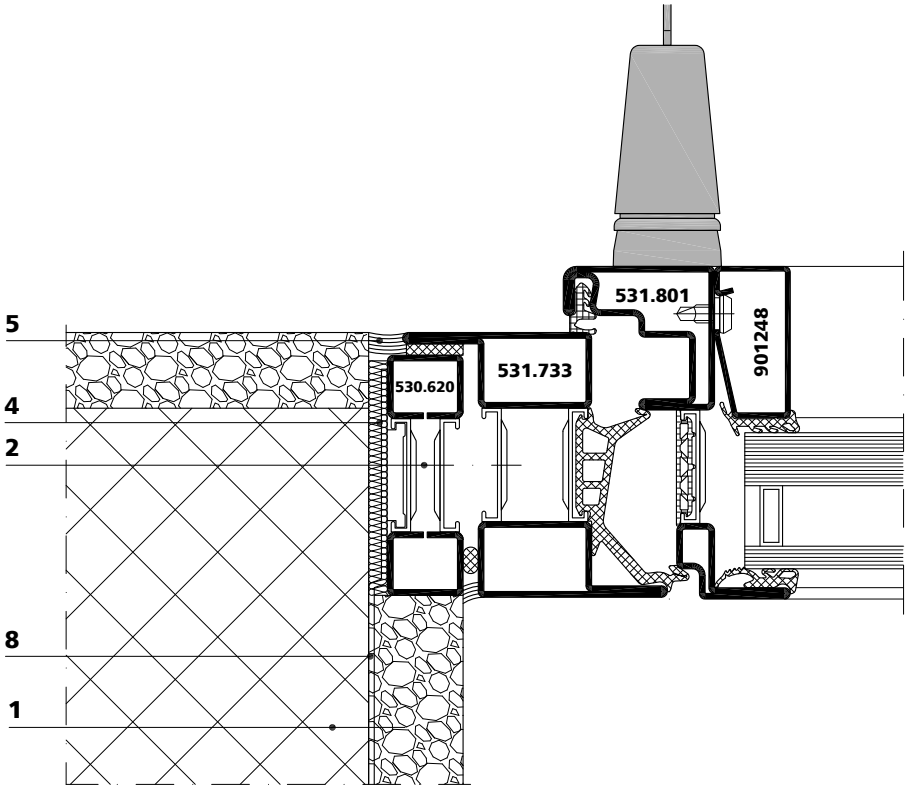
Bauanschlüsse | Raccords muraux | Wall abutments





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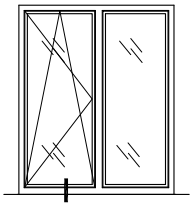
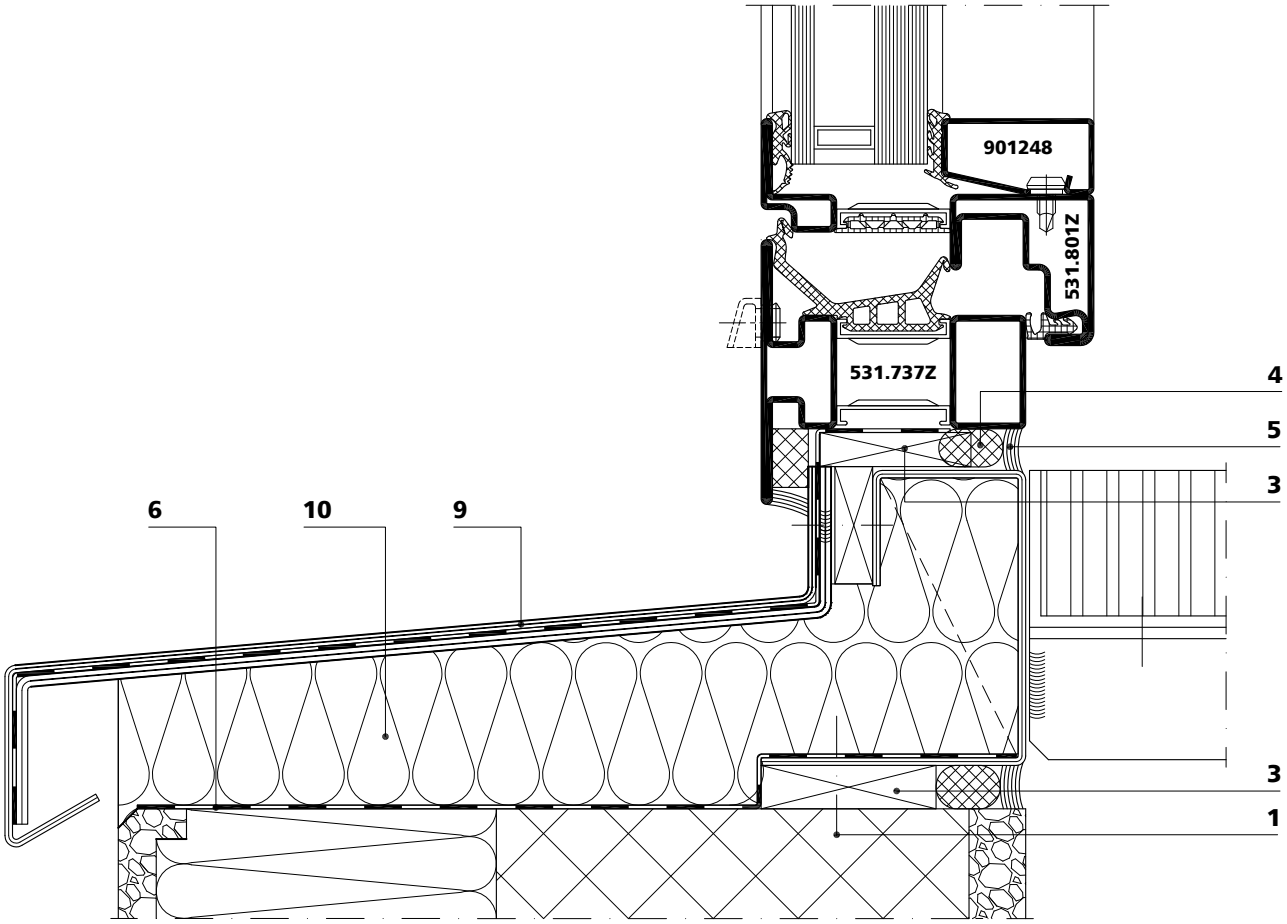
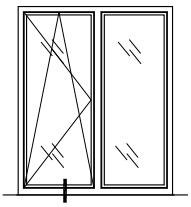
Bauanschlüsse | Raccords muraux | Wall abutments

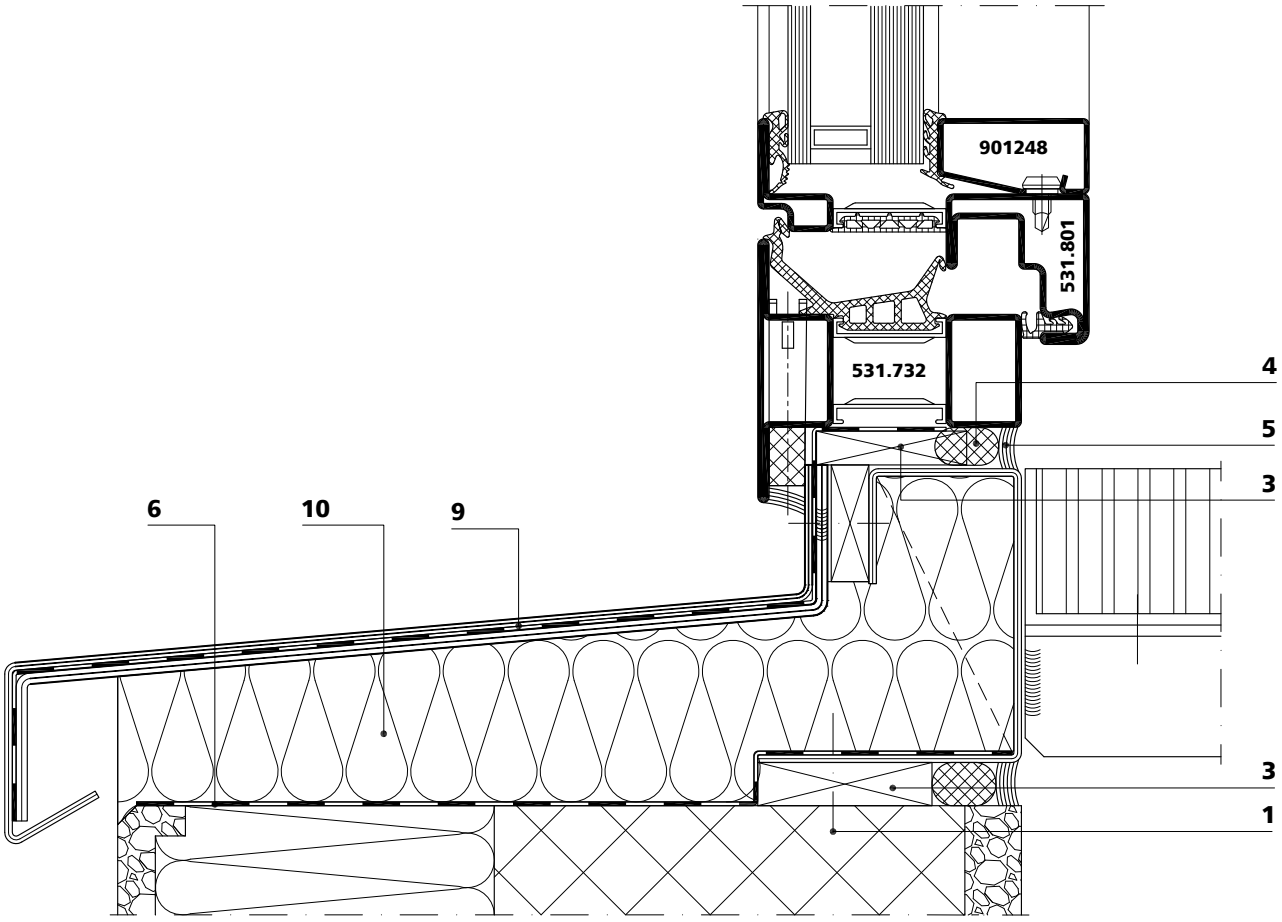




un_wa_0144

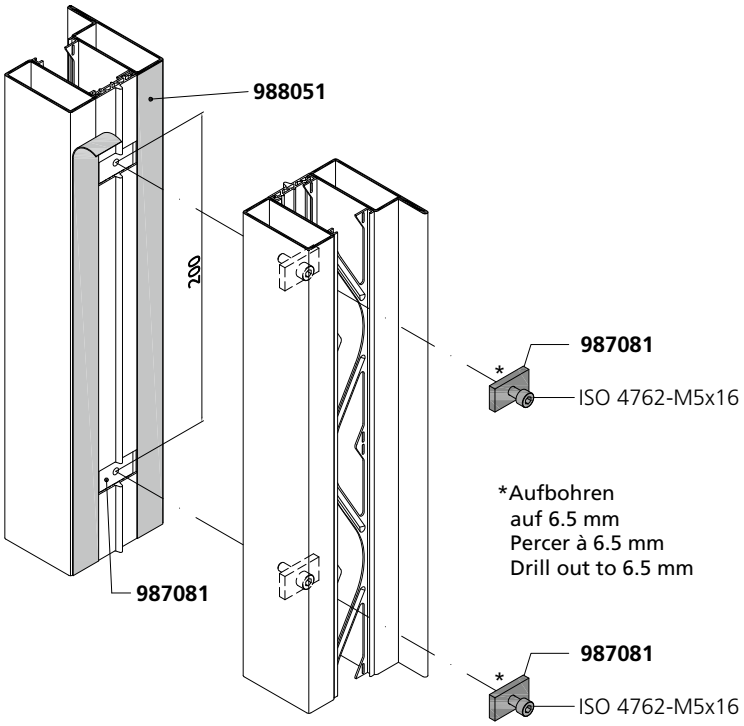
Bauanschlüsse | Raccords muraux | Wall abutments



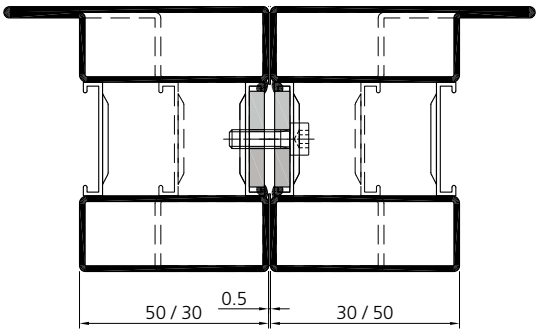


un_wa_0143

Elementstoss

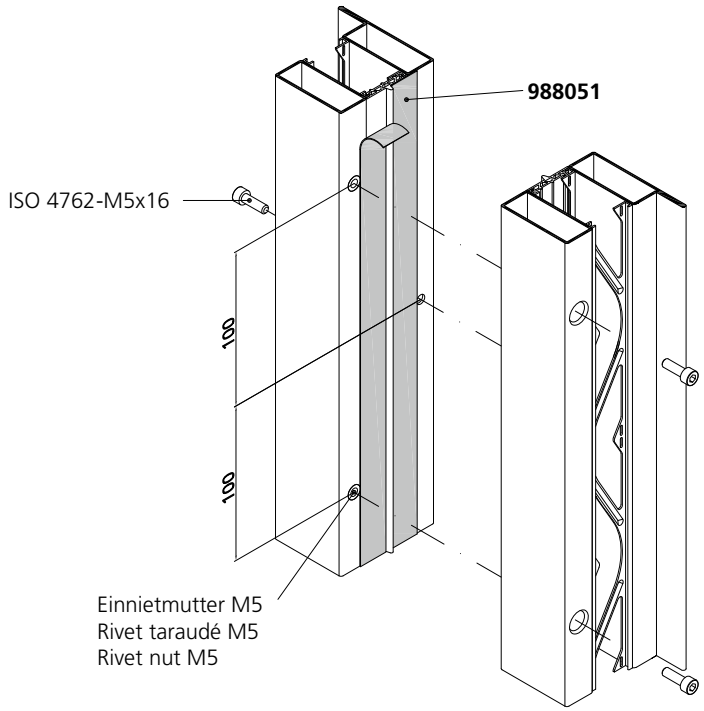


Raccord d'assemblage

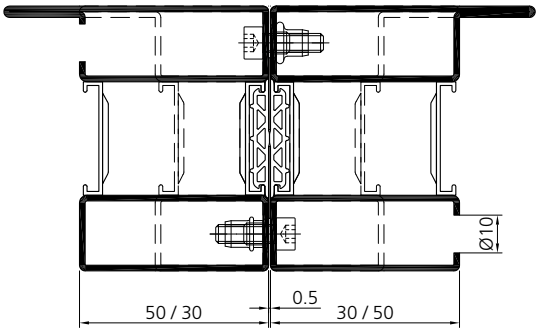


Site joint

alternativ



alternative

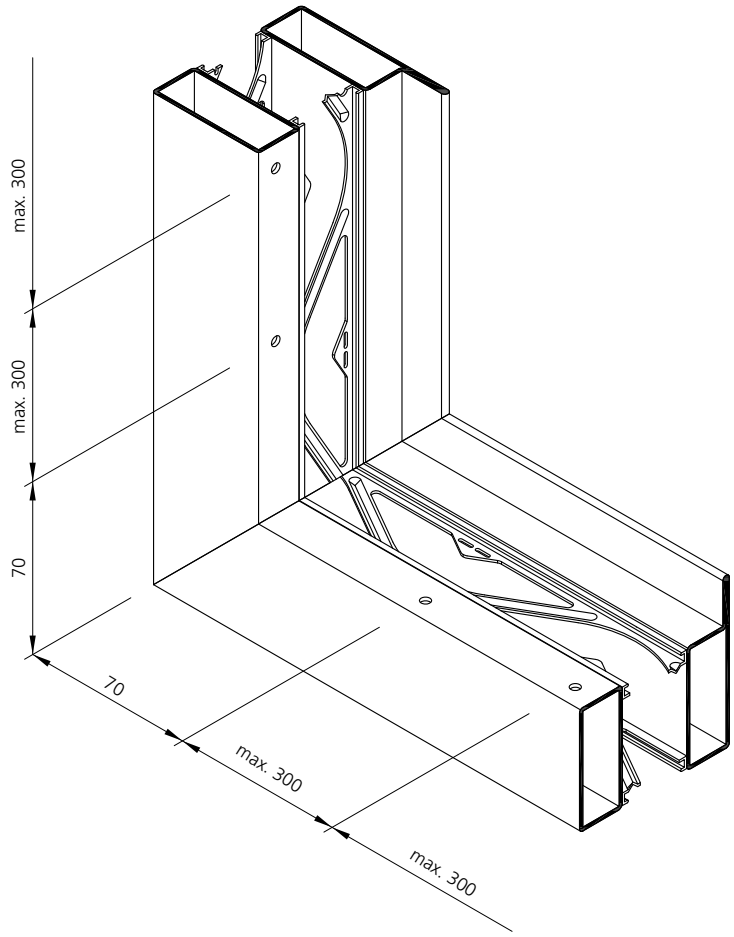


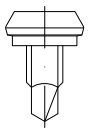
alternative

Profilbearbeitung
Klemmknöpfe

Mise en œuvre des profilés
Boutons de fixation

Profile processing
Stud fasteners





906577 (VE/100 Stk./pcs)
906578 (VE/1000 Stk./pcs)
906579 (VE/Mag. 200 Stk./pcs)

Klemmknöpfe
Bohrschraubensetzgerät Art. Nr. 909203 alternativ Bohrlehre Art. Nr. 909104, Bohrdurchmesser 3.5 mm

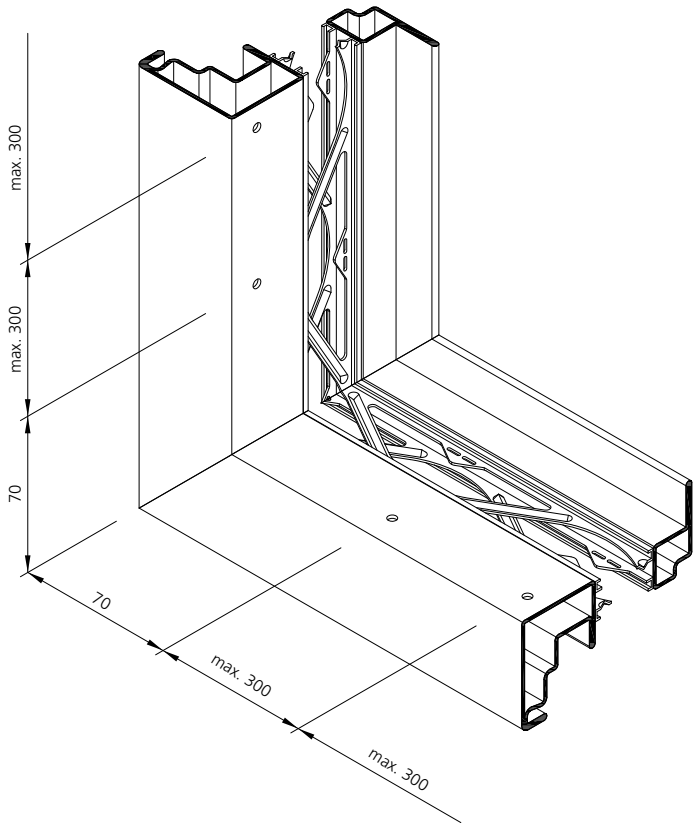
Boutons de serrage
Appareil à poser les vis art. no. 909203 alternatif gabarit de perçage art. no. 909104, diamètre de perçage 3.5 mm

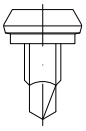
Steel studs
Power driver for screws art. no. 909203 alternative drilling template art. no. 909104, drilling diametre 3.5 mm

Profilbearbeitung
Klemmknöpfe
Flügel (Stahl)

Mise en œuvre des profilés
Boutons de fixation
Vantail (acier)

Profile processing
Stud fasteners
Leaf (steel)





906577 (VE/100 Stk./pcs)
906578 (VE/1000 Stk./pcs)
906579 (VE/Mag. 200 Stk./pcs)

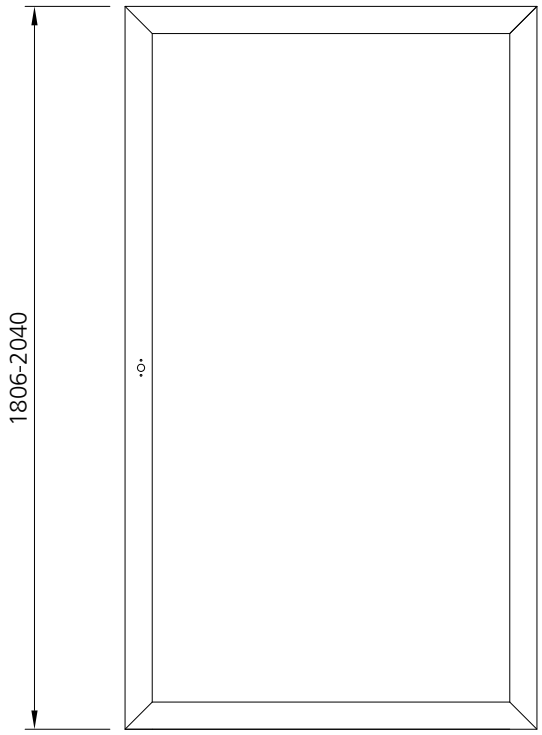
Klemmknöpfe
Bohrschraubensetzgerät Art. Nr. 909203 alternativ Bohrlehre Art. Nr. 909104, Bohrdurchmesser 3.5 mm

Boutons de serrage
Appareil à poser les vis art. no. 909203 alternatif gabarit de perçage art. no. 909104, diamètre de perçage 3.5 mm

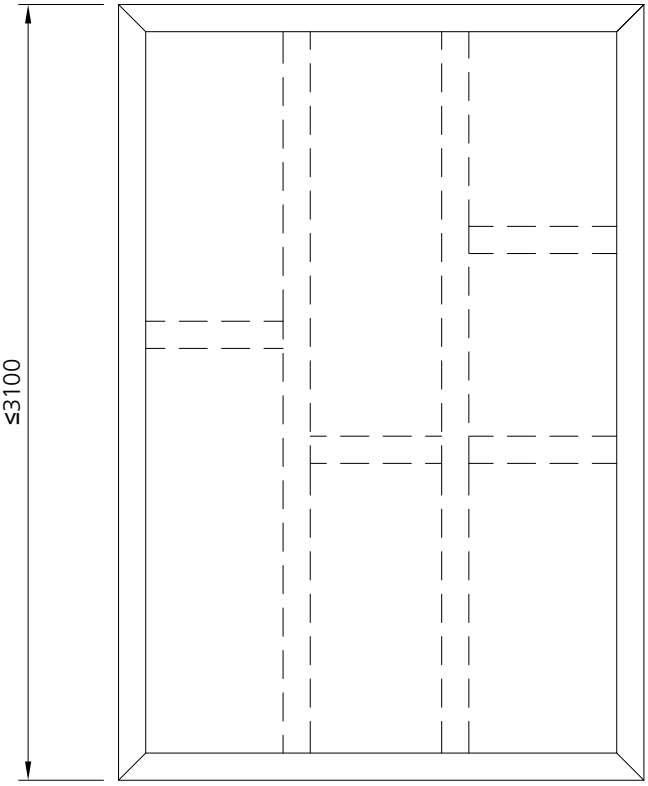
Steel studs
Power driver for screws art. no. 909203 alternative drilling template art. no. 909104, drilling diametre 3.5 mm

Sprossen — Traverses — Transoms

Flügel / Vantail / Leaf



Festverglasung / Vitrage fixe / Fixed glazing



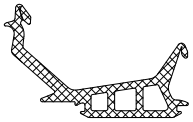
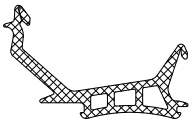
wahlweise:
- mit glastrennenden horizontalen Sprossen 531.732, 531.752, 531.737Z maximal 5 Stück
- mit glastrennenden vertikalen Sprossen 531.732, 531.752 maximal 2 Stück

au choix:
- avec traverses (horizontales) séparant le vitrage, 531.732, 531.752, 531.737Z max. 5 pièces
- avec montants (verticaux) séparant le vitrage, 531.732, 531.752 max. 2 pièces

at choice:
- with glass separative (horizontal) transoms, 531.732, 531.752, 531.737Z max. 5 pieces
- with glass separative (vertical) mullions, 531.732, 531.752 max. 2 pieces

Einbau Dichtung — Montage joint — Mounting weatherstripping

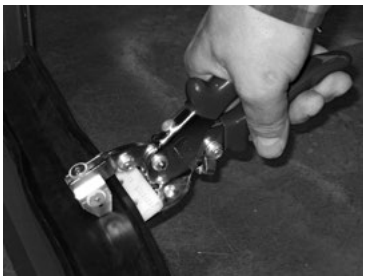
Der Einbau der CR-Dichtungen ist mit demjenigen der EPDM-Dichtungen identisch.
Le montage des joints CR est identique à celui des joints EPDM.
The mounting of the CR sealings is identical to that of EPDM sealings.

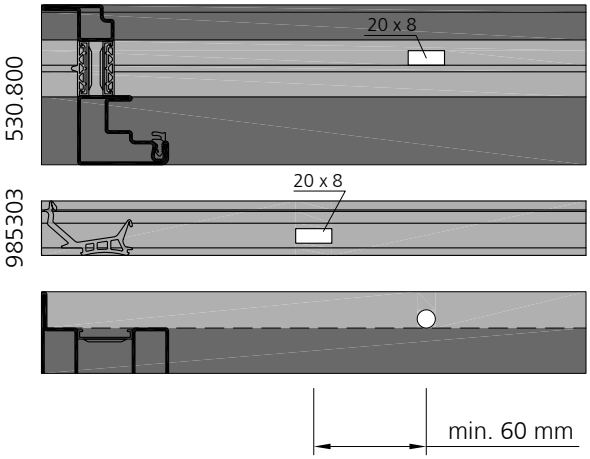
CR-Dichtungen / CR-Joints / CR-Weatherstrippings		EPDM-Dichtungen / EPDM-Joints / EPDM-Weatherstrippings	
905712	 2 mm	905312	 2 mm
985702	 5 mm	985302	 5 mm
905784	 3-4 mm		
905785	 5-6 mm	905385	 5-6 mm
905786	 7-8 mm	905386	 7-8 mm
		905387	 9-10 mm
985704		985304	
985705		985305	
985703		985303	
985700		985300	

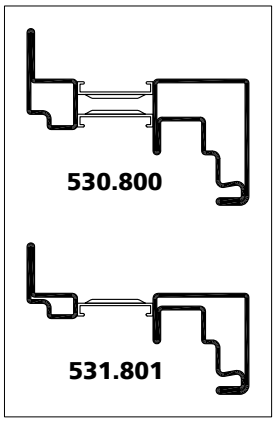
Entwässerung
Mittelfalzdichtung mit ganzen Rahmen

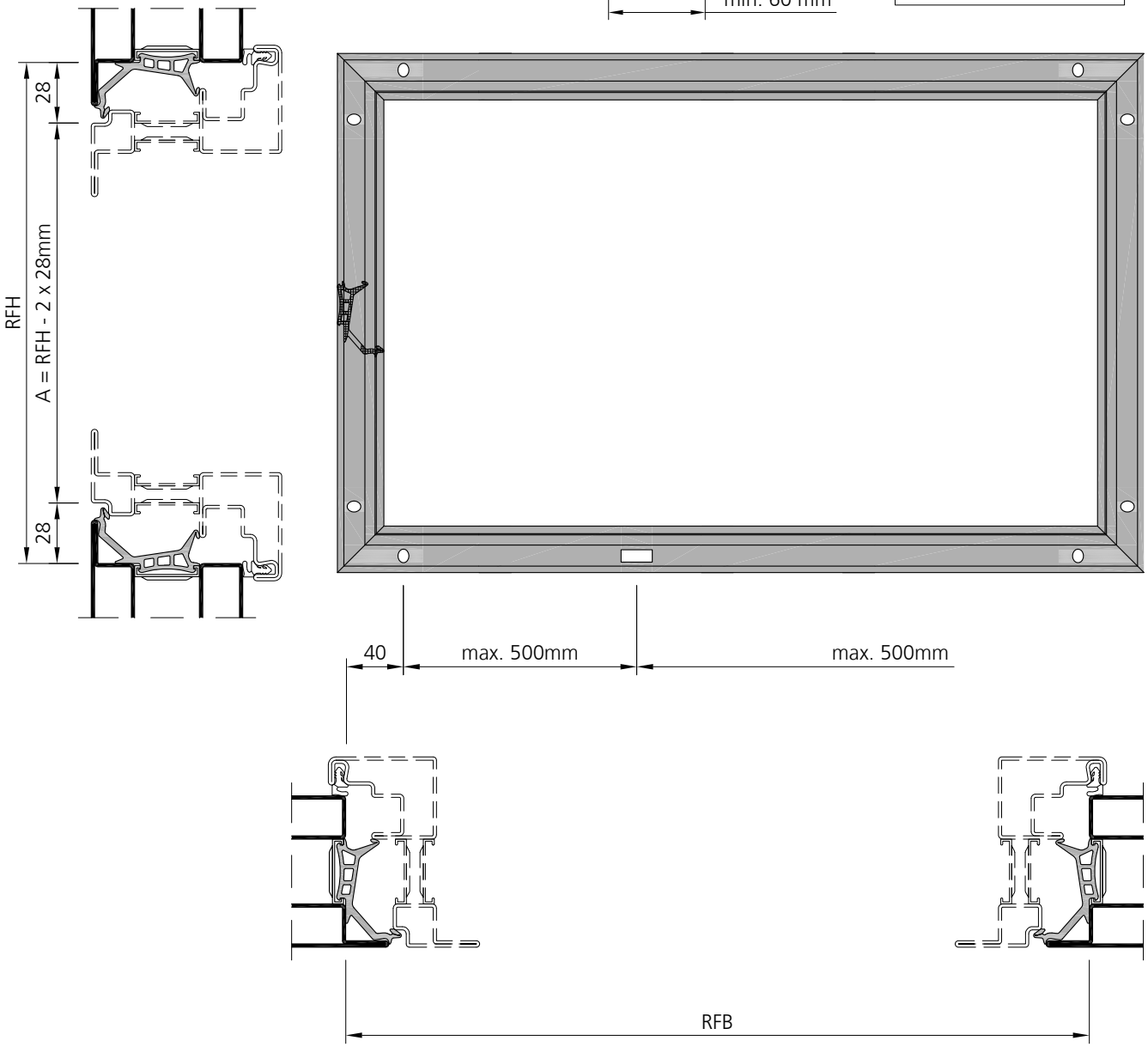
Evacuation d'eau
Joint central cadres collés

Drainage
Middle rebate seal with complete frames

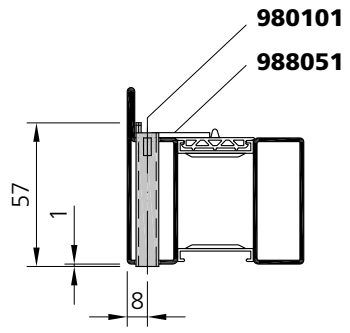






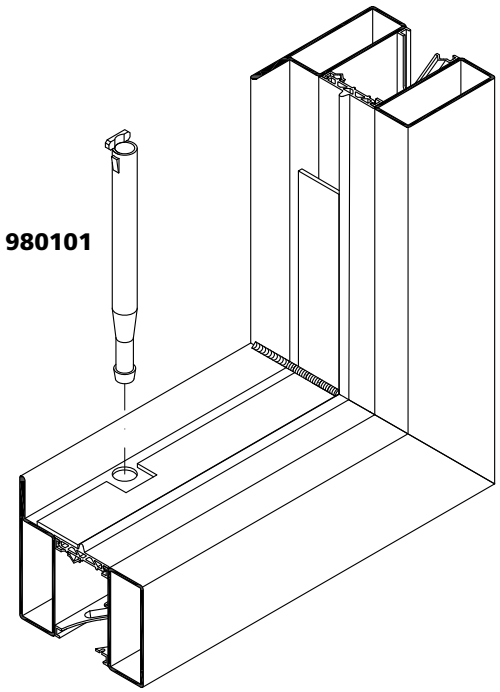


Dichtungseinbau
Einbau verdeckt liegende Entwässerung/Belüftung Rahmen



Das Butylband **Art. Nr. 988051** wird in den Ecken zusätzlich mit Dichtungsmasse **Art. Nr. 908005** abgeklebt.

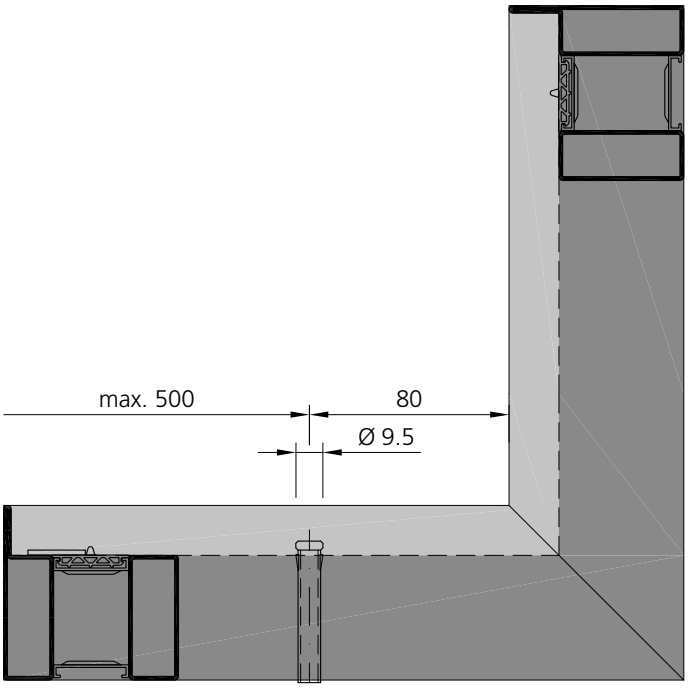
Montage du joint
Montage d'une ventilation/ évacuation d'eau cachée Cadre



Coller le ruban de butyle **art. no. 988051** dans les angles avec le mastic **art. no. 908005.**

Installation of seal
Installation of hidden drainage/ventilation Frame

The butyl tape **art. no. 988051** is strengthened in the corners with sealing compound **art. no. 908005**.

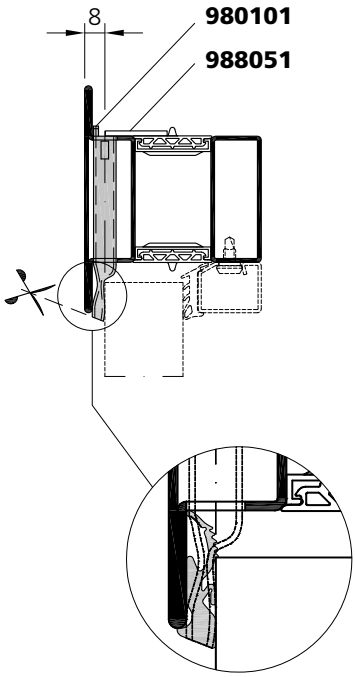


Das indirekte Entspannungsröhrchen **Art. Nr. 980101** wird durch das Rahmenprofil gesteckt und auf der Austrittseite mit 1mm Überstand abgeschnitten.

Faire passer la tubulure de décompression indirecte **art. no. 980101** à travers le profilé de cadre et la couper sortie avec une saillie de 1 mm.

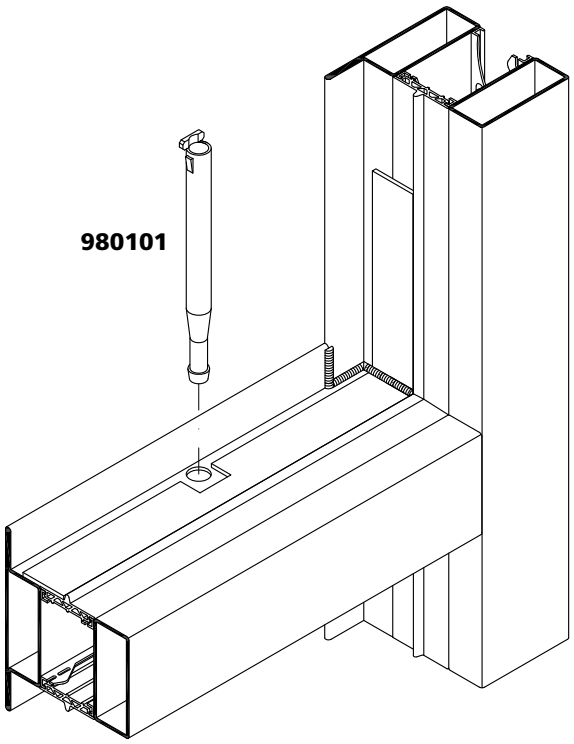
The indirect decompression pipe **art. no. 980101** is plugged in through the frame profile and cut off at the exit side, leaving an overhang of 1mm.

Dichtungseinbau
Einbau verdeckt liegende Entwässerung / Belüftung Sprosse



Das Butylband **Art. Nr. 988051** wird in den Ecken zusätzlich mit Dichtungsmasse **Art. Nr. 908005** abgeklebt.

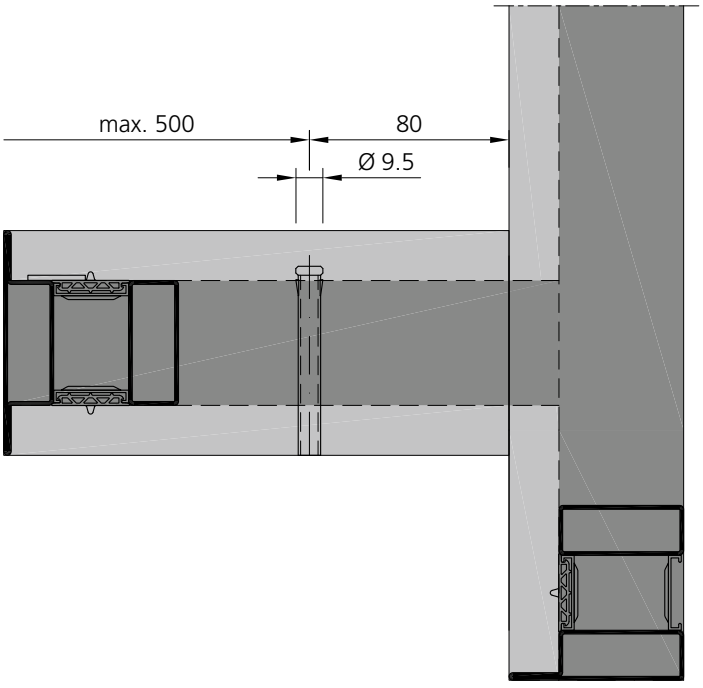
Montage du joint
Montage d'une ventilation/ évacuation d'eau horizontale cachée Traverse



Coller le ruban de butyle **art. no. 988051** dans les angles avec le mastic **art. no. 908005**.

Installation of seal
Installation of hidden drainage/ventilation Transom

The butyl tape **art. no. 988051** is strengthened in the corners with sealing compound **art. no. 908005**.



Das indirekte Entspannungsröhrchen **Art. Nr. 980101** wird durch das Rahmenprofil gesteckt und auf der Austrittseite bündig abgeschnitten.

Faire passer la tubulure de décompression indirecte **art. no. 980101** à travers le profilé de cadre et la couper sur le côté sortie en affleurement.

The indirect decompression pipe **art. no. 980101** is plugged in through the frame profile and cut off flush at the exit side.



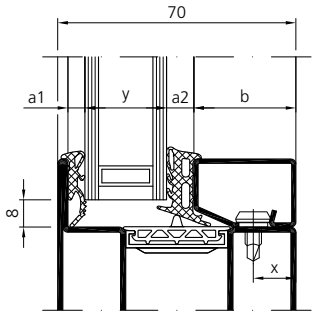
Flanders Business School, BE-Antwerpen

Trockenverglasung Bautiefe 70

Vitrage à sec Profondeur 70

Dry glazing Depth 70

y = 20 - 47



Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl Parclose acier Glazing beads steel	Stahl Nr. Acier no. Steel no.	Aussendichtung Joint extérieur outer weatherstripping 905712 a1 = 2 [mm]	Aussendichtung 985702 a1 = 5 [mm]	Innendichtung Joint intérieur inner weatherstripping 905784 a2 = 3-4 [mm]	Innendichtung 905785 a2 = 5-6 [mm]	Innendichtung 905786 a2 = 7-8 [mm]	Bohrmass x Trusquinage x Hole distance x
					y [mm]			
20 - 22	b = 40, 20	**901248**	-	5 [mm]	**-** **-**	**-** **-**	**-** **-**	13 [mm]
			2 [mm]	-	**22** **21**	**20** **-**	**-** **-**	
20 - 27	b = 35, 20	**901247**	-	5 [mm]	**24** **23**	**22** **21**	**20** **-**	13 [mm]
			2 [mm]	-	**27** **26**	**25** **24**	**23** **22**	
24 - 32	b = 30, b = 30, 20	**901206*** **901246**	-	5 [mm]	**29** **28**	**27** **26**	**25** **24**	10/13 [mm]
			2 [mm]	-	**32** **31**	**30** **29**	**28** **27**	
29 - 37	b = 25, b = 25, 20	**901205*** **901228**	-	5 [mm]	**34** **33**	**32** **31**	**30** **29**	10/13 [mm]
			2 [mm]	-	**37** **36**	**35** **34**	**33** **32**	
34 - 42	b = 20, b = 20, 20	**901204** **901227**	-	5 [mm]	**39** **38**	**37** **36**	**35** **34**	10/13 [mm]
			2 [mm]	-	**42** **41**	**40** **39**	**38** **37**	
39 - 47	b = 15, 20	**901226**	-	5 [mm]	**44** **43**	**42** **41**	**40** **39**	8 [mm]
			2 [mm]	-	**47** **46**	**45** **44**	**43** **42**	

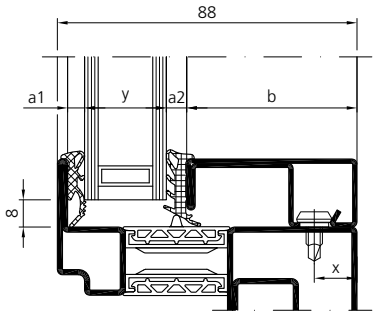
* auf Anfrage
sur demande
on request

Trockenverglasung
Bautiefe 88

Vitrage à sec
Profondeur 88

Dry glazing
Depth 88

y = 22 - 65



Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl Parclose acier Glazing beads steel	Stahl Nr. Acier no. Steel no.	Aussendichtung Joint extérieur outer weatherstripping 905712 a1 = 2 [mm]	Aussendichtung 985702 a1 = 5 [mm]	Innendichtung 905784 a2 = 3-4 [mm]		Innendichtung 905785 a2 = 5-6 [mm]		Innendichtung 905786 a2 = 7-8 [mm]		Bohrmass x Trusquinage x Hole distance x
					y [mm]						
22 - 30	b = 50, 20	**901207**	-	5 [mm]	**27**	**26**	**25**	**24**	**23**	**22**	13 [mm]
			2 [mm]	-	**30**	**29**	**28**	**27**	**26**	**25**	
27 - 35	b = 45, 20	**901249**	-	5 [mm]	**32**	**31**	**30**	**29**	**28**	**27**	13 [mm]
			2 [mm]	-	**35**	**34**	**33**	**32**	**31**	**30**	
32 - 40	b = 40, 20	**901248**	-	5 [mm]	**37**	**36**	**35**	**34**	**33**	**32**	13 [mm]
			2 [mm]	-	**40**	**39**	**38**	**37**	**36**	**35**	
37 - 45	b = 35, 20	**901247**	-	5 [mm]	**42**	**41**	**40**	**39**	**38**	**37**	13 [mm]
			2 [mm]	-	**45**	**44**	**43**	**42**	**41**	**40**	
42 - 50	b = 30, b = 30, 20	**901206* 901246**	-	5 [mm]	**47**	**46**	**45**	**44**	**43**	**42**	10/13 [mm]
			2 [mm]	-	**50**	**49**	**48**	**47**	**46**	**45**	
47 - 55	b = 25, b = 25, 20	**901205* 901228**	-	5 [mm]	**52**	**51**	**50**	**49**	**48**	**47**	10/13 [mm]
			2 [mm]	-	**55**	**54**	**53**	**52**	**51**	**50**	
52 - 60	b = 20, b = 20, 20	**901204 901227**	-	5 [mm]	**57**	**56**	**55**	**54**	**53**	**52**	10/13 [mm]
			2 [mm]	-	**60**	**59**	**58**	**57**	**56**	**55**	
57 - 65	b = 15, 20	**901226**	-	5 [mm]	**62**	**61**	**60**	**59**	**58**	**57**	8 [mm]
			2 [mm]	-	**65**	**64**	**63**	**62**	**61**	**60**	

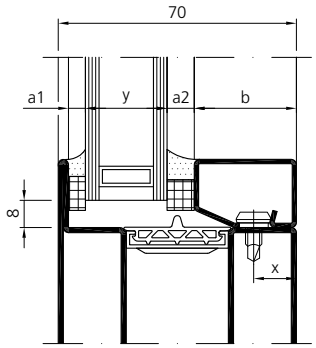
* auf Anfrage
sur demande
on request

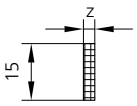
Nassverglasung
Bautiefe 70

Vitrage par silicone
Profondeur 70

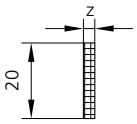
Wet glazing
Depth 70

y = 20 - 46

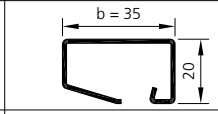
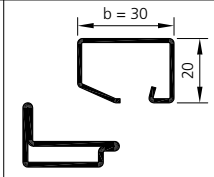
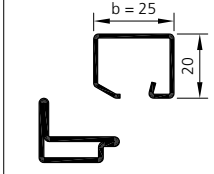
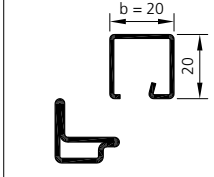
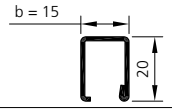




z	Art. Nr.:
3 [mm]	948003
4 [mm]	948004
5 [mm]	948005
6 [mm]	948006



z	Art. Nr.:
3 [mm]	948007
4 [mm]	948008
5 [mm]	948009
6 [mm]	948010

Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl Parclose acier Glazing beads steel	Stahl Nr. Acier no. Steel no.	Vorlegeband / Bande de vitrage / Glazing tape a1 = 3 [mm] a2 = 3 [mm] / a1 = 3 [mm] a2 = 4 [mm] / a1 = 4 [mm] a2 = 4 [mm] / a1 = 3 [mm] a2 = 5 [mm] / a1 = 4 [mm] a2 = 5 [mm] / a1 = 3 [mm] a2 = 6 [mm] / a1 = 5 [mm] a2 = 5 [mm] / a1 = 4 [mm] a2 = 6 [mm] / a1 = 5 [mm] a2 = 6 [mm] / a1 = 6 [mm] a2 = 6 [mm] y [mm]										Bohrmass x Trusquinage x Hole distance x
20 - 26		**901247**	**26**	**25**	**24**	**24**	**23**	**23**	**22**	**22**	**21**	**20**	13 [mm]
25 - 31		**901246** **901206***	**31**	**30**	**29**	**29**	**28**	**28**	**27**	**27**	**26**	**25**	13 [mm] 10 [mm]
30 - 36		**901228** **901205***	**36**	**35**	**34**	**34**	**33**	**33**	**32**	**32**	**31**	**30**	13 [mm] 10 [mm]
35 - 41		**901227** **901204**	**41**	**40**	**39**	**39**	**38**	**38**	**37**	**37**	**36**	**35**	13 [mm] 10 [mm]
40 - 46		**901226**	**46**	**45**	**44**	**44**	**43**	**43**	**42**	**42**	**41**	**40**	8 [mm]

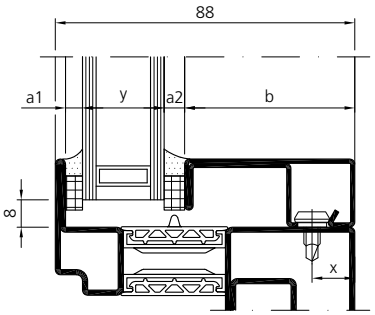
* auf Anfrage
sur demande
on request

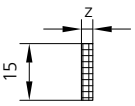
Nassverglasung
Bautiefe 88

Vitrage par silicone
Profondeur 88

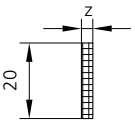
Wet glazing
Depth 88

y = 23 - 64





z	Art. Nr.:
3 [mm]	948003
4 [mm]	948004
5 [mm]	948005
6 [mm]	948006

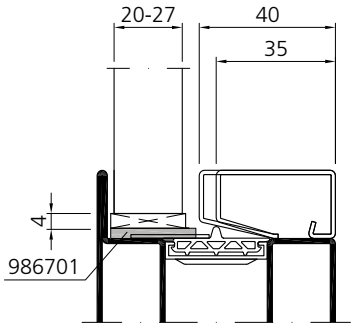


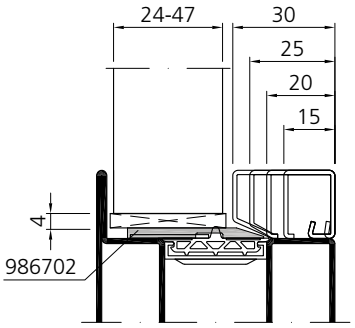
z	Art. Nr.:
3 [mm]	948007
4 [mm]	948008
5 [mm]	948009
6 [mm]	948010

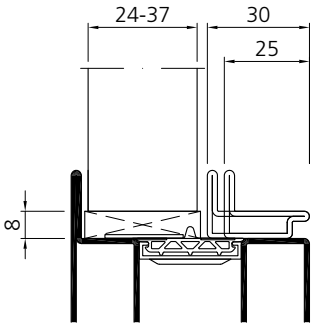
Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl Parclose acier Glazing beads steel	Stahl Nr. Acier no. Steel no.	Vorlegeband / Bande de vitrage / Glazing tape a1 = 3 [mm] a2 = 3 [mm]	a1 = 3 [mm] a2 = 4 [mm]	a1 = 4 [mm] a2 = 4 [mm]	a1 = 3 [mm] a2 = 5 [mm]	a1 = 4 [mm] a2 = 5 [mm]	a1 = 3 [mm] a2 = 6 [mm]	a1 = 5 [mm] a2 = 5 [mm]	a1 = 4 [mm] a2 = 6 [mm]	a1 = 5 [mm] a2 = 6 [mm]	a1 = 6 [mm] a2 = 6 [mm]	Bohrmass x Trusquinage x Hole distance x
			y [mm]										
23 - 29	b = 50 / 20	**901207**	**29**	**28**	**27**	**27**	**26**	**26**	**25**	**25**	**24**	**23**	13 [mm]
28 - 34	b = 45 / 20	**901249**	**34**	**33**	**32**	**32**	**31**	**31**	**30**	**30**	**29**	**28**	13 [mm]
33 - 39	b = 40 / 20	**901248**	**39**	**38**	**37**	**37**	**36**	**36**	**35**	**35**	**34**	**33**	13 [mm]
38 - 44	b = 35 / 20	**901247**	**44**	**43**	**42**	**42**	**41**	**41**	**40**	**40**	**39**	**38**	13 [mm]
43 - 49	b = 30 / 20	**901246** **901206***	**49**	**48**	**47**	**47**	**46**	**46**	**45**	**45**	**44**	**43**	13 [mm] 10 [mm]
48 - 54	b = 25 / 20	**901228** **901205***	**54**	**53**	**52**	**52**	**51**	**51**	**50**	**50**	**49**	**48**	13 [mm] 10 [mm]
53 - 59	b = 20 / 20	**901227** **901204**	**59**	**58**	**57**	**57**	**56**	**56**	**55**	**55**	**54**	**53**	13 [mm] 10 [mm]
58 - 64	b = 15 / 20	**901226**	**64**	**63**	**62**	**62**	**61**	**61**	**60**	**60**	**59**	**58**	8 [mm]

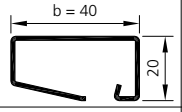
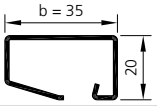
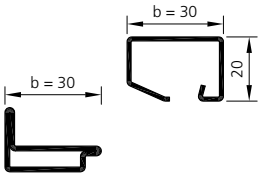
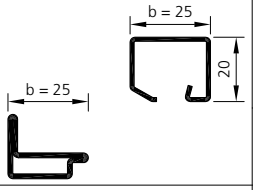
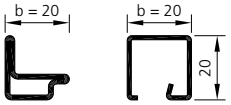
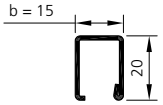
* auf Anfrage / sur demande / on request

Verglasung Bautiefe 70 | Vitrage profondeur 70 | Glazing structural depth 70

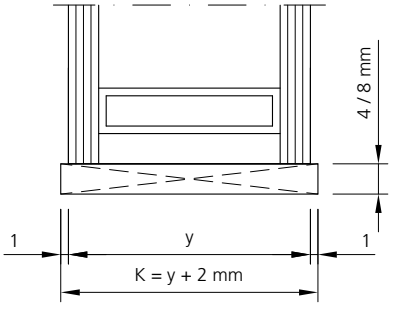


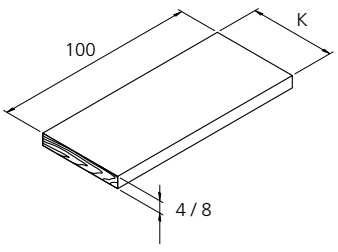




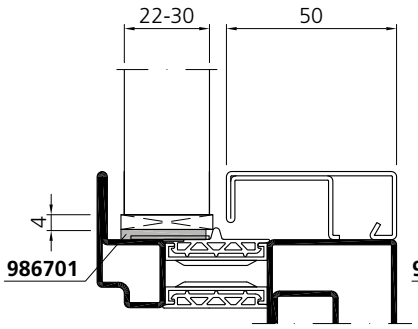
Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl Parclose acier Glazing beads steel	Stahl Nr. Acier no. Steel no.	Glasfalzbrücke Pont feuillure en verre Glass rebate bridge	Art. Nr. art. no. art. no.	Verglasungsklotz 4 [mm] Mass K Cale de vitrage 4 [mm] Cote K Glazing block 4 [mm] Size K	Verglasungsklotz 8 [mm] Mass K Cale de vitrage 8 [mm] Cote K Glazing block 8 [mm] Size K
20 - 22		**901248**		986701	**22 - 24**	
20 - 27		**901247**		986701	**22 - 29**	
24 - 32		**901246**		986702	**26 - 34**	
		901206*				**26 - 34**
29 - 37		**901228**		986702	**31 - 39**	
		901205*				**31 - 39**
34 - 42		**901204** **901227**		986702	**36 - 44**	
39 - 47		**901226**		986702	**41 - 49**	

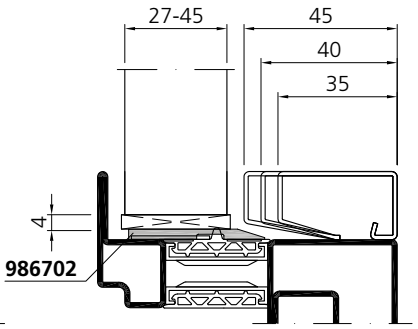
* auf Anfrage
sur demande
on request

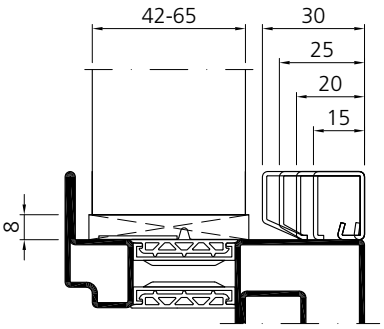




Verglasung Bautiefe 88 — Vitrage profondeur 88 — Glazing structural depth 88







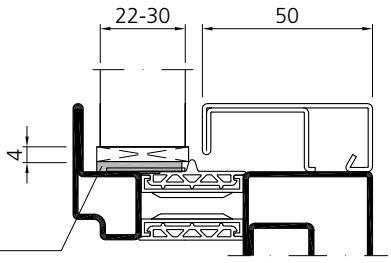
Glasdicke Epaisseur de verre Glass thickness y [mm]	Glashalteleiste Stahl Parclose acier Glazing beads steel	Stahl Nr. Acier no. Steel no.	Glasfalzbrücke Pont feuillure en verre Glass rebate bridge	Art. Nr. art. no. art. no.	Verglasungsklotz 4 [mm] Mass K Cale de vitrage 4 [mm] Cote K Glazing block 4 [mm] Size K	Verglasungsklotz 8 [mm] Mass K Cale de vitrage 8 [mm] Cote K Glazing block 8 [mm] Size K
22 - 30	b = 50, 20	**901207**		**986701** **986703**	**24 - 32**	
27 - 35	b = 45, 20	**901249**		**986702** **986703**	**29 - 37**	
32 - 40	b = 40, 20	**901248**		**986702** **986703**	**34 - 42**	
37 - 45	b = 35, 20	**901247**		**986702** **986703**	**39 - 47**	
42 - 50	b = 30, b = 30, 20	**901206*** **901246**				**44 - 52**
47 - 55	b = 25, b = 25, 20	**901205*** **901228**				**49 - 57**
52 - 60	b = 20, b = 20, 20	**901204** **901227**				**54 - 62**
57 - 65	b = 15, 20	**901226**				**59 - 67**

* auf Anfrage
sur demande
on request

Alternativ in Edelstahl als Eigenfertigung

Alternative en acier inox avec propre confection

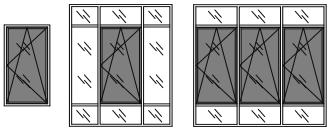
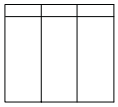
Alternative in stainless steel as own fabrication



Prüfberichte Procès-Verbaux d'essais Test reports

Europa

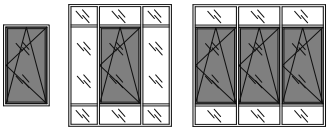
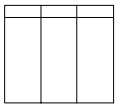
EU

Widerstandsklasse			**E30 / EW30** (feuerhemmend)		
Typenbezeichnung			**unico E/EW 30-1**	**unico E/EW 30-2**	**unico E/EW 30**
Ausgangsmaterial			Stahl	Stahl	Stahl
Modelle	Fenster und Festelemente mit Verglasung				
Masse	Baurichtmass	B	1070		unbegrenzt
		H	1655		2990
		H (mit Oberlicht)	3020		-
	Flügelaussenmass	B	986		unbegrenzt
		H	1571		3000
		H (mit Oberlicht)	3000 (Rahmen)		-
	Lichte Öffnung	B	930		-
		H	1515		-
Türblatt	Bautiefe		70 / 88		70
	Ansicht		102 / 122		50-140
	Sockelhöhe		-		70-90
Wände	Mauerwerk		•		•
	Beton		•		•
	Porenbeton		•		-
Füllungen			B x H (mm)		
	Pilkington Pyrodur® 30-25, 30-26, 30-27, 30-28		890 x 1475		954 x 1319 919 x 1539 1469 x 1047
Glaseinsatz	Nassverglasung NV		•		•
	Trockenverglasung TV		•		•
Ausführungs-varianten	mit Oberlicht und Seitenteil		•		-
	mit Oberlicht (H max. = 3000 mm)		•		-
	mit Seitenteil (L = unbegrenzt)		•		-
Zulassungen	Prüfberichte		11-001609 13-V-160		10-001387 11-V-544

Prüfberichte Procès-Verbaux d'essais Test reports

Europe

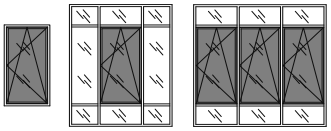
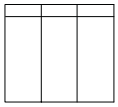
EU

Classification			E30 / EW30 (coupe-feu)		
Types			**unico E/EW 30-1**	**unico E/EW 30-2**	**unico E/EW 30**
Matériel			acier	acier	acier
Modèles	Fenêtres et cloisons vitrées				
Dimensions	Vide maçonnerie	L	1070		illimité
		H	1655		2990
		H (avec imposte)	3020		-
	Dim. hors-tout du vantail	L	986		illimité
		H	1571		3000
		H (avec imposte)	3000 (cadre)		-
	Ouverture libre	L	930		-
		H	1515		-
Porte	Profondeur		70 / 88		70
	Face vue		102 / 122		50-140
	Hauteur du socle		-		70-90
Environnements	Maçonnerie		•		•
	Béton		•		•
	Béton cellulaire		•		-
Vitrages			L x H (mm)		
	Pilkington Pyrodur® 30-25, 30-26, 30-27, 30-28		890 x 1475		954 x 1319 919 x 1539 1469 x 1047
Vitrage	à silicone (NV)		•		•
	à sec (TV)		•		•
Variantes de mise en œuvre	avec imposte et partie latérale fixe		•		-
	avec imposte (H maxi = 3000 mm)		•		-
	avec partie latérale fixe (L = illimité)		•		-
Attestations	Procès-Verbaux d'essais		11-001609 13-V-160		10-001387 11-V-544

Prüfberichte Procès-Verbaux d'essais Test reports

Europe

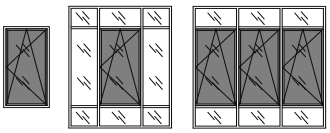
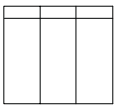
EU

Resistance class			E30 / EW30 (fire-resistant)		
Type			**unico E/EW 30-1**	**unico E/EW 30-2**	**unico E/EW 30**
Material			steel	steel	steel
Models	Windows and screens with glazing				
Dimensions	Modular dimension	W	1070		unlimited
		H	1655		2990
		H (with fanlight)	3020		-
	Dim. of outer leaf	W	986		unlimited
		H	1571		3000
		H (with fanlight)	3000 (frame)		-
	Inside width	W	930		-
		H	1515		-
Door leaf	Structural depth		70 / 88		70
	View		102 / 122		50-140
	Base height		-		70-90
Wall	Mansonry		•		•
	Concrete		•		•
	Porous concrete		•		-
Fillings			W x H (mm)		
	Pilkington Pyrodur® 30-25, 30-26, 30-27, 30-28		890 x 1475		954 x 1319 919 x 1539 1469 x 1047
Glass insert	Wet glazing (NV)		•		•
	Dry glazing (TV)		•		•
Completion versions	with fanlight and screen abutment		•		-
	with fanlight (H max. = 3000 mm)		•		-
	with screen abutment (L = unlimited)		•		-
Certificates	Test reports		11-001609 13-V-160		10-001387 11-V-544

Prüfberichte Procès-Verbaux d'essais Test reports

France

F

Classification			E30 / EW30 (pare flamme)	
Types			**unico E/EW30 1 vantail**	**unico E/EW30 cloison fixe**
Matériel			acier	acier
Modèles	Fenêtres et cloisons vitrées			
	Longueur infinie		-	•
Dimensions	Vide maçonnerie	L	1113 / 1218	illimité
		H	1891 / 1724	3120
		H (avec imposte)	3120	-
	Dim. hors-tout du vantail	L	1029 / 1134	illimité
		H	1807 / 1640	3100
		H (avec imposte)	3100 (cadre)	-
	Ouverture libre	L	973 / 1078	-
		H	1751 / 1584	-
Fenêtre	Profondeur		70 / 88	70
	Face vue		102 / 122	50-140
	Hauteur du socle		-	70-90
Environnements	Maçonnerie		•	•
	Béton		•	•
	Béton cellulaire		•	•
	Poteau acier protégé		•	•
Vitrages			L x H (mm)	
	Pilkington Pyrodur® 30-200 VI		Les dimensions hors tout des vitrages correspondent aux passages libres autorisés	3000 x 1333 2585 x 1547 1559 x 2752 1333 x 3000
	Pyroguard T-EW30/6 VI ou TVI			1600 x 2585 3102 x 1918
	Pyroguard T-EW30/6 VI ou VF			3100 x 1284 1284 x 3100 2585 x 1540 1517 x 1990 1262 x 2393
Vitrage	à silicone (NV)		•	•
	à sec (TV)		•	•
Variantes de mise en œuvre	avec imposte, allège et partie latérale fixe		•	•
	avec imposte (H maxi = 3100 mm)		•	•
	avec partie latérale fixe (L = illimité)		•	•
Attestations	Homologation (PV) Pilkington Homologation (PV) CGI		12-A-087 13-A-443 + Ext 13/2	12-A-086 13-A-442 + 13-V-582

12

Parallel-Schiebe-Kipp-Fenster (PSK)

Systemübersicht	12.1.1 - 12.1.2
Systemplan	12.2.2 - 12.2.3

Fenêtres coulissantes parallèles (FCP)

Tableau du système	12.1.1 - 12.1.2
Plan du système	12.2.2 - 12.2.3

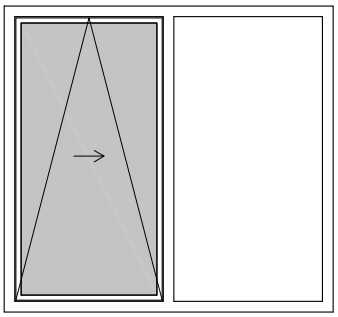
Parallel slide and tilt windows (PST)

Synopsis of system	12.1.1 - 12.1.2
System plan	12.2.2 - 12.2.3

Systemübersicht Parallel-Schiebe-Kipp (PSK)

Tableau du système Fenêtre coulissante parallèle (FCP)

Synopsis of system Parallel slide and tilt window (PST)

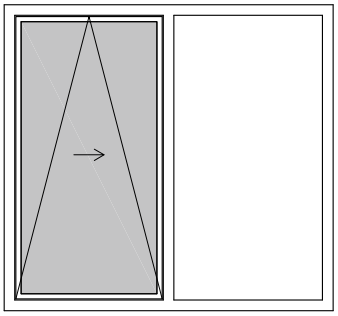


Einzellaufwagen
Simple chariot
Single bogie

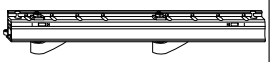


Einsatzbereich / Domaine d'application / Area of application

FFB:	600 - 1250	[mm]	*
FFH:	900 - 2400	[mm]	
Gmax:	100	[kg]	
FFB:	720 - 1650	[mm]	
FFH:	900 - 2400	[mm]	
Gmax:	160	[kg]	

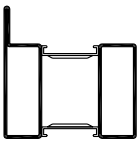


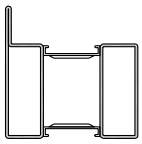
Doppellaufwagen
Double chariot
Double bogie



Einsatzbereich / Domaine d'application / Area of application

FFB:	1170 - 2000	[mm]	*
FFH:	900 - 2400	[mm]	
Gmax:	200	[kg]	

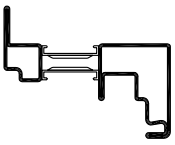




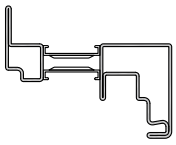
Profile / Profilés / Profiles

Stahl / Acier / Steel

Edelstahl / Acier inox / Stainless steel



530.800



530.800 CRNI

Flügelprofile / Profilés de vantail / Leaf profiles

*** Für weitere Informationen bezüglich Beschlägen wenden Sie sich bitte an Ihren Technischen Berater.**

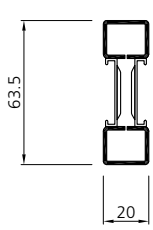
*** Pour plusieurs informations convernant quincaillierie, veuillez contacter votre conseiller technique.**

*** For further information about fittings, please contact your technial advisor.**

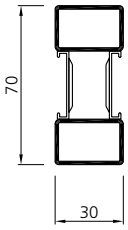
Systemübersicht Parallel-Schiebe-Kipp (PSK)

Tableau du système Fenêtre coulissante parallèle (FCP)

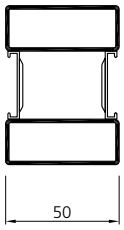
Synopsis of system Parallel slide and tilt window (PST)



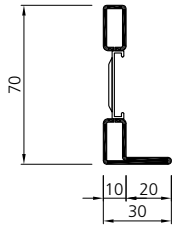
530.620
530.620 CrNi



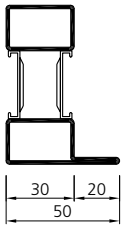
531.730
531.730 Z
531.730 CrNi



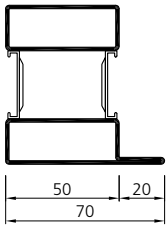
531.750
531.750 Z
531.750 CrNi



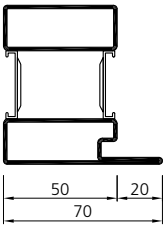
530.711
530.711 Z



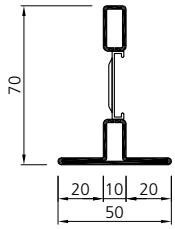
531.731
531.731 Z
531.731 CrNi



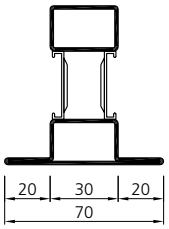
531.751
531.751 Z
531.751 CrNi



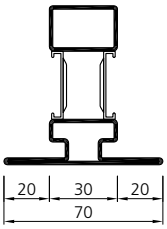
531.756 Z



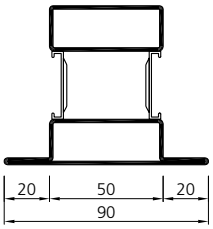
530.712
530.712 Z



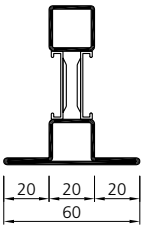
531.732
531.732 Z
531.732 CrNi



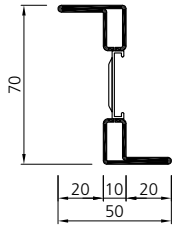
531.737 Z



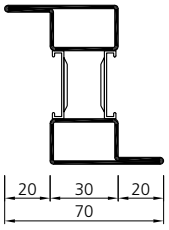
531.752
531.752 Z
531.752 CrNi



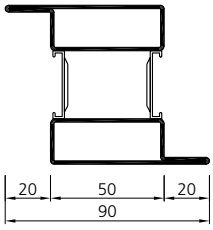
531.722



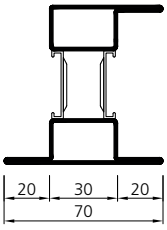
530.713
530.713 Z



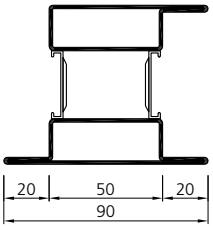
531.733
531.733 Z
531.733 CrNi



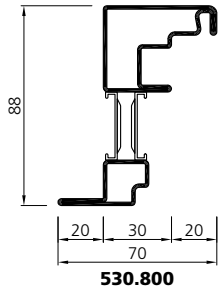
531.753
531.753 Z
531.753 CrNi*



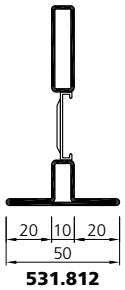
531.735 Z



531.755
531.755 Z
531.755 CrNi



530.800
530.800 Z
530.800 CrNi



531.812
531.812 Z

* auf Anfrage
sur demande
on request

PSK Stahl Acier Steel | Edelstahl Acier inox Stainless steel



Mehrfamilienhaus Bart, CH-Murten

VUF 01/19

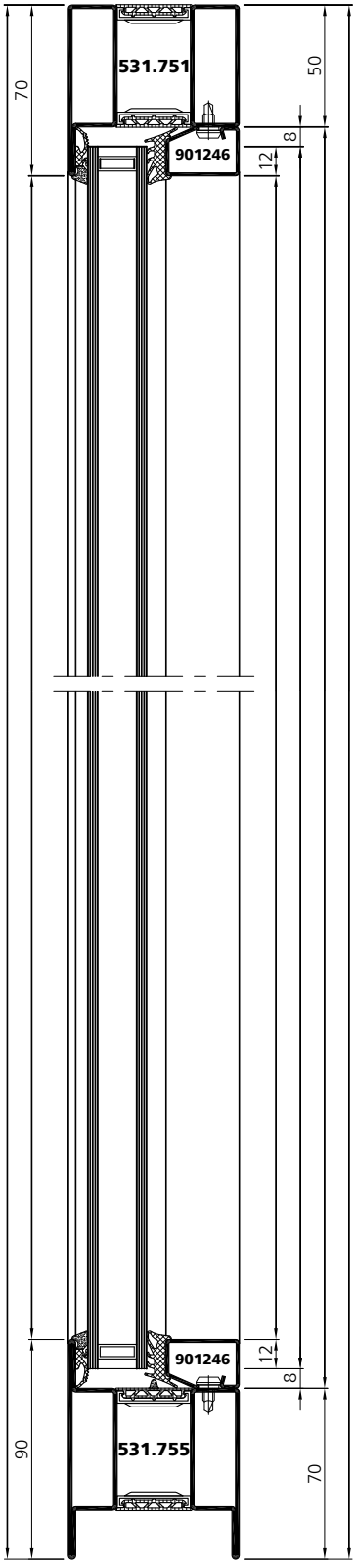
Systemplan (PSK)

Plan du système (FCP)

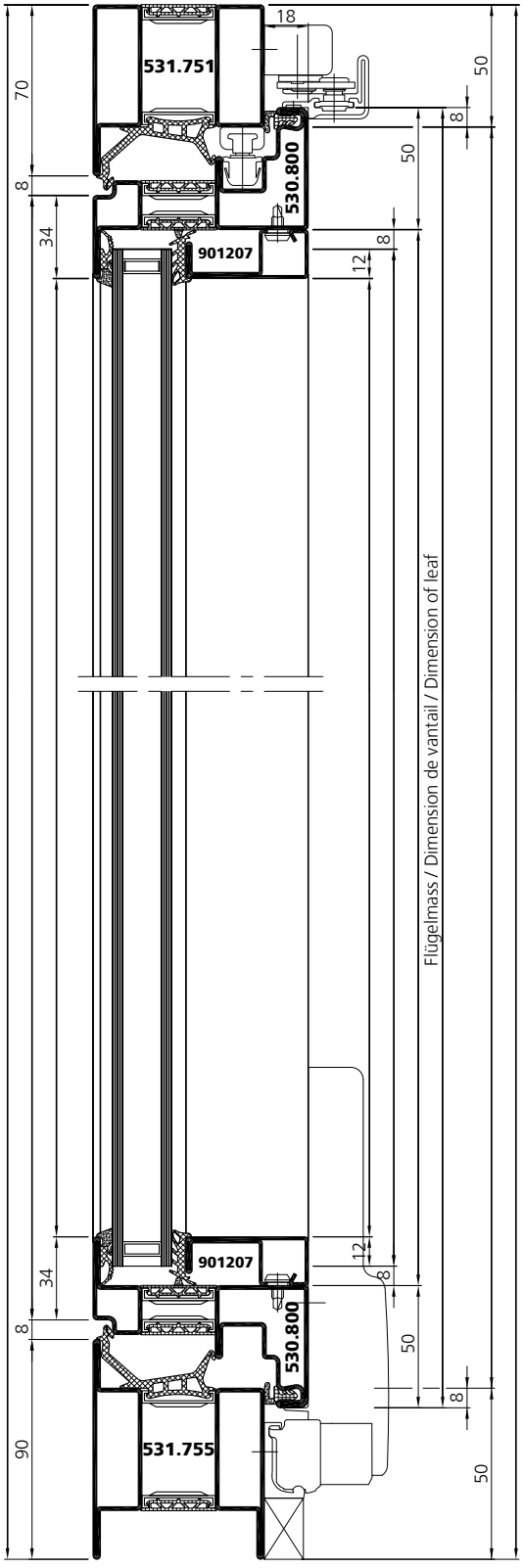
System plan (PST)

un_sp_0094
un_sp_0095

A - A



B - B

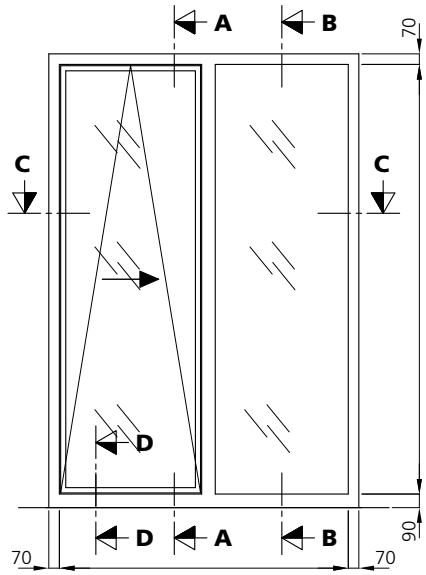


Systemplan (PSK)

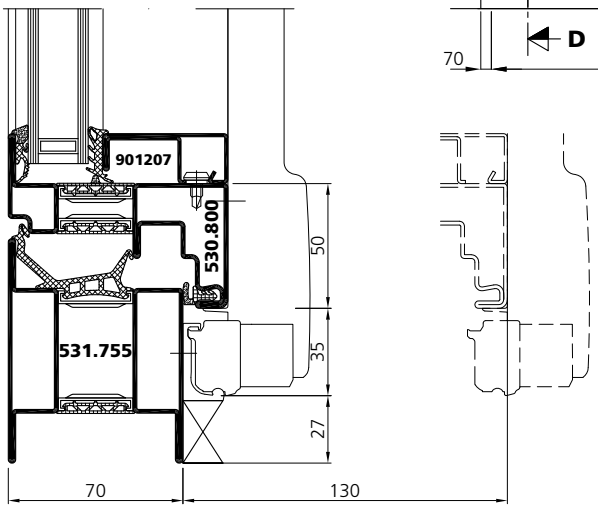
Plan du système (FCP)

System plan (PST)

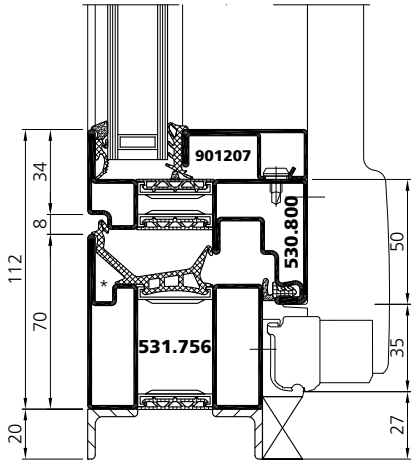
un_sp_0094
un_sp_0095



D - D

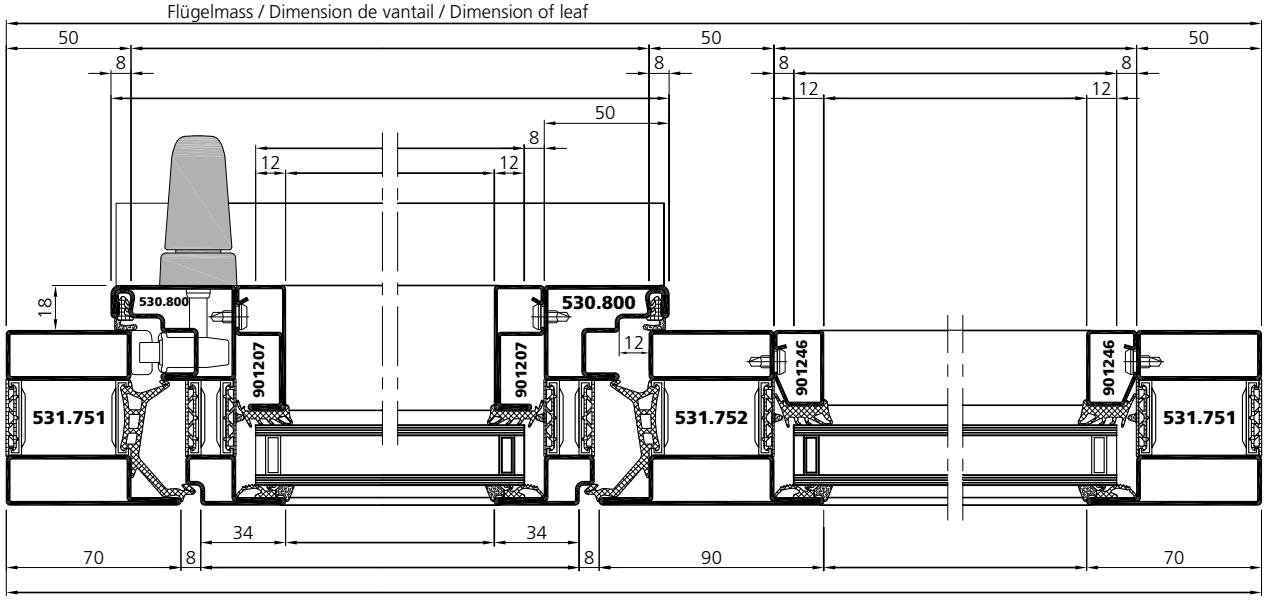


D' - D'



* Für Fensterkonstruktion in Frankreich zwingend notwending!
Obligatoire pour fenêtre en France!
Mandatory for window construction in France!

C - C



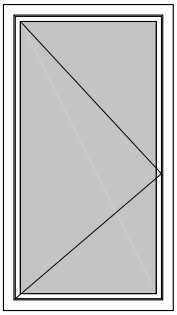
VUF 01/19

	13
Natürliche Rauch- und Wärmeabzugsgeräte (NRWG)	
Systemübersicht	13.1.1 - 13.1.2
Beschläge	13.2.1 - 13.2.9
Dispositifs d'évacuation naturelle des fumées et de la chaleur (DENFC)	
Tableau du système	13.1.1 - 13.1.2
Quincaillerie	13.2.1 - 13.2.9
Natural smoke- and heat exhaust ventilators (SHEVS)	
Synopsis of system	13.1.1 - 13.1.2
Fittings	13.2.1 - 13.2.9

Systemübersicht Natürliche Rauch- und Wärmeabzugsgeräte (NRWG)

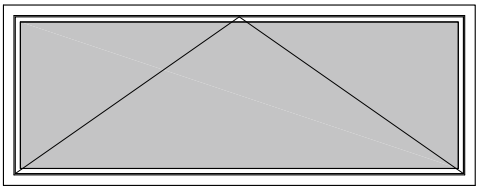
Tableau du système Dispositifs d'évacuation naturelle des fumées et de la chaleur (DENFC)

Synopsis of system Natural smoke- and heat exhaust ventilators (SHEVS)



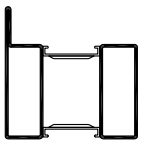
Einsatzbereich / Domaine d'application / Area of application

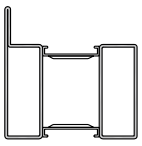
FFB: 290 - 1400 [mm]
FFH: 520 - 2400 [mm]



Einsatzbereich / Domaine d'application / Area of application

FFB: 520 - 2400 [mm]
FFH: 350 - 1000 [mm]

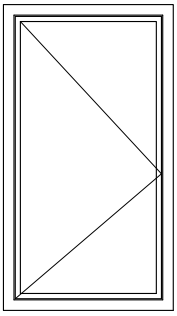




Profile / Profilés / Profiles

Stahl / Acier / Steel

Edelstahl / Acier inox / Stainless steel

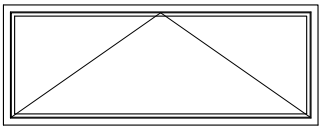






Beschläge Drehflügel / Quincaillerie fenêtres ouvrant à la française/ Window turn fittings

Forster Standard Systembeschläge + Anschweissbänder 3D
Quincaillerie standard de système Forster + paumelle à souder 3D
Forster system fittings + 3D weld-on hinges





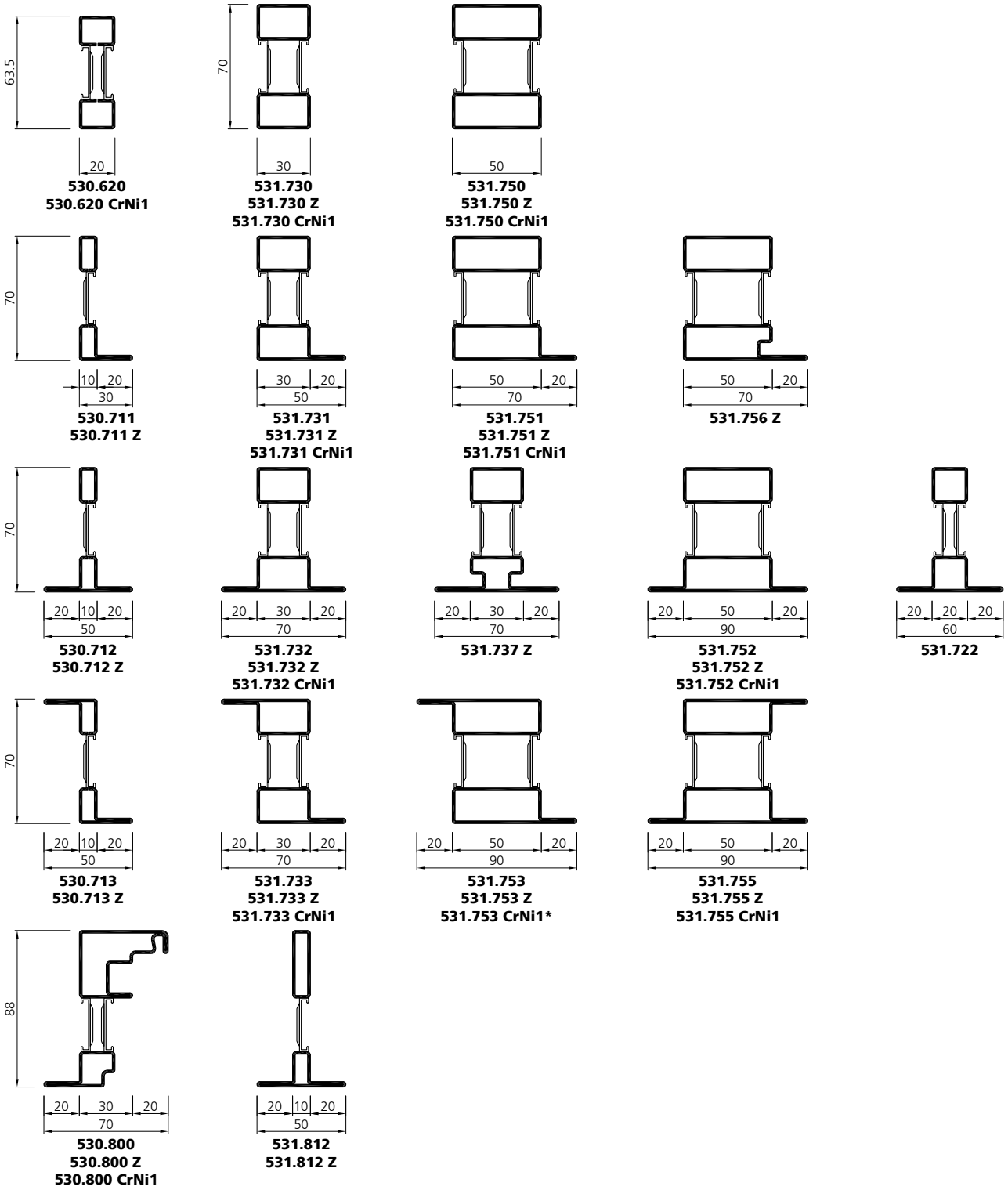
Beschläge Kippflügel / Quincaillerie fenêtres ouvrant à soufflet/ Window tilt fittings

Forster Systembeschläge
Quincaillerie de système Forster
Forster fittings

Systemübersicht Natürliche Rauch- und Wärmeabzugsgeräte (NRWG)

Tableau du système Dispositifs d'évacuation naturelle des fumées et de la chaleur (DENFC)

Synopsis of system Natural smoke- and heat exhaust ventilators (SHEVS)



530.620
530.620 CrNi1

531.730
531.730 Z
531.730 CrNi1

531.750
531.750 Z
531.750 CrNi1

530.711
530.711 Z

531.731
531.731 Z
531.731 CrNi1

531.751
531.751 Z
531.751 CrNi1

531.756 Z

530.712
530.712 Z

531.732
531.732 Z
531.732 CrNi1

531.737 Z

531.752
531.752 Z
531.752 CrNi1

531.722

530.713
530.713 Z

531.733
531.733 Z
531.733 CrNi1

531.753
531.753 Z
531.753 CrNi1*

531.755
531.755 Z
531.755 CrNi1

530.800
530.800 Z
530.800 CrNi1

531.812
531.812 Z

* auf Anfrage
sur demande
on request

Beschläge Bestellanleitung (NRWG)

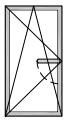
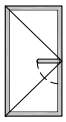
Dreh(*)- / Drehkipp-Beschlag mit Profil 530.800
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN links (Komplett-Beschlag)
max. 150 [kg]

Quincaillerie Instructions de commande (DENFC)

Quincaillerie pour ouverture à la française(*)/ ouverture oscillo-battant avec profilé 530.800
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux,
DIN gauche (ferrement complet)
max. 150 [kg]

Fittings ordering instructions (SHEVSW)

Turn(*)/ tilt and turn fittings with profile 530.800
Single leaf windows
1. active leaf on double sash windows
DIN left (complete fittings)
max. 150 [kg]

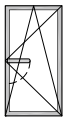
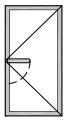
		530.800 530.800 z 530.800 CrNi1 FFB [mm]							GH [mm]
		290 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	1401 - 1600	
FFH [mm]	520 - 620	**987101** (a	**987113** (a	**987125** (a	**987137** (a	**987149** (a			260 - 310
	621 - 800	**987103**	**987115**	**987127**	**987139**	**987151**	**987161**		311 - 400
	801 - 1200	**987105**	**987117**	**987129**	**987141**	**987153**	**987163**	**987171**	401 - 600
	1201 - 1600	**987107**	**987119**	**987131**	**987143**	**987155**	**987165**	**987173**	601 - 800
	1601 - 2000	**987109**	**987121**	**987133**	**987145**	**987157**	**987167**	**987175**	801 - 1000
	2001 - 2400	**987111**	**987123**	**987135**	**987147**	**987159**	**987169**		1001 - 1200

* = Dreh-Beschlag mit Hubbegrenzer
(a = ohne Niveauschaltsperre)

Dreh(*)- / Drehkipp-Beschlag mit Profil 530.800
1-flügelige Fenster
1. öffnender Flügel bei Stulpfenstern
DIN rechts (Komplett-Beschlag)
max. 150 [kg]

Quincaillerie pour ouverture à la française(*)/ ouverture oscillo-battant avec profilé 530.800
Fenêtres à 1 vantail
1er ouvrant des fenêtres à 2 vantaux,
DIN droite (ferrement complet)
max. 150 [kg]

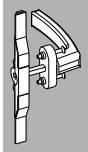
Turn(*)/ tilt and turn fittings with profile 530.800
Single leaf windows
1. active leaf on double sash windows
DIN right (complete fittings)
max. 150 [kg]

		530.800 530.800 z 530.800 CrNi1 FFB [mm]							GH [mm]
		290 - 410	411 - 600	601 - 800	801 - 1000	1001 - 1200	1201 - 1400	1401 - 1600	
FFH [mm]	520 - 620	**987102** (a	**987114** (a	**987126** (a	**987138** (a	**987150** (a			260 - 310
	621 - 800	**987104**	**987116**	**987128**	**987140**	**987152**	**987162**		311 - 400
	801 - 1200	**987106**	**987118**	**987130**	**987142**	**987154**	**987164**	**987172**	401 - 600
	1201 - 1600	**987108**	**987120**	**987132**	**987144**	**987156**	**987166**	**987174**	601 - 800
	1601 - 2000	**987110**	**987122**	**987134**	**987146**	**987158**	**987168**	**987176**	801 - 1000
	2001 - 2400	**987112**	**987124**	**987136**	**987148**	**987160**	**987170**		1001 - 1200

* = Quincaillerie pour ouverture à la française avec limitateurs de course
(a = sans anti-fausse manœuvre)

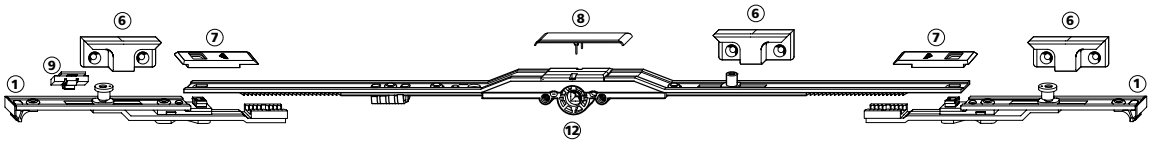
* = Turn fittings with travel restrictor
(a = without lifting mishandling)

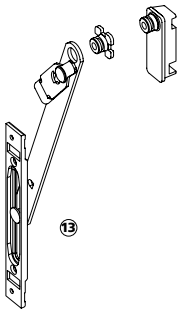


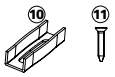
Beschläge Kippflügel (NRWG)

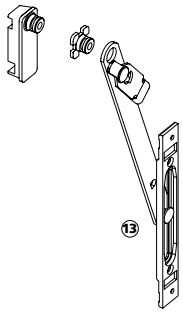
Quincaillerie Ouverture à soufflet (DENFC)

Fittings Tilt only (SHEVS)

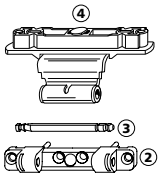


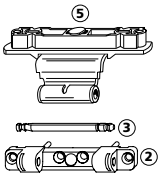


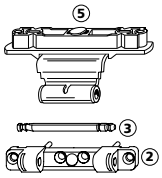




FFB 1201 - 2400







1	Getriebeanschluss V	**1** Raccord d'équerre V	**1** Espagnolette-connector V
2	Axerlager spezial	**2** Palier de compas spécial	**2** Sash stay bearing special
3	Axerlager – Stift	**3** Tige d'axe	**3** Sash stay bearing pin
4	Kippflügelband ohne Ausgleich	**4** Paumelle OF fixe	**4** Tilt-only rebate hinge without alignment
5	Kippflügelband mit Ausgleich	**5** Paumelle OF mobile	**5** Tilt-only rebate hinge with alignment
6	Schliessstück	**6** Gâche	**6** Striker
7	Verbindungslasche	**7** Liaison avec plaquette de liaison	**7** Splice plate
8	Infoclip "Forster"	**8** Infoclip "Forster"	**8** Infoclip "Forster"
9	Hubbegrenzer (90°)	**9** Limitateur de course (90°)	**9** Travel – restrictor (90°)
10	Beschlags-Distanzstück	**10** Pièce de distance pour ferrement	**10** Distance piece for fittings
11	Beschlagsschraube M4 x 21	**11** Vis de ferrement M4 x 21	**11** Fitting screw M4 x 21
12	DK-Getriebe mittig, Dornmass 8	**12** Crémone oscillo-battant centrale, fouillot 8	**12** Tilt-turn central drive, mandrel size 8
13	Falzschere mit Flügellager	**13** Compas tombant avec palier de compas vantail	**13** Tilt-stay with leaf bracket

Beschläge Bestellnummern

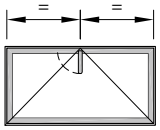
Kipp-Beschlag
mit Profil 530.800
Griffsitz mittig
(Komplett-Beschlag)
max. 80 [kg]

Quincaillerie Références

Quincaillerie ouverture
à soufflet avec profilé 530.800
poignées aux milieu
(ferrement complet)
max. 80 [kg]

Fittings Order numbers

Tilt only Fittingsets
with profile 530.800
handle in the middle
(complete fittings)
max. 80 [kg]

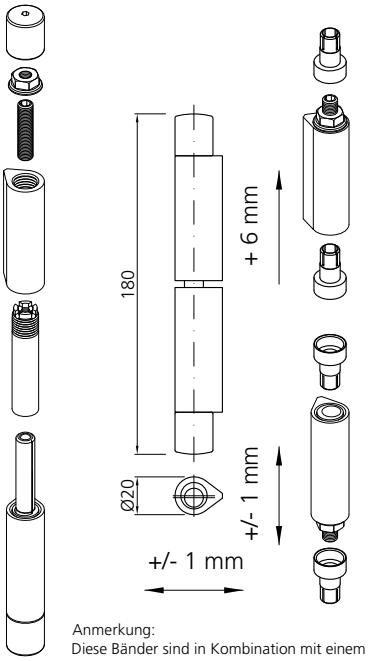


		530.800 530.800 z 530.800 CrNi1 FFB [mm]					
		520 - 620	621 - 800	801 - 1200	1201 - 1600	1601 - 2000	2001 - 2400
FFH [mm]	350 - 1000	**987181**	**987182**	**987183**	**987184**	**987185**	**987186**

Beschläge (NRWG)
Anschweissband
Höhen- / seiten- / tiefenverstellbar

Quincaillerie (DENFC)
Paumelle à souder
Réglable en hauteur, latéralement et en profondeur

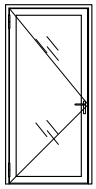
Fittings (SHEVS)
Weld-on hinge
Adjustable in height, sideways and in depth

Abbildung Figure Figure	Bezeichnung Désignation Designation	Verkaufseinheit Unité de vente Sales unit	Art.Nr. art. no. art. no.
 Anmerkung: Diese Bänder sind in Kombination mit einem Drehflügelantrieb nicht geprüft. Remarque: Ces paumelles ne sont pas certifiées en combinaison avec un automatisme d'ouverture. Note: These hinges have not been tested in combination with automatic swing door drives.	Stahl-Anschweissband höhen-, seiten-, und tiefenverstellbar, auf Kugel gelagert, mit Schmiernippel, Stahl blank, Korrosionsbeständigkeit Klasse 0 Paumelle à souder en acier réglables en hauteur, latéralement et en profondeur bille en acier trempé tournant sur une pastille en laiton avec graisseur, acier brut, résistance à la corrosion classe 0 Steel weld-on hinge adjustable in heightsideways and in depth, lying on a ball end, with lubrication nipple, steel blank, corrosion resistance class 0 Drehpunktabstand 15 mm / Axe de rotation de 15 mm / Pivot spacing 15 mm	2 Stk./pcs	**907667**
	Edelstahl-Anschweissband höhen-, seiten-, und tiefenverstellbar, auf Kugel gelagert, mit Schmiernippel, Korrosionsbeständigkeit Klasse 3 Paumelle à souder en acier inox réglables en hauteur, latéralement et en profondeur bille en acier trempé tournant sur une pastille en laiton avec graisseur, résistance à la corrosion classe 3 Stainless steel weld-on hinge adjustable in heightsideways and in depth lying on a ball end, with lubrication nipple, corrosion resistance class 3 Drehpunktabstand 15 mm / Axe de rotation de 15 mm / Pivot spacing 15 mm	2 Stk./pcs	**907668**



Zulässige Lasten der Türen in [kg]
Charges admissibles des portes en [kg]
Permissible loads of the doors in [kg]

Flügelhöhe H in [mm] / Hauteur de vantail H en [mm] / Leaf height H in [mm]	Flügelbreite B in [mm] / largeur de vantail B en [mm] / Leaf width B in [mm]				
	600	**800**	**1000**	**1200**	**1400**
3000	340	300	260	230	210
2800	330	290	250	220	200
2600	320	270	240	210	190
2400	300	250	220	190	170
2200	280	240	200	180	160
2000	280	230	200	170	150
1800	260	210	180	160	140



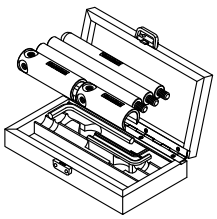
Einsatz zu Rätschenschlüssel
Outil pour clé à cliquet
Insert for rached spanner

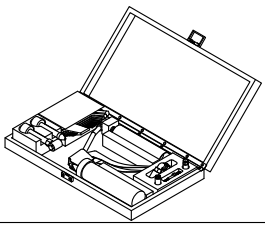
909209



Bandrichteisen-Set
Kit outil de correction pour paumelles
Hinge adjusting set

909210



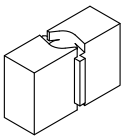


Schmier-Set
Jeu de graissage
Lubrication set

909240

Anschweisslehre
Gabarit de soudage
Welding template

909029



Schmieraufsatz
Chapiteau pour lubrification
Cap for lubrication

907058



Abdeckkappe als Schutz für Farbbeschichtung einsetzen
Utiliser le bouchon comme protection peinture
Use cover cap to protect colour coating

907065



EG Konformitätserklärung 477110014
EG déclaration de conformité 477110014
EC declaration of conformity 477110014

Anfrageformular für Antrieb NRWG

Formulaire de demande pour système d'entraînement DENFC

Inquiry form for actuator SHEVS

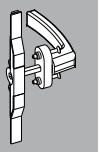
☐ Anfrage (Machbarkeit)
Demande de faisabilité
Request (feasibility)

☐ Bestellung:
Commande:
Order:

Kunde:
Client:
Customer: _____

Kontaktperson:
Responsable de projet:
Project responsibility: _____

Objekt:
Projet:
Project: _____



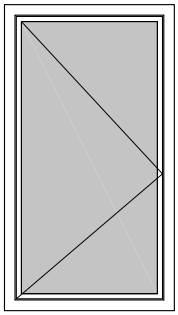
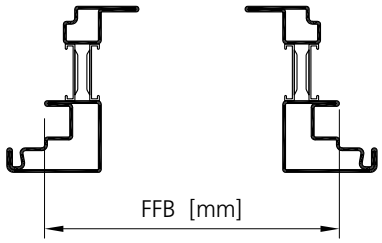
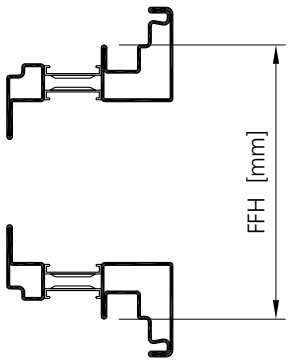
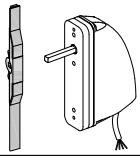
Höhe über Meer [m] **Hauter sur mer [m]** **hight above sealevel [m]**	
Höhe über Gelände **Hauter sur terrain** **hight above ground**	
Windlast am Einbauort [N/m²] **Pression de vent [N/m²]** **Wind charge [N/m²]**	

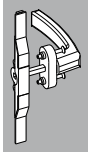
Geforderte Klassifikation (falls bekannt)	**Classification requise (si déterminée)**	**Classification required (if determinated)**
Funktionssicherheit Re: **Fiabilité Re:** **Reliability classification Re:**	**(EN 12101-2)** **(EN 12101-2)** **(EN 12101-2)**	
Niedrigtemperatur T: **Fonctionnement à basse température T:** **Low ambient temperature T:**	**(EN 12101-2)** **(EN 12101-2)** **(EN 12101-2)**	
Windlast (Sog) WL: **Charge éolienne (vent) WL:** **Wind load (suctior) WL:**	**(EN 12101-2)** **(EN 12101-2)** **(EN 12101-2)**	
Wärmebeständigkeit B: **Résistance à la chaleur B:** **Resistance to heat B:**	**(EN 12101-2)** **(EN 12101-2)** **(EN 12101-2)**	
Brandverhalten E: **Réaction au feu des matériaux des composant principaux:** **Reaction to fire E:**	**(EN 13501-1)** **(EN 13501-1)** **(EN 13501-1)**	
Elektrische Spannung: **Tension éléctrique:** **Electrical tension:**		**24 [Volt]** **24 [Volt]** **24 [Volt]**

Anfrageformular für Antrieb NRWG Drehflügel

Formulaire de demande pour système d'entraînement DENFC, ouvrant à la française

Inquiry form for actuator SHEVS, turn leaf

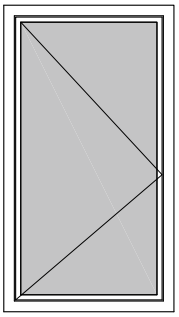
 **Einsatzbereich** **Domaine d'application** **Area of application** FFB: 290 - 1400 [mm] FFH: 520 - 2400 [mm]	**Pos Nr. / Pos No / Pos No.**	**Pos Nr. / Pos No / Pos No.**	**Pos Nr. / Pos No / Pos No.**	**Pos Nr. / Pos No / Pos No.**	**Pos Nr. / Pos No / Pos No.**
Stück / Pièce / Piece					
DIN links / DIN rechts (l / r) **DIN gauche / DIN droite (g / d)** **DIN left / DIN right (l / r)**					
					
					
Flügelgewicht (inklusive Glas) **Poids du vantail (inclus verre)** **Leaf weight (glass included)**					
Getriebe-Antrieb? (Ja / Nein) **Automat pour crémone? (Oui / Non)** **Espagnolette with mechanism? (Yes / No)** 					



Anfrageformular für Antrieb NRWG Drehflügel

Formulaire de demande pour système d'entraînement DENFC, ouvrant à la française

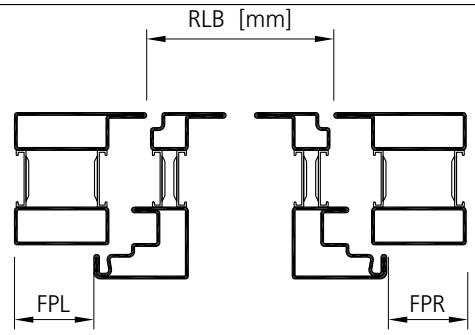
Inquiry form for actuator SHEVS, turn leaf

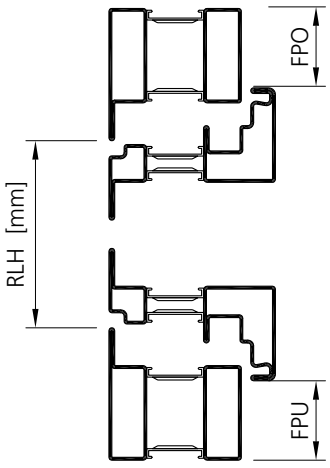


Einsatzbereich
Domaine d'application
Area of application

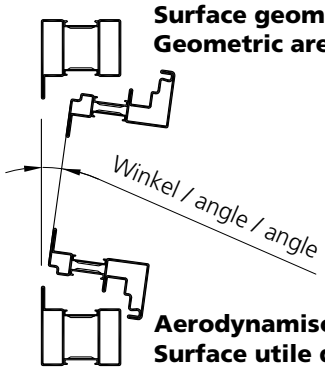
FFB: 290 - 1400 [mm]
FFH: 520 - 2400 [mm]

	Pos Nr. / Pos No / Pos No.	Pos Nr. / Pos No / Pos No.	Pos Nr. / Pos No / Pos No.	Pos Nr. / Pos No / Pos No.	Pos Nr. / Pos No / Pos No.
RLB					
FPL					
FPR					
RLH					
FPO					
FPU					
Winkel angle angle					
und / et / and					
Av [m²]					
oder / ou / or					
Aa [m²]					





Geometrische Fläche Av
Surface geometrique Av
Geometric area Av

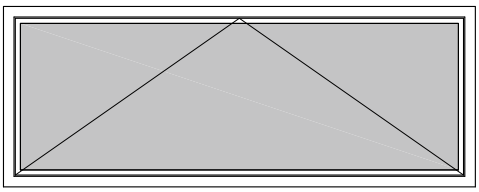
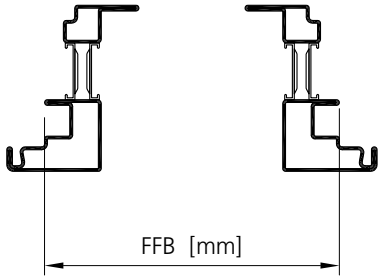
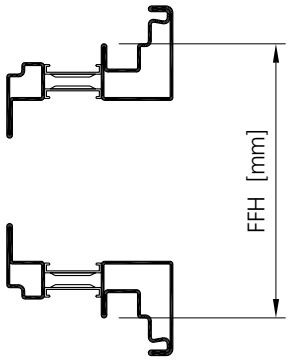
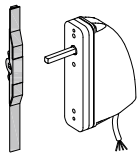


Aerodynamische Fläche Aa
Surface utile d'ouverture Aa
Aerodynamique free area Aa

Anfrageformular für Antrieb NRWG Kippflügel

Formulaire de demande pour système d'entraînement DENFC, ouvrant à soufflet

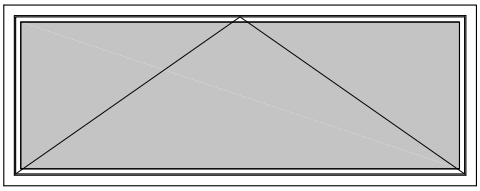
Inquiry form for actuator SHEVS, tilt only leaf

 **Einsatzbereich / Domaine d'application / Area of application** FFB: 520 - 2400 [mm] FFH: 350 - 1000 [mm]	**Pos Nr. / Pos No / Pos No.**	**Pos Nr. / Pos No / Pos No.**	**Pos Nr. / Pos No / Pos No.**	**Pos Nr. / Pos No / Pos No.**	**Pos Nr. / Pos No / Pos No.**
Stück / Pièce / Piece					
					
					
Flügelgewicht (inklusive Glas) **Poids du vantail (inclus verre)** **Leaf weight (glass included)**					
Getriebe-Antrieb? (Ja / Nein) **Automat pour crémone? (Oui / Non)** **Espagnolette with mechanism? (Yes / No)** 					

Anfrageformular für Antrieb NRWG Kippflügel

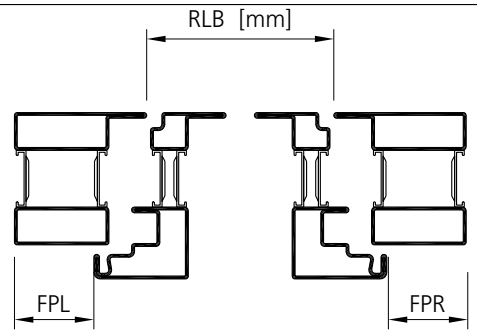
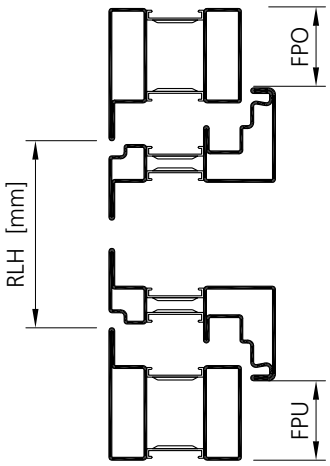
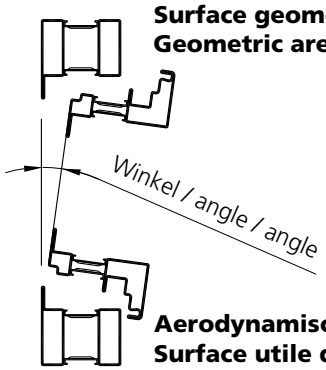
Formulaire de demande pour système d'entraînement DENFC, ouvrant à soufflet

Inquiry form for actuator SHEVS, tilt only leaf



Einsatzbereich / Domaine d'application / Area of application

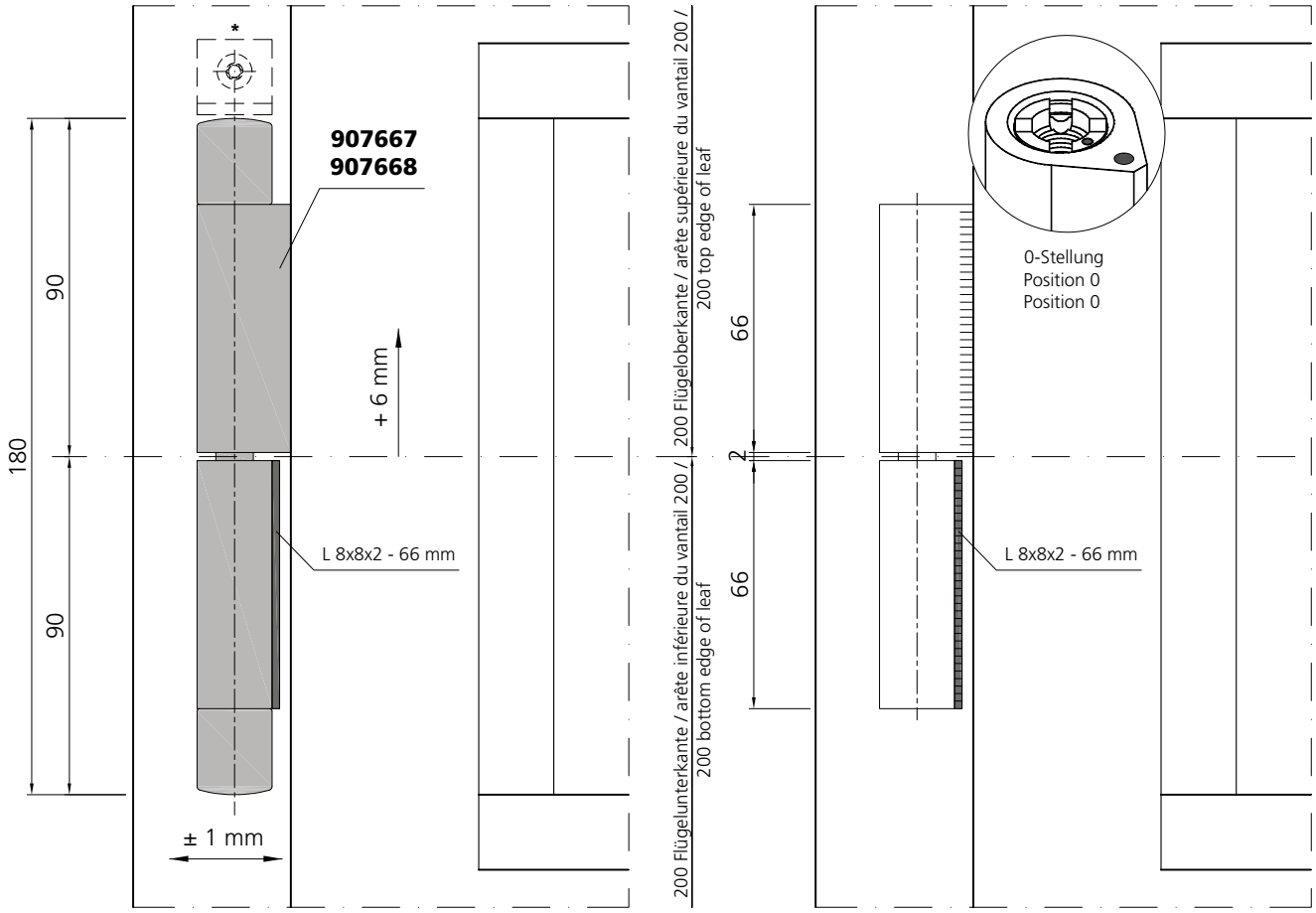
FFB: 520 - 2400 [mm]
FFH: 350 - 1000 [mm]

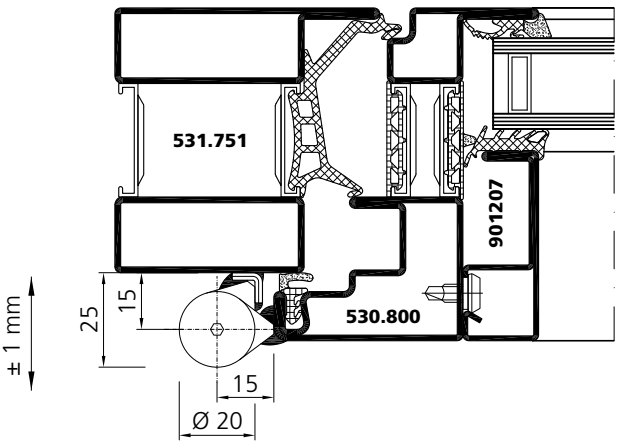
		Pos Nr. / Pos No / Pos No.	Pos Nr. / Pos No / Pos No.	Pos Nr. / Pos No / Pos No.	Pos Nr. / Pos No / Pos No.	Pos Nr. / Pos No / Pos No.
	**RLB**					
	FPL					
	FPR					
	**RLH**					
	FPO					
	FPU					
Geometrische Fläche Av **Surface geometrique Av** **Geometric area Av**  **Aerodynamische Fläche Aa** **Surface utile d'ouverture Aa** **Aerodynamique free area Aa**	**Winkel angle angle**					
	und / et / and					
	Av [m²]					
	oder / ou / or					
	Aa [m²]					

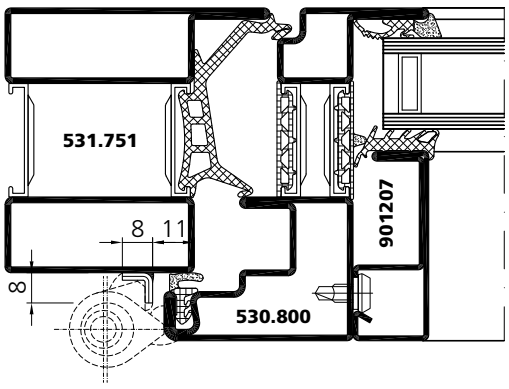
Beschlagseinbau (NRWG)

Montage de la quincaillerie (DENFC)

Installation of the fittings (SHEVS)



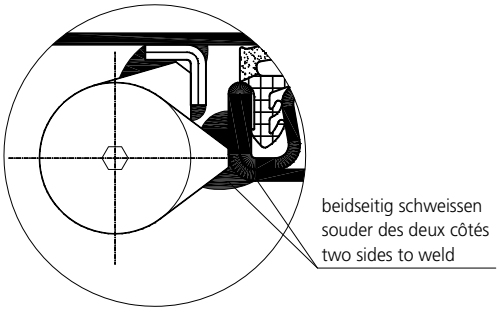




* nur bei Kipp-Ausführung:
Anschlagwinkel montieren (geschraubt)

seulement lorsque ouvrant à soufflet:
monter équerre de blocage (vissé)

only for tilt only version:
mount blocking angle (screwed)





10180307/988302/01-19

Forster Profilsysteme AG | CH-9320 Arbon
info@forster.ch | www.forster-profile.ch

forster