

Janisol Arte 2.0

Beschlageinbau und Verarbeitung

Janisol Arte 2.0

Montage des ferrures et usinage

Janisol Arte 2.0

Installation of fittings and assembly

**Beschlageinbau
und Montage
Janisol Arte 2.0**

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Eine Liste der aktuellen
Änderungen und Ergänzungen
finden Sie am Ende des Kataloges!

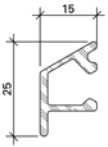
Une liste des dernières
modifications et ajouts est
disponible à la fin du catalogue!

A table of actual modifications
and additions can be found at
the end of the catalogue!

Bei grau hinterlegten Artikeln
muss die Verfügbarkeit angefragt
werden.

Pour les produits marqués en gris,
la disponibilité doit être demandée.

Items which are marked in grey,
the stock availability needs to be
inquired.



000.000

Wetterschenkel
Aluminium roh

Gewicht 0,266 kg/m
U = 0,100 m²/m
P = 0,034 m²/m

Länge 6 m

000.000

Renvoi d'eau
aluminium brut

poids 0,266 kg/m
U = 0,100 m²/m
P = 0,034 m²/m

Longueur 6 m

000.000

Weatherbar
aluminium mill finish

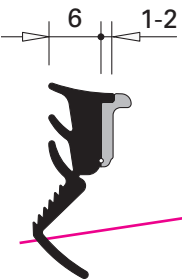
weight 0,266 kg/m
U = 0,100 m²/m
P = 0,034 m²/m

Length 6 m

Artikel, welche rot durchgestrichen
sind, wurden aus dem Sortiment
genommen.

Les articles barrés en rouge ont
été retirés de la gamme.

Articles that have a red line through
them have been removed from the
product range.



000.000

**Glasdichtung
mit Abreissteg**
EPDM, schwarz,
für Glasleistenseite

Einsatz siehe Seiten 34/35

VE = 100 m

000.000

**Joint de vitrage
avec partie déchirable**
EPDM, noir,
pour côté parclose

Utilisation voir pages 34/35

UV = 100 m

000.000

**Glazing weatherstrip
with detachable strip**
EPDM, black,
for glazing bead side

Application see pages 34/35

PU = 100 m

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Allgemeine Hinweise

Conseils générales

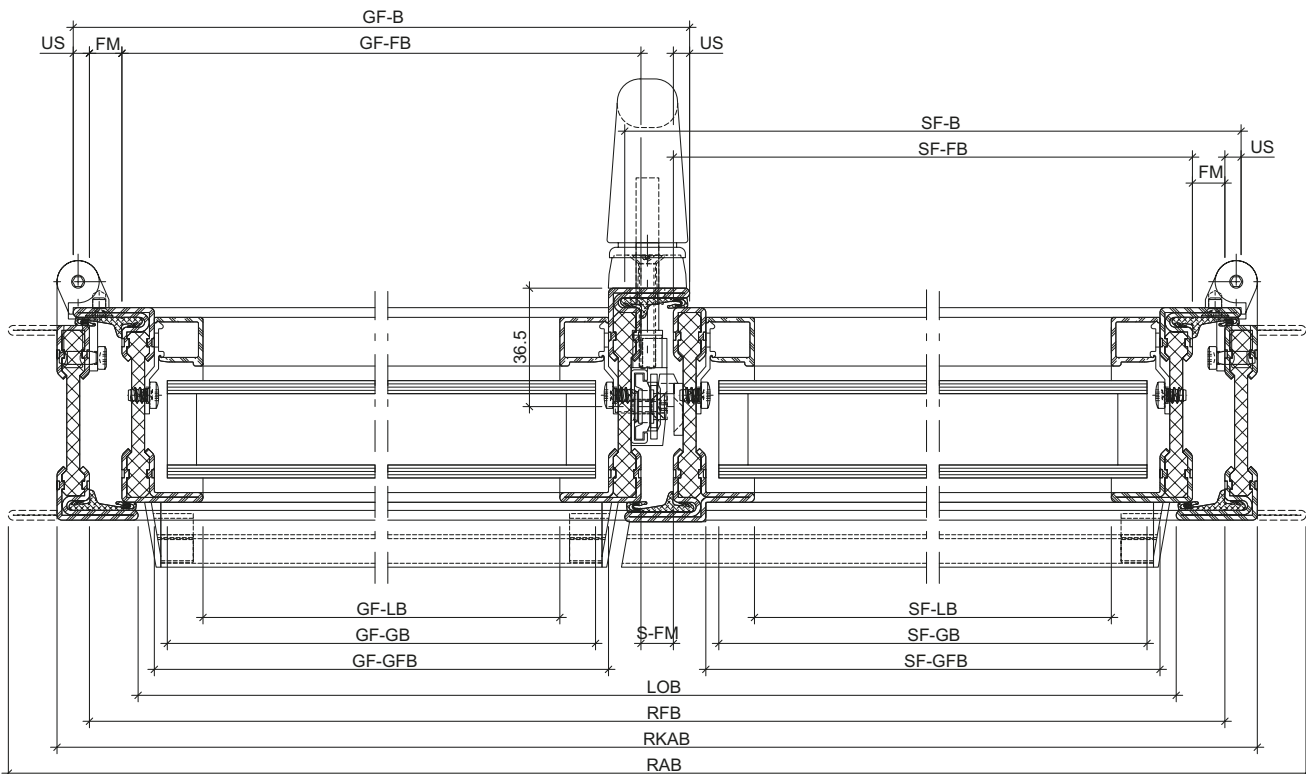
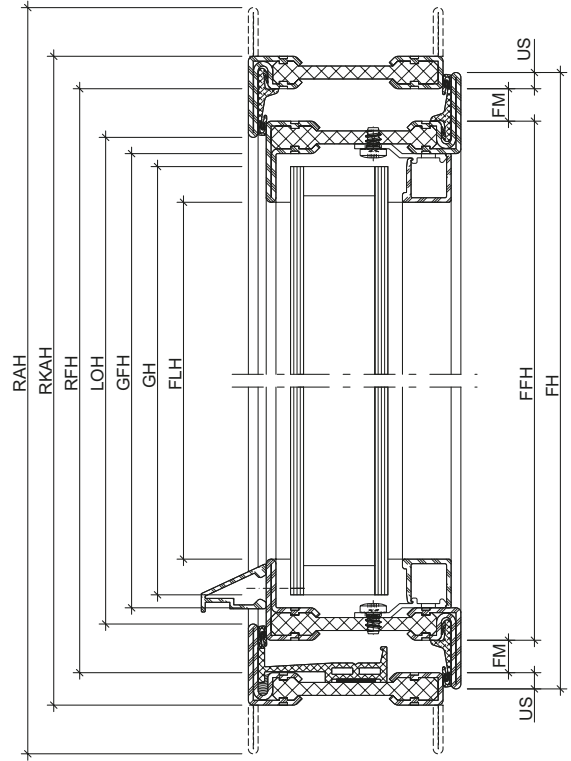
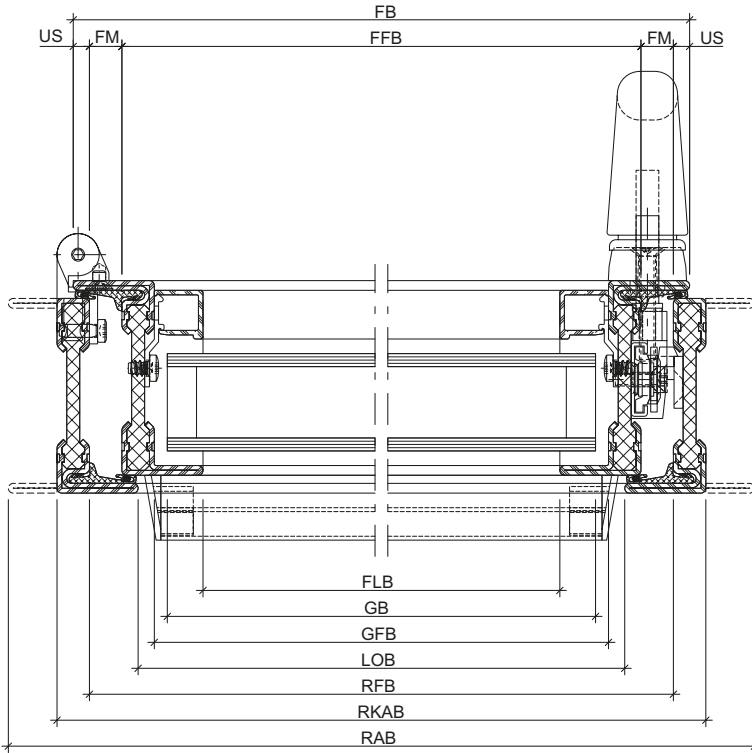
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Massbezeichnungen

Dimensions cotées

Measurement descriptions



Massbezeichnungen

Dimensions cotées

Measurement descriptions

US	Überschlag	Recouvrement	Overlap
FM	Falzmass	Dimension de la feuillure	Rebate
FH	Flügelhöhe	Hauteur du vantail	Leaf height
FFH	Flügelalzhöhe	Hauteur de feuillure du vantail	Leaf rebate height
FLH	Flügel-Lichtmasshöhe	Hauteur vide lumière du vantail	Clear height dimension of leaf
FB	Flügelbreite	Largeur du vantail	Leaf width
FFB	Flügelalzbreite	Largeur de feuillure du vantail	Leaf rebate width
FLB	Flügel-Lichtmassbreite	Largeur vide lumière du vantail	Clear width dimension of leaf
GH	Glashöhe	Hauteur du verre	Glass height
GFH	Glasfalzhöhe	Hauteur de feuillure du verre	Glazing rebate height
GB	Glasbreite	Largeur du verre	Glass width
GFB	Glasfalzbreite	Largeur de feuillure du verre	Glazing rebate width
LOH	Lichte Durchgangshöhe	Hauteur vide lumière	Clear opening height
RFH	Rahmenalzhöhe	Hauteur de feuillure du dormant	Frame rebate height
RAH	Rahmenaussenhöhe	Hauteur extérieur du dormant	External frame height
LOB	Lichte Durchgangsbreite	Largeur vide lumière	Clear opening width
RFB	Rahmenalzbreite	Largeur de feuillure du dormant	Frame rebate width
RAB	Rahmenaussenbreite	Largeur extérieur du dormant	External frame width
GF-B	Gangflügel-Breite	Largeur du vantail de service	Access leaf width
GF-FB	Gangflügel-Falzbreite	Largeur de feuillure du vantail de service	Access leaf rebate width
GF-LB	Gangflügel-Lichtmassbreite	Vide lumière du vantail de service	Clear width dimension of access leaf
GF-GB	Gangflügel-Glasbreite	Largeur du verre du vantail de service	Glass width of access leaf
GF-GFB	Gangflügel-Glasfalzbreite	Largeur de feuillure du verre du vantail de service	Glazing rebate width of access leaf
SF-B	Standflügel-Breite	Largeur du vantail semi-fixe	Secondary leaf width
SF-FB	Standflügel-Falzbreite	Largeur de feuillure du vantail semi-fixe	Rebate width of secondary leaf
SF-LB	Standflügel-Lichtmassbreite	Vide lumière du vantail semi-fixe	Clear width dimension of secondary leaf
SF-GB	Standflügel-Glasbreite	Largeur du verre du vantail semi-fixe	Glass width of secondary leaf
SF-GFB	Standflügel-Glasfalzbreite	Largeur de feuillure du verre du vantail semi-fixe	Glazing rebate width of secondary leaf
S-FM	Stulpflügel-Falzmass	Dimension de la feuillure fenêtre à deux vantaux	Double leaf rebate

Verarbeitung

Grundsätzlich kann Janisol Arte wie die übrigen Janisol-Profilssysteme verarbeitet werden. Das heisst, dass für die Verarbeitung keine speziellen Maschinen beschafft oder sonstige besondere Massnahmen zu treffen sind. Durch die einfachen Profilformen sind die üblichen Verarbeitungsprozesse wie schweissen und schleifen problemlos durchführbar.

Beim Bohren, Sägen und Bearbeiten der Profile wird Glasfaserstaub freigesetzt. Dieser kann Reizungen der Haut und Augen auslösen. Um dies zu vermeiden sollten bei diesen Arbeiten die Haut und die Augen im Bedarfsfall geschützt werden (geschlossene Arbeitskleidung, Schutzbrille, Handschuhe).

Toleranzen

Durch die sehr schlanken Profile und die minimalen Ansichten müssen die Fertigungstoleranzen allgemein enger gehalten werden als bei den übrigen Jansen-Profilssystemen. Dies gilt insbesondere für Fensterflügel, wo die Flügelfalzmasse von lediglich 10 mm erhöhte Anforderungen an die Masshaltigkeit von Rahmen und Flügel stellen.

Glasbestellung

Glaslieferanten auf die minimale Einstandtiefe hinweisen. Randverbund möglichst klein.

Die Grössen der Isoliergläser sind wie folgt zu tolerieren:
Breite und Höhe +0/-2 mm.

Usinage

Janisol Arte peut fondamentalement être usiné comme les autres systèmes de profilés Janisol. Il n'est donc pas nécessaire de se procurer des machines spéciales ou de prendre d'autres mesures particulières pour l'usinage. Grâce aux formes de profilés simples, les processus d'usinage usuels tels que le soudage et le meulage s'exécutent sans problème.

La poussière de fibre de verre est libérée lors du perçage, du sciage et de l'usinage des profilés. Celle-ci peut provoquer des irritations de la peau et des yeux qui peuvent être évitées en protégeant ces parties du corps lors de ces travaux, si nécessaire. Pour les yeux, il faut utiliser des lunettes de protection, et pour la peau, une tenue de travail fermée et en particulier des gants de protection.

Tolérances

Grâce aux profilés très fins et aux formes minimalistes, les tolérances doivent être en général maintenues plus en-deçà de celles des autres systèmes de profilés Jansen. Cela concerne en particulier les ouvrants de fenêtre sur lesquels la feuillure de seulement 10 mm exige un respect beaucoup plus précis des cotes du cadre et du vantail.

Commande de vitrage

Signaler la profondeur de prise en feuillure minimale aux fournisseurs de vitrage. Scellement le plus petit possible.

La tolérance relative aux verres isolants est la suivante: largeur et hauteur +0/-2 mm.

Assembly

Janisol Arte can generally be fabricated in the same way as the other Janisol profile systems. This means that no special machines or measures for fabrication are required. Due to the simple profile types, the standard fabrication processes, such as welding and grinding, can be carried out easily.

Glass fibre dust is released when drilling, sawing or processing the profiles. This dust can irritate the skin and eyes. To avoid any irritation, protect skin and eyes as required when carrying out these tasks. Wear goggles to protect the eyes. Ensure skin is covered by protective work clothing and, in particular, wear gloves.

Tolerances

Due to the slim profiles and minimal face widths, the tolerances must be kept smaller than for the other Jansen profile systems. This applies in particular to window sash, where the sash rebate size places an increased requirement of 10 mm on the dimensional accuracy of the frames and sash.

Glass order

Advise the glass supplier of the minimum edge cover depth. Edge seal as small as possible.

The following size tolerances for the insulating glass are to be permitted: +0/-2 mm in height and width.

Bei der Erstellung von Fenstern ist die Masshaltigkeit besonders zu beachten. Die geschweissten Flügelrahmen tendieren beim Zuschnitt auf die theoretischen Sollmasse eher auf Übermass. Aus diesem Grund empfehlen wir, diesen Umstand beim Zuschnitt zu berücksichtigen

Zuschnitt Flügelprofile:

Breite = theoretisches Sollmass - 1 mm
 Höhe = theoretisches Sollmass - 1 mm

Zuschnitt Rahmenprofile:

Breite = theoretisches Sollmass
 Höhe = theoretisches Sollmass

Le respect des cotes doit être tout particulièrement respecté lors de la création de fenêtres. Les cadres de vantaux soudés ont par expérience tendance à être surmesurés lors de leur découpe à la cote de consigne théorique. Pour cette raison, nous recommandons d'en tenir compte lors de la découpe des profilés de vantaux.

Découpe profilés de vantail:

Largeur = cote de consigne théorique - 1 mm
 Hauteur = cote de consigne théorique - 1 mm

Découpe profilés de cadre:

Largeur = cote de consigne théorique
 Hauteur = cote de consigne théorique

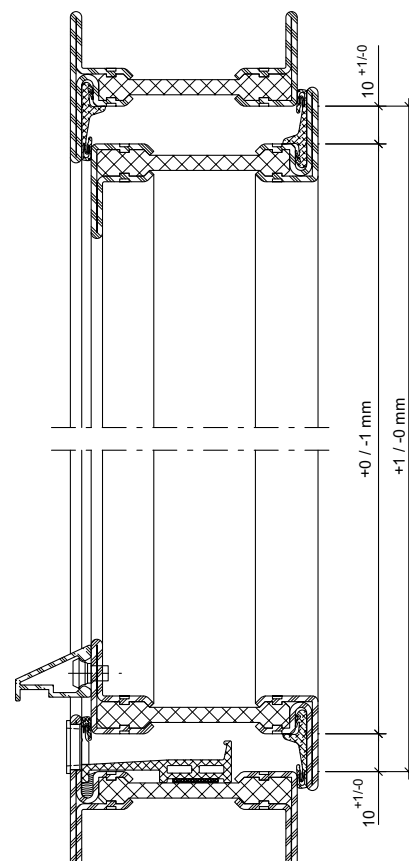
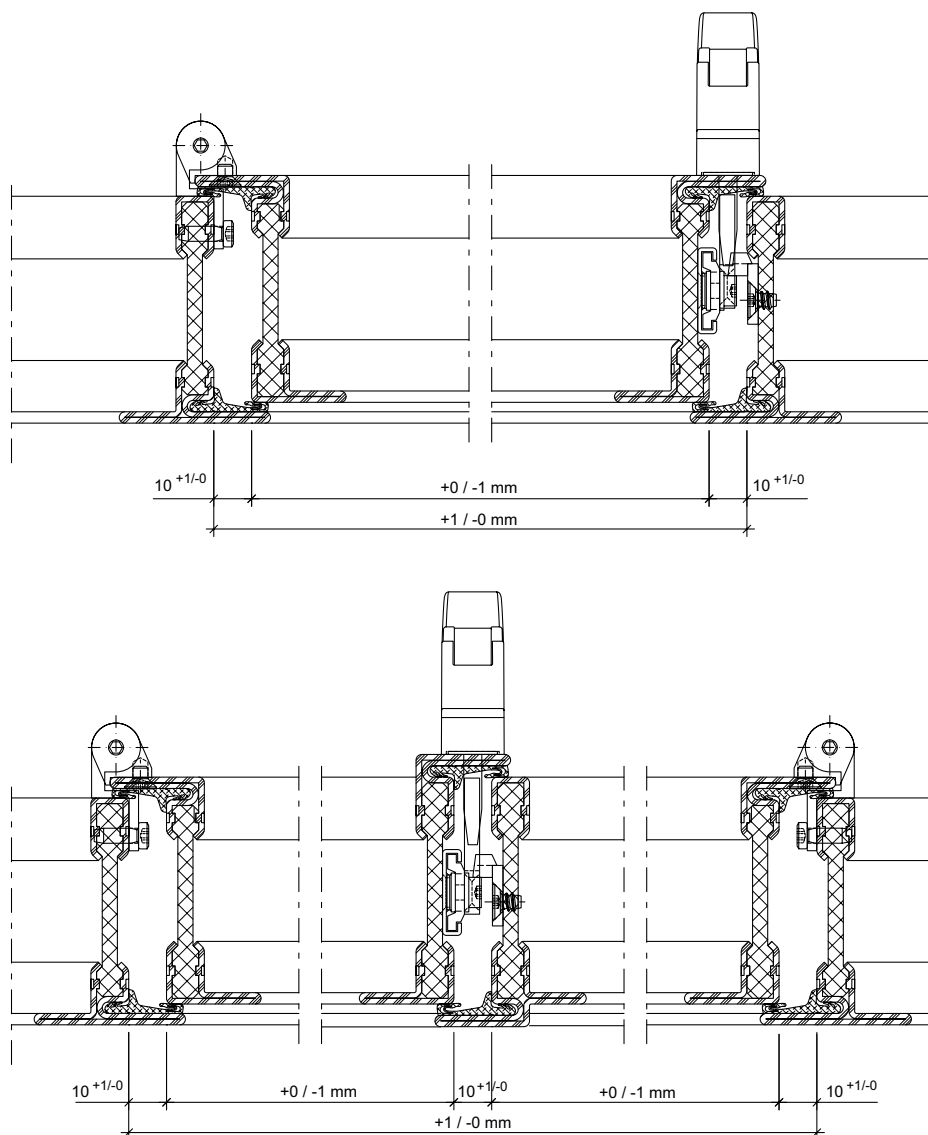
The experiences of several metal-working companies have shown that special attention must be paid to dimensional accuracy, particularly when making windows. It has been found that the welded leaf frame tends to be slightly oversized when cut to the theoretical design dimensions. For this reason, we recommend that this situation is taken into account when cutting the leaf profiles to size.

When cutting leaf profiles to size:

Width = Theoretical design dimension - 1 mm
 Height = Theoretical design dimension - 1 mm

When cutting frame profiles to size:

Width = Theoretical design dimension
 Height = Theoretical design dimension

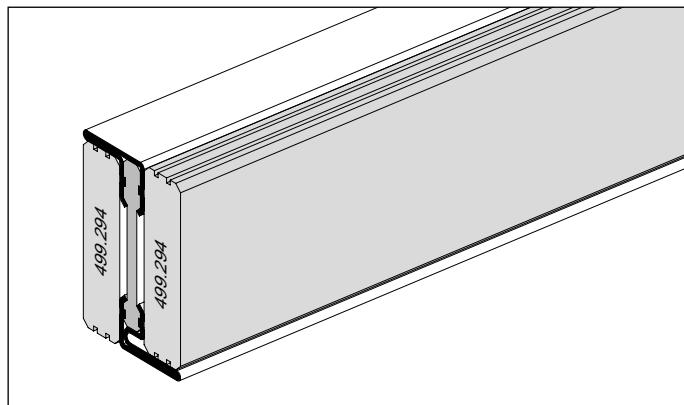


Zuschnitt

Die Janisol Arte-Profile lassen sich mit den herkömmlichen Metallsägemaschinen zuschneiden. Beim Zuschnitt sollten jedoch, im Besonderen bei Gehrungsschnitten, generell passende Einspannunterlagen (z.B. 499.294) verwendet werden, damit eine einwandfreie Profileinspannung gewährleistet wird.

Aufgrund der sehr schmalen Profilformen sollte die Vorschubgeschwindigkeit beim Sägen im Vergleich zu üblichen Stahlrohrprofilen reduziert werden.

Für den Zuschnitt der Profile wird generell eine Mikrosprüh-Schmierung empfohlen. Zusätzlich ist der Hinweis bezüglich Massgenauigkeit zu beachten.



Einspannunterlagen Flügelprofil
Support profilé d'ouvrant
Support sash profile

Découpe

Les profilés Janisol Arte peuvent être découpés avec les scies mécaniques usuelles. Lors de la découpe, il faut cependant utiliser, en particulier pour les coupes en biseau, en général des cales (par ex. 499.294) afin de garantir un serrage optimal du profilé.

En raison des formes étroites des profilés, la vitesse d'avance lors du sciage doit être réduite en comparaison avec les profilés tubulaires en acier habituels.

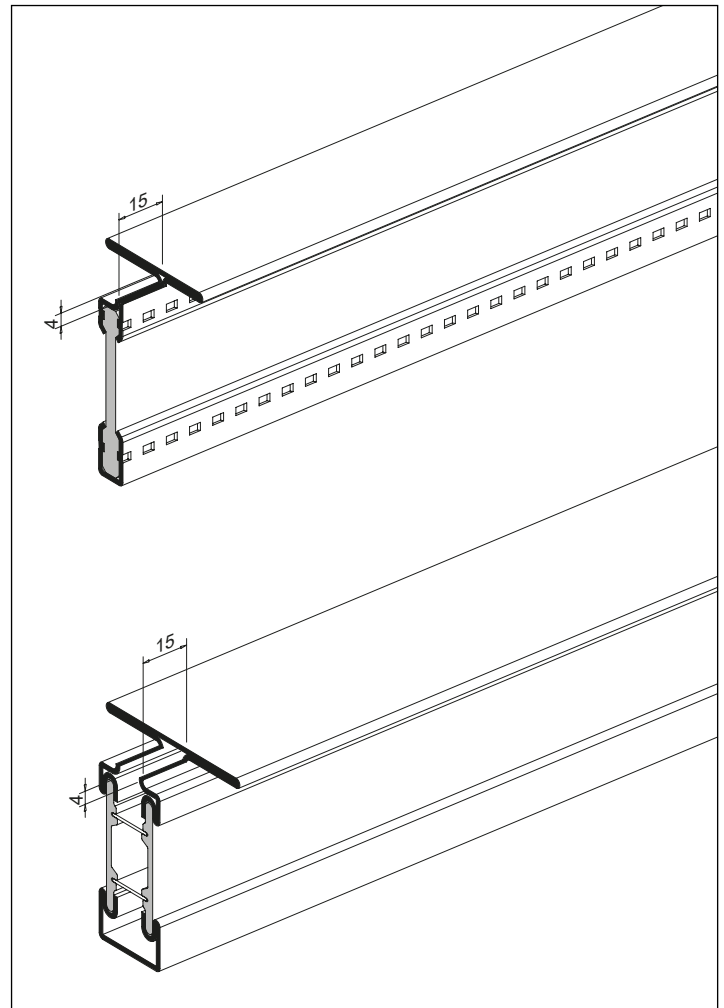
Une lubrification par micropulvérisation est en général recommandée pour la découpe des profilés. La consigne ci-dessus citée relative à la précision des cotes devrait en outre être respectée.

Cutting

Cut the Janisol Arte profiles with the consashional metal saw. However, when cutting and, in particular, when performing mitre cuts, suitable clamping supports (e.g. 499.294) should be used to ensure the profiles are securely clamped.

As the profile shapes are very narrow, the rate of feed when sawing should be reduced compared to the usual tubular steel profiles.

To cut the profile, microspray lubrication is generally recommended. Also note the above information regarding dimensional accuracy.

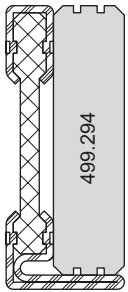


Ausklinkung Riegel auf Stirnseite
Entaille traverse en face avant
Notching of transom on front

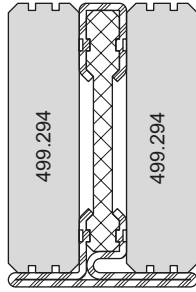
Übersicht Einspannunterlagen

Sommaire des supports

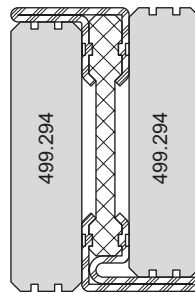
Summary of supports



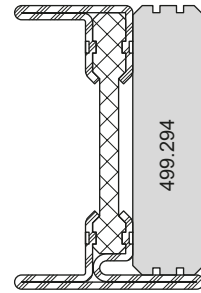
601.611



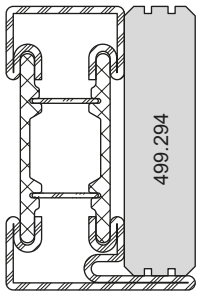
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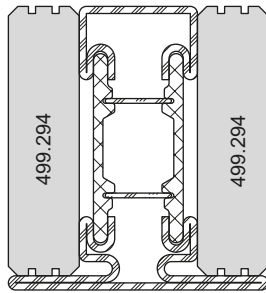
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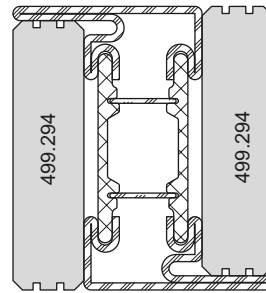
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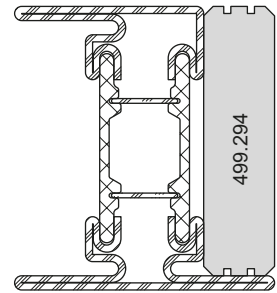
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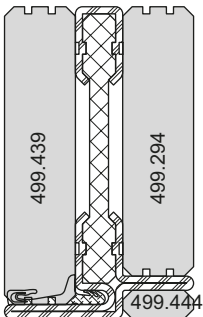
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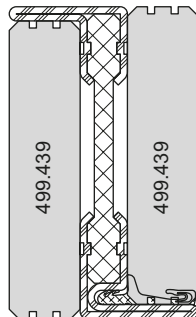
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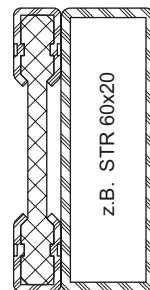
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602.612



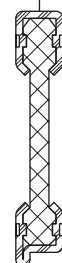
603.612



600.610

z.B. STR 60x20

Vorsichtig spannen
 (Profil zusammendrücken)
 Serrer avec précaution
 (comprimer le profilé)
 Clamp carefully
 (press profile together)

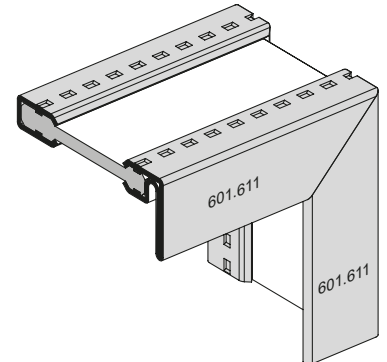
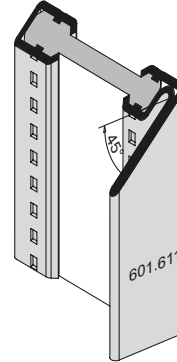
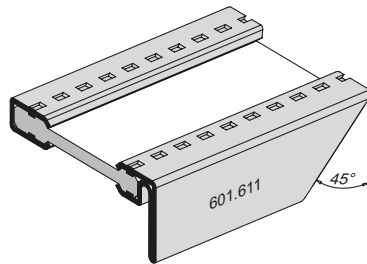
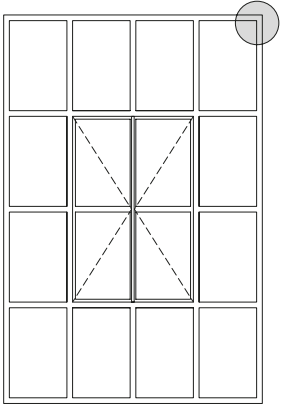


600.609

Ausbildung
Ecke Blendrahmen

Formation
angle cadre dormant

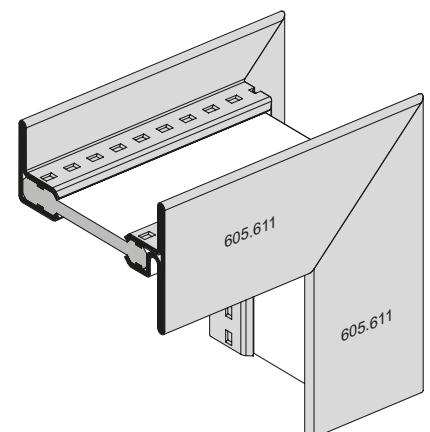
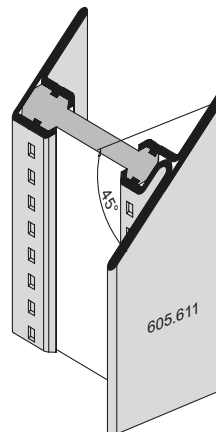
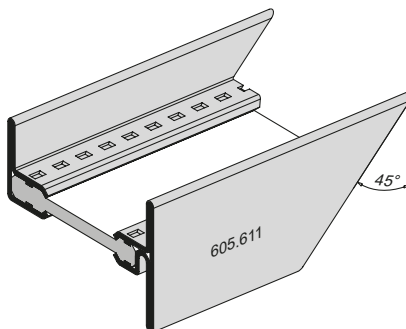
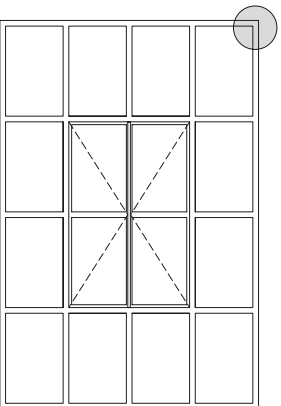
Construction of
outer frame corner



Ausbildung
Ecke Blendrahmen

Formation
angle cadre dormant

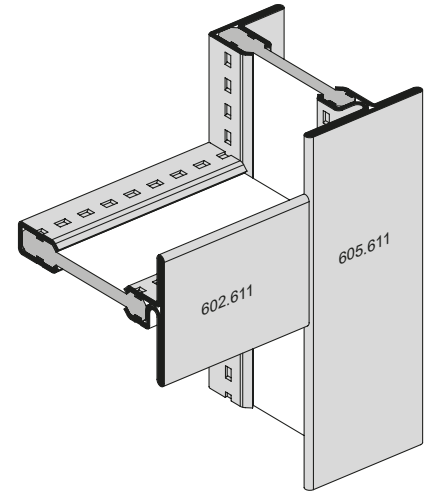
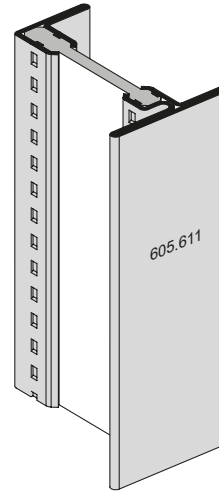
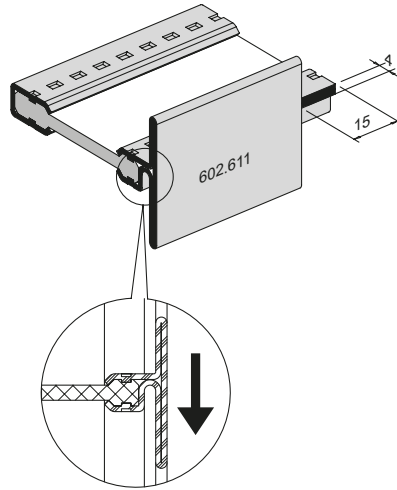
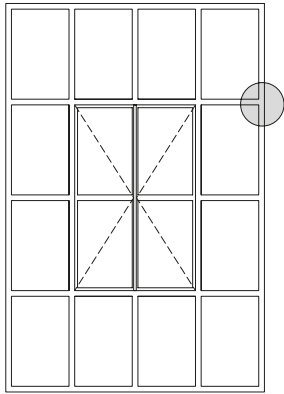
Construction of
outer frame corner



Ausbildung T-Stoss

Formation jointure T

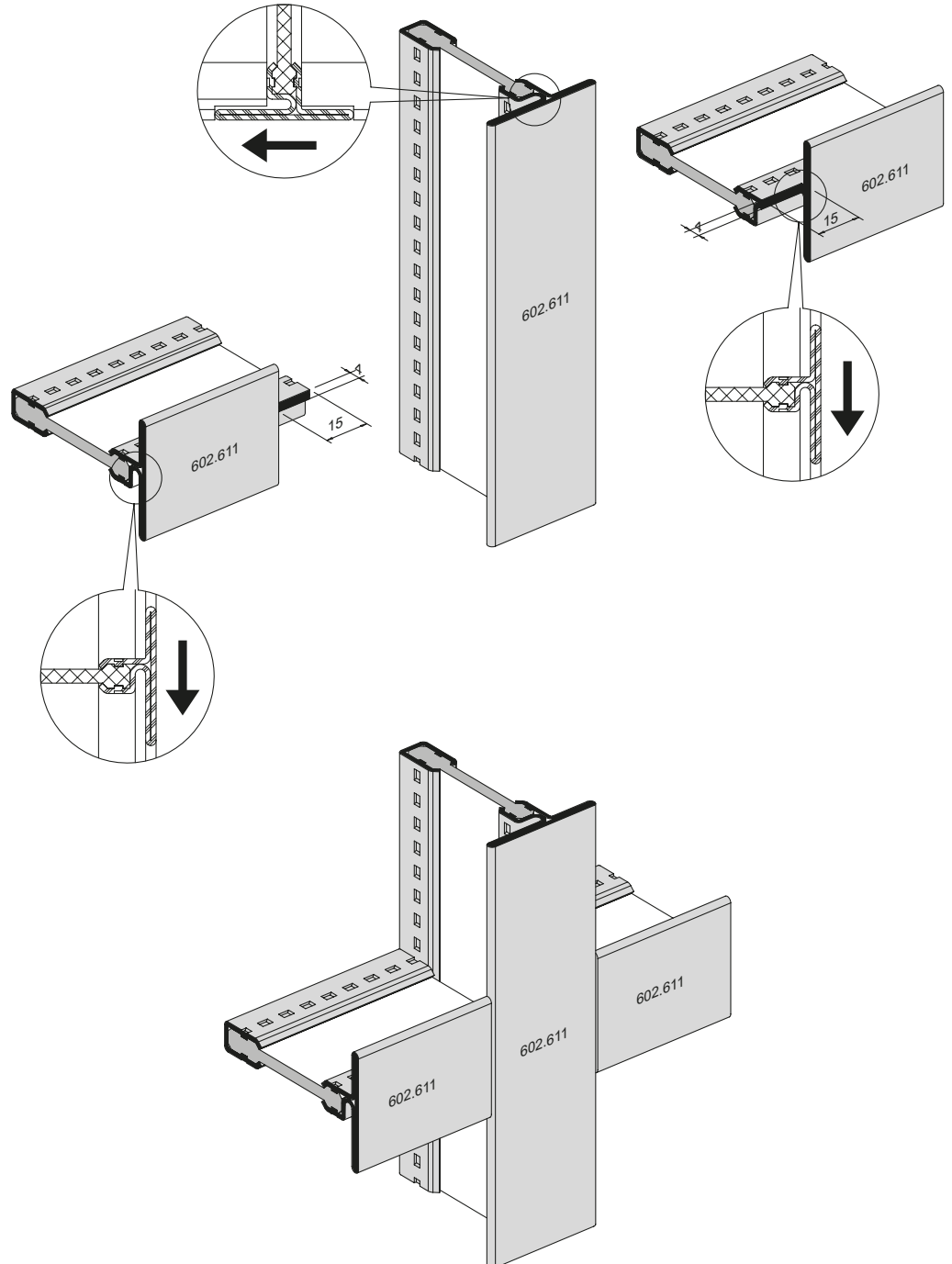
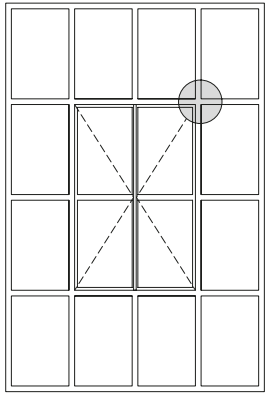
T-joint construction



Ausbildung Kreuzpunkt oben
Festverglasung und Flügel
einwärts öffnend

Formation croisée en haut
vitrage fixe et vantail ouvrant
vers l'intérieur

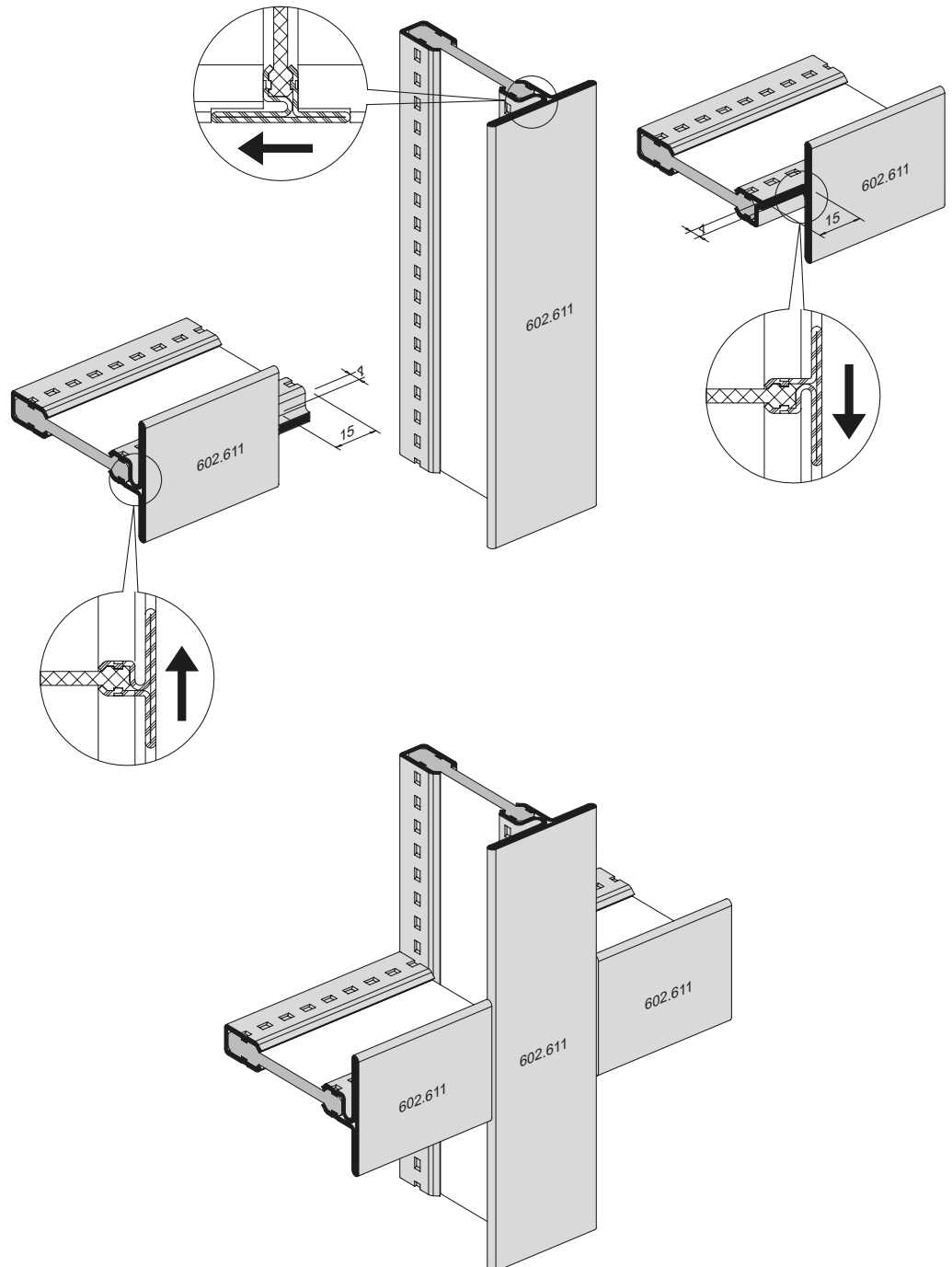
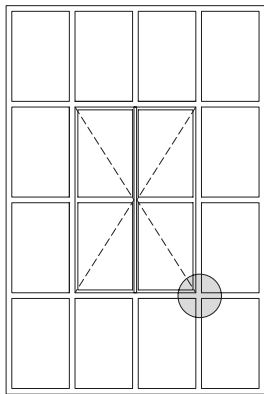
Construction of top intersection
between fixed glazing and
inward-opening sash



Ausbildung Kreuzpunkt unten
Festverglasung und Flügel
einwärts öffnend

Formation croisée en bas
vitrage fixe et vantail ouvrant
vers l'intérieur

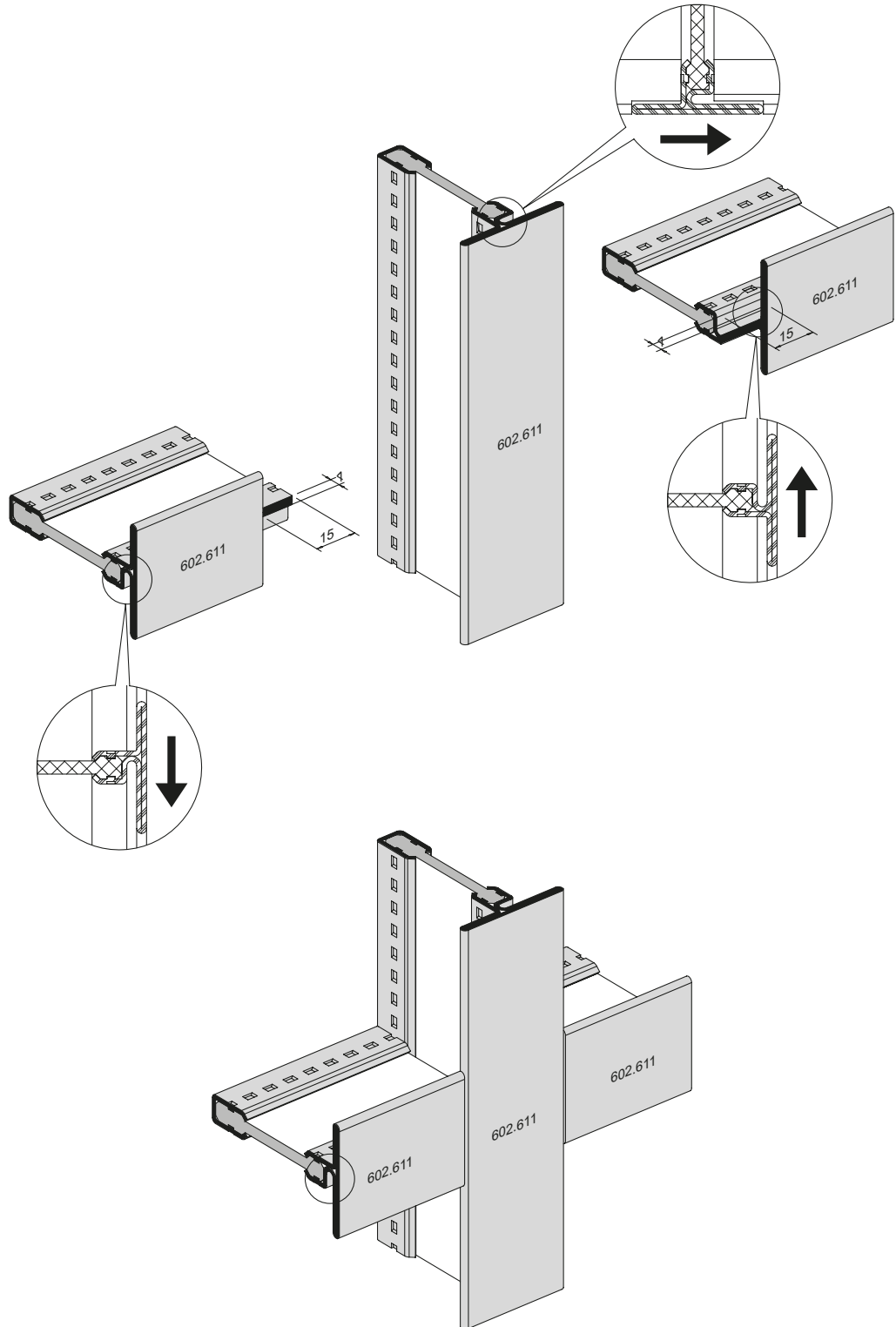
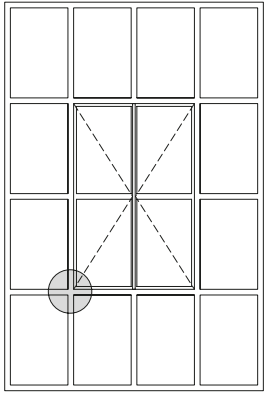
Construction of bottom intersection
between fixed glazing and
inward-opening sash



Ausbildung Kreuzpunkt unten
Festverglasung und Flügel
einwärts öffnend

Formation croisée en bas
vitrage fixe et vantail ouvrant
vers l'intérieur

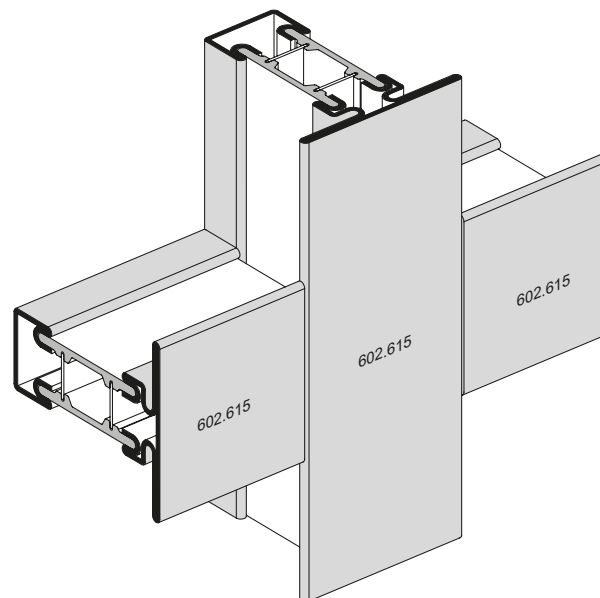
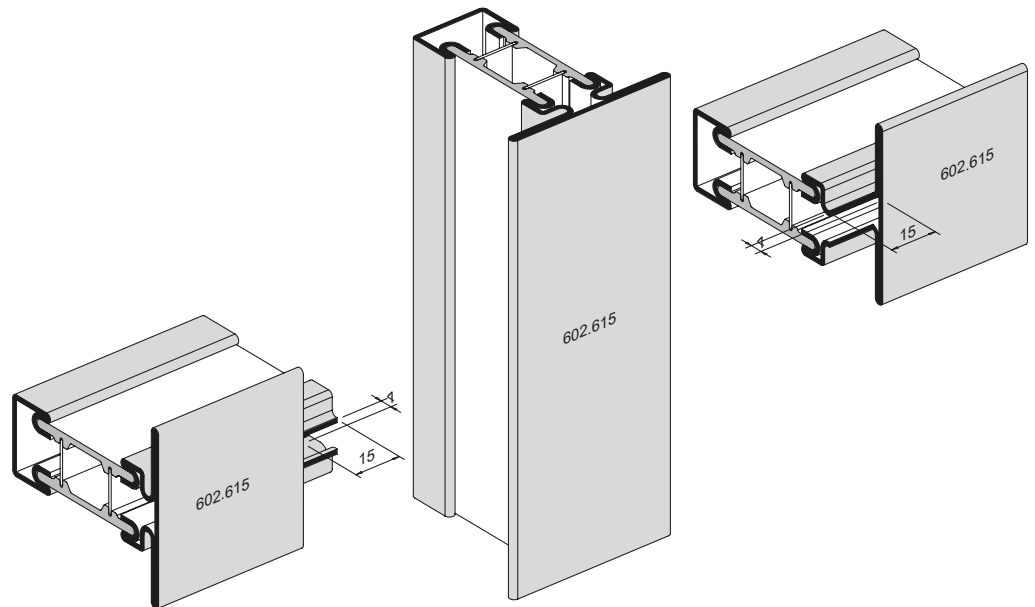
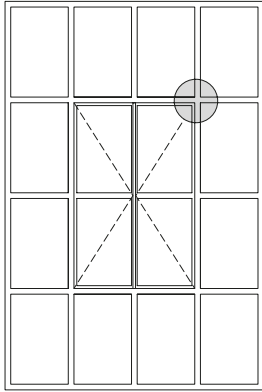
Construction of bottom intersection
between fixed glazing and
inward-opening sash



Ausbildung Kreuzpunkt
Festverglasung und Flügel
einwärts öffnend

Formation croisée
vitrage fixe et vantail ouvrant
vers l'intérieur

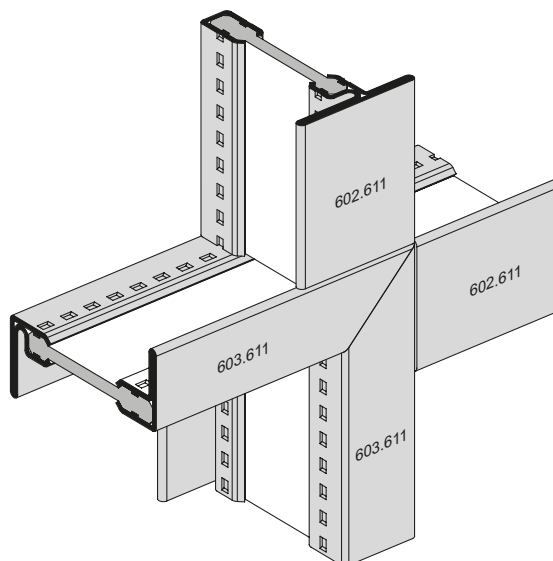
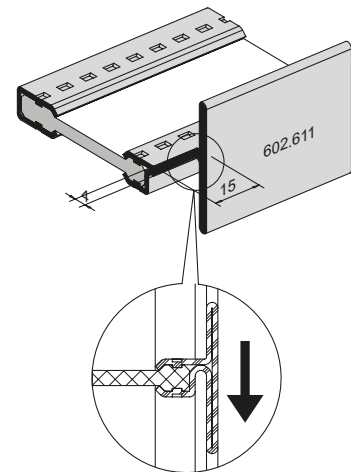
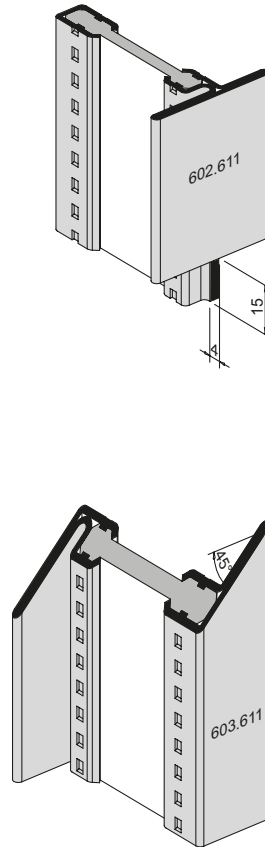
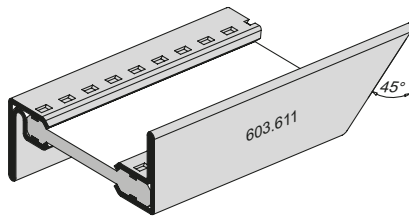
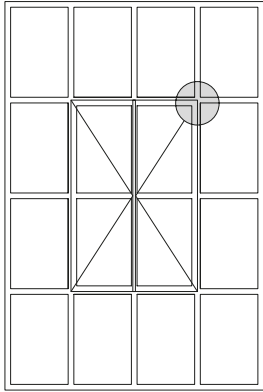
Construction of intersection
between fixed glazing and
inward-opening sash



Ausbildung Kreuzpunkt
Blendrahmen für Flügel
auswärts öffnend

Formation croisée
cadre dormant pour vantail
ouvrant vers l'extérieur

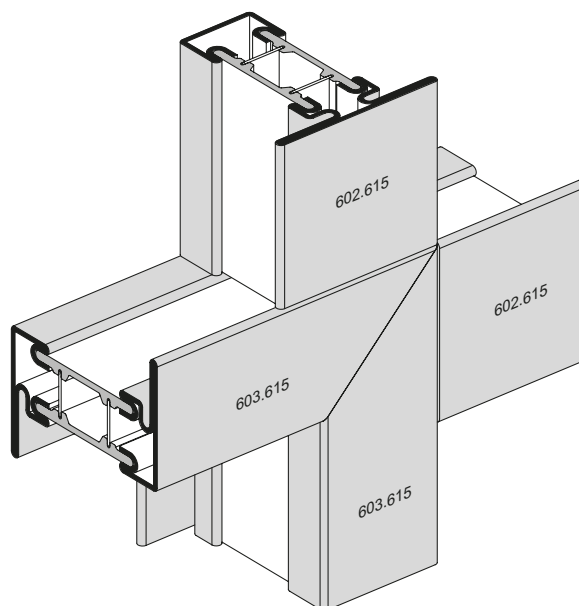
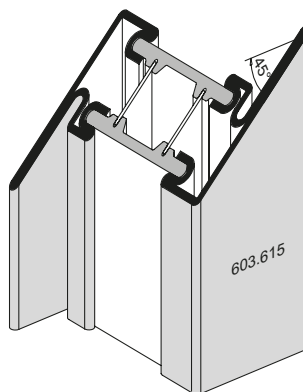
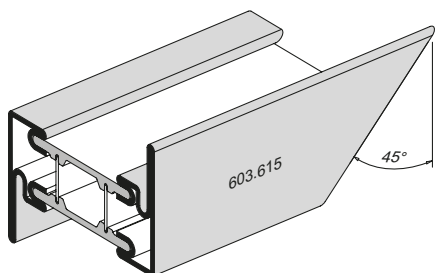
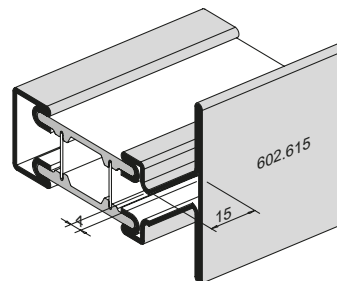
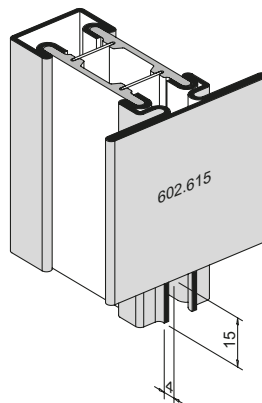
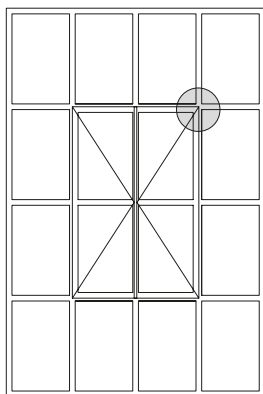
Construction of outer frame
intersection for
outward-opening sash



Ausbildung Kreuzpunkt
Blendrahmen für Flügel
auswärts öffnend

Formation croisée
cadre dormant pour vantail
ouvrant vers l'extérieur

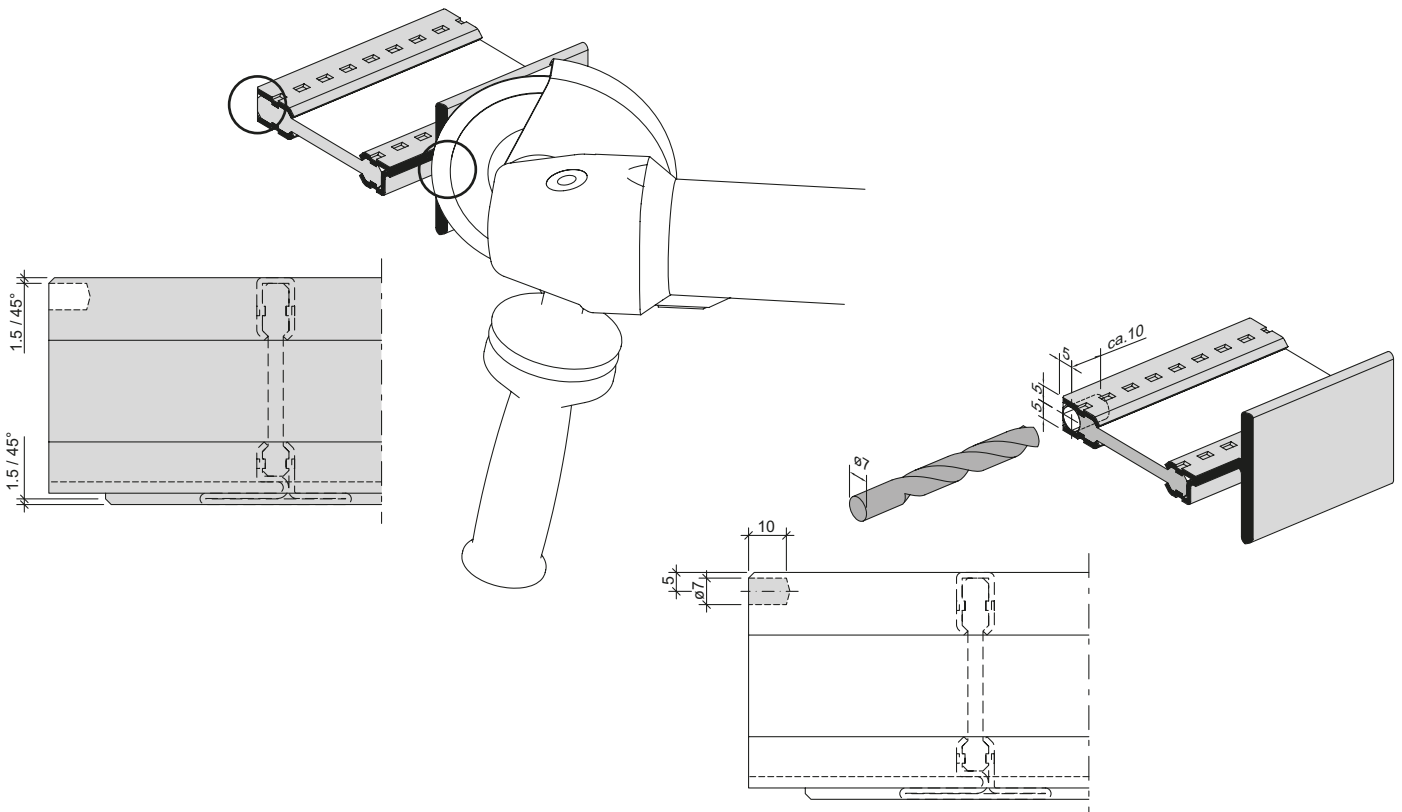
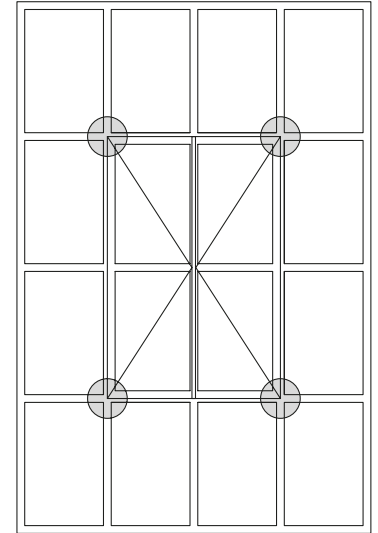
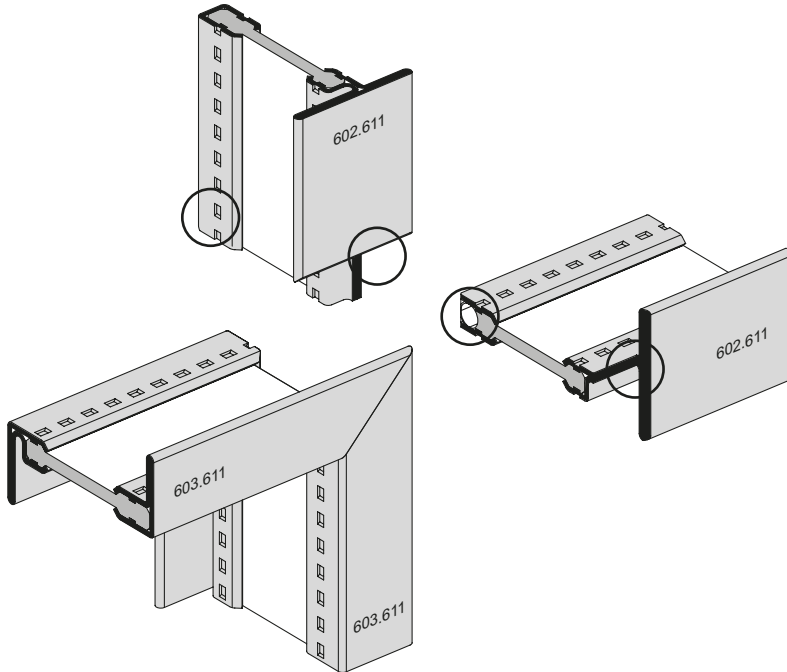
Construction of outer frame
intersection for
outward-opening sash



Vorbereitung bei statisch relevanten Knotenpunkten

Préparation pour les points de jonction importants au niveau statique

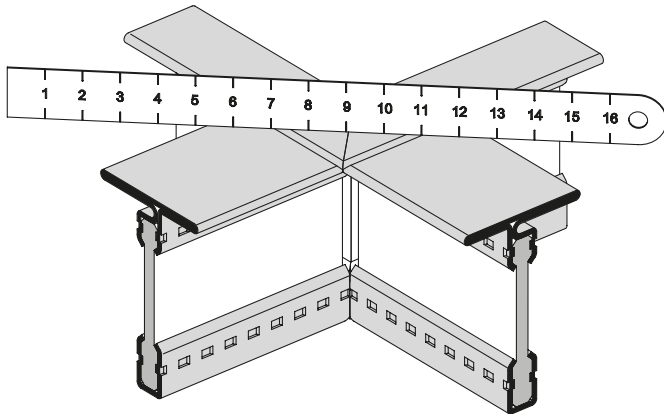
Preparation for structurally relevant intersection points



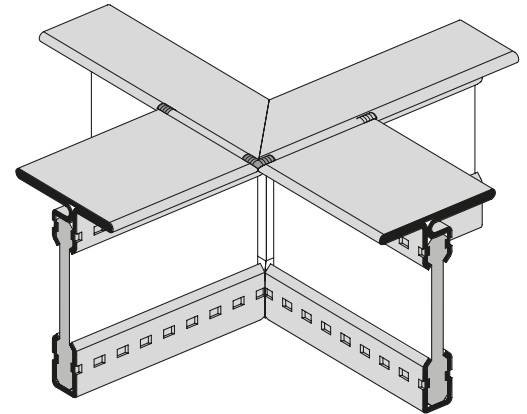
Schweissvorgang Kreuzpunkte

Procédure de soudage points
d'intersection

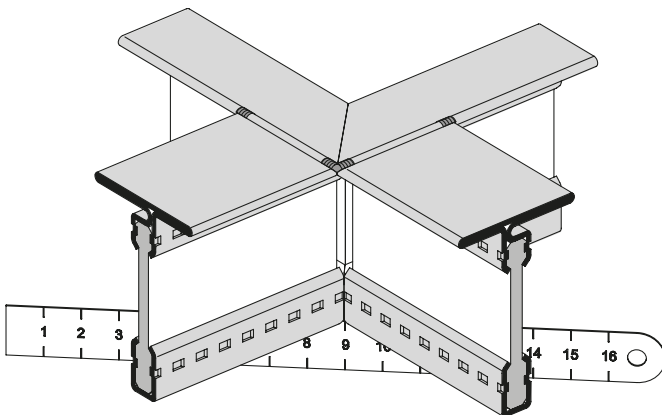
Welding process for intersections



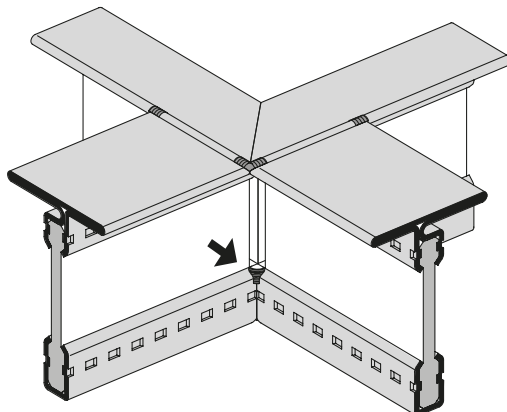
Flächen kontrollieren
Contrôler les surfaces
Check surfaces



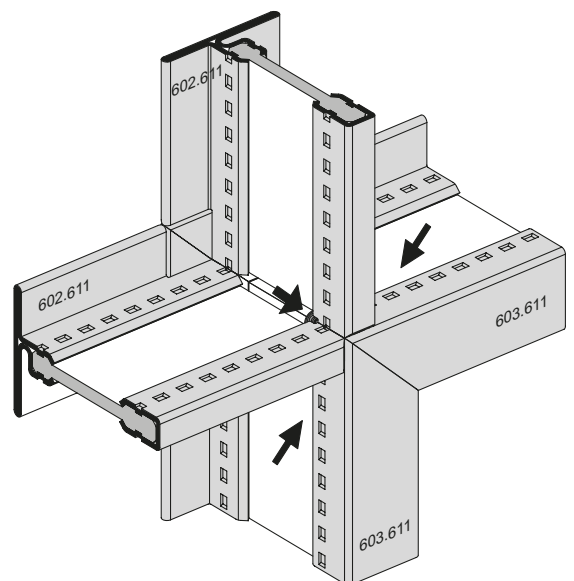
Knotenpunkt heften
Pointer le point de jonction
Crimp intersection point



Gegenseite kontrollieren
Contrôler le côté opposé
Check opposite side



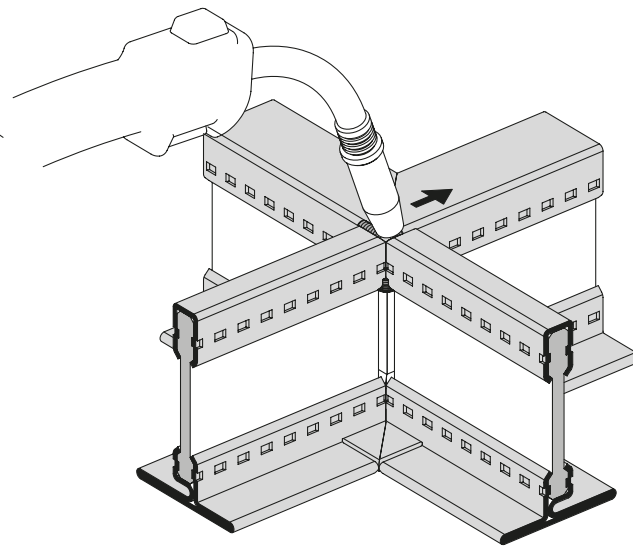
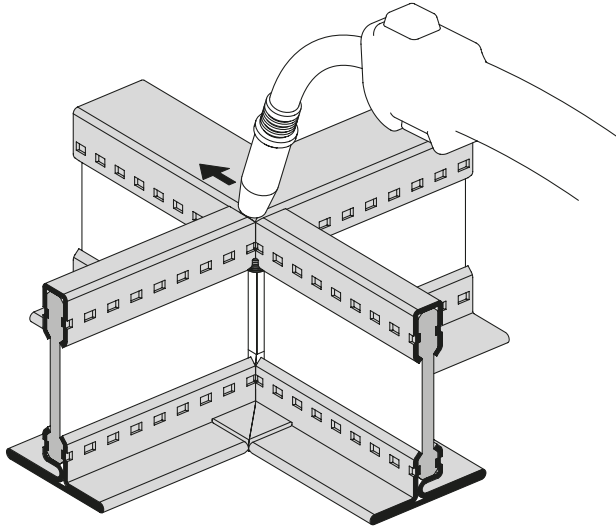
Gegenseite heften
Pointer le côté opposé
Crimp opposite side



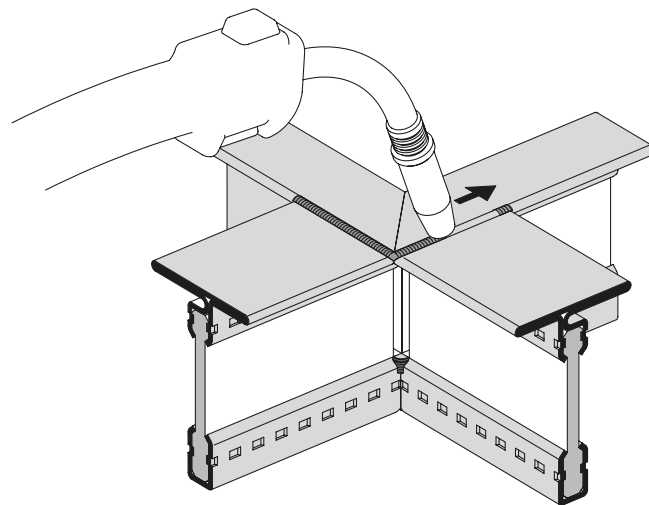
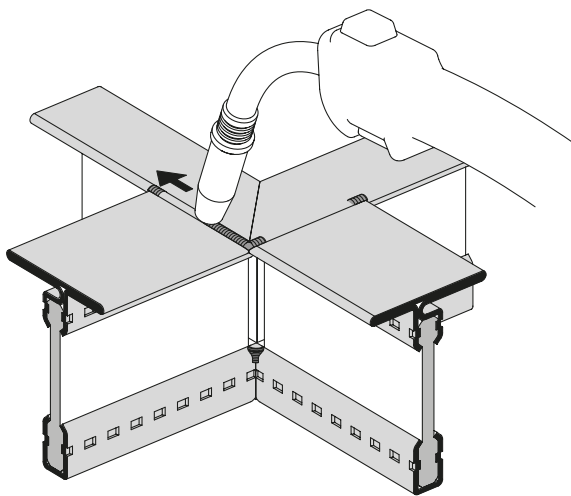
Schweissvorgang Kreuzpunkte

Procédure de soudage points
d'intersection

Welding process for intersections



10 mm in einem Zug durchschweißen
Souder 10 mm d'un trait
Weld through 10 mm in one go

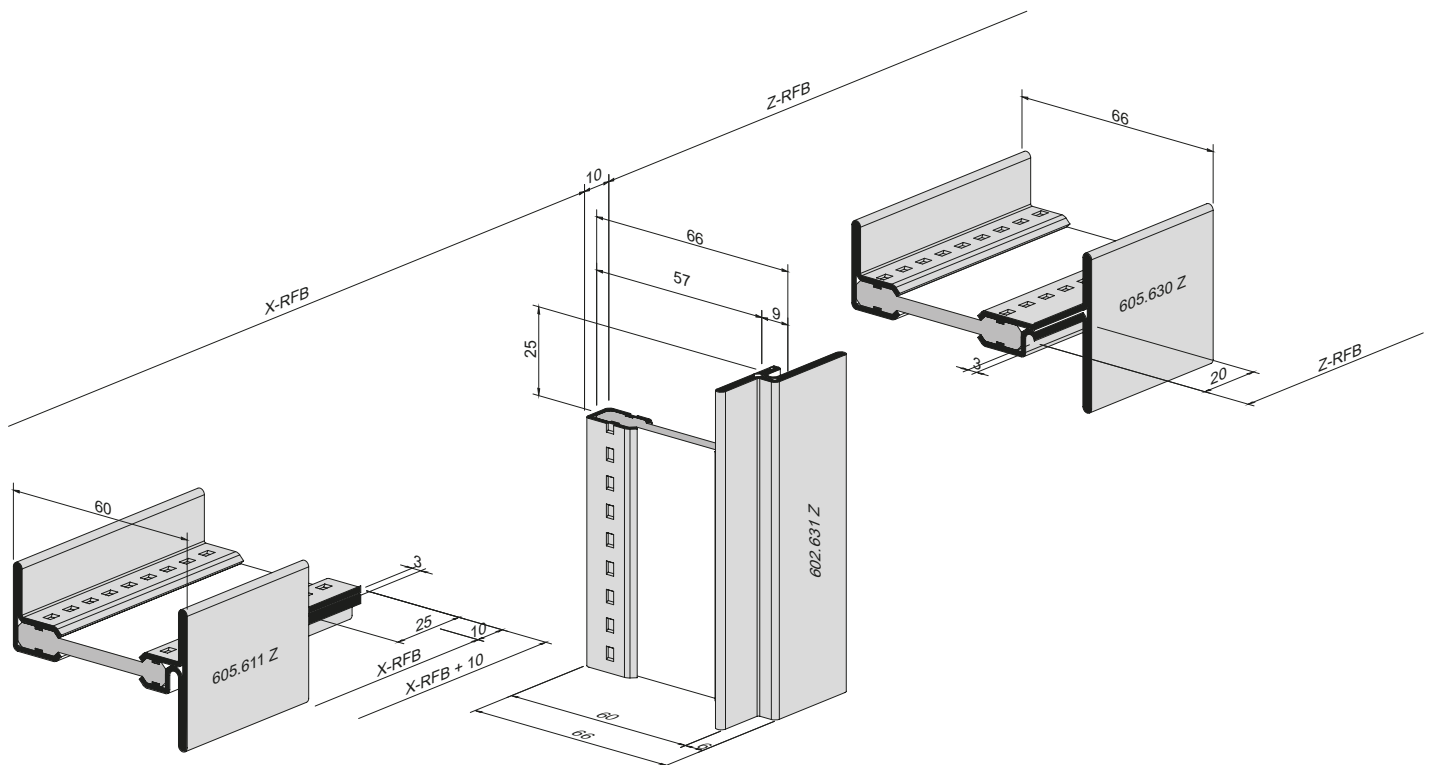
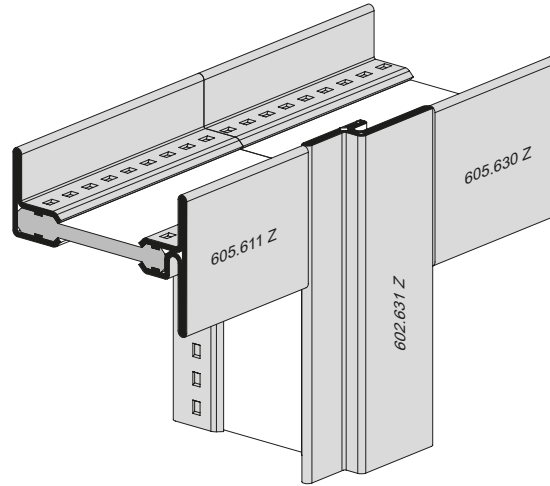
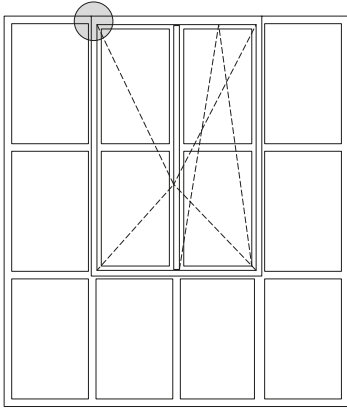


Gegenseite durchschweißen
Souder le côté opposé
Weld through opposite side

Übergang
 Janisol Arte 66 zu Janisol Arte 2.0

Transition entre Janisol Arte 66 et
 Janisol Arte 2.0

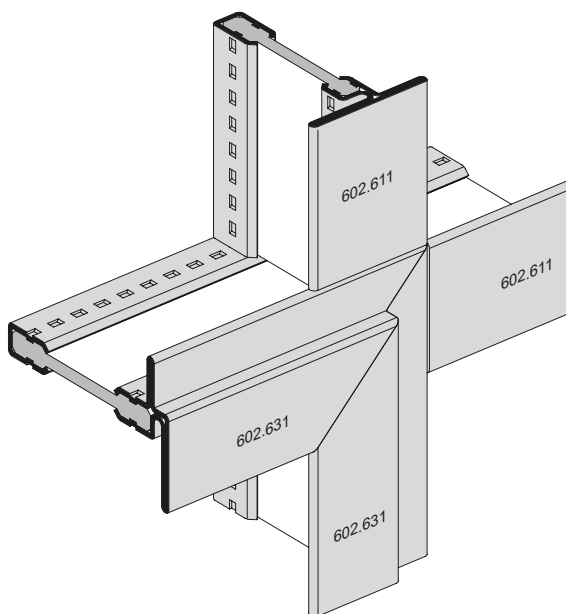
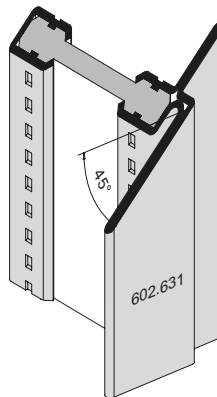
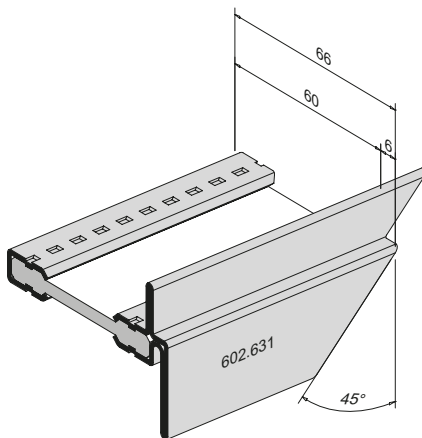
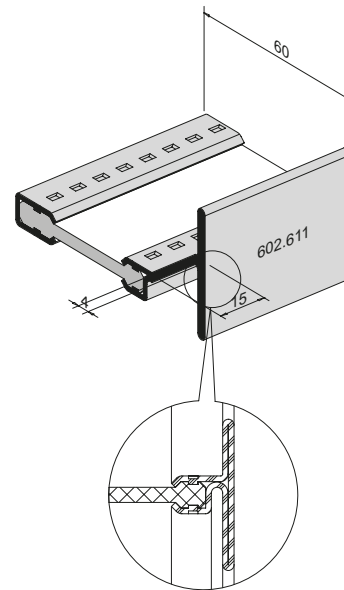
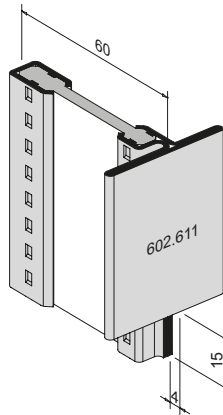
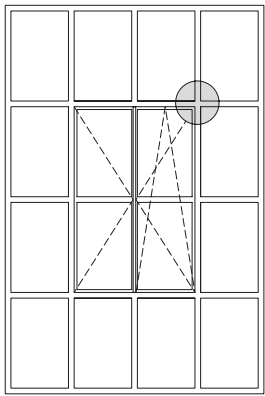
Transition from Janisol Arte 66 to
 Janisol Arte 2.0



Übergang
Janisol Arte 66 zu Janisol Arte 2.0

Transition entre Janisol Arte 66 et
Janisol Arte 2.0

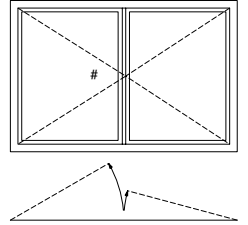
Transition from Janisol Arte 66 to
Janisol Arte 2.0



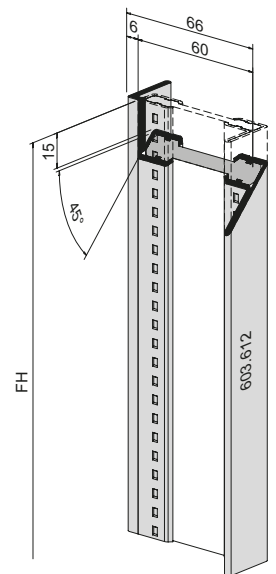
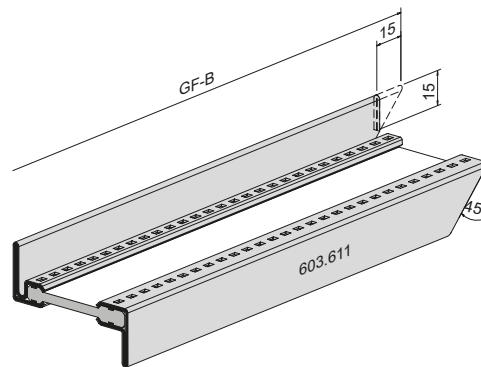
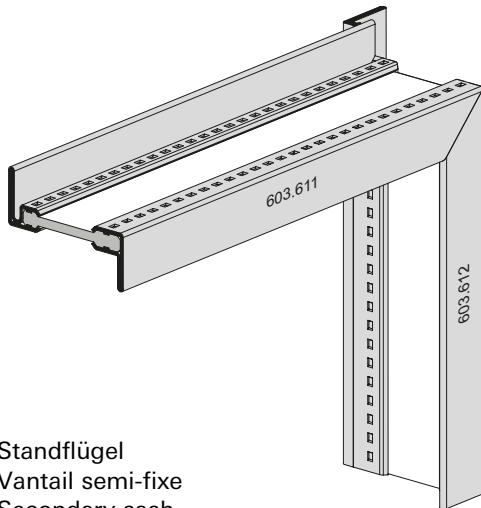
Zuschnitt und Profilbearbeitung
 Stulpfenster
 einwärts öffnend

Découpe et usinage profilé
 de battement
 Fenêtre à deux vantaux
 ouvrant vers l'intérieur

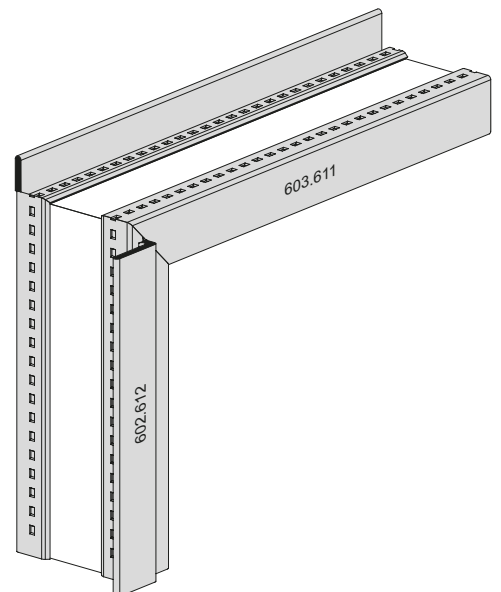
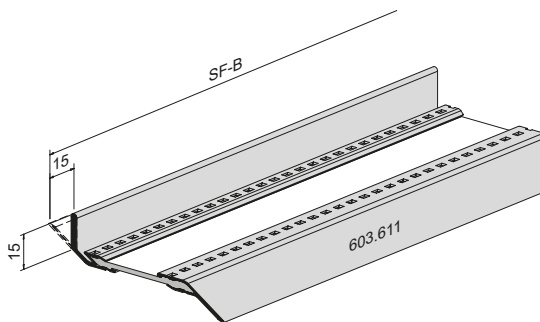
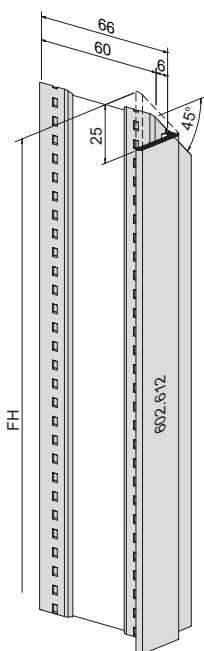
Cutting and profile shaping
 Double sash windows
 inward-opening sash



Gangflügel
 Vantail de service
 Access sash



Standflügel
 Vantail semi-fixe
 Secondary sash

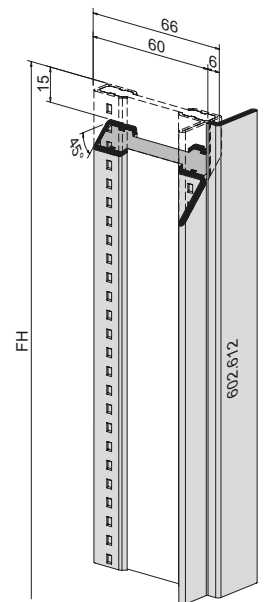
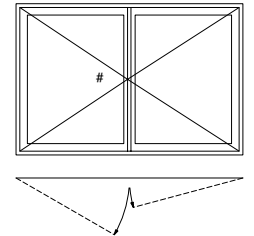
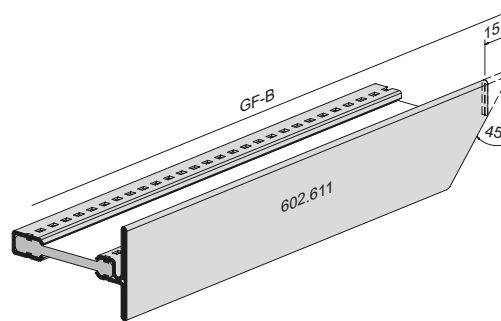
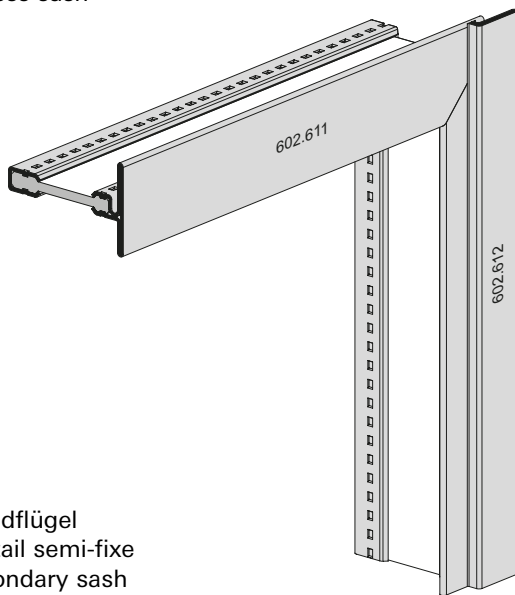


Zuschnitt und Profilbearbeitung
Stulpfenster
auswärts öffnend

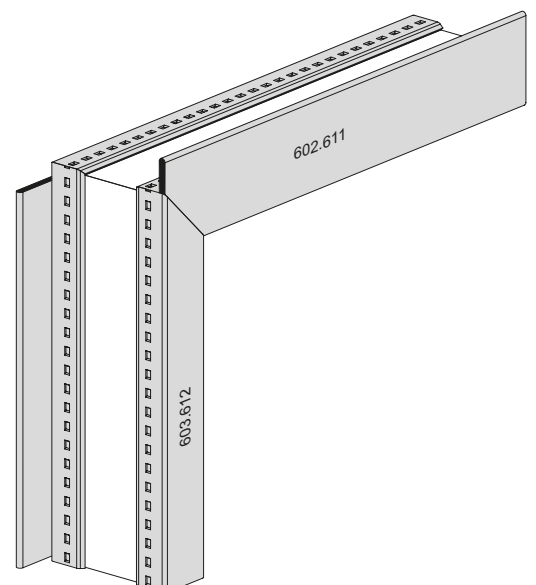
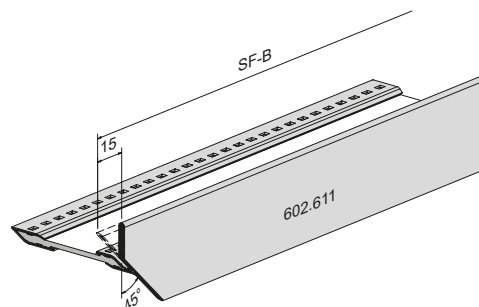
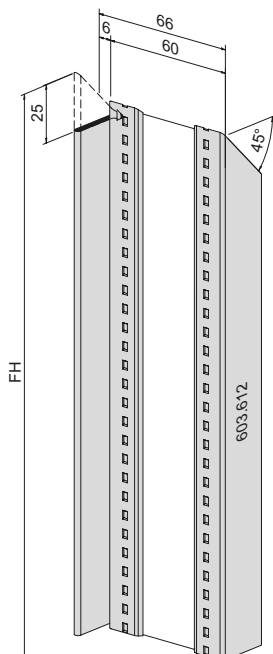
Découpe et usinage profilé
de battement
Fenêtre à deux vantaux
ouvrant vers l'extérieur

Cutting and profile shaping
Double sash windows
outward-opening sash

Gangflügel
Vantail de service
Access sash



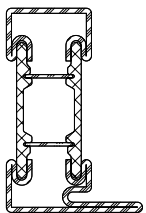
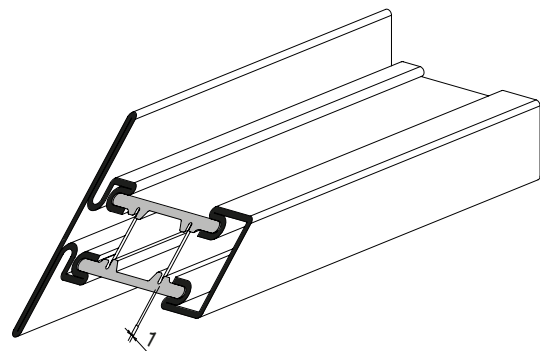
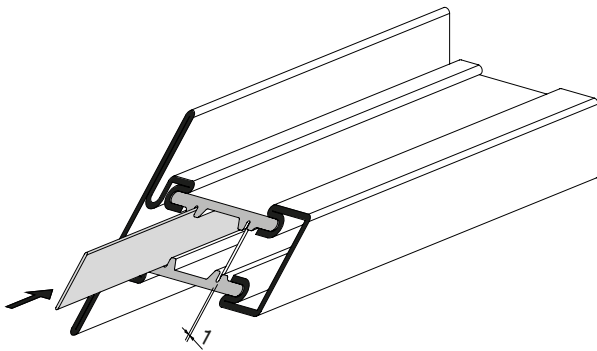
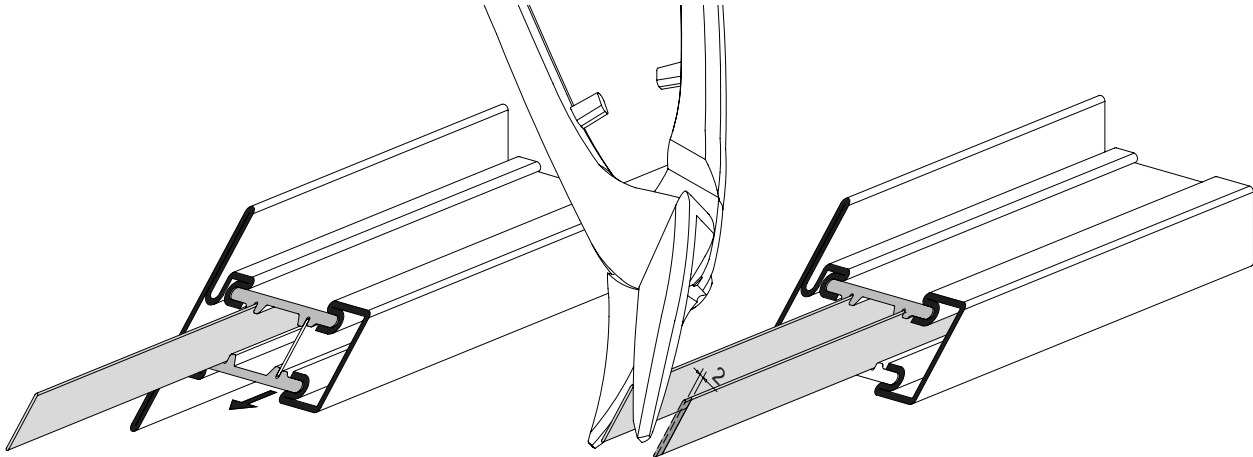
Standflügel
Vantail semi-fixe
Secondary sash



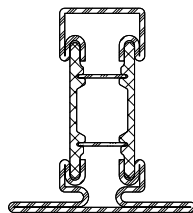
Profile mit Kammermass
 25 mm und 50 mm
 Aluminiumblenden kürzen
 (nur bei Pulverbeschichtung)

Profilés aux dimensions de caisson
 de 25 mm et 50 mm
 Raccourcir les caches en aluminium
 (uniquement pour le revêtement
 par poudre)

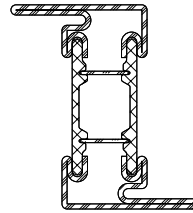
Profiles with chamber sizes
 of 25 mm and 50 mm
 Shorten aluminium cover plates
 (with powder coating only)



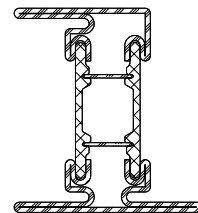
601.615 Z



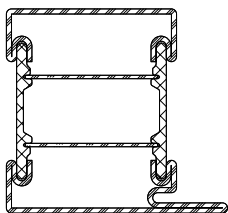
602.615 Z



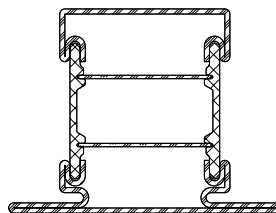
603.615 Z



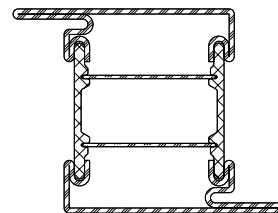
605.615 Z



601.616 Z



602.616 Z

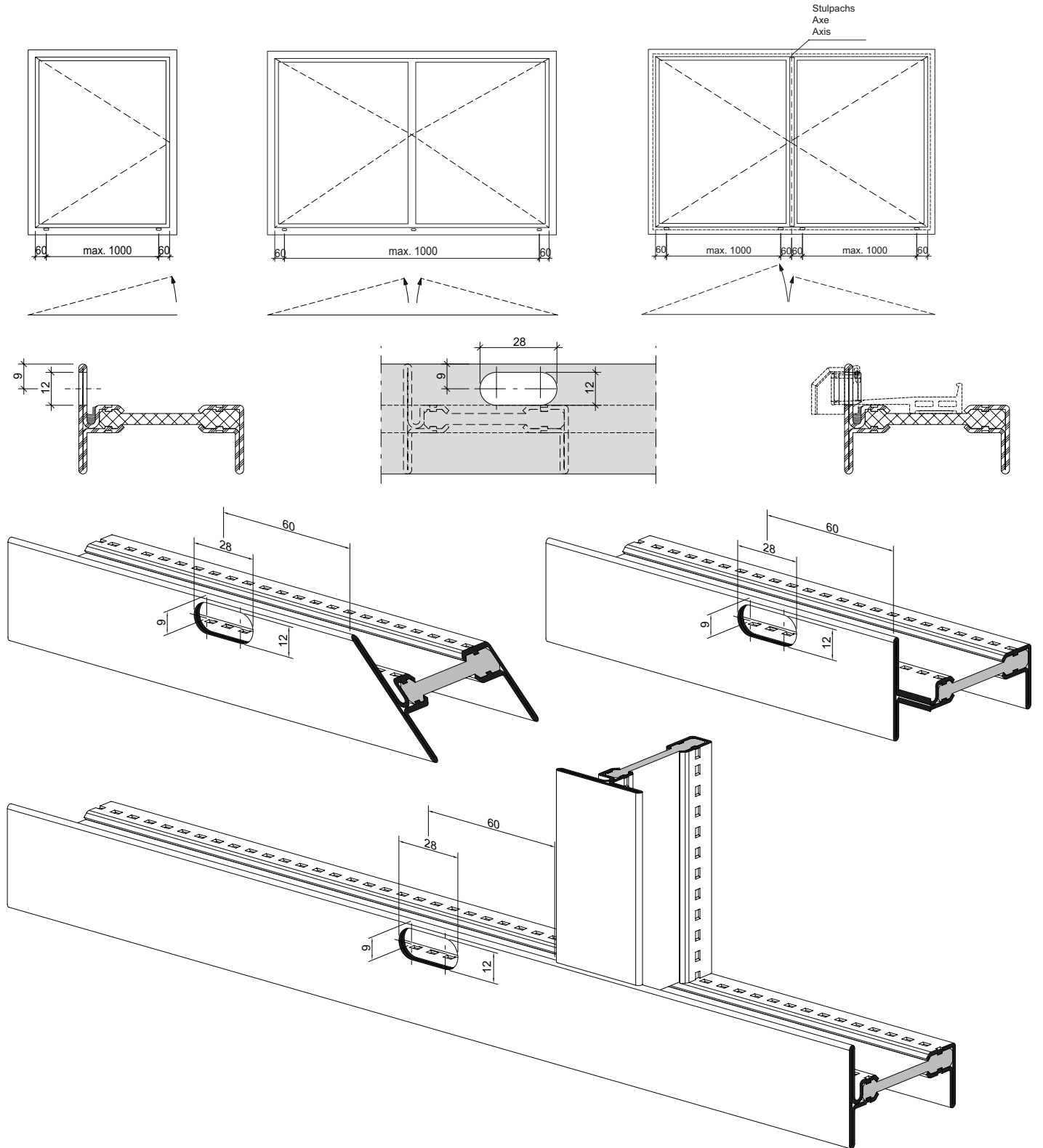


603.616 Z

Anordnung und Einbau
 Entwässerungstülle 450.115
 Blendrahmen

Disposition et montage
 Douille d'écoulement 450.115
 Cadre dormant

Location and installation of
 drain pipe 450.115
 Outer frame



Einbau mit 499.469

Montage avec 499.469

Installation with 499.469

**Entwässerungslöcher bohren
 (Blendrahmen)**

Die Entwässerungslöcher sind am unteren Blendrahmen resp. am unteren Riegelprofil zu bohren. Diese Arbeit erfolgt vorteilhaft am losen Stab. Die Entwässerungslöcher sind mit einem Bohrer \varnothing 12 mm auf einer Ständerbohrmaschine zu bohren. Die Bohrlehre 499.469 ist 10 mm von den Gehrungsschnitten anzulegen und wird zusammen mit dem Profil mit den Spannbacken eingespannt. Bei mehr als 2 Bohrungen pro Blendrahmen oder Riegel ist die Bohrung anzureissen und die Bohrlehre entsprechend zu positionieren. Den Ausschnitt 12x28 mm innen mit einem Winkelschleifer sauber entgraten.

- Randabstand 60 mm
- Mindestens 2 Entwässerungs-Bohrungen pro Flügel
- Abstand zwischen zwei Bohrungen max. 1000 mm
- Stulpfenster immer min. 3 Bohrungen

**Perçage des trous de drainage
 (Cadre dormant)**

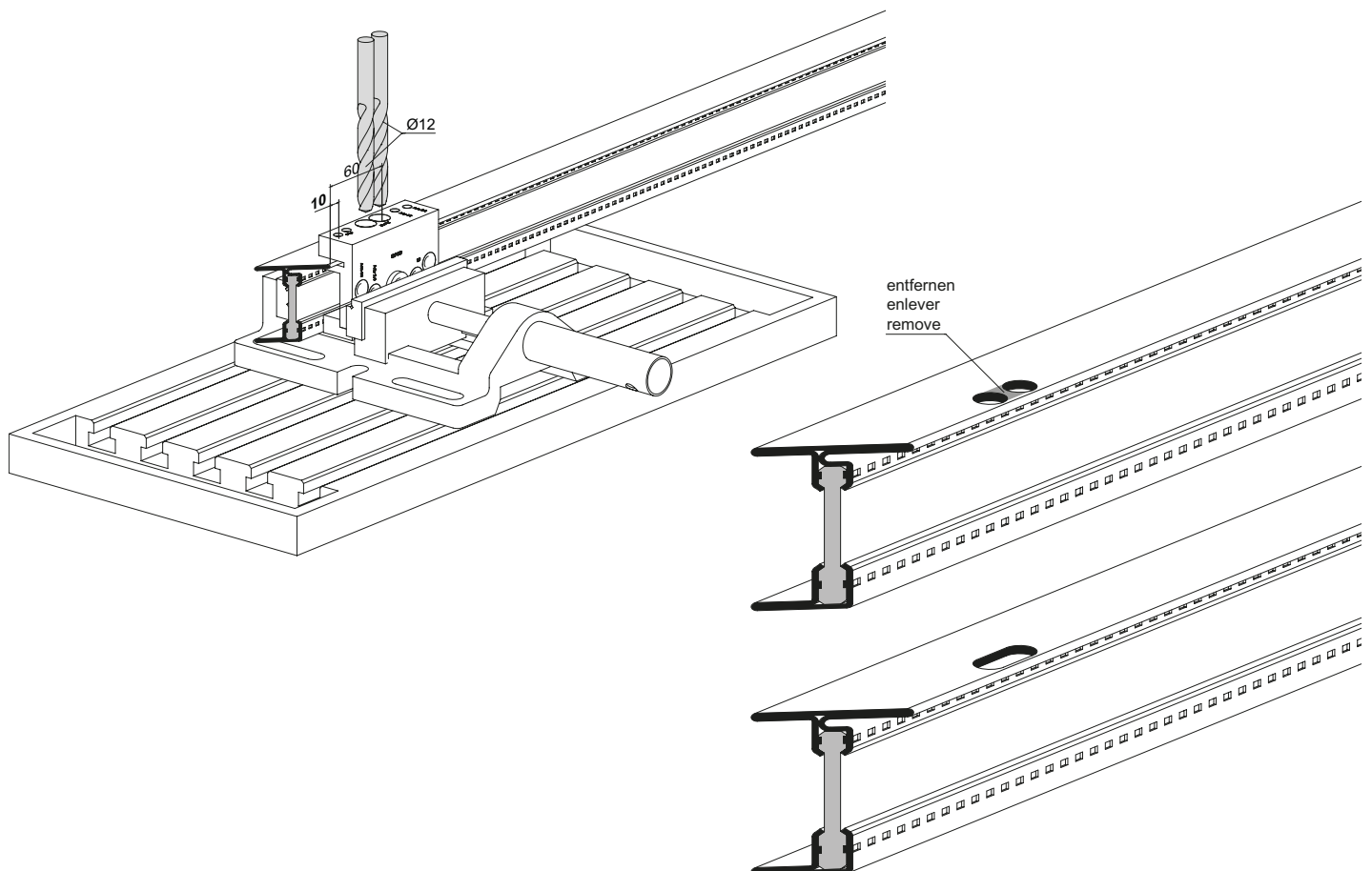
Perçer les trous de drainage dans le profilé de traverse et de dormant inférieur. Il est plus avantageux d'effectuer ce travail sur le morceau du profilé avant le soudage. Les trous d'évacuation sont à perçer avec une perceuse verticale et un foret de \varnothing 12 mm. Le gabarit de perçage 499.469 doit être posé à 10 mm des coupes d'onglet et fixé avec le profilé à l'aide des mâchoires de serrage. Si plus de trous sont à faire marquer l'emplacement correct du trou supplémentaire et positionner le gabarit de façon correspondante. Entaille 12x28 mm à l'intérieur avec une ponceuse d'angle.

- Distance du bord de 60 mm
- Au moins 2 alésages de drainage par vantail
- Distance entre deux alésages max. 1000 mm
- Fenêtre à deux vantaux, toujours au moins 3 alésages

**Drilling drainage channels
 (Outer frame)**

The drainage channels have to be drilled in the lower frame rebate or lower transom section. This work is carried most easily on the freed rod. The drainage holes are drilled with a 12 mm drill using an upright drilling machine. Drilling jig 499.469 is to be placed 10 mm from the mitre cuts and is clamped together with the profile with the clamping jaws. If there are more than 2 holes per frame rebate or transom, the hole is to be marked out and the hole jig located accordingly. Completely deburr the cut-out 12x28 mm on the inside using an angle grinder.

- Max. distance from edge 60 mm
- At least 2 drainage holes per sash
- Distance between two drill holes: max. 1000 mm
- Double-sash window: always min. 3 drill holes



Einbau mit 499.469

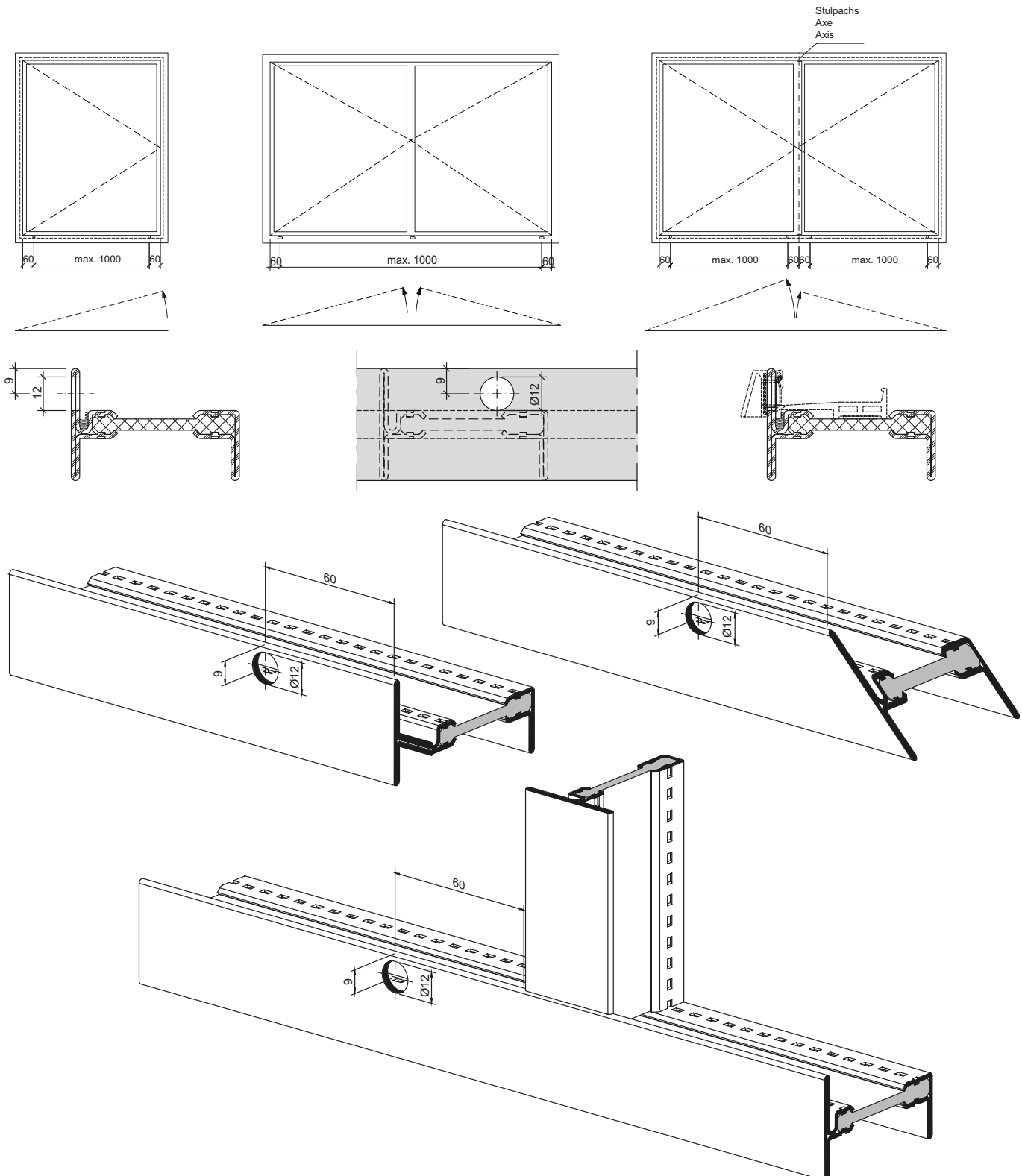
Montage avec 499.469

Installation with 499.469

Anordnung und Einbau
Entwässerungstülle
450.047/450.049
Blendrahmen

Disposition et montage
douille d'écoulement
450.047/450.049
Cadre dormant

Location and installation of
drain pipe 450.047/450.049
Outer frame



Entwässerungslöcher bohren (Blendrahmen)

Die Entwässerungslöcher sind am unteren Blendrahmen resp. am unteren Riegelprofil zu bohren. Diese Arbeit erfolgt vorteilhaft am losen Stab. Die Entwässerungslöcher sind mit einem Bohrer \varnothing 12 mm auf einer Ständerbohrmaschine zu bohren. Die Bohrlehre (499.487) ist 10 mm von den Gehrungsschnitten anzulegen und wird zusammen mit dem Profil mit den Spannbacken eingespannt. Bei mehr als 2 Bohrungen pro Blendrahmen oder Riegel ist die Bohrung anzureissen und die Bohrlehre entsprechend zu positionieren. Die Bohrung \varnothing 12 mm innen mit Winkelschleifer glatt schleifen.

- Randabstand 60 mm
- Mindestens 2 Bohrungen pro Flügel
- Abstand zwischen zwei Bohrungen max. 1000 mm

Perçage des trous de drainage (Cadre dormant)

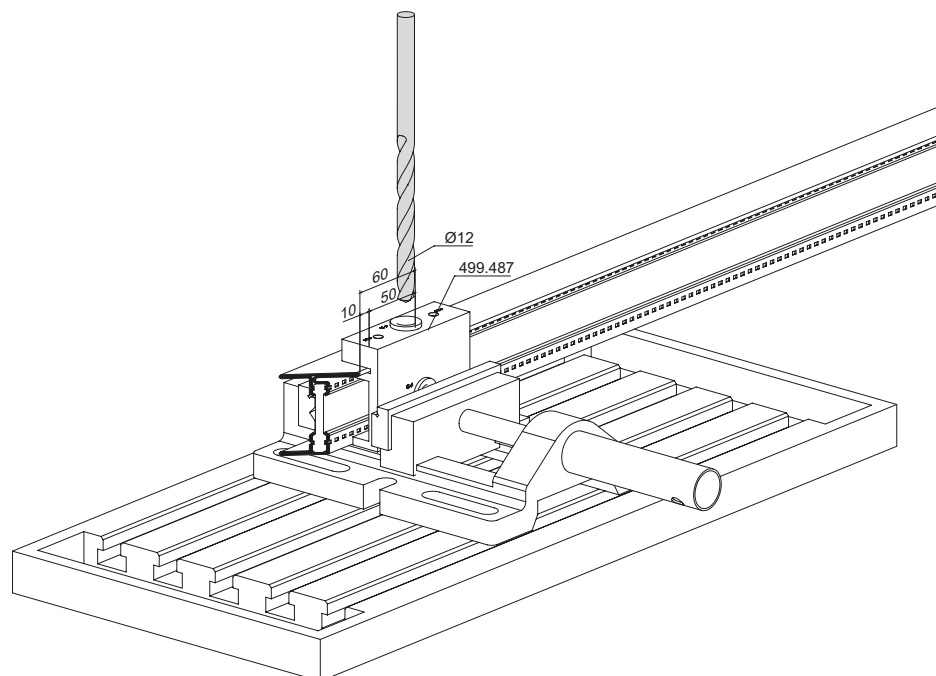
Perçer les trous de drainage dans le profilé de traverse et de dormant inférieur. Il est plus avantageux d'effectuer ce travail sur le morceau du profilé avant le soudage. Les trous d'évacuation sont à perçer avec une perceuse verticale et un foret de \varnothing 12 mm. Le gabarit de perçage (499.487) doit être posé à 10 mm des coupes d'onglet et fixé avec le profilé à l'aide des mâchoires de serrage. Si plus de trous sont à faire marquer l'emplacement correct du trou supplémentaire et positionner le gabarit de façon correspondante. Poncer l'alésage de \varnothing 12 mm à l'intérieur avec une ponceuse d'angle pour le rendre lisse.

- Distance du bord de 60 mm
- Au minimum 2 trous par vantail
- Max. 1000 mm d'espacement entre deux trous

Drilling drainage channels (Outer frame)

The drainage channels have to be drilled in the lower frame rebate or lower transom section. This work is carried most easily on the freed rod. The drainage holes are drilled with a 12 mm drill using an upright drilling machine. Drilling jig (499.487) is to be placed 10 mm from the mitre cuts and is clamped together with the profile with the clamping jaws. If there are more than 2 holes per frame rebate or transom, the hole is to be marked out and the hole jig located accordingly. Grind the drill hole to \varnothing 12 mm on the inside using an angle grinder until it is smooth.

- Max. distance from edge 60 mm
- At least 2 holes per sash
- Holes max. 1000 mm apart.



Hinweis:

Entwässerungstülle 450.047/049 vor der Oberflächenbehandlung anbringen.

Remarque:

Monter le profilé de drainage 450.047/049 avant le traitement de la surface.

Note:

Insert drainage spout 450.047/049 before applying surface treatment.

Entwässerungstülle einbauen

Die Tülle (450.047/049) wird von aussen her auf das Entwässerungsloch gesteckt. Das Montagewerkzeug (499.318) in die Tülle einführen und diese mit einem Stahlhammer (500 g) in die Bohrung einschlagen.

Sitz der Tülle kontrollieren.

Montage de la douille d'évacuation d'eau

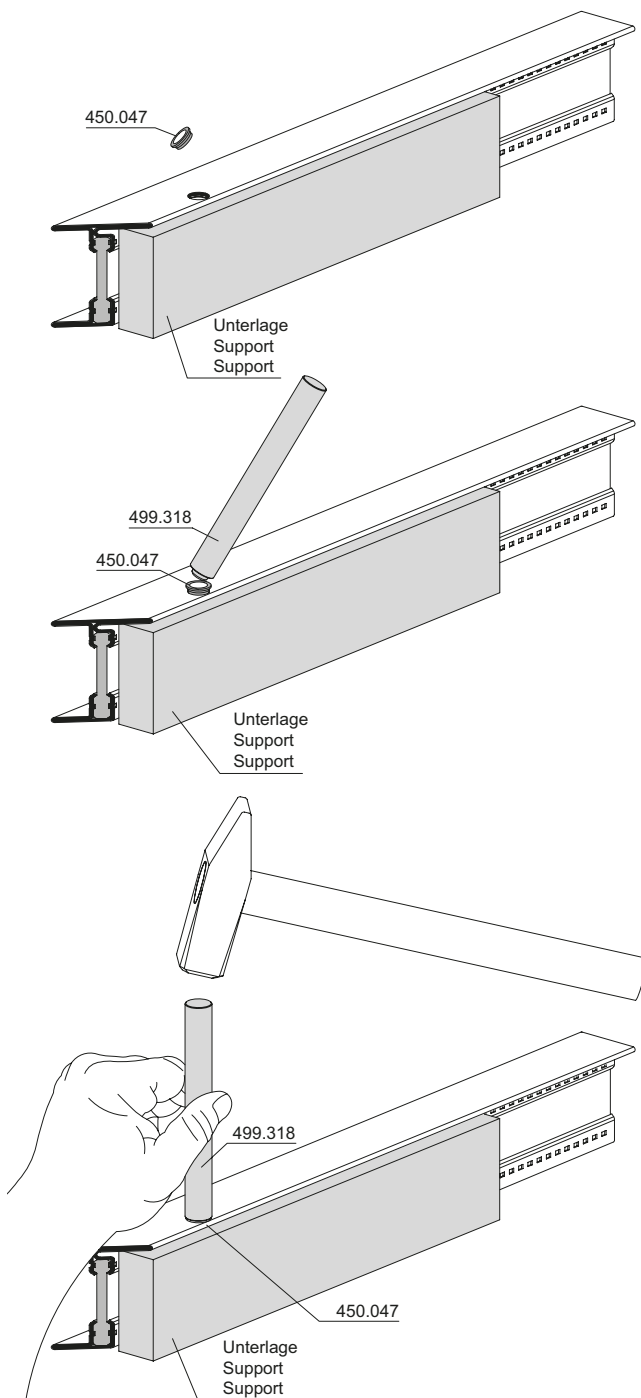
Placer la douille (450.047/049) dans le trou percé. Introduire l'outil de montage (499.318) dans la douille et faire pénétrer celle-ci dans le perçage par frappe avec un marteau en acier (500 g).

Vérifier que la douille est bien positionnée.

Installing drainage pipes

The pipe (450.047/049) is attached to the drainage hole from the outside. Locate the installation tool (499.318) in the pipe and drive it into the hole with a steel hammer (500 g).

Check the seating of the pipe.



Tülle aufstecken
Poser la douille
Attaching the pipe

Einschlagen der Tülle mit Montagewerkzeug 499.318 und Stahlhammer. (Achtung: Unterlagen verwenden)

Frappe de la douille avec outil de montage 499.318 et marteau en acier. (Attention: utiliser un support)

Driving in the pipe with installation tool 499.318 and steel hammer. (N.B. use a support)

Falls Entwässerungstülle nicht hält

Zink-Druckguss-Tülle:

Tülle 450.047 von der Aussenseite her eindrücken. Mit der Schweisszange festhalten und Tülle von innen her mit der Bohrmaschine aufweiten.

Edelstahl-Tülle:

Edelstahl-Tülle 450.049 von innen heften.

Si la douille d'évacuation d'eau ne tient pas

Douille d'évacuation d'eau en fonte de zinc injectée:

Presser la douille 450.047 de l'extérieur vers l'intérieur. Tenir avec la pince de soudage et élargir la douille de l'intérieur avec la foreuse.

Douille en acier Inox:

Pointer la douille en acier Inox 450.049 de l'intérieur.

If the drainhole insert does not hold

Die cast zinc insert:

Push in the insert 450.047 from the outside. Hold firmly in the welding tongs and widen the insert from the inside using the friction from the electric drill.

Stainless steel insert:

Crimp the stainless steel insert 450.049 from the inside.

Schweissen

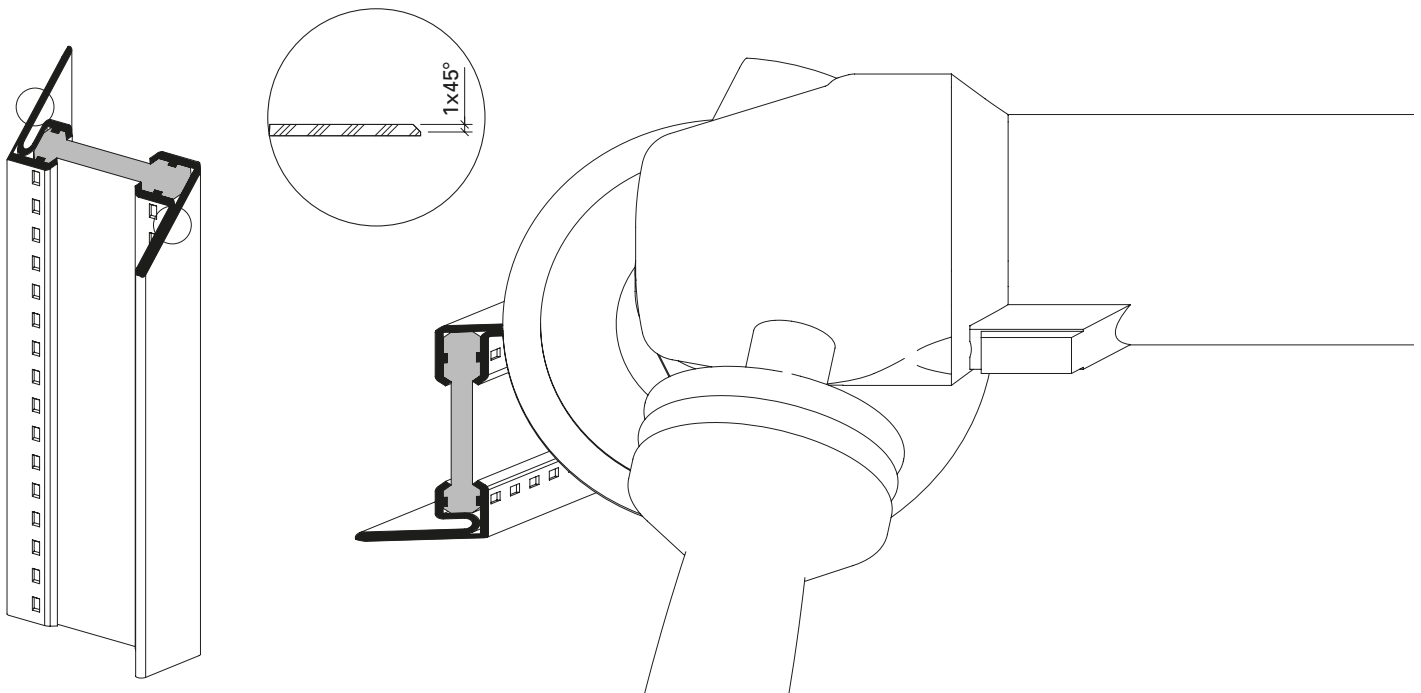
Janisol Arte-Profile können ohne besondere Vorkehrungen mit den handelsüblichen Schweissverfahren MIG/MAG oder auch WIG/TIG geschweisst werden. Beim Schweissvorgang im Isolatorbereich entsteht eine geringfügige Rauchentwicklung (Hauptbestandteile: CO- resp. CO₂-Gase). Wie beim Schweissen allgemein üblich ist eine Rauchabzugsanlage zu empfehlen und für eine ausreichende Raumbelüftung zu sorgen.
Es sollte auf eine besonders gründliche und saubere Schweissung ohne Porenbildung geachtet werden, da nur wenig Stahl für die Schweissverbindung zur Verfügung steht. Dies ist besonders wichtig bei den Flügeln durch deren Beanspruchung beim Öffnen und Schliessen.

Soudage

Les profilés Janisol Arte peuvent être soudés sans mesures particulières avec les procédés usuels de soudage MIG/MAG ou WIG/TIG. Un léger dégagement de fumée a lieu lors du soudage dans la zone de l'isolateur (composantes principales: gaz CO et CO₂). Comme pour le soudage en général, une installation d'évacuation des fumées est recommandée et une aération suffisante du local doit être assurée.
Il devrait être veillé à ce que le soudage soit opéré avec une minutie et une propreté particulières sans formation de pores car il n'y a que peu d'acier disponible pour la soudure. Cela est particulièrement important pour les vantaux en raison de la sollicitation à laquelle ils sont soumis.

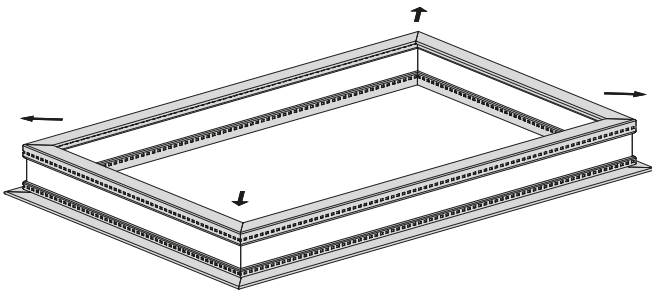
Welding

Janisol Arte profiles can be welded without taking any particular precautions, using the standard MIG/MAG or WIG/TIG welding procedure. Welding in the isolator area results in a small amount of smoke being produced (main components: CO or CO₂ gases). As is normal for welding, it is recommended to use a smoke extraction system and to ensure sufficient ventilation of the room. Ensure the welding is particularly thorough and clean, with no pore formation, as there is only a small amount of steel available for welding joints. This is particularly important for sash due to their load.

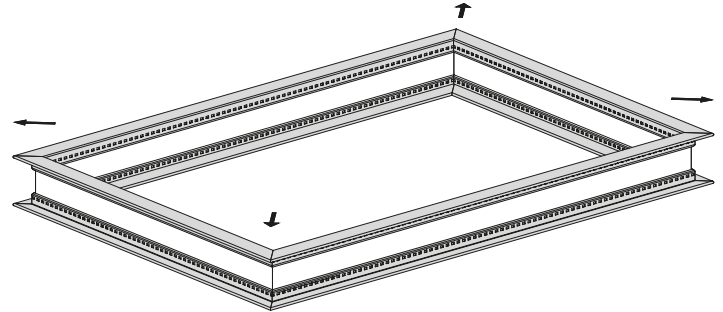


Schweisskante vorbereiten
Préparation de l'arête de soudure
Prepare the welding edge

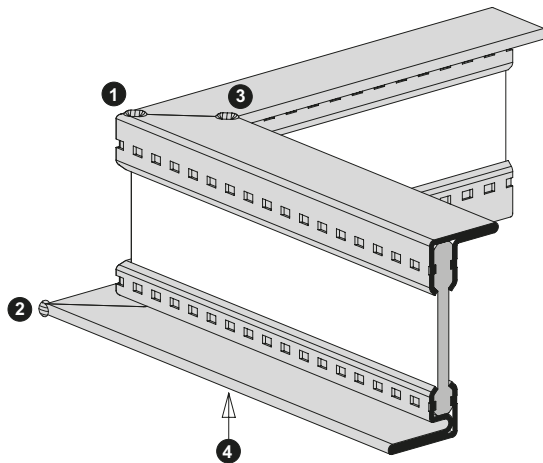
Profile im Schweissnahtbereich mit Winkelschleifer leicht anschrägen
Biseautage légère des profilés dans la zone de la soudure avec une meuleuse d'angle
Slightly chamfer the profiles in the area of the weld seam using an angle grinder



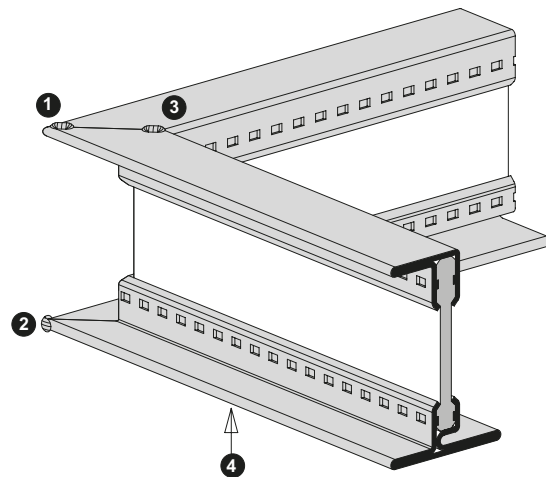
Schweissrichtung, von innen nach aussen (Flügel)
 Sens de soudage, de l'intérieur vers l'extérieur (vantail)
 Welding direction from the inside towards (sash)



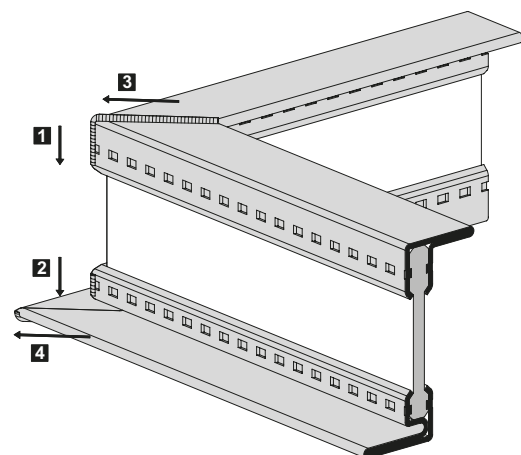
Schweissrichtung, von innen nach aussen (Rahmen)
 Sens de soudage, de l'intérieur vers l'extérieur (cadre)
 Welding direction from the inside towards (frame)



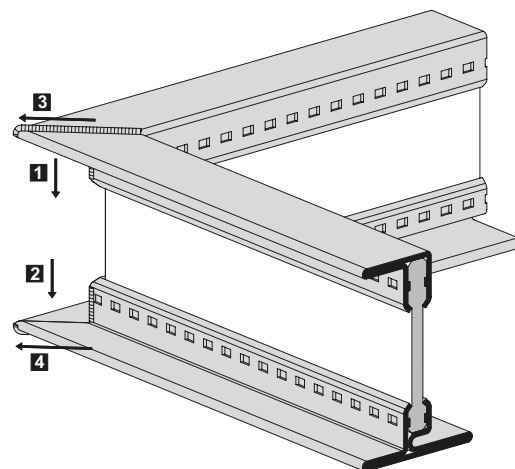
Reihenfolge Haftscheidpunkte (Flügel)
 Séquence pour le pointage (vantail)
 Sequence of tack welds (sash)



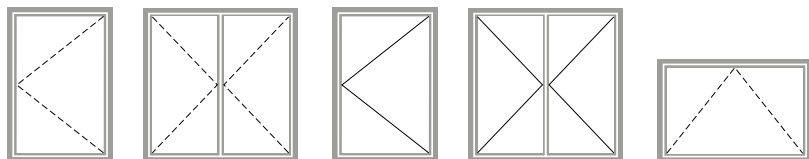
Reihenfolge Haftscheidpunkte (Rahmen)
 Séquence pour le pointage (cadre)
 Sequence of tack welds (frame)



Reihenfolge Schweißen (Flügel)
 Séquence pour le soudage (vantail)
 Welding sequence (sash)



Reihenfolge Schweißen (Rahmen)
 Séquence pour le soudage (cadre)
 Welding sequence (frame)



Bänder

Paumelles

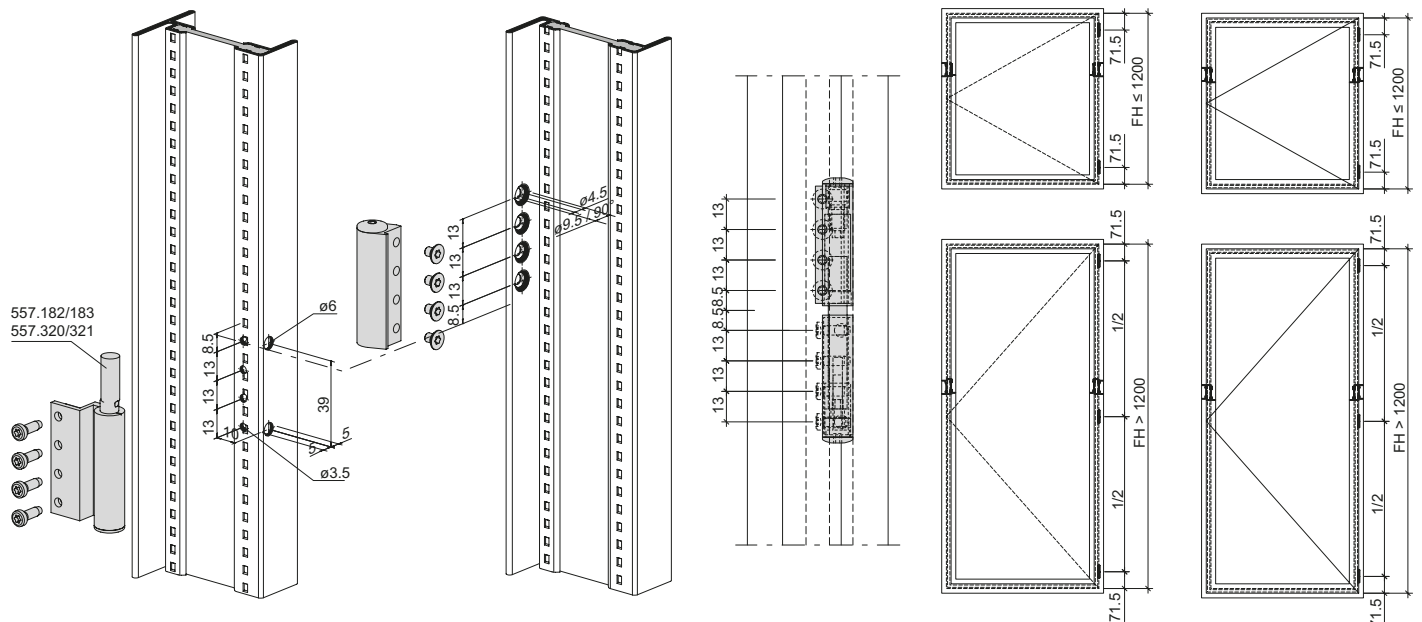
Hinges

Bohrbild 3D Anschraubbänder 557.182/557.183/557.320/557.321	Schéma de perçage paumelles à visser 3D 557.182/557.183/557.320/557.321	Drilling pattern 3D screw-on hinges 557.182/557.183/557.320/557.321	35
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Bohrlehre 499.539 für 3D Anschraubbänder 557.182/557.183/557.320/557.321	Gabarit de perçage 499.539 pour paumelles à visser 3D 557.182/557.183/557.320/557.321	Drilling jig 499.539 for 3D screw-on hinges 557.182/557.183/557.320/557.321	38
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Einbau Zwangsverriegelung 557.319	Montage verrouillage forcé 557.319	Installation security locking system 557.319	46
Einbau Falzschnäpper 599.401	Montage loqueteau de feuillure 599.401	Installation spring loaded catch 599.401	48

Bohrbild
3D Anschraubänder
557.182/557.183
557.320/557.321

Schéma de perçage
Paumelles à visser 3D
557.182/557.183
557.320/557.321

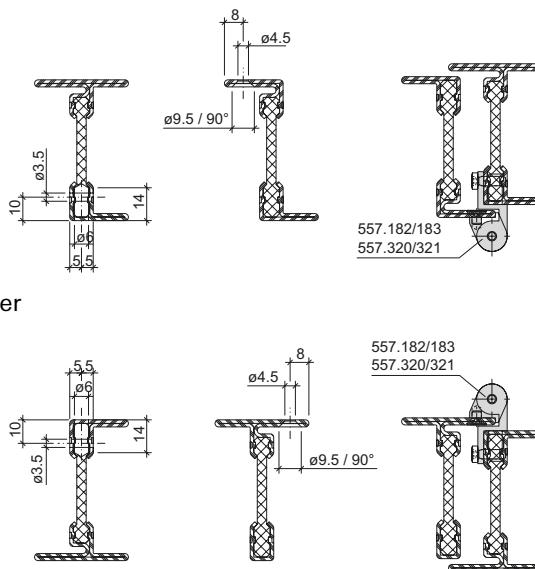
Drilling pattern
3D screw-on hinges
557.182/557.183
557.320/557.321



Mit Tiefenanschlag 499.234 auf $\varnothing 6$ mm aufbohren und für stirnseitige Bohrungen verwenden.

Perçer à $\varnothing 6$ mm avec la butée 499.234 et l'utiliser pour des perçages sur la face avant.

Drill to $\varnothing 6$ mm with depth stop 499.234 and use for frontal bores.



(nach innen öffnend)
 (ouvrant vers l'intérieur)
 (inward-opening)

(nach aussen öffnend)
 (ouvrant vers l'extérieur)
 (outward-opening)

Bitte beachten:
 Bei Edelstahl-Profilen müssen im Falzbereich die M4-Gewinde geschnitten werden.

Veillez noter:
 Les filetages M4 doivent être coupés dans la zone de la feuillure sur les profilés en acier Inox.

Please observe:
 The M4 threads must be cut around the notch area for stainless steel profiles.

Einbau mit 499.522/499.539

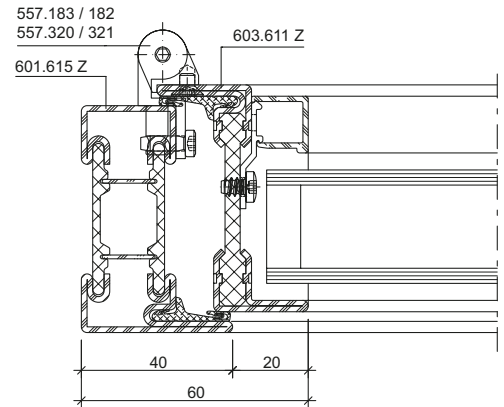
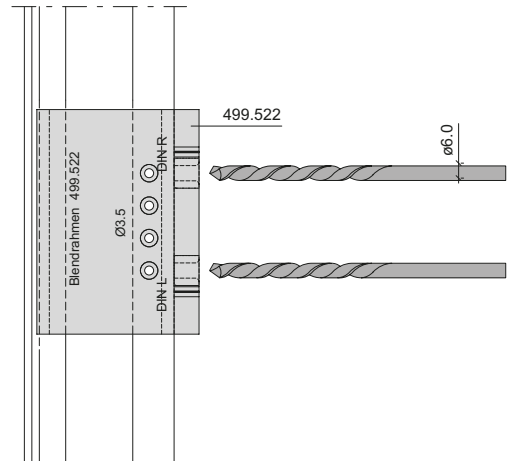
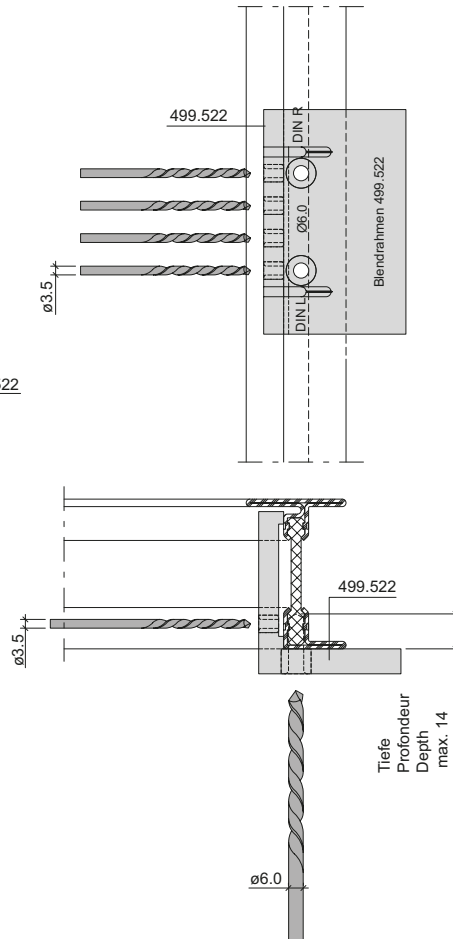
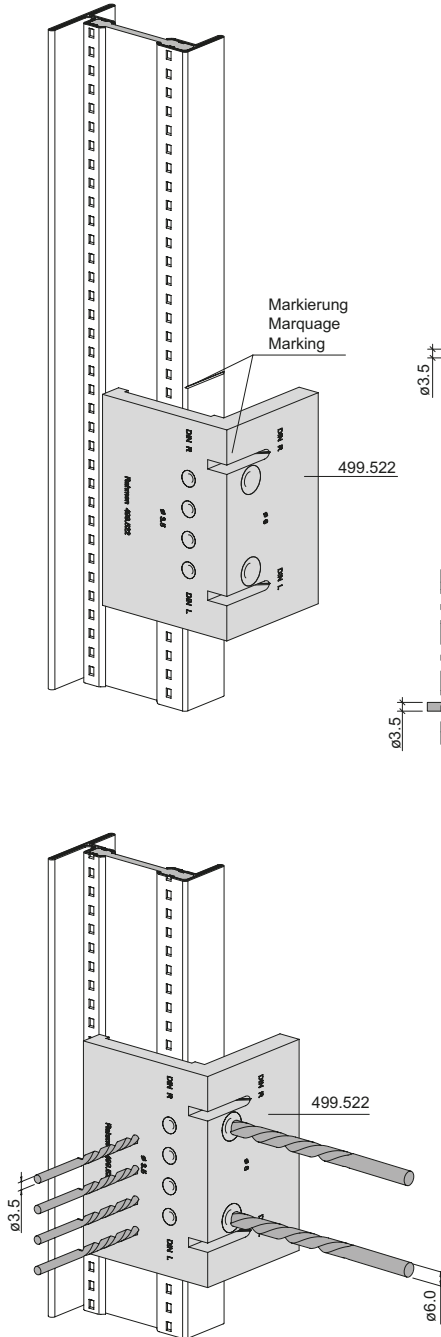
Montage avec 499.522/499.539

Installation with 499.522/499.539

Bohrlehre 499.522 für
 3D Anschraubänder
 557.182/557.183
 557.320/557.321

Gabarit de perçage 499.522 pour
 paumelles à visser 3D
 557.182/557.183
 557.320/557.321

Drilling jig 499.522 for
 3D screw-on hinges
 557.182/557.183
 557.320/557.321



Bei Profilen mit Kammermass
 25 und 50 mm langsam bohren und
 Bohrlehre mit Zwingen befestigen.

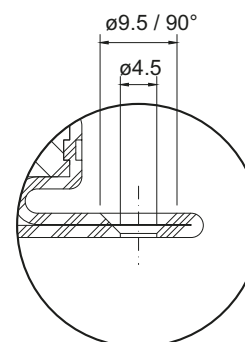
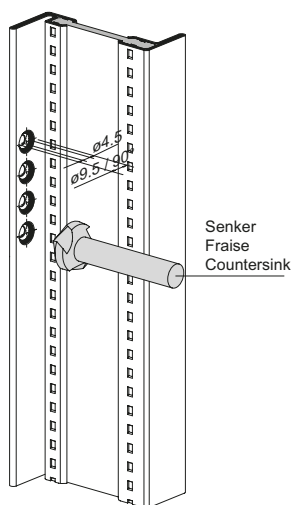
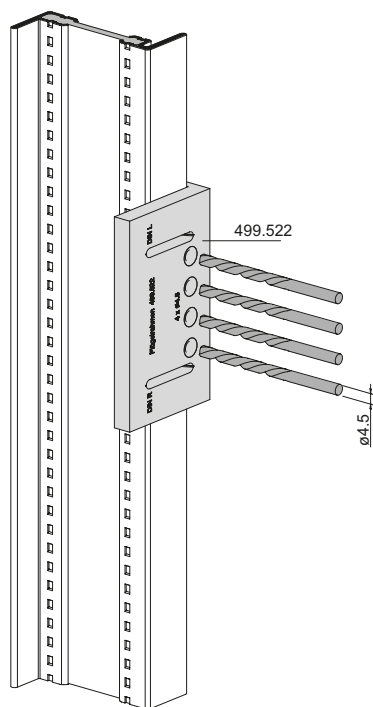
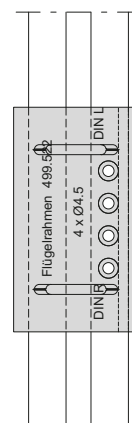
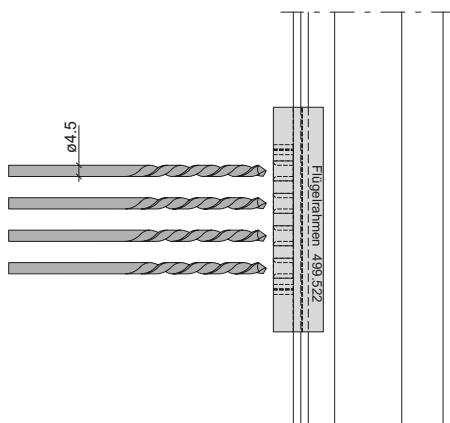
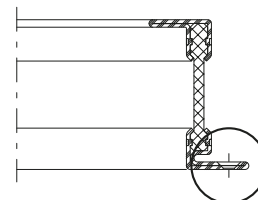
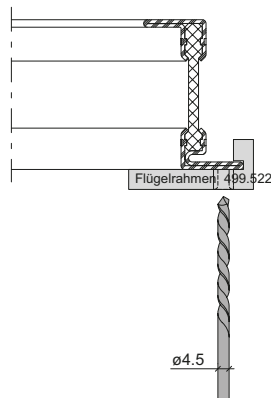
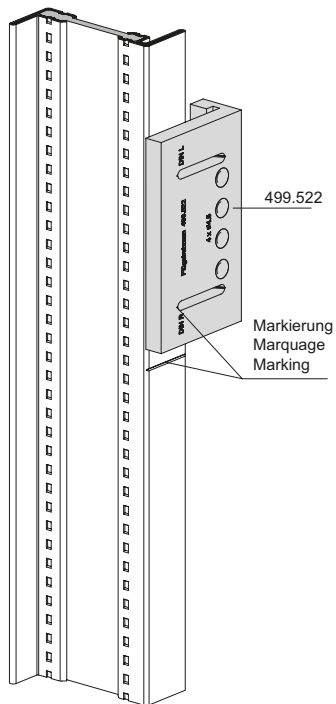
Pour les profilés avec des dimension de
 caisson de 25 et 50 mm, percer
 légèrement et fixer le gabarit de
 perçage avec un serre-joint.

For profiles with chamber sizes of
 25 and 50 mm, drill slowly and fix the
 drilling jig in place using clamps.

Bohrlehre 499.522 für
 3D Anschraubänder
 557.182/557.183
 557.320/557.321

Gabarit de perçage 499.522 pour
 paumelles à visser 3D
 557.182/557.183
 557.320/557.321

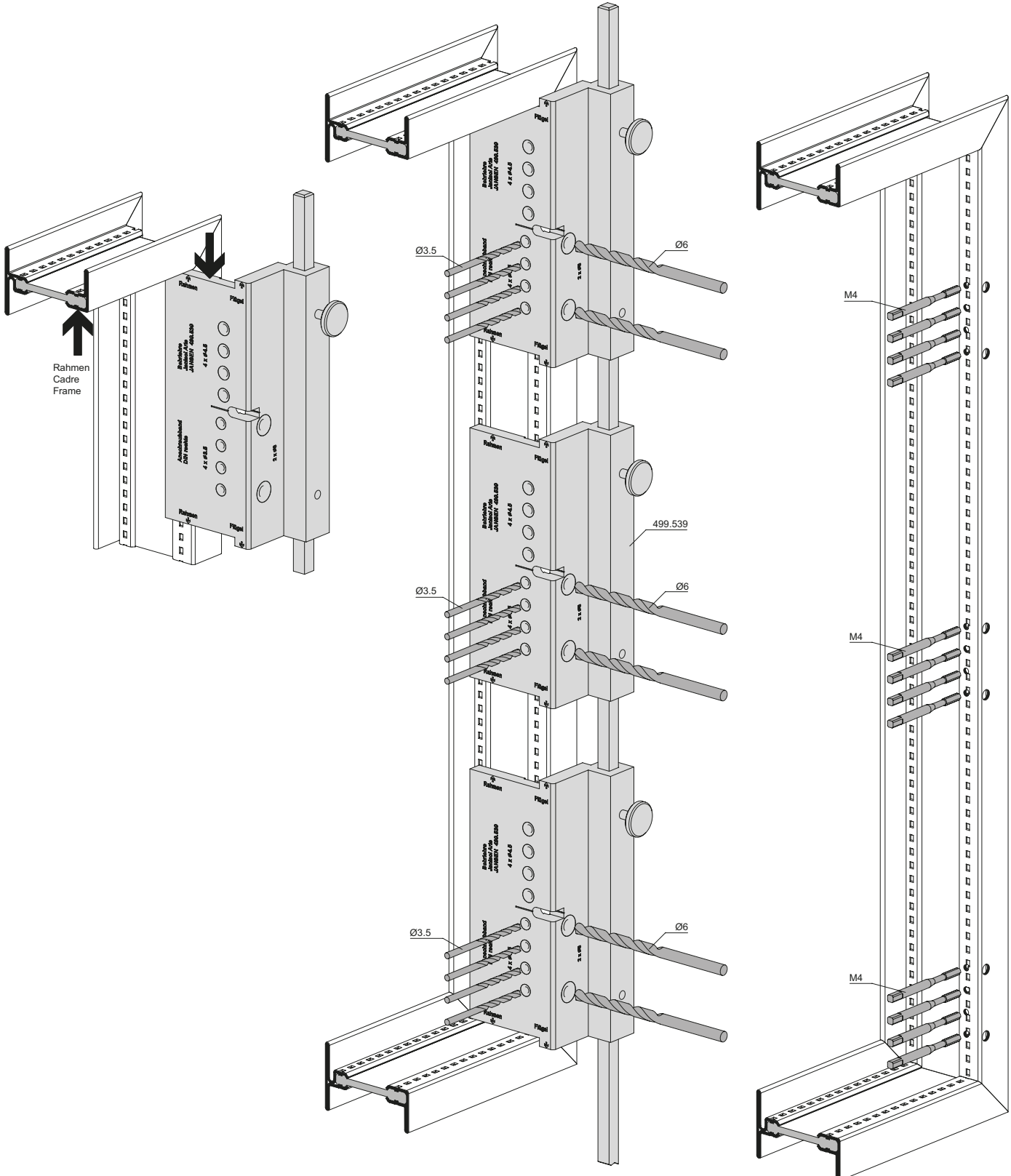
Drilling jig 499.522 for
 3D screw-on hinges
 557.182/557.183
 557.320/557.321



Bohrlehre 499.539 für
 3D Anschraubänder
 557.182/557.183
 557.320/557.321

Gabarit de perçage 499.539 pour
 paumelles à visser 3D
 557.182/557.183
 557.320/557.321

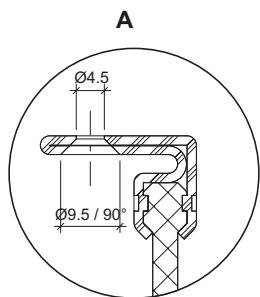
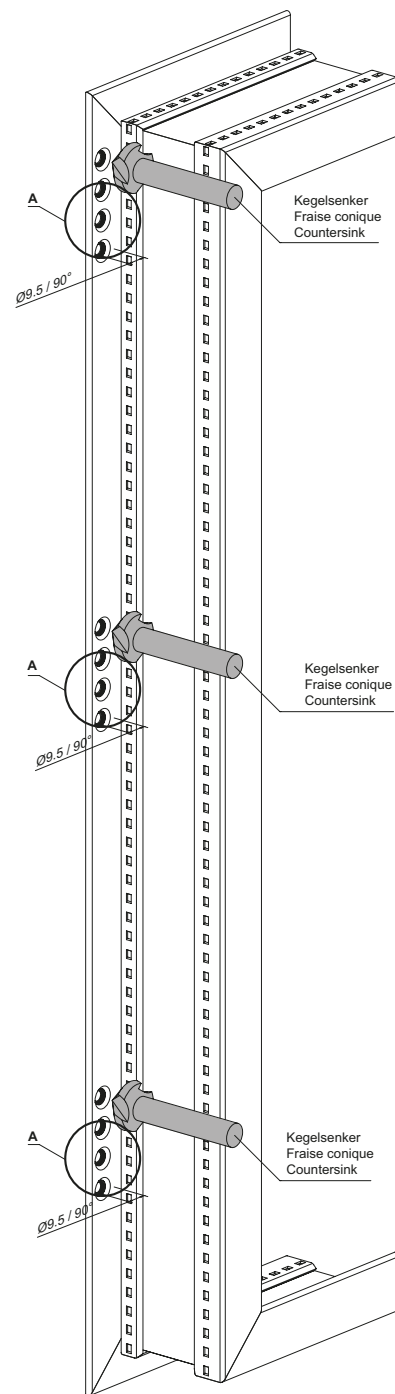
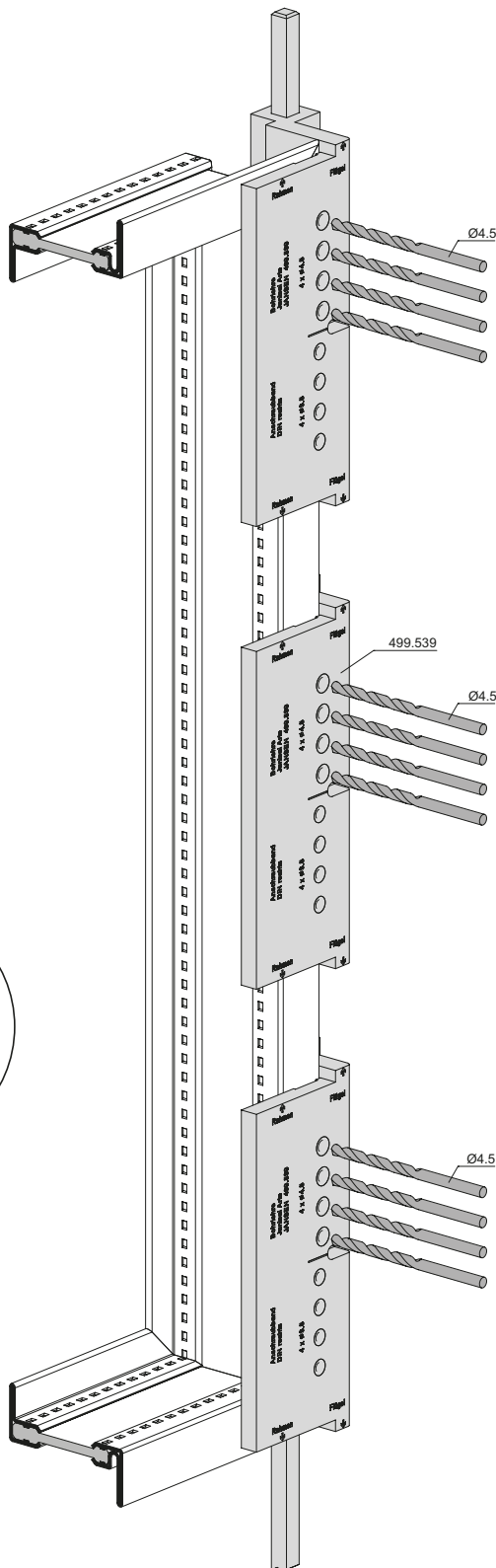
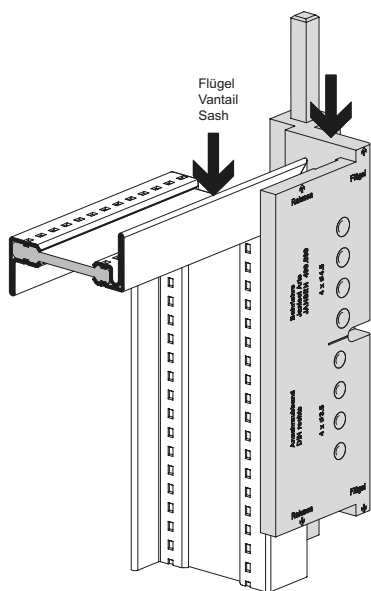
Drilling jig 499.539 for
 3D screw-on hinges
 557.182/557.183
 557.320/557.321



Bohrlehre 499.539 für
 3D Anschraubänder
 557.182/557.183
 557.320/557.321

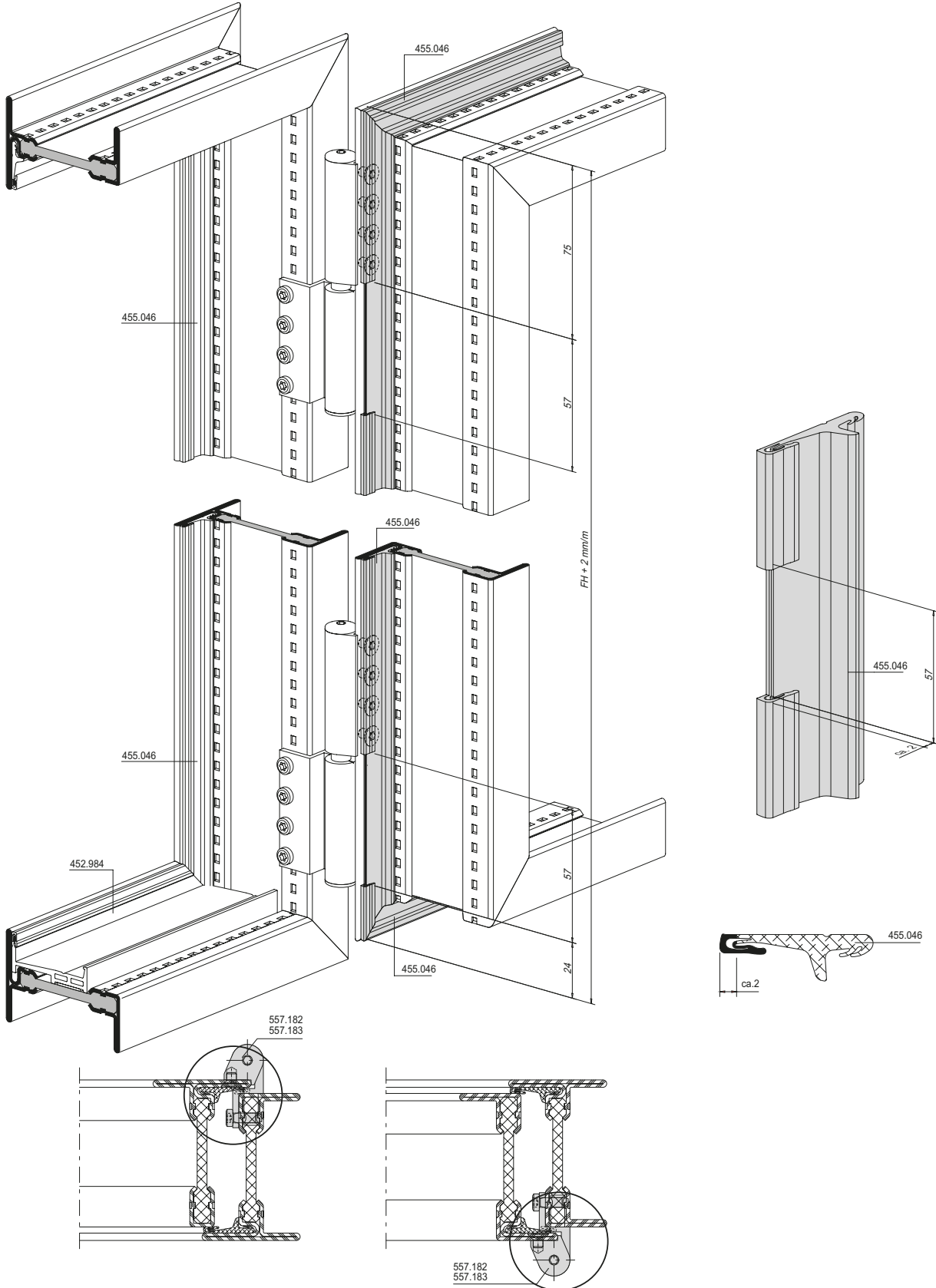
Gabarit de perçage 499.539 pour
 paumelles à visser 3D
 557.182/557.183
 557.320/557.321

Drilling jig 499.539 for
 3D screw-on hinges
 557.182/557.183
 557.320/557.321



Zuschnitt Anschlagdichtung 455.046 Découpe pour joint de butée
455.046

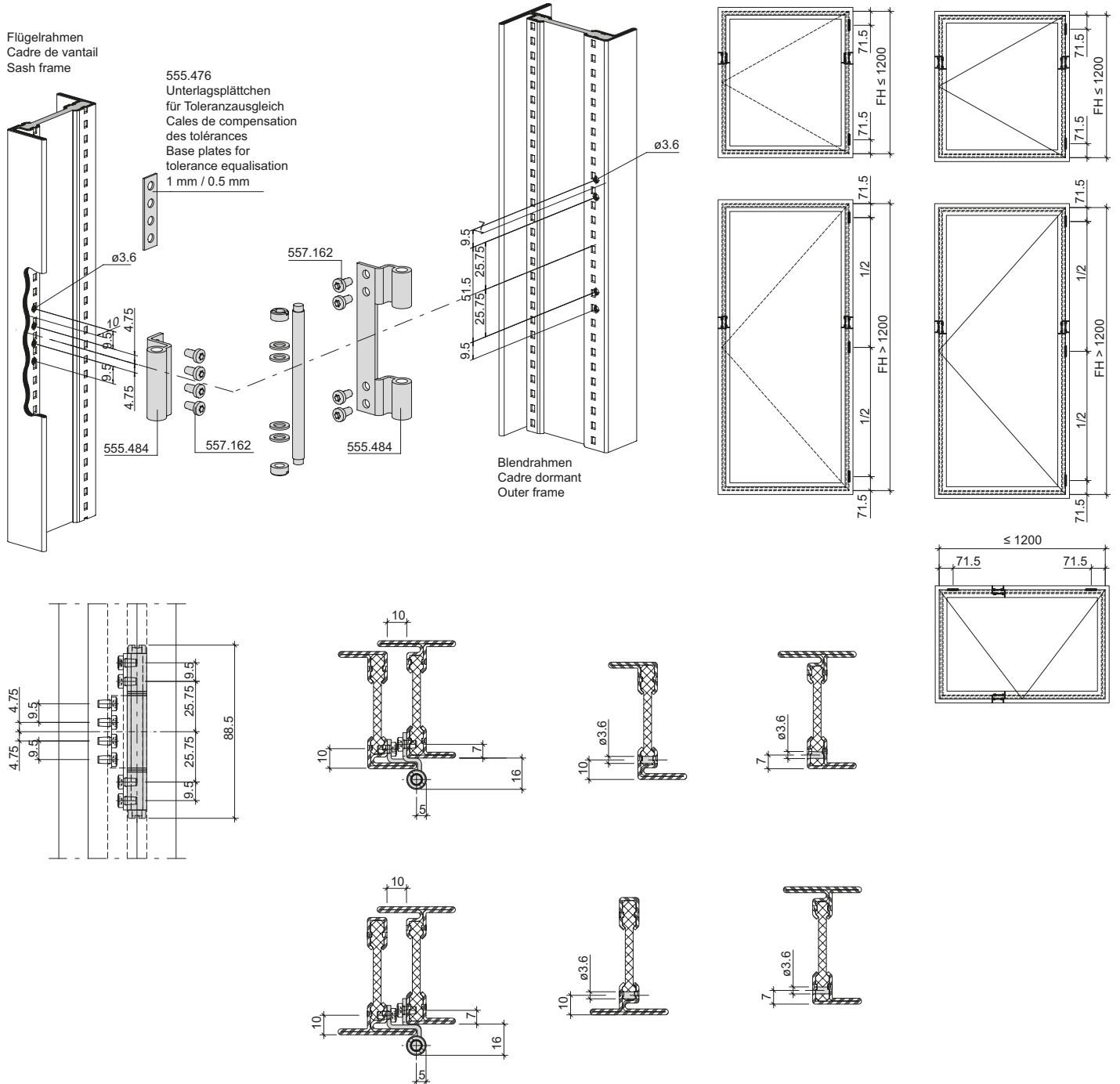
Cutting rebate weatherstrip 455.046



Anschraubband 555.484

Paumelle à visser 555.484

Screw-on hinge 555.484



Bitte beachten:
 Bei Edelstahl-Profilen müssen im Falzbereich die M4-Gewinde geschnitten werden.

Veillez noter:
 Les filetages M4 doivent être coupés dans la zone de la feuillure sur les profilés en acier Inox.

Please observe:
 The M4 threads must be cut around the notch area for stainless steel profiles.

Einbau mit 499.422

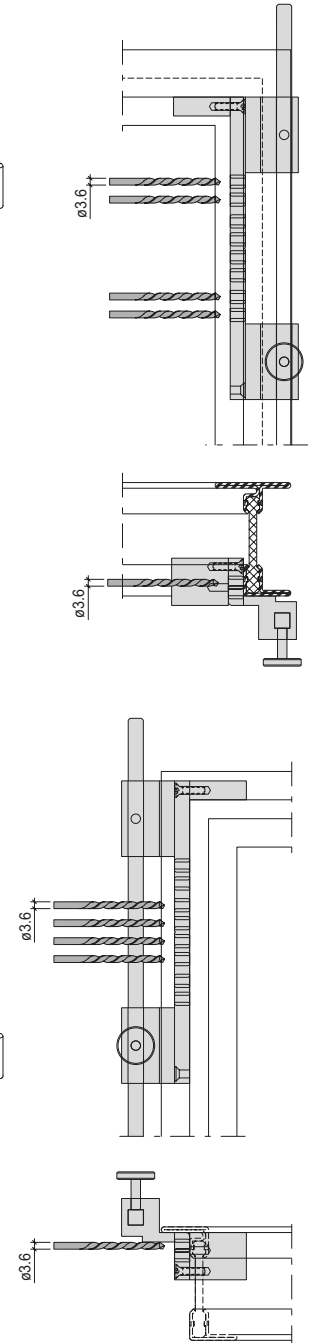
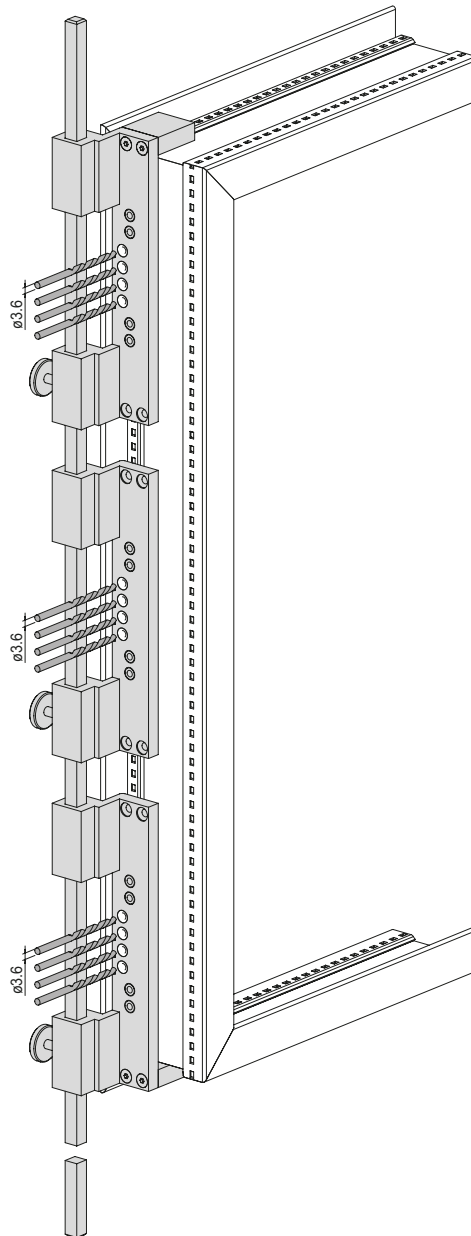
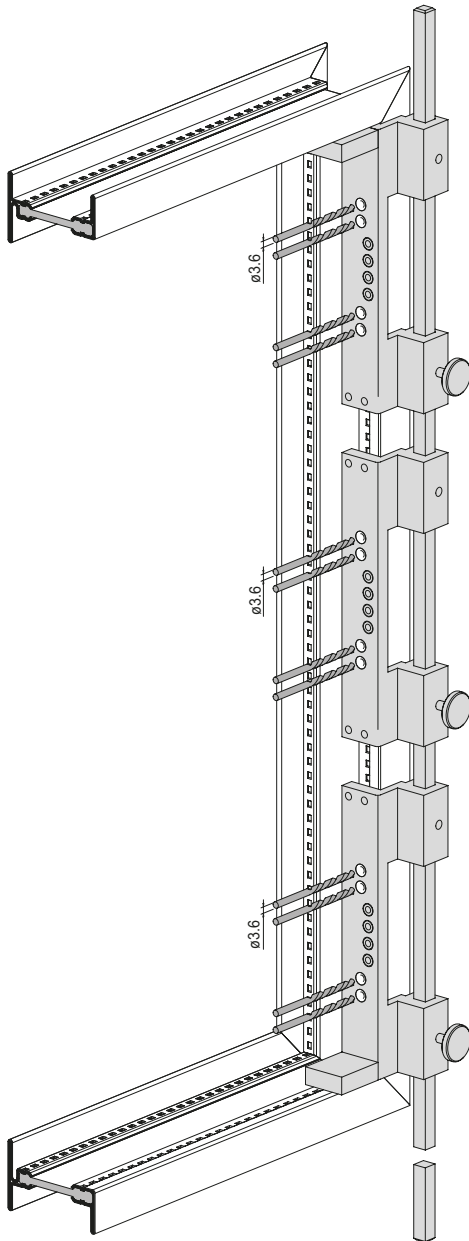
Montage avec 499.422

Installation with 499.422

Bohrlehre 499.422
für Anschraubband 555.484

Gabarit de perçage 499.422 pour
paumelle à visser 555.484

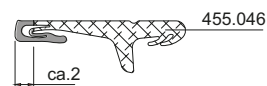
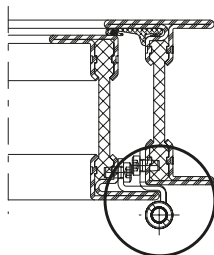
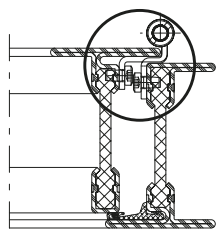
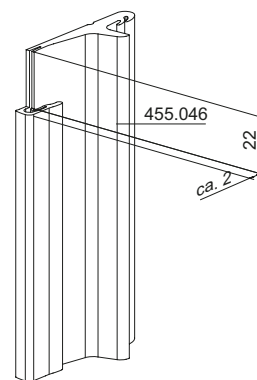
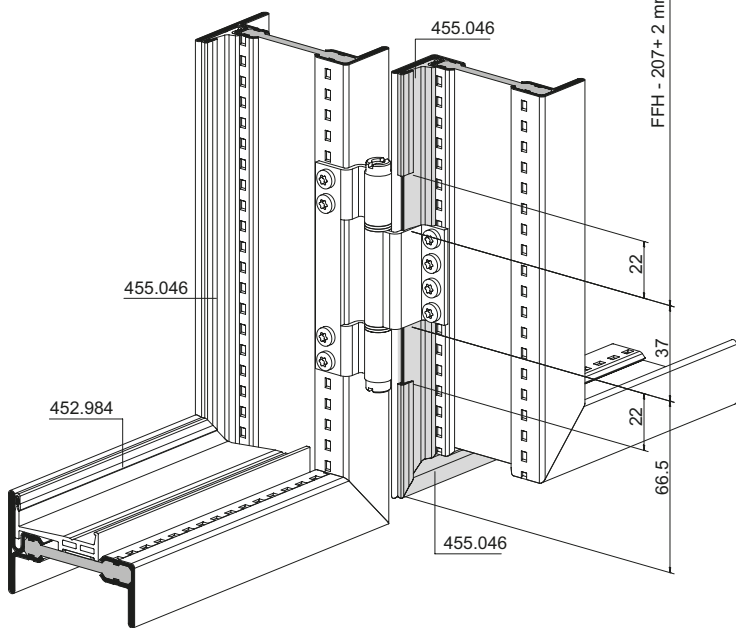
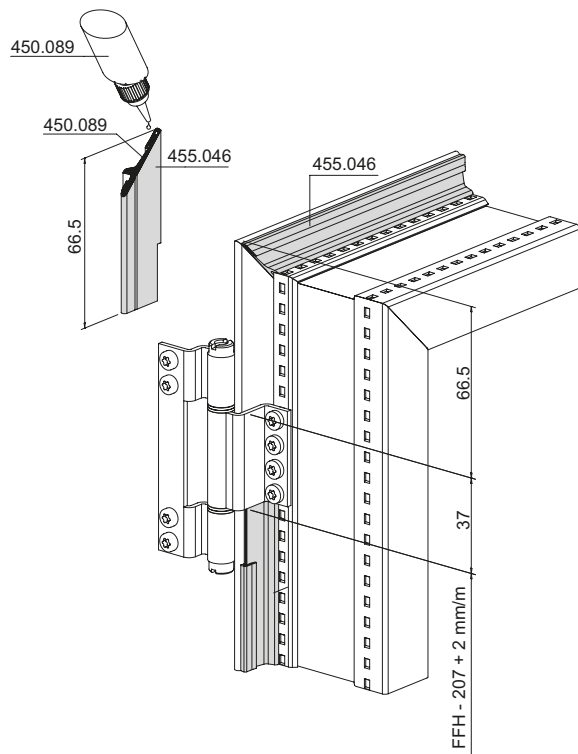
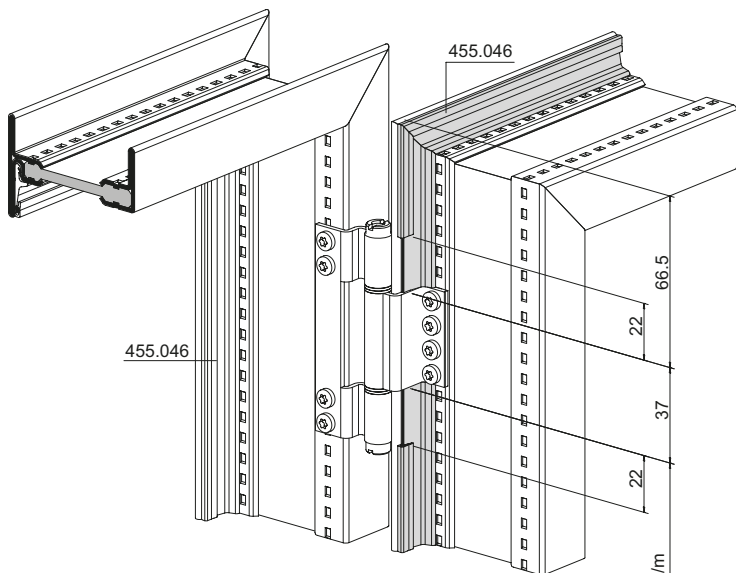
Drilling jig 499.422 for
screw-on hinge 555.584



Zuschnitt Anschlagdichtung 455.046

Découpe pour joint de butée
 455.046

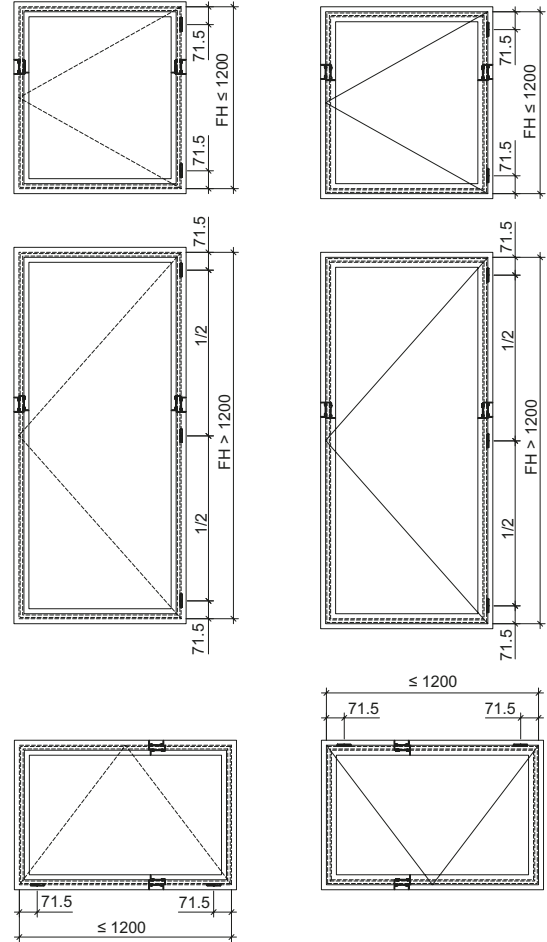
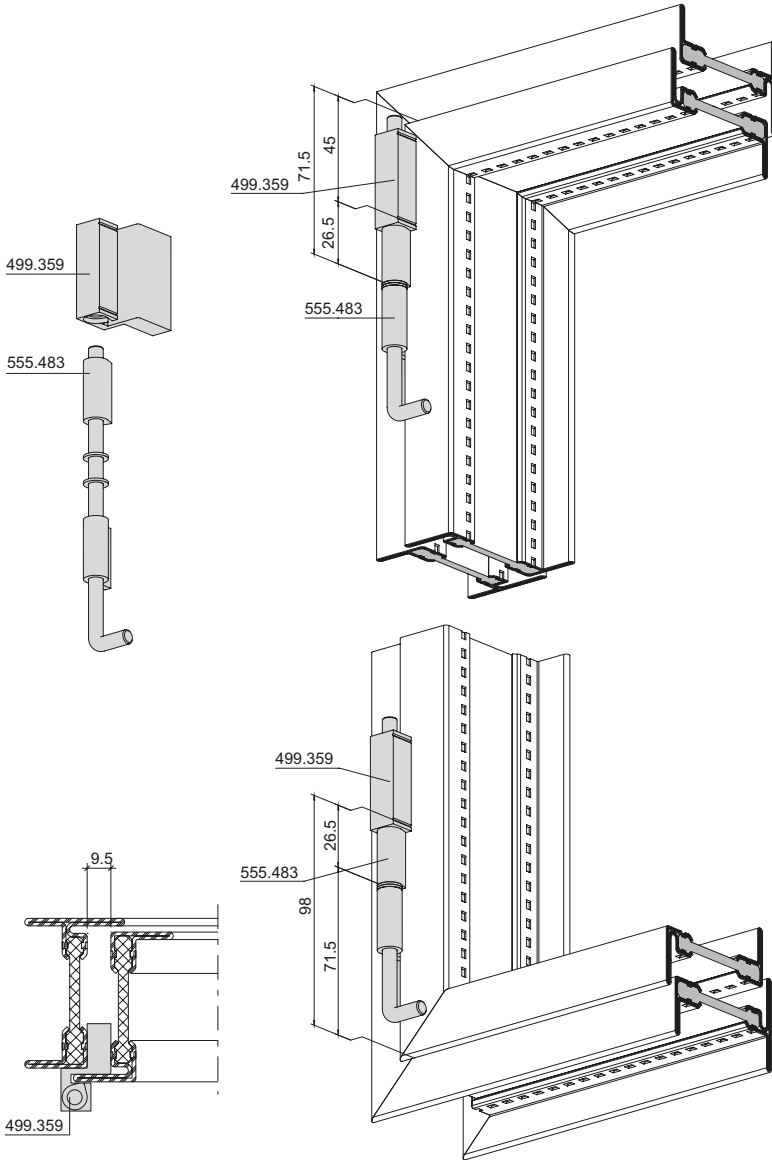
Cutting rebate weatherstrip 455.046



**Einbau Anschweisband 555.483
 mit Anschweislehre 499.359**

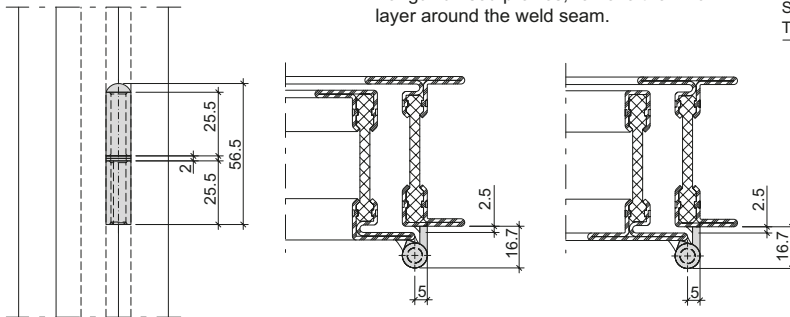
**Montage paumelle à souder 555.483
 avec gabarit de soudage 499.359**

**Installation weld-on hinge 555.483
 with welding fixture 499.359**

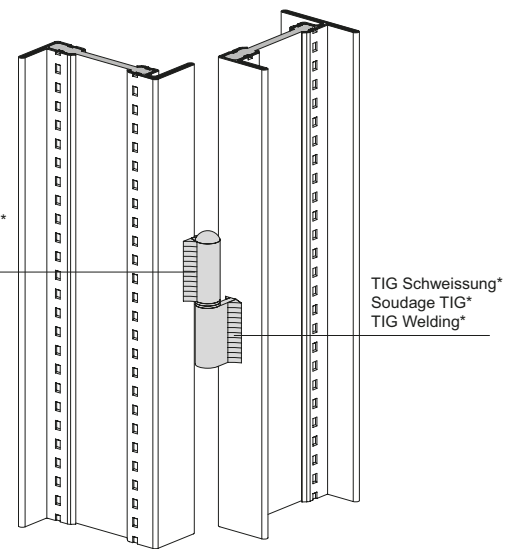


Bei Einsatz in Kipp- oder Klappflügel Dorn sichern.
 Bloquer la tige quand des vantaux à soufflet ou à bascule sont utilisés.
 Secure spindle for use in bottom-hung or top-hung vents.

- * Bei verzinkten Profilen Zinkschicht im Bereich der Schweißnaht entfernen.
- * Pour les profilés galvanisés, retirer la couche de zinc dans la zone du cordon de soudure.
- * For galvanised profiles, remove the zinc layer around the weld seam.



TIG Schweißung*
 Soudage TIG*
 TIG Welding*



Einbau mit 499.359

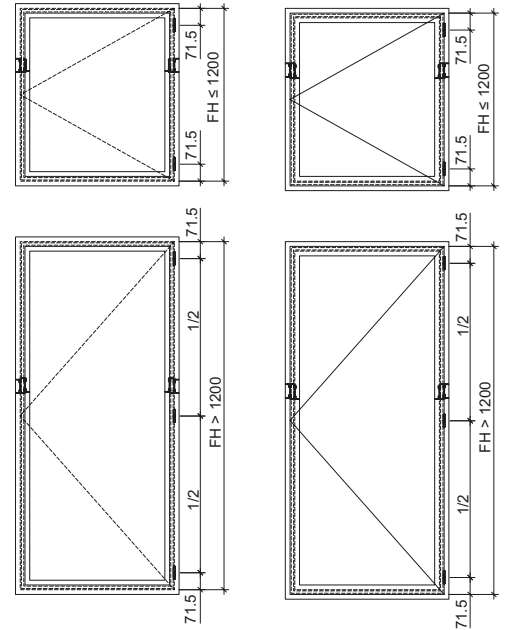
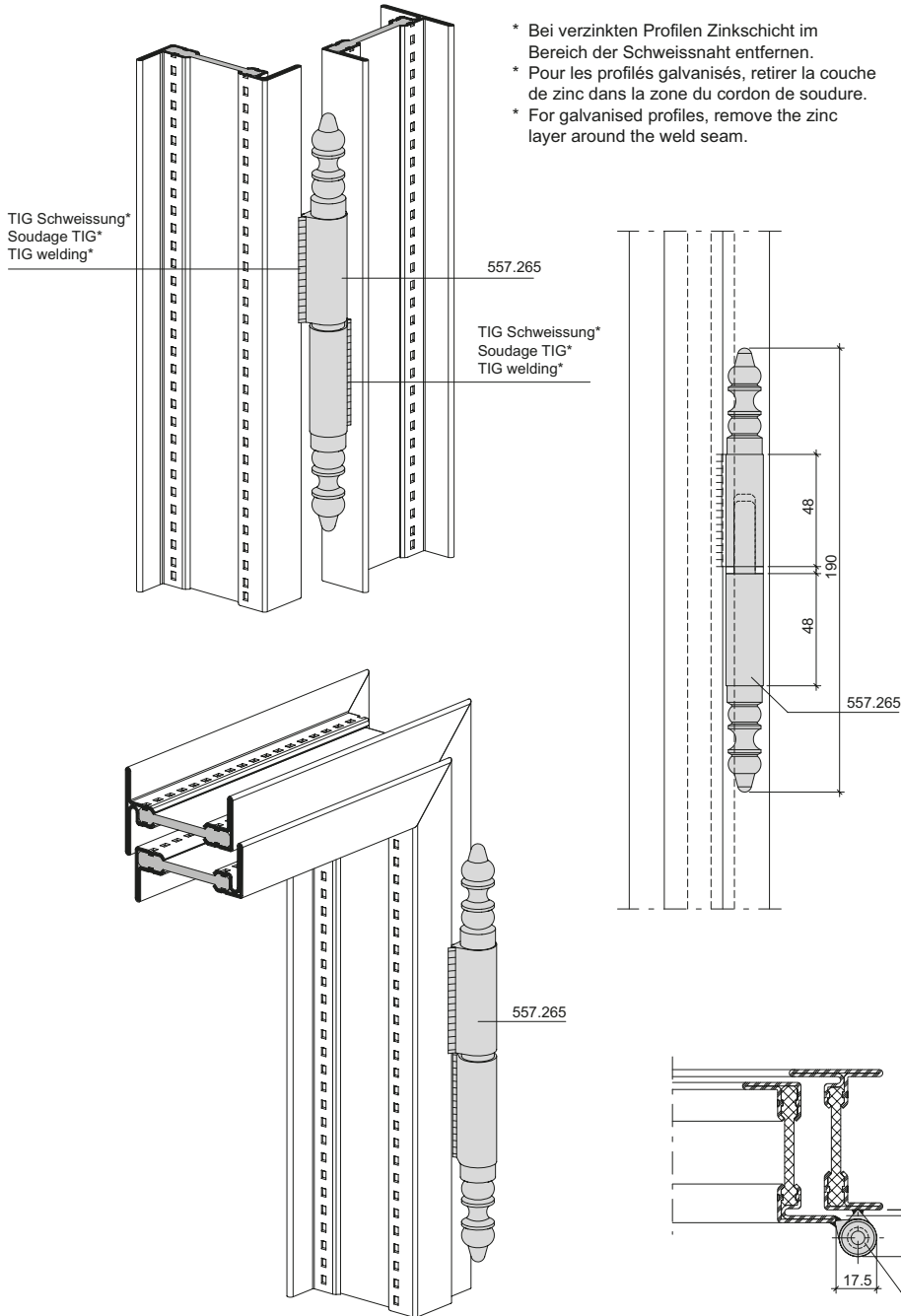
Montage avec 499.359

Installation with 499.359

Einbau Anschweisband 557.265

Montage paumelle à souder 557.265

Installation weld-on hinge 557.265



Hinweis:
 Ab Flügelhöhe 1200 mm ist ein
 zusätzliches Band erforderlich!

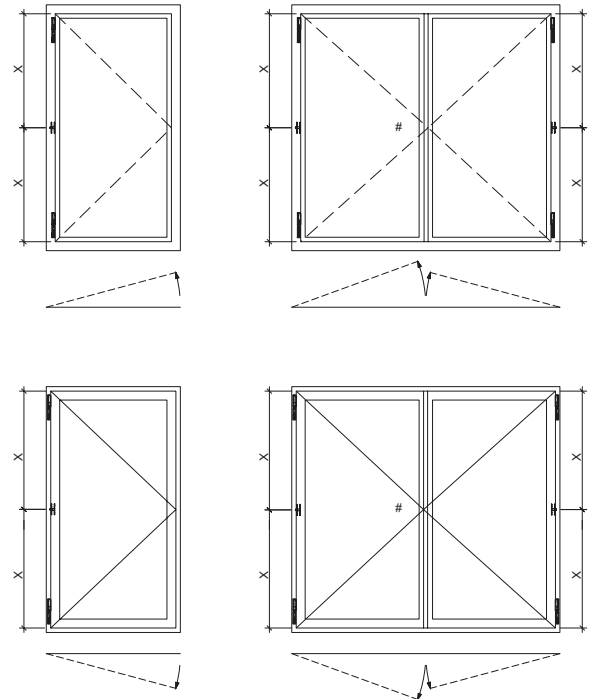
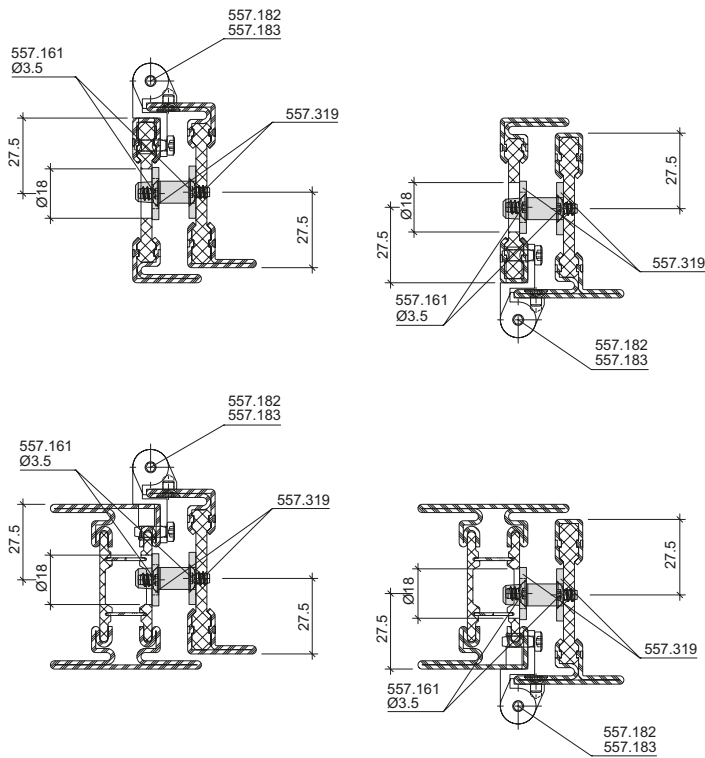
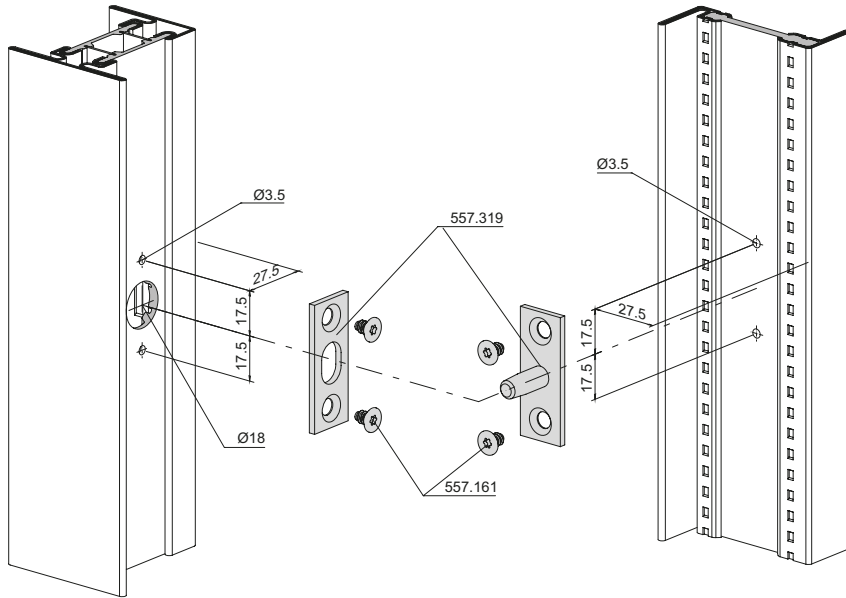
Remarque:
 Une paumelle supplémentaire est
 nécessaire à partir d'une hauteur
 de vantail de 1200 mm!

Note:
 An additional hinge is required
 for a sash height of 1200 mm
 and above!

Bohrbild und Einbau Zwangsverriegelung 557.319

Schéma de perçage et montage verrouillage forcé 557.319

Drilling pattern and installation security locking system 557.319



Einbau mit 499.548

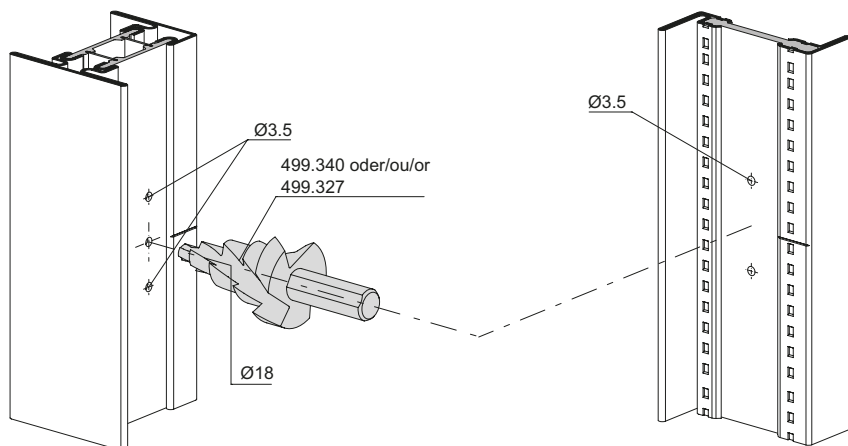
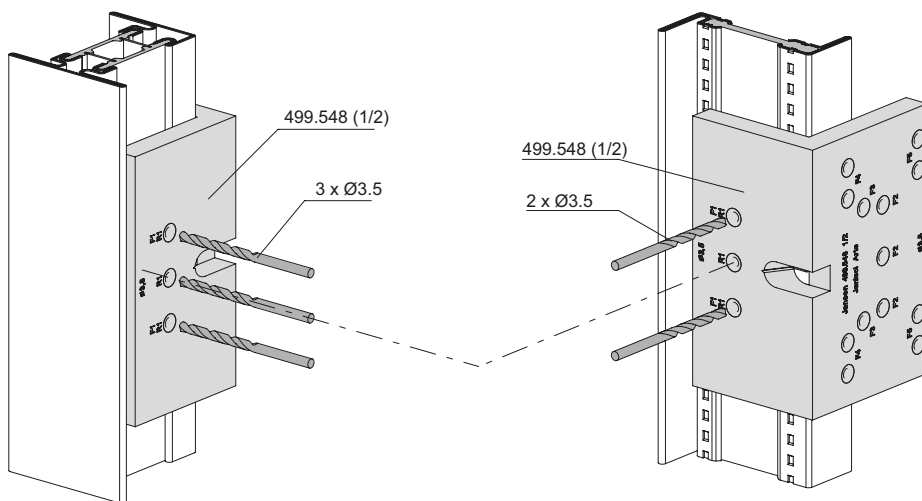
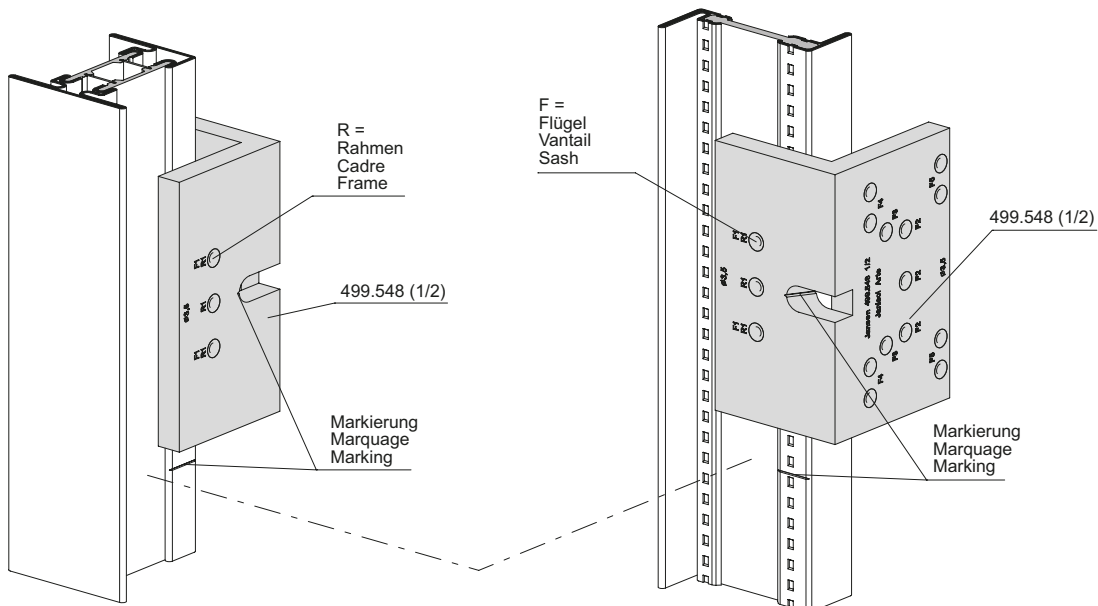
Montage avec 499.548

Installation with 499.548

Bohrlehre 499.548 für
 Zwangsverriegelung 557.319

Gabrait de perçage 499.548 pour
 verrouillage forcé 557.319

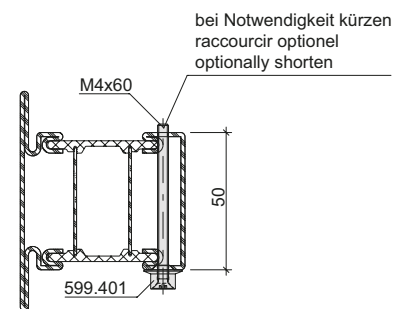
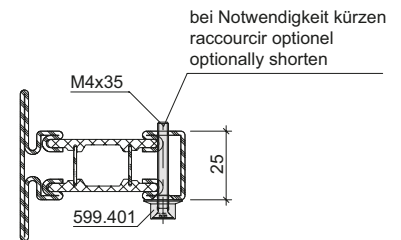
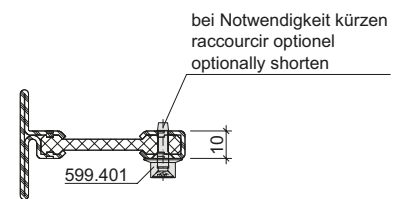
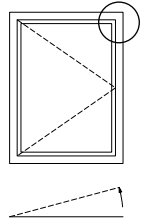
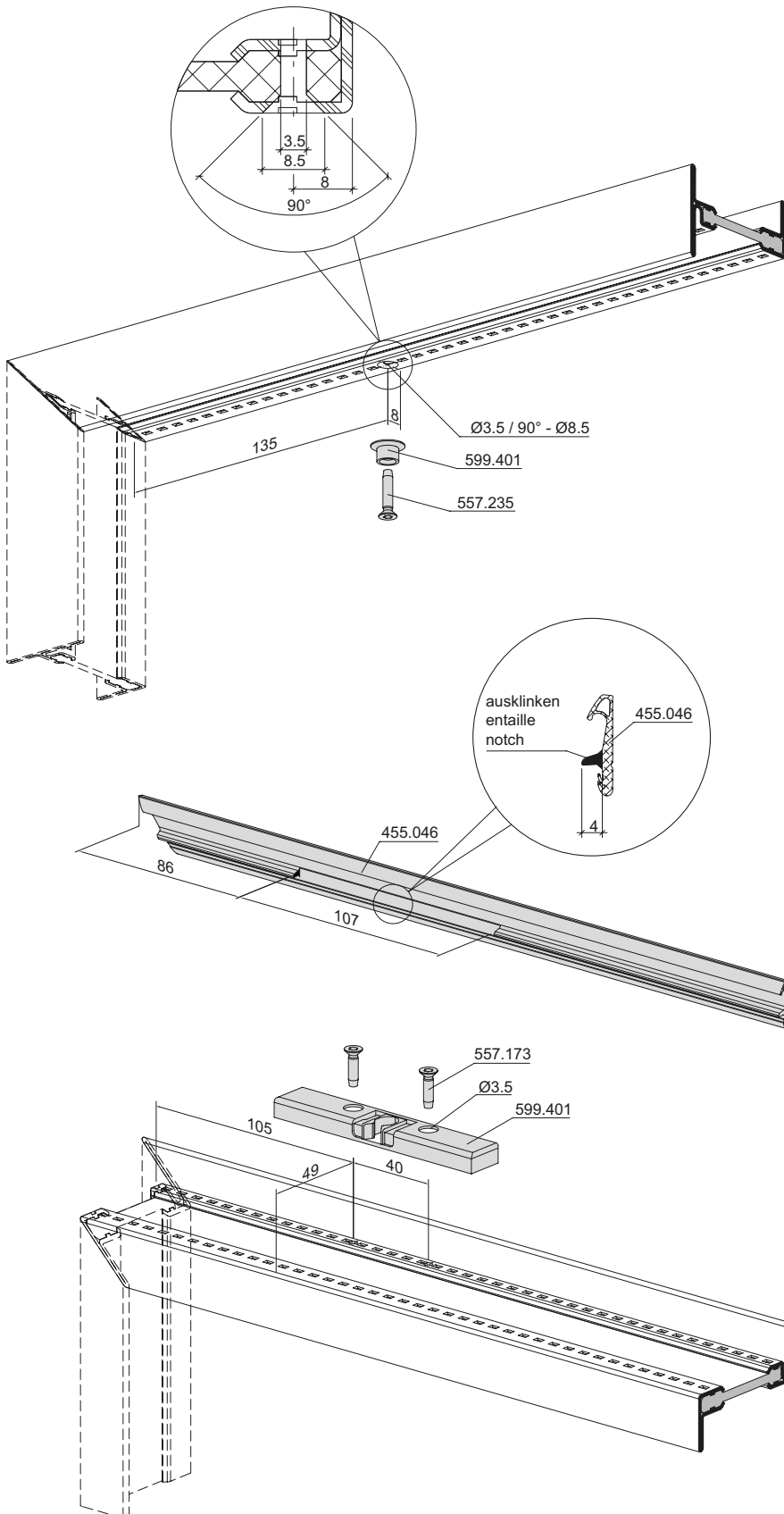
Drilling jig 499.548 for security
 locking system 557.319



Einbau Falzsnäpper 599.401

Montage loqueteau de feuillure
599.401

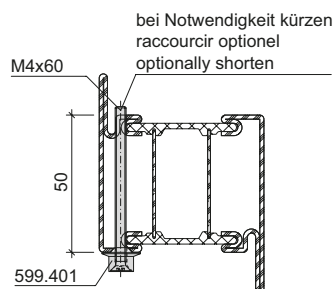
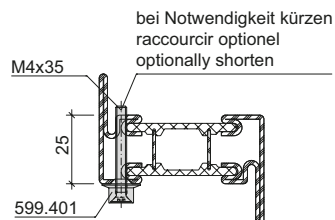
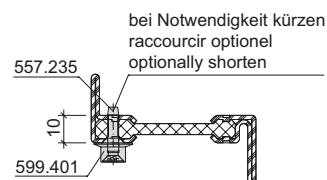
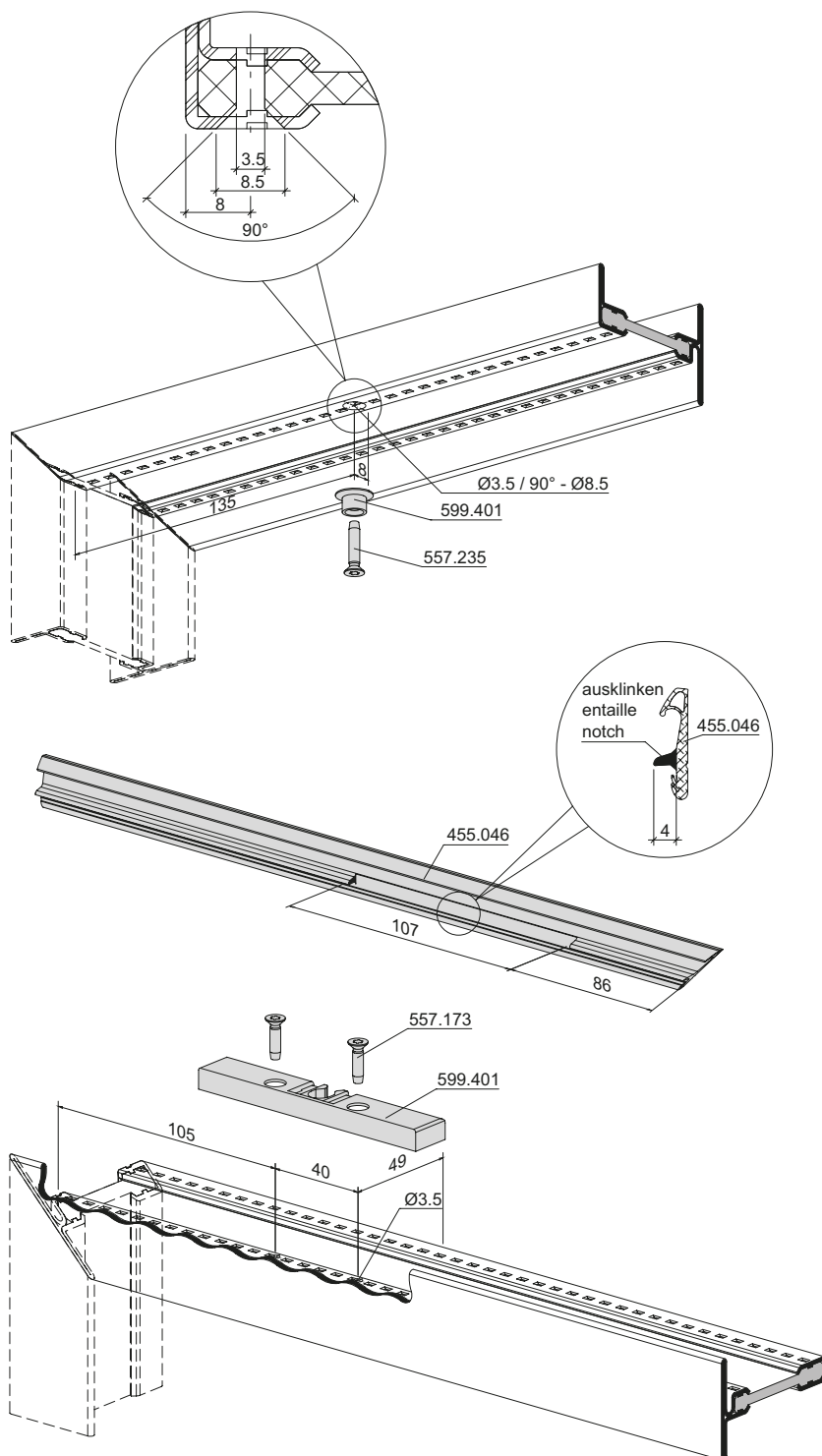
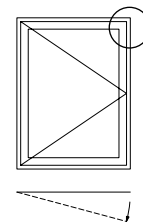
Installation spring loaded catch
599.401



Einbau Falzsnäpper 599.401

Montage loqueteau de feuillure
 599.401

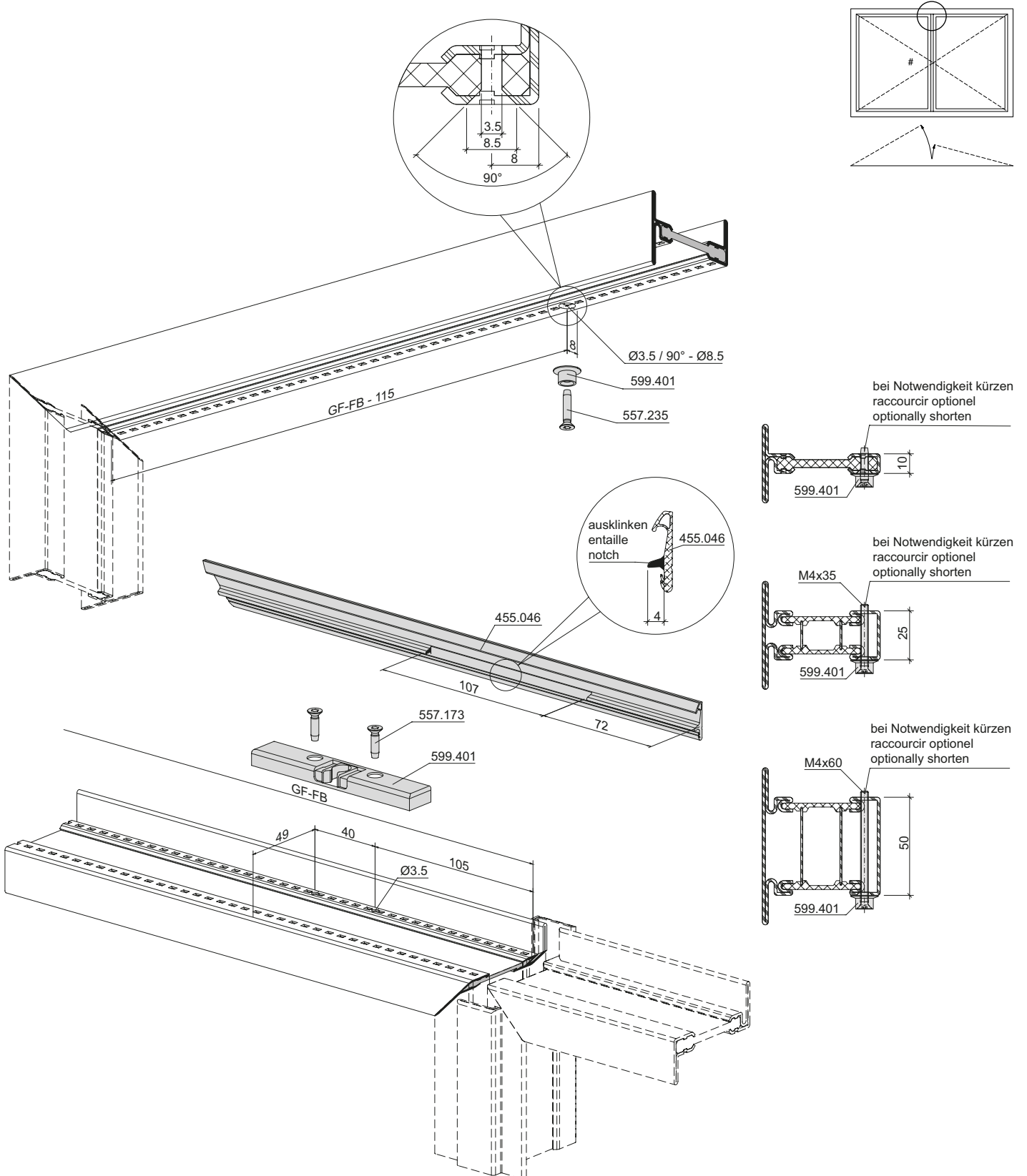
Installation spring loaded catch
 599.401



Einbau Falz Schnäpper 599.401

Montage loqueteau de feuillure
 599.401

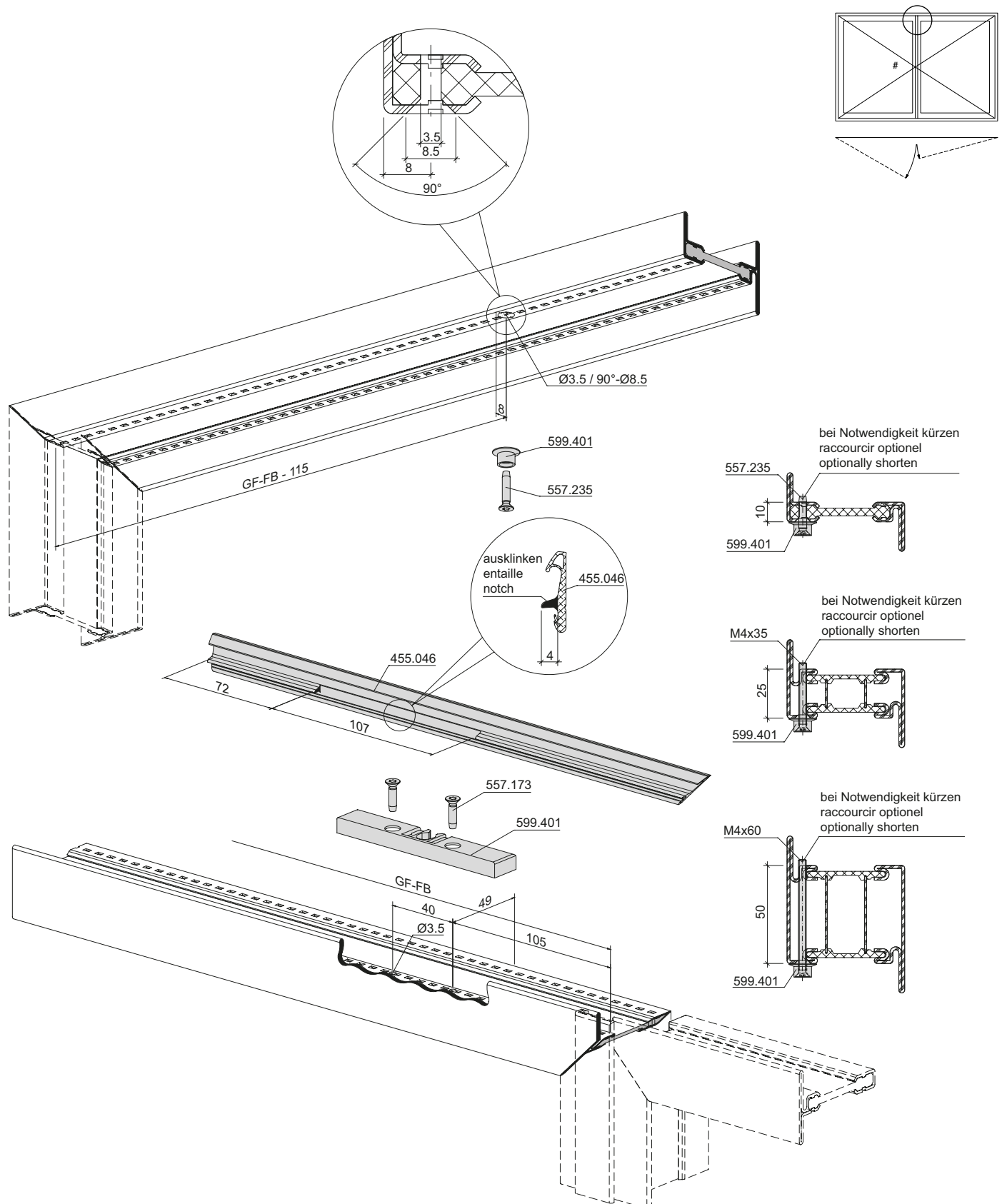
Installation spring loaded catch
 599.401

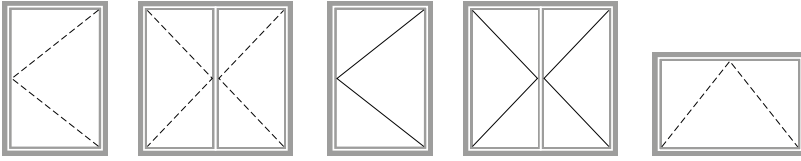


Einbau Falz Schnäpper 599.401

Montage loqueteau de feuillure
 599.401

Installation spring loaded catch
 599.401





Auflaufbock
Kantenriegel

Bloc d'arrêt
Verrou à bascule

Engagement block
Flush bolt

Auflaufbock 557.079

Bloc d'arrêt 557.079

Engagement block 557.079

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Kantenriegel 557.192 / 557.139

Verrou à bascule 557.192 / 557.139

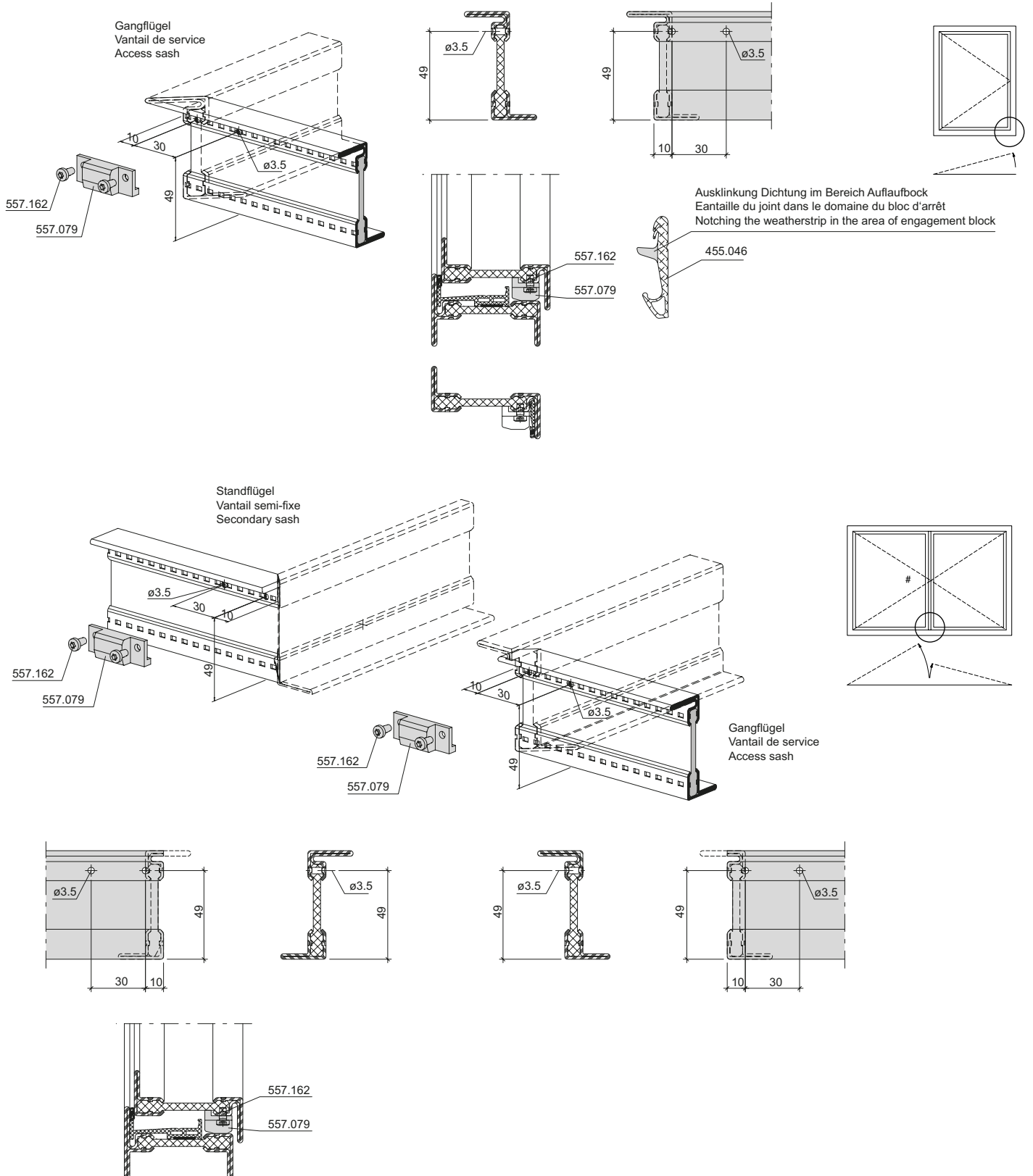
Flush bolt 557.192 / 557.139

55

Auflaufbock 557.079

Bloc d'arrêt 557.079

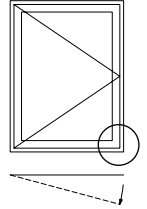
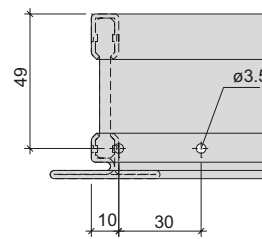
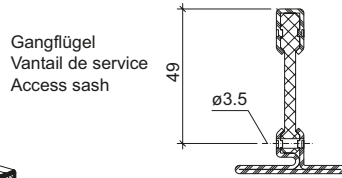
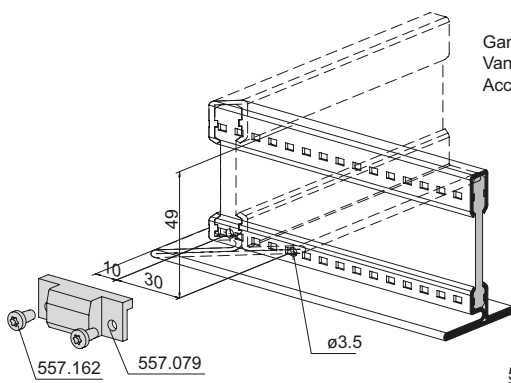
Engagement block 557.079



Auflaufbock 557.079

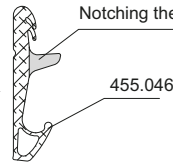
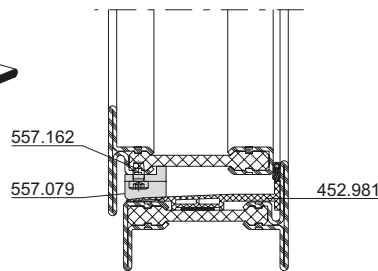
Bloc d'arrêt 557.079

Engagement block 557.079

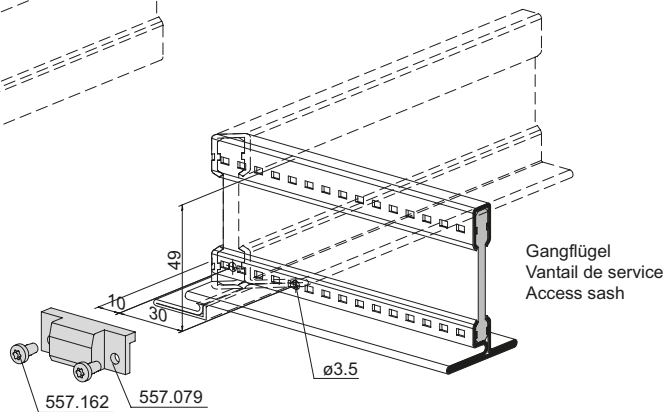
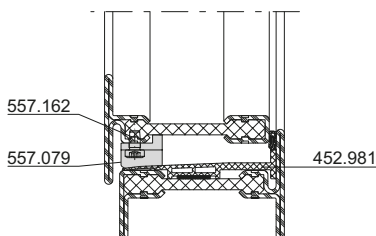
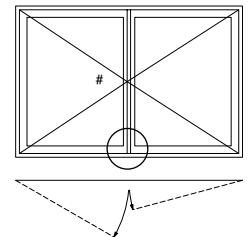
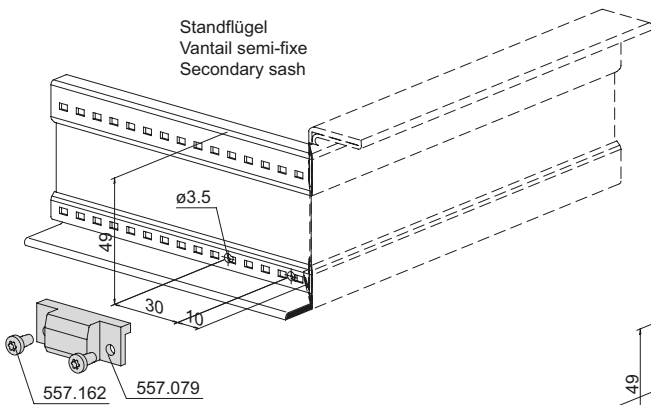


Gangflügel
 Vantail de service
 Access sash

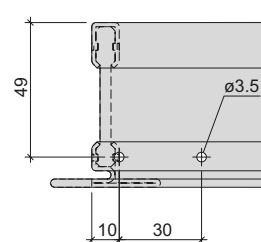
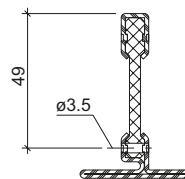
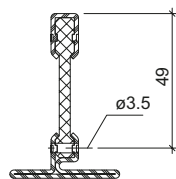
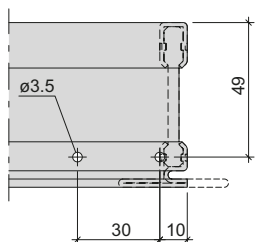
Ausklüfung Dichtung im Bereich Auflaufbock
 Entaille du joint dans le domaine du bloc d'arrêt
 Notching the weatherstrip in the area of engagement block



Standflügel
 Vantail semi-fixe
 Secondary sash



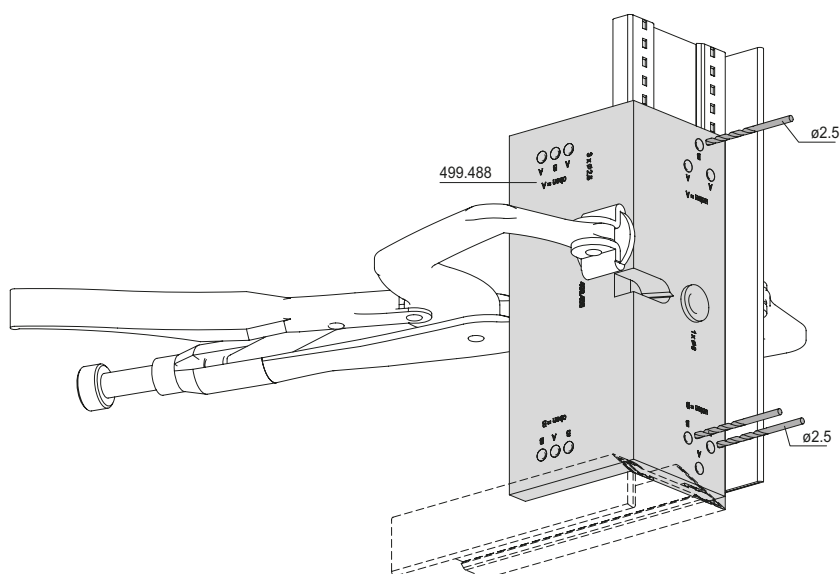
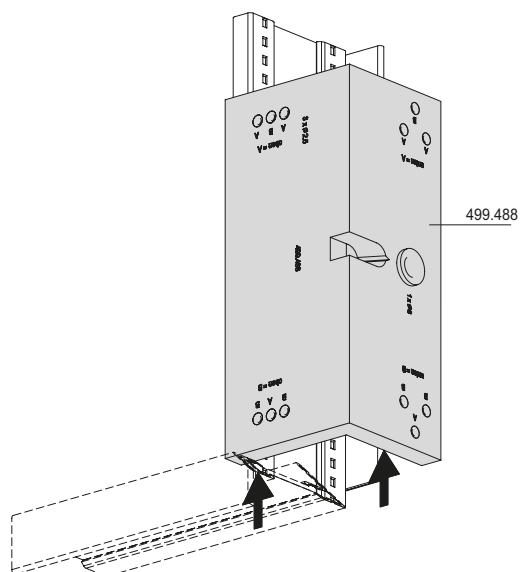
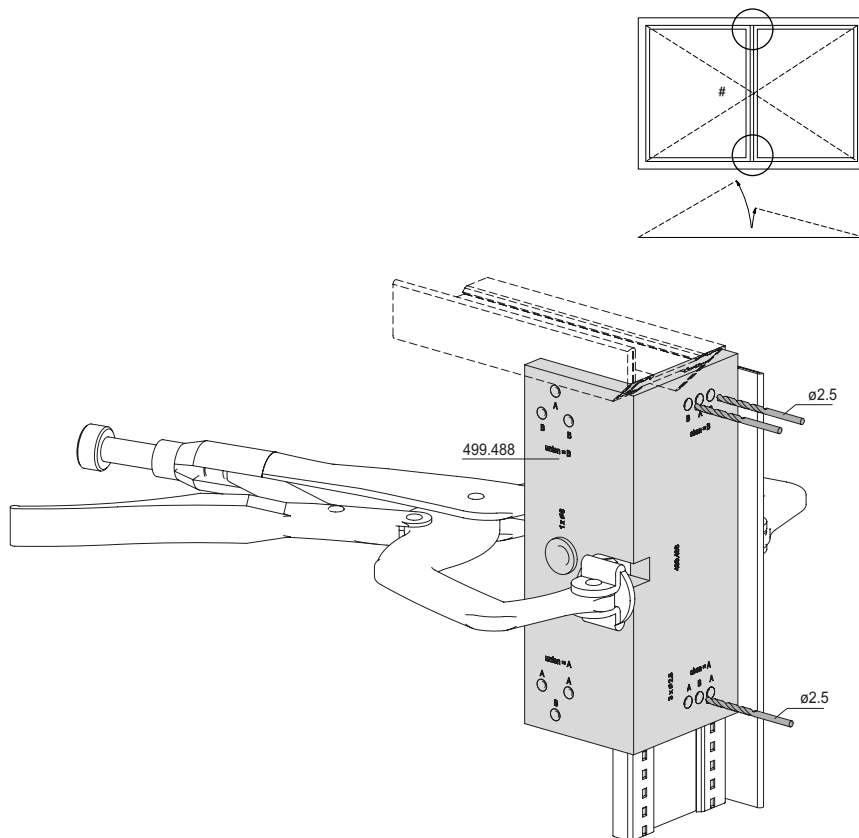
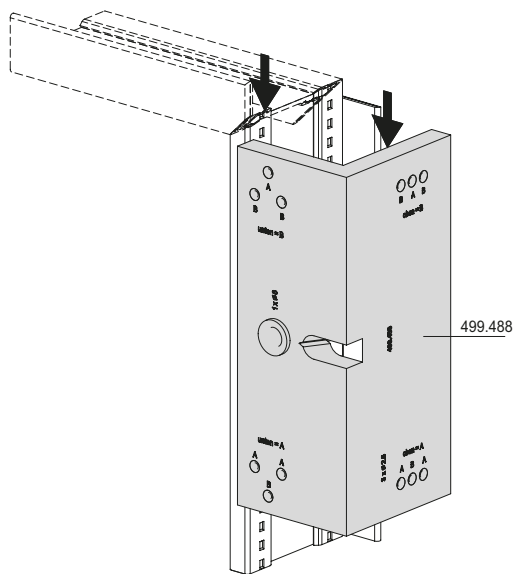
Gangflügel
 Vantail de service
 Access sash



Bohrlehre 499.488 für
 Kantenriegel 557.192
 Standflügel

Gabarit de perçage 499.488 pour
 verrou à bascule 557.192
 Vantail semi-fixe

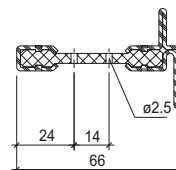
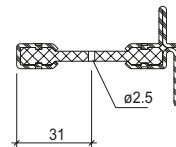
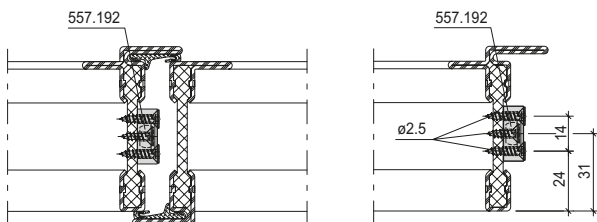
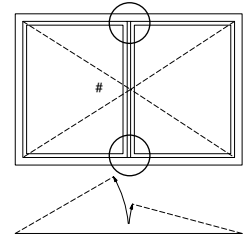
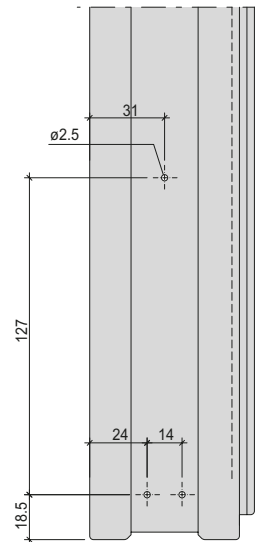
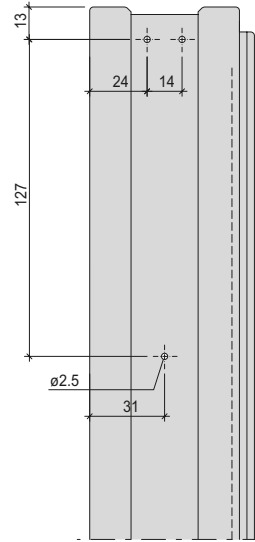
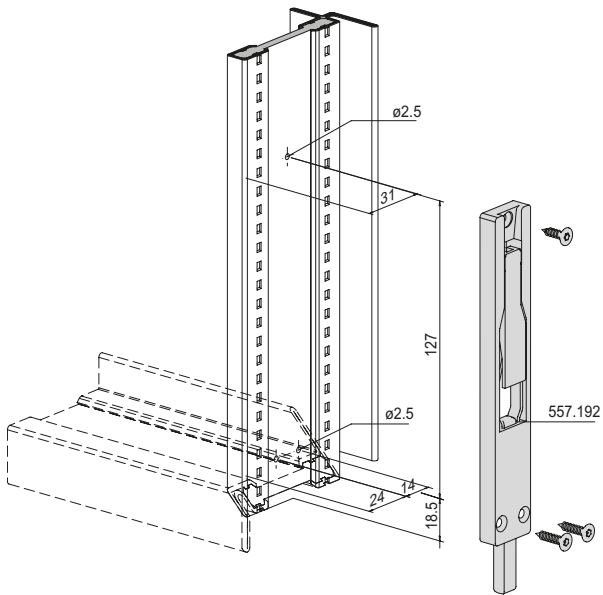
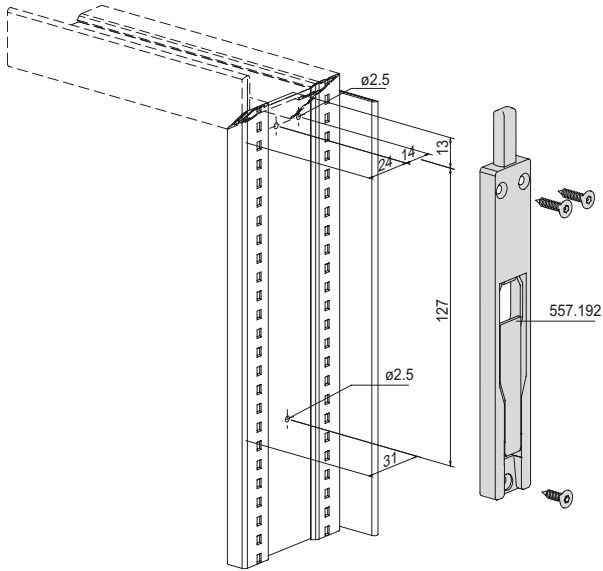
Drilling jig 499.488 for
 flush bolt 557.192
 Secondary sash



Kantenriegel 557.192
 Standflügel

Verrou à bascule 557.192
 Vantail semi-fixe

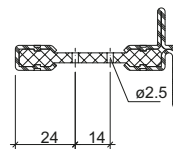
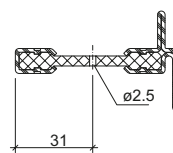
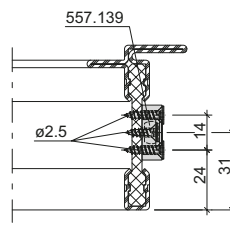
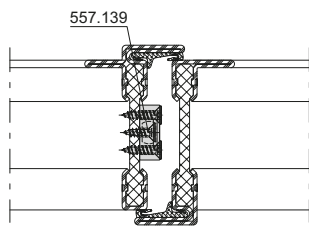
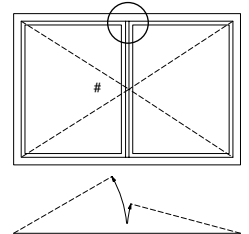
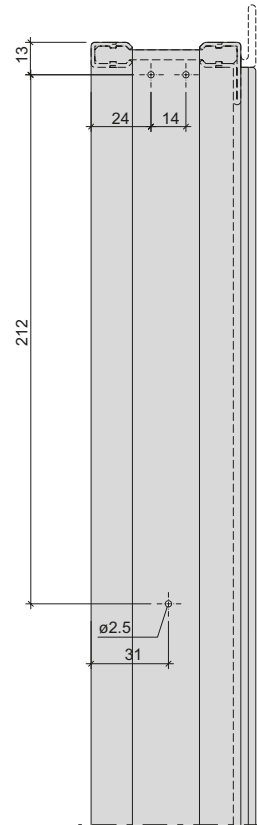
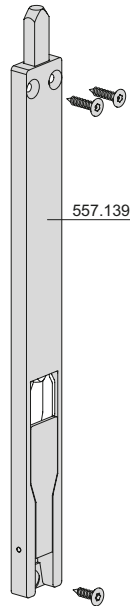
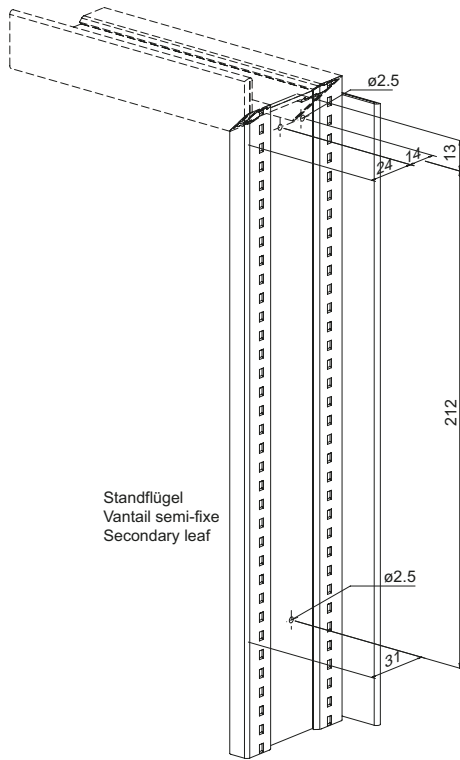
Flush bolt 557.192
 Secondary sash



Kantenriegel 557.139
 Standflügel

Verrou à bascule 557.139
 Vantail semi-fixe

Flush bolt 557.139
 Secondary sash

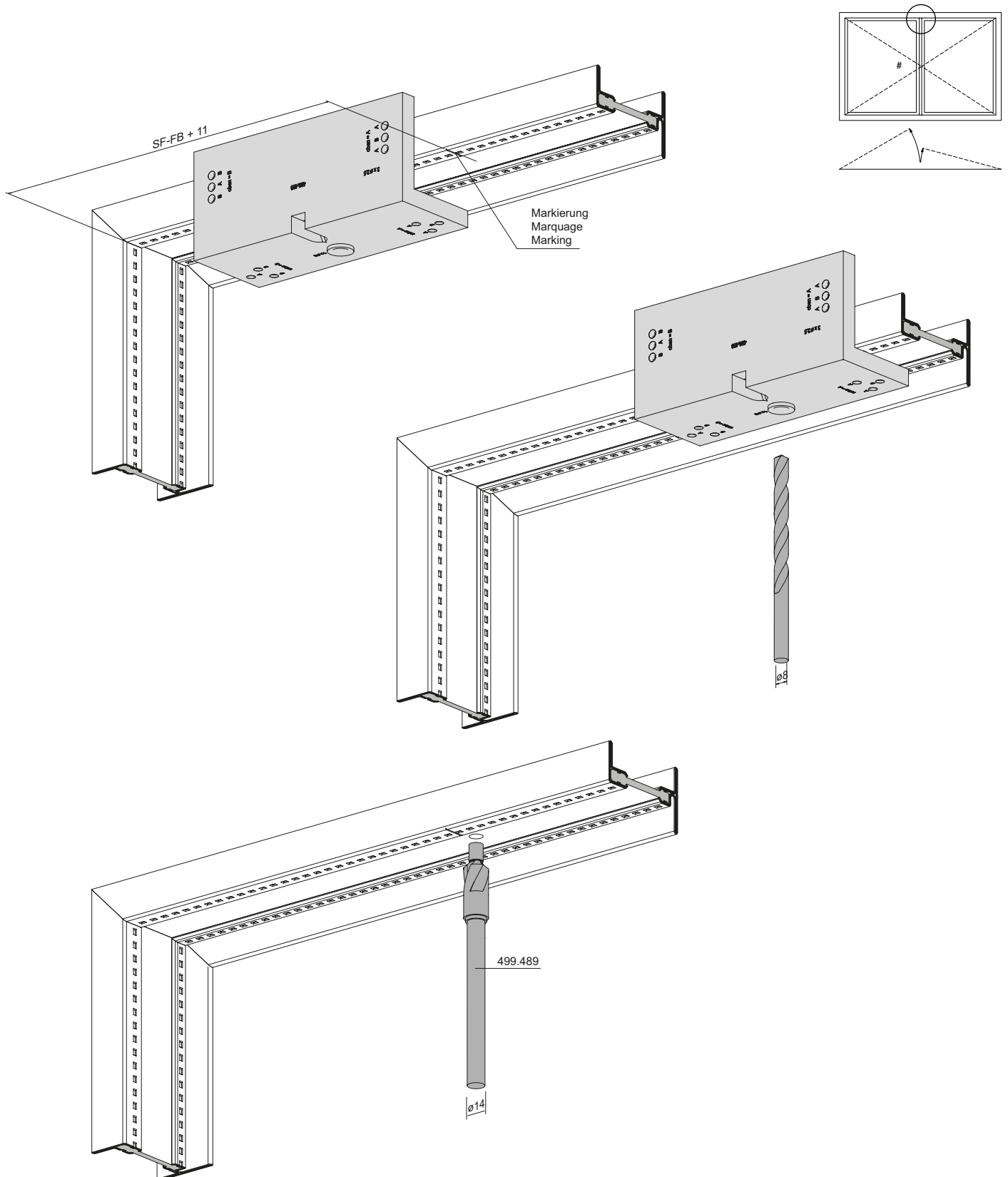


Hinweis: Lage der Verriegelungspunkte anpassen (min. 85 mm)
Remarque: Adapter la position des points de verrouillage
Note: Adjust position of the locking points (min. 85 mm)

Bohrlehre 499.488
für Büchse oben (557.192)

Gabarit de perçage 499.488
pour coussinet en haut (557.192)

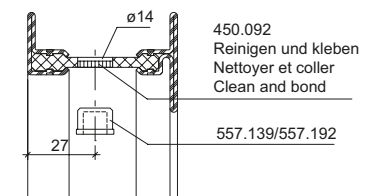
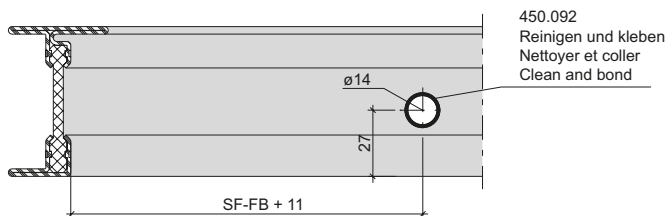
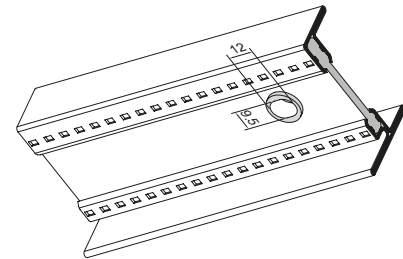
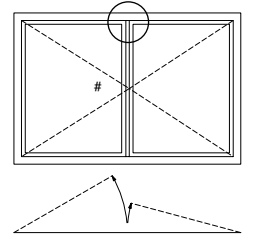
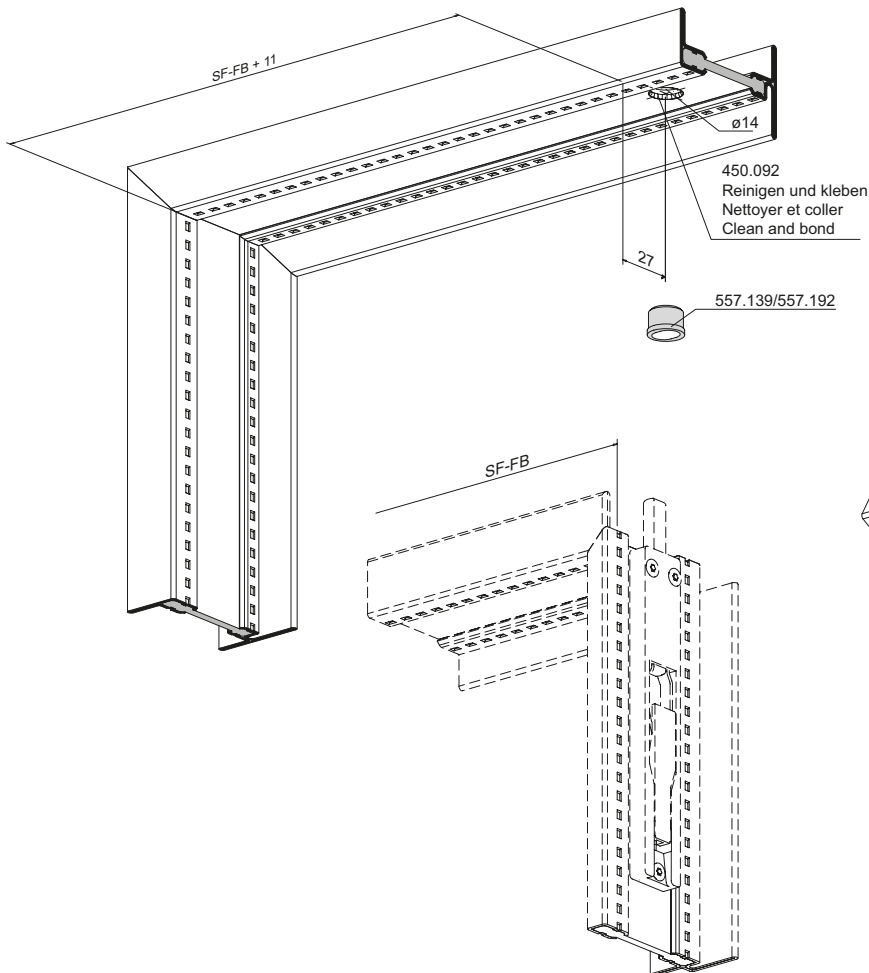
Drilling jig 499.488
for top socket (557.192)



Büchse oben zu Kantenriegel
 557.139 und 557.192

Coussinet en haut du verrou à
 bascule 557.139 et 557.192

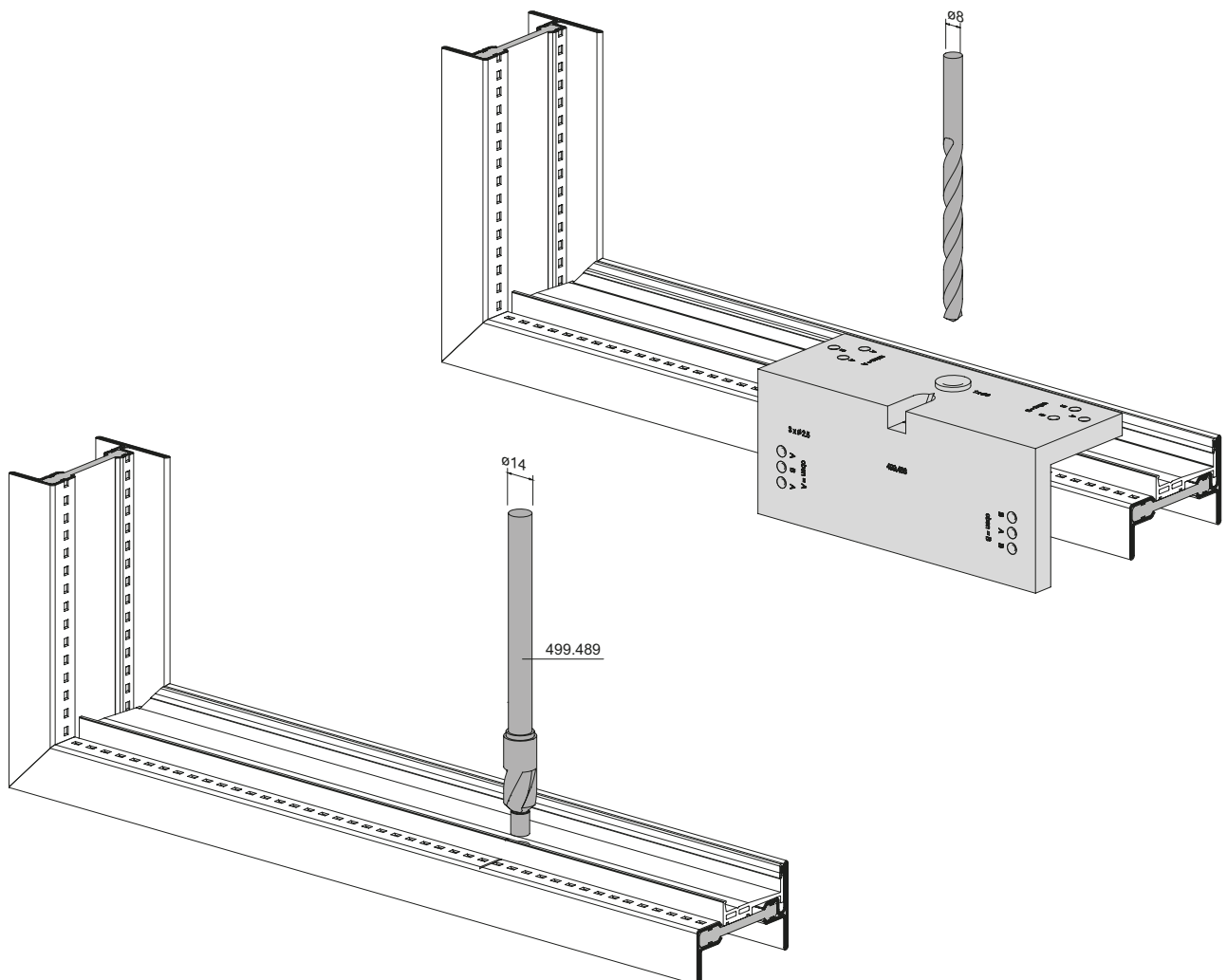
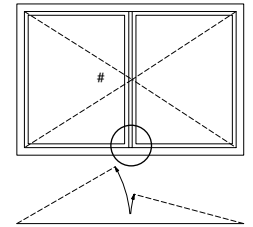
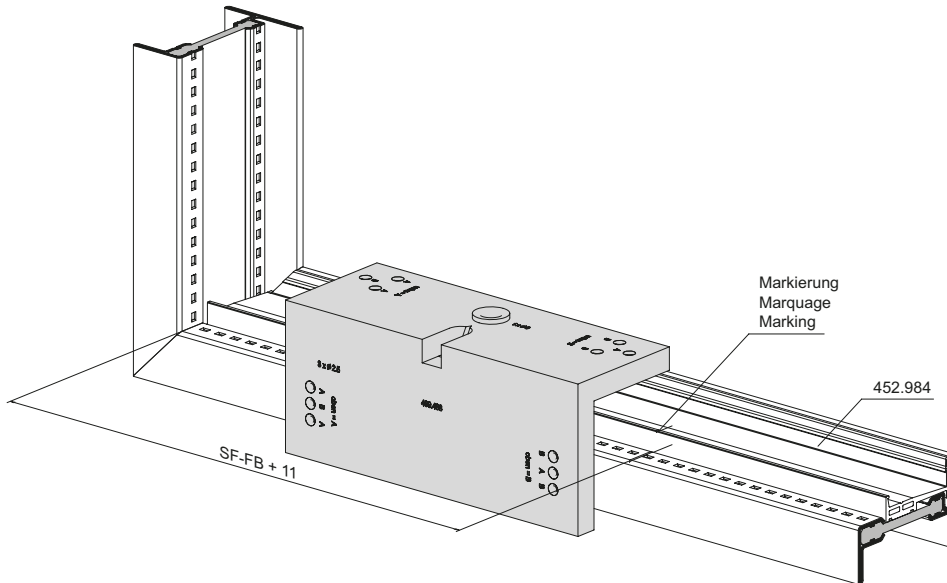
Top socket for flush bolt
 557.139 and 557.192



Bohrlehre 499.488
für Büchse unten (557.192)

Gabarit de perçage 499.488
pour coussinet en bas (557.192)

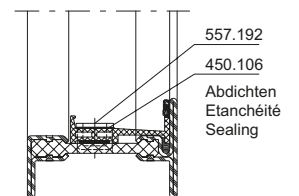
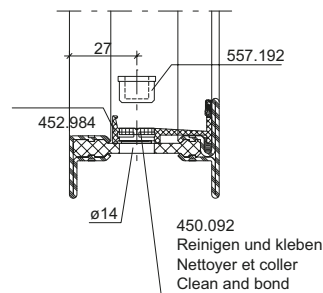
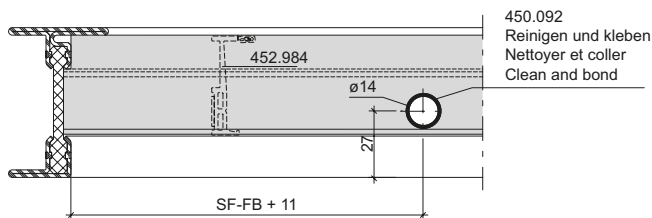
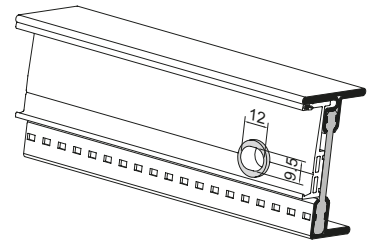
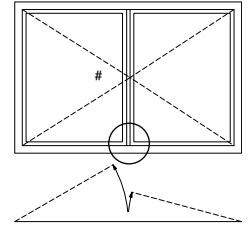
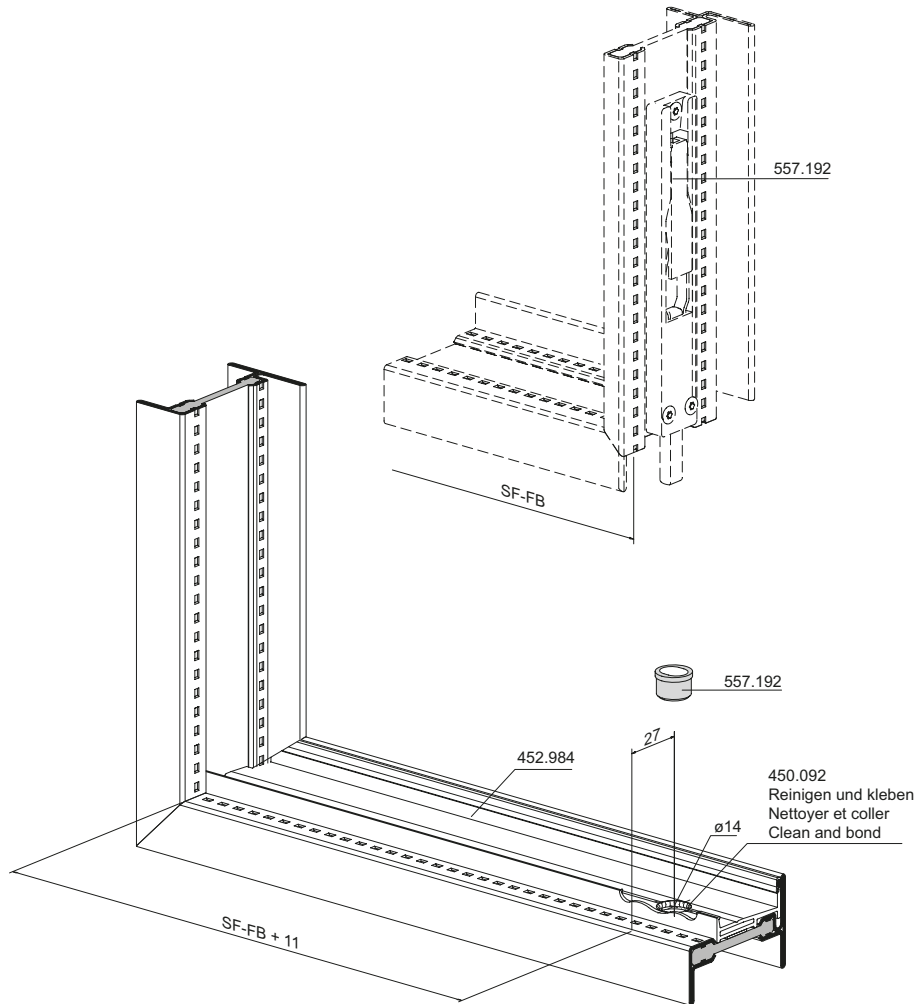
Drilling jig 499.488
for bottom socket (557.192)



Büchse unten
 zu Kantenriegel 557.192

Coussinet en bas
 du verrou à bascule 557.192

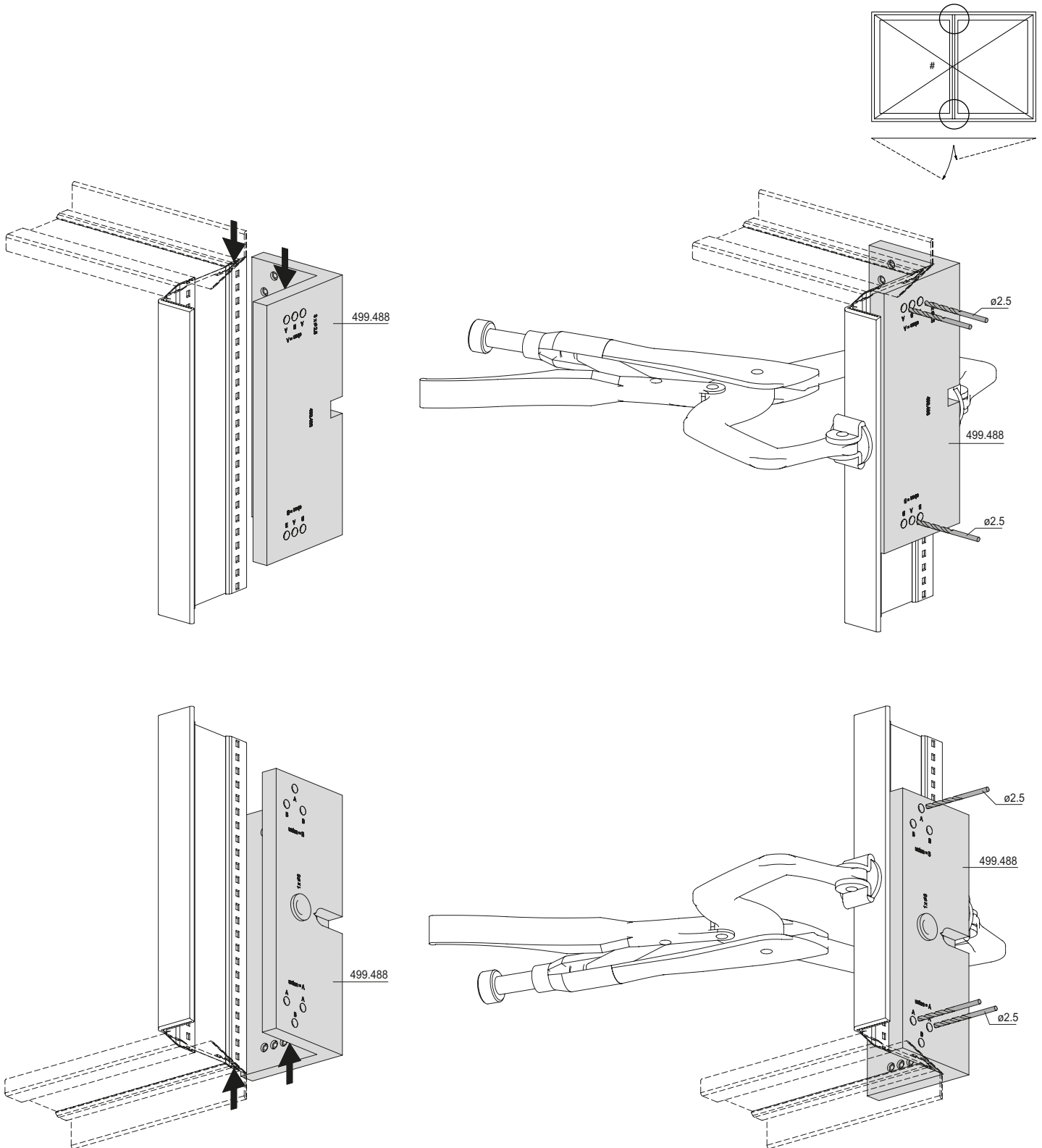
Bottom socket
 for flush bolt 557.192



Bohrlehre 499.488
 für Kantenriegel 557.192
 Standflügel

Gabarit de perçage 499.488
 pour verrou à bascule 557.192
 Vantail semi-fixe

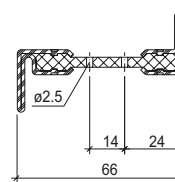
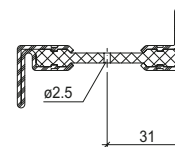
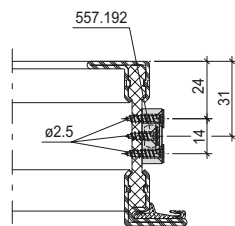
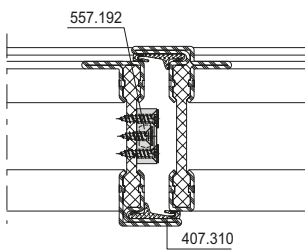
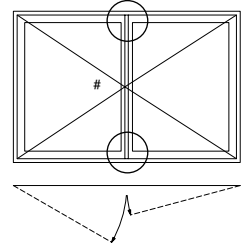
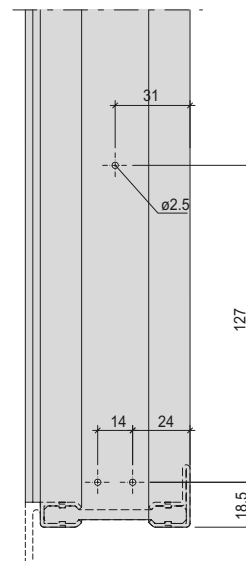
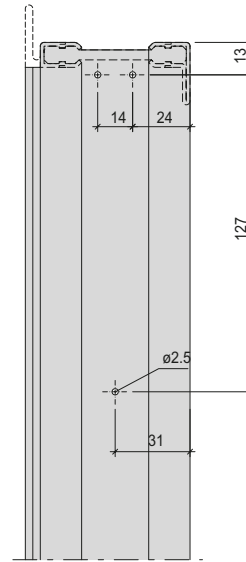
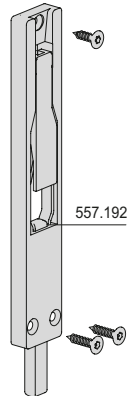
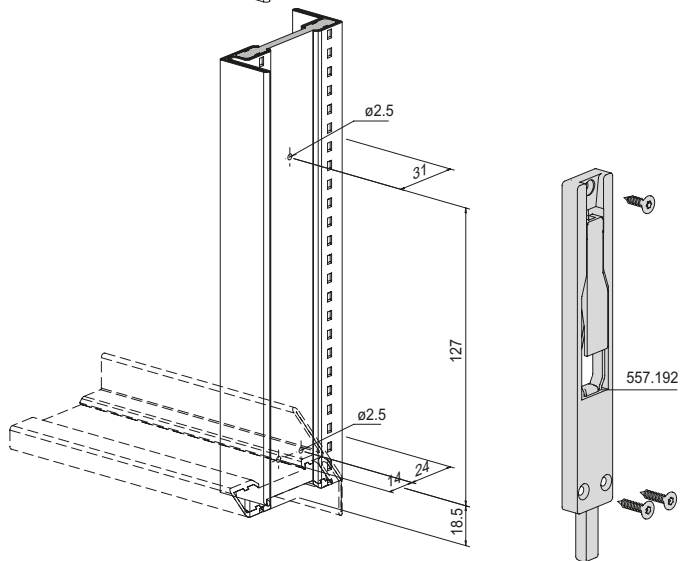
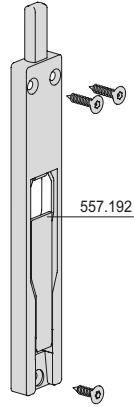
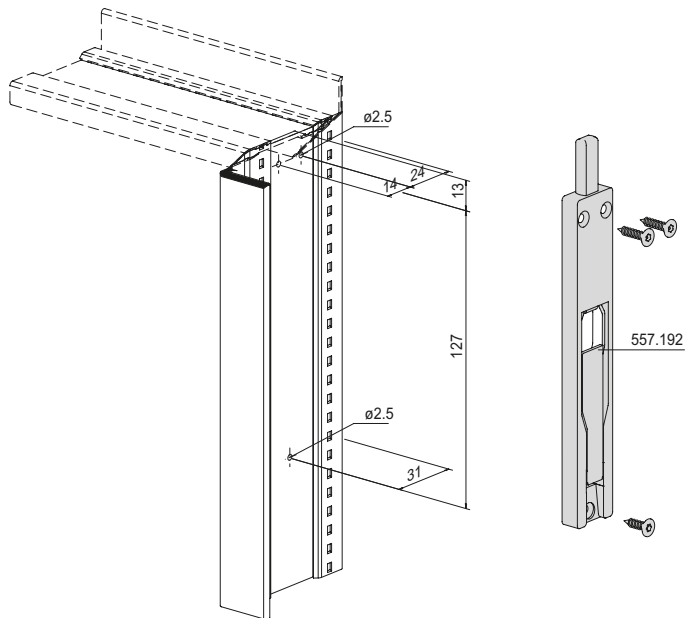
Drilling jig 499.488
 for flush bolt 557.192
 Secondary sash



Kantenriegel 557.192
 Standflügel

Verrou à bascule 557.192
 Vantail semi-fixe

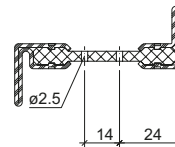
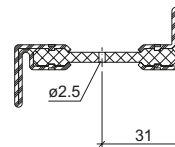
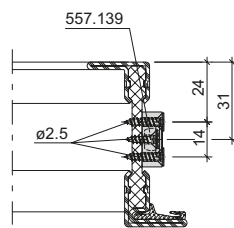
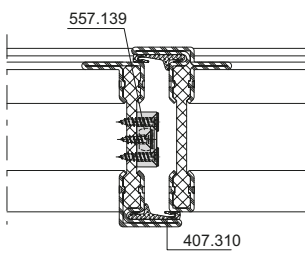
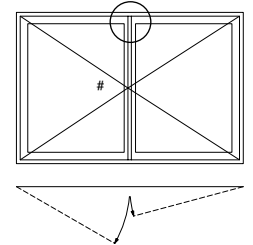
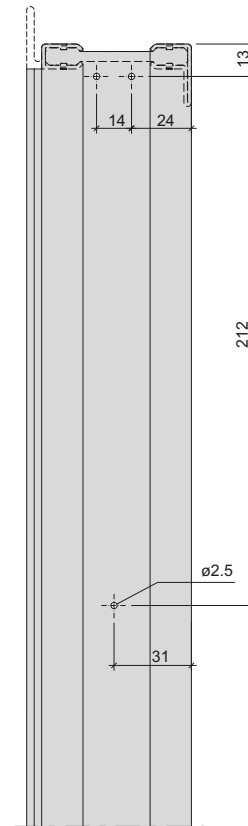
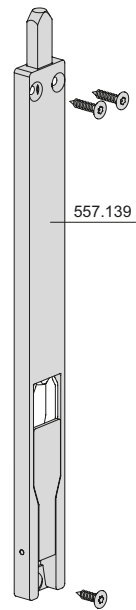
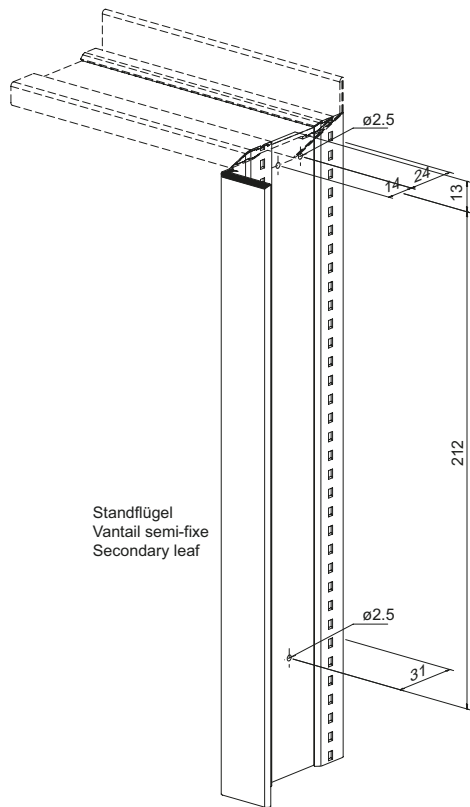
Flush bolt 557.192
 Secondary sash



Kantenriegel 557.139
 Standflügel

Verrou à bascule 557.139
 Vantail semi-fixe

Flush bolt 557.139
 Secondary sash

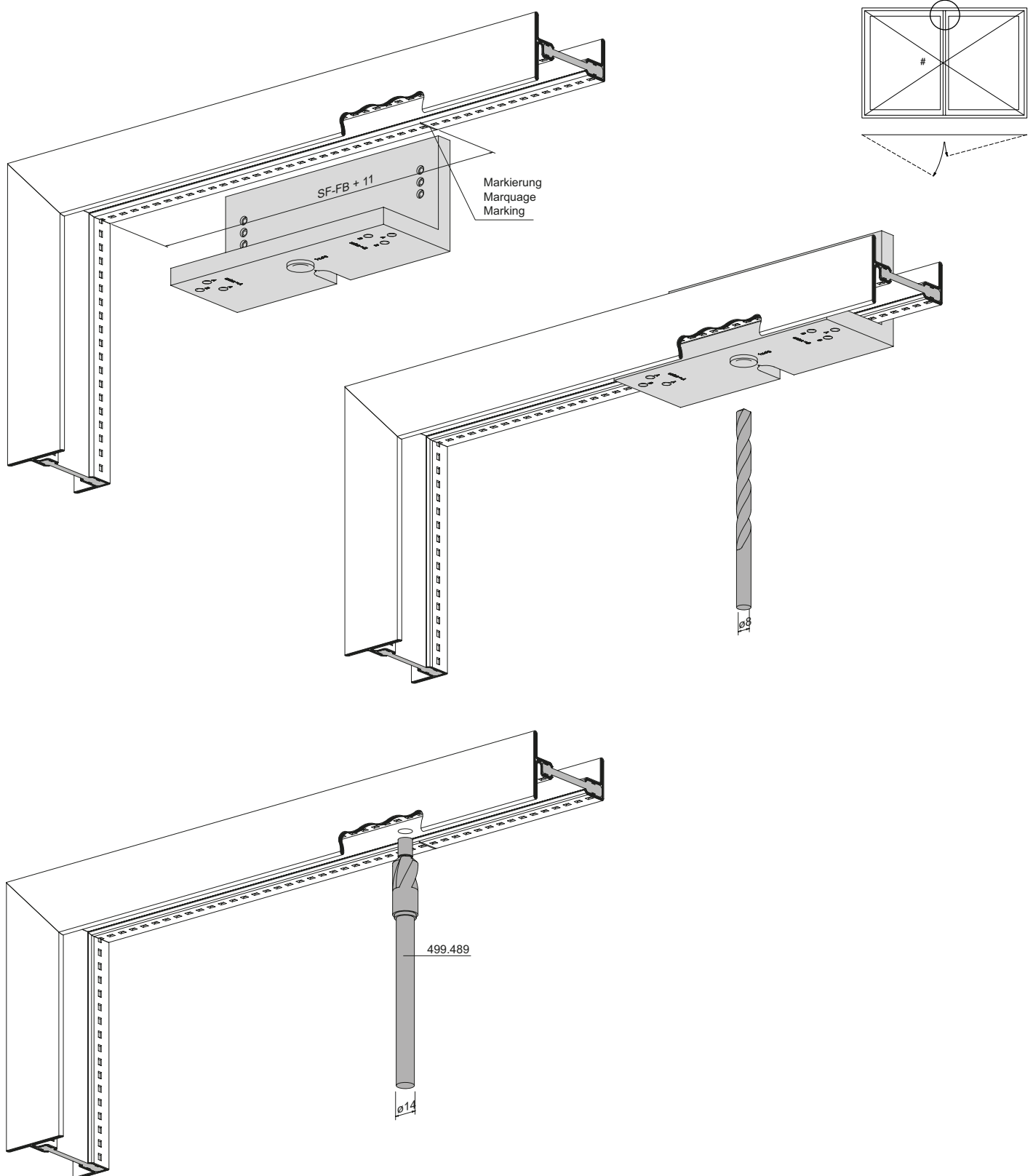


Hinweis: Lage der Verriegelungspunkte anpassen (min. 85 mm)
Remarque: Adapter la position des points de verrouillage
Note: Adjust position of the locking points (min. 85 mm)

Bohrlehre 499.488
für Büchse oben (557.192)

Gabarit de perçage 499.488
pour coussinet en haut (557.192)

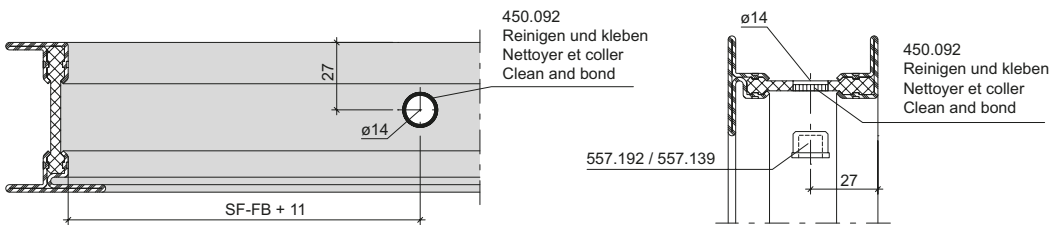
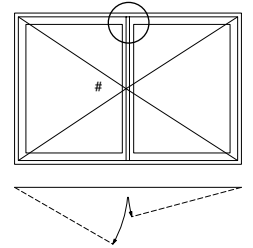
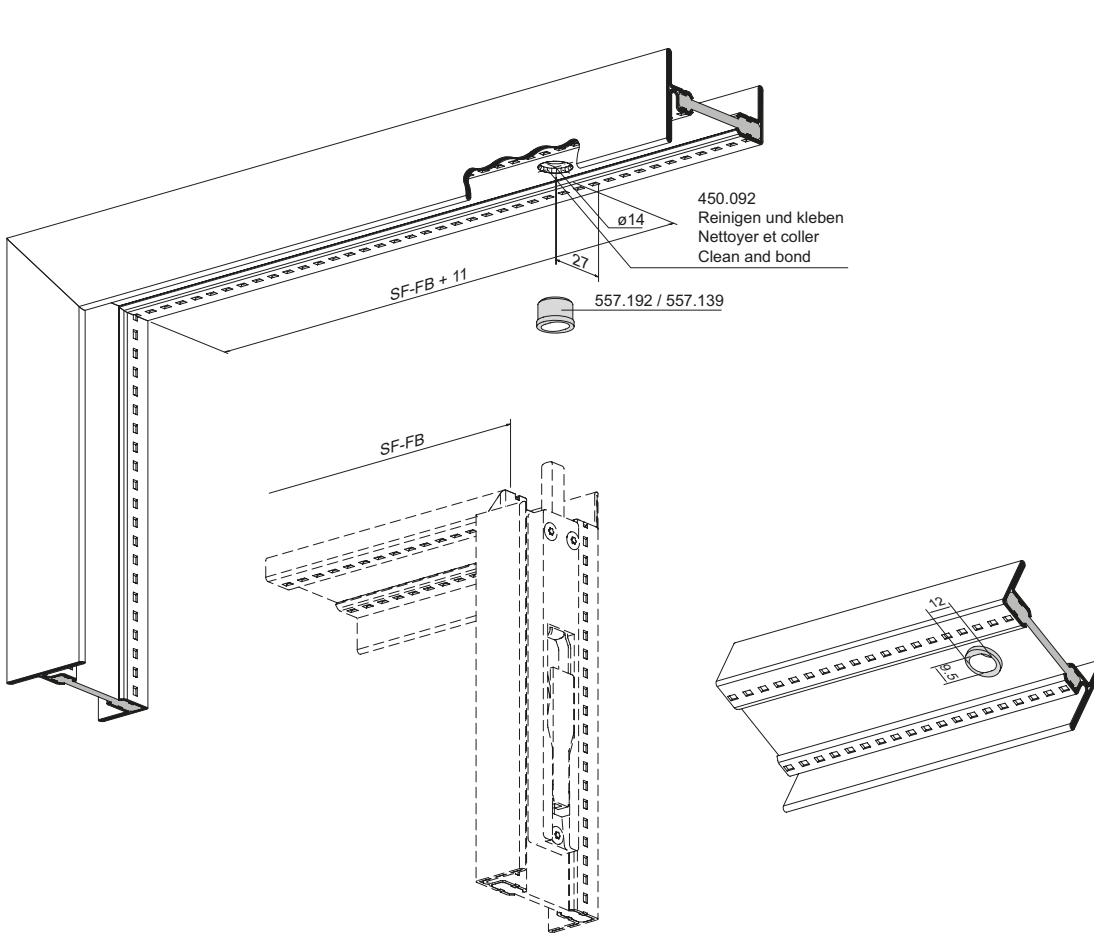
Drilling jig 499.488
for top socket (557.192)



Büchse oben
 zu Kantenriegel 557.192 / 557.139

Coussinet en haut du verrou à
 bascule 557.192 / 557.139

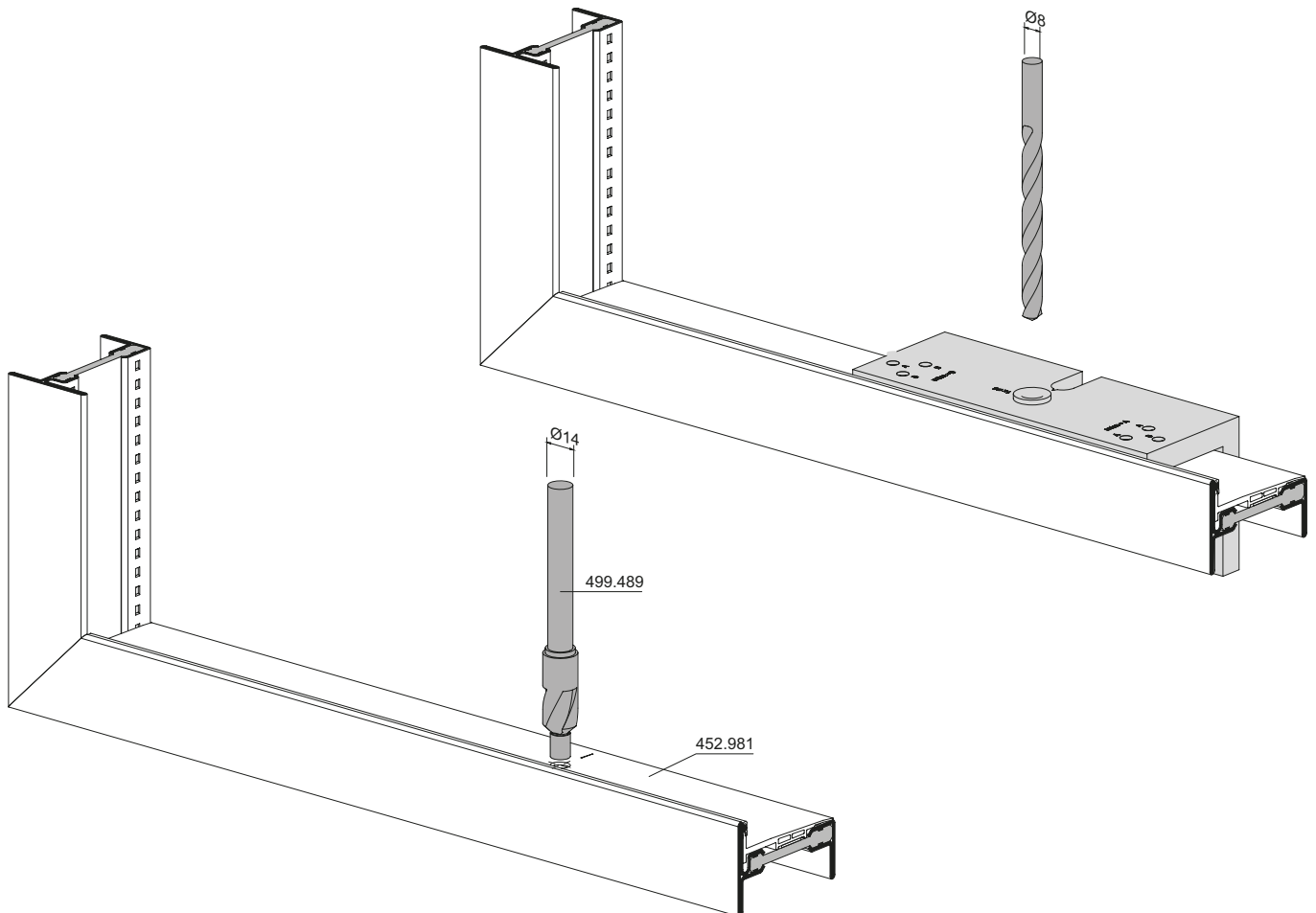
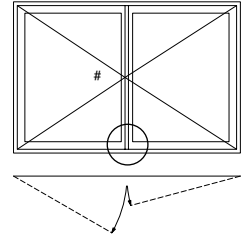
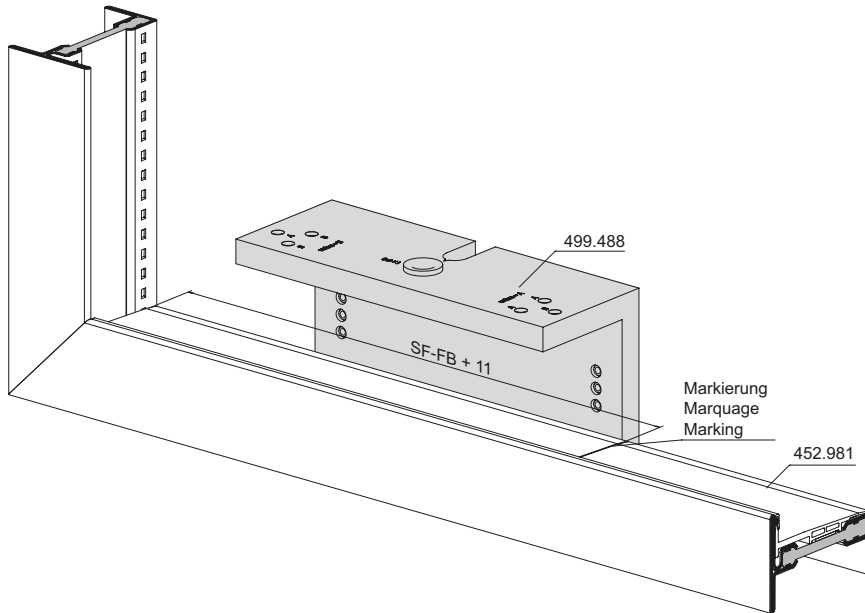
Top socket
 for flush bolt 557.192 / 557.139



Bohrlehre 499.488
für Büchse unten (557.192)

Gabarit de perçage 499.488
pour coussinet en bas (557.192)

Drilling jig 499.488
for bottom socket (557.192)



Beschlageinbau
Montage des ferrures
Installation of fittings

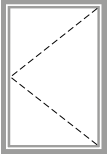
Janisol Arte
Janisol Arte
Janisol Arte

2.0

Beschlag mit Getriebe
557.279 / 557.280

Ferrure avec crémonne de
tringle 557.279 / 557.280

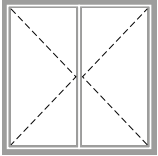
Fitting with mechanism **69**
rod 557.279 / 557.280



Drehfenster
nach innen öffnend

Fenêtre à la française
ouvrant vers l'intérieur

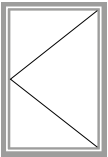
Side-hung window **92**
inward opening



Drehfenster
nach innen öffnend

Fenêtre à la française
ouvrant vers l'intérieur

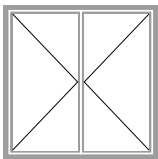
Side-hung window **109**
inward opening



Drehfenster
nach aussen öffnend

Fenêtre à la française
ouvrant vers l'extérieur

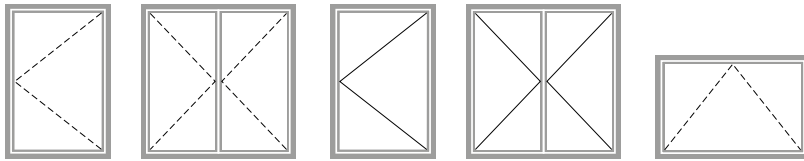
Side-hung window **129**
outward opening



Drehfenster
nach aussen öffnend

Fenêtre à la française
ouvrant vers l'extérieur

Side-hung window **145**
outward opening



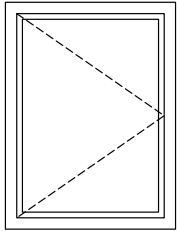
rod	Beschlag mit Getriebe 557.279 / 557.280	Ferrure avec crémonne de tringle 557.279 / 557.280	Fitting with mechanism rod 557.279 / 557.280
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Definition Symbole	Définition des symboles	Definition of symbols	70
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Einbau Glasleisten-Klipsstück im Bereich CNS-Getriebeführung	Montage du clip de parclose dans la zone du guidage de crémonne CNS	Installation of glazing bead clip in the area of the CNS gearbox guide	76
Vorbereitung Getriebeverlängerung 557.188	Préparation au prolongement de la crémonne 557.188	Preparation of gearbox extension 557.188	77
Dichtung 455.046 ausklinken	Entaille joint 455.046	Notch the weatherstrip 455.046	78
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Einbau Getriebe 557.279 / 557.280	Montage crémonne 557.279 / 557.280	Installation of mechanise 557.279 / 557.280	80
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Büchse oben zu Zusatzverriegelung 557.172	Coussinet en haut du verrouillage supplémentaire 557.172	Top socket for additional lock 557.172	90

Definition Symbole

Définition des symboles

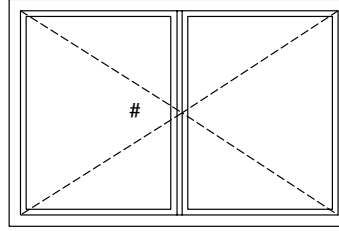
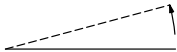
Definition of symbols



Dreh-Fenster einflügelig
 nach innen öffnend

Fenêtre à la française
 à un vantail
 ouvrant vers l'intérieur

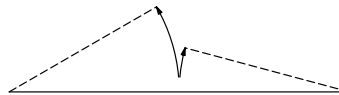
Single-sash side-hung window
 inward opening



Dreh-Fenster zweiflügelig
 nach innen öffnend

Fenêtre à la française
 à deux vantaux
 ouvrant vers l'intérieur

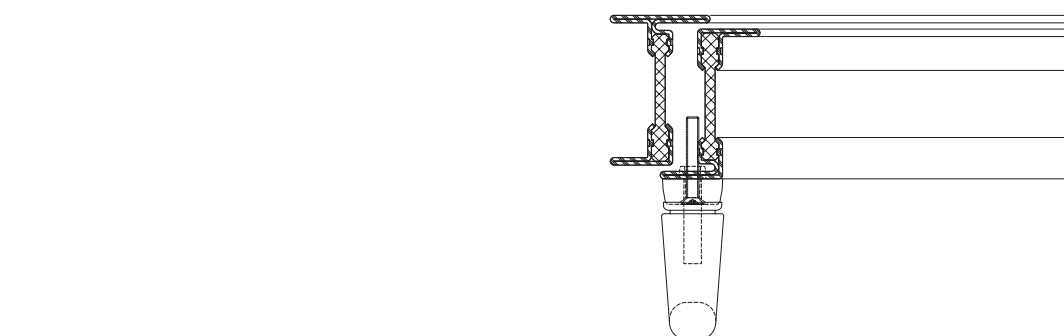
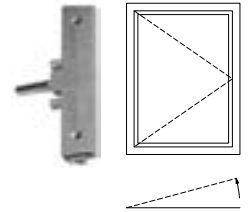
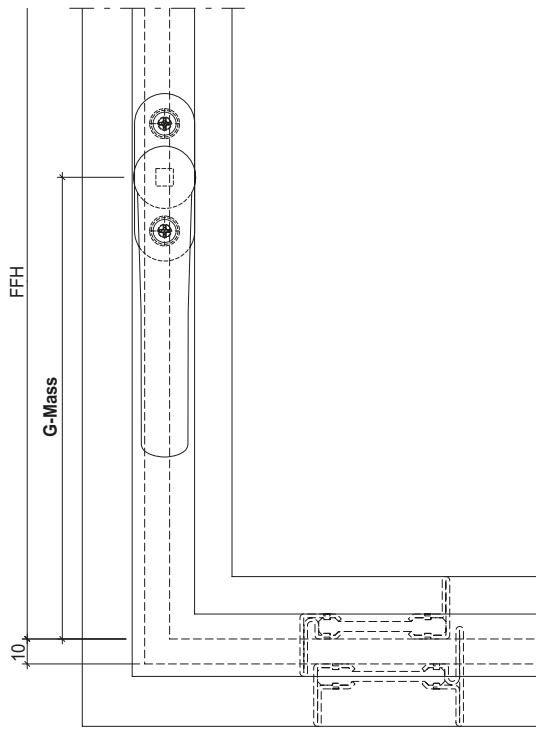
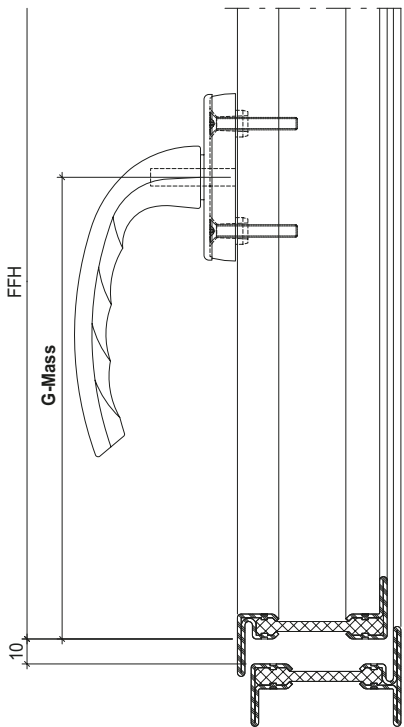
Double-sash side-hung window
 inward opening



Definition G-Mass
 Fenster einflügelig
 nach innen öffnend

Définition de la mesure G
 Fenêtre à un vantail
 ouvrant vers l'intérieur

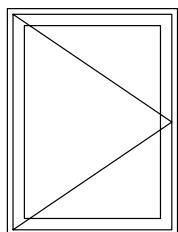
Definition of G measurement
 Single-sash window
 inward opening



Definition Symbole

Définition des symboles

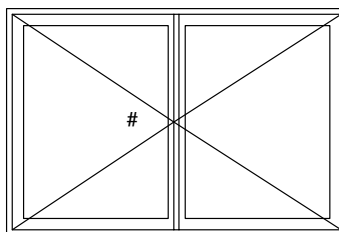
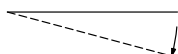
Definition of symbols



Dreh-Fenster einflügelig
 nach aussen öffnend

Fenêtre à la française
 à un vantail
 ouvrant vers l'extérieur

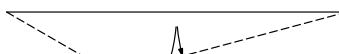
Single-sash side-hung window
 outward opening



Dreh-Fenster zweiflügelig
 nach aussen öffnend

Fenêtre à la française
 à deux vantaux
 ouvrant vers l'extérieur

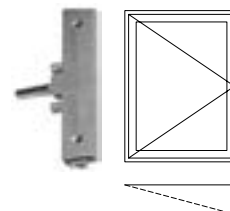
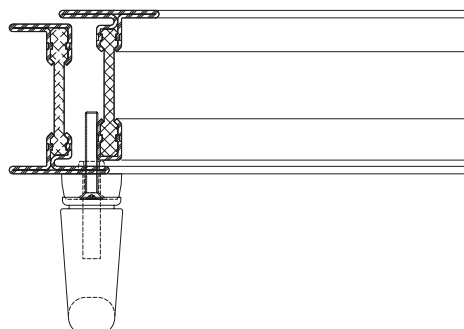
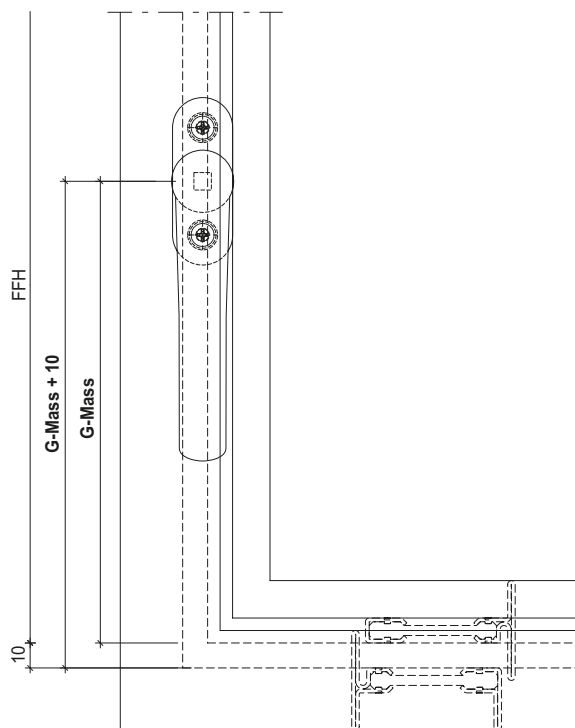
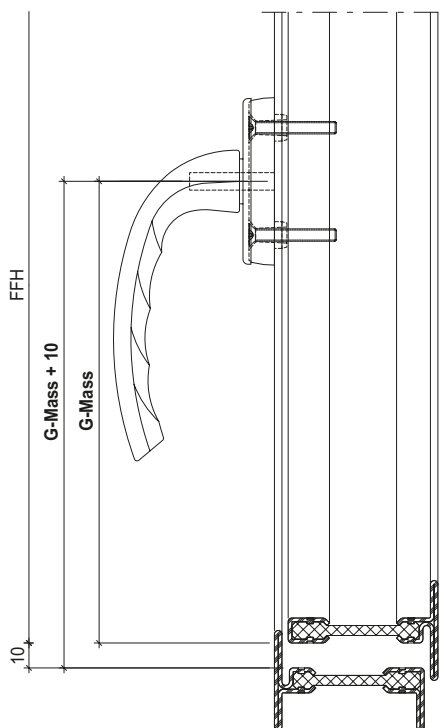
Double-sash side-hung window
 outward opening



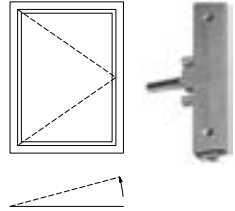
Definition G-Mass
 Fenster einflügelig
 nach aussen öffnend

Définition de la mesure G
 Fenêtre à un vantail
 ouvrant vers l'extérieur

Definition of G measurement
 Single-sash window
 outward opening

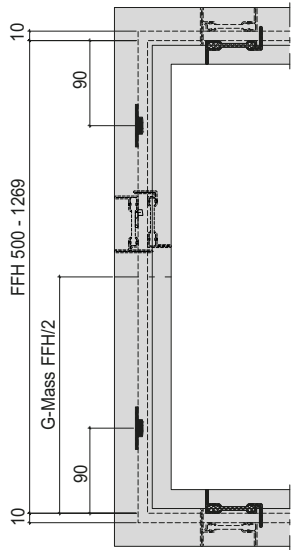


Anordnung Verriegelungspunkte
Fenster einflügelig
nach innen öffnend

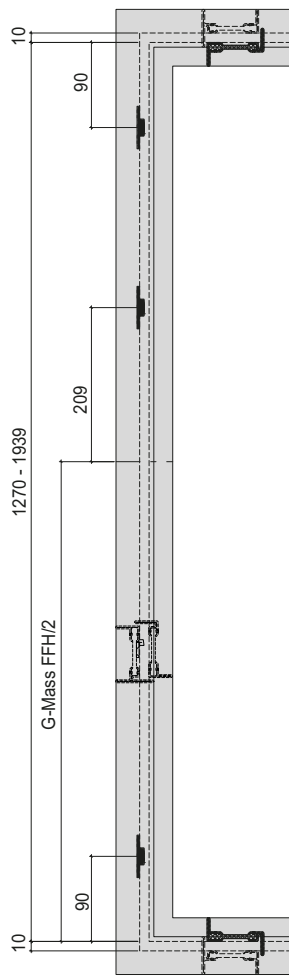


Disposition des points de verrouillage
Fenêtre à un vantail
ouvrant vers l'intérieur

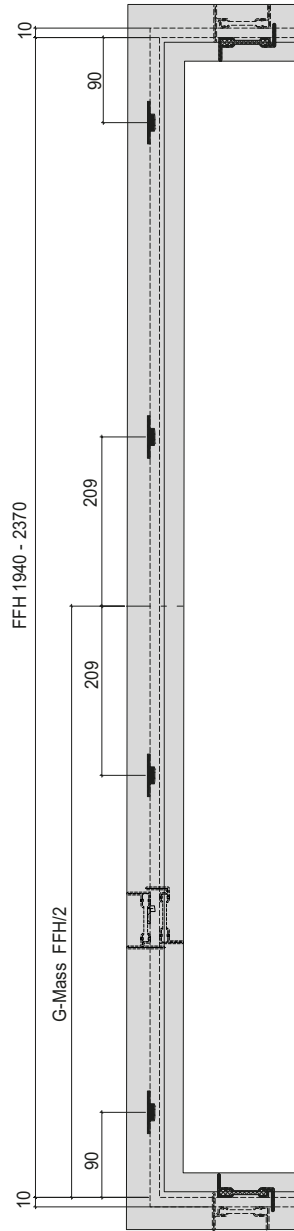
Arrangement of locking points
Single-sash window
inward opening



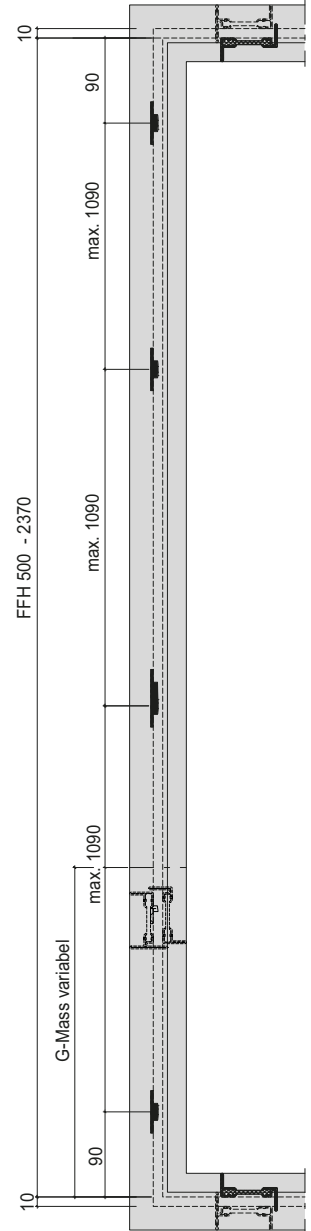
FFH 500 - 1269 mm
 G-Mass FFH/2



FFH 1270 - 1939 mm
 G-Mass FFH/2



FFH 1940 - 2370 mm
 G-Mass FFH/2



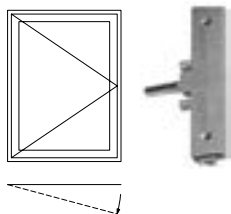
FFH 500 - 2370 mm
 freies G-Mass (min. 250 mm)
 Mesure G libre (min. 250 mm)
 unspecified G measurement
 (min. 250 mm)

Griffsitz mittig Logement de poignée au centre Handle position in centre	FFH mm		
	500-1269	1270-1939	1940-2370
557.279/557.280	1	1	1
557.188	2	3	4
557.309 (VE/UV/PU = 5 Stk.)	2 (1)	3 (1)	4 (1)

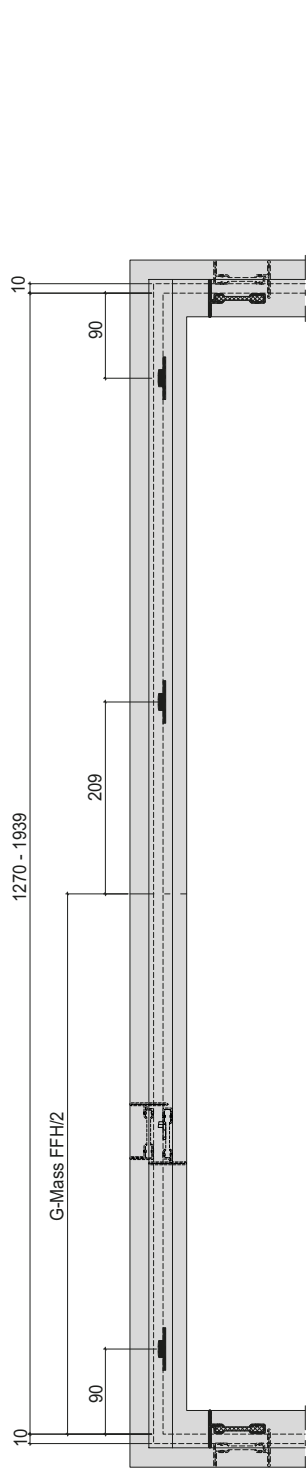
Anordnung Verriegelungspunkte
 Fenster einflügelig
 nach aussen öffnend

Disposition des points de verrouillage
 Fenêtre à un vantail
 ouvrant vers l'extérieur

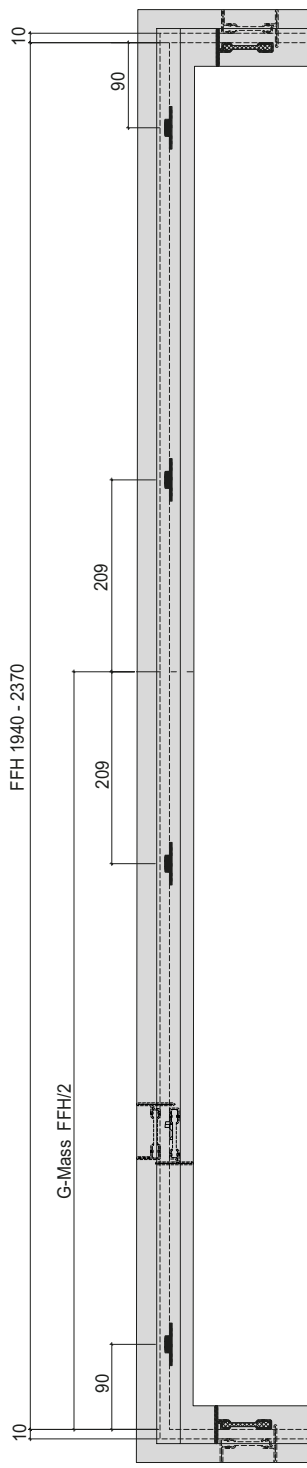
Arrangement of locking points
 Single-sash window
 outward opening



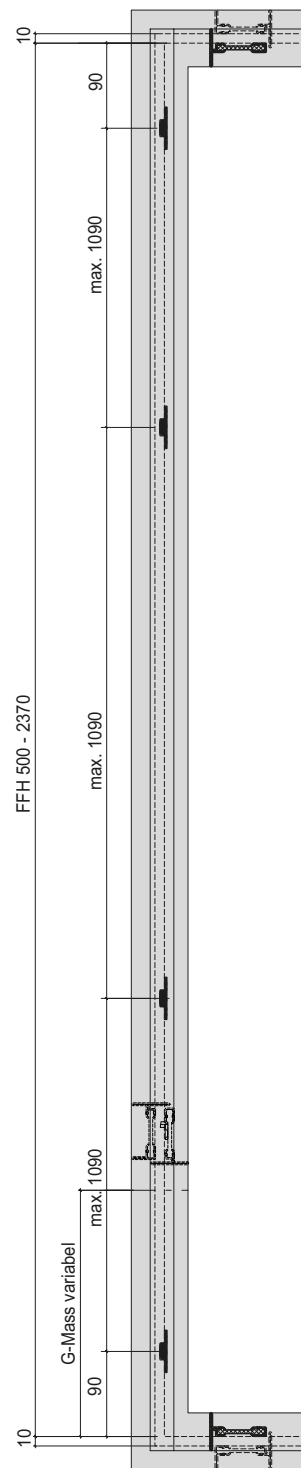
FFH 500 - 1269 mm
 G-Mass FFH/2



FFH 1270 - 1939 mm
 G-Mass FFH/2

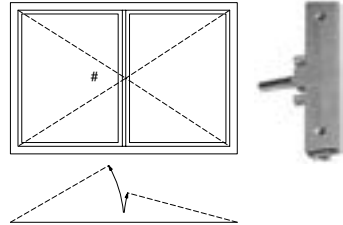


FFH 1940 - 2370 mm
 G-Mass FFH/2



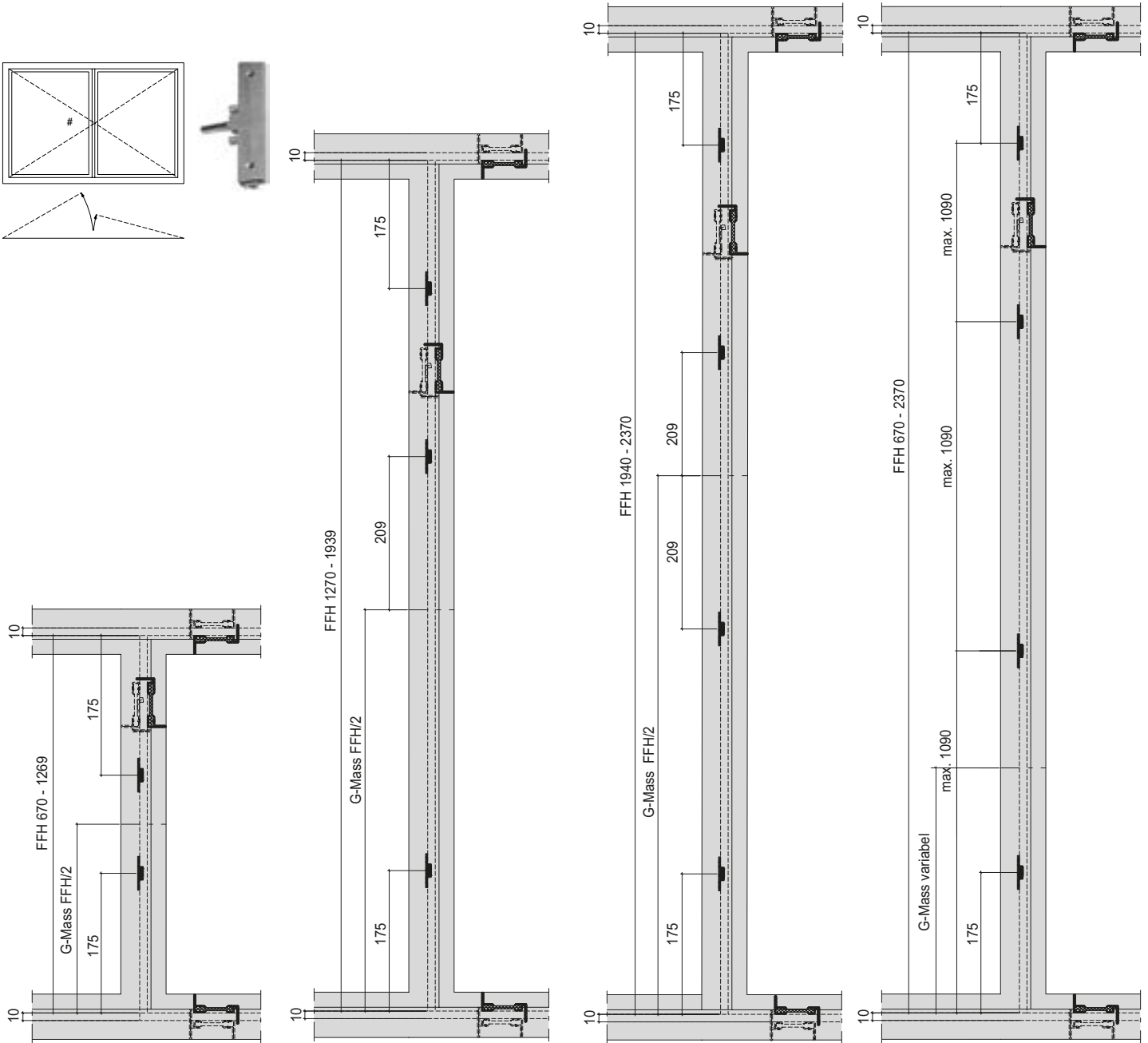
FFH 500 - 2370 mm
 freies G-Mass (min. 250 mm)
 Mesure G libre (min. 250 mm)
 unspecified G measurement
 (min. 250 mm)

Anordnung Verriegelungspunkte
 Fenster zweiflügelig
 nach innen öffnend



Disposition des points de verrouillage
 Fenêtre à deux vantaux
 ouvrant vers l'intérieur

Arrangement of locking points
 Double-sash window
 inward opening



FFH 670 - 1269 mm
 G-Mass FFH/2

FFH 1270 - 1939 mm
 G-Mass FFH/2

FFH 1940 - 2370 mm
 G-Mass FFH/2

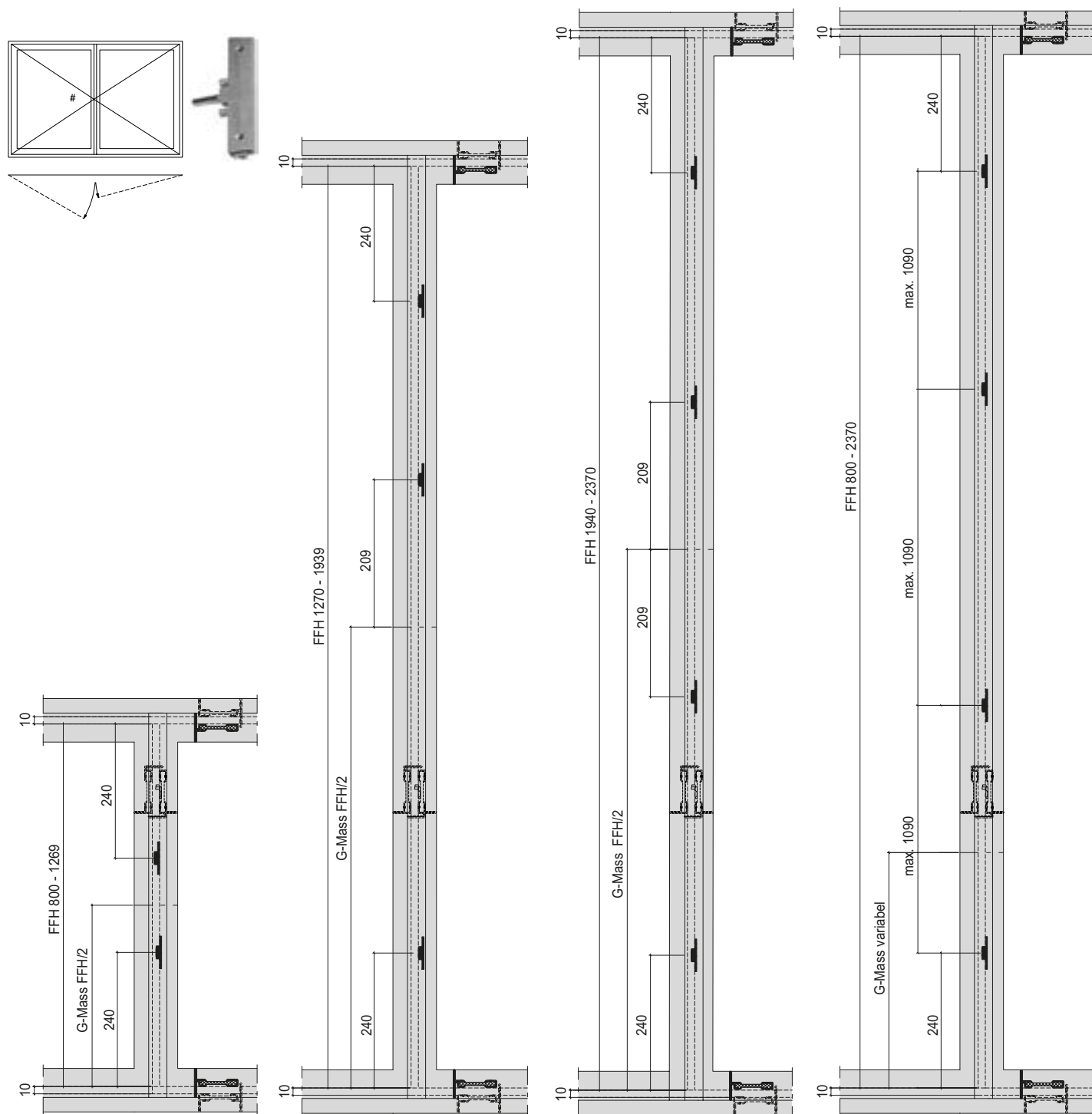
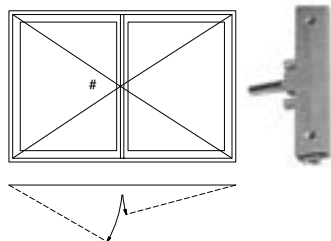
FFH 670 - 2370 mm
 freies G-Mass (min. 335 mm)
 Mesure G libre (min. 335 mm)
 unspecified G measurement
 (min. 335 mm)

Griffsitz mittig Logement de poignée au centre Handle position in centre	FFH mm		
	670-1269	1270-1939	1940-2370
557.279/557.280	1	1	1
557.188	2	3	4
557.309 (VE/UV/PU = 5 Stk.)	2 (1)	3 (1)	4 (1)

Anordnung Verriegelungspunkte
 Fenster zweiflügelig
 nach aussen öffnend

Disposition des points de verrouillage
 Fenêtre à deux vantaux
 ouvrant vers l'extérieur

Arrangement of locking points
 Double-sash window
 outward opening



FFH 800 - 1269 mm
 G-Mass FFH/2

FFH 1270 - 1939 mm
 G-Mass FFH/2

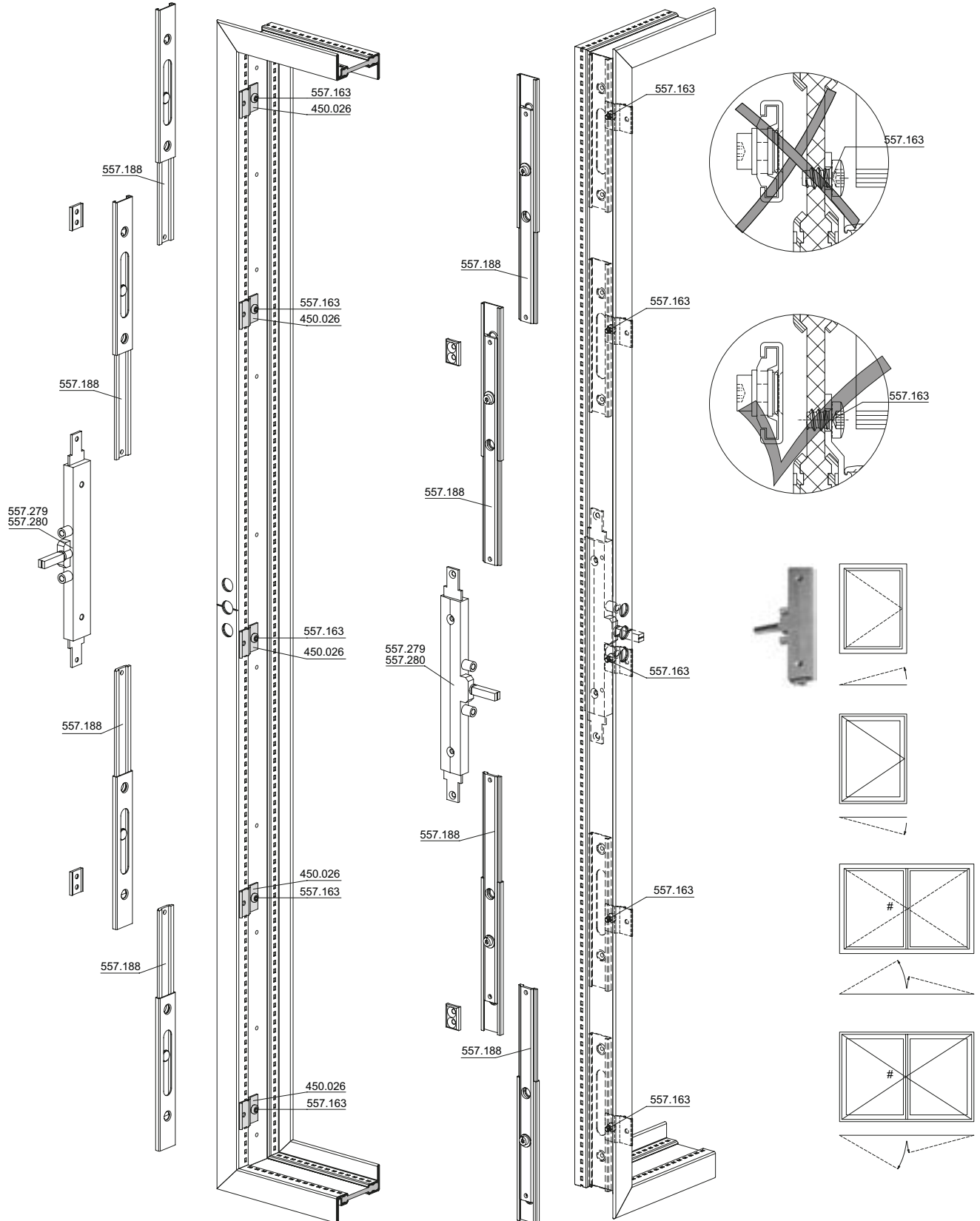
FFH 1940 - 2370 mm
 G-Mass FFH/2

FFH 800 - 2370 mm
 freies G-Mass (min. 400 mm)
 Mesure G libre (min. 400 mm)
 unspecified G measurement
 (min. 400 mm)

**Einbau Glasleisten-Klipsstück
 im Bereich CNS-Getriebeführung**

**Montage du clip de parclose dans la
 zone du guidage de crémonne CNS**

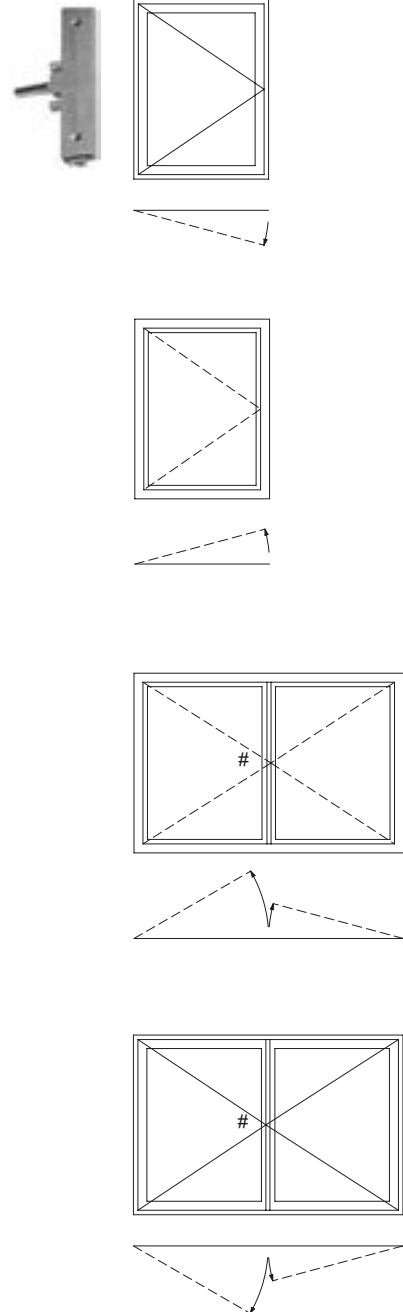
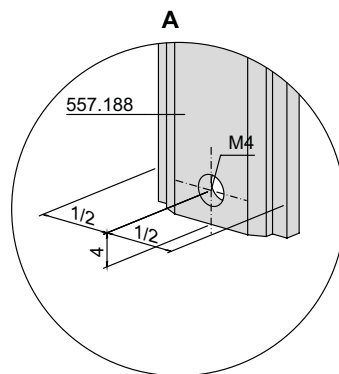
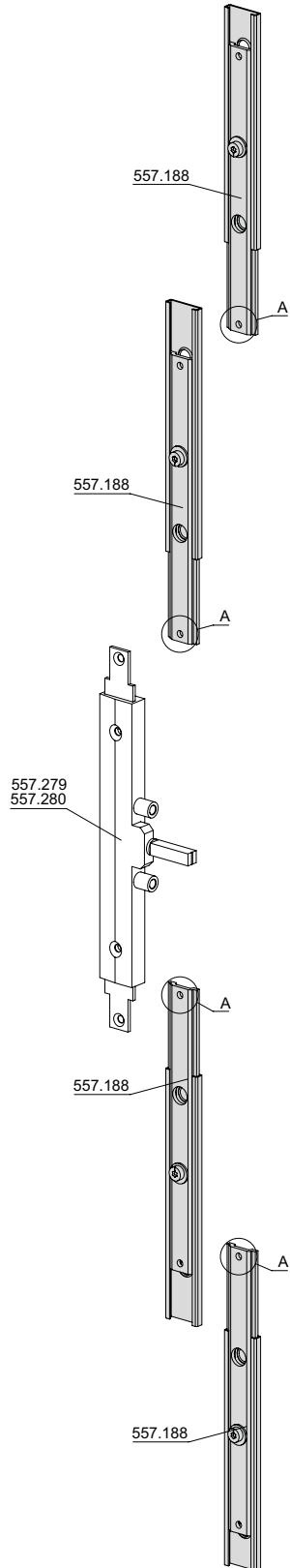
**Installation of glazing bead clip in
 the area of the CNS gearbox guide**



Vorbereitung
 Getriebeverlängerung 557.188

Préparation au prolongement de la
 crémonne 557.188

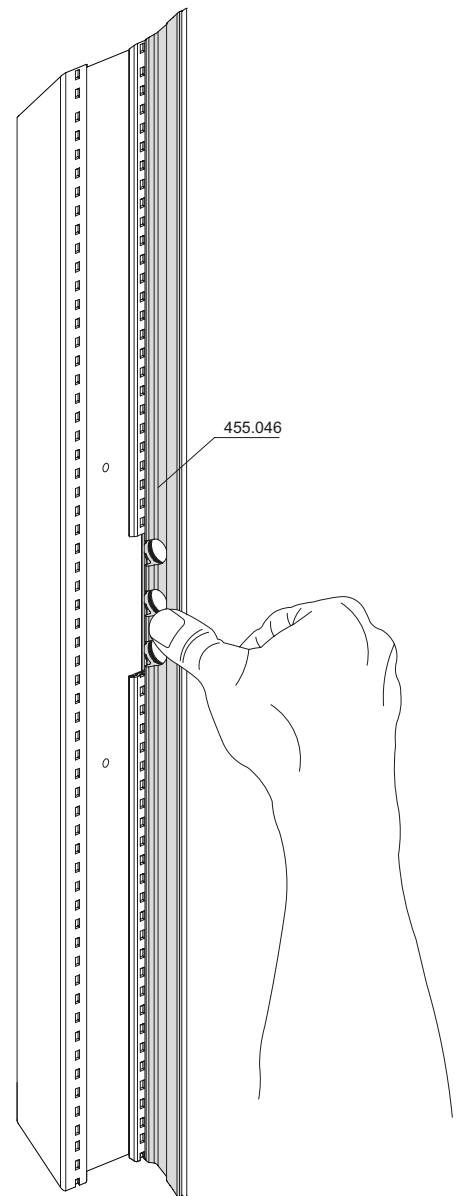
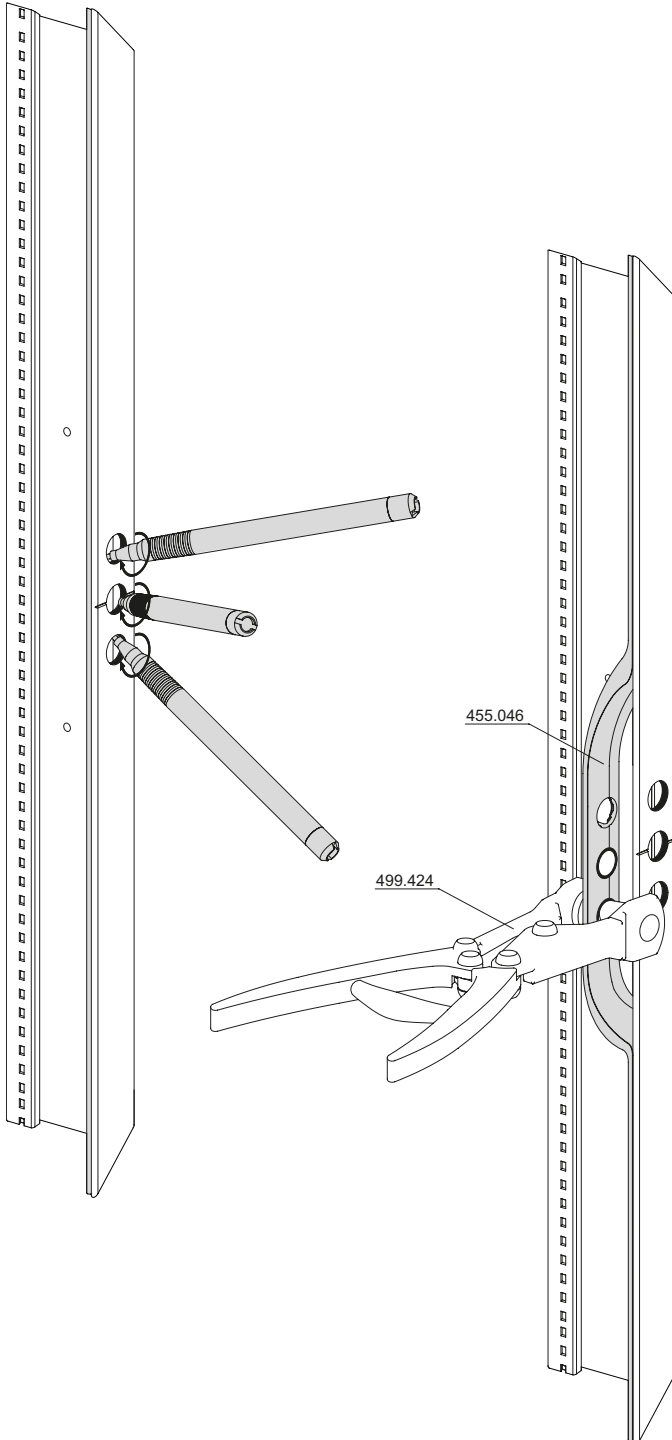
Preparation of
 gearbox extension 557.188



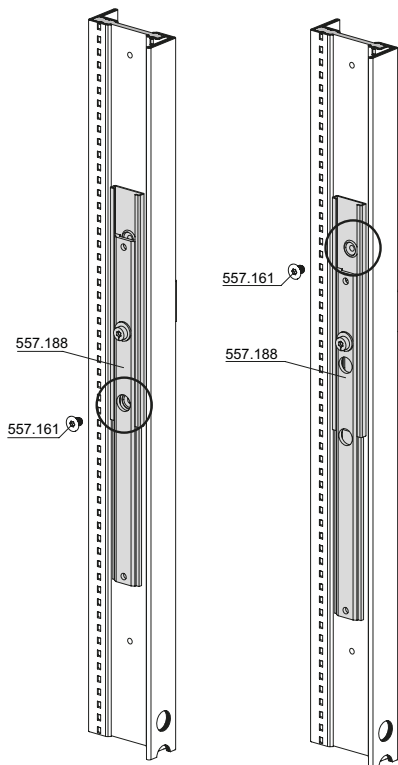
Dichtung 455.046 ausklinken

Entaille joint 455.046

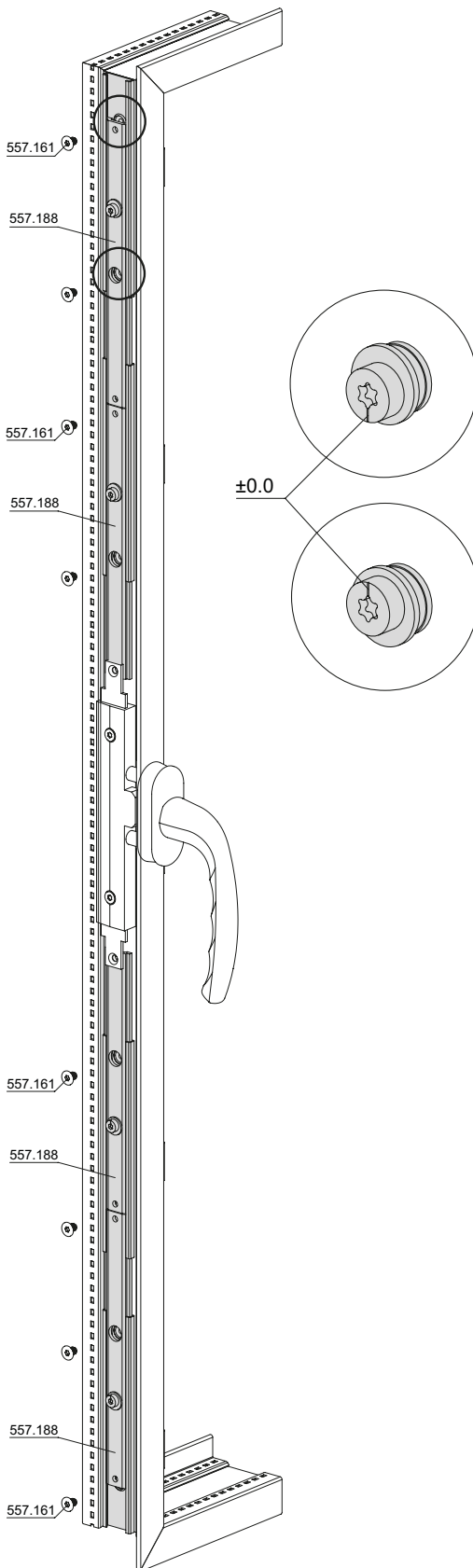
Notch the weatherstrip 455.046



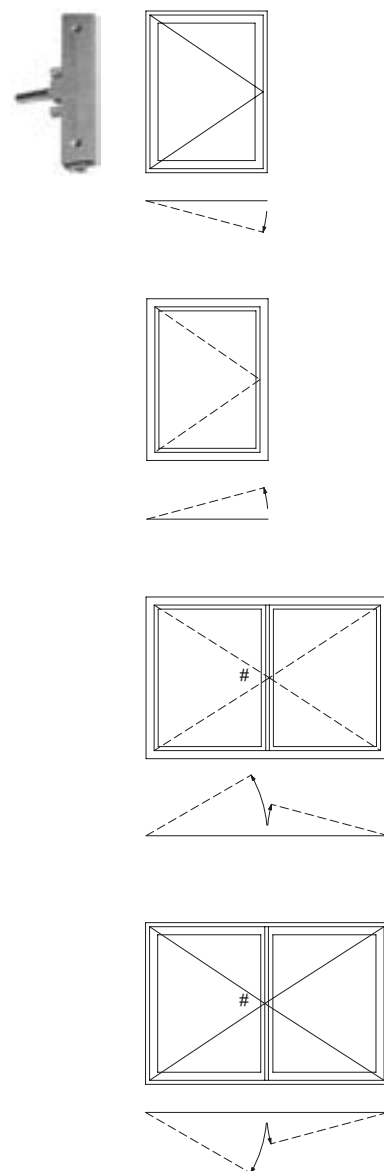
Einbau
 Getriebeverlängerung 557.188
 Flügel



Montage prolongement de la
 crémonne 557.188
 Vantail



Installation of
 gearbox extension 557.188
 Sash

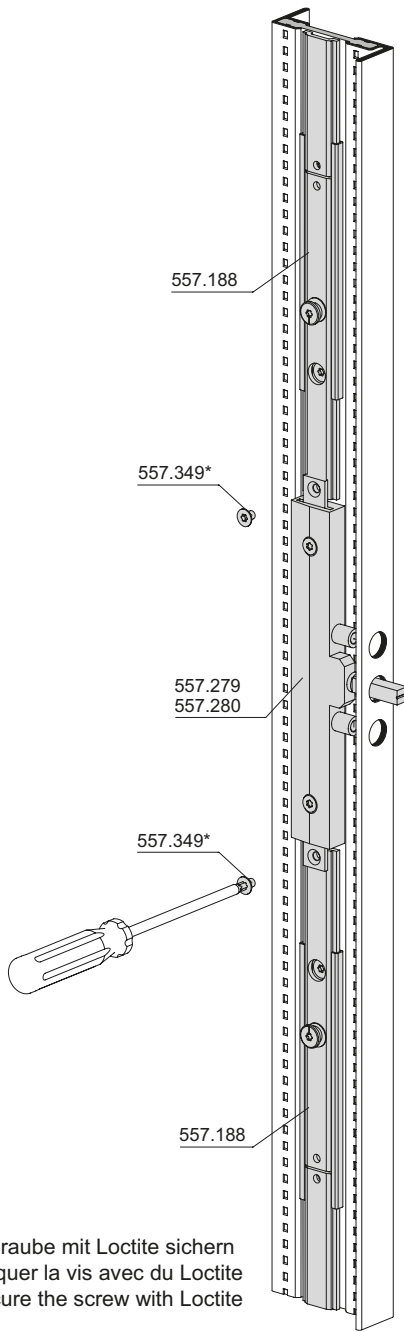
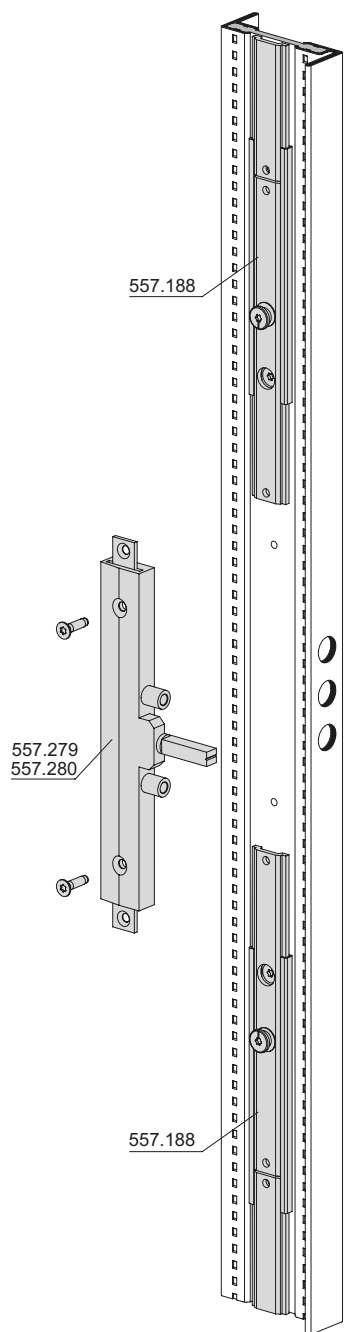


Verstellmöglichkeit $\pm 0,65$ mm
 Plage de réglage $\pm 0,65$ mm
 Range of adjustment $\pm 0,65$ mm

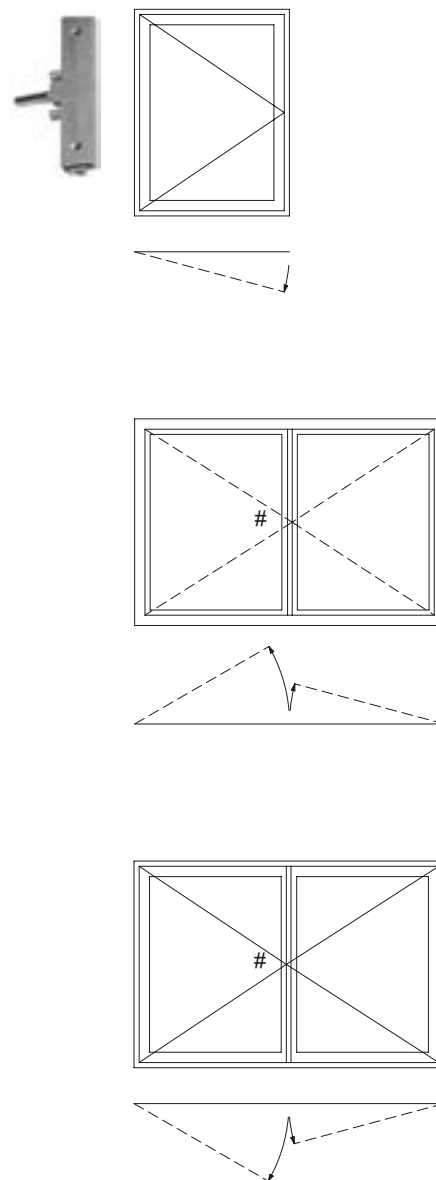
Einbau Getriebe
 557.279 / 557.280

Montage crémono
 557.279 / 557.280

Installation of mechanise
 557.279 / 557.280



* Schraube mit Loctite sichern
 * Bloquer la vis avec du Loctite
 * Secure the screw with Loctite



Dichtung 455.046
 ausklinken
 (siehe Seite 78)

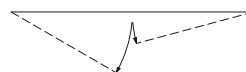
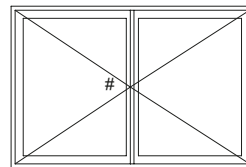
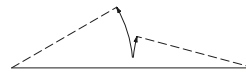
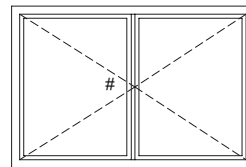
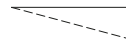
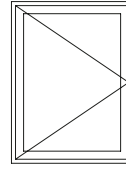
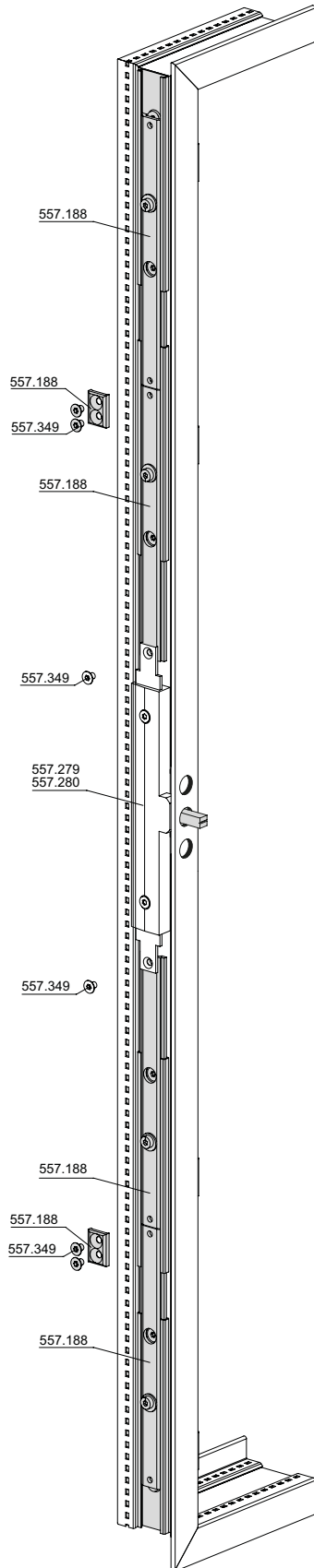
Entaille joint 455.046
 (voir page 78)

Notch the weatherstrip
 455.046 (see page 78)

Einbau Verbindungsstück
Getriebeverlängerung 557.188

Montage pièce de jonction
Prolongement de la crémonne 557.188

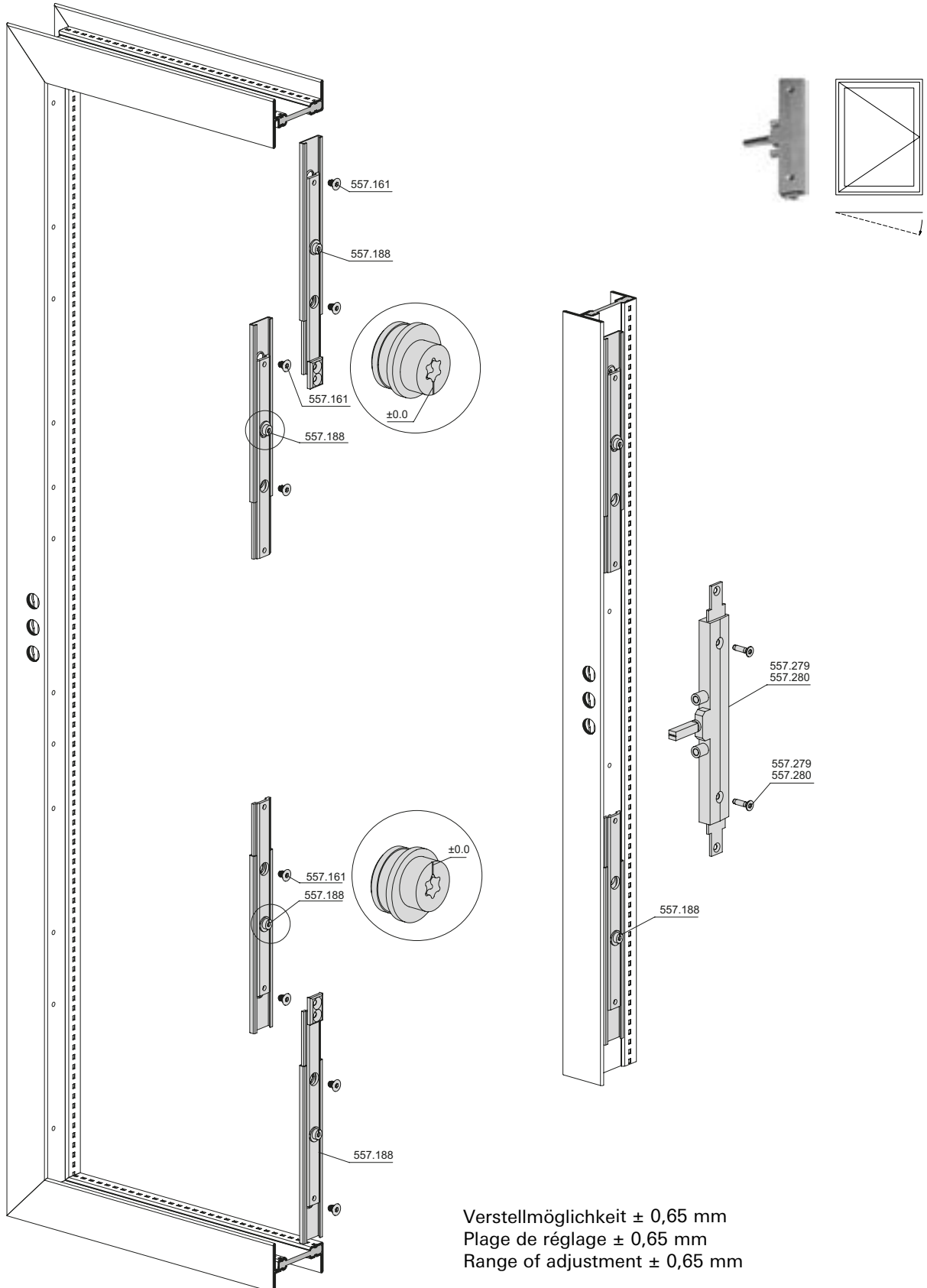
Installation of connector
Gearbox extension 557.188



Einbau Beschlag
Rahmen

Montage ferrure
Cadre

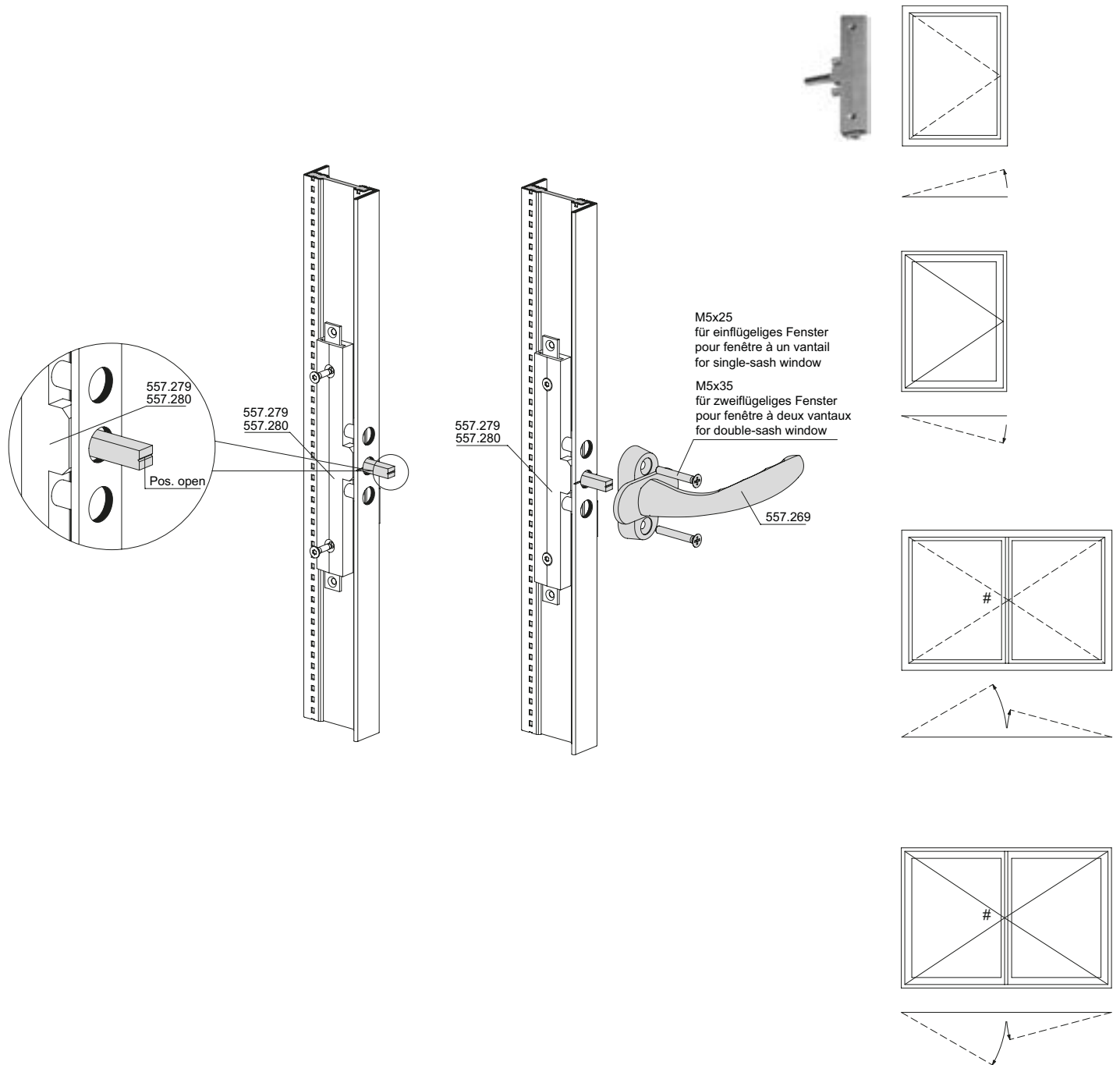
Installation of fitting
Frame



Einbau Fenstergriff 557.269

Montage poignée de fenêtre 557.269

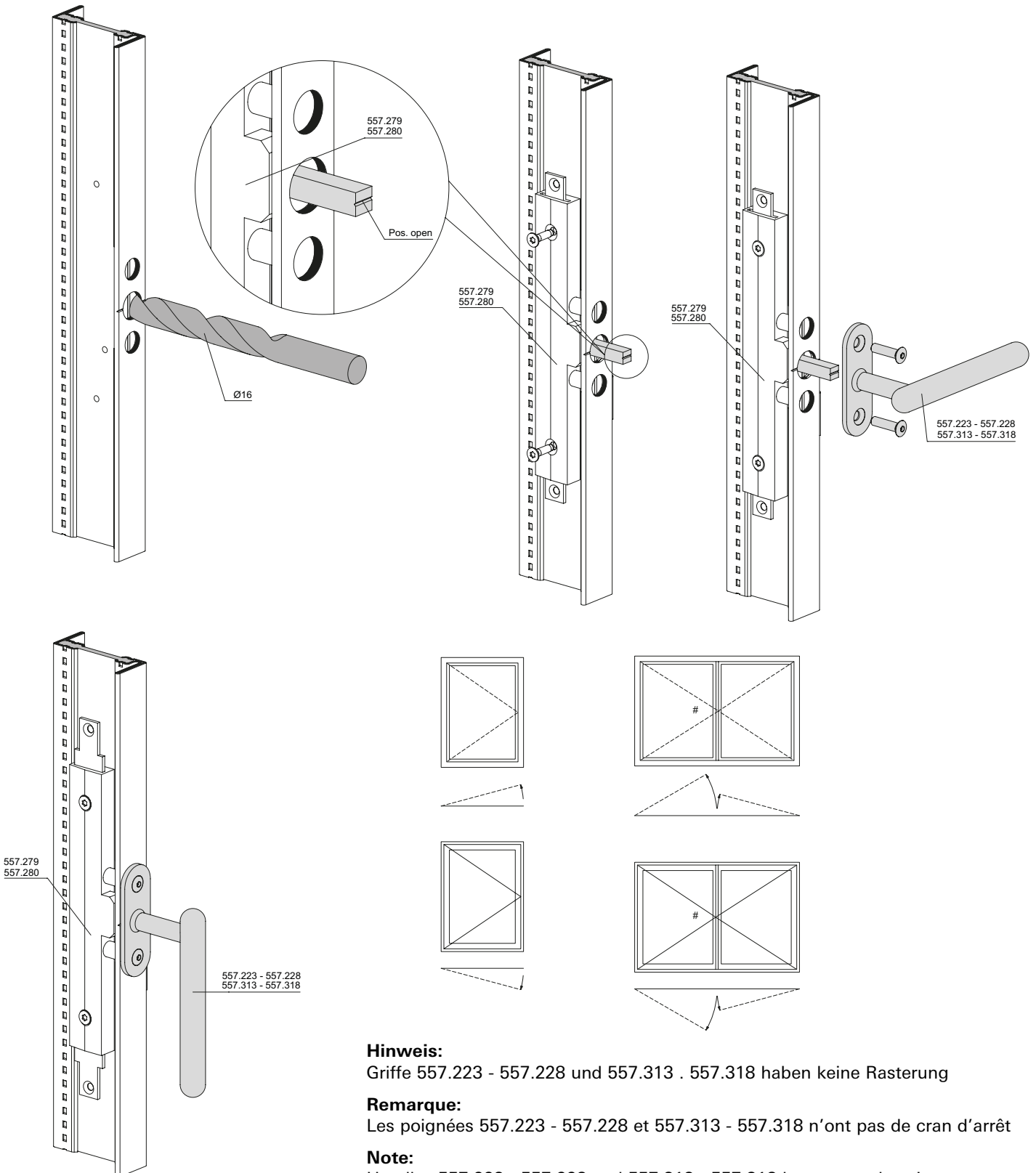
Installation of window handle 557.269



Einbau Fenstergriffe
 557.223 - 557.228
 557.313 - 557.318

Montage poignées de fenêtre
 557.223 - 557.228
 557.313 - 557.318

Installation of window handles
 557.223 - 557.228
 557.313 - 557.318



Hinweis:

Griffe 557.223 - 557.228 und 557.313 . 557.318 haben keine Rasterung

Remarque:

Les poignées 557.223 - 557.228 et 557.313 - 557.318 n'ont pas de cran d'arrêt

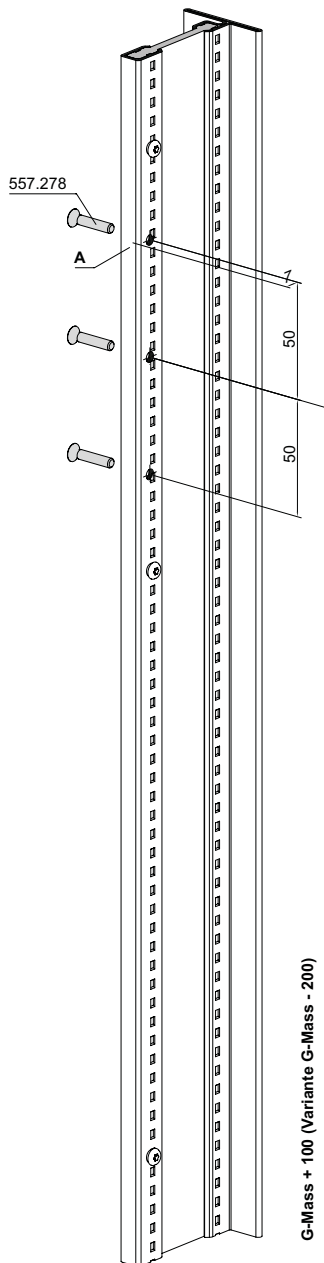
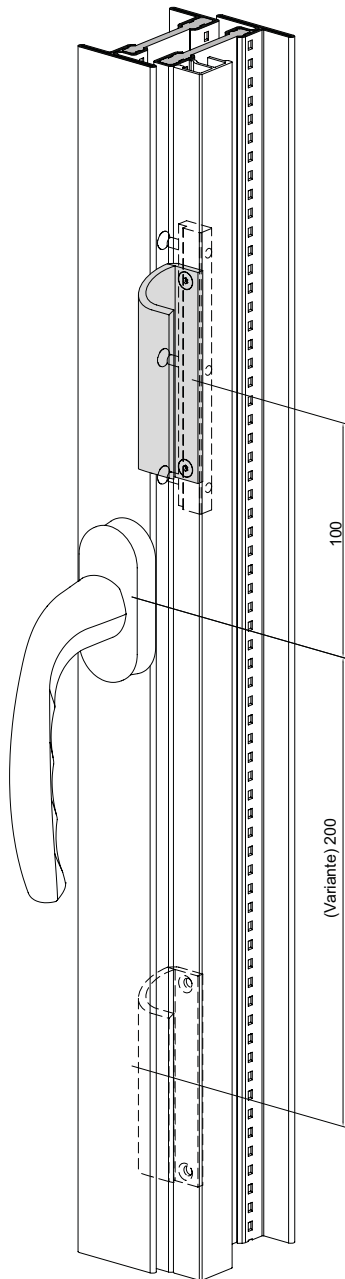
Note:

Handles 557.223 - 557.228 and 557.313 - 557.318 have no embossing

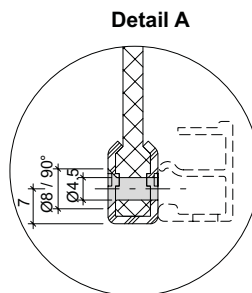
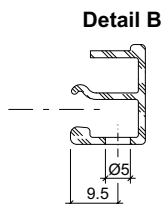
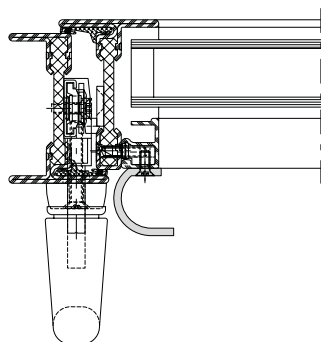
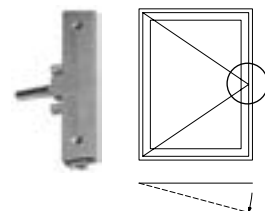
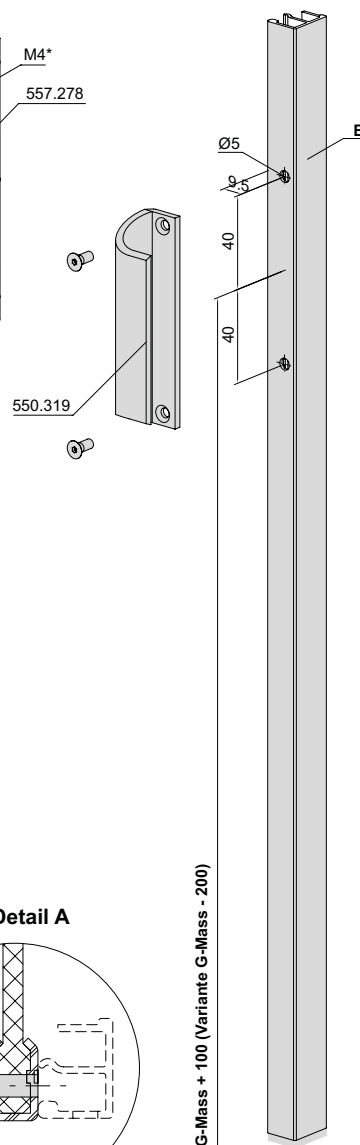
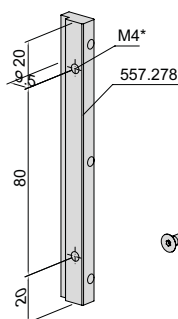
Ziehgriff 550.319 bei nach aussen öffnendem Fenster für Glasleisten 405.030-405.035 Flügel

Poignée à tirer 550.319 sur une fenêtre à ouverture vers l'extérieur pour parclozes 405.030-405.035 Vantail

Pull handle 550.319 for outward-opening window for glazing beads 405.030-405.035 Sash



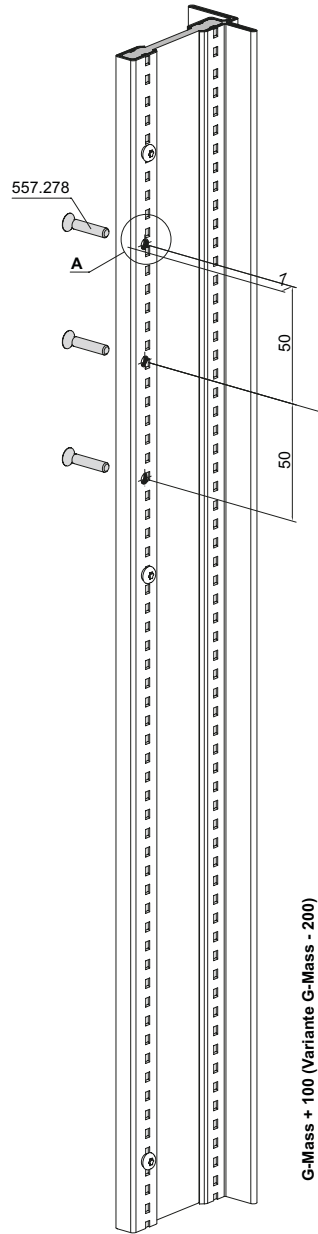
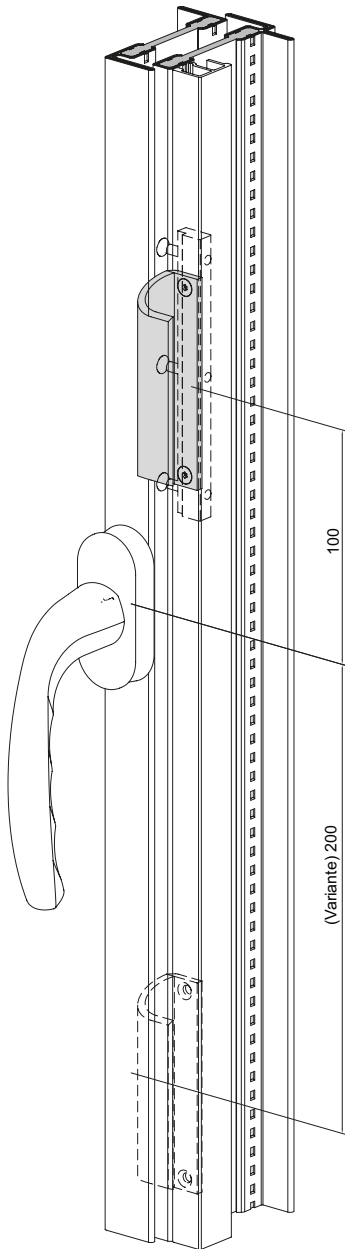
- * Die M4-Bohrung durch Metallbauer ausführen
- * Faire effectuer le perçage M4 par le constructeur métallique
- * Have a metalworker drill the M4 hole



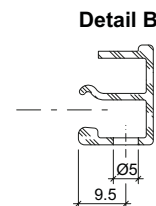
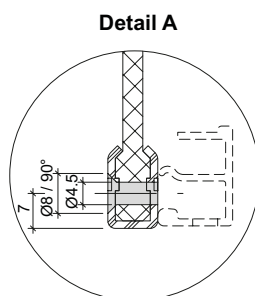
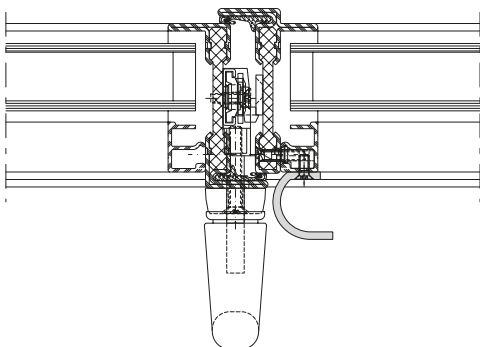
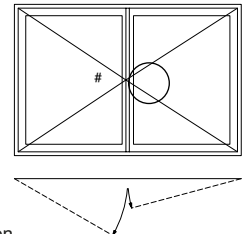
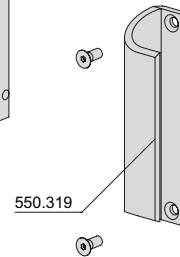
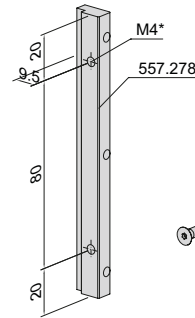
**Ziehgriff 550.319 bei nach
 aussen öffnendem Fenster
 für Glasleisten 405.030-405.035
 Stulpfenster**

**Poignée à tirer 550.319 sur une
 fenêtre à ouverture vers l'extérieur
 pour parclores 405.030-405.035
 Fenêtre à deux vantaux**

**Pull handle 550.319 for
 outward-opening window
 for glazing beads 405.030-405.035
 Double sash window**



* Die M4-Bohrung durch Metallbauer ausführen
 * Faire effectuer le perçage M4 par le constructeur métallique
 * Have a metalworker drill the M4 hole

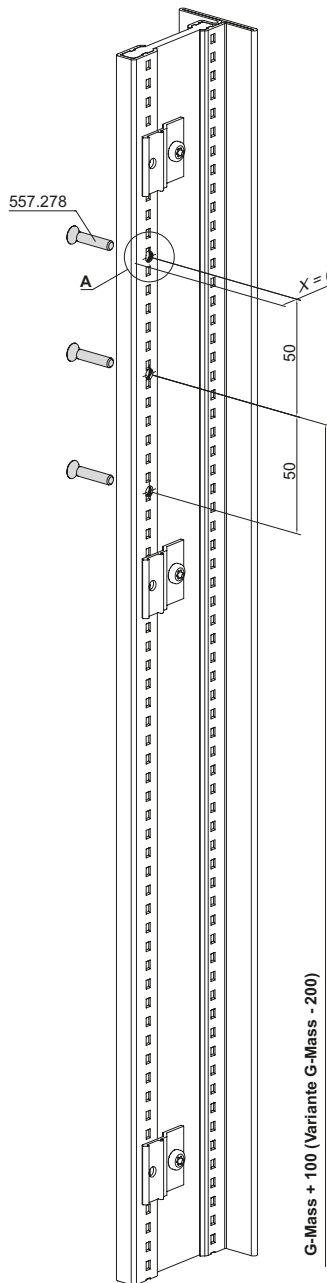
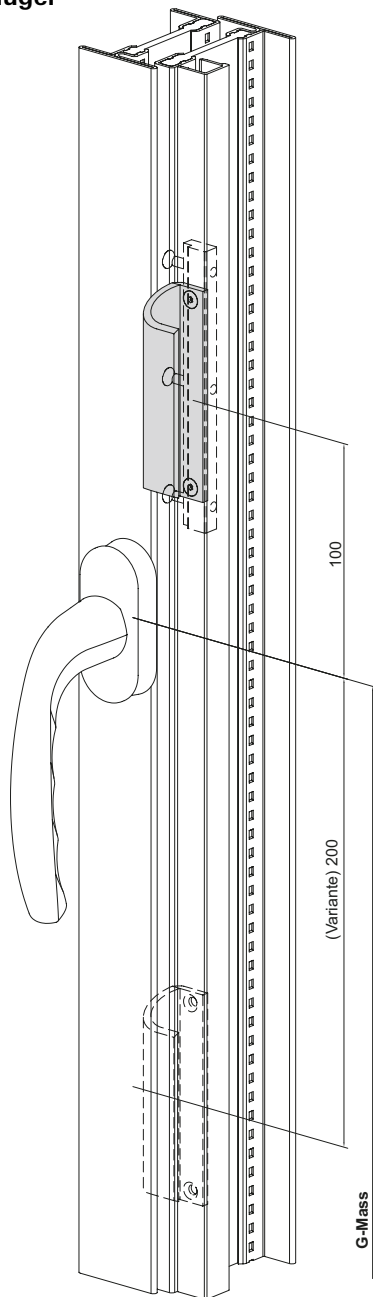


G-Mass + 100 (Variante G-Mass - 200)

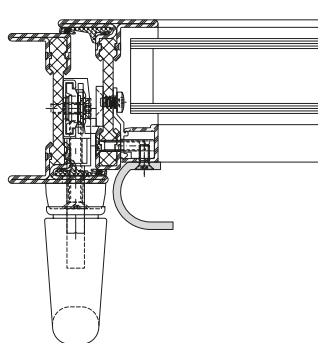
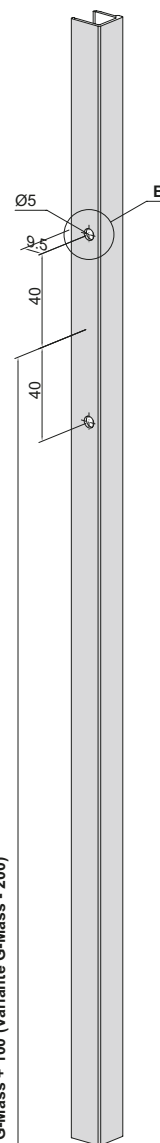
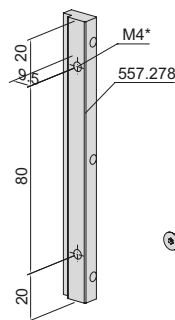
Ziehgriff 550.319 bei nach aussen öffnendem Fenster für Glasleisten 405.021-405.025 Flügel

Poignée à tirer 550.319 sur une fenêtre à ouverture vers l'extérieur pour parclozes 405.021-405.025 Vantail

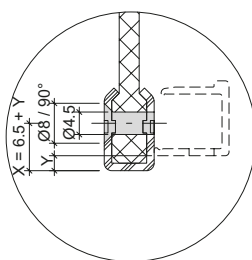
Pull handle 550.319 for outward-opening window for glazing beads 405.021-405.025 Sash



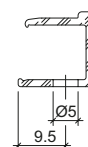
- * Die M4-Bohrung durch Metallbauer ausführen
- * Faire effectuer le perçage M4 par le constructeur métallique
- * Have a metalworker drill the M4 hole



Detail A



Detail B

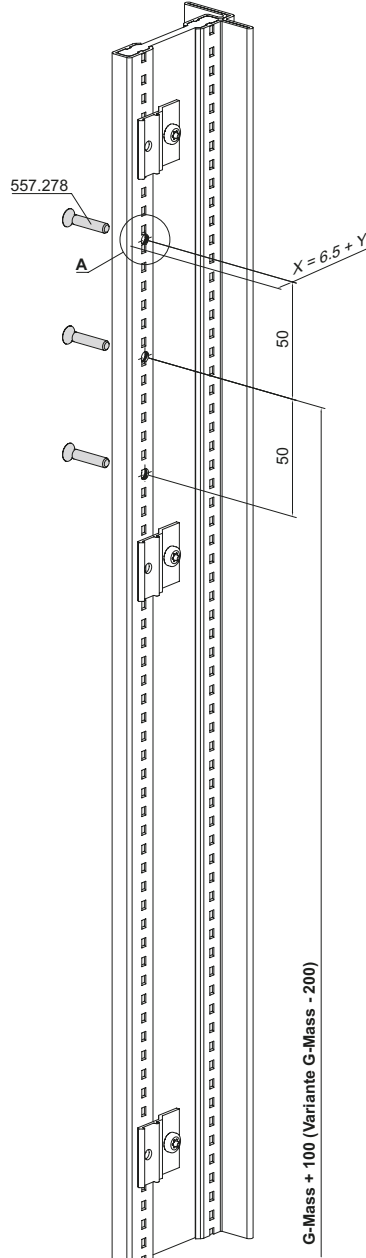
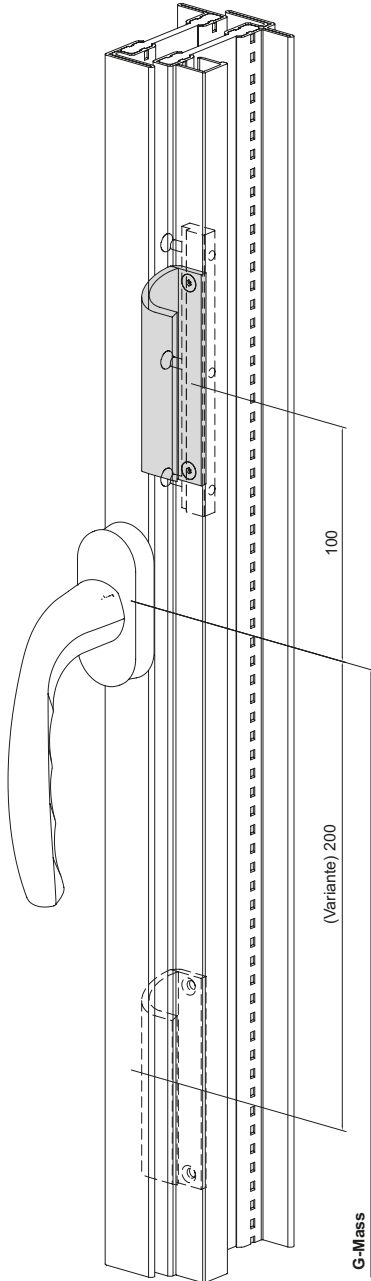


G-Mass + 100 (Variante G-Mass - 200)

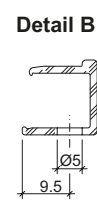
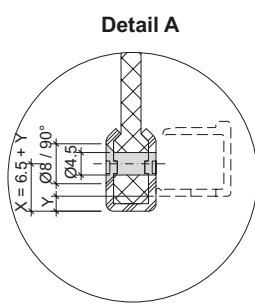
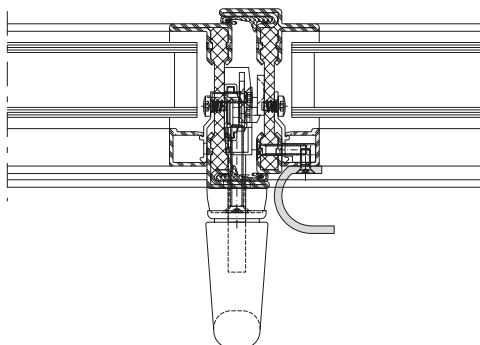
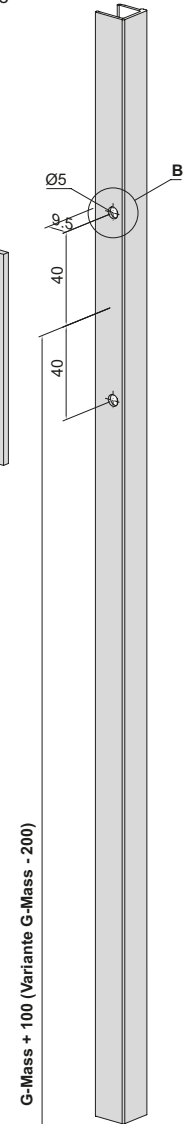
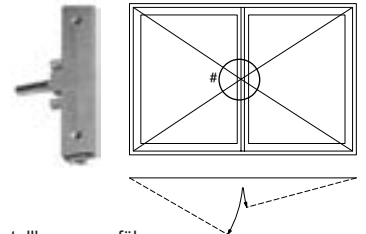
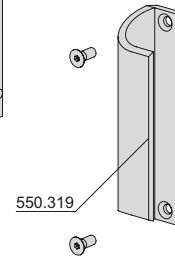
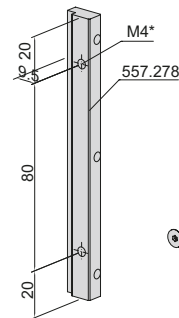
Ziehgriff 550.319 bei nach aussen öffnendem Fenster für Glasleisten 405.021-405.025 Flügel

Poignée à tirer 550.319 sur une fenêtre à ouverture vers l'extérieur pour parclozes 405.021-405.025 Vantail

Pull handle 550.319 for outward-opening window for glazing beads 405.021-405.025 Sash



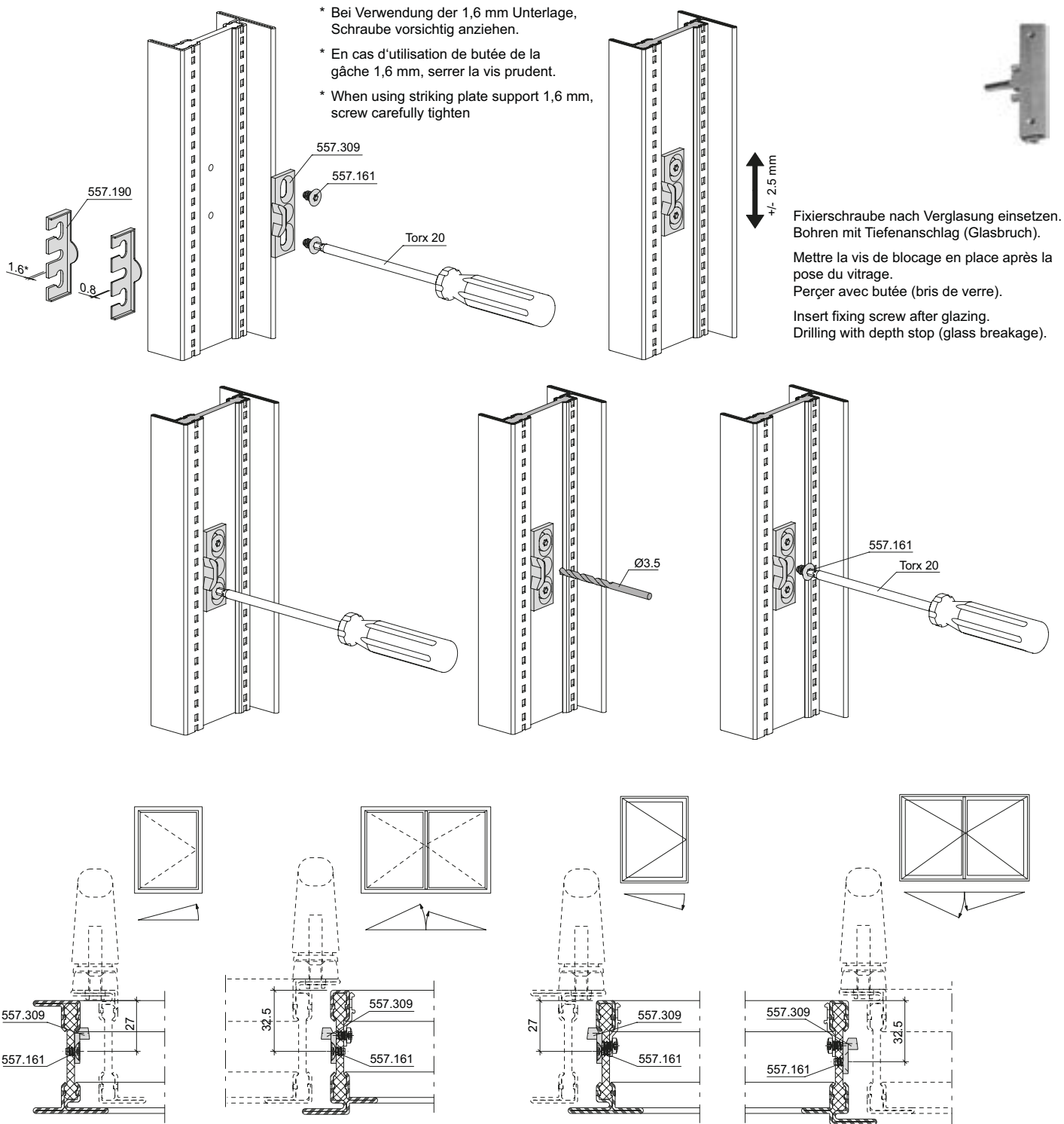
- * Die M4-Bohrung durch Metallbauer ausführen
- * Faire effectuer le perçage M4 par le constructeur métallique
- * Have a metalworker drill the M4 hole



Schliessbleche 557.309 ausrichten
und fixieren

Ajuster et fixer les gâches de
fermeture 557.309

Align and fix strike plates 557.309



Seitliche Toleranzaufnahme:
Einsatz von Unterlagen 0,8 mm oder
1,6 mm je nach Situation einsetzbar.

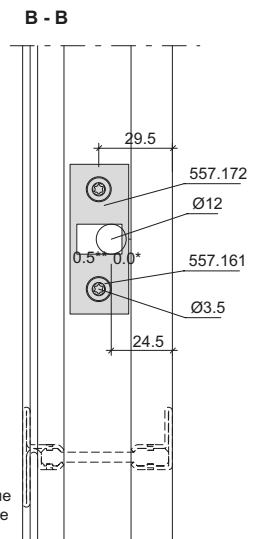
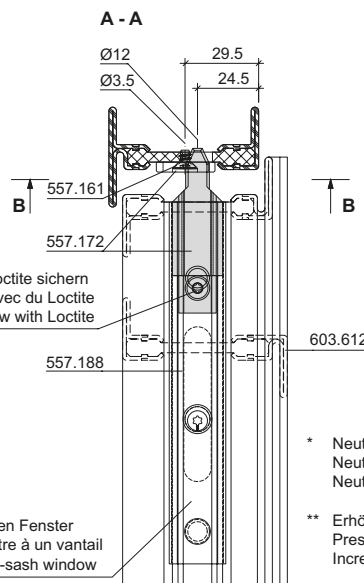
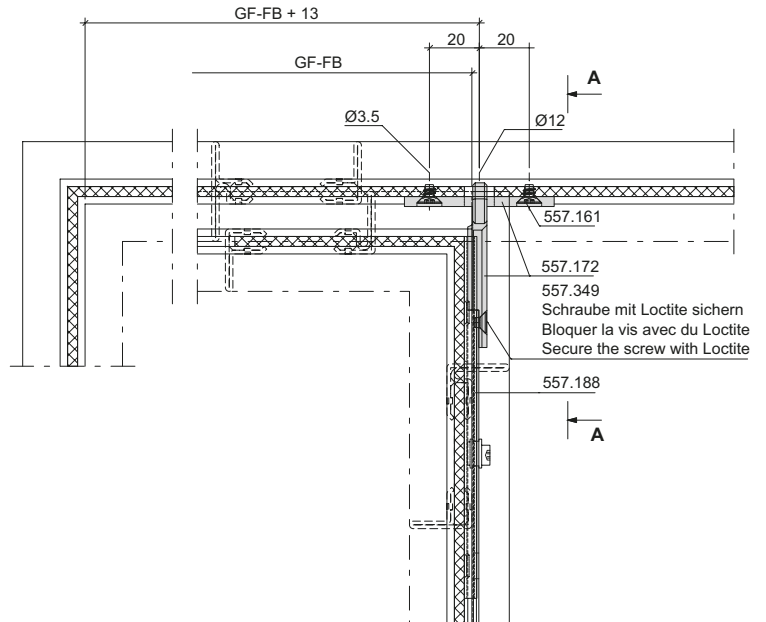
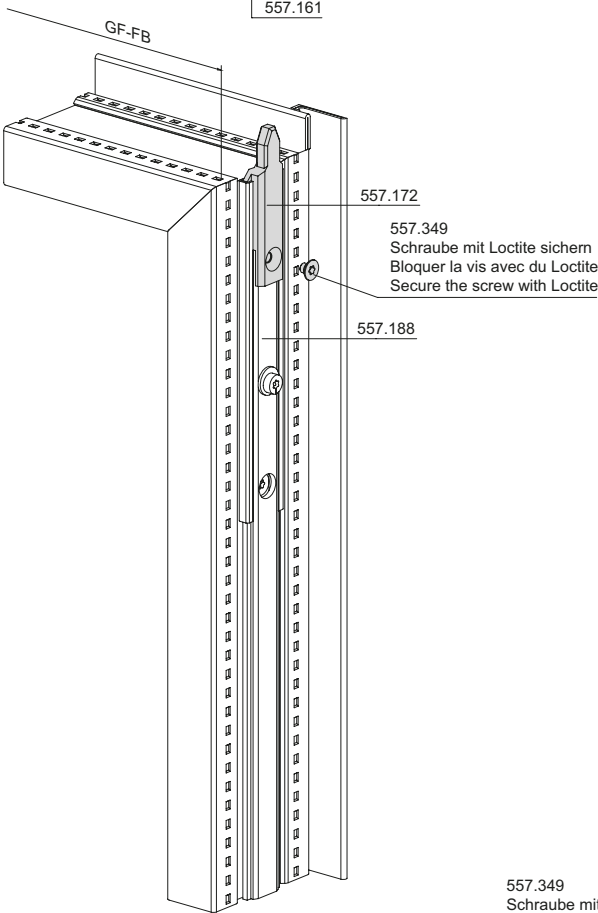
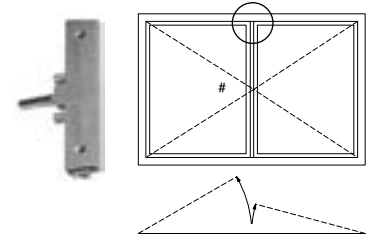
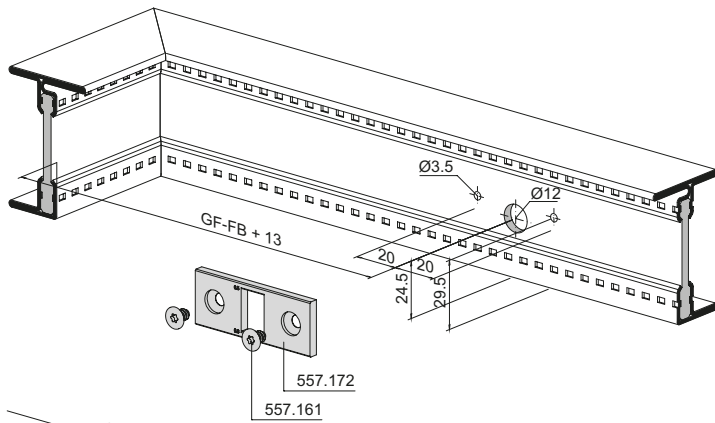
Rattrapage des jeux latéraux
Utilisation de cales 0,8 mm ou
1,6 mm selon la situation.

Lateral tolerance:
0,8 mm or 1,6 mm supports can be
used depending on the circumstances.

Büchse oben
 zu Zusatzverriegelung 557.172

Coussinet en haut du verrouillage
 supplémentaire 557.172

Top socket for
 additional lock 557.172



Zuschnitt wie beim einflügeligen Fenster
 Découpe comme pour la fenêtre à un vantail
 Cutting in same way as single-sash window

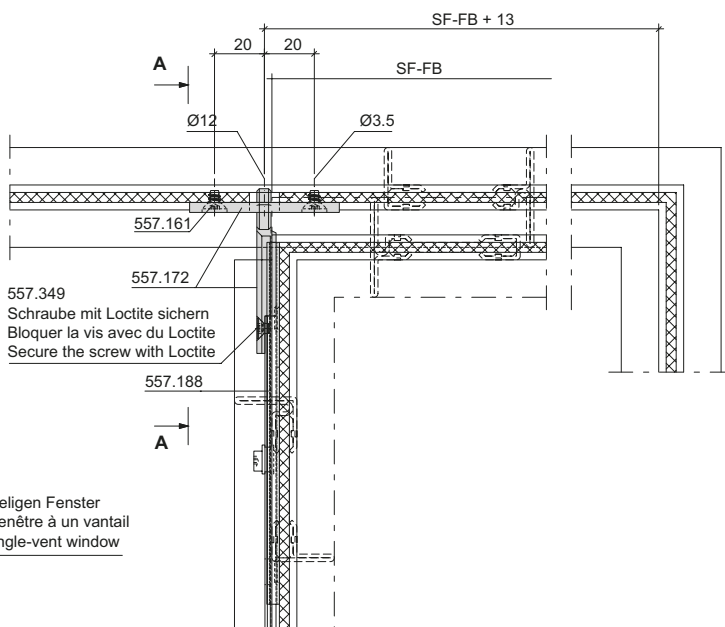
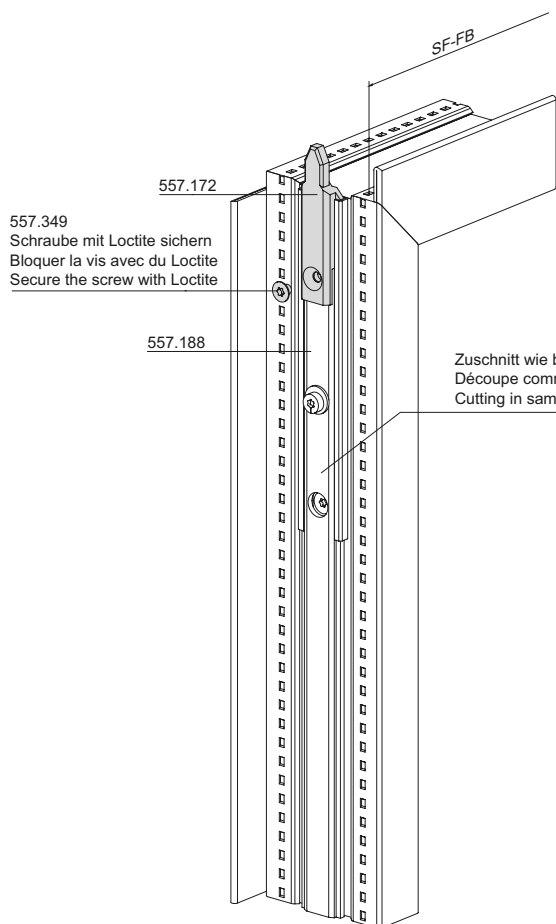
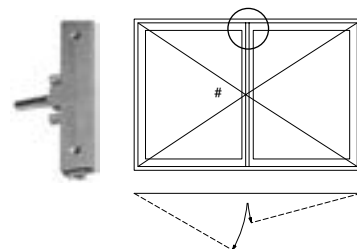
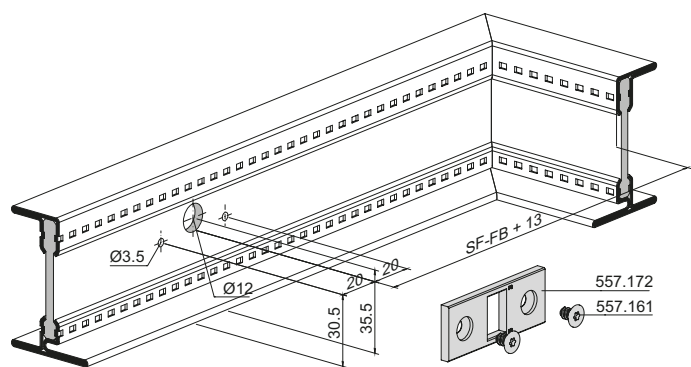
* Neutral
 Neutre
 Neutral

** Erhöhter Anpressdruck
 Pression de serrage accrue
 Increased contact pressure

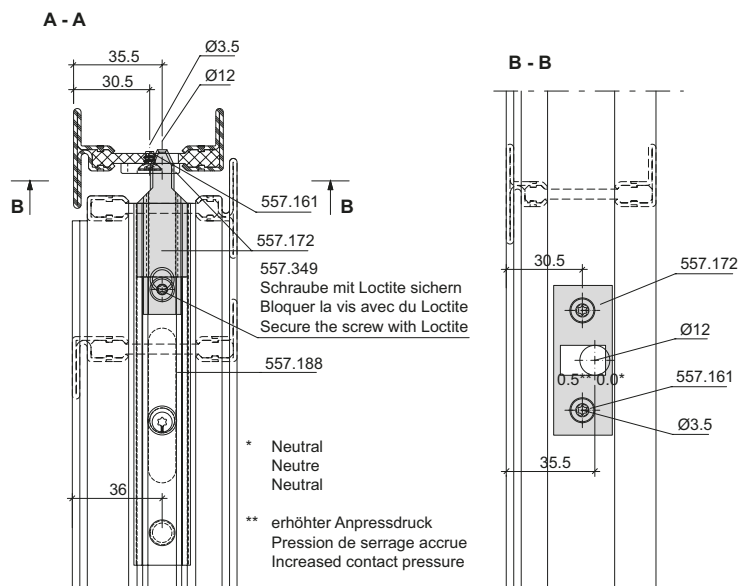
Büchse oben
 zu Zusatzverriegelung 557.172

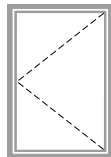
Coussinet en haut du verrouillage
 supplémentaire 557.172

Top socket for
 additional lock 557.172



Zuschnitt wie beim einflügeligen Fenster
 Découpe comme pour la fenêtre à un vantail
 Cutting in same way as single-vent window





**Drehfenster
 nach innen öffnend**

**Fenêtre à la française
 ouvrant vers l'intérieur**

**Side-hung window
 inward opening**

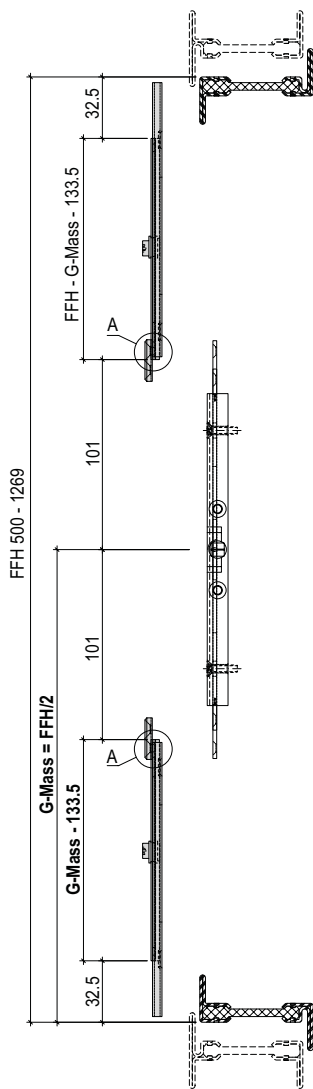
Zuschnitt Getriebeverlängerung Bohrbild Getriebeverlängerung und Schliessbleche	Découpe prolongement de la crémone Schéma de perçage prolongement de la crémone et gâches	Cutting gearbox extension Drilling pattern gearbox extension and striking plates	93
Zuschnitt Getriebeverlängerung Bohrbild Getriebeverlängerung und Schliessbleche Fenstertüre	Découpe prolongement de la crémone Schéma de perçage prolongement de la crémone et gâches Porte-fenêtre	Cutting gearbox extension Drilling pattern gearbox extension and striking plates Window-door	97
Bohrlehre 499.547 für Getriebe 557.279/557.280 und Fenstergriff 557.268	Gabarit de perçage 499.547 pour crémone 557.279/557.280 et poignée de fenêtre 557.268	Drilling jig 499.547 for mechanism 557.279/557.280 and window handle 557.268	98
Bohrlehre 499.547 für Getriebeverlängerung 557.188	Gabarit de perçage 499.547 pour prolongement de la crémone 557.188	Drilling jig 499.547 for gearbox extension 557.188	100
Bohrlehre 499.547 für Schliessbleche 557.309	Gabarit de perçage 499.547 pour gâches 557.309	Drilling jig 499.547 for striking plates 557.309	104

Zuschnitt Getriebeverlängerung
Bohrbild Getriebeverlängerung
und Schliessbleche
FFH 500-1269

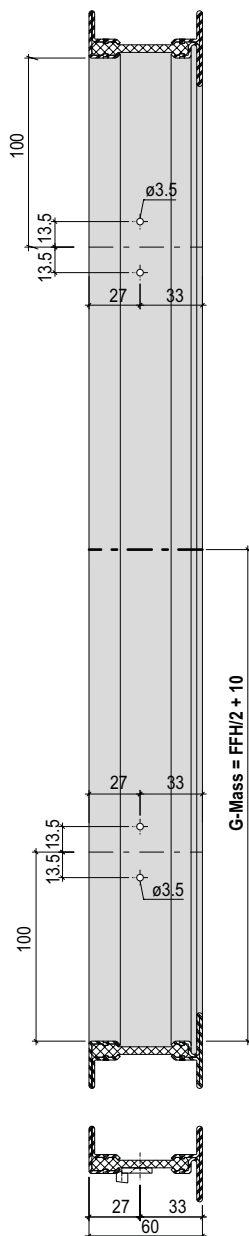
Découpe prolongement de la créme
Schéma de perçage prolongement
de la créme et gâches
FFH 500-1269

Cutting gearbox extension
Drilling pattern gearbox extension
and striking plates
FFH 500-1260

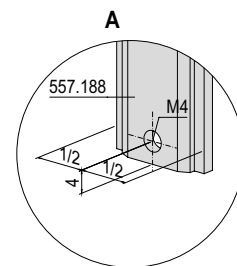
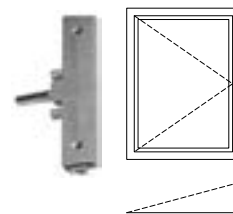
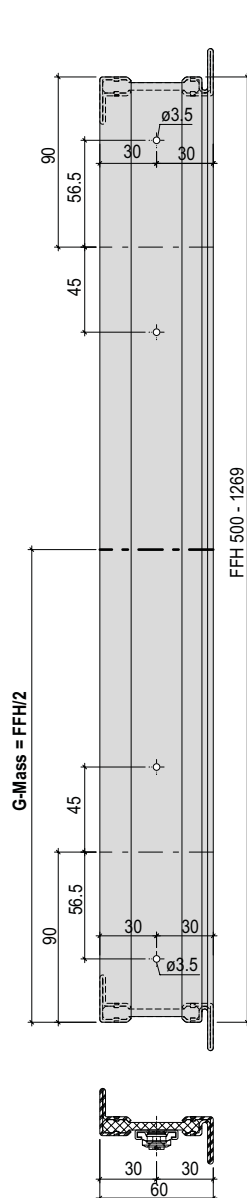
Zuschnitt/Découpe/Cutting



Rahmen/Cadre/Frame

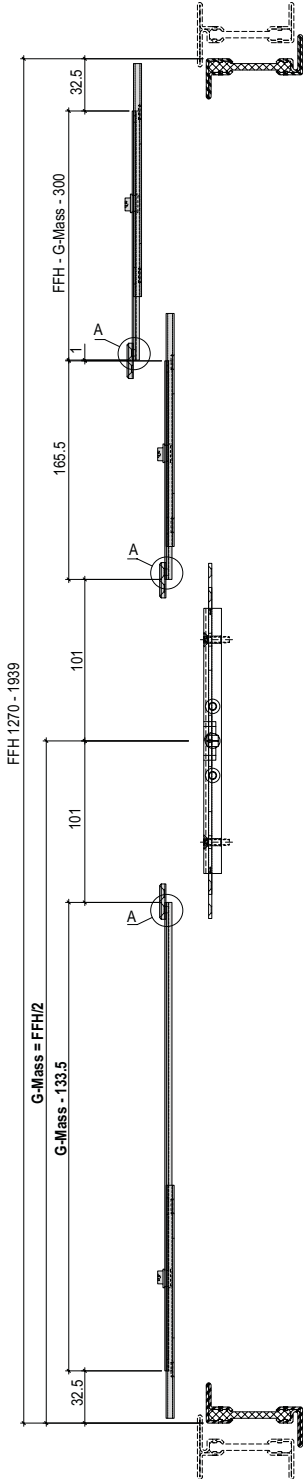


Flügel/Vantail/Sash



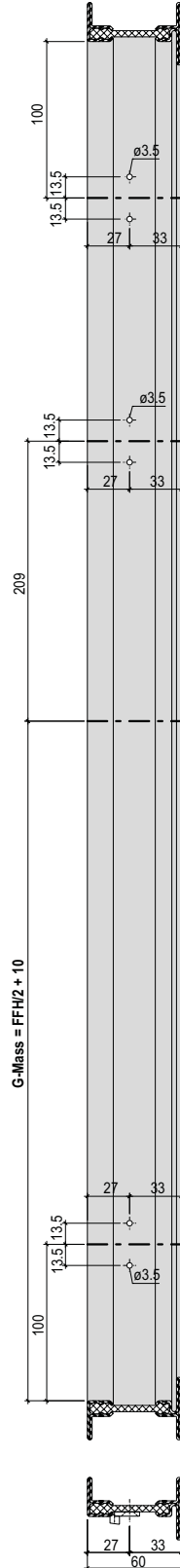
Zuschnitt Getriebeverlängerung
Bohrbild Getriebeverlängerung
und Schliessbleche
FFH 1270-1939

Zuschnitt/Découpe/Cutting



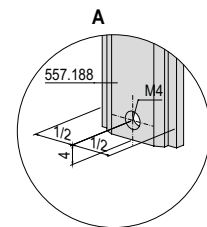
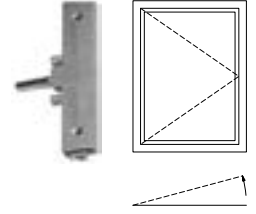
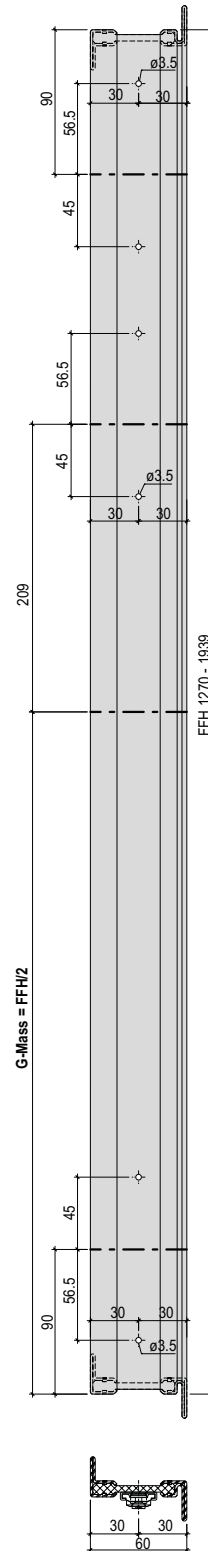
Découpe prolongement de la crémonne
Schéma de perçage prolongement
de la crémonne et gâches
FFH 1270-1939

Rahmen/Cadre/Frame

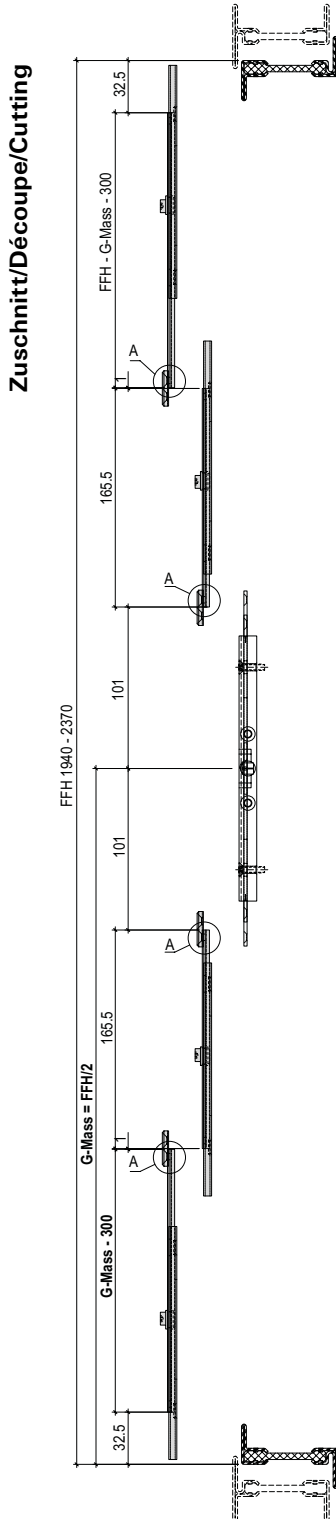


Cutting gearbox extension
Drilling pattern gearbox extension
and striking plates
FFH 1270-1939

Flügel/Vantail/Sash



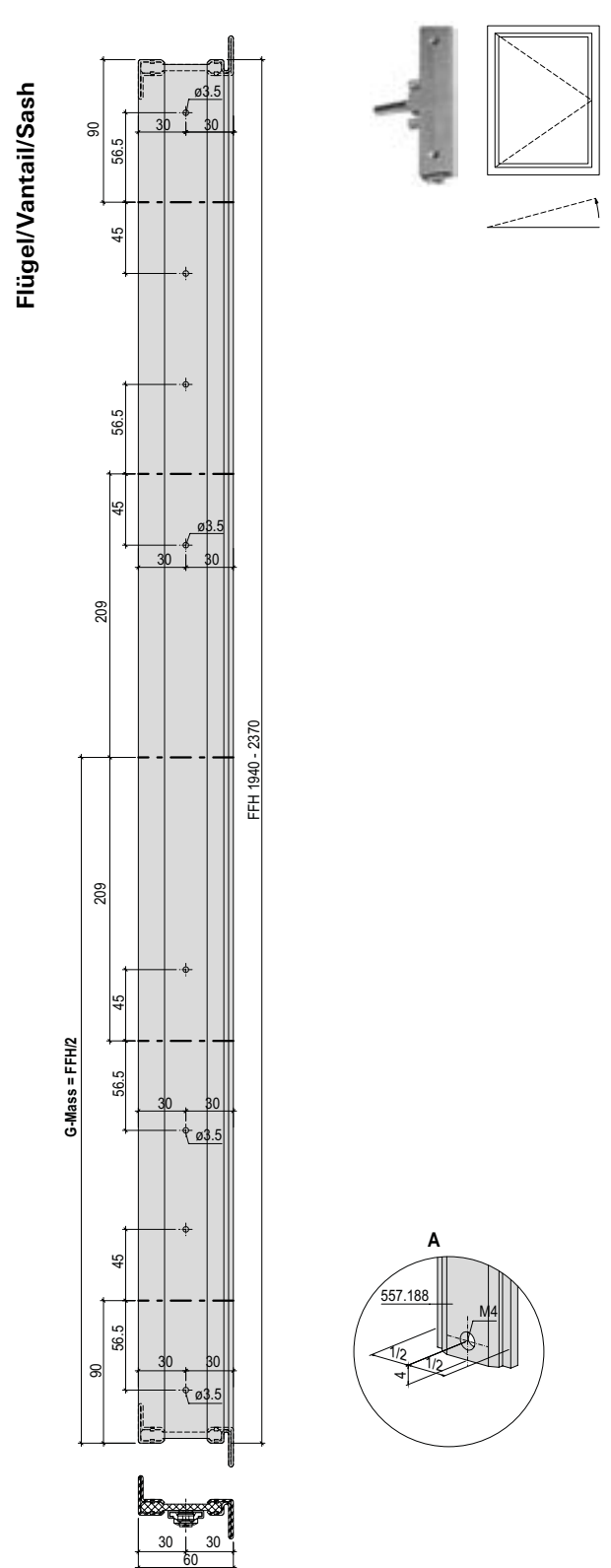
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 1940-2370



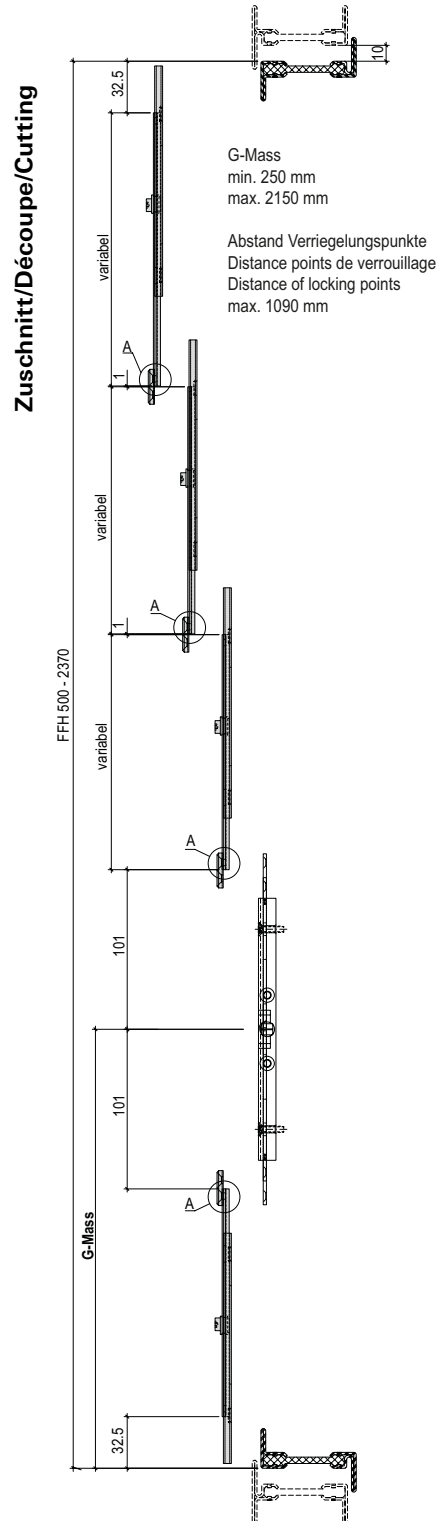
Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 1940-2370



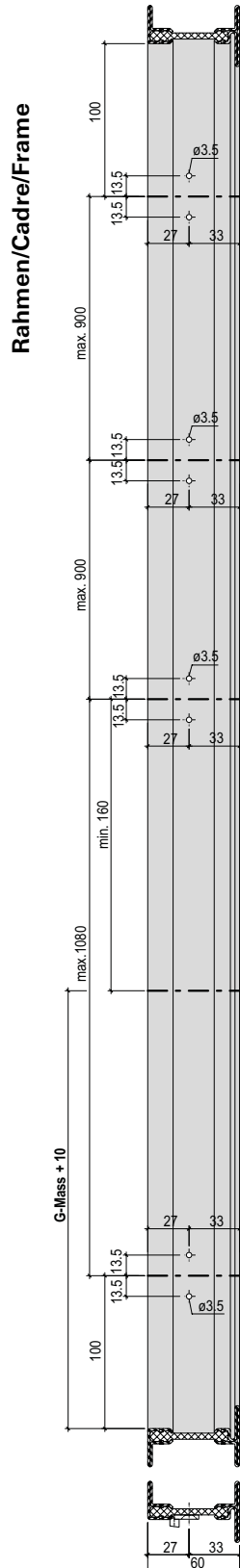
Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 1940-2370



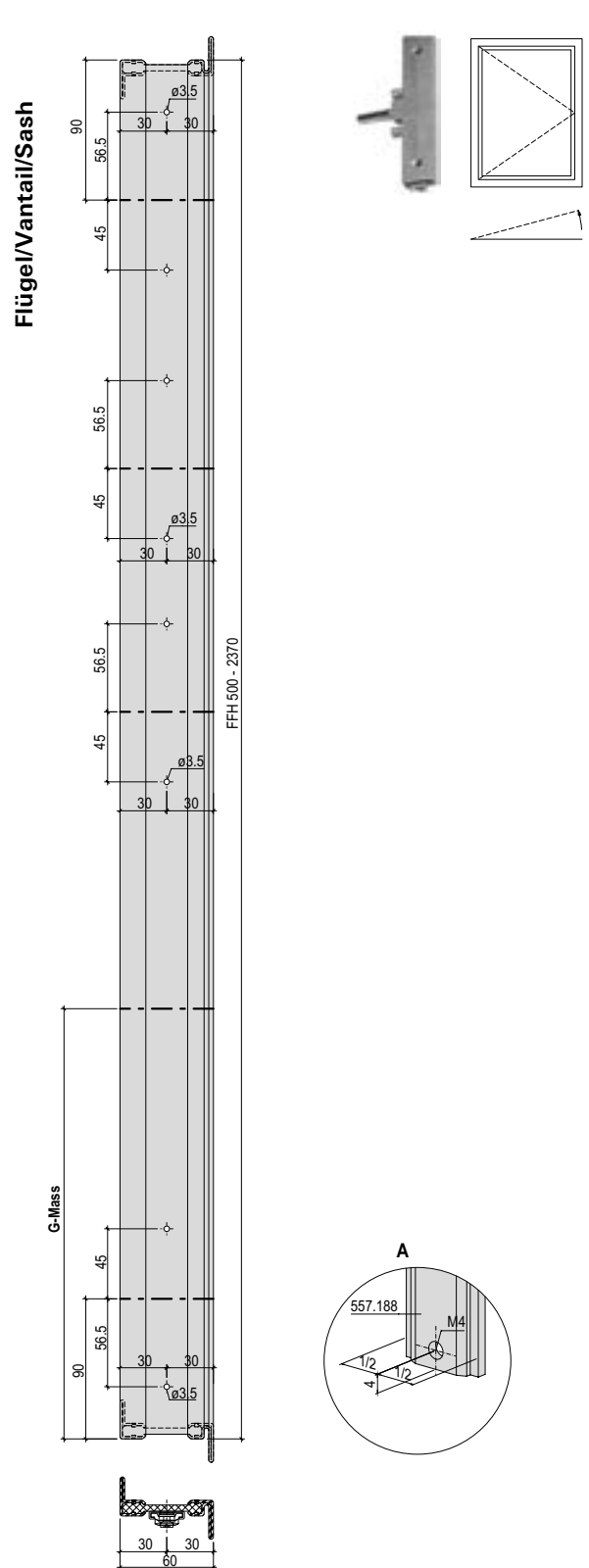
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 500-2370



Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 500-2370



Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 500-2370

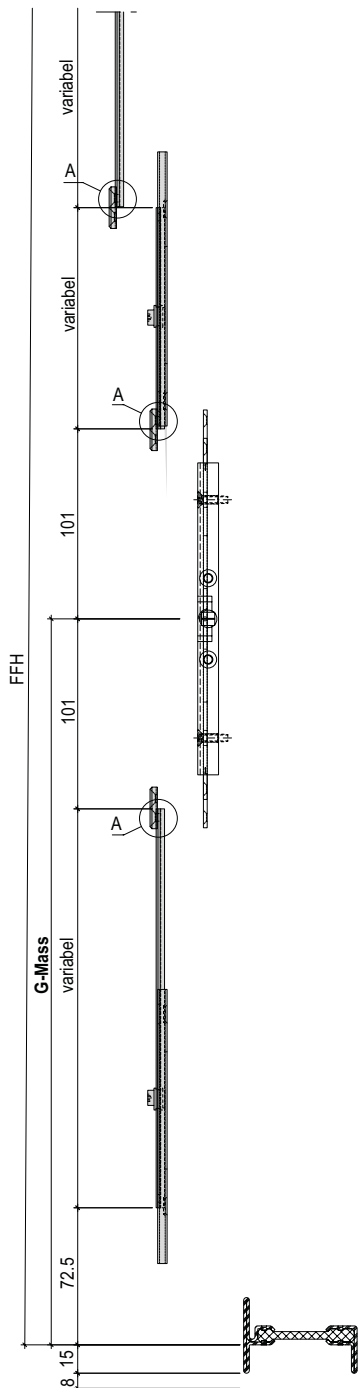


Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 500-2370
 Fenstertüre

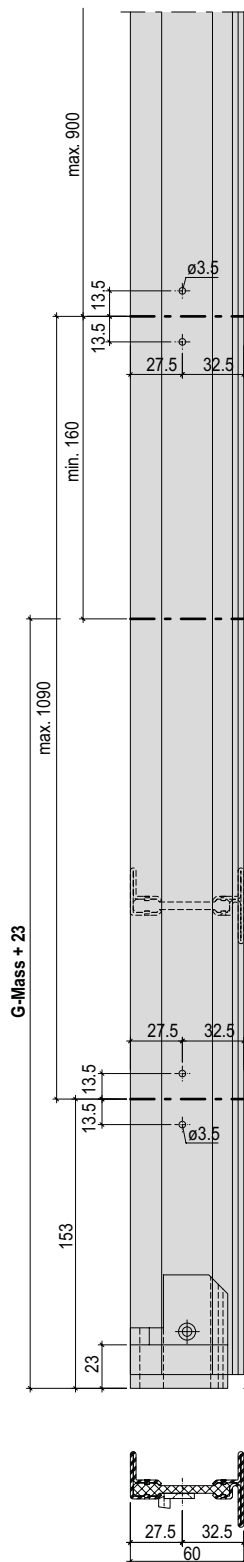
Découpe prolongement de la créme
 Schéma de perçage prolongement
 de la créme et gâches
 FFH 500-2370
 Porte-fenêtre

Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 500-2370
 Window-door

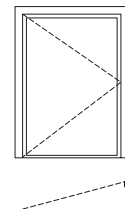
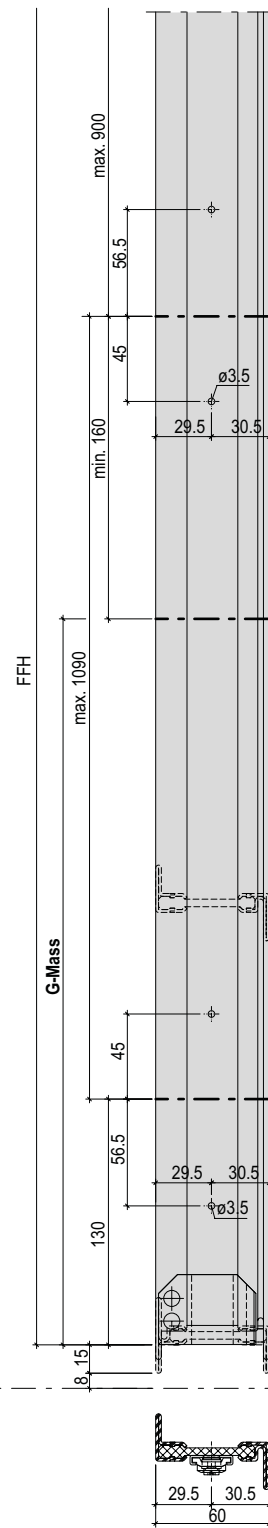
Zuschnitt/Découpe/Cutting



Rahmen/Cadre/Frame



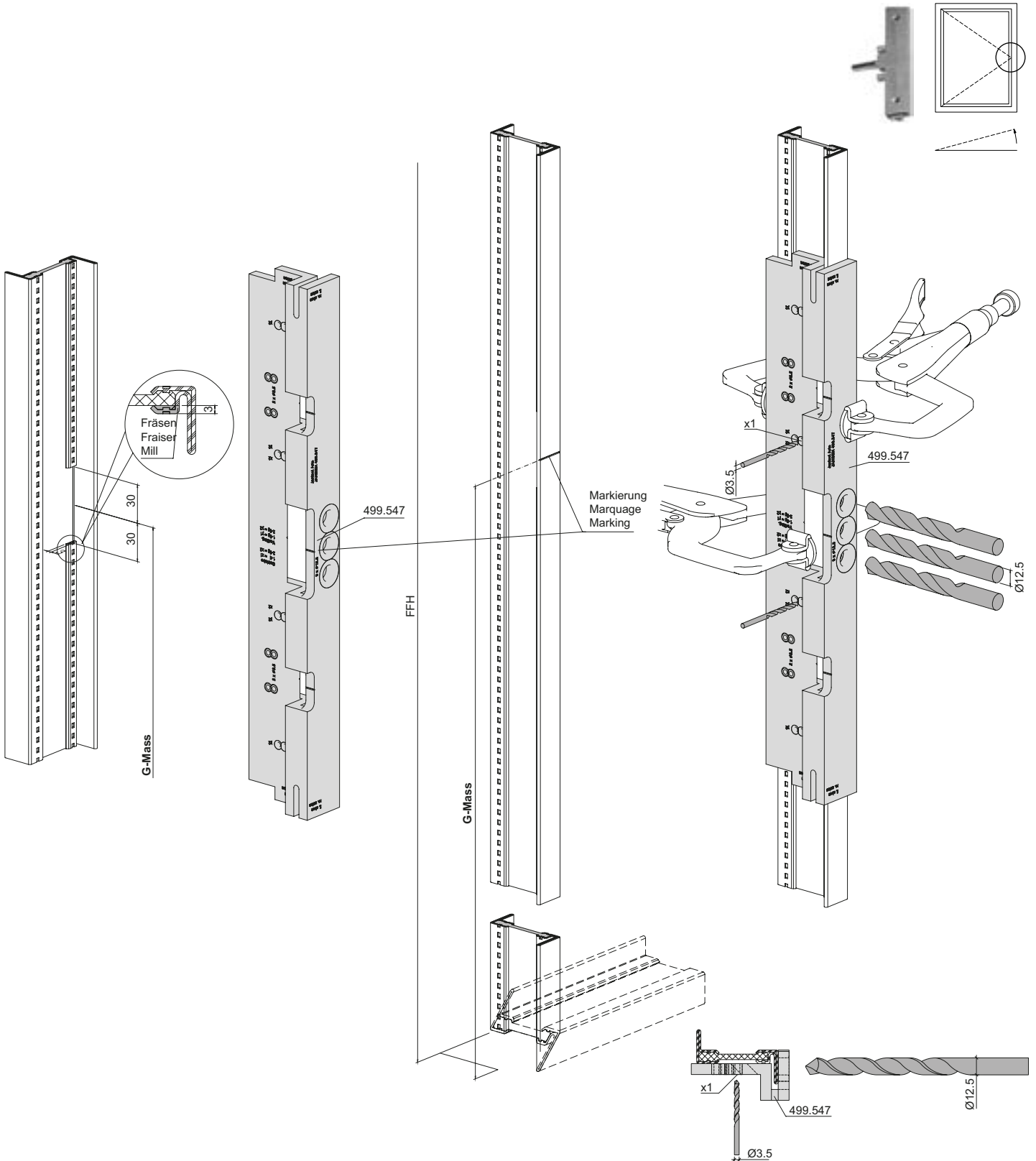
Flügel/Vantail/Sash



Bohrlehre 499.547 für
 Getriebe 557.279/557.280
 und Fenstergriff 557.268
 Flügel

Gabarit de perçage 499.547 pour
 crémonne 557.279/557.280 et
 poignée de fenêtre 557.268
 Vantail

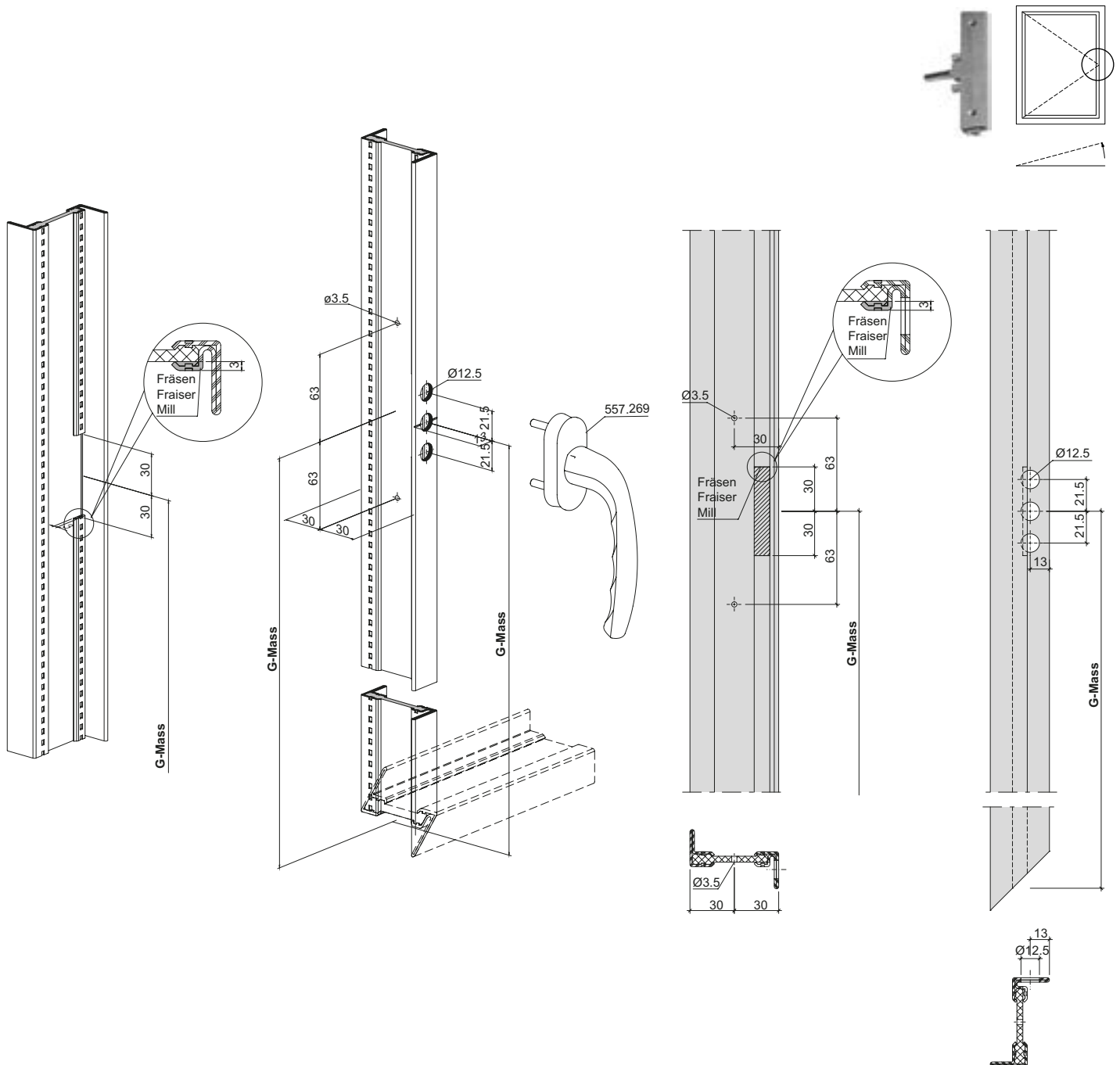
Drilling jig 499.547 for
 mechanism 557.279/557.280
 and window handle 557.268
 Sash



Bohrbild und Fräsung
Getriebe 557.279/557.280
und Fenstergriff 557.268
Flügel

Schéma de perçage et fraisage
Crémone 557.279/557.280 et
poignée de fenêtre 557.268
Vantail

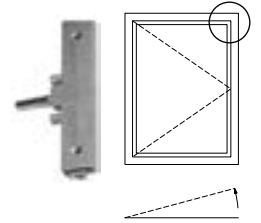
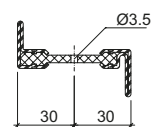
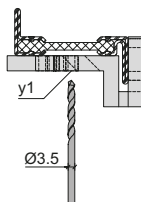
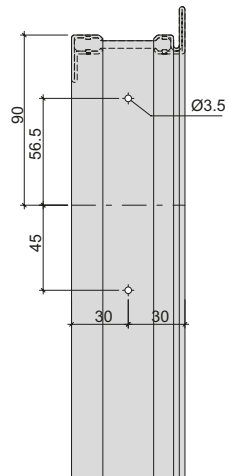
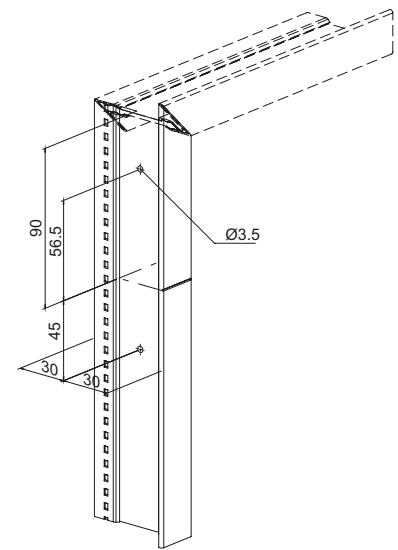
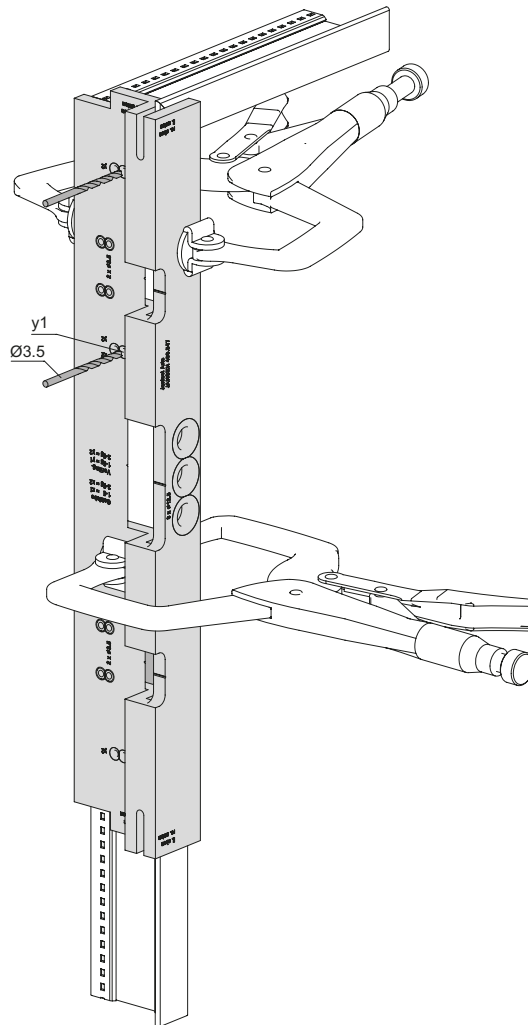
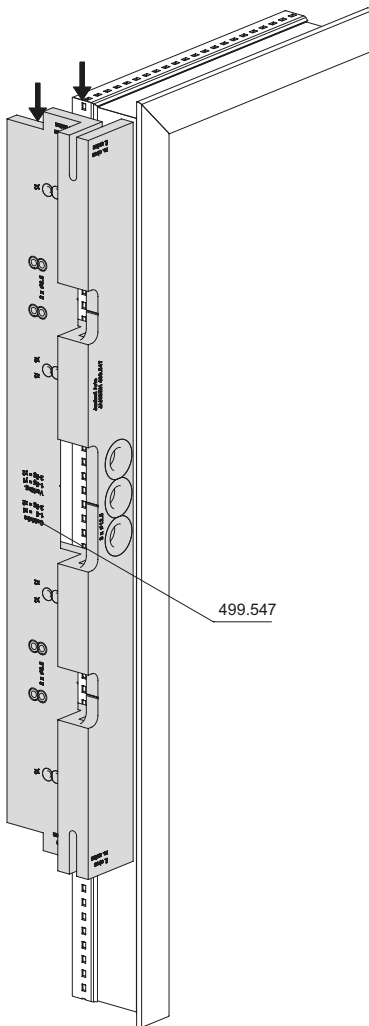
Drilling pattern and milling
Mechanisme 557.279/557.280
and window handle 557.268
Sash



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Flügel oben

Gabarit de perçage 499.547 pour
 prolongement de la crémonne
 557.188 Vantail en haut

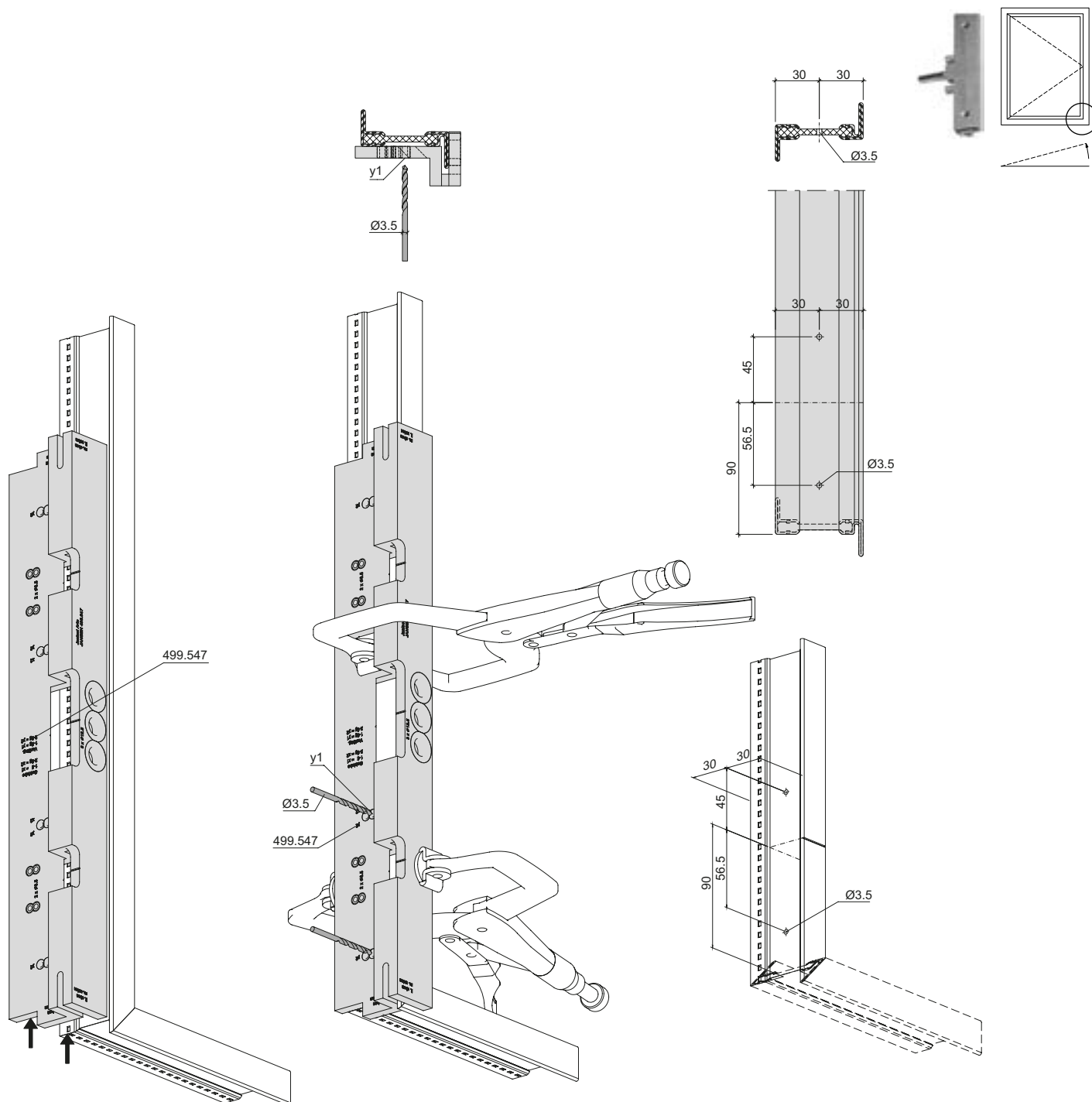
Drilling jig 499.547 for
 gearbox extension 557.188
 Sash top



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Flügel unten

Gabarit de perçage 499.547 pour
 prolongement de la crémonne
 557.188 Vantail en bas

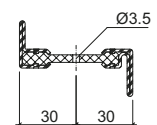
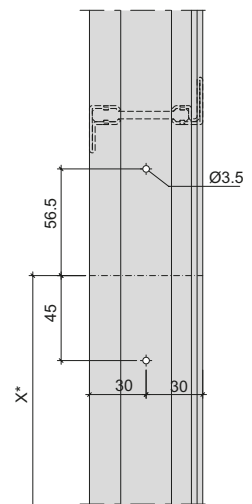
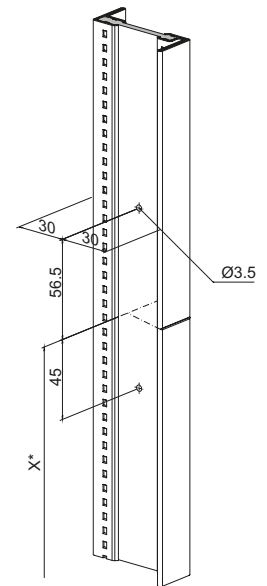
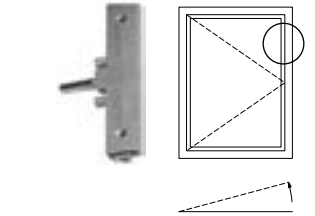
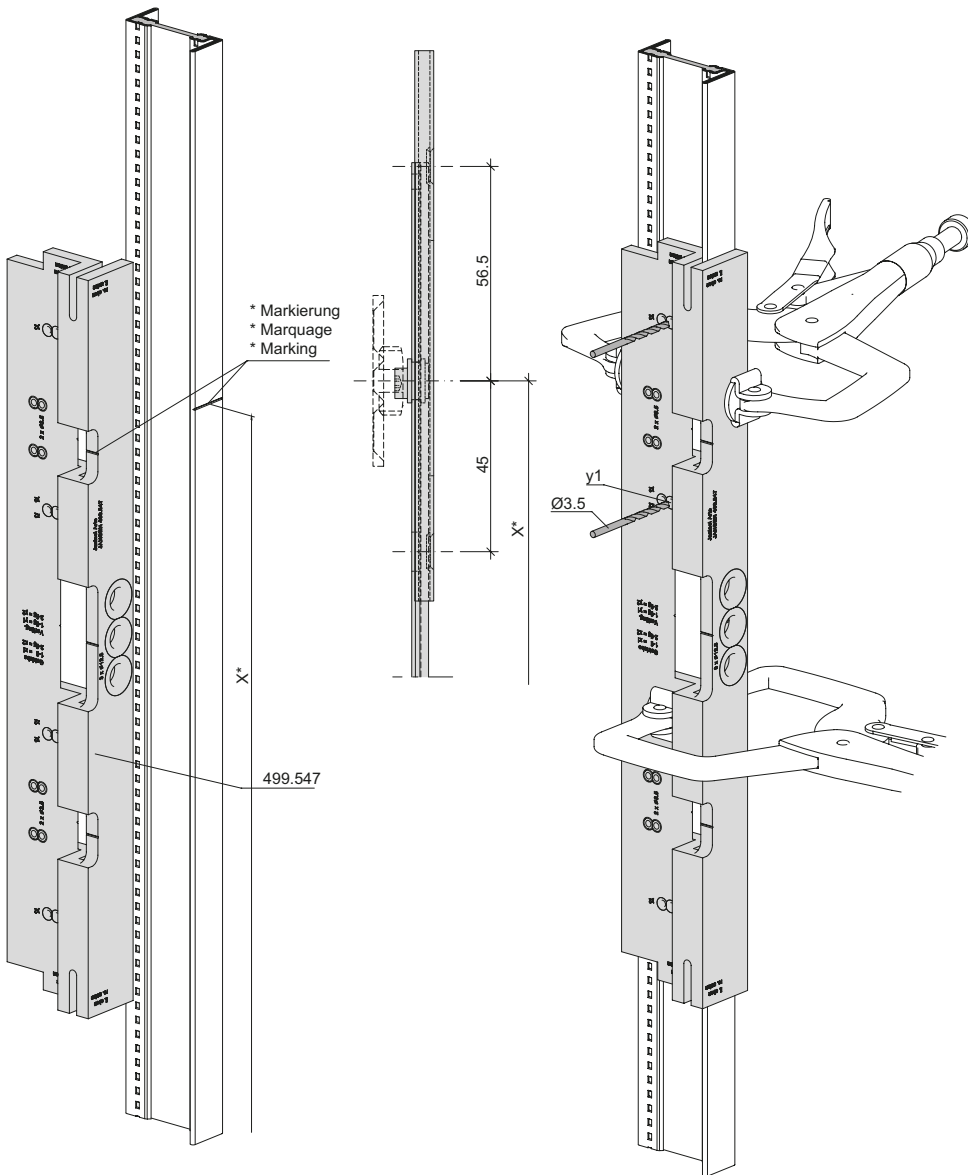
Drilling jig 499.547 for
 gearbox extension 557.188
 Sash bottom



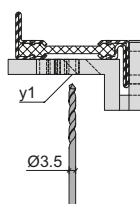
Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Flügel

Gabarit de perçage 499.547 pour
 prolongement de la crémonne
 557.188
 Vantail

Drilling jig 499.547 for
 gearbox extension 557.188
 Sash



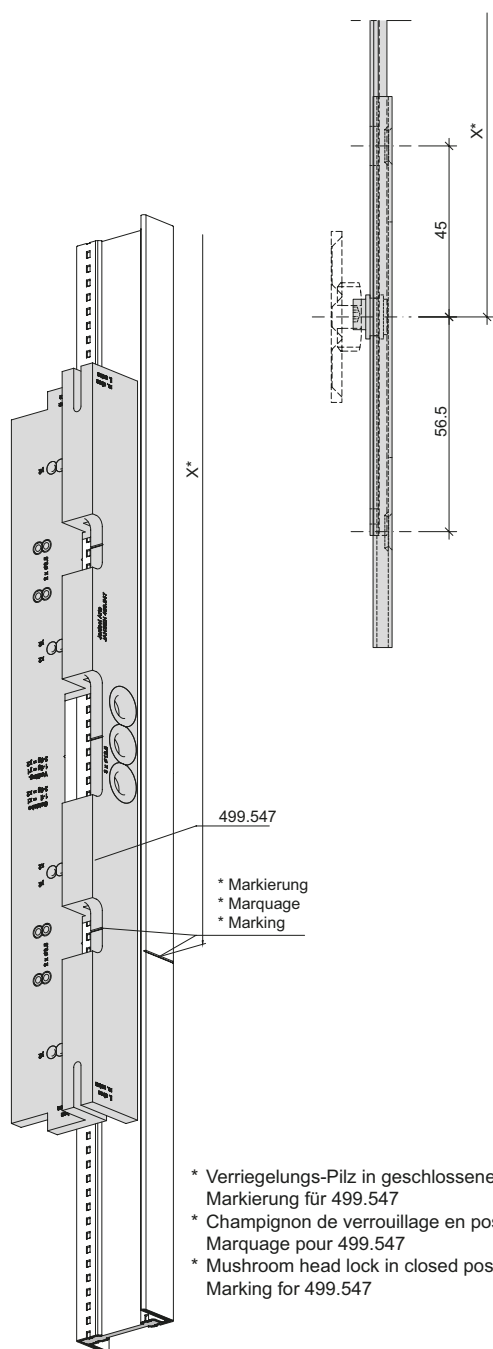
- * Verriegelungs-Pilz in geschlossener Position
 Markierung für 499.547
- * Champignon de verrouillage en position fermée
 Marquage pour 499.547
- * Mushroom head lock in closed position
 Marking for 499.547



**Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Flügel**

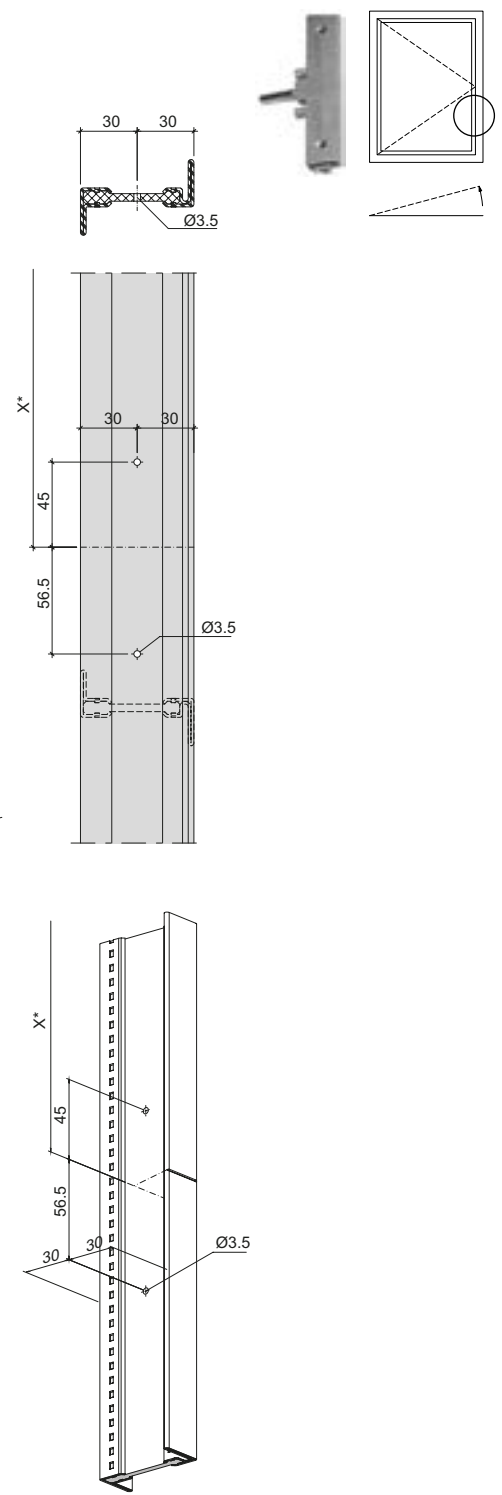
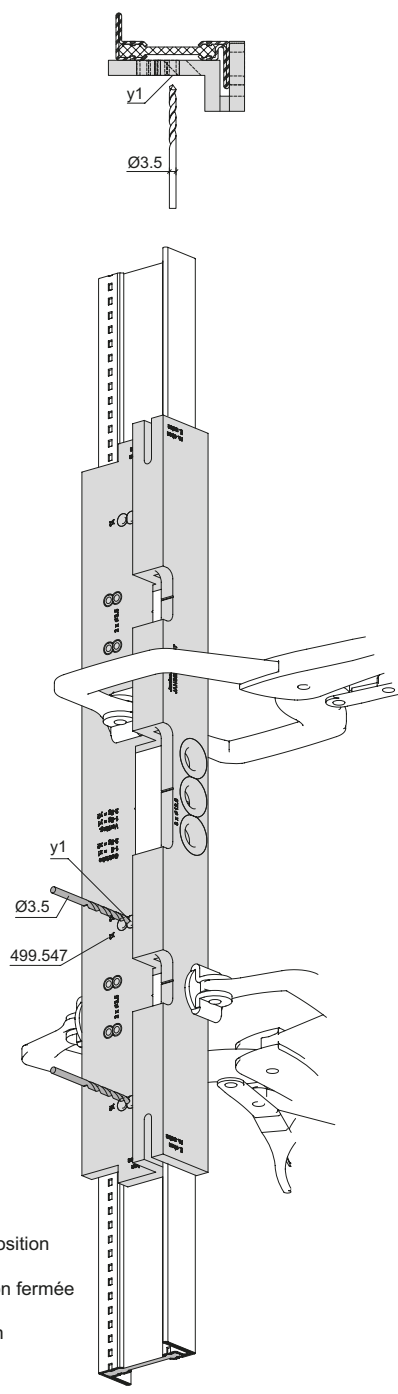
**Gabarit de perçage 499.547 pour
 prolongement de la crémonne
 557.188
 Vantail**

**Drilling jig 499.547 for
 gearbox extension 557.188
 Sash**



499.547
 * Markierung
 * Marquage
 * Marking

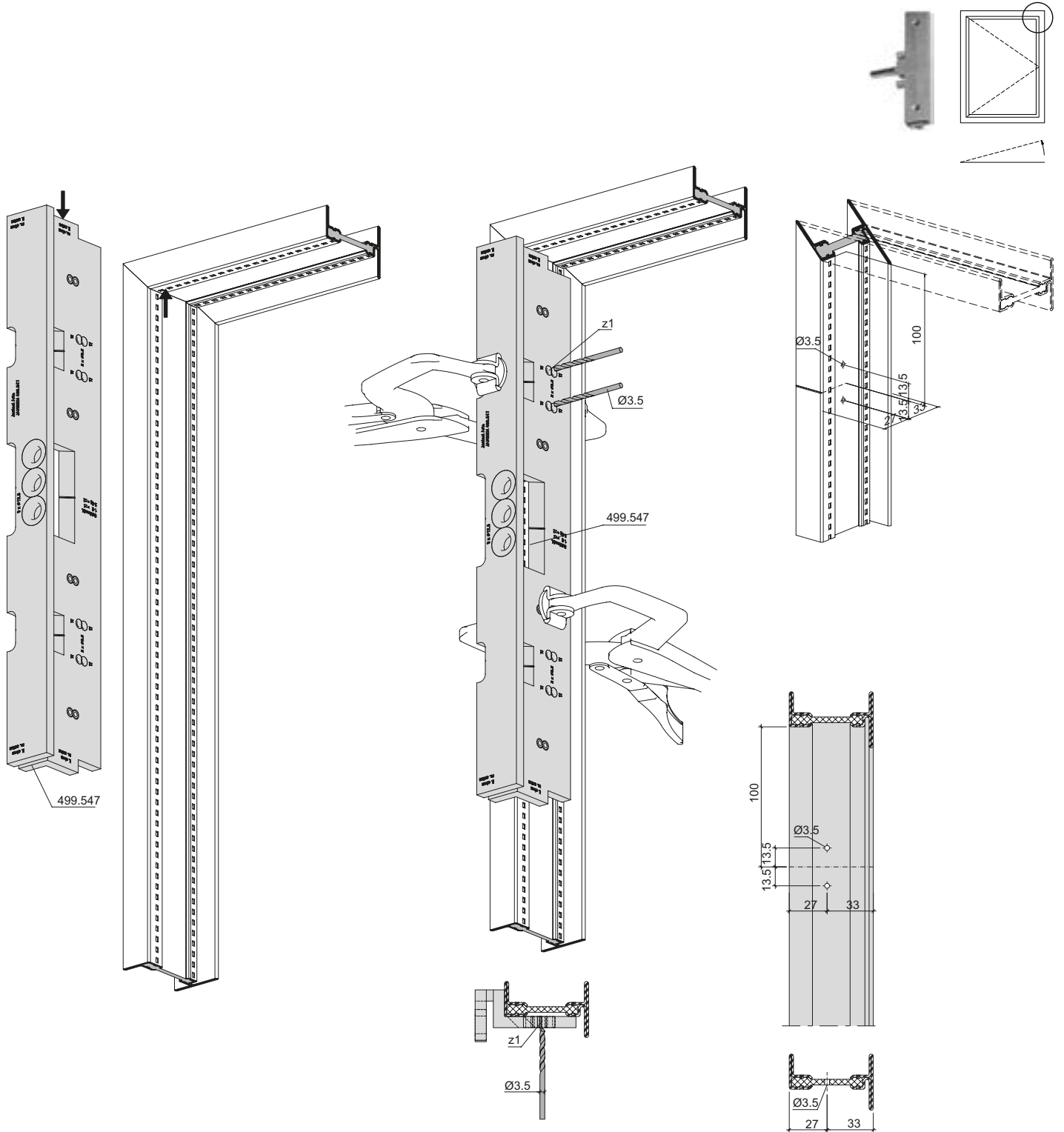
- * Verriegelungs-Pilz in geschlossener Position
 Markierung für 499.547
- * Champignon de verrouillage en position fermée
 Marquage pour 499.547
- * Mushroom head lock in closed position
 Marking for 499.547



Bohrlehre 499.547 für
 Schliessbleche 557.309
 Rahmen oben

Gabarit de perçage 499.547
 pour gâches 557.309
 Cadre en haut

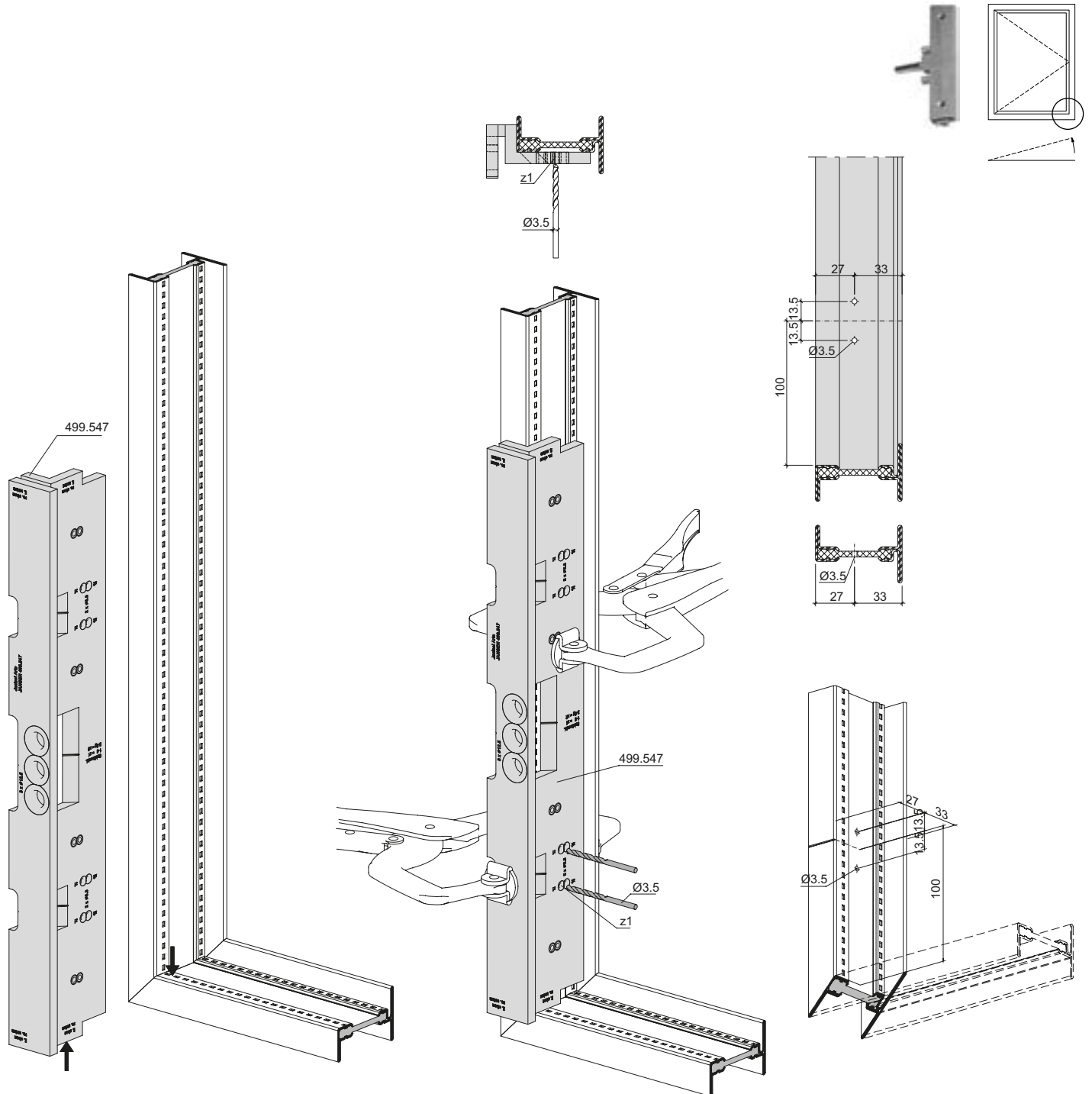
Drilling jig 499.547 for
 striking plates 557.309
 Frame top



Bohrlehre 499.547 für
 Schliessbleche 557.309
 Rahmen unten

Gabarit de perçage 499.547
 pour gâches 557.309
 Cadre en bas

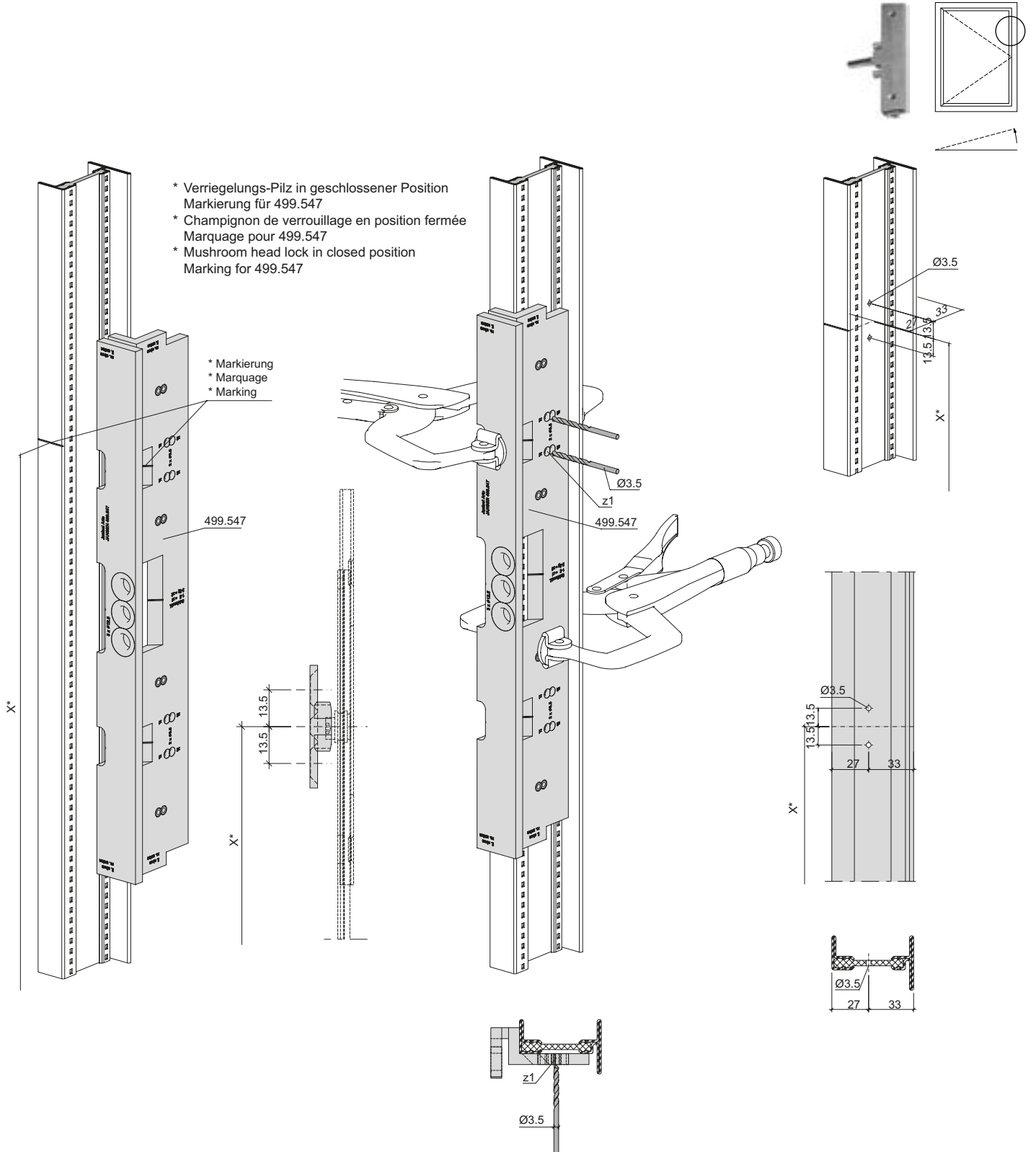
Drilling jig 499.547 for
 striking plates 557.309
 Frame bottom



**Bohrlehre 499.547 für
 Schliessbleche 557.309
 Rahmen**

**Gabarit de perçage 499.547
 pour gâches 557.309
 Cadre**

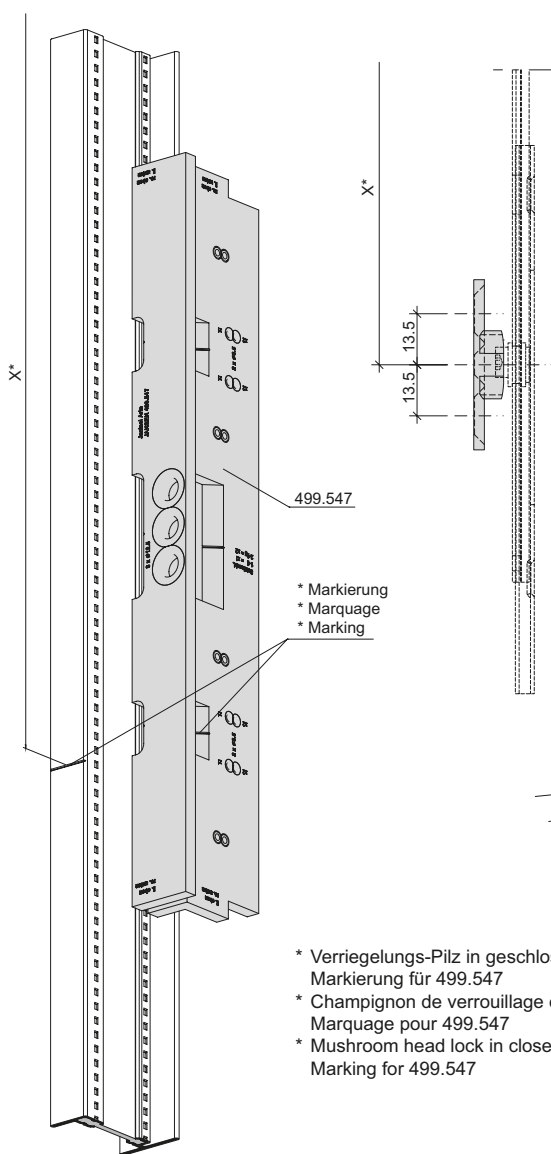
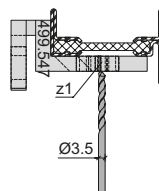
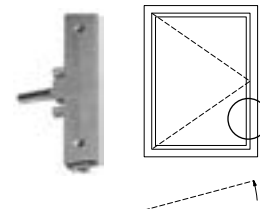
**Drilling jig 499.547 for
 striking plates 557.309
 Frame**



Bohrlehre 499.547 für
 Schliessbleche 557.309
 Rahmen

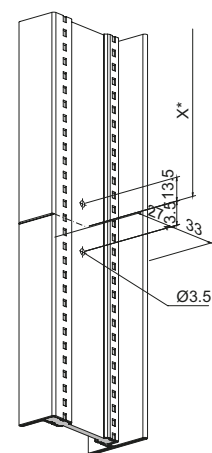
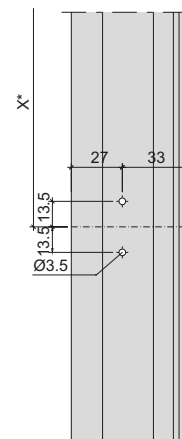
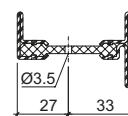
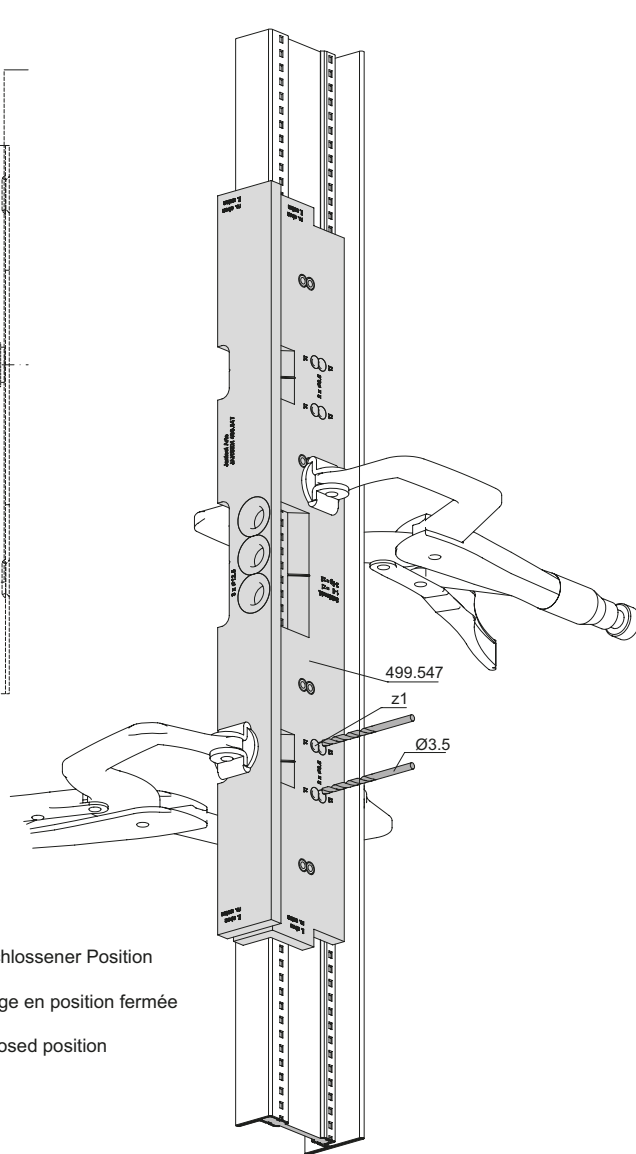
Gabarit de perçage 499.547
 pour gâches 557.309
 Cadre

Drilling jig 499.4547 for
 striking plates 557.309
 Frame



499.547
 * Markierung
 * Marquage
 * Marking

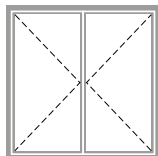
- * Verriegelungs-Pilz in geschlossener Position
 Markierung für 499.547
- * Champignon de verrouillage en position fermée
 Marquage pour 499.547
- * Mushroom head lock in closed position
 Marking for 499.547



Beschlageinbau
Montage des ferrures
Installation of fittings

Janisol Arte
Janisol Arte
Janisol Arte

2.0



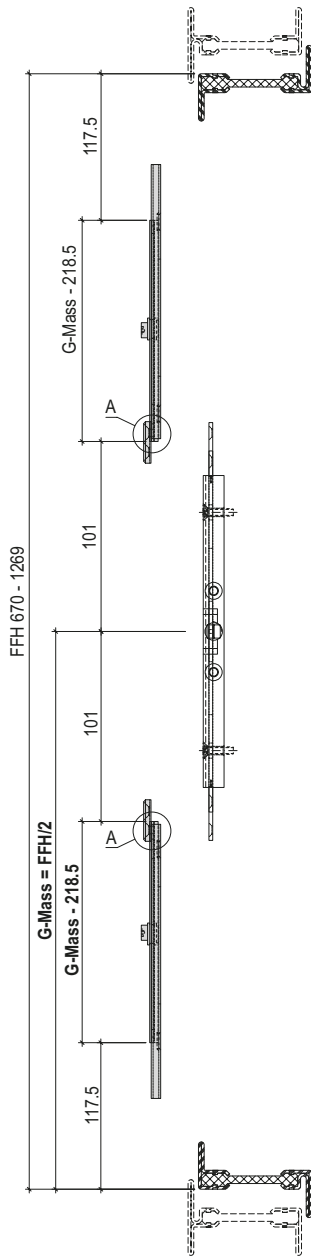
Drehfenster nach innen öffnend	Fenêtre à la française ouvrant vers l'intérieur	Side-hung window inward opening	
Zuschnitt Getriebeverlängerung Bohrbild Getriebeverlängerung und Schliessbleche	Découpe prolongement de la crémonne Schéma de perçage prolongement de la crémonne et gâches	Cutting gearbox extension Drilling pattern gearbox extension and striking plates	110
Bohrlehre 499.547 für Getriebe 557.279/557.280 und Fenstergriff 557.268	Gabarit de perçage 499.547 pour crémonne 557.279/557.280 et poignée de fenêtre 557.268	Drilling jig 499.547 for mechanism 557.279/557.280 and window handle 557.268	114
Bohrlehre 499.547 für Getriebeverlängerung 557.188	Gabarit de perçage 499.547 pour prolongement de la crémonne 557.188	Drilling jig 499.547 for gearbox extension 557.188	116
Bohrlehre 499.547 für Schliessbleche 557.309	Gabarit de perçage 499.547 pour gâches 557.309	Drilling jig 499.547 for striking plates 557.309	120
Bohrlehre 499.547 für Getriebeverlängerung 557.188 mit Kantenriegel 557.139	Gabarit de perçage 499.547 pour prolongement de la crémonne 557.188 avec verrou à bascule 557.139	Drilling jig 499.547 for gearbox extension 557.188 with flush bolt 557.139	124
Bohrlehre 499.547 für Getriebeverlängerung 557.188 ohne Kantenriegel 557.192	Gabarit de perçage 499.436 pour prolongement de la crémonne 557.188 sans verrou à bascule 557.192	Drilling jig 499.547 for gearbox extension 557.188 without flush bolt 557.192	126

Zuschnitt Getriebeverlängerung
Bohrbild Getriebeverlängerung
und Schliessbleche
FFH 670-1269

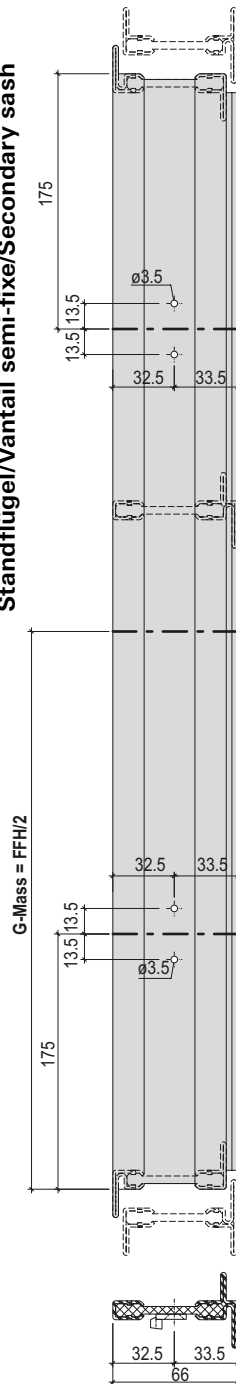
Découpe prolongement de la crémonne
Schéma de perçage prolongement
de la crémonne et gâches
FFH 670-1269

Cutting gearbox extension
Drilling pattern gearbox extension
and striking plates
FFH 670-1269

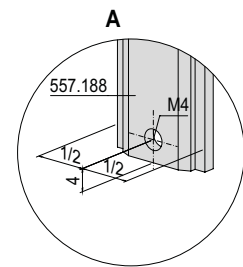
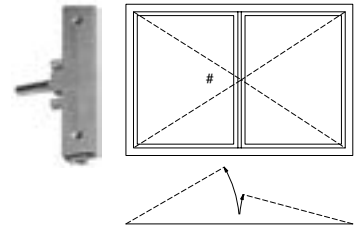
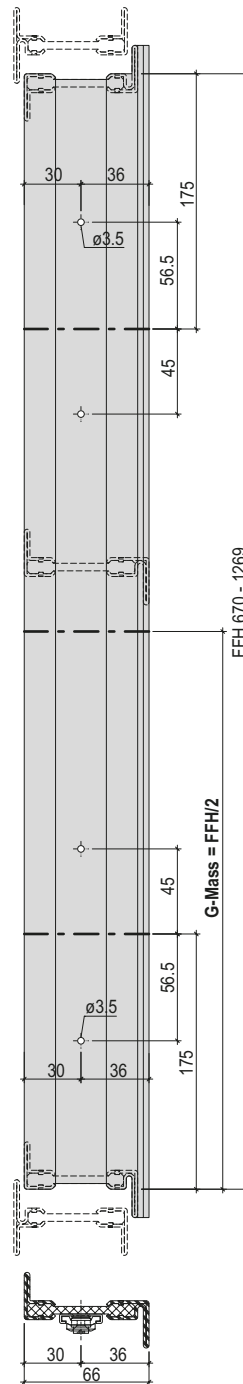
Zuschnitt/Découpe/Cutting



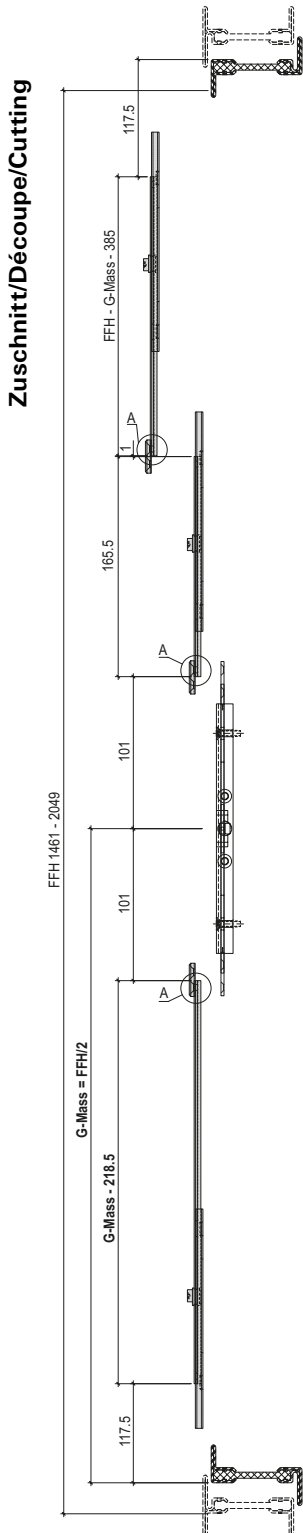
Standflügel/Vantail semi-fixe/Secondary sash



Gangflügel/Vantail de service/Access sash

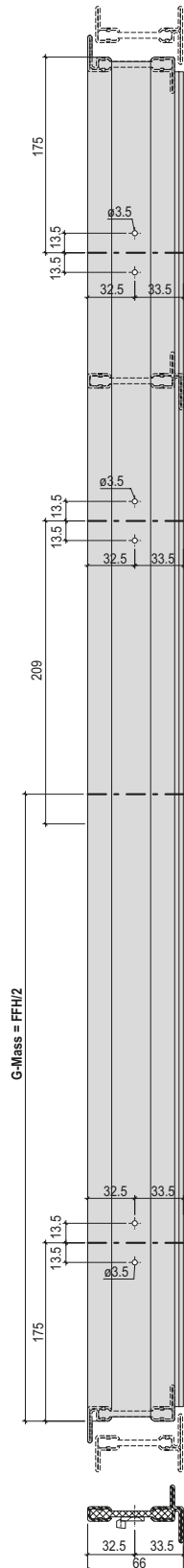


Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 1270-1939



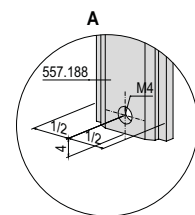
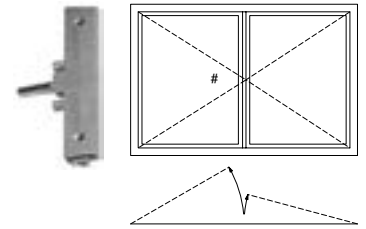
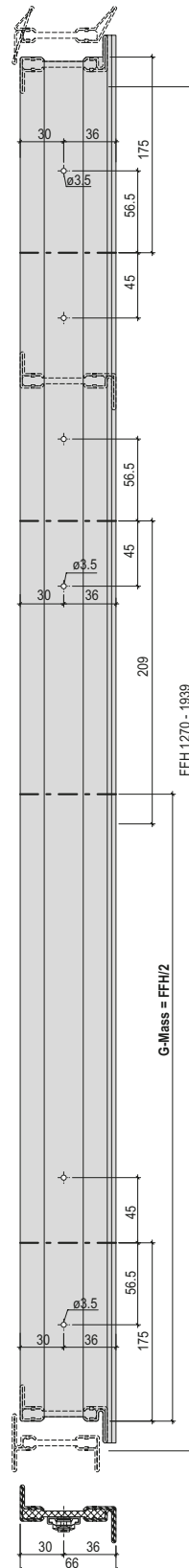
Découpe prolongement de la créme
 Schéma de perçage prolongement
 de la créme et gâches
 FFH 1270-1939

Standflügel/Vantail semi-fixe/Secondary sash



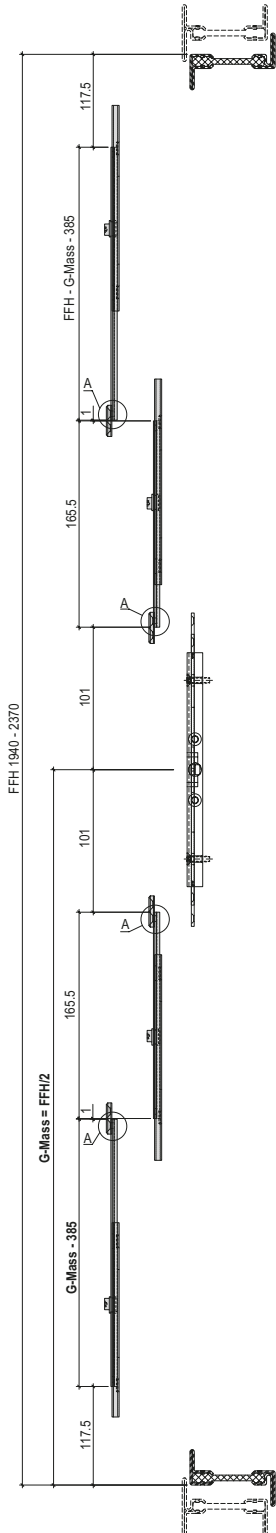
Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 1270-1939

Gangflügel/Vantail de service/Access sash



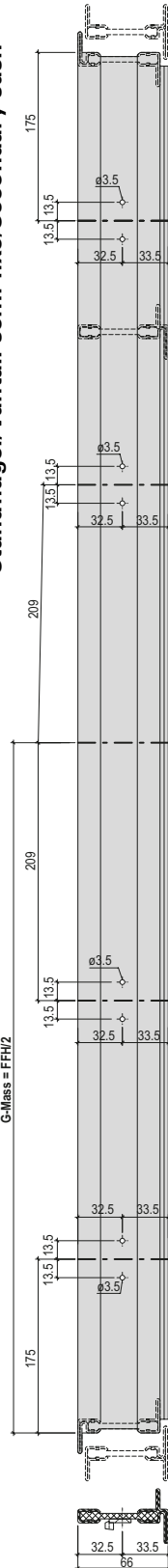
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessebleche
 FFH 1940-2370

Zuschnitt/Découpe/Cutting



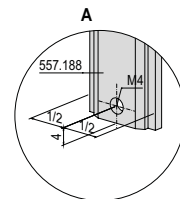
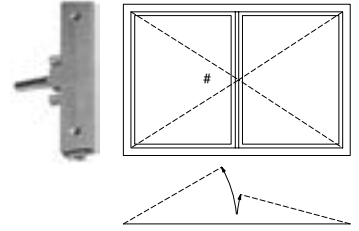
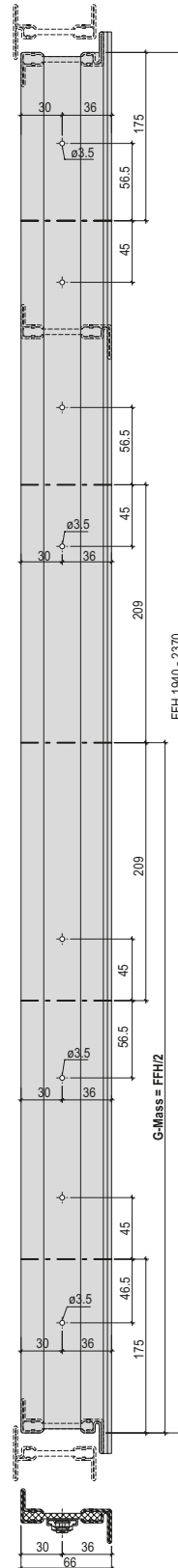
Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 1940-2370

Standflügel/Vantail semi-fixe/Secondary sash

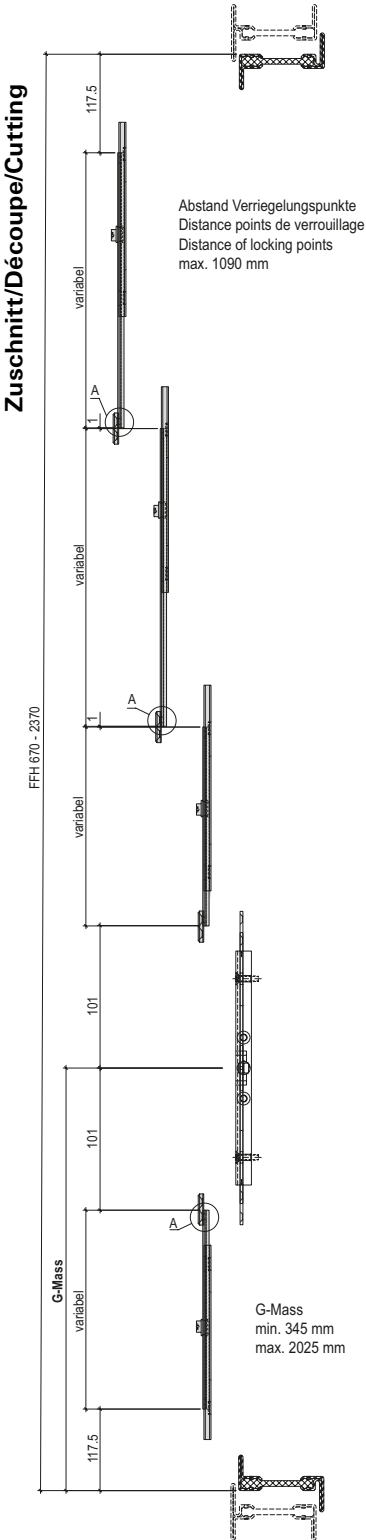


Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 1940-2370

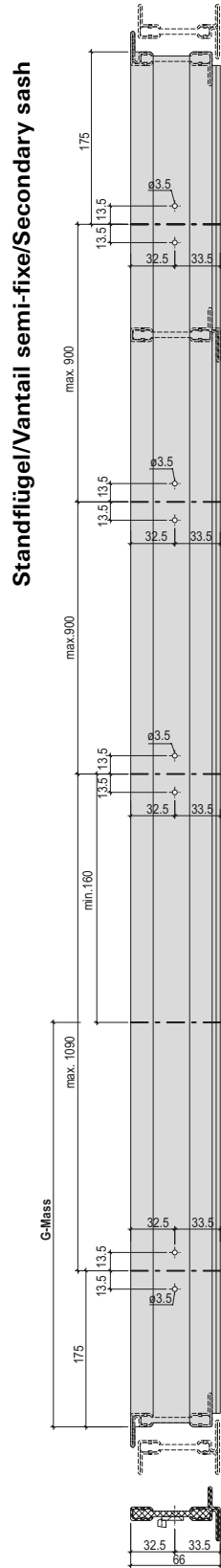
Gangflügel/Vantail de service/Access sash



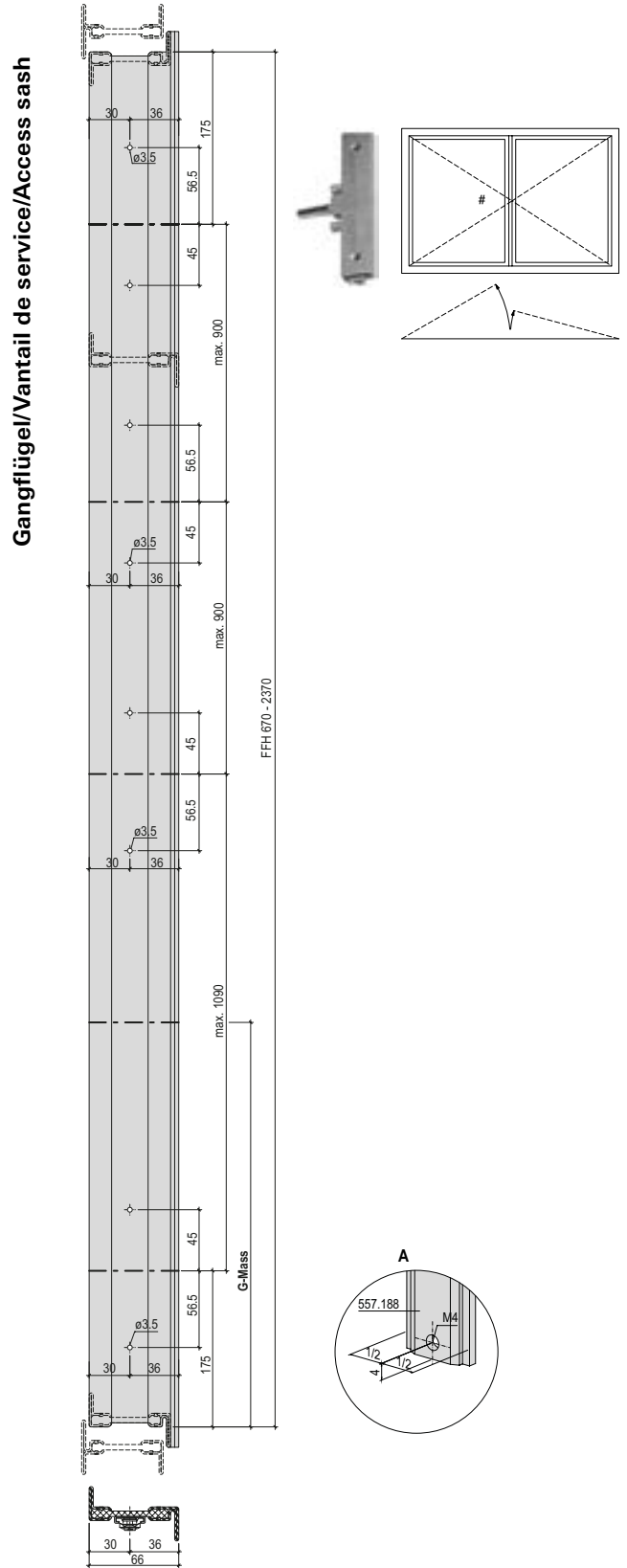
**Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche**
FFH 670-2370



Découpe prolongement de la crémore
**Schéma de perçage prolongement
 de la crémore et gâches**
FFH 670-2370



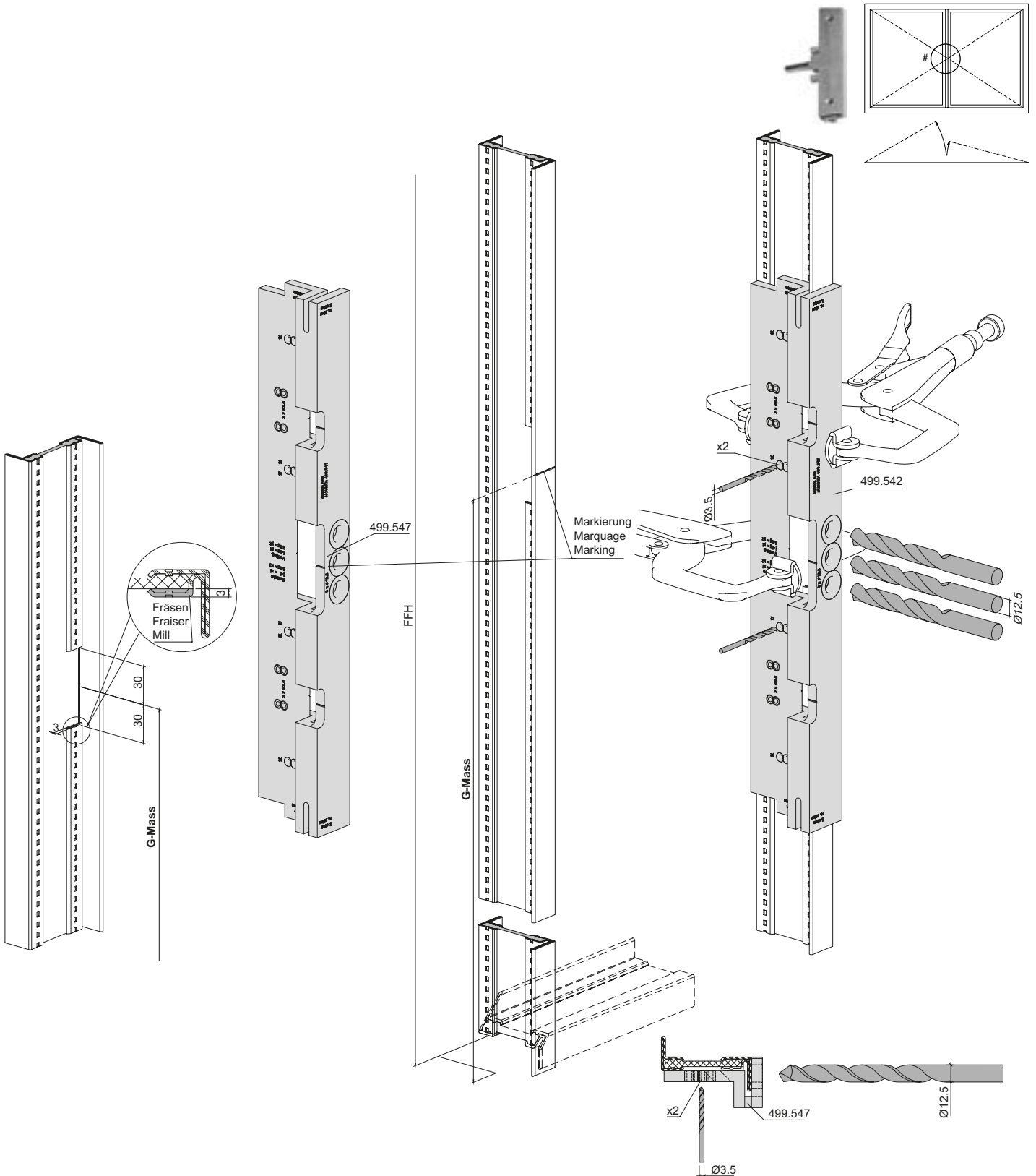
**Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates**
FFH 670-2370



Bohrlehre 499.547 für
 Getriebe 557.279/557.280
 und Fenstergriff 557.268
 Gangflügel

Gabarit de perçage 499.547
 pour crémonne 557.279/557.280
 et poignée de fenêtre 557.268
 Vantail de service

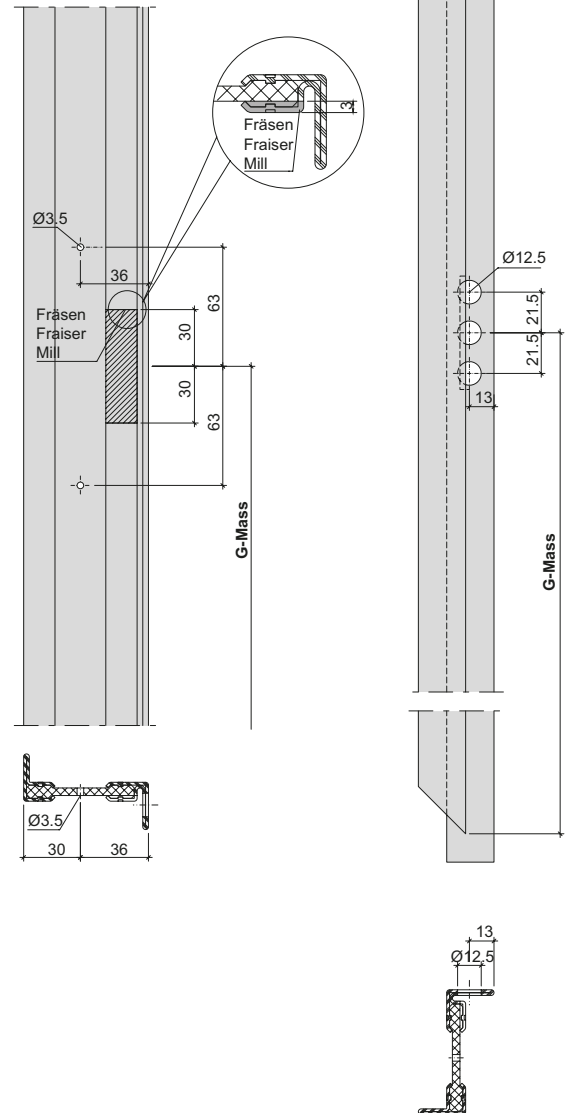
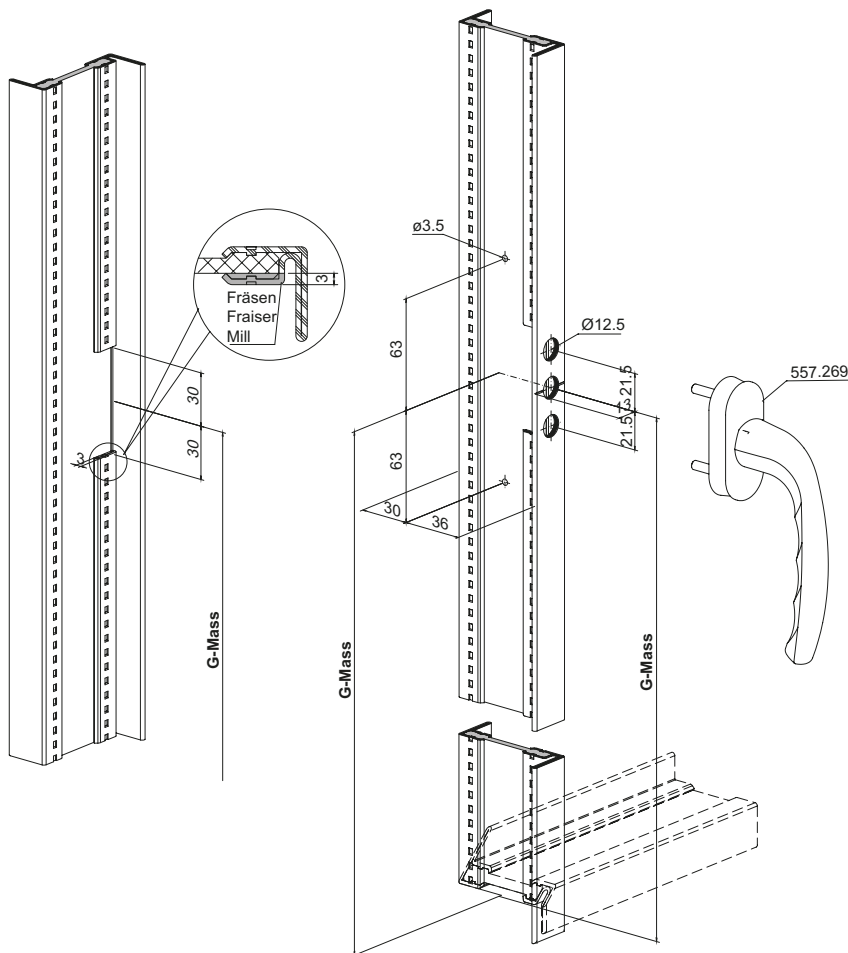
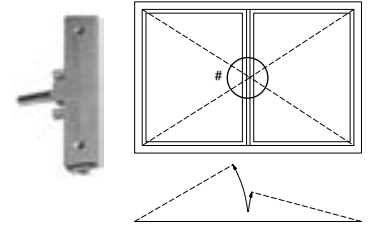
Drilling jig 499.547 for
 mechanism 557.279/557.280
 and window handle 557.268
 Access sash



Bohrbild und Fräsung
 Getriebe 557.279/557.280
 und Fenstergriff 557.268
 Gangflügel

Schéma de perçage et fraisage
 Crémone 557.279/557.280 et
 poignée de fenêtre 557.268
 Vantail de service

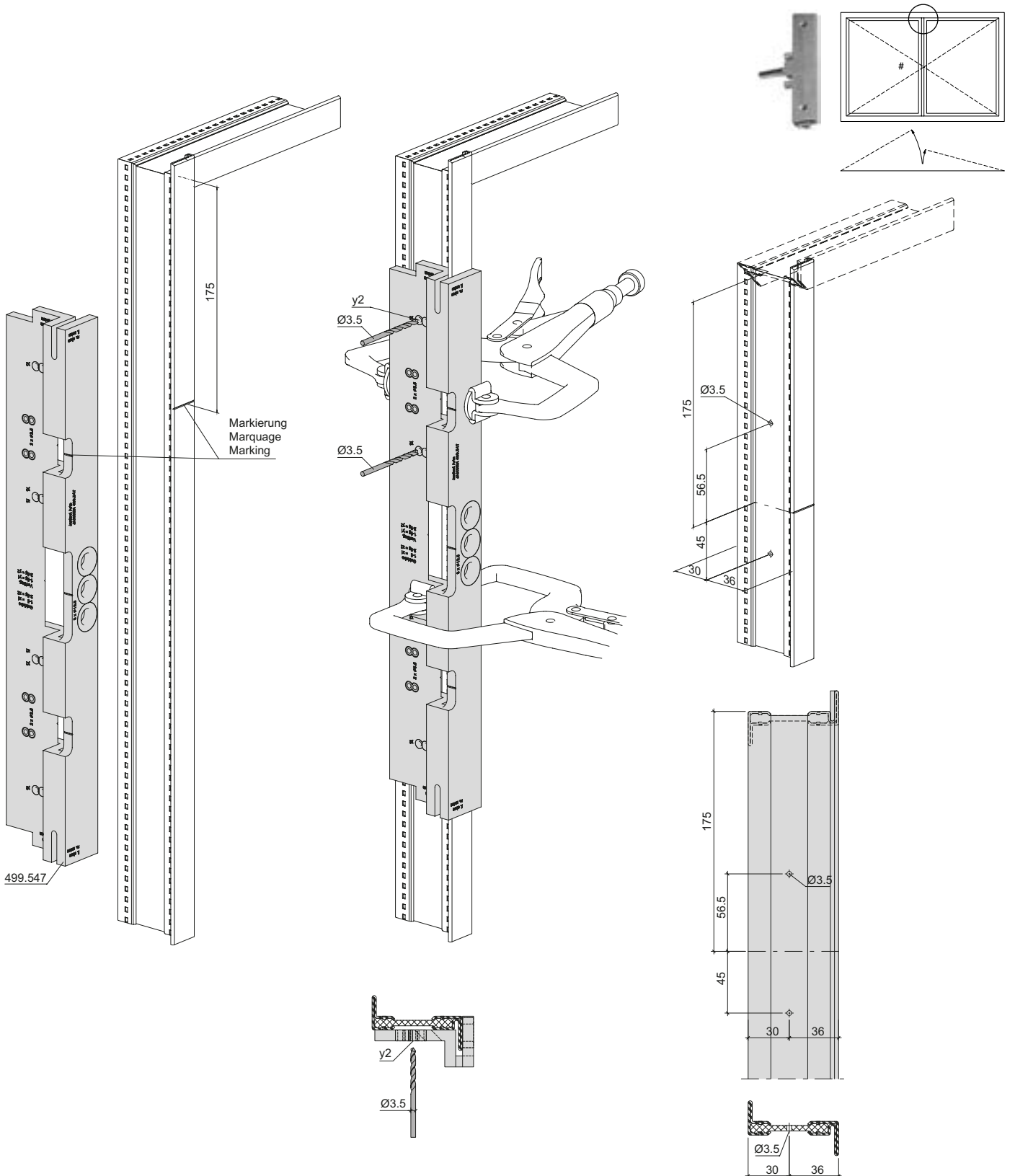
Drilling pattern and milling
 Mechanisme 557.279/557.280
 and window handle 557.268
 Access sash



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Gangflügel oben

Gabarit de perçage 499.547 pour
 prolongement de la crémonne
 557.188 Vantail de service en haut

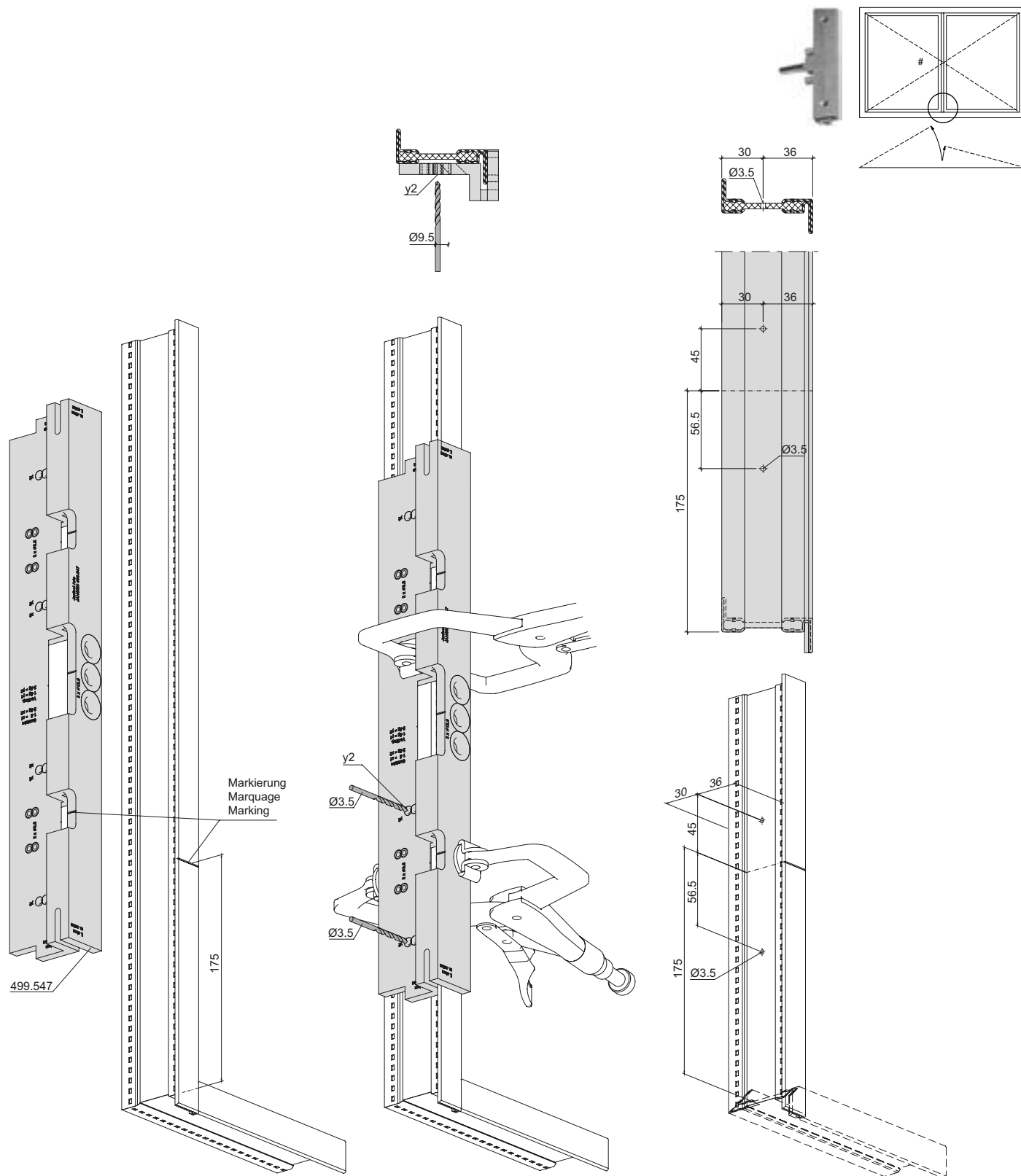
Drilling jig 499.547 for
 gearbox extension 557.188
 Access sash top



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Gangflügel unten

Gabarit de perçage 499.547 pour
 prolongement de la crémonne
 557.188 Vantail de service en bas

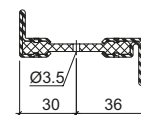
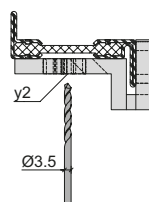
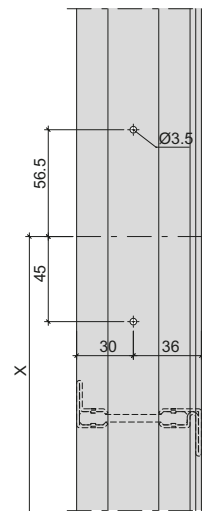
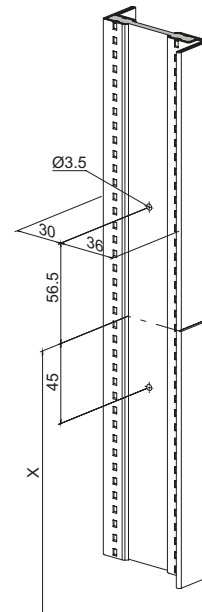
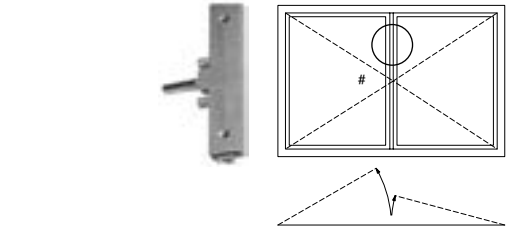
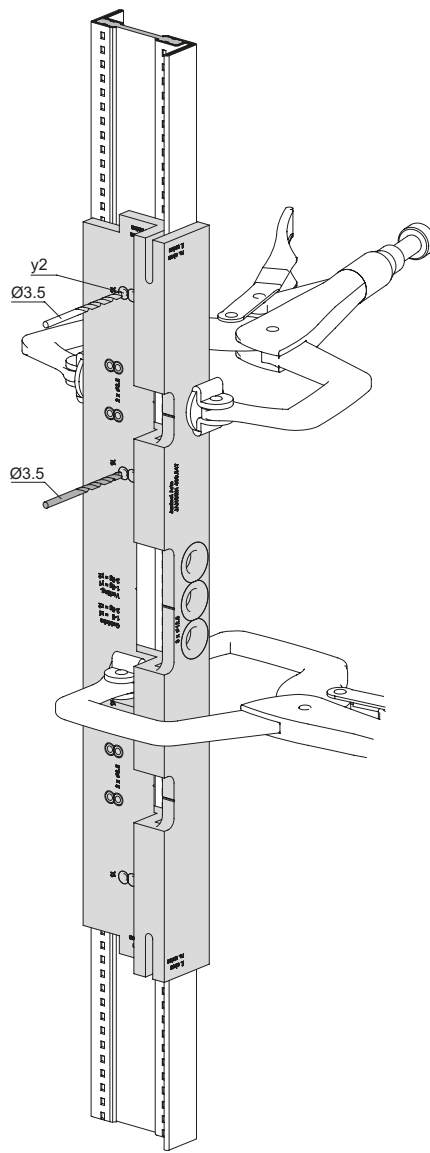
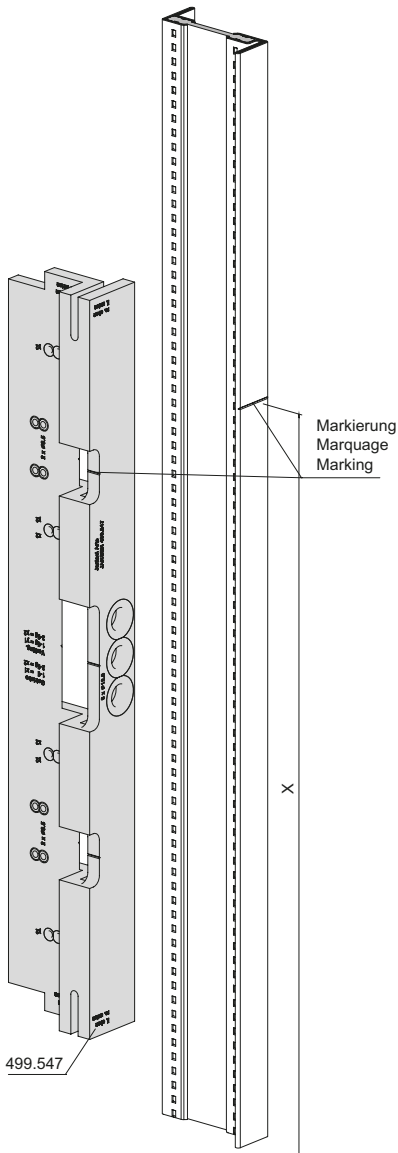
Drilling jig 499.547 for
 gearbox extension 557.188
 Access sash bottom



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Gangflügel oben

Gabarit de perçage 499.547 pour
 prolongement de la crémeone
 557.188 Vantail de service en haut

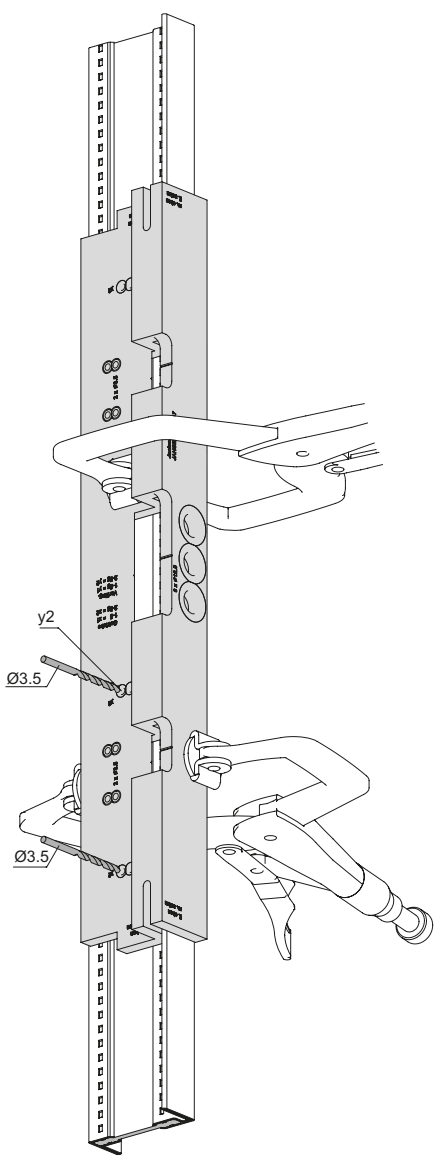
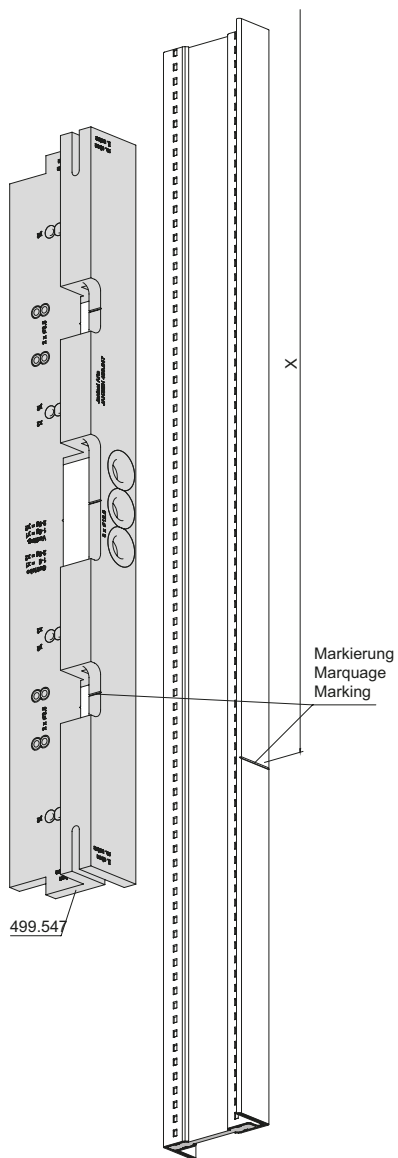
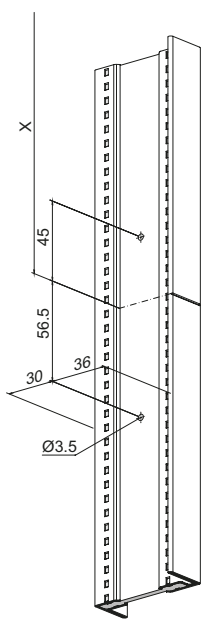
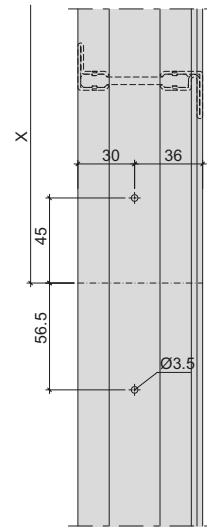
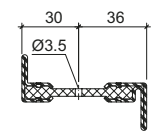
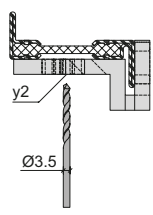
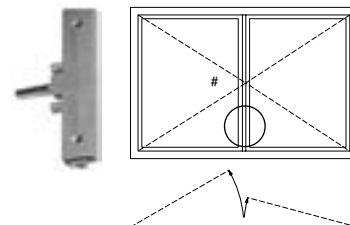
Drilling jig 499.547 for
 gearbox extension 557.188
 Access sash top



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Gangflügel unten

Gabarit de perçage 499.547 pour
 prolongement de la crémonne
 557.188 Vantail de service en bas

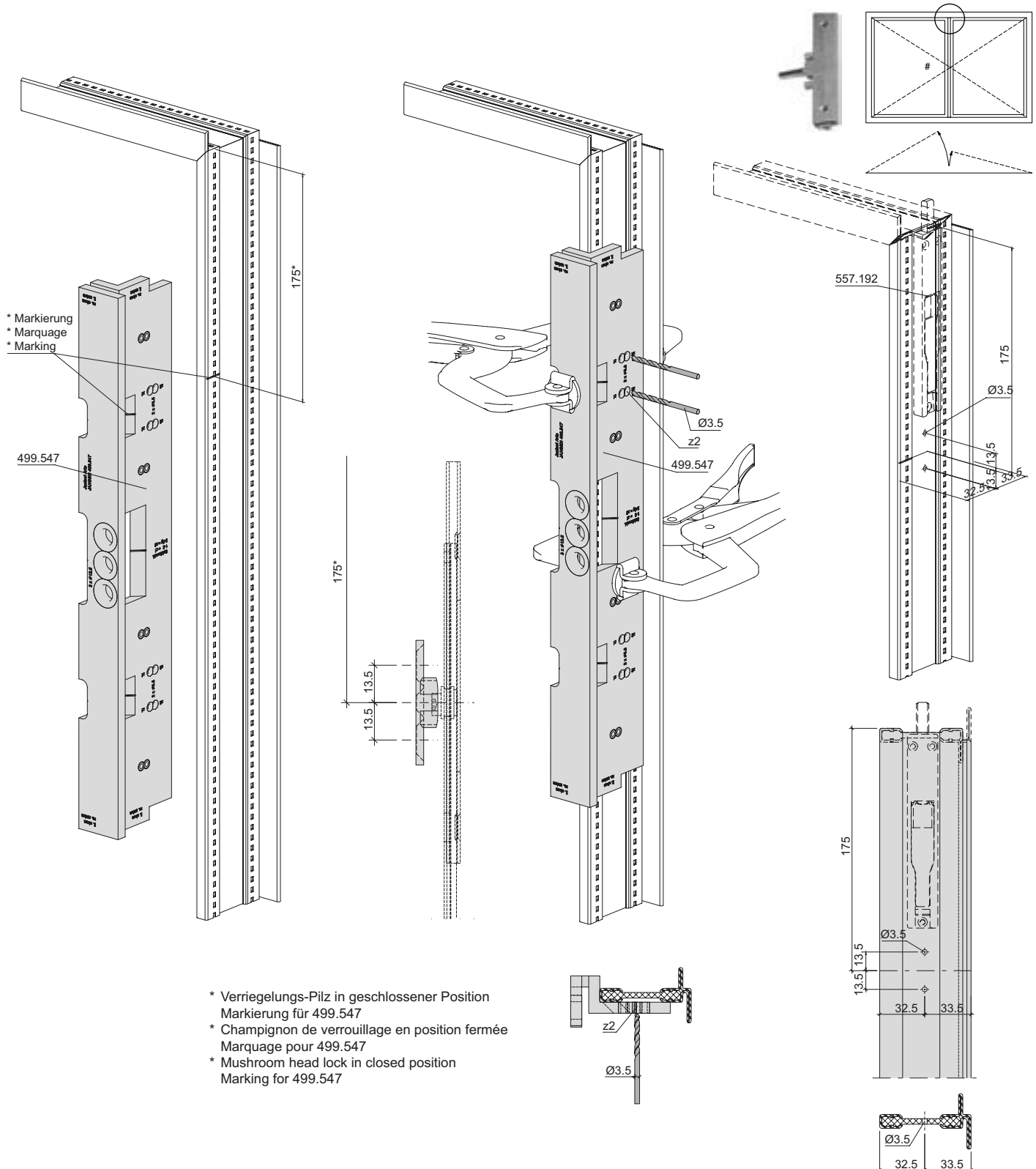
Drilling jig 499.547 for
 gearbox extension 557.188
 Access sash bottom



Bohrlehre 499.547 für
 Schliessblech 557.309
 Standflügel oben

Gabarit de perçage 499.547
 pour gâche 557.309
 Vantail semi-fixe en haut

Drilling jig 499.547 for
 striking plate 557.309
 Secondary sash top

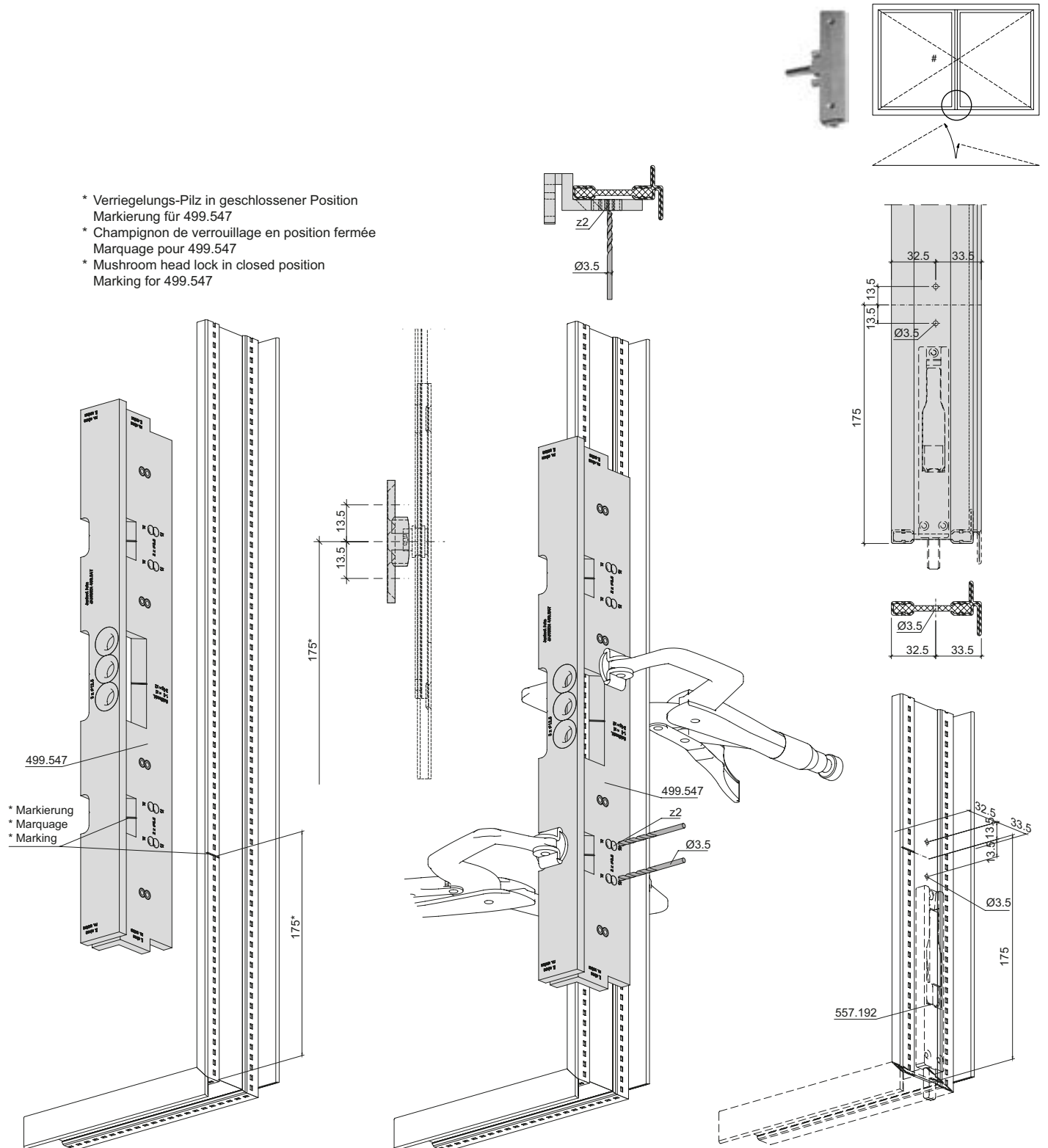


**Bohrlehre 499.547 für
 Schliessblech 557.309
 Standflügel unten**

**Gabarit de perçage 499.547
 pour gâche 557.309
 Vantail semi-fixe en bas**

**Drilling jig 499.547 for
 striking plate 557.309
 Secondary sash bottom**

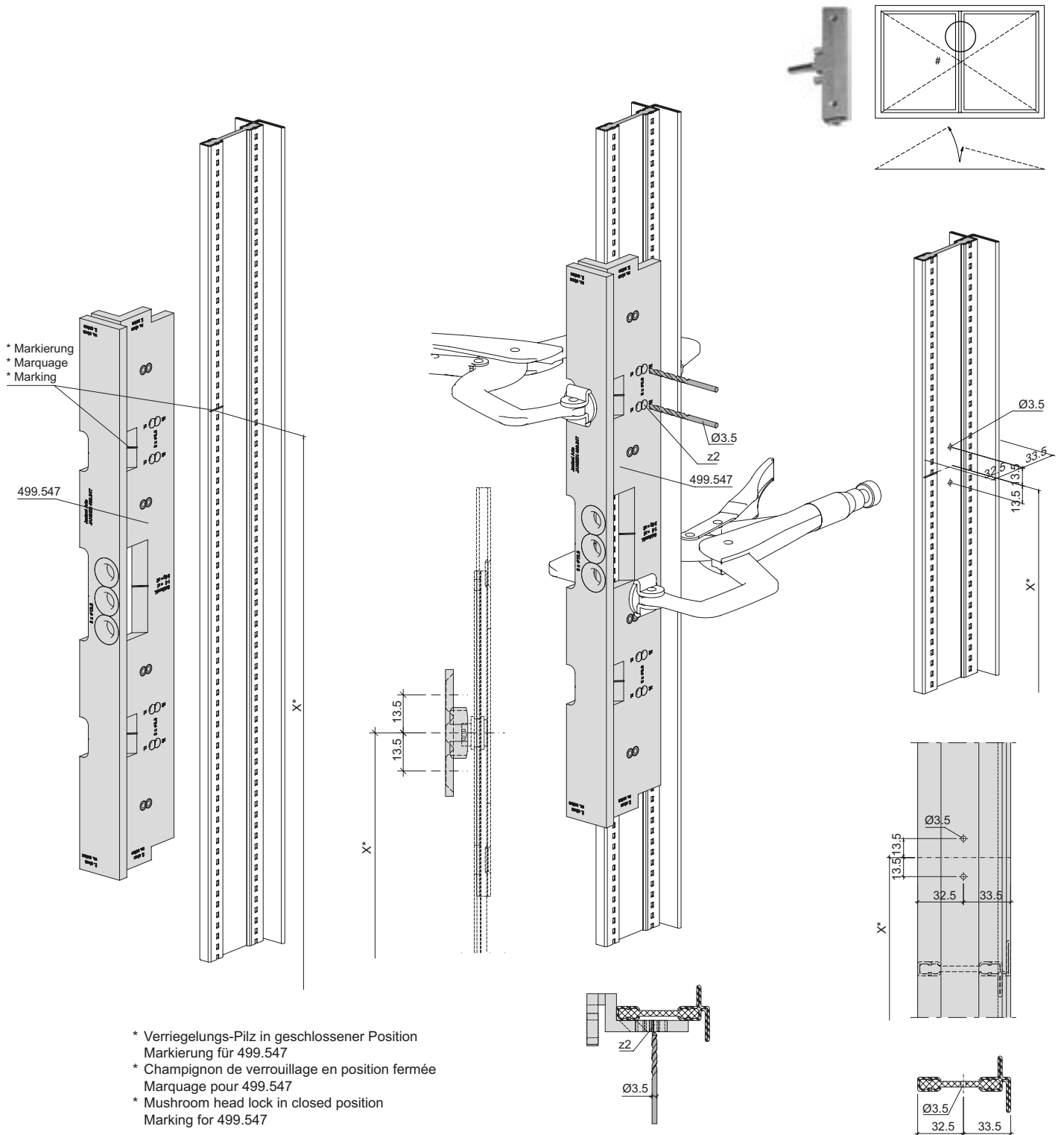
- * Verriegelungs-Pilz in geschlossener Position
 Markierung für 499.547
- * Champignon de verrouillage en position fermée
 Marquage pour 499.547
- * Mushroom head lock in closed position
 Marking for 499.547



Bohrlehre 499.547 für
 Schliessbleche 557.309
 Standflügel oben

Gabarit de perçage 499.547
 pour gâche 557.309
 Vantail semi-fixe en haut

Drilling jig 499.547 for
 striking plate 557.309
 Secondary sash top

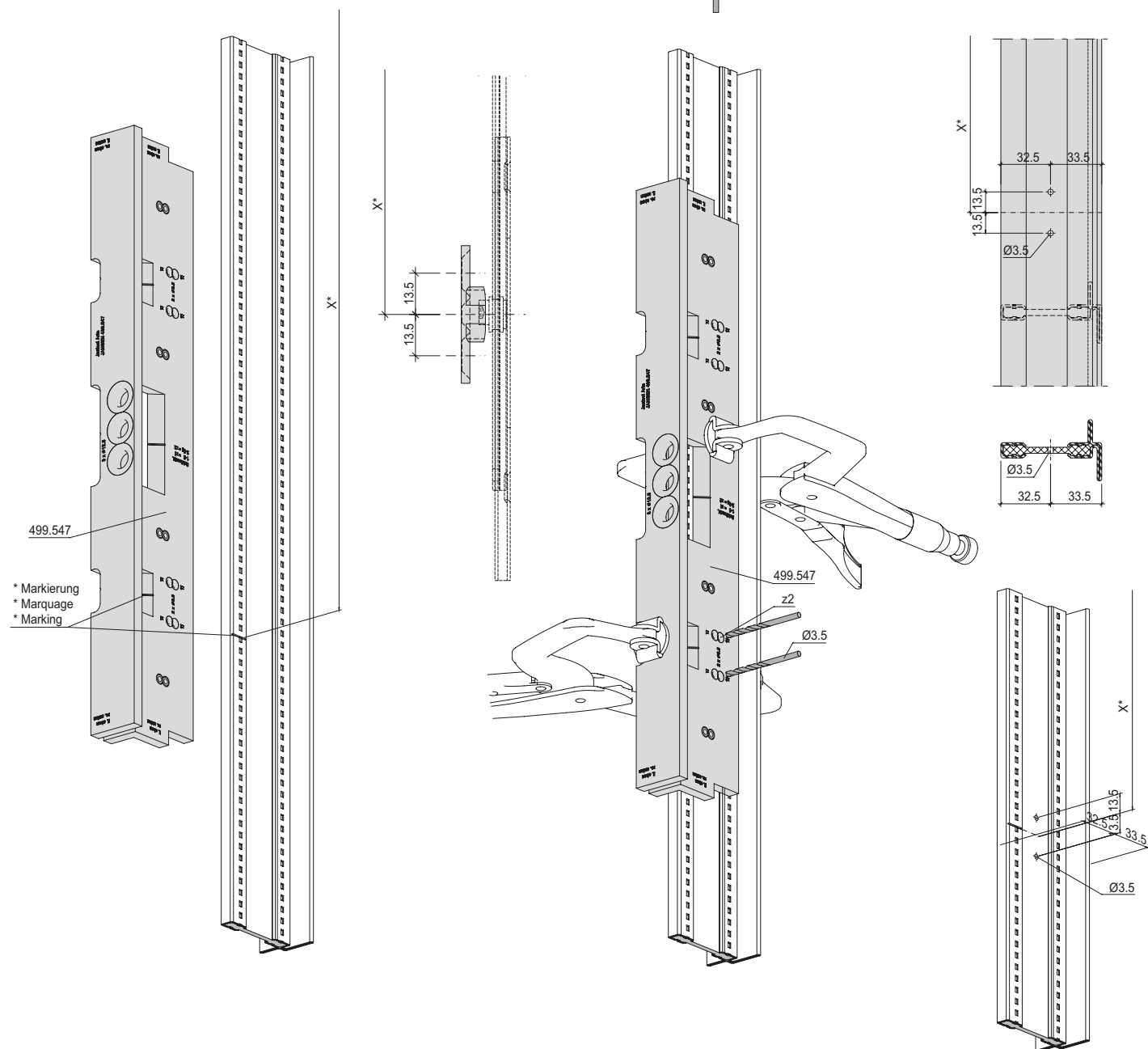
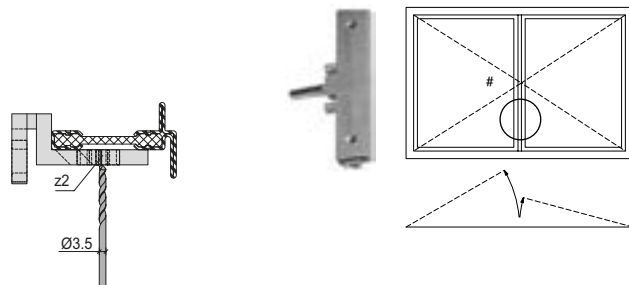


Bohrlehre 499.547 für
Schliessbleche 557.309
Standflügel unten

Gabarit de perçage 499.547
pour gâche 557.309
Vantail semi-fixe en bas

Drilling jig 499.547 for
striking plate 557.309
Secondary sash bottom

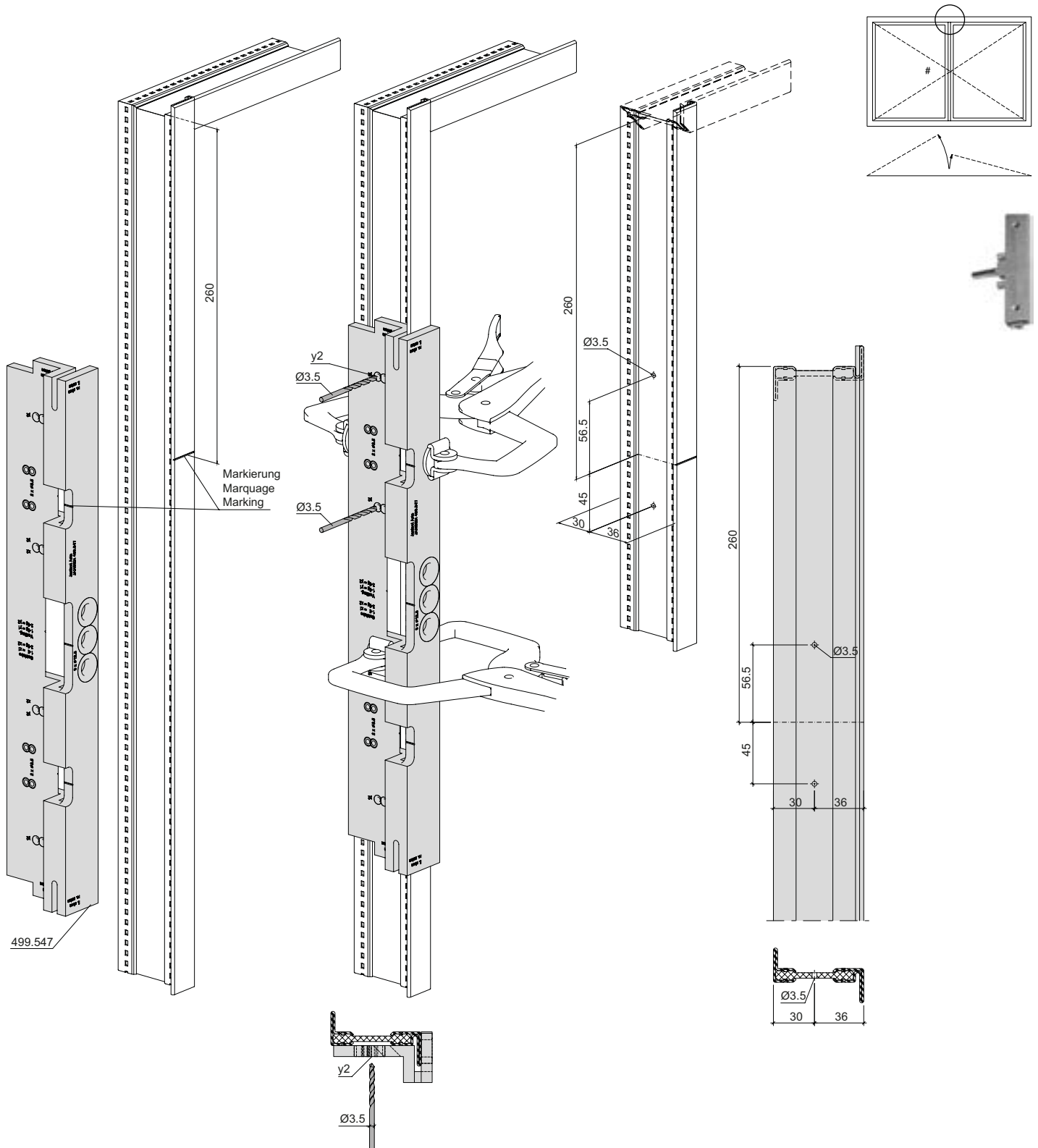
- * Verriegelungs-Pilz in geschlossener Position
 Markierung für 499.547
- * Champignon de verrouillage en position fermée
 Marquage pour 499.547
- * Mushroom head lock in closed position
 Marking for 499.547



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 mit Kantenriegel 557.139
 Gangflügel oben

Gabarit de perçage 499.547 pour
 prolongement de la créme
 557.188
 avec verrou à bascule 557.139
 Vantail de service en haut

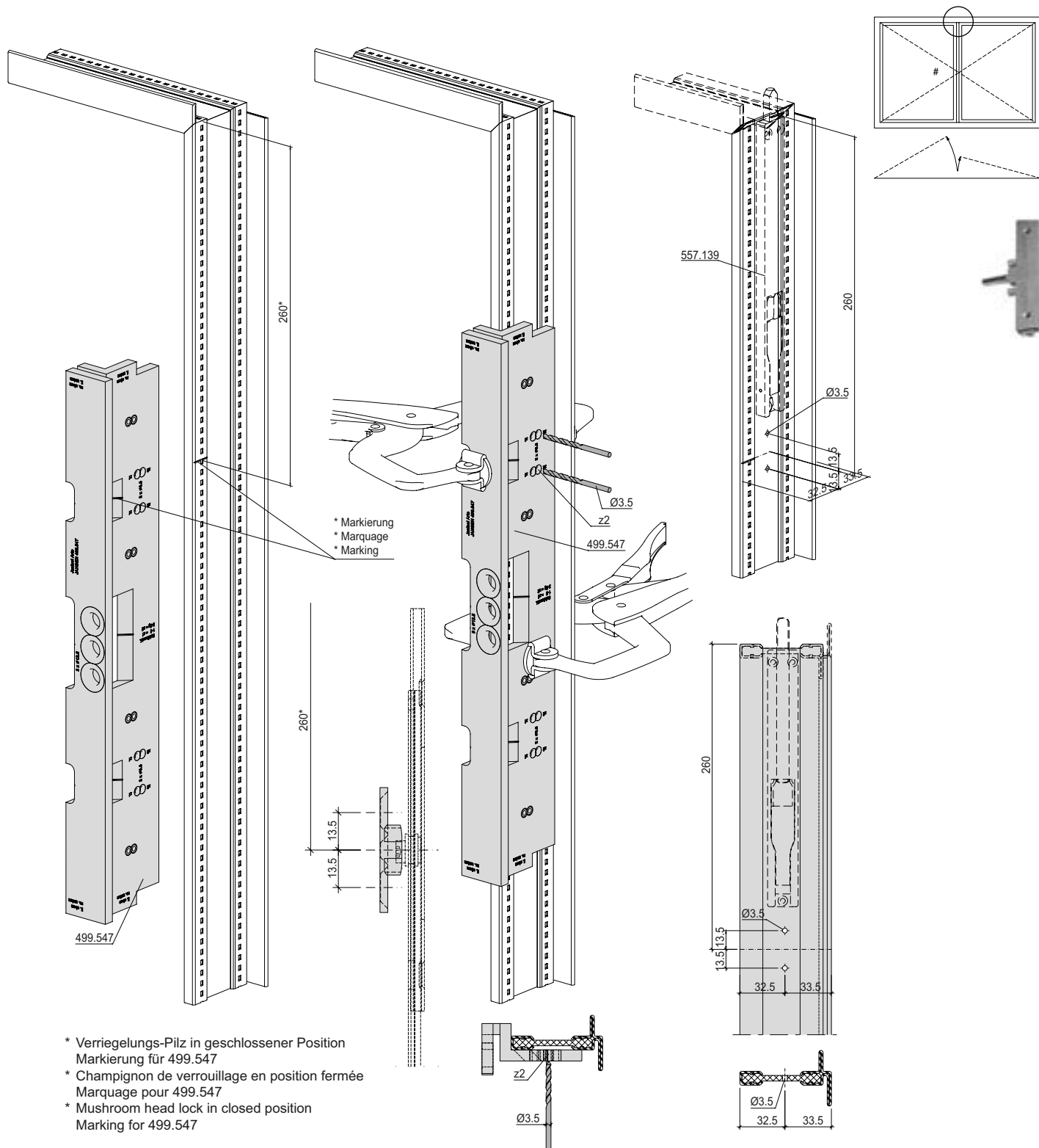
Drilling jig 499.547 for
 gearbox extension 557.188
 with flush bolt 557.139
 Access sash top



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 mit Kantenriegel 557.139
 Standflügel oben

Gabarit de perçage 499.547 pour
 prolongement de la crémonne
 557.188
 avec verrou à bascule 557.139
 Vantail semi-fixe en haut

Drilling jig 499.547 for
 gearbox extension 557.188
 with flush bolt 557.139
 Secondary sash top



**Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 ohne Kantenriegel 557.192
 Gangflügel oben**

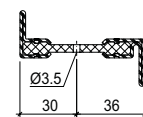
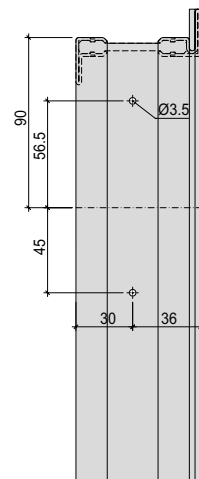
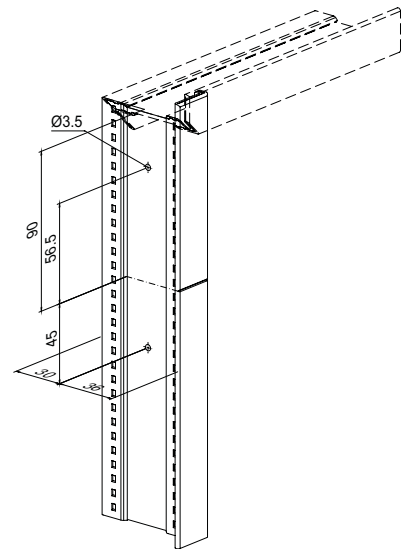
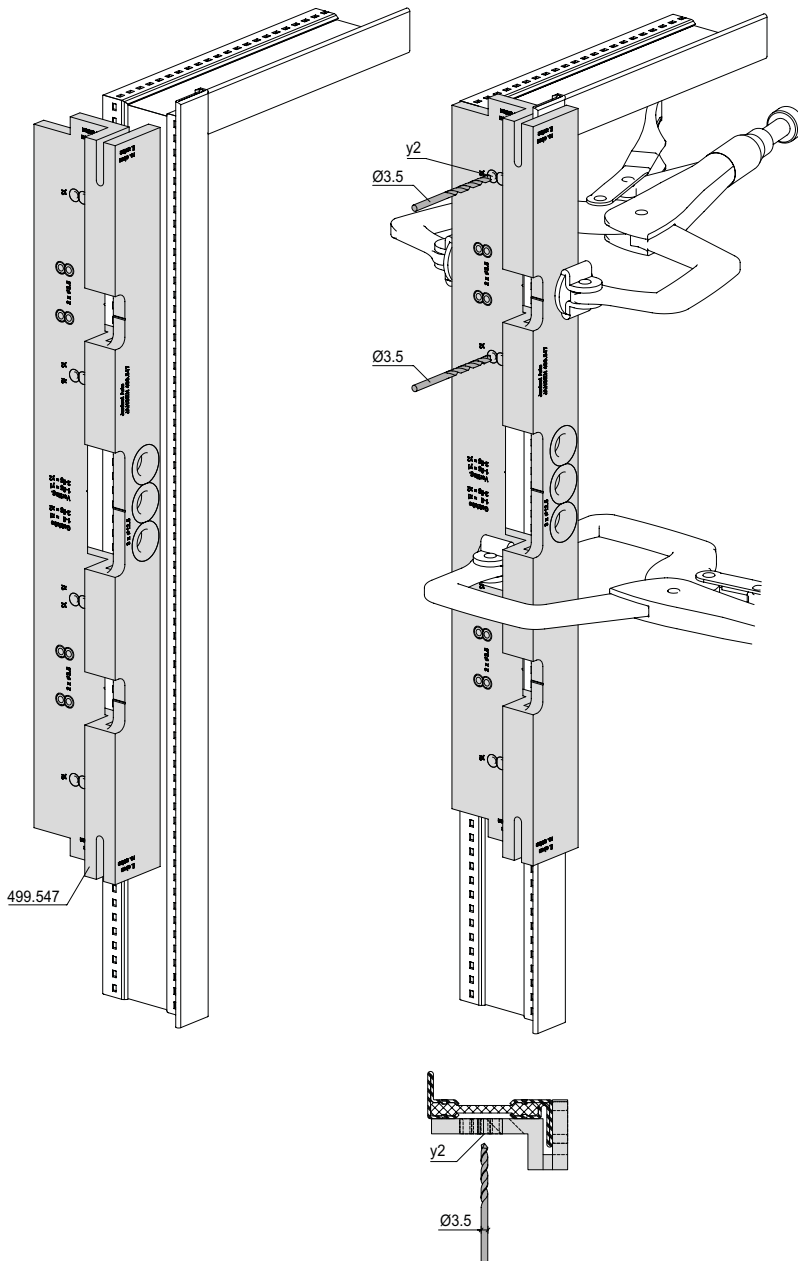
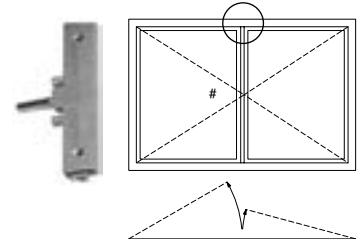
**Gabarit de perçage 499.436 pour
 prolongement de la créme
 557.188
 sans verrou à bascule 557.192
 Vantail de service en haut**

**Drilling jig 499.547 for
 gearbox extension 557.188
 without flush bolt 557.192
 Access sash top**

In Kombination mit Zusatzverriegelung 557.172
 (siehe Seite 90)

En combinaison avec un verrouillage supplémentaire
 557.172 (voir page 90)

In combination with additional lock 557.172
 (see page 90)



**Bohrlehre 499.547 für
 Schliessblech 557.309
 ohne Kantenriegel 557.192
 Standflügel oben**

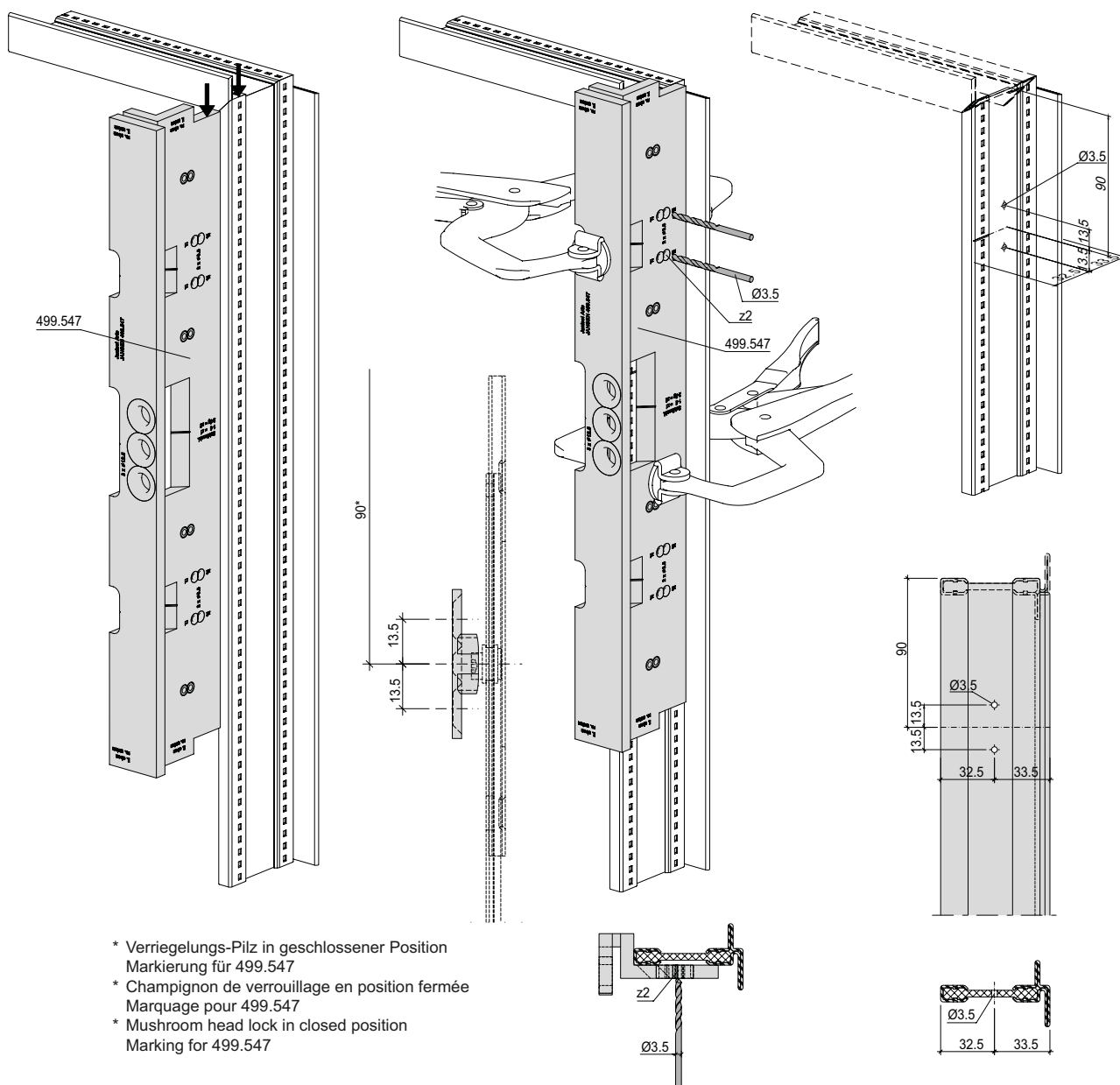
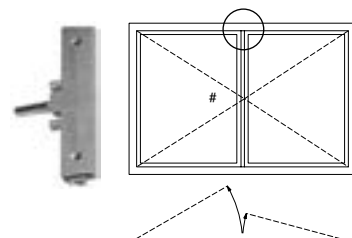
**Gabarit de perçage 499.547 pour
 gâchede fermeture 557.309
 sans verrou à bascule 557.192
 Vantail semi-fixe en haut**

**Drilling jig 499.547 for
 striking plate 557.309
 without flush bolt 557.192
 Secondary sash top**

In Kombination mit Zusatzverriegelung 557.172
 (siehe Seite 90)

En combinaison avec un verrouillage supplémentaire
 557.172 (voir page 90)

In combination with additional lock 557.172
 (see page 90)

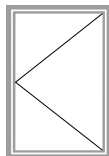


- * Verriegelungs-Pilz in geschlossener Position
 Markierung für 499.547
- * Champignon de verrouillage en position fermée
 Marquage pour 499.547
- * Mushroom head lock in closed position
 Marking for 499.547

Beschlageinbau
Montage des ferrures
Installation of fittings

Janisol Arte
Janisol Arte
Janisol Arte

2.0



**Drehfenster
 nach aussen öffnend**

**Fenêtre à la française
 ouvrant vers l'extérieur**

**Side-hung window
 outward opening**

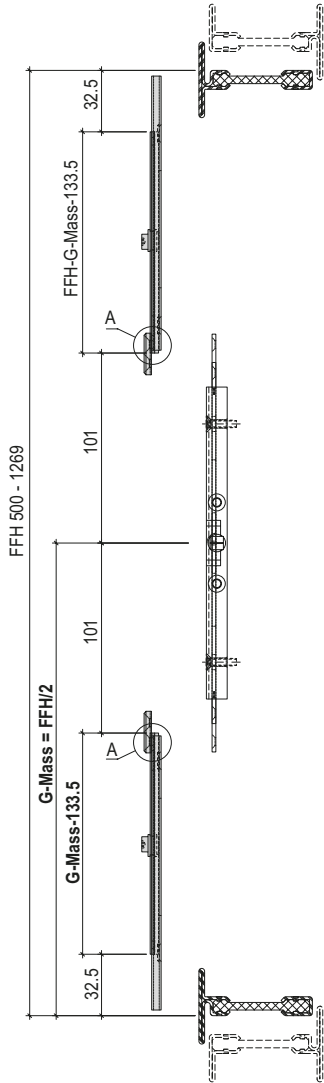
Zuschnitt Getriebeverlängerung Bohrbild Getriebeverlängerung und Schliessbleche	Découpe prolongement de la crémonne Schéma de perçage prolongement de la crémonne et gâches	Cutting gearbox extension Drilling pattern gearbox extension and striking plates	130
Bohrlehre 499.547 für Getriebe 557.279/557.280 und Fenstergriff 557.268	Gabarit de perçage 499.547 pour crémonne 557.279/557.280 et poignée de fenêtre 557.268	Drilling jig 499.547 for mechanism 557.279/557.280 and window handle 557.268	134
Bohrlehre 499.547 für Getriebeverlängerung 557.188	Gabarit de perçage 499.547 pour prolongement de la crémonne 557.188	Drilling jig 499.547 for gearbox extension 557.188	136
Bohrlehre 499.547 für Schliessbleche 557.309	Gabarit de perçage 499.547 pour gâches 557.309	Drilling jig 499.547 for striking plates 557.309	140

Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 500-1269

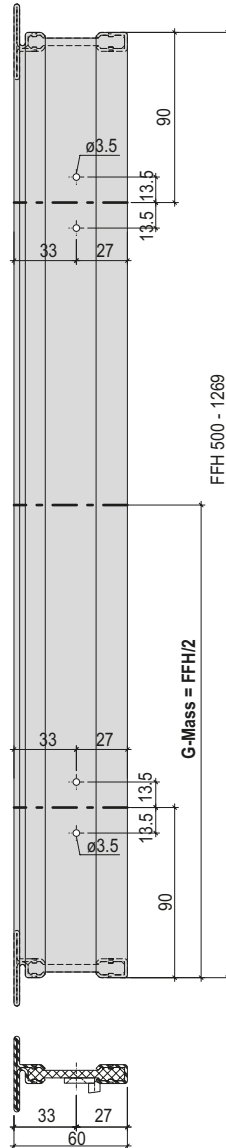
Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 500-1269

Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 500-1269

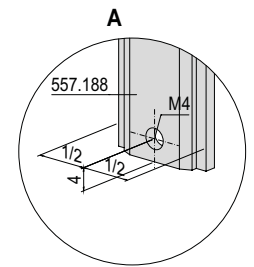
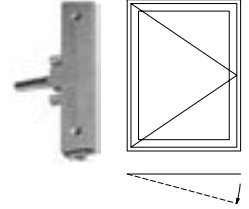
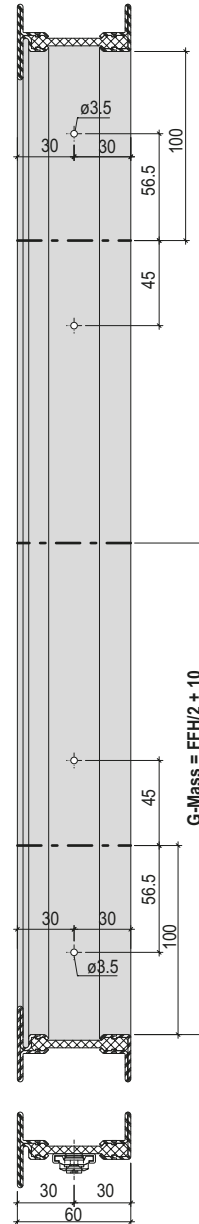
Zuschnitt/Découpe/Cutting



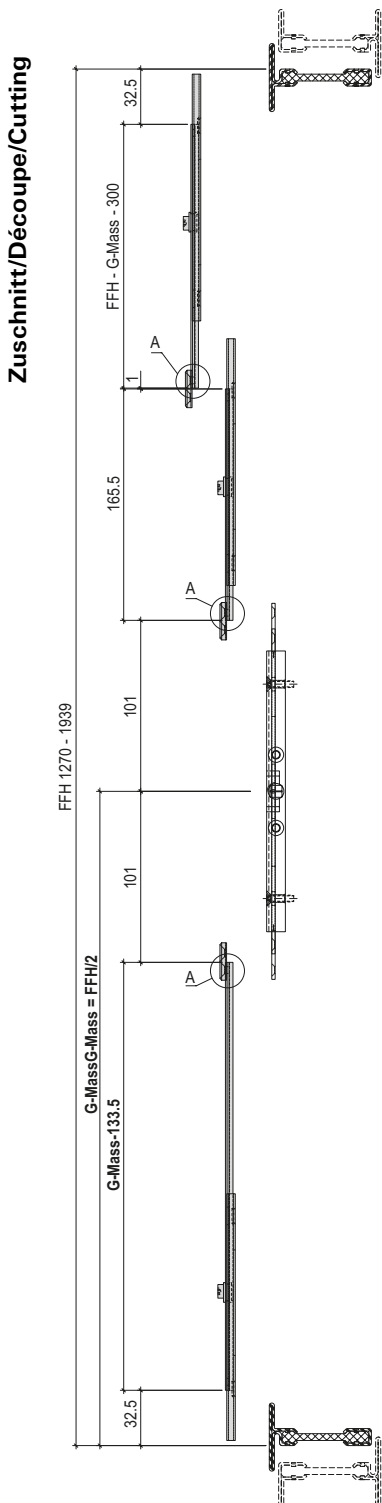
Rahmen/Cadre/Frame



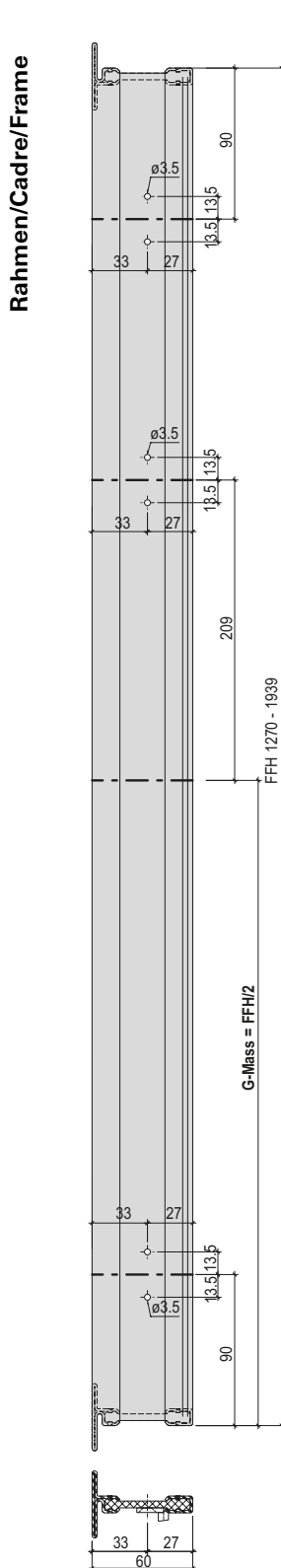
Flügel/Vantail/Sash



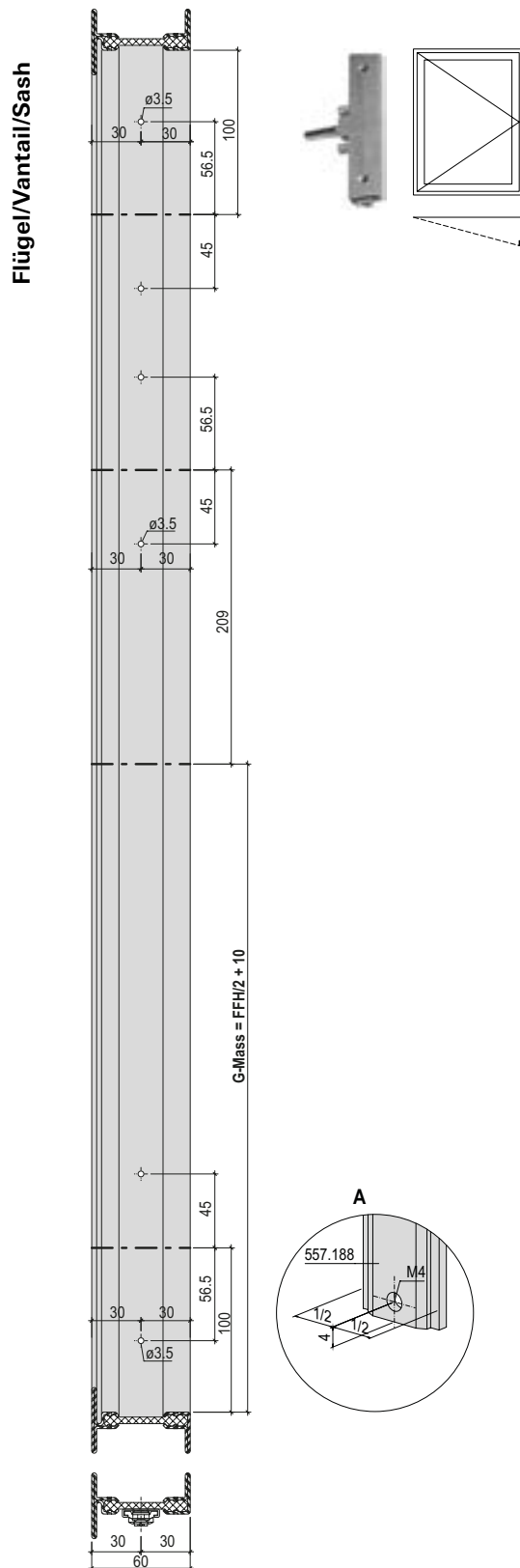
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 1270-1939



Découpe prolongement de la créme
 Schéma de perçage prolongement
 de la créme et gâches
 FFH 1270-1939



Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 1270-1939

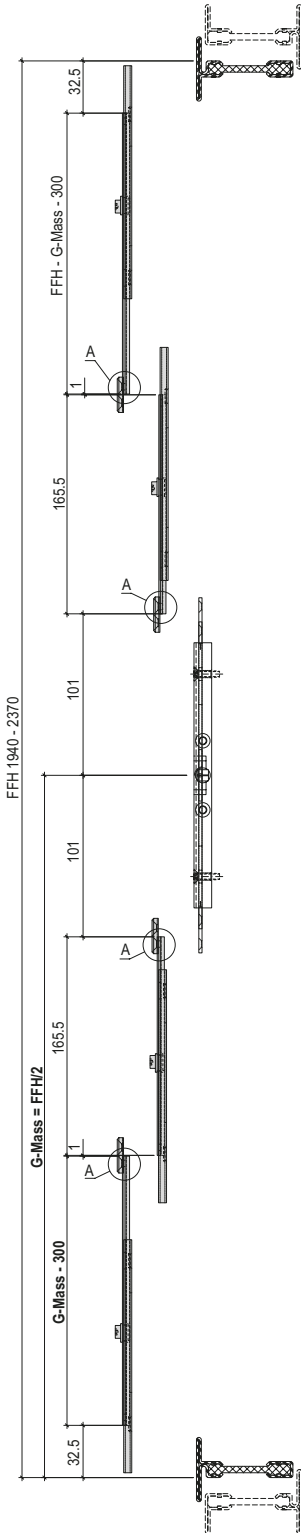


Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessebleche
 FFH 1940-2370

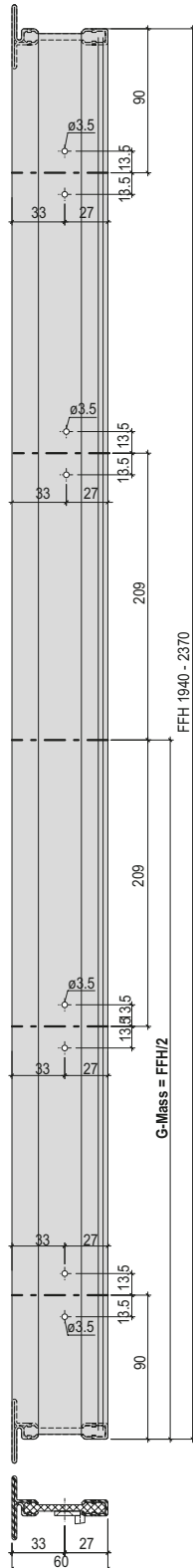
Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 1940-2370

Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 1940-2370

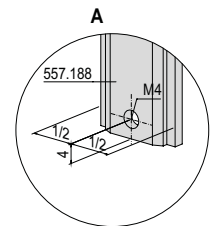
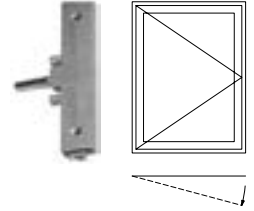
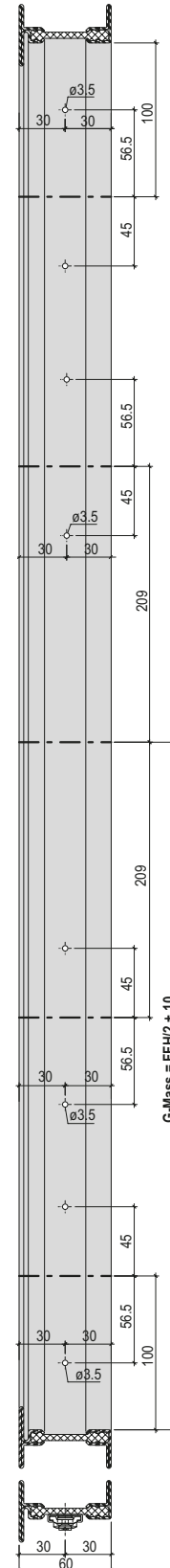
Zuschnitt/Découpe/Cutting



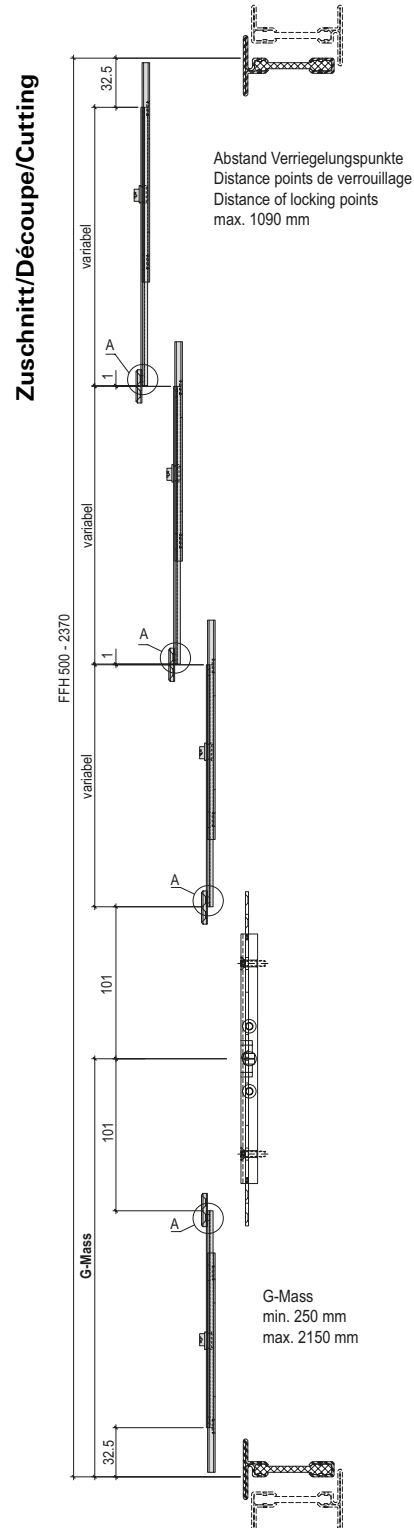
Rahmen/Cadre/Frame



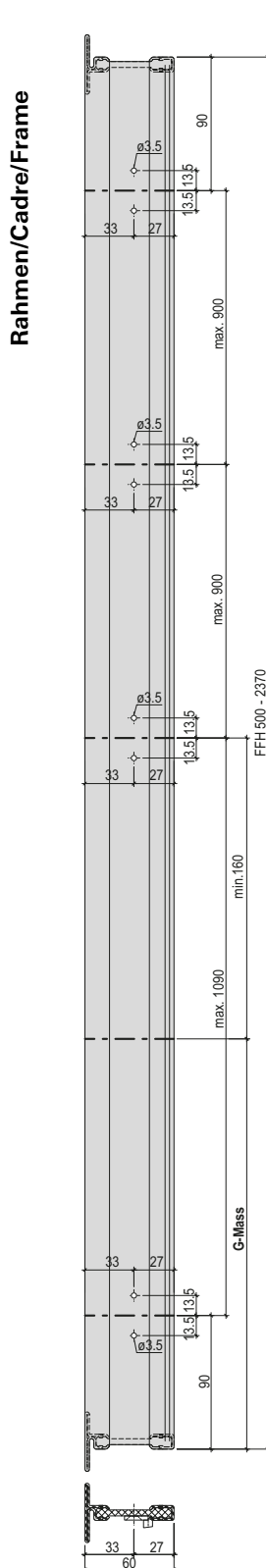
Flügel/Vantail/Sash



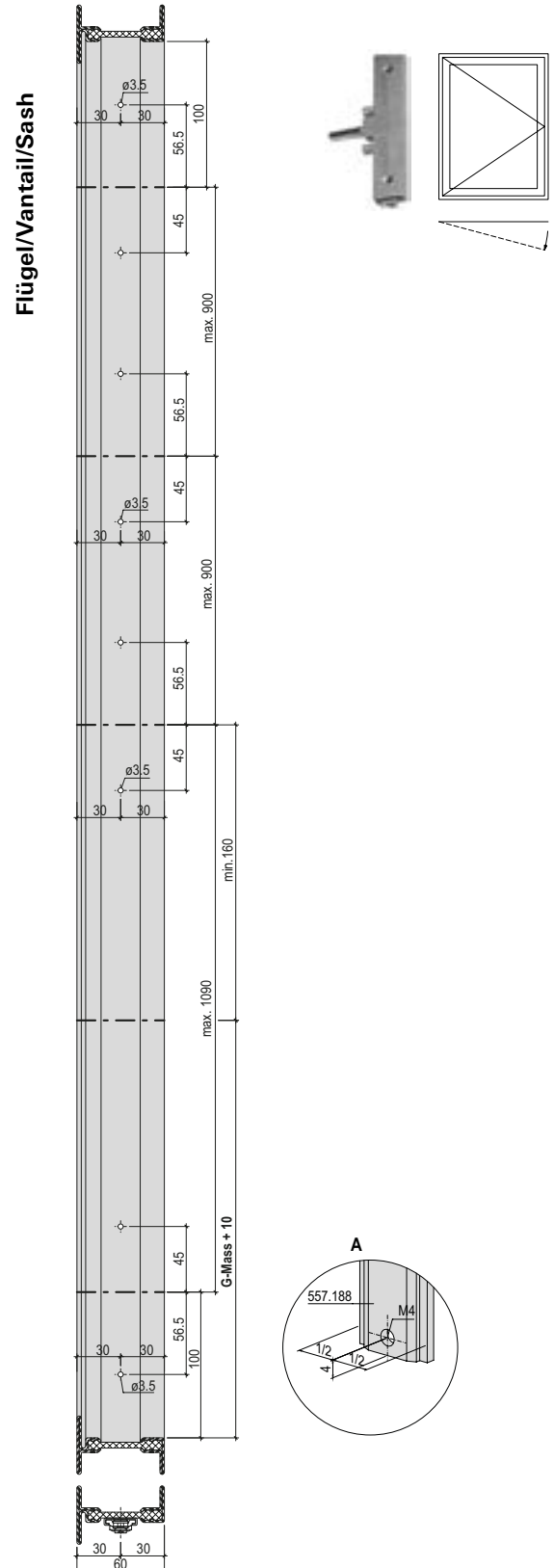
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 500-2370



Découpe prolongement de la crémore
 Schéma de perçage prolongement
 de la crémore et gâches
 FFH 500-2370



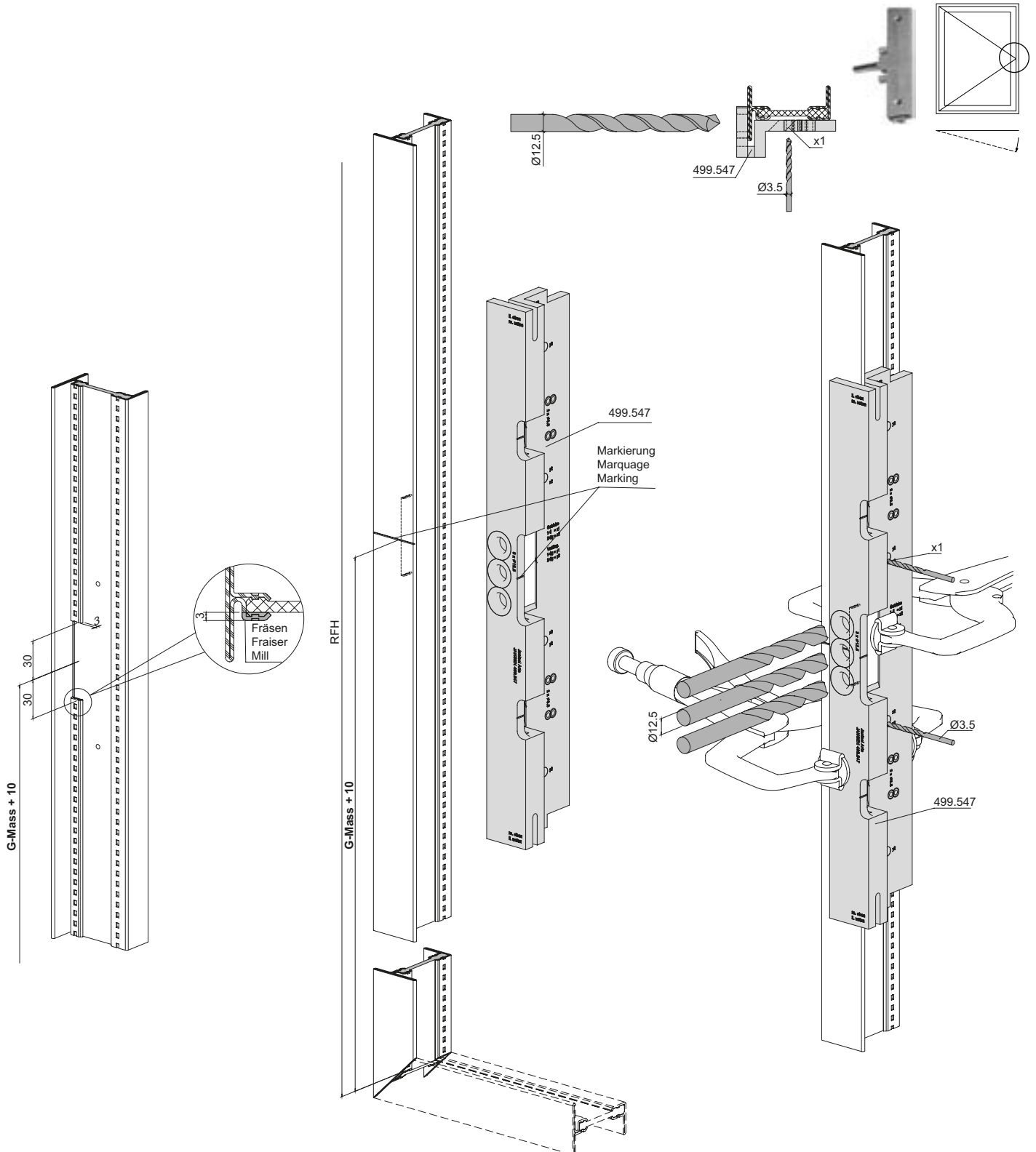
Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 500-2370



**Bohrlehre 499.547 für
 Getriebe 557.279/557.280
 und Fenstergriff 557.268
 Rahmen**

**Gabarit de perçage 499.547
 pour crémonne 557.279/555.280 et
 poignée de fenêtre 557.268
 Cadre**

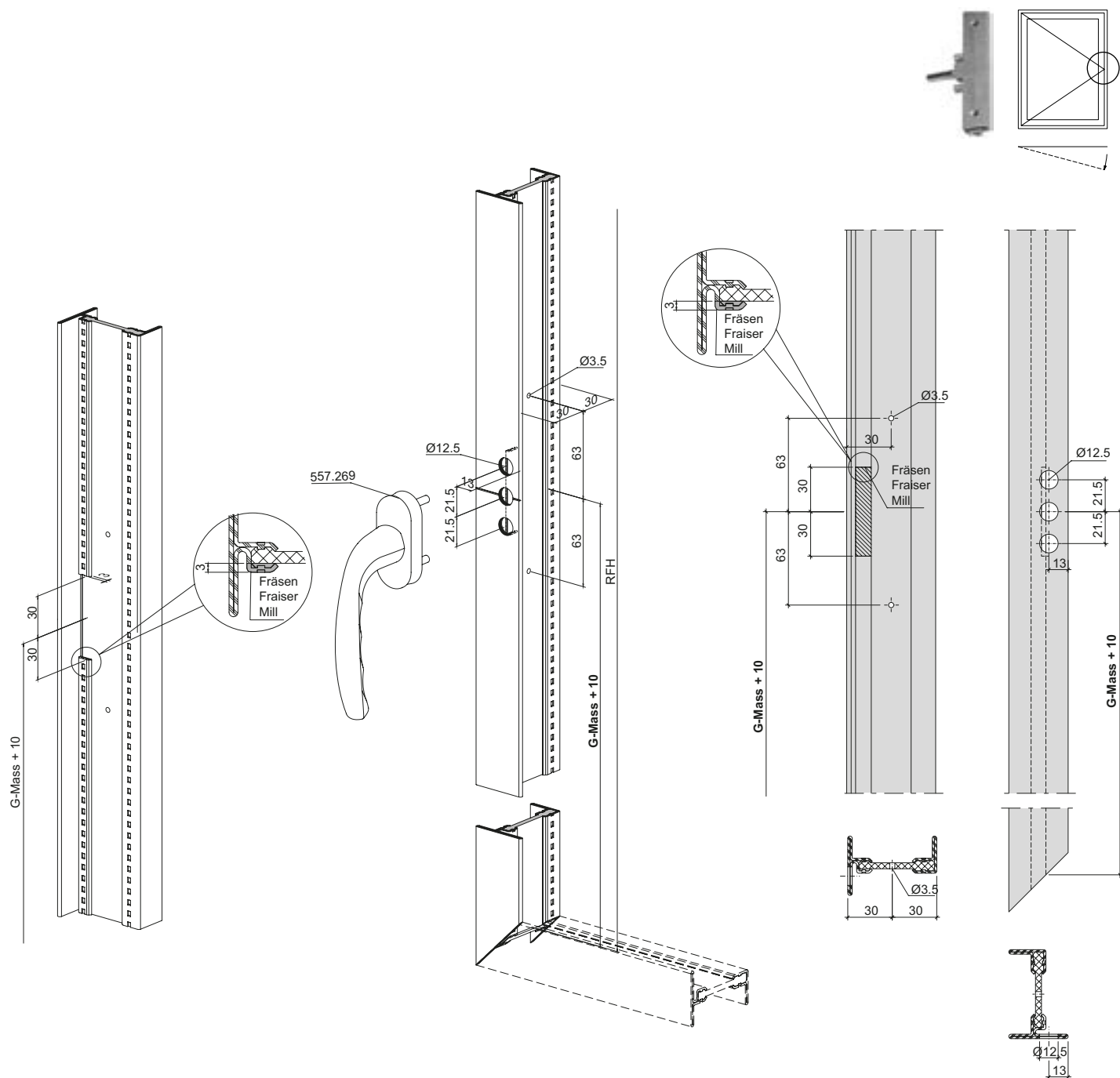
**Drilling jig 499.547 for
 mechanism 557.279/555.280
 and window handle 557.268
 Frame**



Bohrbild und Fräsung
 Getriebe 557.279/557.280
 und Fenstergriff 557.268
 Rahmen

Schéma de perçage et fraisage
 Crémone 557.279/557.280 et
 poignée de fenêtre 557.268
 Cadre

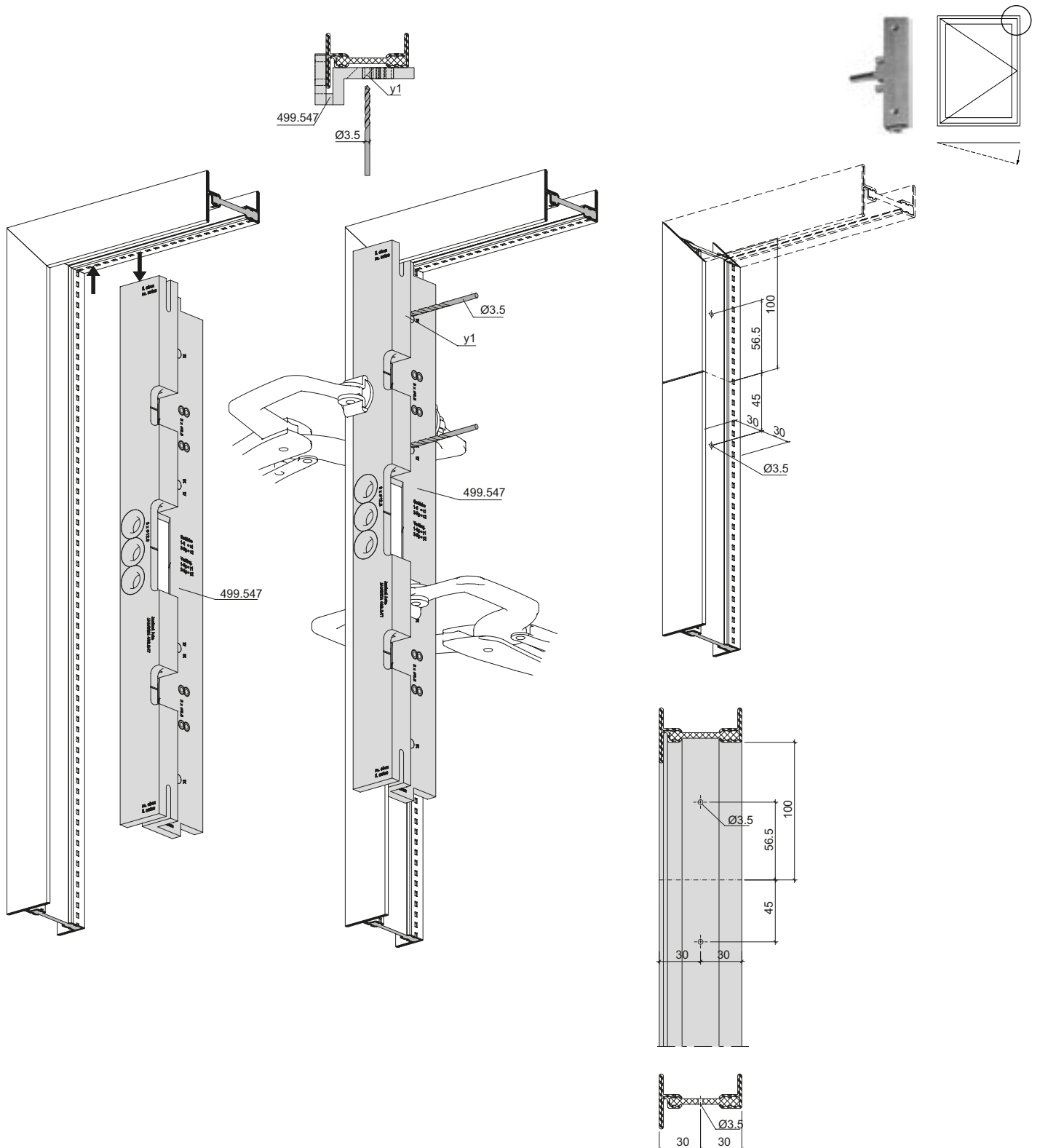
Drilling pattern and milling
 Mechanisme 557.279/557.280
 and window handle 557.268
 Frame



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Rahmen oben

Gabarit de perçage 499.547 pour
 prolongement de la crémonne
 557.188 Cadre en haut

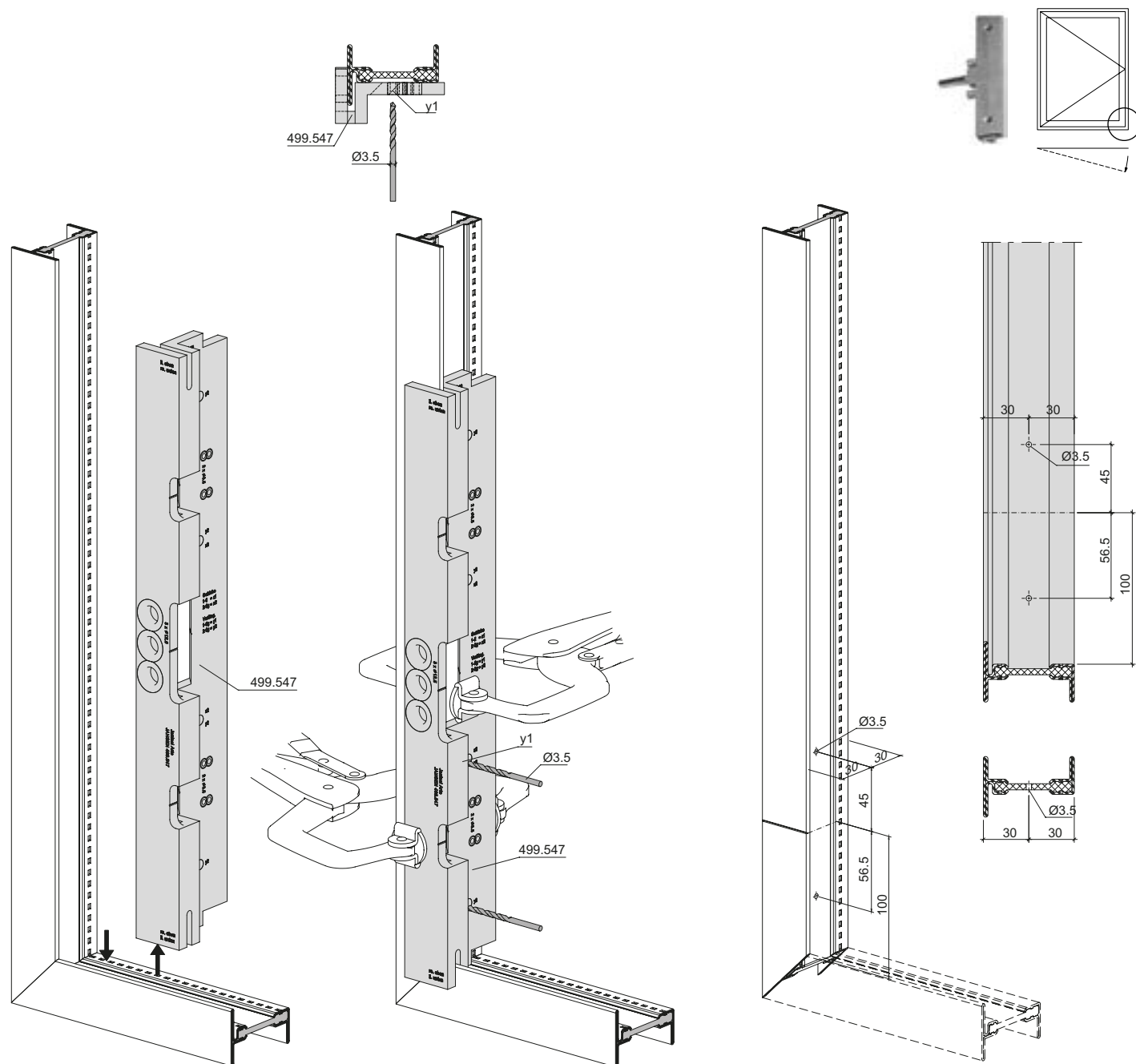
Drilling jig 499.547 for
 gearbox extension 557.188
 Frame top



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Rahmen unten

Gabarit de perçage 499.547 pour
 prolongement de la crémonne
 557.188 Cadre en bas

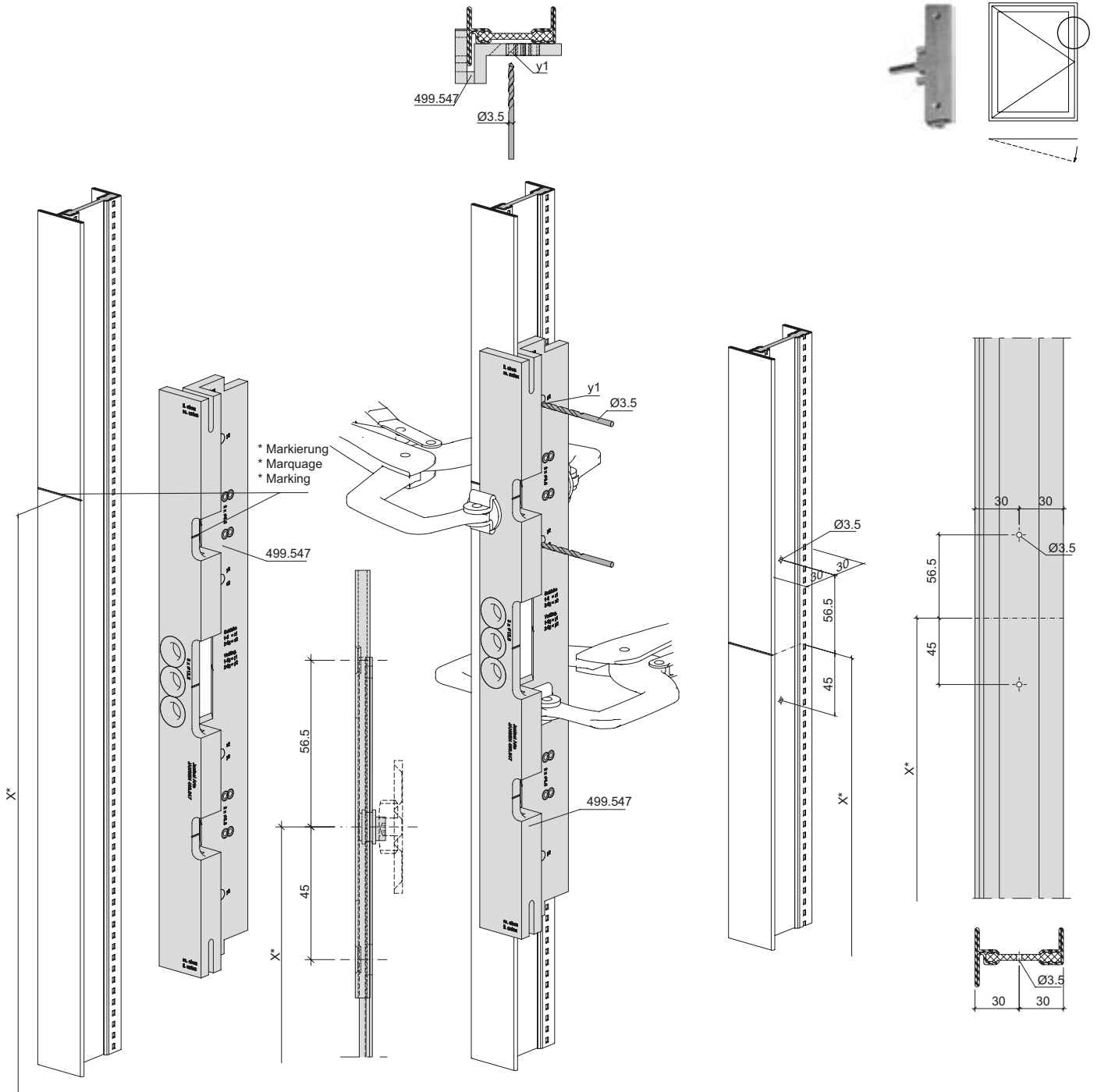
Drilling jig 499.547 for
 gearbox extension 557.188
 Frame bottom



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Rahmen oben

Gabarit de perçage 499.547 pour
 prolongement de la crémonoie
 557.188 Cadre en haut

Drilling jig 499.547 for
 gearbox extension 557.188
 Frame top

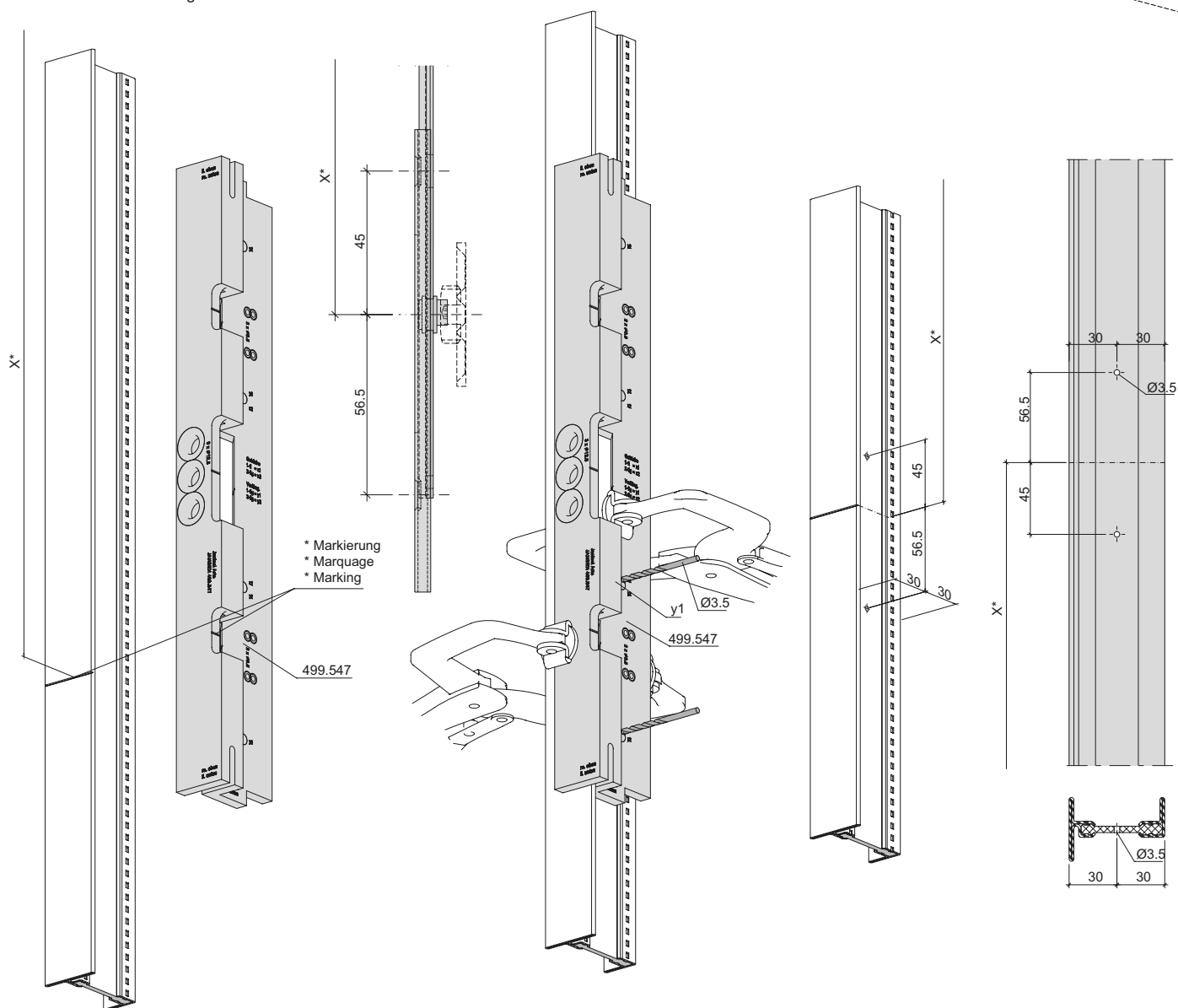
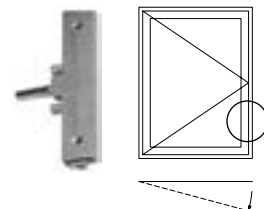
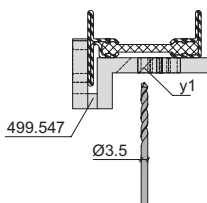


**Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Rahmen unten**

**Gabarit de perçage 499.547 pour
 prolongement de la crémonne
 557.188 Cadre en bas**

**Drilling jig 499.547 for
 gearbox extension 557.188
 Frame bottom**

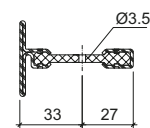
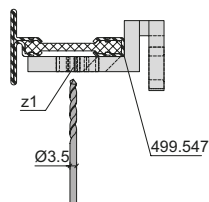
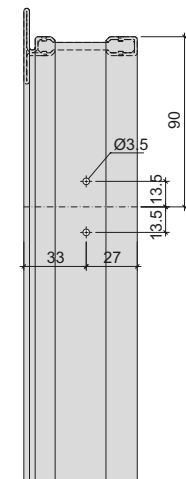
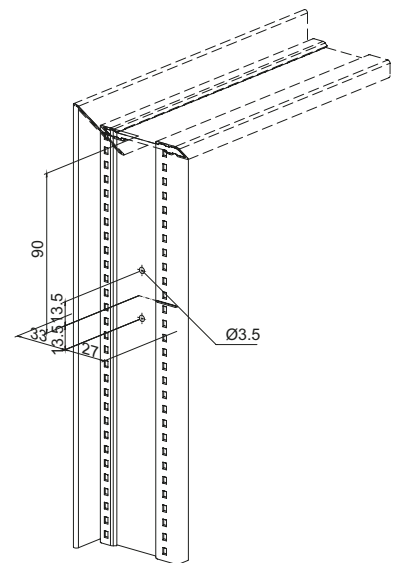
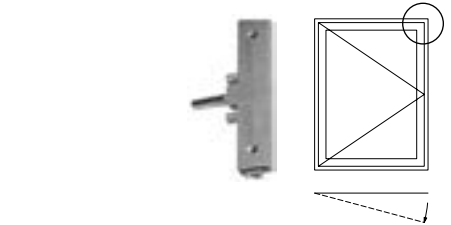
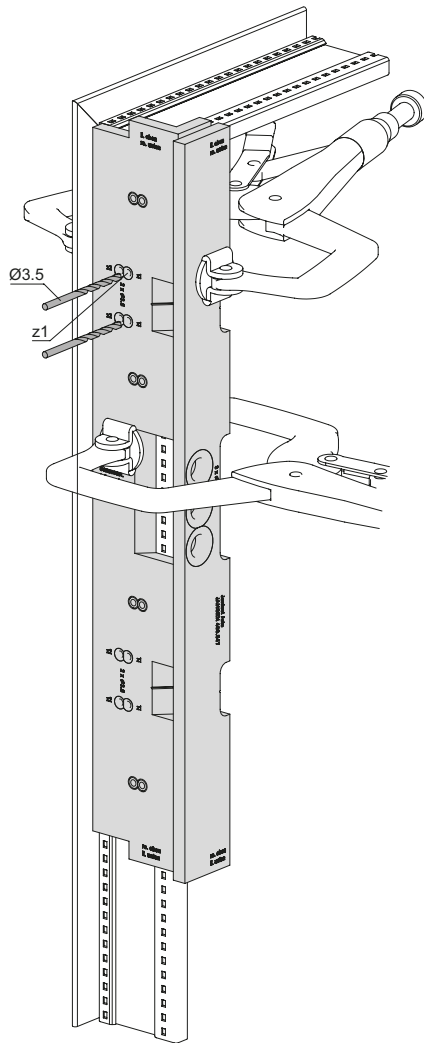
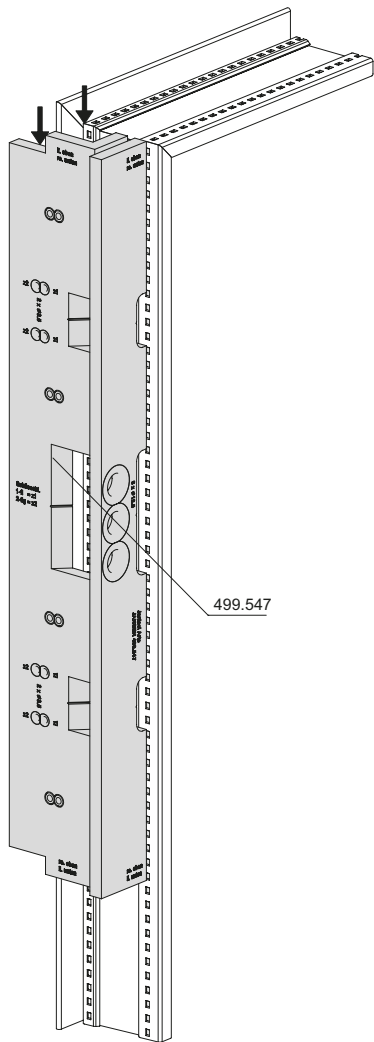
- * Verriegelungs-Pilz in geschlossener Position
 Markierung für 499.547
- * Champignon de verrouillage en position fermée
 Marquage pour 499.547
- * Mushroom head lock in closed position
 Marking for 499.547



Bohrlehre 499.547 für
 Schliessbleche 557.309
 Flügel oben

Gabarit de perçage 499.547
 pour gâches 557.309
 Vantail en haut

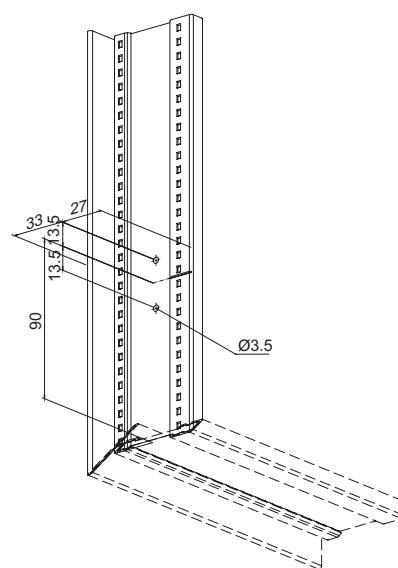
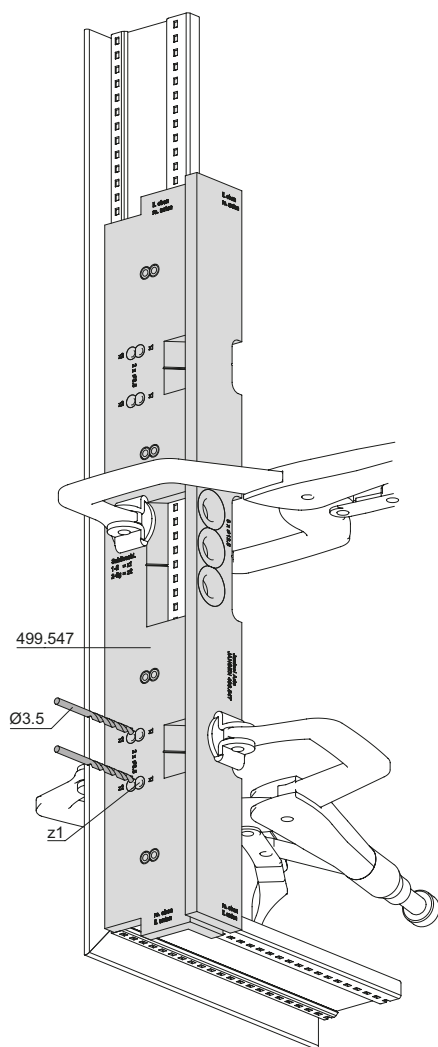
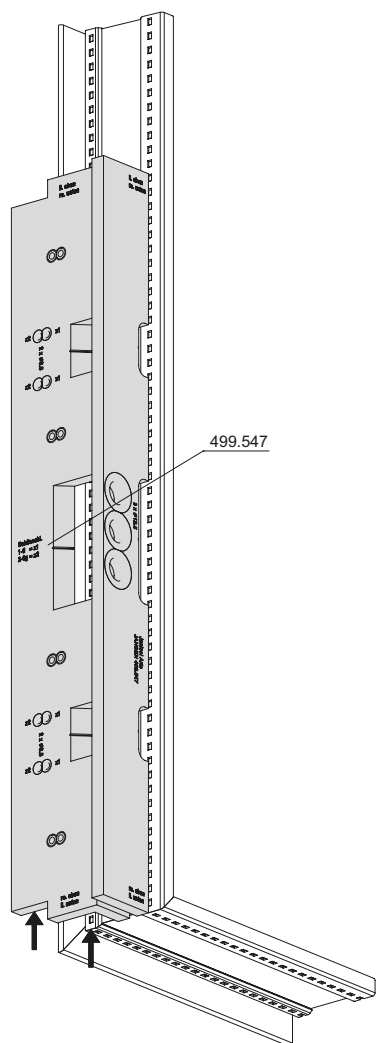
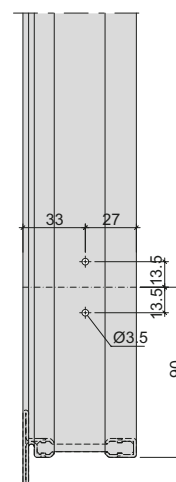
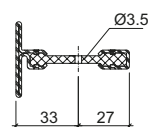
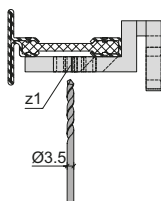
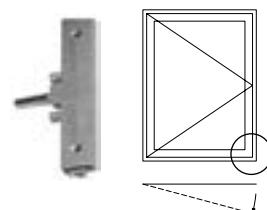
Drilling jig 499.547 for
 striking plates 557.309
 Sash top



Bohrlehre 499.547 für
 Schliessblech 557.309
 Flügel unten

Gabarit de perçage 499.547
 pour gâche 557.309
 Vantail en bas

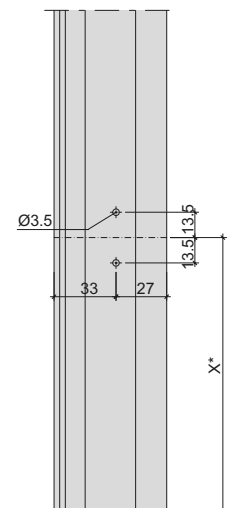
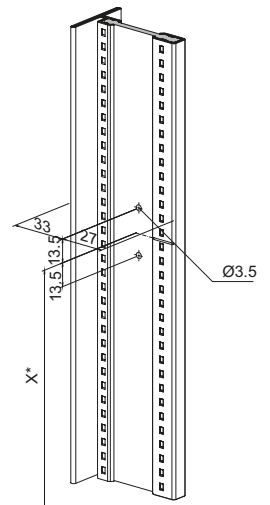
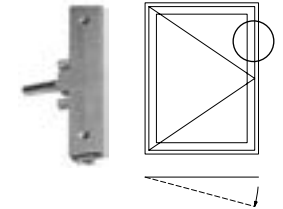
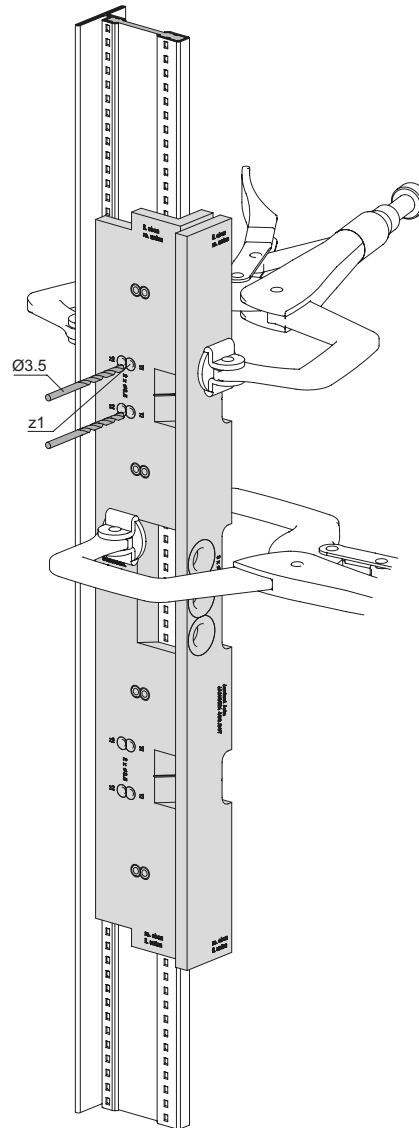
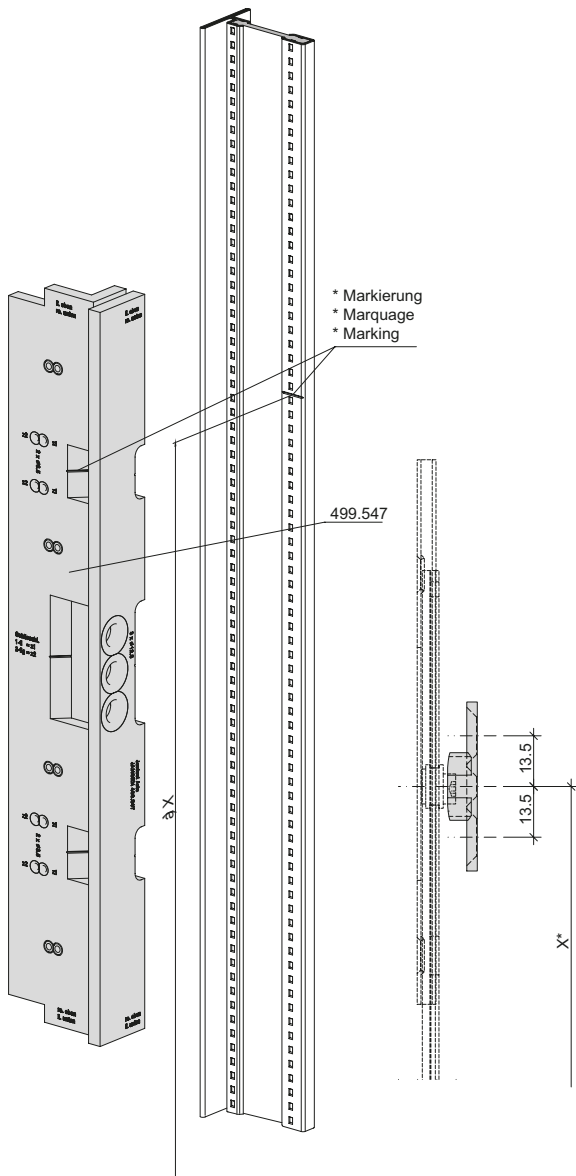
Drilling jig 499.547 for
 striking plate 557.309
 Sash bottom



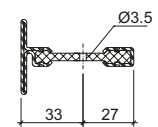
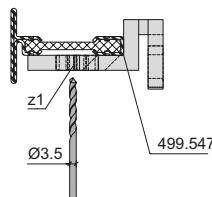
Bohrlehre 499.547 für
 Schliessblech 557.309
 Flügel

Gabarit de perçage 499.547
 pour gâche 557.309
 Vantail

Drilling jig 499.547 for
 striking plate 557.309
 Sash



- * Verriegelungs-Pilz in geschlossener Position
 Markierung für 499.547
- * Champignon de verrouillage en position fermée
 Marquage pour 499.547
- * Mushroom head lock in closed position
 Marking for 499.547

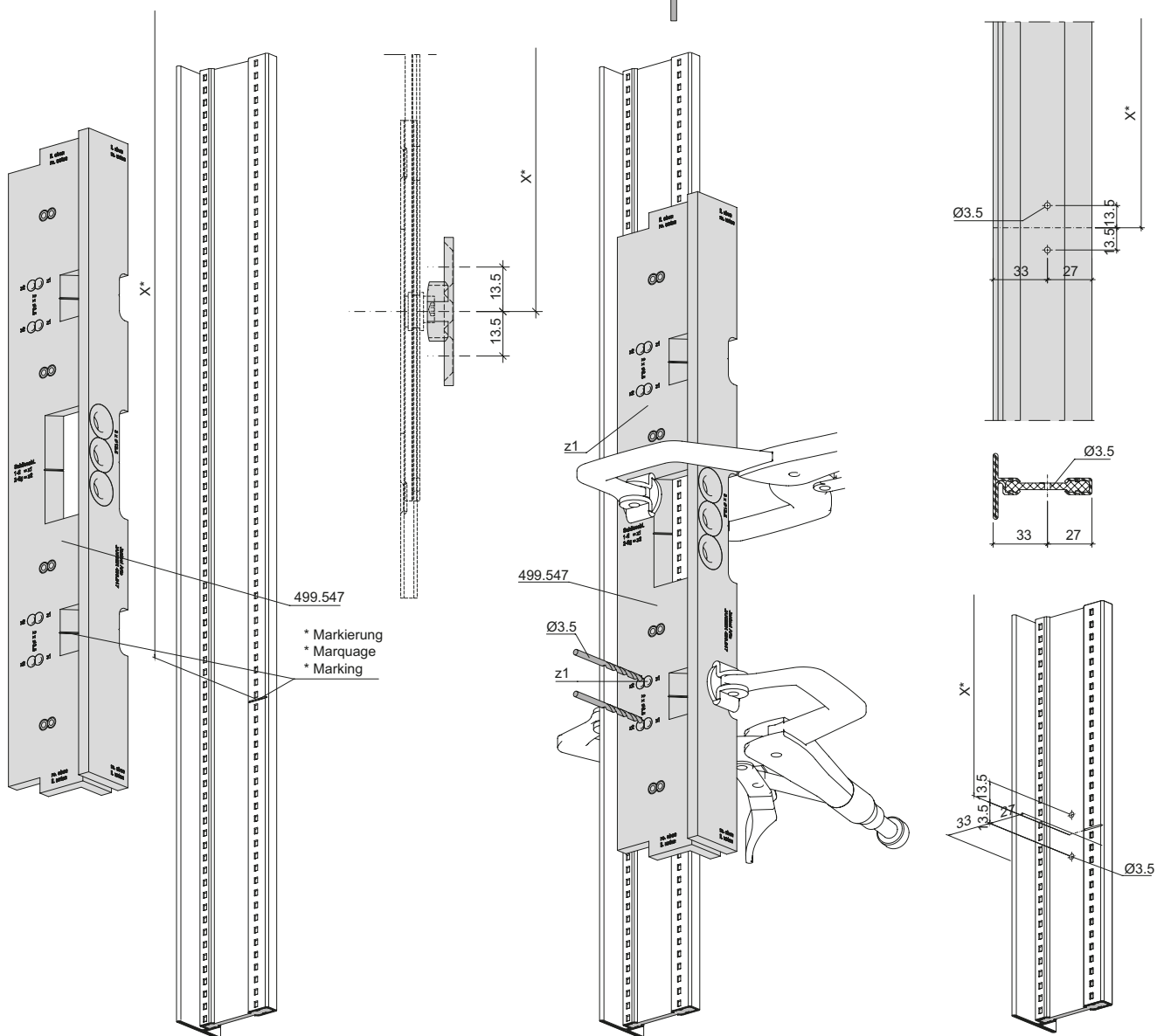
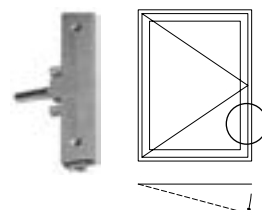
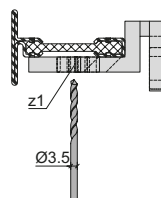


Bohrlehre 499.547 für
 Schliessblech 557.309
 Flügel

Gabarit de perçage 499.547
 pour gâche 557.309
 Vantail

Drilling jig 499.547 for
 striking plate 557.309
 Sash

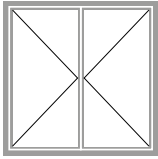
- * Verriegelungs-Pilz in geschlossener Position
 Markierung für 499.547
- * Champignon de verrouillage en position fermée
 Marquage pour 499.547
- * Mushroom head lock in closed position
 Marking for 499.547



Beschlageinbau
Montage des ferrures
Installation of fittings

Janisol Arte
Janisol Arte
Janisol Arte

2.0

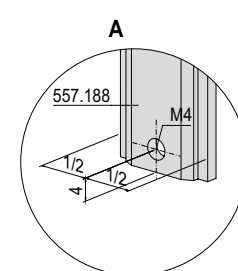
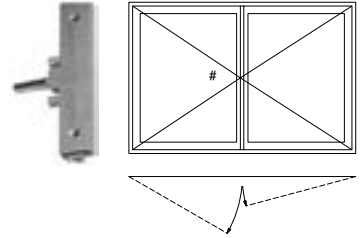
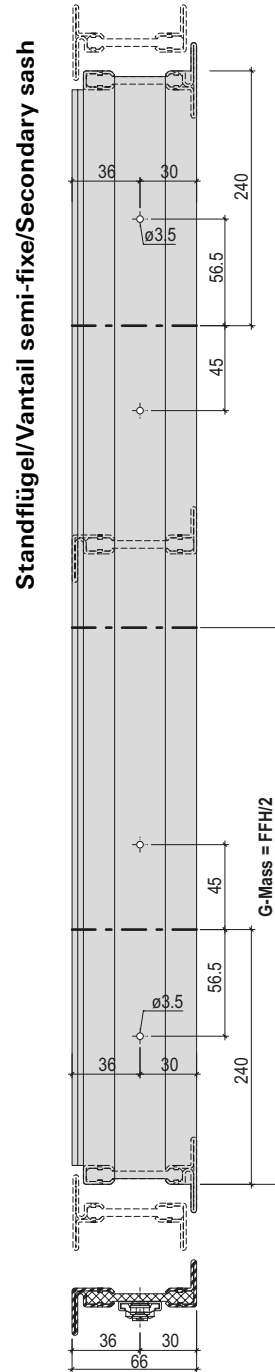
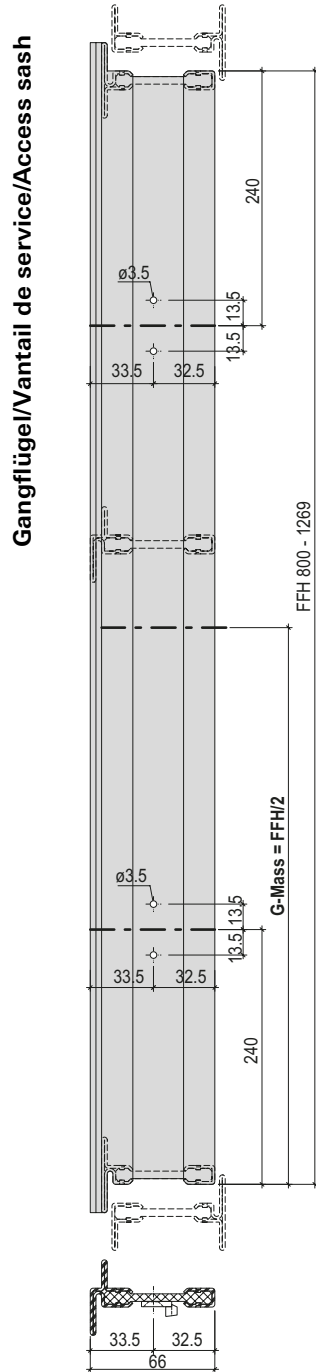
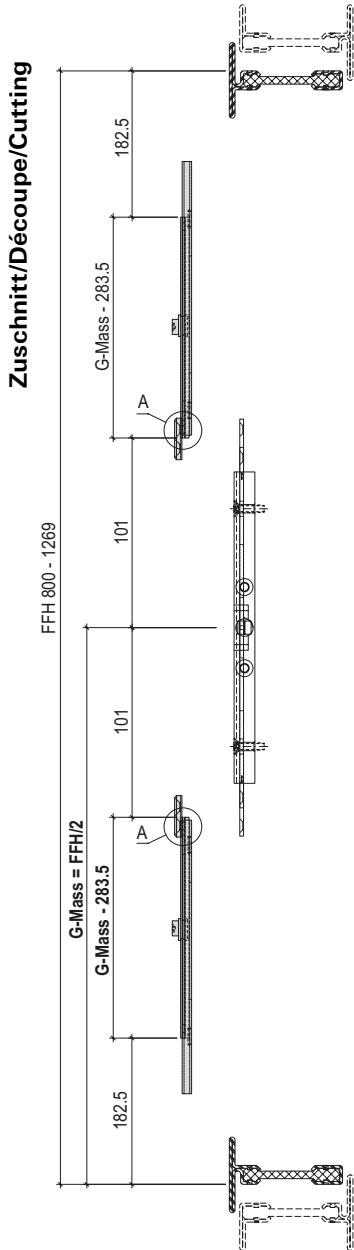


Drehfenster nach aussen öffnend	Fenêtre à la française ouvrant vers l'extérieur	Side-hung window outward opening	
Zuschnitt Getriebeverlängerung Bohrbild Getriebeverlängerung und Schliessbleche	Découpe prolongement de la crémonne Schéma de perçage prolongement de la crémonne et gâches	Cutting gearbox extension Drilling pattern gearbox extension and striking plates	146
Bohrlehre 499.547 für Getriebe 557.279/557.280 und Fenstergriff 557.268	Gabarit de perçage 499.547 pour crémonne 557.279/557.280 et poignée de fenêtre 557.268	Drilling jig 499.547 for mechanism 557.279/557.280 and window handle 557.268	150
Bohrlehre 499.547 für Getriebeverlängerung 557.188	Gabarit de perçage 499.547 pour prolongement de la crémonne 557.188	Drilling jig 499.547 for gearbox extension 557.188	152
Bohrlehre 499.547 für Schliessbleche 557.309	Gabarit de perçage 499.547 pour gâches 557.309	Drilling jig 499.547 for striking plates 557.309	156
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Überwachung RFID	Surveillance RFID	RFID monitoring	164

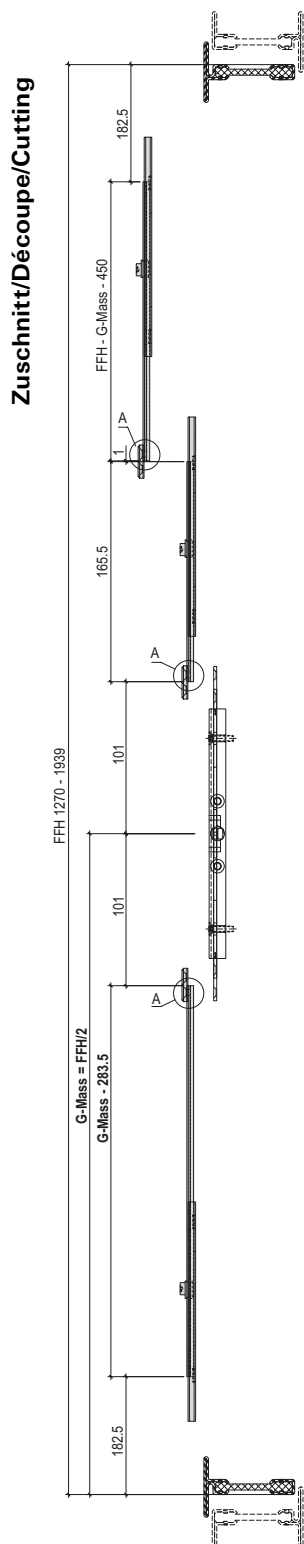
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 800-1269

Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 800-1269

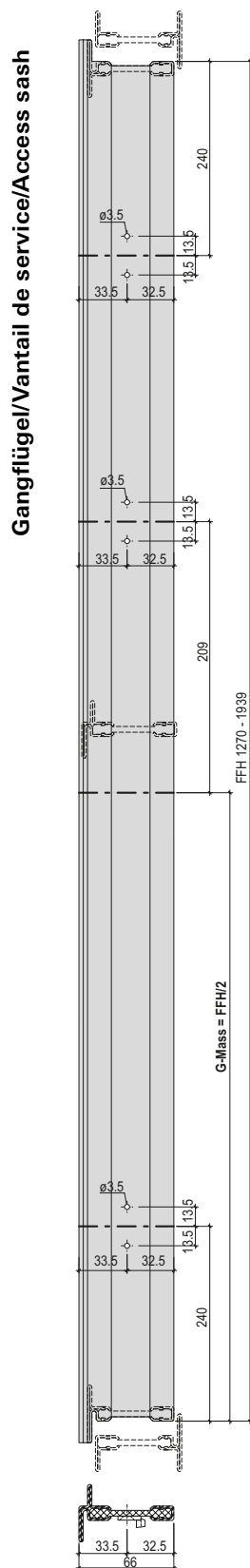
Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 800-1269



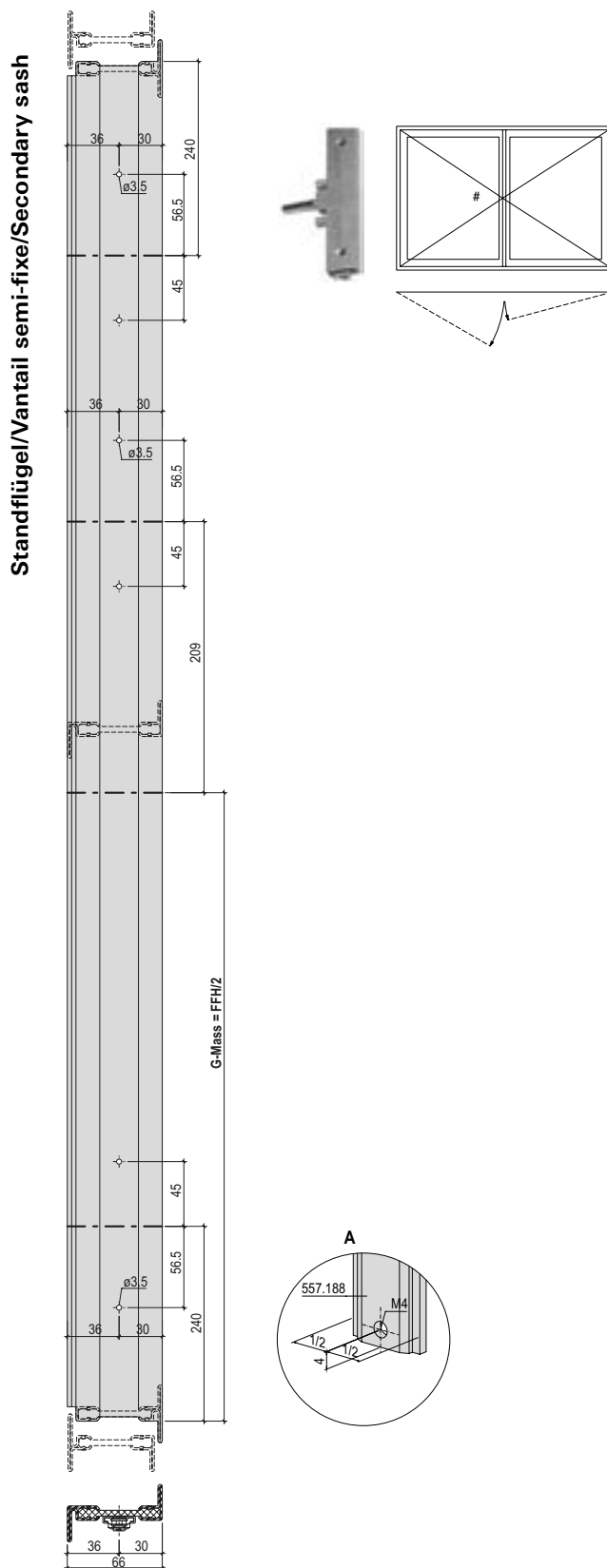
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 1270-1939



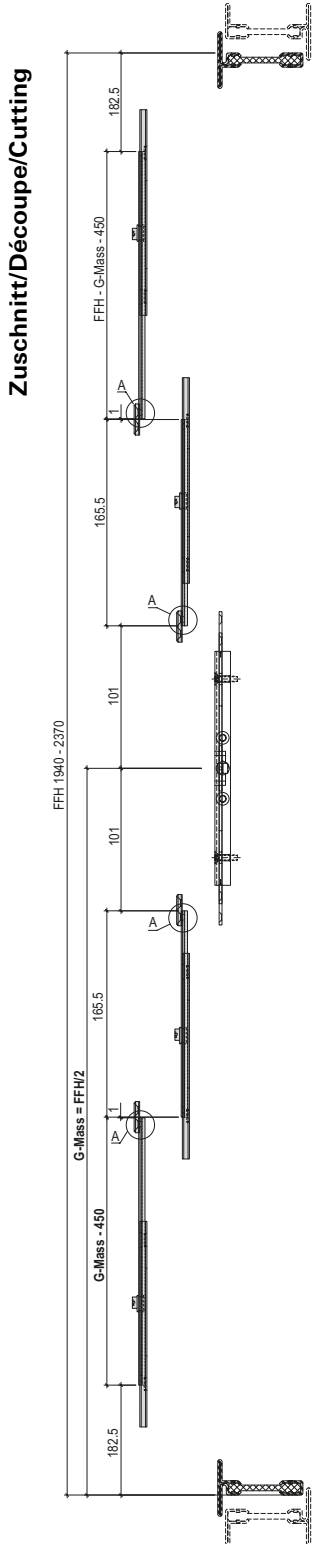
Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 1270-1939



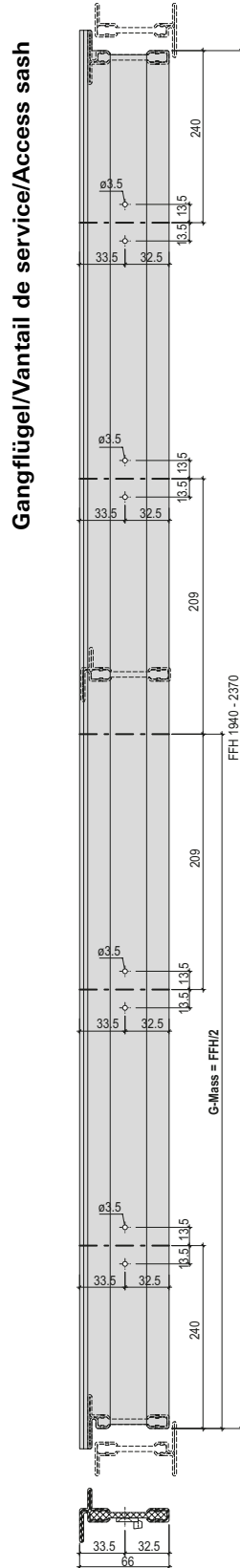
Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 1270-1939



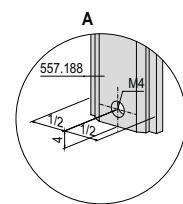
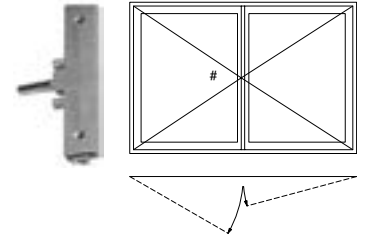
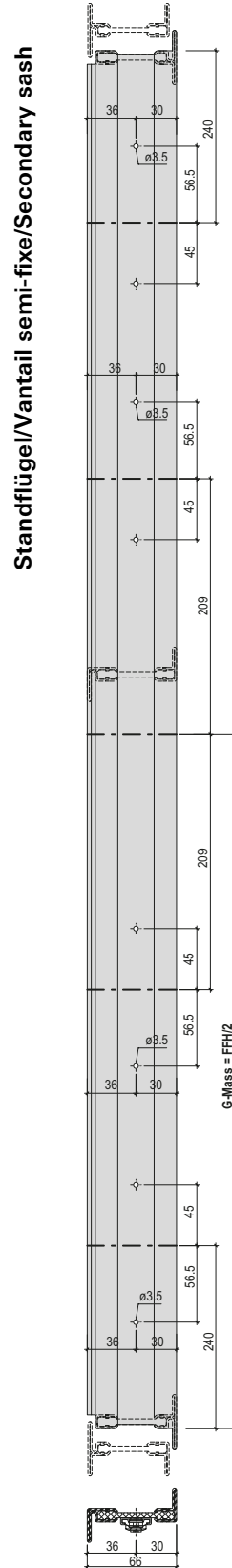
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessebleche
 FFH 1939-2370



Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 1939-2370

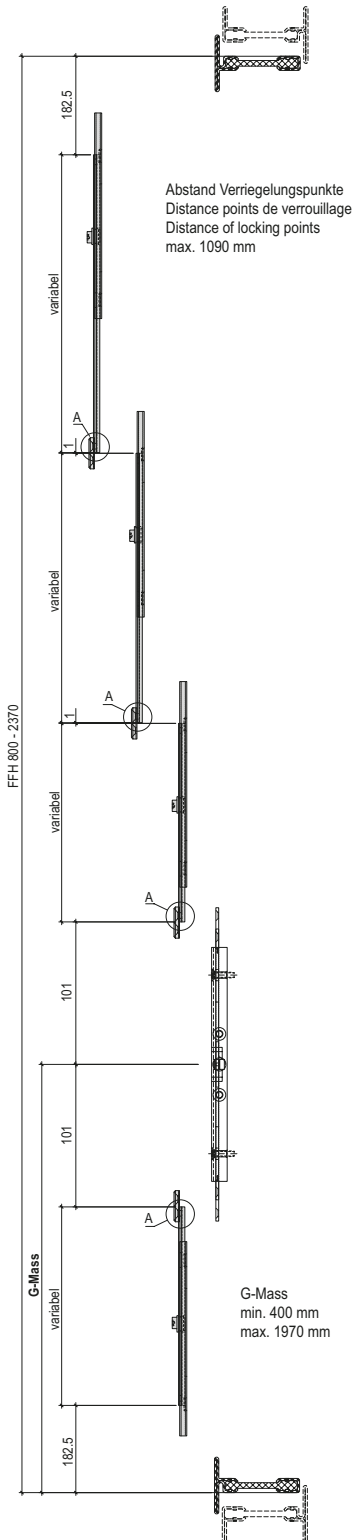


Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 1939-2370



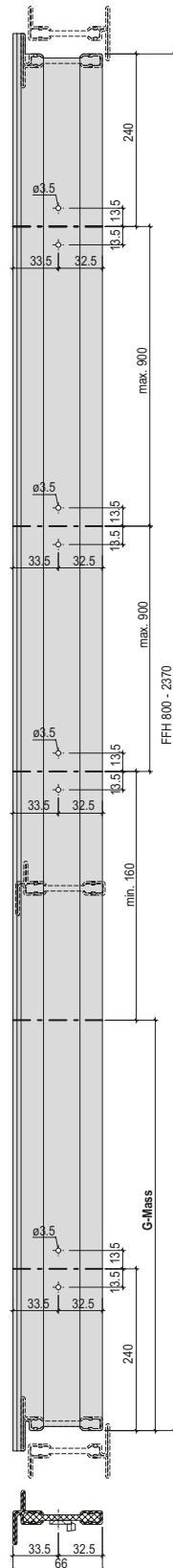
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 800-2370

Zuschnitt/Découpe/Cutting



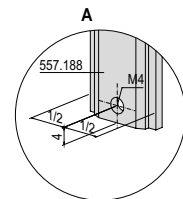
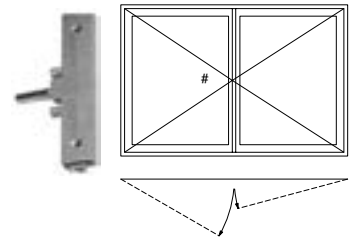
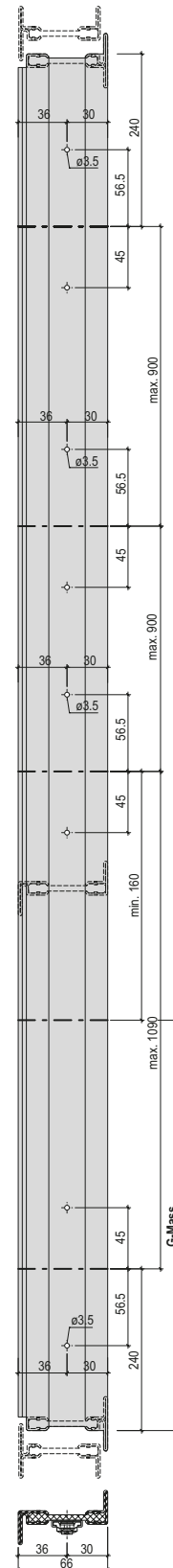
Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 800-2370

Gangflügel/Vantail de service/Access sash



Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 800-2370

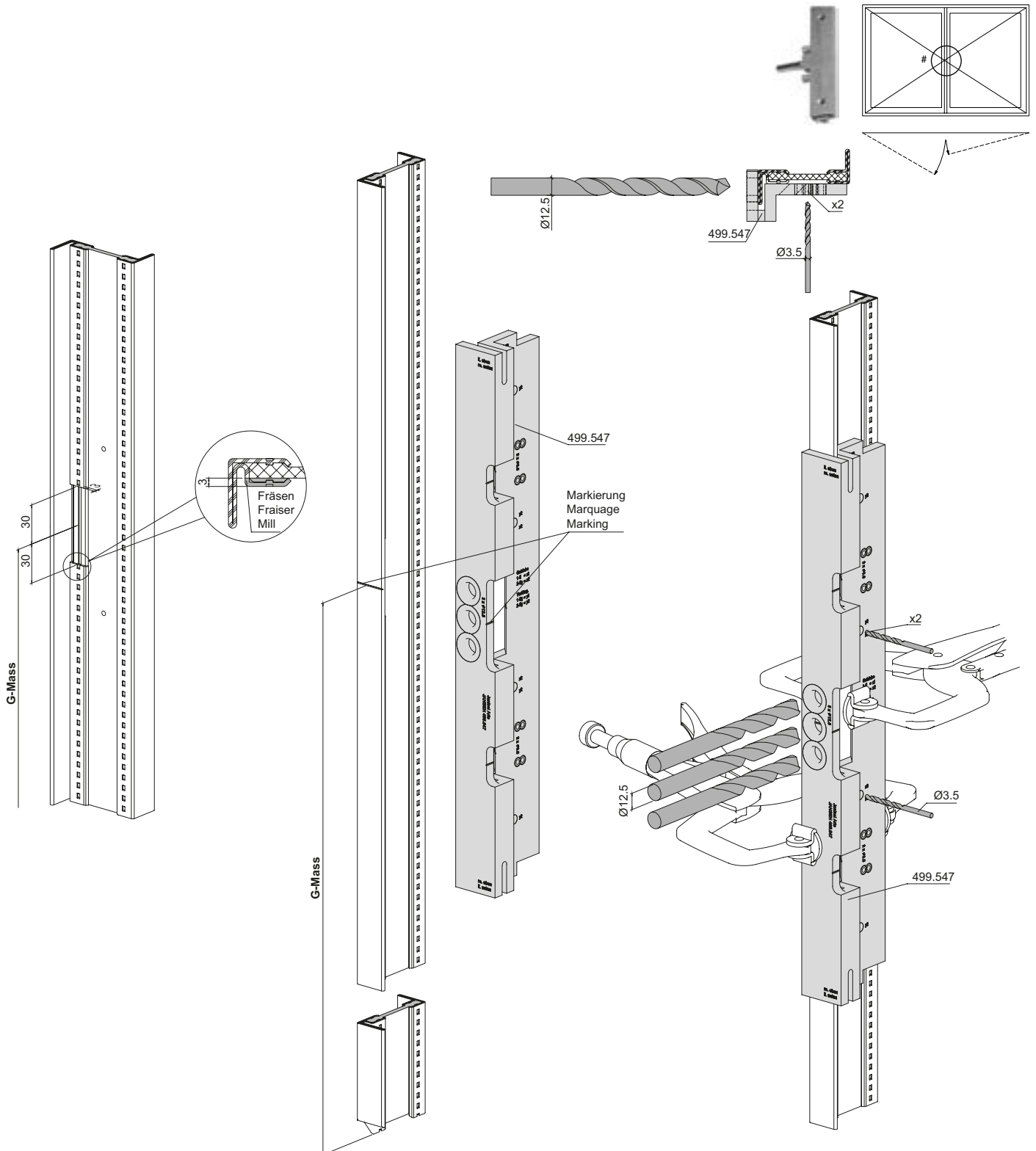
Standflügel/Vantail semi-fixe/Secondary sash



Bohrlehre 499.547 für
 Getriebe 557.279/557.280
 und Fenstergriff 557.268
 Standflügel

Gabarit de perçage 499.547
 pour crémonne 557.279/557.280
 et poignée de fenêtre 557.268
 Vantail semi-fixe

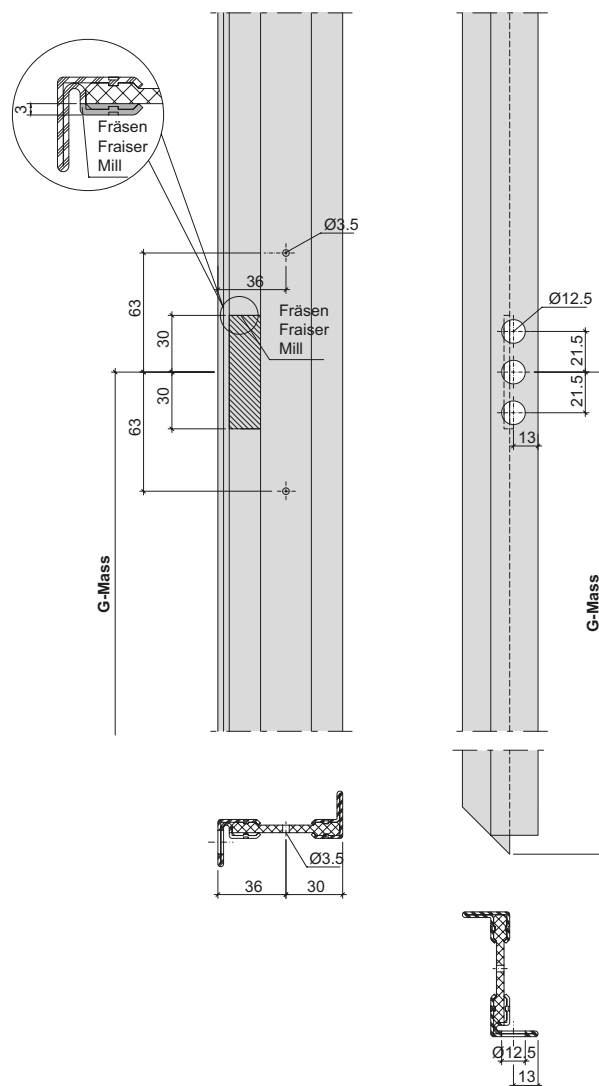
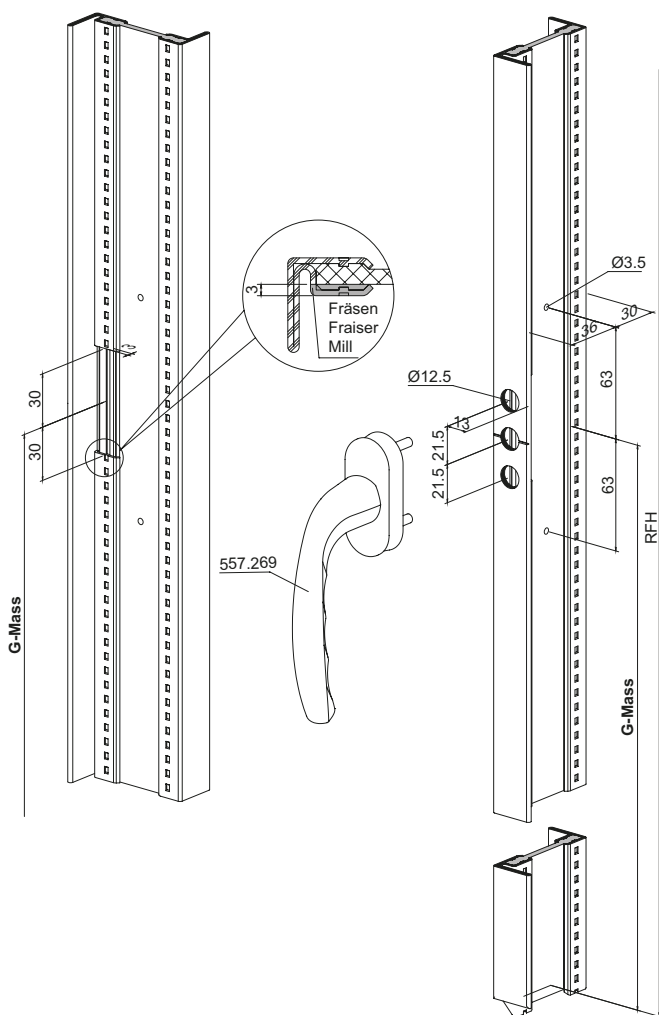
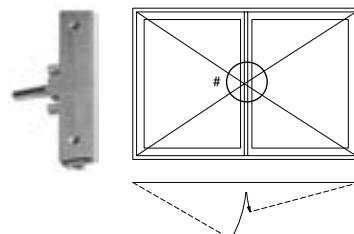
Drilling jig 499.547 for
 mechanism 557.279/557.280
 and window handle 557.268
 Secondary sash



Bohrbild und Fräsung
 Getriebe 557.279/557.280
 und Fenstergriff 557.268
 Standflügel

Schéma de perçage et fraisage
 Crémone 557.279/557.280 et
 poignée de fenêtre 557.268
 Vantail semi-fixe

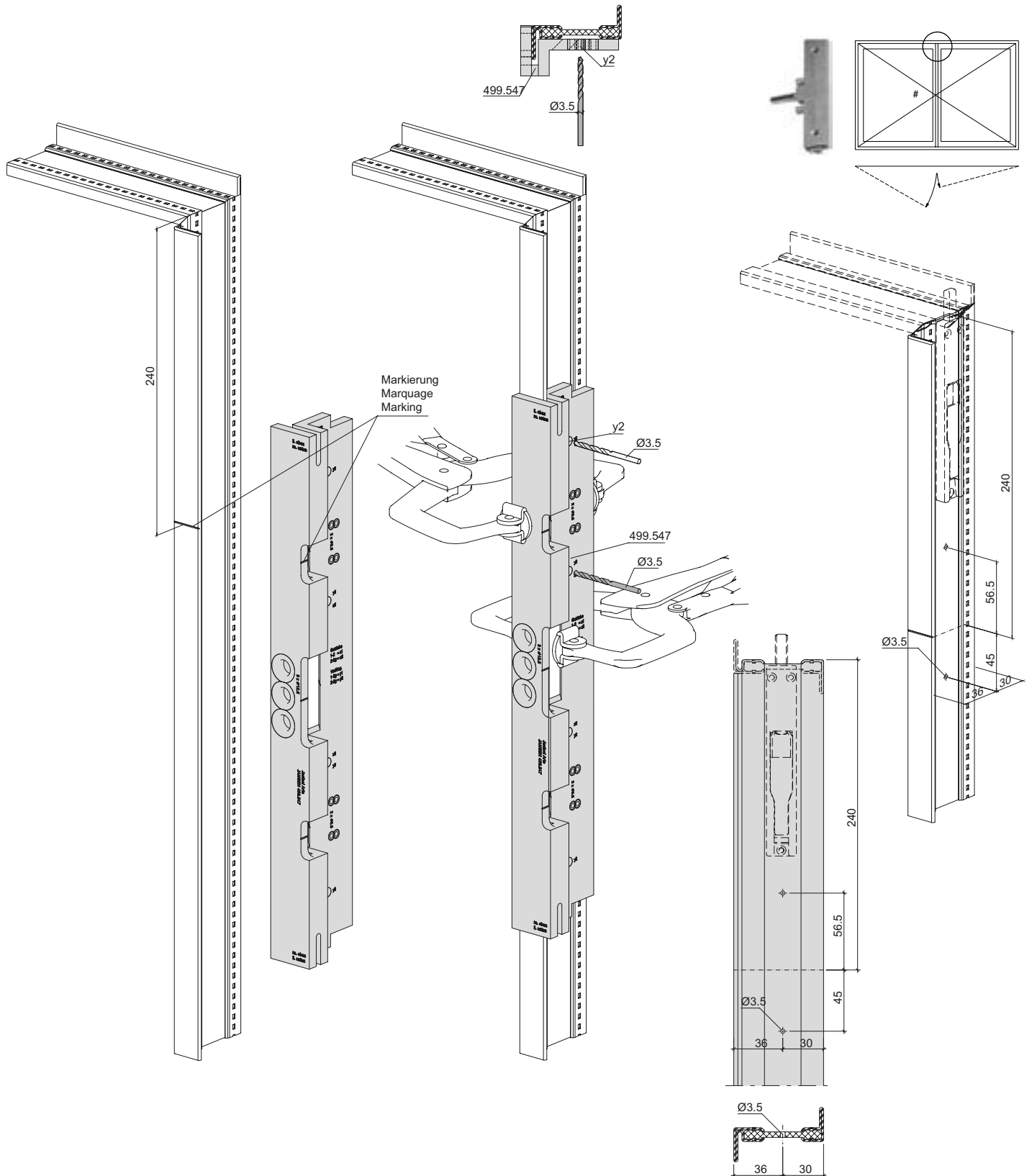
Drilling pattern and milling
 Mechanisme 557.279/557.280 and
 window handle 557.268
 Secondary sash



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Standflügel oben

Gabarit de perçage 499.547 pour
 prolongement de la créme
 557.188 Vantail semi-fixe en haut

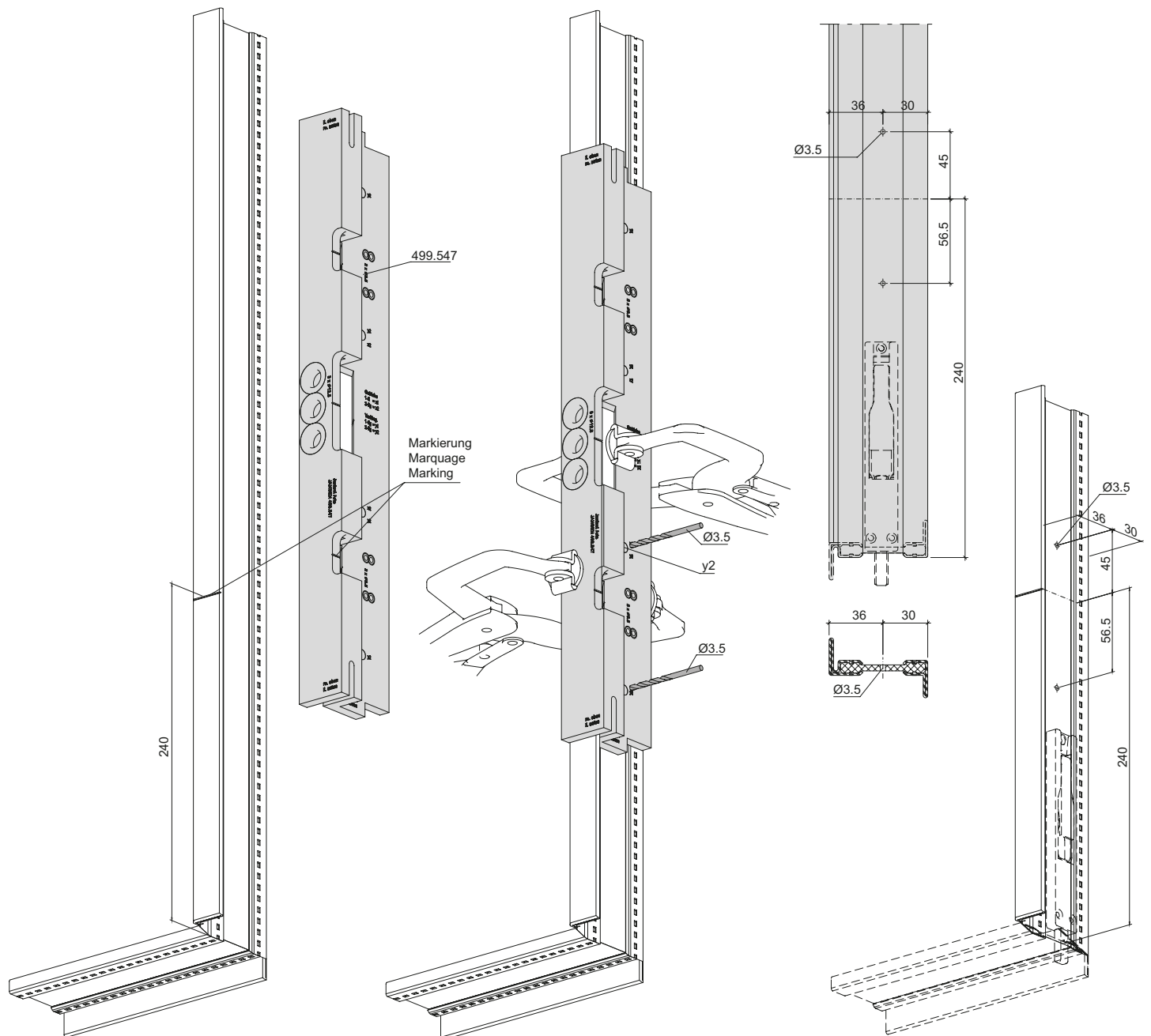
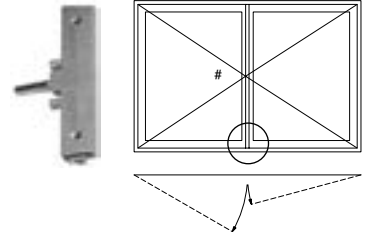
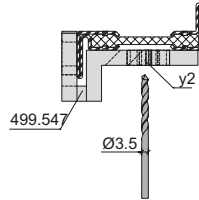
Drilling jig 499.547 for
 gearbox extension 557.188
 Secondary sash top



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Standflügel unten

Gabarit de perçage 499.547 pour
 prolongement de la crémonne
 557.188 Vantail semi-fixe en bas

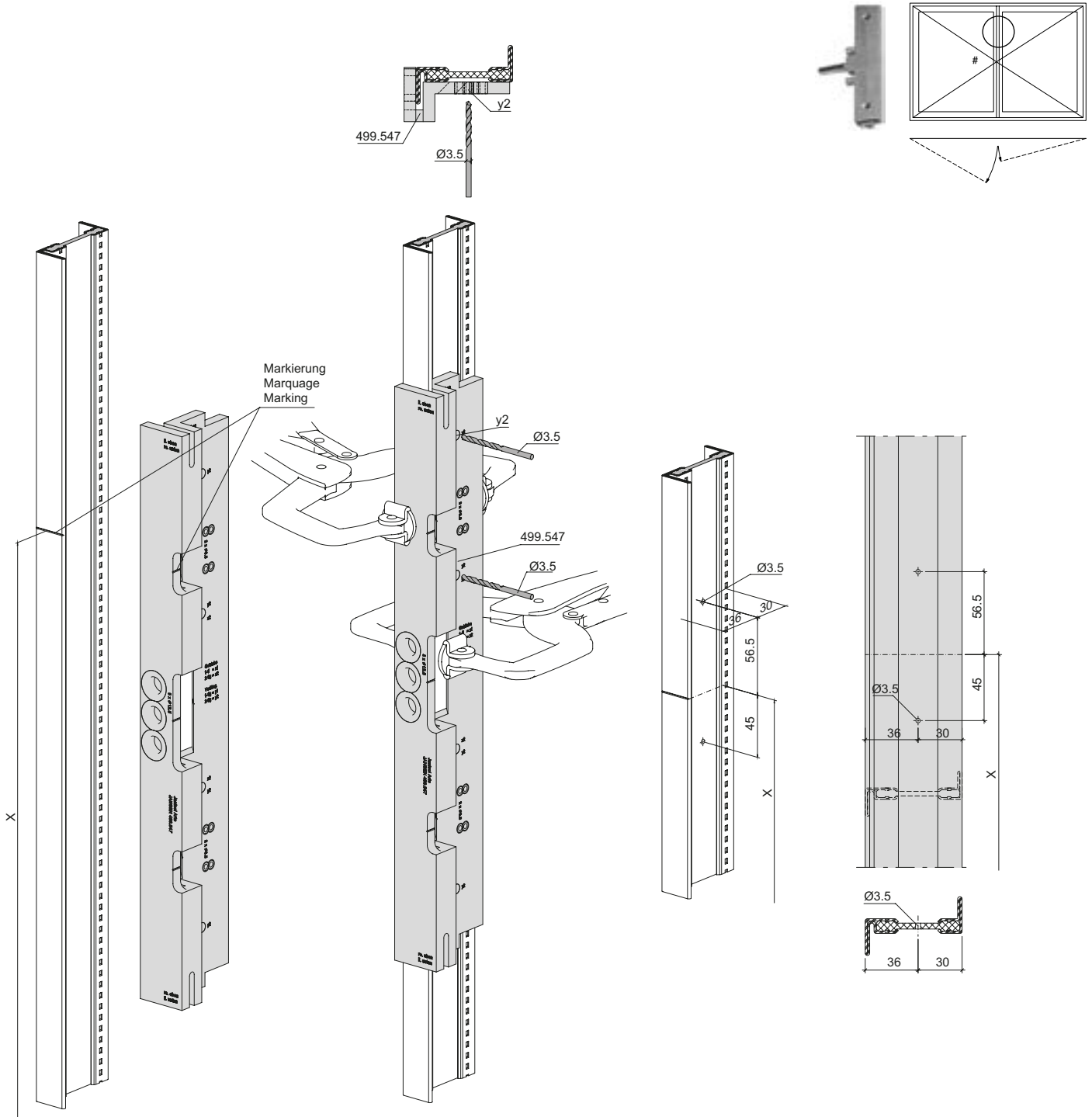
Drilling jig 499.547 for
 gearbox extension 557.188
 Secondary sash bottom



**Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Standflügel**

**Gabarit de perçage 499.547 pour
 prolongement de la crémonne
 557.188 Vantail semi-fixe**

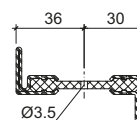
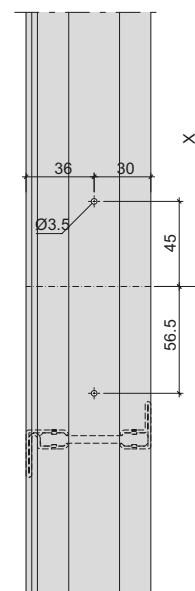
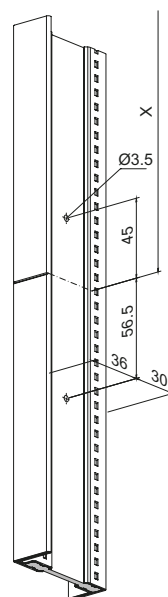
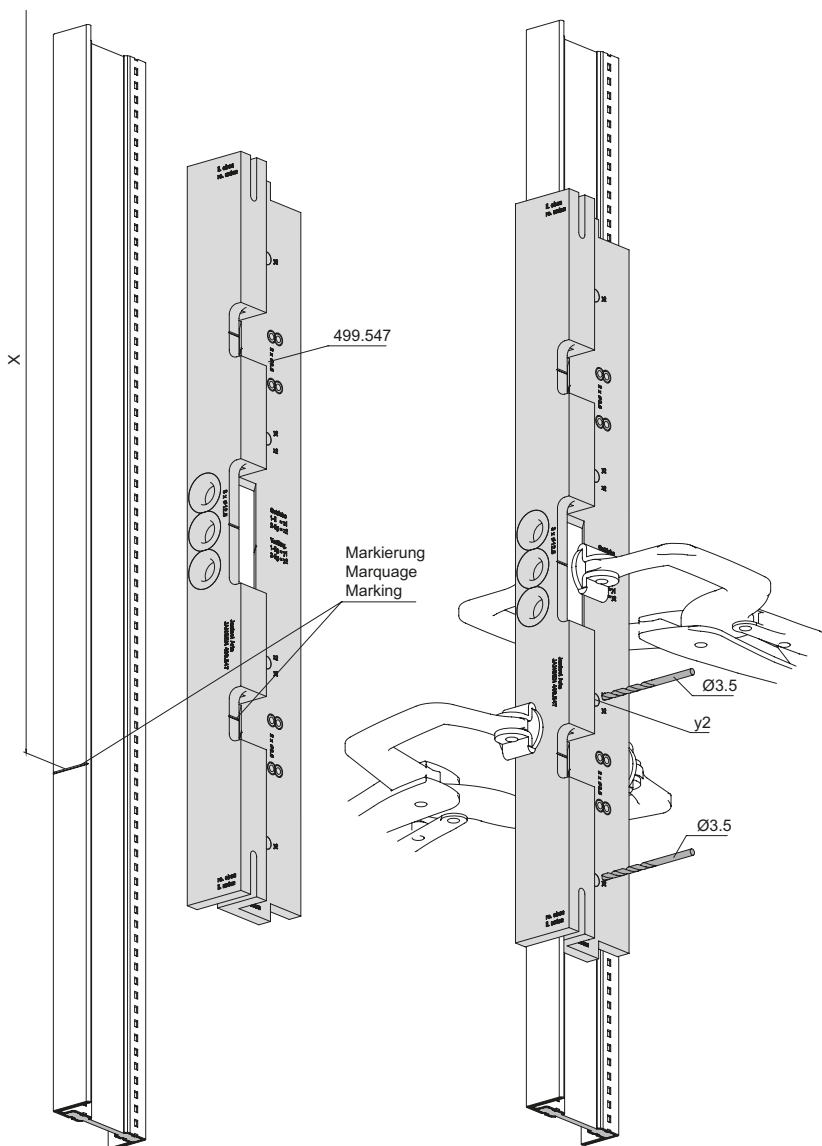
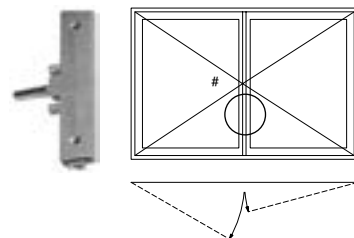
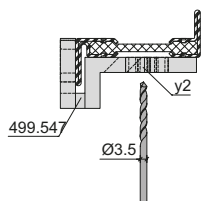
**Drilling jig 499.547 for
 gearbox extension 557.188
 Secondary sash**



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 Standflügel

Gabarit de perçage 499.547 pour
 prolongement de la crémonne
 557.188 Vantail semi-fixe

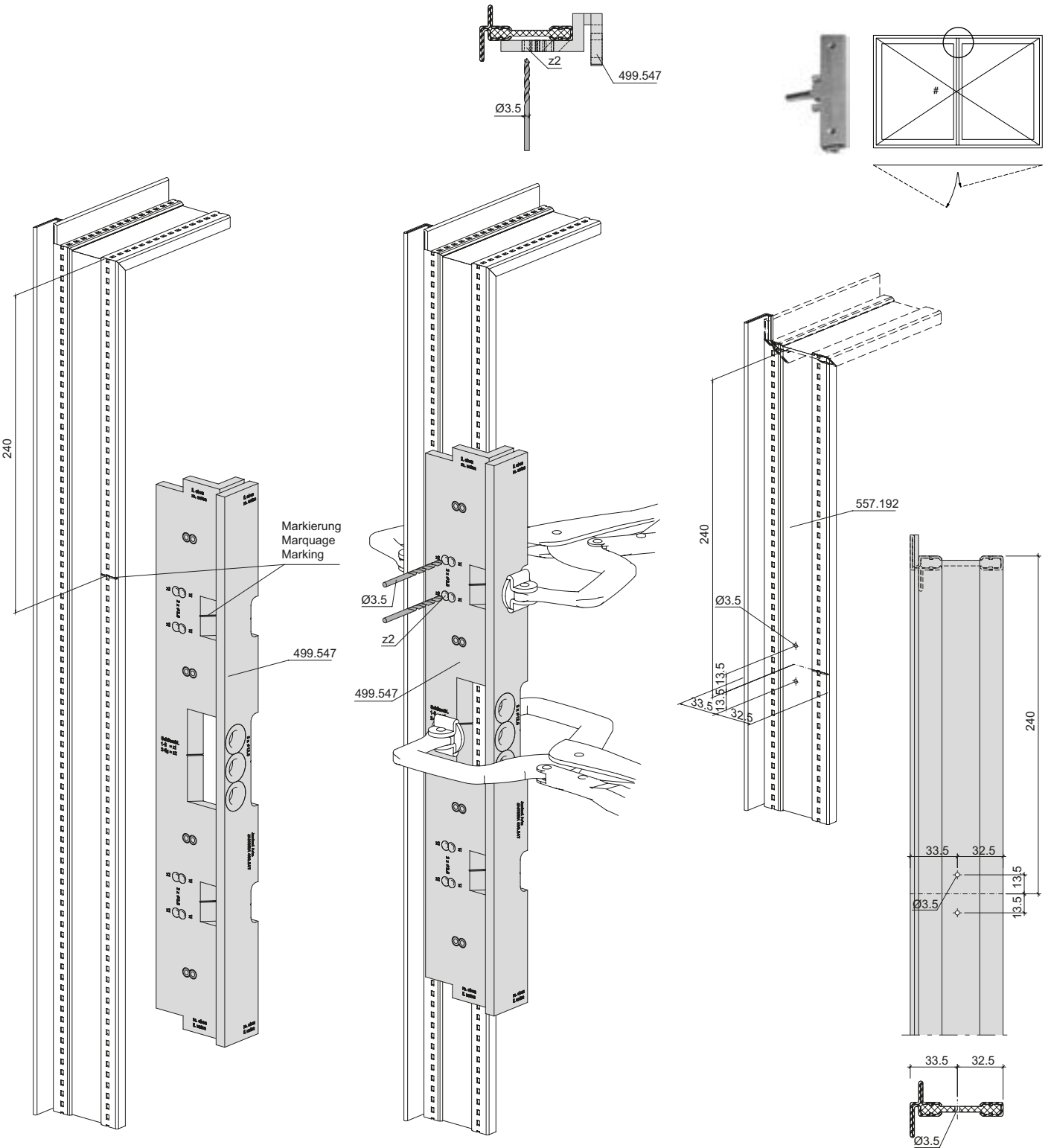
Drilling jig 499.547 for
 gearbox extension 557.188
 Secondary sash



Bohrlehre 499.547 für
 Schliessbleche 557.309
 Gangflügel oben

Gabarit de perçage 499.547
 pour gâches 557.309
 Vantail de service en haut

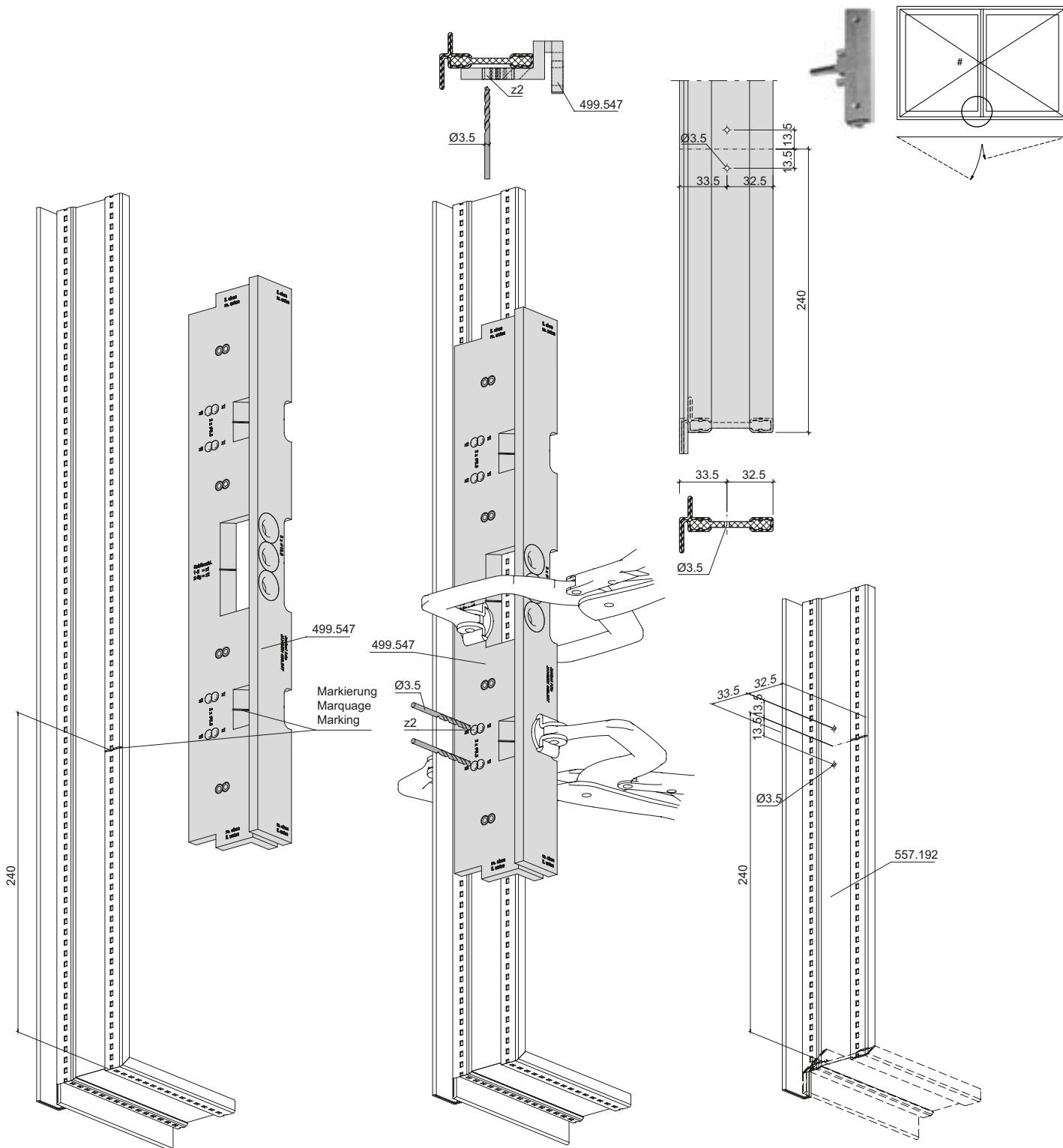
Drilling jig 499.547 for
 striking plates 557.309
 Access sash top



Bohrlehre 499.547 für
 Schliessbleche 557.309
 Gangflügel unten

Gabarit de perçage 499.547
 pour gâches 557.309
 Vantail de service en bas

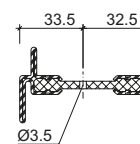
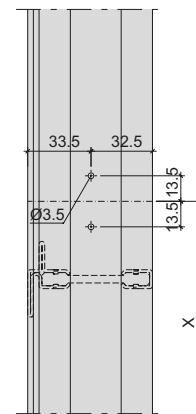
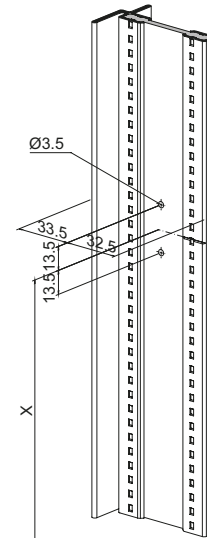
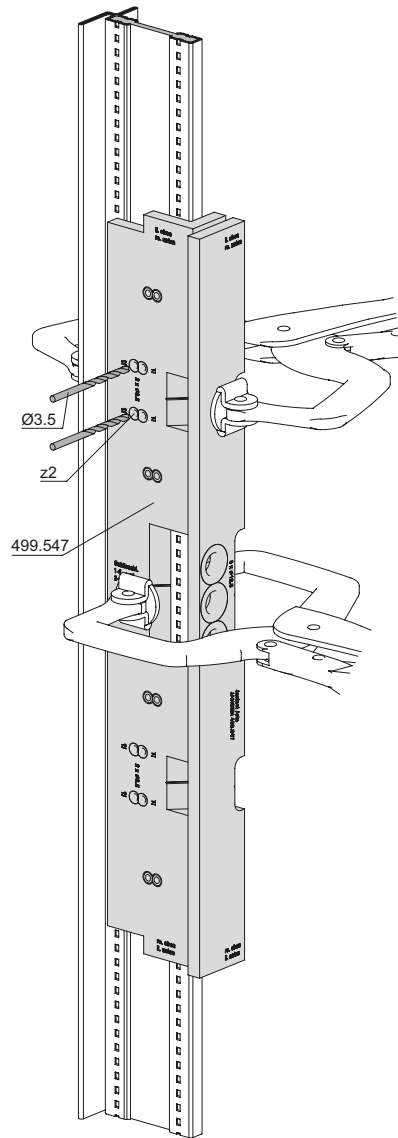
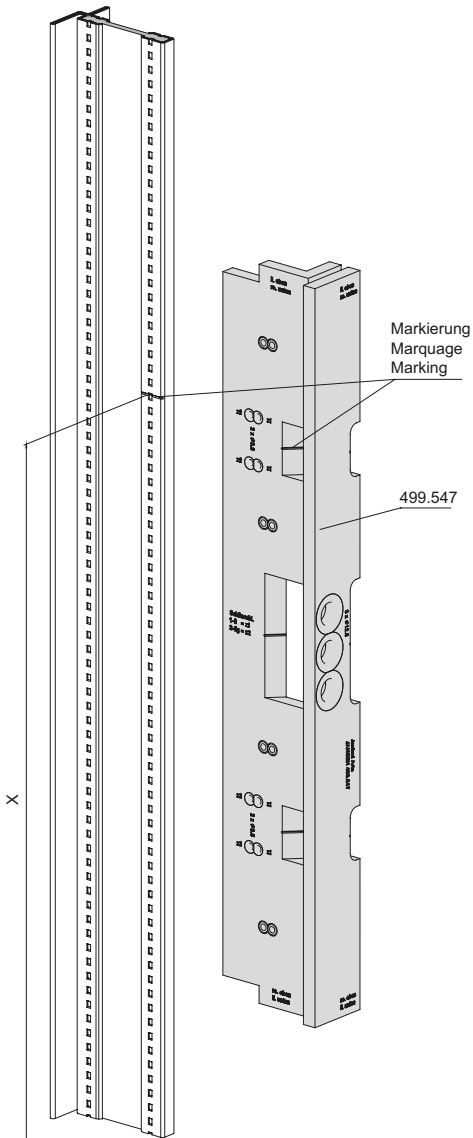
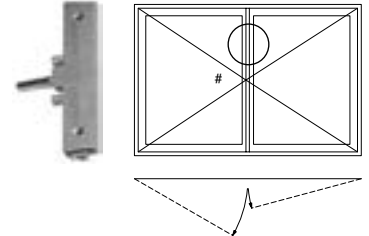
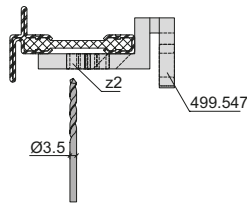
Drilling jig 499.547 for
 striking plates 557.309
 Access sash bottom



Bohrlehre 499.547 für
 Schliessblech 557.309
 Gangflügel

Gabarit de perçage 499.547
 pour gâche 557.309
 Vantail de service

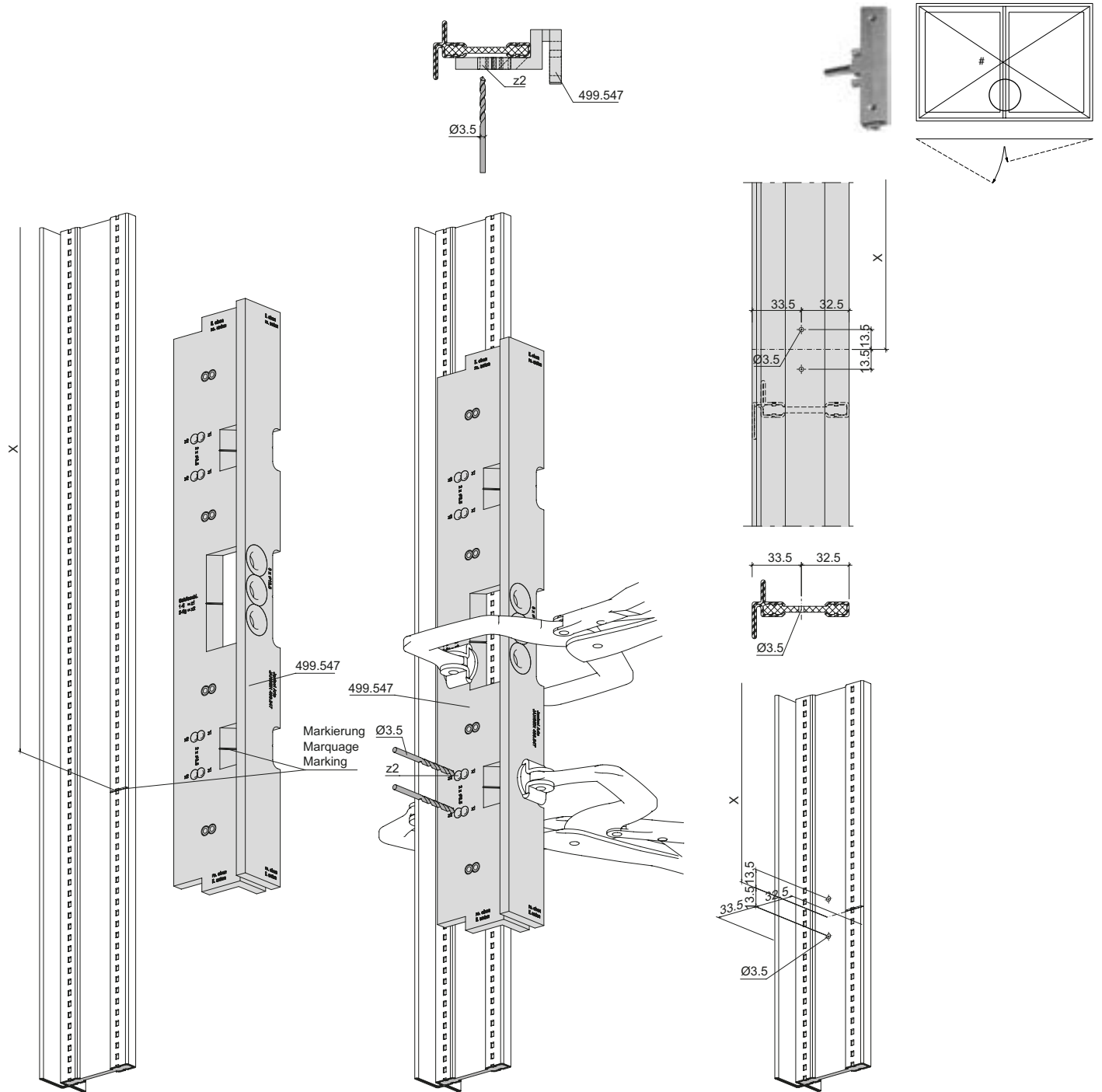
Drilling jig 499.547 for
 striking plate 557.309
 Access sash



Bohrlehre 499.547 für
 Schliessblech 557.309
 Gangflügel

Gabarit de perçage 499.547
 pour gâche 557.309
 Vantail de service

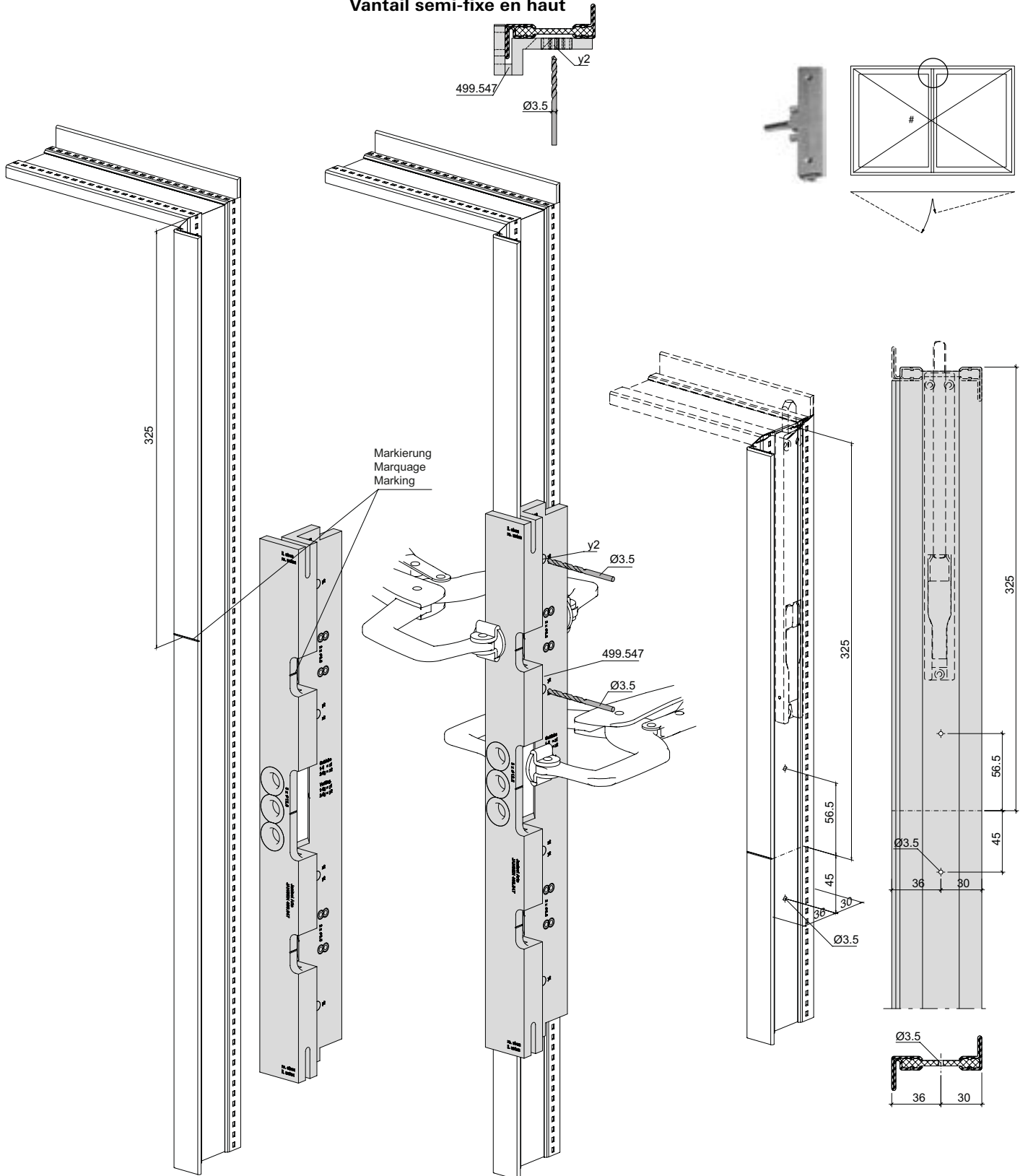
Drilling jig 499.547 for
 striking plate 557.309
 Access sash



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 mit Kantenriegel 557.139
 Standflügel oben

Gabarit de perçage 499.547 pour
 prolongement de la créme
 557.188
 avec verrou à bascule 557.139
 Vantail semi-fixe en haut

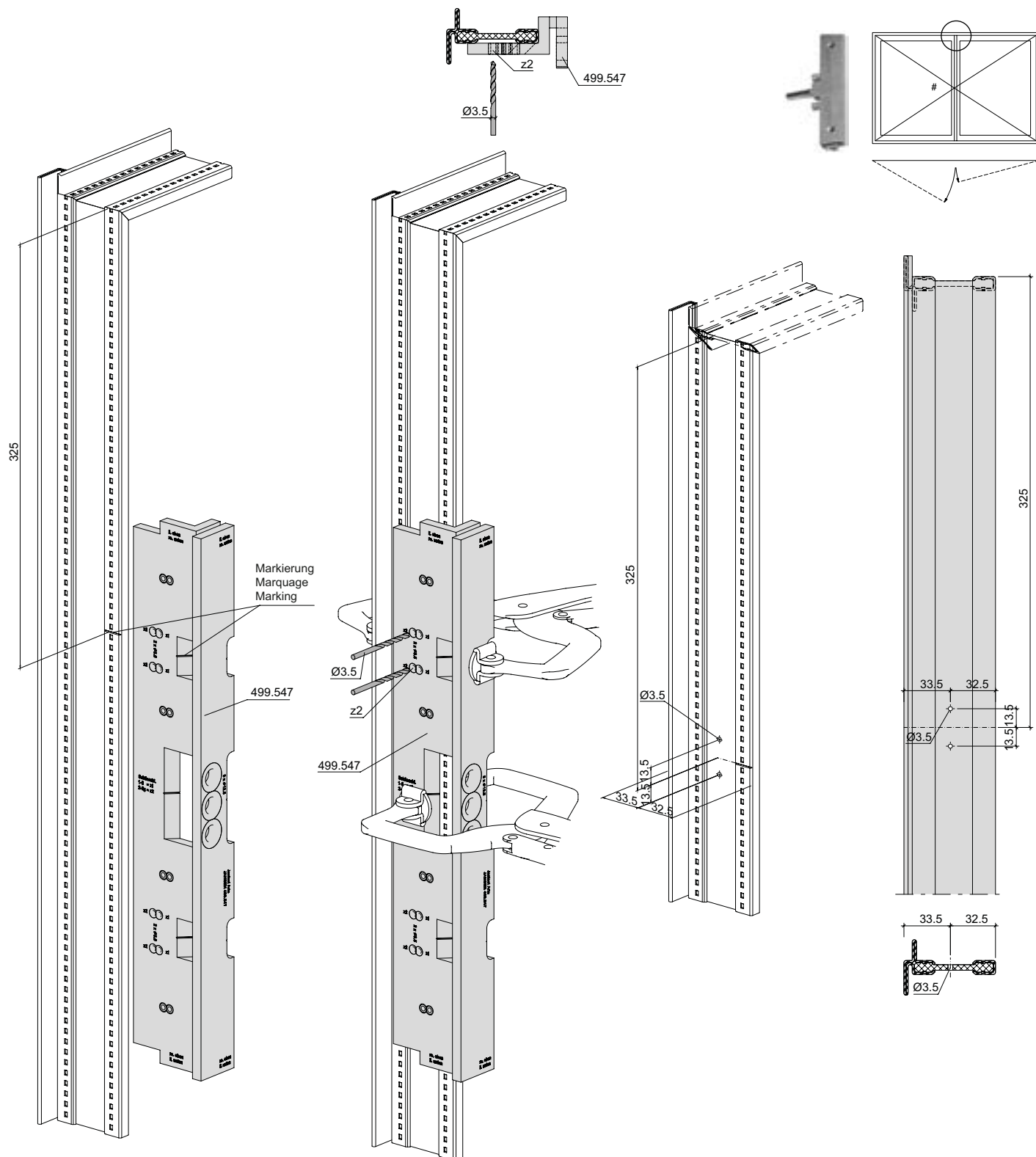
Drilling jig 499.547 for
 gearbox extension 557.188
 with flush bolt 557.139
 Secondary sash top



Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 mit Kantenriegel 557.139
 Gangflügel oben

Gabarit de perçage 499.547 pour
 prolongement de la crémonne
 557.188
 avec verrou à bascule 557.139
 Vantail de service en haut

Drilling jig 499.547 for
 gearbox extension 557.188
 with flush bolt 557.139
 Access sash top



**Bohrlehre 499.547 für
 Getriebeverlängerung 557.188
 ohne Kantenriegel 557.192
 Standflügel oben**

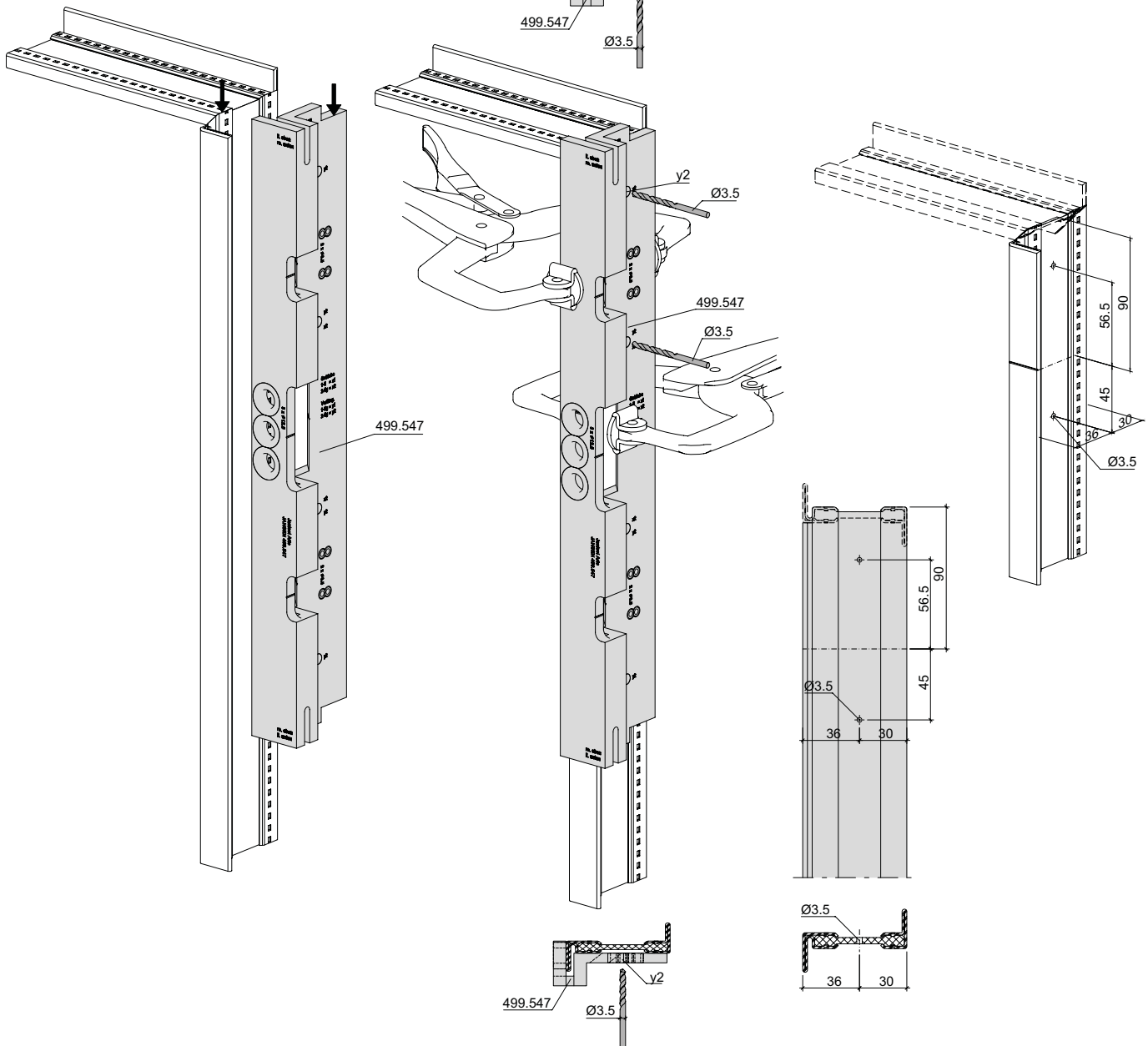
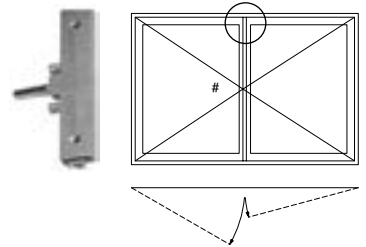
**Gabarit de perçage 499.547 pour
 prolongement de la créme
 557.188
 sans verrou à bascule 557.192
 Vantail semi-fixe en haut**

**Drilling jig 499.547 for
 gearbox extension 557.188
 without flush bolt 557.192
 Secondary sash top**

In Kombination mit Zusatzverriegelung 557.172
 (siehe Seite 91)

En combinaison avec un verrouillage supplémentaire
 557.172 (voir page 91)

In combination with additional lock 557.172
 (see page 91)



**Bohrlehre 499.547 für
 Schliessblech 557.309
 ohne Kantenriegel 557.192
 Gangflügel oben**

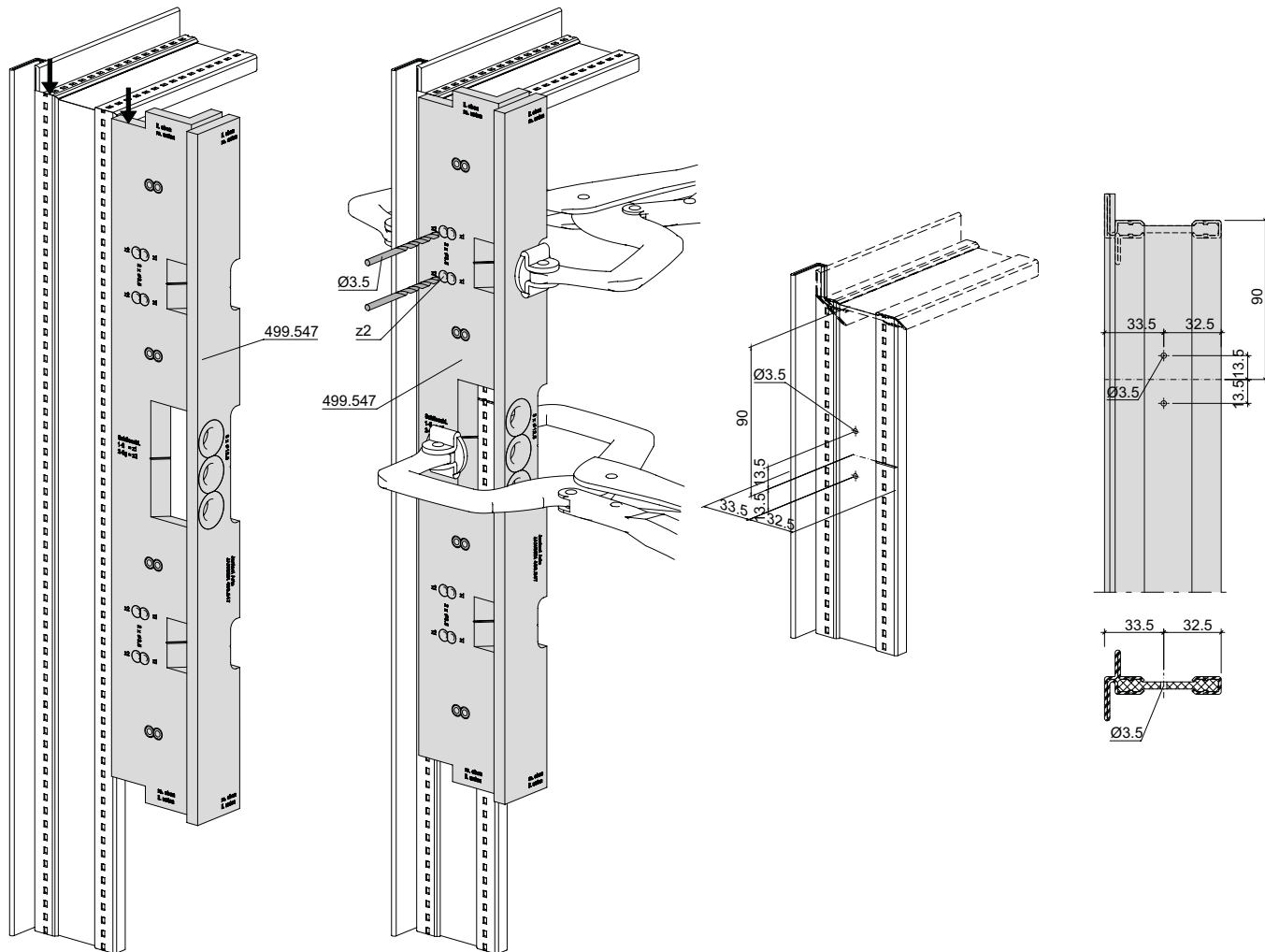
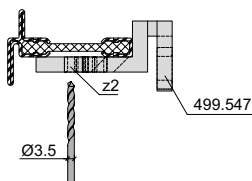
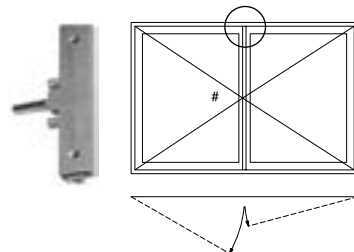
**Gabarit de perçage 499.547 pour
 gâche de fermeture 557.309
 sans verrou à bascule 557.192
 Vantail de service en haut**

**Drilling jig 499.547 for
 striking plate 557.309
 without flush bolt 557.192
 Access sash top**

In Kombination mit Zusatzverriegelung 557.172
 (siehe Seite 91)

En combinaison avec un verrouillage supplémentaire
 557.172 (voir page 91)

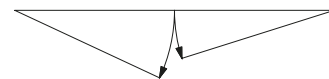
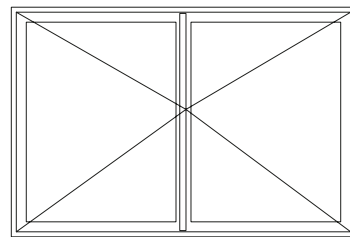
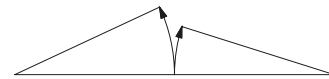
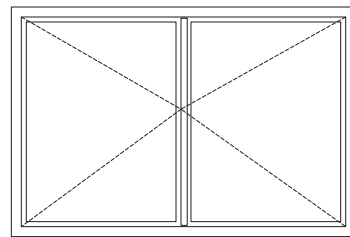
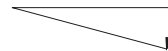
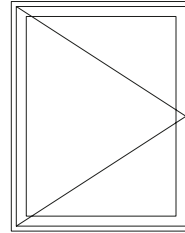
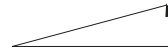
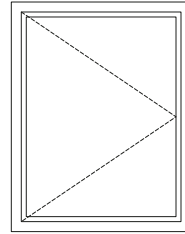
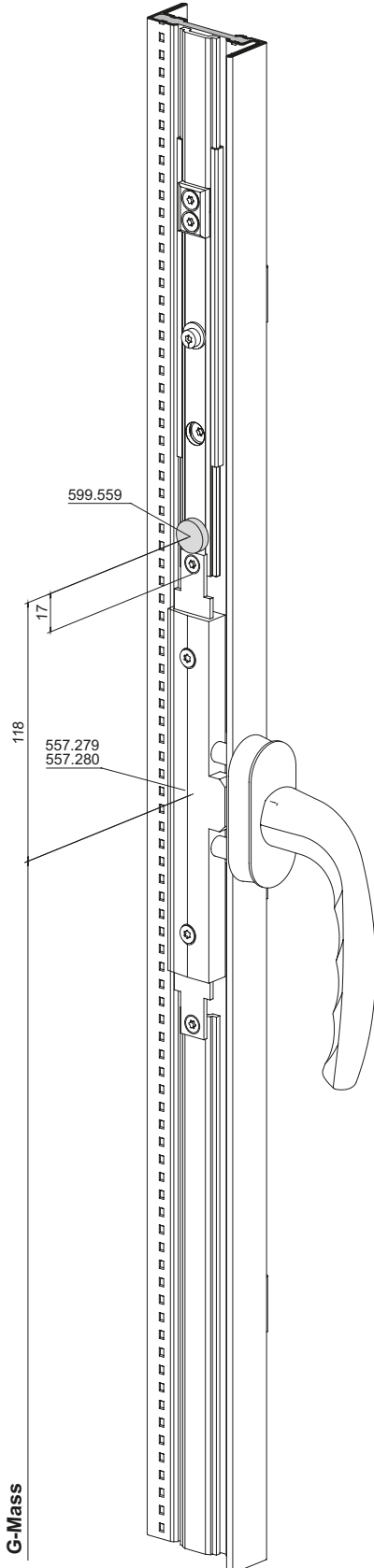
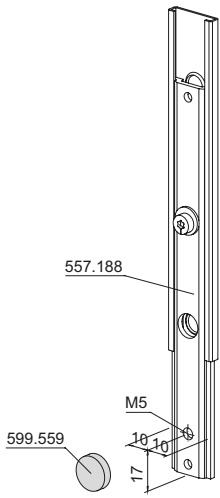
In combination with additional lock 557.172
 (see page 91)



Überwachung RFID
Einbau Magnet 599.559

Surveillance RFID
Montage aimant 599.559

RFID monitoring
Installation of magnet 599.559

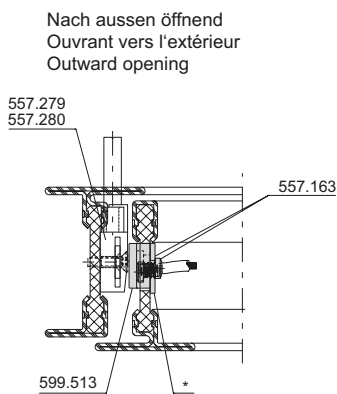
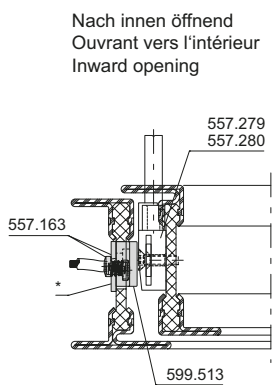


G-Mass

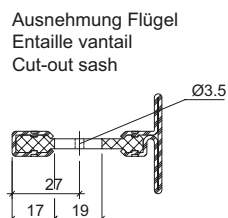
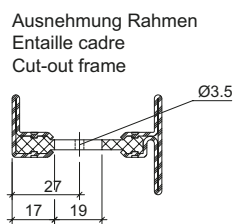
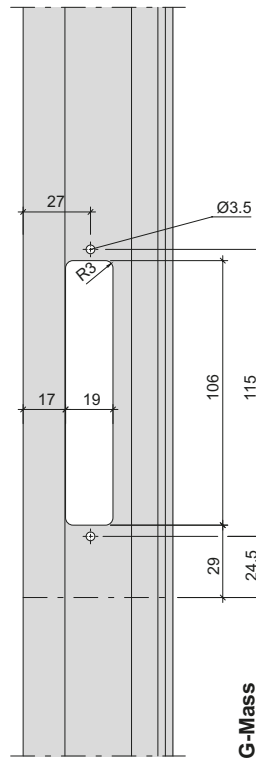
Überwachung RFID
Ausnehmung Rahmen
Kammermass 10 mm

Surveillance RFID
Évidement cadre
Dimensions de caisson 10 mm

RFID monitoring
Frame opening
Chamber size 10 mm



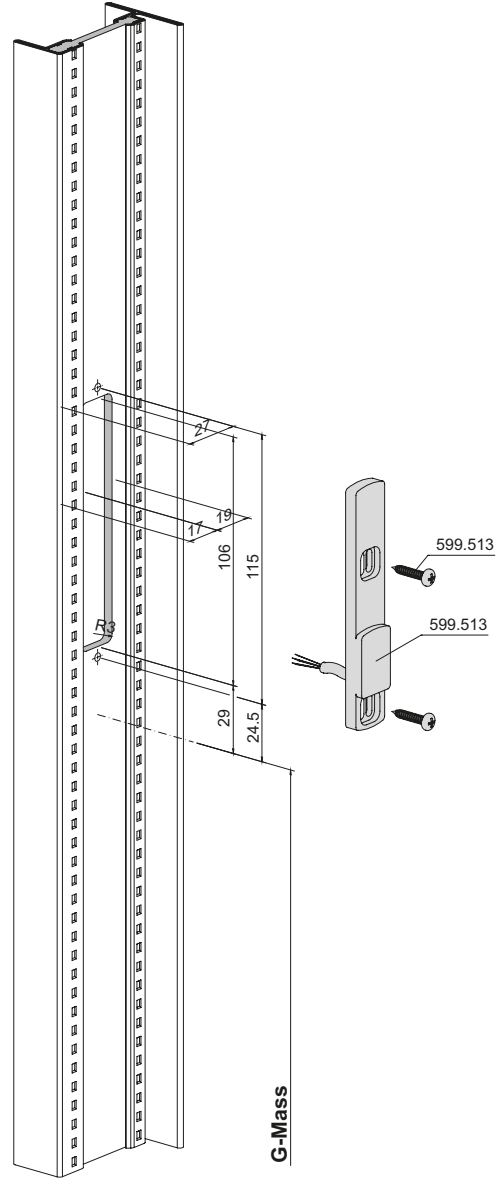
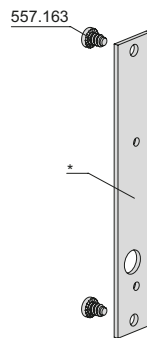
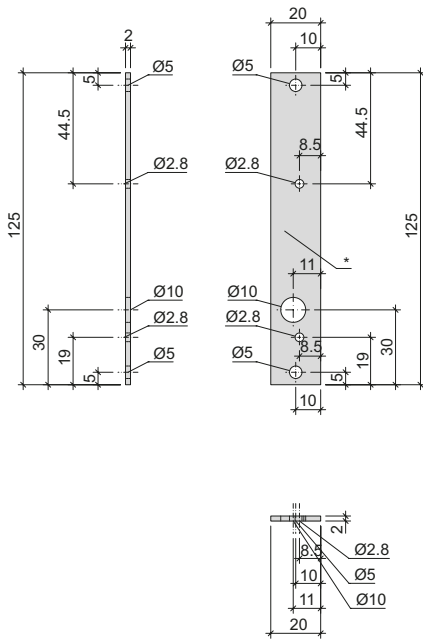
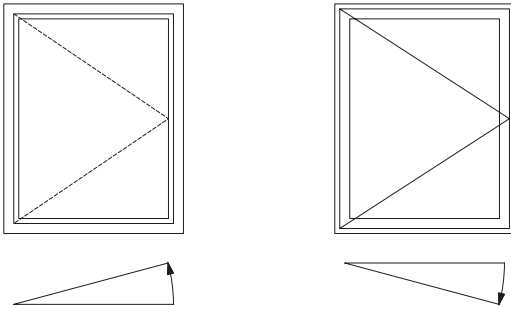
- * 2 mm Aluminiumblech durch Metallbauer zu fertigen
- * Tôle en aluminium 2 mm à fabriquer par le métallier
- * 2 mm aluminium sheet to be made by metal constructor



Überwachung RFID
 Einbau Empfänger 599.513

Surveillance RFID
 Montage récepteur 599.513

RFID monitoring
 Installation recipient 599.513

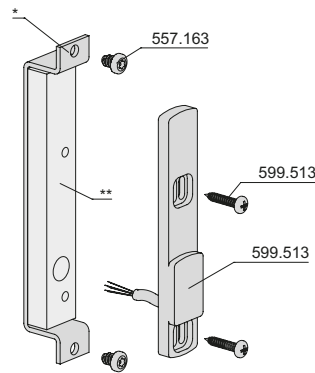
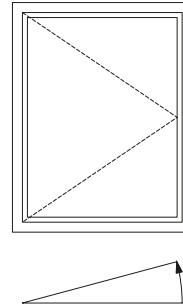
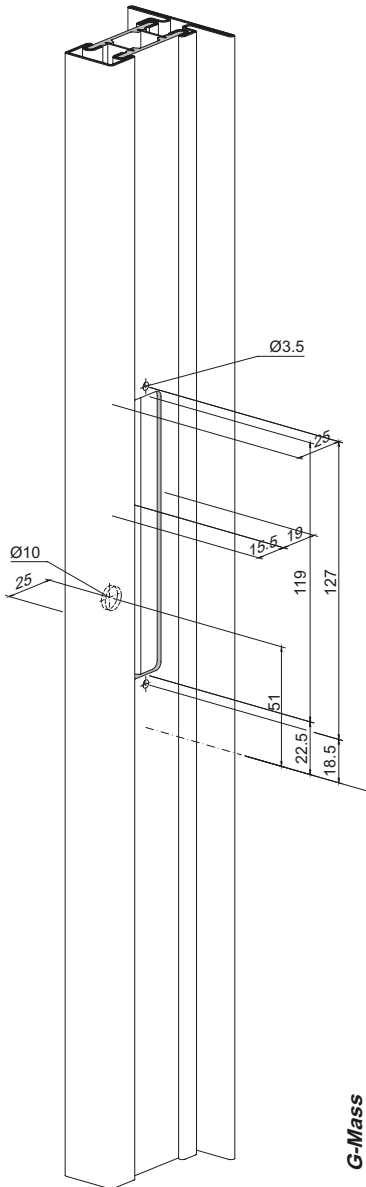


- * 2 mm Aluminiumblech durch Metallbauer zu fertigen
- * Tôle en aluminium 2 mm à fabriquer par le métallier
- * 2 mm aluminium sheet to be made by metal constructor

Überwachung RFID
 Ausnehmung Rahmen
 Kammermass 25/50 mm

Surveillance RFID
 Évidement cadre
 Dimensions de caisson 25/50 mm

RFID monitoring
 Frame opening
 Chamber size 25/50 mm



* 2 mm Aluminiumblech durch Metallbauer zu fertigen
 * Tôle en aluminium 2 mm à fabriquer par le métallier
 * 2 mm aluminium sheet to made by metal constructor

** Durch Metallbauer zu fertigen (Kunststoff)
 ** A fabriquer par le métallier (matière plastique)
 ** To made by metal constructor (plastic)

Überwachung RFID
Einbau Empfänger 599.513

Surveillance RFID
Montage récepteur 599.513

RFID monitoring
Installation recipient 599.513

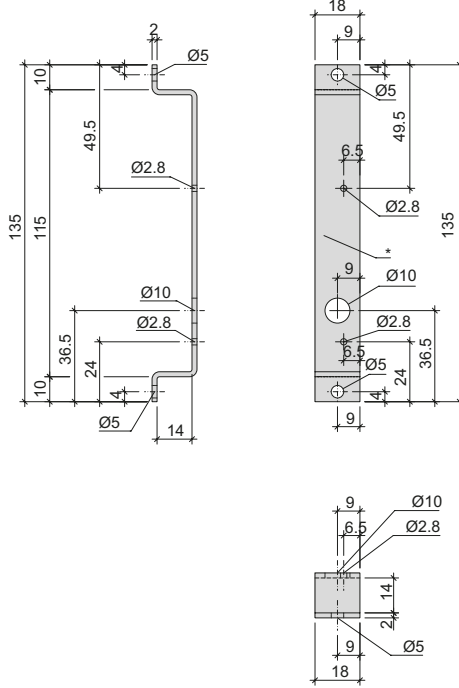
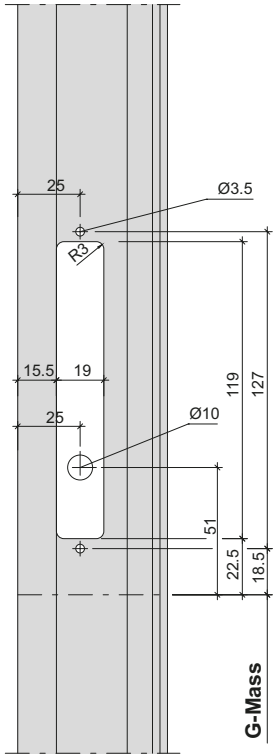
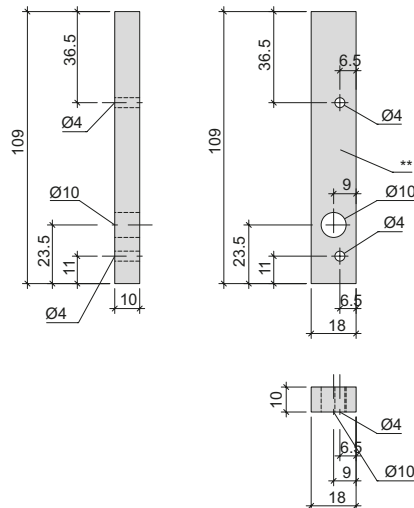
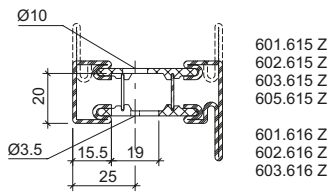
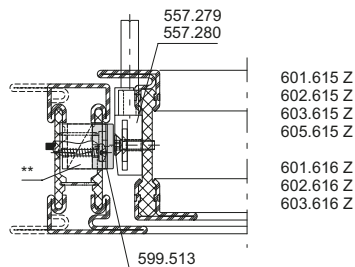


Abbildung für rechts öffnenden Flügel
 Illustration pour vantail à ouverture vers la droite
 Illustration for right opening leaf

- * 2 mm Aluminiumblech durch Metallbauer zu fertigen
- * Tôle en aluminium 2 mm à fabriquer par le métallier
- * 2 mm aluminium sheet to made by metal constructor



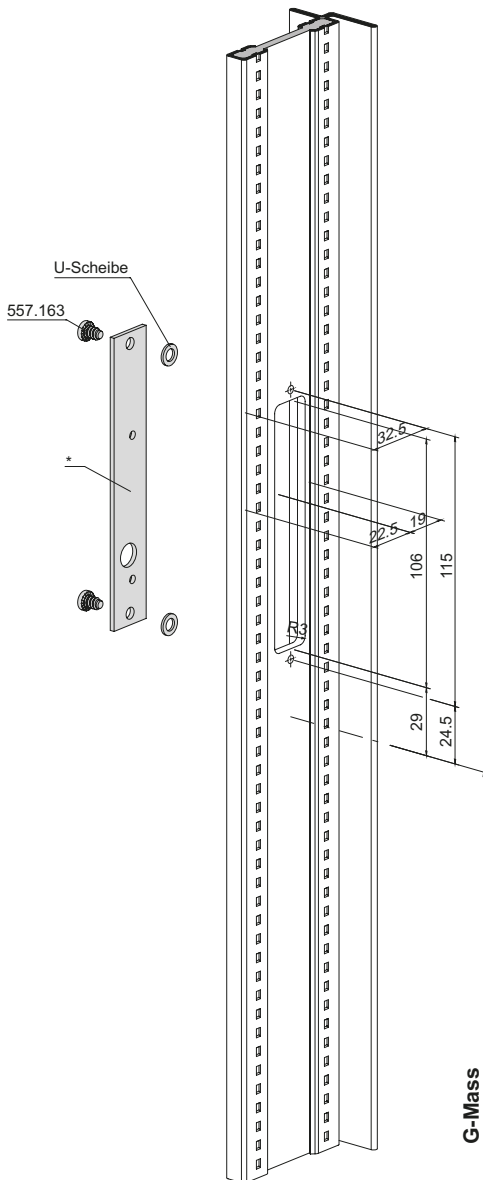
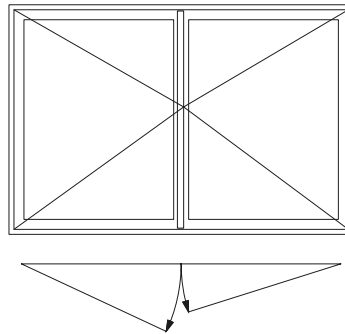
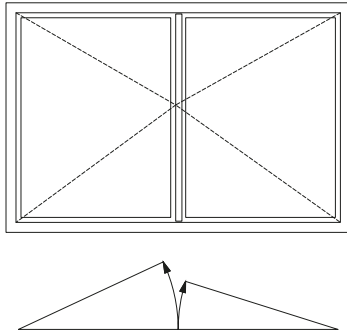
- ** Durch Metallbauer zu fertigen (Kunststoff)
- ** A fabriquer par le métallier (matière plastique)
- ** To made by metal constructor (plastic)



Überwachung RFID
 Ausnehmung Stulpprofil

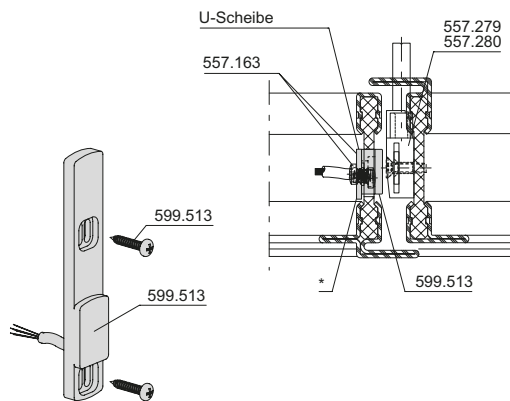
Surveillance RFID
 Évidement profilé complémentaire

RFID monitoring
 Forend profile opening

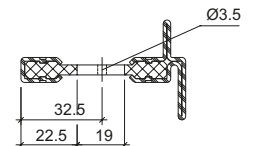
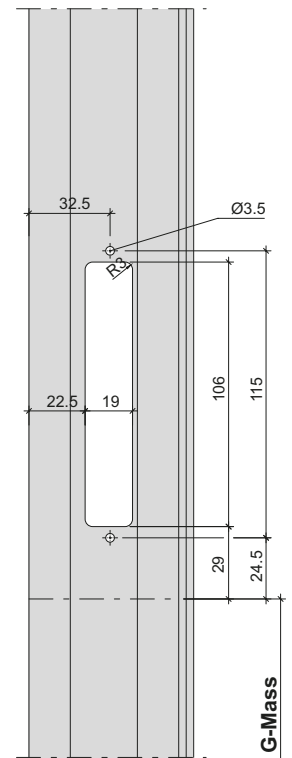
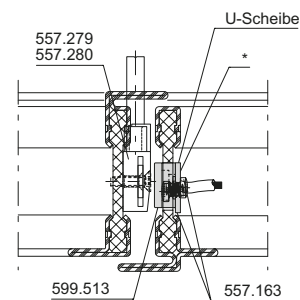


- * 2 mm Aluminiumblech durch Metallbauer zu fertigen
- * Tôle en aluminium 2 mm à fabriquer par le métallier
- * 2 mm aluminium sheet to made by metal constructor

Nach innen öffnend
 Ouvrant vers l'intérieur
 Inward opening



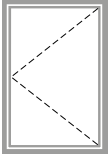
Nach aussen öffnend
 Ouvrant vers l'extérieur
 Outward opening



**Beschlag mit Getriebe
557.187**

**Ferrure avec crémono
de tringle 557.187**

**Fitting with mechanism 171
rod 557.187**

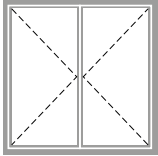


**Drehfenster
nach innen öffnend**

**Fenêtre à la française
ouvrant vers l'intérieur**

**Side-hung window
inward opening**

191

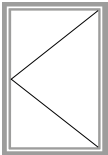


**Drehfenster
nach innen öffnend**

**Fenêtre à la française
ouvrant vers l'intérieur**

**Side-hung window
inward opening**

203

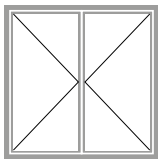


**Drehfenster
nach aussen öffnend**

**Fenêtre à la française
ouvrant vers l'extérieur**

**Side-hung window
outward opening**

217

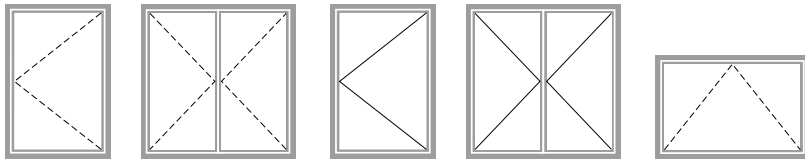


**Drehfenster
nach aussen öffnend**

**Fenêtre à la française
ouvrant vers l'extérieur**

**Side-hung window
outward opening**

229



Beschlag mit Getriebe
557.187

Ferrure avec crémono
de tringle 557.187

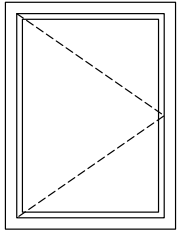
Fitting with mechanism
rod 557.187

Definition Symbole	Définition des symboles	Definition of symbols	172
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Definition Symbole

Définition des symboles

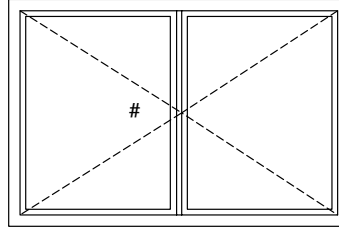
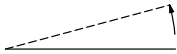
Definition of symbols



Dreh-Fenster einflügelig
 nach innen öffnend

Fenêtre à la française
 à un vantail
 ouvrant vers l'intérieur

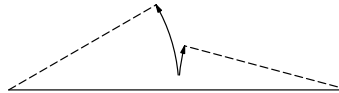
Single-sash side-hung window
 inward opening



Dreh-Fenster zweiflügelig
 nach innen öffnend

Fenêtre à la française
 à deux vantaux
 ouvrant vers l'intérieur

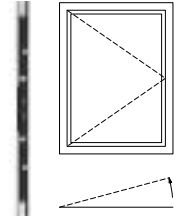
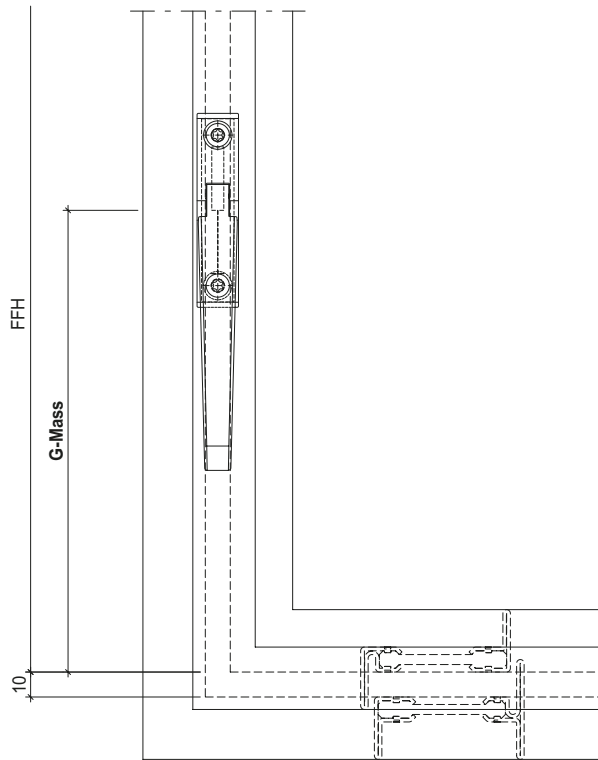
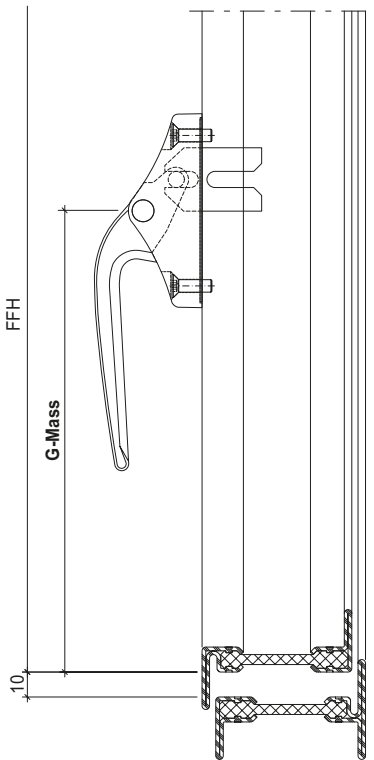
Double-sash side-hung window
 inward opening



Definition G-Mass
 Fenster einflügelig
 nach innen öffnend

Définition de la mesure G
 Fenêtre à un vantail
 ouvrant vers l'intérieur

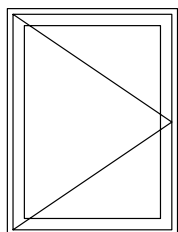
Definition of G measurement
 Single-sash window
 inward opening



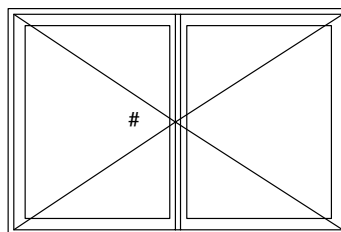
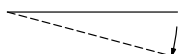
Definition Symbole

Définition des symboles

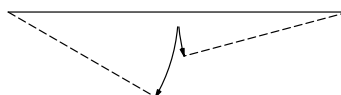
Definition of symbols



Dreh-Fenster einflügelig
 nach aussen öffnend
Fenêtre à la française
 à un vantail
 ouvrant vers l'extérieur
Single-sash side-hung window
 outward opening



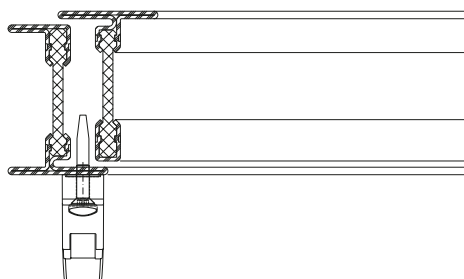
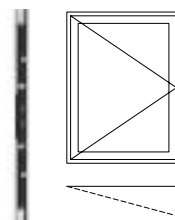
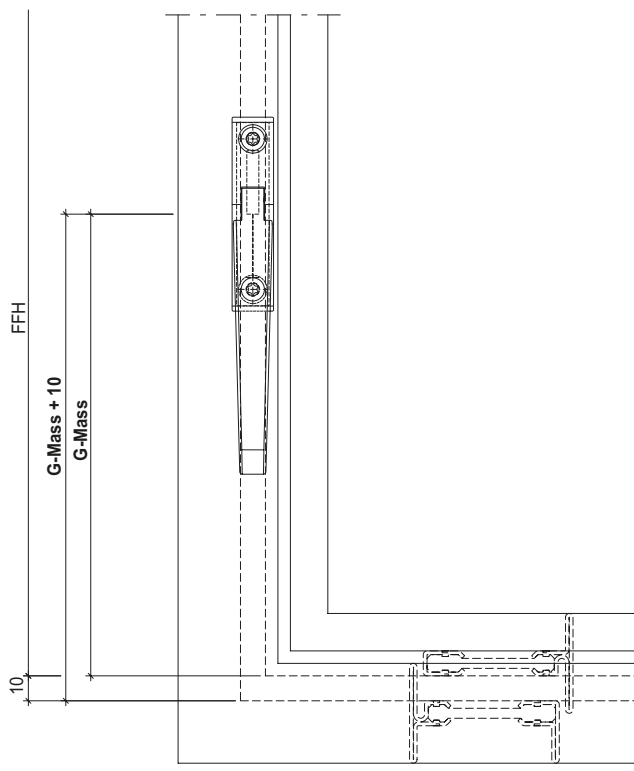
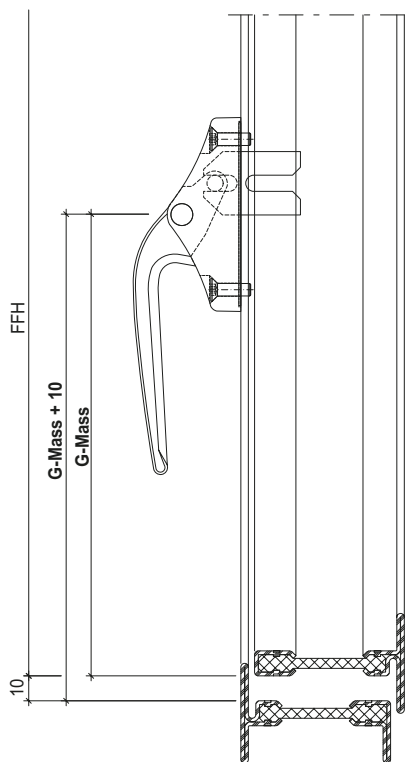
Dreh-Fenster zweiflügelig
 nach aussen öffnend
Fenêtre à la française
 à deux vantaux
 ouvrant vers l'extérieur
Double-sash side-hung window
 outward opening



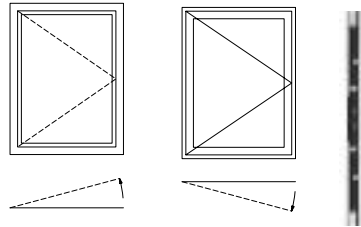
Definition G-Mass
Fenster einflügelig
 nach aussen öffnend

Définition de la mesure G
Fenêtre à un vantail
 ouvrant vers l'extérieur

Definition of G measurement
Single-sash window
 outward opening

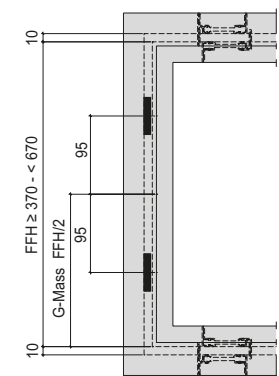


Anordnung Verriegelungspunkte
Fenster einflügelig
nach innen und aussen öffnend

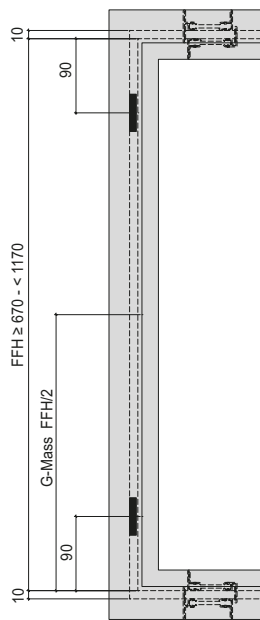


Disposition des points de verrouillage
Fenêtre à un vantail
ouvrant vers l'intérieur et l'extérieur

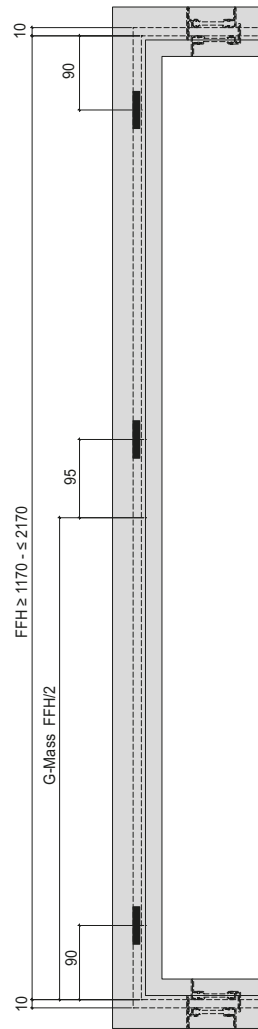
Arrangement of locking points
Single-sash window
inward and outward opening



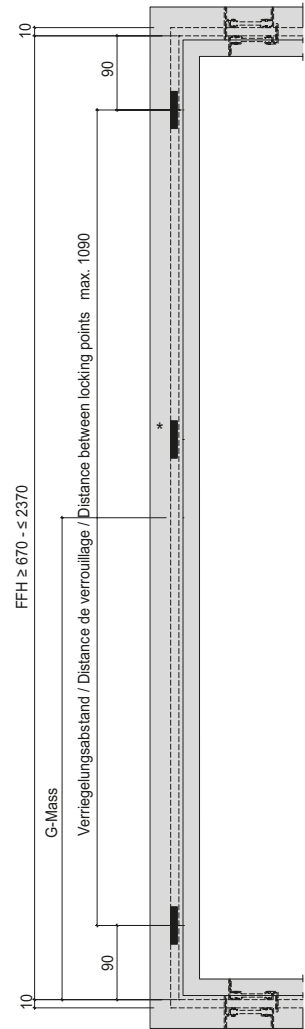
FFH 370 - 669 mm
G-Mass FFH/2



FFH 670 - 1169 mm
G-Mass FFH/2



FFH 1170 - 2170 mm
G-Mass FFH/2



FFH 670 - 2370 mm
freies G-Mass (min. 185 mm)
Mesure G libre (min. 185 mm)
unspecified G measurement
(min. 185 mm)

Übersicht Verriegelungen

Sommaire des verrouillages

Summary of locking

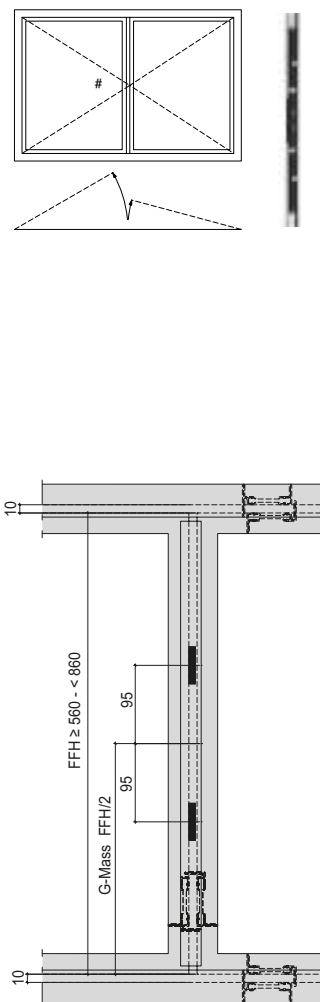
	FFH			
	370 x 669 mm	670 x 1169 mm	1170 x 2170 mm	- 2370 mm
	G = (FFH/2)			
557.188	–	1x	1x	2x
557.187	1x	1x	1x	1x
557.188	–	1x	1x	2x
557.186	1x	1x	1x	1x
557.189	1x(2)	1x(2)	1x(3)	1x (4)
557.190	1x(2)	1x(2)	1x(3)	1x (4)

- * zusätzlicher Verriegelungspunkt > 1090 mm
- * point de verrouillage supplémentaire > 1090 mm
- * additional locking point > 1090 mm

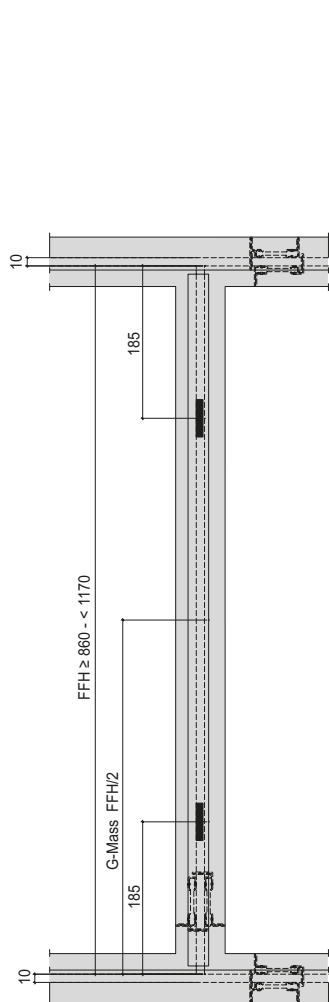
Anordnung Verriegelungspunkte
Fenster zweiflügelig
nach innen öffnend

Disposition des points de verrouillage
Fenêtre à deux vantaux
ouvrant vers l'intérieur

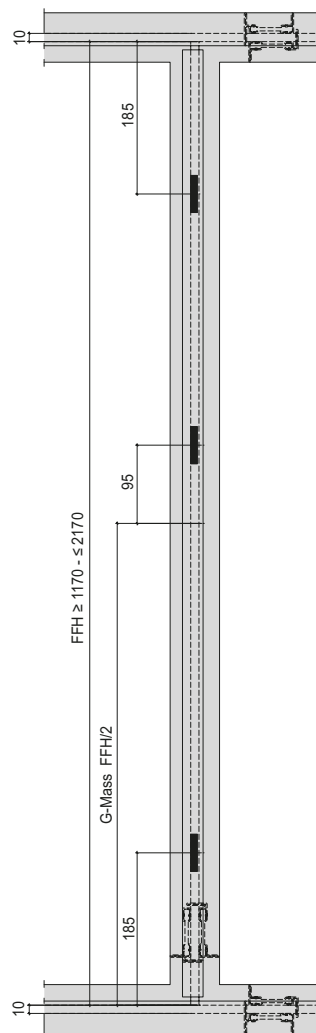
Arrangement of locking points
Double-sash window
inward opening



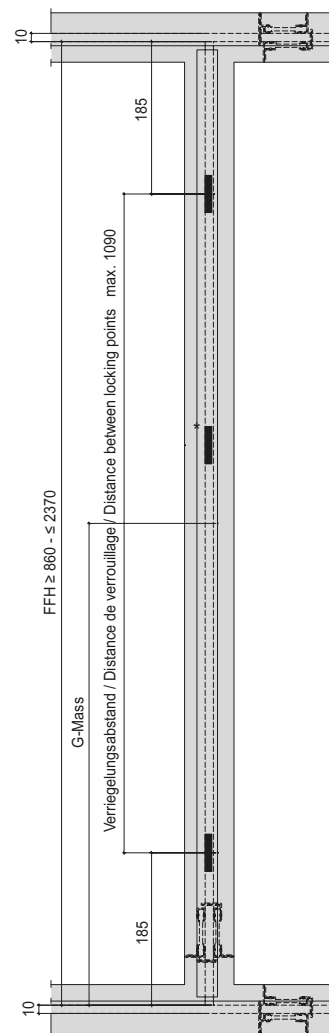
FFH 560 - 859 mm
 G-Mass FFH/2



FFH 860 - 1169 mm
 G-Mass FFH/2



FFH 1170 - 2170 mm
 G-Mass FFH/2



FFH 860 - 2370 mm
 freies G-Mass (min. 280 mm)
 Mesure G libre (min. 280 mm)
 unspecified G measurement
 (min. 280 mm)

Übersicht Verriegelungen

Sommaire des verrouillages

Summary of locking

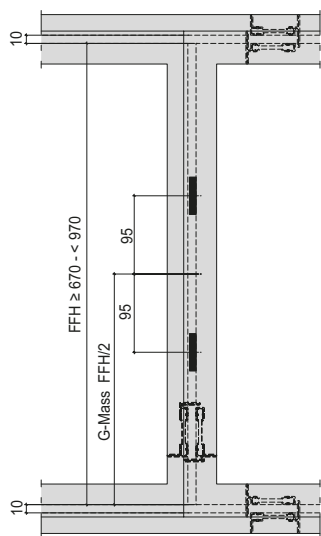
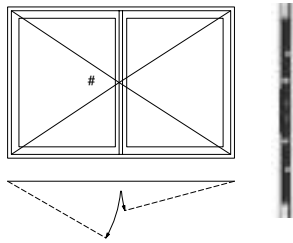
	FFH			
	370 x 669 mm	670 x 1169 mm	1170 x 2170 mm	- 2370 mm
	G = (FFH/2)			
557.188	-	1x	1x	2x
557.187	1x	1x	1x	1x
557.188	-	1x	1x	2x
557.191	1x	1x	1x	1x
557.189	1x(2)	1x(2)	1x(3)	1x (4)
557.190	1x(2)	1x(2)	1x(3)	1x (4)

- * zusätzlicher Verriegelungspunkt > 1090 mm
- * point de verrouillage supplémentaire > 1090 mm
- * additional locking point > 1090 mm

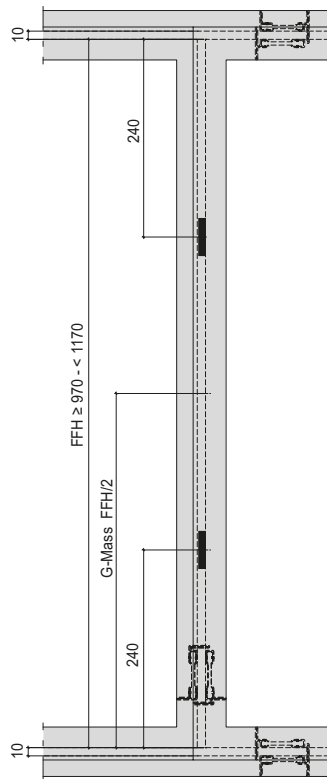
Anordnung Verriegelungspunkte
 Fenster zweiflügelig
 nach aussen öffnend

Disposition des points de verrouillage
 Fenêtre à deux vantaux
 ouvrant vers l'extérieur

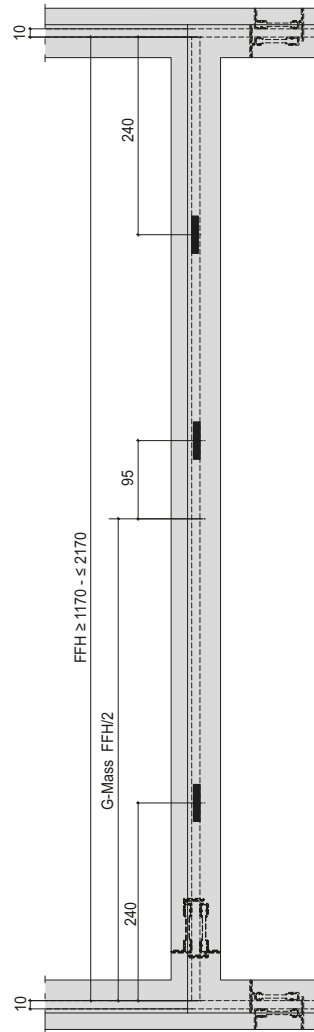
Arrangement of locking points
 Double-sash window
 outward opening



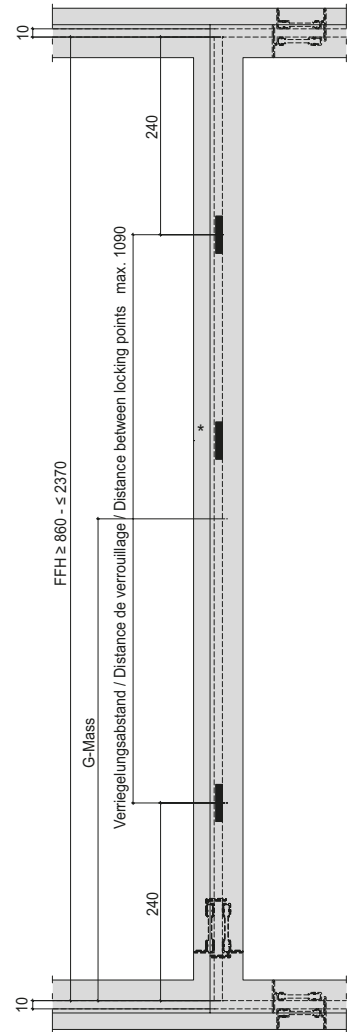
FFH 670 - 969 mm
 G-Mass FFH/2



FFH 970 - 1169 mm
 G-Mass FFH/2



FFH 1170 - 2170 mm
 G-Mass FFH/2



FFH 860 - 2370 mm
 freies G-Mass (min. 335 mm)
 Mesure G libre (min. 335 mm)
 unspecified G measurement
 (min. 335 mm)

Übersicht Verriegelungen

Sommaire des verrouillages

Summary of locking

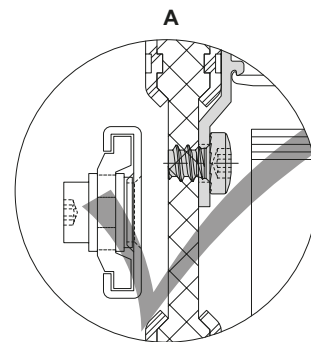
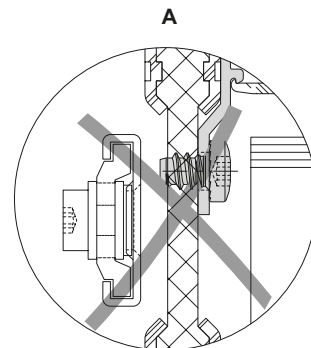
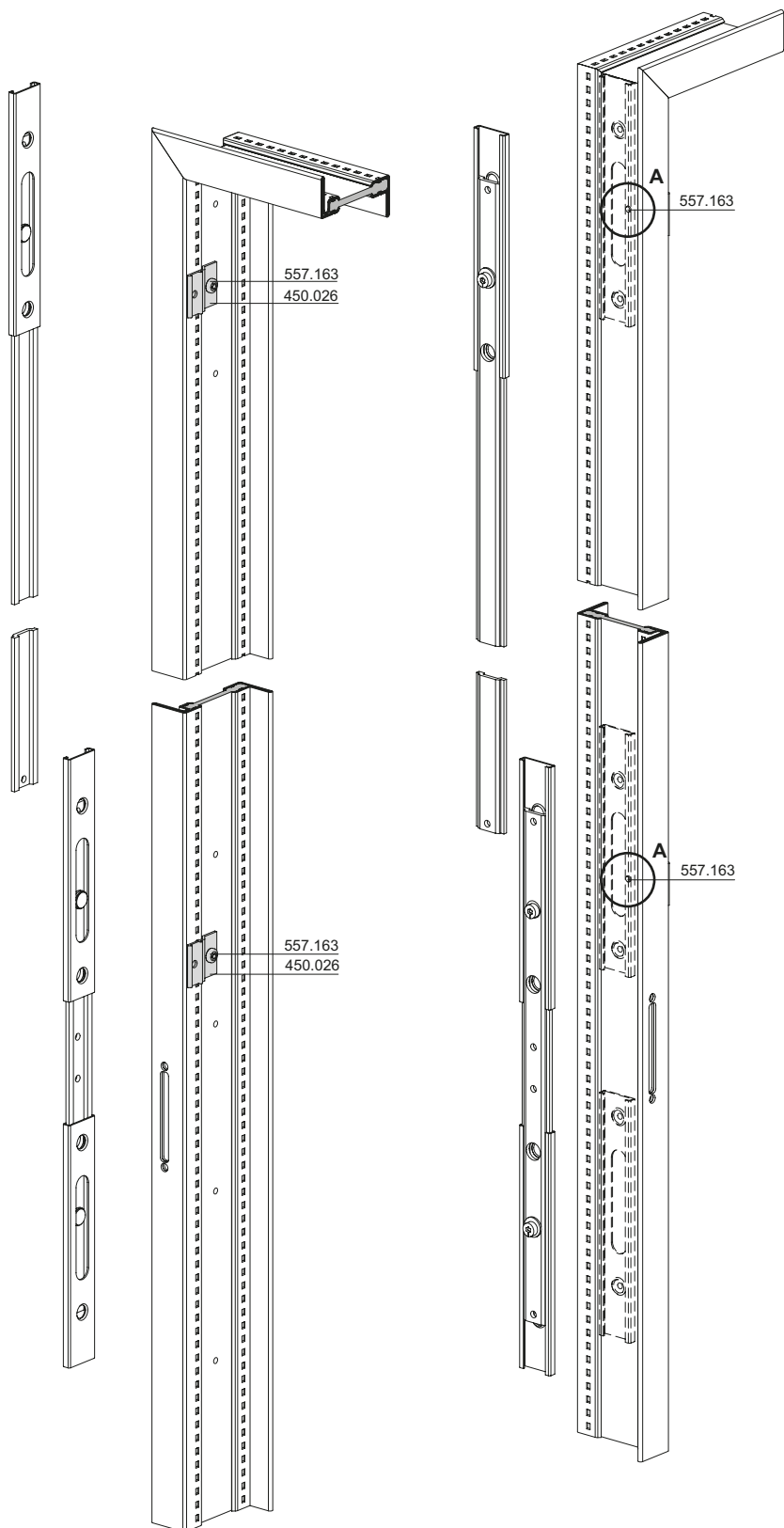
	FFH			
	370 x 669 mm	670 x 1169 mm	1170 x 2170 mm	- 2370 mm
	G = (FFH/2)			
557.188	–	1x	1x	2x
557.187	1x	1x	1x	1x
557.188	–	1x	1x	2x
557.191	1x	1x	1x	1x
557.189	1x(2)	1x(2)	1x(3)	1x (4)
557.190	1x(2)	1x(2)	1x(3)	1x (4)

- * zusätzlicher Verriegelungs-
punkt > 1090 mm
- * point de verrouillage
supplémentaire > 1090 mm
- * additional locking point
> 1090 mm

Einbau Glasleisten-Klipsstück
im Bereich CNS-Getriebeführung

Montage du clip de parclose dans la
zone du guidage de crémone CNS

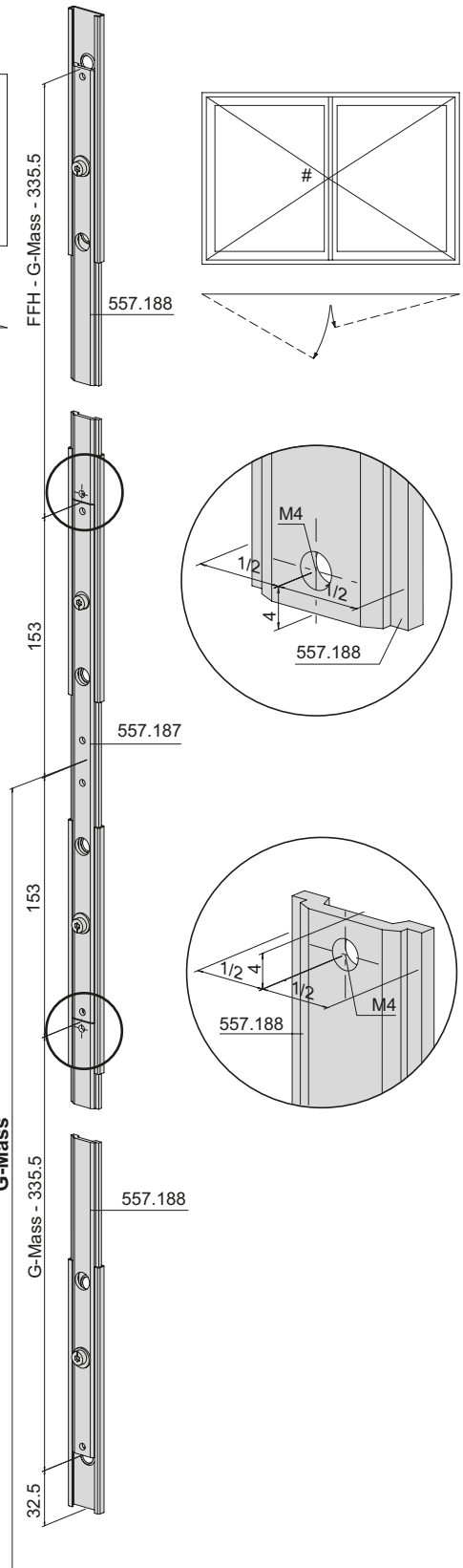
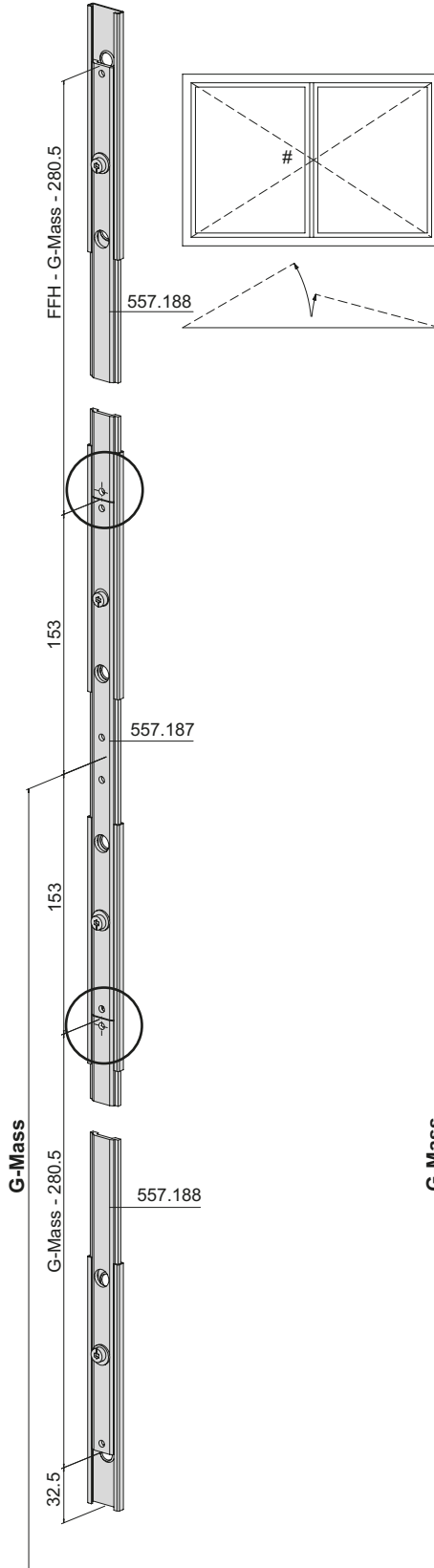
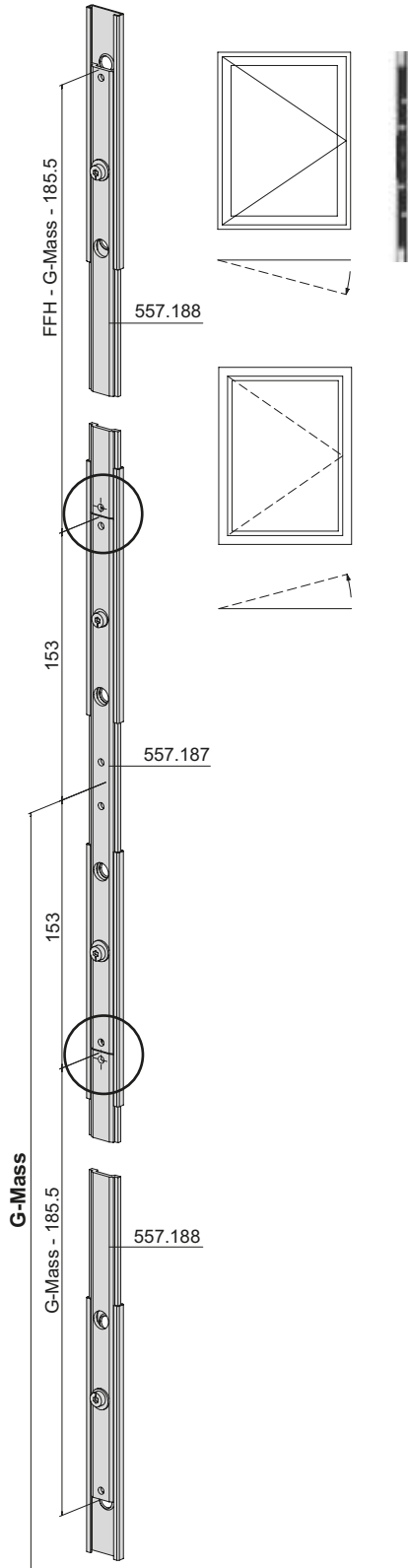
Installation of glazing bead clip in
the area of the CNS gearbox guide



Vorbereitung
Getriebeverlängerung 557.188

Préparation au prolongement de la
crémone 557.188

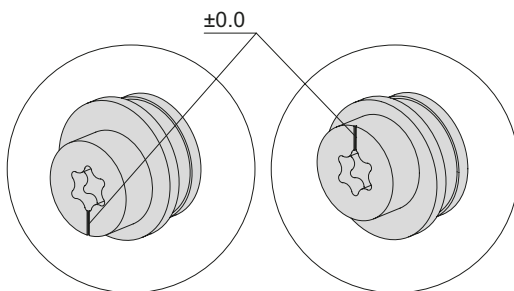
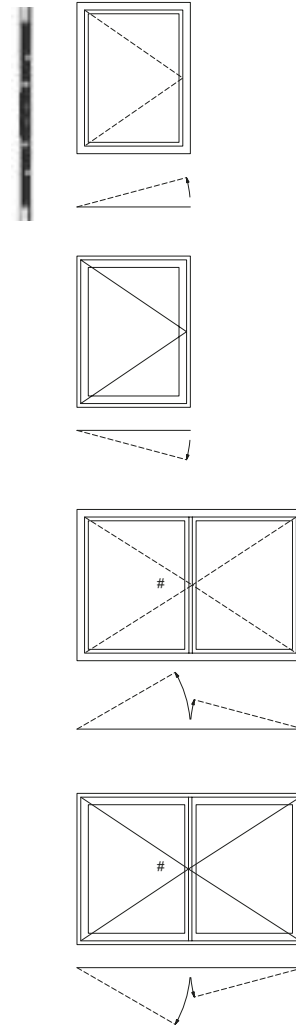
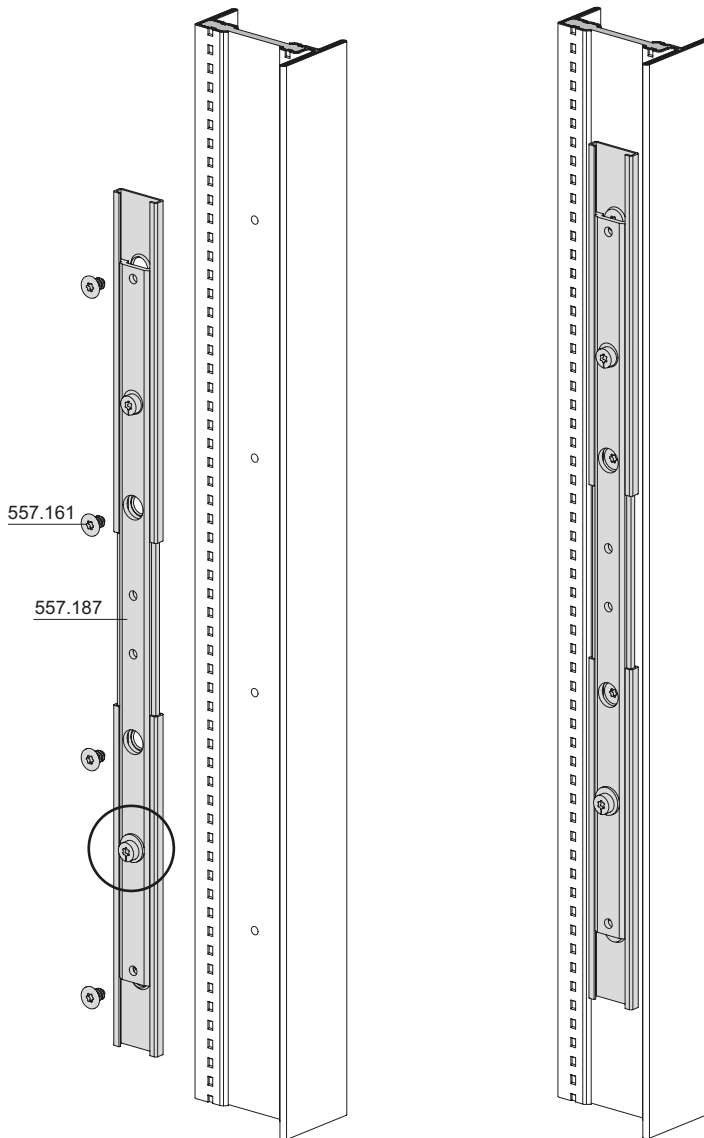
Preparation of
gearbox extension 557.188



Einbau Getriebe 557.187

Montage crémonne 557.187

Installation of mechanism 557.187

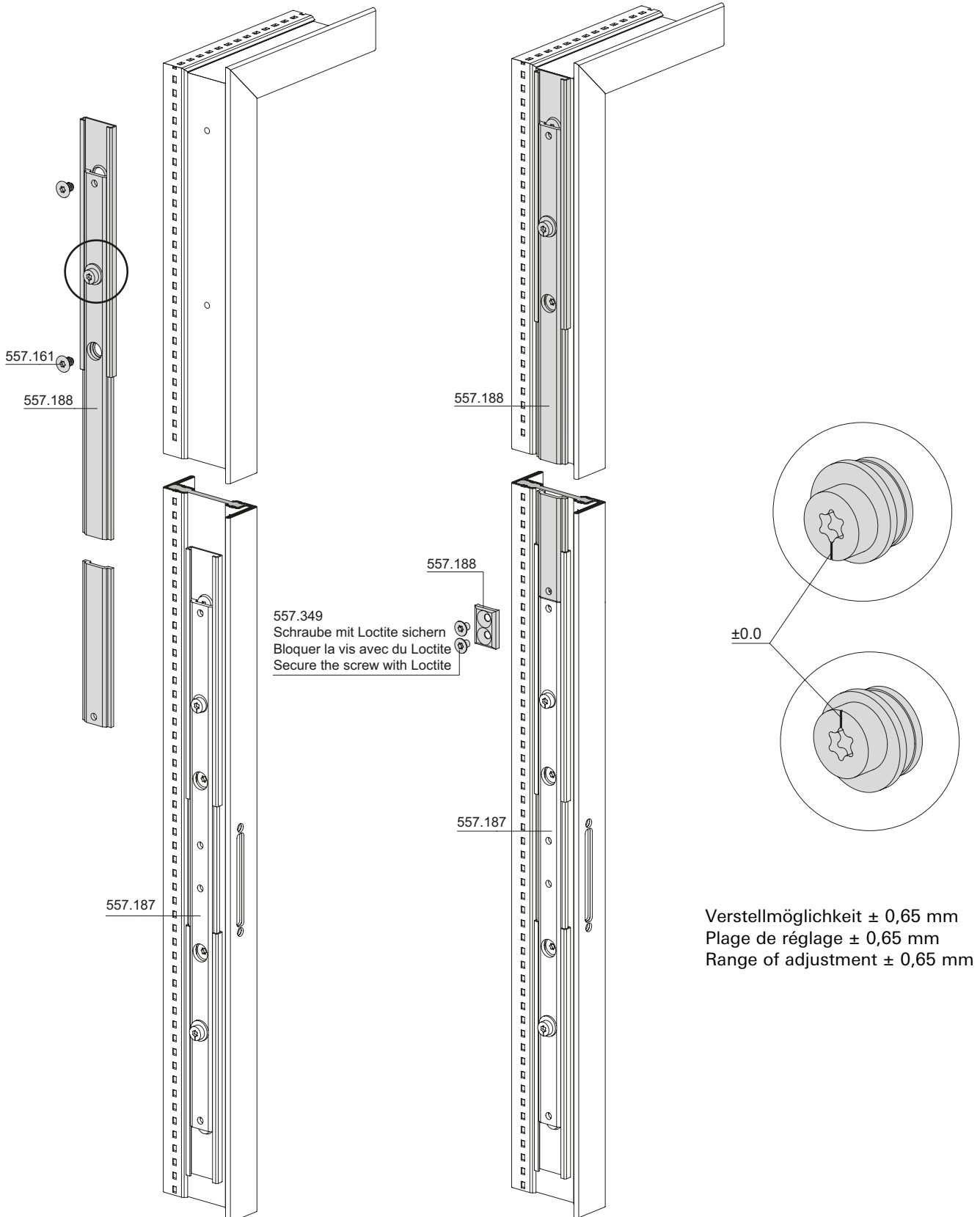


Verstellmöglichkeit $\pm 0,65$ mm
 Plage de réglage $\pm 0,65$ mm
 Range of adjustment $\pm 0,65$ mm

Einbau
Getriebeverlängerung 557.188

Montage prolongement de la
crémone 557.188

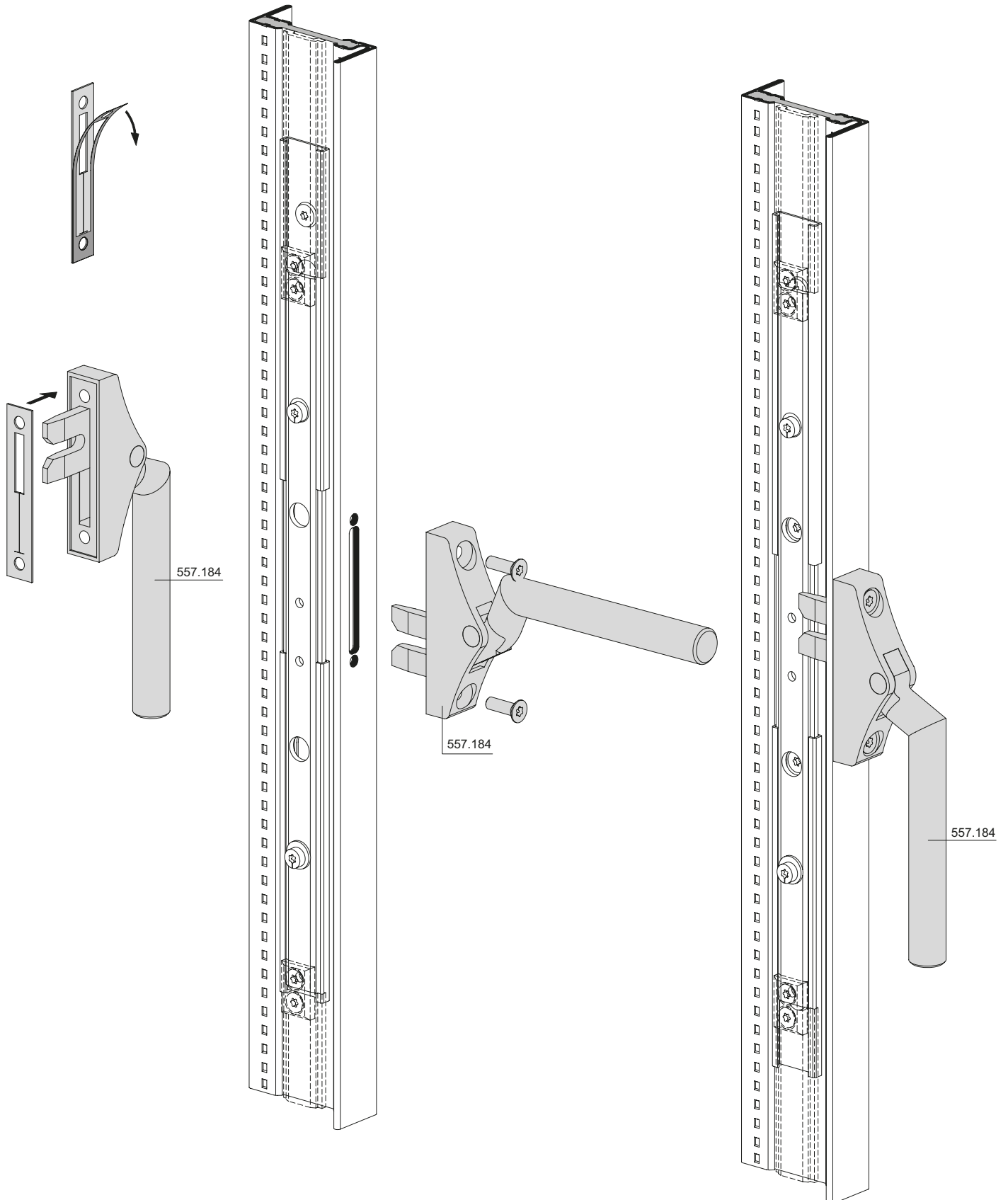
Installation of
gearbox extension 557.188



Einbau Fenstergriff
557.184 / 557.185 / 557.300

Montage poignée de fenêtre
557.184 / 557.185 / 557.300

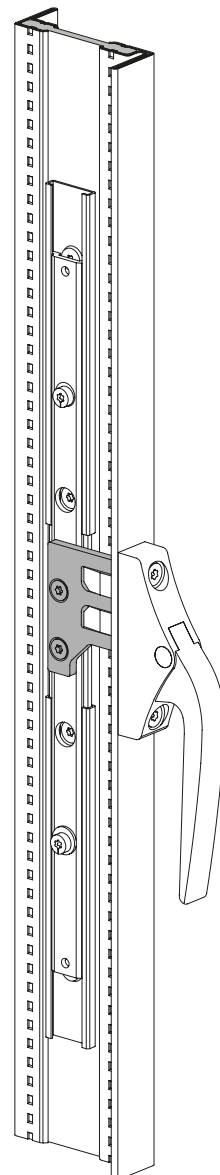
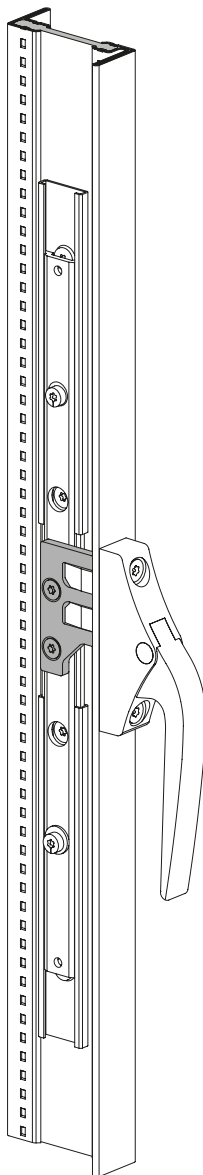
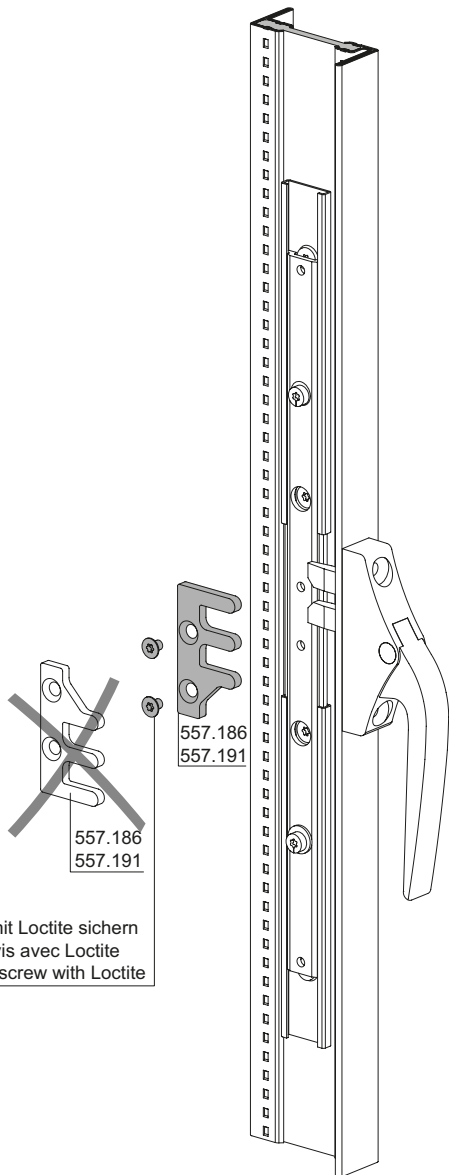
Installation of window handle
557.184 / 557.185 / 557.300



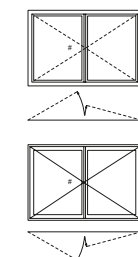
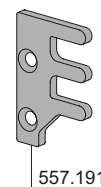
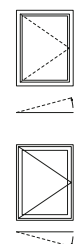
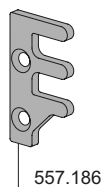
Einbau Griffmitnehmer
557.186 / 557.191

Montage entraîneur de poignée
557.186 / 557.191

Installation of handle driver
557.186 / 557.191



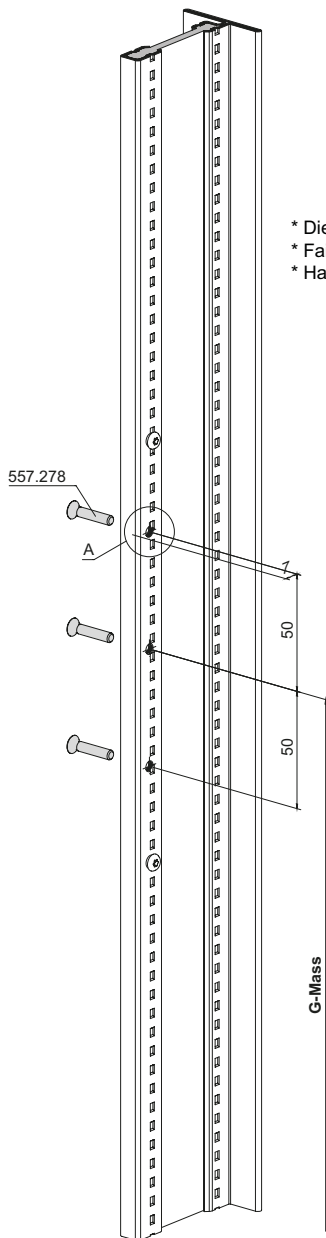
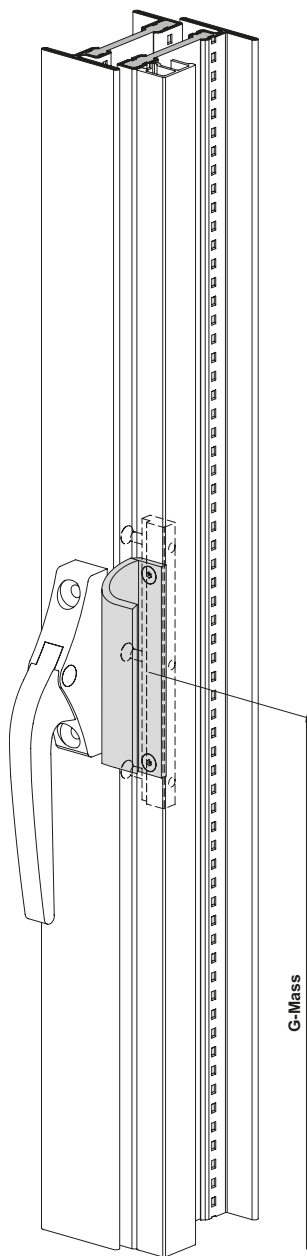
557.164
 Schraube mit Loctite sichern
 Bloquer la vis avec Loctite
 Secure the screw with Loctite



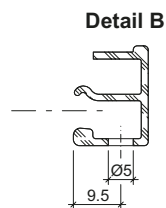
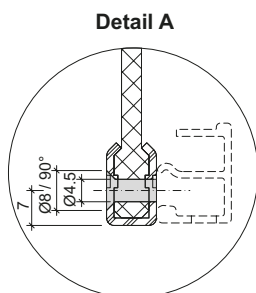
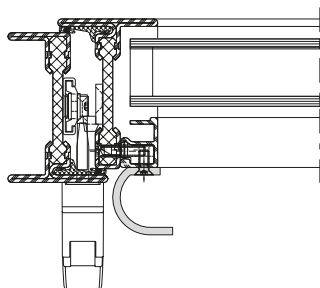
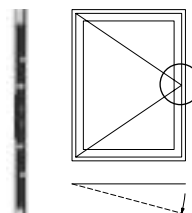
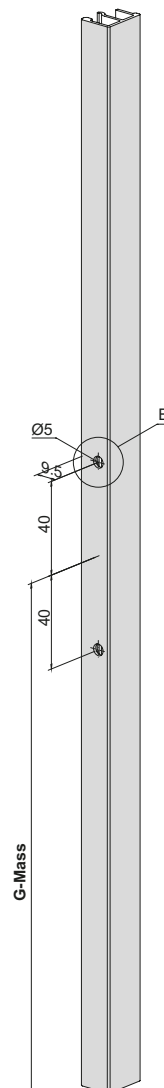
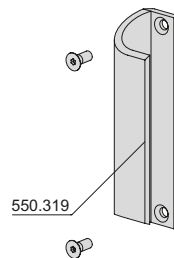
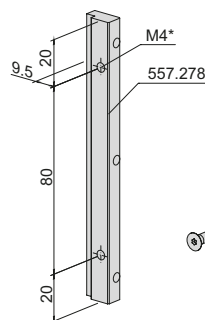
Ziehgriff 550.319 bei nach
 aussen öffnendem Fenster
 für Glasleisten 405.030-405.035
 Flügel

Poignée à tirer 550.319 sur une
 fenêtre à ouverture vers l'extérieur
 pour parclozes 405.030-405.035
 Vantail

Pull handle 550.319 for
 outward-opening window for
 glazing beads 405.030-405.035
 Sash



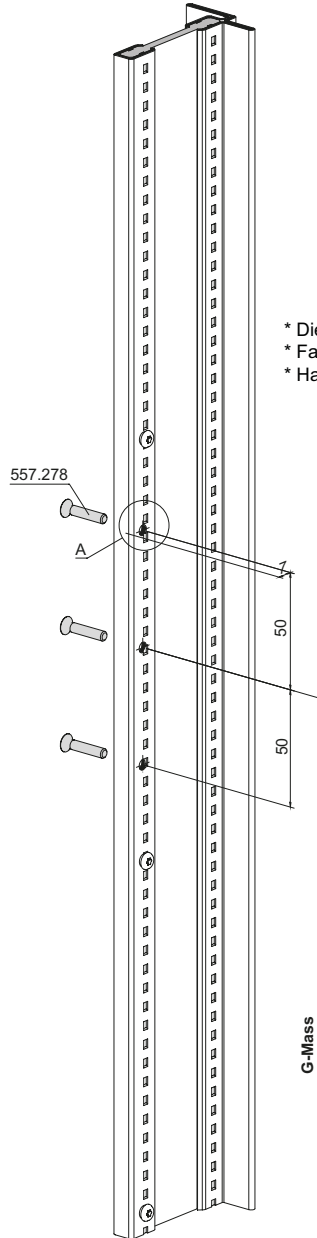
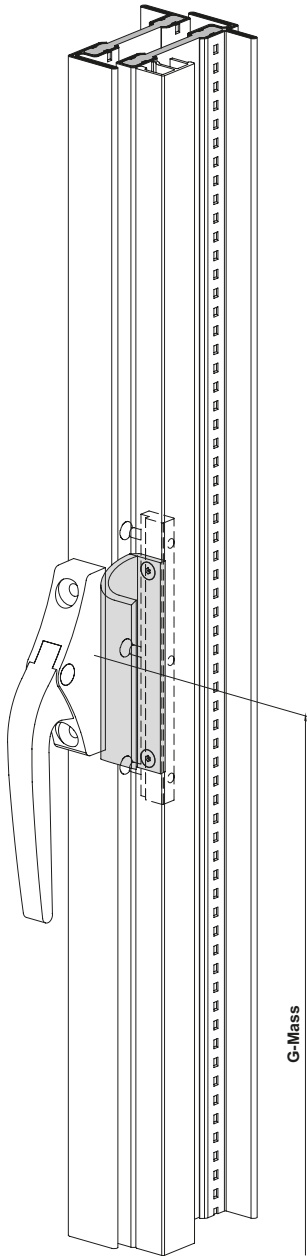
- * Die M4-Bohrung durch Metallbauer ausführen
- * Faire effectuer le perçage M4 par le constructeur métallique
- * Have a metalworker drill the M4 hole



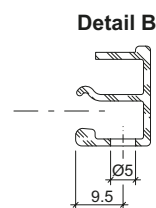
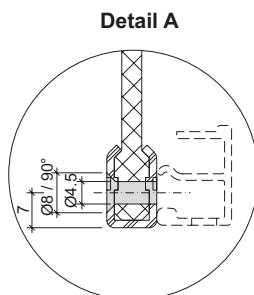
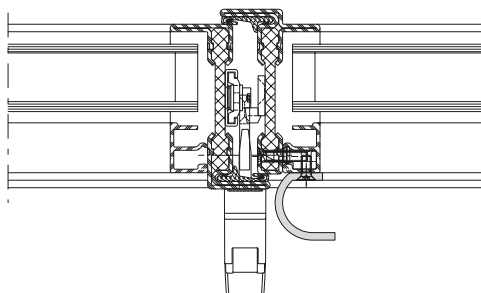
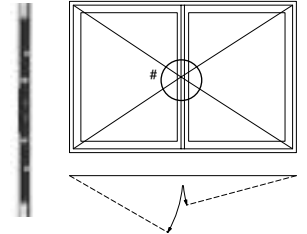
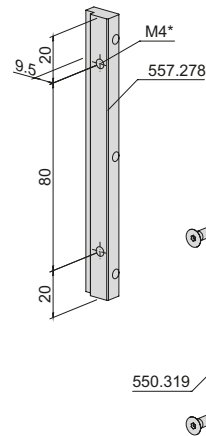
Ziehgriff 550.319 bei nach
 aussen öffnendem Fenster
 für Glasleisten 405.030-405.035
 Stulpfenster

Poignée à tirer 550.319 sur une
 fenêtre à ouverture vers l'extérieur
 pour parclores 405.030-405.035
 Fenêtre à deux vantaux

Pull handle 550.319 for
 outward-opening window for
 glazing beads 405.030-405.035
 Double sash window



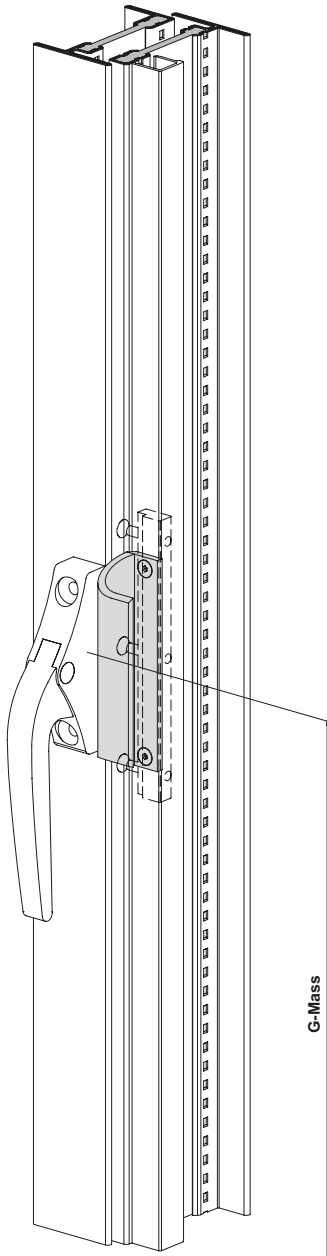
- * Die M4-Bohrung durch Metallbauer ausführen
- * Faire effectuer le perçage M4 par le constructeur métallique
- * Have a metalworker drill the M4 hole



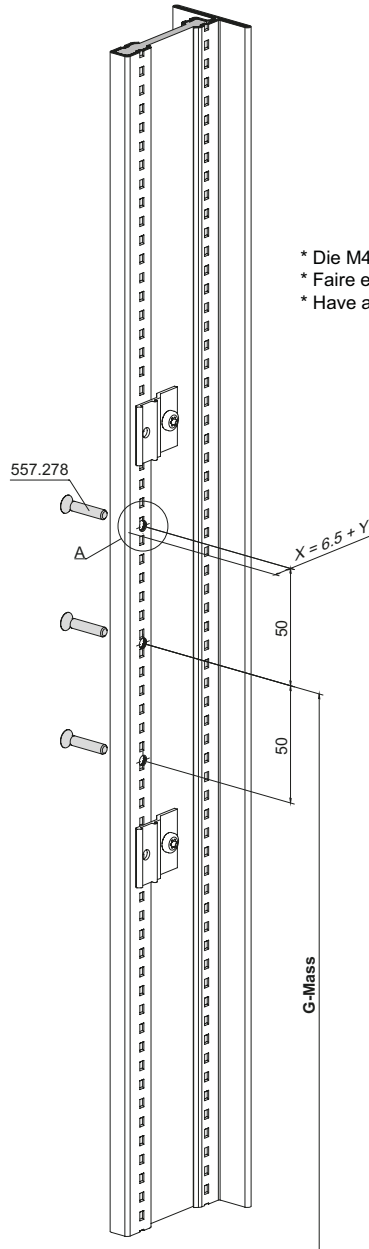
Ziehgriff 550.319 bei nach aussen öffnendem Fenster für Glasleisten 405.021-405.025 Flügel

Poignée à tirer 550.319 sur une fenêtre à ouverture vers l'extérieur pour parclozes 405.021-405.025 Vantail

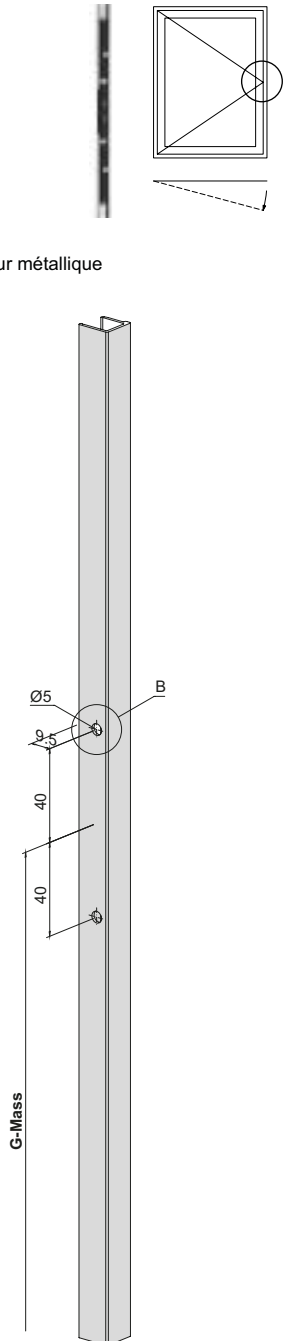
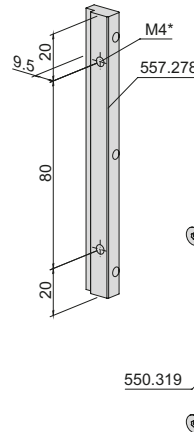
Pull handle 550.319 for outward-opening window for glazing beads 405.021-405.025 Sash



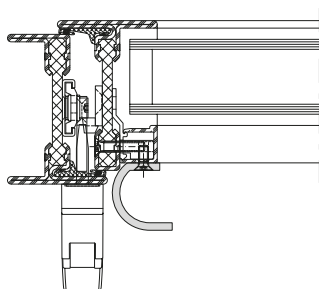
G-Mass



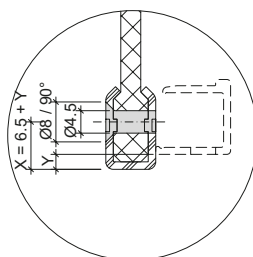
- * Die M4-Bohrung durch Metallbauer ausführen
- * Faire effectuer le perçage M4 par le constructeur métallique
- * Have a metalworker drill the M4 hole



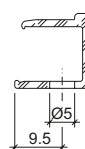
G-Mass



Detail A



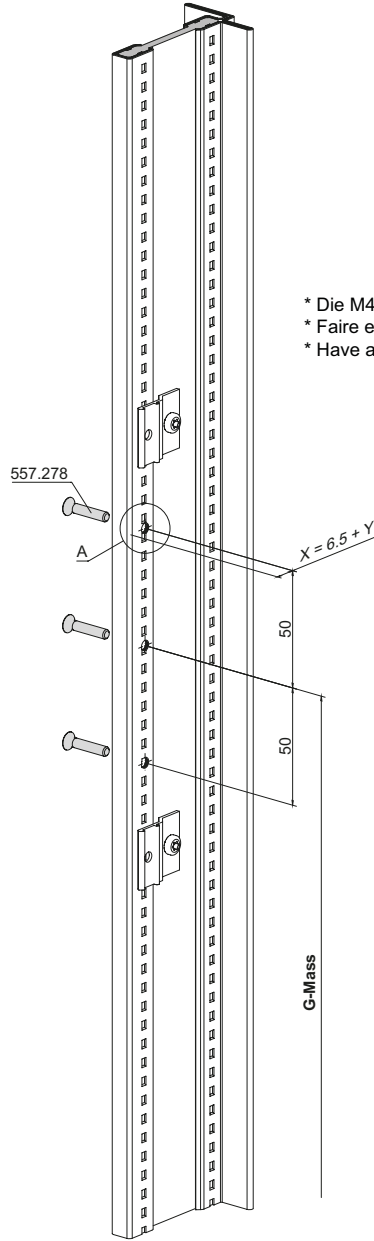
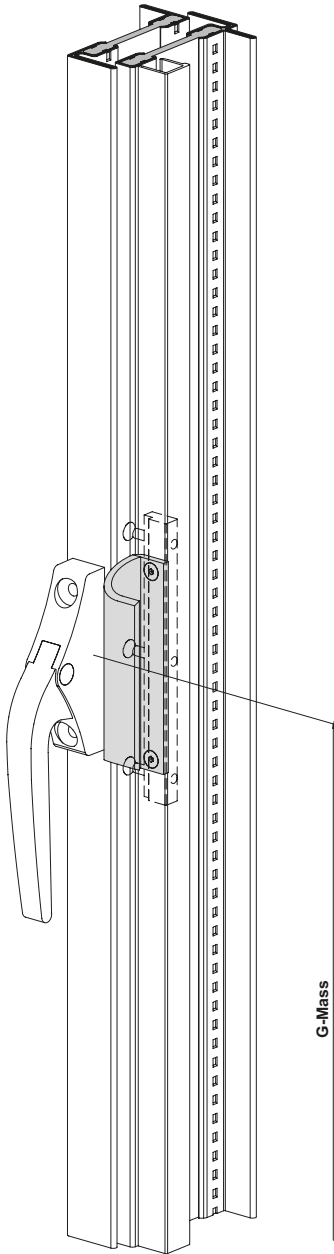
Detail B



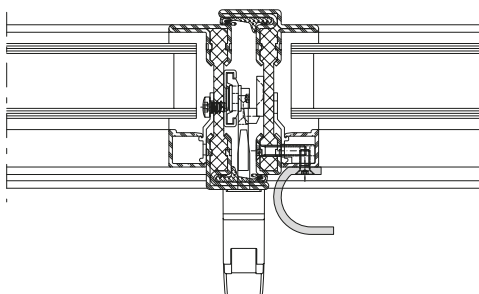
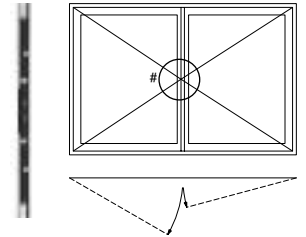
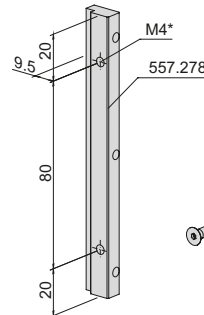
Ziehgriff 550.319 bei nach
 aussen öffnendem Fenster
 für Glasleisten 405.021-405.025
 Flügel

Poignée à tirer 550.319 sur une
 fenêtre à ouverture vers l'extérieur
 pour parclores 405.021-405.025
 Vantail

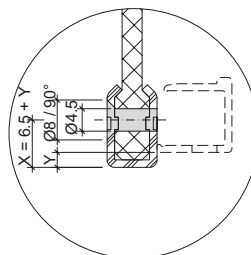
Pull handle 550.319 for
 outward-opening window for
 glazing beads 405.021-405.025
 Sash



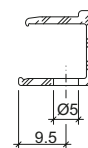
- * Die M4-Bohrung durch Metallbauer ausführen
- * Faire effectuer le perçage M4 par le constructeur métallique
- * Have a metalworker drill the M4 hole



Detail A



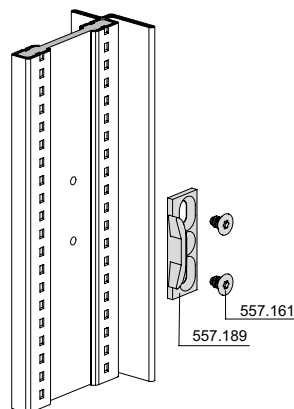
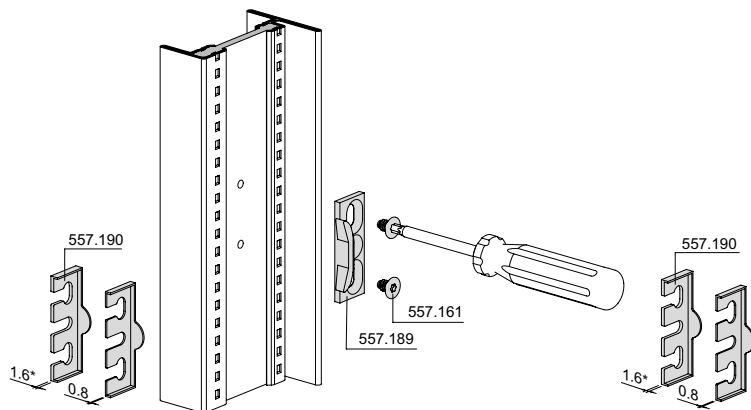
Detail B



Einbau Schliessblech 557.189
Schliessblech-Unterlage 557.190
 ab FFB \geq 670 mm empfohlen

Montage de la gâche 557.189
Butée de gâche 557.190 recommandé
 à partir de FFB \geq 670 mm

Installation of striking plate 557.189
Striking plate support 557.190
 Recommended from sash rebate width \geq 670 mm

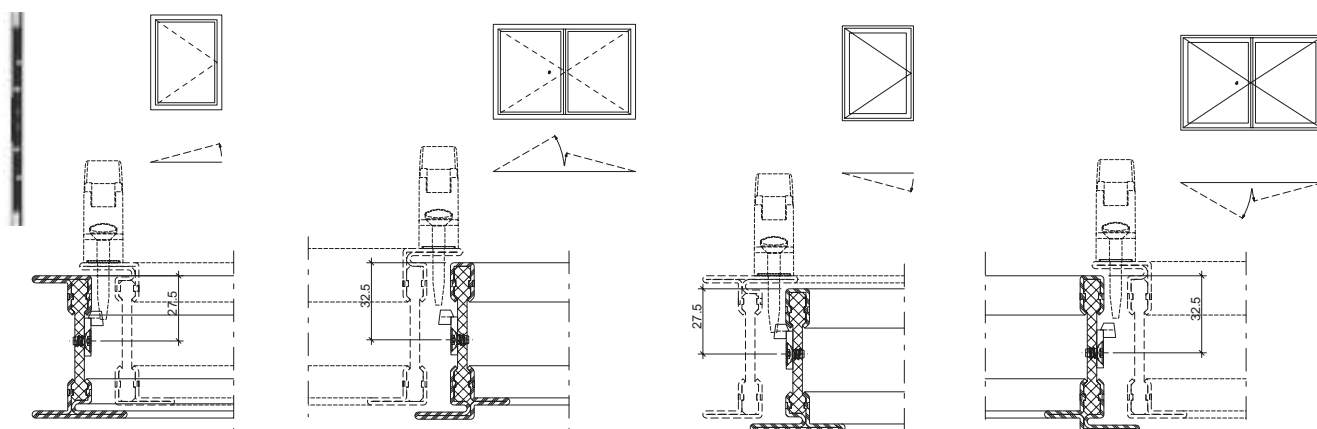
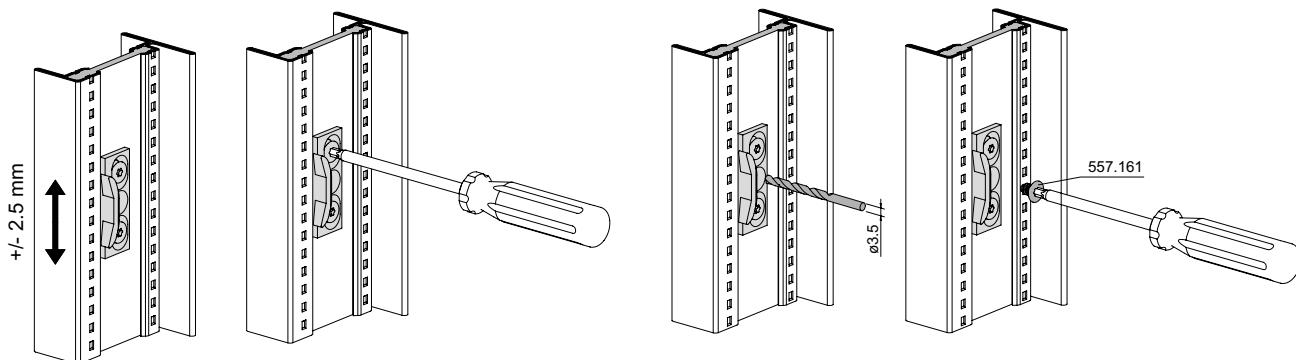


- * Bei Verwendung der 1,6 mm Unterlage, Schraube vorsichtig anziehen.
- * En cas d'utilisation de butée de la gâche 1,6 mm, serrer la vis prudent.
- * When using striking plate support 1,6 mm, screw carefully tighten

Fixierschraube nach Verglasung einsetzen
 Bohren mit Tiefenanschlag (Glasbruch)

Mettre la vis de blocage en place après la pose du vitrage
 Perçer avec butée (bris de verre)

Insert fixing screw after glazing
 Drilling with depth stop (glass breakage)



Seitliche Toleranzaufnahme:
 Einsatz von Unterlagen 0,8 mm oder 1,6 mm je nach Situation einsetzbar.

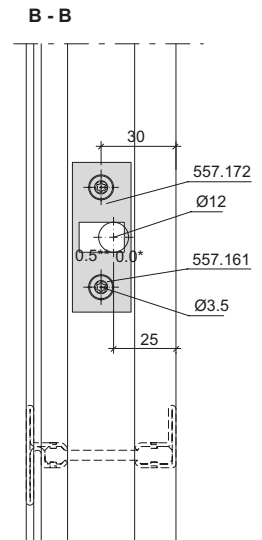
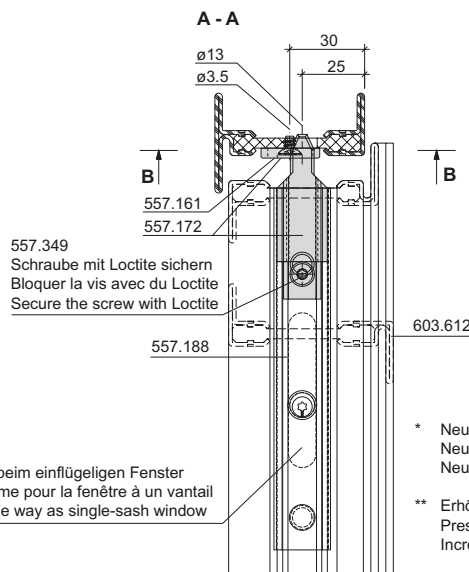
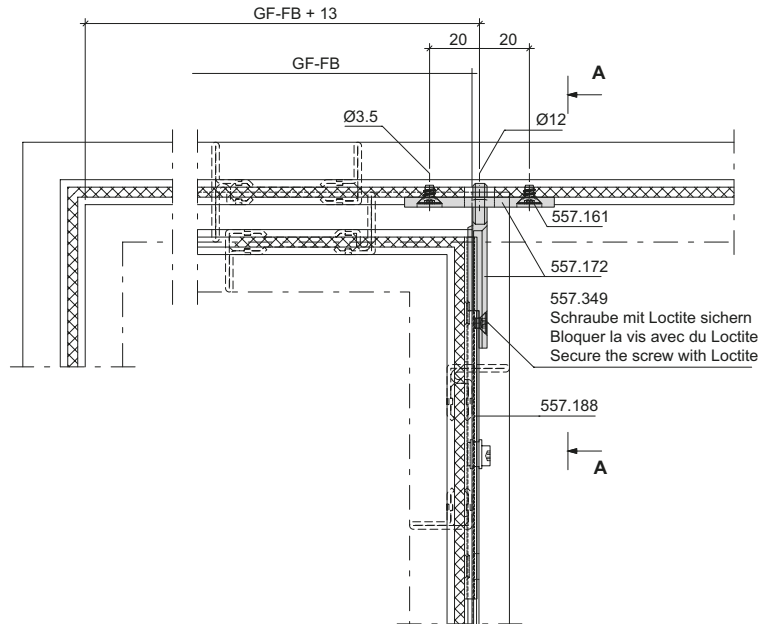
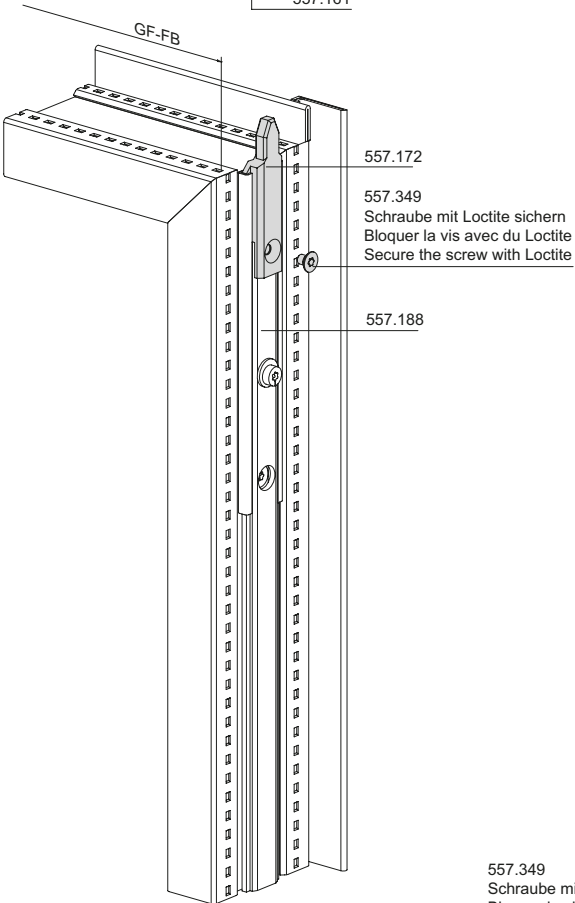
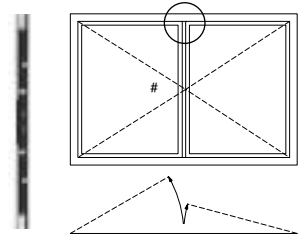
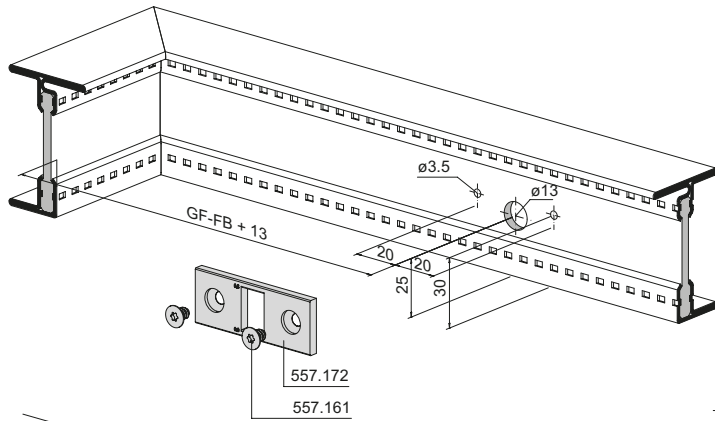
Rattrapage des jeux latéraux
 Utilisation de cales 0,8 mm ou 1,6 mm selon la situation.

Lateral tolerance:
 0,8 mm or 1,6 mm supports can be used depending on the circumstances.

Büchse oben
 zu Zusatzverriegelung 557.172

Coussinet en haut du verrouillage
 supplémentaire 557.172

Top socket for
 additional lock 557.172



Zuschnitt wie beim einflügeligen Fenster
 Découpe comme pour la fenêtre à un vantail
 Cutting in same way as single-sash window

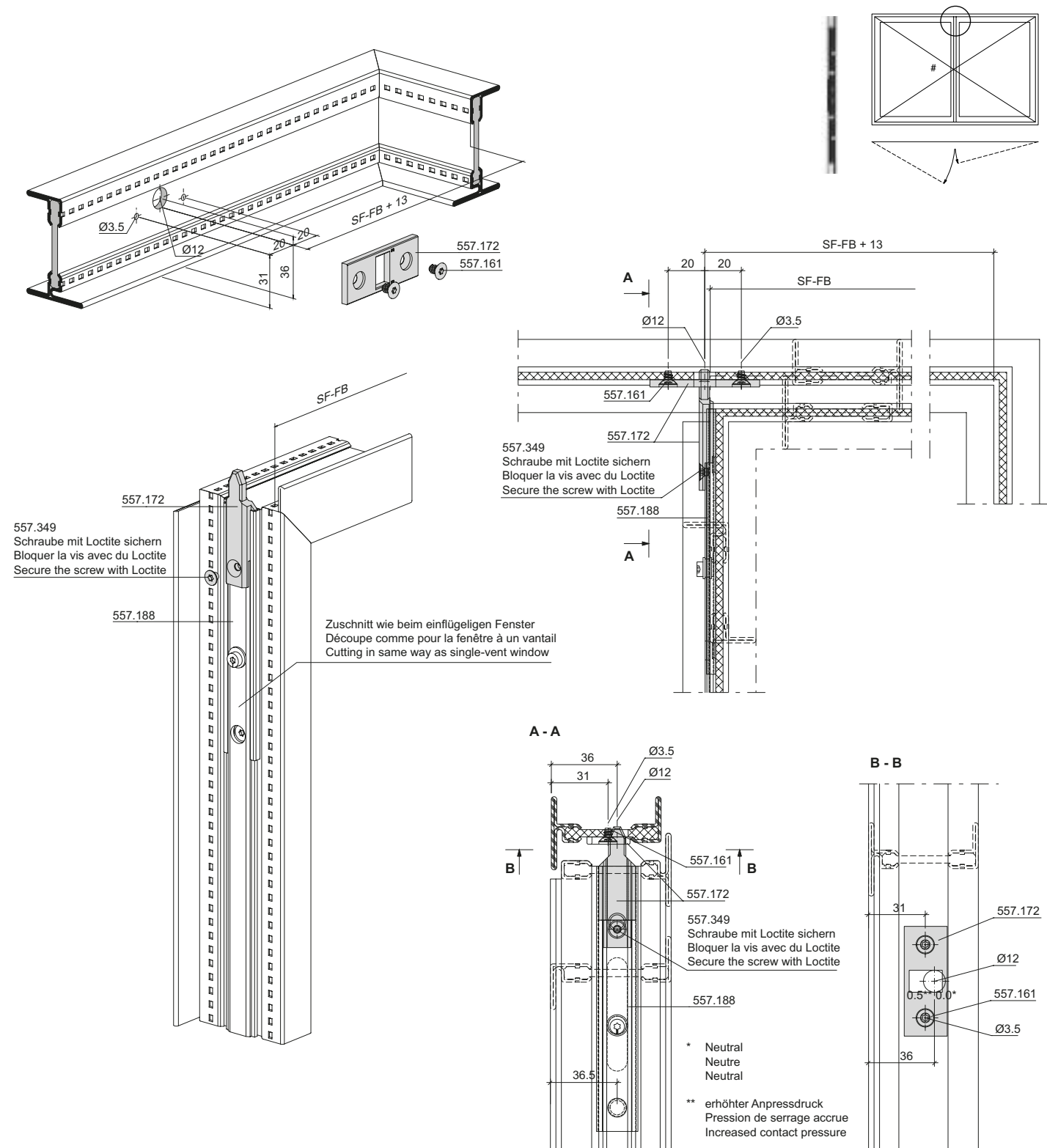
* Neutral
 Neutre
 Neutral

** Erhöhter Anpressdruck
 Pression de serrage accrue
 Increased contact pressure

Büchse oben
 zu Zusatzverriegelung 557.172

Coussinet en haut du verrouillage
 supplémentaire 557.172

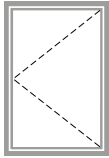
Top socket for
 additional lock 557.172



Beschlageinbau
Montage des ferrures
Installation of fittings

Janisol Arte
Janisol Arte
Janisol Arte

2.0



**Drehfenster
nach innen öffnend**

**Fenêtre à la française
ouvrant vers l'intérieur**

**Side-hung window
inward opening**

Zuschnitt Getriebeverlängerung
Bohrbild Getriebeverlängerung
und Schliessbleche

Découpe prolongement de la crémonne
Schéma de perçage prolongement
de la crémonne et gâches

Cutting gearbox extension
Drilling pattern gearbox extension
and striking plates

192

Bohrlehre 499.436 für Getriebe 557.187
und Fenstergriff 557.185

Gabarit de perçage 499.436 pour crémonne 557.187
et poignée de fenêtre 557.185

Drilling jig 499.436 for mechanism 557.187
and window handle 557.185

196

Bohrlehre 499.436 für
Getriebeverlängerung 557.188

Gabarit de perçage 499.436 pour
prolongement de la crémonne 557.188

Drilling jig 499.436 for
gearbox extension 557.188

198

Bohrlehre 499.436 für
Schliessbleche 557.189

Gabarit de perçage 499.436
pour gâches 557.189

Drilling jig 499.436 for
striking plates 557.189

200

Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 370-669

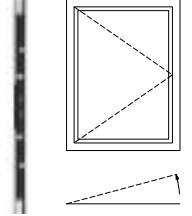
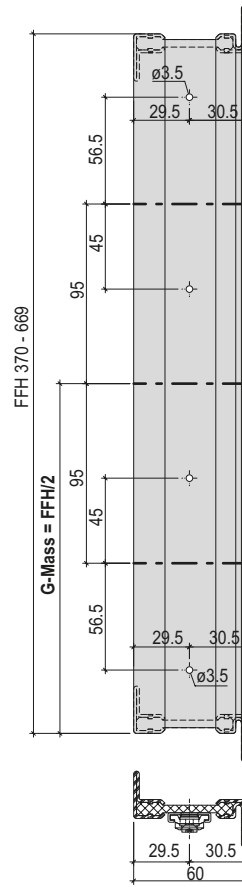
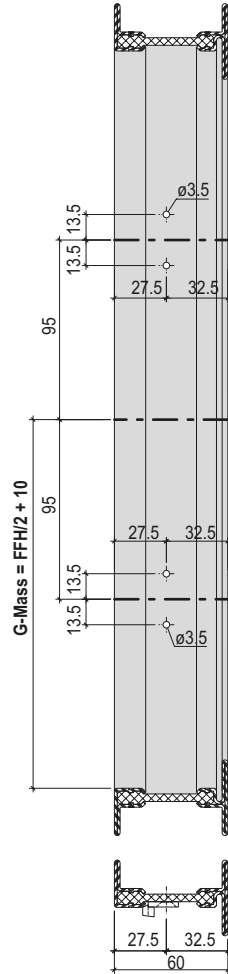
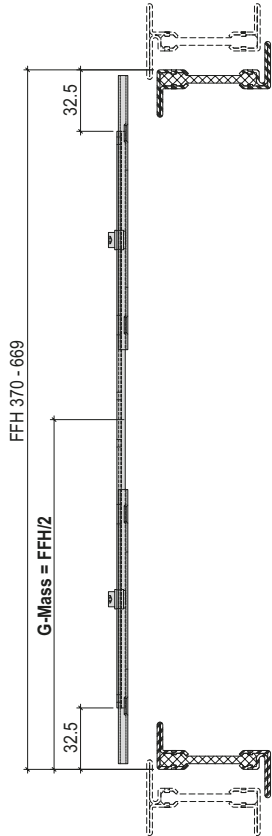
Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 370-669

Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 370-669

Zuschnitt/Découpe/Cutting

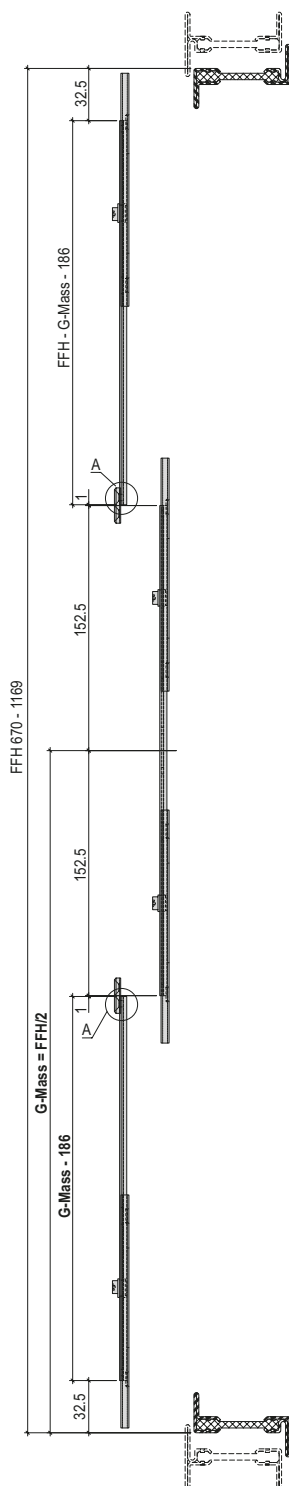
Rahmen/Cadre/Frame

Flügel/Vantail/Sash



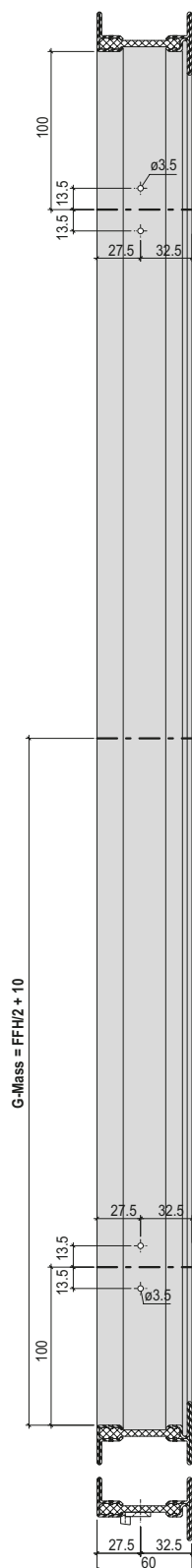
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 670-1169

Zuschnitt/Découpe/Cutting



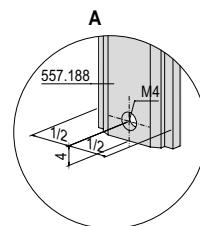
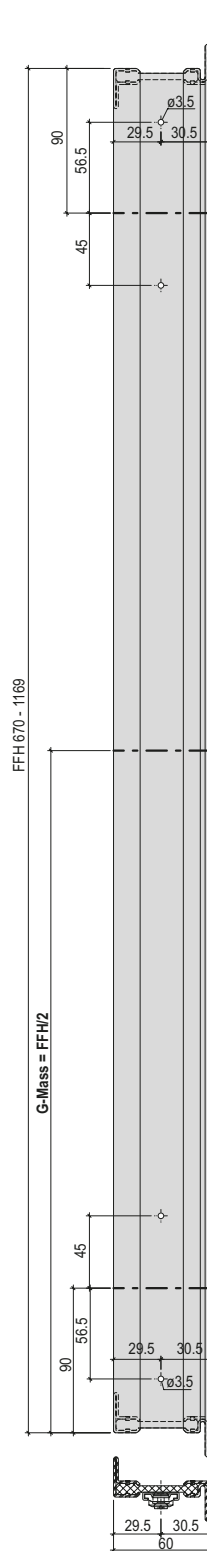
Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 670-1169

Rahmen/Cadre/Frame



Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 670-1169

Flügel/Vantail/Sash

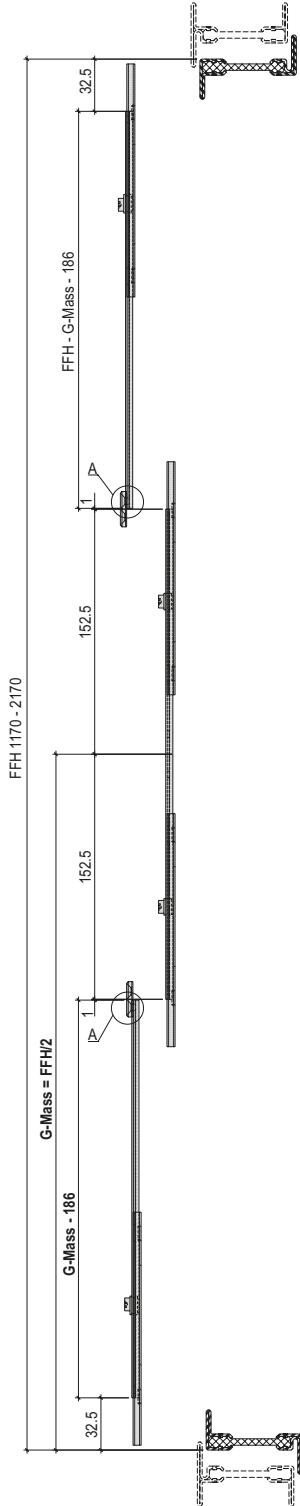


Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessebleche
 FFH 1170-2170

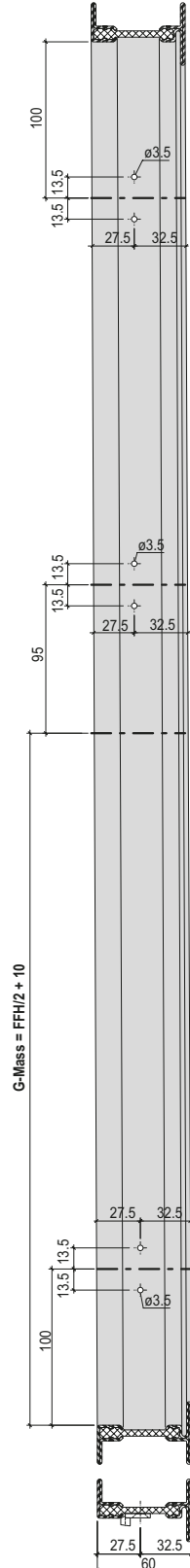
Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 1170-2170

Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 1170-2170

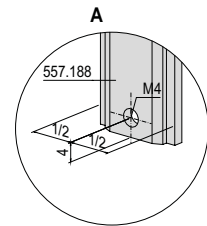
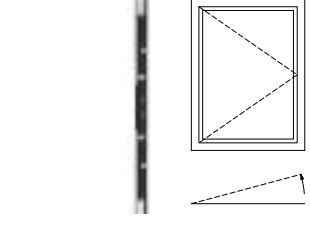
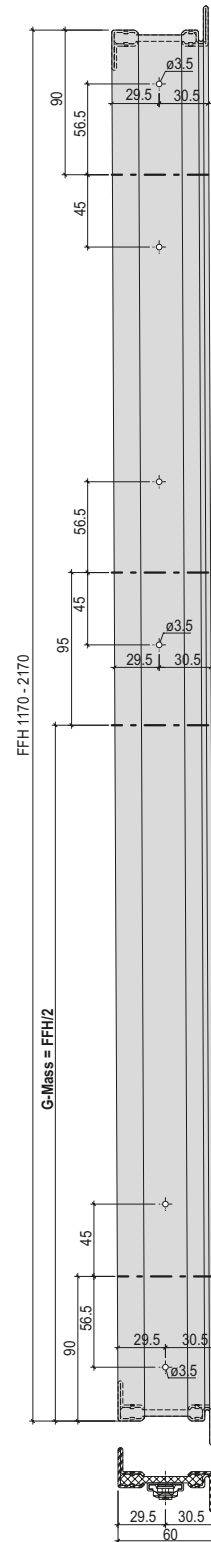
Zuschnitt/Découpe/Cutting



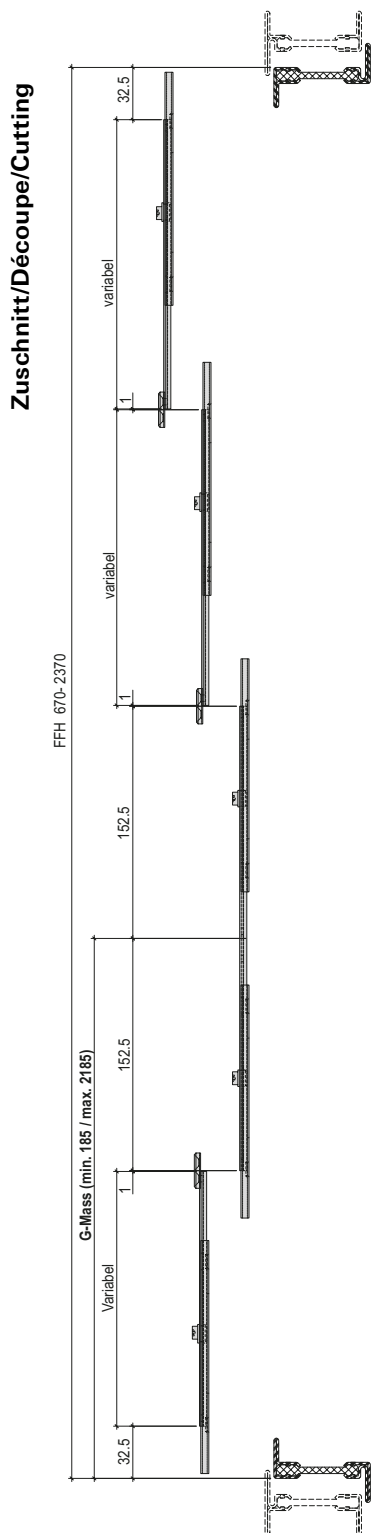
Rahmen/Cadre/Frame



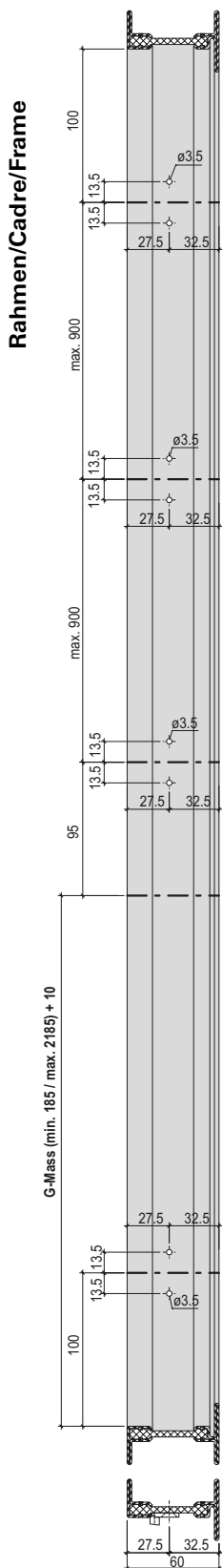
Flügel/Vantail/Sash



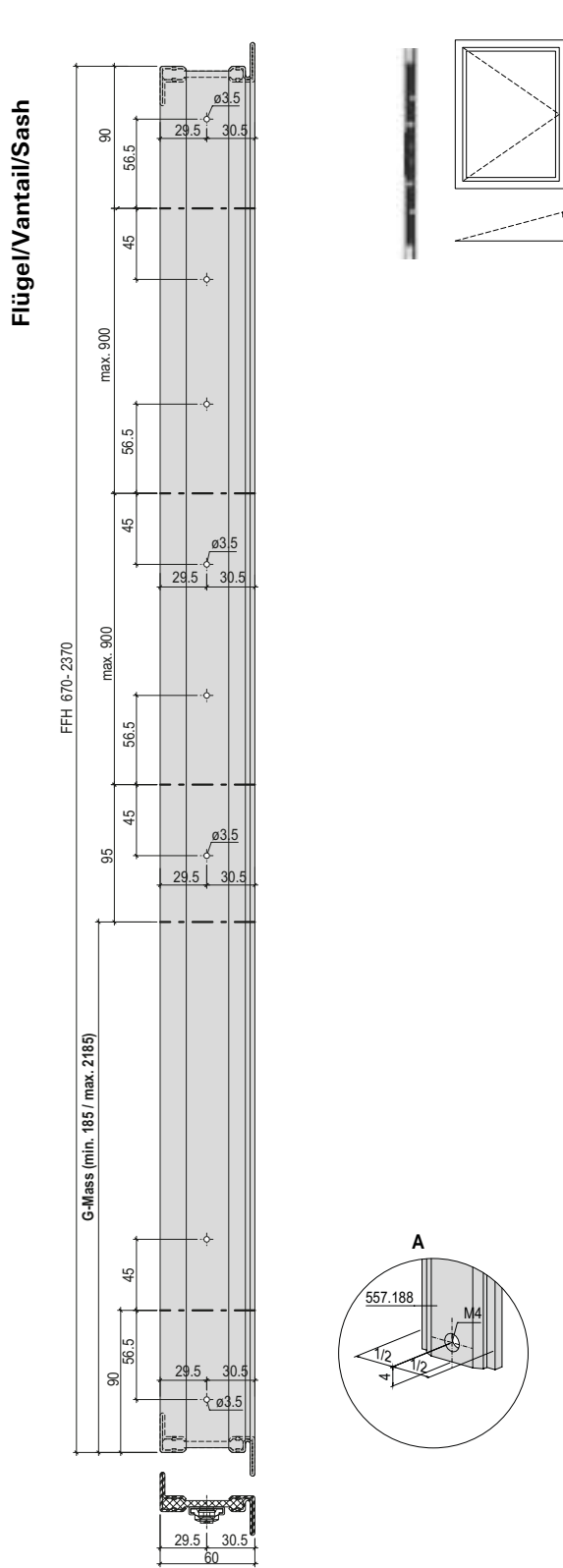
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 670-2370



Découpe prolongement de la créme
 Schéma de perçage prolongement
 de la créme et gâches
 FFH 670-2370



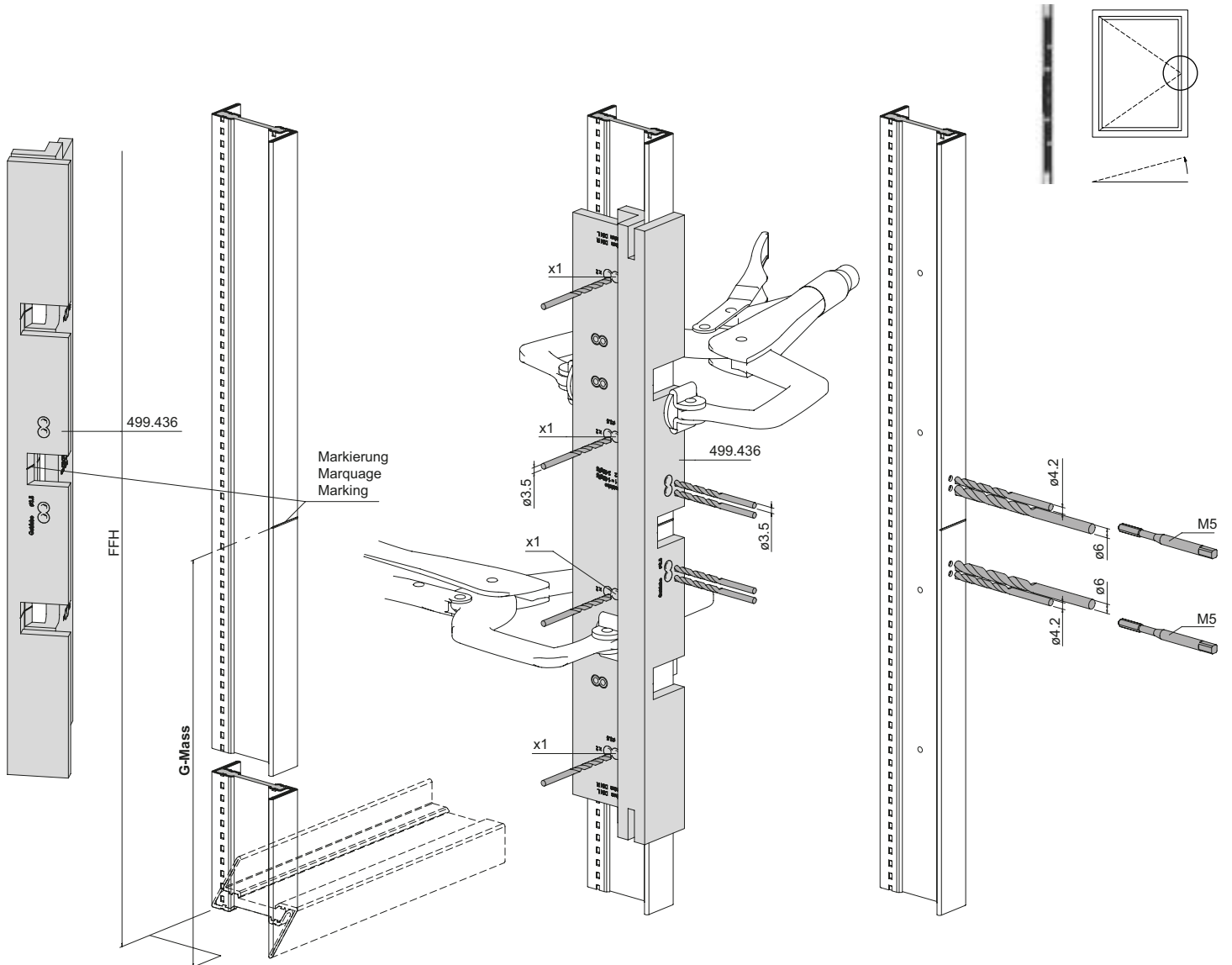
Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 670-2370



Bohrlehre 499.436 für
 Getriebe 557.187 und
 Fenstergriff 557.185
 Flügel

Gabarit de perçage 499.436 pour
 crémonne 557.187 et poignée de
 fenêtre 557.185
 Vantail

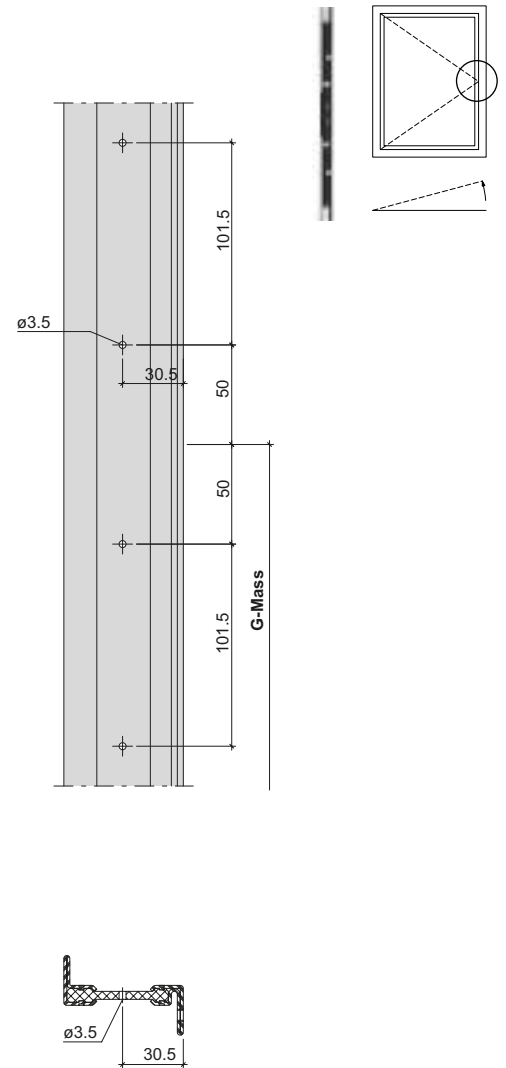
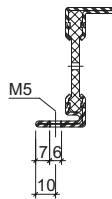
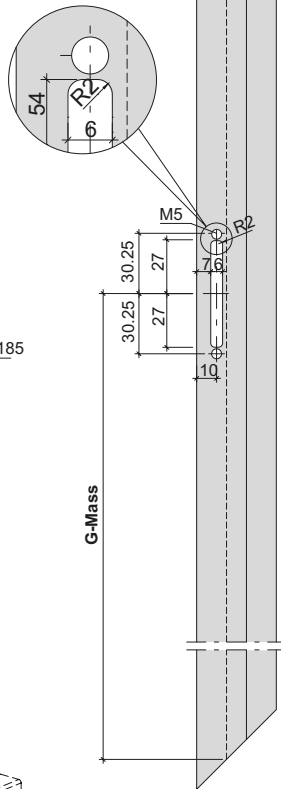
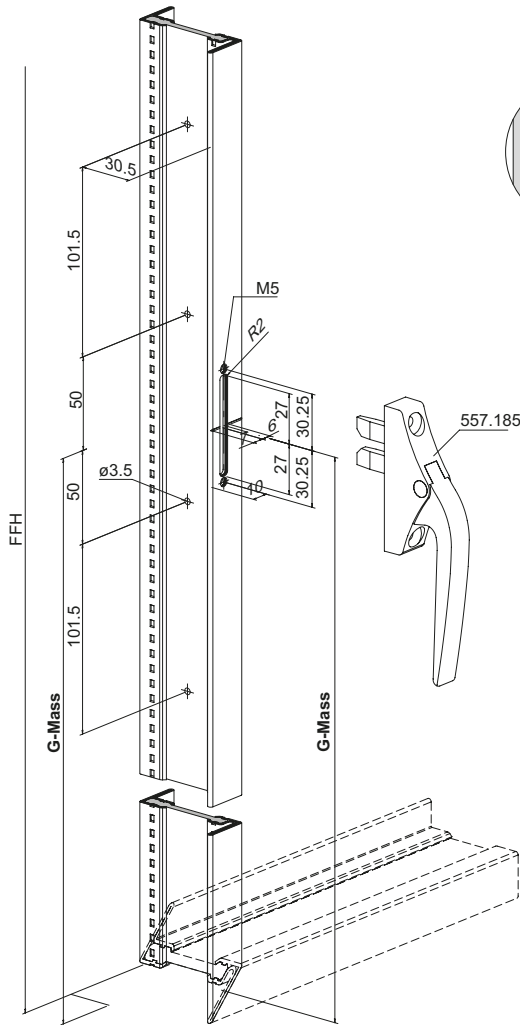
Drilling jig 499.436 for
 mechanism 557.187 and
 window handle 557.185
 Sash



Bohrbild und Fräsung
 Getriebe 557.187 und
 Fenstergriff 557.185
 Flügel

Schéma de perçage et fraisage
 Crémone 557.187 et poignée de
 fenêtre 557.185
 Vantail

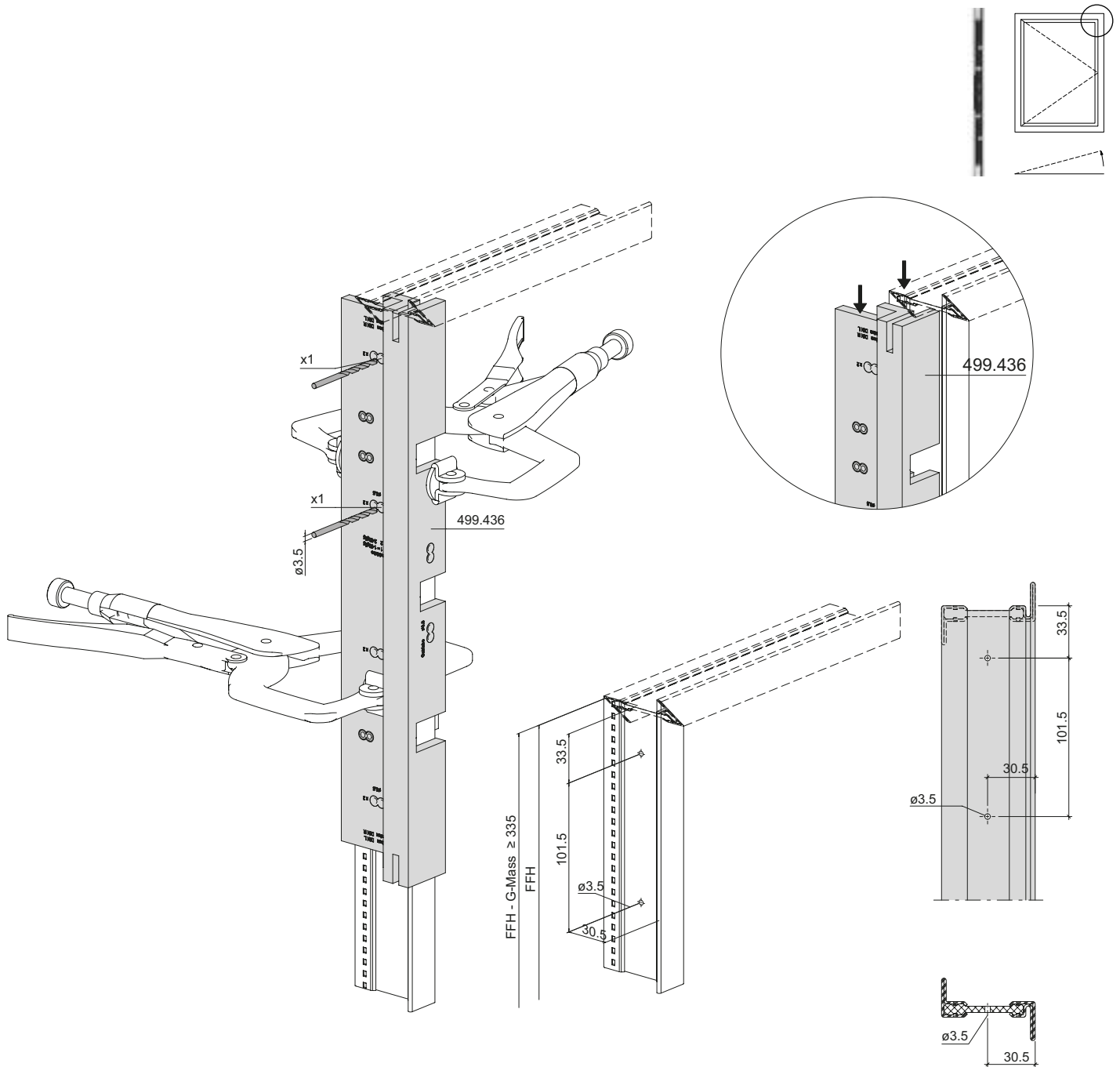
Drilling pattern and milling
 Mechanisme 557.187 and
 window handle 557.185
 Sash



Bohrlehre 499.436 für
Getriebeverlängerung 557.188
Flügel oben

Gabarit de perçage 499.436 pour
prolongement de la crémonne
557.188 Vantail en haut

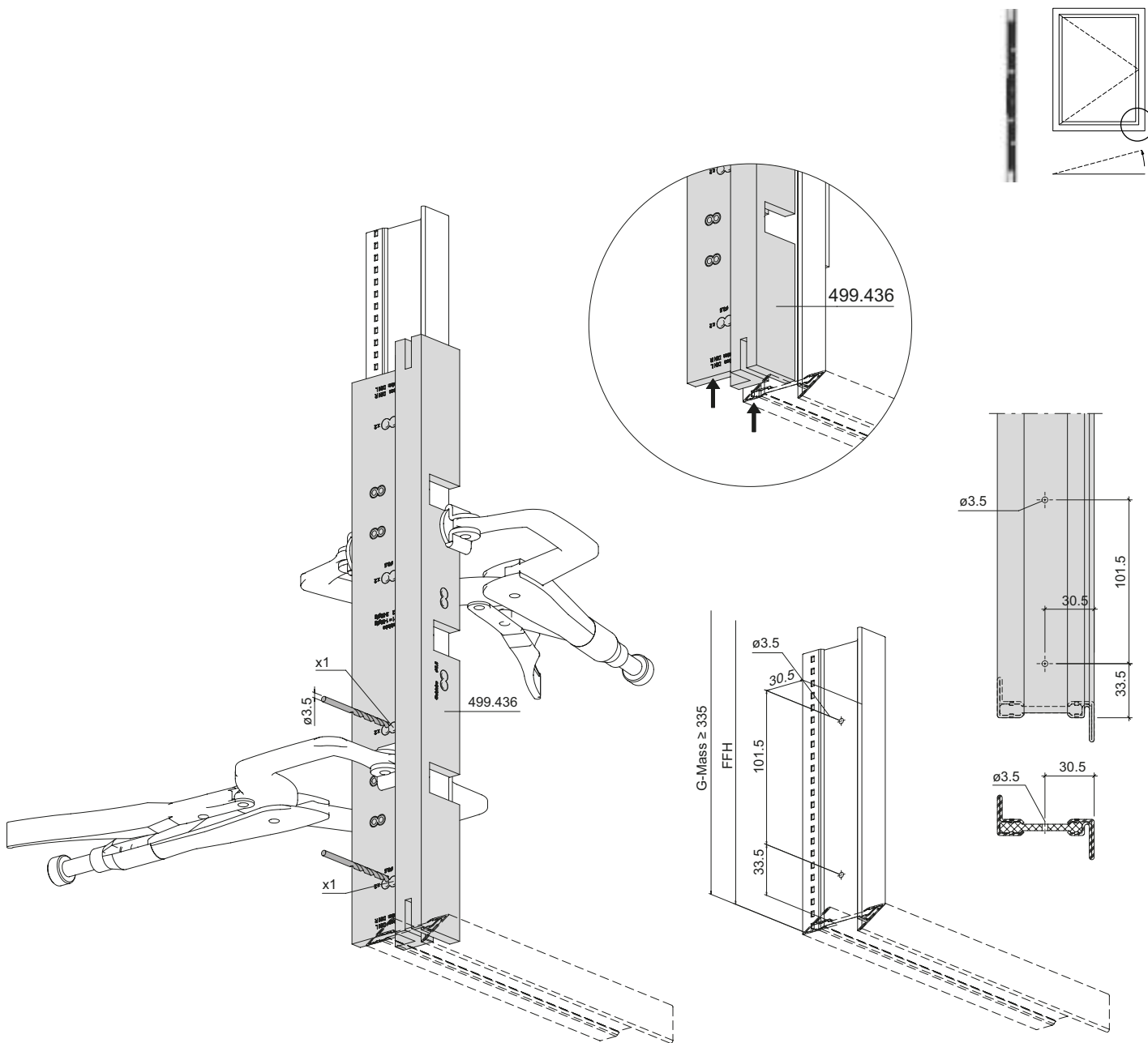
Drilling jig 499.436 for
gearbox extension 557.188
Sash top



Bohrlehre 499.436 für
 Getriebeverlängerung 557.188
 Flügel unten

Gabarit de perçage 499.436 pour
 prolongement de la crémonne
 557.188 Vantail en bas

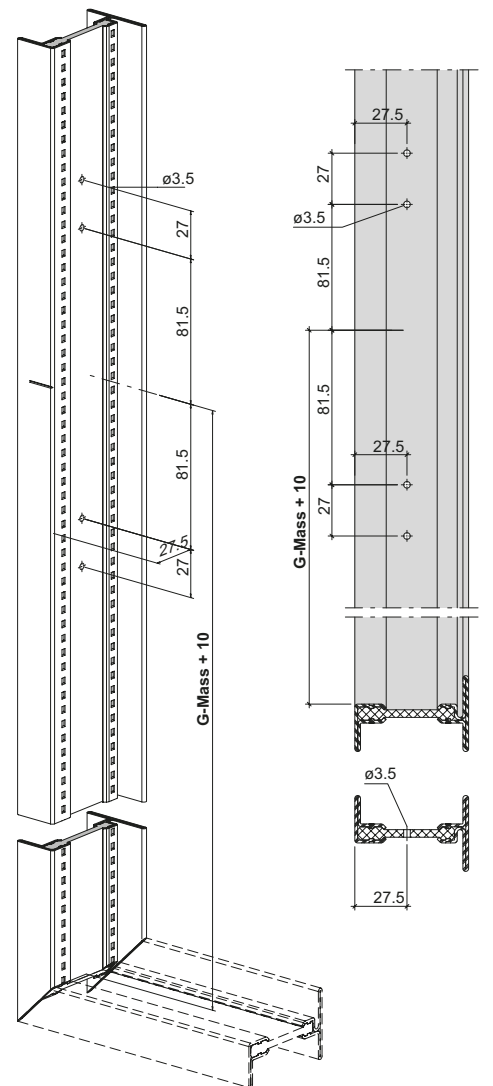
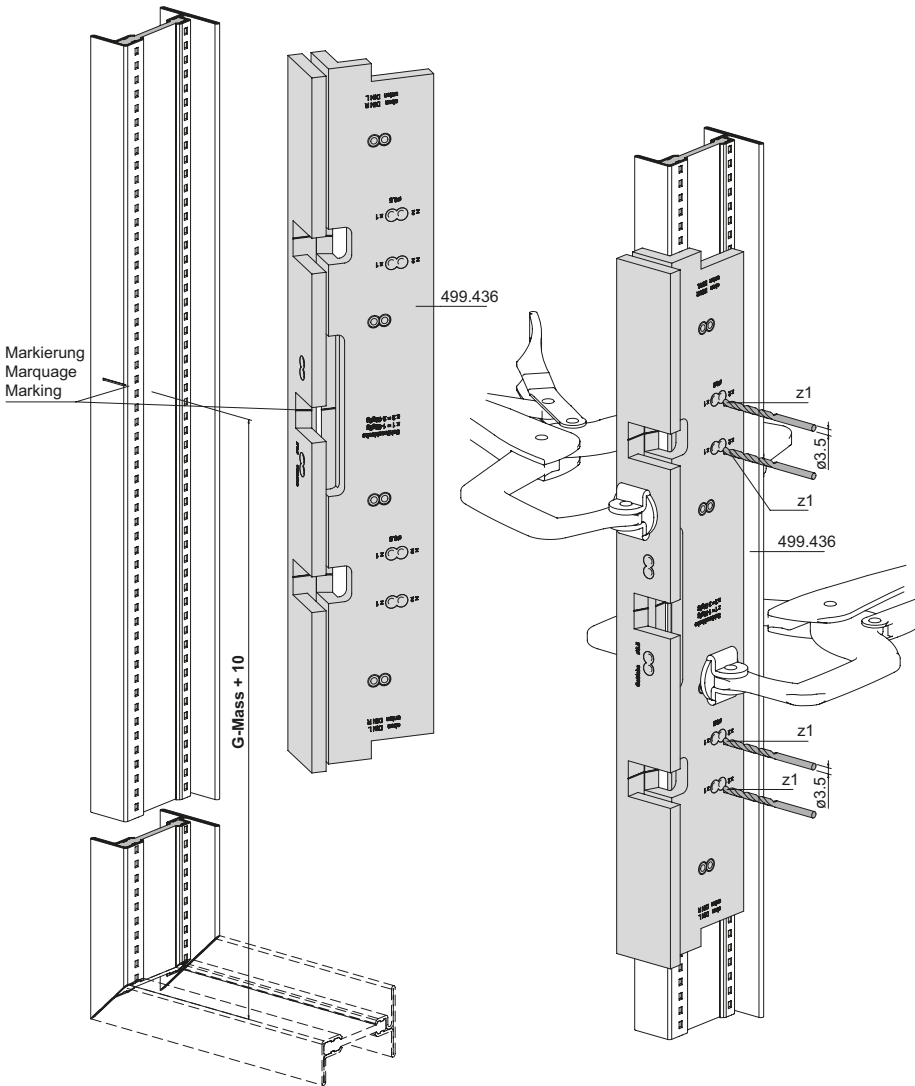
Drilling jig 499.436 for
 gearbox extension 557.188
 Sash bottom



Bohrlehre 499.436 für
 Schliessblech 557.189 beim
 Getriebe 557.187
 Rahmen

Gabarit de perçage 499.436
 pour gâche 557.189 pour
 crémonne 557.187
 Cadre

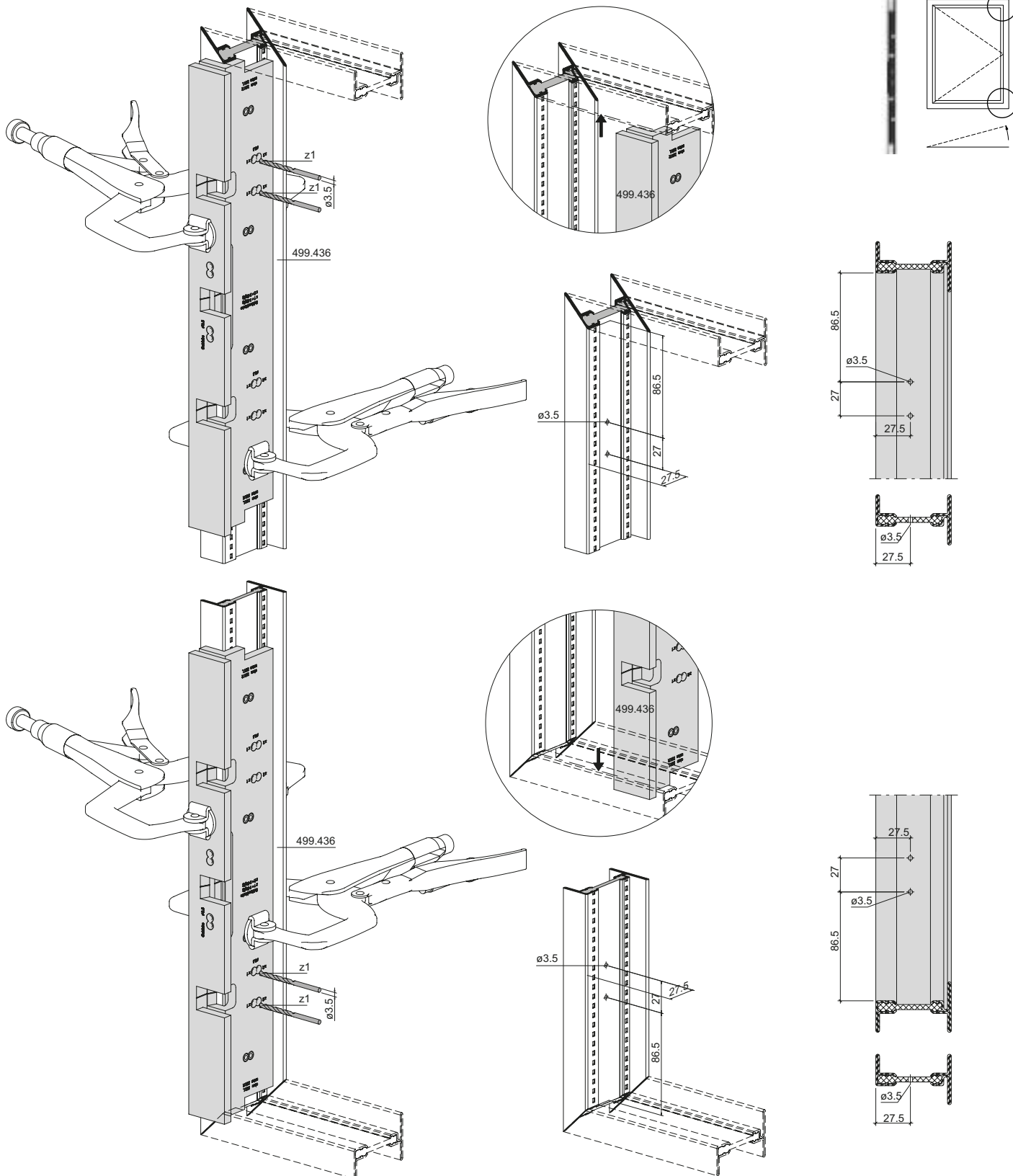
Drilling jig 499.436 for
 striking plate 557.189
 for mechanism 557.187
 Frame



Bohrlehre 499.436 für
 Schliessbleche 557.189
 Rahmen oben und unten

Gabarit de perçage 499.436 pour
 gâches 557.189
 Cadre en haut et en bas

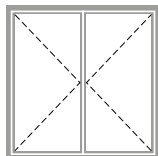
Drilling jig 499.436 for
 striking plates 557.189
 Frame top and bottom



Beschlageinbau
Montage des ferrures
Installation of fittings

Janisol Arte
Janisol Arte
Janisol Arte

2.0



**Drehfenster
nach innen öffnend**

**Fenêtre à la française
ouvrant vers l'intérieur**

**Side-hung window
inward opening**

Zuschnitt Getriebeverlängerung
Bohrbild Getriebeverlängerung
und Schliessbleche

Découpe prolongement de la crémonne
Schéma de perçage prolongement
de la crémonne et gâches

Cutting gearbox extension
Drilling pattern gearbox extension
and striking plates

204

Bohrlehre 499.436 für Getriebe 557.187
und Fenstergriff 557.185

Gabarit de perçage 499.436 pour crémonne 557.187
et poignée de fenêtre 557.185

Drilling jig 499.436 for mechanism 557.187
and window handle 557.185

208

Bohrlehre 499.436 für
Getriebeverlängerung 557.188

Gabarit de perçage 499.436 pour
prolongement de la crémonne 557.188

Drilling jig 499.436 for
gearbox extension 557.188

210

Bohrlehre 499.436 für
Schliessbleche 557.189

Gabarit de perçage 499.436
pour gâches 557.189

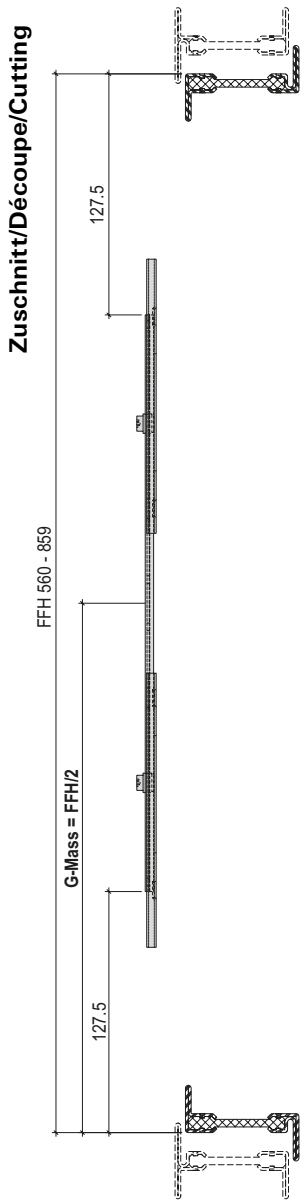
Drilling jig 499.436 for
striking plates 557.189

212

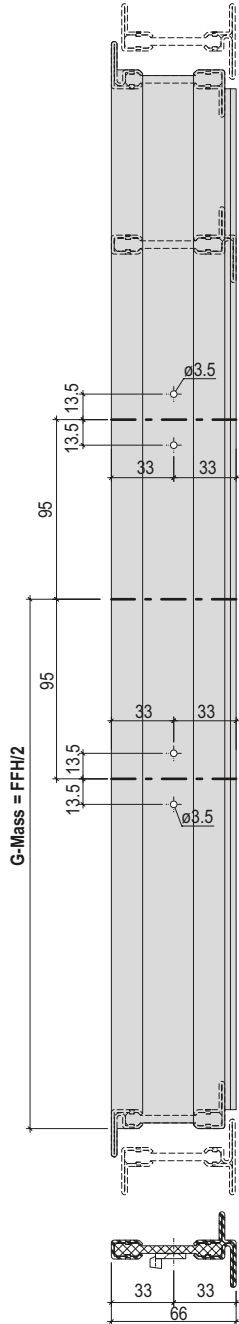
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 560-859

Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 560-859

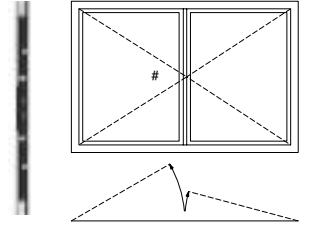
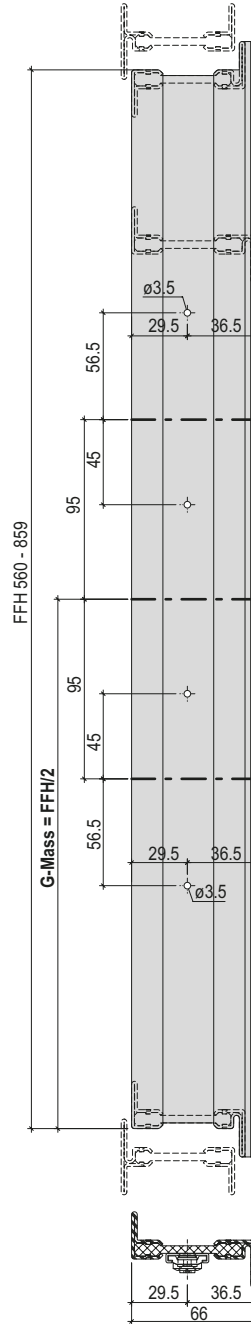
Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 560-859



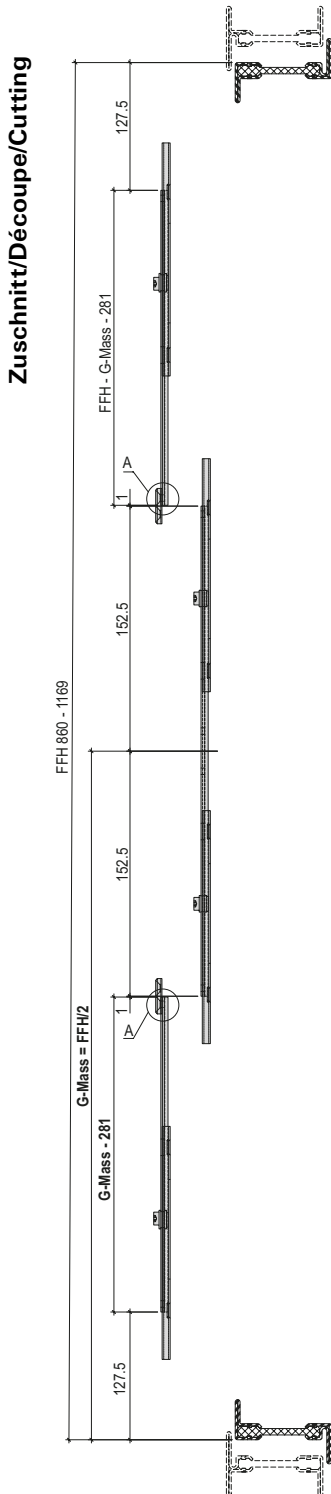
Standflügel/Vantail semi-fixe/Secondary sash



Gangflügel/Vantail de service/Access sash

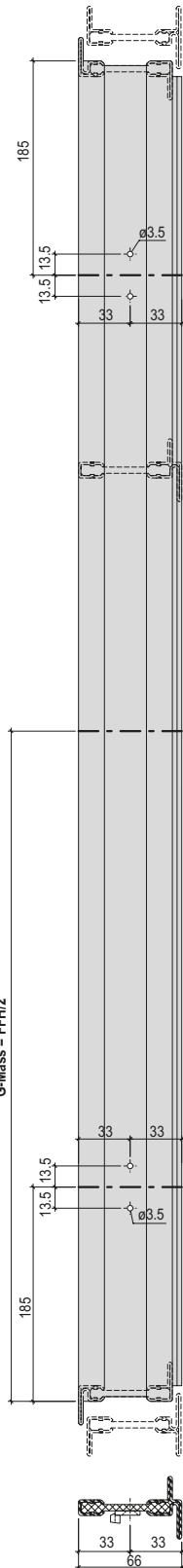


Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 860-1169



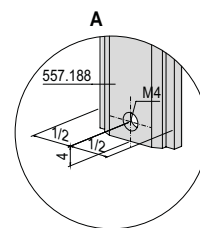
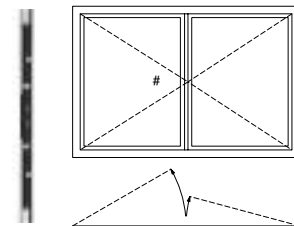
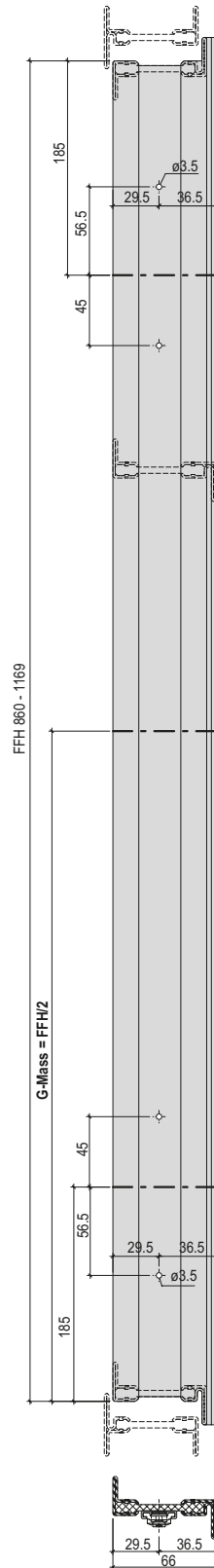
Découpe prolongement de la crémore
 Schéma de perçage prolongement
 de la crémore et gâches
 FFH 860-1169

Standflügel/Vantail semi-fixe/Secondary sash



Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 860-1169

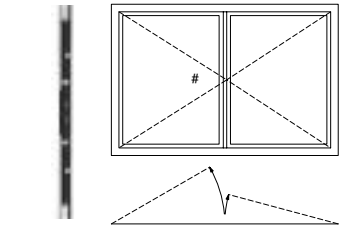
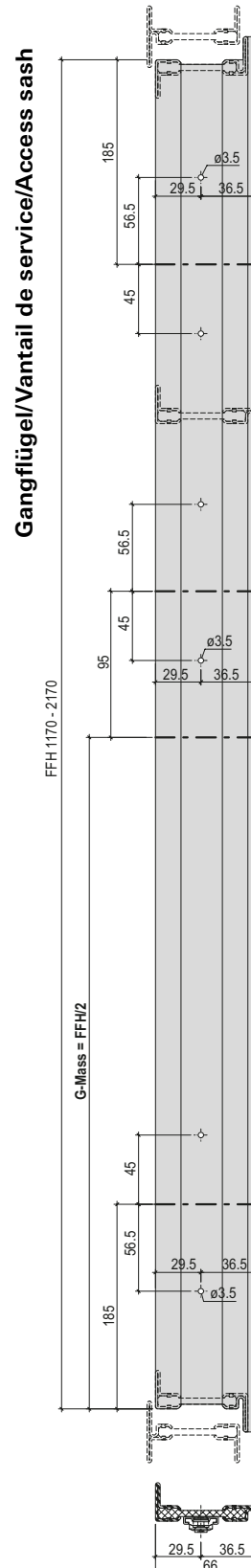
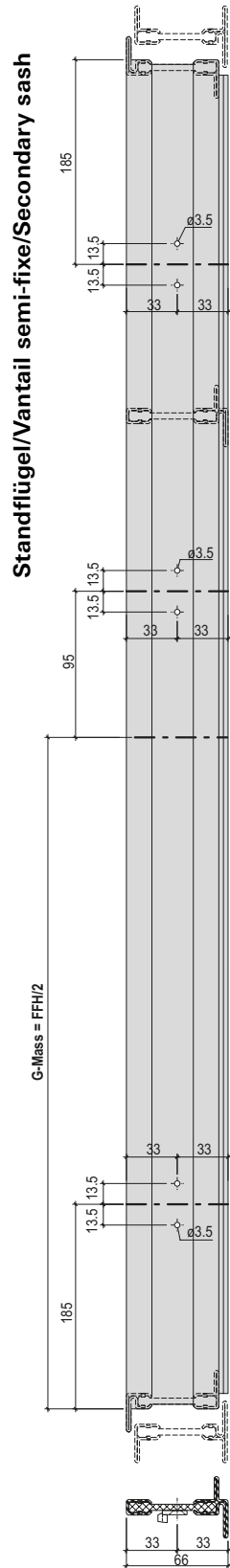
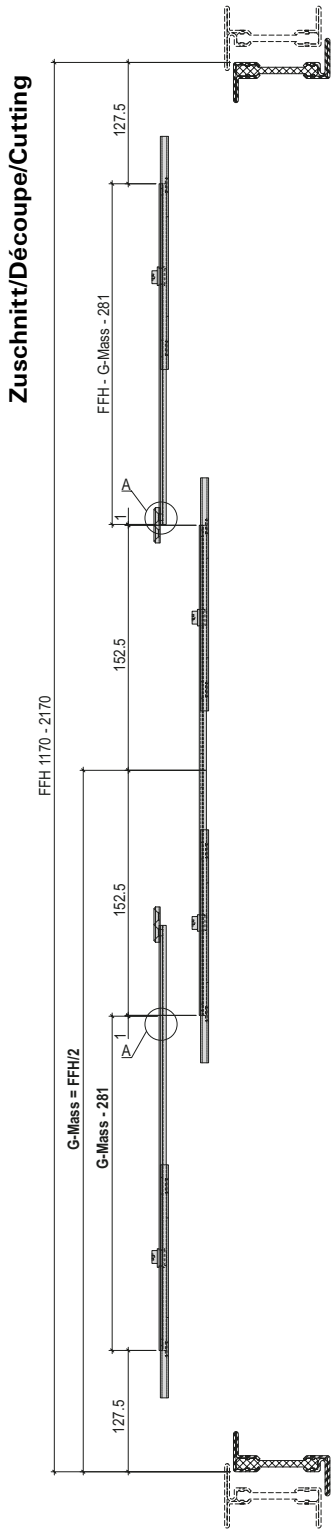
Gangflügel/Vantail de service/Access sash



Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessebleche
 FFH 1170-2170

Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 1170-2170

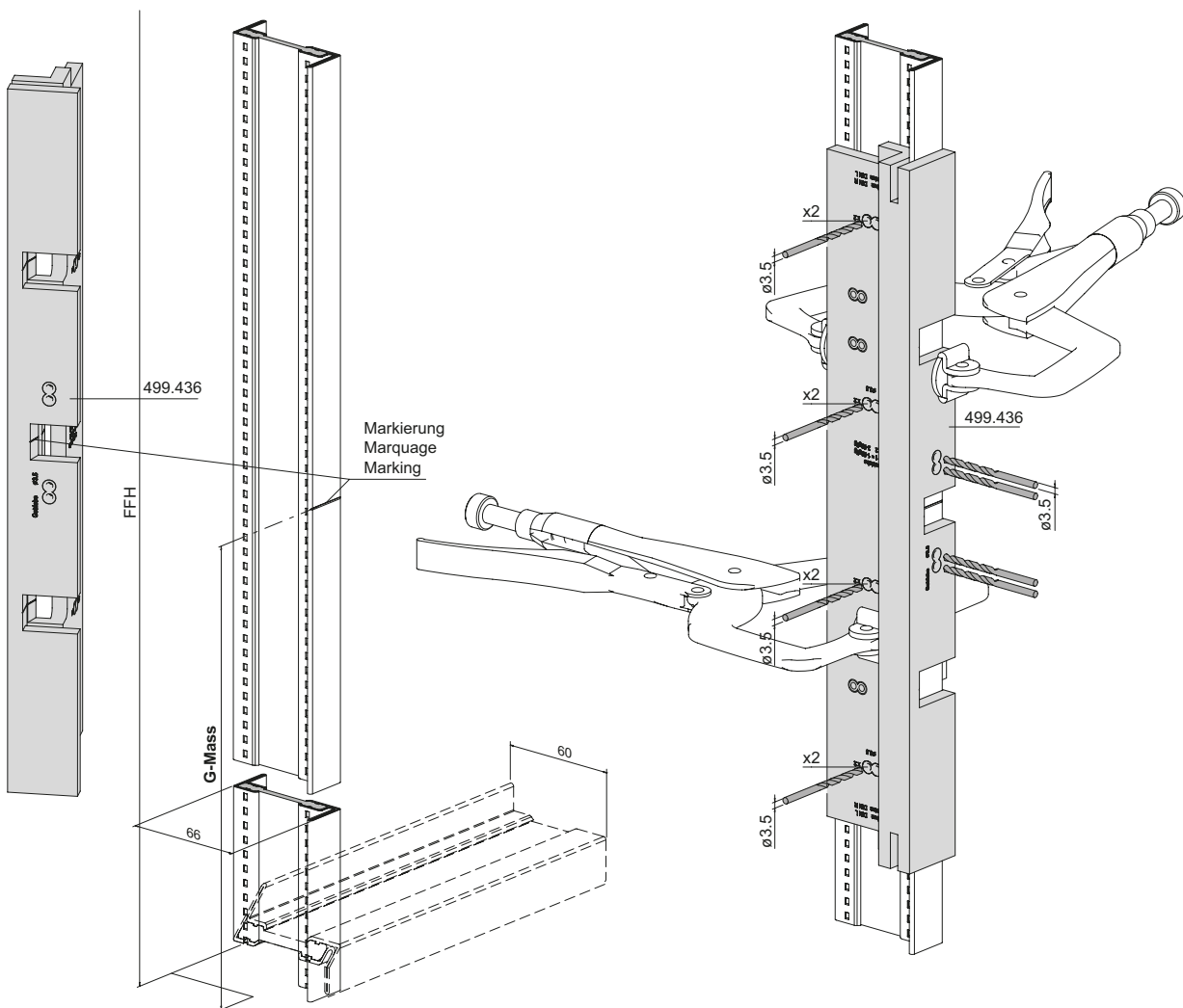
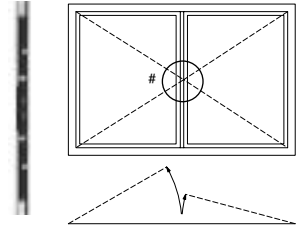
Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 1170-2170



Bohrlehre 499.436 für
 Getriebe 557.187
 und Fenstergriff 557.185
 Gangflügel

Gabarit de perçage 499.436
 pour crémonne 557.187
 et poignée de fenêtre 557.185
 Vantail de service

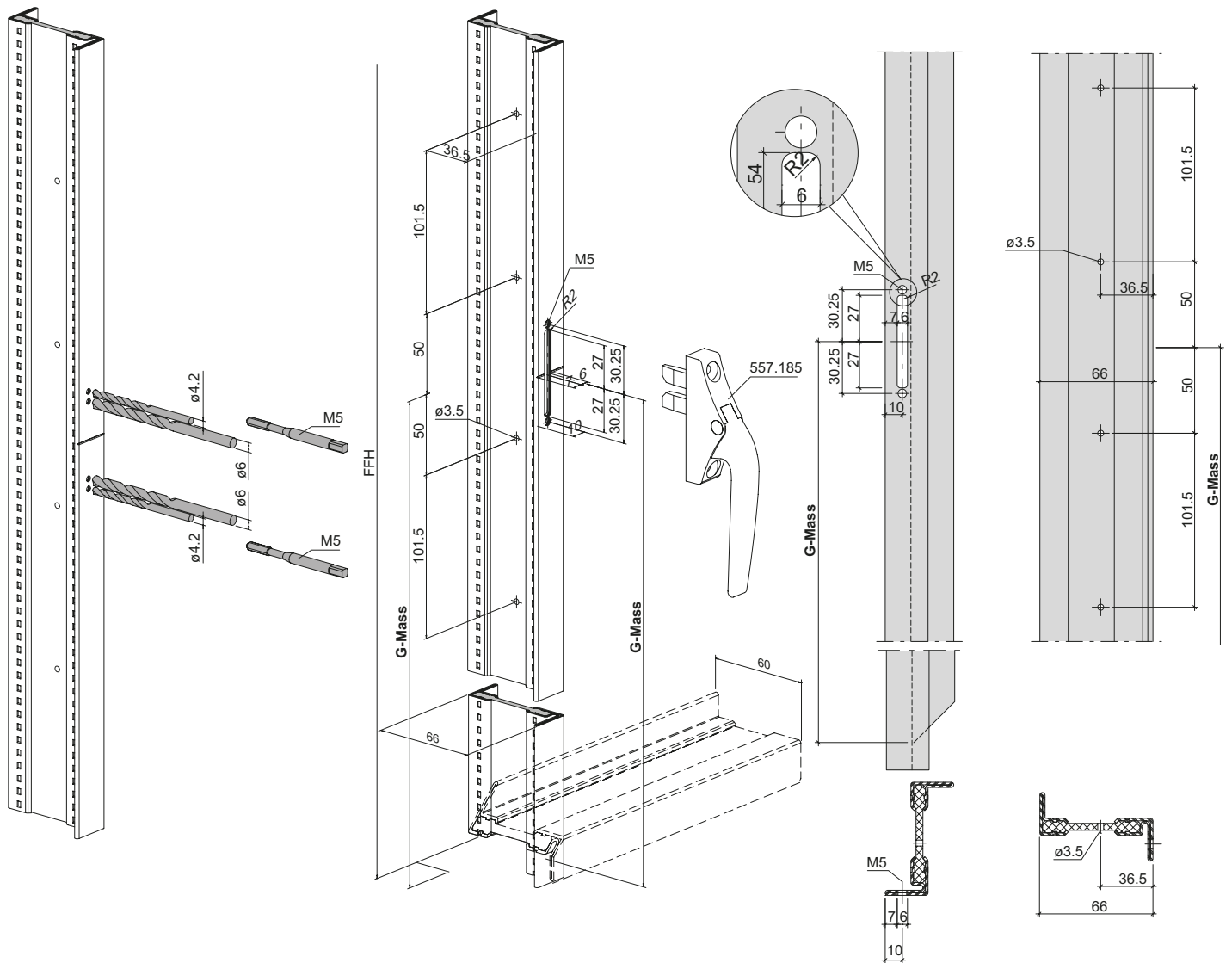
Drilling jig 499.436 for
 mechanism 557.187
 and window handle 557.185
 Access sash



Bohrbild und Fräsung
 für Getriebe 557.187
 und Fenstergriff 557.185
 Gangflügel

Schéma de perçage et fraisage
 pour crémonne 557.187
 et poignée de fenêtre 557.185
 Vantail de service

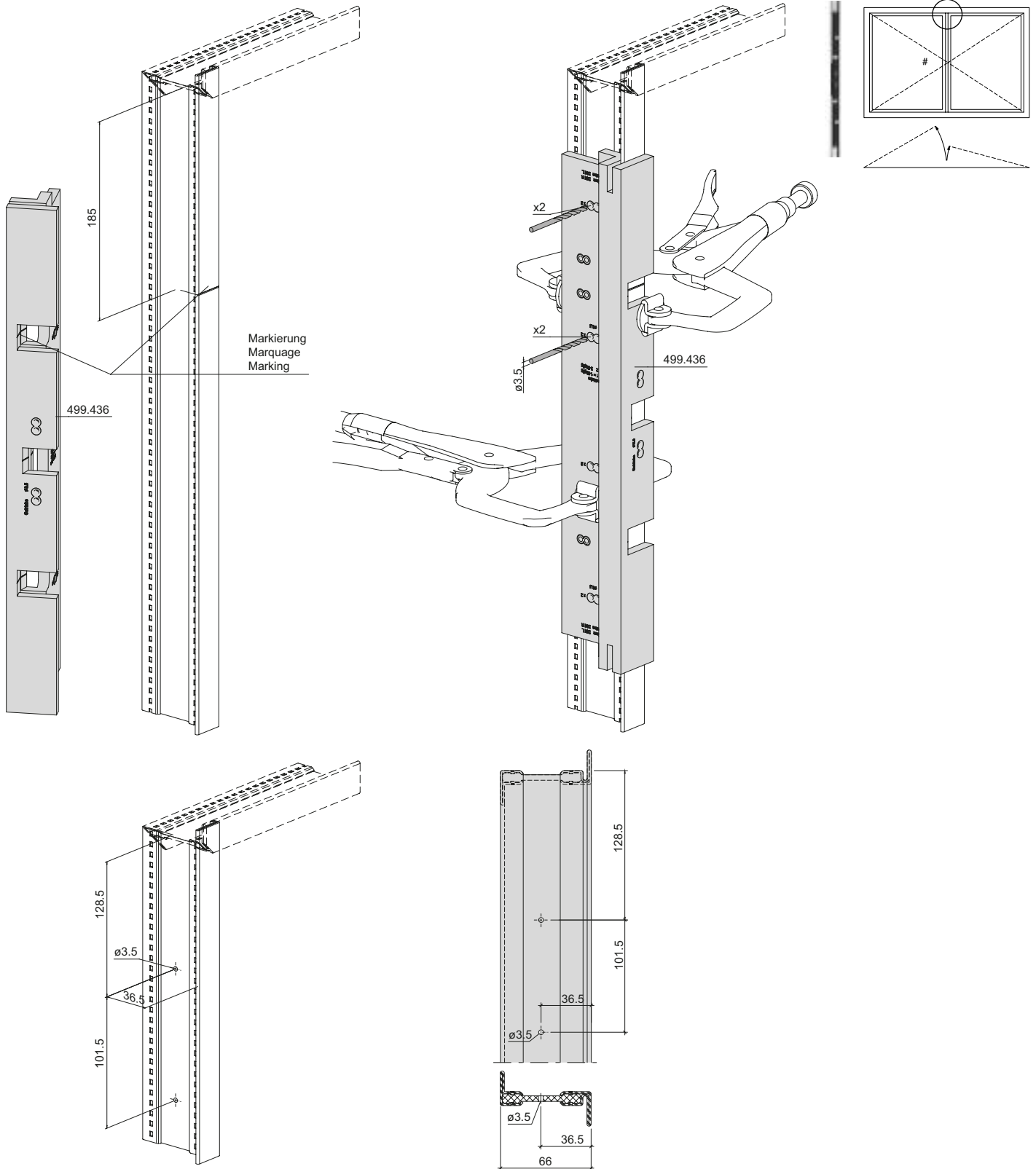
Drilling pattern and milling
 for mechanism 557.187
 and window handle 557.185
 Access sash



Bohrlehre 499.436 für
 Getriebeverlängerung 557.188
 Gangflügel oben

Gabarit de perçage 499.436 pour
 prolongement de la créme
 557.188 Vantail de service en haut

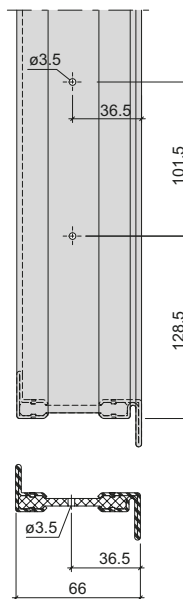
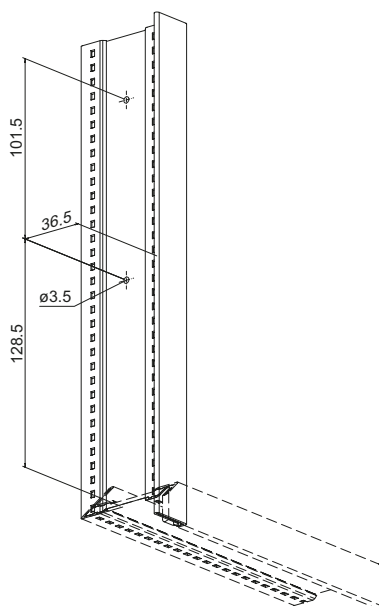
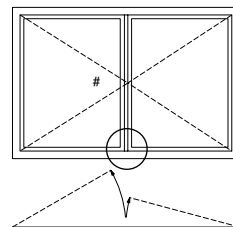
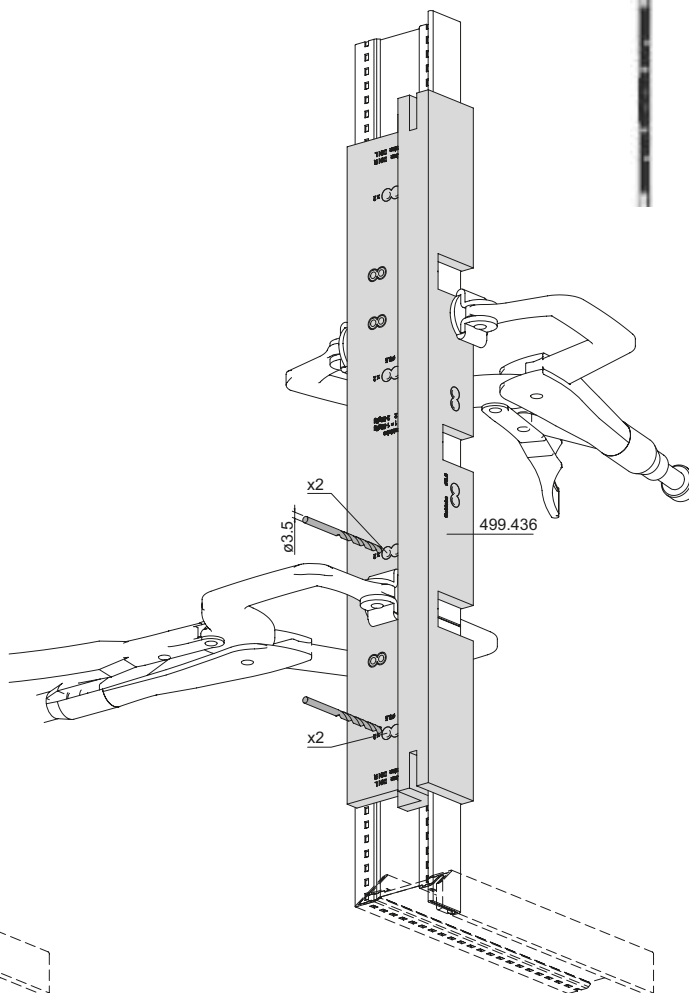
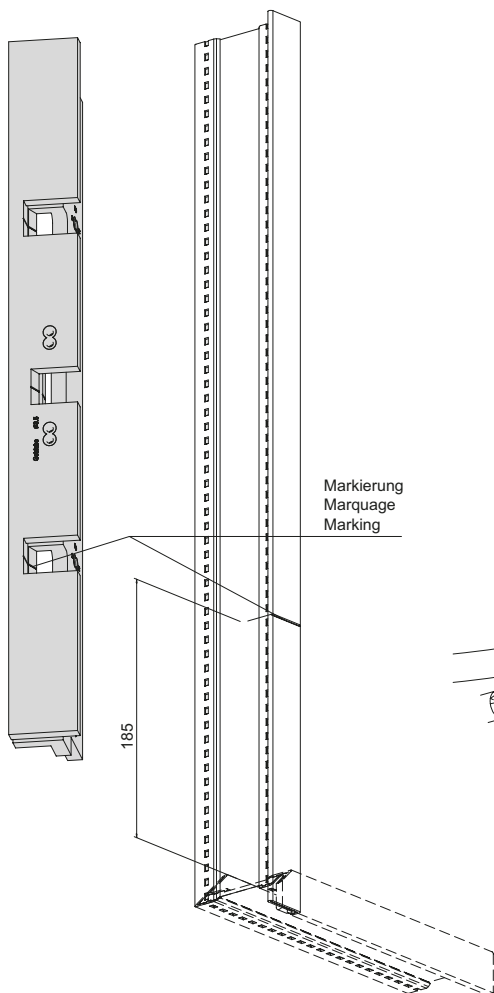
Drilling jig 499.436 for
 gearbox extension 557.188
 Access sash top



Bohrlehre 499.436 für
 Getriebeverlängerung 557.188
 Gangflügel unten

Gabarit de perçage 499.436 pour
 prolongement de la crémonne
 557.188 Vantail de service en bas

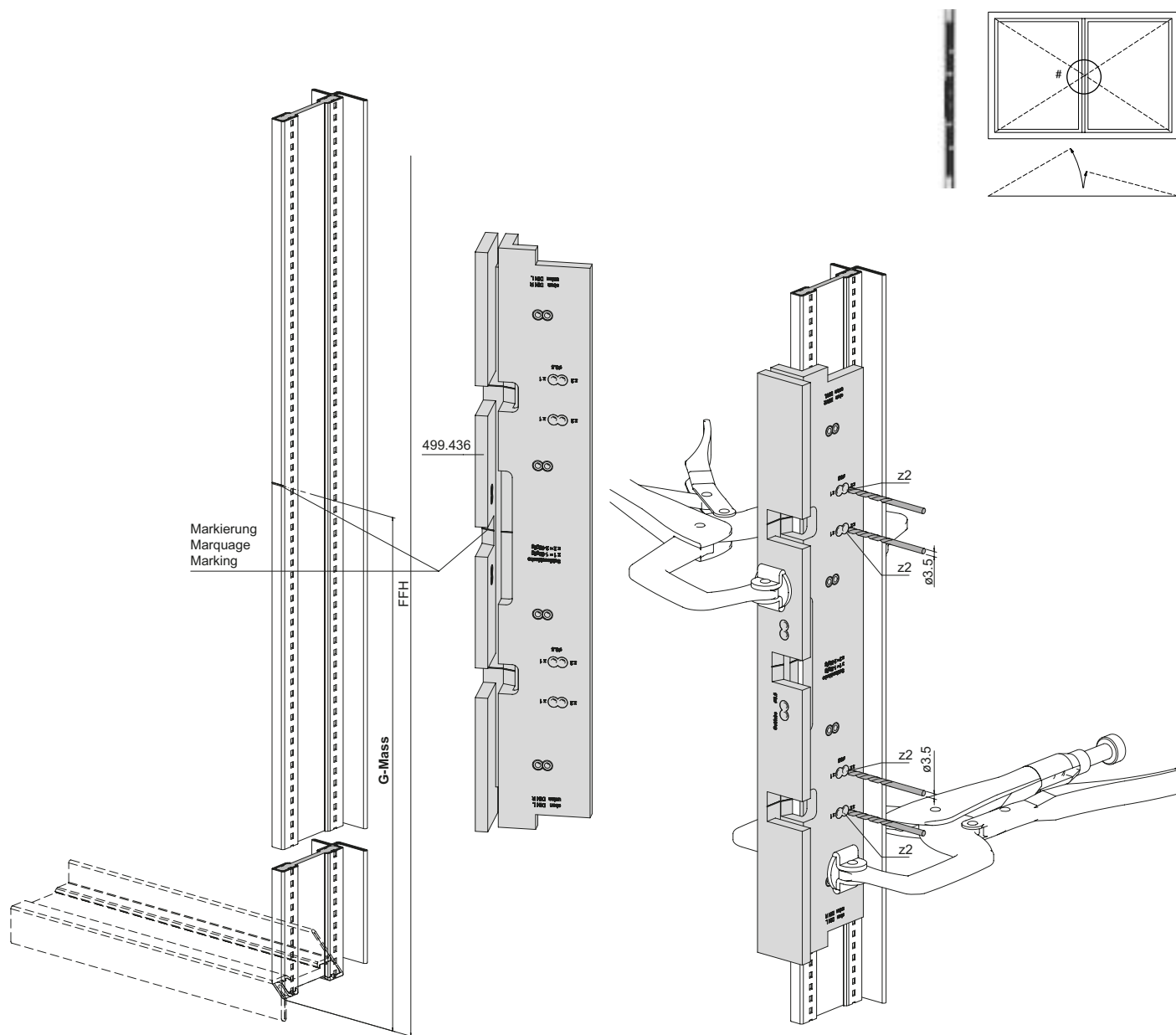
Drilling jig 499.436 for
 gearbox extension 557.188
 Access sash bottom



Bohrlehre 499.436 für Schliessblech
 557.189 beim Getriebe
 Standflügel

Gabarit de perçage 499.436 pour
 gâche 557.189 pour crémonne
 Vantail semi-fixe

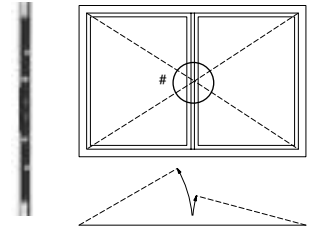
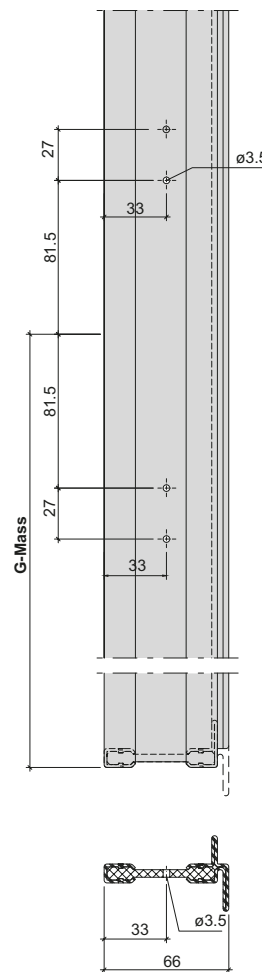
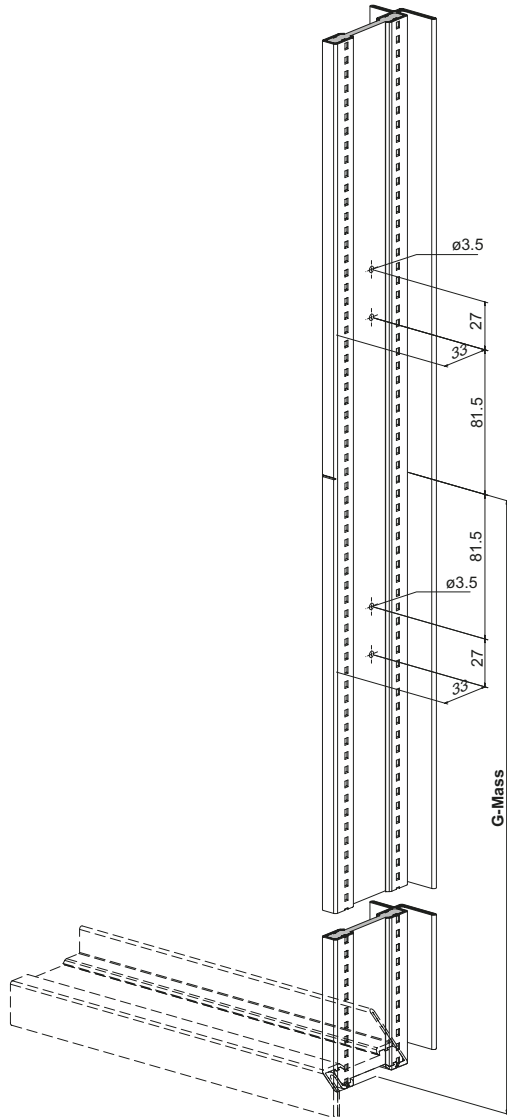
Drilling jig 499.436 for striking plate
 557.189 for mechanism
 Secondary sash



Bohrbild für Schliessblech 557.189
 beim Getriebe
 Standflügel

Schéma de perçage pour
 gâche 557.189 pour crémonne
 Vantail semi-fixe

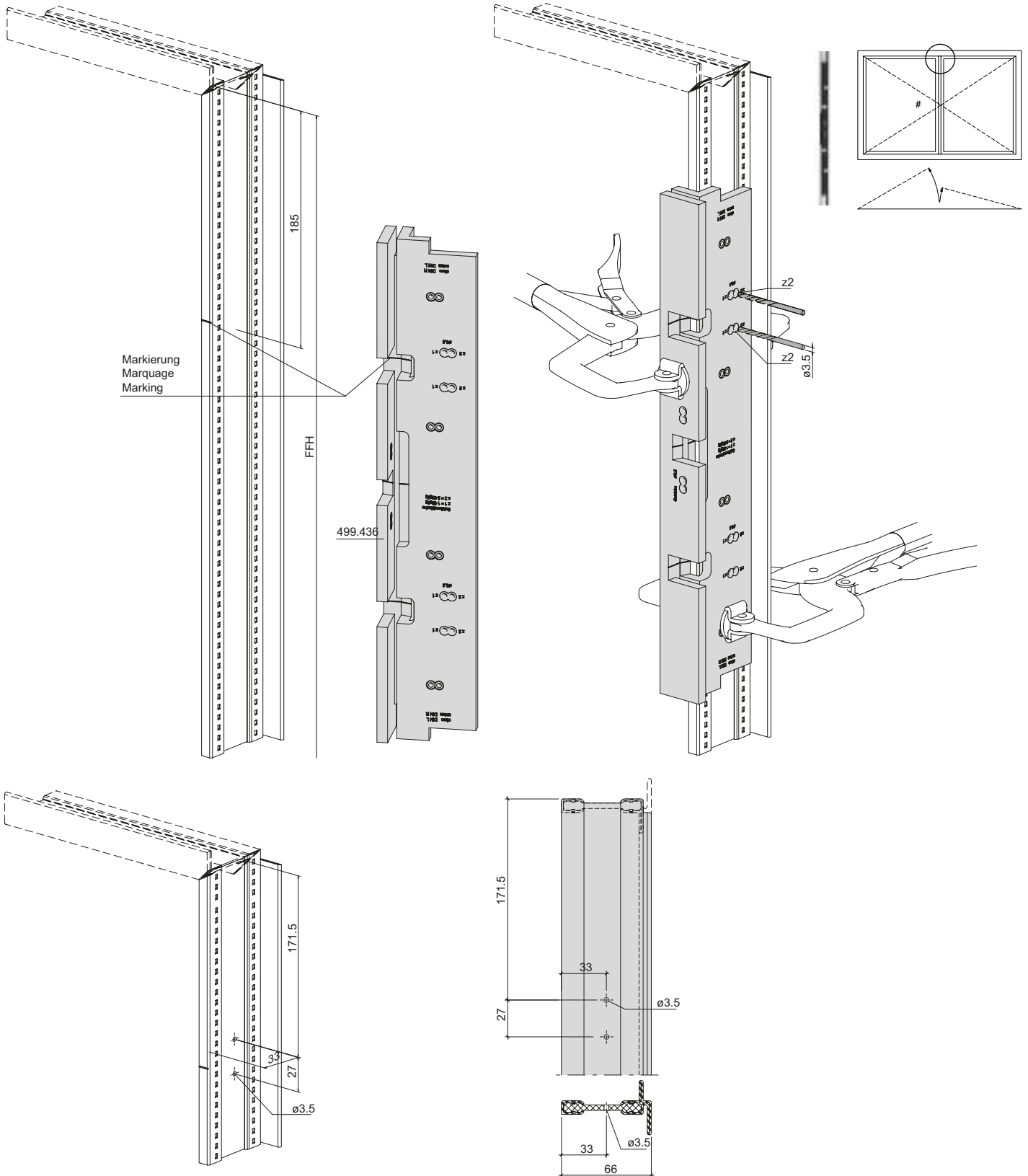
Drilling pattern for striking plate
 557.189 for mechanism
 Secondary sash



Bohrlehre 499.436 für
 Schliessbleche 557.189
 Standflügel oben

Gabarit de perçage 499.436
 pour gâche 557.189
 Vantail semi-fixe en haut

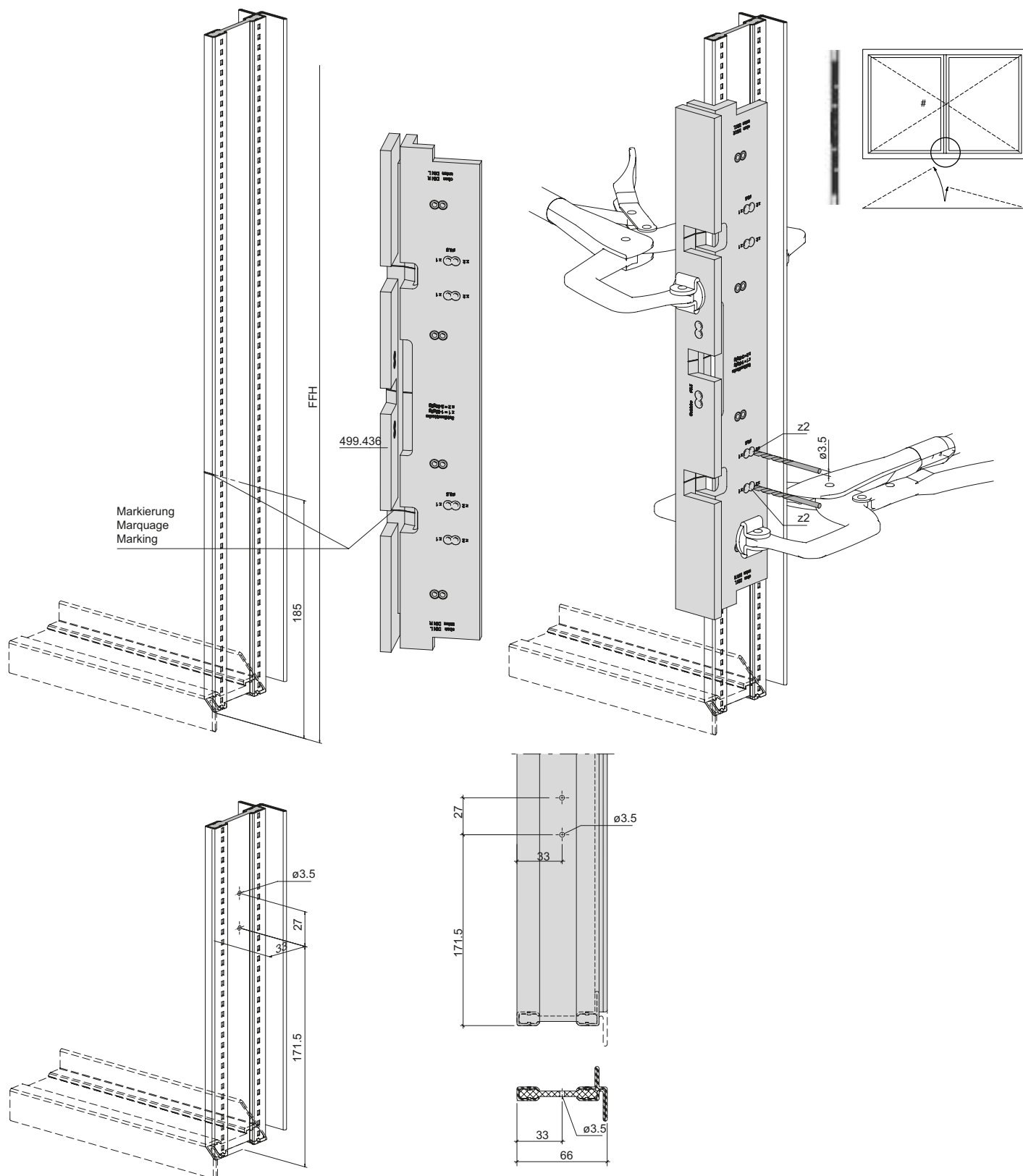
Drilling jig 499.436 for
 striking plate 557.189
 Secondary sash top



Bohrlehre 499.436 für
 Schliessbleche 557.189
 Standflügel unten

Gabarit de perçage 499.436
 pour gâche 557.189
 Vantail semi-fixe en bas

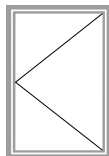
Drilling jig 499.436 for
 striking plate 557.189
 Secondary sash bottom



Beschlageinbau
Montage des ferrures
Installation of fittings

Janisol Arte
Janisol Arte
Janisol Arte

2.0



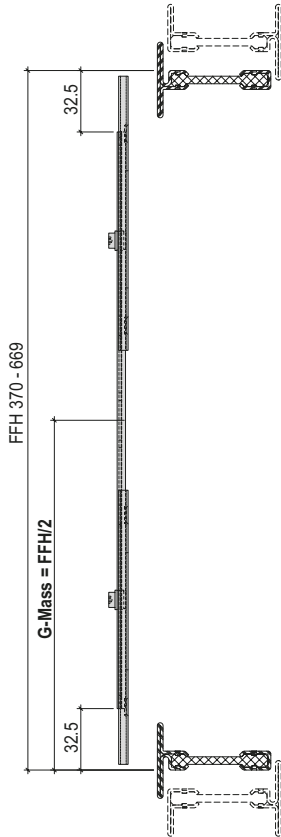
Drehfenster nach aussen öffnend	Fenêtre à la française ouvrant vers l'extérieur	Side-hung window outward opening	
Zuschnitt Getriebeverlängerung Bohrbild Getriebeverlängerung und Schliessbleche	Découpe prolongement de la crémonne Schéma de perçage prolongement de la crémonne et gâches	Cutting gearbox extension Drilling pattern gearbox extension and striking plates	218
Bohrlehre 499.436 für Getriebe 557.187 und Fenstergriff 557.185	Gabarit de perçage 499.436 pour crémonne 557.187 et poignée de fenêtre 557.185	Drilling jig 499.436 for mechanism 557.187 and window handle 557.185	222
Bohrlehre 499.436 für Getriebeverlängerung 557.188	Gabarit de perçage 499.436 pour prolongement de la crémonne 557.188	Drilling jig 499.436 for gearbox extension 557.188	224
Bohrlehre 499.436 für Schliessbleche 557.189	Gabarit de perçage 499.436 pour gâches 557.189	Drilling jig 499.436 for striking plates 557.189	226

Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 370-669

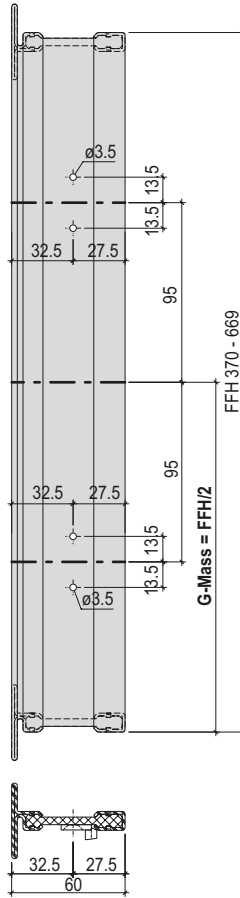
Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 370-669

Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 370-669

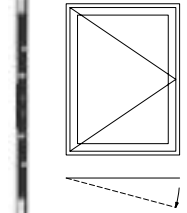
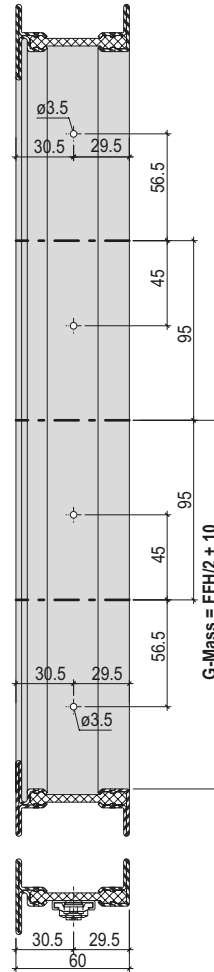
Zuschnitt/Découpe/Cutting



Rahmen/Cadre/Frame



Flügel/Vantail/Sash

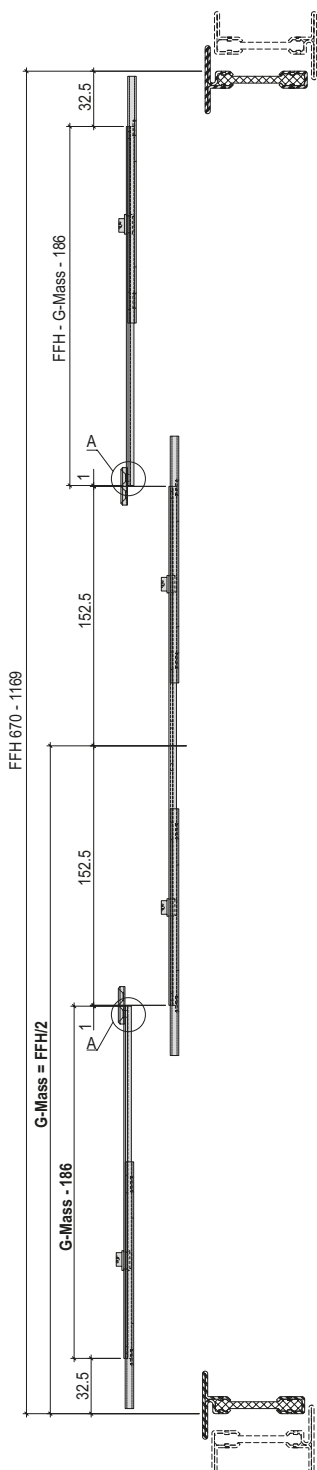


Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 670-1169

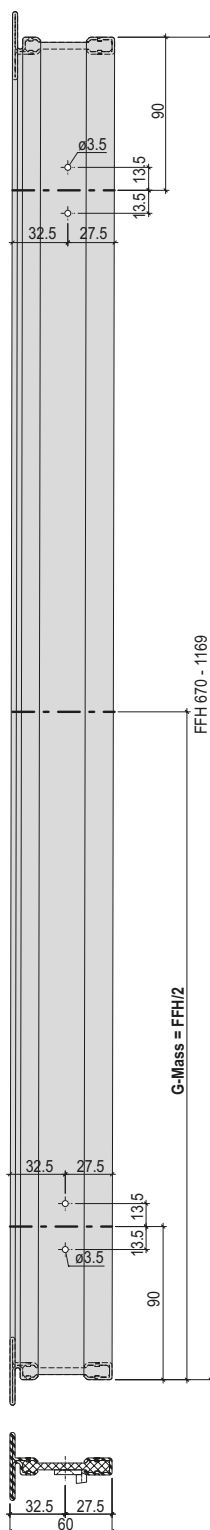
Découpe prolongement de la créme
 Schéma de perçage prolongement
 de la créme et gâches
 FFH 670-1169

Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 670-1169

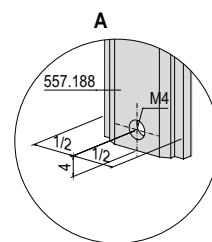
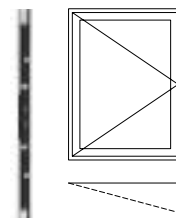
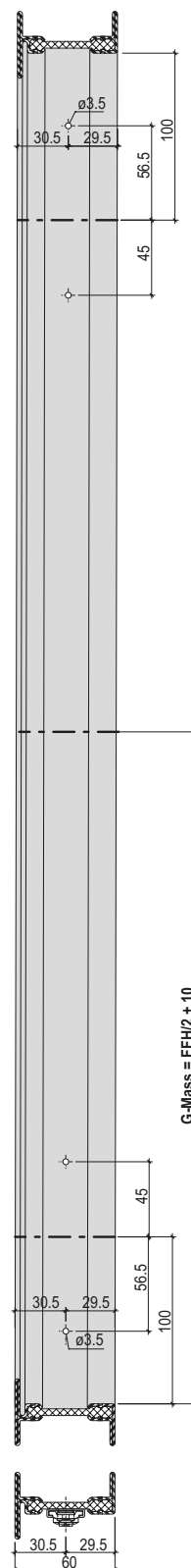
Zuschnitt/Découpe/Cutting



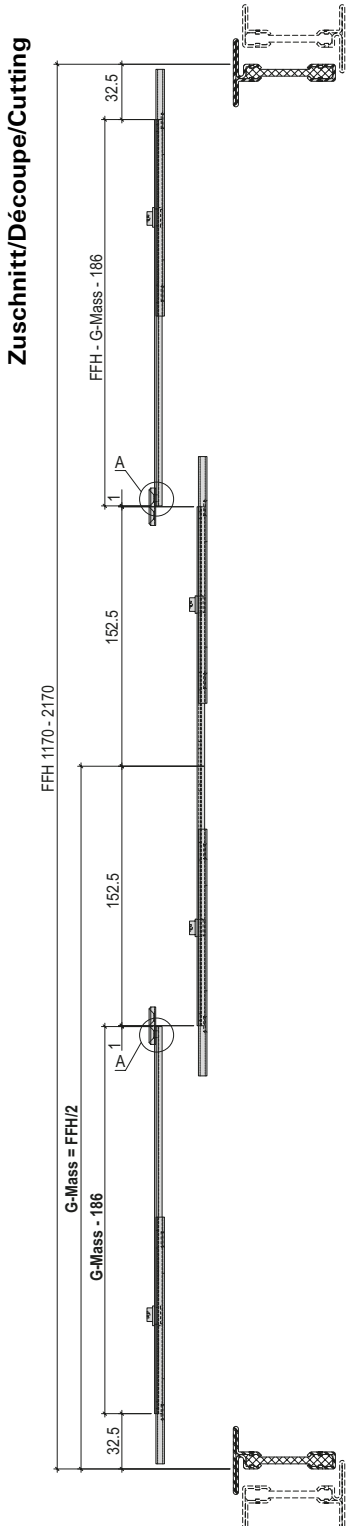
Rahmen/Cadre/Frame



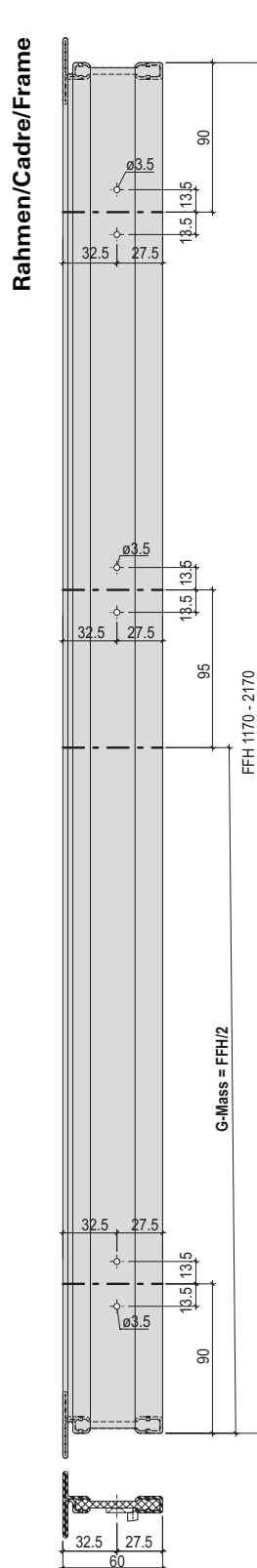
Flügel/Vantail/Sash



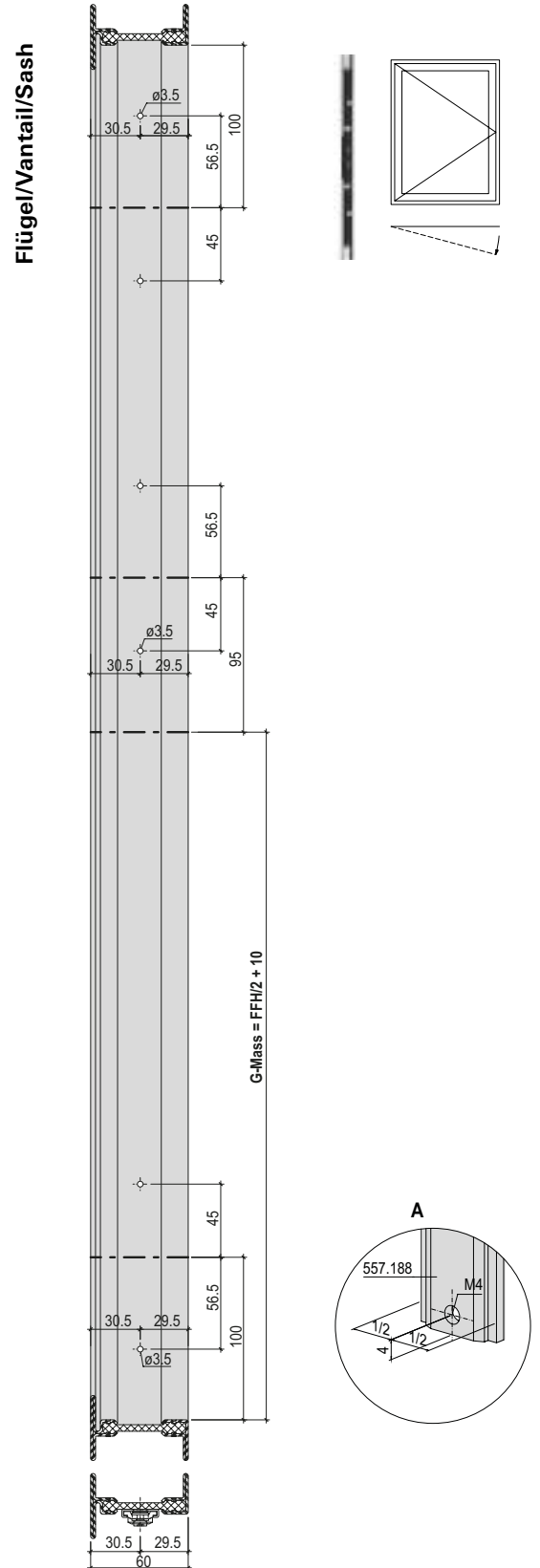
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessebleche
 FFH 1170-2170



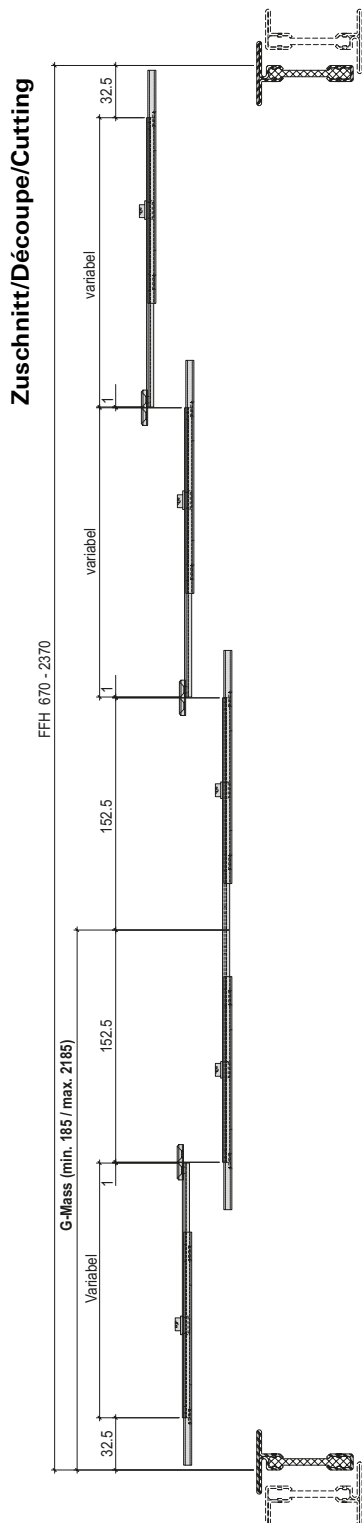
Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 1170-2170



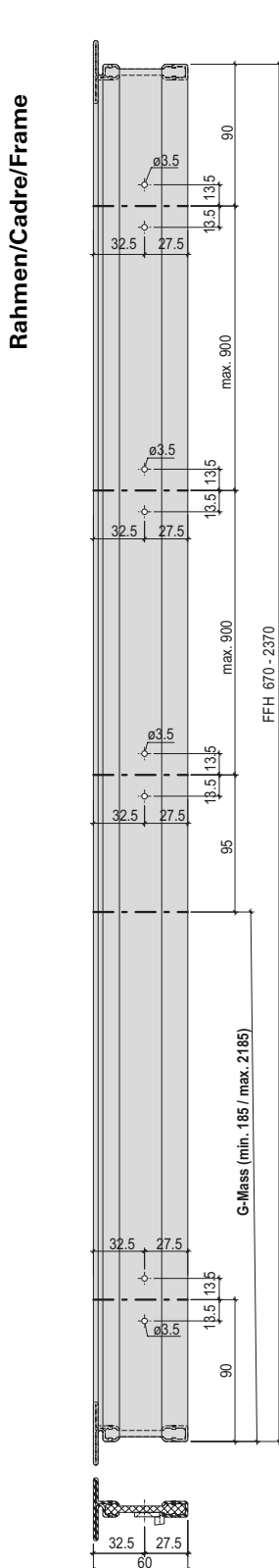
Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 1170-2170



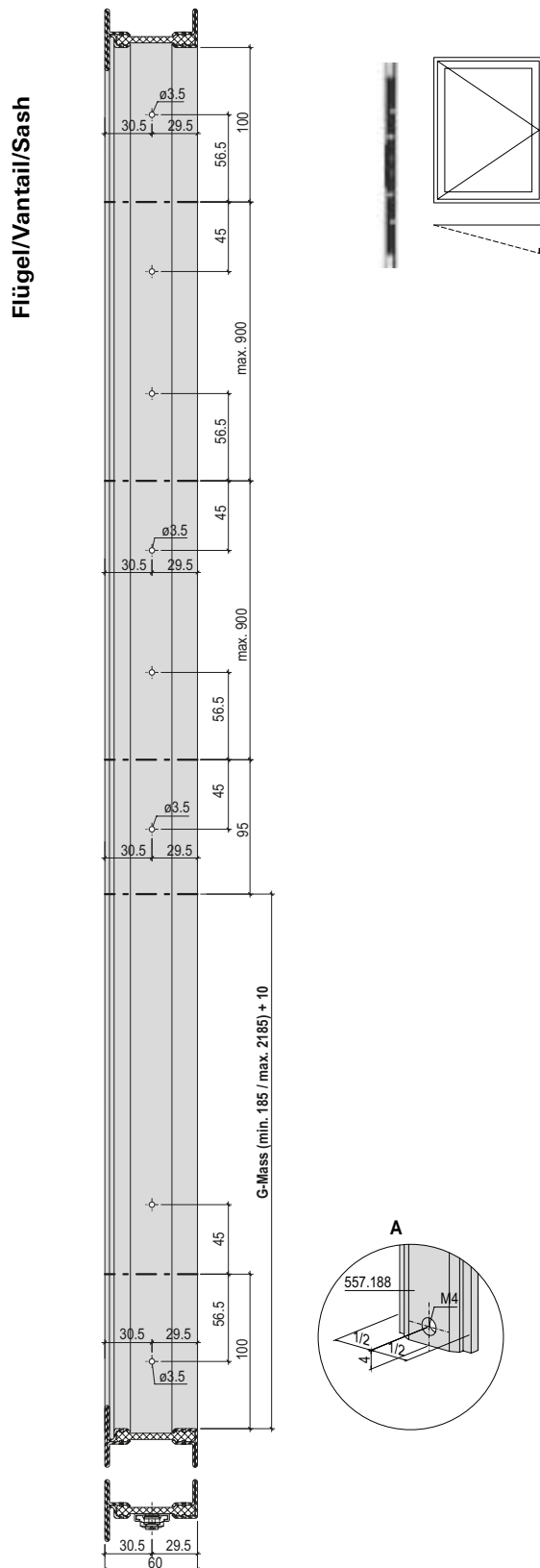
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 670-2370



Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 670-2370



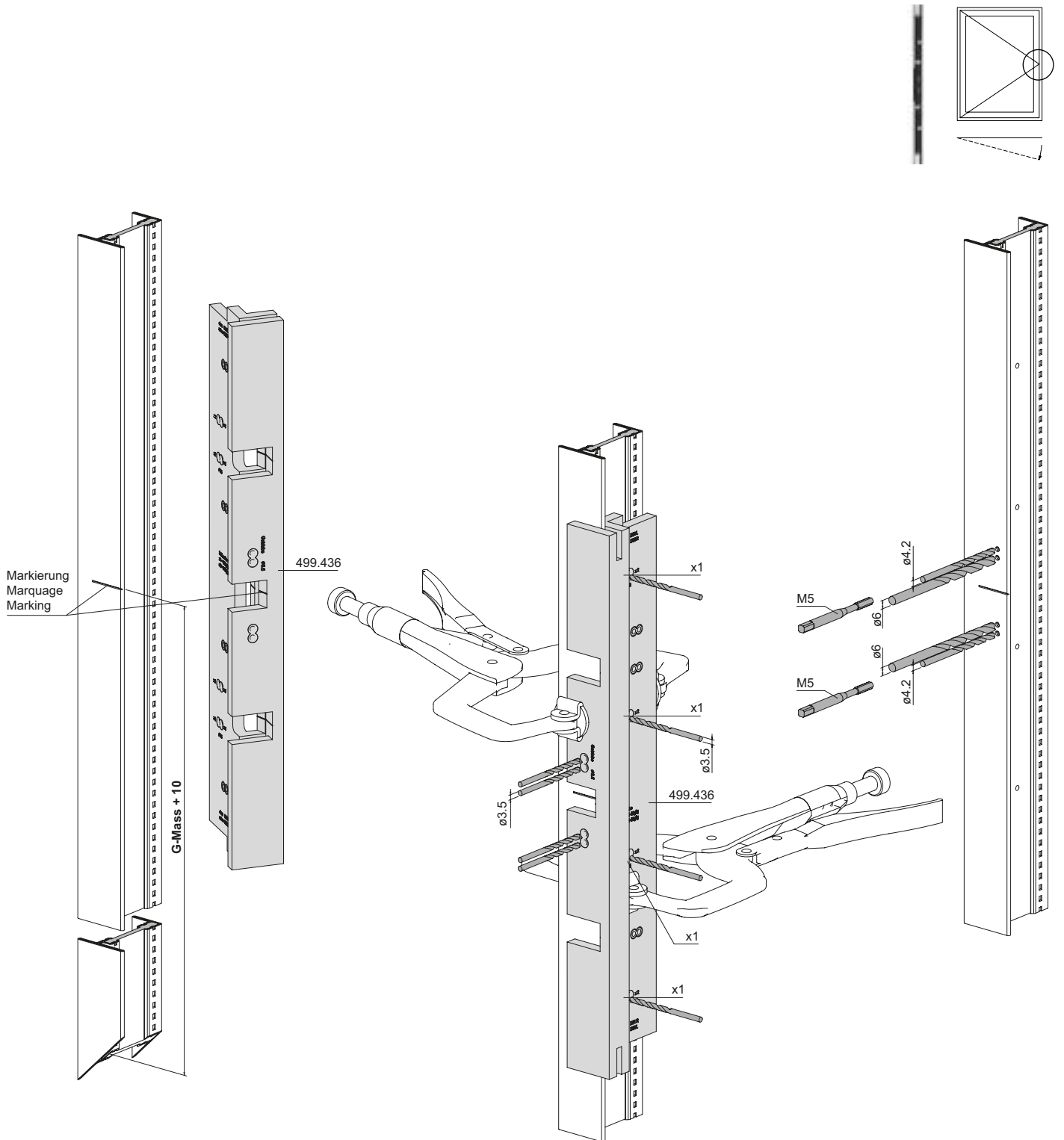
Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 670-2370



Bohrlehre 499.436 für
 Getriebe 557.187
 und Fenstergriff 557.185
 Rahmen

Gabarit de perçage 499.436
 pour crémonne 557.187
 et poignée de fenêtre 557.185
 Cadre

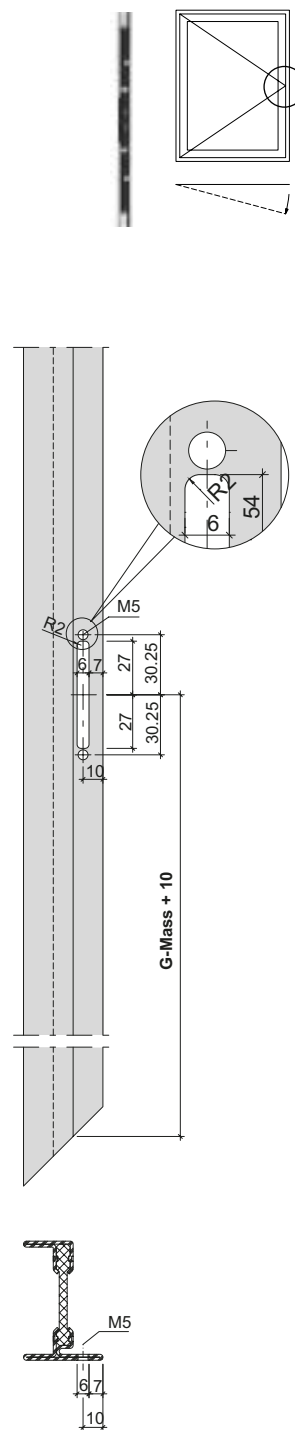
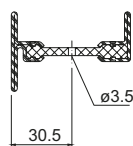
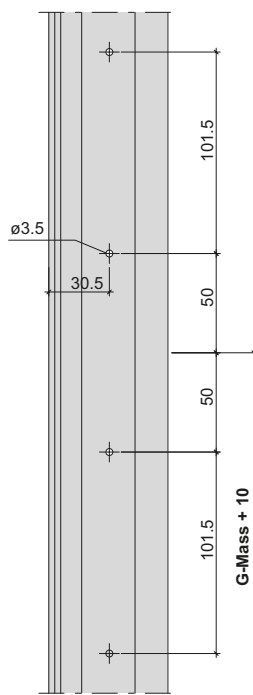
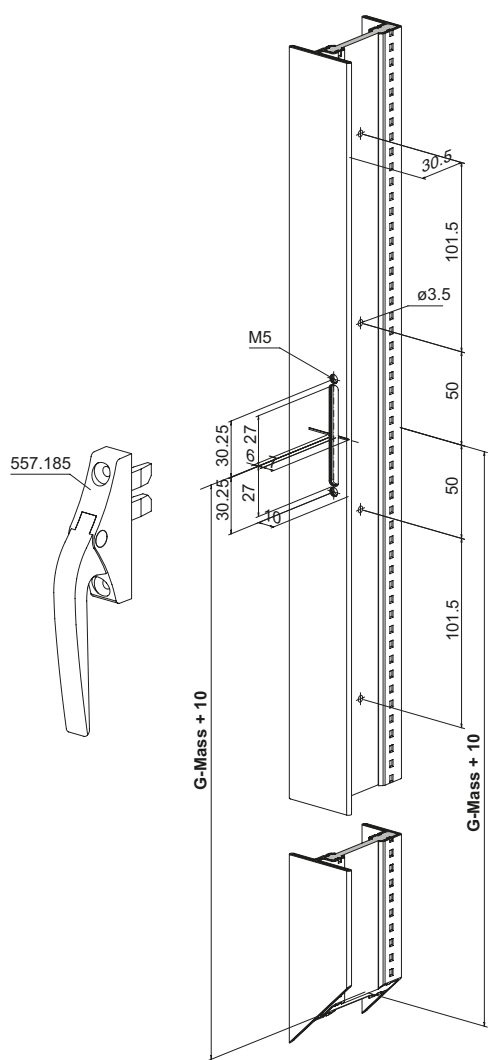
Drilling jig 499.436 for
 mechanism 557.187
 and window handle 557.185
 Frame



Bohrbild und Fräsung
 für Getriebe 557.187
 und Fenstergriff 557.185
 Rahmen

Schéma de perçage et fraisage
 pour crémonne 557.187
 et poignée de fenêtre 557.185
 Cadre

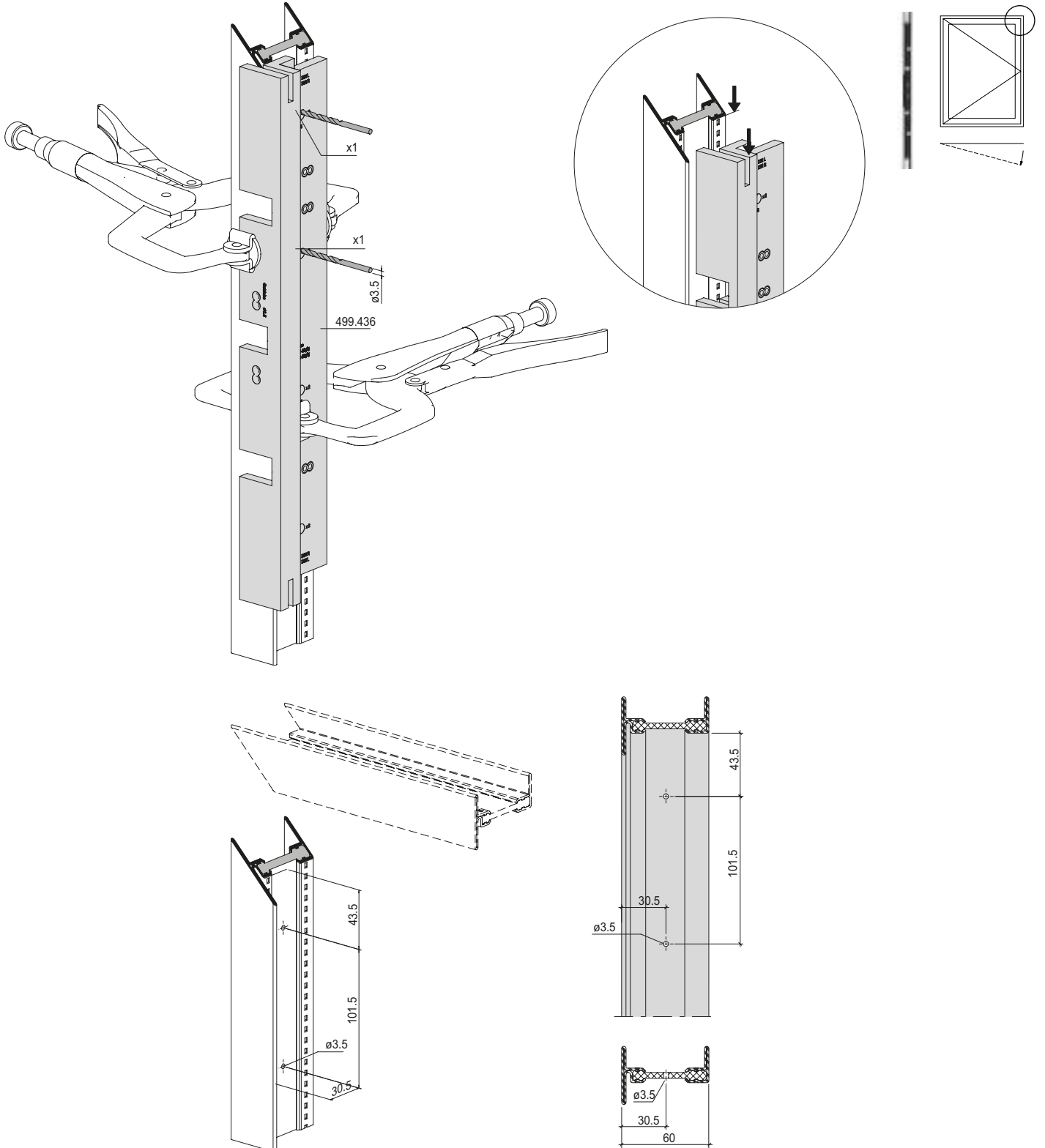
Drilling pattern and milling
 for mechanism 557.187
 and window handle 557.185
 Frame



Bohrlehre 499.436 für
Getriebeverlängerung 557.188
Rahmen oben

Gabarit de perçage 499.436 pour
prolongement de la crémonne
557.188 Cadre en haut

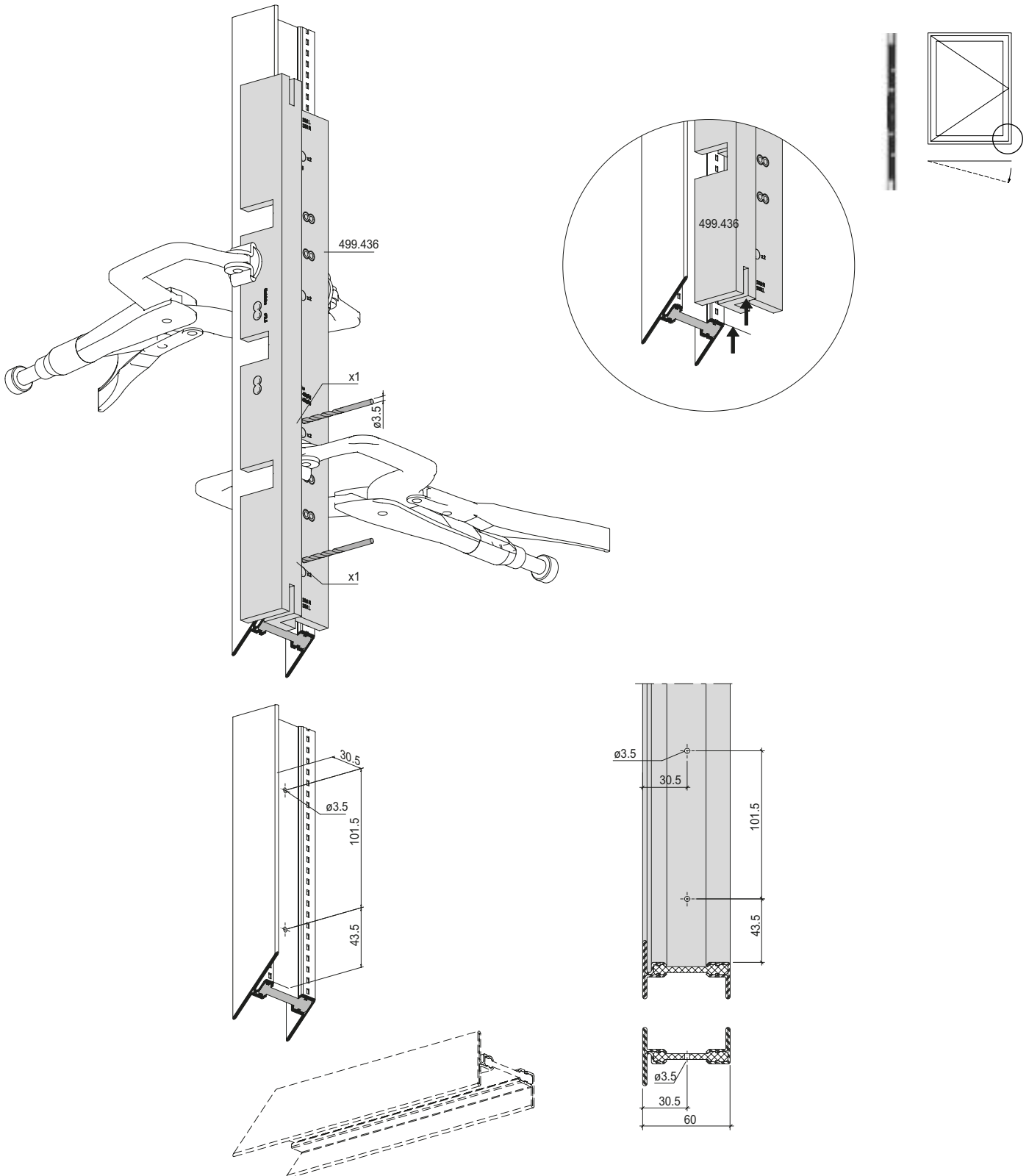
Drilling jig 499.436 for
gearbox extension 557.188
Frame top



Bohrlehre 499.436 für
 Getriebeverlängerung 557.188
 Rahmen unten

Gabarit de perçage 499.436 pour
 prolongement de la crémonne
 557.188 Cadre en bas

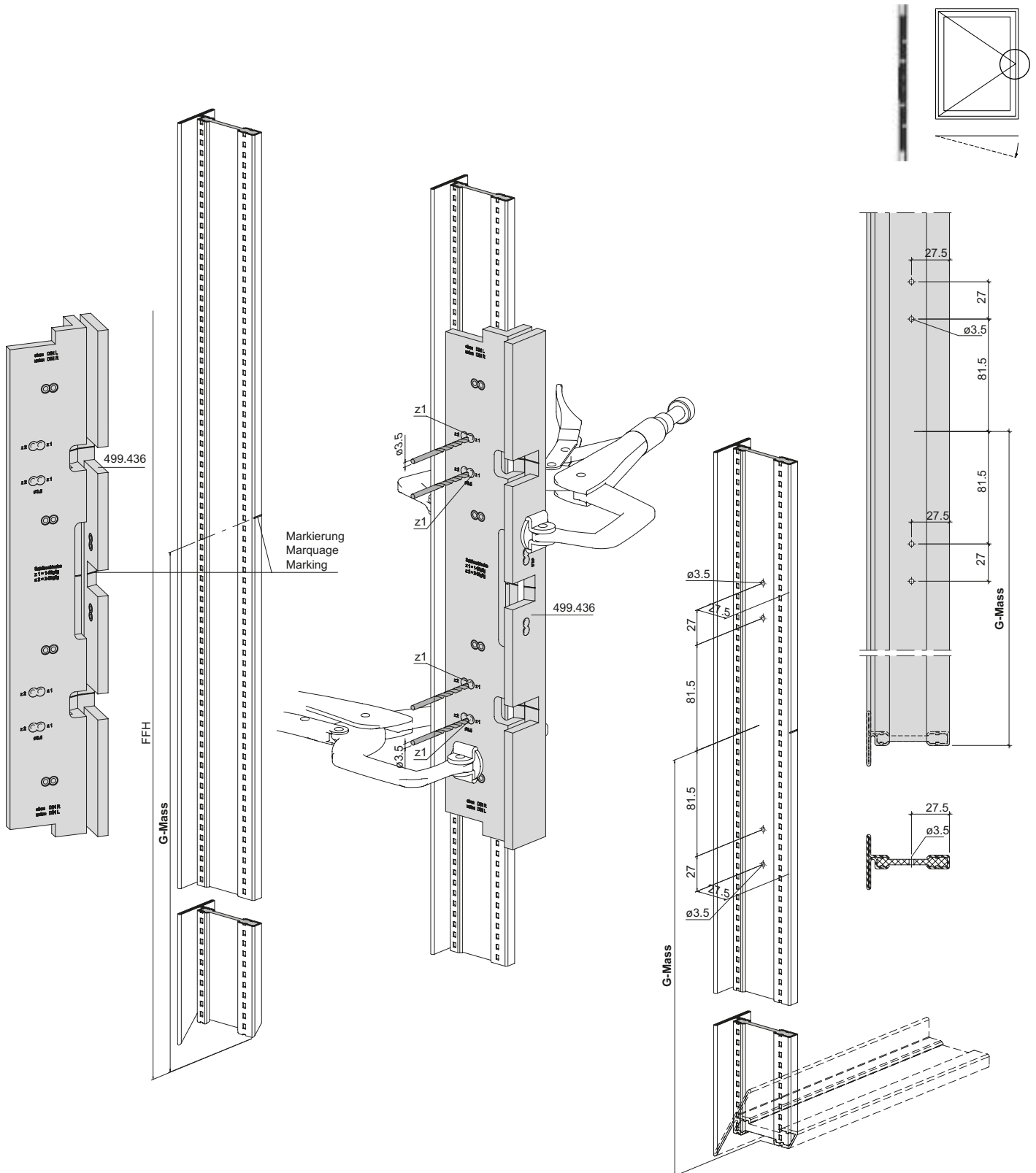
Drilling jig 499.436 for
 gearbox extension 557.188
 Frame bottom



Bohrlehre 499.436 für
 Schliessblech 557.189 beim Getriebe
 Flügel

Gabarit de perçage 499.436 pour
 gâche 557.189 pour crémonne
 Vantail

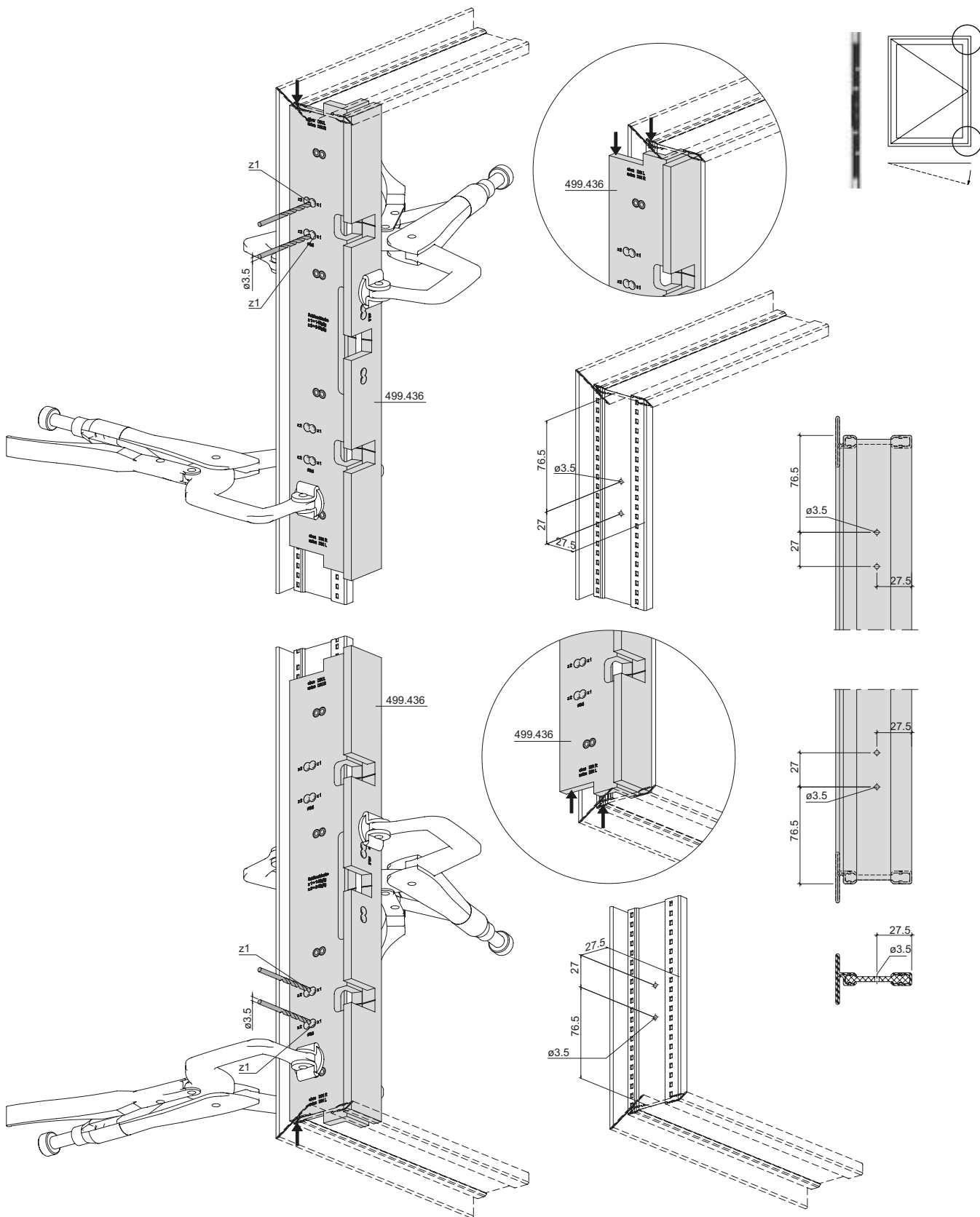
Drilling jig 499.436 for striking plate
 557.189 for mechanism
 Sash



Bohrlehre 499.436 für
 Schliessbleche 557.189
 Flügel oben und unten

Gabarit de perçage 499.436
 pour gâches 557.189
 Vantail en haut et en bas

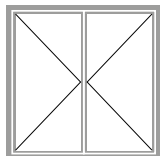
Drilling jig 499.436 for
 striking plates 557.189
 Sash top and bottom



Beschlageinbau
Montage des ferrures
Installation of fittings

Janisol Arte
Janisol Arte
Janisol Arte

2.0



**Drehfenster
nach aussen öffnend**

**Fenêtre à la française
ouvrant vers l'extérieur**

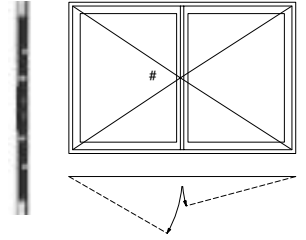
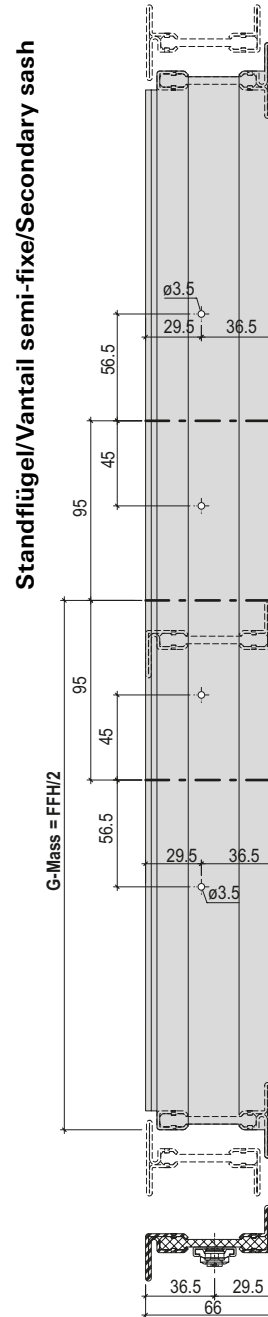
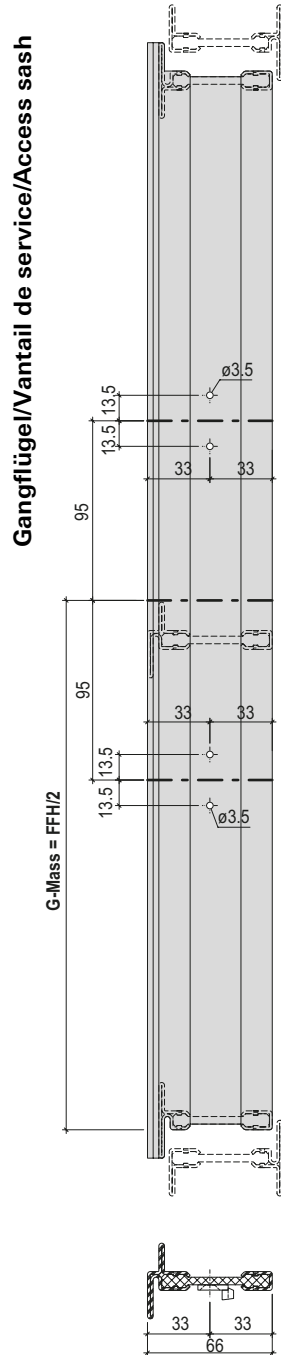
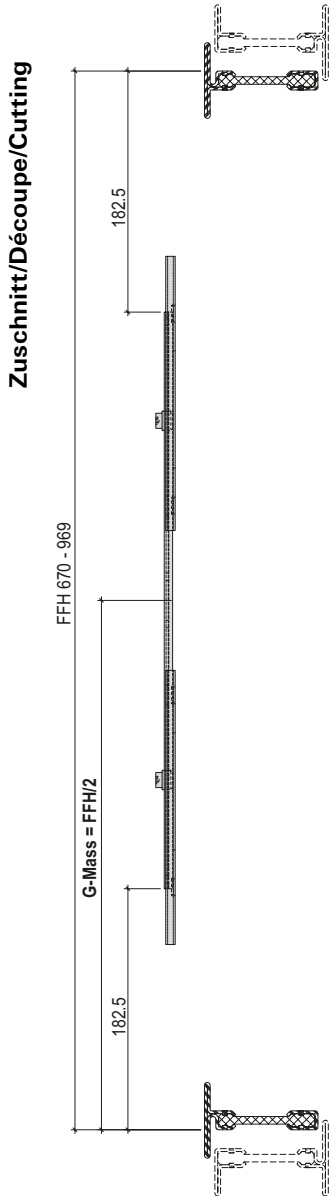
**Side-hung window
outward opening**

Zuschnitt Getriebeverlängerung Bohrbild Getriebeverlängerung und Schliessbleche	Découpe prolongement de la crémonne Schéma de perçage prolongement de la crémonne et gâches	Cutting gearbox extension Drilling pattern gearbox extension and striking plates	230
Bohrlehre 499.436 für Getriebe 557.187 und Fenstergriff 557.185	Gabarit de perçage 499.436 pour crémonne 557.187 et poignée de fenêtre 557.185	Drilling jig 499.436 for mechanism 557.187 and window handle 557.185	234
Bohrlehre 499.436 für Getriebeverlängerung 557.188	Gabarit de perçage 499.436 pour prolongement de la crémonne 557.188	Drilling jig 499.436 for gearbox extension 557.188	236
Bohrlehre 499.436 für Schliessbleche 557.189	Gabarit de perçage 499.436 pour gâches 557.189	Drilling jig 499.436 for striking plates 557.189	238
Überwachung RFID	Surveillance RFID	RFID monitoring	242

Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 670-969

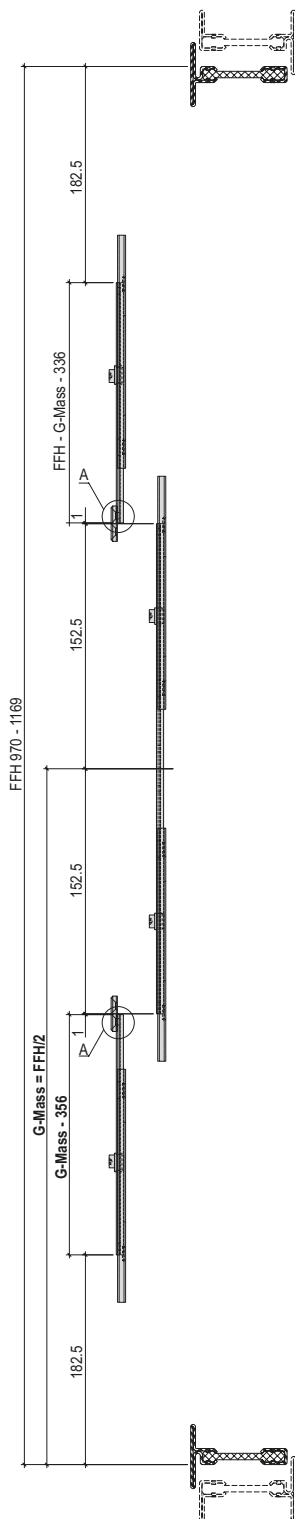
Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 670-969

Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 670-969



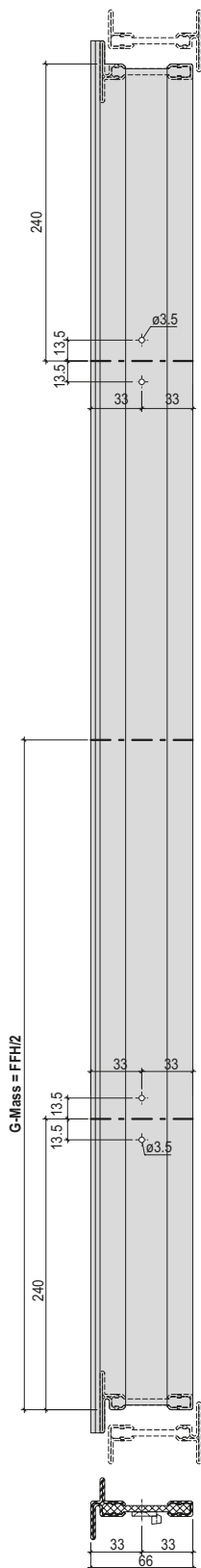
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 970-1169

Zuschnitt/Découpe/Cutting



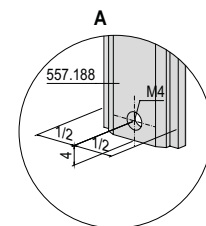
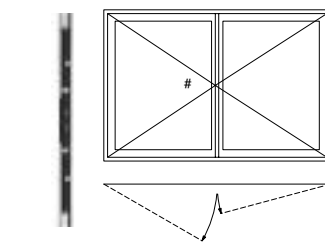
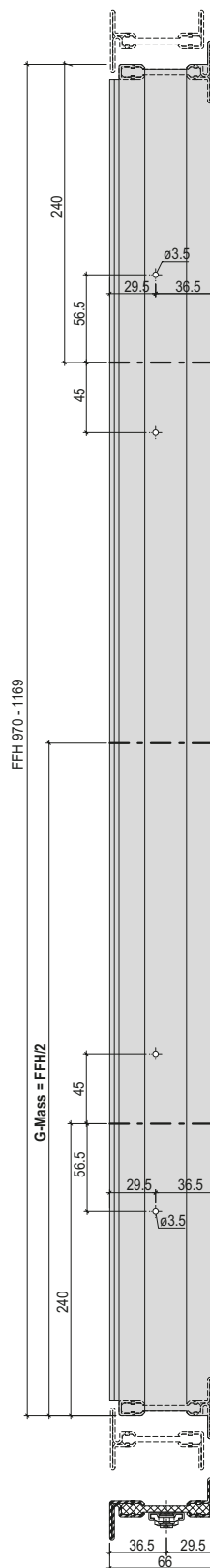
Découpe prolongement de la créme
 Schéma de perçage prolongement
 de la créme et gâches
 FFH 970-1169

Gangflügel/Vantail de service/Access sash



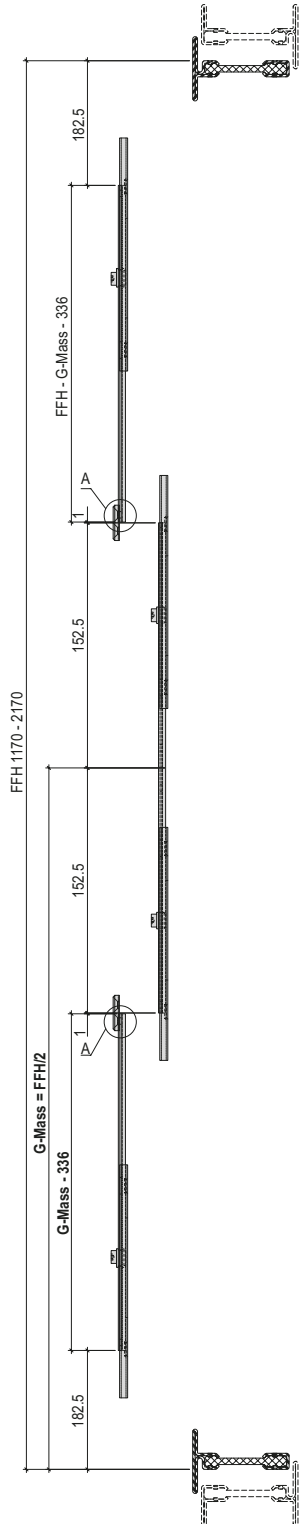
Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 970-1169

Standflügel/Vantail semi-fixe/Secondary sash



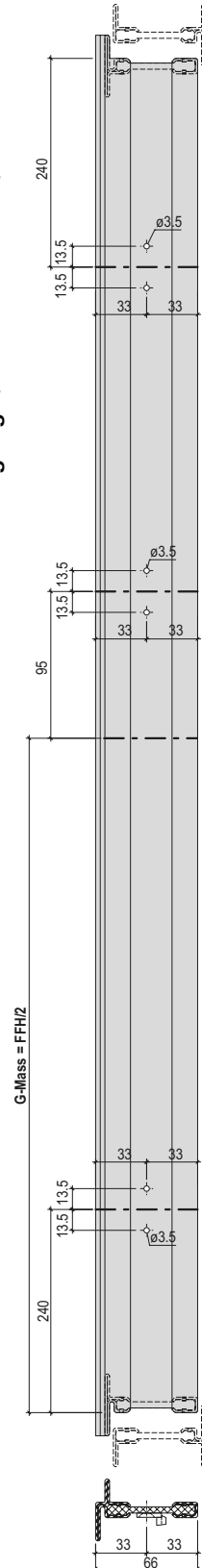
Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessebleche
 FFH 1170-2170

Zuschnitt/Découpe/Cutting



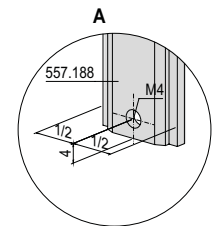
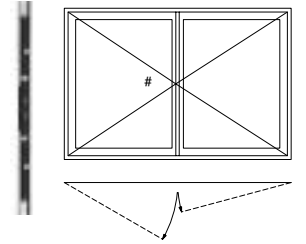
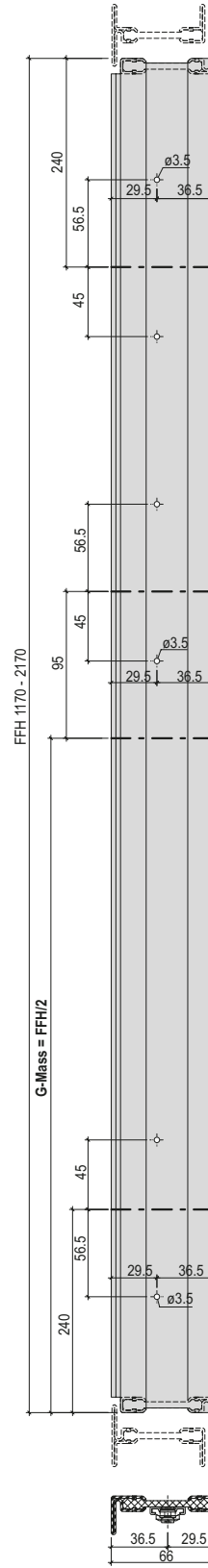
Découpe prolongement de la crémonne
 Schéma de perçage prolongement
 de la crémonne et gâches
 FFH 1170-2170

Gangflügel/Vantail de service/Access sash



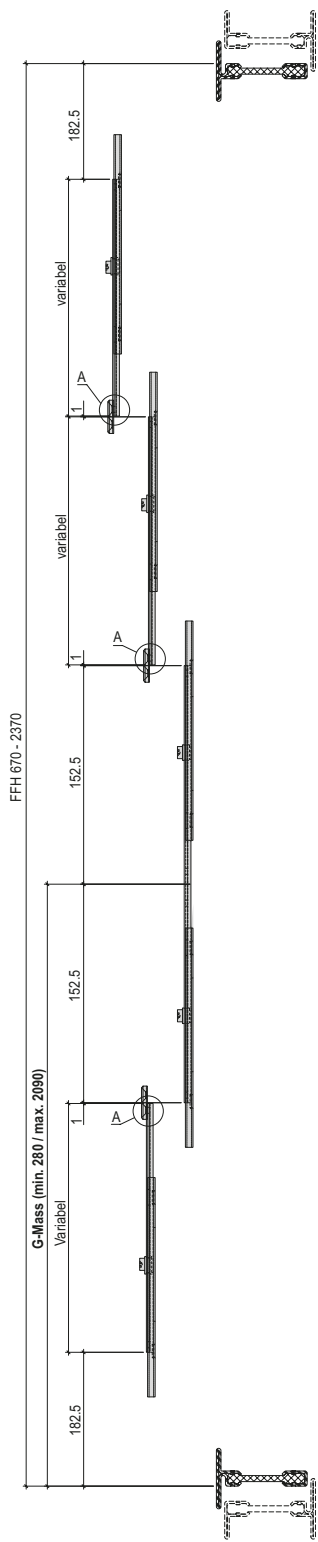
Cutting gearbox extension
 Drilling pattern gearbox extension
 and striking plates
 FFH 1170-2170

Standflügel/Vantail semi-fixe/Secondary sash



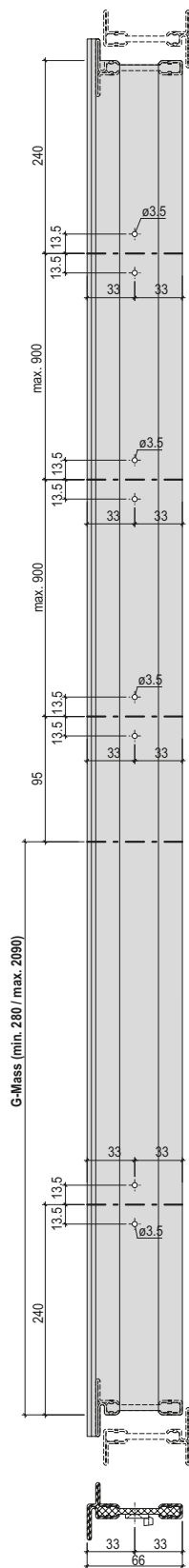
**Zuschnitt Getriebeverlängerung
 Bohrbild Getriebeverlängerung
 und Schliessbleche
 FFH 670-2370**

Zuschnitt/Découpe/Cutting

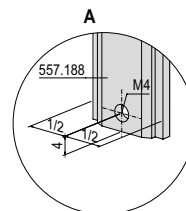
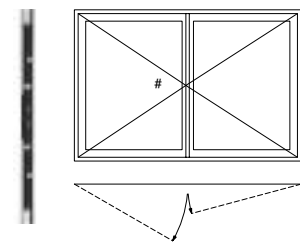
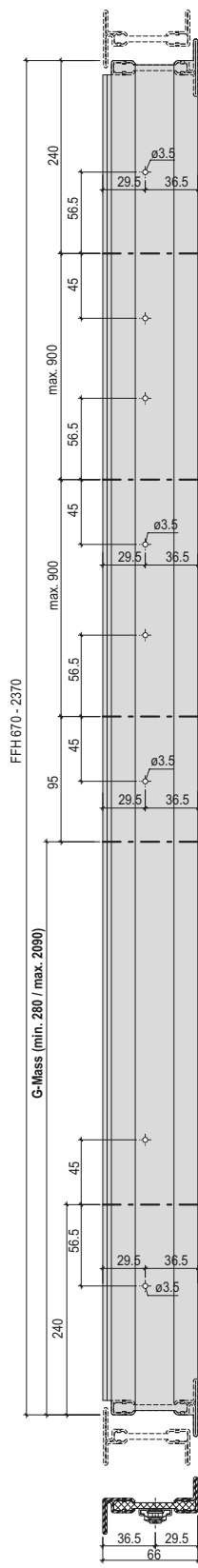


**Découpe prolongement de la créme
 Schéma de perçage prolongement
 de la créme et gâches
 FFH 670-2370**

Gangflügel/Vantail de service/Access sash



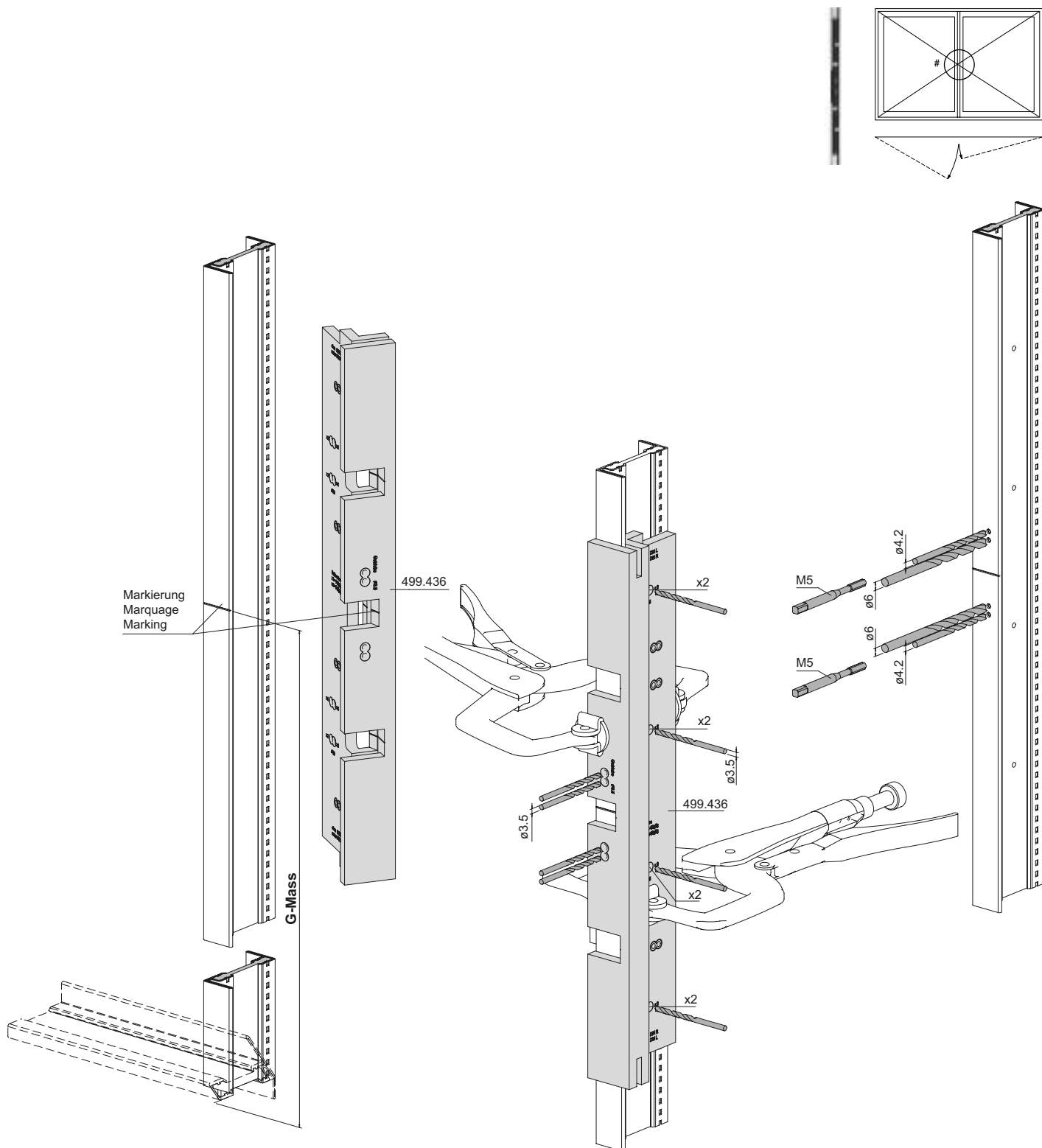
Standflügel/Vantail semi-fixe/Secondary sash



Bohrlehre 499.436 für
 Getriebe 557.187
 und Fenstergriff 557.185
 Standflügel

Gabarit de perçage 499.436
 pour crémonne 557.187
 et poignée de fenêtre 557.185
 Vantail semi-fixe

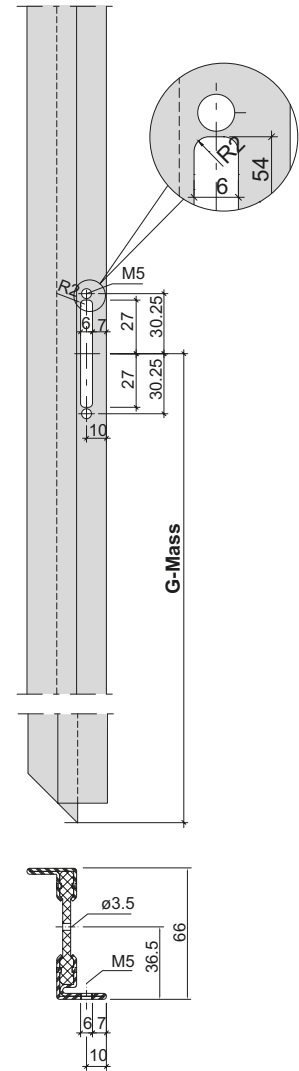
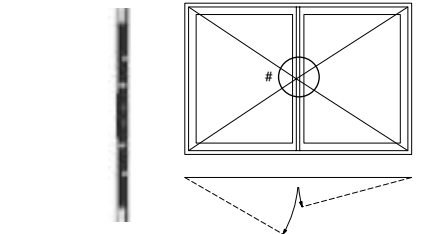
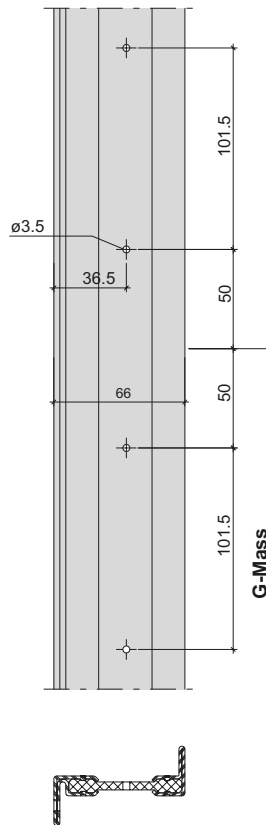
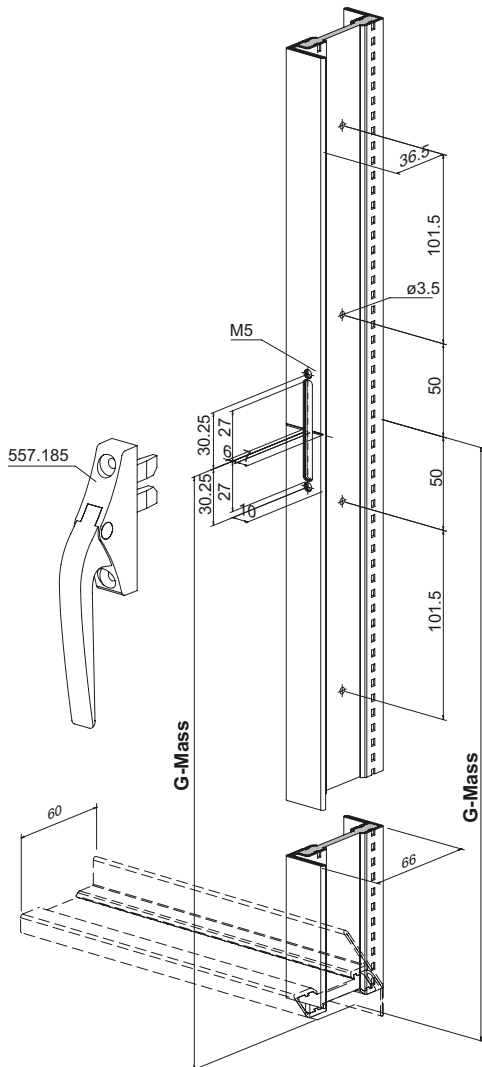
Drilling jig 499.436 for
 mechanism 557.187
 and window handle 557.185
 Secondary sash



Bohrbild und Fräsung
 für Getriebe 557.187
 und Fenstergriff 557.185
 Standflügel

Schéma de perçage et fraisage
 pour crémonne 557.187
 et poignée de fenêtre 557.185
 Vantail semi-fixe

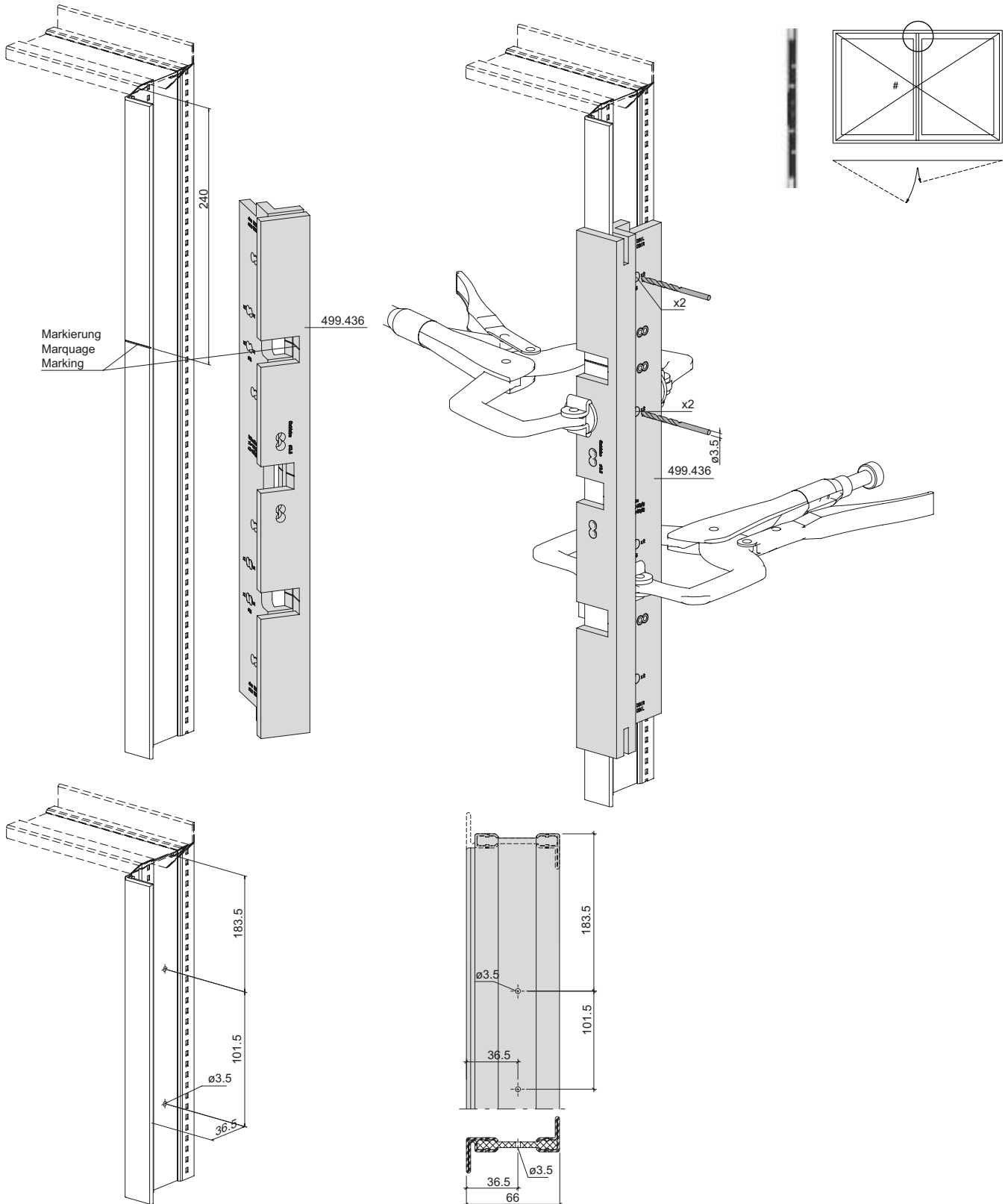
Drilling pattern and milling
 for mechanism 557.187
 and window handle 557.185
 Secondary sash



Bohrlehre 499.436 für
 Getriebeverlängerung 557.188
 Standflügel oben

Gabarit de perçage 499.436 pour
 prolongement de la créme
 557.188 Vantail semi-fixe en haut

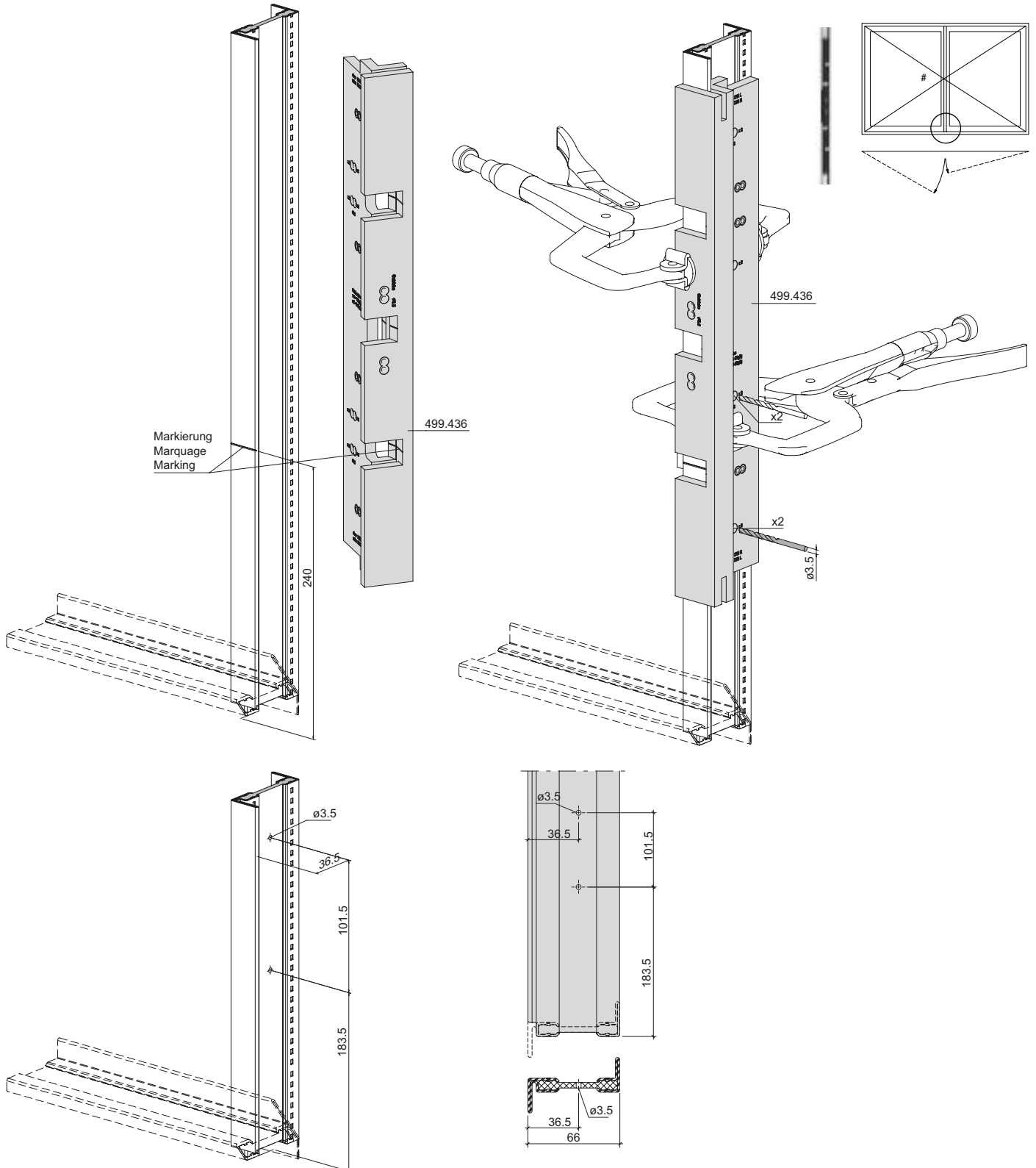
Drilling jig 499.436 for
 gearbox extension 557.188
 Secondary sash top



Bohrlehre 499.436 für
 Getriebeverlängerung 557.188
 Standflügel unten

Gabarit de perçage 499.436 pour
 prolongement de la crémonne
 557.188 Vantail semi-fixe en bas

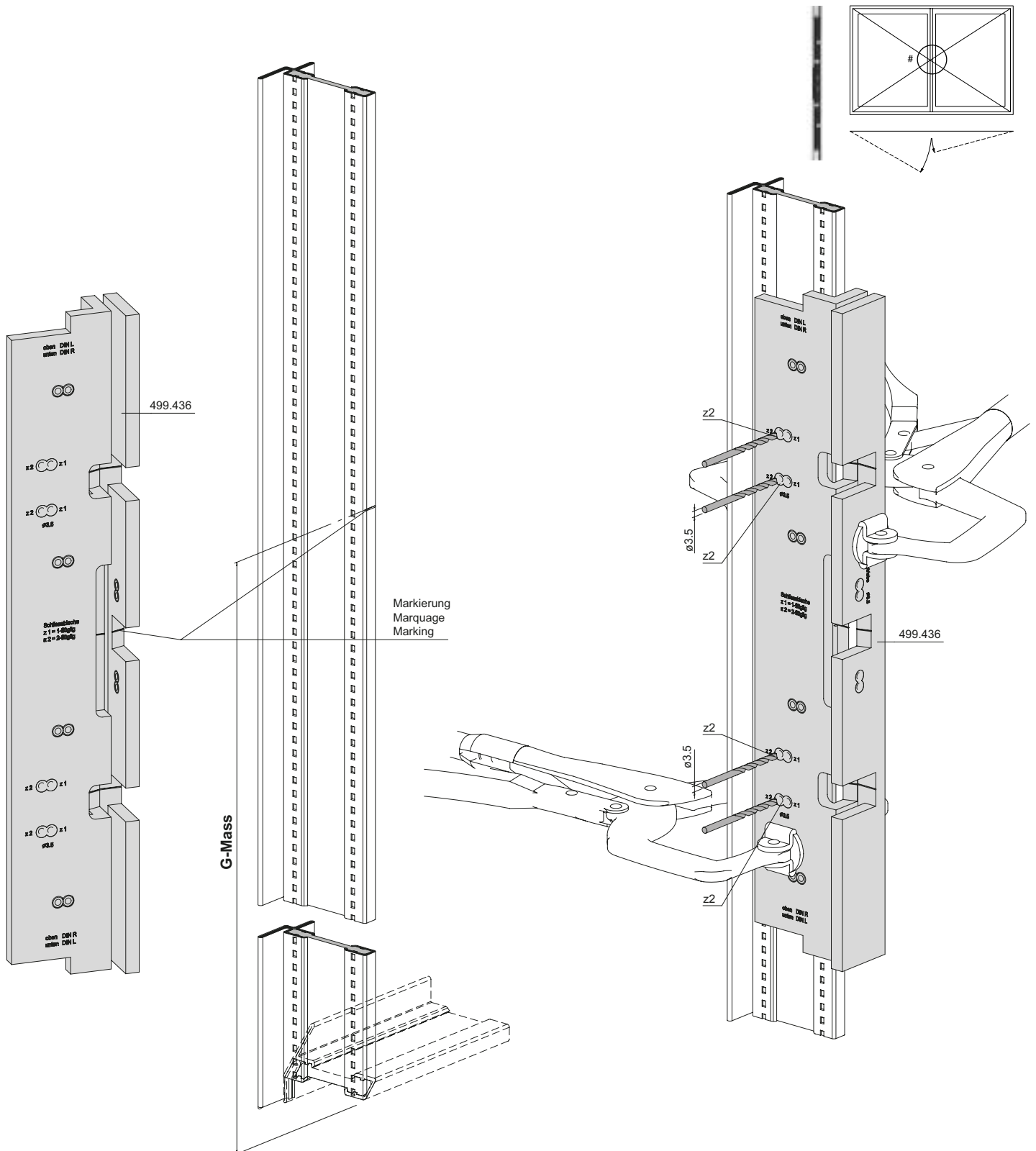
Drilling jig 499.436 for
 gearbox extension 557.188
 Secondary sash bottom



Bohrlehre 499.436 für
 Schliessblech 557.189 beim Getriebe
 Gangflügel

Gabarit de perçage 499.436 pour
 gâche 557.189 pour crémonne
 Vantail de service

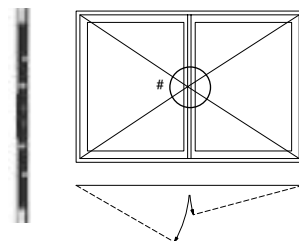
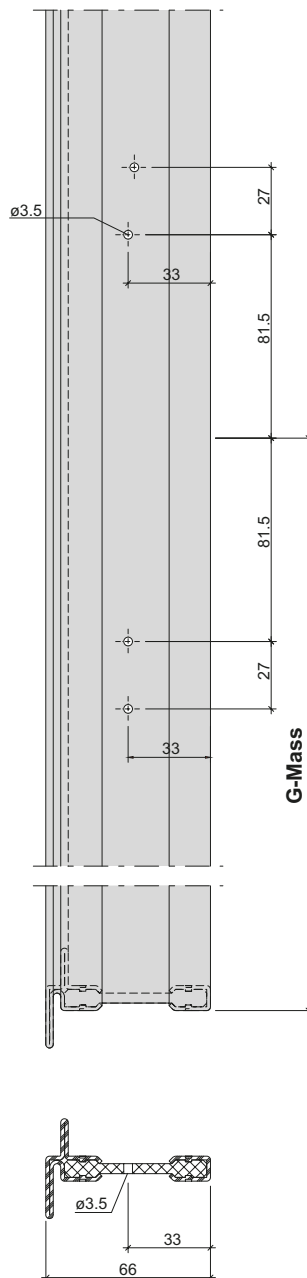
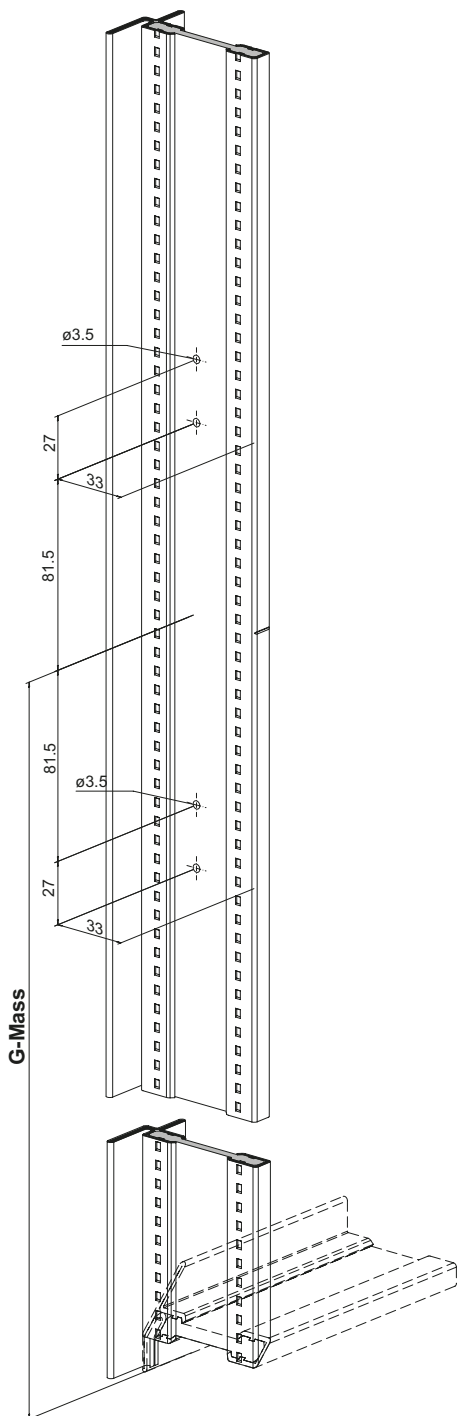
Drilling jig 499.436 for striking plate
 557.189 for mechanism
 Access sash



Bohrbild für Schliessblech 557.189
 beim Getriebe
 Gangflügel

Schéma de perçage pour
 gâche 557.189 pour crémonne
 Vantail de service

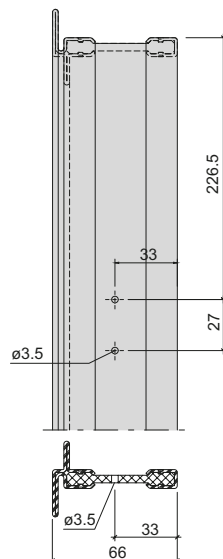
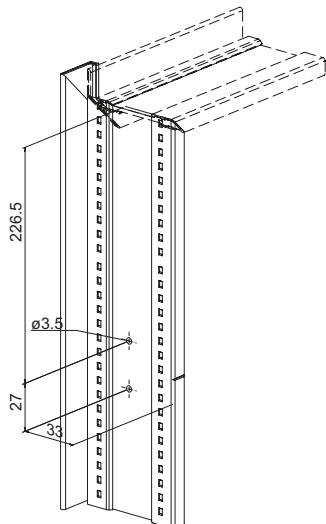
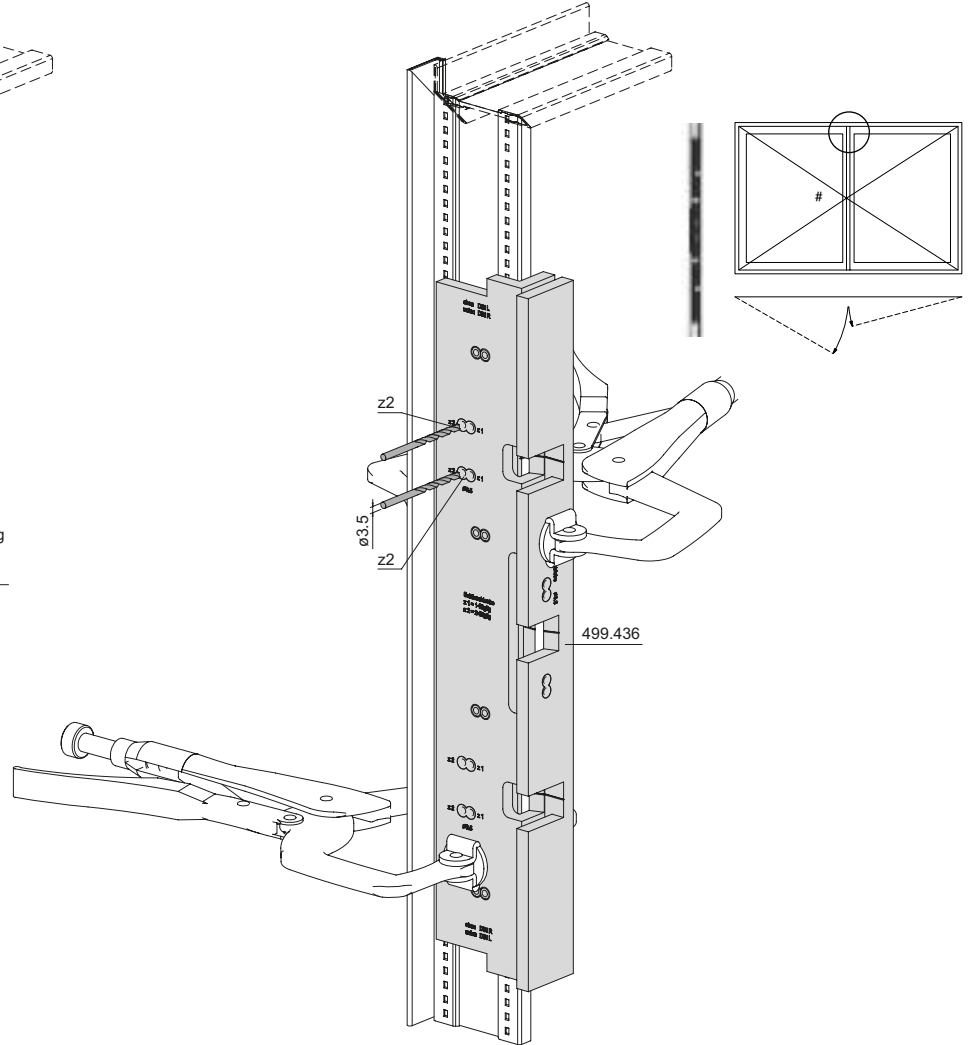
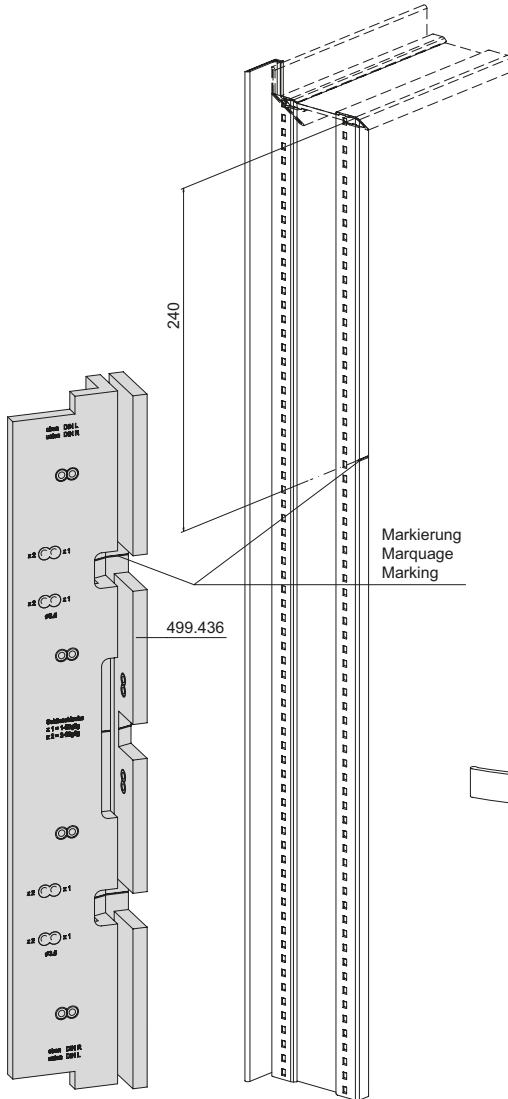
Drilling pattern for striking plate
 557.189 for mechanism
 Access sash



Bohrlehre 499.436 für
 Schliessbleche 557.189
 Gangflügel oben

Gabarit de perçage 499.436
 pour gâches 557.189
 Vantail de service en haut

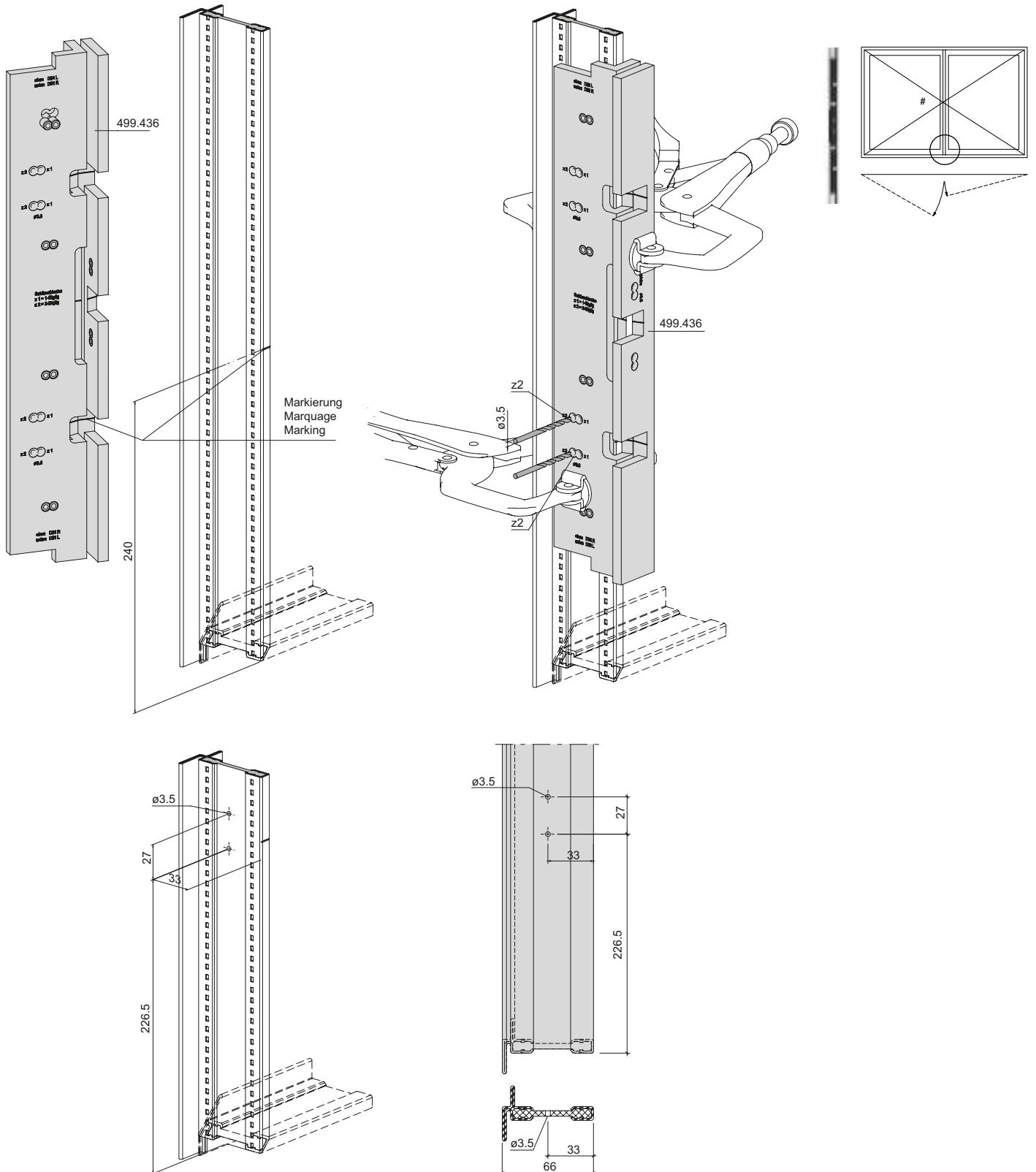
Drilling jig 499.436 for
 striking plates 557.189
 Access sash top



Bohrlehre 499.436 für
 Schliessbleche 557.189
 Gangflügel unten

Gabarit de perçage 499.436
 pour gâches 557.189
 Vantail de service en bas

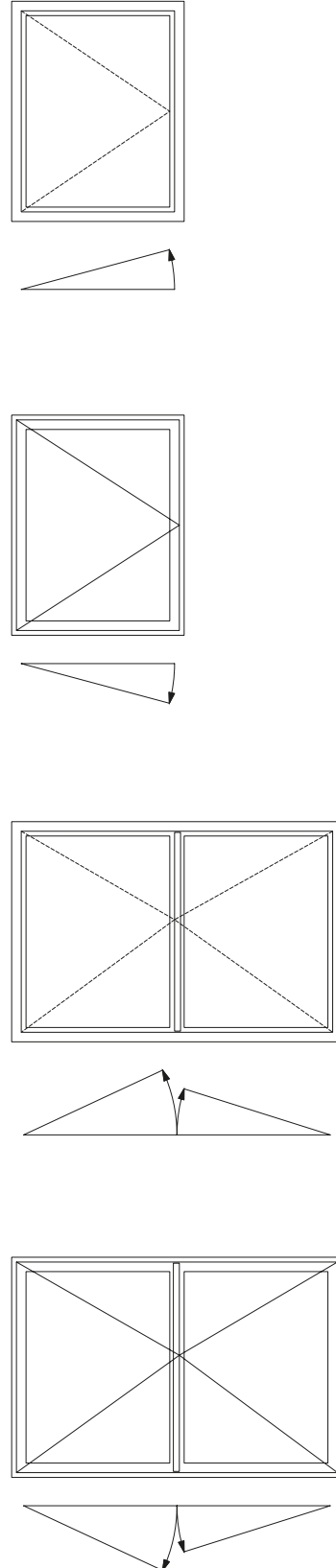
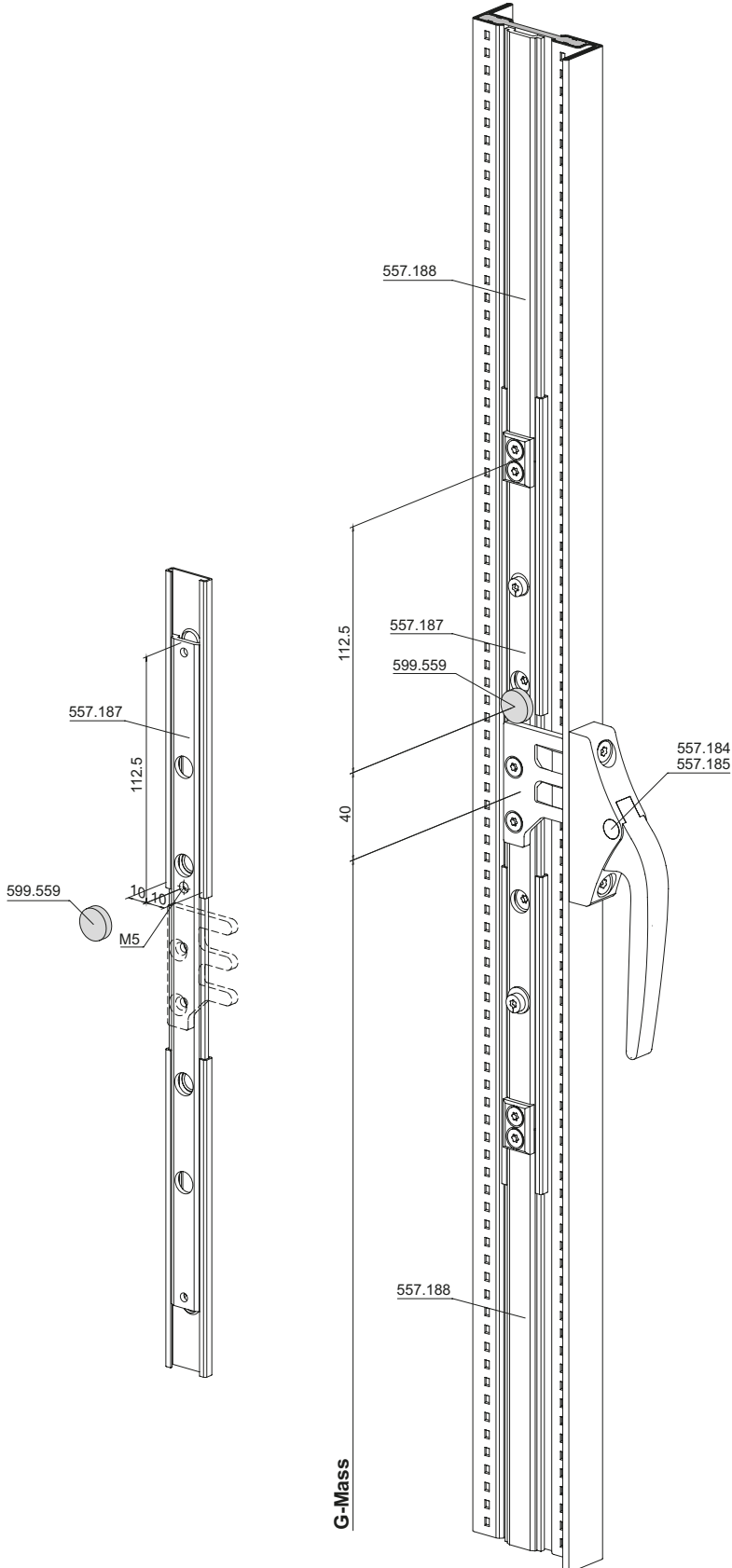
Drilling jig 499.436 for
 striking plates 557.189
 Access sash bottom



Überwachung RFID
 Einbau Magnet 599.559

Surveillance RFID
 Montage aimant 599.559

RFID monitoring
 Installation of magnet 599.559



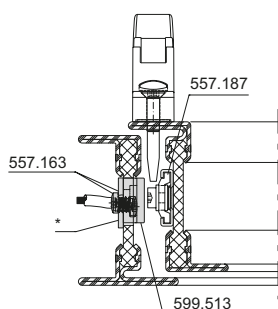
G-Mass

Überwachung RFID
Ausnehmung Rahmen
Kammermass 10 mm

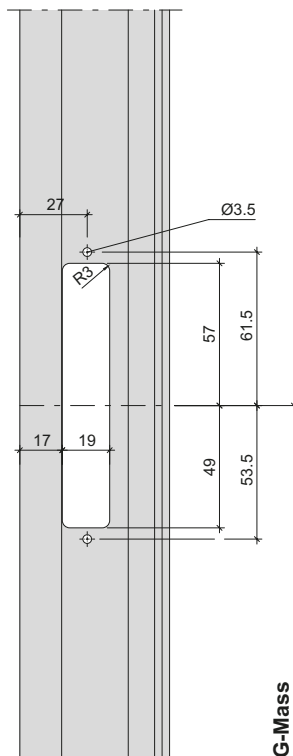
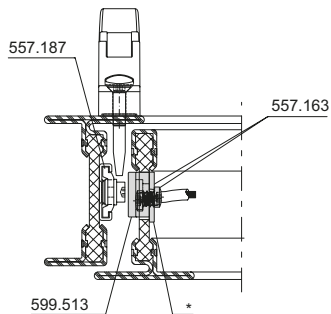
Surveillance RFID
Évidement cadre
Dimensions de caisson 10 mm

RFID monitoring
Frame opening
Chamber size 10 mm

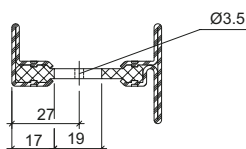
Nach innen öffnend
 Ouvrant vers l'intérieur
 Inward opening



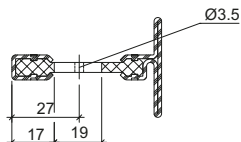
Nach aussen öffnend
 Ouvrant vers l'extérieur
 Outward opening



Ausnehmung Rahmen
 Entaille cadre
 Cut-out frame



Ausnehmung Flügel
 Entaille vantail
 Cut-out sash

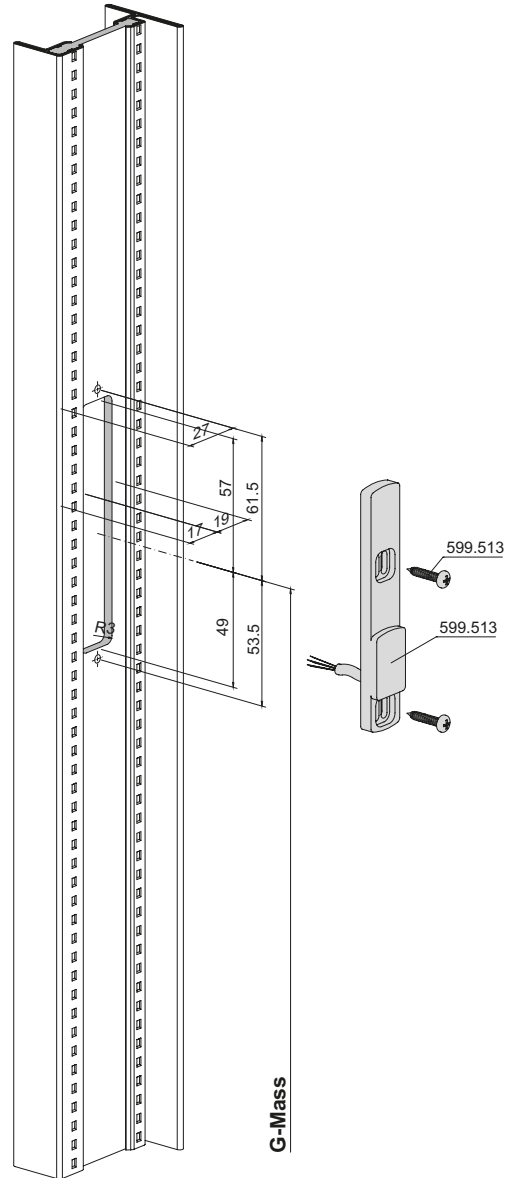
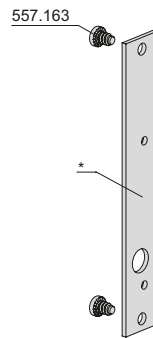
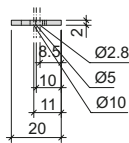
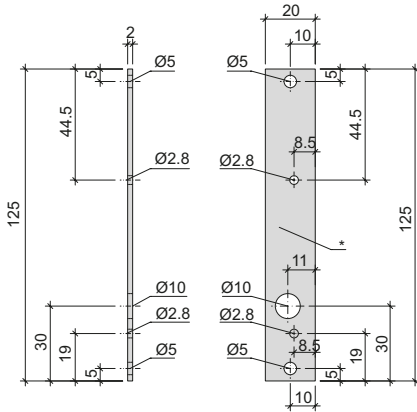
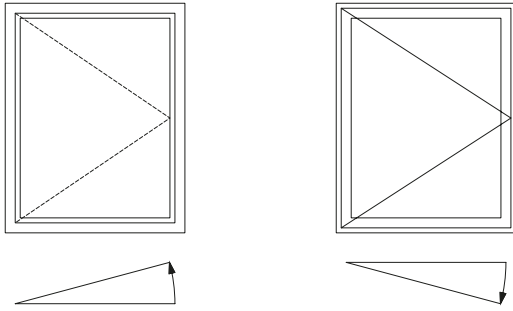


- * 2 mm Aluminiumblech durch Metallbauer zu fertigen
- * Tôle en aluminium 2 mm à fabriquer par le métallier
- * 2 mm aluminium sheet to be made by metal constructor

Überwachung RFID
Einbau Empfänger 599.513

Surveillance RFID
Montage récepteur 599.513

RFID monitoring
Installation recipient 599.513

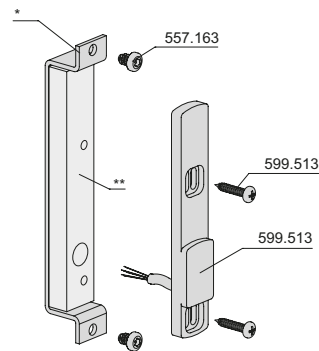
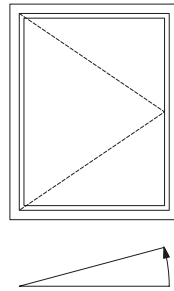
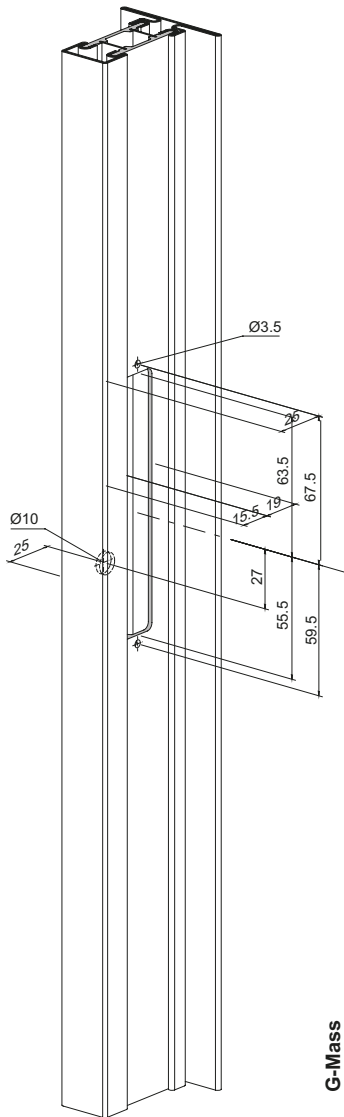


* 2 mm Aluminiumblech durch Metallbauer zu fertigen
 * Tôle en aluminium 2 mm à fabriquer par le métallier
 * 2 mm aluminium sheet to made by metal constructor

Überwachung RFID
 Ausnehmung Rahmen
 Kammermass 25/50 mm

Surveillance RFID
 Évidement cadre
 Dimensions de caisson 25/50 mm

RFID monitoring
 Frame opening
 Chamber size 25/50 mm



- * 2 mm Aluminiumblech durch Metallbauer zu fertigen
- * Tôle en aluminium 2 mm à fabriquer par le métallier
- * 2 mm aluminium sheet to made by metal constructor

- ** Durch Metallbauer zu fertigen (Kunststoff)
- ** A fabriquer par le métallier (matière plastique)
- ** To made by metal constructor (plastic)

Überwachung RFID
 Einbau Empfänger 599.513

Surveillance RFID
 Montage récepteur 599.513

RFID monitoring
 Installation recipient 599.513

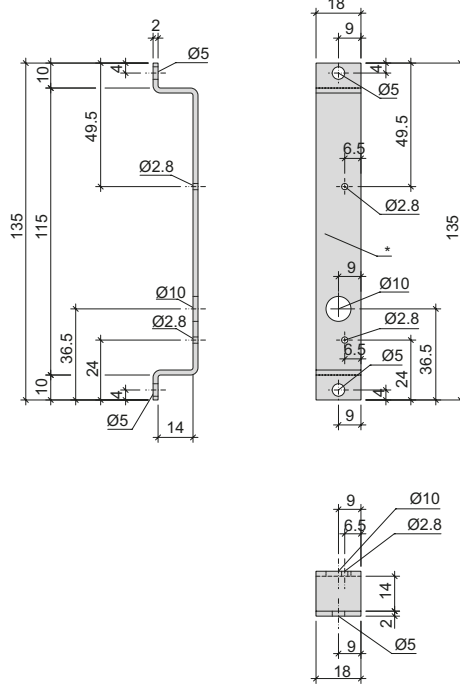
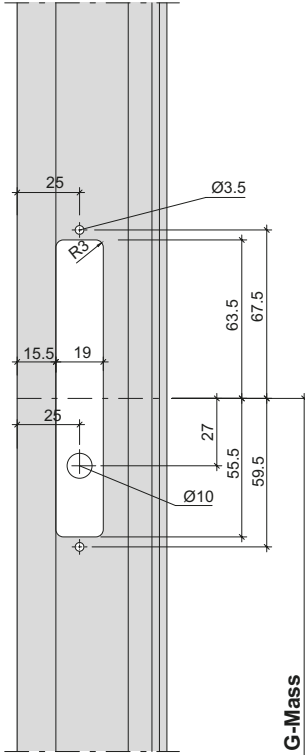
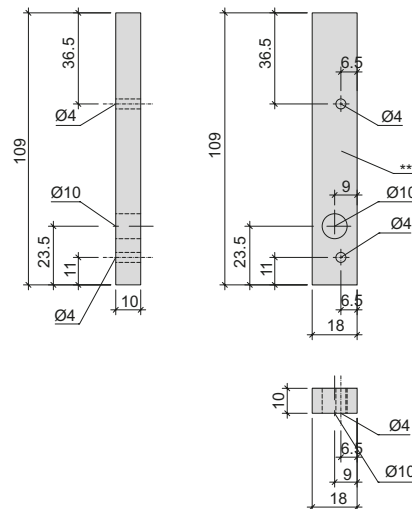
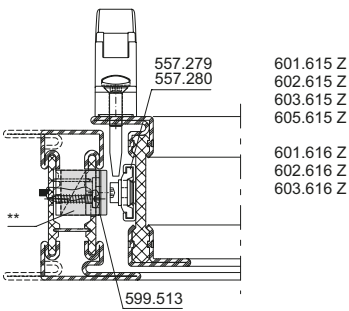
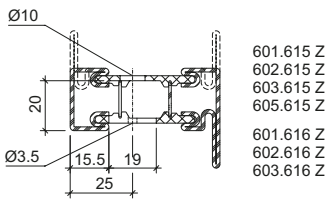


Abbildung für rechts öffnenden Flügel
 Illustration pour vantail à ouverture vers la droite
 Illustration for right opening leaf

- * 2 mm Aluminiumblech durch Metallbauer zu fertigen
- * Tôle en aluminium 2 mm à fabriquer par le métallier
- * 2 mm aluminium sheet to be made by metal constructor

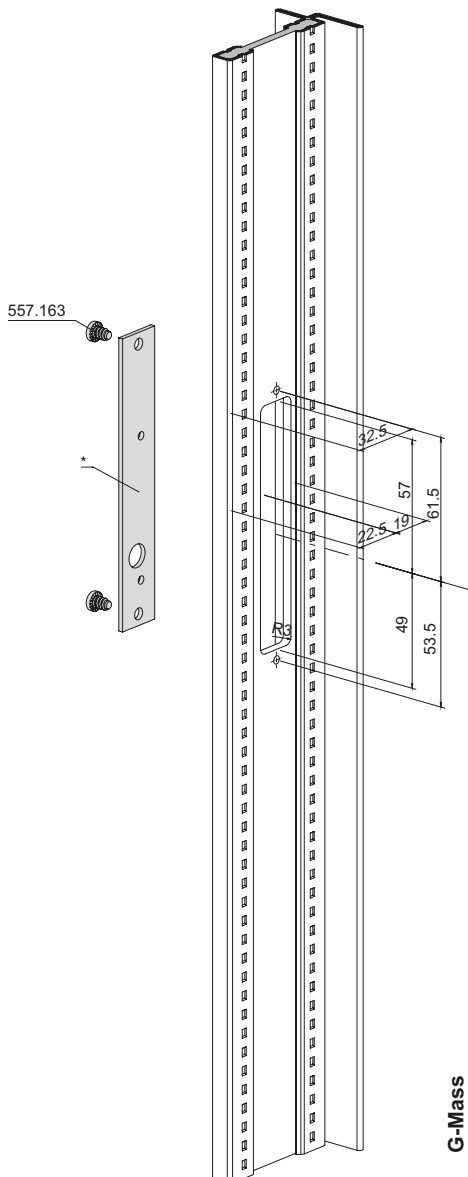
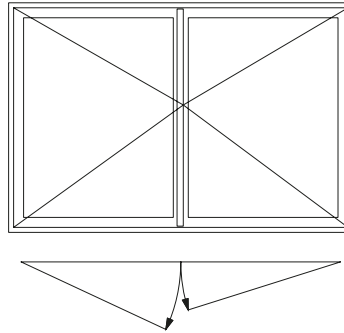
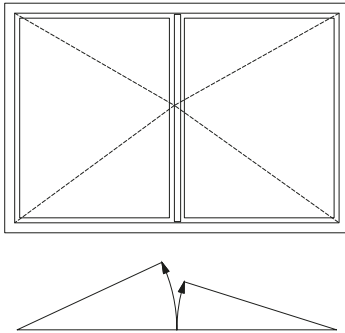


- ** Durch Metallbauer zu fertigen (Kunststoff)
- ** A fabriquer par le métallier (matière plastique)
- ** To be made by metal constructor (plastic)

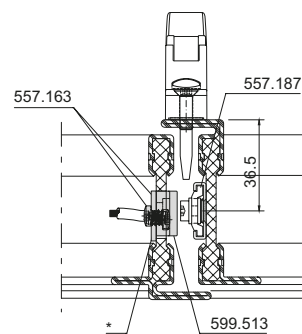
Überwachung RFID
 Ausnehmung Stulpprofil

Surveillance RFID
 Évidement profilé complémentaire

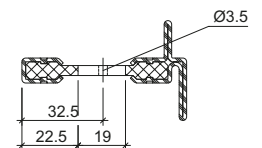
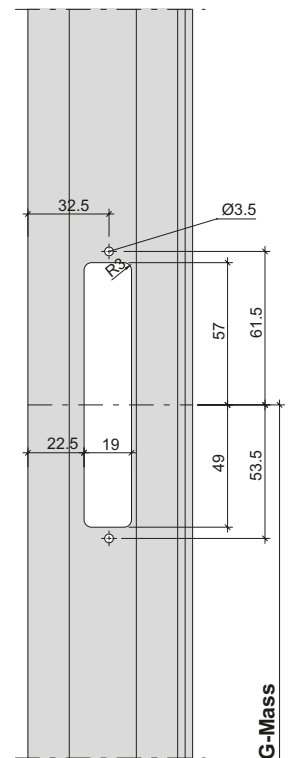
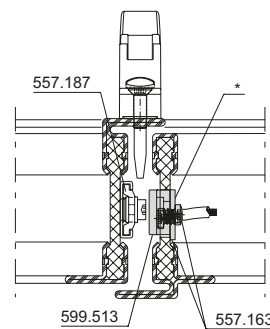
RFID monitoring
 Forend profile opening



Nach innen öffnend
 Ouvrant vers l'intérieur
 Inward opening



Nach aussen öffnend
 Ouvrant vers l'extérieur
 Outward opening

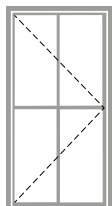


- * 2 mm Aluminiumblech durch Metallbauer zu fertigen
- * Tôle en aluminium 2 mm à fabriquer par le métallier
- * 2 mm aluminium sheet to made by metal constructor

Beschlageinbau
Montage des ferrures
Installation of fittings

Janisol Arte
Janisol Arte
Janisol Arte

2.0

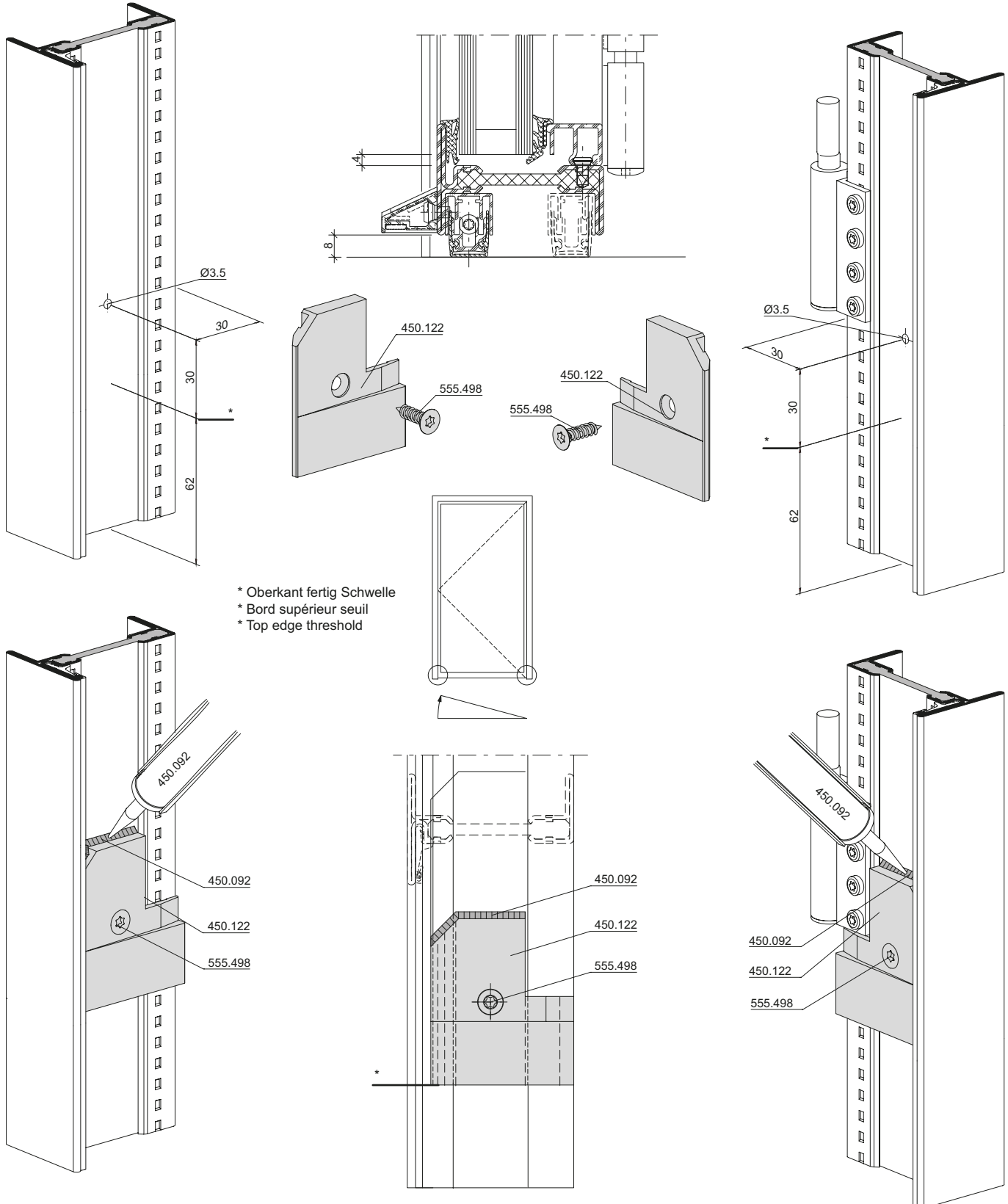


Fenstertüre	Porte-fenêtre	Window-door	
Einbau Dichtteil 450.122	Montage de la pièce d'étanchéité 450.122	Installation of seal element 450.122	250
Einbau 1 Senkdichtung 557.326 - 557.330 inkl. Dichtteil 450.122	Montage d'un joint seuil 557.326 - 557.330 avec pièce d'étanchéité 450.122	Installation of a drop gasket 557.326 - 557.330 including seal element 450.122	251
Einbau 2 Senkdichtungen 557.326 - 557.330 inkl. Dichtteil 450.122	Montage de 2 joints seuil 557.326 - 557.330 avec pièce d'étanchéité 450.122	Installation of two drop gaskets 557.326 - 557.330 including seal element 450.122	252
Konstruktionsbeispiel Bodenwanne unter Schwellenkonstruktion	Exemple de construction Caisson sous la construction du seuil	Design example Floor tray under threshold structure	253
Schwellenkonstruktion Fenstertüre mit 452.993 und Deckel 452.288	Construction de seuils porte-fenêtre avec 452.993 et couvercle 452.288	Threshold structure window doors with 452.993 and cover 452.288	254
Montage CNS Winkel 1 mm	Montage équerre CNS 1 mm	Mounting the CNS bracket 1 mm	256

Einbau Dichtteil 450.122 für
 Fenstertüre einflügelig
 Rahmen

Montage de la pièce d'étanchéité
 450.122 pour porte-fenêtre à un
 vantail
 Cadre

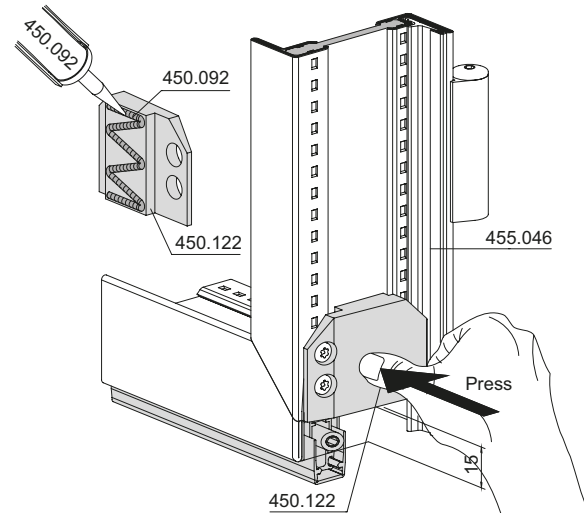
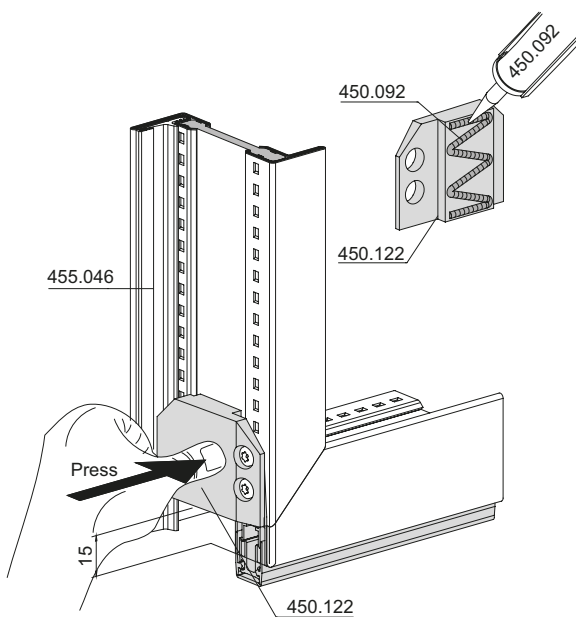
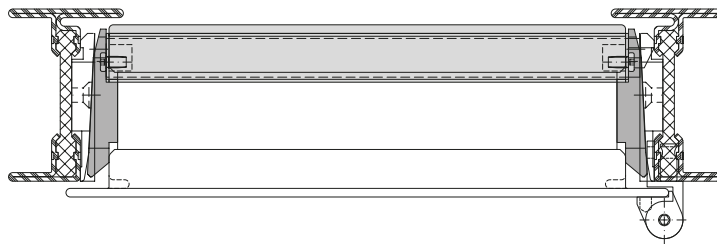
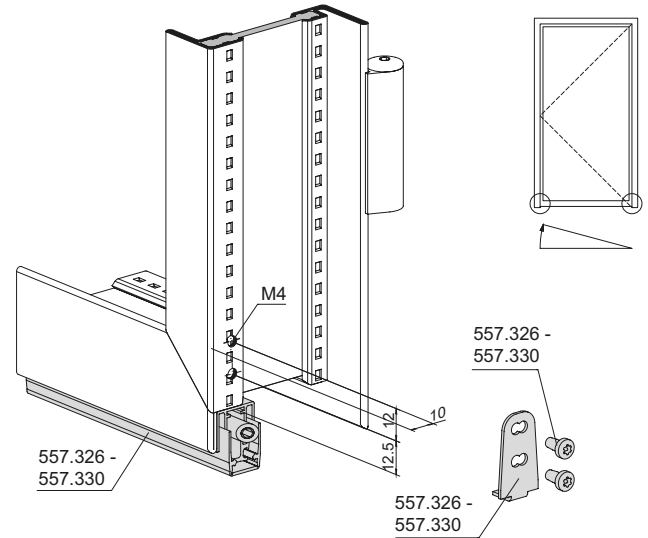
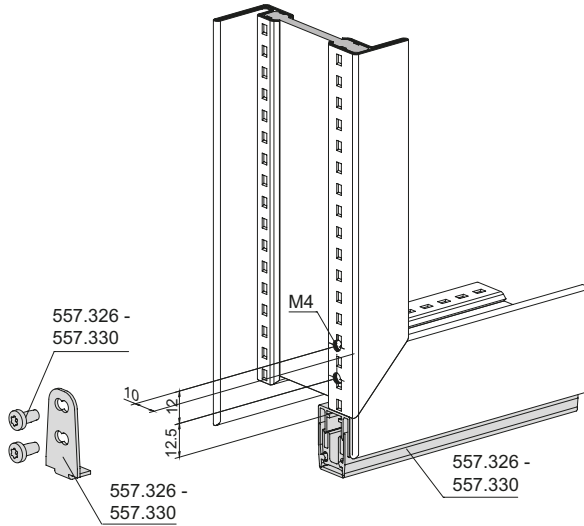
Installation of seal element 450.122
 for single-leaf window doors
 Frame



Einbau 1 Senkdichtung
557.326 - 557.330
 inkl. Dichtteil 450.122
 Flügel

Montage d'un joint seuil
557.326 - 557.330 avec pièce
d'étanchéité 450.122
 Vantail

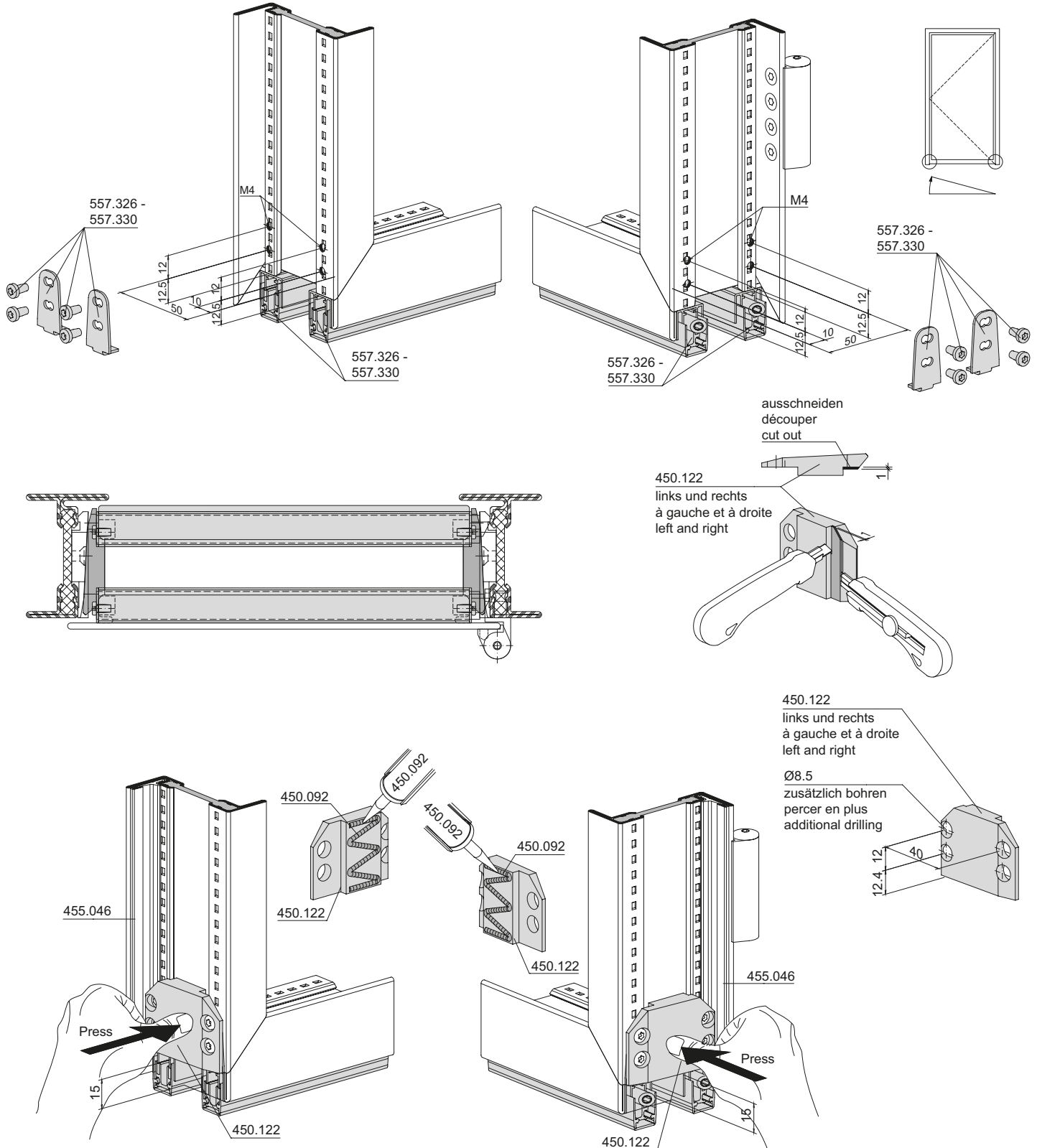
Installation of a drop gasket
557.326 - 557.330 including seal
element 450.122
 Leaf



Einbau 2 Senkdichtungen
557.326 - 557.330
inkl. Dichtteil 450.122
Flügel

Montage de 2 joints seuil
557.326 - 557.330 avec pièce
d'étanchéité 450.122
Vantail

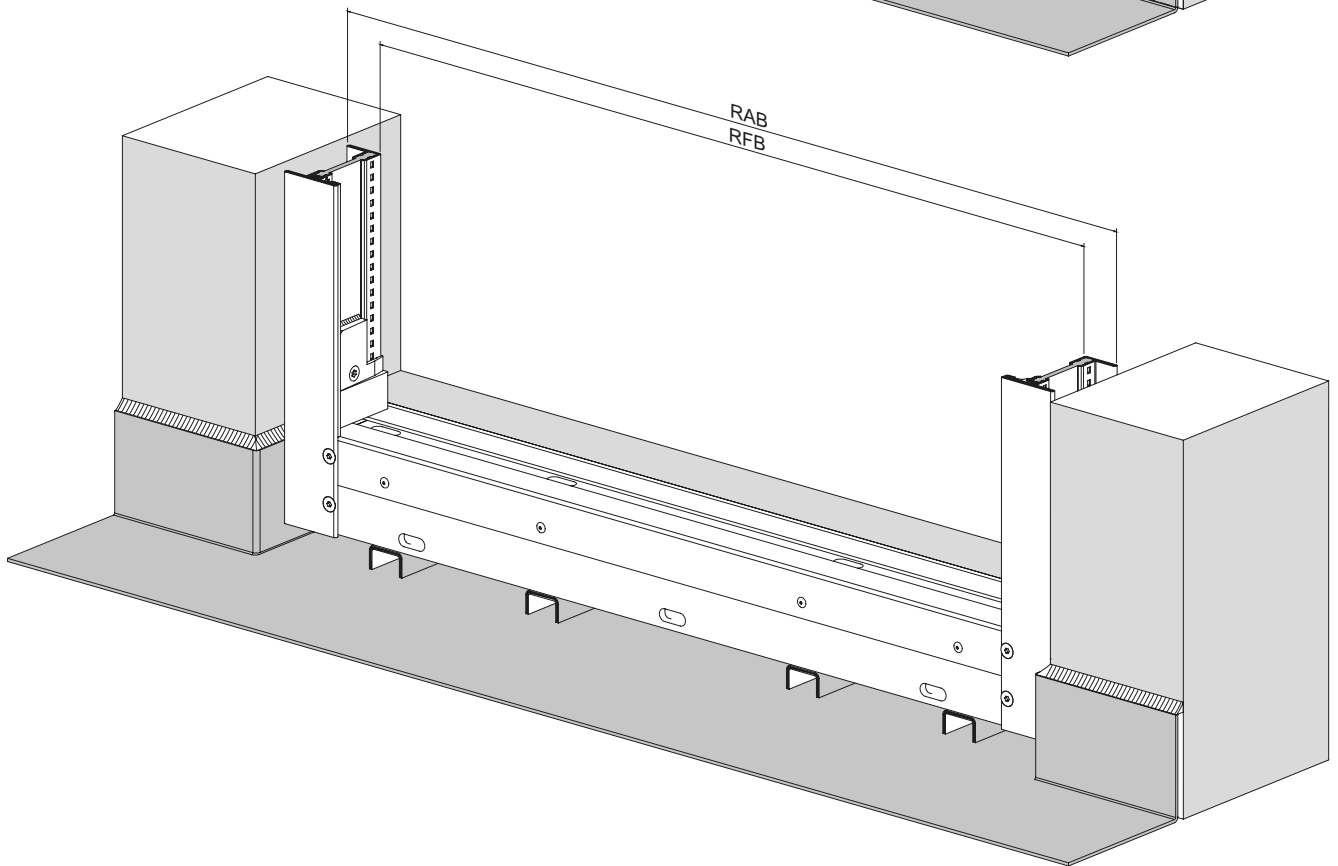
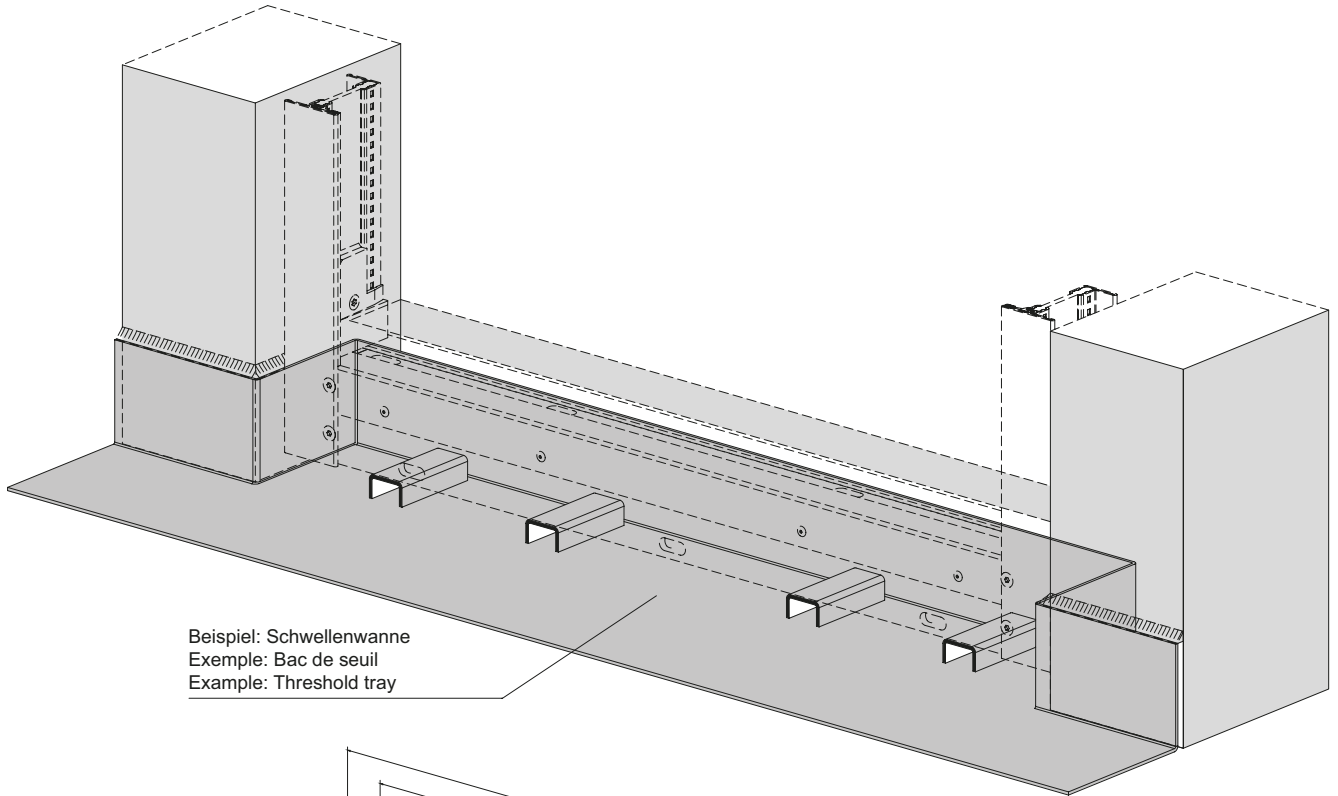
Installation of two drop gaskets
557.326 - 557.330 including seal
element 450.122
Leaf



Konstruktionsbeispiel
Bodenwanne unter
Schwellenkonstruktion
Fenstertüre

Exemple de construction
Caisson sous la construction
du seuil
Porte-fenêtre

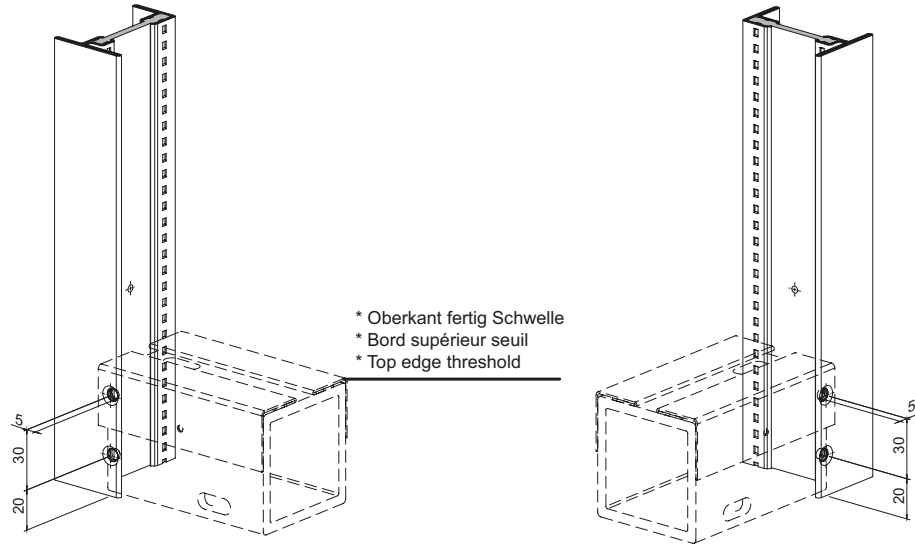
Design example
Floor tray under threshold structure
Window doors



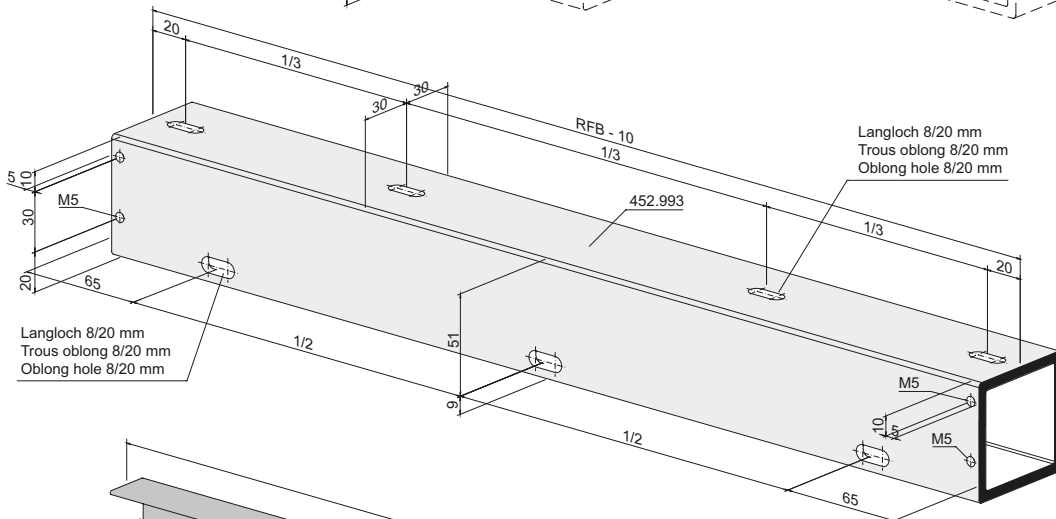
Schwellenkonstruktion
 Anschlussprofil 452.993 und
 Deckel 452.288

Construction de seuils
 Profilé de raccordement 452.993 et
 couvercle 452.288

Threshold structure
 Attachment profile 452.993 and
 cover 452.288

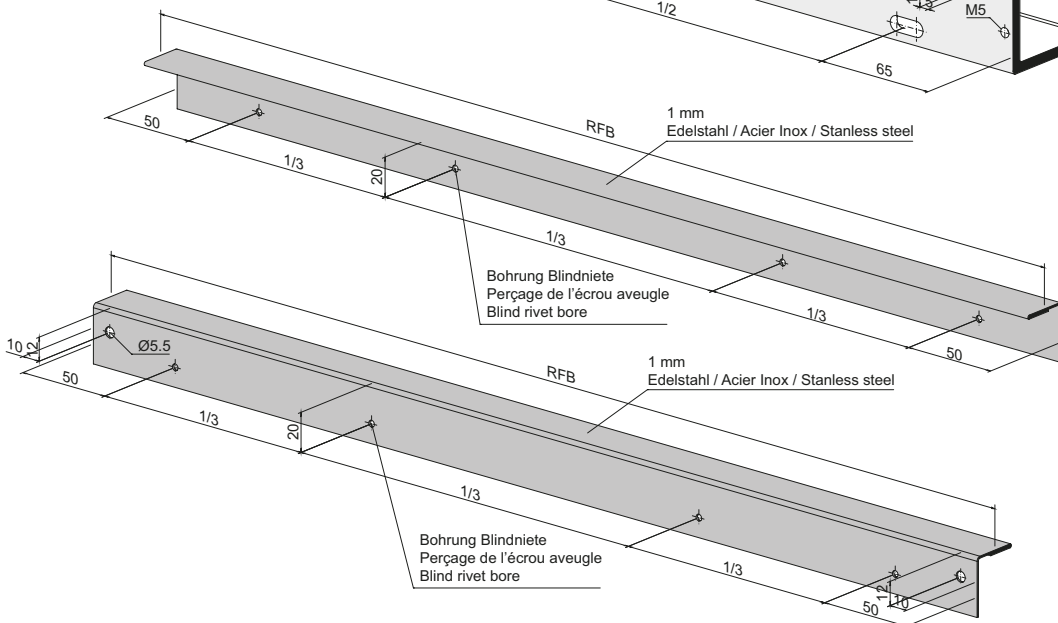


* Oberkant fertig Schwelle
 * Bord supérieur seuil
 * Top edge threshold

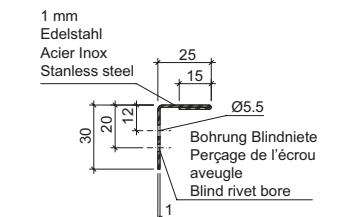
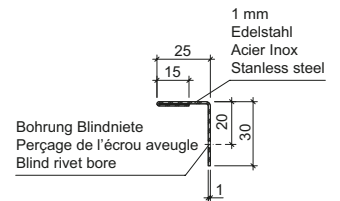


Langloch 8/20 mm
 Troux oblong 8/20 mm
 Oblong hole 8/20 mm

Langloch 8/20 mm
 Troux oblong 8/20 mm
 Oblong hole 8/20 mm



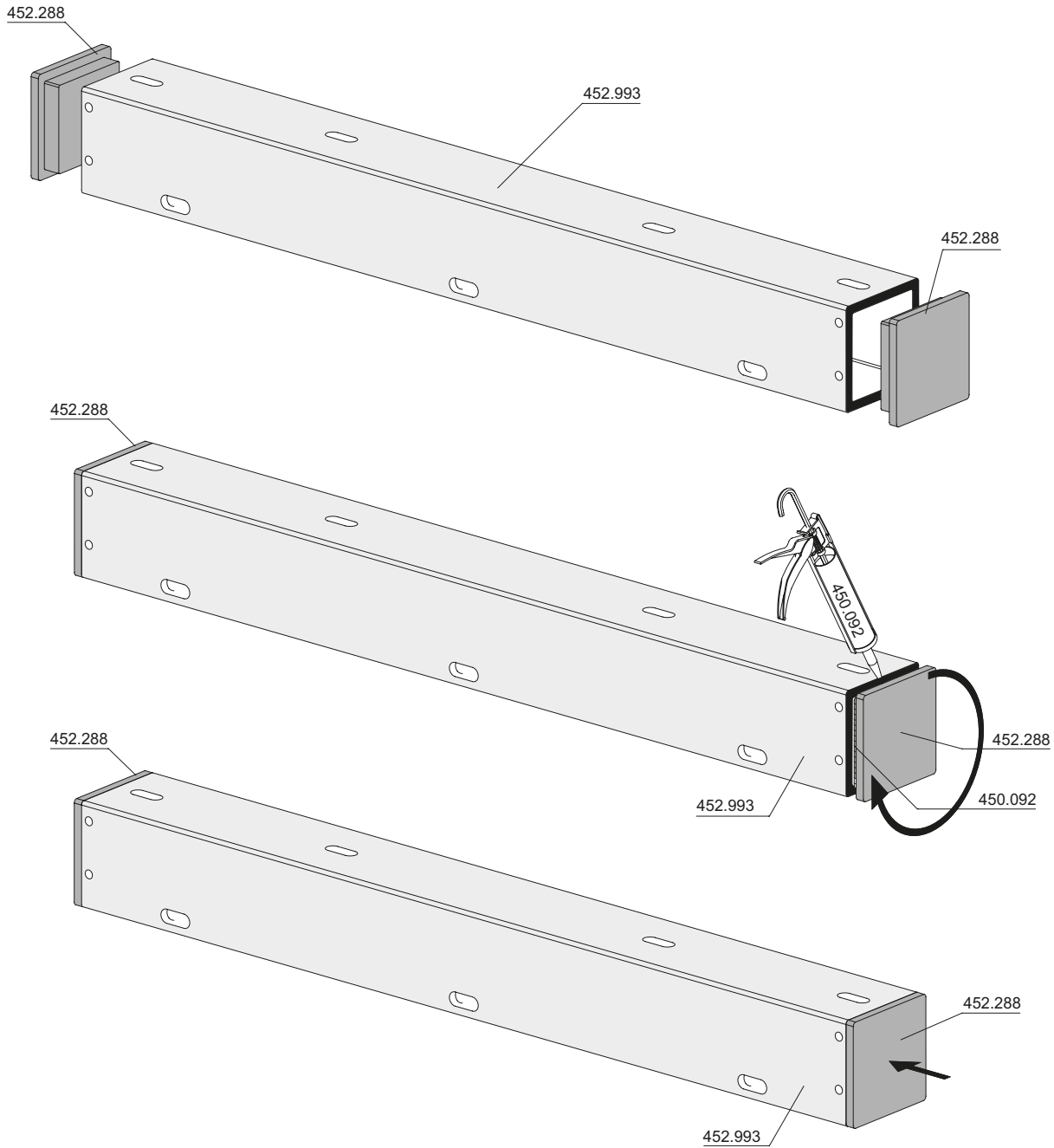
Bohrung Blindniete
 Perçage de l'écrou aveugle
 Blind rivet bore



Schwelkenkonstruktion
Anschlussprofil 452.993 und
Deckel 452.288

Construction de seuils
Profilé de raccordement 452.993 et
couvercle 452.288

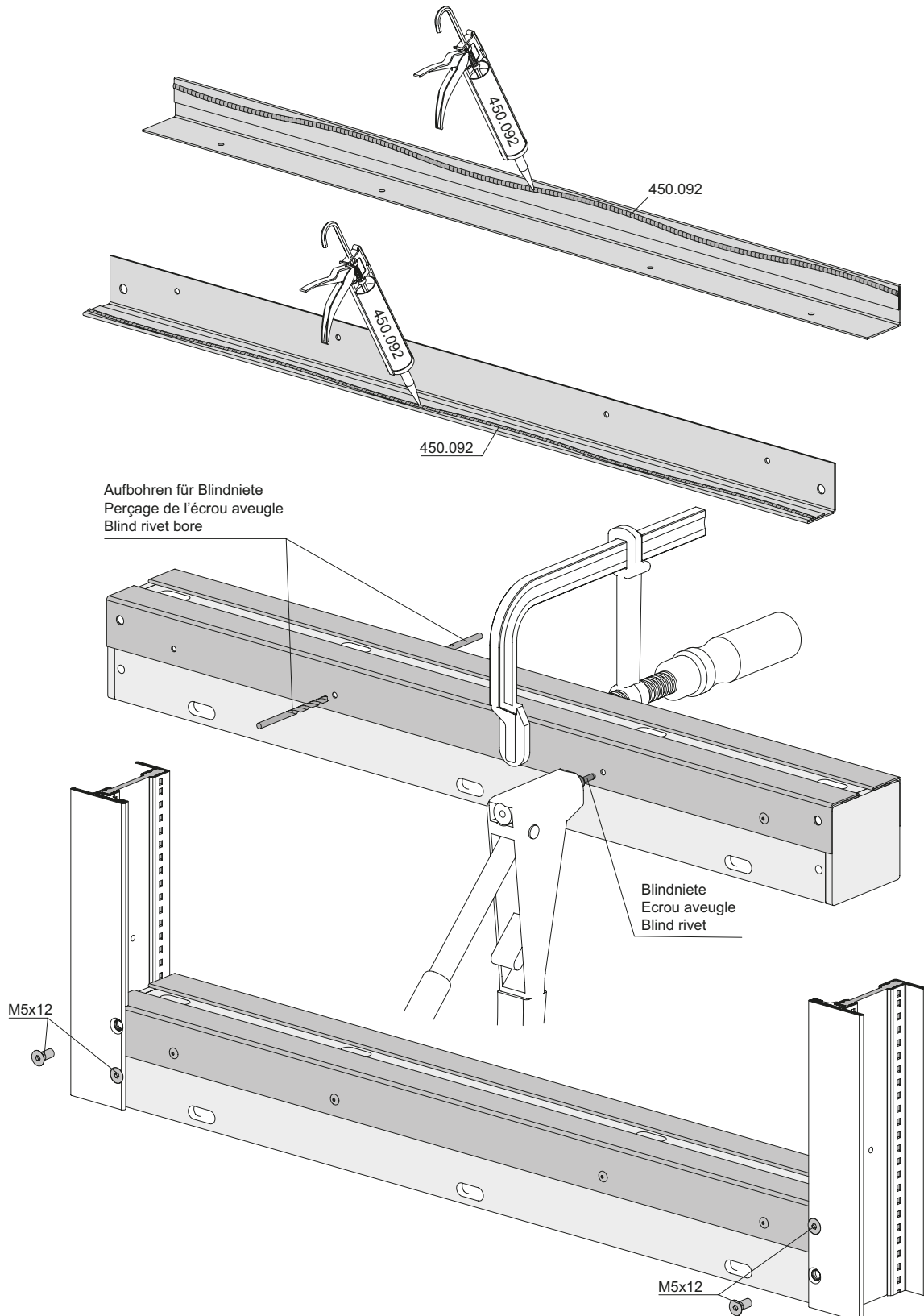
Threshold structure
Attachment profile 452.993 and
cover 452.288

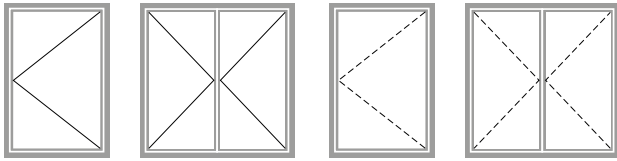


Montage CNS Winkel 1 mm

Montage équerre CNS 1 mm

Mounting the CNS bracket 1 mm





**Sonderbeschläge
Drehfenster**

**Ferrures spéciales
fenêtre à la française**

**Special fittings for
side-hung windows**

Öffnungsbegrenzer 557.197
Geriebe 557.279/557.280

Compas de limitation d'ouverture 557.197
Crémone de tringle 557.279/557.280

Opening limiter 557.197
Mechanism rod 557.279/557.280

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Öffnungsbegrenzer 557.197
Geriebe 557.187

Compas de limitation d'ouverture 557.197
Crémone de tringle 557.187

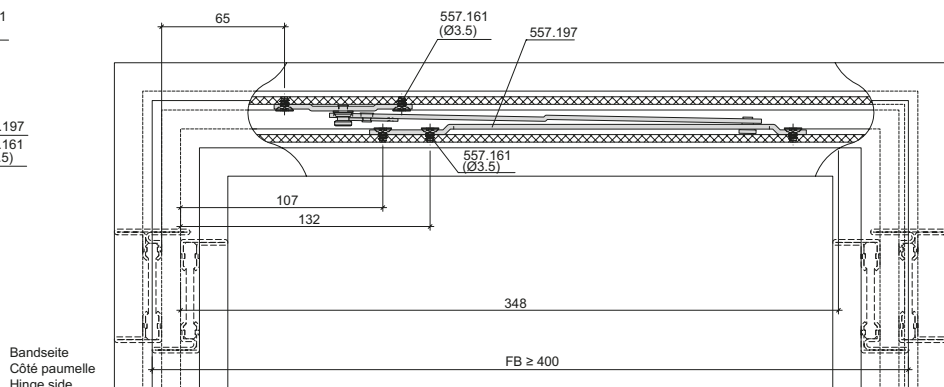
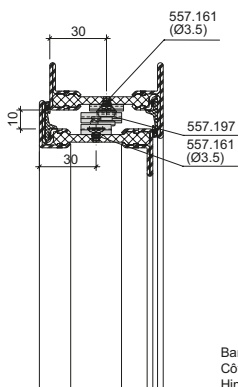
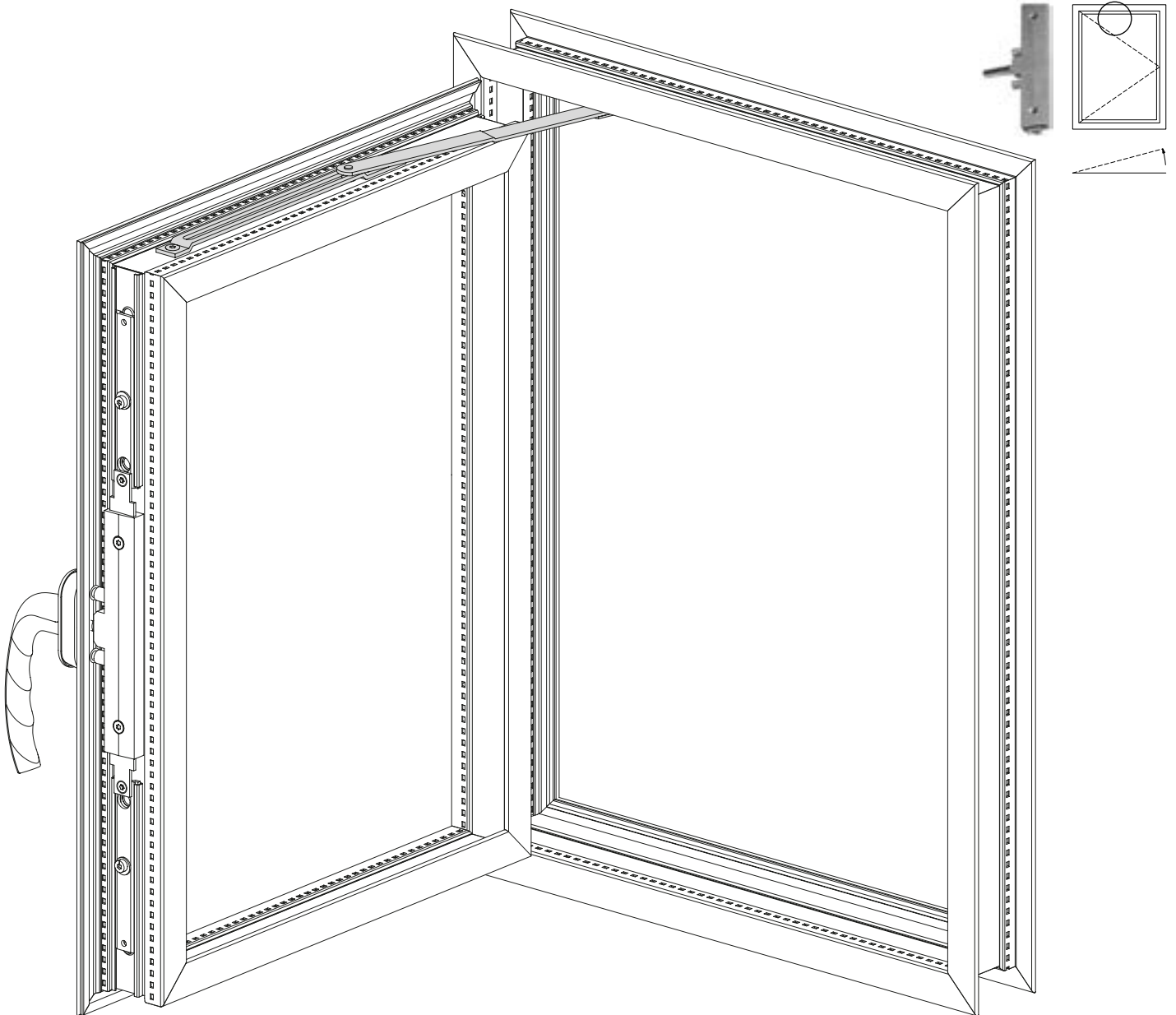
Opening limiter 557.197
Mechanism rod 557.187

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Öffnungsbegrenzer 557.197

Compas de limitation d'ouverture
 557.197

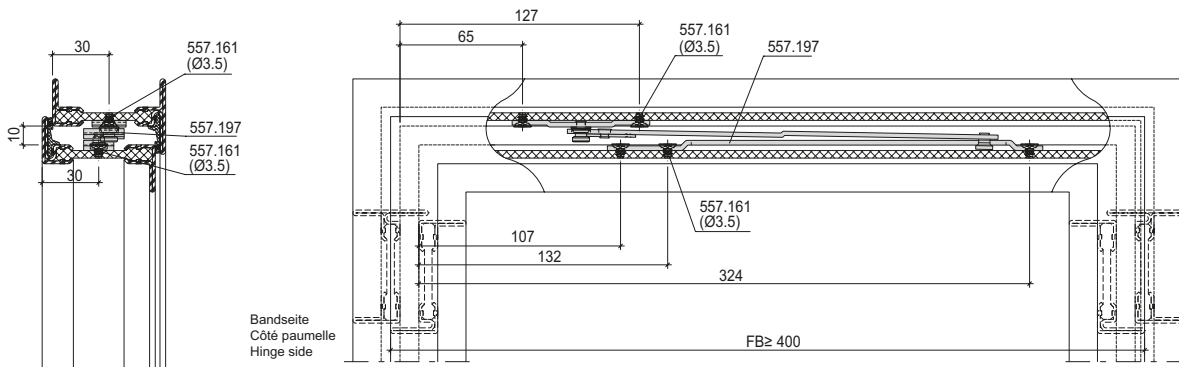
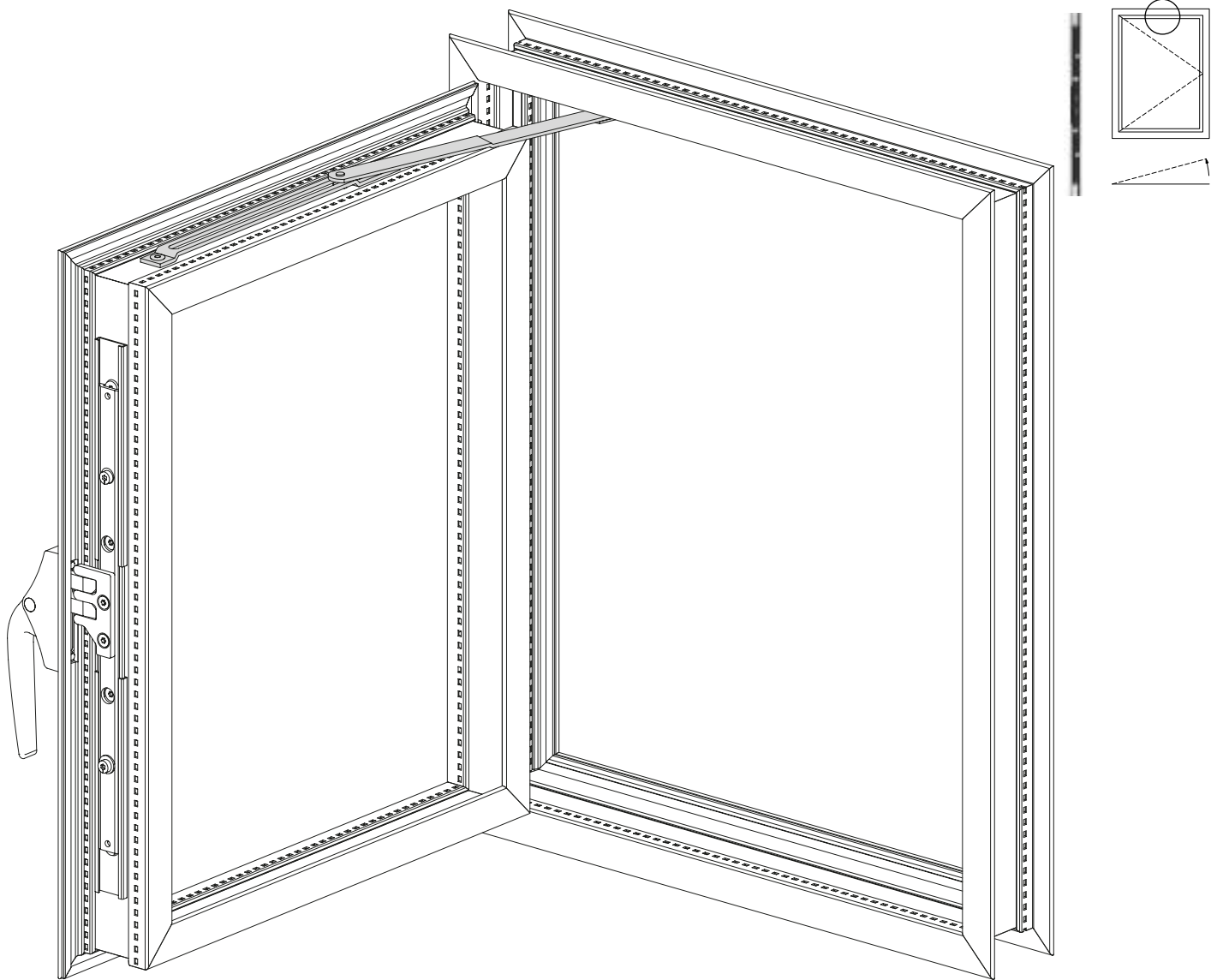
Opening limiter 557.197

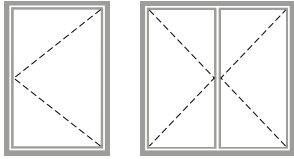


Öffnungsbegrenzer 557.197

Compas de limitation d'ouverture
 557.197

Opening limiter 557.197





Aufgesetzter Beschlag

Ferrure plaquée

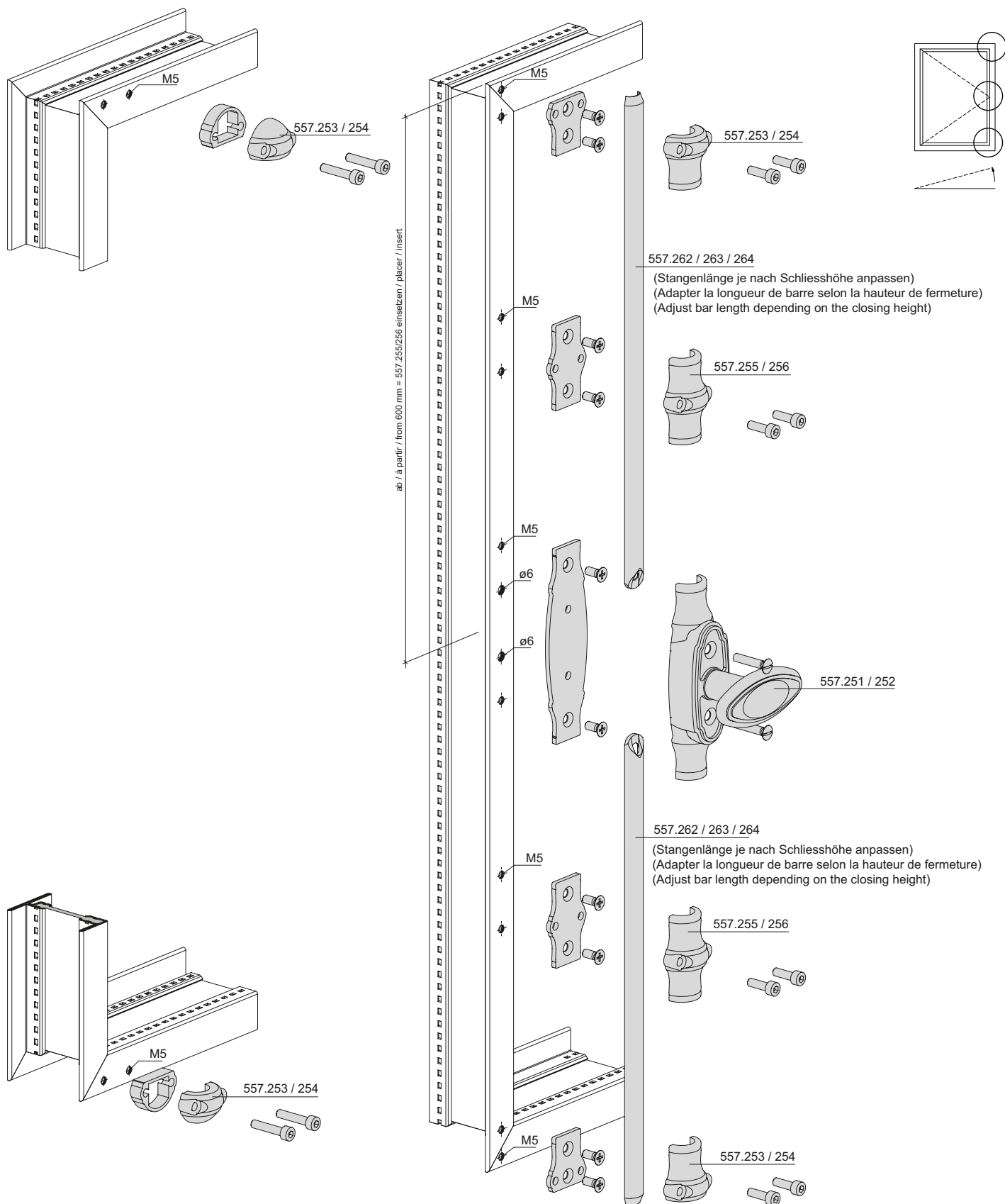
Surface-mounted fitting

Übersicht	Aperçu	Overview	261
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Bohrbild Dreholive 557.251/557.252	Schéma de perçage Bouton rotatif 557.251/557.252	Drilling pattern Olive handle 557.251/557.252	263
Bohrbild Mittelführung 557.255/557.256	Schéma de perçage Guide central 557.255/557.256	Drilling pattern Centre guide 557.255/557.256	264
Bohrbild Schliessstück 557.253/557.254	Schéma de perçage Pièce de fermeture 557.253/557.254	Drilling pattern Locking component 557.253/557.254	265
Bohrbild Schliessstück 557.259	Schéma de perçage Pièce de fermeture 557.259	Drilling pattern Locking component 557.259	266
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Anordnung Schliessstück 557.261	Disposition du pièce de fermeture 557.261	Arrangement of locking component 557.261	269
Bohrbild Stulpfenster Distanzstücke 557.257/557.258	Schéma de perçage Pièces intercalaire 557.257/557.258	Drilling pattern Spacer 557.257/557.258	270

Übersicht

Aperçu

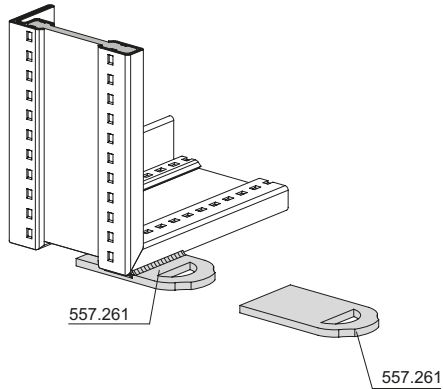
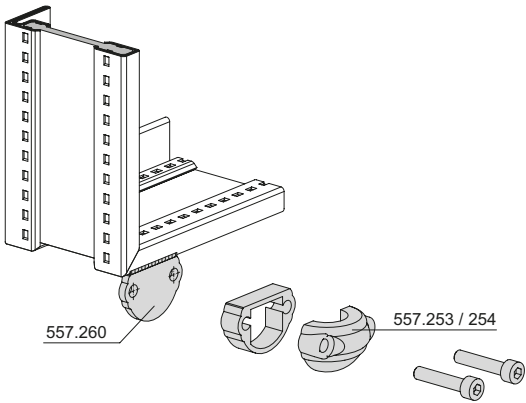
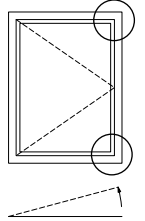
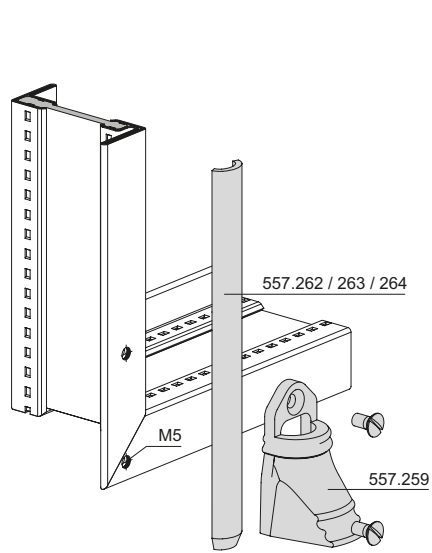
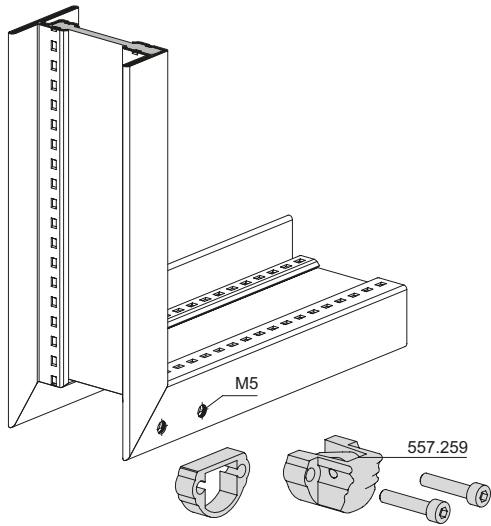
Overview



Verschlusspunkt-Varianten

Variantes de point de fermeture

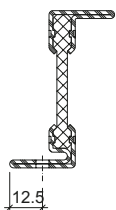
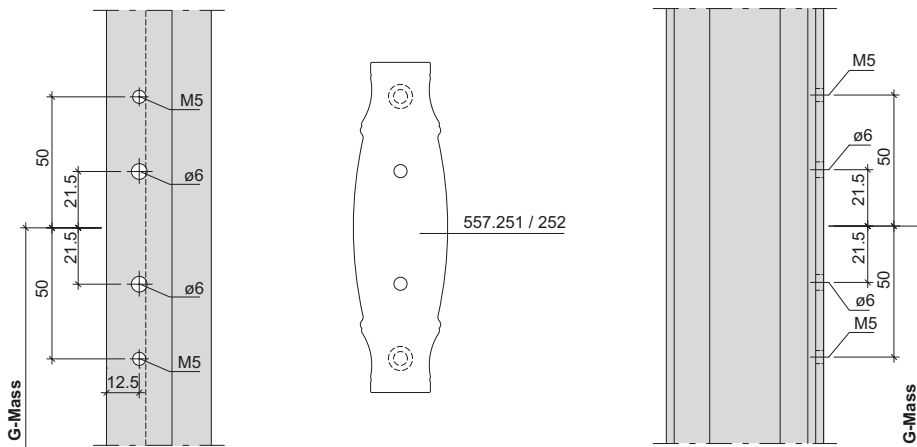
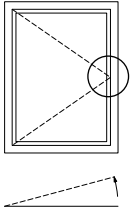
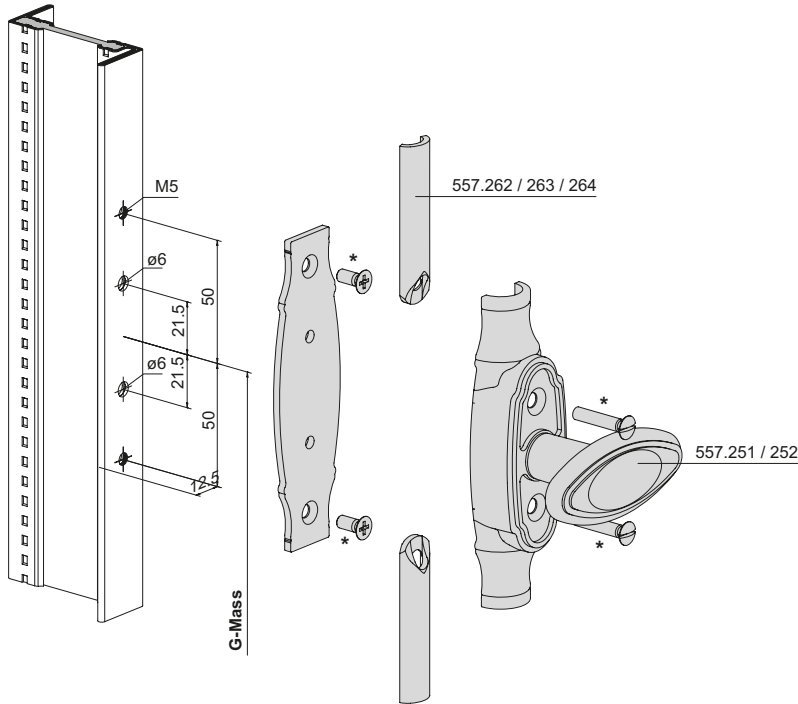
Locking point options



Bohrbild
 Dreholive 557.251/557.252
 Flügel

Schéma de perçage
 Bouton rotatif 557.251/557.252
 Vantail

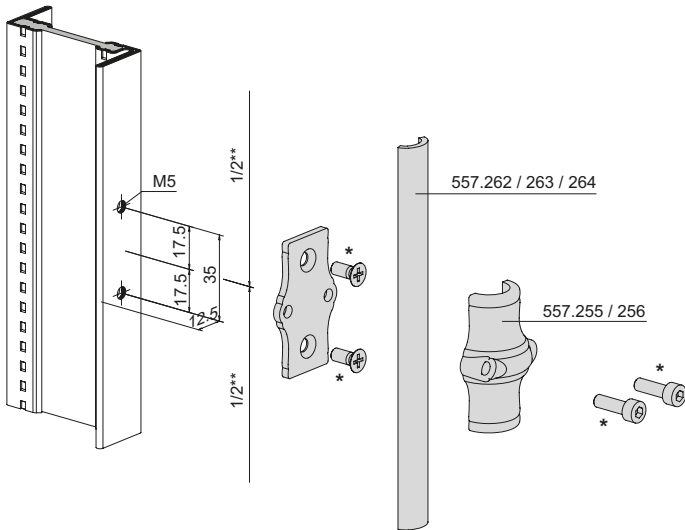
Drilling pattern
 Olive handle 557.251/557.252
 Sash



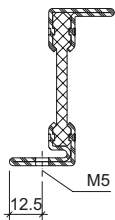
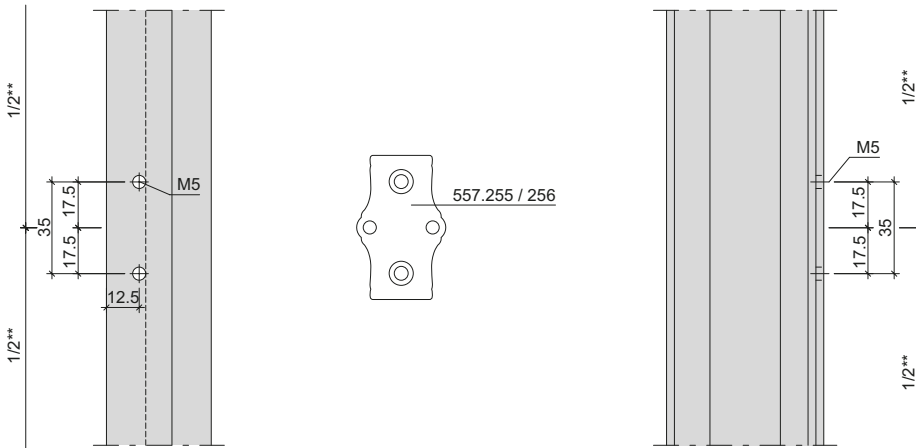
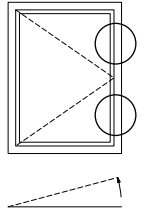
Bohrbild
Mittelführung 557.255/557.256
Flügel

Schéma de perçage
Guide central 557.255/557.256
Vantail

Drilling pattern
Centre guide 557.255/557.256
Sash



* Schraubenlänge kürzen
 * Écourter la vis
 * Shorten screw length

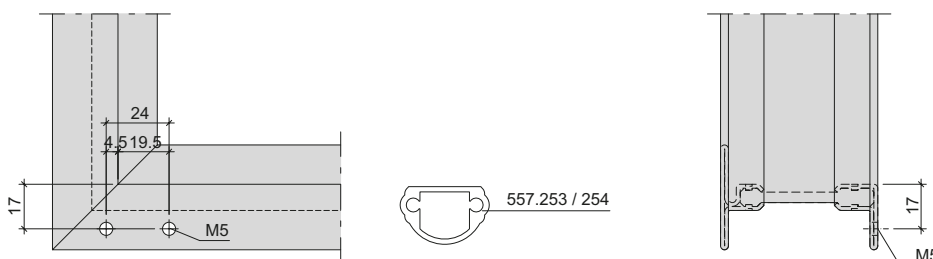
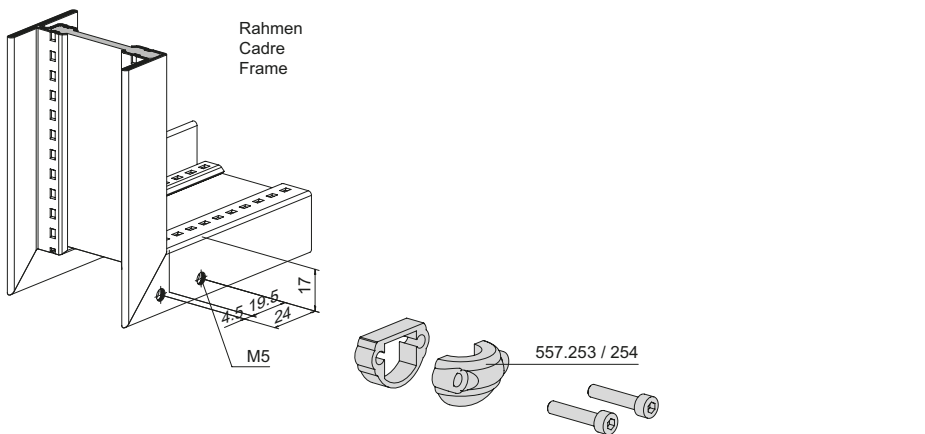
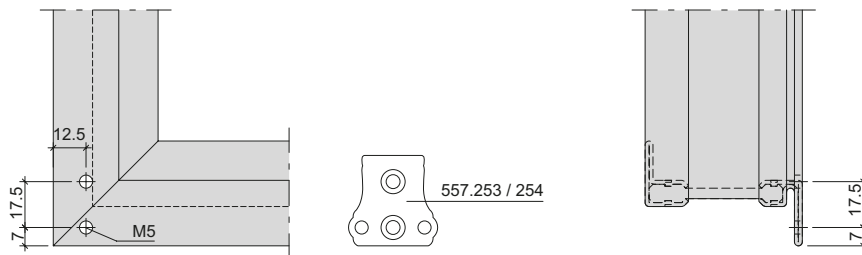
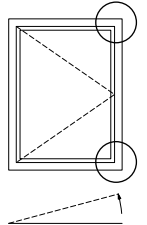
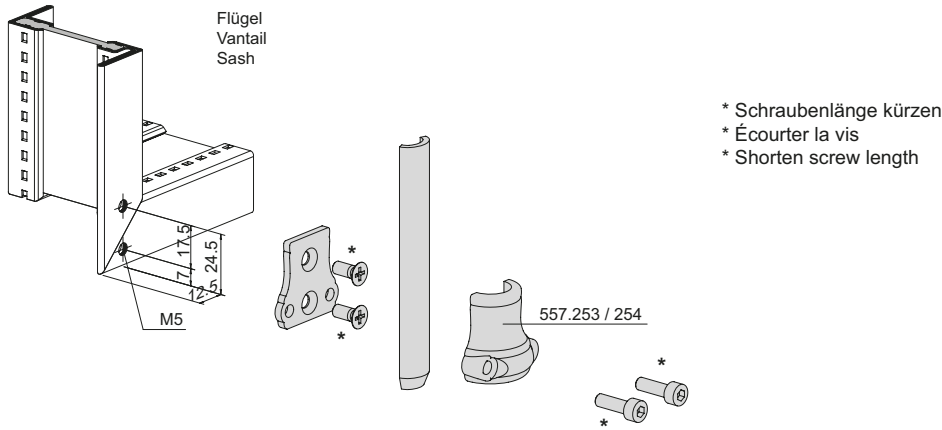


** Die genaue Position ist durch Metallbauer zu bestimmen
 ** La position exacte doit être définie par le métallier
 ** The exact position is to be determined by the metal fabricator

Bohrbild
Schliesstück 557.253/557.254

Schéma de perçage
Pièce de fermeture 557.253/557.254

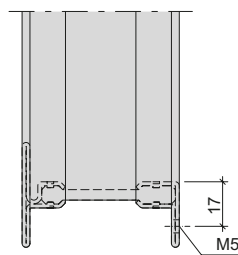
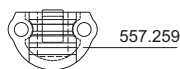
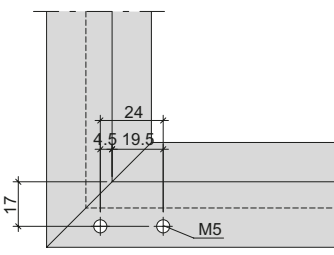
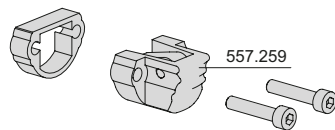
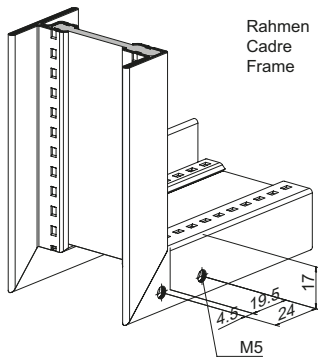
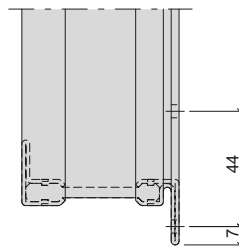
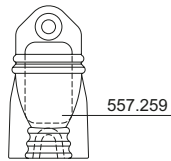
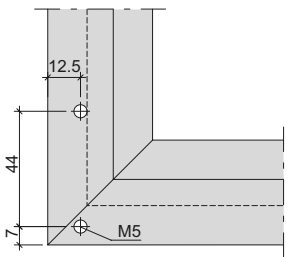
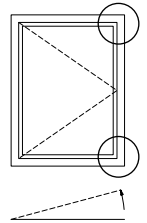
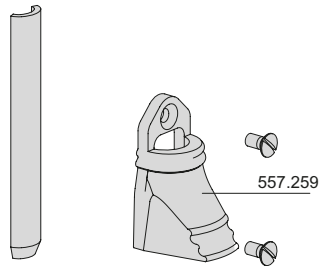
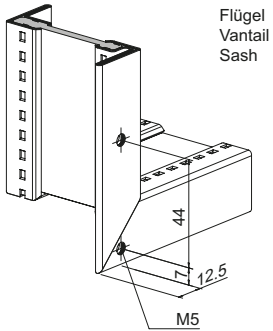
Drilling pattern
Locking component 557.253/557.254



Bohrbild
Schliessstück 557.259

Schéma de perçage
Pièce de fermeture 557.259

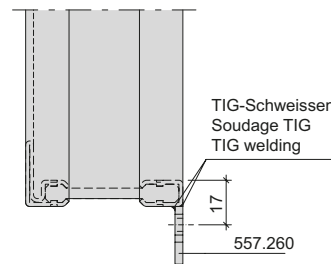
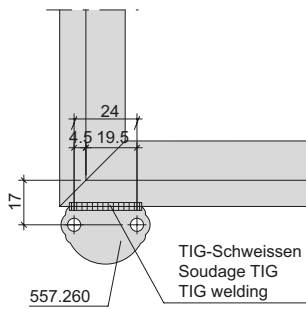
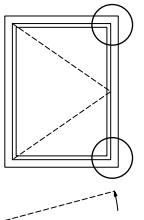
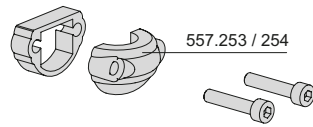
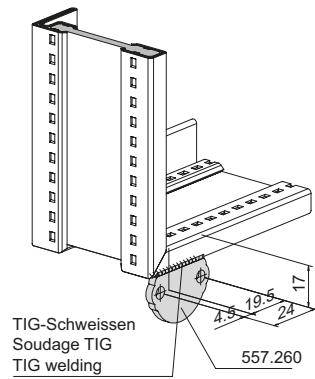
Drilling pattern
Locking component 557.259



Anordnung Anschweislasche
557.260
Rahmen

Disposition du languette à souder
557.260
Cadre

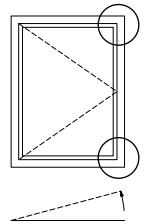
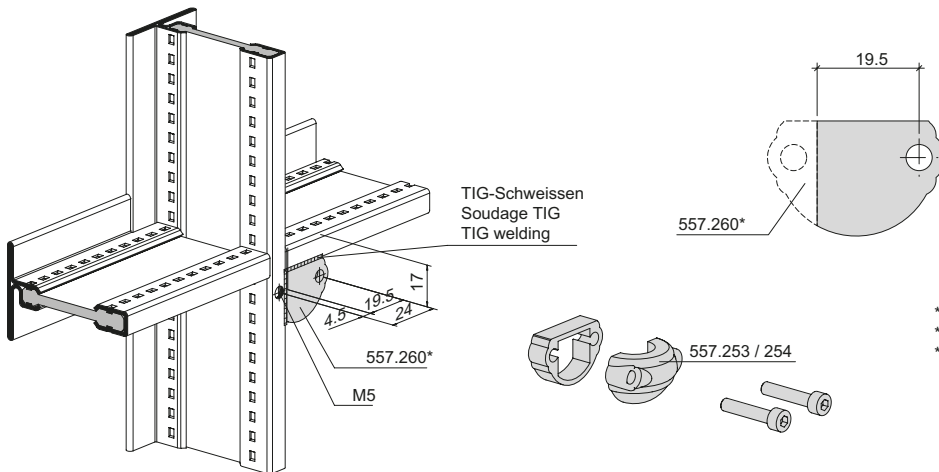
Arrangement of weld-on fixing bracket 557.260
Frame



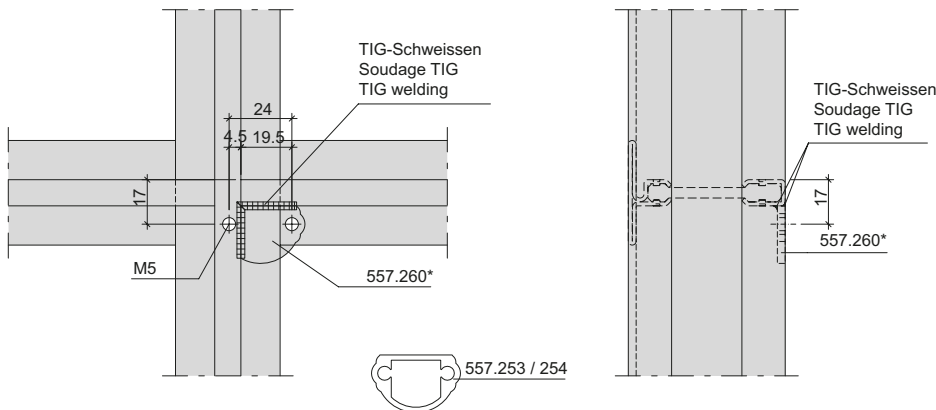
Anordnung Kreuzpunkt
Anschweislasche 557.260
Rahmen

Disposition du point d'intersection
Langue à souder 557.260
Cadre

Arrangement of intersection
Weld-on fixing bracket 557.260
Frame



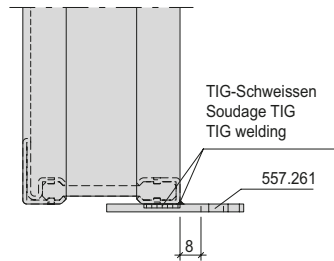
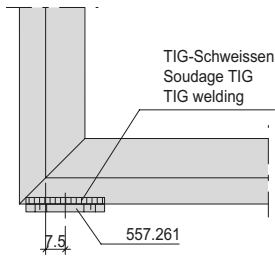
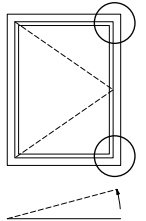
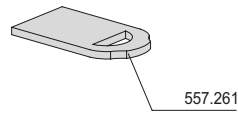
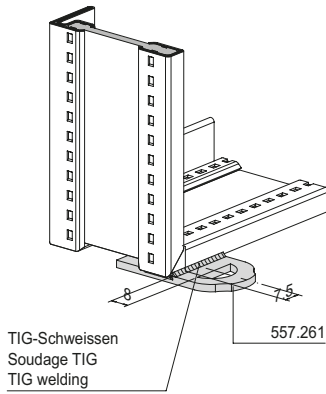
* Durch Metallbauer zu kürzen
 * Doit être écourté par le métallier
 * To be shortened by the metal fabricator



Anordnung Schliessstück 557.261
Rahmen

Disposition du
pièce de fermeture 557.261
Cadre

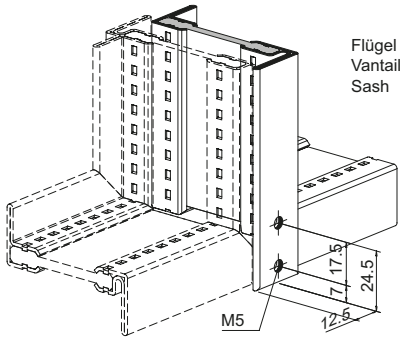
Arrangement of
locking component 557.261
Frame



Bohrbild Stulpfenster
Distanzstücke 557.257/557.258

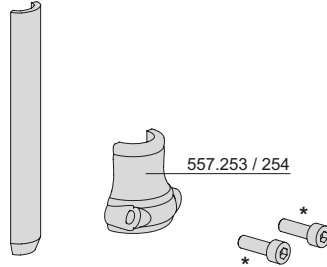
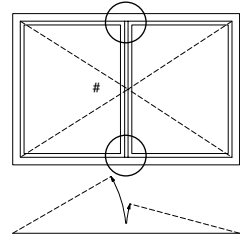
Schéma de perçage
Pièces intercalaire 557.257/557.258

Drilling pattern
Spacer 557.257/557.258

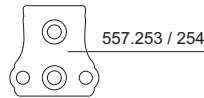
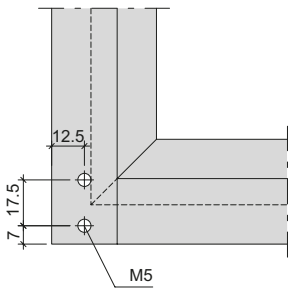


Flügel
 Vantail
 Sash

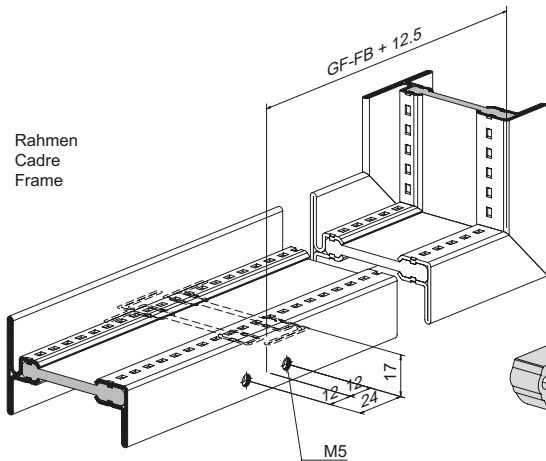
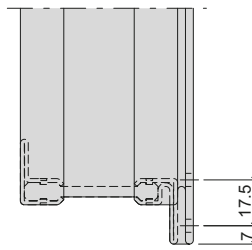
- * Schraubenlänge kürzen
- * Écourter la vis
- * Shorten screw length



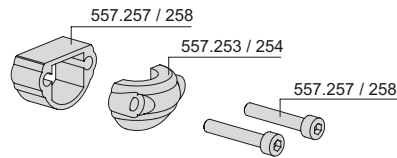
557.253 / 254



557.253 / 254



Rahmen
 Cadre
 Frame



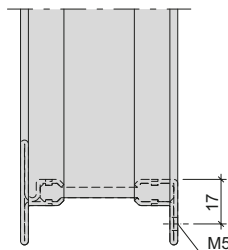
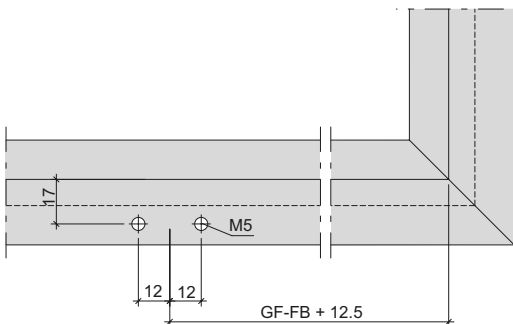
557.257 / 258

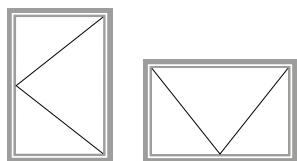
557.253 / 254

557.257 / 258



557.253 / 254





Feststellstange

Barre de blocage

Peg stay

Feststellstange 557.271 - 557.273
(Drehfenster nach aussen öffnend)

Barre de blocage 557.271 - 557.273
(Fenêtre à la française ouvrant vers l'extérieur)

Peg stay 557.271 - 557.273
(Side-hung window)

272

Feststellstange 557.271 - 557.273
(Klappfenster nach aussen öffnend)

Barre de blocage 557.271 - 557.273
(Fenêtre basculante ouvrant vers l'extérieur)

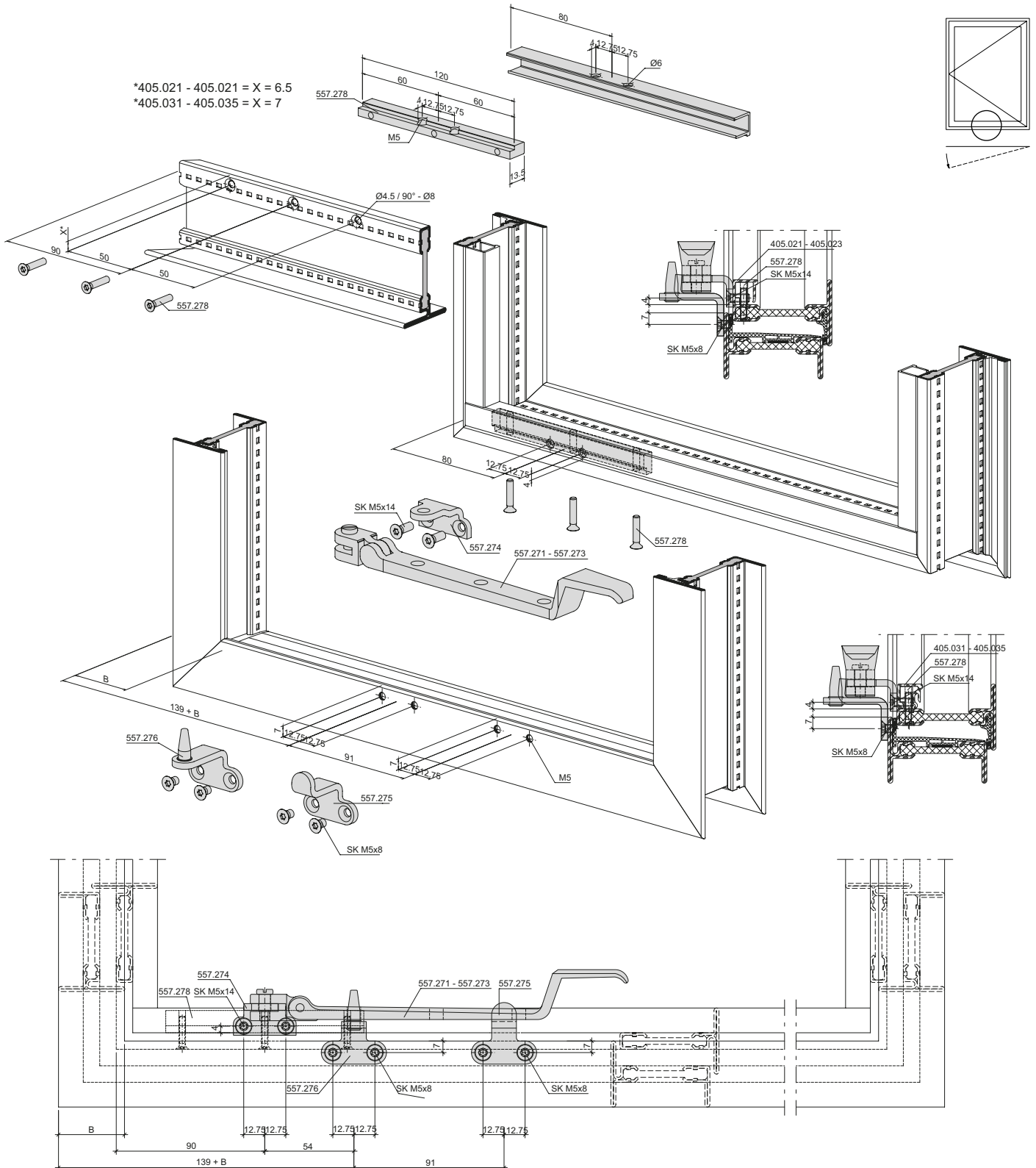
Peg stay 557.271 - 557.273
(Outward-opening top-hung window)

273

Feststellstange 557.271 - 557.273

Barre de blocage 557.271 - 557.273

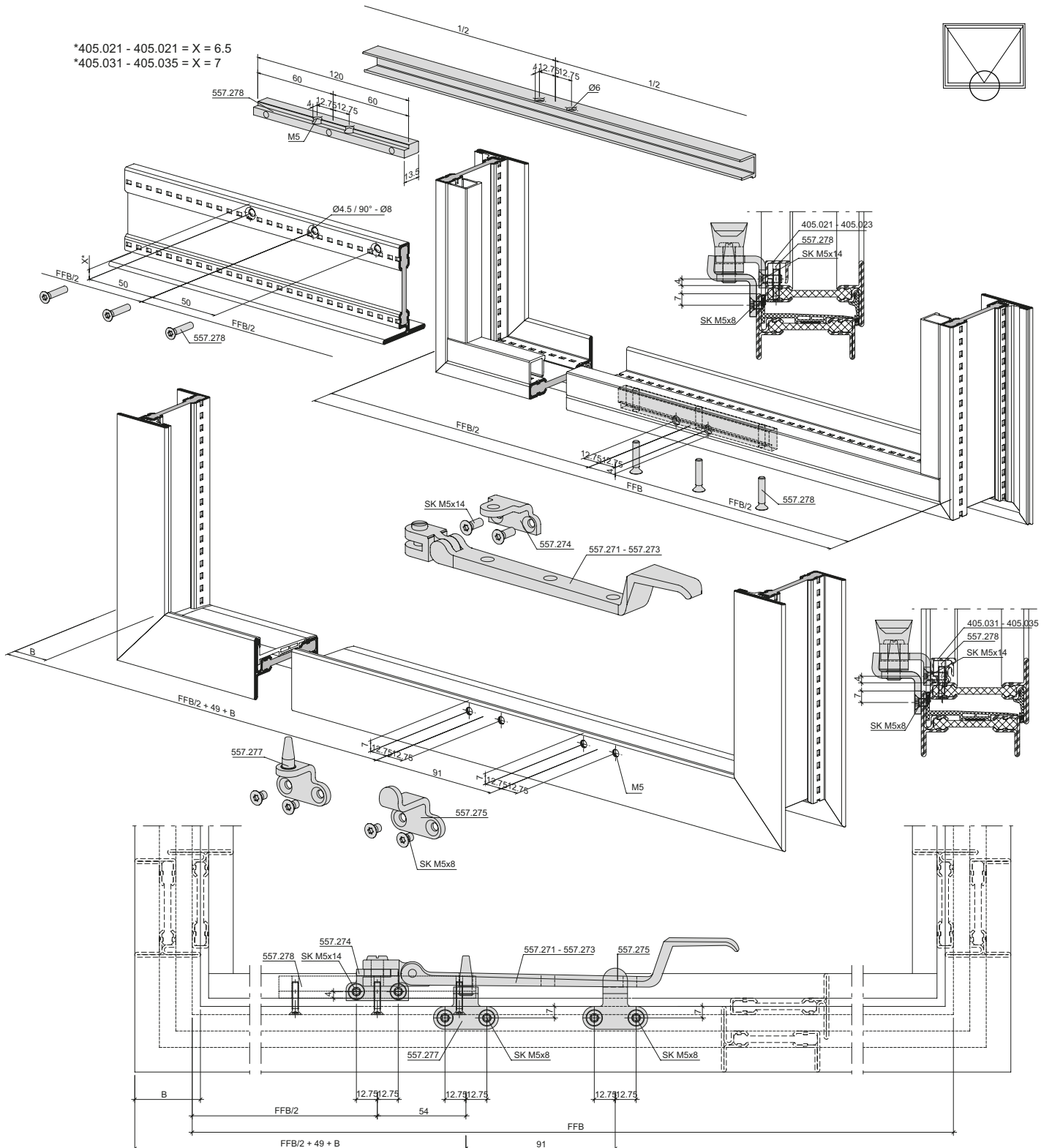
Peg stay 557.271 - 557.273



Feststellstange 557.271 - 557.273

Barre de blocage 557.271 - 557.273

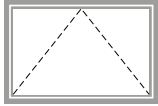
Peg stay 557.271 - 557.273



Beschlageinbau
Montage des ferrures
Installation of fittings

Janisol Arte
Janisol Arte
Janisol Arte

2.0

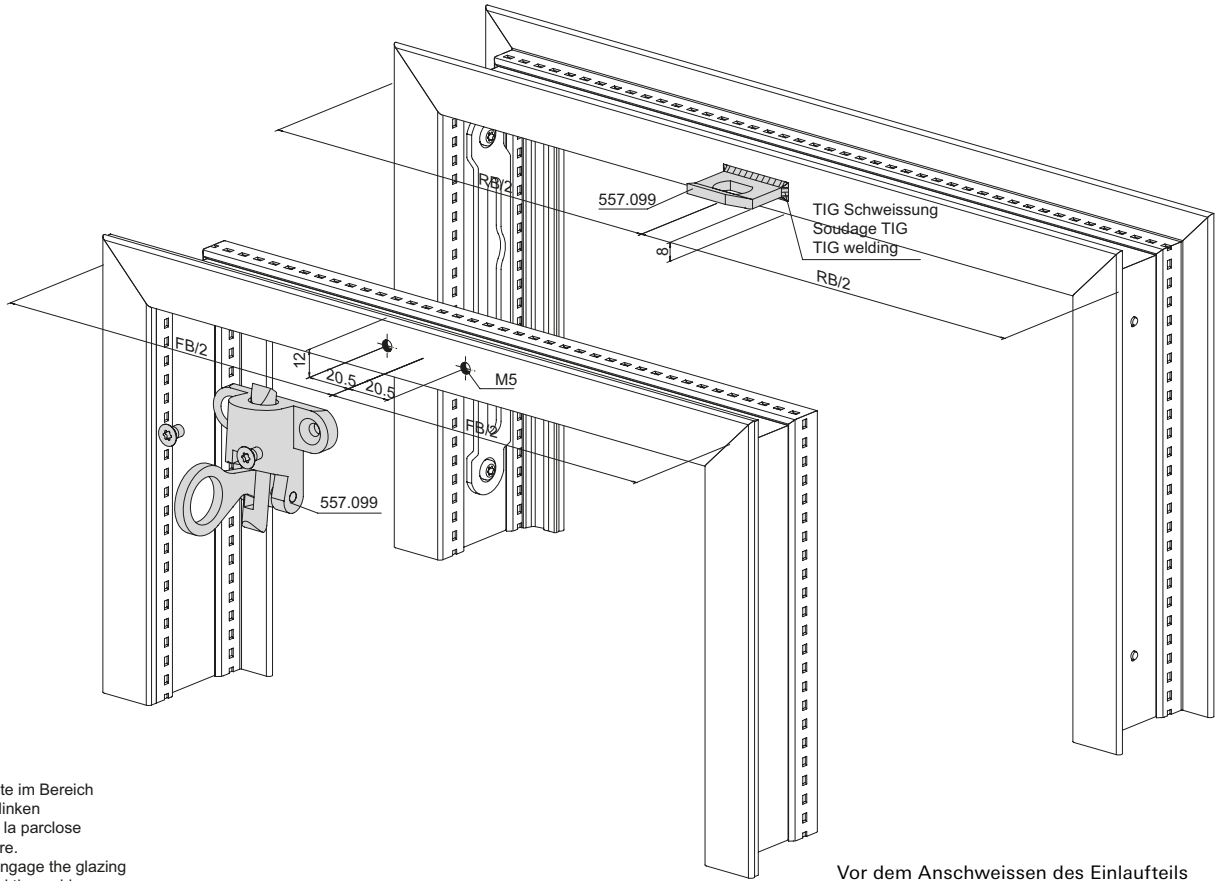
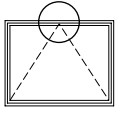


Kippfenster	Fenêtre à soufflet	Bottom-hung window	
Schnäpper 557.099	Loqueteau d'imposte 557.099	Catch 557.099	276
Öffnungsbegrenzer 557.174 Ab FFH 470 mm Öffnungswinkel 49°	Compas de limitation d'ouverture 557.174 A partir FFH de 470 mm Angle d'ouverture 49°	Opening limiter 557.174 From FFH 470 mm Opening angle 49°	277
Kippflügel-Schere 557.174 Ab FFH 370 mm	Compas pour vantail à soufflet 557.174 A partir FFH de 370 mm	Stay for bottom-hung sash 557.174 From FFH 370 mm	278
Öffnungsbegrenzer 557.180 Ab FFH 270 mm Öffnungswinkel 24°	Compas de limitation d'ouverture 557.180 A partir FFH de 270 mm Angle d'ouverture 24°	Opening limiter 557.180 From FFH 270 mm Opening angle 24°	279
Öffnungsbegrenzer 557.181 Ab FFH 270 mm Öffnungswinkel 63°	Compas de limitation d'ouverture 557.181 A partir FFH de 270 mm Angle d'ouverture 63°	Opening limiter 557.181 From FFH 270 mm Opening angle 63°	280
Kippflügel-Schere 557.197 Ab FFH 370 mm	Compas pour vantail à soufflet 557.197 A partir FFH de 370 mm	Stay for bottom-hung vent 557.197 From FFH 370 mm	281
Öffnungsbegrenzer 557.197 Ab FFH 470 mm Öffnungswinkel 49°	Compas de limitation d'ouverture 557.197 A partir FFH de 470 mm Angle d'ouverture 49°	Opening limiter 557.197 From FFH 470 mm Opening angle 49°	282
Aushängen Öffnungsbegrenzer und Kippschere 557.180 / 557.181 / 557.197 / 557.174	Décrochage du compas de limitation d'ouverture et du compas d'imposte 557.180 / 557.181 / 557.197 / 557.174	Unhinging the opening limiter and tilt scissors 557.180 / 557.181 / 557.197 / 557.174	283
Kettenantrieb 550.697 Montage auf Blendrahmen	Entraînement à chaîne 550.697 Montage sur cadre dormant	Chain drive 550.697 Installation on outer frame	284
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Flügelgrößen mit Tandem-Antrieb	Tailles de vantail avec entraînement tandem	Leaf sizes with tandem drive	286
Kabelübergang 550.698	Passage de câble 550.698	Cable link connector 550.698	287
Kabelübergang 550.971 für Gläser mit Alarmspinne	Passage de câble 550.971 pour les vitrages avec alarme intégrée	Cable transition 550.971 for glass panes with alarm system	288
Oberlichtöffner F200	Ferrure d'imposte F200	Top light opener F200	290

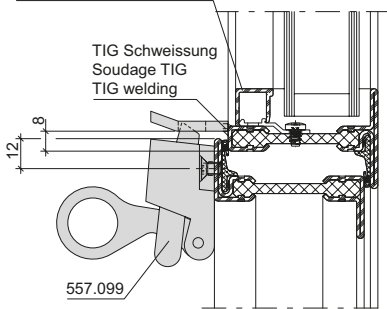
Schnäpper 557.099

Loqueteau d'imposte 557.099

Catch 557.099



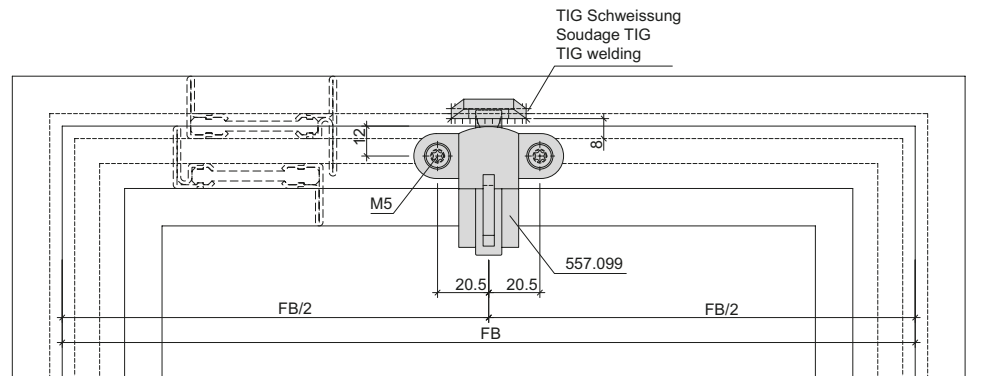
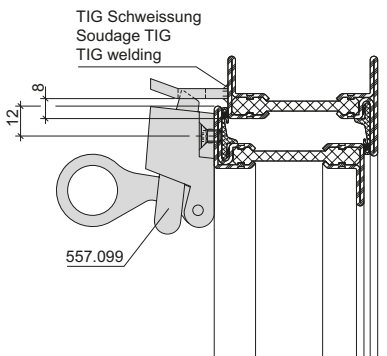
Bei Bedarf die Glasleiste im Bereich der Schweißung ausklinken
 Si nécessaire, entailler la parclose dans la zone de soudure.
 Where necessary, disengage the glazing bead in the area around the weld.



Vor dem Anschweißen des Einlaufteils den Schnäpper 557.099 sowie ca. 20 cm Dichtung 455.046 montieren um die genaue Lage zu definieren.

Avant de souder la gâche, monter le loqueteau 557.099 ainsi qu'env. 20 cm de joint 455.046 pour définir l'emplacement exact.

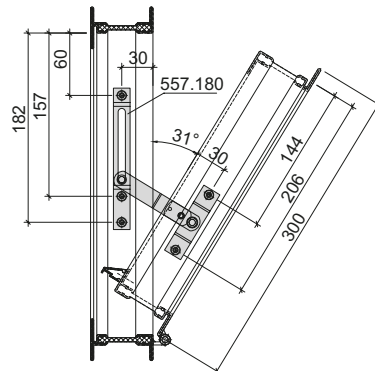
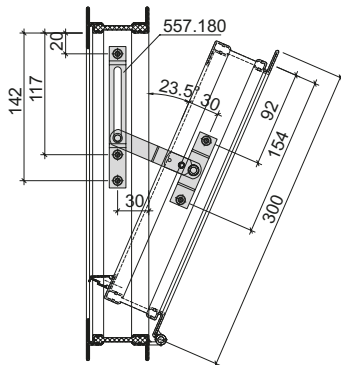
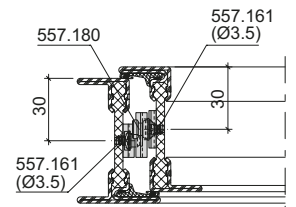
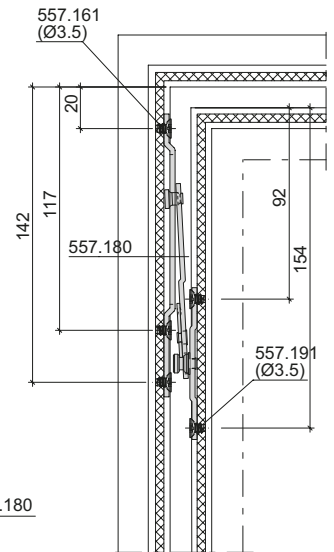
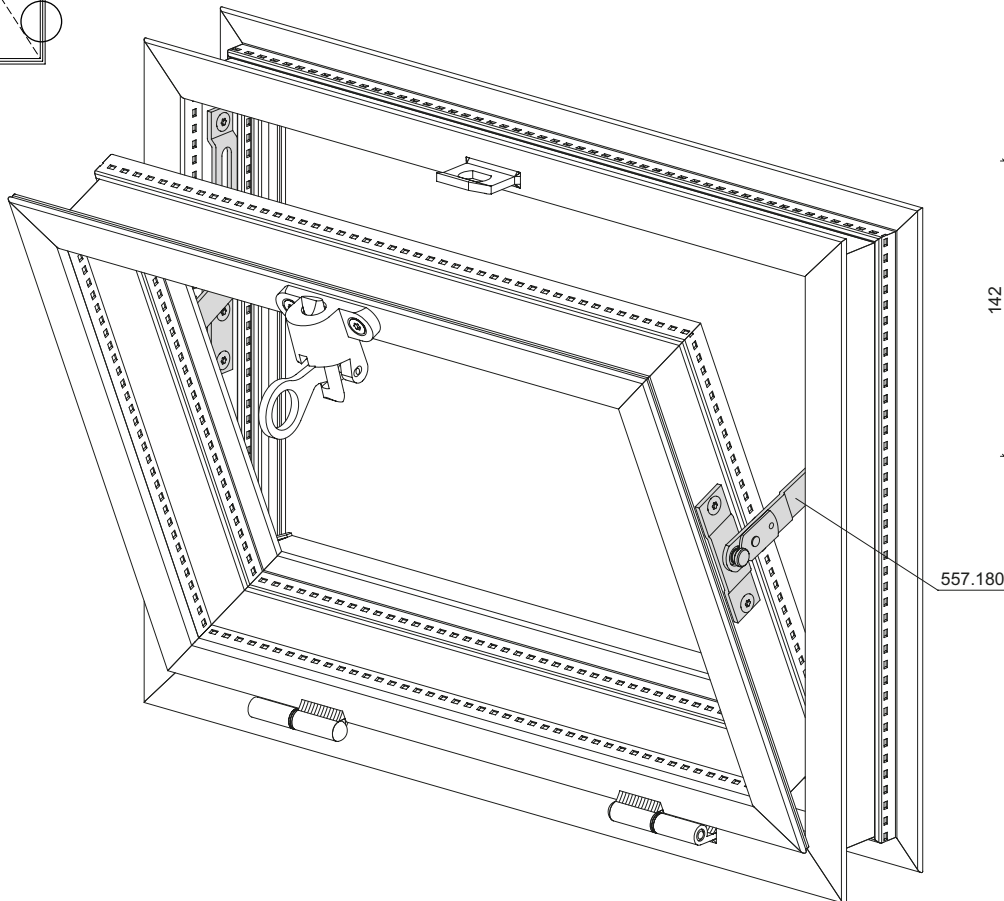
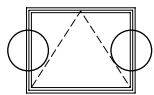
Before welding on the inlet part, install catch 557.099 and approx. 20 cm of seal 455.046 to define the exact position.



Öffnungsbegrenzer 557.180
 Ab FFH 270 mm

Compas de limitation d'ouverture
 557.180
 A partir FFH de 270 mm

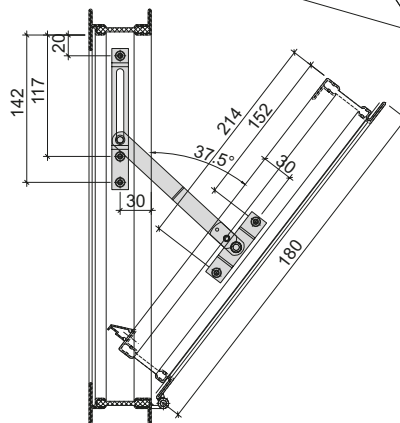
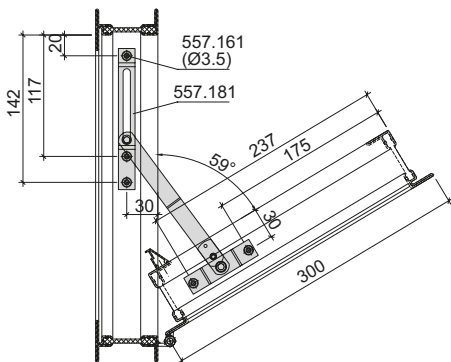
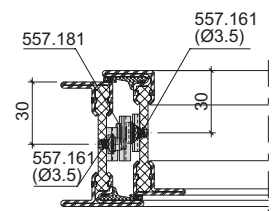
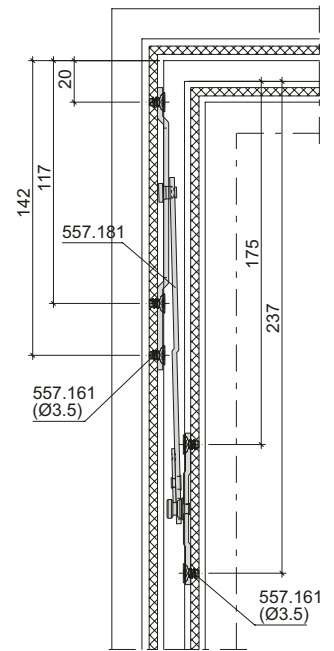
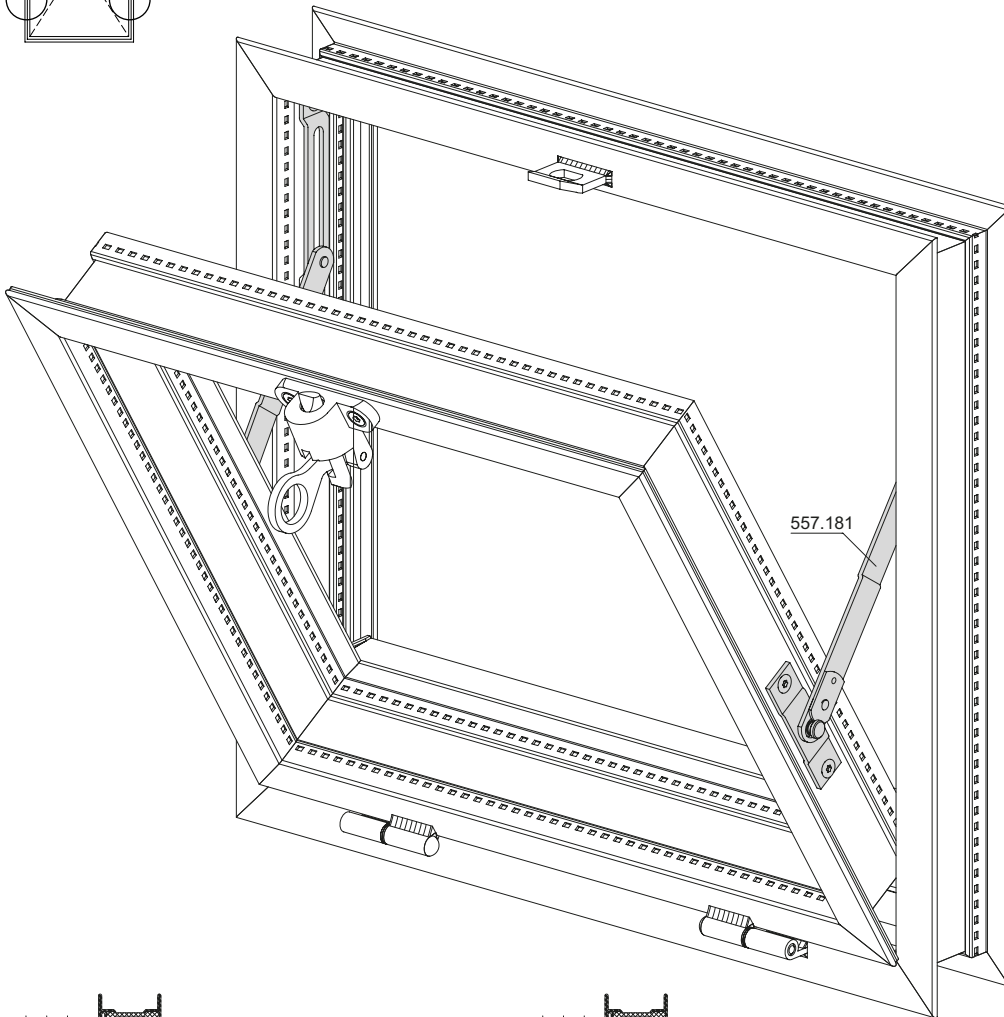
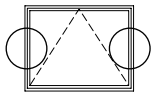
Opening limiter 557.180
 From FFH 270 mm



Öffnungsbegrenzer 557.181
 Ab FFH 270 mm

Compas de limitation d'ouverture
 557.181
 A partir FFH de 270 mm

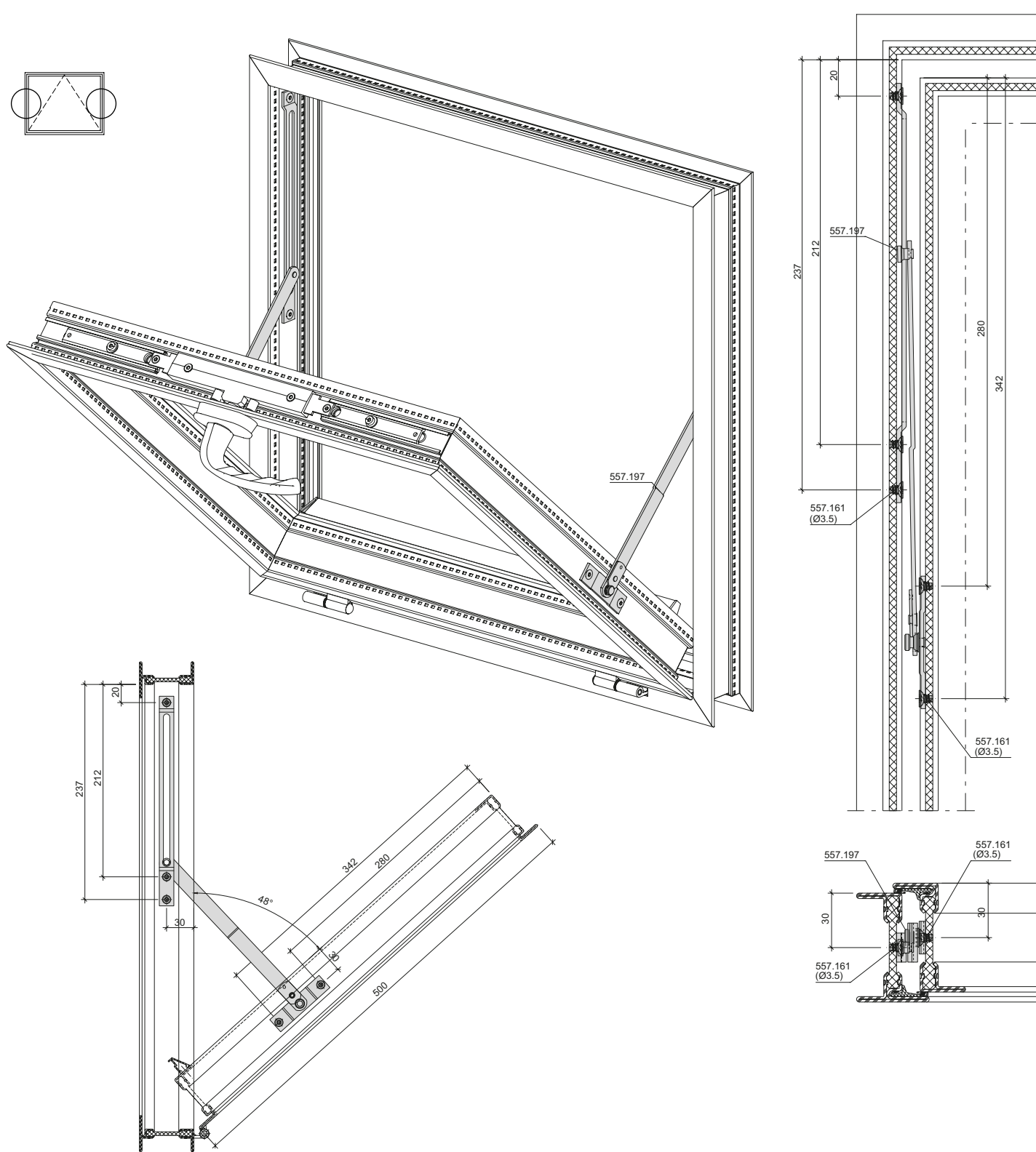
Opening limiter 557.181
 From FFH 270 mm



Kippflügel-Schere 557.197
 Ab FFH 370 mm

Compas pour vantail
 à soufflet 557.197
 A partir FFH de 370 mm

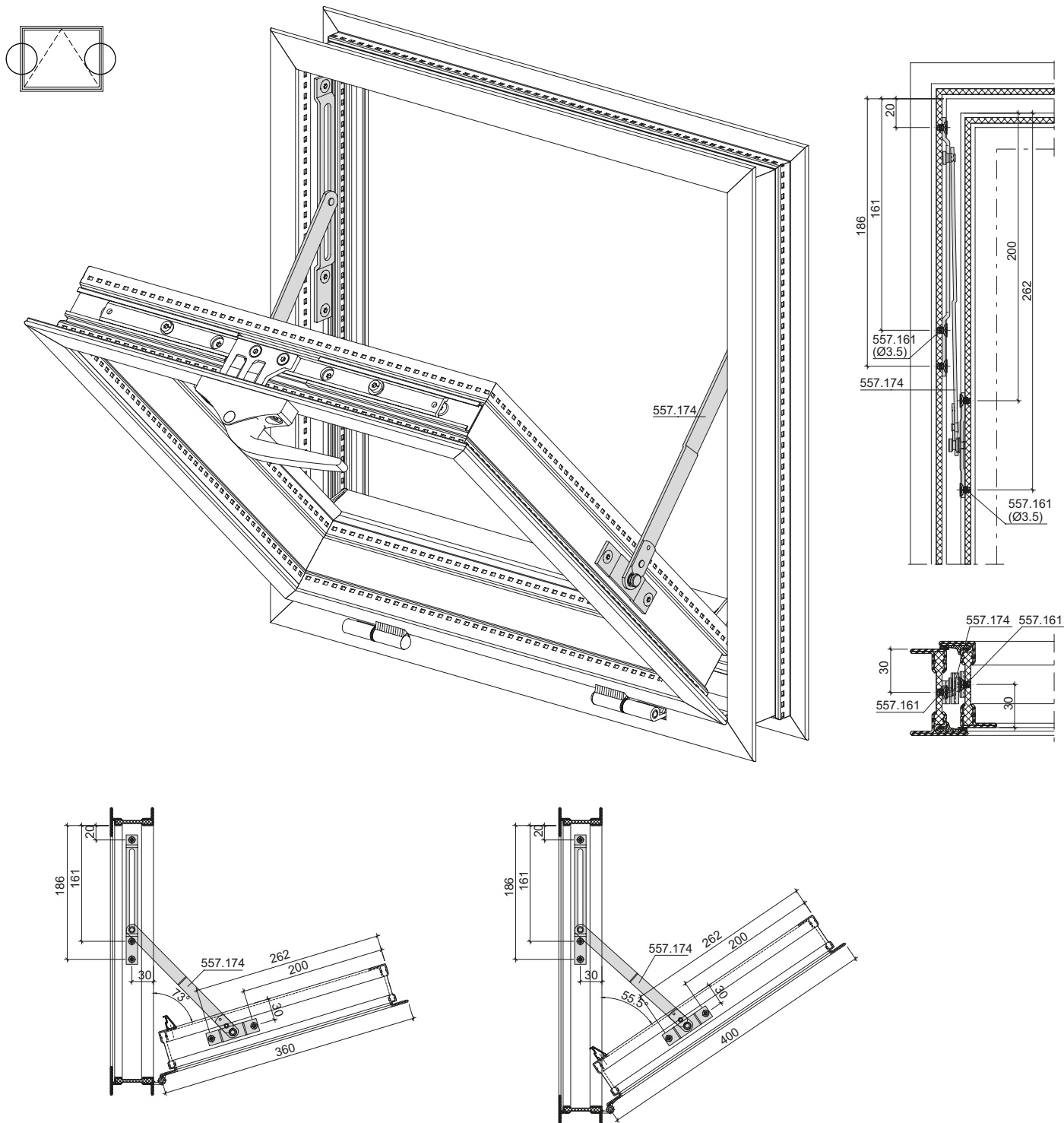
Stay for bottom-hung vent 557.197
 From FFH 370 mm



Kippflügel-Schere 557.174
Ab FFH 370 mm

Compas pour vantail
à soufflet 557.174
A partir FFH de 370 mm

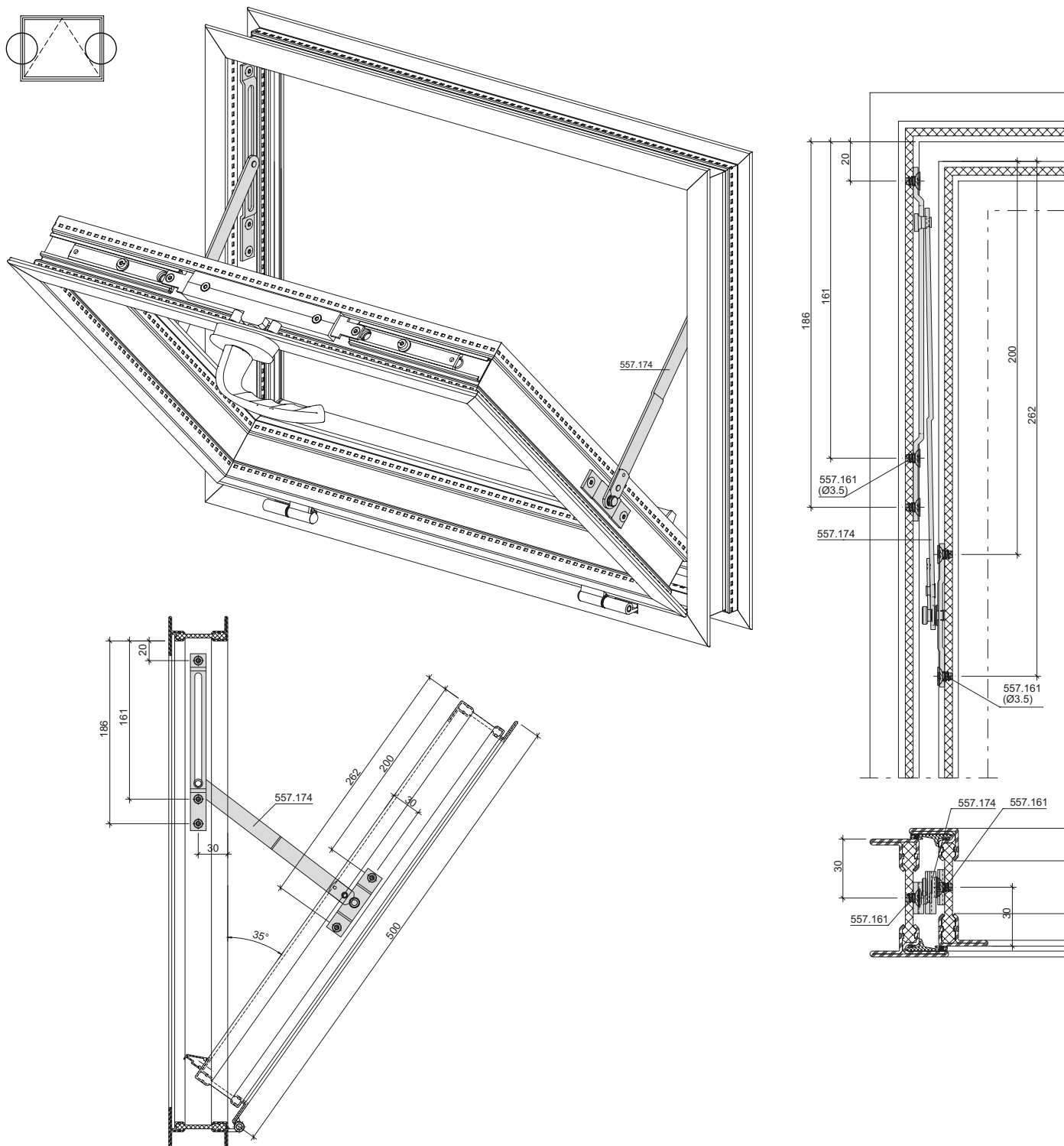
Stay for bottom-hung sash
557.174
From FFH 370 mm



Öffnungsbegrenzer 557.174
Ab FFH 470 mm

Compas de limitation d'ouverture
557.174
A partir FFH de 470 mm

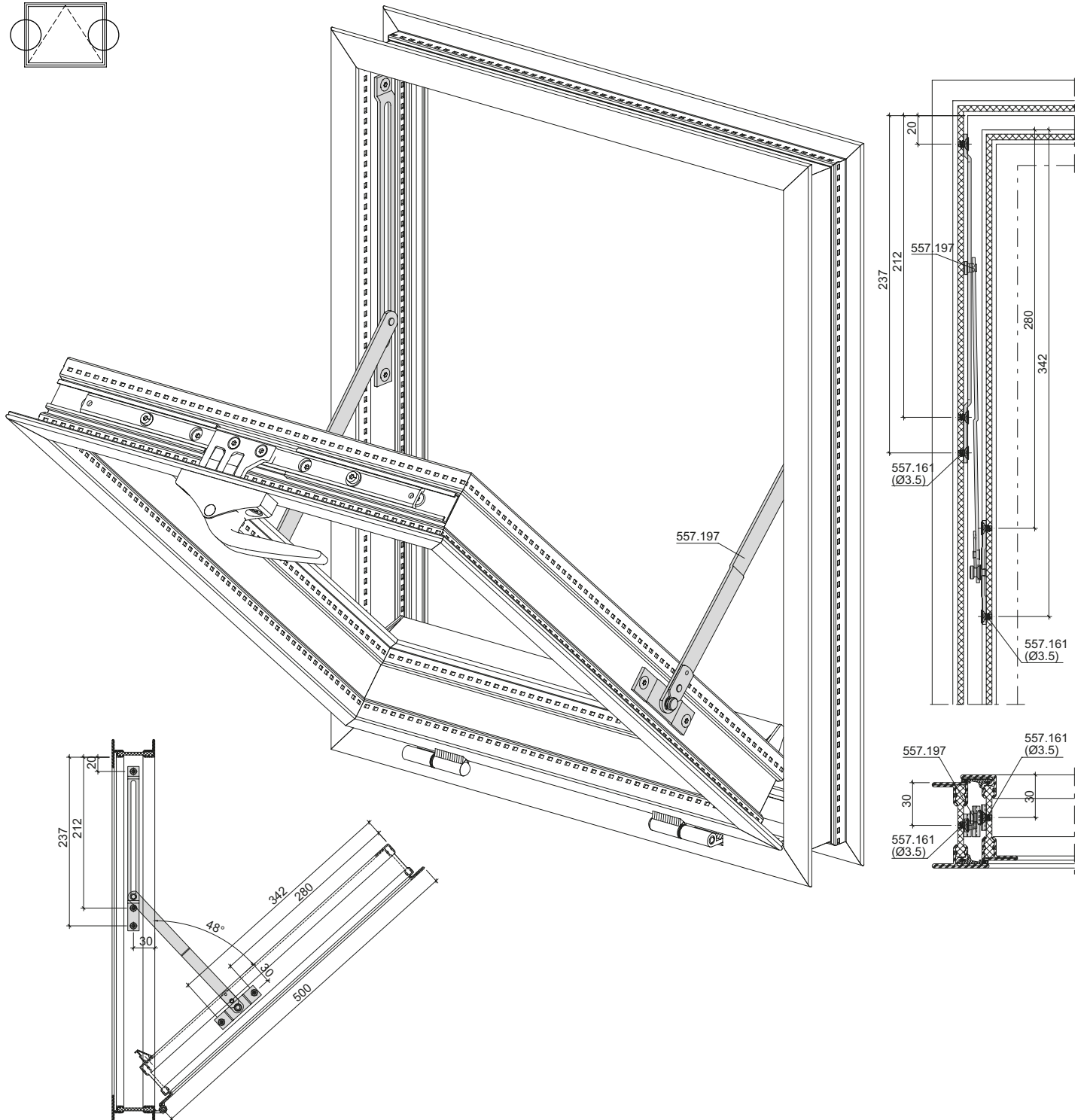
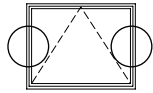
Opening limiter 557.174
From FFH 470 mm



Öffnungsbegrenzer 557.197
Ab FFH 470 mm

Compas de limitation d'ouverture
557.197
A partir FFH de 470 mm

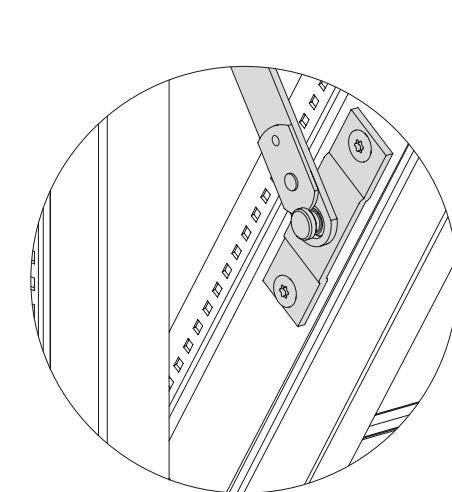
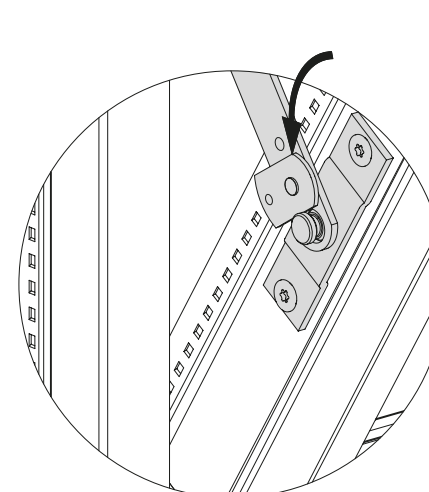
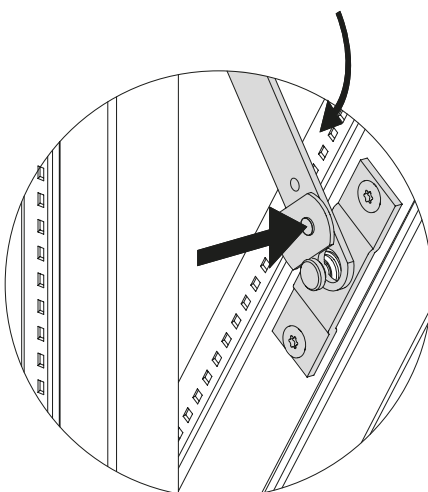
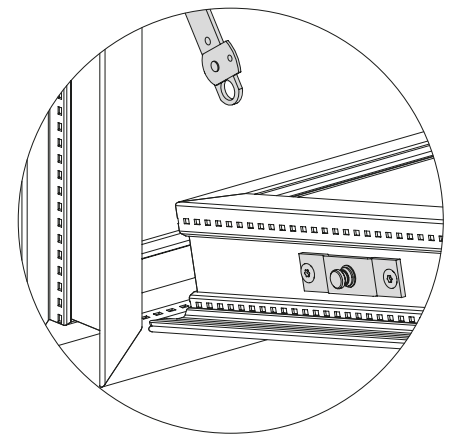
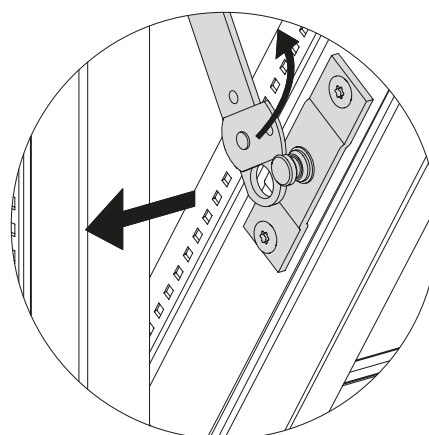
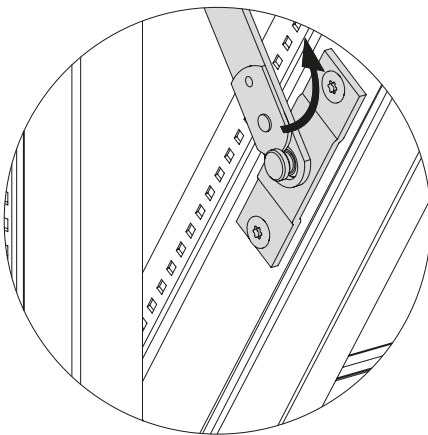
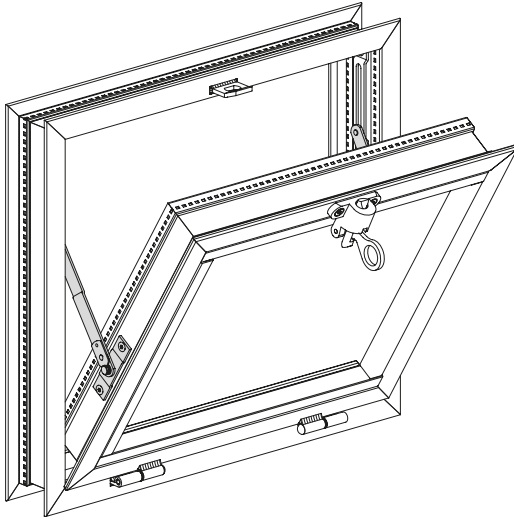
Opening limiter 557.197
From FFH 470 mm



Aushängen Öffnungsbegrenzer
und Kippschere
557.180 / 557.181
557.197 / 557.174

Décrochage du compas de limitation
d'ouverture et du compas d'imposte
557.180 / 557.181
557.197 / 557.174

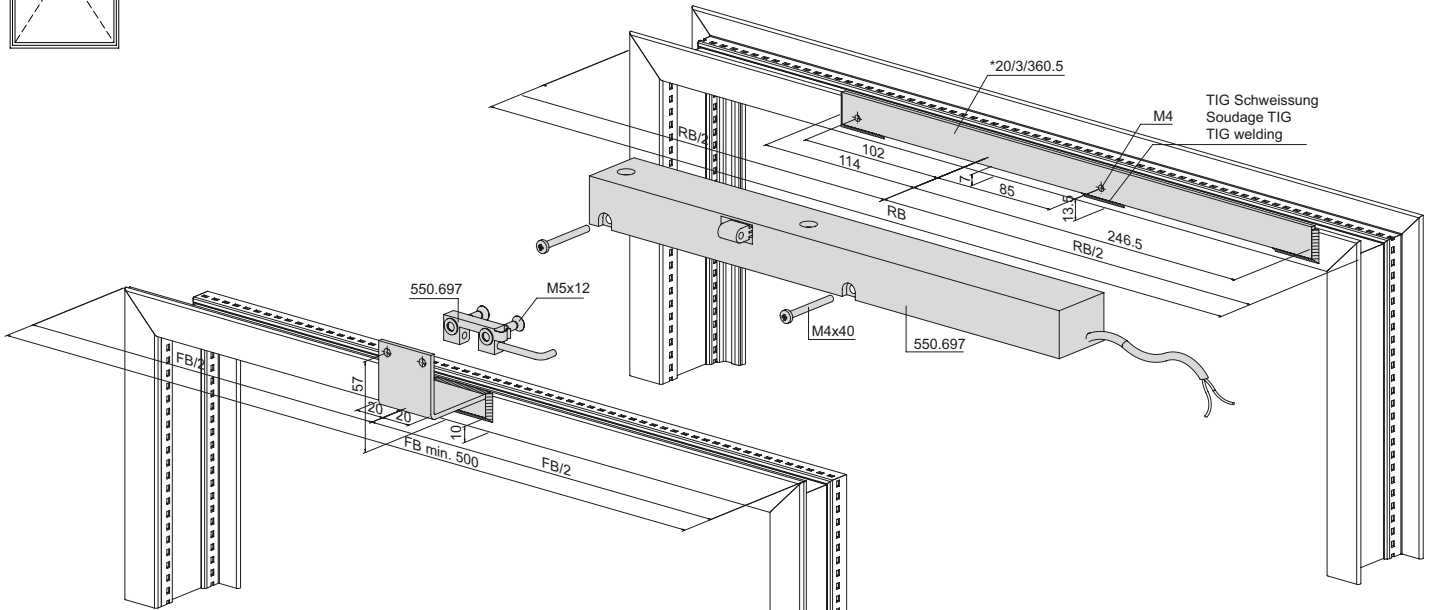
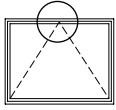
Unhinging the opening limiter
and tilt scissors
557.180 / 557.181
557.197 / 557.174



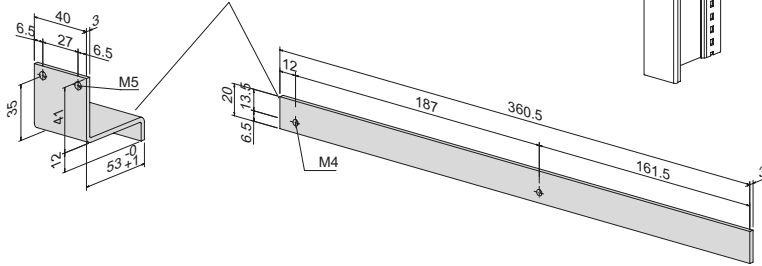
Kettenantrieb 550.697
Montage auf Blendrahmen

Entraînement à chaîne 550.697
Montage sur cadre dormant

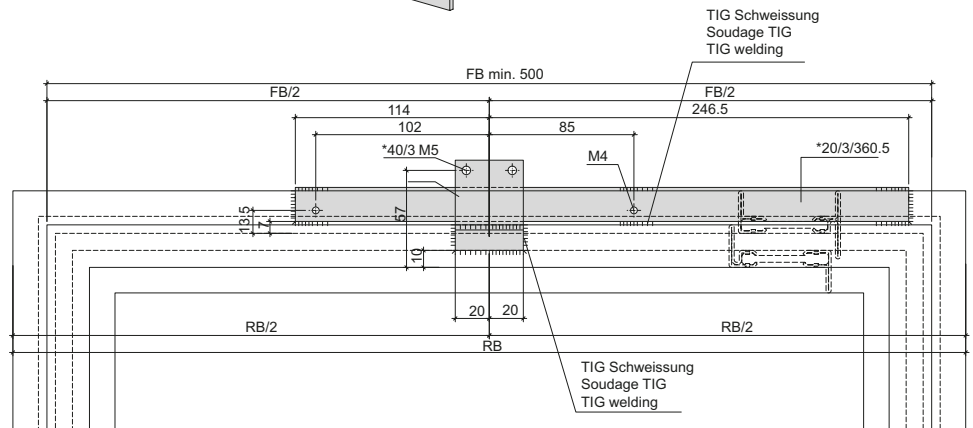
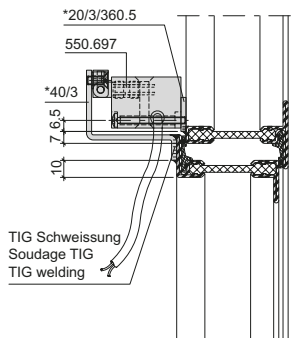
Chain drive 550.697
Installation on outer frame



Durch Metallbauer zu fertigen
 A fabriquer par le métallier
 To made by metal constructor



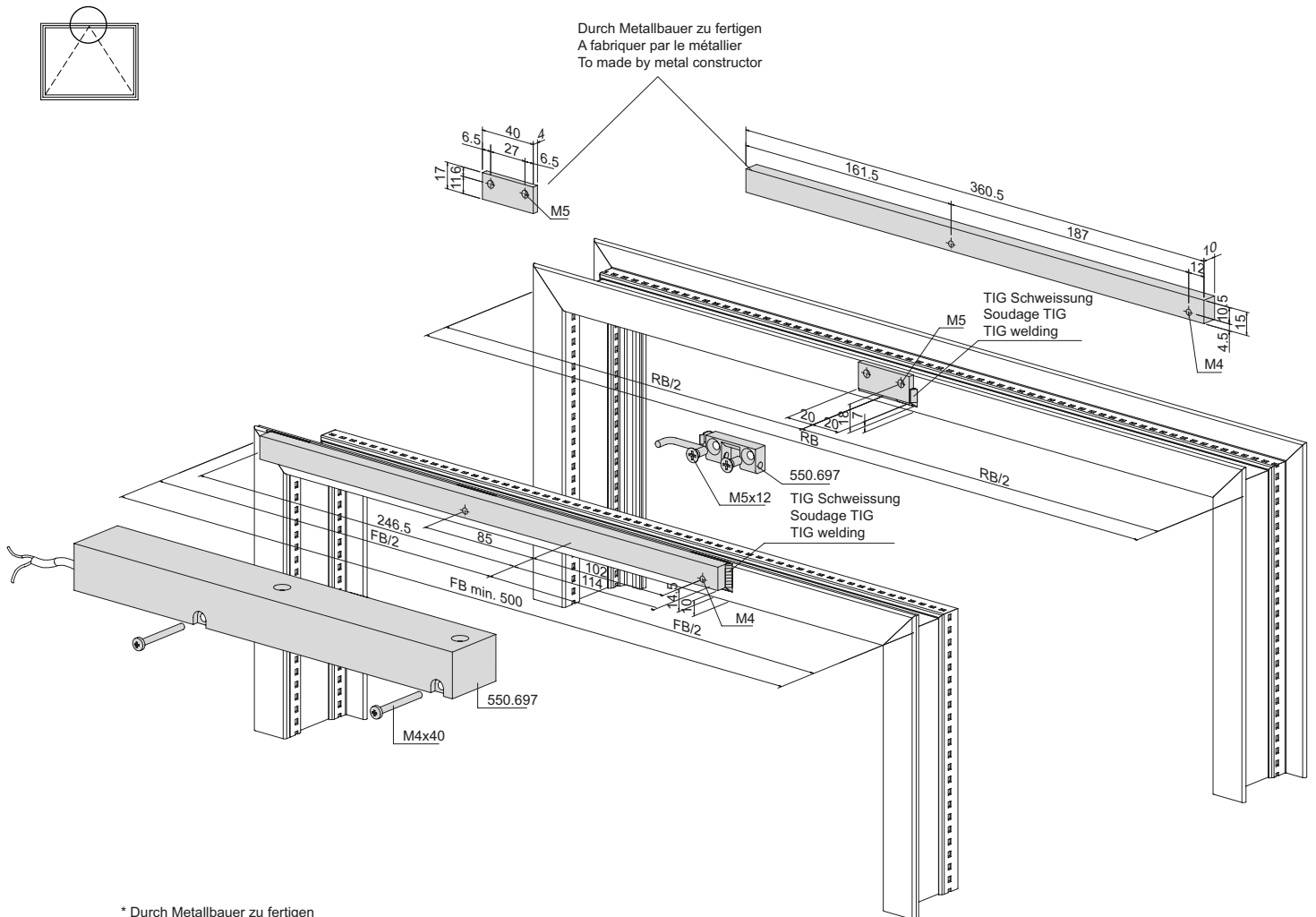
* Durch Metallbauer zu fertigen
 * A fabriquer par le métallier
 * To made by metal constructor



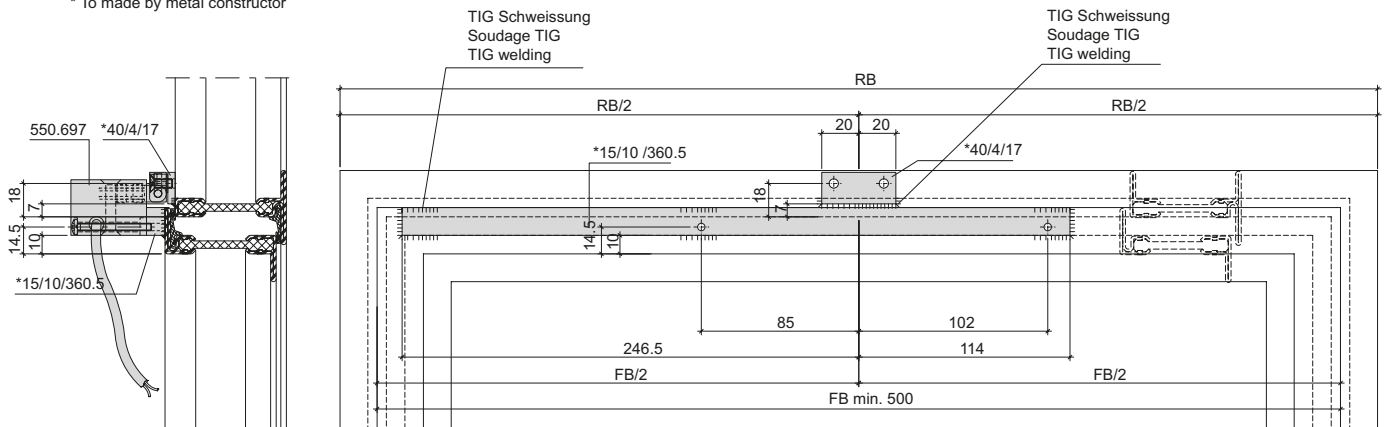
Kettenantrieb 550.697
Montage auf Flügelrahmen

Entraînement à chaîne 550.697
Montage sur cadre de vantail

Chain drive 550.697
Installation on sash frame



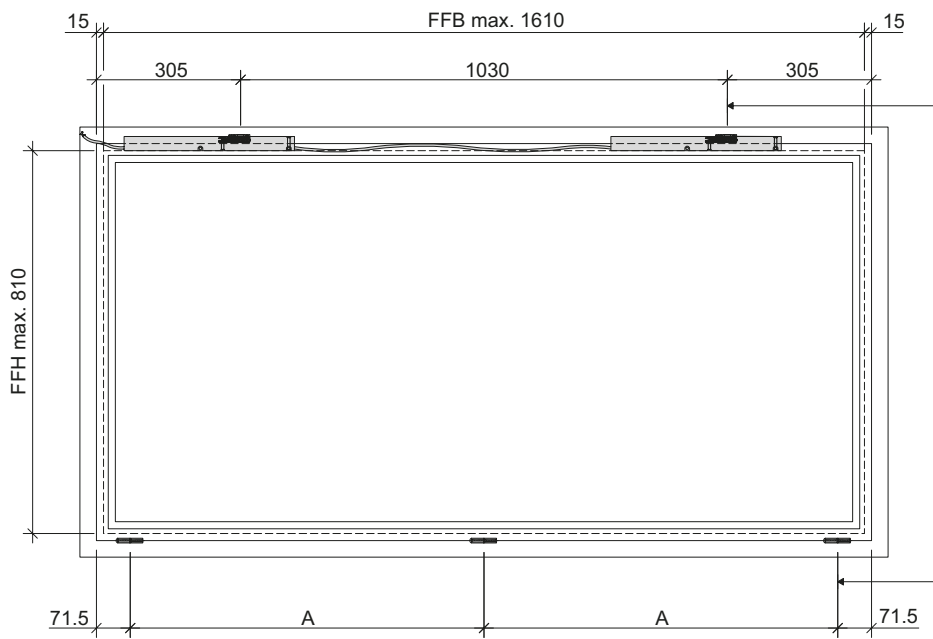
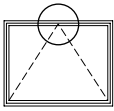
* Durch Metallbauer zu fertigen
 * A fabriquer par le métallier
 * To made by metal constructor



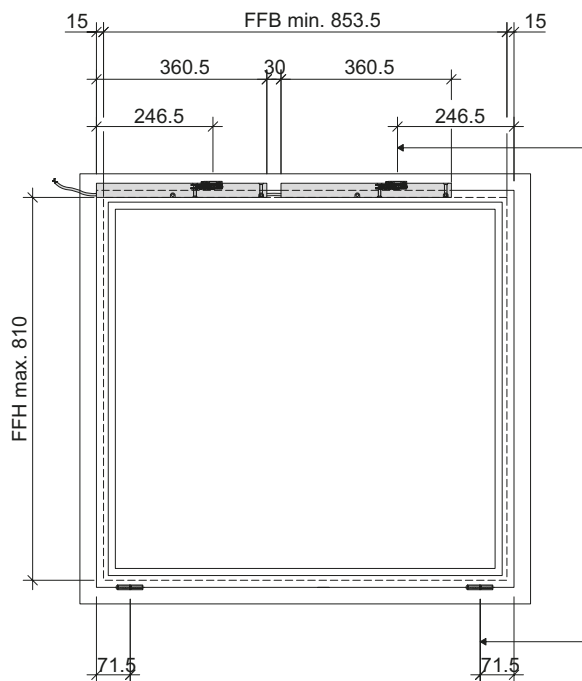
Flügelgrößen mit Tandem-Antrieb

Tailles de vantail avec entraînement tandem

Leaf sizes with tandem drive



Maximal Verriegelungsabstand 1175 mm
 Distance de verrouillage maximale 1175 mm
 Maximum distance between locking points 1175 mm

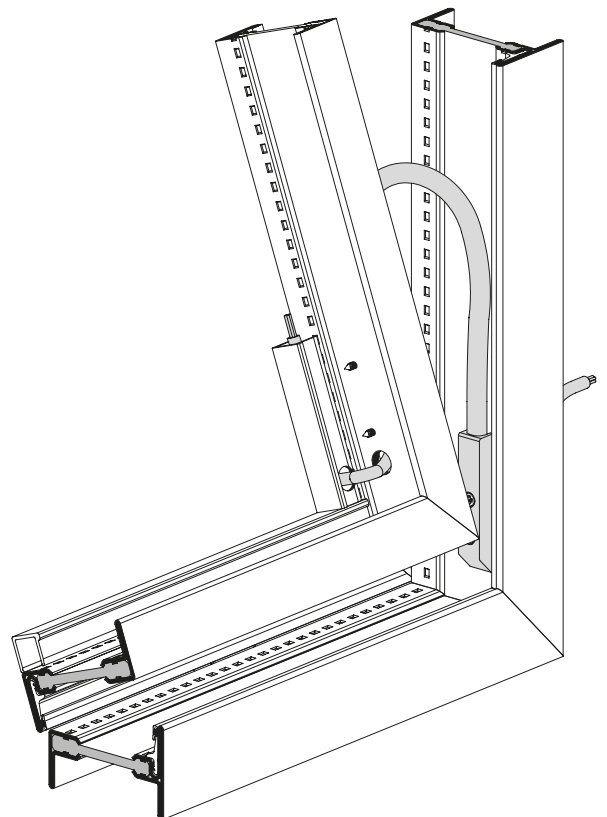
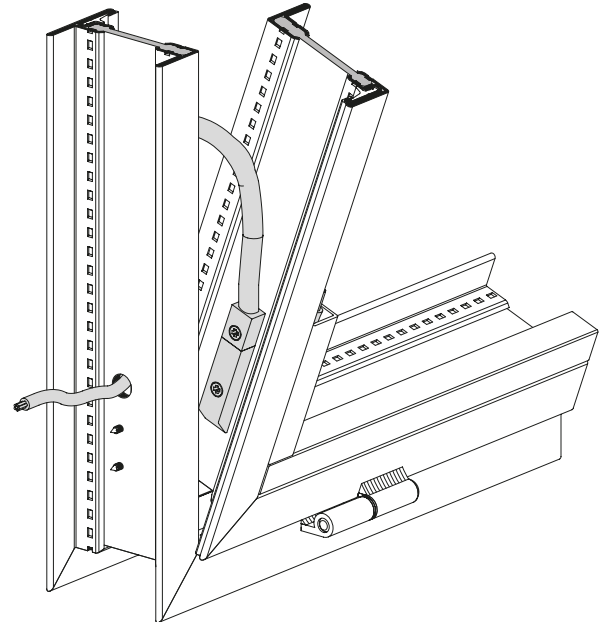
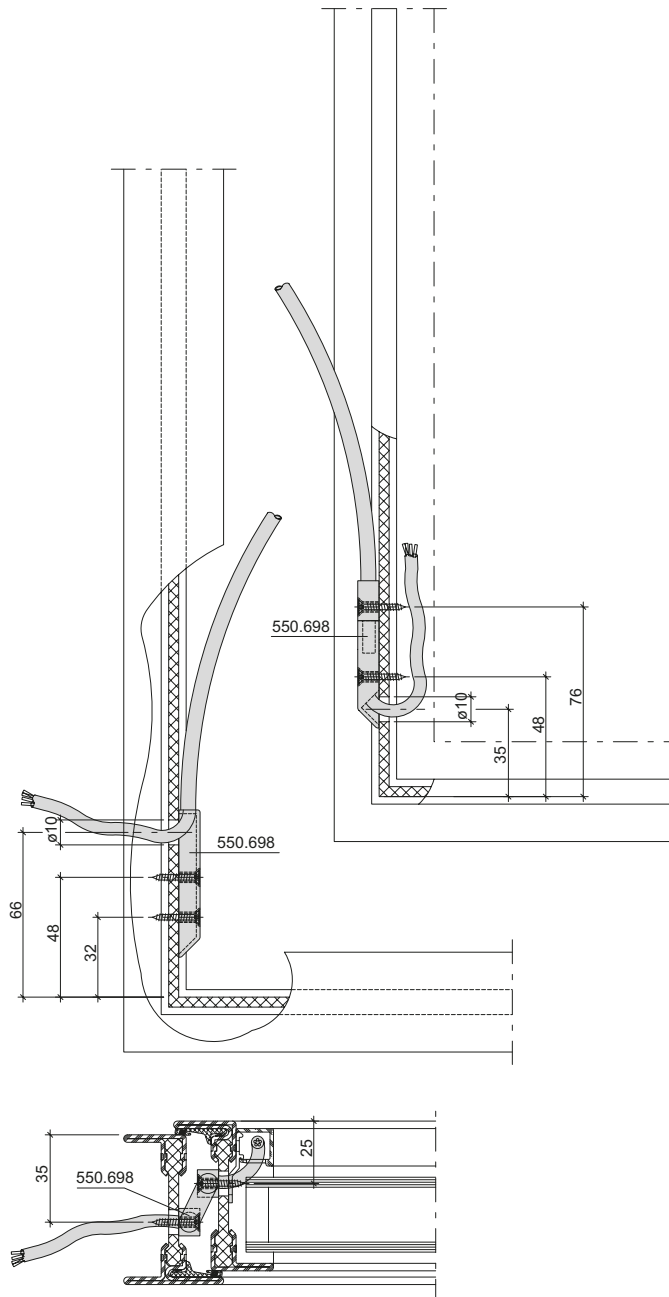
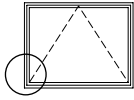


Maximal Verriegelungsabstand 1175 mm
 Distance de verrouillage maximale 1175 mm
 Maximum distance between locking points 1175 mm

Kabelübergang 550.698

Passage de câble 550.698

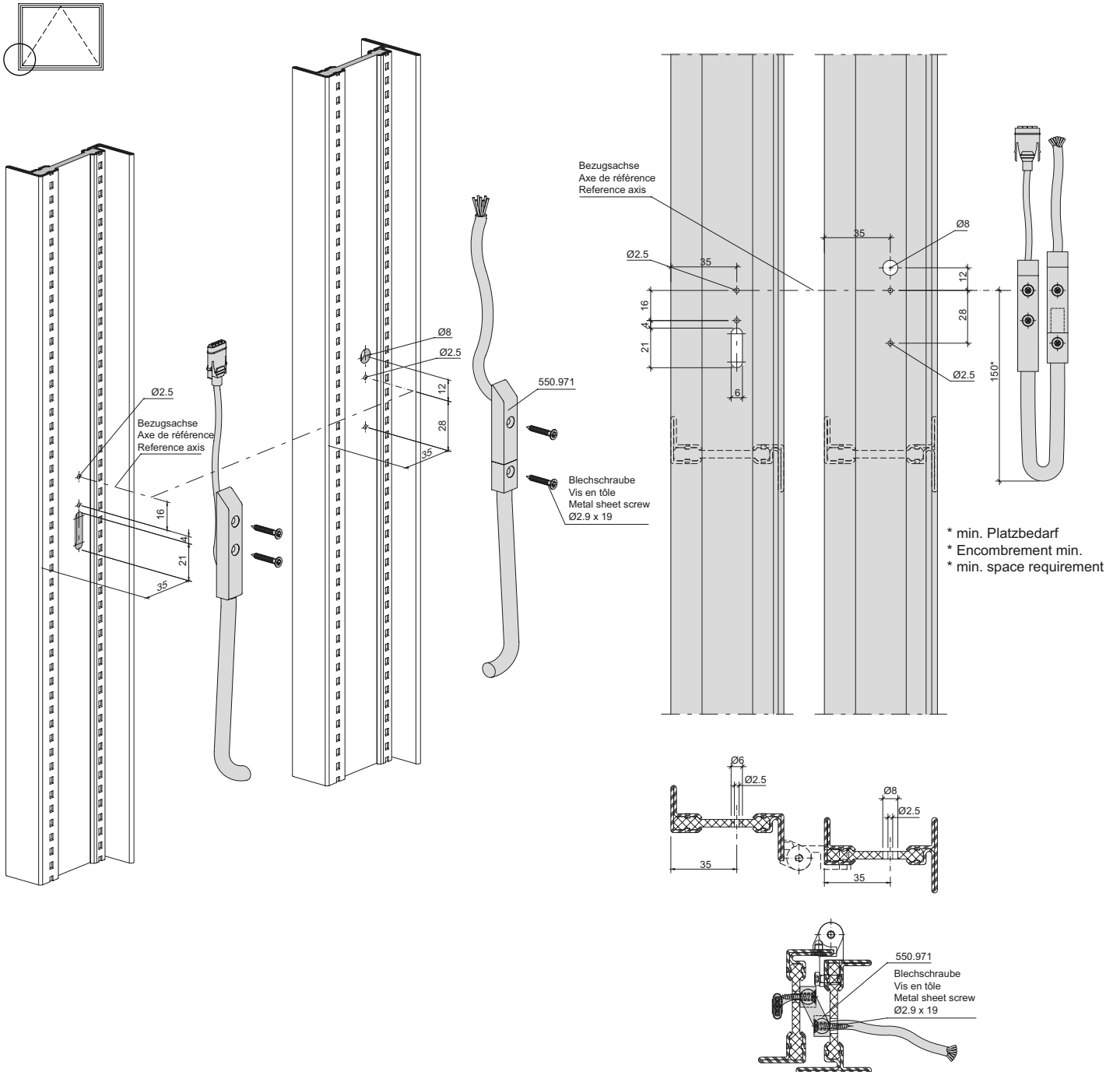
Cable link connector 550.698



**Kabelübergang 550.971 für
 Gläser mit Alarmspinne**

**Passage de câble 550.971 pour les
 vitrages avec alarme intégrée**

**Cable transition 550.971 for glass
 panes with alarm system**



Beschlageinbau
Montage des ferrures
Installation of fittings

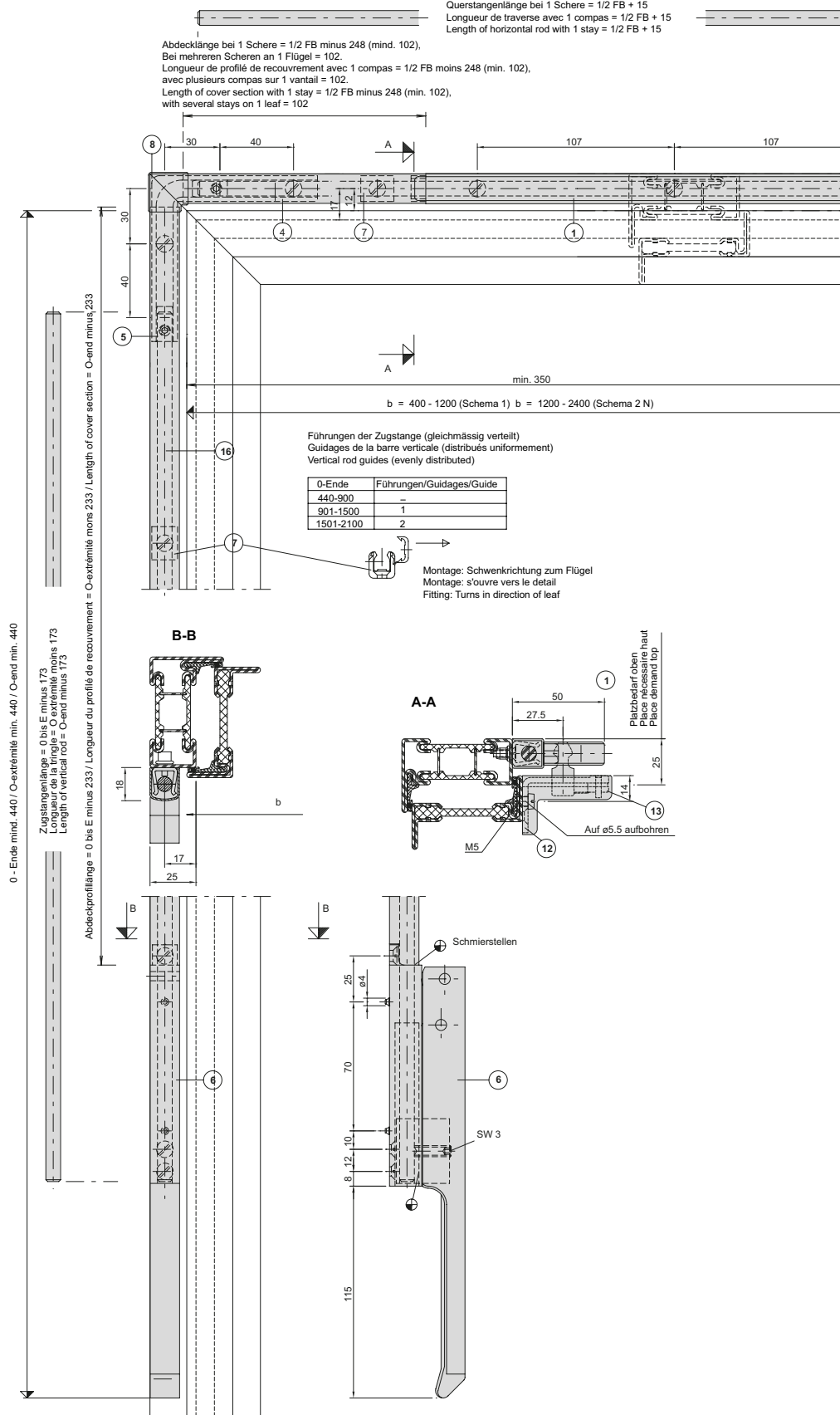
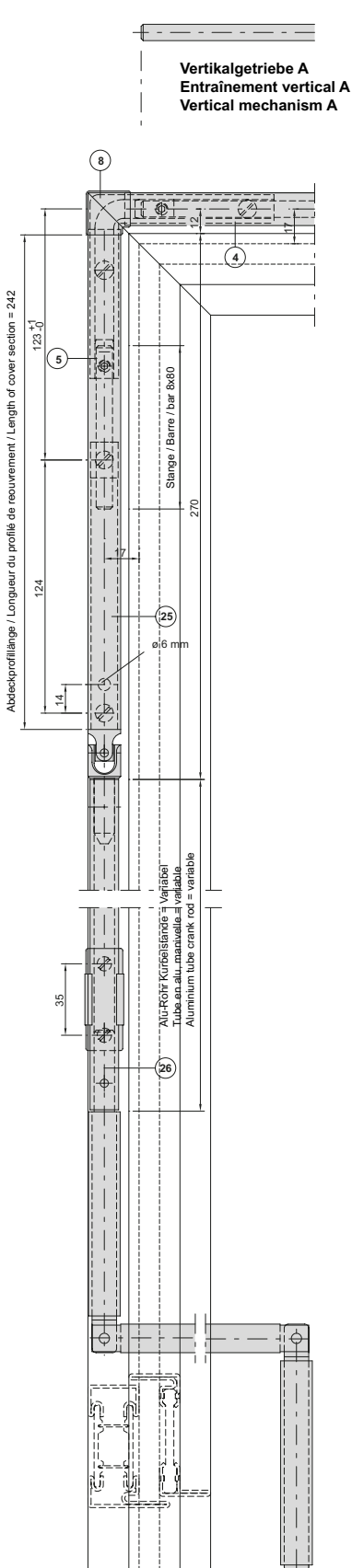
Janisol Arte
Janisol Arte
Janisol Arte

2.0

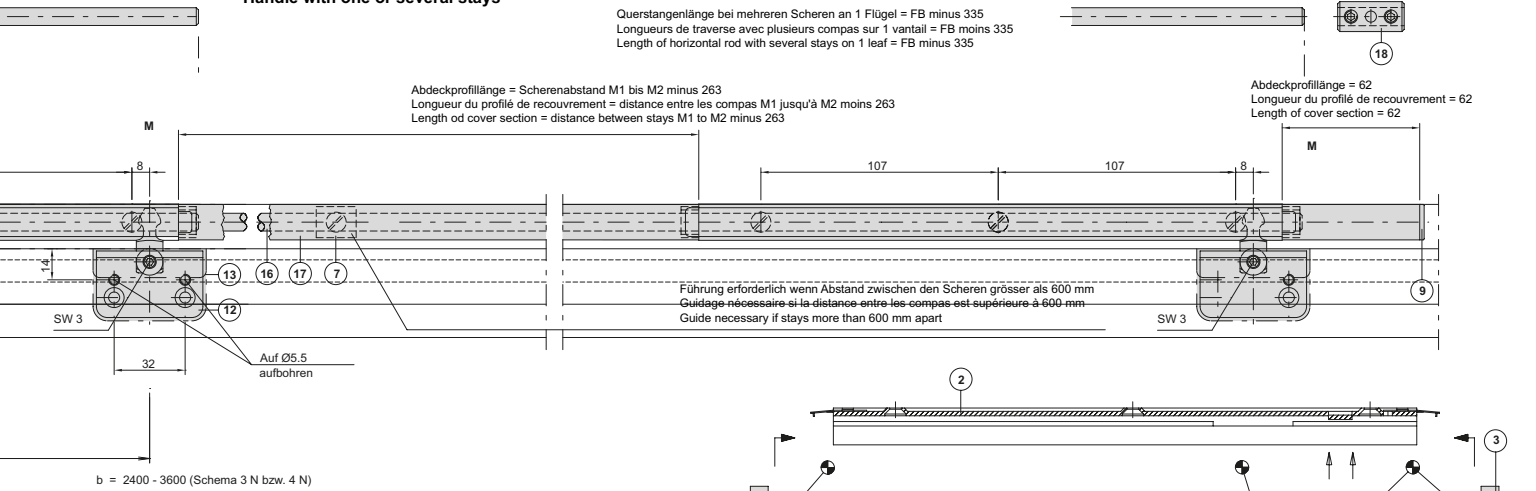
Oberlichtöffner F200

Ferrure d'imposte F200

Top light opener F200

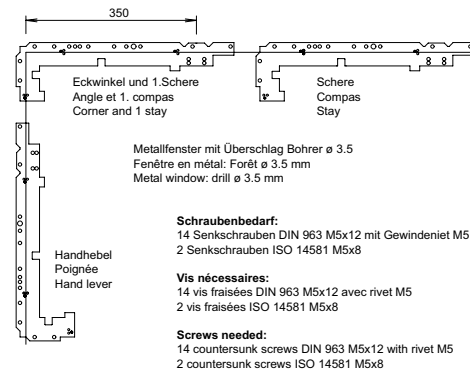


Handhebel bei 1 oder mehreren Scheren
Levier manuel avec un ou plusieurs compas
Handle with one or several stays



max. Flügelgewicht 80 kg
Poids max. du vantail 80 kg
Max. leaf weight 80 kg

Bohrlehre 499.380
Gabarit de perçage 499.380
Drilling jig 499.380



Durch Einbau von Falzscheren - als zusätzliche Sicherung - werden Schäden verhindert, die eventuell bei unsachgemässer Einhängung der Öffnerscheren entstehen können.

Entsprechend dem Anwendungsfall und der geforderten Schlagregensicherheit nach DIN 18055 können 2 Scheren ab b = 1000 mm / 3 Scheren ab b = 1500 mm verwendet werden.

Bei Flügelhöhe über 600 mm und bei Verglasungen über 20 kg/m² empfehlen wir gleich zu verfahren.

- ➔ Nach der Montage sind alle Gelenk- und Reibstellen mit säurefreiem Fett zu fetten.

L'incorporation d'un compas d'arrêt comme mesure de sécurité supplémentaire prévient des dégâts éventuels qui pourraient résulter de la pose inadéquate du compas d'ouverture.

Selon le cas et le degré d'étanchéité à la pluie soufflée nécessaire conformément à la norme DIN 18055, 2 compas peuvent être utilisés à partir de b = 1000 mm, 3 compas à partir de b = 1500 mm.

Si la hauteur du vantail est supérieure à 600 mm et les vitrages supérieures à 20 kg/m², nous recommandons le même processus.

- ➔ Après le montage, enduire de graisse exempte d'acide tous les emplacement d'articulation et de frottement.

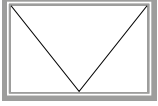
Installing rebate stays as an additional security measure will prevent damage that may occur if the opening stays are not fitted correctly. Depending on the application and the rain impact resistance according to DIN 18055

2 stays may be used from b = 1000 mm, 3 stays may be used from b = 1500 mm

If the leaf height exceeds 600 mm and the glazing is over 20 kg/m² we recommend the same procedure.

- ➔ After installation lubricate all articulation and friction points with acid-free grease

Pos.	Benennung/Désignation/Description	Artikel-Nr.
1	Schere/Compas/Stay	550.651
2	Scherenlager/Loge du compas/Scissor hinge	
3	Stangenlager/Coullis/Rod guide	
4	Kettenwinkel/Carter à chaîne/Chain angle	
5	Stangenklemmen mit Kette Chaîne avec manchon d'accrochement Rod clamp with chain	
6	Handhebel Hub 50 mm Levier manuel, course 50 mm Hand lever, travel 50 mm	
7	Führung/Guidage/Guide	
8	Eckabdeckung/Capot d'angle/Cover cap	
9	Endkappe/Embout/End cap	
12	Winkelflügelstütze/Palier d'accrochage/Sash support	550.641
13	Abdeckkappe Winkelflügelstütze Recouvrement pour palier d'accrochage Cover for sash support	
16/17	Stange ø 8 mm mit Abdeckprofil 1850 mm Tringle ø 8 mm et profilé de recouvrement 1850 mm Rod ø 8 mm with cover section 1850 mm	550.642
16/17	Stange ø 8 mm mit Abdeckprofil 3300 mm Tringle ø 8 mm et profilé de recouvrement 3300 mm Rod ø 8 mm with cover section 3300 mm	550.649
18	Muffe/Douille/Support	550.643
25	Vertikalgetriebe A/Entrainement verticale A/Vertical mechanism A	550.644
26	Knickkurbel mit Kurbelhalter Tige de manivelle articulée Articulated crank with crank holder	550.650
27	Kurbelstange L = 5000 mm Manivelle L = 5000 mm Connecting rod L = 5000 mm	

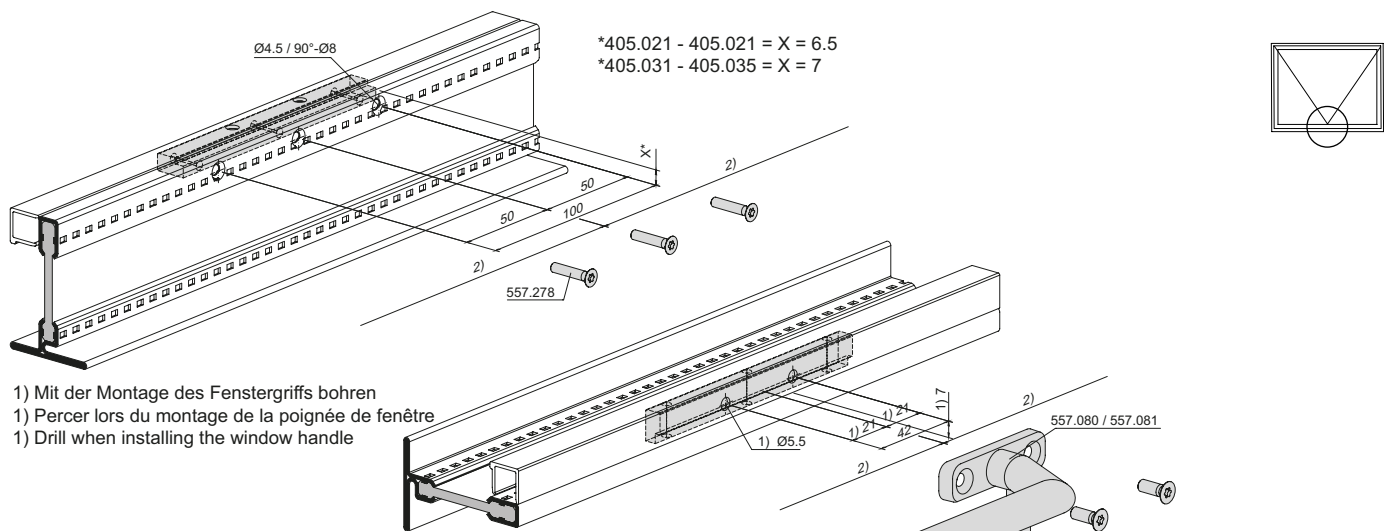


Klappfenster	Fenêtre basculante	Top-hung window	
Fenstergriff 557.080/557.081 (Senkklass- und Klappfenster)	Poignée de fenêtre 557.080/081 (Fenêtre à l'italienne et basculante)	Window handle 557.080/081 (Projected top-hung and top-hung window)	293
Klappflügel-Schere 557.096	Compas pour fenêtres basculante 557.096	Stay for top-hung sash 557.096	294
Kettenantrieb 550.697 Montage auf Blendrahmen	Entraînement à chaîne 550.697 Montage sur cadre dormant	Chain drive 550.697 Installation on outer frame	295

Fenstergriff 557.080/557.081
(Senkklapp- und Klappfenster)

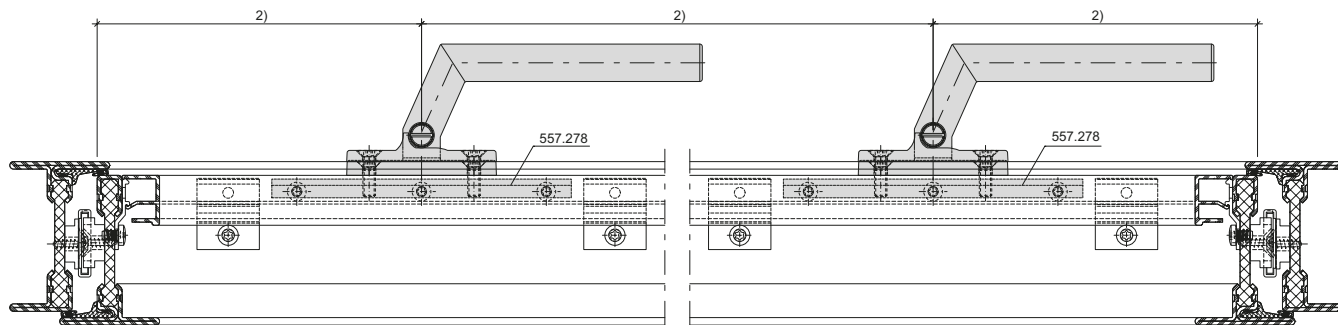
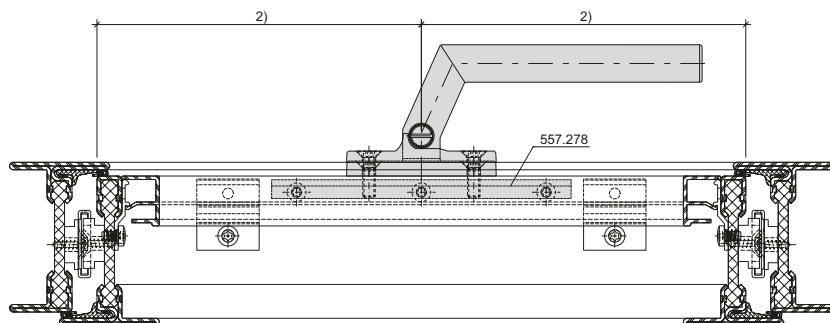
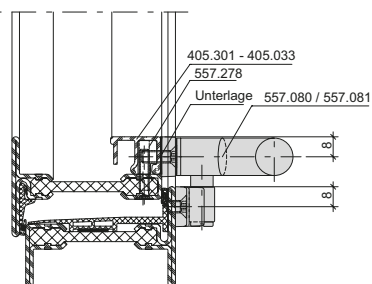
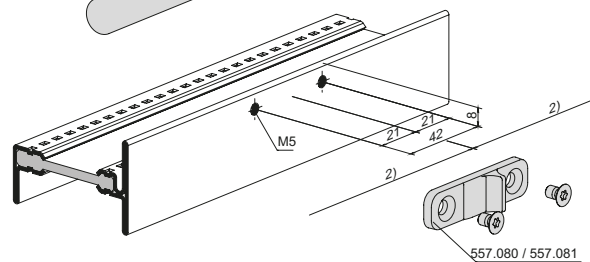
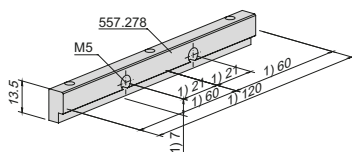
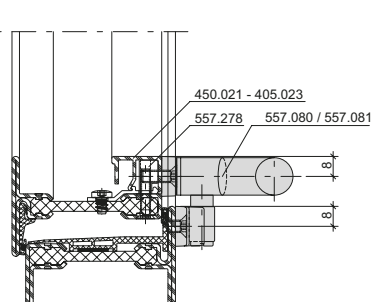
Poignée de fenêtre 557.080/081
(Fenêtre à l'italienne et basculante)

Window handle 557.080/081
(Projected top-hung and top-hung window)



- 1) Mit der Montage des Fenstergriffs bohren
- 1) Percer lors du montage de la poignée de fenêtre
- 1) Drill when installing the window handle

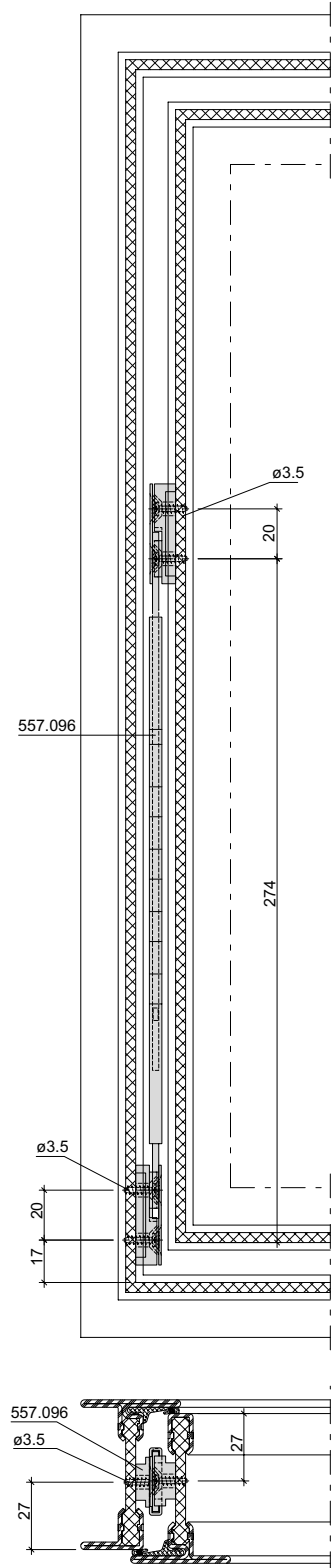
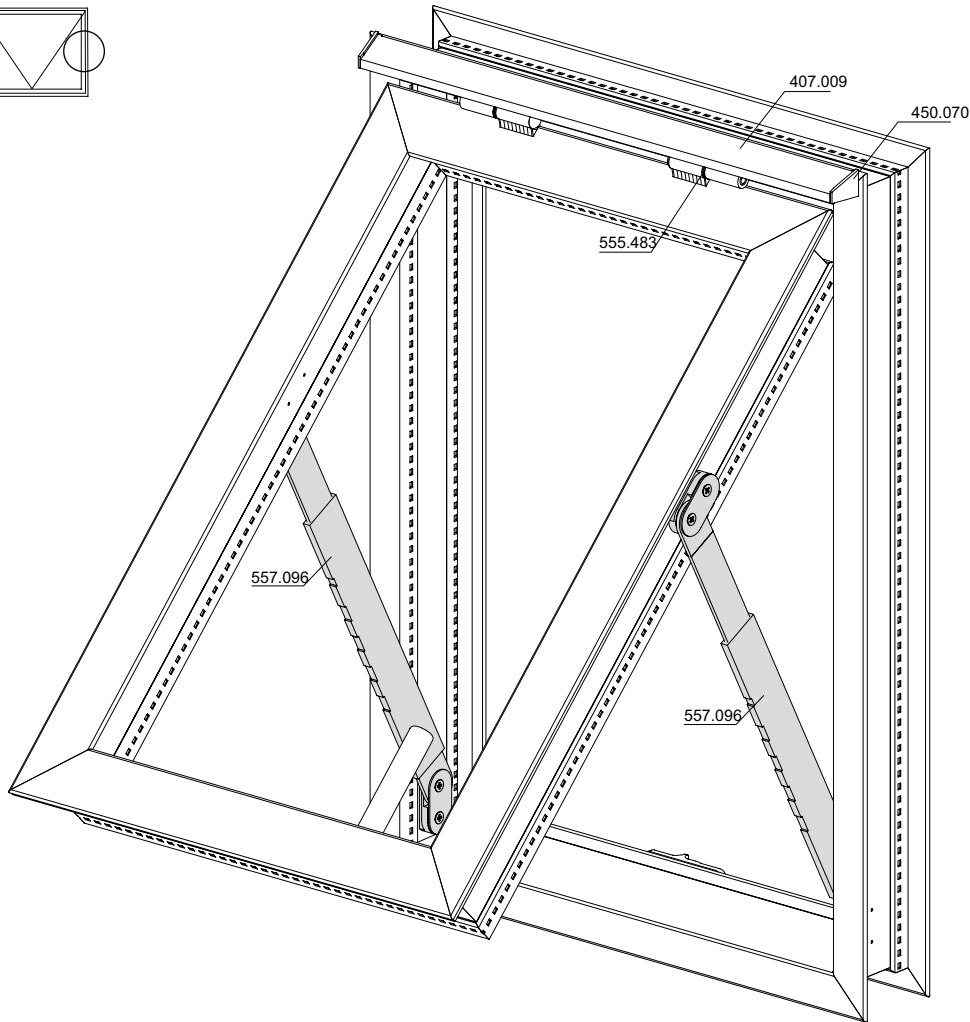
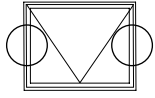
- 2) Die maximalen Verriegelungsabstände sind zu beachten!
- 2) Tenir compte des écarts de verrouillage maximaux.
- 2) The maximum distances between locking points must be observed.



Klappflügel-Schere 557.096

Compas pour fenêtres
basculante 557.096

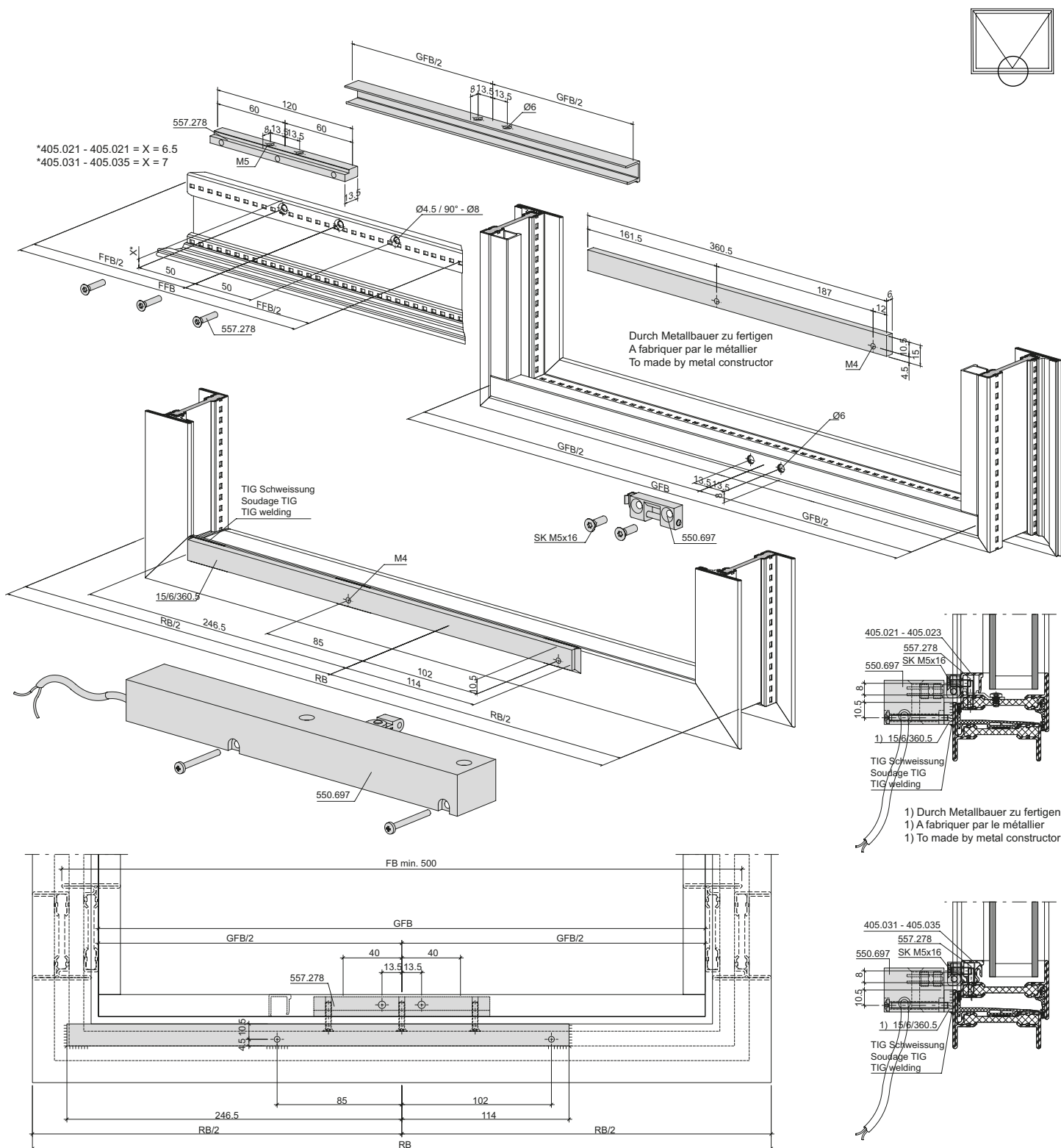
Stay for top-hung sash 557.096

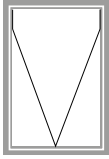


Kettenantrieb 550.697
Montage auf Blendrahmen

Entraînement à chaîne 550.697
Montage sur cadre dormant

Chain drive 550.697
Installation on outer frame



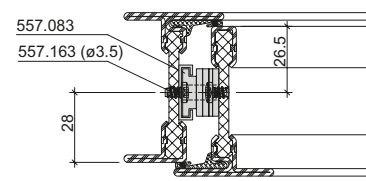
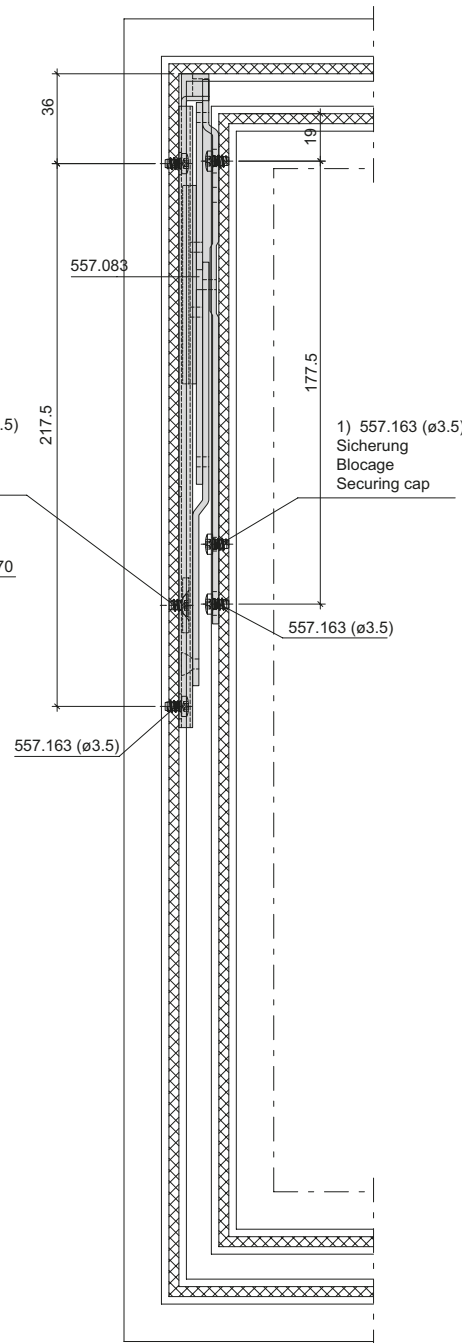
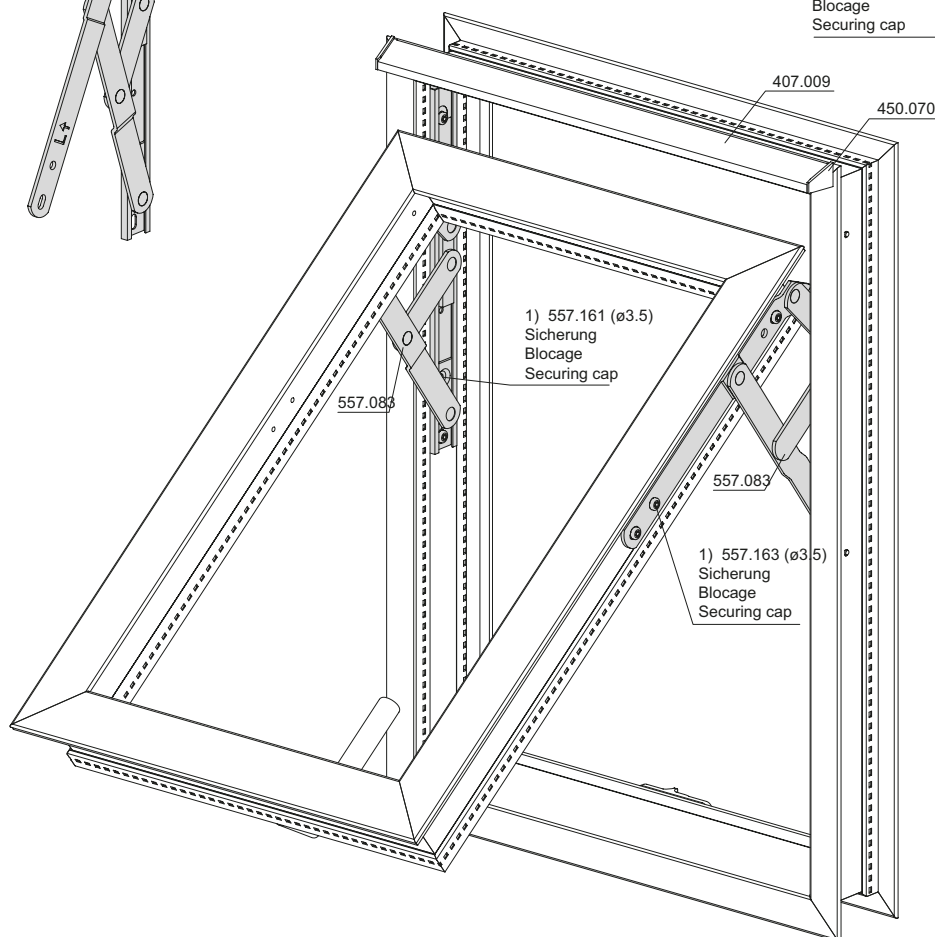
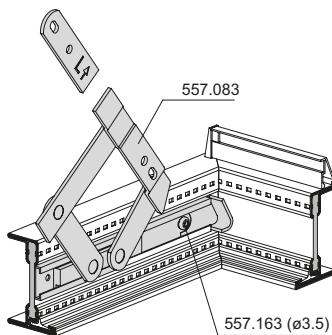
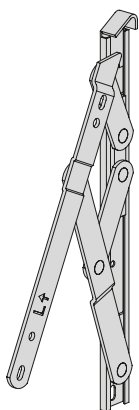
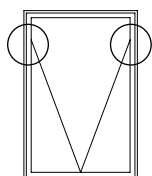


Senkklappfenster	Fenêtre à l'italienne	Projected top-hung window	
Friktionsschere 557.083	Compas à friction 557.083	Friction stay 557.083	297
Friktionsschere 557.084	Compas à friction 557.084	Friction stay 557.084	298
Friktionsschere 557.085	Compas à friction 557.085	Friction stay 557.085	299
Zwangsverriegelung 557.090	Verrouillage forcé 557.090	Security locking system 557.090	300

Friktionsschere 557.083

Compas à friction 557.083

Friction stay 557.083

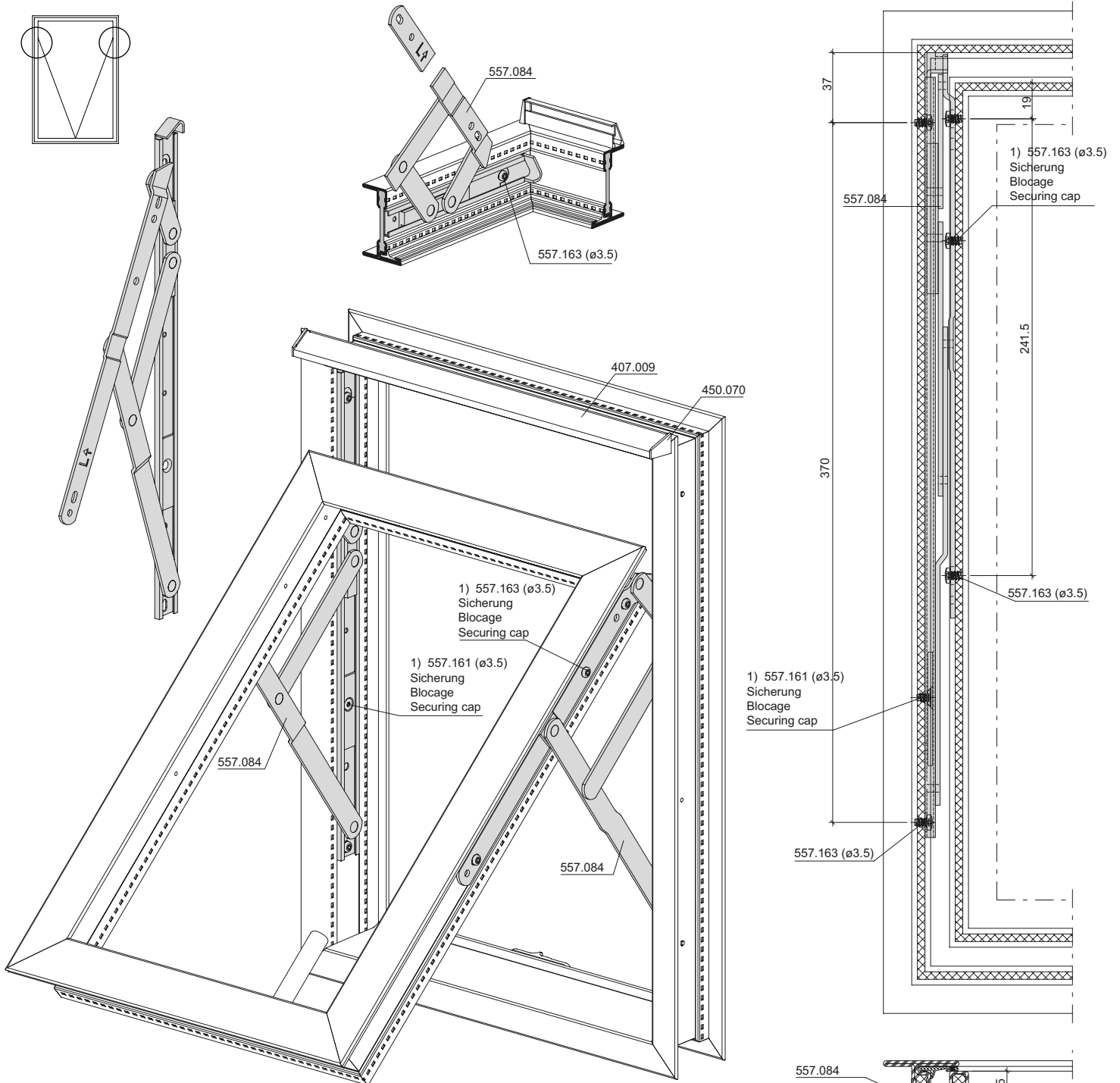


- 1) Die Sicherungsschraube erst nach dem Ausrichten des Flügels verbohren.
- 1) Ne percez la vis de blocage qu'après avoir aligné le vantail.
- 1) Only screw in the securing screw after aligning the sash.

Friktionsschere 557.084

Compas à friction 557.084

Friction stay 557.084

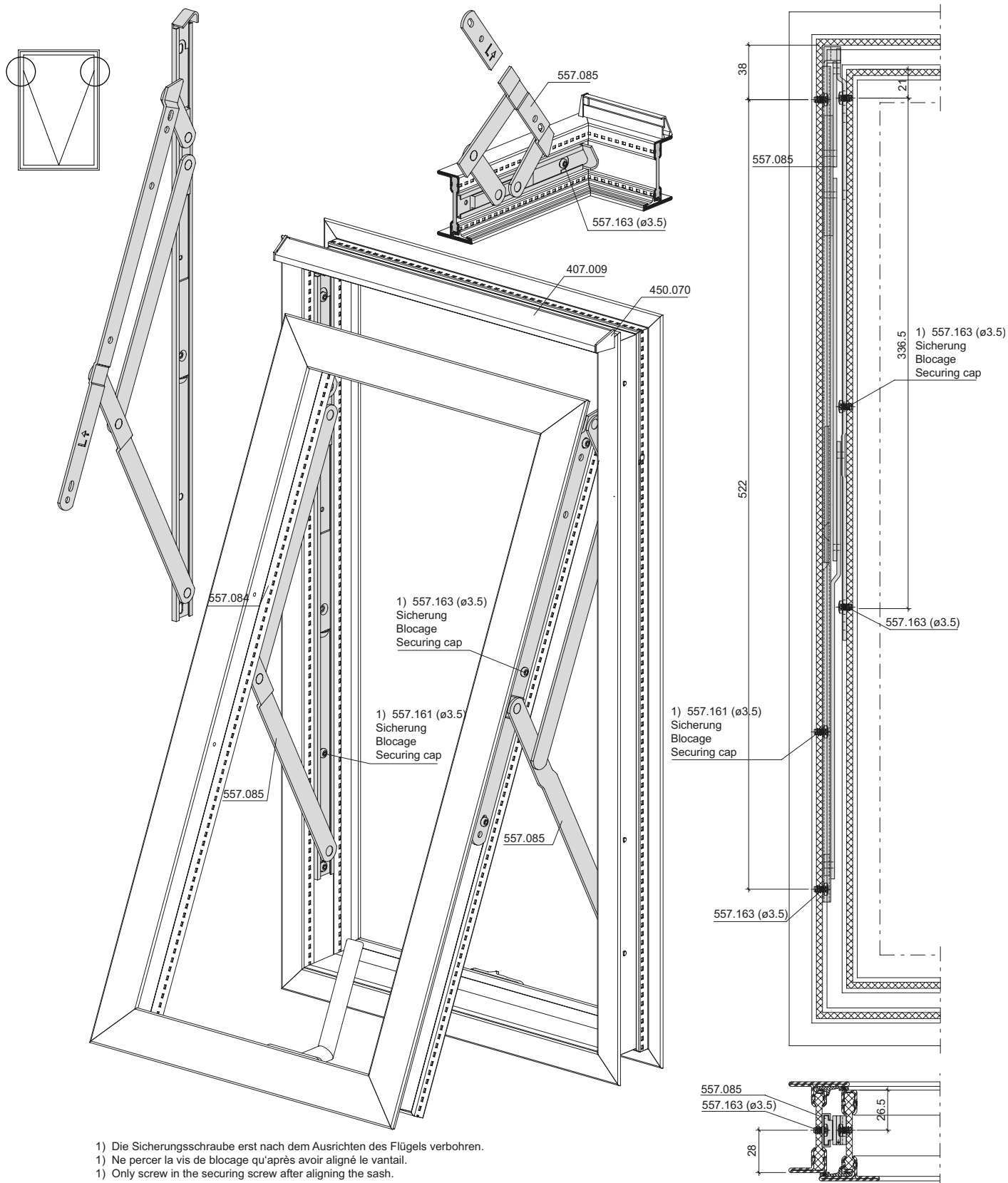


- 1) Die Sicherungsschraube erst nach dem Ausrichten des Flügels verbohren.
- 1) Ne percez la vis de blocage qu'après avoir aligné le vantail.
- 1) Only screw in the securing screw after aligning the vent.

Friktionsschere 557.085

Compas à friction 557.085

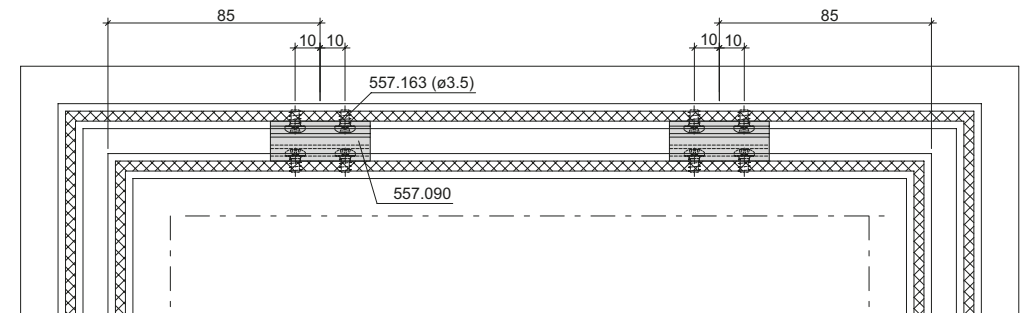
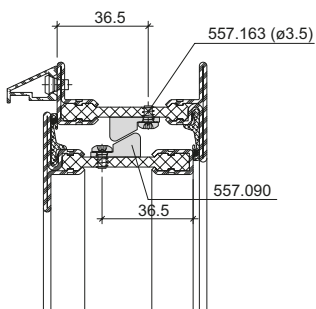
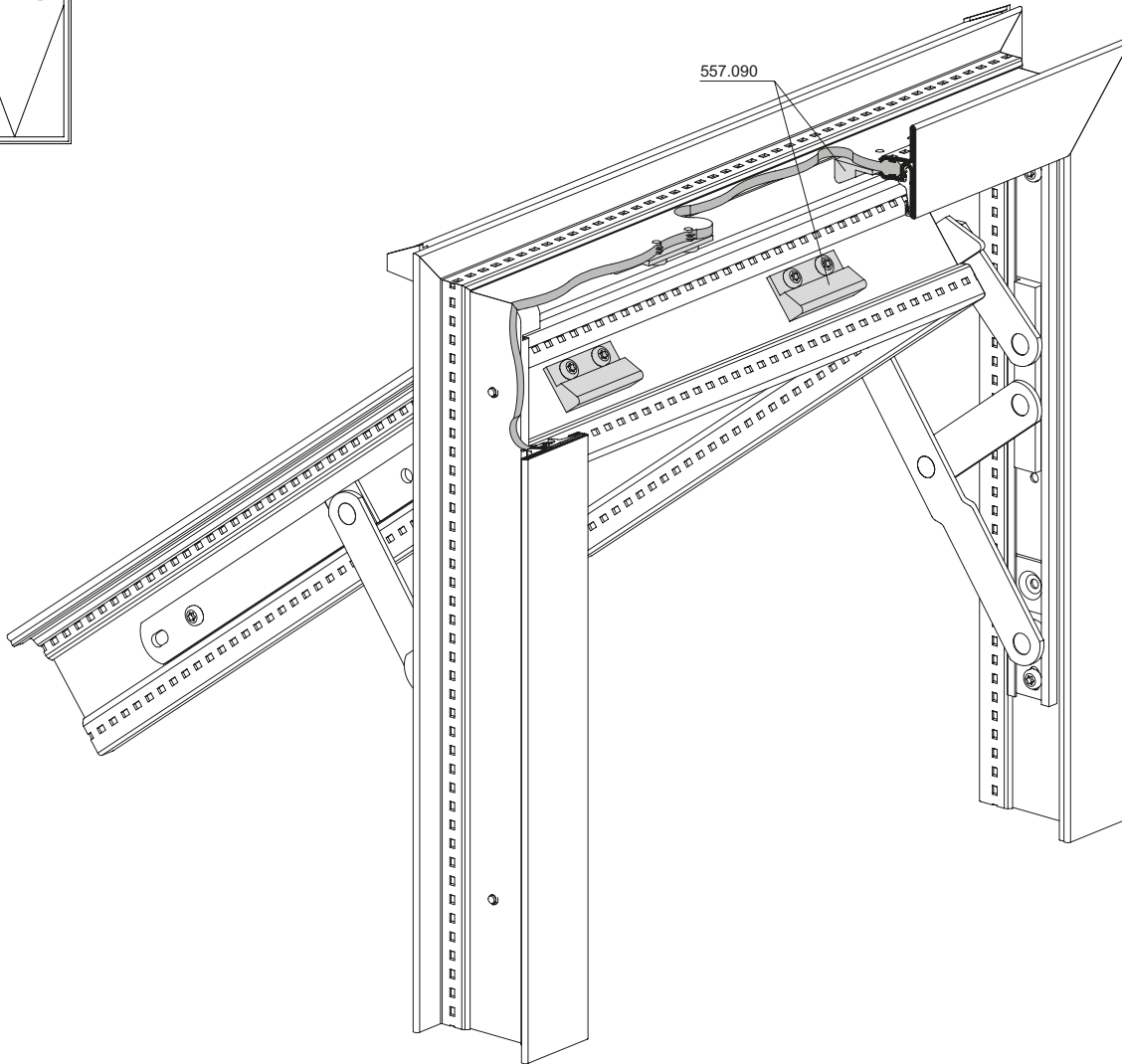
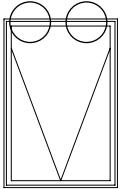
Friction stay 557.085

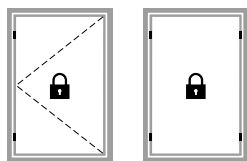


Zwangsverriegelung 557.090

Verrouillage forcé 557.090

Security locking system 557.090



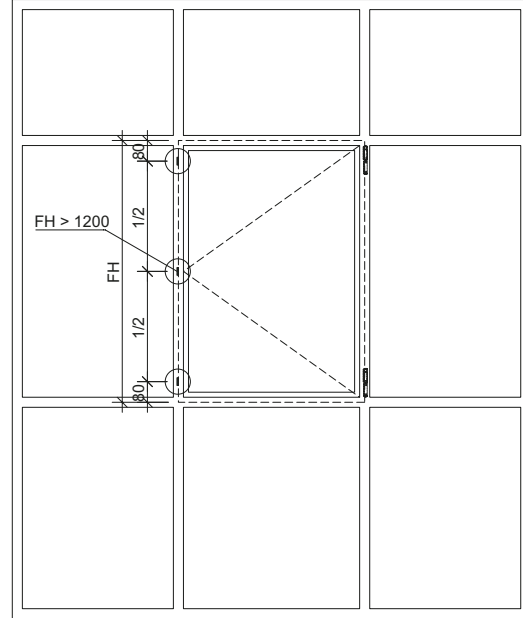
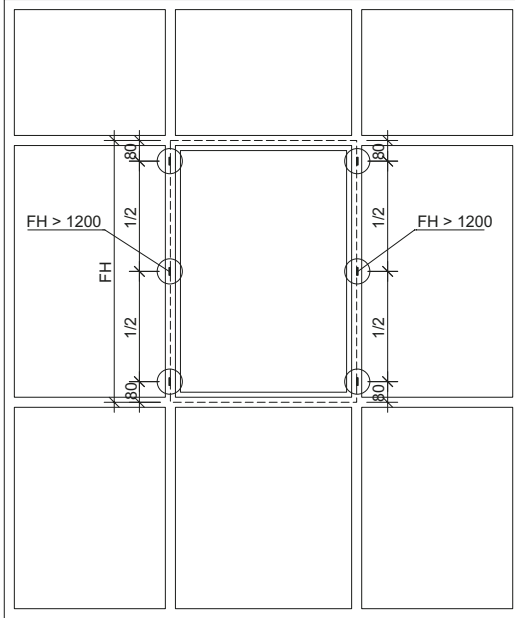


Fixiertes Fenster	asaas	asasas	
Fixiertes Fenster mit oder ohne Band	Fenêtre fixe avec ou sans paumelle	Fixed window with or without hinge	302
Fixiertes Fenster	Fenêtre fixe	Fixed window	303
Fixiertes Fenster Ausführung fest (ohne Band)	Fenêtre fixe Version fixe (sans paumelle)	Fixed window Fixed design (without hinge)	304
Fixiertes Fenster Ausführung fest (ohne Band)	Fenêtre fixe Version fixe (sans paumelle)	Fixed window Fixed design (without hinge)	305

Fixiertes Fenster
 mit oder ohne Band

Fenêtre fixe
 avec ou sans paumelle

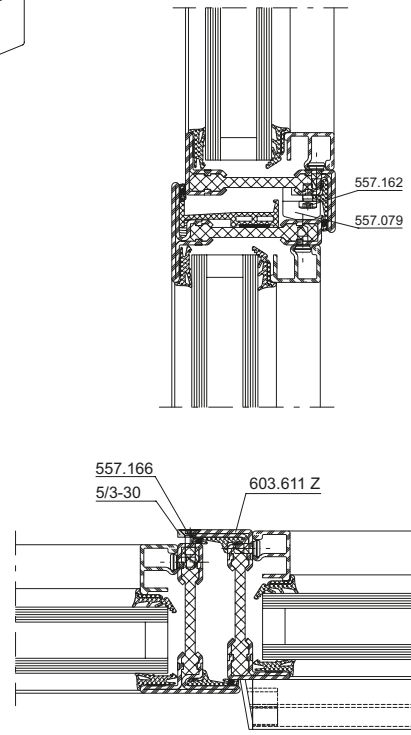
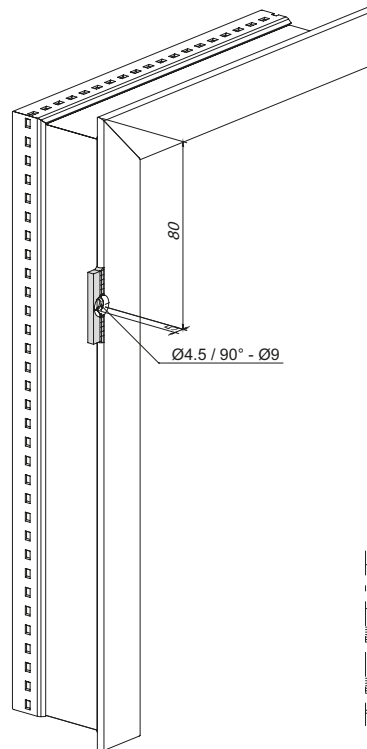
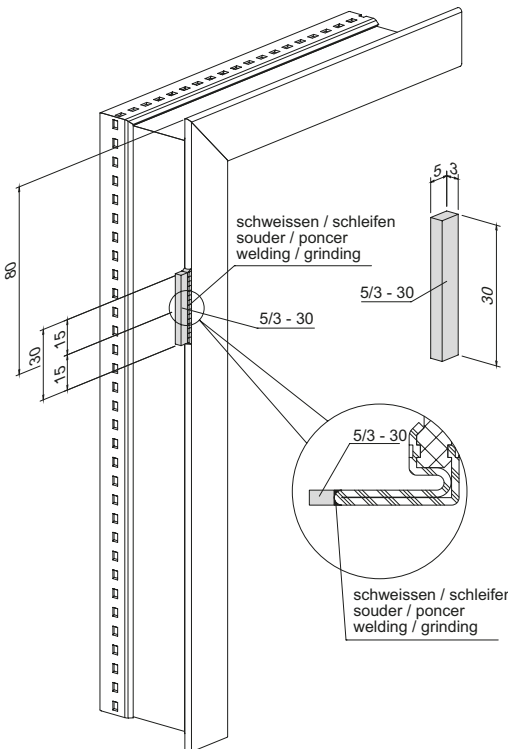
Fixed window
 with or without hinge



Ausführung mit Band

Exécution avec paumelle

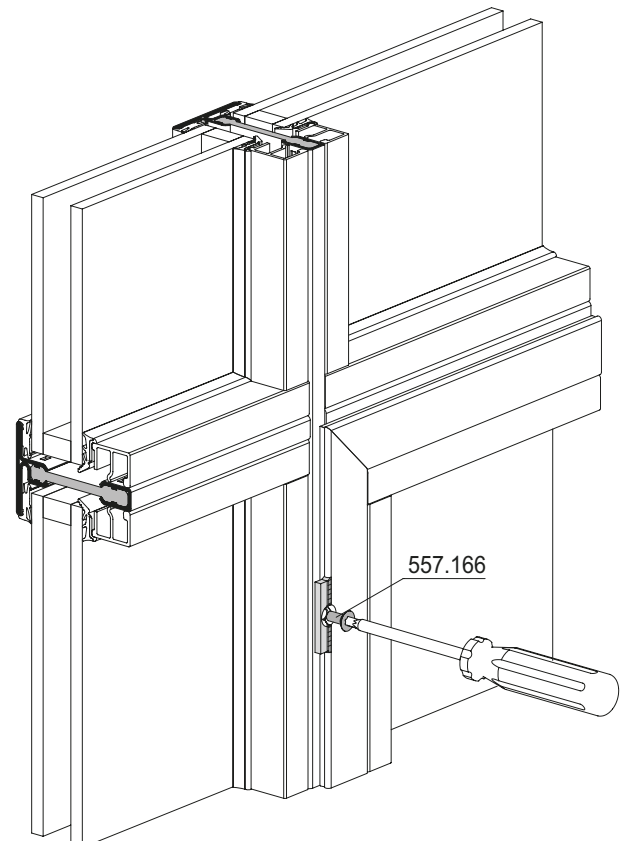
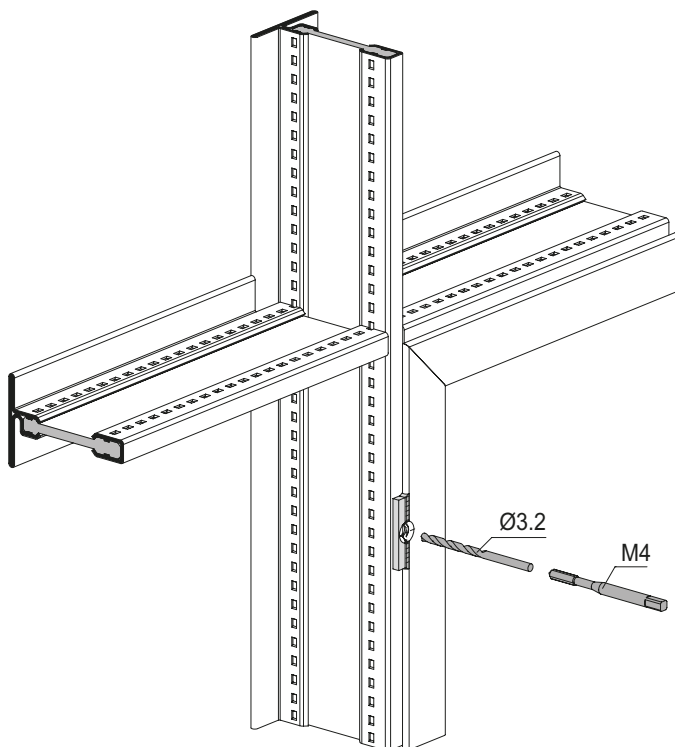
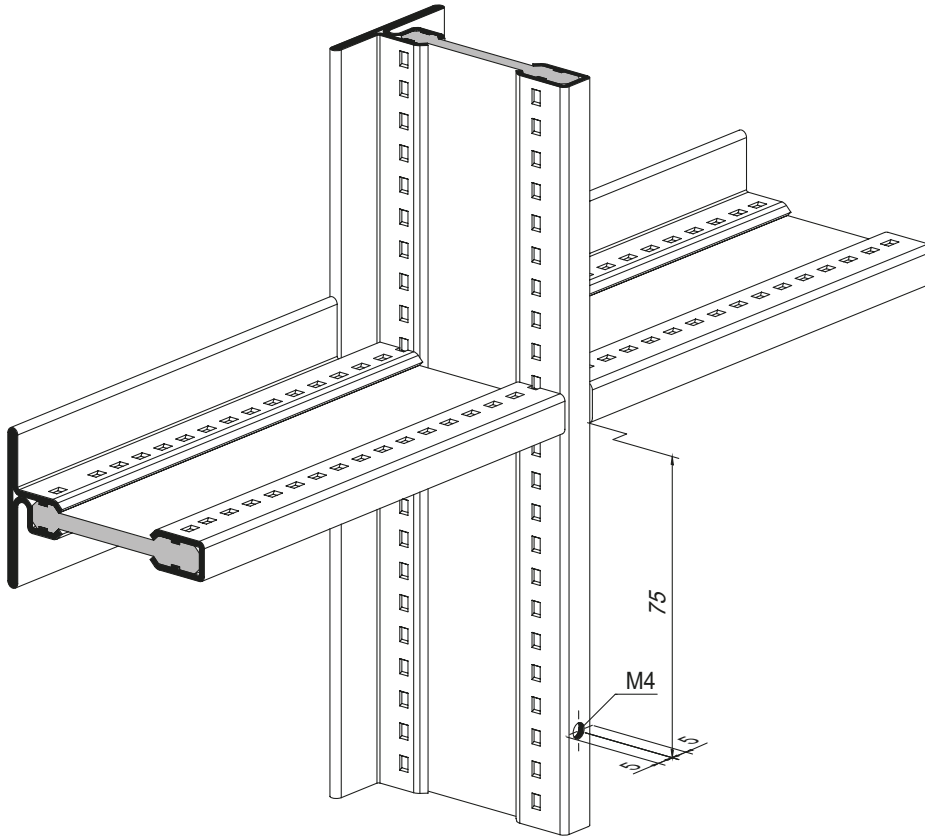
Version with hinge



Fixiertes Fenster

Fenêtre fixe

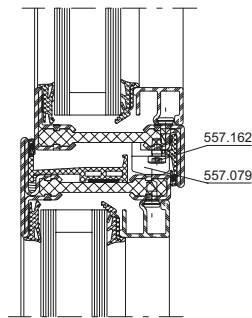
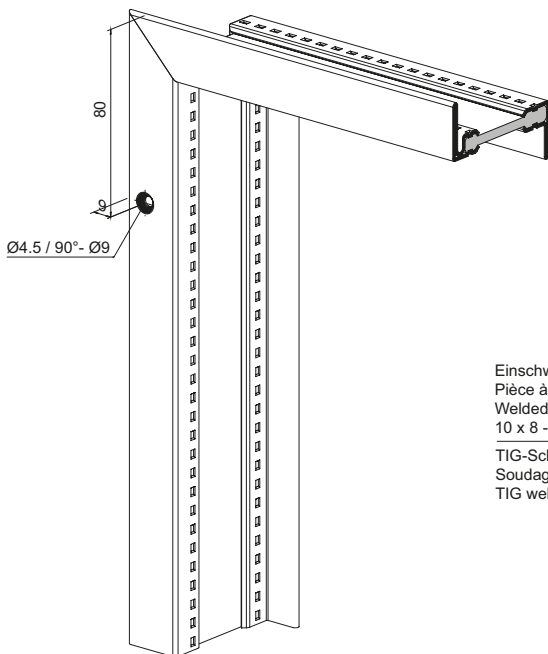
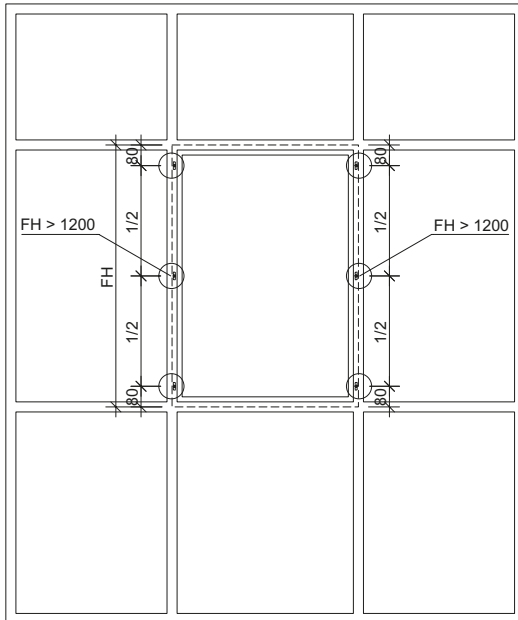
Fixed window



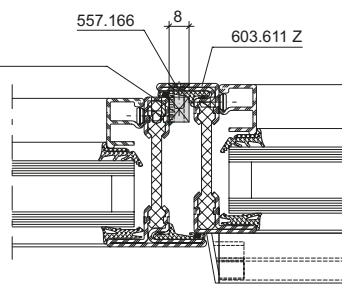
Fixiertes Fenster
Variante fest (ohne Band)

Fenêtre fixe
Version fixe (sans paumelle)

Fixed window
Fixed design (without hinge)



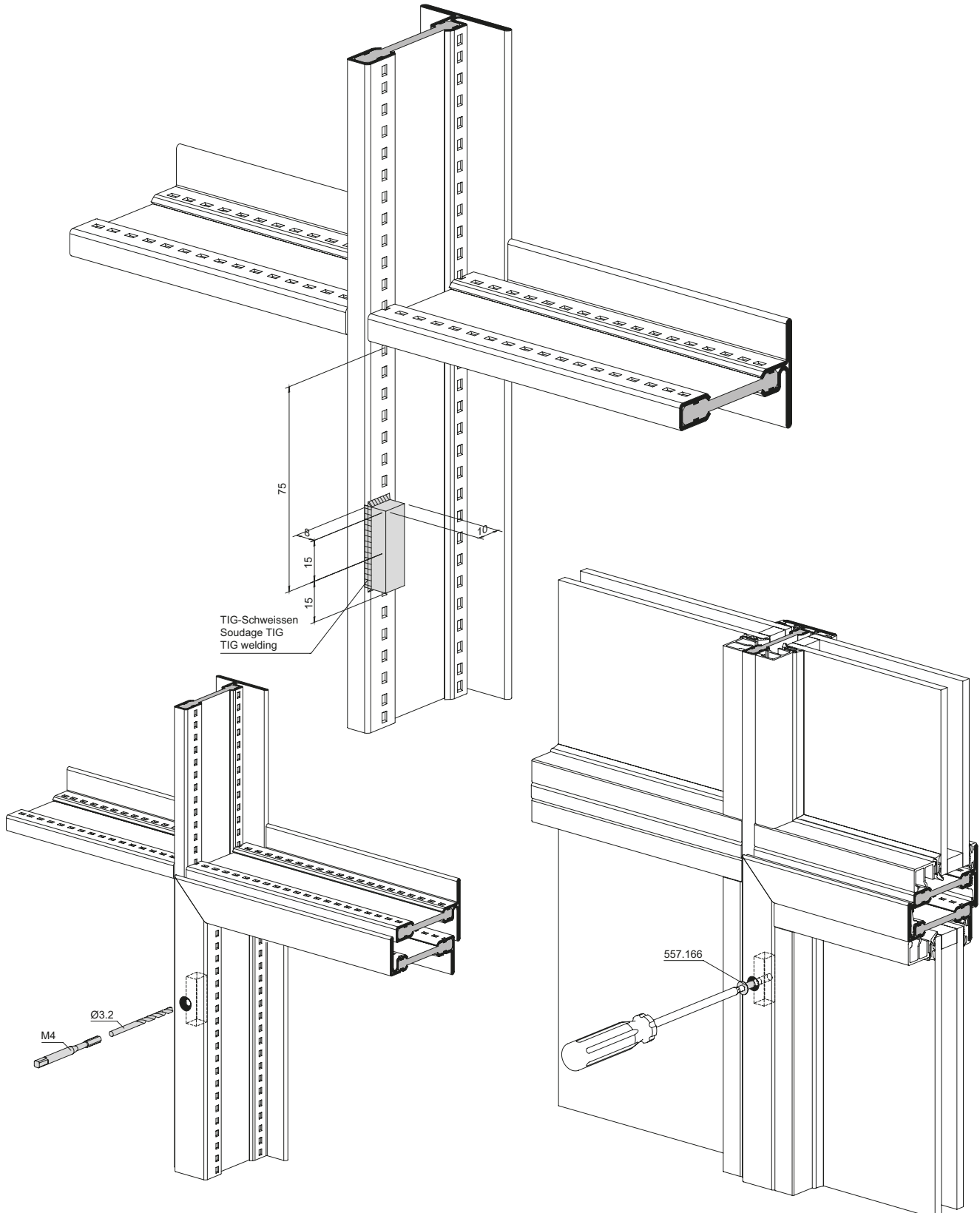
Einschweissteil
 Pièce à souder
 Welded part
 10 x 8 - 30
 TIG-Schweißen
 Soudage TIG
 TIG welding



Fixiertes Fenster
Variante fest (ohne Band)

Fenêtre fixe
Version fixe (sans paumelle)

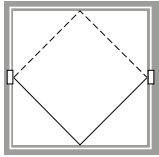
Fixed window
Fixed design (without hinge)



Beschlageinbau
Montage des ferrures
Installation of fittings

Janisol Arte
Janisol Arte
Janisol Arte

2.0

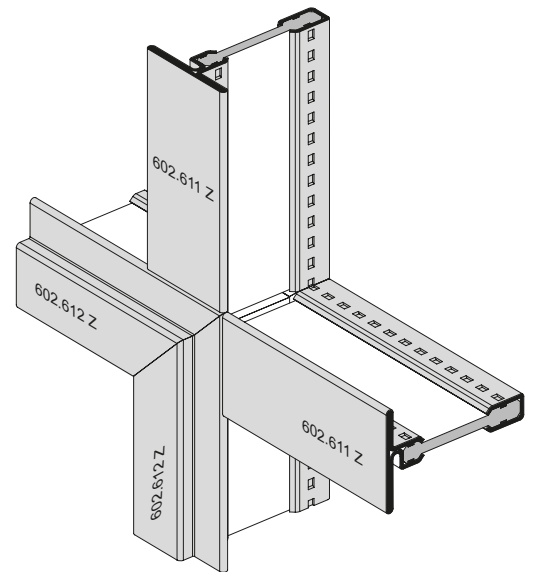
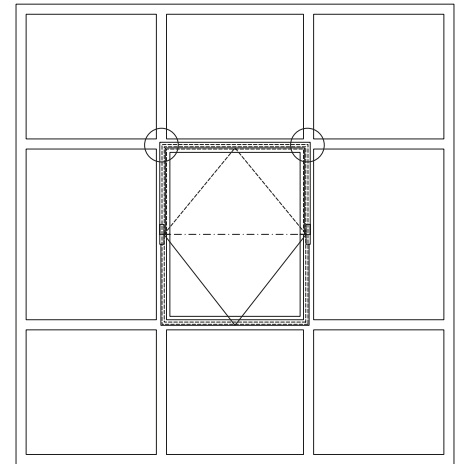
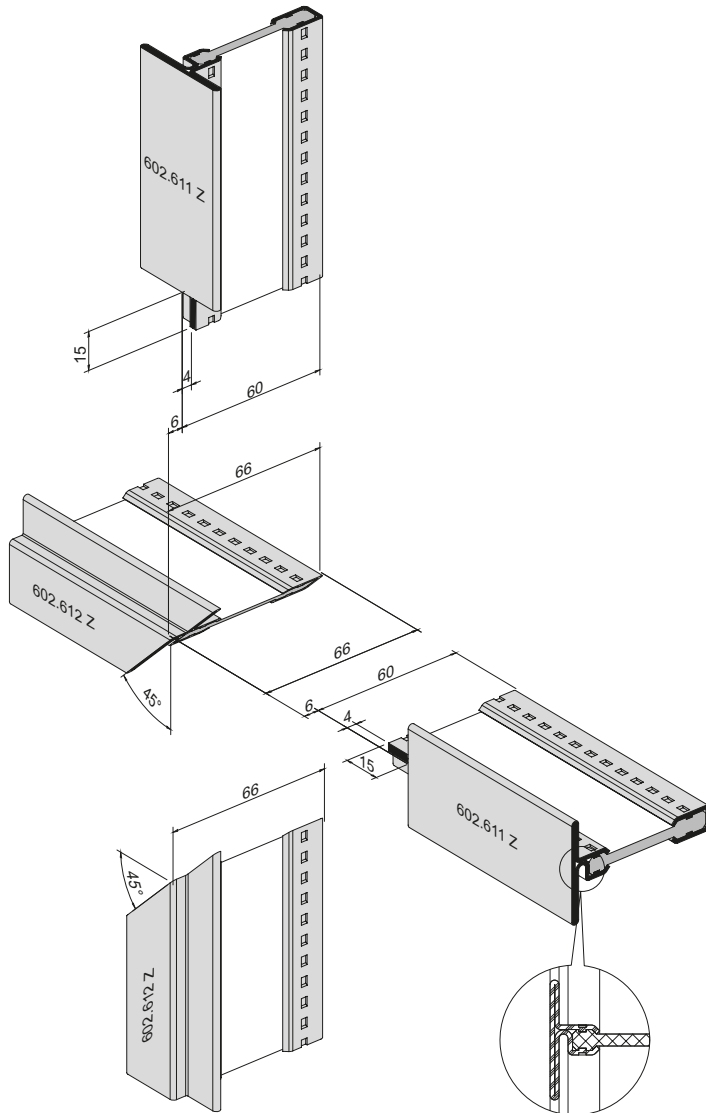


Schwingfenster	Fenêtre basculante	Horizontal pivot window	
Ausbildung Kreuzpunkt	Formation croisée	Construction of intersection	308
Zuschnitt, Bearbeitung und Zusammenbau Rahmen	Découpe, usinage et assemblage cadre	Cutting, preparing and assembly frame	310
Zuschnitt, Bearbeitung und Zusammenbau Flügel	Découpe, usinage et assemblage vantail	Cutting, preparing and assembly sash	318
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Ausbildung Kreuzpunkt
oben

Formation croisée
en haut

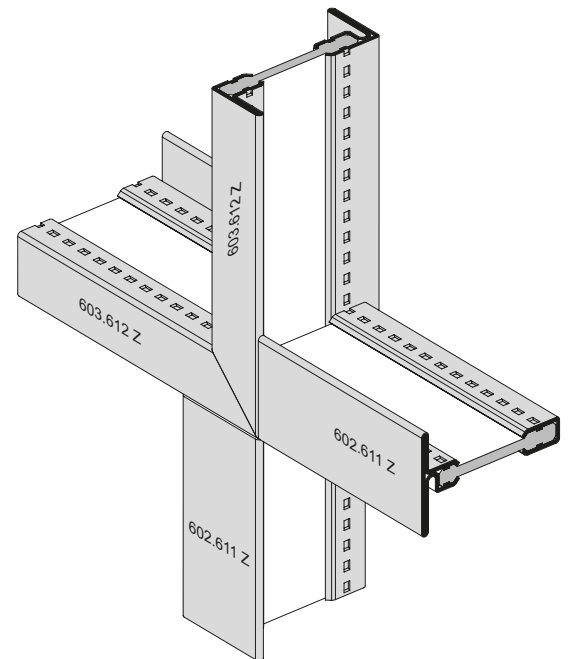
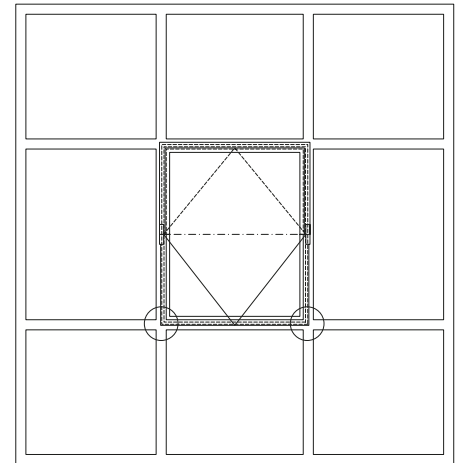
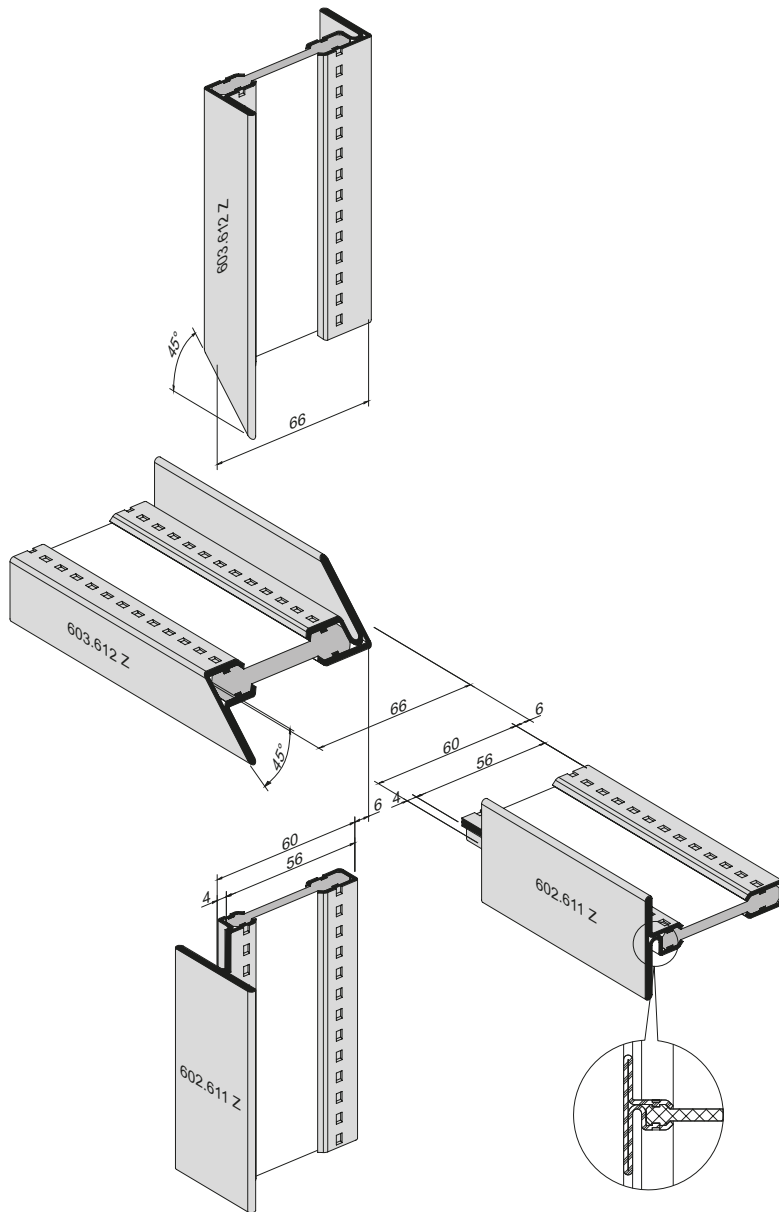
Construction of intersection
top



Ausbildung Kreuzpunkt
unten

Formation croisée
en bas

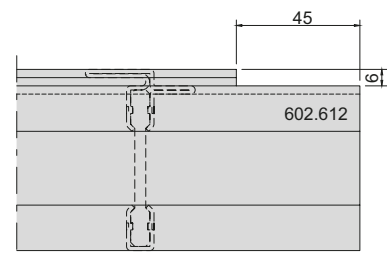
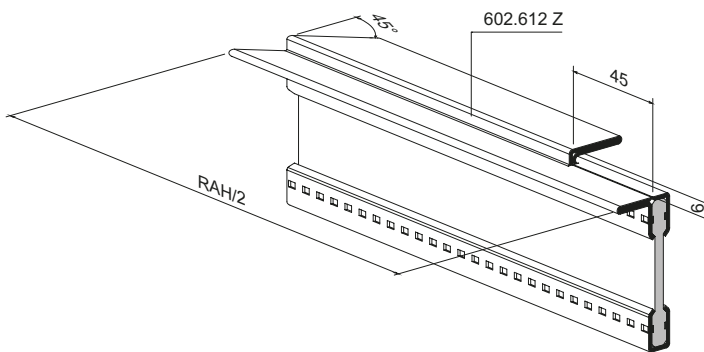
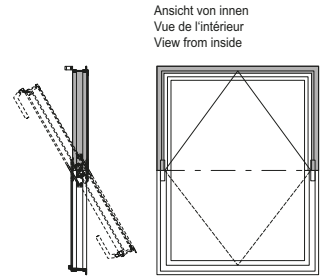
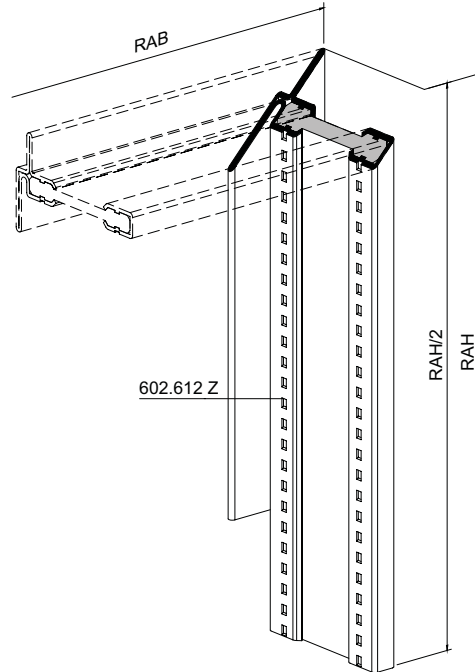
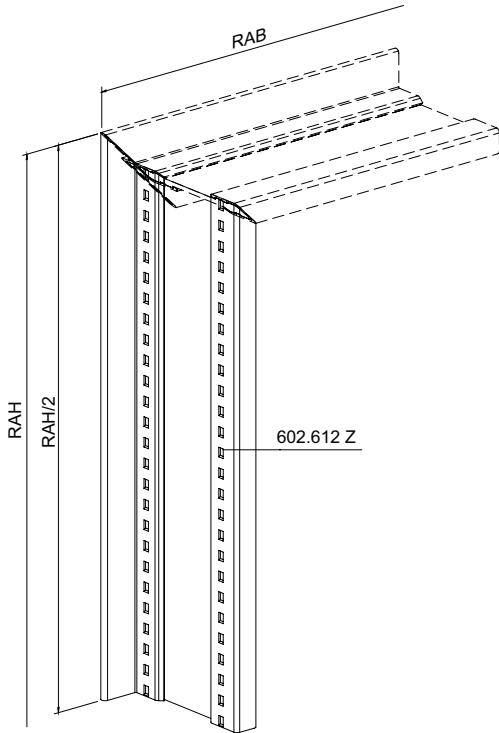
Construction of intersection
bottom



Zuschnitt Rahmen
 oben

Découpe cadre
 en haut

Cutting the frame
 top

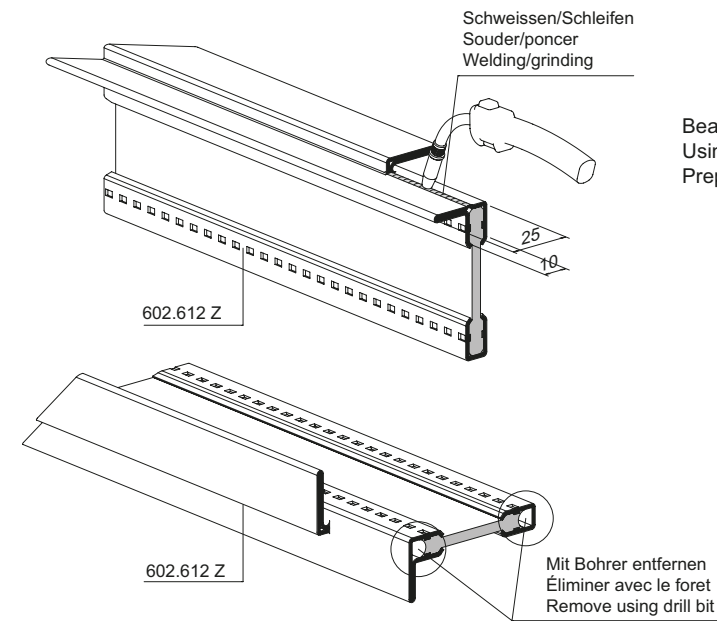


Bearbeitung Profil unten spiegelbildlich
 Usinage profilé inférieur réfléchi
 Preparation of profile at the bottom mirror image

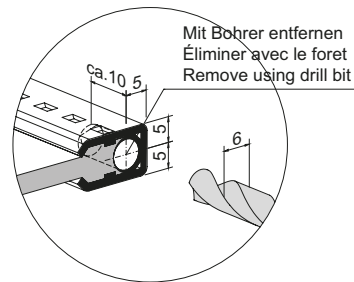
**Bearbeitung Rahmen
 oben seitlich**

**Usinage cadre
 en haut latéral**

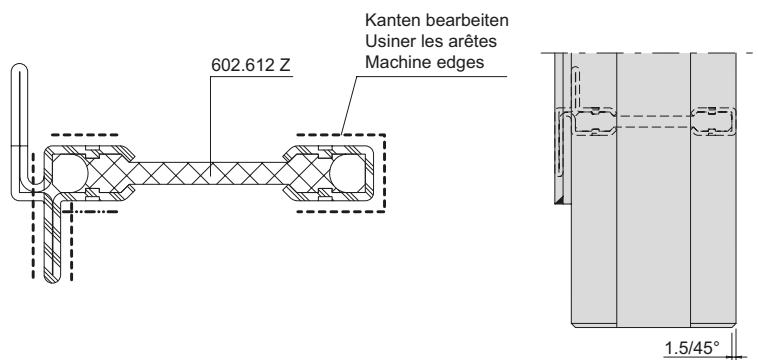
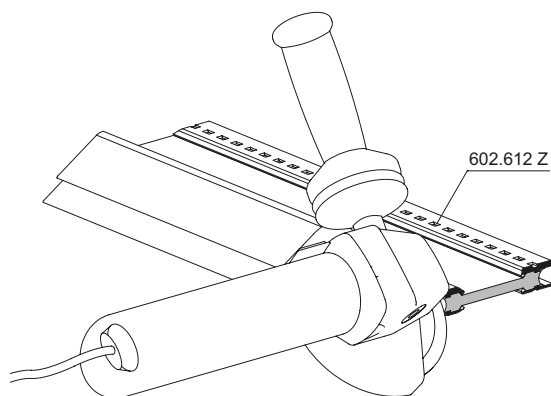
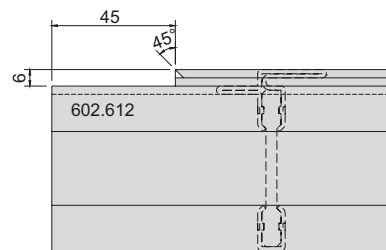
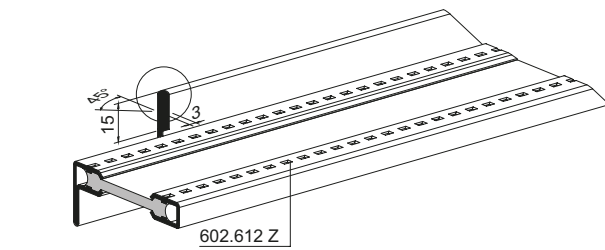
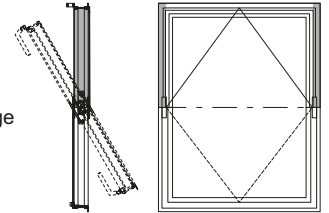
**Preparing the frame
 top lateral**



Bearbeitung Profil unten spiegelbildlich
 Usinage profilé inférieur réfléchi
 Preparation of profile at the bottom mirror image



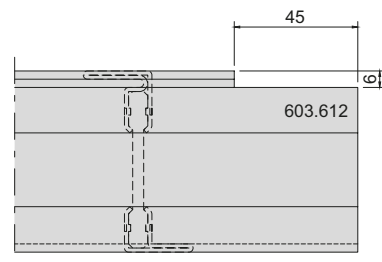
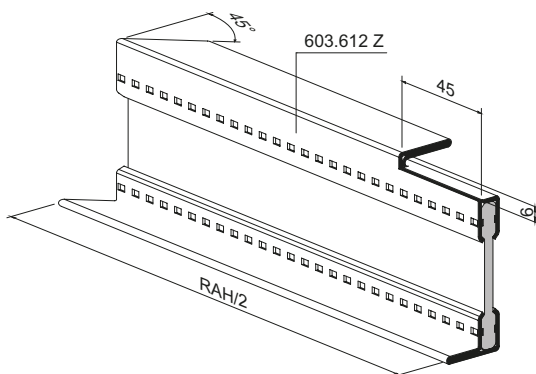
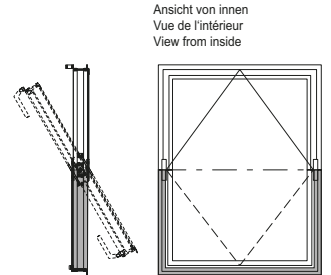
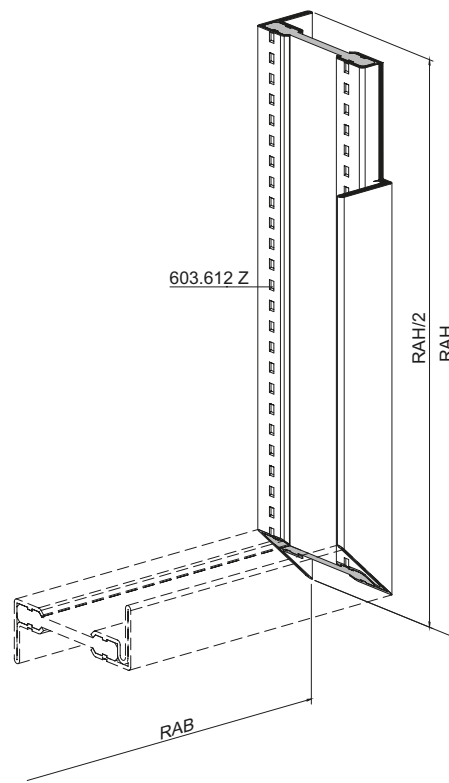
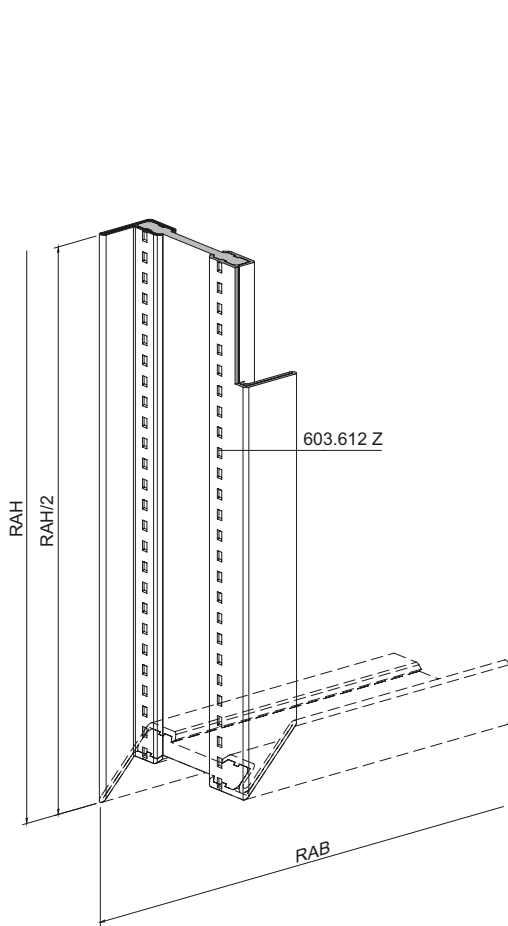
Ansicht von innen
 Vue de l'intérieur
 View from inside



Zuschnitt Rahmen
unten

Découpe cadre
en bas

Cutting the frame
bottom

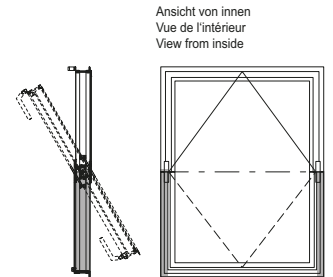
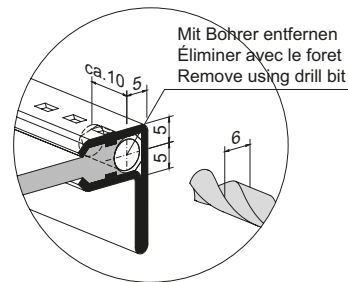
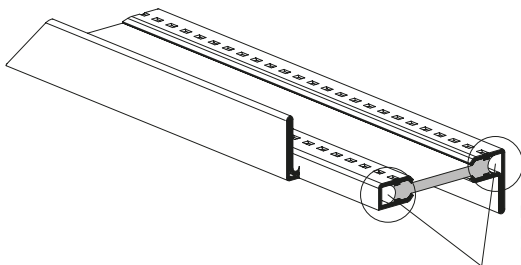
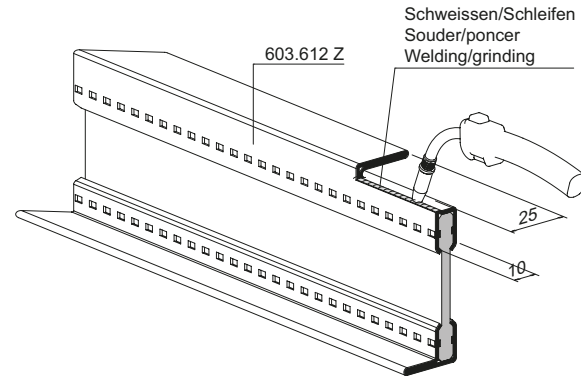


Bearbeitung Profil unten spiegelbildlich
Usinage profilé inférieur réfléchi
Preparation of profile at the bottom mirror image

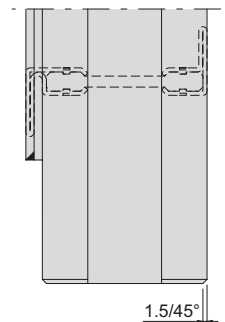
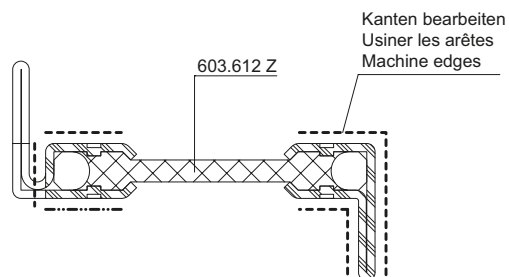
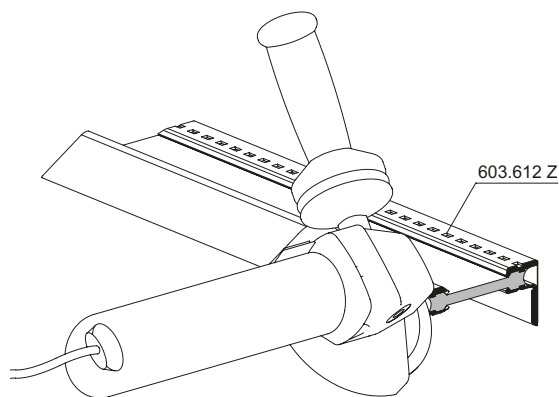
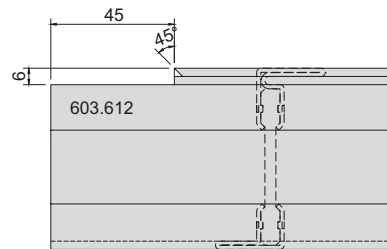
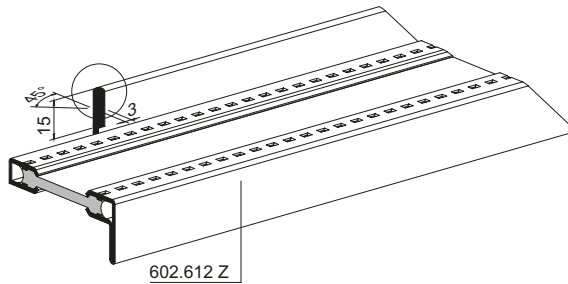
Bearbeitung Rahmen
unten seitlich

Usinage cadre
en bas latéral

Preparing the frame
bottom lateral



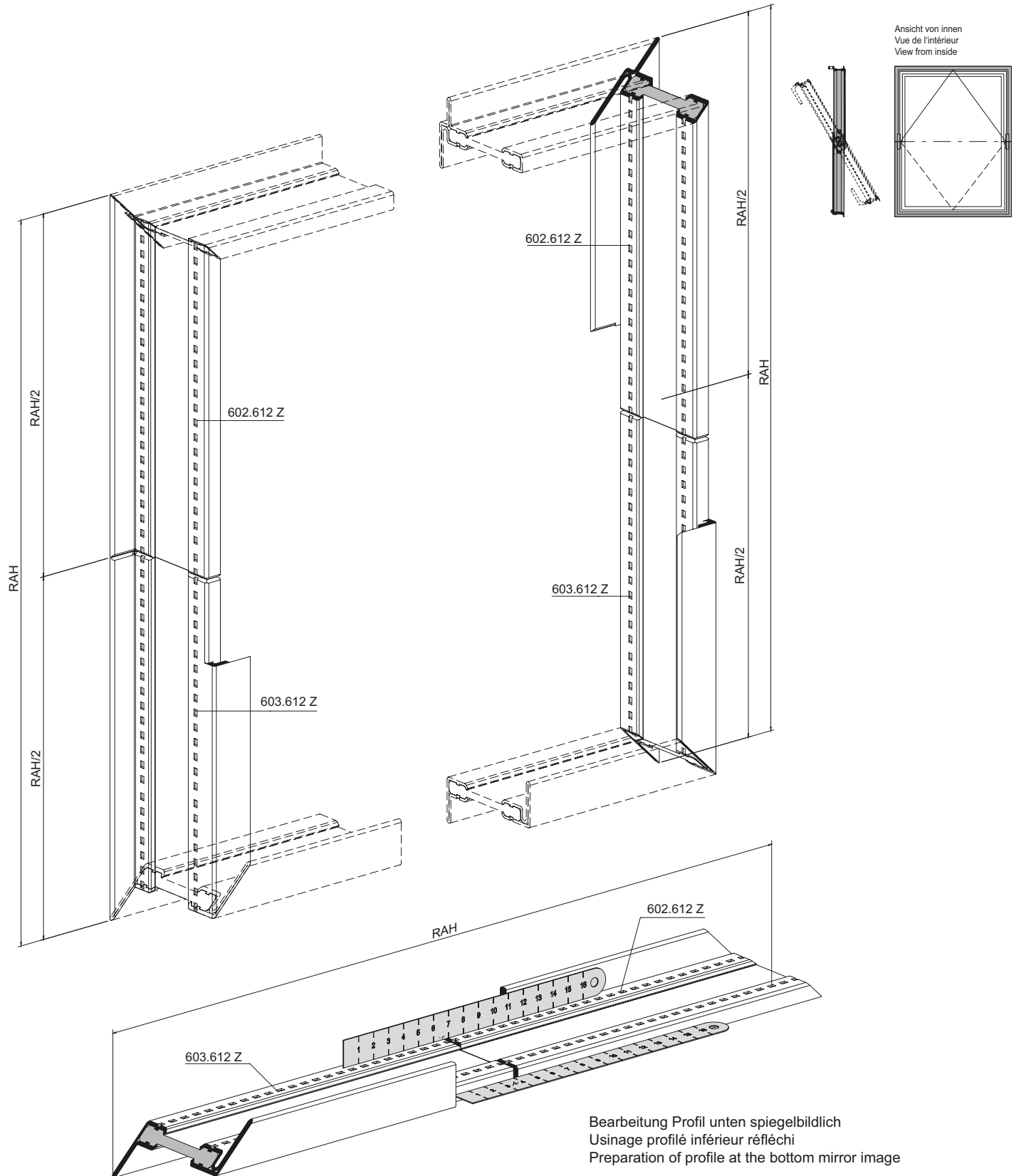
Bearbeitung Profil unten spiegelbildlich
 Usinage profilé inférieur réfléchi
 Preparation of profile at the bottom mirror image



Zusammenbau Rahmen

Assemblage de cadre

Assembly of frame

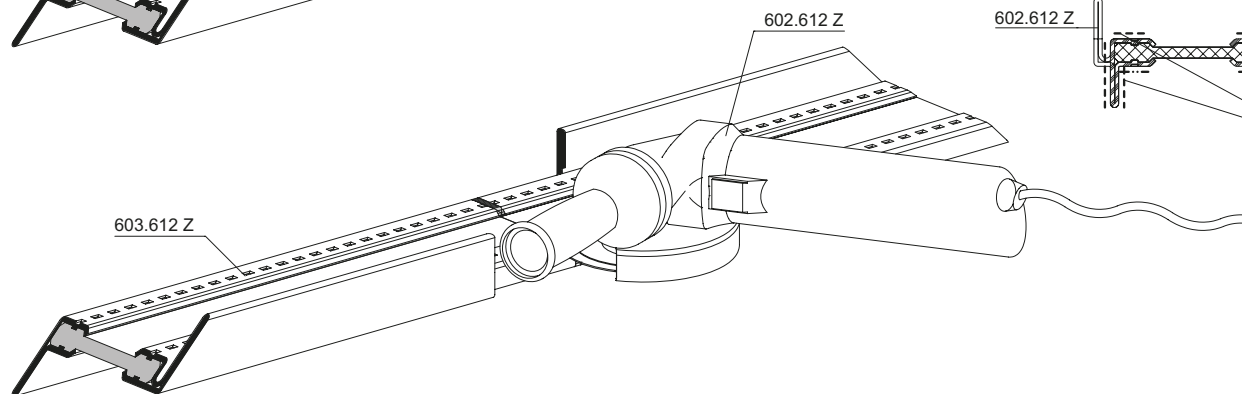
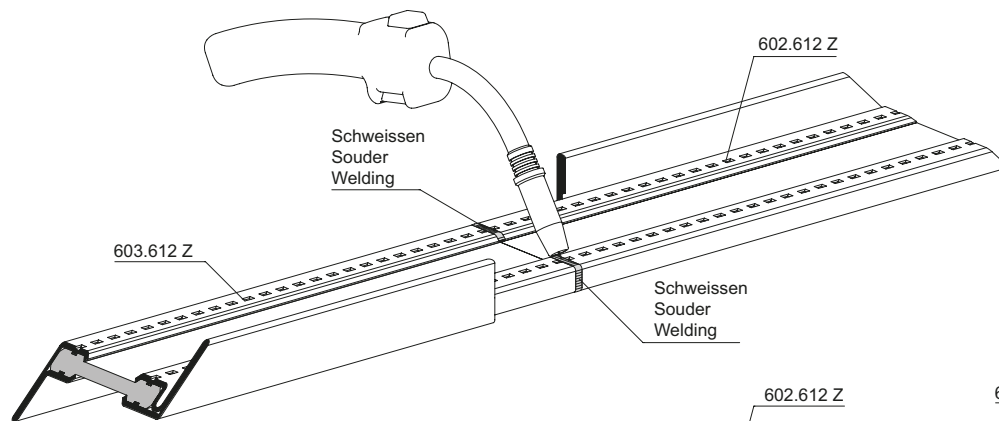
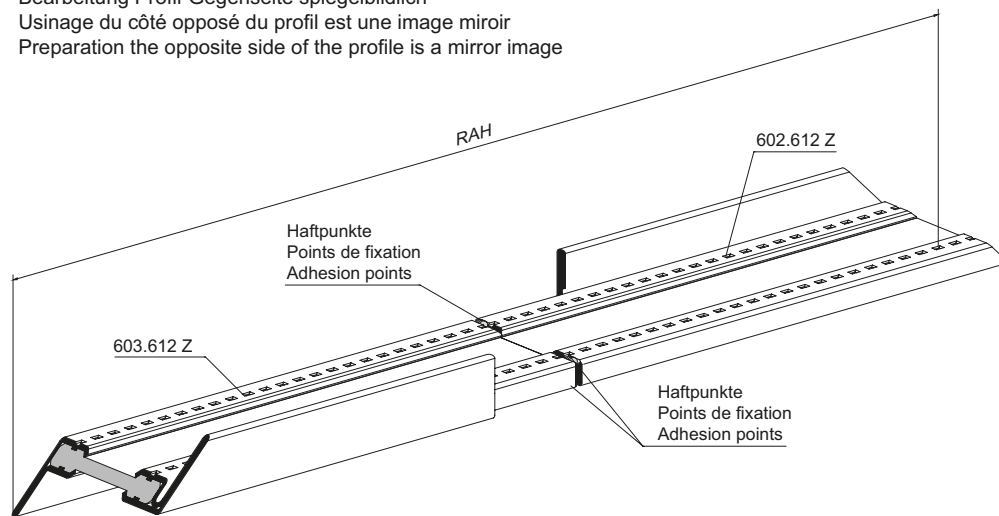


**Zusammenbau Rahmen
 seitlich**

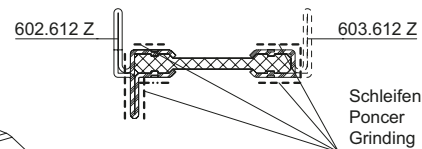
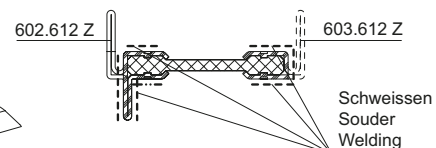
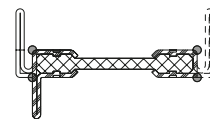
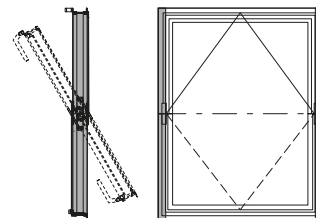
**Assemblage de cadre
 latéral**

**Assembly of frame
 lateral**

Bearbeitung Profil-Gegenseite spiegelbildlich
 Usinage du côté opposé du profil est une image miroir
 Preparation the opposite side of the profile is a mirror image



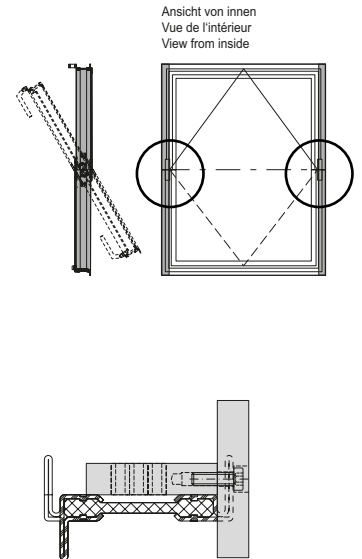
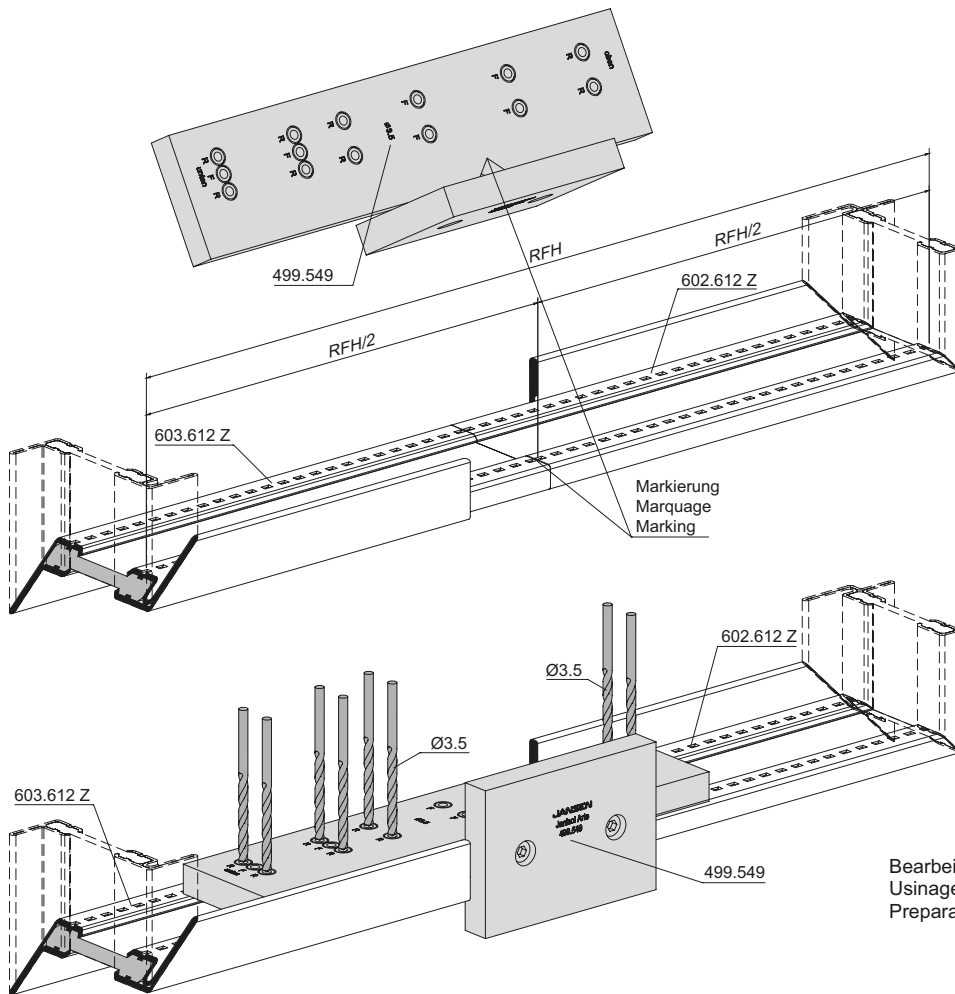
Ansicht von innen
 Vue de l'intérieur
 View from inside



Bearbeitung Rahmen
mit Bohrlehre 499.549
seitlich

Usinage cadre
avec gabarit de perçage 499.549
latéral

Preparation frame
with drilling jig 499.549
lateral



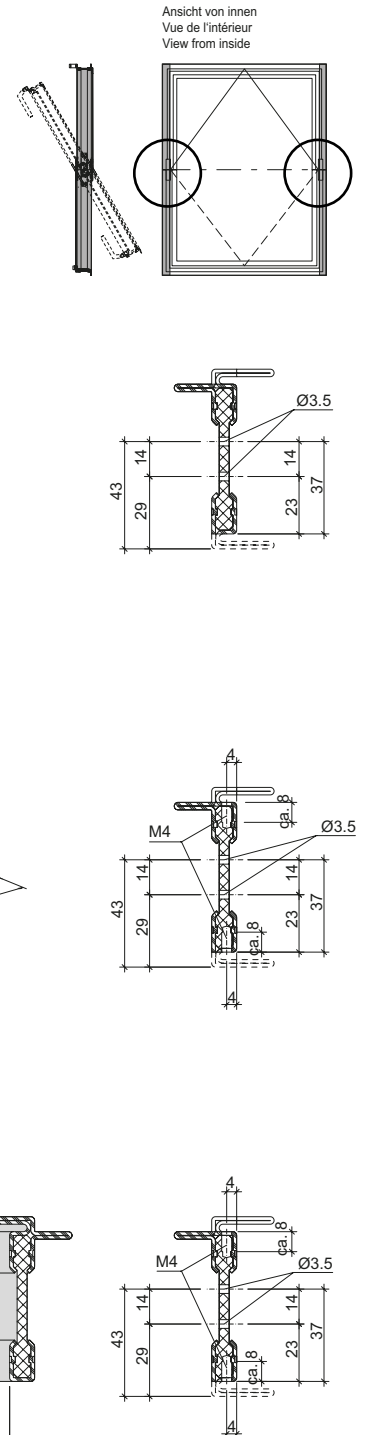
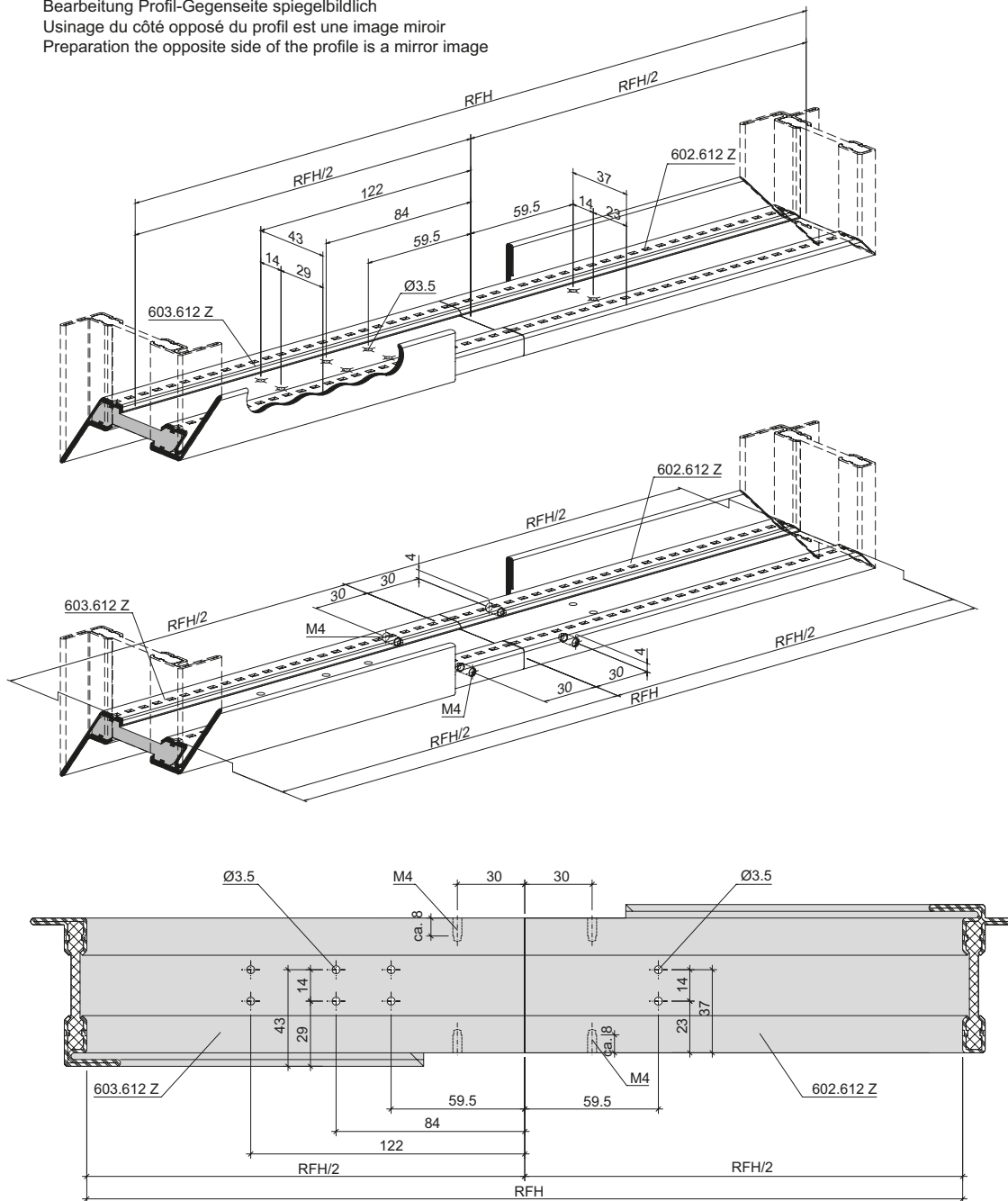
Bearbeitung Profil-Gegenseite spiegelbildlich
Usinage du côté opposé du profil est une image miroir
Preparation the opposite side of the profile is a mirror image

Bearbeitung Rahmen
Bohrbild
seitlich

Usinage cadre
Schéma de perçage
latéral

Preparation frame
Drilling pattern
lateral

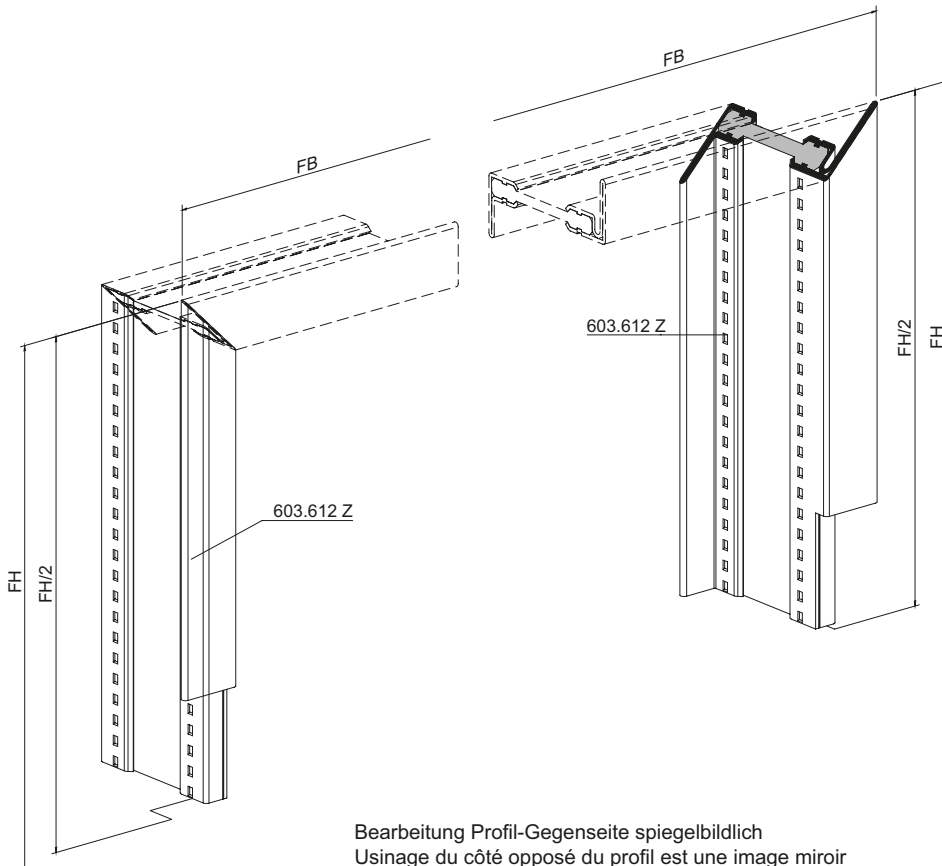
Bearbeitung Profil-Gegenseite spiegelbildlich
 Usinage du côté opposé du profil est une image miroir
 Preparation the opposite side of the profile is a mirror image



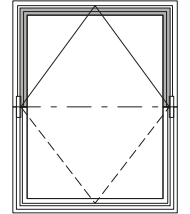
Zuschnitt Flügel
oben

Découpe vantail
en haut

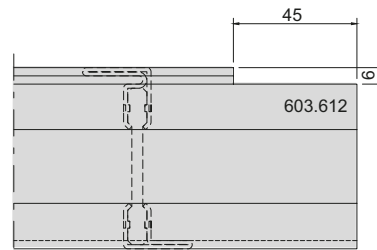
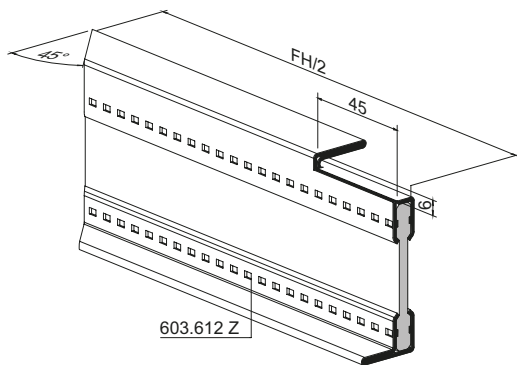
Cutting the sash
top



Ansicht von innen
Vue de l'intérieur
View from inside



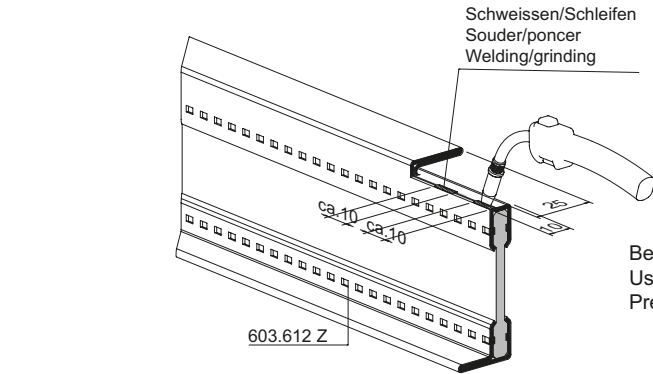
Bearbeitung Profil-Gegenseite spiegelbildlich
Usinage du côté opposé du profil est une image miroir
Preparation the opposite side of the profile is a mirror image



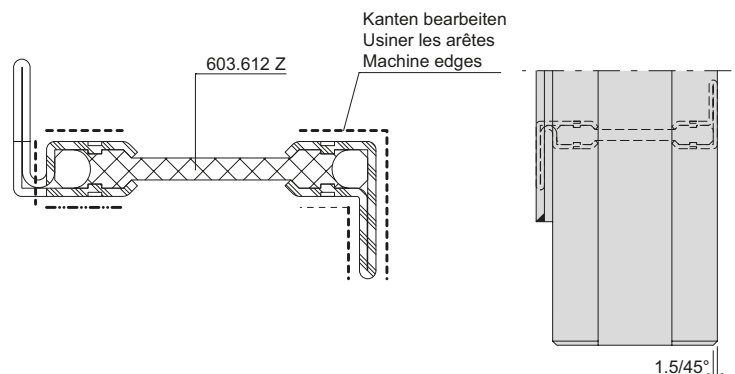
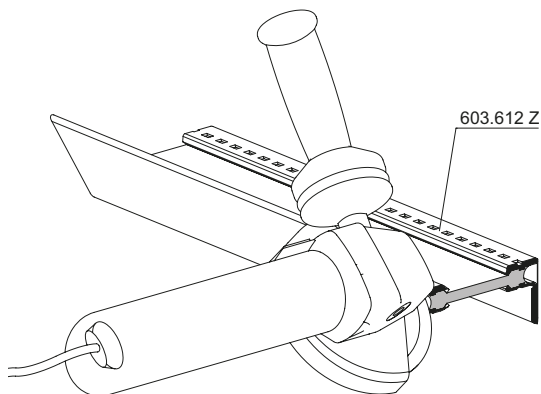
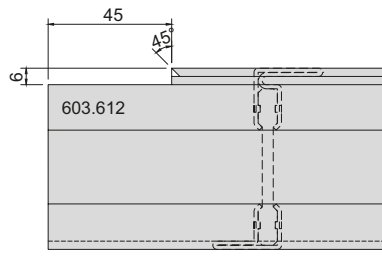
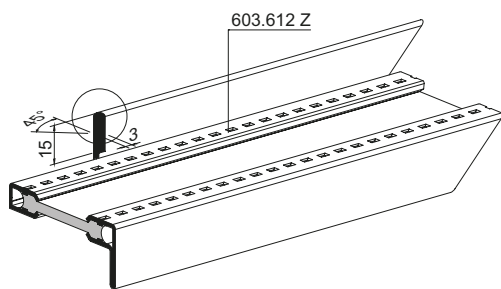
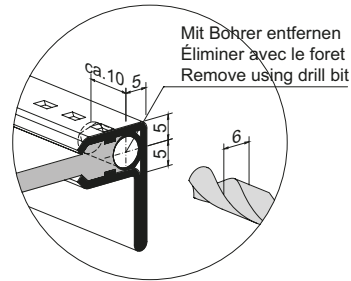
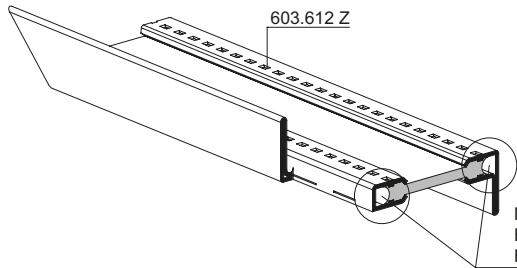
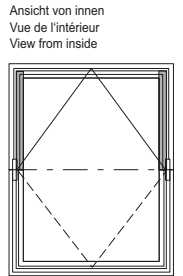
Bearbeitung Flügel
oben seitlich

Usinage vantail
en haut latéral

Preparing the sash
top lateral



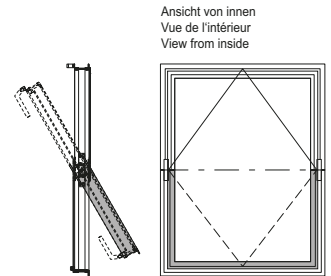
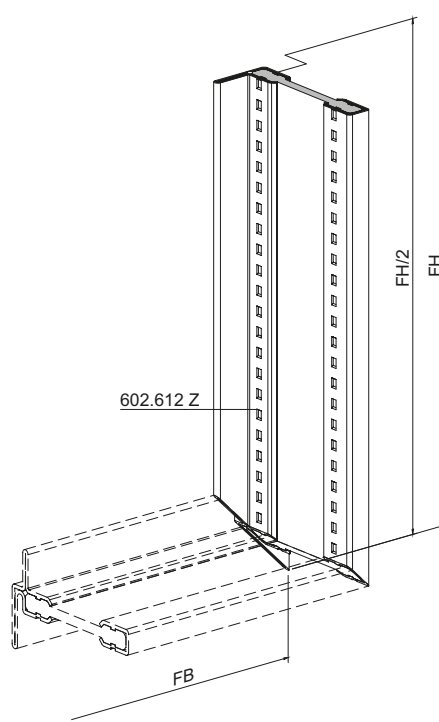
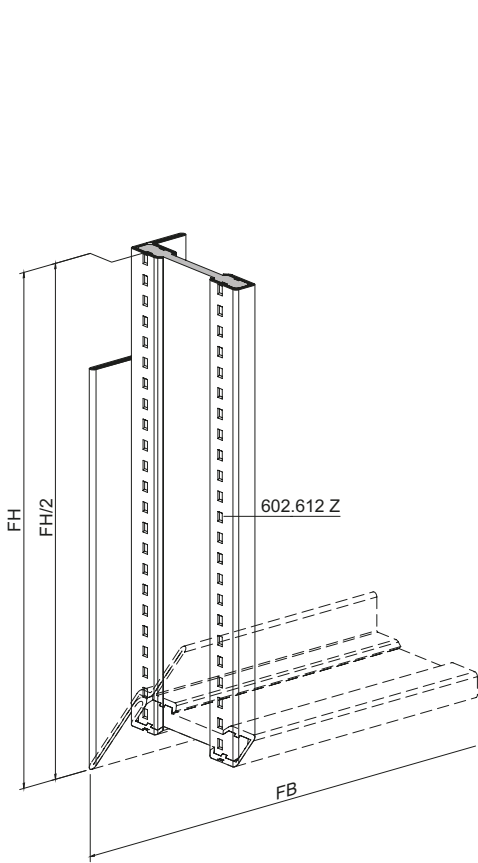
Bearbeitung Profil-Gegenseite spiegelbildlich
 Usinage du côté opposé du profil est une image miroir
 Preparation the opposite side of the profile is a mirror image



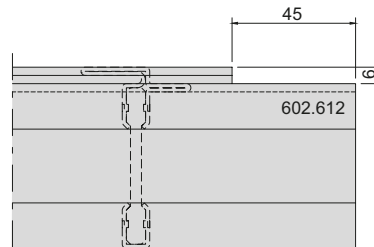
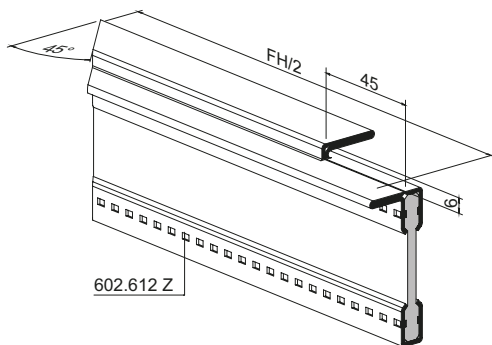
Zuschnitt Flügel
 unten

Découpe vantail
 en bas

Cutting the sash
 bottom



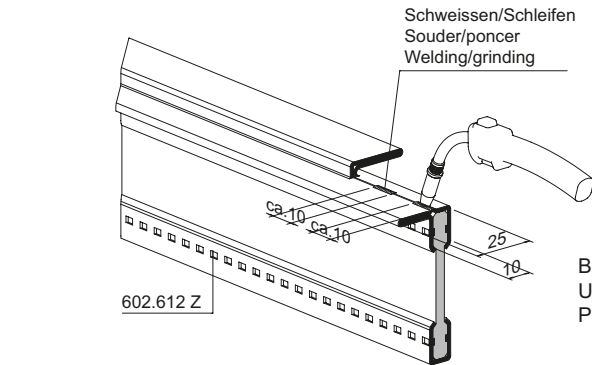
Bearbeitung Profil-Gegenseite spiegelbildlich
 Usinage du côté opposé du profil est une image miroir
 Preparation the opposite side of the profile is a mirror image



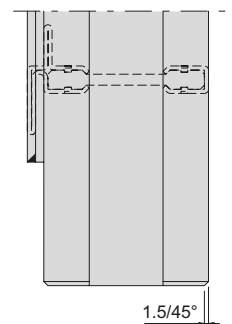
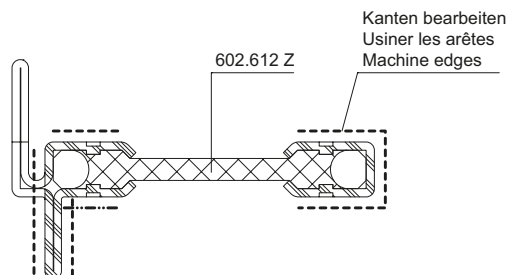
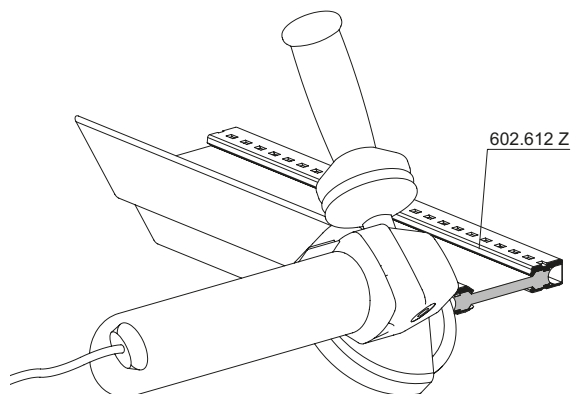
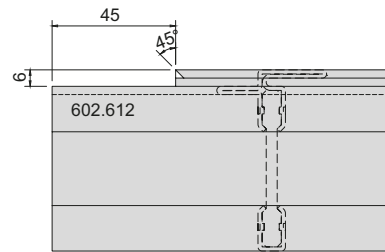
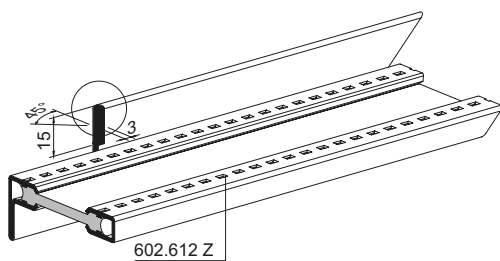
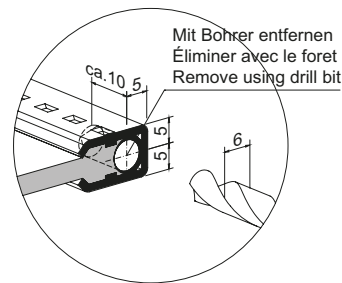
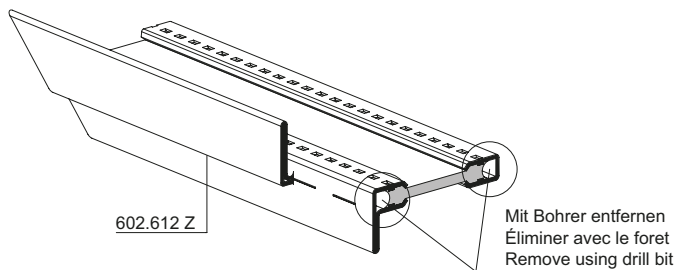
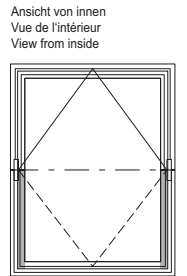
Bearbeitung Flügel
unten seitlich

Usinage vantail
en bas latéral

Preparing the sash
bottom lateral



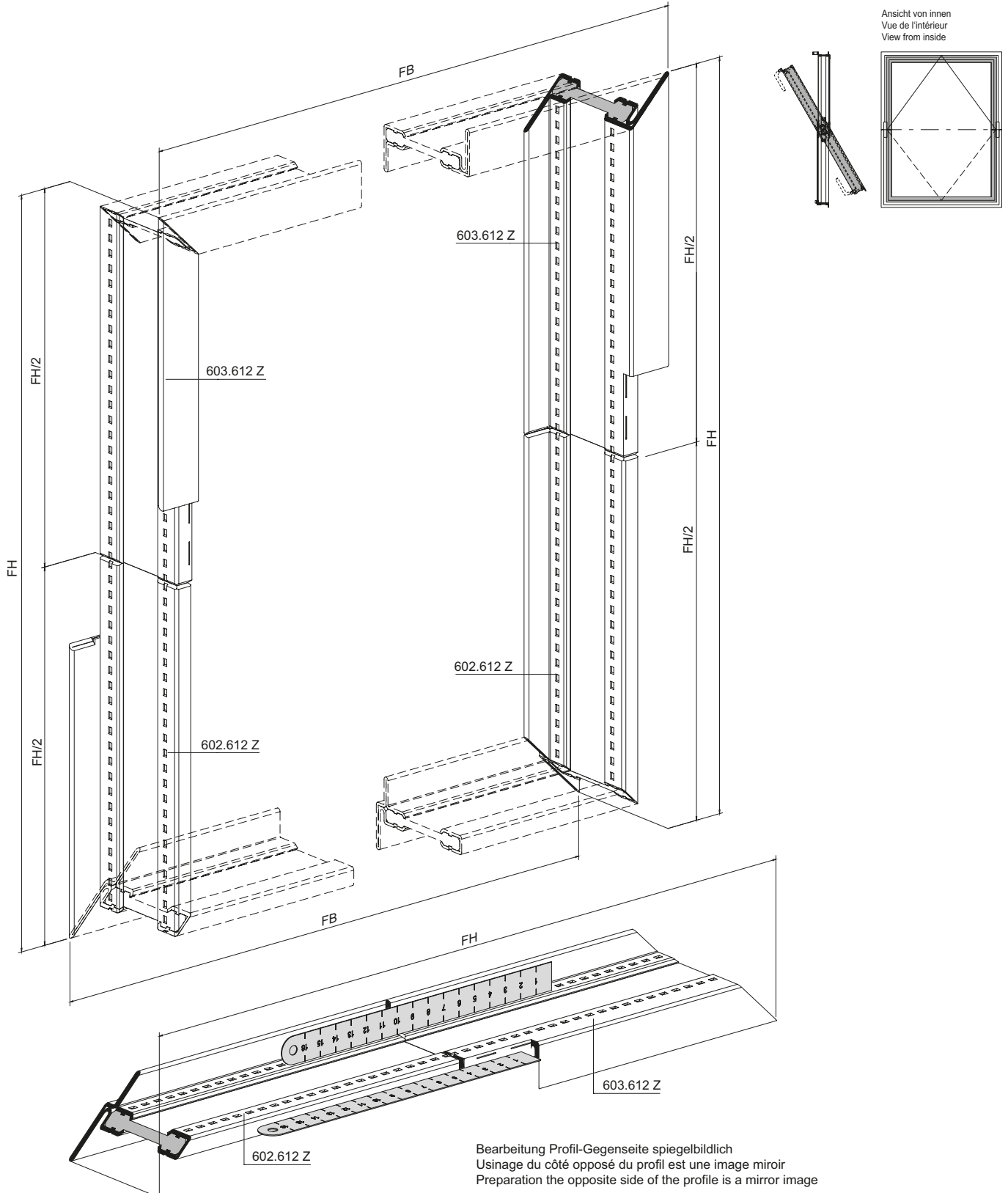
Bearbeitung Profil-Gegenseite spiegelbildlich
 Usinage du côté opposé du profil est une image miroir
 Preparation the opposite side of the profile is a mirror image



Zusammenbau Flügel

Assemblage de vantail

Assembly of sash



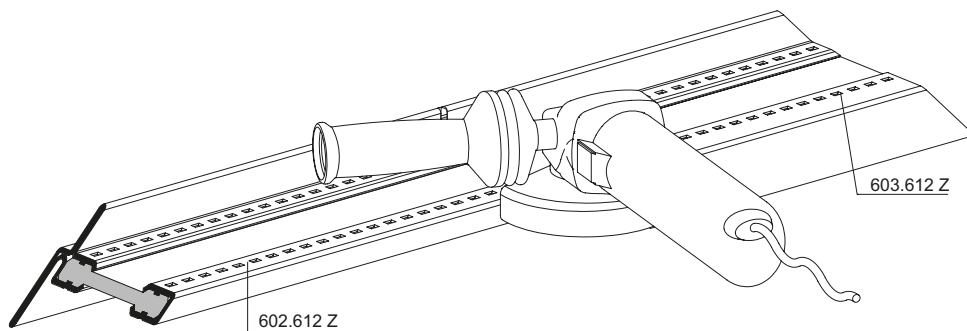
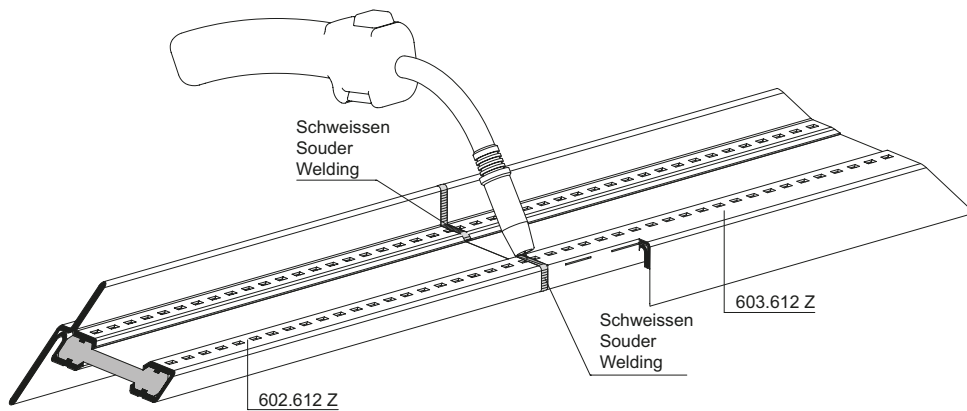
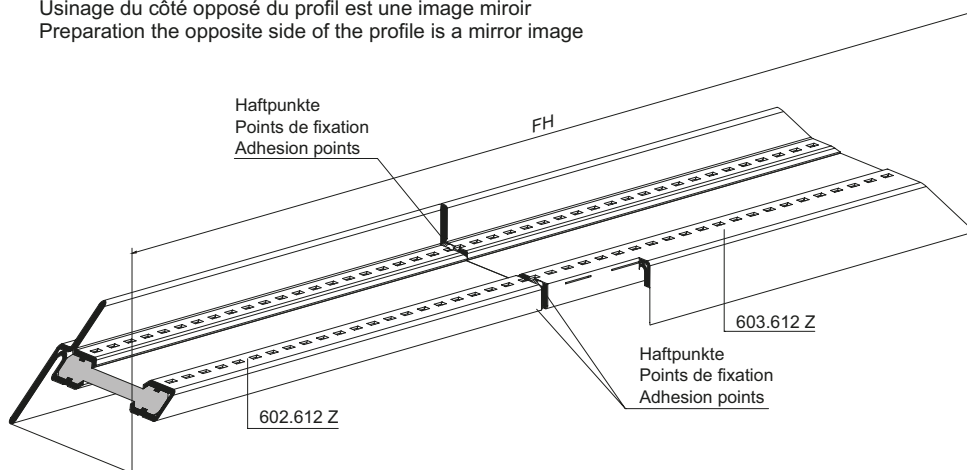
Bearbeitung Profil-Gegenseite spiegelbildlich
Usinage du côté opposé du profil est une image miroir
Preparation the opposite side of the profile is a mirror image

**Bearbeitung Flügel
 seitlich**

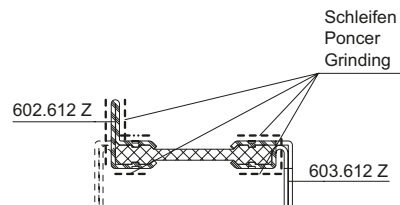
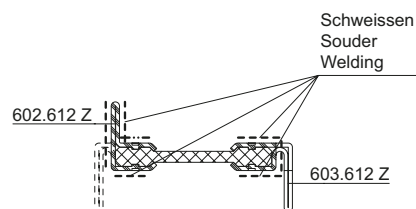
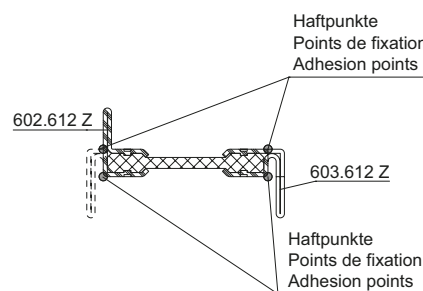
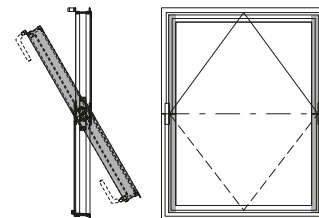
**Usinage vantail
 latéral**

**Preparing the sash
 lateral**

Bearbeitung Profil-Gegenseite spiegelbildlich
 Usinage du côté opposé du profil est une image miroir
 Preparation the opposite side of the profile is a mirror image



Ansicht von innen
 Vue de l'intérieur
 View from inside

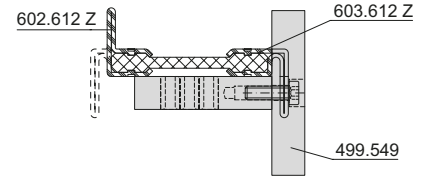
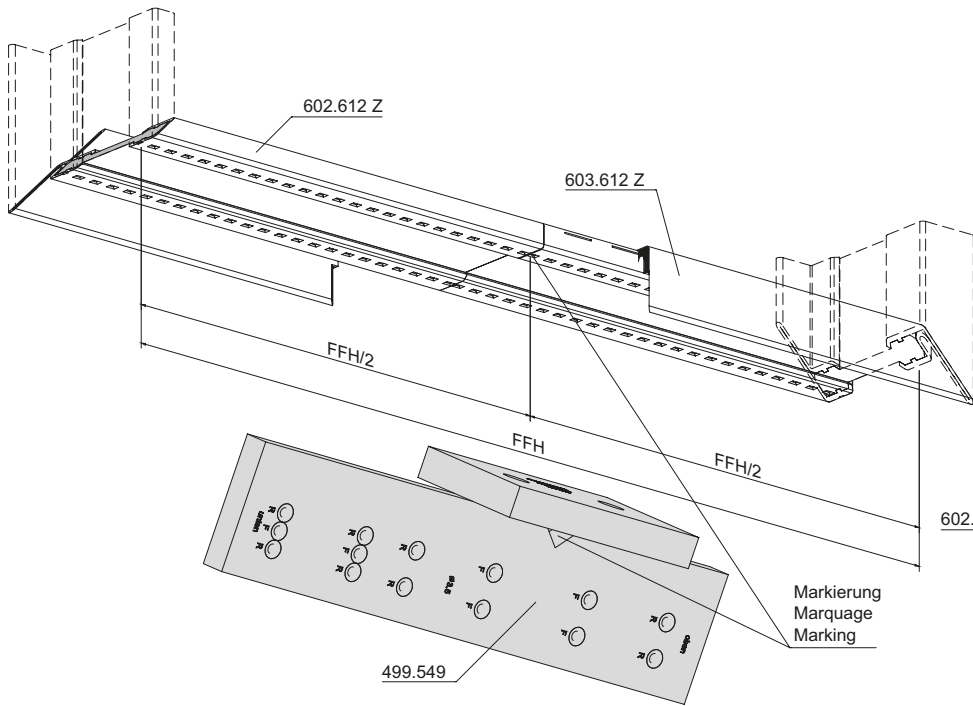
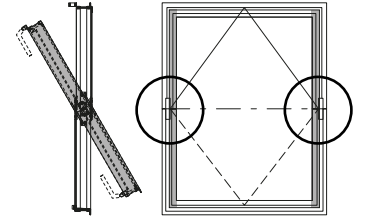


**Bearbeitung Flügel
 mit Bohrlehre 499.549
 seitlich**

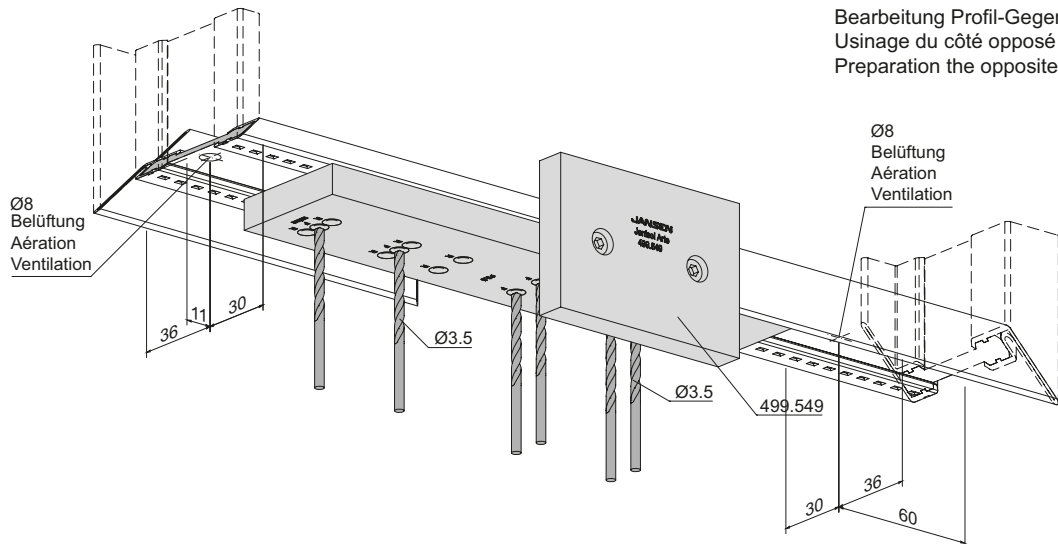
**Usinage vantail
 avec gabarit de perçage 499.549
 latéral**

**Preparing the sash
 with drilling jig 499.549
 lateral**

Ansicht von innen
 Vue de l'intérieur
 View from inside



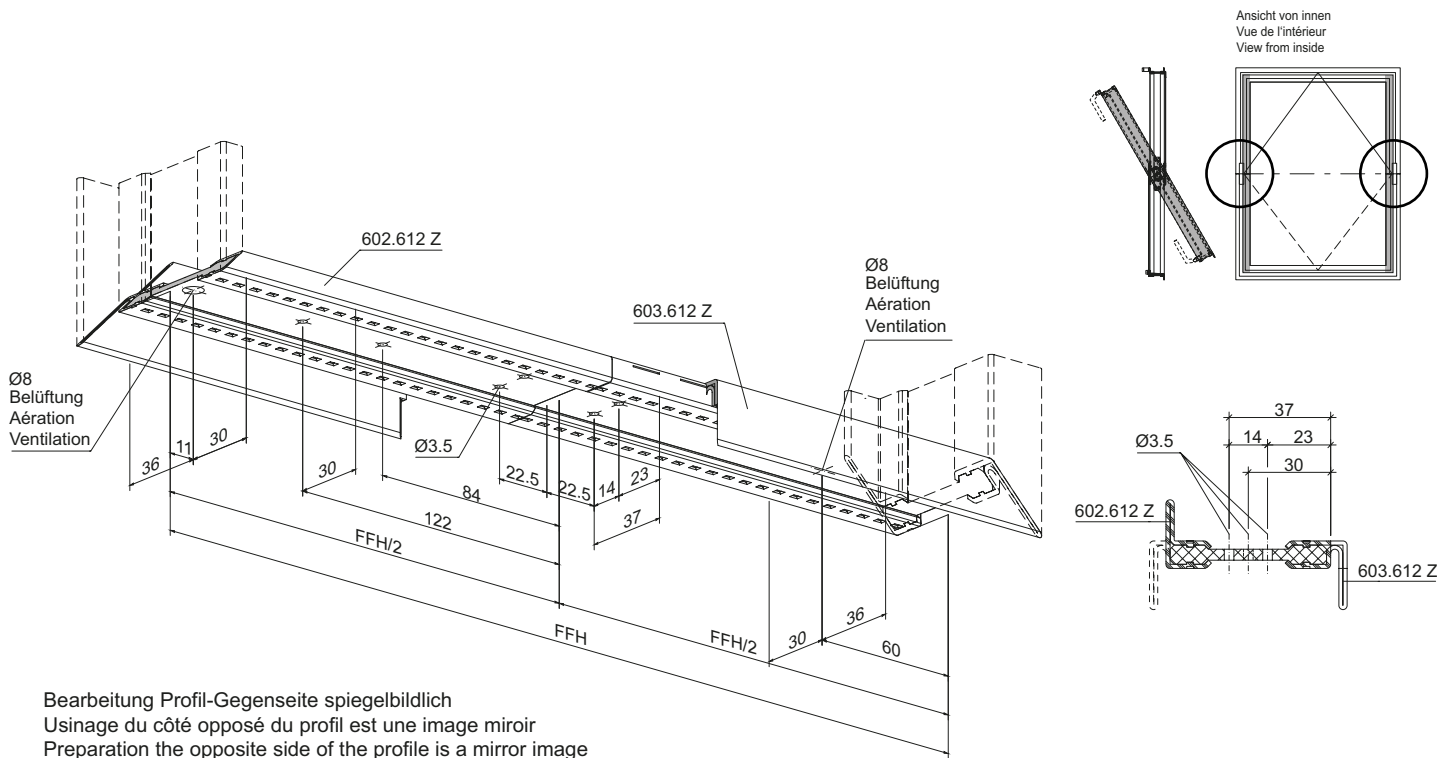
Bearbeitung Profil-Gegenseite spiegelbildlich
 Usinage du côté opposé du profil est une image miroir
 Preparation the opposite side of the profile is a mirror image



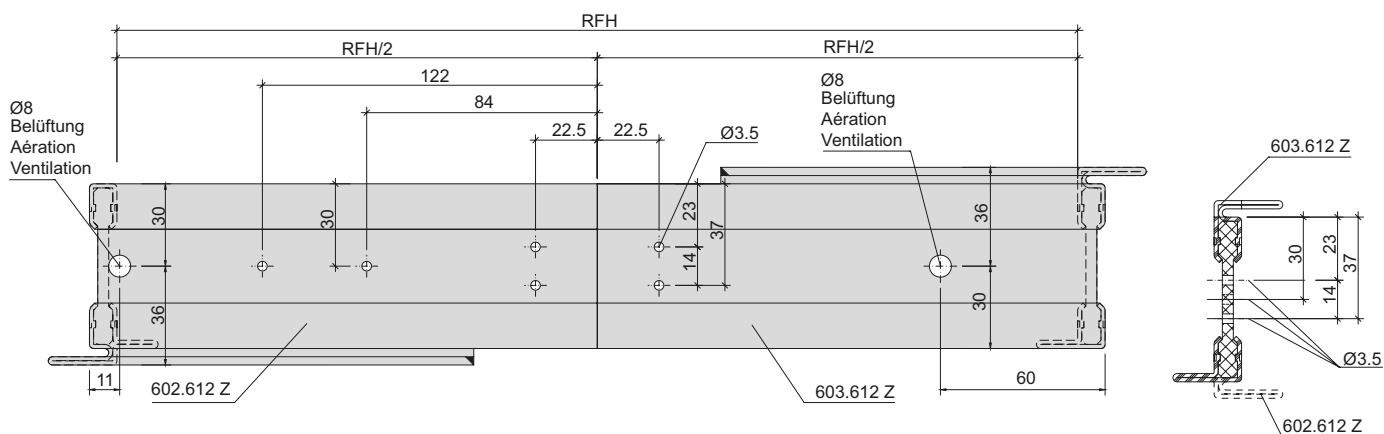
Bearbeitung Flügel
Bohrbild seitlich

Usinage vantail
Schéma de perçage latéral

Preparing the sash
Drilling pattern lateral



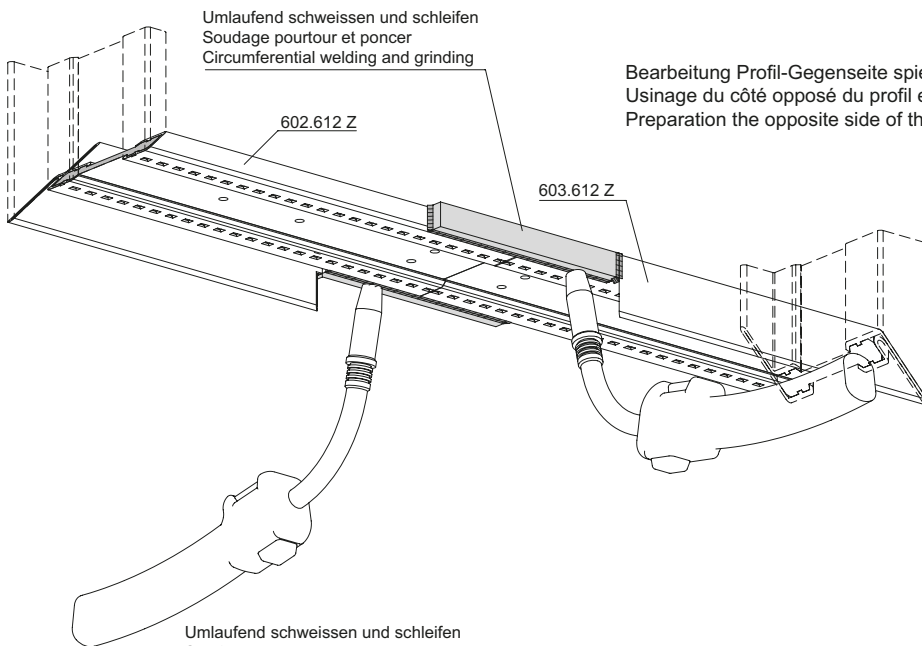
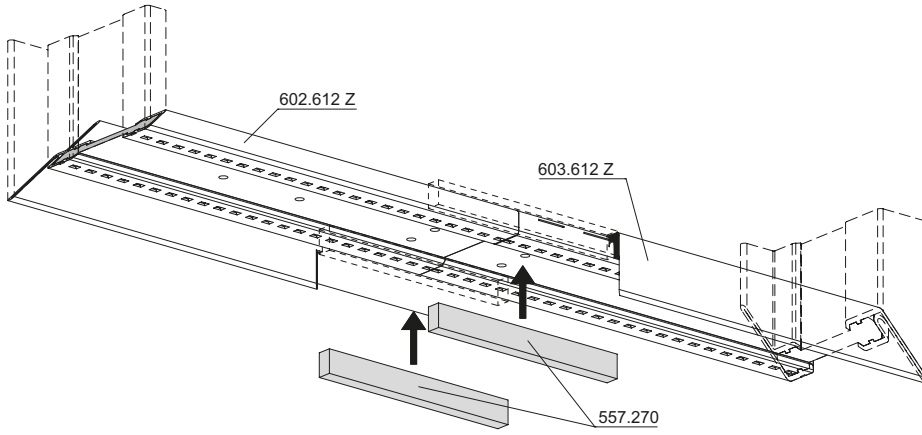
Bearbeitung Profil-Gegenseite spiegelbildlich
 Usinage du côté opposé du profil est une image miroir
 Preparation the opposite side of the profile is a mirror image



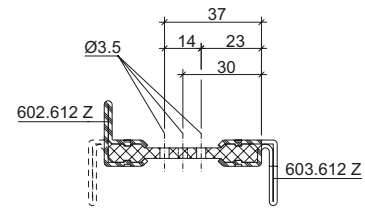
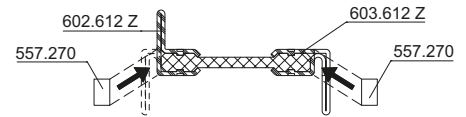
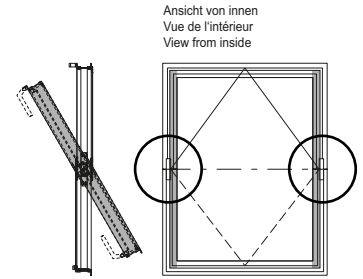
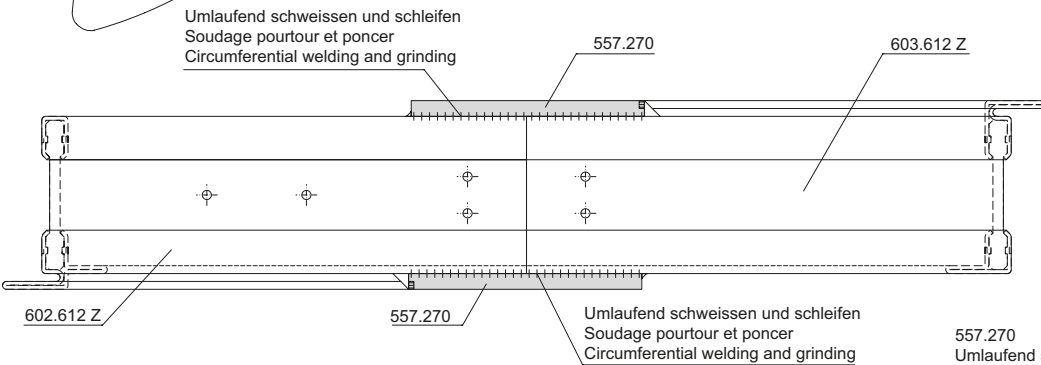
Einbau Wechsel
557.270
Flügel seitlich

Montage compas basculant
555.270
Vantail latéral

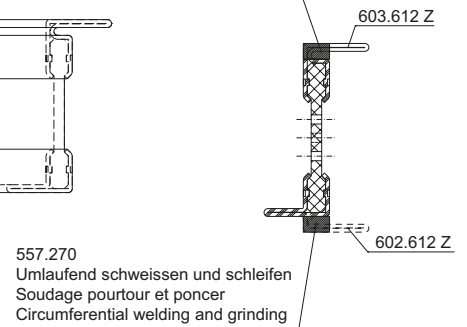
Installation of horizontal pivot
557.270
Sash lateral



Bearbeitung Profil-Gegenseite spiegelbildlich
 Usinage du côté opposé du profil est une image miroir
 Preparation the opposite side of the profile is a mirror image



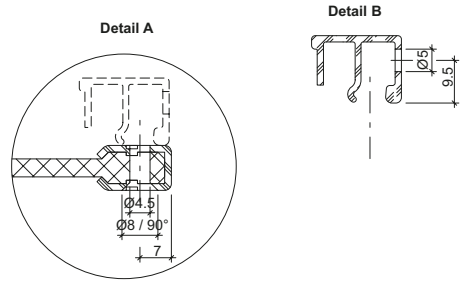
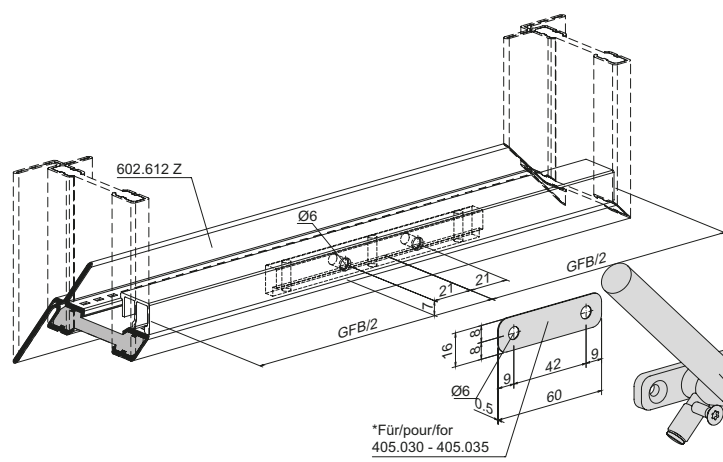
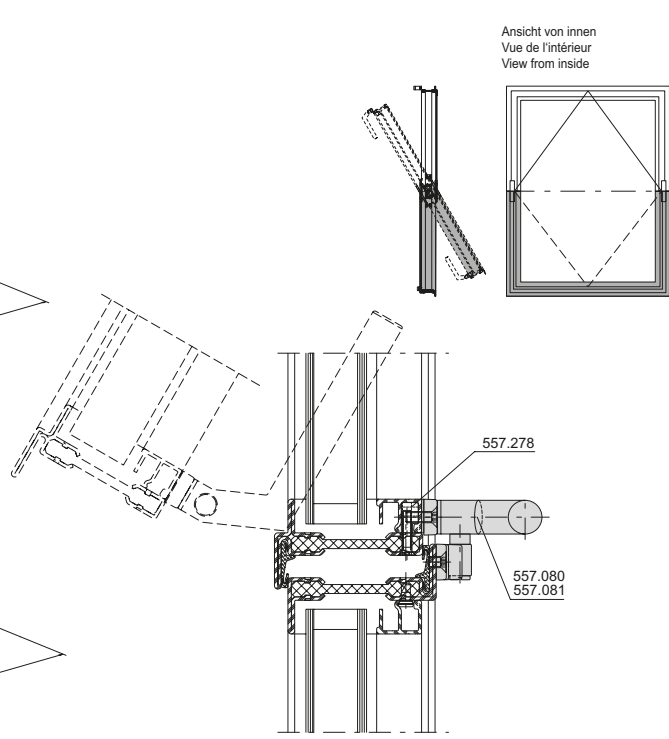
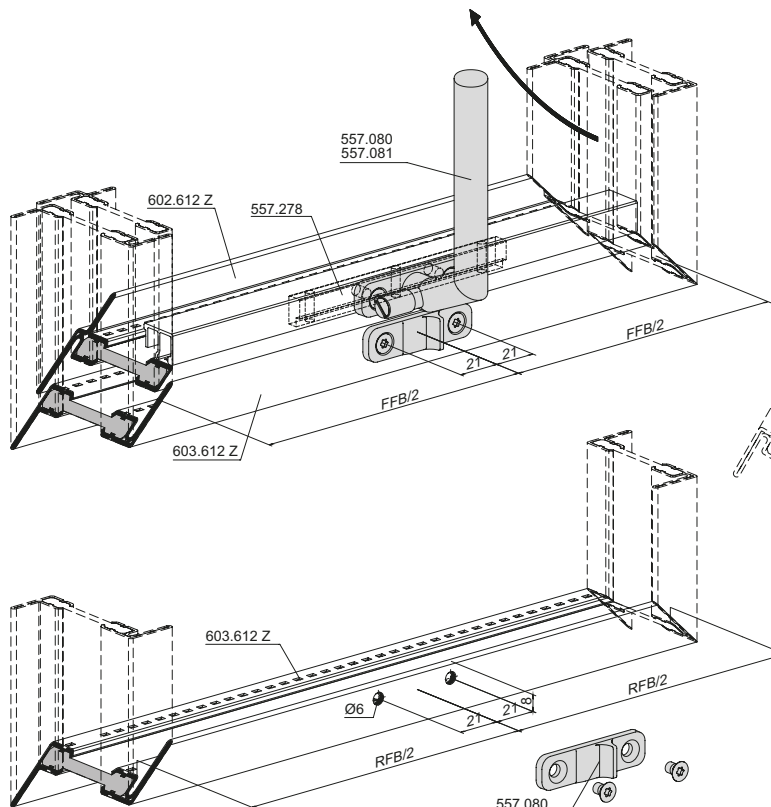
557.270
 Umlaufend schweißen und schleifen
 Soudage pourtour et poncer
 Circumferential welding and grinding



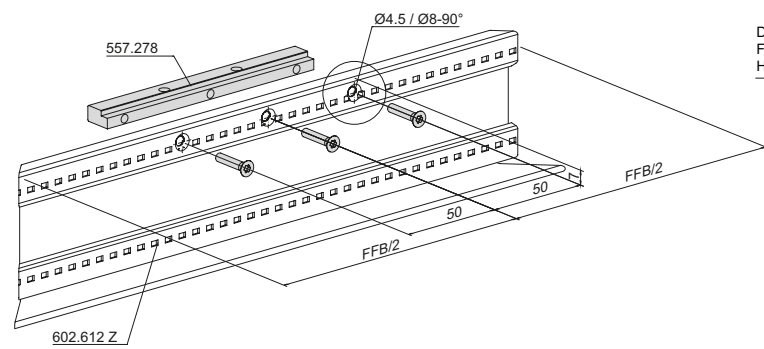
Einbau Fenstergriff
 557.080 / 557.081
 unten

Montage de la poignée
 557.080 / 557.081
 en bas

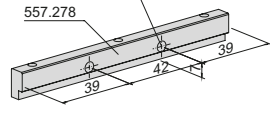
Installation of handle
 557.080 / 557.081
 bottom



* Durch Metallbauer zu fertigen
 * A fabriquer par le métallier
 * To be made by fabricator



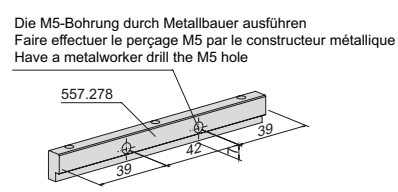
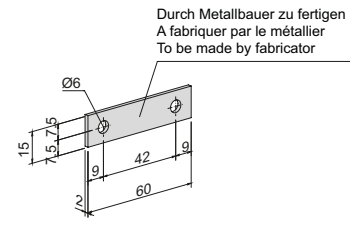
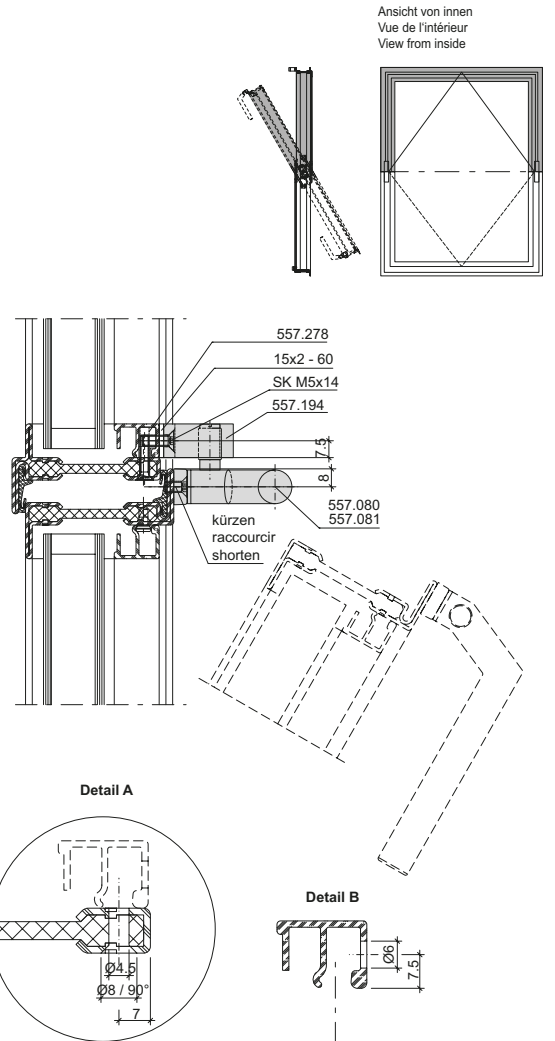
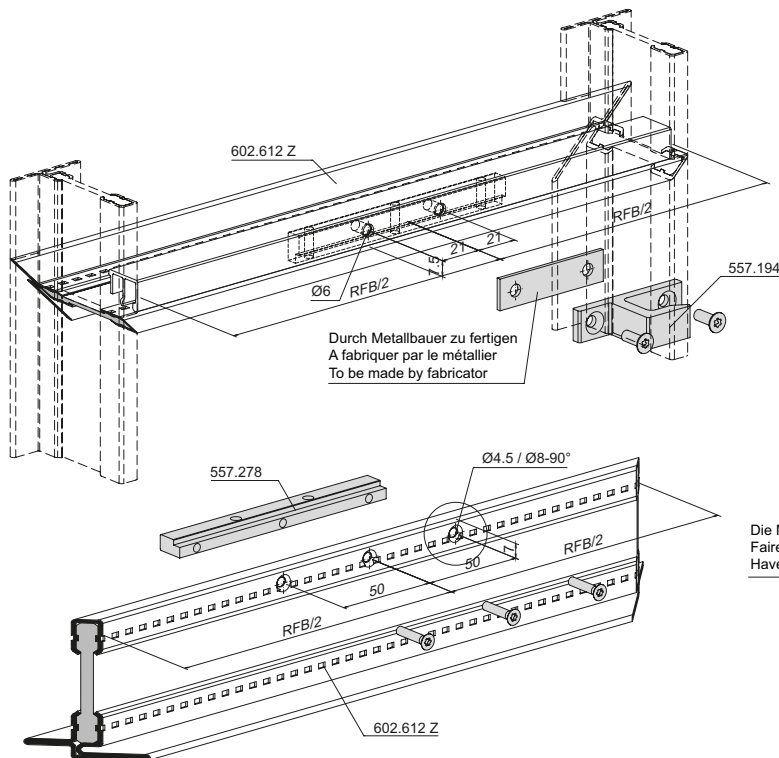
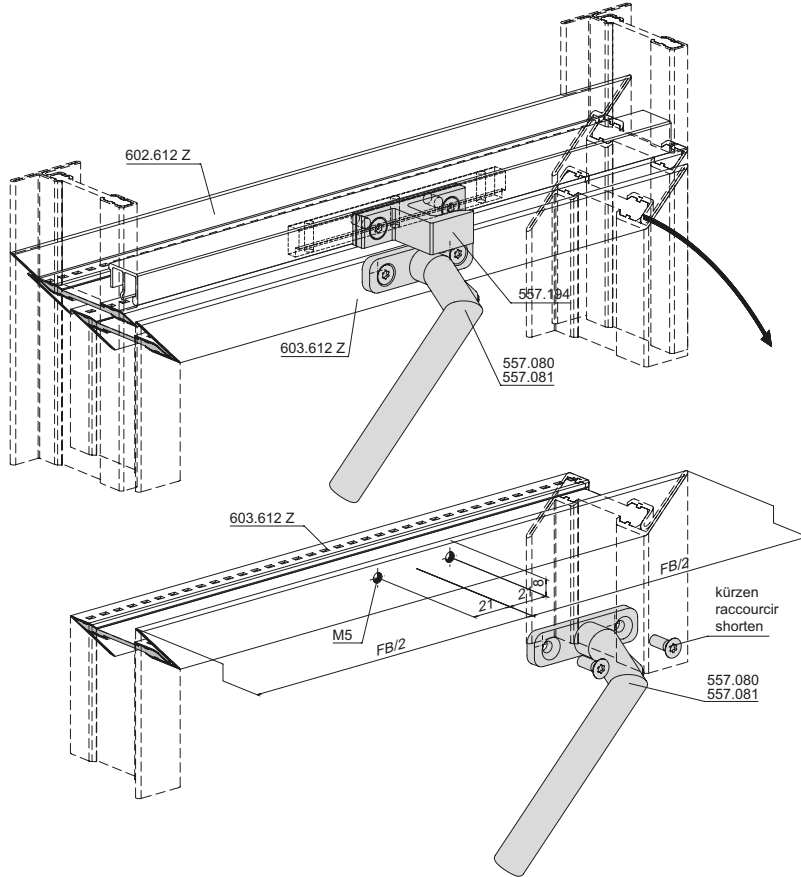
Die M5-Bohrung durch Metallbauer ausführen
 Faire effectuer le perçage M5 par le constructeur métallique
 Have a metalworker drill the M5 hole



Einbau Fenstergriff
 557.080 / 557.081
 mit Verriegelungshaken 557.194
 oben

Montage de la poignée
 557.080 / 557.081
 avec boulon de verrouillage 557.194
 en haut

Installation of handle
 557.080 / 557.081
 with locking pin 557.194
 top

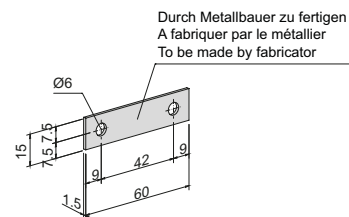
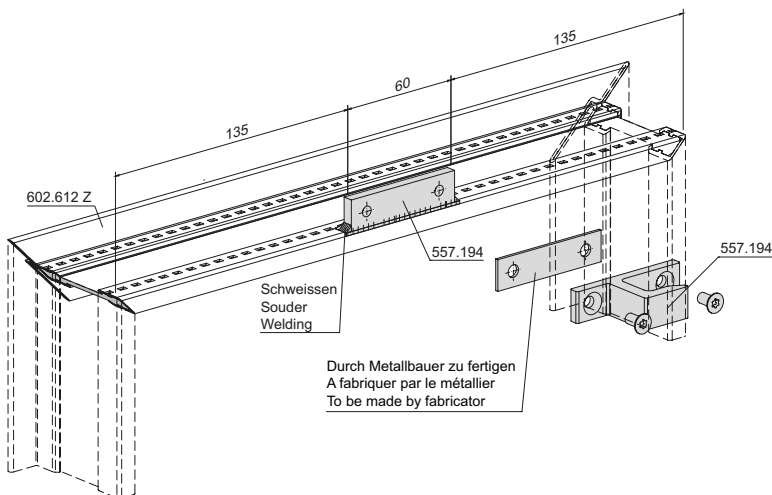
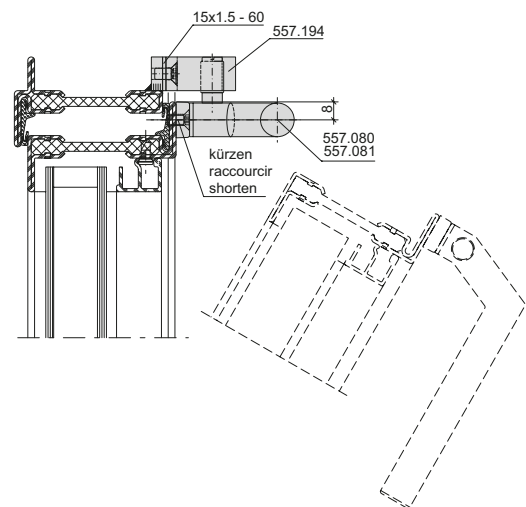
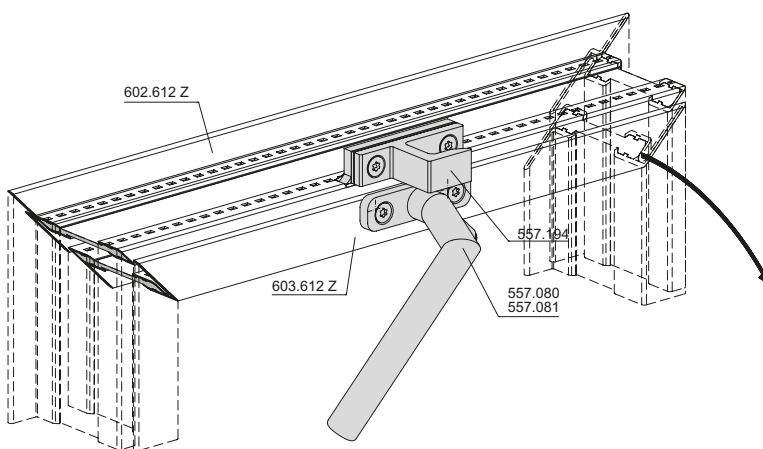
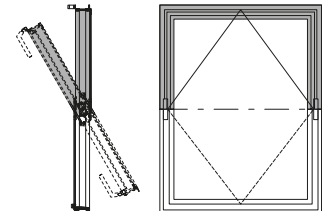


Einbau Fenstergriff
557.080 / 557.081
mit Verriegelungshaken 557.194
oben

Montage de la poignée
557.080 / 557.081
avec boulon de verrouillage 557.194
en haut

Installation of handle
557.080 / 557.081
with locking pin 557.194
top

Ansicht von innen
 Vue de l'intérieur
 View from inside

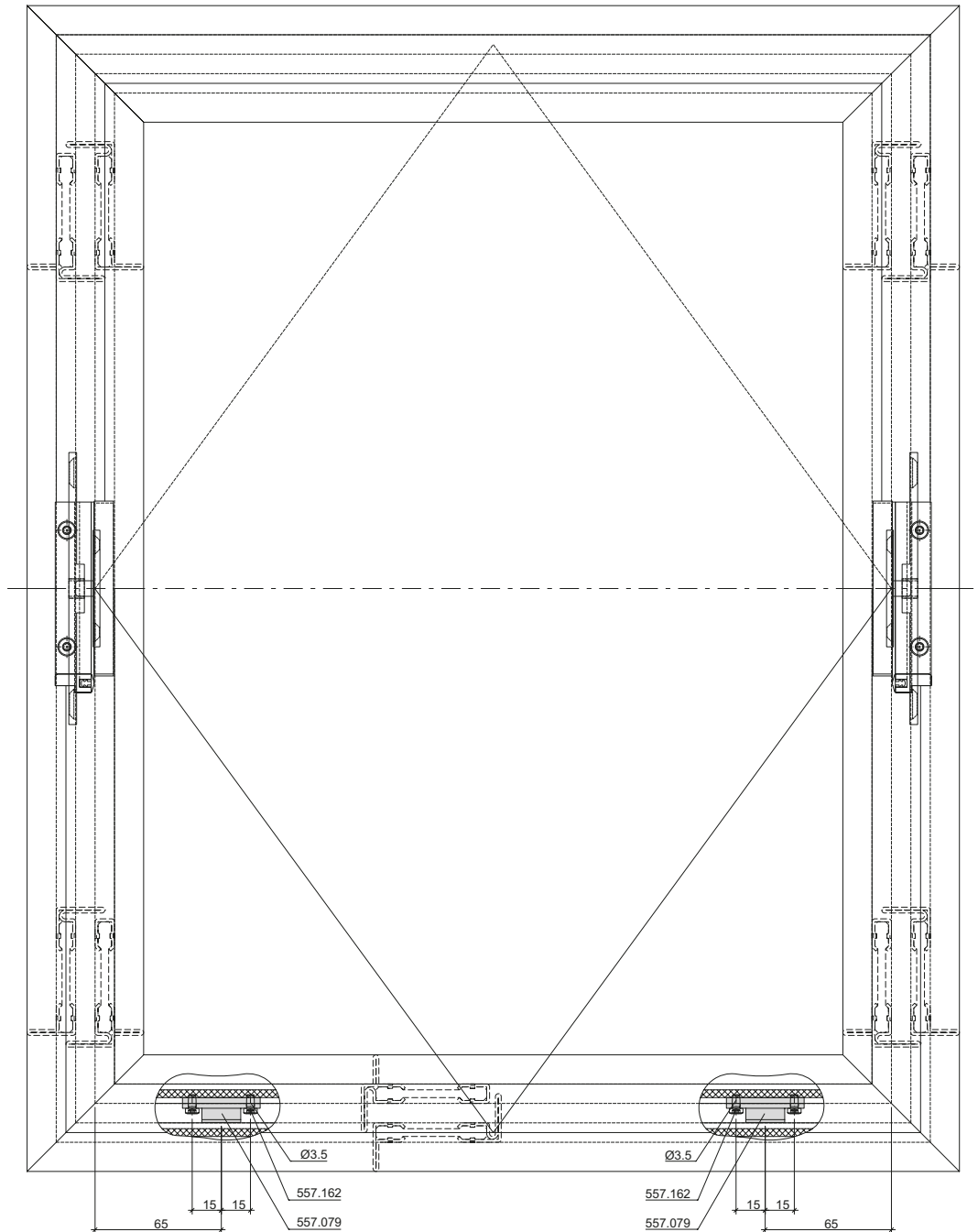
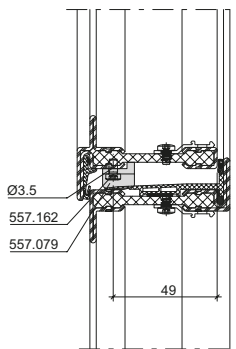
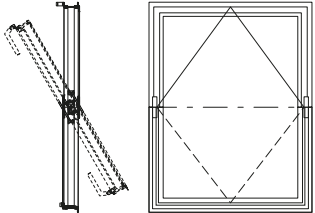


Einbau
Auflaufbock 557.079

Montage
Bloc d'arrêt 557.079

Installation
Engagement block 557.079

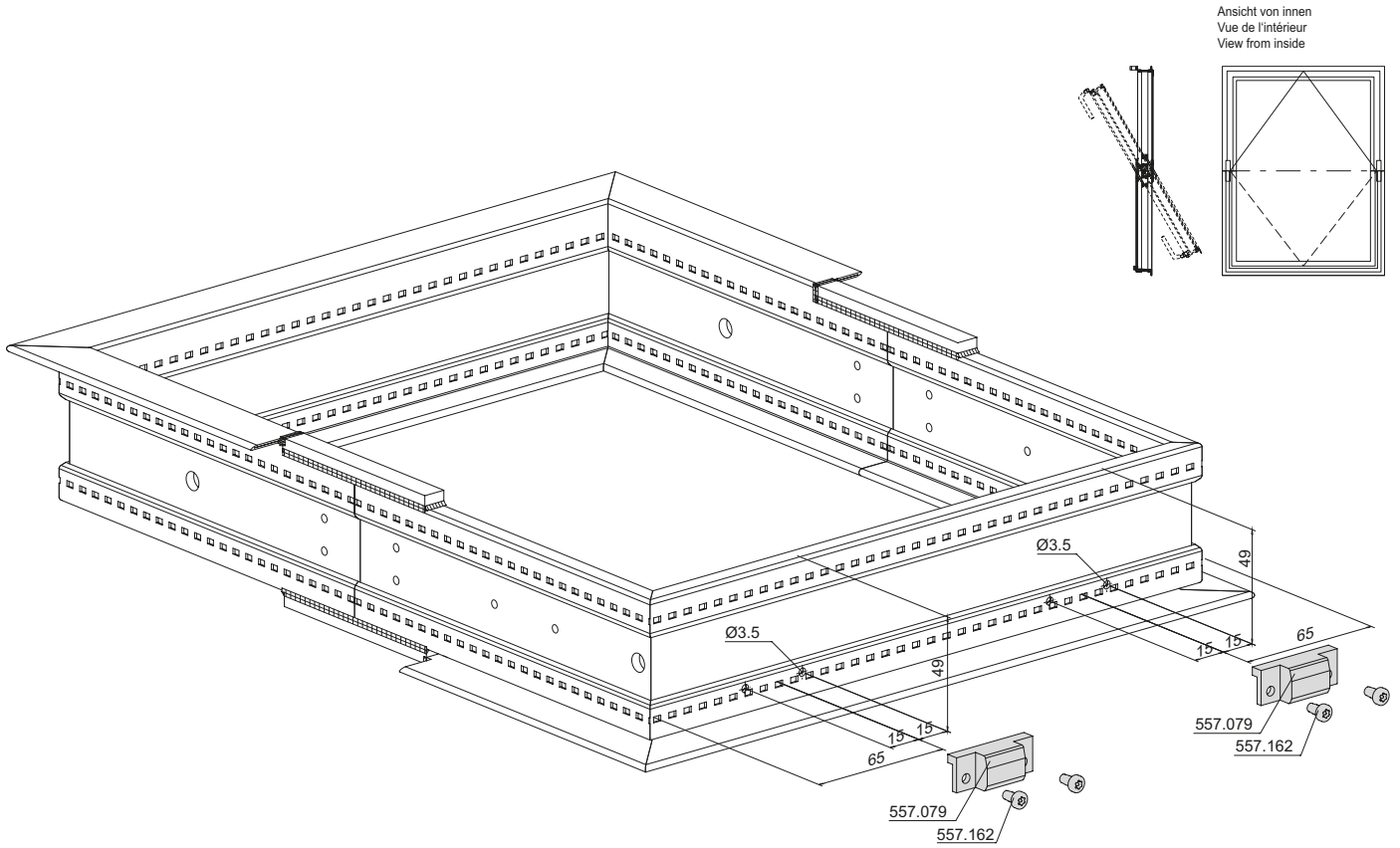
Ansicht von innen
Vue de l'intérieur
View from inside



Auflaufbock 557.079

Bloc d'arrêt 557.079

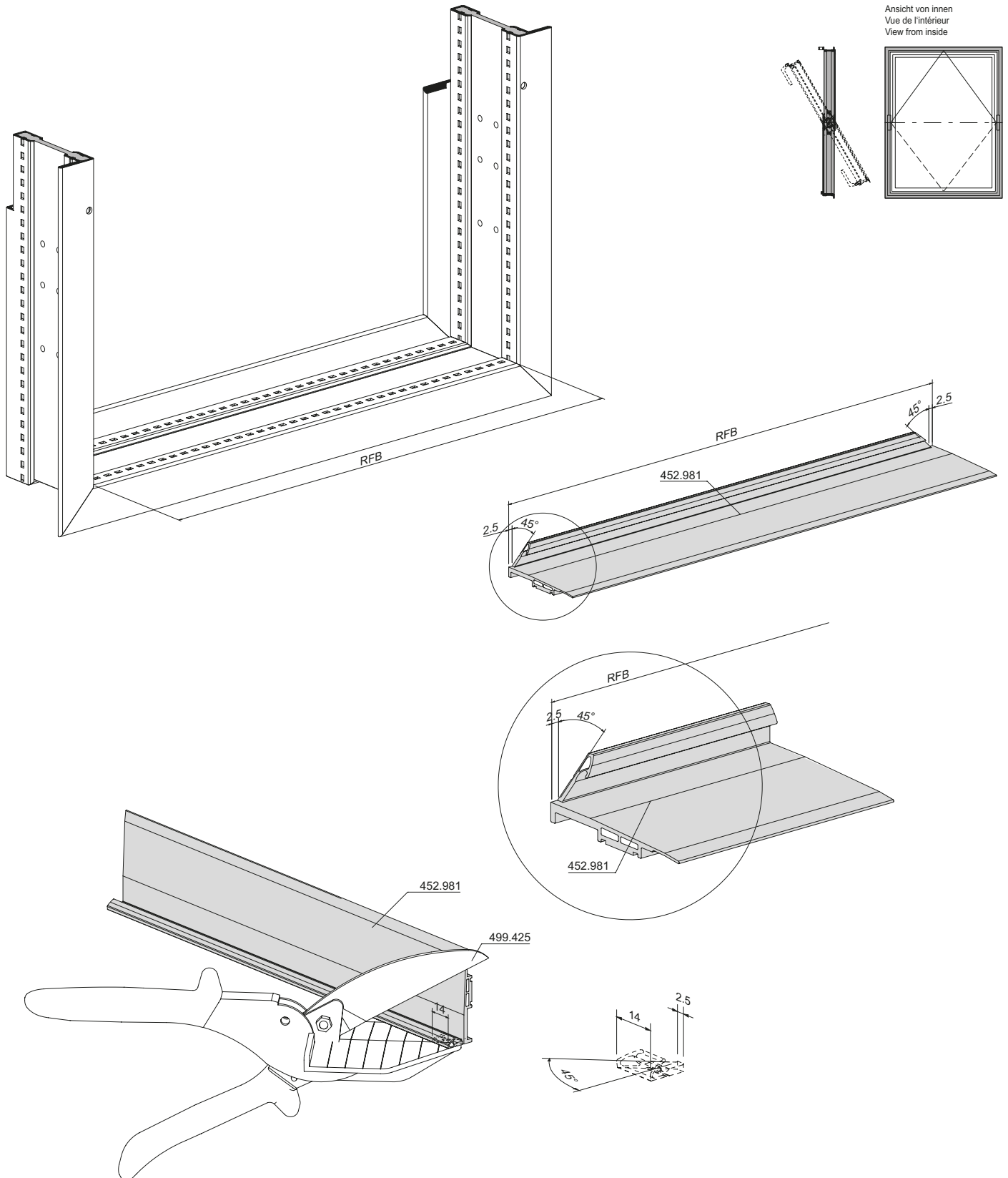
Engagement block 557.079



Zuschnitt
Entwässerungsprofil 452.981

Découpe
Profilé de drainage 452.981

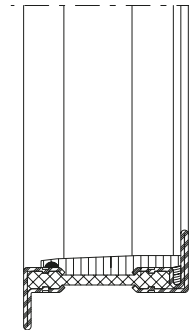
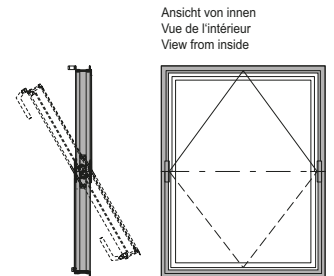
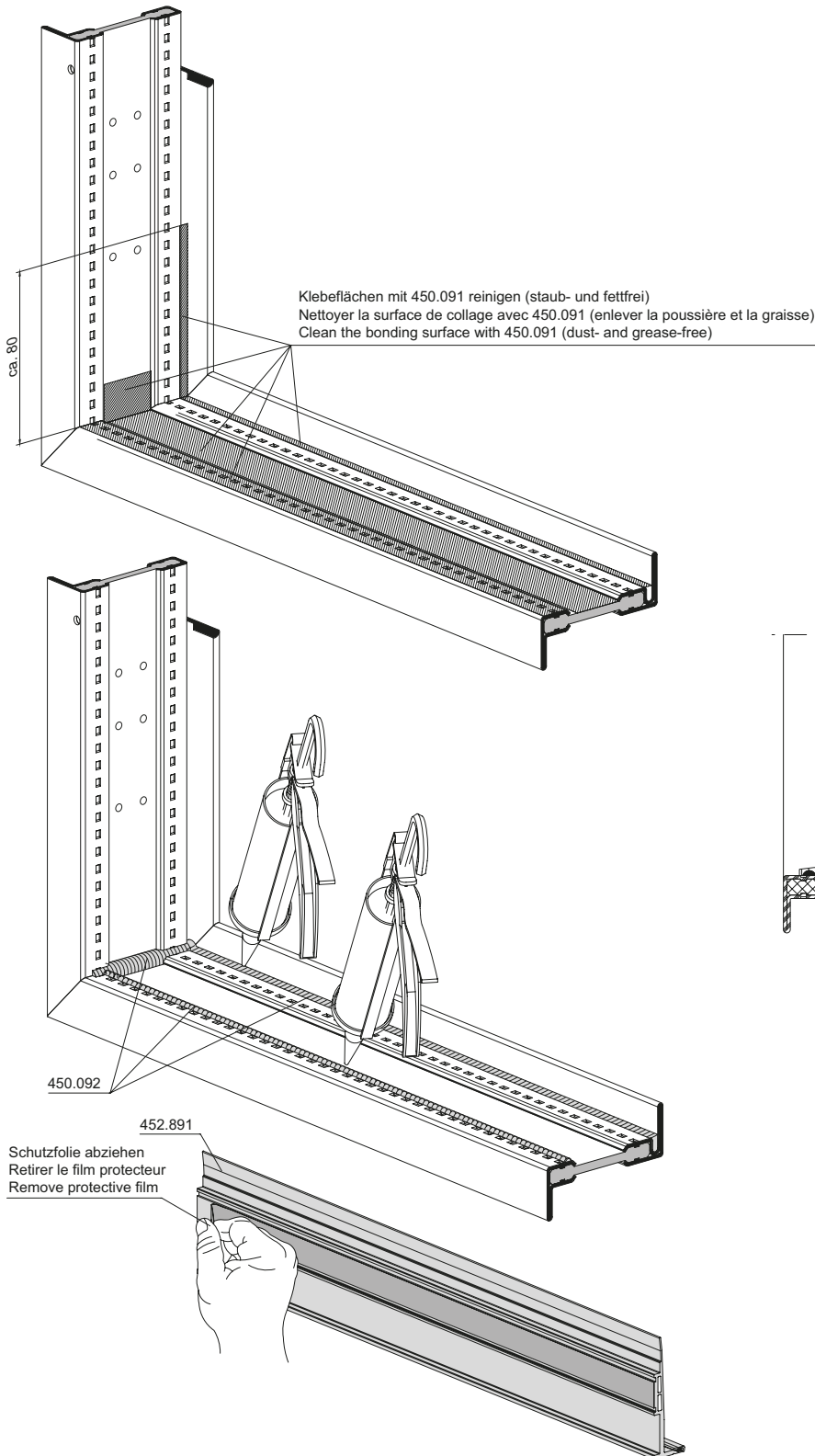
Installation
Drainage profile 452.981



Einbau
Entwässerungsprofil 452.981

Montage
Profilé de drainage 452.981

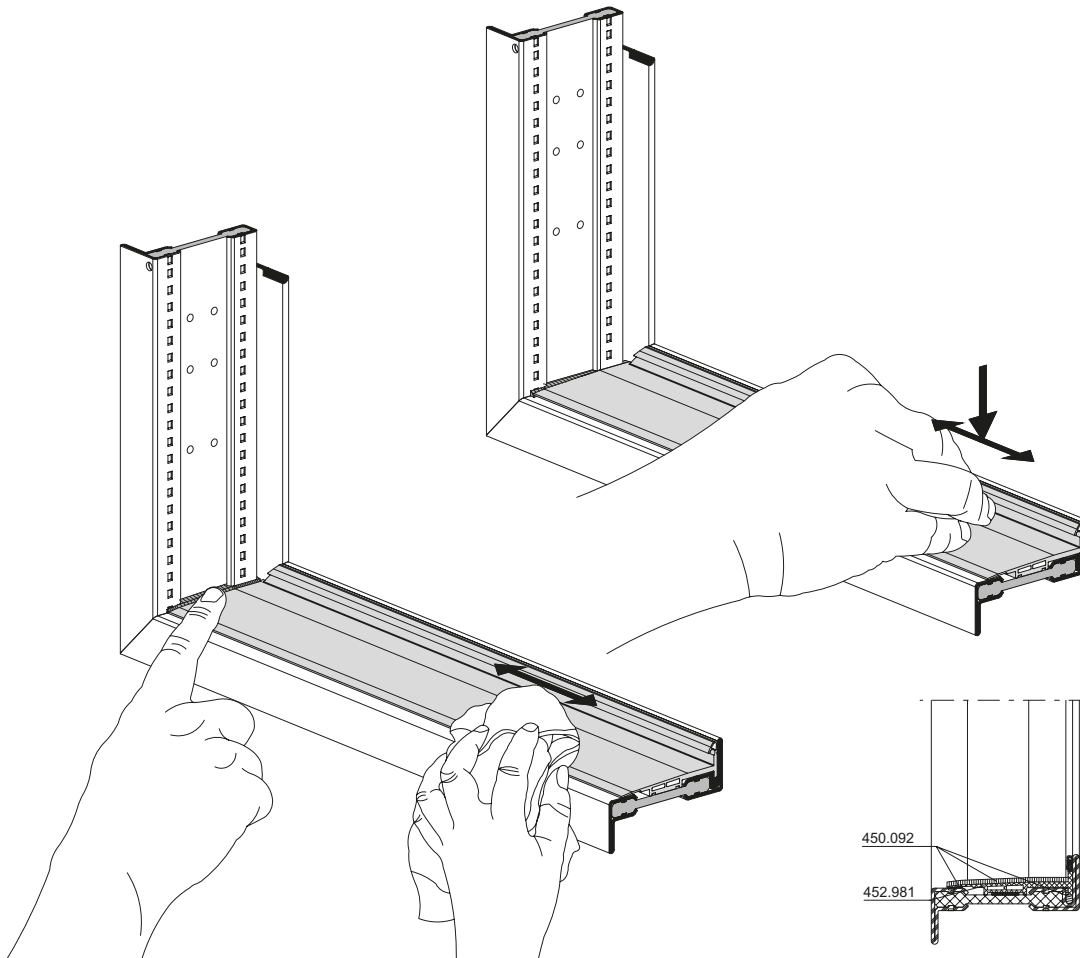
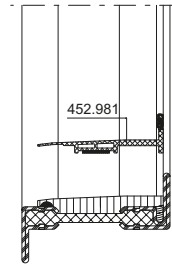
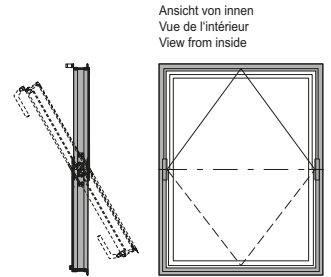
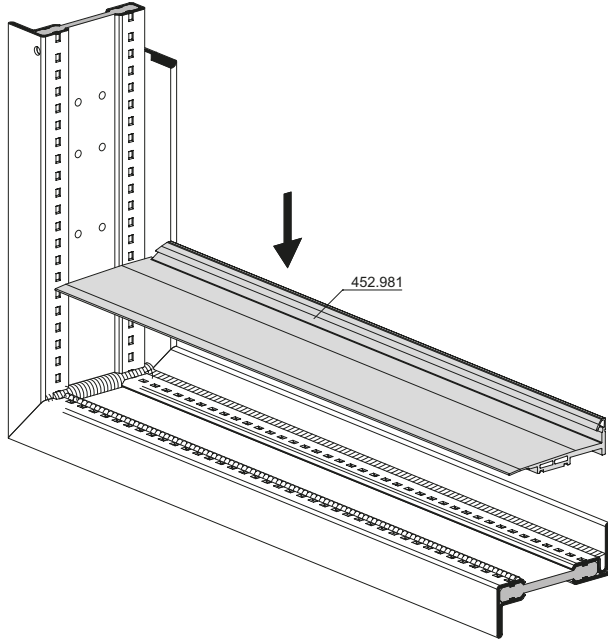
Installation
Drainage profile 452.981



Einbau
Entwässerungsprofil 452.981

Montage
Profilé de drainage 452.981

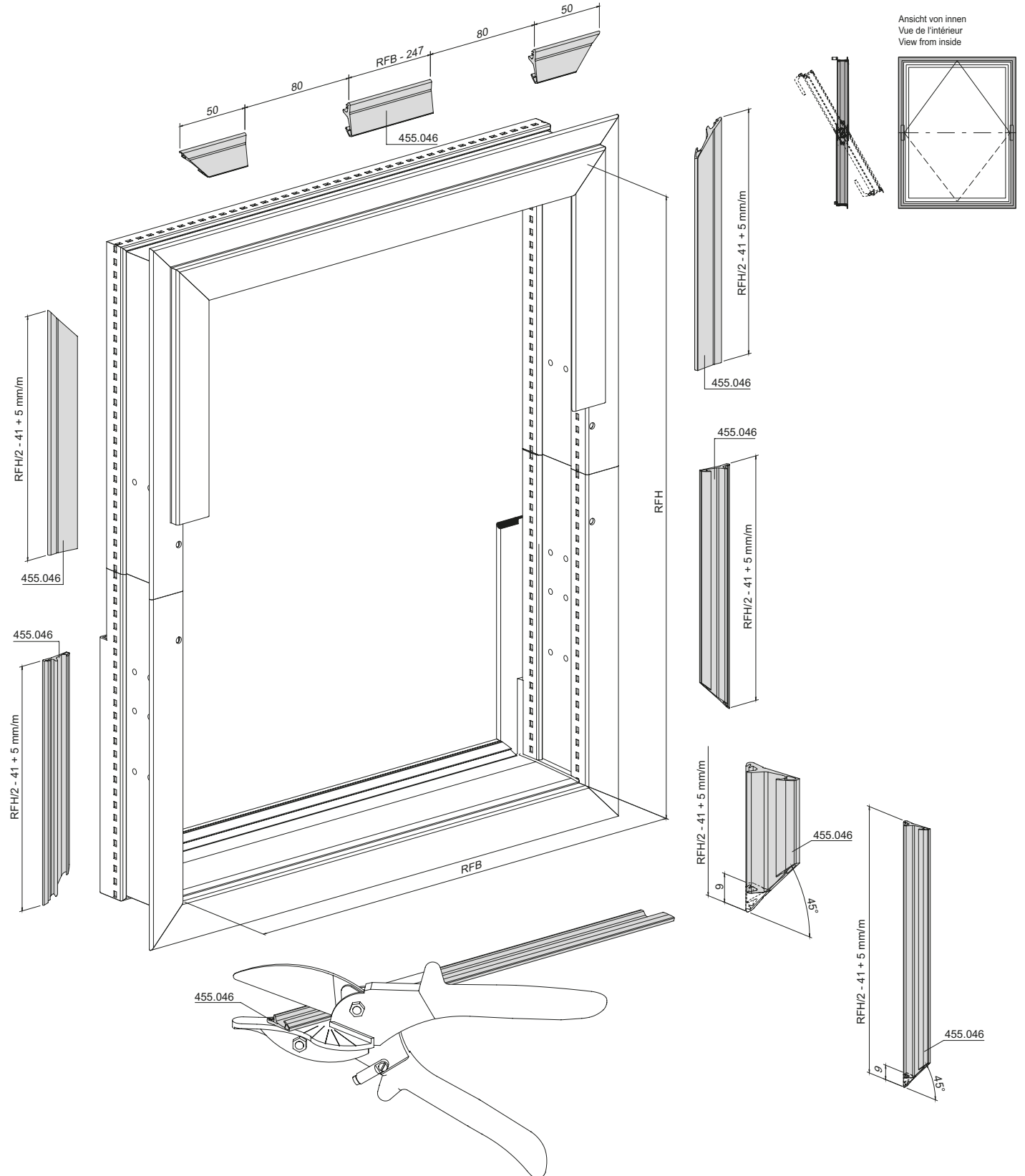
Installation
Drainage profile 452.981



Einbau
Anschlagdichtung 455.046
Rahmen

Montage
Joint de butée 455.046
Cadre

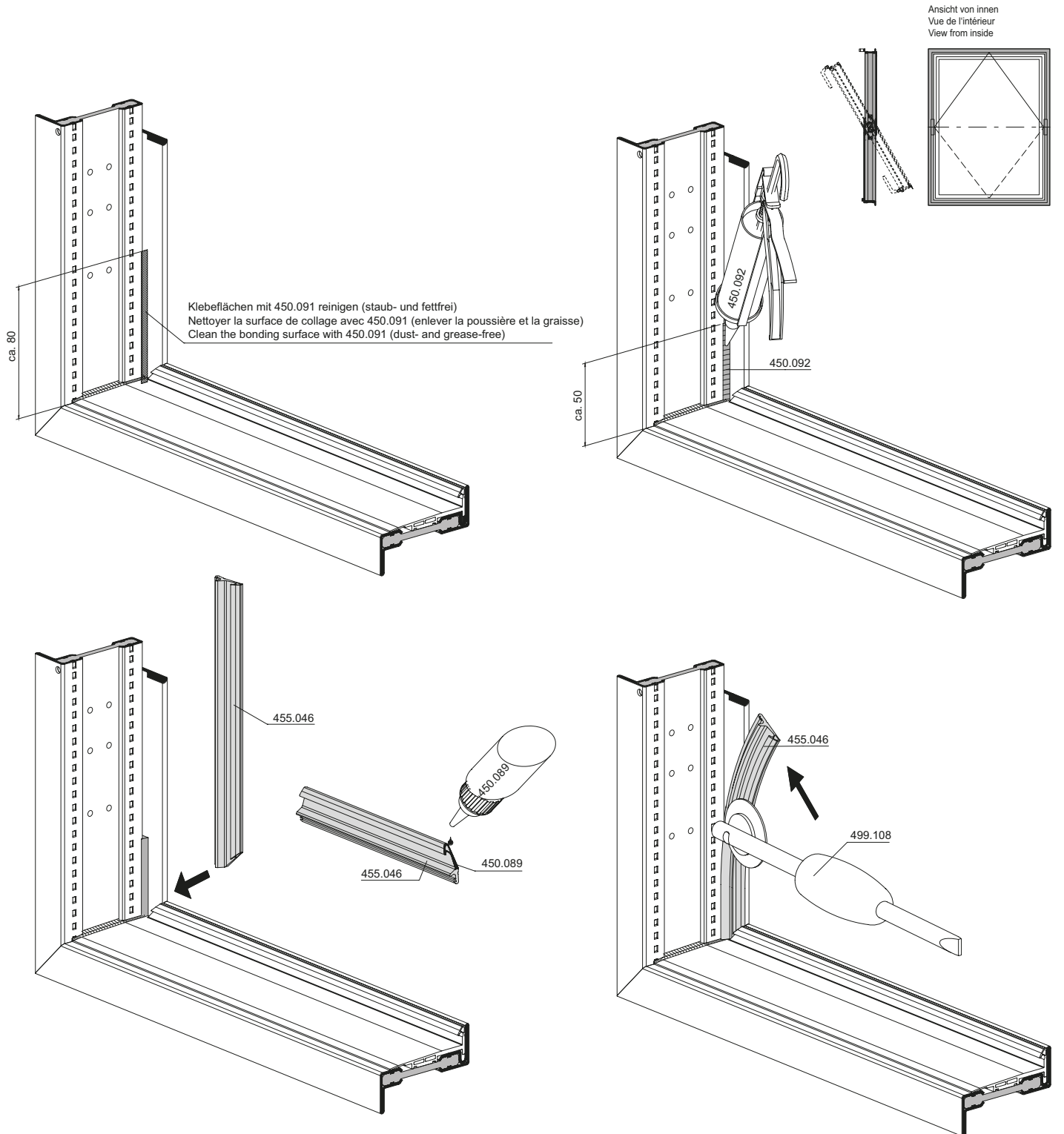
Installation
Rebate weatherstrip 455.046
Frame



Einbau
Anschlagdichtung 455.046
Rahmen

Montage
Joint de butée 455.046
Cadre

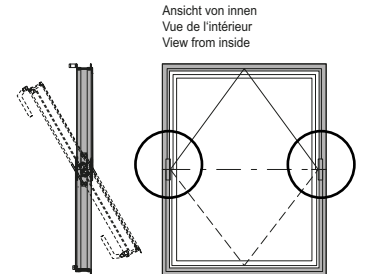
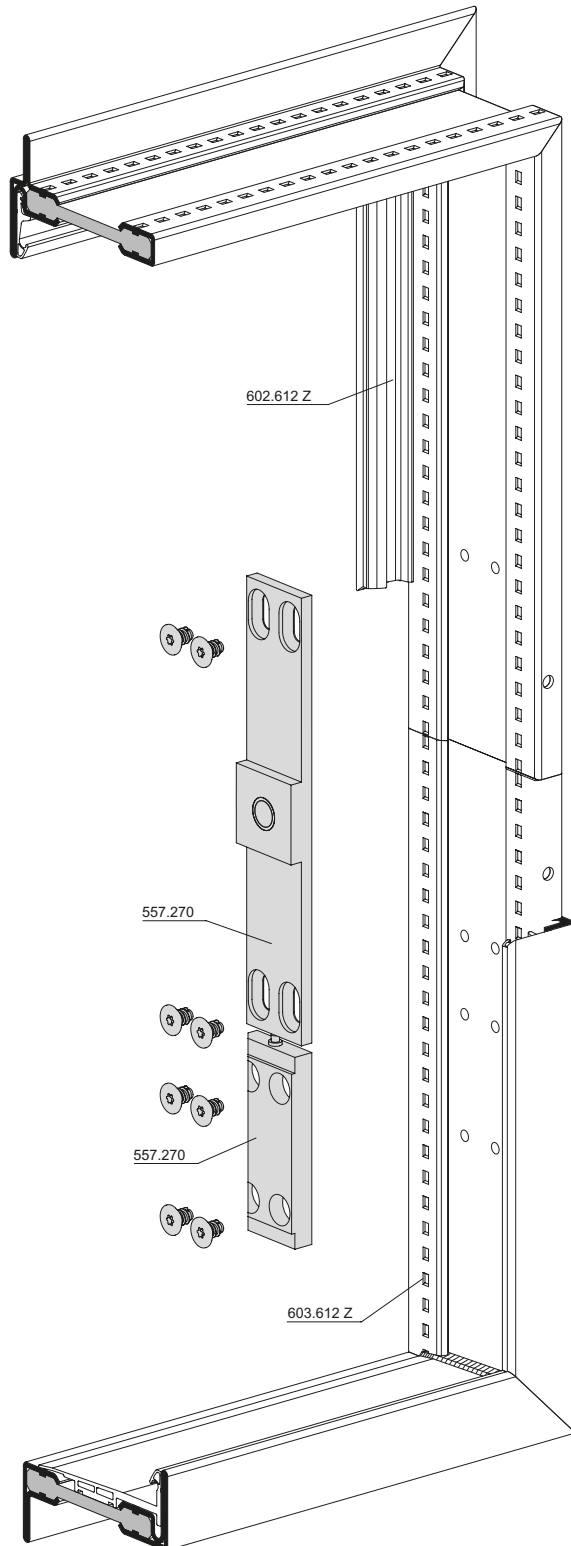
Installation
Rebate weatherstrip 455.046
Frame



Einbau
Schwinglager 557.270
inkl. Höhenbegrenzer
Rahmen

Montage
Compas basculant 557.270
avec limiteur de hauteur
Cadre

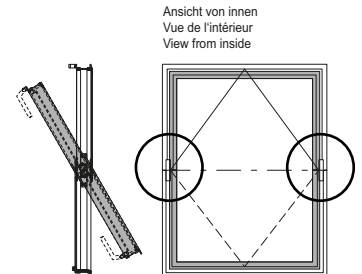
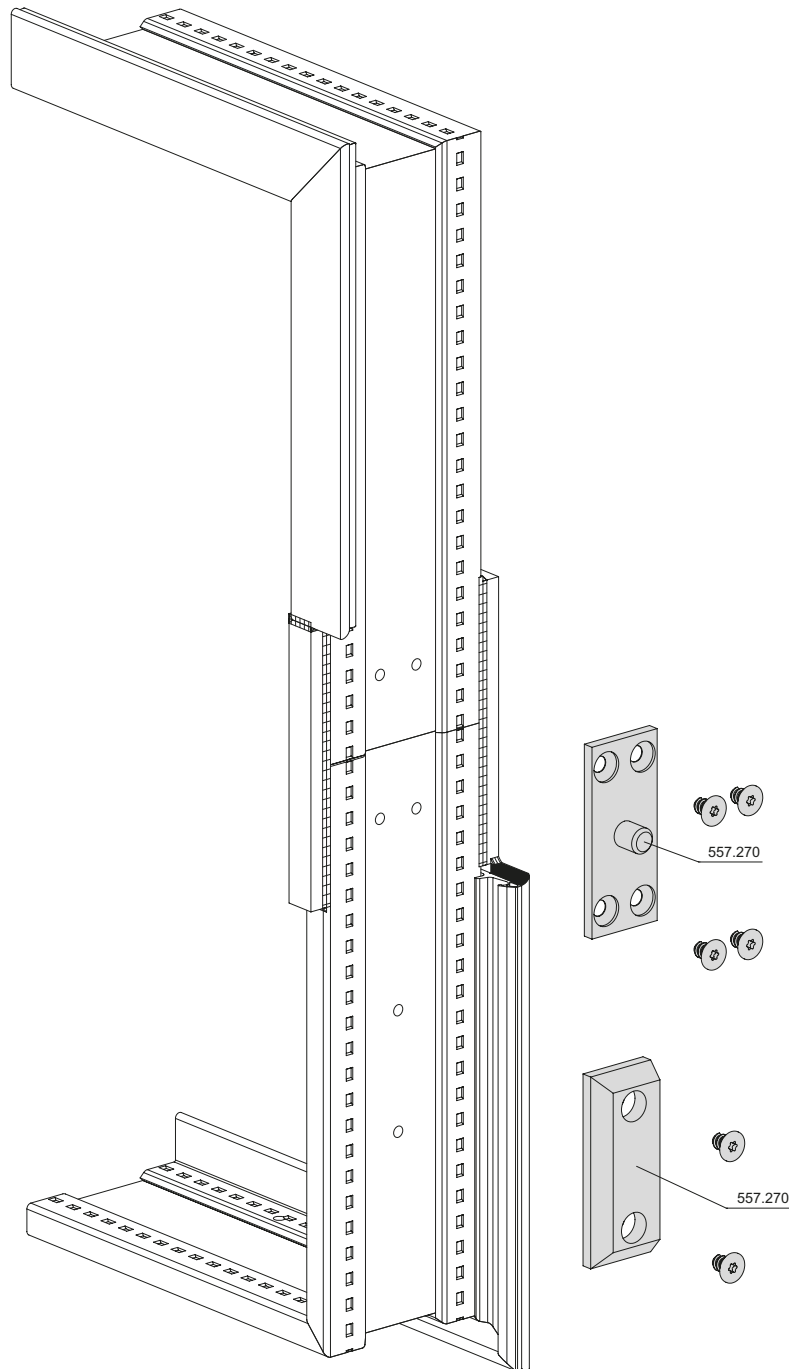
Installation
Horizontal pivot 557.270
incl. height limiter
Frame



Einbau
Schwinglager 557.270
inkl. Seitenführung
Flügel

Montage
Compas basculant 557.270
avec guidage latéral
Vantail

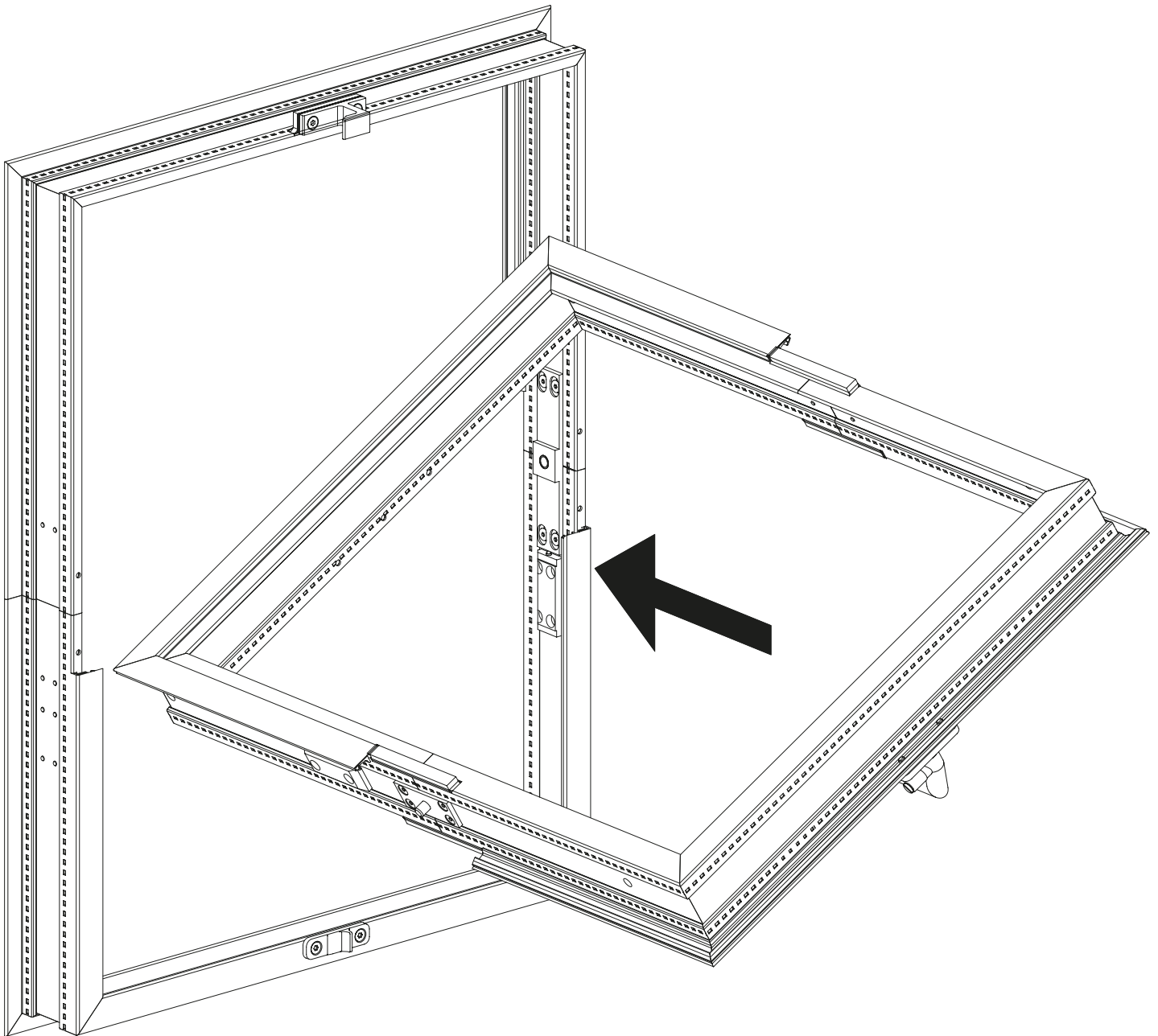
Installation
Horizontal pivot 557.270
incl. lateral guide
Sash



Montage Schwingfenster

Montage fenêtre basculante

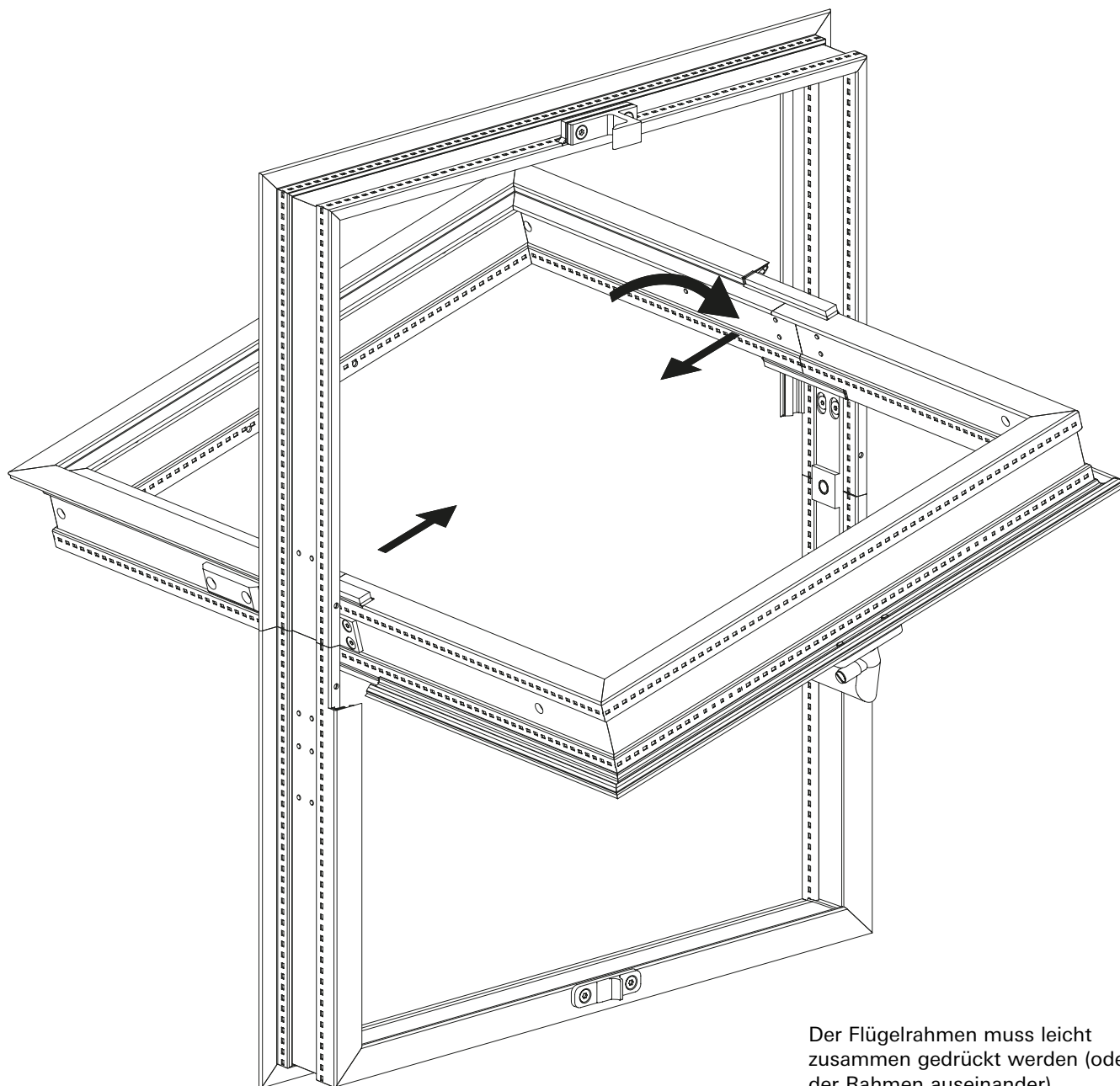
Installation of horizontal pivot
window



Montage Schwingfenster

Montage fenêtre basculante

Installation of horizontal pivot
window



Der Flügelrahmen muss leicht zusammen gedrückt werden (oder der Rahmen auseinander).

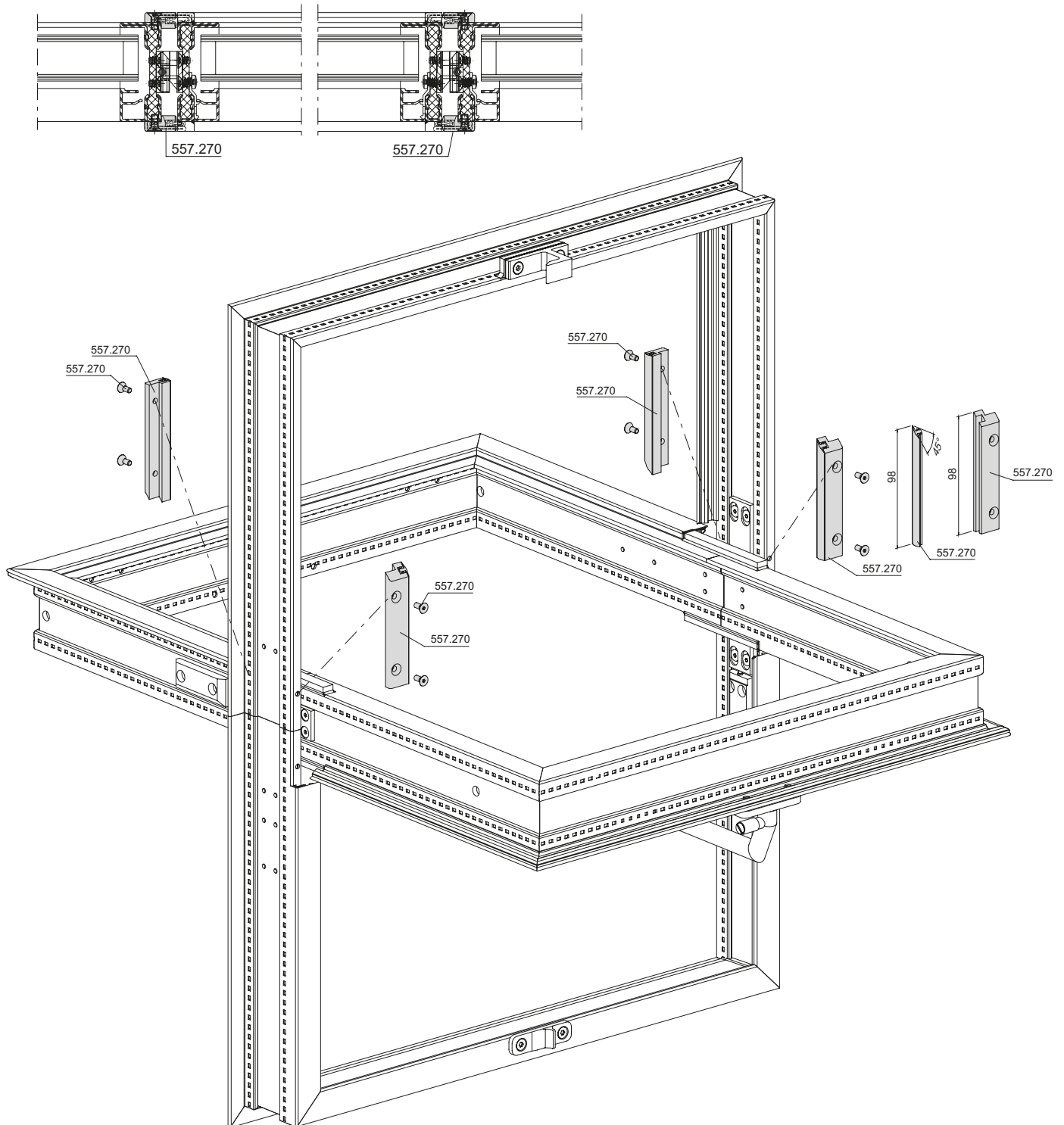
Le cadre de vantail doit être légèrement comprimé (ou le cadre être écarté).

The sash frame must be gently pressed together (or the outer frame pulled apart).

Montage Anschlusssteile 557.270

Montage pièces d'embout 557.270

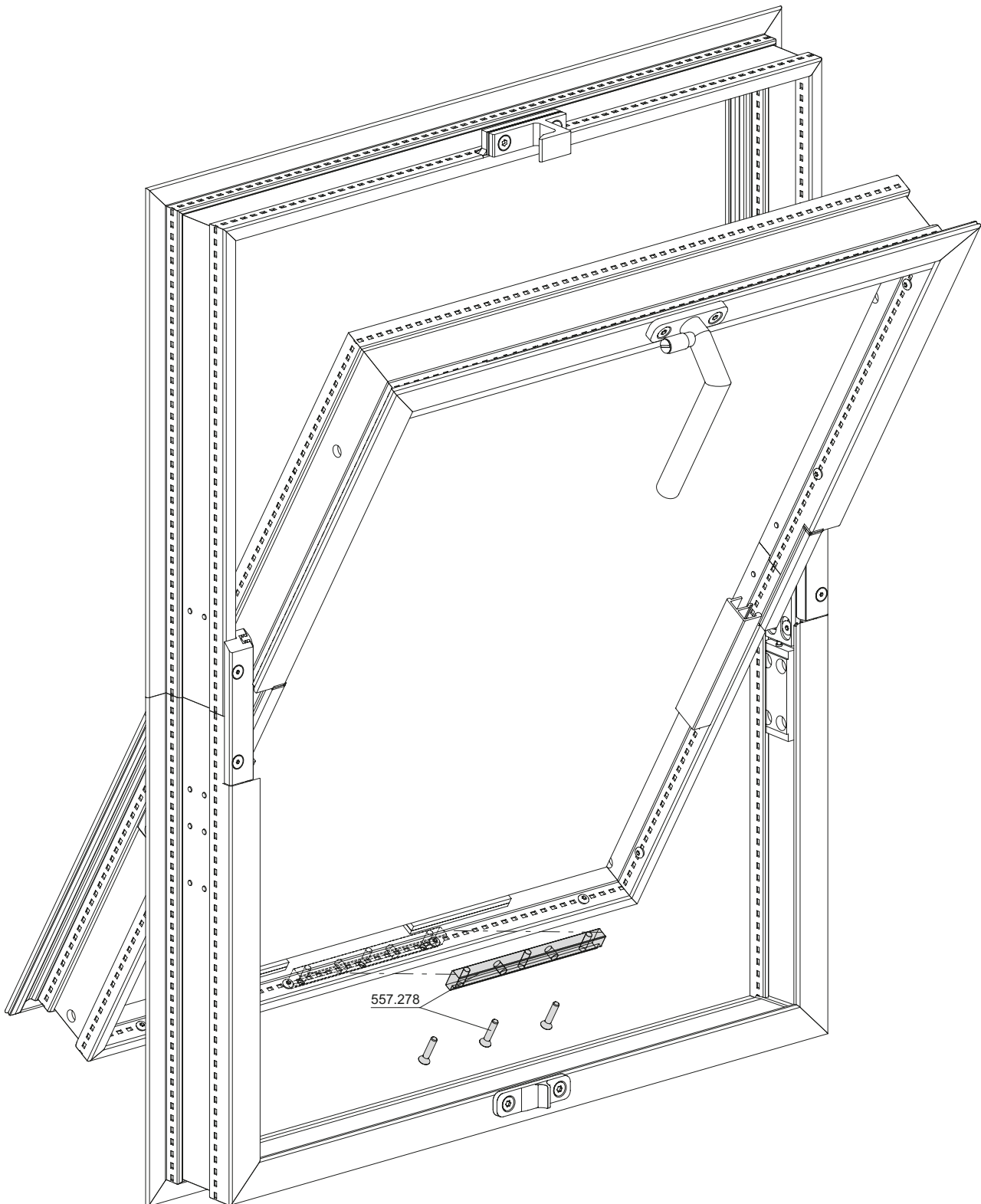
Installation of connections 557.270



Montage Glasleisten-Einlage
557.278

Montage cale de compensation
557.278

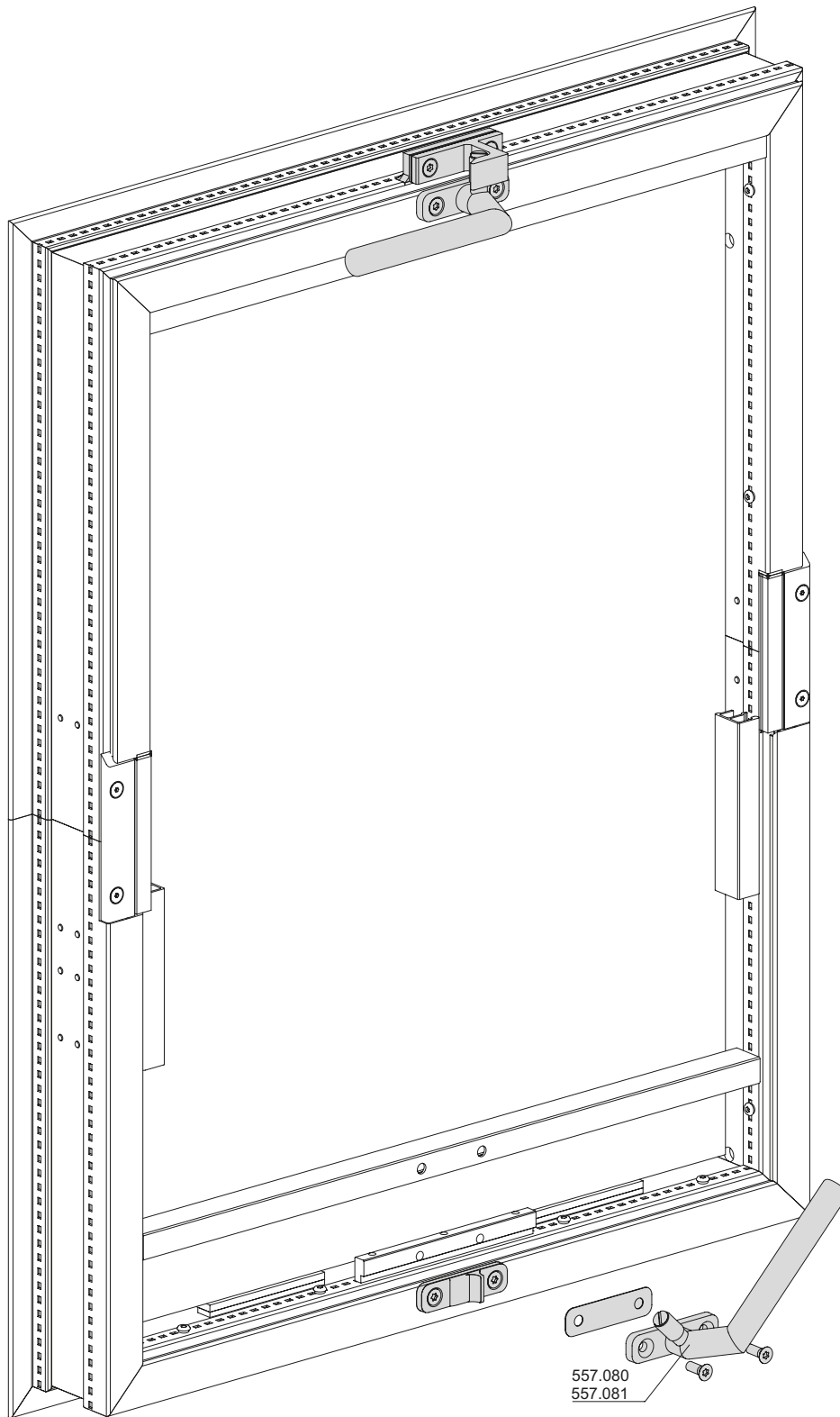
Installation of glazing bead insert
557.278



Montage Fenstergriff
557.080 / 557.081

Montage poignée
557.080 / 557.081

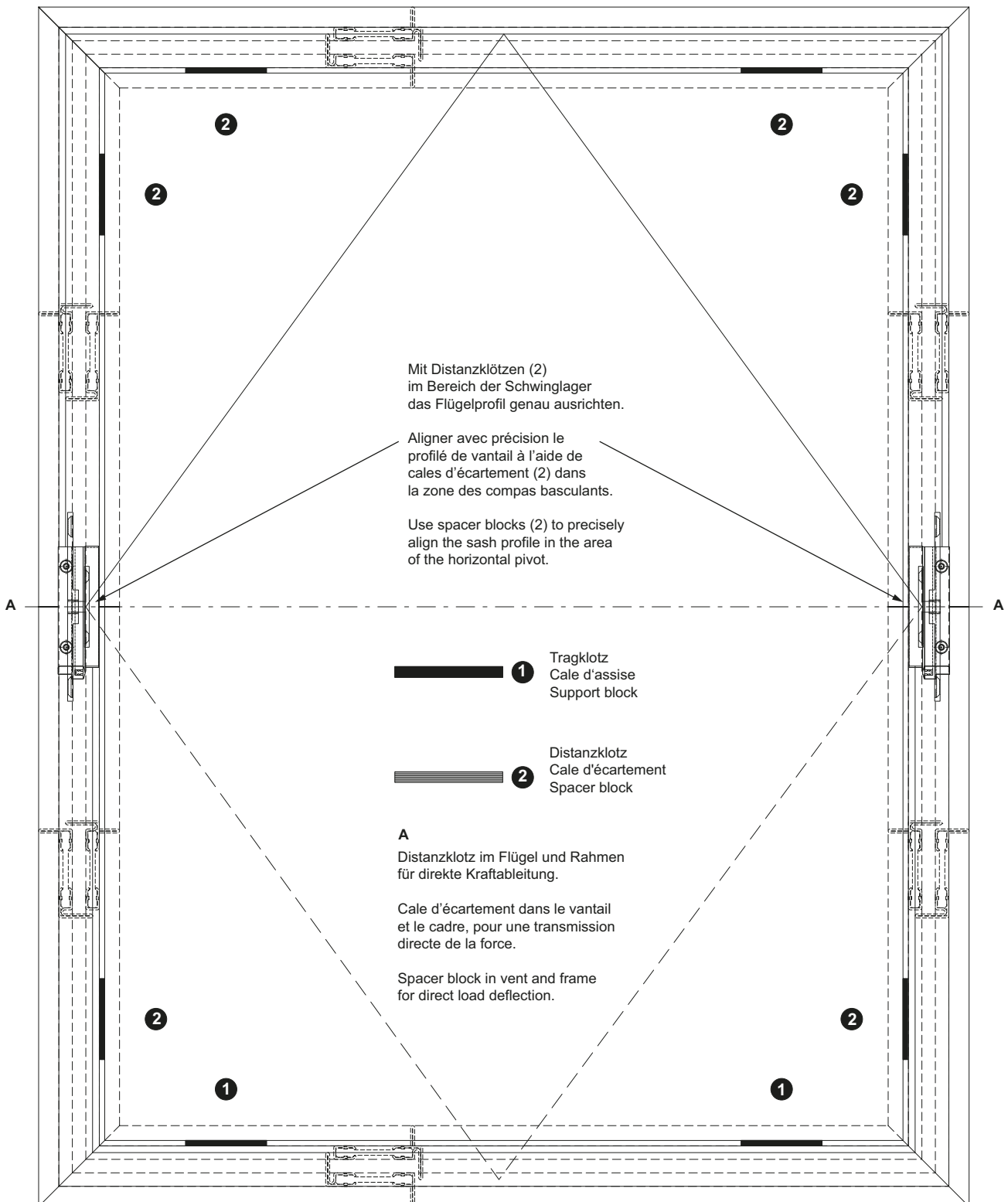
Installation of handle
557.080 / 557.081



Verklotzung Schwingfenster
gemäss Empfehlung DIN EN 12488

Calage de fenêtre basculante selon
recommandation DIN EN 12488

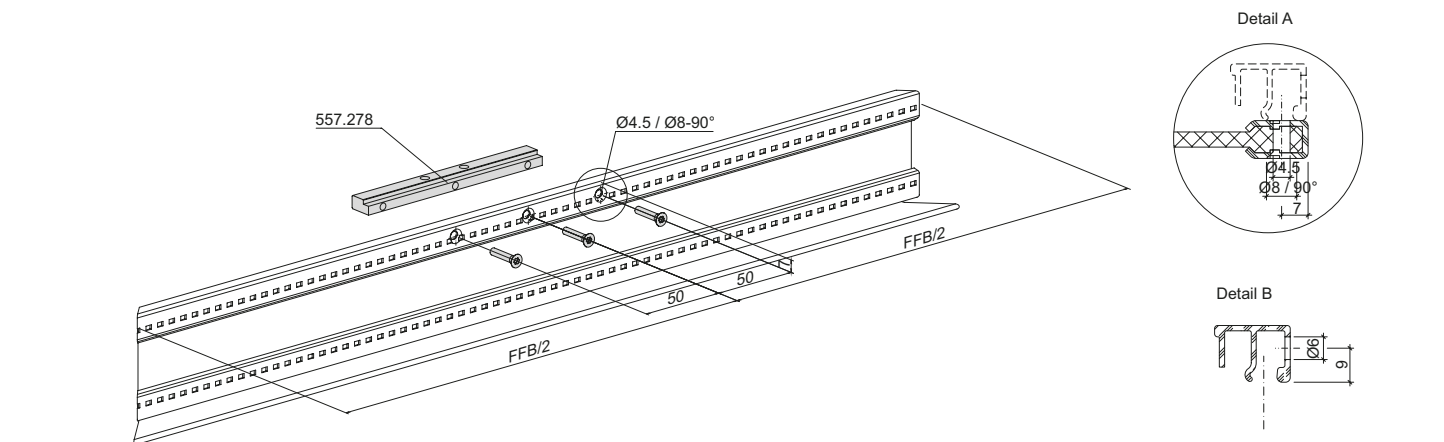
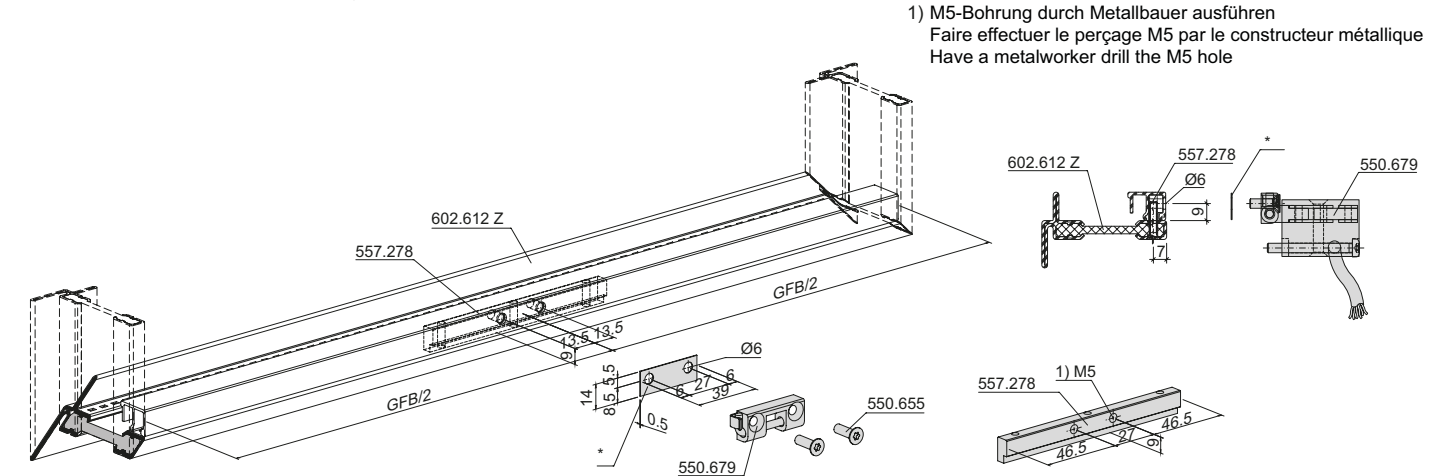
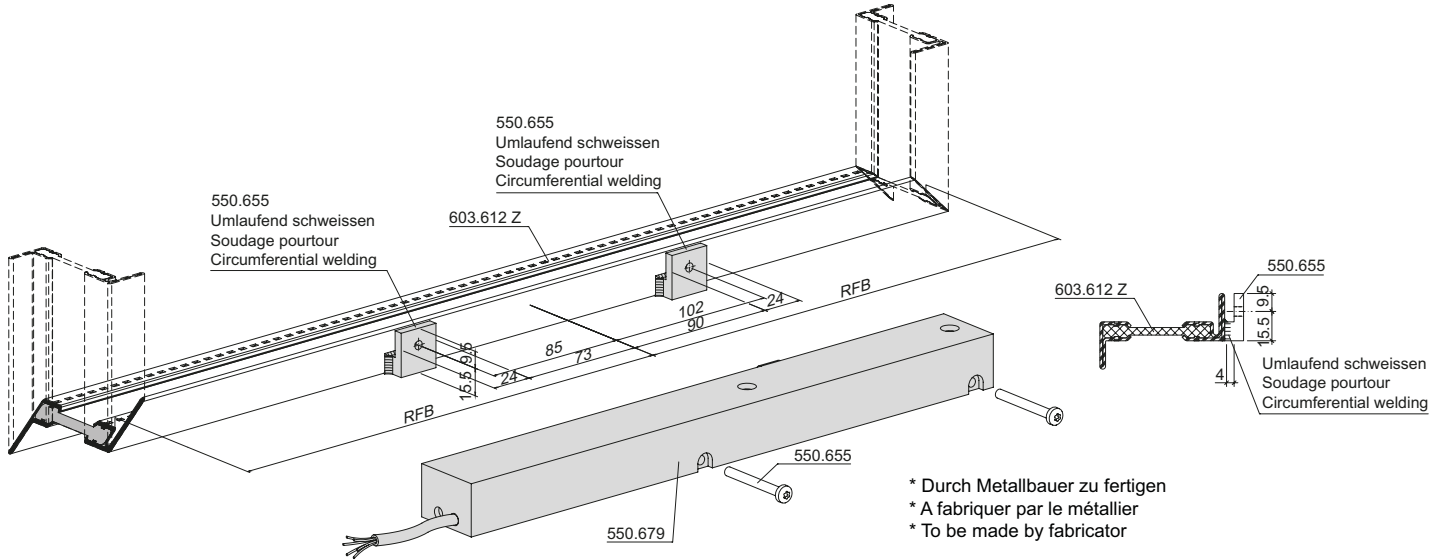
Glazing blocks of horizontal pivot
window according to DIN EN 12488
recommendation



Einbau Antrieb 550.679
 Rahmenmontage unten

Montage de l'entraînement 550.679
 Montage du cadre bas

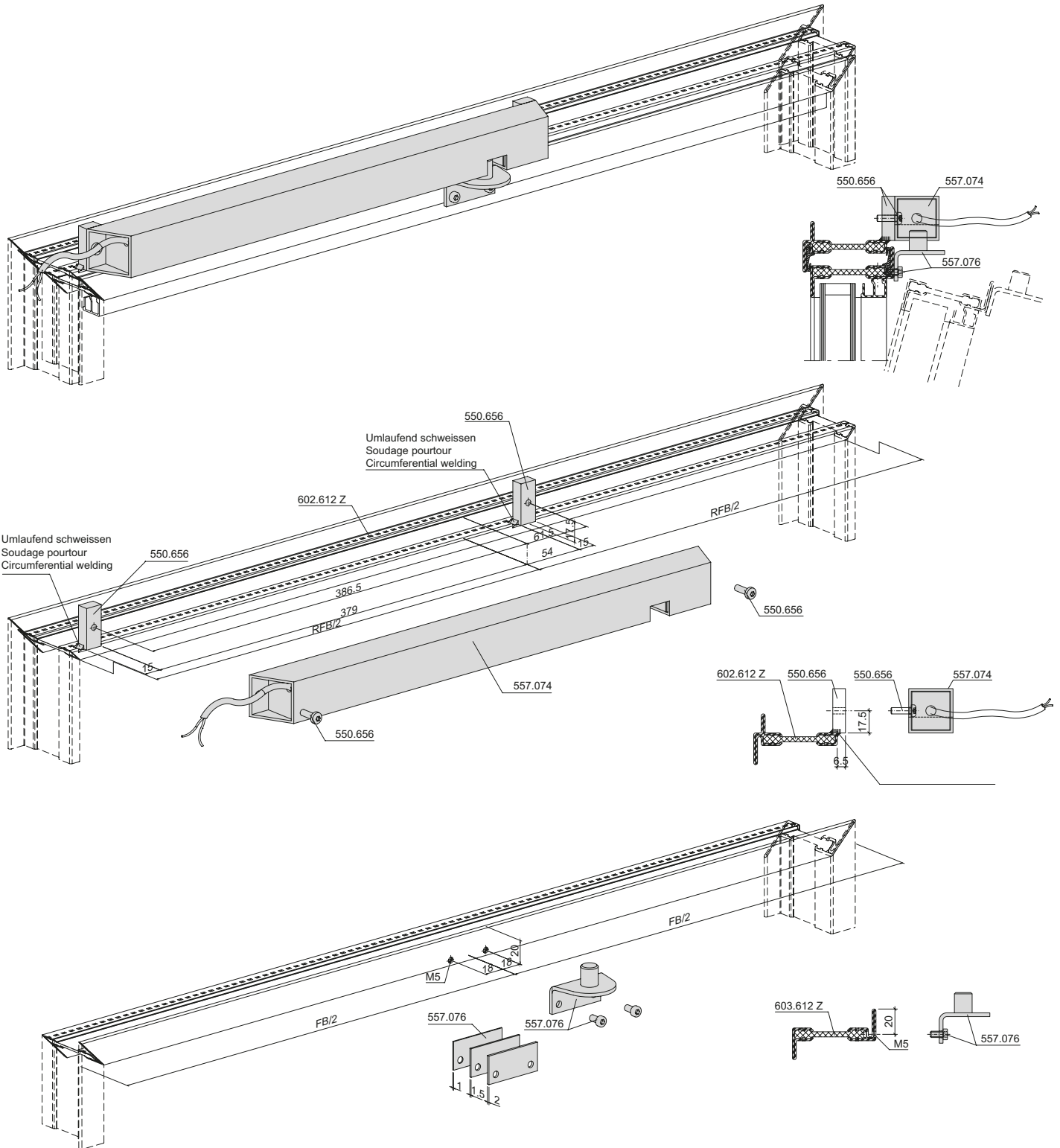
Installation of drive 550.679
 Frame installation, bottom



Einbau Zusatzverriegelung 557.074
 Rahmenmontage oben

Montage du verrouillage
 supplémentaire 557.074
 Montage du cadre haut

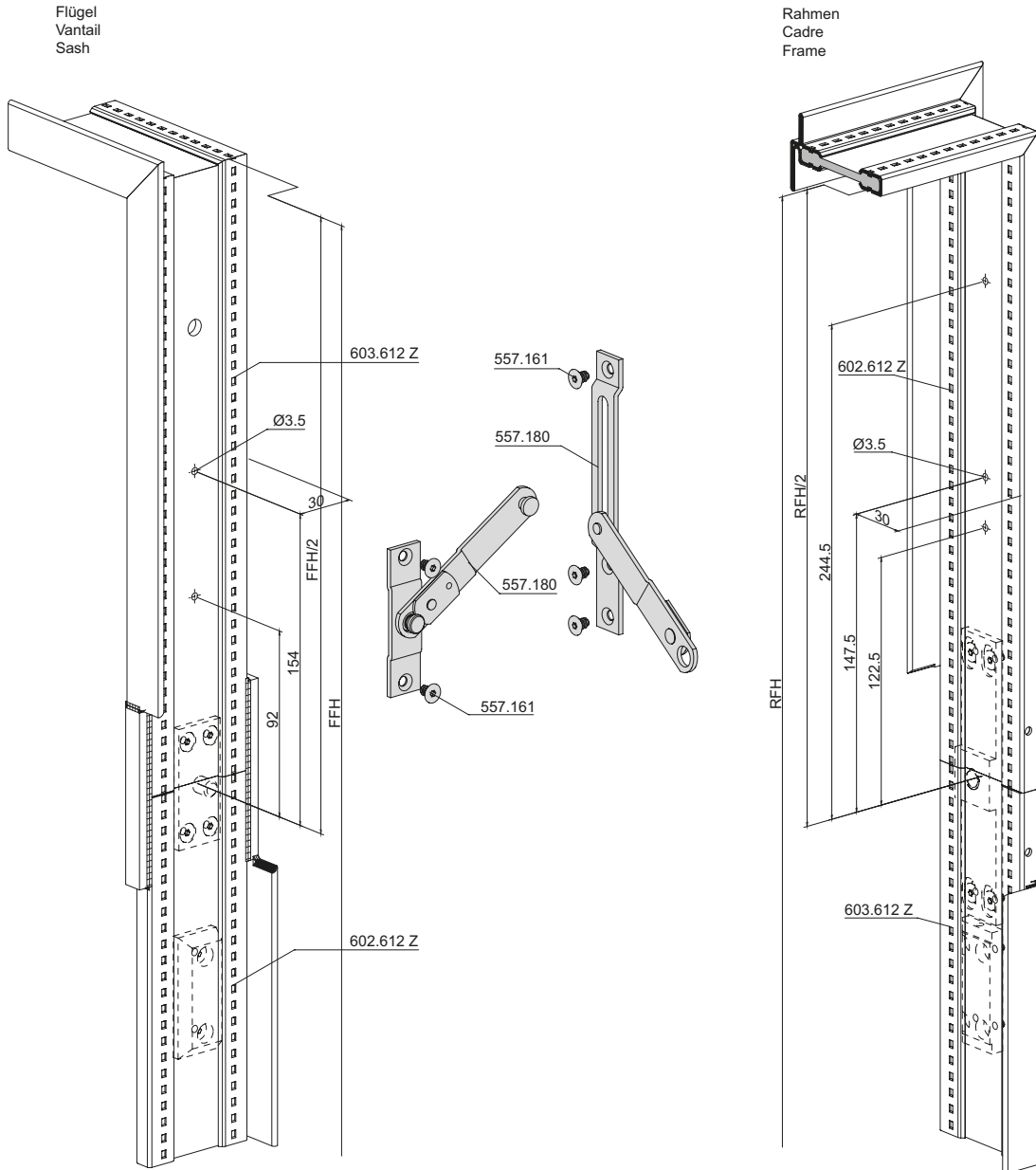
Installation of additional lock
 557.074
 Frame installation, top



Einbau Öffnungsbegrenzer 557.180

Montage du compas de limitation
 d'ouverture 557.180

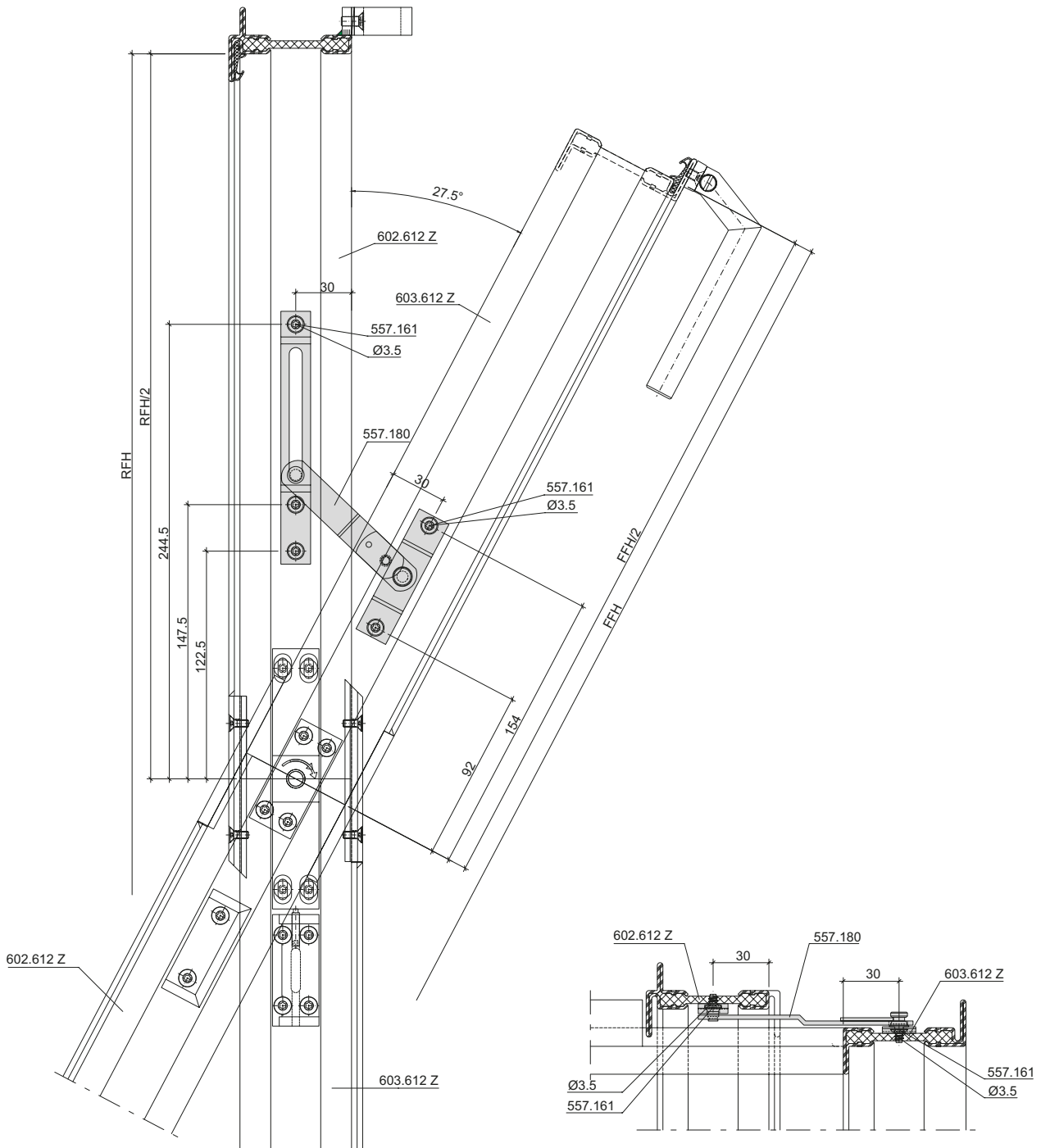
Installation of opening limiter
 557.180



Öffnungswinkel 557.180
(Abhängig der Einbaulage)

Angle d'ouverture 557.180
(en fonction de la position de montage)

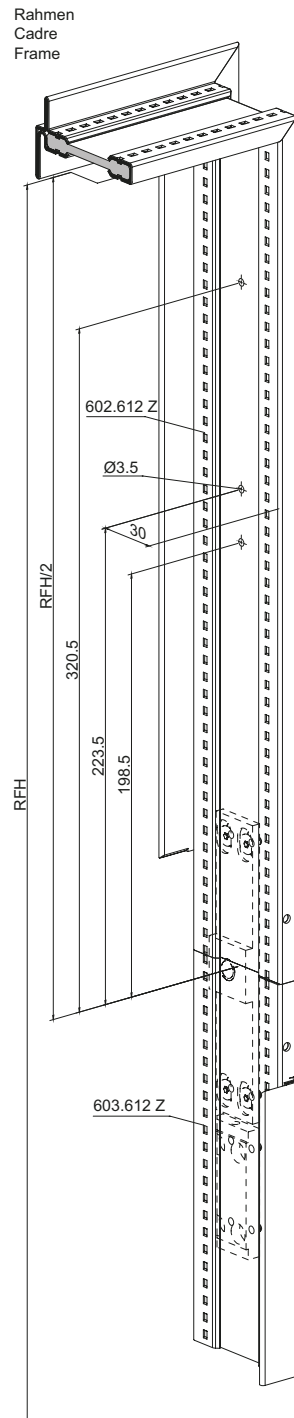
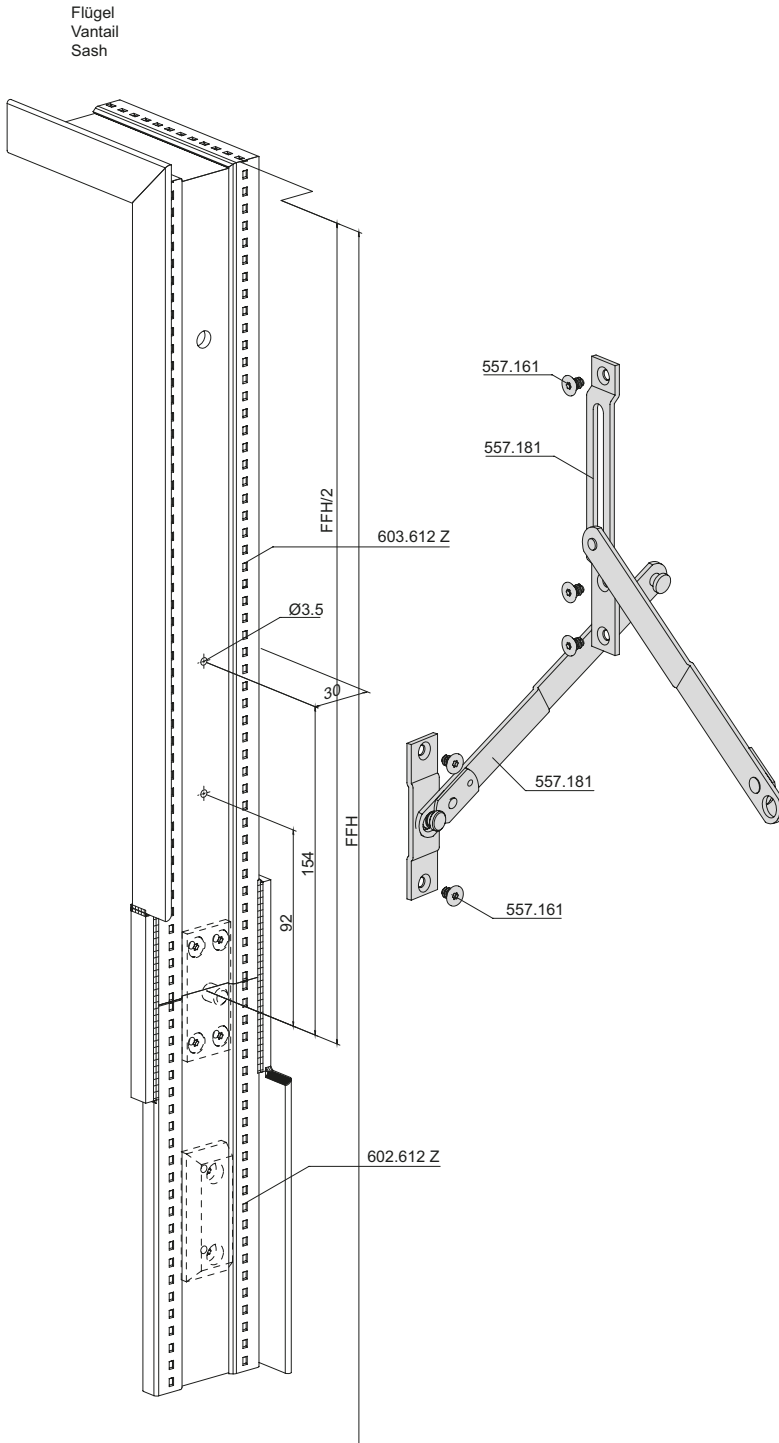
Opening angle 557.180
(depending on installation position)



Einbau Öffnungsbegrenzer 557.181

Montage du compas de limitation d'ouverture 557.180

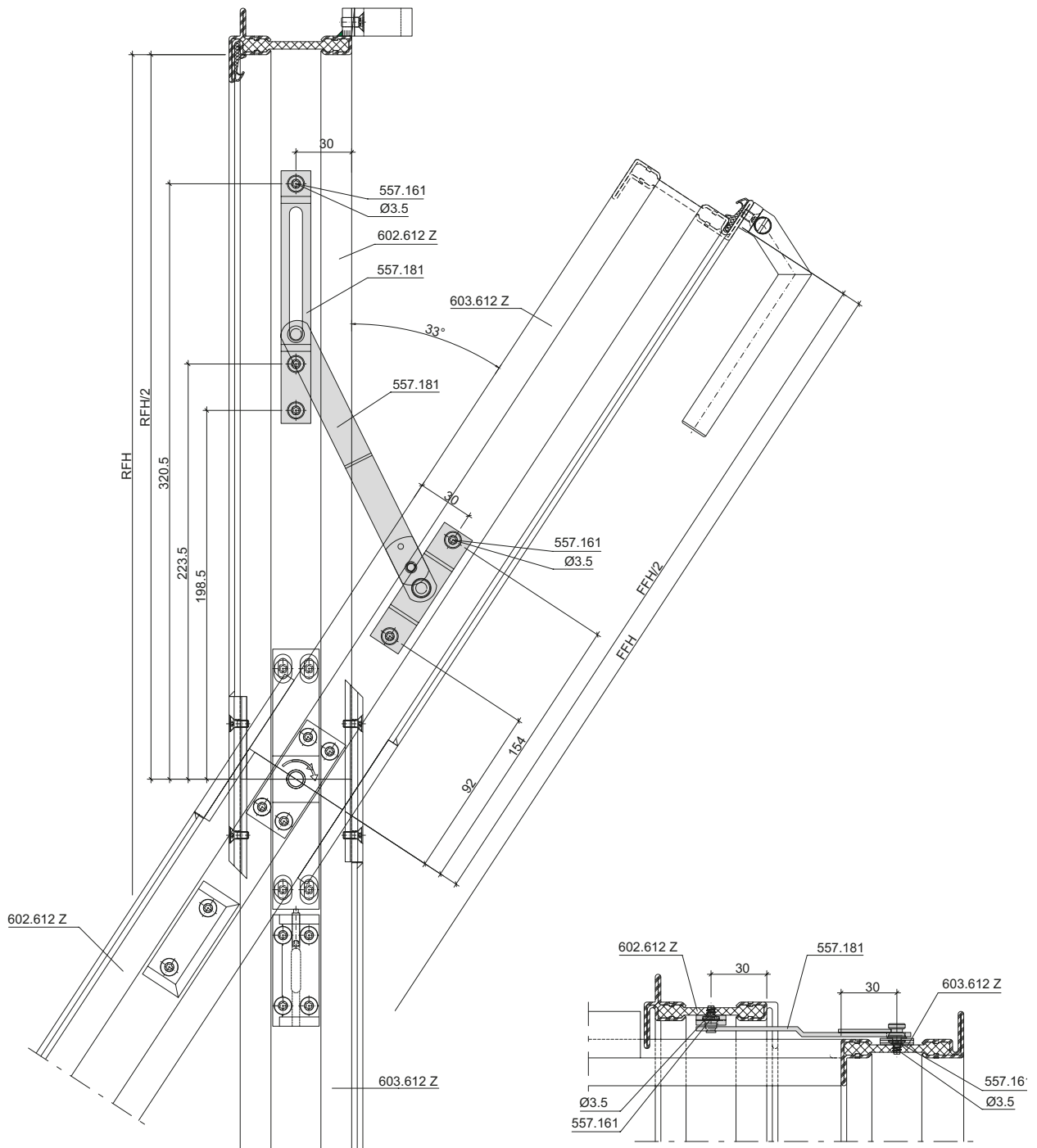
Installation of opening limiter 557.180



Öffnungswinkel 557.181
(Abhängig der Einbaulage)

Angle d'ouverture 557.181
(en fonction de la position de montage)

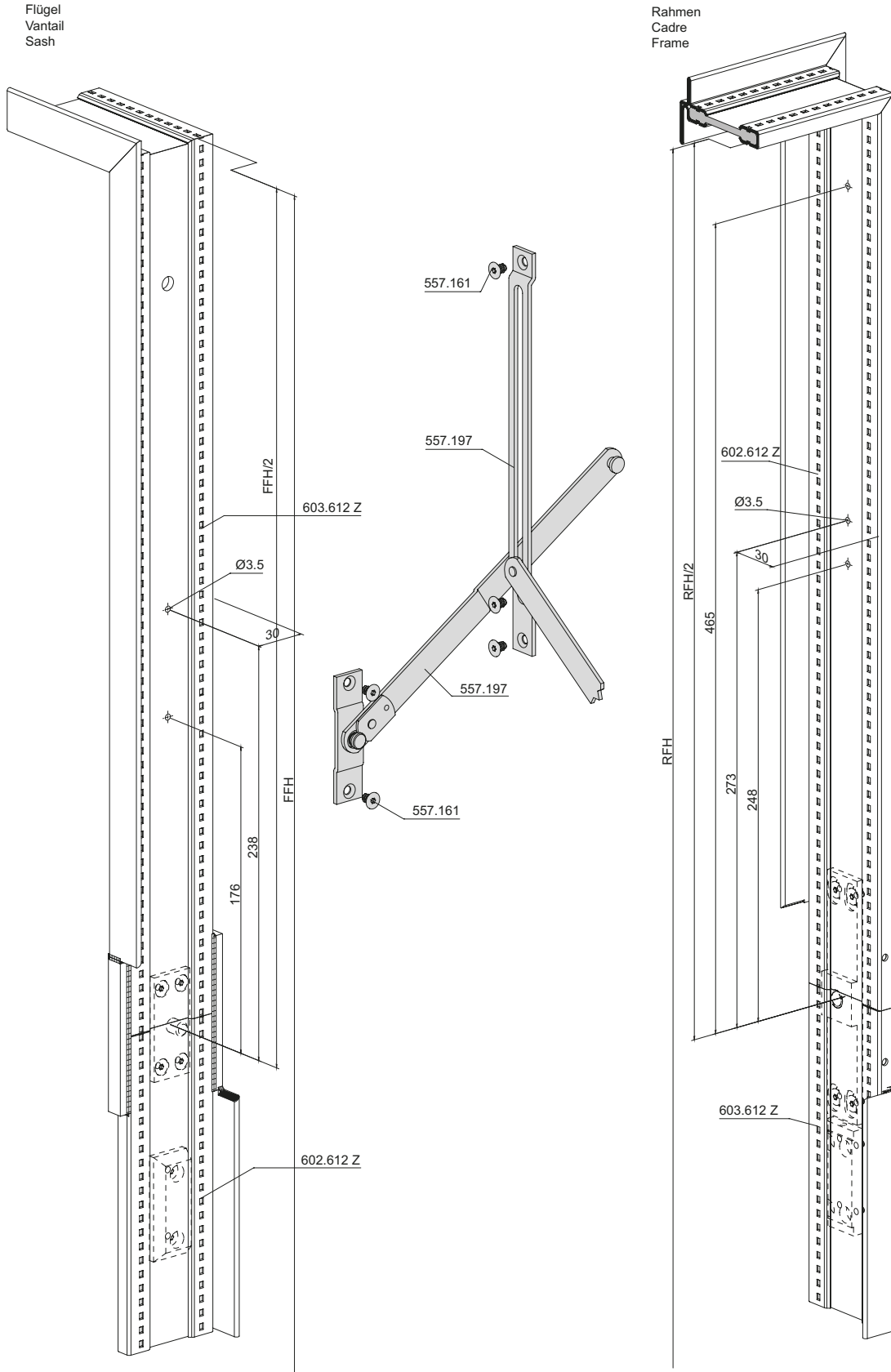
Opening angle 557.181
(depending on installation position)



Einbau Öffnungsbegrenzer 557.197

Montage du compas de limitation
 d'ouverture 557.197

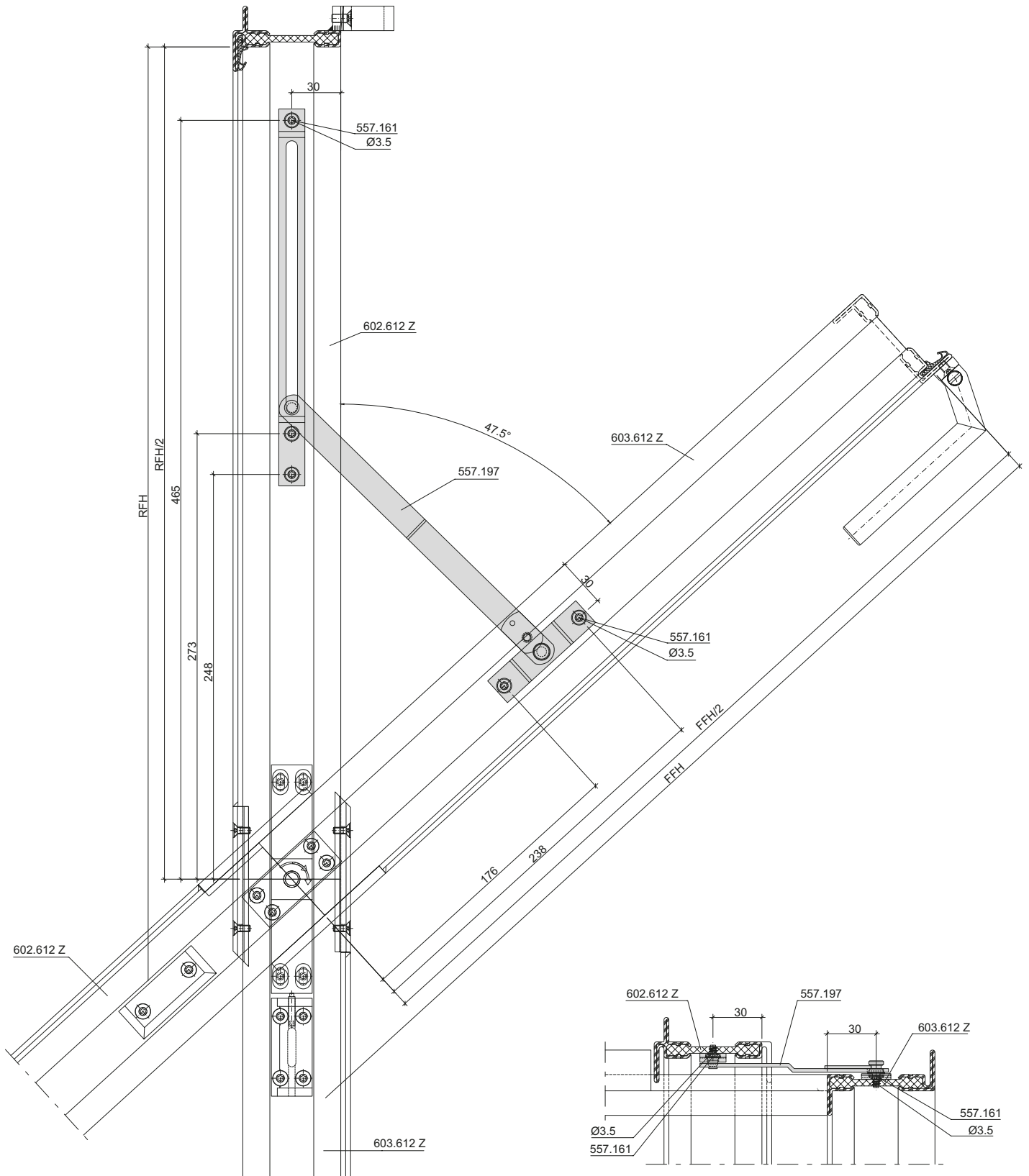
Installation of opening limiter
 557.197



Öffnungswinkel 557.197
(Abhängig der Einbaulage)

Angle d'ouverture 557.197
(en fonction de la position de montage)

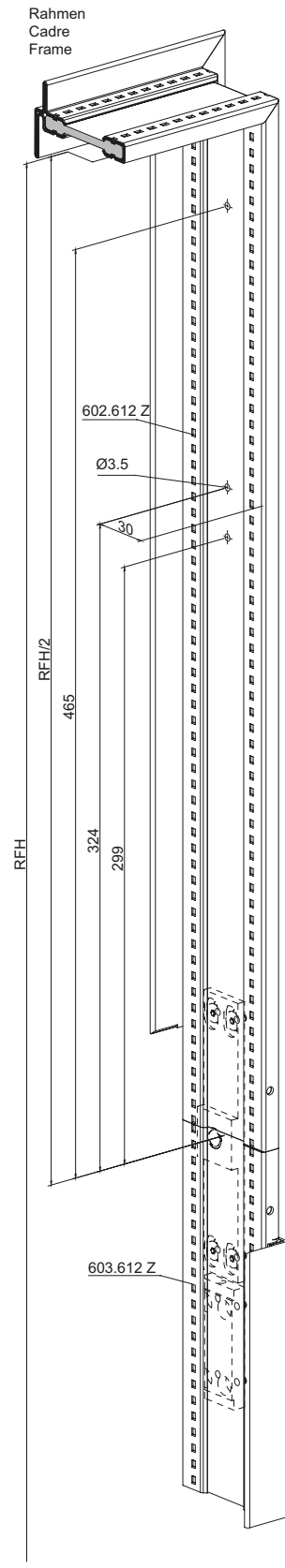
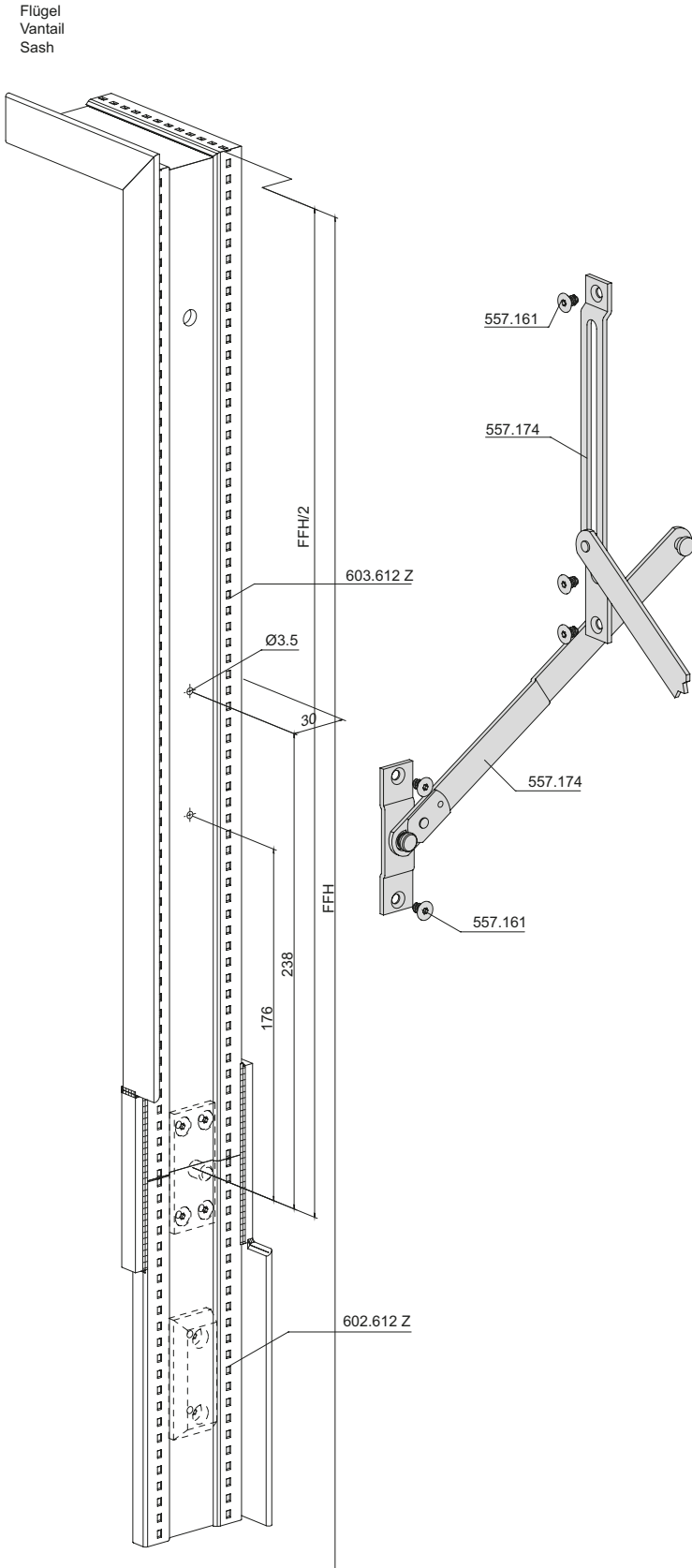
Opening angle 557.197
(depending on installation position)



Einbau Kippschere 557.174

Montage du compas d'imposte
 557.174

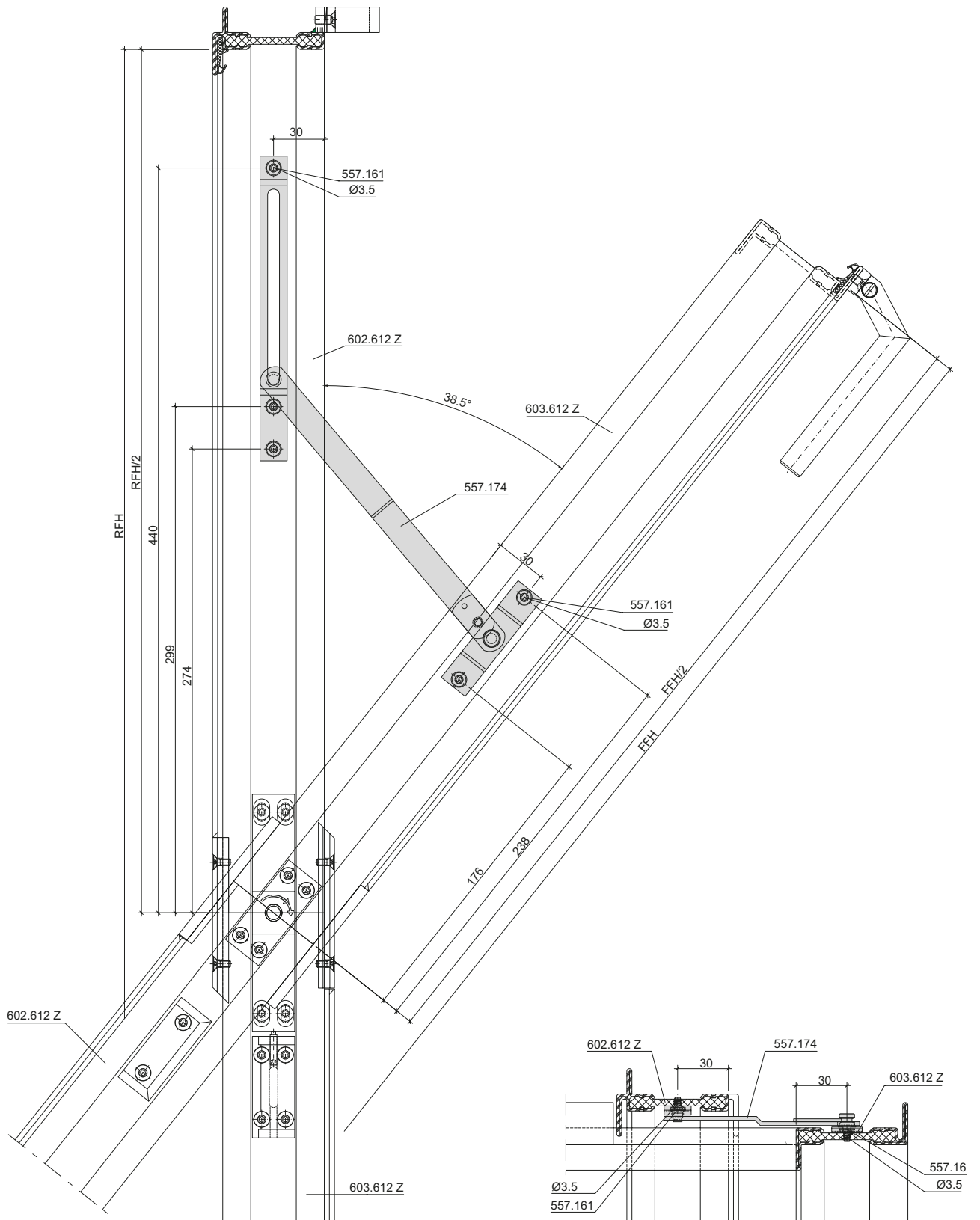
Installation of tilt scissors 557.174



Öffnungswinkel 557.174
 (Abhängig der Einbaulage)

Angle d'ouverture 557.174
 (en fonction de la position de montage)

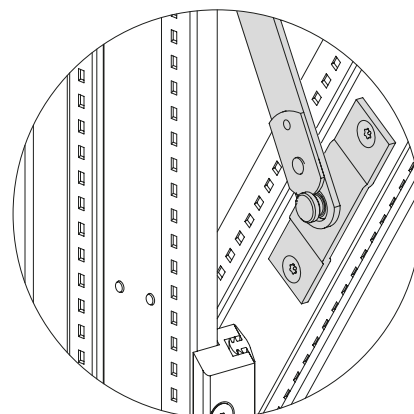
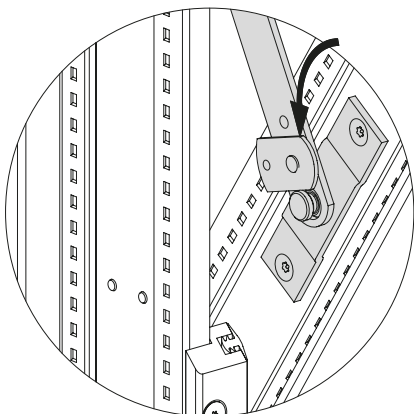
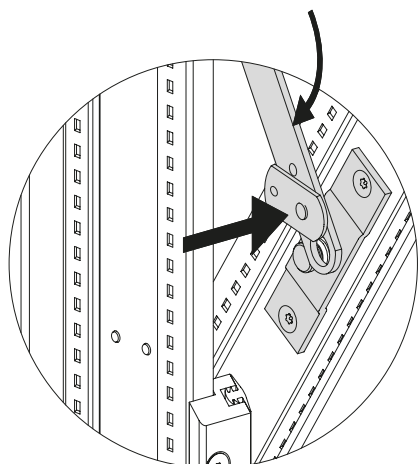
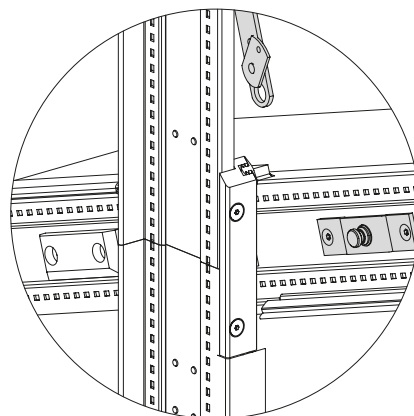
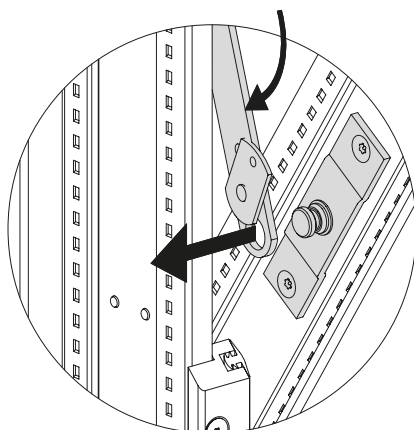
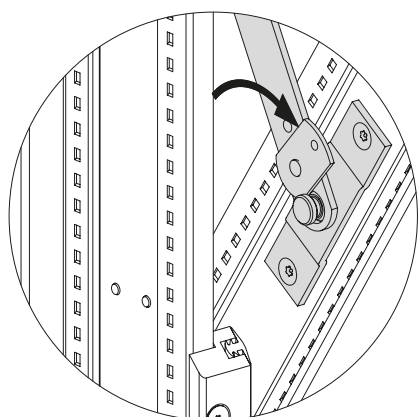
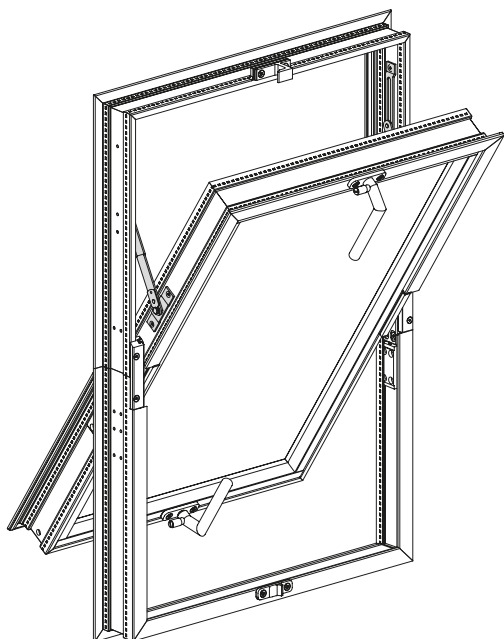
Opening angle 557.174
 (depending on installation position)

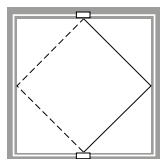


Aushängen Öffnungsbegrenzer
und Kippschere
557.180 / 557.181
557.197 / 557.174

Décrochage du compas de limitation
d'ouverture et du compas d'imposte
557.180 / 557.181
557.197 / 557.174

Unhinging the opening limiter
and tilt scissors
557.180 / 557.181
557.197 / 557.174



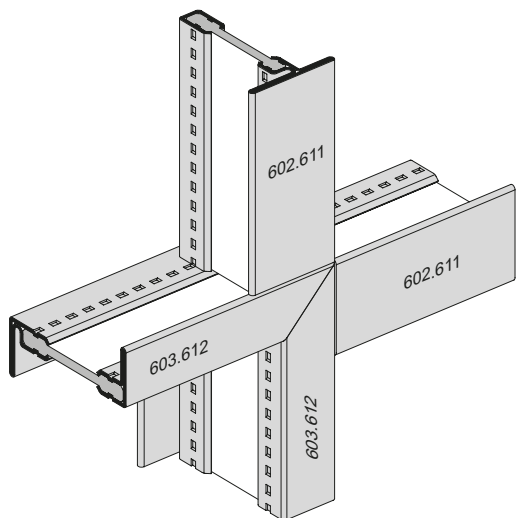
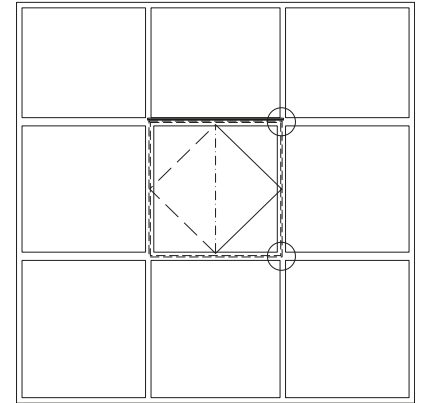
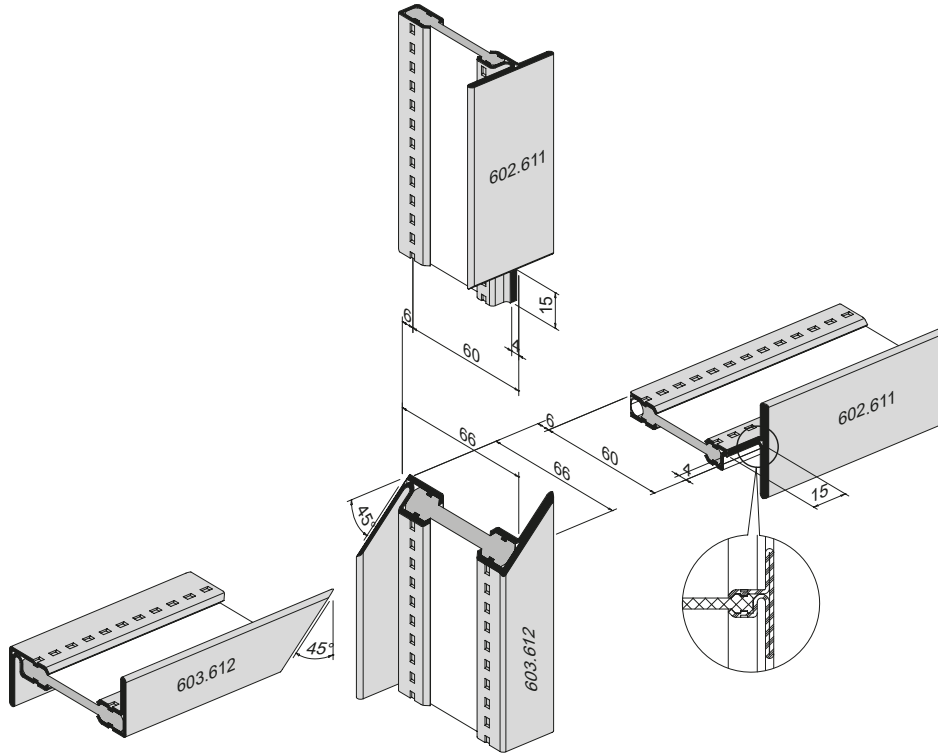


Wendefenster	Fenêtre pivotante	Vertical pivot window	
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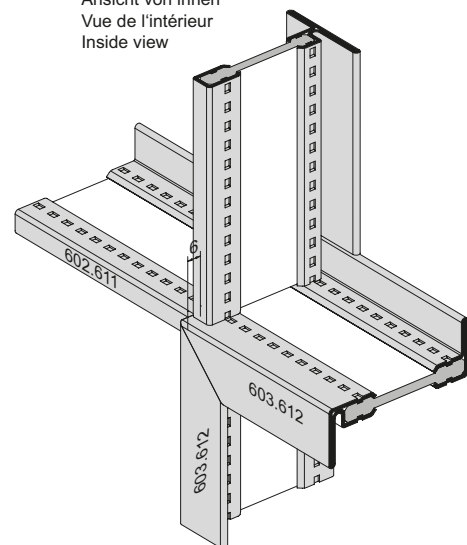
Ausbildung Kreuzpunkt
linksöffnend

Formation croisée
ouvrant à gauche

Construction of intersection
lefthand



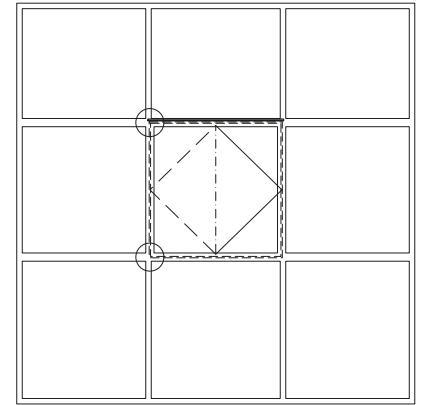
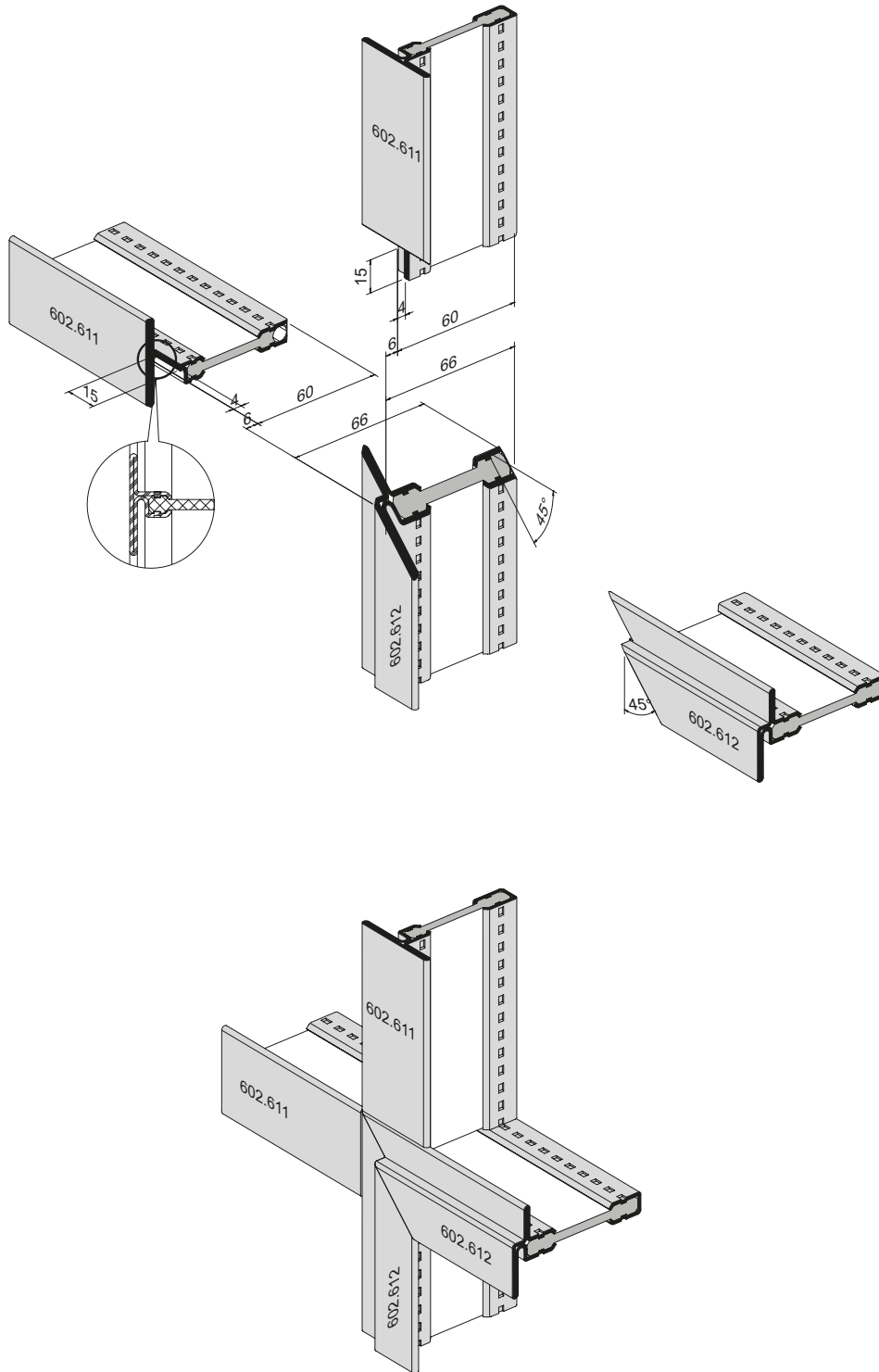
Ansicht von innen
Vue de l'intérieur
Inside view



Ausbildung Kreuzpunkt
linksöffnend

Formation croisée
ouvrant à gauche

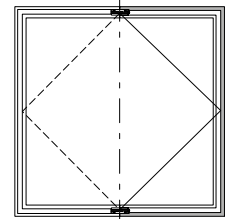
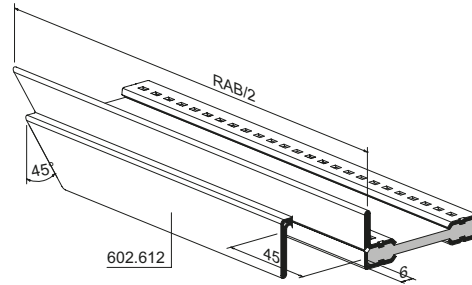
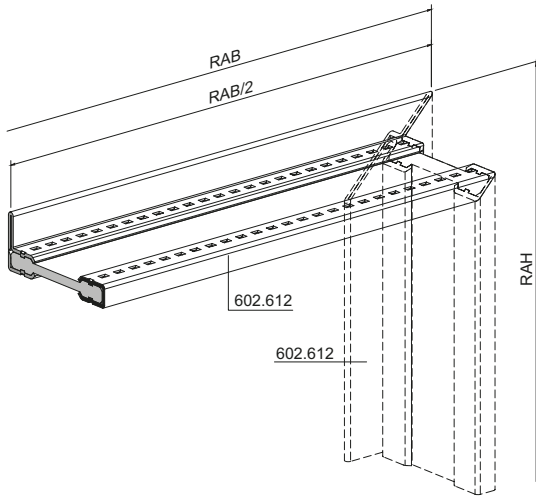
Construction of intersection
lefthand



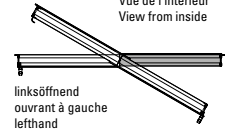
Zuschnitt Rahmen

Découpe cadre

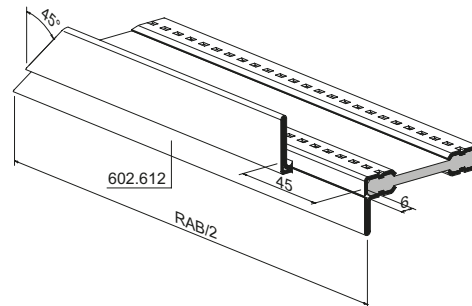
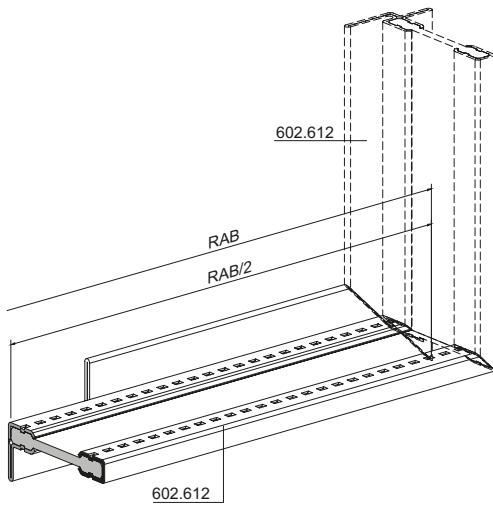
Cutting the frame



Ansicht von innen
Vue de l'intérieur
View from inside



linksöffnend
ouvrant à gauche
lefthand

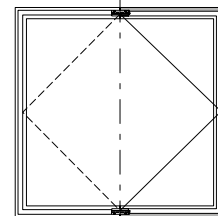
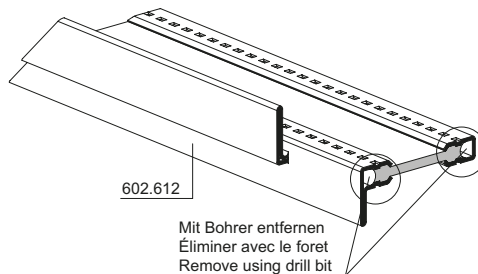
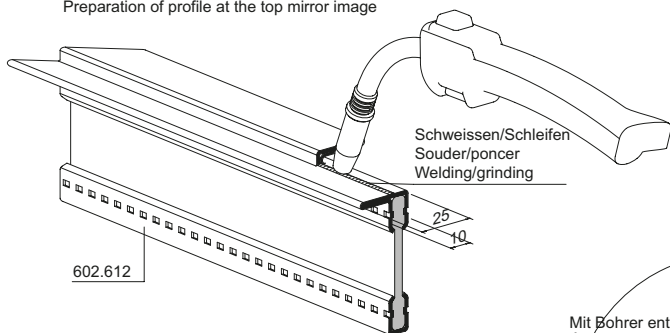


Bearbeitung Rahmen

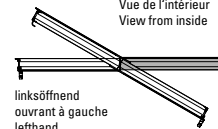
Usinage cadre

Preparing the frame

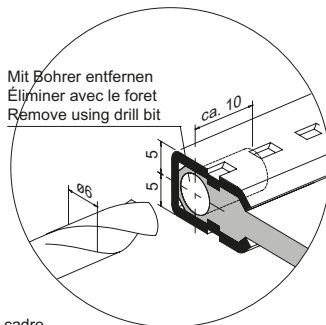
Bearbeitung Profil oben spiegelbildlich
 Usinage profilé supérieur réfléchi
 Preparation of profile at the top mirror image



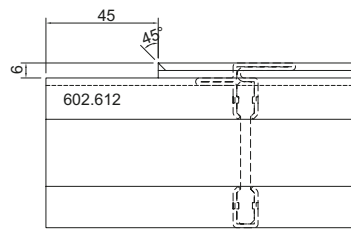
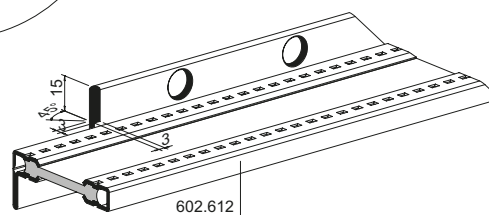
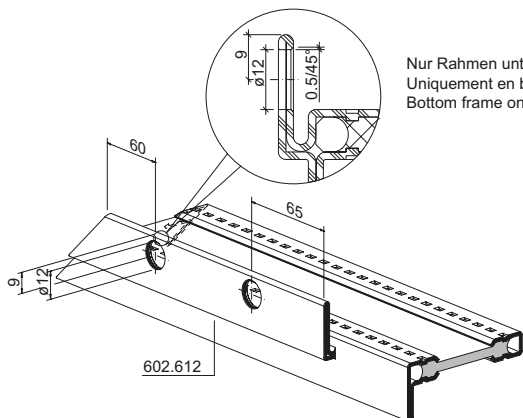
Ansicht von innen
 Vue de l'intérieur
 View from inside



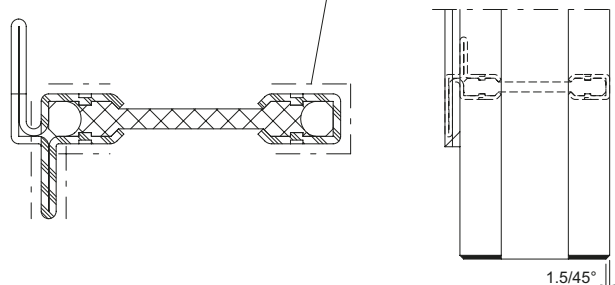
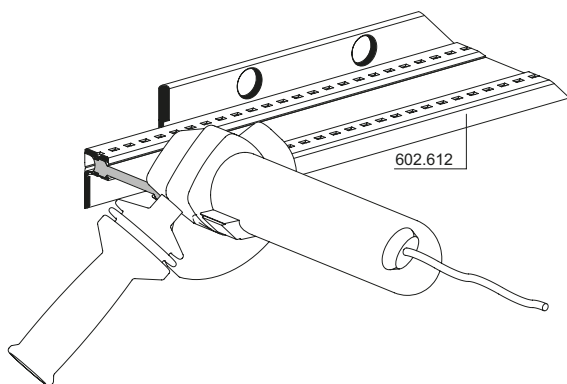
Mit Bohrer entfernen
 Éliminer avec le foret
 Remove using drill bit



Nur Rahmen unten
 Uniquement en bas du cadre
 Bottom frame only



Kanten bearbeiten
 Usiner les arêtes
 Machine edges

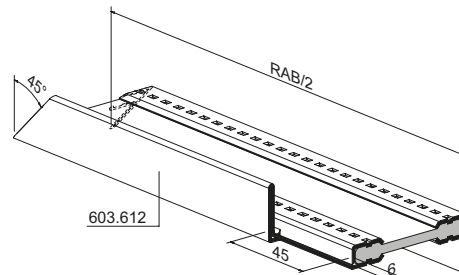
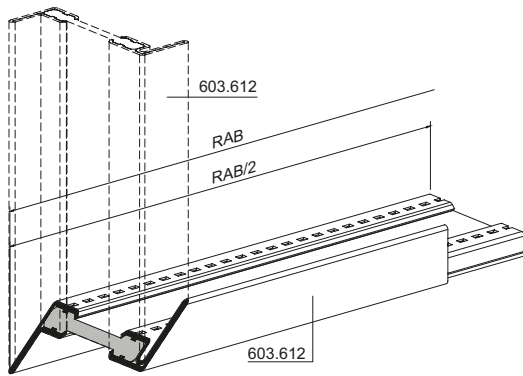
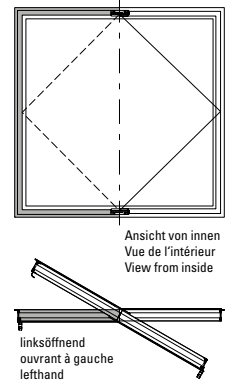
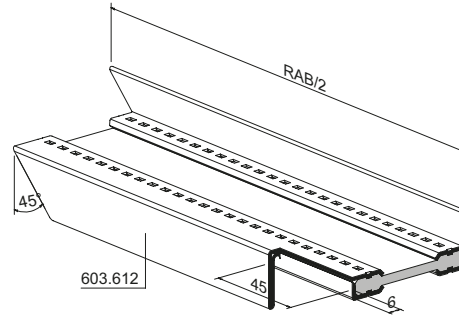
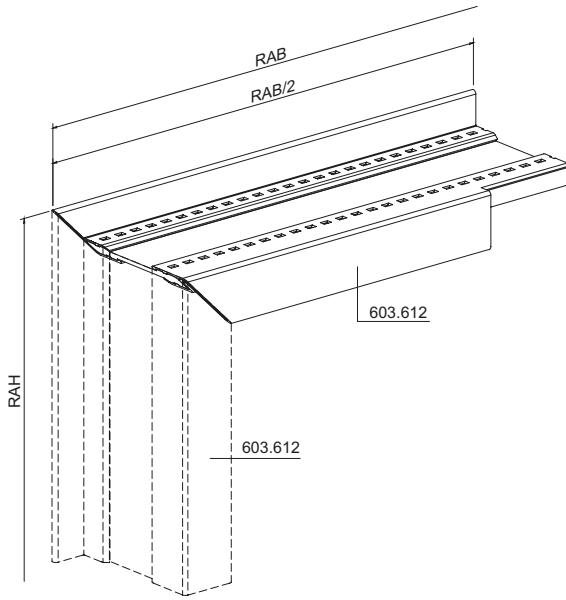


Alternativ kann auch die Entwässerungstülle 450.115 eingesetzt werden
 Il est également possible d'utiliser la douille d'évacuation d'eau 450.115
 Alternatively, drainage pipe 450.115 can also be used

Zuschnitt Rahmen

Découpe cadre

Cutting the frame

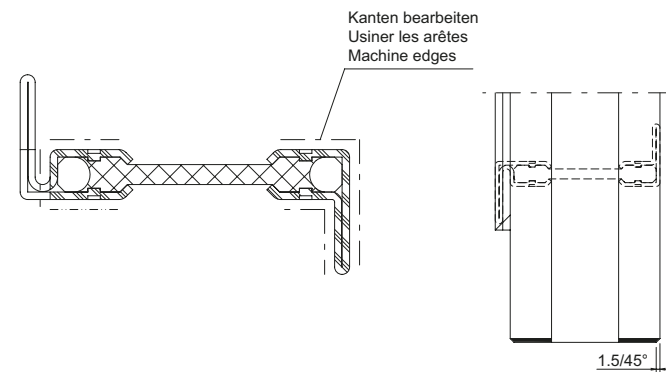
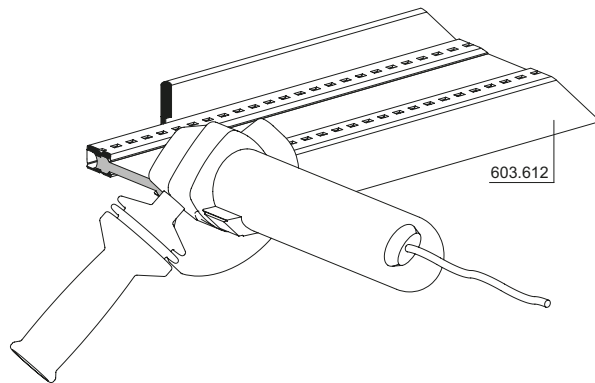
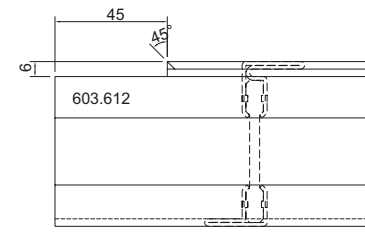
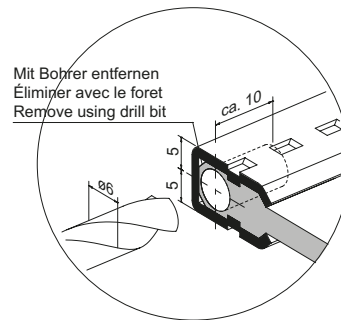
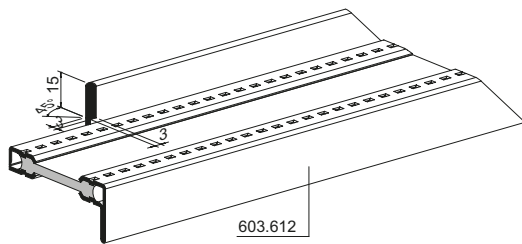
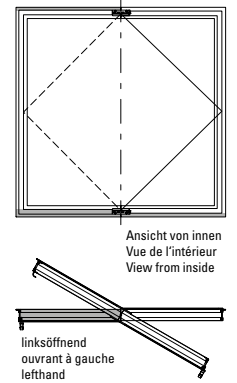
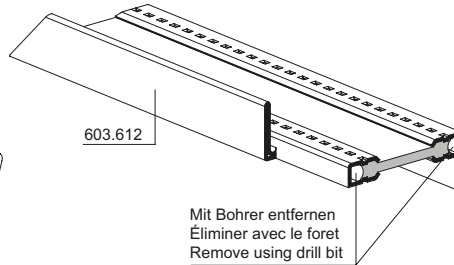
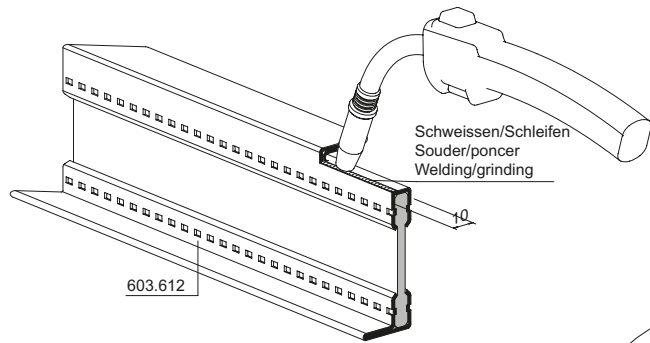


Bearbeitung Rahmen

Usinage cadre

Preparing the frame

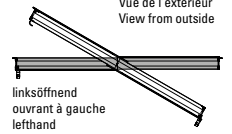
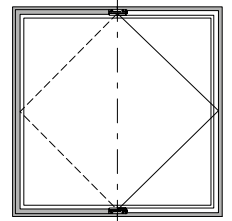
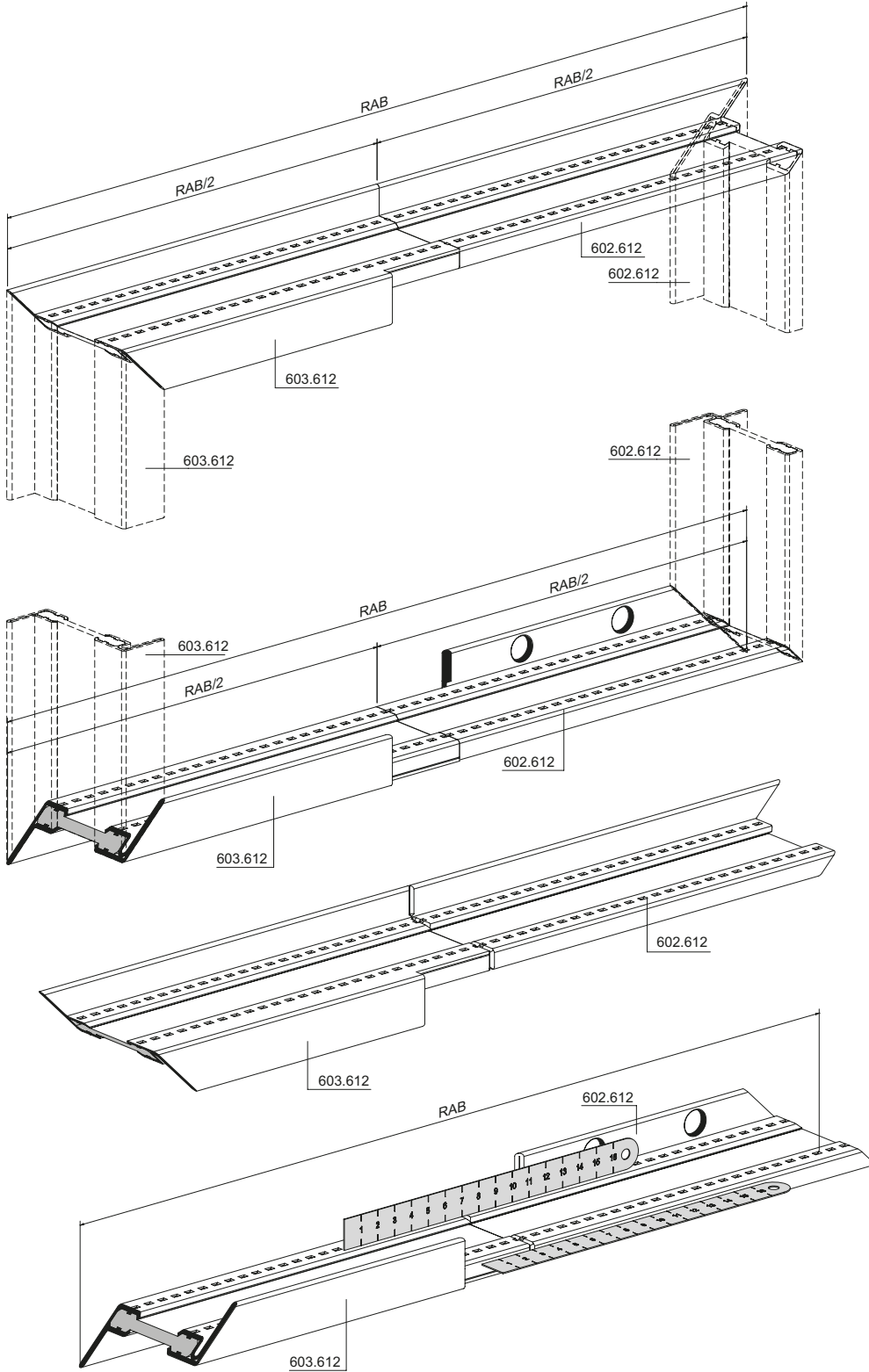
Bearbeitung Profil oben spiegelbildlich
 Usinage profilé supérieur réfléchi
 Preparation of profile at the top mirror image



Zusammenbau Rahmen

Assemblage de cadre

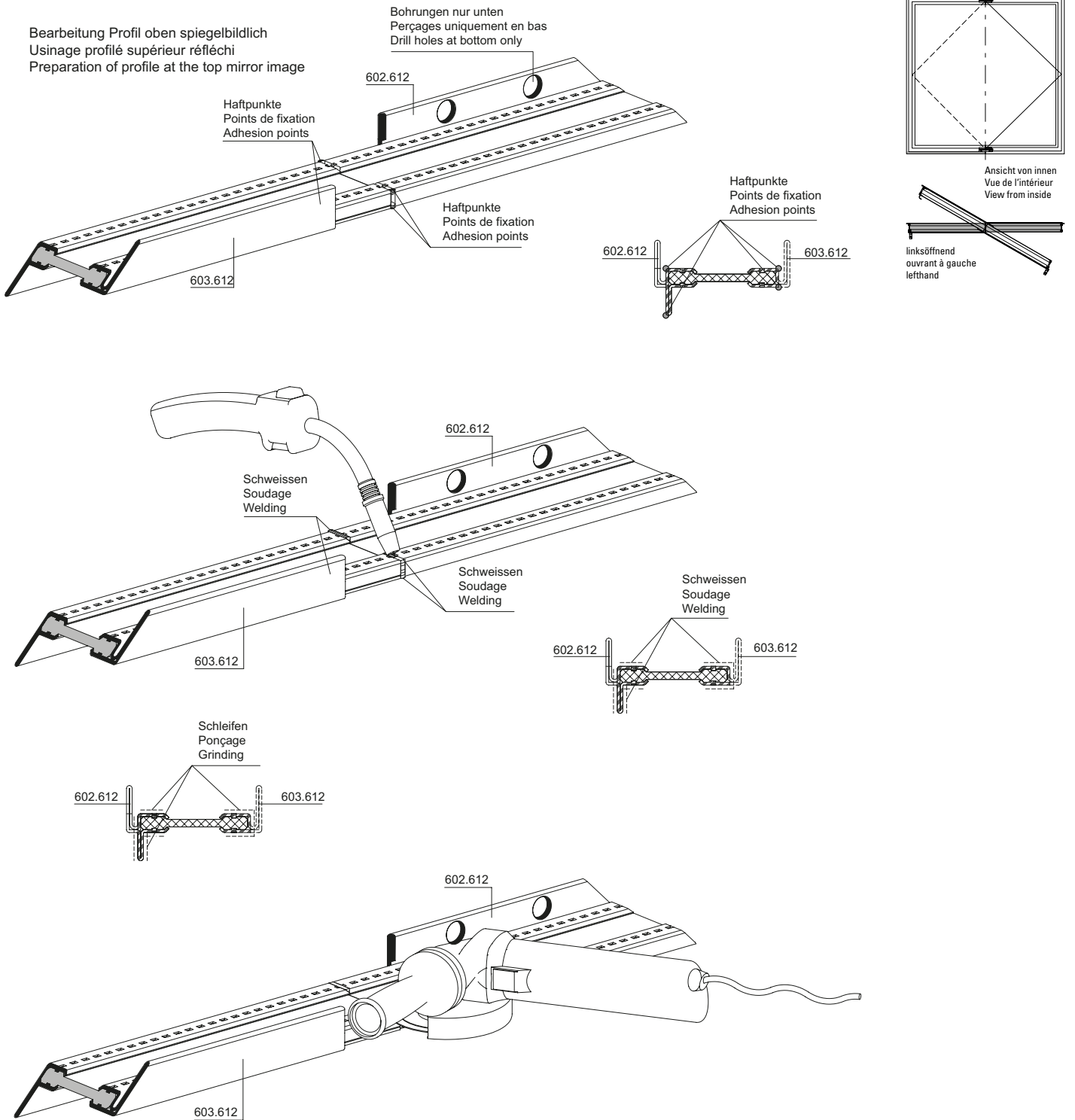
Assembly of frame



Zusammenbau Rahmen

Assemblage de cadre

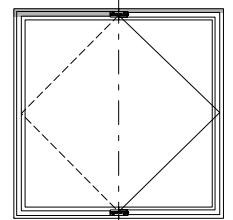
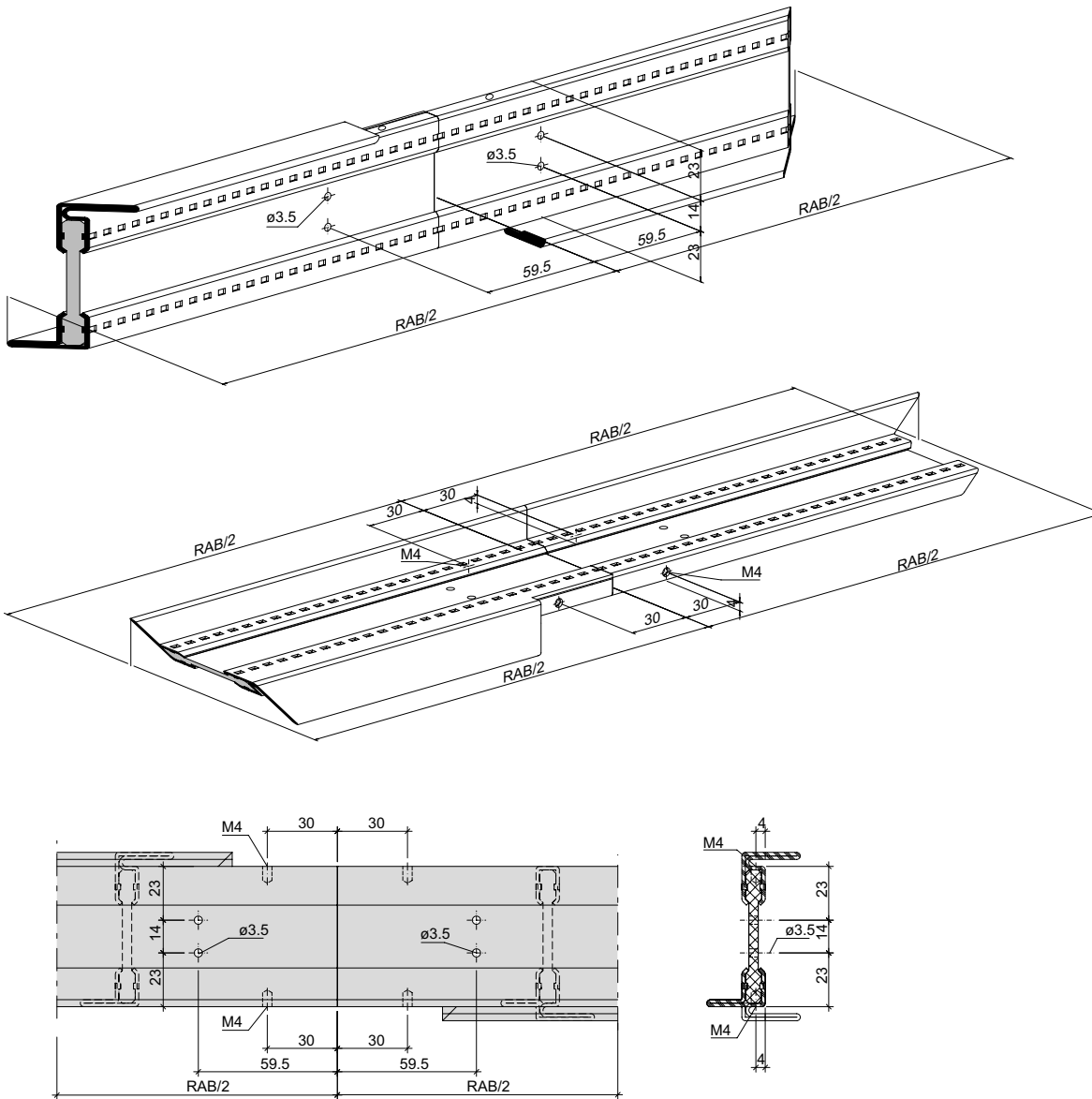
Assembly of frame



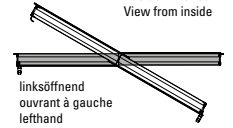
Bearbeitung Rahmen oben

Usinage cadre en haut

Preparation frame, top



Ansicht von innen
 Vue de l'intérieur
 View from inside

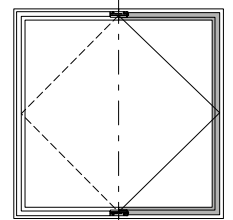
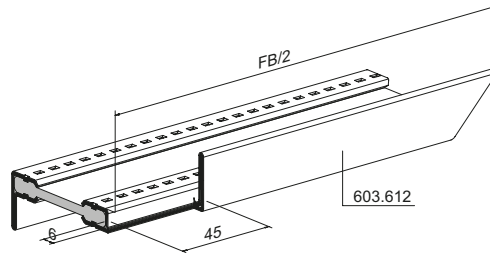
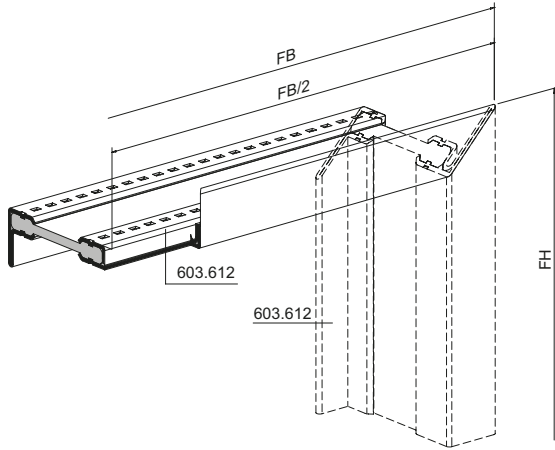


linksöffnend
 ouvrant à gauche
 lefthand

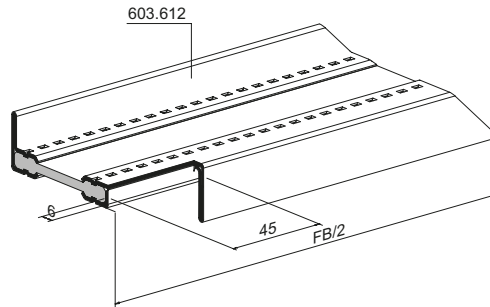
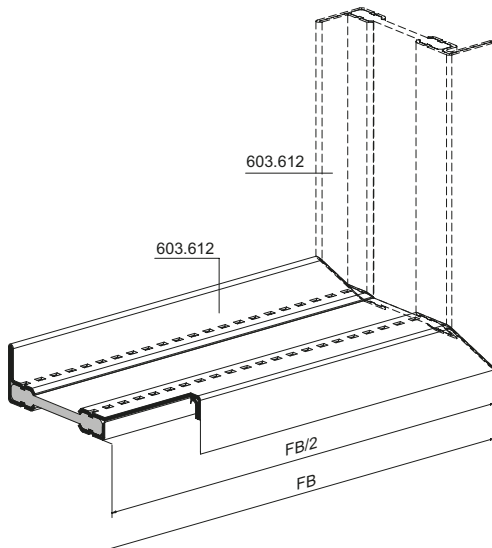
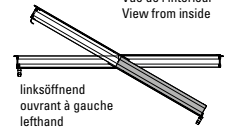
Zuschnitt Flügel

Découpe vantail

Cutting the sash



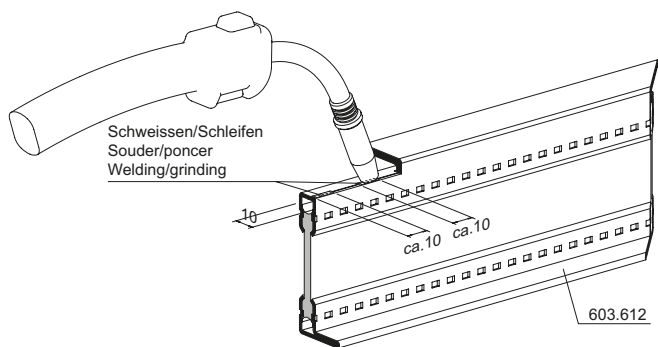
Ansicht von innen
Vue de l'intérieur
View from inside



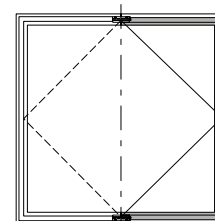
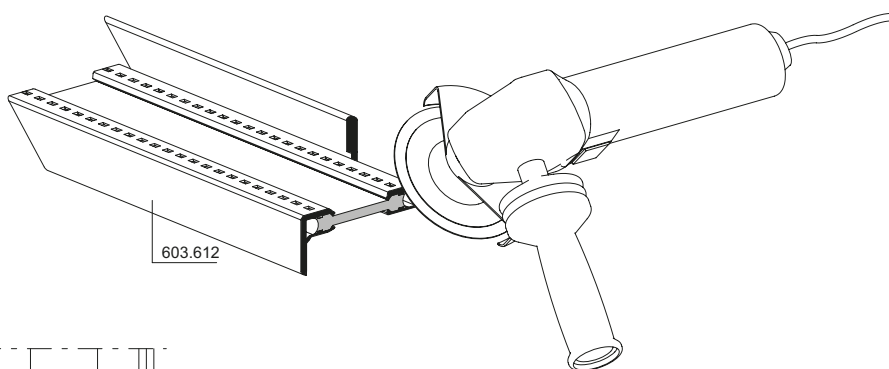
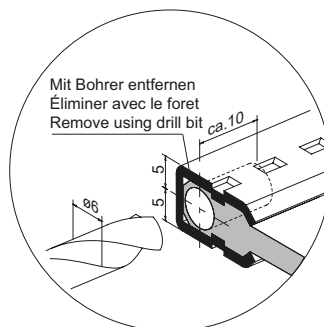
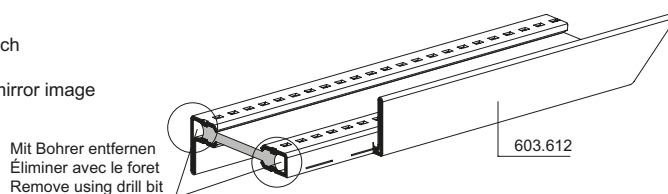
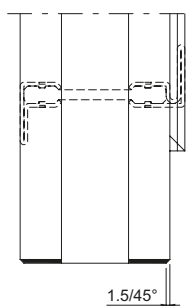
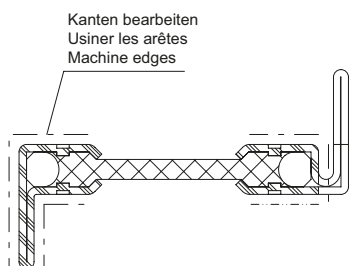
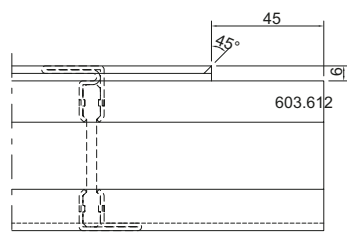
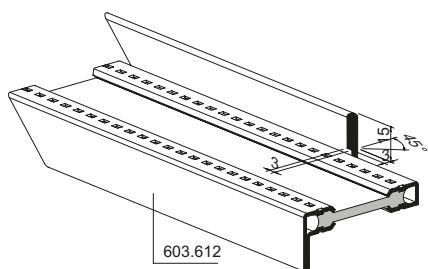
Bearbeitung Flügel

Usinage vantail

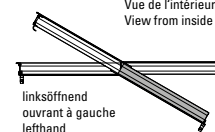
Preparing the sash



Bearbeitung Profil unten spiegelbildlich
 Usinage profilé inférieur réfléchi
 Preparation of profile at the bottom mirror image



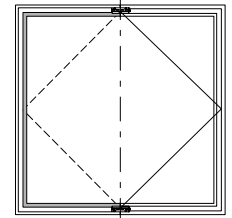
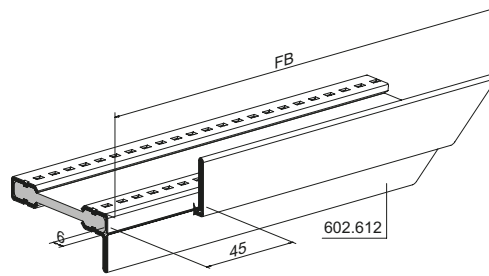
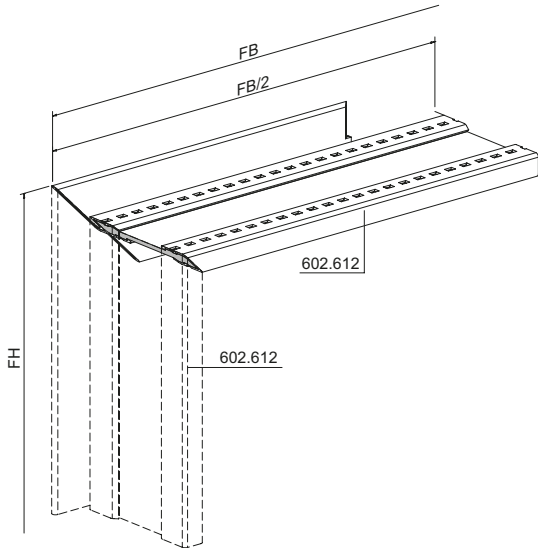
Ansicht von innen
 Vue de l'intérieur
 View from inside



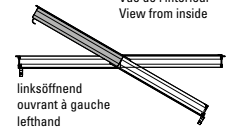
Zuschnitt Flügel

Découpe vantail

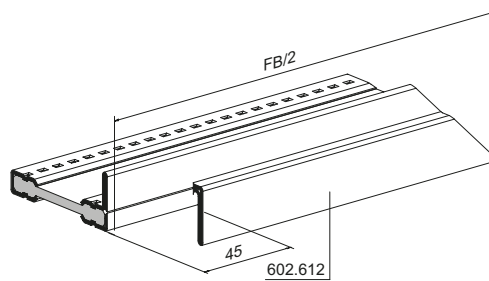
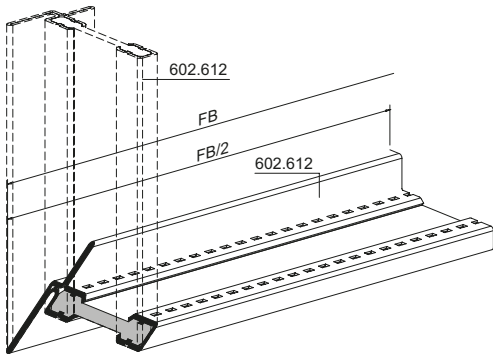
Cutting the sash



Ansicht von innen
Vue de l'intérieur
View from inside



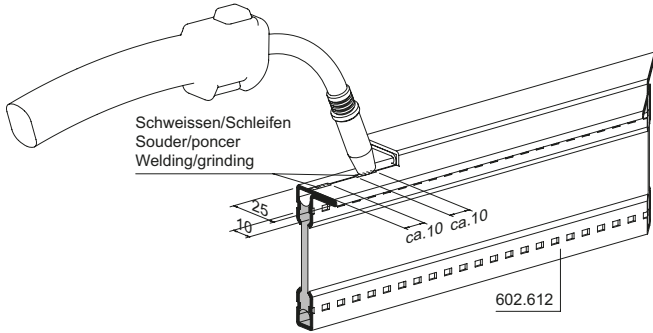
linksöffnend
ouvrant à gauche
lefthand



Bearbeitung Flügel

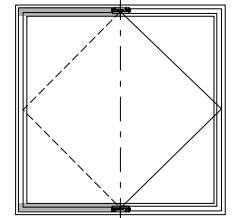
Usinage vantail

Preparing the sash

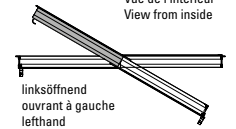


Schweißen/Schleifen
 Souder/poncer
 Welding/grinding

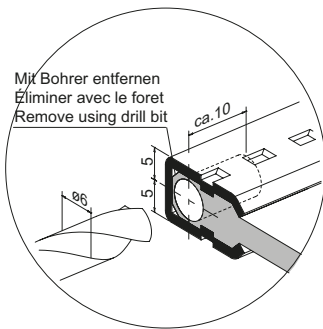
Bearbeitung Profil unten spiegelbildlich
 Usinage profilé inférieur réfléchi
 Preparation of profile at the bottom mirror image



Ansicht von innen
 Vue de l'intérieur
 View from inside

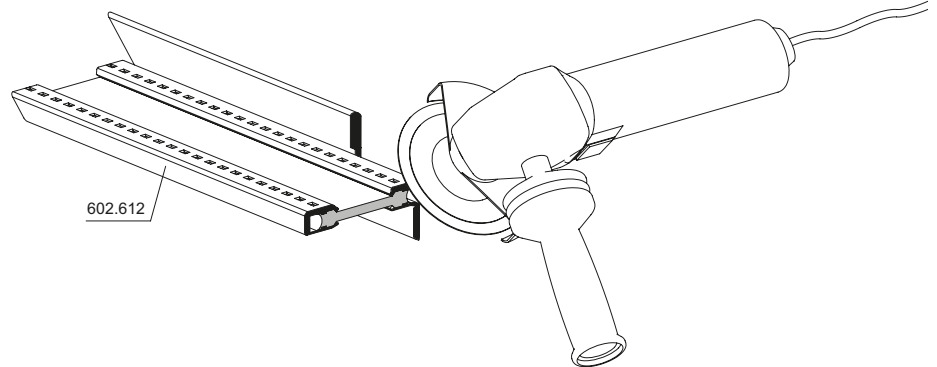
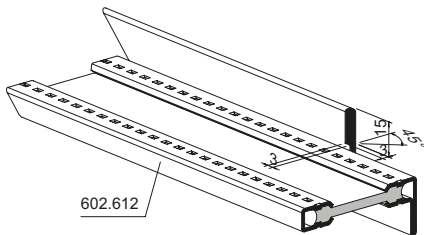
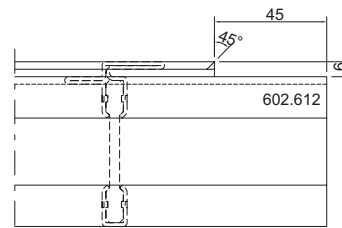
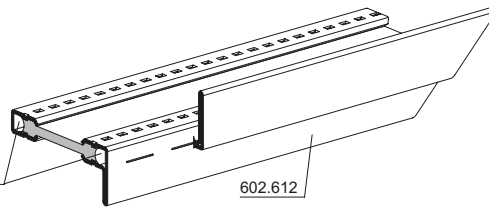


linksöffnend
 ouvrant à gauche
 lefthand

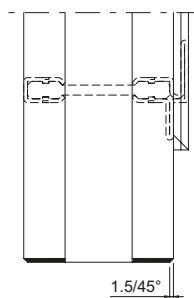
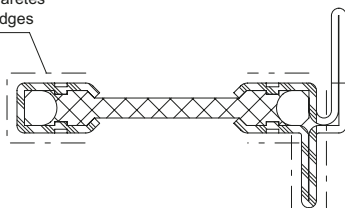


Mit Bohrer entfernen
 Éliminer avec le foret
 Remove using drill bit

Mit Bohrer entfernen
 Éliminer avec le foret
 Remove using drill bit



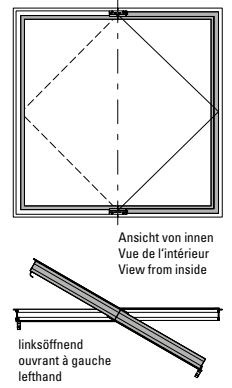
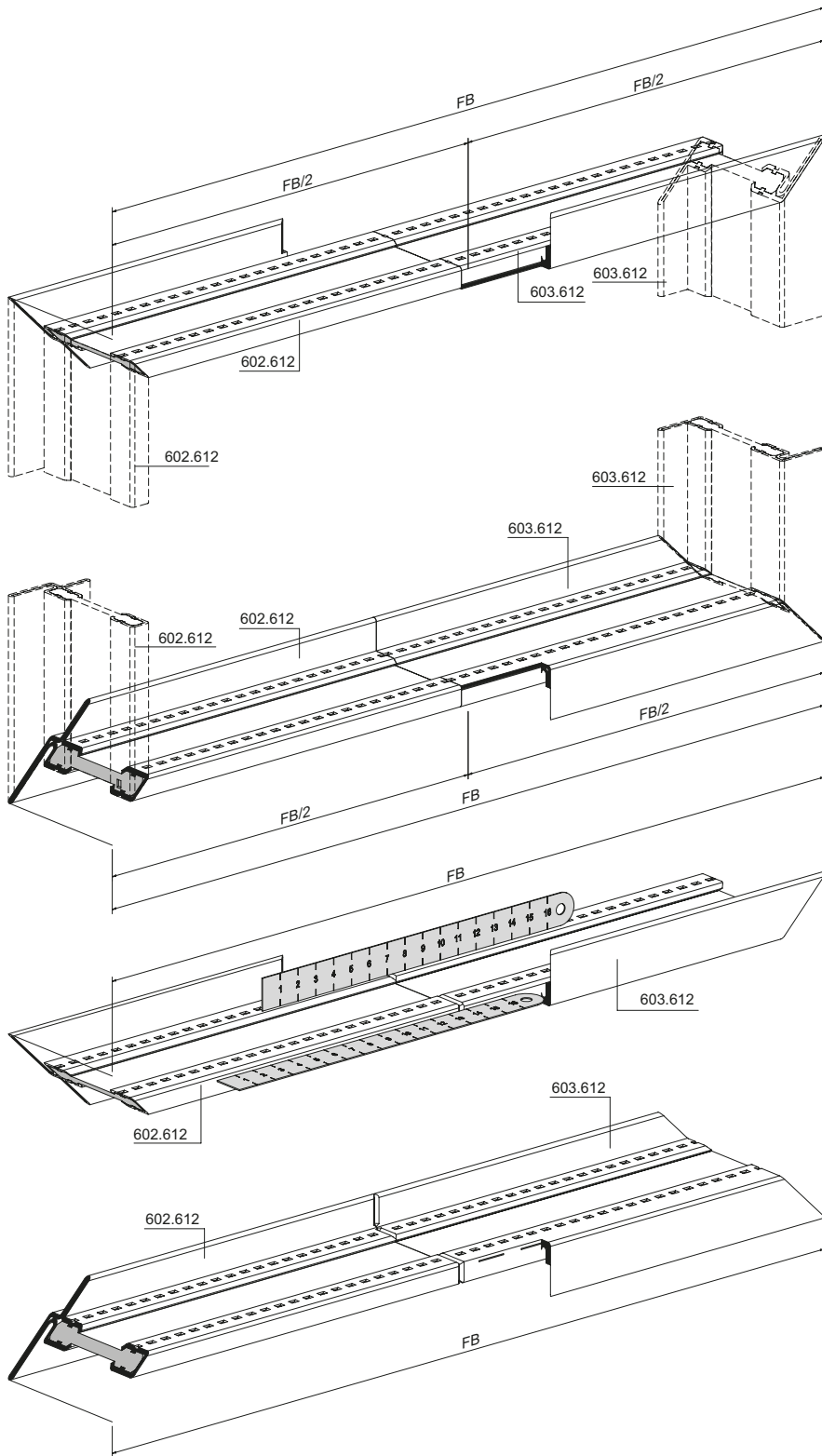
Kanten bearbeiten
 Usiner les arêtes
 Machine edges



Zusammenbau Flügel

Assemblage de vantail

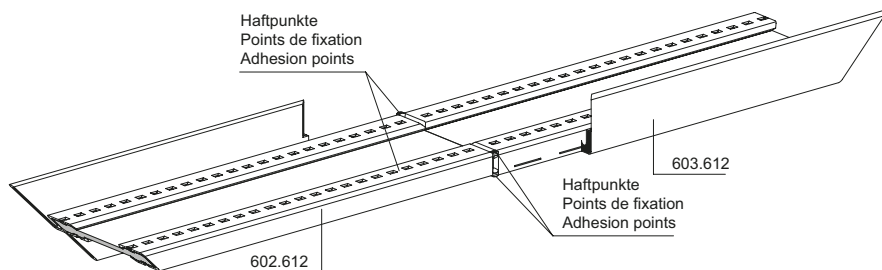
Assembly of sash



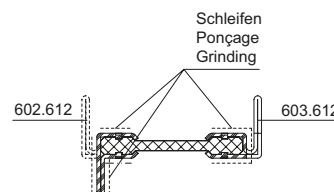
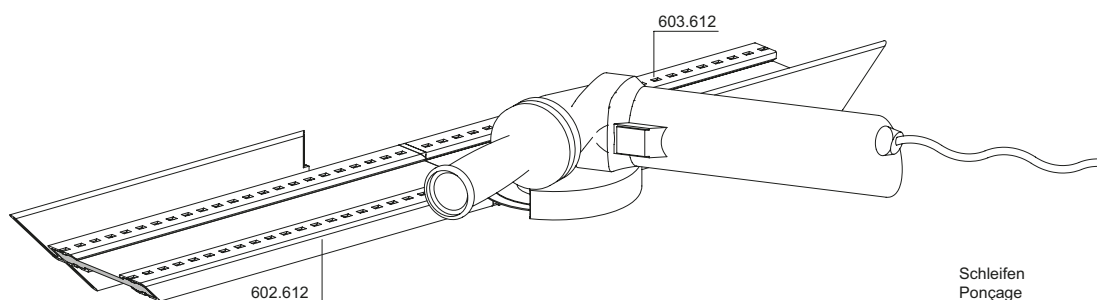
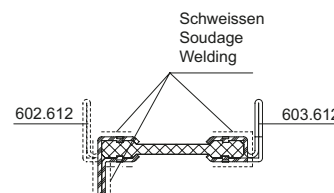
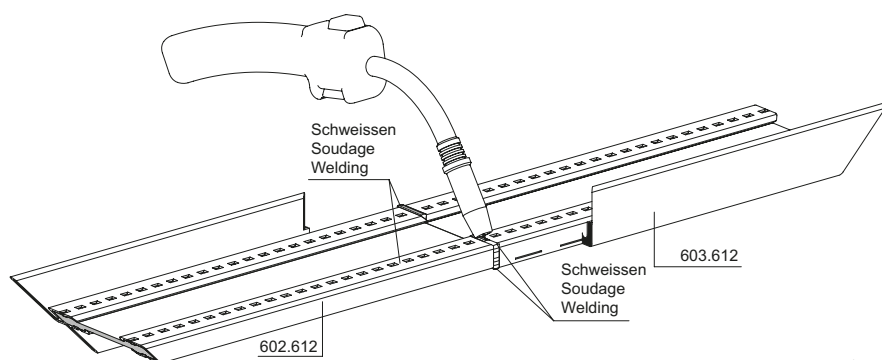
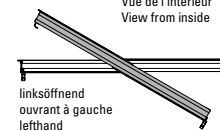
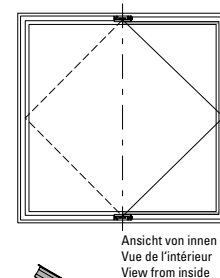
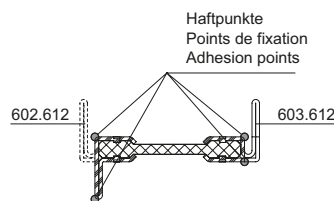
Zusammenbau Flügel

Assemblage de vantail

Assembly of sash



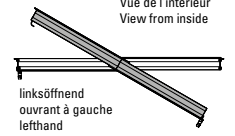
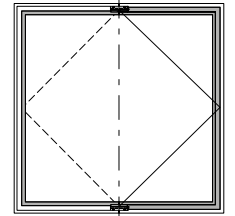
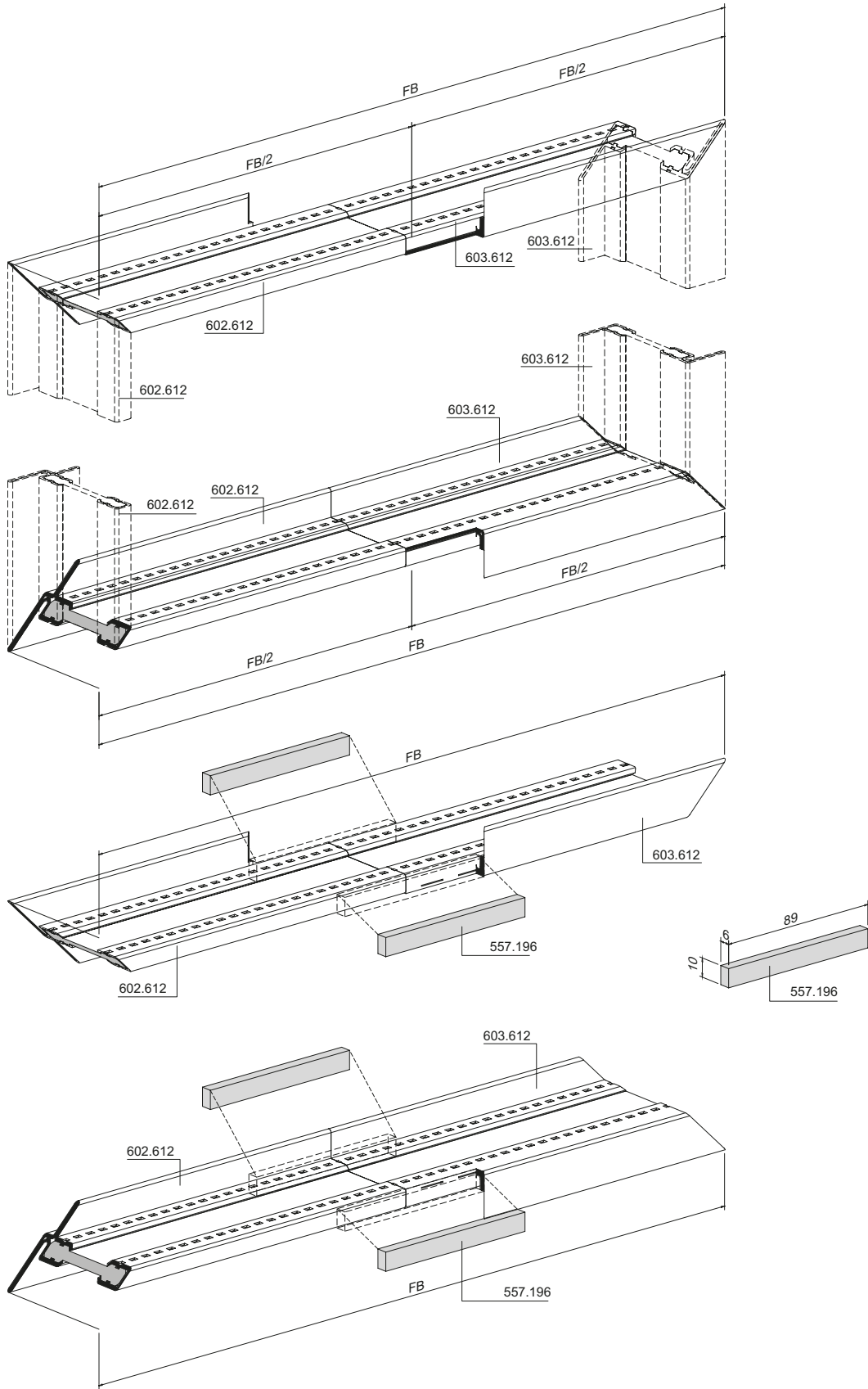
Bearbeitung Profil unten spiegelbildlich
 Usinage profilé inférieur réfléchi
 Preparation of profile at the bottom mirror image



Bearbeitung Flügel

Usinage vantail

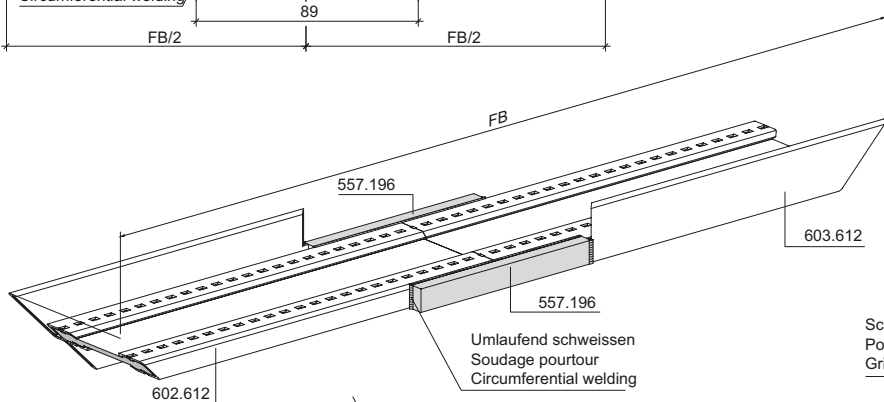
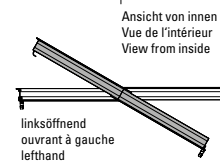
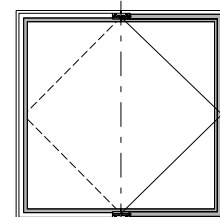
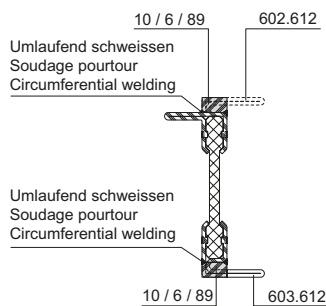
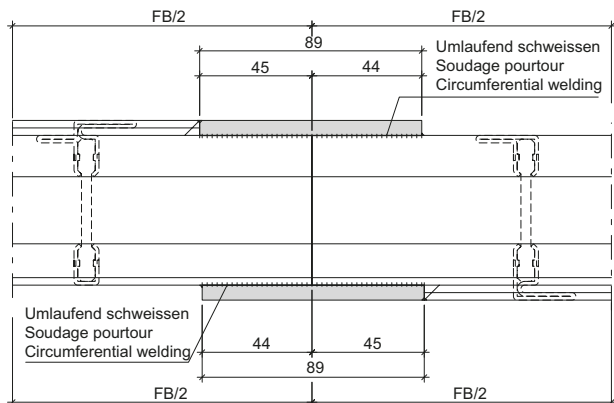
Preparing the sash



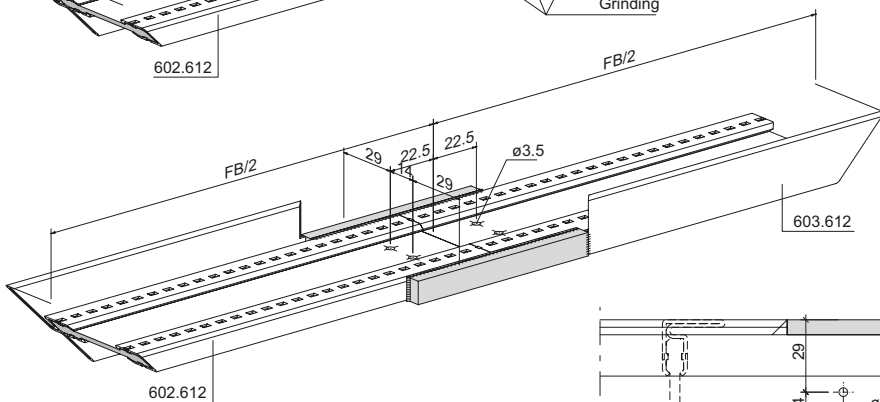
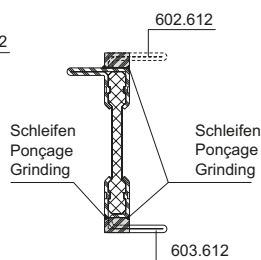
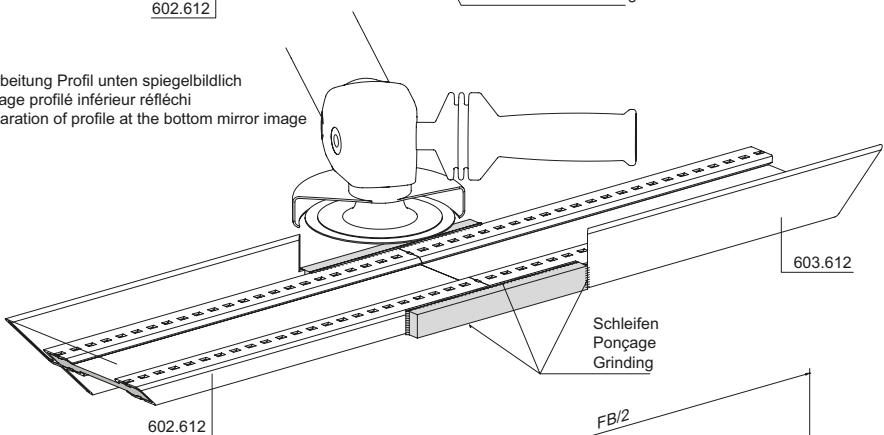
Bearbeitung Flügel

Usinage vantail

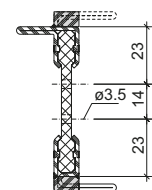
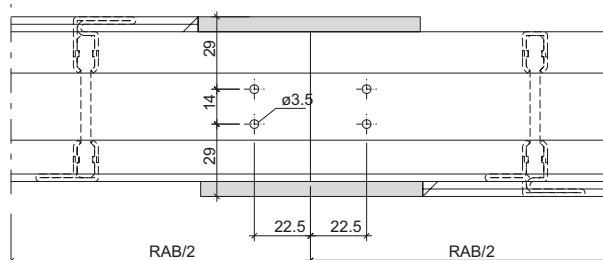
Preparing the sash



Bearbeitung Profil unten spiegelbildlich
 Usinage profilé inférieur réfléchi
 Preparation of profile at the bottom mirror image



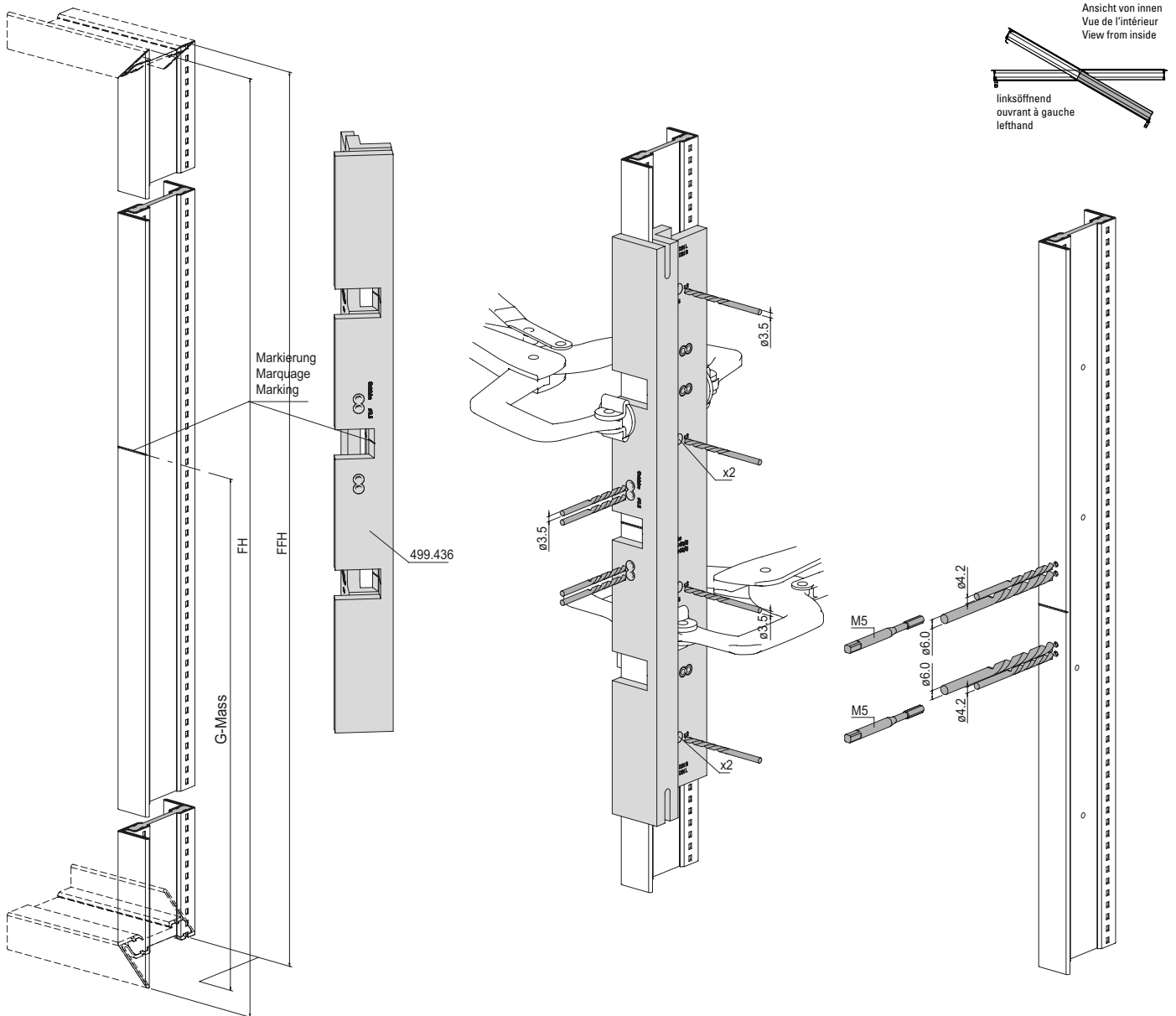
Flügel oben (Ansicht von oben)
 Vantail en haut (vue du haut)
 Sash at top (view from above)



**Bohrlehre 499.436 für
 Getriebe 557.187 und
 Fenstergriff 557.185
 Flügel**

**Gabarit de perçage 499.436 pour
 crémonne 557.187 et poignée de
 fenêtre 557.185
 Vantail**

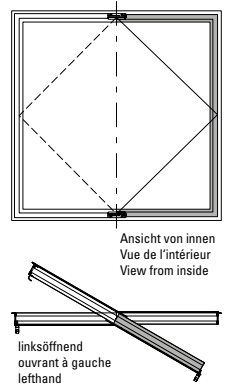
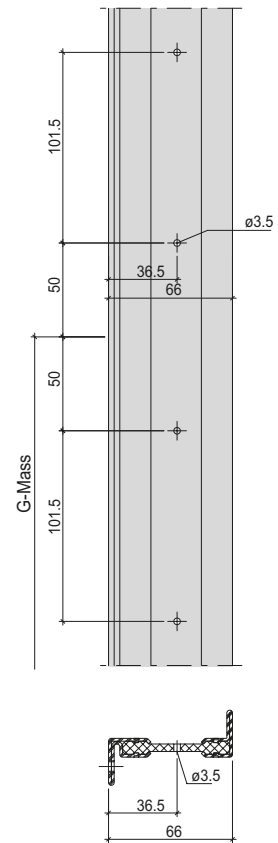
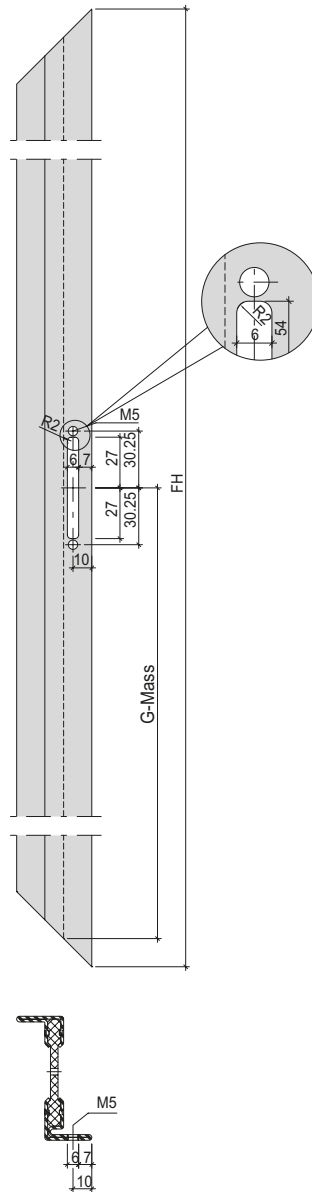
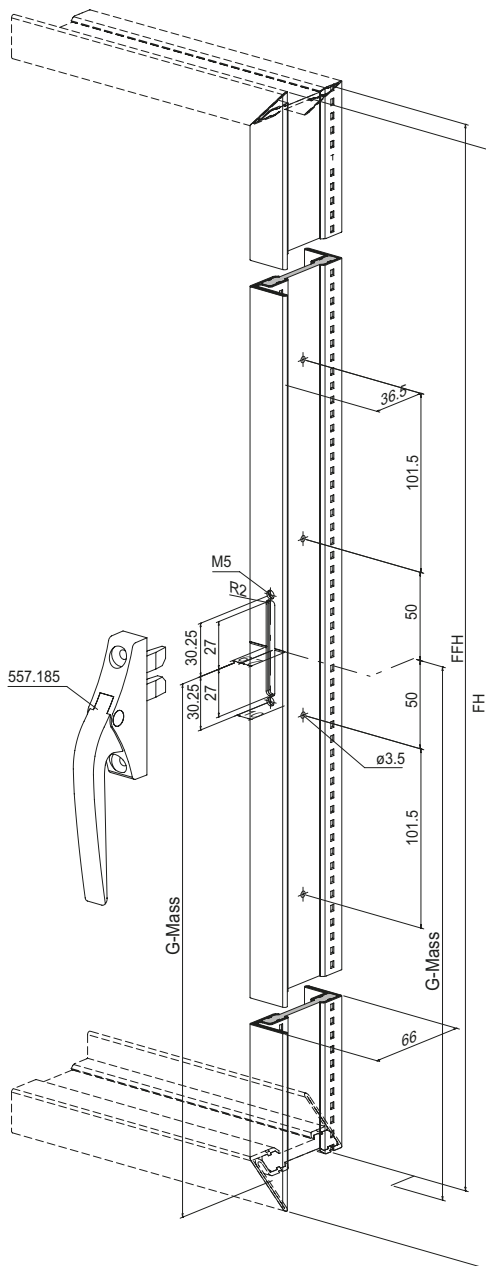
**Drilling jig 499.436 for
 mechanism 557.187 and
 window handle 557.185
 Sash**



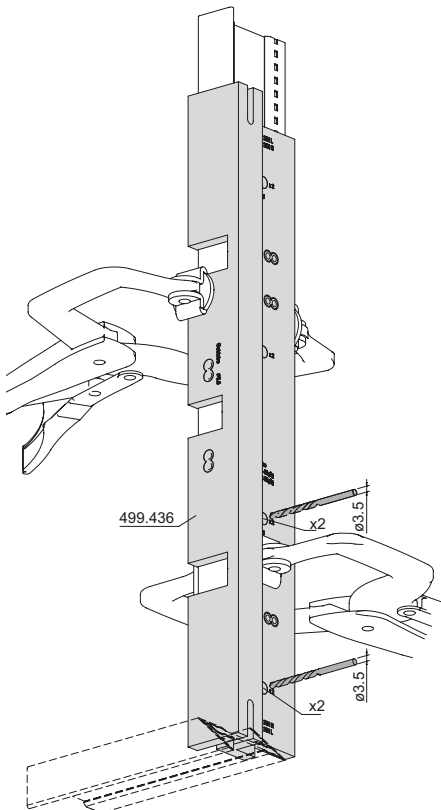
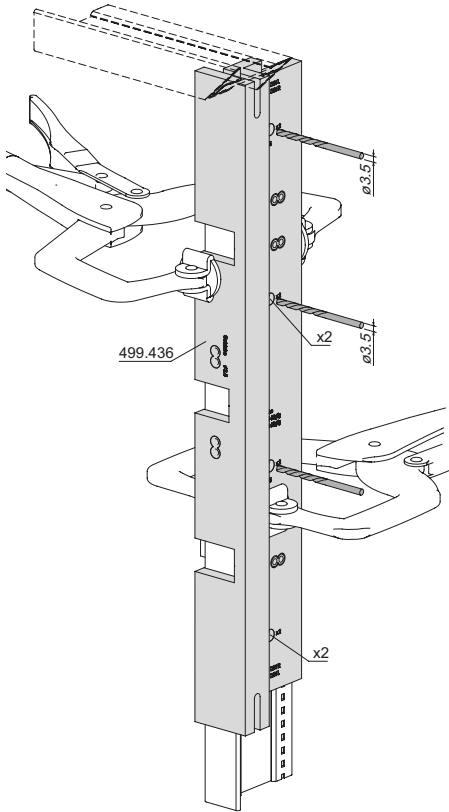
Bohrbild und Fräsung
 Getriebe 557.187 und
 Fenstergriff 557.185
 Flügel

Schéma de perçage et fraisage
 Crémone 557.187 et poignée de
 fenêtre 557.185
 Vantail

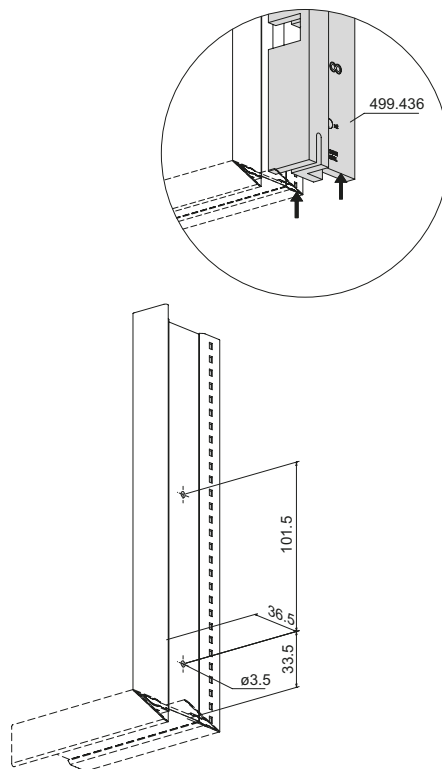
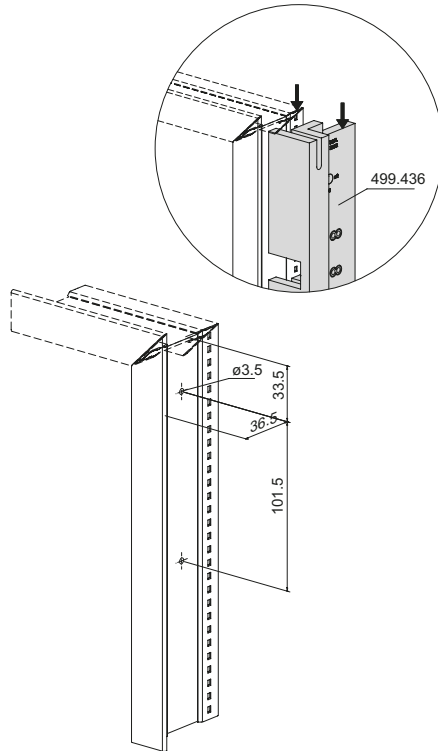
Drilling pattern and milling
 Mechanisme 557.187 and
 window handle 557.185
 Sash



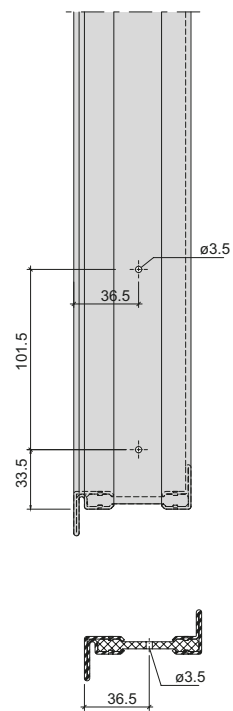
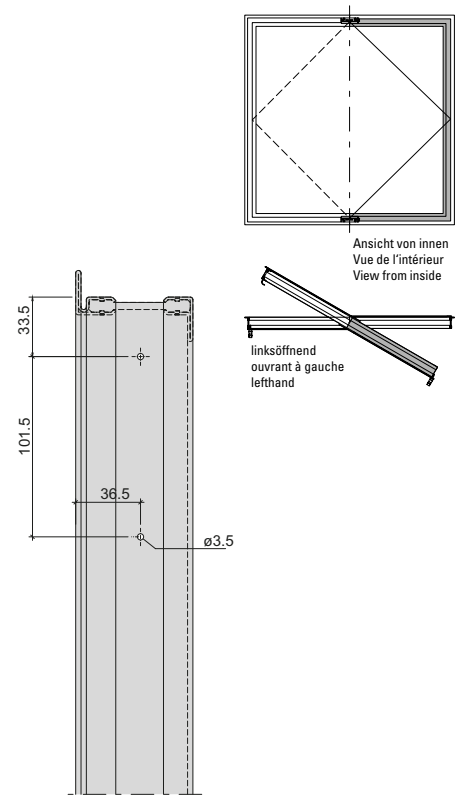
Bohrlehre 499.436 für
 Getriebeverlängerung 557.188
 Flügel



Gabarit de perçage 499.436 pour
 prolongement de la crémonne
 557.188 Vantail



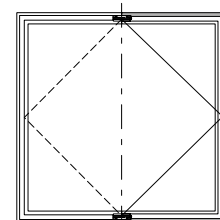
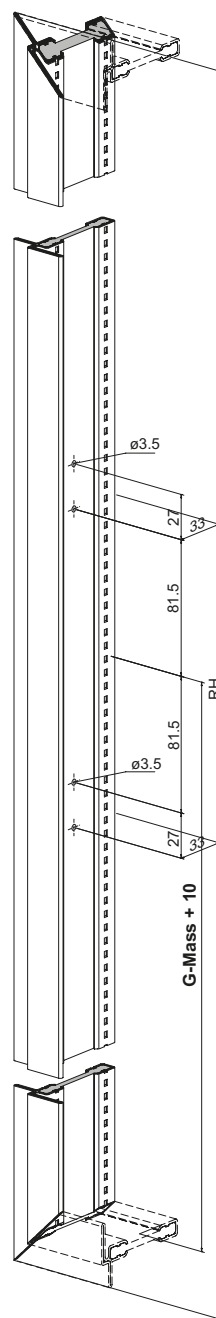
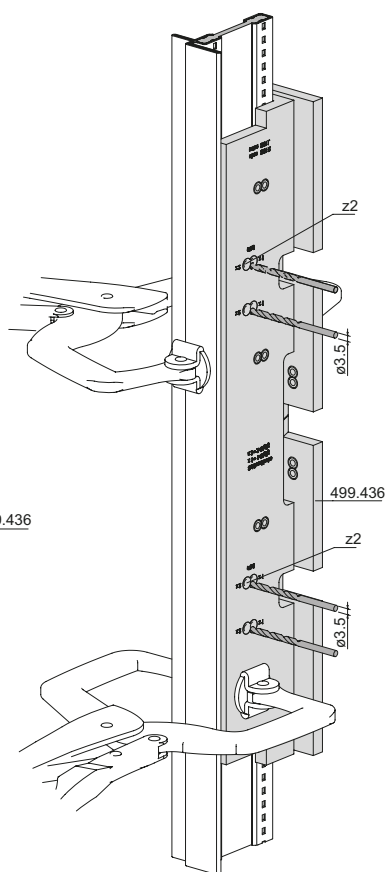
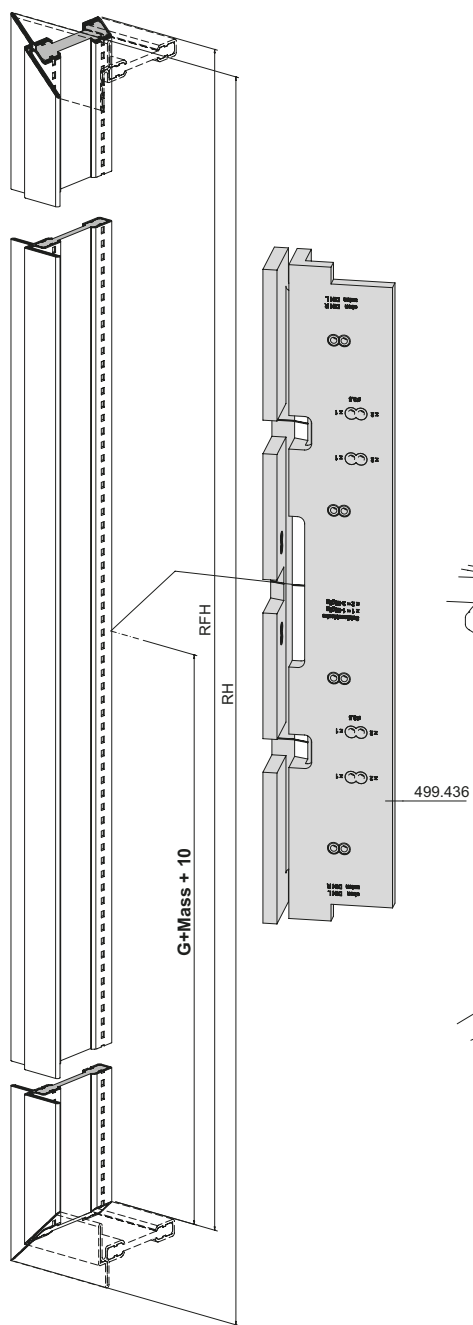
Drilling jig 499.436 for
 gearbox extension 557.188
 Sash



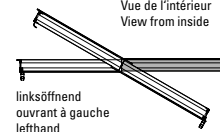
Bohrlehre und Bohrbild 499.436 für
 Schliessblech 557.189 beim Getriebe
 Rahmen

Gabarit de perçage et schéma
 de perçage 499.436 pour gâche
 557.189 pour crémonne
 Cadre

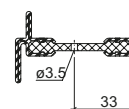
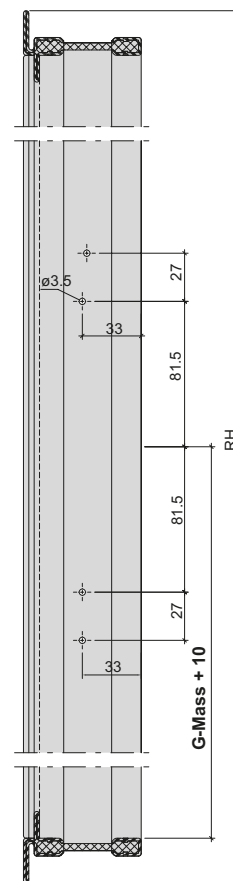
Drilling jig and drilling pattern
 499.436 for striking plate 557.189
 for mechanism
 Frame



Ansicht von innen
 Vue de l'intérieur
 View from inside



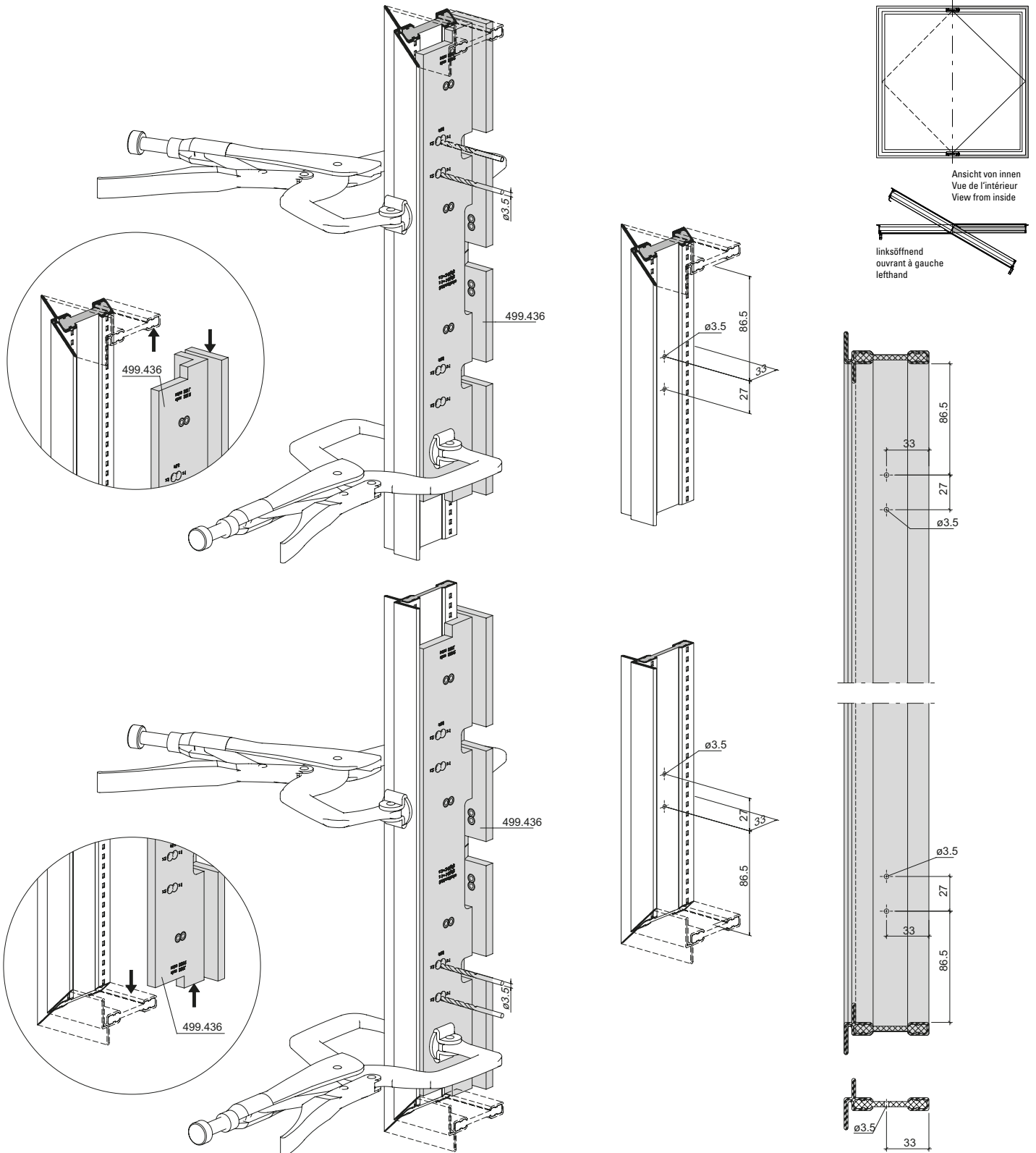
linksöffnend
 ouvrant à gauche
 lefthand



Bohrlehre 499.436 für
 Schliessbleche 557.189
 Rahmen

Gabarit de perçage 499.436 pour
 gâches 557.189
 Cadre

Drilling jig 499.436 for
 striking plates 557.189,
 Frame



Beschlageinbau
Montage des ferrures
Installation of fittings

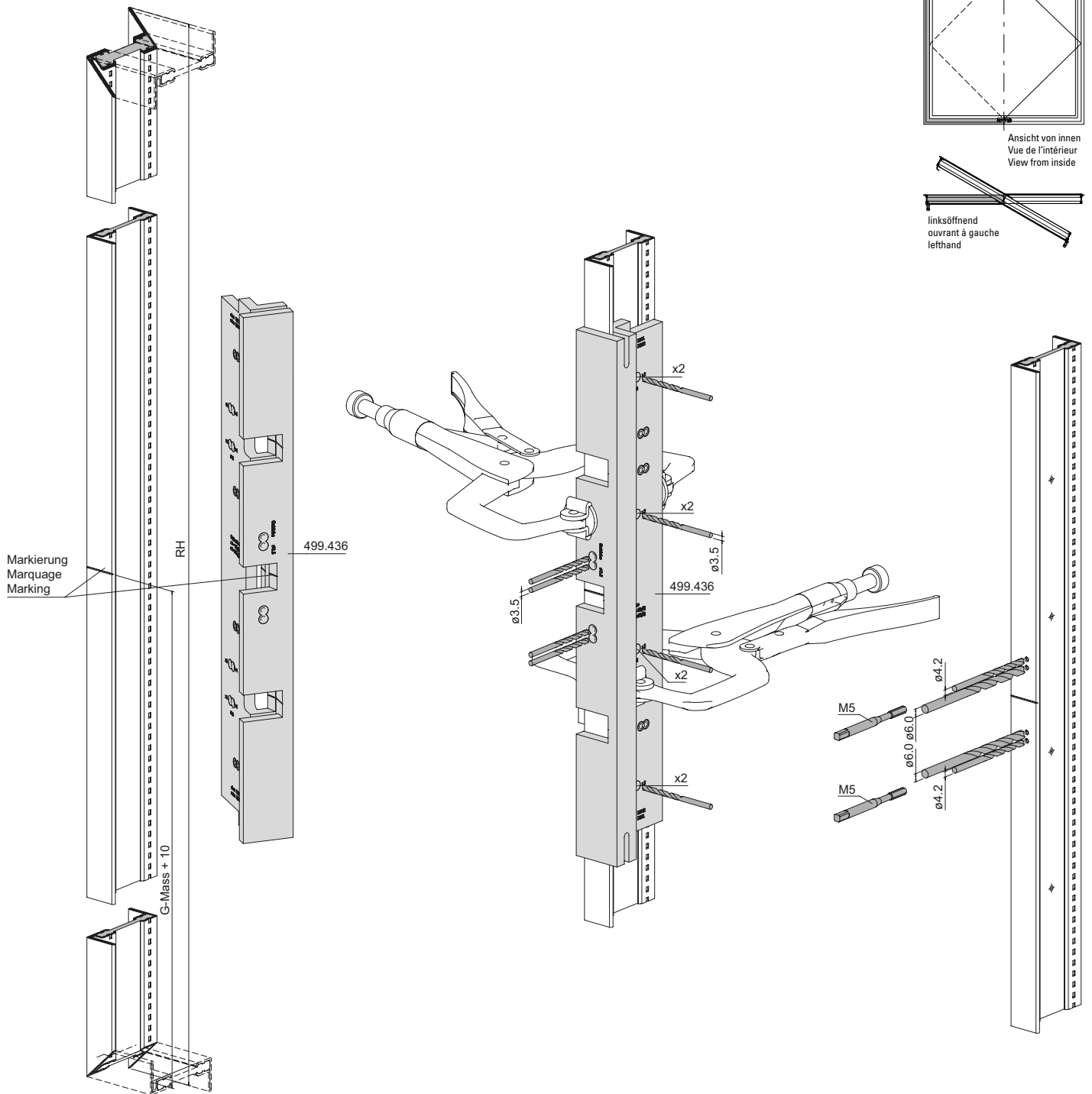
Janisol Arte
Janisol Arte
Janisol Arte

2.0

Bohrlehre 499.436 für
 Getriebe 557.187
 und Fenstergriff 557.185
 Rahmen

Gabarit de perçage 499.436
 pour crémonne 557.187
 et poignée de fenêtre 557.185
 Cadre

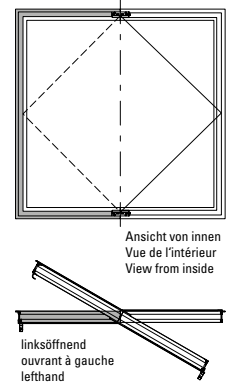
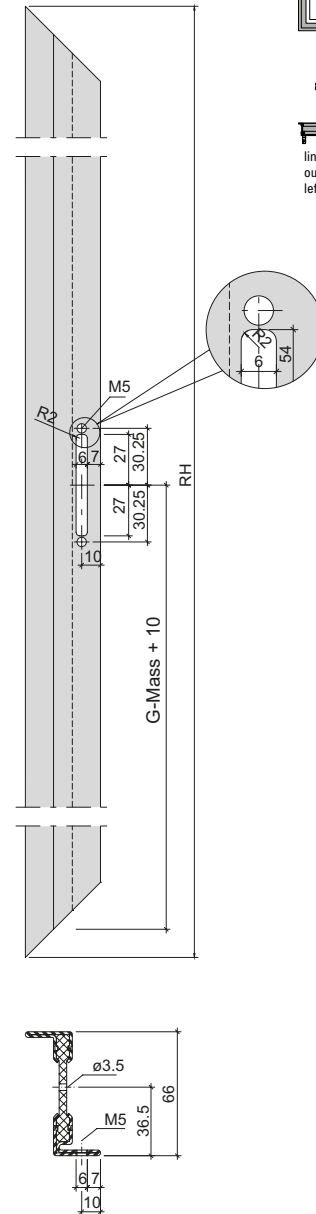
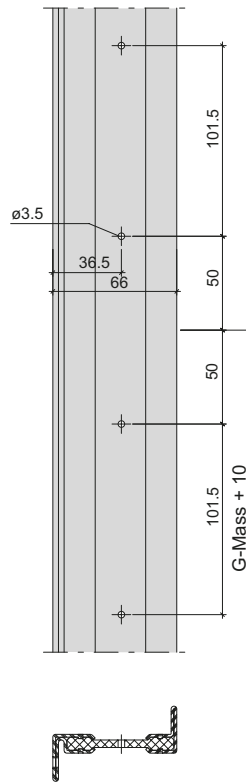
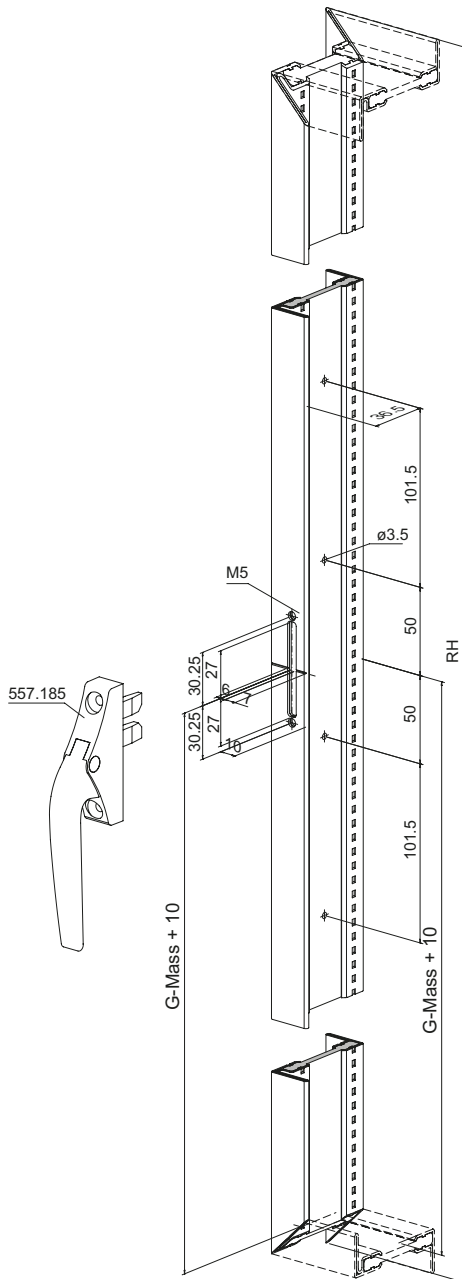
Drilling jig 499.436 for
 mechanism 557.187
 and window handle 557.185
 Frame



Bohrbild und Fräsung
 für Getriebe 557.187
 und Fenstergriff 557.185
 Rahmen

Schéma de perçage et fraisage
 pour crémonoie 557.187
 et poignée de fenêtre 557.185
 Cadre

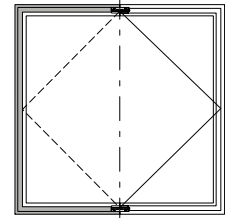
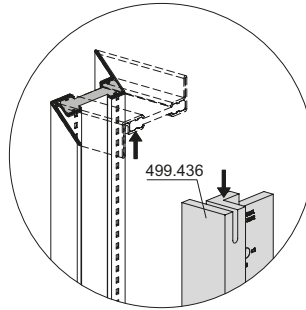
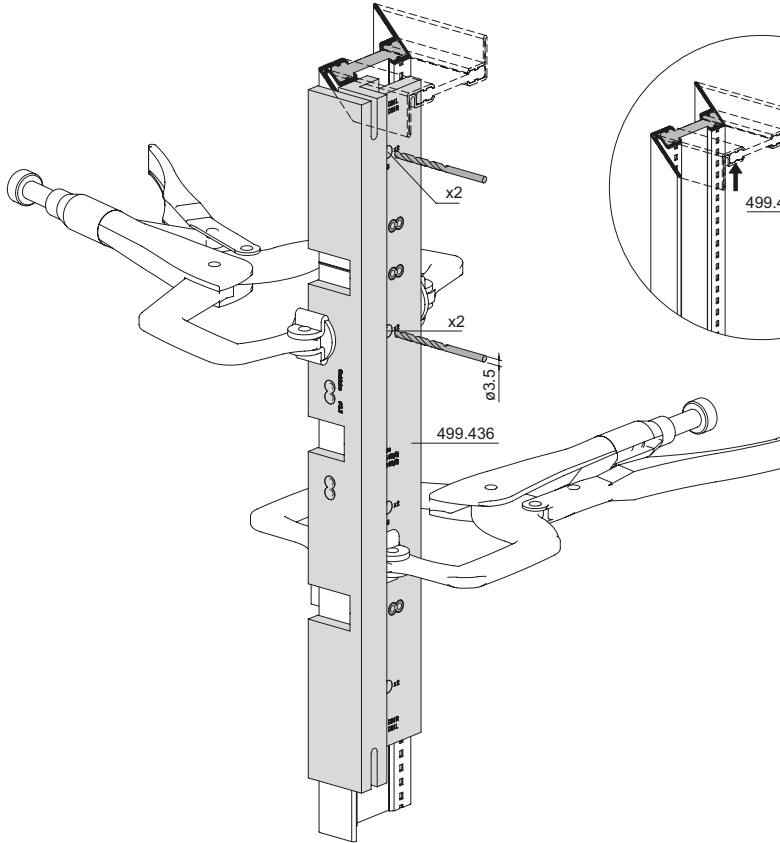
Drilling pattern and machining
 for mechanism 557.187
 and window handle 557.185
 Frame



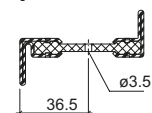
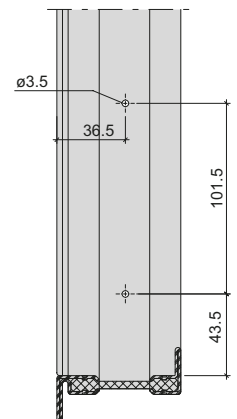
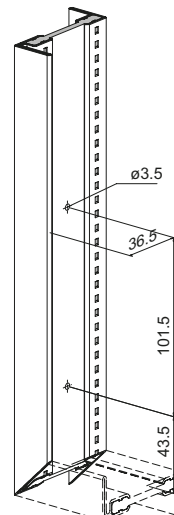
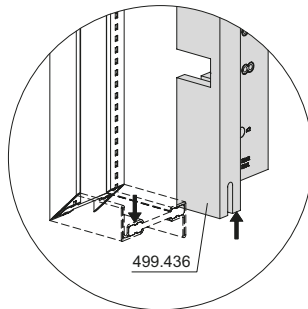
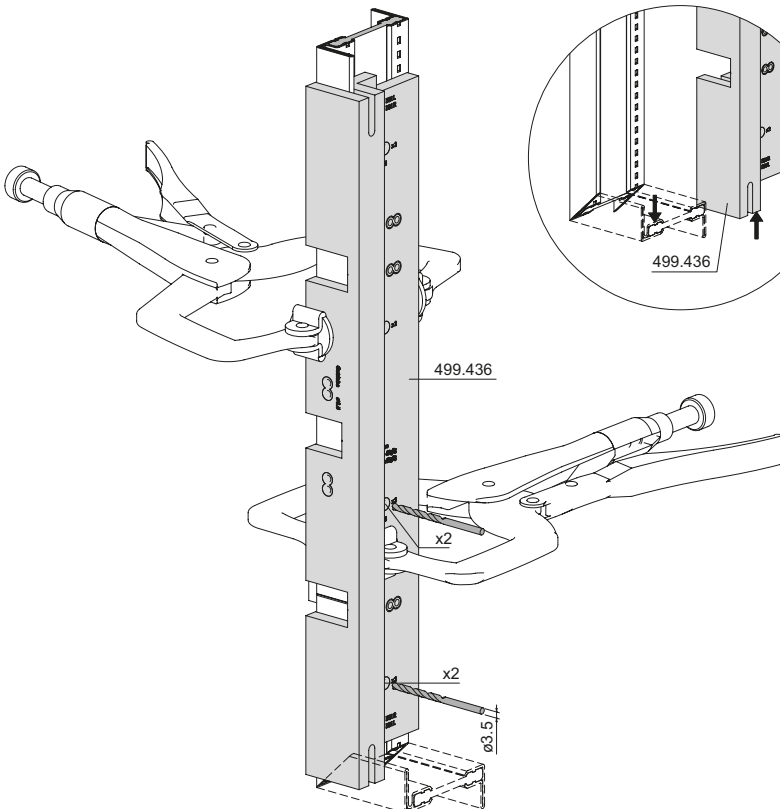
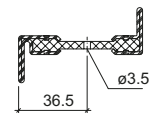
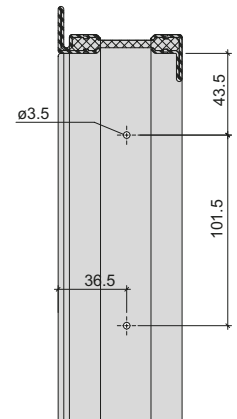
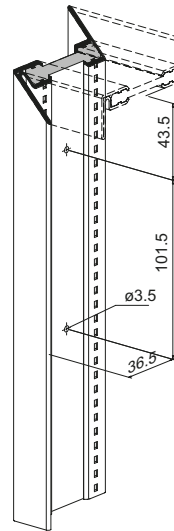
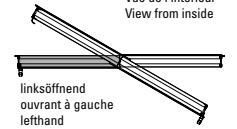
Bohrlehre 499.436 für
 Getriebeverlängerung 557.188
 Rahmen oben und unten

Gabarit de perçage 499.436 pour
 prolongement de la crémonne
 557.188 Cadre en haut et en bas

Drilling jig 499.436 for
 gearbox extension 557.188
 Frame top and bottom



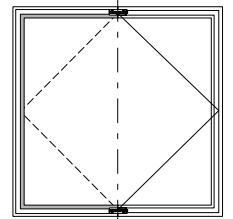
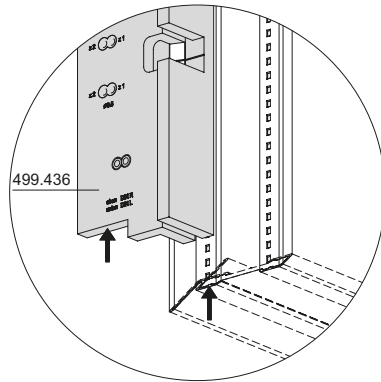
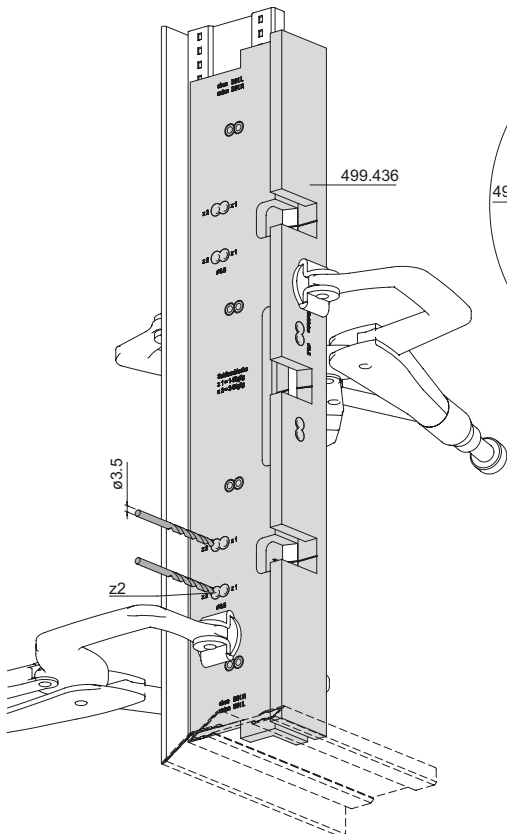
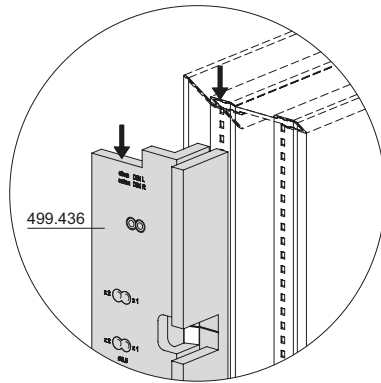
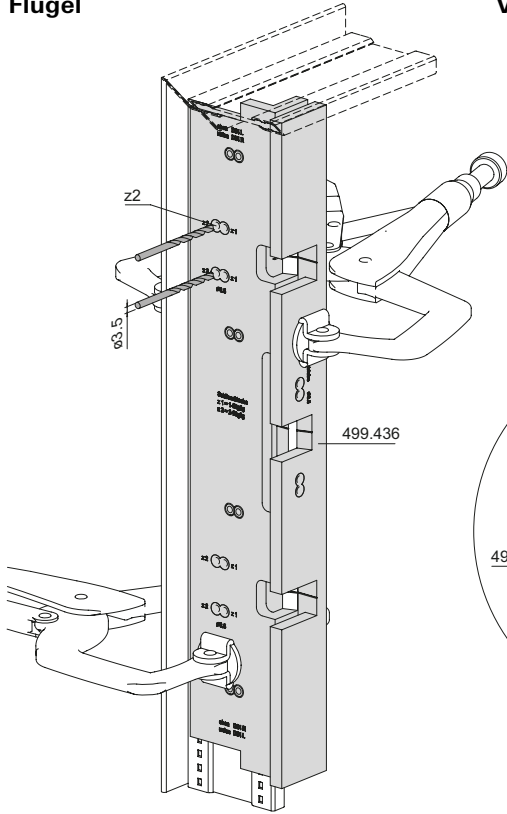
Ansicht von innen
 Vue de l'intérieur
 View from inside



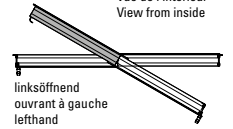
Bohrlehre 499.436 für
 Schliessbleche 557.189
 oben und unten
 Flügel

Gabarit de perçage 499.436 pour
 gâches 557.189
 en haut et en bas
 Vantail

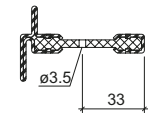
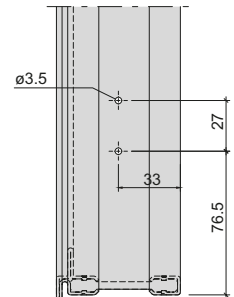
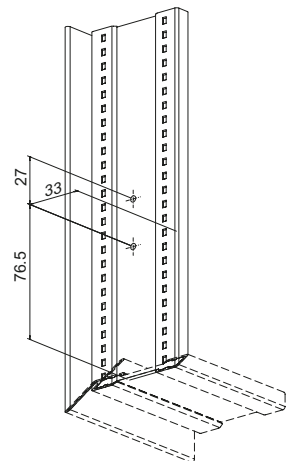
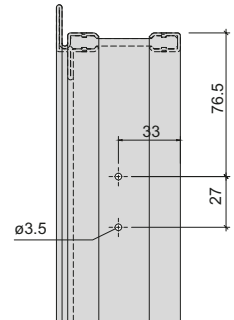
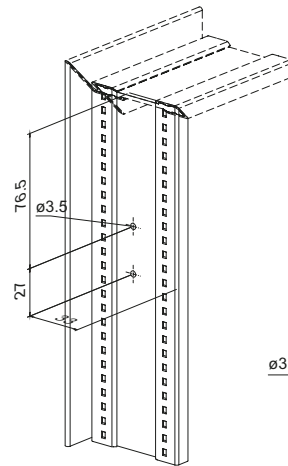
Drilling jig 499.436 for
 striking plates 557.189,
 top and bottom
 Sash



Ansicht von innen
 Vue de l'intérieur
 View from inside



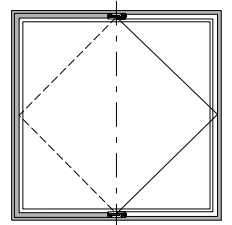
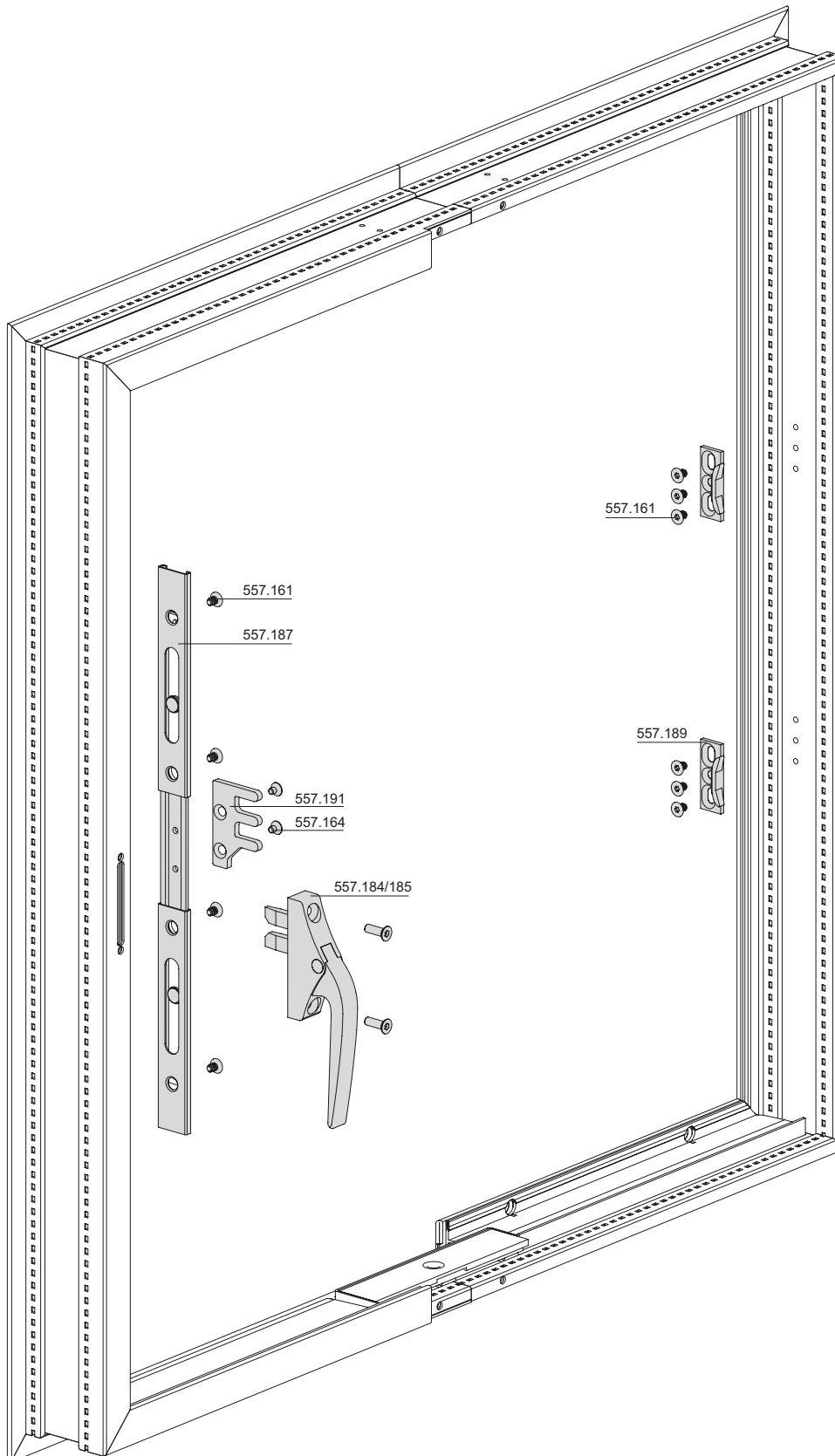
linksöffnend
 ouvrant à gauche
 lefthand



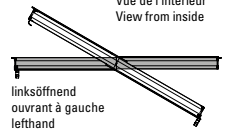
Einbau Beschlag
Rahmen

Montage de la ferrure
Cadre

Installation of fittings
Frame



Ansicht von innen
Vue de l'intérieur
View from inside

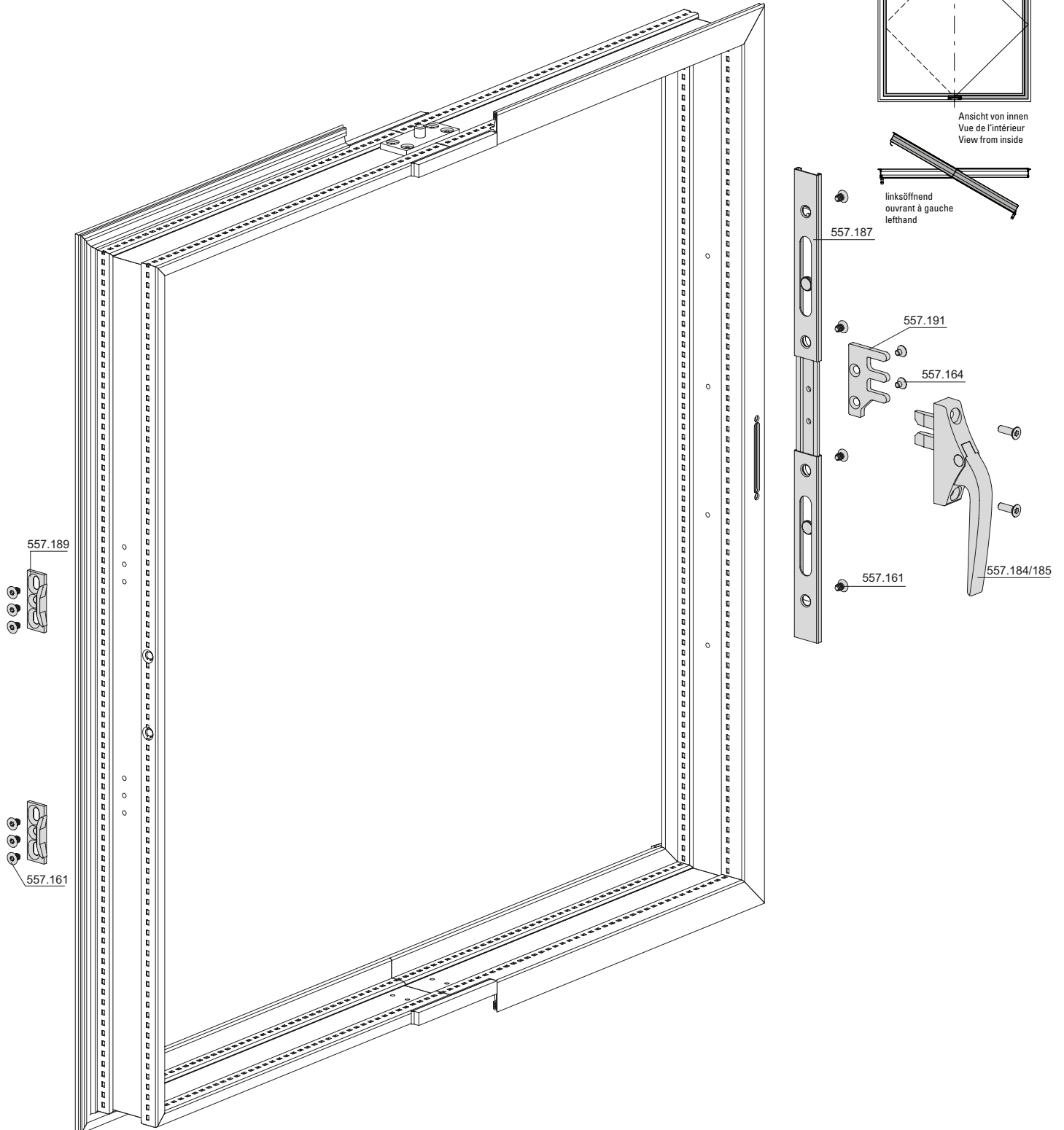


linksöffnend
ouvrant à gauche
lefthand

Einbau Beschlag
Flügel

Montage de la ferrure
Vantail

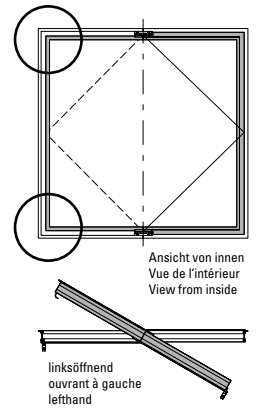
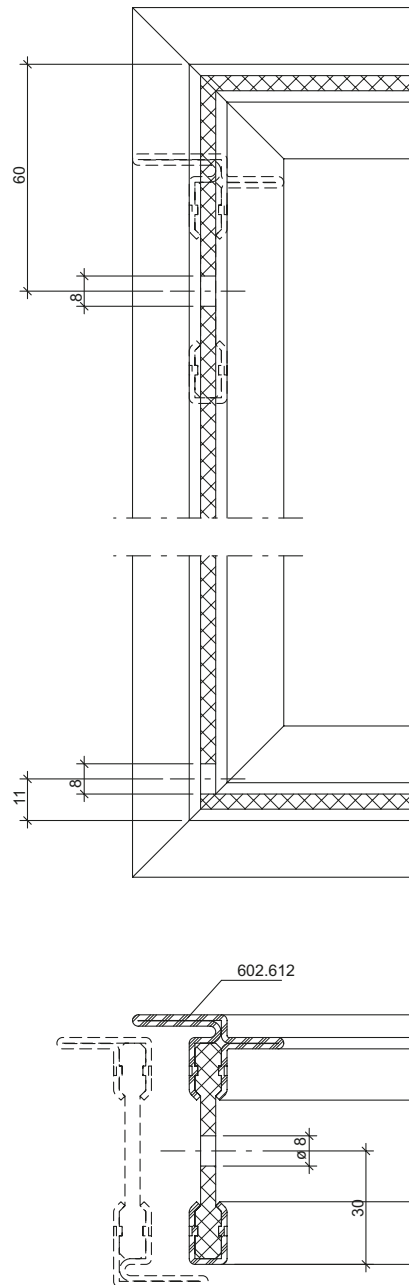
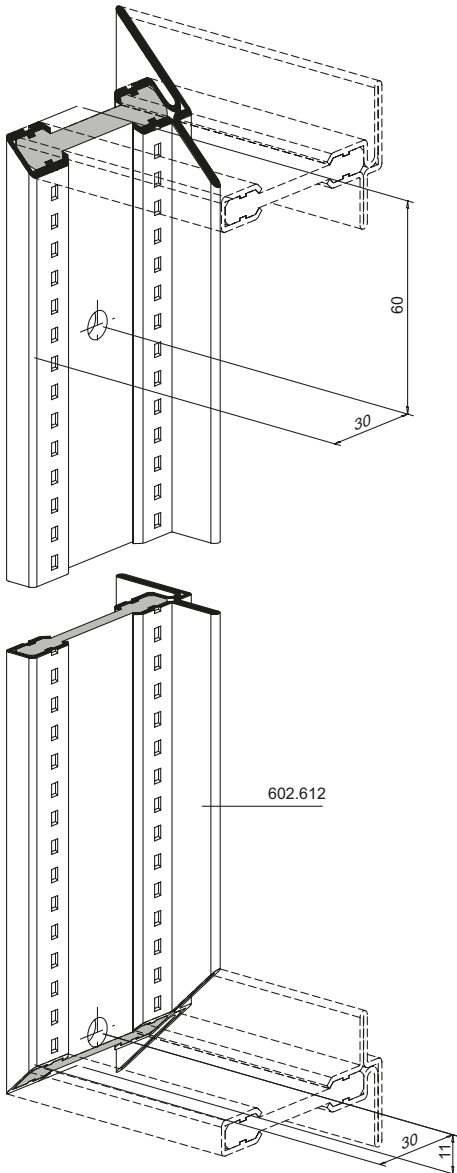
Installation of fittings
Sash



Glasfalzbelüftung
Fensterflügel auswärts öffnend

Aération de feuillure
Vantail de fenêtre
ouvrant vers l'extérieur

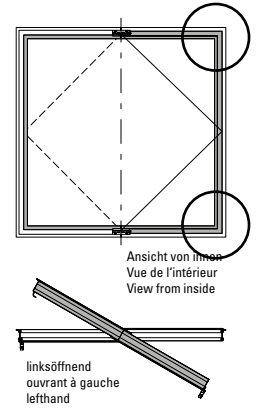
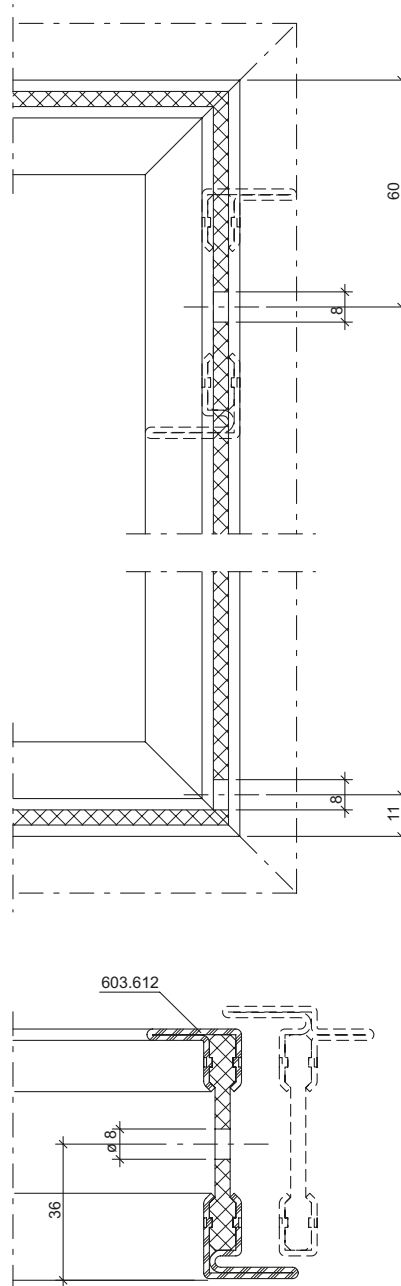
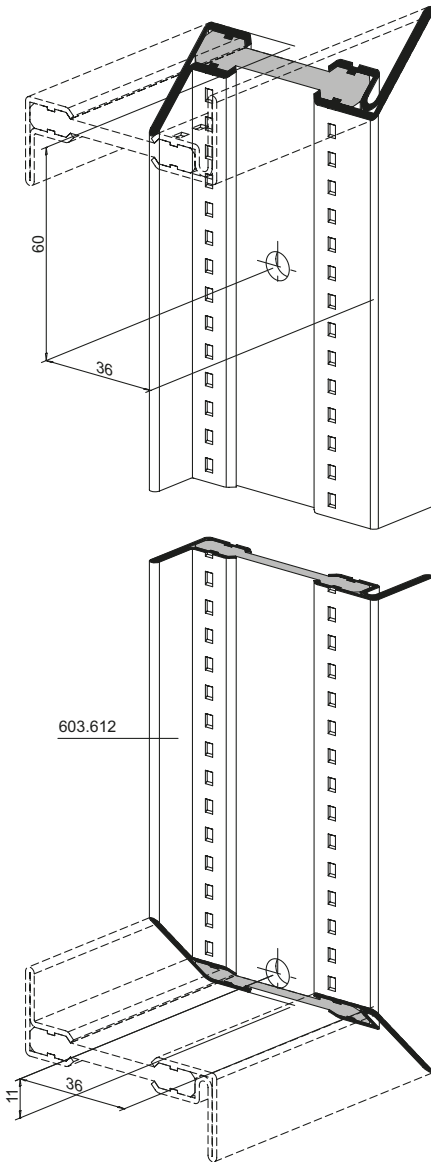
Glazing rebate ventilation
Window sash outward opening



Glasfalzbelüftung
Fensterflügel einwärts öffnend

Aération de feuillure
Vantail de fenêtre
ouvrant vers l'intérieur

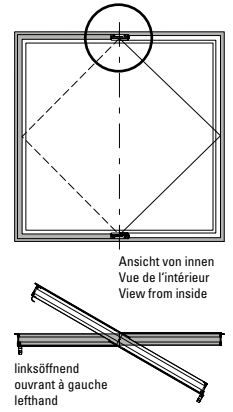
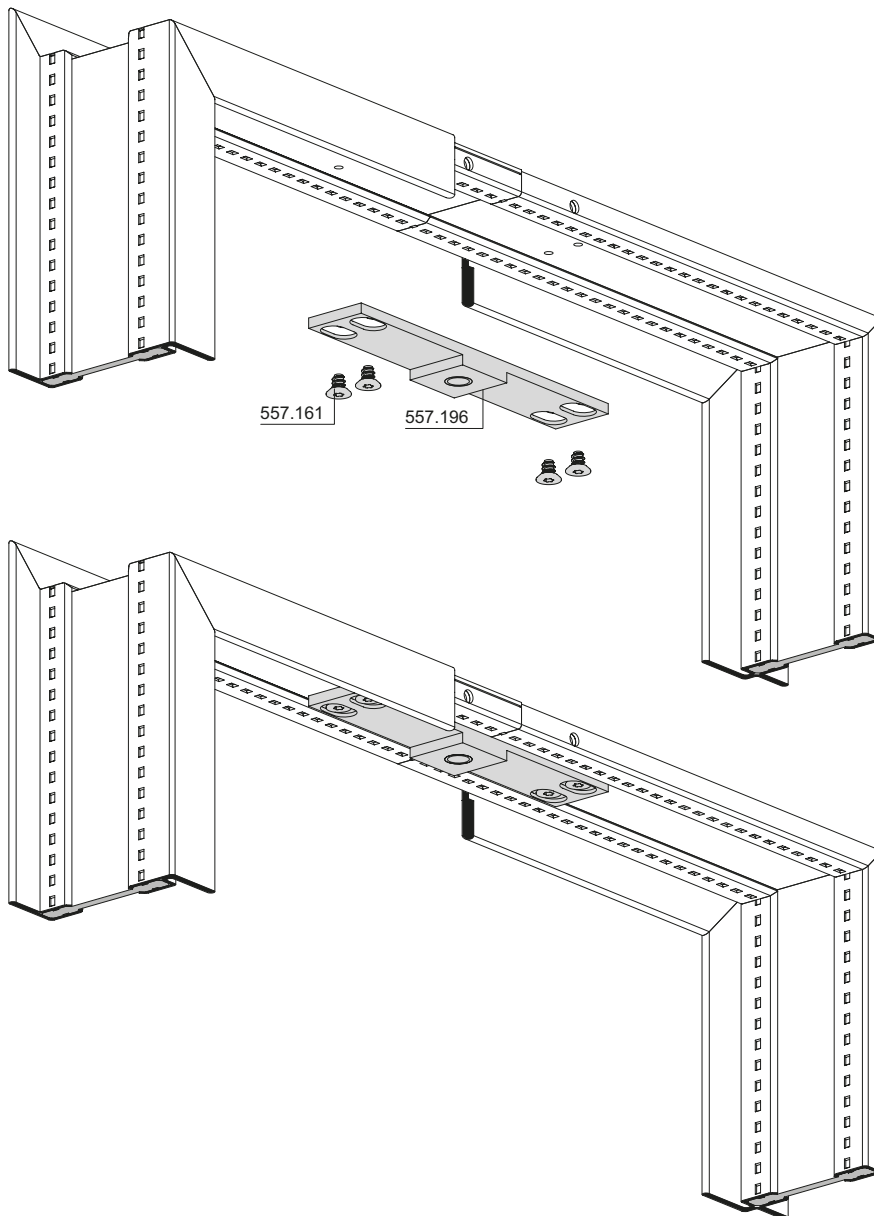
Glazing rebate ventilation
Window sash inward opening



Einbau Wendelager oben

Montage du pivot supérieur

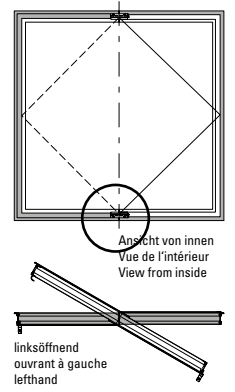
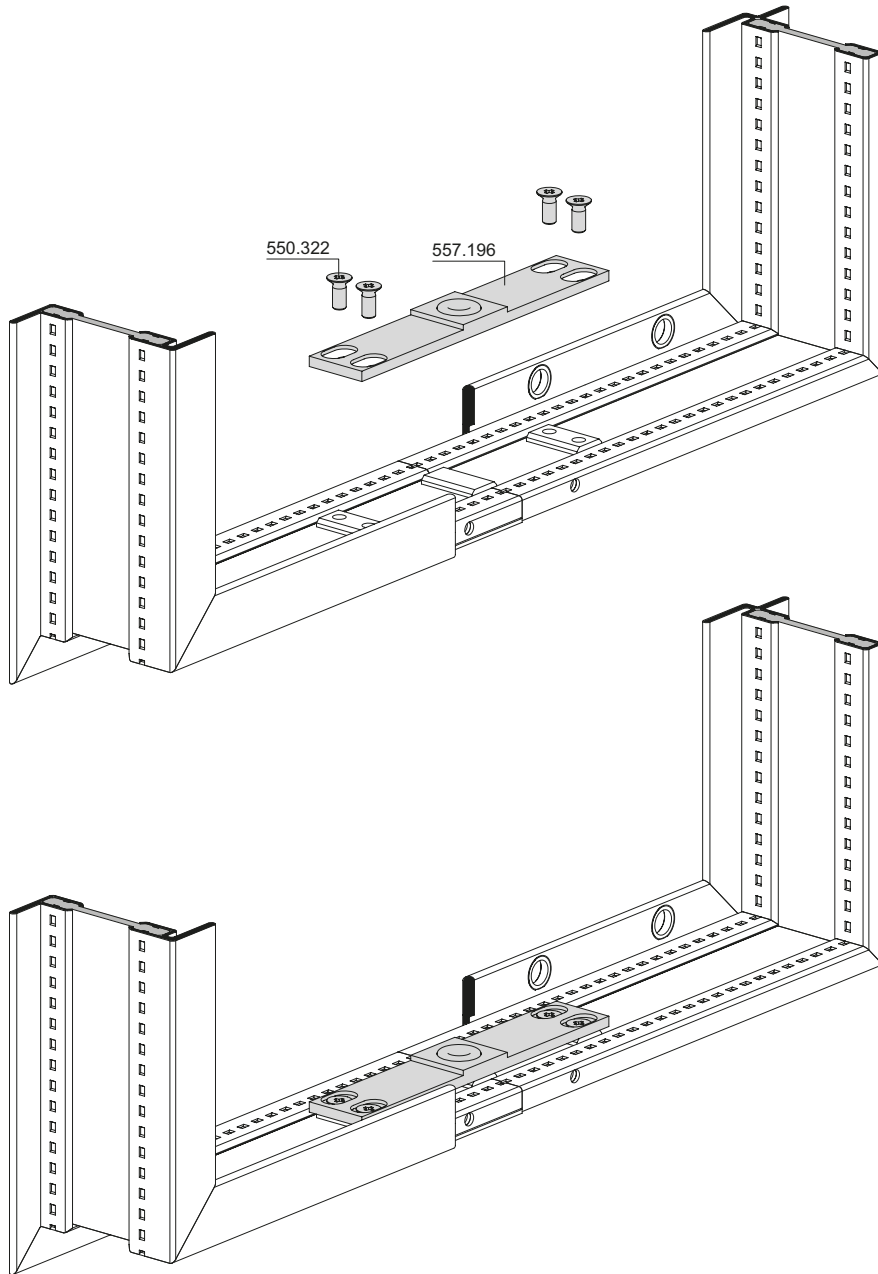
Installation of top pivot bearing



Einbau Wendelager unten

Montage du pivot inférieur

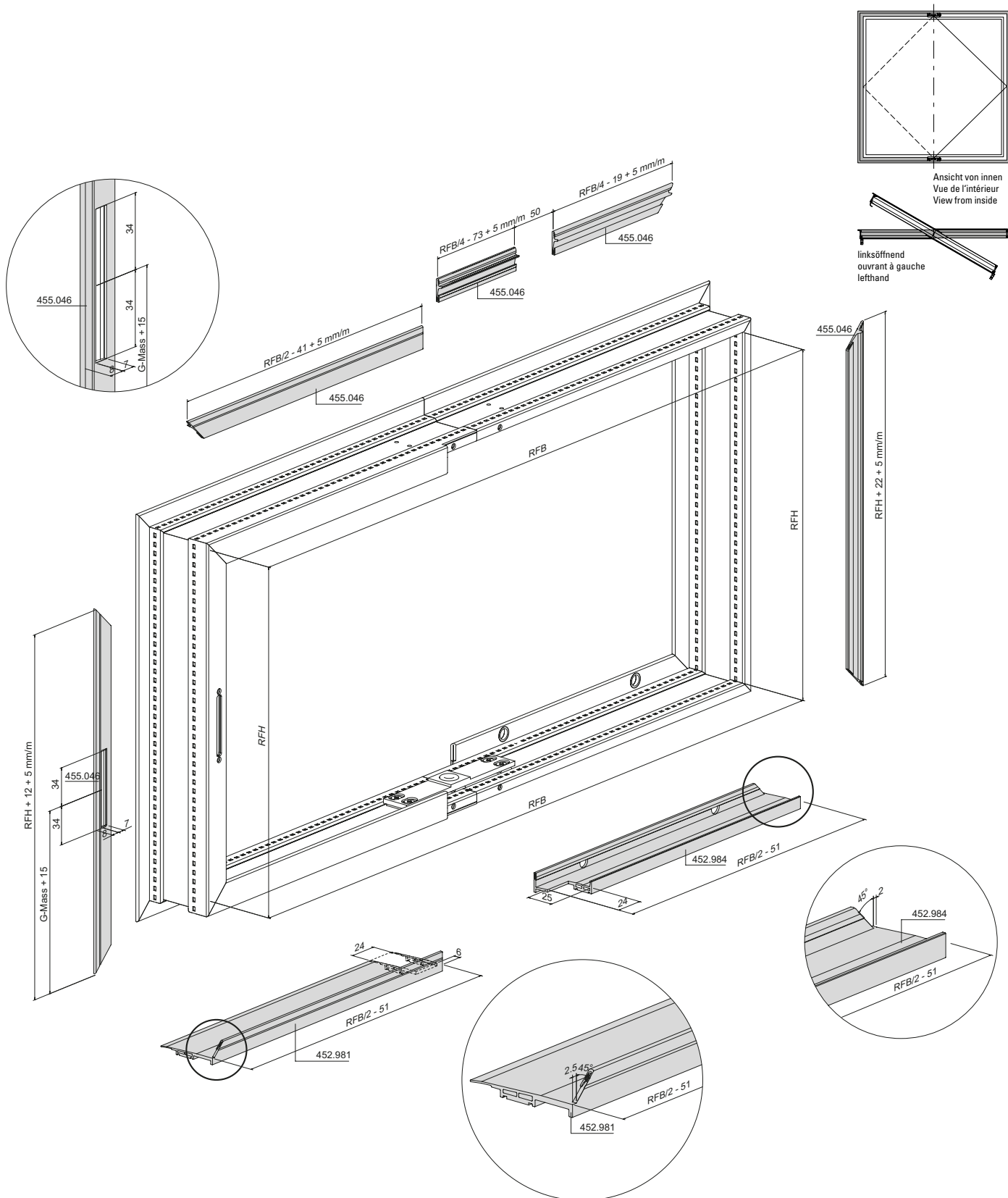
Installation of bottom pivot bearing



Bearbeitung Dichtung und
 Entwässerung
 Rahmen

Usinage joint et drainage
 Cadre

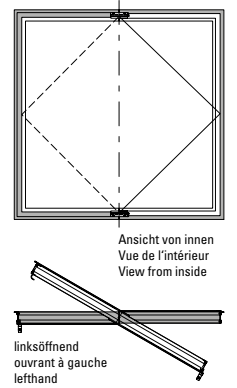
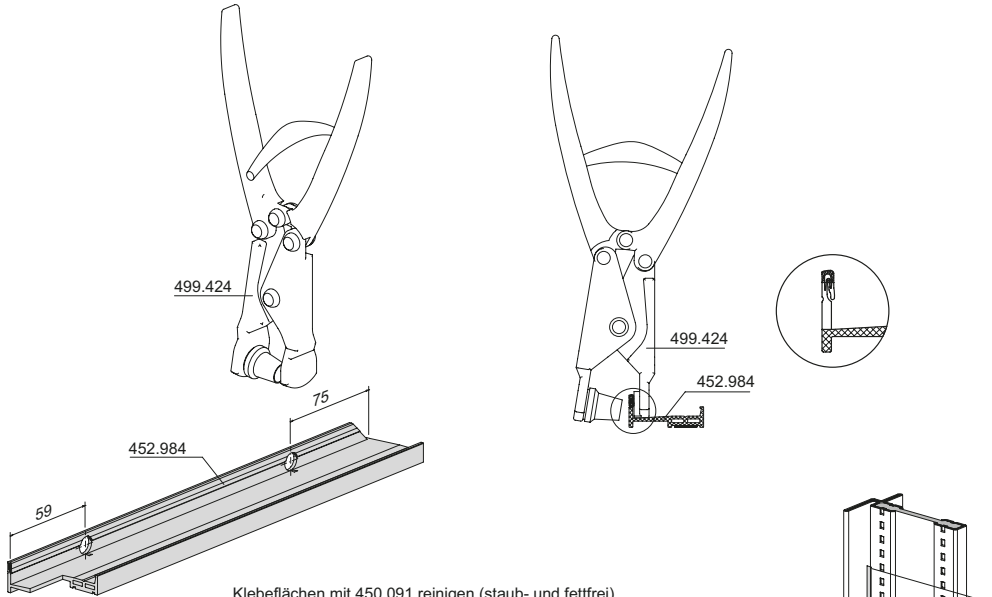
Preparation of weatherstrip
 and drainage
 Frame



Vorbereitung für Einbau
Entwässerungsprofil 452.984

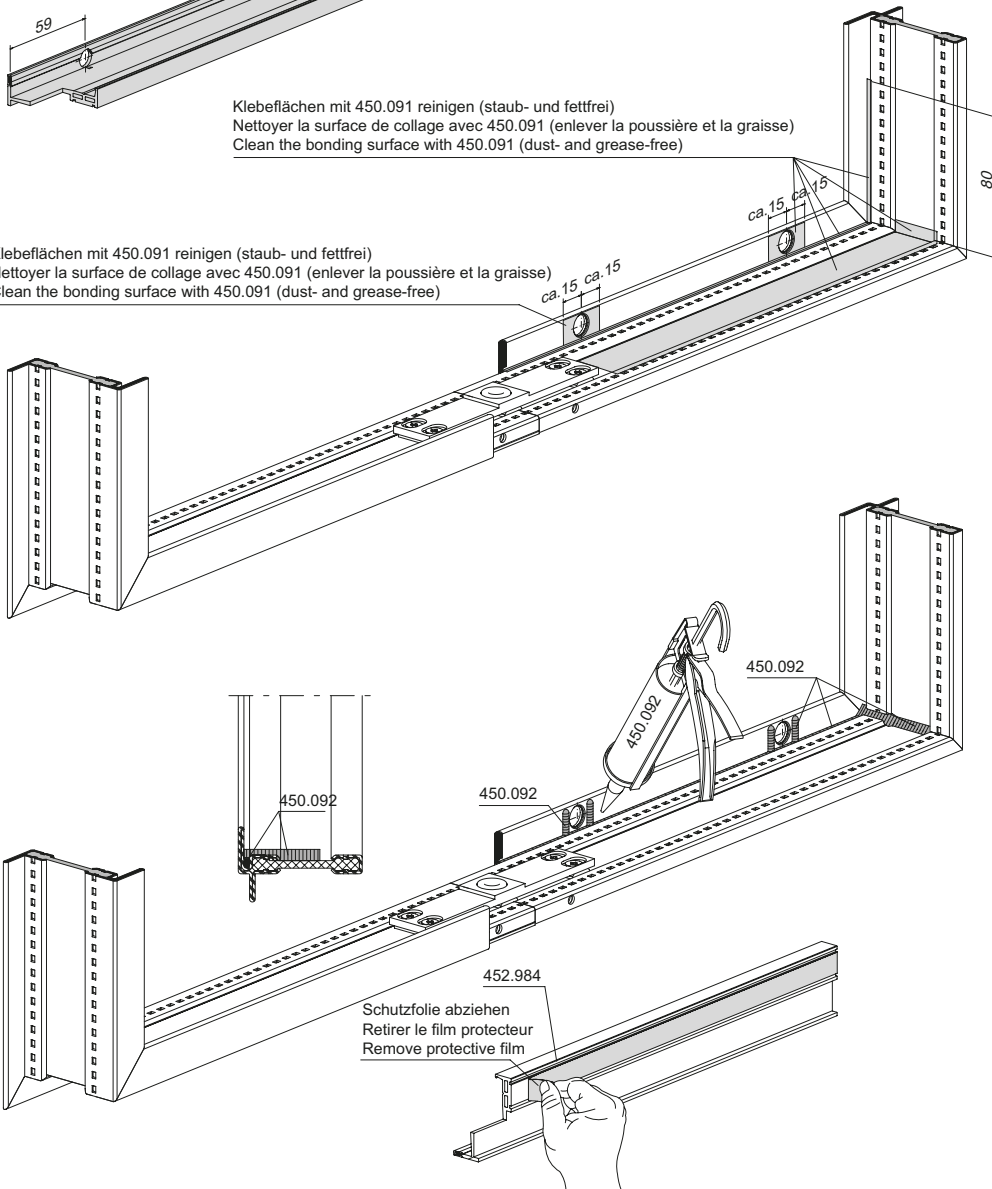
Préparation pour montage
profilé de drainage 452.984

Preparation for installation
drainage profile 452.984



Klebeflächen mit 450.091 reinigen (staub- und fettfrei)
 Nettoyer la surface de collage avec 450.091 (enlever la poussière et la graisse)
 Clean the bonding surface with 450.091 (dust- and grease-free)

Klebeflächen mit 450.091 reinigen (staub- und fettfrei)
 Nettoyer la surface de collage avec 450.091 (enlever la poussière et la graisse)
 Clean the bonding surface with 450.091 (dust- and grease-free)

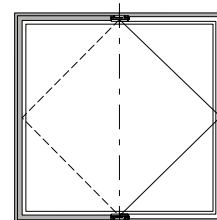
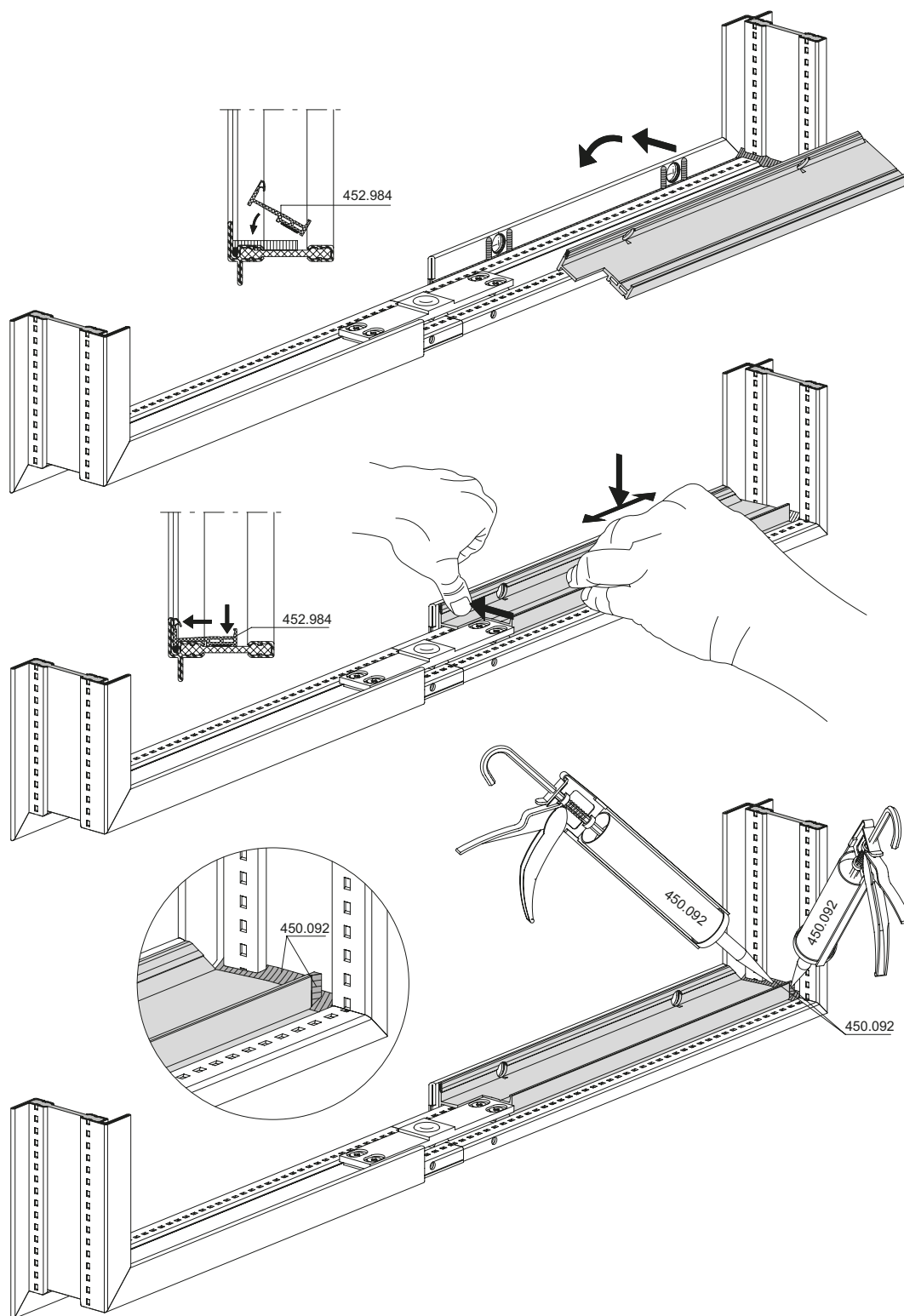


Schutzfolie abziehen
 Retirer le film protecteur
 Remove protective film

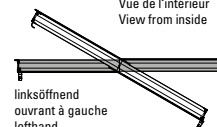
Einbau
Entwässerungsprofil 452.984

Montage
Profilé de drainage 452.984

Installation
Drainage profile 452.984



Ansicht von innen
Vue de l'intérieur
View from inside



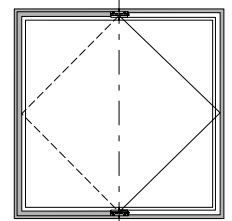
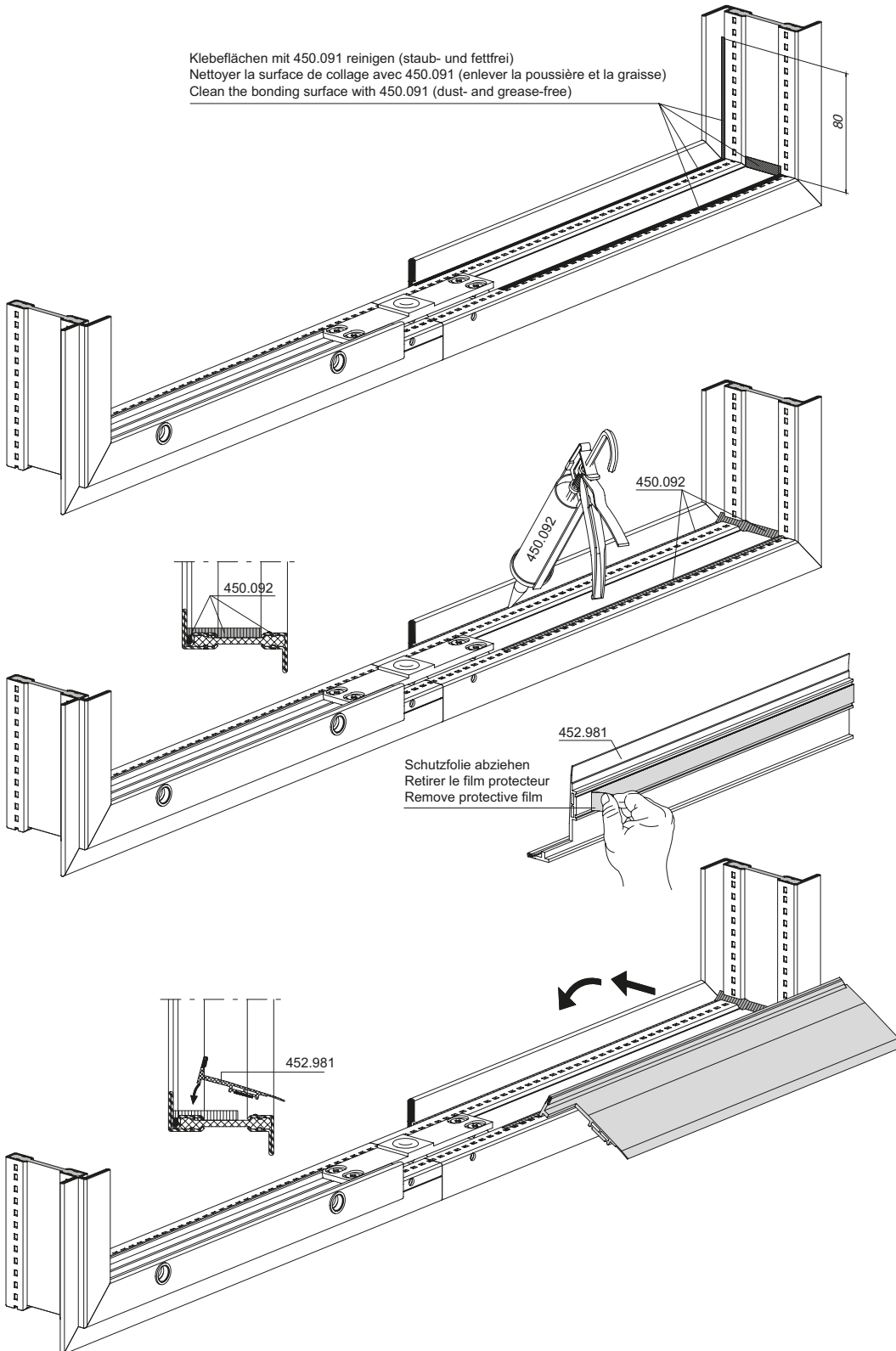
linksöffnend
ouvrant à gauche
lefthand

Einbau
Entwässerungsprofil 452.981

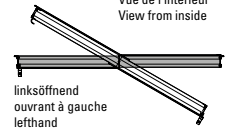
Montage
Profilé de drainage 452.981

Installation
Drainage profile 452.981

Klebeflächen mit 450.091 reinigen (staub- und fettfrei)
Nettoyer la surface de collage avec 450.091 (enlever la poussière et la graisse)
Clean the bonding surface with 450.091 (dust- and grease-free)



Ansicht von innen
Vue de l'intérieur
View from inside

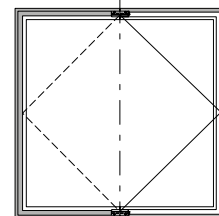
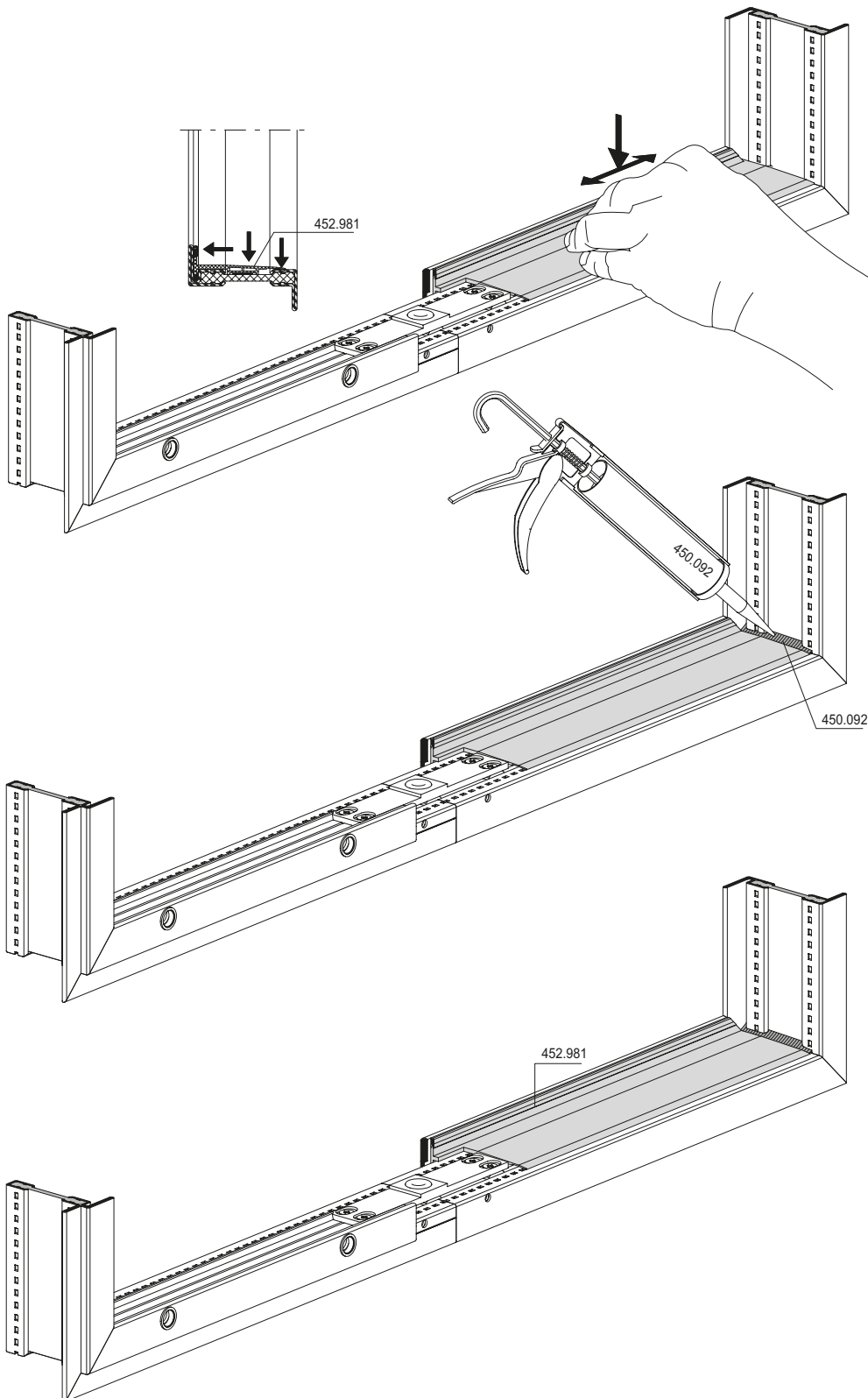


linksöffnend
ouvrant à gauche
left hand

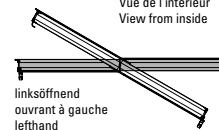
Einbau
Entwässerungsprofil 452.981

Montage
Profilé de drainage 452.981

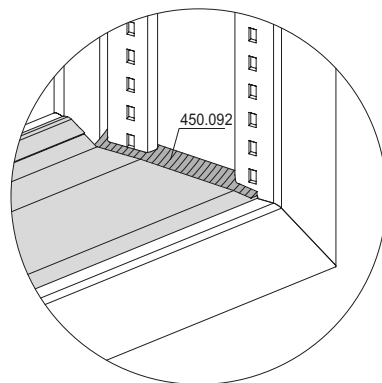
Installation
Drainage profile 452.981



Ansicht von innen
Vue de l'intérieur
View from inside



linksöffnend
ouvrant à gauche
lefthand

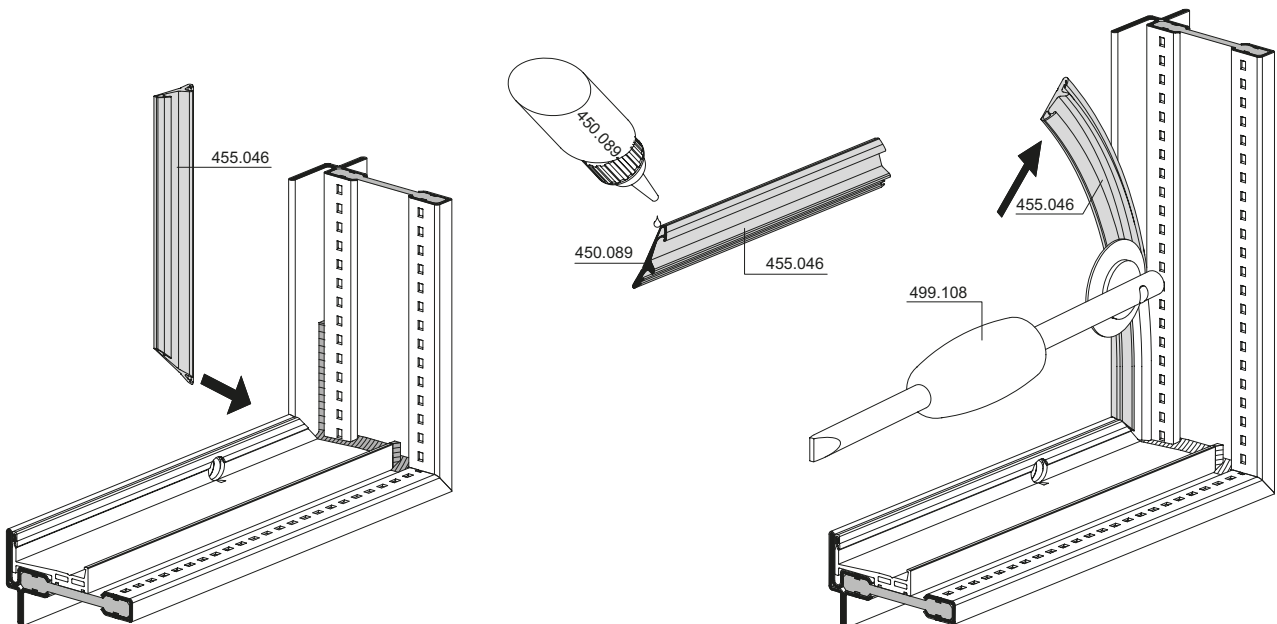
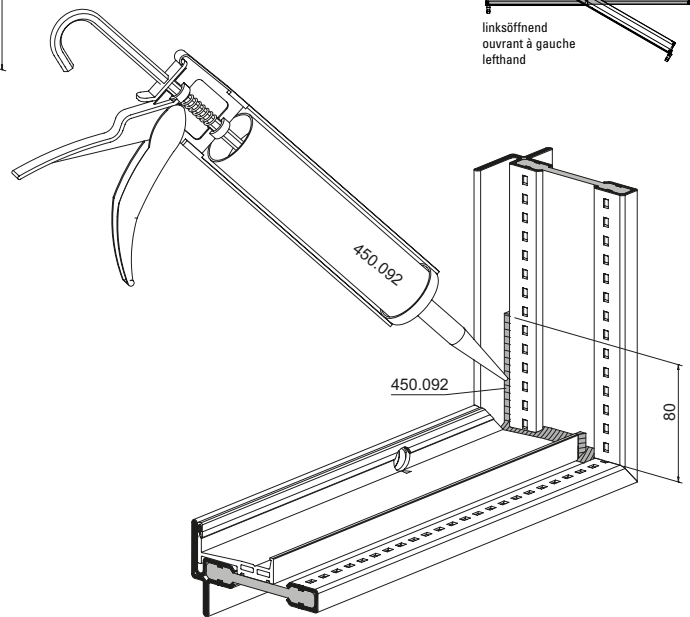
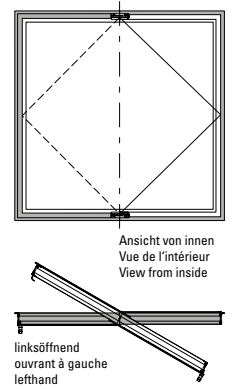
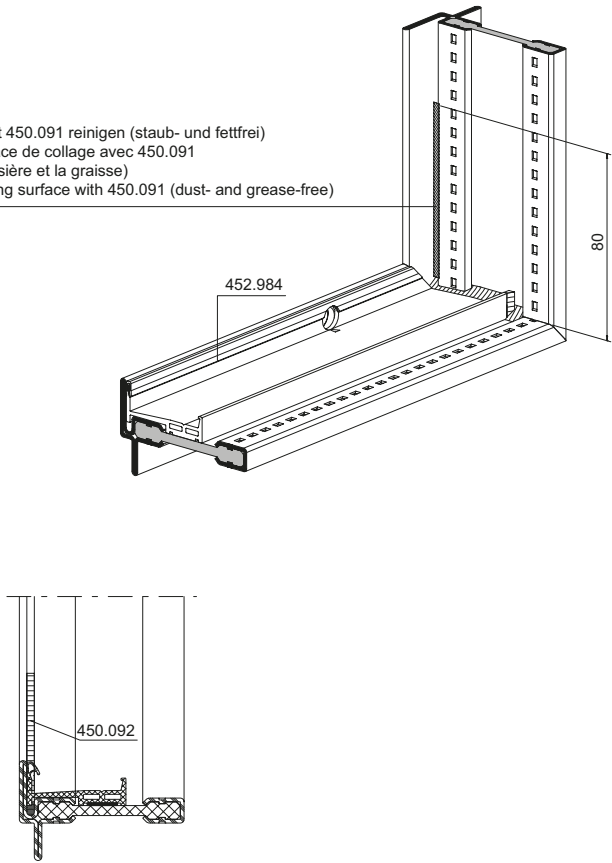


Einbau
Anschlagdichtung 455.046
(Fenster nach innen öffnend)

Montage
Joint de butée 455.046
(Fenêtre ouvrant vers l'intérieur)

Installation
Rebate weatherstrip 455.046
(Inward opening window)

Klebeflächen mit 450.091 reinigen (staub- und fettfrei)
 Nettoyer la surface de collage avec 450.091
 (enlever la poussière et la graisse)
 Clean the bonding surface with 450.091 (dust- and grease-free)

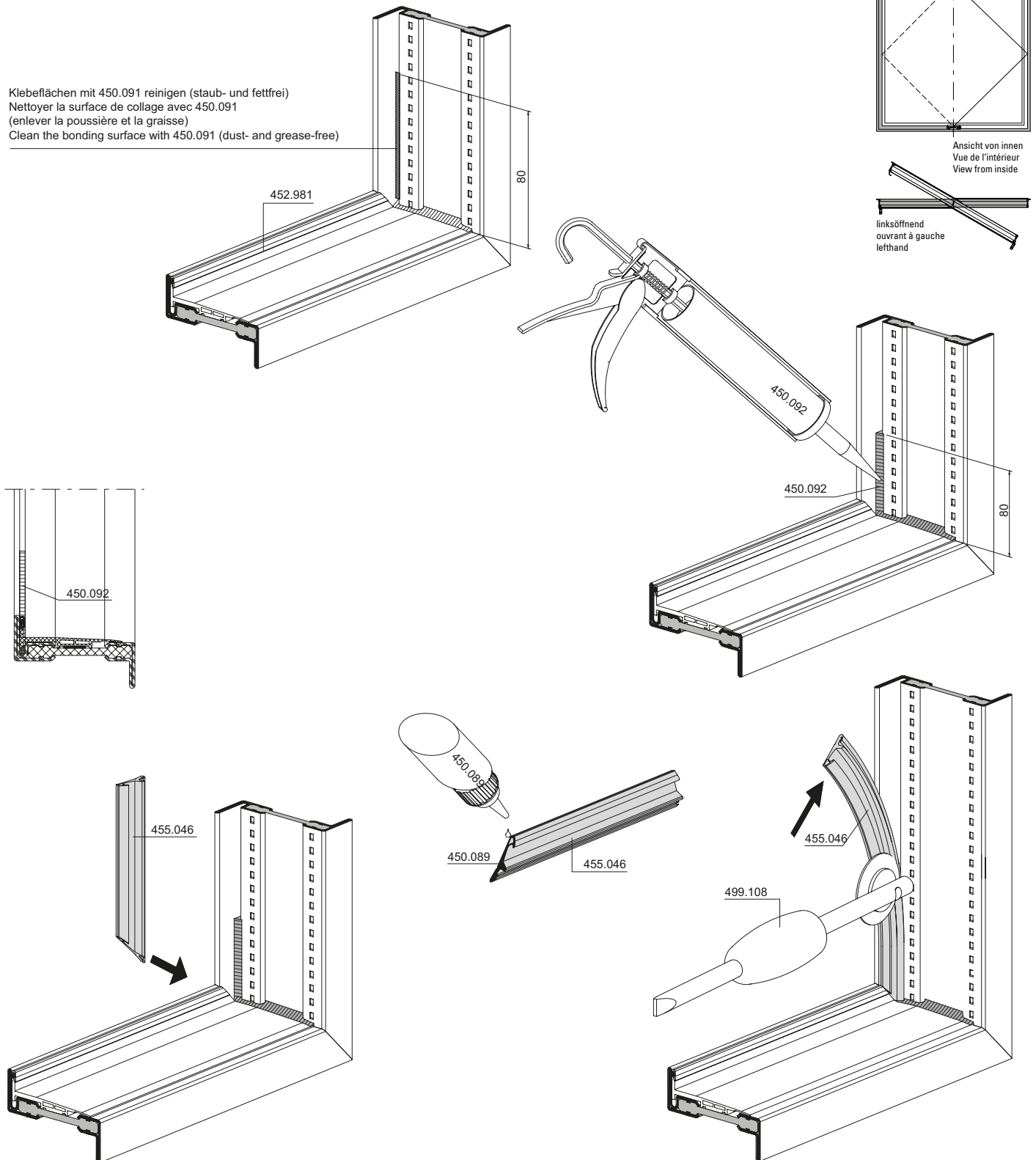


Einbau
Anschlagdichtung 455.046
(Fenster nach aussen öffnend)

Montage
Joint de butée 455.046
(Fenêtre ouvrant vers l'extérieur)

Installation
Rebate weatherstrip 455.046
(Outward opening window)

Klebeflächen mit 450.091 reinigen (staub- und fettfrei)
 Nettoyer la surface de collage avec 450.091
 (enlever la poussière et la graisse)
 Clean the bonding surface with 450.091 (dust- and grease-free)



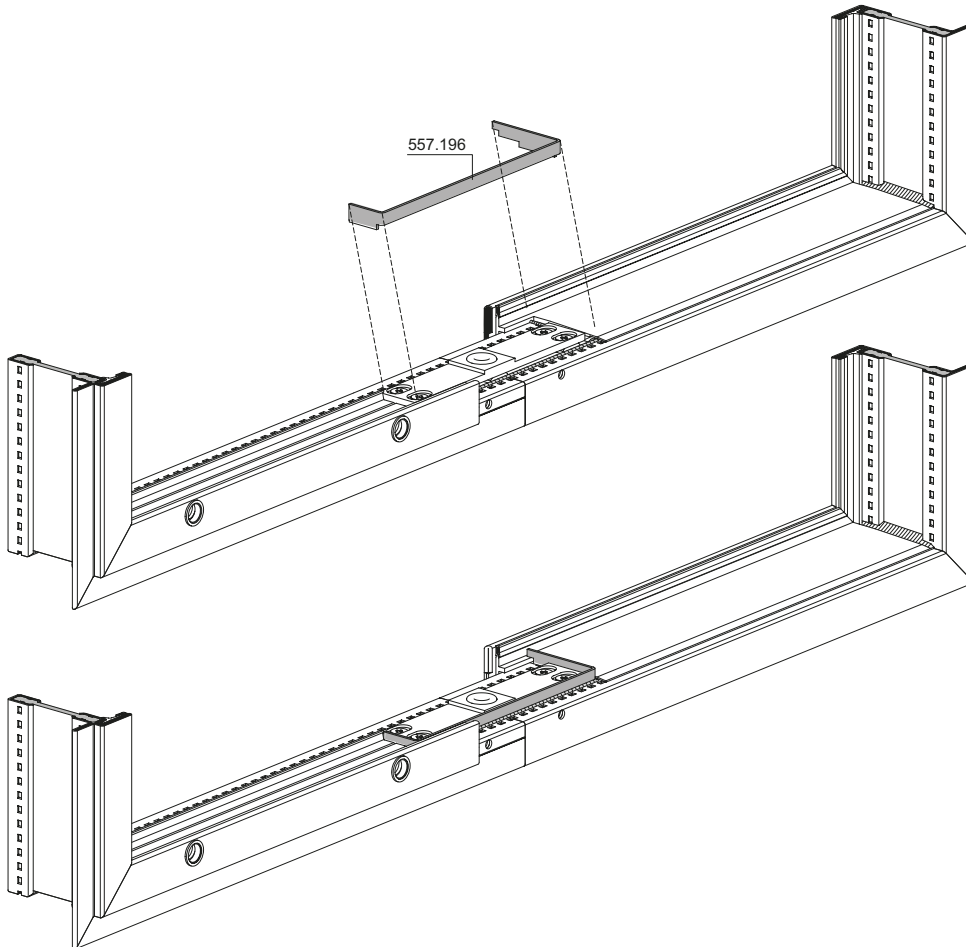
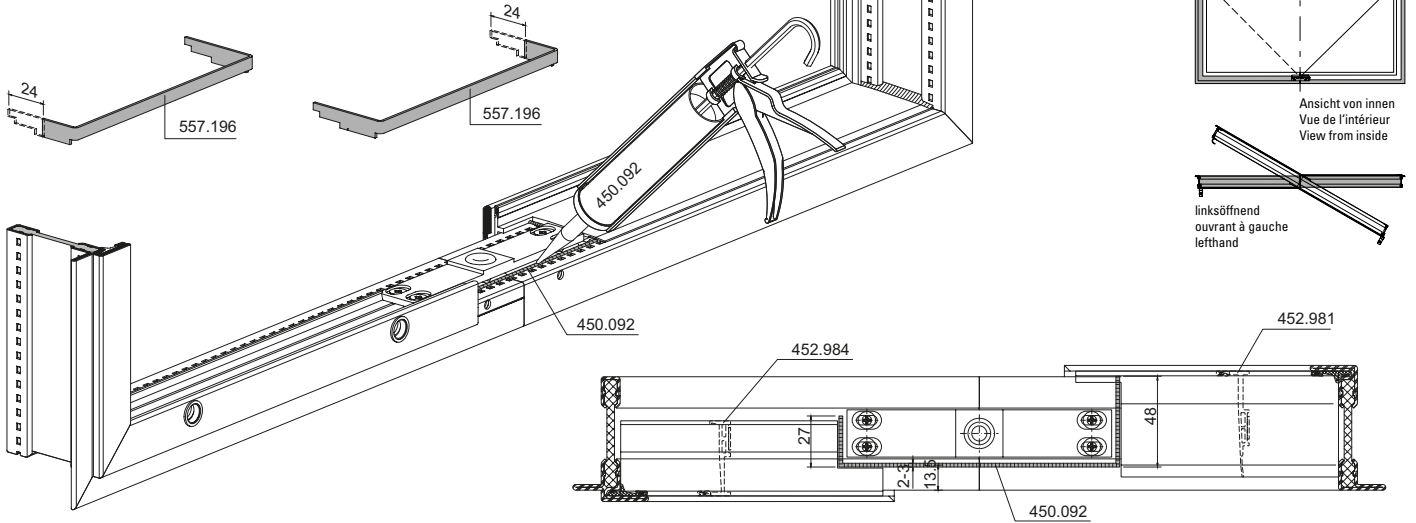
Einbau Abgrenzung 557.196

Montage délimitation 557.196

Installation of separator 557.196

Kürzen für linksöffnend
 Raccourcir pour l'ouverture vers la gauche
 Shorten for opening to the left

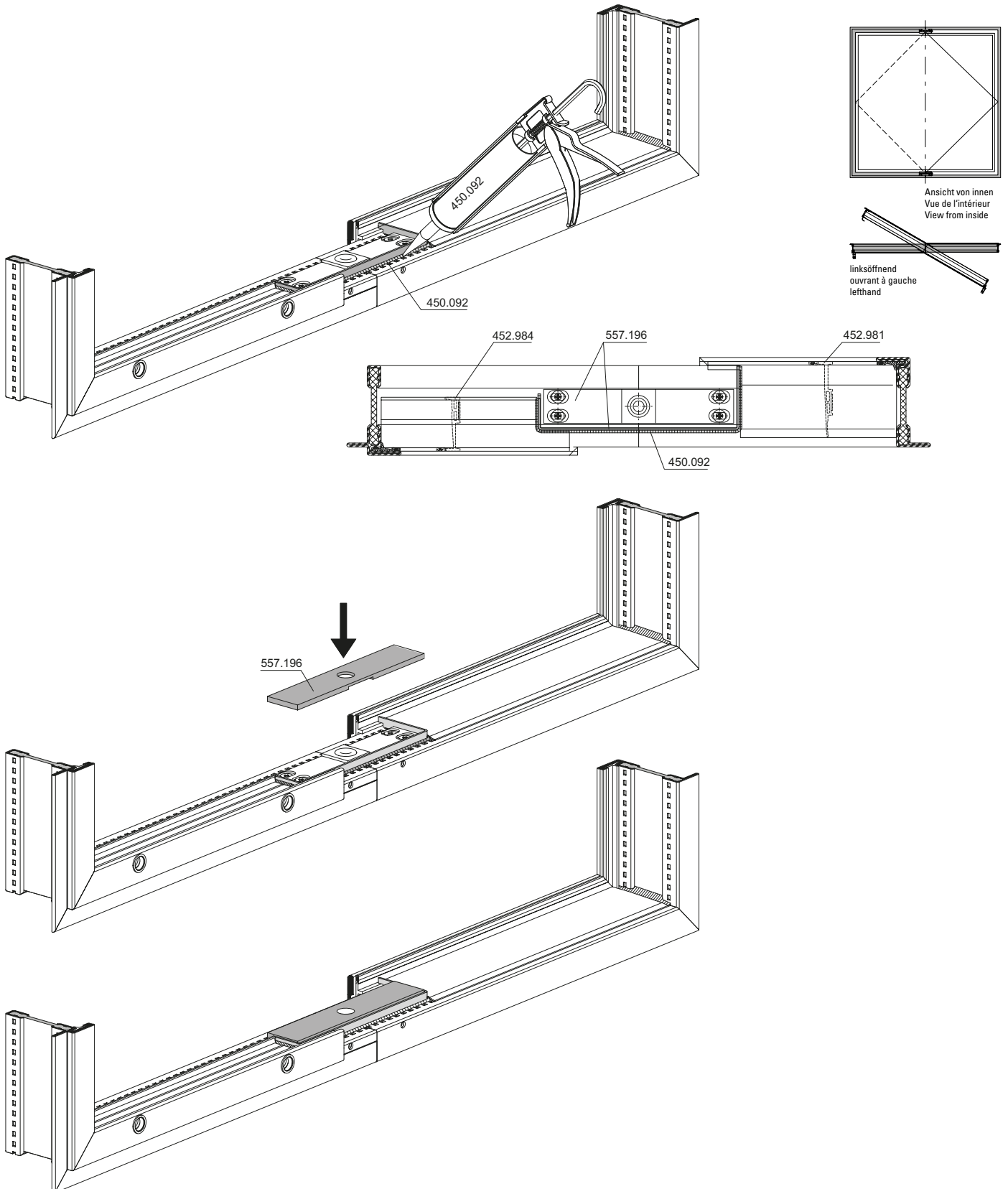
Kürzen für rechtsöffnend
 Raccourcir pour l'ouverture vers la droite
 Shorten for opening to the right



Einbau Abgrenzung 557.196

Montage délimitation 557.196

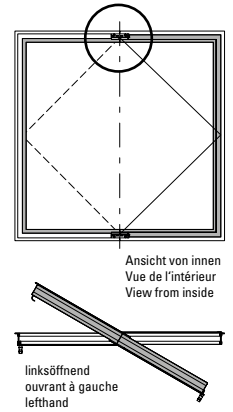
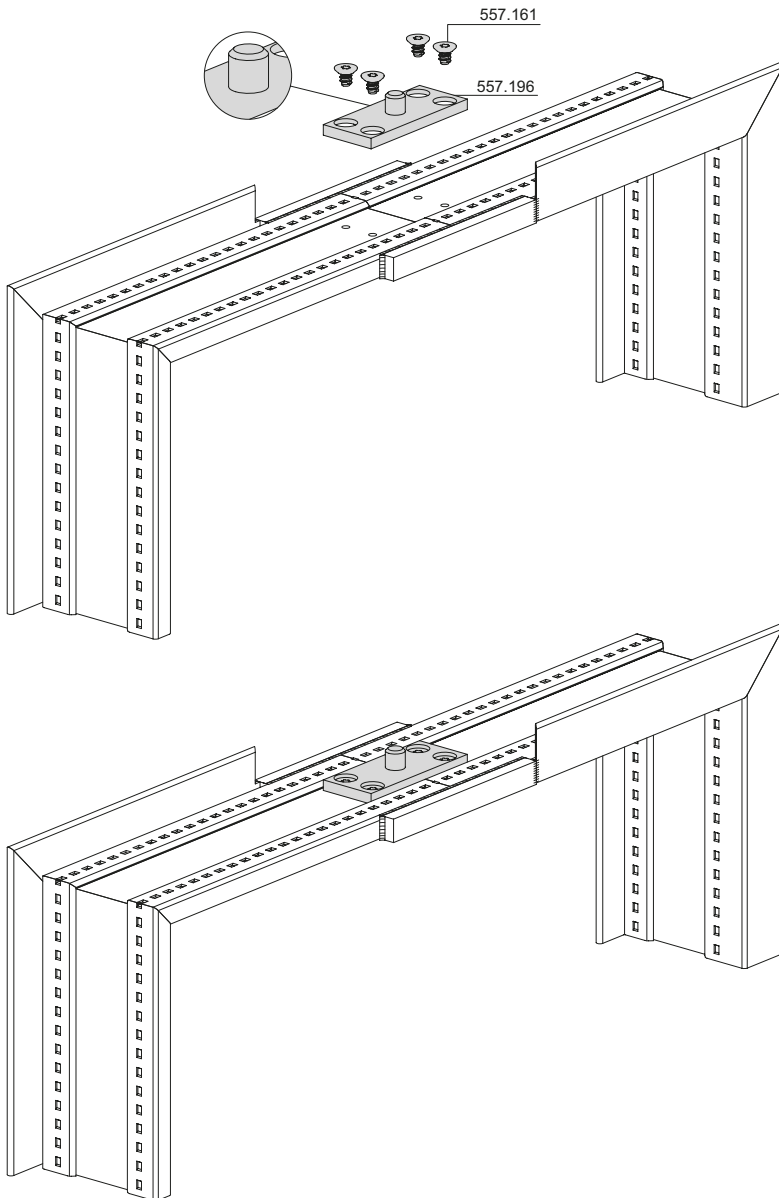
Installation of separator 557.196



Einbau Wendelager 557.196
oben

Montage pivot 557.196
en haut

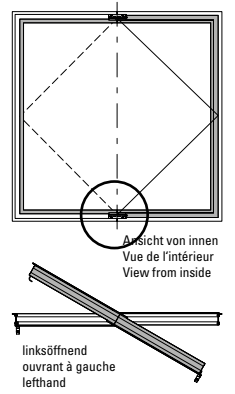
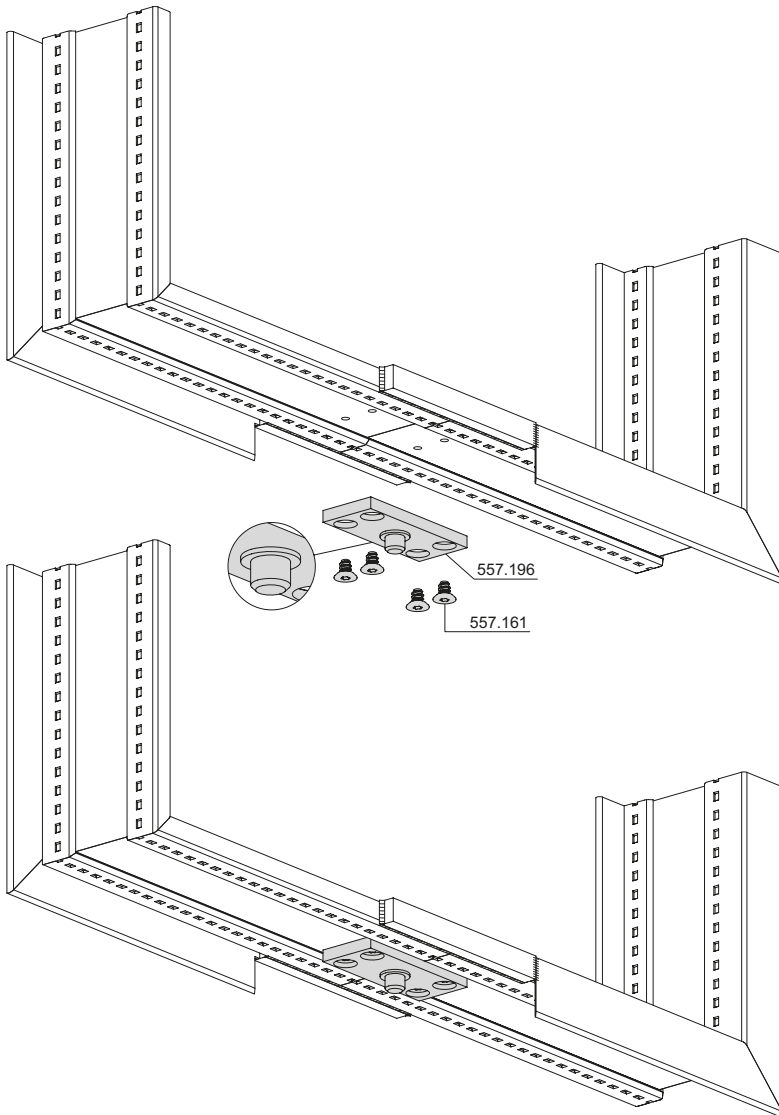
Installation of top
pivot bearing 557.196



Einbau Wendelager 557.196
unten

Montage pivot 557.196
en bas

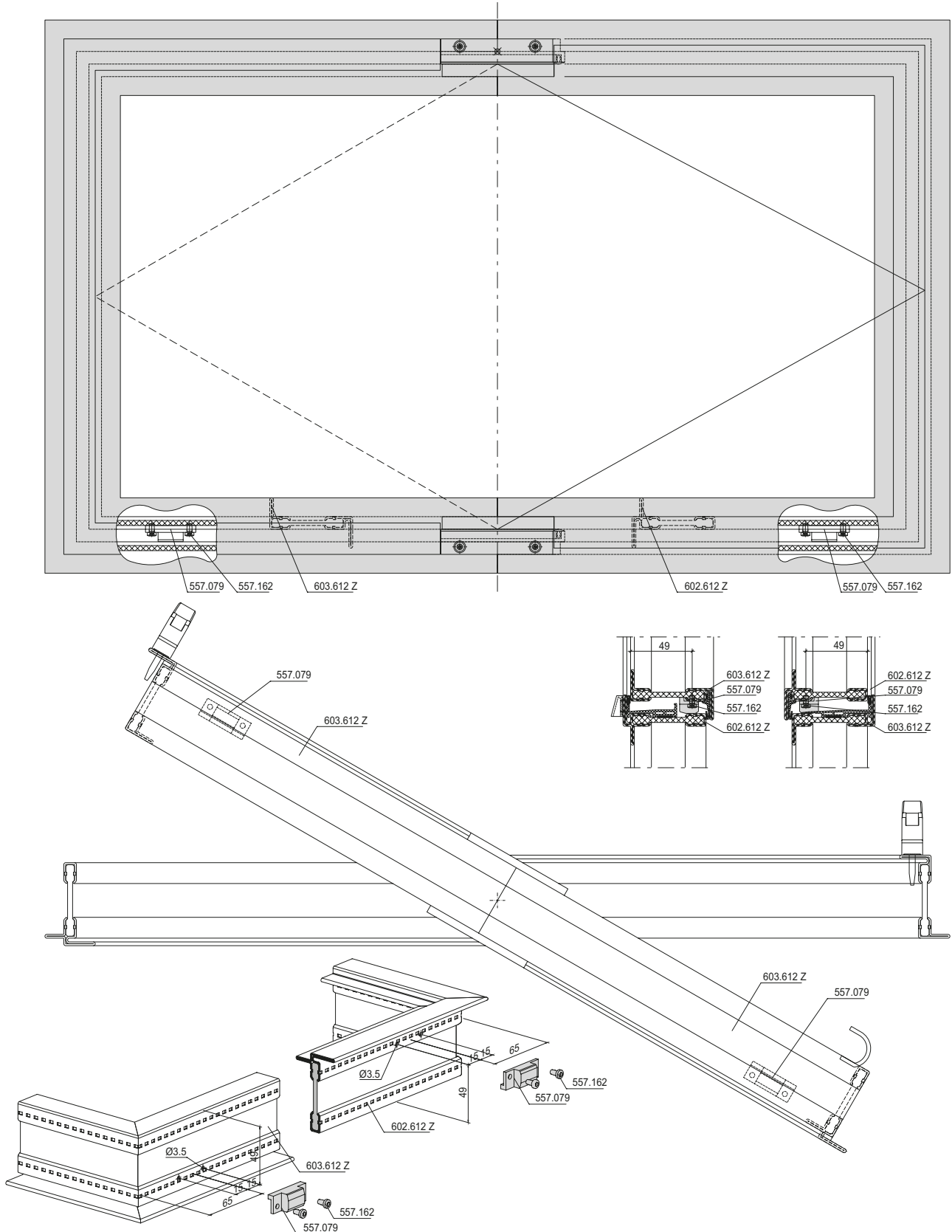
Installation of bottom
pivot bearing 557.196



Montage Auflaufbock 557.079

Montage bloc d'arrêt 557.079

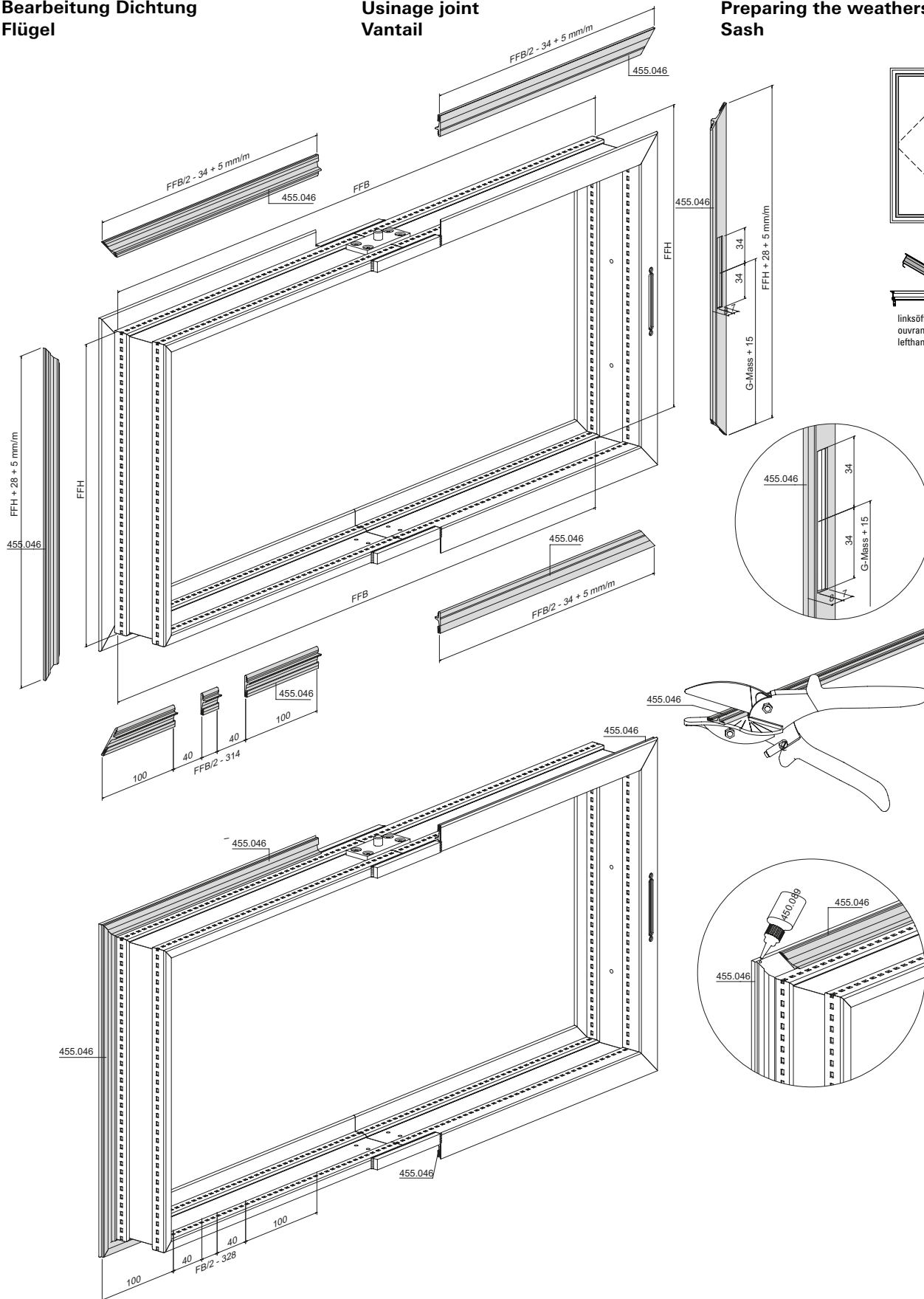
Installation engagement block
557.079



Bearbeitung Dichtung
 Flügel

Usinage joint
 Vantail

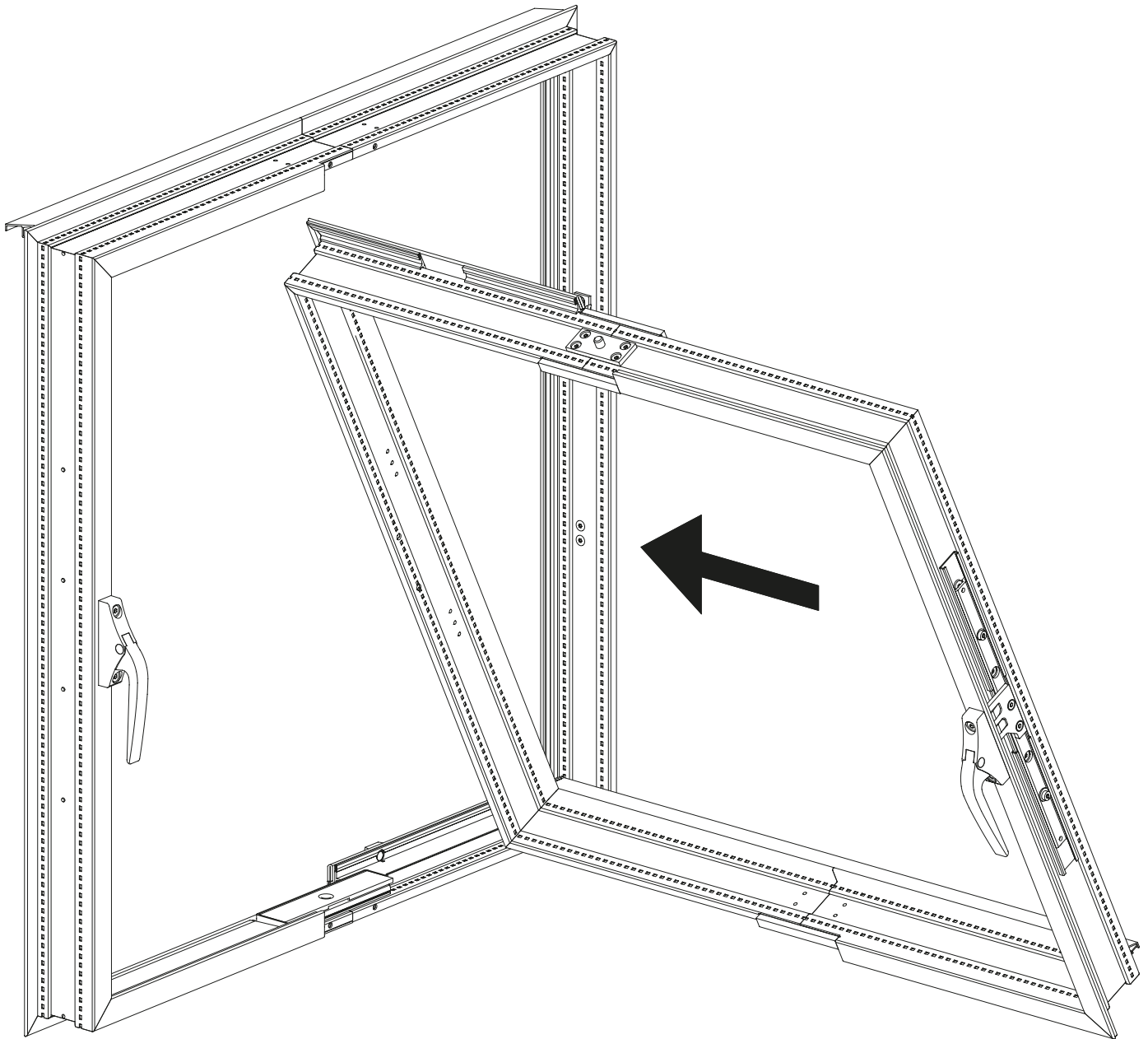
Preparing the weatherstrip
 Sash



Montage Wendefenster

Montage fenêtre pivotante

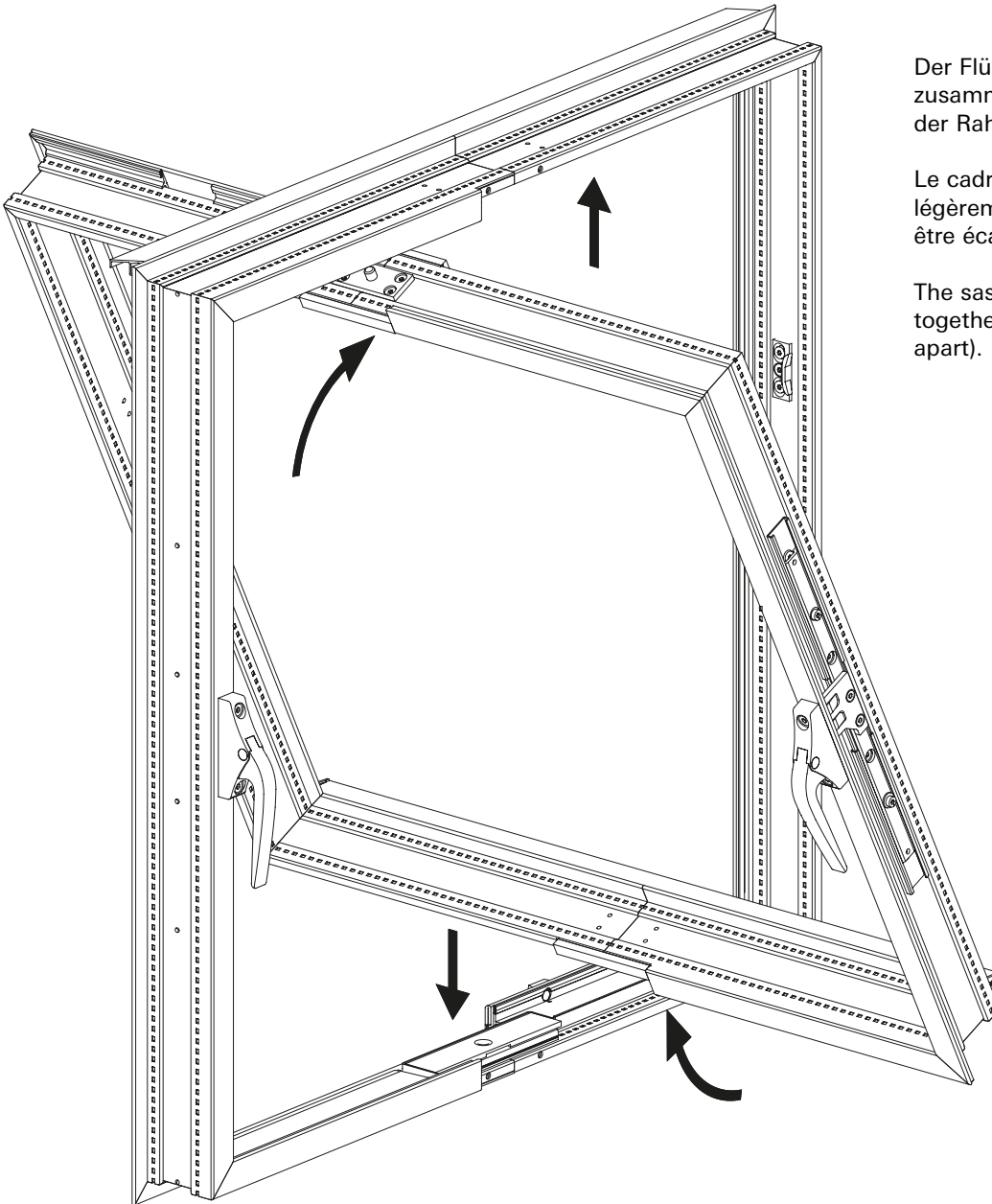
Installation of vertical pivot window



Montage Wendefenster

Montage fenêtre pivotante

Installation of vertical pivot window



Der Flügelrahmen muss leicht zusammen gedrückt werden (oder der Rahmen auseinander).

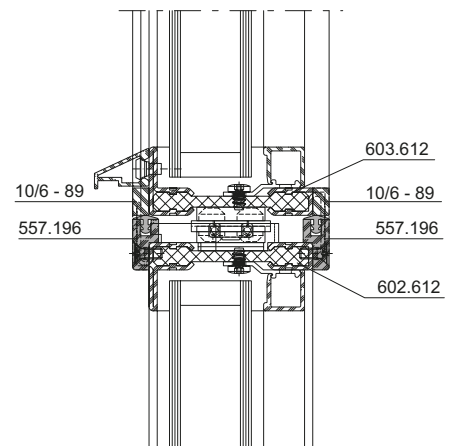
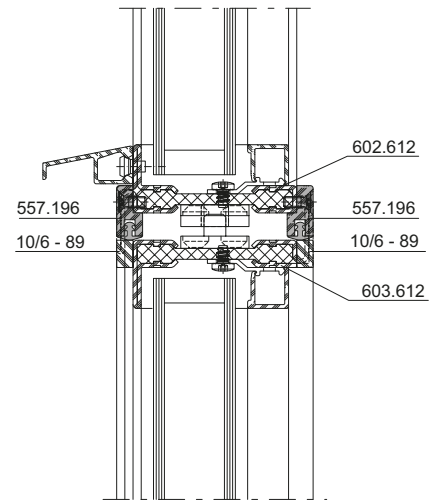
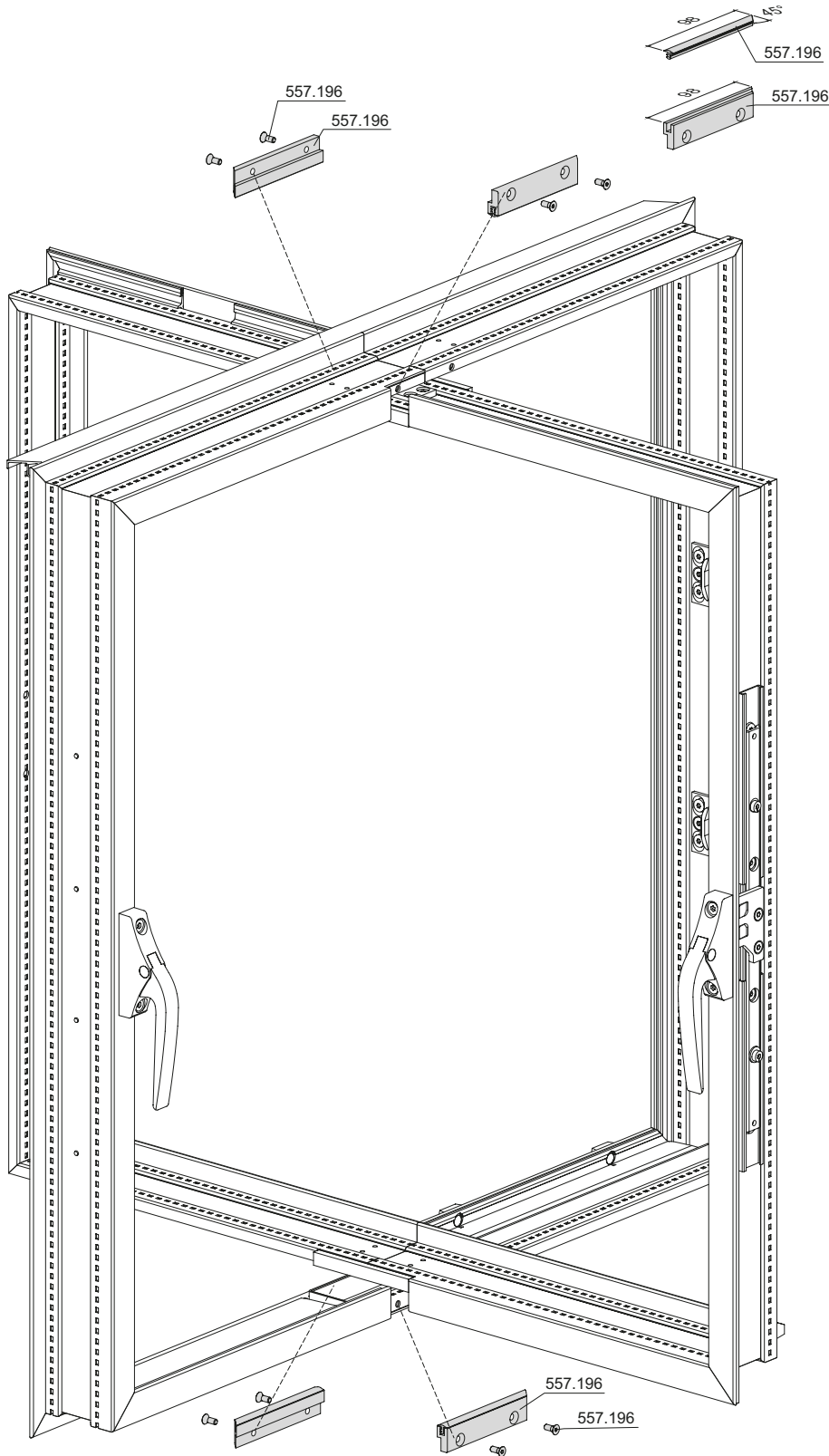
Le cadre de vantail doit être légèrement comprimé (ou le cadre être écarté).

The sash frame must be gently pressed together (or the outer frame pulled apart).

Einbau Ausgleichsteile

Montage pièces de compensation

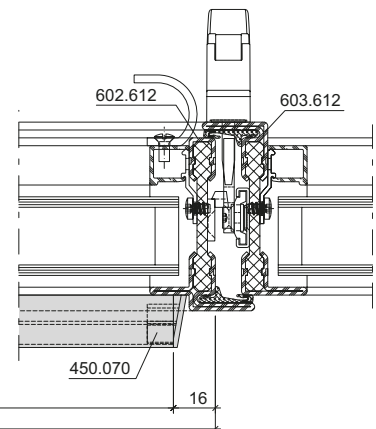
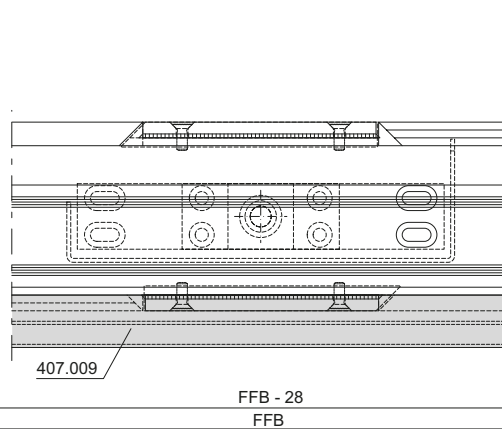
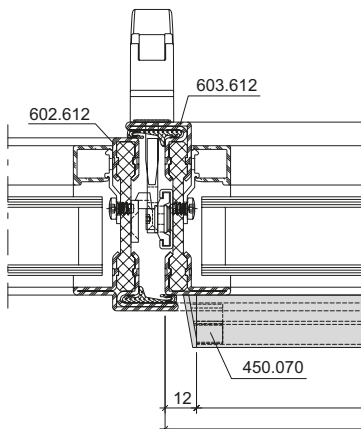
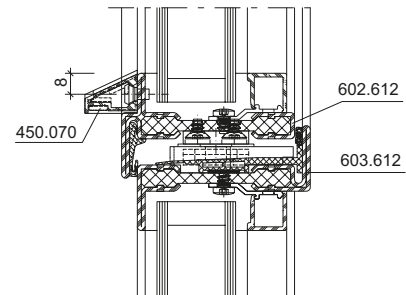
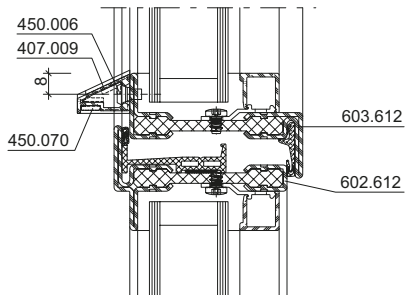
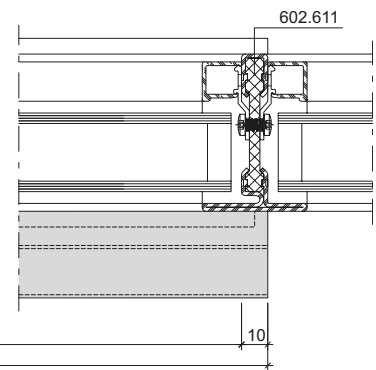
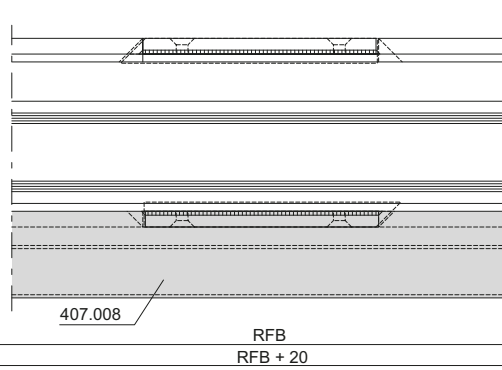
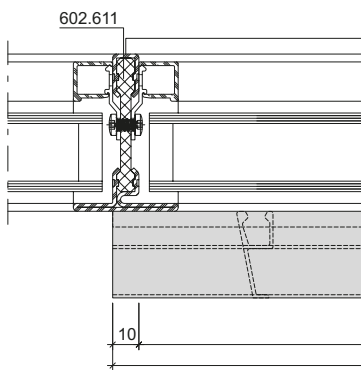
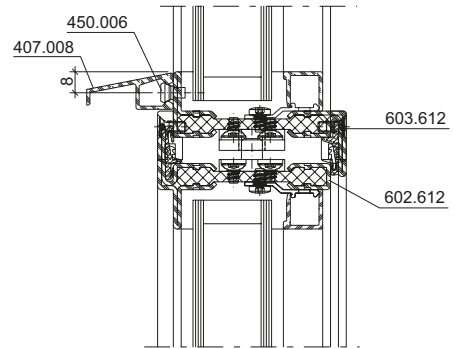
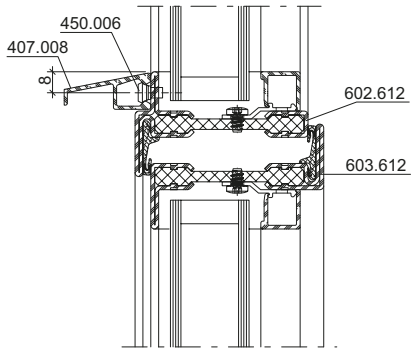
Installation of balancing
components



Einbau Wetterschenkel
 407.008/407.009
 (Flügel nach innen öffnend)

Montage renvoi d'eau
 407.008/407.009
 (Vantail ouvrant vers l'intérieur)

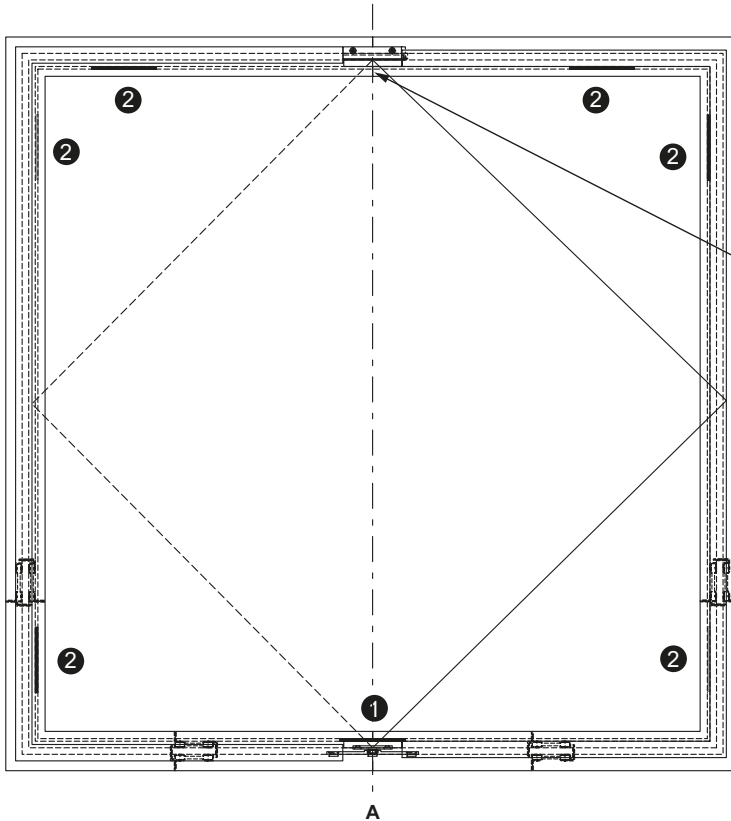
Installation weatherbar
 407.008/407.009
 (Inward-opening sash)



**Verklotzen der Fenster
 gemäss Empfehlung DIN EN 12488**

**Calage des fenêtres selon
 recommandation DIN EN 12488**

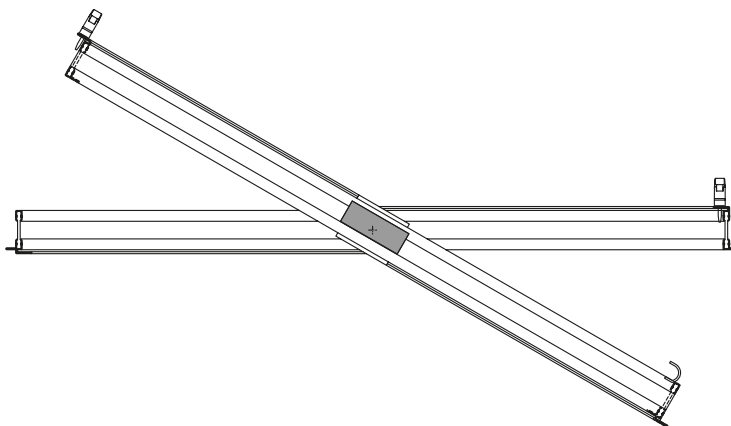
**Glazing blocks of the windows
 according to DIN EN 12488
 recommendation**




Mit Distanzklotzen (2)
 im Bereich der Schwinglager
 das Flügelprofil genau ausrichten.

Aligner avec précision le profilé de
 vantail à l'aide de cales d'écartement (2)
 dans la zone des compas basculants.

Use spacer blocks (2) to precisely
 align the sash profile in the area of
 the horizontal pivot.



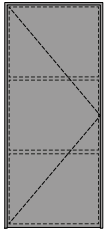
①  Tragklotz
 Cale d'assise
 Support block

②  Distanzklotz
 Cale d'écartement
 Spacer block

A
 Distanzklotz im Flügel und Rahmen
 für direkte Kraftableitung.

Cale d'écartement dans le vantail
 et le cadre, pour une transmission
 directe de la force.

Spacer block in vent and frame
 for direct load deflection.

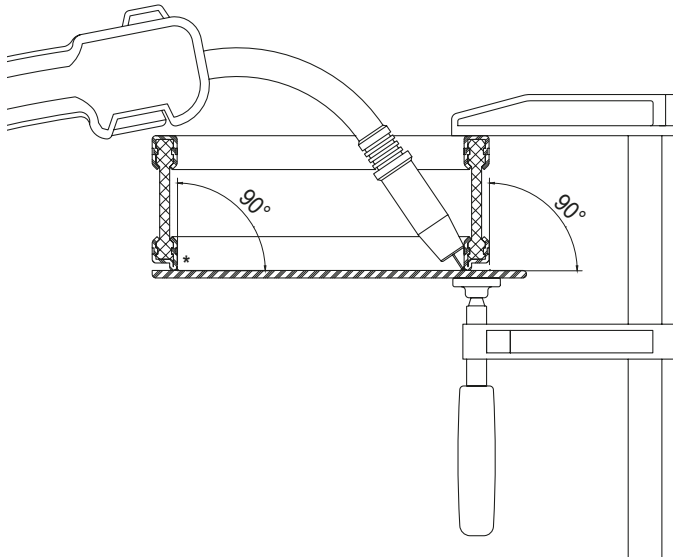
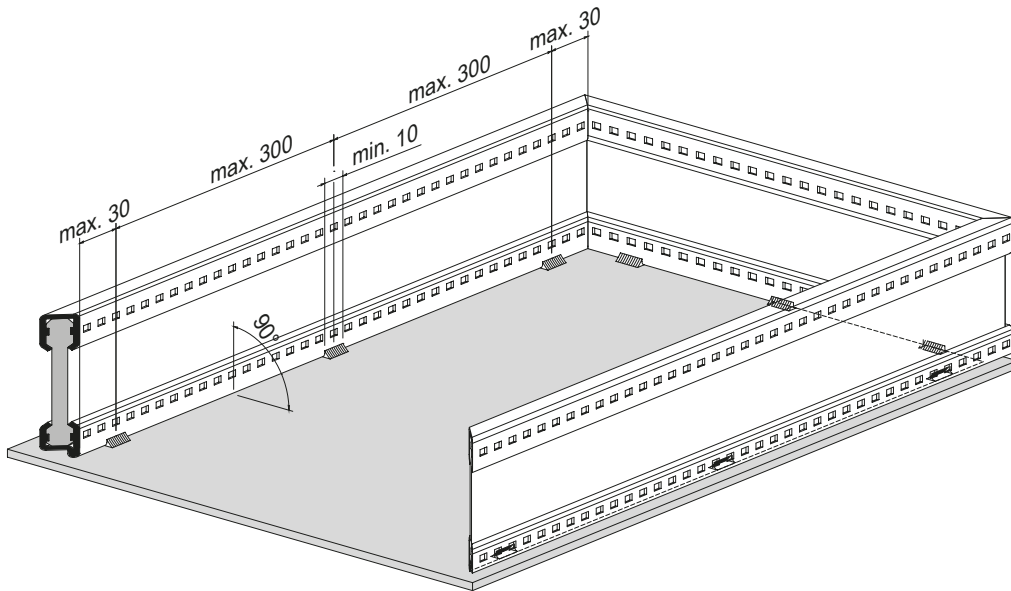


Verblechte Ausführung	Exécution tôlée	Sheet metal-clad design	
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Verschweissen der Eckpunkte bei verblechten Blendrahmen	Soudage des angles sur les cadres dormants tôlés	Welding of corner points for sheet metal clad outer frames	413
Ausbildung verblechter Sockel	Formations de socles tôlés	Formation of sheet metal clad sill	414
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Zusammenbau verblechter Flügel	Assemblage de vantail tôlés	Assembling of sheet metal clad leaf	416

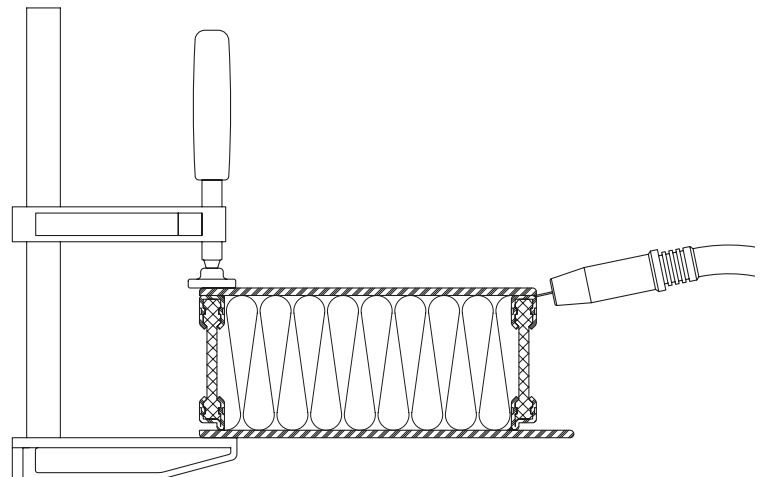
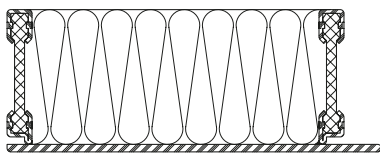
Zusammenbau
verblechter Blendrahmen

Assemblage de
cadres dormants tôlés

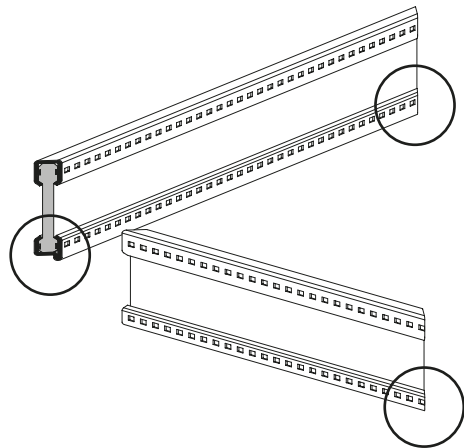
Assembly of
sheet metal clad outer frames



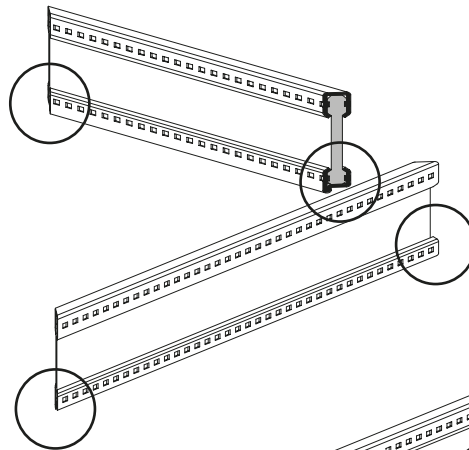
- * Umlaufend dampfdicht abdichten mit hitzebeständigem Silikon oder Abdichtband.
- * Étanchéfier contre la vapeur à l'aide d'un silicone résistant à la chaleur ou d'une bande d'étanchéité.
- * Seal with heat-resistant silicone or sealing tape all the way around until moisture-tight.



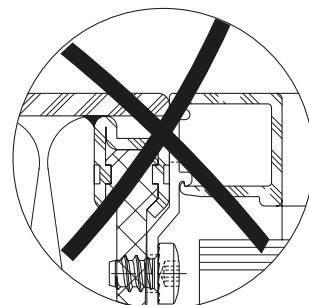
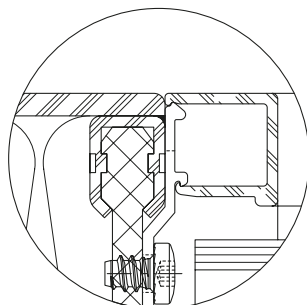
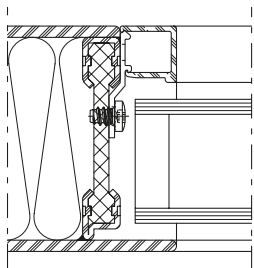
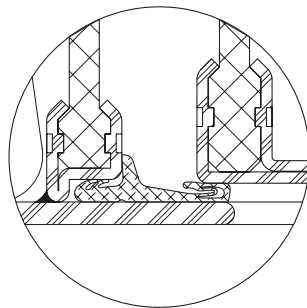
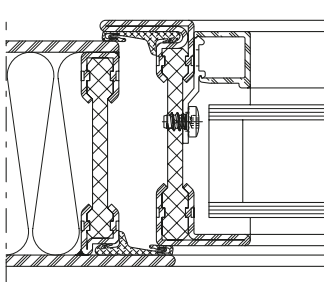
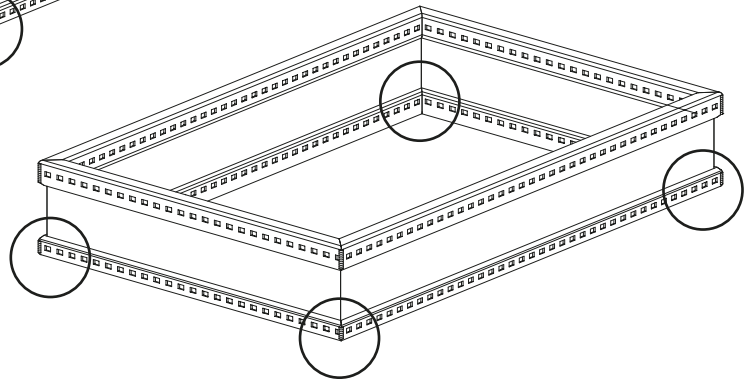
Verschweissen der Eckpunkte
bei verblechten Blendrahmen



Soudage des angles sur les
cadres dormants tôlés



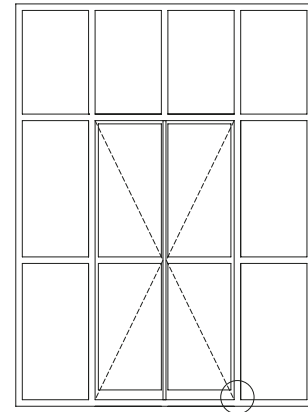
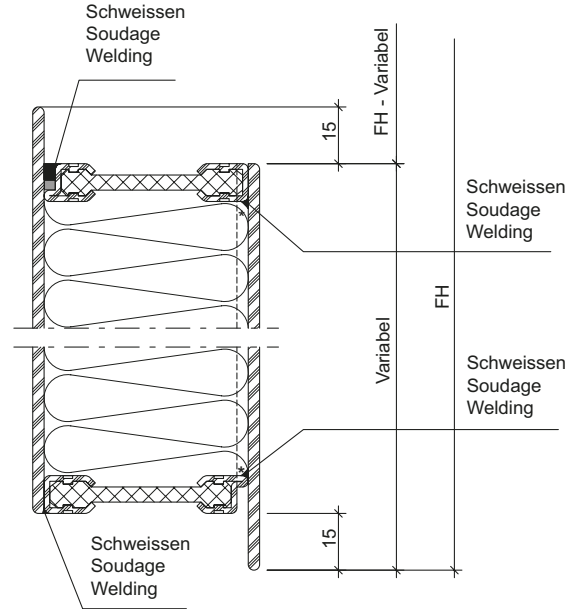
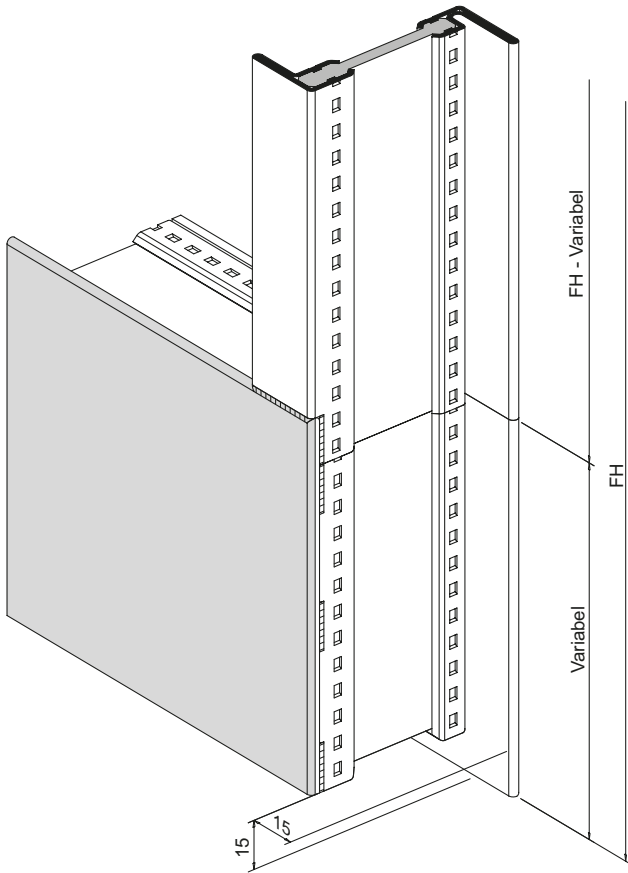
Welding of corner points for
sheet metal clad outer frames



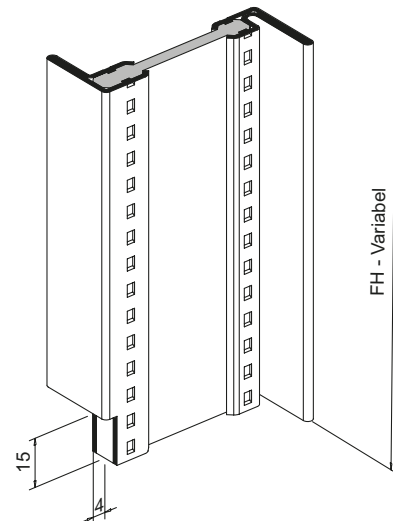
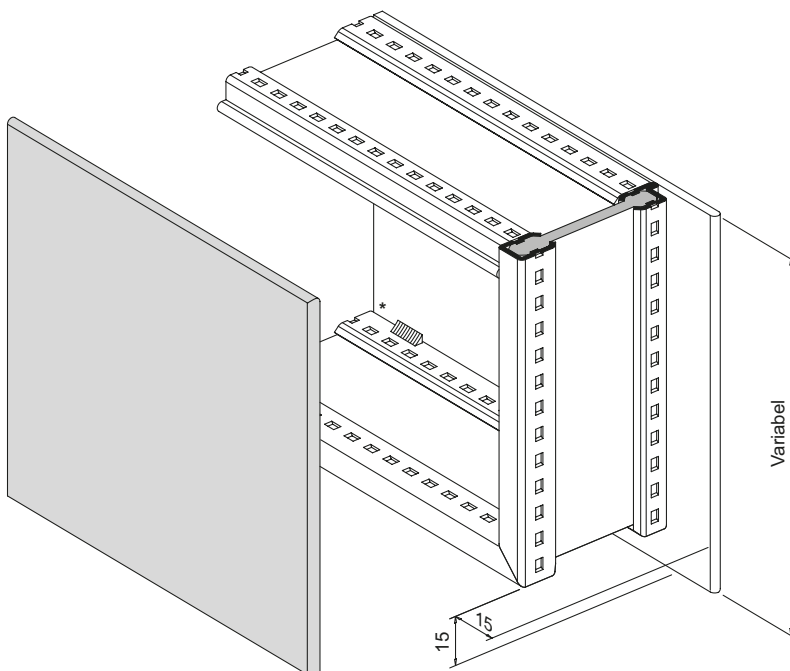
Ausbildung verblechter Sockel

Formations de socles tôlés

Formation of sheet metal clad sill



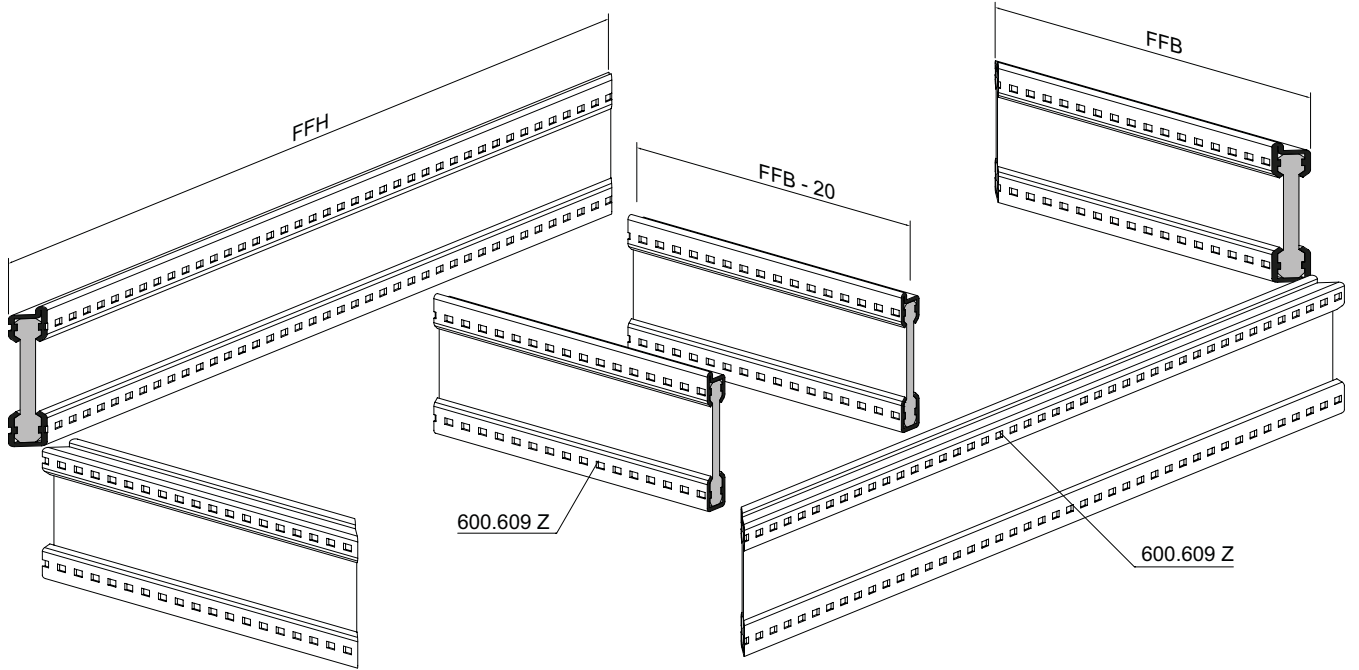
- * Umlaufend dampfdicht abdichten mit hitzebeständigem Silikon oder Abdichtband.
- * Étanchéifier contre la vapeur à l'aide d'un silicone résistant à la chaleur ou d'une bande d'étanchéité.
- * Seal with heat-resistant silicone or sealing tape all the way around until moisture-tight.



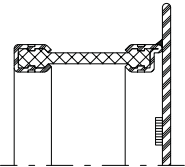
Ausbildung veblechter Flügel

Formations de vantail tôlés

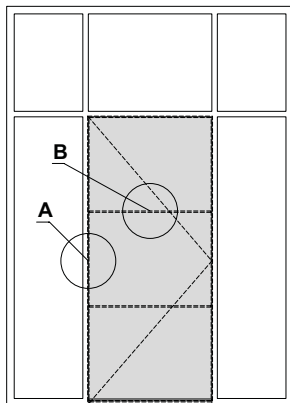
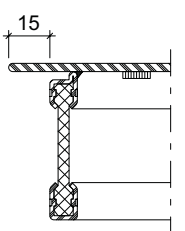
Formation of sheet metal cladleaf



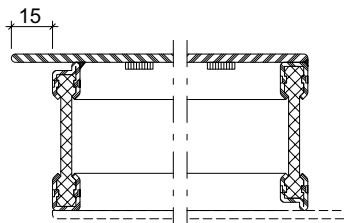
Detail B



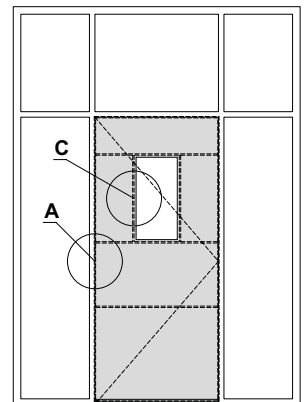
Detail A



Detail A



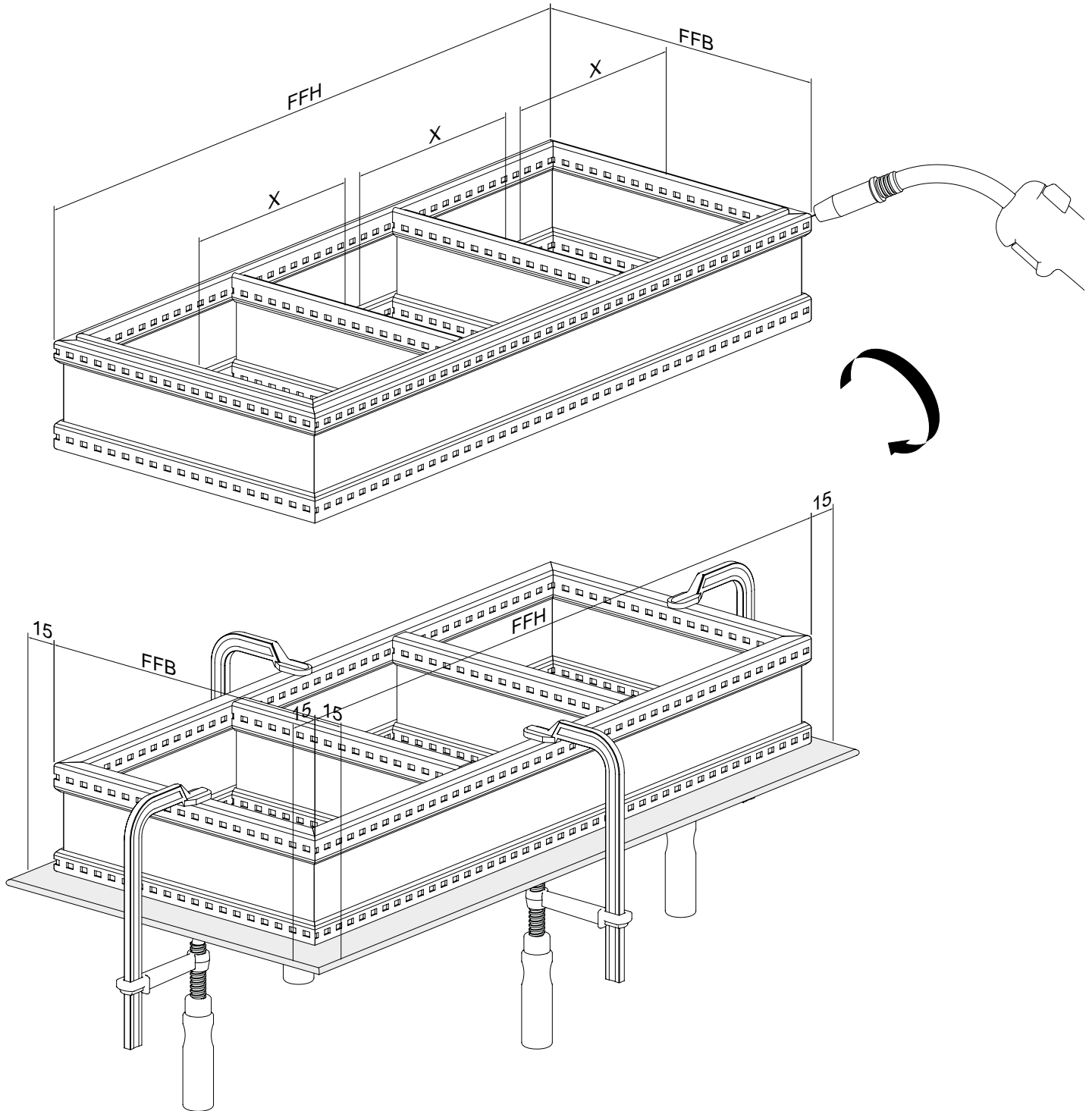
Detail C



Zusammenbau
verblechter Flügel

Assemblage de vantail tôlés

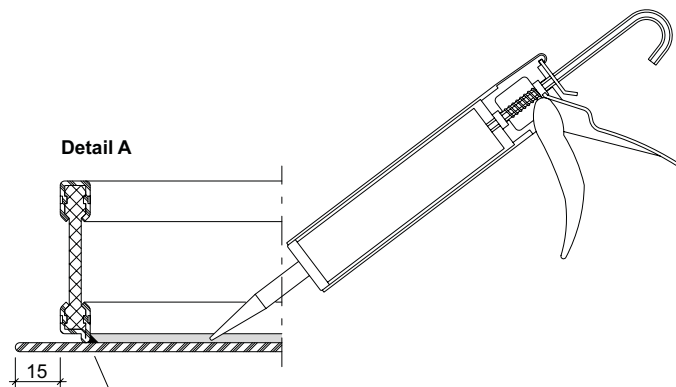
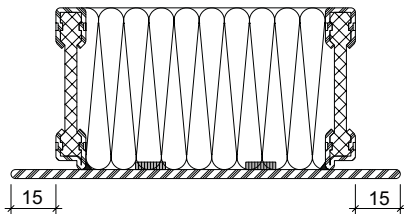
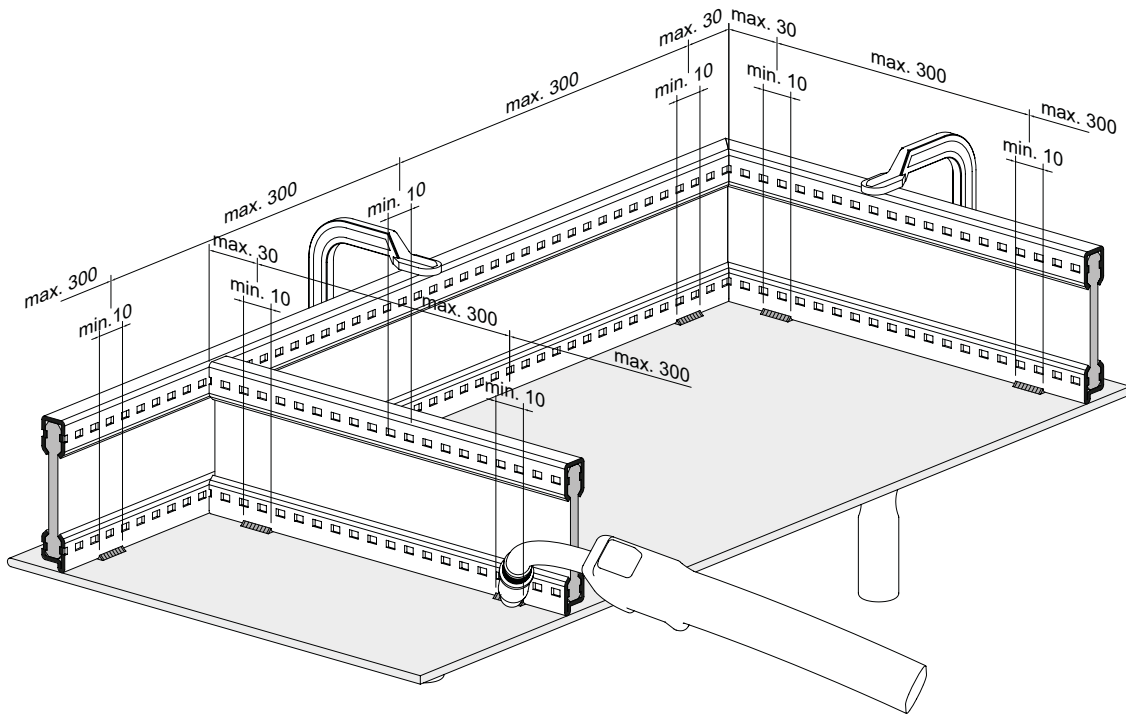
Assembling of sheet metal cladleaf



Zusammenbau
verblechter Flügel

Assemblage de vantail tôlés

Assembling of sheet metal cladleaf

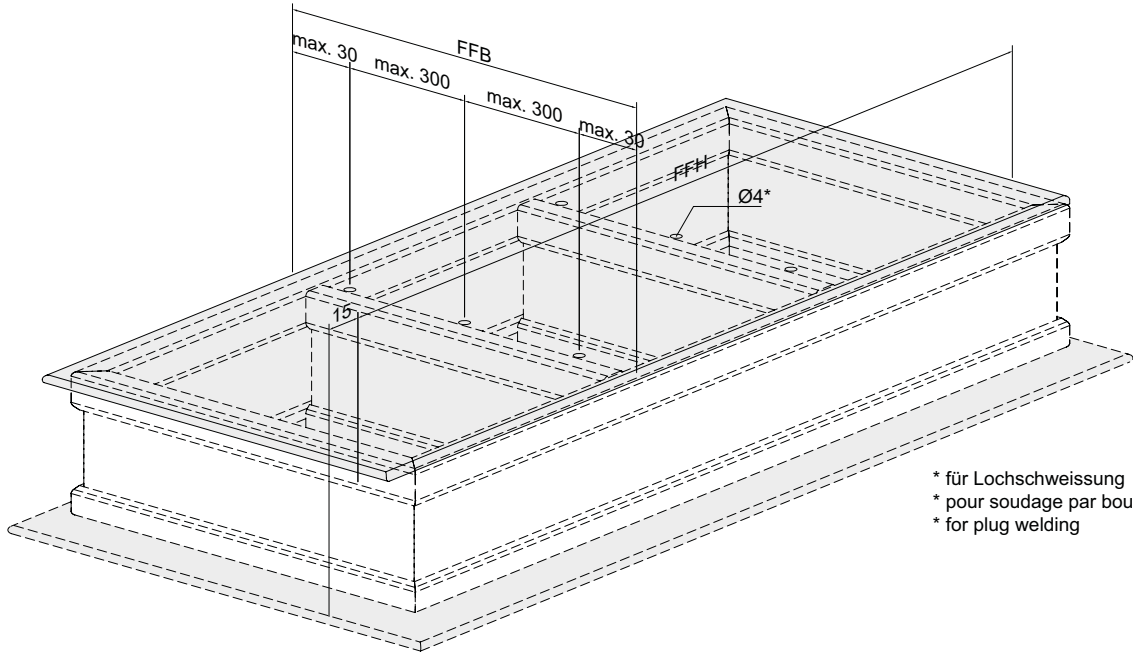


Umlaufend dampfdicht abdichten mit hitzebeständigem Silikon oder Abdichtband.
Étanchéifier contre la vapeur à l'aide d'un silicone résistant à la chaleur ou d'une bande d'étanchéité.
Seal with heat-resistant silicone or sealing tape all the way around until moisture-tight.

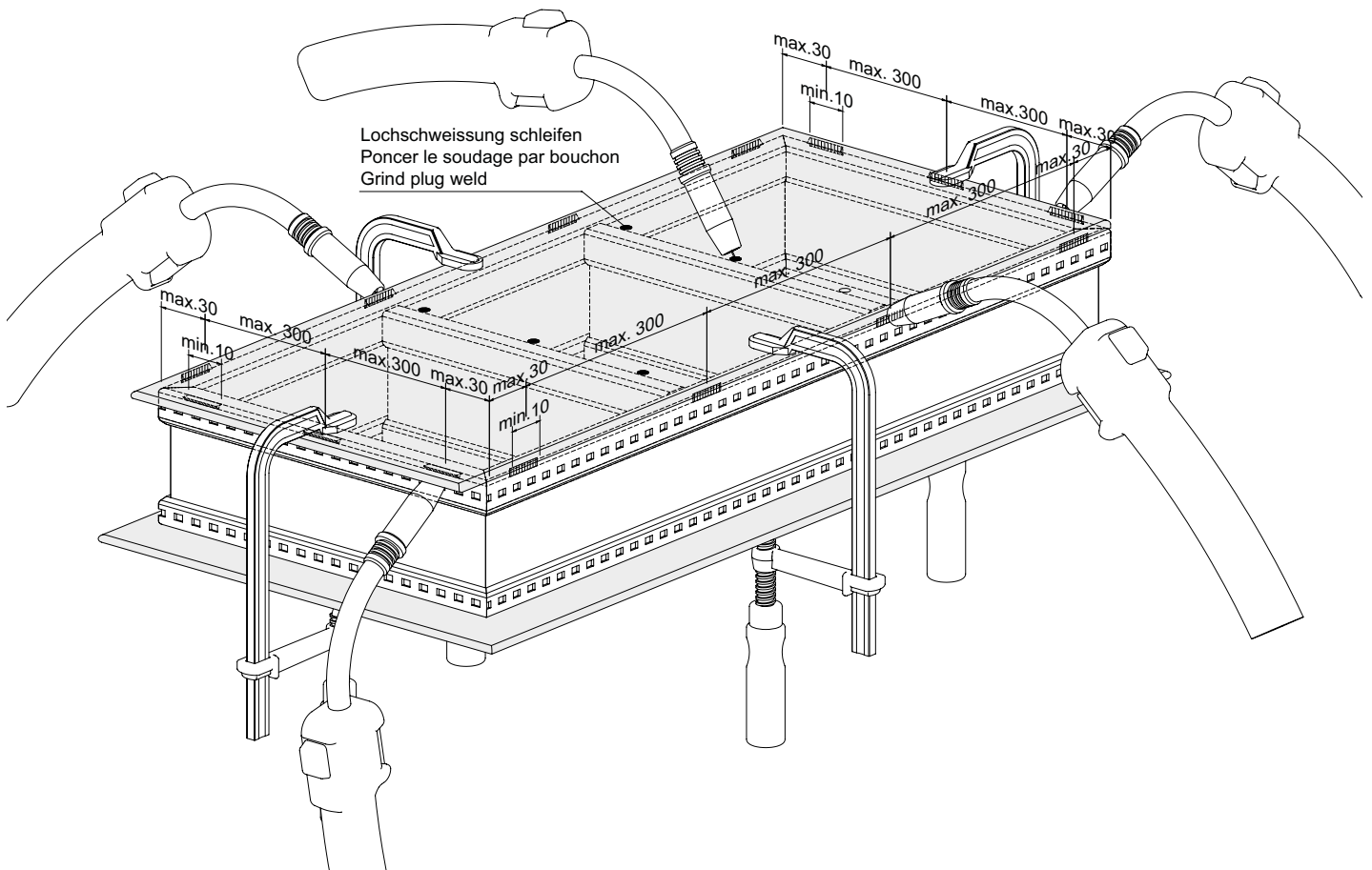
Zusammenbau
verblechter Flügel

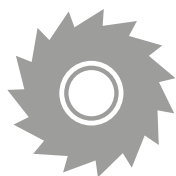
Assemblage de vantail tôlés

Assembling of sheet metal cladleaf



- * für Lochschweissung
- * pour soudage par bouchon
- * for plug welding





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Oberflächenbehandlung

Janisol Arte-Profile können grundsätzlich wie die bewährten Janisol-Profile oberflächenbehandelt werden. Janisol Arte-Profile können sowohl einbrennlackiert als auch pulverbeschichtet werden. Objekttemperatur bis max. 180°C.

Der schwarze Kunststoff-Isolator aus glasfaserverstärktem Polyurethan ist nicht pulverbeschichtungsfähig resp. nimmt die Farbe nicht gleichmässig an. Je nach Farbwahl resp. ästhetischen Ansprüchen empfehlen wir bei Fensterflügeln, den Isolator im sichtbaren Bereich vor dem Pulverbeschichten mit einem hitzebeständigen Abdeckband (451.049) oder nachträglich mit schwarzem Abdeckband 451.057 abzudecken.

Anforderungen

Die Anforderungen an die Oberflächenbehandlung ist in der DIN EN ISO 12944-2 in sechs Korrosivitätskategorien unterteilt. Für die Aussen- und Innenanwendung ist mindestens die Kategorie «C3 mässig» massgebend. Die Schutzdauer ist mindestens mit 5-15 Jahren anzunehmen.

Empfehlung

(gemäss DIN EN ISO 12944-2)

Korrosivitätskategorie: C3

Schutzdauer: mittel (M) 5-15 Jahre

Vorbehandlung, Beschichtungssystem

Als Grundlage für die Ausführung der Oberflächenbehandlung dienen die Ausführungen in der DIN EN ISO 12944-4 und der DIN EN ISO 12944-5.

Qualitätssicherung

Für die Qualitätssicherung sind die DIN EN ISO 12944-7 und die Richtlinie für Bauteilbeschichtungen auf Stahl und feuerverzinktem Stahl GSB ST 663 zu berücksichtigen.

Empfehlung Pulver

IGP-DURA face 5803 Fassadenqualität

Traitement de surface

Les surfaces des profilés Janisol Arte peuvent être traitées comme les profilés Janisol éprouvés. Les profilés Janisol Arte peuvent être laqués au four ou être revêtus de poudre. Température jusqu'à 180°C max. L'isolateur en PVC noir en polyuréthane renforcé par fibres de verre ne peut être revêtu de poudre, la peinture ne se répartit pas de manière homogène. Suivant le choix de la peinture ou les exigences de type esthétique, nous recommandons de recouvrir l'isolateur d'une bande de revêtement thermorésistante dans la zone visible avant de le revêtir par poudre (451.049) ou ultérieurement avec bande de revêtement 451.057.

Exigences

Les exigences vis à vis du traitement de surface sont réparties en six catégories de corrosion dans la norme DIN EN ISO 12944-2. La catégorie «C3 moyenne» au moins est déterminante pour les environnements extérieurs et intérieurs. Une durée de protection de 5 à 15 ans est supposée.

Recommandation

(selon DIN EN ISO 12944-2)

Catégorie de corrosion: C3

Durée de protection:

moyenne (M) 5 à 15 ans

Traitement préliminaire, système de revêtement

Les explications données dans les normes DIN EN ISO 12944-4 et DIN EN ISO 12944-5 servent de base à l'exécution du traitement de surface.

Assurance de la qualité

La norme DIN EN ISO 12944-7 et la directive sur les revêtements de l'acier et de l'acier galvanisé à chaud GSB ST 663 doivent être prises en compte pour l'assurance de la qualité.

Recommandation poudre

IGP-DURA face 5803 qualité façade

Surface treatment

Janisol Arte profiles can have basically the same surface treatment as the standard Janisol profiles. Janisol Arte profiles can be stove-enameled and powder coated. Object temperature up to max. 180°C. The black PVC-U isolator made of glassfibre reinforced polyurethane cannot be powder coated as the colour cannot be applied evenly. Depending on the choice of colour or aesthetic requirements, for window sash we recommend covering the visible areas of the isolator with a heat resistant isolator cover (451.049) before carrying out the powder coating or afterwards with cover tape 451.057.

Requirements

The surface treatment requirements are divided into 6 corrosion categories under DIN EN ISO 12944-2.

«C3 moderate» is the most-used category for outside and inside use. The protection will last at least 5-15 years.

Recommendation (in accordance with DIN EN ISO 12944-2)

Corrosion category: C3

Duration of protection:

average, 5-15 years

Pre-treatment, coating system

Execution of the surface treatment based on DIN EN ISO 12944-4 and DIN EN ISO 12944-5.

Quality Assurance

For quality assurance, DIN EN ISO 12944-7 and the GSB ST 663 guidelines for steel and hot-dip galvanised steel component coating must be taken into account.

Powder recommendation

IGP-DURA face 5803 façade quality

Abdeckband 451.049

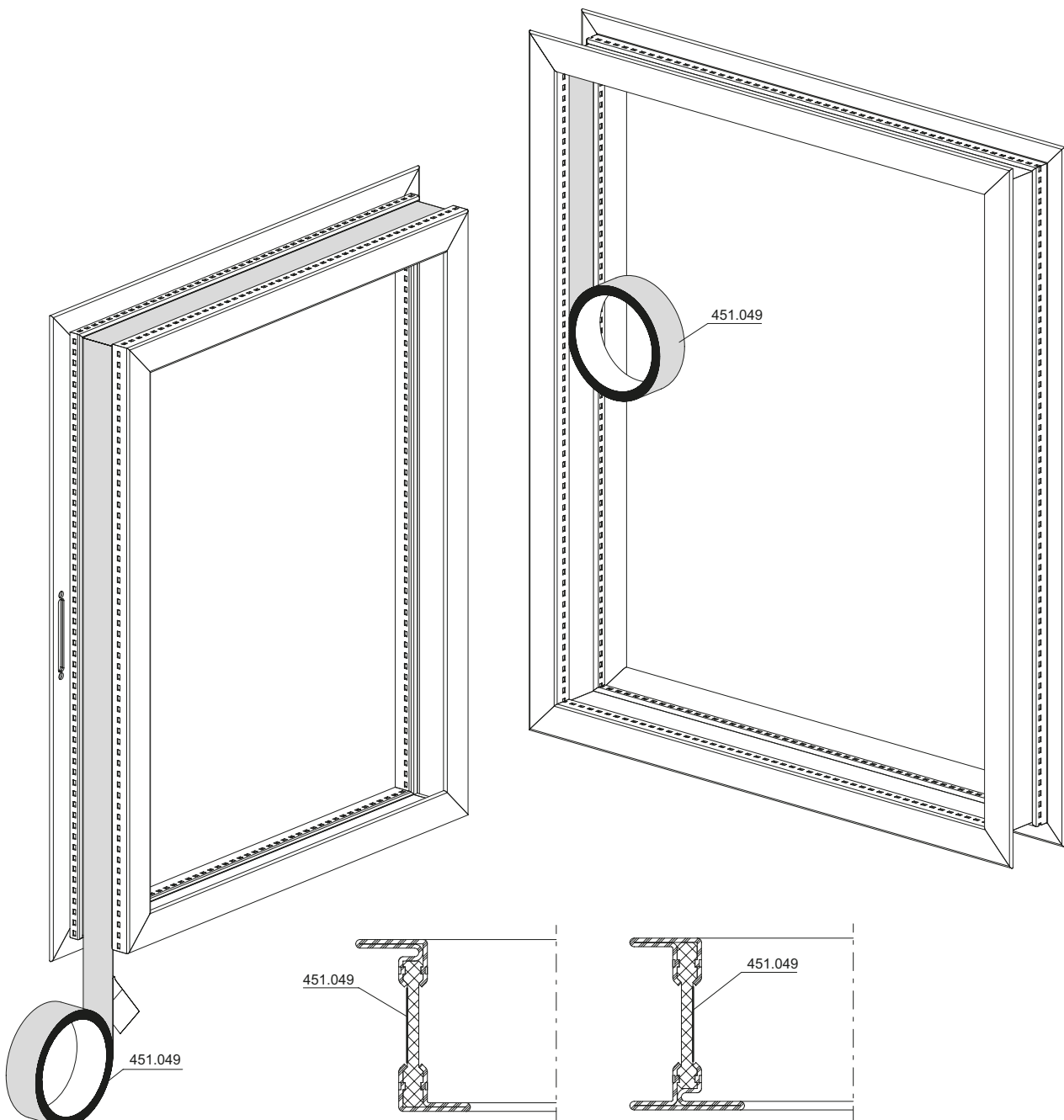
- Der Isolator muss trocken, staub-, öl- und fettfrei sein.
- Band direkt von der Rolle aufbringen. Schutzpapier sorgfältig abziehen.
- Band nicht in gestrecktem Zustand aufbringen.
- Überlappung ca. 200 mm

Bande de recouvrement 451.049

- L'isolateur doit être sec, exempt de poussière, d'huile et de graisse.
- Appliquer la bande directement à partir du rouleau. Retirer soigneusement le papier protecteur.
- Ne pas appliquer la bande en état étiré.
- Chevauchement env. 200 mm

Cover tape 451.049

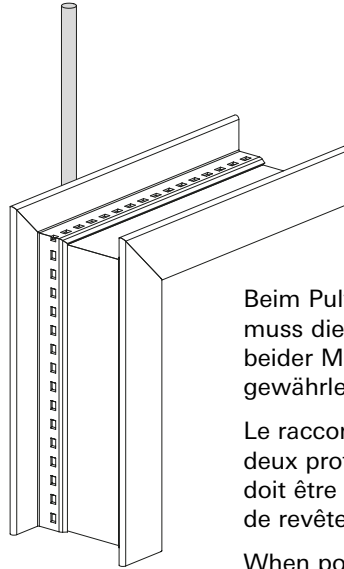
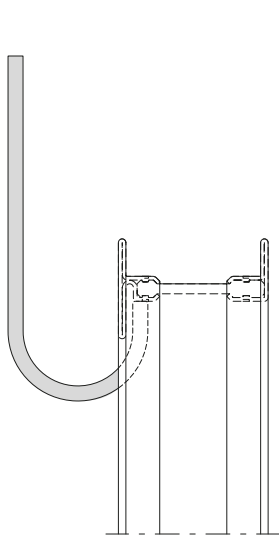
- The insulator must be dry and free from dust, oil and grease.
- Apply the strip straight from the roll. Remove the protective paper carefully.
- Do not stretch the strip while applying.
- Overlap approx. 200 mm



Aufhängung beim Beschichten
Einbrenntemperatur
Pulverbeschichtung max. 180°C

Suspension lors du revêtement
Température de cuisson revêtement
poudre max. 180°C

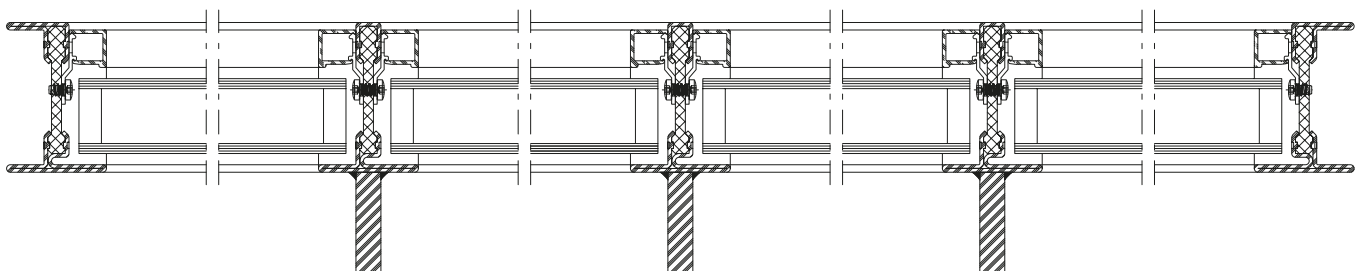
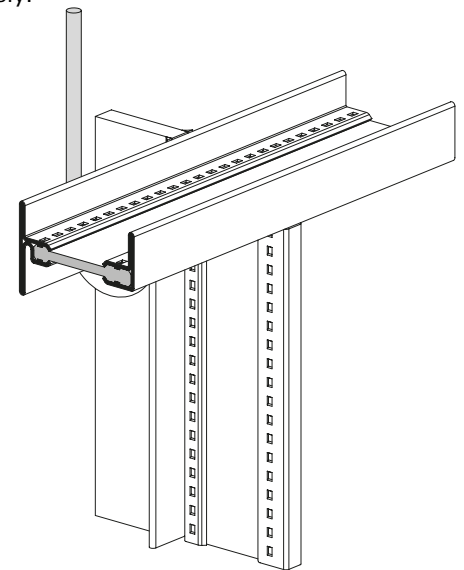
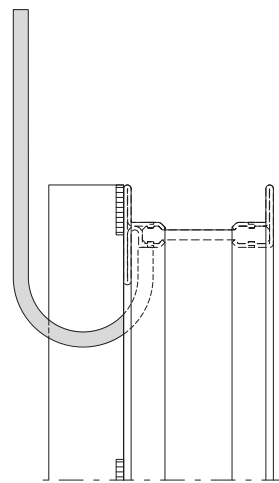
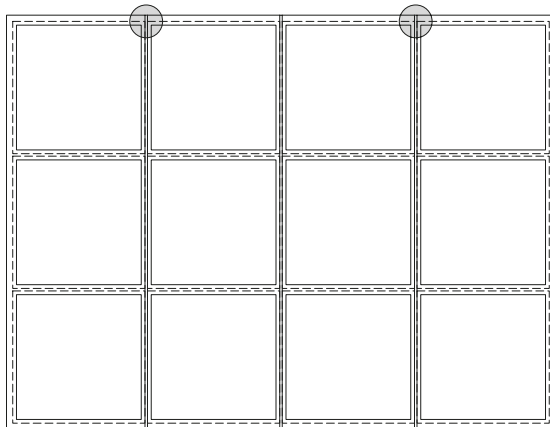
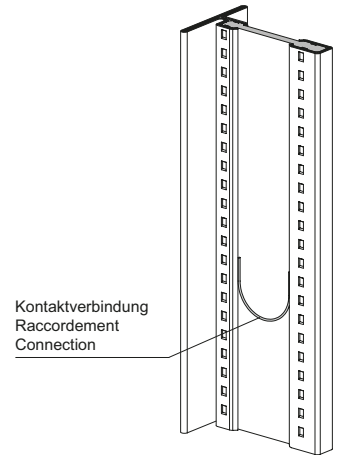
Hanging points for colour coating
Max. powder coating curing
temperature of 180°C



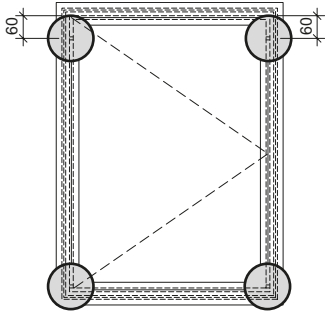
Beim Pulverbeschichten
muss die Verbindung
beider Metallprofile
gewährleistet sein.

Le raccordement des
deux profilés métalliques
doit être garanti en cas
de revêtement par poudre.

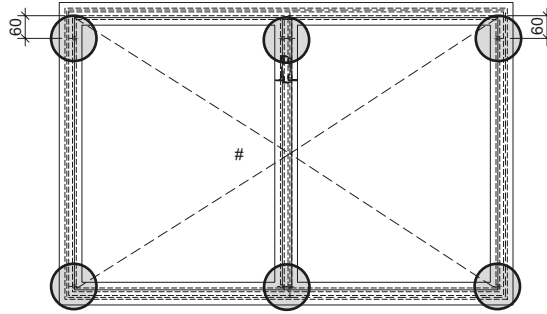
When powder coating,
the two metal profiles
must be joined securely.



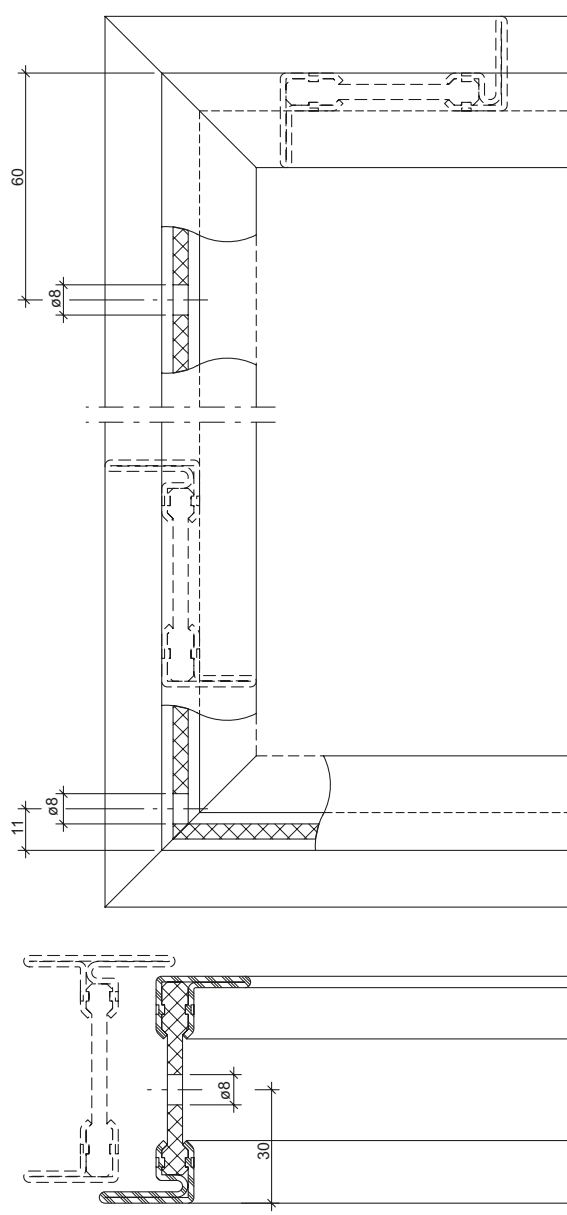
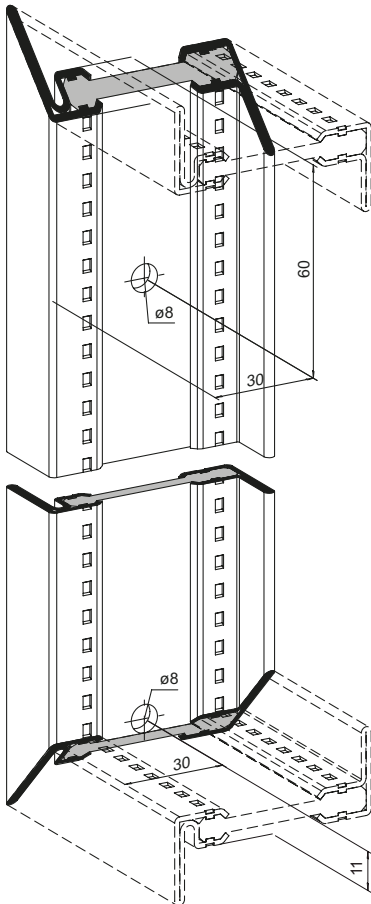
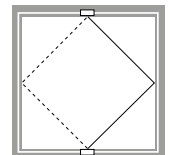
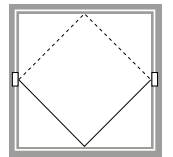
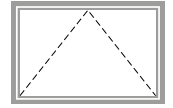
Glasfalzbelüftung
Fensterflügel einwärts öffnend



Aération de feuillure
Vantail de fenêtre ouvrant vers l'intérieur

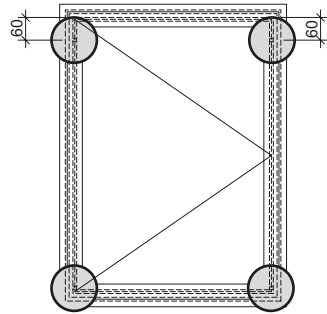


Glazing rebate ventilation
Window leaf inward opening

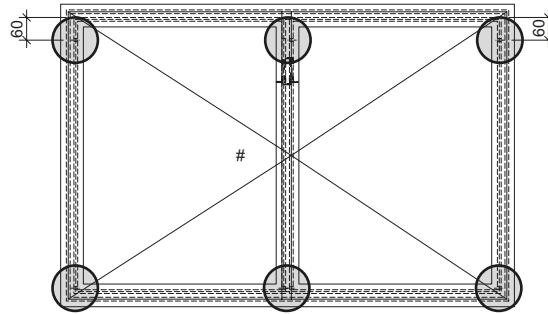


Bearbeitung mit 499.469
 Usinage avec 499.469
 Preparation with 499.469

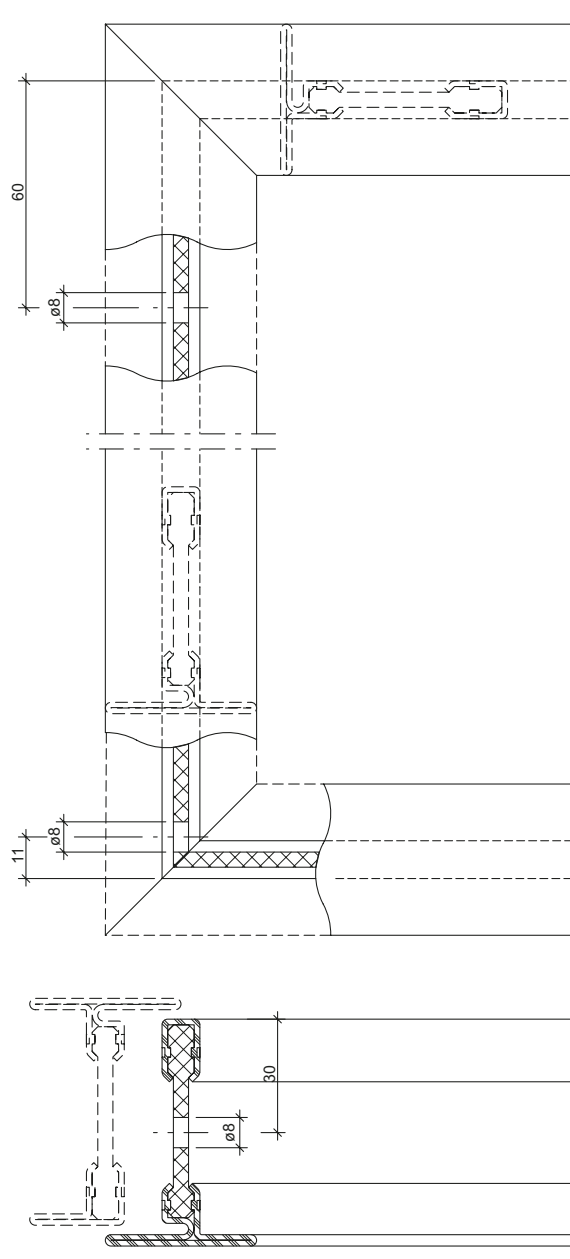
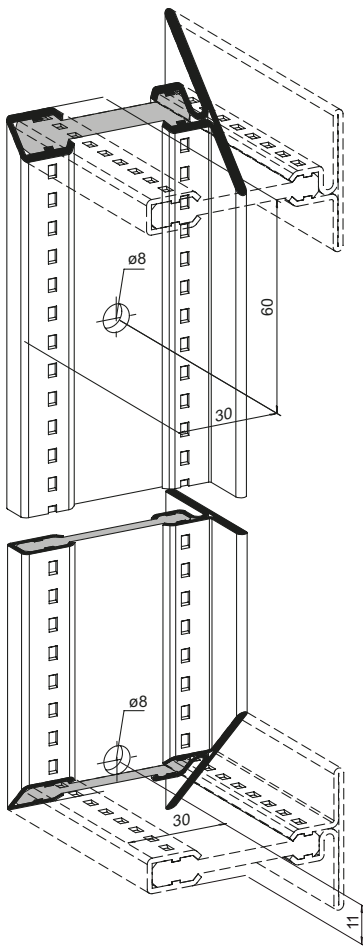
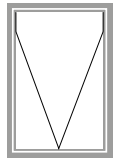
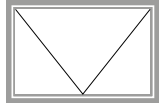
Glasfalzbelüftung
Fensterflügel auswärts öffnend



Aération de feuillure
Vantail de fenêtre ouvrant vers
l'extérieur



Glazing rebate ventilation
Window leaf outward opening

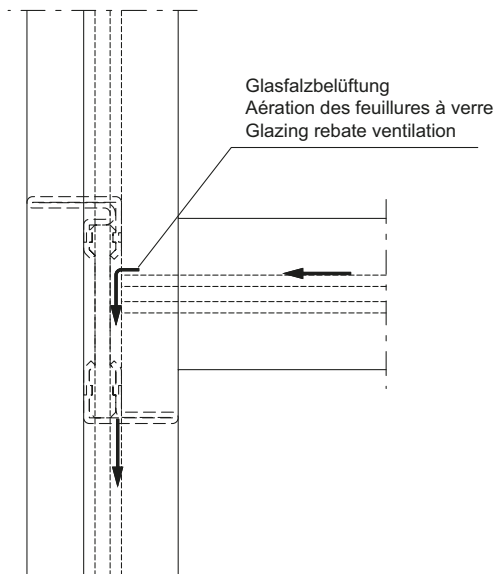
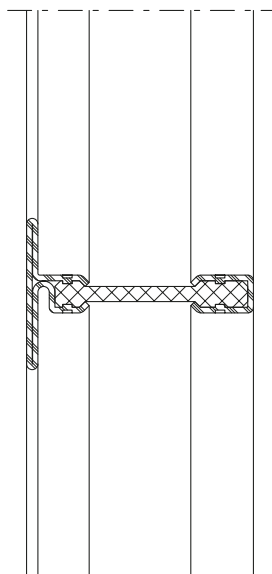
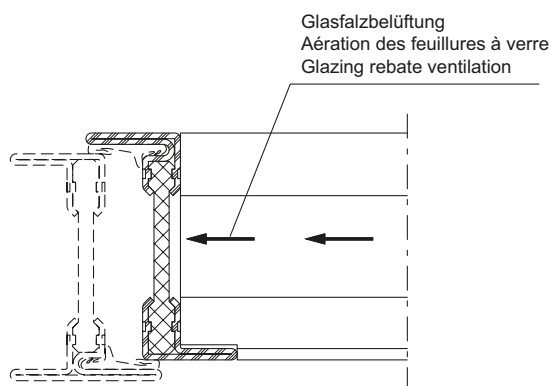
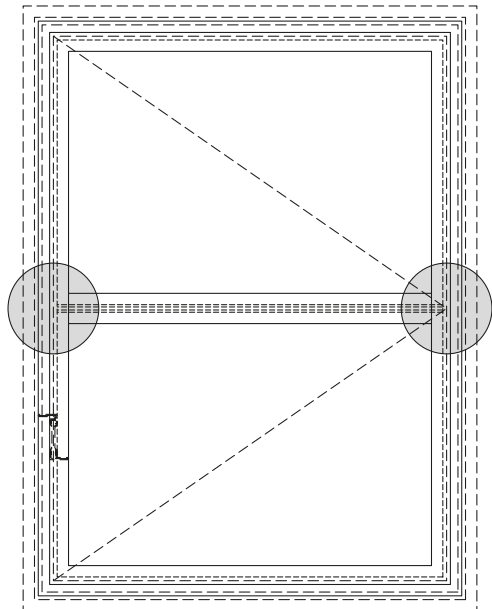


Bearbeitung mit 499.469
Usinage avec 499.469
Preparation with 499.469

Glasfalzbelüftung
Sprossen
Flügel

Aération des feuillures à verre
Meneaux
Vantail

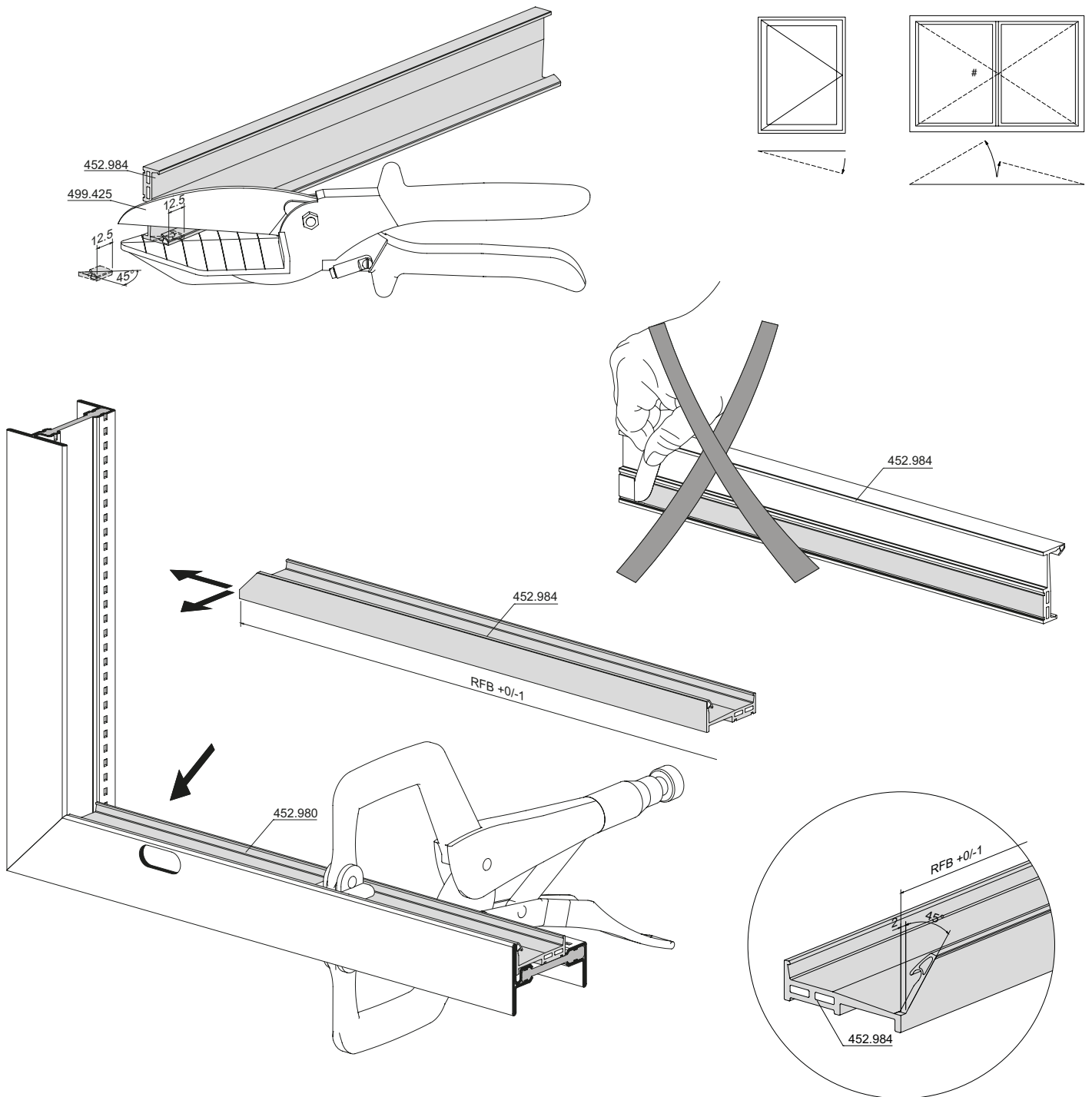
Glazing rebate ventilation
Sash bars
Sash



Zuschnitt
Entwässerungsprofil 452.984

Découpe
Profilé de drainage 452.984

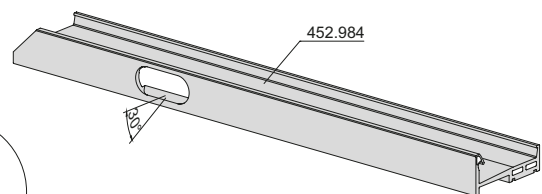
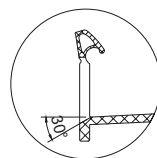
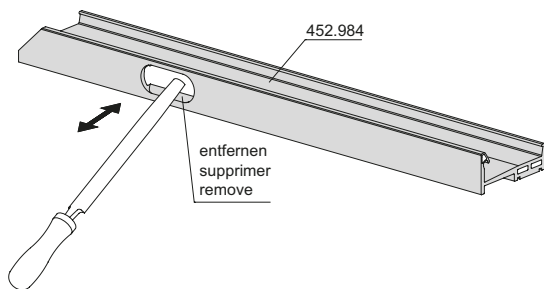
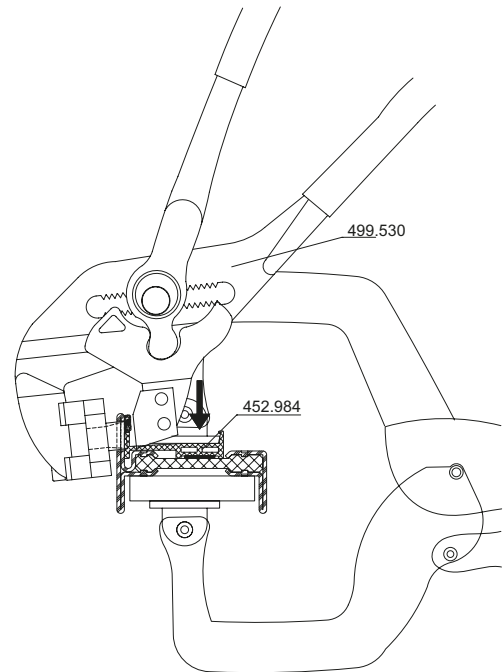
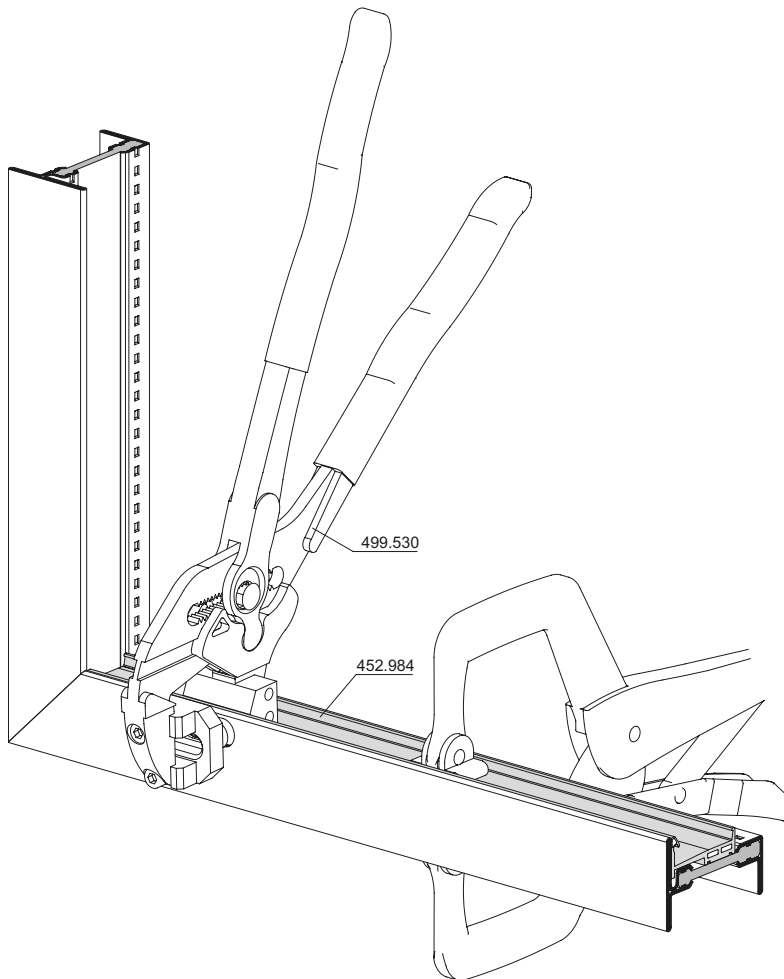
Cutting
Drainage profile 452.984



Klinkung für
Entwässerungstülle 450.115

Entaille
Profilé de drainage 452.984

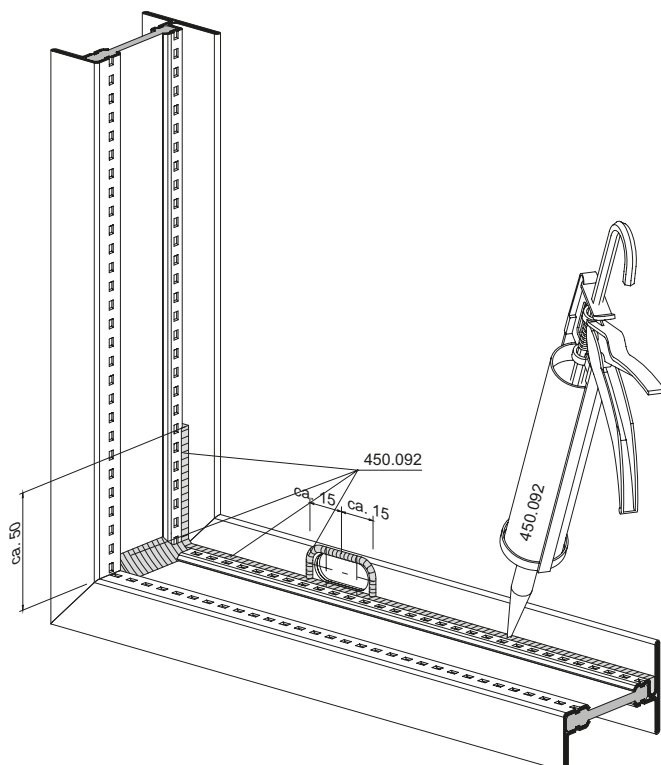
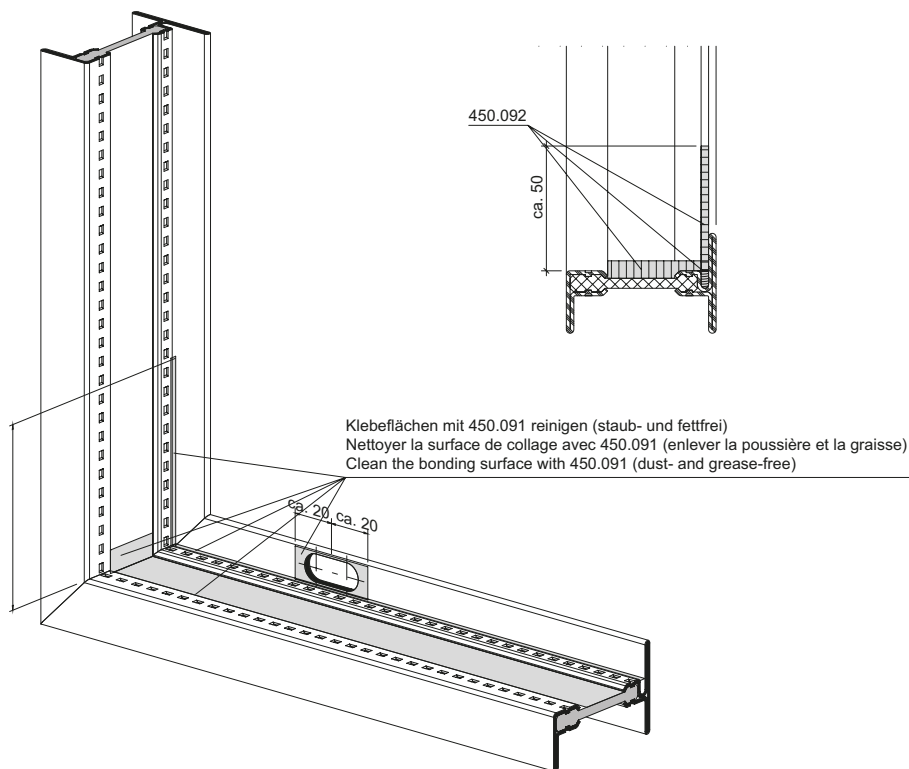
Notching
Drainage profile 452.984



Vorbereitung für Einbau
Entwässerungsprofil 452.984

Préparation pour montage
profilé de drainage 452.984

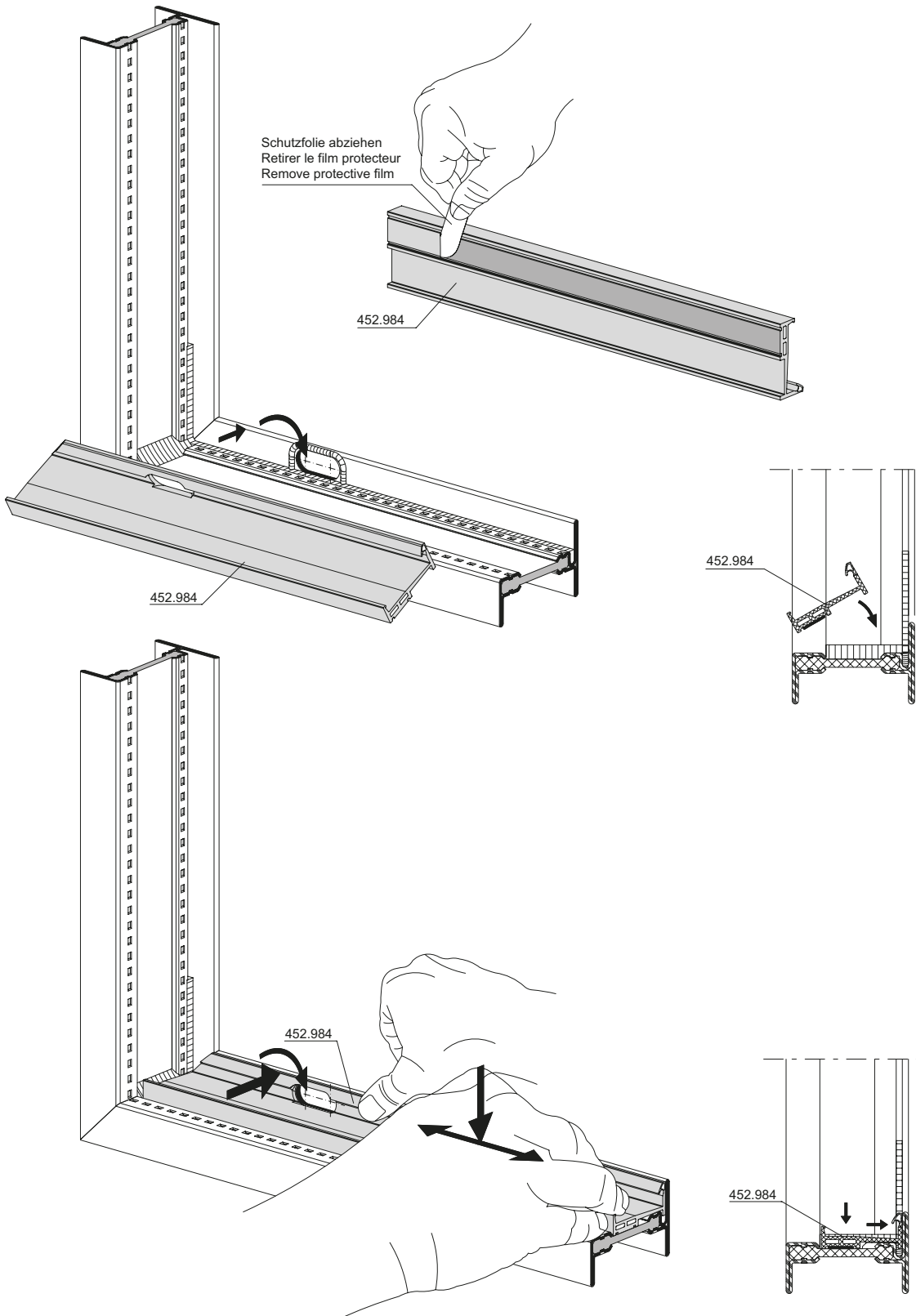
Preparation for installation
drainage profile 452.984



Einbau
Entwässerungsprofil 452.984

Montage
Profilé de drainage 452.984

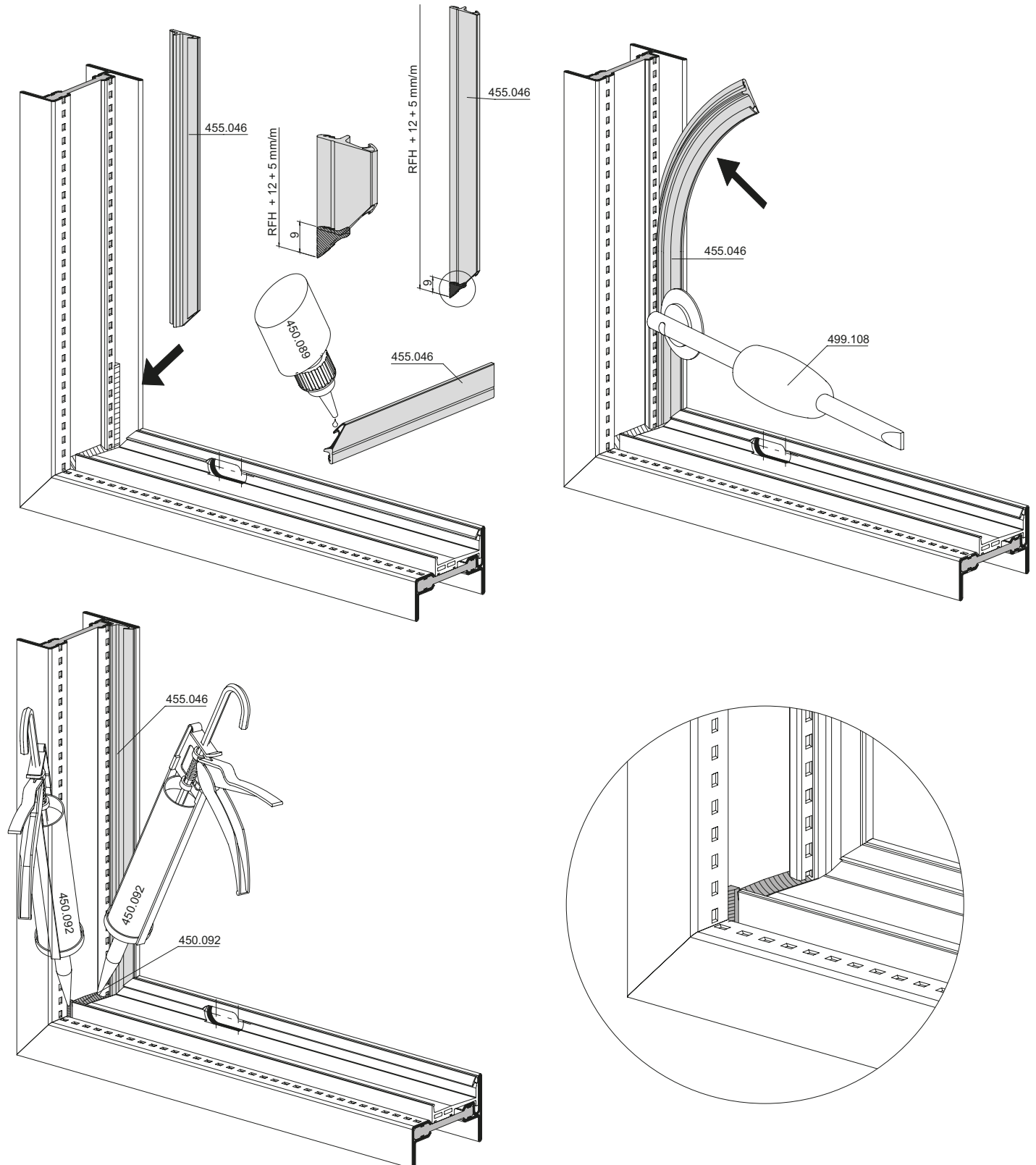
Installation
Drainage profile 452.984



Einbau
Anschlagdichtung 455.046

Montage
Joint de butée 455.046

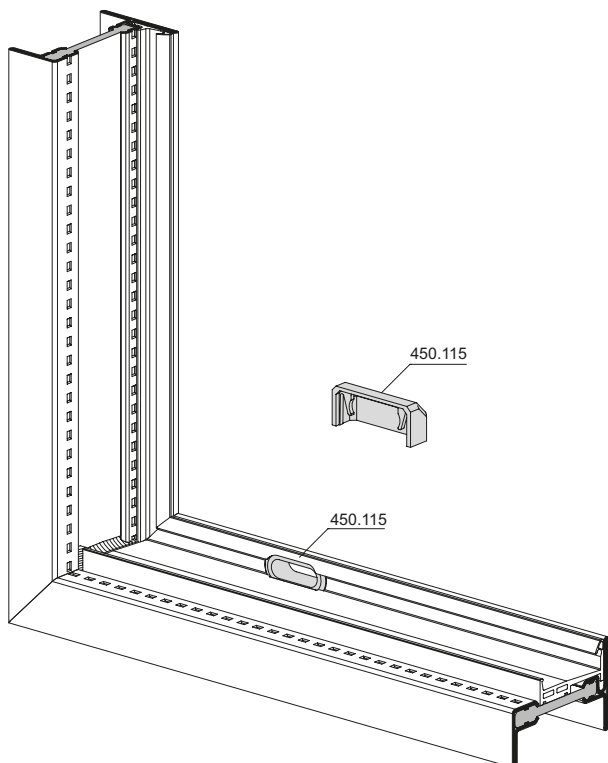
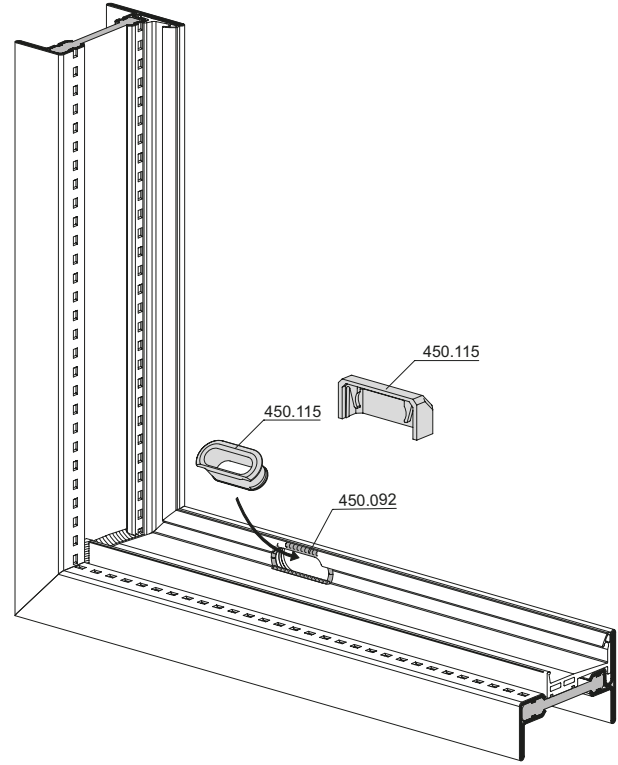
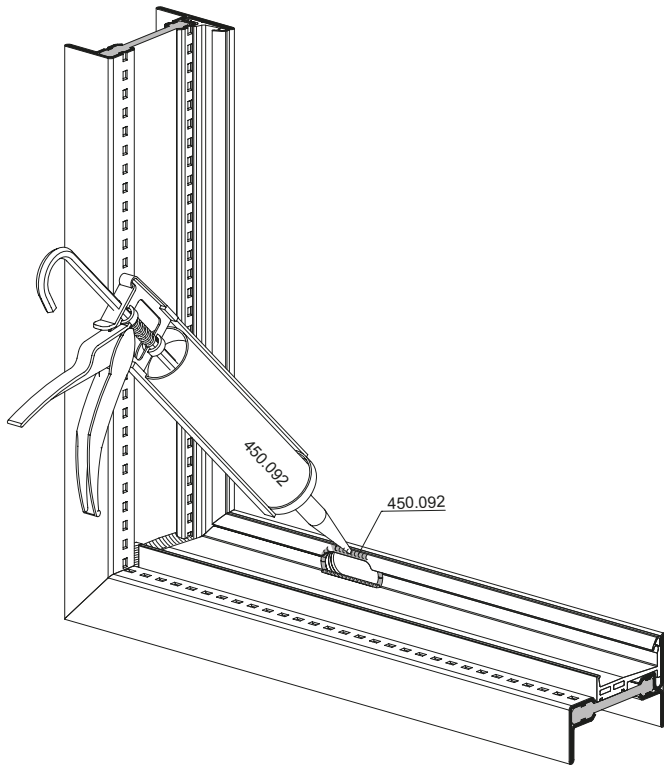
Installation
Rebate weatherstrip 455.046



Einbau
Entwässerungstülle 450.115

Montage
Douille d'évacuation d'eau 450.115

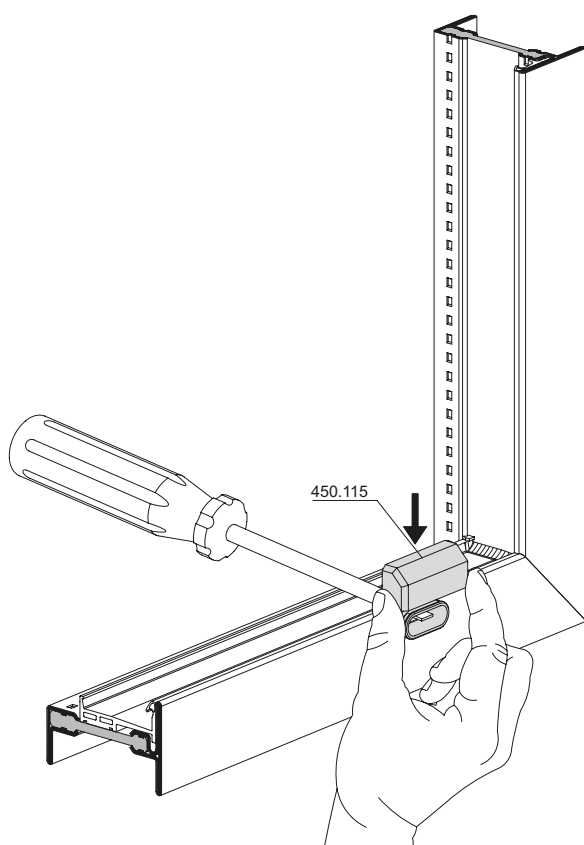
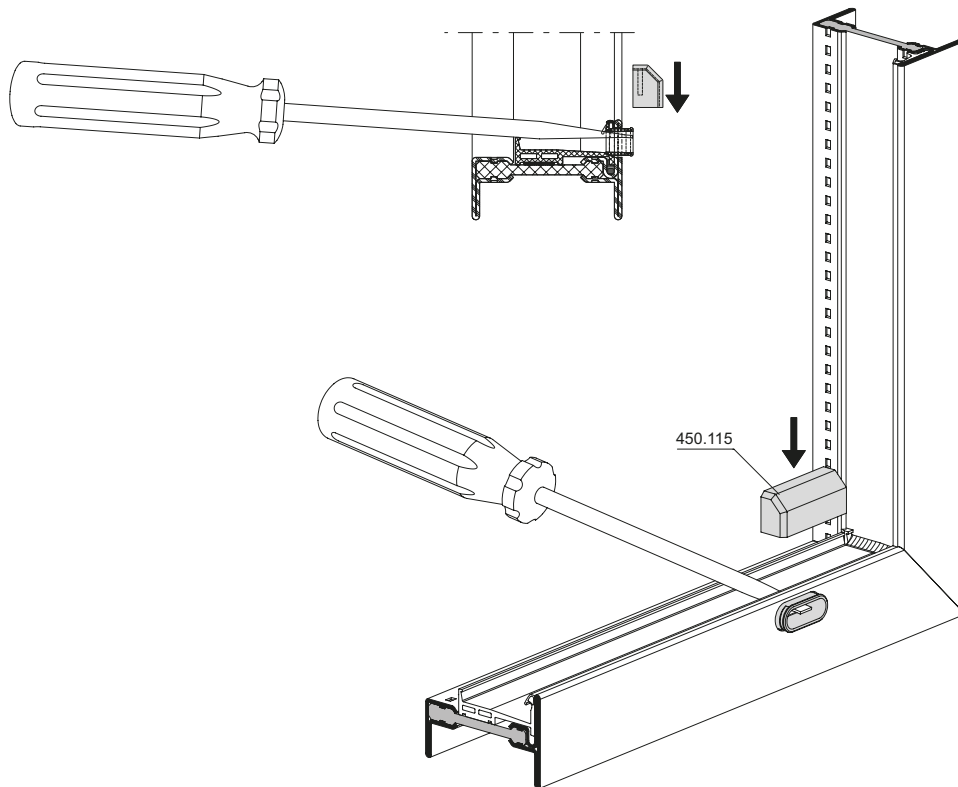
Installation
Drain pipe 450.115



Einbau
Entwässerungstülle 450.115

Montage
Douille d'évacuation d'eau 450.115

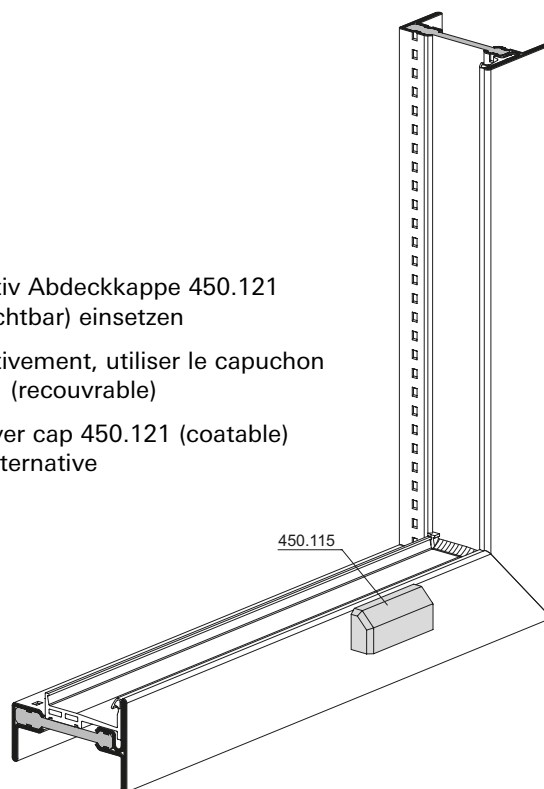
Installation
Drain pipe 450.115



Alternativ Abdeckkappe 450.121
(beschichtbar) einsetzen

Alternativement, utiliser le capuchon
450.121 (recouvrable)

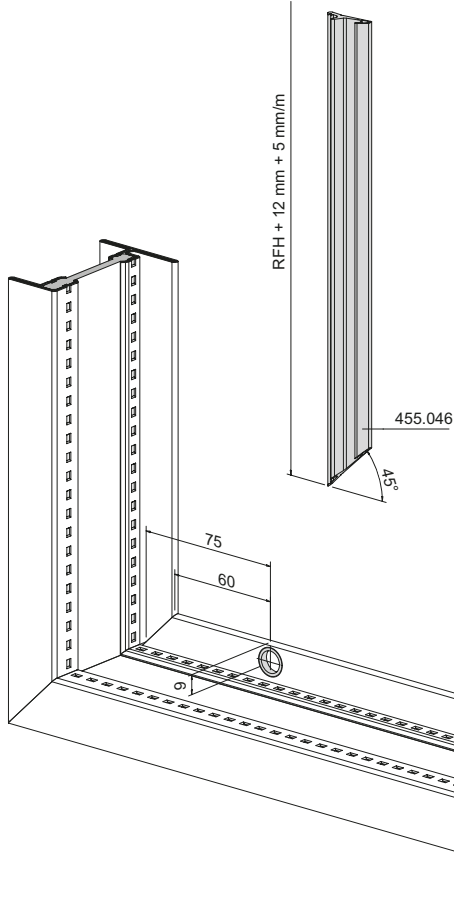
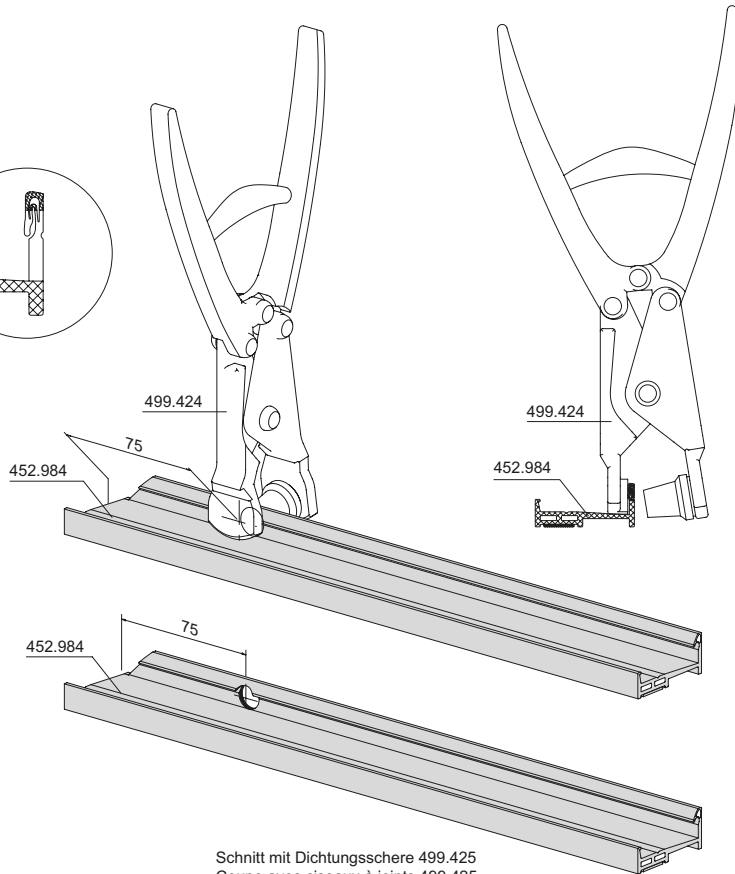
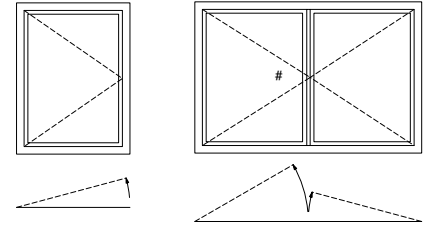
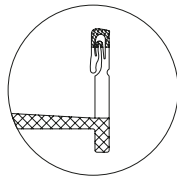
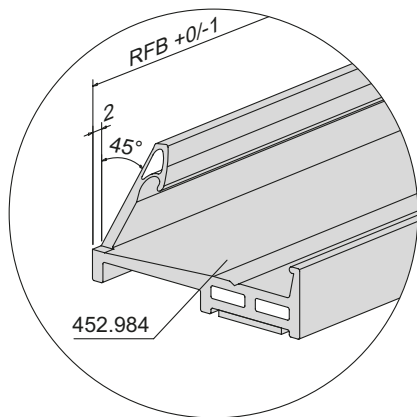
Use cover cap 450.121 (coatable)
as an alternative



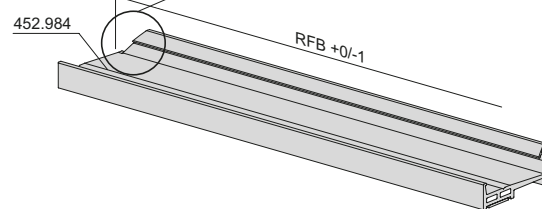
Zuschnitt
 Entwässerungsprofil 452.984

Découpe
 Profilé de drainage 452.984

Cutting
 Drainage profile 452.984



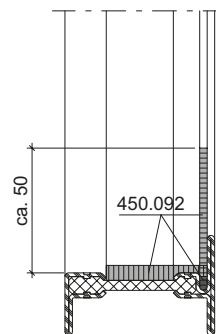
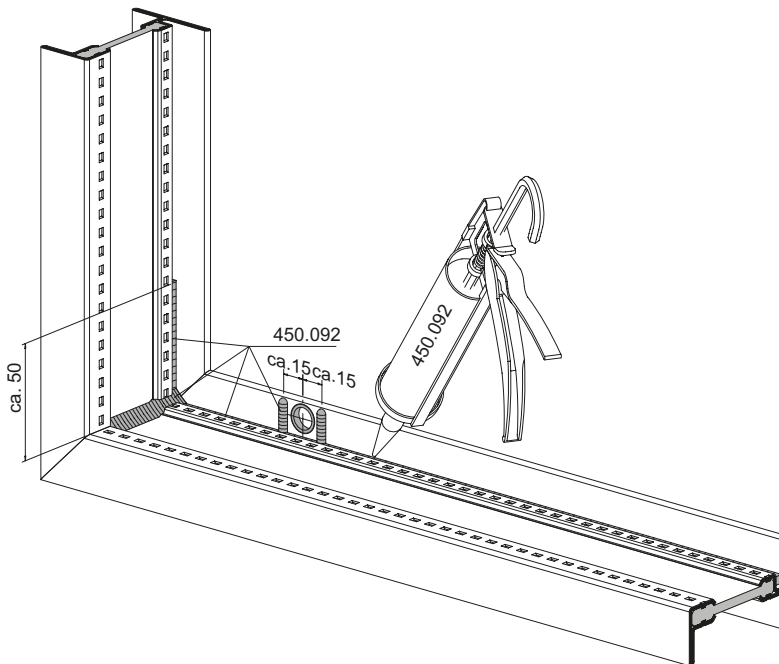
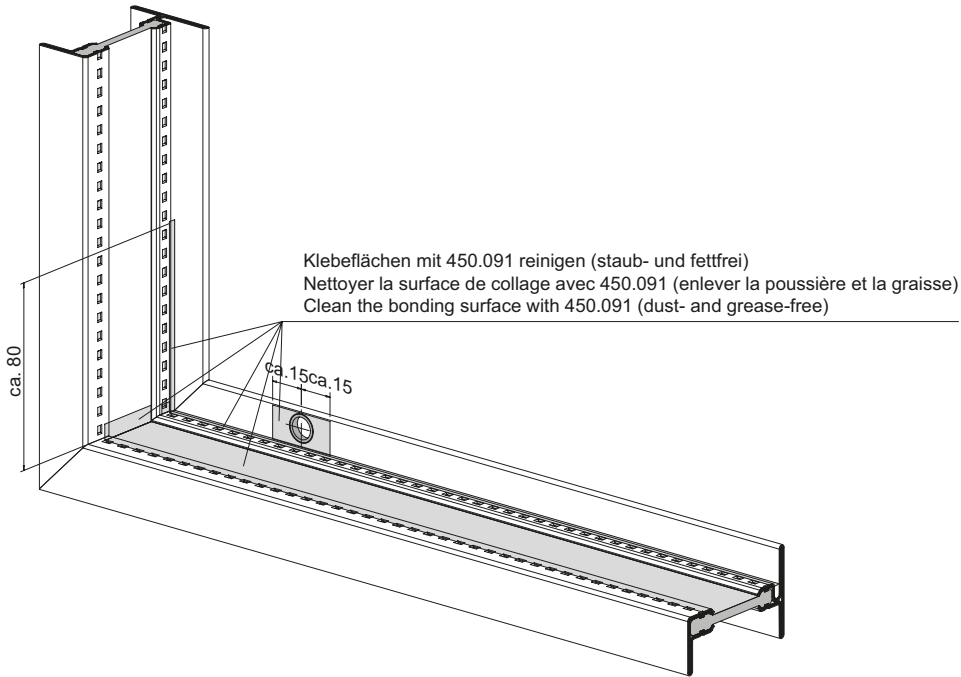
Schnitt mit Dichtungsschere 499.425
 Coupe avec ciseaux à joints 499.425
 Cut with weatherstrip shears 499.425



Vorbereitung für Einbau
Entwässerungsprofil 452.984

Préparation pour montage
profilé de drainage 452.984

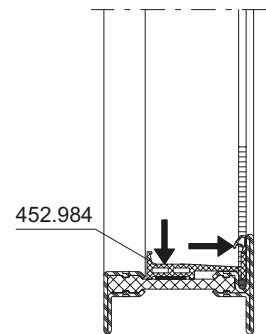
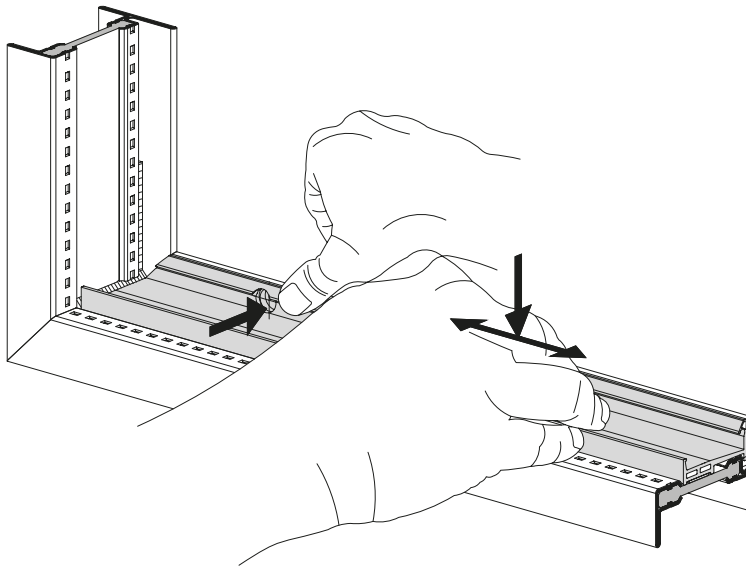
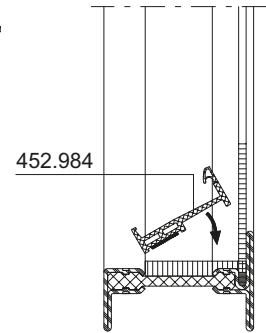
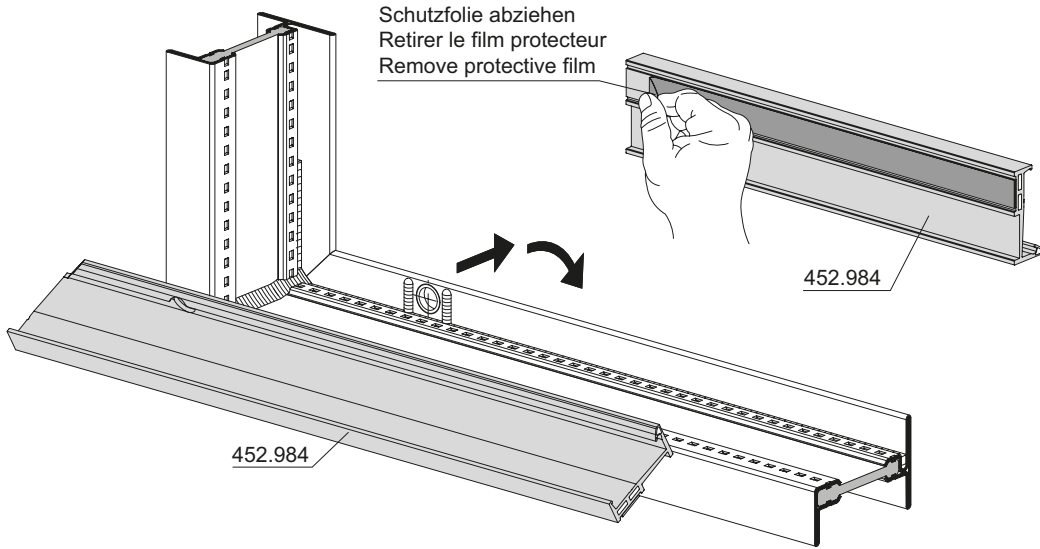
Preparation for installation
drainage profile 452.984



Einbau
Entwässerungsprofil 452.984

Montage
Profilé de drainage 452.984

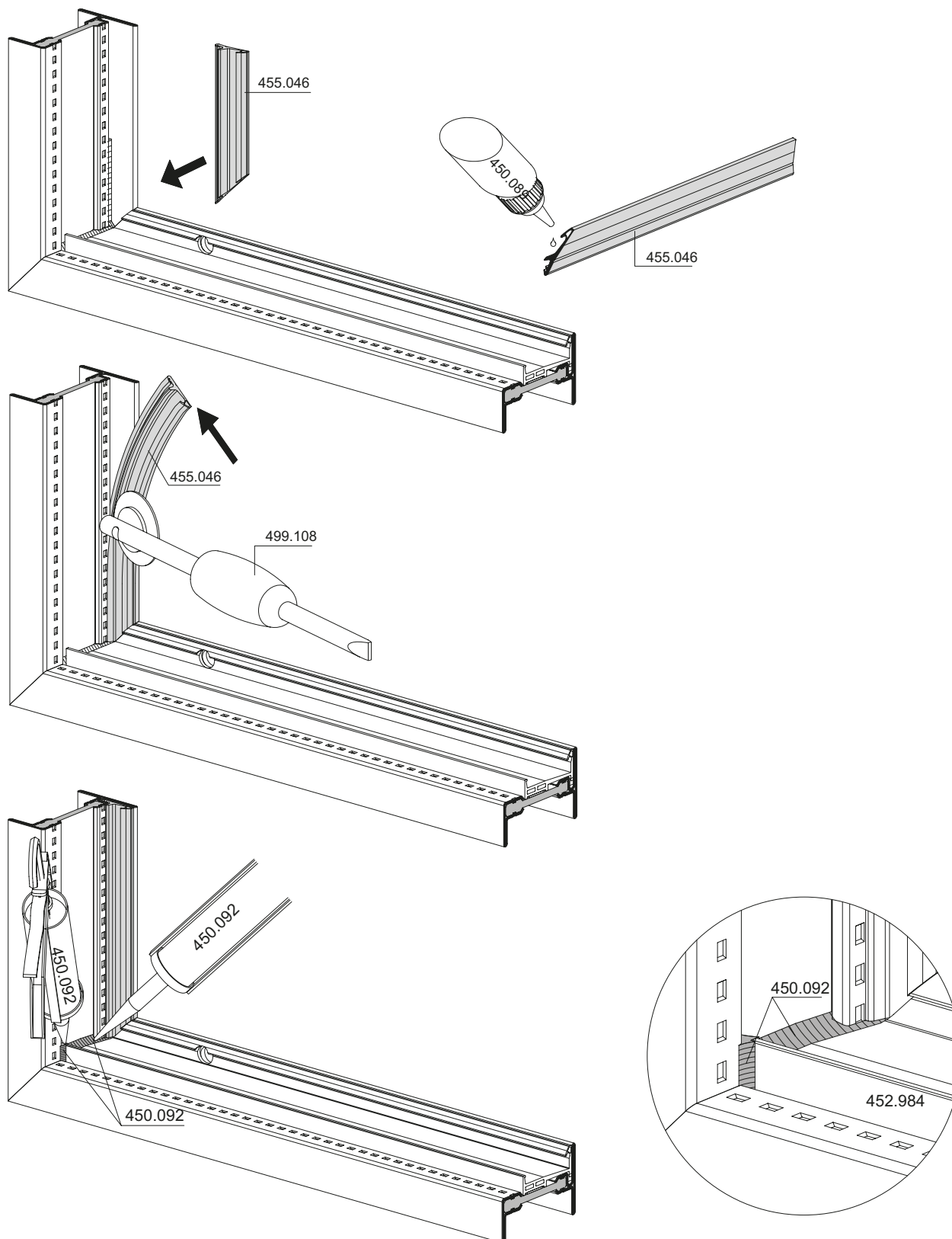
Installation
Drainage profile 452.984



Einbau
Anschlagdichtung 455.046

Montage
Joint de butée 455.046

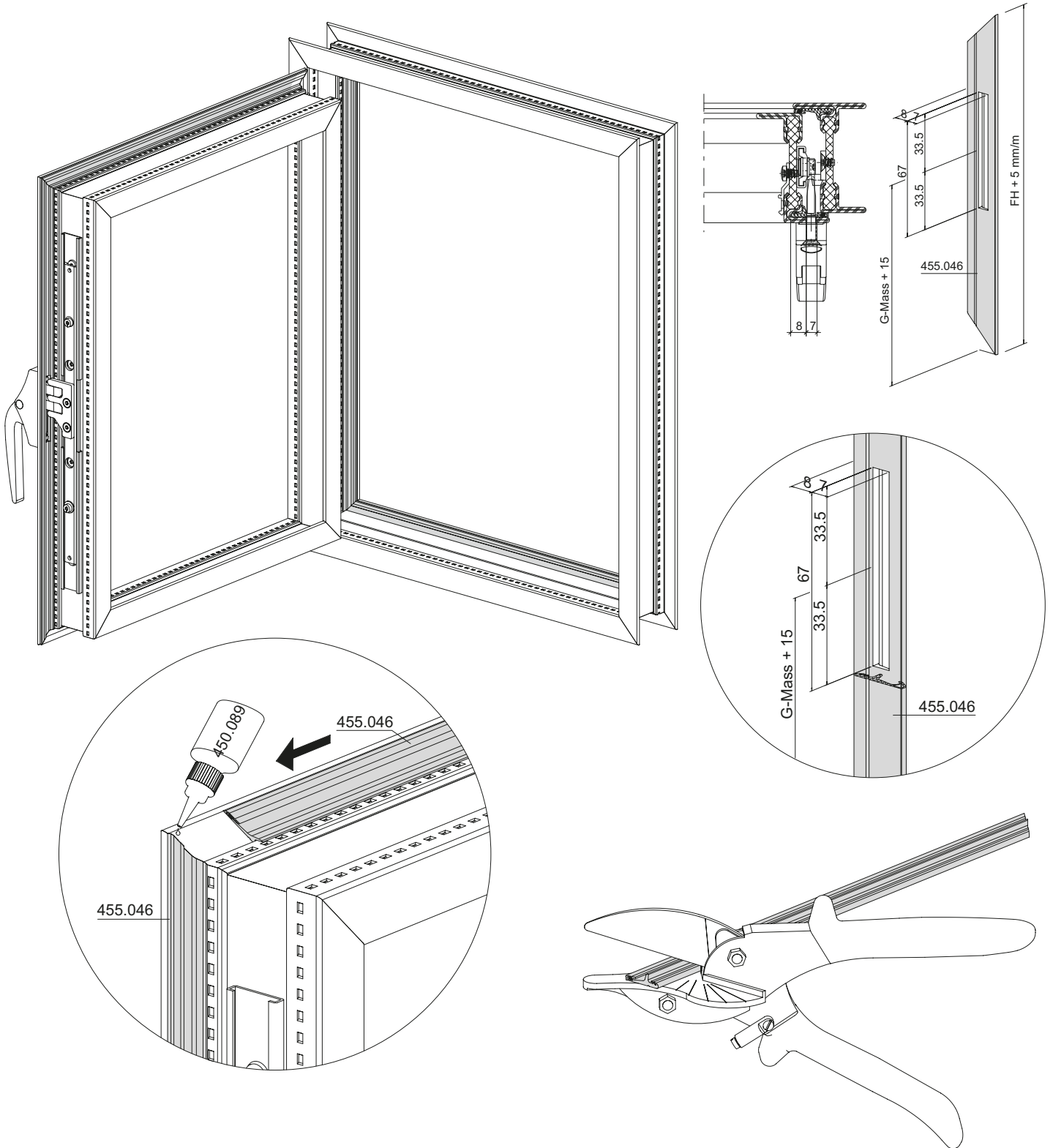
Installation
Rebate weatherstrip 455.046



Montage Flügeldichtung 455.046

Montage joint de vantail 450.046

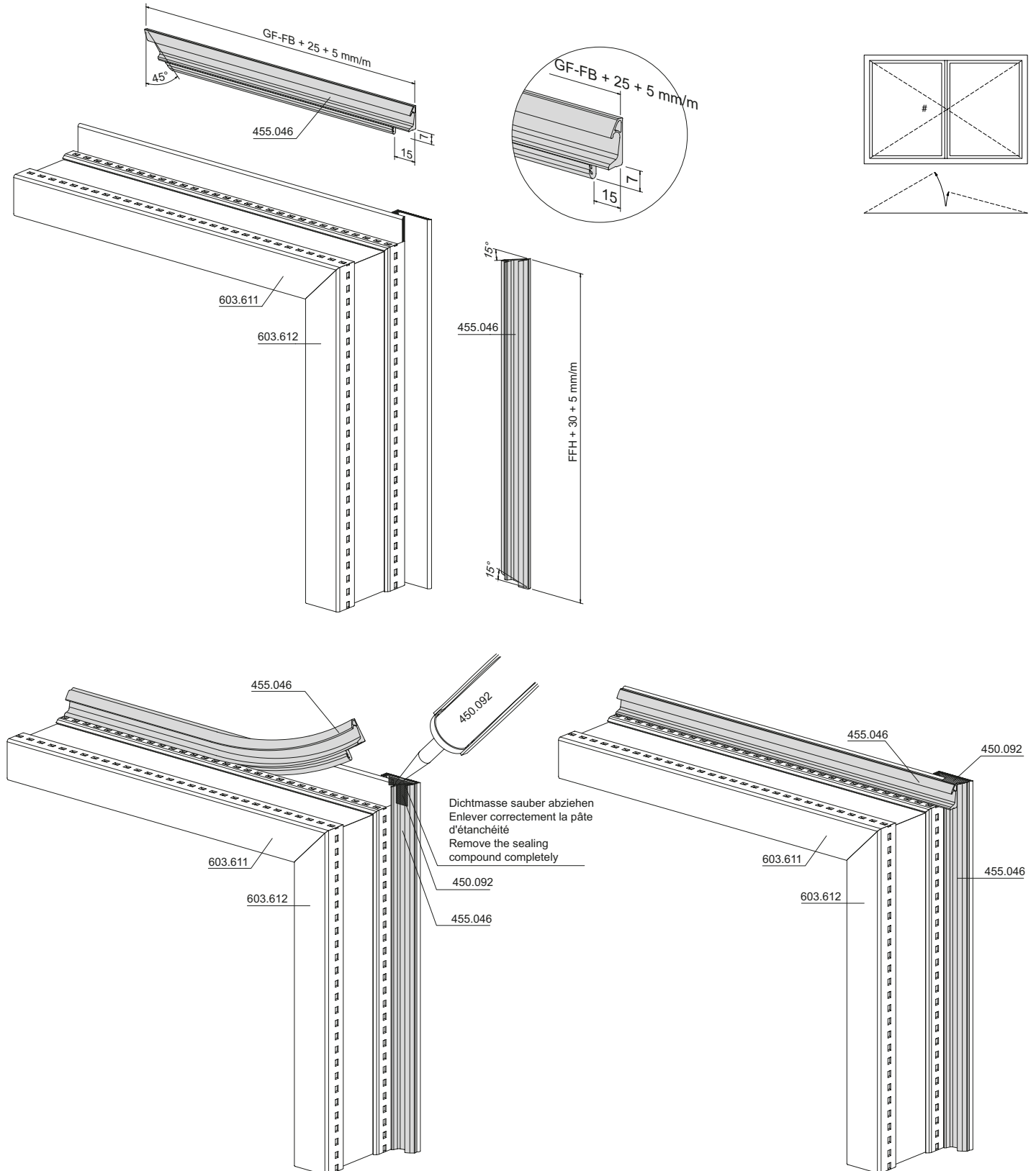
Installation of sash weatherstrip
450.046



Montage Flügeldichtung 455.046
 Gangflügel

Montage joint de vantail 450.046
 Vantail de service

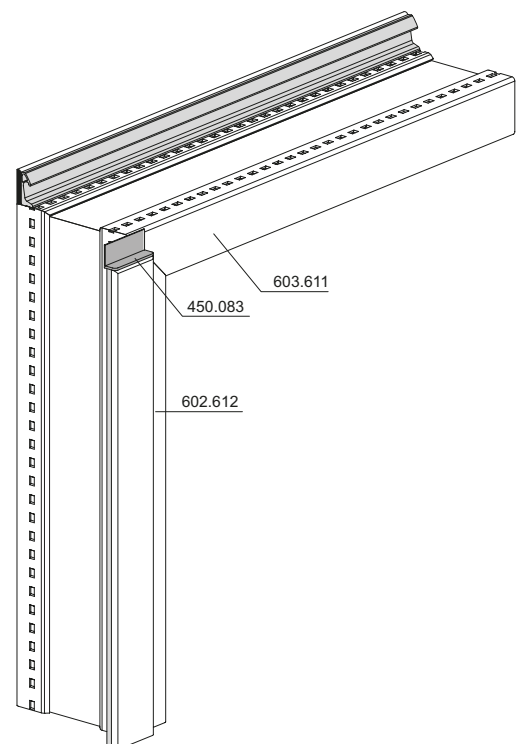
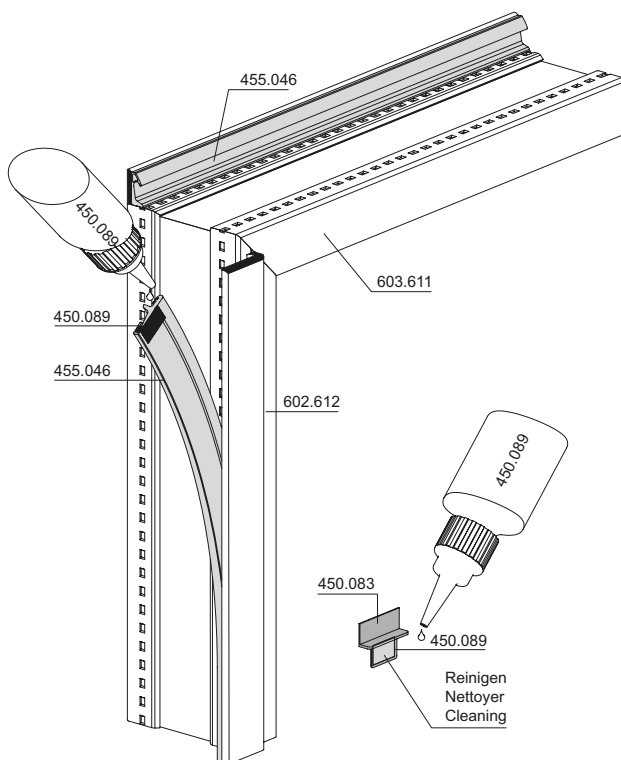
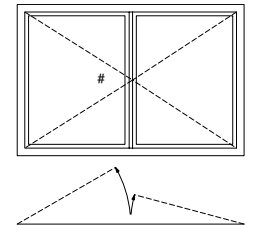
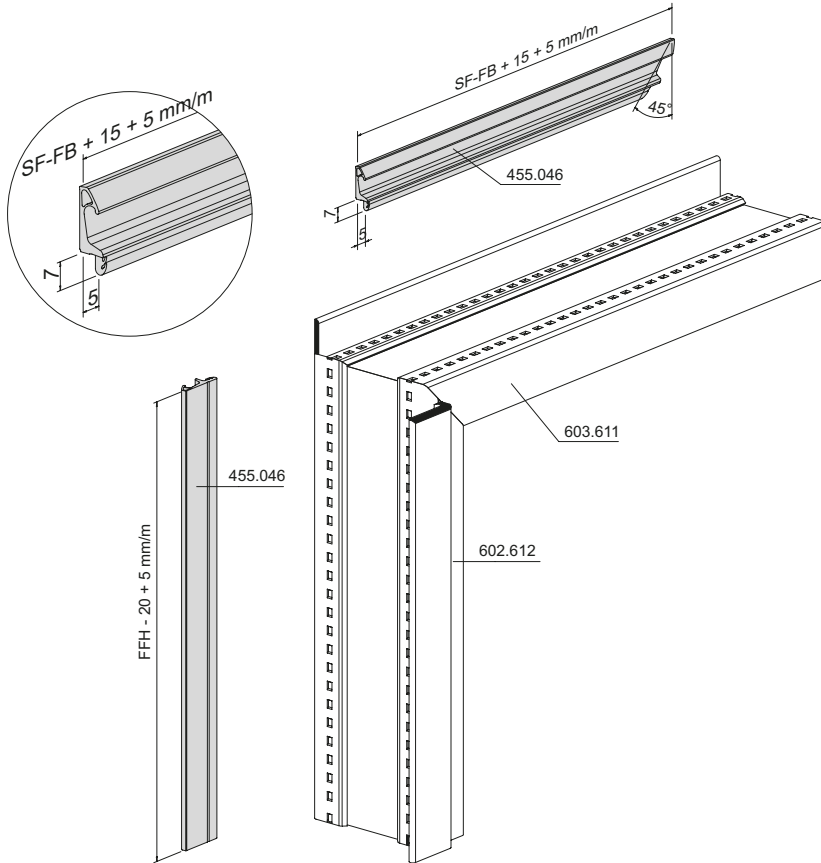
Installation of sash weatherstrip
 450.046
 Access sash



Montage Flügeldichtung 455.046
 Standflügel

Montage joint de vantail 450.046
 Vantail semi-fixe

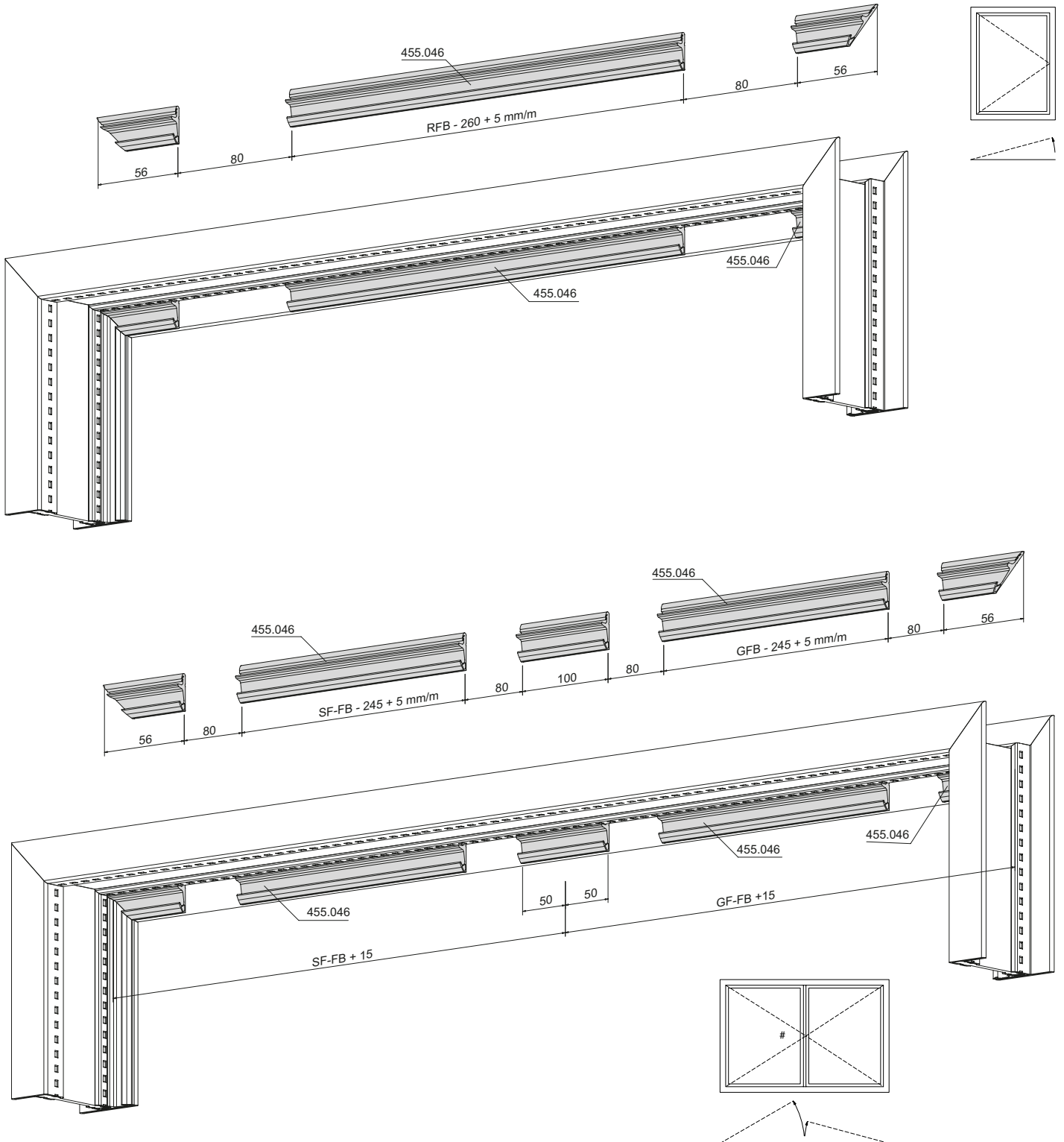
Installation of sash weatherstrip
 450.046
 Secondary sash



Dichtungs-Ausnehmung 455.046
Rahmen

Évidement pour le joint 455.046
Cadre

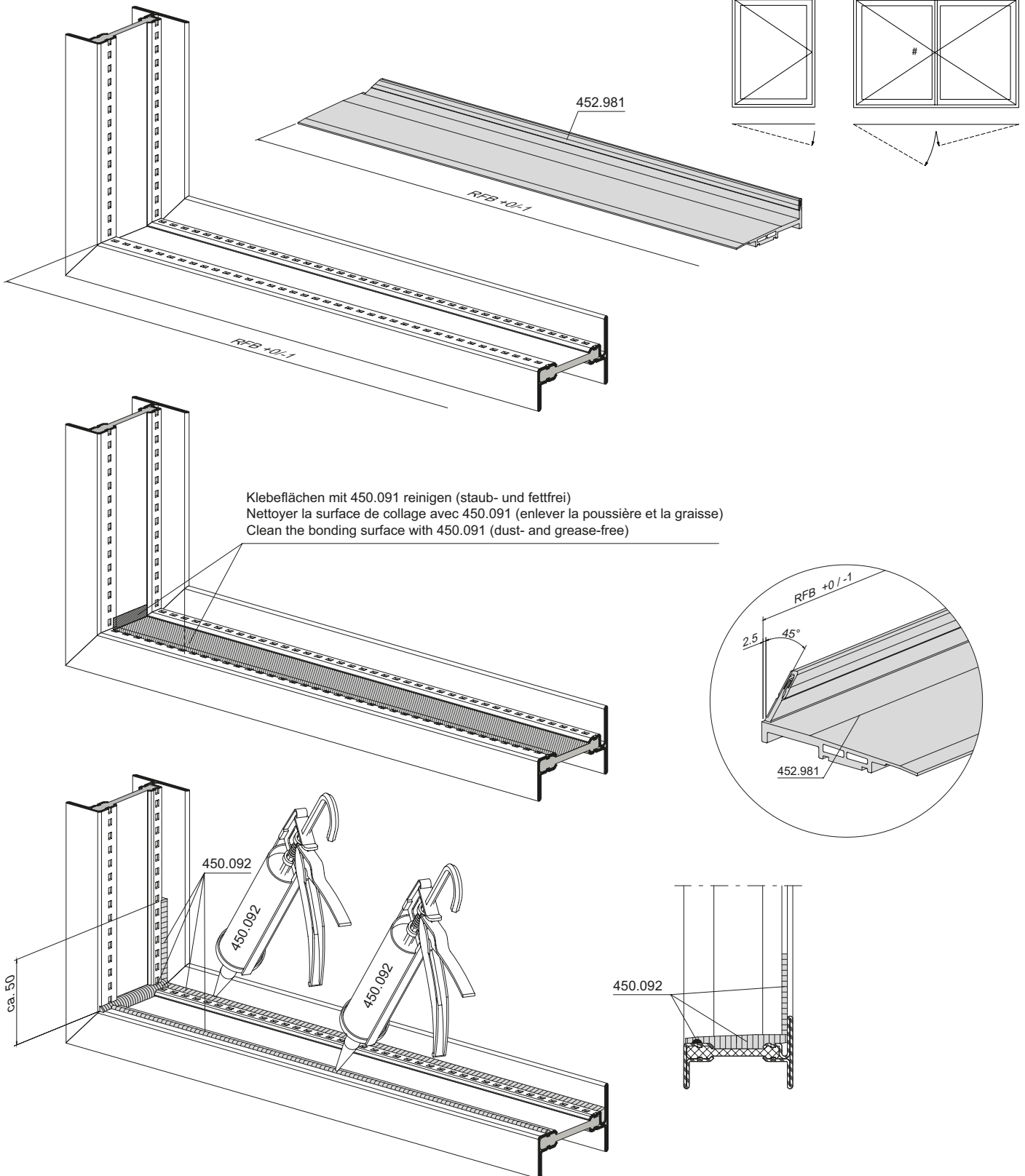
Openings in the weatherstrip 455.046
Frame



Zuschnitt und Vorbereitung für
Einbau Entwässerungsprofil 452.981

Découpe et préparation pour
montage profilé de drainage 452.981

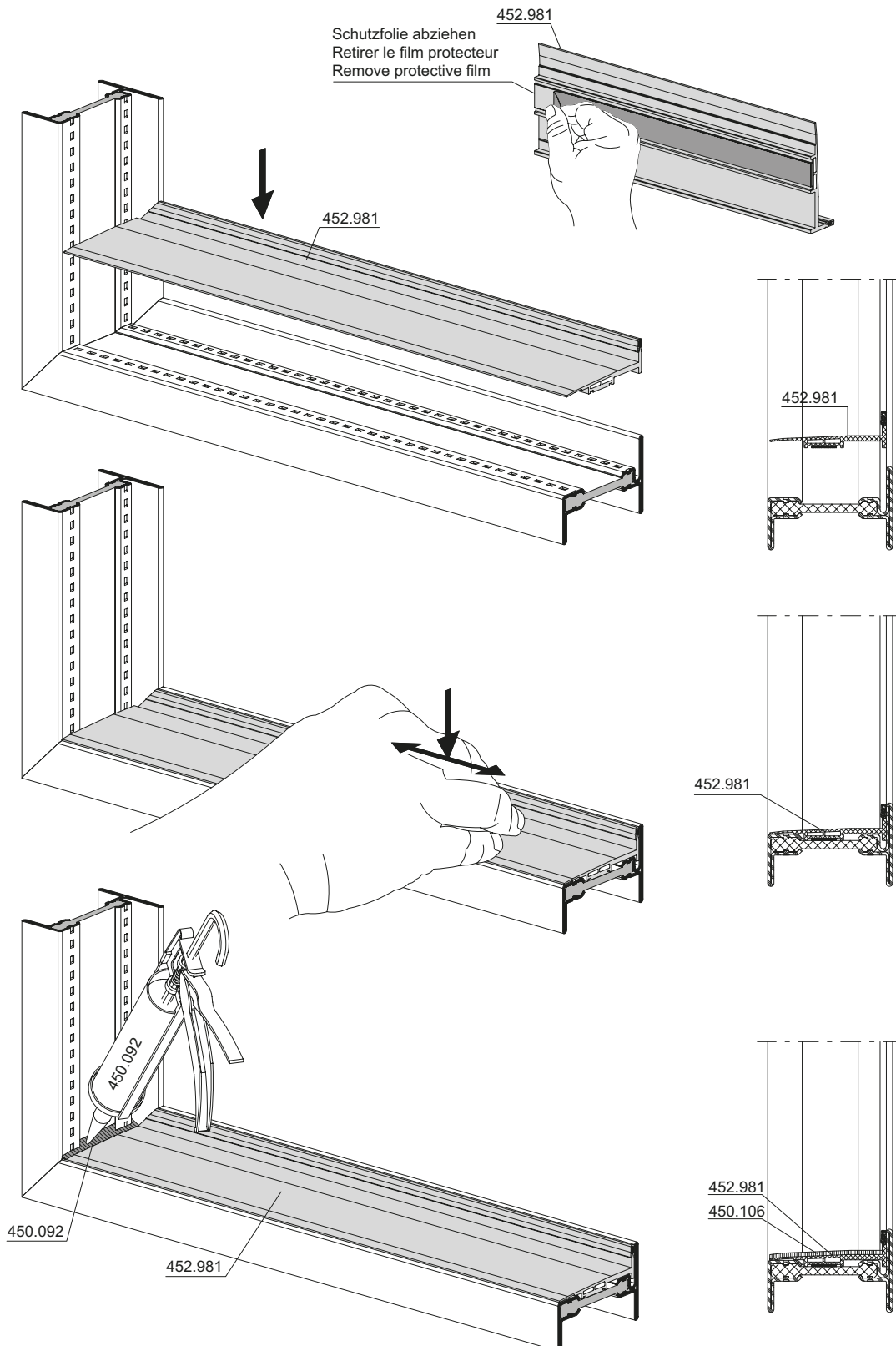
Cutting and preparation for
installation drainage profile 452.981



Einbau Entwässerungsprofil 452.981

Montage profilé de drainage
452.981

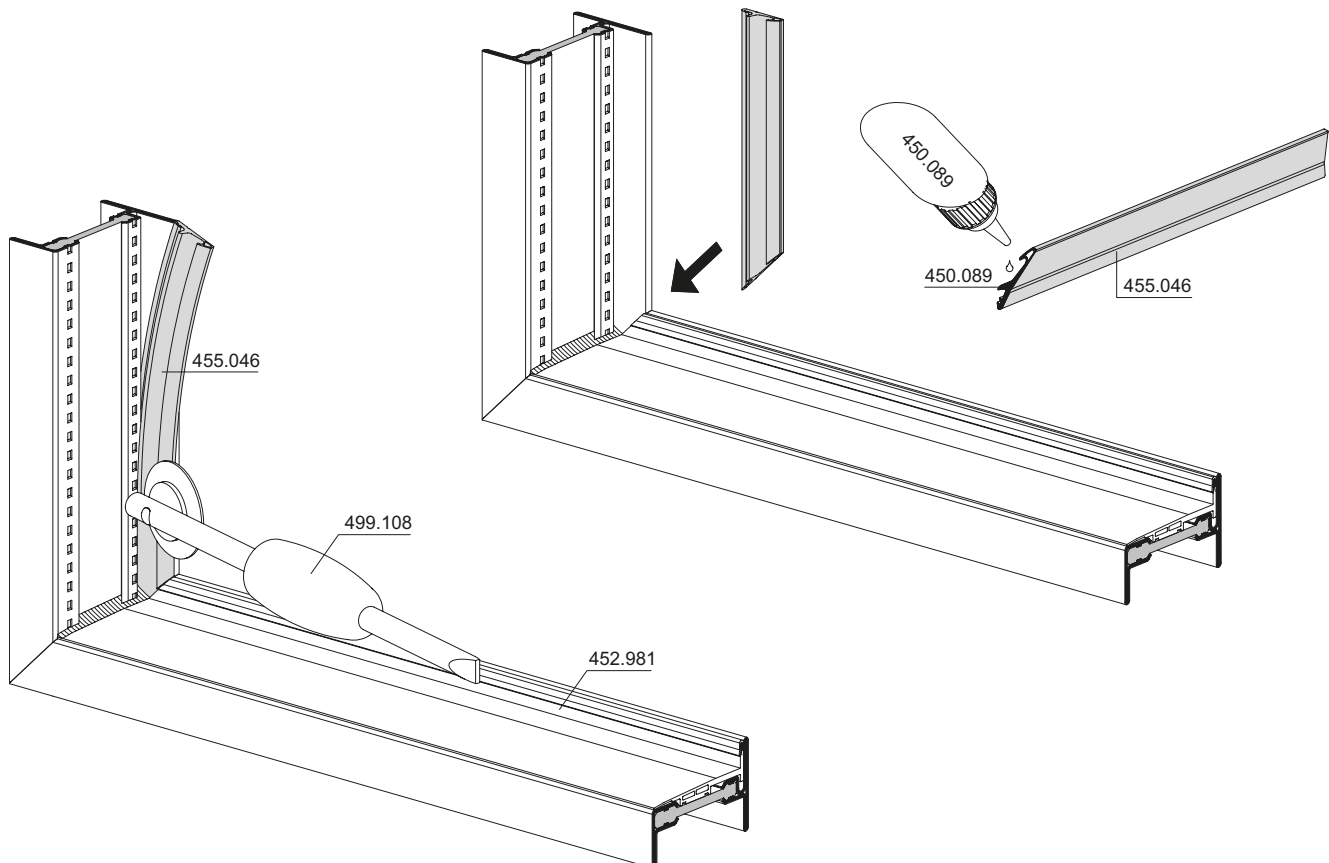
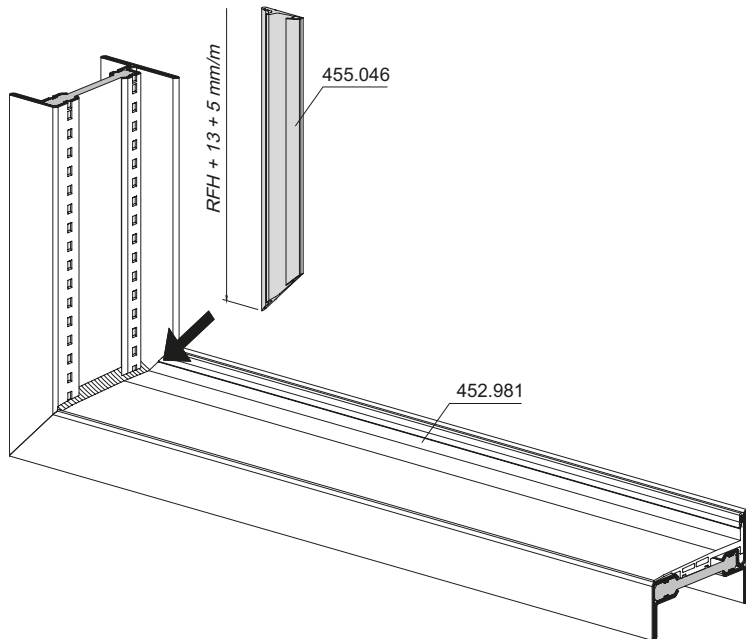
Installation drainage profile 452.981



Einbau
Anschlagdichtung 455.046

Montage
Joint de butée 455.046

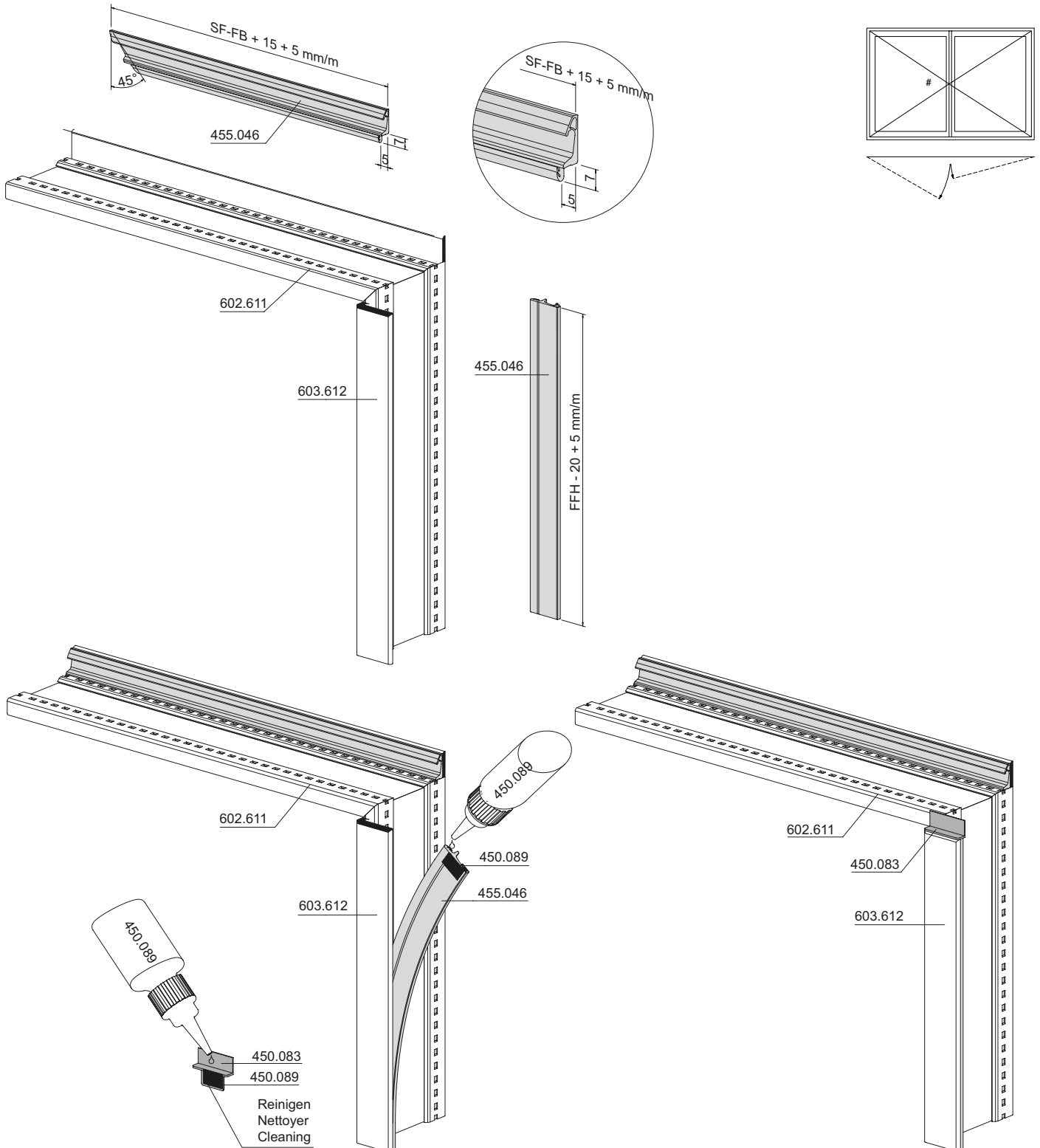
Installation
Rebate weatherstrip 455.046



Montage Flügeldichtung 455.046
Gangflügel

Montage joint de vantail 455.046
Vantail de service

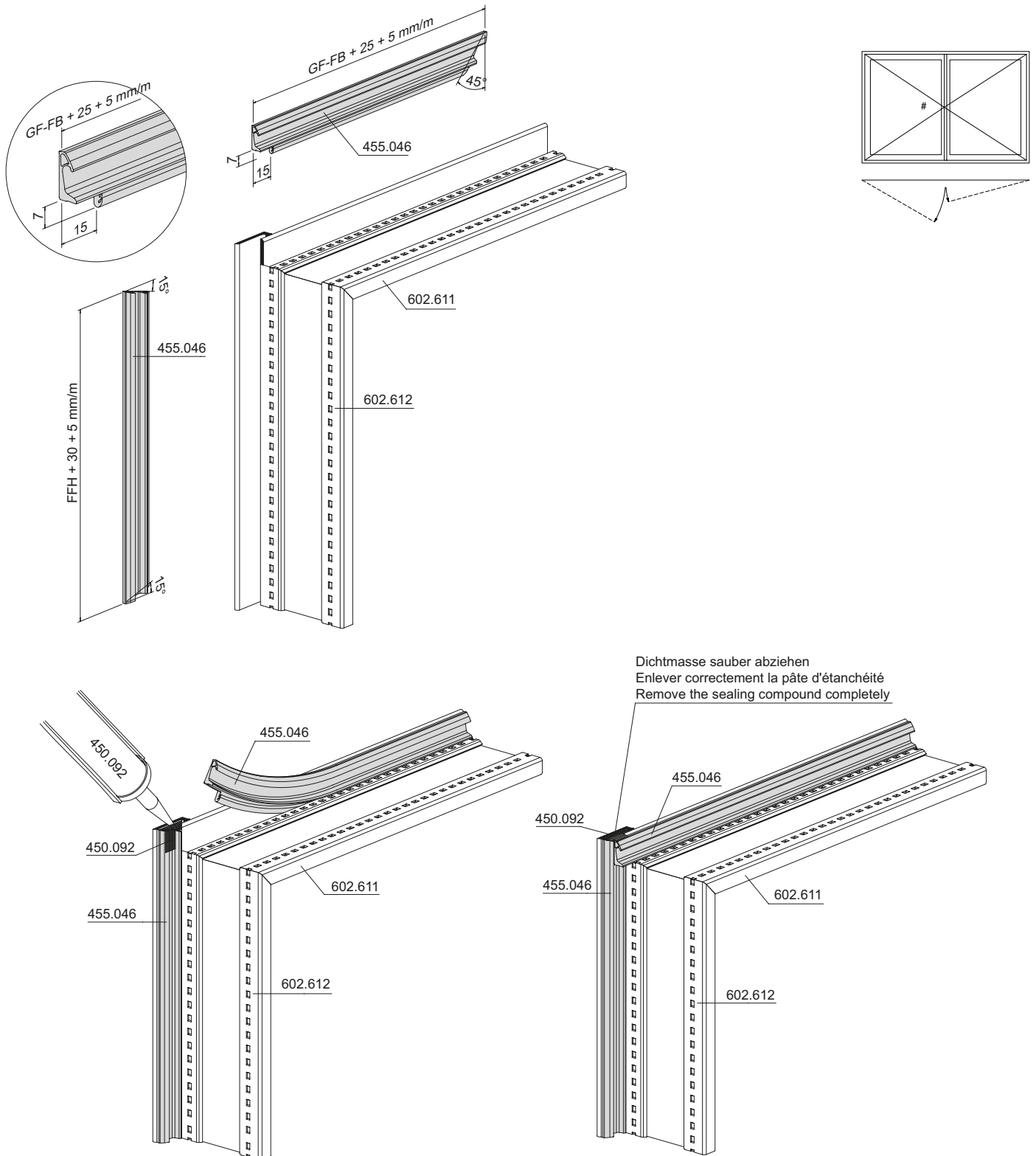
Installation of sash weatherstrip
455.046
Access sash



Montage Flügeldichtung 455.046
 Standflügel

Montage joint de vantail 455.046
 Vantail semi-fixe

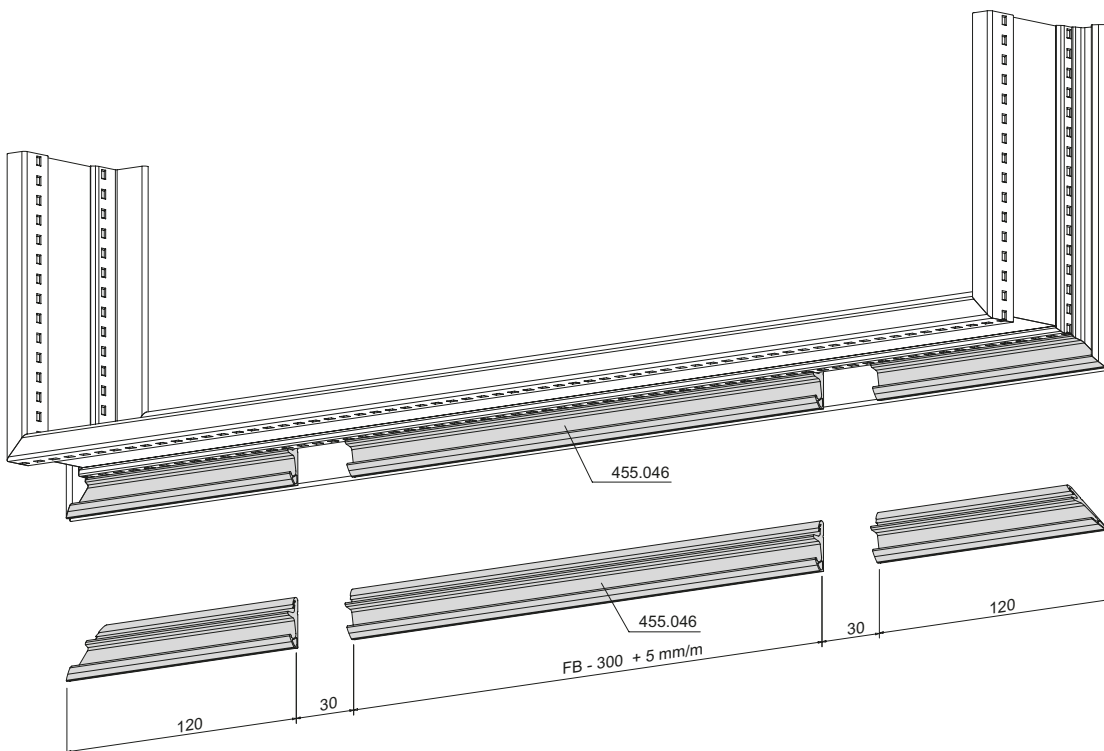
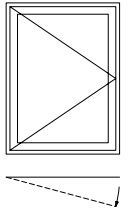
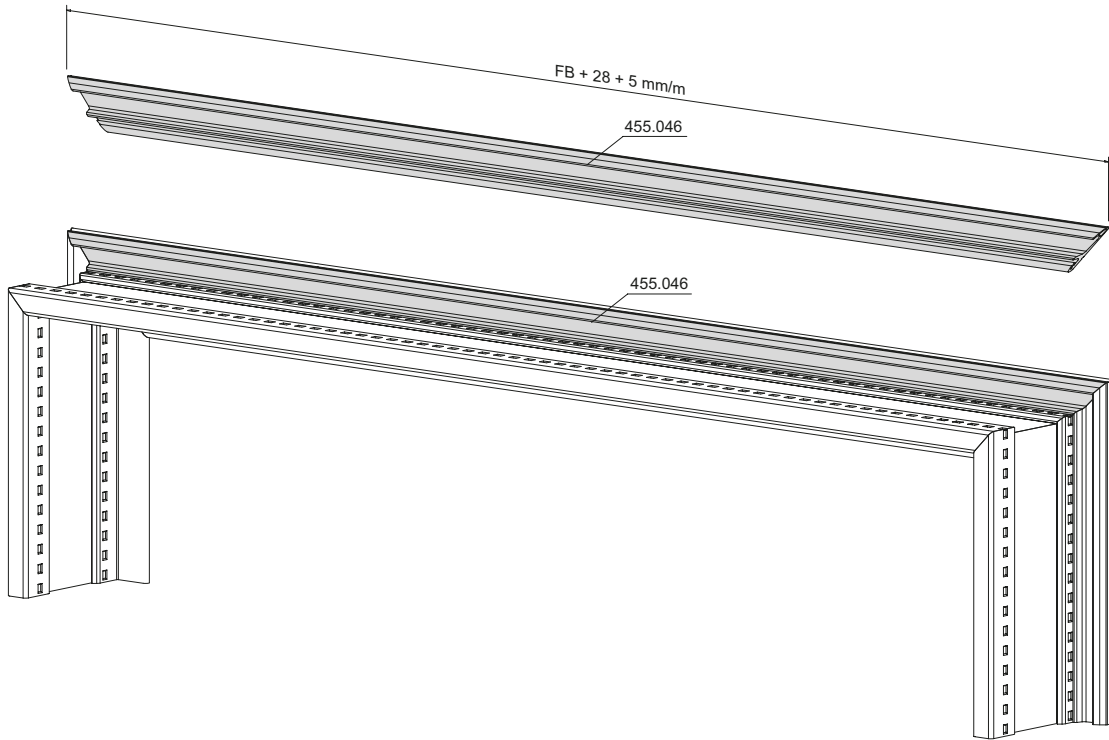
Installation of sash weatherstrip
 455.046
 Secondary sash



Dichtungs-Ausnehmung 455.046
Flügel

Évidement pour le joint 455.046
Vantail

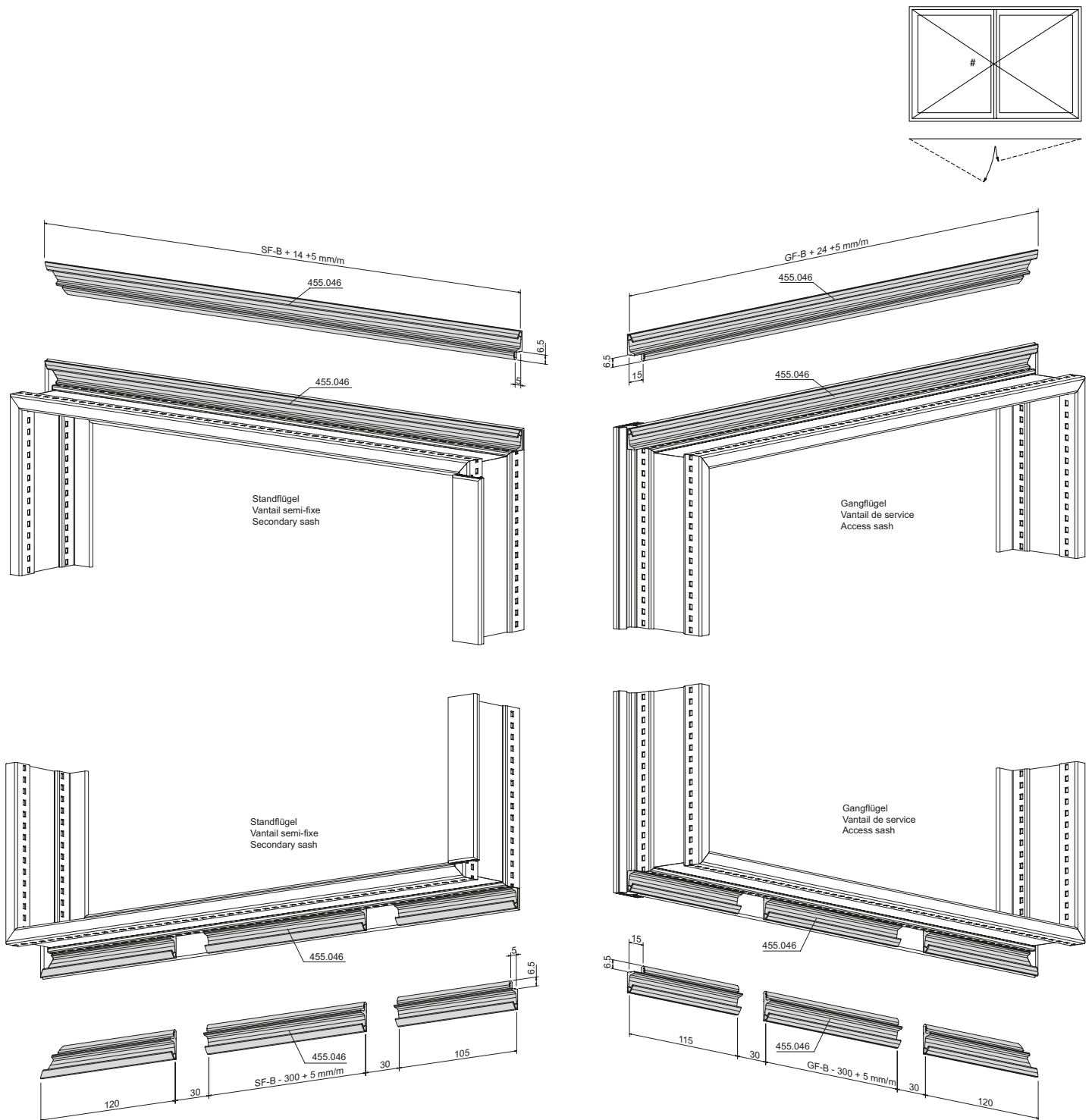
Openings in the weatherstrip 455.046
Sash



Dichtungs-Ausnehmung 455.046
 Stulpfenster

Évidement pour le joint 455.046
 Fenêtre à deux vantaux

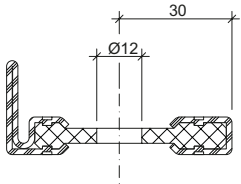
Openings in the weatherstrip 455.046
 Double-sash window



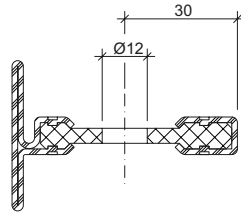
Glasfalzbelüftung
 Festverglasung unten

Ventilation feuillure de verre
 Vitrage fixe en bas

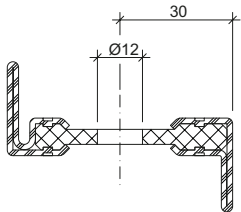
Glazing rebate ventilation
 Fixed glazing bottom



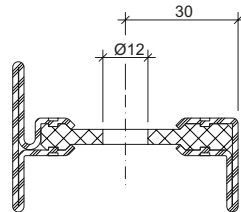
601.611 Z



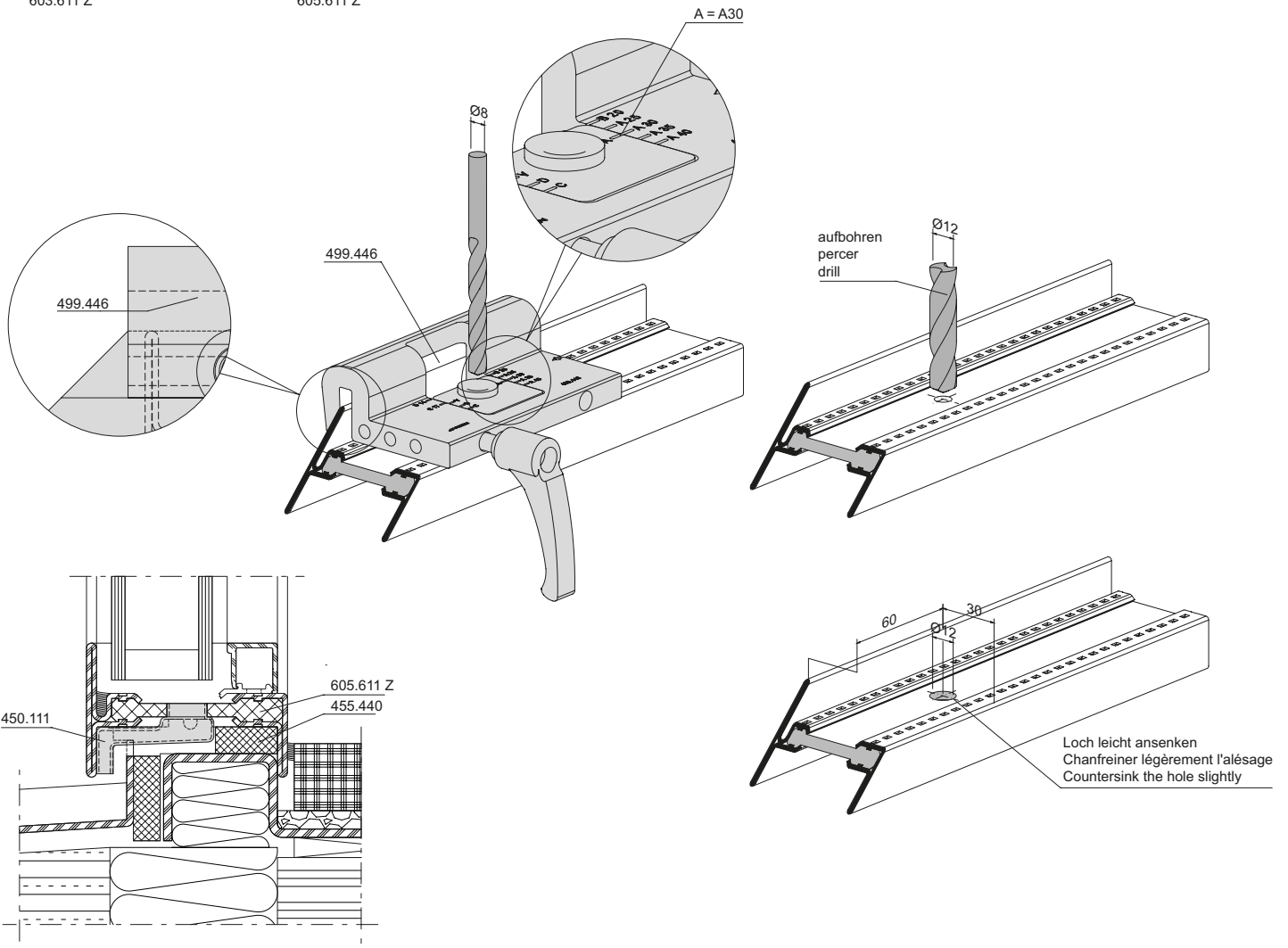
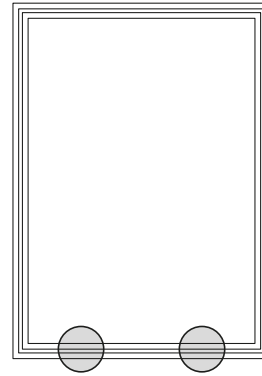
602.611 Z



603.611 Z



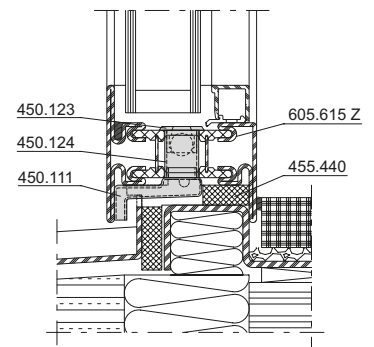
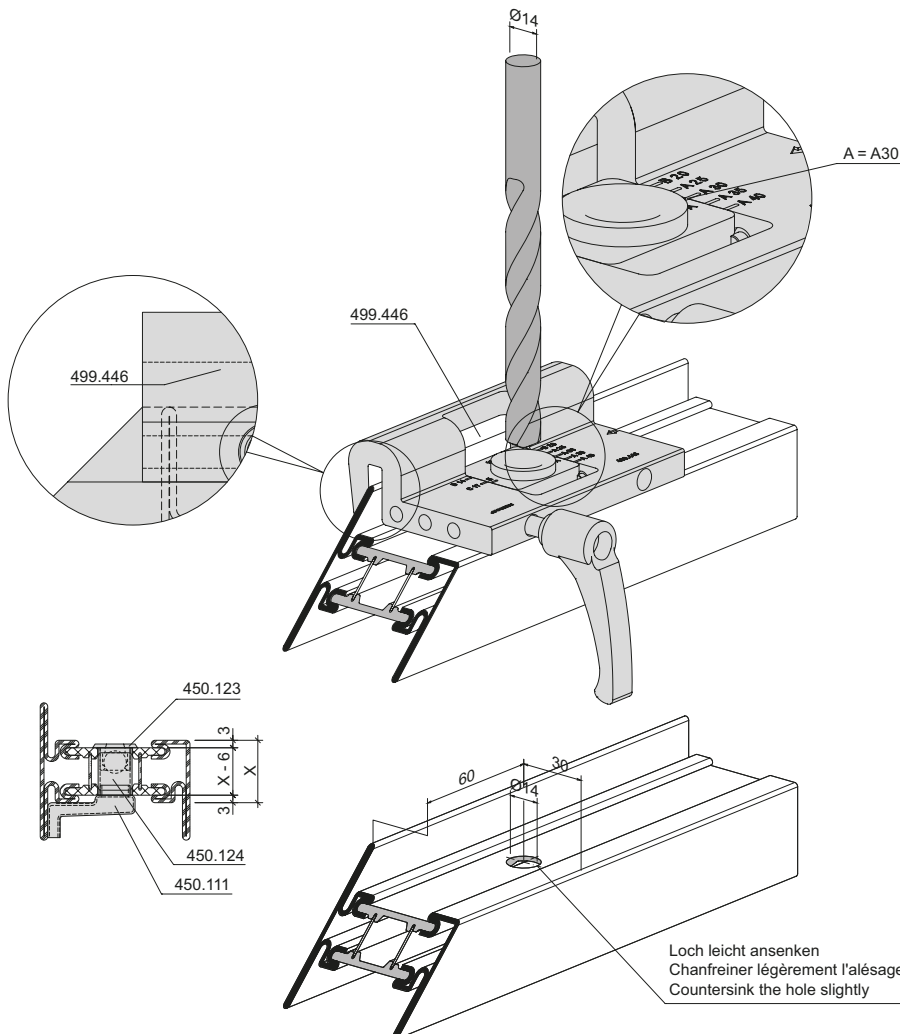
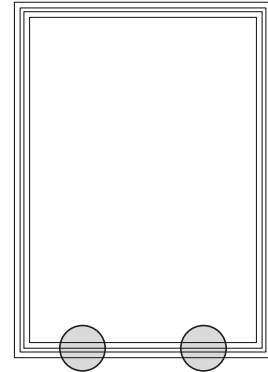
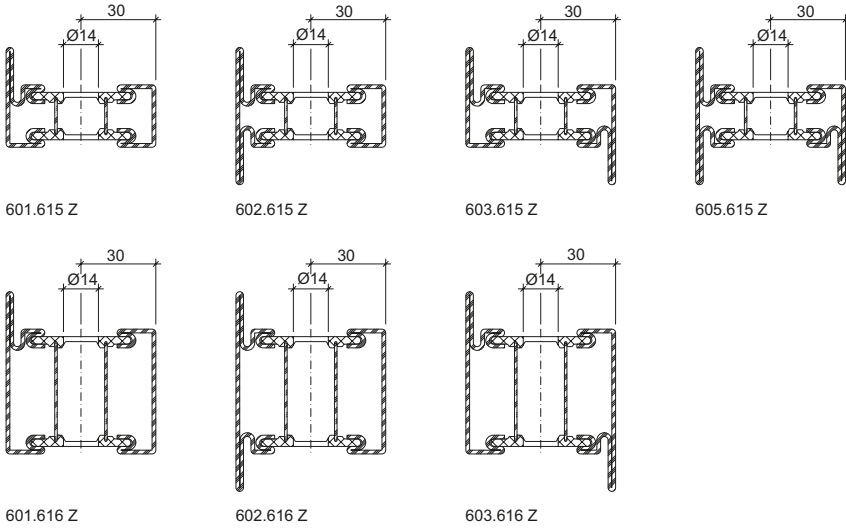
605.611 Z



Glasfalzbelüftung
 Festverglasung unten

Ventilation feuillure de verre
 Vitrage fixe en bas

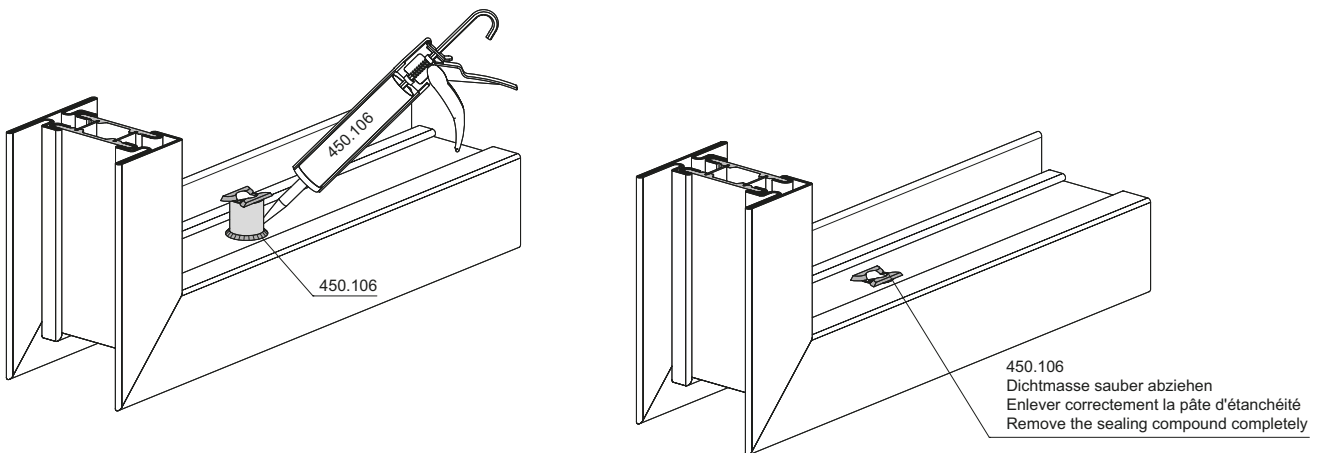
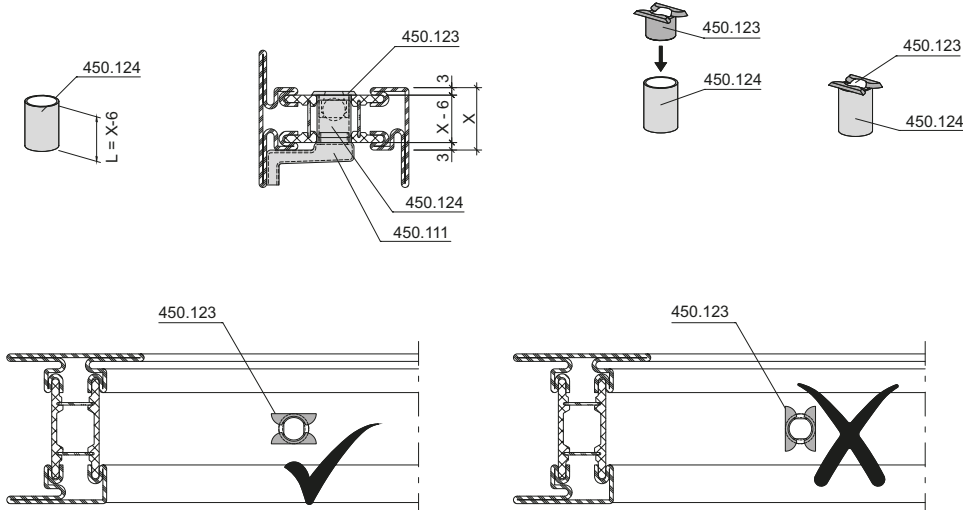
Glazing rebate ventilation
 Fixed glazing bottom



Glasfalzbelüftung
 Festverglasung unten

Ventilation feuillure de verre
 Vitrage fixe en bas

Glazing rebate ventilation
 Fixed glazing bottom



Für eine bessere Verarbeitung und Dosierung der Dichtmasse 450.106 empfehlen wir die Verwendung des Artikels 450.109.

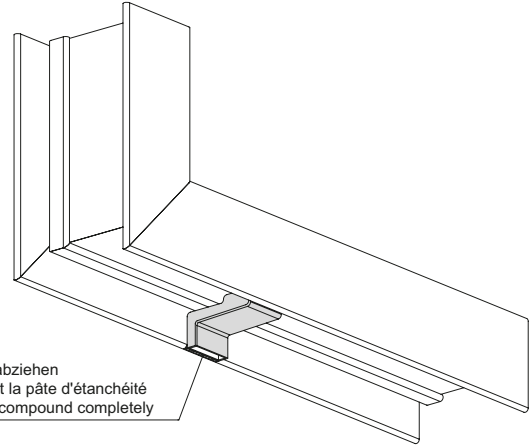
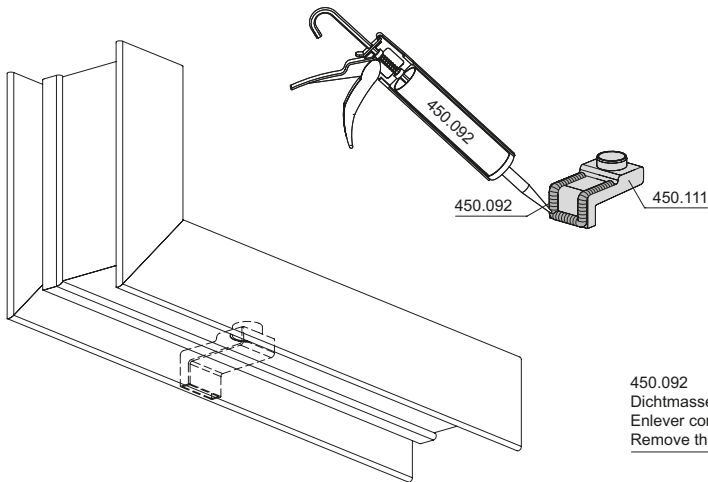
Pour un meilleur usinage et dosage de la pâte d'étanchéité 450.106, nous vous recommandons d'utiliser l'article 450.109.

To improve processing and dosing of the sealing compound 450.106, we recommend using item 450.109.

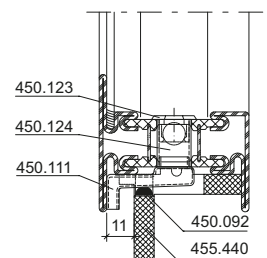
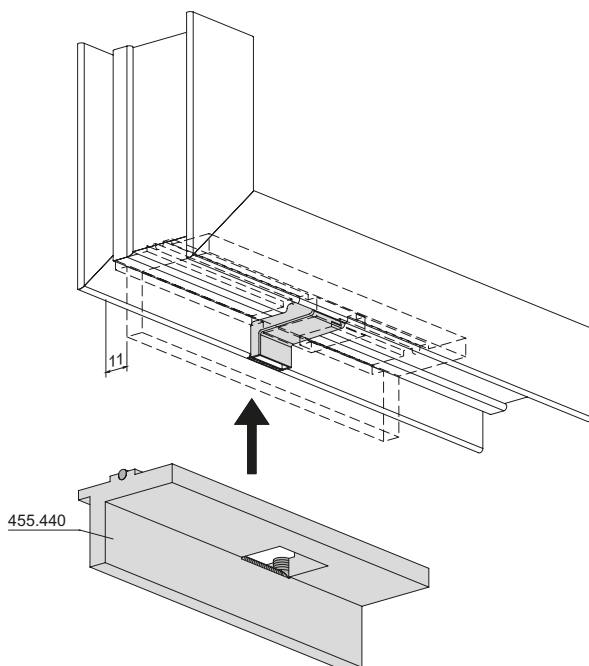
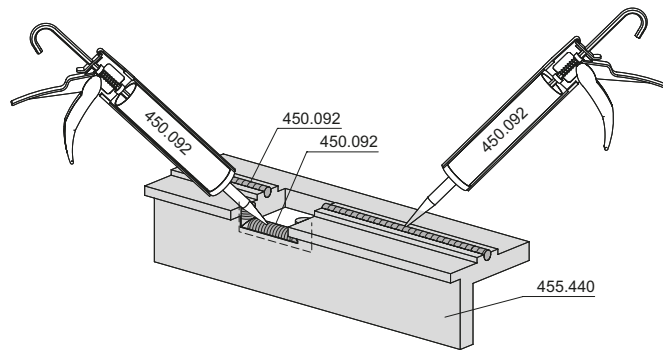
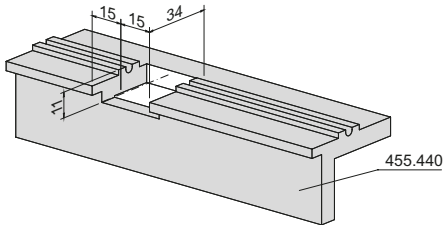
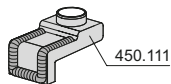
Glasfalzbelüftung
 Festverglasung unten

Ventilation feuillure de verre
 Vitrage fixe en bas

Glazing rebate ventilation
 Fixed glazing bottom



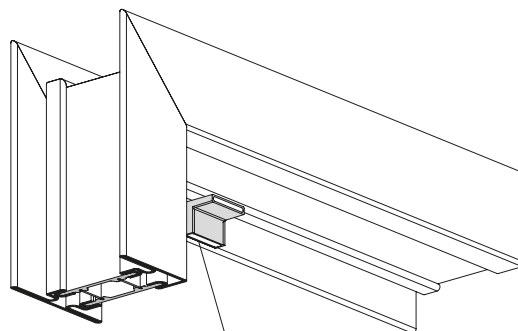
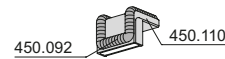
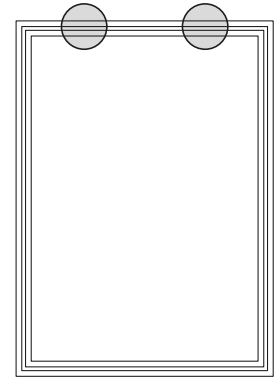
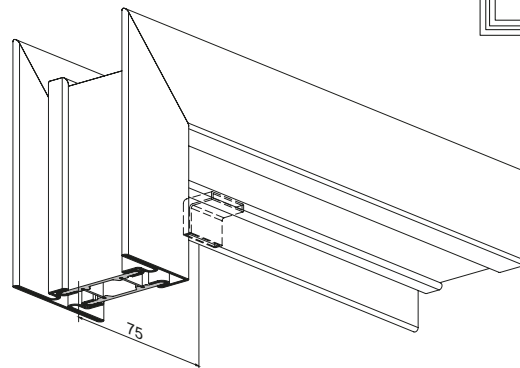
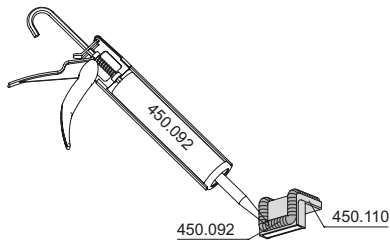
450.092
 Dichtmasse sauber abziehen
 Enlever correctement la pâte d'étanchéité
 Remove the sealing compound completely



Glasfalzbelüftung
Festverglasung oben

Ventilation feuillure de verre
Vitrage fixe en haut

Glazing rebate ventilation
Fixed glazing top

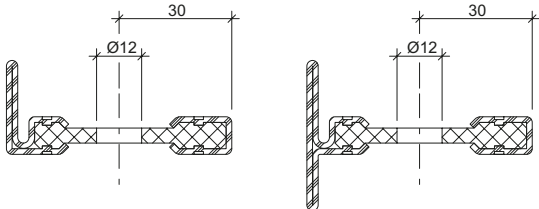


450.092
Dichtmasse sauber abziehen
Enlever correctement la pâte d'étanchéité
Remove the sealing compound completely

Glasfalzbelüftung
 Festverglasung und Sockel

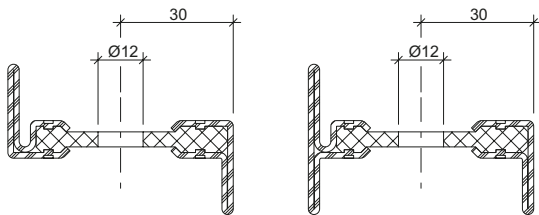
Ventilation feuillure de verre
 Vitrage fixe en et socle

Glazing rebate ventilation
 Fixed glazing and socle



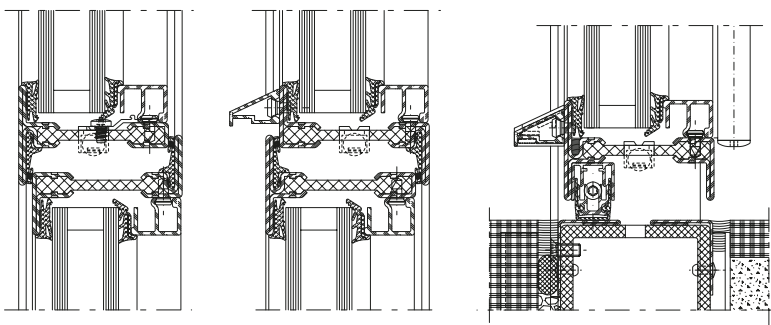
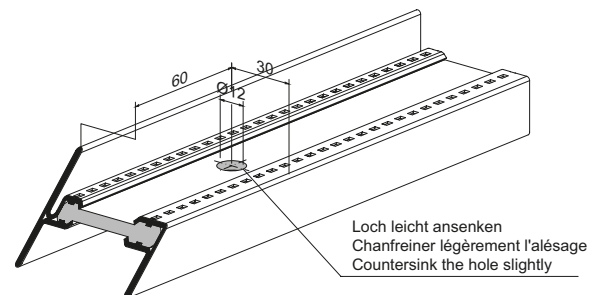
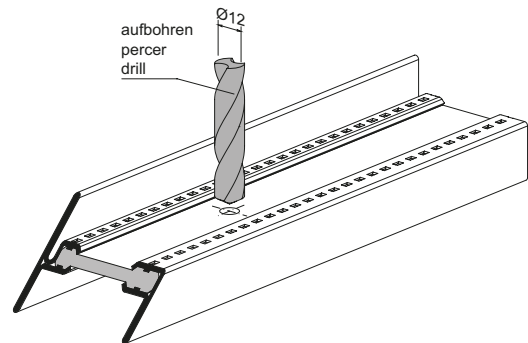
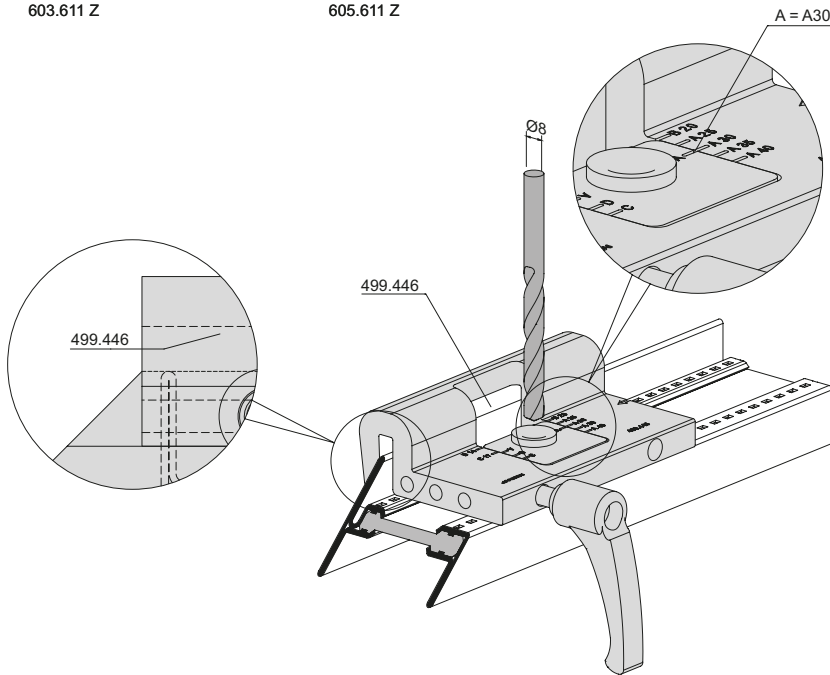
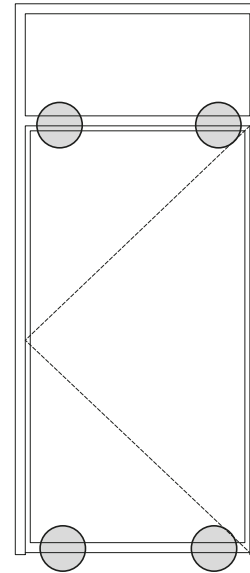
601.611 Z

602.611 Z



603.611 Z

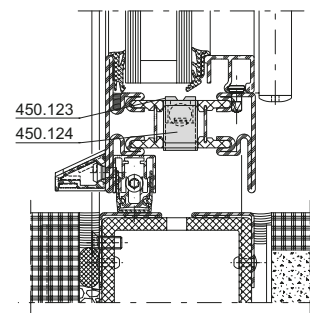
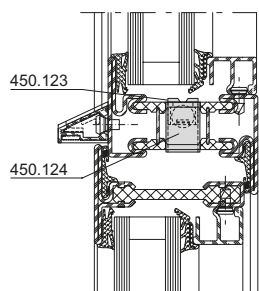
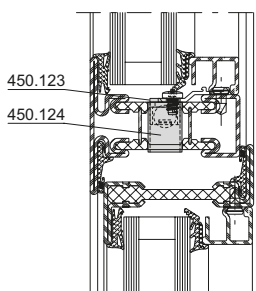
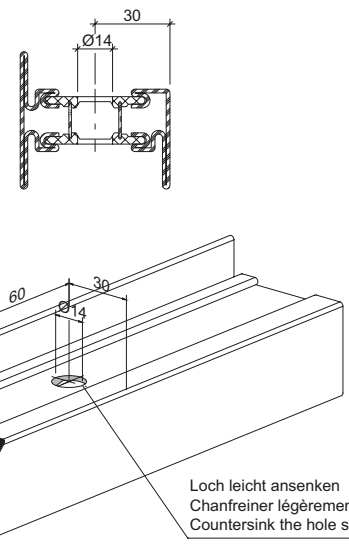
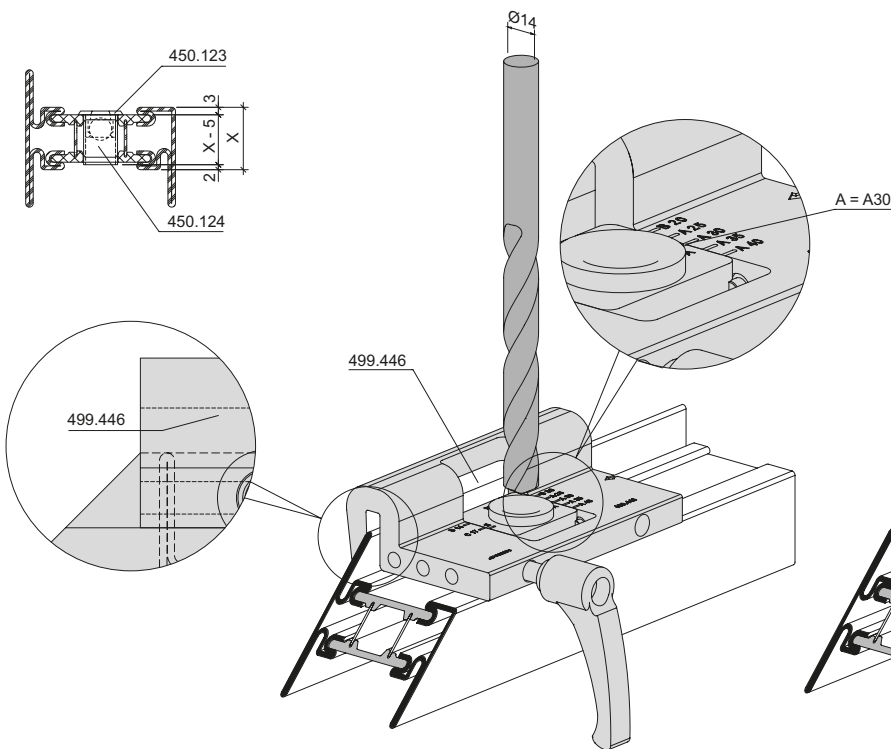
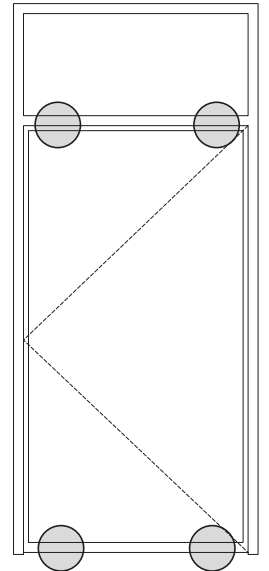
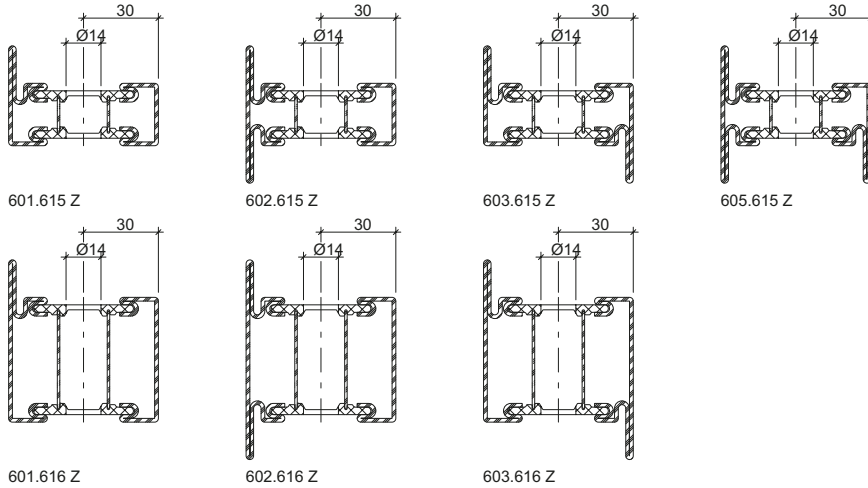
605.611 Z



Glasfalzbelüftung
 Festverglasung und Sockel

Ventilation feuillure de verre
 Vitrage fixe en et socle

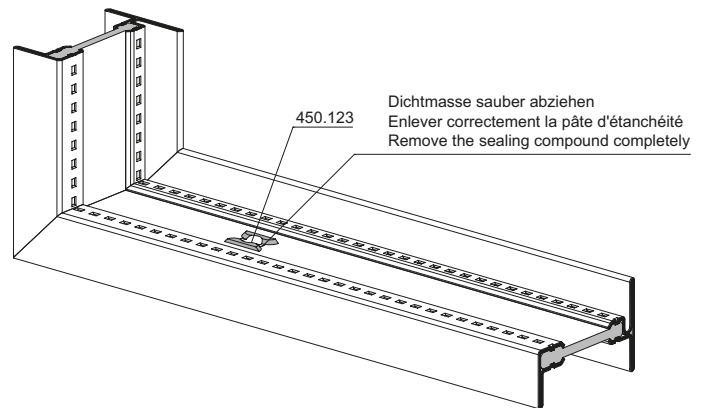
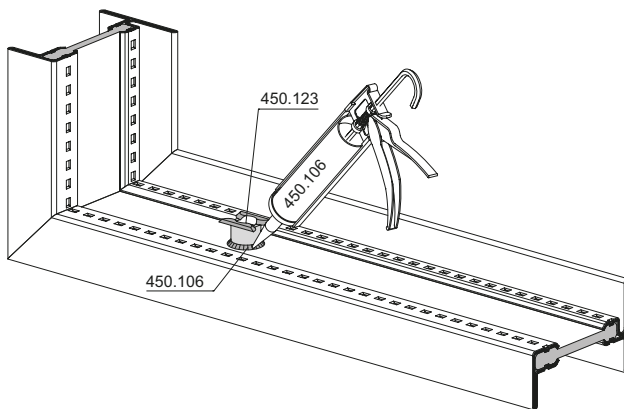
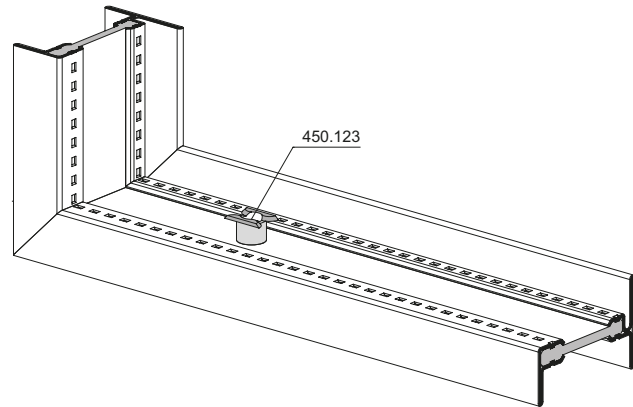
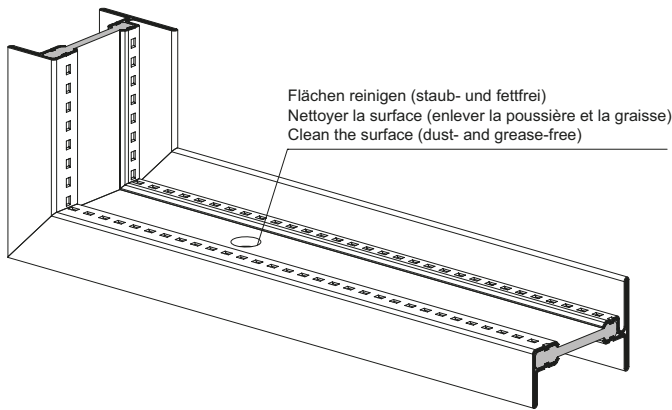
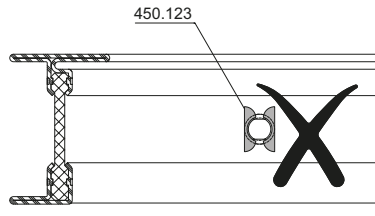
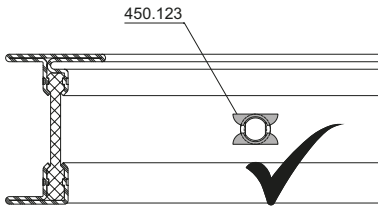
Glazing rebate ventilation
 Fixed glazing and socle



Glasfalzbelüftung
Festverglasung und Sockel

Ventilation feuillure de verre
Vitrage fixe en et socle

Glazing rebate ventilation
Fixed glazing and socle



Für eine bessere Verarbeitung und Dosierung der Dichtmasse 450.106 empfehlen wir die Verwendung des Artikels 450.109.

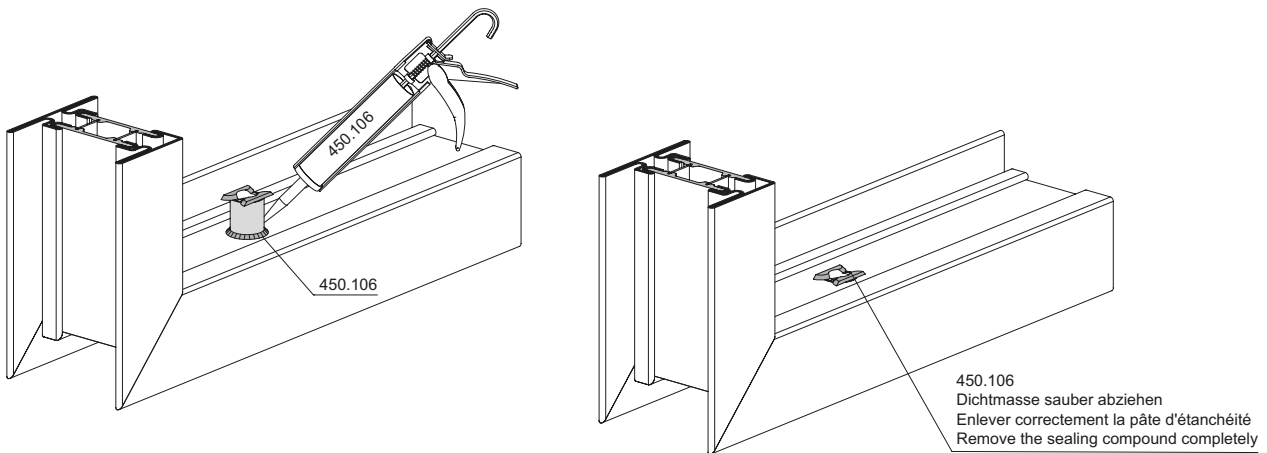
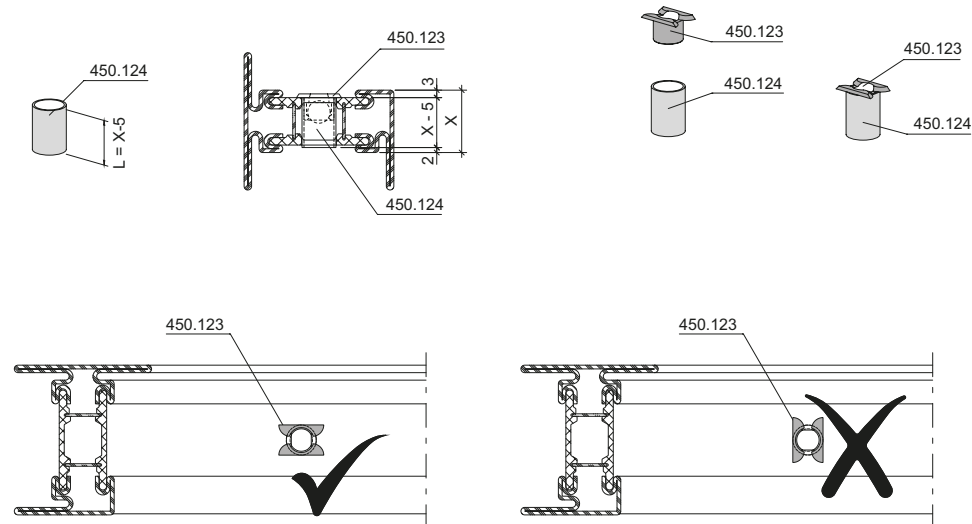
Pour un meilleur usinage et dosage de la pâte d'étanchéité 450.106, nous vous recommandons d'utiliser l'article 450.109.

To improve processing and dosing of the sealing compound 450.106, we recommend using item 450.109.

Glasfalzbelüftung
 Festverglasung und Sockel

Ventilation feuillure de verre
 Vitrage fixe en et socle

Glazing rebate ventilation
 Fixed glazing and socle



Für eine bessere Verarbeitung und Dosierung der Dichtmasse 450.106 empfehlen wir die Verwendung des Artikels 450.109.

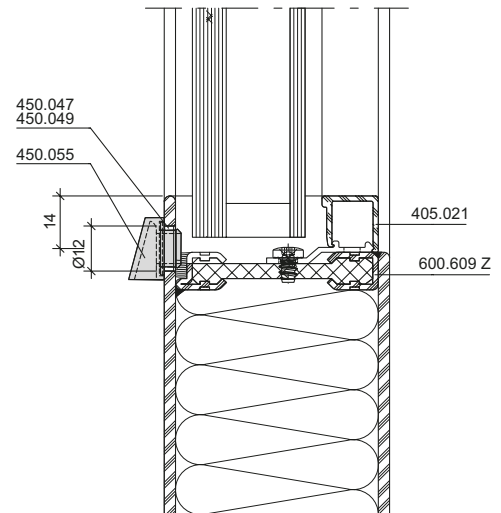
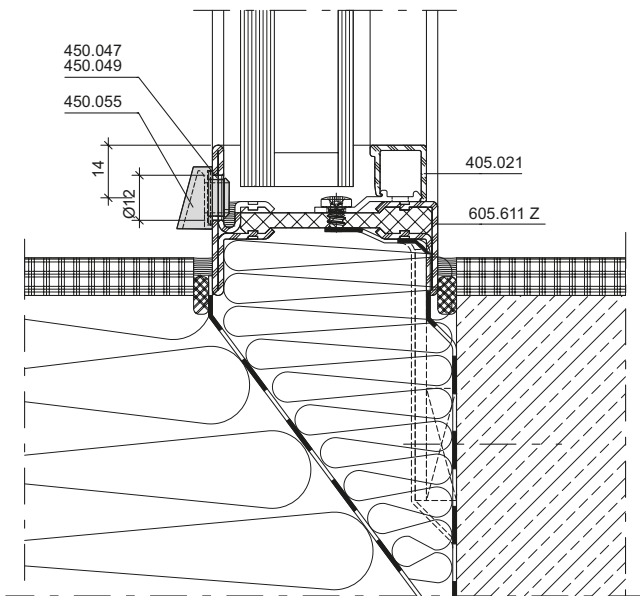
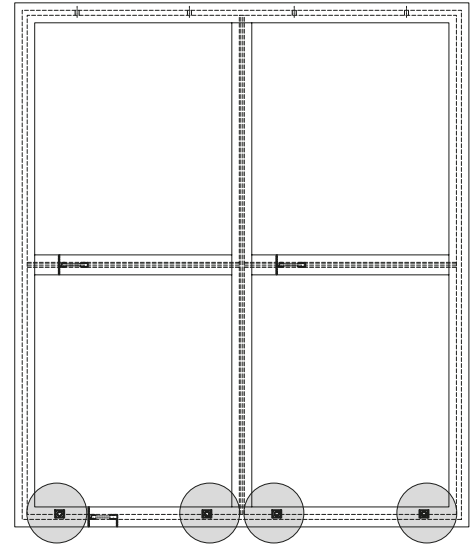
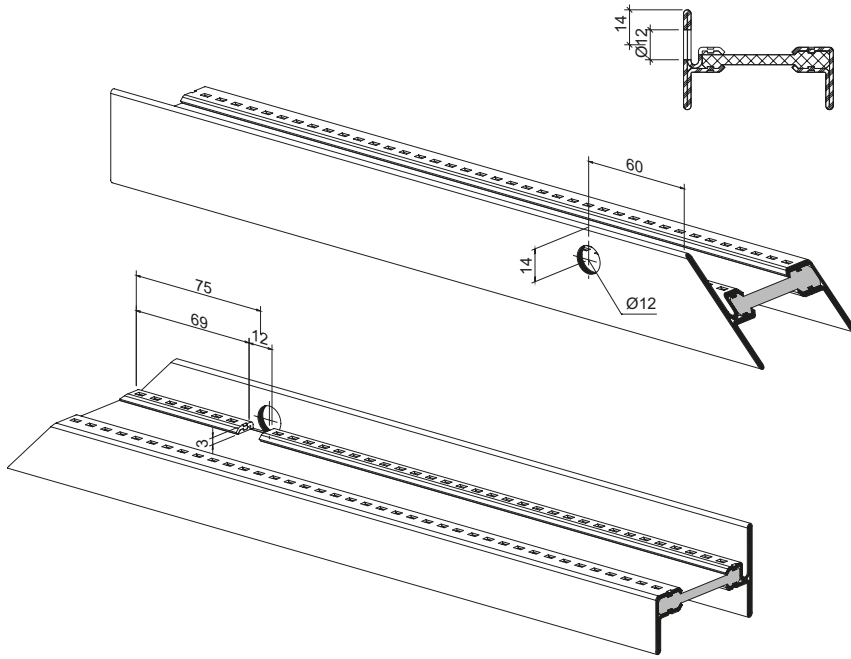
Pour un meilleur usinage et dosage de la pâte d'étanchéité 450.106, nous vous recommandons d'utiliser l'article 450.109.

To improve processing and dosing of the sealing compound 450.106, we recommend using item 450.109.

Alternative Belüftung mit
 450.047 / 450.049 und 450.055
 (keine CE-Kennzeichnung)

Ventilation alternative avec
 450.047 / 450.049 et 450.055
 (pas de marquage CE)

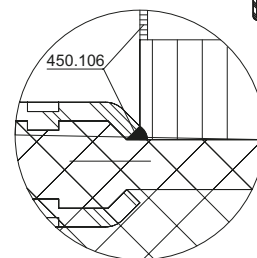
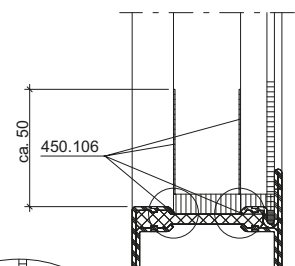
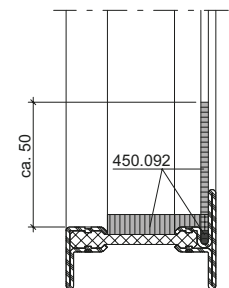
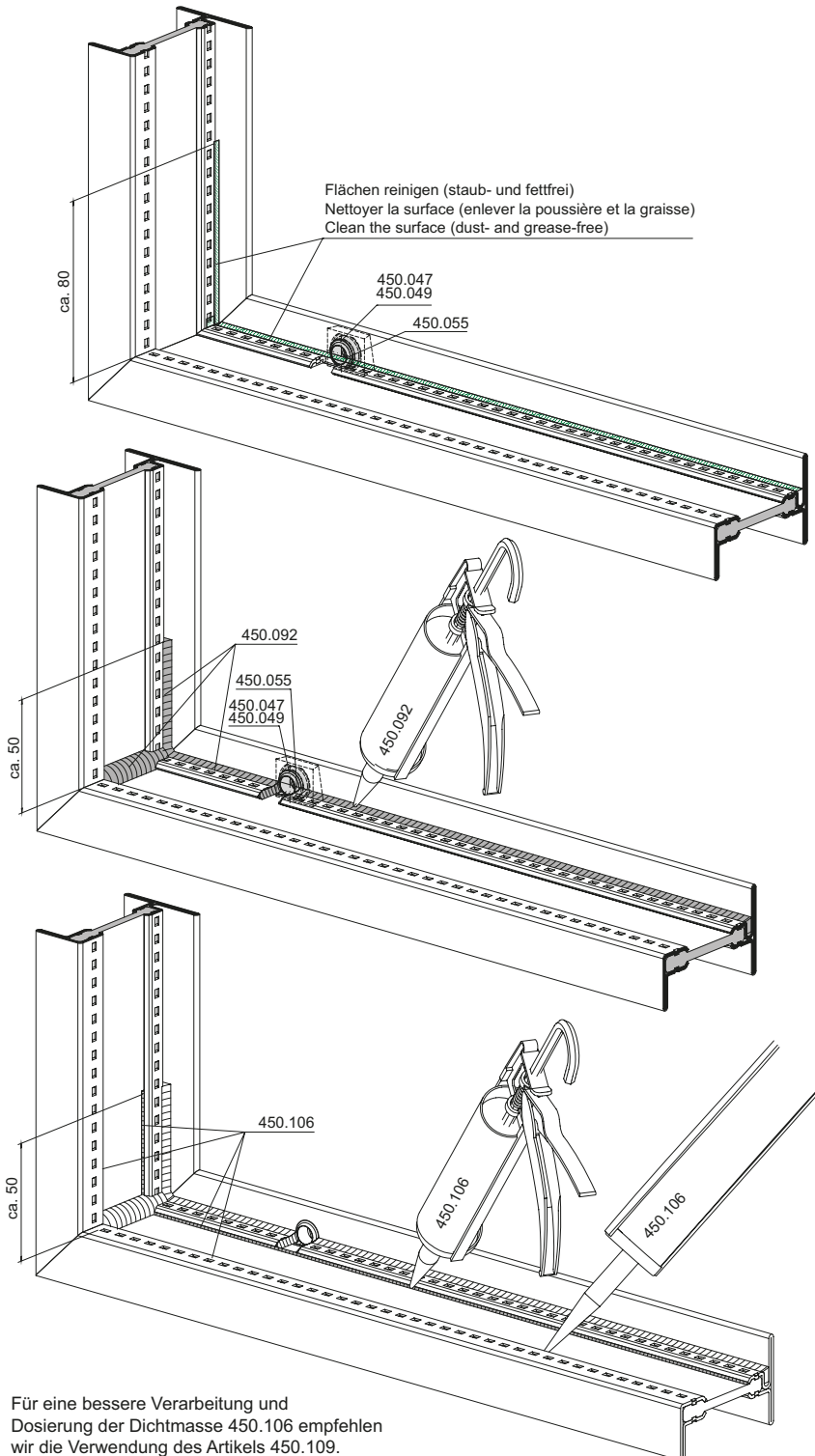
Alternative ventilation with
 450.047 / 450.049 and 450.055
 (no CE marking)



Abdichtungen für Belüftung mit
 450.047 / 450.049

Étanchéités pour ventilation avec
 450.047 / 450.049

Ventilation seals with
 450.047 / 450.049



Für eine bessere Verarbeitung und Dosierung der Dichtmasse 450.106 empfehlen wir die Verwendung des Artikels 450.109.

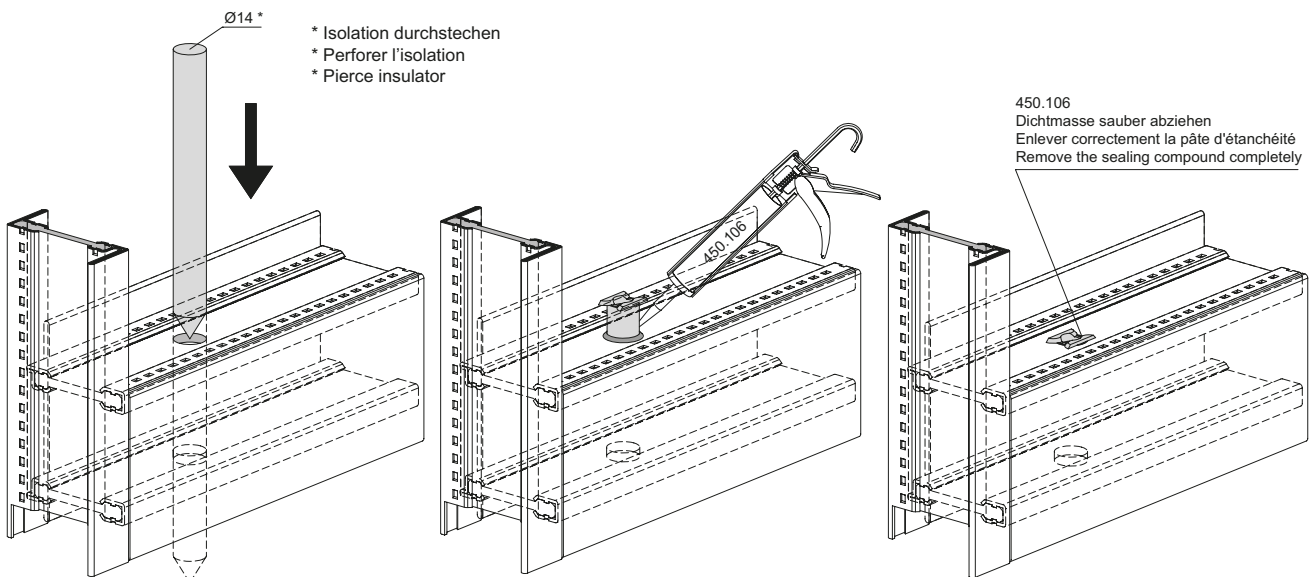
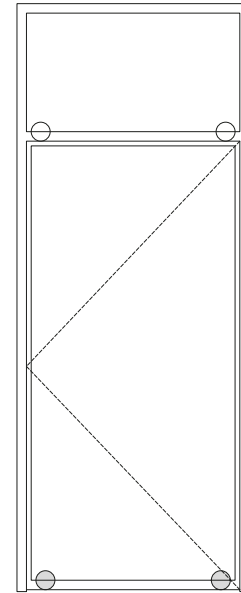
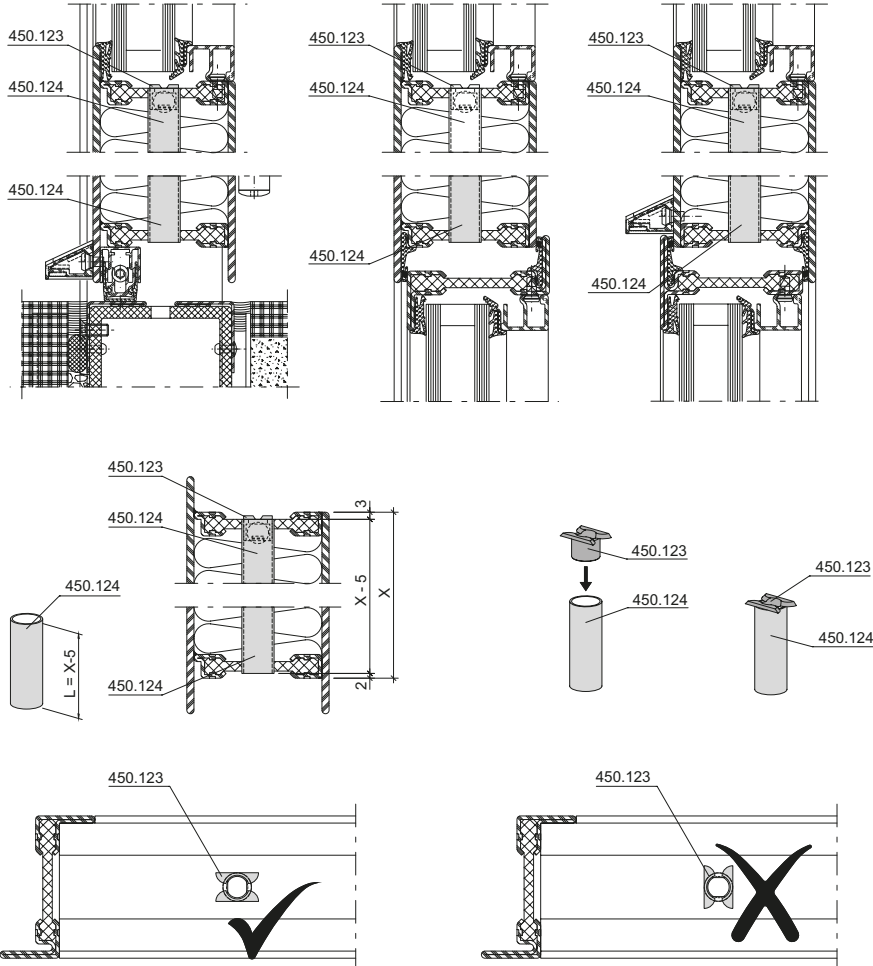
Pour un meilleur usinage et dosage de la pâte d'étanchéité 450.106, nous vous recommandons d'utiliser l'article 450.109.

To improve processing and dosing of the sealing compound 450.106, we recommend using item 450.109.

Blechsockel/Kämpfer mit
 450.123 und 450.124

Socle en tôle/traverse avec
 450.123 et 450.124

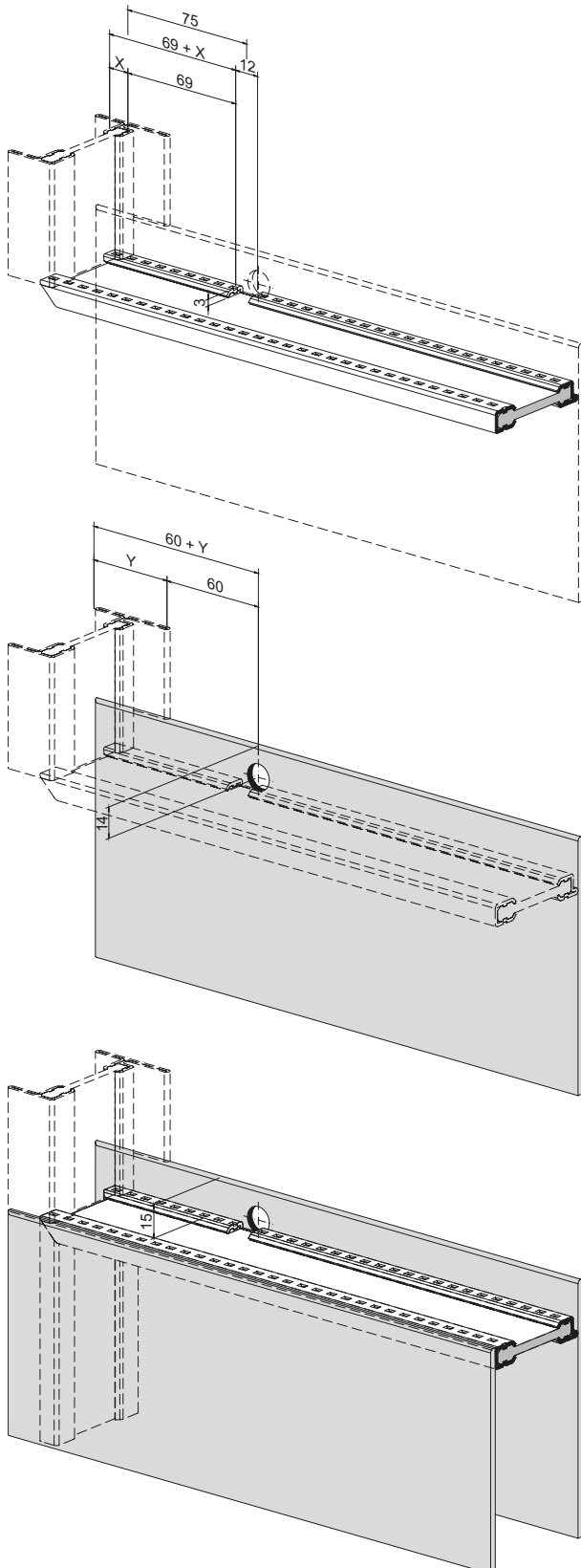
Metal base/crossbar with
 450.123 and 450.124



Alternative Belüftung mit
450.047/450.049 und 450.055
(keine CE-Kennzeichnung)

Ventilation alternative avec
450.047 / 450.049 et 450.055
(pas de marquage CE)

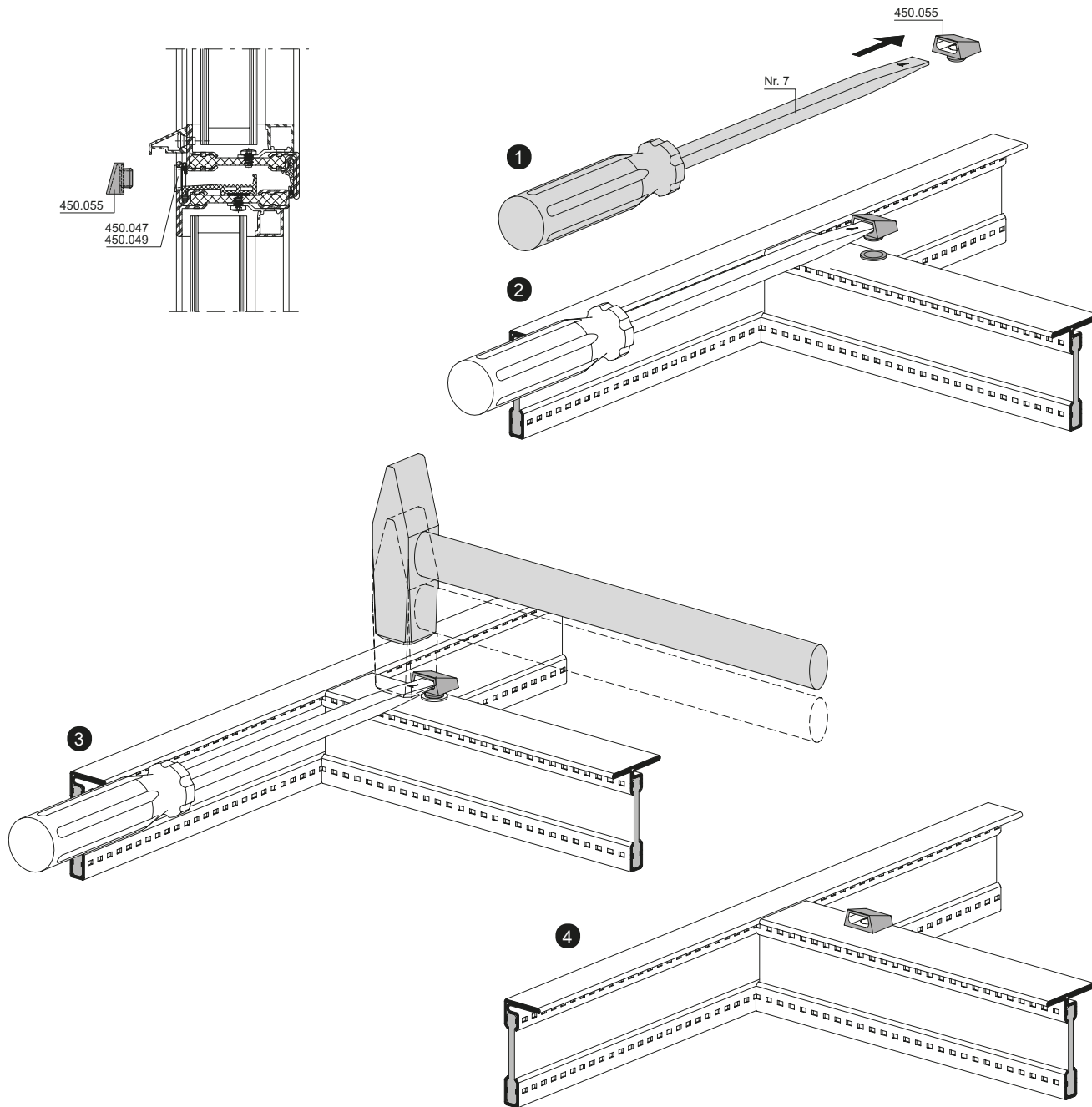
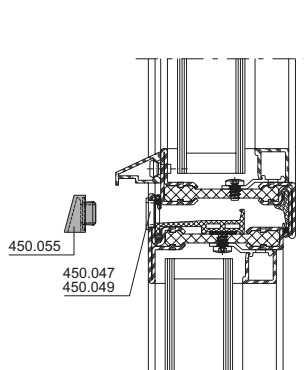
Alternative ventilation with
450.047 / 450.049 and 450.055
(no CE marking)



Einbau Abdeckkappe 450.055

Montage du capuchon 450.055

Installation of cover cap 450.055



1. Abdeckkappe 450.055 auf Schraubenzieher Gr. 7 stecken.
2. Abdeckkappe sauber mit Schraubenzieher auf Entwässerungstülle 450.047/049 platzieren.
3. Mit dem Hammer einen Schlag auf den Schraubenzieher geben.
4. Sitz der Abdeckkappe auf der Entwässerungstülle kontrollieren.

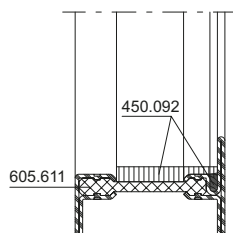
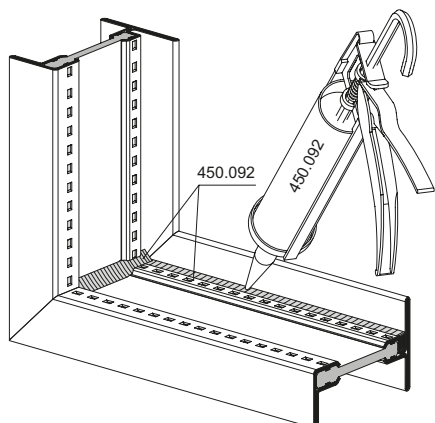
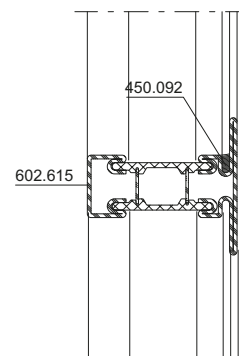
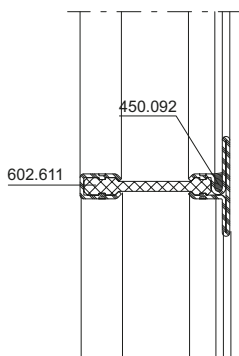
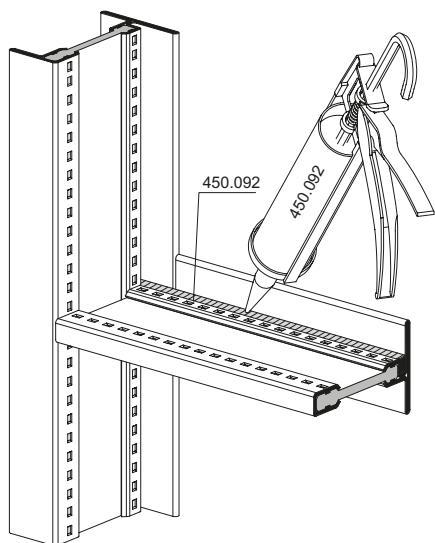
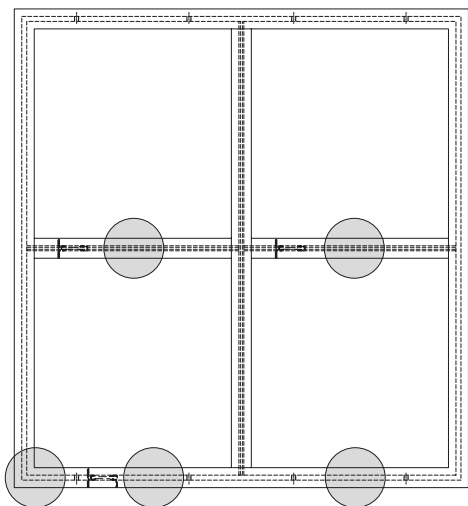
1. Ficher le capuchon 450.055 sur le tournevis de taille 7.
2. Placer le capuchon correctement avec le tournevis sur la douille d'évacuation 450.047/049.
3. Frapper le tournevis avec le marteau.
4. Contrôler l'emplacement du capuchon sur la douille d'évacuation.

1. Place cover cap 450.055 on size 7 screwdriver
2. Cleanly place cover cap with screwdriver on drainage spout 450.047/049.
3. Using the hammer, hit the screwdriver once.
4. Check the position of the cover cap on the drainage spout.

Abdichtung bei nach
oben liegender Dichtungsnute

Étanchéification quand la rainure
d'étanchéité est orientée vers le
haut

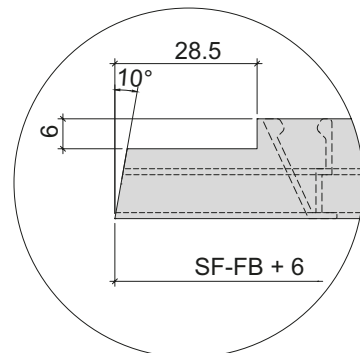
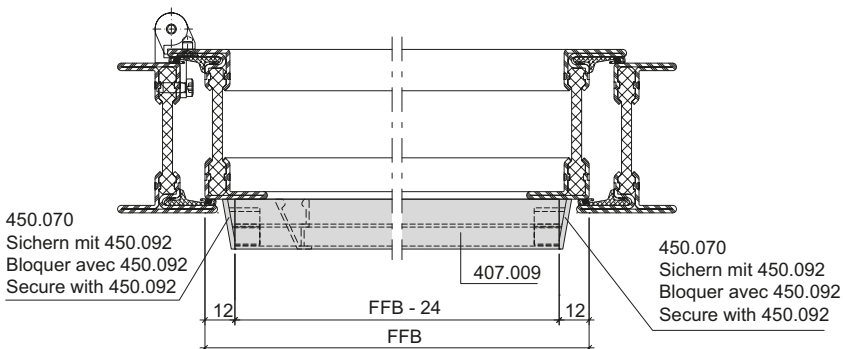
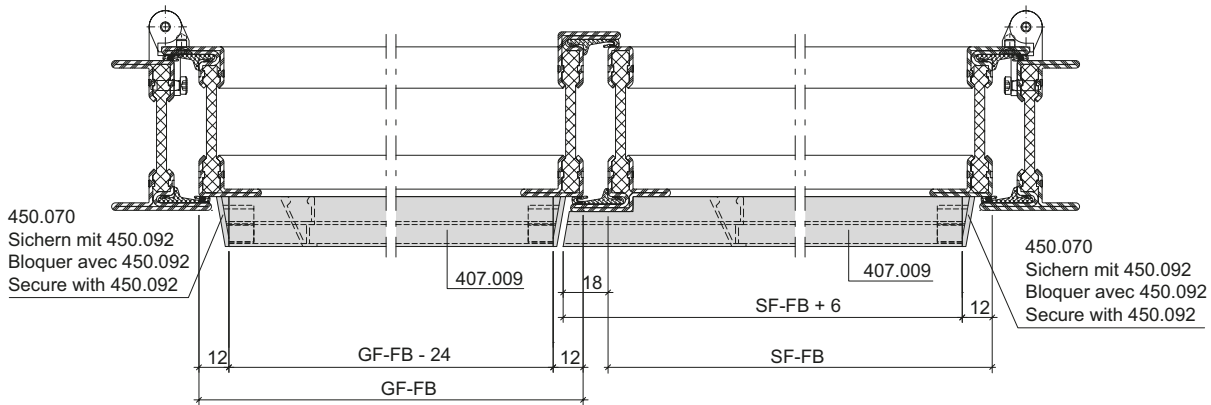
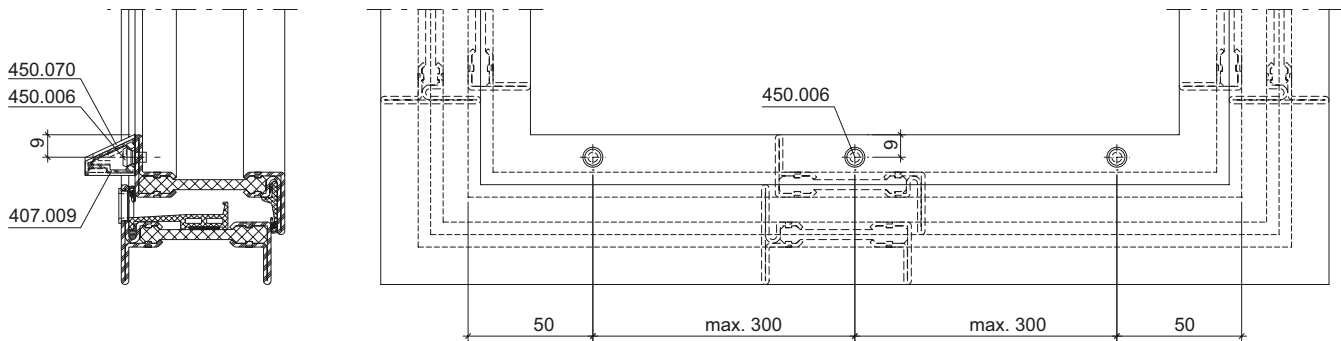
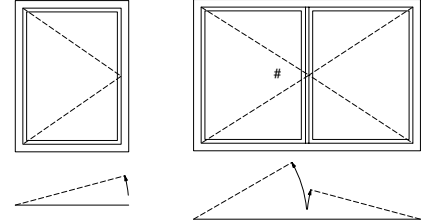
Sealing for upper weatherstrip
grooves



Einbau Wetterschenkel 407.009

Montage renvoi d'eau 407.009

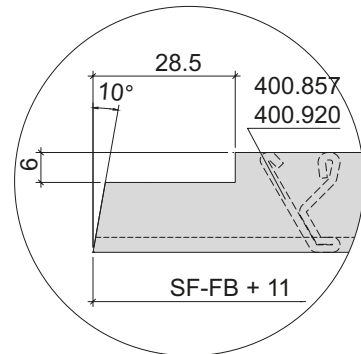
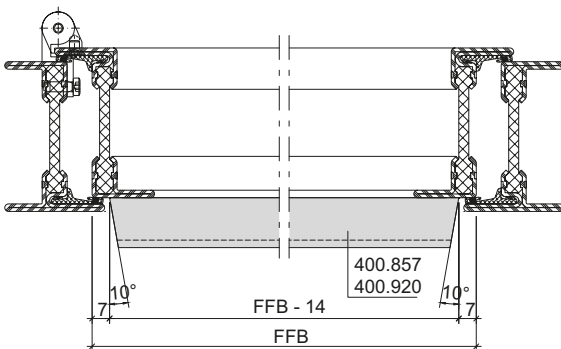
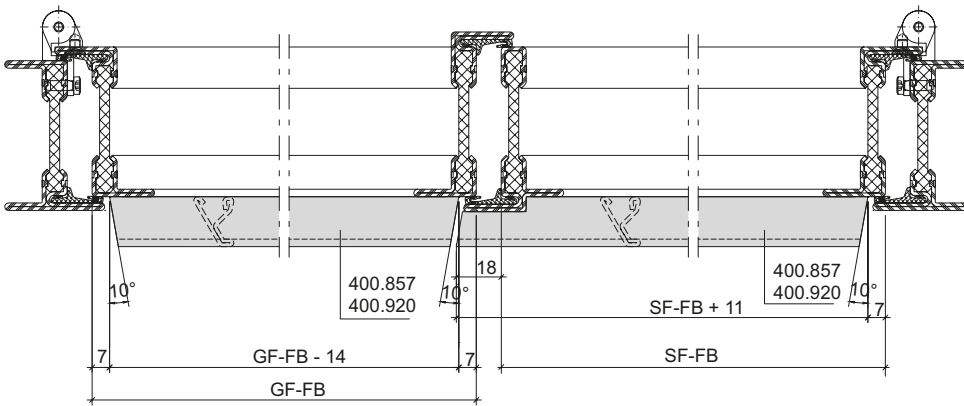
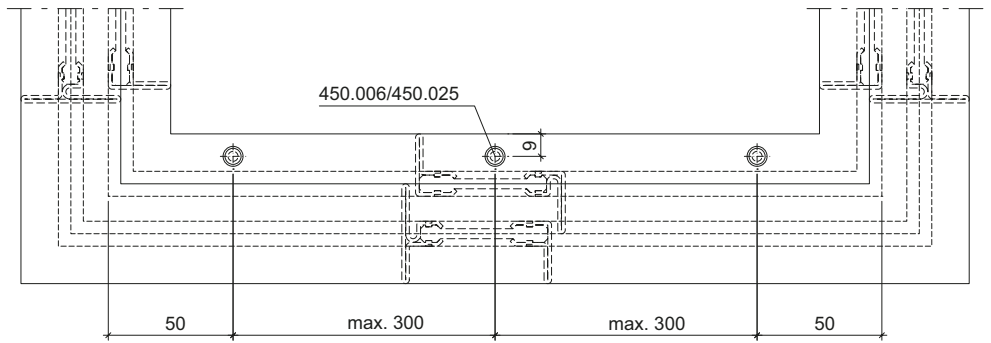
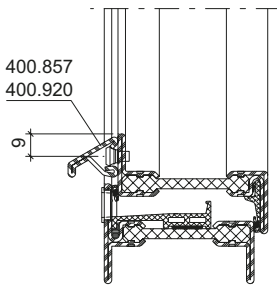
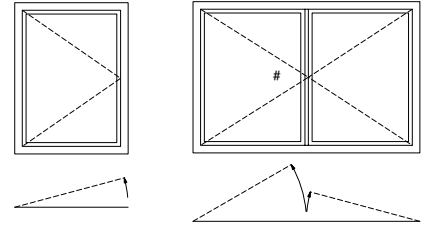
Installation weatherbar 407.009



Einbau Wetterschenkel
 400.857/400.920

Montage renvoi d'eau
 400.857/400.920

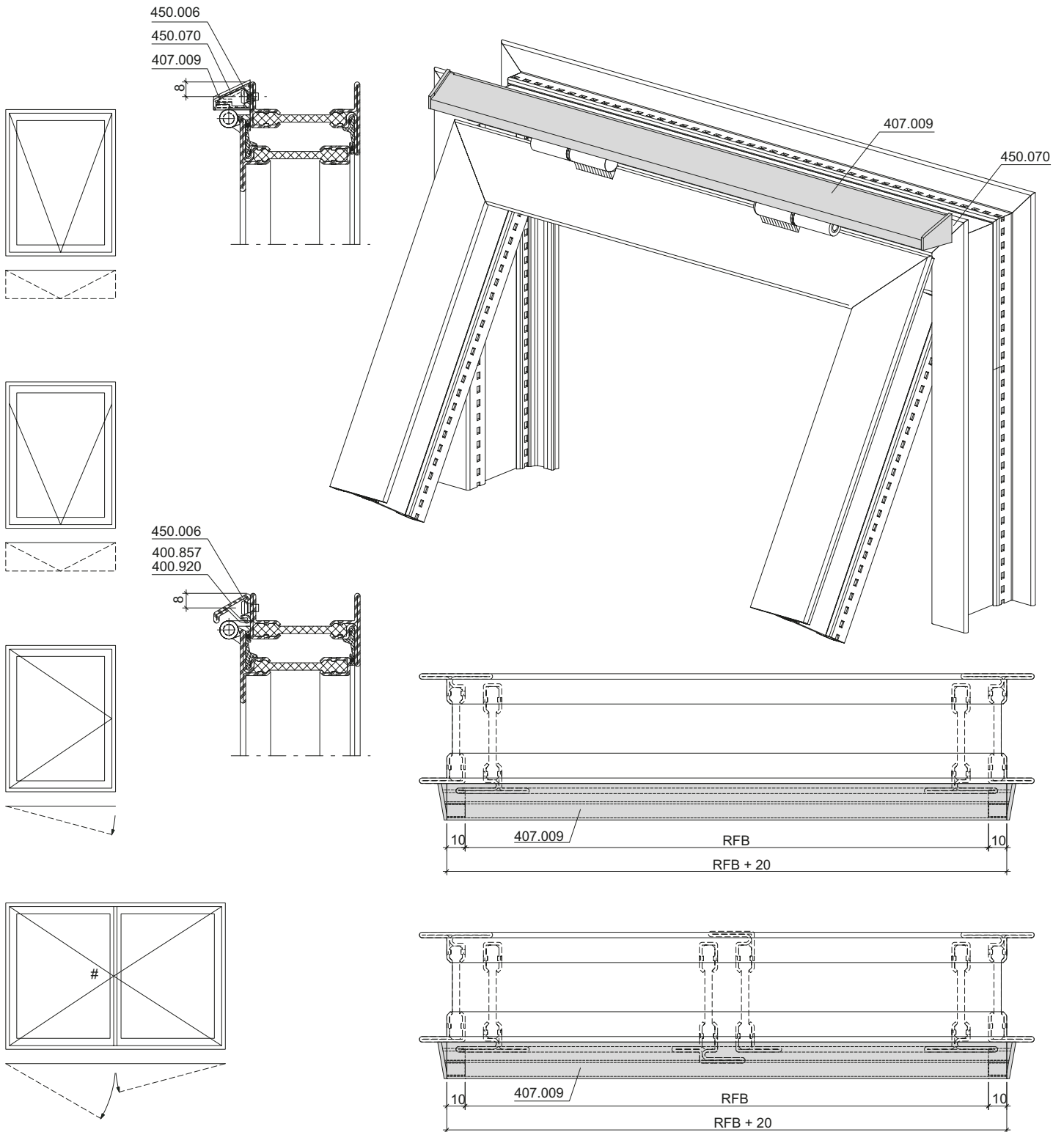
Installation weatherbar
 400.857/400.920



Einbau Wetterschenkel 407.009

Montage renvoi d'eau 407.009

Installation weatherbar 407.009



Abdeckband 451.057

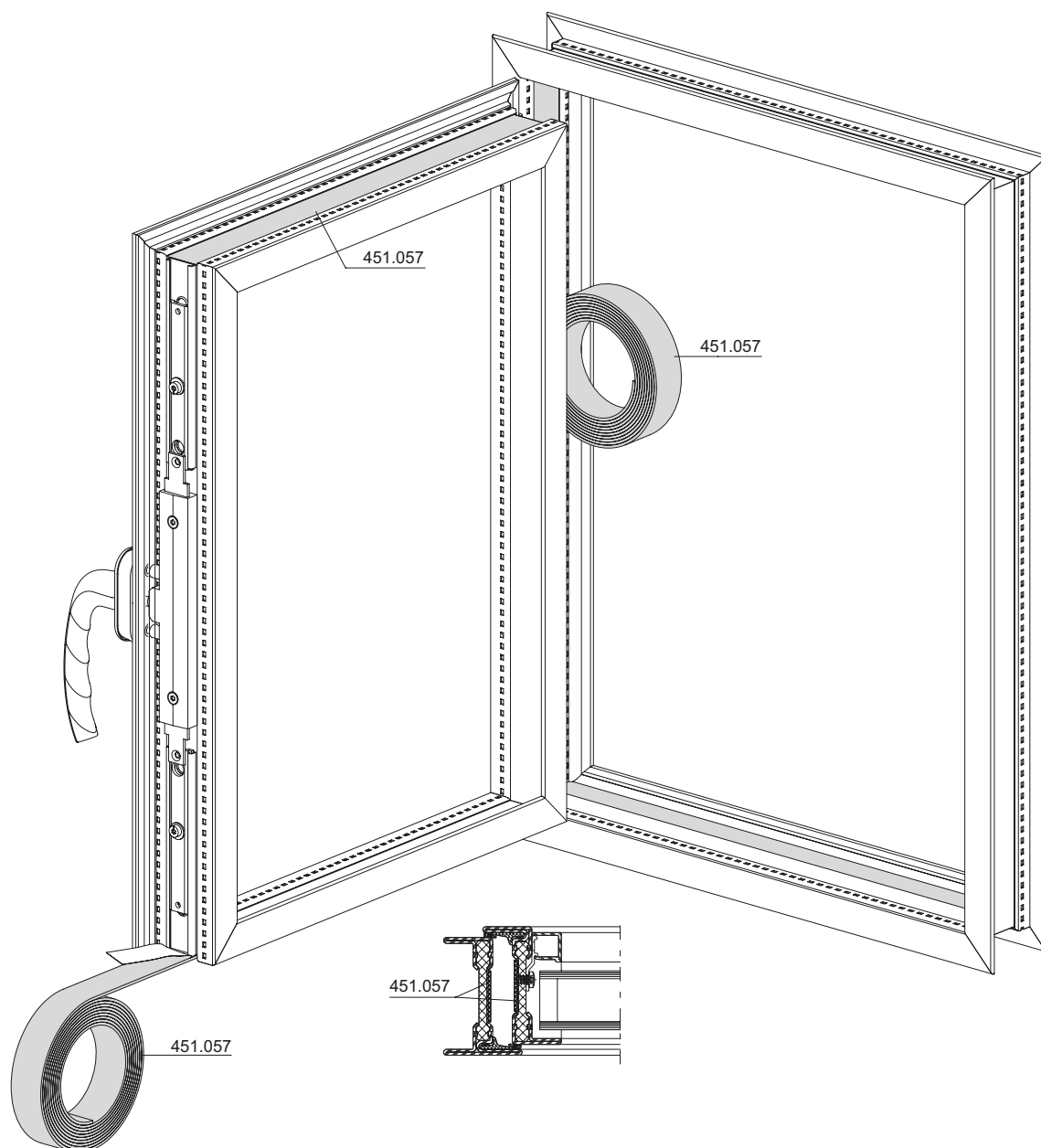
- Das Abdeckband darf erst nach der Oberflächenbehandlung am fertigen Element aufgebracht werden.
- Der Isolator muss trocken, staub-, öl- und fettfrei sein.
- Band direkt von der Rolle aufbringen. Schutzpapier sorgfältig abziehen.
- Band nicht in gestrecktem Zustand aufbringen.
- Abdeckband in den Ecken gestossen.
- Belüftungslöcher freistellen.

Bande de recouvrement 451.057

- La bande de recouvrement ne doit être appliqué sur l'élément fini qu'après traitement de surface
- L'isolateur doit être sec, exempt de poussière, d'huile et de graisse.
- Appliquer la bande directement à partir du rouleau. Retirer soigneusement le papier protecteur.
- Ne pas appliquer la bande en état étiré.
- Rectifier les joints dans les angles.
- Dégager les orifices de ventilation.

Cover tape 451.057

- The cover tape must be applied to the finished element only after surface treatment is complete.
- The insulator must be dry and free from dust, oil and grease.
- Apply the strip straight from the roll. Remove the protective paper carefully.
- Do not stretch the strip while applying.
- Join in the corners.
- Free up ventilation holes.



Abdeckband 451.057

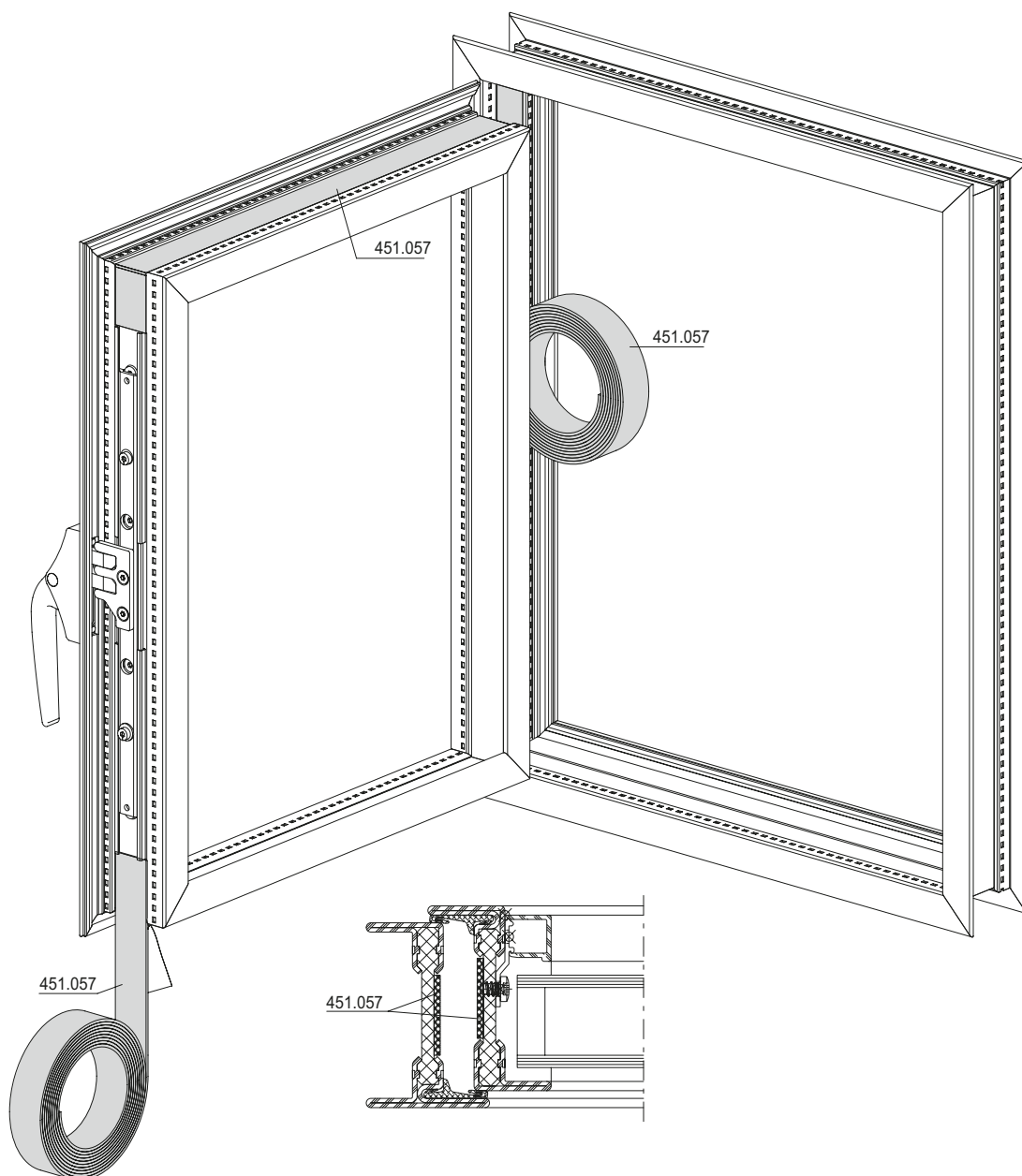
- Das Abdeckband darf erst nach der Oberflächenbehandlung am fertigen Element aufgebracht werden.
- Der Isolator muss trocken, staub-, öl- und fettfrei sein.
- Band direkt von der Rolle aufbringen. Schutzpapier sorgfältig abziehen.
- Band nicht in gestrecktem Zustand aufbringen.
- Abdeckband in den Ecken gestossen.
- Belüftungslöcher freistellen.

Bande de recouvrement 451.057

- La bande de recouvrement ne doit être appliquée sur l'élément fini qu'après traitement de surface.
- L'isolateur doit être sec, exempt de poussière, d'huile et de graisse.
- Appliquer la bande directement à partir du rouleau. Retirer soigneusement le papier protecteur.
- Ne pas appliquer la bande en état étiré.
- Rectifier les joints dans les angles.
- Dégager les orifices de ventilation.

Cover tape 451.057

- The cover tape must be applied to the finished element only after surface treatment is complete.
- The insulator must be dry and free from dust, oil and grease.
- Apply the strip straight from the roll. Remove the protective paper carefully.
- Do not stretch the strip while applying.
- Join in the corners.
- Free up ventilation holes.



**Dämmprofil 450.104
im Rahmenfalz**

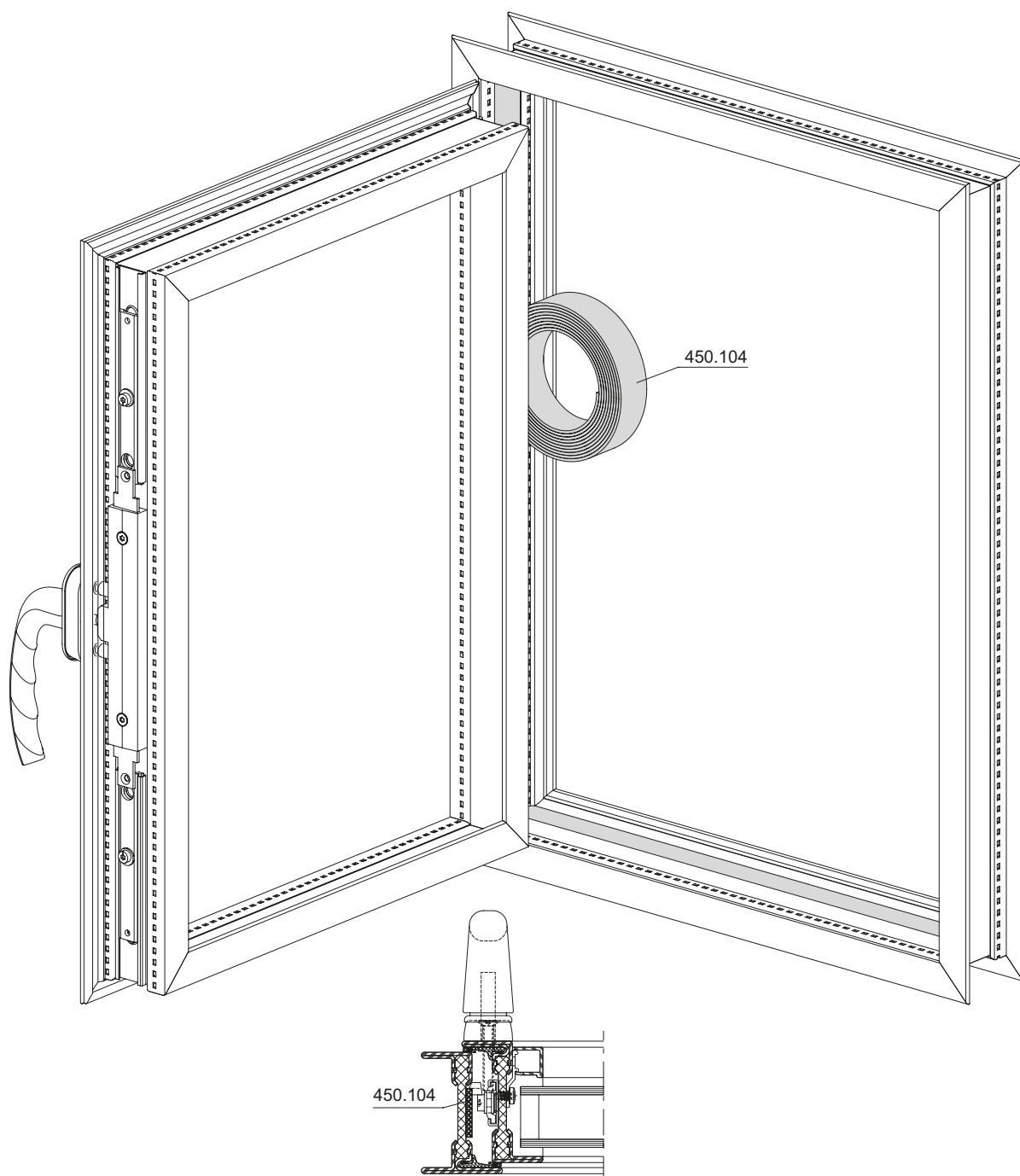
- Der Isolator muss trocken, staub-, öl- und fettfrei sein.
- Band direkt von der Rolle aufbringen. Schutzpapier sorgfältig abziehen.
- Band nicht in gestrecktem Zustand aufbringen.
- Abdeckband in den Ecken gestossen.

**Profilé isolant 450.104
dans la feillure du cadre**

- L'isolateur doit être sec, exempt de poussière, d'huile et de graisse.
- Appliquer la bande directement à partir du rouleau. Retirer soigneusement le papier protecteur.
- Ne pas appliquer la bande en état étiré.
- Rectifier les joints dans les angles.

**Insulation profile 450.104
in the frame rebate**

- The insulator must be dry and free from dust, oil and grease.
- Apply the strip straight from the roll. Remove the protective paper carefully.
- Do not stretch the strip while applying.
- Join in the corners.



**Dämmprofil 450.103
im Glasfalz**

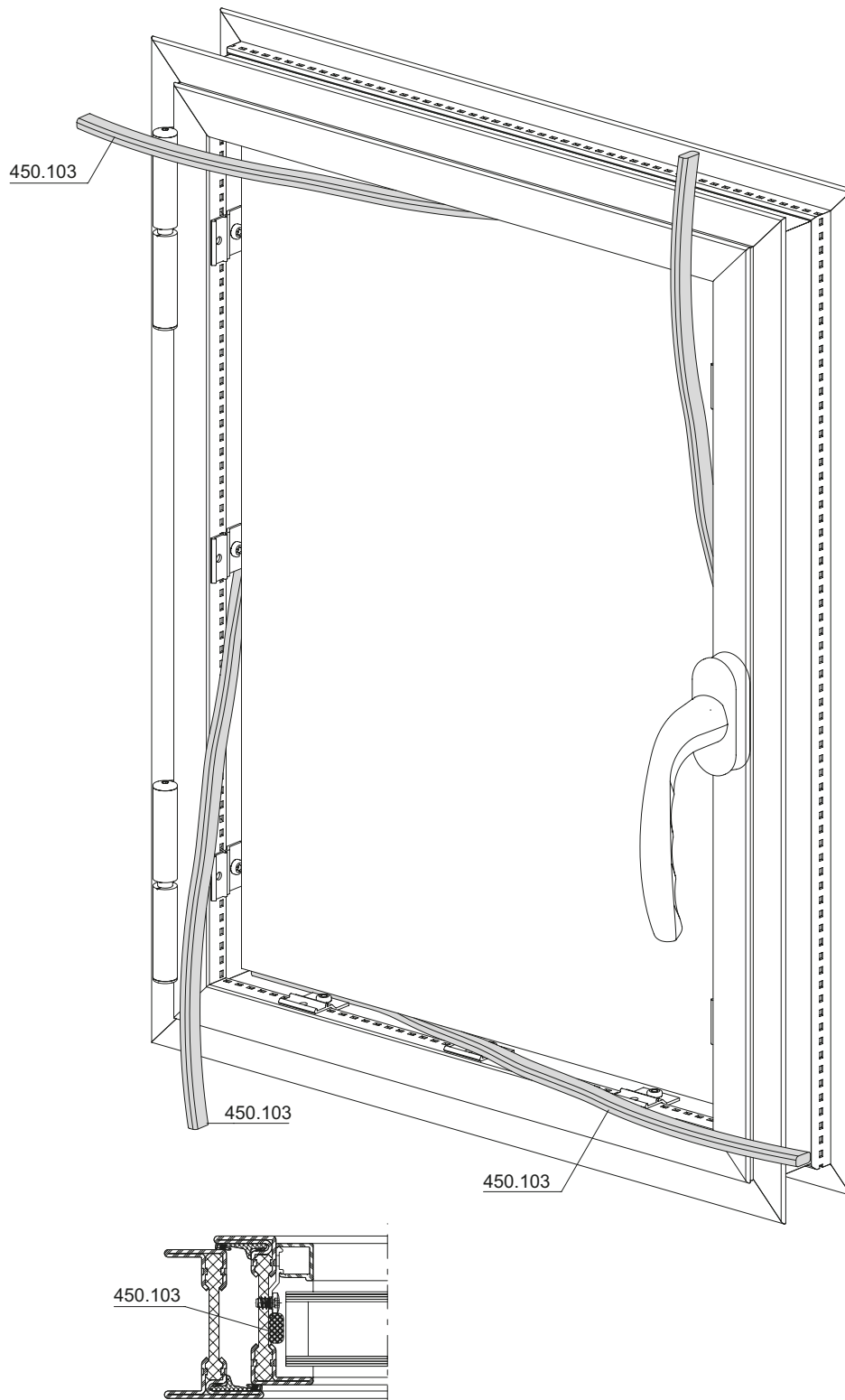
- Dämmprofil nach dem Einsatz des Füllelementes in den Glasfalz drücken.

**Profilé isolant 450.103
dans la feuillure de verre**

- Presser le profilé isolant dans la feuillure de verre après avoir mis l'élément de remplissage en place.

**Insulation profile 450.103
in the glazing rebate**

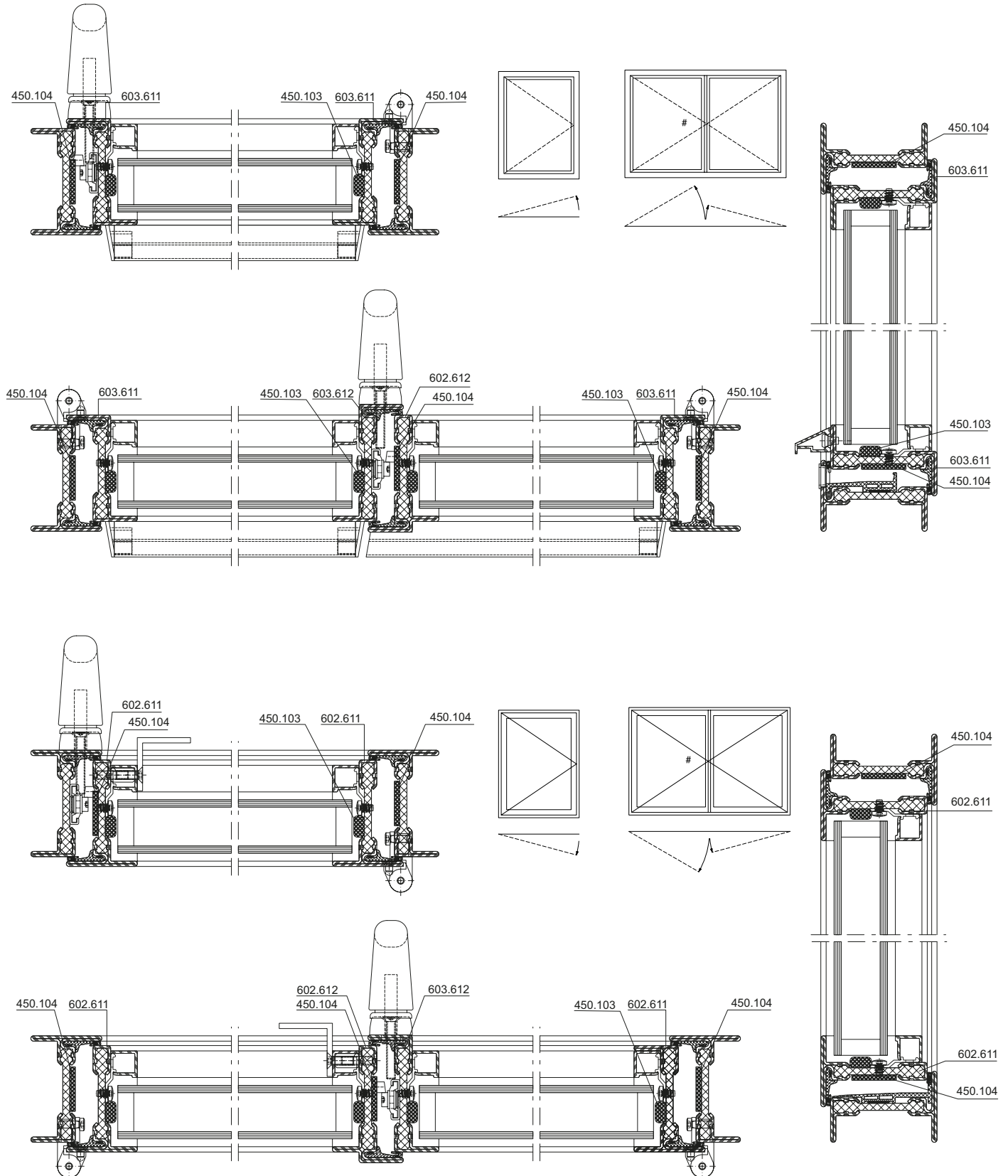
- After inserting the infill unit, press the insulation profile into the glazing rebate



Anordnung
 Dämmprofile 450.103 / 450.104

Disposition des
 profilés isolant 450.103 / 450.104

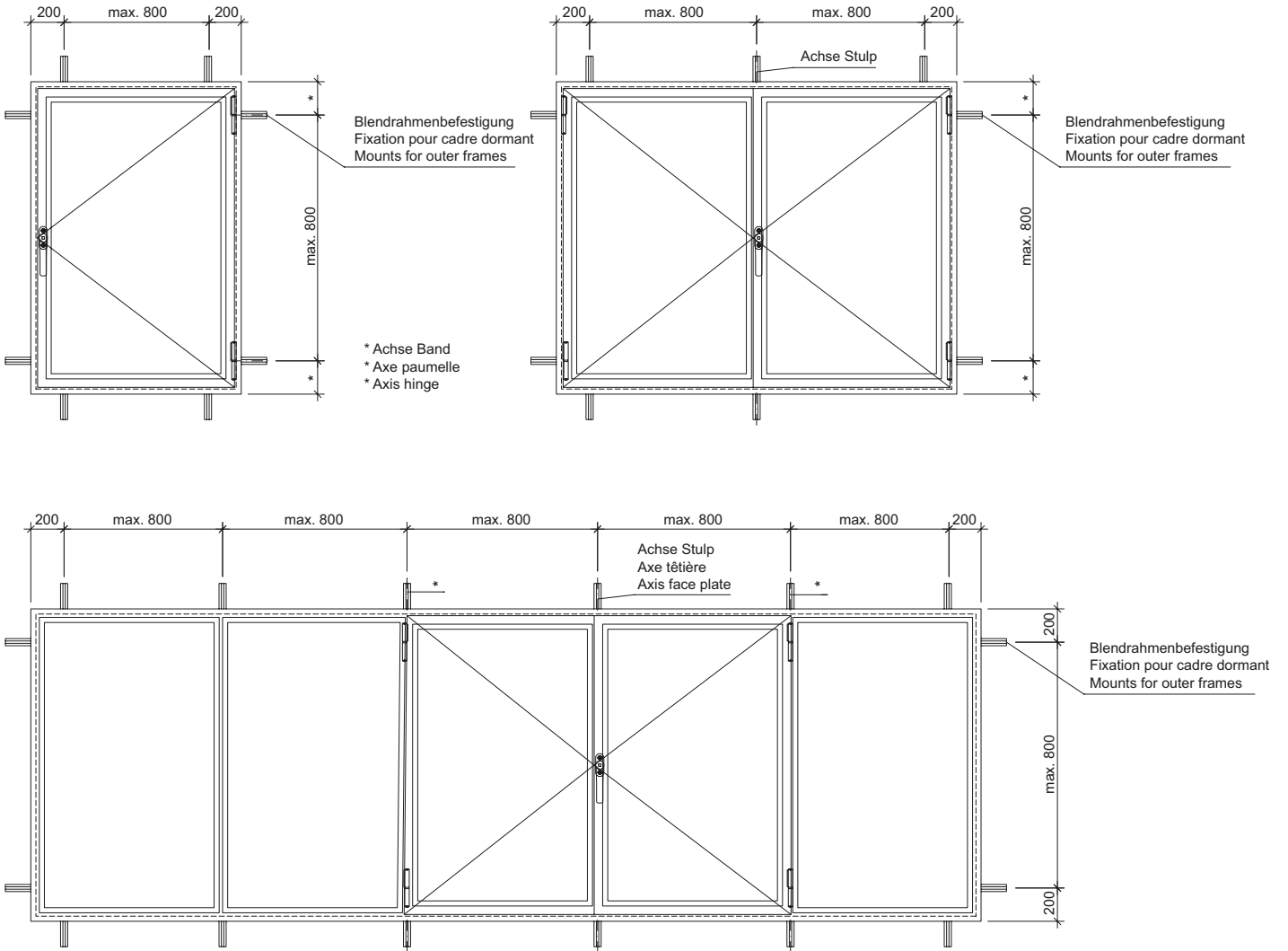
Arrangement of
 insulation profiles 450.103 / 450.104



**Empfehlung Anordnung
 Befestigungspunkte Janisol Arte 2.0**

**Recommandation de disposition
 Points de fixation Janisol Arte 2.0**

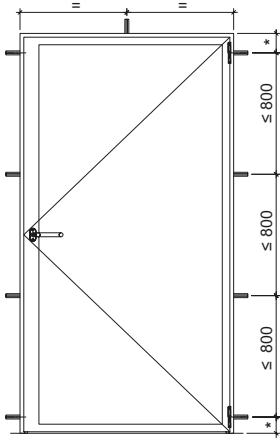
**Arrangement recommendation
 Janisol Arte 2.0 fixing points**



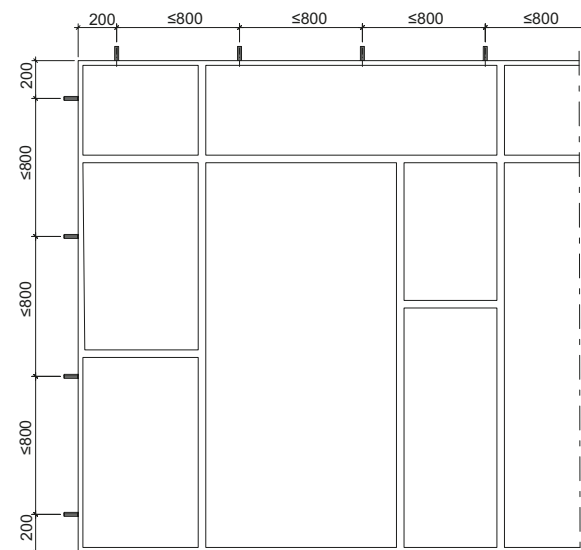
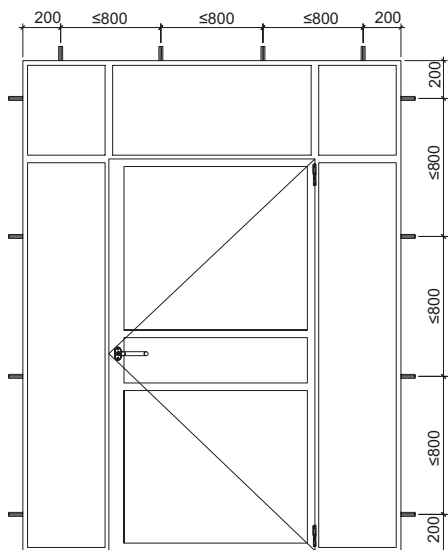
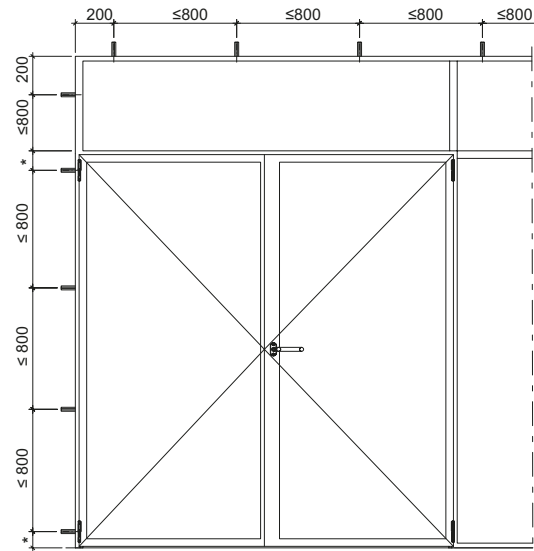
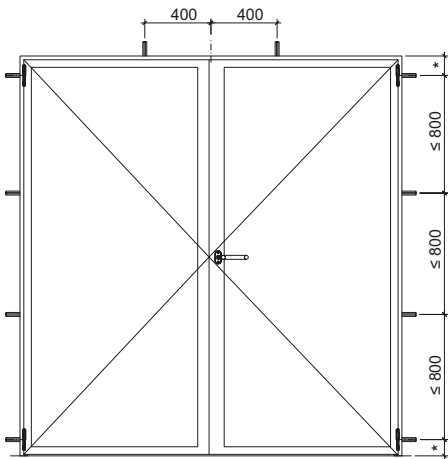
Empfehlung Anordnung
 Befestigungspunkte
 Janisol Arte Fenstertüre

Recommandation de disposition
 Points de fixation porte-fenêtre
 Janisol Arte

Arrangement recommendation
 Fixing points for Janisol Arte
 window doors



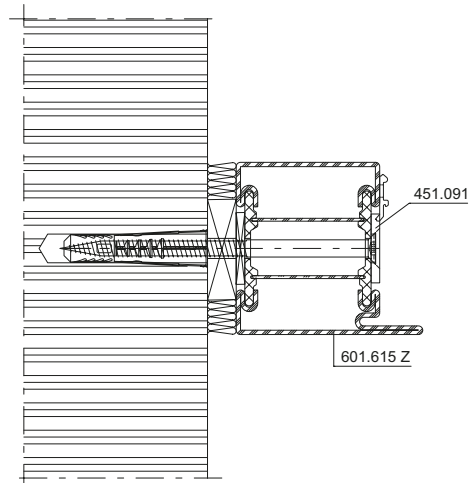
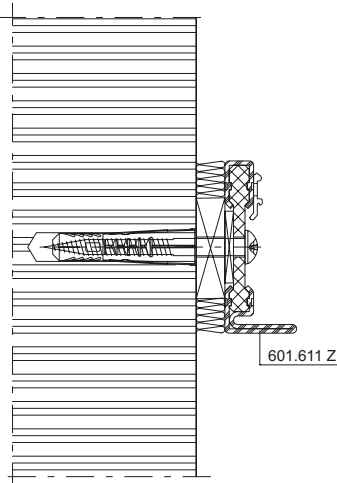
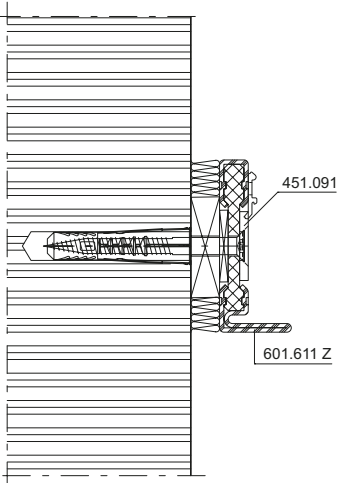
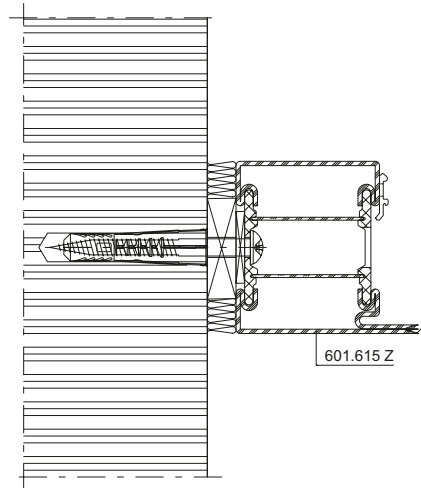
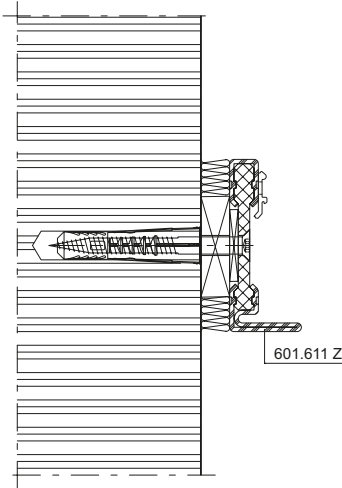
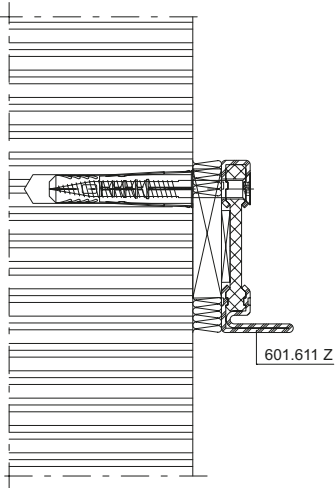
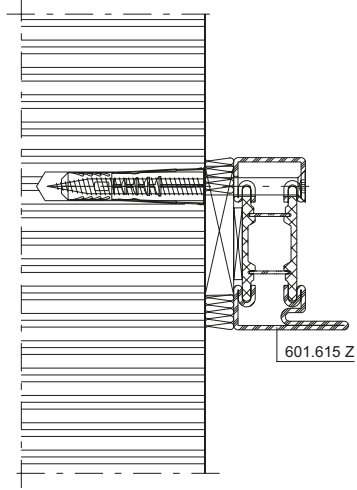
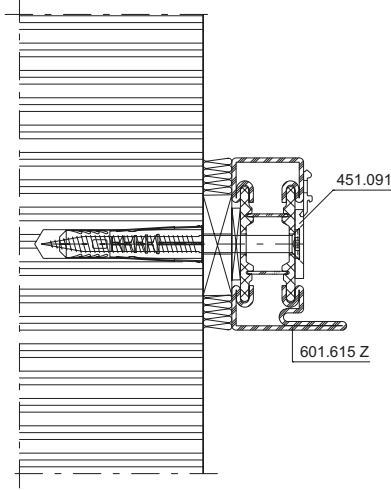
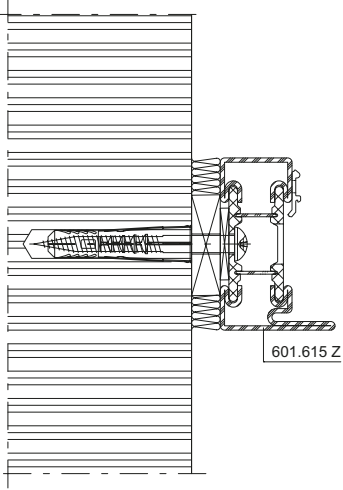
* Achse Band
 * Axe paumelle
 * Axis hinge



Befestigungsvarianten
(Direktmontage, ohne Laschen)

Variantes de fixation
(Montage direct, sans languette)

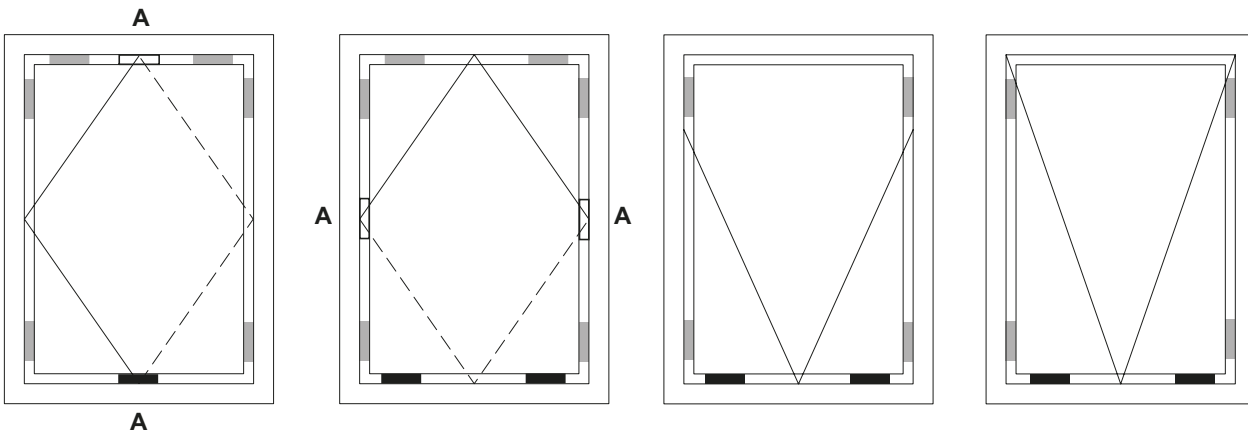
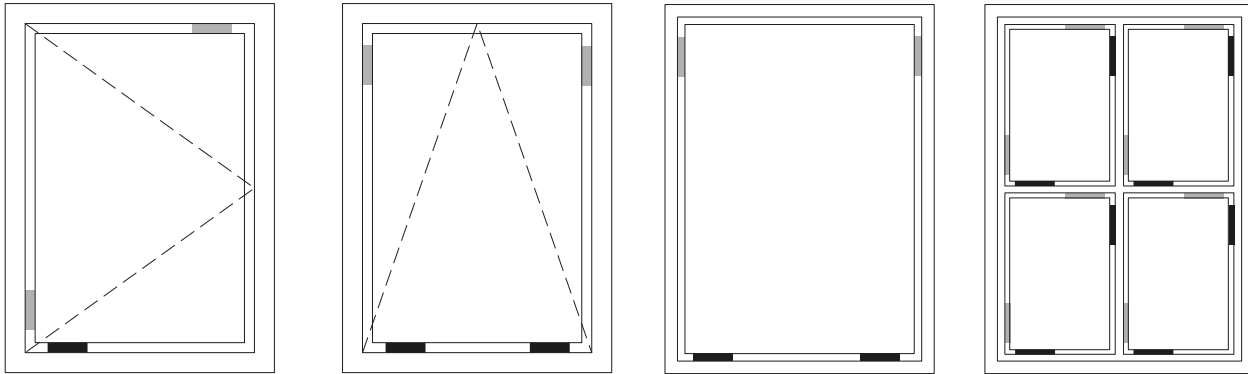
Fixing variants
(Direct installation without latches)



Verklotzen der Fenster
 gemäss Empfehlung DIN EN 12488

Calage des fenêtres selon
 recommandation DIN EN 12488

Glazing blocks of the windows
 according to DIN EN 12488
 recommendation



Tragklotz
 Cale d'assise
 Support block

Distanzklotz
 Cale d'écartement
 Spacer block

Profile auf Höhe Bänder ausrichten
 Profils sur hauteur des paumelles aligner
 Profiles of height hinges adjust

A
 Distanzklotz im Flügel und Rahmen
 für direkte Kraftableitung
 Cale d'écartement dans le vantail
 et le cadre, pour une transmission
 directe de la force
 Spacer block in sash and frame
 for direct load deflection

Verglasung

Das System Janisol Arte 2.0 kann mit Trocken- oder Nassverglasung ausgeführt werden. Bei Verwendung des Dichtstoffes 452.086 zur Versiegelung sollte mit dem Glaslieferanten abgestimmt werden und die Verträglichkeit der eingesetzten Materialien sichergestellt werden.

Für die Verglasung und Verklotzung sind folgende Regelwerke zu beachten:

- Verglasungsrichtlinien des Isolierglasherstellers
- Richtlinien des Institutes für Fenstertechnik, Rosenheim
- Richtlinien des Institutes des Glaserhandwerks für Verglasungstechnik und Fensterbau, Hadamar
- Nationale Anforderungen an das Glas wie z.B. Technische Regeln für die Verwendung von linienförmig gelagerten Verglasungen (TRLV)

Der Glaseinstand bei Janisol Arte beträgt lediglich 11 mm. Dies ist aufgrund der aktuellen und neuen DIN 18008-2 «Glas im Bauwesen» unkritisch, da der Glaseinstand mindestens 10 mm betragen muss, und dies grössenunabhängig!

- Bei der Versiegelung von Janisol Arte ist darauf zu achten, dass die Versiegelungen gemäss DIN 18545 erstellt werden. Speziell aussen unten horizontal, damit das Wasser abfließen kann (Schmutz, Belastung, Dichtstoff).

Rahmen- und Flügelprofile richten

Vor der Ausführung der Verglasung müssen die Flügel wie auch die Rahmenprofile gerichtet werden. Ist dies nicht möglich, müssen die Füllelemente mit dem Rahmen dauerhaft verbunden werden. Die Verträglichkeit des Klebstoffes muss mit dem Glashersteller geprüft werden.

Vitrage

Le système Janisol Arte 2.0 peut être réalisé avec un vitrage à sec ou au silicone. En cas d'utilisation du mastic 452.086 pour le scellement, il convient d'en discuter avec le fournisseur de vitrage et de s'assurer de la compatibilité des matériaux utilisés.

Tenir compte des règlements suivants pour le vitrage et le calage:

- Directives de vitrage du fabricant de verre isolant
- Directives de l'Institut pour la technique des fenêtres, Rosenheim
- Directives de l'Institut de la profession des vitriers pour la technique de vitrage et la construction de fenêtres, Hadamar
- Exigences nationales vis-à-vis du verre telles que les règles techniques pour l'utilisation de vitrages linéaires (TRLV)

La prise en feuillure Janisol Arte n'est que de 11 mm, ce qui n'est pas critique en raison de la norme actuelle et de la nouvelle DIN 18008-2 «Verre dans l'industrie du bâtiment» car la prise en feuillure doit être d'au moins 10 mm, indépendamment de la taille!

- Veiller lors du scellement de Janisol Arte à ce qu'il soit opéré selon DIN 18545. Spécialement à l'extérieur en bas à l'horizontale afin que l'eau puisse s'écouler (salissures, charge, produit d'étanchéité).

Ajuster les profilés de cadre et de vantail

Avant l'exécution du vitrage, il faut ajuster les profilés de vantail et de cadre. Si cela est impossible, on reliera de façon durable les éléments de remplissage avec le cadre. Il est nécessaire de vérifier la compatibilité de la colle avec le verrier.

Glazing

The Janisol Arte 2.0 system can be designed with dry or wet glazing. When using sealant 452.086 for sealing, the glass supplier should be consulted and the compatibility of the materials used must be ensured.

Note the following regulations for glazing and blocking:

- Glazing guidelines from the insulating glass manufacturers
- Guidelines of the Institute for Window Technology, Rosenheim, Germany
- Guidelines of the «Institut des Glaserhandwerks für Verglasungstechnik und Fensterbau» (Institute of Glassmakers for Glazing and Window Technology), Hadamar, Germany
- National requirements for glass such as the Technical regulations for glazing held in by pressure plates (TRLV)

The glass edge cover is just 11 mm for Janisol Arte. This is not critical due to the current, new standard DIN 18008 - 2 «Glass in Building» as the glass edge cover has to be at least 10 mm irrespective of size.

- When sealing Janisol Arte, ensure that the sealing is done in accordance with DIN 18545. Pay special attention to the outside bottom horizontal seal to ensure that water can run off (dirt, sealing compound).

Align frame and sash profiles

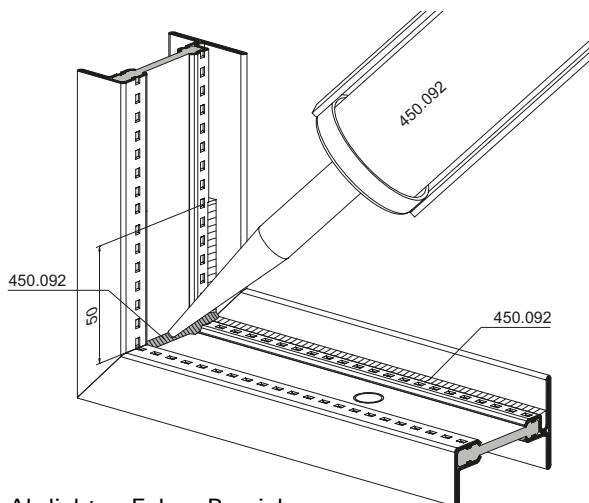
Before installing the glazing, the sash and frame profiles must be aligned. If this is not possible, the infill units must be permanently bonded to the frame. The compatibility of the adhesive must be checked with the glass manufacturer.

Glaseinbau

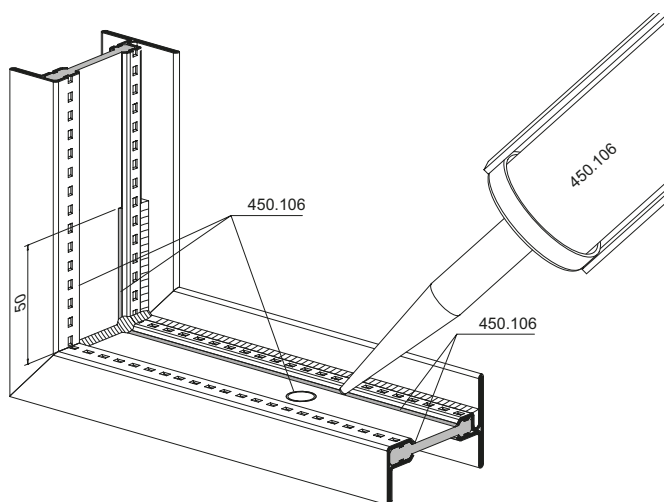
Abdichtung im Falzbereich Festverglasung

Ecken- und T-Stoss abdichten
Die Ecken der Entwässerungsebene sind mit Dichtmasse 450.092 auszustreichen.

Glasfalz-Grund abdichten
Der Glasfalz-Grund ist im Isolator-Bereich mit Schmalfugen-Dichtmasse (450.106) unten durchgehend und seitlich 50 mm hoch abzudichten.



Abdichten Ecken-Bereich
Etanchéité des joints d'angle
Sealing corners



Abdichtstellen Glasfalz
Situation de l'étanchéité de feuillure
Sealed positions glazing rebate

Pose des verres

Etanchéité dans la feuillure Vitrage fixe

Etancher les joints d'angle et en T
Etancher les angles du plan de drainage avec pièce d'étanchéité 450.092.

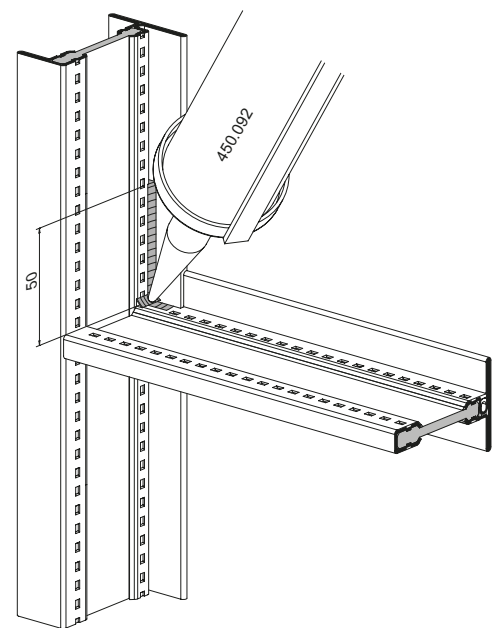
Etanchéité du fond de feuillure
Etancher le fond de feuillure dans la zone de l'isolateur avec du mastic d'étanchéité pour joints étroits (450.106) en partie inférieure et sur les côtés jusqu'à 50 mm de hauteur.

Glazing

Sealing in the rebate region Fixed glazing

Sealing corners and T joint
The corners of the drainage region are to be smeared with sealing compound 450.092.

Glazing rebate base
The glazing rebate base is to be sealed in the region of the insulator continuously and sideways to a depth of 50 mm with narrow joint sealing material (450.106).



Abdichten T-Stoss-Bereich
Etanchéité en T
Sealing T joint

Für eine bessere Verarbeitung und Dosierung der Dichtmasse 450.106 empfehlen wir die Verwendung des Artikels 450.109.

Pour un meilleur usinage et dosage de la pâte d'étanchéité 450.106, nous vous recommandons d'utiliser l'article 450.109.

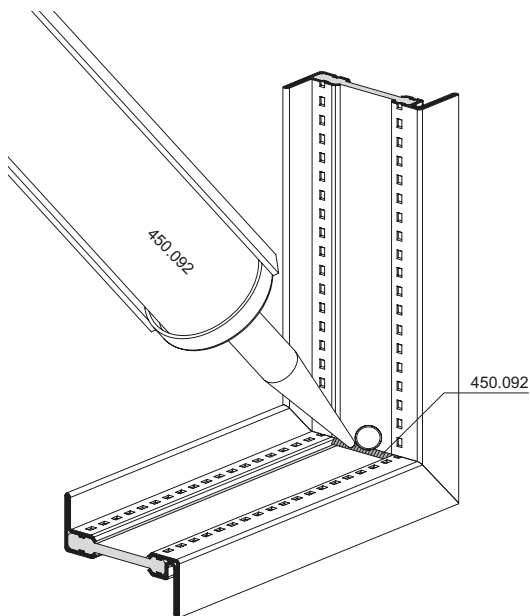
To improve processing and dosing of the sealing compound 450.106, we recommend using item 450.109.

Abdichtung im Falzbereich Fensterflügel

Damit allfälliges Tauwasser nicht über die Isolatorecken in den Fensterfalz gelangen kann, müssen die Ecken im Glasfalzbereich mit Dichtmasse 450.092 abgedichtet werden.

Glasfalz-Grund abdichten

Der Glasfalz-Grund ist im Isolator-Bereich mit Schmalfugen-Dichtmasse (450.106) unten durchgehend und seitlich 50 mm hoch abzudichten.



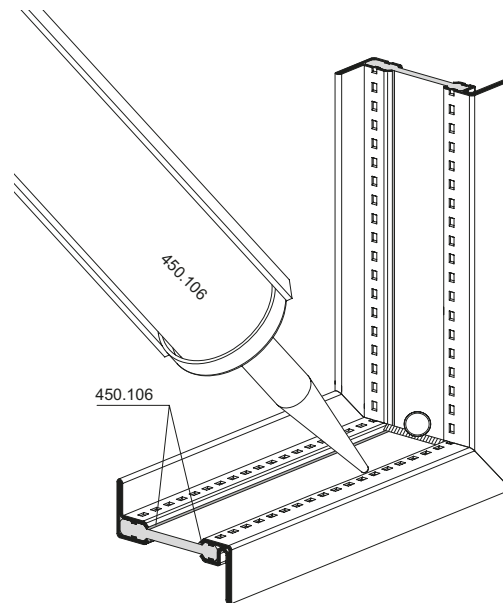
Abdichten Ecken-Bereich
Etanchéité des joints d'angle
Sealing corners

Etanchéité dans la feuillure Vantail de fenêtre

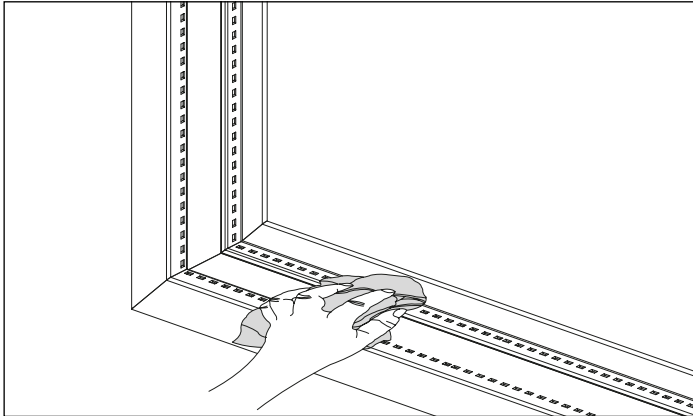
Pour que l'eau de condensation ne puisse pénétrer dans la feuillure de la fenêtre en passant par les angles des barrières isolantes, il doit être appliqué de la pâte d'étanchéité 450.092 dans les angles de la zone de la feuillure de verre.

Etanchéité du fond de feuillure

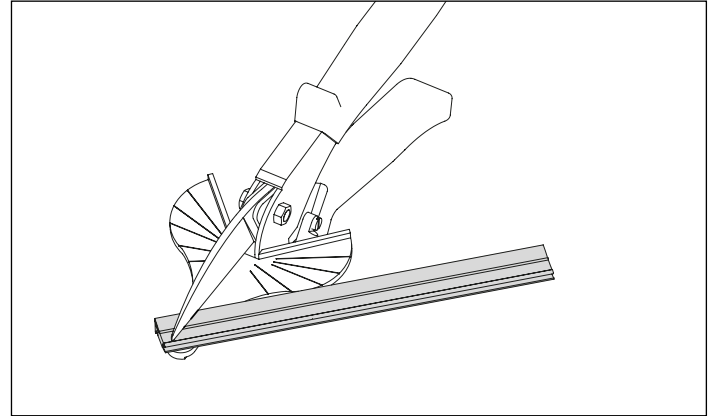
Etancher le fond de feuillure dans la zone de l'isolateur avec du mastic d'étanchéité pour joints étroits (450.106) en partie inférieure et sur les côtés jusqu'à 50 mm de hauteur.



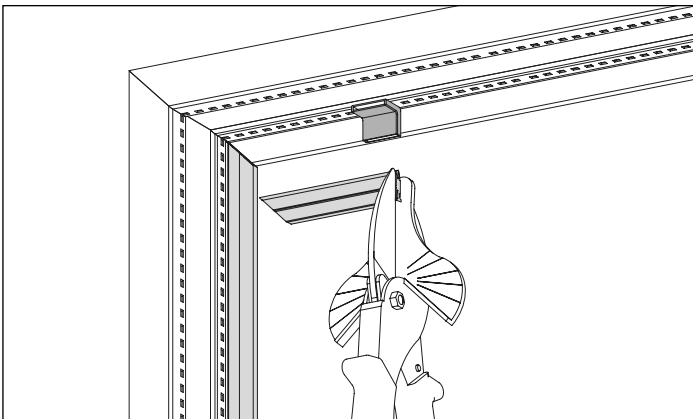
Abdichtstellen Glasfalz
Situation de l'étanchéité de feuillure
Sealed positions glazing rebate



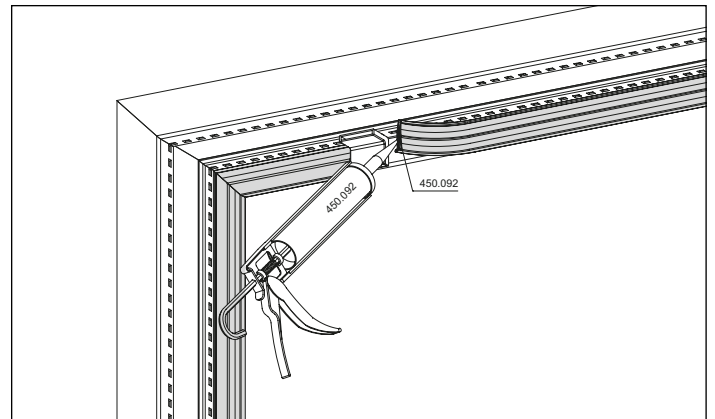
Reinigung Profilanschlag
Nettoyage aile fixe du profilé
Cleaning section stop



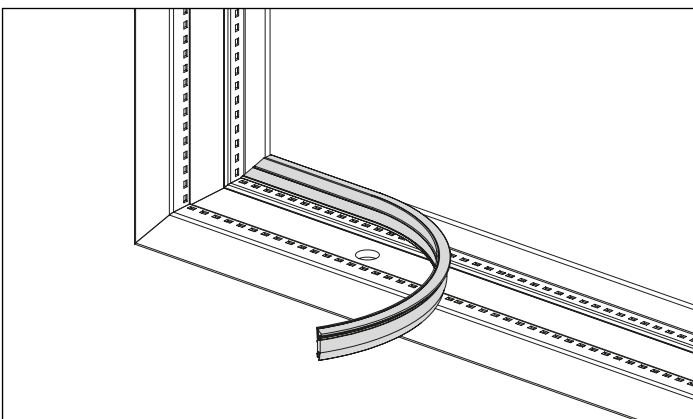
Zuschnitt Aussendichtung
Coupe joint extérieur
Cutting outer weather strip to size



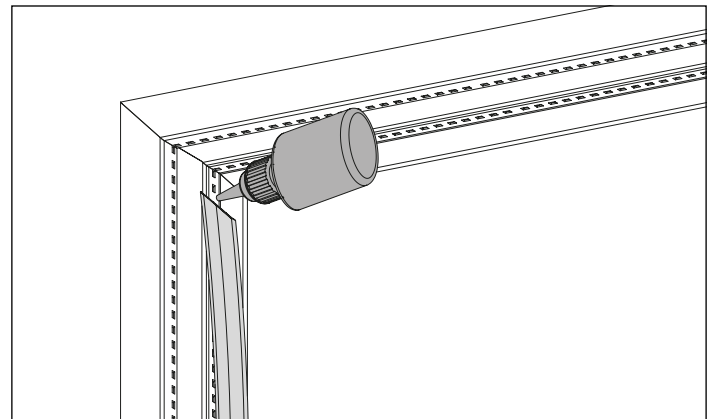
Freistellen im Bereich Belüftungswinkel
Interruption dans la zone équerre d'aération
Freeing in the region of the angle for glazing rebate ventilation



Verkleben mit Belüftungswinkel (450.092)
Coller avec l'équerre d'aération (450.092)
Gluing to the angle for glazing rebate ventilation (450.092)



Aussendichtung
Monter le joint extérieur
Installing the outer weatherstrip



Gehrungsecken verkleben (450.089)
Coller les angles d'onglet (450.089)
Gluing the mitre corners (450.089)

Einbau-Hinweise

Reinigung Profilanschlag

Der Lappen des Profils ist vor dem Einkleben der Aussendichtung sorgfältig zu reinigen. Der Anschlag muss trocken, staub-, öl- und fettfrei sein.

Zuschnitt Aussendichtung

Die Aussendichtungen sind vorgängig mit leichtem Übermass (ca. 5 mm/m) in Gehrung zu schneiden.

Einsetzen der Aussendichtung

Schutzfolie vom Butylkleber abziehen und Aussendichtung 455.608 an Profilanschlag kleben. Gehrungsecken sind mit 450.089 zu verkleben.

Einbau-Situation beim Belüftungswinkel

Im Bereich der Glasfalz-Belüftungswinkel (450.110/111) muss die Aussendichtung freigestellt werden. Die Dichtung ist anschliessend mit 450.089 an den Kunststoff-Belüftungswinkel anzukleben.

Consignes de montage

Nettoyage butée de profilé

Nettoyer soigneusement la battue du profilé avant de coller le joint extérieur. L'aile fixe doit être sèche et exempte de poussière, d'huile et de graisse.

Coupe joint extérieur

Les joints extérieurs doivent être au préalable coupés d'onglet avec une légère surmesure (env. 5 mm/m).

Montage du joint extérieur

Retirer le film de protection du butyl autocollant, puis coller le joint extérieur 455.608 sur la butée de profilé. Coller les angles d'onglet avec 450.089.

Situation de montage au niveau de l'équerre d'aération

Le joint extérieur doit être interrompu dans la zone de l'équerre d'aération de la feuillure (450.110/111). Coller ensuite le joint avec 450.089 sur l'équerre d'aération en plastique.

Installation instructions

Cleaning section stop

The lips of the sections are to be thoroughly cleaned before gluing in the outer weather strip. The stop must be dry and free of dust, oil and grease.

Cutting outer weatherstrip to size

The outer weatherstrip in the mitre is to be cut initially slightly oversize (approx. 5 mm/m).

Inserting the outer weatherstrip

Remove the butyl adhesive protective foil from the weatherstrip 455.608, and then glue it to the section stop. The corners of the mitre are to be glued with 450.089.

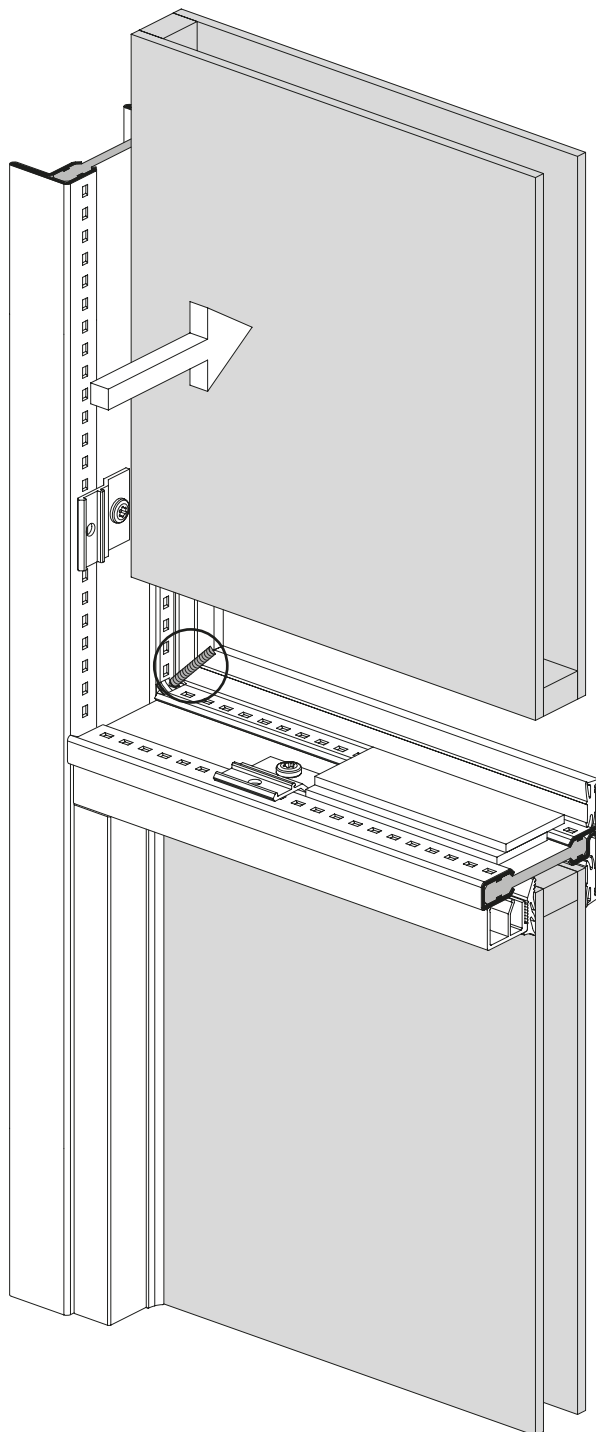
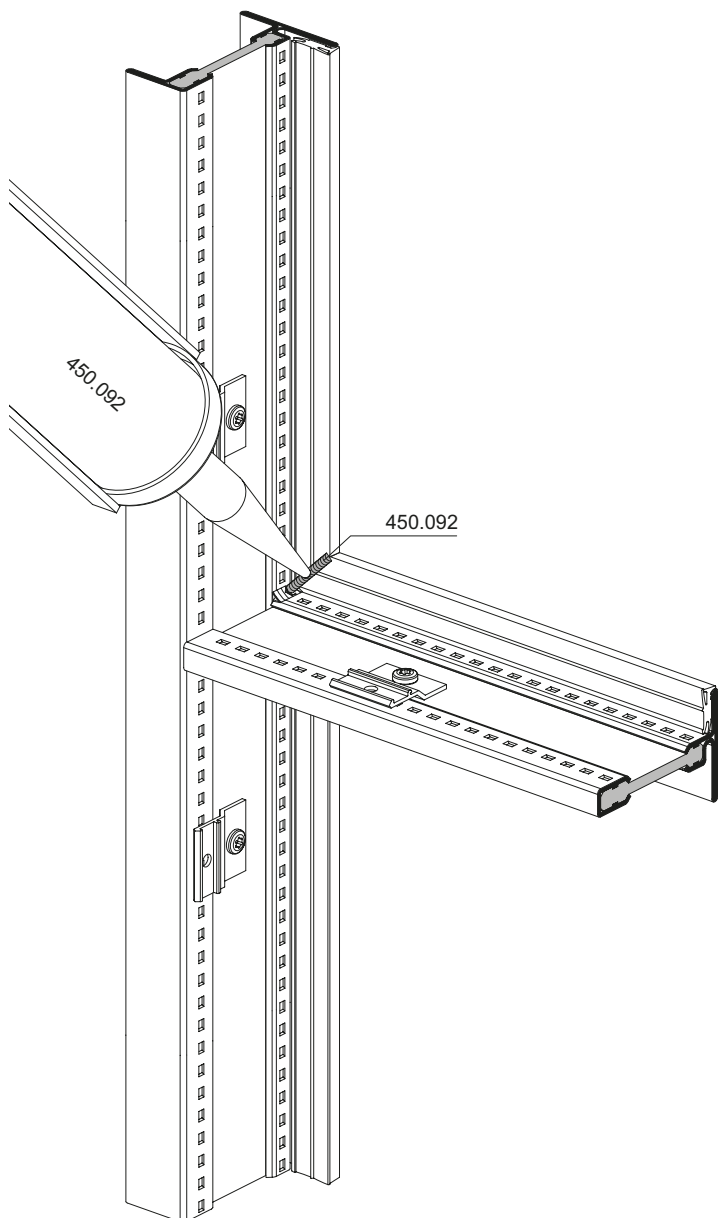
Installation situation for angle for glazing ventilation

The external weatherstrip must be freed in the region of the glazing beam angle (450.110/111). The strip is to be glued with 450.089 to the polymer angle for glazing rebate ventilation.

Abdichtung Glasdichtung
Gehung aussen

Étanchéification joint de vitrage
Onglet extérieur

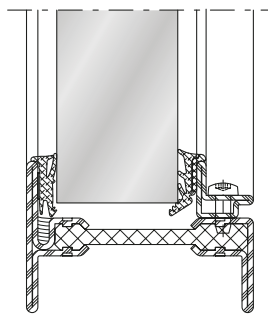
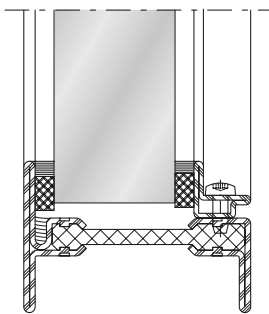
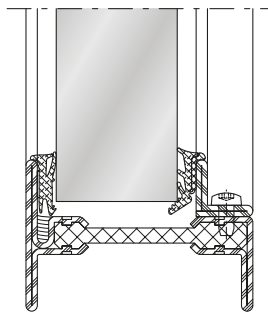
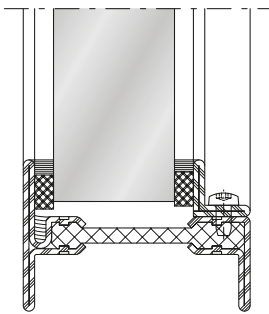
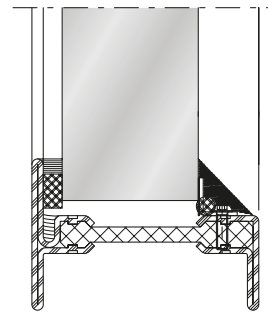
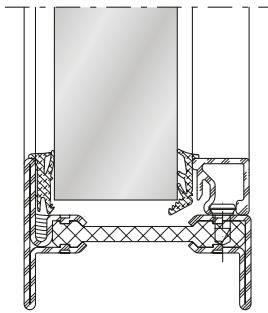
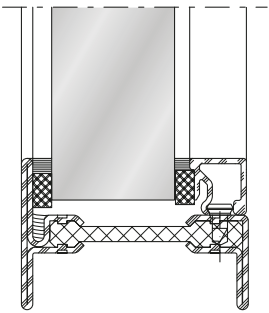
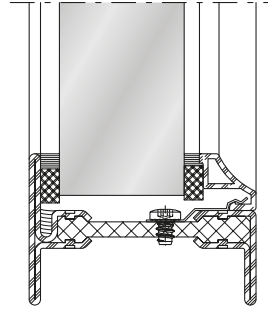
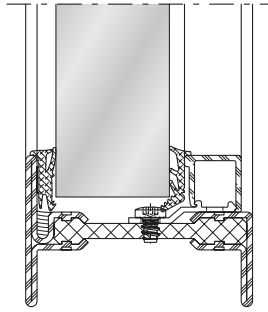
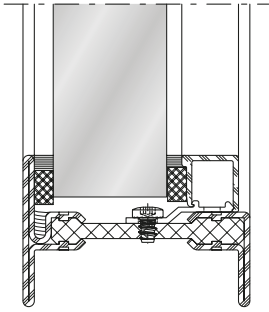
Sealing the glazing weatherstrip
Mitre on outside

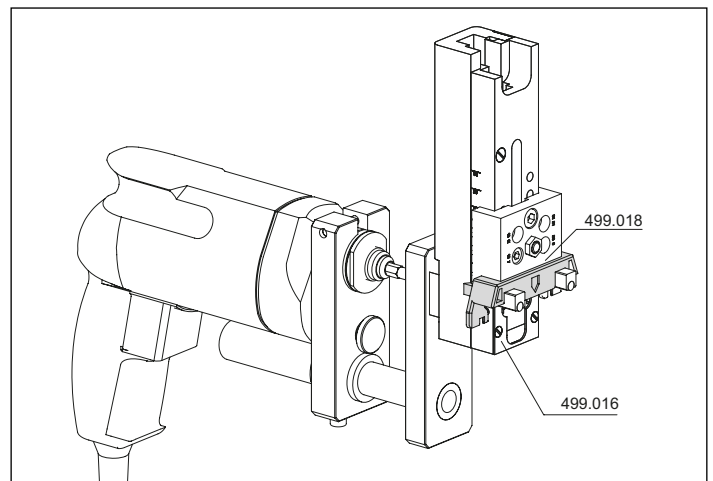
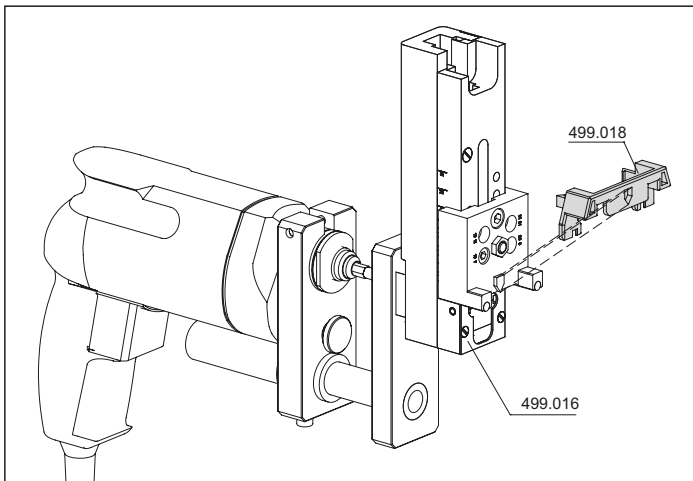


Glasleisten-Varianten

Variantes de parcloses

Glazing bead options

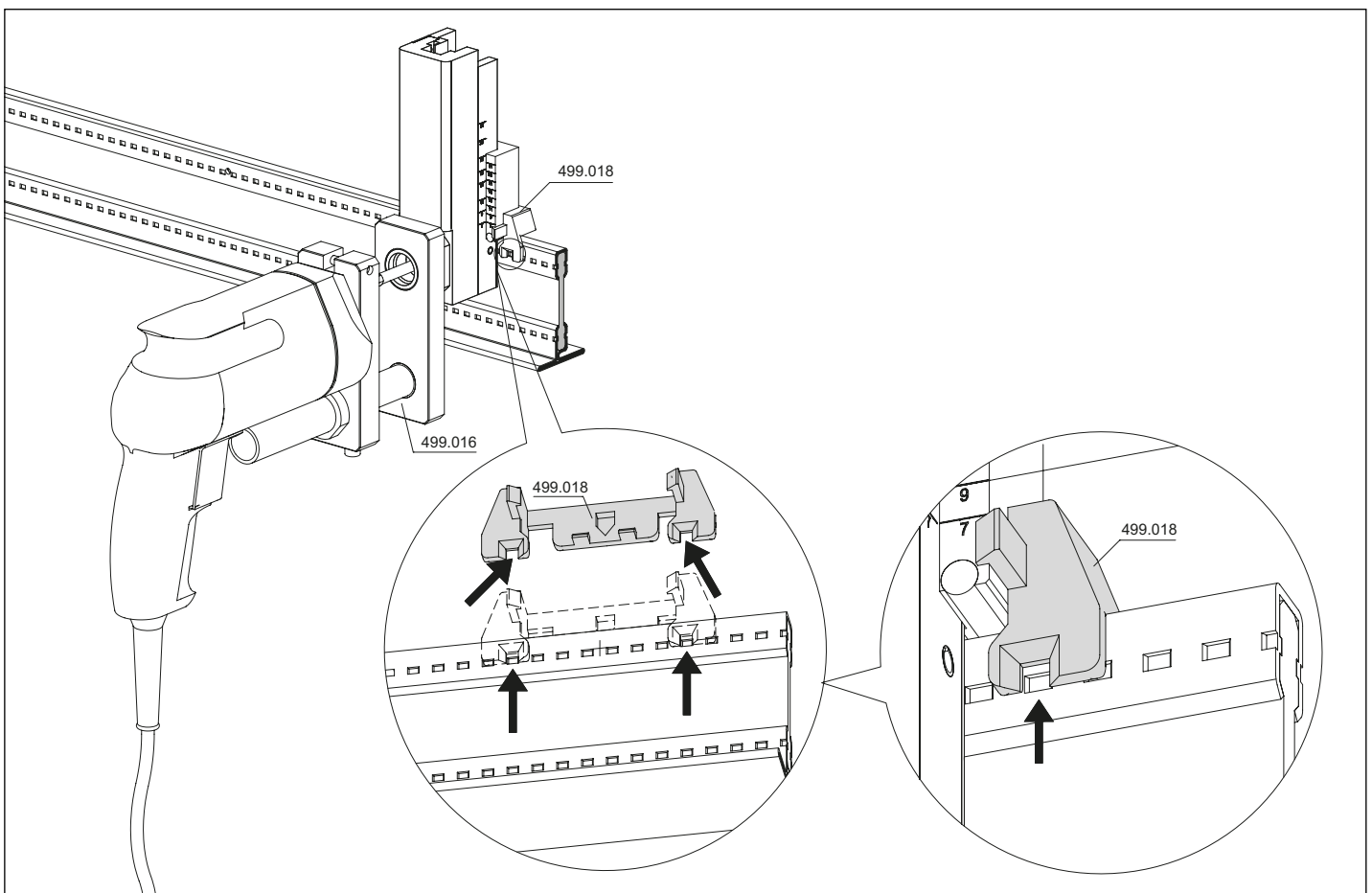




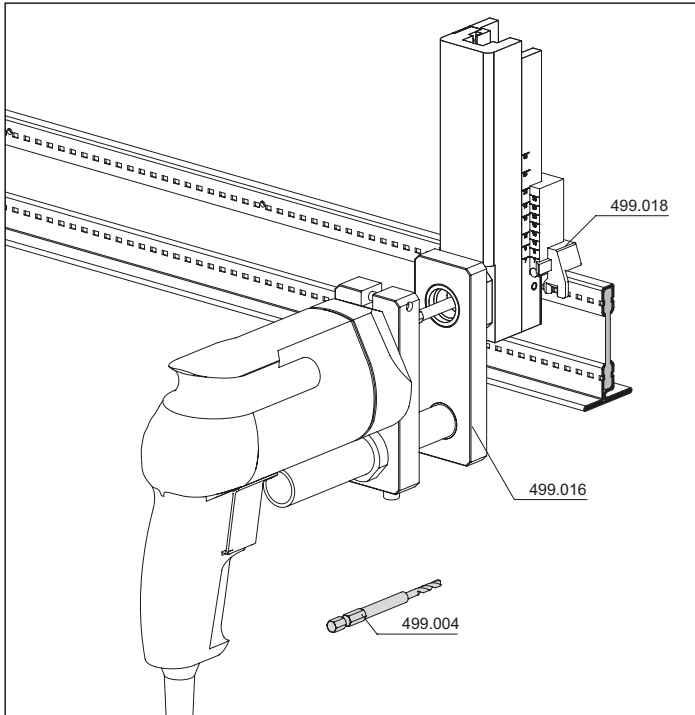
Für **Profile mit Kammermass 10 mm** Positionierhilfe 499.018 montieren.
Profile mit Kammermass 25/50 mm können ohne 499.018 gebohrt werden.

Pour **profilés avec des dimensions de caisson 10 mm**, monter l'accessoire de positionnement 499.018.
Les profilés présentant des dimensions de chambre 25/50 mm peuvent être percés sans 499.018.

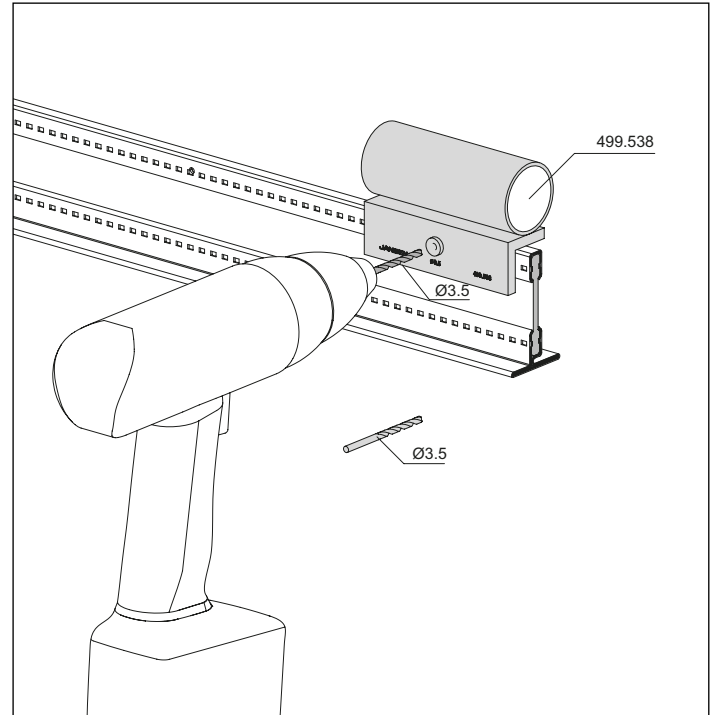
For **profiles with chamber sizes 10 mm**, install positioning guide 499.018.
Profiles with chamber size of 25/50 mm can be drilled without 499.018



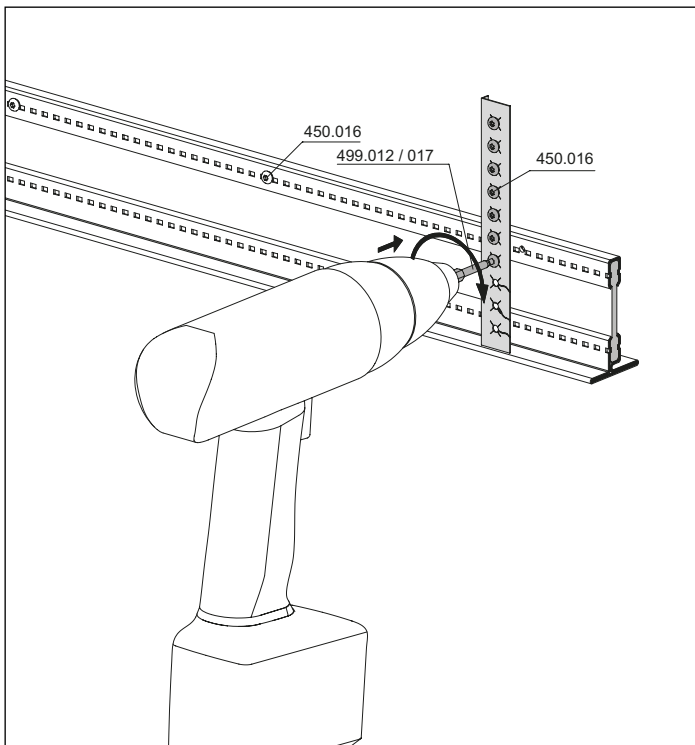
Positionierhilfe 499.018 an den Sicken ausrichten
Orienter l'accessoire de positionnement 499.018 au niveau des moulures
Align positioning guide 499.018 to the crimps



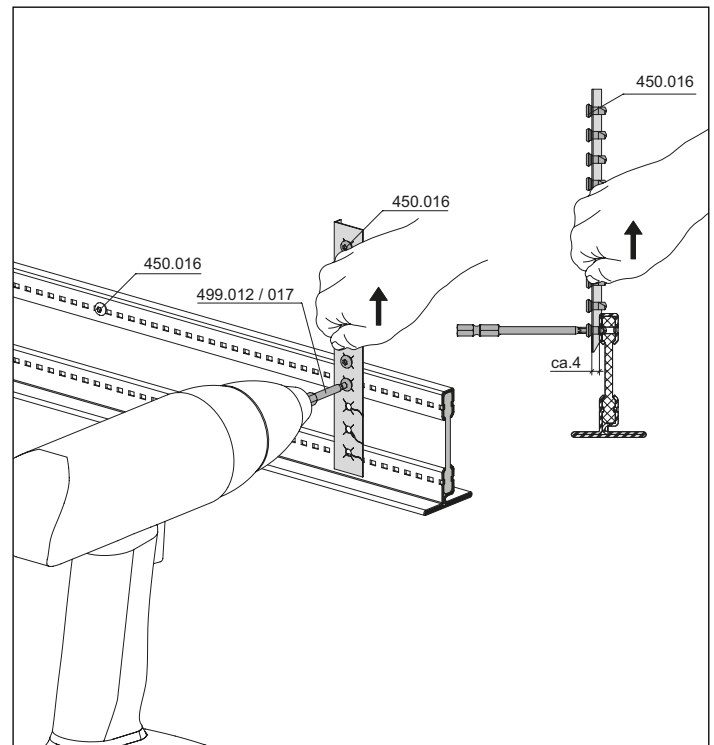
Mit Befestigungsset und Bohrer 499.004 vorbohren
Effectuer un préperçage avec le kit de fixation et le foret 499.004
Pre-drill using fixing kit and drill bit 499.004



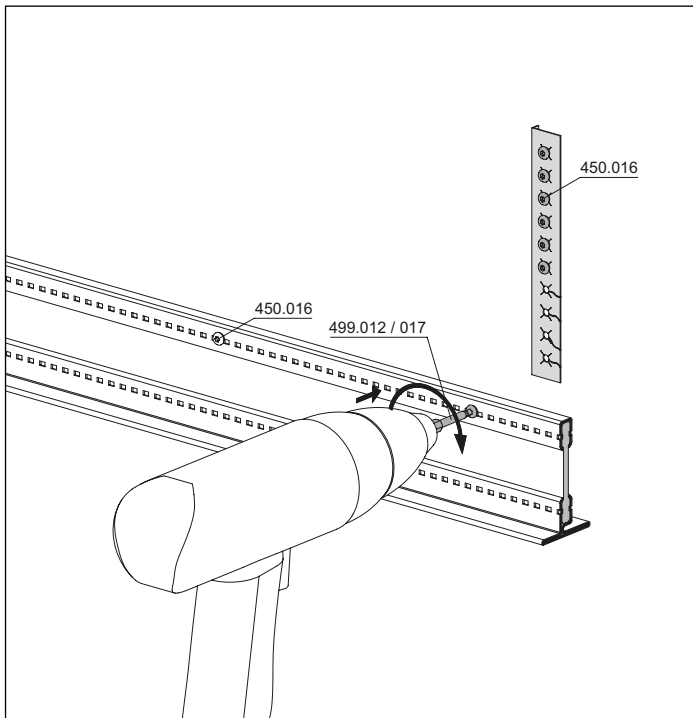
Variante: Mit Hand-Bohrlehre 499.538 vorbohren
Variante: Effectuer un préperçage avec le gabarit de perçage à main 499.538
Option: Pre-drill with hand-held drilling jig 499.538



Befestigungsknopf 450.016 ansetzen und eindrehen
Appliquer le bouton de fixation 450.016 et le visser avec la visseuse
Position fixing stud 450.016 and screw in place



Kartonstreifen abziehen
Retirer la bande de carton
Remove cardboard strip



Befestigungsknopf 450.016 fest anziehen
Bien serrer le bouton de fixation 450.016
Firmly tighten fixing stud 450.016

Hinweis:

Falls ein Span unter dem Schraubenkopf
verklemt, Befestigungsknopf leicht
lösen und Span entfernen.
Knopf wieder fest eindrehen.

Remarque:

Si un copeau est coincé sur la tête de
vis, desserrer légèrement cette tête et
enlever le copeau.
Resserrer la tête.

Note:

If a splinter gets stuck under the head
of the screw, loosen the fixing stud
slightly and remove the splinter.
Firmly tighten the stud once again.

Einbau-Hinweise

Einbau der Innendichtung

Auswahl der Innendichtung

Die Auswahl der Innendichtung erfolgt nach untenstehender Tabelle. Massgebend ist die Fugenbreite zwischen innerem Glasrand und Glasleiste.

Montage der Innendichtung

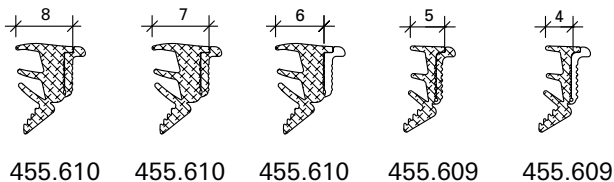
Je nach Fugenbreite und Auswahl der Innendichtung ist der Abreissssteg (X) vor dem Einbau abzureissen. Die Innendichtungen sind vorgängig mit leichtem Übermass (ca. 5 mm/m) in 45° Gehrung zu schneiden.

Montage der Innendichtung

Die Innendichtung sollte ca. 5 cm entfernt von der Ecke eingesetzt und erst dann in die Gehrung hinein geschoben werden.

Tipps

- Dünne Stahlbleche (z.B. 0,15 mm) erleichtern das Eindrücken der Dichtung im Bereich der Glasklötze und Glasleistenhalter.
- Dichtungen vor dem Einbau warm (Raumtemperatur) lagern.
- Dichtungen vorgängig mit Seifenwasser besprühen.



Innendichtungen (Glasleisten-Seite)
 Joints intérieurs (côté parclose)
 Inner weatherstrip (glazing bead side)



Steg abreißen
 Arracher la partie déchirable
 Detaching strip

Consignes de montage

Montage du joint intérieur

Choix du joint intérieur

Le choix du joint intérieur s'effectue suivant le tableau ci-dessous. Le plus important est la largeur du joint entre la bordure intérieure du vitrage et la parclose.

Montage du joint intérieur

Suivant la largeur des joints et le choix du joint intérieur, la partie déchirable (X) doit être arrachée avant le montage. Les joints intérieurs doivent au préalable être coupés d'onglet à 45° avec une légère surmesure (env. 5 mm/m).

Montage du joint intérieur

Le joint intérieur doit être placé à env. 5 cm de l'angle, puis enfoncé dans l'onglet.

Conseils

- De fines tôles d'acier (ex: 0,15 mm) facilitent l'enfoncement du joint dans la zone des cales de vitrage et clips pour parclose.
- Stocker les joints au chaud (à température ambiante) avant de les monter.
- Vaporiser au préalable les joints à l'eau savonneuse.

Installation instructions

Installing the inner weatherstrip

Selection of inner weatherstrip

Inner weatherstrips are selected according to the table given below. The spacing width between inner glazing edge and glazing is the critical factor.

Assembling the inner weatherstrip

Depending on the spacing width and selection of the inner sealant, the detachable strip (X) is to be torn off before installation. The inner weatherstrips are to be cut in the 45° mitre, initially slightly oversized (approx. 5 mm/m).

Installing the inner weatherstrip

The inner weatherstrip should be set approx. 5 cm away from the corner and only then be pushed into the mitre.

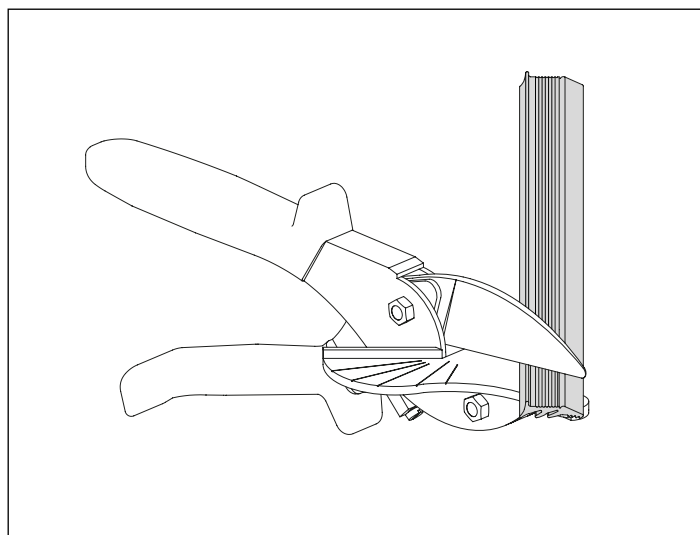
Tips

- Thin steel sheets (e.g. 0.15 mm) make pushing in the weatherstrip easier in the region around the glazing bridges and glazing bead clips.
- Store the weatherstrips in a warm (ambient temperature) environment before installation.
- Spray the weatherstrips with soapy water as a preliminary.

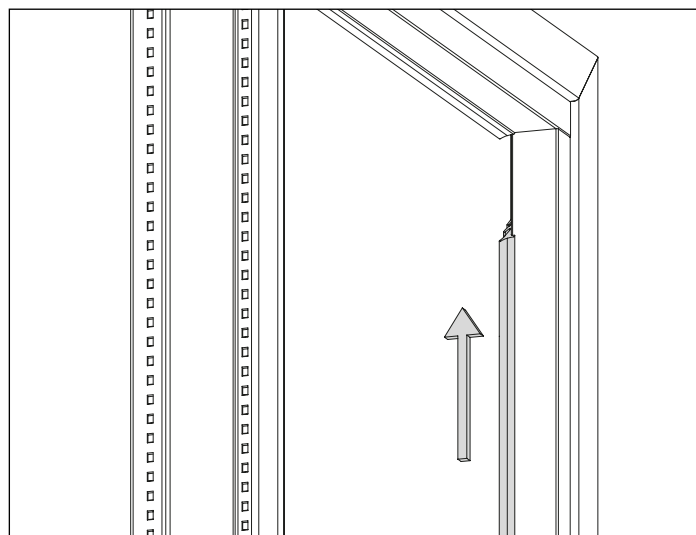
Einbau-Hinweise

Consignes de montage

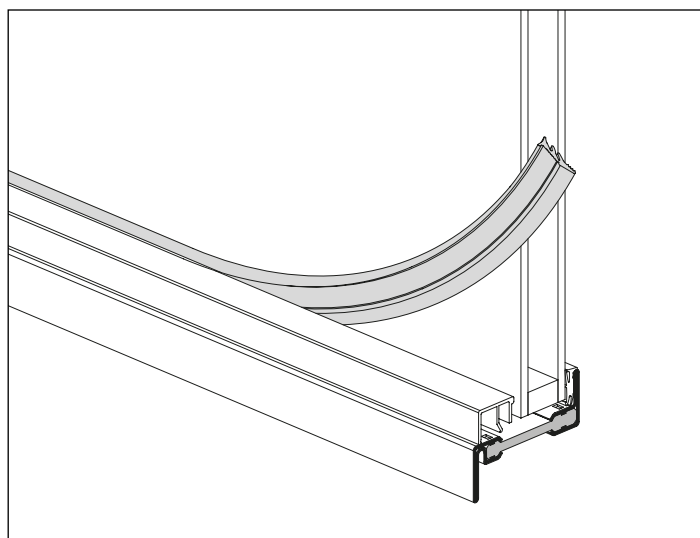
Installation instructions



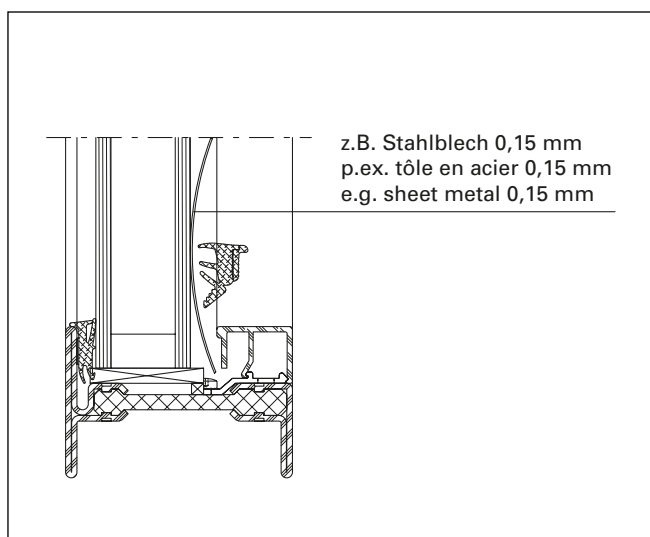
Innendichtung in Gehrung 45° schneiden
Couper le joint intérieur d'onglet 45°
Inner weather strip cut in mitre 45°



Eindrücken der Dichtung in Richtung Ecke
Enfoncement du joint en direction de l'angle
Pressing the gasket in the direction of the corner



Einbau der Innendichtung
Montage du joint intérieur
Fitting the interior weatherstrip

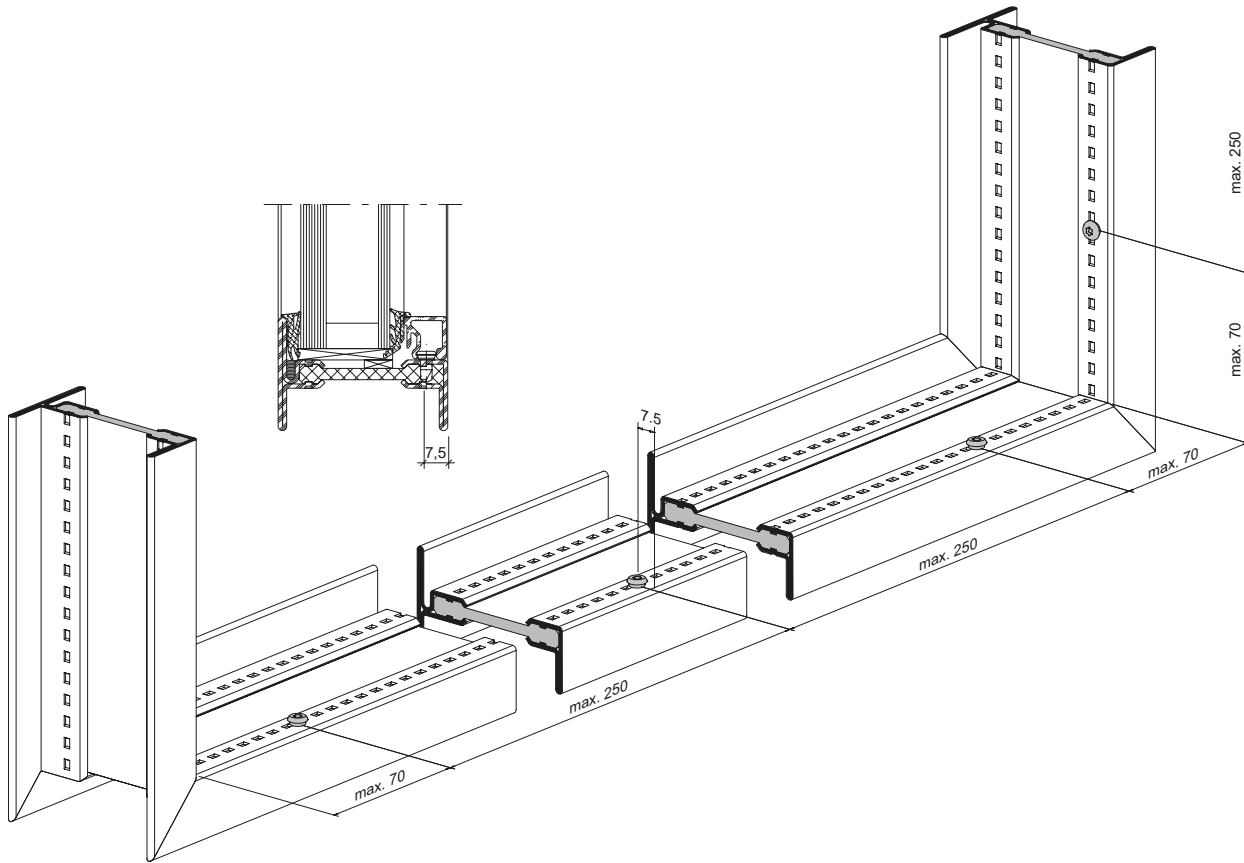


Einbauhilfe im Bereich der Glasklötze/Glasleistenhalter
Aide de montage dans la zone des cales de vitrage
Auxiliary tool in the region of the glazing bridges

Einbau Glasleisten-
 Befestigungsknöpfe 450.016

Montage boutons de
 fixation 450.016

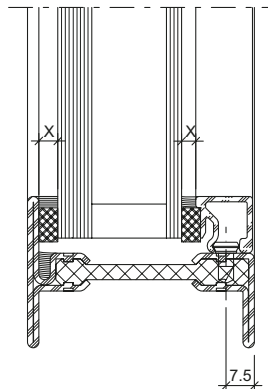
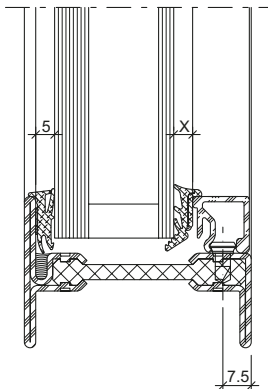
Installation fastening
 studs 450.016



Bestimmung der Dichtungen
 und des Falzspiels

Détermination des joints et
 les jeu de feuillure

Determining weatherstrips and
 rebate allowance



X:
 Fugenbreite

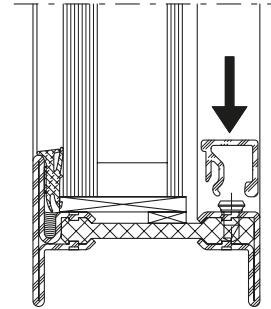
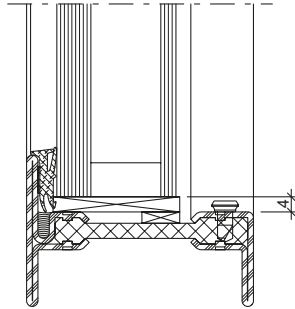
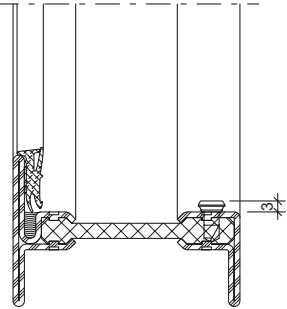
X:
 Largeur de joint

X:
 Width of joint

Ablaufschritte Glaseinbau

Procédure pour la pose des vitres

Steps in fitting glass panes



Butylkleber-Schutzfolie abziehen und Dichtung an Profillappen kleben.

Retirer la bande de protection du butyle et coller le joint sur l'aile fixe du profilé.

Remove the butyl adhesive protective film and stick the weatherstrip to the profile lip.

Glasklotz und Glaselement einsetzen

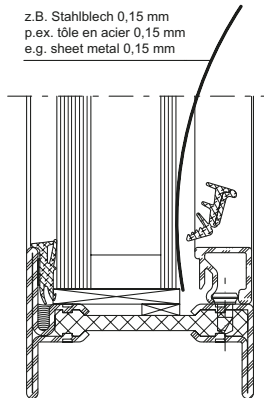
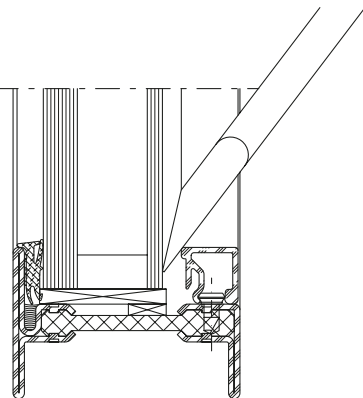
Poser la cale et l'élément de vitrage

Insert glazing block and glass pane

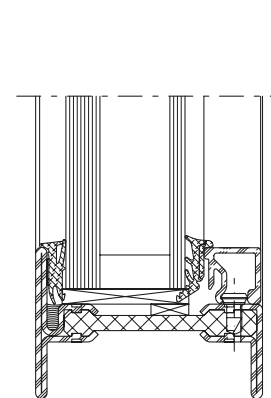
Glasleisten allseitig aufklipsen

Clipper les parclozes sur toute la périphérie

Clip on the glazing beads along all sides



z.B. Stahlblech 0,15 mm
p.ex. tôle en acier 0,15 mm
e.g. sheet metal 0,15 mm



Glaselement mittels Klotzungshebel vorsichtig an die äussere Anschlagdichtung drücken.

Presser le vitrage contre le joint extérieur à l'aide du levier de calage

Using a pad lever, press the glazing element against the outer glass contact weatherstrip.

Dünne Stahlbleche (z.B. 0,15 mm) erleichtern das Eindrücken der Dichtungen im Bereich der Glasklötze.

Une fine tôle d'acier (par ex. 0.15 mm) facilite la rentrée du joint dans la zone de la cale.

Thin pieces of metal sheet (e.g. 0.15 mm) will assist in pressing in the weatherstrip in the vicinity of the glazing pads.

Dichtung fertig eingebaut

Joint installé

Gasket installation complete

Bedingt durch verschiedene Toleranzen (Profile, Glasleisten, Anordnung Befestigungsknöpfe, Distanzbänder und Glaselemente) empfehlen wir, die Wahl der Distanzbänder vorgängig an einem Element zu prüfen.

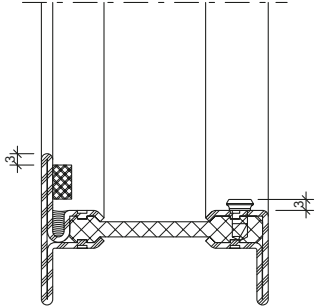
A cause des différentes tolérances (profilés, parclozes, disposition boutons de fixation, joint de vitrage et éléments vitrés) nous recommandons d'effectuer un essai préalable avec la joint de vitrage choisie sur un élément.

Owing to variations in the tolerances (profiled sections, glazing beads, layout of coupling studs, glazing weatherstrip and glazing) it is advisable to check your choice of glazing weatherstrips on an infill panel beforehand.

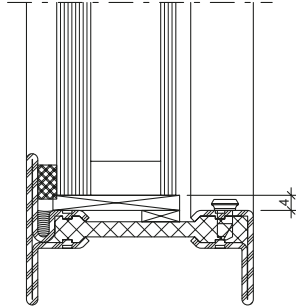
Ablaufschritte Glaseinbau

Procédure pour la pose des vitres

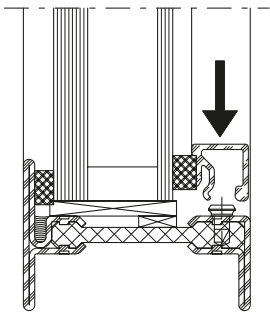
Steps in fitting glass panes



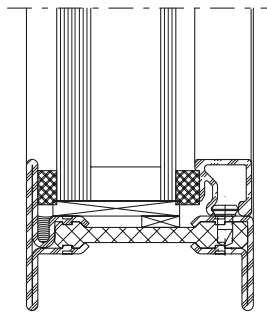
Distanzband auf Profillappen kleben
Coller la bande d'écartement sur la
battue du profilé
Attach packing strip to section flange



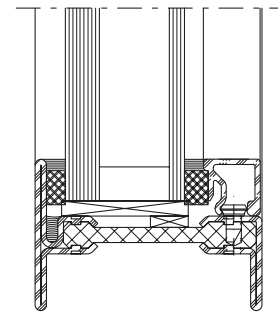
Glasklotz einsetzen
Poser la cale
Insert glazing block



Glasleiste mit aufgeklebtem
Distanzband montieren
Clipser la parclose avec la bande
d'écartement collée
Clip the glazing bead with the
glued-on packing strip on one side



Fugen innen und aussen versiegeln
Sceller le joint intérieur et extérieur
Seal the joint inside and outside



Bedingt durch verschiedene Toleranzen (Profile, Glasleisten, Anordnung Befestigungsknöpfe, Distanzbänder und Glaselemente) empfehlen wir, die Wahl der Distanzbänder vorgängig an einem Element zu prüfen.

A cause des différentes tolérances (profilés, parcloses, disposition boutons de fixation, bandes de distance et éléments vitrés) nous recommandons d'effectuer un essai préalable avec la bande de distance choisie sur un élément.

Owing to variations in the tolerances (profiled sections, glazing beads, layout of coupling studs, packing strips and glazing) it is advisable to check your choice of packing strips on an infill panel beforehand.

Betreffend Fugendimensionierung und Fugenausbildung verweisen wir auf die gültigen DIN-Normen 18545, resp. auf die Richtlinien der Glashersteller.

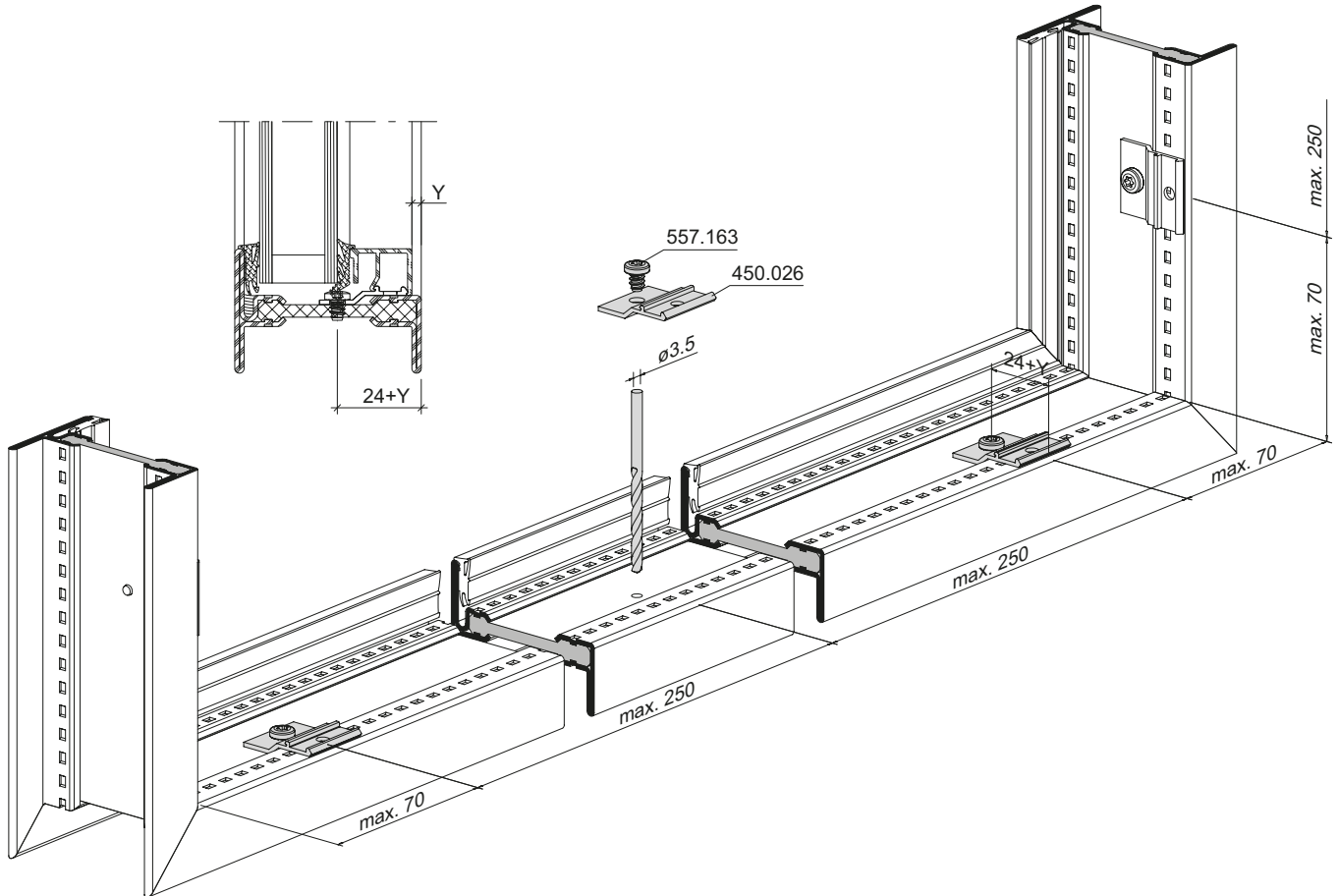
En ce qui concerne le dimensionnement et la formation des joints nous renvoyons aux norme DIN 18545 actuellement en vigueur, respectivement aux directives du fabricant de verre.

Referring to joint dimensioning and joint form we refer you to DIN standard 18545, respectively to the guidelines of glass manufacturer.

Einbau
Glasleisten-Klipsstück 450.026

Montage
clip pour parclose 450.026

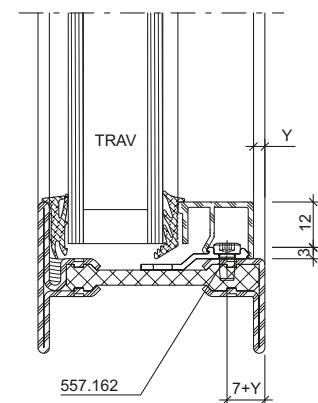
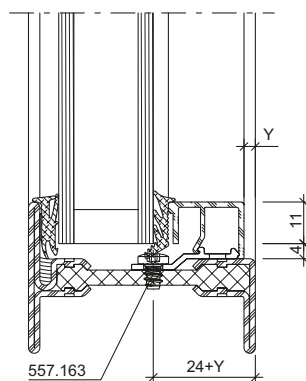
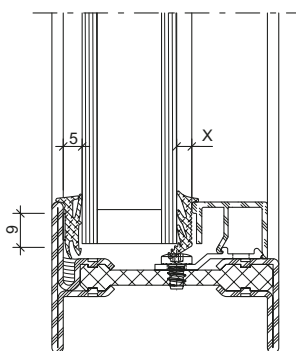
Installation
glazing bead clip 450.026



Bestimmung der Dichtungen
und des Falzspiels

Détermination des joints et
les jeu de feuillure

Determining weatherstrips and
rebate allowance



Aluminium-Glasleiste
 Parclose en aluminium
 Aluminium glazing bead

Aluminium-Glasleiste
 Parclose en aluminium
 Aluminium glazing bead

Falzspiel
 Jeu de feuillure
 Rebate allowance

X:
 Fugenbreite

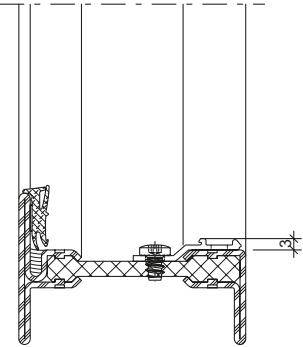
X:
 Largeur de joint

X:
 Width of joint

Ablaufschritte Glaseinbau

Procédure pour la pose des vitres

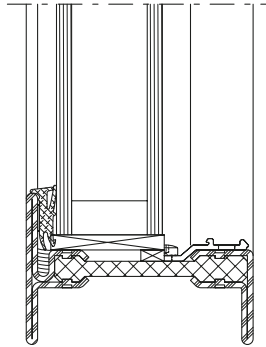
Steps in fitting glass panes



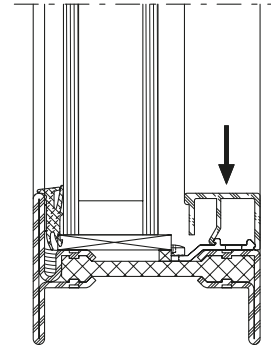
Butylkleber-Schutzfolie abziehen und Dichtung an Profillappen kleben.

Retirer la bande de protection du butyle et coller le joint sur l'aile fixe du profilé.

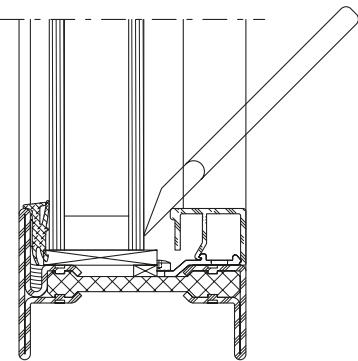
Remove the butyl adhesive protective film and stick the weatherstrip to the profile lip.



Glasklotz und Glaselement einsetzen
Poser la cale et l'élément de vitrage
Insert glazing block and glass pane



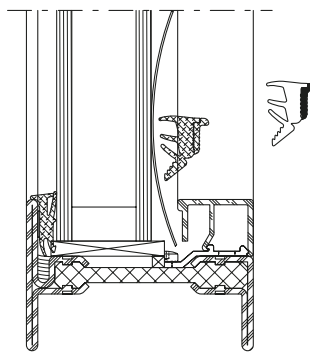
Glasleisten allseitig aufklipsen
Clipper les parcloses sur toute la périphérie
Clip on the glazing beads along all sides



Glaselement mittels Klotzungshebel vorsichtig an die äussere Anschlagdichtung drücken.

Presser le vitrage contre le joint extérieur à l'aide du levier de calage

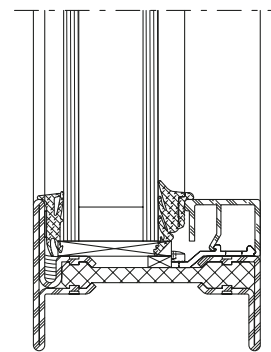
Using a pad lever, press the glazing element against the outer glass contact weatherstrip.



Dünne Stahlbleche (z.B. 0,15 mm) erleichtern das Eindrücken der Dichtungen im Bereich der Glasklötze.

Une fine tôle d'acier (par ex. 0.15 mm) facilite la rentrée du joint dans la zone de la cale.

Thin pieces of metal sheet (e.g. 0.15 mm) will assist in pressing in the weatherstrip in the vicinity of the glazing pads.



Dichtung fertig eingebaut

Joint installé

Gasket installation complete

Bedingt durch verschiedene Toleranzen (Profil, Glasleisten, Anordnung Befestigungsknöpfe, Glasdichtung und Glaselemente) empfehlen wir, die Wahl der Glasdichtungen vorgängig an einem Element zu prüfen.

A cause des différentes tolérances (profilés, parcloses, disposition boutons de fixation, joint de vitrage et éléments vitrés) nous recommandons d'effectuer un essai préalable avec la joint de vitrage choisie sur un élément.

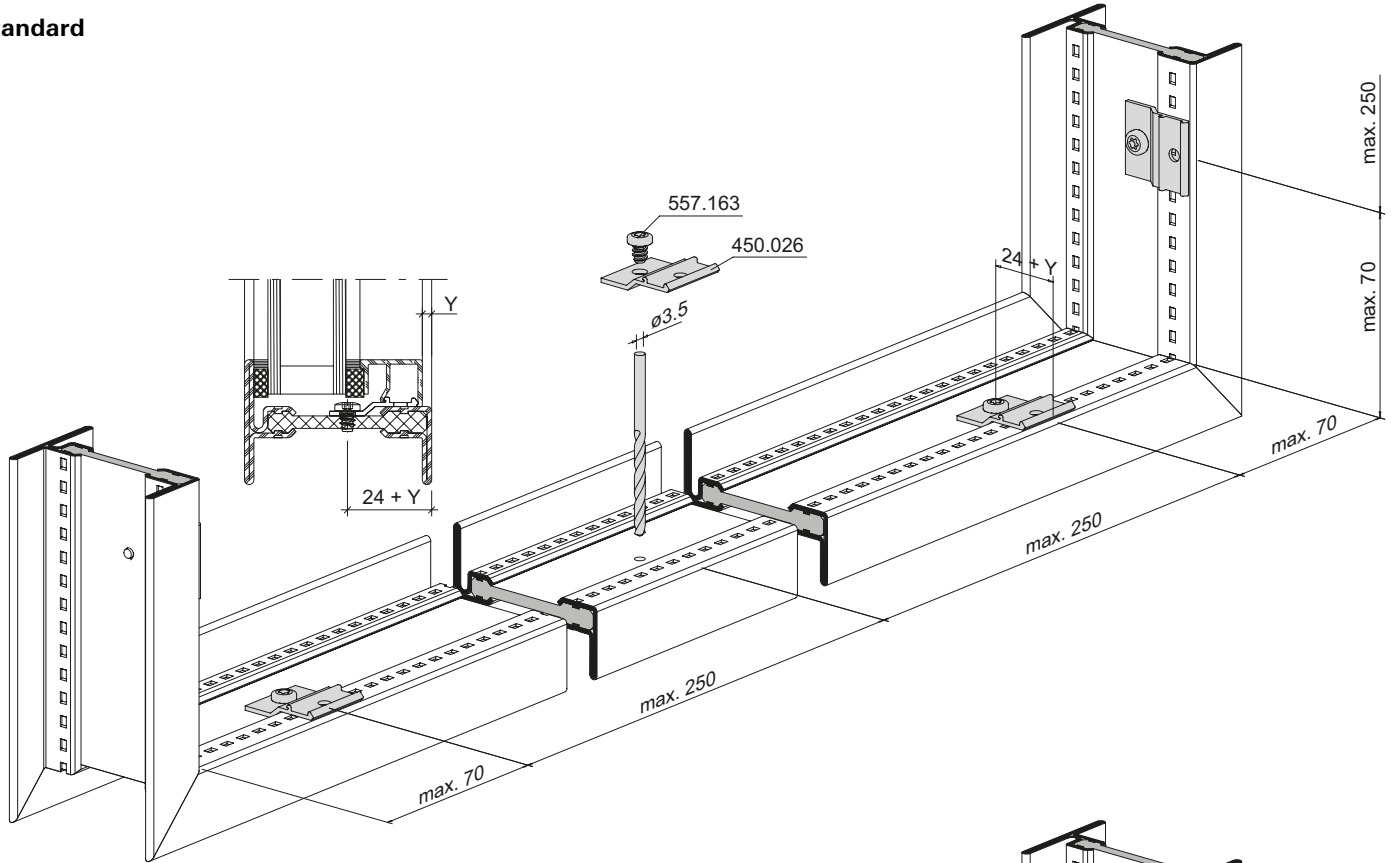
Owing to variations in the tolerances (profiled sections, glazing beads, layout of coupling studs, glazing weatherstrip and glazing) it is advisable to check your choice of glazing weatherstrips on an infill panel beforehand.

Einbau Glasleisten-Klipsstück
450.026

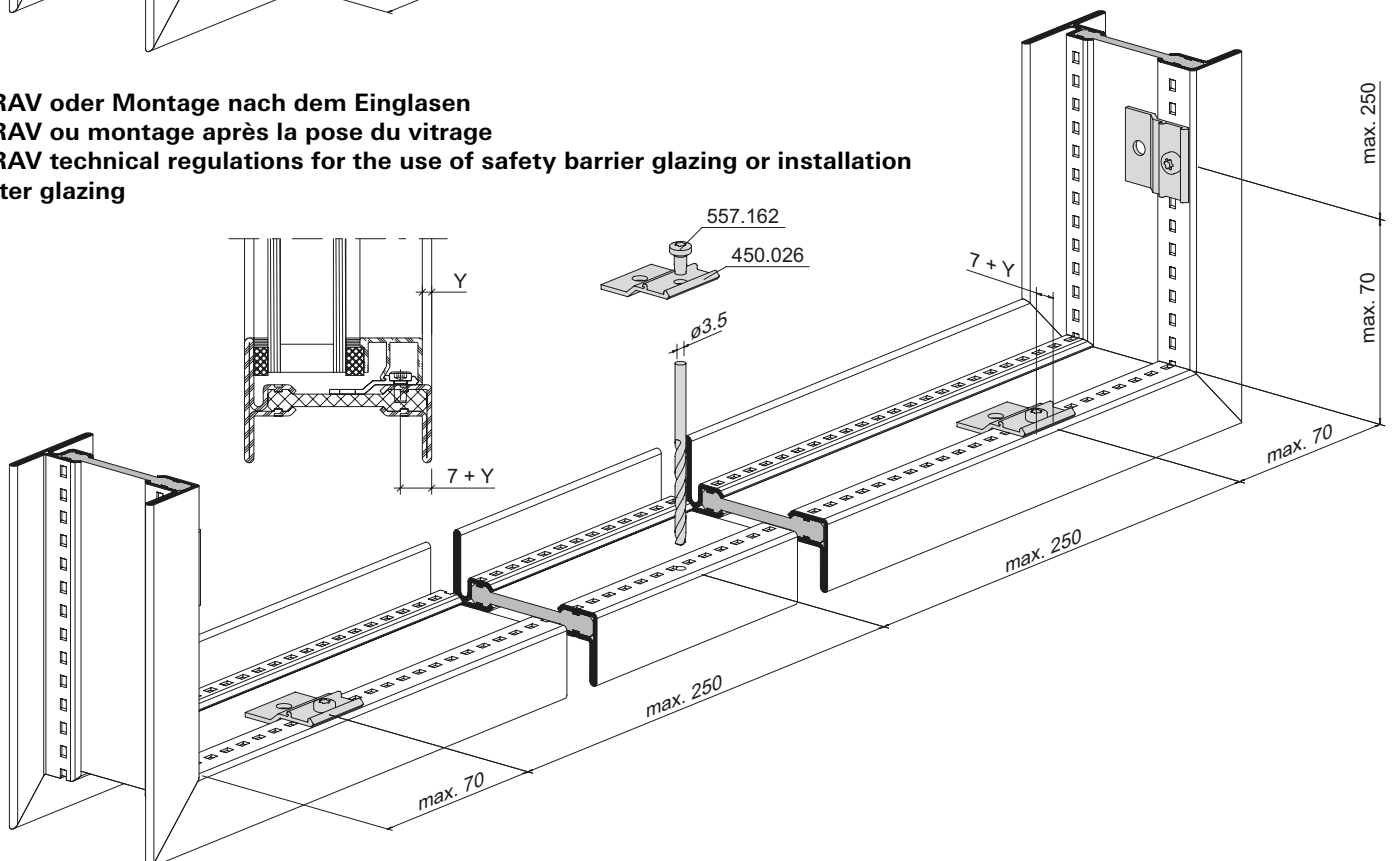
Montage clip pour parclose 450.026

Installation of glazing bead clip
450.026

Standard



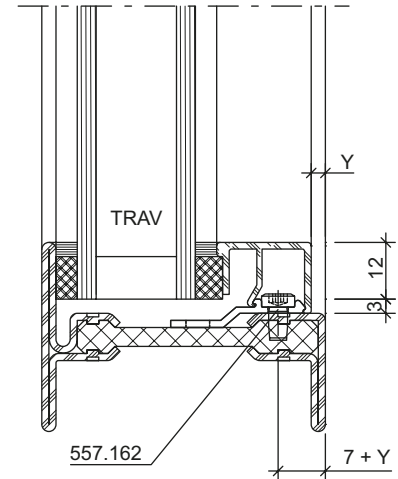
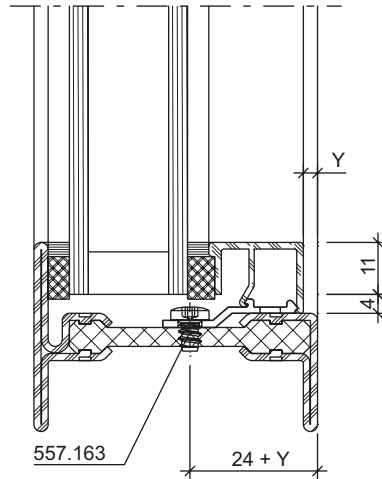
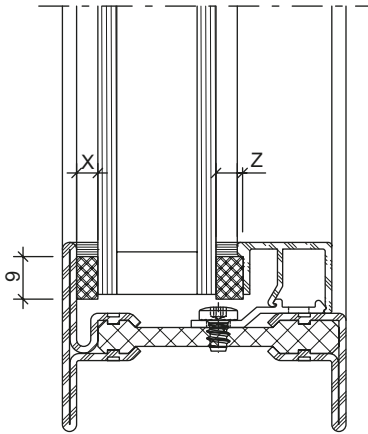
TRAV oder Montage nach dem Einglasen
TRAV ou montage après la pose du vitrage
TRAV technical regulations for the use of safety barrier glazing or installation
after glazing



Bestimmung der Distanzbänder
 und des Falzspiels

Détermination des bandes
 d'écartement et les jeu de feuillure

Determining packing strips and
 rebate allowance



Bestimmung Distanzband
 Détermination des bandes d'écartement
 Determining packing strips

Falzspiel
 Jeu de feuillure
 Rebate allowance

X:
 Distanzbanddicke =
 Fugenbreite

Z:
 Distanzbanddicke =
 Fugenbreite + 1 mm

Y = max. 5 mm

*Betreffend Fugendimensionierung
 und Fugenausbildung verweisen wir
 auf die gültigen DIN-Normen 18545,
 resp. auf die Richtlinien der Glas-
 hersteller.*

Glasbestellung

Glaslieferanten auf die minimale
 Einstandtiefe hinweisen.
 Randverbund möglichst klein.

*Bedingt durch verschiedene Toleran-
 zen (Profile, Glasleisten, Anordnung
 Befestigungsknöpfe, Distanzbänder und
 Glaselemente) empfehlen wir, die Wahl
 der Distanzbänder vorgängig an einem
 Element zu prüfen.*

X:
 Epaisseur de la bande d'écartement =
 Largeur de joint

Z:
 Epaisseur de la bande d'écartement =
 Largeur de joint + 1 mm

Y = max. 5 mm

*En ce qui concerne le dimensionne-
 ment et la formation des joints nous
 renvoyons aux directives la norme
 DIN 18545 actuellement en vigueur,
 respectivement aux directives du
 fabricant de verre.*

Commande de vitrage

Signaler la profondeur de prise en
 feuillure minimale aux fournisseurs
 de vitrage. Scellement le plus petit
 possible.

*A cause des différentes tolérances
 (profilés, parcloles, disposition boutons
 de fixation, bandes de distance et
 éléments vitrés) nous recommandons
 d'effectuer un essai préalable avec la
 bande de distance choisie sur un
 élément.*

X:
 Thickness of packing strip =
 Width of joint

Z:
 Thickness of packing strip =
 Width of joint + 1 mm

Y = max. 5 mm

*Referring to joint dimensioning and
 joint form we refer you to the current
 DIN standard 18545, respectively to
 the guidelines of glass manufacturer.*

Glass order

Advise the glass supplier of the
 minimum edge cover depth. Edge
 seal as small as possible.

*Owing to variations in the tolerances
 (profiled sections, glazing beads,
 layout of coupling studs, packing strips
 and glazing) it is advisable to check
 your choice of packing strips on an
 infill panel beforehand.*

**Einbau Füllelemente
 mittels Nassverglasung
 (Versiegelung)**

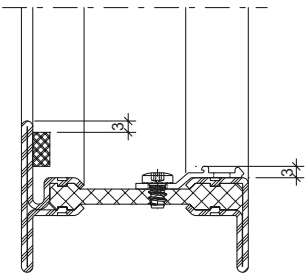
**Montage éléments de remplissage
 avec vitrage au silicone**

**Installation infill elements with
 glazing with sealing compounds**

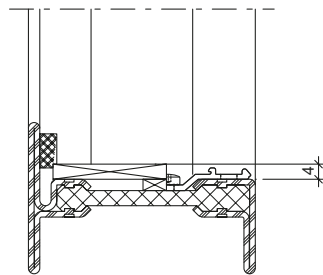
Ablaufschritte Glaseinbau

Procédure pour la pose des vitres

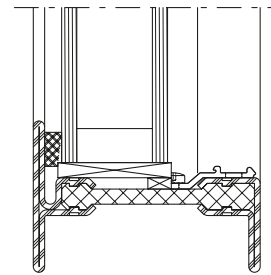
Steps in fitting glass panes



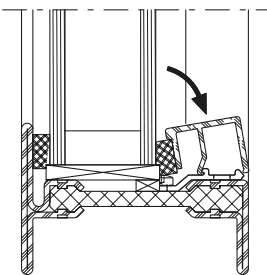
Distanzband auf Profillappen kleben
 Coller la bande d'écartement sur la
 battue du profilé
 Attach packing strip to section flange



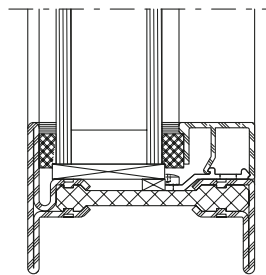
Glasklotz einsetzen
 Poser la cale
 Insert glazing block



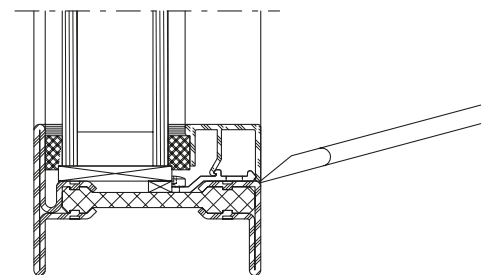
Glaselement einsetzen
 Poser l'élément de vitrage
 Insert glass pane



Glasleiste mit aufgeklebtem
 Distanzband montieren
 Clipser la parclose avec la bande
 d'écartement collée
 Clip the glazing bead with the
 glued-on packing strip on one side



Fugen innen und aussen versiegeln
 Sceller le joint intérieur et extérieur
 Seal the joint inside and outside



Démontage
 Silikonfuge auf ganzer Länge
 aufschneiden. Mit einem Kunststoff-
 keil die Glasleiste an einem Ende
 leicht vom Profil anheben und die
 geklemmte Keilspitze zum anderen
 Ende der Glasleiste ziehen.

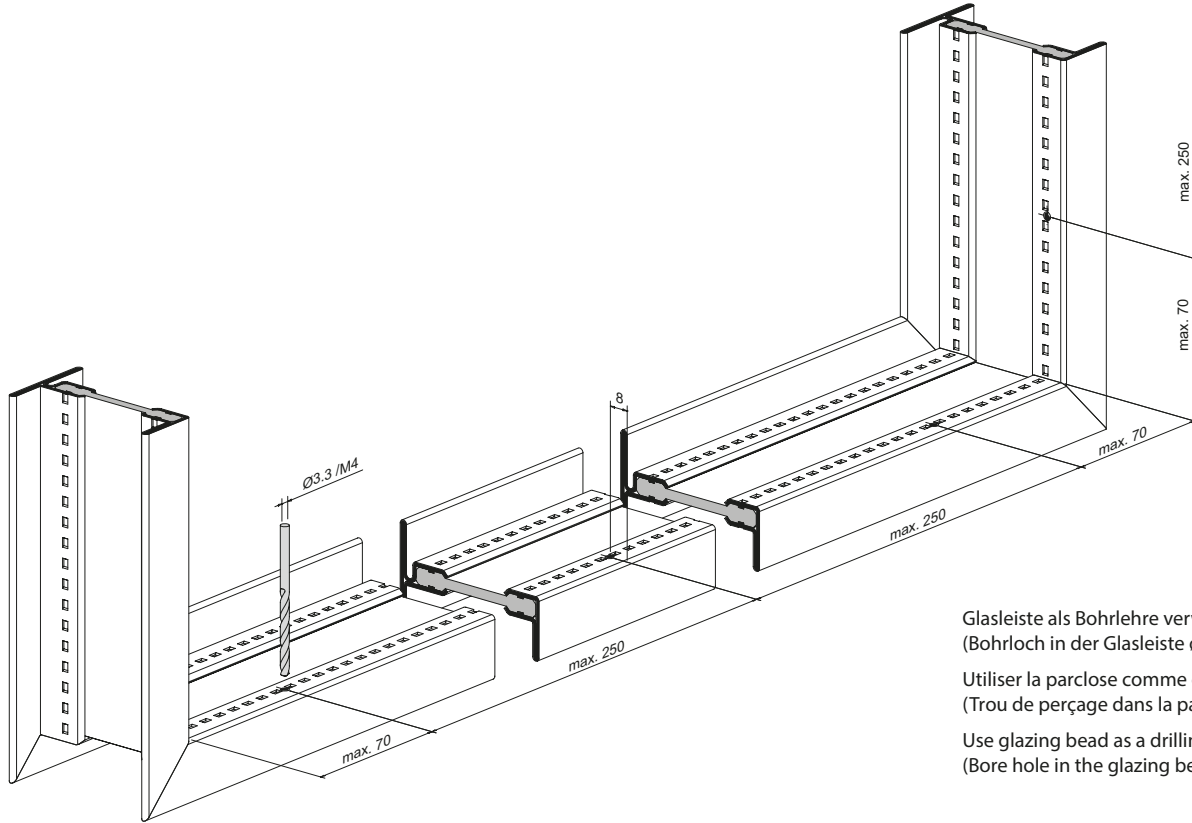
Démontage
 Couper le joint en silicone sur toute
 sa longueur. Soulever légèrement
 l'extrémité de la parclose du profilé à
 l'aide d'une cale en plastique et tirer la
 pointe biseautée vers l'autre extrémité
 de la parclose.

Dismantling
 Cut open silicon joint along entire
 length. Slightly lift the glazing bead
 from the profile at one end using a
 plastic wedge and push the thin end
 of the wedge to the other end of the
 glazing bead.

Einbau Winkel- und
 Winkelkontur-Stahlglasleisten

Montage parclose en acier angulaire
 et à contour angulaire

Installation angle and angle contour
 steel glazing beads



Glasleiste als Bohrlehre verwenden
 (Bohrloch in der Glasleiste \varnothing 4 mm)

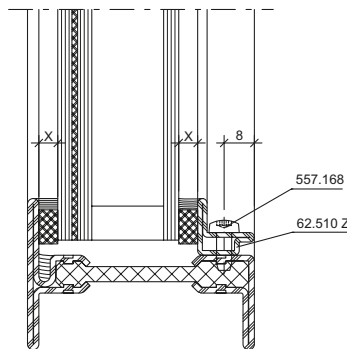
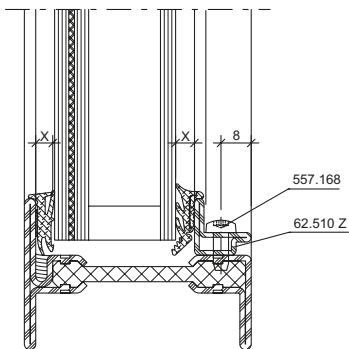
Utiliser la parclose comme gabarit de perçage
 (Trou de perçage dans la parclose \varnothing 4 mm)

Use glazing bead as a drilling jig
 (Bore hole in the glazing bead \varnothing 4 mm)

Bestimmung der Dichtungen
 und des Falzspiels

Détermination des joints et
 les jeu de feuillure

Determining weatherstrips and
 rebate allowance



X:
 Fugenbreite

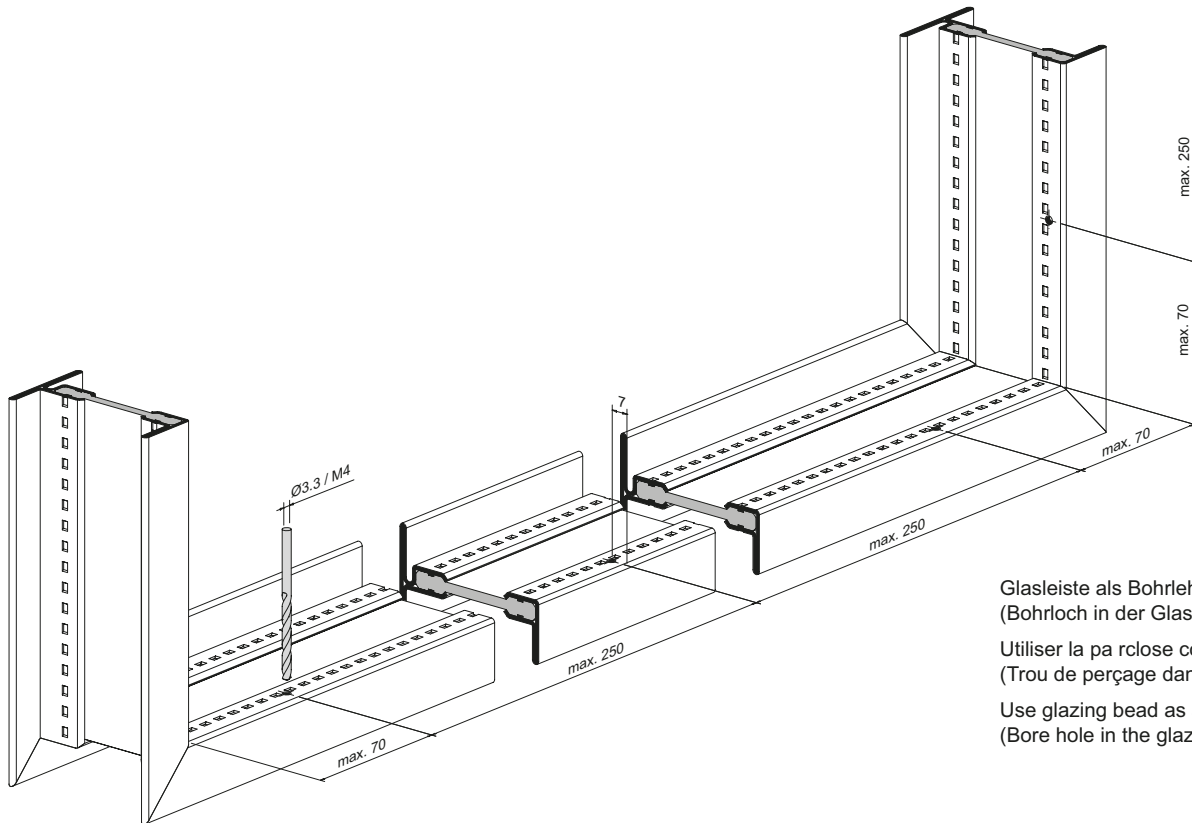
X:
 Largeur de joint

X:
 Width of joint

Einbau Winkel- und Winkelkontur-Stahlglasleisten

Montage parclose en acier angulaire et à contour angulaire

Installation angle and angle contour steel glazing beads

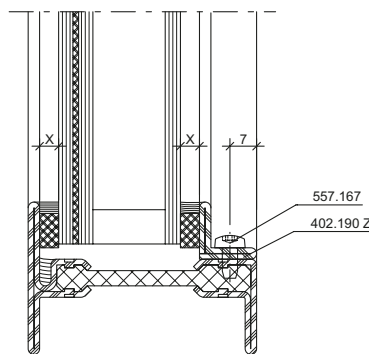
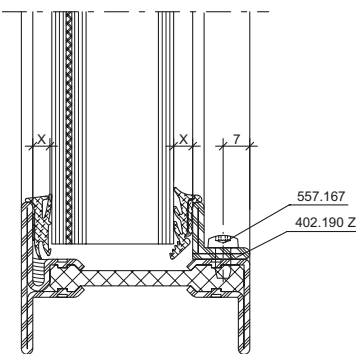


Glasleiste als Bohrlehre verwenden
 (Bohrloch in der Glasleiste \varnothing 4 mm)
 Utiliser la parclose comme gabarit de perçage
 (Trou de perçage dans la parclose \varnothing 4 mm)
 Use glazing bead as a drilling jig
 (Bore hole in the glazing bead \varnothing 4 mm)

Bestimmung der Dichtungen und des Falzspiels

Détermination des joints et les jeu de feuillure

Determining weatherstrips and rebate allowance



X:
 Fugenbreite

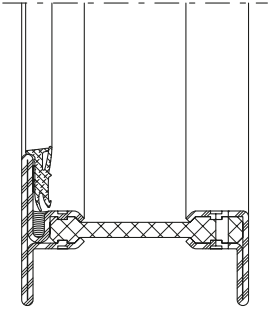
X:
 Largeur de joint

X:
 Width of joint

Ablaufschritte Glaseinbau

Procédure pour la pose des vitres

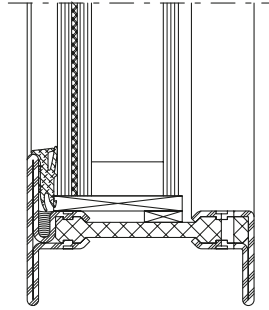
Steps in fitting glass panes



Butylkleber-Schutzfolie abziehen und Dichtung an Profillappen kleben.

Retirer la bande de protection du butyle et coller le joint sur l'aile fixe du profilé.

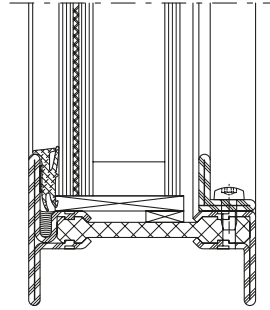
Remove the butyl adhesive protective film and stick the weatherstrip to the profile lip.



Glasklotz und Glaselement einsetzen

Poser la cale et l'élément de vitrage

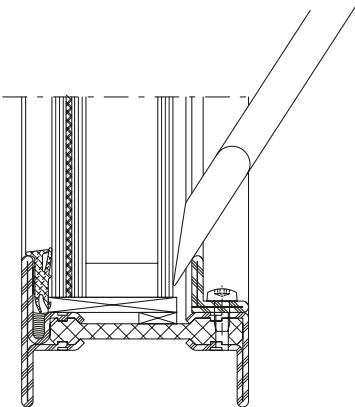
Insert glazing block and glass pane



Glasleisten allseitig montieren

Monter les parcloles sur toute la périphérie

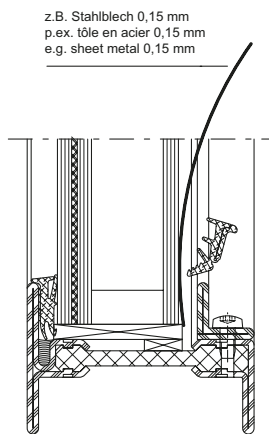
Installing the glazing beads along all sides



Glaselement mittels Klotzungshebel vorsichtig an die äussere Anschlagdichtung drücken.

Presser le vitrage contre le joint extérieur à l'aide du levier de calage

Using a pad lever, press the glazing element against the outer glass contact weatherstrip.

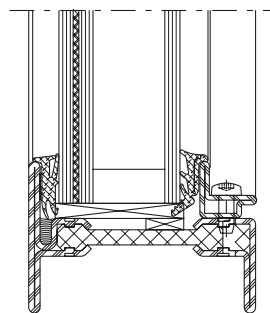


z.B. Stahlblech 0,15 mm
p.ex. tôle en acier 0,15 mm
e.g. sheet metal 0,15 mm

Dünne Stahlbleche (z.B. 0,15 mm) erleichtern das Eindrücken der Dichtungen im Bereich der Glasklötze.

Une fine tôle d'acier (par ex. 0.15 mm) facilite la rentrée du joint dans la zone de la cale.

Thin pieces of metal sheet (e.g. 0.15 mm) will assist in pressing in the weatherstrip in the vicinity of the glazing pads.



Dichtung fertig eingebaut

Joint installé

Gasket installation complete

Bedingt durch verschiedene Toleranzen (Profile, Glasleisten, Anordnung Befestigungsknöpfe, Glasdichtung und Glaselemente) empfehlen wir, die Wahl der Glasdichtungen vorgängig an einem Element zu prüfen.

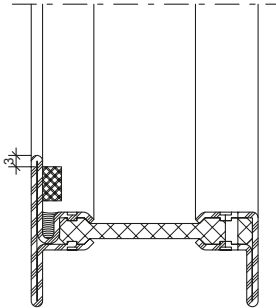
A cause des différentes tolérances (profilés, parcloles, disposition boutons de fixation, joint de vitrage et éléments vitrés) nous recommandons d'effectuer un essai préalable avec la joint de vitrage choisie sur un élément.

Owing to variations in the tolerances (profiled sections, glazing beads, layout of coupling studs, glazing weatherstrip and glazing) it is advisable to check your choice of glazing weatherstrips on an infill panel beforehand.

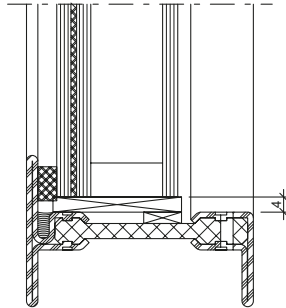
Ablaufschritte Glaseinbau

Procédure pour la pose des vitres

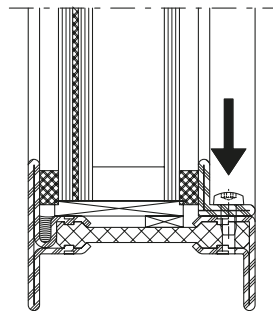
Steps in fitting glass panes



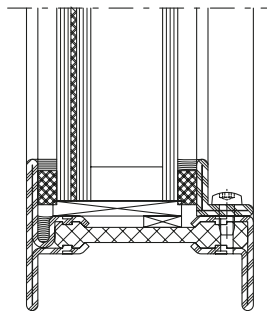
Distanzband auf Profillappen kleben
Coller la bande d'écartement sur la battue du profilé
Attach packing strip to section flange



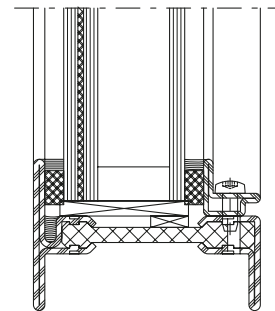
Glasklotz einsetzen
Poser la cale
Insert glazing block



Glasleiste mit aufgeklebtem Distanzband montieren
Monter la parclose avec la bande d'écartement collée
Installing the glazing bead with the glued-on packing strip on one side



Fugen innen und aussen versiegeln
Sceller le joint intérieur et extérieur
Seal the joint inside and outside



Bedingt durch verschiedene Toleranzen (Profile, Glasleisten, Anordnung Befestigungsknöpfe, Distanzbänder und Glaselemente) empfehlen wir, die Wahl der Distanzbänder vorgängig an einem Element zu prüfen.

A cause des différentes tolérances (profilés, parcloles, disposition boutons de fixation, bandes de distance et éléments vitrés) nous recommandons d'effectuer un essai préalable avec la bande de distance choisie sur un élément.

Owing to variations in the tolerances (profiled sections, glazing beads, layout of coupling studs, packing strips and glazing) it is advisable to check your choice of packing strips on an infill panel beforehand.

Betreffend Fugendimensionierung und Fugenausbildung verweisen wir auf die gültigen DIN-Normen 18545, resp. auf die Richtlinien der Glashersteller.

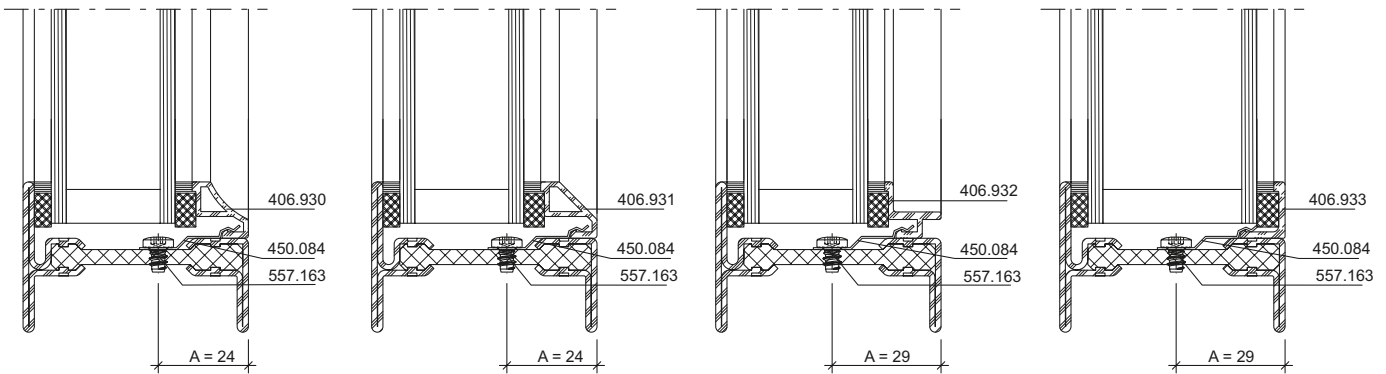
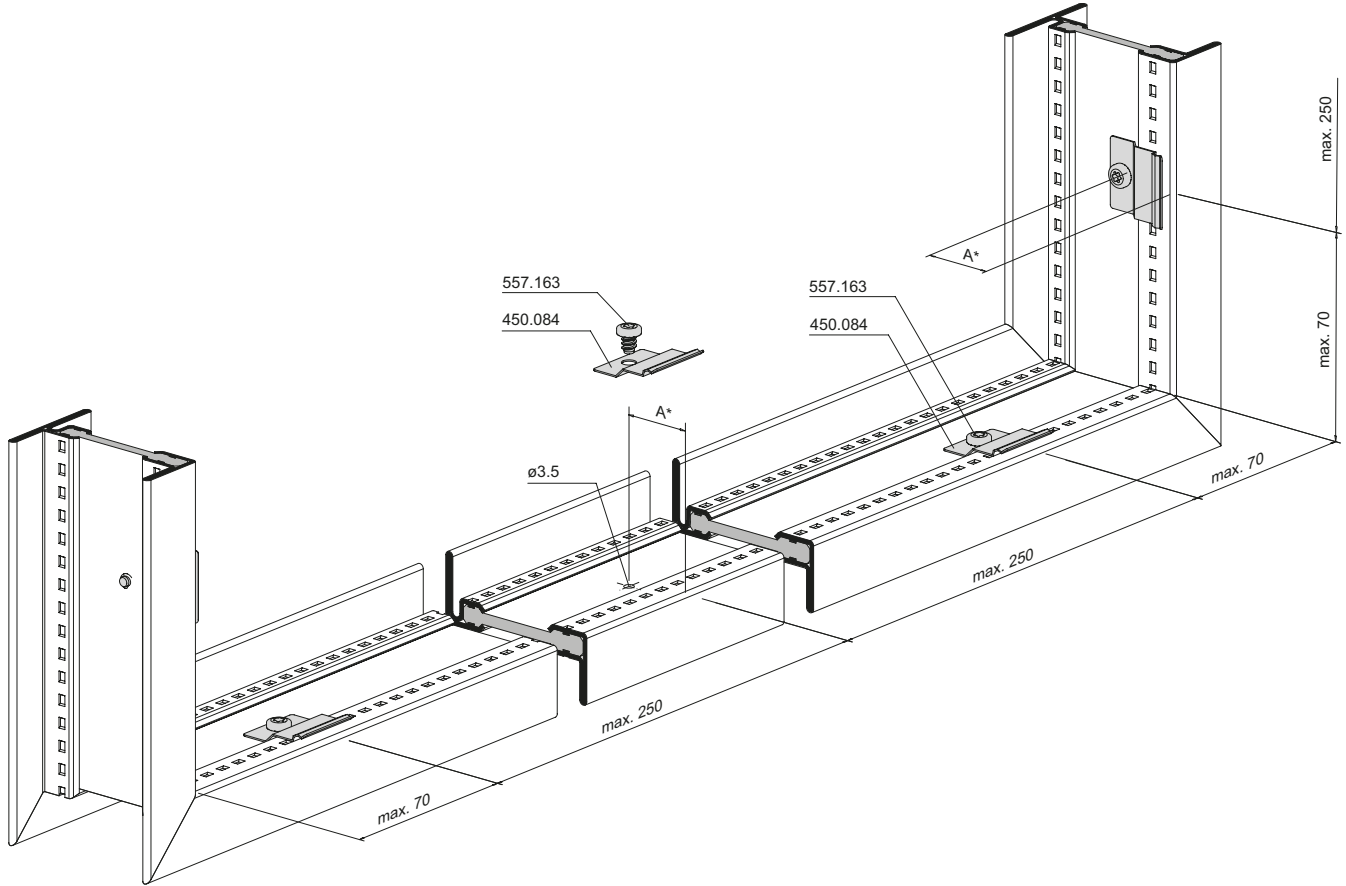
En ce qui concerne le dimensionnement et la formation des joints nous renvoyons aux norme DIN 18545 actuellement en vigueur, respectivement aux directives du fabricant de verre.

Referring to joint dimensioning and joint form we refer you to DIN standard 18545, respectively to the guidelines of glass manufacturer.

Einbau Befestigungsfeder 450.084

Montage ressort de fixation 450.084

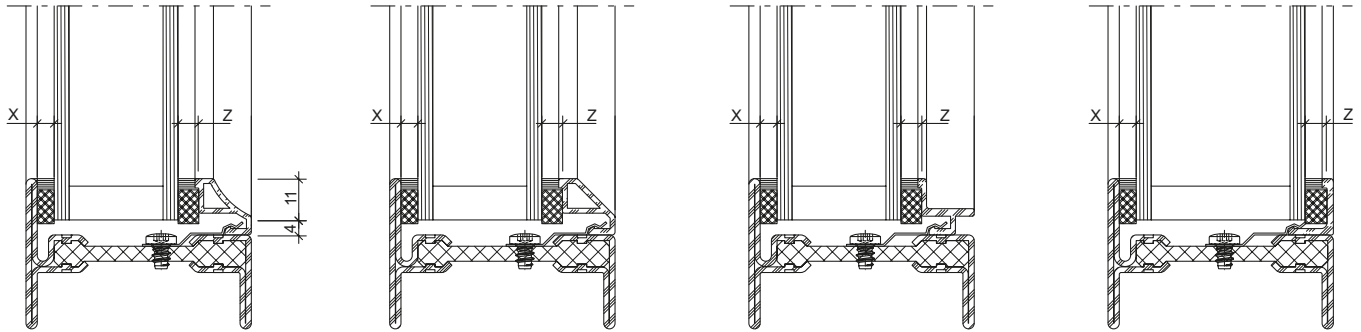
Installation fastening spring
 450.084



**Bestimmung der Distanzbänder
und des Falzspiels**

**Détermination des bandes
d'écartement et les jeu de feuillure**

**Determining packing strips and
rebate allowance**



X:
Distanzbanddicke =
Fugenbreite

Z:
Distanzbanddicke =
Fugenbreite + 1 mm

*Betreffend Fugendimensionierung
und Fugenausbildung verweisen wir
auf die gültigen DIN-Normen 18545,
resp. auf die Richtlinien der Glas-
hersteller.*

Glasbestellung

Glaslieferanten auf die minimale
Einstandtiefe hinweisen.
Randverbund möglichst klein.

*Bedingt durch verschiedene Toleranzen
Profile, Glasleisten, Anordnung
Befestigungsknöpfe, Distanzbänder
und Glaselemente) empfehlen wir, die
Wahl der Distanzbänder vorgängig an
einem Element zu prüfen.*

X:
Epaisseur de la bande d'écartement =
Largeur de joint

Z:
Epaisseur de la bande d'écartement =
Largeur de joint + 1 mm

*En ce qui concerne le dimensionne-
ment et la formation des joints nous
renvoyons aux directives la norme
DIN 18545 actuellement en vigueur,
respectivement aux directives du
fabricant de verre.*

Commande de vitrage

Signaler la profondeur de prise en
feuillure minimale aux fournisseurs
de vitrage. Scellement le plus petit
possible.

*A cause des différentes tolérances
(profilés, parclozes, disposition boutons
de fixation, bandes de distance et
éléments vitrés) nous recommandons
d'effectuer un essai préalable avec la
bande de distance choisie sur un
élément.*

X:
Thickness of packing strip =
Width of joint

Z:
Thickness of packing strip =
Width of joint + 1 mm

*Referring to joint dimensioning and
joint form we refer you to the current
DIN standard 18545, respectively to
the guidelines of glass manufacturer.*

Glass order

Advise the glass supplier of the
minimum edge cover depth. Edge
seal as small as possible.

*Owing to variations in the tolerances
(profiled sections, glazing beads,
layout of coupling studs, packing strips
and glazing) it is advisable to check
your choice of packing strips on an
infill panel beforehand.*

**Einbau Füllelemente
mittels Nassverglasung
(Versiegelung)**

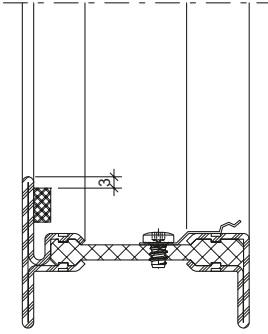
**Montage éléments de remplissage
avec vitrage au silicone**

**Installation infill elements with
glazing with sealing compounds**

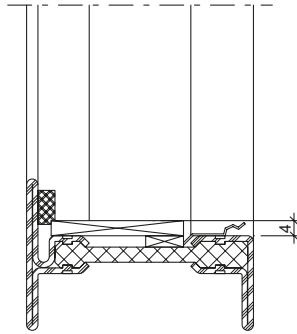
Ablaufschritte Glaseinbau

Procédure pour la pose des vitres

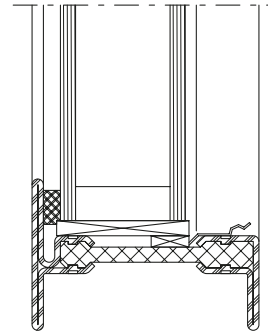
Steps in fitting glass panes



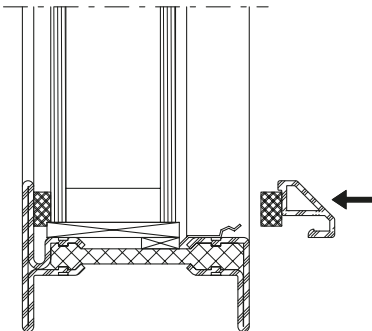
Distanzband auf Profillappen kleben
Coller la bande d'écartement sur la
battue du profilé
Attach packing strip to section flange



Glasklotz einsetzen
Poser la cale
Insert glazing block



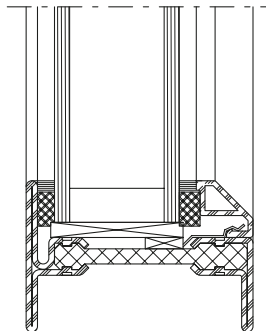
Glaselement einsetzen
Poser l'élément de vitrage
Insert glass pane



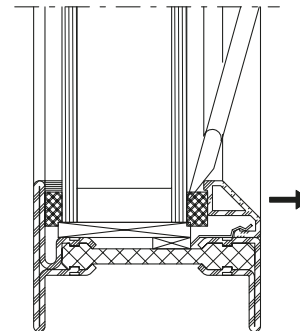
Glasleiste mit aufgeklebtem
Distanzband montieren

Clipser la parclose avec la bande
d'écartement collée

Clip the glazing bead with the
glued-on packing strip on one side



Fugen innen und aussen versiegeln
Sceller le joint intérieur et extérieur
Seal the joint inside and outside



Demontage

Silikonfuge auf ganzer Länge
aufschneiden. Mit einem Kunststoff-
keil die Glasleiste an einem Ende
leicht vom Glas abstoßen.

Démontage

Couper le joint en silicone sur toute
sa longueur. Repousser légèrement la
parclose du verre à une extrémité avec
une cale en plastique.

Dismantling

Cut open silicon joint along entire
length. Slightly lift the glazing bead
from the glass at one end using a
plastic wedge.

Renoseal - dauerelastischer Dichtstoff für Verglasungen mit Janisol Arte

Renoseal ist ein dauerelastischer Dichtstoff für Verglasungen, womit das Erscheinungsbild der freiliegenden Dreieck-Fase erstellt werden kann. Die Janisol Arte 2.0 Profilsérie wurde mit Renoseal geprüft um spezielle Anforderungen bei der Sanierung von Industrie- und Loftverglasungen sowie von denkmalgeschützten Fenstern erfüllen zu können.

Eigenschaften

- Durch die spezielle Viskositäts-einstellung hervorragend geeignet für Janisol Arte Verglasungen
- Geprüftes, dauerelastisches Verglasungssystem
- 7 Standardfarben erhältlich
- Ab 75 Kartuschen sind RAL/NCS Farben erhältlich
- Verträglich mit dem Isolierglas-Randverbund und den VSG-Folien
- Hervorragende Witterungsbeständigkeit

Normen

- EN 15651-2 G: CE-Kennzeichnung für Verglasungen
- EN 1991-1-1+C1/NB: Sicherheitsverglasung (SKG)
- EN 1026: Luftdurchlässigkeit (SKG-İKOB)
- EN 1027: Wasserdicht (SKG-İKOB)
- EN 12211: Widerstand gegen Windlast (SKG-İKOB)
- Nationale Verglasungsrichtlinien sind zu beachten

Verträglichkeit

Die Praxis- und Labortests von u.a. Henkel-Teroson haben bestätigt, dass Renoseal mit Isolierglas-Verbund verträglich ist. Für unbekannte Isoliergläser bitte Rücksprache mit dem technischen Service von Bloem Sealants oder mit ihrem Isolierglas-Lieferanten nehmen.

Einbau

Als Sicherung der Glaselemente wurden pro Glasscheibe vier Edelstahlwinkel pro Kante mittig eingebaut. Dimension: 13x10x1-30 mm resp. 10x10x1-30 mm. Siehe Prüfbericht Nr. 16-001525-PR12 (PB-A01-02de-01).

Renoseal - produit d'étanchéité à l'élasticité permanente pour les vitrages avec Janisol Arte

Renoseal est un produit d'étanchéité à l'élasticité permanente pour les vitrages qui permet de créer l'apparence d'un biseau triangulaire dégagé. La série de profilés Janisol Arte 2.0 a été testée avec Renoseal afin de satisfaire à des exigences spéciales de rénovation de vitrages industriels et de lofts ainsi que de fenêtres classées monument historique

Propriétés

- Excellent pour les vitrages Janisol Arte grâce au réglage spécial de la viscosité
- Système de vitrage contrôlé, à l'élasticité permanente
- 7 couleurs standard disponibles
- Des couleurs RAL/NCS sont disponibles à partir de 75 cartouches
- Compatible avec le scellement de verre isolant et les films VSG
- Excellente résistance aux intempéries

Normes

- EN 15651-2 G: marquage CE pour vitrages
- EN 1991-1-1+C1/NB: vitrage de sécurité (SKG)
- EN 1026: perméabilité à l'air (SKG-İKOB)
- EN 1027: étanchéité à l'eau (SKG-İKOB)
- EN 12211: résistance au vent (SKG-İKOB)
- Respecter les directives nationales pour les vitrages

Compatibilité

Les tests dans la pratique et en laboratoire, entre autres de Henkel-Teroson, ont confirmé que Renoseal est compatible avec du verre isolant composite. Pour les verres isolants inconnus, veuillez contacter le service technique de Bloem Sealants ou votre fournisseur de verre isolant.

Montage

Quatre équerres en acier inox par arête ont été montées de manière centrée pour chaque vitre comme fixation des éléments vitrés. Dimension: 13x10x1-30 mm ou 10x10x1-30 mm. Voir rapport d'essai n° 16-001525-PR12 (PB-A01-02-de-01).

Renoseal – permanently elastic sealing compound for glazing with Janisol Arte

Renoseal is a permanently elastic sealing compound for glazing which can be used to create the appearance of an exposed triangular chamfer. The Janisol Arte 2.0 profile series was tested with Renoseal in order to meet specific requirements for the renovation of industrial and loft glazing, as well as the windows of listed buildings.

Features

- Ideal for Janisol Arte glazing thanks to the special viscosity adjustment
- Tested, permanently elastic glazing system
- 7 standard colours available
- RAL/NCS colours are available from 75 cartridges
- Compatible with the insulating glass edge seal and the LSG foils
- Outstanding weathering resistance

Standards

- EN 15651-2 G: CE marking for glazing
- EN 1991-1-1+C1/NB: Security glazing (SKG)
- EN 1026: Air permeability (SKG-İKOB)
- EN 1027: Watertight (SKG-İKOB)
- EN 12211: Resistance to windload (SKG-İKOB)
- Observe the national glazing guidelines

Compatibility

The practical and laboratory tests by Henkel-Teroson, amongst others, have confirmed that Renoseal is compatible with insulating glass composites. For unknown insulating glass, please consult Technical Services at Bloem Sealants or your insulating glass supplier.

Installation

To secure the glazed units, four stainless steel brackets per edge were installed in the centre. Dimensions: 13x10x1-30 mm and 10x10x1-30 mm. See test report No. 16-001525-PR12 (PB-A01-02-de-01).

**Technische Daten bei
20°C und 60% (relative Feuchtigkeit)**

Verarbeitungstemperatur:
+5°C bis 30°C

Temperaturbeständigkeit:
-40°C bis 120°C

Dichte: 1,3 g/ml

Hautbildung: 25-30 min.

Volumenschwund (ISO 510563): < 3%

Härte (DIN 5305): ± 45 Shore-A

Durchhärtung 24 Stunden:
3 mm / 6 mm

Konsistenz (ISO 7390): Standfest

E-Module 100% (DIN 53504):
1,1 N/mm²

Zugfestigkeit (DIN 53504):
1,377 N/mm²

Bruchdehnung: 174%

Zulässige Gesamtverformung: 7,5%

Lagerung

Kühl und trocken lagern (5°C < 25°C).
Mindestens 9 Monate lagerstabil in
der Originalverpackung.

Weitere Produktinformationen
erhalten Sie direkt beim Hersteller:
www.bloemsealants.com

Unsere Angaben beruhen auf Erfahrungen in Labor und Praxis. Die Anwendungsbedingungen, die auf unsere Angaben zurückzuführen sind, liegen ausserhalb unserer Kontrolle, wodurch ihre Veröffentlichung ohne Übernahme einer Haftung für Schäden und Verluste erfolgt. Der Verwender ist nicht von der Notwendigkeit entbunden, eigene Versuche für die vorgesehenen Anwendungen durchzuführen. Aufgrund der unterschiedlichen Materialien, Verarbeitungsmethoden und örtlichen Gegebenheiten auf die wir keinen Einfluss haben, kann keine Garantie übernommen werden. Wir empfehlen daher ausreichende Eigenversuche. Für unsere Empfehlungen und Gebrauchsvorschriften gelten die allgemeinen Bedingungen von Bloem Sealants BV. Änderungen vorbehalten.

**Caractéristiques techniques à
20 °C et 60 % de HR**

Température d'application:
+5°C à 30°C

Résistance thermique:
-40°C à 120°C

Densité: 1,3 g/ml

Formation de peau: 25 à 30 min.

Contraction du volume
(ISO 510563): < 3%

Dureté (DIN 5305): ± 45 Shore-A

Trempe uniforme 24 heures:
3 mm / 6 mm

Consistance (ISO 7390): solide

Module élastique 100% (DIN 53504):
1,1 N/mm²

Résistance à la traction (DIN 53504):
1,377 N/mm²

Allongement à la rupture: 174%

Déformation totale autorisée: 7,5%

Stockage

Stocker au frais et au sec (5°C < 25°C).
Stable au stockage pendant au moins 9
mois dans l'emballage original.

De plus amples informations produit
sont disponibles auprès du fabricant:
www.bloemsealants.com

Nos informations se basent sur des expériences en laboratoire et dans la pratique. Les conditions d'application qui renvoient à nos informations sont indépendantes de notre contrôle, leur publication n'est donc soumise à aucune responsabilité en cas de dommage et de pertes. L'utilisateur n'est pas dispensé de la nécessité de réaliser ses propres tests pour les applications prévues. Nous déclinons toute garantie en raison des différents matériaux, méthodes d'usage et conditions locales sur lesquelles nous n'avons aucune influence. Nous recommandons donc de procéder à un nombre suffisant de tests. Les conditions générales de Bloem Sealants BV sont applicables pour nos recommandations et prescriptions d'utilisation. Sous réserve de modifications.

**Technical data at
20°C and 60% RH**

Fabrication temperature:
+5°C to 30°C

Temperature resistance:
-40°C to 120°

Density: 1.3 g/ml

Skin formation: 25-30 min.

Volume shrinkage (ISO 510563): < 3%

Hardness (DIN 5305): ± 45 Shore-A

Complete curing 24 hours:
3 mm / 6 mm

Consistency (ISO 7390): Stable

Modulus of elasticity 100%
(DIN 53504): 1.1 N/mm²

Tensile strength (DIN 53504):
1.377 N/mm²

Elongation at break: 174%

Permissible total deformation: 7.5%

Storage

Store in a cool, dry place (5°C < 25°C).
Can be stored in the original packaging
for at least 9 months.

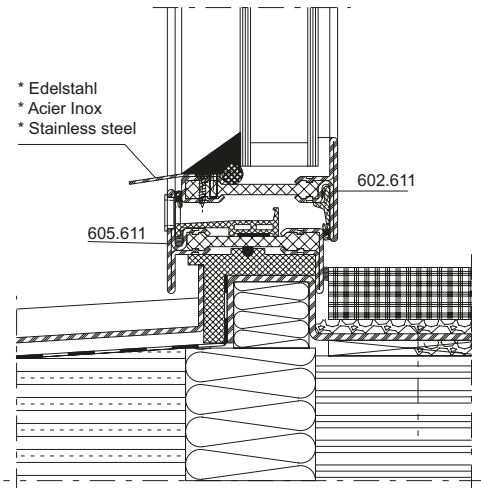
Further product information can be
obtained directly from the manu-
facturer: www.bloemsealants.com

Our specifications are based on laboratory and practical experience. The conditions of use, which are a result of our specifications, are beyond our control, and are published without assumption of liability for loss or damages. The user must carry out their own tests for the intended applications. Due to the different materials, fabrication methods and local conditions, over which we have no influence, no guarantee can be assumed. We therefore recommend that you carry out a sufficient number of your own tests. The general conditions of Bloem Sealants BV apply to our recommendations and instructions for use. Subject to change without notice.

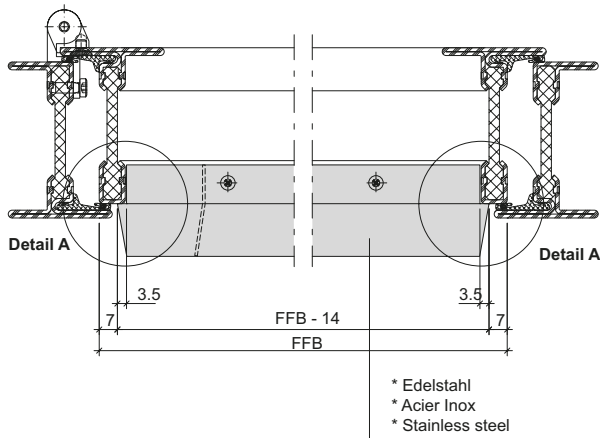
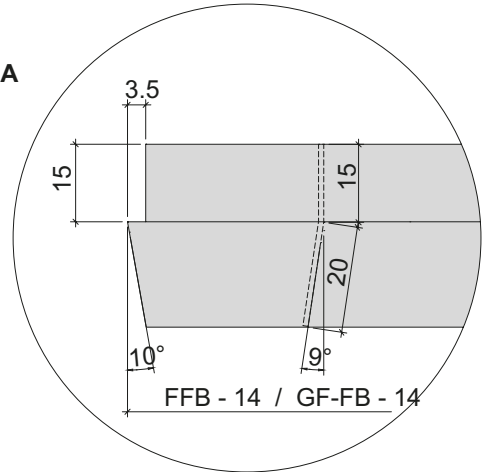
Optionale Wetterschenkel

Renvois d'eau en option

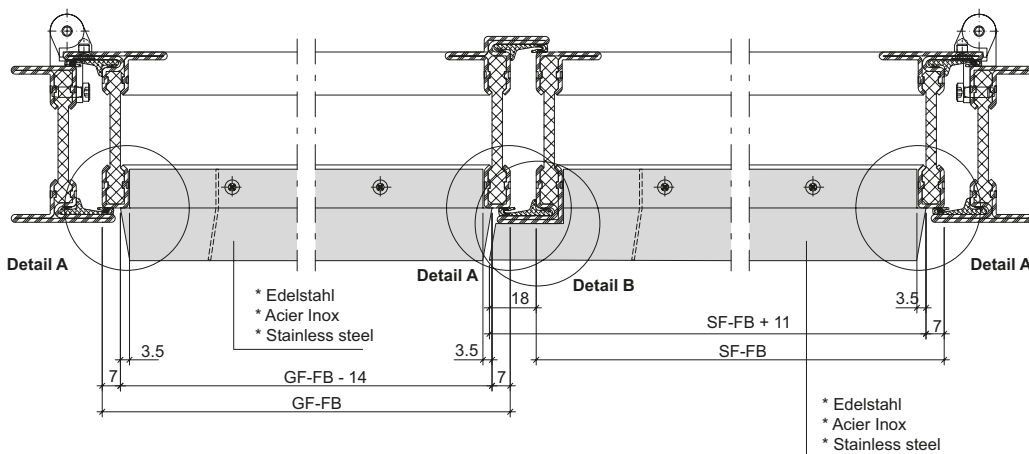
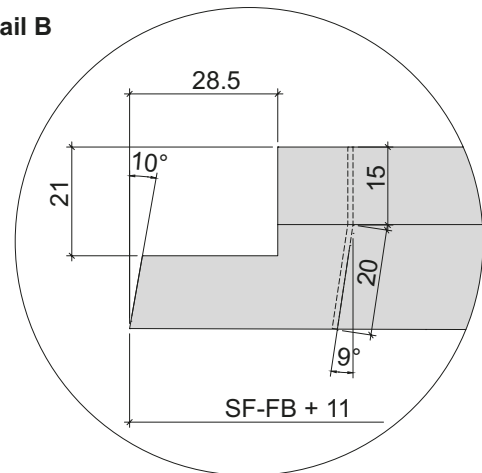
Optional drip bar



Detail A



Detail B

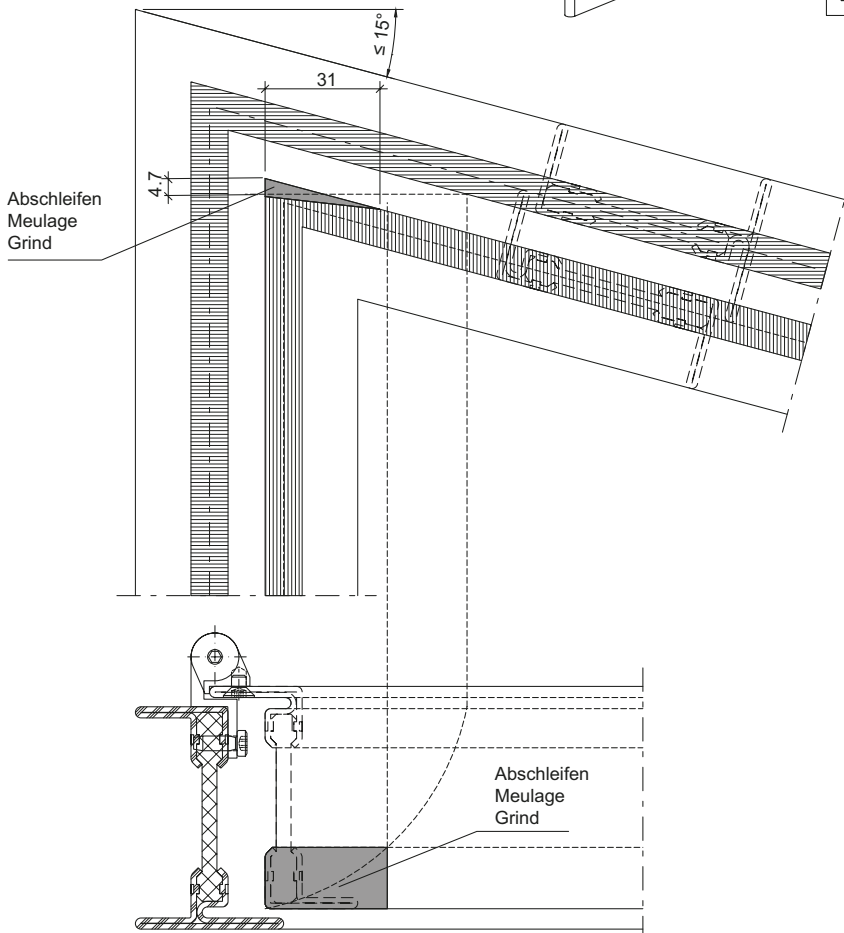
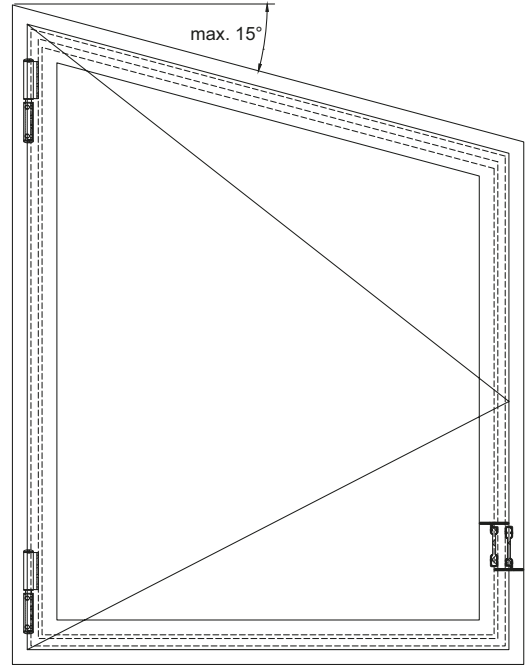
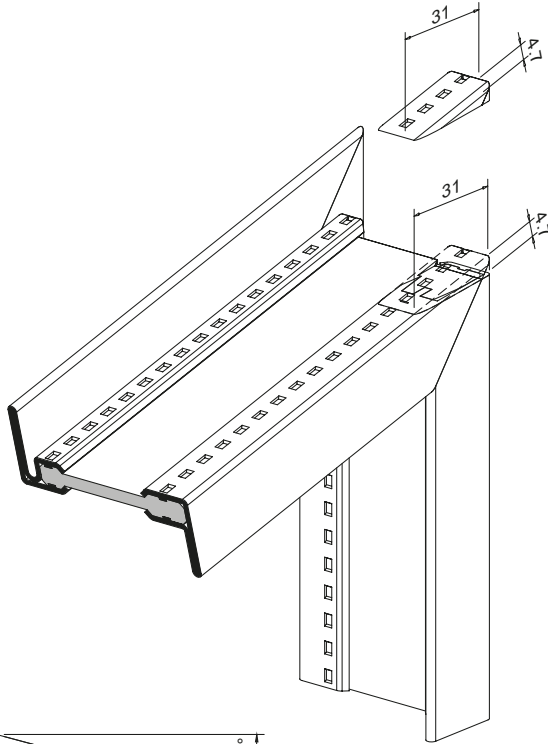


* Durch Metallbauer zu fertigen
 * A fabriquer par le métallier
 * To made by metal constructor

Atelierfenster

Fenêtre trapézoïdale

Studio window



Bogenfenster aus Janisol-Arte Profilen

Im Sinne einer Qualitätssteigerung stellen wir für Biegearbeiten spezielle Janisol Arte-Profile her:

Verarbeitungshinweise:

Profile beim Zuschnitt vorsichtig einspannen. Jansen-Ein Spann-Unterlage (499.294) verwenden. Spanndruck dosieren.

Der Profilquerschnitt kann sich je nach Biegeradius durch den Biegevorgang mehr oder weniger verkleinern und deformieren. Dies muss beim Zusammenfügen der gebogenen mit den geraden Profilen berücksichtigt werden. Die geeignete Kantenwahl (Bezugs-kante) ist vorgängig zu prüfen.

Schweissen/Verputzen:

Profilstoss mit Bogen und gerader Teil allseitig gut heften und wie üblich schweissen. Anschliessend Stossbereich sauber schleifen und verputzen. Allfällige Differenzen im Profilquerschnitt bei Nebenkanten ausgleichen resp. anpassen (siehe Skizze).

Oberflächenbehandlung (Einbrennlackierung/Pulverbeschichtung):

Die Oberflächenbehandlung von Bogenfenster mit Janisol Arte-Profilen mit speziellem Biege-Isoliersteg kann ohne spezielle Vorkehrungen wie übrige Rahmenteile erfolgen.

Elemente im Ofen und beim Abkühlen so aufhängen resp. abstützen, dass ein Verziehen vermieden wird (nicht einseitig aufhängen, sondern Innen- und Aussen-Stahlschalen stützen).

Bei Verwendung von Klips-Glasleisten empfehlen wir die Glasleisten an den Enden mit je einer Schraube zu sichern.

Fenêtres cintrée avec profilés Janisol Arte

Nous fabriquons des profilés Janisol Arte spéciaux pour les travaux de cintrage afin d'accroître la qualité:

Indications d'usinage:

Serrer avec précaution les profilés lors de leur coupe. Utiliser le support Jansen pour le serrage (499.294). Doser la pression de serrage. Suivant le rayon de courbure, la section de profilé peut être plus ou moins réduite et déformée durant le cintrage. Ceci doit être pris en compte lors de l'assemblage des profilés cintrés avec ceux qui sont rectilignes. Le choix de l'arête appropriée (arête de référence) doit être préalablement contrôlée.

Soudage/ébarbage:

Pointer correctement de tous côtés la jonction de profilés cintrés et la partie rectiligne et la souder comme cela est d'usage. Meuler et ébarber ensuite correctement la zone de la jonction. Égalisez ou ajustez toutes les différences éventuelles de la section de profilé sur les arêtes auxiliaires (voir schéma).

Traitement de surface

(laquage au four/laquage poudre):
Le traitement de surface d'une fenêtre cintrée avec profilés Janisol Arte possédant un isolateur de cintrage spécial peut être effectué comme pour les autres pièces de cadre sans mesures particulières.

Suspendre ou étayer les éléments dans le four et lors du refroidissement de manière à éviter toute déformation (ne pas suspendre d'un seul côté, mais étayer les demi-coques intérieures et extérieures).

En cas d'utilisation de parcloses clipsées, nous recommandons de les caler aux extrémités avec respectivement une vis.

Arched windows with Janisol Arte profiles

In order to improve quality, we fabricate special Janisol Arte profiles for profile bending:

Assembly instructions:

Carefully clamp the profiles when cutting. Use Jansen clamping support (499.294). Measure the clamping pressure.

Depending on the bending radius, the profile cross section may be somewhat reduced or deformed due to the bending process. This must be taken into account when joining the arched profiles to the straight ones. Check in advance that the appropriate edge (reference edge) has been selected.

Welding/cleaning:

Securely tack the profile joint with arch and straight section on all sides and weld as usual. Then fully grind and clean the joint area. Offset or adjust any differences in the profile cross section for secondary edges (see diagram).

Surface treatment (enamelling/powder coating):

The surfaces of arched windows with Janisol Arte profiles with special bending isolators can be treated in the same way as conventional frame sections, without the need for special precautions.

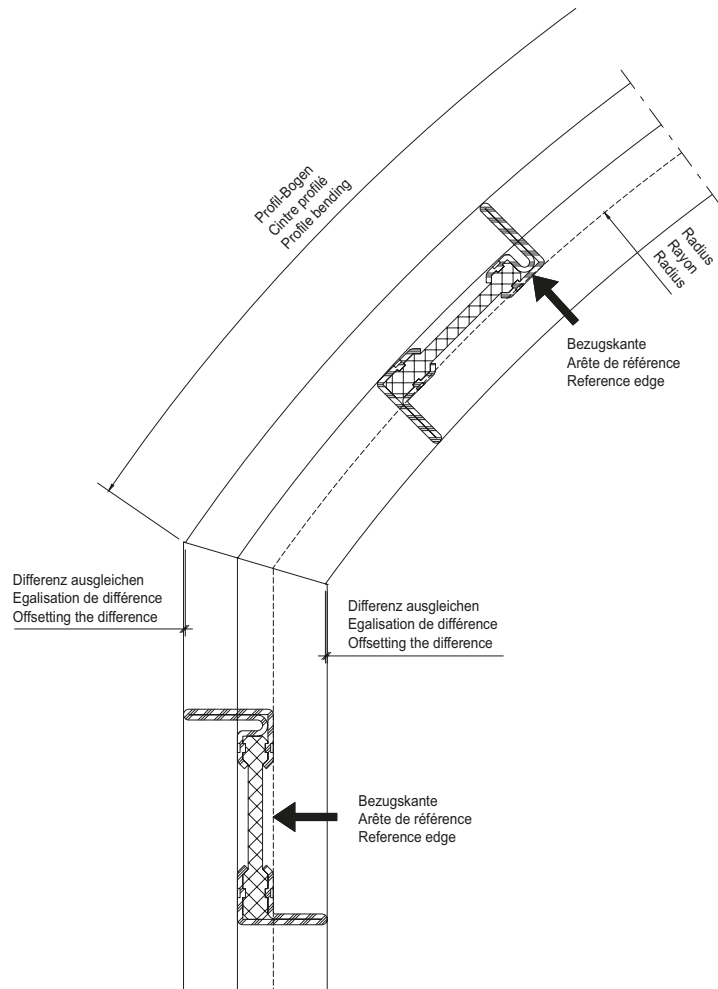
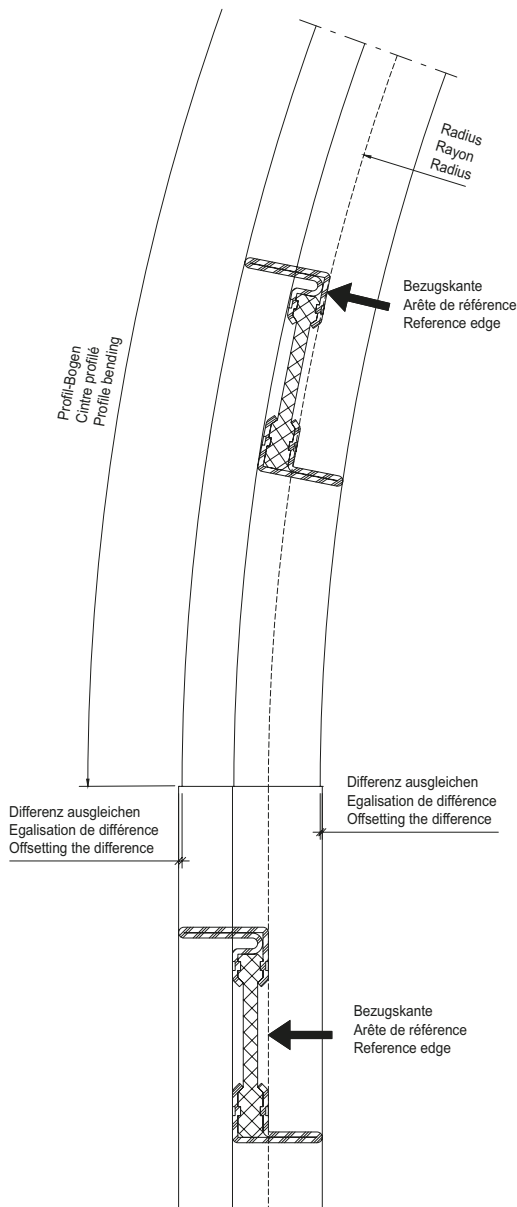
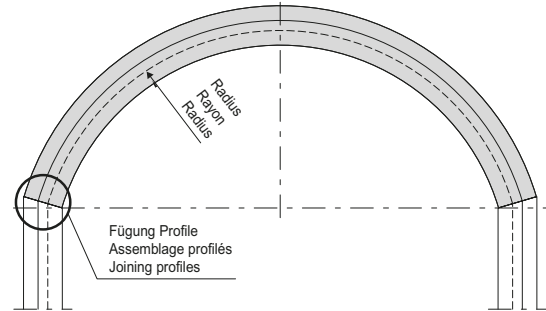
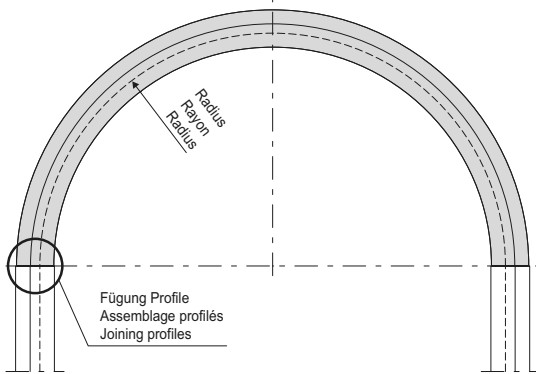
Suspend or support the units in the furnace and when cooling so that they do not warp (do not suspend from one side; support both inner and outer steel profiles).

When using clip-on glazing beads, we recommend securing the glazing beads at the ends with one screw in each case.

Bogenfenster
Blendrahmen/Festverglasung

Fenêtres cintrées
Cadre dormant/Vitrage fixe

Arched windows
Outer frame/Fixed glazing



Allgemeine Angaben über wetterfeste Stähle

Was sind wetterfeste Stähle?

Als wetterfeste Baustähle gelten nach üblichem Sprachgebrauch solche niedriglegierten Stahlsorten, die ohne Korrosionsschutz verwendet werden können, da sie an der Atmosphäre eine beständige Rostschicht bilden. Die geringen Legierungsgehalte von ca. 0,5% Kupfer, ca. 0,8% Chrom, ca. 0,5% Nickel und gegebenenfalls ca. 0,1% Phosphor sind die Grundlage dieser Beständigkeit gegen Witterungseinflüsse.

Dabei sind einige Voraussetzungen zu beachten:

- Die Atmosphäre darf keine sich bildende Deckschicht beeinträchtigenden Stoffe enthalten.
- Die Oberflächen der Werkstoffe müssen dem natürlichen Witterungswechsel ausgesetzt sein; der Fall von Dauerbefeuchtung darf nicht gegeben sein.
- Es können durch direkt oder indirekt benetzte Flächen Farbunterschiede entstehen.

Mechanismus der Deckschichtenbildung

Zahlreiche Bauteile aus leichtlegierten, wetterfesten Stählen haben inzwischen in langjähriger betrieblicher Anwendung den hohen Rostwiderstand dieser besonderen Stahlgruppe bewiesen. Durch den verdichteten Rost ist die Stahloberfläche weitgehend geschützt, so dass ein weiteres Abrosten der Oberfläche verhindert wird. Die Wetterfestigkeit der leichtlegierten Stähle lässt sich auf stabile Deckschichten zurückführen. Durch die Legierungselemente, insbesondere Kupfer, Chrom und Phosphor, bilden sich beim Rostvorgang unter der Einwirkung von Schwefeldioxid schwer lösliche basische Sulfate, Hydroxide und Phosphate. Diese bauen auf dem Metall eine kompakte und relativ fest haftende amorphe Rostschicht auf. Sie hemmen den weiteren Zutritt von Sauerstoff, Wasser und Schwefeldioxid zur Metallfläche. Im Rost unlegierter Stähle läuft unter der für das Rosten in Industrieluft mitverantwortlichen SO₂-Einwirkung dagegen ein katalytischer

Informations générales sur les aciers patinables

Que sont les aciers patinables?

Dans le langage courant, les types d'acier faiblement alliés pouvant être utilisés sans protection anticorrosion en raison de leur capacité à former une couche de rouille durable à l'atmosphère sont considérés comme des aciers de construction patinables. Les faibles teneurs en alliage d'env. 0,5% de cuivre, env. 0,8% de chrome, env. 0,5% de nickel et éventuellement env. 0,1% de phosphore représentent le fondement de cette résistance aux influences climatiques.

Quelques conditions doivent cependant être respectées

- L'atmosphère ne doit comprendre aucune substance compromettant la formation d'une couche de protection.
- La surface des matériaux doit être soumise aux changements climatiques naturels; elle ne doit pas être soumise à une humidité permanente.
- Des différences de couleur peuvent apparaître en raison de surfaces humidifiées directement ou indirectement

Mécanisme de la formation d'une couche protectrice

De nombreux composants en aciers patinables et faiblement alliés ont entre-temps prouvé la grande résistance à la rouille de ce groupe d'aciers particulier au cours de longues années d'une utilisation pratique. Grâce à la rouille compactante, la surface de l'acier est en grande partie protégée, ce qui empêche qu'elle dérouille encore plus.

La patinabilité des aciers faiblement alliés peut être attribuée à des couches de protection stables. Grâce aux éléments d'alliage, en particulier le cuivre, le chrome et le phosphore, des sulfates basiques, des hydroxides et des phosphates difficilement solubles se forment sous l'effet de dioxyde de soufre durant le processus de rouille. Ces derniers forment sur le métal une couche de rouille amorphe compacte et relativement adhérente. Ils freinent l'accès de l'oxygène, de l'eau et du dioxyde de soufre à la surface du métal. Dans la rouille des aciers non alliés a

General information on weathering steels

What are weathering steels?

According to general language use, low-alloy steels of this kind which can be used without corrosion protection are viewed as weathering structural steels, as they form a resistant layer of rust when exposed to the atmosphere. The low alloy content of approx. 0.5% copper, approx. 0.8% chrome, approx. 0.5% nickel and, where required, approx. 0.1% phosphorus forms the basis of this resistance to weathering influences.

Several requirements must be met here:

- The atmosphere must not contain any substances which will damage the top layer that forms.
- The surfaces of the materials must be exposed to the natural changes in the weather; there must not be permanent humidification.
- There may be colour differences as a result of directly or indirectly moistened surfaces.

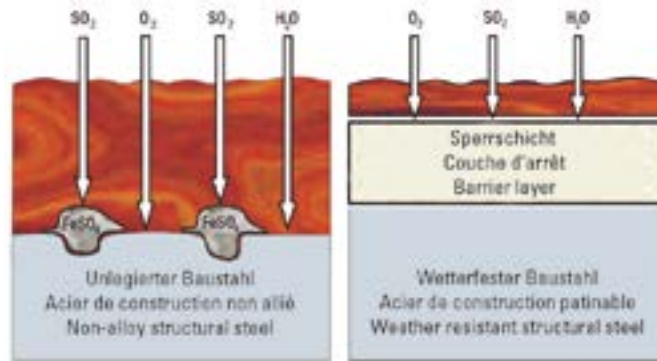
How the top layer forms

Numerous components made from low-alloy, weathering steels have demonstrated the high rust resistance of this particular group of steels during long-term use. Thanks to the condensed rust, the steel surface is protected to a large extent, such that further rusting of the surface is prevented. The weathering resistance of the low-alloy steels can be attributed to stable top layers. Due to the alloying elements (in particular copper, chrome and phosphorus), alkaline sulphates, hydroxides and phosphates, which do not dissolve easily, form during the rusting process under the effect of sulphur dioxide. These form a compact and relatively fixed, amorphous layer of rust on the metal. They prevent further ingress of oxygen, water and sulphur dioxide on the metal surface. In contrast to the SO₂ effect which is partially responsible for the rust in industrial air, a catalytic process takes place in the

Vorgang ab, bei dem H⁺ Ionen frei werden, die ein weiteres Auflösen des Eisens bewirken.

lieu par contre un processus catalytique sous l'action du SO₂ participant à la formation de la rouille dans l'air industriel et au cours duquel des ions H⁺, libérés, provoquent une dissolution supplémentaire du fer.

rusting of non-alloy steels, whereby H⁺ ions become free, further dissolving the iron.



Zeitlicher Ablauf der Deckschichtenbildung

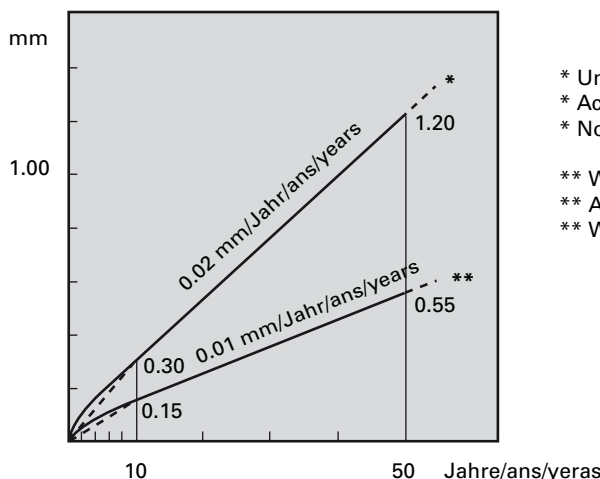
Die Erfahrung zeigt, dass der Prozess der Deckschichtenbildung nach etwa zwei bis drei Jahren abgeschlossen ist. Zeichnet man den Abwitterungsverlauf grafisch auf, dann erkennt man, dass nach einer anfänglich normalen Rostgeschwindigkeit der Kurvenverlauf langsam abflacht und damit von einer Gewichtsabnahme kaum noch gesprochen werden kann. Messungen haben gezeigt, dass der Gesamtdickenverlust bei günstigen Einbaubedingungen nach 25 Jahren etwa 0,05 mm betragen hat. Davon dient etwa die Hälfte zum Aufbau der Schutzschicht, während die andere Hälfte in Form von lockeren Oxiden durch Witterungseinflüsse abgetragen wird.

Déroulement dans le temps de la formation d'une couche de protection

L'expérience montre que le processus de formation de couche de protection est terminé au bout de deux à trois ans. Si l'on convertit l'effet des intempéries en graphique, il est possible de voir qu'après une vitesse de formation de rouille normale au début, la courbe s'aplatit lentement et l'on peut donc à peine parler de perte de poids. Des mesures ont montré que la perte totale d'épaisseur quand les conditions de montage étaient bonnes n'est que d'environ 0,05 mm au bout de 25 ans. La moitié a servi à la formation de la couche protectrice alors que la seconde moitié est enlevée sous forme d'oxydes lâches sous l'effet des influences climatiques.

Timeframe of the top layer formation

Experience shows that the process of the top layer formation is complete after around two to three years. If you plot this weathering process in a graph, you can see that, after an initially normal rusting speed, the curve progression slowly levels off and weight loss can hardly be seen anymore. Measurements have shown that the total thickness loss after 25 years is around 0.05 mm with favourable exposure conditions. Of this amount, around half is used to build up the protective layer, while the other half is worn away in the form of loose oxides due to weathering effects.



- * Unlegierter Baustahl
- * Acier de construction non allié
- * Non-alloy structural steel
- ** Wetterfester Baustahl
- ** Acier de construction patinable
- ** Weather resistant structural steel

Die Verwendung von wetterfesten Jansen-Profilstahlrohren

Ästhetische Aspekte

Dem Architekten und planenden Ingenieur steht mit wetterfestem Stahl ein natürlicher Stoff für die Gestaltung zur Verfügung, der durch den Wechsel der Farbtönungen und -schattierungen während des Rostprozesses und bei tageszeitlichen Änderungen des Lichtes lebt und damit ein anderes Verhalten als mancher künstlicher Werkstoff zeigt.

Die schützende Korrosionsschicht von wetterfestem Stahl verändert ihre Farbe im Laufe der Zeit von hellbraun, braun bis annähernd schwarz und erinnert in ihrem Farbcharakter an Bronze oder Kupfer. Die Schönheit der Bauten aus früheren Epochen liegt zu einem großen Teil darin, dass sie sich durch ihre Patina in Natur und Landschaft einfügen.

Konstruktionshinweise

Für den Konstrukteur ist es wichtig zu wissen, dass zur Bildung der Schutzschicht ein ständiger Wechsel von Trockenheit und Feuchtigkeit notwendig ist. In andauernd feuchter oder gar ausgesprochen nasser Umgebung kann sich diese Deckschicht nicht bilden. Es ist dafür zu sorgen, dass das Regenwasser überall ungehindert abfließen kann, Spalten und feuchte Ecken sind zu vermeiden. Während der Deckschichtenbildung erforderlichen Zeitraumes enthält das ablaufende Regenwasser einen Teil der entstandenen Korrosionsprodukte. Es ist darauf zu achten, dass verfärbtes Regenwasser nicht zur Streifen- oder Fleckenbildung an benachbarten Bauteilen führt.

Verarbeitung

Wetterfeste Jansen-Profilstahlrohre können ohne Schwierigkeiten verarbeitet werden. Für das Zuschneiden, Ausklinken und Schlitzen können übliche Werkzeuge und Maschinen verwendet werden. Es gilt jedoch einige Besonderheiten zu berücksichtigen:

Utilisation de tubes profilés en acier patinables Jansen

Aspects esthétiques

Pour leur conception, l'architecte et l'ingénieur concepteur disposent avec l'acier patinable d'un matériau naturel qui vit en raison du changement de nuances et d'ombrage de couleur pendant le processus de rouille et au fil des différentes lumières au cours de la journée et qui donc montre un autre comportement que les matériaux artificiels.

La couche de corrosion protectrice sur l'acier patinable change de couleur au cours du temps de marron clair à marron jusqu'à presque noir et cette couleur fait penser par ses caractéristiques au bronze ou au cuivre. La beauté des bâtiments datant d'époques plus reculées consiste en grande partie dans le fait qu'ils s'intègrent dans la nature et le paysage grâce à leur patine.

Remarques relatives à la construction

Pour le projeteur, il est important de savoir qu'un changement permanent entre sécheresse et humidité est nécessaire à la formation de la couche de protection. Cette couche de protection ne peut se former dans un environnement humide en permanence ou même carrément mouillé. S'assurer que l'eau de pluie peut s'écouler partout sans être gênée, éviter les fentes et les coins humides. Durant le temps nécessaire à la formation de la couche de protection, l'eau de pluie qui s'écoule contient une partie des produits de corrosion qui ont été générés. Veiller à ce que de l'eau de pluie colorée ne provoque pas de rayures ou de tâches sur les composants voisins.

Usinage

Les tubes profilés en acier patinables Jansen peuvent être usinés sans problème. Les outils et les machines usuels peuvent être utilisés pour le débitage, l'entaillage et le rainurage. Il est cependant nécessaire de tenir compte de quelques particularités:

Use of Jansen hollow weathering steel profiles

Aesthetic aspects

For architects and planning engineers, weathering steel is a natural design material which comes alive through the changes in colour and shading during the rusting process and daytime changes in the light and hence demonstrates a different behaviour to some man-made materials.

The protective corrosion layer of weathering steel changes colour over time from light brown to brown to almost black, and is reminiscent in its colour characteristics of bronze or copper. The beauty of the buildings from earlier periods lies largely in the fact that they are able to blend in with their natural surroundings and the landscape due to their patina.

Design information

It is important for the designer to know that a continuous change between dry and humid conditions is necessary for the protective layer to form. This top layer cannot form in constantly damp or even wet conditions. It must hence be ensured that the rain water can run off everywhere unhindered; gaps and damp corners are to be avoided. During the time required for the top layer to form, the rain water running off contains part of the resultant corrosion product. It must be ensured that discoloured rain water does not cause streaking or spotting on neighbouring building components.

Fabrication

Jansen hollow weathering steel profiles can be fabricated without difficulty. Standard tools and machinery can be used for cutting, notching and creating slots. Certain factors must be considered, however:

Schweissen

Eine bewährte Eigenschaft von wetterfestem Baustahl ist die zuverlässige Schweißbarkeit. Es können die üblichen Schweißverfahren angewendet werden. Entsprechende Drähte sowie Elektroden mit gleicher Analyse sind im Handel bei folgenden Herstellern erhältlich:

- Böhler Welding	NiCu1
- Linde Group	Ni1Cu
- Oerlikon	Carbofil NiCu

Nieten und Schrauben

Verbindungselemente wie Schrauben, Nieten und Zubehör müssen so ausgewählt werden, dass die Bildung elektrochemischer Lokalelemente, die die Deckschicht auf dem wetterfesten Stahl schädigen können, vermieden werden. Am besten geeignet sind Verbindungselemente aus Chromnickelstahl oder verzinktem Stahl. Solche Verbindungen sind in vielen Dimensionen und Ausführungen im Handel erhältlich.

Oberflächenbehandlung

Zur Erzielung einer regelmässigen Patina sind die Rahmenelemente durch metallisch blanke Sandstrahlung oder mechanischer Bearbeitung wie z.B. Exzentrerschleifer zu reinigen. Sicherlich müssen jegliche Fett- und Ölreste sowie andere Verarbeitungsspuren wie z.B. Beschriftungen mit Fett oder Filzstiften beseitigt werden.

Vorkorrosion

Es besteht die Möglichkeit, die Fensterelemente vorgängig für längere Zeit im Freien zu lagern und regelmässig mit Wasser zu besprühen oder die Behandlung mit dem JANox Schnellroster (450.107). Um ein einheitliches Korrosionsbild zu bekommen, muss die gereinigte Oberfläche gleichmässig mittels Sprühflasche oder Schaumstoffroller benetzt werden. Der Schnellroster benötigt eine Einwirkdauer von ca. 45 Minuten. Je nach gewünschtem Rosteffekt sind 2-3 Schichten nötig. Nach der Behandlung sollte die Oberfläche mit Wasser abgewaschen werden, um Rückstände des Schnellrosters zu vermeiden. Anschliessend benötigt die Rostschicht min. 24 Stunden um sich zu verfestigen.

Soudage

Une propriété éprouvée d'un acier de construction patinable est sa fiabilité à pouvoir être soudé. Les procédés de soudage usuels peuvent être utilisés. Les fils et les électrodes de même analyse sont disponibles dans le commerce chez les fabricants suivants:

- Böhler Welding	NiCu1
- Linde Group	Ni1Cu
- Oerlikon	Carbofil NiCu

Rivets et vis

Les éléments d'assemblage tels que vis, rivet et accessoires doivent être choisis de manière à éviter la formation de piles locales électrochimiques qui pourraient endommager la couche de protection sur l'acier patinable. Les éléments d'assemblage les mieux appropriés sont en acier chrome-nickel ou galvanisé. De tels assemblages sont disponibles dans le commerce dans de nombreuses dimensions et exécutions.

Traitement de surface

Pour obtenir une patine homogène, les éléments de cadre doivent être nettoyés par sablage pour obtenir du métal nu ou être traités mécaniquement avec par exemple une ponceuse excentrique. Tout reste de graisse ou d'huile ainsi que toutes les autres traces d'usinage telles que marquages avec de la graisse ou des crayons feutres doit être éliminée

Pré-corrosion

Il est possible de soumettre à l'avance les éléments de fenêtre à un stockage en extérieur durant un temps prolongé et de les asperger régulièrement d'eau ou de les traiter avec le rouilleur rapide JANox (450.107). Pour obtenir une apparence uniforme de la corrosion, la surface nettoyée doit être humidifiée de manière homogène au moyen d'une bombe aérosols ou d'un rouleau en mousse. Le rouilleur rapide nécessite env. 45 minutes pour agir. 2 à 3 couches sont nécessaires pour obtenir l'effet de rouille désiré. La surface doit être lavée avec de l'eau après le traitement afin d'éviter tout résidu du rouilleur rapide. La couche de rouille a besoin ensuite d'au moins 24 heures pour se solidifier.

Welding

A proven property of weathering structural steel is its reliable weldability. Standard welding procedures can be used. Corresponding wires and electrodes with the same specification are commercially available from the following manufacturers:

- Böhler Welding	NiCu1
- Linde Group	Ni1Cu
- Oerlikon	Carbofil NiCu

Rivets and screws

Connecting units such as screws, rivets and accessories must be selected such that the formation of local electrochemical elements which may damage the top layer on the weathering steel is avoided. Connecting units made from chrome-nickel steel or galvanised steel are best suited for this. Connections of this type are commercially available in many dimensions and designs.

Surface treatment

To achieve a regular patina, the frame units must be cleaned by means of sandblasting down to the bare metal or mechanical processing with a random orbital sander, for example. Of course, any residual grease or oil as well as other traces of fabrication, such as markings made using grease or felt-tip pens, must be removed.

Pre-corrosion

There is the option to store the window units in the open for a long time in advance and regularly spray them with water or treat them with JANox rapid rusting agent (450.107). In order to obtain uniform corrosion, the cleaned surface must be moistened uniformly by means of a spray bottle or foam roller. The rapid rusting agent requires around 45 minutes to take effect. 2-3 coats are necessary, depending on the desired rust effect. Following treatment, the surface should be washed with water in order to get rid of any residual rapid rusting agent. The layer of rust then requires a minimum of 24 hours to harden.

Wichtig:

Für die Bearbeitung separaten Behälter benutzen. Es dürfen keine Fremdkörper in den JANox Behälter gelangen. Dies könnte die Wirkung negativ beeinträchtigen! Restflüssigkeit kann ohne Einschränkung entsorgt werden.

Bei der Verarbeitung mit JANox persönliche Schutzausrüstung, wie geschlossene Brille und Gummihandschuhe, tragen.

Oberflächenbehandlung
Rauminnenseite

Auf der Rauminnenseite empfiehlt sich ein Oberflächenschutz um unregelmäßige Korrosionsstellen zu vermeiden. Hier sollten die Elementteile folgender Oberflächenbehandlung unterzogen werden:

- Die Elemente metallisch blank mit mineralischem Strahlmittel feiner Körnung sandstrahlen
- Die Aussenseite mit geeignetem Abdeckband abdecken
- Auf der Innenseite den beliebigen Korrosionsschutz oder Farbe auftragen

Abdichten, Verkitten und Versiegeln

Wetterfester Baustahl verträgt sich gut mit den im Bauwesen üblicherweise verwendeten Dichtungsmaterialien. Alle losen Rostpartikel bei den Haftstellen von angerosteten oder vorkorrodieren Elementen müssen entfernt werden.

Important:

Utiliser un conteneur séparé pour le traitement. Aucun corps étranger ne doit parvenir dans le conteneur JANox. Cela pourrait influencer négativement sur le résultat! L'eau résiduelle peut être éliminée sans restriction.

Pour l'usinage avec JANox, porter un équipement de protection personnelle tel que lunettes fermées et gants en caoutchouc.

Traitement de surface côté intérieur

Il est recommandé d'appliquer une protection de surface côté intérieur afin d'éviter les traces de corrosion irrégulières. Les pièces d'élément doivent dans ce cas être soumises au traitement de surface suivant:

- Soumettre les éléments à un sablage avec un agent de grenailage minéral à grain fin jusqu'à ce que le métal soit à nu
- Recouvrir le côté extérieur avec une bande appropriée
- Appliquer la protection anticorrosion ou la peinture sur le côté intérieur

Étanchéifier, mastiquer et sceller

L'acier de construction patinable est tout à fait compatible avec les matériaux d'étanchéité usuels dans la construction de bâtiments. Toutes les particules de rouille non fixées sur les points d'adhérence d'éléments qui ont commencé à rouiller ou qui sont pré-corrodés doivent être éliminées.

Important:

Use separate containers for the processing. There must be no foreign matter in the JANox containers. This could have a negative impact on the effect. Residual liquid can be disposed of without restrictions.

When working with JANox, wear personal protective equipment such as close-fitting goggles and rubber gloves.

Treatment of the surface on the inside of the room

It is recommended to apply surface protection on the inside of the room in order to avoid irregular corrosion areas. The unit parts should be given the following surface treatment:

- Sandblast the units down to the bare metal using a mineral abrasive with fine granulation
- Cover the outside with a suitable cover tape
- Apply the desired amount of corrosion protection or colour to the inside.

Sealing and puttying

Weathering structural steel is compatible with the sealing materials commonly used in construction. All loose rust particles in the tack welds of slightly rusty or pre-corroded units must be removed.

**Beschlageinbau
und Montage
Janisol Arte 2.0**

Code A = Änderungen
Code E = Ergänzungen
Code R = Redaktionelle Korrektur
Code T = Technische Korrektur

Druckstand 09/2022
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**Montage des ferrures
et usinage
Janisol Arte 2.0**

Code A = Modifications
Code E = Compléments
Code R = Correction rédactionnelle
Code T = Correction technique

Date d'impression 09/2022
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**Installation of fittings
and assembly
Janisol Arte 2.0**

Code A = Modifications
Code E = Supplements
Code R = Editorial correction
Code T = Technical correction

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Seite	Code	Datum	Erläuterung
Page	Code	Date	Explication
Page	Code	Date	Explanation

Grafische Planungsdaten wie z.B. Anwendungsbeispiele, Konstruktionsdetails, Anschlüsse am Bau, die in unseren physischen oder elektronischen Dokumentationsunterlagen enthalten sind, sind schematische Darstellungen. Gleiches gilt für digitale Medien wie CAD Dateien oder BIM Modelle.

Sie sollen den ausführenden Metallbauer und/oder Fachplaner bei der Planung und Ausführung eines Projektes unterstützen. Sie sind im konkreten Anwendungsfall durch den ausführenden Metallbauer und/oder Fachplaner auf die Verwendbarkeit im konkreten betroffenen Projekt hinsichtlich rechtlichen/regulatorischen aber auch technischen objektspezifischen Anforderungen zu überprüfen und ggfs. eigenverantwortlich anzupassen.

Bei der Überprüfung, der spezifischen Planung und der Umsetzung sind die objektspezifischen Rahmenbedingungen (Material der Bausubstanz, Dimension des Einbauelements, Farbe, Exposition, Lasteinwirkung, etc.) sowie der geltende Stand der Technik einschliesslich aller anwendbaren Normen und technischen Richtlinien eigenverantwortlich zu beachten.

Falls das vorliegende Dokument Differenzen zur aktuellen deutschen Version (Artikel Nr. K1018518) aufweist, gilt in jedem Fall der deutsche Originaltext in der jeweils geltenden Fassung im Jansen Docu Center.

Alle Ausführungen dieser Dokumentation haben wir sorgfältig und nach bestem Wissen zusammengestellt. Wir können aber keine Verantwortung für die Benutzung der vermittelten Vorschläge und Daten übernehmen. Wir behalten uns technische Änderungen ohne Vorankündigung vor.

Les données de planification graphiques, comme les exemples d'application, détails de construction et raccordements au bâtiment, fournies dans notre documentation physique et numérique sont des représentations schématiques. Il en va de même pour les médias numériques comme les fichiers CAD ou modèles BIM.

Leur but est de faciliter la planification et réalisation d'un projet par les constructeurs métalliques et/ou concepteurs. Concrètement, elles doivent être vérifiées par le constructeur métallique et/ou le concepteur et, le cas échéant, modifiées de son propre chef pour s'assurer qu'elles concordent avec le projet concerné et qu'elles répondent aux exigences techniques spécifiques ainsi qu'aux dispositions légales et réglementaires.

Lors de la vérification, de la planification spécifique et de la mise en œuvre, il y a lieu de tenir compte des conditions spécifiques à l'objet (matériaux du bâtiment, dimension de l'élément d'insert, couleur, exposition, effet de charge, etc.) ainsi que de l'état actuel de la technique, y compris toutes les normes et directives techniques applicables.

En cas de divergence entre le présent document et la version allemande (no d'article K1018518), c'est dans tous les cas le texte original allemand qui prévaut dans sa version actuelle disponible dans le Jansen Docu Center.

Nous avons apporté le plus grand soin à l'élaboration de cette documentation. Cependant, nous déclinons toute responsabilité pour l'utilisation faite de nos propositions et de nos données. Nous nous réservons le droit de procéder à des modifications techniques sans préavis.

Graphical planning data such as application examples, construction details, connections on site that are contained in our physical or electronic documentation components are schematic representations. The same applies to digital media such as CAD files or BIM models.

They are intended to support the metal worker and/or design engineer in planning and executing projects. In the specific case of application they are to be checked by the metal worker and/or design engineer in terms of their usability in the specific project concerned with regard to legal/regulatory and technical property-specific requirements and adjusted if necessary at the latter's own responsibility.

The property-specific underlying conditions (construction material, dimensions of installation element, colour, exposure, load effect etc.) and current state of the art including all applicable norms and technical guidelines are to be taken into consideration at the metal worker and/or design engineer's own responsibility during the review, specific planning and implementation.

If there are any differences between this document and the current German version (item number K1018518), the latest version of the original German text in the Jansen Docu Center shall prevail.

All the information contained in this documentation is given to the best of our knowledge and ability. However, we decline all responsibility for the use made of these suggestions and data. We reserve the right to effect technical modifications without prior warning.

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