

## Planung und Montage

Beschlag für Ganzglasschiebetüren (ESG/VSG) mit verdeckter Aufhängung bis 150 kg Türgewicht.

## Planification et montage

Ferrure pour portes tout-verre coulissantes (ESG/VSG) avec suspension cachée et poids de porte jusqu'à 150 kg.

## Planning and installation

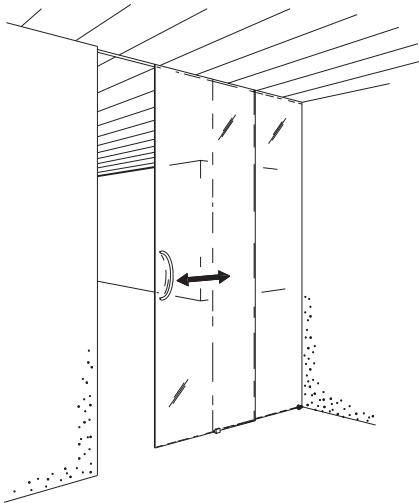
Hardware for all-glass sliding doors (ESG/VSG) with concealed suspension with a door weight of up to 150 kg (330 lbs.).

## Pianificazione e montaggio

Ferramenta per porte scorrevoli completamente in vetro (ESG/VSG) con sospensione nascosta fino a 150 kg di peso porta.

## Planificación y montaje

Herraje para puertas deslizantes completamente de vidrio (ESG/VSG) con sistema de suspensión oculto para un peso de hasta 150 kg por hoja.



■ Hawa-Teile    ■ Eléments Hawa    ■ Hawa components    ■ Componenti Hawa    ■ Componentes Hawa

Metric specifications are exact - Inches are approximate

Diese Zeichnung ist Eigentum der Hawa AG und darf weder verwertet, vervielfältigt noch Dritten zugänglich gemacht werden. Alle unsere Katalog-Zeichnungen sowie die speziellen Einbauzeichnungen im Massstab 1:1 usw. stellen Beispiele zum Einbau unserer Beschläge dar. Irgendwelche Ansprüche aus der Verwendung dieser Unterlagen können durch den Kunden nicht abgeleitet werden. Für bau-/projektbezogene, konstruktive Details wird keine Verantwortung übernommen.

Ce plan est la propriété de Hawa AG. Il ne peut être utilisé à titre lucratif, ni photocopié ou transmis à un tiers. Tous les plans publiés dans les catalogues, les plans de montage spéciaux à l'échelle 1:1 etc. représentent des exemples de montage de nos ferrures. Le client ne peut tirer des droits quelconques en utilisant de tels documents. Pour des détails constructifs touchant aux projets ou aux sites, toute responsabilités est déclinée.

This drawing remains the property of Hawa AG and may not be sold, reproduced or made available to third parties. All of our catalogue drawings and special full scale installation drawings etc. represent installations using our hardware and fittings. No claims on the part of the customers can be considered which arise in connection with the use of these documents. For site or project-related design details any liability is declined.

Questo disegno è proprietà di Hawa AG e non può essere usato a scopo di lucro, riprodotto e reso accessibile a terzi. Tutti i nostri disegni del catalogo nonché i particolari disegni di montaggio in scala 1:1 ecc. rappresentano esempi per il montaggio delle nostre ferramenta. Eventuali rivendicazioni a seguito dell'utilizzo di questa documentazione non possono essere evidenziate da parte del cliente. Non assumiamo nessuna responsabilità per dettagli costruttivi che riguardano qualsiasi costruzione o progetto.

Este documento es propiedad de la empresa Hawa AG. Se excluye la venta y reproducción, al igual que el acceso a terceras personas. Los planos contenidos en nuestros catálogos, al igual que los planos especiales de montaje a escala 1:1 etc. representan ejemplos para el montaje de nuestros herrajes. Su uso no implica la deducción de derechos, cualquiera sea su naturaleza, por parte del cliente. No asumimos ninguna responsabilidad por los detalles constructivos relativos a la construcción o proyectos.

# HAWA - Puro 100-150

-	Gezeichnet/Dessiné/Drafted/Disegnato/Dibujado <b>02.2007 / Rolf Huber</b>	Internationale Schutzrechte Änderungen vorbehalten Droits internationaux déposés Sous réserve de modifications Swiss and foreign patents Design subject to modification Diritti protettivi internazionali Con riserva di apportare modifiche Derechos internacionales protegidos Planos sujetos a modificaciones
	Änderung/Modification/Modification/Modifica/Modificación -	
<b>21133</b>	Ersatz/Remplace/Replaces/Sostituisce/Reemplaza -	Hawa <small>SWISS</small>
	Visum/Visa/Visa/Visto/Visado <b>04.2007 / Reto Beck</b>	

Hawa AG CH-8932 Mettmenstetten Tel. +41 44 767 91 91 Fax +41 44 767 91 78  
www.hawa.ch

## Deutsch

### HAWA-Puro 100-150

Maximales Türgewicht 4-rollig 100 kg

Maximales Türgewicht 6-rollig 150 kg

Minimale Türbreite 750 mm

Glasdicke Schiebetüren: ESG\* 8/10/12/12,7 mm

VSG\* 8-13 mm

Glasdicke Festverglasung: ESG/VSG 10-12 mm

(mit Silikon bis 13 mm)

Es kann sowohl Einscheibensicherheitsglas (ESG) als auch Verbund-sicherheitsglas (VSG) aus ESG verwendet werden.

VSG mit maximal 2 mm Versatz zulässig.

## Français

### HAWA-Puro 100-150

Poids de porte maximal 4 galets 100 kg

Poids de porte maximal 6 galets 150 kg

Largeur de porte minimale 750 mm

Épaisseur de verre porte coulissante: ESG\* 8/10/12/12,7 mm

VSG\* 8-13 mm

Épaisseur de verre glace fixe: ESG/VSG 10-12 mm

(jusqu'à 13 mm avec silicone)

Il est possible d'utiliser aussi bien du verre de sécurité trempé (ESG) que du verre de sécurité feuilleté (VSG) en ESG.

VSG avec un décalage de 2 mm maximum autorisé.

## English

### HAWA-Puro 100-150

Maximum door weight 4-wheels 100 kg (220 lbs.)

Maximum door weight 6-wheels 150 kg (330 lbs.)

Minimum door width 750 mm (2'5  $\frac{17}{32}$ " )

Glass thickness sliding door: ESG\* 8/10/12/12,7 mm (  $\frac{5}{16}$ "/ $\frac{13}{32}$ "/ $\frac{15}{32}$ "/ $\frac{1}{2}$ " )

VSG\* 8-13 mm (  $\frac{5}{16}$ "/ $\frac{17}{32}$ " )

Glass thickness fixed glass: ESG/VSG 10-12 mm (  $\frac{13}{32}$ "/ $\frac{15}{32}$ " )

(with silicone up to 13 mm [  $\frac{17}{32}$ " ])

Both toughened safety glass (ESG) and laminated safety glass (VSG) manufactured from ESG can be used.

VSG permissible with max. offset of 2 mm (  $\frac{3}{32}$ " ).

## Italiano

### HAWA-Puro 100-150

Peso massimo della porta 4-rulli 100 kg

Peso massimo della porta 6-rulli 150 kg

Larghezza minima della porta 750 mm

Spessore del vetro porta scorrevole: ESG\* 8/10/12/12,7 mm

VSG\* 8-13 mm

Spessore del vetro vetrata fissa: ESG/VSG 10-12 mm

(con silicone fino a 13 mm)

È possibile usare sia vetro singolo temperato di sicurezza (ESG) sia vetro accoppiato di sicurezza (VSG) composto da ESG.

VSG ammesso con sfalsamento di 2 mm max.

## Español

### HAWA-Puro 100-150

Peso máximo de puerta 4-rodillos 100 kg

Peso máximo de puerta 6-rodillos 150 kg

Ancho mínimo de puerta 750 mm

Espesor del vidrio puerta deslizante: ESG\* 8/10/12/12,7 mm

VSG\* 8-13 mm

Espesor del vidrio fijo: ESG/VSG 10-12 mm

(con silicona hasta 13 mm)

Es posible utilizar tanto vidrio de seguridad de una sola hoja ( ESG ) como vidrio de seguridad multilaminado ( VSG ) compuesto por ESG.

VSG admisible con un desfase máximo de 2 mm.

\* ESG Einscheibensicherheitsglas  
Verre de sécurité trempé  
Toughened safety glass  
Vetro singolo temperato di sicurezza  
Vidrio de seguridad de una sola hoja

\* VSG Verbundsicherheitsglas  
Verre de sécurité feuilleté  
Laminated safety glass  
Vetro accoppiato di sicurezza  
Vidrio de seguridad multilaminado

## ***Inhaltsverzeichnis***

Inhaltsverzeichnis . . . . .	3
1:1-Schnitte . . . . .	6/7
Montage-Varianten . . . . .	8
Position Komponenten . . . . .	9
Glasausschnitt / Glasberechnung . . . . .	10
Glasberechnungen . . . . .	11
Glasbestellung . . . . .	12
Vormontage Schiebetüre mit ESG und Glasprofil . . . . .	14
Vormontage Schiebetüre mit VSG . . . . .	15/16
Montage Laufschiene und Führungen . . . . .	17
Montage Laufschiene mit Revisionsstück . . . . .	18
Montage Schiebetüre . . . . .	19
Montage Schienenpuffer . . . . .	20
Festverglasung . . . . .	21
Montage Festverglasung . . . . .	22/23
Montage Holzfestteil . . . . .	24
Montage bei abgehängter Decke . . . . .	25
Wandanschluss, Bodentürstopper und Dichtungsprofil . . . . .	26
Montage der Laufschiene mit HAWA-Adapto 100-150/P . . . . .	27-29
Beschlägeübersicht . . . . .	30/31

## ***Sommaire***

Sommaire . . . . .	3
Coupes 1:1 . . . . .	6/7
Variante de montage . . . . .	8
Position des composants . . . . .	9
Découpe de verre / calcul de verre . . . . .	10
Calculs de verres . . . . .	11
Commande de verre . . . . .	12
Prémontage de porte coulissante avec verre ESG et profil porte-glace . . . . .	14
Prémontage de porte coulissante avec verre VSG . . . . .	15/16
Montage rail de roulement et guides inférieurs . . . . .	17
Montage rail de roulement avec pièce de révision . . . . .	18
Montage de la porte coulissante . . . . .	19
Montage de la butée de rail . . . . .	20
Glace fixe . . . . .	21
Montage glace fixe . . . . .	22/23
Montage pièce fixe en bois . . . . .	24
Montage avec plafond suspendu . . . . .	25
Fixation murale, arrête-porte du bas et profil jointif . . . . .	26
Montage du rail de roulement avec HAWA-Adapto 100-150/P . . . . .	27-29
Composants de la ferrure . . . . .	30/31

## ***Contents***

Contents . . . . .	4
1:1-Cuts . . . . .	6/7
Assembly options . . . . .	8
Position of components . . . . .	9
Glass cutout / glass calculation . . . . .	10
Glass calculation . . . . .	11
Ordering glass . . . . .	12
Pre-assembly of sliding door with ESG and glass profile . . . . .	14
Pre-assembly of sliding door with VSG . . . . .	15/16
Assembly of top track and floor guides . . . . .	17
Assembly of top track with servicing unit . . . . .	18
Sliding door installation . . . . .	19
Mounting of track stop . . . . .	20
Fixed glass . . . . .	21
Mounting fixed glass. . . . .	22/23
Assembly of fixed wood part . . . . .	24
Assembly for suspended ceiling . . . . .	25
Wall mounting, bottom door stop and seal profile. . . . .	26
Assembly of top track with HAWA-Adapto 100-150/P . . . . .	27-29
Hardware system components . . . . .	30/31

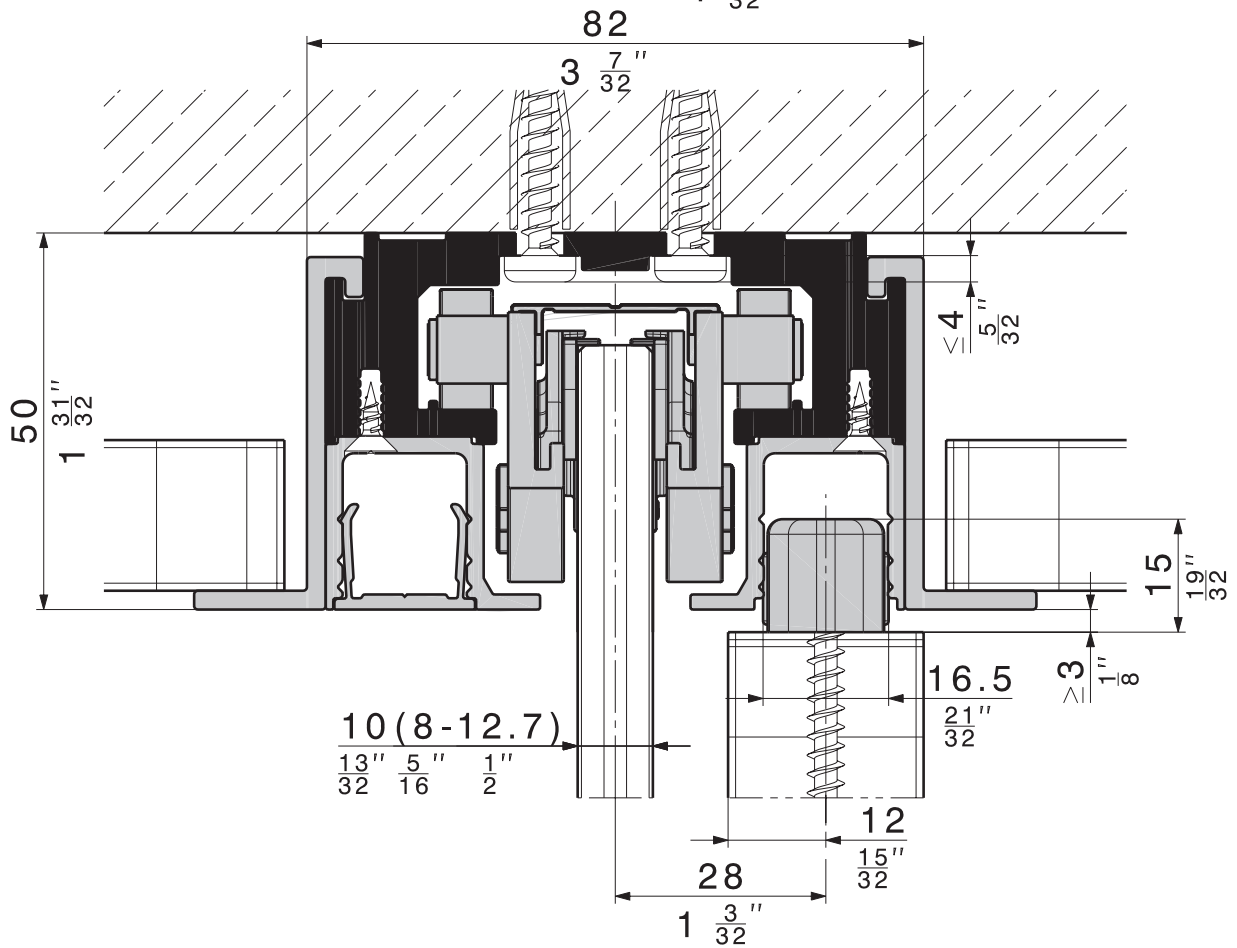
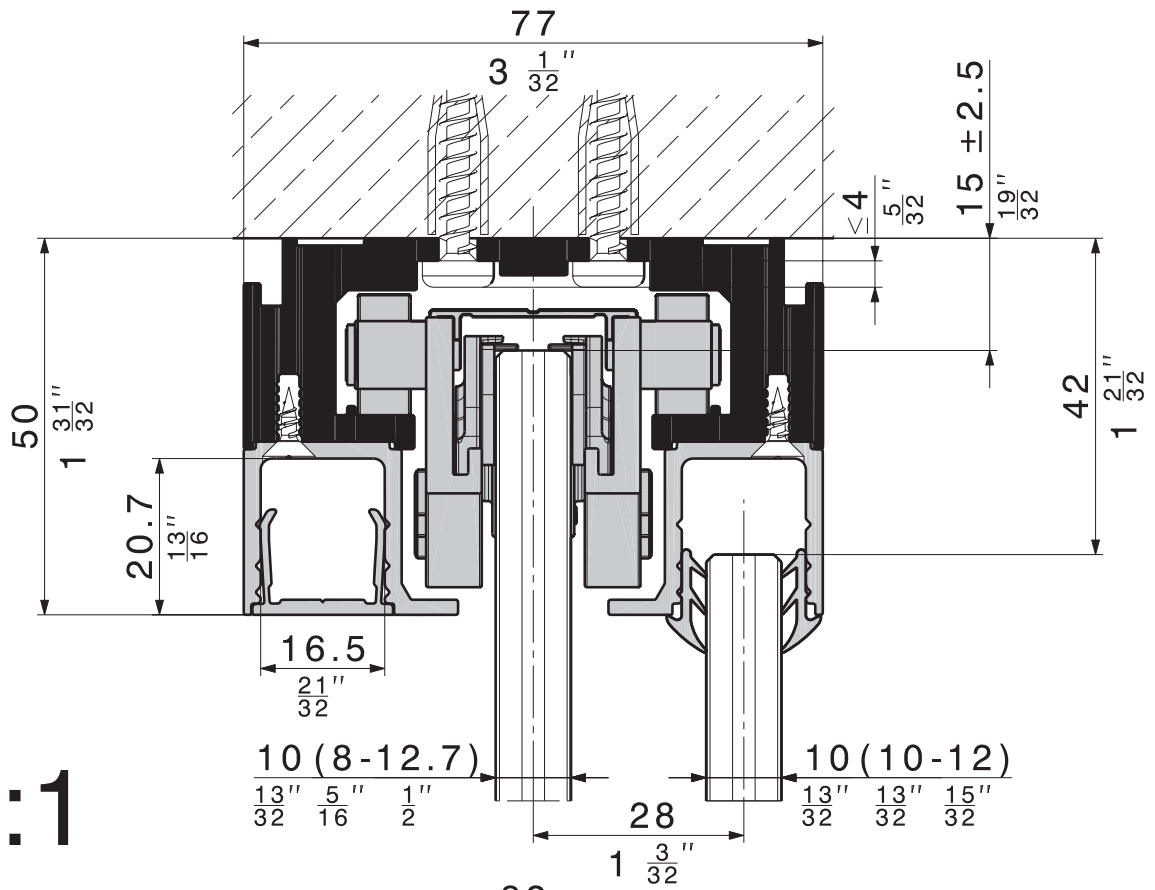
## ***Indice***

Indice. . . . .	4
Sezioni 1:1 . . . . .	6/7
Varianti di montaggio . . . . .	8
Posizioni dei componenti. . . . .	9
Intaglio del vetro / calcolo del vetro . . . . .	10
Calcolo del vetro . . . . .	11
Ordine vetro. . . . .	12
Premontaggio porta scorrevole con ESG e profilo vetro. . . . .	14
Premontaggio porta scorrevole con VSG . . . . .	15/16
Montaggio rotaia e guide . . . . .	17
Montaggio rotaia con pezzo per revisione. . . . .	18
Montaggio porta scorrevole. . . . .	19
Montaggio del paracolpi . . . . .	20
Vetrata fissa. . . . .	21
Montaggio vetrata fissa . . . . .	22/23
Montaggio parte fissa in legno . . . . .	24
Montaggio con controsoffitto . . . . .	25
Collegamento a parete, arresto porta a pavimento e profilo guarnizione . . . . .	26
Montaggio rotaia con HAWA-Adapto 100-150/P . . . . .	27-29
Assortimento ferramenta . . . . .	30/31

## **Contenido**

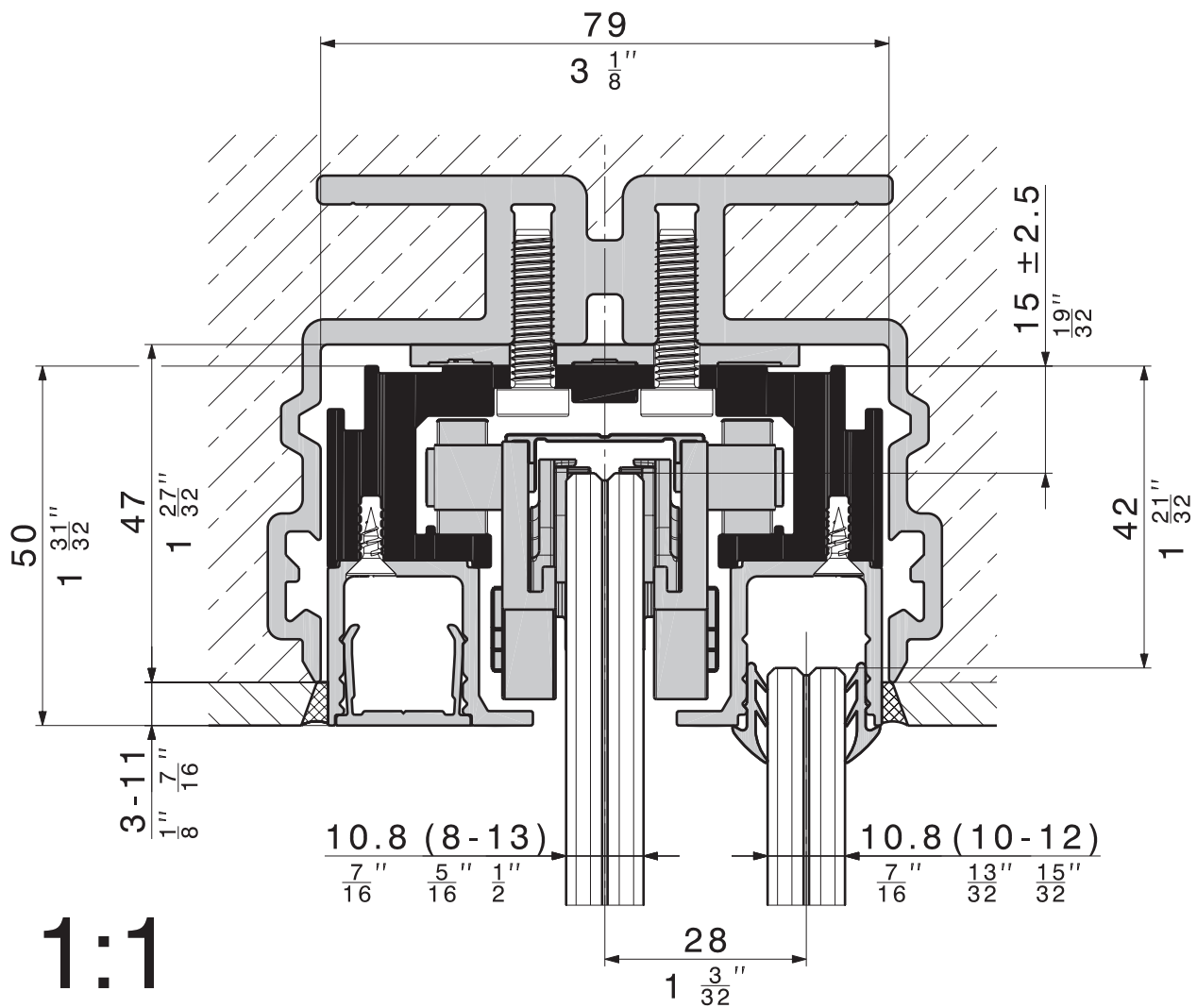
Contenido . . . . .	5
Cortes 1:1 . . . . .	6/7
Variantes de montaje . . . . .	8
Posición de componentes . . . . .	9
Muestras en el vidrio / cálculo del vidrio . . . . .	10
Cálculo del vidrio . . . . .	11
Orden de pedido de vidrios . . . . .	12
Premontaje puerta deslizante con ESG y perfil inferior en vidrio . . . . .	14
Premontaje puerta deslizante con VSG . . . . .	15/16
Montaje riel de rodadura y guías inferiores . . . . .	17
Montaje riel de rodadura con pieza de revisión . . . . .	18
Montaje de la puerta deslizante . . . . .	19
Montaje del tope de riel . . . . .	20
Vidrio fijo . . . . .	21
Montaje de vidrio fijo . . . . .	22/23
Montaje de panel fijo en madera . . . . .	24
Montaje con cielorraso suspendido . . . . .	25
Centrador de pared, tope de suelo y perfil de tope vertical . . . . .	26
Montaje del riel de rodadura con HAWA-Adapto 100-150/P . . . . .	27-29
Componentes de los herrajes . . . . .	30/31

1:1



Technische Änderungen vorbehalten  
Sous réserve de modifications techniques  
Subject to modification

Con riserva di apportare modifiche tecniche  
Bajo reserva de modificaciones técnicas

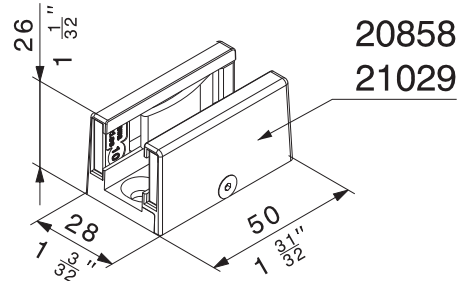
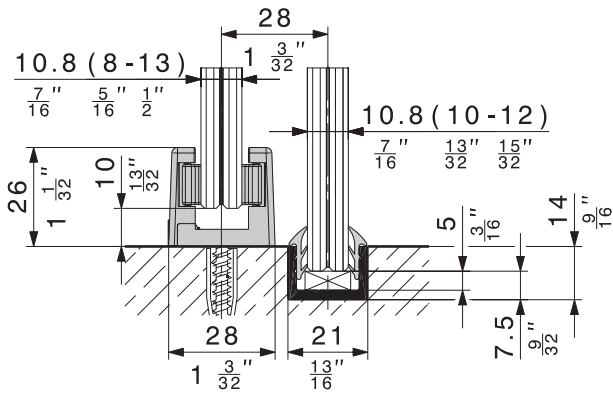


1:1

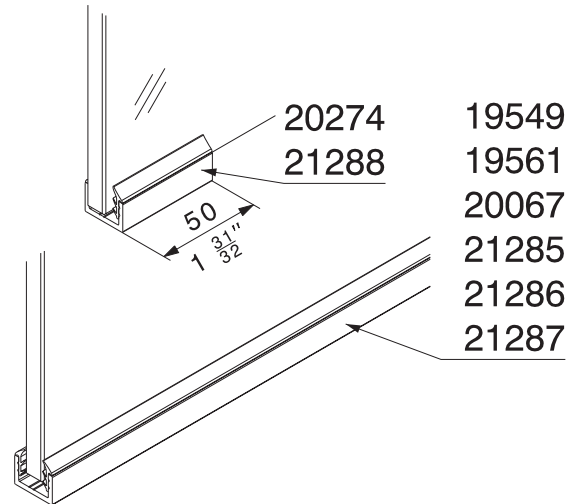
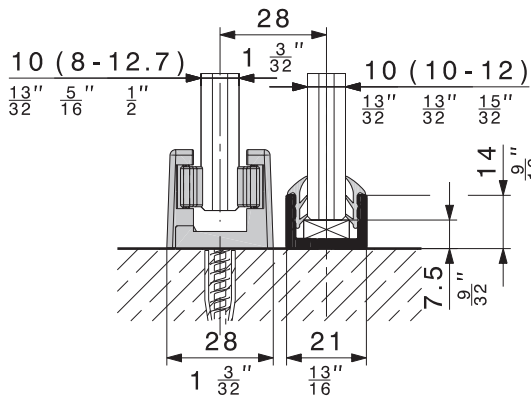
Technische Änderungen vorbehalten  
 Sous réserve de modifications techniques  
 Subject to modification

Con riserva di apportare modifiche tecniche  
 Bajo reserva de modificaciones técnicas

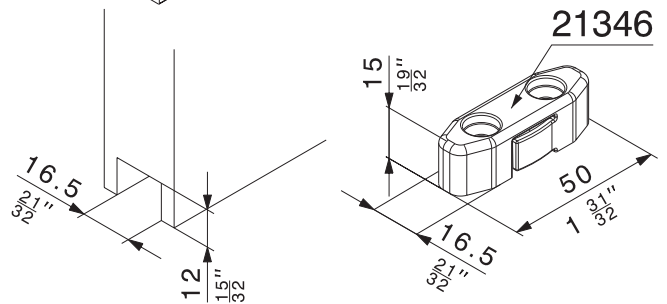
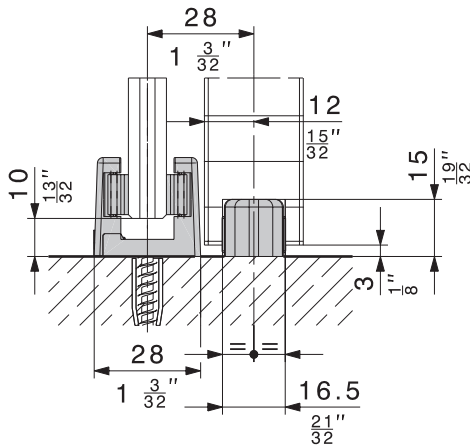
**Montage-Varianten**  
**Variantes de montaje**  
**Assembly options**  
**Varianti di montaggio**  
**Variantes de montaje**



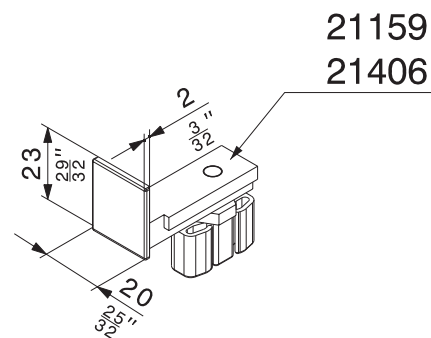
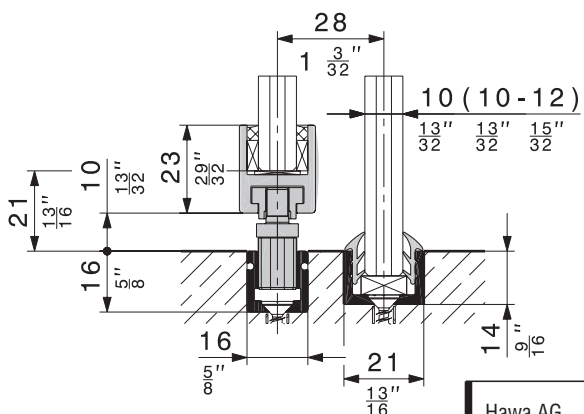
20858  
21029



20274 19549  
21288 19561  
20067  
21285  
21286  
21287



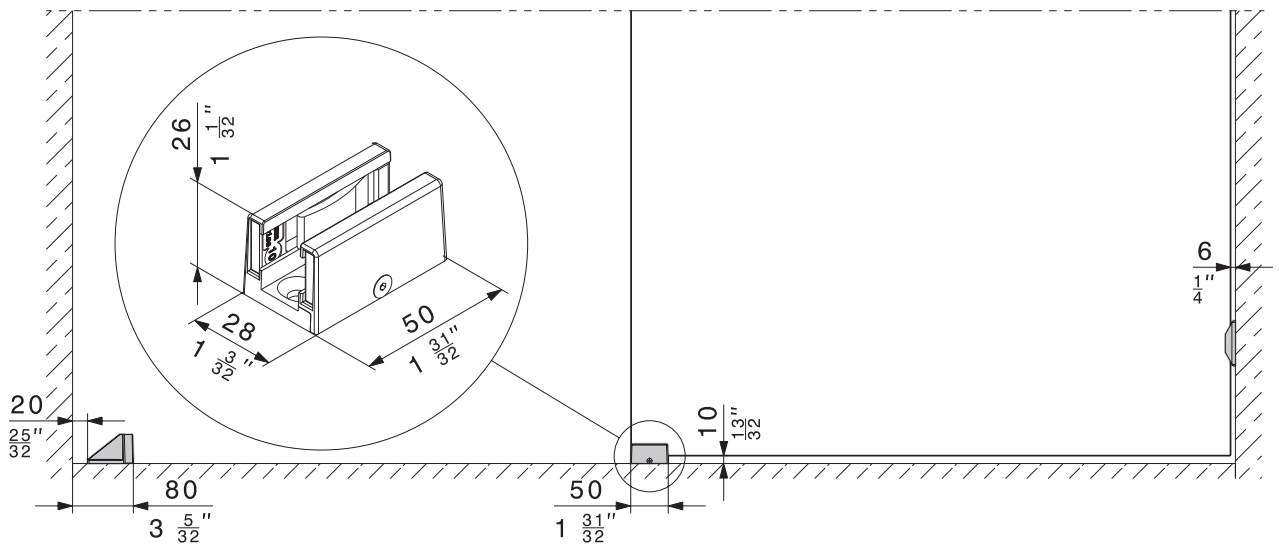
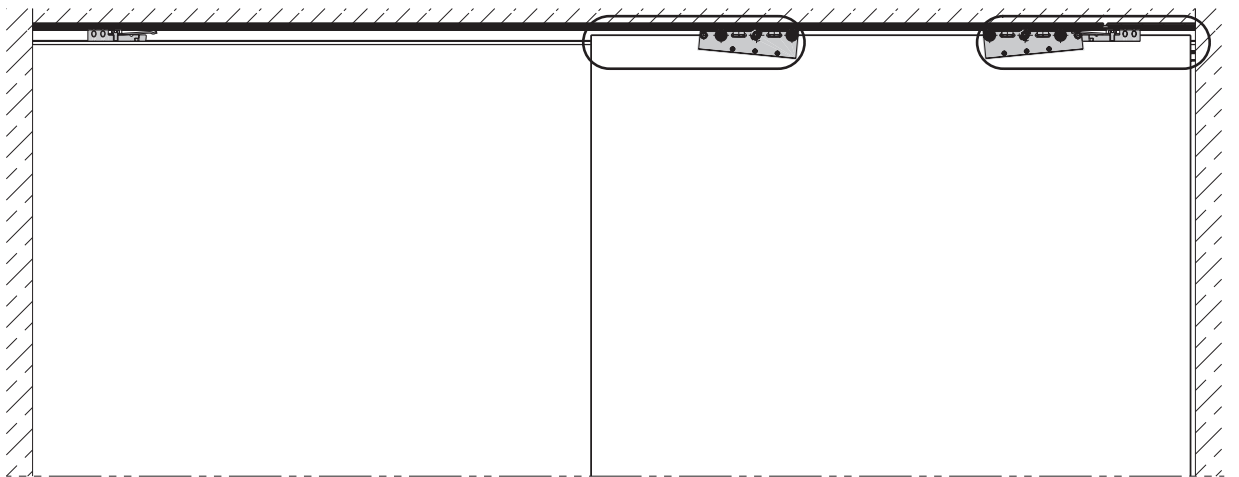
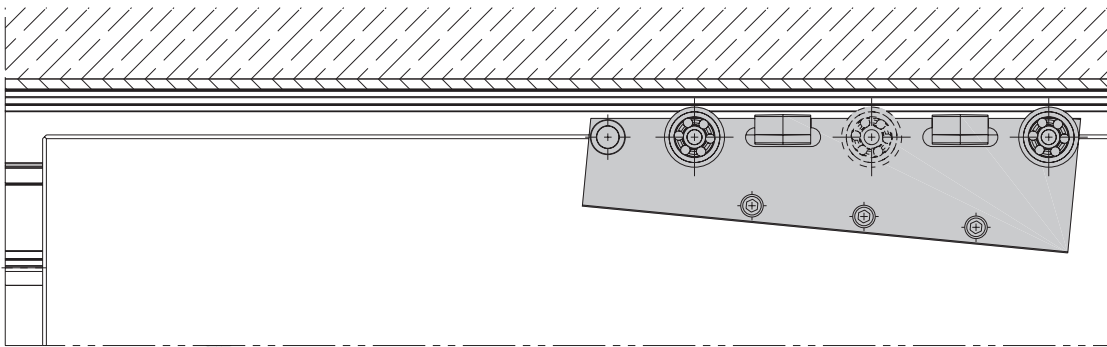
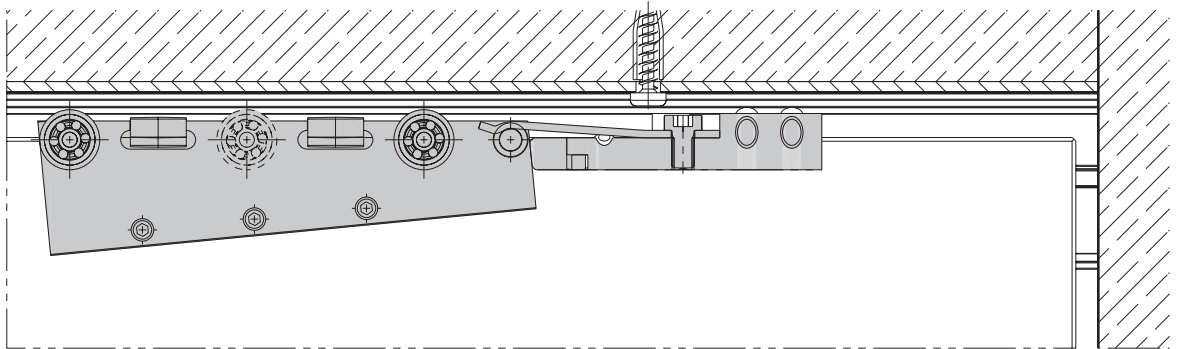
21346



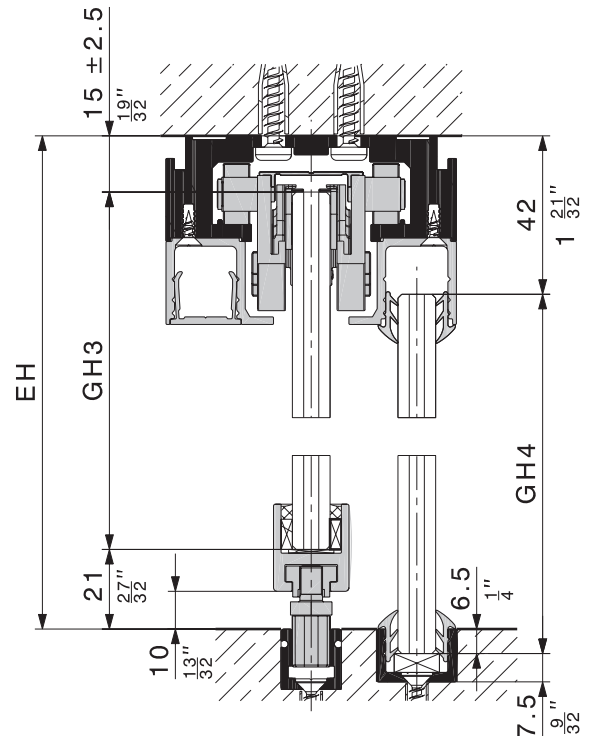
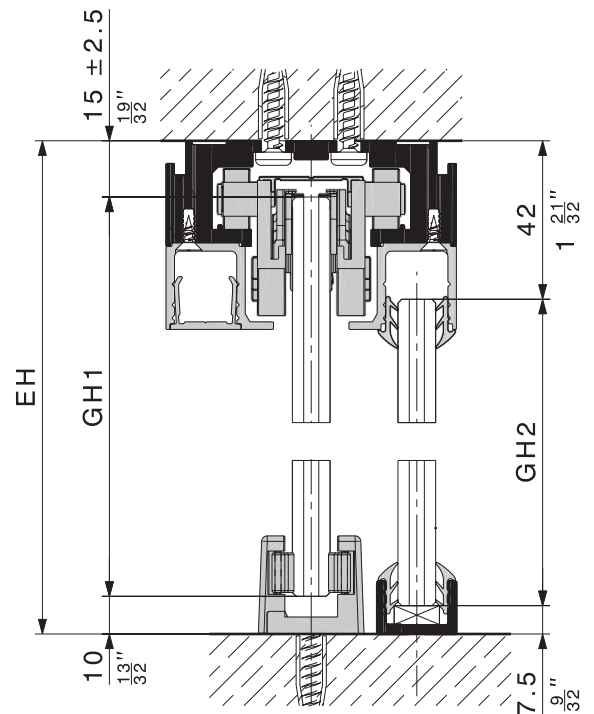
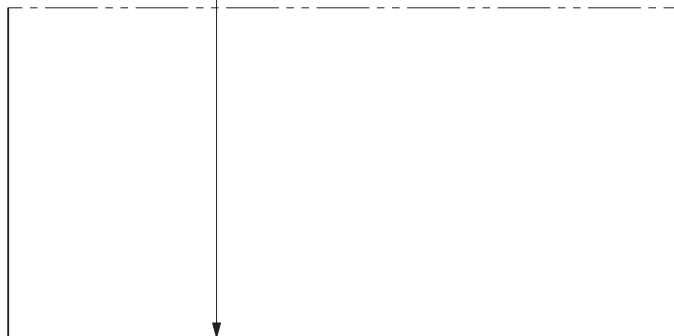
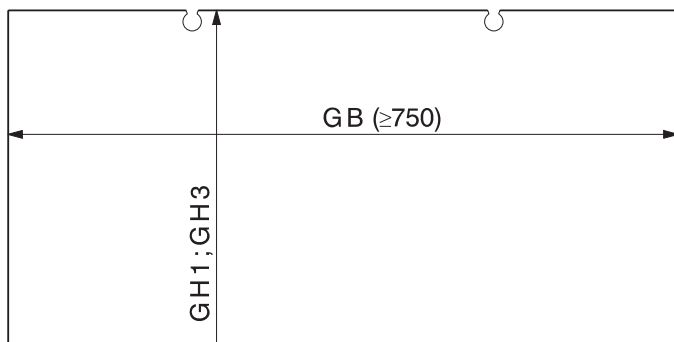
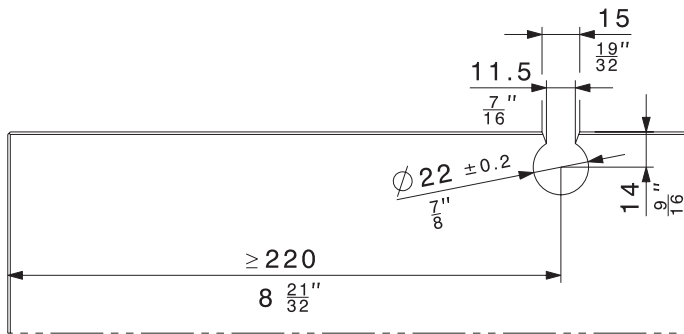
21159  
21406



*Position Komponenten*  
*Position des composants*  
*Position of components*  
*Posizioni dei componenti*  
*Posición de los componentes*



*Glasausschnitt / Glasberechnung  
 Découpe de verre / calcul de verre  
 Glass cutout / glass calculation  
 Intaglio del vetro / calcolo del vetro  
 Muecas en el vidrio / cálculo del vidrio*



**Glasdicke Schiebetüre**  
**Epaisseur de verre porte coulissante**  
**Glass thickness sliding door**  
**Spessore del vetro porta scorrevole**  
**Espesor del vidrio puerta deslizante**

ESG 8/10/12/12,7 mm  
 ( $\frac{5}{16}$ "/ $\frac{13}{32}$ "/ $\frac{15}{32}$ "/ $\frac{11}{16}$ "/ $\frac{1}{2}$ )

VSG 8-13 mm  
 ( $\frac{5}{16}$ "/ $\frac{17}{32}$ )

**Glasdicke Festverglasung**  
**Epaisseur de verre vitrage fixe**  
**Glass thickness fixed glass**  
**Spessore del vetro vetrata fissa**  
**Espesor del vidrio fijo**

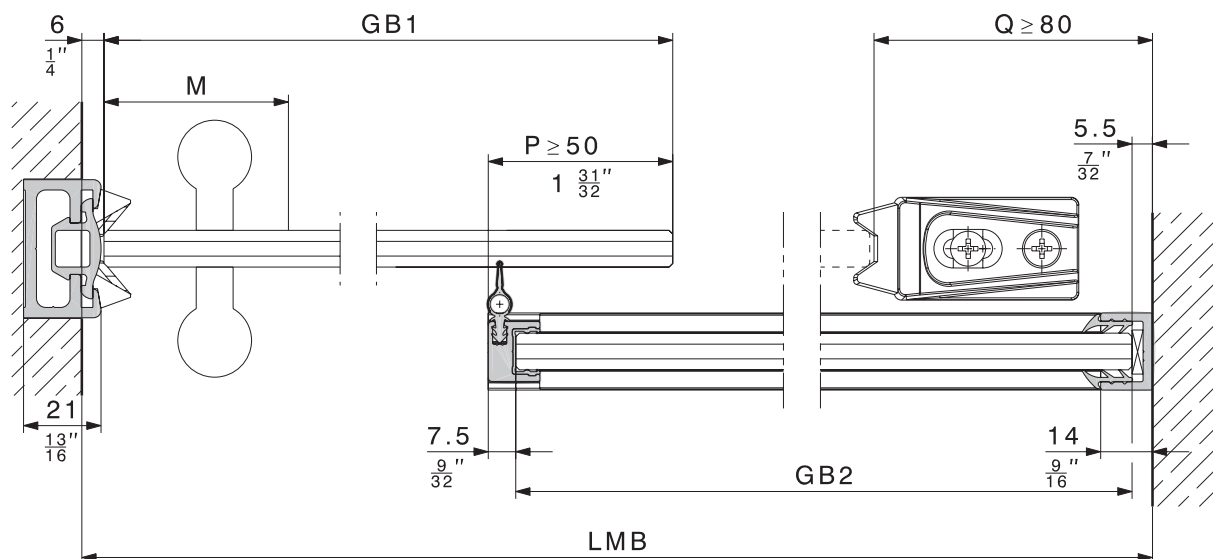
ESG/VSG 10-12 mm ( $\frac{13}{32}$ "/ $\frac{15}{32}$ )  
 mit Silikon bis 13 mm  
 jusqu'à 13 mm avec silicone  
 with silicone up to 13 mm ( $\frac{17}{32}$ )  
 con silicone fino a 13 mm  
 con silicona hasta 13 mm

Bei Festverglasung keine Bearbeitung nötig  
 Aucun traitement nécessaire pour glace fixe  
 No processing necessary for fixed glass  
 Con vetrata fissa la lavorazione non è necessaria  
 En caso de vidrio fijo no precisa mecanizado

Technische Änderungen vorbehalten  
 Sous réserve de modifications techniques  
 Subject to modification

Con riserva di apportare modifiche tecniche  
 Bajo reserva de modificaciones técnicas

*Glasberechnungen  
Calculs de verres  
Glass calculation  
Calcolo del vetro  
Cálculo del vidrio*



$$GB1 = \frac{LMB - Q + M + P - 6}{2}$$

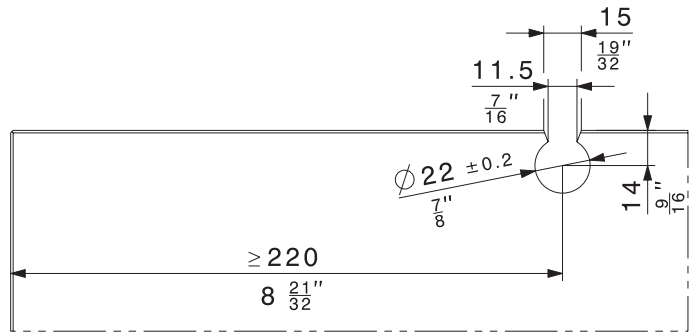
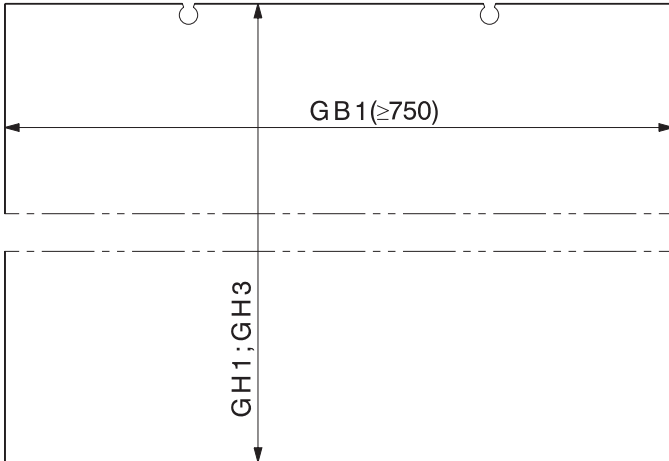
$$GB2 = \frac{LMB + Q - M + P - 32}{2}$$

EH	Einbauhöhe Hauteur d'encastrement Installation height Altezza di montaggio Altura de montaje
ESG	Einscheibensicherheitsglas Verre de sécurité trempé Toughened safety glass Vetro singolo temperato di sicurezza Vidrio de seguridad de una sola hoja
GB	Glasbreite Largeur de verre Glass width Larghezza vetro Ancho del vidrio
GB1	Glasbreite Schiebetüre Largeur de verre porte coulissante Sliding door glass width Larghezza vetro porta scorrevole Ancho de vidrio de la puerta deslizante
GB2	Festglasbreite Largeur glace fixe Fixed glass width Larghezza vetrata fissa Ancho del vidrio fijo
GH1 GH3	Glashöhe Schiebetüre Hauteur de verre porte coulissante Sliding door glass height Altezza vetro porta scorrevole Altura de vidrio de la puerta deslizante
GH2 GH4	Glashöhe Festverglasung Hauteur de verre glace fixe Fixed glass height Altezza vetro vetrata fissa Altura del vidrio fijo

LMB	Lichtmassbreite Largeur intérieure Inside width Larghezza interna Ancho de la abertura libre
LS	Laufschiene Rail de roulement Top track Rotaia Riel de rodadura
M	Schiebetürgriff + Sicherheitsabstand Poignée de porte coulissante + distance de sécurité Sliding door handle + safety distance Maniglia porta scorrevole + distanza di sicurezza Manija puerta deslizante + distancia de seguridad
P	Türüberschneidung Chevauchement des portes Door overlap Sovrapposizione della porta Solape entre puertas
Q	Bodentürstopper Arrête-porte du bas Bottom door stopper Arresto porta a pavimento Freno inferior de puerta
STB	Schiebetürbreite Largeur de porte coulissante Sliding door width Larghezza della porta scorrevole Ancho de puerta deslizante
VSG	Verbundsicherheitsglas Verre de sécurité feuilleté Laminated safety glass Vetro accoppiato di sicurezza Vidrio de seguridad multilaminado

*Schiebetüre mit Glasausschnitt*  
*Porte coulissante avec découpe de verre*  
*Sliding door with glass cut-out*  
*Porta scorrevole con intaglio del vetro*  
*Puerta deslizante con muescas en el vidrio*

**Glasbestellung**  
**Commande de verre**  
**Ordering glass**  
**Ordine vetro**  
**Orden de pedido de vidrios**

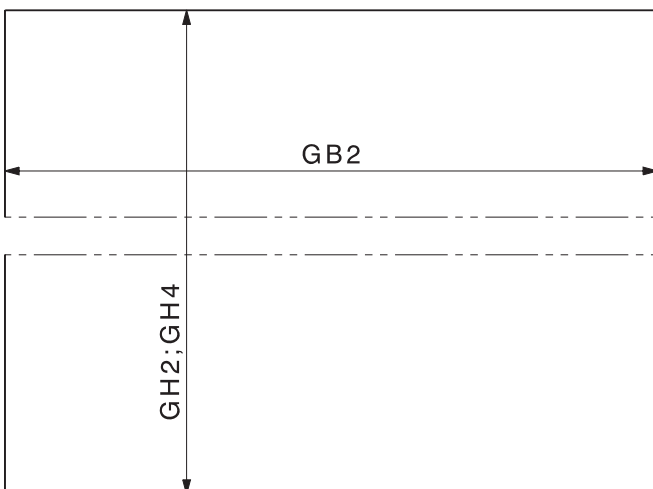


Position Position Posizione Posición	Stück Pièces Piezas Pezzi Piezas	GH1 GH3	GB1

Glasdicken  
 Epaisseurs de verre  
 Glass thicknesses  
 Spessori del vetro  
 Espesores del vidrio

- ESG  8 mm ( $\frac{5}{16}$ " )  10 mm ( $\frac{13}{32}$ " )  12 mm ( $\frac{15}{32}$ " )  12,7 mm ( $\frac{1}{2}$ " )
- VSG  .....  
 8-13 mm ( $\frac{5}{16}$ " -  $\frac{17}{32}$ " )

*Festteil- ohne Glasausschnitt*  
*Pièce fixe sans découpe de verre*  
*Stationary part without glass cut-out*  
*Parte fissa senza intaglio del vetro*  
*Vidrio fijo sin muescas*



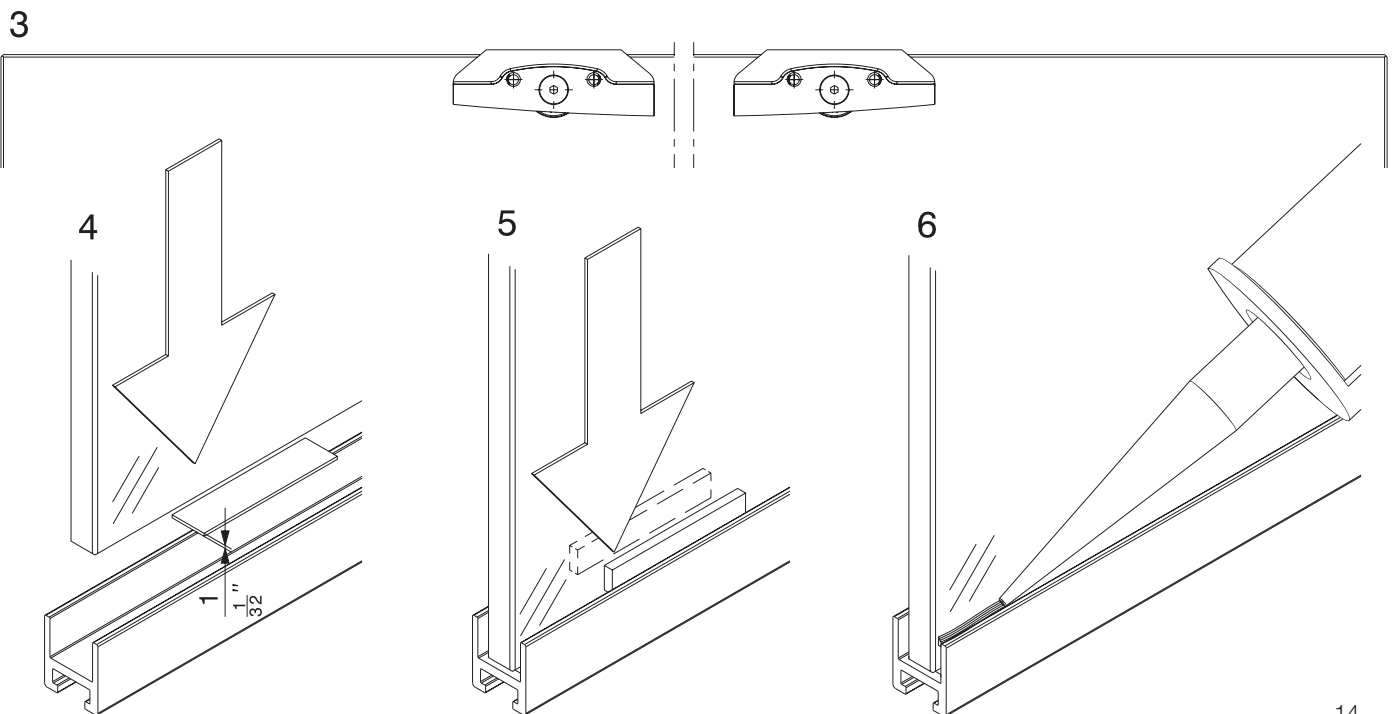
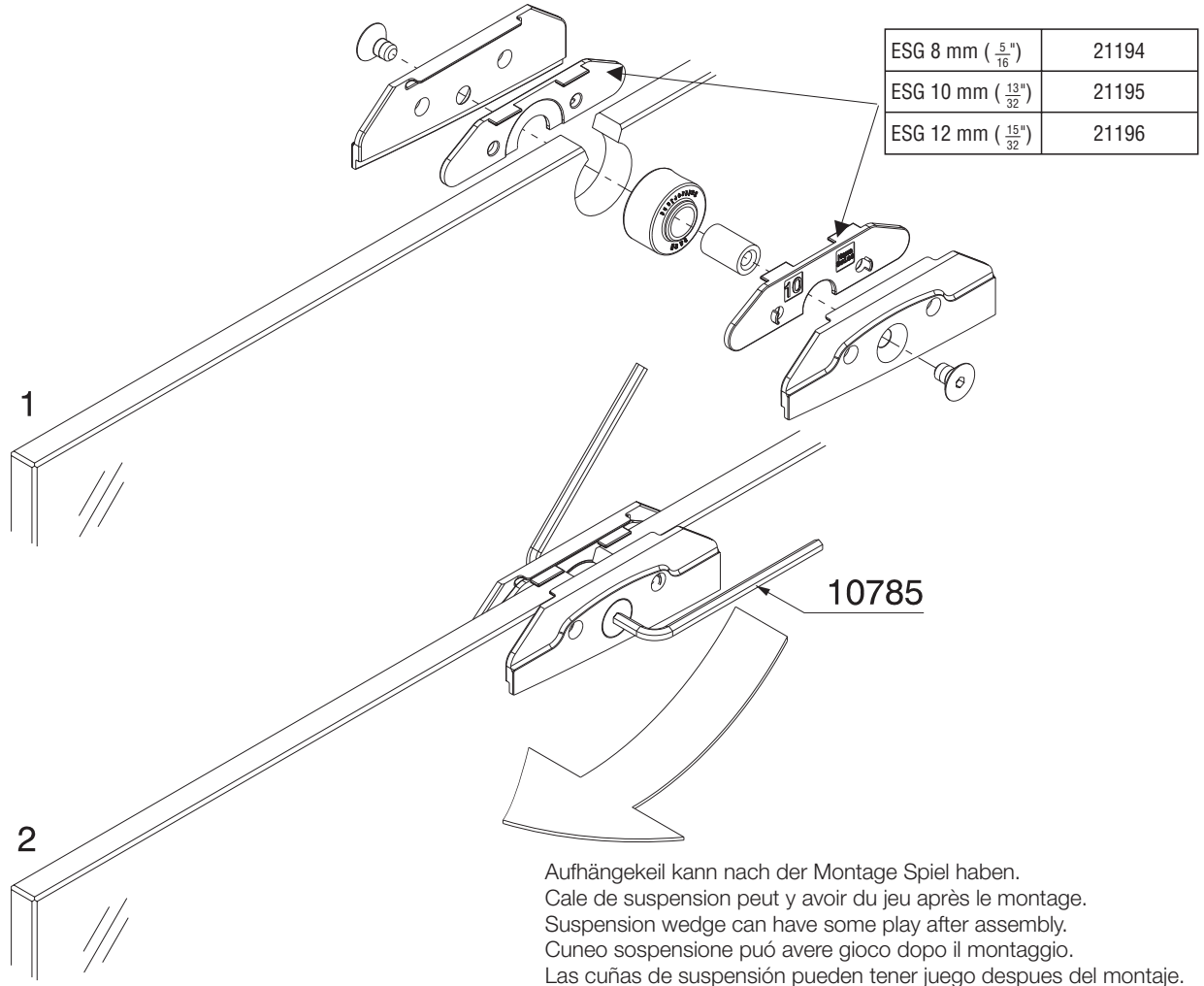
Position Position Posizione Posición	Stück Pièces Piezas Pezzi Piezas	GH2 GH4	GB2

Glasdicken  
 Epaisseurs de verre  
 Glass thicknesses  
 Spessori del vetro  
 Espesores del vidrio

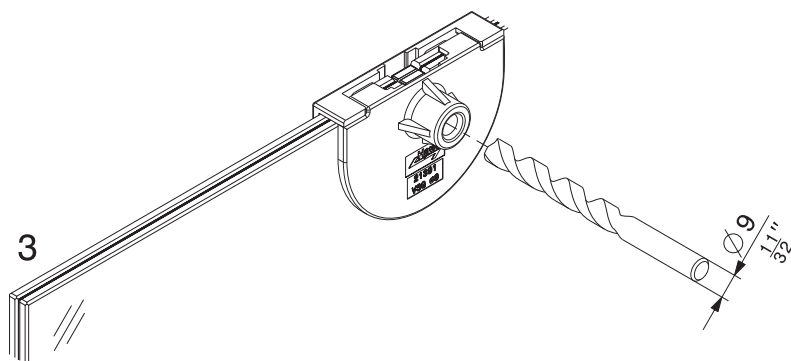
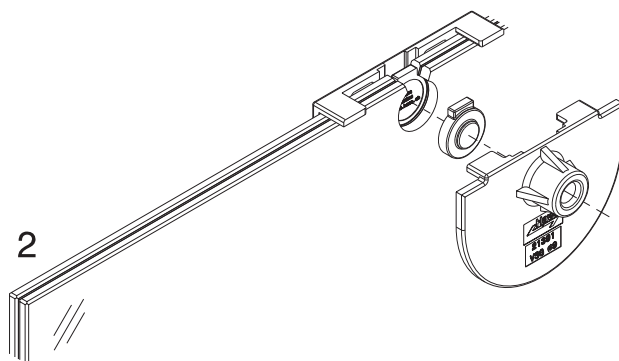
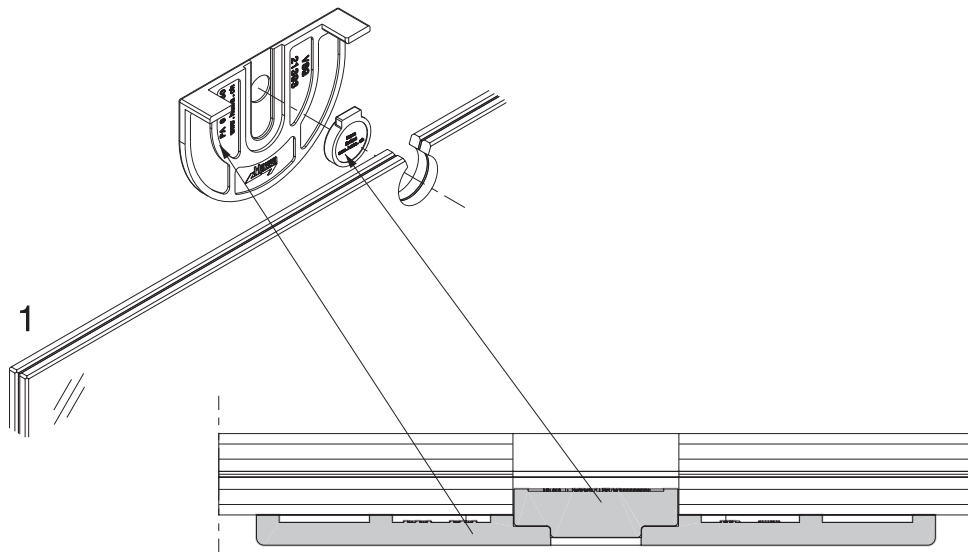
- ESG  10 mm ( $\frac{13}{32}$ " )  12 mm ( $\frac{15}{32}$ " )
- VSG  .....  
 10-12 mm ( $\frac{13}{32}$ " -  $\frac{15}{32}$ " )

mit Silikon bis 13 mm  
 jusqu'à 13 mm avec silicone  
 with silicone up to 13 mm ( $\frac{17}{32}$ " )  
 con silicone fino a 13 mm  
 con silicona hasta 13 mm

**Vormontage Schiebetüre mit ESG und Glasprofil**  
**Prémontage de porte coulissante avec verre ESG et profil**  
**porte-glace**  
**Pre-assembly of sliding door with ESG and glass profile**  
**Premontaggio porta scorrevole con ESG e profilo vetro**  
**Premontaje puerta deslizante con ESG y perfil inferior en vidrio**



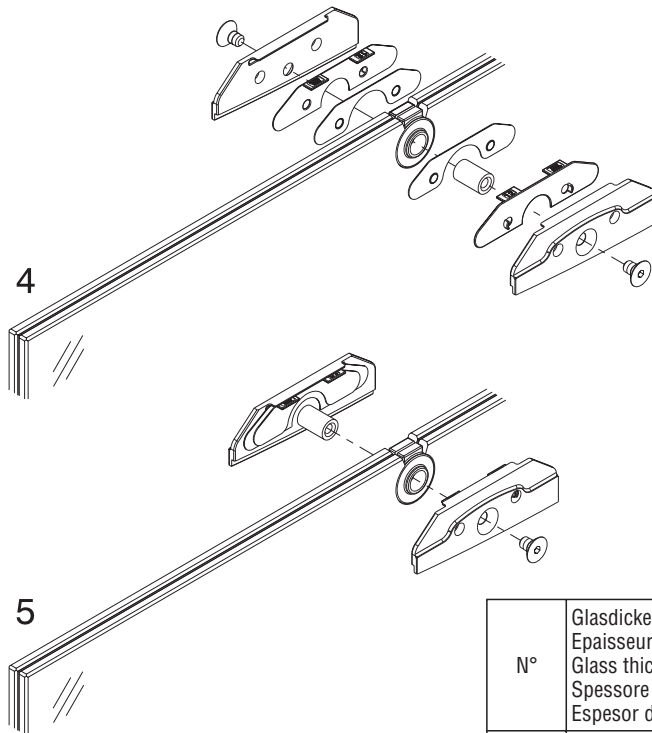
*Vormontage Schiebetüre mit VSG*  
*Prémontage de porte coulissante avec verre VSG*  
*Pre-assembly of sliding door with VSG*  
*Premontaggio porta scorrevole con VSG*  
*Premontaje puerta deslizando con VSG*









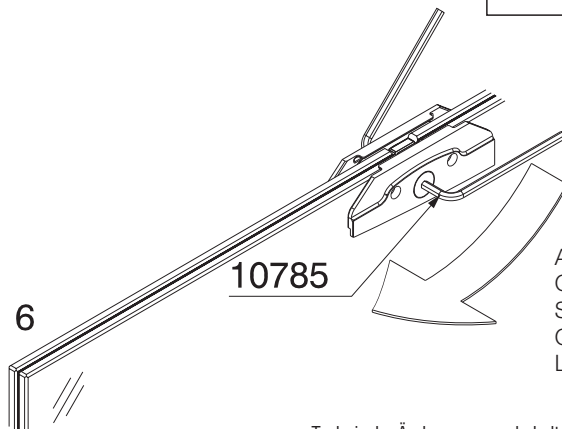
Technische Änderungen vorbehalten  
Sous réserve de modifications techniques  
Subject to modification

Con riserva di apportare modifiche tecniche  
Bajo reserva de modificaciones técnicas

**Vormontage Schiebetüre mit VSG**  
**Prémontage de porte coulissante avec verre VSG**  
**Pre-assembly of sliding door with VSG**  
**Premontaggio porta scorrevole con VSG**  
**Premontaje puerta deslizando con VSG**



N°	Glasdicke Epaisseur de verre Glass thickness Spessore del vetro Espesor del vidrio		
21481	8,0-8,4 mm ( $\frac{5}{16}$ " - $\frac{11}{32}$ " )		ESG 8 mm ( $\frac{5}{16}$ " )
21390	8,5-9,4 mm ( $\frac{11}{32}$ " - $\frac{3}{8}$ " )		ESG 10 mm ( $\frac{13}{32}$ " ) grau, gris, grey, grigio, gris
	9,5-10,4 mm ( $\frac{3}{8}$ " - $\frac{13}{32}$ " )		ESG 10 mm ( $\frac{13}{32}$ " )
21197	10,5 mm-11,2 mm ( $\frac{13}{32}$ " - $\frac{7}{16}$ " )		ESG 12 mm ( $\frac{15}{32}$ " ) schwarz, noir, black, nero, negro
	11,3 mm-12,0 mm ( $\frac{7}{16}$ " - $\frac{15}{32}$ " )		ESG 12 mm ( $\frac{15}{32}$ " ) grau, gris, grey, grigio, gris
	12,1-13 mm ( $\frac{15}{32}$ " - $\frac{17}{32}$ " )		ESG 12 mm ( $\frac{15}{32}$ " )

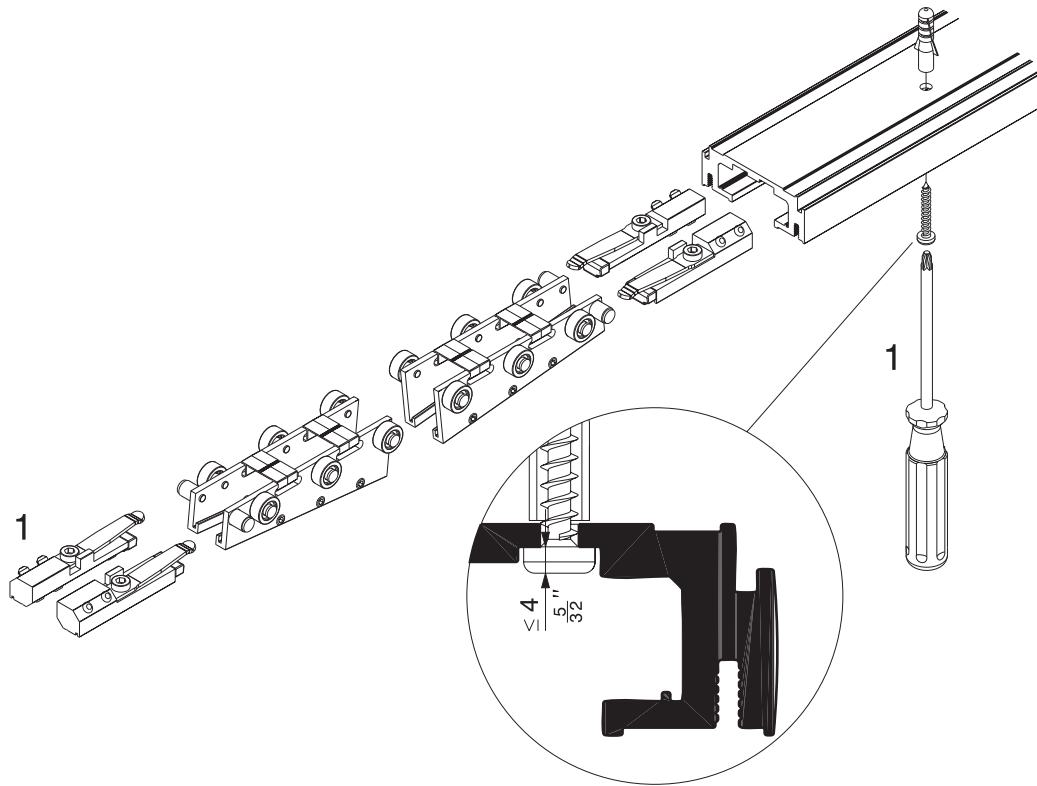


Aufhängekeil kann nach der Montage Spiel haben.  
 Cale de suspension peut y avoir du jeu après le montage.  
 Suspension wedge can have some play after assembly.  
 Cuneo sospensione può avere gioco dopo il montaggio.  
 Las cuñas de suspensión pueden tener juego despues del montaje.

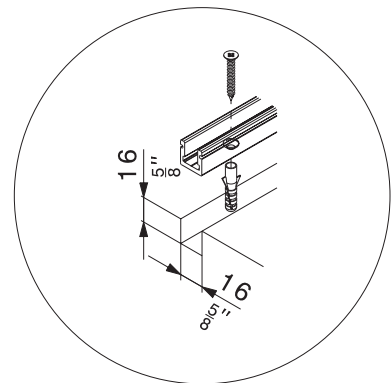
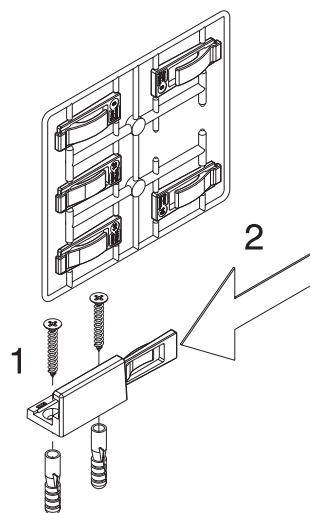
Technische Änderungen vorbehalten  
 Sous réserve de modifications techniques  
 Subject to modification

Con riserva di apportare modifiche tecniche  
 Bajo reserva de modificaciones técnicas

**Montage Laufschiene und Führungen**  
**Montage rail de roulement et guides inférieurs**  
**Assembly of top track and floor guides**  
**Montaggio rotaia e guide**  
**Montaje riel de rodadura y guías inferiores**



Glasdicken ESG/VSG	
Epaisseurs de verre ESG/VSG	
Glass thicknesses ESG/VSG	
Spessori del vetro ESG/VSG	
Espesores de vidrio ESG/VSG	
8 + 8	= 8 mm ( $\frac{5}{16}$ " )
10 + 10	= 10 mm ( $\frac{13}{32}$ " )
12 + 12	= 12 mm ( $\frac{15}{32}$ " )
8 + 10	= 9 mm ( $\frac{3}{8}$ " )
10 + 12	= 11 mm ( $\frac{7}{16}$ " )



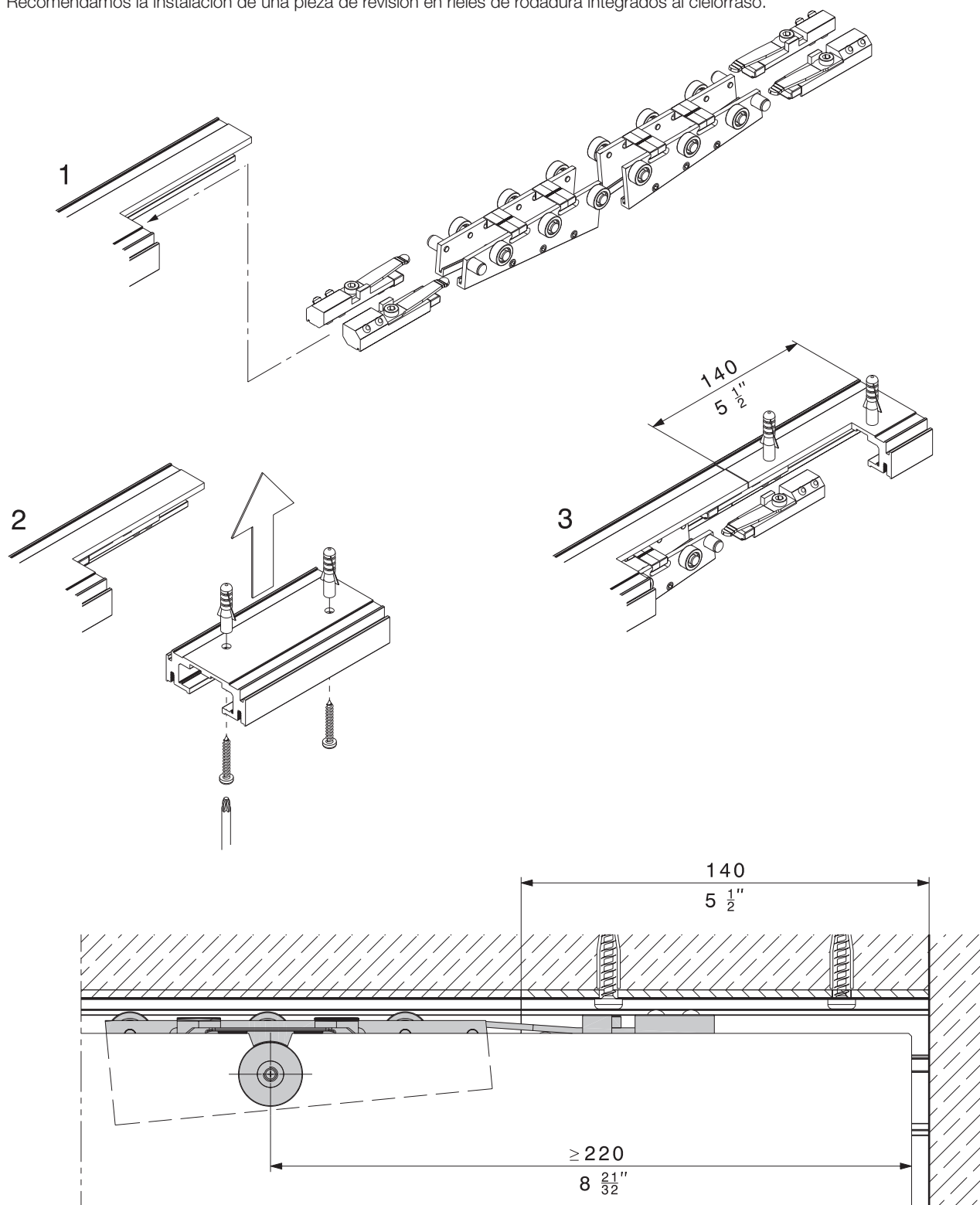
Technische Änderungen vorbehalten  
 Sous réserve de modifications techniques  
 Subject to modification

Con riserva di apportare modifiche tecniche  
 Bajo reserva de modificaciones técnicas

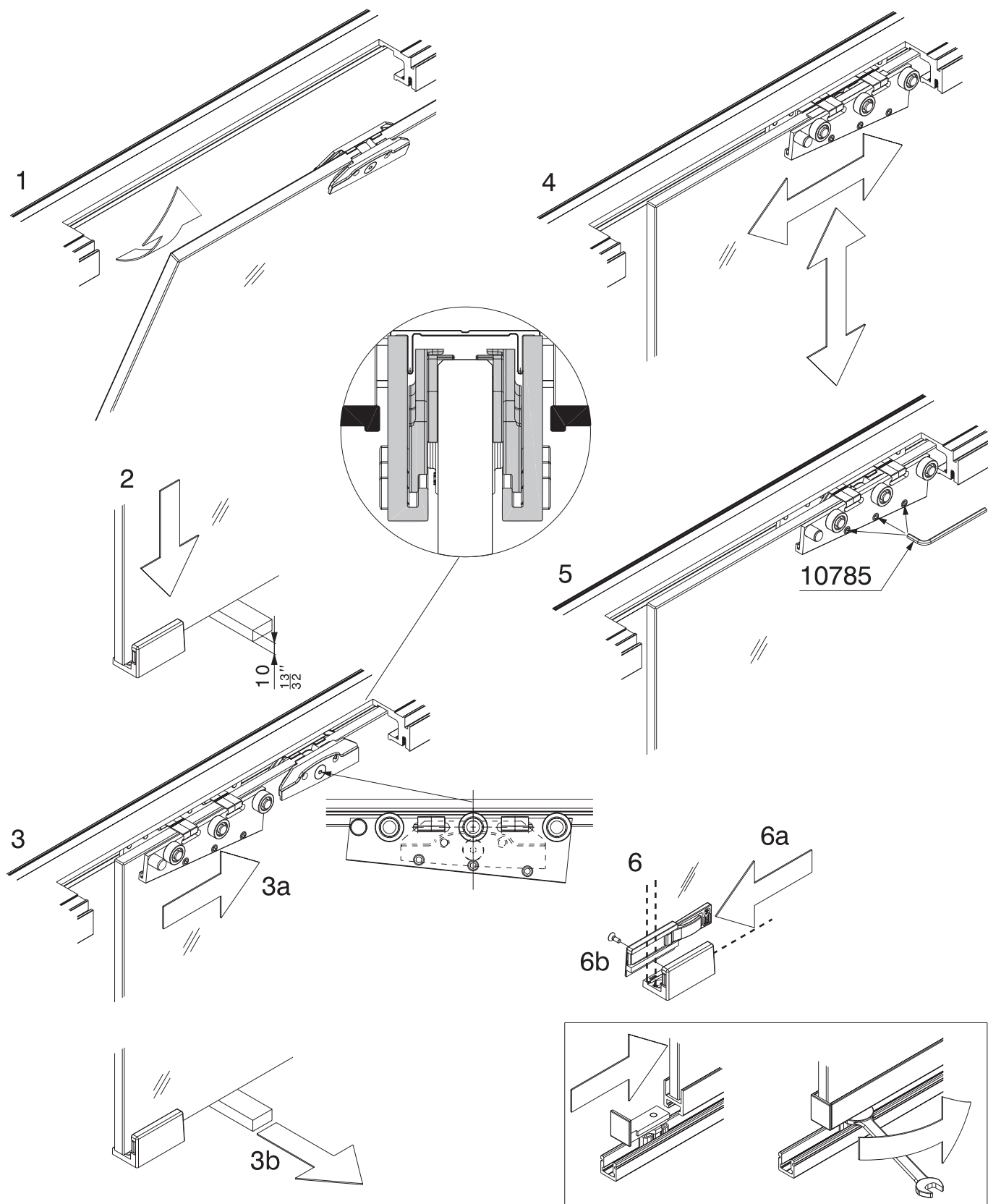


**Montage Laufschiene mit Revisionsstück**  
**Montage rail de roulement avec pièce de révision**  
**Assembly of top track with servicing unit**  
**Montaggio rotaia con pezzo per revisione**  
**Montaje riel de rodadura con pieza de revisión**

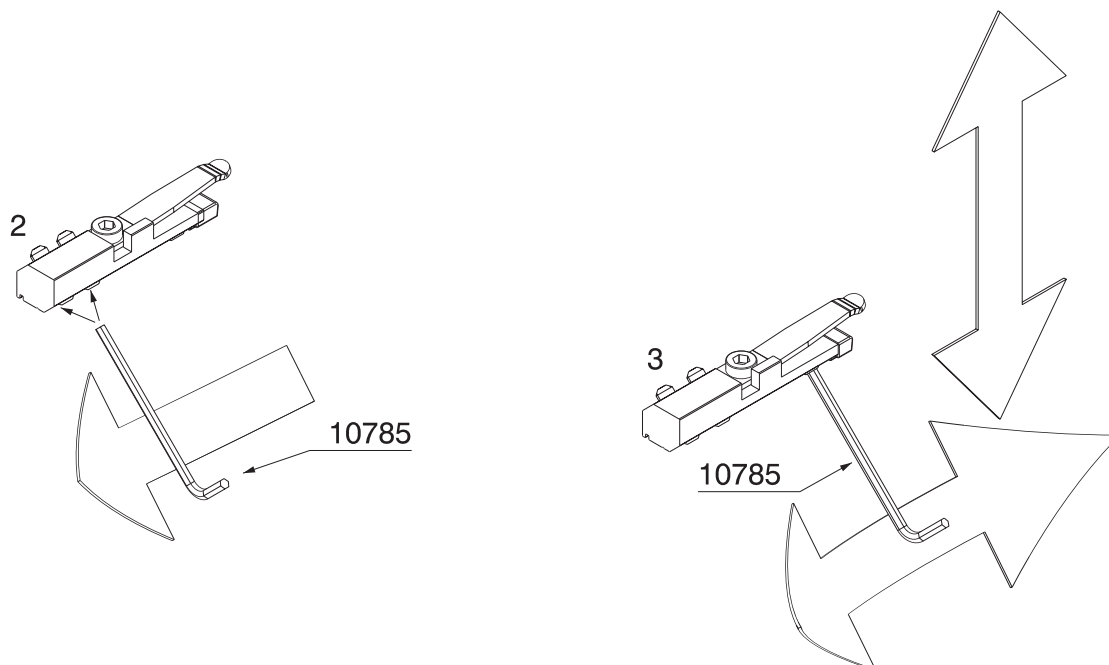
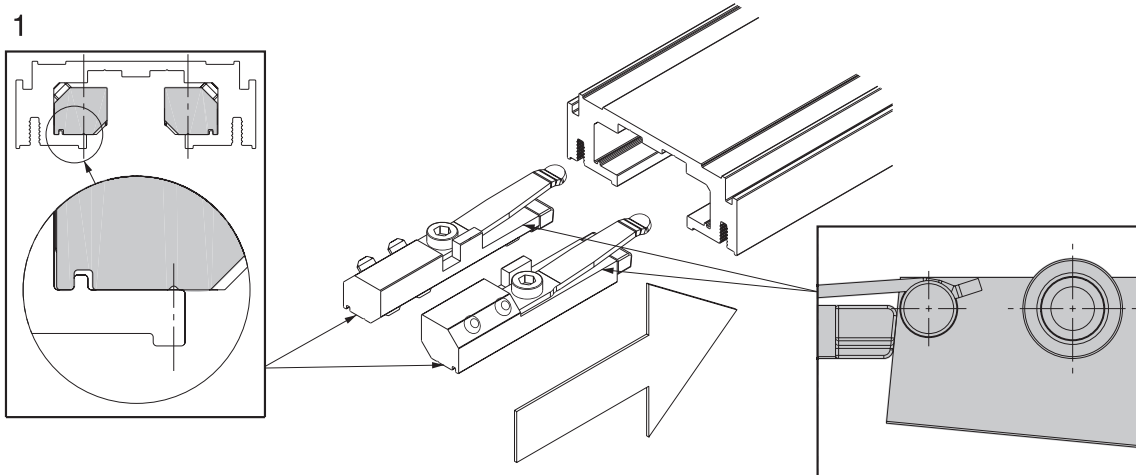
Für in der Decke integrierte Laufschielen empfehlen wir ein Revisionsstück einzubauen.  
Pour les rails de roulement intégrés au plafond, nous recommandons de monter une pièce de révision.  
We recommend the installation of a servicing unit for top tracks integrated in the ceiling.  
Per le rotaie integrate nel soffitto si consiglia il montaggio di un pezzo per revisione.  
Recomendamos la instalación de una pieza de revisión en rieles de rodadura integrados al cielorraso.



*Montage Schiebetüre*  
*Montage de la porte coulissante*  
*Sliding door installation*  
*Montaggio porta scorrevole*  
*Montaje de la puerta deslizando*



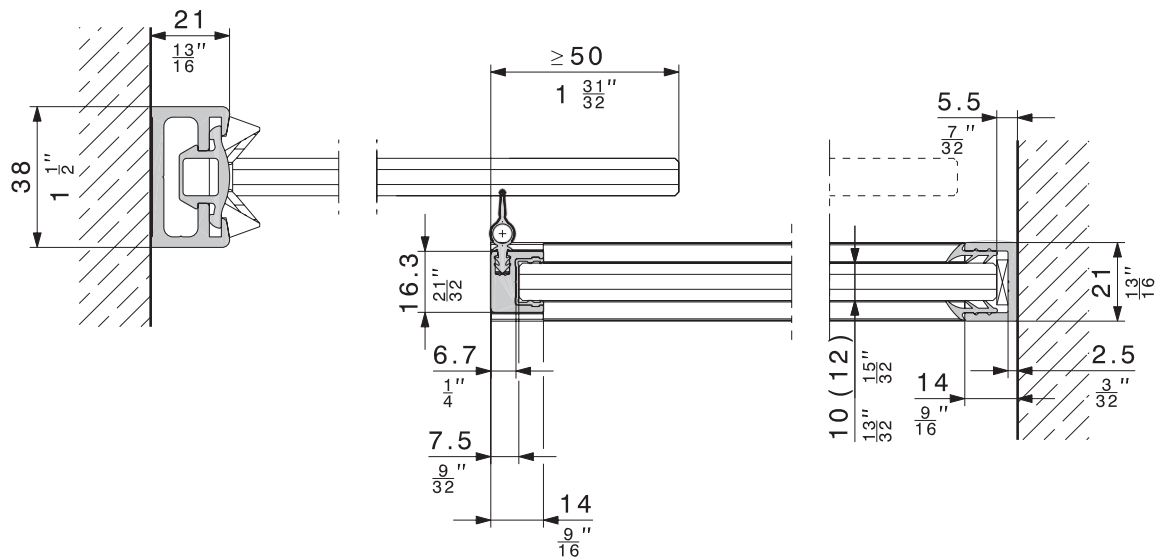
*Montage Schienenpuffer*  
*Montage de la butée de rail*  
*Mounting of track stop*  
*Montaggio del paracolpi*  
*Montaje del tope de riel*



Technische Änderungen vorbehalten  
Sous réserve de modifications techniques  
Subject to modification

Con riserva di apportare modifiche tecniche  
Bajo reserva de modificaciones técnicas

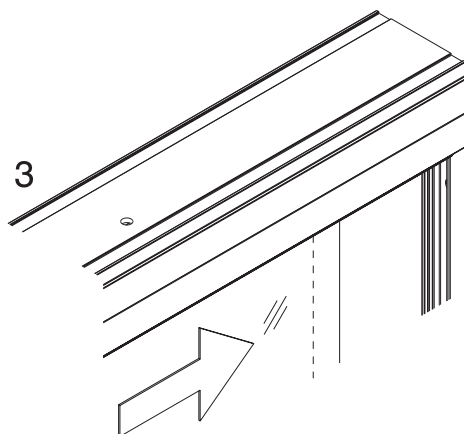
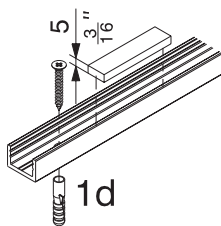
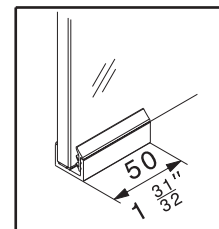
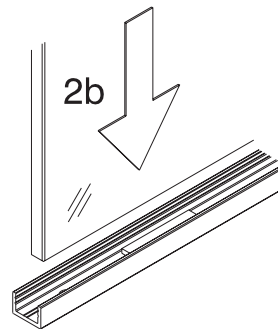
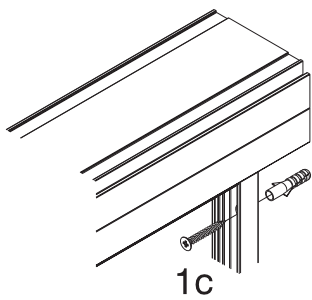
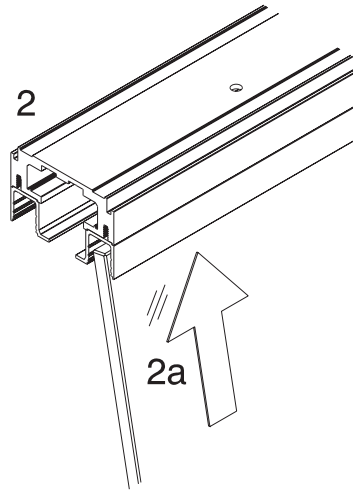
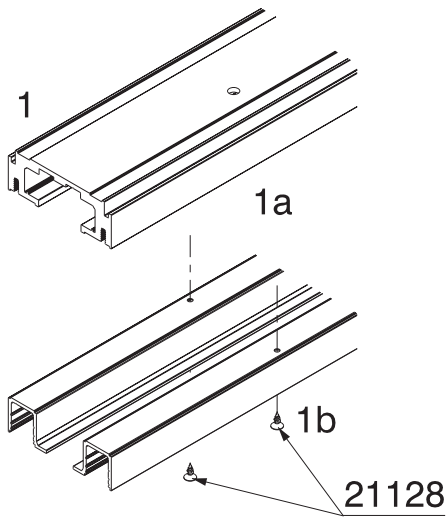
*Festverglasung*  
*Glace fixe*  
*Fixed glass*  
*Vetrata fissa*  
*Vidrio fijo*



Technische Änderungen vorbehalten  
 Sous réserve de modifications techniques  
 Subject to modification

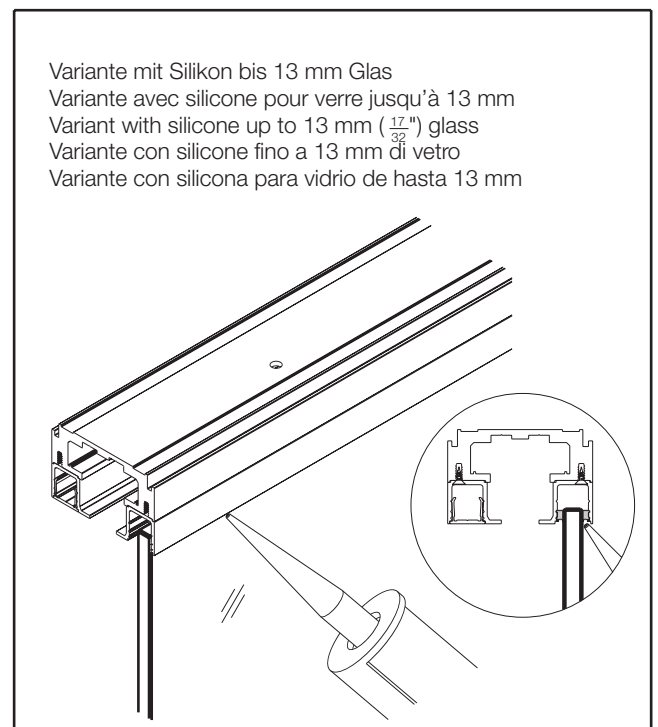
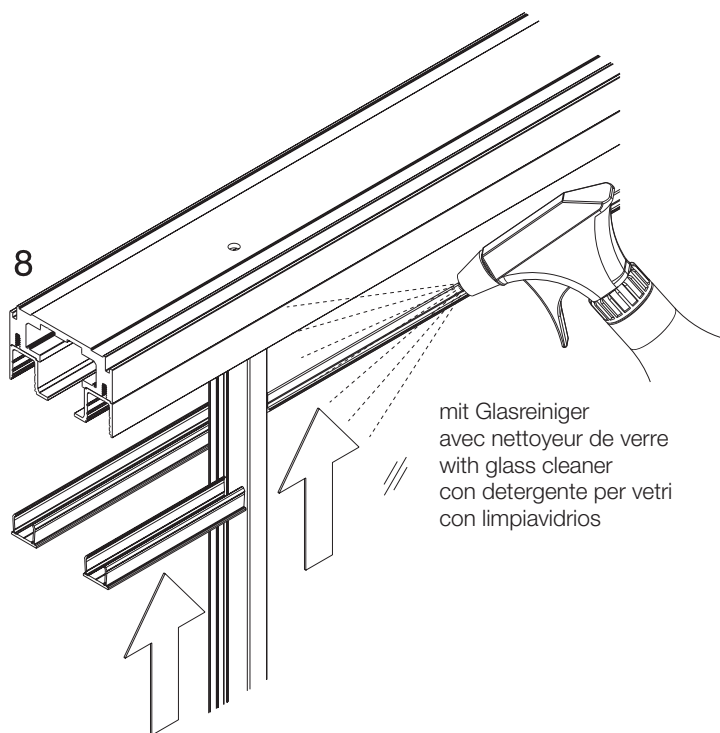
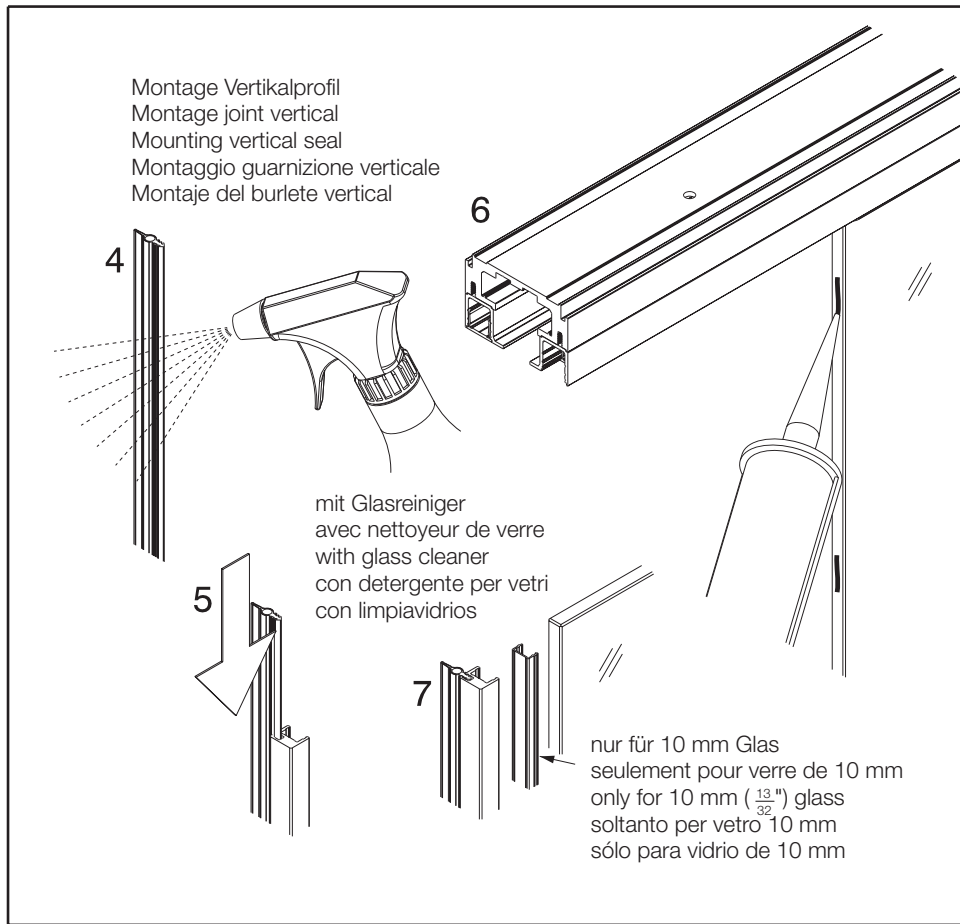
Con riserva di apportare modifiche tecniche  
 Bajo reserva de modificaciones técnicas

**Montage Festverglasung**  
**Montage glace fixe**  
**Mounting fixed glass**  
**Montaggio vetrata fissa**  
**Montaje de vidrio fijo**



Technische Änderungen vorbehalten  
 Sous réserve de modifications techniques  
 Subject to modification

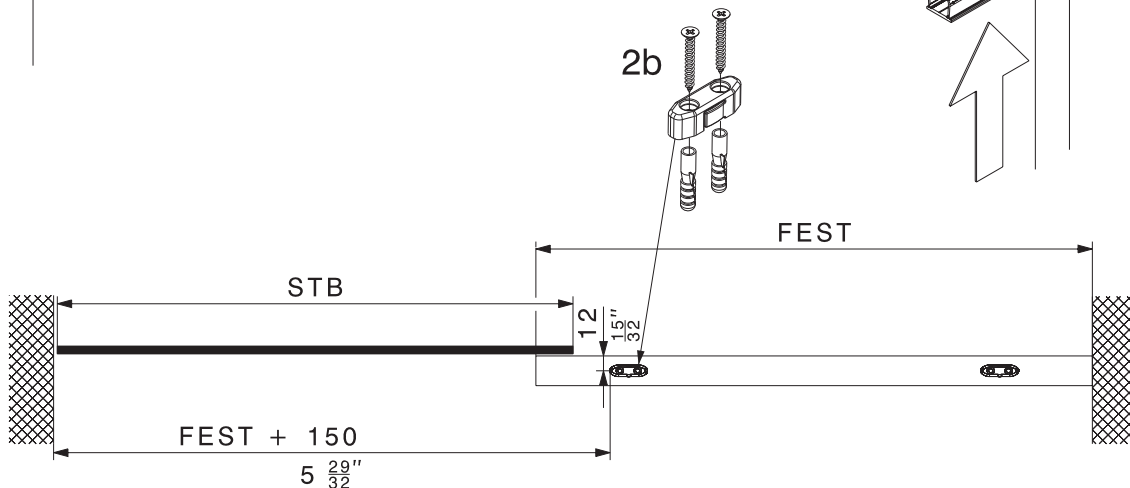
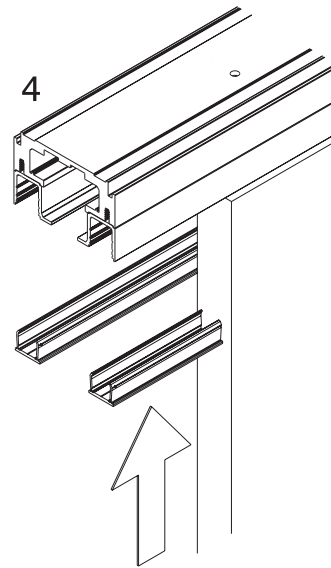
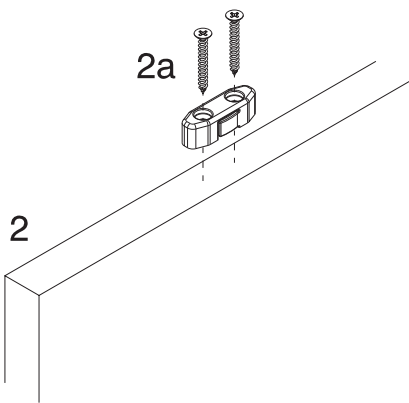
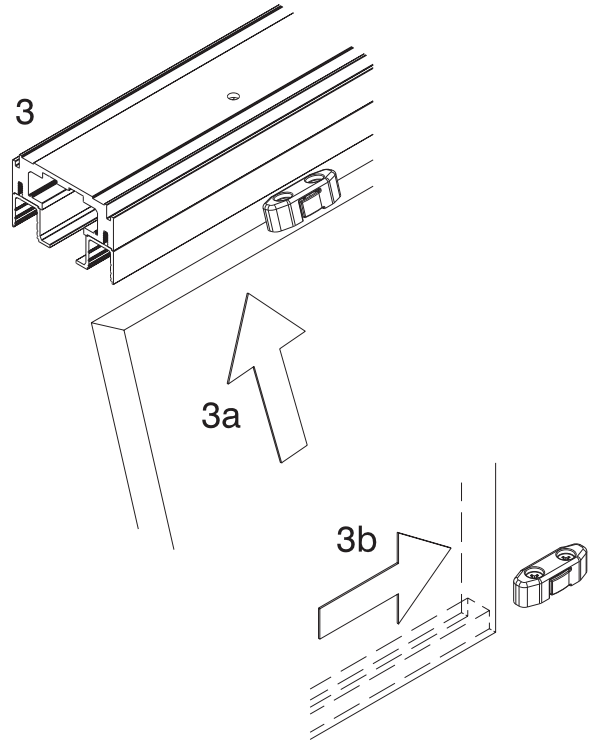
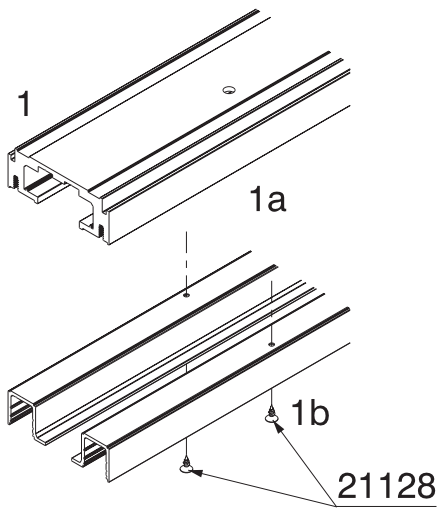
Con riserva di apportare modifiche tecniche  
 Bajo reserva de modificaciones técnicas



Technische Änderungen vorbehalten  
 Sous réserve de modifications techniques  
 Subject to modification

Con riserva di apportare modifiche tecniche  
 Bajo reserva de modificaciones técnicas

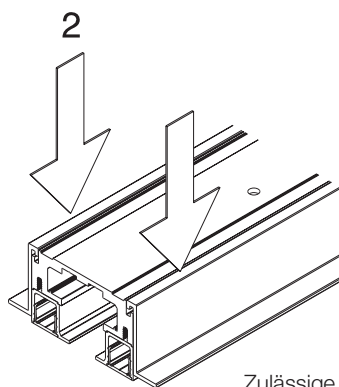
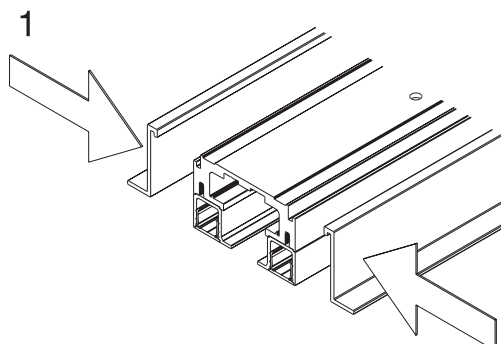
**Montage Holzfestteil (FEST)**  
**Montage pièce fixe en bois (FEST)**  
**Assembly of fixed wood part (FEST)**  
**Montaggio parte fissa in legno (FEST)**  
**Montaje de panel fijo en madera (FEST)**



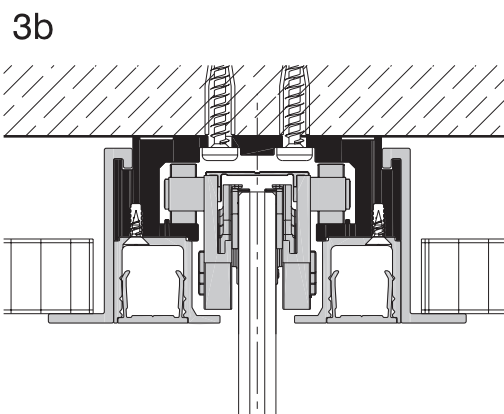
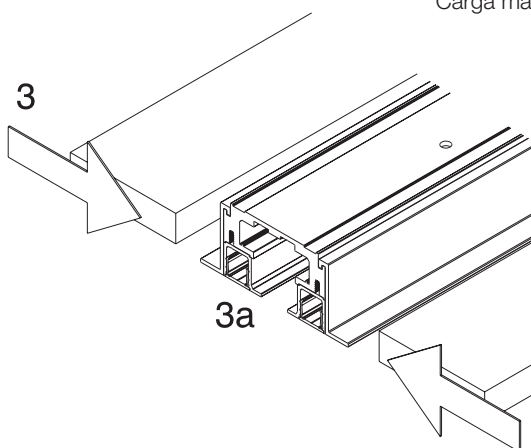
Technische Änderungen vorbehalten  
 Sous réserve de modifications techniques  
 Subject to modification

Con riserva di apportare modifiche tecniche  
 Bajo reserva de modificaciones técnicas

*Montage bei abgehängter Decke*  
*Montage avec plafond suspendu*  
*Assembly for suspended ceiling*  
*Montaggio con controsoffitto*  
*Montaje con cielorraso suspendido*



Zulässige Last pro Meter Deckenanschlussprofil: 15 kg/m.  
Charge admise par mètre de profil de raccordement au plafond : 15 kg/m.  
Permissible load per metre of ceiling joint profile: 15 kg (33 lbs.)/m.  
Carico ammesso per ogni metro di profilo di attacco al soffitto: 15 kg/m.  
Carga máx. permitida por metro lineal de perfil para cielorraso: 15 kg/m.

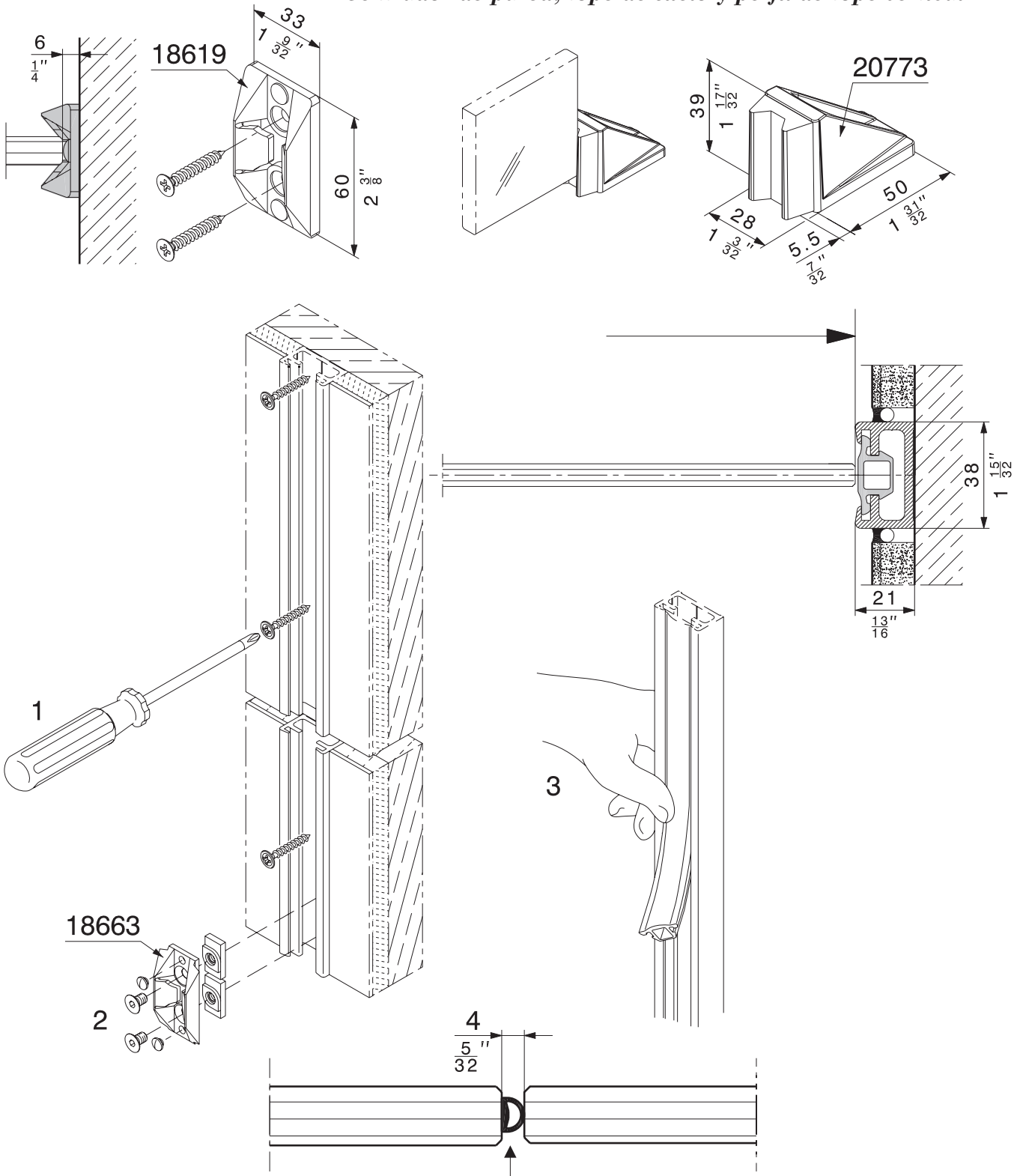


Technische Änderungen vorbehalten  
Sous réserve de modifications techniques  
Subject to modification

Con riserva di apportare modifiche tecniche  
Bajo reserva de modificaciones técnicas

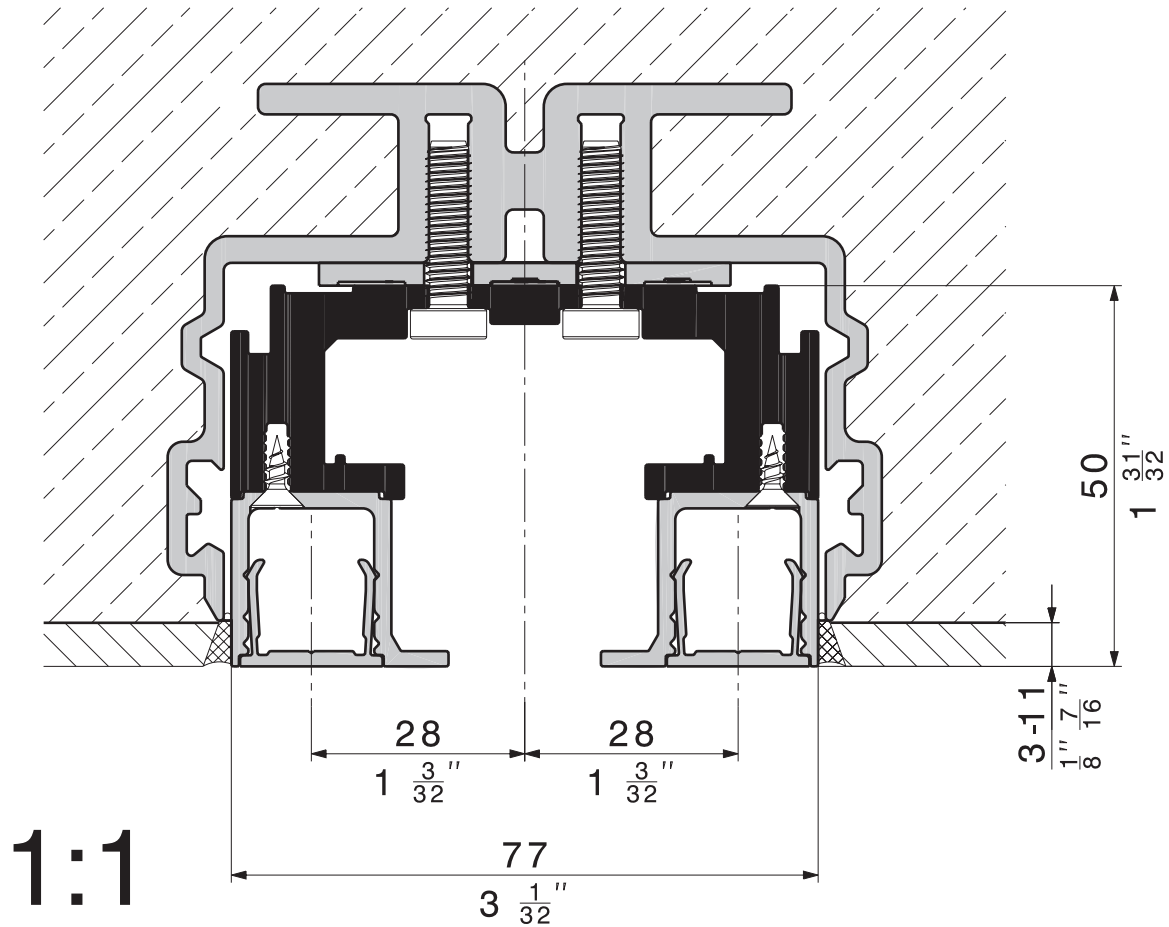


**Wandanschluss, Bodentürstopper und Dichtungsprofil**  
**Fixation murale, arrête-porte du bas et profil jointif**  
**Wall mounting, bottom door stop and seal profile**  
**Collegamento a parete, arresto porta a pavimento e profilo guarnizione**  
**Centrador de pared, tope de suelo y perfil de tope vertical**



	5 m (16'4 <sup>27</sup> / <sub>32</sub> )	10 m (32'9 <sup>23</sup> / <sub>32</sub> )	50 m (164' <sup>1</sup> / <sub>2</sub> )
schwarz, noir, black, nero, negro	19442	19443	19444
transluzent, translucide, translucent, traslucido, translúcido	19445	19446	19447

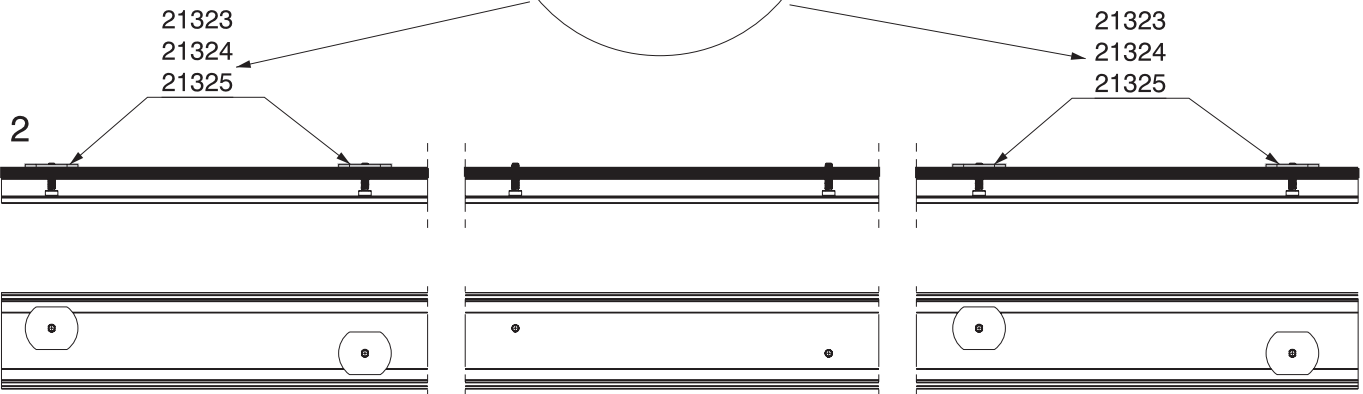
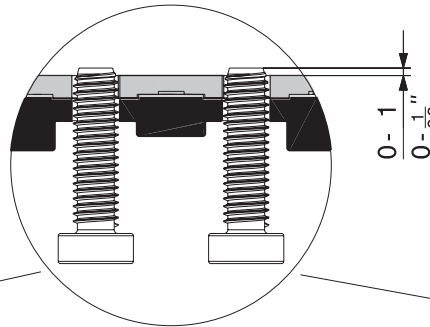
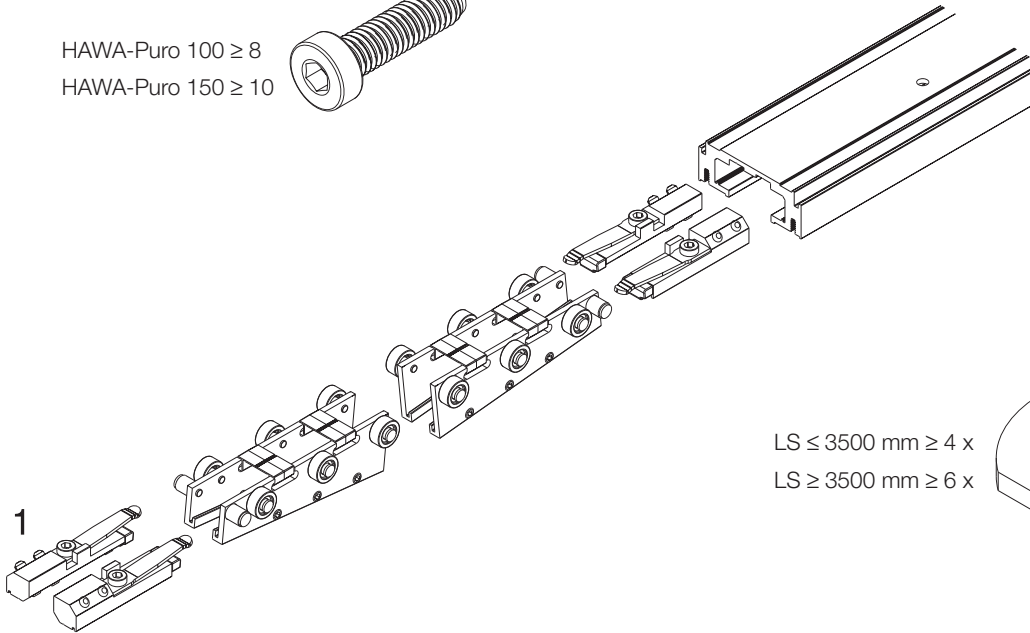
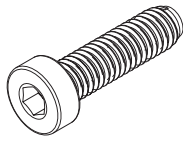
*Montage der Laufschiene mit HAWA-Adapto 100-150/P*  
*Montage du rail de roulement avec HAWA-Adapto 100-150/P*  
*Assembly of top track with HAWA-Adapto 100-150/P*  
*Montaggio rotaia con HAWA-Adapto 100-150/P*  
*Montaje del riel de rodadura con HAWA-Adapto 100-150/P*



Technische Änderungen vorbehalten  
Sous réserve de modifications techniques  
Subject to modification

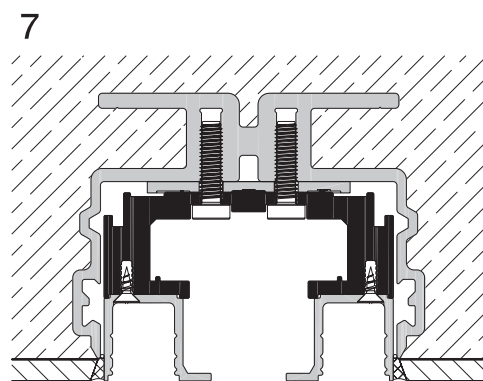
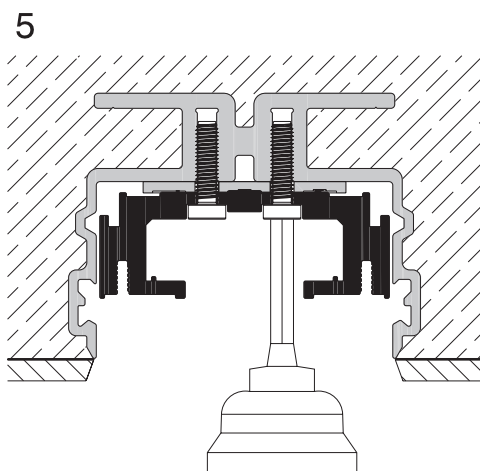
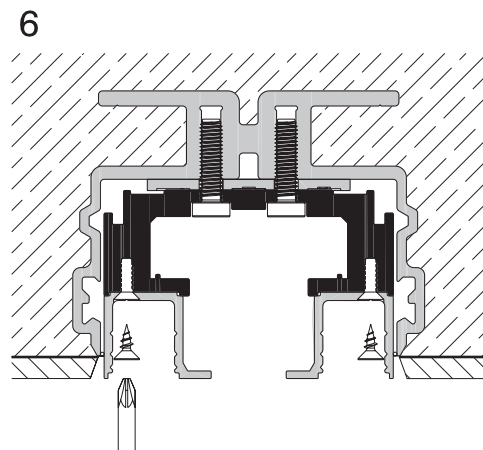
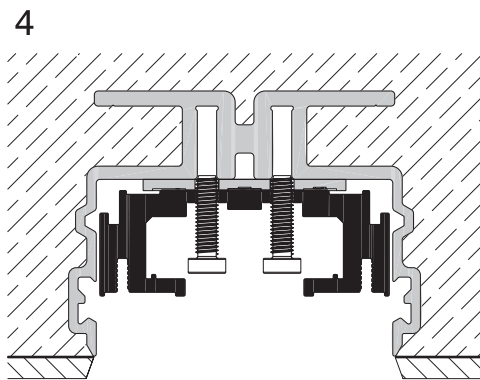
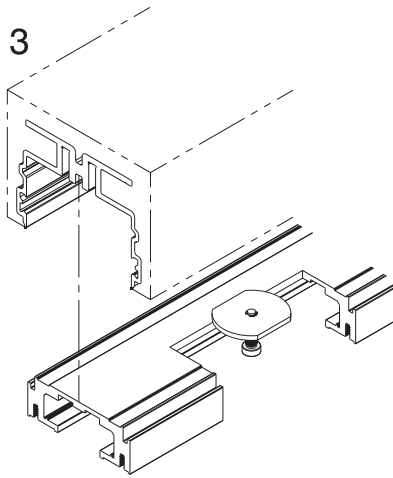
Con riserva di apportare modifiche tecniche  
Bajo reserva de modificaciones técnicas

HAWA-Puro 100 ≥ 8  
 HAWA-Puro 150 ≥ 10



Technische Änderungen vorbehalten  
 Sous réserve de modifications techniques  
 Subject to modification

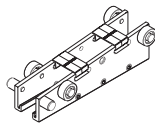
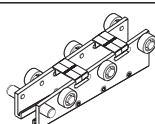
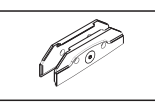
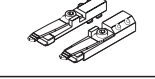




Con riserva di apportare modifiche tecniche  
 Bajo reserva de modificaciones técnicas



Technische Änderungen vorbehalten  
Sous réserve de modifications techniques  
Subject to modification

Con riserva di apportare modifiche tecniche  
Bajo reserva de modificaciones técnicas

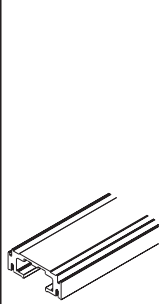

**Beschlägeübersicht**  
**Composants de la ferrure**  
**Hardware system components**  
**Assortimento ferramenta**  
**Componentes de los herrajes**


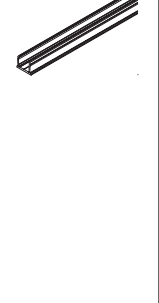
		21190
		21191
		21193
		21319
		21128
		10785
	8 mm ( $\frac{5}{16}$ "	21194
	10 mm ( $\frac{13}{32}$ "	21195
	12 (12,7 mm) [ $\frac{15}{32}$ ( $\frac{1}{2}$ )"]	21196
	8,0-8,4 mm ( $\frac{5}{16}$ - $\frac{11}{32}$ "	21481
	8,5-10,4 mm ( $\frac{11}{32}$ - $\frac{13}{32}$ "	21390
	10,5-13,0 mm ( $\frac{13}{32}$ - $\frac{17}{32}$ "	21197

farblos eloxiert  
 anodisé couleur argent  
 plain anodized  
 anodizzato incolore  
 anodizado plata

uneloxiert  
 non anodisé  
 unanodized  
 non anodizzato  
 sin anodizar


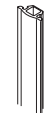
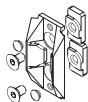

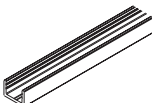

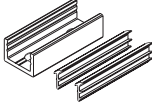

Edelstahl-Effekt  
 imitation inox  
 stainless-steel effect  
 effetto acciaio inox  
 efecto acero inoxidable

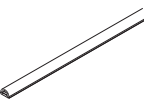



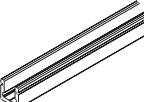

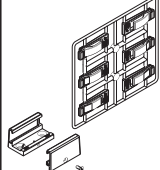

	2500 mm (8'2 $\frac{7}{16}$ "	21142	
	3500 mm (11'5 $\frac{13}{16}$ "	21143	
	6000 mm (19'8 $\frac{7}{32}$ "	21110	
	nach Mass sur mesure cut to size su misura a medida	21145	
	2500 mm (8'2 $\frac{7}{16}$ "	21317	
	3500 mm (11'5 $\frac{13}{16}$ "	21316	
	6000 mm (19'8 $\frac{7}{32}$ "	21144	
	nach Mass sur mesure cut to size su misura a medida	21318	
		2500 mm (8'2 $\frac{7}{16}$ "	21363
		3500 mm (11'5 $\frac{13}{16}$ "	21361
6000 mm (19'8 $\frac{7}{32}$ "		21352	
nach Mass sur mesure cut to size su misura a medida		21365	
6000 mm (19'8 $\frac{7}{32}$ "		21354	
nach Mass sur mesure cut to size su misura a medida		21367	
2500 mm (8'2 $\frac{7}{16}$ "		21364	
3500 mm (11'5 $\frac{13}{16}$ "		21362	
6000 mm (19'8 $\frac{7}{32}$ "		21353	
nach Mass sur mesure cut to size su misura a medida		21366	

	2500 mm (8'2 $\frac{7}{16}$ "	20865
	3500 mm (11'5 $\frac{13}{16}$ "	21230
	6000 mm (19'8 $\frac{7}{32}$ "	21229
	nach Mass sur mesure cut to size su misura a medida	19548
	6000 mm (19'8 $\frac{7}{32}$ "	20855
	nach Mass sur mesure cut to size su misura a medida	20856
	2500 mm (8'2 $\frac{7}{16}$ "	21315
	3500 mm (11'5 $\frac{13}{16}$ "	21314
	6000 mm (19'8 $\frac{7}{32}$ "	21283
	nach Mass sur mesure cut to size su misura a medida	21284
	2500 mm (8'2 $\frac{7}{16}$ "	21151
	3500 mm (11'5 $\frac{13}{16}$ "	21149
	6000 mm (19'8 $\frac{7}{32}$ "	21250
	nach Mass sur mesure cut to size su misura a medida	21152
	6000 mm (19'8 $\frac{7}{32}$ "	21037
	nach Mass sur mesure cut to size su misura a medida	21127
	2500 mm (8'2 $\frac{7}{16}$ "	21321
	3500 mm (11'5 $\frac{13}{16}$ "	21320
	6000 mm (19'8 $\frac{7}{32}$ "	21150
	nach Mass sur mesure cut to size su misura a medida	21322

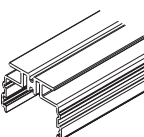
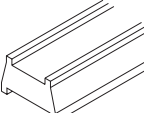
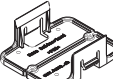



Technische Änderungen vorbehalten  
 Sous réserve de modifications techniques  
 Subject to modification

Con riserva di apportare modifiche tecniche  
 Bajo reserva de modificaciones técnicas

	2500 mm (8'2 $\frac{7}{16}$ " )	17020
	3500 mm (11'5 $\frac{13}{16}$ " )	17021
	2500 mm (8'2 $\frac{7}{16}$ " )	20119
	3500 mm (11'5 $\frac{13}{16}$ " )	20120
	2500 mm (8'2 $\frac{7}{16}$ " )	16452
	3500 mm (11'5 $\frac{13}{16}$ " )	16453
		18663
		18619
	4000 mm (13'1 $\frac{1}{2}$ " )	19549
	6000 mm (19'8 $\frac{7}{32}$ " )	19561
	nach Mass sur mesure cut to size su misura a medida	20067
	4000 mm (13'1 $\frac{1}{2}$ " )	21285
	6000 mm (19'8 $\frac{7}{32}$ " )	21286
	nach Mass sur mesure cut to size su misura a medida	21287
	10 m (32'9 $\frac{23}{32}$ " )	19846
	50 mm (1 $\frac{31}{32}$ " )	20274
	50 mm (1 $\frac{31}{32}$ " )	21288
	4 Stück / pièces / pieces / pezzi / piezas	21346

	5 m (16'4 $\frac{27}{32}$ " )	19442
	10 m (32'9 $\frac{23}{32}$ " )	19443
	50 m (164'0 $\frac{1}{2}$ " )	19444
	5 m (16'4 $\frac{27}{32}$ " )	19445
	10 m (32'9 $\frac{23}{32}$ " )	19446
	2500 mm (8'2 $\frac{7}{16}$ " )	20283
	3500 mm (11'5 $\frac{13}{16}$ " )	20284
	2500 mm (8'2 $\frac{7}{16}$ " )	21290
	3500 mm (11'5 $\frac{13}{16}$ " )	21291
14/17		
	2500 mm (8'2 $\frac{7}{16}$ " )	21246
	3500 mm (11'5 $\frac{13}{16}$ " )	21247
	2500 mm (8'2 $\frac{7}{16}$ " )	21335
	3500 mm (11'5 $\frac{13}{16}$ " )	21336
18/19		
	6000 mm (19'8 $\frac{7}{32}$ " )	21402
	nach Mass sur mesure cut to size su misura a medida	21404
	6000 mm (19'8 $\frac{7}{32}$ " )	21405
	nach Mass sur mesure cut to size su misura a medida	21403
	3500 mm (11'5 $\frac{13}{16}$ " )	18864
	6000 mm (19'8 $\frac{7}{32}$ " )	18216
	nach Mass sur mesure cut to size su misura a medida	18477
		21406
		21159
		21029
		20858
		20773
		21473

## HAWA-Adapto 100-150 zu/pour/for/per/para HAWA-Puro 100-150

	2500 mm (8'2 $\frac{7}{16}$ " )	21157
	3500 mm (11'5 $\frac{13}{16}$ " )	21156
	6000 mm (19'8 $\frac{7}{32}$ " )	21154
	10000 mm (3'3 $\frac{3}{8}$ " )	21399
	500 mm (1'7 $\frac{11}{16}$ " )	21400
		21350
		21343
	1 mm ( $\frac{1}{16}$ " )	19398
	2 mm ( $\frac{3}{32}$ " )	19399
	3 mm ( $\frac{1}{8}$ " )	19400
	5 mm ( $\frac{7}{32}$ " )	19401
		20215

farblos eloxiert  
anodisé couleur argent  
plain anodized  
anodizzato incolore  
anodizado plata

uneloxiert  
non anodisé  
unanodized  
non anodizzato  
sin anodizar

Edelstahl-Effekt  
imitation inox  
stainless-steel effect  
effetto acciaio inox  
efecto acero inoxidable

Technische Änderungen vorbehalten  
Sous réserve de modifications techniques  
Subject to modification

Con riserva di apportare modifiche tecniche  
Bajo reserva de modificaciones técnicas