

A detailed technical illustration of a horizontal sliding wall mechanism. The main image shows a glass panel being moved along a track. A close-up inset on the right shows the internal rollers and the track's profile. A control unit with a red and green indicator light is visible on the right side of the track.

# HORIZONTAL SLIDING WALLS

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HSW EASY Safe





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## HSW EASY SAFE – SECURITY IN USE AND ELEGANCE IN DESIGN

### Outstanding strengths of the HSW EASY Safe system:

- The optional safe use of laminated safety glass increases security and also widens the creative possibilities.
- A visible status display with a clear color system indicates the status of the top locking device on the pivoting/sliding panel. This gives a better overview and even more security.
- Double brush seals in the top and bottom door rails, successfully minimize drafts.
- The new EasyKIT modular system in combination with DORICON planning software enables easy planning and efficient installation.



## INTELLIGENT SOLUTIONS FOR MORE CONVENIENCE AND SECURITY

### HSW EASY Safe – More clarity and easier locking thanks to status display

#### Locking status at a glance

Security and convenience in one. The top door locking device clearly shows the locking status of the door panel on the status display.

This gives the user a greater feeling of reassurance and security.

#### Less draft for even greater comfort

Innovative double brush seals in the top and bottom door rails improve door closure and noticeably minimize the amount of draft. The vertical brush

seals, which are also optionally available, can be fitted up to the full height of the panel and give additional draft proofing – for noticeably greater comfort.





## SIMPLE LOCKING WITH HAND OR FOOT

### Multilock – Three locking possibilities in one component

#### The new Multilock system opens up a new world of simplicity

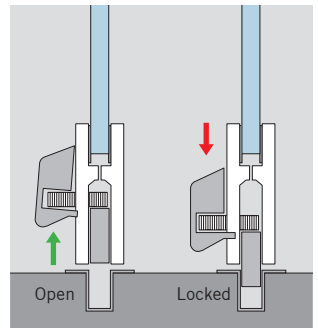
The Multilock combines three locking possibilities in one compact element and can be installed effortlessly in the bottom door rail.



#### Simplicity with clear benefits:

- The 3-in-1 Multilock offers three options for secure locking: front locking device, side locking device or cylinder lock.
- Installation of the Multilock is quick and easy because of the simple plug-in connection.
- Maximum convenience with foot-operated locking options for the face-mounted floor bolt – simple and hassle-free.

#### Easy foot-operated opening and closing



## INNOVATIVE HOLD FOR MORE SECURITY

### Improved security with the use of laminated safety glass

#### Hassle-free installation thanks to the new Clamp & Glue technology

The fixing process with HSW EASY Safe is incredibly simple. The special adhesive is fed through an injection hole to the adhesive channel where it spreads out evenly. After a drying time of just 15 minutes the panel can then be installed.

#### Creative freedom combined with security

Thanks to the innovative Clamp & Glue bonding technology, the HSW EASY Safe system allows the use of highly secure laminated safety glass. With the insertion of inlays within the laminated safety glass, the horizontal sliding wall

can be used as a custom design element, thus setting new standards in interior design.

#### Attractive added value:

- Laminated safety glass makes the application of HSW EASY Safe not only attractive, but also more secure.
- The innovative Clamp & Glue technology enables easy bonding and also ensures that fittings and glass are held firmly in place.
- Special inserts in the laminated safety glass offer huge design freedom as well as additional functions such as protection from the sun, noise reduction and privacy screening.





# HSW SUPPORT AND GUIDE ELEMENTS

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**Stacking arrangements**

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## THE RIGHT STACKING ARRANGEMENT FOR ANY SITUATION

### Perfect parking every time

Existing structures or unusual layouts often require special solutions, particularly in the design of the stacking area. DORMA HSW systems can be parked in a range of different positions. The stack of panels can be aligned parallel or square to the frontage, be readily visible for effect or hidden behind columns etc.

Another possibility is that of parking the system in line but out of the way, whether behind a wall or in a niche (see also pages 9 - 11).

The panels can also perform certain functions when the frontage is open, such as providing the sides of internal store windows and showcases, or, if provided with the appropriate printing on the glass, for adding artistic value to a wall.

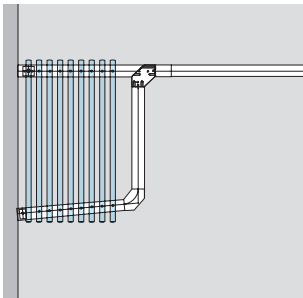
The following pages show some system solutions devised in answer to a wide range of different problems.



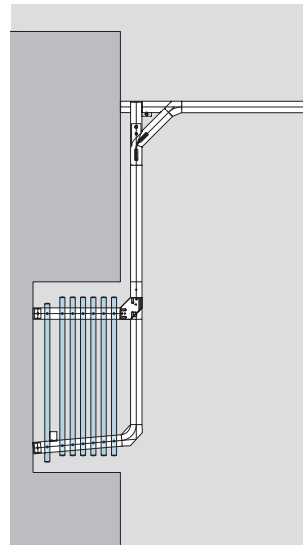


# PANELS TRANSVERSE TO TRAVEL DIRECTION

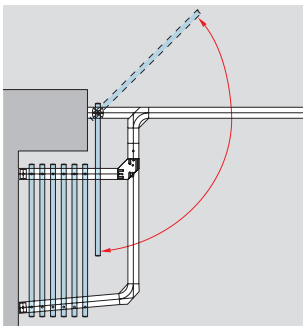
## Panels stacked 90° angle transverse to travel direction



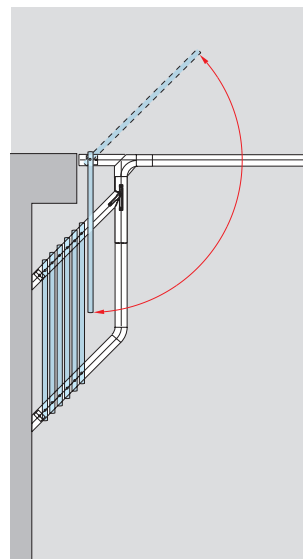
**Standard stacking arrangement.**  
With pivoting end panel as possible access leaf (left or right, or left and right).



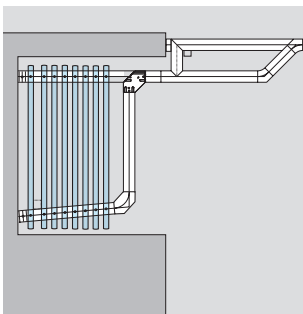
**Stacking in a box/pocket.**  
For systems with slidable panels only (left or right, or left and right).



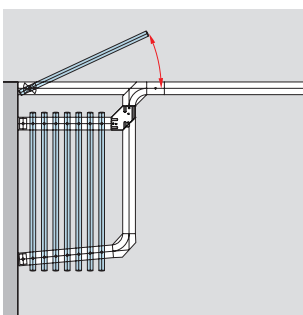
**Niche stacking.**  
With pivoting end panel as possible access leaf (left or right, or left and right).



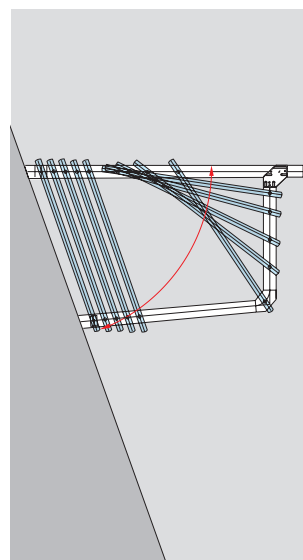
**Stacking behind column.**  
**Stacking legs at 135° angle.**  
With end panel as possible access leaf (left or right, or left and right).



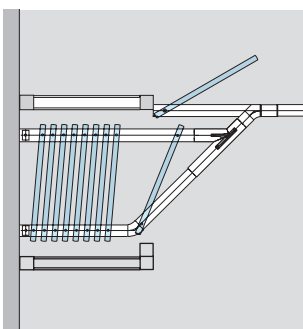
**Stacking with reshuffle bypass**  
(without pivoting end panel).  
Behind wall projection/fixed side panel (Left or right, or left and right).



**Stacking behind end panel.**  
(Left or right, or left and right).



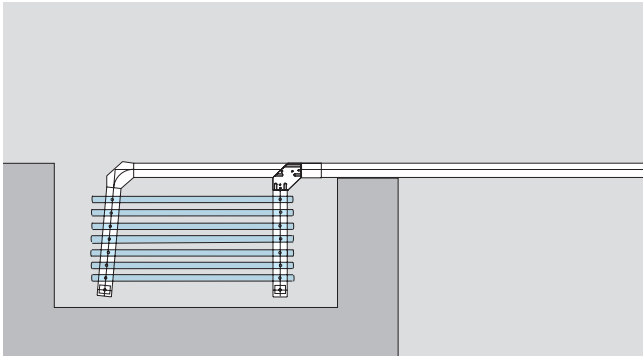
**Stacking at acute angle.**  
All panels brought into position with rear track roller.



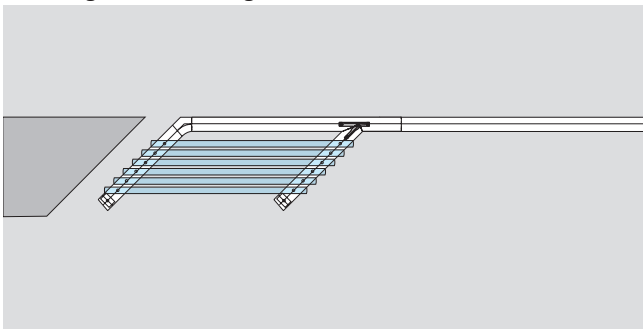
**Stacking in a box or niche, behind end panel.**  
Sliding panels only, around 135° offset (left or right, or left and right).

# PANELS PARALLEL TO TRAVEL DIRECTION

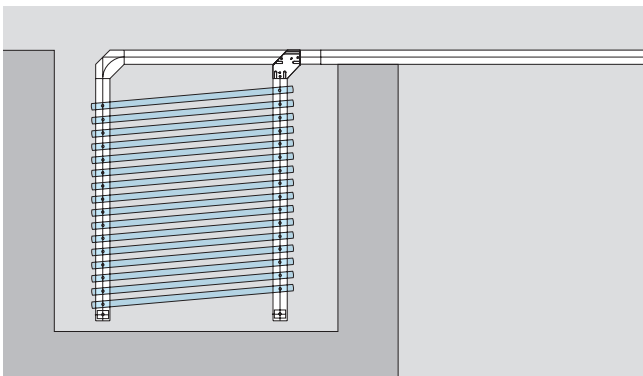
**Stacking in a niche, outer stacking leg at 95° angle**  
for small number of panels (up to 6) (left or right, or left and right).



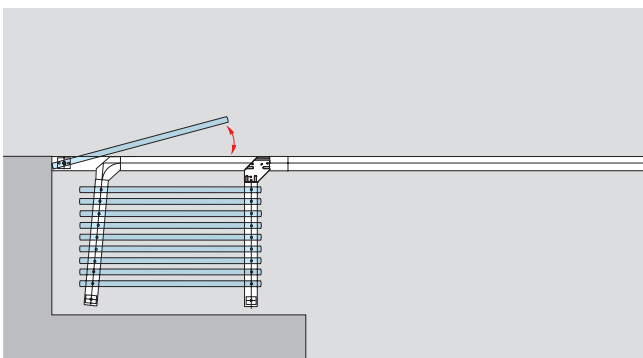
**Stacking legs at 135° angle**  
(left or right, or left and right).



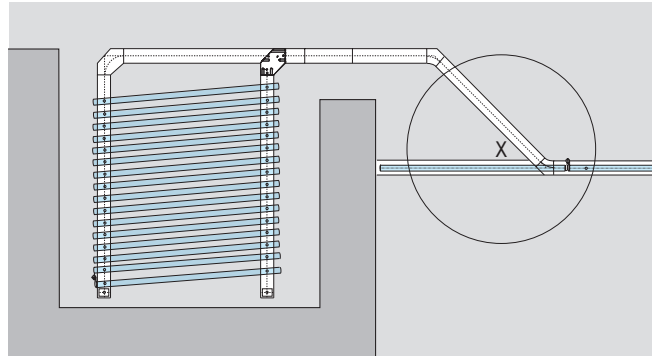
**Stacking legs at 90° angle**  
for large number of panels (left or right, or left and right).



**Stacking behind pivoting end panel as possible access leaf.**  
Outer stacking leg at 95° (left or right, or left and right).



**Stacking offset in niche**  
with sliding folding panel as wall connection stacking legs at 90°  
(left or right, or left and right).

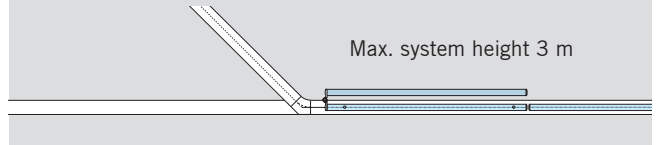


**Detail X**

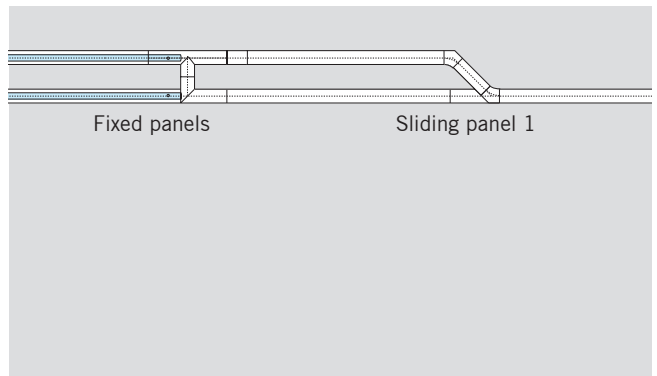
Sliding folding panel in closed wall.



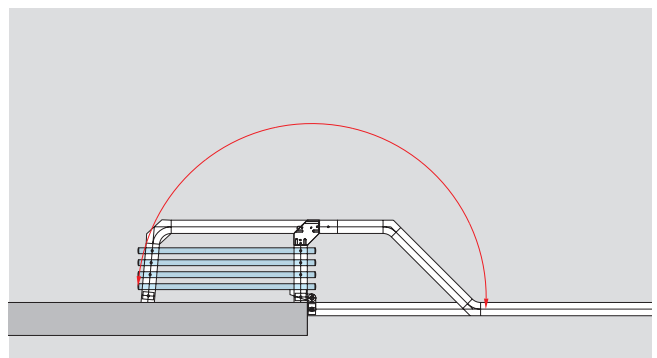
Sliding folding panel ready for sliding into stacking area.



**Stacking behind fixed panels**  
(left or right, or left and right).



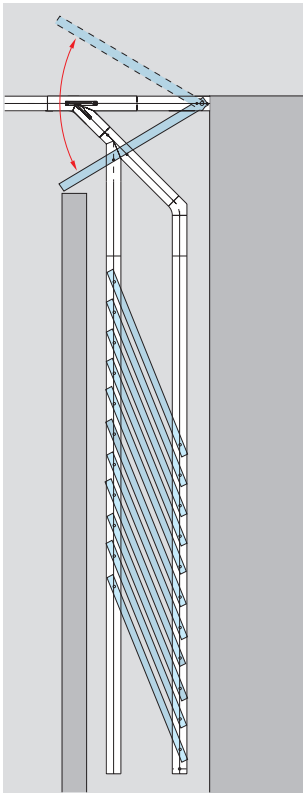
**Stacking offset, beyond offset hung pivoting end panel**  
(left or right, or left and right).



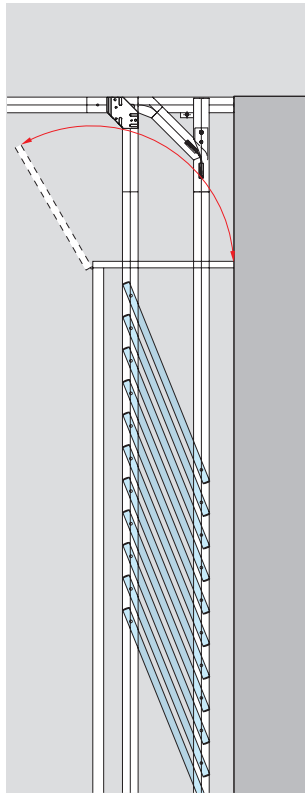


# SPECIAL STACKING ARRANGEMENTS

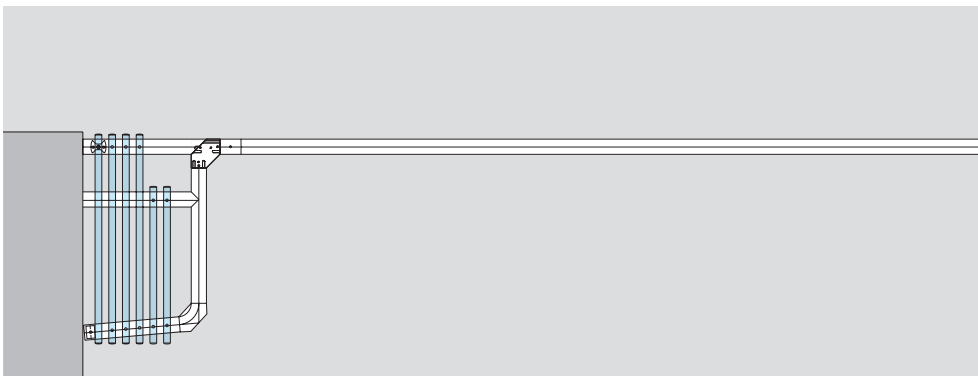
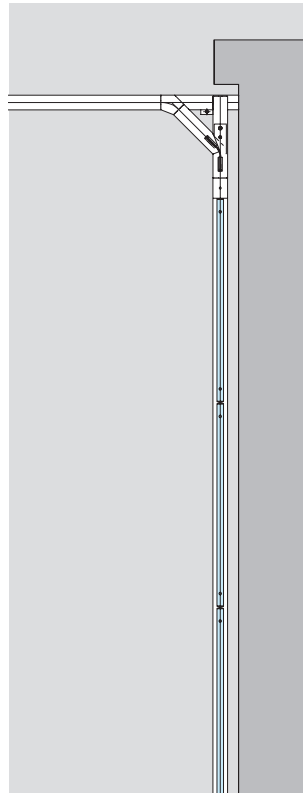
Stacking at the wall in closed compartment behind pivoting end panel



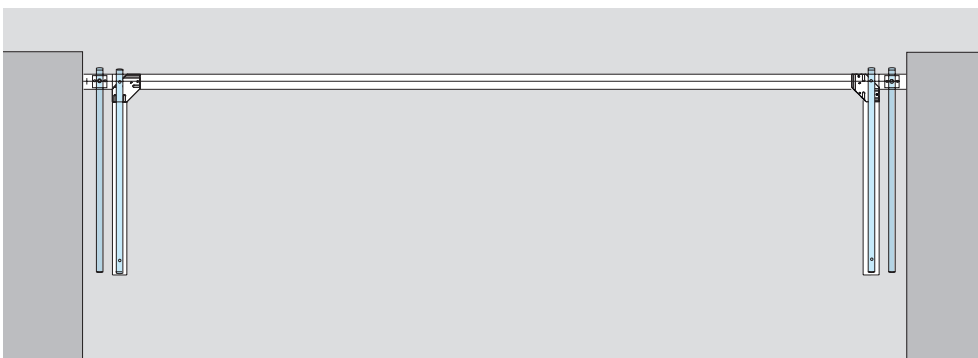
Stacking at the wall in closed compartment without pivoting end panel



Stacking in front of 90° wall with reshuffle bypass.



Stacking panels of varying width

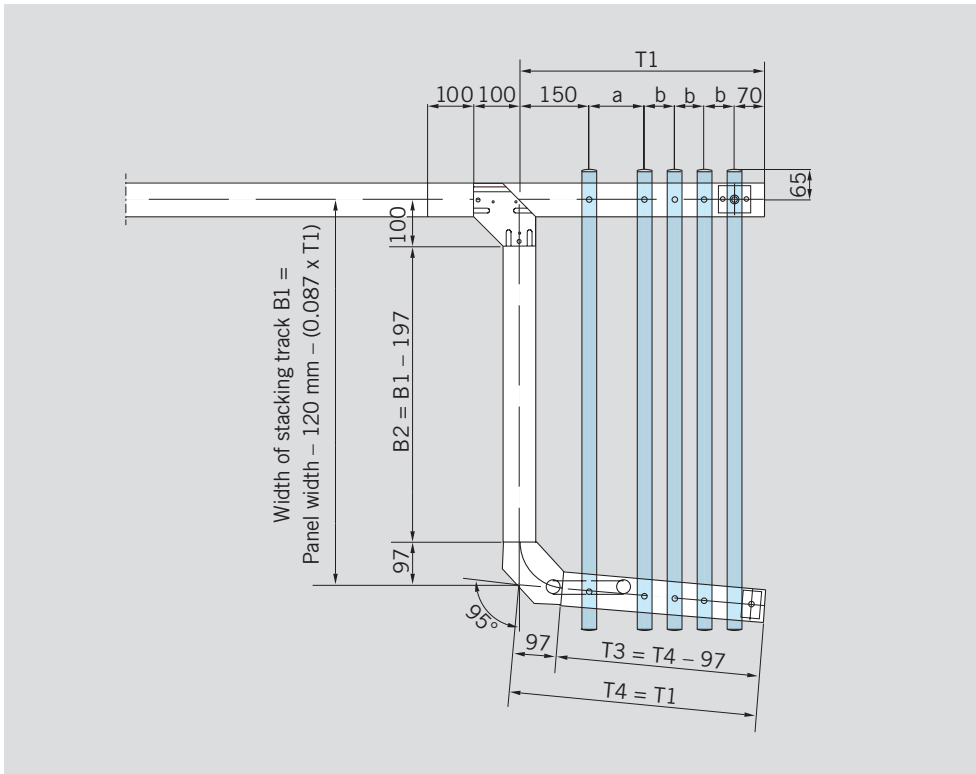


Stacking with one stacking leg for sliding panels in front of the end panels on each side (2 pivoting end panels / 2 sliding panels).

# STACKING ARRANGEMENT CALCULATIONS

## Panels stacked 90° angle transverse to travel direction

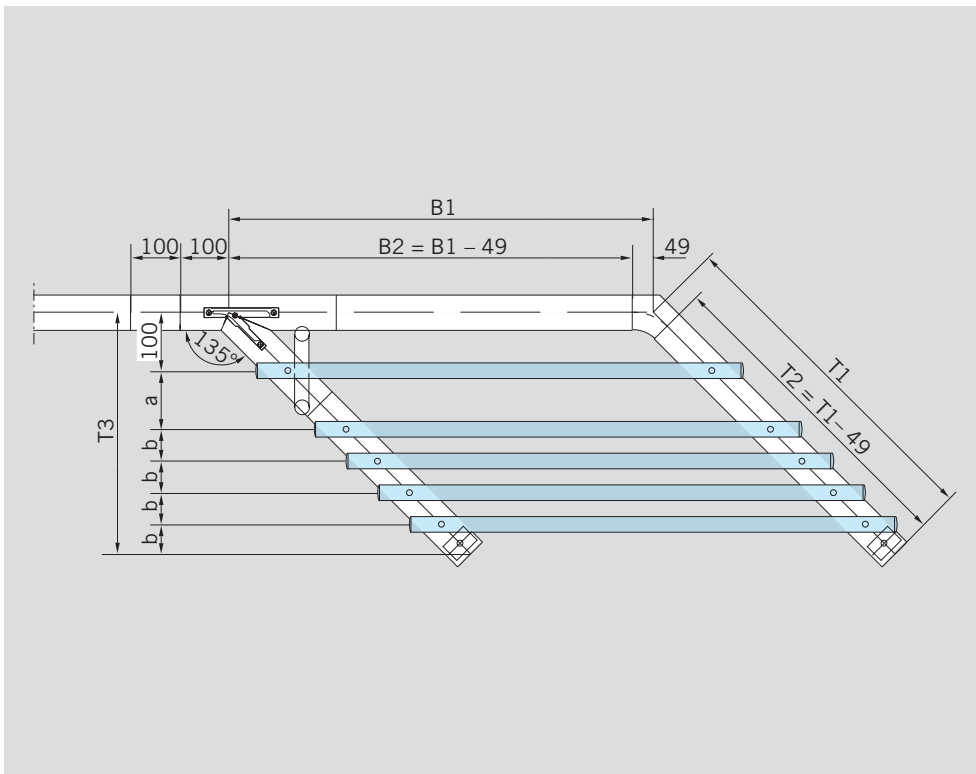
(left or right, or left and right)



- a = depending on pull handle depth
- b = 65 mm

## Stacking legs at 135° angle

(left or right, or left and right).

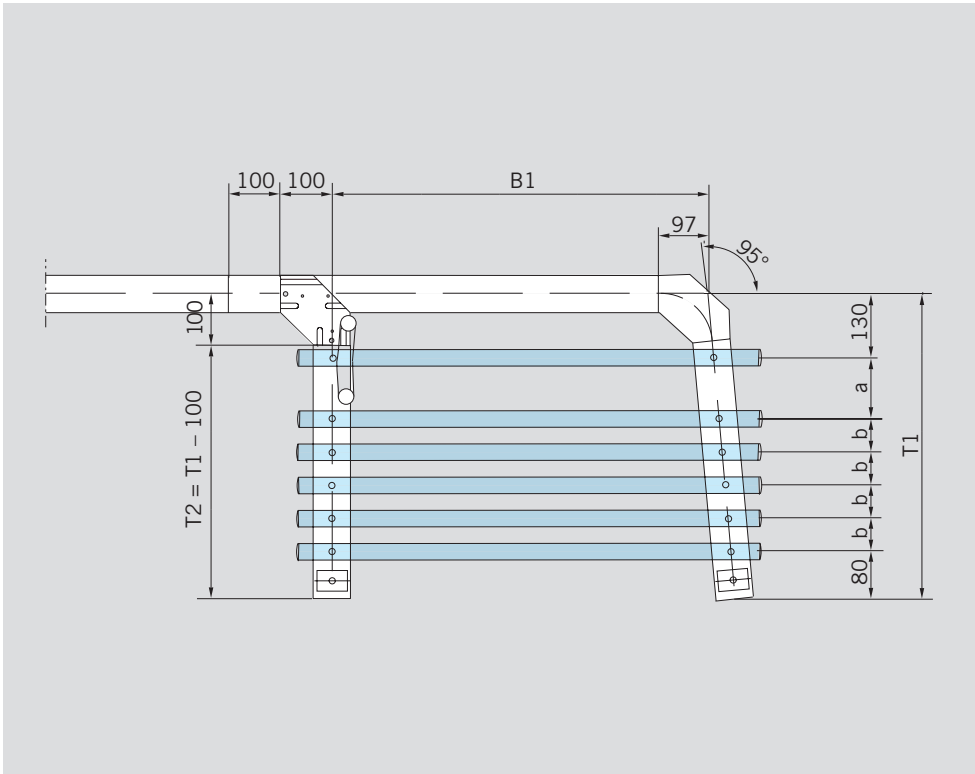


- a = depending on pull handle depth
- b = 65 mm

$B1 = \text{Panel width} - 130 \text{ mm}$   
 $T1 = T3 \times 1.414 \text{ mm}$

**Stacking in a niche, outer stacking leg at 95° angle**

for small number of panels (up to 6) (left or right, or left and right).

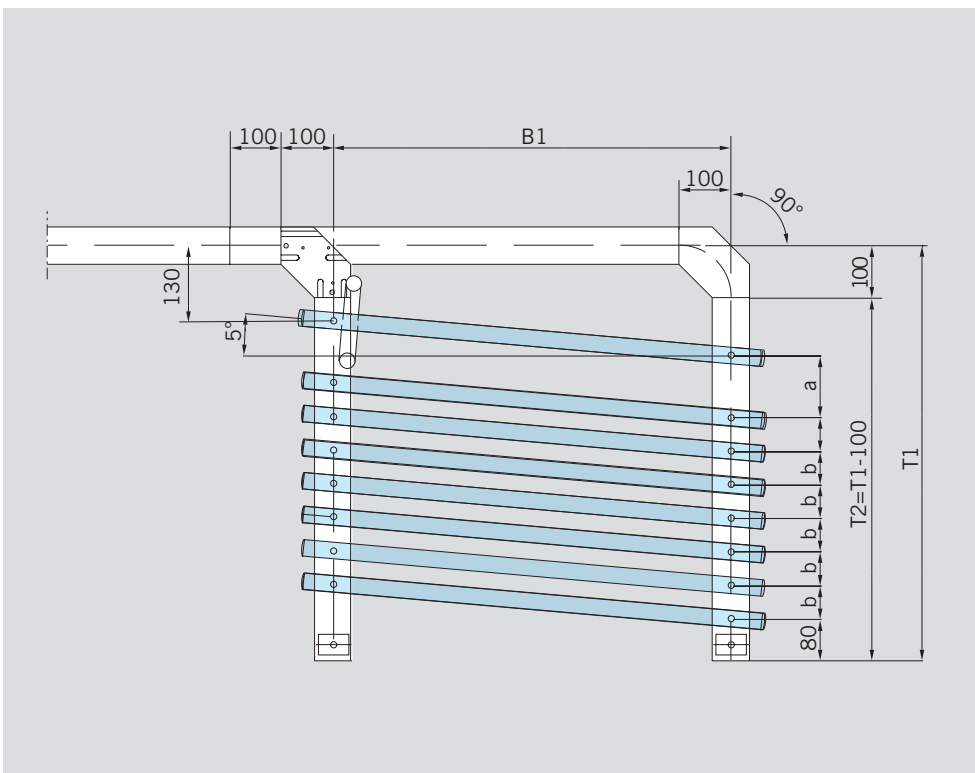


- a = depending on pull handle depth
- b = 65 mm

$B1 = \text{Panel width} - 130 \text{ mm} - ((T1 - 80) \times 0.087)$

**Stacking legs at 90° angle**

for large number of panels (left or right, or left and right).



- a = depending on pull handle depth
- b = 65 mm

$B1 = \text{Panel width} - 134 \text{ mm}$

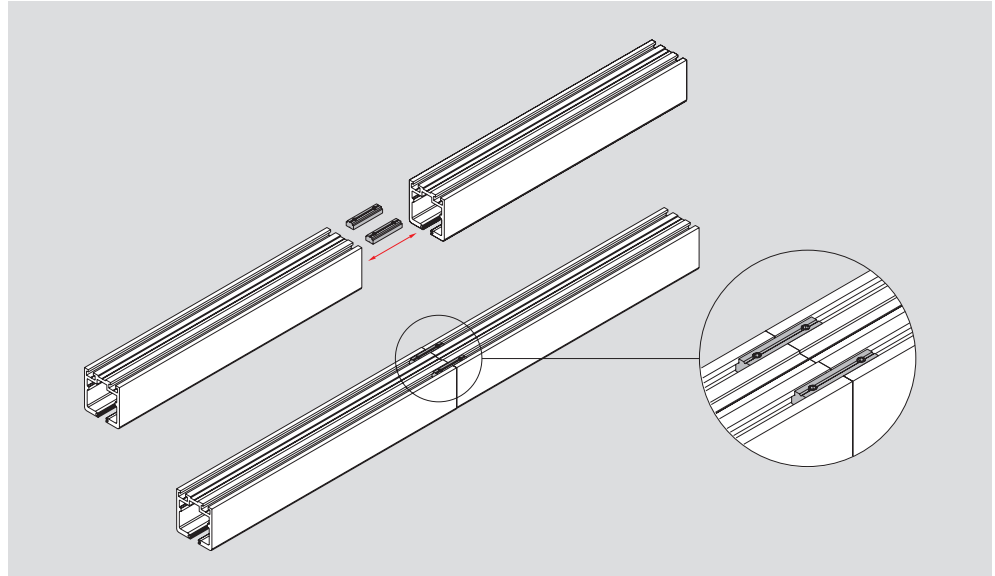
# SIMPLE, SECURE AND REMOVABLE CONNECTIONS

## Plug connection of tracks and modules

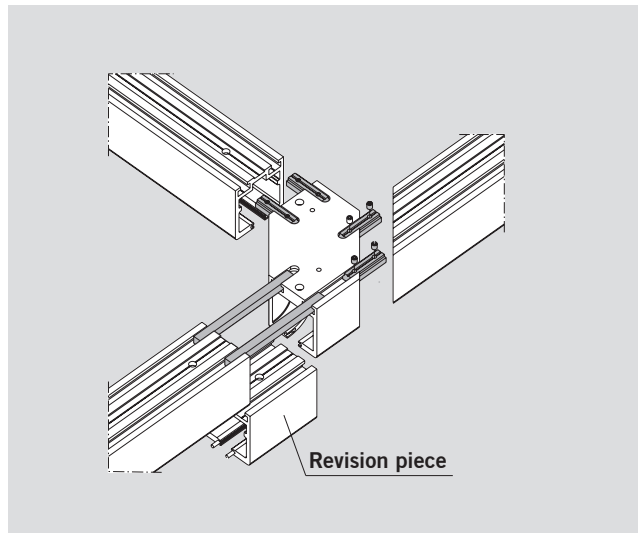
To provide fast, easy and flexible installation of the track rail sections and the modules it is a considerable advantage when all parts are delivered unwelded. The special HSW track rail design with two parallel channels at the top (suitable for M 12 screws) simplifies the work on site.

- The single track rail sections and modules are connected to each other by special clamp inserts fitted in the provided channels, delivering secure connection. If necessary even adjustment cuts of track sections can be done on site.
- In the lower part of the track rails additional pins provide smooth and even passage for the roller carriers.
- Even the stacking construction is fitted together and connected to the frontage track rail in the same way. As an option parts of the stacking construction can be delivered pre-mounted.
- The segmentation is realized by miter cuts and welded connections within single track rail sections as supplied condition. On site the adjacent track rail section then can easily be fitted in a straight line by clamp inserts and pins.

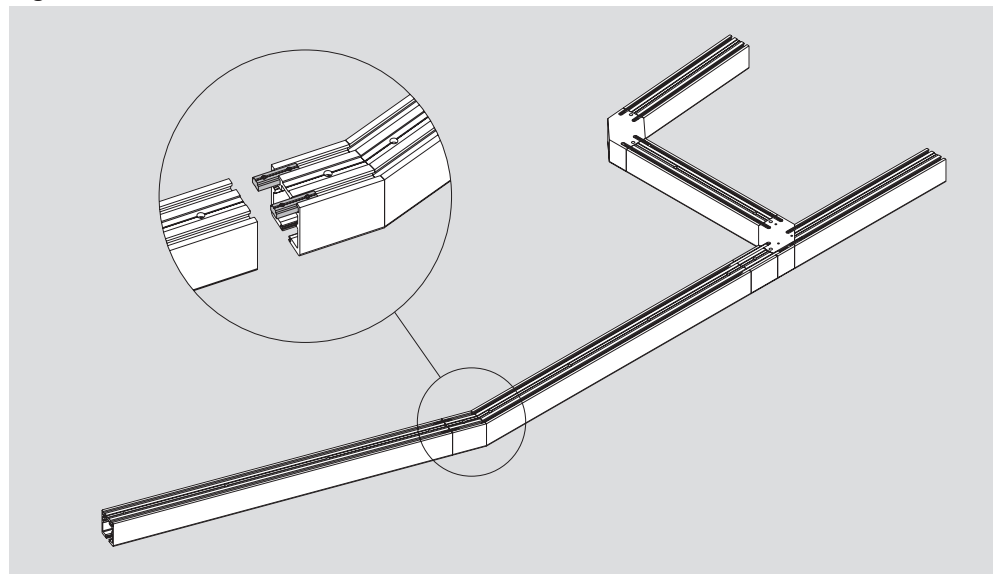
Single track rail section



Stacking construction



Segmented track rail section

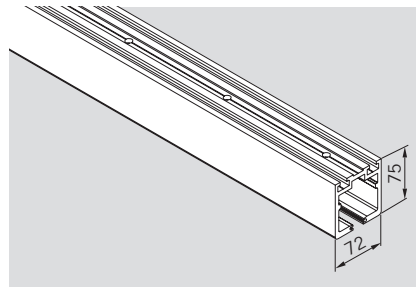




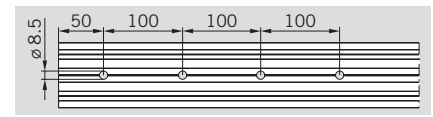
**Flexible and stable**

Horizontal sliding walls can be constructed in a wide range of different configurations to suit the site of installation, prevailing structural conditions and the planning concept. With DORMA HSW systems, a variety of designs can be implemented with ease. Straight and segmented track rails can be combined to produce virtually any serpentine shape required. The track rails in the form of hollow sections combine all the virtues of light weight, stability and torsional stiffness. And when combined with the HSW substructure, installation becomes even easier. Flexibility and stability mean that even unusual system configurations can be implemented without problem to give maximum functional reliability.

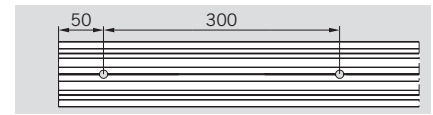
**Straight track rail**



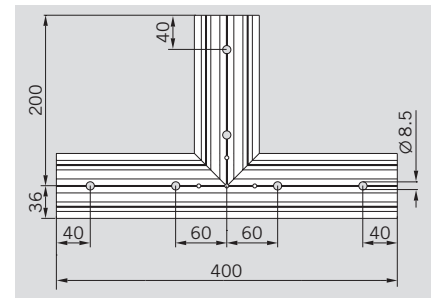
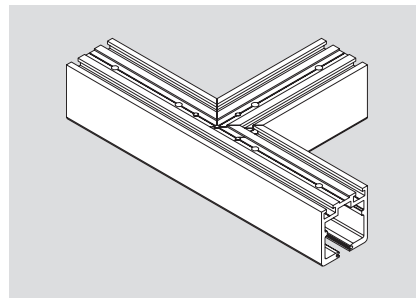
**Track rail at stacking area**



**Track rail at assembly frontage**



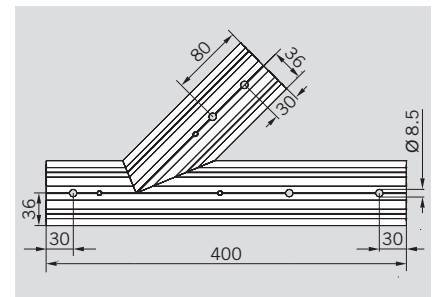
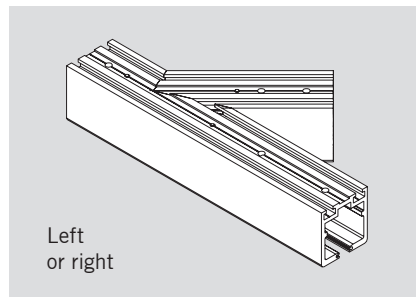
**90° T-piece**



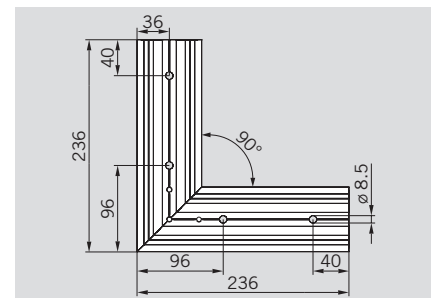
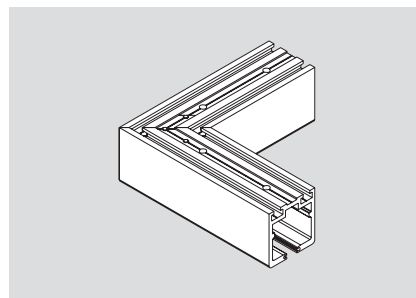
**Straight track rail**

For a straight-line system configuration, a drill hole interval of 300 mm in the track rail is sufficient, while the stacking area requires an interval of 100 mm. Where the track assumes an angle of 161 – 179°, the track rail is mitred, while at angles between 90 and 160°, a segment is incorporated. The standard modules available are indicated in the adjacent illustrations.

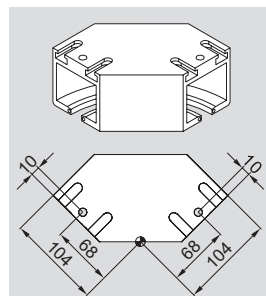
**135° T-piece**



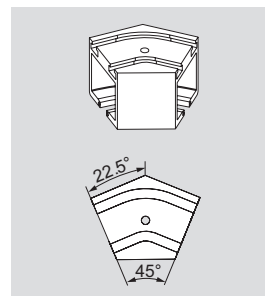
**90° L-piece**



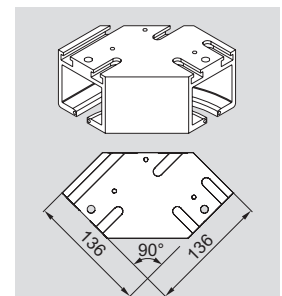
**Module 07/09 for 90°/95° angle**



**Module 06 for 45° angle**



**Module 04/05 90° angle left/right**



## HSW EASY SAFE PANEL TYPES

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**Panel design**

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**Sliding panel**

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**Panel functions**

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**Single action sliding panel**

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**Door rails and general details**

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**Double action sliding panel**

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**Single action / Double action end panel**

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**Fixed panel**

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## PANEL DESIGN

The fully glazed HSW EASY Safe system creates a continuous, transparent surface without any lateral framing.

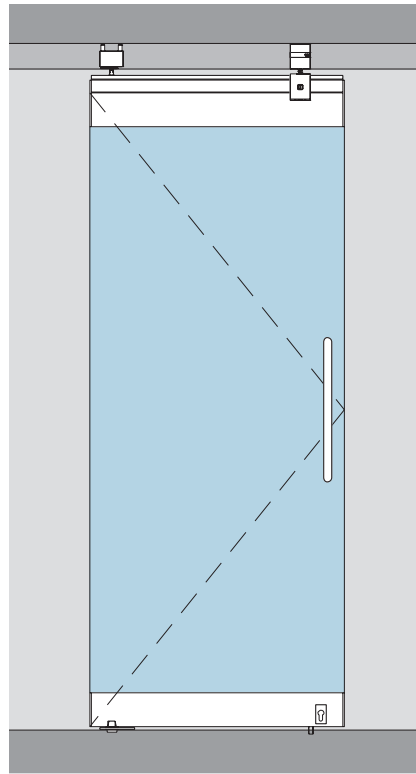
However, under certain circumstances additional draft protection at the lateral glass edges may be a preferable option. With the features that unify the different panel types HSW EASY Safe meets all the requirements for transparent frontages in the typical applications.

- All panel types are provided with a bottom and a top door rail fixed to the glass pane.
- While sliding panels, pivoting end panels and fixed panels can do without an additional carrier profile at the top, it is indispensable for single and double action sliding panels. When an assembly incorporates single or double action sliding panels then the carrier profile is required for the other panel types as well to achieve a continuous assembly design and a matching connection between the panels.
- The glass panes can have the following glass thicknesses: 10 mm, 12 mm, 12.8 mm, 13.5 mm, 15 mm, 17 mm and 19 mm.
- For laminated safety glass the Clamp & Glue technology provides secure hold without the need for glass drilling.
- The top panel profile (either door rail or carrier profile) incorporates a double brush seal as standard. As an option the bottom door rails can have double brush seals as well.
- Excellent draft protection is reached when additional sealing profiles with matching double brushes are used at the vertical glass edges as well.

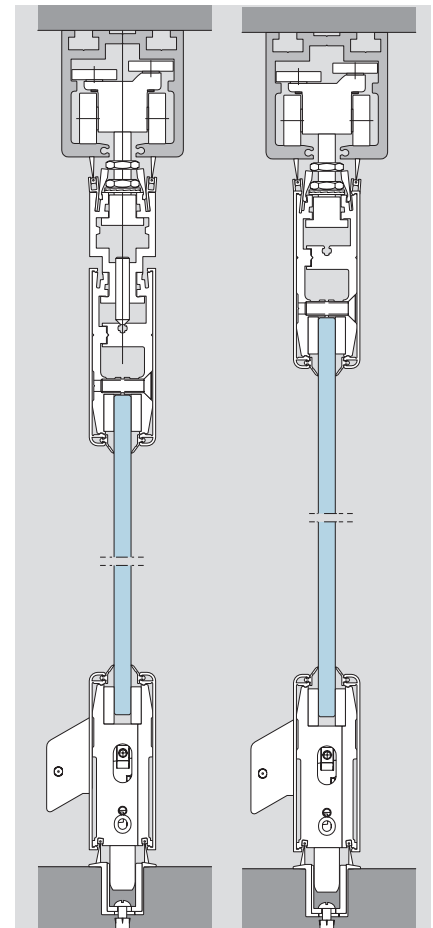
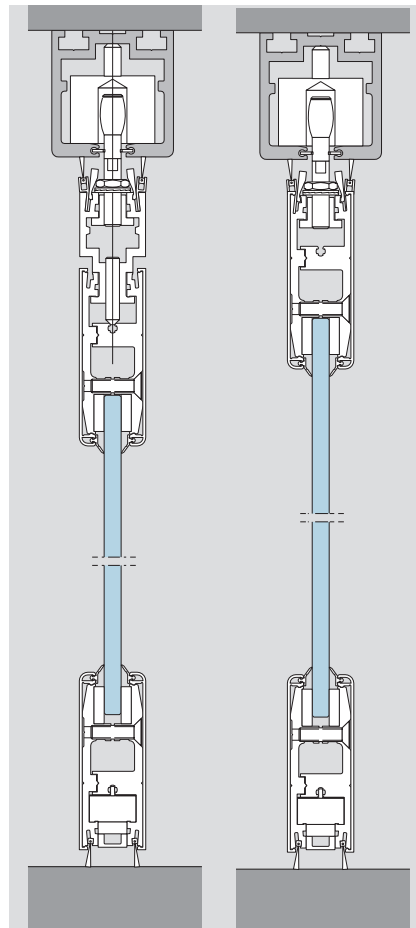
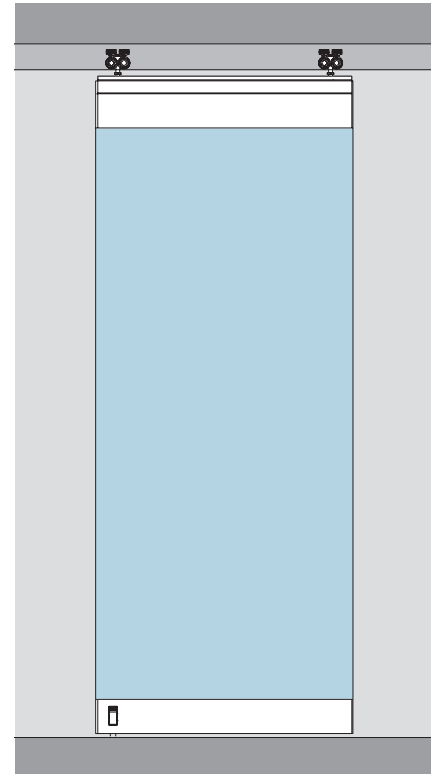
HSW EASY Safe is certified to have reached the following tests:

- Wind load (Frame bending): EN 12210 Class 1
- Endurance strength: DIN EN 1527 Class 2 and DIN EN 1191 Class 3
- Side impact: DIN EN 13049 Class 5 (highest class)
- Corrosion: DIN EN 1670 Class 4
- EPD (Environmental Product Declaration): ISO 14040

**Single action / double action end panel**  
(with or without carrier profile)

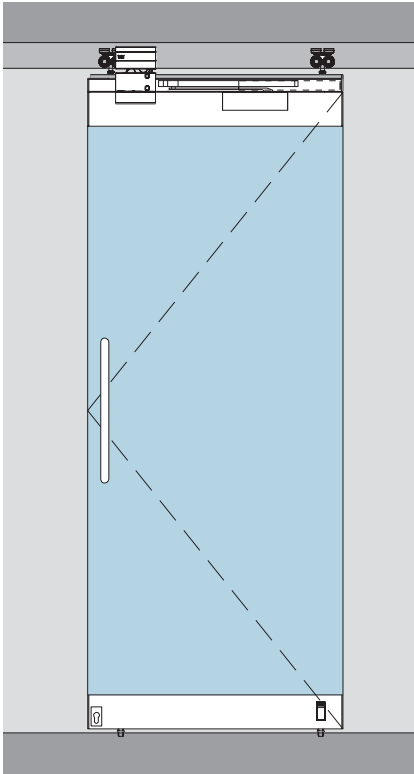


**Sliding panel**  
(with or without carrier profile)

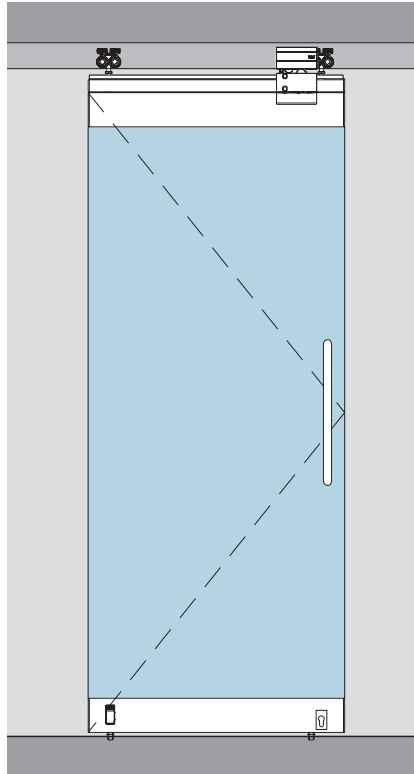




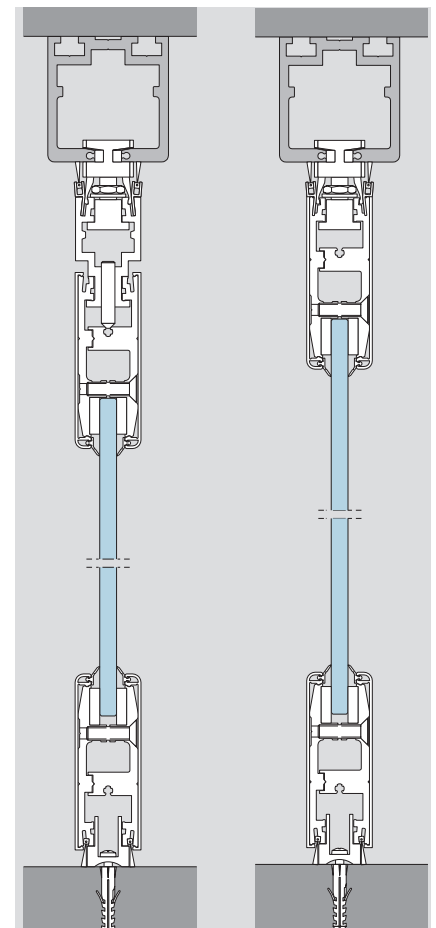
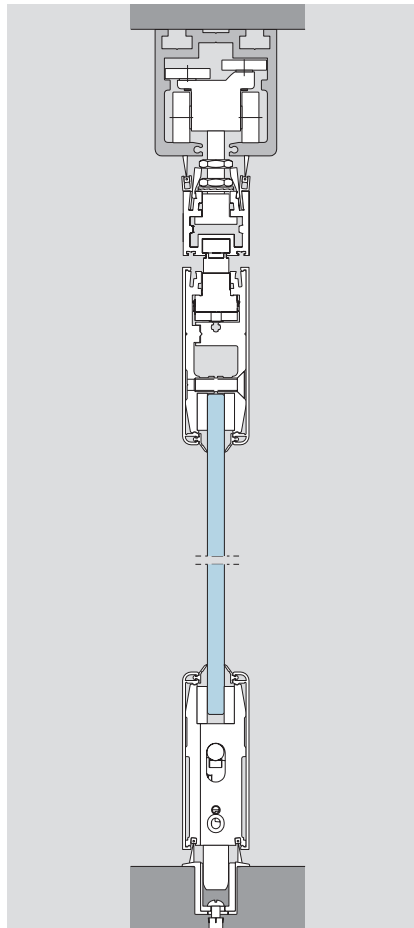
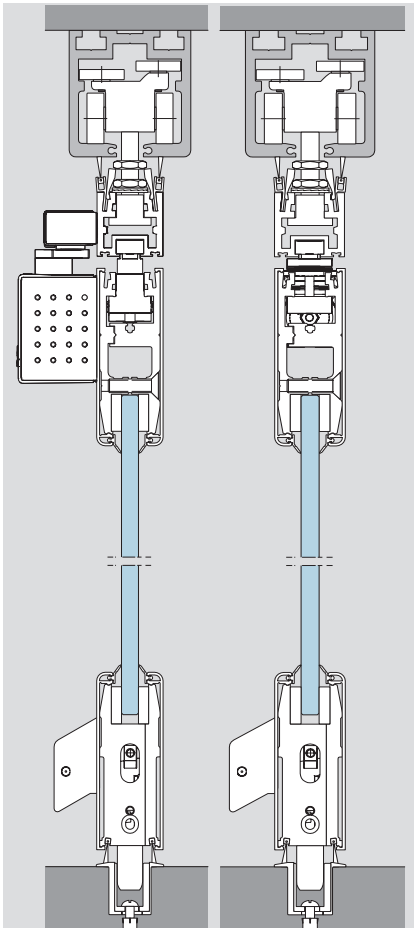
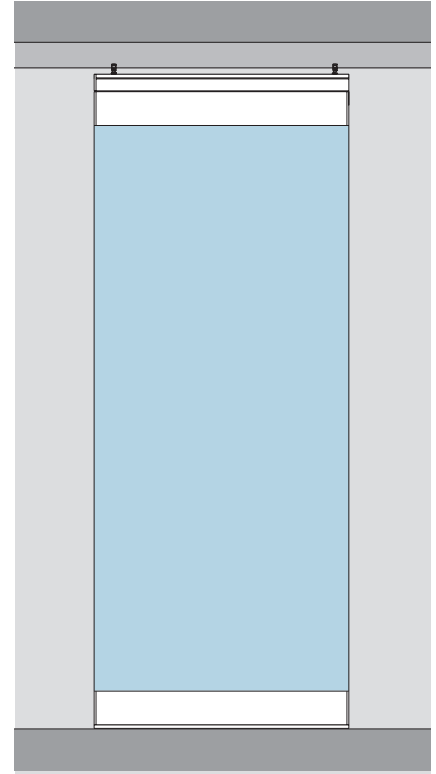
**Single action sliding panel with TS 92  
or alternatively with ITS 96**  
(generally provided with carrier profile)



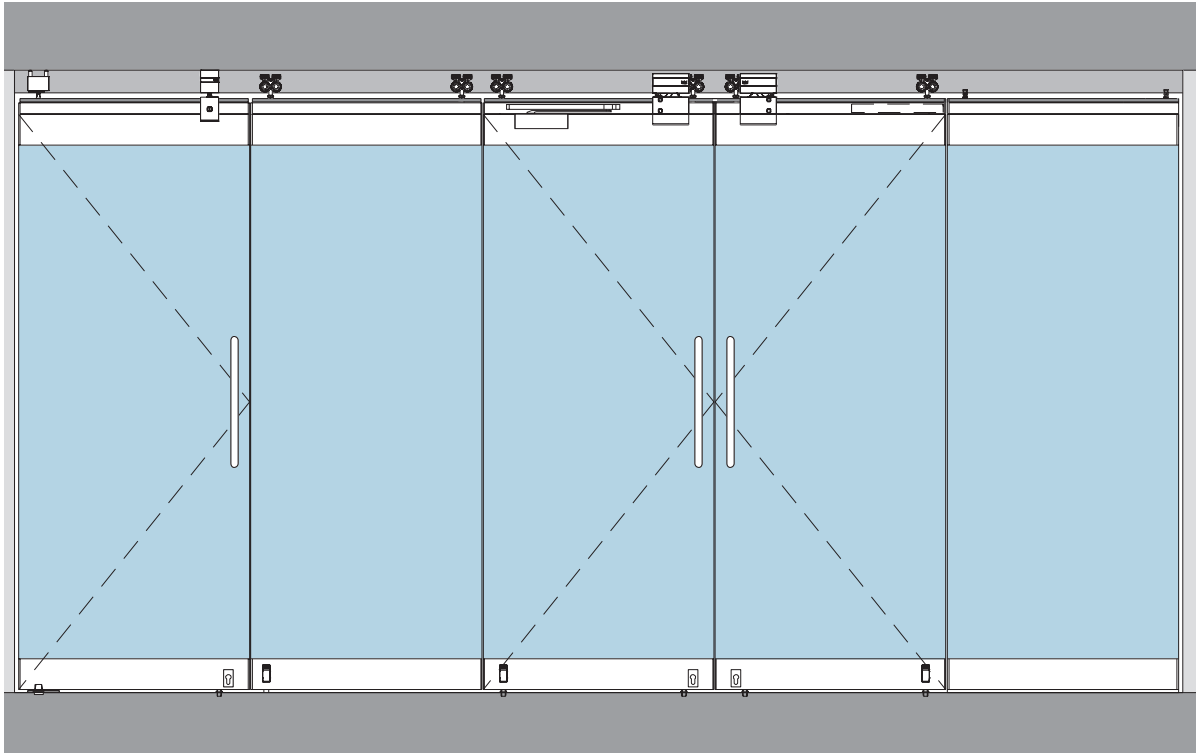
**Double action sliding panel**  
(generally provided with carrier profile)



**Fixed panel**  
(with or without carrier profile)



# PANEL FUNCTIONS



	<b>Single action / double action end panel</b>	<b>Sliding panel</b>	<b>Single action sliding panel *</b>	<b>Double action sliding panel *</b>	<b>Fixed panel</b>
	Non-sliding. Single action panel with floor pivot and TS 92 / TS 73 door closer. Double action panel with floor pivot or BTS floor spring.	Basic movable panel without additional function.	Single action sliding panel with TS 92 cam-action door closer, operational when frontage closed. Alternatively with ITS 96.	With ITS 96 door closer, operational when frontage closed.	Stationary. Panel design matching the design of the sliding panels in the assembly.
Max. panel height	4,000 mm	4,000 mm	3,600 mm	3,600 mm	4,000 mm
Max. panel width	1,250 mm	1,250 mm	1,250 mm	1,250 mm	1,250 mm
Max. panel weight	150 kg	150 kg	120 kg**	120 kg**	150 kg

The individual panels can also be of differing widths. The largest width should not exceed max. 115% of the smallest width.

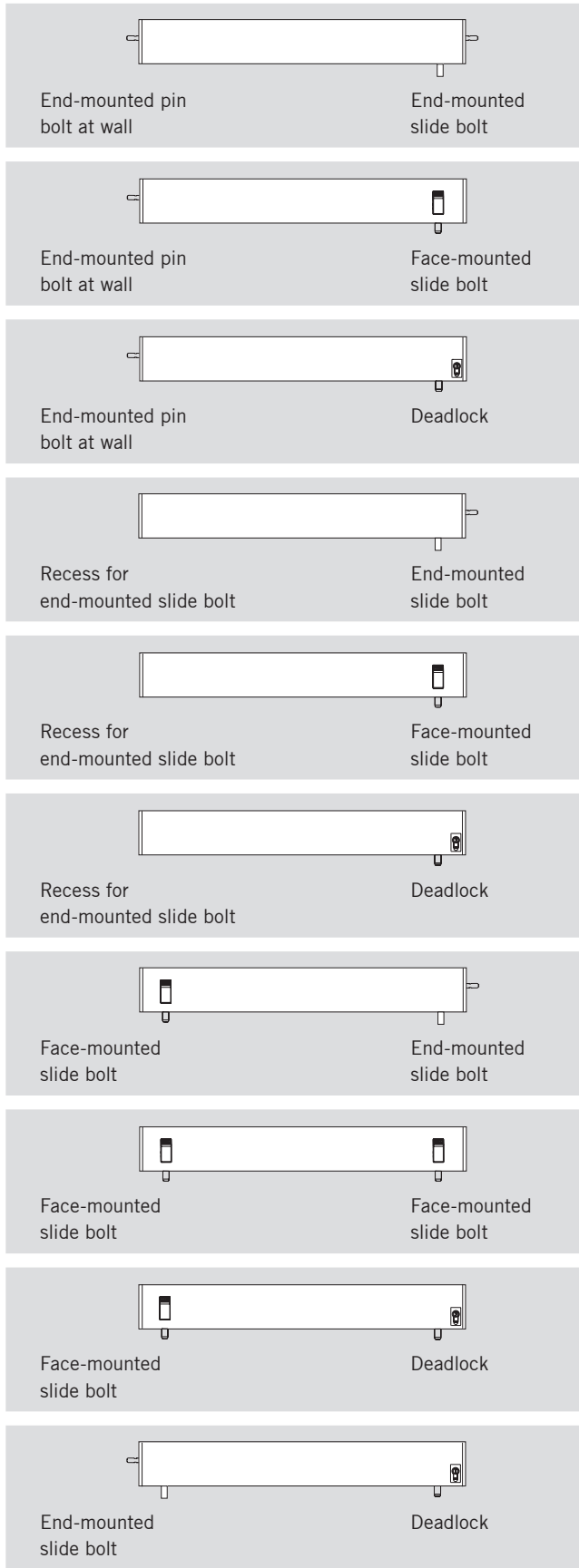
\* For these panel types please consider our notes on portal systems on page 47.

\*\* Note: The maximum permissible weight relates to the complete door assembly, including handles.

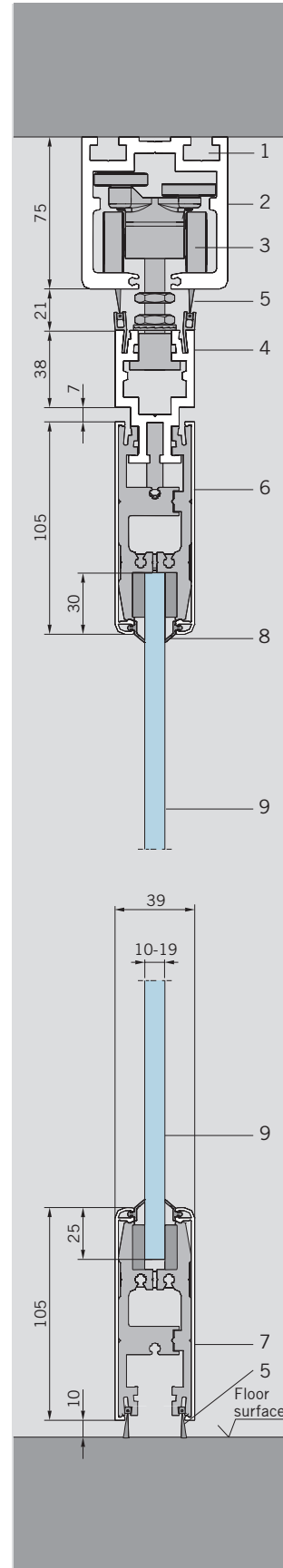
# DOOR RAILS AND GENERAL DETAILS

## Bottom locking devices

All depicted combinations are also available as mirror arrangements



## General parts and measurements

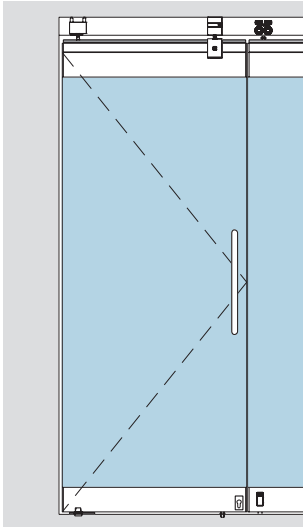


Irrespective of the function of the individual panels, an HSW EASY Safe system comprises the following basic components:

- 1 Two parallel channels suitable for M 12 screws
- 2 Track rail
- 3 Roller carrier
- 4 Carrier profile
- 5 Double brush seals on top (bottom layout is optional)
- 6 Top door rail and Bottom door rail, both comprising base profiles with clip-on cover profiles and end caps
- 8 Rubber seal, bridges the gap between cover profile and glass panel
- 9 Toughened safety glass or toughened laminated safety glass 10-19 mm (by others)



# SINGLE ACTION / DOUBLE ACTION END PANEL



### Single action or double action end panel with floor pivot

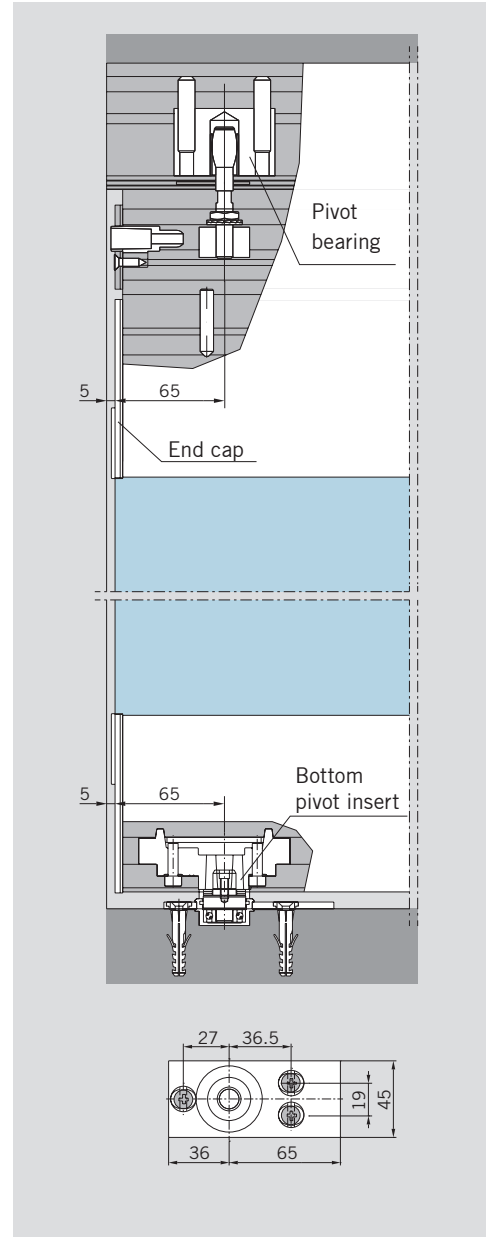
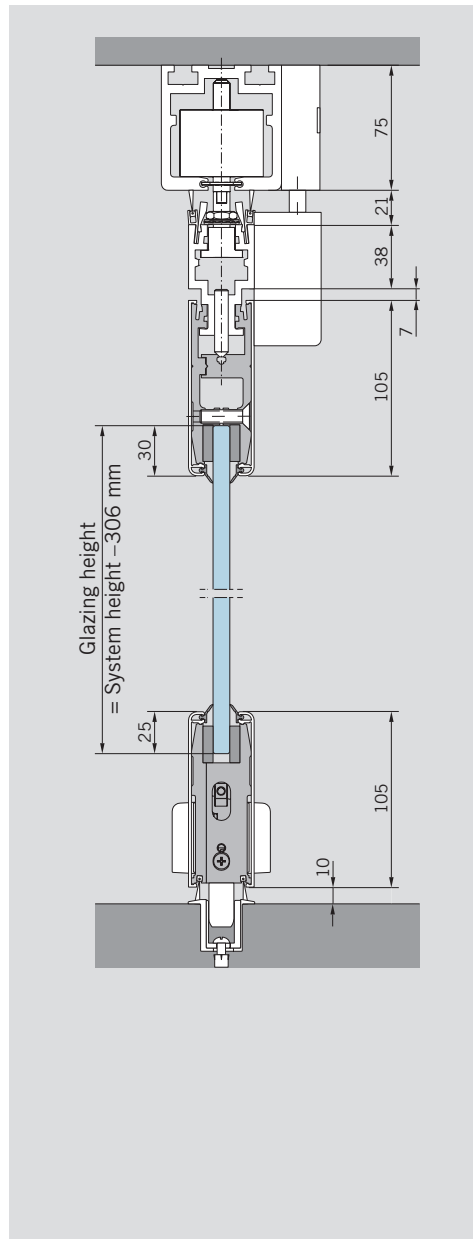
Non-moving and always equipped with a bottom deadlock or a locking deadlock and the option for an additional upper locking unit.

### Single action end panel

with stop-type end caps top and bottom.

Pivot point variants:

- Floor pivot with round spindle, optional combined with DORMA TS 92 overhead door closer\*
- BTS 84 for panels up to 100 kg, with optional hold-open at 90° door opening angle
- BTS 80 for panels up to 150 kg with adjustable hold-open device



### Double action end panel

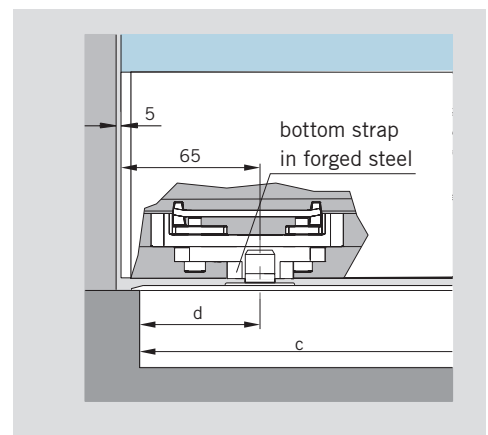
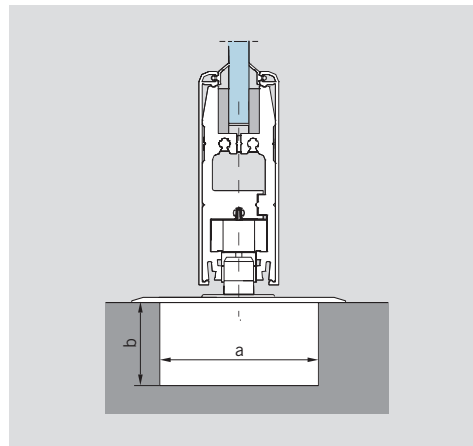
Pivot point variants:

- Floor pivot with round spindle
- BTS 84 for panels up to 100 kg, with optional hold-open at 90° door opening angle
- BTS 80 for panels up to 150 kg with adjustable hold-open device

### Floor recess dimensions

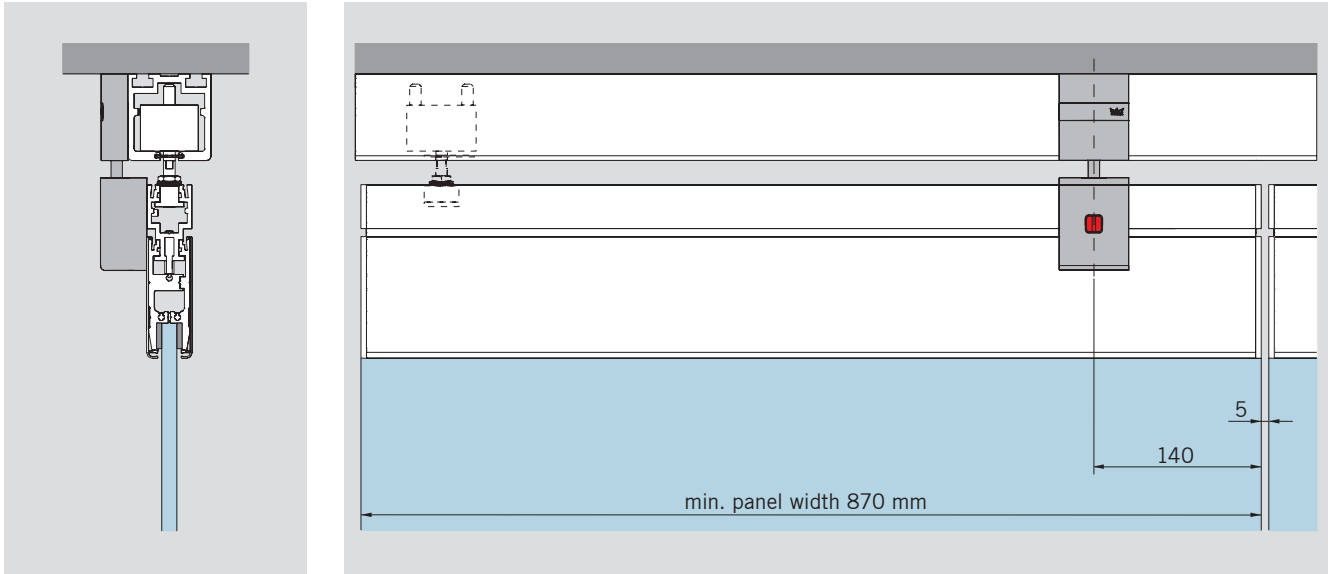
	BTS 84	BTS 80
a	108	78
b	40	60
c	306	341
d	51-58	51-57

### Single action / double action end panel with floor spring

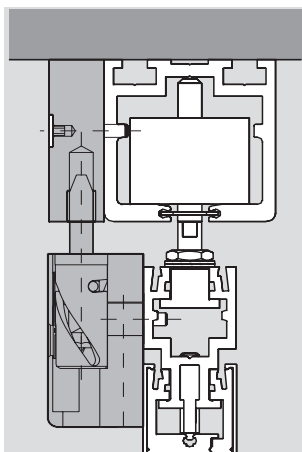


\* Data and features TS 92 see page 26.

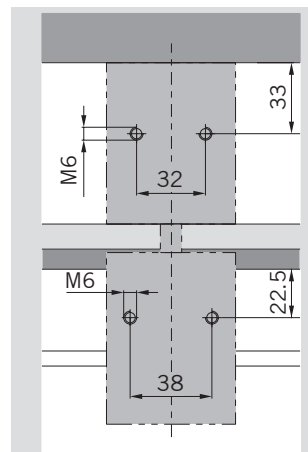
Single action / double action end panel with additional upper locking bolt



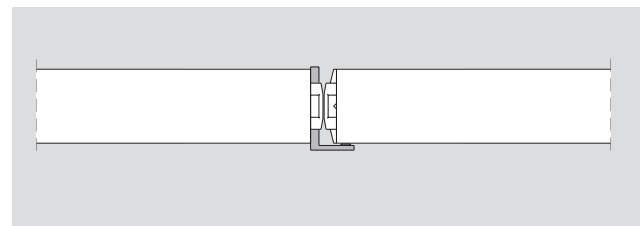
Additional upper locking bolt



New drill hole of pattern

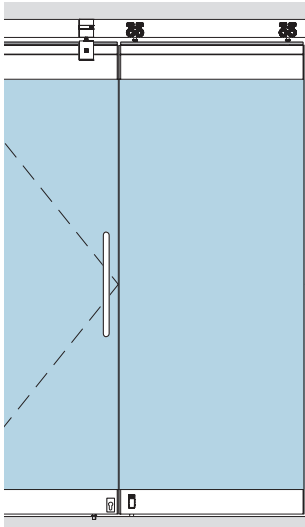


End cap with stop (optional)



Data and features		BTS 80			BTS 84		
Spring strength (EN)		3	4	6	2	3	4
Standard and external doors	≤ 850 mm				•		
	≤ 950 mm	•				•	
	≤ 1100 mm		•				•
	≤ 1400 mm			•			
Closing speed adjustable by valve	130° - 0°				•	•	•
	130° - 20°				•	•	•
	175° - 0°	•	•	•			
Delayed action adjustable by valve (selectable alternative to the hold-open feature)		•	•	•	-	-	-
Max leaf weight (kg)		300	300	300	100	100	100
Hold open	90°				•	•	•
	adjustable	•	•	•			
Dimension	Length	341	341	341	306	306	306
	Overall width	78	78	78	108	108	108
	Height	60	60	60	40	40	40
Door closer tested to EN 1154		•	•	•	•	•	•

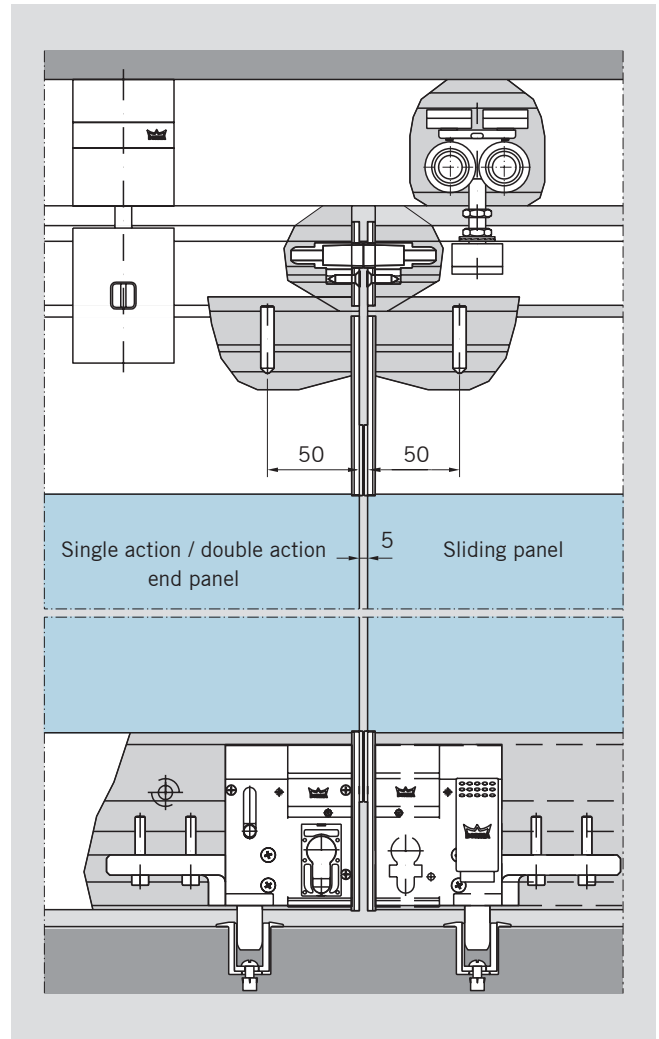
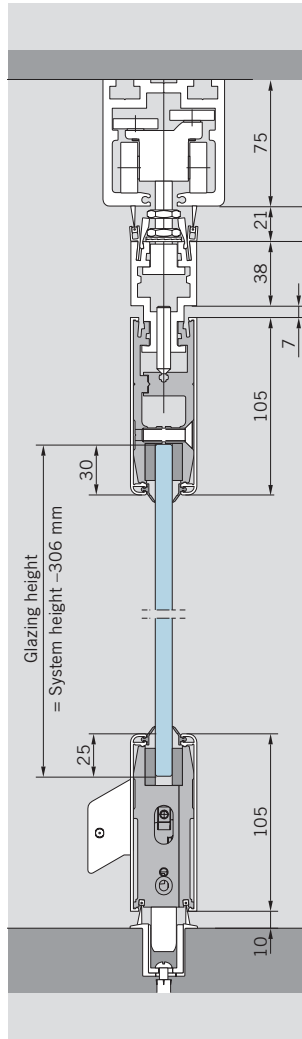
# SLIDING PANEL



Basic movable panel without additional function.

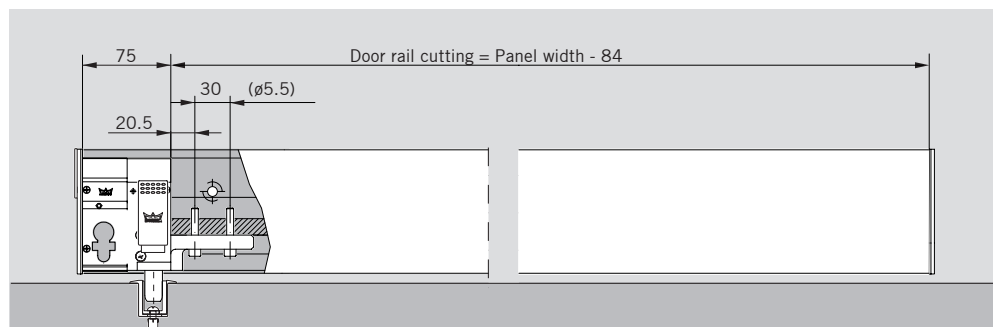
### Sliding panel

The sliding panels are the basic moving elements. Once in their closed position, they are locked. The locking components provided in the bottom door rail can be face-mounted slide bolts, end-mounted slide bolts, end pin bolts or deadlocks.

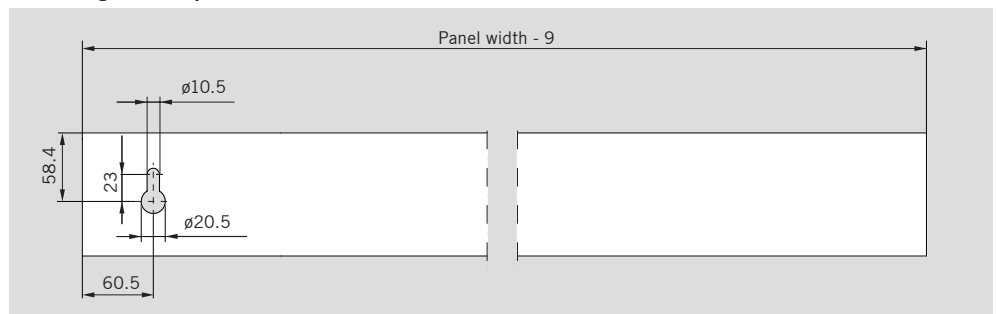


### Bottom door rail with face-mounted slide bolt

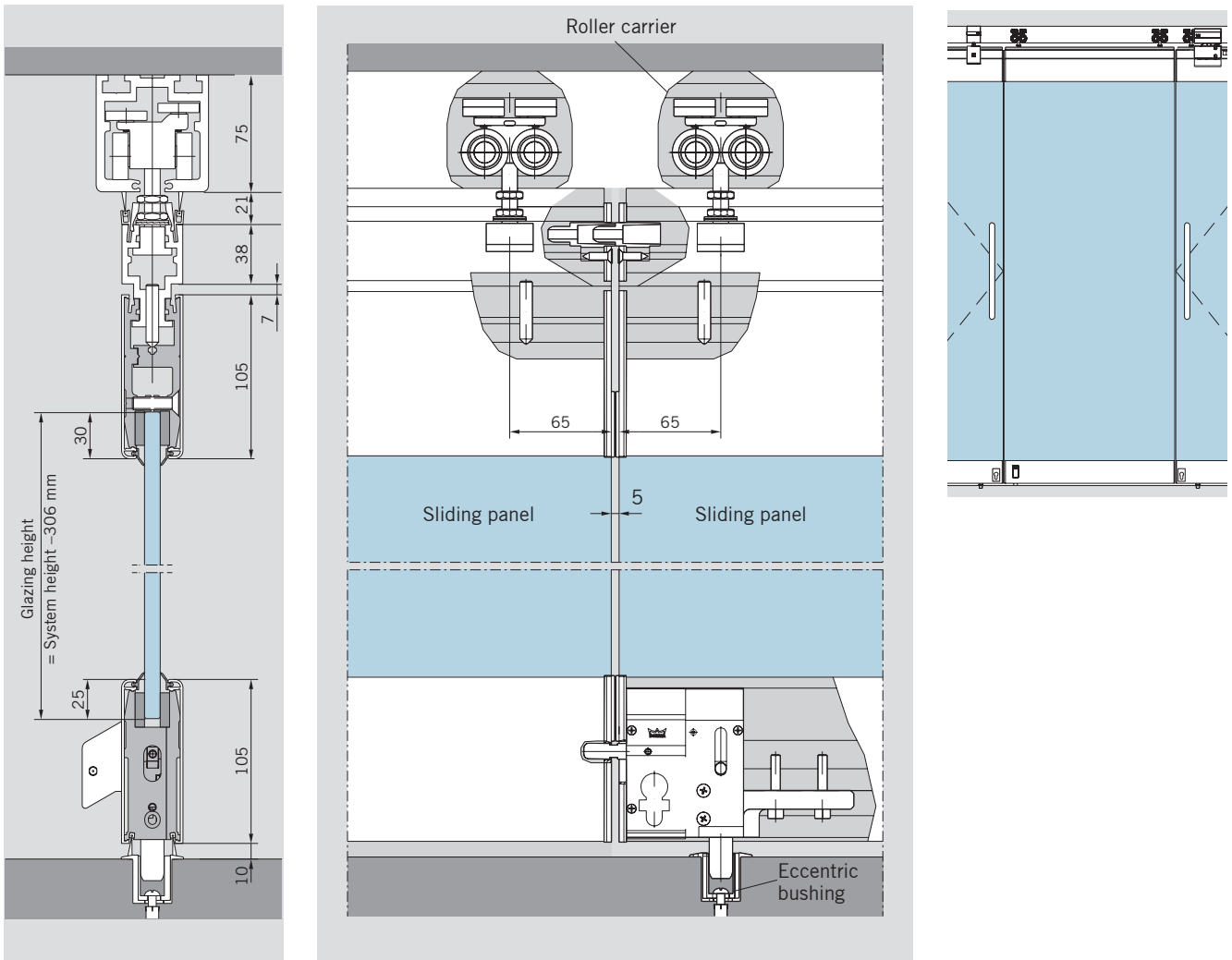
The structure of the bottom door rail applies also to single action / double action sliding panel.



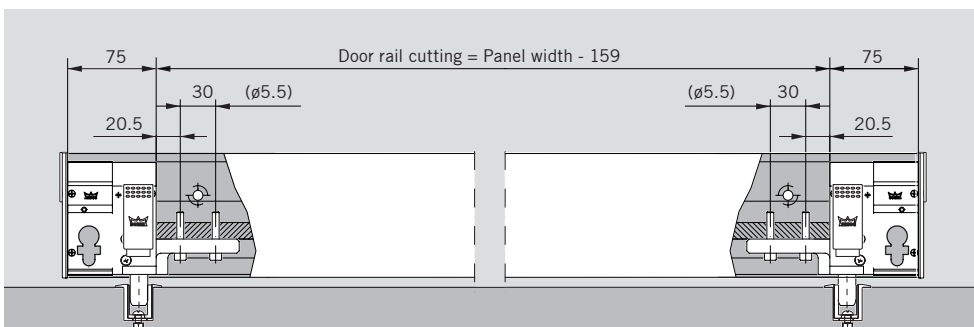
### Machining of cover profile



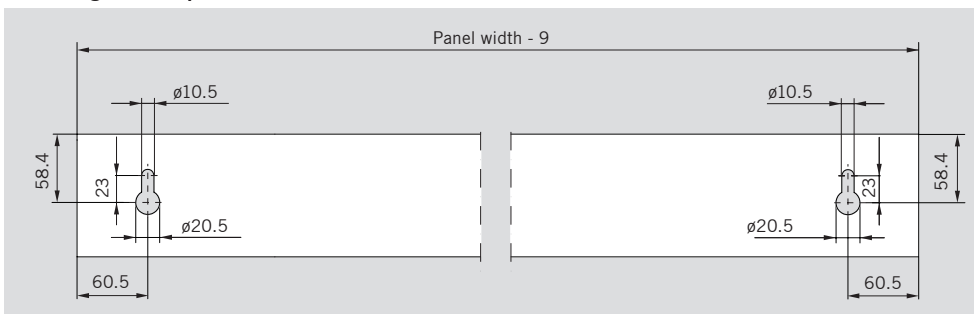




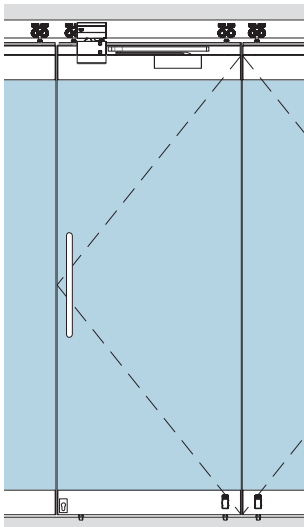
Bottom door rail with face-mounted slide bolt on both sides



Machining of cover profile



# SINGLE ACTION SLIDING PANEL WITH TS 92



### Single action sliding panel with DORMA TS 92 cam-action door closer

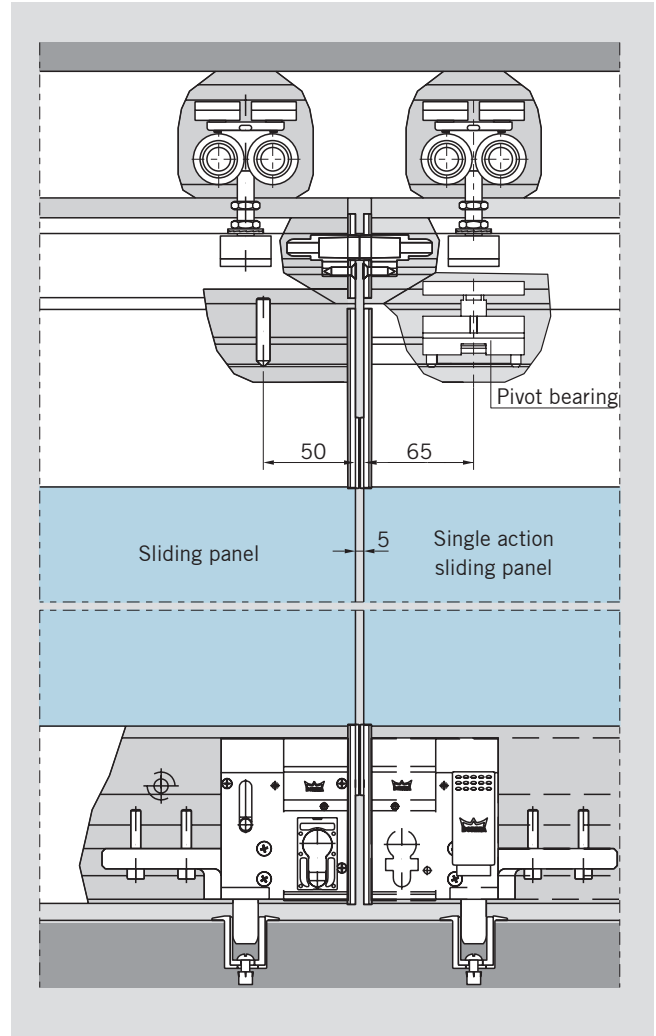
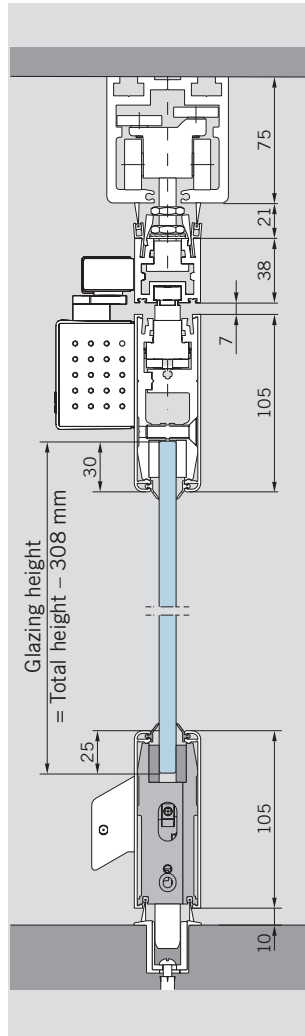
This panel type is installed where doors only need to be opened in one direction, either inward or outward. In both cases, the cam-action door closer is fixed to the internal side of the assembly. If you are considering this panel type, please note our advisories relating to portal systems on page 47.

#### Standard assembly

- top: Pivot bearing, TS 92 with slide channel, one locking device.
- bottom: Face-mounted slide bolt as pivot (released for sliding function), deadlock.

#### Optional equipment

- top: Additional locking device (upper locking unit) to secure the panel in the area of a reshuffle bypass or for more stability in closed position (Illustration see page 29).
- bottom: Second face mounted slide bolt instead of deadlock.

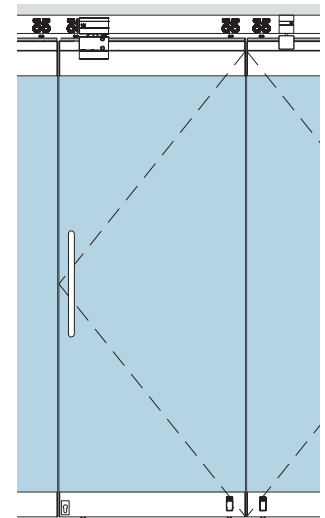
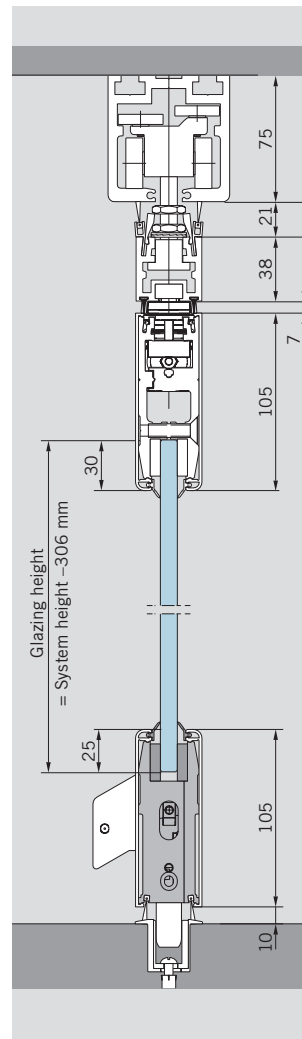
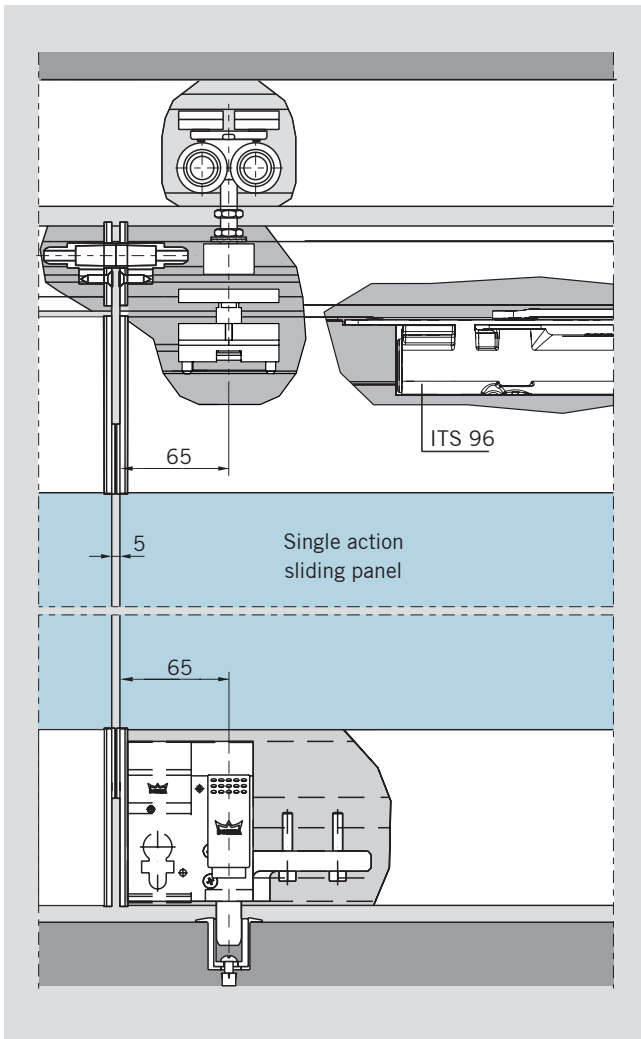


<b>Status display</b>			
<b>Sliding function</b>	locked	locked	open
<b>Door function</b>	open	locked	locked

#### Data and features: TS 92

Closing strength / size	EN 2 - 4	Hold-open adjustment	75°-150°
Closing speed and latching action independently adjustable at two separate valves	180° - 15° 15° - 0°	Weight	1.9 kg
Non-handed	•	Length	281 mm
Latching speed adjustment	by valve	Overall depth	47 mm
Cushioned stay limit adjustment	80° - 120°	Height	65 mm

# SINGLE ACTION SLIDING PANEL WITH ITS 96



## Single action sliding panel with integrated door closer ITS 96 2 - 4

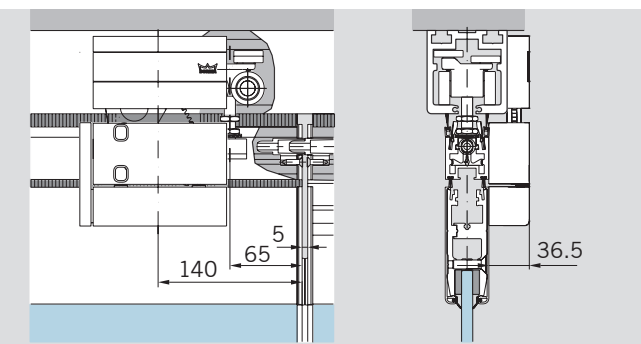
This panel variant is used where the door element is required to only open in one direction, either inward or outward. If you are considering this panel type, please note our advisories relating to portal systems on page 47.

### Standard assembly

- top: Pivot bearing, ITS 96 with slide channel, one locking device.
- bottom: Face-mounted slide bolt as pivot (released for sliding function), deadlock.

### Optional equipment

- top: Additional locking device (upper locking bolt) to secure the panel in the area of a reshuffle bypass or for more stability in closed position.
- bottom: Second face mounted slide bolt instead of deadlock.

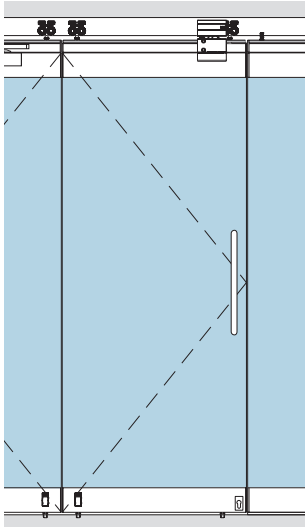


### Data and features: ITS 96 Gr. 2 - 4

Closing strength / size	EN 2 - 4
Max. panel width	≤ 1,100 mm
Max. panel weight	≤ 100 kg
Closing strength continuously variable	Adjusting screw
Closing speed continuously variable	by valve
latching speed is adjustable from 15°-0°	by valve
Cushioned stay limit mechanically variable	yes

Max. opening angle	ca. 120°
Hold-open variable	yes
Weight	1.3 kg
Length	277 mm
Overall depth	32 mm
Height	42 mm
Door closer tested according to EN 1154	yes

## DOUBLE ACTION SLIDING PANEL WITH ITS 96



### Double action sliding panel with integrated DORMA door closer ITS 96, 2-4.

Being virtually invisible, its presence has no effect on the overall appearance of the partition.

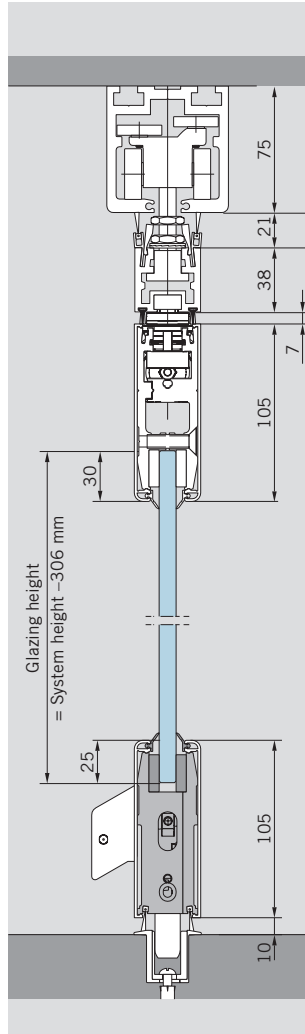
In its standard form, ITS 96 is provided with a 90° hold-open. If you are considering this panel type, please note our advisories relating to portal systems on page 47.

### Standard assembly

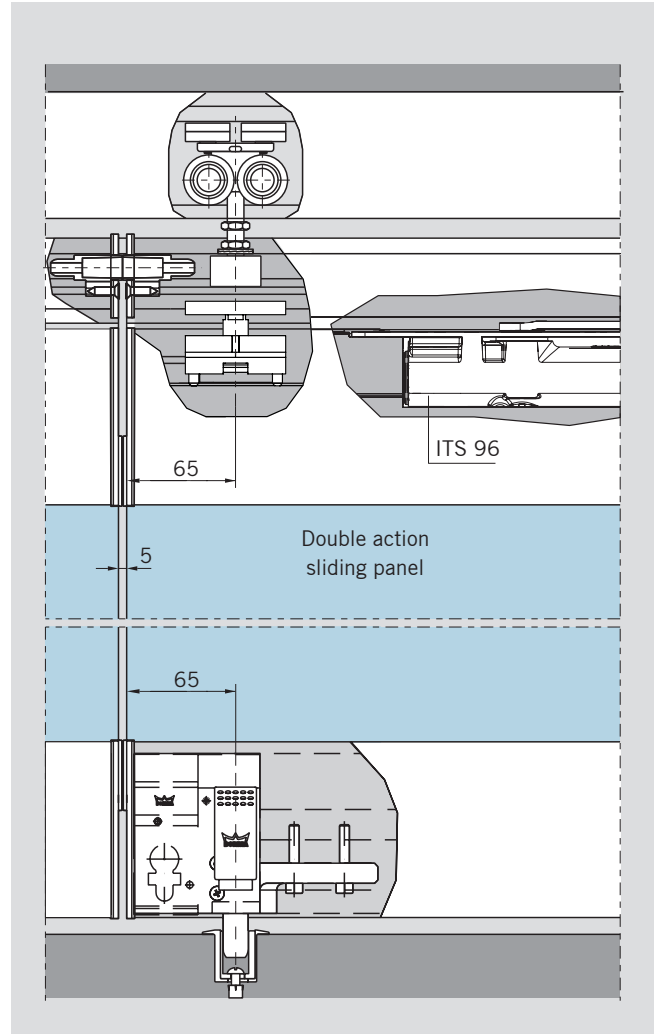
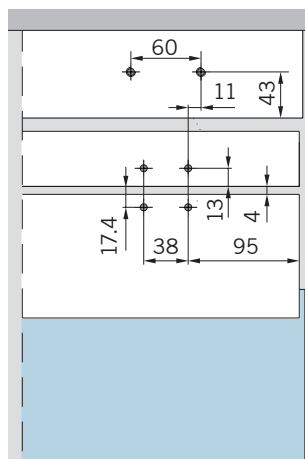
- top: Pivot bearing, ITS 96\* with slide channel, one locking device
- bottom: Face-mounted slide bolt as pivot (released for sliding function), deadlock

### Optional equipment

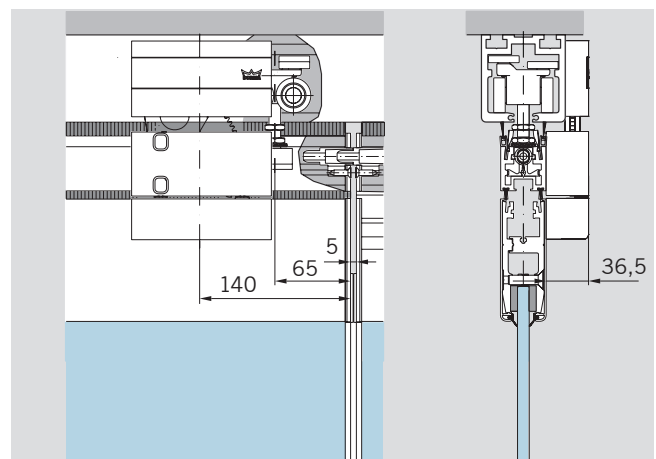
- top: Additional locking device (upper locking unit) to secure the panel in the area of a reshuffle bypass or for more stability in closed position.
- bottom: Second face mounted slide bolt instead of deadlock



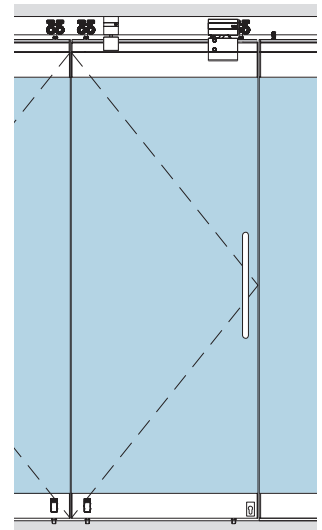
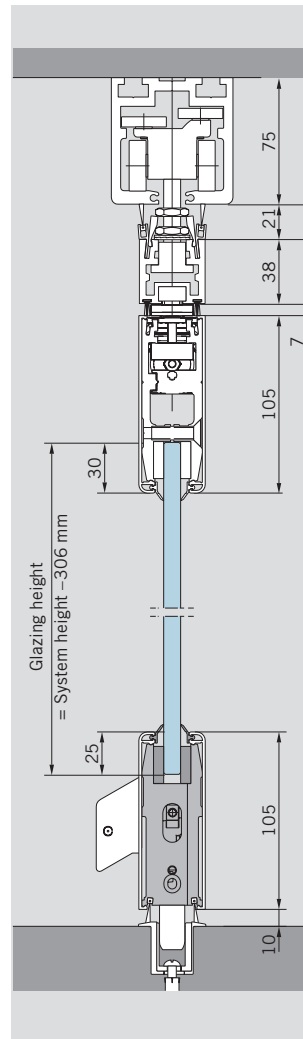
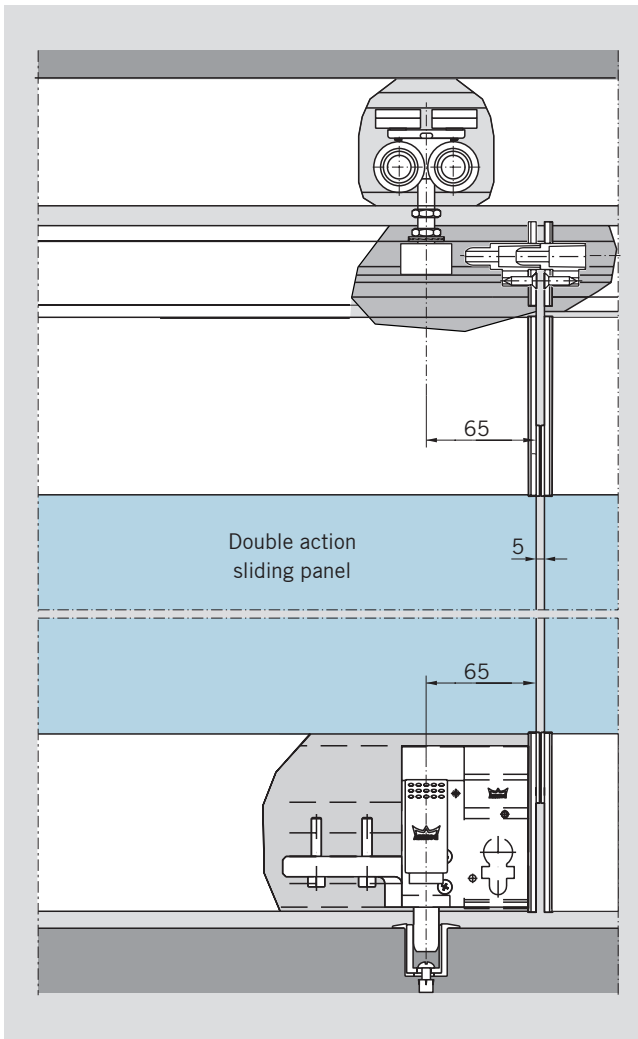
### Hole of pattern upper locking unit



### Upper locking unit

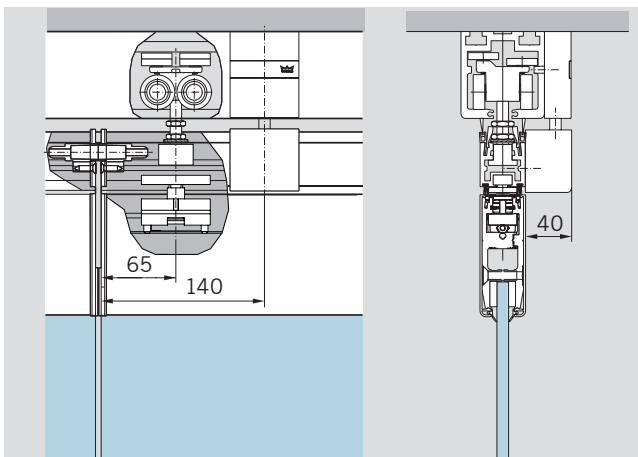


\* Data and features ITS 96 see page 27.

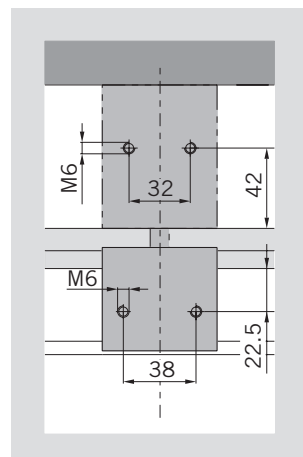


**Additional upper locking bolt**  
 The additional upper locking bolt is used for single-action or double-action sliding panels as an optional addition to the upper locking unit at the other end of the door. In some cases it is recommended for additional stabilization of the carrier profile.

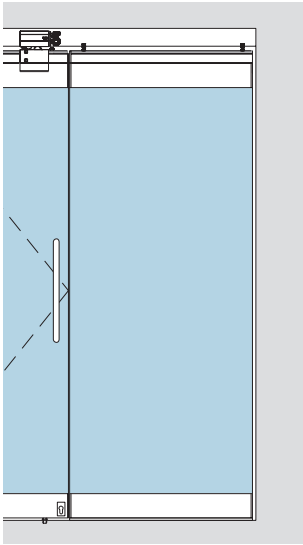
**Additional locking bolt**



**Hole of pattern additional locking bolt**



# FIXED PANEL

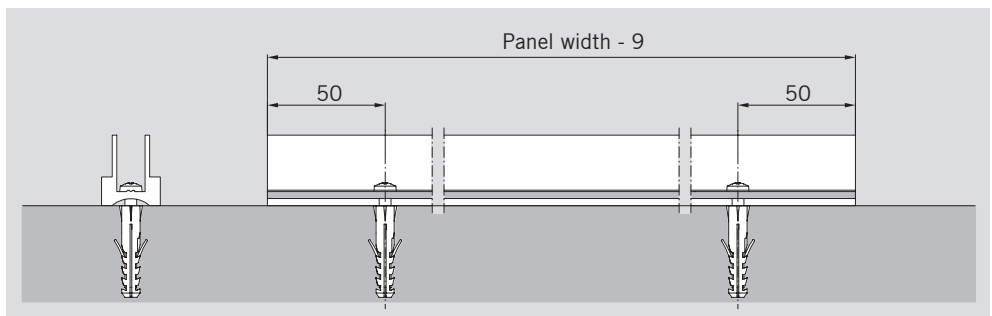
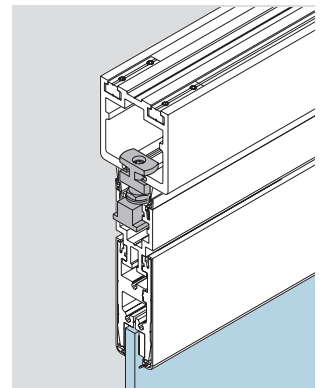
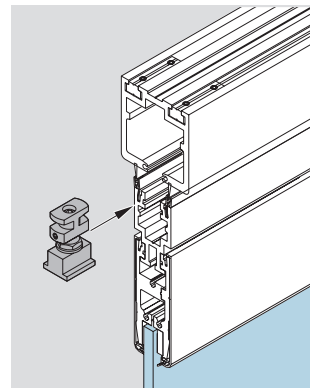
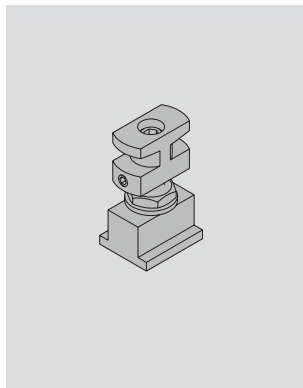
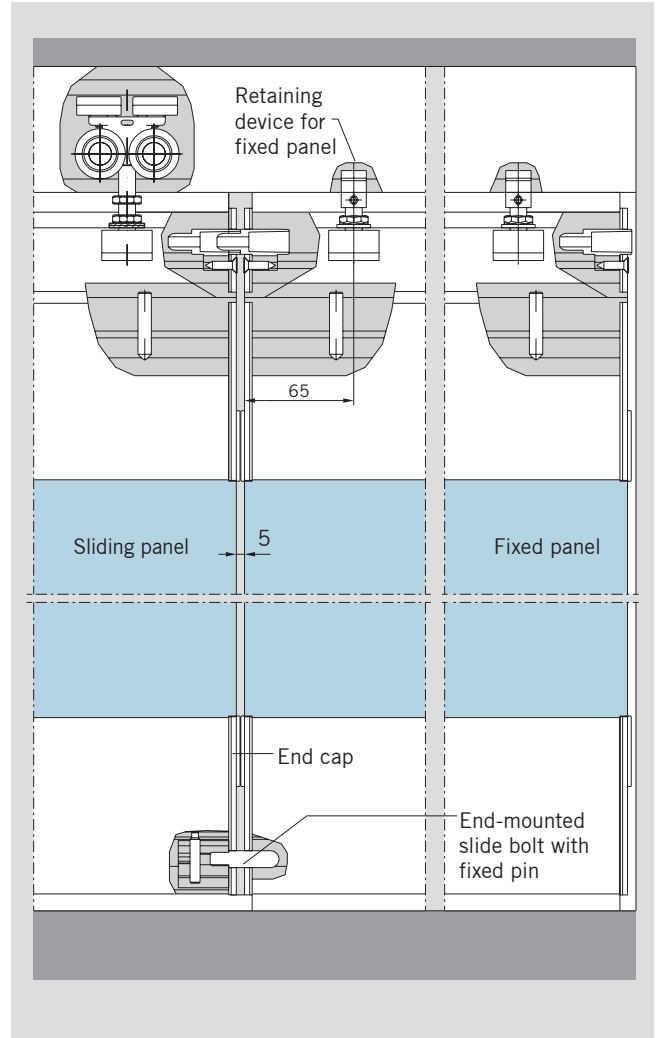
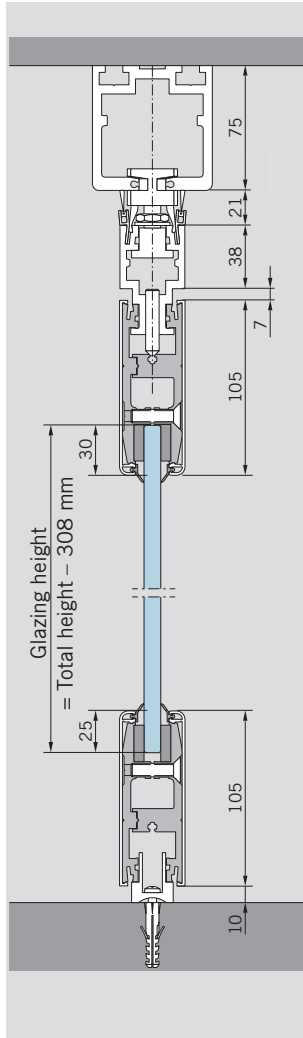


### Fixed side panel

Non-moving side panel, independent of the rest of the system. The fixed side panels are of the same basic design as the sliding panels and continue the appearance of the movable part of the frontage without any optical break. If required, the retaining devices at the top can be replaced by a carrier system to convert such a panel into a sliding panel.

### Standard assembly

- top: Retaining devices fixed to the track rail.
- bottom: Spacer profile fixed to the floor; access for fixed end pin of adjacent panel.







# ACCESSORIES

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## **Vertical seals - Overview**

34 – 35

## **Vertical sealing profiles - General preparation**

36

## **Vertical sealing profiles - Panel types**

37 – 43

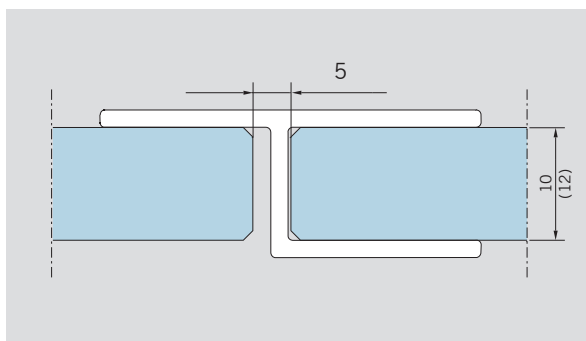


## VERTICAL SEALS - OVERVIEW

The vertical seals provide protection of the lateral glass edges of the panels. With regards to material, fixing and the grade of draft-proofing different solutions are available.

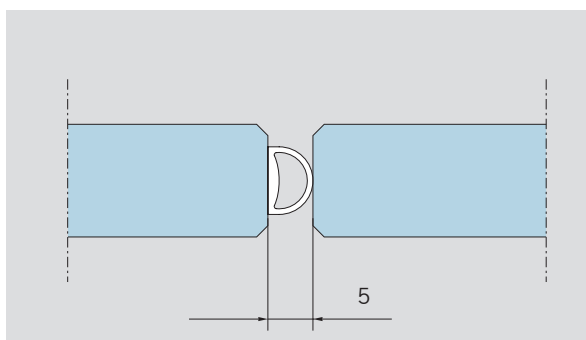
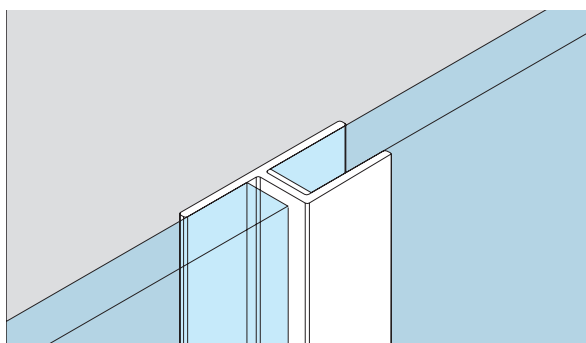
### Retrofittable seals

The plastics profiles shown below provide an unobtrusive and retrofittable solution for draft protection at the glass edges.



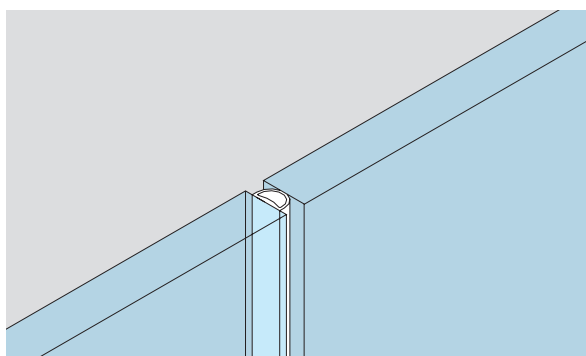
### h-profile

Push on clear plastic for 10 and 12 mm glass thickness (not for double action end panels or double action sliding panels).



### Glass joint gasket

Milky transparent rubber, self adhesive for 10 – 19 mm glass thickness.



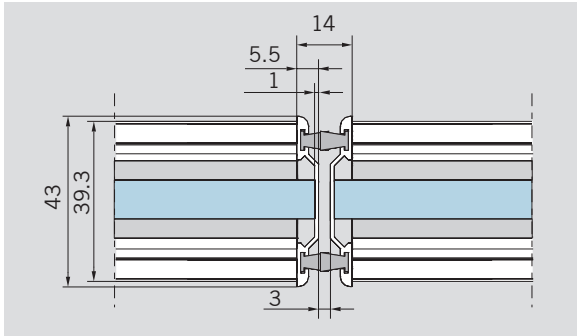
## VERTICAL SEALING PROFILES WITH BRUSHES

The aluminum sealing profiles are fixed to the full height of the panels, replacing the end caps at the top and bottom door rails. They are individually tailored to the requirements of the bottom

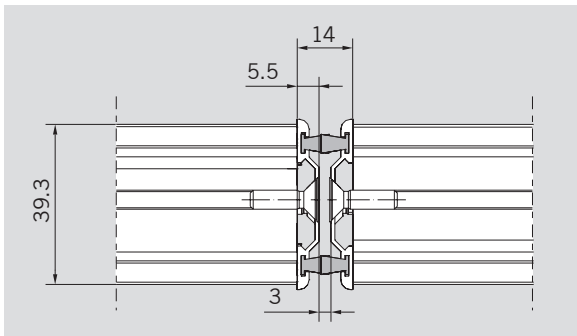
door rails, so they are already prepared for the locking devices such as floor bolts, end pins and vertically engaging deadlocks when delivered by DORMA. At the top, a degree of

extra length is provided to enable precise sealing profile adaptation to the exact panel height on site once the system has been vertically aligned. The double brush seals

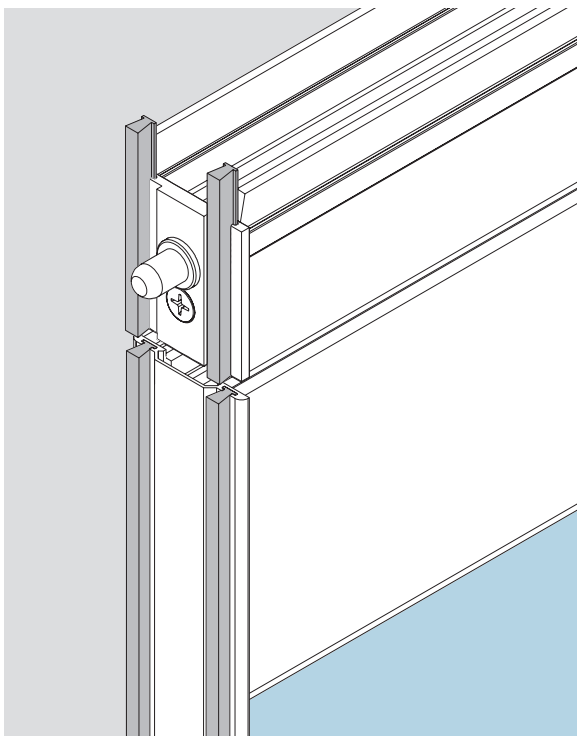
interlock with those at the adjacent panel and continue in line with the double brush seals at the top and bottom door rails. This ensures excellent draft proofing.



Vertical Sealing Profile



Vertical Sealing Profile

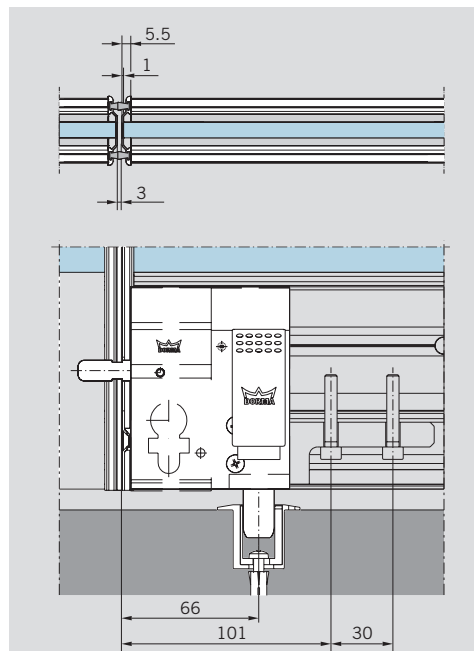
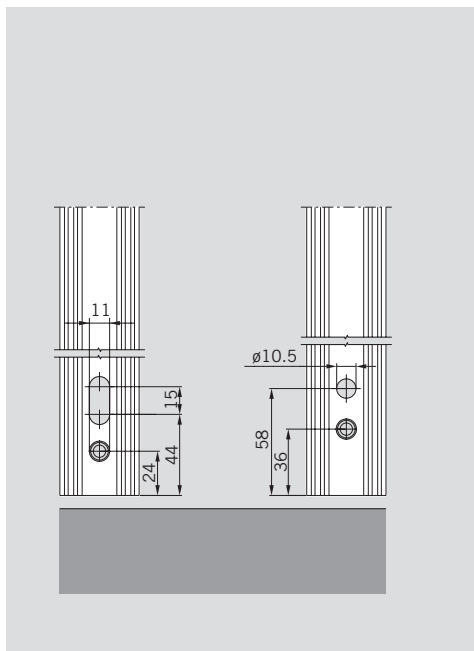


# VERTICAL SEALING PROFILES - GENERAL PREPARATION

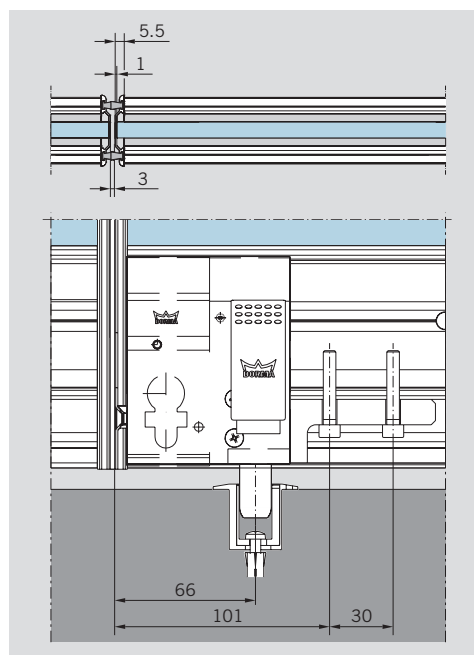
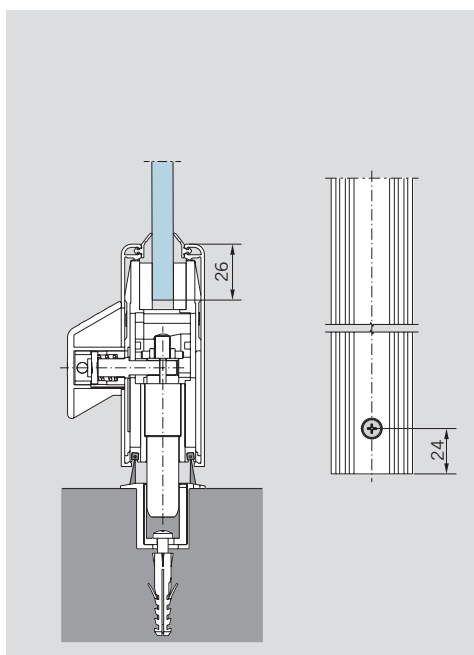
## Profile machining

for end-mounted and face-mounted slide bolts performed by DORMA.

Preparation and mounting of vertical sealing profile for end-mounted slide bolt

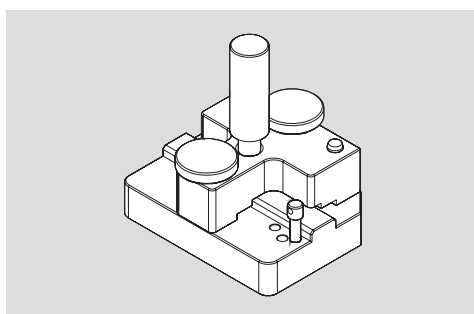


Preparation and mounting of vertical sealing profile for face-mounted slide bolt



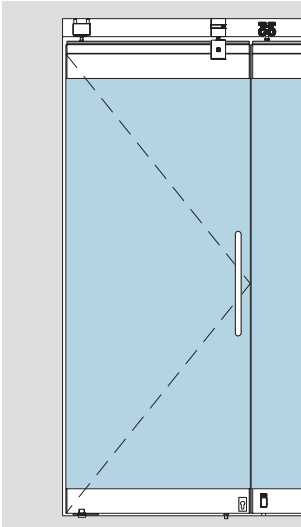
## Tool for preparing the top of the vertical sealing profiles on site

Article number  
8.40.070.000.99





## VERTICAL SEALING PROFILES - PANEL TYPES



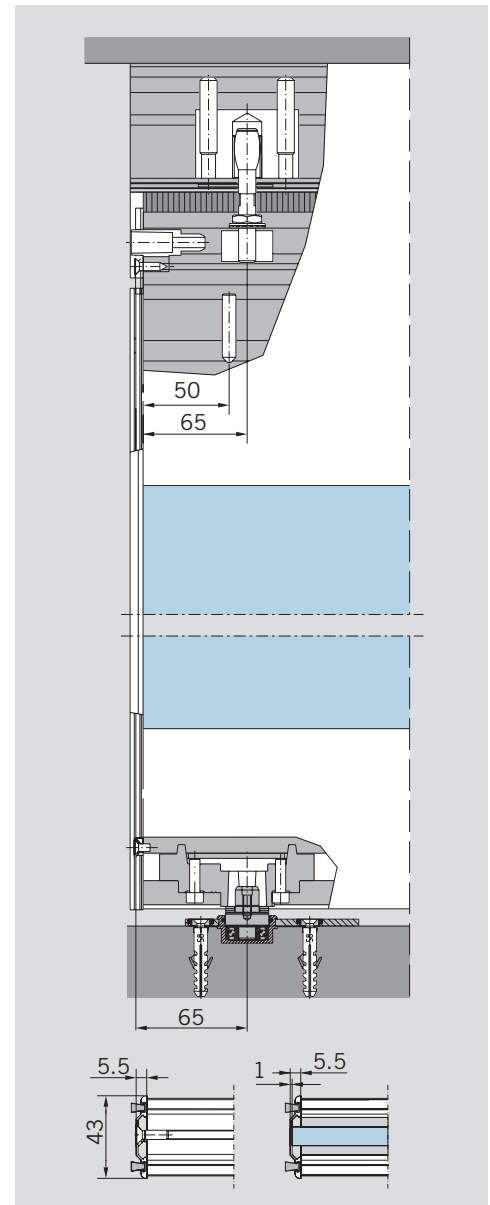
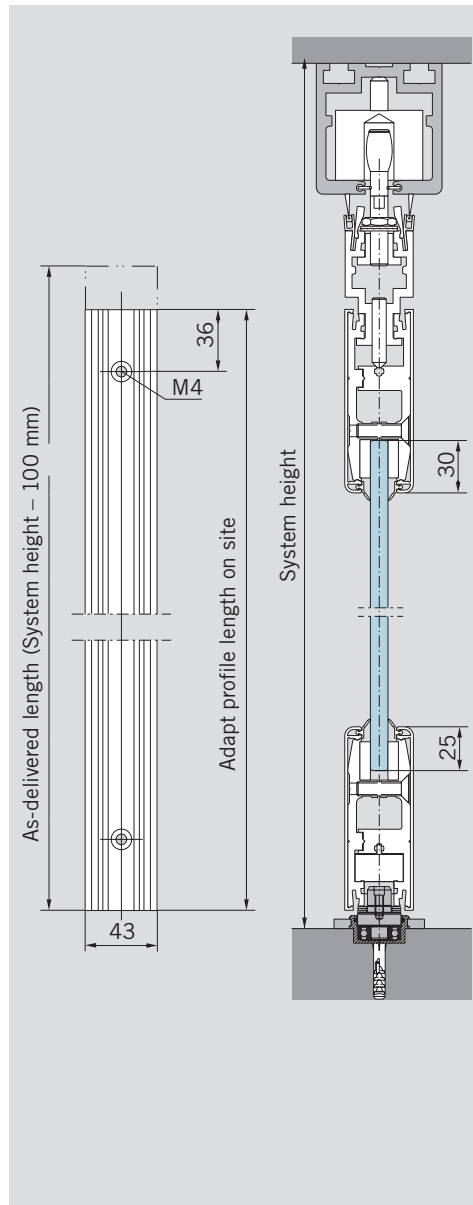
### Single action / double action end panels

When using the vertical sealing brush profiles at the full height of single action end panels, the solution for the necessary stop for the single action function is depending on the assembly design and the constructional conditions given. It will be determined individually by DORMA.

### As-delivered condition of the vertical sealing profiles:

Cut lengths supplied from factory = System height – 100 mm.

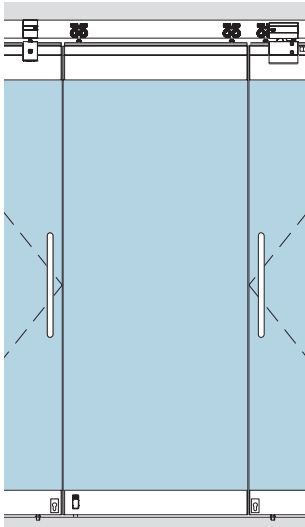
Holes and recesses are pre-machined in the profile for the bottom door rail only. Any further machining work required for connection to the top door rail has to be performed on site.



### Installation instructions

When fitting the top and bottom door rails please ensure that the protrusion of the glass width on either side of a door rail is even. In case the panels incorporate a carrier profile a proper section of the double brush sealing profile is fixed to the carrier profile by a fixing cartridge. Prior to machining the sealing profile at the top for the exact length from the bottom to the top door rail, first hang the panels from the track rail and align.

## VERTICAL SEALING PROFILES - PANEL TYPES

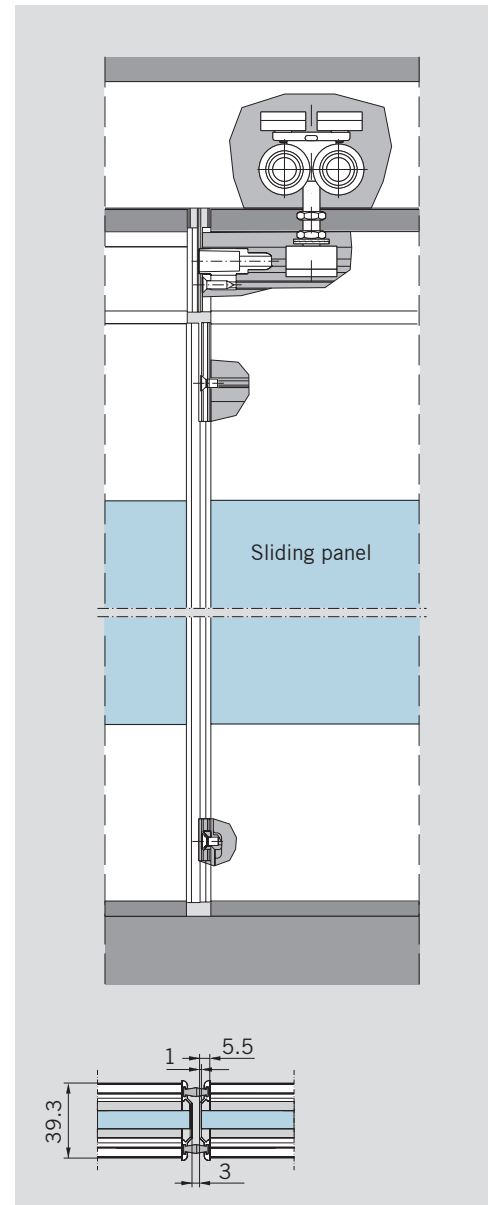
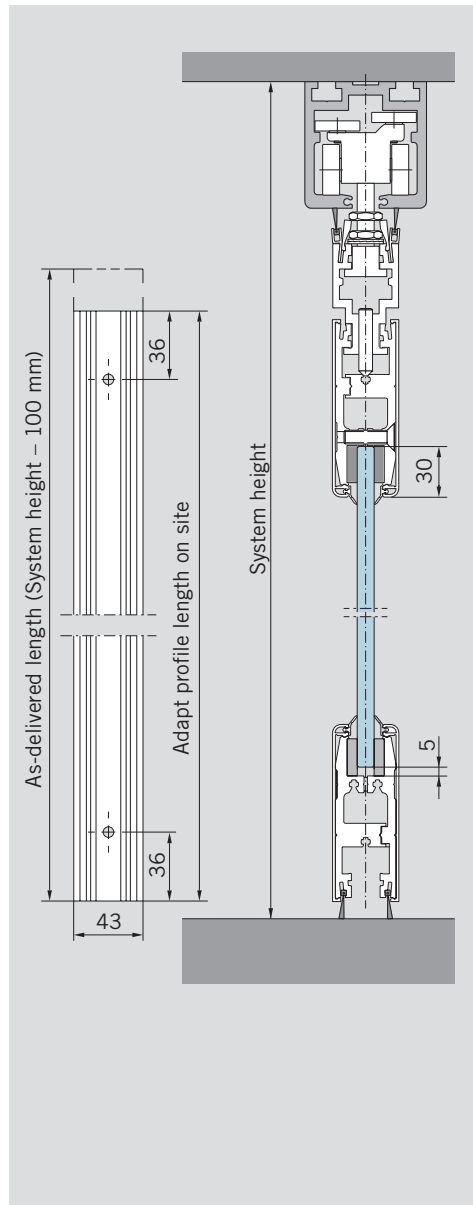


### Sliding panels

#### As-delivered condition of the vertical sealing profiles:

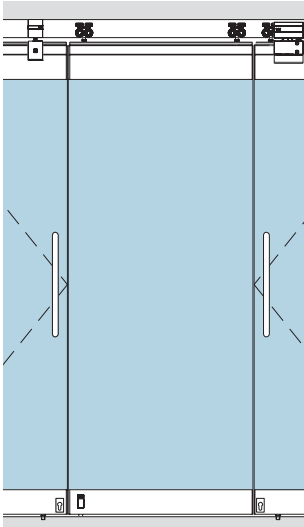
Cut lengths supplied from factory = System height – 100 mm.

Holes and recesses are pre-machined in the profile for the bottom door rail only. Any further machining work required for connection to the top door rail has to be performed on site.



### Installation instructions

When fitting the top and bottom door rails please ensure that the protrusion of the glass width on either side of a door rail is even. In case the panels incorporate a carrier profile a proper section of the double brush sealing profile is fixed to the carrier profile by a fixing cartridge. Prior to machining the sealing profile at the top for the exact length from the bottom to the top door rail, first hang the panels from the track rail and align.

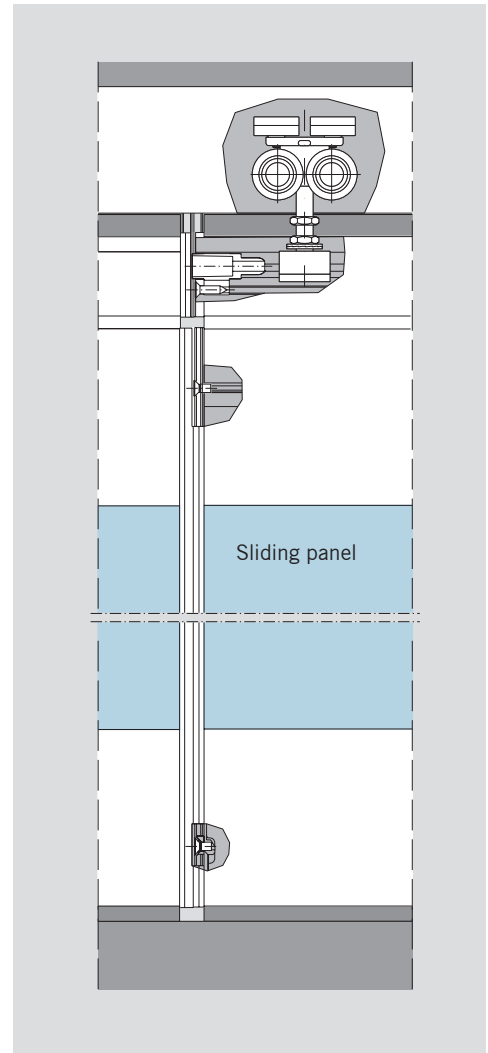
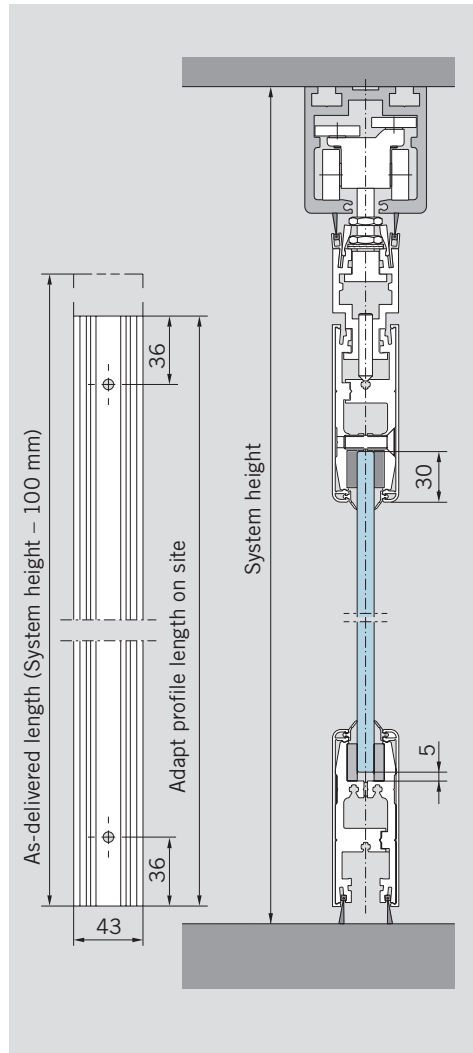


**Sliding panels in segmented configurations**

**As-delivered condition of the vertical sealing profiles:**

Cut lengths supplied from factory = System height – 100 mm.

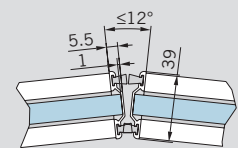
Holes and recesses are pre-machined in the profile for the bottom door rail only. Any further machining work required for connection to the top door rail has to be performed on site.



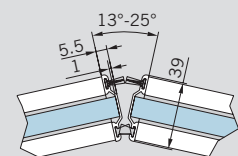
**Installation instructions**

When fitting the top and bottom door rails please ensure that the protrusion of the glass width on either side of a door rail is even. In case the panels incorporate a carrier profile a proper section of the double brush sealing profile is fixed to the carrier profile by a fixing cartridge. Prior to machining the sealing profile at the top for the exact length from the bottom to the top door rail, first hang the panels from the track rail and align.

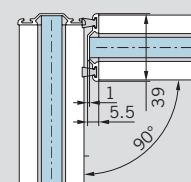
Sealing profiles with the standard short type brushes in both brush channels.



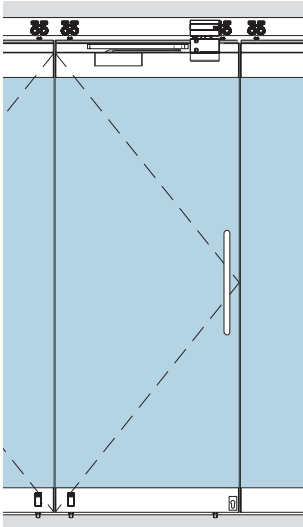
Sealing profiles with short type brushes in the inner brush channels and long type brushes in the outer brush channels.



Sealing profile without brushes at the panel's free edge; sealing profile with short type brushes at the 90° adjoining panel.



## VERTICAL SEALING PROFILES - PANEL TYPES

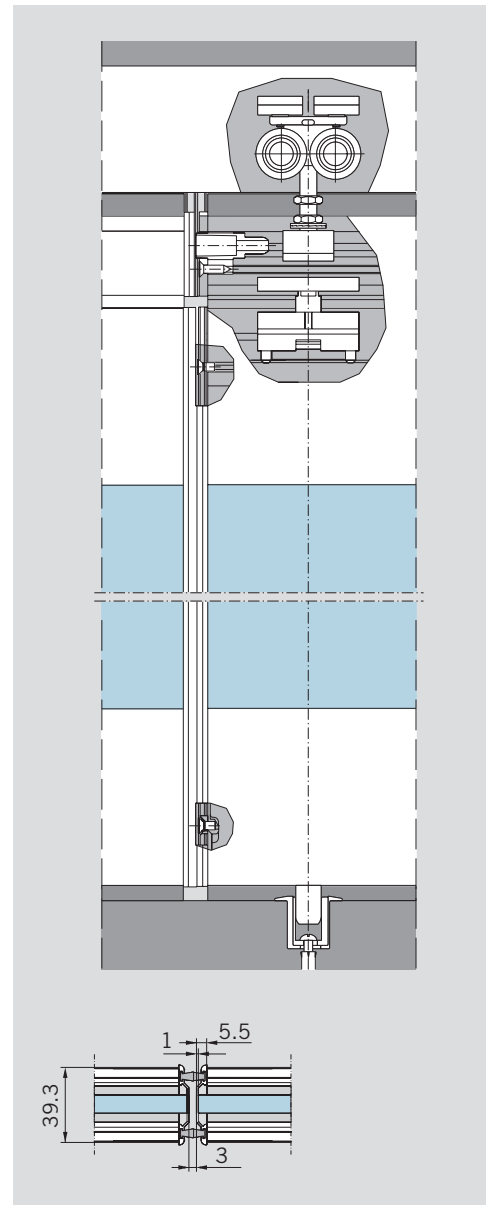
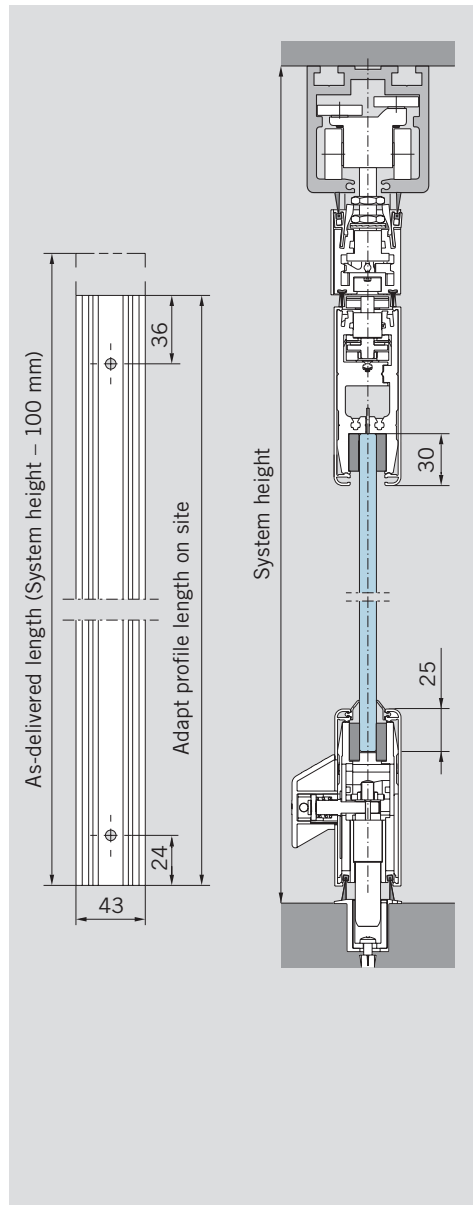


Single action sliding panels  
(with TS 92 or ITS 96) /  
double action sliding panels  
(with ITS 96)

### As-delivered condition of the vertical sealing profiles:

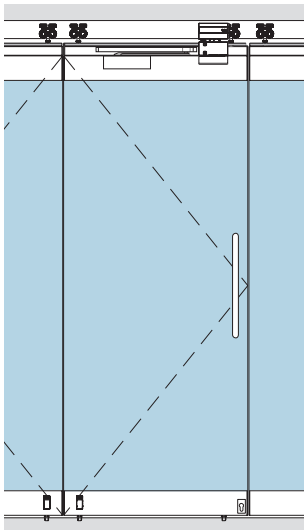
Cut lengths supplied from factory  
= System height – 100 mm.

Holes and recesses are  
pre-machined in the profile for  
the bottom door rail only.  
Any further machining work  
required for connection to the  
top door rail has to be  
performed on site.



### Installation instructions

When fitting the top and bottom door rails please ensure that the protrusion of the glass width on either side of a door rail is even. In case the panels incorporate a carrier profile a proper section of the double brush sealing profile is fixed to the carrier profile by a fixing cartridge. Prior to machining the sealing profile at the top for the exact length from the bottom to the top door rail, first hang the panels from the track rail and align.

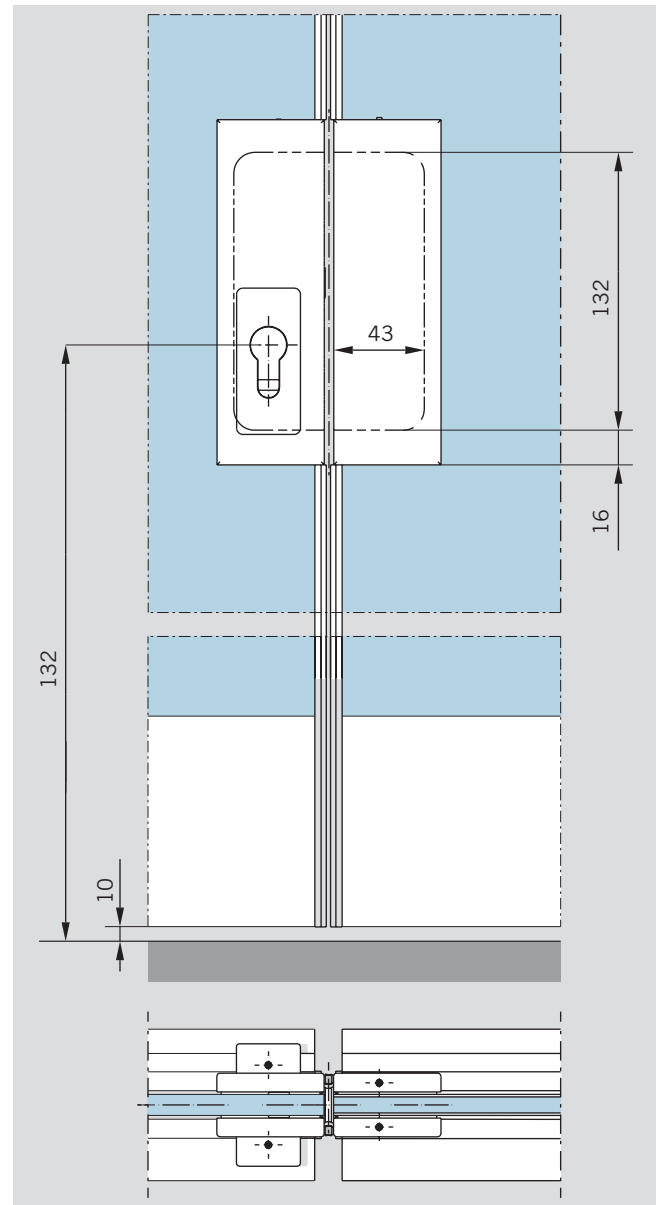
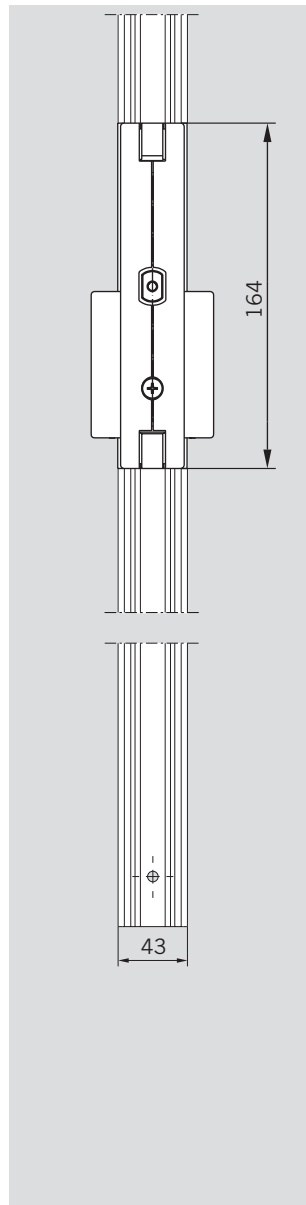


**Single action sliding panels (with TS 92 or ITS 96) / double action sliding panels (with ITS 96) with Universal centre lock and Universal strike box**

**As-delivered condition of the vertical sealing profiles:**

Cut lengths supplied from factory = System height – 100 mm.

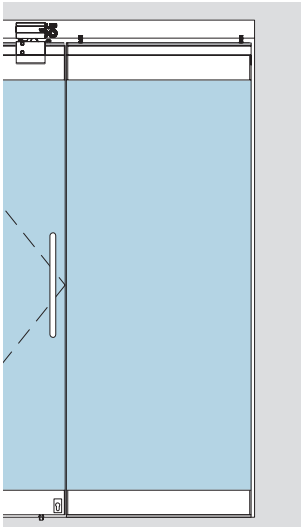
Holes and recesses are pre-machined in the profile for the bottom door rail only. Any further machining work required for connection to the top door rail has to be performed on site.



**Installation instructions**

When fitting the top and bottom door rails please ensure that the protrusion of the glass width on either side of a door rail is even. In case the panels incorporate a carrier profile a proper section of the double brush sealing profile is fixed to the carrier profile by a fixing cartridge. Prior to machining the sealing profile at the top for the exact length from the bottom to the top door rail, first hang the panels from the track rail and align.

## VERTICAL SEALING PROFILES - PANEL TYPES

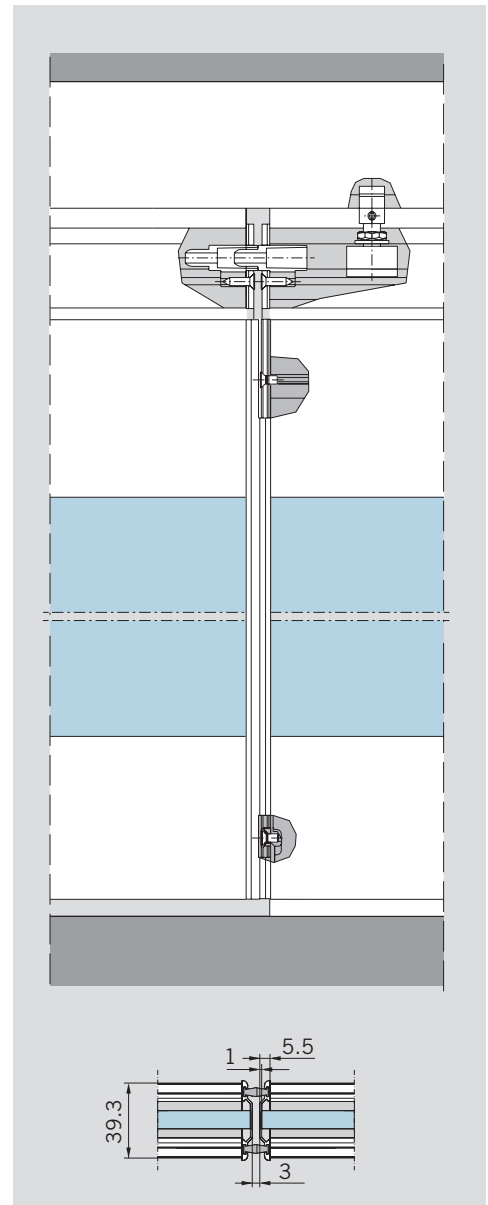
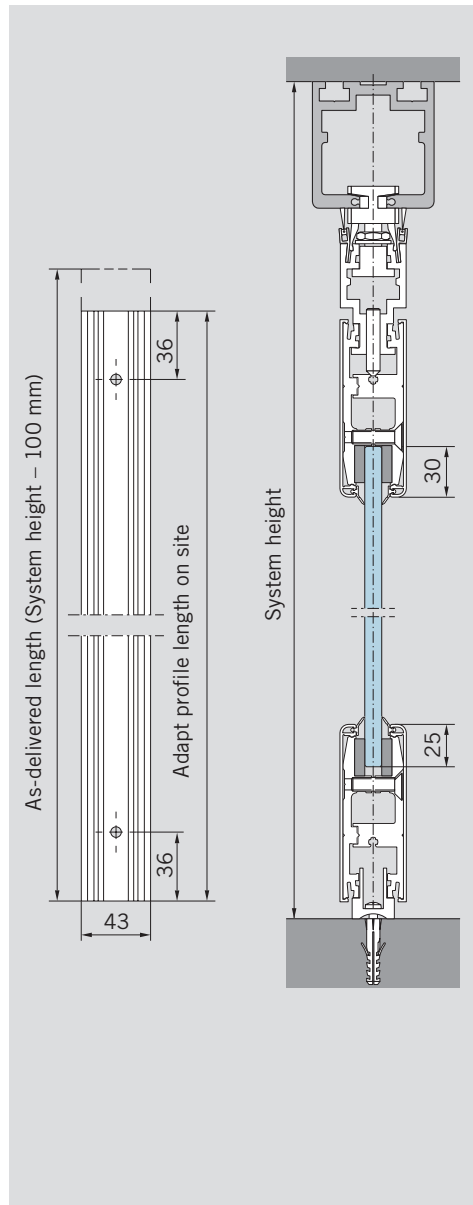


### Fixed panels

#### As-delivered condition of the vertical sealing profiles:

Cut lengths supplied from factory = System height – 100 mm.

Holes and recesses are pre-machined in the profile for the bottom door rail only. Any further machining work required for connection to the top door rail has to be performed on site.



### Installation instructions

When fitting the top and bottom door rails please ensure that the protrusion of the glass width on either side of a door rail is even. In case the panels incorporate a carrier profile a proper section of the double brush sealing profile is fixed to the carrier profile by a fixing cartridge. Prior to machining the sealing profile at the top for the exact length from the bottom to the top door rail, first hang the panels from the track rail and align.





## GENERAL INFORMATION

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## PLANNING TOOLS



For planning of intelligent glass solutions we offer you several planning tools which allow you to create secure and professional solutions for any kinds of glass doors and toughened glass assemblies. The software provides you with all necessary documentation such as dimensioned technical drawings, glass sizes and preparation measures.

Your benefits:  
Easy to operate  
Professional and error-free preparation of offers  
Rapid response to incoming requests for quotations  
Highly reduced planning costs for time and money savings

DGES Fittings (for internal doors and toughend glass assemblies)  
DGES HSW (for horizontal sliding walls)  
MANET COMPACT planning tool (for MANET pivoting and sliding doors).

## SAFETY-RELATED INFORMATION

**Important safety-related information for the mounting and use of DORMA glass fittings**  
(Follow these instructions in addition to the mounting and operating instructions in order to avoid damage of product and damage to person or property.)

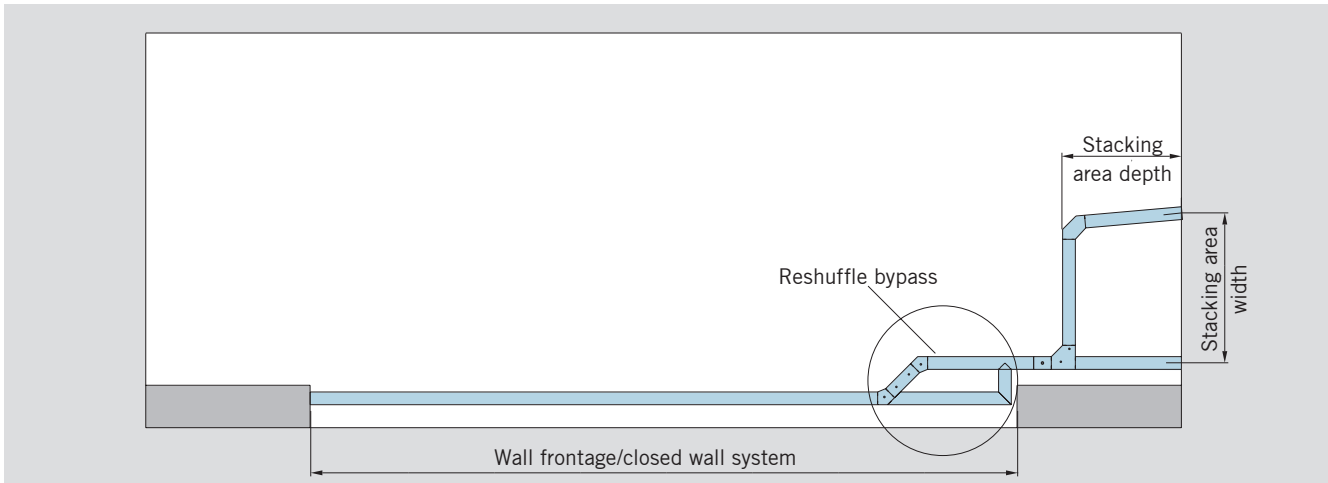
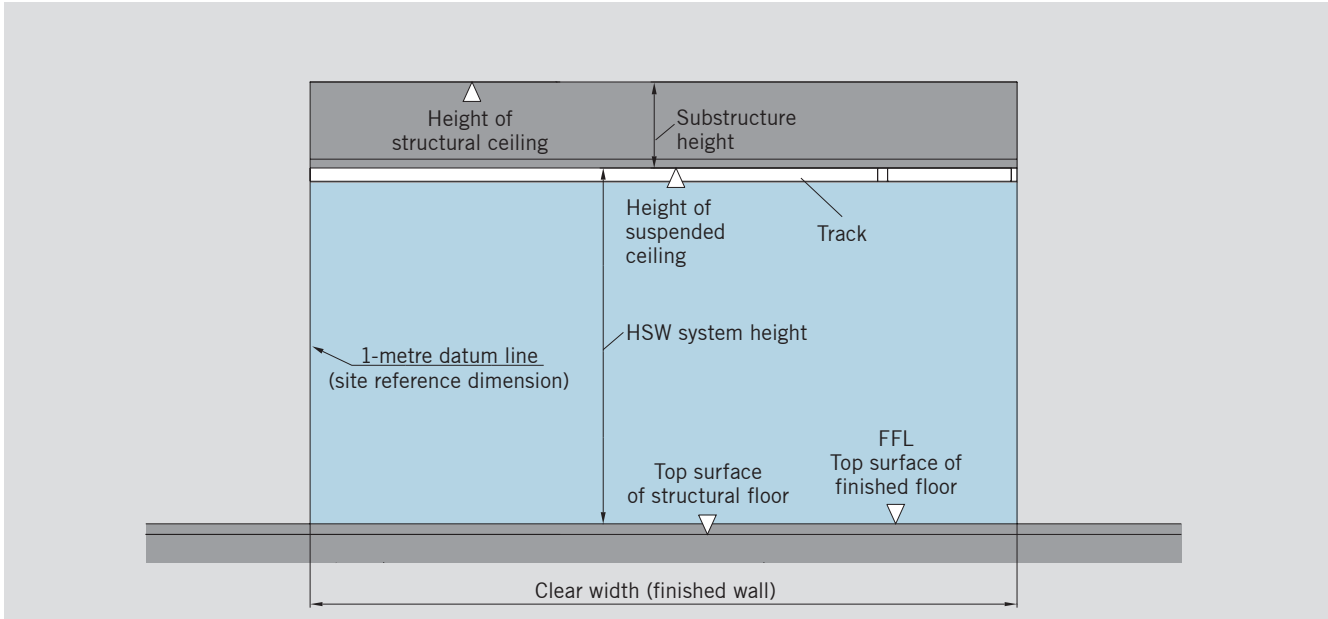
**Important:** All users have to be informed about the safety-related information mentioned in these safety-related information operating instructions!

**General information**  
1. DORMA recommends the use of safety glass (glass) to DORMA fittings

2. DORMA recommends the use of safety glass (glass) to DORMA fittings

# MEASURING UP

## Important site measurements



## NOTES ON PORTAL SYSTEMS

### Maintenance recommendation for high-frequency HSW systems

Horizontal sliding walls with glass panels have been developed in order to provide retail outlets with generous and enticing frontages – entrances that offer easy accessibility and an inviting appearance for customers. When the frontages are closed, they can double up as expansive shop windows.

In cases where double-action sliding panels are used for main entrances as a portal system (i. e. in shopping malls or as similar operated HSW systems) they are submitted to very high daily traffic volumes and usage frequency rates. The door closers and pivot bearings used by DORMA have been successfully tested in accordance with the requirements of EN 1154. EN 1154 specifies 500,000 test cycles for manually operated closing devices. High-frequency portal systems such as the above can reach this number of cycles after just a few months. Consequently, DORMA recommends that such units be regularly maintained. The higher the usage levels, the more frequently the equipment should be serviced by either the installation firm or a similarly specialized fitter.

In addition to any door closer that may be fitted, a suitable opening limiter (to be provided on site) will also be required as protection for single action and double action sliding panels. In the case particularly of public and highly frequented entrance systems, door closers are unsuitable as opening limiters as any excess pressure applied to doors will lead to high stress forces being applied at the sweep maximum.

### Standard surface combinations for

cover profiles	end caps	upper lockings
100	100	100
150	109	318
157	109	304
318	109	318
350	109	350
398	398	398
700	109	304

## FINISHES

### Deviations in colour due to production procedures cannot be totally excluded.

HSW systems with surface finishes 150, 157 and 700 contain different component materials. In the case of FSW (folding sliding walls) systems, for example, the folding hinges are always of aluminium, while the standard surface finish for brush profiles and end covers is black anodised (E6/C35). These various components can also optionally be anodised or powder-coated so that they resemble the ordered surface finish. The standard surface of upper locking units and upper locking bolts is a powder-coated RAL colour. Please find below a table with the standard surface combinations within the range of the different surface varieties. Typical manufacturing flow marks appear when anodising the milled area of the track rail modules. As an alternative to the anodized EV 1 surface finish, we therefore offer modules and track rails in all lengths in a powder-coated version similar to EV 1 for visual reasons.

### General care instructions

The surface finishes of the fittings are not maintenance-free and should be cleaned according to their material and design. For metallic surfaces (anodised finishes, stainless steel) please use appropriate cleaning agents without abrasive additives only. For varnished surfaces please use appropriate solvent-free cleaning agents only.

### Finishes

Aluminium	DORMA-Glas No.
Aluminium mill finish	100
Aluminium black	109
Aluminium silver EV1	150
Aluminium similar satin stainless steel (for profile material)	157
Special anodised	199

Powder coated colours	DORMA-Glas No.
Black powder-coated	304
Similar EV1 powder-coated	318
Traffic white	350
High weather resistant coated	398
Special powder-coated colour	399

Stainless steel	DORMA-Glas No.
Satin stainless steel	700

## SAFETY-RELATED INFORMATION

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### Important safety-related information for the mounting and use of DORMA glass fittings

(Follow these instructions in addition to the mounting and operating instructions in order to avoid damage of product and damage to person or property.)

**Important:** All users have to be informed about relevant points mentioned in these safety-related information and the mounting and operating instructions!

#### General information

1. DORMA recommends using of:
  - TSG-H (heat soaked toughened safety glass) to DIN EN 12150-1
  - LSG (laminated safety toughened glass) according to EN ISO 12543-1
2. DORMA glass fittings are not suitable for application in rooms where chemicals (e. g. chlorine) are used such as indoor swimming pools, saunas or salt-water pools.
3. Never move sliding panels faster than walking speed and always stop the door manually before it reaches end position.
4. Do not shut swing doors with excessive force. Install door stop to prevent door from opening too far.

#### Mounting

1. Only properly qualified and specially trained staff is authorised to mount DORMA glass fittings.
2. Never use glass with conchoidal fractures and/or damaged edges.
3. Due to crushing hazards – among others in the area of the secondary closing edge – and possible injury caused by breakage of glass during mounting, corresponding protective clothing (especially gloves and protective goggles) is required.
4. Clean clamping area with fat solvent (standard commercial cleaning agent) before mounting the glass fitting.
5. Never use clamping shoes on structured glass surfaces (except on satined glass) or glass of heavily varying thickness unless with a corresponding levelling layer.
6. Never use clamping shoes on self-cleaning coatings.
7. When adjusting glass elements, always stick to the required clearance for the respective fitting. Adjust clearance so that the glass does not touch hard components such as glass, metal or concrete.
8. Make sure not to use excessive force when installing the glass (avoid local stress resulting from very tight screws).

#### Maintenance

Check fittings at regular intervals for proper positioning and smooth running and door for correct adjustment. Especially highly-frequented door systems require inspection by properly qualified staff (specialised companies or installation firms). Immediately replace damaged glass elements (no glass flaking and/or conchoidal fractures)!

Subject to change without notice.

For practical planning, please use our drawings DORMA-Glas DETAIL.











DORMA Deutschland GmbH  
DORMA Platz 1  
58256 ENNEPETAL  
DEUTSCHLAND  
Tel. +49 2333 793-0  
Fax +49 2333 793-4950  
[www.dorma.de](http://www.dorma.de)

DORMA-Glas GmbH  
Max-Planck-Straße 33-45  
32107 BAD SALZUFLEN  
DEUTSCHLAND  
Tel. +49 5222 924-100  
Fax +49 5222 924-3100  
[www.dorma.de](http://www.dorma.de)