

A close-up photograph of a silver, double-action door hinge. The hinge is mounted on a door, and the door is slightly open. The hinge has a rectangular shape with a recessed area in the center. The DORMA logo is visible on the hinge. The background is a blurred room with a checkered floor.

TENSOR

Double-action door hinges

CONVENIENCE – PRECISION – TENSOR

There are many arguments in favour of installing a toughened glass door – as many as there are applications and functional possibilities. Double-action doors offer particular convenience. And all the more so where the door is returned to the desired closed position by the action of the hinges alone – without any need for a recessed floor spring or an overhead door closer cluttering the top edge of the glass panel.

The TENSOR concept sets a new standard in this regard – whether for new installations or refurbishments. TENSOR double-action door hinges can be fixed directly to the masonry or to a non-rebated frame. In the case of “glass-to-glass” model, the double-action door is hung from a fixed toughened glass side screen.

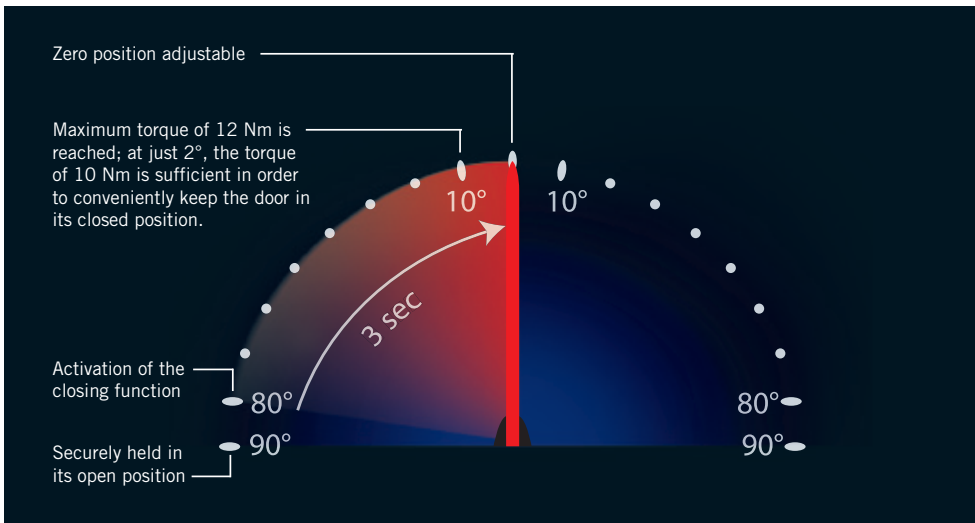
Excellent returns from every angle

Viewed “superficially”, the TENSOR design exhibits a slightly convex, curved form. Also attractively conspicuous is the inlay of the DORMA brand, harmoniously integrated within the satin-finished aluminium hinge components. The emblem may be selected to match or to contrast with the hinge finish – three inlays of different colours are provided with each set. The inlay serves as a mechanical stop for the hinge, thus protecting the surface of the fixed hinge section against damage when the door is opened to 90°.

And it also conceals to the technical core of the system – the simple and high-precision zero-position adjustment mechanism. This is an essential feature for ensuring the effective and efficient closing of a double-action door.

At 90°, the TENSOR system holds the door firmly and securely in position. Once pushed in the closing direction, the spring mechanism of the TENSOR fitting takes over, operating from an angle of 80°. The door closes quickly and securely. And even at an opening angle of 2°, the torque of 10 Nm created is sufficient to keep the door conveniently in its closed position.

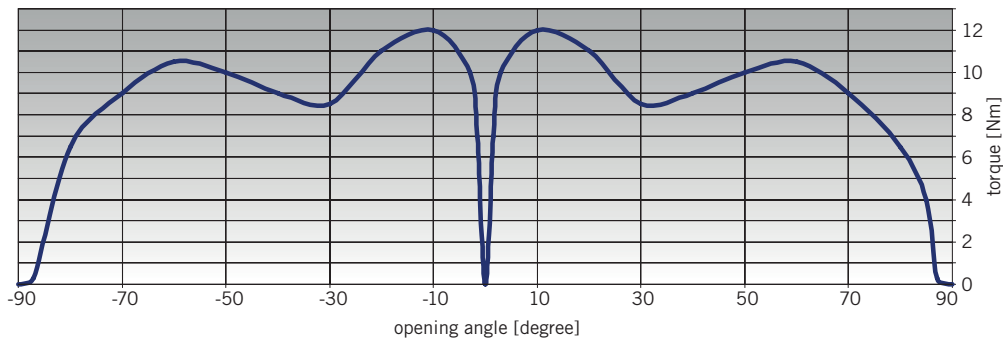




TENSOR


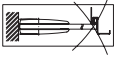
TÜV-tested/third-party verification with respect to quality and the production process. Confirmed completion of 500,000 operating cycles.

Average values for a door with two TENSOR hinges



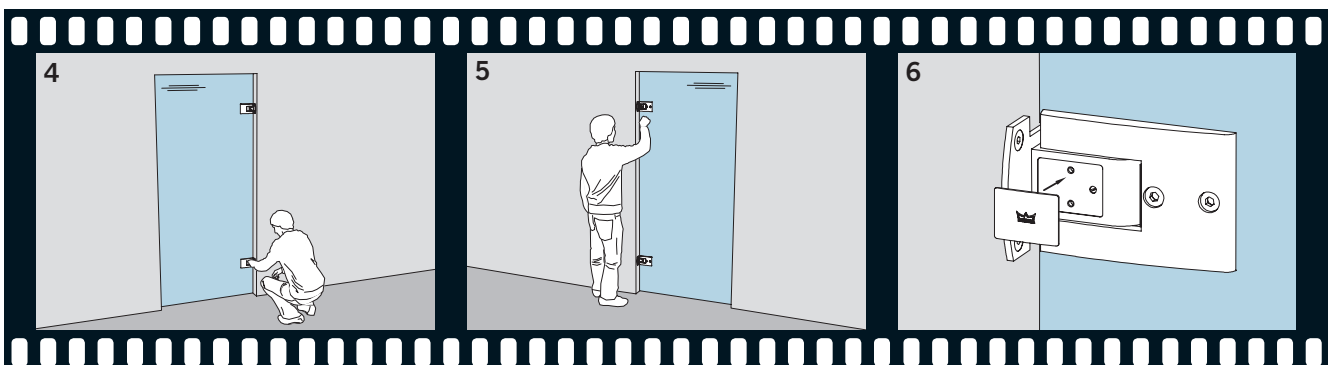
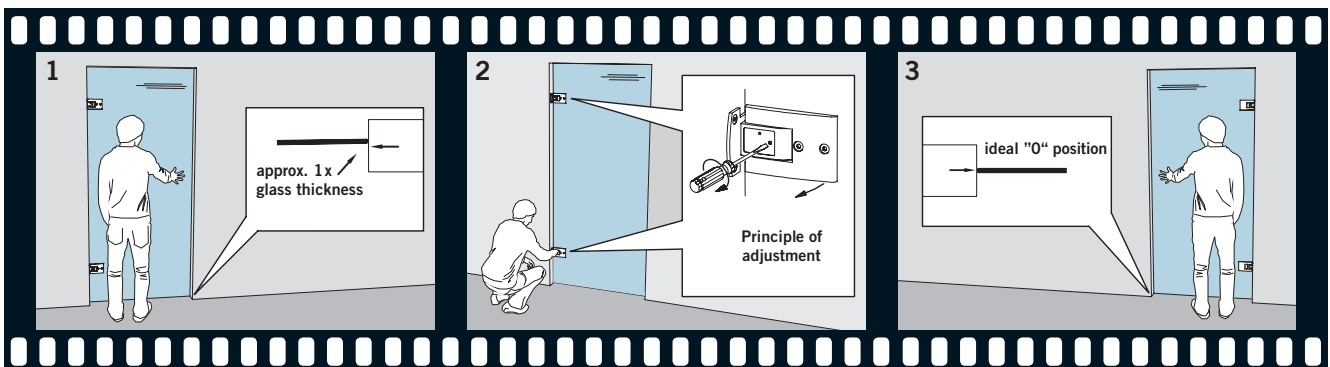


CONVINCING TECHNIQUE

- Hinge with spring-aided self-closing function, without damping
- Max. torque 12 Nm (with 2 hinges)
- Applications: Interior doors (single or double-leaf) in private and public environments
-  Not for sauna, baths or brine bath applications
-  Not suitable for single action door applications
- Versions for wall and frame fixing and also fixing to a glass side panel
- Hold-open at 90° related to the zero position
- Fast and easy zero position adjustment - patent applied for
- Max. door panel weight 65 kg
- Max. door panel width 1,000 mm
- Min. side panel width 700 mm (lower measures on request)
- Max. side panel width 1,500 mm
- For 8, 10 and 12 mm glass (TSG)
- TÜV-tested/third-party verification with respect to quality and the production process; with confirmed completion of 500,000 operating cycles

Once correctly set, the door returns to “closed” quickly and reliably – effective zero-point adjustment with TENSOR

1. Pushing away from your body by hand, move the door panel approx. 1 glass thickness from the desired zero position.
2. Turn the bottom hinge adjustment screw clockwise until the door panel begins to move.
Then turn the adjustment screw in the top hinge clockwise until the door panel has reached the zero position.
3. Pass through the door and return the panel to its zero position by hand.
4. Tighten the adjustment screws in the top and bottom hinges by turning clockwise.
5. Pass through the door again, and tighten the adjustment screws top and bottom from this side as well.
6. The door will always return to the adjusted position.
Finally, press the inlay caps into position.



TENSOR SAMPLE

Installation onto wall or frame with surface mounted mounting plate

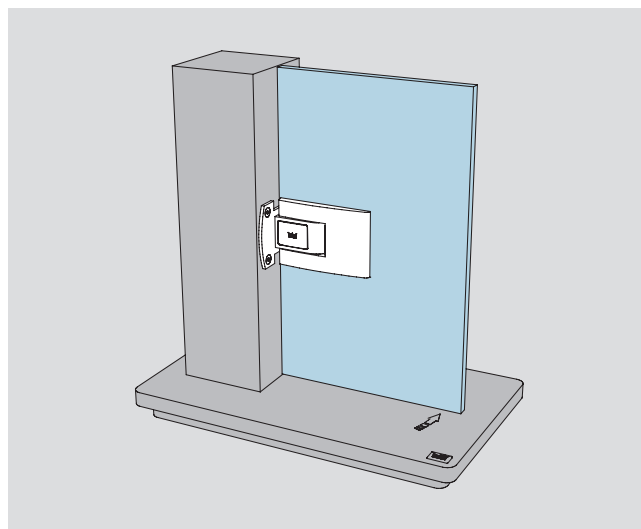
Dimensions of the desk sample:

height 440 mm
width 430 mm
depth 250 mm

Art. No. 12.553

Finish: Aluminium EV 1 Deco

TENSOR double-action hinge
with reduced spring load for
demonstration purposes,
12 mm glass panel fixed to a
timber construction mounted on
a support floor of black-dyed
MDF board



Installation glass to glass

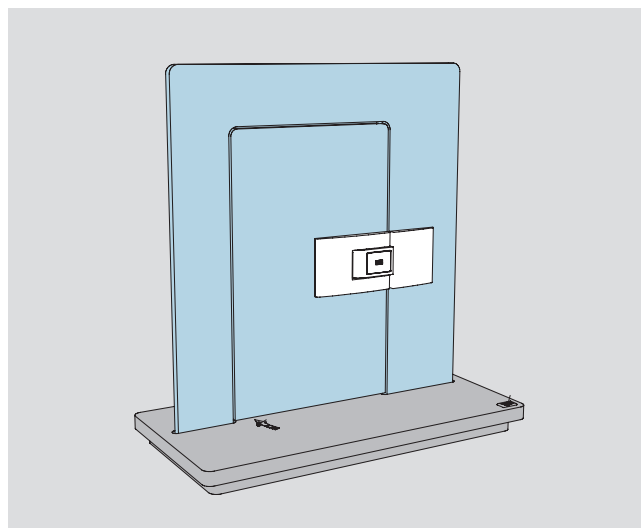
Dimensions of the desk sample:

height 520 mm
width 500 mm
depth 250 mm

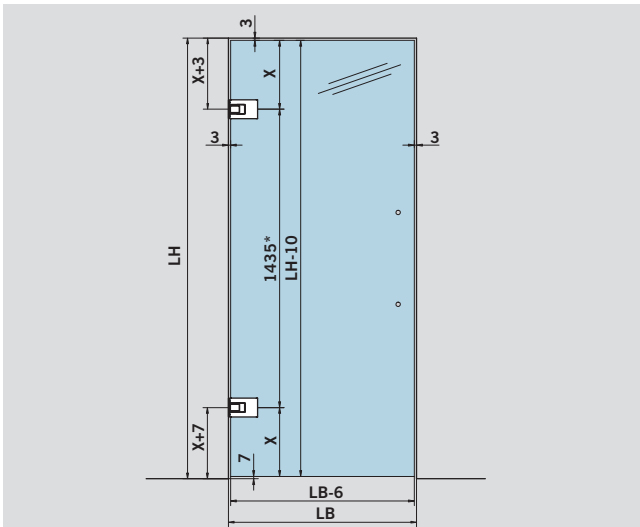
Art. No. 12.555

Finish: Aluminium EV 1 Deco

TENSOR double-action hinge
with reduced spring load for
demonstration purposes,
12 mm glass panel, fixed to
glass frame, inserted in support
floor of black-dyed MDF board



FOR WALL / FRAME FIXING

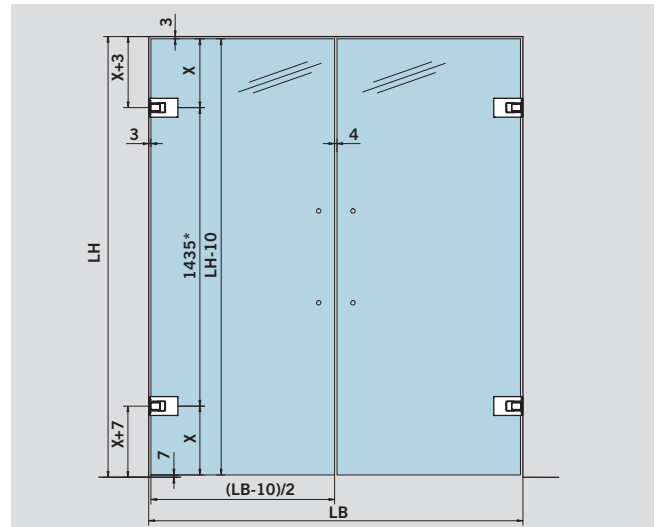


TENSOR Double-action door fixed to wall/frame with surface mounted mounting plate

Single leaf

Fittings for 8, 10 and 12 mm glass
 Door weight: max. 65 kg
 Door width: max. 1,000 mm

LH = clear height
 LB = clear width
 Glass height = LH - 10
 Glass width = LB - 6
 * for glass height 1,800 - 2,500 mm



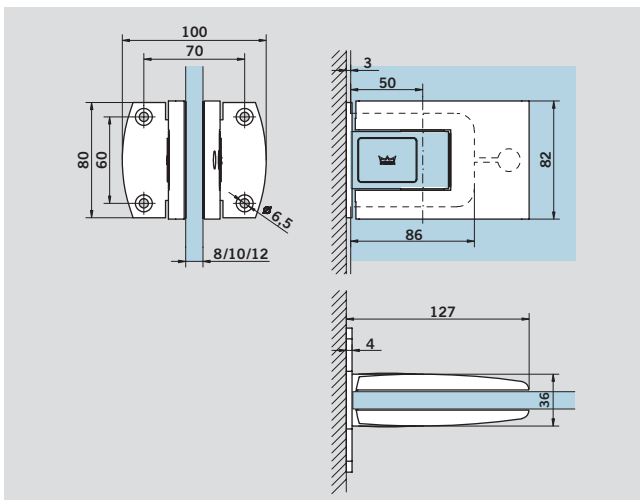
TENSOR Double-action door fixed to wall/frame with surface mounted mounting plate

Double leaf

Fittings for 8, 10 and 12 mm glass
 Door weight: max. 65 kg
 Door width: max. 1,000 mm

LH = clear height
 LB = clear width
 Glass height = LH - 10
 Glass width = (LB - 10) / 2
 * for glass height 1,800 - 2,500 mm

TENSOR Double-action hinges

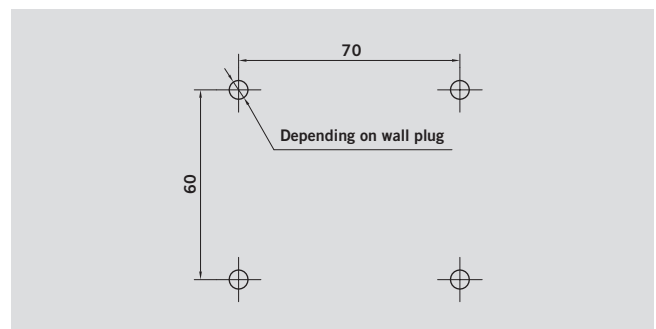
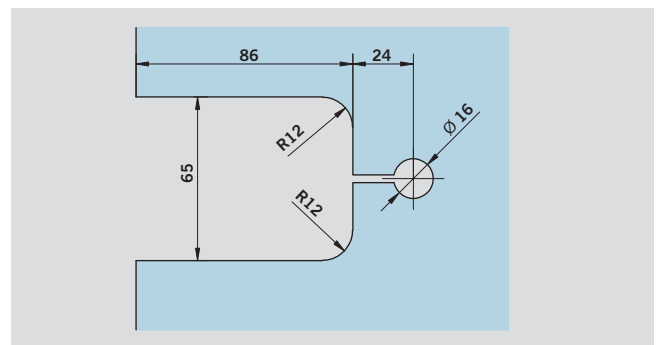


Pair of double-action hinges incl. mounting plate, round; for installation onto wall or frame with surface mounted mounting plate
 for 8, 10 and 12 mm glass

Art. No. 12.520

Finishes:
 Alumin. EV 1 Deco (114)
 Alumin. similar satin stainless steel (113)
 Alumin. brass-coloured (105)
 On request:
 Alumin. polished chromed (122)

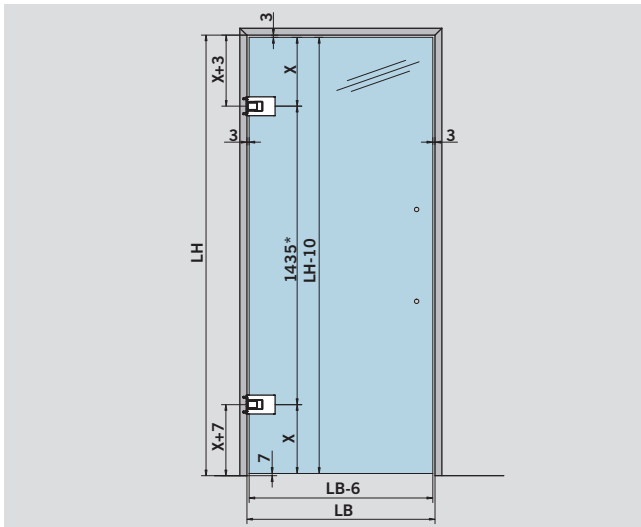
Glass preparation/Drilling scheme



PLEASE NOTE: Condition is a suitable substructure!

Excessive opening of the door must be prevented (max. 90°).
 Please use a door stop – see page 10, Art. No. 29.950.

FOR FRAME FIXING



TENSOR Double-action door fixed to frame with embedded mounting plate

Single leaf

LH = clear height

LB = clear width

Fittings for 8, 10 and 12 mm glass

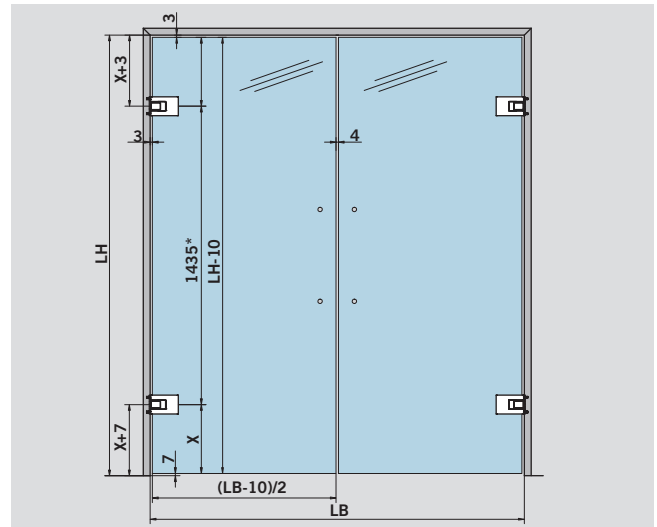
Glass height = LH - 10

Glass width = LB - 6

Door weight: max. 65 kg

Door width: max. 1,000 mm

* for glass height 1,800 - 2,500 mm



TENSOR Double-action door fixed to frame with embedded mounting plate

Double leaf

LH = clear height

LB = clear width

Fittings for 8, 10 and 12 mm glass

Glass height = LH - 10

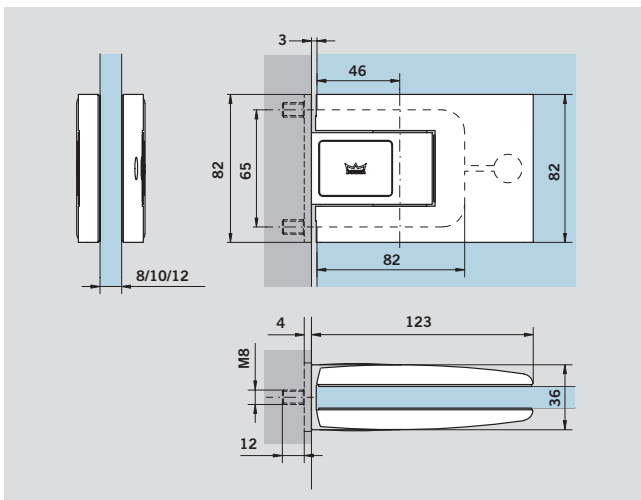
Glass width = (LB - 10) / 2

Door weight: max. 65 kg

Door width: max. 1,000 mm

* for glass height 1,800 - 2,500 mm

TENSOR Double-action hinges



Pair of double-action hinges incl. mounting plate; for installation into frame with embedded mounting plate for 8, 10 and 12 mm glass

Finishes:

Alumin. EV 1 Deco (114)

Alumin. similar satin stainless steel (113)

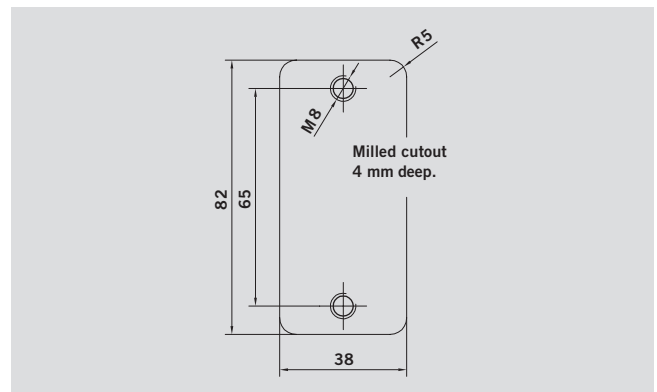
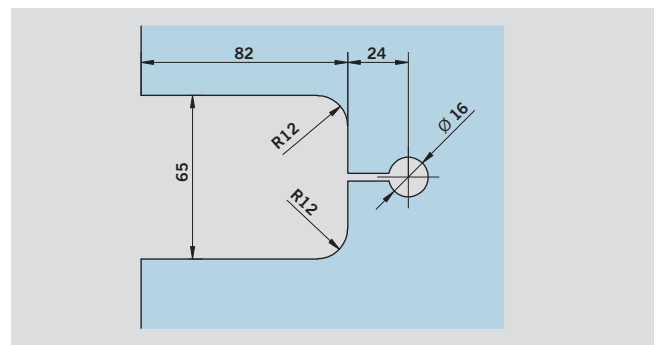
Alumin. brass-coloured (105)

Art. No. 12.522

On request:

Alumin. polished chromed (122)

Glass preparation/Drilling scheme

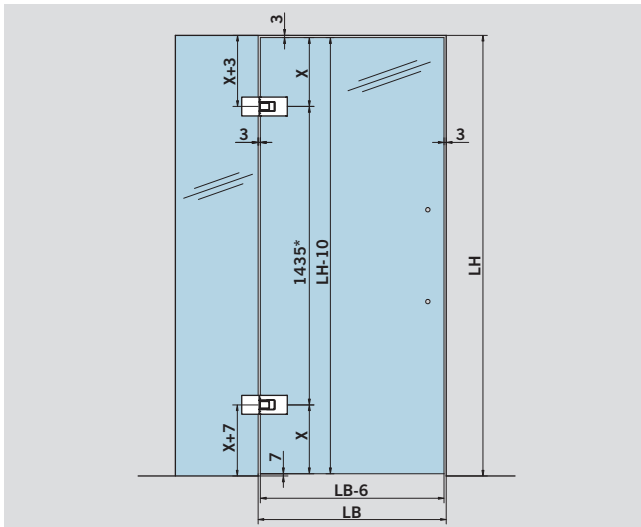


PLEASE NOTE: Condition is a suitable substructure!

Excessive opening of the door must be prevented (max. 90°).

Please use a door stop – see page 10, Art. No. 29.950.

GLASS TO GLASS



TENSOR Double-action door fixed to glass side panel

Single leaf

LH = clear height

LB = clear width

Fittings for 8, 10 and 12 mm glass

Glass height = LH - 10

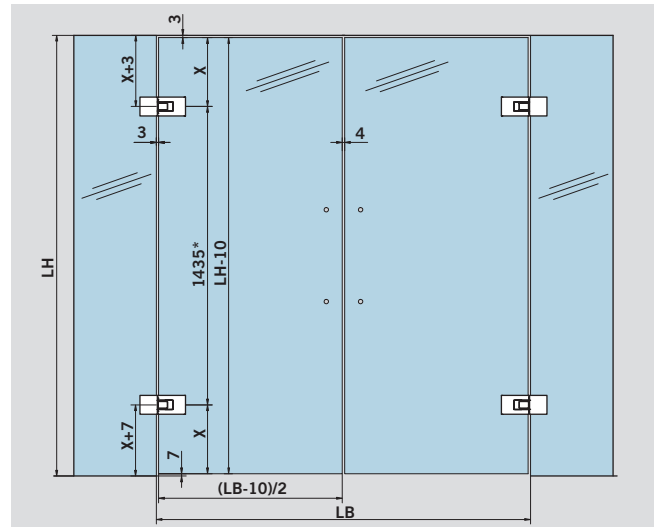
Glass width = LB - 6

Door weight: max. 65 kg

Door width: max. 1,000 mm

Side panel width: max. 1,500 mm

* for glass height 1,800 - 2,500 mm



TENSOR Double-action door fixed to glass side panel

Double leaf

LH = clear height

LB = clear width

Fittings for 8, 10 and 12 mm glass

Glass height = LH - 10

Glass width = (LB - 10) / 2

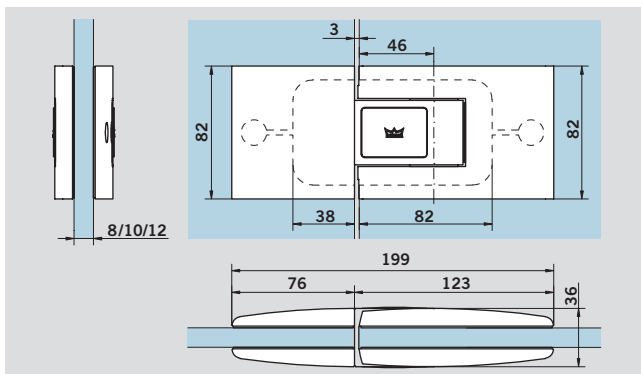
Door weight: max. 65 kg

Door width: max. 1,000 mm

Side panel width: max. 1,500 mm

* for glass height 1,800 - 2,500 mm

TENSOR Double-action hinges



Pair of double-action hinges for installation glass to glasse for 8, 10 and 12 mm glass

Art. No. 12.523

Finishes:

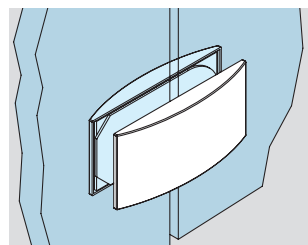
Alumin. EV 1 Deco (114)

Alumin. similar satin stainless steel (113)

Alumin. brass-coloured (105)

On request:

Alumin. polished chromed (122)



Overpanel-sidelight connector

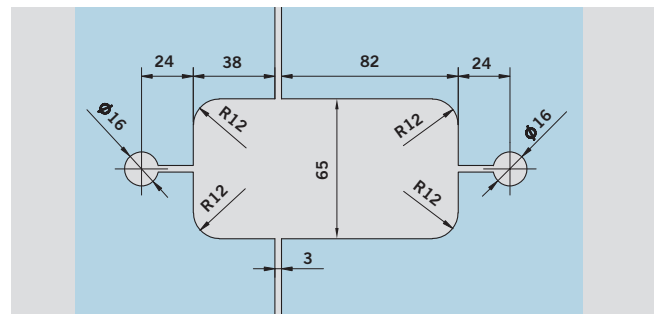
Art. No. 12.536

Weight in kg:

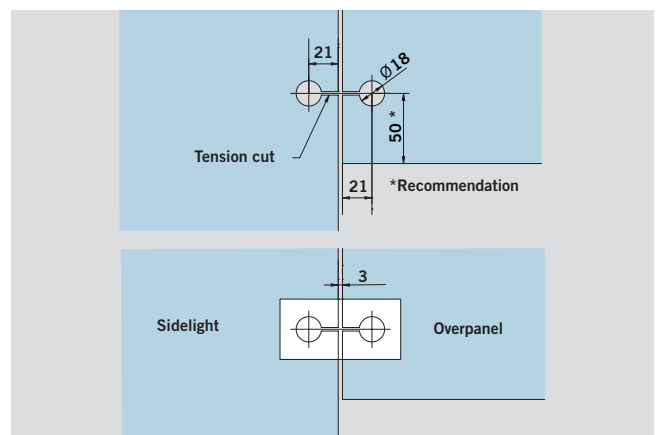
aluminium 0.146

Excessiv opening of the door must be prevented (max. 90°). Please use a door stop – see page 10, Art. No. 29.950.

Glass preparation

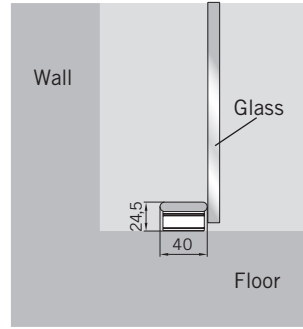
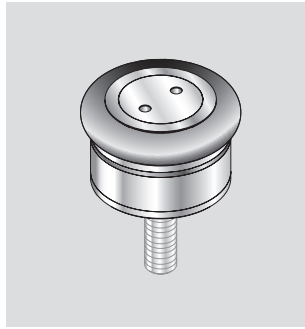
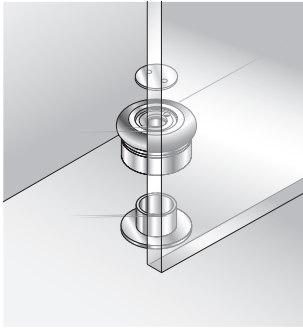


for Art. No. 12.523



for Art. No. 12.536

ACCESSORIES



Ordering information

Stop for pivoting door
floor mounting
Art. No. 29.950

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 relevant points mentioned in these safety-related information and the mounting and operating instructions!

General information

1. DORMA recommends using TSG-H (heat soaked toughened safety glass) to DIN EN 12150-1.
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)!



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