

IGG – Integrated all-glass system

Constructional elements for walls, doors and windows



Planning document

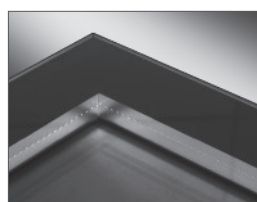


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DOOR TECHNOLOGY



GLASS SYSTEMS



AUTOMATIC DOOR SYSTEMS



RWA AND WINDOW TECHNOLOGY



SAFETY TECHNOLOGY

Range of application and product features

GEZE IGG design elements for architects

The aesthetic appearance and the excellent physical properties of glass fascinate and inspire architects.

Thus transparent zones of experience are created, without losing sight of protection, warmth and comfort.

This can be achieved by modern manufacturing processes and hardware systems.

With the integrated all-glass system GEZE IGG, GEZE developed solutions offering new design possibilities without neglecting the aesthetic aspect.

GEZE IGG continuous glass design

In order to make constructive door and sliding wall elements such as fittings, distance pieces, frame profiles or sealing elements invisible to the human eye, GEZE developed the integrated all-glass system IGG.

The solution lies between the panes: the fittings have been invisibly integrated in a gap of only 27 mm between the panes, without any visible or protruding parts on the glass surface. In order to achieve these requirements, the size of the hardware elements have been kept to a minimum. A perimeter printing on the interior side of the pane with a width of at least 30 mm makes the fittings completely invisible to the human eye.

Wherever fittings or protruding profiles spoiled the aesthetic appearance of glass elements in the past, IGG guarantees design without compromising style – irrespective of whether double-action, single-action or sliding doors are planned.

GEZE IGG is a high-quality system solution which allows for use with fixed and movable elements. The modular construction system allows individual design and is even suited for large openings.

Application range of GEZE IGG

GEZE IGG is suited for interior and conditionally exterior installations. Exterior installations are to be examined project-specifically and be completed if necessary as individual conception according to chapter 6.

With GEZE IGG single-action and double-action doors (single-leaf and double-leaf), fixed panels and fanlights as well as manual and automatic sliding doors can be achieved.

GEZE IGG is a modular construction system with which even large openings can be filled in as well as partitions and lobbies constructed. Therefore large glass surfaces can be individually achieved by means of doors, fixed panels and fanlights. From the static point of view a substructure may become necessary. The intention is to construct plane visible surfaces without any annoying substructures. It is possible to connect load-carrying structures to the glass surfaces.

The following types of mounting are possible:

- ▶ Mounting in front of a wall / mounting to a wall
- ▶ Mounting in post-rail constructions
- ▶ Mounting in structural glazing façades

GEZE IGG single-action doors

As a rule, single-action doors are rebated and can only be opened towards the hinge side. For double-leaf single-action doors it is strongly recommended to use door closers with closing sequence controls (to avoid accidental glass breakage in the case of mal-operation). The pivot point of single-action doors lies outside the door axis. The opening angle can be up to 170° . IGG single-action doors have two sealing levels and feature a brush seal at the lower level. With single-action doors it is imperative to provide suitable door stops. This acts as a precaution against glass breakage and must have a minimum distance of 2/3 of the width of the door from the pivot point. Door stops are normally installed by the customer. A door closer is recommended in order to prevent the door from closing uncontrollably (due to draft of vandalism, to prevent glass breakage).

Choice between pivot and door hinge

- There are optical and technical reasons for the decision to select a pivot or a door hinge.
- Both solutions, single-leaf and double-leaf, are offered including framing construction.

GEZE IGG single-action door with pivot

The secondary closing edge is not obstructed by any hardware. The connection to the GEZE floor spring TS 550 is made via the door rail (no additional rail with lever required on the glass surface).

Pivot hinge and door rail are optically concealed by suitable covers matching in colour. As an alternative to the TS 550 it is also possible to install a floor bearing (attention: increased hazard of glass breakage).

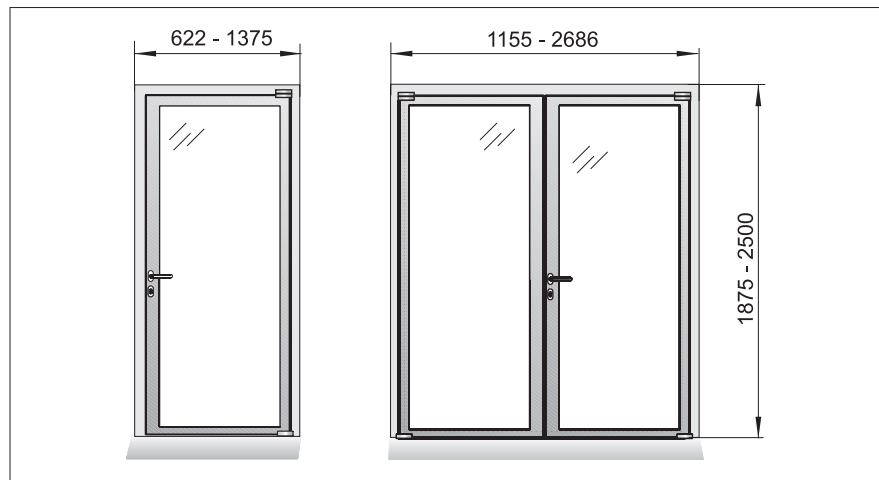


Fig. 04-1 · IGG single-action door with pivot

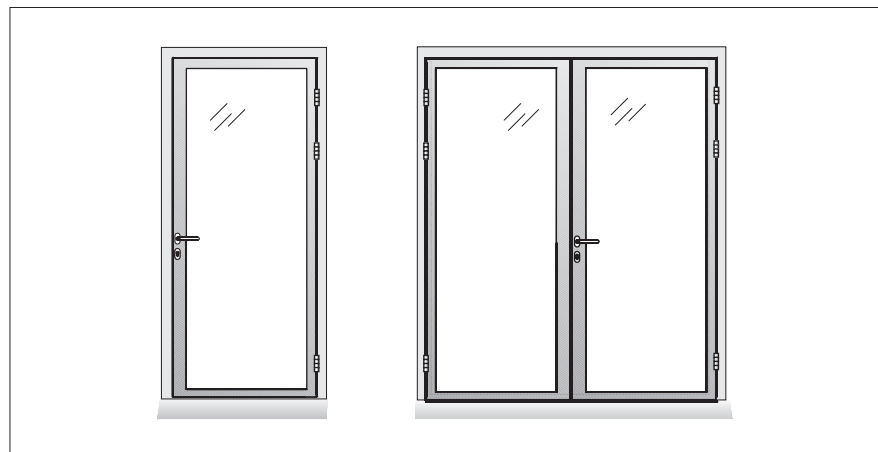


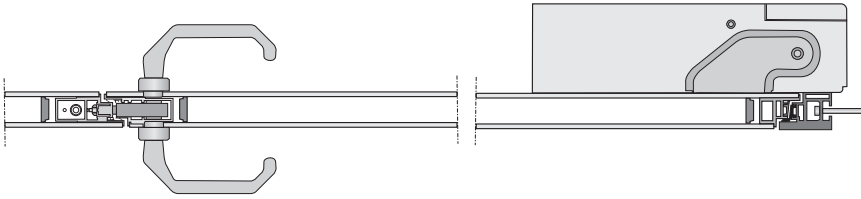
Fig. 04-2 · IGG single-action door with door hinge

GEZE IGG single-action door with door hinge

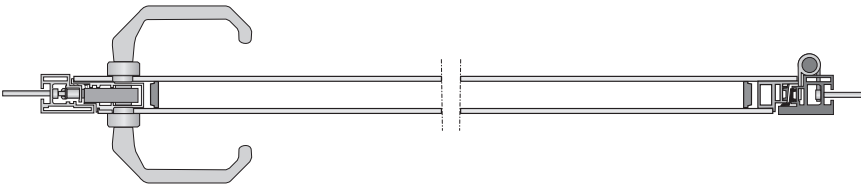
The door hinge allows for hanging of the door without the need of a floor spring or a bearing on the finished floor. The door weight is transferred via a frame. The supporting structure of the frame must be sufficiently designed for these loads.

Any tolerances between the door and the opening are taken up by moving the hinges to the clamp fit.

Pivot



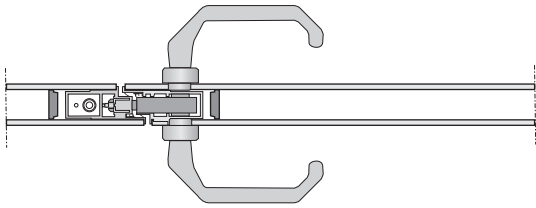
Door hinge



Technical details: Single-leaf, single-action IGG doors		
Standard height according to DIN 18100	min. 1875 mm	max. 2500 mm
Standard width according to DIN 18100	min. 622 mm	max. 1375 mm
Ratio width to height	max. 1 : 3,5	
Panel weight	max. 120 kg	
Frame	aluminium EV1 anodised, powder-coated in accordance with GEZE colour range available on request. NOT thermally broken, thickness 40 mm connection to sub-construction provided by customer necessary	
IGG structure	toughened safety glass 6 mm – gap 27 mm – toughened safety glass 6 mm, thickness of door panel 39 mm	
Imprint hinge side	leading edge	min. 87 mm
	back edge	min. 55 mm
	top	min. 55 mm
	bottom	min. 40 mm
Imprint opposite hinge side	leading edge	min. 62 mm
	back edge	min. 30 mm
	top	min. 30 mm
	bottom	min. 40 mm
Seal	2 sealing levels of EPDM side and top, brush at the bottom	
IGG profiles	black anodised aluminium C35	

Fittings for single-leaf, single-action IGG doors	
Cover caps (pivot)	powder-coated in accordance with GEZE colour range available on request
Special steel door hinges (door hinge)	Simonswerk
Door handle	FSB 0662 2143 0105 anodised aluminium/special steel
	FSB 0662 2243 0105 anodised aluminium/special steel
Profile cylinder	FSB 1757 anodised aluminium/special steel
Locking	MSL dead lock/latch lock INOX
	MSL INOX panic function E
	MSL INOX panic function D
Strikeplate	special steel

Locks for single-leaf, single-action IGG doors	
Interlocking catch lock	
Interlocking catch lock panic function E with latch lever function:	
Normal position	key turned in opening direction until stop and withdrawn from the lock
Opening	from outside with key (latch lever function), from inside by operating the handle
Locking position	key turned from normal position to locking position (360°) and withdrawn from lock, latch ejected
Opening	from outside with key only, from inside by operating the handle (panic function)
Interlocking catch lock panic function D without latch lever function:	
Normal position	key turned in opening direction until stop and withdrawn from the lock
Opening	from inside and outside by operating the handle
Locking position	key turned from normal position to locking position (360°) and withdrawn from lock, latch ejected
Opening	from outside with key and handle, from inside by operating the handle (panic function)



Technical details: double-leaf, single-action IGG doors		
Standard height according to DIN 18100	min. 1875 mm	max. 2500 mm
Standard width according to DIN 18100 (for a total of two leaves)	min. 1155 mm	max. 2686 mm
Clear inner width	moving leaf max. 1265 mm	
Ratio width to height	max. 1 : 3,5	
Frame	aluminium EV1 anodised, powder-coated in accordance with GEZE colour range available on request. NOT thermally broken, thickness 40 mm connection to sub-construction provided by customer necessary	
IGG structure	toughened safety glass 6 mm – gap 27 mm – toughened safety glass 6 mm, thickness of door panel 39 mm	
Imprint hinge side	leading edge	min. 87 mm
	back edge	min. 55 mm
	top	min. 55 mm
	bottom	min. 40 mm
Imprint opposite hinge side	leading edge	min. 62 mm
	back edge	min. 30 mm
	top	min. 30 mm
	bottom	min. 40 mm
Sealing	2 sealing levels of TPE side and top, brush at the bottom	
IGG profiles	black anodised aluminium C35	

Fittings for double-leaf, single-action IGG doors**Moving leaf**

Cover caps (pivot)	powder-coated in accordance with GEZE colour range available on request
Special steel door hinges (door hinge)	Simonswerk
Door handle	FSB 0662 2143 0105 anodised aluminium/special steel
	FSB 0662 2243 0105 anodised aluminium/special steel
Profile cylinder	FSB 1757 anodised aluminium/special steel
Locking	MSL dead lock/latch lock INOX
	MSL INOX panic function E
	MSL INOX panic function D
Strikeplate	special steel

Fixed leaf

Cover caps (pivot)	powder-coated in accordance with GEZE colour range available on request
Special steel door hinges (door hinge)	Simonswerk
Locking	MSL dead lock/latch lock INOX

Locks for double-leaf, single-action IGG doors

Moving leaf	see single-leaf, single-action IGG door
Fixed leaf	dead lock/latch lock integrated into IGG, double bolting device (on top and bottom)

IGG doors with IGG fixed panels and IGG fanlights

IGG doors (DIN left hand and DIN right hand opening) with door hinge and with pivot, see the following double page

Combinations of IGG single-action doors with IGG fixed panels and IGG fanlights

- Continuous frame verge (except single-leaf door with 2 fixed panels: frame above only)
- Connection fixed panels / fanlights to the wall
- Connection fixed panels / fanlights to the post-rail façade

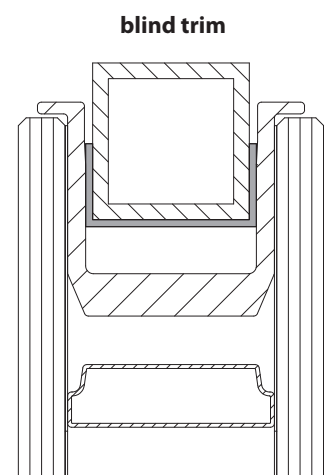
Technical details: IGG fixed panel for single-action doors		
Fixed panel height	min. 1837 mm	max. 2462 mm
Fixed panel width	min. 529 mm	max. 2029 mm
Weight	max. 200 kg	
IGG structure	see single-leaf door, continuous frame or glass verge at the closing edge, connection to the wall without glass (with blind frame),	

The fixed panel stands on a special profile on the finished floor. If due to the dimensions of the fixed panel a stronger glass has to be used, all directly bordering IGG elements are equipped with the same glass.

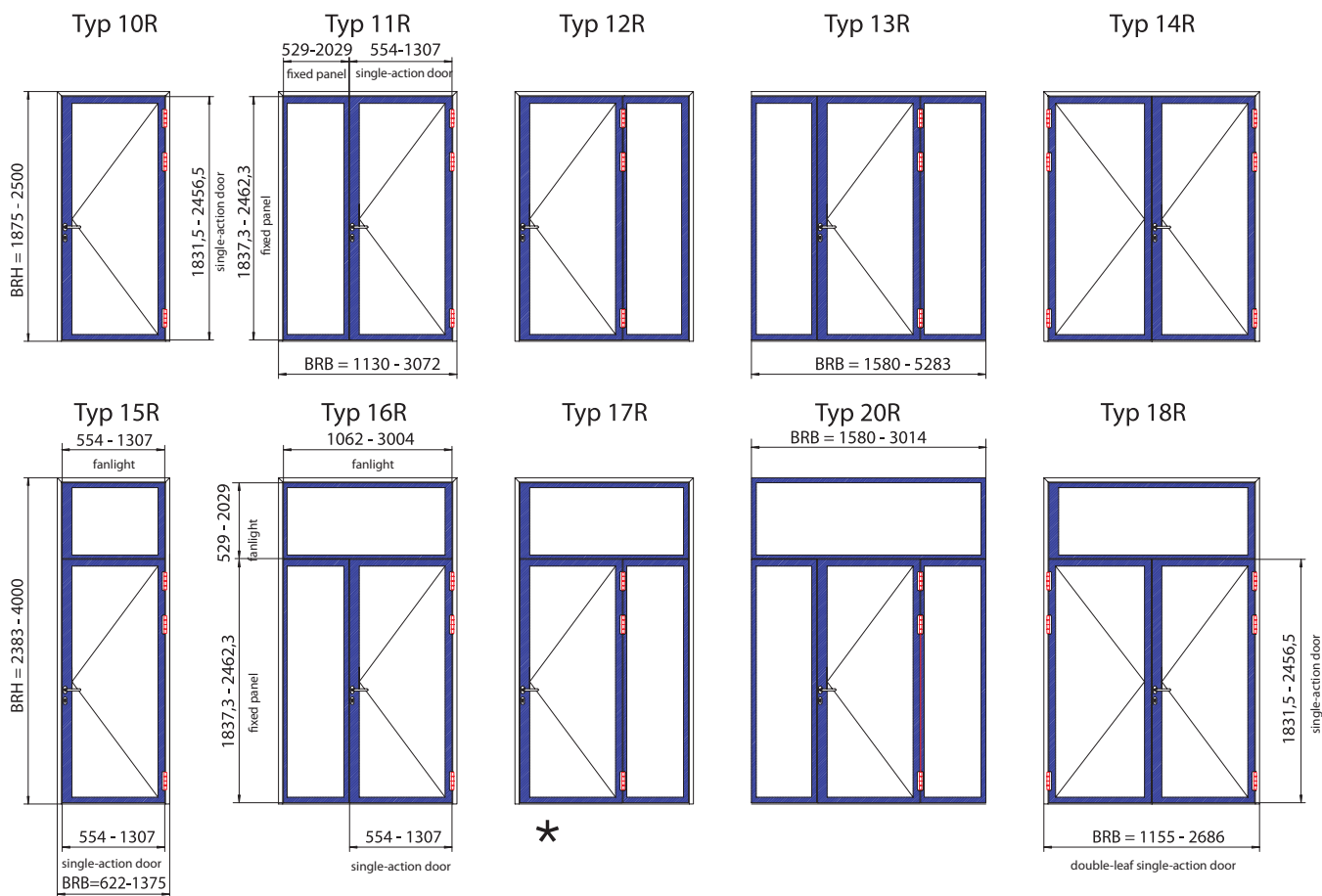
Technical details: IGG fanlight for single-action doors		
Fanlight height	min. 529 mm	max. 2029 mm
Fanlight width	min. 554 mm	max. 3004 mm
Weight	max. 200 kg	
IGG structure	see single-action door	

General notes:

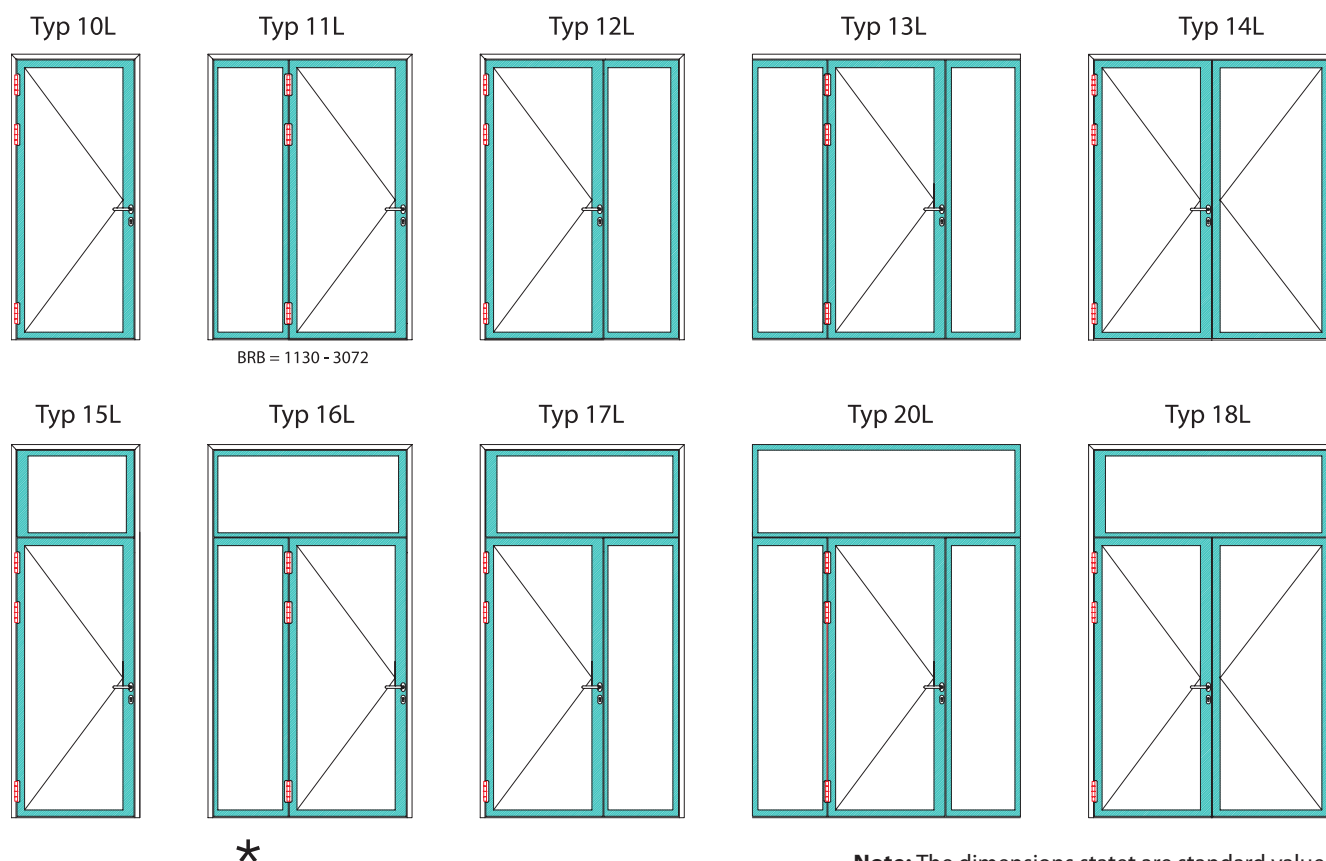
- A door impact strength of max. 3 kN may not be exceeded. Therefore we recommend a door closer.
- Use of toughened safety glass (ESG) only uniformly for doors, fanlights and window elements.
- Due to the technical feasibility laminated glass VSG 10 and VSG 12 are mixable, thus 2 mm disalignment visible!
- GEZE recommendation: only use laminated glass (VSG) in one strength
- The use of laminated glass (VSG) is only possible with door hinge variants on hinge side and on opposite hinge side always toughened safety glass (ESG).
- To use laminated glass (VSG) over max. dimensions a technical feasibility examination is necessary (special solutions via technical project engineering).



IGG doors with door hinge (DIN right hand doors)

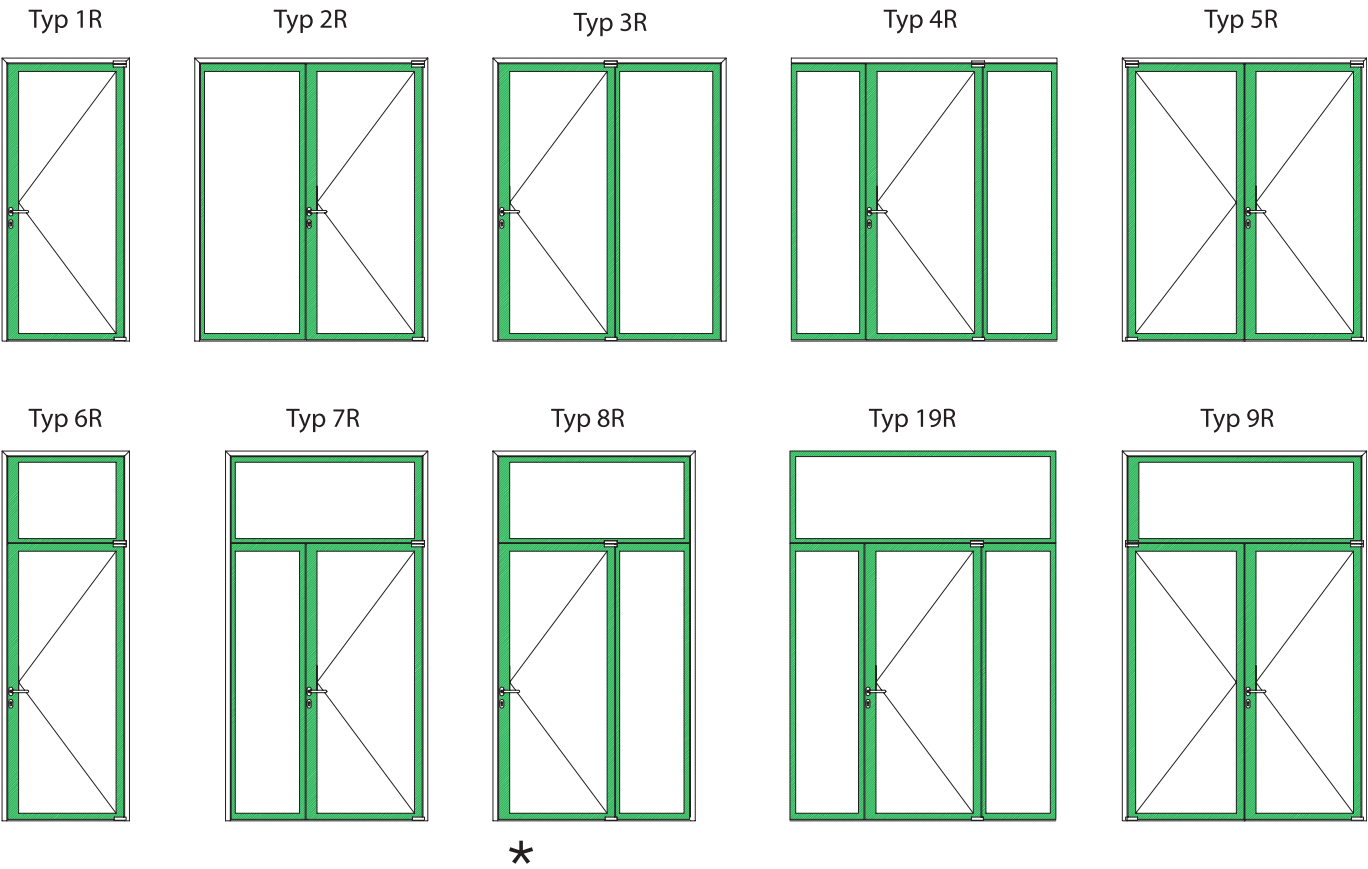


IGG doors with door hinge (DIN left hand doors)

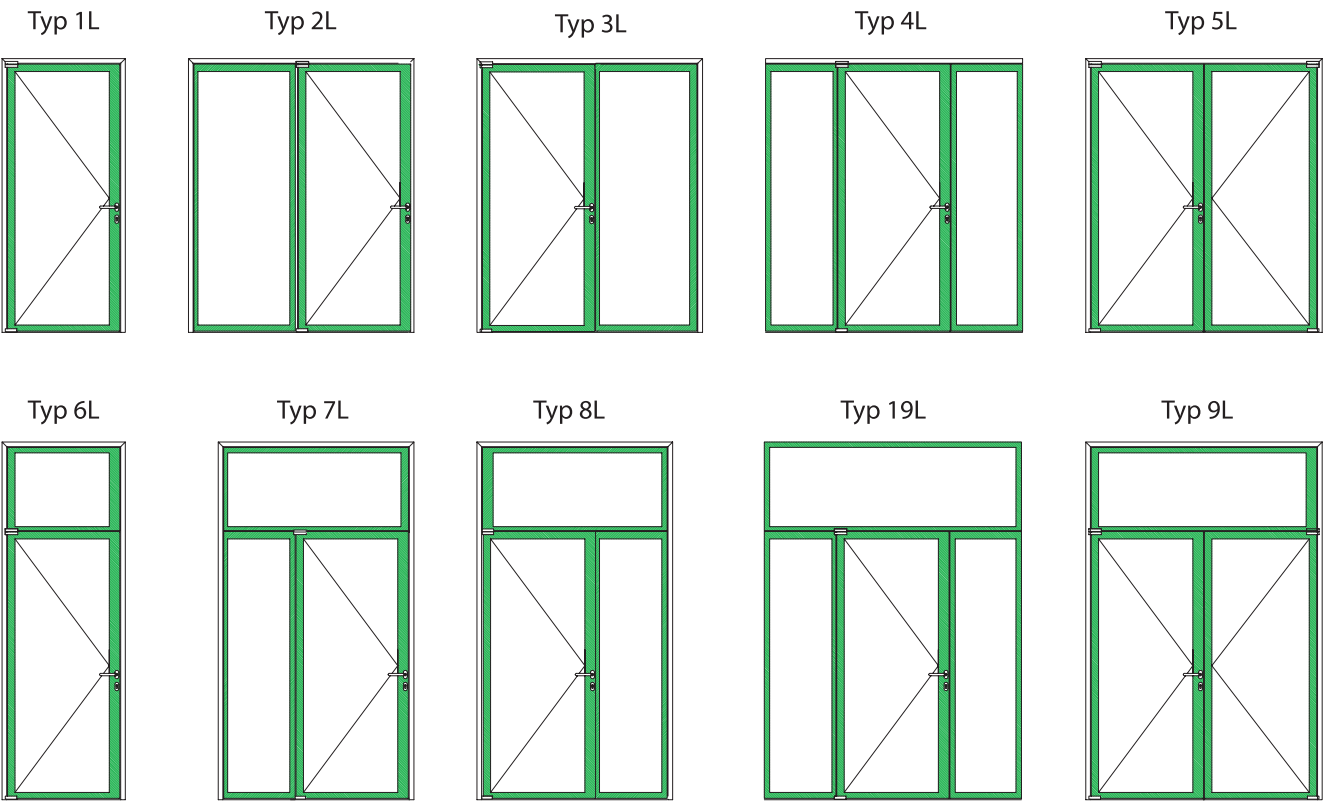


Note: The dimensions statet are standard values.

IGG doors with pivot (DIN right hand doors)



IGG doors with pivot (DIN left hand doors)



* On request. Size and aspect ratio must be individually examined!

GEZE IGG double-action doors

Double-action doors are used in high usage situations, where doors need to be opened in both directions. The IGG double-action door is available as single-leaf and double-leaf applications. All-round brush seals close or reduce the gap between the door and the building structure. A special framing construction is not required. The finished floor must be level, clean and smooth to ensure that the brushes fit properly.

We recommend the use of the GEZE floor spring TS 550 NV.

Double-action doors have their pivotal point in line with the door axis and can be opened to both sides, unless they are fitted with a stop, in which case they will open only to one side. Due to the central pivot point, the angle of opening of these doors is limited to 110 degrees. Double-action doors are fitted with brush seals all round. With double-action doors it is imperative to provide suitable door stops on both sides. This acts as a precaution against glass breakage and must have a minimum distance of $\frac{2}{3}$ of the width of the door from pivot point.

Door stops are installed by the customer. A door closer is recommended in order to prevent the door from closing uncontrollably (due to draft or vandalism, to prevent glass breakage).

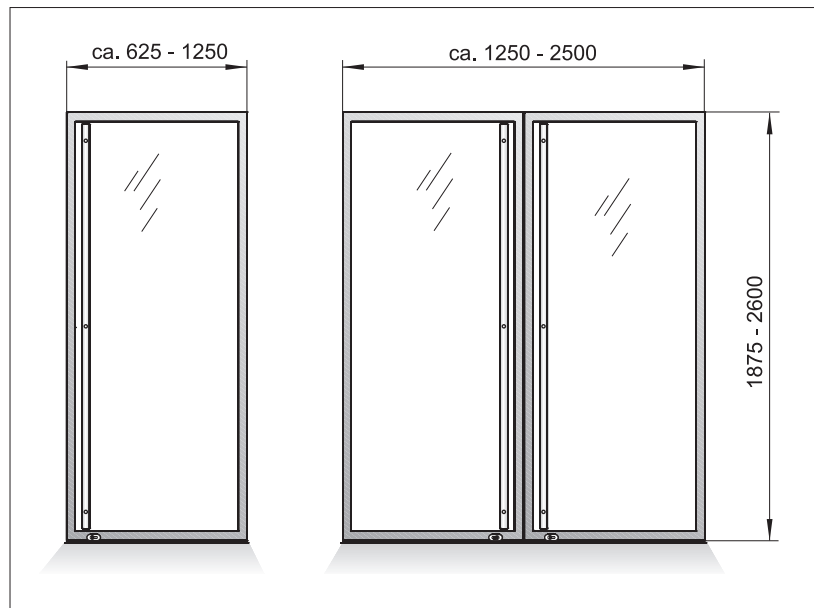


Fig. 12-1 · IGG double-action doors

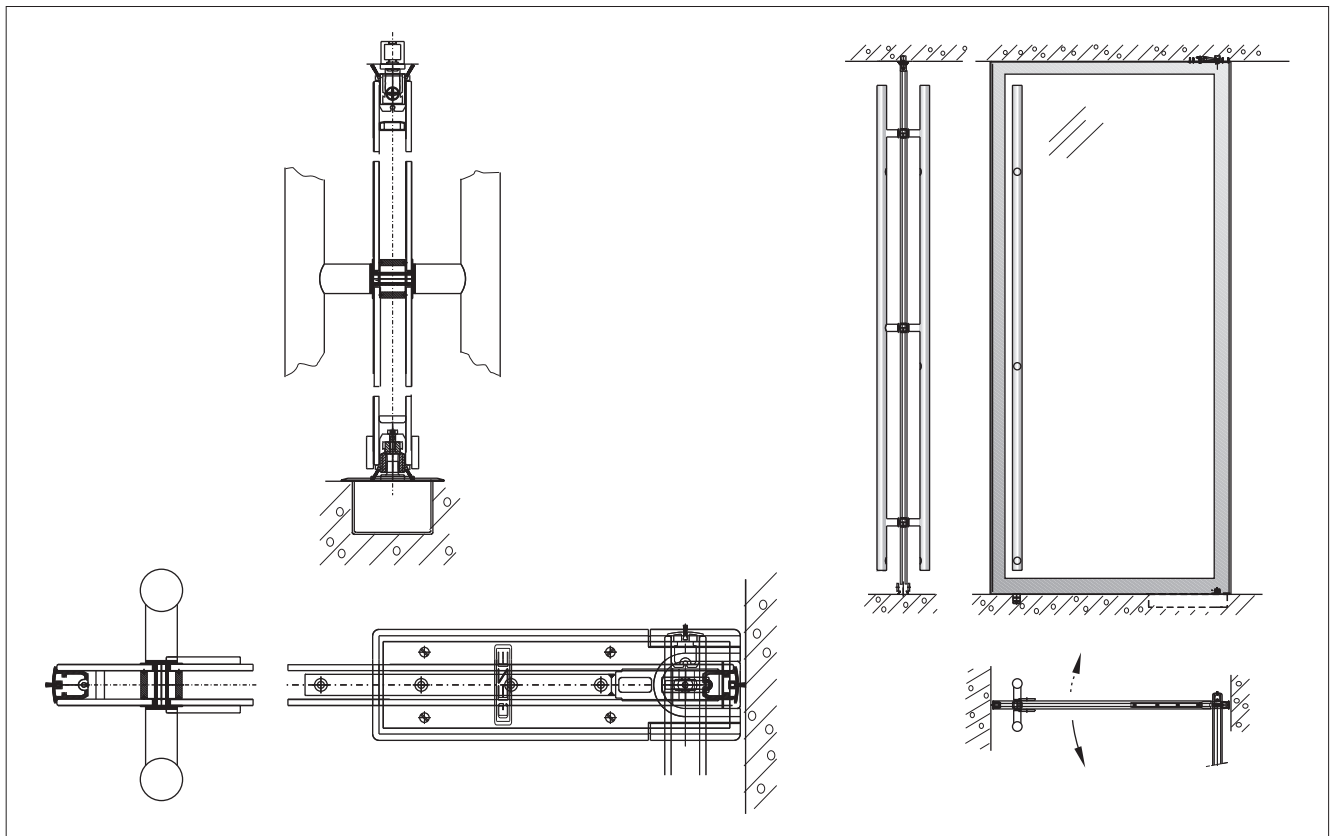


Fig. 13-1 · Single-leaf double-action IGG doors

Technical details: single-leaf double-action IGG doors		
Installation height	min. 1875 mm	max. 2600 mm
Installation width	min. 625 mm	max. 1250 mm
Ratio width to height	max. 1 : 4	
Panel weight	max. 120 kg	
Frame	none	
IGG structure	toughened safety glass (ESG) 6 mm – gap 27 mm – toughened safety glass (ESG) 6 mm, thickness of door 39 mm	
Imprint	side min. 45 mm, top and bottom min. 50 mm	
Seal	all-round brush sealing	
IGG profiles	aluminium black anodised C35	

Fittings for single-leaf double-action IGG doors	
Hinges for double-action doors	bottom door rail, top pivot
Handle bar, over the entire height of door	FSB 6583 special steel D = 40 mm, fixed at 3 points in the glas (continous)
Profile cylinder escutcheon	FSB 1757 anodised aluminium/special steel
Locking	floor mounted bolt lock
Strike plate	ground socket with spring cover

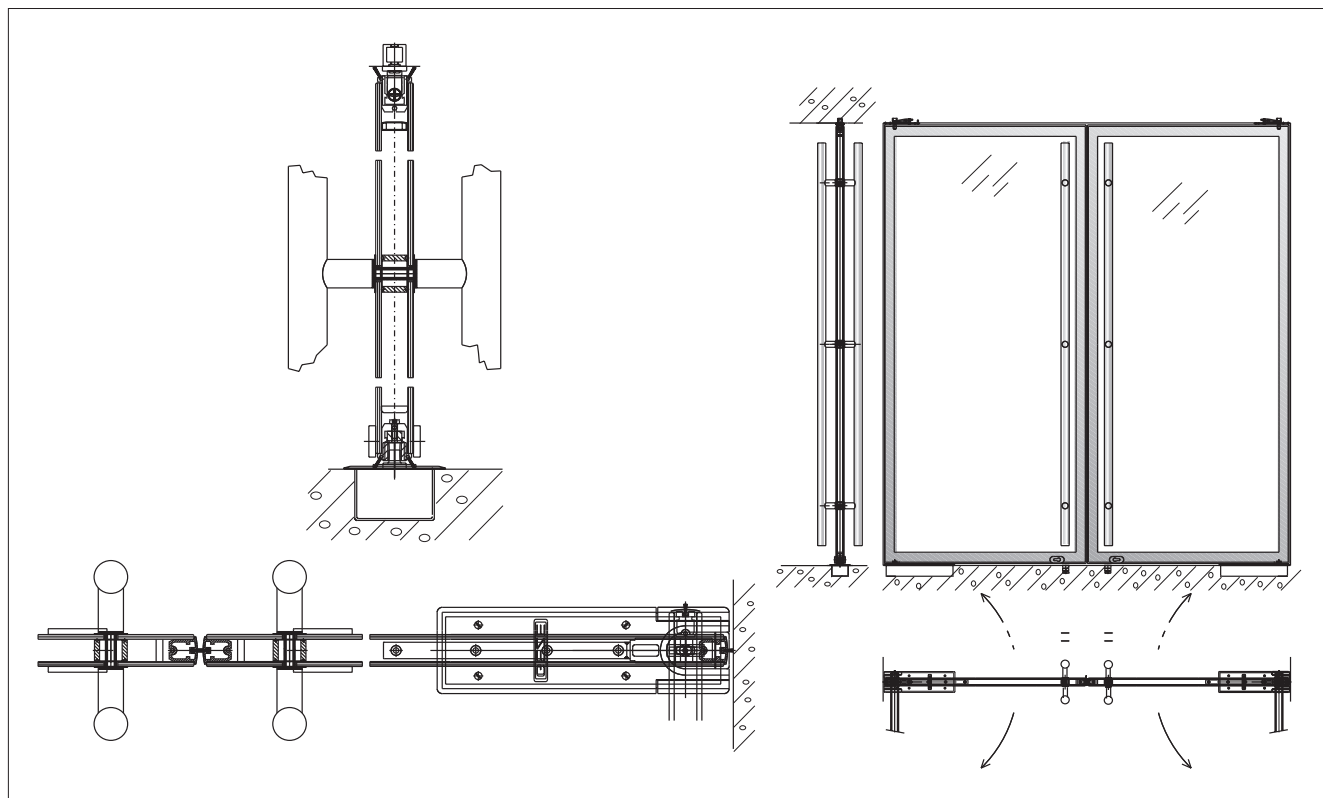
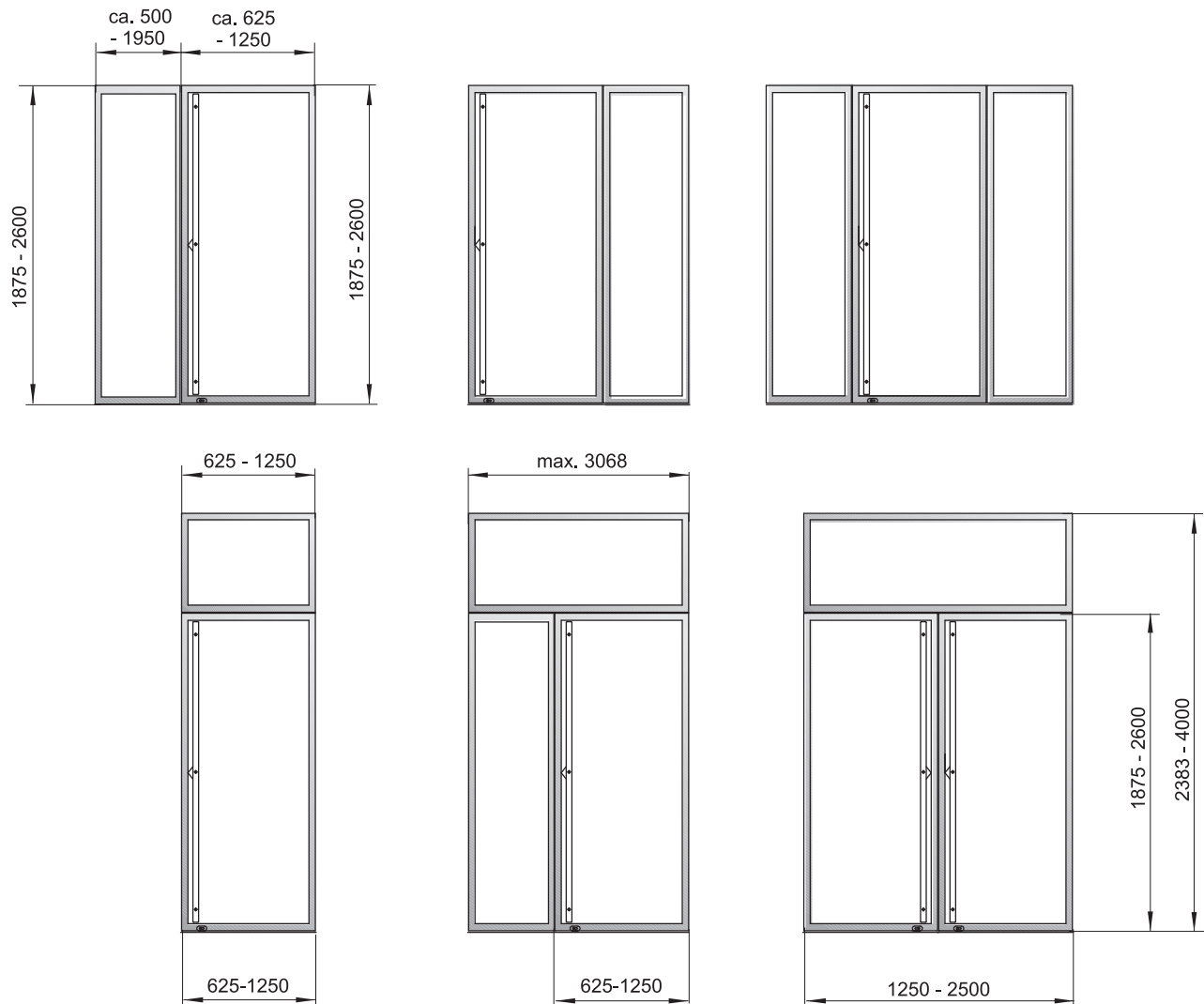


Fig. 14-1 · Double-leaf double-action IGG doors

Technical details: double-leaf double-action IGG doors		
Installation height	min. 1875 mm	max. 2600 mm
Installation width	min. 1257 mm	max. 2507 mm
Ratio width to height	max. 1 : 4	
Panel weight	max. 120 kg	
Frame	none	
IGG structure	toughened safety glass (ESG) 6 mm – gap 27 mm – toughened safety glass (ESG) 6 mm, thickness of door 39 mm	
Imprint	side min. 45 mm, top and bottom min. 50 mm	
Seal	all-round brush seal	
IGG profiles	aluminium black anodised C35	

Fittings for double-leaf double-action doors	
Hinges for double-action doors	bottom door rail, top pivot
Handle bar, over the entire height of door	FSB 6583 special steel D = 40 mm, fixed at 3 points in the glas (continous)
Profile cylinder escutcheon	FSB 1757 anodised aluminium/special steel
Locking	floor mounted bolt lock
Strike plate	ground socket with spring cover

IGG double-action doors with IGG fixed panels and IGG fanlights



Note: The stated dimensions are standard values. Approximate values only apply to the minimum dimensions.

Technical details: fixed panels for double-action IGG doors		
Height of fixed panel approx.	min. 1875 mm	max. 2600 mm
Width of fixed panel approx.	min. 500 mm	max. 1950 mm
Ratio width to height	max. 1 : 8	
Weight	max. 200 kg	
IGG structure	see double-action door, surround frame or step glazing at closing edge, wall joint without step glazing	

The fixed panel is fixed by a special holding profile on the finished floor level. Should the dimensions of the fixed panel necessitate a thicker type of glass, the same type of glass will be used for all adjacent IGG elements.

Technical details: fanlights for double-action IGG doors		
Fanlight height	min. 500 mm	max. 2000 mm
Fanlight width	min. 500 mm	max. 3068 mm
Ratio width to height	max. 1 : 8	
Weight	max. 200 kg	
IGG structure	see double-action doors, a visible reinforcement of one side may become necessary	

Special configurations – IGG hinged doors

The following list contains fittings that can be fitted to GEZE IGG single-action and double-action doors without further testing at design stage:

- ▶ Surface-mounted door closer GEZE TS 5000
- ▶ Automatic swing door drives GEZE TSA 160 NT and GEZE Slimdrive EMD
- ▶ Cable transitions
- ▶ Sensors
- ▶ Electric opener model 14 and model 19
- ▶ Lock switch contacts
- ▶ Magnetic contacts
- ▶ Floor-mounted bolt locks
- ▶ Panic locks for double-leaf single-action doors (panic for first and second closing leaf)
- ▶ Alarm glass
- ▶ Pull bar on single-action and double-action doors (fitted to the glass)
- ▶ Lowerable soil seal (only with rollers respectively door hinges)

Individualisation

Individual solutions such as special designs, special dimensions and special colour are available beyond the standard product programme. Please tell the responsible GEZE staff member about your needs or call our hotline:

+49 (0)1802 / 43 93 22 55

Automatic sliding doors with GEZE IGG

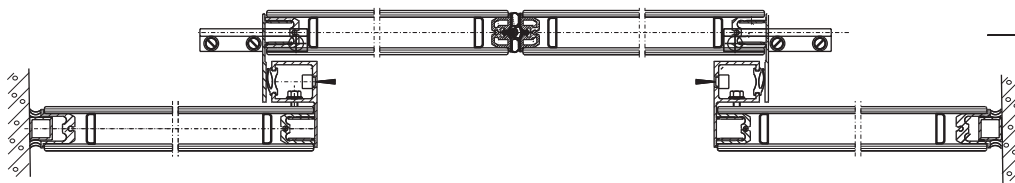
GEZE Slimdrive SL / SL-FR with IGG sliding leaves

Single-leaf or double-leaf automatic sliding door system (also approved for the use on escape and rescue routes) *

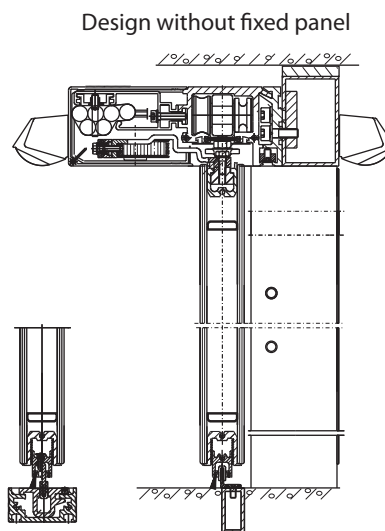
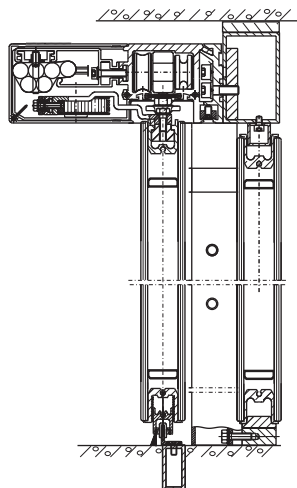
Available with / without GEZE IGG fixed panel and IGG fanlight

The invisible floor guide in the area of the secondary closing edge (fitted to the finished floor level while the sliding door is closed) is integrated in the IGG.

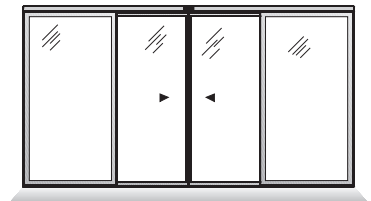
* see also planning document GEZE Slimdrive SL / SL-FR



Design without fixed panel

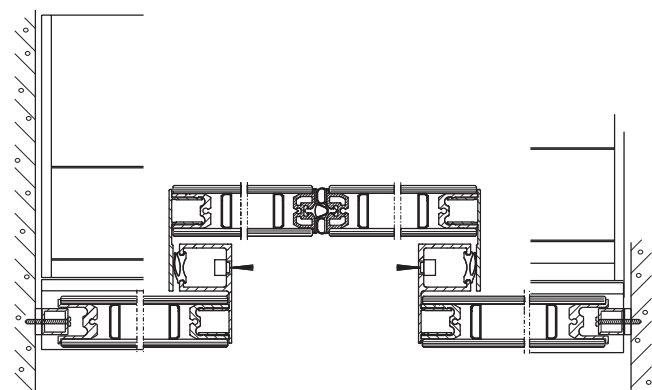
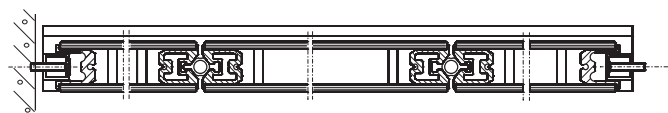
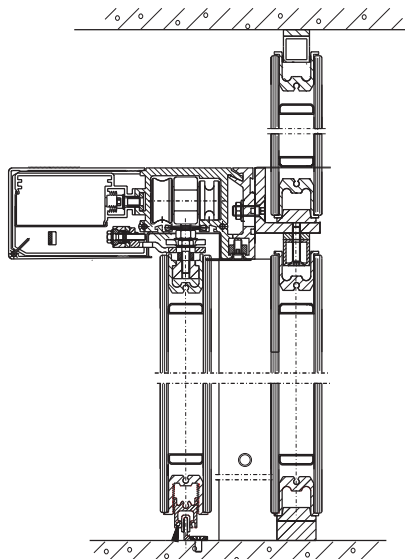


Design without fixed panel



GEZE Slimdrive SL / SL-FR with IGG fixed panels and IGG fanlights

Design with fixed panels and fanlights



Technical details: Slimdrive SL / SL-FR with IGG sliding leaves			
System	Slimdrive SL / SL-FR		
Glass	GEZE IGG		
Door weight	max. 120 kg per leaf		
Weight of fixed panel	max. 180 kg		
Side ratio	door leaf fixed panel	max. 1 : 4 max. 1 : 8 (observe weight of element and aspect ratio)	
Clearance height	min. 2000 mm		max. 3000 mm
IGG sliding door (max. 120 kg)			
Opening width	Slimdrive SL	single-leaf double-leaf	700 - 2000 mm 900 - 3000 mm
	Slimdrive SL-FR	single-leaf double-leaf	1100 - 2000 mm 1000 - 3000 mm
IGG fixed panel (max. 180 kg)			
Height of fixed panel	min. 2000 mm		max. 3000 mm
Width of fixed panel	min. 500 mm		max. 1950 mm
IGG fanlight (max. 100 kg)			
Height of fanlight	min. 500 mm		max. 1500 mm
Width of fanlight	min. 500 mm		max. 1950 mm
IGG structure			
without IGG fixed panels	toughened safety glass (ESG) 6 mm – gap 27 mm – toughened safety glass (ESG) 6 mm		
with IGG fixed panels / fanlight	toughened safety glass (ESG) 6 mm – gap 27 mm – toughened safety glass (ESG) 6 mm		
Imprint	gap 27 mm		min. 45 mm (top and bottom)
	back egde		min. 45 mm
	leading edge		min. 30 mm
Seal	horizontal top and bottom: brush seal sides: silicone profiles		
Floor guide	patch fitting floor guide (option: continous)		

Automatic telescopic sliding doors with GEZE IGG

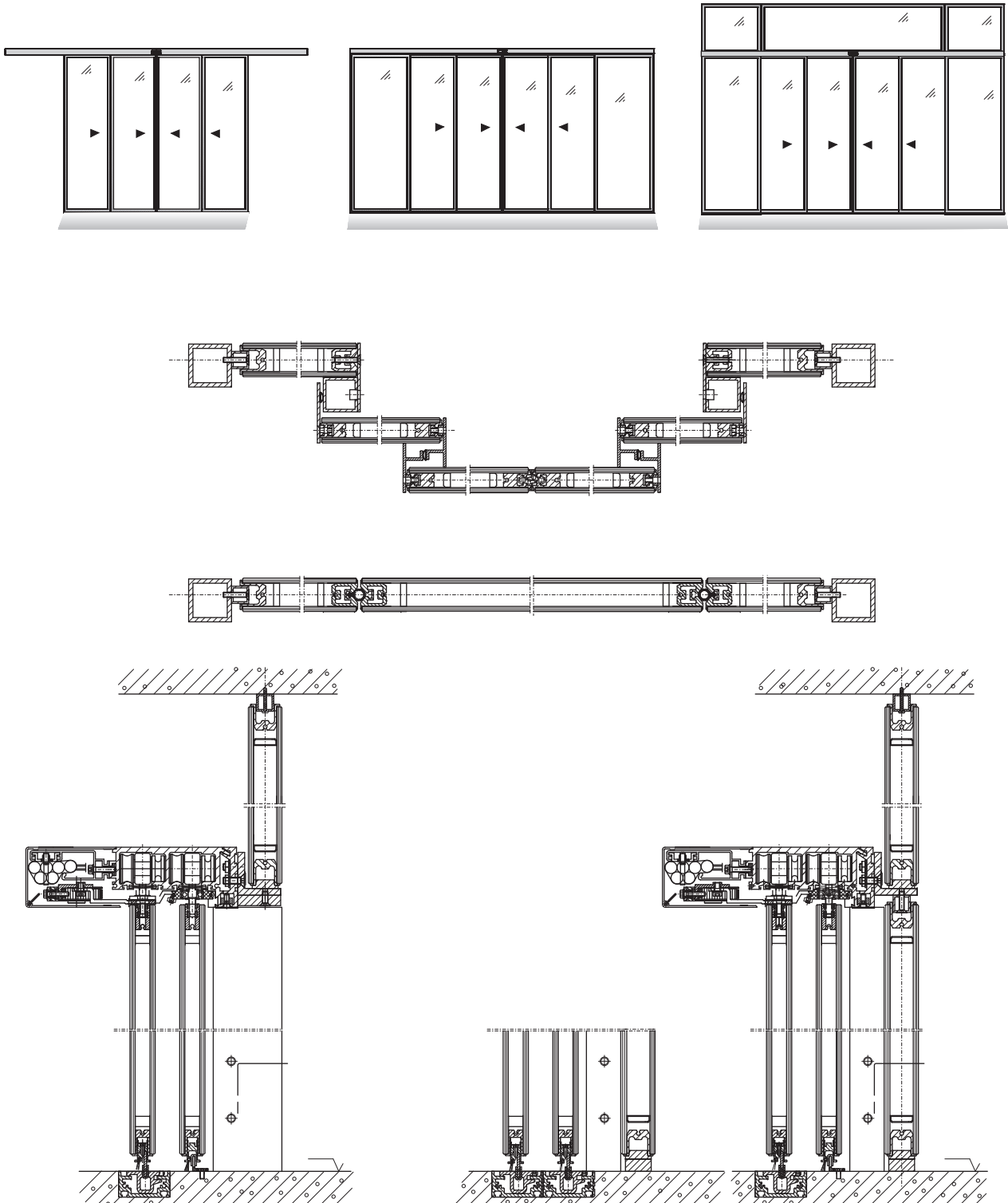
GEZE Slimdrive SLT / SLT-FR with IGG sliding leaves

Double-leaf or four-leaf automatic telescopic sliding door systems (approved for the use in escape and rescue routes) *

Design with / without GEZE IGG fixed panel and IGG fanlight

Design with IGG fixed panels and IGG fanlights possible.

* see also planning document GEZE Slimdrive SLT / SLT-FR



Technical details: Slimdrive SLT / SLT-FR with IGG sliding leaves		
System	Slimdrive SLT / SLT-FR	
Glass	GEZE IGG	
IGG structure sliding leaf	toughened safety glass (ESG) 6 mm – gap 27 mm – toughened safety glass (ESG) 6 mm	
IGG structure fixed panel	toughened safety glass (ESG) 6 mm – gap 27 mm – toughened safety glass (ESG) 6 mm	
IGG fixed panel fanlight	toughened safety glass (ESG) 6 mm – gap 27 mm – toughened safety glass (ESG) 6 mm	
Imprint	min. 45 mm all-round or adapted	
Door weight	double-leaf 80 kg each	four-leaf 70 kg each
Side ratio	door leaf fixed panel	max. 1 : 4 max. 1 : 8 (observe weight of element and aspect ratio)
Floor guide	continous	
Seal	horizontal top and bottom: brushes side: silicon profiles	
IGG telescopic sliding door (max. 120 kg)		
Opening width	double-leaf four-leaf	1000 - 3000 mm 1600 - 3600 mm
Clearance height	min. 2000 mm	max. 2900 mm
IGG fixed panel (max. 180 kg)		
Height of fixed panel	min. 2000 mm	max. 2900 mm
Width of fixed panel	min. 500 mm	max. 1950 mm
IGG fanlight (max. 100 kg)		
Height of fanlight	min. 500 mm	max. 1950 mm
Width of fanlight	min. 500 mm	max. 1500 mm

Special dimensions for fixed panels and fanlights on request.

Manual sliding doors with GEZE IGG

Manual sliding door systems with GEZE IGG leaves differ in

- **GEZE Perlan 140**
linear system,
max. panel weight 140 kg

and

- **GEZE MSW**
manual sliding wall system,
max. panel weight 150 kg

With certain restrictions the GEZE MSW is suitable for outside applications. The restrictions mainly concern the sealing system. Brush seals are used to seal the sliding door to the finish floor and the top track.

In outside applications as well as for sliding doors with more than 1400 mm width or more than 3000 mm height a continuous floor guide is recommended.

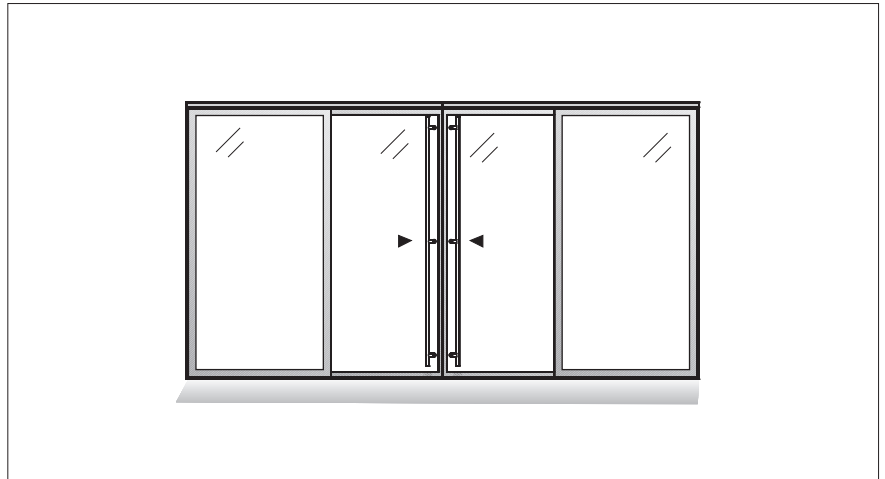


Fig. 21-1 · GEZE Perlan 140

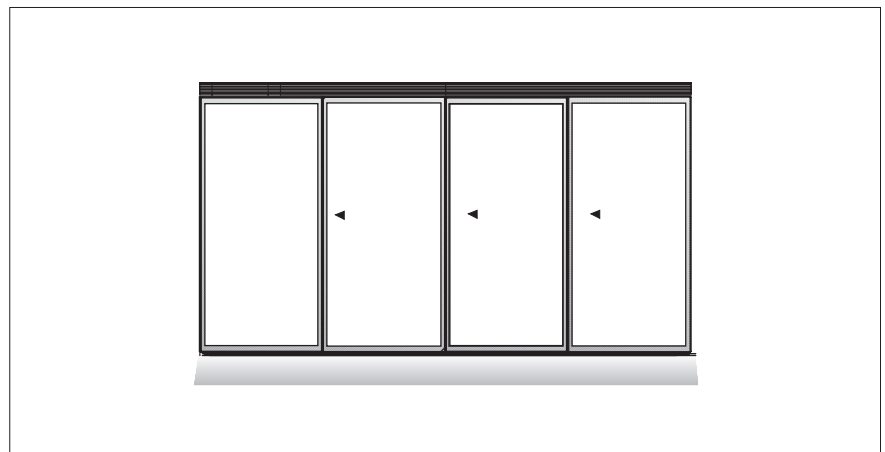


Fig. 21-2 · GEZE MSW

GEZE IGG sliding doors with Perlan 140

For single-leaf and double-leaf sliding systems.

Also available with IGG fixed panels. The suspension of the leaves and the buffers are integrated in the track. We recommend installing a suitable buffer at the fully open position of the back edge of the panel.

Locking is made via a floor-mounted bolt lock.

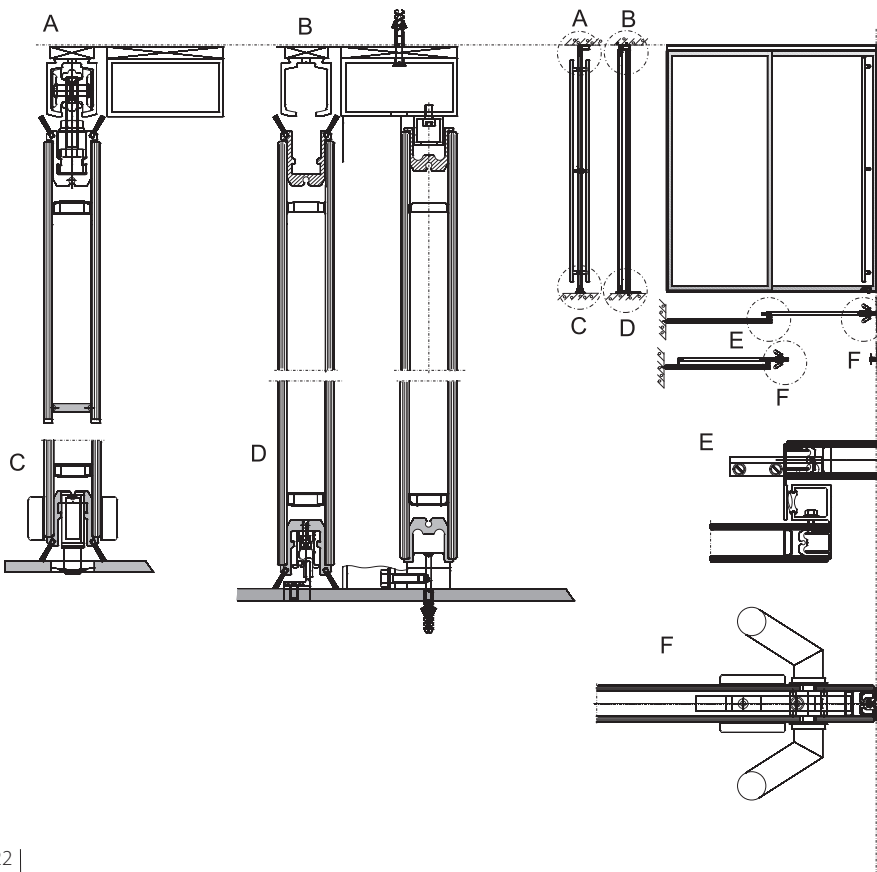
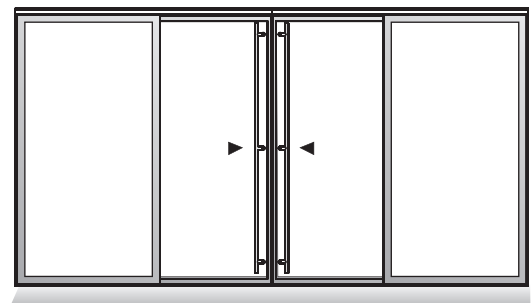
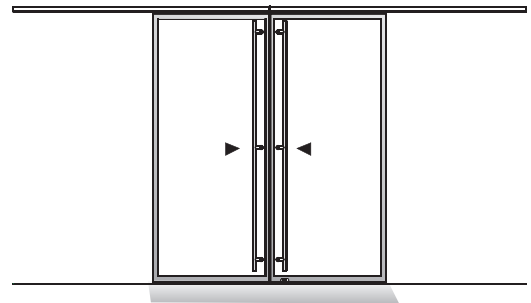
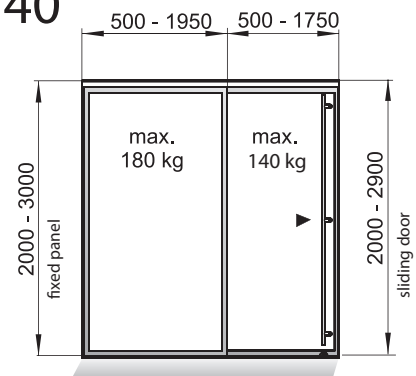
Pull bars are fitted in the transparent part of the glass (at least 3 fixing points for pull handles as high as the door panel).

The floor guide near the back edge (fitted on the finished floor while the sliding door is closed) is not visible.

Floor-mounted bolt lock and pull bars reduce the clear inner width of each sliding door by approx. 200 mm (safety margin to prevent trapping and shearing of the hands when the door is opened).

Continuous floor guides (option) prevent swinging of the sliding door.

Perlan 140 SoftStop up to 80 kg



Technical details: IGG sliding doors with GEZE Perlan 140		
System	GEZE Perlan 140	
Glass	GEZE IGG	
Door weight	max. 140 kg	
Weight of fixed panel	max. 180 kg	
Side ratio	door leaf fixed panel	max. 1 : 4 max. 1 : 8 (observe weight of element and aspect ratio)
IGG sliding door		
Height of sliding door	min. 2000 mm	max. 2900 mm
Width of sliding door	min. 500 mm	max. 1950 mm special dimensions on request
IGG fixed panel (max. 180 kg)		
Height of fixed panel	min. 2000 mm	max. 3000 mm
Width of fixed panel	min. 500 mm	max. 1950 mm
IGG structure	toughened safety glass (ESG) 6 mm – gap 27 mm – toughened safety glass (ESG) 6 mm, thickness of door approx. 39 mm	
Imprint	top	min. 50 mm
	bottom	min. 50 mm
	back edge	min. 45 mm
	leading edge	min. 30 mm
Locking	floor-mounted bolt lock with profile cylinder or square olive, on one or both sides	
Handle	Recommmodation: pull bar (note potential danger points!)	
Seal	top and bottom horizontal brush seals, at the sides with silicone profiles	
Floor guide	patch fitting floor guide (option: continuous)	

GEZE IGG with manual sliding wall system MSW

For sliding walls with stationary hinged doors and several sliding doors* for free movement. The sliding elements normally moved to a parking space and deposited there.

Locking is made with the help of floor-mounted bolt locks.

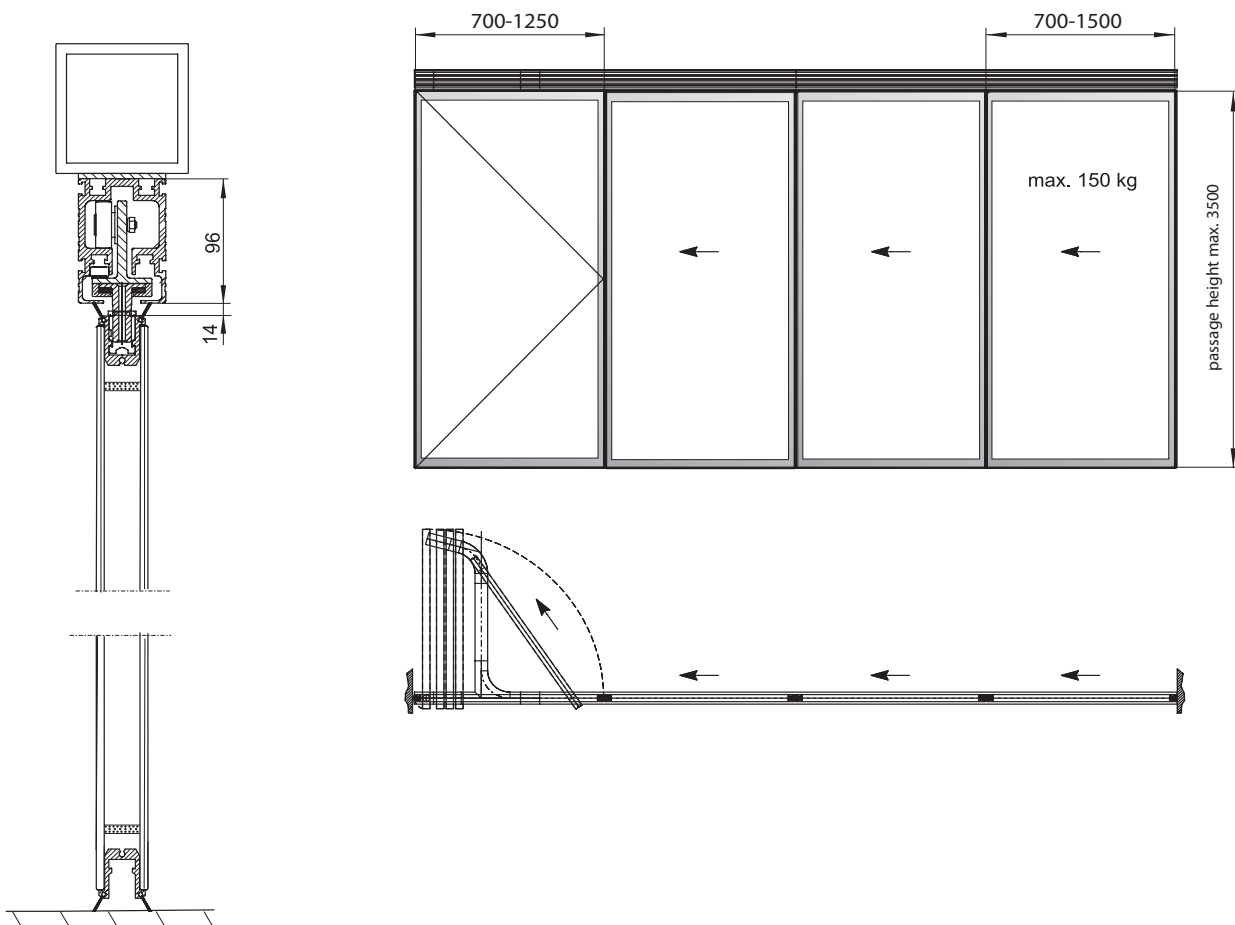
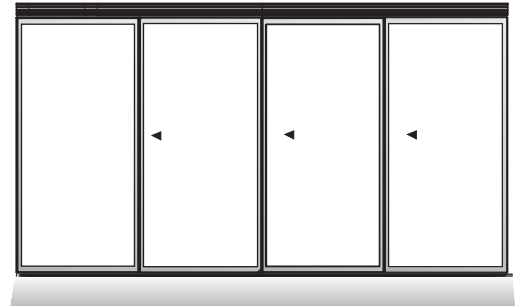
All fitting components are integrated into the IGG.

A continuous floor guide (option) prevents the sliding door elements from swinging.

We recommend installing a continuous floor guide for high doors (from 3000 mm) as well as for exterior installations.

The sliding wall can be polygonal, with the running track either bent or in polygonal shape (straight length of track connected with bends). The minimum radius has to be determined individually for each project.

* see also planning document GEZE MSW



Technical details: manual sliding wall system GEZE MSW with IGG		
System	GEZE MSW	
Glass	GEZE IGG	
Door weight	max. 150 kg	
Weight of fixed panel	max. 180 kg	
Side ratio	max. 1 : 4 (observe weight of element and aspect ratio)	
IGG sliding door		
Height of sliding door	min. 2000 mm	max. 3500 mm
Width of sliding door	min. 700 mm	max. 1500 mm
IGG single-action door		
Height of rebated door	min. 2000 mm	max. 3500 mm
Width of rebated door	min. 700 mm	max. 1250 mm
IGG fixed panel (max. 180 kg)		
Height of fixed panel	min. 2000 mm	max. 3500 mm
Width of fixed panel	min. 500 mm	max. 1950 mm
IGG structure	toughened safety glass (ESG) 6 mm – gap 27 mm – toughened safety glass (ESG) 6 mm, thickness of door approx. 39 mm	
	with door leaf height > 3 m: toughened safety glass (ESG) 8 mm – gap 27 mm – toughened safety glass (ESG) 8 mm, thickness of door 43 mm	
Imprint	top	min. 50 mm
	bottom	min. 50 mm
	side	min. 30 mm
Locking	Floor-mounted bolt lock with profile cylinder (on one or both sides) or square olive	
Handle	Recommendation: pull bar (mind potential danger points!)	
Seal	top and bottom horizontal brush seals, sides with silicone profiles	
Floor guide	continuous (option)	

Information about GEZE IGG

Types of GEZE IGG glass

IGG is produced from 2 x 6 mm toughened safety glass (ESG); with 27 mm gap between the panes.

The colouring of the ceramic edge printing has an effect on the inherent colour of the glass. To reduce the effect of the glass to a minimum, there is the option of selecting "white glass" and "diamant" at a surcharge.

Due to more demanding requirements (e.g. 2 x 8 mm toughened safety glass (ESG) rule of thumb: the glass thickness has to be increased, if the height of the element exceeds 3 m. Where it is doubtful, check the necessity to increase the glass thickness for each individual project.

For reasons of safety or sound insulation we can also supply solutions with laminated glass. Since the weight of the IGG element is limited, it is necessary to discuss details with GEZE beforehand.

Coatings for thermal protection or solar screening are available on request.

Note: Due to the reflective properties of surfaces with solar screening coatings any soiling or dirt and scratches are more visible than with normal glass. This applies in particular to coatings on surface one (outside).

In general, all glass needs to be cleaned at regular intervals depending on the degree of soiling. In principle, glass should be cleaned with a lot of clear water.

Heat soak test

IGG elements normally undergo a heat soak test in accordance with DIN 18516 part 4.

Grouting

With direct contact with IGG we recommend silicone, e.g. Dow Corning 797

Weight per unit area (standard values) for:	
2 x toughened safety glass (ESG) 6 / IGG standard	34 kg/m ²
2 x toughened safety glass (ESG) 8	44 kg/m ²
laminated glass (VSG) 5-1,52-5 / SZR 27mm /toughened safety glass (ESG) 6	45 kg/m ²
laminated glass (VSG) 6-1,52-6 / SZR 27mm /toughened safety glass (ESG) 6	54 kg/m ²

Physical values

The following technical values refer to the insulating glass T.25/01-B SGG Climalit Standard.

These values can be transferred to the IGG standard structure by approximation

(toughened safety glass (ESG) 6 mm – gap 27 mm – toughened safety glass (ESG) 6 mm)

- ▶ Gap between panes filled with: air
- ▶ Ug-value: approx. 3,0 W/m²K
- ▶ A U-value of approx. 1,8 W/m²K can be reached by means of coating, gas filling etc.

Edge enamelling		
IGG fixed panel of ESG 6 mm - gap 27 mm – ESG 6 mm	evaluated sound insulating rating:	Rw = ca. 36 dB
IGG hinged door of ESG 6 mm - gap 27 mm – ESG 6 mm	evaluated sound insulating rating:	Rw = ca. 32 dB

This effect can almost completely be avoided by using white glass. Complete overprinting, lettering, symbols in screen printing, etching or sandblasting can be supplied on request.

Double-action door and sliding door

Double-action and sliding doors are not suited for increased sound insulation due to the open gaps.

Edge enamelling

Colours in accordance with GEZE IGG colour chart.

The enamelling is applied to the side facing the inside of the pane. This means that the mirror effect of the glass is maintained. Due to the inherent colour of the standard glass, the colours appear in a different colour shade compared to that one on the colour chart. Light colour shades are particularly affected (e.g. white RAL 9016 will appear with a light green tint).

This effect can almost completely be avoided by using white glass. Complete overprinting, lettering, symbols in screen printing, etching or sandblasting can be supplied on request.

Escape and rescue routes

Automatic sliding doors GEZE Slimdrive SL-FR and SLT-FR with IGG sliding leaf and IGG fixed panels have been approved for escape and rescue routes.

Single-action IGG doors can be fitted with panic hardware.

Approved in accordance with DIN EN 179 (emergency exit locks) and DIN EN 1125 (panic locks).

In a rule, double-action doors are not approved as panic doors / escape route doors. Occasionally, however, customers ask for panic doors or escape doors with the opening action restricted to one side only by a stop (for more information ask the corresponding authorities). Where double-action IGG doors are to be used with a stop as escape route doors, the floor spring is replaced by a central panic lock.

Terms of delivery and order processing

IGG elements are manufactured in accordance with the basic dimensions stated after receipt of order. The date of delivery is shown on the acknowledgement of order.

In the case of customer-specific IGG solutions requiring technical project planning, GEZE will draw up an approval drawing after receipt of order. GEZE will not start manufacturing the elements unless the approval drawing is countersigned and all technical aspects are cleared up.

General information about glass

Toughened safety glass (ESG)

After cutting, processing and screen printing, toughened safety glass is evenly heated to 600 °C and then quenched with cool air jets. When toughened safety glass breaks the resulting glass crumbs have no sharp edges and the risk of injury is therefore considerably reduced. The inside facing glass panes of IGG systems always consist of toughened safety glass.

Reason: The enamelled edge printing applied to the side facing the gap between the panes has to be baked on during the hardening process in the stove.

Laminated glass (VSG)

Laminated glass consists of two or more panes of float glass (with IGG one pane is always toughened), which are firmly laminated together to one unit by sandwiching viscoplastic and highly tear-resistant polyvinyl butyral foils (PVB) in between the panes.

The safety effect of laminated glass is based on the high tear-resistance of the sandwiched PVB layer. As a result the risk of injury is reduced and the glazed opening will remain closed.



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