



Garage door systems and hinged doors
Project hinged doors and frames
Industrial door systems
Docking and logistics systems

Intelligent Door Solutions



TO EUROPEAN
STANDARDS
EN 16034 AND
EN 13241

NOVOSLIDE INDUSTRY

FIRE- AND SMOKEPROOF SLIDING DOORS

TESTED SAFETY FOR FIRE BARRIERS
IN INDUSTRIAL CONSTRUCTION AND
PUBLIC BUILDINGS

www.novoferm.com



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Underground garages, multi-storey car parks or other huge buildings require special doors. There are many reasons for this, with safety requirements playing an especially important role.

This type of fire barrier is covered by the European product standards EN 16034 ("Fire barriers") and EN 13241 ("Gates"). The new Novoferm NovoSlide Industry fire-resistant sliding door has been specially developed to meet these stringent European product standards.



The door can therefore be safely used throughout Europe as a CE marked product. The gate complies with all common time classes to meet the different building regulations requirements across Europe.

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THE OPTIMAL SYSTEM FOR FIRE-RESISTANCE REQUIREMENTS

SMOOTH LOOK ALSO FOR LARGE DOORS

Flat surfaces **1** and a concealed panel connection at the front provide a uniform, attractive look. Casing around the tracks and counterweight also give a particularly smooth appearance.

UNOBTRUSIVE PASS DOORS

Pass doors **2** enable easy passage when the sliding doors are closed. Pass doors have neither sills nor base stopper profiles so there are no tripping hazards when passing through. The narrow-frame doors give an unobtrusive and elegant look.

EASY TO INSTALL AND OPERATE

Novoferm fire-resistant sliding doors **3** feature many benefits. They are suitable for both normal lintel and direct ceiling installation. When in use, the doors impress with their excellent running characteristics. Fire-resistant sliding doors are often large dimensioned. The modular design makes transport and installation easy so even large-size doors are simple to install.

DOORS TO MEET YOUR NEEDS

Adapt a one- or two-leaf fire-resistant sliding door to your premises. We have a multitude of variants to make it possible. Do the doors mainly need to remain open? The hold-open system **4** with release mechanism ensures that the doors close in the event of a fire. In addition, optical and acoustic signal transmitter included in the standard provides additional safety for doors with hold-open systems.

SILL-FREE FIRE PROTECTION

Novoferm continues to develop its combined fire resistance and smoke proof protection. For example, sills are unnecessary in the entire opening and storage area **5**, depending on the floor construction.



NOVOSLIDE INDUSTRY FEATURES

Fire-resistant sliding doors separate a building's individual fire compartments from each other. The NovoSlide Industry fire-resistant sliding door does this task particularly well due to its easy installation and excellent fire-resistant properties.

NovoSlide Industry fire-resistant sliding doors are comprised mainly of pre-assembled elements to make installation quick and simple. Each panel is equipped with a separate roller to save time when installing the individual panels in the tracks.

The NovoSlide Industry door has also been tested up to fire-resistant class EI₂120 demonstrating its high fire-resistance. Temperatures in a fire test furnace exceed much more than 1,000 °C after 120 minutes. At such temperatures, not only the door on the side of the fire, but also the masonry in the test wall is extremely stressed. Even under these conditions, the sliding door must remain intact overall and comply with the very stringent requirements on sealing spaces and insulating heat.

HIGHLIGHTS

- ✓ Especially quick and easy to install
- ✓ Many factory pre-assembled elements save time at the installation site
- ✓ Simple installation of the panels, each with separate rollers

- ✓ Integrated seals between the panel joints eliminates the need for on-site panel sealing with silicone for S_a and S₂₀₀ *

* Please refer to the technical table for an exception



EUROPEAN STANDARD

Fire-resistant sliding doors as fire barriers are covered by the European product standards EN 16034 (doors, gates and windows – product standard, performance characteristics – fire and/ or smoke protection characteristics) and EN 13241 (gates – product standard, performance characteristics). These fire barriers are classified in accordance with EN 13501-2 (classification of building materials and elements regarding reaction to fire – Part 2: Classification using data from fire resistance tests). The new Novoferm NovoSlide Industry fire-resistant sliding door has been specially developed to meet these stringent European product standards.

According to the construction product regulation for the marketing of building materials in Germany and the European Union, materials covered by the European product standard must be supplied with a CE mark and a declaration of performance (DOP).

This applies to fire-resistant sliding fire doors in national and European regulations in the post-coexistence phase. Doors marked in this way can be used in all member states of the European Union (CEN).

In addition to the European standards, the relevant national statutory building requirements must always be observed which remain the responsibility of the individual countries and will not be harmonised at a European level.

In Germany, for example, the Model Administrative Provisions for Technical Building Rules (MWB-TB) define the statutory building requirements for fire-resistant and smokeproof doors.

In addition to the fire-resistance classes EI₂ 30 and EI₂ 90, the MWB-TB also requires the properties of tight closing (S₃) and durability of self-closing (C2).



Declaration of performance (DOP)



Fire test, view after 130 minutes



TYPE OVERVIEW

EI₂ 30



1-leaf



2-leaf



EI₂ 60



1-leaf



2-leaf



EI₂ 90



1-leaf



2-leaf



EI₂ 120



1-leaf



2-leaf





TECHNICAL DESCRIPTION

Highly functional, attractive design and innovative details characterise Novoferm's fire-resistant and smokeproof sliding door systems. They are suitable

for many structures and fit harmoniously into different architectural systems in industrial and commercial buildings.

CERTIFICATION (APPROVAL)

Each type corresponds to EN 16034 and EN 13241 and has been tested for its fire-resistant properties by an official testing laboratory in accordance with EN 1634. All single-leaf doors are certified with corresponding durability tests (certified durability of the self-closing action in accordance with EN 12605 with 50,000 cycles (Class C3)). Also with optional smoke protection classification S_a (tight closing – with 3-sided sealing system) or S_{200} (smokeproof – with 4-sided continuous sealing system).

INSTALLATION

The wall in which the fire barrier is to be installed as well as its fixings must comply with the classification (see descriptions for individual door types). The floor in the door area must be non-flammable (building material class A1).

Note: If the parking area of a sliding door has a casing applied on-site, inspection openings must be provided to enable maintenance.

TYPES OF LINTELS

- Standard model for normal headers requires approx. 250 mm headroom
- Customised models for direct ceiling installation require at least 150 mm headroom
- Header panel for direct ceiling installation is 150 mm high. Please also refer to the planning aids on page 20.

DOOR LEAF

Made of 0.75 mm galvanized and specially machined thin sheet metal with fireproof insulation. Door leaf made of individual full-height units joined together, with smooth surface finish achieved by bonding the sheet metal jacket with the fireproof insulation (supplied as individual panels). Even with high doors of up to 6 m, no vertical gap is required.

SEAL

On three sides, with labyrinth-seal profiles, required by building law for Germany. Additional sealing system between the individual panels to meet minimum S_a smokeproof requirements. Panel joints require no extra sealing. Also optionally available with a 4-sided smoke protection sealing system as S_{200} .

HARDWARE

Closed track system with one support roller system per panel for smooth door movement, closed track system with individually mounted support bracket constructions, including hydraulic end damper, closing weight in galvanised casing, internal floor guide as well as a handle and recessed shell handle, optional in stainless steel.

CLOSING BRAKE (RADIAL DAMPER)

Controls the closing speed, adjustable between 0.08 and 0.3 m/sec.



AVAILABLE VARIANTS/ OPTIONAL EQUIPMENT

HOLD-OPEN SYSTEM – HOLD OPEN AND RELEASE MECHANISM

For doors that mainly remain open, consisting of: Fire detectors in the quantity required by the approval, hold-open magnet, hold-open control panel with integrated push-button (surface-mounted) type FSZ (Operation with 230V. Control voltage 24V). In the event of a fire, the door closes automatically via the fire detector, otherwise by pressing the release button. Additionally equipped with an optical-acoustic signal transmitter as required by EN 12604. Optionally, the door can also be controlled via the on-site fire alarm system.

Note: Once installed, owners must ensure at their own expense that the hold-open system is approved and thereafter inspected at regular intervals by a certified specialist (type approval for the hold-open system). We offer appropriate service agreements.

PASS DOOR AND SMOKEPROOF PASS DOOR

Pass door EI₂ 30 to EI₂ 120, as standard with S_a smokeproof (sealing – 3-sided sealing profile), S_{200} smokeproof (4-sided circumferential sealing system), installed in the door leaf between two elements, standard without lower sill, door size 1,000 x 2,000 mm clear passage dimensions. A sill-free pass door may be installed only from a clear wall opening with a width of 2,500 mm and a height of 2,300 mm. Hardware: 2x three-part hinges with ball bearings, 1 door closer as per EN 1154, 1 mortice lock as per DIN 18250 with drawback-latch for profile cylinder, optional panic function, stainless steel flat handle set with short plates. Alternatively available with pass door closing flush into the reveal EI₂ 30 to EI₂ 90.

ELECTRICAL OPENING AID

For opening with special control unit with separate 3-push-button in dead man control. The control unit is protected with a smoke detector in accordance with the new requirements. Closing via the release button of the hold-open system or separate button "close door"; open with a separate button "open door" (especially for larger doors when considerable effort is required for manual opening). The operator is deactivated in the event of fire and the door is automatically closed.

Note: Owners must arrange at their own expense for specialists to perform the necessary inspections of doors with electrical opening aids (see guidelines for power operated doors).

DOOR PANEL SURFACE

Galvanized in standard, including door-leaf edge profiles; optional hinge coating of door leaf panels only (pebble grey, similar to RAL 7032) or with RAL coating of choice, including door-leaf edge profiles, covers and cladding.

HOOK LOCK

To secure the door when closed, with spring-mounted catch, key operated, designed for profile cylinders. Also possible with dead bolt contact.

BUTT CEILING INSTALLATION

With header panel (150 mm high).

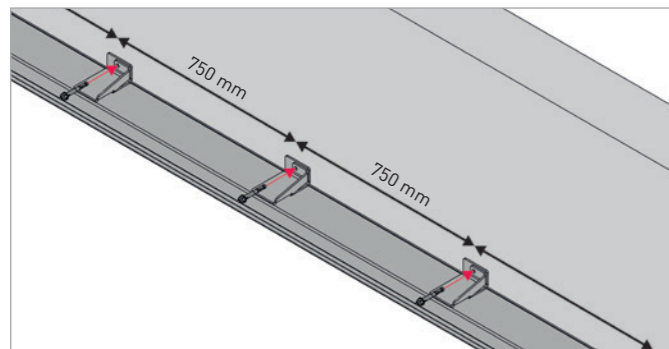


EASY INSTALLATION

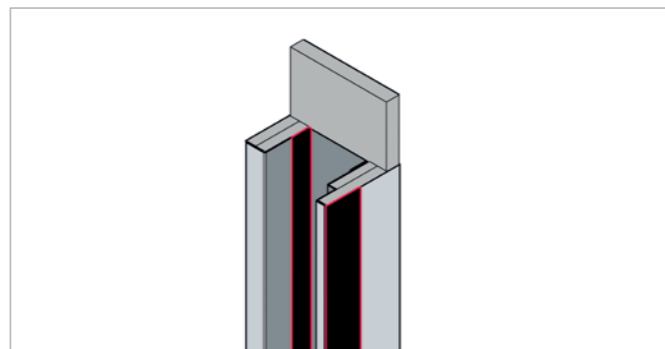
The NovoSlide Industry fire-resistant sliding doors are especially quick to install. Advanced technical details considerably speed up the process.

See examples here. All details can be found in the installation instructions.

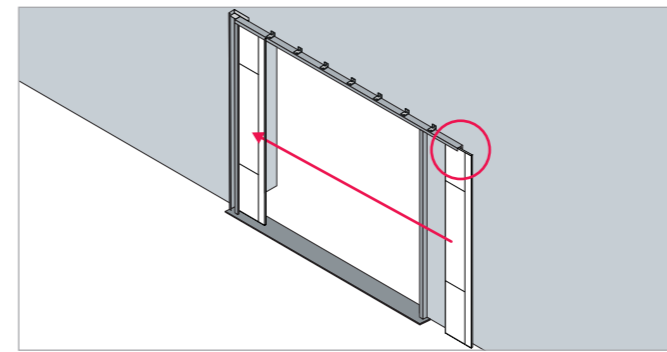
THE ADVANTAGES



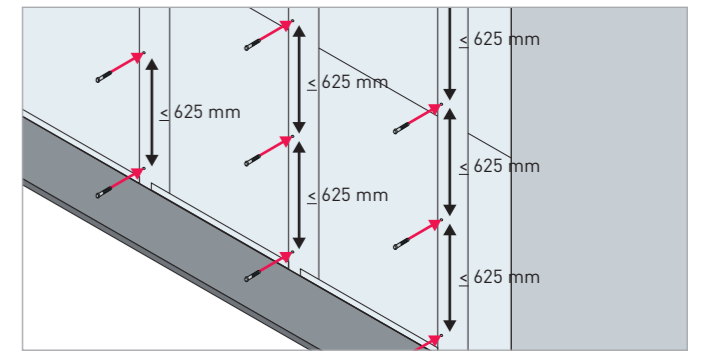
Easy to install due to single-bracket mounting with extended spacings of 750 mm in both the closing and opening area (> 7,305 mm: 500 mm). Easy tolerance compensation during installation due to long holes in the brackets and the track.



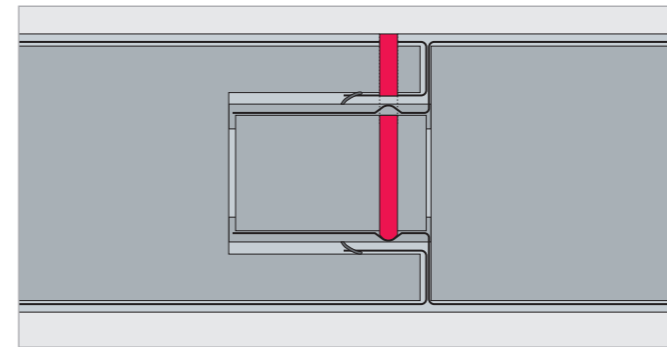
Reduced complexity due to factory pre-assembled elements including pre-mounted foam strips.



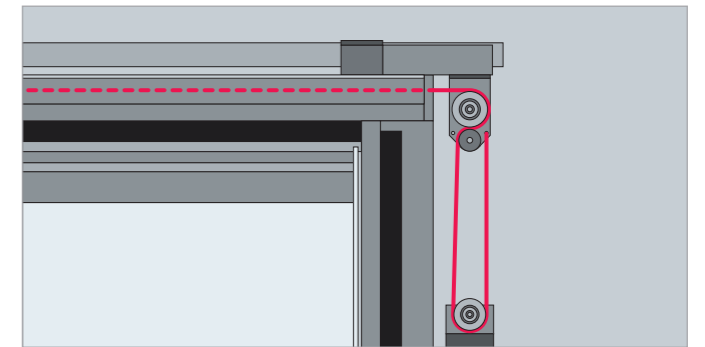
Simple installation of the panels, each with separate rollers.



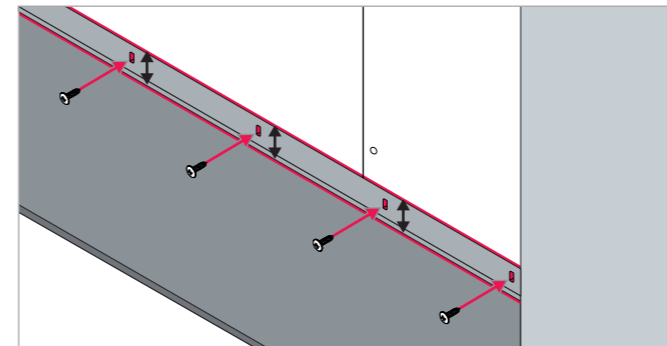
Panels connected to each other with one-sided screw connection on the non-visible wall side (screw spacing ≤ 625 mm).



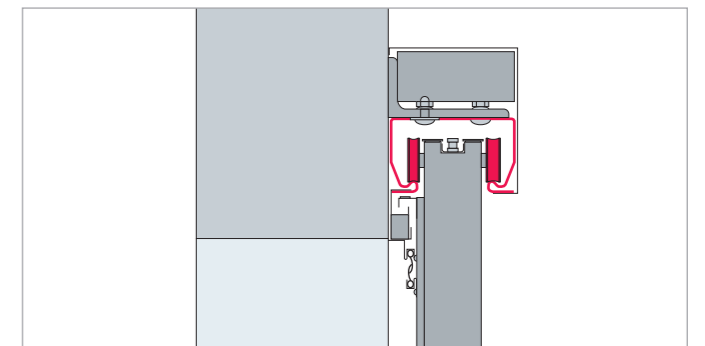
All bolting points prepared at the factory.



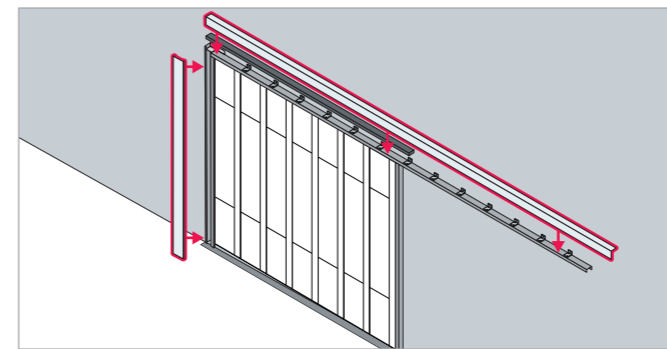
Simplified wire cable guide for the closing weight for easy installation. Standard at the running in, optionally possible in the parking position area.



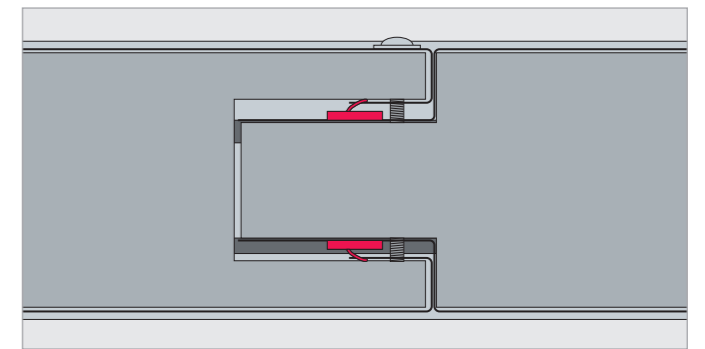
Quick and easy floor levelling via height-adjustable floor end profile.



Special roller design compensates for unevenness in the wall and header areas.



Simple track cover included as standard; this is invisibly screwed from above. Flush with counter weight.



Integrated seals between the panel joints eliminates the need for on-site panel sealing with silicone for S_0 and S_{200}^* .

* Please refer to the technical table for an exception

FIRE-RESISTANT AND SMOKEPROOF SLIDING DOORS – 1-LEAF

		El ₂ 30	El ₂ 60	El ₂ 90	El ₂ 120	
Characteristics	Full leaf in a modular design	•	•	•	•	
	Galvanized leaf and edge profiles	•	•	•	•	
	Classification (approval)	Corresponds to EN 16034 and EN 13241; tested for fire-resistant properties by an official testing laboratory in accordance with EN 1634-1	Corresponds to EN 16034 and EN 13241; tested for fire-resistant properties by an official testing laboratory in accordance with EN 1634-1	Corresponds to EN 16034 and EN 13241; tested for fire-resistant properties by an official testing laboratory in accordance with EN 1634-1	Corresponds to EN 16034 and EN 13241; tested for fire-resistant properties by an official testing laboratory in accordance with EN 1634-1	
Versions	El ₂ 30	•				
	El ₂ 60		•			
	El ₂ 90			•		
	El ₂ 120				•	
	S _a smokeproof (full leaf)	◦ Up to 8,500 x 6,000 mm (max. 44 m ²) • In Germany (up to 8,500 x 6,000 mm) (max. 44 m ²)	◦ Up to 8,500 x 6,000 mm (max. 44 m ²) • In Germany (up to 8,500 x 6,000 mm) (max. 44 m ²)	◦ Up to 8,500 x 6,000 mm (max. 44 m ²) • In Germany (up to 8,500 x 6,000 mm) (max. 44 m ²)	◦ Up to 8,500 x 6,000 mm (max. 44 m ²) • In Germany (up to 8,500 x 6,000 mm) (max. 44 m ²)	
	S ₂₀₀ smokeproof (full leaf)	◦ Up to max. 27,1 m ²	◦ Up to max. 27,1 m ²	◦ Up to max. 27,1 m ²	◦ Up to max. 27,1 m ²	
	With door closing brake (radial damper)	•	•	•	•	
	Also with hold-open system	◦	◦	◦	◦	
Description	Approved dimensions	Clear opening from upper edge of finished floor 1,000 x 2,000 to 8,500 x 6,000 (max. 50 m ²)	Clear opening from upper edge of finished floor 1,000 x 2,000 to 8,500 x 6,000 (max. 50 m ²)	Clear opening from upper edge of finished floor 1,000 x 2,000 to 8,500 x 6,000 (max. 50 m ²)	Clear opening from upper edge of finished floor 1,000 x 2,000 to 8,500 x 6,000 (max. 50 m ²)	
	Door leaf approx. 72 mm thick, 0.75 mm sheet metal, unit weight approx. 54 kg/m ²	•	•	•	•	
	Required overlap of clear passage opening by door leaf	At the sides per	≥ 150 at the door inlet ²⁾ ≥ 190 in parking area ²⁾	≥ 150 at the door inlet ²⁾ ≥ 190 in parking area ²⁾	≥ 150 at the door inlet ²⁾ ≥ 190 in parking area ²⁾	≥ 150 at the door inlet ²⁾ ≥ 190 in parking area ²⁾
		At the lintel	≥ 120 ²⁾	≥ 120 ²⁾	≥ 120 ²⁾	≥ 120 ²⁾
		With direct ceiling mounting	≥ 120 ²⁾	≥ 120 ²⁾	≥ 120 ²⁾	≥ 120 ²⁾
	Parking area for open door (Counterweight position in the front of the door)	CP + 490 ²⁾	CP + 490 ²⁾	CP + 490 ²⁾	CP + 490 ²⁾	
	Required lintel height	Standard lintel wall installation	≥ 250 ²⁾	≥ 250 ²⁾	≥ 250 ²⁾	≥ 250 ²⁾
		Direct ceiling mounting (lintel present)	≥ 150 ²⁾	≥ 150 ²⁾	≥ 150 ²⁾	≥ 150 ²⁾
		Direct ceiling mounting with lintel panel	≥ 150 ²⁾	≥ 150 ²⁾	≥ 150 ²⁾	≥ 150 ²⁾
		Clad steel supports (based on structural calculations)	≥ 250 ²⁾	≥ 250 ²⁾	≥ 250 ²⁾	≥ 250 ²⁾
	For pillars in parking area, requisite distance from firewall	Without pass door	≥ 200	≥ 200	≥ 200	≥ 200
		With pass door	≥ 230	≥ 230	≥ 230	≥ 230
	Sill for opening and storage area	Only required with S ₂₀₀ smokeproof doors: Recessed: Sill recessed in the ground only on-site prior to door installation, after consultation with Novoferm Surface-mounted: Flatness tolerance of finished flooring with surface-mounted sills in opening and storage areas according to DIN 18202, Table 3, Line 4 Optional: No sill is required for smooth, level floors without joints in the opening and storage areas (max. tolerance 5 mm over the entire opening area)	Only required with S ₂₀₀ smokeproof doors: Recessed: Sill recessed in the ground only on-site prior to door installation, after consultation with Novoferm Surface-mounted: Flatness tolerance of finished flooring with surface-mounted sills in opening and storage areas according to DIN 18202, Table 3, Line 4 Optional: No sill is required for smooth, level floors without joints in the opening and storage areas (max. tolerance 5 mm over the entire opening area)	Only required with S ₂₀₀ smokeproof doors: Recessed: Sill recessed in the ground only on-site prior to door installation, after consultation with Novoferm Surface-mounted: Flatness tolerance of finished flooring with surface-mounted sills in opening and storage areas according to DIN 18202, Table 3, Line 4 Optional: No sill is required for smooth, level floors without joints in the opening and storage areas (max. tolerance 5 mm over the entire opening area)	Only required with S ₂₀₀ smokeproof doors: Recessed: Sill recessed in the ground only on-site prior to door installation, after consultation with Novoferm Surface-mounted: Flatness tolerance of finished flooring with surface-mounted sills in opening and storage areas according to DIN 18202, Table 3, Line 4 Optional: No sill is required for smooth, level floors without joints in the opening and storage areas (max. tolerance 5 mm over the entire opening area)	
Additional features	Pass door S _a including door closer	◦	◦	◦	◦	
	Pass door S ₂₀₀ including door closer ¹⁾	◦ Up to max. 26,8 m ²	◦ Up to max. 26,8 m ²	◦ Up to max. 26,8 m ²	◦ Up to max. 26,8 m ²	
	Pass door in reveal	◦	◦	◦	—	
	Hook lock	◦	◦	◦	◦	
	Flush side inlet panel	◦	◦	◦	◦	
	Direct ceiling installation	◦	◦	◦	◦	
	Electrical opening aid	◦	◦	◦	◦	
	Glazing	—	—	—	—	
	Free-running function	—	—	—	—	
	Ceiling/ niche flaps	—	—	—	—	
	Safety braking strip	—	—	—	—	

CP = Clear passage dimensions OKF = Upper edge of finished floor • = Standard ◦ = Option — = Currently unavailable All sizes in mm.

OPERATING AIDS AND SPECIAL EQUIPMENT ON REQUEST

Note: The upper horizontal smoke seal protrudes approx. 40 mm into the clear passage opening. Please note different lintel heights.

¹⁾ 1-sided sealing of the panel joints is required for S₂₀₀ sliding doors > 15.1 m² and for S₂₀₀ sliding doors with pass door.

²⁾ For details see tables on page 19

FIRE-RESISTANT AND SMOKEPROOF SLIDING DOORS – 2-LEAF

		El ₂ 30	El ₂ 60	El ₂ 90	El ₂ 120	
Characteristics	Full leaf in a modular design	•	•	•	•	
	Galvanized leaf and edge profiles	•	•	•	•	
	Classification (approval)	Corresponds to EN 16034 and EN 13241; tested for fire-resistant properties by an official testing laboratory in accordance with EN 1634-1.	Corresponds to EN 16034 and EN 13241; tested for fire-resistant properties by an official testing laboratory in accordance with EN 1634-1.	Corresponds to EN 16034 and EN 13241; tested for fire-resistant properties by an official testing laboratory in accordance with EN 1634-1.	Corresponds to EN 16034 and EN 13241; tested for fire-resistant properties by an official testing laboratory in accordance with EN 1634-1.	
Versions	El ₂ 30	•				
	El ₂ 60		•			
	El ₂ 90			•		
	El ₂ 120				•	
	S _a smokeproof (full leaf)	◦ Up to 8,500 x 6,000 mm (max. 44 m ²) • In Germany (up to 8,500 x 6,000 mm) (max. 44 m ²)	◦ Up to 8,500 x 6,000 mm (max. 44 m ²) • In Germany (up to 8,500 x 6,000 mm) (max. 44 m ²)	◦ Up to 8,500 x 6,000 mm (max. 44 m ²) • In Germany (up to 8,500 x 6,000 mm) (max. 44 m ²)	◦ Up to 8,500 x 6,000 mm (max. 44 m ²) • In Germany (up to 8,500 x 6,000 mm) (max. 44 m ²)	
	S ₂₀₀ smokeproof (full leaf)	◦ Up to max. 27,1 m ²	◦ Up to max. 27,1 m ²	◦ Up to max. 27,1 m ²	◦ Up to max. 27,1 m ²	
	With door closing brake (radial damper)	•	•	•	•	
	Also with hold-open system	◦	◦	◦	◦	
Description	Additional features	Clear opening from upper edge of finished floor 1,000 x 2,000 to 8,500 x 6,000 (max. 50 m ²)	Clear opening from upper edge of finished floor 1,000 x 2,000 to 8,500 x 6,000 (max. 50 m ²)	Clear opening from upper edge of finished floor 1,000 x 2,000 to 8,500 x 6,000 (max. 50 m ²)	Clear opening from upper edge of finished floor 1,000 x 2,000 to 8,500 x 6,000 (max. 50 m ²)	
	Door leaf approx. 72 mm thick, 0.75 mm sheet metal, unit weight approx. 54 kg/m ²	•	•	•	•	
	Required overlap of clear passage opening by door leaf	At the sides per	≥ 190 in parking area ¹⁾	≥ 190 in parking area ¹⁾	≥ 190 in parking area ¹⁾	≥ 190 in parking area ¹⁾
		At the lintel	≥ 120 ¹⁾	≥ 120 ¹⁾	≥ 120 ¹⁾	≥ 120 ¹⁾
		With direct ceiling mounting	≥ 120 ¹⁾	≥ 120 ¹⁾	≥ 120 ¹⁾	≥ 120 ¹⁾
	Parking area for open door	Half of the CP + 600 per leaf ¹⁾	Half of the CP + 600 per leaf ¹⁾	Half of the CP + 600 per leaf ¹⁾	Half of the CP + 600 per leaf ¹⁾	
	Required lintel height	Normal lintel wall installation	≥ 250 ¹⁾	≥ 250 ¹⁾	≥ 250 ¹⁾	≥ 250 ¹⁾
		Direct ceiling mounting (lintel present)	≥ 150 ¹⁾	≥ 150 ¹⁾	≥ 150 ¹⁾	≥ 150 ¹⁾
		Direct ceiling mounting with lintel panel	≥ 150 ¹⁾	≥ 150 ¹⁾	≥ 150 ¹⁾	≥ 150 ¹⁾
		Clad steel supports (based on structural calculations)	≥ 250 ¹⁾	≥ 250 ¹⁾	≥ 250 ¹⁾	≥ 250 ¹⁾
	For pillars in parking area, requisite distance from firewall	Without pass door	≥ 200	≥ 200	≥ 200	≥ 200
		With pass door	≥ 230	≥ 230	≥ 230	≥ 230
	Sill for opening and storage area	Only required with S ₂₀₀ smokeproof doors: Recessed: Sill recessed in the ground only on-site prior to door installation, after consultation with Novoferm Surface-mounted: Flatness tolerance of finished flooring with surface-mounted sills in opening and storage areas according to DIN 18202, Table 3, Line 4 Optional: No sill is required for smooth, level floors without joints in the opening and storage areas (max. tolerance 5 mm over the entire opening area)	Only required with S ₂₀₀ smokeproof doors: Recessed: Sill recessed in the ground only on-site prior to door installation, after consultation with Novoferm Surface-mounted: Flatness tolerance of finished flooring with surface-mounted sills in opening and storage areas according to DIN 18202, Table 3, Line 4 Optional: No sill is required for smooth, level floors without joints in the opening and storage areas (max. tolerance 5 mm over the entire opening area)	Only required with S ₂₀₀ smokeproof doors: Recessed: Sill recessed in the ground only on-site prior to door installation, after consultation with Novoferm Surface-mounted: Flatness tolerance of finished flooring with surface-mounted sills in opening and storage areas according to DIN 18202, Table 3, Line 4 Optional: No sill is required for smooth, level floors without joints in the opening and storage areas (max. tolerance 5 mm over the entire opening area)	Only required with S ₂₀₀ smokeproof doors: Recessed: Sill recessed in the ground only on-site prior to door installation, after consultation with Novoferm Surface-mounted: Flatness tolerance of finished flooring with surface-mounted sills in opening and storage areas according to DIN 18202, Table 3, Line 4 Optional: No sill is required for smooth, level floors without joints in the opening and storage areas (max. tolerance 5 mm over the entire opening area)	
Additional features	S _a /S ₂₀₀ pass door including door closer	◦	◦	◦	◦	
	Pass door in reveal	◦	◦	◦	—	
	Hook lock	◦	◦	◦	◦	
	Direct ceiling installation	◦	◦	◦	◦	
	Electrical opening aid	—	—	—	—	
	Glazing	—	—	—	—	
	Free-running function	—	—	—	—	
	Ceiling/ niche flaps	—	—	—	—	

CP = Clear passage dimensions OKF = Upper edge of finished floor • = Standard ◦ = Option — = Currently unavailable All sizes in mm.

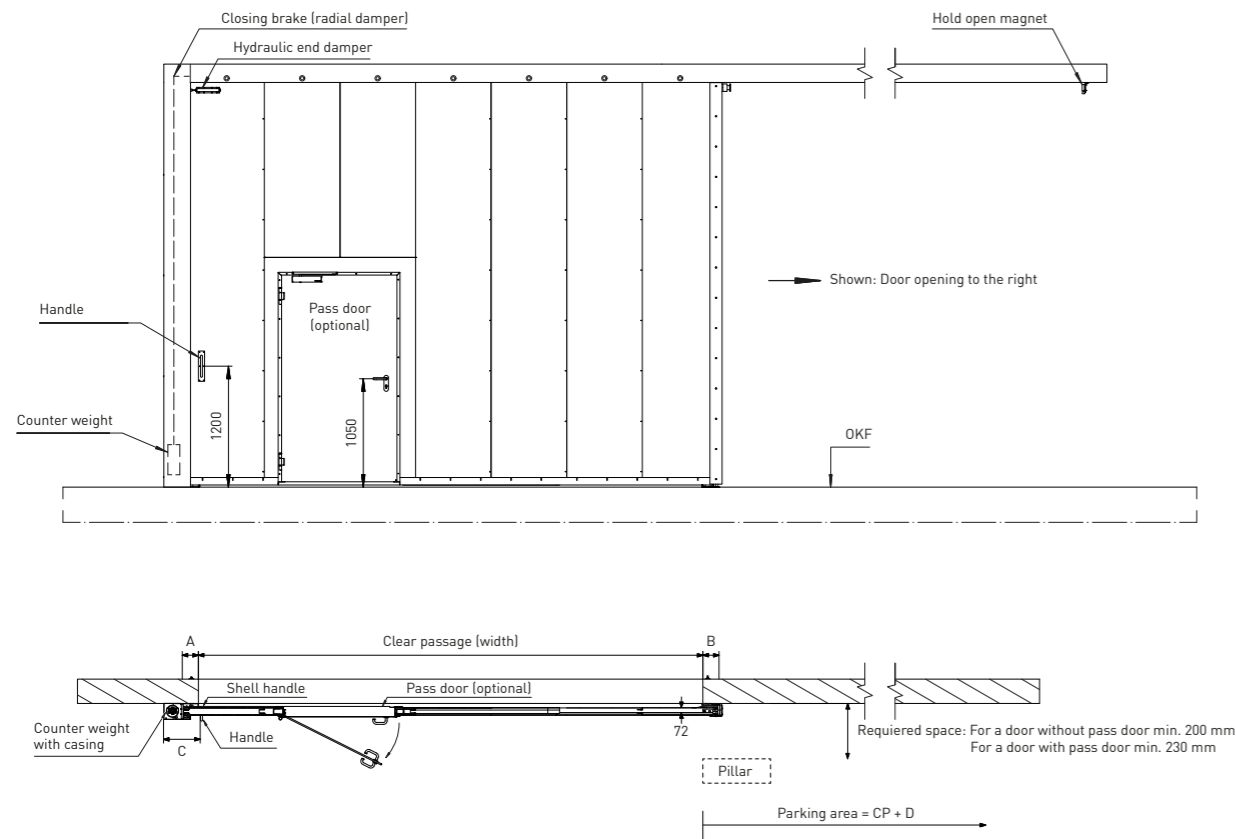
OPERATING AIDS AND SPECIAL EQUIPMENT ON REQUEST

Note: The upper horizontal smoke seal protrudes approx. 40 mm into the clear passage opening. Please note different lintel heights.

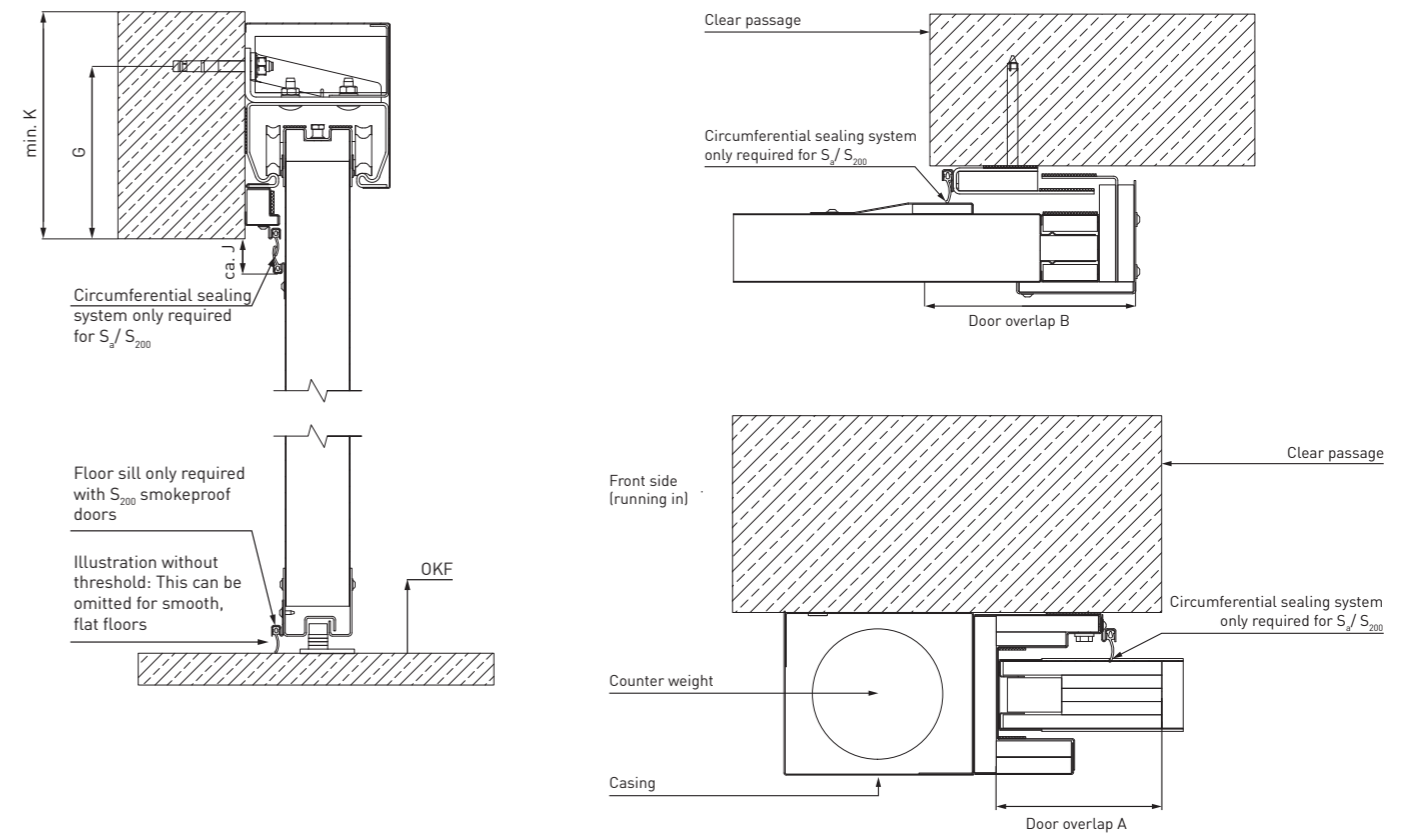
¹⁾ For details see tables on page 19

PLANNING AIDS

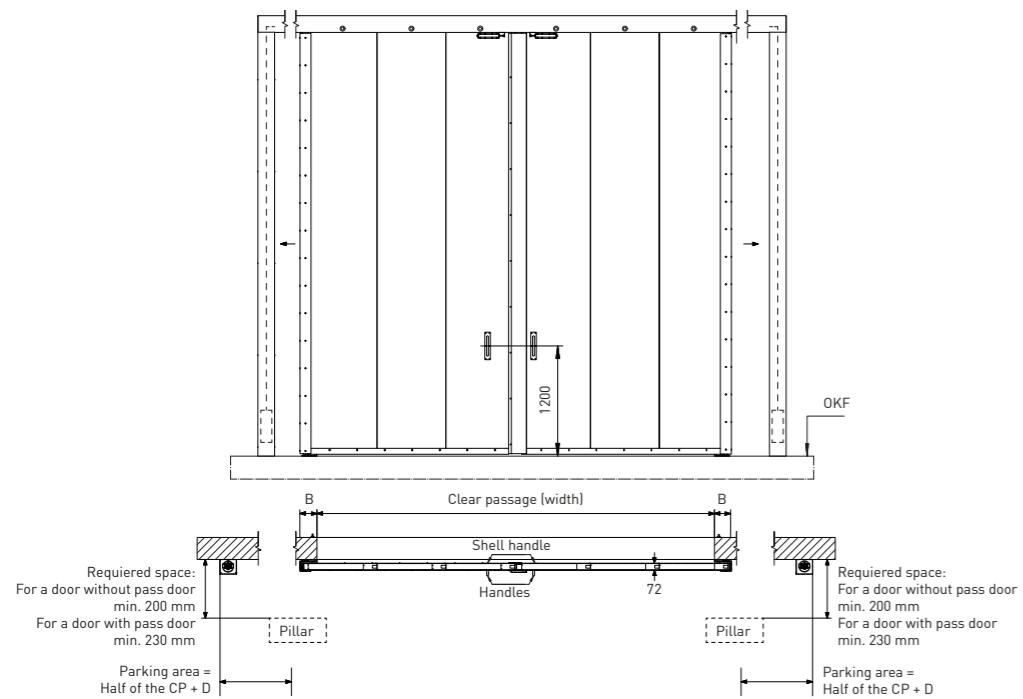
EI₂30/ EI₂60/ EI₂90/ EI₂120 – 1-LEAF MODEL



TECHNICAL DETAILS SMOKE PROOF



EI₂30/ EI₂60/ EI₂90/ EI₂120 – 2-LEAF MODEL



REQUIRED PROJECTIONS

Clear width from to	A	B
1,000 – 4,870	150	195
4,871 – 6,870	170	215
6,870 – 8,500 (8,870)	190	235

Maximum projection: 240 mm (with hook lock at the front max. 220 mm)

SPACE REQUIREMENT WIDTH WITH STANDARD OVERHANGS

Clear width from to	With counter weight at the front:		With counter weight at the back:	
	C	D	C	D
1,000 – 4,870	Front side (running in)	Parking area	Front side (running in)	Parking area
1,000 – 4,870	360	495	180	675
4,871 – 6,870	380	535	200	715
6,871 – 8,500 (8,870)	400	575	220	755

OVERHANG HEIGHT

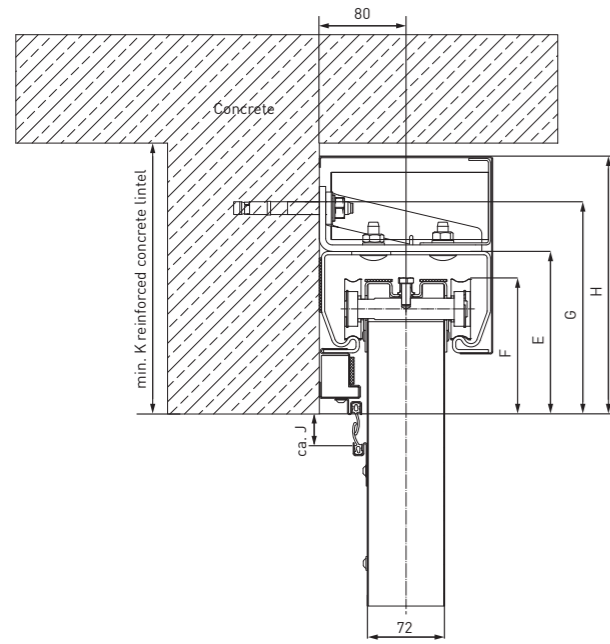
Clear height from to	E	F	G	H	J	K
2,000 – 4,560	Lower edge of lintel – upper edge of rail	Lower edge of the lintel – upper edge of the door leaf	Center hole from lower edge of lintel	Lower edge of the lintel – upper edge of the panel	Entry of the smoke seal into the clear opening	Minimum lintel height
2,000 – 4,560	150	120	190	240	40	250
4,561 – 6,000 (6,560)	170	140	210	260	20	270

All sizes in mm.

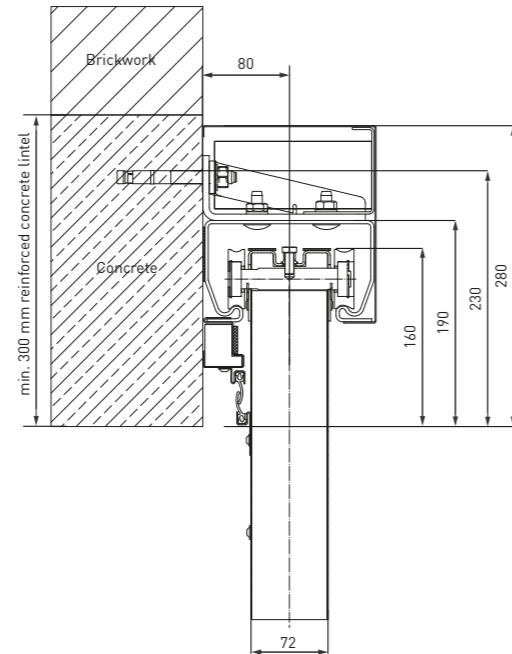
CP = Clear passage OKF = Upper edge of finished floor All sizes in mm.

TYPES OF FIXING AND SPACE REQUIREMENT

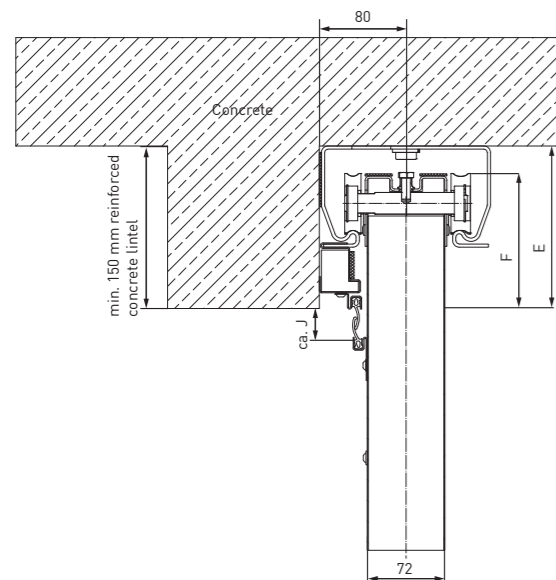
COMMON LINTEL WALL INSTALLATION (STANDARD)



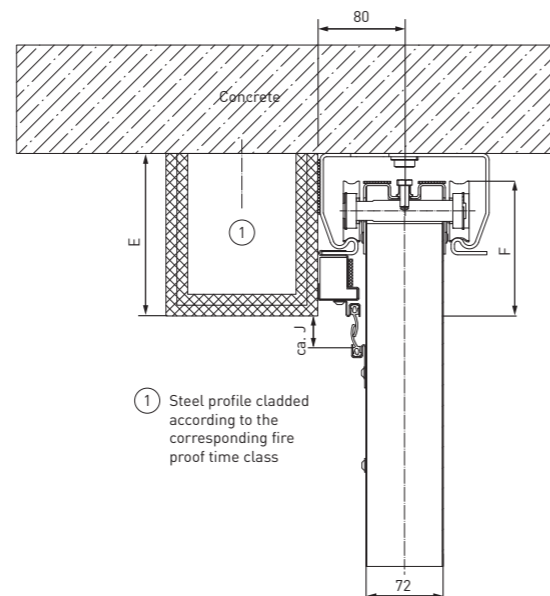
COMMON LINTEL WALL INSTALLATION WITH CONCEALED SMOKE SEAL



DIRECT CEILING INSTALLATION WITH EXISTING LINTEL



DIRECT CEILING INSTALLATION WITH LINTEL PANEL



Concrete Brickwork All sizes in mm.

Note: For dimensions, see tables on page 19

INSTALLATION OPTIONS

REQUIRED FIRE WALLS OR MINIMUM WALL THICKNESSES – 1-LEAF

Door type	EI ₂ 30/ EI ₂ 60/ EI ₂ 90		EI ₂ 120			
	Lintel installation (Reinforced concrete)	Direct ceiling installation	Lintel installation (Reinforced concrete)		Direct ceiling installation	
Door size	≤ CP 8,500 x 6,000 ¹⁾ ; max. 50 m ²	≤ CP 8,500 x 6,000 ¹⁾ ; max. 50 m ²	≤ CP 4,670 x 4,560	≤ CP 8,500 x 6,000 ¹⁾ ; max. 50 m ²	< CP 4,670 x 4,560	≤ CP 8,500 x 6,000 ¹⁾ ; max. 50 m ²
Wall type						
Masonry EN 1996-1-1, compressive strength class > 12, reinforced concrete lintel	≥ 175 ²⁾	≥ 175 ²⁾	≥ 175 ²⁾	≥ 240 ²⁾	≥ 175 ²⁾	≥ 240 ²⁾
Concrete DIN EN 1992-1-1, strength class > C12/ C15	≥ 140	≥ 140	≥ 140	≥ 140	≥ 140	≥ 140
Porous concrete blocks EN 771-4, compressive strength class 4, according to DIN V 4165-100, reinforced concrete lintel in the opening and parking area	≥ 175 ²⁾	≥ 175 ²⁾	≥ 175 ²⁾	≥ 240 ²⁾	≥ 175 ²⁾	≥ 240 ²⁾
EN 4166 reinforced porous concrete panels of at least gross density class > 0.55 or strength class P4.4, reinforced concrete header in the opening and storage area	≥ 175 ²⁾	≥ 175 ²⁾	≥ 175 ²⁾	≥ 240 ²⁾	≥ 175 ²⁾	≥ 240 ²⁾
Clad steel supports/ beams/ fire resistance class EI 90/ EI 120	According to structural requirements					

REQUIRED FIRE WALLS OR MINIMUM WALL THICKNESSES – 2-LEAF

Door type	EI ₂ 30/ EI ₂ 60/ EI ₂ 90		EI ₂ 120			
	Lintel installation (Reinforced concrete)	Direct ceiling installation	Lintel installation (Reinforced concrete)		Direct ceiling installation	
Door size	≤ CP 8,500 x 6,000 ¹⁾ ; max. 50 m ²	≤ CP 8,500 x 6,000 ¹⁾ ; max. 50 m ²	≤ CP 4,670 x 4,560	≤ CP 8,500 x 6,000 ¹⁾ ; max. 50 m ²	< CP 4,670 x 4,560	≤ CP 8,500 x 6,000 ¹⁾ ; max. 50 m ²
Wall type						
Masonry EN 1996-1-1, compressive strength class > 12, reinforced concrete lintel	≥ 175 ²⁾	≥ 175 ²⁾	≥ 175 ²⁾	≥ 240 ²⁾	≥ 175 ²⁾	≥ 240 ²⁾
Concrete DIN EN 1992-1-1, strength class > C12/ C15	≥ 140	≥ 140	≥ 140	≥ 200	≥ 140	≥ 200
Porous concrete blocks EN 771-4, compressive strength class 4, according to DIN V 4165-100, reinforced concrete lintel in the opening and parking area	≥ 175 ²⁾	≥ 175 ²⁾	≥ 175 ²⁾	≥ 240 ²⁾	≥ 175 ²⁾	≥ 240 ²⁾
EN 4166 reinforced porous concrete panels of at least gross density class > 0.55 or strength class P4.4, reinforced concrete header in the opening and storage area	≥ 175 ²⁾	≥ 175 ²⁾	≥ 175 ²⁾	≥ 240 ²⁾	≥ 175 ²⁾	≥ 240 ²⁾
Clad steel supports/ beams/ fire resistance class EI 90/ EI 120	According to structural requirements					

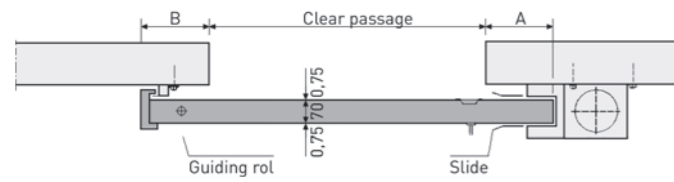
¹⁾For widths over 7,305 mm (opening dimension), the spacing between brackets must be reduced to 500 mm.

²⁾At inlet and wall seal, screw-through or plug mounting 10 x 100 mm.

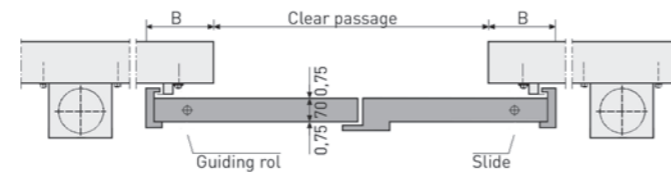
Important: With porous concrete, a reinforced concrete lintel is vital in the opening and parking area. All sizes in mm.

CONSTRUCTION TYPES

1-LEAF

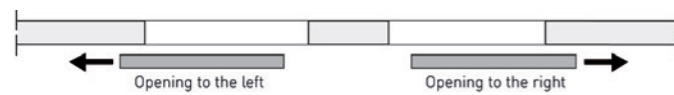


2-LEAF



OPENING TYPES

1-LEAF



2-LEAF



All sizes in mm.

PLANNING AIDS

- Observe the requirements for construction and classification of the fire walls according to the installation instructions.
- Provide lateral space required to placing the leaf when the sliding door is open (parking area), if necessary also including closing weight with box.
- Take into account sufficient distance between any pillars, casing or other structures provided in the parking area of the sliding door (for door structure including handle and in the lintel area for door closing brake or electric operator, also for pass door with door closer).
- For masonry and porous concrete, a concrete header is required in the opening area of the door. For porous concrete, a concrete header is also required in the storage area.





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