

ALUMINIUM AND STEEL TUBULAR FRAME CONSTRUCTION PROJECT DOORS

NEW. Single and double-leaf steel internal door OT 60

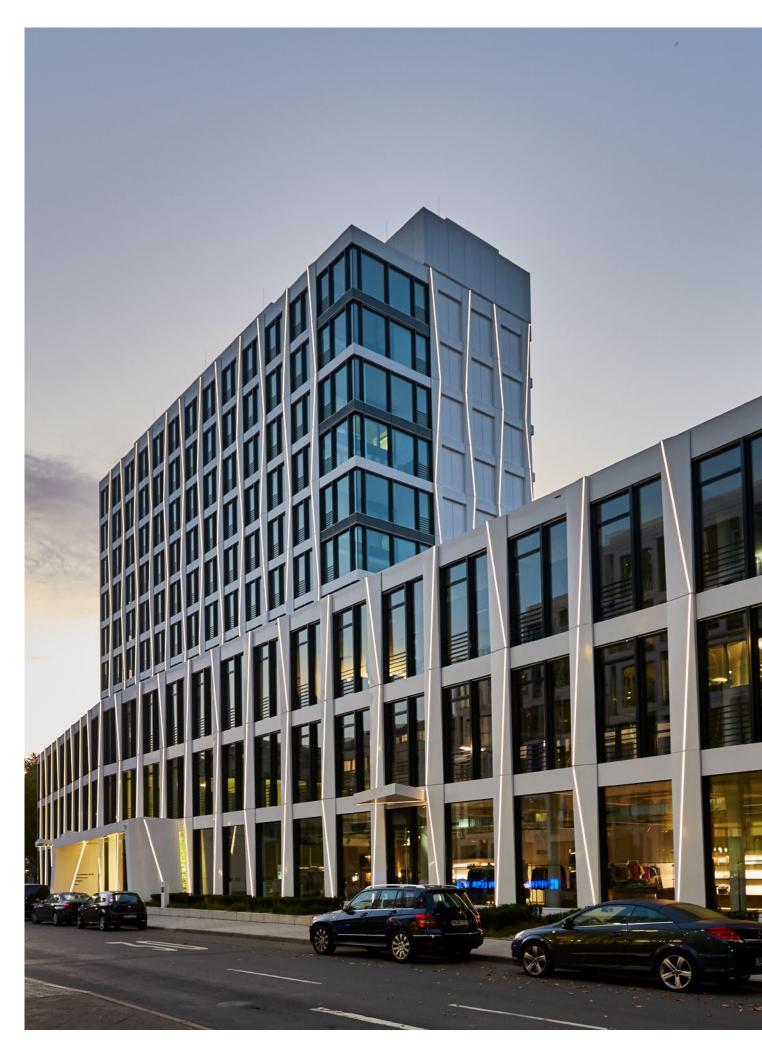














4

Good reasons to try Hörmann



18

Application areas



24

Versions Equipment Technology

Brand quality made in Germany



The family-owned company Hörmann offers all important construction components for building and renovating projects from a single source. We manufacture in highly specialised factories using state-of-the-art production technologies. Our employees work intensively on new products, continual further developments and improvements to details. The results are patents and unique products on the market.







WE THINK AND ACT GREEN. As a family business, we are very conscious of our responsibility to future generations. The Hörmann climate protection strategy aims to reduce and avoid CO_2 emissions. We cover 100% of our electrical power needs at all European production locations with purchased green electricity. We are also investing in a clean future with other measures such as the use of recycled paper, CO_2 -neutral postal shipping and the recycling of transport packaging to save more than 75,000 tons of CO_2 every year. We work with ClimatePartner to offset the emissions that we do generate by supporting certified climate protection projects. In particular, we offset all CO_2 emissions produced in manufacture of products for residential construction as standard. Products for construction projects are also available as CO_2 -neutral versions upon customer request.



You can find further information at www.hoermann.com/sustainability





Sustainable planning for trend-setting construction

Experienced specialists within our customer-oriented sales organisation accompany you from the planning stage, through technical clarification up to the final building inspection. Complete working documentation, such as technical manuals, is also always accessible and up-to-date at www.hoermann.de





received confirmation of sustainability through an Environmental Product Declaration (EPD) in accordance with ISO 14025 from the Institut für Fenstertechnik (ift – Institute of window technology) in Rosenheim, Germany. This EPD was created based on EN ISO 14025:2011 and EN 15804:2012. In addition, the general guidelines for the preparation of type III Environmental Product Declaration apply. The declaration is based on the PCR document "Doors" PCRTT-1.1:2011.





We are a member of the professional association for digital building products in the Federal Association of Building Systems e.V.

PRODUCT PORTAL FOR ARCHITECTS AND PLANNERS.

Clearly structured navigation and a search function provide faster access to texts for invitations to tender, technical data, certificates, CAD drawings and much more. In addition, BIM data can be provided for many products for the Building Information Modelling process, enabling efficient planning, drafting, construction and management of buildings. Photos and photo-realistic presentations provide additional information on many products.



Further information can be found at: www.hormann.co.uk/architects-service/architects-programme



Developed for the future in every respect

Our new and further developments are constantly tested for the required fire resistance and smoke-tightness through in-house fire tests at our fire testing centre. The knowledge gained from these tests ensures high fire protection for buildings. They also allow us to optimally prepare our innovations for the official inspections by authorised test centres for official approvals.





El₂30 / T30 / F30 Fire-retarding



T60 / F60 High fire resistance



T90 / F90 Fire-proof



RS / S₂₀₀ Smoke-tight



DS / Sa Sealed



C5 Self-closing



Acoustic-rated



Break-in-resistant RC2



Break-in-resistant RC3



Anti-fall safeguard

external doors have different requirements for fire protection and performance characteristics, such as wind load or water tightness under heavy rain. Internal doors with fire protection characteristics are tested and certified in accordance with German standard DIN 4102 and European standard EN 1634. The performance characteristics of external doors are tested and classified in accordance with the European standards EN 16034 and EN 14351-1 and documented in the declaration of performance (DoP).

The CE marking is a visible signal for compliance with these standards. CE stands for the European Community and acts as a form of passport for products within the EU. With the CE marking and submission of its declaration of performance (DoP), Hörmann confirms the product's conformity with the European product standards and guidelines on the delivery point named in the declaration.

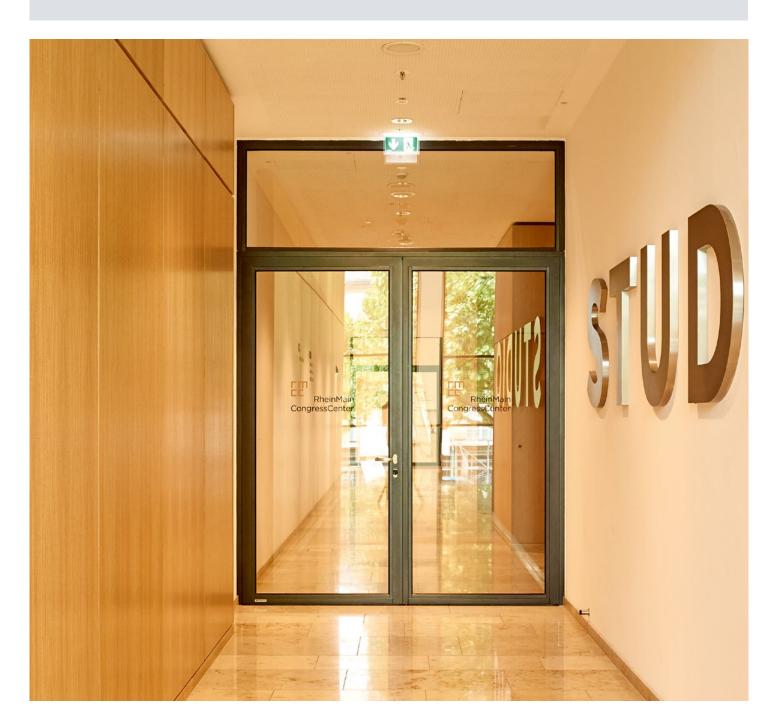


You can access the declaration of performance in accordance with the German Construction Products Regulation directly via the following link: www.hoermann.de/leistungserklaerung-nach-baupvo



Narrow profile view in two systems

Hörmann fire-rated and smoke-tight doors and fire-proof glazing are available in two profile systems – aluminium and steel. All profiles boast an impressive, fully matching door view in the two systems designed to meet different requirements, such as fire protection. So you benefit from a harmonious overall appearance, no matter what the functions of the door.









Total viewed width of 150 mm

Elegant aluminium profile

- Narrow viewed width of 150 mm for high transparency
- Attractive price advantage over steel profile
- Multifunctional use thanks to fire protection classes T30/F30, T60/F60 and T90 /F90, smoke protection, RC2 and RC3 security and acoustic insulation
- Thermally insulated external doors with profile system with thermal break
- With anodised surface finish or high-quality powder coating in Traffic white RAL 9016 as standard and optionally in 6 preferred colours, RAL to choose or special colours
- Door view reduced by optional frame without face
- Elegant corner joints with discreet mitred cut
- Uniform door view on the inside and outside across all functional requirements



Sophisticated steel profile

- Maximum transparency thanks to very narrow viewed width of just 134 mm
- Fire protection classes T30 / F30 (T90 / F90 with 130 mm viewed width), smoke protection, RC2 security and acoustic insulation to meet functional requirements
- Welded and flush ground corner joints without visible mitred cut
- With high-quality powder coating in Traffic white RAL 9016 as standard and optionally in 6 preferred colours, RAL to choose or special colours
- Elegant door view with optional concealed hinges
- Harmonious combination with Hörmann steel loft doors in the interior

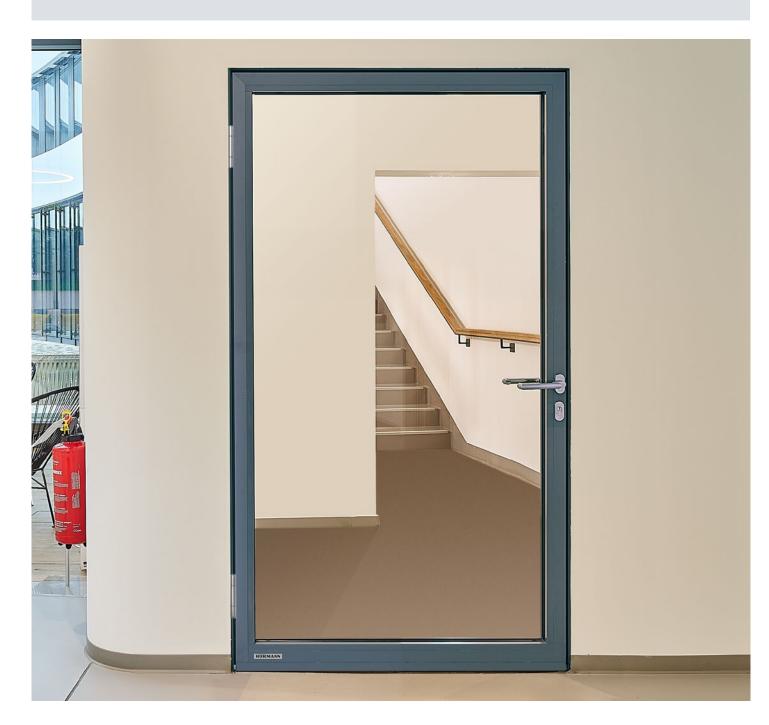




Further information can be found in the "Steel loft doors" brochure.

The right solution for any fitting situation

For the planning of fire protection sections in new buildings or conversions, Hörmann offers various frame types for an optimum wall connection, maximum clear passage widths and an elegant door view. This does away with extensive structural work, especially when it comes to modernisation.









* Compared to doors with fascia frame

standard construction. The fascia frame 1 is used for doors, side elements, transom lights and glazing elements.

The benefits for you: simple fitting flush to wall and easy installation of numerous equipment combinations and track application components.

→ Available for aluminium and steel tubular frame construction project doors. Further information can be found on pages 52 and 60.

MAXIMUM CLEAR PASSAGE WIDTH. The steel frame 2 increases the clear passage width by up to 73 mm*. Steel frames are available as corner and profile frames for all wall types.

→ Available for T30 / RS aluminium and steel tubular frame construction project doors. Further information can be found on pages 54 and 62.

without visible frame face. The exclusive frame without face on the hinge side not only creates an elegant door view, it also increases the clear passage width by up to 55 mm*.

→ Available for T30 / RS aluminium tubular frame construction project doors. Further information can be found on page 55.

Fire-proof glazings with maximum transparency

As the glass panes are fitted without post profiles, the system wall offers maximum fire protection flooded with light. The matching profiles of system wall and T30 aluminium or steel fire-rated doors mean the elements can be ideally combined.





F30 Fire-retarding



F90 Fire-proof



RS Smoke-tight



Break-in-resistant RC2



Break-in-resistant RC3



Anti-fall safeguard

panes are delicately connected by silicone joints.

The "Design" version has an impressively narrow joint view of just 5-8 mm in grey, black or transparent.

The "Economy" system wall features a 30 mm wide joint view in black. This version is a more elegant and costeffective solution than a profile construction with a profile viewed width of 100 mm.

ELEGANT CORNER CONNECTIONS. In corner areas with any type of angle, this system wall does not require corner posts. The glass panes are mitre cut to create the greatest possible transparency. Alternatively, they can be butted and elegantly covered by a bonded-on, slim metal angle profile.

→ Available for aluminium and steel tubular frame construction project doors. Further information can be found on pages 30 and 36.

A discreet silicone joint joins the individual glass panes. ("Design" system wall illustrated)



The slim angle section allows for sophisticated corner constructions.



Barrier-free accesses for fire protection requirements

Reduction to the essential creates new space. T30 automatic sliding doors combine convenience and transparency with the requirements for fire and smoke protection. They open reliably and safely in any situation and are used for barrier-free construction. Thanks to the identical profiles, the automatic sliding doors can be perfectly combined with aluminium glazing or aluminium tubular frame construction project doors.







T30 / F30 Fire-retarding



RS Smoke-tight



Barrier-free



Personal safety



National technical approval

MAXIMUM TRANSPARENCY. Thanks to the sophisticated profile view and the low operator installation height of just 70 mm, T30 automatic sliding doors offer an impressive degree of transparency. The operator is controlled via a radar movement detector or other contact sensors such as hand transmitters, buttons, etc. The door opens and closes automatically and is fitted with a hold-open and release device. An electromechanical locking mechanism makes the door suitable for use as a night and shop closure.

RELIABLE SECURITY. Danger points are safeguarded during opening and closing movements in accordance with DIN 16005 through monitoring with light curtains or optionally with a glass safety leaf.

→ Further information can be found starting on page 31.







Architect: Magnus Kaminiarz & Cie., Frankfurt am Main

Hörmann products

- Steel and stainless steel construction project doors
 Steel and aluminium tubular frame construction project doors



Residential construction and hotels

Smoke and fire damage can have considerable, even life-threatening results. This makes safe equipment with fire-rated and smoke-tight doors even more crucial. In addition to the main function of the tubular frame construction project doors (fire protection, for example), the functions can be extended according to individual requirements. As a result, you can reliably protect your emergency exits against attempted break-ins with break-in-resistant doors in resistance classes RC2 or RC3. You can rely on Hörmann tubular frame construction project doors that are tested and officially approved.

→ Further information can be found starting on page 26.



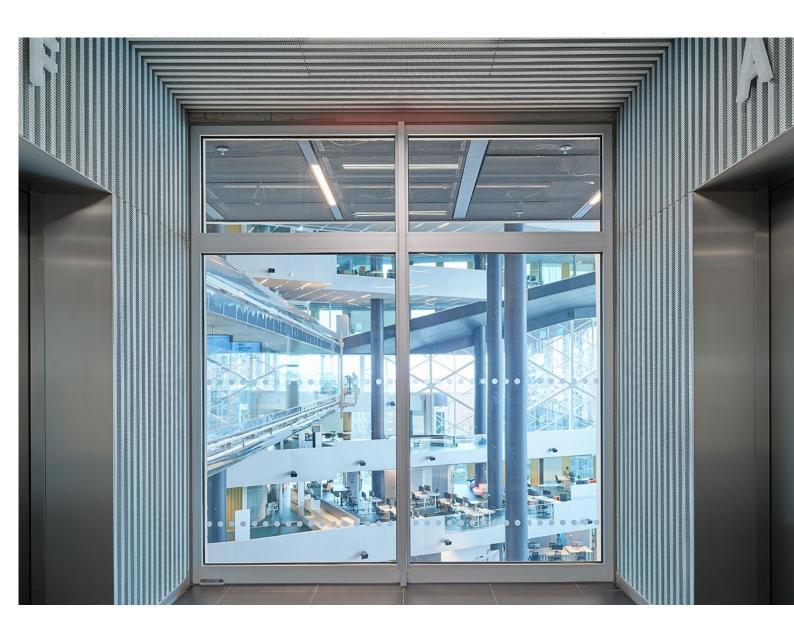


Axel Springer Campus Berlin
Architect: Office for Metropolitan Architecture, Rotterdam

- Hörmann products
 Steel and stainless steel construction project doors

 • Steel and aluminium tubular frame
- construction project doors





Offices and administration buildings

Generously dimensioned fixed glazings create an open and transparent interior design. They also help people get their bearings, especially occasional visitors to the building. As anti-fall glazings, these elements can stop people breaking through the glass and falling from a great height. No additional safeguards are necessary.

→ Further information can be found starting on page 26.

Hospitals and public buildings

For barrier-free access, all tubular frame construction project doors can be equipped with an operator, which you can activate using a button or radar/movement detectors. Also, a door with a barrier-free overhead door closer is possible, which allows the door to be opened with little effort.

→ Further information can be found starting on page 42.











BG Clinic for Occupational Diseases, Bad Reichenhall Architect: Krug Grossmann Architekten, Munich

Hörmann products

- Steel and stainless steel construction project doors
 Steel and aluminium tubular frame construction project doors









Versions Equipment Technology

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Aluminium internal doors and glazings

Functions, performance characteristics, size ranges

Element type	HE 311	HE 321	HE 331	HE 611
Version	Single-leaf door	Double-leaf door	Fixed glazing	Single-leaf door
T30 / F30 Fire-retarding		•	•	
T60 / F60 High fire resistance				•
T90 / F90 Fire-proof				
RS Smoke-tight	•	•	•	•
Acoustic-rated	•	•	•	•
Break-in-resistant RC2	1)	1)	•	1)
Break-in-resistant RC3	• 2)			
Anti-fall safeguard			•	
Profile system	Aluminium	Aluminium	Aluminium	Aluminium
Viewed width	150 mm	150 mm	70 mm	150 mm
Depth	80 mm	80 mm	80 mm	80 mm
Bottom section height	105 / 150 mm	105 / 150 mm	70 / 105 / 150 mm	105 / 150 mm
Performance characteristics				
Acoustic insulation	Up to 42 dB	Up to 42 dB	Up to 44 dB	Up to 43 dB
Fitting in				
Brickwork	≥ 115 mm	≥ 115 mm	≥ 115 mm	≥ 175 mm
Concrete	≥ 100 mm	≥ 100 mm	≥ 100 mm	≥ 140 mm
Gas concrete	≥ 150 mm	≥ 150 mm	≥ 150 mm	≥ 150 mm
Partition wall	≥ 100 mm	≥ 100 mm	≥ 100 mm	≥ 100 mm
Size range				
Overall frame dimension (ordering size) width	605 – 1500 mm	1355 – 3000 mm	Unlimited	605 – 1500 mm
Overall frame dimension (ordering size) height	1740 – 4000 mm	1740 – 4000 mm	4960 / 4500 ⁴⁾ mm	1740 – 2800 mm
Clear passage width 3)	465 – 1360 mm	1215 – 2860 mm		465 – 1360 mm
Clear passage height	1670 – 3930 mm	1670 – 3930 mm		1670 – 2730 mm
Traffic leaf division		750 – 1500 mm		
Fixed leaf division		500 – 1500 mm		
Maximum door height ⁴⁾			3000 mm	

 $[\]blacksquare$ = Main function – as standard \bullet = Additional function – with corresponding equipment

→ Technical drawings and further information can be found starting on page 52.

 $^{^{1)}~}HE~311~up~to~1500\times3000~mm,~HE~321~up~to~3000\times3000~mm;~HE~611/HE~911~up~to~1500\times2800~mm,~HE~621/HE~921~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~1500\times2800~mm,~HE~621/HE~921~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~1500\times2800~mm,~HE~621/HE~921~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~1500\times2800~mm,~HE~621/HE~921~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~1500\times2800~mm,~HE~621/HE~921~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~1500\times2800~mm,~HE~621/HE~921~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~1500\times2800~mm,~HE~621/HE~921~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~1500\times2800~mm,~HE~611/HE~911~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~2850\times2800~mm,~HE~611/HE~911~up~to~2850\times2800~mm,~HE~611/HE~911/HE~911~up~to~2850\times2800~mm,~HE~611/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~911/HE~91$

 $^{^{2)}}$ HE 311 up to 1500 \times 2500 mm, HE 611 / HE 911 up to 1500 \times 2500 mm

³⁾ For door leaf open 180°

⁴⁾ For combination of door (HE 311, HE 321, HE 611, HE 621, HE 911, HE 921) and fixed glazing (HE 331, HE 631, HE 931)

HE 621	HE 631	HE 911	HE 921	HE 931	
Double-leaf door	Fixed glazing	Single-leaf door	Double-leaf door	Fixed glazing	
	_				Single-leaf doo
•					
		•	•	•	
•	•	•	•	•	
•	•	•	•	•	Double-leaf do
1)	•	1)	1)	•	
		2)			
	•			•	Fixed glazing
Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	
150 mm	70 mm	150 mm	150 mm	70 mm	
80 mm	80 mm	80 mm	80 mm	80 mm	Anti-fall glazii
105 / 150 mm	70 / 105 / 150 mm	105 / 150 mm	105 / 150 mm	70/105/150 mm	acc. to DIN 18008-4
Up to 45 dB	Up to 43 dB	Up to 43 dB	Up to 45 dB	Up to 43 dB	Maximum doo set width: Unlimited
≥ 175 mm	≥ 175 mm	≥ 175 mm	≥ 175 mm	≥ 175 mm	Maximum doo
≥ 140 mm	≥ 140 mm	≥ 140 mm	≥ 140 mm	≥ 140 mm	set height: 4500 mm
≥ 150 mm	≥ 150 mm	≥ 150 mm	≥ 150 mm	≥ 150 mm	Minimum
≥ 100 mm	≥ 100 mm	≥ 100 mm	≥ 100 mm	≥ 100 mm	pane size: 800 × 1000 mr
1355 – 2850 mm	Unlimited	605 – 1500 mm	1355 – 2850 mm	Unlimited	Maximum pane size:
1740 – 2800 mm	4500 / 4000 ⁴⁾ mm	1740 – 2800 mm	1740 – 2800 mm	4500 / 4000 ⁴⁾ mm	Depending on glass type
1215 – 2710 mm		465 – 1360 mm	1215 – 2710 mm		according to table 2 TRAV
1670 – 2730 mm		1670 – 2730 mm	1670 – 2730 mm		table 2 TRAV
750 – 1425 mm			750 – 1425 mm		
500 – 1425 mm			500 – 1425 mm		
	2800 mm			2800 mm	

Aluminium internal doors and glazings

Functions, performance characteristics, size ranges

Element type	A/RS 100	A/RS 200	A/RS 300	A/RS 150
Version	Single-leaf door	Double-leaf door	Fixed glazing	Single-leaf door
T30 / F30 Fire-retarding				_
T60 / F60 High fire resistance				
T90 / F90 Fire-proof				
RS Smoke-tight				
DS Sealed				
Acoustic-rated	•	•	•	•
Break-in-resistant RC2	1)	1)	•	
Break-in-resistant RC3	2)			
Anti-fall safeguard			•	
Profile system	Aluminium	Aluminium	Aluminium	Aluminium
Viewed width	150 mm	150 mm	70 mm	150 mm
Depth	80 mm	80 mm	80 mm	50 mm
Bottom section height	105 / 150 mm	105 / 150 mm	70 / 105 / 150 mm	105 / 150 mm
Performance characteristics				
Acoustic insulation	Up to 38 dB	Up to 40 dB	Up to 45 dB	Up to 37 dB
Fitting in				
Brickwork	≥ 115 mm	≥ 115 mm	≥ 115 mm	≥ 115 mm
Concrete	≥ 100 mm	≥ 100 mm	≥ 100 mm	≥ 100 mm
Gas concrete	≥ 150 mm	≥ 150 mm	≥ 150 mm	≥ 150 mm
Partition wall	≥ 100 mm	≥ 100 mm	≥ 100 mm	≥ 100 mm
Size range				_
Overall frame dimension (ordering size) width	605 – 1500 mm	1355 – 3000 mm	Unlimited	605 – 1500 mm
Overall frame dimension (ordering size) height	1740 – 3000 mm	1740 – 3000 mm	4500 mm	1740 – 3000 mm
Clear passage width 3)	465 – 1360 mm	1215 – 2860 mm		465 – 1360 mm
Clear passage height	1670 – 2930 mm	1670 – 2930 mm		1670 – 2730 mm
Traffic leaf division		750 – 1500 mm		
Fixed leaf division	-	500 – 1500 mm		
Maximum door height ⁴⁾			3000 mm	

→ Technical drawings and further information can be found starting on page 52.

 $^{^{1)}}$ A/RS 100 up to 1500×3000 mm, A/RS 200 up to 3000×3000 mm

 $^{^{2)}}$ A/RS 100 up to 1500 \times 2500 mm

 $^{^{\}scriptscriptstyle (3)}$ For door leaf open 180°

 $^{^{\}mbox{\tiny 4)}}$ For combination of door (A/RS 100, A/RS 200) and fixed glazing (A/RS 300)

A/RS 250	A/RS 350	ES 50	ES 50	ES 50	
Double-leaf door	Fixed glazing	Single-leaf door, optionally with transom light	Double-leaf door, optionally with transom light	Fixed glazing	
					Single-leaf door
		_			
•					Double-leaf door
•	•	•	•	•	
		_			Fixed glazing
	•			•	
Aluminium	Aluminium	Aluminium	Aluminium	Aluminium	Anti-fall glazings acc. to DIN
150 mm	70 mm	150 mm	150 mm	70 mm	18008-4
50 mm	50 mm	50 mm	50 mm	50 mm	Maximum door
105 / 150 mm	70/105/150 mm	105 / 150 mm	105 / 150 mm	70/105/150 mm	set width: Unlimited
Up to 38 dB	Up to 42 dB	Up to 37 dB	Up to 38 dB	Up to 42 dB	Maximum door set height: 4500 mm
≥ 115 mm					
≥ 100 mm	≥ 100 mm	-	-	-	Minimum pane size:
≥ 150 mm	≥ 150 mm	-	-	-	800 × 1000 mm
≥ 100 mm	≥ 100 mm				Maximum pane size:
					Depending
1355 – 3000 mm	Unlimited	605 – 1500 mm	1355 – 3000 mm		on glass type according to
1740 – 3000 mm	4500 mm	1740 – 3000 mm	1740 – 3000 mm		table 2 TRAV
1215 – 2860 mm		465 – 1360 mm	1215 – 2860 mm		
1670 – 2730 mm		1670 – 2730 mm	1670 – 2730 mm		
750 – 1500 mm			750 – 1500 mm		
500 – 1500 mm			500 – 1500 mm		
	3000 mm				

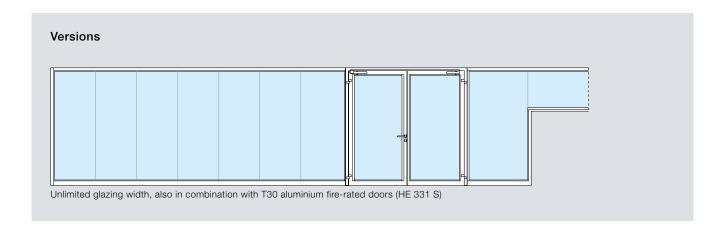
Aluminium system wall

Functions, performance characteristics, size ranges

Element type	HE 331 S	HE 931 S
Version	Fixed glazing	Fixed glazing
F30 Fire-retarding	•	
F90 Fire-proof		•
RS Smoke-tight	-	
Break-in-resistant RC2	•	_
Break-in-resistant RC3	•	
Anti-fall safeguard	•	
Profile system	Aluminium	Aluminium
Viewed width	70 mm	70 mm
Depth	80 mm	80 mm
Bottom section height	70/105/150 mm	70 / 105 / 150 mm
Combination with aluminium fire-rated doors	•	On request
Fitting in		
Brickwork	≥ 115 mm	≥ 240 mm
Concrete	≥ 100 mm	≥ 140 mm
Gas concrete	≥ 175 mm	≥ 240 mm
Partition wall	≥ 105 mm	≥ 105 mm
Size range		_
Overall frame dimension (ordering size) width	Unlimited	Unlimited
Overall frame dimension (ordering size) height	3000 / 3500* mm	2800 mm
Maximum door height	3000 mm	Not possible

^{*} For version with Vitrafire glass

→ Technical drawings and further information can be found on page 57.

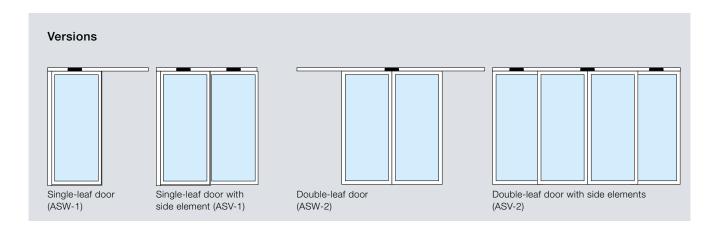


T30 automatic sliding doors

Functions, performance characteristics, size ranges

Element type	ASW-1	ASW-2	ASV-1	ASV-2
Version	Single-leaf door	Double-leaf door	Single-leaf door	Double-leaf door
T30 / F30 Fire-retarding	•	•	•	•
RS Smoke-tight				
Barrier-free	•	•	•	•
Personal safety	•	•	•	•
Profile system	Aluminium	Aluminium	Aluminium	Aluminium
Viewed width (leaf)	70 mm	70 mm	70 mm	70 mm
Bottom section view (leaf)	82 mm	82 mm	82 mm	82 mm
Viewed height of operator	70 mm	70 mm	70 mm	70 mm
Functions				
Opening speed (adjustable)	20-70 cm/s	20-70 cm/s	20-70 cm/s	20-70 cm/s
Closing speed (adjustable)	20 – 50 cm/s (10 cm/s in case of a fire)	20 – 50 cm/s (10 cm/s in case of a fire)	20-50 cm/s (10 cm/s in case of a fire)	20-50 cm/s (10 cm/s in case of a fire)
Hold-open phase (adjustable)	0-60 s	0-60 s	0-60 s	0-60 s
Fitting		_	_	-
In front of the wall	•	•	-	-
In the opening	-	-	•	•
Fitting in				_
Brickwork	≥ 115 mm	≥ 115 mm	≥ 115 mm	≥ 115 mm
Concrete	≥ 100 mm	≥ 100 mm	≥ 100 mm	≥ 100 mm
Gas concrete	≥ 150 mm	≥ 150 mm	≥ 150 mm	≥ 150 mm
Partition wall	≥ 100 mm	≥ 100 mm	≥ 100 mm	≥ 100 mm
Size range				
Clear passage width (ordering size)	900 – 1200 mm	1300 – 2500 mm	900 – 1200 mm	1300 – 2500 mm
Clear passage height (ordering size)	1950 – 2500 mm	1950 – 2500 mm	1950 – 2500 mm	1950 – 2500 mm
System width	2 × LDB + 225 mm	2 × LDB + 220 mm	2 × LDB + 225 mm	2 × LDB + 220 mm

 $[\]blacksquare$ = Main function – as standard \bullet = Additional function – with corresponding equipment



[→] Technical drawings and further information can be found starting on page 58.

Aluminium external doors and glazings

Functions, performance characteristics, size ranges

Element type	HE 311	HE 321	A/RS 100	A/RS 200
Version	Single-leaf door	Double-leaf door	Single-leaf door	Double-leaf door
El ₂ 30 Fire-retarding	•	•		
S ₂₀₀ Smoke-tight	•	•		
S _a Sealed		_	_	_
Acoustic-rated	•	•	•	•
Thermally insulated	•	•	•	•
Break-in-resistant RC2	•	•	•	•
Break-in-resistant RC3	1)		1)	
Profile system	Aluminium	Aluminium	Aluminium	Aluminium
Viewed width	150 mm	150 mm	150 mm	150 mm
Depth	80 mm	80 mm	80 mm	80 mm
Bottom section height	105 / 150 mm			
Performance characteristics ²⁾				
Acoustic insulation	Up to 42 dB	Up to 42 dB	Up to 38 dB	Up to 40 dB
Thermal insulation ³⁾	Up to 1.6 W/(m ² ·K)			
Wind load	Class C3 / B3	Class C2 / B2	Class C3 / B3	Class C2 / B2
Water tightness under heavy rain				_
With threshold rail with thermal bre	eak Up to class 5A	Up to class 3A	Up to class 5A	Up to class 3A
With retractable bottom seal	Up to class 1A			
Air permeability	Class 3	Class 3	Class 3	Class 3
Operating forces	Class 3	Class 2	Class 3	Class 2
Differential climate behaviour	Class 2(d) / 2(e)			
Fitting in				_
Brickwork	≥ 115 mm	≥ 115 mm	≥ 115 mm	≥ 115 mm
Concrete	≥ 100 mm	≥ 100 mm	≥ 100 mm	≥ 100 mm
Gas concrete	≥ 150 mm	≥ 150 mm	≥ 150 mm	≥ 150 mm
Partition wall	≥ 100 mm	≥ 100 mm	≥ 100 mm	≥ 100 mm
Size range				
Overall frame dimension (ordering size) width	605 – 1500 mm	1355 – 3000 mm	1355 – 3000 mm	605 – 1500 mm
Overall frame dimension (ordering size) height	1740 – 3000 mm			
Clear passage width ⁴⁾	465 – 1360 mm	1215 – 2860 mm	465 – 1360 mm	1215 – 2860 mm
Clear passage height	1670 – 2930 mm	1670 – 2930 mm	1670 – 2930 mm	1670 – 2730 mm
Traffic leaf division		750 – 1500 mm		750 – 1500 mm
Fixed leaf division		500 – 1500 mm		500 – 1500 mm

^{■ =} Main function – as standard • = Additional function – with corresponding equipment

 $^{^{1)}}$ HE 311 up to 1500 \times 2500 mm, A/RS 100 up to 1500 \times 2500 mm, OT 80 up to 1500 \times 2500 mm

 $^{^{\}mbox{\tiny 2)}}$ The specified performance characteristics indicate the maximum possible performance.

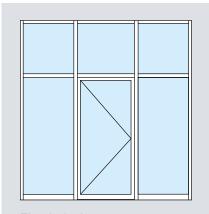
This performance may vary according to the equipment of the doors.

³⁾ Depending on size and glazing

⁴⁾ For door leaf open 180°

[→] Technical drawings and further information can be found starting on page 52.

OT 80	OT 80
Single-leaf door	Double-leaf door
•	•
•	•
1)	
Aluminium	Aluminium
150 mm	150 mm
80 mm	80 mm
105 / 150 mm	105 / 150 mm
Lla ta 00 dD	Lin to 40 dD
Up to 38 dB	Up to 40 dB
Up to 1.3 W/(m²·K) Class C2 / B2	Up to 1.3 W/(m ² ·K) Class C2 / B2
Class G2 / B2	OldSS 027 BZ
Up to class 5A	Up to class 5A
Up to class 1A	Up to class 1A
Class 3	Class 3
Class 3	Class 2
Class 2(d) / 2(e)	Class 2(d) / 2(e)
-	-
-	-
-	-
605 – 1500 mm	1355 – 3000 mm
1740 – 3000 mm	1740 – 3000 mm
465 – 1360 mm	1215 – 2860 mm
1670 – 2930 mm	1670 – 2930 mm
	750 – 1500 mm
	500 – 1500 mm



Fixed glazings
The aluminium external doors are also available with side elements (maximum width up to 1400 mm) and / or transom lights (maximum height up to 1580 mm). Fixed glazings in defined size ranges are available on request (element size max. 4500 × 2500 mm, glazing size max. 1500 × 2500 mm).

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Steel internal doors and glazings

Functions, performance characteristics, size ranges

	Element type	HL 310 S-Line	HL 320 S-Line	HL 330 S-Line	S/RS 100 S-Line
	Version	Single-leaf door	Double-leaf door	Fixed glazing	Single-leaf door
*	T30 / F30 Fire-retarding	-	•	•	
*	T60 / F60 High fire resistance			_	
*	T90 / F90 Fire-proof				
	RS Smoke-tight	•	•		
	S _a Sealed		_	_	
1 1))	Acoustic-rated	•	•	•	•
RC2	Break-in-resistant RC2	•	•	•	2)
A/C2	Anti-fall safeguard			•	
	Profile system	Steel	Steel	Steel	Steel
	Viewed width	134 mm	134 mm	65 mm	134 mm
	Depth	60 mm	60 mm	60 mm	60 mm
	Bottom section height	76 mm / 145 mm	76 mm / 145 mm	65 / 76 mm	76 mm / 145 mm
	Performance characteristics ¹⁾				
	Acoustic insulation	34 – 42 dB	34 – 42 dB	34 – 43 dB	31 – 42 dB
	Fitting in				
	Brickwork	≥ 115 mm	≥ 115 mm	≥ 115 mm	≥ 115 mm
	Concrete	≥ 100 mm	≥ 100 mm	≥ 100 mm	≥ 110 mm
	Gas concrete	≥ 150 mm	≥ 150 mm	≥ 150 mm	≥ 150 mm
	Partition wall	≥ 100 mm	≥ 100 mm	≥ 100 mm	≥ 100 mm
	Size range	 -	_	_	
	Overall frame dimension (ordering size) width	567 – 1560 mm	1317 – 3010 mm	Unlimited	605 – 1500 mm
	Overall frame dimension (ordering size) height	1720 – 3000 mm	1720 – 3000 mm	4500 mm	1740 – 3000 mm
	Clear passage width ³⁾	437 – 1432 mm	1187 – 2886 mm		475 – 1370 mm
	Clear passage height	1656 – 2936 mm	1656 – 2936 mm	_	1675 – 2936 mm
	Traffic leaf division		481 – 1499 mm	_	
	Fixed leaf division		481 – 1499 mm	_	
	Maximum door height		_	_	

→ Technical drawings and further information can be found starting on page 60.

¹⁾ The specified performance characteristics indicate the maximum possible performance. This performance may vary according to the equipment of the doors.

²⁾ S/RS 100 up to 1500 × 2800 mm, S/RS 200 up to 2850 × 2800 mm

³⁾ For door leaf open 180°

⁴⁾ For combination of door (S / RS 100, S / RS 200) and fixed glazing (S / RS 300) and national test certificate (AbP)

S/RS 200 S-Line	S/RS 300 S-Line	NEW. OT 60	NEW. OT 60
Double-leaf door	Fixed glazing	Single-leaf door	Double-leaf door
	•		
			_
•	•	•	•
• 2)	•	•	•
Steel	Steel	Steel	Steel
134 mm	65 mm	134 mm	134 mm
60 mm	60 mm	60 mm	60 mm
76 mm	65 / 76 mm	76/145 mm	76 / 145 mm
31 – 42 dB	31 – 44 dB	Up to 38 dB	Up to 38 dB
≥ 115 mm	≥ 115 mm		
≥ 110 mm	≥ 110 mm		
≥ 150 mm	≥ 150 mm		
≥ 100 mm	≥ 100 mm		
1317 – 2852 mm	According to structural requirements / unlimited ⁴⁾	605 – 1500 mm	1317 – 2850 mm
1740 – 3000 mm	According to structural requirements / 4000 mm ⁴⁾	1740 – 3000 mm	1740 – 3000 mm
1187 – 2722 mm		465 – 1360 mm	1187 – 2722 mm
1675 – 2936 mm		1675 – 2930 mm	1675 – 2930 mm
474 – 1419 mm			474 – 1419 mm
474 – 1419 mm			474 – 1419 mm



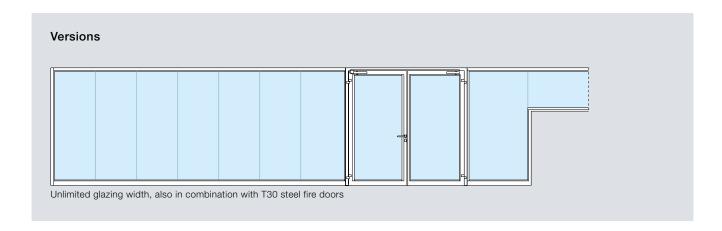
35

Steel system wall

Functions, performance characteristics, size ranges

	Element type	HL 300 S
	Version	Fixed glazing
*	T30 / F30 Fire-retarding	•
	RS Smoke-tight	
1 1)	Acoustic-rated	•
A/C2	Anti-fall safeguard	•
	Profile system	Steel
	Viewed frame width	65 mm
	Depth	60 mm
	Bottom section height	65 mm
	Fitting in	
	Brickwork	≥ 115 mm
	Concrete	≥ 100 mm
	Gas concrete	≥ 150 mm
	Partition wall	≥ 100 mm
	Size range	
	Overall frame dimension (ordering size) width	Unlimited
	Overall frame dimension (ordering size) height	3010 mm
	Maximum door height	3010 mm

→ Technical drawings and further information can be found on page 65.



T90 Steel fire-rated doors and glazings

Functions, performance characteristics, size ranges

	Element type	HL 910 F	HL 920 F	HL 930 F	
	Version	Single-leaf door	Double-leaf door	Fixed glazing	
	T90 / F90 Fire-proof	•	•	•	
	RS Smoke-tight	•	•	•	Single-leaf door
Rost	NEW. Stainless steel 1)	•	•	•	
	Profile system	Steel	Steel	Steel	
	Viewed width	130 mm	130 mm	90 mm	Double-leaf door
	Depth	70 mm	70 mm	70 mm	
	Bottom section height	100 mm	100 mm	100 mm	
	Fitting in				
	Brickwork	≥ 175 mm	≥ 175 mm	≥ 175 mm ²⁾	
	Concrete	≥ 140 mm	≥ 140 mm	≥ 140 mm	
	Gas concrete	≥ 240 mm	≥240 mm	≥ 240 mm	Fixed glazing
	Partition wall	≥ 100 mm	≥ 100 mm	≥ 100 mm	
	Size range				
	Overall frame dimension (ordering size) width	700 – 1540 mm	1400 – 2490 mm	Unlimited	
	Overall frame dimension (ordering size) height	1725 – 2960 mm	1725 – 2570 mm	4000 mm	
	Clear passage width ³⁾	560 – 1400 mm	1260 – 2350 mm		
	Clear passage height	1655 – 2500 mm	1655 – 2500 mm		

^{■ =} Main function – as standard
● = Additional function – with corresponding equipment

¹⁾ Also available as a T30 stainless steel fire-rated door

 $^{^{2)}}$ Overall frame dimension height > 2600 mm: minimum wall thickness \geq 240 mm

 $^{^{\}scriptscriptstyle (3)}$ For door leaf open 180°

[→] Technical drawings and further information can be found starting on page 66.



Lock 1

As standard, all Hörmann fire-rated and smoke-tight doors are equipped with a latch catch lock. Optionally, we offer anti-panic locks, also self-locking.

→ Further information can be found starting on page 41.

Lever handle set 2

As standard, we offer all door sets with an aluminium round lever handle set acc. to DIN EN 179 with a steel core including a cylinder rose escutcheon. Optionally, you can also choose lever handles and lever / knob handle sets as well as aluminium and stainless steel panic bars.

→ Further information can be found starting on page 46.









Closing devices 3

As standard, all fire-rated and smoketight doors are equipped according to DIN EN 1154 with a slide rail overhead door closer on the hinge side, and with an integrated door leaf selector for double-leaf doors. Integrated overhead door closers are also available for steel tubular frame construction project doors to create an especially harmonious door appearance.

Glazing beads 4

Glazing beads are not only a functional element, but also a style element for the overall look of a door. As standard, we offer the doors with rectangular glazing beads.

Hinges

- The standard 3-way adjustable hinge for all aluminium and steel tubular frame construction project doors is three-way adjustable. We supply this aluminium hinge anodised with a high-quality powder coating or a stainless steel look.
- The 3-part 3-way adjustable hinges of T90 aluminium fire-rated doors (pivot point 20 or 36 mm) can be optimally aligned and are available in the door surface finish. For a matching view, we also offer you T30 and RS doors with these hinges.
- The elegant and precisely adjustable guide roller is available as an alternative to the 3-way adjustable hinge for all aluminium and steel tubular frame construction project doors. The guide roller is available in painted steel matching the door surface finish or in polished stainless steel.
- tubular frame construction project doors are integrated in the fascia frame and door leaves. This is coupled with an integrated closing system and thus the all-round profile is not interrupted by a surface-mounted element.









Colours

Door design matching your property

High-grade colour coating (standard)



High-grade colour coating in 6 preferred colours



High-grade colour coating (standard)

1 RAL 9016 Traffic white

High-grade colour coating In 6 preferred colours

2 DB 703 Anthracite

3 RAL 9007 Grey aluminium

4 RAL 9006 White aluminium

5 RAL 9005 Jet black

6 RAL 7016 Anthracite grey

7 RAL 3000 Flame red

Choice of RAL colours

All doors are optionally available in RAL* to choose, metallic colours, or NCS colours.

Please note:

All colours are delivered in matt (gloss level $35\pm5)$ as standard. Dark colours should not be used for doors that are exposed to the sun. All colours based on RAL. The colours and surface finishes shown are subject to the limitations of the printing process and cannot be regarded as binding. Please consult with your local Hörmann specialised dealer.

* RAL Classic colours, with the exception of pearl-effect and fluorescent colours.

Special equipment

For barrier-free construction, an exclusive appearance and increased comfort



Locks

Doors often require special lock functions or anti-panic locks with different functions:

- Change-over function B
- Passage function D
- Lever / knob function E
- Block lock
- Automatic door opener
- Self-locking anti-panic lock
- Multiple-point locking, also with anti-panic function



Electrical equipment

In the facility, door assemblies are often equipped with alarm, escape-route security or access control systems.

Various items of equipment are available according to your needs:

- · Latch contact
- Door monitor
- Reed contact
- Electric door strikeEscape door opener
- Door lock
- Electronic alarm contact elements
- Concealed electro duct



Escape and rescue routes

Specific hardware and lock fittings are required for escape doors according to DIN EN 179 and DIN EN 1125.

Hörmann offers you a wide range of different equipment variants for your respective needs.

Emergency exit locks according to DIN EN 179

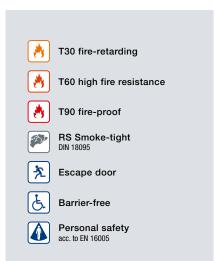
- Door fittings as anti-panic handle sets with oval rose escutcheon
- Self-locking or motorised anti-panic lock
- Up to RC2 (double-leaf door) or RC3 (single-leaf door)

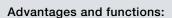
Anti-panic devices according to DIN EN 1125

- Door fittings with push bar or touch bar approved acc. to DIN EN 1125
- Anti-panic lock DIN EN 1125 with different functions
- Self-locking or motorised anti-panic lock
- Up to RC2 (double-leaf door) or RC3 (single-leaf door)

Door operator HDO 200/300

Complete, value-for-money solutions for every scope of application





- 25% less expensive than similar operators
- With integrated smoke sensor control and safety sensor
- Quiet operation, therefore suitable for various applications such as in offices or hospitals
- All door parameters, such as opening and closing speed, end stop and hold-open phase optimally adjustable
- Speed control ensures uniform opening and closing speeds
- Operating modes: "automatic", "permanently open", "night", "closing time"
- Standard push-and-go function, can be turned on and off on request
- Integrated program switch for "off", "automatic" and "permanently open"
- Operation via buttons, radar movement detectors, etc., optionally with BiSecur radio technology for operation with all Hörmann hand transmitters, radio control elements, radio internal push buttons or the BiSecur app
- Optional CAN interface for implementing demanding requirements, the air lock function for example
- Can be combined with rescue route systems, access control systems, building services management systems, and RWA air intake solutions



Door and operator from a single source

The door and operator are supplied as a perfectly matching complete system, including the necessary fixing material, from a single source. This simplifies and accelerates door fitting and initial start-up.

	HDO 200	HDO 300
Width	650 mm	720 mm
Height	70 mm	70 mm
Depth	121 mm	130 mm
Weight	9 kg	11 kg
Door width	Up to 1400 mm	Up to 1600 mm
Door weight	Up to 200 kg	Up to 300 kg*
Surface finish	Silver (EV1)	Silver (EV1)
Choice of RAL colours	Optional	Optional

^{*} Up to 1400 mm leaf width

NEW. Fitting and initial start-up service

We help you with the fitting and initial start-up of Hörmann HDO hinged leaf operators. This optional service from trained Hörmann technicians includes the fitting of the operator, the track, the safety sensors and the control elements. Connecting the operator to the power supply and wiring the sensors are part of the service too. All adjustment work is also carried out. This is followed by a final inspection and documentation of the work done.

The simple solution for barrier-free passages

Operator package **Economy**

- Operator HDO 200 / 300 in silver (EV1)
- 2 Slide rail pulling on opening side or linkage pushing on closing side
- 3 Flatscan in silver for safeguarding the door and the side edge (2 × for single-leaf doors, $4 \times$ for double-leaf doors)
- A Release button HAT 02 (1 x)
- 5 Buttons for opening the door in white (2 x)

The convenient solution for hygiene areas

Operator package Protect

- Operator HDO 200 / 300 in silver (EV1)
- 2 Slide rail pulling on opening side or linkage pushing on closing side
- 3 Flatscan in silver for safeguarding the door and the side edge (2 × for single-leaf doors, 4 × for double-leaf doors)
- Release button HAT 02 (1 x)
- 6 Radio radar buttons FSR 1 BiSecur (2 units) and receiver HET/S24 BiSecur (1 unit)

The individual solution for particularly high demands in construction projects

Operator HDO individual

- Operator HDO 200 / 300 in RAL to choose
- Wide range of operating accessories in many designs

Control elements



Release button HAT 02

For closing the door in the event of fire, flush-mounted version and surface-mounted version (image)



Button

For opening the door in the event of fire, flush-mounted version (image) and surface-mounted version



🕁 BiSecur

Radio radar button FSR 1 BiSecur For non-contact door opening incl. radio receiver HET / S24 BiSecur

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Overhead door closer

The right solution for any requirement

With compensator function, smoke sensor control or electromechanical hold-open device – Hörmann offers the right overhead door closer with the corresponding equipment for any door situation. The products impress not only in terms of quality and comfort, but also design, for example with the flush look of the slide rail and closing mechanism in many versions.

The overhead door closer H-TS 93 excels with a flush finish of the rail and closer body.



Overhead door closer HDC 35-1



Overhead door closer TS 5000

Overhead door closer	HDC 35-1	H-TS 93
Slide rail door closer	•	•
Integrated door closer		
Flush-closing slide rail with closer body	•	•
Integrated restrained opening	•	•
Compensator function		
Damping / opening limiter	0	0
Mechanical hold-open device (not permitted for fire protection)	0	0
High passage convenience (Barrier-free acc. to DIN 18040 / DIN SPEC 1104)		EN5 Up to 1250
Integrated door leaf selector for double-leaf doors		
Electrical hold-open device		
Integrated smoke sensor control		

= As	standard	\bigcirc = Optional

TS 5000	ECline	ISM	ECline ISM
•	•	•	•
•	•		
•	•	•	•
0			
0	0	0	0
0	0	0	0
EN4 Up to 1100	EN5 Up to 1250	EN4 Up to 1100	EN5 Up to 1250
		•	•
0	0	0	0
0	0	0	0



Overhead door closer TS 61



Integrated overhead door closer ITS 96



Overhead door closer TS 62



Overhead door closer H-TS 93

TS 93	GSR	TS 98 XEA	GSR	TS 99 FL	ITS 96	GSR	TS 61	SR	TS 62	SR
•	•	•	•	•			•	•	•	•
					•	•				
	•	•	•				•		•	
•	•	•	•				•	•	•	•
				•	0					
0	0	0	0	0	•	•	0	0	0	0
0	0	0	0		0	0	0	0	0	0
EN5 Up to 1250	EN4 Up to 1100	EN4 Up to 1100	EN5 Up to 1250	EN5 Up to 1250						
	•		•			•		•		•
0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0			0	0	0	0

Lever handle sets and push bars

Tailored to your individual requirements

As standard, we offer all door sets with an aluminium round lever handle set acc. to DIN EN 179 with a steel core including a cylinder rose escutcheon.





For further information and versions, see the brochures "Door fittings" and "FSB Design".



Design lever handle set D-810 / D-830 Version in design D-810, D-830 with anti-panic DIN EN 179 and further design types



Fire-rated lever handle set D-116 Suitable according to DIN EN 179



Fire-rated lever handle set D-115/FSB 1070 Suitable according to DIN EN 179



Fire-rated lever handle set



Fire-rated lever handle set D-335 / FSB 1016 Suitable according to DIN EN 179



Fire-rated lever handle set D-410 Suitable according to DIN EN 179



Fire-rated lever handle set D-415 / FSB 1053 Suitable according to DIN EN 179



Knob K-117



Knob K-160



Stainless steel push bar G 810, up to RAM 2600 mm With straight support bracket Stainless steel push bar G 75-2, up to RAM 3000 mm With 2 chamfered support brackets (from 2601 mm height with 3 support brackets) Stainless steel push bar G 38-2 With 2 chamfered support brackets, handle length 1000 mm Stainless steel push bar G 14-2 With 2 chamfered support brackets, handle length 300 mm

Anti-panic locks, door stops

For complete door equipment

Anti-panic devices



Hörmann push bar

- Lever arms with extremely wide offset
- Very stable bar handle
- Surface finishes: stainless steel, silver aluminium F1 coated
- Tested in accordance with DIN EN 1125



Hörmann touch bar

- Slim design makes it possible to realise larger clearances
- Surface finishes: stainless steel, aluminium F1 coated
- Tested in accordance with EN 1125

Door stops



Floor door stops BS 45 Stainless steel



Floor door stops BS 65 Stainless steel



Wall door stops WS 96 Stainless steel



Wall door stops WS 82 Stainless steel

Hold-open device control

in combination with magnets



Hold-open device control FSA-Basis 1

The control combines power supply, warning signals, fire detector evaluation, a manual release button and a reset device in one compact housing. In addition, the status and alarm states are indicated via LED lights. Furthermore, fire detectors, magnets and fire alarm systems can be easily connected.



Optical fire detector H-RM-4070 2

The visual smoke detector works according to the familiar scattered light principle and thus detects the smoke emissions of many different fires. The sensor compartment contains an optical sensor capable of measuring both reflected and normal scattered light. Algorithms make alarm activation of the detector very reliable. The fire detector is also available in black.

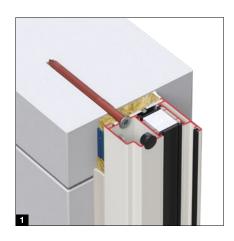


Thermal detector H-TM-4070 3

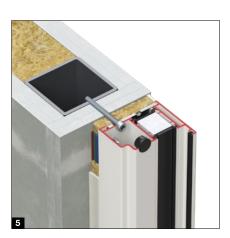
The heat detector has an open housing that allows the ambient air to circulate freely around the temperature sensor. The air temperature is measured every 2 seconds. A microprocessor stores the temperature measurement data and compares it to the preset limit values to determine if a preset maximum value – the alarm threshold – has been reached.

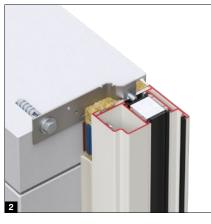
	Wall connections			ubular fi project			ular frame project doors	Steel tub	/ F90 ular frame project doors
	Function	T30	T60	T90	RS	T30	RS	T90	RS
	Brickwork								
1	Plug-and-screw fitting	•	•	•	•	•	•	•	•
2	Anchor fitting	•			•	•	•	•	•
3	Fitting by welding	•	•	•	•	•	•	•	•
	Partition wall								
4	Screw fixing, flush with wall	•	•	•	•	•	•	•	•
5	Screw fixing, stiffener	•	•	•	•				
6	Screw fixing, timber	•	•	•	•	•	•	•	•
7	Screw fixing, UA profile	•			•	•	•	•	•
8	Fitting by welding	•	•	•	•	•	•	•	•

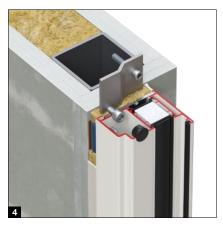
 \bullet = Standard

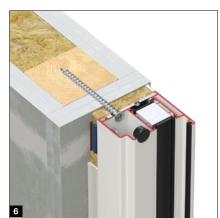


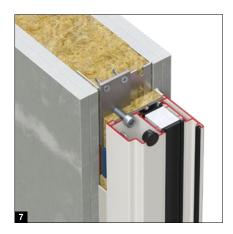


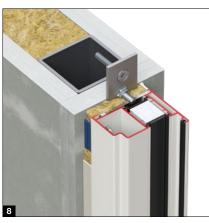






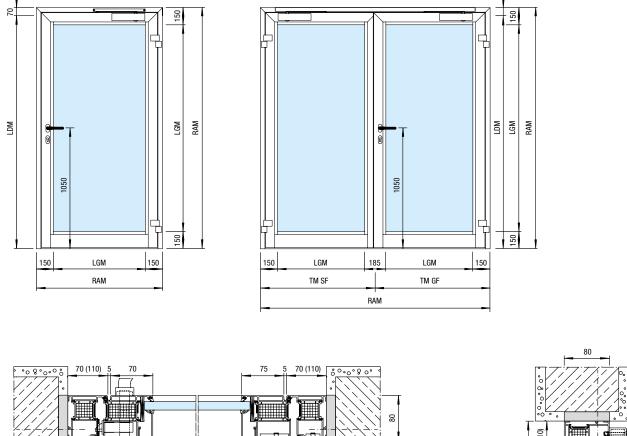


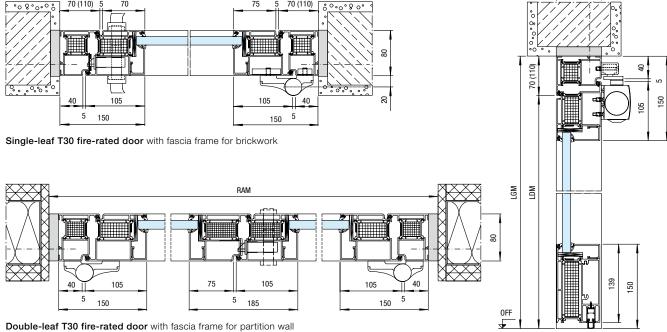




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Single- and double-leaf doors with fascia frame





Single-leaf / double-leaf T30 fire-rated door with fascia frame for brickwork

LDM Clear passage dimension

Division dimensions Traffic leaf

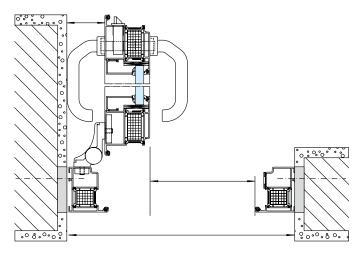
GF

SF Fixed leaf

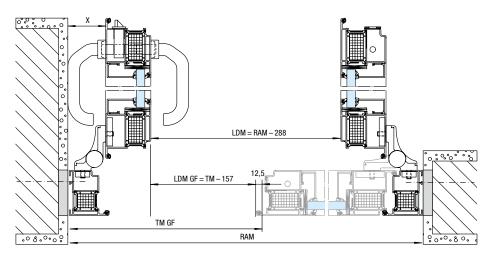
LGM Clear glass dimensions

All dimensions in mm

Clear passages



Single-leaf T30 aluminium fire-rated door with 3-way adjustable hinge with 20 mm pivot point



Double-leaf T30 aluminium fire-rated door with 3-way adjustable hinge with 20 mm pivot point

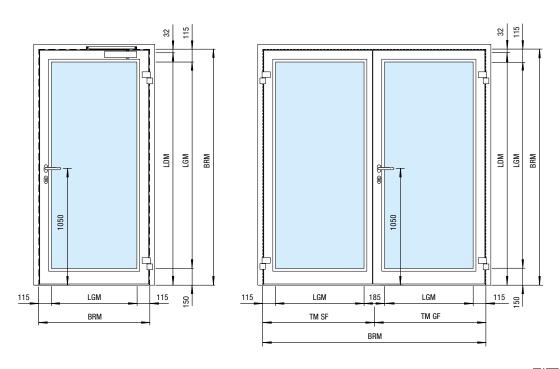
RAM Overall frame dimension LDM Clear passage dimension TM Division dimensions GF Traffic leaf

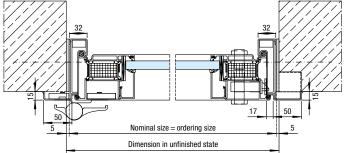
Clear passages for hinge systems for aluminium doors	Single-leaf	door	Double-leat overall	f door,	Double-lea traffic leaf	f door,	Distance leaf / wall (X)
Element type	A/RS 150 ES 50	HE 311 HE 611 HE 911 A/RS 100 OT 80	A/RS 250 ES 50	HE 321 HE 621 HE 921 A/RS 200 OT 80	A/RS 250 ES 50	HE 321 HE 621 HE 921 A/RS 200 OT 80	
Depth	50	80	50	80	50	80	
3-way adjustable hinge, pivot point 20 mm	RAM – 184	RAM – 214	RAM – 228	RAM – 288	TM – 127	TM – 157	64
3-way adjustable hinge, pivot point 36 mm	RAM – 200	RAM - 230	RAM – 260	RAM – 320	TM – 143	TM – 173	80
Barrel hinge Pivot point 17 mm	RAM – 180	RAM – 210	RAM – 220	RAM – 280	TM – 118	TM – 153	61

Note: For a 90° leaf opening and continuous wall, we recommend a 3-way adjustable hinge with a pivot point of 36 mm.

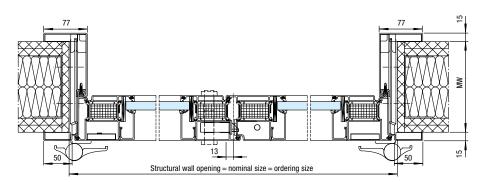
All dimensions in mm for element assemblies with door leaf open 90° and without door fittings

Single- and double-leaf doors with steel frames

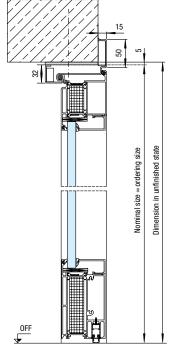




Single-leaf T30 aluminium fire-rated door with steel frame for brickwork



Double-leaf T30 aluminium fire-rated door with steel frame for partition wall



Single-leaf / double-leaf T30 aluminium fire-rated door with steel frame for brickwork

Size range	Single-leaf door	Double-leaf door
Nominal size (ordering size) width	535 – 1430 mm	1285 – 2930 mm
Nominal size (ordering size) height	1705 – 2965 mm	1673 – 2933 mm
Clear passage dimension with 90° opening width	394 – 1289 mm	1067 – 2712 mm
Clear passage dimension with 90° opening height	1673 – 2933 mm	1673 – 2933 mm

BRM	Nominal	size

LDM Clear passage dimension

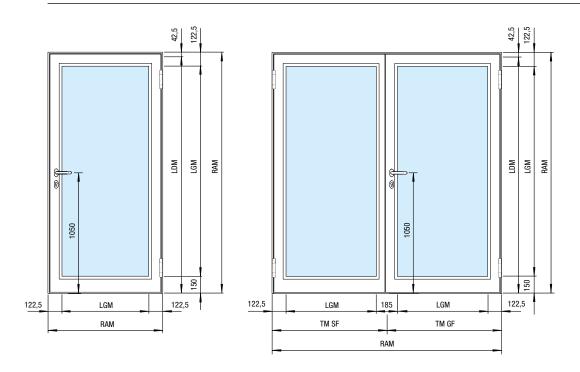
TM Division dimensions MW Wall width

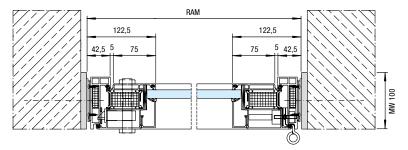
GF Traffic leaf SF Fixed leaf

LGM Clear glass dimensions

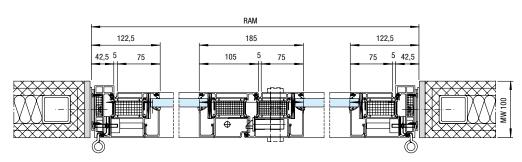
All dimensions in mm

Single- and double-leaf doors with frame without face

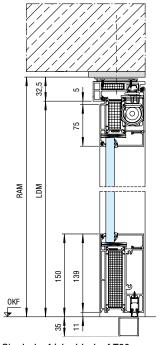




Single-leaf T30 aluminium fire-rated door with frame without face for brickwork



Double-leaf T30 aluminium fire-rated door with frame without face for partition wall



Single-leaf / double-leaf T30 aluminium fire-rated door with frame without face for brickwork

Size range	Single-leaf door	Double-leaf door
Overall frame dimension (ordering size) width	788 – 1415 mm	1538 – 2810 mm
Overall frame dimension (ordering size) height	1710 – 2500 mm	1710 – 2500 mm
Clear passage dimension with 90° opening width	634 – 1261 mm	1316 – 2588 mm
Clear passage dimension with 90° opening height	1667 – 2457 mm	1667 – 2457 mm

Dimensions in mm

RAM	Overall frame dimension
LDM	Clear passage dimension
TM	Division dimensions
MW	Wall width
GF	Traffic leaf
SF	Fixed leaf

LGM Clear glass dimensions

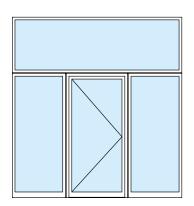
Aluminium fixed glazings

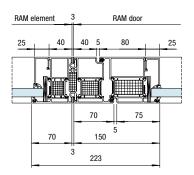
Design variants

Coupling construction

Advantages

- Individual elements (doors, side elements, transom lights) are easy and convenient to transport
- Ideal if space is limited

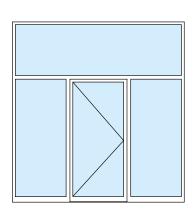


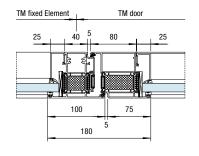


Vertical / horizontal profile construction

Advantages

- One complete element for quick and easy fitting on site
- Mitred cut of profiles
- High transparency due to narrow profile views

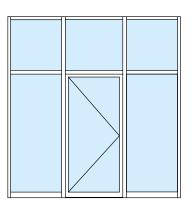


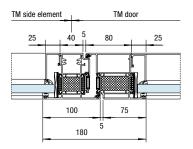


Plug-in system

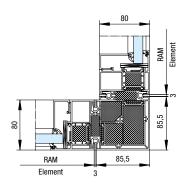
Advantages

- Individual elements for easy transport due to butted cut of profiles
- High transparency due to narrow profile views





Corner profile construction 90°

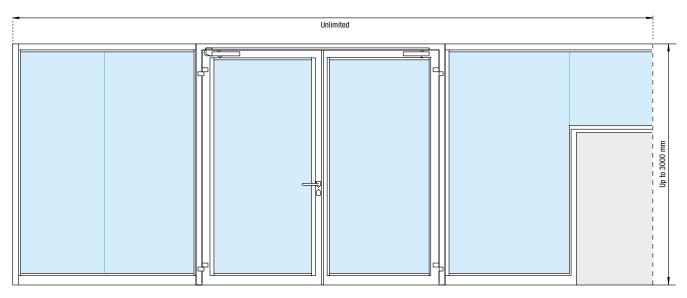


Customised corner designs are available on request.

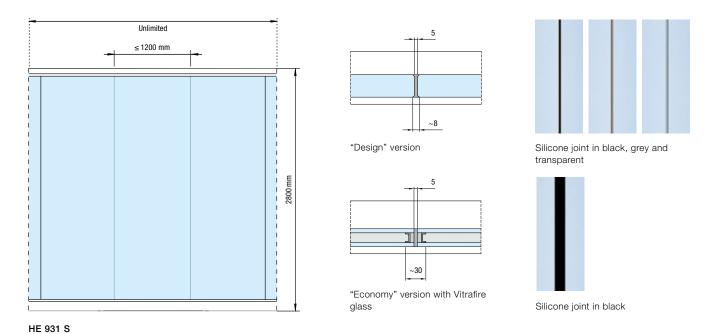
RAM Overall frame dimension TM Division dimensions

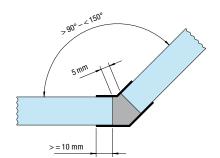
Aluminium system wall

Matching aluminium tubular frame construction project doors

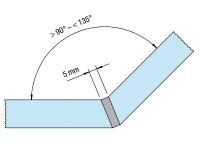


HE 331 S





Butt joint with fire protection silicone, inside and outside, with bonded-on slim metal angle profile

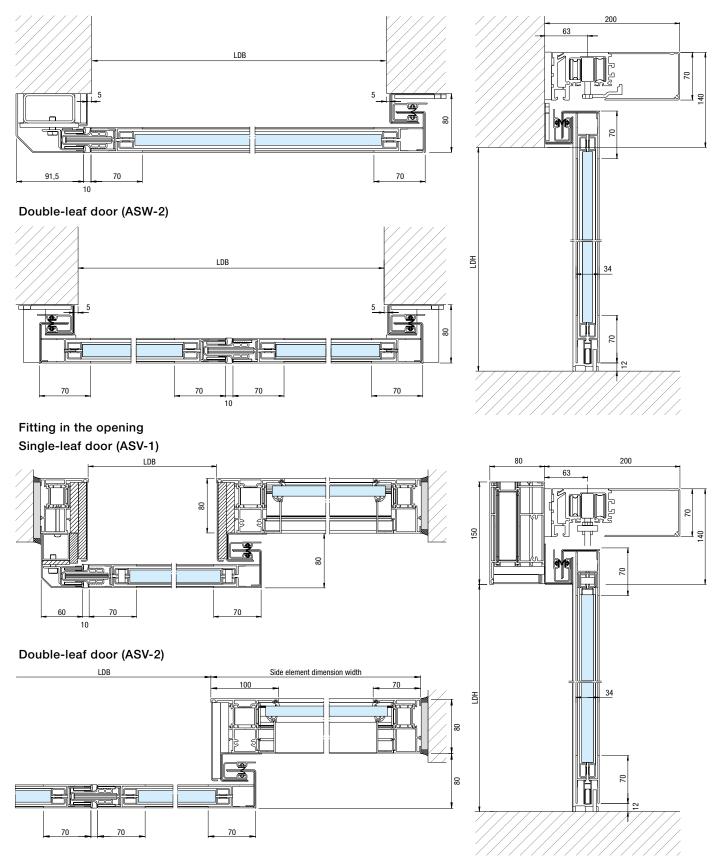


Joint with fire-proof silicone without metal angle profile

T30 automatic sliding doors

Single- and double-leaf doors

Fitting in front of the wall Single-leaf door (ASW-1)



Size ranges

Clear passage height LDH	Clear passage width LDB				Clear passage width LDB							
Bottom section height 82/150 mm	Single-leaf doors ASW 1, ASV 1				Double-leaf doors ASW 2, ASV 2							
	900	1000	1100	1200	1800	1900	2000	2100	2200	2300	2400	2500
2500												
2475												
2450												
2425												
2400												
2375												
2350											-	
2325												
2300												
2275												
2250												
2225												
2200												
2175												
2150												
2125												
2100				-								
2075												
2050												
2025												
2000												
1975												
1950												
1925												
1900												

Glass types:

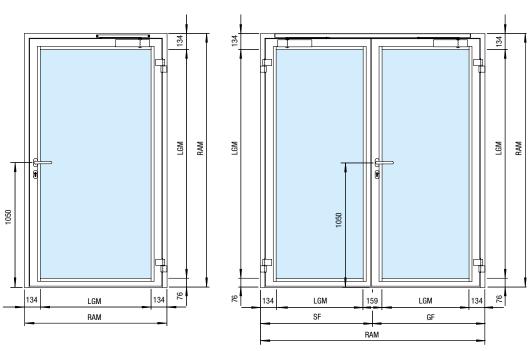
Promaglas 30 type 1

Pyrostop 30–20 (with UV protection)

59

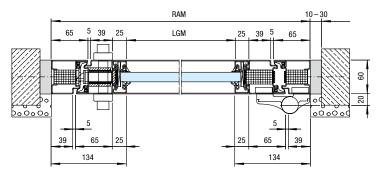
Steel tubular frame construction project doors

Single- and double-leaf doors with fascia frame

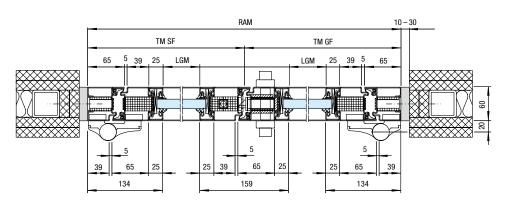


Single-leaf T30 steel fire-rated door

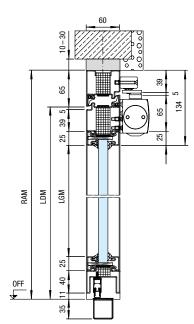
Double-leaf T30 steel fire-rated door



Single-leaf T30 steel fire-rated door with fascia frame for brickwork



Double-leaf T30 steel fire-rated door with fascia frame for partition wall



Single-leaf / double-leaf T30 steel fire-rated door with fascia frame for brickwork

BRM Nominal size

LDM Clear passage dimension TM Division dimensions

MW Wall width

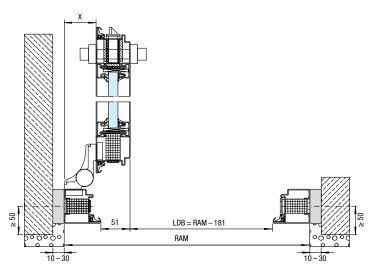
GF Traffic leaf SF Fixed leaf

LGM Clear glass dimensions

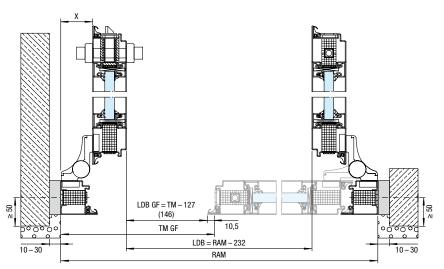
Dimensions in mm

Steel tubular frame construction project doors

Clear passages



Single-leaf T30 steel fire-rated door with 3-way adjustable hinge, 20 mm pivot point



Double-leaf T30 steel fire-rated door with 3-way adjustable hinge with 20 mm pivot point

RAM Overall frame dimension
LDM Clear passage dimension
LDB Clear passage width
TM Division dimensions
GF Traffic leaf

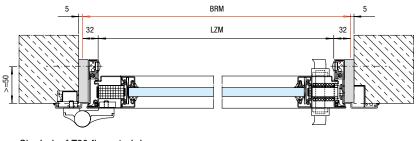
Clear passages for hinge systems	Single-leaf door	Double-leaf door, overall	Double-leaf door, traffic leaf	Distance leaf / RAM (x)
3-way adjustable hinge, pivot point 20 mm	RAM – 181	RAM – 232	TM – 127	56
3-way adjustable hinge, pivot point 36 mm	RAM – 197	RAM – 258	TM – 143	72
Barrel hinge, pivot point 12 mm	RAM – 179	RAM - 227	TM – 125	53
Concealed hinge,	RAM – 140	RAM – 150	TM-86	15

The actual distance depends, among other things, on the selected type of fitting, the dimensions of the fitting joint and the actual position of the wall surface – for example in the case of wall cladding – and must therefore be determined individually for each fitting situation. Further information can be found in the fitting instructions.

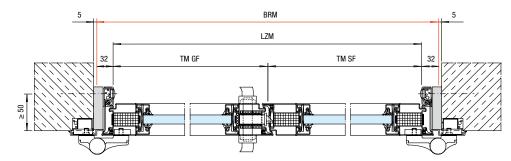
Steel tubular frame construction project doors

Single- and double-leaf doors with steel frames

Steel corner frame for brickwork



Single-leaf T30 fire-rated door



BRM

Double-leaf T30 fire-rated door

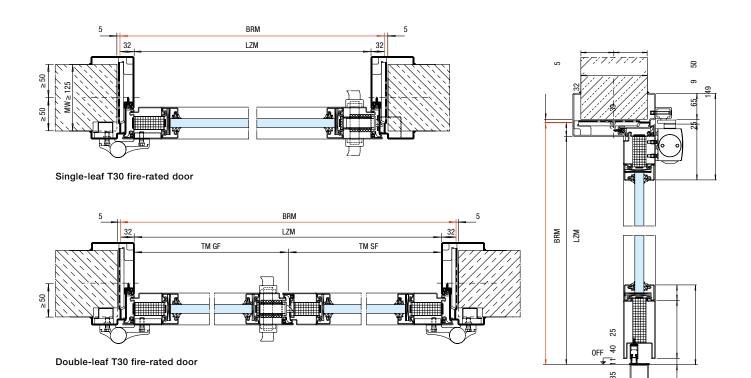
BRM Nominal size

LZM Clear frame dimension TM Division dimensions

GF Traffic leaf

Fixed leaf

Double-shell steel profile frame for brickwork and partition wall



BRM Nominal size

LZM Clear frame dimension

TM Division dimensions

GF Traffic leaf

SE Fived leaf

SF Fixed leaf
MW Wall width

Steel fixed glazings

Design variants

Coupling construction

Advantages

- Individual elements (doors, side elements, transom lights) are easy and convenient to transport
- Ideal if space is limited

Vertical / horizontal profile construction

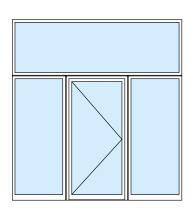
Advantages

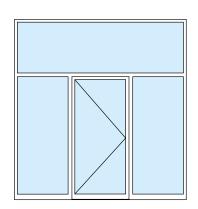
- One complete element for quick and easy fitting on site
- Mitred cut of profiles
- High transparency due to narrow profile views

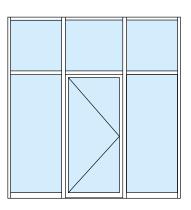
Plug-in system

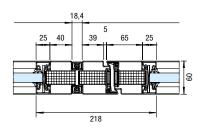
Advantages

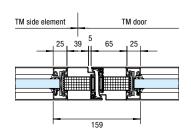
- Individual elements for easy transport due to butted cut of profiles
- High transparency due to narrow profile views

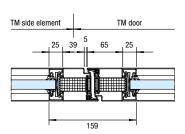




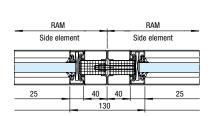




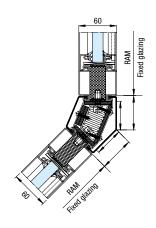




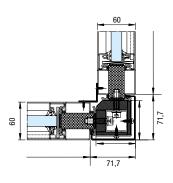
Coupling construction G



Variable coupling construction



Coupling construction 90°

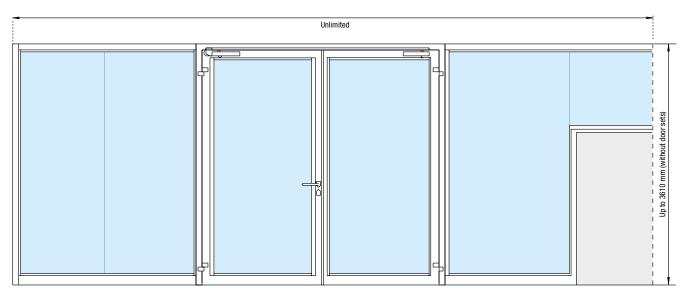


RAM Overall frame dimension TM Division dimensions

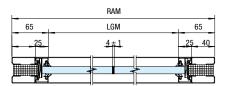
All dimensions in mm

Steel system wall

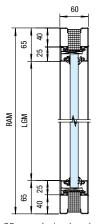
Matching steel tubular frame construction project doors



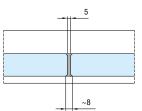
HL 330 S



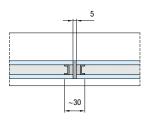
25 mm glazing bead (optionally 30 mm)



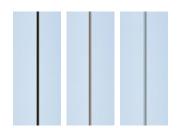
25 mm glazing bead (optionally 30 mm)



"Design" version



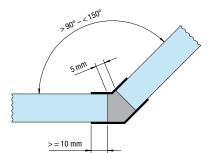
"Economy" version



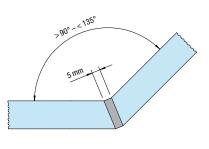
Silicone joint in black, grey and transparent



Silicone joint in black



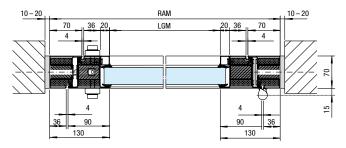
Butt joint with fire protection silicone, inside and outside, with bonded-on slim metal angle profile



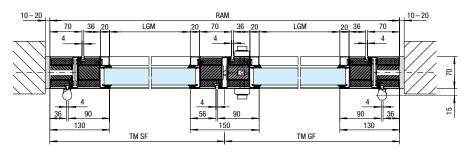
Joint with fire-proof silicone without metal angle profile

T90 Steel fire-rated doors and glazings

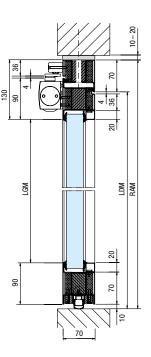
Single- and double-leaf doors with fascia frame



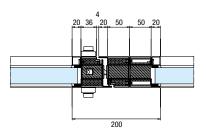
Single-leaf T90 steel fire-rated door



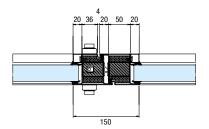
Double-leaf T90 steel fire-rated door



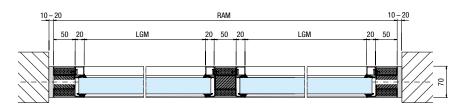
Door and side element as a coupling construction



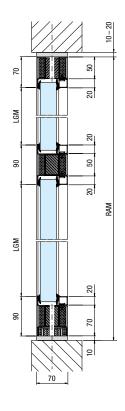
Door and side element as a profile construction



Fixed glazing



F90 fixed glazing with rail



RAM Overall frame dimension LDM Clear passage dimension LGM Clear glass dimensions

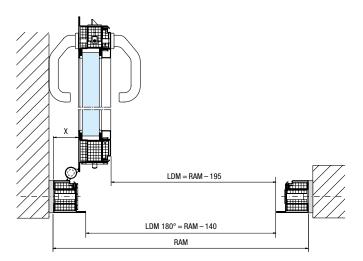
TM Division dimensions
GF Traffic leaf

SF Fixed leaf

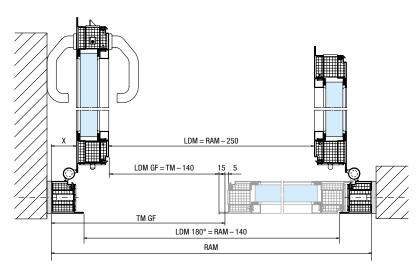
All dimensions in mm

T90 Steel fire-rated doors and glazings

Clear passages



Single-leaf T90 fire-rated door with barrel hinge, 17 mm pivot point



Double-leaf T90 fire-rated door with guide roller, 17 mm pivot point

Hinge system	Single-leaf door	Double-leaf door, overall	Double-leaf door, traffic leaf	Distance leaf / RAM (x)
3-way adjustable hinge, pivot point 20 mm	RAM – 196	RAM – 252	TM – 141	56
3-way adjustable hinge, pivot point 36 mm	RAM – 212	RAM – 284	TM – 157	72
Barrel hinge fitted by welding, 17 mm pivot point	RAM – 195	RAM – 250	TM – 140	55

RAM	Overall frame			
	dimension			
LDM	Clear passage			
	dimension			
LDM 180°	Clear passage			
	dimension with door			
	leaf open 180°			
TM	Division dimensions			
GF	Traffic leaf			

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