



Industrial Sectional Doors High-Speed Sectional Doors

HÖRMANN





Industrial sectional doors

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High-speed sectional doors

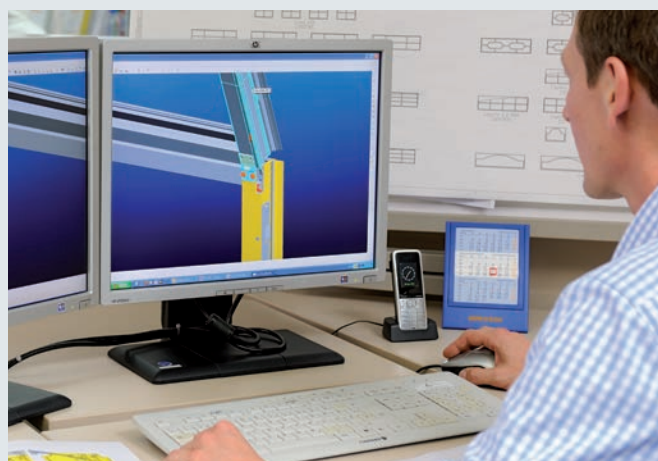
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Hörmann Brand Quality

Reliable and oriented towards the future



Mercedes Benz, Ostendorf



In-House Product Development

At Hörmann, innovation is produced in-house – highly qualified employees of the development departments are in charge of product optimisation and new developments. This results in market-ready, high-quality products that are very popular around the globe.



Modern Manufacturing

All of the essential door and operator components, such as sections, frames, fittings, operators and controls are developed and manufactured by Hörmann. This guarantees a high degree of compatibility between the door, operator and controls. Our certified quality management system ensures the highest quality, from development through to production and delivery.

Hörmann products, German quality.



As Europe's leading manufacturer of doors, hinged doors, frames and operators, we are committed to high product and service quality. This is how we set standards on an international scale.

Highly-specialised factories develop and manufacture construction components that are characterised by excellent quality, functional safety and a long service life.

Our presence in the global economy's key regions makes us a strong, future-oriented partner for industrial and public construction projects.



It goes without saying that spare parts for doors, operators and controls are original Hörmann parts that come with a guaranteed availability of 10 years.



Competent Advice

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 not only available in printed form, but also always accessible and up-to-date at www.hoermann.com.



Fast service

Our extensive service network means that we are always nearby and at your service. This is a great advantage for testing, maintenance and repairs.

Industrial sectional doors

Doors, operators and controls from a single source



A uniquely broad range means that, in terms of both function and design, Hörmann sectional doors blend superbly into modern industrial architecture, from the standardised all-purpose unit to the highly individual designer-style building.

Doors, operators and controls are perfectly coordinated with one another and always tested and certified.



Space-saving door system

Sectional doors open upwards. This creates space in front of and behind the door. Useful space is not wasted in the building because the door sections are parked underneath the ceiling or vertically on the wall. Since the doors are fitted behind the opening, the clear passage width can be used in full. This virtually excludes the risk of damage.



State-of-the-art operator technology

The operators and controls that Hörmann offers are the outcome of its own in-house development and production. Perfectly matched components, subjected to endurance tests, give you the assurance that your door will perform well in continued use. The control system with a uniform operating concept and 7-segment display* facilitates daily use. Identical housing sizes and cable sets not only simplify installation but also the addition of optional extras at a later date.

* Except for WA 300 S4
with integrated control

Good Reasons to Try Hörmann

The market leader has the innovations

Hörmann Advantages



1

A permanently clear view

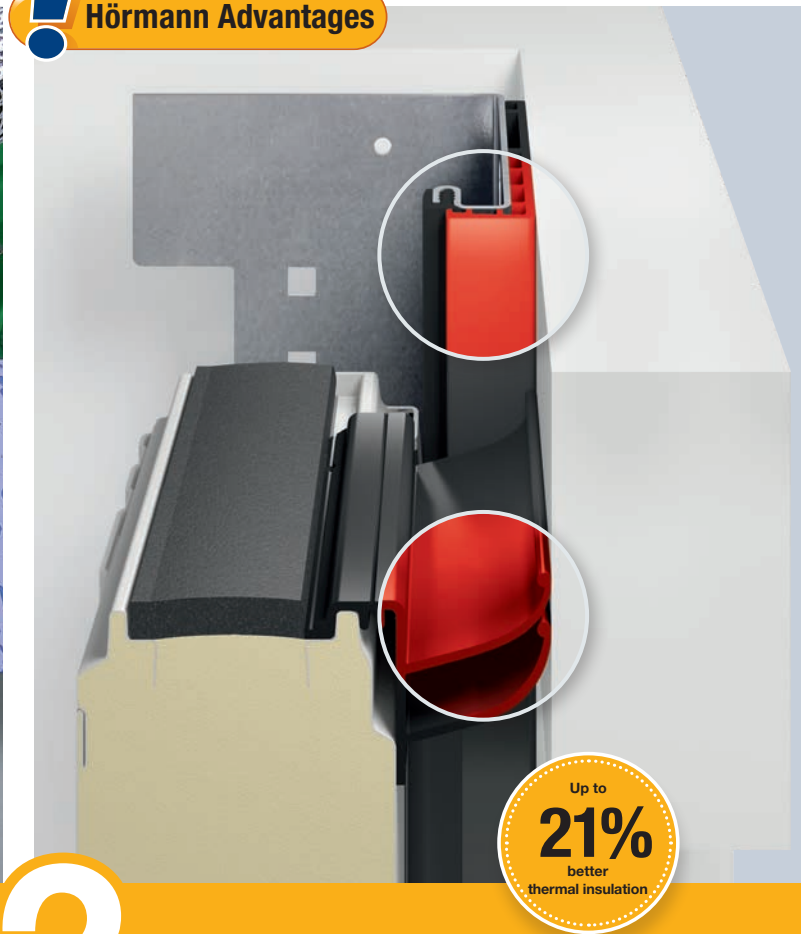
Industrial doors with large glazing offer maximum transparency and plenty of natural illumination within the building. **The scratch-resistant DURATEC glazing provides a permanently clear view.**

A special surface coating, similar to that used on car headlights, protects the pane from scratches and damage caused by cleaning over the long-term. This preserves the attractive appearance despite wear in rough industrial settings.

The DURATEC glazing is available as standard and at no extra charge in all sectional doors with synthetic glazing – Hörmann advantage.

For further information, see pages 56 – 59.

Hörmann Advantages

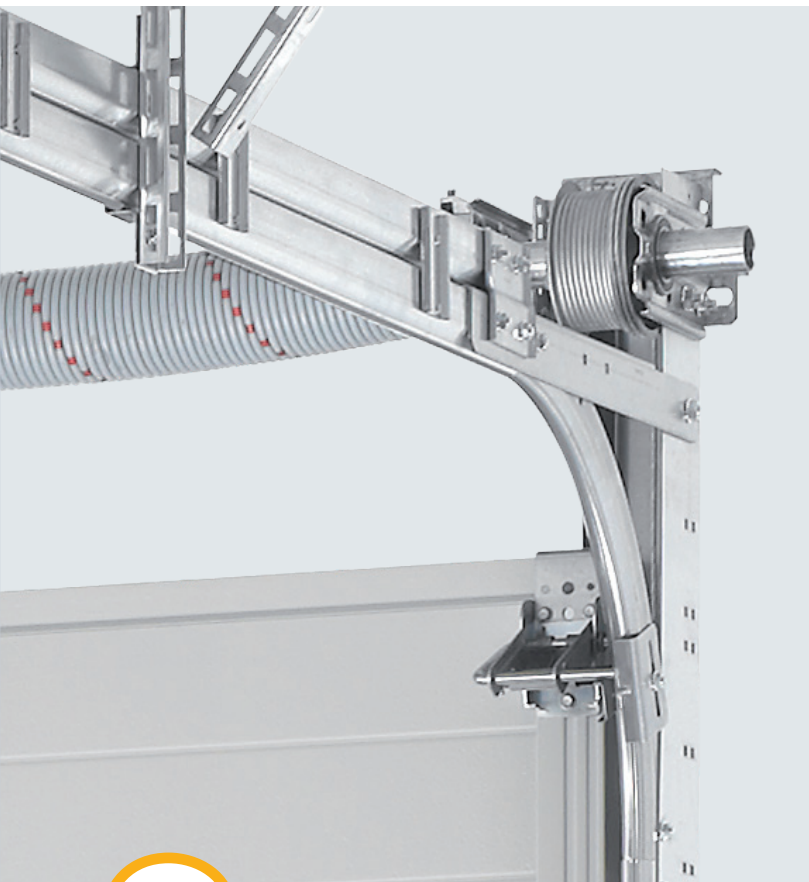


2

Efficient Thermal Insulation

Well-insulated industrial sectional doors are essential in heated buildings to keep energy losses at a minimum. **Hörmann industrial sectional doors with 67 mm sections with thermal breaks offer very effective insulation and thus save energy costs.** Triple panes with thermal break additionally limit the risk of condensation water accumulation. **You can additionally obtain up to 21 % better thermal insulation with the optional ThermoFrame frame connection,** which thermally separates the frame and the brickwork while also sealing the door better through double seals.

For further information, see pages 60 – 61.



3

Robust design

In every detail Hörmann industrial sectional doors are designed for a long service life: from rollers with ball-bearing via rugged section connections up to the optimal spring assembly. This allows more than 25,000 actuations with special equipment up to 200,000. **The heavy-duty design lowers the maintenance and service costs, making Hörmann industrial sectional doors overall economic and sustainable.**



4

Suitable fitting solutions

With various track application types, industrial sectional doors **can be optimally matched to the architecture and requirements of your building.** Detailed solutions such as low-mounted spring shafts or screw-fitted elements additionally facilitate maintenance and make the doors especially service friendly.

For further information, see pages 40 – 41.

Good Reasons to Try Hörmann

The market leader has the innovations



5

Optimised logistics systems

Hörmann industrial sectional doors and dock levellers are **optimally matched to the Hörmann loading technology**. You therefore receive a logistics solution that perfectly matches your requirements in terms of thermal efficiency and functions.

For further information, please see loading technology brochure.



Hörmann Advantages

6

Safe and convenient working

Sometimes minor things have major effects. The stainless steel threshold rail of Hörmann wicket doors is particularly flat – which facilitates working and reduces accidents. **This reduces the risk of tripping up and makes it considerably easier for slide carriages to pass through.** Under certain circumstances, Hörmann wicket doors with trip-free threshold can even be used as escape doors and for barrier-free passages.

For further information, see pages 48 – 51.



7

Harmonious Design

Hörmann industrial sectional doors, doors with wicket doors, panels are designed in such a way that all elements present a harmonious view when they are fitted in a line of buildings. **The rails of the aluminium frames are aligned to match.** This also applies to the combination of doors with different depths. This way, your company will present its best look in all cases.



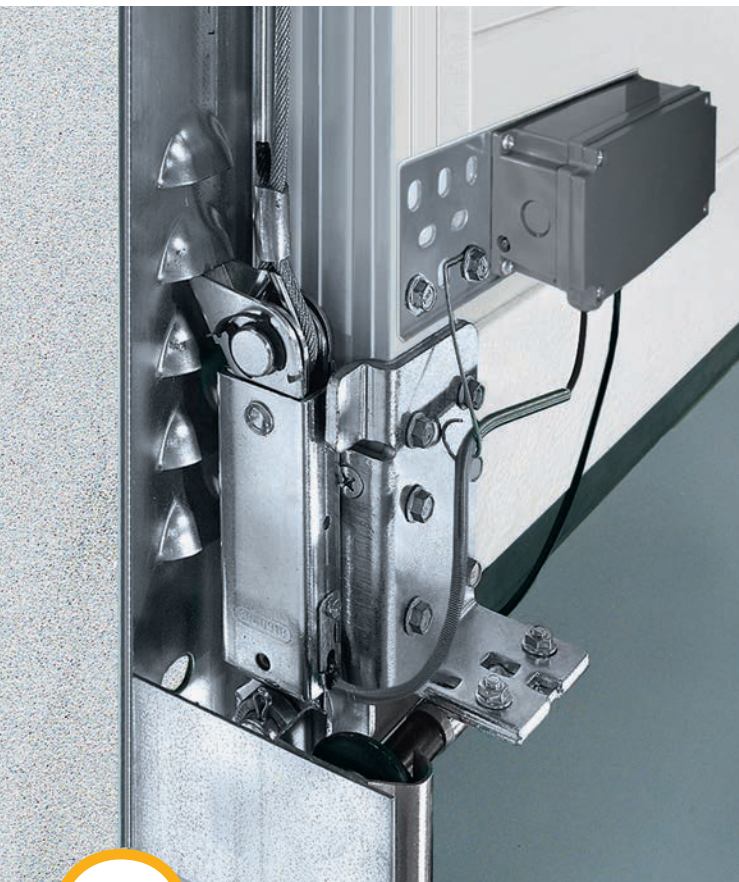
8

Individual design possibilities

With Hörmann industrial sectional doors you can design your facades according to your wishes. Individual possibilities emerge by the combination of height-customized visible transparent glazing and invisible PU-infill aluminium sheet on aluminium doors. perfectly match the combination design of glass and aluminium curtain wall on the facade.

Good Reasons to Try Hörmann

The market leader has the innovations



9

Break-in resistant as standard

It is also important for industrial doors to be reliably break-in-resistant to protect your building. The **anti-lift kit as a standard feature** functions mechanically and thus effectively protects your goods and machines during power outages as well.

For further information, please see page 68.



10

User-friendly equipment

We offer you a wide range of optional equipment. This **allows you to conveniently adjust any door to your requirements**. For manually operated doors, there are operation aids such as pull rods, cable or cord hand pulleys. Or you can equip your door with an external handle to securely lock it and conveniently open it from the outside. For power-driven doors we offer the suitable operator solutions with matching safety equipment, operating aids and signal transmitters.



Hörmann Advantages



11

Convenient Operator Solutions

For frequent door cycles we recommend the use of a power-driven door. Depending on the requirements regarding the performance, speed and convenience we offer you **perfectly matched operator solutions**. From the installation-friendly shaft operator WA 300 to the powerful shaft operator WA 400 FU, a suitable operator solution optimally supports the work processes of your company, making it an investment that quickly pays off.

For further information, see pages 74 – 79.



12

Non-contact door monitoring

Leading photocell

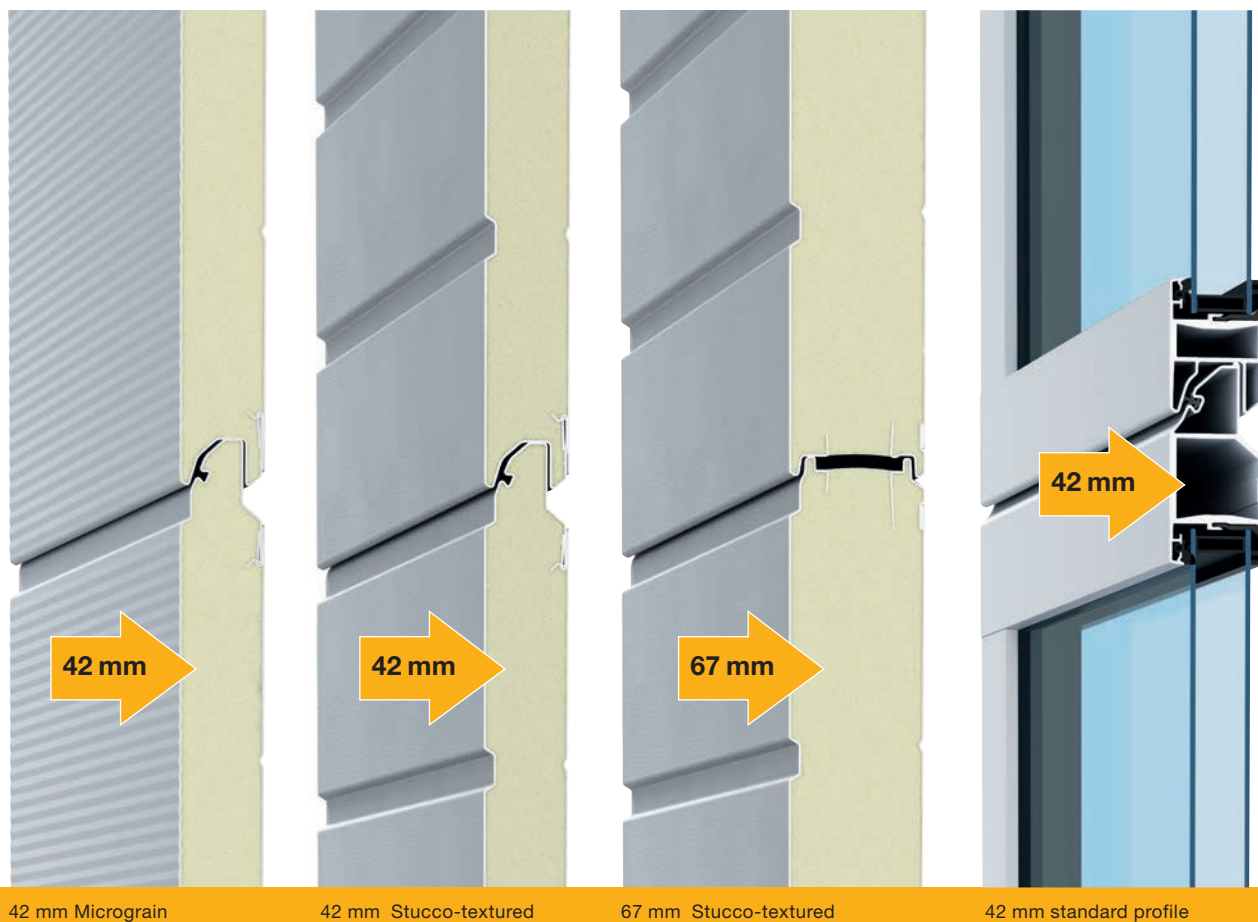
Power-driven Hörmann industrial sectional doors with WA 400 operators are equipped with a self-monitoring closing edge safety device with optosensors as standard. For sectional doors with wicket doors, the leading photocell VL 2 for non-contact monitoring of the closing edge are provided as standard.

These solutions offer you increased safety, faster door action and lower maintenance costs.

For further information, see page 47.

Door Fixtures and Fittings

Section thicknesses, surface finishes and profile types



PU-foamed sectional doors and glazed aluminium doors

PU-foamed sectional doors are available either with 42 mm depth or with sections with thermal break and 67 mm depth. For version Stucco-textured, the door appearance is 100 % matching.

Depth 42 mm

Hörmann sectional doors with 42-mm-thick PU-foamed sections are especially robust, offering good thermal insulation.

67 mm depth with the best thermal insulation

With the SPU 67 Thermo's 67 mm sections with thermal break, you benefit from an excellent thermal value of up to $0.51 \text{ W}/(\text{m}^2 \cdot \text{K})^*$. The thermal break between the exterior and interior of the steel sections also reduces the formation of condensation water on the inside of the door.

Glazing frame with standard profile, depth 42 mm

As standard, the glazing frames are produced using high-quality aluminium extrusion profiles that are designed for robust industrial and commercial day-to-day work. profile depth 42 mm match perfectly with PU-foamed panel depth 42 mm.

* For a door size of $5000 \times 5000 \text{ mm}$ with optional ThermoFrame

Application Areas

A matching door version for every purpose

Save energy thanks to thermal insulation

SPU F42

SPU 67 Thermo

Double-skinned steel sectional doors

Page 18



More light in the building

APU F42

Glazed aluminium doors with steel bottom section

Page 24



Fitting in modern architecture

ALR F42

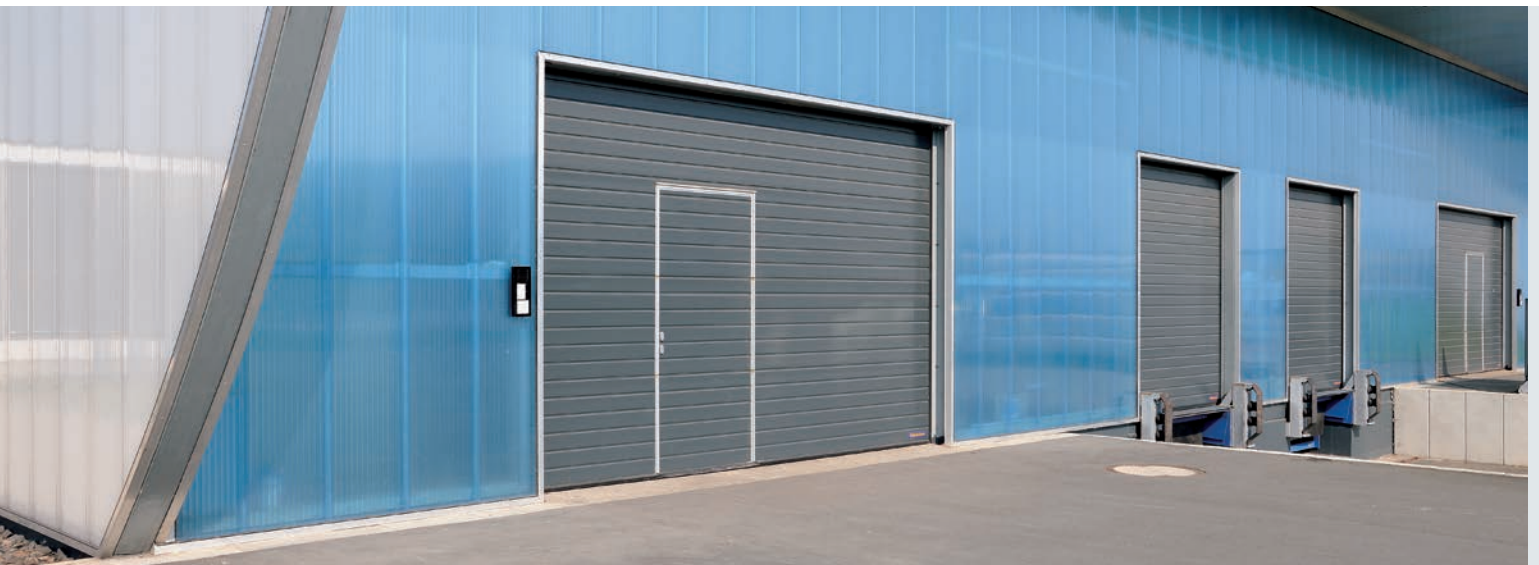
Glazed aluminium doors

Page 28



SPU F42 / SPU F42 XL

Double-skinned steel sectional doors



Logistics buildings and warehouses

Easy and safe passage of pedestrians thanks to the wicket door with trip-free threshold

Commercial buildings

Bring natural light into the building using optional glazing



**Everything from one source:
Industrial doors, dock levellers, dock shelters**



Agriculture

Robust thanks to PU-foamed panels



Logistics

Operator WA 300 S4 (see page 46),
the affordable solution for logistics doors

Factories

With various track applications, optimally matched to the architecture and requirements of your building.



SPU 67 Thermo

Double-skinned steel sectional doors with thermal break



Logistics

Excellent thermal insulation with sections with thermal break, depth 67 mm

Fresh logistics

The SPU 67 Thermo door minimises temperature losses at door openings, making it ideal for use in food and cold logistics.



**Excellent thermal insulation
with a U-value of up to $0.51 \text{ W/(m}^2\cdot\text{K)}$**



Commercial buildings

Easy and safe passage of pedestrians thanks to a wicket door with thermal break and trip-free threshold



Commercial buildings and warehouses

Bring natural light into the building using optional glazing



SPU F42 /SPU F42 XL/ SPU 67 Thermo

Double-skinned steel sectional doors

SPU F42

1 The 42-mm-thick PU-foamed section with finger trap protection is especially robust and offers good thermal insulation. The door leaf is available in the Stucco-textured and Micrograin surface variants.

SPU F42 XL for large opening

2 Hörmann also provide large industrial sectional doors SPU F42 XL for extremely wide opening up to 11400 mm, max. door height up to 4500 mm, available for H track and Stucco-textured surface finishes, B 460 FU control is required. For more information, please see price list B.

SPU 67 Thermo

3 Optimum thermal insulation is achieved with the SPU 67 Thermo, featuring 67-mm-thick sections with thermal break without finger trap protection*. The door leaf is available in the Stucco-textured surface finishes, fully matches the SPU F42.

* In the available size range, these doors comply with the requirements of EN 13241-1



Door type	SPU F42		SPU F42 XL	SPU 67 Thermo
	Without wicket door	With wicket door	Without wicket door	Without wicket door
Door size				
Max. width (mm)	8000	7000	11400	6000
Max. height (mm)	7000	7000	4500	7500
Thermal insulation EN 13241-1, Appendix B EN 12428				
U-value in W/(m ² ·K) for a door surface of 5000 × 5000 mm				
Closed sectional door	1.0	1.2		0.62
With ThermoFrame	0.94	1.2		0.51
Section	0.50	0.50	0.50	0.33

SPU 67 Thermo:

Optimum thermal insulation in Stucco-textured surface finishes

The PU-foamed sections are particularly robust and offer good thermal insulation. Especially with the 67-mm-thick sections, you can benefit from very high thermal insulation, achieved through the thermal break between the interior and exterior of the steel sections. This also minimises the formation of condensation water on the inside of the door. The Stucco-textured surface features uniform ribbing every 125 mm in the section and in the section transition.



Sections with thermal break in SPU 67 Thermo



Stucco-textured surface finishes

Colour options page 34

Glazings page 36

Safety features in acc. with EN 13241-1, page 43.

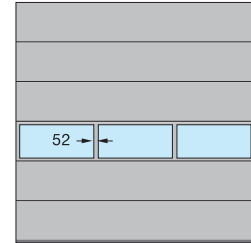
Technical data page 52

Example door versions

Door width up to 4500 mm (example 4500 × 4500 mm)

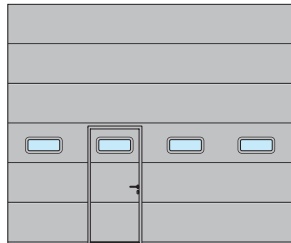


SPU F42, SPU 67 Thermo
Type A section windows
Uniform field division

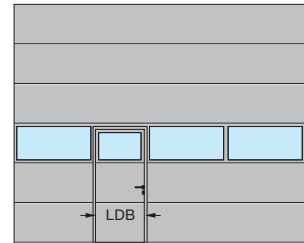


SPU F42,
Aluminium glazing frames
Uniform field division

Door width up to 5500 mm (example 5500 × 4500 mm)

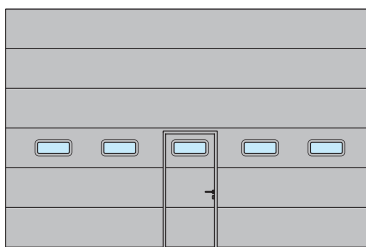


SPU F42,
Type A section windows
Wicket door to the left

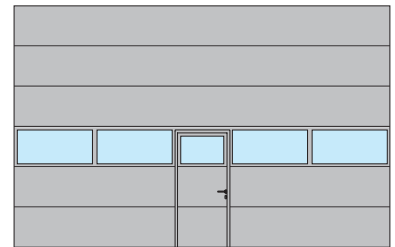


SPU F42,
Aluminium glazing frames
Wicket door to the left

Door width over 5500 mm (example 7000 × 4500 mm)



SPU F42,
Type A section windows
Wicket door in the centre



SPU F42,
Aluminium glazing frames
Wicket door in the centre

Clear passage width (LDB)
SPU F42: 940 mm

APU F42

Glazed aluminium doors with steel bottom section



Workshops

Matching glazing division for doors with and without wicket doors



Commercial buildings and warehouses

The PU-foamed bottom section can be replaced easily and inexpensively if damaged, for example, by a vehicle.

Protection bollards protect from damage

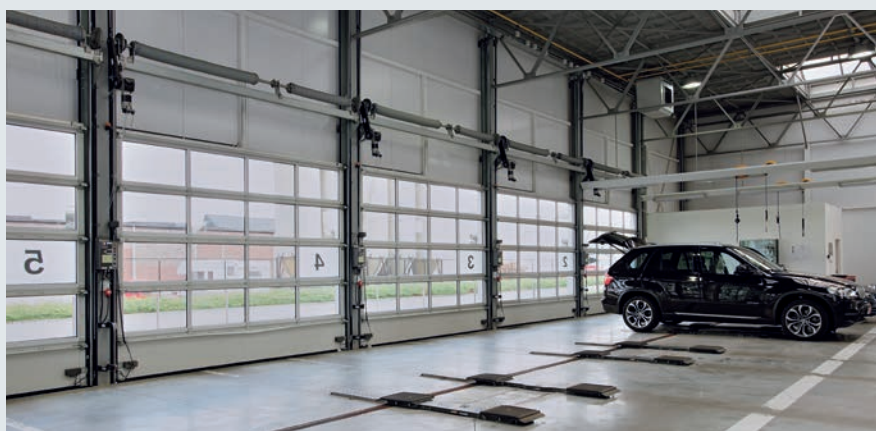
When used outside, they avoid expensive collision damage on buildings. When used inside, they protect the door tracks from collision damage.

*Especially easy to service and repair
thanks to robust bottom sections*



Workshops

Easy and safe passage of pedestrians thanks to the wicket door with trip-free threshold



Workshops

Large glazings for light in the workspace

APU F42

Glazed aluminium doors with steel bottom section

Universal application

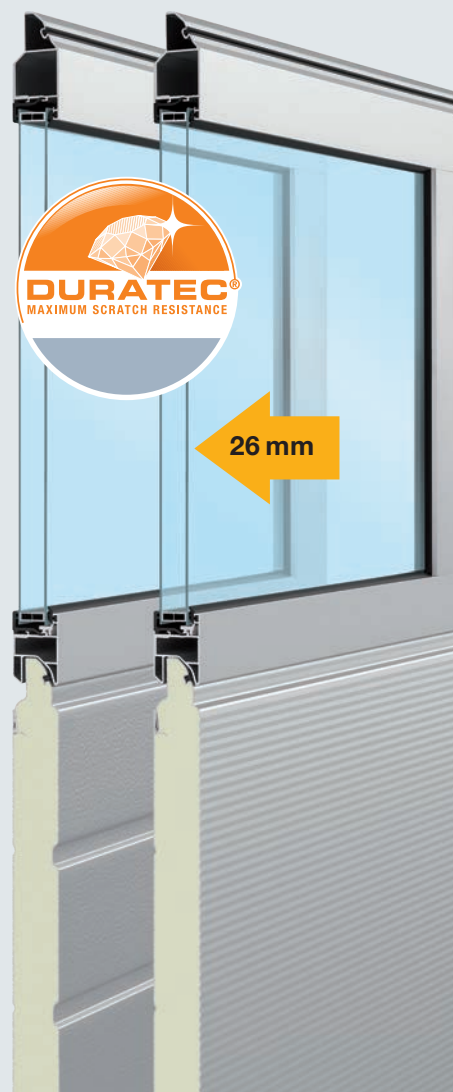
The combination of a double-skinned steel bottom section and aluminium glazing frame has more than proved itself in practice. The APU F42 door is very stable and lets a lot of light into the building. It is one of the most popular Hörmann sectional doors for factory buildings, thanks to its appealing features and numerous variants.

An attractive appearance

The glazed door sections above the bottom section are always evenly spaced. APU F42 doors always have a bottom section that is 500, 750, 1000 or 1500 mm high.

Individual versions

The high stability is mainly due to the 42-mm-thick insulating core made of polyurethane rigid foam used to uniformly foam-fill the bottom section. The door is reliably protected against corrosion and environmental conditions through a high-quality primer-coating on galvanised material, and via Stucco texturing. The door is also available with a Micrograin surface on the exterior. On request, the door comes with a wicket door with trip-free threshold for use as a practical pedestrian passage.



Door type	APU F42	
	Without wicket door	With wicket door
Door size		
Max. width (mm)	8000	7000
Max. height (mm)	7000	7000
Thermal insulation EN 13241-1, Appendix B EN 12428		
U-value in W/(m ² ·K) for a door surface of 5000 × 5000 mm		
Standard double pane	3.4	3.6
With ThermoFrame	3.3	3.6

Robust bottom section

The 750-mm-high bottom section is optionally available in Stucco or Micrograin surface finish without surcharge. The even PU-foaming of the steel section makes it particularly robust. In case of extensive damage, it can be exchanged easily and inexpensively.



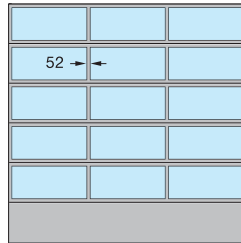
Stucco-textured bottom section



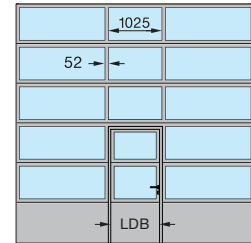
Micrograin bottom section

Example door versions

Door width up to 4500 mm (example 4500 × 4500 mm)

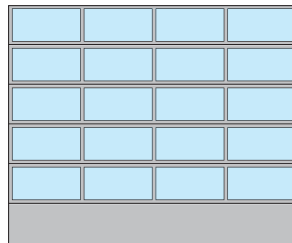


APU F42,
Uniform field division

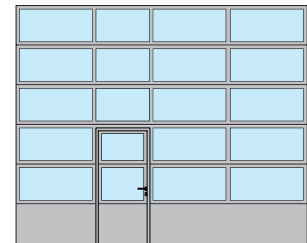


APU F42,
Wicket door in the centre

Door width up to 5500 mm (example 5500 × 4500 mm)

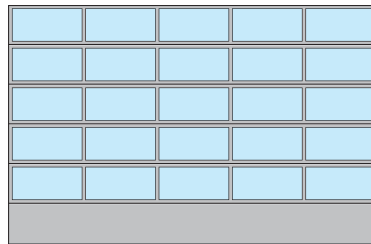


APU F42,
Uniform field division

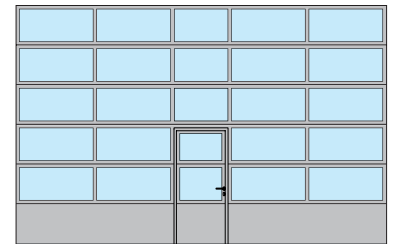


APU F42,
Wicket door to the left

Door width over 5500 mm (example 7000 × 4500 mm)



APU F42,
Uniform field division



APU F42,
Wicket door in the centre

Clear passage width (LDB)
APU F42: 940 mm

ALR F42

Glazed aluminium doors



Commercial buildings

Sturdy aluminium profiles with scratch resistance clear glazing ensure more light into the building.

*Permanent clear view with DURATEC glazing
for maximum scratch resistance*



Workshops

Permanent clear view thanks to standard DURATEC glazing



Fire station buildings

Large glazings offer clearer view and more adequate more light in the building



Collective garages

Variety of infill options, like the perforated sheet infill for door and wicket door

ALR F42

Glazed aluminium doors

ALR F42

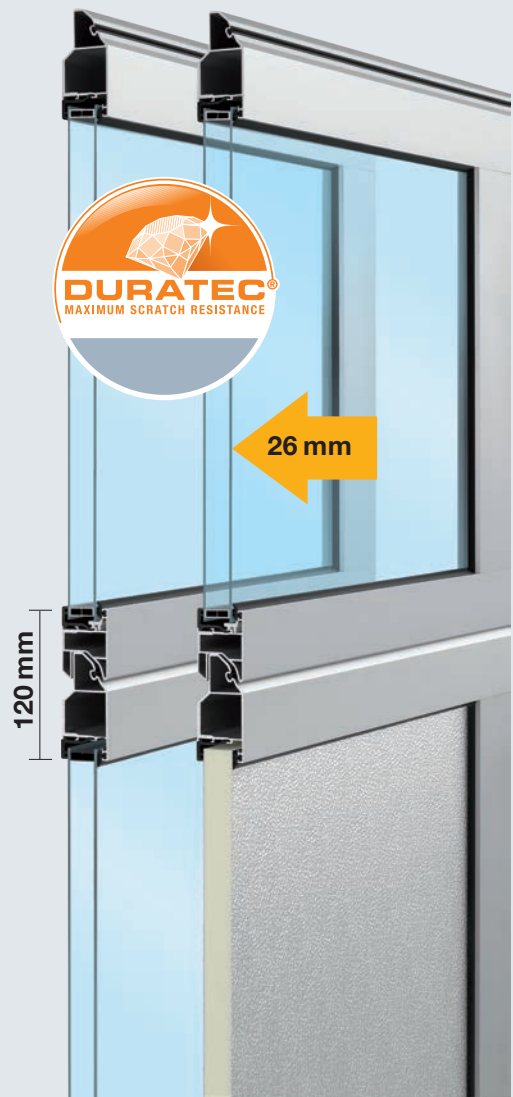
This door features large glazings and a contemporary appearance with aluminium profiles. The DURATEC glazing provides a permanently clear view.

Prestigious door solution

With its extensive transparency, the ALR F42 door features a contemporary appearance. Large-surface glazing down to the bottom section and a slim aluminium frame profile give this door its tasteful design.

Door design with many variants

To ensure a clear and modern door appearance, Hörmann divides each door leaf uniformly from top to bottom. An optional wicket door with trip-free threshold is harmoniously integrated into the overall door.



Door type	ALR F42	
	Without wicket door	With wicket door
Door size		
Max. width (mm)	8000	7000
Max. height (mm)	7000	7000
Thermal insulation EN 13241-1, Appendix B EN 12428		
U-value in W/(m²·K) for a door surface of 5000 × 5000 mm		
Standard double pane	3.6	3.8
With ThermoFrame	3.6	3.8

Optional infills

We deliver the bottom door section as standard with fully glazing, optionally, the door is available for PU infill and aluminiumsheet cover, both sides Stucco-textured or both sides smooth. Further information about the infill, please see page 37.

Glazing beads

For ALR F42, as well as APU F42, the black glazing beads are offered as standard.

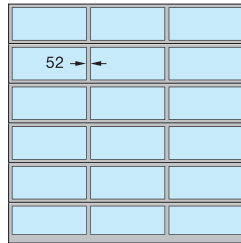


View of the door interior with black glazing beads

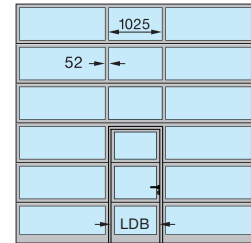
Colour options page 54
Glazings page 56
Safety features in acc. with EN 13241-1, page 65.
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Example door versions

Door width up to 4500 mm (example 4500 × 4500 mm)

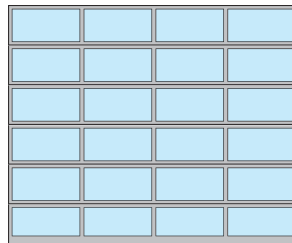


ALR F42,
Uniform field division

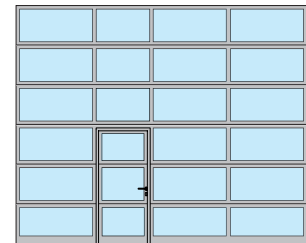


ALR F42,
Wicket door in the centre

Door width up to 5500 mm (example 5500 × 4500 mm)

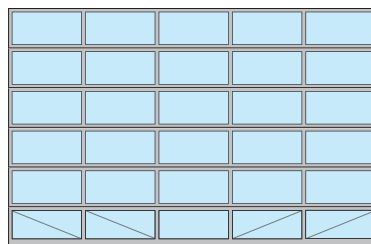


ALR F42,
Uniform field division

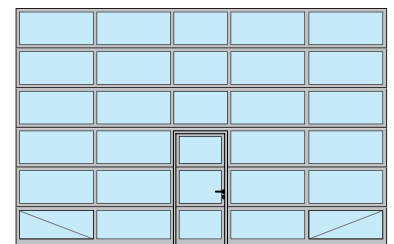


ALR F42,
Wicket door to the left

Door width over 5500 mm (example 7000 × 4500 mm)



ALR F42,
Uniform field division
Fully glazed



ALR F42,
Wicket door in the centre
Fully glazed

Clear passage width (LDB)
ALR F42: 940 mm

Of course, individual arrangements of the glass and panel infills are possible.

For better stability, the lower window sections are equipped on the inside with diagonal static cross struts for the following door versions:

- Fully glazed doors from a door width of 5510 mm
- Doors with wicket door from a door width of 4510 mm

Wicket Doors with Trip-Free Threshold as a fully-fledged escape route





Trip-free passage

Wicket doors with trip-free thresholds pose less of a risk for persons stumbling and injuring themselves. Tool cars or trolleys can easily pass over the very flat stainless steel threshold with rounded edges.

The wicket door with trip-free threshold has many benefits:

- The sectional door does not need to be opened for pedestrian traffic.
- It reduces the risk of tripping and makes it easier to wheel things through.
- Power-driven doors feature a leading photocell VL 2 with two sensors which causes the door to reverse on encountering an obstruction well before contact is made.
- The wicket door contact ensures that the main door can only be opened when the wicket door is closed.

940 mm clear passage width as standard

Under certain circumstances, the wicket door with trip-free threshold, with its clear passage width of 940 mm, fulfils the requirements of an escape door and for barrier-free construction.

As an escape door

Under certain circumstances, Hörmann sectional doors with a wicket door and trip-free threshold fulfil the requirements of an escape door (for doors up to 5500 mm width).

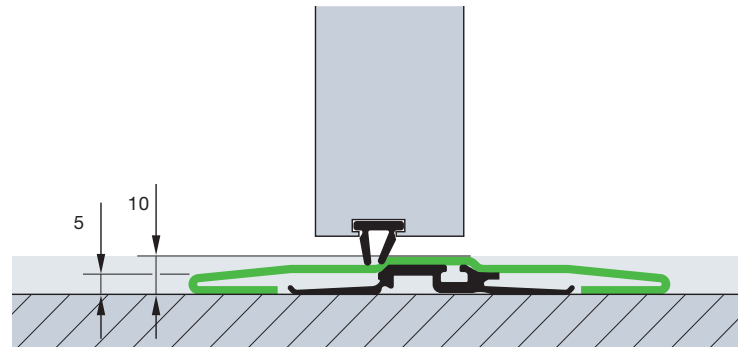
As an unobstructed entrance

Under certain conditions, Hörmann sectional doors with a wicket door and trip-free threshold fulfil the requirements for accessibility in accordance with DIN EN 18040-1 and are certified by the IFT Rosenheim.

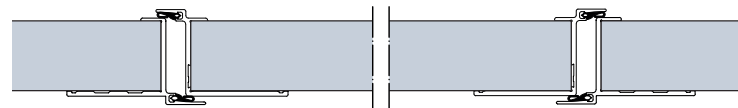
Freely selectable position

The wicket door can be positioned to the left, right or at the centre (except for the two outer fields).

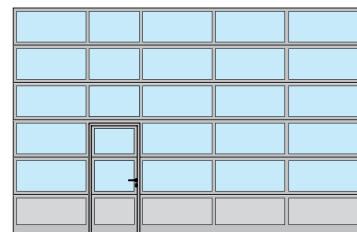
The window sections above the wicket door have a clear view of 1025 mm as standard. All other sections of the door have identical widths.



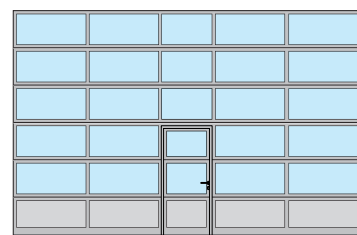
The stainless steel threshold is 10 mm high at the centre and 5 mm on the edges. We provide a reinforced threshold rail of approx. 13 mm for doors from 5510 mm width



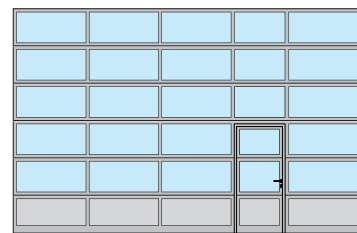
Wicket door construction for sectional doors with 42 mm depth



Wicket door to the left

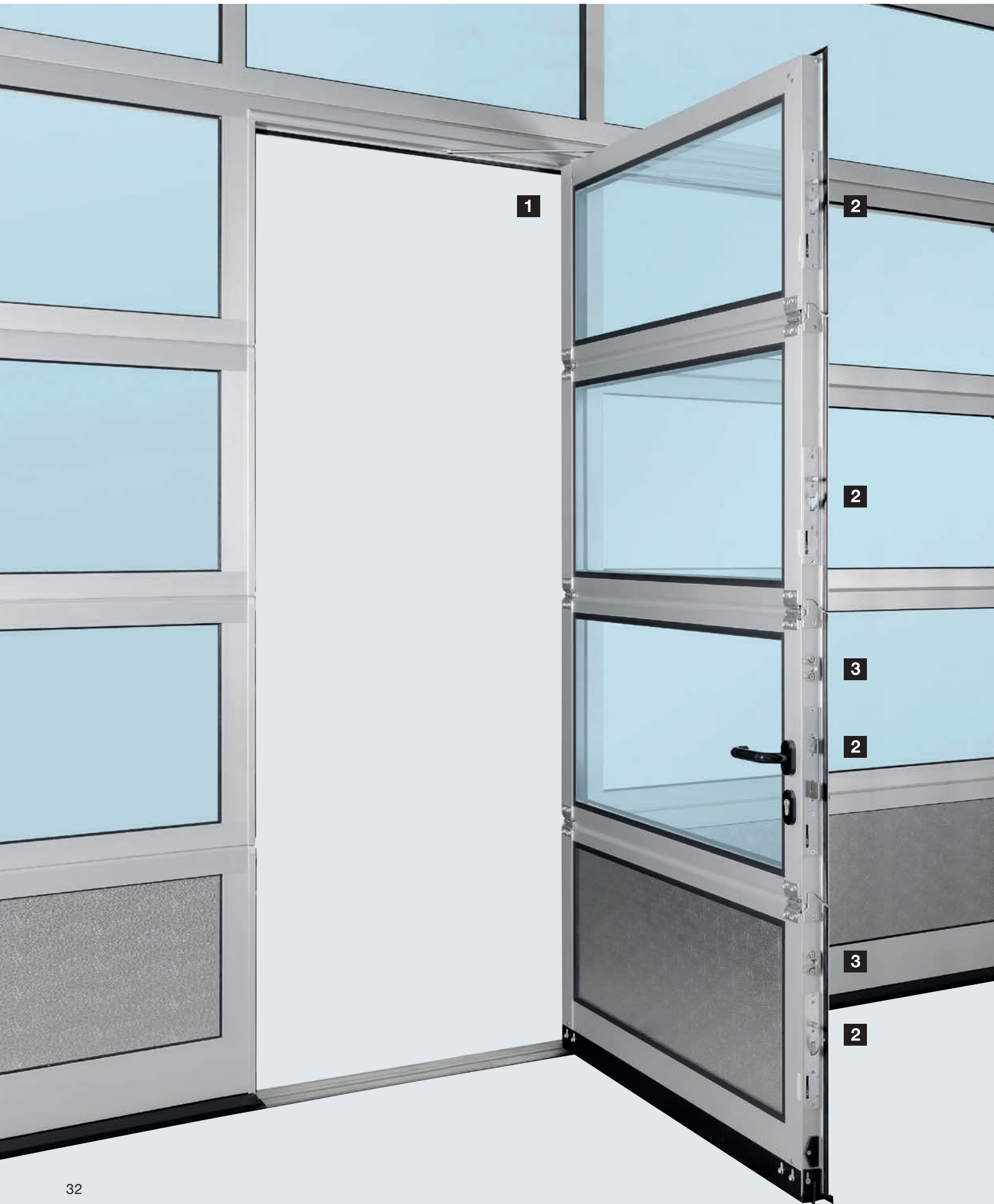


Wicket door in the centre



Wicket door to the right

Wicket Doors with Trip-Free Threshold
with high-quality equipment





Overhead Door Closers

As standard, wicket doors are supplied with slide rail door closers with optional hold-open device.



Robust door catch

This prevents door-leaf drop and buckling.



Flat wicket door frame

The all-round frame consists of a flat aluminium profile. This harmoniously integrates the wicket door into the door.



Concealed hinges

For a uniform door appearance, the wicket doors are equipped with concealed hinges as standard.



Finger trap protection

Standard on the interior and exterior of wicket door frames



Optimally sealed

The adjustable threshold profile with flexible seal compensates for unevenness in the floor.

Adjustable double seals located in the transitions from the bottom edge of the door to the floor and from the door leaf to the threshold optimally seal the bottom edge of the door and the wicket door opening.

Individual Colour Schemes

For greater design freedom



6 preferred colours for double-skinned steel sections with Stucco-textured surface

High-grade colour coating

All industrial sectional doors with Stucco-textured surface from Hörmann are available in 6 preferred colours, as well as approximately 200 colours based on RAL*.

Doors with Micrograin surface are available in RAL 9002 and RAL 9006.

Both wet coating on the interior and exterior sides and the coil coating procedure for double-skinned 42-mm sections ensure high-quality, long-lasting colour. This maintains the attractive appearance of your door.



6 preferred colours



White aluminium

RAL 9006



Grey white

RAL 9002



Anthracite grey

RAL 7016



Moss green

RAL 6005



Gentian blue

RAL 5002



Flame red

RAL 3000



Doors with double-skinned steel sections in any of the 6 preferred colours are supplied in Grey white, RAL 9002, on the inside (SPU F42 shown). The frames for sandwich glazing are black as standard on the interior of the door.



Door leaf reinforcements and the end caps of the door sections on the inside of coloured doors are supplied in Grey white, RAL 9002, as standard. For doors with wicket doors, the frame of the wicket door on the inside consists of aluminium profiles in E6 / C0.

Dark colours should not be used for double-skinned steel doors and for doors with thermal break that are exposed to the sun, as possible section deflection may restrict the door's function (bi-metal effect).

The colours shown are subject to the limitations of the printing process and cannot be regarded as binding. Contact your Hörmann specialist dealer for advice regarding coloured doors. All colours based on RAL.

* With the exception of pearl-effect and fluorescent colours. Slight colour variations are permissible.

Superior scratch-resistance and thermal insulation of Hörmann sectional door glazings

NEW
26 mm double
glazing as standard



Sensitive, common
synthetic glazing



DURATEC synthetic glazing
with maximum scratch resistance

! Hörmann Advantages

The new DURATEC glazing is available as standard and at no extra charge in all sectional doors with synthetic glazing – only from Hörmann.

A permanently clear view

With DURATEC synthetic glazing, Hörmann sectional doors retain their clear view permanently, even after multiple cleanings and heavy use.

Better protection against scratches caused by cleaning

A special surface coating, similar to that used on car headlights, protects the pane over the long-term from scratches and damage caused by cleaning.

Excellent thermal insulation as standard

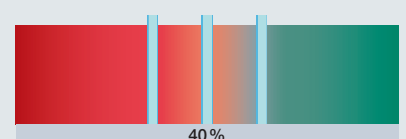
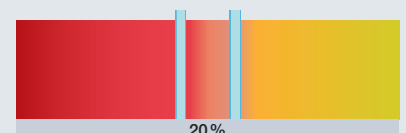
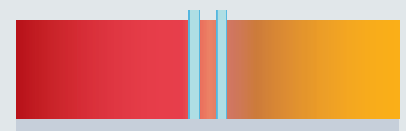
Conventional double pane, 16 mm from other manufacturers

DURATEC double pane, 26 mm

Compared with conventional 16 mm glazing, the 26 mm double pane improves thermal insulation by up to 20 %. (standard for aluminium frame glazing)

DURATEC triple pane, 51 mm

Thermal insulation is improved by up to 40 % thanks to the compound triple glazing with a pane thickness of 51 mm, compared to a 16-mm-thick glazing. (applied for optional compound triple glazing type A with thermal insulation)



More light in the building

Section window, aluminium glazing frame



1

Section window Type A

Clear view:
635 × 245 mm

Glazing frame:
Black glazing frame

Door section height:
500, 625, 750 mm (SPU)

For door type:
SPU F42
SPU F42 XL
SPU 67 Thermo

2

Aluminium glazing frame with standard window sections

Clear view:
Depending on version

Glazing frame:
Standard profile, anodised E6 / C0
(previously E6 / EV 1)

Rail extrusion:
52 mm

For door types:
SPU F42
APU F42
ALR F42



Hörmann Advantages



Maximum scratch resistance

With DURATEC synthetic glazing, Hörmann sectional doors retain their clear view permanently, even after multiple cleanings and heavy use.

1 Section window



DURATEC synthetic double pane, clear Plastic frame 33 mm
DURATEC synthetic triple pane, clear Plastic frame 51 mm

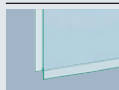
SPU F42
SPU F42 XL
SPU 67 Thermo

2 Aluminium glazing frame



DURATEC synthetic double pane, clear
26 mm ($U_g = 2.6 \text{ W} / (\text{m}^2 \cdot \text{K})$)

SPU F42
APU F42
ALR F42



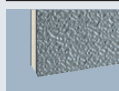
Synthetic double pane, crystal structure
with clear DURATEC inner pane
26 mm ($U_g = 2.6 \text{ W} / (\text{m}^2 \cdot \text{K})$)

SPU F42
APU F42
ALR F42



PU sandwich infill
Aluminium sheet cladding, anodised on both sides, smooth
26 mm

APU F42
ALR F42



PU sandwich infill
Aluminium sheet cladding, Stucco-textured both sides
26 mm

APU F42
ALR F42

Better view

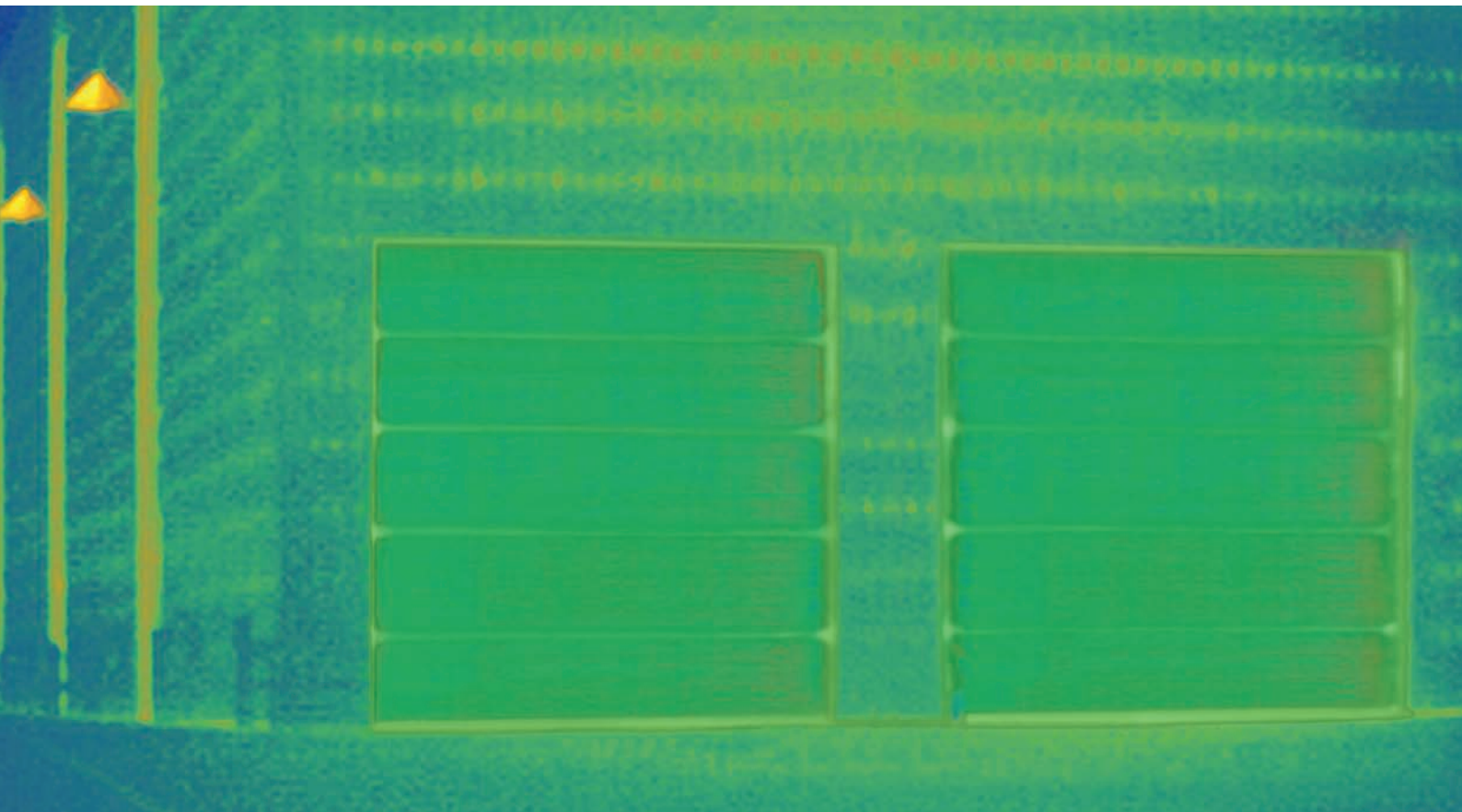
The new Duratec glazing 26 mm thick, which is delivered as standard, improved not only by better thermal insulation, but also more clear view into the building.



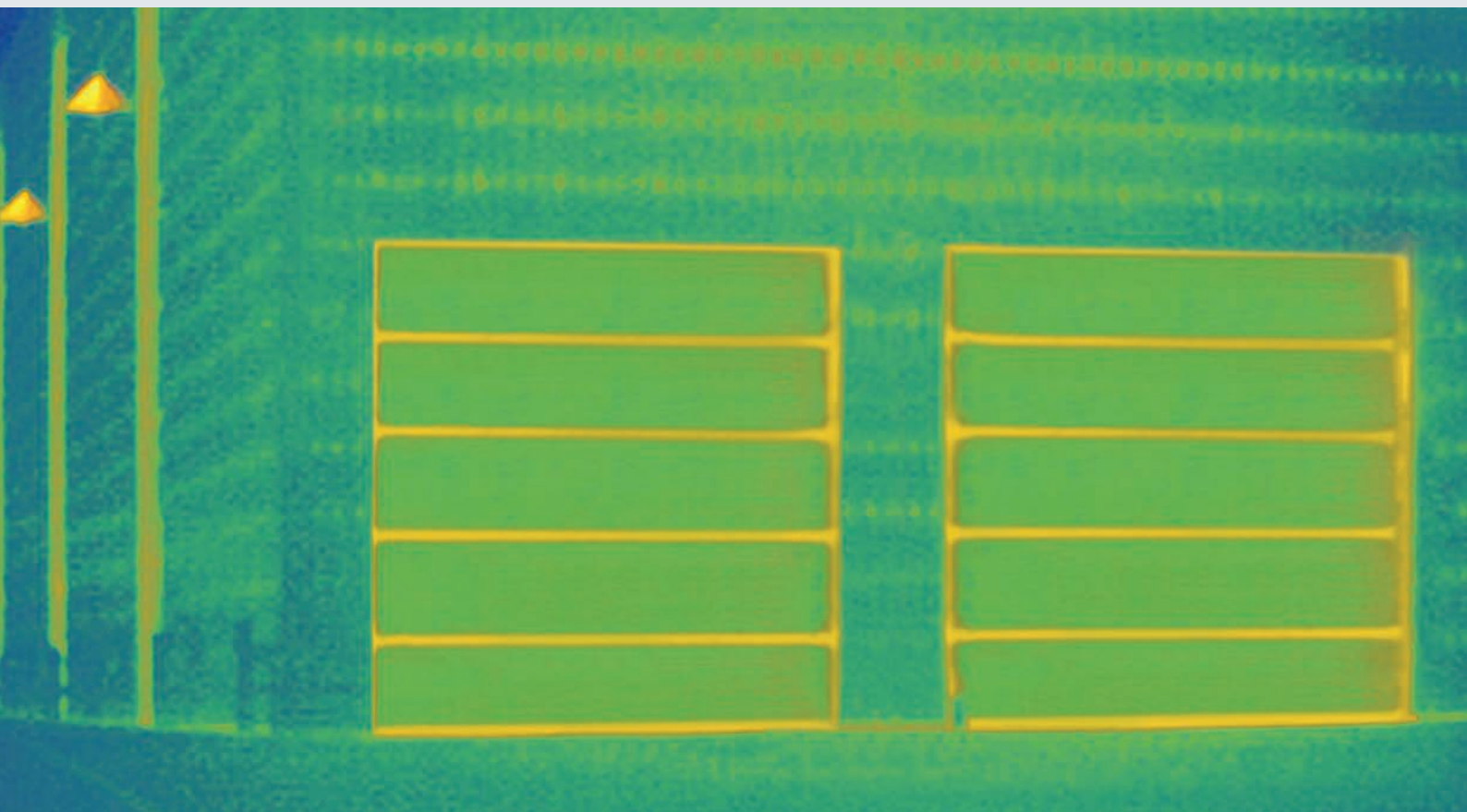
26-mm-thick glazing
without centre spacer

Efficient Thermal Insulation

With a thermal break between frame and brickwork



Optimum thermal insulation with SPU 67 Thermo



Good thermal insulation with SPU 42 Thermo

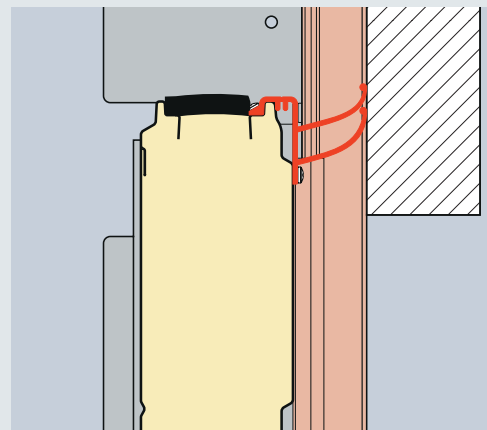
Hörmann Advantages

ThermoFrame optionally available for all industrial sectional doors

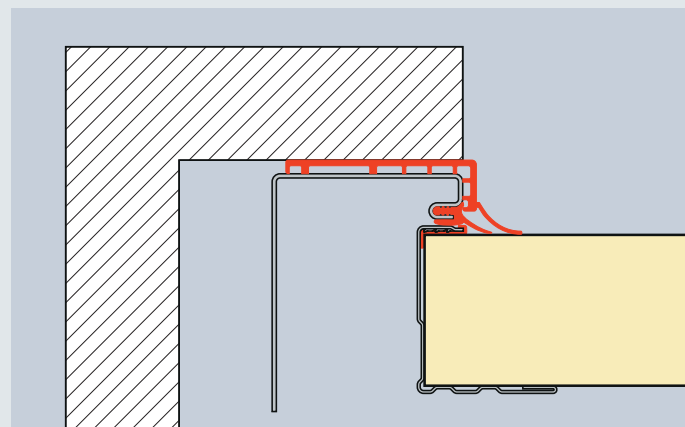
Well-insulated industrial sectional doors are essential in heated buildings. This is why Hörmann industrial sectional doors come with an optional ThermoFrame frame connection with a thermal break between the frame and brickwork.

The lip seals on both door sides and the top section of the door provide additional insulation. This way you can decrease the thermal value by up to 21 %.

- Thermal break between the frame and brickwork
- Additional seals for improved tightness
- Easy to fit along with the door frame
- Optimum corrosion-protection of the side frame
- **Up to 21 % better thermal insulation** with the SPU 67 Thermo industrial sectional door with a door surface of 3000 × 3000 mm



Lintel fitting with ThermoFrame



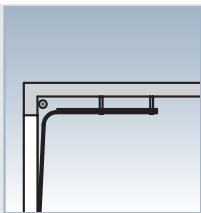
Sideroom with ThermoFrame

SPU F42	Without ThermoFrame	With ThermoFrame	Improvement
Door surface (mm)	W/(m ² ·K)	W/(m ² ·K)	%
3000 × 3000	1.22	1.07	12.3
4000 × 4000	1.10	0.99	10.0
5000 × 5000	1.03	0.94	8.7
SPU 67 Thermo			
Door surface (mm)			
3000 × 3000	0.81	0.64	21.0
4000 × 4000	0.69	0.56	18.8
5000 × 5000	0.62	0.51	17.7

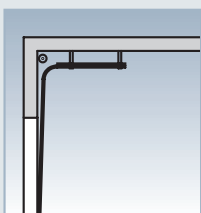
Examples of Track Versions

Sound planning for old and new buildings

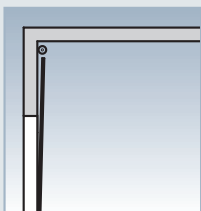




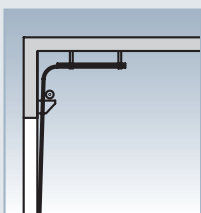
Track application N
Normal track
application



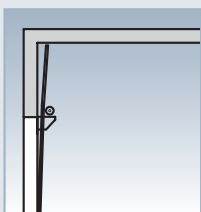
Track application H
High-lift track
application



Track application V
Vertical track
application



Track application HU
with lowmounted
spring shaft



Track application VU
with lowmounted
spring shaft



Minimum headroom

Manual operation	390 mm
Power-driven WA 300 S4 / WA 400	390 mm

Minimum sideroom

Manual operation with cable	125 mm
Manual operation with chain hoist	165 mm
Power-driven WA 300 S4 / WA 400	200 mm

The door's guidance system should in no way impede the workflow within the building. That's why choosing the correct track application is important during the planning stage. Please check the following standard and optional track applications available for all door types.

Track application	N	H	V	VU	HU
SPU F42	●	○	○	○	○
SPU F42 XL		●			
SPU 67 Thermal	●	○	○	○	

● Standard

○ Optional

The Best Proof of Quality: Advanced Technology in Every Detail

1 Quiet door travel

Hinged roller holders made of galvanized steel with adjustable plastic rollers on ball-bearings ensure precise, quiet door travel.

Particularly service-friendly

If the frame is damaged in a collision, the **bolted tracks** can be exchanged easily and inexpensively.

2 Galvanized, articulated roller holder

The articulated roller holder reduces the headroom and protects the top door section from excessive bending when the door is open.

3 Strong-holding connections

Stable centre hinges made of galvanized steel connect the individual door sections precisely.

Edge profiling of the door sections has been designed so that the screws are held by multiple layers of sheet and are resistant to tearing out.

4 Upper frame end with connecting bracket

Permanently defined positions for the spring shaft bracket make it easier to fit the entire spring shaft.

Connection of spring shaft to cable drum

A separate feather key is not required; instead, a secure diecast connection increases functional safety and is easy to fit.

The shaft is galvanized,
the springs are coated.

Flexible shaft coupling

Low variation in the axial alignment can be compensated by the flexible shaft coupling.

5 Pre-fabricated suspension

Ceiling suspension of the tracks is achieved through special anchors with slotted holes, made of galvanized steel. They are pre-fabricated as much as possible for the respective fitting situation.

6

9

2

1

11

10

SPU F42 shown



Safety Features in Accordance With European Standard 13241-1

Doors must comply with the safety requirements of European standard 13241-1.

Have this confirmed by other manufacturers!

Hörmann products are tested and certified for:

Anti-fall safeguard

6 Reliable door guidance

The rollers are guided precisely in a **safety track** developed by Hörmann. This is why the door leaf cannot fall out during the turning phase or when parked near the ceiling.

7 Optimum counterbalance

The torsion spring assembly with grooved spring shaft ensures an optimum counterbalance. As a result, the door moves easily during the entire opening and closing phase.

8 Catch safety device (depending on equipment)

This load-dependent latch device is integrated in the load carrier for protection in case a cable or spring breaks.

European patent

9 Spring safety device (depending on equipment)

Stops the torsion spring shaft if a spring breaks and securely holds the door in this position. **European patent**

Trap protection

10 Finger trap protection

The unique form of the door sections eliminates trap points on doors with a depth of 42 mm, both on the outside and inside.

11 Internally guided cables

The carrying cables are guided on the inside between the door leaf and frame. No protruding components. This virtually eliminates the risk of injuries. For doors with a low headroom track application, the load carrier consists of a carrying chain / carrying cable.

12 Side trap guards

The side frames are completely closed from top to bottom. This side trap guard is particularly safe.

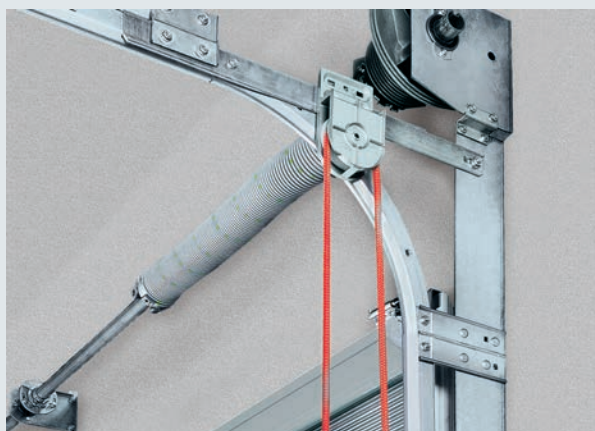
13 Closing edge safety device

With the operators WA 400, sensors monitor the bottom edge of the door and stop and reverse it in case of danger. The same effect is provided by the power limit of operators WA 300. A leading photocell or a light grille ensures particularly safe monitoring of the closing edge (for further information, see page 70). Obstructions are detected before they come into contact with the door.

Manually operated doors

With pull rope or chain hoist (not for SPU 40 XL and SPU 67 Thermo)

Optional operation options



Optional: Hand pulley with rope



Optional: chain hoist

Lock operation from inside



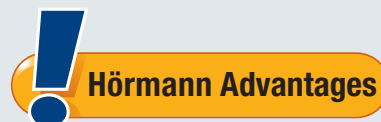
Shootbolt

Prepared for an on-site padlock for use as a secure night door.



Rotary latch

An automatic latching disc securely latches the door. Available upon request for doors with VU and HU tracks.



Lock operation from outside



Shootbolt



Rotary latch

With the handle set, the door lock can be ergonomically operated from outside. From inside, the lock is operated via a T-handle and locking pin. **A profile cylinder also be integrated into central locking systems.**



Tightly Locked and Protected Against Forced Opening

Thanks to a break-in-resistant arrestor kit

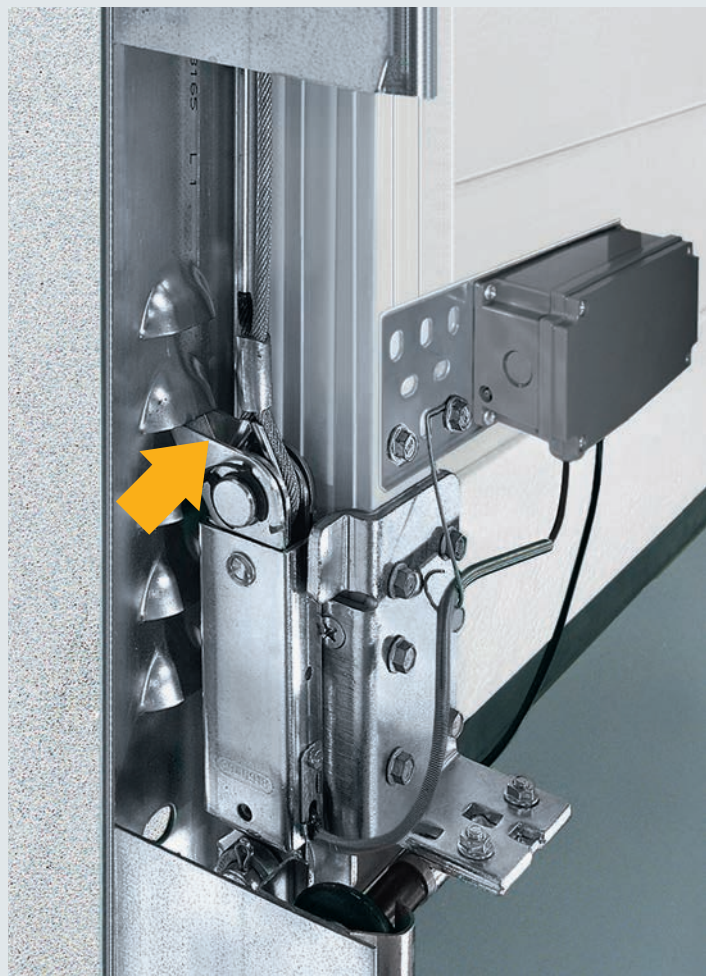
Anti-lift kit as standard up to 5 m

It is also important for industrial doors to be reliably break-in-resistant to protect your goods and machines. At Hörmann, all industrial sectional doors up to 5 m height equipped with operators WA 300 S4/WA 400 are supplied with a break-in-resistant arrestor kit as standard. This mechanical protection reliably prevents the door from being forcefully pushed open, even in case of a power failure.

Industrial sectional doors over 5 m high are break-in resistant due to their heavy weight.

Increased security for night doors

Hörmann offers optional locking systems for special protection. In power-driven doors, an additional mechanical shootbolt can be installed (see the figure on page 62). Because it is equipped with a shoot-bolt switch, the operator cannot be started if the door is locked.



The locking hook of the arrestor kit automatically latches if the door is forced upwards.

Shaft Operator WA 300 S4

With standard soft start and soft stop



Soft start / stop

For gentle and quiet door travel. This sustainably increases the service life of the door system.



Lower investments, lower consumption

The WA 300 S4 costs less than a 3-phase current operator. At the same time, daily power consumption is reduced by up to 75 %.



Simple, fast fitting and start-up

since many components have already been pre-assembled and no closing edge safety devices or cable slack switches have to be fitted.

For further information, please see the fitting data or contact your Hörmann partner.

Advantages at a glance

The new shaft operator WA 300 S4 can be fitted quickly and flexibly, as well as vertically or diagonally.

There is no need to install a closing edge safety device or similar component on the door thanks to the operator's automatic safety cut-out. This saves fitting time and reduces servicing due to damaged cables.

The operator's standard soft start and soft stop also ensure gentle and quiet door travel.

The WA 300 S4 operator is only available in combination with sectional doors without a wicket door.

Integrated control with push button DTH R

The operator WA 300 S4 can also optionally be supplied with external control 360 (prepared for traffic control).

Door sizes

Max. door width 6000 mm
Max. door height 4500 mm

Max. 150 door cycles (Open / Close) per day or max. 10 door cycles (Open / Close) per hour



Diagonal fitting variant



Vertical fitting variant

As standard for WA 300 S4

- Soft start and soft stop for gentle and quiet door travel
- Power limit in “Open” / “Close” directions
- Integrated control with push button DTH R
- Small side room of only 200 mm
- No installations or cabling required on the door*
- No cable slack switch required
- Only approx. 1 watt power consumption in stand-by mode (if no other electrical accessories are connected)



Maintenance release directly on the operator

During the statutory annual door inspection, it is not necessary for the operator to be removed from the door shaft, which saves time and money. This saves you time and money. The maintenance release can be converted to a secured release at any time.



Push button DTH R

Push button DTH R (open/stop/close) is a standard fitting for shaft operator WA 300 S4.



Optional push button control 300 U

Push button control 300 U (in the image above) forms a compact unit with dock leveller controls 420 S and 420 T. Combined with a dock leveller control with the new energy-saver function, this reduces energy consumption. Push button control 300 U is also optionally available with integrated main switch (not shown).

Optional releases



Secured release on inside
For the convenient release of the operator from the floor (European patent)



Secured release from outside ASE
To unlatch the door from the outside (required for buildings without a second entrance). Lockable diecast housing with profile half cylinder.
Dimensions:
83 × 133 × 50 mm (W × H × D)

Emergency operation
For manual operation of higher doors from 3000 mm, the manual lever is recommended. (see figure on page 49)

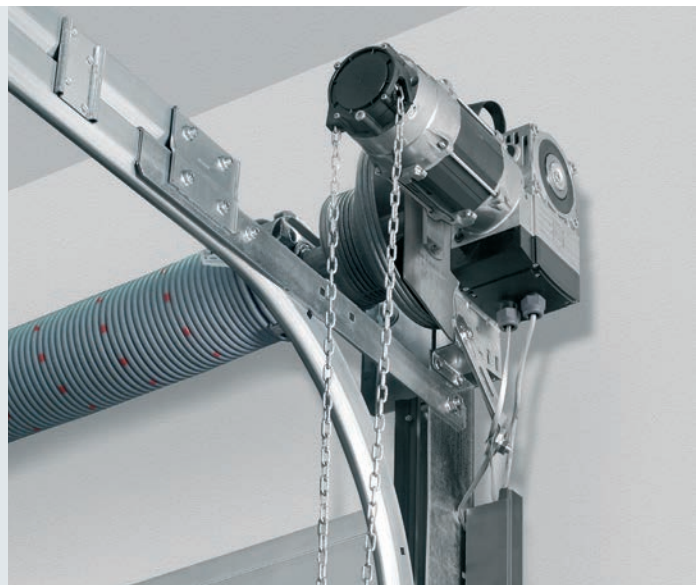
Shaft Operator WA 400, WA 400 M

Strong and robust

Operator to flange WA 400

This patented flange version is simple and quick to fit to the spring shaft and requires considerably less sideroom than the direct drive solutions from other manufacturers.

Can be combined with controls
A 445, A 460, B 460 FU



Standard fitting position: horizontal, alternatively vertical, shown with an optional emergency hand chain

Operator with chain box WA 400

We recommend the WA 400 operator with chain box for all types of doors over 5000mm or tighter lateral mounting space there is only sideroom of up to 200 mm. For applications L and LD an operator WA 400 with chain box is required. Due to the indirect transmission of forces, the door is subjected to minimum wear and friction.

Can be combined with controls
A 445, A 460, B 460 FU

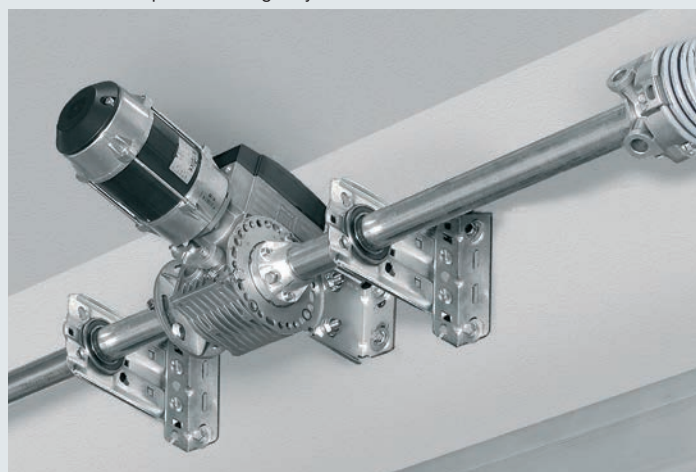


Standard fitting position vertical, shown with an optional emergency hand chain

Operator for central mounting WA 400 M

This version is mounted centrally on the spring shaft, as a result, no additional sideroom is necessary. Please observe the minimum headroom. The WA 400 M includes a secured release as a standard feature and is suitable for virtually any track application.

Can be combined with controls
A 445, A 460, B 460 FU



Central mounting, when sideroom is lacking.

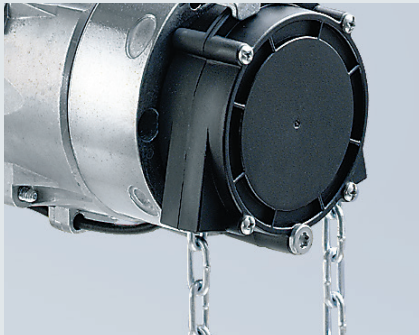
With all 3-phase current versions:

- Exceptionally smooth running
- Long on-time
- Fast door travel
- Also as an FU version



Standard maintenance release

During the statutory annual door inspection, it is not necessary for the operator to be removed from the door shaft, which saves time and money. This saves you time and money. The maintenance release can be converted to a secured release at any time.



Emergency hand chain

Through a combination of the emergency hand chain and the optional secured release, the door can be released or operated from the floor.



Emergency operation

Manual lever is recommended for doors over 3000 mm or fire stations and other necessary occasions. A secured release is required.

Optional releases



Secured release on inside
(As standard with WA 400 M)
For the convenient release of the operator from the floor (European patent)



Secured release from outside ASE
To unlatch the door from the outside (required for buildings without a second entrance). Lockable diecast housing with profile half cylinder.
Dimensions:
83 x 133 x 50 mm (W x H x D)

Leading photocell

More safety and high speeds



The non-contact, automatic safety cut-out protects people and property



Leading photocell (European patent)

There is more safety with Hörmann industrial sectional doors thanks to the optional leading VL2 photocell. The sensors monitor the bottom edge of the door and, as a result, obstructions and persons are quickly detected and the door starts to reverse before contact is made. Thanks to this technology, Hörmann sectional doors can be operated at higher speeds without the permissible closing forces being exceeded.

Two VL2 photocell sensors are situated in a leading swivel arm construction. Doors with wicket doors with trip-free thresholds require a leading VL2 photocell.

The leading VL2 photocell monitors the bottom edge of the door with two sensors for doors with a wicket door and trip-free threshold. The anti-crash protection at the sides prevents the swivel arm from being damaged when the door is closed.

Controls

Compatible system solutions



	Internal control WA 300 with standard push button DTH R	External control 360	Impulse control A 445	Comfort control A 460	FU control B 460 FU
--	--	-------------------------	--------------------------	--------------------------	------------------------

Operators

WA 300 S4	●	○			
WA 400			●	●	
WA 400 FU					●

Functions / features

Bottom edge safety device		○	●	●	●
Control and operator can be mounted separately		●	●	●	●
Adjustments made conveniently directly on the control		●	●	●	●
Soft start and soft stop for gentle and quiet door travel	●	●			●
Adjustable high-speed opening and closing (depending on tracks)	● ²⁾	● ²⁾			●
Power limit in Open and Close directions	●	●	●	●	●
Integrated Open / Stop / Close operation		●	●	●	●
Second opening height with additional button on the housing cover		●		●	●
Menu reading from outside with a double 7-segment display (maintenance, cycle and operating hours counters as well as error analysis)		●	●	●	●
Collective malfunction signalling with on-site individual display (acoustic, visual, or e.g. via mobile phone).		●	○	○	○
Automatic timer	● ⁵⁾	● ⁵⁾		●	●
Connecting terminals for additional command units	○	●	●	●	●
Power supply	230 V	230 V	400 / 230 V	400 / 230 V	230 V
Connection cable with CEE plug ¹⁾ (Protection category IP 44)	●	●	●	●	●
Main switch integrated into control housing	○ ³⁾	○	○	○	○
Protection category IP 65 (jet-water protected) for controls and door leaf components	●	●	●	●	●

Optional accessories

Remote control	○	○	○	○	○
Key switch	○	○	○	○	○
Pull switch	○	○	○	○	○
Push button DTH R/DTH RM	○	○	○	○	○
Push button DTH I/DTH IM		○		○	○
Radar		○	○	○	○
Induction loop		○	○	○	○
Warning light		○ ⁴⁾	○ ⁴⁾	○ ⁴⁾	○ ⁴⁾
Secured release	○	○	○	○	○
Photo cell EL51	○	○	○	○	○
Multi-function circuit board		○	○	○	○



Optional profile half cylinder
For all external controls



Optional Main switch
For all external controls

● As standard

○ With corresponding equipment possibly with additional control

¹⁾ For controls with integrated main switch the connecting cable is omitted

²⁾ In the Close direction during operation without SKS (during operation with SKS, the door generally travels at high speed in the Close direction)

³⁾ External main switch possible

⁴⁾ Possible in combination with multi-function circuit board

⁵⁾ Only in combination with an activating kit for warning light and photocell

Performance Characteristics According to EN 13241-1

Door types	SPU F42	SPU 67 Thermo	APU F42	ALR F42
Wind load Class according to EN 12424				
Up to door widths of 8000 mm	3 ²⁾	3 ²⁾	3 ¹⁾	3 ¹⁾
From door widths of 8000 mm		2		
Water tightness Class according to EN 12425				
	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)
Air permeability Class according to EN 12426				
Sectional door without wicket door	2	2	2	2
Sectional door with wicket door	1		1	1
Acoustic insulation R [db] according to EN ISO 717-1				
Sectional door without wicket door	25	25	23	23
Sectional door with wicket door	24		22	22
Thermal insulation U-value = W/(m ² ·K) according to EN 13241, Appendix B, for a door size of 5000 × 5000 mm				
Sectional doors with / without wicket door				
Fitted door	1.0 / 1.2	0.62 / 0.82		
With ThermoFrame	0.94 / 1.2	0.51 / 0.75		
Synthetic double panes			3.4 / 3.6	3.6 / 3.8
With ThermoFrame			3.3 / 3.6	3.6 / 3.8

¹⁾ With wicket door and door wider than 4000 mm class 2

²⁾ With compound windows, lower classes may be possible

Construction and Quality Features

● = Standard

○ = Optional

	SPU F42	SPU F42 XL	SPU 67 Thermo	APU F42	ALR F42
Construction					
Self-supporting	●	●	●	●	●
Depth, mm	42	42	67	42	42
Door sizes					
Max. width mm, LZ	8000	11400	6000	8000	8000
Max. height mm, RM	7000	4500	7500	7000	7000
Material, door leaf					
Double-skinned steel section	●	●	–	●	–
Double-skinned steel section with thermal break	–	–	●	–	–
Aluminium profile	–	–	–	●	●
Surface, door leaf					
Galvanized steel, coated RAL 9002	●	●	●	●	–
Galvanized steel, coated RAL to choose	○	○	○	○	–
Anodised aluminium E6 / C0	○	–	–	●	●
Aluminium coated in RAL to choose	○	–	–	○	○
Wicket door	○	–	–	○	○
Type A section windows	○	○	○	–	–
Aluminium glazing frames	○	–	–	●	●
Seals					
All-round on 4 sides	●	●	●	●	●
Intermediate seal between the door sections	●	●	●	●	●
ThermoFrame	○	○	○	○	○
Locking systems ¹⁾					
Internal latches	●	–	–	●	●
Outside / inside locking	○	–	–	○	○
Anti-lift kit					
For doors of up to 5 m with shaft operator	●	–	●	●	●
Safety equipment					
Finger trap protection	●	●	–	●	●
Side trap guards	●	●	●	●	●
Safety catch for doors	● ²⁾	●	● ²⁾	● ²⁾	● ²⁾
Fastening options					
Concrete	●	●	●	●	●
Steel	●	●	●	●	●
Brickwork	●	●	●	●	●
Others on request					

1) Manual door

2) Door height over 5 m

High-speed sectional doors

Fast external doors with PU insulating panels for high thermal insulation



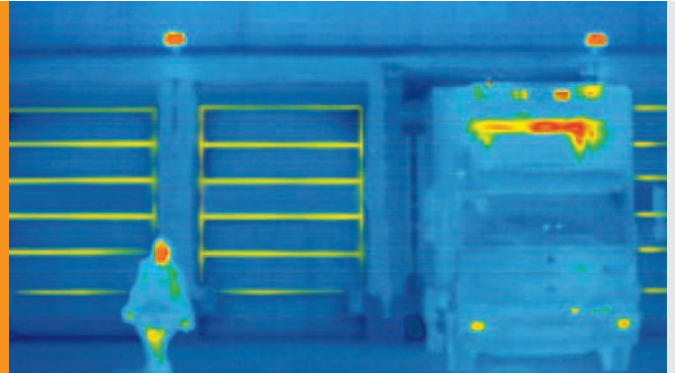
The high-speed sectional doors are characterized by their high thermal insulation, fast opening speed and light grilles as standard. The hot-galvanized, double-skinned sections with an elegant Micrograin surface finish are guided into tracks without contact, which makes the doors especially low-wear and long-lasting.

The right concepts

Efficient solution

Energy efficiency

Thermographic studies confirm that a building's openings are a particularly critical factor when it comes to energy efficiency. With proper planning and the proper equipment that matches the building's intended function, thermal loss can be kept at a minimum.



Safety

Workplace safety is quite rightfully a very important issue. Accident and health risks as well as damage to goods, vehicles and building equipment must be avoided.



Longevity

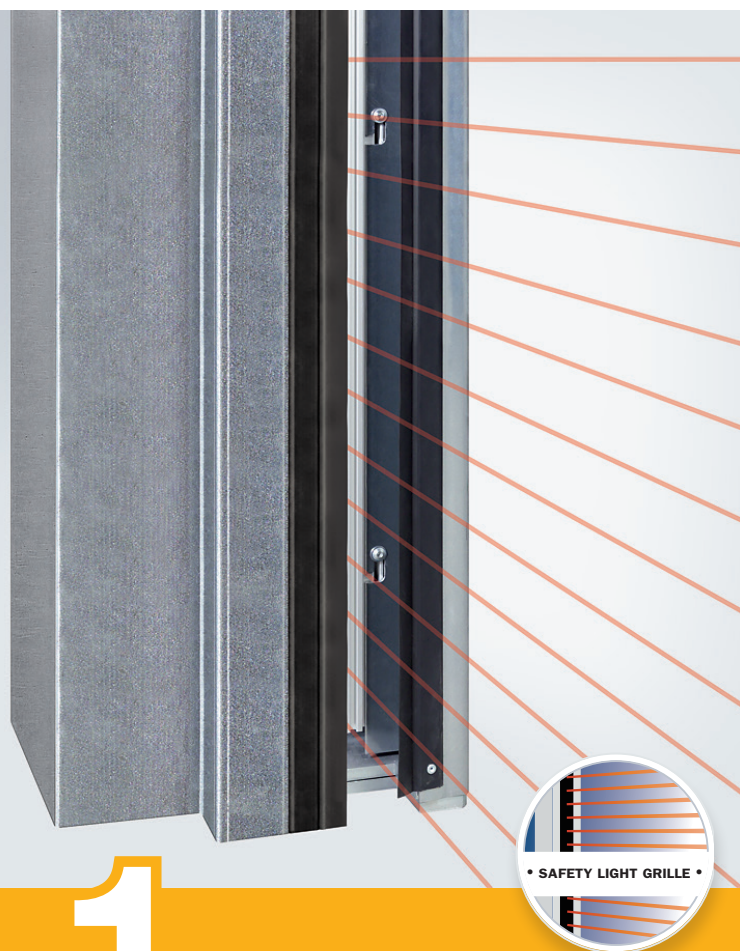
The rough nature of daily use quickly leaves its mark on the doors – quick wear and tear can require costly repairs and replacements within a very short period of time. High-quality materials, coupled with foresighted planning and the selection of suitable protection measures protect your valuable investment.



Increasing demands as to energy efficiency, safety and longevity require individually adjusted solutions. We advise you on site and recommend an economically efficient system which in terms of quality, function and reliability meets your requirements.

Good reasons to choose Hörmann

Quality features of high-speed sectional doors



1

Practical solutions

Non-contact safety

The safety light grille integrated in the frame monitors the closing zone of the door up to a height of 2500 mm. This does away with the need for additional installations on the door (e.g. closing edge safety device, photocell). Profit from this high level of safety with a high-speed door that is exceptionally easy to fit and service.

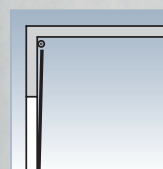
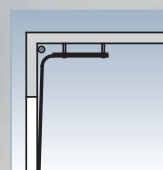
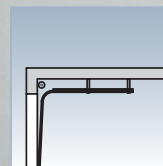


2

Optimised operations

Long service life and high efficiency as standard

The standard frequency converter control takes stress off the entire door mechanism, guaranteeing nearly wear-free, quiet door travel. The high opening and closing speeds optimise your operations and reduce heat losses. In addition, they relieve the entire door mechanism through the smooth starting and braking action which considerably extends the service life of the door.



3

A permanently clear view

Uniformly foamed steel sections

Hot-galvanized, double-skinned sections with PU rigid foam infill provide for particularly high thermal insulation, resulting in a U_D value of $1.95 \text{ W} / (\text{m}^2 \cdot \text{K})^*$. The doors are supplied as standard in White aluminium (RAL 9006). The exterior is characterised by the fine Micrograin lines, on the interior the sections are Stucco-textured.

Optional glazing

26-mm-thick DURATEC double glazing guarantees maximum scratch resistance and excellent thermal insulation values. An aluminium rail construction in natural finish E6 / C0 divides the glazing using stabilising intermediate spacers.

4

Variety of choices

Adapted to any building

3 different track applications are available for the high-speed sectional doors, including N, H, and V track applications.

The sections can be diverted flexibly depending on the fitting situation, even vertically on the wall of the hall. This design enables the high-speed sectional doors adapt to all kinds of openings.

* For 25 m^2 door surface

High-speed sectional door HS 5015 PU N

With normal track application



The space-saving track application

For tight spaces in the lintel area, we recommend track application N. A chain mechanism with spring compensation runs the sections into horizontal tracks. This requires a low headroom of min. 480 mm.



External door / internal door	HS 5015 PU N
Size range	
Max. width (LDB)	5000 mm
Max. height (LDH)	5000 mm
Speed	
With standard FU control AK 500 FU E-1	
Max. opening speed	1.5-2.5 m/s
Max. closing speed	0.5 m/s
Emergency opening / emergency closing	
Emergency hand chain	
Door leaf	
Material	Steel sandwich construction, PU-foamed, DURATEC glazing optional
Depth	42 mm
Section height	225 mm
Hinge connections from approx. 3500 mm door width	
Resistance to wind load (EN 12424)	
Class 4, max. 133 km/h	
Acoustic insulation (EN 717-1)	
(Without glazing)	R = 26 dB
Thermal insulation (EN 12428)	
For 25 m ² door size	U _D = 1.95 W/(m ² ·K)
Door leaf colors**	
Available in over 200 colors based on RAL.	
** With the exception of pearl-effect, fluorescent colors. Dark colors should not be used for doors that are exposed to the sun, as possible section deflection may restrict the door's function.	

High-speed sectional door HS 5015 PU H

With high-lift track application



The adjustable track application

The sections are guided in horizontal tracks and can be diverted flexibly depending on the fitting situation. Thus, the door can be fitted behind or above supply lines and crane tracks. Thanks to the belt mechanism with counterweights, the door is especially low-wear and long-lasting.



External door / internal door	HS 5015 PU H
Size range	
Max. width (LDB)	5000 mm
Max. height (LDH)	6000 mm
Speed	
With standard FU control AK 500 FU E-1	
Max. opening speed	1.5-2.5 m/s
Max. closing speed	0.5 m/s
Emergency opening / emergency closing	
Emergency hand chain	
Door leaf	
Material	Steel sandwich construction, PU-foamed, optionally with DURATEC glazing
Depth	42 mm
Section height	225 mm
Hinge connections from approx. 3500 mm door width	
Resistance to wind load (EN 12424)	
Class 4, max. 133 km/h	
Acoustic insulation (EN 717-1)	
(Without glazing)	R = 26 dB
Thermal insulation (EN 12428)	
For 25 m ² door size	U _D = 1.95 W/(m ² ·K)
Door leaf colors**	
Available in over 200 colors based on RAL.	
** With the exception of pearl-effect, fluorescent colors. Dark colors should not be used for doors that are exposed to the sun, as possible section deflection may restrict the door's function.	

High-speed sectional door HS 6015 PU V

With vertical track application



Dependable with minimum wear

The sections run vertically on the wall of the hall, ensuring that the door cycles are very quiet and wear-free. The belt mechanism with counterweights guarantees a long service life with constant use.



External door / internal door	HS 6015 PU V
Size range	
Max. width (LDB)	6500 mm
Max. height (LDH)	6000 mm
Speed	
With standard FU control AK 500 FU E-1	
Max. opening speed	1.5-2.5 m/s
Max. closing speed	0.5 m/s
Emergency opening / emergency closing	
Emergency hand chain	
Door leaf	
Material	Steel sandwich construction, PU-foamed, DURATEC glazing optional
Depth	42 mm
Section height	225 mm
Hinge connections from approx. 3500 mm door width	
Resistance to wind load (EN 12424)	
Class 4, max. 133 km/h	
Acoustic insulation (EN 717-1)	
R = 26 dB	
Thermal insulation (EN 12428)	
For 25 m ² door size	U _D = 1.95 W/(m ² ·K)
Door leaf colors**	
Available in over 200 colors based on RAL.	
** With the exception of pearl-effect, fluorescent colors. Dark colors should not be used for doors that are exposed to the sun, as possible section deflection may restrict the door's function.	

FU controls



AK 500 FUE - 1

FU control in plastic cabinet IP 54
three-phase, 400 V

Operation

Open-Stop-Close membrane push button, emergency-off button, 4 × 7-segment display for information on door functions, lockable main switch

Function

Automatic timer, adjustable hold-open phase, safety light grille, closing edge safety device, stop / reopen

Impulse generator

Push button, pull switch, mushroom button, radar presence detector, slots for induction loop detector and remote control

Extension options

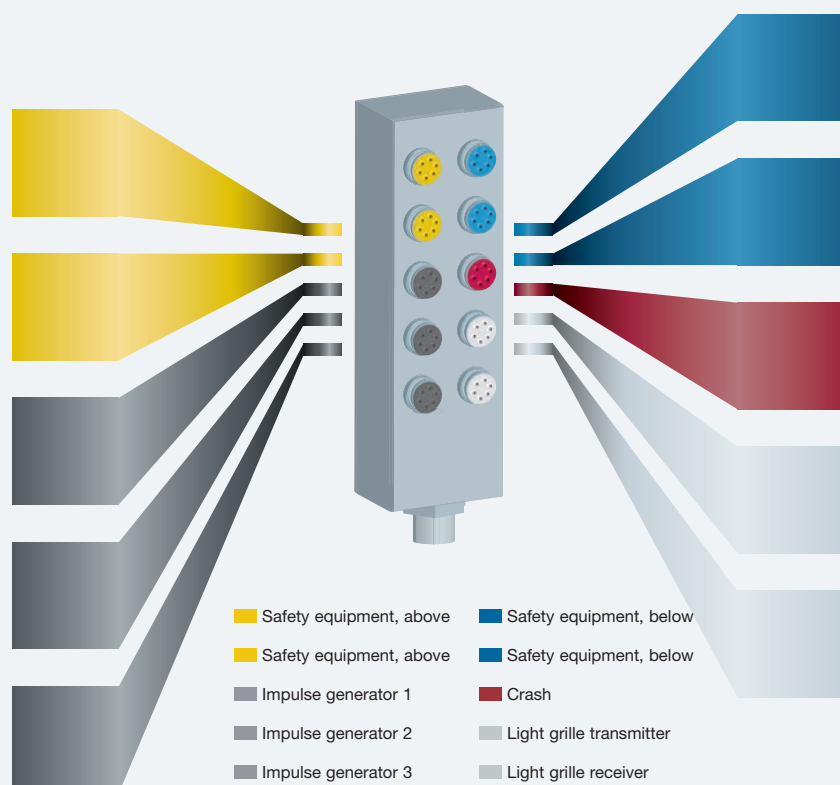
Traffic light, flashing warning light, locking, intermediate stop, extension circuit board

Wiring

Connecting lead 3 ~ 400 V, N, PE, fuse 16 A, slow-acting, plug-in connection between door operator and control cabinet, connecting lead cross section 5 × 2.5 mm² (depending on national standards), colour-coded plug-in control wiring

Housing dimensions

230 × 460 × 200 mm



Colour-coded plug-in control wiring

- Wiring of the operator via a distributor box
- Wiring of the operator and control through a simple plug-in connection
- Easy connection of accessory components and safety devices through colour-coded plug-in connections and connection wires
- Fitting time reduced for electrical wiring of the door
- As standard, no wiring with terminal screws is required for control and operator, e. g. for the pull switch or the light grille

Overview of door types

Construction and quality features

Use	Internal door		
	External door		
Speed	FU control (3-phase)	Max. opening speed approx. m/s	
		Max. closing speed approx. m/s	
Security features	DIN EN 13241-1		
Resistance to wind load	DIN EN 12424		
Resistance to water penetration	DIN EN 12425		
Air permeability	DIN EN 12426		
Transmission of heat	DIN EN 12428		
Acoustic insulation	DIN EN 52210 dB		
Door sizes	Max. width LDB		
	Max. height LDH		
For fitting dimensions (space requirement) see the Technical Manual			
Door construction	Self-supporting		
Door leaf counterbalance	Supporting		
Door leaf	Section, double-skinned, 42 mm		
	Foamed door leaf		
Door leaf material / surface	Steel, RAL 9006		
	Wet coating in RAL to choose		
Glazing	Aluminium rail window, anodised aluminium E6 / EV1 with double synthetic panes		
Operator and control	Frequency converter control		
	Connecting voltage		
	3-phase		
	Open-Stop-Close button		
	Main switch with all-pole switch-off		
	Fuse protection		
	3-phase		
	Protection category for operator and control		
	Emergency-OFF button		
	3-phase		
	Closing edge safety device with energy chain		
	Closing zone monitoring	Safety light grille IP 67	
	Door area monitoring	Radar presence detector	
		Induction loop	
	Emergency opening	Hold-open phase in sec.	
		Electronic limit switch DES	
Emergency crank handle			
Emergency hand chain			
Volt-free contacts / impulse generator / safety devices	Counter weight / spring		

● = Standard

○ = Optional

HS 5015 PU N	HS 5015 PU H	HS 6015 PU V
●	●	●
●	●	●
1.5-2.5	1.5-2.5	1.5-2.5
0.5	0.5	0.5
●	●	●
Class 4	Class 4	Class 4
Class 3	Class 3	Class 3
Class 0	Class 0	Class 0
1.95 W/(m²·K)	1.95 W/(m²·K)	1.95 W/(m²·K)
26	26	26
5000	5000	6500
5000	6000	6000
–	–	–
●	●	●
●	●	●
●	●	●
●	●	●
○	○	○
○	○	○
●	●	●
3–400 V, N, PE	3–400 V, N, PE	3–400 V, N, PE
●	●	●
●	●	●
20 A, slow-acting	20 A, slow-acting	20 A, slow-acting
IP 54	IP 54	IP 54
●	●	●
–	–	–
●	●	●
○	○	○
○	○	○
1–200	1–200	1–200
●	●	●
–	–	–
●	●	●
–/–	–/–	–/–
○/○/○	○/○/○	○/○/○

Accessories



**4-button
hand transmitter
HS 4 BS**



**1-button
hand transmitter
HS 1 BS**



**4-button
hand transmitter
HSE 4 BS
Black**



**2-button
hand transmitter
HSE 2 BS
White**



**2-channel receiver
HEI 3 BS**
For controlling
3 functions

**For control 360 and integrated
control WA300 S4
For control A 445, A460, B 460 FU**



**1-channel relay receiver
HER 1 BS**
with potential-free relay output
in a separate housing without
connection cable



**4-channel relay receiver
HER 4 BS**
With 4 volt-free
relay outputs



Push button DTH R
For separate control of both
operational directions, with
separate stop button.
Protection category: IP 65
Dimensions:
90 × 160 × 55 mm (W × H × D)

**For control 360 and
integrated
control WA300 S4
For control A 445, A460,
B 460 FU**



Push button DTH RM
For separate control of both
operational directions, with
separate stop button.
With miniature lock: Operator is
deactivated. It is not possible to
move the operator (2 keys
included in the scope of
delivery).
Protection category: IP 65
Dimensions:
90 × 160 × 55 mm (W × H × D)

**For control 360 and integrated
control WA300 S4
For control A 445, A460,
B 460 FU**



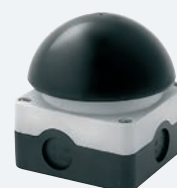
Emergency-off button DTNG 10
To quickly immobilise the door.
Push-to-lock mushroom button
Surface-mounted
Dimensions:
93 × 93 × 95 mm (W × H × D)
Protection category: IP 65

**For controls:
A 445, A 460 and B 460 FU**



2-key push button
For separate control of both
operational directions.
Protection category: IP 44
Dimensions:
70 × 118 × 65 mm (W × H × D)

For control AK 500 FUE-1



Palm / mushroom button
With large operating surface
Plastic housing, IP 65

For control AK 500 FUE-1

Accessories



Pull switch with plastic pull cord

Horizontal or vertical fitting possible, aluminum die-cast housing IP 65, cord length 4 m



Comfort radar / presence detector

Radar movement and presence detection with infrared detection. Fast and targeted automatic door opening. Reliable advance protection.

Up to max. 6 m height. In areas with high levels of humidity and in outside areas, only the radar function is available.

Housing: protection category IP 65.

For control 360

For control A 445, A460, B 460 FU

For control AK 500 FUE-1



Key switch with 3 keys

Recessed version **STUP 30**

Impulse or OPEN / CLOSE

function selectable

Dimensions of switch box:

60 mm (d), 58 mm (D)

Dimensions of cover:

80 x 110 mm (W x H)

Wall recess:

65 mm (d), 60 mm (D)

Protection category: IP 54

Surface-mounted version **STAP 30**

Dimensions:

80 x 110 x 68 mm (W x H x D)

For control 360 and integrated control WA300 S4

For control A 445, A460, B 460 FU



Induction loop DI 2

in a separate additional housing

Suitable for two separate induction loops. The detector has two voltage-free normally open contacts. Can be set for impulse or permanent contact.

Directional recognition possible.

Dimensions of additional housing:

202 x 164 x 130 mm (W x H x D)

Switching capacity:

DI 2: 250 V AC, 4 A, 1000 VA, (resistive AC)

Supplied with loop cable



Loop cable for induction loop

50 m roll

Cable designation: SIAF

Cross-section: 1.5 mm²

Colour: brown

For control 360

For control A 445, A460, B 460 FU

For control AK 500 FUE-1



One-way photocell EL 51

Photocell with separate transmitter and receiver.

The photocell is tested by the control prior to each closing cycle.

Connected via a system cable.

Max. range 8.0 m

Dimensions with fitting bracket:

60 x 165 x 43 mm (W x H x D)

Protection category: IP 65

For control 360 and integrated control WA300 S4

For control A 445, A460, B 460 FU



Red/green warning lights

In steel housing, with fitting bracket, IP 65

Circuit board needed

For control 360

For control A 445, A460, B 460 FU

For control AK 500 FUE-1



Rotating warning light

Yellow, in plastic housing, IP 54

Circuit board needed

For control 360

For control A 445, A460, B 460 FU

For control AK 500 FUE-1

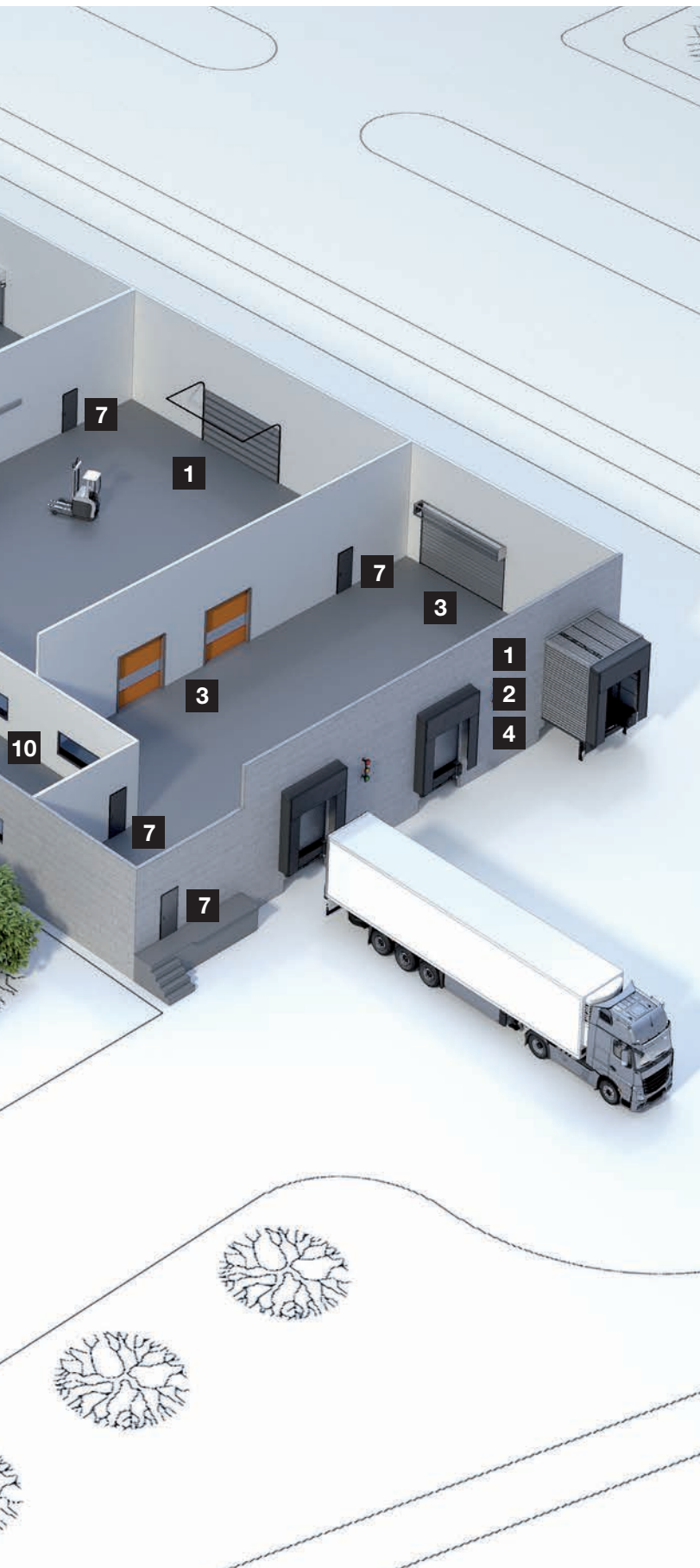
Hörmann product range

Everything from a single source





Quick service with testing,
maintenance and repairs!



1 Industrial sectional doors

2 Rolling shutters and rolling grilles

3 High-speed doors

4 Loading technology

5 Garage doors

6 Steel tubular doors

7 Fire-rated doors and mutipurpose doors

8 Wooden interior doors with steel frame

9 Steel interior doors

10 Insect protection systems

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The comprehensive manufacturing, sales and service network in Europe, Asia and America makes Hörmann your strong international partner for the high-quality construction.

“Quality without Compromise”.

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OPERATORS

DOORS

PARTITION WALLS

INDUSTRIAL DOORS

LOADING TECHNOLOGY

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