



## SPU 40

## Sturdy double-skinned steel door with good thermal insulation

### For use in heated halls

Industrial doors must not only be extremely sturdy, they also must exhibit good thermal insulation characteristics. Hörmann's SPU 40 door is a proven sectional door made of steel sections that optimally fulfils these requirements. Thanks to a combination of steel and PU rigid foam, the door leaf is both robust and insulating.

### The elegant Micrograin surface // NEW

With its delicately lined profile, and a smooth surface with subtle ribbing at the section seams, this impressive new surface complements the elegance of modern architecture.

### Exquisite workmanship

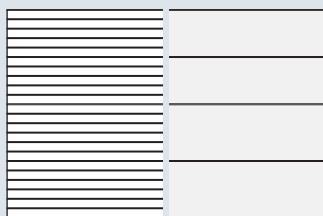
The hollow space in the double-skinned door leaf is uniformly foam-filled, which binds the 100% HCFC-free polyurethane rigid foam to the steel shell. This 42-mm-thick insulating core provides for the convincing robustness and thermal insulation. The surface of SPU 40 doors is Stucco-textured as standard, but the door is also optionally available in an elegant Micrograin version. Depending on the overall height of the door, sections are provided in the height combinations 625/750 mm and 375/500 mm. Optional glazing provides natural light inside. Secure and practical pedestrian passage is possible with an additional wicket door with trip-free threshold.





## Numerous planning options for builders and logistics companies

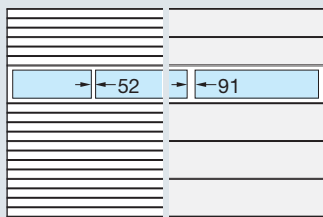
### Door versions (examples\*)



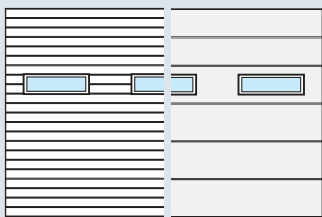
Door version without glazing  
Door section heights: 375, 500, 625, 750 mm



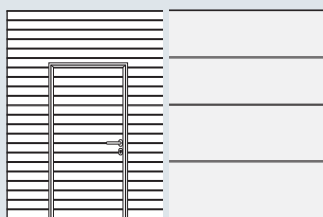
With compound window type A  
Door section heights: 500, 625, 750 mm



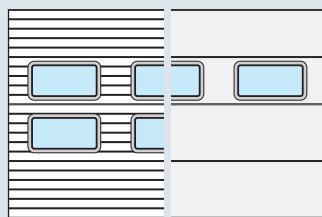
With aluminium glazing frame  
Frame height: 500, 625, 750 mm  
Model **N** with narrow window sections and model **B** with wide window sections



With compound window type D  
Door section heights: 500, 625, 750 mm



Doors with wicket door and without trip-free threshold are available in widths up to 7000 mm.



With compound window type E  
For door section heights: 625, 750 mm

### Technical data

#### Size range

Width up to 8000 mm  
Height up to 7000 mm

#### Resistance to wind load

Class 3



#### Water-tightness

Class 3 (70 Pa)



#### Air permeability

Class 2 (with wicket door category 1)



#### Sound insulation

R = 22 dB



#### Thermal insulation

For 25 m<sup>2</sup> door surface without wicket door U = 1.0 W/m<sup>2</sup>K  
For 25 m<sup>2</sup> door surface with wicket door U = 1.2 W/m<sup>2</sup>K  
Section: U = 0.5 W/m<sup>2</sup>K



<sup>1)</sup> EN 12424; <sup>2)</sup> EN 12425; <sup>3)</sup> EN 12426; <sup>4)</sup> EN 717-1;  
<sup>5)</sup> EN 13241, annex B EN 12428

**Safety features in acc. with EN 13241-1 are listed on page 45.**

Please refer to the technical manual for further information.

\* Figure with Stucco-textured surface at left and Micrograin surface at right



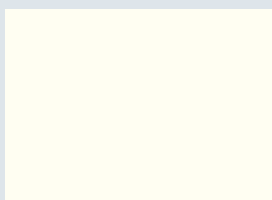
## Coloured doors highlight corporate design

**14 preferred colours!**

**No surcharge for double-skinned steel sections – take advantage of this discount!**



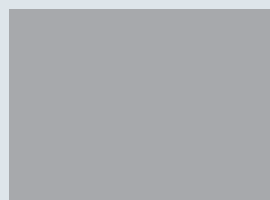
Traffic white RAL 9016



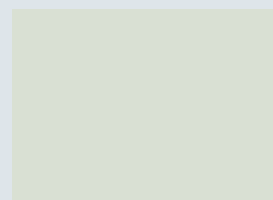
Pure white RAL 9010



Grey aluminium RAL 9007



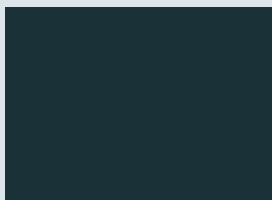
White aluminium RAL 9006



Grey white RAL 9002



Terra brown RAL 8028



Anthracite grey RAL 7016



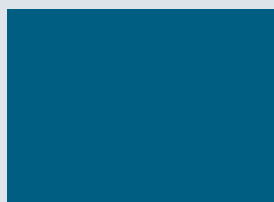
Moss green RAL 6005



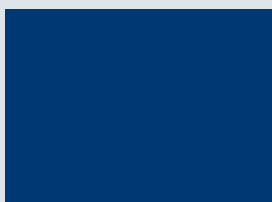
Leaf green RAL 6002



Gentian blue RAL 5010



Azure blue RAL 5009



Ultramarine blue RAL 5002



Flame red RAL 3000



Rape yellow RAL 1021

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.





Colours are increasingly being used to fly the company flag. In this regard, coloured industrial doors are an ideal vehicle.



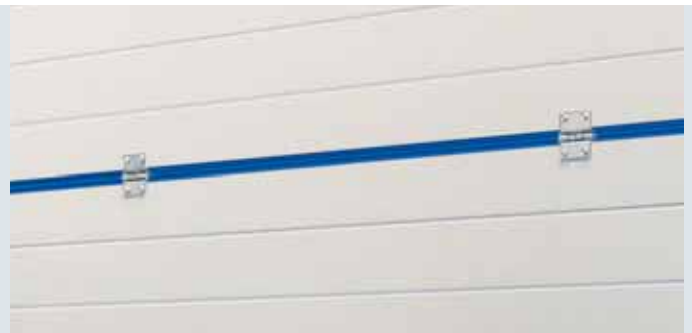
All industrial sectional doors from Hörmann are available in 14 preferred colours, as well as approximately 200 colours based on RAL and NCS\*.

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

Pearlescent, fluorescent and metallic colours are not available. Avoid dark colours if double-skinned steel doors and doors with thermal breaks are exposed to the sun. Section distortion can inhibit door function (bi-metal effect).

The galvanized subframe and fittings are not factory-coated. Anodised profiles for the wicket door and glazing beads can be optionally coated. The frames for section windows and compound windows are black as standard. Door leaf reinforcements and end caps are Grey white (similar to RAL 9002) as standard.

\* With the exception of pearl-effect, fluorescent and metallic colours. Slight colour variations are permissible. All colours are based on RAL/NCS.



Doors with double-skinned steel sections in any of the 14 preferred colours are Grey white (similar to RAL 9002) on the inside).



## For more light in the building



### Maximum scratch resistance

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



#### Vision panel type A

**Clear view:**  
635 x 245 mm

**Glazing frames:**  
Black plastic frame or black diecast frame

**Door section heights:**  
500 mm (DPU)  
500, 625, 750 mm (SPU)

#### Vision panel type D

**Clear view:**  
602 x 132 mm

**Glazing frames:**  
Black plastic frame

**Door section heights:**  
500, 625, 750 mm

#### Vision panel type E

**Clear view:**  
725 x 370 mm

**Glazing frames:**  
Black plastic frame

**Door section heights:**  
625, 750 mm



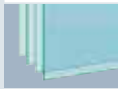
DURATEC synthetic double panes, clear  
29-mm SPU diecast frame  
33-mm SPU plastic frame  
43-mm DPU diecast frame

SPU, DPU



DURATEC synthetic triple pane,  
clear, 43-mm DPU diecast frame

DPU



DURATEC synthetic quadruple  
pane, clear, 43-mm DPU diecast  
frame

DPU



DURATEC polycarbonate  
double pane, clear, impact-  
resistant, break-in-resistant  
29-mm SPU diecast frame  
33-mm SPU plastic frame

SPU



### Maximum scratch resistance

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



### Aluminium glazing frame

**Clear view:**  
Depending on version

**Glazing frames:**  
Normal profile or profile with thermal breaks, anodised E6/C0 (previously E6/EV1)


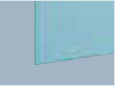




















**Rail extrusion:**  
52/91 mm  
100 mm (DPU)

### Aluminium glazing frame with slim profile

**Clear view:**  
Depending on version

**Glazing frames:**  
Normal profile, anodised E6/C0 (previously E6/EV1)

**Rail extrusion:**  
65 mm

		DURATEC synthetic pane, clear, 3 mm	APU, ALR, SPU	
		DURATEC synthetic double panes, clear, 26 mm (45 mm with DPU)	APU, TAP, ALR, TAR, SPU, DPU	ASP, ASR
		DURATEC synthetic triple panes, clear, 26 mm (45 mm with DPU)	APU, TAP, ALR, TAR, SPU, DPU	ASP, ASR
		DURATEC synthetic quadruple panes, clear, 45 mm	DPU	
		DURATEC polycarbonate pane, clear, impact-resistant, break-in-resistant, 6 mm	APU, ALR, SPU	
		DURATEC polycarbonate double pane, clear, impact-resistant, break-in-resistant, 26 mm	APU, TAP, ALR, TAR, SPU	ASP, ASR
		Synthetic pane, crystal structure, 3 mm	APU, ALR, SPU	
		Synthetic double pane, crystal structure, with clear DURATEC inner pane, 26 mm	APU, TAP, ALR, TAR, SPU	ASP, ASR
		Single pane laminated safety glass, clear, 6 mm	APU, ALR, ALS, SPU	
		Double pane single-layer safety glass, clear, 16 mm	APU, ALR, ALS, SPU	
		Double-moulded pane (extremely sturdy panes), 16 mm	APU, TAP, ALR, TAR, SPU	
		Expanded mesh, galvanized steel, powder-coated, ventilation cross section: 58% of the infill surface	APU, ALR, SPU	
		Perforated steel sheet, smooth stainless steel, ventilation cross section: 40% of the infill surface	APU, ALR, SPU	
		Aluminium sheet infill, Stucco-textured, 1.5 mm	ALR	
		PU sandwich infill, aluminium sheet cladding, anodised on both sides, smooth, 26 mm	ALR, TAR	ASR
		PU sandwich infill, aluminium sheet cladding, Stucco-textured on both sides, 26 mm	ALR, TAR	ASR



**Sound planning for old and new buildings**

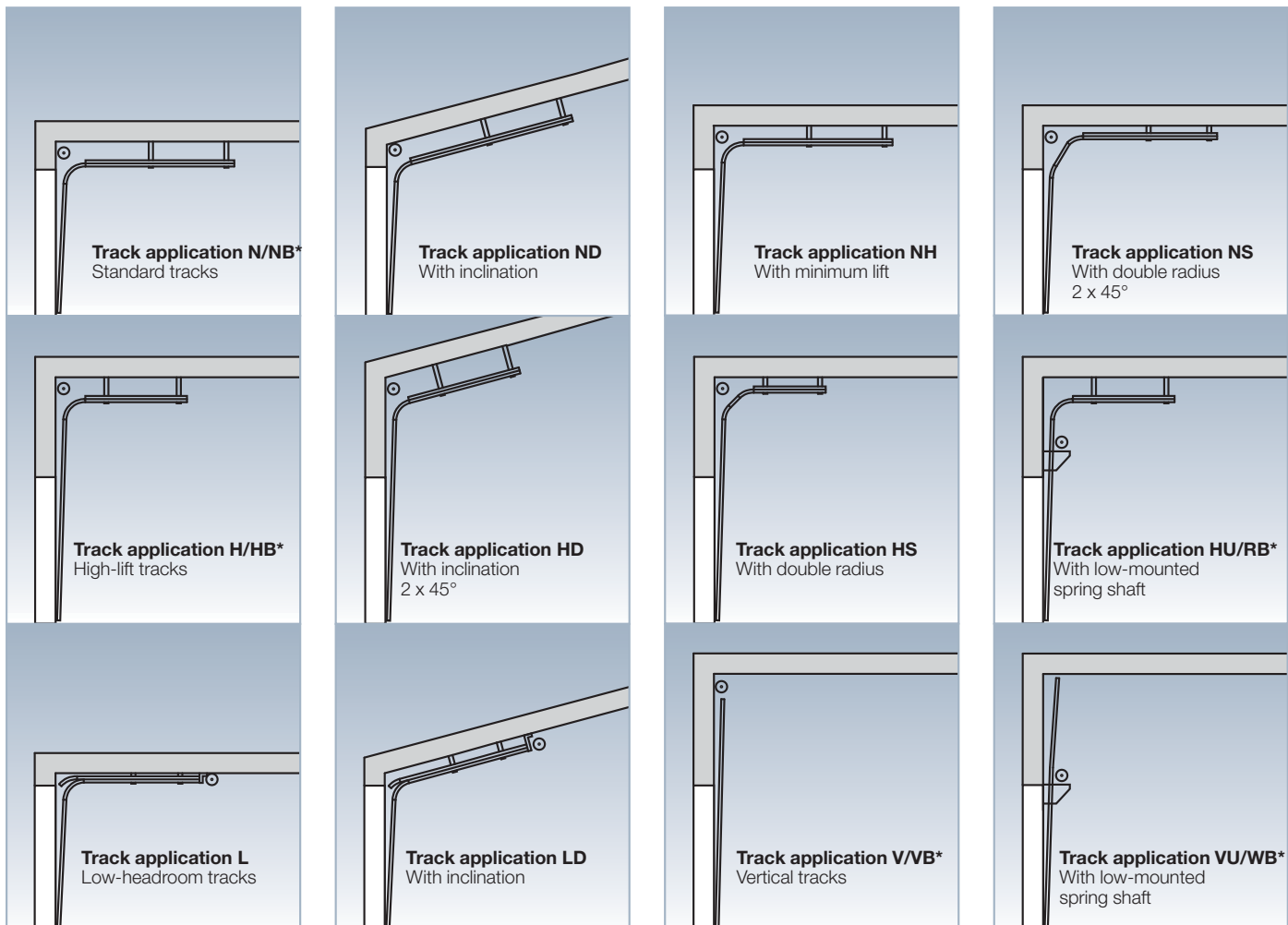
The door's guidance system should in no way impede the workflow within the building. That's why choosing the correct track application is important during the planning stage. With Hörmann, all the different track applications are available for all door types.

**Please refer to the technical manual for all the possible track variants.**



**Hörmann sectional doors can be adapted to any building**

**Examples of possible track versions**



\*For door type DPU

**Optimised roller guide**

An optimum solution has been found for guiding the door. This allows the use of low-headroom tracks with an inclination of less than 10°.

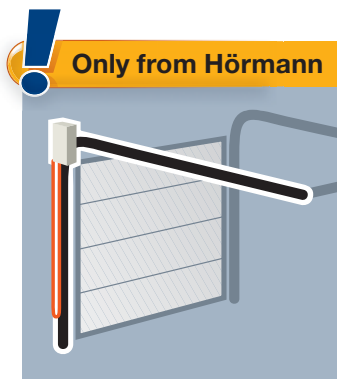
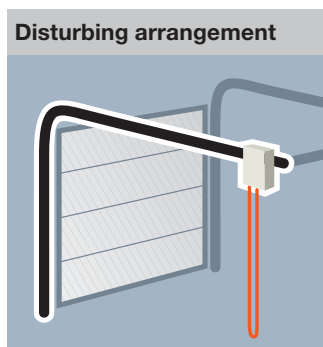


## Low-headroom tracks

**Operator and chain where they belong**

All the control elements are on the front of the door. A disturbing chain no longer dangles down.

**It pays to compare!**



**Minimum headroom**

Manual operation	200 mm
Power-driven WA 400	200 mm
Power-driven ITO 400	260 mm

**Minimum sideroom**

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

In underground garages and collective garages, we recommend using a low-noise FU operator.







## Sectional doors with operators – Safety as standard thanks to a break-in resistant door security kit

### Tightly locked and protected against forced opening

All Hörmann power-driven industrial sectional doors up to 5-m high come with a break-in resistant door security kit as standard. This mechanical protection reliably prevents forced opening of the door, even in the case of a power failure.

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

In sectional doors with chain drive operators, self-locking gearboxes protect against forced opening.

### Increased security for night doors

In power-driven doors, an additional mechanical shootbolt can be installed. Because it is equipped with an electrical interrupter contact, the operator cannot be started if the door is locked (see figure on page 43).



The locking hook of the door security kit automatically latches when the door is forced upwards.



## Standard locking for manually-operated doors

### Shootbolt

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



**Only from Hörmann**

### Rotary latch

An automatic latching disc securely latches the door. On request for doors with VU/WB and HU/RB tracks (with spring shaft at bottom).



### Floor locking

Extremely practical for frequently used doors. Convenient foot release. The automatic latch audibly engages when closed.



## The door handle

### Lock operation from outside

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



Shootbolt



Rotary latch



Shootbolt



Rotary latch

### Recessed handle set

Vertical door guidance, ideal for logistics applications, thanks to a flat design and flexible installation height (dock doors). You can operate two functions with the locking cylinder: **permanently unlocked door and automatic re-locking.**

All parts on the inside are protected by cladding.

## The best proof of quality: Sophisticated technology down to the last detail

### 1. Quiet door travel

Hinged roller holders made of electrogalvanized 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. Electrogalvanized, 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 connections

Stable centre hinges made of electrogalvanized steel precisely connect the individual door sections. Edge profiling of the door sections has been designed so that the screws are held by four 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 shot-blasted and coated.**

### Flexible shaft coupling

Low variation in the axial alignment can be compensated for 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.







**Doors must comply with the safety requirements of European Standard 13241-1! Have this confirmed by other manufacturers!**

## Safety features in accordance with European standard 13241-1

**Tested and certified by Hörmann:**

### Anti-crash safeguard

#### 6. Reliable door guidance

The rollers are precision-guided in the special **safety tracks** developed by Hörmann. That's why there is no risk of the door sections leaving the tracks, neither during the turning phase nor when parked under the ceiling.

#### 7. Optimum counterbalance

The torsion spring assembly with grooved spring shaft ensures perfect counterbalancing of the doors, as well as smooth door action at every stage of opening and closing.

#### 8. Catch safety device

A load-dependent latch device integrated in the load carrier for protection in case a cable or spring breaks. **European patent**

#### 9. Spring safety device

This device stops the torsion spring shaft in the event of spring failure and holds the door securely in position.

#### European patent

### Trap protection

#### 10. Finger trap protection

Thanks to the special shape of the door sections, trap zones are eliminated on both the inside and outside of the door.

#### 11. Inner cable guide

The carrying cables are guided internally between the door sections and the frame. There are no protruding parts. This excludes the risk of injury. For doors with low-headroom tracks, the load carrier consists of a carrying chain/carrying cable.

#### 12. Side trap guards

The side frames are completely closed, resulting in a secure side trap guard.

#### 13. Closing edge safety device

Sensors monitor the bottom edge of the door and stop and reverse it if there is a hazard. A leading photocell ensures particularly safe monitoring of the closing edge (for further information, see page 51). Obstructions are detected before they come into contact with the door.



## System solutions pay off: In operations and in safety



### Options for operating manual doors

As standard with rope or pull rod.  
On request: Pull rope with cable, link steel chain or chain hoist, also with chain tensioner.



Chain tensioner

### Operator to flange

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. Standard fitting position: horizontal, alternatively vertical





**Fully benefit from a perfect concept.  
We offer a wide range of operators,  
controls and impulse generators.**



#### **Operator with chain box**

We recommend the WA 400 operator with chain box for all types of doors up to a height of 7000 mm if there is little sideroom. For applications L and LD, an operator with chain box is required. Due to the indirect transmission of forces, the door is subjected to minimum wear and friction. Standard fitting position: vertical, alternatively horizontal.



#### **Operator for central mounting**

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



#### **Operator with boom guidance**

In this version, the operator moves the door with a boom-guided belt/chain. This version is useful for areas with low headroom or if no sideroom is available near the guide rails.



With all 3-phase current operators:

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

Shaft operator WA 400 to flange with emergency hand chain (can be operated from the floor)

Can be combined with controls A/B 440, A/B 445, A/B 460, B 460 FU



## The strong operator for sectional doors

Shaft operator WA 400 M with chain box and emergency hand chain (can be operated from the floor)

Can be combined with controls A/B 440, A/B 445, A/B 460, B 460 FU

Standard fitting position: vertical

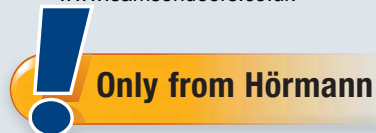


Shaft operator WA 400 M for central mounting with secured release

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

Ideal option when sideroom is lacking.





## As standard

- **IP 65 (hose-water protected)**
- **Door and operator from a single source**  
Hörmann industrial sectional doors, operators and controls are a perfectly coordinated system from a single source. This saves you time and money!

- **Solid metal gear**

- **Door security kit**

All Hörmann power-driven industrial sectional doors up to 5 m height are equipped with a break-in-resistant door security kit as standard.

This mechanical protection reliably prevents the door from being forcefully pushed open, even in case of a power failure.



- **Maintenance release**

The operator must not be extensively dismantled from the door shaft for the statutory annual inspection work. This saves time and money. The maintenance release can be converted to a secured release at any time.



- **Emergency hand chain**

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



- **Cable slack device**

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



## Alternative releases



### Secured release

This allows you to conveniently release the operator from the floor (Hörmann patent). With an emergency hand chain as standard (except WA 400 M)



### Secured release, exterior ASE

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

## Alternative emergency operation



### Maintenance release with emergency crank handle

The low-cost option, available in two versions. As a fixed crank handle or jointed emergency crank handle.

**Retrofitting with an emergency hand chain possible.**



### Maintenance release with cover cap

The inexpensively priced alternative without emergency hand chain or emergency crank handle. After the operator has been disengaged, the door must be moved manually. That's why we only recommend its use up to a maximum door height of 3000 mm. **Retrofitting with an emergency hand chain possible.**

### Push rod

For doors over 3000 mm high, and as an emergency opening device, especially for fire station doors. Fulfils the requirements in EN 14092.





## The space-saving operator



### Chain drive ITO 400 with boom guidance

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

- No sideroom required
- Emergency release via bowden cable on the slide carriage
- Emergency release from the outside possible
- IP 65 (hose-water protected)
- For normal tracks and low-headroom tracks
- Also available in a frequency converter version



### Garage door operator SupraMatic H

- Suitable for parking spaces, max. 100 door cycles (open/close) per day
- Push and pull force 1000 N, peak force 1200 N, opening speed approx. 22 cm/s
- Quick release can be activated from inside
- Connecting lead with EEC plug, second suspension for boom FS 60 and FS 6
- Integrated garage illumination with factory-set 2-minute light
- Door security kit as a safety device (for extension units for warning light control, see page 58)
- May be extended with additional units
- Application range: Doors with spring safety device  
Max. width: 5500 mm, max. height: 3000 mm  
Max. section height: 562 mm  
Track applications: N and L tracks
- Not suitable for doors with wicket door, doors with real glass or DPU doors.




**Only from Hörmann**

EUROPEAN PATENT

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



## More safety and higher speed with the leading photocell



### Leading photocell (European patent)

Increased safety on Hörmann industrial sectional doors thanks to the leading photocell VL 1, available as an optional extra. Contrary to the standard opto-electronic (OPTO) closing edge safety device, a sensor monitors the bottom edge of the door. 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.

One (VL 1) or two (VL 2) sensors are situated in a leading swivel arm construction. DPU doors with impulse-controlled operators require a leading photocell VL2.

The leading photocell VL 2 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.

# Uniform operating concept for all controls

## Controls



**Basic control**  
A/B 435 (400/230 V)

- Control and operator can be mounted separately
- Control and door leaf components in protection category IP 65 (hose-water protected)  
A connection with CEE plug corresponds to protection category IP 44
- Adjustments are no longer made on the motor but conveniently on the control unit via an electronic door position sensor
- With closing edge safety device:  
"Open/close door" with impulse
- Without closing edge safety device:  
"Open door" with impulse,  
"Close door" with press-and-hold operation
- Status and error display via LED



**Press-and-hold control**  
A/B 440 (400/230 V)

- Control and operator can be mounted separately
- Control and door leaf components in protection category IP 65 (hose-water protected)  
A connection with CEE plug corresponds to protection category IP 44
- 7-segment display, viewable from the outside
- Function lock via miniature lock (convertible to profile half-cylinder)
- Can be upgraded to impulse control A/B 445, A/B 460



**Impulse control**  
A/B 445 (400/230 V)

- Control and operator can be mounted separately
- Control and door leaf components in protection category IP 65 (hose-water protected)  
A connection with CEE plug corresponds to protection category IP 44
- Menu readout via an integral double 7-segment display on the outside, so there's no need to remove the housing cover
- Adjustments are no longer made on the motor but conveniently on the control unit via an electronic door position sensor
- Service menu with maintenance and operating hours counter, as well as fault analysis
- Collective malfunction signalling with on-site individual display (acoustic, visual, or e.g. via mobile phone)
- Function lock via miniature lock (convertible to profile half-cylinder)
- Can be upgraded to control A/B 460 so there is no need to replace the entire module



**Comfort control**  
A/B 460 (400/230 V)

- Control and operator can be mounted separately
- Additional button on housing cover for 2nd opening height and integral connecting terminals for further command units
- Control and door leaf components in IP 65 protection category (hose-water protected)  
A connection with CEE plug corresponds to protection category IP 44
- Menu readout via an integral double 7-segment display on the outside, so there's no need to remove the housing cover
- Adjustments are no longer made on the motor but conveniently on the control unit via an electronic door position sensor
- Service menu with maintenance, door cycle and operating hours counter, as well as fault analysis
- Collective malfunction signalling with on-site individual display (acoustic, visual, or e.g. via mobile phone)
- Function lock via miniature lock (convertible to profile half-cylinder)

**Controls****Optional**

**Frequency converter control  
B 460 FU (230 V)**

- Control and operator can be mounted separately
- Additional button on housing cover for 2nd opening height and integral connecting terminals for further command units
- Control and door leaf components in IP 65 protection category (hose-water protected)  
A connection with CEE plug corresponds to protection category IP 44
- Menu readout via an integral double 7-segment display on the outside, so there's no need to remove the housing cover
- Adjustments are no longer made on the motor but conveniently on the control unit via an electronic door position sensor
- Service menu with maintenance, door cycle and operating hours counter, as well as fault analysis
- Collective malfunction signalling with on-site individual display (acoustic, visual, or e.g. via mobile phone)
- Function lock via miniature lock (convertible to profile half-cylinder)
- Saves wear and tear on the door thanks to "soft" start and "soft" stop
- Adjustable high-speed opening and closing (depending on tracks)

**Meets the requirements of fire service directive EN 14092**



**Main switch**



**Profile half-cylinder**



**Key switch post STI 1**

For installing a maximum of 2 control units with additional housing.  
Colour: White aluminium (similar to RAL 9006)  
Dimensions:  
200 x 60 mm,  
height 1660 mm



# Accessories

## Radio control



### Industrial hand transmitter HSI // NEW

This hand transmitter can control up to 1000 doors. It is equipped with a display and convenient quick selection buttons. Extra-large keys facilitate handling with work gloves. As a time-saving feature, the coding of one hand transmitter can be transferred via cable to other transmitters.



**4-button hand transmitter  
HS 4**



**1-button hand transmitter  
HS 1**



**4-button security hand transmitter  
HSS 4**  
Additional function:  
Copy protection for hand transmitter coding.



**Radio code switch FCT 10b**  
For up to 10 radio codes (868.3 MHz). The keypad illuminates when initially pressed.



**Radio finger-scan  
FFL 12 // NEW**  
For up to 10 radio codes (868.3 MHz). The keypad illuminates when initially pressed.

## Receivers



**1-channel receiver  
HEI 1**



**2-channel receiver  
HEI 2**



**1-channel relay receiver  
HER 1**



**2-channel relay receiver  
HER 2**



**4-channel relay receiver  
HER 4**

## Code switches

### Code switch CTR 1b, CTR 3b

The code switches CTR 1b and CTR 3b offer a high level of security against unauthorised opening. You simply enter your own personal code - a key is no longer needed. With the CTR 3b comfort version you can open a second door and also switch on the outside lights or operate a door in the chosen direction.



Dimensions:  
80 x 110 x 17 mm (W x H x D)  
Decoder housing:  
140 x 130 x 50 mm (W x H x D)  
Protection category:  
Keypad: IP 65  
Decoder housing: IP 54  
Switching capacity: 2.5 A/30 DC  
500 W/250 V AC

### Finger-scan FL 12, FL 100

A fingerprint is enough to securely and conveniently open your sectional door. The finger-scan is available in two versions: FL 12 for 12 fingerprints and FL 100 for 100 fingerprints.



Dimensions:  
80 x 110 x 39 mm (W x H x D)  
Decoder housing:  
70 x 275 x 50 mm (W x H x D)  
Protection category:  
Reader: IP 65  
Decoder housing: IP 56  
Switching capacity: 2.0 A/30 V DC

### Transponder keypad

#### TTR 1, TTR 1000

The convenient solution when several persons require access to the building. You simply hold the transponder key with your personal security code approx. 2 cm in front of the reader. A non-contact system! A major benefit in the dark. 2 keys are included. Suitable for 100 transponder keys (TTR 100) or 1000 transponder keys (TTR 1000) at a maximum.



Dimensions:  
80 x 110 x 17 mm (W x H x D)  
Decoder housing:  
140 x 130 x 50 mm (W x H x D)  
Protection category:  
Transponder pad: IP 65  
Decoder housing: IP 54  
Switching capacity: 2.5 A/30 DC  
500 W/250 V AC

# Accessories

## Key switches, key switch posts



**Key switch ESA 30 with 2 keys**  
**Surface-mounted version**  
 Impulse or OPEN/CLOSE function selectable  
 Dimensions:  
 73 x 73 x 50 mm (W x H x D)  
 Protection category: IP 54



**Key switch ESU 30 with 2 keys**  
**Recessed version**  
 Impulse or OPEN/CLOSE function selectable  
 Dimensions of switch box:  
 60 x 58 mm (d x D)  
 Dimensions of faceplate:  
 90 x 100 mm (W x H)  
 Wall recess:  
 65 x 60 mm (d x D)  
 Protection category: IP 54



**Key switch STAP with 2 keys**  
**Surface-mounted version**  
 Impuls or OPEN/CLOSE function selectable  
 Dimensions:  
 80 x 110 x 68 mm (W x H x D)  
 Protection category: IP 54



**Key switch STUP with 2 keys**  
**Recessed version**  
 Impuls or OPEN/CLOSE function selectable  
 Dimensions of switch box:  
 60 x 58 mm (d x D)  
 Dimensions of faceplate:  
 80 x 110 mm (W x H)  
 Wall recess:  
 65 x 65 mm (d x D)  
 Protection category: IP 54

### Key switch post STS 1

With adapter for fitting TTR 100/TTR 1000, FCT 10 b, CTR 1/CTR 3 or STUP.  
 The command units must be ordered separately.  
 Top and bottom end of post in Slate grey (similar to RAL 7015).  
 The post is stove-enamelled in White aluminium (similar to RAL 9006).  
 Dimensions:  
 300 x 1250 mm (d x H)  
 Protection category: IP 44



Version with fitted key switch STUP (accessory)

## Photocells, switches



**Photocell RL 50**  
 Reflection photocell with transmitter/receiver unit and reflector.  
 The photocell is tested by the control unit prior to each closing cycle.  
 Connected via system cable (length 2.0 m).  
 Max. range: 6.0 m  
 Dimensions:  
 68 x 97 x 33 mm (W x H x D)  
 Reflector:  
 85 x 85 mm (W x H)  
 Protection category: IP 65



**One-way photocell EL 51**  
 Photocell with separate transmitter and receiver.  
 The photocell is tested by the control unit prior to each closing cycle.  
 Connected via 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



**Pull switch ZT 2 with cord**  
 Impulse generation to open or close the door.  
 Dimensions:  
 60 x 90 x 55 mm (W x H x D)  
 Length of pull cord: 3.2 m  
 Protection category: IP 65

**Cantilever arm KA1 (not shown)**  
 Extension 1680 x 3080 mm  
 Can be used with ZT 1



## Push buttons



### Push button DT 02

Open or close via a command button, separate stop button.

Dimensions:

65 x 112 x 68 mm (W x H x D)

Protection category: IP 65

**For controls:**

**A/B 435 (only with closing edge safety device), A/B 445, A/B 460 and B 460 FU**



### Push button DT 03

For separate control of both operational directions, with separate stop button.

Dimensions:

66 x 145 x 68 mm (W x H x D)

Protection category: IP 65

**For controls:**

**A/B 435, A/B 440, A/B 445, A/B 460 and B 460 FU**



### Push button DT 04

For separate control of both operational directions, with separate stop button.

Full or partial door opening (via separate button).

Dimensions:

69 x 185 x 91 mm (W x H x D)

Protection category: IP 65

**For controls:**

**A/B 460 and B 460 FU**



### Push button DTNA 30

For separate control of both operational directions. The stop button is a push-to-lock button which, once pressed, stays depressed in order to prevent unauthorised operation. Further operation is then only possible once the stop button has been unlocked with a key.

(2 keys included in the scope of delivery)

Dimensions:

66 x 145 x 85 mm (W x H x D)

Protection category: IP 65

**For controls:**

**A/B 435, A/B 440, A/B 445, A/B 460 and B 460 FU**



### Push button DTP 02

Open or close via a command button, separate stop button and operation control light for control voltage. Lockable with profile half-cylinder, available as an accessory.

Dimensions:

86 x 260 x 85 mm (W x H x D)

Protection category: IP 44

**For controls:**

**A/B 435 (only with closing edge safety device), A/B 445, A/B 460 and B 460 FU**



### Push button DTP 03

For separate control of both operational directions.

Separate stop button and operation control light for control voltage.

Lockable with profile half-cylinder, available as an accessory.

Dimensions:

68 x 290 x 74 mm (W x H x D)

Protection category: IP 44

**For controls:**

**A/B 435, A/B 440, A/B 445, A/B 460 and B 460 FU**



### Emergency-OFF button DTN 10

To quickly immobilise the door. Push-to-lock button (mushroom button), surface-mounted.

Dimensions:

93 x 93 x 95 mm (W x H x D)

Protection category: IP 65

**For controls:**

**A/B 435, A/B 440, A/B 445, A/B 460 and B 460 FU**



### Emergency-OFF button DTNG 10

To quickly immobilise the door. Oversize push-to-lock mushroom button, surface-mounted.

Dimensions:

93 x 93 x 95 mm (W x H x D)

Protection category: IP 65

**For controls:**

**A/B 440, A/B 445, A/B 460, B 460 FU**

The lockable function serves to isolate the control voltage and immobilises the command units. Profile half-cylinders are not included in the scope of delivery for the push buttons.

# Accessories

## Activating kits for warning lights

### Activating kits for warning lights in a separate additional housing or for fitting in an existing housing, incl. 2 yellow warning lights

Extension unit for controls A/B 445, A/B 460, B 460 FU. The activating kit for warning lights serves as a visual indicator while the door is moving. (Shown with optional weekly timer)

Applications:

- Approach warning (for A/B 445, A/B 460, B 460 FU)
  - Automatic timed closing (for A/B 460, B 460 FU)
- After the set hold-open phase has elapsed (0-480 s), the warning lights flash during the set warning phase (0-70 s).

Dimensions of lights: 180 x 250 x 290 mm (W x H x D)

Dimensions of additional housing:

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

Contact load: 250 V AC: 2.5 A/ 500 W

Protection category: IP 65

Light material: High-grade, powder-coated aluminium housing



## Warning lights with bright, long-lasting LEDs.



### Traffic control in a separate additional housing or for fitting in an existing housing, incl. 2 red/green warning lights

Extension unit for controls A/B 460, B 460 FU.

The activating kit for warning lights serves as a visual indicator for regulating the entrance and exit (optional weekly timer).

Duration of green phase: Adjustable from 0-480 s

Duration of clearance phase: Adjustable from 0-70 s

Dimensions of lights: 180 x 410 x 290 mm (W x H x D)

Dimensions of additional housing: 202 x 164 x 130 mm (W x H x D)

Contact load: 250 V AC: 2.5 A/500 W

Protection category: IP 65

Light material: High-grade, powder-coated aluminium housing



## Activating kits for warning lights SupraMatic H

### Extension unit for warning lights ES 1

In separate housing, two relays to control warning lights, option relay (momentary impulse) for illumination control, impulse input, hold-open phase can be shortened, emergency-OFF button can be connected, SupraMatic H keypad can be switched off, automatic timed closing can be switched off (e.g. ZSU 2), incl. 2 yellow warning lights.



### Extension unit for warning lights ES 2

Technically identical to ES 1, in addition, SupraMatic H programming is possible via the extension unit.

A closing edge safety device and a safety or through-traffic photocell can also be connected. Connection of a closing edge safety device possible.

Hold-open phase adjustable from 5-480 seconds, warning phase from 1-170 seconds, incl. 2 yellow warning lights.



### Extension unit for traffic control EF 1

Technically identical to ES 2, in addition, impulse command entrance and exit, entrance function has priority, limit switch reporting via an integrated relay, incl. 2 traffic lights (red/green).



## Optional extras/special controls



### Travel limit circuit board in a separate additional housing or for fitting in an existing housing

Extension module for controls A/B 435 and A/B 440  
Dimensions of additional housing: 202 x 164 x 130 mm (W x H x D)  
Protection category: IP 65  
A print can be optionally mounted in the control unit.



### Multi-function circuit board in a separate additional housing or for fitting in an existing housing

Limit switch reporting, momentary impulse, collective malfunction signalling  
Extension module for controls A/B 445, A/B 460 B 460 FU  
Dimensions of additional housing: 202 x 164 x 130 mm (W x H x D)  
Protection category: IP 65  
A print can be optionally mounted in the control unit.



### Digital weekly timer in a separate additional housing

The timer can switch command units on and off via a volt-free contact.  
Extension module for controls A/B 460, B 460 FU  
Switching capacity: 230 V AC: 2.5 A/500 W  
Can be switched over to summer/winter time  
Manual switching: automated operation, switching preselection for time for ON/OFF  
Dimensions of additional housing: 202 x 164 x 130 mm (W x H x D)  
Protection category: IP 65



### Summer/winter connection unit in an additional housing

Function for full opening of door and individually programmable intermediate travel limit.  
Extension module for controls A/B 460, B 460 FU  
Dimensions of additional housing: 202 x 164 x 130 mm (W x H x D)  
Protection category: IP 65



### Radar movement detector RBM 2

For "OPEN door" impulse with directional recognition  
Max. fitting height: 6 m  
Dimensions: 155 x 132 x 58 mm (W x H x D)  
Contact load: 24 AC/DC, 1 A with resistivity  
Protection category: IP 65



### Induction loop DI 1 in a separate additional housing

Suitable for one induction loop. The detector has a normally open contact and a change-over contact.

### Induction loop DI 2 (not shown) in a separate additional housing

Suitable for two separate induction loops. The detector has two volt-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:  
DI1: low voltage 2 A, 125 V A/60 W  
DI2: 250 V AC, 4 A, 1000 VA, (resistivity AC)  
Delivery: without loop cable



### Loop cable for induction loop

50 m roll  
Cable designation: SIAF  
Cross-section : 1.5 mm<sup>2</sup>  
Colour: brown



### Optional remote control for radar movement detector.

**Customer-specific special controls are available on request.**



# Overview of door types

## Technical data

### Design and quality features

● = Standard, ○ = on request

Higher categories and better thermal insulation values or acoustic values on request!

		SPU	DPU
<b>Resistance to wind load EN 12424</b>	Class	3	3
<b>Water-tightness EN 12425</b>	Door without wicket door	3 (70 Pa)	3 (70 Pa)
<b>Air permeability EN 12426</b>	Door without wicket door	2	3
	Door with wicket door	1	–
<b>Sound insulation EN 717-1</b>	R = . . . dB	22	22
<b>Thermal insulation acc. to EN 13241, annex B EN 12428</b>	Door approx. 25 qm, fitted with wicket door <sup>3)</sup>	1.2	–
	Door approx. 25 qm, fitted without wicket door <sup>3)</sup>	1.0	0,7
	Single door section (U = W/m <sup>2</sup> K)	0.5	0.3
<b>Design</b>	Self-supporting	●	●
	Depth, mm	42	80
<b>Door sizes</b>	Width (LZ) max. mm	8000	6000 (10000) <sup>2)</sup>
	Height (RM) max. mm <sup>1)</sup>	7000	5000 (8000) <sup>2)</sup>
<b>Space requirements</b>	See technical manual		
<b>Material, door leaf</b>	Steel, double-skinned, 42 mm	●	–
	Steel, double-skinned, 80 mm	–	●
	Aluminium (standard profile)	–	–
	Aluminium (thermal profile)	–	–
<b>Surface, door leaf</b>	Galvanized steel, coated in RAL 9002	●	●
	Galvanized steel, coated in RAL 9006	○	○
	Galvanized steel, coated in RAL to choose	○	○
	Anodised aluminium E6/C0 (previously E6/EV1)	○	–
	Aluminium coated in RAL to choose	○	–
<b>Wicket door</b>	With trip-free threshold	○	–
<b>Side door</b>	Matching in the door	○	–
<b>Glazings</b>	Section window type A	○	○
	Section window type D	○	–
	Section window type E	○	–
	Aluminium glazing frame	○	○
<b>Seals</b>	4 – sided all-round	●	●
	Intermediate seal between the individual door sections	●	●
<b>Locking systems</b>	Internal latching	●	●
	External/internal latching	○	○
<b>Door security kit</b>	For doors up to 5 m high with shaft operator	●	–
<b>Safety equipment</b>	Finger trap protection	●	–
	Side trap guards	●	●
	Spring safety device for manual operation	●	●
	Safety catch for doors with shaft operator	●	●
<b>Fixing options</b>	Concrete	●	●
	Steel	●	●
	Brickwork	●	●
	Others on request		

<sup>1)</sup> Door height above 7000 mm on request (not for door type ALS 40)

<sup>2)</sup> Doors with direct drive operators

<sup>3)</sup> Information in brackets: U values with optional triple glazing (26 mm)



	ASP	APU	TAP	ASR	ALR	ALR Vitraplan	ALS	TAR
	3	3	3	3	3	3	3	3
	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)	3 (70 Pa)
	2	2	2	2	2	2	2	2
	-	1	1	-	1	-	-	1
	19	19	19	19	19	19	19	19
	-	3.2 (3.0)	2.7 (2.5)	-	3.6 (3.3)	-	-	3.0 (2.7)
	3.0 (2.6)	3.0 (2.8)	2.5 (2.3)	3.2 (2.8)	3.3 (3.0)	3.2 (3.1)	6.2	2.7 (2.4)
	-	-	-	-	-	-	-	-
	●	●	●	●	●	●	●	●
	42/48.5	42	42	48.5	42	42	42	42
	5000	8000	7000	5000	8000	8000	5500	7000
	7000	7000	7000	7000	7000	7000	4000	7000
	●	●	●	-	-	-	-	-
	-	-	-	-	-	-	-	-
	●	●	-	●	●	●	●	-
	-	-	●	-	-	-	-	●
	○	○	○	-	-	-	-	-
	●	●	●	-	-	-	-	-
	○	○	○	-	-	-	-	-
	●	●	●	●	●	●	●	●
	○	○	○	○	○	○	○	○
	-	○	○	-	○	-	-	○
	○	○	○	○	○	-	-	○
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●
	○	○	○	○	○	-	-	○
	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●
	●	●	●	●	●	●	●	●



**1** Sectional doors



**2** Rolling shutters and rolling grilles



**3** Folding doors in steel and aluminium



**4** High-speed doors



**5** Loading technology

## All from one source: For your facility construction.

### **1** Sectional doors

These room-saving door-systems can be adapted to various track applications for each industrial facility. This gives you planning safety when constructing a new building or renovating. Hörmann offers you tailored solutions for every application: for instance fully-glazed ALS sectional doors for a clear view of interiors or thermally-insulated, double-skinned 80-mm thick DPU doors that guarantee stable temperatures.

### **2** Rolling shutters and rolling grilles

Thanks to a simple design and reduced components, rolling shutters are extremely economical and robust. Hörmann supplies rolling shutters in widths and heights of up to 11.75 m and 9 m respectively, or special doors which are even higher. Numerous window and colour designs give you room for variety when designing your facility.

### **3** Folding doors in steel and aluminium

Hörmann folding doors in steel and aluminium are recommended for buildings with low traffic and little headroom where no roof load is permitted. Fewer wearing parts make folding doors easy to repair and service.

### **4** High-speed doors

Hörmann high-speed doors are used both indoors and outdoors to optimise traffic flow, improve room climate and save on energy.

The Hörmann range comprises transparent doors with a flexible curtain that open vertically and horizontally. They can also be combined with sectional doors and rolling shutters. The benefit to you: SoftEdge technology with a built-in anti-crash system makes high-speed doors extremely safe and economical.

### **5** Loading technology

Hörmann delivers complete loading systems for all your logistics needs. The benefit to you: sure planning, reliable construction management and high functionality thanks to perfectly co-ordinated components is guaranteed, irrespective of whether you need individual dock levellers or loading houses. All of these can be retrofitted to existing buildings as a complete unit with a dock leveller and dock seal.

### **6** Fire sliding doors

Hörmann delivers single and double-leaf sliding door solutions for all facilities depending on the fire-protection level required, as well as with a wicket door and smoke-tight function.

### **7** Multi-function doors and construction project internal doors

Hörmann multi-function doors and construction project internal doors are suitable for indoor and outdoor use. Our single and double-leaf doors can be used anywhere where heavy-duty door sets are required. With numerous additional functions, such as fire and smoke protection, acoustic insulation or burglar protections Hörmann offers you solutions that cover almost every industrial application.

### **8** Fire and smoke-tight tubular frame parts

Hörmann can supply you with doors and fixed glazing made of steel and aluminium for discerning areas such as administration departments in industrial buildings. The 100% matching system appearance guarantees the same look irrespective of the fire protection category.

### **9** Visibility windows

Hörmann visibility glazing is used as windows or room-high elements to provide more light and better visibility. Individual solutions can also be implemented with rail partitions, recesses and chamfers.

### **10** Service

Only intact, professionally maintained systems ensure smooth production processes and safe routes. The statutory inspections and necessary repairs are professionally carried out and documented with an inspection and maintenance contract. This saves costs and ensures reliability.

Garage doors for use in collective garages (not shown) are also offered by Hörmann.





6 Fire sliding doors



7 Multi-function doors and construction project internal doors



8 Fire and smoke-tight tubular frame parts



9 Visibility windows



10 Service

As a construction element specialist, Hörmann gives you the power to plan perfectly whatever your needs. Carefully matched, construction project solutions offer you the very best in perfectly designed products for every area.

