

# High-Speed Doors

For optimised material flow and improved efficiency







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# Hörmann brand quality

#### Reliable and oriented towards the future





## **High-speed progress**

Without on-going development and improvements by our highly-qualified technicians as well as comprehensive knowledge of all the market requirements, efficient high-speed door designs of a recognised high standard would not be possible.

The best examples are the new speed sectional doors.



#### **Precise production**

Innovative production processes that have been matched perfectly with each other are a guarantee for steadily increasing product quality. An example: The modern hot air welding system that enables a precise and automated welding of the door curtains.



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.



Certified safety
Hörmann high-speed
doors are
manufactured
in line with stringent
European standards
and are certified
as well.



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

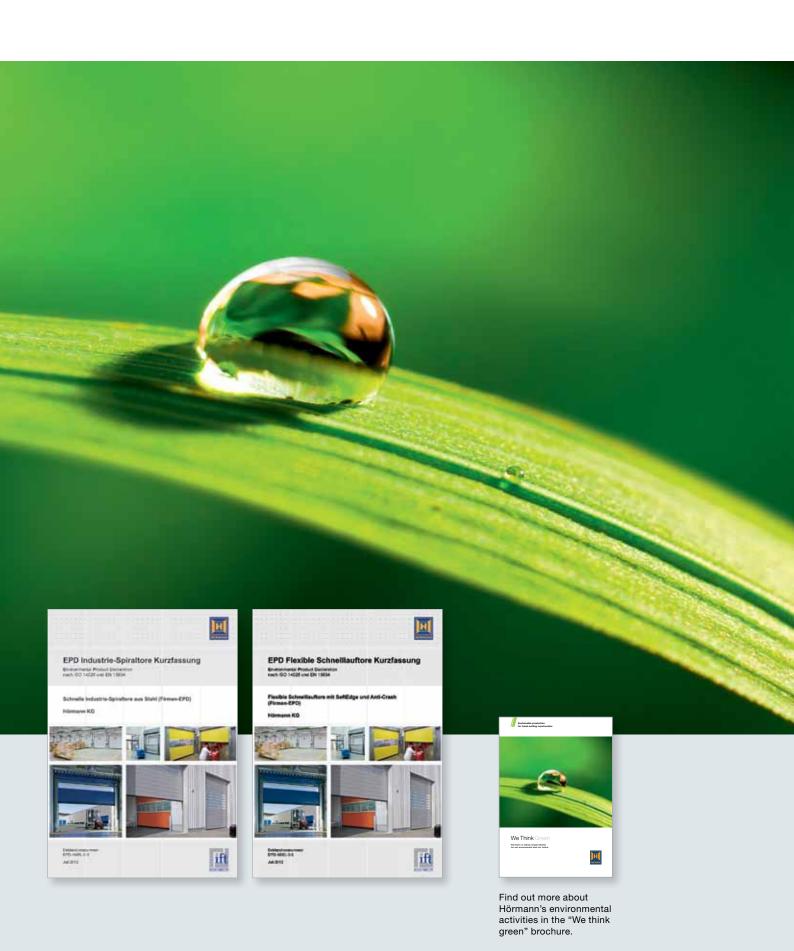


#### **Efficient service**

Our extensive service network means that we are never far away. This is a major advantage in terms of inspections, maintenance and repairs.

# **Sustainable production**

For future-oriented construction





# Sustainably produced: Hörmann's high-speed doors

#### **Ecological quality**

A comprehensive energy management system ensures environmentally-friendly production.

#### **Economic quality**

The use of high-quality materials and innovative technologies such as the FU controls as standard results in long service life and low maintenance costs.

#### **Functional quality**

High-speed doors are used both inside and as exterior doors to optimise the flow of traffic, improve indoor climate and save energy.

#### **Process quality**

The further use of single-origin metal and UPVC scraps from the production process saves material resources.

# Sustainability verified and documented by the IFT in Rosenheim

Hörmann is the only manufacturer who already received confirmation of the sustainability of all its high-speed doors through an environmental product declaration (EPD) in accordance with DIN ISO 14025 and prEN 15804 from the Institut für Fenstertechnik (ift – Institute of window technology) in Rosenheim. The inspection was based on the Product Category Rules (PCR) "Doors and Gates". Environmentally-friendly production was confirmed by a life-cycle analysis in accordance with DIN EN 14040 / 14044 for all high-speed doors.

# Sustainable construction with Hörmann competence

Hörmann has already been able to gain great expertise in sustainable construction through various projects. We also apply this know-how to support your projects.

# References for sustainable construction with Hörmann



ThyssenKrupp, Essen



dm logistics centre, Weilerswist



Immogate logistics centre, Munich

Nordex-Forum, Hamburg
Unilever Hafen-City, Hamburg
Deutsche Börse, Eschborn
Opernturm, Frankfurt
Skyline-Tower, Munich
Prologis Pineham Sites, Sainsbury











# **Spiral doors and speed sectional doors**

Fast external doors with PU insulating panels for high thermal insulation



Figure: spiral door HS 7030 PU

These doors are characterised 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 a spiral or into tracks without contact, depending on the version.

# Innovative technology and design

In every detail



### 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.

# 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 opening and closing speeds optimise your operations and reduce heat losses. In addition, it relieves the entire door mechanism through the smooth starting and braking action which considerably extends the service life of the door.

#### Uniformly foamed steel sections

The 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 W/(m²·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 / EV 1 divides the glazing using stabilising intermediate spacers. DURATEC triple glazing is also available on request for even better thermal insulation.

# Spiral door HS 7030 PU

### With non-contact roll-up technology



#### A compact spiral guide

The sections are securely guided into a spiral bracket without any contact. With the high-performance 3-phase frequency converter control (FU) and the chain mechanism with spring compensation, the door reaches an opening speed of up to 2.5 m/s. Spiral door HS 7030 PU can also be fitted externally.



External door / internal door	HS 7030 PU	
Size range		
Max. width (LDB)	6500 mm	
Max. height (LDH)	6000 mm	

#### Speed

With standard FU control AS 500 FU E

Max. opening speed 1.5 – 2.5 m/s Max. closing speed 0.5 m/s

#### Emergency opening / emergency closing

BK 150 FU E USV, 230 V (up to approx. 9  $\rm m^2$  door surface) Hand chain with spring compensation

#### 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)
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(Without glazing) R = 26 dB

Thermal insulation (EN 12428)

For 25 m<sup>2</sup> door size  $U_D = 1.95 \text{ W/(m}^2 \cdot \text{K)}$ 

#### Door leaf colours\*\*

<sup>\*\*</sup> With the exception of pearl-effect, fluorescent and metallic colours. Dark colours 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 N

# With 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 480 mm.



External door / internal door	HS 5015 PU N
Size range	
Max. width (LDB) Max. height (LDH)	5000 mm 5000 mm

#### Speed

With standard FU control AS 500 FU E
Max. opening speed 1.5 m/s
Max. closing speed 0.5 m/s

#### Emergency opening / emergency closing

BK 150 FU E USV, 230 V (up to approx. 9  $\rm m^2$  door surface on request) Hand chain with spring compensation

#### Door leaf

Material Steel sandwich construction, PU-foamed, DURATEC glazing optional

Depth 42 mm
Section height 225 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<sup>2</sup> door size  $U_D = 1.95 \text{ W/(m}^2 \cdot \text{K)}$ 

#### Door leaf colours\*\*

<sup>\*\*</sup> With the exception of pearl-effect, fluorescent and metallic colours.

Dark colours should not be used for doors that are exposed to the sun, as possible section deflection may restrict the door's function.

# 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 counter weights, the door is especially low-wear and long-lasting thanks to the belt mechanism.



External door / internal door	HS 5015 PU H
Size range	
Max. width (LDB) Max. height (LDH)	5000 mm 6000 mm

#### Speed

With standard FU control AS 500 FU E
Max. opening speed 1.5 m/s
Max. closing speed 0.5 m/s

#### Emergency opening / emergency closing

BK 150 FU E USV, 230 V (on request) Hand chain with counterbalance

#### 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<sup>2</sup> door size  $U_D = 1.95 \text{ W/(m}^2 \cdot \text{K)}$ 

#### Door leaf colours\*\*

<sup>\*\*</sup> With the exception of pearl-effect, fluorescent and metallic colours.

Dark colours should not be used for doors that are exposed to the sun, as possible section deflection may restrict the door's function.

# 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 counter weights 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 AS 500 FU E
Max. opening speed 1.5 m/s
Max. closing speed 0.5 m/s

#### Emergency opening / emergency closing

BK 150 FU E USV, 230 V (up to approx. 20 m² door size) Hand chain with counterbalance

#### Door leaf

Material Steel sandwich construction, PU-foamed, DURATEC glazing optional

Depth 42 mm
Section height 225 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<sup>2</sup> door size  $U_D = 1.95 \text{ W/(m}^2 \cdot \text{K)}$ 

#### Door leaf colours\*\*

<sup>\*\*</sup> With the exception of pearl-effect, fluorescent and metallic colours.

Dark colours should not be used for doors that are exposed to the sun, as possible section deflection may restrict the door's function.

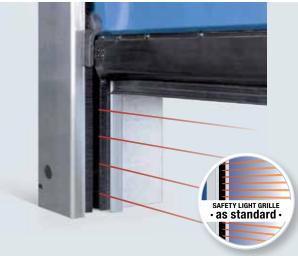
# Flexible high-speed doors

To improve indoor climate and optimise the flow of traffic



Flexible high-speed doors from Hörmann have been designed for safe, efficient and lasting operation. A standard light grille does away with the need for additional installations, such as a closing edge safety device, making the door particularly easy to fit and service.

# Innovative gate technology Particularly easy to fit and service as standard









SoftEdge bottom profile with integrated radio crash switch

#### Non-contact safety

The standard safety light grille (IP 67) monitors the closing zone of the door up to a height of 2500 mm. A closing edge safety device is not required. Fitting in the frame also reduces the risk of collision damage. These advantages are what makes Hörmann high-speed doors especially easy to service and fit.

# Impulses for a longer service life and increased efficiency

At Hörmann, you receive all high-speed doors with a frequency converter control (FU) as standard – for fast, safe and low-wear door travel. High opening and closing speeds help you to optimise your operations and reduce heat losses and draughts at the workplace. In addition, it relieves the entire door mechanism through the smooth starting and braking action which considerably extends the service life of the door.

# No downtimes resulting from a crash thanks to the SoftEdge bottom profile

The innovative SoftEdge door technology prevents damage and resulting downtimes of the door system. Extensive repairs, such as those with rigid bottom profiles, do not become necessary. SoftEdge ensures trouble-free operation and production processes.

#### Radio crash switch

The radio crash switch is concealed in the SoftEdge bottom profile. If the bottom profile is pushed out of the side guides by a crash, the radio crash switch transmits a signal to the control and the **door is stopped immediately,** fulfilling the requirements of DIN EN 13241-1.

# **High-speed doors**As internal and external doors



# **V** 4015 SEL R

## Internal door with SoftEdge and tubular drive





#### For logistics areas and supermarkets

Storage shelves often do not permit a gearbox that protrudes on the side. Here, the high-speed door V 4015 SEL R with the tubular drive integrated in the door shaft is an optimum solution.

#### **Fully equipped**

The fast and quiet running of the door due to the standard frequency converter (FU) control, the safety light grille and the increased personal safety that results from the vertically flexible SoftEdge bottom profile with manual insertion make the door a safe internal door for areas with little space.

The shaft cover that is limited to the construction width is available in a galvanized version and, on request, in a powder-coated version based on RAL.

#### Fitted quickly and simply

To enable a quick fitting, the door shaft is already assembled with the tubular drive at the factory.



Standard shaft cover with standard emergency crank handle.

Internal door	V 4015 SEL R
Size range	
Max. width (LDB)	4000 mm
Max. height (LDH)	4000 mm

#### Speed

With standard FU control BK 150 FU E H

Max. opening speed 1.5 m/s

Max. closing speed 0.8 m/s

#### **Emergency opening**

Crank handle

Optional: Automatic door opening via UPS in case of power failure (BK 150 FU E H UPS, 230 V)

#### Curtain

Spring steel in curtain pockets or aluminium profile (from 2500 mm door width)

Fabric thickness 1.5 mm

Vision panel thickness 2.0 mm

#### **Curtain colours**

# **V** 5015 SEL

## Internal door with SoftEdge and anti-crash



#### **Especially economical**

The inexpensive high-speed door for inside, with SoftEdge bottom profile and standard FU control for safe and gentle continual operation.

The curtain stability of the door type V 5015 SEL is achieved through proven aluminium profiles and a horizontally stable SoftEdge bottom profile at the lower edge.

#### **Aluminium profiles**

In case of repair, the inexpensive curtain stabilization allows the curtain segments to be replaced quickly and easily.



Curtain stability with aluminium profiles

Internal door	V 5015 SEL
Size range	
Max. width (LDB)	5000 mm
Max. height (LDH)	5000 mm

#### Speed

With standard FU control BK 150 FU E H

Max. opening speed 1.5 m/s

Max. closing speed 0.8 m/s

#### **Emergency opening**

Crank handle

Optional: Automatic door opening via UPS in case of power failure (BK 150 FU E H UPS, 230 V)

#### Curtain

With aluminium profile Fabric thickness Vision panel thickness

1.5 mm 2.0 mm

#### **Curtain colours**

# **V 5030 SEL**

## Internal door with SoftEdge and anti-crash



#### Quiet and fast

In areas with a low noise level, a door should cause little noise, too, and work quickly and reliably even with strong draughts.

This is why the V 5030 SEL door type is equipped with spring steel wind locks that provide the necessary curtain stability.

Speeds of up to 3 m/s are achieved with the optional Hörmann AS 500 FU E control.

#### Spring steel wind locks

Integrated in a curtain pocket, with lateral twin rollers, ensures quiet door travel and allows for higher wind loads.

You can also optionally obtain the V 5030 SEL with aluminium bottom profile for wind class 1 (DIN EN 12424).



Spring steel wind lock

Size range		
Max. width (LDB)	5000 mm	
Max. height (LDH)	5000 mm	
Speed		
With standard FU control BK	150 FU E H	
Max. opening speed	2.0 m/s	
Max. closing speed	0.8 m/s	
Optional control AS 500 FU E		
Max. opening speed	3.0 m/s	

V 5030 SEL

0.8 m/s

# Max. closing speed Emergency opening

Crank handle

Internal door

Optional: Automatic door opening via UPS in case of power failure (BK 150 FU E H UPS, 230 V)

#### Curtain

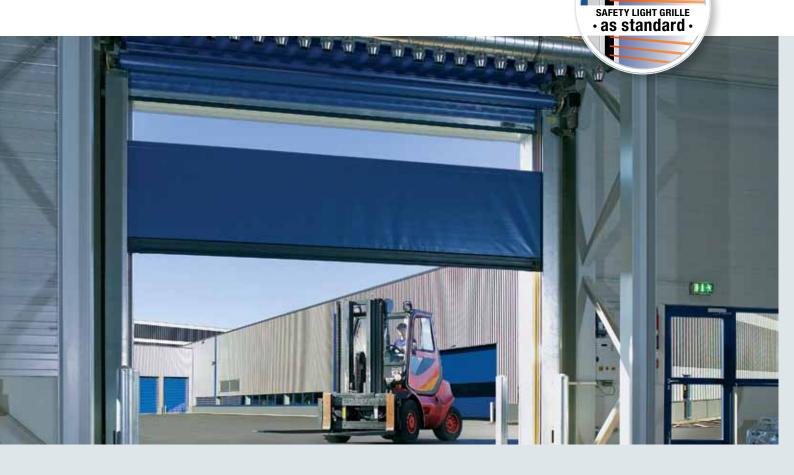
Spring steel wind lock with lateral twin rollers
Fabric thickness 1.5 mm
Vision panel thickness 2.0 mm

#### Resistance to wind load (EN 12424)

With aluminium bottom profile Class 1, max. 88 km/h

#### **Curtain colours**

# Internal and external door with SoftEdge and anti-crash



# For highly-frequented transport routes, with crash-protection

External doors are driven into, e.g. by forklifts, more frequently than internal doors. This is where crash-protection pays off because it significantly reduces downtimes and repair costs.

And the high speeds at which the door opens and closes also save on energy costs.

#### Spring steel wind lock in curtain pocket

The lateral twin rollers ensure quiet door travel and allow reliable stops. Even wind loads of up to 100 km/h do not pose problems thanks to the spring steel wind protectors.

You can also optionally obtain the V 6030 SEL with aluminium bottom profile.



Spring steel wind lock



The tensioning system tensions the door curtain for reliable door travel.

V 6030 SEL	
5000 mm	
6000 mm	
	5000 mm

#### Speed

With standard FU control BK 150 FU E H

Max. opening speed 2.0 m/s

Max. closing speed 0.8 m/s

Optional control AS 500 FU E

Max. opening speed 3.0 m/s

Max. closing speed 0.8 m/s

#### Emergency opening

Crank handle

Optional: Automatic door opening via UPS in case of power failure (BK 150 FU E H UPS, 230 V), counter weights with back-up battery

#### Curtain

Spring steel wind lock with lateral twin rollers and tensioning system

Fabric thickness 1.5 mm Vision panel thickness 2.0 mm

#### Resistance to wind load (EN 12424)

Class 2, max. 100 km/h

#### Curtain colours

# V 6020 TRL

#### Internal and external doors with transparent curtain



### Fully transparent for more light

The fully transparent high-speed door V 6020 TRL is suitable for high ingress of light as an external door but also for an improved view in internal areas. The 4-mm-thick transparent curtain lets light into the room resulting in a pleasantly bright workplace.

If used as an external door, we recommend the heavy, partially transparent version.

#### See what's coming at you

Transport routes become safer through unimpeded visual contact. Fully transparent curtains are available in sizes up to 25 m²; from 25 m² only fabric curtains with an optional vision field.

#### **Wind lock**

In addition to the tensioning system fitted as standard, spring steel wind locks ensure the necessary curtain stability.



light and unimpeded visual contact



Aluminium bottom profile for more stability

Internal door / external door	V 6020 TRL	
Size range		
Max. width (LDB)	6000 mm	
Max. height (LDH)	7000 mm	

#### Speed

With standard FU control BK 150 FU E H (up to approx. 12.25 m² door size)

Max. opening speed 1.5 m/s

Max. closing speed 0.5 m/s

Optional FU control AS 500 FU E

(from approx. 12.25 m² door size as standard)
Max. opening speed 2.0 m/s
Max. closing speed 0.5 m/s

#### **Emergency opening**

Crank handle

Optional: Automatic door opening via UPS in case of power failure (BK 150 FU E H UPS, 230 V) (up to approx. 12.25 m² door size)

#### Curtain

Spring steel wind lock with lateral twin rollers and tensioning system
Fully transparent curtain thickness 4.0 mm

(from 25 m² door size)

2.4 mm

#### Resistance to wind load (EN 12424)

Class 3, max. 115 km/h

#### Wind lock strip colours

RAL 1018 Zinc yellow

Fabric thickness

RAL 2004 Pure orange (optional fabric colour)

RAL 3002 Carmine red

RAL 5010 Gentian blue (optional fabric colour) RAL 7038 Agate grey (optional fabric colour)

# V 9015 L Trekking

Internal and external door for large openings



#### Folding curtain with belt system

The curtain is opened via a belt system with wind reinforcement laths and folded in the lintel area. The high-quality aluminium profiles are arranged vertically, at distances of 600 mm along the entire door height.

As standard, a 600 mm vision panel is integrated into the curtain over the entire door width. On request, additional sections can be transparent.

#### Ideal for external fitting

The V 9015 L Trekking was designed especially for high door openings in halls with little lintel space, since the door can also be fitted outside on the hall. The operator technology is safely protected in the frame and shaft cover. The control can optionally be operated simply and conveniently from the floor via an external control element integrated into the frame.



Integrated operator technology



Aluminium profiles stabilising the curtain

ternal door / external door	V 9015 L Trekking

#### Size range

 Max. width (LDB)
 9000 mm

 Max. height (LDH)
 6000 mm

#### Speed

Relay control unit AK E as standard

Max. opening speed 0.7 m/s

Max. closing speed 0.7 m/s

With optional FU control BK 150 FU E H

Max. opening speed 1.5 m/s

Max. closing speed 0.7 m/s

#### **Emergency opening**

Emergency hand chain

#### Curtain

With aluminium profiles

Fabric thickness 0.9 mm
Vision panel thickness 2.0 mm

#### Resistance to wind load (EN 12424)

Door width up to 6000 mm Class 3, max. 115 km/h
Door width over 6000 mm Class 2, max. 100 km/h

#### **Curtain colours**

## External door for especially large openings



## For oversized openings

Double lashing straps and especially wide side guides ensure safe door travel even with a high door curtain weight. The standard FU control and double closing edges on the bottom profile ensure that the closing force is maintained and provide the door with its required safety.

#### Spring steel wind lock in curtain pocket

The lateral twin rollers ensure quiet door travel and allow for higher wind loads. The number of wind locks is determined by the door size, wind load requirements and the fitting situation.



Spring steel wind lock



Especially wide side guide

External door	V 10008	
Size range		
Max. width (LDB)	10000 mm	
Max. height (LDH)	6250 mm	
Speed		
With standard FU control AS (door width up to 6000 mm)	3 500 FU E	
Max. opening speed	1.5 m/s	

0.8 m/s

0.4 m/s

#### Emergency opening Emergency hand chain

Max. opening speed

Max. closing speed

(door width from 6000 mm)

#### Curtain

Spring steel wind lock with lateral twin rollers and tensioning system

Fabric thickness 1.5 mm
Vision panel thickness 2.0 mm

#### Resistance to wind load (EN 12424)

Door width up to 6000 mm Class 3, max. 115 km/h
Door width over 6000 mm Class 2, max. 100 km/h

#### **Curtain colours**

Internal door for protecting people and machines



## Safety for people and machines

The requirements for work safety and modern manufacturing processes are constantly increasing. Reliable production processes with short downtimes, simple access for operation and maintenance of the manufacturing machines and of course the safety of the employees are all important.

#### Secure monitoring and quick access

The flexible high-speed door with machine protection function fulfils all of these requirements. It protects operating personnel thanks to a monitored complete partitioning of the machine and provides fast access when needed. Safety sensors in the aluminium bottom profile and in the frame reliably transmit the door position to the system control (performance level d). The door can thus open only when the machine is idle and the machine can be operated only when the door is closed.



Safety sensors transmit the door position

Internal door	V 5030 MSL
Size range	
Max. width (LDB)	4000 mm
Max, height (LDH)	4000 mm

# ax. height (LDH) 4000 mr

#### Speed

With standard FU control BK 150 FU E H

Max. opening speed 1.5 m/s
Max. closing speed 0.8 m/s

#### **Emergency opening**

Crank handle

Optional: Automatic door opening via UPS in case of power failure (BK 150 FU E H UPS, 230 V)

#### Curtain

With spring steel wind lock

Fabric thickness 1.5 mm
Vision panel thickness 2.0 mm

#### **Curtain colours**

RAL 1018 Zinc yellow

RAL 2004 Pure orange

RAL 3002 Carmine red RAL 5010 Gentian blue

RAL 7038 Agate grey

# V 3015 RW

## Internal door with SoftEdge for rescue routes





# The internal door for rescue routes with decisive advantages

Thanks to a SoftEdge profile with anticrash system, these high-speed doors are especially safe and economical. People are better protected and damage and downtimes are avoided.

Recommended for use in rescue routes With certified qualification and official approval for individual cases, these high-speed doors can be integrated into rescue route planning.

#### Standard equipment

Radar detector for advanced protection in the escape direction, emergency open button.



Radar detector in escape direction as standard



Internal door	V 3015 RW
Size range	
Max. width (LDB)	3000 mm
Max. height (LDH)	3000 mm

#### Speed

With standard FU control BS 150 FU E

Max. opening speed 1.5 m/s

Max. closing speed 0.8 m/s

#### Anti-crash system

With automatic re-feed on both sides

#### **Emergency opening**

Counter weight with operating current brake

#### Curtain

With aluminium profile

Fabric thickness 1.5 mm
Vision panel thickness 2.0 mm

#### **Curtain colours**

# **ISO Speed Cold**

Fast energy-saving cold store and deep freeze door





#### Fast, airtight and extremely efficient

Thanks to its sections with thermal break and special seals for the building structure and floor, the ISO Speed Cold is the optimum solution for all areas with high temperature differences. Used as a high-speed door in cold-storage areas or to save energy in production and distribution areas, the ISO Speed Cold remains impervious.

#### With thermal breaks

The steel sections in the ISO Speed Cold have thermal breaks separating the interior from the exterior. Additional lintel and bottom seals help to achieve an excellent thermal insulation value of  $U_T = 0.3 \ W/(m^2 \cdot K)$ .

#### **Exceptionally airtight**

The double-skinned door leaf is infilled with polyurethane rigid foam (PU). Thus it is exceptionally stable and attains exceptional insulation values in conjunction with the all-round sealing frame.



Sections with thermal break

Internal door	ISO Speed Cold	
Size range		
Max. width (LDB) Max. height (LDH)	Outside (cold store) 5000 mm 5000 mm	Inside (freezer) 4000 mm 4000 mm

#### Speed

With standard FU control AS 500 FU E

Max. opening speed 2.0 m/s Max. closing speed 0.5 m/s

#### Panel

Foamed with polyurethane
Thickness 80 mm

#### **Emergency opening**

Counter weight Emergency hand chain

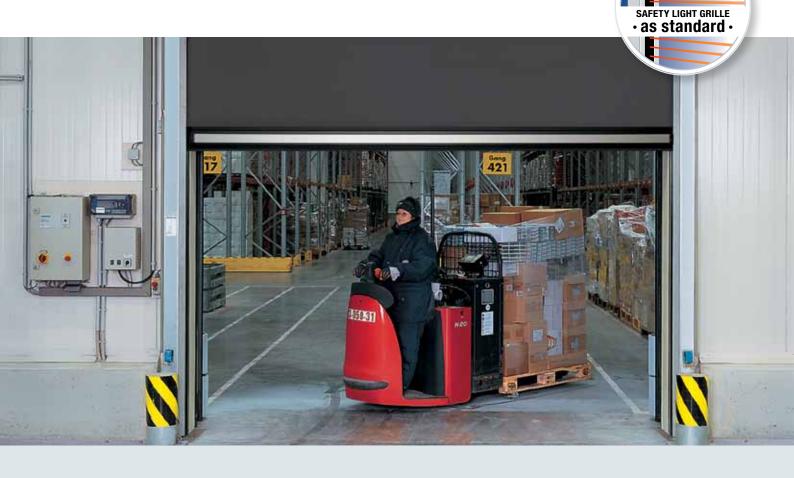
#### Thermal insulation (EN 12424)

For 25 m<sup>2</sup> door size  $U_T = 0.3 \text{ W/(m}^2 \cdot \text{K)}$ 

#### Track applications

Track application V for fitting within and outside of freezer High-lift track application only for fitting outside of freezer

# Internal door for fresh and cold logistics up to 5°C



For cold and fresh foods with insulated curtain for good thermal values The energy-saving door in internal

The energy-saving door in internal areas for cold and fresh logistics.

A thermal insulation value of  $U_T = 1.2 \text{ W/(m}^2 \cdot \text{K})$  is achieved.



Wind lock

20 mm	Street Section
	1000
· ·	

20-mm-thick insulated curtain

Internal door	V 4015 ISO L
Size range	
Max. width (LDB) Max. height (LDH)	4000 mm 4500 mm

Speed
With standard FU control BK 150 FU E H
Max. opening speed 1.5 m/s
Max. closing speed 0.5 m/s

**Emergency opening** 

Crank handle Optional: Automatic door opening via UPS in case of power failure (BK 150 FU E H UPS, 230 V)

Curtain

PE foam Thickness 20 mm

Thermal insulation (EN 12424)

For 25 m² door size  $U_T = 1.2 \text{ W/(m²·K)}$ 

# V 2515 Food L

Internal door for wet areas in the food industry





The side guides in this special version are easy to clean. High-pressure cleaning systems and water are not a problem for the door construction, which is made entirely of stainless steel. No counter weights or springs complicate the cleaning of the frame.

#### Spray-water protected

The operator is completely enclosed in a splash-water protected operator cover made of V2 A stainless steel (protection category IP 65).

The safety light grille complies with protection category IP 67.



The door is supplied with an EPDM seal and safety light grille in the frame as standard.



Easy to clean

Internal door	V 2515 Food L	
Size range		
Max. width (LDB) Max. height (LDH)	2500 mm 3000 mm	

#### Speed

With standard FU control BS 150 FU E H V2 A

Max. opening speed 1.2 m/s

Max. closing speed 0.5 m/s

#### **Emergency opening**

Optional:

. Automatic door opening via UPS in case of power failure (BS 150 FU E H V2 A UPS, 230 V)

#### Curtain

With spring steel in curtain pockets
Fabric thickness 1.5 mm
Vision panel thickness 2.0 mm

#### **Curtain colours**

#### Internal door for supermarkets





## The completely equipped door

Full equipment with operator and shaft cover, standard light grille and automatic emergency opening via a counter weight (in case of power failure) make this flexible plastic curtain door a safe choice for indoor areas with a high customer frequency.

# Anti-crash system with automatic start-up

Thanks to a durable, light curtain and very flexible bottom part, this door is back in operation within seconds of a crash. This high level of flexibility does away with the need for a closing edge safety device.

#### **FU** control

With a standard FU control BK 150 FU E H the door achieves opening speeds of up to 1.2 m/sec.

#### **Curtain variants**

Anti-static fabric curtain, as standard without vision field. Available on request with an approx. 750 mm high vision panel from 1200 mm above FFL at no surcharge.



350-mm-high light grille concealed in the door guide

Internal door	V 2012
Size range	
Max. width (LDB)	2500 mm
Max. height (LDH)	2500 mm

#### Speed

With standard FU control BK 150 FU E H

Max. opening speed 1.2 m/s

Max. closing speed 0.5 m/s

#### **Emergency opening**

Counter weight with operating current brake

#### Curtain

With spring steel in curtain pockets
Fabric thickness 1.5 mm
Vision panel thickness 2.0 mm

#### Curtain colours

# **V 1401 ATEX**

# Internal door for explosive areas



#### V 1401 ATEX

The high-speed door for explosive areas. Developed, designed and certified in accordance with the following directives: EC Explosion Protection 94/9/EC and DIN EN 13463-1.

The control cabinet must always be fitted outside the Ex area.



Internal door	V 1401 ATEX
Size range	
Max. width (LDB)	4000 mm
Max. height (LDH)	4000 mm
Speed	
With standard FU control BS	150 FU E
Max. opening speed	1.5 m/s
Max. closing speed	0.8 m/s

#### Emergency opening

Crank handle

#### Curtain

With aluminium profile
Fabric thickness 1.5 mm
Vision panel thickness 2.0 mm

#### **Curtain colours**

# **V 3015 CLEAN**

# Internal door for clean rooms, transparent curtain



#### Special curtain for pressure differences

Air purification in clean rooms can result in a pressure difference of up to 50 Pa. The fully transparent curtain of this clean room door is tightly integrated in the special side guides. This minimizes air loss (leakage) and enables an optimum design for ventilation systems. A stainless steel cover on the shaft and operator, and welded-on spring steel stabilisation are further characteristics of this door.



Extremely leaktight and fully transparent



Curtain tightly integrated in the side guides

Internal door	V 3015 CLEAN	
Size range		
Max. width (LDB)	2500 mm	
Max. height (LDH)	3000 mm	

# With standard FU control BS 150 FU E H V2 A Max. opening speed 1.5 m/s Max. closing speed 0.5 m/s

#### Emergency opening

Crank handle Optional:

Automatic door opening via UPS in case of power failure (BS 150 FU E H V2 A UPS, 230 V)

#### Curtain

With spring steel in curtain pockets
Fully transparent curtain thickness 4.0 mm

#### Wind lock strip colours

RAL 1018 Zinc yellow RAL 2004 Pure orange

RAL 3002 Carmine red RAL 5010 Gentian blue

RAL 7038 Agate grey

## Internal door for conveyor systems



## **Designed for continual operation**

The V 3009 is fitted between the operating sections and the storage areas within the conveyor system and is used to save energy and reduce draughts and noise. The door is designed for a high number of automated opening and closing cycles.

The door control can be integrated in existing PLC systems. A volt-free contact reports the door position (open / closed) to the control.



A vision panel gives insight into the operating procedure

Internal door	V 3009 Conveyor	
Size range		
Max. width (LDB)	3500 mm	
Max. height (LDH)	3500 mm	

#### Speed

With standard control AK E (contactor)

Max. opening speed 0.8 m/s

Max. closing speed 0.8 m/s

With optional FU control BK 150 FU E H

Max. opening speed 1.2 m/s

Max. closing speed 0.5 m/s

#### **Emergency opening**

Crank handle

#### Curtain

With aluminium profile Fabric thickness Vision panel thickness

1.5 mm 2.0 mm

#### Curtain colours

RAL 1018 Zinc yellow RAL 2004 Pure orange RAL 3002 Carmine red

RAL 5010 Gentian blue RAL 7038 Agate grey

# H 3530

#### Fast horizontal door





# Opens quickly, crashes virtually excluded

Our quickest door for internal applications. The door leaves quickly open to the sides and immediately make the full passage height available. This guarantees fast traffic flow and increases safety, above all for personnel traffic. Despite the fast opening speed of 3 m/sec., soft start and stop are guaranteed by the frequency converter control, which reduces the door's wear.

Further benefits: Two opening widths can be programmed for personnel and vehicles. Closing edge safety devices and photocells provide additional safety. In the event of a malfunction, the door can quickly be opened with a hand pulley or automatically during a power failure by using an operating current brake (special equipment).

# The entire operator technology is arranged on the right

in a space-saving manner in 3-sided cladding and only requires minimum headroom.



In the stainless steel version, the door fulfils the hygienic requirements of the food, chemical and pharmaceutical industries.

H 3530
3500 mm
3500 mm

#### Speed

With standard FU control BK 150 FU E H

Max. opening speed 3.0 m/s

Max. closing speed 1.0 m/s

#### **Emergency opening**

Springs with pull cord Optional: Springs with operating current brake

#### Curtain

Fabric thickness 1.5 mm Vision panel thickness 2.0 mm

#### Wind lock strip colours

# Standard at Hörmann

## Intelligent operator and control technology



#### Reliable thanks to innovative equipment

Hörmann high-speed doors are up to 20 times faster than conventional industrial doors. Which is why the intelligent operator and control technology is designed for reliable continuous operation. All operators and controls are equipped with plug-in terminals to allow the control circuit boards to be easily changed (control voltage 24 V DC).

#### Standard at Hörmann:

#### Frequency converter control

High performance frequency converter controls (FU) feature higher speeds and relieve the complete door mechanism which, in turn, extends the service life of the door considerably.

**Door cycle counter** 

**Operation time monitoring** 

Automatic timer (adjustable hold-open phase)

Error display / diagnosis via a 4x 7-segment display

Service operation setting



# **FU** controls







#### **BK 150 FU E H** FU control in plastic housing IP 54 single-phase, 230 V

#### Operation

Open-Stop-Close membrane push button 4 × 7-segment display to provide information on door functions

#### Function

Automatic timer, hold-open phase adjustable, safety light grille, closing edge safety device (H 3530), stop/reopen

#### Impulse generator

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

#### **Extension options**

Main switch, traffic lights, flashing warning light, locking, intermediate stop, extension PCB E FU H, stainless steel cabinet IP 65

#### Wiring

Connecting lead 1~230 V, N, PE, fuse 16 A, slow-acting, plug-in connection between door operator and control cabinet, CEE plug, 3-pin with 1 m cable for on-site CEE socket, 16 A

#### Housing dimensions

200 × 400 × 200

#### **AS 500 FU E** FU control in steel 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, hold-open phase adjustable, safety light grille, closing edge safety device (V 10008, ISO Speed Cold), stop/reopen

#### Impulse generator

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

#### **Extension options**

Traffic lights, flashing warning light, locking, intermediate stop, extension PCB R FU X stainless steel cabinet IP 65

Connecting lead 3~400 V, N, PE, fuse 20 A, slow-acting, plug-in connection between door operator and control cabinet, connecting lead cross section 5 x 2.5 mm<sup>2</sup> (depending on national standards)

### **Housing dimensions**

 $400 \times 600 \times 200$ 

#### E FU H/R FU X **Extension PCB for controls: BK 150 FU E H (E FU H)** AS 500 FU E (R FU X)

Lock controller, 4 additional switch outputs (2 × 2 volt-free), 8 additional digital inputs

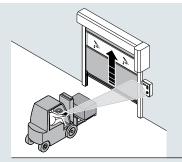
Compatible door types V 4015 SEL R V 5015 SEL V 5030 SEL (up to 2 m/s) V 6030 SEL (up to 2 m/s) V 6020 TRL (up to 12.25 m²) V 5030 MLS V 2012 V 4015 ISO L H 3530

#### Compatible door types

HS 7030 PU HS 5015 PU N HS 5015 PU H HS 6015 PU V V 5030 SEL (up to 3 m/s) V 6030 SEL (up to 3 m/s) V 6020 TRL V 10008 ISO Speed Cold

# **Accessories**

## Operating and controlling options



Radio remote controls



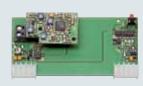
4-button hand transmitter HS 4



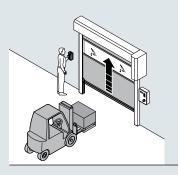
1-button hand transmitter



Hand transmitter HSI For up to 999 doors With large, clear display



Receiver HER 1 (1-channel) with volt-free relay output in a separate housing without connecting lead or as a plug-in circuit board in the control cabinet



Manually operated impulse generators



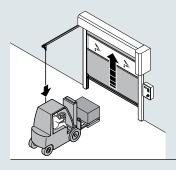
Push button 2 × "Open / Close" Plastic housing IP 65



Push button 3 × "Open/Emergencyoff/Close" Plastic housing IP 65



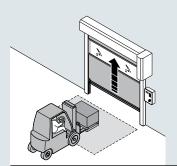
**Mushroom button**With large operating surface
Plastic housing IP 65



Manually operated impulse generators



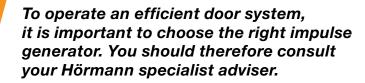
**Pull switch with plastic pull cord** Horizontal or vertical fitting possible, aluminium die-cast housing IP 65, cord length 4 m

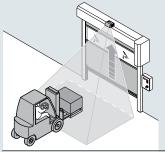


Induction loops



Induction loop detector
1 or 2-channel plug-in print suitable
for two separate induction loops,
supplied without loop cable



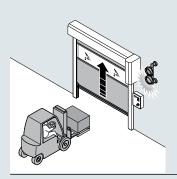




### Remote controls

#### Radar / presence detector Comfort

Radar movement and presence detection with infrared detection, fast and targeted automatic door opening, reliable advance protection, up to a height of max. 6 m, in areas with high levels of humidity and in outside areas, only the radar function is available, housing: protection category IP 65







Warning light Ø 150 mm Red, in plastic housing with mounting strap, IP 65



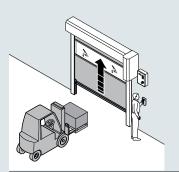
Warning light Ø 150 mm Red, green, in plastic housing, with fitting support, IP 65



Rotating warning light Red or yellow, in plastic housing, IP 54



Flashing warning light Orange, in plastic housing,







External control element **// NEW** from June 2013 For easy operation and programming, can be placed independent from the control, same control buttons as on the control as well as 4 × 7-segment display

# Construction and quality features

Use	Internal door				
	External door				
Speed	FU control (3-phase)	Max. opening speed approx. m/s			
	FU control (1-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 requiremen	t) see the Technical Manual				
Door construction	Self-supporting				
Door leaf counterbalance	Supporting				
Door leaf	Double-skinned section thickness				
	Foamed door leaf				
Door leaf material / surface	Steel, RAL 9006				
	Wet coating in RAL to choose				
	Aluminium rail window, anodised aluminium E6 / EV 1				
Glazing	Double synthetic panes				
	Triple synthetic panes				
Ventilation grille	Ventilation cross section dependent	on size / version (at least 30 %)			
Operator and control	Frequency converter control				
	Connecting voltage	3-phase			
		1-phase			
	Open-Stop-Close button				
	Main switch, all-pole switch-off (1-phase/3-phase)				
	Fuse protection	3-phase			
		1-phase			
	Protection category for operator and	control			
	Emergency-OFF button	3-phase			
		1-phase			
	Closing edge safety device with energy chain				
	Closing zone monitoring	Safety light grille IP 67			
	External route monitoring	Photocell			
		Light grille			
	Door area monitoring	Radar presence detector			
		Induction loop			
	Hold-open phase in sec.				
	Electronic limit switch DES				
Emergency opening	Crank handle				
	Hand chain				
	Counter weight / spring				
		00) for FU control 230 V, 1-phase (up to 9 m² on request)			

Spiral Door		High-speed sectional doors	
HS 7030 PU	HS 5015 PU N	HS 5015 PU H	HS 6015 PU V
•	•	•	•
•	•	•	•
2.5	1.5	1.5	1.5
2.5	1.5	1.5	1.5
0.5	0.5	0.5	0.5
•	•	•	•
Class 4	Class 4	Class 4	Class 4
Class 3	Class 3	Class 3	Class 3
Class 0	Class 0	Class 0	Class 0
1.95 W/(m²·K)	1.95 W/(m²⋅K)	1.95 W/(m²·K)	1.95 W/(m <sup>2</sup> ·K)
26	26	26	26
6500	5000	5000	6500
6000	5000	6000	6000
=	-	=	-
•	•	•	•
42	42	42	42
•	•	•	•
•	•	•	•
0	0	0	0
•	•	•	•
•	•	•	•
0	0	0	0
0	0	0	0
•	•	•	•
3 – 400 V, N, PE	3-400 V, N, PE	3-400 V, N, PE	3 – 400 V, N, PE
1 – 230 V, N, PE	1 – 230 V, N, PE	1 – 230 V, N, PE	1 – 230 V, N, PE
•	•	•	•
•	•	•	•
20 A, slow-acting	20 A, slow-acting	20 A, slow-acting	20 A, slow-acting
16 A, slow-acting	16 A, slow-acting	16 A, slow-acting	16 A, slow-acting
IP 54	IP 54	IP 54	IP 54
•	•	•	•
0	0	0	0
_	_	_	_
•	•	•	•
-	-	_	_
0	0	0	0
0	0	0	0
0	0	0	0
1 – 200	1 – 200	1 – 200	1-200
•	•	•	•
-	-	-	-
•	•	•	•
-/-	-/-	-/-	-/-
<u>-</u>	<u>-</u>	<u>-</u>	
0/0/0	0/0/0	0/0/0	0/0/0

# Construction and quality features

Use	Internal door					
	External door					
Speed	FU control (3-phase) LDB > 6000 mm	Max. opening speed, approx. m/s				
	FU control (1-phase) max. LDB × LDH (6000 × 6000 mm)	Max. opening speed, approx. m/s				
	Contactor control (3-phase)	Max. opening speed, approx. m/sec.				
	Relay control	Max. closing speed, approx. m/s				
ecurity features	DIN EN 13241					
esistance to wind load	DIN EN 12424	LDB > 6000 mm				
Resistance to water penetration	DIN EN 12425					
Air permeability	DIN EN 12426					
ransmission of heat	DIN EN 12428					
Acoustic insulation	DIN EN 52210 dB					
Curtain stabilisation / WS	Aluminium / spring steel					
Ooor sizes	Max. width LDB					
	Max. height LDH					
or fitting dimensions (space requirement) s						
Anti-crash / crash-protection	With automatic / manual start-up					
Door construction	Self-supporting					
Curtain	Fabric / transparent	1.5 (0.9) / 2.0 mm				
	Transparent / fabric / transparent	4.0 (< 25 mm²) / 2.4 / 4.0 mm				
Door leaf tension						
Guide material / surface	Galvanized steel					
	Galvanized steel, coated, in colours based	on RAL				
	Polished stainless steel V2 A					
Shaft / operator cover	Straight					
	30° chamfered (5°)					
Operator and control	Relay control					
	FU control					
	Connecting voltage (3-phase)					
	Connecting voltage (1-phase)					
		Open-Stop-Close button				
	FU control, main switch, all-pole switch-off,	. 1-phase / 3-phase				
	Fuse protection	3-phase (contactor)				
		1-phase				
	Protection category	Operator, control				
	Emergency-OFF button	3-phase				
		1-phase				
	Closing edge safety device	With energy chain				
	Closing zone monitoring	Safety light grille IP 67				
	External route monitoring	Photocell (internal)				
		Light grille				
	Door area monitoring	Radar presence detector				
	boor area morntoring					
	Hold open phase in sec	Induction loop				
	Hold-open phase in sec.					
·	Electronic limit switch DES					
Emergency opening	Crank handle					
	Emergency hand chain					
	Counter weight / springs					
	UPS in plastic cabinet (200 × 400 × 200) for					

## Flexible high-speed doors

V 4015 SEL R	V 5015 SEL	V 5030 SEL	V 6030 SEL	V 6020 TRL	V 9015 L Trekking	V 10008
•	•	•	•	•	•	•
-	_	Wind protected 1)	•	•	•	•
-	=	3.0	3.0	1.5	1.5	(0.8) / 1.5
1.2	1.5	2.0	2.0	1.5	1.0	1.5
				<del>-</del>	0.6	
0.8	0.8	0.8	0.8	0.5	0.8/(0.6)	0.4
•	•	•	•	•	•	•
Class 0	Class 0	Class 0 / 1 with aluminium bottom profile	Class 2	Class 2	Class (2) / 3	Class (2) / 3
Class 0	Class 0	Class 0	Class 0	Class 0	Class 0	Class 0
Class 0	Class 0	Class 0	Class 0	Class 0	Class 0	Class 0
-	_	-	-	_	-	-
-	_	-	_	-	-	_
●/-	●/-	-/●	-/●	<b>-/●</b>	● /-	-/●
4000 <b>2)</b>	5000	5000	5000	6000	9000	10000
4000 <b>2)</b>	5000	5000	6000	7000	6000	6250
Crash-protection	Anti-crash	Anti-crash	Crash-protection			
Orasii-protection	Anti-Crash	•	Orasii-protection	•	•	
	•				(•)	
<u> </u>			-/-	<u>-</u> ●/○	-/-	-/-
				•		
<del>-</del>						
•	•	•	•	•	•	•
0	0	0	0	0	0	0
0		0	0	0	0	
	0	0	0	0	-	-
0	0	0	0	0	(•) •	(O) •
<u> </u>	<u>-</u>	<u> </u>			0	
		3 – 400 V, N, PE	3-400 V, N, PE	3 – 400 V, N, PE	3 – 400 V, N, PE	3 – 400 V, N, PE
1 – 230 V, N, PE	1 – 230 V, N, PE	1 – 230 V, N, PE	1 – 230 V, N, PE		1 – 230 V, N, PE	3-400 V, N, FL
1-230 V, N, PE	1-230 V, N, FE	1-230 V, N, FE	1-230 V, N, PE	1 – 230 V, N, PE	1 – 230 V, N, PE	
○/- -	<u> </u>	○ / ● 20 A, slow-acting	○/● 20 A, slow-acting	○/● 20 A, slow-acting	○/● 20 A (10A),	-/● 20 A, slow-acting
16 A, slow-acting	16 A, slow-acting	16 A, slow-acting	16 A, slow-acting	16 A, slow-acting	slow-acting 16 A, slow-acting	16 A, slow-acting
IP 54	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54
0	0	0				
	<u>_</u>	•	0	0	0	0
0	0	0				•
<u>_</u>	•	•	•	•	•	
<del>_</del>					0	(●)
						· · · · · · · · · · · · · · · · · · ·
0		<u>_</u>				
1-200	1 – 200	1-200	1-200	1-200	1-200	1-200
•	•	•	•	·		•
	<del>_</del>		·	•	•	
			0	<u> </u>	0	
-/-	-/-	-/-	0/-	-/-	-/-	-/-
0/0/0	0/0/0	0/0/0	0	0	0/0/0	

# Construction and quality features

Use	Internal door					
	External door					
Speed	FU control (3-phase)	Max. opening speed, approx. m/s				
	FU control (1-phase)	Max. opening speed, approx. m/s				
		Max. closing speed, approx. m/s				
Security features	DIN EN 13241					
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					
Curtain stabilisation / WS	Aluminium / spring steel					
Door sizes	Max. width LDB					
	Max. height LDH					
For fitting dimensions (space requirement) se	ee the Technical Manual					
Anti-crash / crash-protection	With automatic / manual start-up					
Door construction	Self-supporting					
Curtain	Fabric / transparent	1.5 / 2.0 mm				
	Transparent / fabric / transparent	4.0 mm				
	Door leaf, PU-foamed 80 mm					
	PE foam, 20 mm					
Door leaf tension						
Guide material / surface	Galvanized steel					
	Galvanized steel, coated, in colours based on RAL					
	Polished stainless steel V2 A					
Shaft / operator cover	Straight					
	30° chamfered (5°)					
Operator and control	WU control					
	FU control					
	Connecting voltage (3-phase)					
	Connecting voltage (1-phase)					
	Open-Stop-Close button					
		FU control, main switch, all-pole switch-off, 1-phase / 3-phase				
	Fuse protection	3-phase				
		1-phase				
	Protection category	Operator, control				
	Emergency-OFF button					
	Closing edge safety device	With energy chain				
	Closing sage safety devise  Closing zone monitoring	Safety light grille IP 67				
	External route monitoring	Photocell (internal)				
	External route monitoring	Light grille				
	Door area monitoring	Radar presence detector				
	Door area monitoring	Induction loop				
	Hold-open phase in sec.	induction 100p				
	Electronic limit switch DES					
Emergency opening	Crank handle					
Emergency opening						
	Emergency hand chain					
	Counter weight / springs	FIL				
	UPS in plastic cabinet ( $200 \times 400 \times 200$ ) for	or FO control 230 v, 1-phase				

Flexible high-speed doors for speci	ial applications	
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V 5030 MSL	V 3015 RW	ISO Speed Cold	V 4015 ISO L	V 2515 Food L	V 2012
•	•	•	•	•	•
-	_	•	<u>-</u>	_	_
_	_	2.0		_	
1.5	1.5		1.5	1.2	1.2
0.8	0.8	0.5	0.5	0.5	0.5
•	•	•	•	•	•
Class 0	Class 0	Class 3	Class 0	Class 0	Class 0
Class 0	Class 0	Class 0	Class 0	Class 0	Class 0
Class 0	Class 0	Class 0	Class 0	Class 0	Class 0
-	-	0.3 W/(m <sup>2</sup> ·K)	1.9 W/(m <sup>2</sup> ·K)	-	-
-/●	●/-	-/-	●/-	-/●	-/●
4000	3000	5000	4000	2500	2500
4000	3000	5000	4500	3000	2500
-	Anti-crash	_	_	Anti-crash	Anti-crash
•	•	<del>-</del>	-	•	•
-	•	•	•	•	•
•		-	-	-	-
_		•			_
_	_	_	•	_	_
			<u>-</u>		_
•	•	•	•		•
0	0	0	0		0
0	0	0	0		0
0	0		0		•
				(●)	
			(0)		
•	•	•	(O)		
3 – 400 V, N, PE		3 – 400 V, N, PE			
1 – 230 V, N, PE	1 – 230 V, N, PE			1 220 V N DE	1 220 V N DE
		<u>-</u>	1 – 230 V, N, PE	1 – 230 V, N, PE	1 – 230 V, N, PE
•	•	<del>_</del>		•	•
○/●	•/-	-/ <b>●</b>	0/-	● / -	-/-
20 A, slow-acting	-	20 A, slow-acting	-	-	-
16 A, slow-acting	16 A, slow-acting	-	16 A, slow-acting	16 A, slow-acting	16 A, slow-acting
IP 54	<del>-</del>	IP 54	IP 54	<del>-</del>	
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<del>-</del>	With spiral cable	•	_	_	
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# Construction and quality features

● = Standard ○ = Optional

Use	Internal door				
<b>3</b> 00	External door				
Speed	FU control (3-phase)	Max. opening speed, approx. m/s			
opecu	FU control (1-phase)	Max. opening speed, approx. m/s			
	1 o control (1-phase)	Max. closing speed, approx. m/s			
Security features	DIN EN 13241	wax. closing speed, approx. m/s			
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				
Curtain stabilisation / WS	Aluminium / spring steel				
Door sizes	Max. width LDB				
Door sizes	Max. height LDH				
Fitting dimensions (space requirement)	Wax. Height LDH				
Anti-crash / crash-protection	With automatic / manual start-up				
Door construction	Self-supporting				
Curtain / door leaf	Fabric / transparent	1.5/2.0 mm			
Curtain/ door lear	transparent	4.0 mm			
Curtain / door leaf tension	transparent	4.0 111111			
Guide material / surface	Galvanized steel				
duide material/ surface	Galvanized steel, coated, in colours based on RAL				
	Polished stainless steel V2 A	ISEC OIL FIAL			
Shaft / operator cover	Straight				
onant, operator cover	30° chamfered (5°)				
Operator and control	WU control				
operator and control	FU control				
	Connecting voltage	3-phase			
	Connecting voltage	1-phase			
	Open-Stop-Close button	1-рназе			
	FU control, main switch, all-pole switch-off, 1-phase / 3-phase				
	Fuse protection	3-phase			
	i use protection	1-phase			
	Emergency-OFF button	1-рназе			
	Closing edge safety device	With energy chain			
		<del>-</del>			
	Closing zone monitoring	Safety light grille IP 67			
	External route monitoring	Photocell (internal)			
	D	Light grille			
	Door area monitoring	Radar presence detector			
		Induction loop			
	Hold-open phase in sec.				
_	Electronic limit switch DES				
Emergency opening	Crank handle				
	Emergency hand chain				
	Counter weight / springs				
	UPS in plastic cabinet (200 × 400 × 200	) for FU control 230 V, 1-phase			
Volt-free contacts / impulse generator / safety de	evice				

F1 : 1-1 -	teller and and	-1	£ : - !	
riexible	nian-speed	aoors	for special	applications

V 30	15 CLEAN	V 3009 Conveyor	V 1401 ATEX	HT 3530
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(	Class 0	Class 0	Class 0	Class 0
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	0/-	0/-	●/-	0/-
16.4	slow-acting	- 10 A (16 A, slow-acting / FU)	- 16 A, slow-acting	– 16 A, slow-acting
10 A,	O Slow-acting		O A, Slow-acting	O A, Slow-acting
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	<u>1−200</u>	1 – 200 •	-	1-200
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## Hörmann Product Range

## Everything from a single source for your construction project

#### 1 Sectional doors

These space-saving door systems can be adapted to different industrial facilities using various track applications. Hörmann offers you tailored solutions for every application.

## 2 Rolling shutters and rolling grilles

Thanks to a simple construction with just a few components, rolling shutters are both economical and sturdy. Hörmann supplies rolling shutters in widths and heights of up to 11.75 m and 9 m respectively, or as special doors which are even higher.

#### 3 High-speed doors

Hörmann high-speed doors are used both inside and as exterior doors to optimise the flow of traffic, improve room conditions and save energy. The Hörmann programme includes vertically and horizontally opening transparent doors with flexible curtains.

### 4 Loading technology

Hörmann offers you complete loading systems for the logistics sector.
The advantages: reliable planning, dependable execution of construction work and high functionality thanks to precisely matched components.

### Fire sliding doors

Hörmann can provide you with single or double-leaf sliding door solutions suitable for all areas and required fire protection classes.

# 6 Multi-function doors and reinforced internal doors

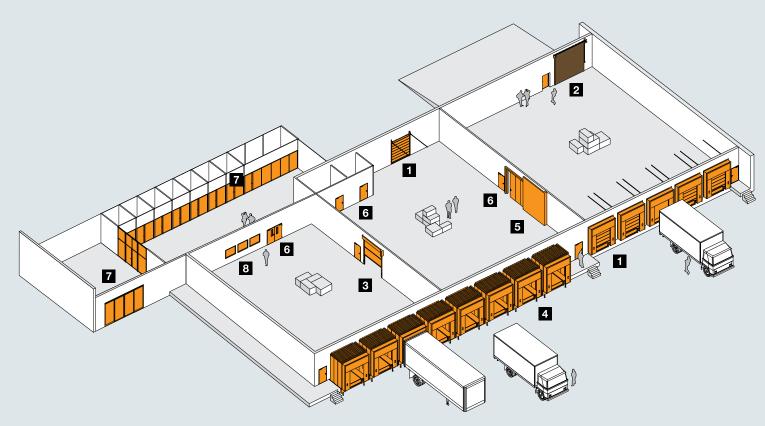
Hörmann multi-function doors and reinforced internal doors are suitable for indoor and outdoor use. Our single and double-leaf doors can be used wherever robust door elements are required. With numerous additional functions, such as fire and smoke protection, acoustic insulation or burglar protection.

### 7 Box frame parts

For areas in which appearance is important, such as administrative buildings, Hörmann offers you fire and smoke protection doors as well as steel and aluminium fixed glazing and automatic sliding doors, also suited for special fire protection requirements.

### 8 Visibility windows

Hörmann visibility glazings are used as windows or room-high elements to provide more light and better visibility.





# Quick service with testing, maintenance and repairs

Our extensive service network means that we are always nearby and at your service around the clock.

















## Hörmann: Quality without Compromise



Hörmann is the only manufacturer worldwide that offers you a complete range of all major building products from one source. We manufacture in highly-specialised factories using the latest production technologies. The close-meshed network of sales and service companies throughout Europe, and activities in the USA and China, make Hörmann your strong partner for first-class building products, offering "Quality without Compromise".

GARAGE DOORS

OPERATORS

INDUSTRIAL DOORS

LOADING EQUIPMENT

HINGED DOORS

DOOR FRAMES

