

# High-Speed Doors

NEW: Flexible high-speed door with ATEX protection







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## **Hörmann Brand Quality**

#### **Future-oriented and reliable**





#### **High-speed progress**

Highly-qualified technicians are constantly working on further developing and improving our products in order to meet the demands of the market. This results in economic high-speed door designs of the highest standard.



#### **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 marked 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, of course,

certified.



Hörmann spare parts for doors, operators and controls have a guaranteed availability of 10 years.



#### **Competent advice**

Experienced specialists within our customer-oriented sales organisation support 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

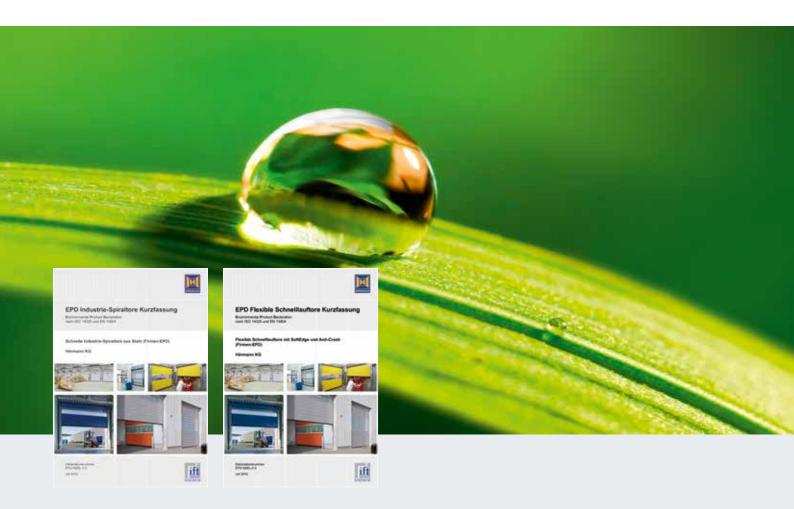


#### **Efficient service**

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

### **Sustainable Production**

#### For future-oriented construction



# Sustainability verified and documented by ift Rosenheim

Hörmann has received confirmation of the sustainability of all its high-speed doors through an environmental product declaration (EPD) according to DIN ISO 14025 and EN 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 lifecycle analysis in accordance with DIN EN 14040 / 14044 for all highspeed doors.

#### Sustainably produced: Hörmann's high-speed doors

#### **Ecological quality**

Environmentally friendly production through a comprehensive energy management system

#### **Economical quality**

A long service life and low maintenance costs thanks to the use of high-quality materials

#### **Process quality**

Sustainable production processes through optimised material use

# Sustainable construction with Hörmann's expertise

Hörmann has been able to gain great expertise in sustainable construction through various projects. We also apply this know-how to support your projects. Another advantage: For every project order, the required data for LEED certification are automatically generated.

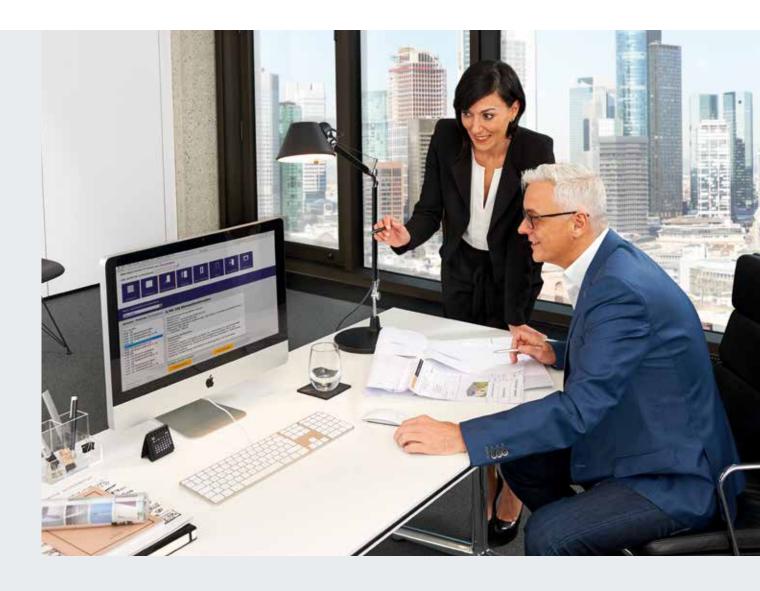






### **Simple and Sustainable Planning**

With the Hörmann Architects' Programme and energy saving compass



# The Architects' Programme More than 9000 drawings for over 850 products

Planning with Hörmann products is now even easier thanks to a modern, user-friendly interface. Clearly structured navigation via drop-down menus and symbols, as well as a search function, provides faster access to tender specifications and drawings (in DWG and PDF format) of over 850 Hörmann products. In addition, BIM data can be provided for many products for the Building Information Modeling Process, enabling efficient planning, drafting, construction and management of buildings. Photos and photo-realistic presentations provide additional information on many products.



The Architects' Programme is available to you as a web version at www.hormann.co.uk/forums/architects-forum/ architects-program or can be downloaded free-of-charge from the Hörmann Architects' Forum.

# The energy saving compass For sustainable planning

Hörmann's energy saving compass shows how industrial door systems and loading technology are planned with energy-efficiency and sustainability in mind. An integrated calculation module estimates the amortisation period for door and loading systems. The energy saving compass is available as a webbased interface for PC / MAC and mobile end devices.



Plan with the energy saving compass at: www.hormann.co.uk/energysavingscompass

# **Spiral Doors and High-Speed Sectional Doors**

With insulating sections for a high thermal insulation





#### **Optimised processes**

The high opening and closing speeds of spiral and high-speed sectional doors optimise work processes and significantly accelerate logistics processes. Depending on the version, the galvanized, double-skinned sections are guided into a spiral or into tracks.

#### **Excellent thermal insulation**

The sturdy steel sections of the doors have thermal breaks and are PU-foamed. As a result you benefit from excellent thermal values of up to 0.64 W/(m²·K) and minimise energy loss. For the special requirements in cold and refrigeration logistics, high-speed doors with 100 mm-thick sections are the first choice.

#### **Reliable security**

High speeds require special safety precautions. The solution: a standard light grille that is protected inside the side elements of the door. The door's closing zone is monitored here without any contact – and up to a height of 2500 mm.

### **Good Reasons to Try Hörmann**

Quality features of spiral doors and high-speed sectional doors



#### Non-contact safety

Safety light grilles integrated into the side assemblies monitor the closing zone of the door leaf up to a height of 2500 mm. The safety light grilles ensure compliance with safety requirements according to DIN EN 13241-1. This does away with the need for additional installations on the door (e.g. closing edge safety device or photocell). Profit from this high level of safety with a high-speed door that is exceptionally easy to fit and service. It pays to compare!

Long service life and high efficiency as standard The frequency converter control takes stress off the entire door mechanism, guaranteeing nearly wear-free, quiet door travel. High opening and closing speeds optimise your operations and reduce heat loss. In addition, they relieve the entire door mechanism through the smooth starting and braking action which considerably extends the service life of the door. For heavy, insulated doors the door travel is supported by springs, and for high-speed sectional doors with H and V track applications by wear-free counter weights.

# Glazing beads facilitate the exchange of individual panes



#### Uniformly foamed steel sections

The galvanized, double-skinned sections with PU rigid foam infill offer an **especially high level of thermal insulation**. 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.

## Increased thermal insulation thanks to ThermoFrame

Well-insulated high-speed doors are essential in heated halls. The ThermoFrame separates the side element from the building structure. The thermal break along with additional seals improves thermal insulation by up to 15 % and is easy and quick to fit. The ThermoFrame can be optionally ordered for doors with 42 mm and 67 mm thick sections. It is already included in the scope of delivery for Iso Speed Cold 100 doors.

#### **Optional glazing**

Duratec glazing guarantees maximum scratch resistance despite heavy use in rough industrial environments. The special surface coating protects the pane from scratches and damage caused by cleaning.

For 67 mm insulated doors, you receive the aluminium glazing frame with thermal break with triple glazings. We deliver 42 mm insulated doors with double glazing.



The glazing beads on the inside allow defective panes to be exchanged easily and quickly.

# **Spiral Doors and High-Speed Sectional Doors**

With insulating sections for a high thermal insulation



#### Quick and well-insulated

The high opening and closing speeds reduce heat losses.

# The space-saving track application N (normal) For tight spaces in the lintel area, we recommend track application N.







# The adjustable H (high-lift) and V (vertical) track applications

These allow the door to be fitted behind or above supply lines, for example. Door travel is supported by low-wear counter weights.

#### For cold store and deep freeze areas

The 100 mm thick sections of the Iso Speed Cold 100 reliably separate areas with high temperature differences.





### **Spiral Doors and High-Speed Sectional Doors**

#### Section with thermal break and high thermal insulation

# 42 mm steel sandwich section with thermal break

The 42 mm thick PU foamed steel sections are particularly robust and offer excellent thermal insulation which can be further improved with an optional ThermoFrame.

# 67 mm steel sandwich section with thermal break

For higher thermal insulation requirements we recommend the 67 mm thick sections with a thermal insulation value of up to 0.64 W/(m²·K). The optional ThermoFrame also improves the thermal insulation for this version by up to 15 % (for 25 m² door surface).

# 100 mm steel sandwich section with thermal break

This door version is the optimal door for the cold store and deep freeze areas and is delivered with ThermoFrame as standard. For use in deep freeze areas, the side elements, operator, control, sealing frame and base plates are delivered heated.

#### **Acoustic sections**

For the special requirements of acoustic insulation, the HS 5015 Acoustic H high-speed doors are equipped with aluminium hollow profiles. The hollow profiles are filled with 5 mm UPVC and 30 mm PU foam.

#### Surface finishes and colours

The 42 and 67 mm thick sections are delivered with elegant Micrograin surface on the exterior and Stucco surface on the interior – exterior and interior are White aluminium based on RAL 9006 as standard. The 100 mm thick sections come Stucco-textured on the interior and exterior in standard Grey white based on RAL 9002.

Optionally, we supply all door leaves in over 200 colours based on RAL.



Double-skinned steel sandwich sections with thermal break in three thicknesses: 42. 67 and 100 mm. acoustic section



Micrograin surface finish, on exterior for 42 and 67 mm sections



Stucco texture, on exterior for 100 mm sections

#### **Features**

Door	leaf

Construction	Steel sandwich construction, PU-foamed	Steel sandwich construction, PU-foamed	Steel sandwich construction, PU-foamed	Aluminium hollow profile 5 mm UPVC / 30 mm PL
Depth (mm)	42	67	100	42
Section height (mm)	250	375	500	225
Exterior / interior surface	Micrograin / Stucco	Micrograin / Stucco	Stucco	smooth
Standard colour	RAL 9006	RAL 9006	RAL 9002	C0 anodised
ThermoFrame	0	0	•	_
Duratec glazing, double	0	-	-	-
Duratec glazing, triple	0	0		
Speed with standard FU control				
Max. opening (m/s)	1.5 – 2.5	1.5 – 2.5	1.5 – 2.0	1.5 – 2.5
Closing approx. (m/s)	0,5	0,5	0,5	0,5
Resistance to wind load (EN 12424)				
Door width ≤ 5000 mm	Class 5	Class 5	Class 5	Class 4
Door width > 5000 mm ≤ 6000 mm	Class 4	Class 4		
Door width > 6000 mm	Class 2	Class 2		
Resistance to water penetration (EN	N 12425)			
	Class 1		Class 3	
Air permeability (EN 12426)				
	Class 2		Class 3	
Acoustic insulation (EN 717-1, EN IS	SO 10140-1, EN ISO 10140-2)	without glazing		
R = dB	26	26	26	31
Thermal insulation (EN 13241-1, ISC	12567-1) door size 4000 × 40	000 mm, without glazing with	ı ThermoFrame	
U-value in W/(m²·K)	1,04	0,64	0,57	
Emergency opening / emergency clo	osing			
Emergency hand chain	•	•	•	•
Automatic door opening via UPS in case of power failure (up to approx. 9 m² door surface)	0	-	-	-

● = Standard ○ = Optional

All colours are based on RAL.

### **Spiral Doors and High-Speed Sectional Doors**

#### Individual track application versions for every fitting situation

#### The compact spiral track application

The sections are securely guided into a spiral bracket without any contact. With the high-performance frequency converter control (FU) and the chain mechanism with spring compensation, the door reaches an opening speed of up to 2.5 m/s. The spiral door HS 7030 PU 42 can also be fitted externally.

#### The space-saving track application N

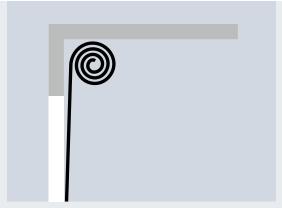
We recommend this track application for tight spaces in the lintel area. A chain mechanism with spring compensation runs the sections into horizontal tracks. This requires a low headroom of 480 mm.

#### The adjustable track application H

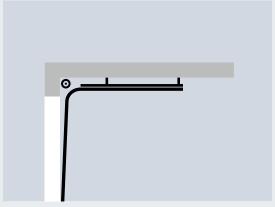
The sections are guided into horizontal tracks and can be diverted depending on the fitting situation. Thus, the door can be fitted behind or above supply lines and crane tracks. Thanks to the belt mechanism with counter weights, the door is especially low-wear and long-lasting thanks to the belt mechanism.

#### The wear-free track application V

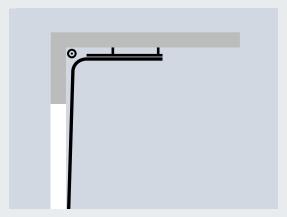
The sections run vertically along the hall wall. That is why the door movements are very quiet and wear-free. That is why the door movements are very quiet and wear-free. The belt mechanism with counter weights guarantees a long service life with constant use.



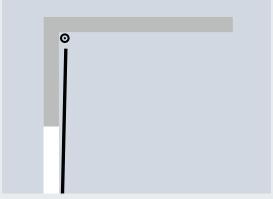
Spiral track application



Track application N (normal)



Track application H (high-lift)



Track application V (vertical)

#### **Features**

Track application	Spiral track application	Track application N (normal)	Track application H (high-lift)	Track application V (vertical)
Counterbalance				
Chain mechanism and springs	•	•		
Belt mechanism and counter weights			•	•
42 mm steel sandwich section, PU-fo	pamed, with thermal break			
Door type	HS 7030 PU 42	HS 5015 PU N 42	HS 5015 PU H 42	HS 6015 PU V 42
Max. width (mm)	6500	5000	5000	6500
Max. height (mm)	6500	6500	6500	6500
Min. required headroom (mm)	920	480	750	LDH + 585
67 mm steel sandwich section, PU-fo	pamed, with thermal break			
Door type			HS 5015 PU H 67	HS 6015 PU V 67
Max. width (mm)			5000	6500
Max. height (mm)			6500	6500
Min. required headroom (mm)			950	LDH + 735
100 mm steel sandwich section, PU-	foamed, with thermal break			
Door type			Iso Speed Cold H 100	Iso Speed Cold V 100
Temperature range (deviating temperat	ures on request)		Fitting side to 0°C Opposite side –28°C	Fitting side –28°C Opposite side –28°C
Max. width (mm)			5000	5000
Max. height (mm)			5000	5000
Min. required headroom (mm)			750	LDH + 585
42 mm aluminium hollow profile, fille	d with 5 mm UPVC and 30 n	nm PU foam		
Door type			HS 5015 Acoustic H	
Max. width (mm)			5000	
Max. height (mm)			5000	
Min. required headroom (mm)			1000	

<sup>● =</sup> Standard ○ = Optional LDH = clear passage height

# Flexible High-Speed Doors Internal and External Doors









#### **Benefits**

Flexible high-speed doors speed up workflows and reduce energy costs. They feature safe door operation and a long service life thanks to standard equipment with an FU control, safety light grille and SoftEdge bottom profile. In fact, they offer even more benefits: flexible high-speed doors are low-maintenance, easy to fit, costefficient and therefore economical for daily use.

#### Solution for interior use

Thanks to the high opening and closing speeds, heat losses on the door as well as draughts at the workplace are noticeably reduced resulting in less work absences due to illness.

#### Solution for external use

Flexible high-speed doors help you effectively reduce your energy losses even for external door openings, as well as draughts on the doors. External doors can withstand even high wind loads without any problems.

#### **Individual solutions**

Various demands require individual door solutions. Based on our expert know-how, we develop customer-specific solutions for special application areas such as conveyor systems, the food industry, clean rooms, cooling zones or for machine safety.

### **Good Reasons to Try Hörmann**

Quality features of the flexible high-speed doors



#### Non-contact safety

Safety light grilles integrated into the side assemblies monitor the closing zone of the door leaf up to a height of 2500 mm. The safety light grilles ensure compliance with safety requirements according to DIN EN 13241-1. This does away with the need for additional installations on the door (e.g. closing edge safety device or photocell). Profit from this high level of safety with a high-speed door that is exceptionally easy to fit and service. It pays to compare!

Long service life and high efficiency as standard The frequency converter control takes stress off the entire door mechanism, guaranteeing nearly wear-free, quiet door travel. High 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. As a result, the service life of your door is considerably increased.

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





Practical solutions

# Innovative details

## 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 door profiles, usually do not become necessary. SoftEdge ensures trouble-free operation and production processes.



Take a look at the video at: www.hormann.co.uk/videos

#### 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**. It pays to compare!

Internal door V 4015 SEL Alu-R with innovative tubular drive and aluminium side elements



#### Door type V 4015 SEL Alu-R

Thanks to its powerful, innovative tubular drive, the compact high speed door is ideal for fitting situations in tight spaces. In addition, the standard light grille and the SoftEdge profile make it safe and economical.

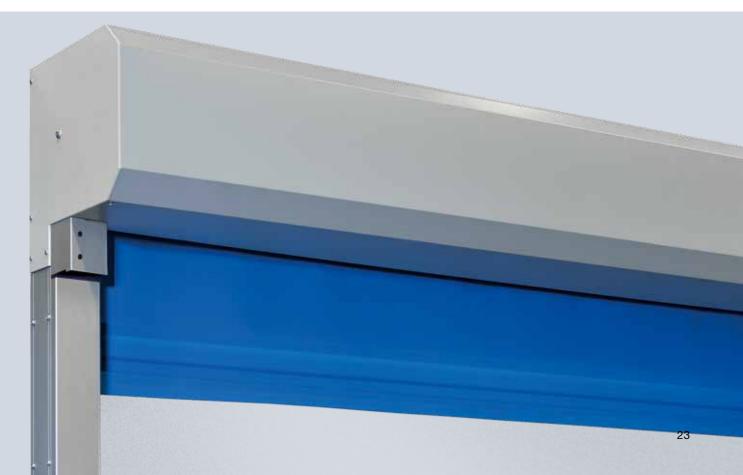


#### Compact design

The elegant, narrow aluminium side elements only require a low sideroom of 145 mm. The door curtain is particularly well sealed thanks to the very small gap dimension and lip seals.

#### Easy to fit and service

The standard shaft cover is divided and can be easily opened in the lintel area even with limited space. The connection cables for the control are guided out of the frame via a variable output (top or side).



# Internal door V 4015 SEL Alu-R with innovative tubular drive and aluminium side elements

#### Door type V 4015 SEL Alu-R

Thanks to the anodised aluminium surface finish of the side elements and top plates, the standard shaft cover in White aluminium RAL 9006, the integrated wiring and few visible screw fittings, the door is very elegant and can also be used in areas with customer traffic. The door is equipped with a light grille and SoftEdge profile for a high level of security and cost-effectiveness.

The light grille stops the door immediately if a person or vehicle is in the door opening.

Downtime due to damage to the door system is prevented thanks to the flexible SoftEdge profile. You can also optionally obtain the V 4015 SEL Alu-R with aluminium bottom profile for wind class 1 (DIN EN 12424).

The small gap dimension of the side elements and the lip seals also ensure very good door sealing. The high-speed door is particularly suitable for narrow fitting situations in high frequency areas thanks to the narrow side elements and the powerful tubular drive.

If the control has to be fitted in the top section due to space limitations, an optional control element can be elegantly integrated into the side frame. The control element allows for the operation of all control functions such as opening and closing as well as service settings.



**Stable curtain**Thanks to stabilising spring steel wind lock



**High tightness**Due to a small frame gap dimension and lip seals



Convenient operation
The optional control element (80 × 120 mm) can be integrated in the side frame at a height of 1300 mm.



Powerful With tubular drive for up to 700000 door cycles in high use areas

#### **Features**

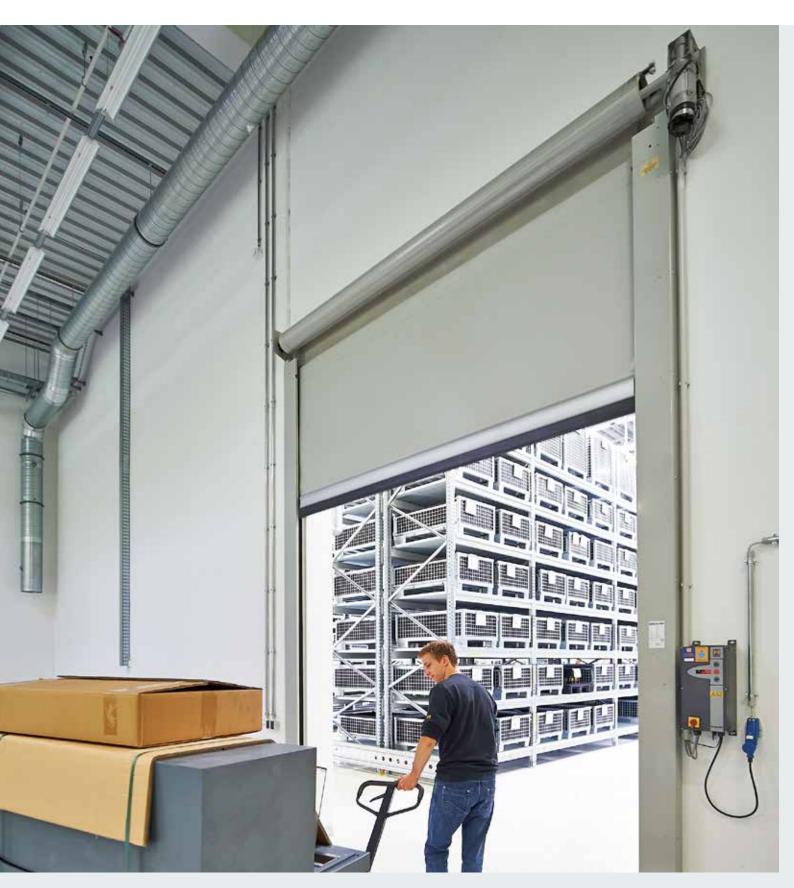
Door type	V 4015 SEL Alu-R		
Suitable application	Interior		
Size range			
Max. width (mm)	4000		
Max. height (mm)	4000		
Speed with control	BK 150 FU E-1		
Max. opening (m/s)	1,5		
Closing approx. (m/s)	0,8		
Curtain			
	UPVC, with spring steel wind locks and lateral twin rollers		
Temperature range	+5°C to +40°C		
Fabric thickness (mm)	1,5		
Vision panel thickness (mm)	2,0		
Curtain colours			
RAL 1018 Zinc yellow	•		
RAL 2004 Pure orange RAL 3002 Carmine red	•		
RAL 5002 Carrille red	· ·		
RAL 7038 Agate grey	•		
Emergency opening			
Automatic door opening via UPS in case of power failure	0		

● = Standard ○ = Optional All colours are based on RAL.

### **Curtain colours**



Internal doors with SoftEdge and anti-crash



#### Door type V 5030 SEL

The spring steel wind locks increase the curtain stability and withstand stronger draughts. (Figure shows a door with an optional aluminium bottom profile for wind class 1)



#### Door type V 5015 SEL

From a height of 3000 mm, you can optionally receive the door with two vision panels for better visual contact during forklift traffic and thus greater safety.

#### Door type V 5015 SEL

The proven door for draught-free areas: the aluminium profiles allow the curtain segments to be quickly and inexpensively replaced in case of repair. Insect screen instead of the vision panel also available on request.



#### Internal doors with SoftEdge and anti-crash

#### Door type V 5015 SEL

The inexpensive internal door for areas without draught comes with safety functions such as SoftEdge and light grilles as standard. The aluminium wind lock also makes the door particularly service-friendly, since curtain segments can be quickly replaced if repairs are necessary. For an improved view the curtain is also available with two transparent curtain sections.

#### Door type V 5030 SEL

Draughts always pose a particular challenge for doors. With the robust wind locks made of spring steel, the V 5030 SEL remains stable under small pull and wind loads. You can also optionally obtain the V 5030 SEL with aluminium bottom profile for wind class 1 (DIN EN 12424).



**V 5015 SEL**Curtain stability with aluminium profiles



Optional fly-protection curtain in place of the vision panel



**V 5030 SEL**Spring steel wind lock for quiet door travel

#### **Features**

Door type	V 5015 SEL	V 5030 SEL	
Suitable application	Interior	Interior	
Size range			
Max. width (mm)	5000	5000	
Max. height (mm)	5000	5000	
Speed with control	BK 150 FU E-1	BK 150 FU E-1	
Max. opening (m/s)	1,5	2,0	
Closing approx. (m/s)	0,8	0,8	
Curtain			
	UPVC, aluminium profiles	UPVC, spring steel wind locks with lateral twin rollers	
Temperature range	+5°C to +40°C	+5°C to +40°C	
Fabric thickness (mm)	1,5	1,5	
Vision panel thickness (mm)	2,0	2,0	
Fly protection curtain	0	<u>-</u>	
Curtain colours			
RAL 1018 Zinc yellow	•	•	
RAL 2004 Pure orange RAL 3002 Carmine red	•	•	
RAL 5010 Gentian blue	•	•	
RAL 7038 Agate grey	•	•	
Emergency opening			
Emergency crank handle	•	•	
Emergency hand chain	0	0	
Automatic door opening via UPS in case of power failure	0	0	

● = Standard ○ = Optional

All colours are based on RAL.

### **Curtain colours**



### Internal and External Doors



Door type V 6030 SEL
The particularly robust SoftEdge profile is specifically designed for outside use.



#### Door type V 6020 TRL

The 4 mm thick, transparent door curtain allows light to pass through and protects against surprises during transport.

#### Door type V 10008

The V 10008 was specifically developed for large openings and high wind loads of up to 100 km/h.



#### **Internal and External Doors**

#### Door type V 6030 SEL

When the SoftEdge door is used outside, collision damage in everyday work generally does not have any serious effects. Pull and wind loads do not pose problems thanks to the spring steel wind lock. You can also optionally obtain the V 6030 SEL with aluminium bottom profile.

#### Door type V 6020 TRL

The 4 mm thick, transparent door curtain allows light to pass through and protects against surprises during transport. Optionally, a version with coloured fabric material with or without vision field is available. The coloured fabric curtain is available for door sizes from 25 m<sup>2</sup>.

#### Door type V 10008

The external door was specifically developed for large openings and high wind loads. Double lashing straps, lateral twin rollers and especially wide side guides ensure safe door travel even with a high door curtain weight. The spring steel wind locks also allow for wind loads of up to 100 km/h.



Stabilising spring steel wind lock



V 6030 SEL
Tensioning system for reliable door travel.



V 6020 TRL
Transparent for more light and visual contact



V 6020 TRL Aluminium bottom profile for increased stability



V 10008 Stabilising spring steel wind lock

#### **Features**

Door type	V 6030 SEL	V 6020 TRL	V 10008
Suitable application	Interior / exterior	Interior / exterior	Interior / exterior
Size range			
Max. width (mm)	5000	6000	10000
Max. height (mm)	6000	7000	6250
Speed with control	BK 150 FU E-1	BK 150 FU E-1 <sup>1)</sup> AK 500 FUE-1 <sup>2)</sup>	AK 500 FUE-1
Max. opening (m/s)	2,0	2,0	1.5 (0.8) <sup>5)</sup>
Closing approx. (m/s)	0,8	0,5	0,4
Resistance to wind load (EN 12424)			
Door width ≤ 4000 mm	Class 2	Class 2	Class 4
Door width > 4000 mm ≤ 5000 mm	Class 2	Class 2	Class 3
Door width > 5000 mm		Class 2	Class 2
Curtain			
	UPVC, spring steel wind locks with lateral twin rollers and tensioning system	UPVC, spring steel wind locks with lateral twin rollers and tensioning system	UPVC, spring steel wind locks with lateral twin rollers and double tensioning system
Temperature range (deviating temperatures on request)	+5°C to +40°C	+5°C to +40°C	+5°C to +40°C
Fabric thickness (mm)	1,5	2,4	1,5
Vision panel thickness (mm)	2,0	4,0	2,0
Fully transparent curtain (mm)		4,0	
Fly protection curtain	0	<del>-</del>	-
Curtain colours			
RAL 1018 Zinc yellow RAL 2004 Pure orange RAL 3002 Carmine red RAL 5010 Gentian blue RAL 7038 Agate grey	•	W W/G W W/G W/G	•
Emergency opening			
Emergency crank handle	•	•	-
	0	0	•
Emergency hand chain	<u> </u>		

lack = Standard  $\bigcirc$  = Optional W = Wind lock strips G = Optional fabric colour

All colours are based on RAL.

#### **Curtain colours**



<sup>1)</sup> Up to 95 kg  $\,$  2) From 95 kg  $\,$  3) Up to 200 kg  $\,$  4) From 200 kg or optional  $\,$  5) From 6000 mm door width

#### **Internal Doors for Special Applications**



#### Door type V 4015 Iso L for cold and fresh logistics

The energy-efficient internal door is the ideal choice for refrigerated warehouses up to 1°C. (Door shown with on-site protection frame)

#### Door type V 2012 for supermarkets

The fully equipped door was especially developed as a safe internal door in commercial enterprises with high customer frequency. The door curtain is also available with custom printing.







#### Door type V 3015 Clean for clean rooms

The door for clean rooms with pressure differences combines a high degree of tightness with complete transparency.

#### Door type V 2515 Food L for the food industry

Thanks to a construction made entirely of stainless steel, the door can be very easily cleaned with high-pressure cleaners and water.



#### **Internal Doors for Special Applications**

#### Door type V 4015 Iso L

The door with energy-efficient insulated curtain in internal areas for cold and fresh logistics (up to +5°C). The optional ThermoFrame separates the frame from the building structure, thus improving thermal insulation by up to 15 %.

#### Door type V 2515 Food L

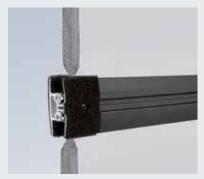
This door has been specifically designed for the food industry and features side guides that are particularly easy to clean. High-pressure cleaning systems and water are not a problem for the door construction, which is made entirely of stainless steel. No counter weights or springs complicate the cleaning of the frame.

#### Door type V 2012

Full equipment with operator and shaft cover, standard light grille (monitoring height 350 mm) 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.

#### Door type V 3015 Clean

Air purification in clean rooms can result in a pressure difference of up to 50 Pa. The fully transparent curtain of the V 3015 Clean 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 ensure easy cleaning of the frames.



V 4015 Iso L Stabilising wind lock



V 4015 Iso L PE foam in curtain pockets



V 2515 Food L Standard EPDM seal



V 2515 Food L

Easy to clean: shaft, side elements and control cabinet are made entirely of stainless steel.



V 2012 Light grille concealed in the door guide



V 2012 Custom printing possible



V 3015 Clean
Extremely leaktight and fully transparent



**V 3015 Clean**Curtain tightly integrated in the side guides

## **Features**

Door type

Suitable application	Interior	Interior	Interior	Interior
Size range				
Max. width (mm)	4000	2500	2500	2500
Max. height (mm)	4500	4000	2500	3000
Speed with control	BK 150 FU E-1	BS 150 FU E-1	BK 150 FU E-1	BS 150 FU E-1
Max. opening (m/s)	1,5	1,2	1,2	1,5
Closing approx. (m/s)	0,5	0,5	0,5	0,5
Thermal insulation (EN 13241-1, ISO	12567-1)			
U-value in W /(m²·K)	1,6			
Curtain				
	Insulating curtain, with a 20 mm thick PE foam infill	UPVC, spring steel wind locks	UPVC, spring steel wind locks	UPVC, spring steel wind locks with lateral twin rollers
Temperature range	+1°C to +40°C	+5°C to +40°C	+5°C to +40°C	+5°C to +40°C
Fabric thickness (mm)		1,5	1,5	
Vision panel thickness (mm)		2,0	2,0	
Fully transparent curtain (mm)				4,0
Curtain colours / wind lock strip col	ours			
RAL 1018 Zinc yellow RAL 2004 Pure orange RAL 3002 Carmine red RAL 5010 Gentian blue RAL 7038 Agate grey	- - - -	•	•	W W W W
ThermoFrame				<u> </u>
Emergency opening				
Emergency crank handle	•	-	-	•
Counter weight with operating current brake	-	-	•	-
Automatic door opening via UPS	0	0	_	0

V 2515 Food L

V 2012

V 3015 Clean

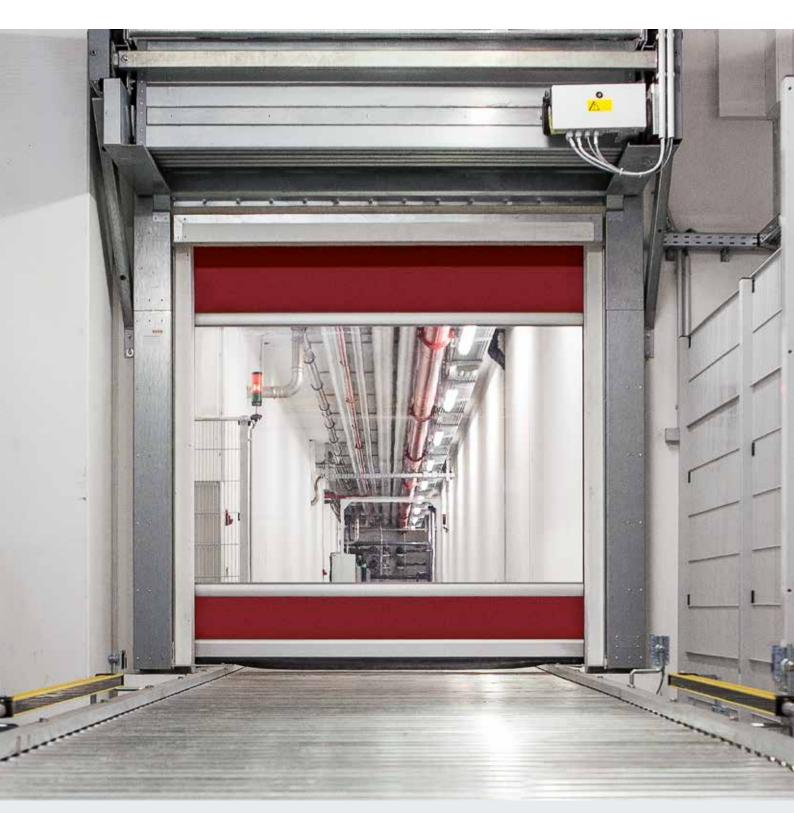
V 4015 Iso L

## **Curtain colours**



# **Flexible High-Speed Doors**

Internal doors for individual needs



## Door type V 3009 Conveyor

The V 3009 Conveyor 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.





## Door type V 5030 MSL

The flexible high-speed door with machine protection function protects operating personnel thanks to a monitored complete partitioning of the machine and provides fast access when needed.

## Door type V 6030 Atex // NEW

The high-speed door is equipped with ATEX labelling in accordance with Directive 2014/34/EC for gas and dust zones.



# **Flexible High-Speed Doors**

## Internal doors for individual needs

## Door type V 5030 MSL

The requirements for work safety and production processes are constantly increasing. Short downtimes, easy and quick access for operation and maintenance of the production machines and of course the safety of the employees are all important for smooth production. The V 5030 MSL was developed specifically for this application.

## Door type V 3009 Conveyor

Due to the low lateral space requirements, this door is specifically designed for integration in conveyor systems and their frequent 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.

## Door type V 6030 Atex // NEW

This special door version with explosion-proof operator incl. closing edge safety device and a unique door curtain can be used in gas and dust zones, in accordance with Directive 2014/34/EU. The door is equipped with the following ATEX labelling in accordance with the 2014/34/EU directive:

- Ex II 2G Ex h IIB T4 Gb for the gas zone and
- EX II 2D Ex h IIIB T125°C Db for the dust zone

The control cabinet must always be fitted outside the potentially explosive area.



#### V 5030 MSL

Thanks to the safety sensors the door can open only when the machine is idle and the machine can be operated only when the door is closed.



V 3009 Conveyor

A vision panel gives insight into the operating procedure.

## **Features**

Door type	V 5030 MSL	V 3009 Conveyor	V 6030 Atex // NEW
Suitable application	Interior	Interior	Exterior / interior
Size range			
Max. width (mm)	4000	3500	4000
Max. height (mm)	4000	3500	4000
Speed with control	BK 150 FU E-1 <sup>1)</sup> AK 500 FUE-1 <sup>2)</sup>	AKE (BK 150 FU E-1) <sup>3)</sup>	BS 150 FU E-1
Max. opening (m/s)	1,5	0.8 (1.2)	1,5
Closing approx. (m/s)	0,8	0.8 (0.5)	0,5
Resistance to wind load (EN 12424)			
Door width ≤ 4000 mm	Class 1		Class 2
Curtain			
	UPVC, spring steel wind locks	UPVC, aluminium wind reinforcement laths	UPVC, spring steel wind locks
Temperature range	+5°C to +40°C	+5°C to +40°C	+5°C to +40°C
Fabric thickness (mm)	2,4	1,5	1,5
Vision panel thickness (mm)		2,0	2,0
Fully transparent curtain (mm)	4,0		
Curtain colours			
RAL 1018 Zinc yellow	W	•	-
RAL 2004 Pure orange	W/G	•	-
RAL 3002 Carmine red	W	•	_
RAL 5010 Gentian blue RAL 7038 Agate grey	W/G W/G		•
TAL 7000 Agate grey	W/G		
Emergency opening			
Emergency crank handle	•	•	•

● = Standard ○ = Optional
W = Wind lock strips G = Optional fabric colour

1) Up to 95 kg 2) From 95 kg 3) Optional

All colours are based on RAL.

## **Curtain colours**



# Intelligent operator and control technology

Standard at Hörmann









## 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.

## 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 4 × 7-segment display
- ✓ Service operation setting
- ✓ Colour-coded plug-in control wiring

Connection of accessory components and safety devices is made easy with colour-coded plug-in connections and connection cables. This makes fitting for initial electrical start-up quick and easy.



# **FU** controls

## Standard at Hörmann



BK 150 FU E-1 FU control in plastic housing, IP 54, 1-phase, 230 V

#### Operation

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

#### **Function**

Automatic timer, adjustable holdopen phase, safety light grille, closing edge safety device (H 3530, V 3015 Clean), 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, emergency off button, traffic light, flashing warning light, locking, intermediate stop, extension PCB Steel cabinet IP 54 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, colour-coded plug-in control wiring

#### Housing dimensions

230 × 460 × 200 mm



AK 500 FUE-1 FU control in plastic housing, IP 54, three-phase, 400 V

#### Operation

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

#### **Function**

Automatic timer, adjustable hold-open phase, safety light grille, closing edge safety device (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 light, flashing warning light, locking, intermediate stop, extension circuit board Steel cabinet IP 54 Stainless steel cabinet IP 65

#### Wiring

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

#### **Housing dimensions**

230 × 460 × 200 mm





#### Extension PCB for controls: BK 150 FU E-1 (E FU H) AK 500 FUE-1 (E FU H)

#### Expansion card with 6 relays

Lock controller
6 additional switch outputs
(1 × 4, 2 × 1 volt-free)
6 additional digital inputs

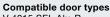
#### Expansion card with 1 relay

Lock controller 1 additional switch output



#### 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



V 4015 SEL Alu-R V 5015 SEL V 5030 SEL V 6030 SEL V 6020 TRL (up to 95 kg) V 5030 MSL (up to 95 kg) V 2012 V 4015 Iso L V 3009 Conveyor

V 3015 Clean

Compatible door types

HS 7030 PU 42 HS 5015 PU N 42 HS 5015 PU H 42 HS 6015 PU H 42 HS 5015 PU H 67 HS 6015 PU V 67 HS 5015 Acoustic H Iso Speed Cold H 100 Iso Speed Cold V 100 V 10008 V 5030 SEL V 6030 SEL V 6020 TRL (from 95 kg) V 5030 MSL (from 95 kg)



#### Induction loop detector

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

# **Accessories**

## Stationary and mobile accessories, safety equipment



1-button hand transmitter HS 1 BS

Black structured surface with chrome caps



Industrial hand transmitter HSI BS

To control a maximum of 1000 doors, with a display and extra-large quick selection buttons for easier operation with work gloves, transferring of hand transmitter coding to other devices possible



Push button 2x "Open / Close" Plastic housing, IP 65



Push button 3x "Open / Emergency-off / Close" Plastic housing, IP 65



Mushroom button With large operating surface Plastic housing, IP 65



Magic switch

Sensor for non-contact opening Plastic housing, IP 52



## External control element for FUE-1

For easy operation and programming, can be placed independent from the control, same control buttons as on the control,  $4 \times 7$ -segment display



## Radar movement detector MWD-C

Fast and targeted automatic door opening, directional recognition, max. fitting height 7 m, fitting in cold store possible to max. –22°C, IP 65



Pull switch with plastic pull cord

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



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,
IP 65

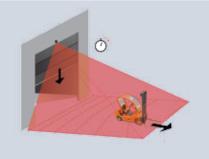
# **Accessories**

## Controlling options, safety equipment

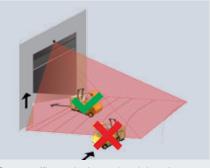
# 3D laser scanner Scanprotect

Thanks to laser technology, the highend motion detector and monitoring system guarantees operational safety, even with different floor coverings. Scanprotect is particularly suited for outdoor use, as it is not susceptible to adverse weather conditions. This ensures reliable advance protection, as well as fast and targeted automatic door opening. The door control offers a convenient way to configure the diverse range of settings, for example, hiding objects in the detection area, or cross- and personnel traffic. Visible LED spots on the floor assist during set-up. The plug-in type wiring ensures easy connection to the door control.



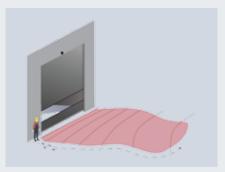


The laser field acts as a reliable door monitor. It detects how fast and in which direction the object is travelling, ensuring optimum opening and closing reaction times. This minimises a door's hold time and saves energy.

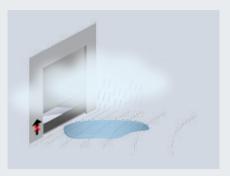


Cross-traffic can be ignored and there is an option to set a pedestrian filter, depending on the application. This ensures that the door is only opened when it needs to be.





The detection area can be adjusted according to the on-site requirements, for example, cross-traffic or shunted objects can be hidden.



The reliable and safe laser scanner can be used for reflective surfaces and during adverse weather conditions, even with leaves or snow.

# Hörmann Product Range

**Everything from a single source for your construction project** 



Quick service with testing, maintenance and repairs Our extensive service network means that we are always nearby and at your service around the clock.





**Sectional doors** 



Rolling shutters and rolling grilles



**High-speed doors** 



Loading technology



Steel and stainless steel sliding doors



Steel and aluminium multi-function doors



Steel and stainless steel doors



Steel frames with high-quality timber function doors from Schörghuber



Fully glazed tubular frame parts



**Automatic sliding doors** 



Visibility window



Collective garage doors



**Perimeter Protection Systems** 

# 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 Asia, 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

