

// **New: Active personnel protection with leading photocells**



# Rolling Shutters and Rolling Grilles

Sturdy and reliable in tough daily use







**Only from Hörmann**

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## A high quality standard in rolling shutter construction through know-how and competence



### **Award-winning expertise**

Hörmann has won the Steel Innovation Award ("Stahl-Innovationspreis"). For the first time, double-skinned rolling shutter laths have been successfully manufactured from as-rolled sheet steel. For more information, go to: [www.Stahl-Innovationspreis.de](http://www.Stahl-Innovationspreis.de)

**Hörmann develops future technologies today.**



### **In-house product development**

At Hörmann, new products, further development and detailed improvements represent an on-going process of our highly qualified development team. **This gives rise to patented products which offer the customer unique benefits.**



### **Highly-specialised production**

Our production systems are based on our own ideas. Applying state-of-the-art technology, we are able to produce industrial doors of a consistently high standard.

### **Components from a single source**

All the essential door components, such as profiles, side guides, support brackets, fittings, and control technology are developed and produced by Hörmann - not bought in from here, there and everywhere. All the structural components and equipment for each door are calculated on a job-oriented basis.

**At Hörmann quality has a system!**



Hörmann has developed a unique programme of industrial doors over four decades and has set the standards for the future.



Certified quality acc. to ISO 9001



**Computer-controlled foaming process**

All double-skinned profiles are evenly filled with foam in a continuous computer-controlled process. The result: Uniform, exact foaming, resulting in high stability and excellent thermal insulation.



**High-grade colour coating**

Hörmann offers you more than 1000 colours from the RAL and NCS colour charts. Applying a measuring system, developed in-house and simulating real-life conditions, all the colour coatings are tested for surface quality and abrasion resistance.



**Special solutions are our strength**

Hörmann's high degree of specialisation in rolling shutter construction extends well beyond normal standards. For our high-performance team, implementing special solutions is part and parcel of their daily agenda. With us you can realise even the most unusual solutions.



**A qualified workforce**

At Hörmann, a qualified and responsible workforce forms the basis for the high quality standard of its products. Throughout production and inspections, right up to shipment.



Find out more about the preferred and special colours on pages 22-23.



**In many cases clearly the best choice**

For wide hall openings:  
We supply rolling shutters up to 11.75 m width. Hall openings of up to 30 m can be covered by combining up to 3 rolling shutters.  
See page 36.

Where a lot of tight manoeuvring is called for, robust shutters come into their own because they remain functional after slight collisions.

What normally ranks as a special solution has been standard at Hörmann for a long time. For example: swing-aside pass door assembly, also with wicket door, fixed assembly, chamfered bottom profile, side door, etc.



## Hörmann rolling shutters and rolling grilles

### Economical, sturdy and reliable



**A well thought-out system**

With Hörmann, the door, operator and controls are a precisely matched system, ensuring high efficiency, reliable operation and security.  
**It pays to choose Hörmann!**



**Certified safety**

Hörmann rolling shutters and rolling grilles are manufactured according to the stringent requirements of European standards and are, of course, certified. See pages 32-35.



**Crash test**

The shutter did not sustain any damage!  
In the case of minor collisions, e.g. from manoeuvring vehicles, the rolling shutter curtain generally springs back into its original position. In this crash test a forklift truck was driven into the middle of a 4800-mm-wide shutter curtain up to its flexibility limit.



**Unique fitting device**

For quick and safe fitting with small fitting teams. A crane or forklift truck are no longer necessary. The fitting device works entirely independent of the on-site mains supply!  
**A Hörmann patent!**



**Rolling shutters and rolling grilles are space-saving**

Rolling shutters and rolling grilles require very little headroom above the structural opening. They roll up compactly behind the lintel. No valuable hall space is lost at the sides or ceiling. Crane tracks can be used to the fullest extent. High-stacking forklift trucks can manoeuvre unimpeded, lift platforms can be raised higher without the risk of collision.

Also as an exterior rolling shutter: For when there is no room for internal fitting or explosion protection is required.

Thanks to their amazingly simple design with a minimum number of components, Hörmann rolling shutters represent a sound investment. Efficient and reliable in everyday industrial use, they prove their worth time and again.



**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](http://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.



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





## Hörmann innovations pay for themselves: The leading photocell



### **Faster and safer with the leading photocell VLR**

A moving photocell under the bottom profile recognises obstructions before the door comes into contact with them, and stops the door as a precaution. This reliably avoids injuries and damage to property.

The system is integrated in the end of the bottom profile and is completely enclosed by the side guides. When placed on the floor, a patented mechanism retracts it into a park position. As a result, it is almost invisible and optimally protected against damage.

With the VLR, rolling shutters with high-speed operators (24 rpm at the barrel) easily comply with the limit values for closing forces. This is a solution that ensures fast and safe production and logistics processes in areas with rolling shutters.



The moving photocell VLR





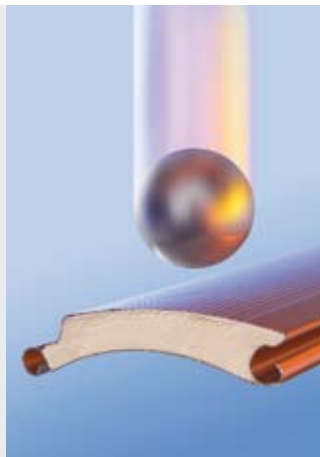
## Decotherm® S made of “full hard” steel

## ZAK® roll-on system closes the door even more tightly

### ! Only from Hörmann

#### “Full hard” steel

The “full hard” steel in Decotherm® S profiles increases deflection resistance by three times and raises flexural strength by 10% when compared to profiles made of standard materials. This makes the door especially resistant to damage and stable under high wind loads.



“Full hard” steel increases deflection resistance by three times

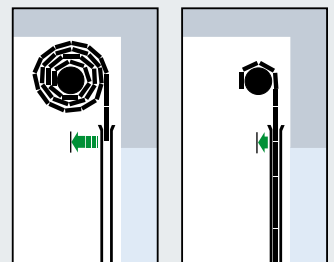
### ! Only from Hörmann

#### ZAK® system

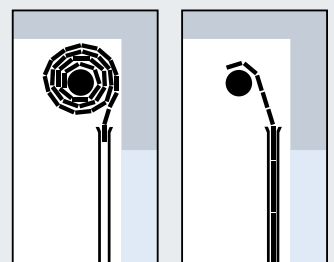
The ZAK® system displaces the barrel on the support brackets and precisely guides the door curtain so that it always enters the side guide vertically.

Doors with the Hörmann ZAK® system close more tightly, exhibit less wear, are much quieter, and require less headroom.

The Hörmann ZAK® system is available for doors with direct drive operators (standard in classic rolling grilles). The ZAK® XL system is available for large doors with chain drives, thus reducing the required headroom by 80 mm.



With the ZAK® system



Without the ZAK® system



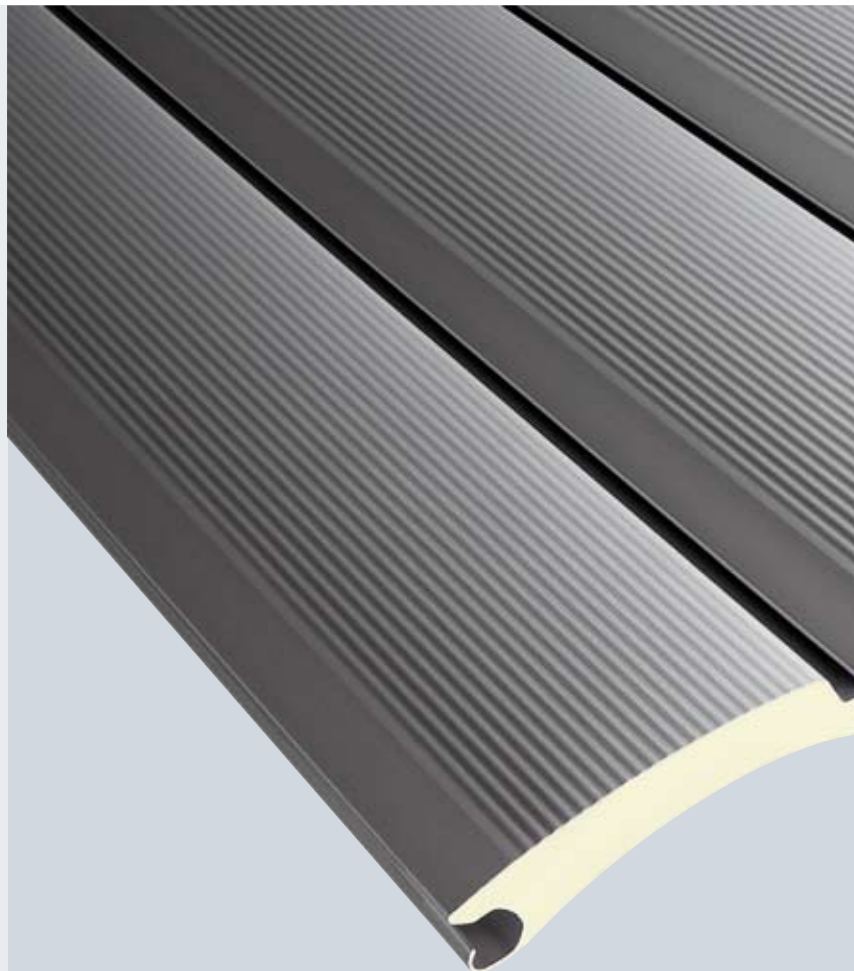
## Decotherm® A/S/E

The original in aluminium,  
“full hard” steel and stainless steel // **NEW**

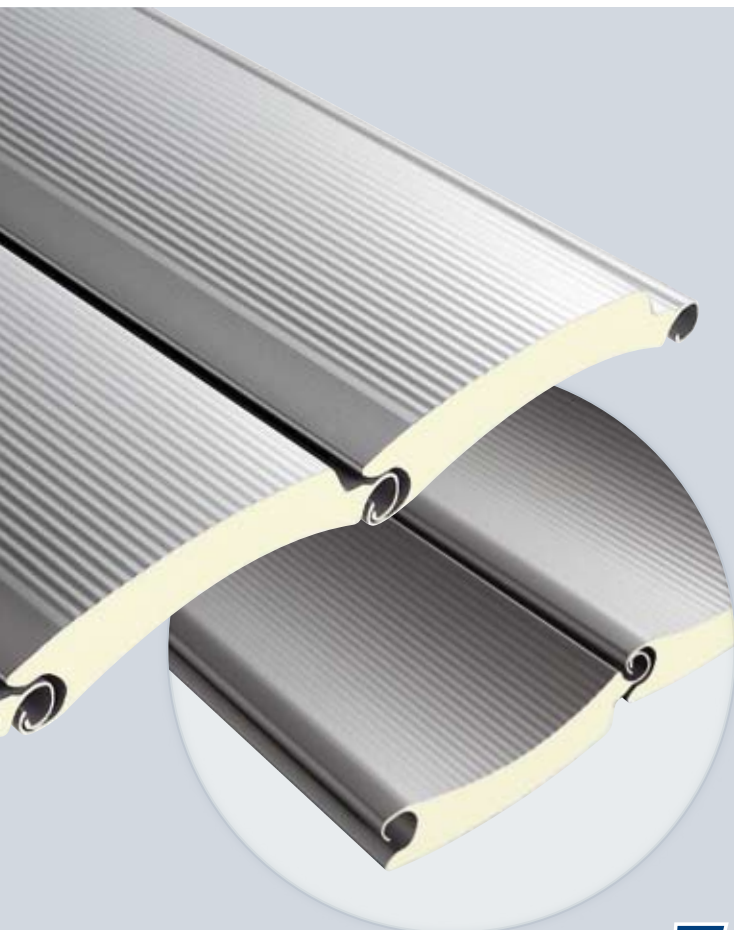
### Innovative profile technology

Hörmann has decisively improved its rolling shutters with the Decotherm® profile. A combination of a thoroughly optimised profile geometry with special aluminium and steel alloys shows what is possible today in rolling shutter construction.

The concave interior and exterior surfaces of the Decotherm® profiles ensure extremely good roll-up action. Optimally designed hinges reduce heat loss and enable a connection between the curtain and barrel, without the usual pressure and wear marks.







**Facetted inner profile face**

Identical to the micro-profiled outer face. Only Hörmann offers this attractive design.



**Rectangular**



**Logistics arrangement**



**Ventilation grilles**

**Window elements**

The double-skinned window elements consist of transparent, impact-resistant polycarbonate with high-quality cover frames (similar to RAL 9006). The benefit of these frames: the PU foam is no longer visible, noise and abrasion are reduced.



Find out more about the preferred and special colours on pages 22-23.





# Decotherm® A/S/E

## Innovative profile technology in three material variants

### Decotherm® A // NEW

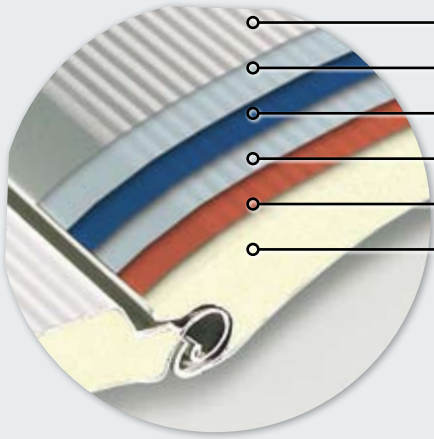
The intelligent lightweight profile made of aluminium rolls up especially quietly and with minimum abrasion, either with a bright-rolled surface or colour coating, recommended for doors up to 4 x 4 m.

### Decotherm® S

Special “full hard” steel makes these profiles especially resistant to damage caused by transport, fitting and operation. Either with or without colour coating. Available for door sizes up to 8 x 9 m.

### Decotherm® E // NEW

The new stainless steel profiles are particularly advantageous if requirements call for high corrosion resistance or a high-quality appearance. The bright-rolled surface sealed with protective paint retains its appealing appearance for years to come. Available for door sizes up to 5 x 4.5 m.



- Protective paint or colour coating
- Galfan coating (Decotherm® S)
- Profile material
- Galfan coating (Decotherm® S)
- Bonding agent
- Polyurethane (CFC-free)

	Decotherm® A	Decotherm® S	Decotherm® E
<b>Protective paint or colour coating</b>	•	•	•
<b>Galfan coating</b>		•	
<b>Profile material</b>	Aluminium	“Full hard” steel	Stainless steel
<b>Galfan coating</b>		•	
<b>Bonding agent</b>	•	•	•
<b>Polyurethane (CFC-free)</b>	•	•	•





### Surface protection with a system for a consistently satisfying appearance

All Decotherm® profiles are coated with protective paint, which makes them resistant to adverse weather effects.

Polyamide particles embedded in the colour coating improve the sliding characteristics of the profiles and thus effectively reduce abrasion and noise.



Find out more about the preferred and special colours on pages 22-23.

### Technical data

Profile type	Decotherm® A	Decotherm® S	Decotherm® E
<b>Material</b>	Aluminium	Steel	Stainless steel
<b>Surfaces without colour coating</b>	Bright-rolled with transparent protective paint	Galvanized with transparent protective paint	Bright-rolled with transparent protective paint
<b>Surfaces with colour coating</b>	Exterior and interior with identical colour coating to choose	Exterior and interior with identical colour coating to choose	-
<b>Standard colours</b>	RAL 9002 RAL 9006	RAL 9002 RAL 9006	-
<b>Preferred colours</b>	-	•	-
<b>Special colours</b>	•	•	-
<b>Profile height</b>	109 mm	109 mm	109 mm
<b>Curtain weight</b>	Approx. 4.2 kg/m <sup>2</sup>	Approx. 10 kg/m <sup>2</sup>	Approx. 10.5 kg/m <sup>2</sup>
<b>Wind load class 2 up to a door width of*</b>	4000 mm	8000 mm (classic) 5000 mm (basic)	5000 mm
<b>Heat transmission EN 12428 (single profiles)</b>	5.4 W/(m <sup>2</sup> K)	3.8 W/(m <sup>2</sup> K)	3.3 W/(m <sup>2</sup> K)
<b>Door type</b>	Basic rolling shutter Classic rolling shutter	Basic rolling shutter Classic rolling shutter	Classic rolling shutter
<b>Windows</b>	-	•	-
<b>Ventilation slots</b>	-	•	-

\* = Optional wind locks required in some cases

• = Optionally available

- = Not available



## HR 116 A/S

## The strong one for large structural openings Double-skinned and thermally insulated

### HR 116 A

#### Two versions in aluminium

1. Stucco-textured aluminium (without colour coating)  
This texture makes the rolling door curtain less sensitive to adverse weather effects.  
Another benefit: small scratches are less noticeable.

#### 2. Coil-coated aluminium

This high-quality colour coating on both sides provides long-term protection against adverse weather effects and is reinforced through the application of protective paint with polyamide particles on both sides. This also reduces abrasion and noise, which is important in underground garages with noise-protection requirements.

### HR 116 S

#### The robust steel version

The heavy version made of galvanized sheet steel gives the door a robust appearance and higher stability. This is why we particularly recommend using the HR 116 S profile for rough day-to-day operation.



Find out more about the preferred and special colours on pages 22-23.







**Profile interior**

With colour coating in a colour to choose, the interior always also matches the exterior.

**Technical data**

Profile type	HR 116 A	HR 116 S
Material	Aluminium	Steel
Surfaces without colour coating	Stucco-textured without protective paint	Galvanized without protective paint
Surfaces with colour coating	Exterior and interior with identical colour coating to choose	-
Standard colours	RAL 9002 RAL 9006	-
Preferred colours	•	-
Special colours	•	-
Profile height	119 mm	119 mm
Curtain weight	Approx. 10 kg/m <sup>2</sup>	Approx. 19 kg/m <sup>2</sup>
Wind load class 2 up to a door width of*	10000 mm	10000 mm
Heat transmission EN 12428 (single profiles)	5.3 W/(m <sup>2</sup> K)	4.5 W/(m <sup>2</sup> K)
Door type	Classic rolling shutter	Classic rolling shutter
Windows	•	•
Ventilation slots	•	•

- \* = Optional wind locks required in some cases
- = Optionally available
- = Not available



## HR 120 A/S

The classic door for unheated buildings and rough day-to-day operation

### HR 120 A

#### Two versions in aluminium

##### 1. Bright-rolled aluminium

The standard surface for unheated buildings.

##### 2. Coil-coated aluminium

High-quality colour coating as long-term weather protection on the outside of the profile, ensuring an attractive appearance over many years. The additional protective paint containing polyamide particles reduces friction and minimises the noise produced by the shutter action.

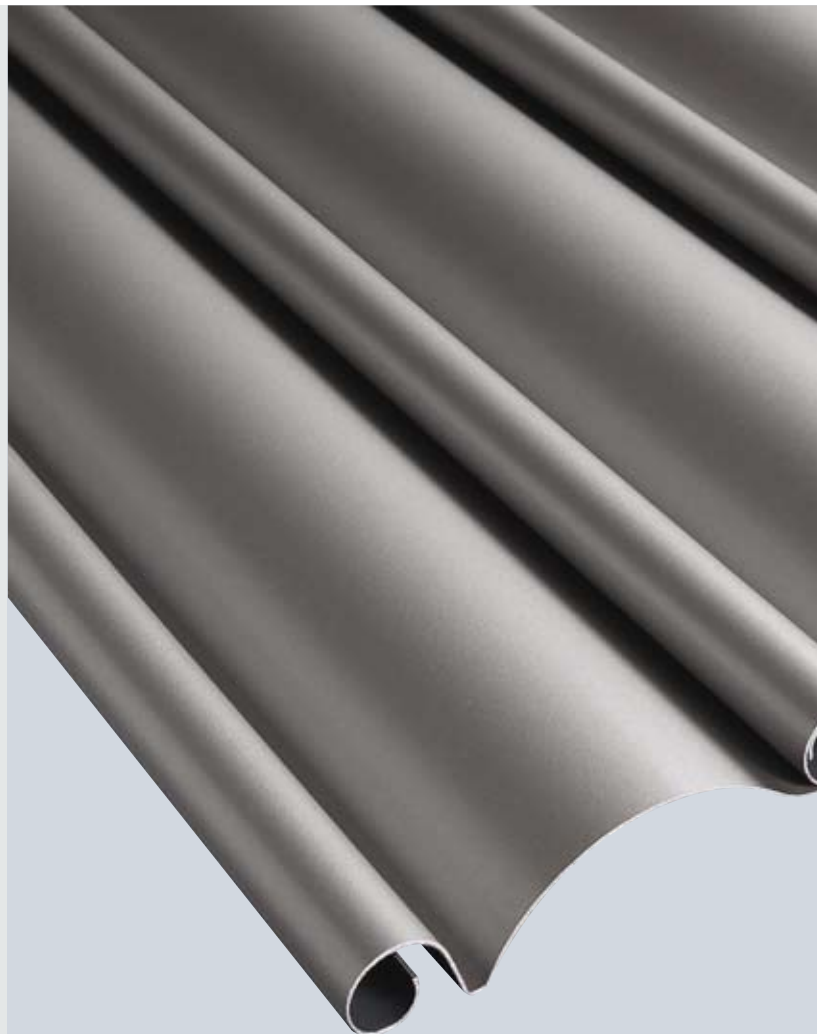
### HR 120 S

#### The robust steel version

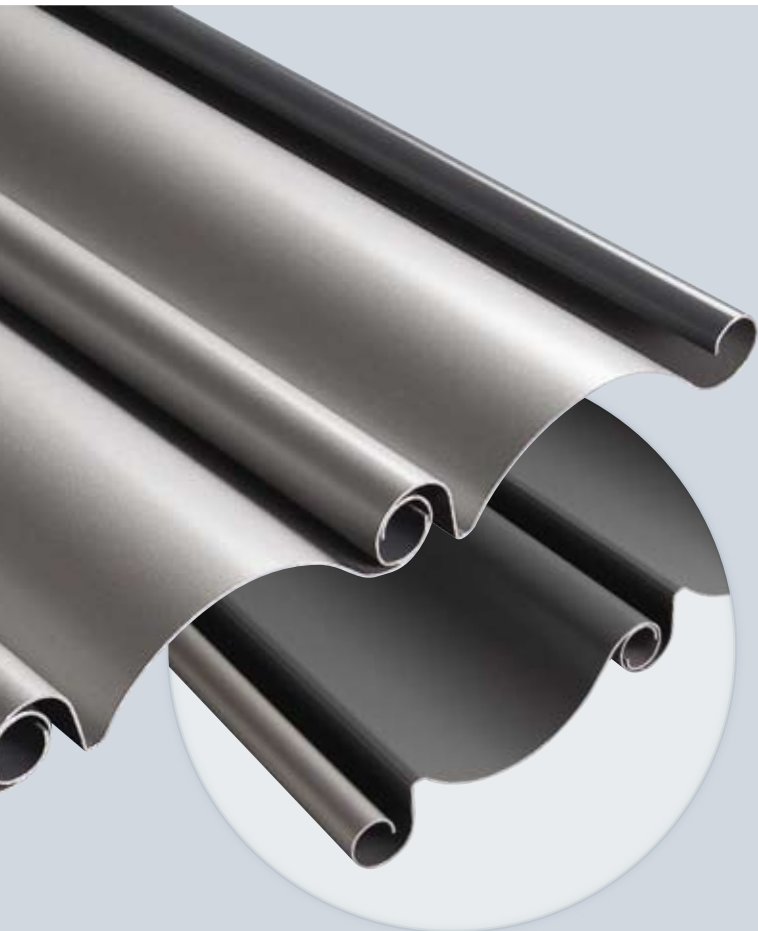
When robustness is a key factor, then this heavy steel door is perfect for the part.



Find out more about the preferred and special colours on pages 22-23.







#### Profile interior

Interior in Basalt grey (RAL 7012) for colour coated profiles.

#### Technical data

Profile type	HR 120 A	HR 120 S
<b>Material</b>	Aluminium	Steel
<b>Surfaces without colour coating</b>	Bright-rolled and without protective paint	Galvanized without protective paint
<b>Surfaces with colour coating</b>	Exterior: Colour coating to choose Interior: Basalt grey protective paint (similar to RAL 7012)	-
<b>Standard colours</b>	RAL 9002 RAL 9006	-
<b>Preferred colours</b>	•	-
<b>Special colours</b>	•	-
<b>Profile height</b>	119 mm	119 mm
<b>Curtain weight</b>	Approx. 6 kg/m <sup>2</sup>	Approx. 15 kg/m <sup>2</sup>
<b>Wind load class 2 up to a door width of*</b>	7000 mm (classic) 4500 mm (basic)	9000 mm
<b>Heat transmission EN 12428 (single profiles)</b>	-	-
<b>Door type</b>	Basic rolling shutter Classic rolling shutter Manual rolling shutter	Classic rolling shutter
<b>Windows</b>	•	•
<b>Ventilation slots</b>	•**	•**

\* = Optional wind locks required in some cases

\*\* = Ventilation laths HR 120 aero

• = Optionally available

- = Not available





**HR 120 aero®**

## The profile for extra light, ventilation and security The alternative to a rolling grille

### The alternative for underground garages and arcades

This full-frontal single-skinned shutter consisting of concave, perforated profiles (perforation diameter approx. 3.2 mm) offers good ventilation qualities and improved visual contact. The fine perforation keeps out dust, leaves, paper etc. and prevents rubbish from being thrown in.

### For increased security

The special shape of the shutter profiles makes it impossible for children to climb up the shutter or get caught up in it. In this way a potential injury hazard - and one that should never be underestimated - is effectively eliminated at the same time as protecting the shutter from damage.

### Weather-resistant aluminium profiles

#### 1. Bright-rolled aluminium

The standard for simple applications.

#### 2. Coil-coated aluminium

A high-grade external coating provides long-term protection against weathering. The additional protective paint containing polyamide particles reduces friction and minimises the noise produced by the shutter action.



Find out more about the preferred and special colours on pages 22-23.







#### Profile interior

Interior in Basalt grey (RAL 7012) for colour coated profiles.

#### Technical data

<b>Profile type</b>	<b>HR 120 aero®</b>
<b>Material</b>	Aluminium
<b>Surfaces without colour coating</b>	Bright-rolled and without protective paint
<b>Surfaces with colour coating</b>	Exterior: Colour coating to choose Interior: Basalt grey protective paint (similar to RAL 7012)
<b>Standard colours</b>	RAL 9002 RAL 9006
<b>Preferred colours</b>	-
<b>Special colours</b>	-
<b>Profile height</b>	119 mm
<b>Curtain weight</b>	Approx. 5.5 kg/m <sup>2</sup>
<b>Wind load class 2 up to a door width of</b>	4250 mm (classic) 4500 mm (basic)
<b>Heat transmission EN 12428 (single profiles)</b>	-
<b>Door type</b>	Basic rolling shutter Classic rolling shutter Manual rolling shutter
<b>Windows</b>	-
<b>Ventilation slots</b>	-

- = Not available





**HG-A/-V/-S/-E/-L**

## The rolling grille curtain for good ventilation and visibility

### **HG-A, standard aluminium**

For small openings or if a shutter is operated only a few times each day, e.g. for night-time closures. Grille and honeycomb connections as standard in bright-rolled aluminium. On request, high-grade powder-coated in preferred colour Grey white (similar to RAL 9002), in colours according to RAL or NCS or anodised in a natural finish (E6/EV1) according to DIN 17611.

### **HG-V, reinforced aluminium (not shown)**

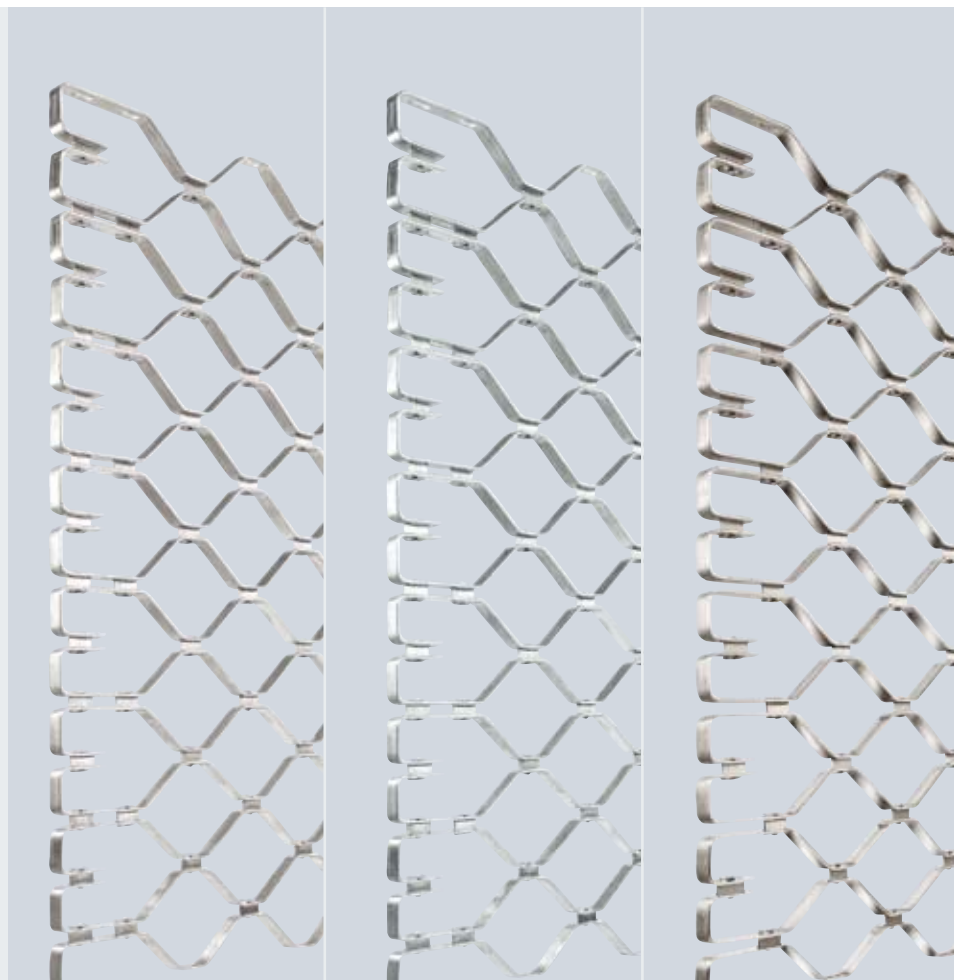
For wider structural openings or a higher number of operations per day, such as in underground garages or multi-storey car parks. Bright-rolled aluminium grille with reinforced honeycomb connections in bright-rolled stainless steel V2A. Lightweight yet offering high stability for wider openings (see table).

### **HG-S, steel – robust and good value**

The inexpensive version for wider openings and a high number of cycles. The grille and honeycomb connections are in galvanized steel as standard. On request, high-grade powder-coated in preferred colour Grey white (similar to RAL 9002) or in colours according to RAL or NCS.

### **HG-E, stainless steel for discerning tastes**

Grille and honeycomb connections in bright-rolled stainless steel V2A. V2A version has a particularly polished appearance.



**Classic rolling grille HG-A**  
Standard aluminium

**Classic rolling grille HG-S**  
Galvanized steel

**Classic rolling grille HG-E**  
Stainless steel V2A





When shutters are automated, a roll-up safety device and closing edge safety device prevent injuries to persons and damage to the actual curtain. For underground garages and forklift truck traffic, an optional through-traffic photocell is recommended.



Basic rolling grille HG-L  
Aluminium

#### HG-L, lightweight and compact aluminium

The elegant and space-saving version, particularly suitable for use in shopping arcades. Aluminium grille and honeycomb connections with crossbars to provide additional reach-through protection. On request in colours according to RAL and NCS or anodised in a natural finish (E/EV1) according to DIN 17611.

#### Technical data

Curtain type	HG-A	HG-V	HG-S	HG-E	HG-L
<b>Size range</b>					
Width up to	8000 mm	11750 mm	11750 mm	11750 mm	9000 mm
Height up to	8000 mm	8000 mm	8000 mm	8000 mm	5500 mm
<b>Own weight of curtain</b>	Approx. 7 kg/m <sup>2</sup>	Approx. 8 kg/m <sup>2</sup>	Approx. 14 kg/m <sup>2</sup>	Approx. 14 kg/m <sup>2</sup>	Approx. 6.5 kg/m <sup>2</sup>
<b>Door type</b>	Classic rolling grille	Classic rolling grille	Classic rolling grille	Classic rolling grille	Basic rolling grille



## Coloured shutters make a strong impact and promote your corporate design

Coloured shutters are increasingly used as design elements in modern industrial and commercial architecture. On account of their size alone, rolling shutters already play a key role in determining the visual appearance of the facade. That's why Hörmann offers you rolling shutters and rolling grilles in more than 1000 colours based on the RAL and NCS colour charts.

The following components are coil-coated:  
 Rolling door curtain without bottom profile for rolling doors,  
 complete grille with bottom profile for rolling grilles.

The colours shown are subject to the limitations of the printing process and cannot be regarded as binding.

### Standard colours

- RAL 9002
- RAL 9006

### Preferred colours

- RAL 3000
- RAL 5009
- RAL 5010
- RAL 6002
- RAL 7032\*
- RAL 8028
- RAL 9007

### Special colours



**7 preferred colours according to RAL. Take advantage of the savings in price!**

\*Not for Decotherm®

**More than 1000 colours are possible.**







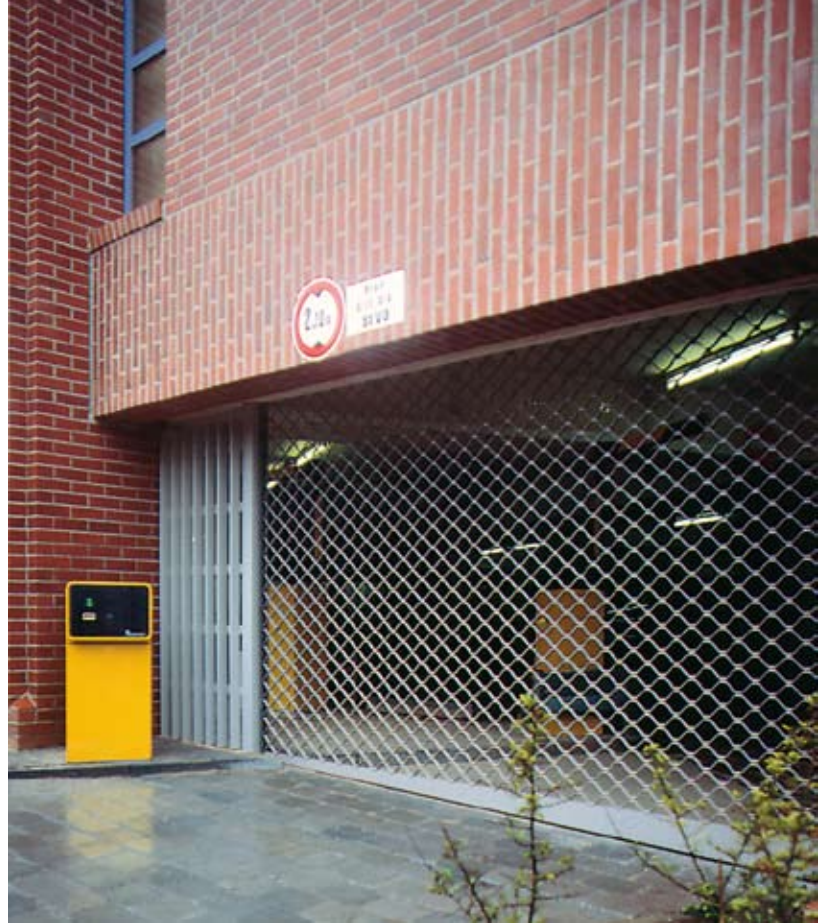
**Also available in your corporate colour!**







## Classic rolling shutter/ rolling grille



## Proven technology for optimum door travel and tightness



### Articulated wind locks

The articulated design of the wind locks enables the rolling shutter to withstand extreme wind loads.

### Side guides

A Hörmann development: Very stable, made of 2 mm galvanized steel. With a brush seal for quiet travel and tightness. On request, also with plastic runners in Signal orange.



### Advanced anchor technology for variable support

Only from Hörmann! Variable 30-mm increments, installation and service-friendly screw connections produce a close fit. A neat solution both visually and thermally.



### Weld-on spacer brackets for steel structures

The brackets can be directly welded onto the steel structure. For steel construction halls, the weld-on spacer brackets ideally complement the anchor technology.



### Deflection-resistant bottom profile

A stable aluminium profile that strengthens the rolling door curtain. A weather-resistant, flexible EPDM tubular seal prevents penetration of dirt and rain, compensates for unevenness in the floor and, in the end-of-travel position, does not produce any noise when it comes into contact with the floor.



### Height-adjustable brackets

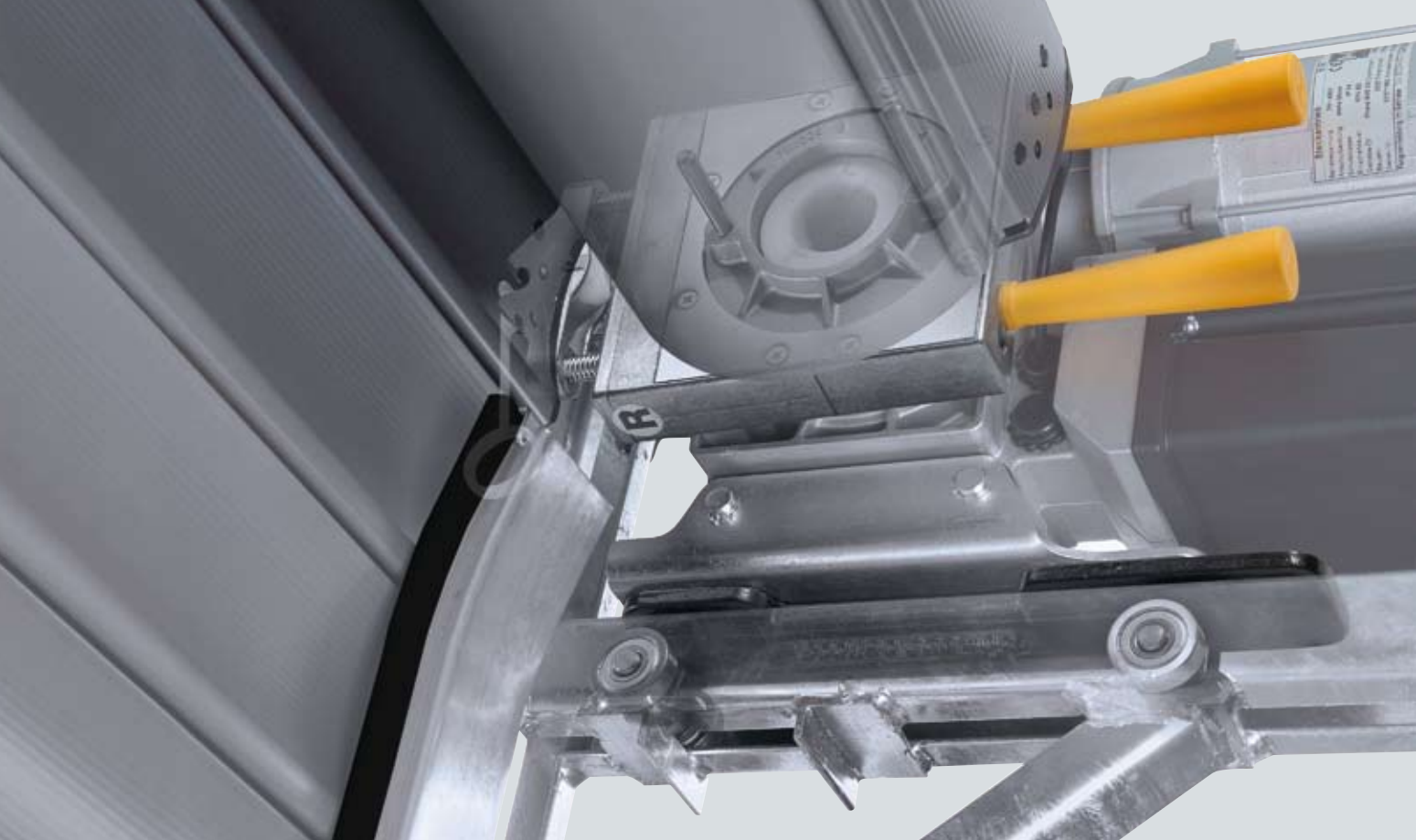
An all-galvanized steel construction with mounting plate. Because it is height-adjustable, it can be precisely adapted to the individual installation situation.

### The Hörmann ZAK® system

Precision-guided horizontal displacement of the barrel for all classic rolling shutters with direct drive operator.

For details on the ZAK® system see the next page.

**Sturdy and dependable**



## The ZAK® system

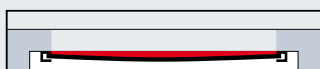
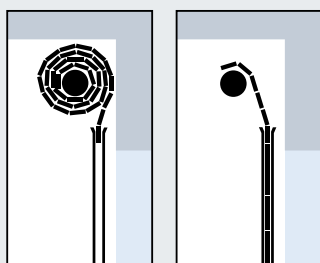
Doors close more tightly  
and have lower wear



### Without the roll-on system

The barrel does not alter its position. This produces distortion resulting in:

- Increased friction and wear
- Increased noise from the shutter action
- Increased headroom



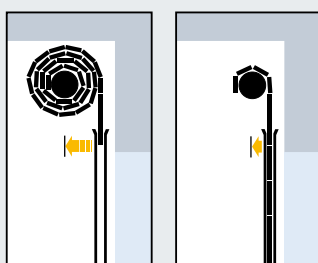
Circular segment-shaped gap resulting from the distortion even without any wind load.



Under wind load, the circular segment-shaped gap increases and the shutter fits poorly.

### With roll-on system but without precision-guidance

When the shutter is in operation the barrel swings about uncontrollably. There is a risk of it colliding with the lintel.



Minimum distortion, small rectangular gap in the lintel region: slightly better fit.



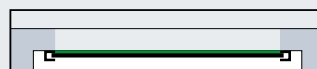
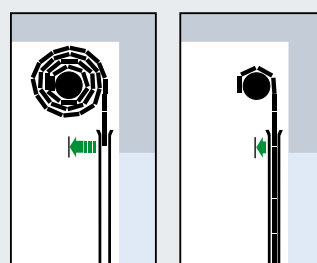
Wind load increases the gap, resulting in a poor fit.

### With the Hörmann ZAK® system

With a ZAK® gearbox on either side, the barrel moves

- Away from the lintel on opening
- Towards the lintel on closing

**The door curtain always enters the side guide vertically and without distortion.**

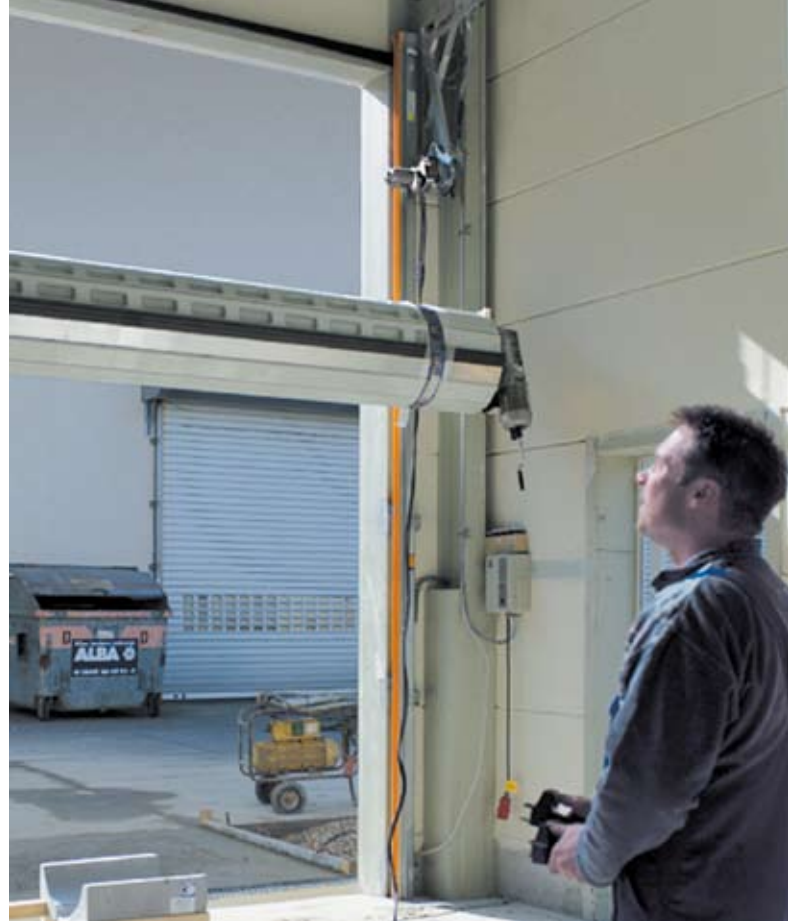


Without distortion, no gap in the lintel region: closest possible fit.



The barrel helps absorb the wind load, so the shutters remain tight-fitting.





## ZAK® XL for large shutters with chain drive operators

### ZAK® system

The ZAK® system displaces the barrel on the support brackets and precisely guides the door curtain so that it always enters the side guides vertically.

### The advantages of the ZAK® system

- The gap between the rolling door curtain and lintel is closed, sealing the door.
- Less abrasion and friction on the rolling door curtain, the door maintains its attractive appearance longer.
- Significantly reduced travel noise

### The ZAK® system for direct drive operators

- Standard in classic rolling grilles
- Special equipment for classic rolling shutters
- 80 mm less headroom required

### ZAK® XL system for larger shutters with chain drive operators (see illustration)

- Replaces the anti-deflection shaft
- Reduces the headroom by 80 mm
- Special equipment for classic rolling shutters and rolling grilles

## Rolling shutters and rolling grilles - fitted quickly and securely

### Unique fitting device - patented and only from Hörmann

Using the special fitting device, Hörmann rolling shutters and rolling grilles can be fitted safely and speedily by a small team of fitters without the need for a crane or forklift truck. The integral power supply means the fitters are not dependent on the on-site mains supply. The shutter can be fitted as soon as the structural framework has been erected because the condition of the floor is irrelevant. This makes it much easier to schedule fitting dates.

Features of use:

- Direct drive operator and standard support brackets
- Max. shutter weight 600 kg
- Max. shutter height 5000 mm

### Installation-friendly and securely packed

All door curtains are easy to fit, pre-assembled on the barrel and packed on special pallets for secure transport.





## Basic rolling shutter

Ideal as a logistics door



## Basic rolling grille

Ideal as a store entrance door



### Support bracket

Made of galvanized sheet steel, reduces the required sideroom on the bearing and operator side.



### Support bracket

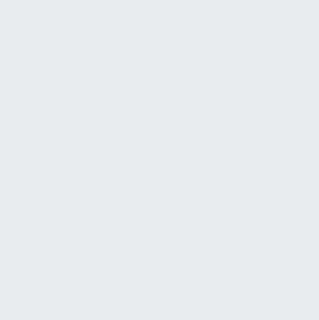
Made of galvanized sheet steel, reduces the required sideroom on the bearing and operator side.



### The belt system

Made of a fabric with special fibres, connects the shutter curtain to the galvanized, octagonal barrel and does away with shutter profiles where these are no longer needed.

**This is innovative rolling shutter technology!**



### Aluminium side guides

An elegant construction in bright-rolled aluminium with a black slide profile. No more than 40 mm high, it can be unobtrusively integrated in the overall design.



### Steel side guides

The robust construction in galvanized steel is mounted directly to the building structure.

**This saves both space and fitting time!**





**Low space requirement**  
**Easy and fast fitting**  
**Attractive price**



## Manual rolling shutter    The door for small structural openings

### Easy to operate

Recommended for simply equipped halls without a power supply and where doors are less frequently used. For example, in small spare parts stores, agricultural sheds, as well as in small unheated buildings. From a shutter height of 1800 mm, we supply a hand pole to pull the open shutters down as standard.

### Break-in-resistant locking

The HR 120 manual rolling shutter comes with a locking rod with double deadlock (including 2 keys) as standard. You have the option of operating the door from the inside and outside or only from the inside.



### Coiled springs

Coiled springs counterbalance the weight of the rolling shutter curtain, making it easier to operate.



### Contact springs

Springs gently guide the curtain in the upper travel limit, thus preventing damage to the door.





Impossible to force open! Increase the security of your property with break-in-resistant locks. All versions securely lock the bottom profile to the side guides. A signal to the control system prevents operation of the shutter.



**Bottom profile locks from the inside**  
With profile half-cylinder, directly actuated via a key. For shutter widths up to 4000 mm.



**Bottom profile locks from the inside**  
With miniature lock, operated via swivel handle. For shutter widths greater than 4000 mm.



**Bottom profile locks from the outside**  
With profile half-cylinder, can be locked from the inside without a key. Operated from the outside via a recessed handle, from the inside via a T-handle. For all shutter widths.



**Shootbolt**  
Can be fitted to the left or right of the side guide. Lock can be secured with a padlock. Not for external rolling shutters.



**Electromagnetic locking**  
Operated via a standard key switch. Automatic locking in the CLOSE position. Can be connected to the central control system.



## The safety of Hörmann rolling shutters and rolling grilles is certified

### Anti-fall safeguard



#### Integral safety device in direct drive operators

The device offers especially good absorption, a large amount of power reserve and reliably prevents the door curtain from falling.

#### Separate catch safety device for chain drive and tubular operators

Just like the integral version, this is a high-performance device coming into play as soon as the speed limit is fractionally exceeded.



#### Distance sleeves

With the classic rolling shutter, distance sleeves on the shaft journals prevent lateral displacement of the barrel.



#### Secure barrel

Dimensioned in accordance with standards (deflection less than 1/500th of the support width). The fixed inner round plate prevents fatigue fractures from developing on the weld seam or the rivets of the outer round plate.



#### Fixing material

To ensure a secure connection to the building structure. Is dimensioned to suit the load and approved for the respective building structure. For external rolling shutters, Hörmann supplies the support brackets, as previously described, in stainless steel V4A.



## Safety features according to EN 13241-1

Hörmann products are tested and certified:

### Anti-fall safeguard

#### Trap guard

Hörmann rolling shutters and rolling grilles work safely during all opening and closing phases – whether manually-operated or power-driven. In doors with an impulse control, the dynamic closing forces are reliably maintained through monitoring systems with an integrated self-test function. With Hörmann, the door and operator are precisely matched, tested by TÜV for your safety and in compliance with the relevant standards.

**It pays to compare!**



**Doors must comply with the safety requirements of European standard 13241-1. Ask other manufacturers whether they can provide the corresponding certificates!**

#### Trap protection



#### Side guides

Plastic strips on the edges of the side guide protect against cuts. As standard with black plastic strips, optionally available in signal orange.

#### Trap guard



#### Trap guard TES

A cover made of a special rigid fabric prevents operators from reaching into the hazard area where the door rolls up.

#### Closing edge safety device



#### Safety devices

Closing edge safety device, roll-up safety device and through-traffic photocell are self-testing before and during every shutter cycle. If a malfunction is detected in just one of the units, the shutter's control system automatically switches to press-and-hold operation.



#### Leading photocell VLR

The new VLR recognises obstructions quickly and reliably before the door comes into contact with them. Worn bottom seals or an unfavourable obstruction shape has no influence on function. The system is integrated in the end of the bottom profile and is completely enclosed by the side guides. As a result, it is almost invisible and protected against damage.



#### Safety requirements

Please note the mandatory annual inspection for all power-operated doors.



## Well thought-out designs with convincing performance properties

**Thermal insulation/acoustic insulation**



**Decotherm®**

**Wind load**



**WPS®**



**Thermal insulation**

A combination of minimal thermal bridges and use of fine-pored PU rigid foam infill ensures good thermal insulation in all double-skinned door profiles.



**Wind load**

Depending on the door type, wind lock end pieces, bend-resistant bottom profiles and the optional WPS® ensure high stability.



**Acoustic insulation**

The curtain and sealing technology used around the entire shutter help to reduce noise from both outside and inside.





**Performance characteristics according to European standard 13241-1**

Hörmann products are tested and certified for:

**Thermal insulation**

**Acoustic insulation**

**Sealing**

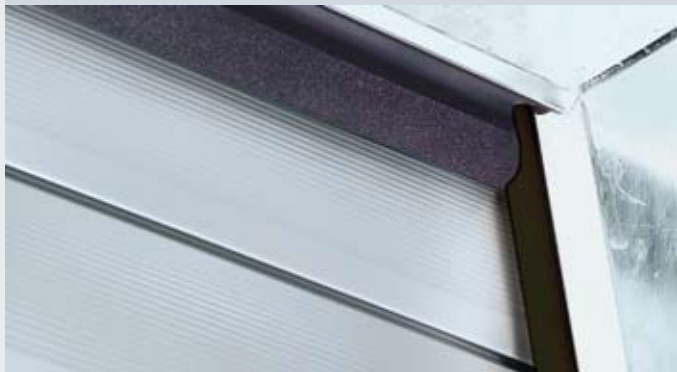
**Wind load**

Thanks to innovations and continuous further developments, rolling shutter construction at Hörmann has been ahead of its time for years.

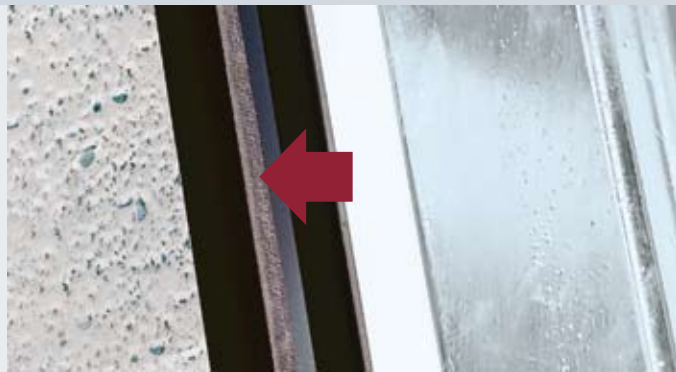
Performance criteria in accordance with European standards have been integrated into these developments with convincing results.

**It pays to compare!**

**Sealing**



**Lintel seal**



**Bristle seal**



**Sealing**

All classic double-skinned rolling shutters have all-round sealing:

- Frost-proof dual-chamber flexible lip seal along the bottom edge
- Flock-coated special lintel seal
- Bristle seals down the side guides





## Solutions for very large structural openings of up to 30 m The SSG system



### The SSG system

Up to three rolling shutters or rolling grilles can be coupled in the opening using the SSG system. Once the doors have been opened, the mullions are unlocked manually and slid over to the side park positions. As a result, openings of up to 30 m width and 6 m height are possible.

The exterior is attractively divided into segments with an identical size. Each door can also be operated individually if only a part of the opening is needed. SSG systems can be combined with all profile and grille curtains.





## For high wind loads WPS®



### **WPS®**

The WPS® increases the rigidity of the door against wind load. An aluminium telescopic support reliably braces the closed door. On opening, it swings behind the lintel and bolts into the hall floor when the door is closed. As a result, wind load class 2 and higher can be achieved even for larger doors.

## The practical second opening



### **Pass door assembly with side door**

A fixed pass door assembly with side door is practical if no separate entrance is available.

A swing-aside pass door assembly with side door combines two practical functions in one:

1. Maximum use of the clear hall opening
2. No need to open the shutter for pedestrian traffic



## For unique solutions call on the specialist



### Fascia panels and fixed assemblies

Panels bridge the gap between the lintel and the opening width. This can play a crucial role during renovations.

A fixed bottom assembly with wicket door is used in areas requiring personnel access and where only a rolling shutter is possible due to construction reasons.



### External rolling shutters

These are used when internal shutters cannot be fitted due to a lack of space. In contrast to internally fitted shutters, they often dispense with the need for expensive protection measures in explosion-proof buildings.

If there is no overhead covering, Hörmann offers a barrel casing in either galvanized sheet steel or stainless sheet steel.



### Chamfered bottom profile

Hörmann rolling shutters and rolling grilles can even be fitted on sloping ground. In such situations, a chamfered bottom profile compensates for the difference in height. The shutter can even be adapted to accommodate steps.





Thanks to Hörmann's high level of specialisation, solutions for unique fitting situations and applications have long been a part of our day-to-day work. Hörmann has the right answer for even the most unusual request.



**Door combinations**

Rolling shutters combined with flexible high-speed doors are always a good investment. During the day energy is saved, the flow of materials is optimised and drafts are reduced thanks to the fast opening and closing speeds of the flexible high-speed door. At night the rolling shutter provides a secure closure.



**Absolutely exemplary special solutions**

11 aluminium rolling shutters with rolling grilles fitted in front secure a structural opening almost 80 metres wide. When open, the entire turf can be driven out from the centre of the new "Auf Schalke" arena to allow it to "recuperate" or save it from excessive wear during special events.

This is a unique solution that demonstrates the know-how and high competence of the specialist.



**ATEX certified**

Hörmann's rolling shutters and operators are available in an ATEX-certified version and thus can also be used in explosive areas.



**60%** faster door opening

**Fully benefit from a perfect concept**

Hörmann rolling shutters and rolling grilles are a practice-orientated, cost-effective concept. They are geared towards a diverse range of operating sequences and a long, reliable service life.

For all shutters powered by a direct drive or chain drive, the operator and controls are individual components that are easy to install and ready to plug in.

High-speed direct drive operators are available to reduce waiting times and heat loss during the opening phase. At 24 rpm at the barrel, they reduce opening times by 60% compared to standard operators.

**Precisely matched:  
Shutter, operator and control**



**Direct drive operator**

The ideal operator for small to medium-sized rolling shutters and grilles. Equipped with integral catch safety device. Our recommendation: With the classic rolling shutter, combine a direct drive operator with the safe Hörmann ZAK® system. See page 25



**Chain drive operator**

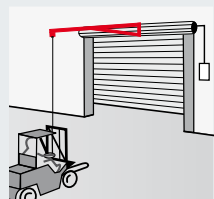
The powerful operator for large rolling shutters. Equipped with plug-in connections for mains cables and connection cables. With separate catch safety device as standard. See page 32



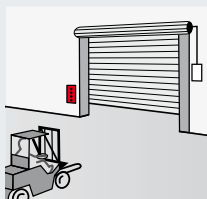
**Tubular operator**

The solution for small doors with especially limited fitting space at the sides and few door cycles per day. With a separate catch safety device as standard. See page 32

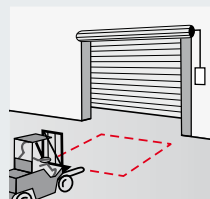
**Operating/control options**



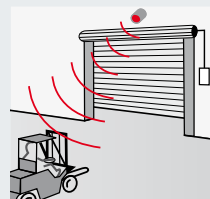
Pull switch



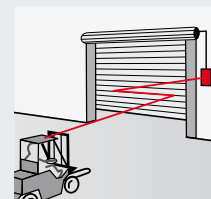
Push button/  
mushroom button



Induction loop



Radar movement  
detector, infrared  
movement detector  
and presence detector



Radio remote controls



Warning light, rotating  
warning light, flashing  
warning light



# Industrial door controls

## Controls



**Press-and-hold control  
420R (400/230 V)**

- Control and operator can be mounted separately
- Controls and door leaf components in protection category IP 65 (hose-water protected). Connection with a CEE plug corresponds to protection category IP 44.



**Basic control  
435R (400/230 V)**

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



**Impulse control  
445R (400/230 V)**

- Control and operator can be mounted separately
- Controls and door leaf components in protection category IP 65 (hose-water protected). Connection with a CEE plug corresponds to protection category IP 44.
- Menu read-out from outside without removing the housing cover, thanks to a double 7-segment display
- Adjustments are no longer made on the motor but conveniently from the control via digital limit switches
- Service menu with maintenance, cycle, and operating hours counters, as well as fault analysis
- Collective malfunction signalling with on-site individual display (acoustic, visual, or e.g. via mobile phone)
- Function lock via miniature lock (convertible to profile half cylinder)
- Can be upgraded to control 460R so there is no need to replace the entire module



**Comfort control  
460R (400/230 V)**

- Control and operator can be mounted separately
- Additional button on housing cover for 2nd opening height and integral connecting terminals for further command units
- Controls and door leaf components in protection category IP 65 (hose-water protected). Connection with a CEE plug corresponds to protection category IP 44.
- Menu read-out from outside without removing the housing cover, thanks to a double 7-segment display
- Adjustments are no longer made on the motor but conveniently from the control via digital limit switches
- Service menu with maintenance, cycle, and operating hours counters, as well as fault analysis
- Collective malfunction signalling with on-site individual display (acoustic, visual, or e.g. via mobile phone)
- Function lock via miniature lock (convertible to profile half cylinder)



**Post STI 1**

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



**Profile half cylinder**

Optional for controls 420R, 445R and 460R



**Main switch**

For all controls

# Accessories

## Receivers for controls 445R and 460R



**1-channel receiver  
HEI 1**

In a separate housing with 7.0 m connecting lead, 3-wire

Function: Impulse  
Frequency: 868.3 MHz  
Protection category: IP 65



**2-channel receiver  
HEI 2**

In a separate housing with 7.0 m connecting lead, 4-wire

Function: Impulse or open/close (per channel)  
Frequency: 868.3 MHz  
Protection category: IP 65



**1-channel relay receiver  
HER 1**

With volt-free relay output in a separate housing without a connecting lead

Functions: Impulse, 3-minute light, on/off  
Frequency: 868.3 MHz  
Protection category: IP 65  
Operating voltage: 24 V DC/230 V AC  
Contact load: 24 V DC: 2.5 A/50 W  
230 V AC: 2.5 A/500 W



**2-channel relay receiver  
HER 2**

Technically identical to HER 1, but with 2 volt-free contacts. Up to 4 consumers may be controlled as a result. Separate antenna for outdoor use in tamper-proof aluminium housing with 7 m connecting lead, 3-wire, decoder unit for inside.



**4-channel relay receiver  
HER 4**

Technically identical to HER 1, but with 4 volt-free contacts. Up to 4 consumers may be controlled as a result.

## Hand transmitters for impulse controls



**4-button hand transmitter  
HS 4**



**4-button mini hand transmitter  
HSM 4**



**2-button micro hand transmitter  
HSE 2**  
Including key ring



**1-button hand transmitter  
HS 1**



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



**16-button hand transmitter  
HS 16**  
For 16 functions  
Protective bag available as an accessory.



## Push buttons



### Push button DT 02

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

Dimensions:

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

Protection category: IP 65

**For controls:**

**435R (only with SKS), 445R and 460R**



### Push button DT 03

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

Dimensions:

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

Protection category: IP 65

**For controls:**

**420R, 435R, 445R and 460R**



### Push button DT 04

For separate control of both operational directions, with separate stop button. Full or partial door opening (via separate button).

Dimensions:

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

Protection category: IP 65

**For control:**

**460R**



### Push button DTNA 30

For separate control of both operational directions. The stop button is a push-to-lock button which, once pressed, stays depressed in order to prevent unauthorised operation. Further operation is then only possible once the stop button has been unlocked with a key. (2 keys included in the scope of delivery)

Dimensions:

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

Protection category: IP 65

**For controls:**

**420R, 435R, 445R and 460R**



### Push button DTP 02

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

Dimensions:

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

Protection category: IP 44

**For controls:**

**435R (only with SKS), 445R and 460R**



### Push button DTP 03

For separate control of both operational directions. Separate stop button and operation control light for control voltage. Lockable with profile half cylinder, available as an accessory.

Dimensions:

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

Protection category: IP 44

**For controls:**

**420R, 435R, 445R and 460R**



### Emergency-OFF button DTN 10

To quickly immobilise the door.

Push-to-lock button (mushroom button)

Surface-mounted

Dimensions:

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

Protection category: IP 65

**For controls:**

**420R, 435R, 445R and 460R**



### Emergency-OFF button DTNG 10

To quickly immobilise the door.

Push-to-lock mushroom button

Surface-mounted

Dimensions:

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

Protection category: IP 65

**For controls:**

**420R, 435R, 445R and 460R**

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

# Accessories

## Key switches, key switch posts



### Key switch ESA 30 with 2 keys Surface-mounted version

Impulse or OPEN/CLOSE function selectable

Dimensions:

73 x 73 x 50 mm (W x H x D)

Protection category: IP 54



### Key switch ESU 30 with 2 keys Recessed version

Impulse or OPEN/CLOSE function selectable

Dimensions of switch box:

60 x 58 mm (d x D)

Dimensions of cover:

90 x 100 mm (W x H)

Wall recess:

65 x 60 mm (d x D)

Protection category: IP 54



### Key switch STAP with 2 keys Surface-mounted version

Impulse or OPEN/CLOSE function selectable

Dimensions:

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

Protection category: IP 54



### Key switch STUP with 2 keys Recessed version

Impulse or OPEN/CLOSE function selectable

Dimensions of switch box:

60 x 58 mm (d x D)

Dimensions of cover:

80 x 110 mm (W x H)

Wall recess:

65 x 65 mm (d x D)

Protection category: IP 54

### Key switch post STS 1

With adapter for fitting TTR 100, FCT 10 b, CTR 1/CTR 3 or STUP.

The command units must be ordered separately.

Top and bottom end of post in Slate grey (similar to RAL 7015).

The post is stove-enamelled in RAL 9006 (White aluminium).

Dimensions:

300 x 1250 mm (W x H)

Protection category: IP 44



Version with fitted key switch STUP (accessory).

## Photocells, pull switches



### Photocell RL 50

Reflection photocell with transmitter/receiver unit and reflector.

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

Connected via a system cable (length 2.0 m).

Max. range 6.0 m

Dimensions:

68 x 97 x 33 mm (W x H x D)

Reflector:

85 x 85 mm (W x H)

Protection category: IP 65



### One-way photocell EL 51

Photocell with separate transmitter and receiver.

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

Connected via a system cable.

Max. range 8.0 m

Dimensions with fitting bracket:

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

Protection category: IP 65



### Pull switch ZT 2 with cord

Impulse generation to open or close the door.

Dimensions:

60 x 90 x 55 mm (W x H x D)

Pull cord length: 3.2 m

Protection category: IP 65

### Cantilever arm KA1 (not shown)

Extension 1680 x 3080 mm

Can be used with ZT1



## Code switches

### Radio code switch FCT 10b

Using a radio code switch FCT 10b, you are able to transmit up to 10 radio codes (868.3 MHz). No laying of cables required. The keypad illuminates when initially pressed.



Dimensions:  
80 x 110 x 39 mm (W x H x D)  
Protection category:  
Keypad: IP 65

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

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



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

### Finger-scan FL 12, FL 100

A fingerprint is enough to securely and conveniently open your rolling shutter or rolling grille. The finger-scan is available in two versions, as an FL 12 or FL 100 to store 12 or 100 fingerprints, respectively.



Dimensions:  
80 x 110 x 39 mm (W x H x D)  
Decoder housing:  
70 x 275 x 50 mm (W x H x D)  
Protection category:  
Reader: IP 65  
Decoder housing: IP 54  
Switching capacity: 2.0 A/30 V DC

### Transponder key switch

#### TTR 100/TTR 1000

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



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

# Accessories

## Activating kits for warning lights

## Bright and long-lasting LED warning lights//NEW

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

Extension unit for controls 445R and 460R.

The activating kit for warning lights serves as a visual indicator while the door is moving. (Shown with optional weekly timer)

Application fields:

Approach warning (for 445R and 460R), automatic timer (for 460R).

After the set hold-open phase has elapsed (0-480 s), the warning lights flash during the set pre-warning phase (0-70 s).

Traffic light dimensions:

277 x 170 x 210 mm (W x H x D)

Dimensions of additional housing:

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

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

Protection category: IP 65

Traffic light material:

High-grade, powder-coated aluminium housing



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

Extension unit for control 460R. The activating kit for warning lights serves as a visual indicator for regulating the entrance and exit. (Optional weekly timer).

Duration of the green phase:

Adjustable from 0-480 s.

Duration of clearance phase:

Adjustable from 0-70 s.

Traffic light dimensions:

467 x 170 x 210 mm (W x H x D)

Dimensions of additional housing:

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

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

Protection category: IP 65

Traffic light material:

High-grade, powder-coated aluminium housing





## Optional extras/special controls



**Travel limit circuit board in a separate additional housing or for fitting in an existing housing**  
 Extension unit for control 435R  
 Dimensions of additional housing:  
 202 x 164 x 130 mm (W x H x D)  
 Protection category: IP 65  
 A circuit board can be optionally mounted in the control.



**Multi-function circuit board in a separate additional housing or for fitting in an existing housing**  
 Limit switch reporting, momentary impulse, collective malfunction signalling  
 Extension unit for controls 445R and 460R  
 Dimensions of additional housing:  
 202 x 164 x 130 mm (W x H x D)  
 Protection category: IP 65  
 A circuit board can be optionally mounted in the control.



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



**Summer/winter activating kit in an additional housing**  
 Function for full opening of door and individually programmable intermediate travel limit  
 Extension unit for control 460R  
 Dimensions of additional housing:  
 202 x 164 x 130 mm (W x H x D)  
 Protection category: IP 65



**Radar movement detector RBM 2**  
 For "OPEN door" impulse with directional recognition  
 Max. fitting height: 6 m  
 Dimensions:  
 155 x 132 x 58 mm (W x H x D)  
 Contact load:  
 24 V AC/DC, 1 A with resistivity  
 Protection category: IP 65



**Induction loop DI 1 in a separate additional housing**  
 Suitable for one induction loop. The detector has a normally open contact and a change-over contact.  
**Induction loop DI 2 (not shown) in a separate additional housing**  
 Suitable for two separate induction loops. The detector has two volt-free normally open contacts. Can be set for impulse or permanent contact. Directional recognition possible.  
 Dimensions of additional housing:  
 202 x 164 x 130 mm (W x H x D)  
 Switching capacity:  
 DI1: low voltage 2 A, 125 V A/60 W  
 DI2: 250 V AC, 4 A, 1000 VA, (resistivity AC)  
 Supplied without loop cable



**Loop cable for induction loop**  
 50.0 m roll  
 Cable designation: SIAF  
 Cross-section: 1.5 mm<sup>2</sup>  
 Colour: brown



**Remote control for radar movement detector**  
 Optional

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

# Overview of Shutter Types

## Technical data

		Classic rolling shutter							
		Decotherm			HR 116		HR 120		
		A	S	E	A	S	A	S	aero
<b>Wind load EN 12424</b>	Class 2 up to door width in mm	4000	8000	5000	10000	10000	7000	9000	4250
	Higher wind loads on request	○	○	○	○	○	○	○	○
<b>Water tightness EN 12425</b>		0	0	0	0	0	0	0	0
<b>Acoustic insulation EN 717-1</b>	R = ... dB	19	19	19	21	–	–	–	–
<b>Thermal insulation</b>	Appendix B EN 12428 Individual shutter section (U = W/m²K)	5.4	3.8	3.3	5.3	4.5	–	–	–
	Shutter 4 x 4 m, fitted (U = W/m²K)	–	4.3	–	5.8	5	–	–	–
<b>Shutter sizes</b>	Max. width (LZ) mm	4000	8000	5000	11750	11750	11750	11750	11750
	Max. height (RM) mm	4000	9000	4500	9000	9000	8000	8000	8000
<b>Space requirement</b>	See the technical manual								
<b>Shutter curtain material</b>	Single-skinned aluminium	–	–	–	–	–	●	–	●
	Double-skinned aluminium	●	–	–	●	–	–	–	–
	Single-skinned steel	–	–	–	–	–	–	●	–
	Double-skinned steel	–	●	–	–	●	–	–	–
	Single-skinned stainless steel	–	–	–	–	–	–	–	–
	Double-skinned stainless steel	–	–	●	–	–	–	–	–
<b>Shutter curtain surface</b>	Bright-rolled aluminium	●	–	–	–	–	●	–	●
	Stucco-textured aluminium	–	–	–	●	–	–	–	–
	Aluminium coated in RAL 9002	●	–	–	●	–	●	–	●
	Aluminium coated in RAL 9006	●	–	–	●	–	●	–	●
	Aluminium coated in RAL to choose	○	–	–	○	–	○	–	–
	Anodised aluminium E6/EV1	–	–	–	–	–	–	–	–
	Galvanized steel	–	●	–	–	●	–	●	–
	Galvanized steel coated in RAL 9002	–	●	–	–	–	–	–	–
	Galvanized steel coated in RAL 9006	–	●	–	–	–	–	–	–
	Galvanized steel coated in RAL to choose	–	○	–	–	–	–	–	–
Bright-rolled stainless steel	–	–	●	–	–	–	–	–	
<b>Own weight of shutter curtain</b>	kg/m² approx.	4.2	10	10.5	10	19	6	15	5.5
<b>Wicket door</b>	With threshold	–	–	–	–	–	–	–	–
<b>Side door</b>	Matching the door	○	○	○	○	○	○	○	○
<b>Glazing</b>	Rectangular window	–	○	–	○	○	○	○	–
	Logistics arrangement	–	○	–	○	○	○	○	–
<b>Seals</b>	All-round on 4 sides	●	●	●	●	●	●	●	–
	Intermediate seal between the door sections	–	–	–	–	–	–	–	–
<b>Locking systems</b>	Internal locking	○	○	○	○	○	○	○	○
	External/internal locking	○	○	○	○	○	○	○	○
<b>Door security kit</b>		–	–	–	–	–	–	–	–
<b>Safety equipment</b>	Finger trap protection	●	●	●	●	●	●	●	●
	Side trap guard	○	○	○	○	○	○	○	○
	Safety catch	●	●	●	●	●	●	●	●
<b>Fastening options</b>	Concrete	●	●	●	●	●	●	●	●
	Steel	●	●	●	●	●	●	●	●
	Brickwork	●	●	●	●	●	●	●	●



Basic rolling shutter		Manual rolling shutter				Classic rolling grille				Basic rolling grille	
Decotherm		HR 120		HR 120							
A	S	A	aero	A	aero	HG-A	HG-V	HG-S	HG-E	HG-L	
4000	5000	4500	4500	3500	3500	-	-	-	-	-	
○	○	○	○	○	○	○	○	○	○	○	
0	0	0	0	0	0	0	0	0	0	0	
19	19	-	-	-	-	-	-	-	-	-	
-	3.8	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
4000	5000	4500	4500	3500	3500	8000	11750	11750	11750	9000	
4000	4500	4500	4500	3500	3500	8000	8000	8000	8000	5500	
-	-	●	●	●	●	●	●	-	-	●	
●	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	●	-	-	
-	●	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	●	-	
-	-	-	-	-	-	-	-	-	-	-	
●	-	●	●	●	●	●	●	-	-	●	
-	-	-	-	-	-	-	-	-	-	-	
●	-	●	●	●	●	○	-	-	-	-	
●	-	●	●	●	●	○	-	-	-	-	
○	-	○	-	○	-	○	-	-	-	○	
-	-	-	-	-	-	○	-	-	-	○	
-	●	-	-	-	-	-	-	●	-	-	
-	●	-	-	-	-	-	-	○	-	-	
-	●	-	-	-	-	-	-	○	-	-	
-	○	-	-	-	-	-	-	○	-	-	
-	-	-	-	-	-	-	-	-	●	-	
4.2	10	6	5.5	6	5.5	7	8	14	14	6.5	
-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	○	○	○	○	○	○	○	
-	○	○	-	○	-	-	-	-	-	-	
-	○	○	-	○	-	-	-	-	-	-	
-	-	-	-	●	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	
○	○	○	○	●	●	○	○	○	○	○	
○	○	○	○	○	○	○	○	○	○	○	
○	○	○	○	-	-	●	●	●	●	●	
●	●	●	●	●	●	-	-	-	-	-	
○	○	○	○	○	○	○	○	○	○	○	
●	●	●	●	●	●	●	●	●	●	●	
○	○	○	○	●	●	●	●	●	●	●	
●	●	●	●	●	●	●	●	●	●	●	
○	○	○	○	●	●	●	●	●	●	●	



**1 Sectional doors**



**2 Rolling shutters and rolling grilles**



**3 Steel and aluminium folding doors**



**4 High-speed doors**



**5 Loading technology**

## Everything from a single source for your construction project

### **1 Sectional doors**

These room-saving door systems can be adapted to different industrial facilities using various track applications. This gives you planning reliability when building a new development or renovating. Hörmann offers you tailored solutions for every application: for instance fully-glazed AS sectional doors for a clear view of inner rooms or high, thermally-insulated, double-skinned, 80-mm-thick DPU doors that guarantee even temperatures.

### **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. Numerous window and colour designs give you room for variety when designing your facility.

### **3 Steel and aluminium folding doors**

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

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

Hörmann high-speed doors are used both 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, also in combination with sectional doors and rolling shutters. Your advantage: SoftEdge technology with built-in crash-protection makes high-speed doors extremely safe and economical.

### **5 Loading technology**

Hörmann offers complete loading systems for the logistics sector. The advantages: reliable planning, dependable execution of construction work and high functionality thanks to precisely matched components. This applies to both individual dock levellers and loading houses delivered as a complete unit with a dock leveller and dock shelter for retrofitting on existing buildings.

### **6 Fire sliding doors**

Hörmann can provide you with single or double-leaf sliding door solutions suitable for all areas and required fire protection classes. On request, these can also be supplied with a wicket door or smoke-tight function.

### **7 Multi-function doors and OIT internal doors**

Hörmann multi-function doors and OIT internal doors are suitable for indoor and outdoor use. Our single and double-leaf doors can be used anywhere where robust door elements are required. With numerous additional functions, such as fire and smoke protection, acoustic installation or burglar protection, Hörmann offers you solutions that cover almost all types of application in industry.

### **8 Fire and smoke-protection box frame parts**

Hörmann can supply you with doors and fixed glazings made of steel and aluminium for high-traffic areas such as industrial building administration areas. The 100% matching system appearance guarantees the same looks, irrespective of the fire protection class.

### **9 Visibility windows**

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

### **10 Service**

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





**6** Fire sliding doors



**7** Multi-function doors and OIT internal doors



**8** Fire and smoke-protection box frame parts

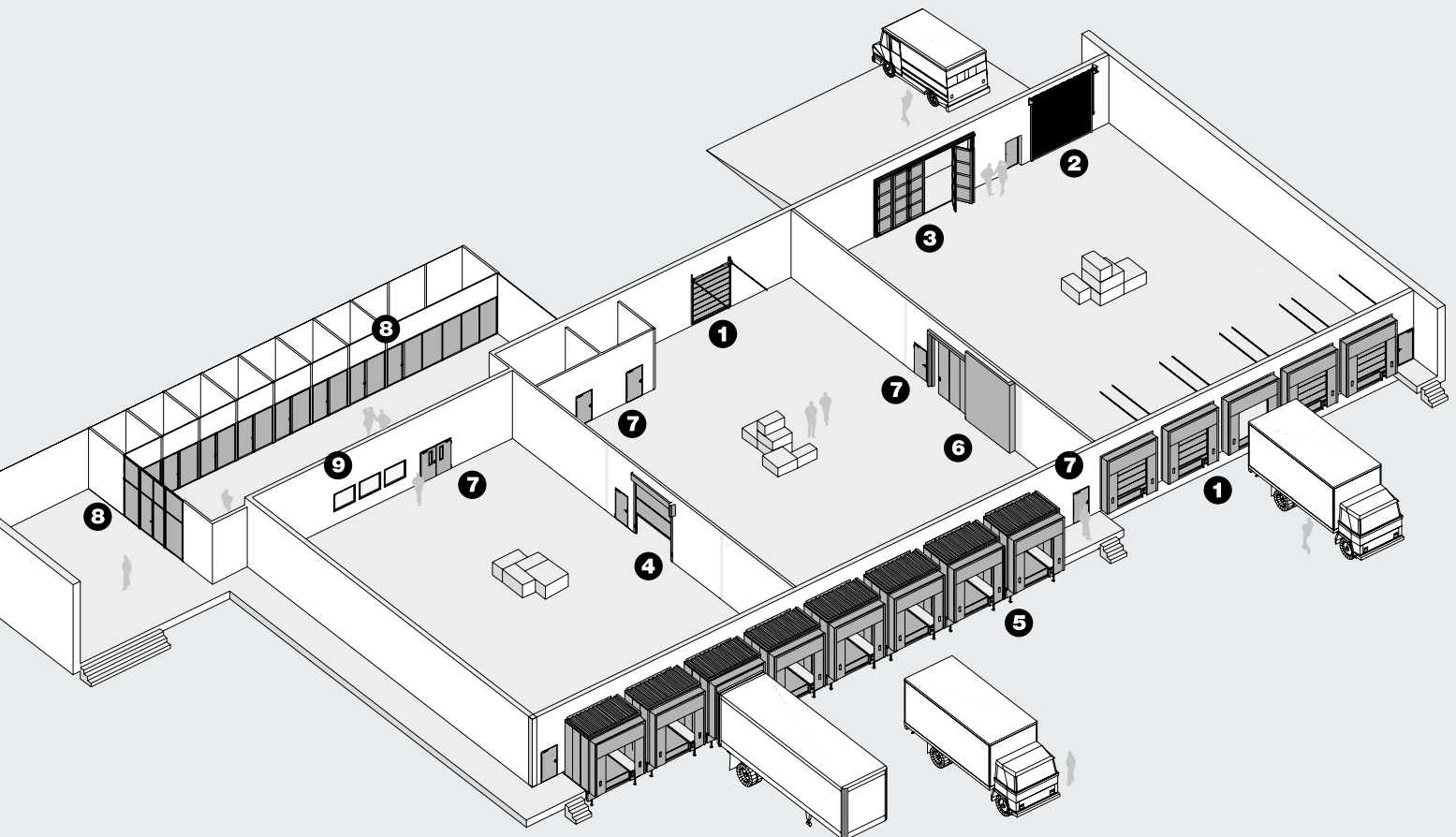


**9** Visibility windows



**10** Service

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



# Hörmann: Quality without Compromise



Hörmann KG Amshausen



Hörmann KG Antriebstechnik



Hörmann KG Brandis



Hörmann KG Brockhagen



Hörmann KG Dissen



Hörmann KG Eckelhausen



Hörmann KG Freisen



Hörmann KG Ichtershagen



Hörmann KG Werne



Hörmann Genk NV, Belgium



Hörmann Alkmaar B.V., Netherlands



Hörmann Legnica Sp. z o.o., Poland



Hörmann Beijing, China



Hörmann Tianjin, China



Hörmann LLC, Montgomery IL, USA



Hörmann Flexon, Leetsdale PA, USA

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**