

# Perimeter protection systems

NEW: Mobile vehicle barrier OktaBlock, Security Line bollards with stone mantle, Design bollards in 5 elegant versions







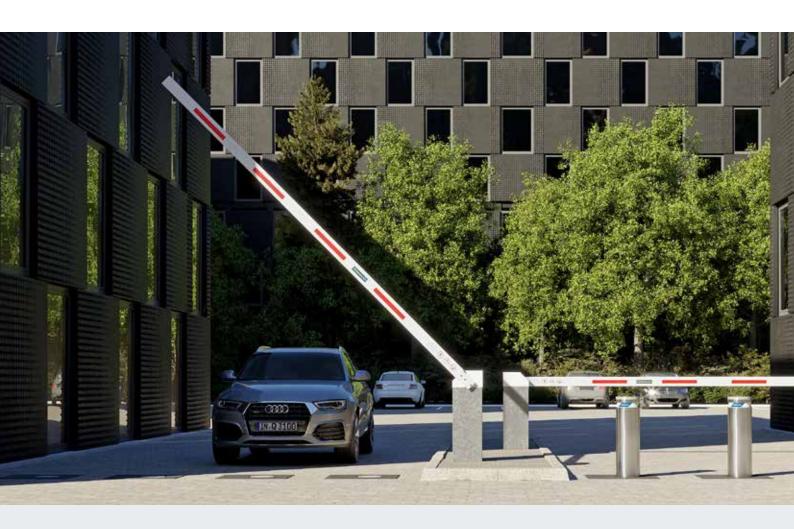
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The products may only be permitted for use in specially secured areas and installation may need to be approved by the authorities and coordinated in advance. Please note local building regulations.

# Hörmann brand quality

#### Reliable and oriented towards the future





#### In-house product development

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



#### Modern manufacturing

All major system components are developed and manufactured by Hörmann, guaranteeing high compatibility, full functionality and optimal safety.



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

Highly-specialised factories develop and produce industrial doors, operators, loading technology and perimeter protection systems that are marked by excellent quality, functional safety and a long service life.

Our wide range of bollards with different functions, road blockers and tyre killers, through to complete control concepts make us a strong, future-oriented partner for perimeter protection systems.



It goes without saying that spare parts for all our components are original Hörmann parts that come with a guaranteed availability of 10 years.



#### **Competent advice**

Experienced specialists within our customer-oriented sales organisation accompany you from the planning stage, through technical clarification up to the final building inspection. Complete working documentation, such as, e.g. technical manuals, is not only available in printed form, but also always accessible and up-to-date at www.hoermann.com



#### **Fast service**

We recommend a semi-annual maintenance cycle for our perimeter protection systems. Our extensive service network means that we are always nearby and at your service.

# **Good reasons to try Hörmann**

#### The market leader has all the innovations







Environmentally-friendly and flexibly fitted

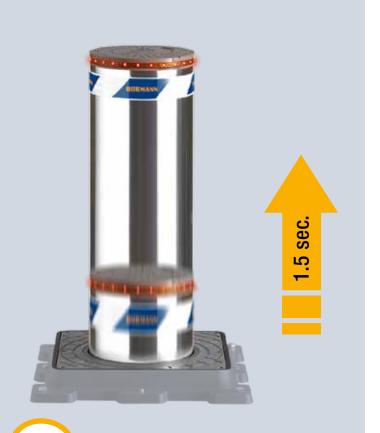
Matching bollard versions

For bollards with an integrated hydraulic operator, all the functional components are installed in the bollard unit. The integrated hydraulic system requires only a small amount of oil, reducing the environmental risk significantly. Optionally, you can choose biodegradable oil without a surcharge to rule out environmental risks completely. Security and High Security bollards with integrated electromechanical operator are particularly environmentally-friendly and low maintenance. Because they do not require hydraulic oil, they also meet strict environmental regulations.

Another advantage of both versions: The control can be fitted up to 80 m away from hydraulic bollards or 50 m away from electromechanical bollards using a power/connection cable.

The cylinders of all bollards in the individual systems have a matching appearance, allowing for a customised combination of Security and High Security Line bollards. In addition, fixed, semi-automatic and automatic bollards can be combined perfectly thanks to the floor plate with a matching appearance. The result is a harmonious overall look.







Security fast in case of emergency

Individual control concepts

An open driveway does not have to pose a security threat. Thanks to the EFO emergency function (Emergency Fast Operation), the lowered bollards and road blockers as well as tyre killers are **extended very quickly**, **in just about**1.5 seconds, offering security fast in emergency situations.

Complete control concepts, e.g. comprising multiple bollards, can be operated using a single control. The concept also allows master and slave relationships to be configured between the bollards. The control is connected via service-friendly quick-connect terminals. These simplify fitting and make subsequent maintenance easier. The control can also be extended with control elements (such as code switches) and / or other activating kits, e.g. for induction loops.



The perimeter protection systems can also be conveniently operated using the BiSecur radio system. The extremely secure BiSecur encryption protocol, developed by Hörmann, makes sure that no one can copy your radio signal.

# **Perimeter protection systems**

The right solution for any security requirement





#### **Security bollards**

Our wide range of Security bollards includes automatic, semi-automatic, removable and fixed versions for security and traffic control in inner-city areas, public spaces and company premises. For further information, see pages 12 – 21.



#### Design bollards / NEW

Five elegant versions allow you to ensure harmony in distinguished areas. The Design bollards are best arranged in rows and separate pavements, pedestrian areas or public spaces from road traffic. Pedestrians and cyclists can enter these zones freely. For further information, see pages 22 – 23.



# High Security bollards, road blockers and tyre killers

High Security Line products enable perimeter protection in high-security areas such as government buildings, airports, industrial facilities, event sites and other sensitive areas. As a barrier, fixed bollards offer lasting security to prevent unauthorised passage. Automatic and removable bollards can also allow for authorised passage. The programme is rounded off by road blockers and tyre killers. For further information, see pages 27 – 41.



#### Mobile vehicle blockers / NEW

The OktaBlock mobile vehicle blocker secures driveways and access to open-air events and effectively prevents vehicles from smashing through. Whether it's a city festival in springtime, a summer festival or a Christmas market in winter, mobile vehicle blockers allow different events to be secured in a location-independent and cost-efficient way at flexible times. For further information, see pages 46 – 49.

# **Quality and safety testing**

#### For maximum safety and function



New and further developments in the Security Line and High Security Line are tested in both internal and external tests, examining the resistance to collisions with different loads, as well as their function depending on temperature and weather.

#### **Climatic testing**

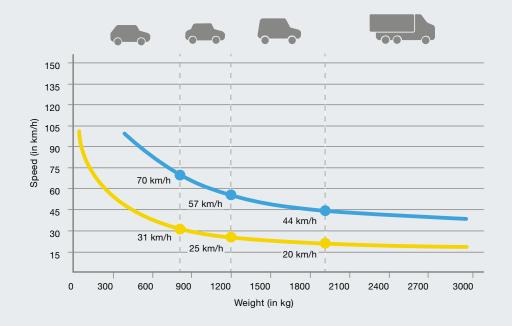
Functional safety is ensured in various climatic conditions through special climatic tests. Different temperatures (from –30°C to +50°C), weather conditions and humidities are simulated in climatic test chambers. These tests have high demands and guarantee the reliable function and long service life of our perimeter protection systems.

#### Pendulum impact testing

The impact resistance of bollards is examined in special pendulum impact tests. A steel ball on a pendulum simulates the loads resulting during an impact with different speeds and vehicle types. The impact height is also tested individually. This allows us to ensure and even improve upon the high safety of our bollards.

#### Uncompromising functional safety

All perimeter protection systems are tested to ensure full functionality before delivery. All fine mechanical and hydraulic adjustments and the electric and electronic settings of each individual system component are tested. For systems with multiple components, the compatibility of all interfaces and functions is ensured. With this process, we can guarantee the fastest fitting possible as well as reliable operation of our perimeter protection systems.



#### Vehicle types

- Small vehicles with a total weight of up to 800 kg
- Passenger cars with a weight of up to 1200 kg
- Vans with a weight of up to 1900 kg
- Lorries with a weight over 1900 kg



Impact energy
without destruction\*
■ 30000 joules (J)

\* using the example of bollard F 220-600 / 800 CF

The security provided by a bollard is measured based on different impact energies. The energy caused by a colliding vehicle depends on the vehicle type, weight and speed. The impact energy is crucial when it comes to damage and the function of the bollards.

#### Impact energy with destruction

The values in the diagram above indicate at which speed and which vehicle weight a certain impact energy is generated in which the passage is prevented with destruction of the bollard. For example, a vehicle with a speed of 57 km/h and a weight of 1200 kg hitting the bollard results in an impact energy of 150000 joules. The passage of the vehicle is avoided, but the crash causes permanent damage to the mechanics and construction of the bollard and the bollard must be replaced.

#### Impact energy without destruction

The values in the diagram above indicate at which speed and which vehicle weight a certain impact energy is generated in which the passage is prevented without destruction of the bollard. For example, a vehicle with a speed of 25 km/h and a weight of 1200 kg hitting the bollard results in an impact energy of 30000 joules. The passage of the vehicle is avoided and the function and safety of the bollard are still guaranteed.

# **Security Line**

#### Security for private and public applications





#### **Automatic bollards**

Automatic bollards are available in two versions: one version with an integrated **electromechanical operator** for average use frequencies and a variant with an **integrated hydraulic operator** for very frequent use. The third variant, **automatic bollard RI-H** with reinforced cylinder material, offers particularly high protection.



#### Semi-automatic bollards

Semi-automatic bollards with **integrated gas springs** are suitable for less frequent use. Installation does not require a power connection.



## Security Line bollards with stone mantle // NEW

For unique design possibilities, we offer fixed and automatic bollards in many stone types and colours as well as individual cylinder covers.







#### Removable bollards

Removable bollards, which can be detached without any tools, are recommended for very infrequent use of approximately 2 cycles per day.



#### **Fixed bollards**

The fixed bollards with bottom plate have a matching appearance with automatic and semi-automatic bollards. If damaged, the cylinders can be removed. The fixed bollards with ground anchor make for an introductory model featuring an excellent price-performance ratio. Fixed bollards RI-FF with reinforced cylinder material and reinforced ground fitting are ideal for particularly high protection.

# **Automatic bollards E**

#### With integrated electromechanical operator



#### A 275-600 E / A 275-800 E

- For average use frequencies (approx. 100 cycles / day)
- Introductory model featuring an excellent price-performance ratio
- Automatic lifting and lowering by integrated electromechanical operator
- Control unit for controlling max. 3 bollards
- Distance between bollard and control unit of up to 30 m

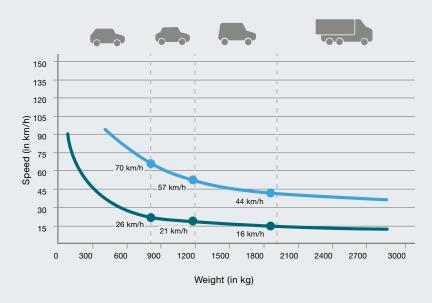


#### Standard equipment

For information about the equipment options, see pages 34 – 35.

	A 275-600 E	A 275-800 E
Version	Automatic	Automatic
Diameter	273 mm	273 mm
Height	600 mm	800 mm
Speed, lifting	9.5 cm/s	11 cm/s
Speed, lowering	12 cm/s	14 cm/s
Load class acc. to EN 124	D400 (40 tonnes)	D400 (40 tonnes)
Automatic lowering in case of power failure (via battery)	•	•
Automatic safety cut-out (can be deactivated)	•	•
Integrated electromechanical operator	•	•
Cycles (approx. per day)	100	100
Overall cycles (max. service life)	200000	200000
Impact energy with destruction	150000 J	150000 J
Impact energy without destruction	20000 J	20000 J
Temperature range	-40°C - +70°C*	-40°C - +70°C*

<sup>\*</sup> For temperatures below -10°C, we recommend an optional heater



Impact energy with destruction ■ 150000 joules (J)

Impact energy without destruction ■ 20000 joules (J)

# **Automatic bollards H**

#### With integrated hydraulic operator



#### A 220-600 H / A 220-800 H A 275-600 H / A 275-800 H

- For high use frequencies (approx. 2000 cycles / day)
- Automatic lifting and lowering by integrated hydraulic operator
- A 275-600 / A 275-800 H: Optionally with EFO emergency function (Emergency Fast Operation)
- Control unit can be extended to control multiple bollards simultaneously
- Distance between bollard and control unit of up to 80 m

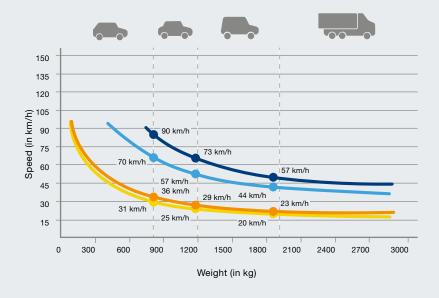




● Standard equipment ○ Optional equipment
For information about the equipment options, see pages 34 – 35.

	A 220-600 H	A 220-800 H	A 275-600 H	A 275-800 H
Version	A 220-000 II	A 220-000 11	A 275-000 11	A 273-000 11
Diameter		220 mm	273 mm	273 mm
Height	600 mm	800 mm	600 mm	800 mm
Speed, lifting	15 cm/s	15 cm/s	16 cm/s	17 cm/s
Speed, lowering	30 cm/s	25 cm/s	30 cm/s	32 cm/s
Load class acc. to EN 124	D400 (40 tonnes)	D400 (40 tonnes)	D400 (40 tonnes)	D400 (40 tonnes)
Manual emergency lowering in case of power failure	•	•	•	•
Automatic lowering in case of power failure		0	0	0
EFO emergency function			0	0
Automatic safety cut-out (can be deactivated)	•	•	•	•
Integrated hydraulic operator	•	•	•	•
Cycles (approx. per day)	2000	2000	2000	2000
Overall cycles (max. service life)	3000000	3000000	3000000	3000000
Impact energy with destruction	150000 J	150000 J	250000 J	250000 J
Impact energy without destruction	30000 J	30000 J	40000 J	40000 J
Temperature range	-40°C - +70°C*	-40°C - +70°C*	-40°C - +70°C*	-40°C - +70°C*

 $<sup>^{\</sup>star}$  For temperatures below –10  $^{\circ}\text{C},$  we recommend an optional heater



Impact energy
with destruction
■ 250000 joules (J)
■ 150000 joules (J)

Impact energy

without destruction ■ 40000 joules (J) ■ 30000 joules (J)

# **Automatic bollards RI-H**

#### With integrated hydraulic operator



#### A 275-RI-600 H / A 275-RI-800 H

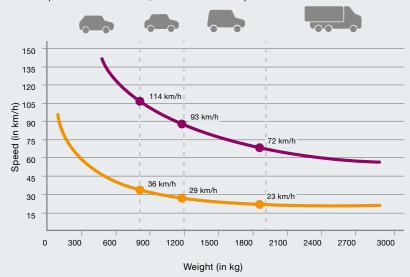
- For high use frequencies (approx. 2000 cycles / day)
- Especially high protection level thanks to reinforced cylinder material
- Automatic lifting and lowering by integrated hydraulic operator
- Optionally with EFO emergency function (Emergency Fast Operation)
- Control unit can be extended to control multiple bollards simultaneously
- Distance between bollard and control unit of up to 80 m



● Standard equipment ○ Optional equipment
For information about the equipment options, see pages 34 – 35.

	A 275-RI-600 H	A 275-RI-800 H
Diameter	273 mm	273 mm
Height	600 mm	800 mm
Speed, lifting	15 cm/s	13 cm/s
Speed, lowering	30 cm/s	32 cm/s
Load class acc. to EN 124	D400 (40 tonnes)	D400 (40 tonnes)
Manual emergency lowering in case of power failure	•	•
Automatic lowering in case of power failure	0	0
EFO emergency function	0	•
Automatic safety cut-out (can be deactivated)	•	•
Integrated hydraulic operator	•	•
Cycles (approx. per day)	2000	2000
Overall cycles (max. service life)	3000000	3000000
Impact energy with destruction	400000 J	400000 J
Impact energy without destruction	40000 J	40000 J
Temperature range	-40°C - +70°C*	-40°C - +70°C*

<sup>\*</sup> For temperatures below -10°C, we recommend an optional heater



Impact energy with destruction ■ 400000 joules (J)

Impact energy without destruction ■ 40000 joules (J)

# Semi-automatic bollards G

#### With integrated gas spring



#### S 220-600 G/S 220-800 G S 275-600 G/S 275-800 G

- For less frequent use (approx. 5 cycles / day)
- No power supply required
- Manual lowering of bollard by depressing it, automatic lifting by integrated gas spring

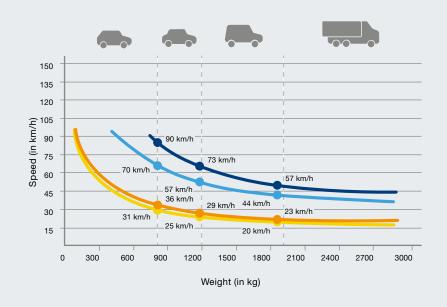




#### Standard equipment

For information about the equipment options, see pages 34 – 35.

	S 220-600 G	S 220-800 G	S 275-600 G	S 275-800 G
Diameter	220 mm	220 mm	273 mm	273 mm
Height	600 mm	800 mm	600 mm	800 mm
Speed, lifting	20 cm/s	20 cm/s	20 cm/s	20 cm/s
Speed, lowering	Manual	Manual	Manual	Manual
Load class acc. to EN 124	D400 (40 tonnes)	D400 (40 tonnes)	D400 (40 tonnes)	D400 (40 tonnes)
Integrated gas spring	•	•	•	•
Cycles (approx. per day)	5	5	5	5
Overall cycles (max. service life)	3000000	3000000	3000000	3000000
Impact energy with destruction	150000 J	150000 J	250000 J	250000 J
Impact energy without destruction	30000 J	30000 J	30000 J	30000 J
Temperature range	-40°C - +70°C	-40°C - +70°C	-40°C - +70°C	-40°C - +70°C



# Impact energy with destruction 250000 joules (J) 150000 joules (J) Impact energy without destruction 40000 joules (J)

30000 joules (J)

# Removable bollards

#### With closed socket



#### R 275-600 / R 275-800 / NEW

- For very infrequent use (approx. 2 cycles / day)
- Can be detached without tools
- Ground-level fitting
- Locking via security lock with profile half cylinder
- No floor opening when bollard is removed

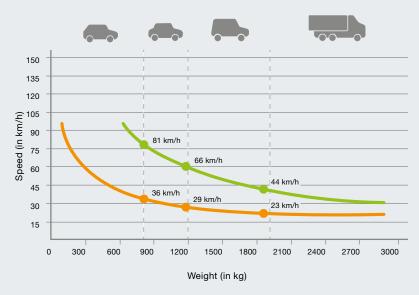




Closed socket when bollard is removed

For information about the equipment options, see pages 34-35.

	R 275-600	R 275-800 // NEW
Diameter	273 mm	273 mm
Height	600 mm	800 mm
Cycles (approx. per day)	2	2
Impact energy with destruction	200000 J	200000 J
Impact energy without destruction	40000 J	40000 J



Impact energy with destruction ■ 200000 joules (J)

Impact energy without destruction ■ 40000 joules (J)

# **Fixed bollards CF**

#### With bottom plate



#### F 220-600 CF / F 220-800 CF F 275-600 CF / F 275-800 CF

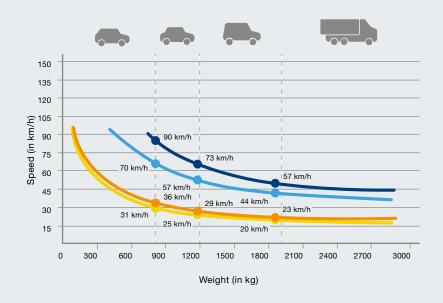
- Harmonious look in combination with automatic and semi-automatic bollards thanks to matching bottom plate
- Simple cylinder removal in case of damage or special events
- Optionally with LED lighting strip for improved visibility

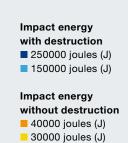




For information about the equipment options, see pages 34 – 35.

	F 220-600 CF	F 220-800 CF	F 275-600 CF	F 275-800 CF
Diameter	220 mm	220 mm	275 mm	275 mm
Height	600 mm	800mm	600 mm	800 mm
Impact energy with destruction	150000 J	150000 J	250000 J	250000 J
Impact energy without destruction	30000 J	30000 J	40000 J	40000 J





# **Fixed bollards BR**

#### With ground anchor



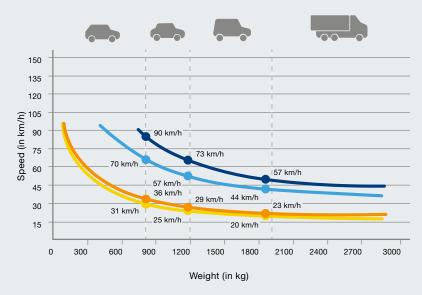
#### F 220-600 BR / F 220-800 BR F 275-600 BR / F 275-800 BR

- Introductory model featuring an excellent price-performance ratio
- To secure buildings or areas without requiring a driveway
- For combination with automatic and removable Security bollards using cylinders in matching appearance



For information about the equipment options, see pages 34-35.

	F 220-600 BR	F 220-800 BR	F 275-600 BR	F 275-800 BR
Diameter	220 mm	220 mm	273 mm	273 mm
Height	600 mm	800 mm	600 mm	800 mm
Impact energy with destruction	150000 J	150000 J	250000 J	250000 J
Impact energy without destruction	30000 J	30000 J	40000 J	40000 J



Impact energy
with destruction

250000 joules (J)

150000 joules (J)

Impact energy
without destruction

40000 joules (J)

30000 joules (J)

# **Fixed bollards RI-FF**

#### With reinforced ground fitting



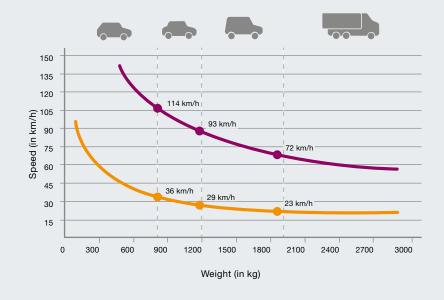
#### F 275-RI-600 FF / F 275-RI-800 FF

- Especially high protection level thanks to reinforced cylinder material and reinforced ground fitting
- To secure buildings or areas without requiring a driveway
- For combination with automatic and removable Security bollards using cylinders in matching appearance



For information about the equipment options, see pages 34 – 35.

	F 275-RI-600 FF	F 275-RI-800 FF
Diameter	273 mm	273 mm
Height	600 mm	800 mm
Impact energy with destruction	400000 J	400000 J
Impact energy without destruction	40000 J	40000 J



Impact energy with destruction ■ 400000 joules (J)

Impact energy without destruction ■ 40000 joules (J)

# **Design bollards** In 5 elegant versions





Design bollards are a simple, elegant, cost-effective solution for separating pavements, pedestrian areas or public spaces from road traffic. They are primarily arranged in rows to prevent cars from parking or driving between them, for example. Pedestrians and cyclists still have barrier-free access.



#### F 102-900 / F 140-900 / F168-900 / NEW

- Distinguished Design bollards optionally in a coated steel version or with an elegant stainless steel surface
- 5 designs and 3 different diameters for a harmonious appearance
- Simple fitting by setting in concrete or version with screw-on flange for screw fastening







Fig. shows version with reinforced ground fitting for setting in concrete

● Standard equipment ○ Optional equipment

	F 102-900	F 140-900	F 168-900
Diameter	102 mm	140 mm	168 mm
Height	900 mm	900 mm	900 mm
Steel, coated in RAL 7016 Anthracite grey	•	•	•
Brushed stainless steel, V2 A (AISI 304)	•	•	•
Coating in RAL to choose (for steel version)	0	0	0
Versions			
With straight cover (see figure above)	•	•	•
With concave cover	0	0	0
With chamfered cover	0	0	0
With wide ring	0	0	0
With 4x ring	0	0	0
Ground fitting for setting in concrete, fitting depth 150 mm (F 102-900, F 102-900) / 250 mm (F 168-900)	•	•	•
Cylinder extension in 100 mm intervals up to max. 1200 mm	0	0	0
Reinforced cylinder and reinforced ground fitting	0	0	0
Screw-on flange for screw fastening	0	0	0
Impact energy with destruction*	200000 J	200000 J	200000 J

 $<sup>^{\</sup>star}\,$  Applies only for bollards with reinforced cylinder and reinforced ground fitting



Version with concave cover



Version with chamfered cover



Version with wide ring (only in stainless steel version)



Version with 4x ring (only in stainless steel version)



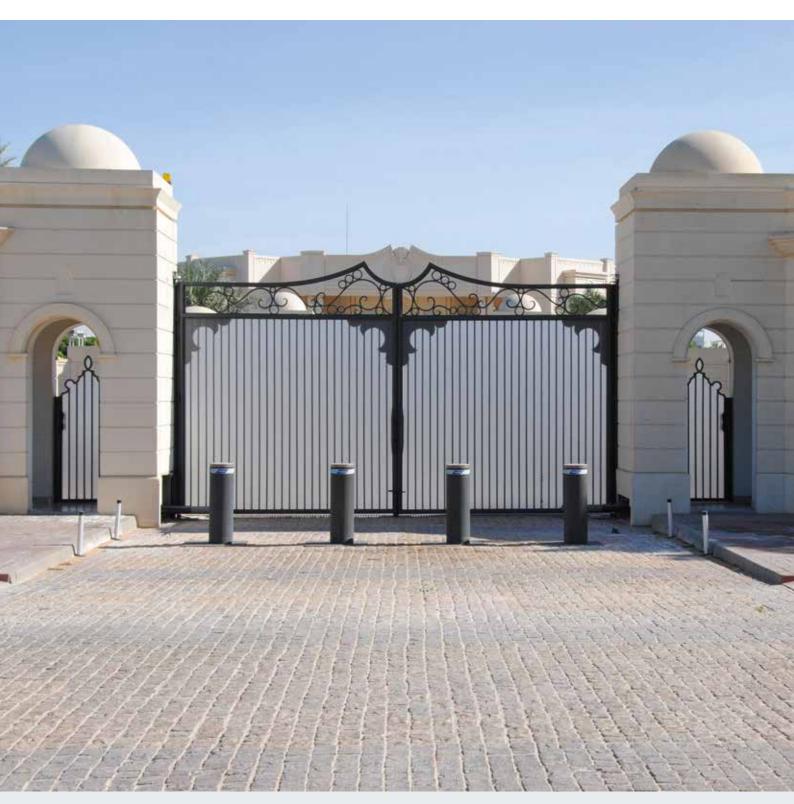
Version with screw-on flange for screw fastening

23

# **High Security Line**

## Maximum protection for high security areas





#### **Electromechanical High Security bollards**

The new High Security bollards with electromechanical, brushless motor are the optimal solution in case of particularly strict environmental protection requirements, since they do not require hydraulic oil. **Very easy to maintain and service**. The Soft-Start and Soft-Stop function makes cylinder movements very gentle.





#### **Barriers**

For optimised security for entrances and exits up to 6 m wide, road blockers are recommended. They are available in the **Road Blocker 500** variant with a barrier height of 500 mm or in the **Road Blocker 1000** version with a barrier height of 1000 mm. **Road Blockers 500 SF and 1000 SF** are suitable for fitting on finished floor surfaces since no groundwork is required.



#### **High Security bollards**

High Security Line bollards are perfect for protecting sensitive areas. They are available in **automatic**, **removable and fixed versions**, are certified to crash tests and meet the relevant security requirements.



#### Tyre killers

Tyre killers enable controlled, uni-directional passage while preventing passage in the other direction. While the variant **Tyre Killer M** can always be traversed in one direction, **Tyre Killer H** is lowered to allow vehicle passage.

# **Safety certifications**

#### For maximum safety and function

Real crash tests with high loads allow us to optimally prepare our innovations for the official inspections by the authorised test centres for official approvals. In this test, a 7.5 tonne lorry (remote-controlled) crashes into a road blocker at a speed of 80 km/h, for example.

The various certifications from the USA and Europe are equally recognised internationally if they meet the same requirements.



American Certification DOS SD-SDT – 02.01 Performed at Texas Transportation Institute The Texas A&M University System, Texas U.S.A.



Certification PAS68:2013 Performed at Aisico srl Crash Test Center, Pereto (Aq) – Italy

#### Crash test - K12 rating

Vehicle weight: 6.8 t Speed: 80 km/h

Impact energy: 1679012 joules (J)

#### Crash Test - Rating PAS68:2013

Vehicle weight: 7.5 t Speed: 80 km/h

Impact energy: 1851852 joules (J)

#### Crash test - K4 rating

Vehicle weight: 6.8 t Speed: 50 km/h

Impact energy: 655864 joules (J)

#### Crash Test - Rating PAS68:2013

Vehicle weight: 7.5 t Speed: 50 km/h

Impact energy: 723380 joules (J)



Certification ASTM F2656-07
Performed at Karco Engineering, LLC.
Automotive Research Center, Adelanto CA, U.S.A.



Certification IWA14-1:2013 Performed at Aisico srl Crash Test Center, Pereto (Aq) – Italy

#### Crash Test - M50 Rating

Vehicle weight: 6.8 t Speed: 80 km/h

Impact energy: 1679012 joules (J)

#### Crash Test - Rating IWA14-1:2013

Vehicle weight: 7.2 t Speed: 50 km/h

Impact energy: 694444 joules (J)

#### Crash Test - M30 Rating

Vehicle weight: 6.8 t Speed: 50 km/h

Impact energy: 655864 joules (J)

#### Crash Test - Rating IWA14-1:2013

Vehicle weight: 7.2 t Speed: 80 km/h

Impact energy: 1777778 joules (J)

#### Comparison of the certificates from the USA, Great Britain and international certificates

Previous US testing method	Current US testing method	Current testing method Great Britain	Current international testing methods
K4	M30	PAS68	IWA14
K12	M50	PAS68	IWA14

### **Automatic bollards E**

#### With brushless electromechanical operator





#### A 275-M30-900 E / A 275-M30-1200 E A 275-M50-900 E / A 275-M50-1200 E

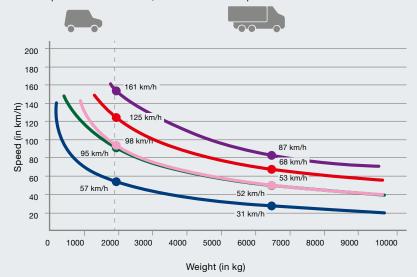
- For high use frequencies (approx. 2000 cycles / day)
- Low maintenance, as no inspection of the hydraulics components, oil pressure and oil level is required
- Environmentally friendly, can also be used in case of strict environmental requirements
- Service-friendly thanks to virtually wear-free brushless 230 V motors and few operator components
- Low-vibration and low-noise cylinder movement with Soft-Start and Soft-Stop
- Optionally with EFO emergency function (Emergency Fast Operation)



● Standard equipment ○ Optional equipment
For information about the equipment options, see pages 34 – 35.

	A 275-M30-900 E	A 275-M30-1200 E	A 275-M50-900 E	A 275-M50-1200 E
Diameter	273 mm	273 mm	271 mm	271 mm
Height	900 mm	1200 mm	900 mm	1200 mm
Speed, lifting	22 cm/s	22 cm/s	22 cm/s	22 cm/s
Speed, lowering	22 cm/s	22 cm/s	22 cm/s	22 cm/s
Load class acc. to EN 124	D400 (40 tonnes)	D400 (40 tonnes)	D400 (40 tonnes)	D400 (40 tonnes)
Manual lowering in case of power failure	•	•	•	•
Automatic lowering in case of power failure (via battery)	0	0	0	0
EFO emergency function	0	0	0	0
Electromechanical operator	•	•	•	•
Cycles (approx. per day)	2000	2000	2000	2000
Overall cycles (max. service life)	3000000	3000000	3000000	3000000
Certified to	PAS68, IWA14-1	M30, K4	M50, K12	PAS68
Compliant with	M30, K4	PAS68, IWA14-1	PAS68, IWA14-1	IWA14-1, M50, K12
Impact energy with destruction	750000 J	1200000 J	2000000 J	2000000 J
Impact energy without destruction	250000 J	700000 J	700000 J	700000 J
Temperature range	-40°C - +70°C*	-40°C - +70°C*	-40°C - +70°C*	-40°C - +70°C*

<sup>\*</sup> For temperatures below -10°C, we recommend an optional heater



# Impact energy with destruction

- 2000000 joules (J)
- 1200000 joules (J) ■ 750000 joules (J)

# Impact energy without destruction

■ 700000 joules (J) ■ 250000 joules (J)

# **Automatic bollards H**

#### With integrated hydraulic operator



# A 275-M30-900 H / A 275-M30-1200 H A 275-M50-900 H / A 275-M50-1200 H

- For high use frequencies (approx. 2000 cycles / day)
- Automatic lifting and lowering by integrated hydraulic operator
- Optionally with EFO emergency function (Emergency Fast Operation)
- Control unit can be extended to control multiple bollards simultaneously
- Distance between bollard and control unit of up to 80 m

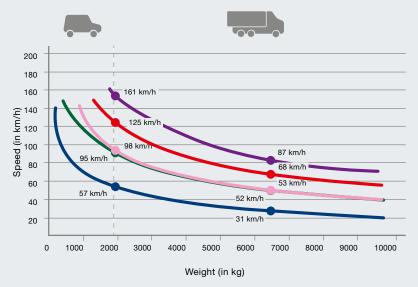


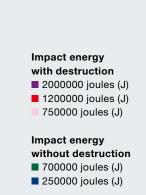


● Standard equipment ○ Optional equipment For information about the equipment options, see pages 34 – 35.

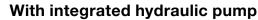
	A 275-M30-900 H	A 275-M30-1200 H	A 275-M50-900 H	A 275-M50-1200 H
Diameter	273 mm	273 mm	271 mm	271 mm
Height	900 mm	1200 mm	900 mm	1200 mm
Speed, lifting	10 cm/s	22 cm/s	22 cm/s	22 cm/s
Speed, lowering	26 cm/s	30 cm/s	22 cm/s	30 cm/s
Load class acc. to EN 124	D400 (40 tonnes)	D400 (40 tonnes)	D400 (40 tonnes)	D400 (40 tonnes)
Manual lowering in case of power failure	•	•	•	•
EFO emergency function	0	0	0	0
Integrated hydraulic operator	•	•	•	•
Cycles (approx. per day)	2000	2000	2000	2000
Overall cycles (max. service life)	3000000	3000000	3000000	3000000
Certified to	PAS68, IWA14-1	M30, K4	M50, K12	M50, K12, PAS68
Compliant with	M30, K4	PAS68, IWA14-1	PAS68, IWA14-1	IWA14-1
Impact energy with destruction	750000 J	1200000 J	2000000 J	2000000 J
Impact energy without destruction	250000 J	700000 J	700000 J	700000 J
Temperature range	-40°C - +70°C*	-40°C - +70°C*	-40°C - +70°C*	-40°C - +70°C*

<sup>\*</sup> For temperatures below -10°C, we recommend an optional heater





# Semi-automatic bollards H







#### S 275-M30-900 H / S 275-M30-1200 H S 275-M50-900 H / S 275-M50-1200 H

- For less frequent use (approx. 5 cycles / day)
- No power supply required
- Manual lowering and lifting with electric screwdriver using supplied special insert

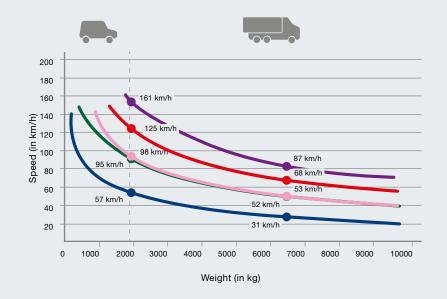




● Standard equipment ○ Optional equipment
For information about the equipment options, see pages 34 – 35.

	S 275-M30-900 H	S 275-M30-1200 H	S 275-M50-900 H	S 275-M50-1200 H
Diameter	273 mm	273 mm	271 mm	271 mm
Height	900 mm	1200 mm	900 mm	1200 mm
Speed, lifting	8 cm/s	8 cm/s	8 cm/s	8 cm/s
Speed, lowering	20 cm/s	20 cm/s	20 cm/s	20 cm/s
Load class acc. to EN 124	D400 (40 tonnes)	D400 (40 tonnes)	D400 (40 tonnes)	D400 (40 tonnes)
EFO emergency function	0	0	0	0
Integrated hydraulic operator	•	•	•	•
Cycles (approx. per day)	<u></u>	5	5	5
Overall cycles (max. service life)	3000000	3000000	3000000	3000000
Certified to	PAS68, IWA14-1	M30, K4	M50, K4	PAS68, IWA14-1
Compliant with	M30, K4	PAS68, IWA14-1	PAS68, IWA14-1	M50, K4
Impact energy with destruction	750000 J	1200000 J	2000000 J	2000000 J
Impact energy without destruction	250000 J	700000 J	700000 J	700000 J
Temperature range	-40°C - +70°C*	-40°C-+70°C*	-40°C - +70°C*	-40°C - +70°C*

 $<sup>^{\</sup>star}\,$  For temperatures below –10°C, we recommend an optional heater



# Impact energy with destruction 2000000 joules (J) 1200000 joules (J) 750000 joules (J) Impact energy without destruction 700000 joules (J) 250000 joules (J)

# Removable bollards

#### With reinforced socket





#### R 275-M30-900 / R275-M30-1200 R275-M50-900 / R 275-M50-1200

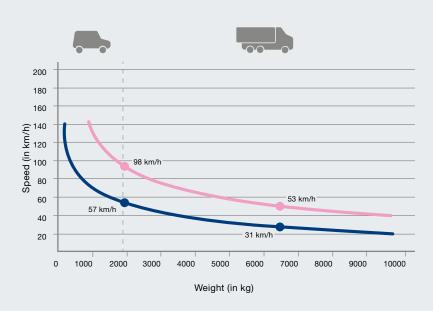
- For very infrequent use
- Can be detached with special tool
- · Locking via security lock with profile half cylinder
- Can be combined with fixed High Security bollards using cylinders in matching appearance





For information about the equipment options, see pages 34-35.

R 275-M30-900	R 275-M30-1200 // NEW	R 275-M50-900 // NEW	R 275-M50-1200 // NEW
273 mm	273mm	271mm	271mm
900 mm	1200mm	900mm	1200mm
PAS68, IWA14-1, M30, K4	PAS68, IWA14-1, M30, K4	-	-
-	-	PAS68, IWA14-1, M50, K12	PAS68, IWA14-1, M50, K12
750000 J	750000 J	2000000 J	2000000 J
100000 J	100000 J	250000 J	250000 J
	273 mm 900 mm  PAS68, IWA14-1, M30, K4  - 750000 J	# NEW 273 mm 273mm 900 mm 1200mm  PAS68, IWA14-1, M30, K4  750000 J 750000 J	## NEW ## NEW 273 mm 271 mm 271 mm 900 mm 1200 mm 900 mm  PAS68, IWA14-1, M30, K4 PAS68, IWA14-1, M50, K12  750000 J 750000 J 2000000 J



Impact energy with destruction ■ 750000 joules (J)

Impact energy
without destruction
■ 250000 joules (J)

# **Fixed bollards FF**

#### With reinforced ground fitting



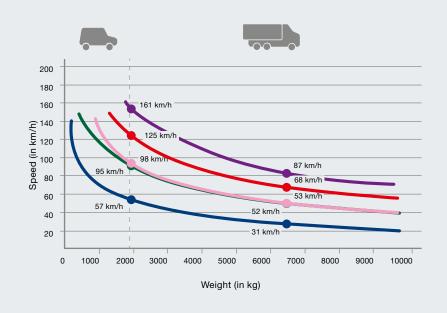
# F 275-M30-900 FF / F 275-M30-1200 FF F 275-M50-900 FF / F 275-M50-1200 FF

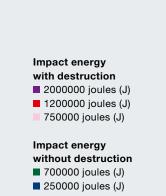
- Reinforced ground fitting for setting in concrete
- To secure buildings or areas without requiring a driveway
- For combination with automatic and removable High Security bollards using cylinders in matching appearance



For information about the equipment options, see pages 34 – 35.

	F 275-M30-900 FF	F 275-M30-1200 FF	F 275-M50-900 FF	F 275-M50-1200 FF
Diameter	273 mm	273 mm	271 mm	271 mm
Height	900 mm	1200 mm	900 mm	1200 mm
Certified to // NEW	M30, K4, PAS68, IWA14-1	M30, K4, PAS68, IWA14-1	M50, K12, PAS68, IWA14-1	M50, K12, PAS68, IWA14-1
Impact energy with destruction	750000 J	1200000 J	2000000 J	2000000 J
Impact energy without destruction	250000 J	700000 J	700000 J	700000 J





# **Fixed bollards SF**

#### With flat ground fitting and a fitting depth of only 200 mm



#### F 275-M30-900 SF

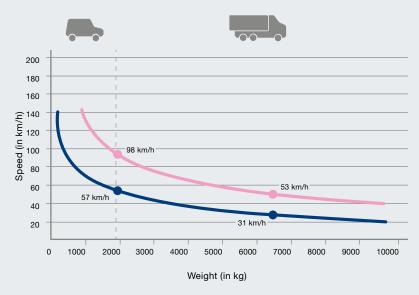
- For fitting over supply lines laid in the ground or e.g. over underground garages
- Very low fitting depth of only 200 mm for road surfaces with asphalt
- Optional: 300 mm fitting depth for road surfaces e.g. with paving stones
- An arrangement with any number of rows, with multiple bollards
- Custom angle arrangements at 90°, 45° and 30° angles
- · Can also be used with gradients
- Harmonious appearance in combination with other High Security bollards thanks to matching cylinders
- Little earthworks and reduced assembly required thanks to ready-to-fit modules, including steel reinforcement



Standard ground fitting with 3 fixed cylinders

For information about the equipment options, see pages 34 – 35.

F 275-M30-900 SF
273 mm
900 mm
200 mm
300 mm
PAS68, IWA14-1, M30, K4
750000 J
250000 J



Impact energy with destruction ■ 750000 joules (J)

Impact energy
without destruction
■ 250000 joules (J)





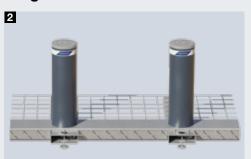


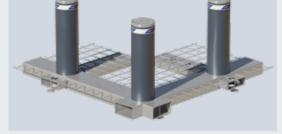
Standard ground fitting with 1 fixed cylinder (arrangement in direction of travel to centre), optionally on right or on left

Standard ground fitting with **2 fixed cylinders** (arrangement in direction of travel to centre / right), arrangement in direction of travel to centre / left also possible

#### **Extensions and arrangements**





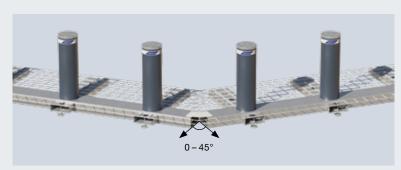


#### Modules with 1 or 2 bollards

Ground fitting with 1 bollard **1** or 2 bollards **2** to extend the standard ground fitting

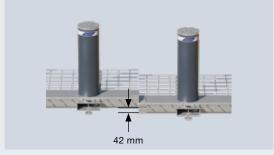
#### Module with 3 bollards in 90° arrangement

Ground fitting in 90° angle arrangement with 3 fixed bollards





Fitting set  $0^{\circ}/30^{\circ}/45^{\circ}$  to join ground fittings in case of an even surface



#### Inclining or sloping arrangement

Fitting set to join ground fittings in case of surfaces with a gradient (also possible in combination with angle arrangement). The maximum possible gradient is approx. 2.4° (approx. 42 mm at a length of 1 m).

All details in mm 33

# **Equipment**

#### For Security Line and High Security Line bollards

#### Standard equipment



#### 1 Cylinder cover

- ABS plastic (Security Line)
- Aluminium with anti-corrosion coating (High Security Line)

#### 2 Reflecting strips

- · Better visibility at night
- All-round

#### 3 Cylinder surface

• Steel, coated in Anthracite grey RAL 7016

#### 4 Automatic safety cut-out

- Stops lifting of automatic bollards in case of obstacles (Security Line)
- Can be deactivated

#### **Optional equipment**



#### Steel surface finishes

- Anti-corrosion coating
- Coating in RAL to choose



#### Stainless steel surfaces

- V2 A or V4 A
- K180 (polished)
- Coating in RAL to choose



#### **LED** lighting strips

- Better visibility at night
- Warning light when bollard is lifted and lowered
- All-round



# Reaction in case of power failure

- Automatic lowering of automatic bollards
- Emergency manual operation to lift and lower





#### **Heating element**

 Reliable operation in areas at risk of snow and ice



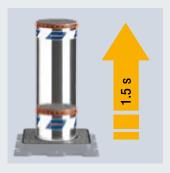
#### Stone mantle // NEW

- Available for fixed and automatic bollards with 275 mm diameter and with heights of 600 and 800 mm\*
- Available in many natural stone types
- Unique design possibility due to matching appearance of fixed and automatic bollards



# UPS uninterruptible power supply

- To bypass power failures for up to 10 cycles
- Recharges during normal operation



# EFO emergency function

 Fast extension within approx. 1.5 s in emergency situations for automatic bollards



#### Cylinder cover // NEW

- Individual design
- Optional for bollards with stone mantle



#### Acoustic warning signal

 Warning signal when lifting and lowering bollard



#### Pavement frame // NEW

- · For laying paving stones
- For automatic and semi-automatic bollards as well as fixed bollards with bottom plate (Security Line)
- Stainless steel, coated in Anthracite grey (anti-slip)
- Optionally in brushed stainless steel

<sup>\*</sup> Except for RI version and bollards with electromechanical operator

## **Barriers**

#### To secure passages up to 6 m wide



#### Road Blocker 500 / 1000

- For high use frequencies (approx. 2000 cycles / day)
- Road Blocker 500: barrier height 500 mm
- Road Blocker 1000: barrier height 1000 mm
- Flush-fitting in the floor
- External hydraulic operator (max. distance 30 m)
- Optionally with EFO emergency function (Emergency Fast Operation)



• Standard equipment Optional equipment For information about the equipment options, see page 39.

	Road Blocker 500	Road Blocker 1000
Ramp height above ground level	500 mm	1000 mm
Standard length	2, 3, 4, 5, 6 m	2, 3, 4, 5, 6 m
Fitting depth	300 mm	300 mm
External hydraulic operator	•	•
Speed, lifting	10 cm/s	14.2 cm/s
Speed, lowering	10 cm/s	14.2 cm/s
EFO emergency function	0	0
Manual operation	0	0
LED lighting strips	0	0
Protective sections	•	•
Load class acc. to EN 124	D400 (40 tonnes)	D400 (40 tonnes)
Cycles (approx. per day)	2000	2000
Overall cycles (max. service life)	3000000	3000000
Certified to		PAS68
Compliant with	M30, K4, PAS68, IWA14-1	M50, K12, IWA14-1
Impact energy with destruction	750000 J	2000000 J



Impact energy
with destruction
■ 2000000 joules (J)
■ 750000 joules (J)

## **Barriers**

#### To secure passages without earthworks



#### Road Blocker 500 SF / 1000 SF

- For high use frequencies (approx. 2000 cycles / day)
- Road Blocker 500 SF: barrier height 500 mm
- Road Blocker 1000 SF: barrier height 1000 mm
- Integrated hydraulic operator
- Simple, fast fitting on finished floor surface, no groundwork required
- Can also be used as temporary vehicle blocker



Illustration: RoadBlocker 500 SF

• Standard equipment Optional equipment For information about the equipment options, see page 39.

	Road Blocker 500 SF	Road Blocker 1000 SF // NEW From summer 2021
Height	500 mm	1000 mm
Standard length	4/5/6 m	4/5/6 m
Passage width	3.5 / 4.5 / 5.5 m	3.5 / 4.5 / 5.5 m
Fitting depth	0 mm	0 mm
Integrated hydraulic pump	•	•
Speed, lifting	8.3 cm/s	14.2 cm/s
Speed, lowering	8.3 cm/s	14.2 cm/s
Manual operation	0	0
EFO emergency function	-	0
Photocell	•	•
Warning light on two sides for passage control	•	•
Acoustic warning signal	•	•
Load class acc. to EN 124	D400	D400
Cycles (approx. per day)	2000	2000
Overall cycles (max. service life)	3000000	3000000
Certified to	PAS68, IWA14-1	
Compliant with		PAS68, IWA14-1
Impact energy with destruction	140000 J	750000 J



Impact energy with destruction 750000 joules (J)

140000 joules (J)

## **Tyre killers**

#### To secure passages in one direction

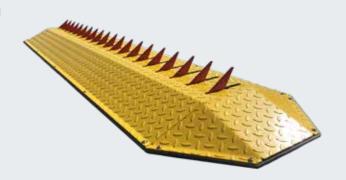


#### Tyre Killer M

- For average use frequencies (approx. 100 cycles / day)
- Fitting on finished floor surface, no groundwork required
- Optional manual lowering for passage in both directions

#### Tyre Killer H

- For high use frequencies (approx. 2000 cycles / day)
- Flush-fitted to floor
- External hydraulic operator (max. distance 30 m)
- Optionally with EFO emergency function (Emergency Fast Operation)
- Manual lowering for passage in both directions





● Standard equipment ○ Optional equipment

For information about the equipment options, see page 39.

	Tyre Killer M	Tyre Killer H
Height of spikes above ground level	61 mm	500 mm
Length	2, 3, 4, 5, 6 m	2, 3, 4, 5, 6 m
Spike width	10 mm	20 mm
Spike spacing	105 mm	200 mm
Fitting depth		710 mm
Extension via counter weight	•	
Extension by integrated hydraulic operator		•
Manual lowering for passage in both directions	0	•
EFO emergency function		0
Locking device	0	0
Cycles (approx. per day)	100	2000
Load class acc. to EN 124	C250	D400
Overall cycles (max. service life)	200000	3000000

## **Optional equipment**

#### For road blockers and tyre killers



## LED lighting strips

- Better visibility at night
- Warning light when bollard is lifted and lowered
- For road blockers



# UPS uninterruptible power supply

- To bypass power failures for up to 10 cycles
- Recharges during normal operation



## **EFO** emergency function

• Fast extension within approx. 1.5 s in emergency situations



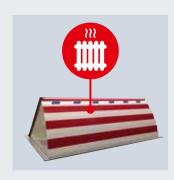
## Acoustic warning signal

 Warning signal when lifting and lowering



## Reaction in case of power failure

Manual emergency operation



#### **Heating element**

- Reliable operation in areas at risk of snow and ice
- For road blockers

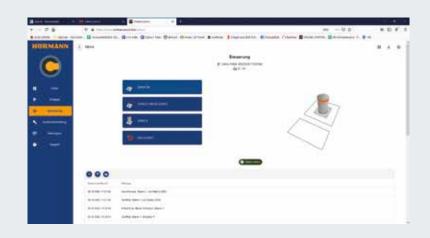
## **Hörmann Access Control HAC**

Online perimeter protection and access regulation



#### Functions at a glance

- System developed in-house for automatic security bollards
- Management of up to 2000 ID card media for regulating passages
- Simple operation via web browser on mobile and stationary devices
- Convenient user management incl. user groups
- Issuing individual access authorisation
- Flexible entry and exit management
- Convenient malfunction recognition
- Message memory for up to 1000 movements





## **Key switch posts**

#### For perimeter protection and access regulation

#### Key switch post, stainless steel 170

- Operation of automatic bollards directly at the bollard
- Perimeter protection using key switches, transponder key switches and code switches
- Access regulation using 1-sided or 2-sided traffic lights (red / green)
- To accommodate up to max. 2 bollard controls (only for variant that opens to the top)

#### Key switch post, stainless steel 275

- Operation of automatic bollards directly at the bollard
- Harmonious appearance in combination with bollards with diameters of 275 mm
- Accommodates control for up to 4 bollards
- Perimeter protection using key switches, transponder key switches and code switches
- Access regulation using 1-sided or 2-sided traffic lights (red / green)
- Maintenance flap with lock

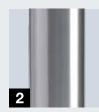


#### ● Standard equipment ○ Optional equipment

	Key switch post, stainless steel 170	Key switch post, stainless steel 275
Diameter	170 mm	275 mm
Heights	1500, 1800 mm	1500, 1800 mm
Fixed	•	•
Key switch post opening to the top	0	
Mounting base	•	•
Lockable maintenance flap		•
Protection category	IP 55	IP 55



Stainless steel surface, coated in Anthracite grey RAL 7016 (as standard), coating in RAL to choose (optional)



Stainless steel surface, polished finish, K240 (brushed)



Maintenance flap (for stainless steel key switch post 275)



Perimeter protection using key switches, transponder key switches and code switches



Access regulation using 1-sided or 2-sided traffic lights (red / green)



**Only from Hörmann** 

## Hörmann BiSecur (BS)

#### State-of-the-art radio system for door control and perimeter protection systems

The bi-directional BiSecur radio system is based on future-oriented technology for convenient and secure operation. The extremely secure BiSecur encryption protocol makes sure that no one can copy your radio signal. It was tested and certified by security experts at Bochum university.

#### Your advantages

- 128-bit encryption with the same high security level as online banking
- Interference-resistant radio signal with a stable range
- Compatible with Hörmann door control and perimeter protection systems















♦ BiSecur

5-button hand transmitter

High-gloss black or white, with chrome caps

5-button hand transmitter

Black textured surface with chrome caps

## 4-button hand transmitter

Black textured surface with chrome caps

## 1-button hand transmitter

Black textured surface with chrome caps





Additional function: copy protection for hand transmitter coding, with chrome caps





2-button hand transmitter HSE 2 BS

High-gloss black or white, with chrome caps





4-button hand transmitter HSE 4 BS

Black textured surface with chrome or plastic caps



**♦** BiSecur

1-button hand transmitter HSE 1 BS

Black textured surface with chrome caps

#### Code switches, finger-scans, transponder key switches







♦ BiSecur

#### Industrial hand transmitter **HSI BS**

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

#### Industrial hand transmitter HSI 6 BS, HSI 15 BS

To control up to 6 / 15 receivers, with extra-large buttons for easier operation with work gloves, impact-resistant housing Protection category: IP 65



FCT 3 BS

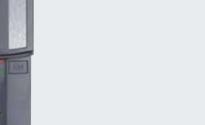
### Radio code switch For 3 functions, with illuminated buttons



Radio code switch FCT 10 BS For 10 functions, with illuminated buttons and protective cover



Radio finger-scan FFL 12 BS For 2 functions and up to 12 fingerprints





♦ BiSecur



#### 2-channel relay receiver **HET-E2 SL BS**

With 2 volt-free relay outputs for choosing the direction, one 2-pin input for volt-free Retracted / Extended limit switch reporting, external antenna



#### Hörmann homee Brain

Basic cube with BiSecur radio system for operating Hörmann garage door and entrance gate operators, entrance door locks, electric devices and perimeter protection systems via the Hörmann homee app

#### **Accessories**

#### Code switches, finger-scans, transponder key switches









Code switch CTR 1b-1, CTR 3b-1 For 1 (CTR 1b-1) or 3 (CTR 3b-1) functions, with illuminated buttons

Dimensions:  $80 \times 80 \times 15$  mm (W × H ×D)

#### Code switch CTV 3-1

For 3 functions, with particularly robust metal keypad

Dimensions:  $80 \times 80 \times 15$  mm (W × H × D)

#### Code switch CTP 3

For 3 functions, with illuminated lettering and touch-sensitive surface

Dimensions:  $80 \times 80 \times 15$  mm (W × H × D)

#### Decoder housing

For code switch CTR 1b-1, CTR 3b-1, CTV 3-1, CTP 3

#### Dimensions:

140 × 130 × 50 mm (W × H × D), Keypad protection category: IP 65 Decoder housing protection category: IP 54 Switching capacity: 2.5 A/30 V DC 500 W/250 V A





#### Finger-scan FL 150

For 2 functions Can store up to 150 fingerprints

Dimensions:  $80\times80\times13~\text{mm (W}\times\text{H}\times\text{D)},$  decoder housing:  $70\times275\times50~\text{mm (W}\times\text{H}\times\text{D)},$  Switching capacity: 2.0 A/30 V DC

#### Transponder key switch TTR 1000-1

For 1 function, via transponder key or transponder card, up to 1000 keys or cards can be saved

## Dimensions: $80 \times 80 \times 15 \text{ mm (W} \times \text{H} \times \text{D)},$ decoder housing:

140 × 130 × 50 mm (W × H ×D), switching capacity: 2.5 A/30 V DC 500 W/250 V AC

#### **Accessories**

## Activating kits, key switches, LED traffic lights





## DI 1 induction loop in a separate additional housing

Suitable for one induction loop. The detector has a normally open contact and a change-over contact. DI 2 induction loop (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:  $202\times164\times130~mm~(W\times H\times D),$  switching capacity: DI 1: low voltage 2 A, 125 V A / 60 W DI 2: 250 V AC, 4 A, 1000 VA (resistive load AC), Supplied without loop cable

Loop cable for induction loop 50 m roll, cable designation: SIAF, cross-section: 1.5 mm², colour: brown



## Digital weekly timer in a separate additional housing

The timer can switch command units on and off via a volt-free contact. Switching capacity: 230 V AC, 2.5 A / 500 W,
Can be switched over to summer / winter time,

Can be switched over to summer / winter time, manual switching: automatic operation, switching preselection "permanently ON / OFF"

Dimensions of additional housing:  $202 \times 164 \times 130$  mm (W  $\times$  H  $\times$ D), Protection category: IP 65



#### Digital yearly timer in additional housing

The timer can switch command units on and off via a volt-free contact. Switching capacity: 230 V AC, 2.5 A / 500 W, Can be switched over to summer / winter time, manual switching: automatic operation, switching preselection "permanently ON / OFF"

Dimensions of additional housing:  $202 \times 164 \times 130$  mm (W  $\times$  H  $\times$ D), Protection category: IP 65





#### Key switch ESU / ESA 30

With 3 keys, impulse or "Open / Close" function selectable

Dimensions of the switch box: 60 mm (d), 58 mm (D) Dimensions of the cover:  $90 \times 100$  mm (W  $\times$  H), Brickwork recess: 65 mm (d), 60 mm (D) Protection category: IP 54





#### Key switch STUP / STAP 50

With 3 keys

Dimensions:  $80 \times 80 \text{ mm (W} \times \text{H)}$ , Protection category: IP 54

#### Traffic lights red / green

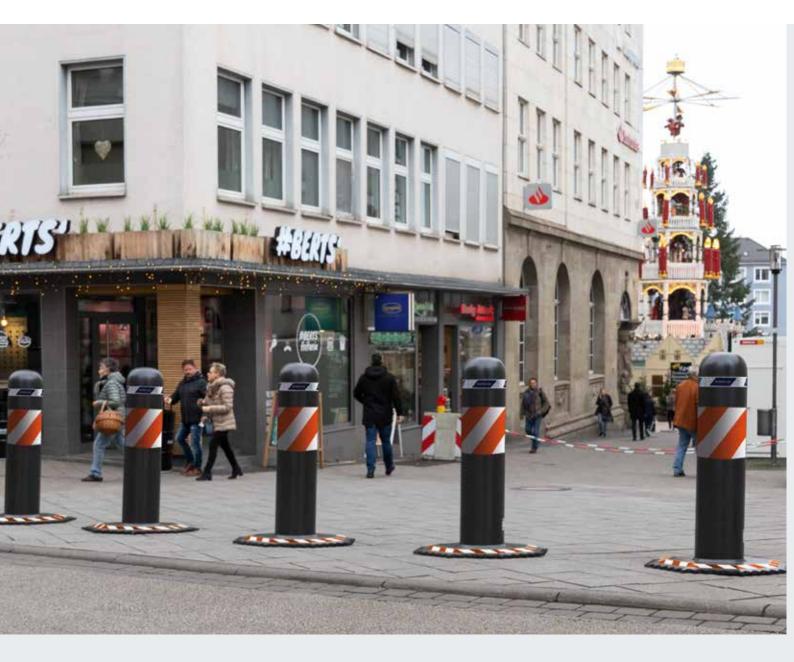
As a visual indicator of authorized or blocked passage, not in combination with stainless steel key switch posts

Dimensions:  $180 \times 250 \times 290$  mm (W × H × D) Contact load: 250 V AC: 2.5 A / 500 W, Protection category: IP 65

## Mobile vehicle blocker

For flexible and certified safeguarding of events





The OktaBlock mobile vehicle blocker secures driveways and access to open-air events and effectively prevents vehicles from smashing through. The design of the Hörmann OktaBlock is inconspicuous and therefore not perceived to be threatening. Whether it's a city festival in springtime, a summer festival or a Christmas market in winter, mobile vehicle blockers allow different events to be secured in a location-independent and cost-efficient way at flexible times.

















#### **Certified personal safety**

The vehicle blocker is certified as a single module. Therefore it is not necessary to connect multiple modules, contrary to many competitive products. This guarantees **maximum flexibility** and ensures escape routes.

The OktaBlock is certified according to international standards BSI PAS68:2013 and IWA-14-1:2013 standardised crash test "N2 / N2A". In this standardised crash test, an unmanned N2 / N2A category lorry with a test weight of 7.5 tonnes and a speed of 50 km/h drives against a barrier. The resulting impact energy is 750000 joules.

The OktaBlock TR is certified according to the technical guidelines of the German police for mobile vehicle blockers. In this even more stringent test, an impact at 90° as well as at 45° is carried out. In addition, the test takes place on wet roads and the vehicle may no longer be roadworthy after the impact. The maximum impact energy in this test is up to 986000 joules.

Due to its axisymmetric geometry, the Hörmann OktaBlock has no predefined impact side and can thus prevent a vehicle collision from any direction. In addition, the innovative vehicle blocker is tamper-proof, non-flammable and does not need to be guarded before and during the event.

#### Use as advertising or notice space

The optional all-round banner can be optimally used as advertising media, for example, for city festivals or Christmas markets.

#### **Space-saving transport**

The mobile vehicle blockers are transported in an extremely space-saving way. Due to the low stand area of the individual elements of only  $800 \times 800$  mm, 21 modules can be transported with a standard lorry with 6 loading metres.

#### Time-saving installation

The **fully assembled individual blockers** can be positioned with a standard crane truck or forklift truck and can be quickly and easily put up and taken down on-site without special technical knowledge. The vehicle blocker can be easily moved for assembly and disassembly with a crane or forklift using an M20 eyelet in the bollard cover. The individual elements can be stored outdoors and transported on standard lorries in a space-saving manner.

## Mobile vehicle blocker

#### For flexible safeguarding of events

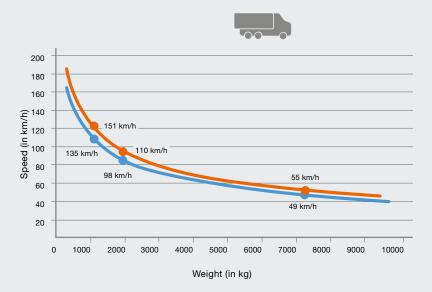
#### **OktaBlock**

- Certified as a single module according to BSI PAS68:2013 and IWA-14-1:2013 (M30 High Security)
- Version TR certified according to the technical guidelines of the German police for mobile vehicle blockers
- Modules do not have to be connected thanks to certification as a single module
- Completely assembled single blockers for easy installation without on-site structural work
- Flexible, location-independent, cost-efficient, maintenance-free
- Can be used as a notice or advertising space on request



	OktaBlock	OktaBlock TR
Base plate dimensions	800 × 800 mm	800 × 800 mm
Bollard height	1250 mm	1250 mm
Base plate height (chamfered)	5 – 33 mm	18 – 43 mm
Bollard diameter	273 mm	273 mm
Colour	Anthracite grey RAL 7016*	Anthracite grey RAL 7016*
Weight	Approx. 350 kg	Approx. 450 kg
Impact energy	750000 J	986000 J
Certified to	M30, K4, PAS68, IWA14-1	SK1B, TR Pol**

<sup>\*</sup> Optionally in RAL to choose at a surcharge



Impact energy
with destruction
986000 joules (J)
750000 joules (J)

48 All details in mm

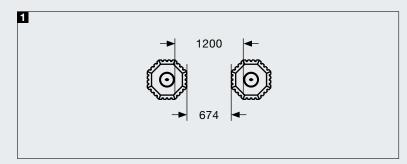
<sup>\*\*</sup>According to the technical guidelines of the German police for mobile vehicle blockers, version 0.8

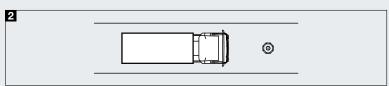


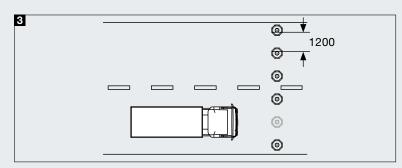
#### **Arrangement variants**

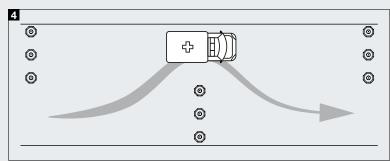
The OktaBlock blockers can be arranged individually, in rows or offset. As a result, individual protection concepts can be implemented that are tailored to your specific requirements.

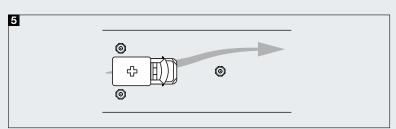
- 1 Unobstructed escape routes at all times without impairing visibility
- 2 Blocker for narrow streets and inner cities
- 3 Blocker with unlimited width enabling the quick and easy set-up of passage points for authorised vehicles
- 4 Deflector sluice can be passed by authorised vehicles
- **5** V-sluice can be passed by authorised vehicles
- See the crash test and the video at: www.hoermann.com/mediacenter











## Hörmann Product Range

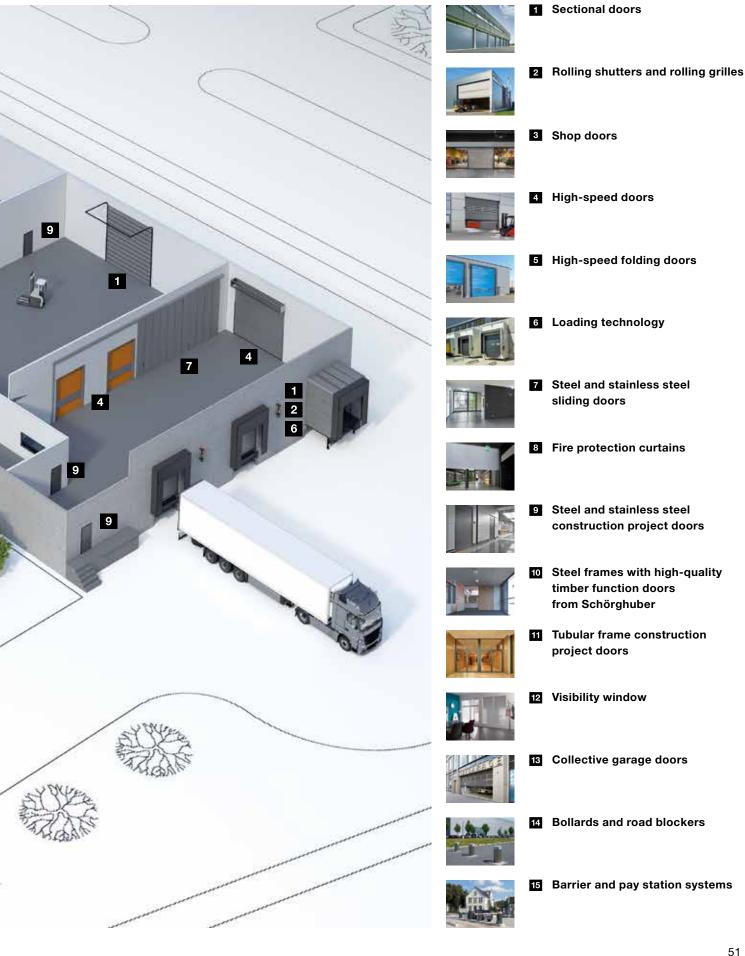
**Everything from a single source for your construction project** 





#### Quick service with testing, maintenance and repairs

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



### 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

