



The new **fixed high-security bollards ARMIS 72|30** with built-in shaft and attractive stainless steel cover impress by their performance (zero penetration depth) and **can be removed** or dismantled if necessary.

Fixed high-security bollards are used where passage widths are to be reduced in combination with automatic bollards or as an effective passage barrier in city centres or for sensitive areas such as company and industrial premises, research centres, embassies, police stations, military bases and many more.

ARMIS high security bollards convince by:

- certified safety
- dismountability
- durability due to very high corrosion resistance
- attractive, timeless design
- identical design as fixed and manual bollards
- optimal visibility

### Design

The timeless design, reduced to a minimum, blends in architecturally with all urban areas. Thanks to the identical design, fixed, manual and automatic retractable bollards of the ARMIS series can be seamlessly combined with each other. They can also be equipped with innovative LED

bollard head lighting – just like the automatic bollards. This leads to even better visibility by day and night or simply sets light accents, e.g. at hotel driveways, etc.

### Quality and durability

Both the bollard itself and the cover are designed for an extremely long service life. High-quality materials and components guarantee this. All parts are made of hot-dip galvanised steel, stainless steel or other non-corrosive materials.

### Certification (zero penetration)

IWA 14-1:2013 Bollard V/7200[N2A]/48/90:0.0

PAS 68:2013 Bollard V/7500[N2]/48/90:0.00



### Adaptation to road gradient

The bollards can be individually adapted to the road gradient. The covers are available in stainless steel or different colours. In addition, the covers can be adapted so that they can be filled with stone slabs or asphalt. This allows them to blend in perfectly with any environment.

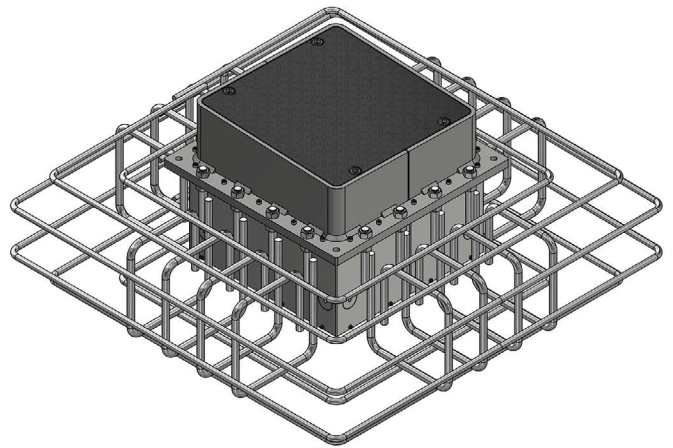
Picture: Gradient adapted cover



### Project-specific installation shaft

On request, we supply the bollards with a project-specific installation shaft (lost formwork). The extended collar allows flush mounting of natural stone slabs of natural stone slabs with a height of 150 mm. Also available with adjustment to the road gradient.

Image: Shaft with gradient adjustment and temporary cover during construction operation



### Customised bollards

- We manufacture the bollard of your choice:
- Surface painted in desired RAL colour or shell made of polished stainless steel or Corten steel.
- Laser engraving with logo and/or lettering
- different head illumination
- Warning markings

### Head lighting

The fixed bollards have the same concept as the automatic bollards and can be supplied with bollard head lighting.

## Advantages at a glance

- identical design as automatic bollards
- attractive design with stainless steel cover
- hot-dip galvanised steel cylinder coated in RAL colour or stainless steel sleeve (optional)
- bollards can be removed and shafts locked if required
- excellent visibility thanks to double reflector foils on the cylinder
- 360° top-view LED head in various colours (optional)
- low installation depth of 45 cm

## Impact resistance

CIR*	15 30	25 40	35 30	72 30	72 40	72 50	75 30	75 40	75 50	120 30	120 40	300 30	300 40
speed km/h (kph)	48	64	48	48	64	80	48	64	80	48	64	48	64
speed m/h (mph)	30	40	30	30	40	50	30	40	50	30	40	30	40
vehicle weight (kg)	1500	2500	3500	7200	7200	7200	7500	7500	7500	12000	12000	30000	30000
kynetic energy (kJ)	133	395	311	640	1138	1778	667	1185	1852	1067	1897	2667	4741

\* Consel Impact Rating (strength classes high-security products)

## Technical specifications

<b>Design</b>	high-security bollard made of high-strength steel in compact design with low installation depth and with bollard shaft
<b>Substructure</b>	compact, very strong bollard sleeve made of hot-dip galvanised steel. Two-part system with bollard cylinder and substructure.
<b>Blocking element</b>	cylindrical bollard with diameter 278 mm (including sleeve) and a height from the ground of 800 mm
<b>Cylinder material</b>	high-strength, hot-dip galvanised steel painted in RAL7016; optionally other RAL colours or stainless steel sleeve
<b>Corrosion protection</b>	all components made of hot-dip galvanised steel or non-corrosive materials
<b>Lost formwork</b>	pin in aluzinc with hot-dip galvanized steel frame and integrated reinforcement cage for setting in concrete – for a simple and inexpensive foundation design.
<b>Bollard head</b>	stainless steel head with grooves
<b>Bollard head illumination</b>	multi-LED strip protected with continuous light or flashing adjustable (red/white/blue/green or RGB)
<b>Load class (ISO EN124)</b>	shaft and cover with removed bollard: D400 (40 t); wheel load 25 t
<b>Reflector tapes</b>	double reflector tape white/red (2 x 55 mm)
<b>Impact resistance / shock resistance</b>	maximum resistance strength: 850'000 J (breaking resistance)
<b>Certification / Performance Rating</b>	IWA 14-1:2013 Bollard V/7200[N2A]/48/90:0.00 PAS 68:2013 Bollard V/7500[N2]/48/90:0.00 (equals DOS K4)
<b>Weight of bollard system</b>	steel cylinder: 266 kg / Stainless steel sleeve: 271 kg
<b>Weight of shaft incl. reinforcement (without cover)</b>	185 kg
<b>Foundation dimensions</b>	1800 x 1800 x T:450 mm

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