

# ännnt™

Perimeter Protection Products

## BOLLARDS

- AUTOMATIC
- SEMI-AUTOMATIC
- ANTI-TERRORISM
- K4 - K12
- FIXED
- REMOVABLE



## **bol·lard** ( pronounced /'bälərd/ )

noun: bollard; plural noun: bollards

A bollard is a sturdy, short, vertical post. The term originally referred to a post on a ship or quay used principally for mooring boats, but is now also used to refer to posts installed to control road traffic, protect equipment and pedestrians.

“Our commitment is to find out what our customers really need so that we can provide solutions that will fulfill their expectations.”

**D. Zanchi, president**







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# 4536FXSS

## Fixed Stainless Steel Bollard

The 4536FXSS Fixed Stainless Steel Bollard can be embedded in concrete for simple and secure installations. The clean and versatile design is highly visible and available with alternative mountings (see retractable and removable models) for consistent aesthetics that suit any modern building or landscape. High-quality 316 grade stainless steel with #6 satin finish features high resistance to corrosion and weathering. Posts ship standard with 1 of 4 colored reflector stripes.

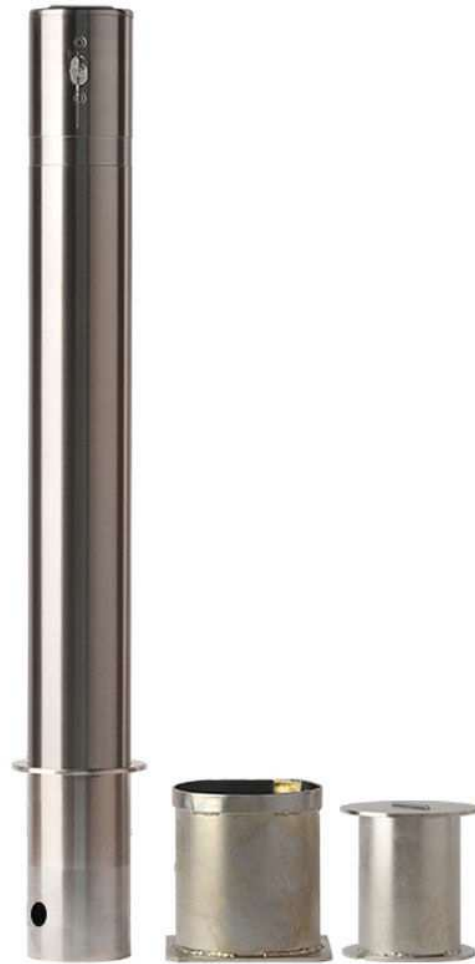


Model	Size in.	Size mm	DESCRIPTION
4536FXSS	4.5" X 35.5"	114 x 900mm	Stainless Steel 316, Fixed embedded bollard
4536FXPC	4.5" X 35.5"	114 x 900mm	Powder Coated Stainless Steel, Fixed embedded bollard



## 4536RMSS Removable Stainless Steel Bollard

The 4536RMSS Removable Stainless Steel Bollard features internal locking hardware for quick and easy access to restricted areas. Elevated key-access avoids collection of dirt and debris in dusty, particle-filled environments. Its clean and versatile design is highly visible and available with alternative mountings (see retractable and removable models) for consistent aesthetics that suit any modern building or landscape. High-quality 316 grade stainless steel with #6 satin finish features high resistance to corrosion and weathering. Posts ship standard with 1 of 4 colored reflector stripes and include mounting covers to prevent tripping hazards and collection of debris.



Model	Size in.	Size mm	DESCRIPTION
4536RMSS	4.5" X 35.5"	114 x 900mm	Stainless Steel 316, Removable bollard
4536RMPC	4.5" X 35.5"	114 x 900mm	Powder Coated Stainless Steel, Removable bollard

## 4536RTSS Locking Retractable Stainless Steel Bollard

The 4536RTSS Locking Retractable Stainless Steel Bollard retracts fully below ground, closing flush to avoid obstruction and tripping hazards, and can be locked in extended, upright position and lowered position. A single key-locking mechanism ensures quick and easy access to restricted areas. The clean and versatile design is highly visible and available with alternative mountings (see fixed, semi-automatic retractable and removable models) for consistent aesthetics that suit any modern building or landscape. High-quality 316 grade stainless steel with #6 satin finish features high resistance to corrosion and weathering. Posts ship standard with 1 of 4 colored reflector stripes.



Model	Size in.	Size mm	DESCRIPTION
4536RTSS	4.5" X 35.5"	114 x 900mm	Stainless Steel 316, Retractable bollard
4536RTPC	4.5" X 35.5"	114 x 900mm	Powder Coated Stainless Steel, Retractable bollard

## RM275-600 Removable Bollard

The removable bollard 275/RM 600 is typically used to prevent parking or transit of unauthorized vehicles in driveways, motor ways or lane ways.

It is advised that the removable bollard be used only if the amount of daily movements is limited (if not, the automatic bollard should be considered) or when the depth of installation does not allow for the installation of the automatic bollard.



REMOVABLE CYLINDER	NORMAL STEEL FE370 - AISI 316 STAINLESS STEEL
REMOVABLE CYLINDER DIAMETER	275mm / 10.8 in.
REMOVABLE CYLINDER HEIGHT	600mm / 23.5 in.
REMOVABLE CYLINDER NORMAL STEEL THICKNESS	5mm / 0.196 in.
REMOVABLE CYLINDER STAINLESS STEEL THICKNESS	5mm / 0.196 in.
REMOVABLE CYLINDER NORMAL STEEL FINISH	ANTI-CORROSION TREATMENT
REMOVABLE CYLINDER STAINLESS STEEL FINISH	AS ABOVE OR BRUSHED
REFLECTING ADHESIVE STRIP	INCLUDED IN THE SUPPLY - HEIGHT 55mm
IMPACT RESISTANCE (WITHOUT DEFORMATION)	40.000 J
BREAKOUT RESISTANCE	200.000 J
OPERATING TEMPERATURE	-40 °C +60 °C / -40 °F +140 °F







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The **Semiautomatic Retractable Bollard** has been designed to control access to a site without having to manually lift the bollard.

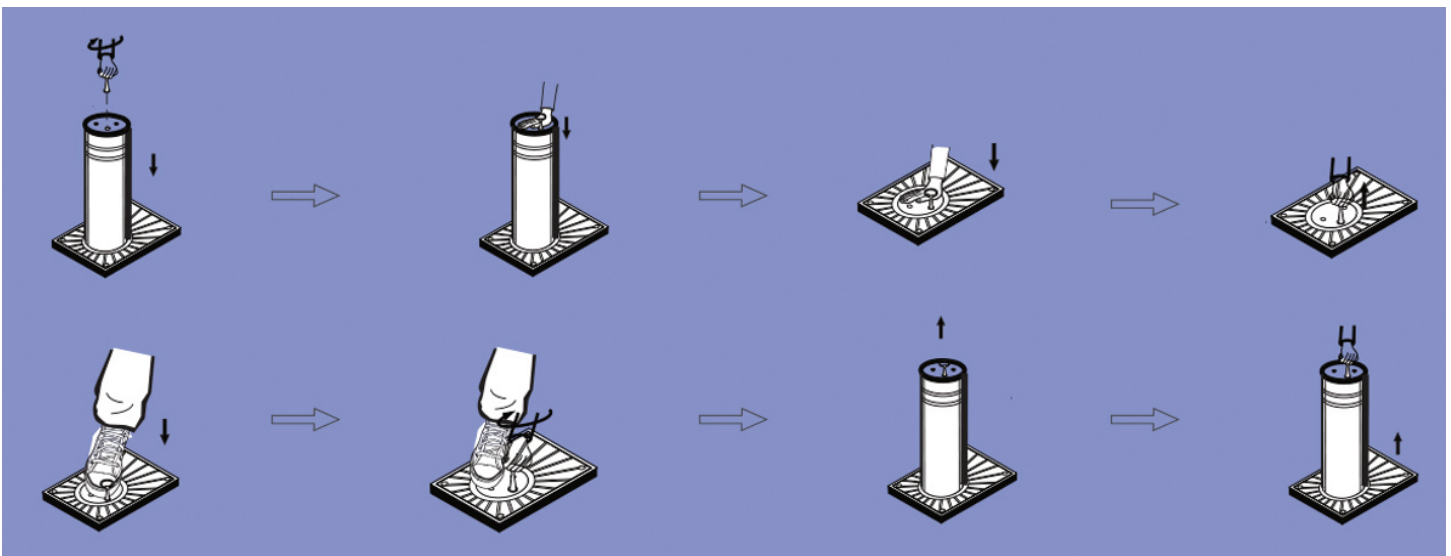
The bollard raises automatically, with the assistance of an internal gas strut, when the unit is unlocked .







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The **Semiautomatic Retractable Bollard** has been designed to control access to a site without having to manually lift the bollard.

The bollard raises automatically, with the assistance of an internal gas strut, when the unit is unlocked .


The 4536SA has the same look and dimensions as our fixed, removable and manually retractable 4536 series bollards, allowing for a uniform aesthetic across your project.



**Main features are:**

- Manufactured from 316 stainless steel
- Available in the same styles as Manual, Electromechanical and Pneumatic bollards.
- Bollard is raised by an internal gas spring.
- High impact strength and easy installation. No power supply needed.

Model	Size in.	Size mm	DESCRIPTION
SA4536SS	4.5" X 35.5"	114 x 900mm	Stainless Steel 316
SA4536PC	4.5" X 35.5"	114 x 900mm	Powder Coated Stainless Steel
SA6536SS	6.6" X 35.5"	168 X 900mm	Stainless Steel 316
SA6536PC	6.6" X 35.5"	168 X 900mm	Powder Coated Stainless Steel
SA8536SS	8.6" X 35.5"	220 X 900mm	Stainless Steel 316
SA8536PC	8.6" X 35.5"	220 X 900mm	Powder Coated Stainless Steel
SA1120SS	10.8" X 19.7"	275 X 500mm	Stainless Steel 316
SA1120PC	10.8" X 19.7"	275 X 500mm	Powder Coated Stainless Steel
SA1124SS	10.8" X 23.5"	275 X 600mm	Stainless Steel 316
SA1124PC	10.8" X 23.5"	275 X 600mm	Powder Coated Stainless Steel
SA1132SS	10.8" X 31.5"	275 X 800mm	Stainless Steel 316
SA1132PC	10.8" X 31.5"	275 X 800mm	Powder Coated Stainless Steel
SA1136SS	10.8" X 35.5"	275 X 900mm	Stainless Steel 316
SA1136PC	10.8" X 35.5"	275 X 900mm	Powder Coated Stainless Steel



We believe that the best feature of a product is its quality. We believe in the innovation and research of new products that understand and cater to customer demands, allowing for full functionality and security, with improved performance and greater benefits for the consumer.

Tradition and experience are important values, a treasure that we always put into play in order to meet the new challenges that lie ahead.

To this end, we constantly invest our resources, time and energy into research, technological innovation and instruction. The present and future of our professional capacity is held through our willingness to evaluate it any time.







## PA219/275-535SS 2 Stage Pneumatic

The 2 stage pneumatic bollard, PA219/275-535SS, is a unique 2 stage automatic bollard designed for installations where automatic bollards are required but the embedment depth does not allow for conventional automatic bollards.

With an installation depth of only 17 inches (431mm) the PA219/275-535SS automatic bollard is the shallowest automatic embedded bollard available.



Bollard Diameter	1st stage 275mm (11"), 2nd stage 220mm (8.6")
Wall Thickness	6mm (1/4")
Height extended	535mm (21")
Depth Below Grade	431mm (17")
Driving Mode	Pneumatic
Rising Speed	<20cm/s, 8in/s
Lowering Speed	<20cm/s, 8in/s
Power Source	AC 220V air pump (AC 110V optional)
Bollard Material	316 Stainless Steel
Surface Treatment	Polished
Working Frequency	> 2,000 cycles per day
IP	IP67
Operating Temperature	-5 - 70°C, 23 - 160F heating system is optional



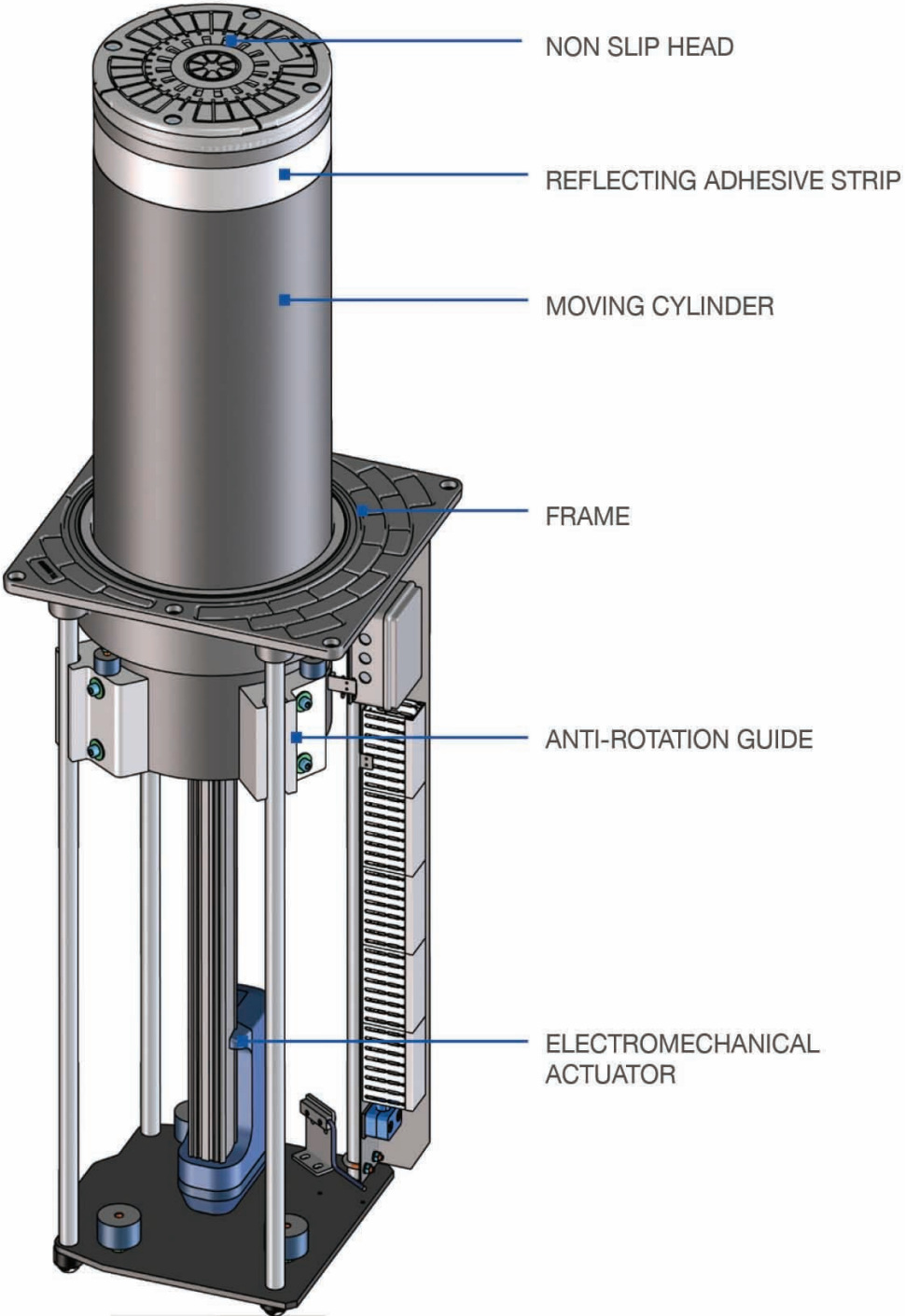
# 275/EM-600A Automatic Electro-Mechanical

The **275/EM 600A** automatic electro-mechanical bollards were designed by the ANNT staff, who have worked in the retractable technologies industry more than 20 years. The 275/EM 600A bollard is recommended for use in pedestrian areas, private and business parking, private, business and commercial driveways.

The 275/EM 600A is available with a large number of optional accessories that allow you to customize your system according to your security needs.



MOVING CYLINDER	NORMAL STEEL FE370 - AISI 316 STAINLESS STEEL
MOVING CYLINDER DIAMETER	275mm / 10.8 in.
MOVING CYLINDER HEIGHT	600mm / 23.5 in.
MOVING CYLINDER NORMAL STEEL THICKNESS	4mm / 0.157 in.
MOVING CYLINDER STAINLESS STEEL THICKNESS	5mm / 0.196 in.
MOVING CYLINDER NORMAL STEEL FINISH	ANTI-CORROSION TREATMENT
MOVING CYLINDER STAINLESS STEEL FINISH	AS ABOVE OR BRUSHED
REFLECTING ADHESIVE STRIP	INCLUDED IN THE SUPPLY - HEIGHT 55mm
IMPACT RESISTANCE (WITHOUT DEFORMATION)	30.000 J
BREAKOUT RESISTANCE	150.000 J
OPERATING TEMPERATURE	-40 °C +60 °C / -40 °F +140 °F



Automatic Hydraulic bollards with built-in pumps are the most popular products within the our range of automatic bollards.

All products within this range have matching fixed bollards available to compliment the installation.

Our hydraulic bollards have been tested world wide in the most extreme conditions.

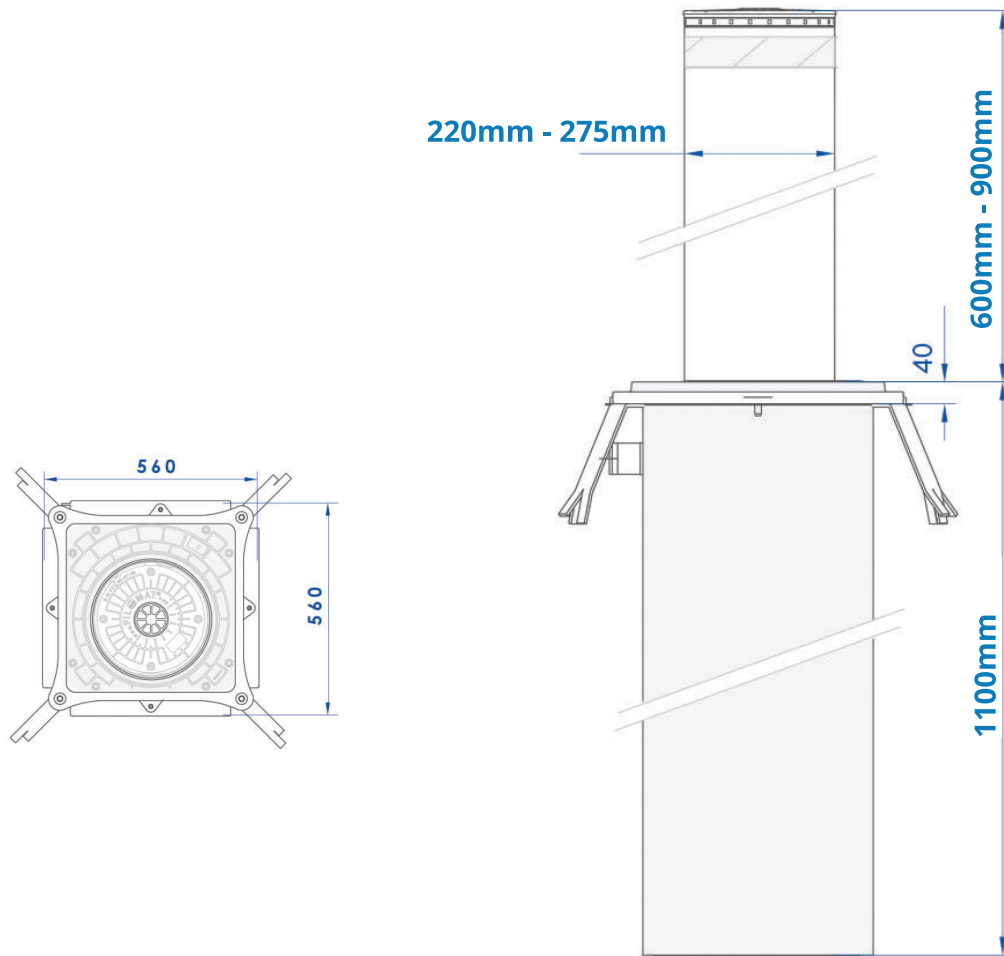
### Optional Accessories

- Watertight pit
- Multi Flashing Light - 8 LED Points
- Acoustic Buzzer
- Reflective Adhesive Strip
- Painting With any RAL Color on Request
- Biodegradable Oil for Hydraulic Pump
- Heating Resistance
- Radio Receiver
- Radio Transmitter
- Traffic Light with Two Lights (Green - Red)
- Inductive Detector for Loops
- Inductive Loops
- Timer Programmer
- Inductive Card Reader



Model	Size in.	Size mm	DESCRIPTION
HA220-600SS	8.6" X 23.5"	220 x 600mm	Stainless Steel 316
HA220-600PC	8.6" X 23.5"	220 x 600mm	Powder Coated Stainless Steel
HA275-600SS	10.8" X 23.5"	275 x 600mm	Stainless Steel 316
HA275-600PC	10.8" X 23.5"	275 x 600mm	Powder Coated Stainless Steel
HA275-900SS	10.8" X 35.5"	275 x 900mm	Stainless Steel 316
HA275-900PC	10.8" X 35.5"	275 x 900mm	Powder Coated Stainless Steel





MOVING CYLINDER	NORMAL STEEL FE370 - AISI 316 STAINLESS STEEL
MOVING CYLINDER DIAMETER	220mm / 8.6 in. , 275mm / 10.8 in.
MOVING CYLINDER HEIGHT	600mm / 23.5 in. , 900mm / 35.5 in.
MOVING CYLINDER NORMAL STEEL THICKNESS	5mm / 0.196 in.
MOVING CYLINDER STAINLESS STEEL THICKNESS	5mm / 0.196 in.
MOVING CYLINDER NORMAL STEEL FINISH	ANTI-CORROSION TREATMENT
MOVING CYLINDER STAINLESS STEEL FINISH	AS ABOVE OR BRUSHED
REFLECTING ADHESIVE STRIP	INCLUDED IN THE SUPPLY - HEIGHT 55mm
IMPACT RESISTANCE (WITHOUT DEFORMATION)	40.000 J
BREAKOUT RESISTANCE	200.000 J
OPERATING TEMPERATURE	-40 °C +60 °C / -40 °F +140 °F

In collaboration with **Pilomat** in Italy, ännT is pleased to offer a complete range of K4 - K12 (M30 - M50) certified crash rated bollards.

Fixed, Removable and Automatic, our K rated bollards offer you unsurpassed protection against hostile vehicle intrusion.



# Fixed Shallow Mount K Rated Bollards

**Anti-Terrorist bollards** are classified as “K” rated bollards.

To be classified as “K” rated, either certified or engineered, the bollard must withstand impact from a 15,000 lb vehicle traveling at one the K rating speeds ( 30 mph, 40 mph, or 50 mph) and the bed of the truck must not penetrate the barrier by more than 36 inches.

- K4 rating is for a vehicle traveling 30mph
- K12 rating is for a vehicle traveling 50mph

Model	Size	DESCRIPTION	Embedment Depth
K4FB275-900SS	275 / 900, 10.8 / 35.5 in.	K4 Stainless Steel	285mm / 11.25"
K4FB275-900PC	275 / 900, 10.8 / 35.5 in.	K4 Powder Coated	285mm / 11.25"
K12FB275-900SS	275 / 900, 10.8 / 35.5 in.	K12 Stainless Steel	455mm / 18"
K12FB275-900PC	275 / 900, 10.8 / 35.5 in.	K12 Powdercoated	455mm / 18"

## CERTIFICATIONS

Certified PAS68:2013

Certified IWA14-1:2013

Certified ASTM M30/DOS K4

Certified ASTM M50/DOS K12

# FIXED / EMBEDDED K RATED - SHALLOW MOUNT





## Removable Shallow Mount K Rated Bollards

The Removable K4 bollard should only be used if the amount of daily movements is limited, if not, then an automatic version should be used.

Removing the K4RM bollard requires the use of a mechanical lifting device, such as a forklift or skid steer.

Model	Size	DESCRIPTION	Embedment Depth
K4RM275-900SS	275 / 900, 10.8 / 35.5 in.	K4 Stainless Steel	345mm / 13.5"
K4FRM75-900PC	275 / 900, 10.8 / 35.5 in.	K4 Powder Coated	345mm / 13.5"
K4RM275-700SS	275 / 700, 10.8 / 27.5 in.	K4 Stainless Steel	345mm / 13.5"
K4RM275-700PC	275 / 700, 10.8 / 27.5 in.	K4 Powdercoated	345mm / 13.5"

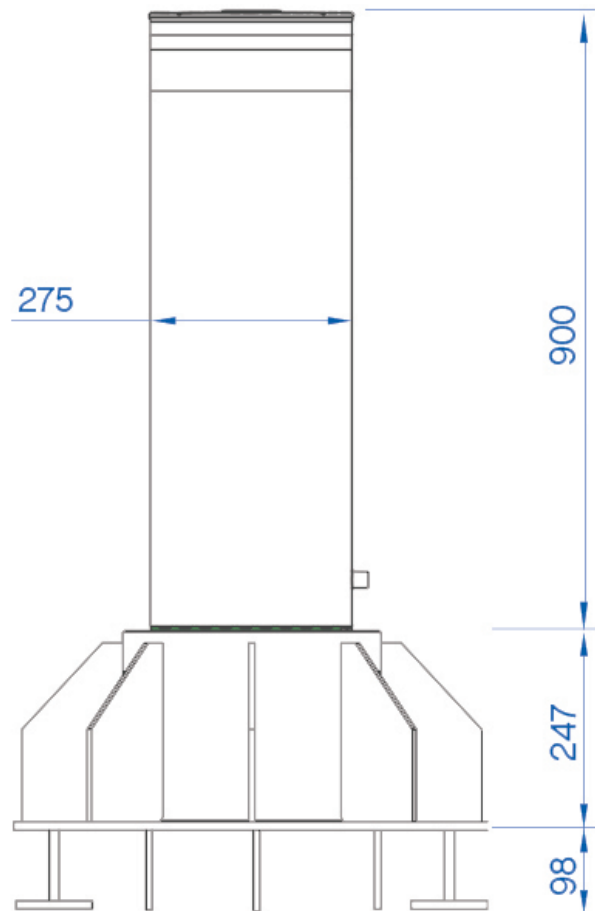
### CERTIFICATIONS

Certified PAS68:2013

Certified IWA14-1:2013

Certified ASTM M30/DOS K4

# REMOVABLE K4 RATED - SHALLOW MOUNT



REMOVABLE CYLINDER	NORMAL STEEL FE510 - AISI 316 STAINLESS STEEL
REMOVABLE CYLINDER DIAMETER	275mm / 10.8 in.
REMOVABLE CYLINDER HEIGHT	700mm / 27.5 in. , 900mm / 35.5 in.
REMOVABLE CYLINDER NORMAL STEEL THICKNESS	10mm / 0.393 in.
REMOVABLE CYLINDER STAINLESS STEEL THICKNESS	10mm / 0.393 in.
REMOVABLE CYLINDER NORMAL STEEL FINISH	ANTI-CORROSION TREATMENT
REMOVABLE CYLINDER STAINLESS STEEL FINISH	AS ABOVE OR BRUSHED
REFLECTING ADHESIVE STRIP	INCLUDED IN THE SUPPLY - HEIGHT 55mm
IMPACT RESISTANCE (WITHOUT DEFORMATION)	250.000 J
BREAKOUT RESISTANCE	750.000 J

## **Automatic Hydraulic Anti-Terrorism Bollards With Built-In Pump**

**Available in K4 and K12 certified bollards, our K rated automatic bollards have been designed to ensure the highest level of defence. Current models are the result of over 40 years' experience in the security field and in excess of 20 years in the specific design and manufacture of automatic bollards.**

**The K4 and K12 automatic bollards are recommended for use in any security sensitive site and have been tested worldwide in the most extreme conditions.**

### **CERTIFICATIONS**

- Certified PAS68:2013
- Certified IWA14-1:2013
- Certified ASTM M30/DOS K4
- Certified ASTM M50/DOS K12
- Certified DOS SD-STD-02.01 K12 L1

## K4/K12 Rated - Automatic



MODEL	Crash Vehicle Weight		Crash Vehicle Speed	
K4	15,000 Lbs.	6,800 Kg.	30mph	48kph
K12	15,000 Lbs.	6,800 Kg.	50mph	80kph

# Automatic Hydraulic Anti-Terrorism Bollards With Built-In Pump

Model	Size	DESCRIPTION
K4A275-900SS	275 / 900, 10.8 / 35.5 in.	K4 Stainless Steel
K4FA75-900PC	275 / 900, 10.8 / 35.5 in.	K4 Powder Coated
K12A275-900SS	275 / 900, 10.8 / 35.5 in.	K12 Stainless Steel
K12A275-P00PC	275 / 900, 10.8 / 35.5 in.	K12 Powdercoated

<b>Specifications</b>
MOVING CYLINDER
MOVING CYLINDER DIAMETER
MOVING CYLINDER HEIGHT
MOVING CYLINDER NORMAL STEEL THICKNESS
MOVING CYLINDER STAINLESS STEEL THICKNESS
MOVING CYLINDER NORMAL STEEL FINISH
MOVING CYLINDER STAINLESS STEEL FINISH
REFLECTING ADHESIVE STRIP
IMPACT RESISTANCE (WITHOUT DEFORMATION)
BREAKOUT RESISTANCE
OPERATING TEMPERATURE

<b>K4A275-900</b>
STEEL FE510 - AISI 316 STAINLESS STEEL
275mm / 10.8 in.
900mm / 35.5 in.
10mm / 0.393 in.
10mm / 0.393 in.
ANTI-CORROSION TREATMENT
AS ABOVE OR BRUSHED
INCLUDED IN THE SUPPLY - HEIGHT 55mm
250.000 J
750.000 J
-40 °C +70 °C / -40 °F +158 °F



## K12A275-900

STEEL FE510 - AISI 316 STAINLESS STEEL

275mm / 10.8 in.

900mm / 35.5 in.

25mm / 1.00 in.

25mm / 1.00 in.

ANTI-CORROSION TREATMENT

AS ABOVE OR BRUSHED

INCLUDED IN THE SUPPLY - HEIGHT 55mm

700.000 J

2,000.000 J

-40 °C +70 °C / -40 °F +158 °F







## **Ontario Bollards Inc.**

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