

# High Security Bollard & Barrier Handbook



**ATG ACCESS**



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The image features a white background with two large, solid purple geometric shapes. One is a large triangle pointing towards the top right corner, and the other is a smaller triangle pointing towards the bottom left corner. The text 'Fixed Bollards' is centered within the larger triangle.

Fixed Bollards



# SP180 HIGH SECURITY BOLLARD

Operation Type: Fixed



## PRODUCT OVERVIEW

ATG Access is proud to launch a new family of bollards, the SP180 range.

This range is designed to arrest a 3,500 kg vehicle travelling at 48 kph; a resistance of 314 KJ+.

Not only is this range designed to withstand substantial impact, it also offers a comprehensive range of options and operation methods. The automatic variant can be integrated into any access control system and the fixed variant compliments, providing permanent, perimeter protection.

As with all ATG products, serviceability is the foremost consideration when designing a new product range.

## FIXED BOLLARD

Static bollards can be used in conjunction with automatic products to successfully secure a perimeter, creating a 'ring of steel'.

The static SP180 is available either painted or with a stainless steel, aesthetic sleeve. The product can also be supplied with an LED lighting ring in the top lid to add aesthetic appeal and increase visibility of the security product to passing pedestrians and vehicles at dusk and night time.

## SECURITY RATING

Engineered to withstand a 3,500 kg vehicle travelling at 48 kph. A resistance of 314 KJ +

## FINISHES

Available in a variety of finishes: galvanised as standard with two yellow reflective bands, painted to any specified RAL colour or fitted with an aesthetic sleeve to suit client requirements.

## SP180 HIGH SECURITY BOLLARD STATISTICS

	Fixed
Bollard Diameter	180 mm / 188 mm (sleeved)
Height Above Ground	700 mm
Foundation Depth	450 mm
Finishes Available	Galvanised. Painted to a specified RAL colour or fitted with an aesthetic sleeve
Security Rating	Impact Resistance of 314 KJ+



*Car Show Room – Perimeter Protection*

# SP30 HIGH SECURITY BOLLARD

**Operation Type:** Fixed Security Bollard



## SITES INSTALLED

- Madinah Railway Station, KSA
- Estonian Security Scheme, Police
- Clapham Junction Railway Station
- Royal Docks, Crystal Building
- Tiffany's
- Birmingham New Street Station
- Manchester Arndale Centre
- Glasgow Velodrome
- Tottenham Hotspur Football Ground
- Data Centre, Undisclosed
- Le Louvre Museum, Abu Dhabi



## PRODUCT OVERVIEW

The High Security, Fixed SP30 bollard is tall and slim; offering a galvanised finish as standard. Alternatively, the bollard can be coated with any RAL colour specified or fitted with an aesthetic sleeve.

This product provides a cost effective solution for perimeter security requirements and meets the security rating for most perimeter security projects.

ATG Access has a variety of complimentary automatic, lift-out or manually retractable products for additional vehicle access requirements in order to provide a holistic perimeter security offering.

## SP30 FIXED BOLLARD

The ATG Access SP30 is a fixed high security bollard successfully impact tested to 48 kph with a 7,500 kg vehicle.

Only available in a fixed variation, this product must be installed within an approved, reinforced concrete foundation.

For sites requiring perimeter protection with limited excavation depth available, ATG's range of shallow foundation fixed bollards may be more suitable.

## SECURITY RATING

Meets the BSI PAS 68 rating when installed to the PAS 69 certification.

V/7,500(N2)/48/90:0/0

## FINISHES

Available in a variety of finishes: galvanised, painted to any specified RAL colour or fitted with an aesthetic sleeve to suit client requirements.

## SP30 HIGH SECURITY BOLLARD STATISTICS

	Fixed
<b>Bollard Diameter</b>	219 mm
<b>Height Above Ground</b>	1,000 mm
<b>Foundation Depth</b>	655 mm (1,655 mm overall length)
<b>Finishes Available</b>	Galvanised. Painted to a specified RAL colour or fitted with an aesthetic sleeve
<b>Security Rating</b>	V/7,500(N2)/48/90:0/0



*Painted High Security Bollards*



# SP40 HIGH SECURITY BOLLARD

Operation Type: Fixed Security Bollard



## SITES INSTALLED

- Madinah Railway Station, KSA
- Estonian Security Scheme, Police
- Clapham Junction Railway Station
- Royal Docks, Crystal Building
- Tiffany's
- Birmingham New Street Station
- Manchester Arndale Centre
- Glasgow Velodrome
- Tottenham Hotspur Football Ground
- Data Centre, Undisclosed
- Le Louvre Museum, Abu Dhabi



## PRODUCT OVERVIEW

The High Security Fixed SP40 bollard is a tall and slim product; offering a galvanised finish as standard. Alternatively, the bollard can be coated to any RAL colour specified or fitted with a decorative sleeve.

This product provides a cost effective solution for perimeter security requirements and meets the security rating for most perimeter security projects.

ATG Access has a variety of complimentary automatic, lift-out or manually retractable products for additional vehicle access requirements in order to provide a holistic perimeter security offering.

## SP40 FIXED BOLLARD

The ATG Access SP40 is a fixed high security bollard successfully impact tested to 64 kph using a 7,500 kg vehicle.

Only available in a fixed variation, this product must be installed within an approved, reinforced concrete foundation.

For sites requiring perimeter protection with limited excavation depth available, ATG's range of shallow foundation fixed bollards may be more suitable.

## SECURITY RATING

Meets the BSI PAS 68 rating when installed to the PAS 69 certification.

V/7,500(N2)/64/90:4.0/16.7

## FINISHES

Available in a variety of finishes: galvanised, painted to any specified RAL colour or fitted with an aesthetic sleeve to suit client requirements. Two yellow reflective bands supplied as standard.

## SP40 HIGH SECURITY BOLLARD STATISTICS

	Fixed
Bollard Diameter	219 mm
Height Above Ground	1,000 mm
Foundation Depth	655 mm (1,655 mm overall length)
Finishes Available	Galvanised. Painted to a specified RAL colour or fitted with an aesthetic sleeve
Security Rating	V/7,500(N2)/64/90:4.0/16.7



*Sleeved, Fixed High Security Bollards*

# SP50 HIGH SECURITY BOLLARD

**Operation Type:** Fixed Security Bollard



## SITES INSTALLED

- Madinah Railway Station, KSA
- Estonian Security Scheme, Police
- Clapham Junction Railway Station
- Royal Docks, Crystal Building
- Tiffany's
- Birmingham New Street Station
- Manchester Arndale Centre
- Glasgow Velodrome
- Tottenham Hotspur Football Ground
- Data Centre, Undisclosed
- Le Louvre Museum, Abu Dhabi



## PRODUCT OVERVIEW

The High Security Fixed SP50 bollard is a cost effective solution for perimeter protection against high velocity attacks.

The product is supplied hot-dip galvanised as standard. Alternatively, the bollard can be coated with any RAL colour required or fitted with a decorative sleeve.

ATG Access has a variety of complimentary automatic, lift-out or manually retractable products for additional vehicle access requirements in order to provide a holistic perimeter security offering.

## SP50 FIXED BOLLARD

The ATG Access SP50 is a fixed high security bollard successfully impact tested to 80 kph using a 7,500 kg vehicle.

Only available in a fixed variation, this product must be installed within an approved, reinforced concrete foundation.

For sites requiring perimeter protection with limited excavation depth available, ATG's range of shallow foundation fixed bollards may be more suitable.

## SECURITY RATING

Meets the BSI PAS 68 rating when installed to the PAS 69 certification.

V/7,500(N3)/80/90:10.6/11.1

## FINISHES

Available in a variety of finishes: galvanised, painted to any specified RAL colour or fitted with an aesthetic sleeve to suit client requirements. Two yellow reflective bands supplied as standard.

## SP50 HIGH SECURITY BOLLARD STATISTICS

	Fixed
<b>Bollard Diameter</b>	273 mm
<b>Height Above Ground</b>	1,080 mm
<b>Foundation Depth</b>	570 mm (overall length, 1,650 mm)
<b>Finishes Available</b>	Galvanised. Painted to a specified RAL colour or fitted with an aesthetic sleeve
<b>Security Rating</b>	V/7,500(N3)/80/90:10.6/11.1



*Sleeved, Fixed High Security Bollards*



# EXCALIBUR SECURITY BOLLARD

**Operation Types:** Fixed Security Bollard



## SITES INSTALLED

- Heathrow, Terminal 5
- Union Square, Aberdeen
- St Pancras Eurostar Terminal
- Liverpool Lime Street Station

## PRODUCT OVERVIEW

The Excalibur, manganese steel bollard is available in two certified variants. The product can be supplied with either a 90 mm or a 125 mm diameter.

Manganese steel is a unique material which has extreme anti-wear properties, is very resistant to abrasion and has high impact strength.

All of these characteristics make the material ideal to be used within high security bollard manufacture and design. The Excalibur bollard can be supplied in its raw state, painted to any RAL colour specified or fitted with an aesthetic sleeve. The bollards slim profile makes this product versatile to be able to fit into any schemes aesthetics.

### 90 MM VARIANT

Successfully tested to withstand a 1,500 kg vehicle travelling at 30 mph, achieving no impact penetration; this product is ideal to provide perimeter protection for sites at risk of a low velocity attack. A shallow foundation product only requires 300 mm of depth to install.

### 125 MM VARIANT

Successfully tested to withstand a 7,500 kg vehicle travelling at 20 mph, achieving no impact penetration; this product is ideal to protect urban, pedestrianized areas from vehicular attack. The 125 mm variant is also available as a lift-out bollard allowing occasional access to vehicles if required.

## SECURITY RATING

**90 mm Model:**

**PAS 68:** V/1,500(M1)/48/90:0/0

**125 mm Model:**

**PAS 68:** V/7,500(N2)/32/90:0/0

## FINISHES

Manganese steel bollard which can either be painted to a specific RAL colour or fitted with an aesthetic sleeve

## EXCALIBUR BOLLARD STATISTICS

	Fixed – 90 (d)	Fixed – 125 (d)
<b>Bollard Diameter</b>	90 mm	125 mm
<b>Height Above Ground</b>	1,000 mm	1,000 mm
<b>Foundation Depth</b>	300 mm	300 mm
<b>Finishes Available</b>	Manganese steel core which can be painted to any RAL colour or fitted with an aesthetic sleeve	Manganese steel core which can be painted to any RAL colour or fitted with an aesthetic sleeve
<b>Security Rating</b>	PAS 68: V/1,500(M1)/48/90:0/0	PAS 68: V/7,500(N2)/32/90:0/0

# WESTMINSTER HIGH SECURITY BOLLARD

Operation Types: Fixed Security Bollard



## SITES INSTALLED

- Royal Courts of Justice, London
- Shopping Centre, London
- UK Supreme Court, London
- Victoria Embankment, London
- BBC Headquarters, London
- Australia House, London
- Charing Cross Railway Station
- Paddington Railway Station
- Pimlico Police Station
- Birmingham ICC

## PRODUCT OVERVIEW

The Westminster high security bollard is manufactured from micro-engineered steel which has a high impact 'toughness' and the ability to absorb massive amounts of energy without fracturing.

This heritage style bollard is available in a lift-out, shallow foundation or traditional depth fixed model. Only ATG Access have the manufacturing rights to the impact tested, Westminster steel bollard.

With a ribbed profile and peaked top, within the front fascia there is a specifically designed section to enable a corporate logo or crest to be inserted. Supplied unpainted or with a primed finish.

## FIXED VARIANT

This impact tested, heritage bollard is available as a traditional depth fixed bollard.

Installed within a foundation depth of 750 mm, the Westminster fixed bollard is ideal for applications where foundation depth is not an issue and where no restrictions apply.

The Westminster bollard is supplied with a blank front fascia on the product so that clients can attach their own crest or logo if required.

You will find the City of Westminster crest displayed on most of the bollards installed within the Westminster area.

## SECURITY RATING

**Traditional Depth Static:**  
**PAS 68: V/ 7500[N3]/64/90:0.0/5.3**

## FINISHES

Manganese steel, supplied raw (unpainted) as standard with a blank front fascia. Can be primed and fitted with a corporate logo or crest.

## WESTMINSTER BOLLARD STATISTICS

	Fixed
Bollard Diameter	273 mm (front face) 133 mm (side profile)
Height Above Ground	1,100 mm
Foundation Depth	750 mm
Finishes Available	Black Manganese Steel Unpainted. Can be primed on request and fitted with a logo or crest.
Security Rating	<b>PAS 68: V/ 7500[N3]/64/90:0.0/5.3</b>

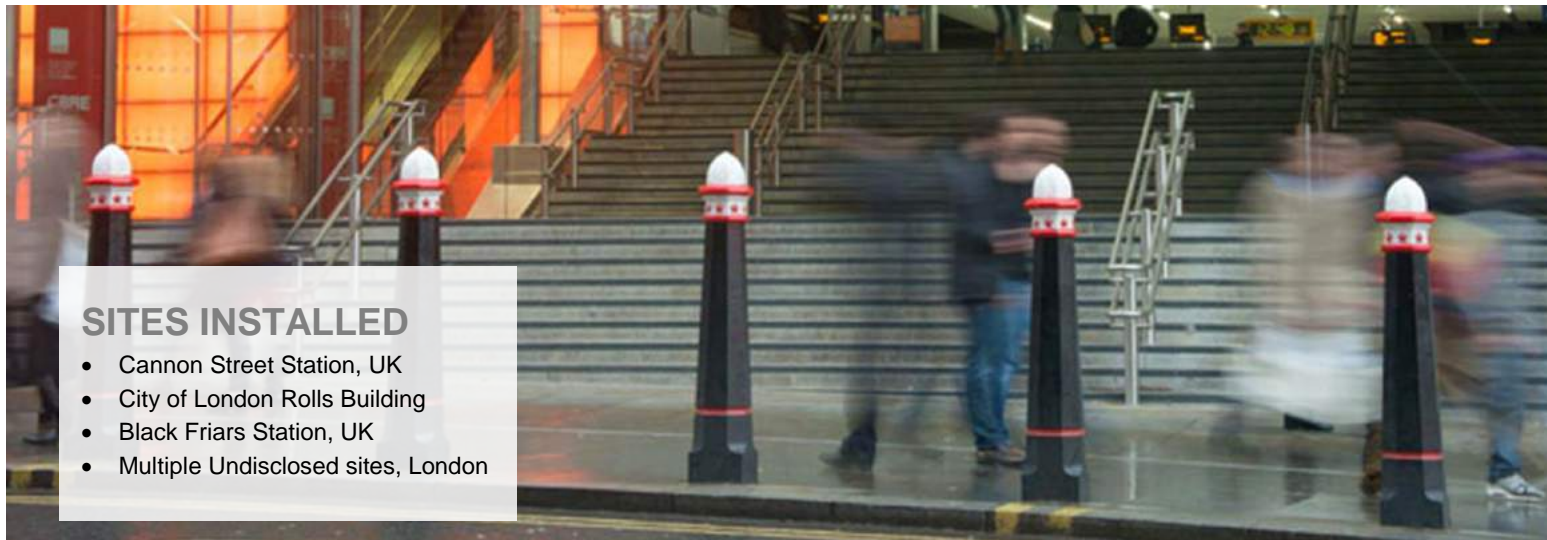


**Birmingham ICC**



# CITY OF LONDON SECURITY BOLLARD

**Operation Types:** Fixed Security Bollard



## SITES INSTALLED

- Cannon Street Station, UK
- City of London Rolls Building
- Black Friars Station, UK
- Multiple Undisclosed sites, London

## PRODUCT OVERVIEW

The City of London Bollard has the integral good looks and heritage appearance of the traditional City of London bollard which can be found all over London's square mile.

ATG have taken the traditional design and engineered an impact tested version. The impact tested variant is available in a lift-out, shallow foundation or traditional depth fixed model.

Only ATG Access has the manufacturing rights to the impact tested City of London manganese steel bollard. The product is finished and painted with the distinctive black, red and white design.

## FIXED VARIANT

This impact tested, heritage bollard is available as a traditional depth fixed bollard providing strong and attractive perimeter security.

Requiring 600 mm of foundation depth, this product is ideal for applications where foundation depth is not an issue and where no restrictions apply.

If depth restrictions do apply, the City of London bollard is also available as a shallow foundation product - installed within a foundation depth of just 150 mm.

## SECURITY RATING

**Traditional Depth Static:**  
**PAS 68:** V/7,500(N2)80/90:22.7/25.0

## FINISHES

Manganese steel, painted to the traditional City of London Bollard design – red, black and white.

## CITY OF LONDON BOLLARD STATISTICS

	Fixed
<b>Bollard Diameter</b>	240 mm (base) 160 mm (top)
<b>Height Above Ground</b>	1,390 mm
<b>Foundation Depth</b>	600 mm
<b>Finishes Available</b>	Painted Manganese Steel – Red, Black & White
<b>Security Rating</b>	<b>PAS 68:</b> V/7,500(N2)80/90:22.7/25.0



*Underground Station, London*

# SPK12 HIGH SECURITY BOLLARD

**Operation Types:** Fixed Security Bollard



## PRODUCT OVERVIEW

The SPK12 Bollard offers a cost effective perimeter protection solution where the highest security performance is required.

Achieving less than a meter of penetration when impacted, this product is suitable for critical national infrastructure protection where standoff distances available between a building perimeter and the building itself are minimal.

Available as a fixed or removable high security bollard.

This product is suitable for HCIS projects.

## SPK12 FIXED

Provides a perimeter security solution for sites at risk of a high velocity attack.

The SPK12 fixed high security bollard consists of a steel, concrete filled tube placed into a reinforced and certified foundation.

Impact tested in accordance with IWA 14, this SPK12 variation has been successfully tested to arrest a 7,200 kg vehicle traveling at 80 kph (50 mph).

A removable variant of this product (SPK12R) is available to provide a perimeter with occasional access.

## SECURITY RATING

Tested in accordance with the International Workshop Agreement 2014.

**Fixed:** V/7,200(N2A)/80/90:0

## FINISHES

Available in a variety of finishes: galvanised, painted to any specified RAL colour or fitted with an aesthetic sleeve to suit client requirements. Two yellow reflective bands supplied as standard.

## SPK12 HIGH SECURITY BOLLARD STATISTICS

	Fixed
<b>Bollard Diameter</b>	273 mm
<b>Height Above Ground</b>	1,000 mm
<b>Foundation Depth</b>	1,200 mm
<b>Finishes Available</b>	Galvanised. Painted to a specified RAL colour or fitted with an aesthetic sleeve
<b>Security Rating</b>	IWA 14: V/7,200(N2A)/80/90:0.0



*Shopping Mall, South East Asia*



The image features a white background with two large, solid purple geometric shapes. One is a large triangle pointing towards the top right corner, and the other is a smaller triangle pointing towards the bottom left corner. The text is centered within the larger triangle.

# Shallow Foundation Bollards

# S180 SHALLOW MOUNT BOLLARD

**Operation Type:** Shallow Foundation, Fixed



## PRODUCT OVERVIEW

ATG Access is proud to launch a new family of bollards, the SP180 range. This range is designed to arrest a 3,500 kg vehicle travelling at 48 kph; a resistance of 314 KJ+.

Not only is this range designed to withstand substantial impact, it also offers a comprehensive range of options and operation methods.

### SHALLOW FOUNDATION

The shallow foundation variant of the SP180 bollard has a base with a depth of just 112 mm. When installed, the overall depth required is just 182 mm.

This reduces civil installation costs dramatically and enables the product to be installed and secure in no time at all. Disruption is minimised when excavating and the time needed on site to install such security measures is reduced considerably. Often the cost of redirecting underground services is the main installation cost associated with traditional depth static bollards.

Shallow foundation variants save major disruption and thousands in unexpected costs.

The product can also be supplied with LED lights in the bollard lid. This not only increases the products aesthetic finish, they also increase the visibility of the bollard to passing pedestrians and vehicles.

## SECURITY RATING

**Shallow Foundation, Fixed Bollard:**  
Impact Resistance of 314 KJ+

## FINISHES

Hot-dip galvanised as standard and then painted in any RAL colour if required; can also be fitted with a decorative sleeve. Lighting Lid available on request

SP180 SHALLOW FOUNDATION BOLLARD	
	Shallow Fixed Bollard
Bollard Diameter	180 mm / 188 mm (sleeved)
Height Above Ground	700 mm
Foundation Depth	182 mm
Finishes Available	Galvanised as standard. Painted to any RAL colour specified or fitted with a decorative sleeve. LED lights available on request.
Security Rating	Impact resistance of 314 KJ+





# SP400 HIGH SECURITY BOLLARD

**Operation Type:** Shallow Foundation, Fixed



## SITES INSTALLED

- British Library, London
- Canary Wharf Financial District
- Shard of Glass, London
- Birmingham New Street Railway St.
- Manchester Arndale Shopping Centre
- Glasgow Velodrome
- Marina Bay, Resort Sentosa Singapore
- Marina Bay Fire Station, Singapore
- JEM Shopping Centre, Singapore
- Changi Airport, Singapore
- Mandarin Oriental Hotel, Bangkok
- The Hague, Holland
- Anne Frank Museum, Amsterdam

## PRODUCT OVERVIEW

The ATG Access SP400 Shallow Foundation Bollard range includes a shallow foundation fixed and lift-out variant. The range also includes the industry's first impact tested lift-out product installed directly and impacted within a suspended slab foundation.

The SP400 bollard has a slim profile making this product aesthetically pleasing and able to be fitted with a multitude of sleeve options.

### FIXED, SHALLOW BOLLARD

The fixed shallow foundation, high security SP400 bollard can be installed within a foundation depth of just 176 mm. This enables effective perimeter protection to be installed within urban environments which typically have a dense network of underground services which cost a fortune to redirect or move.

The shallow foundation base units can be supplied in a multitude of shapes allowing bollards to be fitted around street corners and existing street furniture items such as bins and benches.

Minimal time and disruption is needed to deploy shallow foundation products. The base plates are laser cut with directional arrows and part numbers which can be cross referenced to site layout drawings.

This all ensures the installation of the product is straight forward, causing minimal disruption to site and street scenes.

## SECURITY RATING

**Shallow Foundation, Fixed Bollard:**  
PAS 68: V/7,500(N2)48/90:0/0

## FINISHES

Galvanised as standard with two reflective yellow bands; alternatively, the product can be painted to any specified RAL colour or finished with a decorative sleeve.

### SP400 SHALLOW FOUNDATION BOLLARD

#### Shallow Fixed Bollard

<b>Bollard Diameter</b>	203 mm / 219 mm (sleeved)
<b>Height Above Ground</b>	986 mm
<b>Foundation Depth</b>	176 mm
<b>Finishes Available</b>	Galvanised as standard with two yellow reflective bands. Can be painted or sleeved.
<b>Security Rating</b>	<b>PAS 68:</b> V/7,500(N2)48/90:0/0



*Adelaide Airport*

# WESTMINSTER SHALLOW BOLLARD

**Operation Type:** Shallow Foundation, Fixed



## SITES INSTALLED

- Royal Courts of Justice, London
- Shopping Centre, London
- UK Supreme Court, London
- Victoria Embankment, London
- BBC Headquarters, London
- Australia House, London
- Charing Cross Railway Station
- Paddington Railway Station
- Pimlico Police Station
- Birmingham ICC

## PRODUCT OVERVIEW

The Westminster high security bollard is manufactured from micro-engineered steel which has a high impact 'toughness' and the ability to absorb massive amounts of energy without fracturing.

This heritage style bollard is available in a lift-out, shallow foundation or traditional depth fixed model. Only ATG has the manufacturing rights to the impact tested, Westminster steel bollard.

With a ribbed profile and peaked top, within the front fascia there is a specifically designed section to enable a corporate logo or crest to be inserted. Supplied unpainted or with a primed finish.

## SHALLOW FOUNDATION

The ATG Access shallow foundation system

is a revolutionary engineering development and sits at the cutting edge of industry technology. The foundation can be installed at a fraction of the depth underground that traditional, impact tested products require.

Shallow foundation technology has proved invaluable within city centres, outside airports, skyscrapers and other applications where underground services, car parks and basements prevent standard depth equipment being installed.

The traditional, impact tested heritage bollard can be installed within a foundation depth of just 150 mm.

A Lift-Out variant is available to compliment the shallow foundation static product to allow for very occasional access to areas within a busy city centre.

## SECURITY RATING

**Shallow Foundation Bollard:**  
PAS 68: V/7500 (N2) 64/90:0/3.7

## FINISHES

Manganese steel, supplied raw (unpainted) as standard with a blank front fascia. Can be primed and fitted with a corporate logo or crest.

WESTMINSTER SHALLOW FOUNDATION BOLLARD	
	Shallow Foundation
Bollard Diameter	273 mm (front face), 133 mm (side profile)
Height Above Ground	1,193 mm
Foundation Depth	150 mm
Finishes Available	Black Manganese Steel Unpainted. Can be primed on request and fitted with a logo or crest
Security Rating	<b>PAS 68:</b> V/7500 (N2) 64/90:0/3.7





# CITY OF LONDON SECURITY BOLLARD

Operation Types: Shallow Foundation Bollard



## SITES INSTALLED

- Cannon Street Station, UK
- City of London Rolls Building
- Black Friars Station, UK
- Multiple Undisclosed sites, London

## PRODUCT OVERVIEW

The City of London Bollard has the integral good looks and heritage appearance of the traditional City of London bollard which can be found all over London's square mile.

ATG have taken the traditional design and engineered an impact tested, shallow mounted version. The impact tested variant is also available in a shallow mount lift-out model.

Only ATG Access has the manufacturing rights to the impact tested City of London manganese steel bollard. The product is finished and painted with the distinctive black, red and white design.

## SHALLOW MOUNT

The ATG Access shallow foundation system is a revolutionary engineering development and sits at the cutting edge of industry technology. The foundation can be installed at a fraction of the depth underground that traditional, impact tested products require.

Shallow foundation technology has proved invaluable within city centres, outside airports, skyscrapers and other applications where underground services, car parks and basements prevent standard depth equipment being installed.

The traditional, impact tested heritage bollard can be installed within a foundation depth of just 150 mm.

## SECURITY RATING

**Shallow Foundation:**  
**PAS 68:** V/7,500(N3)80/90:19.2/25.0

## FINISHES

Manganese steel, painted to the traditional City of London Bollard design – red, black and white.

## CITY OF LONDON BOLLARD STATISTICS

	Shallow Foundation
Bollard Diameter	240 mm (base) 160 mm (top)
Height Above Ground	1,390 mm
Foundation Depth	150 mm
Finishes Available	Painted Manganese Steel – Red, Black & White
Security Rating	<b>PAS 68:</b> V/7,500(N3)80/90:19.2/25.0



Underground Station, London

# CENTURION HIGH SECURITY BOLLARD

**Operation Type:** Shallow Foundation, Fixed



## SITES INSTALLED

- Manchester City Stadium
- Tottenham Hotspur Stadium
- Undisclosed, HQ London

## PRODUCT OVERVIEW

The Centurion Shallow Foundation Bollard is the strongest, slimmest and shallowest bollard in the industry. Tested and certified to the IWA 14 standard, the Centurion successfully withstood a 7,200 kg vehicle travelling at 50 mph achieving less than 2 meters of penetration.

Designed to be installed within a foundation depth of just 170 mm, this enables effective perimeter protection to be installed within urban environments which typically have a dense network of underground services which cost a fortune to redirect or move.

The shallow foundation base units can be supplied in a multitude of shapes allowing bollards to be fitted around street corners and existing street furniture items such as bins and benches.

Minimal time and disruption is needed to deploy shallow foundation products as the base plates are laser cut with directional arrows and part numbers which can be cross referenced to site layout drawings. This all ensures the installation of the product is straight forward, causing minimal disruption to site and street scenes.

In addition, Centurion bollards can also be embedded within a planter design to provide concealed protection against vehicle attacks.

An incredibly strong product which is supplied with an aesthetic sleeve as standard, to almost any architectural design.

## SECURITY RATING

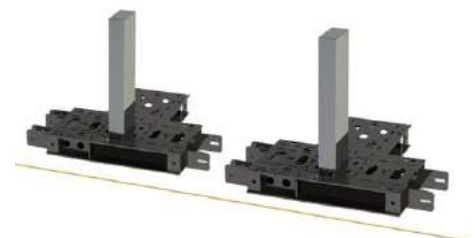
**IWA 14:**  
V/7200[N2A]/80/90:1.9

## FINISHES

Hot-dip galvanised as standard for comprehensive corrosion protection and then fitted with a decorative sleeve.

### CENTURION SHALLOW FOUNDATION BOLLARD

	Shallow Fixed Bollard
<b>Bollard Diameter</b>	150 mm x 300 mm
<b>Height Above Ground</b>	1,100 mm
<b>Foundation Depth</b>	170 mm
<b>Finishes Available</b>	Hot-dip galvanised and sleeved as standard. Sleeves are available in a variety of designs and materials
<b>Security Rating</b>	<b>IWA 14:</b> V/7,200(N2A)80/90:1.9



*Example of just one sleeve design – Mirrored finish*



# SP1000 SHALLOW MOUNT BOLLARD

**Operation Type:** Shallow Foundation, Fixed



## SITES INSTALLED

- Canary Wharf Financial District
- Birmingham New Street Railway St.
- Australian High Commission, Malaysia
- German Bank, Frankfurt
- Heathrow Airport, UK
- Leadenhall, London
- St Thomas Hospital, London
- Wimbledon Tennis Club
- Nuclear Power Station, Undisclosed
- British Embassy, Baghdad
- Sydney Opera House, Australia
- White City, Baku, Azerbaijan
- British Embassy Athens

## PRODUCT OVERVIEW

The SP1000 shallow foundation, high security bollard is ideal for providing perimeter protection for sites at risk of the highest velocity attack. The product is available as a static shallow foundation or removable bollard.

Shallow foundation design enables effective perimeter protection to be installed within urban environments which typically have a dense network of underground services which cost a fortune to redirect. The shallow foundation units can be supplied in a multitude of shapes allowing bollards to be fitted around existing street furniture items such as bins and benches. This allows for bollards to be fitted easily around street corners and curved roads

Minimal time and disruption is needed to deploy shallow foundation products. The base plates are laser cut with directional arrows and part numbers which can be cross referenced to site layout drawings. This all ensures the installation of the product is straight forward.

The SP1000 shallow foundation static is available in two certified variants. The 150 mm deep shallow foundation static has been successfully tested with a 7,500 kg vehicle travelling at 80 kph. An even shallower version is also available requiring just 112 mm to install. This variant has been tested twice to withstand a 7,500 kg vehicle travelling at both 48 and 64 kph.

Can be supplied with reflective banding or DDA compliant banding to increase visibility for pedestrians.

## SECURITY RATING

**PAS 68**

**Shallow Foundation Bollard:**

**112 mm:**

V7,500(N2)64/90:1.2/3.1

**150 mm:**

V7,500(N2)80/90:5/14

## FINISHES

Hot-dip galvanised as standard. Alternatively, the product can be painted to any specified RAL colour or finished with a decorative sleeve.

## SP1000 SHALLOW FOUNDATION BOLLARD

	112 mm Depth Variant	150 mm Depth Variant
<b>Bollard Diameter</b>	305 mm / 323 mm (sleeved)	305 mm / 323 mm (sleeved)
<b>Height Above Ground</b>	1,000 mm	1,000 mm
<b>Foundation Depth</b>	112 mm	150 mm
<b>Finishes Available</b>	Hot-dip galvanised as standard. Can be painted to any RAL colour or fitted with a decorative sleeve.	Hot-dip galvanised as standard. Can be painted to any RAL colour or fitted with a decorative sleeve.
<b>Security Rating</b>	<b>PAS 68:</b> V/7,500(N2)64/90:1.2/3.1	<b>PAS 68:</b> V/7,500(N2)80/90:5/14

# GLADIATOR HIGH SECURITY BOLLARD



**Operation Type:** Shallow Foundation, Fixed



## PRODUCT OVERVIEW

The ATG Access shallow foundation Gladiator bollard has been tested to both the ASTM and PAS 68 standard; successfully withstanding a 7,500 kg vehicle travelling at 80 kph. This shallow bollard is one of the strongest in today's hostile vehicle mitigation industry.

The fixed shallow foundation, high security bollard can be installed within a foundation depth of just 203 mm. This enables effective perimeter protection to be installed within urban environments which typically have a dense network of underground services which cost a fortune to redirect or move.

The shallow foundation base units can be supplied in a multitude of shapes allowing bollards to be fitted around street corners and existing street furniture items such as bins and benches.

Minimal time and disruption is needed to deploy shallow foundation products. The base plates are laser cut with directional arrows and part numbers which can be cross referenced to site layout drawings.

This all ensures the installation of the product is straight forward, causing minimal disruption to site and street scenes.

Hot-dip galvanised as standard, the bollard can then be finished with a polyester coating in any specified RAL colour for maximum corrosion protection. Alternatively, aesthetic sleeves can be supplied for sites with specific decorative requirements.

## SECURITY RATING

**PAS 68:**  
V/7500[N3]/80/90:3.6/7.9

**ASTM:** M50 P1

## FINISHES

Galvanised as standard with two reflective yellow bands; alternatively, the product can be painted to any specified RAL colour or finished with a decorative sleeve.

GLADIATOR SHALLOW FOUNDATION BOLLARD	
	1,200 mm High
Bollard Diameter	305 mm (405 mm with top lid)
Height Above Ground	1,200 mm
Foundation Depth	203 mm
Finishes Available	Hot-dip galvanised as standard with two yellow reflective bands. Can be painted or sleeved
Security Rating	<b>PAS 68:</b> V/7,500(N3)/80/90:3.6/7.9 <b>ASTM:</b> M50 P1



*King's Cross Square*



The image features a white background with two large, solid purple geometric shapes. One is a large triangle pointing towards the top right corner, and the other is a smaller triangle pointing towards the bottom left corner. The text 'Automatic Bollards' is centered within the larger purple triangle.

Automatic Bollards

# SP180 HIGH SECURITY BOLLARD

Operation Type: Automatic



## PRODUCT OVERVIEW

ATG Access is proud to launch a new family of bollards, the SP180 range.

This range is designed to arrest a 3,500 kg vehicle travelling at 48 kph; a resistance of 314 KJ+.

Not only is this range designed to withstand substantial impact, it also offers a comprehensive range of options and operation methods. The automatic variant can be integrated into any access control system and the fixed variant compliments providing permanent, perimeter protection.

As with all ATG products, serviceability is the foremost consideration when designing a new product range.

## AUTOMATIC BOLLARD

The SP180 automatic bollard is powered by integral hydraulics.

Integral hydraulics eliminates external hydraulic hoses, reducing the size of the cabinet needing to be provided and the power requirements. This dramatically reduces costs for the client.

The construction of the outer casing has also been designed with a suspended slab installation in mind to simplify the way that these automatic bollards can be installed into such structures.

The bollard itself has a slim diameter measuring just 180 mm without a sleeve and 188 mm with an aesthetic sleeve.

## SECURITY RATING

Engineered to withstand a 3,500 kg vehicle travelling at 48 kph. A resistance of 314 KJ +

## FINISHES

Available in a variety of finishes: galvanised as standard with two yellow reflective bands, painted to any specified RAL colour or fitted with an aesthetic sleeve to suit client requirements.

## SP180 HIGH SECURITY BOLLARD STATISTICS

	Automatic
Bollard Diameter	180 mm / 188 mm (sleeved)
Height Above Ground	708 mm (with top lid)
Foundation Depth	1,100 mm
Finishes Available	Galvanised. Painted to a specified RAL colour or fitted with an aesthetic sleeve
Security Rating	Impact Resistance of 314 KJ+



Waddesdon Manor



# VP HEAVY DUTY AUTOMATIC BOLLARD

Operation Type: Automatic



## PRODUCT OVERVIEW

The ATG Access VP HD bollard has been successful impact tested in accordance with PAS 68 certification to arrest a 1,500 kg vehicle at 32 kph.

The VP Heavy Duty bollard can be retrofitted into any existing VP Traffic system to upgrade an area with a higher level of security protection.

### VP HD HARDWARE

The VP HD can be used alongside a red and green traffic indicator column to instruct users when it is safe to pass through the system. Loops are installed within the ground surface on both the vehicle approach and vehicle exit. Loops will detect when a vehicle has safely moved through the system and will instruct the bollards to rise when it is safe to do so.

The VP HD bollard itself has a diameter slimmer than 200 mm and a height of 700 mm above ground. The product can be supplied in stainless steel or with a polyurethane black, aesthetic sleeve.

### VP HD SOFTWARE

Depending on a client's project specification, access control options include: a vehicle tag system, number plate recognition, CCTV, keypad authorisation or a timing clock. If an existing access control system is already in place, ATG bollards can be integrated with this.

This automatic bollard system is ideal for controlling vehicle access to key infrastructure sites with heavy pedestrian flow such as high streets or urban areas and where the identified threat is from smaller vehicles moving at low speeds.

## SECURITY RATING

Meets the BSI PAS 68 rating when installed to PAS 69 certification.

V/1,500(M1)/32/90:0.0/0/0

## FINISHES

Supplied in stainless steel as standard with two yellow reflective bands; can be fitted with a polyurethane sleeve in any RAL colour is specified.

## VP HD BOLLARD STATISTICS

	Automatic
Bollard Diameter	168 mm / 187 mm (sleeved)
Height Above Ground	700 mm
Foundation Depth	1,200 mm
Finishes Available	Stainless Steel as standard with two, yellow reflective bands.
Security Rating	PAS 68: V/1,500(M1)/32/90:0/0



City Hall Building



# SP400 AUTOMATIC BOLLARD

Operation Type: Automatic



## SITES INSTALLED

- Shard of Glass, London
- St Pancras Hotel, London
- National Exhibition Centre, Birmingham
- Stratford International Shopping Centre
- Celtic Stadium
- Royal Palace, Bahrain
- Palace, Abu Dhabi
- King's Palace, Malaysia
- Marina Bay, Singapore
- Changi Airport, Singapore
- African bank, Egypt
- Saudi Embassy, Pretoria
- British Embassy, Holland
- Olympic Stadium Regeneration

## PRODUCT OVERVIEW

The ATG Access SP400 is available in a multitude of finishes and operation types making this product one of ATG's most versatile high security bollards.

This product has been successfully tested to the British PAS 68 impact test standard.

Supplied hot-dip galvanised as standard and with two yellow reflective bands; alternatively the bollard can be coated to any RAL colour specified or fitted with a decorative sleeve. Due to the SP400's slim diameter (240 mm), this product can be fitted with any aesthetic sleeve specified by the client.

The product has been designed and manufactured with serviceability in mind and as a result offers fantastic reliability.

## AUTOMATIC BOLLARD

The automatic SP400 high security bollard is hydraulically operated. The bollard has been successfully tested twice with a 7,500 kg vehicle travelling at both 64 kph and then 48 kph.

Able to cope with a high number of operations per hour, this product is ideal for sites with high traffic flow. The bollards can be part of a large, secure access control scheme or operated as a standalone system.

The control board provided as standard is a PLC control system which we can setup to meet whatever operational requirements you may have. An emergency fast operation function is also available if required.

## SECURITY RATING

**BSI PAS 68: 2010**

**48 kph - V/7,500(N2)48/90:0/0**

**64 kph - V/7,500(N2)64/90:2.3/2.7**

## FINISHES

Available in a variety of finishes: galvanised as standard with two yellow reflective bands, painted (RAL colour) or fitted with an aesthetic sleeve. Can be supplied with LED lights.

## SP400 HIGH SECURITY BOLLARD STATISTICS

	Automatic
Bollard Diameter	209 mm with a 240 mm top lid
Height Above Ground	998 mm
Foundation Depth	1,601 mm
Finishes Available	Galvanised, painted (RAL colour) or fitted with an aesthetic sleeve. Can be supplied with LED lights.
Security Rating	PAS 68: V/7,500(N2)48/90:0/0 PAS 68: V/7,500(N2)64/90:2.3/2.7



*Olympic Park Shopping Village, Stratford*



# SPTT HIGH SECURITY BOLLARD

Operation Type: Automatic



## SITES INSTALLED

- The Hague, Netherlands
- Sydney Opera House, Australia
- BBC HQ, London
- Windsor, Greater London
- Shard of Glass, London
- Canterbury Cathedral

## PRODUCT OVERVIEW

The ATG Access SPTT, shallow foundation bollard has a unique double retractable design which ensures smooth operation and acts as a depth saving feature.

Most impact tested, automatic bollards have a foundation depth of around 1,500 mm. This innovative product has a foundation depth requirement of just 900 mm - less than a meter.

The product has been successfully impact tested in accordance with BSI PAS 68:2010, arresting a 7,500 kg vehicle travelling at 64 kph (40 mph) and achieving less than a meter of penetration.

## AUTOMATIC VARIANT

The SPTT shallow foundation bollard is unique within the high security industry and is the shallowest, automatic bollard solution

to mitigate against the 7,500 kg @ 64 kph threat level.

This latest innovation in crash tested technology allows the use of automatic bollards for high security solutions to be installed within areas where underground services or a lack of space for excavation may cause a problem.

Able to cope with a high number of operations per hour, this product is ideal for sites with high traffic flow.

The bollards can be part of a large, secure access control scheme or operated as a standalone system.

The control board provided as standard is a PLC control system which we can setup to meet whatever operational requirements you may have.

## SECURITY RATING

**BSI PAS 68:**  
V/7,500(N2)64/90:0.5/6.1

## FINISHES

Supplied with a black sherardized finish as standard. A stainless steel finish is available on request.

The outer casing is round.

## SPTT HIGH SECURITY BOLLARD STATISTICS

	Automatic
<b>Bollard Diameter</b>	209 mm (top section), 280 mm (bottom section)
<b>Height Above Ground</b>	1,000 mm
<b>Foundation Depth</b>	900 mm
<b>Finishes Available</b>	Black sheradized finish as standard. Stainless steel is available on request.
<b>Security Rating</b>	PAS 68: V/7,500(N2)64/90:0.5/6.1



Windsor, Greater London

# TITAN MK II HIGH SECURITY BOLLARD

Operation Type: Automatic



## SITES INSTALLED

- US Navy School, Bahrain
- Royal Palaces, Jordan
- Madinah Railway Station, KSA
- Central Bank of Kuwait, Kuwait
- Salalah Airport, Oman
- New Doha International Airport, Qatar
- Total Head Quarters, Angola
- Danske Bank, Denmark
- Border Crossing, Lithuania
- Saudi Arabian Embassy, Uzbekistan
- Visa Data Centre, Colorado
- University of Maryland, USA
- US Naval Bases, USA



## PRODUCT OVERVIEW

The Titan MK II is an impact tested bollard and is available in a variety of operating sets and arrays.

The Titan MK II bollard is an economical and effective way of protecting your key access points.

The product can be operated as standard with a hydraulic pump system or as a manually operable, standalone unit.

All steel parts are hot dip galvanised for corrosion protection. This also ensures long term reliability of the product.

## AUTOMATIC BOLLARD

The hydraulically operated automatic system offers outstanding protection; maintains pedestrian permeability and allows authorised vehicle access when needed.

Able to cope with a high number of operations per hour, this product is ideal for sites with high traffic flow.

The bollards can be part of a large, secure access control scheme or operated as a standalone system.

The control board provided as standard is a PLC control system which we can setup to meet whatever operational requirements you may have.

## SECURITY RATING

Meets the BSI PAS 68 rating when installed to PAS 69 certification.

**PAS 68:** V/7,500/80/90:4.0/33.5  
**ASTM:** M50 P2

## FINISHES

Galvanised as standard with two reflective yellow bands; alternatively, the product can be painted to any specified RAL colour or finished with a decorative sleeve.

## TITAN MK II BOLLARD STATISTICS

	Automatic
Bollard Diameter	273 mm
Height Above Ground	1,000 mm
Foundation Depth	1,684 mm
Finishes Available	Galvanised as standard with two yellow reflective bands. Can be painted or sleeved.
Security Rating	PAS 68: V/7,500/80/90:4.0/33.5 ASTM: M50 P2



*Military Base Access Control*



# STEALTH HIGH SECURITY BOLLARD

Operation Type: Automatic



## PRODUCT OVERVIEW

ATG Access has designed an automatic, high security bollard with integral hydraulics which can be installed as a new installation or be retrofitted into an existing, impact tested bollard foundation. This was the first British product to be officially tested at MIRA under the IWA, international impact test standard 2014.

Retrofit high security products are needed when historic installations become increasingly difficult for the owner to service and keep operational. To replace entire systems with new products normally involves the costly and disruptive removal of huge reinforced foundation structures. The ability to treat existing, installed outer casings with corrosion protection and then retrofit a new, certified security solution is unique.

## AUTOMATIC BOLLARD

The Stealth Bollard system has been designed with reliability and serviceability in mind. The bollard can be part of a large, secure access control scheme or operated as a standalone system.

Able to cope with a high number of operations per hour, this product is ideal for sites requiring maximum security and with a high traffic flow.

Tested twice as a single and double bollard configuration, both tests used a 7,200 kg N2a type vehicle travelling at 80 kph (50 mph). Both impact tests produced fantastic results with the bollards being fully operational after impact.

## SECURITY RATING

**Single Bollard Impact Test:**

IWA 14: V/7200[N2A]/80/90:2.4

**Dual Bollard Impact Test:**

IWA 14: V/7200[N2A]/80/90:0.8/10.4

## FINISHES

Galvanised as standard with two reflective yellow bands; alternatively, the product can be painted to any specified RAL colour.

## STEALTH BOLLARD STATISTICS

	Automatic
Bollard Diameter	230 mm
Height Above Ground	996 mm
Foundation Depth	1,506 mm
Finishes Available	Galvanised as standard with two yellow reflective bands. Can be painted to any specified RAL colour
Security Rating	<b>Single, IWA 14: V/7200[N2A]/80/90:2.4</b> <b>Double, IWA 14: V/7200[N2A]/80/90:0.8/10.4</b>



*Bollards Operational After Impact*

# SP1000 HIGH SECURITY BOLLARD

Operation Type: Automatic



## PRODUCT OVERVIEW

The SP1000 high security bollard was the first of ATG's high security bollards to be successfully impact tested, nearly a decade ago.

The automatic high security bollard has been successfully tested in accordance with PAS 68 arresting a 7,500 kg vehicle travelling at 80 kph.

The product has also been tested to comply with the American ASTM standard achieving a M50: P1 rating.

This product is ideal for sites under threat of a high velocity attack and with limited stand-off distance between the perimeter and the infrastructure being safeguarded.

## AUTOMATIC BOLLARD

The automatic SP1000 high security bollard

is hydraulically operated product, offering outstanding security and aesthetics.

Able to cope with a high number of operations per hour, this product is ideal for sites with high traffic flow. The bollards can be part of a large, secure access control scheme or operated as a standalone system.

The control board provided as standard is a PLC control system which we can setup to meet whatever operational requirements you may have. The product can be fitted with an additional 'emergency fast operation' function so that the bollard can be deployed in a matter of seconds.

This product is engineered to offer the highest site protection required to protect against a high velocity attack. Sites still remain pedestrian and vehicle permeable (when authorised).

## SECURITY RATING

**BSI PAS 68:**  
V/7,500(N2)80/90:0/10

**ASTM:** M50 P1

## FINISHES

Available in a variety of finishes: galvanised, painted to any specified RAL colour or fitted with an aesthetic sleeve to suit client requirements.

## SP1000 HIGH SECURITY BOLLARD STATISTICS

	Automatic
Bollard Diameter	305 mm (350 mm sleeved)
Height Above Ground	1,000 mm
Foundation Depth	1,933 mm
Finishes Available	Galvanised. Painted to a specified RAL colour or fitted with an aesthetic sleeve
Security Rating	PAS 68: V/7,500(N2)80/90:0/10 ASTM: M50 P1



British Embassy, Turkey



# SP1200 HIGH SECURITY BOLLARD

Operation Type: Automatic



## PRODUCT OVERVIEW

The SP1200 high security bollard is the world's strongest, impact tested bollard.

It is the only bollard to have been tested to the British PAS 68 standard with a 30,000 kg vehicle travelling at 80 kph (50 mph).

The single automatic SP1200 bollard remained intact after impact and would not have allowed a second vehicle to pass.

The SP1200 automatic bollard is designed to be serviceable quickly by one man. This is critical in maintaining the high level of security required when choosing this product

## AUTOMATIC BOLLARD

Able to cope with a high number of operations per hour, this product is ideal for sites with high traffic flow. The bollards can be part of a large, secure access control scheme or operated as a standalone system.

The control board provided as standard is a PLC control system which we can setup to meet whatever operational requirements you may have. The product can be fitted with an additional 'emergency fast operation' function so that the bollard can be deployed in a matter of seconds.

This product is engineered to offer the highest site protection required to protect against a high velocity attack. Sites still remain pedestrian and vehicle permeable (when authorised).

## SECURITY RATING

Meets the BSI PAS 68 rating when installed to the PAS 69 certification.

V/30,000(N3)80:3.30/25

## FINISHES

Available in a variety of finishes: galvanised, painted to any specified RAL colour or fitted with an aesthetic sleeve to suit client requirements. Two yellow reflective bands supplied as standard.

## SP1200 HIGH SECURITY BOLLARD STATISTICS

	Automatic
Bollard Diameter	305 mm (350 mm sleeved)
Height Above Ground	1,200 mm
Foundation Depth	2,133 mm
Finishes Available	Galvanised. Painted to a specified RAL colour or fitted with an aesthetic sleeve
Security Rating	<b>PAS 68:</b> V/30,000(N3)80:3.30/25



British Embassy

The background features two large, solid purple geometric shapes. One is a large triangle pointing towards the top right corner. The other is a smaller triangle pointing towards the bottom left corner. The text is centered within the larger triangle.

# Manually Retractable Bollards



# SP100 MANUALLY RETRACTABLE BOLLARD

**Operation Type:** Manually Retractable & Fixed



## SITES INSTALLED

- International Investment Bank, UK
- Pallestra House, London
- College of North Atlantic, Qatar
- Arsenal Emirates Stadium
- Duke of York Residence, London
- O2 Retail Unit, Liverpool
- Head Office, Trinidad & Tobago

## PRODUCT OVERVIEW

The ATG SP100 bollard is a manually operable product requiring no power to operate and no ducting or rebar to install.

Having successfully stopped a 3,500 kg vehicle travelling at 48 kph (30 mph), the product is well placed to mitigate lower velocity vehicular attacks.

The manually retractable SP100 is fitted with a lift-assist mechanism as standard, reducing the products lifting weight by up to 60%. This allows the security product to be operated by anyone.

The SP100 is ideal for securing commercial applications where traffic flow is minimal or access is only required occasionally.

Users with high traffic volume will benefit from ATG's range of high security automatic products.

A folding, stainless steel handle is offered as standard with the stainless steel, sleeved model; a black T-bar handle is fitted with all other versions of this product.

## FIXED VARIANT

The SP100 bollard is also available in a static version to compliment the manually retractable range. This provides clients with a complete solution for perimeter protection and access requirements.

## SECURITY RATING

**BSI PAS 68 (2007):**  
V/3,500(N1)48/90:2.8/0.0

Static variant has been engineered to mitigate the same level of threat.

## FINISHES

Available in a variety of finishes: galvanised as standard with two yellow reflective bands, painted to any specified RAL colour or fitted with a stainless steel sleeve.

## SP100 HIGH SECURITY BOLLARD STATISTICS

	Manually Retractable	Fixed
<b>Bollard Diameter</b>	127 mm / 141 mm (sleeved)	127 mm / 141 mm (sleeved)
<b>Height Above Ground</b>	891 mm (to the top of the bollard) 935 mm (to the top of the handle)	Supplied in a 1,391 mm length
<b>Foundation Depth</b>	1,414 mm	491 mm
<b>Finishes Available</b>	Galvanised. Painted to a specified RAL colour or fitted with a stainless steel sleeve.	Galvanised. Painted to a specified RAL colour or fitted with a stainless steel sleeve.
<b>Security Rating</b>	V/3,500(N1)48/90:2.8/0.0	Engineered



*Example of Different Handle Types – SP100*

# SP400 MANUALLY OPERATED BOLLARD



**Operation Type:** Manually Retractable

## SITES INSTALLED

- Shard of Glass, London
- St Pancras Hotel, London
- National Exhibition Centre, Birmingham
- Stratford International Shopping Centre
- Celtic Stadium
- Royal Palace, Bahrain
- King's Palace, Malaysia
- Marina Bay, Singapore
- Changi Airport, Singapore
- African bank, Egypt
- Saudi Embassy, Pretoria
- British Embassy, Holland
- Olympic Stadium Regeneration



## PRODUCT OVERVIEW

The SP400 high security bollard can be manually operated through the simple use of a hand-held battery drill or a manual hand crank.

The high security bollard has been successfully tested twice with a 7,500 kg vehicle travelling at 48 kph and then at 64 kph.

No electricity or hydraulics are required to raise or lower the bollard and the product can be operated with ease (can be raised or lowered in 12 seconds).

Ideal for remote sites with little or limited access to an electricity supply or to secure gateways which are used very infrequently.

ATG estimates the total saving for a manual system to be up to 50% of a fully automated system.

The product has been designed and manufactured with serviceability in mind and offers fantastic reliability.

### FIXED

The Fixed SP400 bollard is available to complement the automated variant, providing full perimeter security. This is available as an engineered solution.

ATG can supply a matching impact tested complimentary bollard: the SP400 Shallow Foundation bollard or the SP40 traditional depth static bollard.

## SECURITY RATING

**BSI PAS 68: 2010**

**48 kph - V/7,500(N2)48/90:0/0**

**64 kph - V/7,500(N2)64/90:2.3/2.7**

## FINISHES

Available in a variety of finishes: galvanised as standard with two yellow reflective bands, painted (RAL colour) or fitted with an aesthetic sleeve to suit client requirements.

## SP400 HIGH SECURITY BOLLARD STATISTICS

	Manually Retractable
<b>Bollard Diameter</b>	209 mm with a 240 mm top lid
<b>Height Above Ground</b>	998 mm
<b>Foundation Depth</b>	1,532 mm
<b>Finishes Available</b>	Galvanised, painted to any RAL colour specified or fitted with an aesthetic sleeve.
<b>Security Rating</b>	PAS 68: V/7,500(N2)48/90:0/0 PAS 68: V/7,500(N2)64/90:2.3/2.7



*Olympic Park Shopping Village, Stratford*



# SPTT HIGH SECURITY BOLLARD

Operation Type: Manually Retractable



## SITES INSTALLED

- The Hague, Netherlands
- Sydney Opera House, Australia
- BBC HQ, London
- Windsor, Greater London
- Shard of Glass, London
- Canterbury Cathedral

## PRODUCT OVERVIEW

The ATG Access SPTT, shallow foundation bollard has a unique double retractable design which ensures smooth operation and acts as a depth saving feature.

Most impact tested, retractable bollards have a foundation depth of around 1,500 mm. This innovative product has a foundation depth requirement of just 900 mm - less than a meter.

The product has been successfully impact tested in accordance with BSI PAS 68:2010, arresting a 7,500 kg vehicle travelling at 64 kph (40 mph) and achieving less than a meter of penetration.

## MANUALLY RETRACTABLE

The SPTT bollard stands 1,000 mm high yet only requires 900 mm foundation. This is

significantly less than usual high security retractable bollards.

Available as a manually operable variant; the product is operated through the simple use of a hand-held battery drill or a manual hand crank.

No electricity or hydraulics are required to rise or lower the bollard and the product can be operated with ease (can be raised in 12 seconds, lowered in 6).

Ideal for remote sites with little or limited access to an electricity supply or gateways used very infrequently.

We estimate the total saving for a manual system to be up to 50% of a completely automated system.

## SECURITY RATING

**BSI PAS 68:**  
V/7,500(N2)64/90:0.5/6.1

## FINISHES

Supplied with a black sherardized finish as standard. A stainless steel finish is available on request.

## SPTT HIGH SECURITY BOLLARD STATISTICS

	Manually Retractable
<b>Bollard Diameter</b>	209 mm (top section), 280 mm (bottom section)
<b>Height Above Ground</b>	1,000 mm
<b>Foundation Depth</b>	900 mm
<b>Finishes Available</b>	Black sheradized finish as standard. Stainless steel is available on request.
<b>Security Rating</b>	<b>PAS 68:</b> V/7,500(N2)64/90:0.5/6.1



Windsor, Greater London

# TITAN MK II HIGH SECURITY BOLLARD

**Operation Type:** Manually Retractable



## SITES INSTALLED

- US Navy School, Bahrain
- Royal Palaces, Jordan
- Madinah Railway Station, KSA
- Central Bank of Kuwait, Kuwait
- Salalah Airport, Oman
- New Doha International Airport, Qatar
- Total Head Quarters, Angola
- Danske Bank, Denmark
- Border Crossing, Lithuania
- Saudi Arabian Embassy, Uzbekistan
- Visa Data Centre, Colorado
- University of Maryland, USA
- US Naval Bases, USA

## PRODUCT OVERVIEW

The Titan MK II is an impact tested bollard and is available in a variety of operating sets and arrays. Tested to withstand a 7,500 kg vehicle travelling at 80 kph, this product is suitable to protect against high velocity attacks.

The Titan MK II bollard is a strong, economical and effective way of protecting your key access points.

The product can be operated as standard with a hydraulic pump system or as a manually operable, standalone unit.

All steel parts are hot dip galvanised for corrosion protection. This also ensures long term reliability of the product.

## MANUALLY RETRACTABLE

Available as a manually operable variant; the product is operated through the simple use of a hand-held battery drill or a manual hand crank.

No electricity or hydraulics are required to rise or lower the bollard and the product can be operated with ease (can be raised or lowered in 12 seconds);.

This product is ideal for remote sites with little or limited access to an electricity supply or gateways used very infrequently.

We estimate the total saving for a manual system to be up to 50% of the automatic system.

## SECURITY RATING

**Impact Test Certification:**

**PAS 68:** V/7,500/80/90:4.0/33.5

**ASTM:** M50 P2

## FINISHES

Galvanised as standard with two yellow reflective bands; alternatively, the product can be painted to any specified RAL colour or finished with a decorative sleeve.

## TITAN MK II BOLLARD STATISTICS

### Manually Retractable

<b>Bollard Diameter</b>	273 mm
<b>Height Above Ground</b>	1,000 mm
<b>Foundation Depth</b>	1,684 mm
<b>Finishes Available</b>	Galvanised as standard with two yellow reflective bands. Can be painted or sleeved.
<b>Security Rating</b>	PAS 68: V/7,500/80/90:4.0/33.5 ASTM: M50 P2



*Military Base Access Control*



The image features a white background with two large, solid purple geometric shapes. One is a large triangle pointing towards the top right corner, and the other is a smaller triangle pointing towards the bottom left corner. The text 'Removable Bollards' is centered within the larger purple triangle.

Removable Bollards

# SP400 SUSPENDED SLAB BOLLARD

**Operation Type:** Shallow Foundation, Suspended Slab



## SITES INSTALLED

- British Library, London
- Canary Wharf Financial District
- Shard of Glass, London
- Birmingham New Street Railway St.
- Manchester Arndale Shopping Centre
- Glasgow Velodrome
- Marina Bay, Resort Sentosa Singapore
- Marina Bay Fire Station, Singapore
- JEM Shopping Centre, Singapore
- Changi Airport, Singapore
- Mandarin Oriental Hotel, Bangkok
- The Hague, Holland
- Anne Frank Museum, Amsterdam

## PRODUCT OVERVIEW

The ATG Access SP400 Shallow Foundation Bollard range includes the industry's first impact tested, lift-out product installed directly and impacted within a suspended slab foundation.

This bespoke solution provides clients with information on energy transfer which can be used to certify that the product is suitable to be installed above major sub structures such as underground tube tunnels, ticket halls, major utility services and underground car parks.

The SP400 bollard has a slim profile making this product aesthetically pleasing and able to be fitted with a multitude of sleeve options.

The SP400 suspended slab, removable bollard has been successfully impacted and certified within a suspended slab.

The test slab had a thickness of 250 mm and the product was impacted with a 2,500 kg vehicle travelling at 48 kph.

After impact, the integrity of the suspended slab was completely retained and the removable bollard performed a dead-stop with zero meters of penetration.

The impact test calculations can be used to design a security solution for your suspended slab application.

## SECURITY RATING

**IWA14-1:** Successfully arrested a 2,500 kg vehicle travelling at 48 kph.

Calculations Available

## FINISHES

Available in a variety of finishes: galvanised as standard with two yellow reflective bands, painted to any specified RAL colour or fitted with a stainless steel sleeve.

Removable, Suspended Slab Bollard	
<b>Bollard Diameter</b>	198 mm (painted) / 219 mm (sleeved)
<b>Height Above Ground</b>	900-1,000 mm (depending on the surface finish)
<b>Foundation Depth</b>	250 mm deep slab
<b>Finishes Available</b>	Galvanised. Painted to a specified RAL colour or fitted with a stainless steel sleeve.
<b>Security Rating</b>	Calculations Available



*SP400 Removable, Suspended Slab*



# SP400 HIGH SECURITY BOLLARD

Operation Type: Shallow Foundation, Removable



## SITES INSTALLED

- British Library, London
- Canary Wharf Financial District
- Shard of Glass, London
- Birmingham New Street Railway St.
- Manchester Arndale Shopping Centre
- Glasgow Velodrome
- Marina Bay, Resort Sentosa Singapore
- Marina Bay Fire Station, Singapore
- JEM Shopping Centre, Singapore
- Changi Airport, Singapore
- Mandarin Oriental Hotel, Bangkok
- The Hague, Holland
- Anne Frank Museum, Amsterdam

## PRODUCT OVERVIEW

The ATG Access SP400 Shallow Foundation Bollard range includes a shallow foundation fixed and lift-out variant. The range also includes the industry's first impact tested lift-out product installed directly and impacted within a suspended slab foundation.

The SP400 bollard has a slim profile making this product aesthetically pleasing and able to be fitted with a multitude of sleeve options.

This product is an industry first as it is the only removable high security bollard to be officially crash tested and carries an official certification.

The lift-out function provides the option for clients to remove the installed product to allow occasional access when required. This product can be removed when needed using lifting equipment.

## LIFT-OUT, SHALLOW BOLLARD

The lift-out, shallow foundation, high security SP400 bollard can be installed within a foundation depth of just 350 mm. This enables effective perimeter protection to be installed within urban environments which typically have a dense network of underground services which cost a fortune to redirect or move.

Minimal time and disruption is needed to deploy shallow foundation products this all ensures the installation of the product is straight forward, causing minimal disruption to site and street scenes.

## SECURITY RATING

**Shallow Foundation, Removable Bollard:**  
PAS 68: V/7,500(N2)48/90:0/3.5

## FINISHES

Galvanised as standard with two reflective yellow bands; alternatively, the product can be painted to any specified RAL colour or finished with a decorative sleeve.

SP400 SHALLOW REMOVABLE BOLLARD	
	Removable Bollard
Bollard Diameter	198 mm (219 mm sleeved)
Height Above Ground	900-1,000 mm, depending on surfacing
Foundation Depth	350 mm
Finishes Available	Galvanised as standard with two yellow reflective bands. Can be painted or sleeved.
Security Rating	PAS 68: V/7,500(N2)48/90:0/3.5



Adelaide Airport

# EXCALIBUR SECURITY BOLLARD

**Operation Types:** Fixed or Removable Security Bollard



## SITES INSTALLED

- Heathrow, Terminal 5
- Union Square, Aberdeen
- St Pancras Eurostar Terminal
- Liverpool Lime Street Station

## PRODUCT OVERVIEW

The Excalibur 125 mm, manganese steel bollard is available in either a fixed or lift-out variant.

Manganese steel is a unique material which has extreme anti-wear properties, is very resistant to abrasion and has high impact strength.

All of these characteristics make the material ideal to be used within high security bollard manufacture and design. The Excalibur bollard can be supplied in its raw state, painted to any RAL colour specified or fitted with an aesthetic sleeve. The bollards slim profile makes this product versatile to be able to fit into any schemes aesthetics.

### Lift-Out Variant

The fixed Excalibur (125 mm diameter) has been successfully tested to withstand a 7,500 kg vehicle travelling at 20 mph, achieving no impact penetration. The lift-out variant is an engineered solution based on this tested model. The product only requires 400 mm of depth to install so is classed as a shallow foundation product.

The minimal installation depth makes this product ideal to protect urban, pedestrianized areas from vehicular attack where there may be a dense network of services preventing a deep rooted bollard from being installed. A lift-out operation allows occasional access to vehicles if required.

## SECURITY RATING

**125 mm Model – Lift-Out:**  
Engineered solution

## FINISHES

Manganese steel bollard which can either be painted to a specific RAL colour or fitted with an aesthetic sleeve

### 125 MM EXCALIBUR BOLLARD STATISTICS

	Lift-Out
<b>Bollard Diameter</b>	125 mm
<b>Height Above Ground</b>	972 mm
<b>Foundation Depth</b>	400 mm
<b>Finishes Available</b>	Manganese steel core which can be painted to any RAL colour or fitted with an aesthetic sleeve
<b>Security Rating</b>	Engineered Solution



*Union Square, Aberdeen*



# WESTMINSTER HIGH SECURITY BOLLARD

**Operation Types:** Shallow Foundation, Removable Bollard



## SITES INSTALLED

- Royal Courts of Justice, London
- Shopping Centre, London
- UK Supreme Court, London
- Victoria Embankment, London
- BBC Headquarters, London
- Australia House, London
- Charing Cross Railway Station
- Paddington Railway Station
- Pimlico Police Station
- Birmingham ICC

## PRODUCT OVERVIEW

The Westminster high security bollard is manufactured from micro-engineered steel which has a high impact 'toughness' and the ability to absorb massive amounts of energy without fracturing.

This heritage style bollard is available in a lift-out, shallow foundation or traditional depth fixed model. Only ATG Access have the manufacturing rights to the impact tested, Westminster steel bollard.

With a ribbed profile and peaked top, within the front facia there is a specifically designed section to enable a corporate logo or crest to be inserted. Supplied unpainted or with a primed finish.

## SHALLOW REMOVABLE

Shallow foundation technology has proved invaluable within city centres, outside airports, skyscrapers and other applications where underground services, car parks and sub-structures prevent standard depth equipment being installed.

This variant allows for very occasional access to areas within a busy city centre.

The foundation structure of the lift-out product consists of a 565 mm shallow foundation lift-out socket.

## SECURITY RATING

### Removable, Shallow Mount

Engineered solution derived from the certified shallow foundation model.

**PAS 68:** V/7500(N2)64/90:0/3.7

## FINISHES

Manganese steel, supplied raw (unpainted) as standard with a blank front facia. Can be primed and fitted with a corporate logo or crest.

## WESTMINSTER BOLLARD STATISTICS

	Removable Bollard
<b>Bollard Diameter</b>	273 mm (front face) 133 mm (side profile)
<b>Height Above Ground</b>	1,065 mm
<b>Foundation Depth</b>	536 mm
<b>Finishes Available</b>	Black Manganese Steel Unpainted. Can be primed on request and fitted with a logo or crest.
<b>Security Rating</b>	<b>PAS 68:</b> Engineered Solution



*Australia House, London*

# CITY OF LONDON SECURITY BOLLARD

Operation Types: Shallow Foundation, Removable Bollard



## SITES INSTALLED

- Cannon Street Station, UK
- City of London Rolls Building
- Black Friars Station, UK
- Multiple Undisclosed sites, London

## PRODUCT OVERVIEW

The City of London Bollard has the integral good looks and heritage appearance of the traditional City of London bollard which can be found all over London's square mile.

ATG have taken the traditional design and engineered an impact tested version. The impact tested variant is available in a lift-out, shallow foundation or traditional depth fixed model.

Only ATG Access has the manufacturing rights to the impact tested City of London manganese steel bollard. The product is finished and painted with the distinctive black, red and white design.

### SHALLOW REMOVABLE

The ATG Access shallow foundation system is a revolutionary engineering

development and sits at the cutting edge of industry technology. The foundation can be installed at a fraction of the depth underground that traditional, impact tested products require.

Shallow foundation technology has proved invaluable within city centres, outside airports, skyscrapers and other applications where underground services, car parks and basements prevent standard depth equipment being installed.

A removable, shallow foundation variant allows occasional access to areas within a busy city centre.

The foundation structure of the lift-out product consists of the 150 mm shallow foundation structure and then a further depth of 450 mm to accommodate the lift-out socket.

## SECURITY RATING

**Shallow Foundation Removable:**  
**PAS 68: Engineered Solution.**

## FINISHES

Manganese steel, painted to the traditional City of London Bollard design – red, black and white.

## CITY OF LONDON BOLLARD STATISTICS

	Removable Bollard
Bollard Diameter	240 mm (base), 160 mm (top)
Height Above Ground	1,390 mm
Foundation Depth	150 mm plate with an additional socket depth of 450 mm
Finishes Available	Painted Manganese Steel – Red, Black & White
Security Rating	PAS 68: Engineered Solution



Underground Station, London



# SPK12R HIGH SECURITY BOLLARD

**Operation Types:** Fixed & Removable High Security Bollard



## PRODUCT OVERVIEW

The SPK12R Bollard offers a cost effective solution where the highest security performance is required.

Achieving less than a meter of penetration under impact, this product is suitable for critical national infrastructure protection where stand-off distances available between a building perimeter and the building itself are minimal.

Available as a fixed or removable high security bollard.

This product is suitable for HCIS projects.

## SPK12R - REMOVABLE

Installing a removable bollard allows occasional access to a site when required.

The SPK12R (removable) bollard consists of a steel tube filled with concrete and placed within a foundation socket. To remove the bollard, lifting equipment can be used to lift the inner, impact tested bollard from the ground socket.

Impact tested in accordance with IWA 14, this SPK12 variation successfully arrested a 7,200 kg vehicle traveling at 80 kph (50 mph).

## SECURITY RATING

Tested in accordance with the International Workshop Agreement 2014.

**Removable:** V/7,200(N2A)/80/90:0.7

## FINISHES

Available in a variety of finishes: galvanised, painted to any specified RAL colour or fitted with an aesthetic sleeve to suit client requirements. Two yellow reflective bands supplied as standard.

## SPK12R BOLLARD STATISTICS

	Removable
<b>Bollard Diameter</b>	273 mm
<b>Height Above Ground</b>	1,000 mm
<b>Foundation Depth</b>	1,200 mm
<b>Finishes Available</b>	Galvanised. Painted to a specified RAL colour or fitted with an aesthetic sleeve
<b>Security Rating</b>	IWA 14: V/7,200(N2A)/80/90:0.7



*Shopping Mall, South East Asia*

# SP1000 HIGH SECURITY BOLLARD

**Operation Type:** Shallow Foundation, Removable



## SITES INSTALLED

- Canary Wharf Financial District
- Birmingham New Street Railway St.
- Gatwick Airport, UK
- German Bank, Frankfurt
- Heathrow Airport
- Leadenhall, London
- St Thomas Hospital, London
- Wimbledon Tennis Club, UK
- Nuclear Power Station, Undisclosed
- British Embassy, Baghdad
- Sydney Opera House, Australia
- White City, Baku, Azerbaijan
- British Embassy, Athens

## PRODUCT OVERVIEW

The SP1000 shallow foundation, high security bollard is ideal for providing perimeter protection for sites at risk of a high velocity attack. The product is available as a static shallow foundation or removable bollard.

Shallow foundation design enables effective perimeter protection to be installed within urban environments which typically have a dense network of underground service which cost a fortune to redirect.

The shallow foundation units can be supplied in a multitude of shapes allowing bollards to be fitted around existing street furniture items such as bins and benches. This allows for bollards to be fitted easily around street corners and curved roads.

## REMOVABLE

A shallow foundation lift-out SP1000 bollard is available providing the option for clients to remove the installed product to allow occasional access when required.

This product has a foundation depth of just 600-750 mm, depending on surfacing, perfect for urban areas or sites with sub-structures below ground.

To remove the bollard from the installed socket, lifting equipment is required.

This variant is an engineered solution. Fully certified lift-out products to protect against high velocity attack include the ATG SPK12R.

## SECURITY RATING

**Shallow Foundation Removable:**  
Engineered Solution

## FINISHES

Galvanised, Painted in any specified RAL colour or fitted with an aesthetic sleeve to suit client requirements.

## SP400 REMOVABLE BOLLARD

	Removable Bollard
<b>Bollard Diameter</b>	305 mm (323 mm inc. top plate)
<b>Height Above Ground</b>	1,000 mm
<b>Foundation Depth</b>	600-750 mm depending on surfacing
<b>Finishes Available</b>	Galvanised as standard with two yellow reflective bands. Can be painted or sleeved.
<b>Security Rating</b>	Engineered Solution



*UK International Airport*



The image features a white background with two large, solid purple geometric shapes. One is a large triangle pointing towards the top right corner, and the other is a smaller triangle pointing towards the bottom left corner. The text 'Road Blockers' is centered within the larger triangle.

Road Blockers

# LW1.4 SURFACE MOUNTED ROAD BLOCKER



**Operation Type:** Automatic Road Blocker

## SITES INSTALLED

- Multiple Embassies, Australia
- Canary Wharf Financial District
- Treasury & Finance, Australia
- Westfield Corporation
- Consulate, Australia
- APEC Conference, Sydney

## PRODUCT OVERVIEW

The LW1.4 surface mounted road blocker can be installed and deployed quickly on a suspended slab or bolted to a surface to provide temporary high security for access points.

The folding block barrier is designed to be installed on flat concrete slabs with the supplied shallow ramps to smooth vehicle transition. The 1.4 m wide blade allows the barrier to be put in the centre of a standard access lane to control vehicles accessing an area.

Successfully tested to the British PAS 68 certification to withstand a 1,500 kg vehicle travelling at 30 mph, this surface mounted product achieved zero vehicle penetration proving its incredible strength.

This barrier is effective and unobtrusive providing protection for narrow roadways, car parks and access doors. The LW1.4 is ideal for managing traffic flow and can act as a dampener when in the down position, effectively slowing vehicles down. Bolt down fixing allows rapid replacement after an incident or for ease of service.

Able to cope with a high number of operations each hour, the blocker is hydraulically operated and can be integrated into any existing control system or supplied with ATG's sophisticated control software.

Infrared beams and photocells are used to provide safety measures for the dynamic road blocker. Additional measures can be added to be site specific.

## SECURITY RATING

**PAS 68:**  
V//1500(M1)/48/90:0.0/0.0

## FINISHES

Hot-dip galvanised as standard and then coated in a polyester finish. Custom specified paint colours are available if required.

## THE LW1.4 ROAD BLOCKER STATISTICS

Road Blocker Widths	1,400 mm
Height Above Ground	800 mm when fully deployed
Foundation Depth	0 mm – surface mounted / suspended slab
Finishes Available	Hot-dip galvanised and then coated with a polyester finish. Custom paint can be specified.
Security Rating	<b>PAS 68:</b> V//1,500(M1)/48/90:0.0/0.0
Control Systems	Hydraulically operated and can be integrated into any existing or new ATG control system.



*Installed on a suspended slab*



# LW7 SURFACE MOUNTED ROAD BLOCKER

Operation Type: Automatic Road Blocker



## SITES INSTALLED

- Prime Minister's Office, Australia
- Canary Wharf Financial District
- Treasury & Finance, Australia
- Westfield Corporation

## PRODUCT OVERVIEW

The LW7 surface mounted road blocker can be installed and deployed quickly on a suspended slab or bolted to a surface to provide temporary high security for access points.

The blocker can be installed and used on a more permanent basis if required within a 400 mm concrete foundation.

The blocker has a tested width of 2,980 mm which secures a single lane road-width effectively. When fully deployed, the road blocker extends to 800 mm above ground.

Successfully tested to the British PAS 68 certification to withstand a 3,500 kg vehicle travelling at 30 mph.

Hot-dip galvanised as standard and then coated in a polyester finish to provide comprehensive corrosion protection. Custom specified paint colours are available if required.

Able to cope with a high number of operations each hour, the blocker is hydraulically operated and can be integrated into any existing control system or supplied with ATG's sophisticated control software.

This product has been designed with serviceability and longevity in mind.

Infrared beams and photocells are used to provide safety measures for the dynamic road blocker. Additional measures can be added to be site specific.

## SECURITY RATING

**PAS 68:**  
V/3500(N1)/48/90:5.5/0.0

## FINISHES

Hot-dip galvanised as standard and then coated in a polyester finish. Custom specified paint colours are available if required.

## THE LW7 ROAD BLOCKER STATISTICS

Road Blocker Widths	2,980 mm
Height Above Ground	800 mm when fully deployed
Foundation Depth	0 mm – surface mounted / suspended slab 400 mm – permanent install
Finishes Available	Hot-dip galvanised and then coated with a polyester finish. Custom paint can be specified.
Security Rating	<b>PAS 68:</b> V/3,500(N1)/48/90:5.5/0.0
Control Systems	Hydraulically operated and can be integrated into any existing or new ATG control system.



*Can be supplied with approach and  
dismount ramps if entrance ways are  
being accessed by low vehicles.*

# THE GUARDIAN ROAD BLOCKER

**Operation Type:** Automatic – Hydraulically Operated Road Blocker



## PRODUCT OVERVIEW

The ATG Access Guardian Road Blocker is an innovative product which utilises advanced engineering polymers to provide an energy absorbing and rigid lid construction.

The high security product consumes less power in normal operation due to a counter balance design which lifts the lighter weight, polymer filled lid.

This design in turn makes servicing very straight forward. Routine servicing can be conducted through the top hatch of the blocker. For major services or maintenance, the blocker may be opened to 80 degrees allowing easy access for technicians.

The Guardian has a 100% continuous duty

cycle with a raise and lower speed of 6-8 seconds. An emergency fast operation (EFO) function can be specified to reduce operation speed even further to just 2-4 seconds.

Designed and manufactured with drainage ducts, allowing the product to be connected to the appropriate drainage systems. Widths of 3 or 4 m are available. The blocker extends 1,010 mm above ground when fully deployed.

Galvanised as standard to provide corrosion protection & supplied with a skirt to prevent trapping hazards & debris.

No complicated rebar cage is required for installation and the product has a foundation depth of just 400 mm.

## SECURITY RATING

**IWA 14:**  
V/7,200[N2a]/80/90:0.4

## FINISHES

Hot-dip galvanised structure with a skid resistant coating to the top surface plate and a high visibility (yellow & black) skirt as standard.

## THE GUARDIAN ROAD BLOCKER STATISTICS

Road Blocker Widths	3,000 – 4,000 m
Height Above Ground	1,010 mm when fully deployed
Foundation Depth	400 mm
Finishes Available	Hot-dip galvanised structure with a skid resistant coating to the top surface plate and a high visibility (yellow & black) skirt as standard
Security Rating	IWA 14: V/7,200[N2a]/80/90:0.4
Control Systems	Hydraulically operated and can be integrated into any existing or new ATG control system.

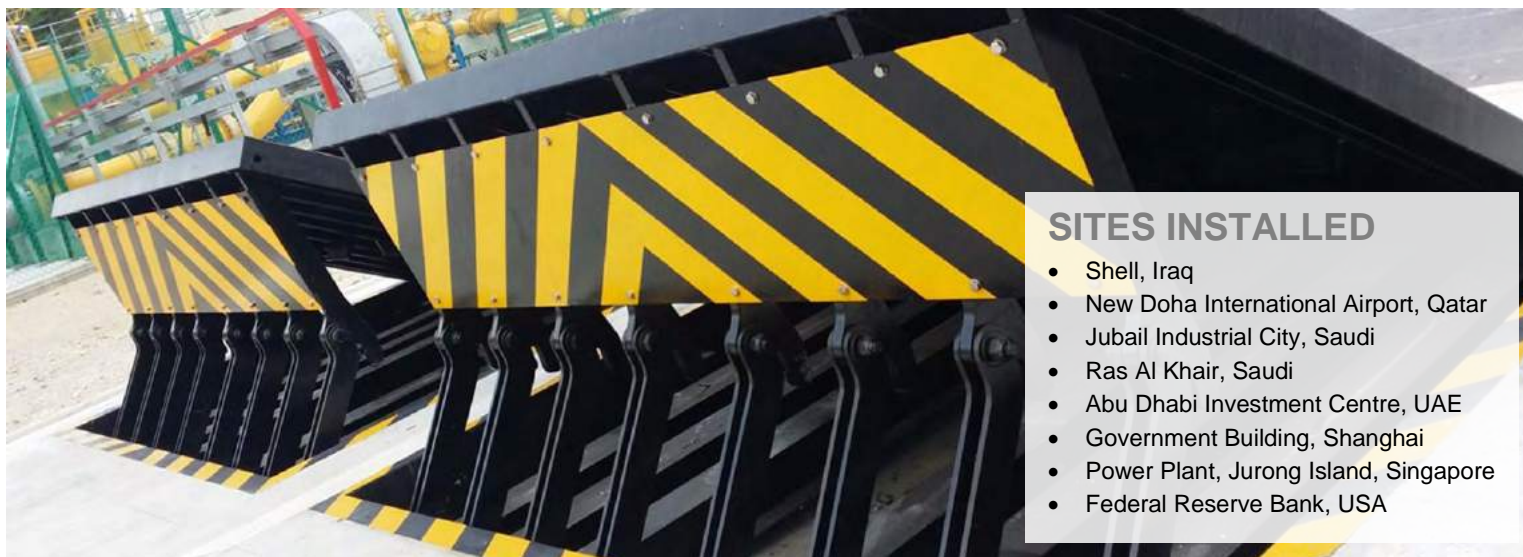


**IWA 14 Certified**



# SENTINEL ROAD BLOCKER

Operation Type: Automatic



## SITES INSTALLED

- Shell, Iraq
- New Doha International Airport, Qatar
- Jubail Industrial City, Saudi
- Ras Al Khair, Saudi
- Abu Dhabi Investment Centre, UAE
- Government Building, Shanghai
- Power Plant, Jurong Island, Singapore
- Federal Reserve Bank, USA

## PRODUCT OVERVIEW

The ATG Access Sentinel Road Blocker offers the ultimate in high security protection for entrance ways. The products robust construction and high level of corrosion protection, delivers reliable performance for years.

The Sentinel is certified to DOS K12 L3 and can be deployed in emergency fast operation mode (EFO) in under 2 seconds. In normal operation, the Sentinel road blocker raises and lowers in 4 to 6 seconds.

As with all ATG Access products the Sentinel may be integrated with our sophisticated control systems offering almost infinite flexibility of control.

The Sentinel is powered by a high quality

hydraulic system which is modular in design so you can specify the duty cycle and operating characteristics you require.

Road blockers are typically used to secure applications which have wide entrance ways, where aesthetics are not the number one priority or where multiple forms or access control need to be used.

Road blockers are very effective when used as a final denial barrier. They can also be used to create a sally-port security design allowing for security guards to manually search a vehicle entering a very high security site.

To increase visibility of the barrier, the Sentinel Road Blocker can be supplied with LED lights on the front plate.

## SECURITY RATING

DOS:  
K12: L3

## FINISHES

Fully galvanised to provide corrosion protection ensuring product longevity. The top surface is painted black and is fitted with an anti-slip coating. A front plate and LED lights are optional.

## SENITNEL ROAD BLOCKER STATISTICS

Road Blocker Widths	8-12 ft (2.5 m – 4.2 m)
Height Above Ground	38 inches (965 mm) when fully deployed
Foundation Depth	18 inches (457 mm)
Finishes Available	Fully galvanised. Black painted top lid with an anti-slip coating. A front plate with LED lights is optional for increased visibility.
Security Rating	DOS: K12 L3
Control Systems	Hydraulically operated and can be integrated into any existing or new ATG control system



*Hamad International Airport*

# MAGNUM ROAD BLOCKER

**Operation Type:** Automatic, Hydraulically Operated Road Blocker



## PRODUCT OVERVIEW

The ATG Access Magnum Road Blocker has been designed to provide maximum entrance way security, deterring pedestrians and controlling vehicle flow.

The Magnum has a 100% continuous duty cycle with a raise and lower speed of 6-8 seconds. An emergency fast operation (EFO) function can be specified to reduce operation speed even further to just 2-4 seconds.

Designed and manufactured with drainage ducts, allowing the product to be connected to the appropriate drainage systems.

A variety of widths are available – 8-14 feet; the blocker extends 32 inches above ground when fully deployed.

Hot-dip galvanised as standard and then coated in a polyester finish in black to provide comprehensive corrosion protection & supplied with a skirt to prevent trapping hazards & debris. Custom specified pint colours are available if required.

The blocker requires an installation depth of 1,308 mm and achieves a security rating of K12: L3 (DOS Standard).

Installed in both hot and cold climates, the Magnum road blocker is undeterred by snow, ice and sand and has been designed with serviceability in mind.

The Magnum is hydraulically operated and can be integrated into any existing control system or supplied with ATG control software.

## SECURITY RATING

**DOS: K12 L3**

## FINISHES

Hot-dip galvanised as standard and coated in a polyester finish in black. Supplied with a skirt to prevent trapping hazards & debris. Custom specified pint colours are available if required.


## THE MAGNUM ROAD BLOCKER STATISTICS

Road Blocker Widths	8 – 14 feet
Height Above Ground	32" when fully deployed
Foundation Depth	1,308 mm
Finishes Available	Hot-dip galvanised and then coated with a polyester finish in black as standard. Supplied with a skirt to prevent trapping hazards. Custom paint can be specified.
Security Rating	<b>DOS: K12 L3</b>
Control Systems	Hydraulically operated and can be integrated into any existing or new ATG control system.



*NATO, Belgium*



The background features two large, solid purple geometric shapes. One is a large triangle pointing towards the top right corner. The other is a smaller triangle pointing towards the bottom left corner. The text is centered within the larger triangle.

# Crash Tested Barrier Systems

# CEDAR HIGH SECURITY BARRIER

**Operation Type:** Manually Operated, Lifting Gate



## PRODUCT OVERVIEW

The High Security Cedar Barrier is an extremely cost effective, manual lifting barrier.

The barrier has been designed to be easy to install and can secure an access point where traffic flow is low or to secure a roadway for longer periods of time.

The gate is counterweighted for ease of operation and comes with a manual locking mechanism to secure the barrier in the lowered, closed position to prevent the barrier from opening when unattended.

Available in widths of 3, 4.5 and 6 meters, the bar sits 900 mm above ground level.

Tested and certified to the British PAS 68 standard, this product successfully withstood impact from a 7,500 kg vehicle travelling at 48 kph (30 mph) achieving less than a meter of penetration.

With no power requirements needed, this product can be used to secure access lanes in remote locations. The lack of power infrastructure also makes installation cost effective and straight forward.

Hot-dip galvanised as standard for corrosion protection, the barrier can then be coated to any RAL colour specified.

## SECURITY RATING

Meets the BSI PAS 68 rating, the tested width of this barrier was 6 meters:

V/7500(N2)/48/90:0.3/0.0

## FINISHES

All parts are hot-dip galvanised as standard for corrosion protection and then coated to any RAL colour specified if required.

## CEDAR BARRIER STATISTICS

	Manually Operated
Barrier Widths	3,000 mm, 4,500 mm or 6,000 mm
Height Above Ground	900 mm – bar height
Foundation Depth	500 mm
Finishes Available	Hot-dip galvanised as standard and then coated to any RAL colour specified
Security Rating	PAS 68: V/7,500(N2)/48/90:0.3/0.0



*Tested Cedar Barrier Model*



# CITYSCAPE GATE

**Operation Type:** Manually Operated, Shallow Foundation Gate



## SITES INSTALLED

- American School, Doha
- BBC HQ, London
- Canary Wharf Financial District
- Manchester Piccadilly Railway Station
- Leeds Bradford Airport
- London Olympic Games 2012

## PRODUCT OVERVIEW

The Cityscape Gate is an impact tested swing gate. This strong frangible gate requires just 300 mm of foundation depth for installation.

Ideal for protecting entrances from 4 to 6 meters wide, the gate is manually opened and closed and may be secured in the closed position by an automated or manual locking mechanism, the gate may be secured from a remote location electronically if required. Able to be opened from both inwards and outwards, this provides flexible, secured access for vehicles.

A 4.5 m version of this innovative structure is impact tested and successfully arrested a 7,500 kg truck travelling at 64 kph (40 mph).

Available in brushed stainless steel or a coated finish, this product can span 4 m to 6 m in width. This product can be specified as a right or left hand hinged gate and can be opened in either direction depending on site requirements.

This aesthetically pleasing high security product is ideal for access points with minimal operations each hour and is a cost effective way of preventing access to unauthorised vehicles and pedestrians.

The gate can also be used within a tiger-trap security design if required so that vehicles can be searched before entry for ultra-secure sites.

## SECURITY RATING

Meets the BSI PAS 68 rating, tested variant was 4.5 m wide:

V/7,500(N2)/64/90:1.09/2.40

## FINISHES

Available in brushed stainless steel or coated to any RAL colour specified. Reflective tape can also be used to increase visibility if required.

## CITYSCAPE GATE STATISTICS

	Manually Operated
Widths Available	4,000 mm – 6,000 mm. End posts have a diameter of 355 mm
Height Above Ground	920 mm – bar height
Foundation Depth	From 300 mm
Finishes Available	Brushed stainless steel as standard. Also available with a RAL coloured coating if required and reflective tape.
Security Rating	<b>PAS 68:</b> V/7,500(N2)64/90:1.09/2.40



*BBC Headquarters, Undisclosed*

# VEHICLE BARRIER BAR

**Operation Type:** Hydraulically Operated, High Security Barrier



## SITES INSTALLED

- Wembley Stadium
- Manchester City FC Stadium
- Canary Wharf Financial District

## PRODUCT OVERVIEW

The ATG Access Vehicle Barrier Bar is an incredibly strong and completely unique security solution.

The VBB utilises a hydraulically activated, reinforced horizontal bar that is stored below the road surface to permit vehicles to pass over it.

To secure the required perimeter, the reinforced bar is raised from the opening to the deployed position. The standard rate of deployment is between 3-5 seconds, or less than 2 seconds with the addition of the optional Emergency Fast Operation control.

When the bar is deployed, it provides resistance to vehicle intrusion, with its proven stopping power able to halt a 7,500 kq vehicle travelling at 80 kph (50mph).

The barrier has also been tested to the American DoS standard achieving a K12, L3 rating.

The latest version of this unique product also provides a shallow mounted foundation design as a product option allowing the product to be installed in a foundation depth of just 300 mm.

A variety of vehicle barrier bar widths are available up to 8 meters. The bar is typically 800 - 1,100 mm above ground when fully deployed.

Hot dip galvanised as standard and then coated to any RAL colour specified, this product has comprehensive corrosion protection and is designed with serviceability and longevity in mind.

## SECURITY RATING

**PAS 68 Rating:**  
V/7,500(N3)/80/90:0/0  
**DOS Rating:**  
K12, L3

## FINISHES

All parts are hot-dip galvanised to provide adequate corrosion protection. An additional coating can be added to any RAL colour specified by the client.

## VEHICLE BARRIER BAR STATISTICS

	Vehicle Barrier Bar
Widths Available	Up to 8,000 mm
Height Above Ground	800 – 1,100 mm – bar height
Foundation Depth	From 300 mm
Finishes Available	Hot dip galvanised as standard and then coated to any RAL specification required
Security Rating	<b>PAS 68:</b> V/7,500(N3)80/90:0/0 <b>DOS:</b> K12, L3



*English National Football Stadium*



# PATRIOT BEAM BARRIER

**Operation Type:** Hydraulically Operated Beam Barrier



## PRODUCT OVERVIEW

The ATG Access Patriot Beam Barrier is one of the strongest barriers in the market. Fully impact test certified to ASTM standards achieving a M50 P1 designation. This product remained intact following vehicular impact.

Operating widths range from 3,500 mm to 7,200 mm. The products drive motor is rated at 100% continuous duty cycle and operating speeds vary from 3-5 seconds for raise and lower. This can be reduced further to just one second deployment time by adding an emergency fast operation function to the system.

The barrier is hot-dip galvanised as standard, then painted with a polyester coating in any RAL colour specified to provide maximum corrosion protection.

The Patriot barrier is easy to install and maintain. The trench depth required to accommodate the beam is just 305 mm. The stanchions on either side of the beam require 1,220 mm of depth to install.

Able to operate reliably in extreme hot and cold climates as all mechanical fixings are above ground and easy to service.

This product can be used to establish a tiger-trap system enabling security checks, or as a continuation of a protected perimeter fence or gate.

## SECURITY RATING

The tested barrier width was 7,200 mm (24 ft.):

**ASTM: M50 P1**

## FINISHES

All parts are hot-dip galvanised as standard for corrosion protection and then coated to any RAL colour specified.

## PATRIOT BEAM BARRIER STATISTICS

	Hydraulically Operated
Barrier Widths	3,500 – 7,200 mm
Height Above Ground	915 mm – beam height when deployed
Foundation Depth	305 mm – beam trench 1,220 mm – stanchion depth
Finishes Available	Hot-dip galvanised as standard and then coated to any RAL colour specified
Security Rating	<b>ASTM: M50 P1</b>



*Tested Patriot Beam Barrier*

The background features two large, solid purple geometric shapes. One is a large triangle pointing towards the top right corner. The other is a smaller triangle pointing towards the bottom left corner. The text is centered within the larger triangle.

# Temporary Event Security



# BARRIER-IN-A-BOX

**Operation Type:** Manually Operable, High Security Road Cordon



## PRODUCT OVERVIEW

The aptly named, "Barrier-in-a-Box" is a fibre strap barrier and can be transported in a small container, in a light vehicle for quick deployment, providing flexible security, temporarily. This not only minimises logistical costs but it is also more practical when cordoning off areas within a busy city centre during high profile events.

The revolutionary barrier system works by mounting the fibre strap configuration over two existing high security bollards via a simple, manual pulley system. This system can be deployed in just over seven minutes. The mechanism can be positioned without being implemented until the crucial moment it is needed. This not only minimises traffic disruption and lengthy road closures but also allows the barriers to be removed

quickly permitting entrances to be permeable by vehicles in a medical, fire or police emergency.

Cutting edge technology means that this new product has successfully arrested a 7,500 kg truck travelling at 48 kph (30 mph).

The product has been tested when mounted over two ATG Access Westminster bollards but can also be utilised in conjunction with cylindrical, high-security bollards which is a successfully tested engineered solution.

The fibre strands can be fitted with a variety of casing options for aesthetic purposes. A variety of widths are available to suit client requirements.

## SECURITY RATING

**PAS 68:**

V/7500(N2)/48/90:1.7/0.0

The tested barrier width was 10.5 meters and mounted over two Westminster high security bollards.

## FINISHES

Synthetic fibres can be housed in multiple casings to suit requirements. The standard casing is black.

## FIBRE STRAP BARRIER SYSTEM

	Temporary Security Measure
Barrier Width	5-12 m (tested configuration is 10.5 m)
Height Above Ground	Top fibre – 900 mm above ground
Fixing Type	Mounted over existing high security bollards via a hand-held winch.
Finishes Available	Black sleeved synthetic fibres
Security Rating	<b>PAS 68:</b> V/7,500(N2)/48/90:1.7/0.0



*An example of a modified, fibre strap barrier for an undisclosed project*

# SURFACE MOUNTED BOLLARDS

Operation Type: Surface Mounted, Fixed



## SITES INSTALLED

- Arndale Centre, Manchester
- London Olympics 2012



## PRODUCT OVERVIEW

The Rapid Deployable, Surface Mount Bollard system is one of the world's first impact tested surface mounted bollard systems, providing PAS 68 certified impact protection.

Installation and removal of the product is straightforward and rapid. The array of bollards can be reused when heightened security measures are needed to perform as a temporary security measure. Ground surfaces are unharmed as no bolts are required. The bollard array simply needs an anchor point at either side such as a planter or a temporary fence system.

It is simply the best temporary, pedestrian permeable security solution available on the market.

Six bollards can be deployed in just over ten minutes and in this instance, using planters to pin the array at each end.

The temporary security solution can be used to protect an internal or external perimeter. The bollard system can be installed on a more permanent basis if required if site security requirements change.

This product will not only stop vehicle borne, explosive attacks; it will also provide an intelligent solution for temporary security against attacks where vehicles are used as the weapon.

The surface mounted bollard configuration has been tested as a stand-alone system and in conjunction with the Hesco Bastian and Highway Care fence technology.

## SECURITY RATING

**PAS 68:**

**Bolted at each end of the array -**  
V/7500(N2)/48/90:0.0/0.0

**Anchored at each end of the array -**  
V/7500[N2]/48/90:2/0

## FINISHES

Hot-dip galvanised as standard. Alternatively, the product can be painted to any specified RAL colour or finished with a decorative sleeve.

## SURFACE MOUNTED BOLLARD SYSTEM

	Surface Mounted Bollard System
<b>Bollard Diameter</b>	203 mm, 219 mm sleeved
<b>Height Above Ground</b>	1,026 mm (including surface plate)
<b>Foundation Depth</b>	Surface Mounted
<b>Finishes Available</b>	Hot-dip galvanised as standard. Can be painted to any RAL colour or fitted with a decorative sleeve.
<b>Security Rating</b>	<b>Bolted PAS 68:</b> V/7,500(N2)48/90:0.0/0.0 <b>Anchored PAS 68:</b> V/7,500[N2]48/90:2/0

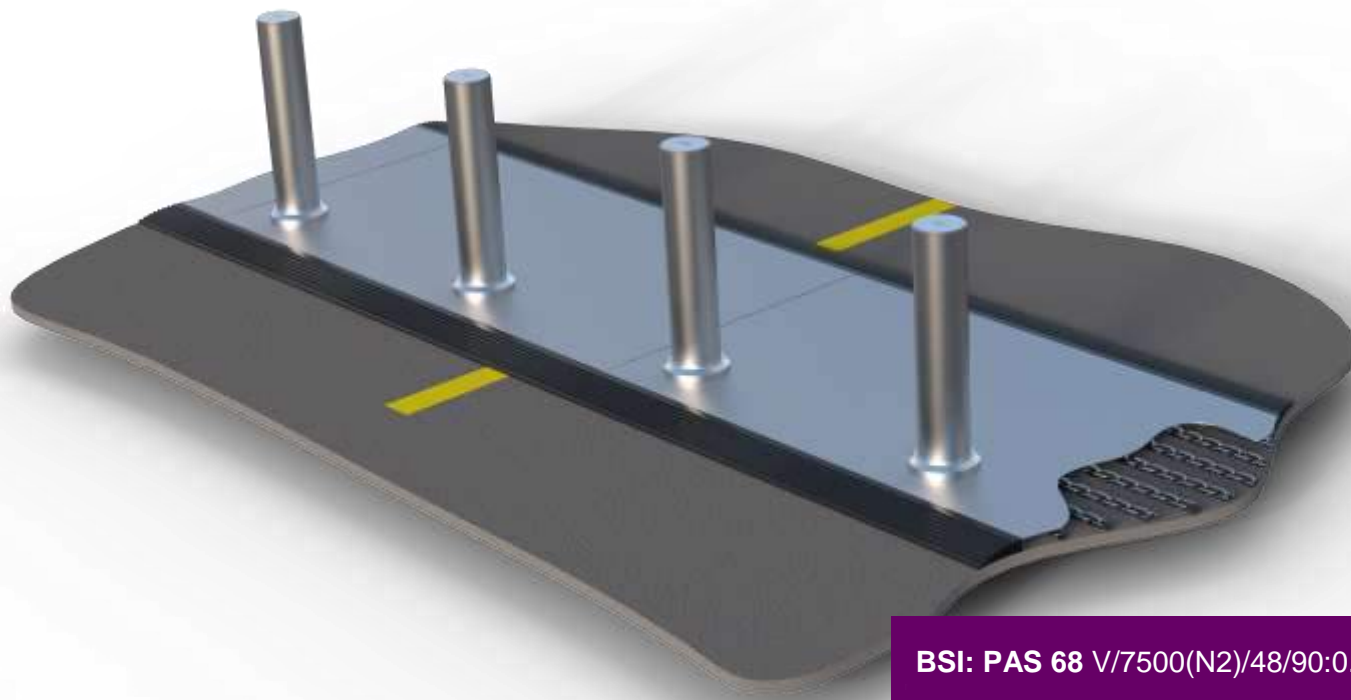


*Surface Mounted Bollards Installed Inside a Shopping Centre*



# PROTECTION OF CROWDED PLACES

Operation Type: Surface Mounted, Dynamic & Static



BSI: PAS 68 V/7500(N2)/48/90:0.0/0.0

## PRODUCT OVERVIEW

ATG Access developed a truly surface mounted bollard system to assist with the protection of various sites at the London 2012 Olympic Games. This bollard system has been used in the protection of numerous sites since then.

The products are fully tested to the BSI: PAS 68 standard using a number of different end anchor configurations. In light of the recent vehicular attacks on crowded places at various locations around the world, ATG were asked to further develop this surface mounted system enabling it to be deployed without the use of end anchors. This has been successfully achieved.

A number of accessories have been developed that allow this already successfully system to be installed in environments where limited opportunities are available for anchoring. In addition ATG have developed a number of low key, easy to install, permanent anchor systems which may be used for sites where repetitive deployment is required, sites holding events such as annual Christmas markets or New Year Eve celebrations.

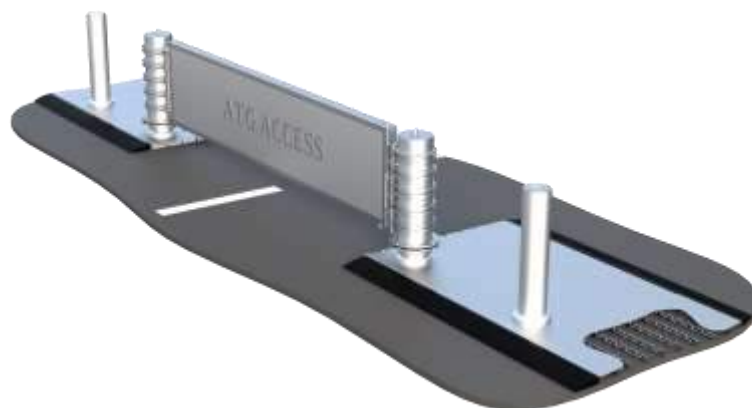
In addition to the existing bollard system ATG Access has responded to customer requirements for vehicular permeability of the bollard line and has designed a rapidly deployable gate which is mounted

as part of the surface mounted bollard system. The gate incorporates some of the existing technology already employed in ATG barriers and blockers and enables a surface mount deployable system to incorporate both pedestrian permeable bollards together with a vehicular gate element.

This innovative system can deal with road cambers and changes in levels as a result of kerbs and traffic islands.

ATG Access has designed the system so that members of the public are protected without feeling that they are entering a fortress zone.

The systems can be further accessorised with footfall counting devices, LED lighting and advertising / sponsorship or information panels further enhancing the benefit of installing these systems at your temporary / semi-permanent event.



# THE SURFACE GUARD SYSTEM

Operation Type: Surface Mounted



IWA 14: V/2,500(N1G)/48/90:4.5 | IWA 14: V/7,200(N3C)/32/90:4.8

## PRODUCT OVERVIEW

ATG Access has developed the Surface Guard system which has been designed for the purposes of temporary event protection.

Supplied in individual units, each product is lightweight and able to be stacked completely flat making transportation very easy. The system is compact, easy to store, lightweight, easy to transport, robust and easy to install. Installation can be achieved across one standard road width with kerbs in just 40 minutes with four men and lifting bars. No fork lift truck assistance is required.

The system is modular; completely surface mounted and incorporates a number of innovative features which allows its deployment from lightweight vehicles in a very short period of time. Many different site scenarios and existing street furniture items can be incorporated within a Surface Guard deployment.

This innovative system can cope with road cambers and changes in levels as a result of kerbs or central reservations. The system has been designed to be aesthetically pleasing and to avoid an 'unfriendly' or menacing feel.

The Surface Guard units allow pedestrian and cyclist access only. To allow emergency service vehicles through the system, a vehicle access point can be added to fit within a standard array.

6-10 units can be stacked flat on one normal sized pallet for easy transportation and storage. This also reduces the number of delivery vehicles required to secure a road width in comparison to more traditional barriers such as concrete blocks or steel blocks. All units can be man handled removing the need for forklift truck assistance.

## SURFACE GUARD SYSTEM

Unit Footprint	1,425 mm (front to back) x 1,185 mm (width)
Guard Height Above Ground	700 mm
Ramp Length	450 mm as standard. Alternative lengths available.
Finishes Available	Supplied with a light grey polyurethane cover. This can be vinyl wrapped by the client if required.
Security Rating	<b>IWA 14: V/2,500(N1G)/48/90:4.5</b> <b>IWA 14: V/7,200(N3C)/32/90:4.8</b>
Optional Extras	A vehicle access point can be added to a standard, Surface Guard array to allow emergency service vehicles through the system if required.





# SURFACE GUARD SYSTEM

Vehicle Access Point: Manually Operated



IWA 14: V/2,500(N1G)/48/90:4.5 | IWA 14: V/7,200(N3C)/32/90:4.8

## PRODUCT OVERVIEW

The ATG Access Surface Guard system has been designed for the purpose of temporary event security and to protect crowded places from vehicle ramming attacks.

Supplied in individual units, each product is lightweight and able to be deployed and removed very quickly and easily with no surface fixings. One road width can be secured in just 40 minutes.

This innovative system can cope with road cambers and changes in levels as a result of kerbs or central reservations. The system has been designed to be aesthetically pleasing and to avoid an 'unfriendly' or menacing feel.

The standard Surface Guard units allow pedestrian and cyclist access only. To allow emergency service vehicles through the system, a vehicle access point can be supplied to fit within a standard array.

The vehicle access point has reinforced steel plates so that the system can cope with high axle loadings required to let a fire engine or HGV through in an emergency situation. The surface plates are high visibility yellow so that vehicles can easily spot the access route.

The system is manned and authorised personnel are able to manually lower the protective barrier to allow emergency access in less than 30 seconds.

SURFACE GUARD: VEHICLE ACCESS POINT	
	[Per Individual Unit]
Unit Footprint	1,425 mm (front to back) x 1,185 mm (width)
Guard Height Above Ground	700 mm
Ramp Length	450 mm as standard. Alternative lengths available.
Finishes Available	Supplied with a light grey polyurethane cover. This can be vinyl wrapped by the client if required.
Security Rating	IWA 14: V/2,500(N1G)/48/90:4.5 IWA 14: V/7,200(N3C)/32/90:4.8

The Surface Guard system is lightweight and easy to transport. 6-10 units can be stacked flat on one normal sized pallet for easy transportation and storage. This also reduces the number of delivery vehicles required to secure a road width in comparison to more traditional barriers such as concrete blocks or steel blocks. All units can be man handled removing the need for forklift truck assistance.

