

GATES | BARRIERS | BLOCKERS | BOLLARDS | PEDESTRIAN

FRONTIER
PITTS



FRONTIER PITTS SECURITY
«BOLLARDS»

BRITISH PERIMETER SECURITY SPECIALISTS

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BOLLARDS

Frontier Pitts manufacture a large portfolio of hydraulically driven Rising and Static/Fixed Hostile Vehicle Mitigation Bollards:

**Hydraulically Driven
Rising Terra Bollards:**

Terra Universal Bollard
IWA 14 7.2t @ 80kph (50mph)

Terra Quantum Bollard
PAS 68 7.5t @ 30mph (50kph)

Static Terra Bollards:

Static Terra Jupiter Bollards
PAS 68 7.5t @ 50mph (80kph)

Static Terra Mars Bollards
PAS 68 7.5t @ 40mph (64kph)

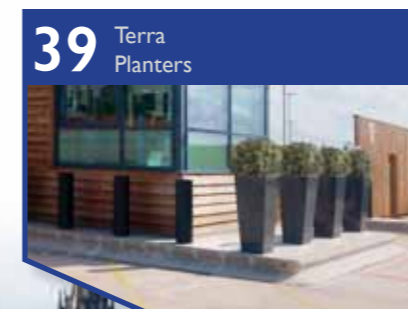
Static Terra Neptune Bollards
PAS 68 7.5t @ 40mph (64kph)

Static Terra Venus Bollards
PAS 68 7.5t @ 30mph (50kph)

Terra Planters

Bollards are designed to offer an impact-resistant barrier to vehicle access, whilst allowing access to pedestrians. Such installations range from Crowded Place venues such as shopping centres and complexes, stadiums, sport centres, promenades, airports and ports.

Static Bollards can also be installed alongside a perimeter fence line to create a HVM line of defence.



“ We deliver more than just products from our UK HQ in Crawley, West Sussex ”



Edinburgh, Scotland

TERRA UNIVERSAL BOLLARDS



The HVM Bollard has been successfully impact tested to the International IWA 14 specification with 7.2t @ 80kph (50mph). The easy glide Bollard is fully automatic and hydraulically driven. Interchangeable sleeves to match static Terra Bollards.

- IWA 14 Terra Universal Bollard 7.2t @ 80kph
- V/7200[N2A]/80/90:6.3

Tested dimensions: lifted height 1000mm



BENEFITS & FEATURES

- Successfully impact tested to IWA 14
- Easy glide, hydraulically driven
- Outstanding 360° Hostile Vehicle Mitigation protection from the threat of VBIED's (vehicle borne improvised explosive devices)
- Designed to complement our Planet range of Static Bollard heights and diameters; interchangeable sleeves are fitted to the inner bollard core, creating a versatile and stylish perimeter protection solution.
- 30% less steel than its predecessor with a visibly reduced footprint & attractive hexagonal plate
- Designed for ease of installation with a simple fabric mesh pocket.
- Designed for ease of maintenance
- Instantly reversible, 100% duty rated motor
- Control cabinet recommended to be installed within 10 metres of unit
- Traffic light system

OPERATING SPEED

- Typical speeds of 4-6 seconds*
- EFO (extra fast operation) in up to 3 second

OPTIONS

- Accumulator or manual hand pump allow a number of operations in power failure mode
- In event of Power Failure options of Fail safe (remain in raised position) or Fail secure (remain in lowered position)
- High Security Cabinet
- Can be interfaced to any access control systems

SAFETY

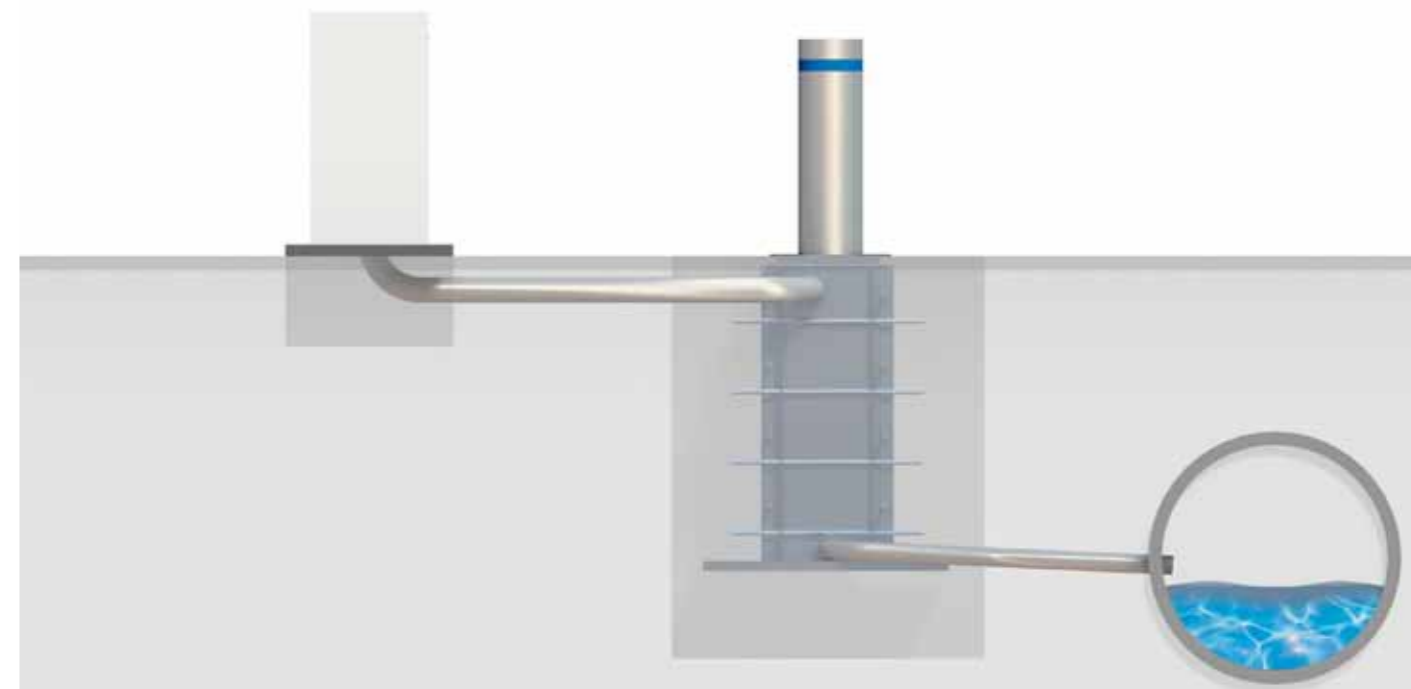
- Vehicle detector loops
- Safety photocell beams

CIVIL REQUIREMENTS

- L:1200mm x W:1200mm x D:1515mm
(Note: Power and control wiring ducts may be required)
- Control Cabinet Foundation
L:800mm x W:800mm x D:300mm

ELECTRICAL REQUIREMENTS**

- Three Phase Supply



Applications: Sites that require high security anti ram protection from potential hostile vehicles whilst allowing free access/passage by pedestrians. Ideal solution for crowded place venues.

* Depending on configuration

** This is subject to a risk assessment to ensure the automatic equipment complies to BS EN 12453

TERRA QUANTUM BOLLARD



The Innovative Side Folding HVM Bollard has been successfully impact tested to PAS 68 with 7.5t @ 30mph.

- PAS 68 Terra Quantum Bollard 7.5t @ 30mph
- V/7500[N2]/48/90:0.0/0.0

Tested dimensions: lift height 925mm



BENEFITS & FEATURES

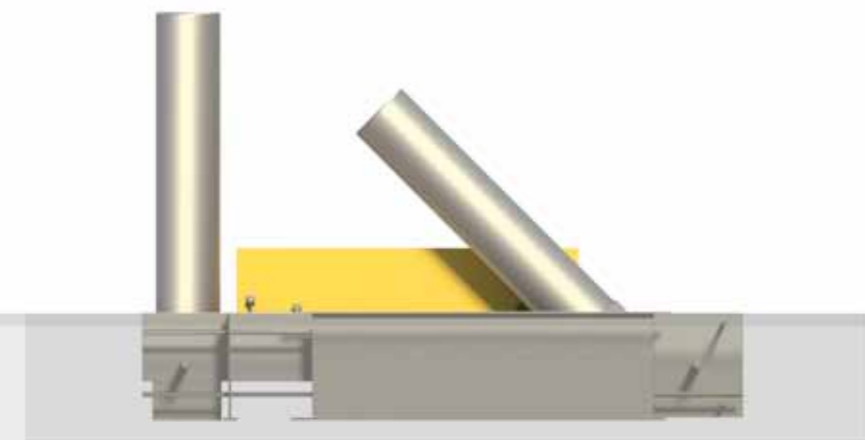
- The Terra Quantum Bollard Innovative Direction of Travel - Side Folding Bollard uniquely raises and lowers.
- The Retractable Bollard is twinned with a static unit and is manually operated.
- Each bollard has a manual hydraulic power unit including hydraulic reservoir, manual hand pump and manual release valve within the bollard enclosure.
- Bollard lid has a gas strut and handle to assist with lifting and a mechanical lock.
- The bollard has a padlockable locking pin within the bollard enclosure.
- 2no. Terra Quantum Bollards back to back form a 4m clear aperture.
- The Terra Quantum Bollard can be retrofitted into an existing line of PAS 68 static bollards to provide an HVM access point.

FINISH OPTIONS

- Polyester Powder Coated
- Stainless Steel Clad

CIVIL REQUIREMENTS

- L:2350mm x W:1000mm x D:300mm
(Note: Power and control wiring ducts may be required)
- Control Cabinet Foundation
L:800mm x W:800mm x D:300mm



Applications: Sites with limited foundation depths that require a PAS 68 restriction on vehicle access whilst allowing free passage by pedestrians

* Depending on configuration

** This is subject to a risk assessment to ensure the automatic equipment complies to BS EN 12453

JUPITER STATIC BOLLARD



The Terra Jupiter Bollard has been successfully impact tested to the British PAS 68 specification stopping 7.5t @ 50mph (80kph). Polyester Powder Coated as standard, with a range of sleeves available, including stainless steel finishes.

STANDARD BOLLARD

- V/7500[N3]/80/90:10.5/11.1
- Foundation Type C - Embedment: 500mm
- Height above ground: 1080mm (tested)
- Diameter: 273mmø
- Finish: Polyester Powder Coated
- Options: Range of Aesthetic Sleeves, including stainless steel Removable



NEPTUNE STATIC BOLLARD



The Terra Neptune Bollard has been successfully impact tested to the British PAS 68 specification stopping 7.5t @ 40mph (80kph). The Shallow Depth version, with an embedment depth of only 230mm, has been successfully impact tested as a single bollard, stopping 7.5t @ 40mph. Polyester Powder Coated as standard, with a range of sleeves available, including stainless steel finishes.

STANDARD BOLLARD

- V/7500[N2]/64/90:3.3/0.0
- Foundation Type C Embedment: 500mm
- Diameter: 273mmø
- Finish: Polyester Powder Coated
- Options: Range of Aesthetic Sleeves, including stainless steel Removable

SHALLOW BOLLARD

- V/7500[N2]/64/90:0.0/0.0
- 'Biscuit' Foundation Type B Embedment: 500mm
- Height above ground: 1000mm
- Diameter: 273mmø
- Finish: Polyester Powder Coated
- Options: Range of Aesthetic Sleeves, including stainless steel



MARS STATIC BOLLARD



The Terra Mars Bollard has been successfully impact tested to the British PAS 68 specification stopping 7.5t @ 40mph (80kph). The Shallow Depth version, with an embedment depth of only 230mm, has been successfully impact tested as a single bollard, stopping 7.5t @ 40mph. Polyester Powder Coated as standard, with a range of sleeves available, including stainless steel finishes.

STANDARD BOLLARD

- V/7500[N2]/64/90:4.0/16.7
- Foundation Type C
Embedment: 500mm
- Height above ground: 1000mm
- Diameter: 219mmø
- Finish: Polyester Powder Coated
- Options: Range of Aesthetic Sleeves, including stainless steel Removable

SHALLOW BOLLARD

- V/7500[N2]/48/90:1.71/0.0
- 'Biscuit' Foundation Type B
Embedment: 230mm
- Height above ground: 1050mm
- Diameter: 219mmø
- Finish: Polyester Powder Coated
- Options: Range of Aesthetic Sleeves, including stainless steel



VENUS STATIC BOLLARD



The Terra Venus Bollard has been successfully impact tested to the British PAS 68 specification stopping 7.5t @ 30mph (48kph). The Shallow Depth version, with an embedment depth of only 300mm, has been successfully impact tested stopping 7.5t @ 30mph. Polyester Powder Coated as standard, with a range of sleeves available, including stainless steel finishes.

STANDARD BOLLARD

- V/7500[N2]/48/90:0.0/0.0
- Foundation Type C
Embedment: 500mm
- Height above ground: 1000mmø
- Diameter: 219mmø
- Finish: Polyester Powder Coated
- Options: Range of Aesthetic Sleeves, including stainless steel Removable

SHALLOW BOLLARD

- V/7500[N2]/48/90:3.3/0.0
- Foundation Type B
Embedment: 230mm
- Height above ground: 1050mmø
- Diameter: 219mmø
- Finish: Polyester Powder Coated
- Options: Range of Aesthetic Sleeves, including stainless steel



TERRA PLANTERS



The New Innovative PAS 68 Terra Planter is another HVM World first to protect against potential VBIED attack.

- Aesthetically pleasing street furniture which is proven to physically mitigate hostile vehicles
- Architecturally reduces the visual threat
- Decorative infill within a line of HVM Static Bollards
- Can be installed as a single unit on the corner of buildings
- Can also be used as an infill between HVM impact tested Terra products.
- Ideal for sites that require a single shallow depth PAS 68/IWA 14 HVM unit to defend from HVM whilst allowing free pedestrian access
- Granite or Stainless Steel finishes available