

Barricade Beams

The Heavy Duty, Sliding Cantilevered Gate Beam





FP2
Sliding Security
Gates



FP2.1
Barricade Beams



FP3
Hinged Gates &
Bi-folding
Speed Gates



FP4
Automatic Rising/
Drop Arm Barriers



FP5
Road Blockers &
Rising Kerbs



FP5.1
Bollards
Active & Static



FP6
Manual Perimeter
Security



FP7
Pedestrian Control
Gates & Turnstiles



Also available:

Corporate Brochure

Your Guide to PAS 68

Access Control Systems



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Maximum aperture 8m



Terra Beam 10

Maximum aperture 6m



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For Sliding Gate systems please see the Sliding Gate Product Guide

Why use Frontier Pitts?

From our UK HQ
in Crawley, West Sussex



Frontier Pitts is more than just a Manufacturer:

90 years experience & accredited to BSi ISO 9001

National & International. Installations in over 90 countries

95 directly employed personnel, including multi-lingual staff & personnel that have been Frontier Pitts for 30+ years

Technical Consultants based at regional offices will visit any site within the British Isles, without charge or obligation, offering technical advice on the most appropriate & effective perimeter security solutions. Including BSi PAS 68 & CEN CWA 16221 standards.

Directly employed sales & support staff

Large product portfolio to suit all budgets & requirements

Standard product specifications are complimented by our bespoke design service. Previous accomplishments include a sliding gate system which secures a 70 metre aperture

Full 3D CAD Design. Site specific drawings issued to clients

British Engineering - Designed & built to last

Mechanical & Electrical Engineering Research & Development Programs

Comprehensive Training Program; ensures the client always receives the very best of our technical expertise

Dedicated Project Manager for each project. All work is executed under the strict control of our specially trained PMs

Fleet of vehicles including HGV's to ensure the equipment is safely delivered to site, with full ID tracking for security

Highly skilled, dedicated Mechanical & Electrical Field Engineers

Installation, Commissioning, Service & Maintenance

24hr / 7days a week manned UK Call Centre & Nationwide Breakdown Service

A range of Maintenance Contracts available to suit individual site requirements

Maintenance Contracts with response times in as little as 4 hours
Comprehensive Customer Service

Highly skilled, directly employed engineers located nationally.
Frontier Pitts do not use Sub Contractors

Full Installation & Commissioning Service

Civil, Electrical & Ground Works Team

BSi ISO 9001 Accredited and LPCB approved to LPS 1175

Verified and Founder member of the PSSA - Perimeter Security Suppliers Association - with the aim to raise the standards of the industry.

In house resources & skills - IT, Engineering, Fabricating, Maintenance & Installation - to overcome any possible obstacle

Spares Department, holding on average £200K of stock

Frontier Pitts is highly recommended by our existing & previous customers

Extra Fast Repair & Refurbishment for existing customers.

Total customer care for your peace of mind

In house secure IT servers, latest software and hardware

Experience of 'List X' regulations and data security.

Accreditations



As well as Sliding Gates, Frontier Pitts also manufactures a range of sliding barricade beams. Whether the requirement is for a simple, manually operated barricade beam, only used a few times a day, or a completely automated system used continuously, Frontier Pitts will design and manufacture a system designed to meet the sites exact needs. There are various options to consider when specifying your barricade beam, including:-

1. Which product range? PAS 68 Impact Tested HVM Anti Terra Range or Heavy Duty Range
2. Width of road that the beam needs to secure
3. Runback distance
4. Conditions on site (weather/temperature, usage, etc) How many times per day will the barricade beam be operated? Automatic or Manual
5. Barricade Beam Safety
6. Style of fenceline & other accessory requirements

The barricade beam bridges the gap between the rising arm barrier and the sliding gate. The system is particularly suitable for sites requiring an anti-ram security system.

The barricade beam is a fully cantilevered, impact resistant sliding beam that requires no ground track or intermediate support across the roadway. The beam traverses the roadway at a centre-line height of 900mm. Its engages with a framework mounted on the far side of the roadway.

Maximum beam length 8000mm

The benefits of a barricade beam are:

- Anti-ram barricade
- Robust - suitable for sites where vandalism is an issue.
- Manual or Automatic
- Reduced civils cost
- Ease of installation;
- no need for road closures
- Reduced maintenance; no track to keep clear

All gates are supplied as standard with an inverter. This provides two advantages over direct online starting:

- power supply from a more available variant
- improved control over force limitation, therefore increasing the safety of the gate.

Three phase supply is available as an option.



The Anti Terra Range includes equipment successfully impact tested to the BSi PAS 68 specification. The different category ratings are all designed to illustrate how the perimeter security equipment will arrest an energy created by various masses and speeds, as illustrated below:

Vehicle & Vehicle Mass



Speeds	30mph / 48kph	40mph / 64kph	50mph / 80kph
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When specifying your PAS 68 equipment, first establish what speed the different types of vehicles could reach on site before approaching the barrier & therefore how much energy the barrier may need to stop.

For further information please see Frontier Pitts "Your Guide to PAS 68" or contact our PAS 68 Specialist Technical Consultant on 01293 422800



Terra Beam
based on the Terra Gate (tracked) detailed below:



Terra Sliding Cantilevered Gate
7500kg (N3) @ 50mph
1852kJ



Vehicle Test Weight (kg)	Vehicle Class	Vehicle Speed (kph)	Vehicle Angle	Vehicle Penetration	Dispersion
Terra Sliding Cantilevered Gate impact tested in the fully closed position					
7500kg	N3	80	90	1.5	0.0



Barricade Beam

The Heavy Duty Sliding Cantilevered Beam Gate
Widths up to 8m. Bespoke available.
Heavy Duty Range

Applications: Sites requiring Anti-ram security solutions without the PAS 68 rating.

Banks | Depots | Cargo Parks | Ports | Airports |
Car Park | Warehouses | Delivery Entrances |
Utility | Heavy Industrial & Commercial Premises



The Barricade Beam is a fully cantilevered, impact resistant (non PAS 68) sliding beam that requires no ground track or intermediate support across the roadway. The beam traverses the roadway at a centre-line height of 900mm. Its engages with a framework mounted on the far side of the road way.

100% duty rating - designed for continuous & frequent use. Power is supplied from a single phase 230V supply. Please see page 6.

Typical operating speeds of 225-500mm/seconds* depending on length and configuration.

Safety control systems: Vehicle detector loops, safety photocells, ultra-sonic sensors and safety edges are available. Accessories: Signage, audible alarms and flashing beacons. Please see page 12.

Access controls: A wide range of access control systems are available. Please see page 14.

Finish. Various options available, including: Shotblasted, hot zinc sprayed, primed & finished with a final coat of polyurethane paint. Client to advise RAL paint number. This process provides a 20-year corrosion protection system for exterior, industrial polluted inland sites to BS5493, 1977 (Revised 1984).

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



Runback of Barricade Beam fully encased in pedestrian guard rail to ensure no trapping areas.



Above: Barricade Beam Cabinet foundation

Left: Barricade Beam Receptor Post foundation

Features

- Instantly Reversible
- 100% Rated Motor
- Override switch
- Security lock on door
- Switched fuse supply double pole isolator
- Mains failure indicator lamp
- Earth bonded door
- Easy accessible fuse unit
- Motor protection

Construction

The beam is a fully welded construction of rectangular hollow section, low carbon steel to BS4848 Pt.2.

Minimum length of runback track:
Beam width x 1.6 + 200mm

CIVIL REQUIREMENTS

Cabinet base: 1400mm sq x D: 400mm

Receptor Post Foundation

L:1400mm x W:700mm x D:300mm concrete
(Note: Power and control wiring ducts to be incorporated into foundations)

ELECTRICAL REQUIREMENTS

Single & three phase supply available.

The Terra Beam is based on the design of the PAS 68 Terra Sliding Cantilevered Gate.



Terra Beam

Based on the PAS 68 Terra Gate (Tracked)
V Sliding Gate 7500[N3]/80/90:0.0/0.0
Tested dimensions : width 3000mm
Maximum width: 6000mm

Applications: Sites that require the crash beam of the Terra Gate Mk I minus the infill.

High Security Car Parks | Anti Terrorist | Government Military | Airports | Industrial | Commercial



Based on the PAS 68 impact tested Terra Sliding Cantilevered Gate



Terra Beam whilst open



Terra Beam design in based on the PAS 68 Terra Sliding Cantilevered Gate

Maximum crash beam length 6000mm.
The Terra Beam is based on the Terra Gate has been successfully impact tested stopping a 7500kg vehicle travelling at 50mph (80kph) which equates to 1852kJ.

Power is supplied from a three phase and neutral supply. Designed for easy installation and maintenance. The Terra Beam can be interfaced to any access control systems.

BENEFITS & FEATURES

- Based on the PAS 68 impact tested Terra Sliding Cantilevered Gate
- Zero site penetration
- Fully functional, even after impact in the half open position
- Shallow foundation depths of only 300mm required
- Heavy Duty Crash Impact Beam.
- Heavy duty posts support the beam
- Electronic control motor drive unit
- Manual operation under power fail conditions

Option of an UPS (Uninterrupted Power Supply) is available if the gate is required to be re-opened during power failure.

DUTY CYCLE – 100%

OPERATING SPEED

Typical operating speeds of 250-500mm/seconds*, depending on length and configuration.

OPTIONAL ACCESSORIES

- UPS (Uninterrupted Power Supply)
- EFO (Extra Fast Operation)
- Disengaging box - manual override
- 100/200mm Traffic Light System
- High Security Cabinet

SAFETY - Option of vehicle detector loops and safety photocell beams. flashing beacon, audible alarm, safety edge, etc (please see page 12)

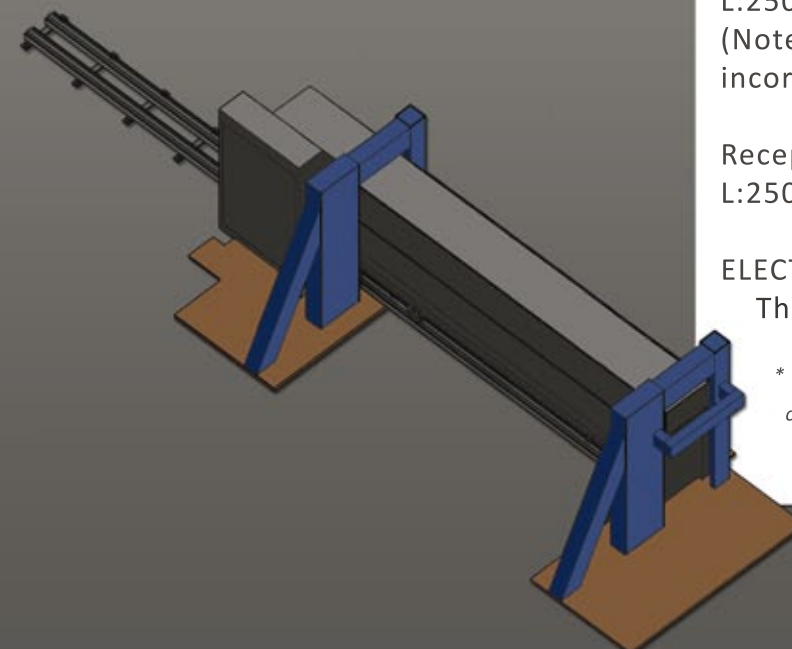
CIVIL REQUIREMENTS

Beam Base Foundation
L:2500mm x W:3500mm x D:500mm
(Note: Power and control wiring ducts to be incorporated into foundations)

Receptor Post Foundation
L:2500mm x W:3500mm x D:500mm

ELECTRICAL REQUIREMENTS POWER
Three Phase Supply

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





Barricade Beam Safety

THE SOLUTIONS



Barricade Beam Safety

THE DANGERS



At Frontier Pitts, we highly recommend the following safety features are fitted to your sliding barricade beam to enhance its ability to comply to safety standards and alleviate the dangers associated with automatic gates

Safety Edges

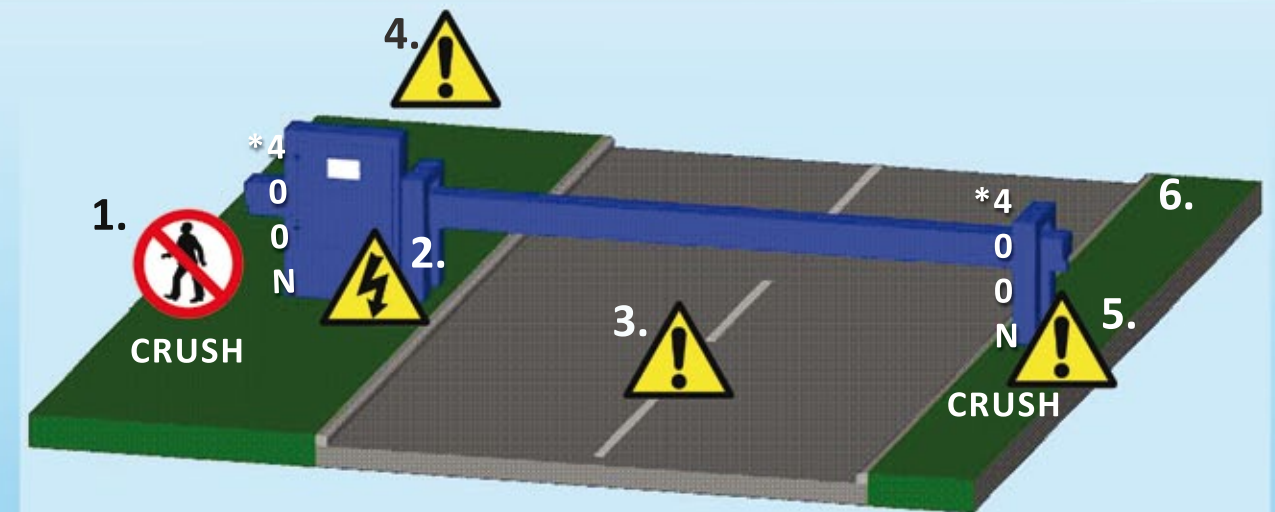
Safety Photocells

Audible Alarm or
Flashing Beacon



Vehicle Detector Safety Induction Loops

Pedestrian Guard Rail



*400N Crushing Force

THE SOLUTIONS

1. A Pedestrian Guard Rail (fence panels) should be fitted around the runback area of the barricade beam. This is to prevent serious injury to a person should they stray into that area whilst the gate is operating.
2. Awareness needs to be given to the Barricade Beam's Electrical Control Cabinet
3. Vehicle Detector Safety Induction Loops - loops cut into the road surface. These will prevent the beam from closing on a vehicle within the aperture.
4. Audible Alarm and/or flashing beacon provides an audible or visible warning that the beam is in operation.
5. Safety Photocells. An infra-beam which spans the aperture of the beam opening. If an object breaks this beam, the beam will stop. Usually two pairs of photocells are fitted.
6. Leading edge of beam. Safety Edges should be fitted to leading edge of the beam. Safety edges prevent the beam closing on a person or vehicle in the event the beam is activated. Safety edges are flexible strips which are fixed to the edge of a beam where there is a risk of a crushing or shearing hazard. If the safety edge is depressed a signal is sent to the power source to stop and back off. Please note: A maximum of 400N of crushing force is permitted before the beam should start to reserve. For gaps greater than 500mm a maximum crushing force of 1400N is permitted.

BARRICADE BEAMS ARE NOT DESIGNED FOR PEDESTRIAN USE & ALTERNATIVE PEDESTRIAN ACCESS SHOULD ALWAYS BE PROVIDED.

Other applicable BS standards:

- BS EN 13241-1 2003 Industrial, commercial and garage doors and gates. Product standard. Products without fire resistance or smoke control characteristics
- BS EN 12453 Industrial doors and gates; Safety in use of power operated doors - Requirements
- BS EN 12445 Industrial doors and gates; Safety in use of power operated doors - Test Methods
- BS EN 12604 Industrial doors and gates; Mechanical Aspects - Requirement
- BS EN 12605 Industrial doors and gates; Mechanical Aspects - Test Methods
- BS EN 13849 Safety of Machinery - Safety-related parts of control systems. General principles for design



Vehicle Detector Loop laid in the road surface

Access Control Pedestal

Frontier Pitts Barricade Beam can be interfaced to a wide range of access control including Card Readers, Intercom Systems, Remote VHF Systems and Digital Keypads. The access control readers can be mounted on pedestals which are recommended to be installed a minimum of 3 metres from the Barricade Beam system.



Standard Car Height Pedestals. Installed with bollards for protection

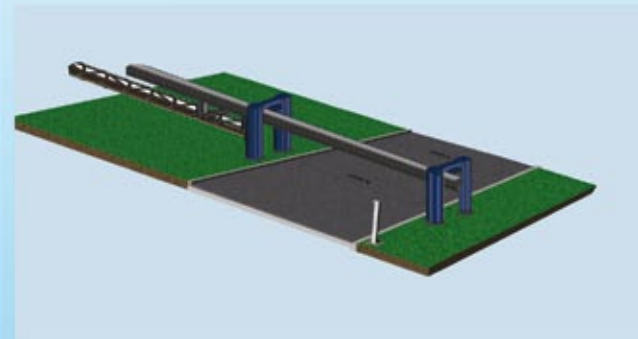
HGV & Dual Height Pedestals for use by cars & HGVs

Barricade Beam Safety:
For Pedestrian Safety - Safety Photocells
Safe closure of beam -
Vehicle Detector Loops & Timer Systems

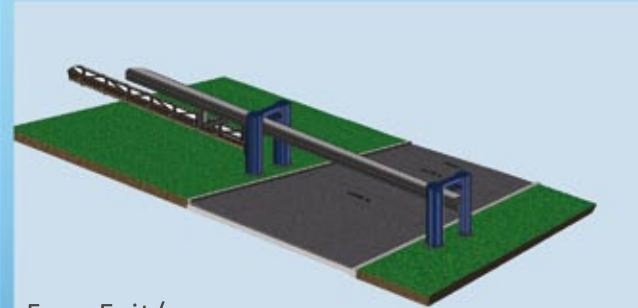


Safety Photocell - beams of light fitted across the road way to monitor vehicle & pedestrian movement

Controlled Entry System

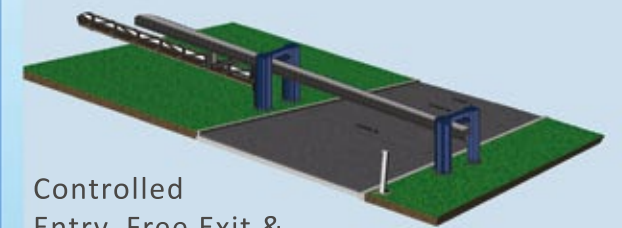


Free Exit System



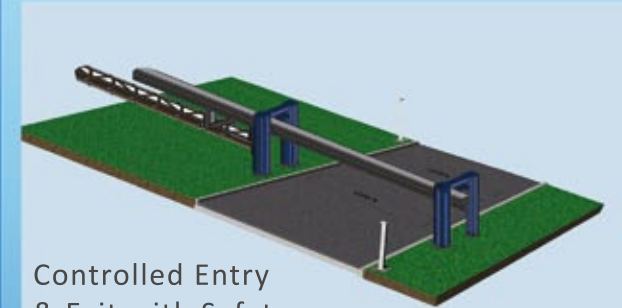
Free Exit/ Safety Autoclose Loop

Controlled Entry & Free Exit System



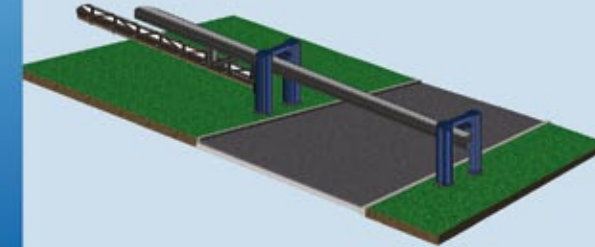
Controlled Entry, Free Exit & Safety Autoclose Loop

Controlled Entry & Exit System



Controlled Entry & Exit with Safety Autoclose Loop

Manual System





Other Products Manufactured by Frontier Pitts Ltd in the Heavy Duty & Parking Control Ranges



Cantilevered Gates

Security Sliding Gates
Cantilevered "LoTracker" up to 15 metres wide*
Tracked Gates - up to 35 metres wide*
Fully Welded
*Bespoke Gates Available
Made to Measure & Specification



Tracked Gates



Barricade Beam

The Sliding Cantilevered Beam available up to 8 metres.



Hinged Gates & Actuators

Single Leaf up to 10 metres wide
Double Leaf up to 20 metres
Bespoke Gates



Bi-folding Speed Gates

widths up to 12 metres
heights up to 6 metres
Bespoke gates



Rising & Static Bollards

Hydraulically rising/active & static/passive.
Various heights available



Lift height of 353mm

Road Blockers & Rising Kerbs

Various lift heights available
Widths up to 5 metres
Lift Heights: 300mm, 353mm, 533mm & 800mm



Lift height of 533mm



Range of Automatic Barriers

with boom lengths up to 10 metres



Automatic Barriers with lower folding skirts up to 9 metres



Automatic Barriers with full height swivel skirts up to 7.5 metres



Manual Barrier

Manual Products

boom lengths up to 10 metres



Road Closer



Turnstile

Pedestrian Turnstiles

Full height & half height



Turnstile with Pedestrian Gate



Pedestrian Gates

Wicket - Manual
Qwicket - Automatic
Bouncer - Automatic Sliding



Bouncer



Other Products Manufactured by Frontier Pitts Ltd in the PAS 68 HVM Anti Terra Range

Frontier Pitts high security HVM (Hostile Vehicle Mitigation) Anti Terra Range has been successfully impact tested in accordance to BSi PAS 68, stopping & immobilising a vehicle at various energies (typically 7500kg travelling at 50mph which equates to 1852kJ)



Terra Sliding Cantilevered Gate

The 'Terra Gate Mk II'
Successfully impact tested to BSi PAS 68 & CEN CWA 16221



Terra Gate- Tracked

Sliding Gate PAS 68 successfully impact tested in the fully closed & half open positions. Fully functional after impacts



Terra Blockers Surface, Shallow & Deep

Successfully impact tested to PAS 68 & K12/ASTM F2656



Stops a range of energies including 7500kg @ 30mph & 7500kg @ 50mph



Terra Swing Gate

Previously known as the Terra Road Closer
7500kg @ 50mph



Terra Hinged Gate

Designed to be impacted with 7500kg @ 50mph



Portfolio of Active & Static Terra Bollards

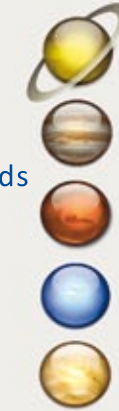


Active Terra Bollards
7500kg @ 50mph



Terra Pyramid Bollards with SMT technology
7500kg @ 30mph

Terra Alloy Bollards various energies



Terra Saturn Bollards
7500kg @ 50mph

Terra Jupiter Bollards
7500kg @ 50mph

Terra Mars Bollards
7500kg @ 40mph

Terra Neptune Bollards
7500kg @ 40mph

Terra Venus Bollards
7500kg @ 30mph



Terra V Gate

Bi-parting pair of Hinged Gate leaves
7500kg @ 50mph



Terra ULTIMATE Barrier

7500kg @ 50mph
1500kg @ 50mph



Terra Barrier

7500kg @ 40mph



Compact Terra Barrier

3500kg @ 30mph



Terra Manual Barrier

7500kg @ 30mph
3500kg @ 50mph



Terra Diamond Turnstile

The only turnstile in the World to be tested & approved to LPS 1175: Issue 6.1 Security Rating 3 & 4



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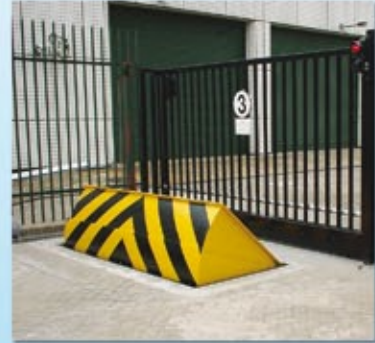
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