

SWING GATE CHALLENGER (BSI PAS68:2013) V/7500[N2]/64/90:1.1/0.0

ONLY 1.1M OF PENETRATION AND ZERO DEBRIS



Eagle is one of the UK's leading providers of PAS68 & IWA-14 tested gates, blockers and barriers with over 25 years experience of designing and delivering practical, cost effective and quality British solutions to thousands of organisations.

With a level of expertise that is unsurpassed in the industry, Eagle are at the forefront of product innovation, quality and standards. Ezi maintain a network of specialist technicians in Australia who are experts in the upkeep and maintenance of your system through its life.

KEY FEATURES

- ▶ Available as a manual double leaf swing gate with opening of up to 8.0m
- ▶ Available as an automated single leaf swing gate with opening of up to 6.0m
- ▶ Very secure with height of up to 3.6m
- ▶ Opening and closing speed of 25-35 seconds
- ▶ Full PLC Control
- ▶ Galvanised and powder coated
- ▶ Smooth and quiet operation
- ▶ Low maintenance with moving parts

FEATURES & DETAILS

- ▶ Eagle Fibre technology
- ▶ Very low penetration
- ▶ Shallow foundation
- ▶ Tested at 8m clear opening
- ▶ Robust and rigid
- ▶ Can swing in both directions
- ▶ Various designs available
- ▶ 240V 16A supply
- ▶ PLC design available with frequency inverter speed control
- ▶ 24V or 3 phase motor available
- ▶ Heavy duty hinges
- ▶ Manual over-ride system
- ▶ Protected with CAT3 safety edges
- ▶ Gate safety standard EN13241-1
- ▶ Hi/Lo safety photocells across threshold

SWING GATE CHALLENGER VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7500KG	N2	64	90	1.1



CLAW MOBILE HOSTILE VEHICLE BARRIER (BSI PAS68:2013) (IWA 14-1:2013)

PEACE OF MIND FOR ANY EVENT



CLAW is a portable hostile vehicle barrier that can be readily deployed for short term events or used for more permanent applications.

CLAW is unobtrusive by design and can be deployed amongst crowds who would be oblivious to the nature of its use. The option to sign post CLAW provides a unique advertising opportunity for your company and or event. Likewise, CLAW can be used for directional signage to channel pedestrian movement or for directing vehicles.

CLAW has been tested to a rigorous range of crash tests for compliance to recognised international standards.

FEATURES

- ▶ Surface Mounted - no ground anchors
- ▶ Can be sign posted for advertising or directional signage
- ▶ Pedestrian friendly
- ▶ Does not require jointing to adjacent units
- ▶ Non-hostile or threatening feel to people
- ▶ Mobile hostile vehicle barrier crash test certified to PAS68:2013 and IWA14-1:2013 recognised international standards

CLAW MOBILE HOSTILE VEHICLE BARRIER PERFORMANCE CLASSIFICATION

CLASSIFICATION	VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
PAS68:2013	V/1500KG	M1	64	90	3.9
PAS68:2013	V/3500KG	N1	64	90	7.3
IWA14-1:2013	V/1500KG	M1	64	90	4.7
IWA14-1:2013	V/3500KG	N1	64	90	8.2





CLAW MOBILE HOSTILE VEHICLE BARRIER (BSI PAS68:2013) (IWA 14-1:2013)

PEACE OF MIND FOR ANY EVENT



Test 1. IWA 14-1:2013 V/1,500(M1)/64/90:4.7/0 and PAS68:2013 V/1500(M1)/64/90:3.9/0

Crash test 1 Frame A

Crash test 1 Frame B

Crash test 1 Frame C

Crash test 1 Frame D



Test 2. IWA 14-1:2013 V/3,500(N1)/64/90:8.2/0 and PAS68:2013 V/3500(N1)/64/90:7.3/0

Crash test 2 Frame A

Crash test 2 Frame B

Crash test 2 Frame C

Crash test 2 Frame D



TRUCKSTOPPER 17

(BSI IWA14-1:2013) V/7200[N2A]/64/90:1.7

IWA 14-1 LOW COST SHALLOW MOUNT SINGLE FIXED/REMOVABLE BOLLARD



TRUCKSTOPPER 17 is the new addition to Safetyflex's 40mph/64kph shallow mount range with a new and improved penetration distance of just 1.7 metres. With just 200mm of foundation depth required, Truckstopper 17 is one of the shallowest single tested, low penetration distance bollards on the market today.

The shallow foundation reduces the need to re-divert utilities, making for a more cost-effective installation and reducing time on site. This patent protected design is the latest technological breakthrough from Safetyflex with a small foundation footprint which utilises our patented military-grade spring steel which has the ability to stop a 7.2 tonne truck travelling at 40mph/64kph with no damage to the internal bollard allowing for it to be reused.

The versatile Truckstopper 17 is available as a static or removable option and can be integrated with bespoke street furniture designs; including planters, benches and litterbins for a more discreet HVM solution.

APPLICATION

- ▶ Airports
- ▶ Sports Arenas
- ▶ Retail Parks
- ▶ Police Stations
- ▶ Critical Infrastructure
- ▶ Government Buildings
- ▶ Conference Centres

*"New Technology
breakthrough - foundation
only 200mm deep"*

TRUCKSTOPPER 17 IWA14-1 VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION	FOOTING DEPTH
V/7200KG	N2A	64	90	1.7	200



TRUCKSTOPPER 17

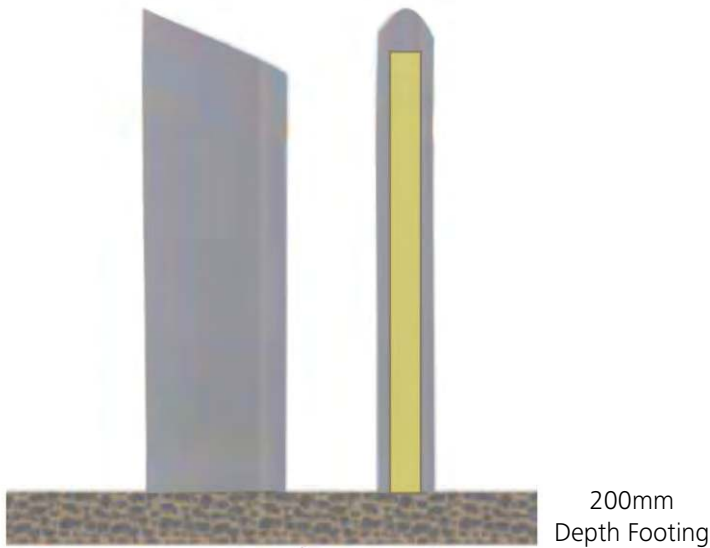
(BSI IWA14-1:2013) V/7200[N2A]/64/90:1.7

IWA 14-1 LOW COST SHALLOW MOUNT SINGLE FIXED/REMOVABLE BOLLARD



Spring Bollard Cover
Side View

Spring Bollard Cover
Front view



Foundation only 200mm deep x 1400mm wide x 1600mm long
Tested ad passed as a single removable bollard

SPECIFICATION

- ▶ **Height above ground:**
950mm
- ▶ **Footing Depth:**
Only 200mm
- ▶ **Options:**
Stainless steel & mild steel
shroud available

*Safetyflex also offer a selection
of shrouds and street furniture.
Details available on request.*



CRASH BLOCK 40

(BSI PAS68:2013) V/7500[N2]/64/90:5.5
(BSI IWA141:2013) V/7200[N2A]/48/90:4.1

FREE STANDING BLOCK CRASH TESTED AT BOTH 48 KMPH AND 64 KMPH



The world's only high speed (BSI.IWA14) Multiple Crash Tested Surface Mount Crash Block. As the growing threat of Terrorist Attacks on the public gets worse new ways of stopping them have been developed by the Safetyflex design team to give instant H.V.M Protection. Crash Block 40 is a Surface Mount Block that has a special unique design that lets the block just sit on the surface of the ground with no ground fixing. It is completely free standing.

Three High Speed Impact Tests were carried out on the block at (Horiba Mira) Vehicle Impact Testing Centre in the UK to BSi IWA14 N2A Impact test protocols. The first test was at 30mph/48km/h at 90 Degrees into the front face of the block. The second test was 40mph/64km/h at 90 Degrees into the front face of the Block. The third impact test was at 90 degrees into a gap of 1.2 meters between the two blocks at a speed of 30mph/48km/h with 7.5ton truck crashing into the gap, with a result of only 2.9 metres penetration only.

The great advantage with Crash Block 40-Plus is it can be a permanent or temporary solution as it only takes hours to install. They can also be dressed in a cladding of choice or fitted with a Planter with seating benches. All work can be done without disturbing existing groundwork. NO requirements for foundation.

CRASH BLOCK 40 VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7500KG	N2	64	90	5.5
V/7200KG	N2A	48	90	4.1



CRASH BLOCK 50

(BSI PAS68:2013) V/7500[N2]/64/90:5.5
(BSI IWA141:2013) V/7200[N3C]/80/90:19.1 (END FACE)

THE WORLD'S ONLY HIGH SPEED MULTIPLE CRASH TESTED BLOCK



As the growing threat of Terrorist Attacks on the public gets worse, new ways of stopping them have been developed by Safetyflex's design team to give instant H.V.M Protection. Crash Block 50 is a surface mount block that has a special, unique design that lets the block just sit on the surface of the ground with no ground fixing. It is completely free standing and can stop a 18 tonne GVW truck travelling at 50mph/80km/h.

Four high speed impact tests were carried out on the block at (Horiba Mira) UK to BSI IWA14 impact test protocols. The first test was at 30mph/48kph at 90 degrees with a 7.5 tonne truck into the front face of the block. The second test was 40mph/64kph at 90 degrees with a 7.5 tonne truck into the front face of the block. The third test was an 18 tonne truck at 50mph/80kph at 90 degrees into the end face of the block. All tests were carried out on the same block.

BONUS TEST

The blocks were impact tested at 90 degrees into a gap of 1.2 meters between the two blocks at a speed of 30mph/48kph with a 7.5 tonne truck crashing into the gap with a result of 2.9m penetration only.

The great advantage with Crash Blocks is that they can be permanent or temporary solutions as it only takes hours to install. They can also be dressed in a cladding of choice, or fitted with a planter with seating benches. All work can be done without disturbing existing ground work.

CRASH BLOCK 50 VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7500KG	N2	64	90	5.5
V/7200KG	N3C	80	90	19.1



PAS68 CYCLE RAIL

(BSI PAS68) V/7300[M1]/48/15:0.0 (BSI PAS68) V/7500[N2]/64/15:0.0
 (BSI PAS68) V/7300[M1]/48/90:1.5 (BSI PAS68) V/7500[N2]/6/90:2.6

HEIGHT ABOVE GROUND OF 750MM



Eagle Automation have a range of PAS68 tested products that support the street furniture scene. Our cycle hoop module is highly versatile and it can be used to create planters, railing systems and other similar products.

MODEL APT20CR

A zero penetration short height cycle hoop tested with the M1 3.5ton vehicle at 48kph. This product was extensively tested at 2 angles. Designed to complement existing street furniture. Shallow depth foundation of just 250mm. Available in a variety of heights (minimum 750mm above ground) . Available with gaps between 800mm and 1200mm. Suitable for securing bikes, scooters and motorcycles. Galvanised, painted or stainless steel finish.

MODEL APT40CR

A zero penetration cycle hoop tested with the N2 7.5ton vehicle at 64kph. This product was extensively tested at 2 angles. Designed to complement existing street furniture. Impact tested and approved at 7.5 tonne 40mph Shallow depth foundation of just 250mm. Height above ground 1000mm. Available with gaps between 800mm and 1200mm. Suitable for securing bikes, scooters and motorcycles. Galvanised, painted or stainless steel finish.

SPECIFICATIONS

- ▶ **Height above ground**
 APT20CR - 750mm
 APT40CR - 1050mm
- ▶ **Shallow foundation**
 2000mm x 2000mm x 250mm
- ▶ **Supplied as a pair with integral connections**
- ▶ **No re-bar required**



CYCLE RAIL PAS68 VEHICLE PERFORMANCE CLASSIFICATION

MODEL	VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION	25KG+ DISPERSION
APT20CR	V/7300KG	M1	48	15	0.0	0.0
APT20CR	V/7300KG	M1	48	90	1.5	0.0
APT40CR	V/7500KG	N2	64	15	0.0	0.0
APT40CR	V/7500KG	N2	64	90	2.6	0.0



TRUCKSTOPPER 7-40

(BSI PAS68:2010) V/7500 (N2)/64/90:7.1/14.8
(BSI IWA 14:2013) V/7200 (N2A)/64/45:3.3

PAS 68 LOW COST SHALLOW MOUNT SINGLE FIXED/REMOVABLE BOLLARD



The unique, patented technology TRUCKSTOPPER 7-40 has a small and super lightweight base plate and post assembly (heaviest item in assembly only 46kg). This breakthrough design in a removable single bollard system with shallow footing only 200mm deep stops a 7.5 tonne truck at 40 mph or 64kph at 90 degrees from breaking through security line. If access is needed the bollard can be removed in minutes.

The 200mm footing depth greatly minimises the need to re-divert utilities. The system is the most economical on the market and very aesthetically pleasing as well as small and easy to install. This system is designed to follow changing contours of ground level as well as continuing around corners. If the posts are damaged after an attack they can be removed from the slipper box without removing or replacing the concrete foundation.

The system has also been crash test certified for impact at 450 by a 7.2 tonne truck at 40 mph or 64kph, conceding minimal penetration (3.3 metres) as a triple assembly.

APPLICATION

- ▶ Airports
- ▶ Sports Arenas
- ▶ Retail Parks
- ▶ Police Stations
- ▶ Critical Infrastructure
- ▶ Government Buildings
- ▶ Conference Centres

*"New Technology
breakthrough - foundation
only 200mm deep"*

TRUCKSTOPPER 7-40 VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION	25KG+ DISPERSION	FOOTING DEPTH
V/7500KG	N2	64	90	7.1	14.8	200
V/7200KG	N2A	64	45	3.3		200



TRUCKSTOPPER 7-40

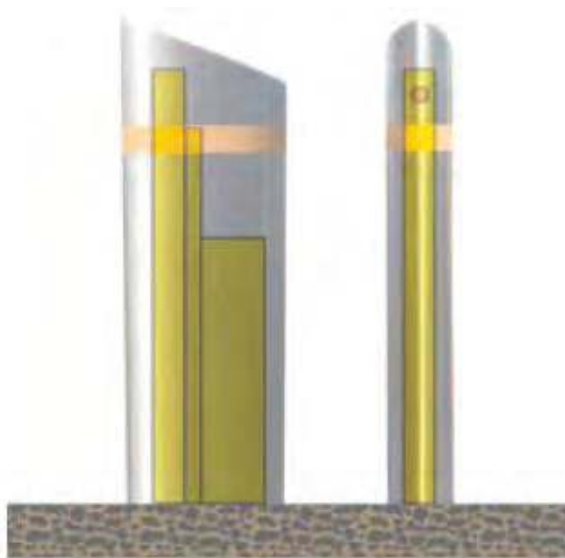
(BSI PAS68:2010) V/7500 (N2)/64/90:7.1/14.8
(BSI IWA 14:2013) V/7200 (N2A)/64/45:3.3

PAS 68 LOW COST SHALLOW MOUNT SINGLE FIXED/REMOVABLE BOLLARD



Spring bollard cover
side view

Spring bollard front
side view



200mm
Depth Footing

Foundation only 200mm deep x 900mm wide x 1200mm long
Tested and passed as a single removable bollard

SPECIFICATION

- ▶ **Height above ground:**
900mm
- ▶ **Footing Depth:**
Only 200mm
- ▶ **Options:**
Stainless steel & mild steel
shroud available

*Safetyflex also offer a selection
of shrouds and street furniture.
Details available on request.*



Ezi Security Systems
SERIOUS SECURITY IS EZI

safetyflex
ANTI-TERRORIST BOLLARDS
RABBITFC & CRASH FENCEFC

PSSA
Partner Security Suppliers Association

ASIAL
MEMBER
AUSTRALIAN SECURITY INDUSTRIES ASSOCIATION

ENTRAQUICK FOLDING GATE I

STATE OF THE ART FOUNDATION AND REINFORCEMENT



Our EntraQuick® quick folding gate is a TÜV type-tested, trackless bi-hinged gate, which is ideally suited to keep your driveways secured and pedestrian safe. Due to its trackless design, it offers high-speed capability allowing a quick opening and closing after every vehicle entry or exit. This makes it efficiently support smooth workflows in everyday operation, practically on train railways and busy parking lots.

EntraQuick® provides full-height perimeter protection in its closed position. EntraQuick Folding Gate offers trackless and unobstructed security for each entry or exit situation. It's fully cantilevered and has been designed with rationality in mind. This product is also known as a smart security solution designed as a combination of a barrier and a gate.

EntraQuick® is particularly stable and doesn't require an additional floor lock in the closed position. Due to its solid bar infill and the ingenious lever kinematics, no run-back area is required for this solution.

EntraQuick® Folding Gates can be installed easily and quickly thanks to pre-assembled drive posts and folding leaf units. It is driven by two AC motors. The gate leaves fold open inwards towards the secure site and each leaf can be opened separately if required.

The quick folding gates are perfect substitutes for the combined sliding gate and barrier installation at access points. In combination with the Ezi turnstiles, it creates a vehicle access point with pedestrian separation.



STANDARD TECHNICAL SPECIFICATIONS

Dimensions	Clear Width (CW): from 3000 - 6000 mm in 500 mm increments Distance between posts: CW + 520 mm Gate height (incl. 100 mm ground clearance): 2050 or 2450 mm Foundation depth: 900 mm Foundation top edge: 200 mm below finished floor level Optional: alternative floor recess for up to 200 mm lowered foundation
Opening Direction	Opening inwards Optional: opening outwards
Opening Angle	90° maximum opening
Gate Leaves	Gate leaves frame made of rectangular hollow section RHS 80x60x3
Gate Infill	Bar infill made of rectangular hollow section RHS 30x20 with a clear distance of max. 120 mm
Anti-Climbing Device	Serrated top rail



ENTRAQUICK FOLDING GATE I

STATE OF THE ART FOUNDATION AND REINFORCEMENT



STANDARD TECHNICAL SPECIFICATIONS

Gate Posts	Drive posts made of square hollow section SHS 200x6 complete with welded-on top plate and base plate to bolt onto foundation. Optional: Post(s) fitted with fence connection system	Control Devices	Induction loops, additional light beam in light beam posts at HGV height, additional key switch OPEN/ CLOSE / STOP, key switch OPEN / CLOSE / EMERGENCY STOP, key switch ON / OFF for automatic closing etc., key switch partial opening, key switch fire brigade, remote control with hand held transmitter, table top push button, timer, code key pad, card reader, intercom system
Locking	Locking via drive system and mechanical locking device consisting of gate reception fork on one folding gate leaf and infeed rollers on the other folding gate leaf.	Signalling Devices (Optional)	Flashing permanent light or rotating beacon (LED), LED spot light, traffic light
Operating Speed	Up to 1.0 m/s (double leaf, depending on CW)	Status Indication (Optional)	Potential-free contacts "Gate open/closed"
Drive Unit	Drive unit systems consisting of gearbox motor, base plate, drive arm, manual release, limit switches, limit switch cams and drive unit cover. Motor: 0.25 kW, 3~ 230 V Δ, 50 Hz	Finish	Hot-dip galvanised finish or hot-dip galvanised and powder-coated in Standard RAL colour 6005, 7016, 7030, 7035 or 9010 Optional: all other RAL colours
Emergency Operation (Power Failure)	Manual operation following removal of padlock and release of drive arm	Control Unit	Control unit WE-Tronic II complete with 2 nos. frequency converters 0.75 kW in control box HxWxD=600x400x210 mm, prepared for automatic functions, control voltage 24 V DC.
Supply Voltage	230 V (1Ph + N + PE), 50 Hz	Control Box	Fitted with rain cover and mounted to one of the drive posts Optional: for wall installation inside a building, max. distance 50 m Optional: installed in separate outdoor cabinet HxWxD=1200x600x400 mm incl. 200 mm high socket, max. distance 50 m
Control Device	1 no. key switch "Open-Stop-Close" in one of the drive posts (on the outside for opening direction inwards and on the inside for opening direction outwards respectively)	Weight	Approx. 650 kg for maximum applicable dimension
Safety Devices	Safety edges to stop and reverse the gate by approx. 10 cm in opposite direction on contact. 4 nos. horizontal safety edges on bottom rails 2 nos. vertical safety edges on front side stiles Light beam between drive posts at car and HGV height as well as in separate light beam posts on the side of the folded gate leaves at car height	Foundation	Reinforced foundation according to manufacturer's instructions
Certification	Type-tested by notified body TÜV Nord		

ENTRAQUICK FOLDING GATE II

STATE OF THE ART FOUNDATION AND REINFORCEMENT



Our EntraQuick® quick folding gate is a TÜV type-tested, trackless bi-hinged gate, which is ideally suited to keep your driveways secured and pedestrian safe. Due to its trackless design, it offers high-speed capability allowing a quick opening and closing after every vehicle entry or exit. This makes it efficiently support smooth workflows in everyday operation, practically on train railways and busy parking lots.

EntraQuick® provides full-height perimeter protection in its closed position. EntraQuick Folding Gate offers trackless and unobstructed security for each entry or exit situation. It's fully cantilevered and has been designed with rationality in mind. This product is also known as a smart security solution designed as a combination of a barrier and a gate.

EntraQuick® is particularly stable and doesn't require an additional floor lock in the closed position. Due to its solid bar infill and the ingenious lever kinematics, no run-back area is required for this solution.

EntraQuick® Folding Gates can be installed easily and quickly thanks to pre-assembled drive posts and folding leaf units. It is driven by two AC motors. The gate leaves fold open inwards towards the secure site and each leaf can be opened separately if required.

The quick folding gates are perfect substitutes for the combined sliding gate and barrier installation at access points. In combination with the Ezi turnstiles, it creates a vehicle access point with pedestrian separation.



STANDARD TECHNICAL SPECIFICATIONS

Control Devices	Induction loops, additional light beam in light beam posts at HGV height, additional key switch OPEN/ CLOSE / STOP, key switch OPEN / CLOSE / EMERGENCY STOP, key switch ON / OFF for automatic closing etc., key switch partial opening, key switch fire brigade, remote control with hand held transmitter, table top push button, timer, code key pad, card reader, intercom system
Signalling Devices (Optional)	Flashing permanent light or rotating beacon (LED), LED spot light, traffic light
Status Indication	Potential-free contacts "Gate open/closed"
Finish	Hot-dip galvanised finish or hot-dip galvanised and powder coated in Standard RAL colour 6005, 7016, 7030, 7035 or 9010 Optional: all other RAL colours
Weight	Approx. 1100 kg for maximum applicable dimension
Foundation	Reinforced foundation according to manufacturer's instructions



ENTRAQUICK FOLDING GATE II

STATE OF THE ART FOUNDATION AND REINFORCEMENT



STANDARD TECHNICAL SPECIFICATIONS

Dimensions	Clear Width (CW): from 2000 - 5000 mm in 500 mm increments Distance between posts: CW + 400 mm Gate height (incl. 100 mm ground clearance): 2050 mm, 2550 mm (only for CW ≤ 4000 mm) or 3050 mm (only for CW ≤ 4000 mm) Foundation depth: 900 mm Foundation top edge: 200 mm below finished floor level Optional: alternative floor recess for up to 200 mm lowered foundation	Drive Unit	Drive unit system consisting of gearbox, motor, base plate, drive pulley, drive belt, drive arm, manual release, limit switches, limit switch cams and drive unit cover Motor: 0.37 kW, 3~ 230 V Δ, 50 Hz
		Emergency Operation (Power Failure)	Manual operation following removal of padlock and release of drive arm
Opening Direction Viewed from outside	Left hand, opening inwards or right hand, opening inwards. Optional: Left hand, opening outwards or right hand, opening outwards	Control Unit	Control unit WE-Tronic II complete with frequency converter 0.75 kW in control box HxWxD=600x400x210 mm, prepared for automatic functions, control voltage 24 V DC.
Opening Angle	90° maximum opening	Control Box	Fitted with rain cover and mounted to drive post Optional: for wall installation inside a building, max. distance 50 m Optional: installed in separate outdoor cabinet HxWxD=1200x600x400 mm incl. 200 mm high socket, max. distance 50 m
Gate Leaves	Gate leaf frame made of square hollow section SHS 100x5 (inner/leading gate leaf) and SHS 100 x 4 (outer/trailing gate leaf) respectively.	Supply Voltage	230 V (1Ph + N + PE), 50 Hz
Gate Infill	Bar infill made of square hollow section SHS 30 with a clear distance of max. 120 mm.	Control Device	CONTROL DEVICE: 1 no. key switch "Open-Stop-Close" in drive or receiving post
Anti-Climbing Device (Optional)	Serrated top rail or steel spikes D18, 100 mm long, centre distance max. 80 mm (from 2550 mm gate height)	Safety Devices	Safety edges to stop and reverse the gate by approx. 10 cm in opposite direction on contact. 3 nos. horizontal safety edges on bottom rails 1 no. vertical safety edge on front side stile Light beam between drive post and receiving post at car and HGV height as well as in separate light beam posts on the side of the folded gate leaf at car height 1 no. active infrared presence detector (for EntraQuick® with 2050 mm gate height)
Gate Posts	Drive and receiving post made of square hollow section SHS 260x10 complete with welded-on top plate and base plate to bolt onto foundation. Optional: Post(s) fitted with fence connection system	Certification	Type-tested by notified body TÜV Nord

TRUCKSTOPPER 9-50

(BSI IWA 14-1:2013) V/7200[N3C]/80/90:10.5

SUPER SHALLOW FOUNDATION ONLY 200MM DEEP



AT LAST A NEW DESIGN THAT DOES ALL THIS...

- ▶ Shallow foundation only 200mm deep - Reducing the need to re-divert utilities
- ▶ Bollard overall height out of the ground is only 950mm
- ▶ This bollard can be fixed or removable
- ▶ Comes in break down kits allowing for ease of transport and installation - keeping costs down
- ▶ Very aesthetically pleasing

This new Anti Terrorist Bollard, has been designed with the added advantage that the slipper box (or post socket box) can be moved separately and is not rigid. The box can be swivelled around a corner of 90 degrees or more if needed and can adapt to an up and down sloping surface without having to change the box design.

APPLICATION

- ▶ Airports
- ▶ Sports Arenas
- ▶ Retail Parks
- ▶ Police Stations
- ▶ Critical Infrastructure
- ▶ Government Buildings
- ▶ Conference Centres



FOUNDATION
200MM DEEP

ONLY
950MM HIGH

REMOVABLE
BOLLARD

TRUCKSTOPPER 9-50 VEHICLE PERFORMANCE CLASSIFICATION

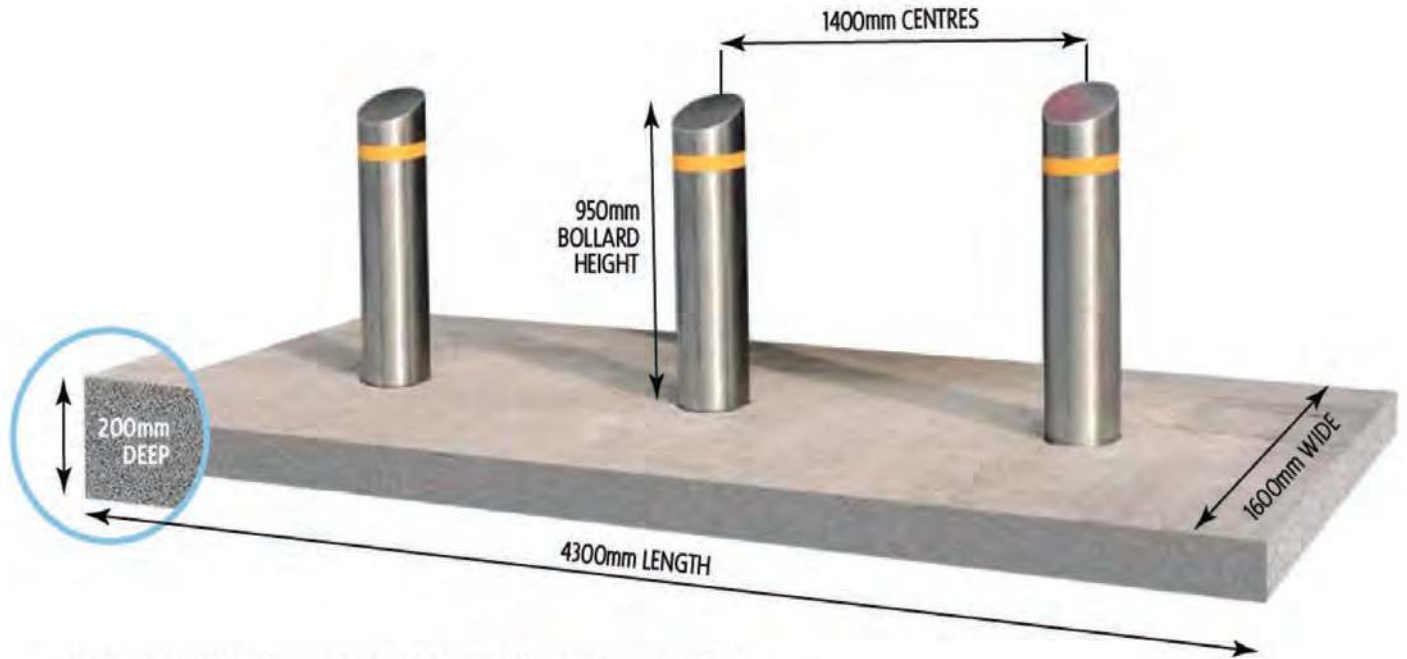
VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7200KG	N3C	80	90	10.5



TRUCKSTOPPER 9-50

(BSI IWA 14-1:2013) V/7200(N3C)/80/90:10.5

SUPER SHALLOW FOUNDATION ONLY 200MM DEEP



FOUNDATION SIZE FOR THREE BOLLARD RUN

International Patents applied for



ENTRAQUICK PU30 FOLDING GATE (BSI PAS68:2013) V/2500[N1G]/48/90/1.2/0.0 (BSI IWA14-1:2013) V/2500[N1G]/48/90/1.3

PAS & IWA TEST CERTIFIED - 2500KG PU TRUCK AT 48KMPH 90 DEGREES



The Elkosta Quick Folding gate EntraQuick® PU30 is an innovative single leaf bi-folding gate. Unlike traditional access control products - such as sliding gates and barriers - it offers ultimate security for vehicle access points. It provides full height perimeter protection paired with very short operating times as well as impact resistance through its unique self-locking arrestor system.

The appeal of the arrestor system lies in its simplicity. The interceptor rod only engages in the catch hooks on the receiving post in the event of a vehicle impact, thereby rendering superfluous any unlocking action normally required prior to gate operation. The arrestor system is designed to prevent forceful entry of a pickup truck travelling at 50 km/h. The gate is designed for continuous operation and is therefore predestined for use at highly frequented locations such as logistic centres or ports.

The EntraQuick® PU30 boasts a trackless design which impresses not only with exceptional sturdiness, but also with its reliability and low maintenance requirements. It is well suited for passage of heavy and large trucks as there is no track or locking facilities in the driveway and no top guide rail limiting the passage height. The gate is securely locked in the closed position via a drive mechanism supported by interlocking of gate leaf and receiving post through in-feed roller and reception fork.

AT A GLANCE

- ▶ Impact resistance proven by vehicle impact simulation
- ▶ Obstruction free passage due to trackless design
- ▶ Fast operating times
- ▶ Easy installation due to pre-assembled drive post and folding leaf unit and factory wired drive and control unit
- ▶ Installation in all climate zones possible
- ▶ Reliable operation and low maintenance
- ▶ Release facility for manual operation during power failure



ENTRAQUICK PU30 FOLDING GATE (BSI PAS68:2013) V/2500[N1G]/48/90/1.2/0.0 (BSI IWA14-1:2013) V/2500[N1G]/48/90/1.3

PAS & IWA TEST CERTIFIED - 2500KG PU TRUCK AT 48KMPH 90 DEGREES



STANDARD TECHNICAL SPECIFICATIONS

Design	Single leaf quick folding gate with gate leaf, drive post, receiving post, self-locking arrestor system, electro-mechanical drive and control unit	Emergency operation (during power failure)	By manual release of drive arm and unlocking of locking bolt
Impact Energy	241 kJ (2.5t @ 50 km/h)	Locking/release time	Approx. 3 seconds
Certification	Certified according to PAS 68:2013 V/2500[N1G]/48/90/1.2/0.0 and IWA 14-1: 2013 V/2500[N1G]/48/90/1.3 The achieved vehicle penetration corresponds to P1 based on datum points according to ASTM F2656/F2656M-18a	Control Box	HxWxD = 600x400x210 mm, IP66 <ul style="list-style-type: none"> with rain cover, mounted to drive post (std) for wall installation inside a building, max. distance 50 m (optional) in separate outdoor cabinet HxWxD = 1200x600x400 mm incl. 200 mm high socket, max. distance 50m (optional)
Clear Width (CW)	2000mm - 4000mm in 500mm increments	Control Unit	Automatic control (maintained command) WE-Tronic II with frequency converter, control voltage 24 V DC
Distance between posts	CW + 400mm	Supply voltage	230 V (1Ph + N + PE), 50 Hz
Gate Height	2050 mm, 2550 mm and 3050 mm incl. 100 mm ground clearance	Safety standards	Based on the design of the according to DIN EN 13241-1:2003 type-tested EntraQuick® II and furnished with identical standard safety devices
Gate Frame Profiles	Square hollow section SHS 100x5 (inner/leading gate leaf) Square hollow section SHS 100x4 (outer/trailing gate leaf)	Safety devices	4 nos. safety edges. Light beam between drive post and receiving post at car and HGV height as well as in separate light beam posts on the side of the folded gate leaf at car height Active infrared-presence detector (for EntraQuick with 2050 mm gate height)
Drive/receiving post	Square hollow section SHS 260x10 with base plate to bolt on	Lowered foundation	Top edge of foundation 200 mm below finished floor level
Arrestor system	Consisting of rope system with rope cover, rope fastener, articulated rope joints, clamps, active locking via actuator and tension rods with anchorage	Operating speed	Max. 0.5 m/s (depending on CW)
Opening direction	Left hand, opening inwards or right hand, opening inwards (standard)	Control devices (standard)	1 no. key switch OPEN / STOP / CLOSE in drive or receiving post



ENTRAQUICK PU30 FOLDING GATE (BSI PAS68:2013) V/2500[N1G]/48/90/1.2/0.0 (BSI IWA14-1:2013) V/2500[N1G]/48/90/1.3

PAS & IWA TEST CERTIFIED - 2500KG PU TRUCK AT 48KMPH 90 DEGREES

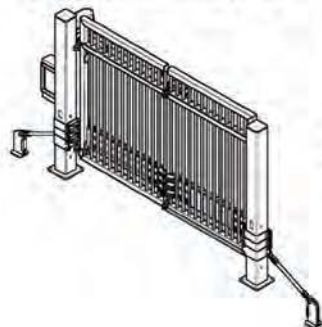


STANDARD TECHNICAL SPECIFICATIONS

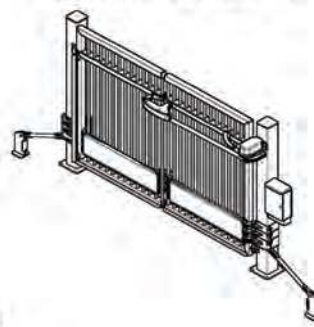
Control devices (optional)	Induction loops, additional light beam in light beam posts at HGV height, additional key switch OPEN/ CLOSE / STOP, key switch OPEN / CLOSE / EMERGENCY STOP, key switch ON / OFF for automatic closing etc., key switch fire brigade, remote control with hand held transmitter, table top push button, timer, code key pad, card reader, intercom system	Finish (standard)	Hot-dip galvanised finish (with cover panels in RAL 7035 light grey) Hot-dip galvanised and powder-coated in RAL 6005 moss green, RAL 7016 anthracite grey, RAL 7030 stone grey, RAL 7035 light grey or RAL 9010 pure white
Signalling devices (optional)	Flashing permanent light or rotating beacon (LED), LED spot light, (Optional): traffic light	Finish (optional)	Hot-dip galvanised and powder-coated in other RAL colours
Options	Serrated top edge, steel spikes (from 2550 mm gate height), key safe, fence connection systems, heater for control unit and actuator, special infills on request	Temperature range	Control unit: -10 °C ... +50 °C Drive: -45 °C ... +50 °C Actuator of locking device: -10 °C ... +50 °C
Weight	Approx. 1450kg for maximum applicable dimension		

STANDARD TECHNICAL DRAWING

QFG PU30 viewed from the outside



QFG PU30 viewed from the inside



EZI TRUCKSTOPPER (BSI PAS68) V/7500/80/90:5.3/2.0

A TOTAL SOLUTION TO ALL PORTAL SECURITY RISKS



The Ezzi TruckStopper™ and TruckStopper™ RDSM (Rapid Deployment Shallow Mount) are the ultimate sliding gate systems. Both TruckStopper™ gate systems are specifically designed to stop all threats, from pedestrians to speeding trucks.

The unique design of the TruckStopper™ affords true bi-directional impact protection and is therefore ideal for all critical infrastructure applications. It has obvious applications ranging from correctional facilities, public utilities, administration centres, critical defence sites, courts, customs/border control, airports, refineries and many other designated high risk areas.

Because the TruckStopper™ is essentially a cantilever design, the system is capable of high speed opening and closing times with unrivalled reliability. Accordingly, the Ezzi TruckStopper™ is capable of variable opening and closing speeds of up to 1.5 metres per second.

All mechanicals and electronics are above ground for ease of installation, maintenance and reliability under all conditions. Its state of the art electronics provide a true 100% duty cycle product with reliability through proven industrial quality components, PLC (programmable logic control), and UPS (uninterrupted power supply) as a back-up.

All TruckStopper™ gates have an array of sophisticated safety devices designed to protect people and vehicles. These safety systems will affect a complete stop within 300mm from full speed operation. However, the safety system can be immediately overridden in the event of an emergency by the use of a button, switch or joystick control.

Like other Ezzi designs, the gate is of a modular design comprising of two buttresses, back rail and battering ram (gate frame). Our main support and rolling platform are well balanced and provides smooth and efficient operations. The drive buttress access door has various anti tamper controls installed and has a SCEC approved lock for added confidence and security.

The flexibility of the TruckStopper™ design allows it to be modified to cater for specific top of gate requirements, such as electric fence applications, anti pedestrian/climbing barriers, and walls of up to four metres in height.

The TruckStopper™ may also be utilised as a stand alone anti-vehicle barrier and is ideal for sanitation portal protection, with or without top of gate barriers.

Another significant benefit of the Ezzi TruckStopper™ is that all footing and civil works are performed off the road thereby avoiding roadway closures which can be inconvenient and costly to your business. Indeed, being a cantilever design, the system is unaffected by road crowns, kerbs or falls for drainage on roads.

A crash tested and proven design the TruckStopper™ and TruckStopper™ RDSM (rapid deployment shallow mount) have both been the subject of rigorous design appraisal and testing regimes by government agencies in Australia and the UK. A test in November 2004 of a speeding 7.26 ton truck in NSW proved the absolute effectiveness of the TruckStopper™ gate system. The test vehicle, an ex NSW Fire Truck, was completely stopped within 800mm from a full throttle collision at 67.5kph. As a consequence of this successful test and other system evaluations, the TruckStopper™ gate system has been given SCEC approval by the Australian Government.

A subsequent series of tests were also conducted at the TRL Test facility at Crowthorne UK in 2005. These tested the new TruckStopper™ RDSM (rapid deployment shallow mount) gate system. In two tests the gate systems were bolted into shallow concrete only 150mm thick. Both tests were outstanding successes as TruckStopper™ RDSM destroyed a 7.5 ton truck speeding at 82.3kph.

This test was an absolute world first and proved beyond doubt the viability of the rapid deployment capabilities of the TruckStopper™ RDSM system. These successful tests resulted in the UK Government endorsement of the system. The real beauty of the TruckStopper™ RDSM system is that the gate can be easily moved from one site to another on the back of a truck. Used in conjunction with temporary fencing or barriers, the TruckStopper™ RDSM can be quickly installed to control both traffic and pedestrians for special event/s or heightened risk scenario.

The TruckStopper™ and TruckStopper™ RDSM systems are fully compatible with all access control systems. The Ezzi TruckStopper™ already protects many significant government and private industry assets.



EZI TRUCKSTOPPER (BSI PAS68) V/7500/80/90:5.3/2.0

A TOTAL SOLUTION TO ALL PORTAL SECURITY RISKS



STANDARD TECHNICAL SPECIFICATIONS

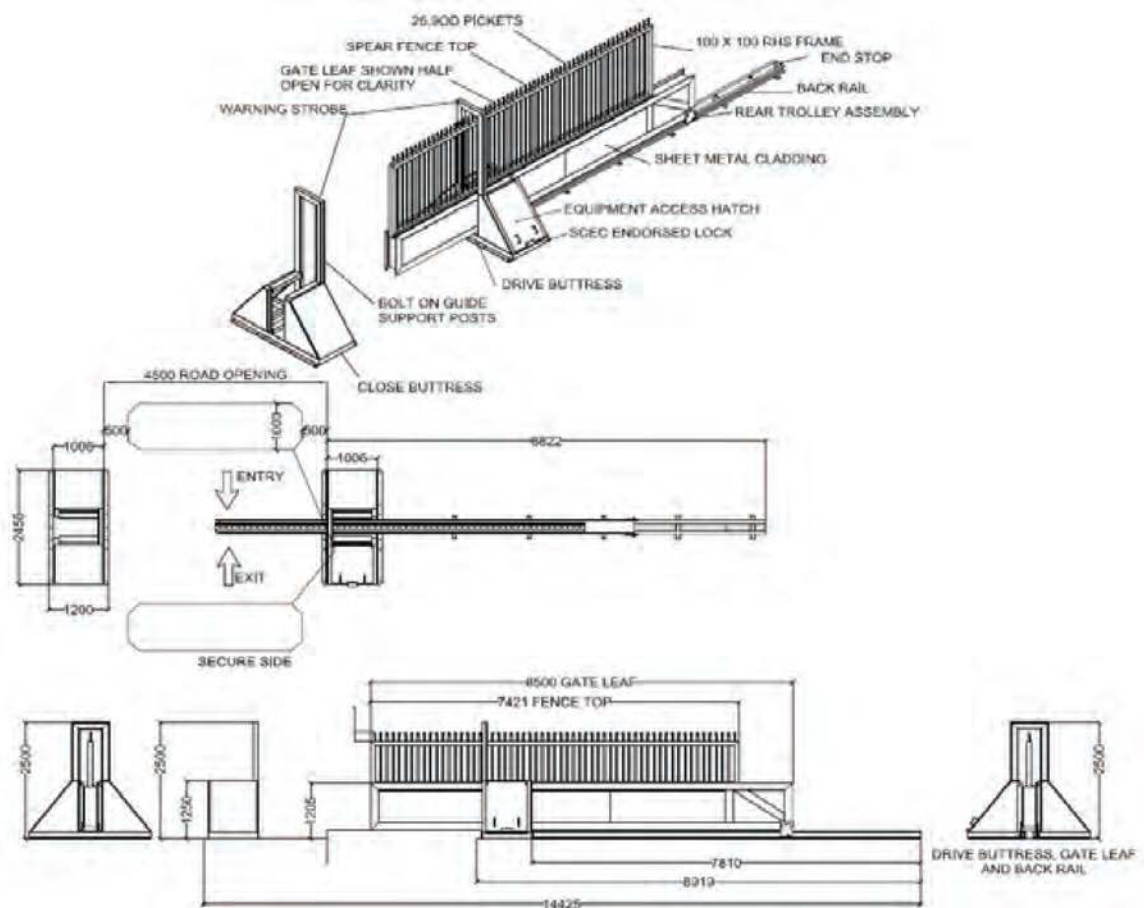
Gate width	3 metres to 6 metres (variable)	Main roller	Zinc plated, mild steels (150 ton rated)
Bottom gate height	1015mm standard	Motor release	Bolted bracket
Gate clearance	185mm nominal	Motor	4KW, 240V, three phase brake motor (50Hz)
Top fence height	2000mm	Gearbox	Helical (ratio's variable)
Erected system height	3200mm nominal	Brake	Electromagnetic, 240V power to release
Gate frame	Beam	Drive cog	120mm brass, 100mm wide
Receiver buttress	100mm RHS	Drive rack	50mm sq zinc plated mild steel
Drive buttress	100mm RHS	Control logic	True PLC, 24V DC with expansion unit
Gate buttress height	1200mm nominal	Drive logic	VSD 240V single phase to 240V three phase
Gate buttress cladding	Sheet metal (3.0mm)	Power supply	Regulated 240V to 24V DC
Gate buttress length	2460mm	Control enclosure	IP56, mild steel, painted, 700 x 500 x 250
Gate buttress width	1200mm	Position sensing	Proximity sensors, NPN 24V DC
Access door	5.0mm sheet metal gas strut	Safety (pedestrian)	Photo beam set (transmit and receiver type)
Gate back rail	Twin 150 C Channels	Safety (vehicle)	Inductive loops & detectors, 24v DC, fail safe
Gate finish	Sand blasted 2 pack painted to clients requested	Gate duty cycle	True 100% cycling as per Ezi's standard
Gate bearings	Fully sealed, 40t rating each	Power requirement	240V, 32 amp supply
Guide rollers	Black PVC nylon	Strobe light	Orange, 24V DC
Piezo	24V DC (pulsing) backup power supply UPS up to 20 full cycles		

EZI TRUCKSTOPPER (BSI PAS68) V/7500/80/90:5.3/2.0

A TOTAL SOLUTION TO ALL PORTAL SECURITY RISKS



STANDARD TECHNICAL DRAWING



CITY PROTECTOR 40

(BSI PAS68:2013) V/7500[N2]/64/90:0.3/15.7
(BSI IWA14-1:2013) V/7200[N2A]64/90:0.7

MARKET INNOVATION WITH INCREDIBLE ZERO PENETRATION



CityProtector M40 – market innovation with incredible ZERO penetration

Bollards in tube form have been used for centuries. The R&D team from Perimeter Protection Group questioned this and entered completely new paths. For the new bollard design, they were inspired by the biomechanics of nature, especially the shark tooth.

Prior to the market launch, the new bollard was crash tested. The CityProtector M40 passed the impact almost unscathed with complete destruction of the vehicle. The penetration distance of zero is an incredible result and unrivalled in the high security market. The less the penetration, the safer the area for public life.

The shallow foundation depth of only 220 mm is particularly important. Especially in inner cities, where pipes, underground garages and other structures run underneath the surface, every millimeter counts. This makes it easier to carry out construction projects.

During development, it was ensured that the CityProtector can be assembled and disassembled manually by only one person. This means that heavy machinery such as cranes or forklifts are no longer required.

A unique feature is the individual design, which can be adapted to the cityscape. Our CityProtector has a multi-layered structure and can be customised in colour and shape. The integration as street furniture invites the citizens to interact and thus helps to increase the acceptance enormously.

APPLICATION

- ▶ Parking lots
- ▶ Sports Arenas
- ▶ Shopping Centers
- ▶ Airports
- ▶ Train stations
- ▶ Conference Centres



CITY PROTECTOR 40 VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7500KG	N2	64	90	0.3
V/7200KG	N2A	64	90	0.7



CITY PROTECTOR 50

(BSI IWA14-1) V/7200[N2A]180/90:4.3

MARKET INNOVATION TO PROTECT AREAS FOR PUBLIC LIFE



CityProtector M50 – market innovation to protect areas for public life

Bollards in tube form have been used for centuries. The R&D team from Perimeter Protection Group questioned this and entered completely new paths. For the new bollard design, they were inspired by the biomechanics of nature, especially the shark tooth.

Prior to the market launch, the new bollard was crash tested. The CityProtector M50 passed the impact almost unscathed with complete destruction of the vehicle. The penetration distance is an incredible result and unrivalled in the high security market. The less the penetration, the safer the area for public life. Popular solutions are benches, planters, bicycle racks, rubbish bins and more.

The shallow foundation depth of only 220 mm is particularly important. Especially in inner cities, where pipes, underground garages and other structures run underneath the surface, every millimeter counts. This makes it easier to carry out construction projects.

During development, it was ensured that the CityProtector can be assembled and disassembled manually by only one person. This means that heavy machinery such as cranes or forklifts are no longer required.

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APPLICATION

- ▶ Parking lots
- ▶ Sports Arenas
- ▶ Shopping Centers
- ▶ Airports
- ▶ Train stations
- ▶ Conference Centres



CITY PROTECTOR 50 VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7200KG	N2A	80	90	4.3



HEAVY INDUSTRIAL SLIDING GATE

RELIABLE AND TROUBLE-FREE PERFORMANCE



The Ezi Heavy Industrial Sliding Gate System is based on the principles of counter balancing. These systems are designed and engineered to Ezi's exacting calculations and standards with a strong emphasis on safety. Each Heavy Industrial Sliding Gate System comprises the following important mechanical modules. The modules consist of the gate main support tower, the gate leaf, the gate back rail and the end post. When bolted together, the main tower and back rail form the main support and rolling platform for the gate leaf. The gate leaf is then attached to this platform with two back-check plate roller sets. The roller sets, when bolted on, lock the sliding gate leaf within the confines of the gate back rail.

The gate system is then bolted to a concrete footing that has been engineered to provide adequate weight to counter-balance the gate system. The combination of gate design and concrete footing allows the gate to roll out over the relevant road opening, without tipping or sagging, basically traveling in free air.

Up to 10 metre road widths (for a single gate) are standard within our product range. The Heavy Industrial Sliding Gate System needs no road rails, tracks or overhead supports. Each Ezi Slide Gate is designed with automation features as standard. An industrial three-phase drive motor, PLC control logic, frequency inverter and proximity sensors are some of the highly advanced products used in Ezi's product range. Each Ezi PLC system allows for special features and auxiliary equipment to be added without major parts redundancy. e.g. traffic light controls, card access readers. Our main support and rolling platform is well balanced and provides smooth and efficient operations. Our standard cantilevered designs operate at variable speeds. These are adjustable to a maximum of 800mm per second of gate travel.

The Heavy Industrial Sliding Gate System is not affected by road crowns, kerbs or falls for drainage in roads. All associated works to install a Heavy Industrial Sliding Gate System are performed off to the side of the relevant road, thereby avoiding closures, which can be inconvenient and costly to your business. The Ezi Heavy Industrial Sliding Gate System has no equal in the industrial market place. Each system will perform reliably all day, every day.

"AT EZI, WE BELIEVE SAFETY SHOULD NOT BE AN OPTION. THAT IS WHY OUR SYSTEMS HAVE BEEN FULLY RISK ASSESSED TO BEST STANDARDS"

Our systems have been fully risk assessed to contemporary OH&S standards by an independent authority. Ezi Heavy Industrial Sliding Gate System has an extensive array of safety devices and features which form part of our standard product offering. Our wealth of knowledge and experience gained over the years has enabled Ezi to evolve and develop this premium product to suit a variety of ever-changing environments. The Ezi Heavy Industrial Sliding Gate Systems, as developed by Ezi, are purpose-built for the industrial market place. The key consideration is safety of operation without compromise to security. High levels of performance, aesthetically pleasing design and unrivalled reliability are also a feature.

The high performance and advanced technology built into the Ezi Slide Gate will ensure reliable operation for many years to come. Ezi boasts a large end-user customer base and continues to provide product and service to Australia's leading corporations.



HEAVY INDUSTRIAL SLIDING GATE

RELIABLE AND TROUBLE-FREE PERFORMANCE



STANDARD TECHNICAL SPECIFICATIONS

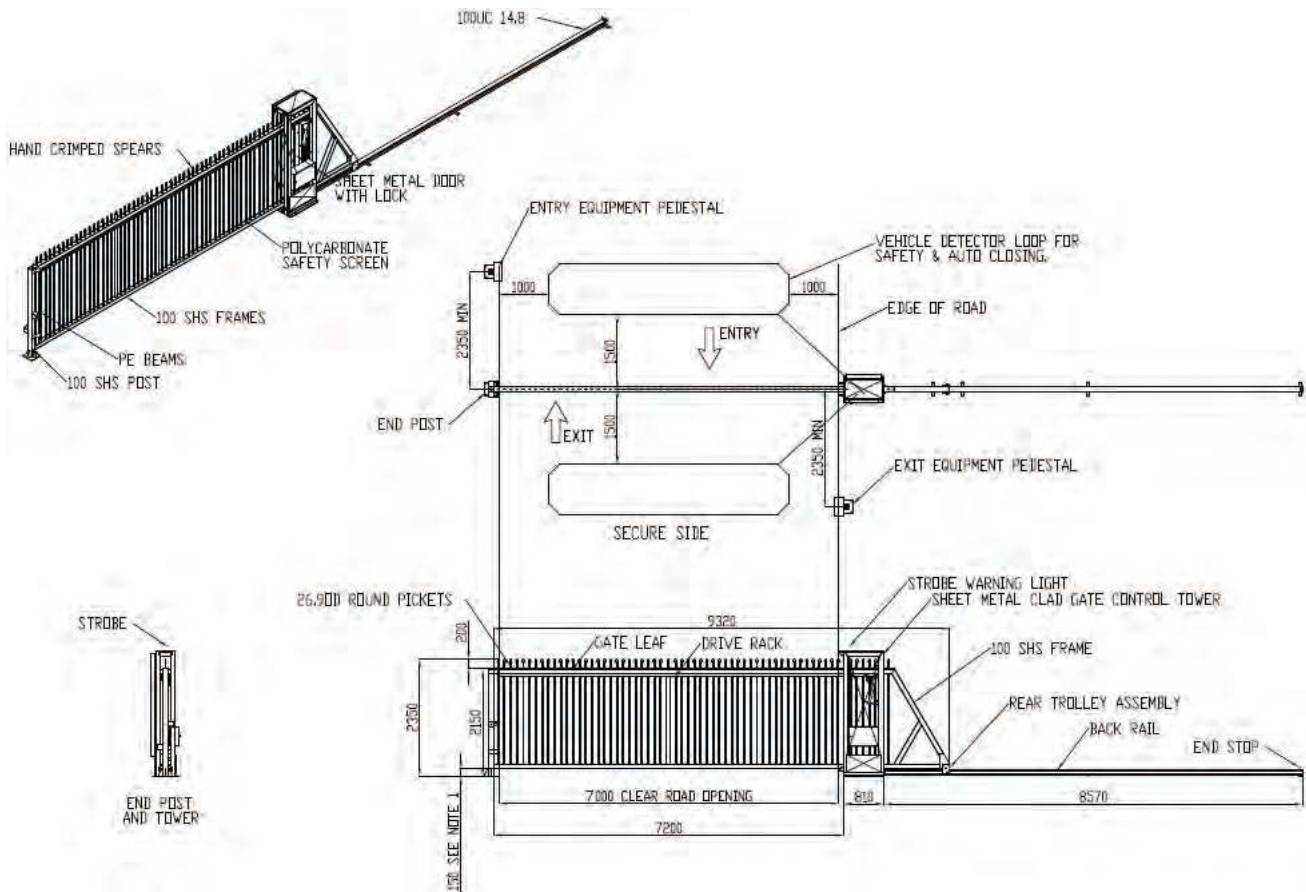
Gate width	3 metres to 12 metres (custom available)	Gearbox	Worm drive (ratio's variable)
Gate height	2200mm standard	Drive cog	Industrial grade nylon or brass
Gate clearance	150mm nominal	Drive rack	25mm sq zinc plated mild steel
Gate erected height	2350mm nominal	Control logic	True PLC, 24v DC
Gate frame	100mm sq RHS (minimum)	Drive logic	VSD 240v single phase to 240v three phase
Gate end post	100mm sq RHS	Power supply	Regulated 240v to 24v DC
Gate tower	100mm sq RHS	Control enclosure	IP56, mild steel, painted, 600 x 400 x 200
Gate tower height	2500mm nominal	Position sensing	Proximity sensors, NPN 24v DC
Gate tower cladding	Galvanised sheet metal (1.6mm)	Safety (pedestrian)v	Photo electric cells, 24v DC, fail safe
Gate back rail	102mm I beam	Safety (vehicle)	Inductive loops & detectors, 24v DC, fail safe
Gate finish	Hot dip galvanised (optional 2 pack paint)	Gate duty cycle	True 100% cycling as per Ezi's standard
Gate bearings	Fully sealed	Power Requirement	240v, 15 amp supply
Guide rollers	Black PVC nylon	Current draw	4 amp running, 8 amp start up
Main rollers	Zinc plated, mild steel (40 ton rated)	Strobe light	Orange, 24v DC
Motor release	Throw over quick release	Piezo	24v DC (pulsing)
Motor	0.75kw three phase brake motor	Polycarbonate	High impact safety screen

HEAVY INDUSTRIAL SLIDING GATE

RELIABLE AND TROUBLE-FREE PERFORMANCE



STANDARD TECHNICAL DRAWING



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CANTILEVER SLIDING GATE INTERROGATOR

(BSI PAS68:2013) V/7500[N2]/64/90:5.6/10.1
(BSI PAS68:2013) V/7500[N2]/80/90:1.6/5.4

THE WORLDS WIDEST CANTILEVER GATE TESTED AT 8M CLEAR OPENING



The INTERREGATOR is the worlds widest cantilever gate tested at 8m clear opening and 50mph. Eagle continue to lead the field with their innovative arrestor system. The gate produced outstanding results when tested on the N3 vehicle with only 1.6m of dynamic penetration.

Eagle Automation offers two cantilever sliding gates both successfully tested at 40mph and 50mph with a N2 and N3 vehicle respectively (7500kg). The patent applied for arrestor system produced the lowest penetration classification in its class. With shallow foundation and extremely low penetration both products provide a superb engineered solution for protection against hostile vehicle mitigation.

FEATURES & DETAILS

- ▶ The gate is powered by an electric motor with a hydraulic locking pin. Typical operating times are 35 sec seconds for an 8m opening (250mm/sec).
- ▶ The gate is supplied from the factory as a complete assembled tested unit. Both the 40mph and 50mph products have the same foundations with a depth of only 380mm. Drawings are available on request.
- ▶ Steel construction, galvanised and powder coated to a standard RAL colour. Vertical bar infill with options of different mesh and security topping available.

KEY FEATURES

- ▶ Eagle Fibre Technology
- ▶ The worlds widest Cantilever Gate tested at 8m clear opening and 50mph
- ▶ Smooth and quiet
- ▶ Standard operating speed 250mm per second
- ▶ Heavy duty cantilever rolling gear
- ▶ High quality bearings and rollers

SLIDING GATE INTERROGATOR VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7500KG	N2	64	90	10.1
V/7500KG	N2	80	90	5.4



CANTILEVER SLIDING GATE INTERROGATOR

(BSI PAS68:2013) V/7500(N2)/64/90:5.6/10.1
(BSI PAS68:2013) V/7500(N2)/80/90:1.6/5.4

THE WORLDS WIDEST CANTILEVER GATE TESTED AT 8M CLEAR OPENING



The gate is either electrically or hydraulically driven dependant on client specification. The gate has a locking pin ensuring that it is secure before impact. The gate is very smooth and quiet with exceptional control in both directions. It has a powerful PLC with built in diagnostics and programmable inputs and outputs that can provide numerous options depending on client requirements. In the event of a power failure the gate has a full manual override system. The option of a powerful hydraulic motor is also available.

The gate requires a single phase 240volt 50Hz 16amp supply.

Compliant with EN 12453:2001 that recommends a minimum level of safeguarding for automatic gates. The gate comes as standard with CAT3 safety edges and light curtain that protects the threshold. Additional options include laser safety devices to protect zones. The control panel also has a dual channel loop card compatible with safety induction loops if required. Gate servicing recommended twice per annum.



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PSSA
Professional Security Systems Association

ASIAL
ASIAN SECURITY ASSOCIATION

CARSTOPPER 30

(BSI PAS68:2010) V/1500 [M1]/48/90/1.76/0.00

LOW COST SHALLOW MOUNT SINGLE FIXED/REMOVABLE BOLLARD



Carstopper 30 is a shallow mount single removable bollard. This patent pending design is a technology break-through in shallow mount single removal bollards and can be fitted as a single or in long runs. It is the only 200 deep single removable car park bollard in the market to date. It is an ideal solution to protect retail shops, banks, sports stadiums, ATMs and all accidental impacts as well as being an ideal anti-ram bollard solution.

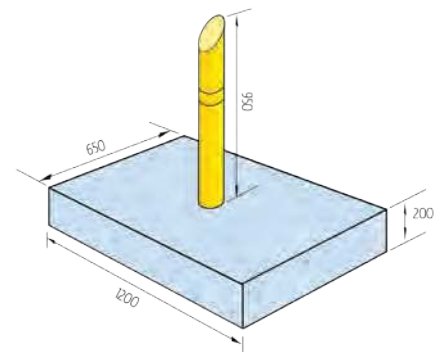
It is performance tested for Anti-Terrorist protection so provides assured high performance Hostile Vehicle Mitigation. On low impacts the spring bollard will not need replacing as it will return to its original position, undamaged. The shallow foundation will reduce the need to re-divert utilities. The system is small and easy to install keeping installation cost low. Once fitted and covered with a stainless steel shroud it is aesthetically pleasing and will need no maintenance, for anecdotal access to the area or maintenance the bollard can be removed easily.

PRODUCT SPECIFICATION

- ▶ Height above ground: 850mm
- ▶ Footing Depth: only 200mm
- ▶ Options: Stainless steel & mild steel shroud available

APPLICATION

- ▶ Airports
- ▶ Sports Arenas
- ▶ Retail Parks
- ▶ Police Stations
- ▶ Critical Infrastructure
- ▶ Government Buildings
- ▶ Conference Centres



CARSTOPPER 30 VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/1500KG	M1	48	90	1.76



SWING GATE LOCKDOWN

(BSI IWA 14-1:2013) V/7500[N2A]/64/90:0.9

CRASH-RATED WITH IWA-14 AND ABLE TO SWING IN BOTH DIRECTIONS



The Eagle Lockdown gate is the latest addition to the Eagle portfolio of crash tested products. The Lockdown has undergone rigorous testing to meet not only specific CPNI requirements but is also tested to documented crash performance accreditation under IWA-14. Fully removable posts mean it can be permanently or temporarily deployed. If required, just the closing post or indeed the hanging post could be removed.

The Lockdown gate is specifically designed as a manual gate for openings up to 6m. The gate can be constructed in sections, allowing the system to be easily shipped and built on site. Our in house design team with CAD technology can develop a system bespoke to your requirements.

KEY FEATURES

- ▶ The latest addition to the Eagle portfolio of crash tested products.
- ▶ Undergone rigorous testing to meet IWA-14
- ▶ Fully removable posts mean it can be permanently or temporarily deployed
- ▶ Can be removed and reinstated in fifteen minutes

SWING GATE LOCKDOWN VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7200KG	N2A	64	90	0.9
V/1500KG	M1	80	90	0.9



SWING GATE LOCKDOWN

(BSI IWA 14-1:2013) V/7500[N2A]/64/90:0.9

CRASH-RATED WITH IWA-14 AND ABLE TO SWING IN BOTH DIRECTIONS



KEY FEATURES

- ▶ Eagle Fibre technology
- ▶ Tested on a 7.5T truck (N2A) at 64kph (40mph)
- ▶ Tested on a 1.5T car (M1) at 80kph (50mph)
- ▶ Very low penetration
- ▶ Shallow foundation
- ▶ Tested at 6m clear opening
- ▶ Robust and rigid



- ▶ Can swing in both directions
- ▶ Various designs available
- ▶ The gate has some unique qualities that make it stand out in today's competitive market. Fully removable posts mean it can be permanently or temporarily deployed. If required, just the closing post or indeed the hanging post could be removed from its socket.

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PSSA
Partner Security Suppliers Association

ASIAL
MEMBER
AUSTRALIAN SECURITY ASSOCIATION
www.asial.org.au

SWING GATE LOCKDOWN

(BSI IWA 14-1:2013) V/7500[N2A]/64/90:0.9

CRASH-RATED WITH IWA-14 AND ABLE TO SWING IN BOTH DIRECTIONS



The Eagle Lockdown gate is the latest addition to the Eagle portfolio of crash tested products. Fully removable posts mean it can be permanently or temporarily deployed. If required, just the closing post or indeed the hanging post could be removed.

The Lockdown gate is specifically designed as a manual gate for openings up to 8m. The gate can be constructed in sections, allowing the system to be easily shipped and built on site. Our in house design team with CAD technology can develop a system bespoke to your requirements.

SPECIAL FEATURES

- ▶ Eagle Fibre technology
- ▶ Very low penetration
- ▶ Shallow foundation
- ▶ Tested at 8m clear opening
- ▶ Robust and rigid
- ▶ Can swing in both directions
- ▶ Various designs available

KEY FEATURES

- ▶ The Eagle Lockdown gate is the latest addition to the Eagle portfolio of crash tested products.
- ▶ Can be removed and reinstated in fifteen minutes with the correct lifting equipment
- ▶ Fully removable posts mean it can be permanently or temporarily deployed. If required, just the closing post or indeed the hanging post could be removed from its socket.

SWING GATE LOCKDOWN VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7500KG	N2A	64	90	0.9
V/1500KG	M1	80	90	0.9



BOLLARD M30 MOVABLE

(BSI PAS68:2010) V/7500(N2)/48/90:0.0/0.0
(BSI IWA14-1:2013) V/7200(N2A)48/90:0.4

VEHICLE CRASH-TESTED TO INTERNATIONALLY ACCEPTED STANDARDS



Elkosta offers from its bollard product family a wide range of solutions for entries, where pedestrians may enter unhindered but vehicle traffic is to be stopped. Due to their attractive designs the bollards can be used in inner city surroundings for city security and traffic management. Applications can range from temporary closing of city centres, but still allowing vehicles with permission to pass, to real estate properties with high security needs. Elkosta products are widely used for military sites, government buildings, embassies, banks and city centres.

“Different Types And Many Features”

The crash bollard M30 is designed for high security applications and has a height of 1000 mm. All Elkosta motorised bollards can be supplied with different control features or can be integrated into existing security systems. For user safety, optical and acoustic warning devices as well as induction loops and photo beam systems are available.

Crash bollards share a rigid steel tube as a blocking element and are available in different sizes. The lowered bollards adhere to bridge class 60, so even the heaviest wheeled vehicles can drive over them safely. All movable bollards are equipped with an integrated hydraulic drive. The advantages of this drive technology are maximum power transmission and working reliability under most adverse weather conditions. During power failure the bollards can be lowered manually. The blocking width can be varied by the number of bollards in a row. Up to five bollards can be operated with one common control unit.

AT A GLANCE

- ▶ Vehicle crash-tested to internationally accepted standards
- ▶ Robust construction with heavy gauge material and high tensile steel
- ▶ Fast operating times
- ▶ Easy installation due to ready-to-install bollard unit and separate control box
- ▶ Shallow foundation
- ▶ Optional Emergency Fast Operation (EFO)
- ▶ Installation in all climate zones possible
- ▶ Reliable operation and low maintenance
- ▶ Operation of up to five bollards with one common control unit
- ▶ Traversable in lowered position according to bridge class SLW 6
- ▶ Blocking element with optional top lighting
- ▶ Override facility for manual lowering
- ▶ Optional accumulator for emergency operation during power failure

BOLLARD M30 AUTO VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7500KG	N2	48	90	0.0
V/7200KG	N2A	48	90	0.4



BOLLARD M30 MOVABLE

(BSI PAS68:2010) V/7500[N2]/48/90:0.0/0.0
(BSI IWA 14-1:2013) IWA 14-1 V/7200[N2A]48/90:0.4

VEHICLE CRASH-TESTED TO INTERNATIONALLY ACCEPTED STANDARDS

STANDARD TECHNICAL SPECIFICATIONS

Design	High security bollard in compact style with integrated hydraulic aggregate and separate control unit for up to five bollard units.	Control Box	Control unit configuration Standard/Plus: HxWxD = 400x400x200 mm, IP 66 (for single bollard unit) HxWxD = 600x400x200 mm, IP 66 (for double and triple bollard unit) HxWxD = 600x600x200 mm, IP 66 (for quadruple and penta bollard unit) Control unit configuration Vario: HxWxD = 600x400x200 mm, IP 66 (for single and double bollard unit) HxWxD = 600x600x200 mm, IP 66 (for triple up to penta bollard unit) Control unit configuration Vario RO 1: HxWxD = 800x400x300 mm, IP 66 (for single and double bollard unit) HxWxD = 800x600x200 mm, IP 66 (for triple up to penta bollard unit)
Impact Load	667 kJ (7.5 t @ 48 km/h) Crash test certified according to PAS 68:2013 V/7500[N2]/48/90:0.0/0.0 IWA 14-1:2013 V/7200[N2A]/48/90:0.4	Control Cabinet (Optional)	Control box installed in outdoor control cabinet complete with rain cover, hygostat, thermostat, heater and outdoor coating · HxWxD = 1000x800x400 mm + 200 mm socket (for control unit configuration Vario) · HxWxD = 1200x1200x400 mm + 200 mm socket (for control unit configuration Vario RO 1)
Blocking Element	Diameter: 355 mm, 16 mm wall thickness with screwed on top plate	Weight	Approx. 870 kg incl. Metal housing
Blocking Height	1000 mm above finished floor level	Colour (Standard)	Blocking element: RAL 6005, 7016, 7030, 7035 or 9010. Bollard top plate: galvanised finish. Cover plate: galvanised finish. Metal housing: galvanised finish. Metal housing frame: galvanised finish. Installation frame: galvanised finish
Emergency Operation	Bollard remains in the raised position during power failure and can be lowered manually. Accumulator and rechargeable battery pack for one raising movement (RO 1) with charged accumulator (optional)	Colour (Optional)	Blocking element other RAL colour Bollard top plate in RAL colour of blocking element Cover plate in RAL colour of blocking element
Operating Times	Raising: approx. 5-6 seconds Lowering: approx. 3-4 seconds Emergency fast operation (EFO): approx. 2-3 seconds raising (with optional accumulator)	Optional Finish	Blocking element with stainless steel sleeve and stainless steel top plate
Wheel Load	100 kN according to SLW60 – DIN 1072	Temperature Range	-20°C – 65°C Optional: Heating for up to -30°C
Drive	1.4 kW nominal power, 400 Volt AC, three phase, 50 Hz		
Hydraulic Fluid	Mineral oil HLP 22 or biodegradable oil Plantohyd 22 S, non-hazardous to water		
Control Unit	PLC in control box for wall installation inside a building, control voltage 24 V max. Distance between bollard Control unit: 50 m		

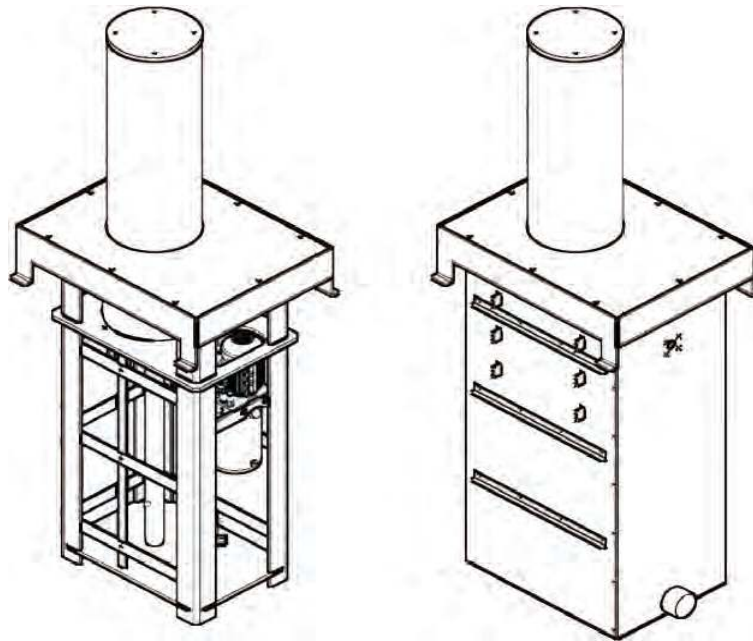
BOLLARD M30 MOVABLE

(BSI PAS68:2010) V/7500(N21)/48/90:0.0/0.0
(BSI IWA14-1:2013) IWA 14-1 V/7200(N2A)148/90:0.4

VEHICLE CRASH-TESTED TO INTERNATIONALLY ACCEPTED STANDARDS



STANDARD TECHNICAL DRAWING



 **Ezi Security Systems**
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 **PERIMETER PROTECTION GROUP**

 **PSSA**
Perimeter Security Suppliers Association

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BOLLARD M30 FIXED

VEHICLE IMPACT SIMULATION M30 - P1 (TRIPLE UNIT)

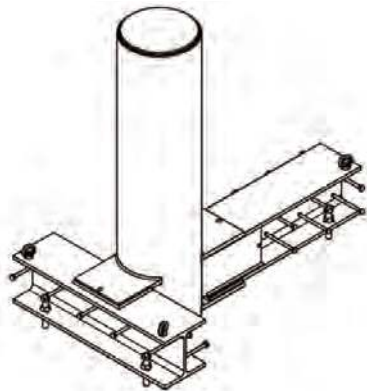
VEHICLE CRASH-TESTED TO INTERNATIONALLY ACCEPTED STANDARDS



STANDARD TECHNICAL SPECIFICATIONS

Design	Blocking bollard(s) with base supports for shallow mount installation. Bollard system can be adapted on site for corner applications.	Foundation Size	4500 x 1750 x 400 mm (triple unit)
Impact Load	612 kJ (6.8 t @ 30 mph) Vehicle Impact Simulation M30/P1 (triple unit)	Foundation Top Edge	100 mm below finished floor level
Blocking Element	Diameter: 355 mm with welded on steel top plate, optional: screwed on steel top plate, in galvanised finish or coated in colour of blocking element	Weight	Approx. 620 kg (bollard M30-1100) or Approx. 590 kg (bollard M30-1000)
Wall Thickness	30mm	Options	Bollard top lighting, Ufo-shape, red, white or yellow Stainless steel sleeve with screwed on or welded on stainless steel top plate
Blocking Height	1100 mm (bollard M30-1100) or 1000 mm (bollard M30-1000)	Colour (Standard)	RAL 6005 moss green, RAL 7016 anthracite grey, RAL 7030 stone grey, RAL 7035 light grey, RAL 9010 pure white
Total Height	1552 mm (bollard M30-1100) or 1452 mm (bollard M30-1000)	Colour (Optional)	Other RAL colours or DB colours
Base Support construction	Total WxD = 900 x 1555 mm		

STANDARD TECHNICAL DRAWING



BOLLARD M50 MOVABLE

(BSI PAS68:2010) V/7500[N3]/80/90:5.2/7.8
(BSI IWA14-1:2013) IWA 14-1 V/7200[N3C]/80/90:5.5

VEHICLE CRASH-TESTED TO INTERNATIONALLY ACCEPTED STANDARDS



Elkosta offers from its bollard product family a wide range of solutions for entries, where pedestrians may enter unhindered but vehicle traffic is to be stopped. Due to their attractive designs the bollards can be used in inner city surroundings for city security and traffic management. Applications can range from temporary closing of city centres, but still allowing vehicles with permission to pass, to real estate properties with high security needs. Elkosta products are widely used for military sites, government buildings, embassies, banks and city centres.

"Different Types And Many Features"

The bollard M50 has a height of 1100 mm. All Elkosta bollards can be supplied with different control features or can be integrated into existing security systems. For user safety, optical and acoustic warning devices as well as induction loops and photo beam systems are available.

Crash bollards share a rigid steel tube as a blocking element and are available in different sizes. The lowered bollards adhere to bridge class 60, so even the heaviest wheeled vehicles can drive over them safely. All movable bollards are equipped with an integrated hydraulic drive. The advantages of this drive technology are maximum power transmission and working reliability under most adverse weather conditions. During power failure the bollards can be lowered manually. The blocking width can be varied by the number of bollards in a row. Up to five bollards can be operated with one common control unit.

AT A GLANCE

- ▶ Vehicle crash-tested to internationally accepted standards
- ▶ Robust construction with heavy gauge material and high tensile steel
- ▶ Fast operating times
- ▶ Easy installation due to ready-to-install bollard unit and separate control box
- ▶ Shallow foundation
- ▶ Optional Emergency Fast Operation (EFO)
- ▶ Installation in all climate zones possible
- ▶ Reliable operation and low maintenance
- ▶ Operation of up to five bollards with one common control unit
- ▶ Traversable in lowered position according to bridge class SLW 6
- ▶ Blocking element with optional top lighting
- ▶ Override facility for manual lowering
- ▶ Optional accumulator for emergency operation during power failure

BOLLARD M50 AUTO VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7500KG	N3	80	90	5.2
V/7200KG	N3C	80	90	5.5



BOLLARD M50 MOVABLE

(BSI PAS68:2010) V/7500[N3]/80/90:5.2/7.8
(BSI IWA 14-1:2013) IWA 14-1 V/7200[N3C]/80/90:5.5

VEHICLE CRASH-TESTED TO INTERNATIONALLY ACCEPTED STANDARDS



STANDARD TECHNICAL SPECIFICATIONS

Design	High security bollard in compact style with integrated hydraulic aggregate incl. EFO and separate control unit for up to five bollard units.	Control Cabinet	Control box installed in outdoor control cabinet complete with rain cover, hygostat, thermostat, heater and outdoor coating HxWxD = 1000x800x400 mm + 200 mm socket (for control unit configuration Vario) HxWxD = 1200x1200x400 mm + 200 mm socket (for control unit configuration Vario RO 1)
Impact Load	1852 kJ (7.5 t @ 80 km/h) Crash test certified according to PAS 68:2013 V/7500[N3]/80/90:5.2/7.8, IWA 14-1:2013 V/7200[N3C]/80/90:5.5 and ASTM F 2656-07 M50/P2	Supply Voltage	400 V (3Ph + N + PE), 50 Hz
Blocking Element	Diameter: 355 mm, 30 mm wall thickness	Lighting	Bollard top lighting, Ufo-shape, LED red, white or yellow
Blocking Height	1100 mm above finished floor level	Weight	Approx. 1400 kg incl. Metal housing
Emergency Operation	Bollard remains in the raised position power failure and can be lowered manually during	Colour (Standard)	Blocking element RAL 6005, 7016, 7030, 7035 or 9010 Bollard top plate galvanised finish Cover plate galvanised finish Metal housing galvanised finish
Emergency fast operation (EFO)	Approx. 2-3 seconds raising	Optional Finish	Blocking element with stainless steel sleeve and stainless steel top plate
Operating Times	Raising: approx. 5-6 seconds Lowering: approx. 5-6 seconds	Temperature Range	-20°C – 65°C
Wheel Load	100 kN according to SLW60 – DIN 1072	Optional	Heating for up to -30°C
Drive	2.25 kW nominal power, 400 Volt AC, three phase, 50 Hz		
Hydraulic Fluid	Mineral oil HLP 22 or biodegradable oil Plantohyd 22 S, non-hazardous to water		
Control Unit	PLC in control box for wall installation inside a building, control voltage 24 V max distance between bollard and control unit: 50 m		
Control Box	Control unit configuration Standard/Plus: HxWxD = 400x400x200 mm, IP 66 (for single bollard unit) HxWxD = 600x400x200 mm, IP 66 (for double and triple bollard unit) HxWxD = 600x600x200 mm, IP 66 (for quadruple and penta bollard unit) Control unit configuration Vario: HxWxD = 600x400x200 mm, IP 66 (for single and double bollard unit) HxWxD = 600x600x200 mm, IP 66 (for triple up to penta bollard unit) Control unit configuration Vario RO 1: HxWxD = 800x400x300 mm, IP 66 (for single and double bollard unit) HxWxD = 800x600x200 mm, IP 66 (for triple up to penta bollard unit)		



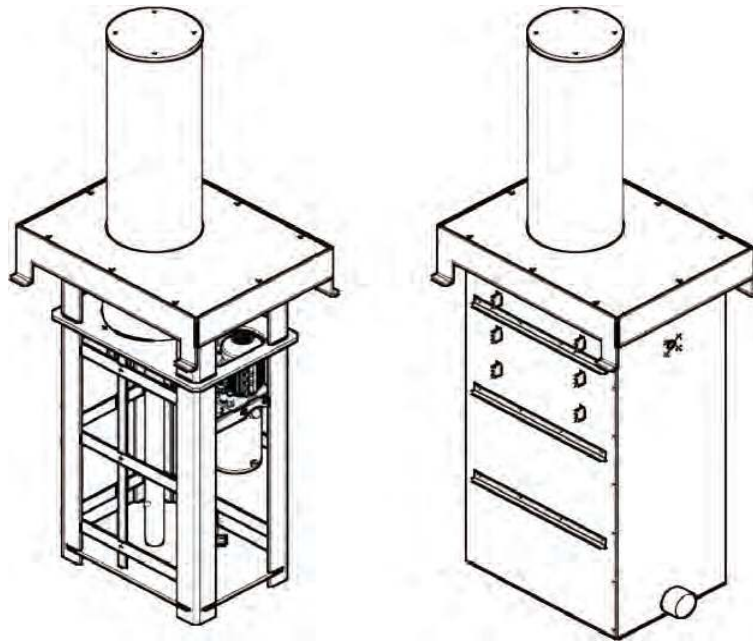
BOLLARD M50 MOVABLE

(BSI PAS68:2010) V/7500(N31)/80/90:5.2/7.8
(BSI IWA14-1:2013) IWA 14-1 V/7200(N3C1)/80/90:5.5

VEHICLE CRASH-TESTED TO INTERNATIONALLY ACCEPTED STANDARDS



STANDARD TECHNICAL DRAWING



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 **PSSA**
Perimeter Security Suppliers Association

 **ASIAL**
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BOLLARD M50 FIXED

(BSI PAS68:2010) V/7500(N3)/80/90:0.4/15.4
(BSI IWA14-1:2013) V/7200(N3C)/80/90:0.8

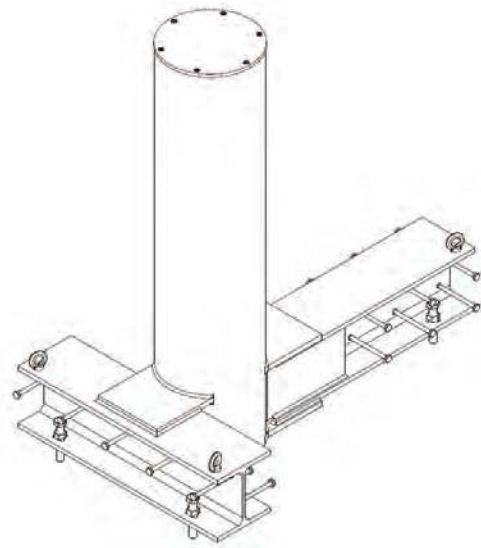
VEHICLE CRASH-TESTED TO INTERNATIONALLY ACCEPTED STANDARDS



STANDARD TECHNICAL SPECIFICATIONS

Design	Blocking bollard(s) with base supports for shallow mount installation. Bollard system can be adapted on site for corner applications.
Impact Load	1699 kJ (6.8 t @ 50 mph) Crash test certified according to PAS 68 V/7500(N3)/80/90:0.4/15.4 IWA 14-1 V/7200(N3C)/80/90:0.8
Blocking Element	Diameter: 355 mm with welded on steel top plate, optional: screwed on steel top plate, in galvanised finish or coated in colour of blocking element
Wall Thickness	30mm
Blocking Height	1000mm
Foundation Size	4500 x 2500 x 400 mm (triple unit)
Foundation Top Edge	100 mm below finished floor level
Weight	620kg
Options	Bollard top lighting, Ufo-shape, red, white or yellow Stainless steel sleeve with screwed on or welded stainless steel top plate
Colour (Standard)	RAL 6005 moss green RAL 7016 anthracite grey RAL 7030 stone grey RAL 7035 light grey RAL 9010 pure white
Colour (Optional)	Other RAL colours or DB colours

STANDARD TECHNICAL DRAWING



BOLLARD M50 FIXED VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION	25KG+ DISPERSION
V/7500KG	N3	80	90	0.4	15.4
V/7200KG	N3C	80	90	0.8	



BOLLARD M50 FIXED

(BSI PAS68:2010) V/7500[N3]/80/90:0.4/15.4
(BSI IWA14-1:2013) V/7200[N3C]/80/90:0.8

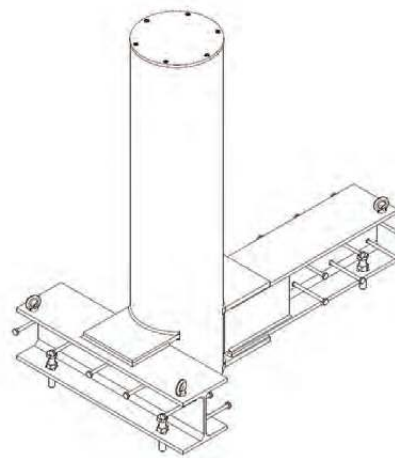
VEHICLE CRASH-TESTED TO INTERNATIONALLY ACCEPTED STANDARDS



STANDARD TECHNICAL SPECIFICATIONS

Design	Blocking bollard(s) with base supports for shallow mount installation. Bollard system can be adapted on site for corner applications.	Foundation Top Edge	100 mm below finished floor level
Impact Load	1699 kJ (6.8 t @ 50 mph) Crash test certified according to PAS 68 V/7500[N3]/80/90:0.4/15.4 IWA 14-1 V/7200[N3C]/80/90:0.8	Weight	620kg
Blocking Element	Diameter: 355 mm with welded on steel top plate, optional: screwed on steel top plate, in galvanised finish or coated in colour of blocking element	Options	Bollard top lighting, Ufo-shape, red, white or yellow Stainless steel sleeve with screwed on or welded stainless steel top plate
Wall Thickness	30mm	Colour (Standard)	RAL 6005 moss green RAL 7016 anthracite grey RAL 7030 stone grey RAL 7035 light grey RAL 9010 pure white
Blocking Height	1000mm	Colour (Optional)	Other RAL colours or DB colours
Foundation Size	4500 x 2500 x 400 mm (triple unit)		

STANDARD TECHNICAL DRAWING



TRACKED GATE M50

(BSI PAS68: 2013) V/7500[N3]/80/90:0.0/4.3

IDEAL FOR ALL CRITICAL INFRASTRUCTURE



The unique design of the Tracked Gate M50 affords highly effective impact protection and is therefore ideal for all critical infrastructure applications ranging from correctional facilities, critical defence sites, courts, airports, refineries, embassies and many other designated high risk areas.

"THE GATE BOASTS A TRACKED DESIGN WITH UNRIVALLED RELIABILITY AND HIGH SPEED OPENING AND CLOSING TIMES THAT ARE IMPOSSIBLE TO ACHIEVE WITH OTHER DRIVE PRINCIPLES"

The Tracked Gate M50 can be adapted in height and fitted with anti-climbing devices to comply with site-specific requirements. It can be utilised as an anti-vehicle barrier.

The Tracked Gate M50 has been the subject of rigorous design appraisal and testing regimes by government agencies in the United States. It has been successfully crash tested according to ASTM F2656-07 and PAS 68. The Tracked Gate M50 system is fully compatible with all access control systems and its advanced design and technology combined with its application flexibility, provides a total solution for all perimeter security access points vulnerable to hostile vehicle attacks.

KEY ELEMENTS

- ▶ Up to 7000mm clear widths
- ▶ Up to 3000mm height
- ▶ Shallow foundation with only 400mm depth
- ▶ Top edge foundation 100mm below finished floor level

CERTIFICATIONS

- ▶ ASTM F2656-07 M50/P1
- ▶ PAS 68 V/7500[N3]/80/90:00/4.3 (tested with 7m clear opening width)

CRASH GATE 40 VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION	25KG+ DISPERSION
V/7500KG	N3	80	90	0.0	4.3



TRACKED GATE M50

(BSI PAS68: 2013) V/7500[N3]/80/90:0.0/4.3

IDEAL FOR ALL CRITICAL INFRASTRUCTURE



STANDARD TECHNICAL SPECIFICATIONS

Design	Crash rated sliding gate on ground track with electro-mechanical drive unit, guiding portal, receiving portal and gate leaf consisting of bottom impact beam and top gate leaf panel	Impact Load	ASTM F 2656-07 1699kJ (15,000lbs @ 50 mph) PAS 68:2010 1852kJ (7.5t @ 80 km/h) Crash test certified ASTM F 2656-07 M50/P1 and PAS 68:2010 V/7500[N3] /80/90:0.0/4.3 (tested with 7m CMO)
Clear Width of Opening	3.0m, 4.0m, 5.0 m, 6.0m and 7.0m	Operating Speed	Normal operation: up to 0.4 m/s
Blocking Height	Gate height incl. 100mm ground clearance: 2000mm, 2500mm and 3000mm	Emergency Fast Operation (EFO)	Up to 0.8m/s (optional, only available for Non-European countries)
Clear Width b/w Posts	Clear width of opening + 200mm	Drive	1.5kW, 400 V (three-phase), 50Hz
Frame Width	Clear width of opening + 2308mm	Control Unit	WE-Tronic II control box installed in drive column control voltage 24 V
Gate Infill	Bar infill made of square hollow section SHS 30 with max. 120mm clearance (standard), special infill on request	Applied Standards	DIN EN 13241-1 Industrial, commercial and garage doors and gates EC-Machinery Directive (2006/42/EC) EMC Directive (2004/108/EC)
Ground Track	S10 to bolt onto top edge of foundation, top of rail 20mm above finished floor level	Weight	Approx. 4710 – 6950kg (depending on CWO and gate height)
Foundation Depth	400mm (shallow foundation)	Supply Voltage	400 V (3Ph + N + PE), 50 Hz
Foundation Top Edge	100mm below finished floor level	Control Box	H x W x D: 400mm x 600mm x 200mm, IP66
Emergency Operation during Power Failure	Manually after disengagement of motor by clutch lever	Temperature Range	Control unit: -10 °C ... +50 °C Drive unit: -20 °C ... +40 °C (with power reduction up to +60 °C)
Colour (Standard)	RAL 6005 – moss green RAL 7016 – anthracite grey RAL 7030 – stone grey RAL 7035 – light grey RAL 9010 – pure white All other RAL colours or DB colours optional	Colour Drive Column	RAL 7035 light grey (standard) In RAL colour of gate (optional) All other RAL colours of DB colours (optional)



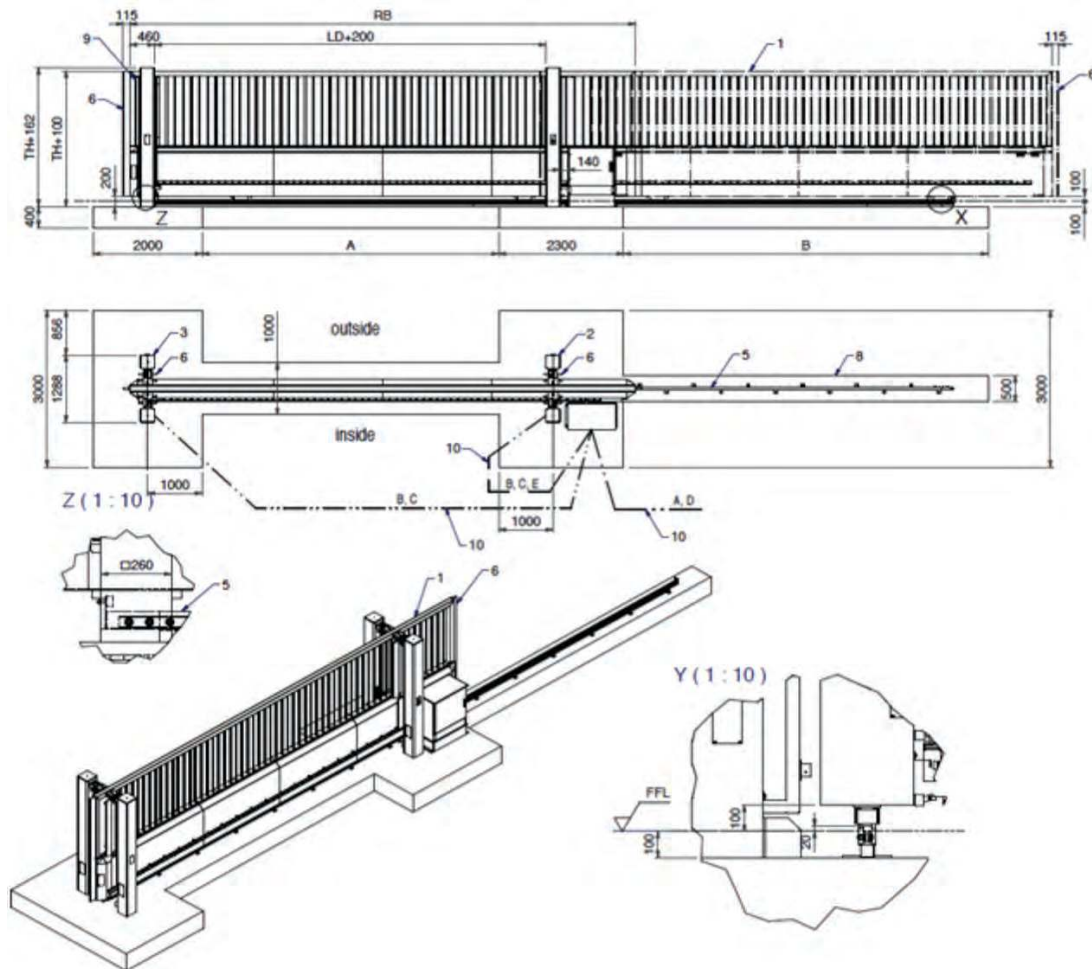
TRACKED GATE M50

(BSI PAS68: 2013) V/7500IN31/80/90:0.0/4.3

IDEAL FOR ALL CRITICAL INFRASTRUCTURE



STANDARD TECHNICAL DRAWING



PAS68 PLANTER (BSI PAS68:2010) V/7500[N2]/64/90:2.8/7.2

PLANTER 40 STOPS 7.5 TONNE TRUCK AT 64KPH



The Safetyflex universal slimline planter is the worlds smallest crash rated security planter and is the only slimline planter in the marketplace that is universally designed to be made to any sized required. The planter is designed as surface mounted with a shallow foundation. This system is so shallow it reduces the need to re-divert utilities.

This slimline security designed planter can easily fit onto narrow walkways outside banks, train stations, sports stadiums and will not take up large amounts of floor space and is very aesthetically pleasing. One great advantage with this system is the planter is only 100kg in weight so you need no heavy plant to off load or move it into place. The minimum length is 1500mm long, 460mm width and 930mm height.

The planter has been crash tested to BSI PAS68 to stop a 7.5 tonne truck travelling at 40mph or 64km/h at 90 degrees from breaking through the security line.

KEY FEATURES

- ▶ Shallow Mount Foundation
- ▶ Only 100kg in weight
- ▶ Guaranteed re-usable after impact
- ▶ Once hit, planter can be removed
- ▶ Low cost installation
- ▶ Bespoke size options available

APPLICATION

- ▶ Airports
- ▶ Sports Arenas
- ▶ Retail Parks
- ▶ Police Stations
- ▶ Critical Infrastructure
- ▶ Government Buildings
- ▶ Conference centres



PLANTER PAS68 VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION	25KG+ DISPERSION
V/7500KG	N2	64	90	2.8	7.2



APT30SM BOLLARDS

(BSI PAS 68: V/7500 (N2)/48/90:5.5/0.0

THE WORLD'S FIRST SURFACE MOUNT BOLLARD

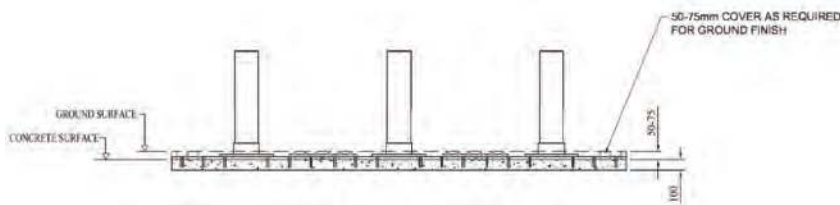


Eagle Automation have a full and wide range of PAS68 tested bollards. Our static bollard range includes the world's first surface mount bollard - 30SM, an ultra-shallow foundation bollard - 40SH, a shallow foundation single unit bollard - 30SH and mid depth foundation bollards - 30/40/S0ST.

We also offer a range of different diameters with many of our bollards having removable options. Automated products include full depth & shallow foundation rising bollards with Zero penetration at 30mph - 30A, 30AT, and a full depth 50mph bollard - 50A.

KEY ELEMENTS

- ▶ Bollard tested with N2 7.5ton vehicle at 30mph / 48kmh
- ▶ Diameter: 219mm
- ▶ Height: min 800mm above FFL
- ▶ Finish: Painted / Optional Stainless Steel Sleeve
- ▶ Foundation: Surface fixed to existing slab (>100mm), 70mm anchor depth
- ▶ Static fixed bollard
- ▶ Removable option requires additional depth for socket



APT30SM STATIC BOLLARD VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7500KG	N2	48	90	5.5





APT40SH BOLLARDS (BSI PAS68: V/7500 (N2)/64/90:4.7/9.2

ULTRA-SHALLOW FOUNDATION BOLLARD

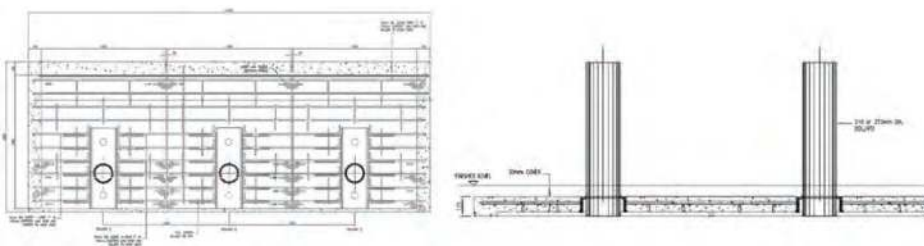


Eagle Automation have a full and wide range of PAS68 tested bollards. Our static bollard range includes the world's first surface mount bollard - 30SM, an ultra-shallow foundation bollard - 40SH, a shallow foundation single unit bollard - 30SH and mid depth foundation bollards - 30/40/50ST.

We also offer a range of different diameters with many of our bollards having removable options. Automated products include full depth & shallow foundation rising bollards with Zero penetration at 30mph - 30A, 30AT, and a full depth 50mph bollard - 50A.

KEY ELEMENTS

- ▶ Bollard tested with N2 7.5ton vehicle at 40mph / 64kmh
- ▶ Diameter: 272mm (tested) also available in 219mm
- ▶ Height: 1000mm above FFL
- ▶ Finish: Painted / Optional Stainless Steel Sleeve
- ▶ Supplied pre-fabricated with base plate, additional re-bar required.
- ▶ Foundation: 125mm, plus allowance for 75mm topping
- ▶ Static fixed and removable options



APT40SH BOLLARDS VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7500KG	N2	64	90	4.7



RAPIDE BI-FOLDING SPEED GATE

(BSI PAS68:2010) V/7500[N2]/64/90:0.8/0.0
(BSI PAS68:2010) V/7500[N3]/80/90:0.7/0.0

THE LOWEST PENETRATION CLASSIFICATION IN ITS CLASS



Eagle Automation offers two PAS68 Bi-Folding gates both successfully tested at 40mph and 50mph with a N2 and N3 vehicle respectively (7500kg). The Eagle arrestor system produced the lowest penetration classification in its class. With shallow foundation and extremely low penetration both products provide a superb engineered solution for protection against hostile vehicle mitigation.

The gate is powered by a hydraulic power pack that also controls the locking pin. Typical operating times are 8-9 seconds after allowing the pin to raise and lower. The gate is very smooth and quiet with exceptional control in both directions. In the event of a power failure the gate has a full manual override system.

KEY FEATURES

- ▶ Eagle Fibre Technology
- ▶ Trackless
- ▶ Smooth and quiet
- ▶ Opening and closing in approximately 8-9 seconds. Add an additional 3 seconds for locking pin function.

RAPIDE BI-FOLD GATE VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7500KG	N2	64	90	0.8
V/7500KG	N3	80	90	0.7

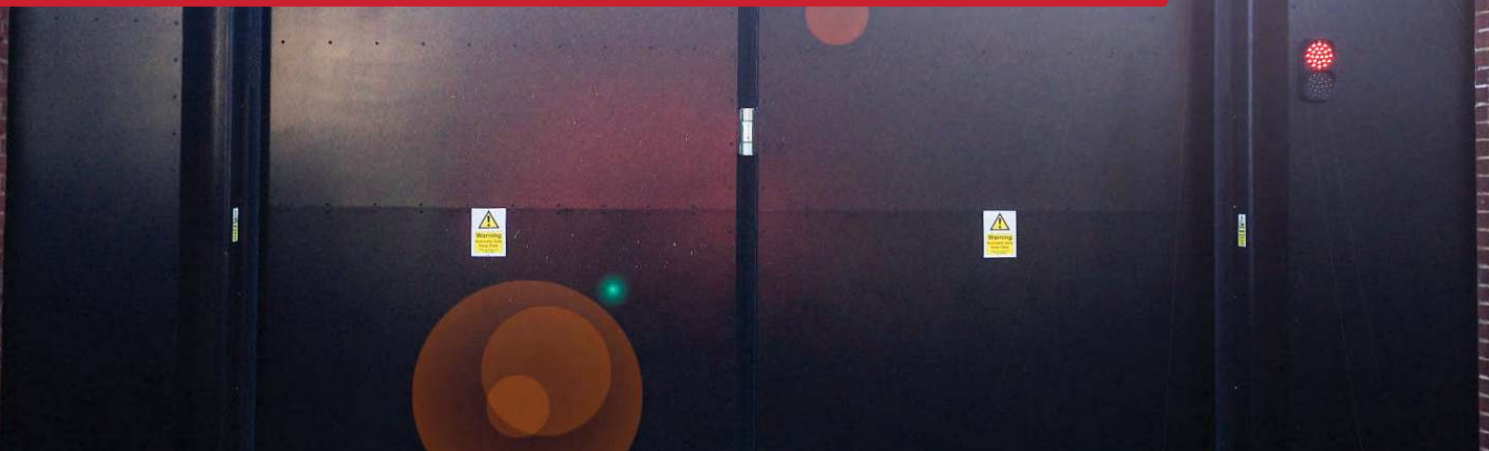


RAPIDE BI-FOLDING SPEED GATE

(BSI PAS68:2010) V/7500(N2)/64/90:0.8/0.0

(BSI PAS68:2010) V/7500(N3)/80/90:0.7/0.0

THE LOWEST PENETRATION CLASSIFICATION IN ITS CLASS



CONSTRUCTION & MAINTENANCE

Steel construction, galvanised and powder coated to a standard RAL colour. Vertical bar infill with options of different mesh and security topping available.

Gate servicing recommended twice per annum.

DIMENSIONS

The gate is tested for a clear opening of 4.2m and can be manufactured for heights up to 5m. Outside dimensions over the posts are 4.8m and allowing for control cabinets is 5.4m. Overall height for the gate at 2.4m is approximately 2.8m allowing for the base frame.

SAFETY

The gate comes as standard with CAT3 safety edges and light curtain that protects the threshold. Additional options include laser safety devices to protect zones. This device can also be used to produce an alarm output should someone be in the vicinity of the gate when it is closed. The control panel also has a dual channel loop card compatible with safety induction loops if required.

DRIVE, CONTROLS, ELECTRICAL

The gate is hydraulically driven with a bespoke power pack and cylinder producing a smooth quiet operation with few moving parts. The gate has a powerful PLC with built in diagnostics and programmable inputs and outputs that can provide numerous options depending on client requirements.

The gate requires a single phase 240volt 50Hz 16amp supply.



RISING ARM BARRIER ARRESTOR

(BSI IWA 14-1:2013) V/7200[N2A]/64/90:3.0

CRASH-RATED WITH IWA-14 AND AVAILABLE AS AUTOMATIC OR MANUAL



The Eagle Rising Arm Barrier is the latest addition to the Eagle's portfolio of crash tested products. Tested at a clear opening of 7.1m it meets our secure before impact (SBI) criteria utilising an au-tomatic or manual locking pin on the closing portal.

IWA-14 RISING ARM BARRIER ARRESTOR

- Model: EAG10040
- Product Name: Arrestor
- Product Category: Rising Arm Barrier
- IWA14-1 Rating: Tested to 7.2T (N2A) @ 40 mph (64kph)
- Foundation depth: 400mm (comprising 20mm blinding, 330mm concrete, 50mm surface finish)
- Span: Tested at 7100mm clear opening

Operation options:

Automatic, PLC control and Hydraulic system. Manual, counterweight attached to beam. Manual, hand pump/drill drive HPU.



APPLICATION

- ▶ Airports
- ▶ Sports Arenas
- ▶ Data Centers
- ▶ Train Stations
- ▶ Conference Centres

Key Feature

'Secure Before Impact' – the product does not rely upon an impact for beam to catch into a locking system – these have proven unreliable and easily overcome and so CPNI have expressed significant preference toward products which are secured before impact.

RISING ARM BARRIER ARRESTOR VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7200KG	N2A	64	90	3.0

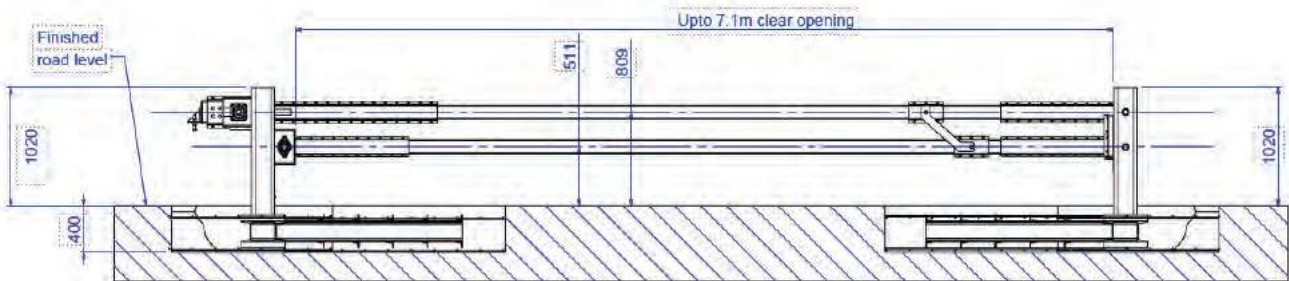
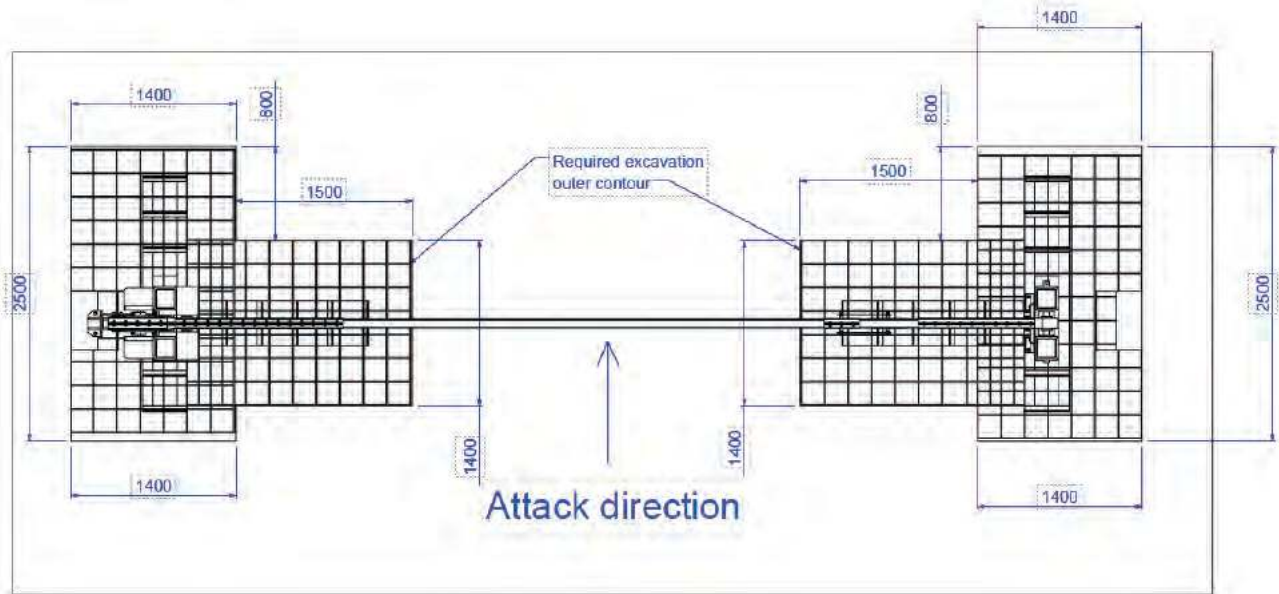


RISING ARM BARRIER ARRESTOR (BSI IWA 14-1:2013) V/7200(N2A)/64/90:3.0

CRASH-RATED WITH IWA-14 AND AVAILABLE AS AUTOMATIC OR MANUAL



IWA-14 VERTICAL LIFT LOCKDOWN



SECTION A-A



RB001-30 BOLLARD

(BSI PAS68) V/7500[N2]/48/90:3.2
(BSI PAS68) V/7500[N2]/48/45:2.6

STOPS A 7.5 TONNE TRUCK AT 48KPH - NO MAIN POWER NEEDED



The new technology breakthrough in SHALLOW MOUNT RISING BOLLARD systems, it will keep bollard system and ground work costs to a fraction of the old large systems.

This new patent granted bollard rising system is designed by our new Micro Engineering Divisions to cope with today's demand for shallow mount systems in both manual and hydraulic systems. It requires no mains power as it is powered by cordless drill. This shallow rising bollard has capacity to stop a 7.5 ton truck at 30mph or 48kph at 90 degrees and 45 degrees from breaking through the security lines.

After impact the bollard still worked. This system is the most economical on the market for both bollards systems and installation. It is also very low maintenance, once fitted as a stand-alone single unit, it can follow the contours of the ground. After impact if the bollard or any parts in the system are damaged all the parts can be removed from the outer case that is concreted into the foundation and replaced. When fitted with a stainless steel bollard cover it is very aesthetically pleasing. These bollards are manually operated and require no mains power.

APPLICATION

- ▶ Airports
- ▶ Sports Arenas
- ▶ Retail Parks
- ▶ Police Stations
- ▶ Critical Infrastructure
- ▶ Government Buildings
- ▶ Conference Centres

**TESTED TO STOP A
7.5 TONNE TRUCK
TRAVELLING AT 48KPH
AT 45 & 90 DEGREES**

RB001-30 PAS68 VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7500KG	N2	48	90	3.2
V/7500KG	N2	48	45	2.6



RB001-30 BOLLARD

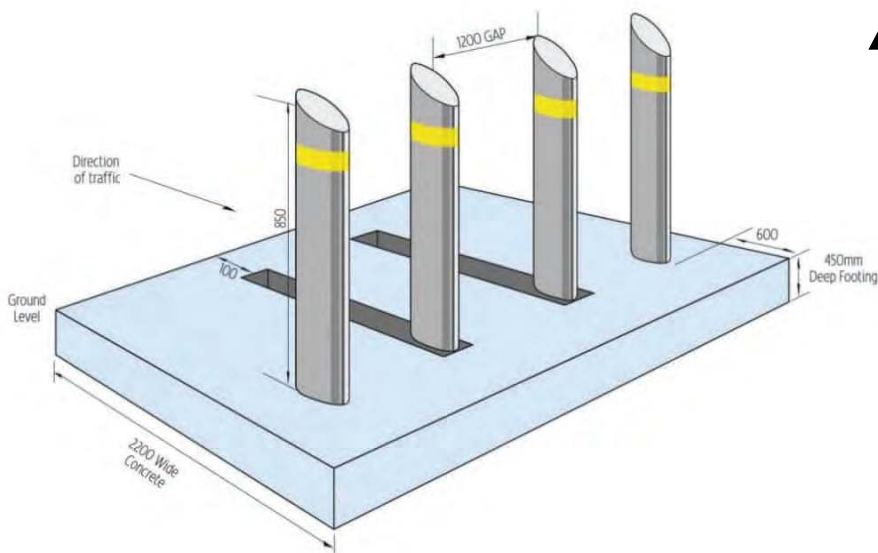
(BSI PAS68) V/7500(N2)/48/90:3.2
(BSI PAS68) V/7500(N2)/48/45:2.6

STOPS A 7.5 TONNE TRUCK AT 48KPH - NO MAIN POWER NEEDED



SPECIFICATION

- ▶ **Height above ground:**
850mm
- ▶ **Footing Depth:**
Only 400mm
- ▶ **Options:**
Stainless steel & mild steel
shroud available



AUSTRALIA'S PRODUCT
OF THE YEAR 2019
(PHYSICAL SECURITY)



Ezi Security Systems
SERIOUS SECURITY IS EZI

safetyflex
ANTI-TERRORIST BOLLARDS
RAILBARS & CRASH FENCING

PSSA
Professional Security Suppliers Association

ASIAL
MEMBER
AUSTRALIAN SECURITY INDUSTRIES ASSOCIATION

RB002-40 BOLLARD

(BSI IWA-1: 2013) V/7200[N2A]/64/90:1.0

SUPER SHALLOW MOUNT RETRACTABLE BOLLARD



The new technology breakthrough in SHALLOW MOUNT RISING BOLLARD systems, it will keep bollard system and ground work costs to a fraction of the old large systems.

This new patent granted bollard rising system is designed by our new Micro Engineering Divisions to cope with today's demand for shallow mount systems in both manual and hydraulic systems. It requires no mains power as it is powered by cordless drill. A new shallow rising bollard, it will stop a 7.2 tonne truck travelling at 40mph or 64 km at 90 degrees from breaking through the security line.

After impact the bollard still worked. This system is the most economical on the market for both bollards systems and installation. It is also very low maintenance, once fitted as a stand-alone single unit, it can follow the contours of the ground. After impact if the bollard or any parts in the system are damaged all the parts can be removed from the outer case that is concreted into the foundation and replaced. When fitted with a stainless steel bollard cover it is very aesthetically pleasing. These bollards are manually operated and require no mains power.

APPLICATION

- ▶ Airports
- ▶ Sports Arenas
- ▶ Retail Parks
- ▶ Police Stations
- ▶ Critical Infrastructure
- ▶ Government Buildings
- ▶ Conference Centres

**TESTED TO STOP A
7.2 TONNE TRUCK
TRAVELLING AT 64KPH
AT 90 DEGREES**

RB002-40 IWA14-1 VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7200KG	N2A	64	90	1.0



RB002-40 BOLLARD

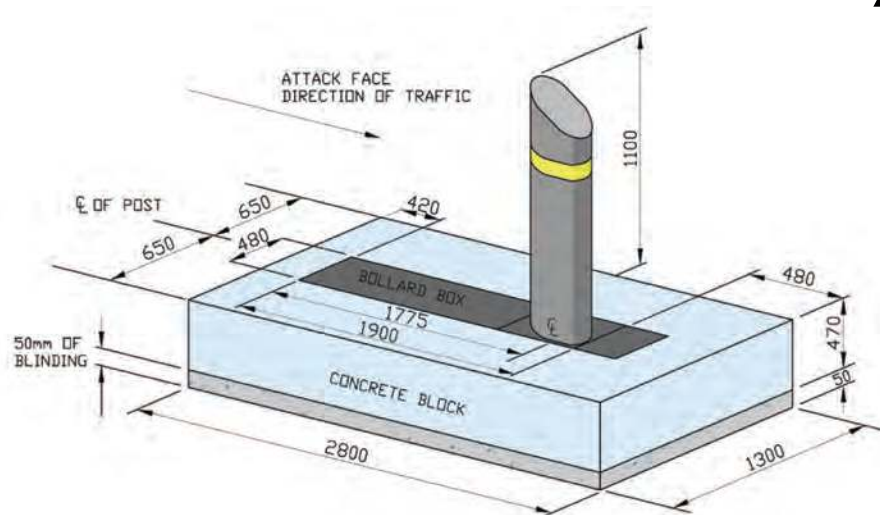
(BSI IWA-1: 2013) V/7200[N2A]/64/90:1.0

SUPER SHALLOW MOUNT RETRACTABLE BOLLARD



SPECIFICATION

- ▶ Height above ground: 850mm
- ▶ Footing Depth: Only 400mm
- ▶ Options: Stainless steel & mild steel shroud available



AUSTRALIA'S PRODUCT
OF THE YEAR 2019
(PHYSICAL SECURITY)



Ezi Security Systems
SERIOUS SECURITY IS EZI

safetyflex
ANTI-TERRORIST BOLLARDS
RAILINGS & CRASH FENCING

PSSA
Partner Security Suppliers Association

ASIAL
MEMBER
AUSTRALIAN SECURITY INDUSTRIES
ASSOCIATION

RB003-50 BOLLARD

(BSI IWA-1: 2013) V/7200IN2A1/80/90:3.1

SUPER SHALLOW MOUNT RETRACTABLE BOLLARD



The new technology breakthrough in SHALLOW MOUNT RISING BOLLARD systems - it will keep bollard systems and groundwork costs to a fraction of the old, large systems.

This new patent granted bollard rising system is designed by our new Micro Engineering Division to cope with today's demand for shallow mount systems in both manual and hydraulic systems. It requires no mains power as it is powered by a cordless drill. A new shallow rising bollard, it will stop a 7.5 ton truck travelling at 50 mph or 80 km at 90 degrees from breaking through the security line.

After impact the bollard still worked. This system will also reduce the need to re-divert utilities. The system is the most economical on the market for both bollard systems and installation. It is also very low maintenance, once fitted as a stand-alone single unit and can also be installed on a gradient. After impact if the bollard or any parts in the system are damaged all the parts can be removed from the outer case that is concreted into the foundation and replaced. When fitted with a stainless steel bollard cover it is very aesthetically pleasing.

APPLICATION

- ▶ Airports
- ▶ Sports Arenas
- ▶ Retail Parks
- ▶ Police Stations
- ▶ Critical Infrastructure
- ▶ Government Buildings
- ▶ Conference Centres

ALL CARBON NEUTRAL PRODUCT

RB003-50 IWA14-1 VEHICLE PERFORMANCE CLASSIFICATION

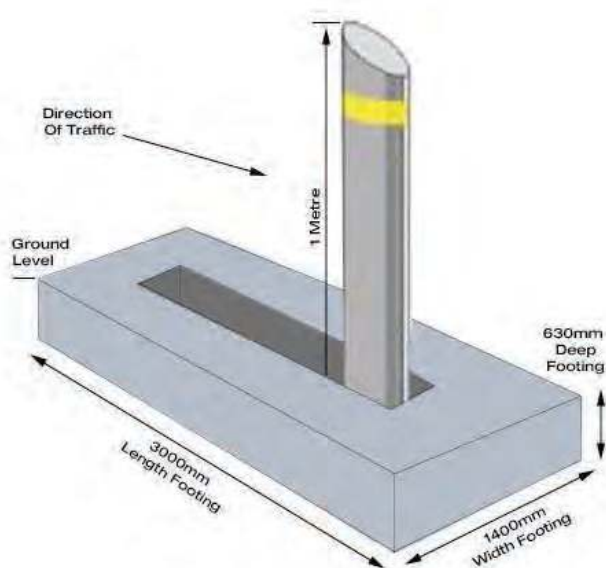
VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION
V/7200KG	N2A	80	90	3.1



RB003-50 BOLLARD

(BSI IWA-1:2013) V/7200(N2A1)/80/90:3.1

SUPER SHALLOW MOUNT RETRACTABLE BOLLARD



PATENT GRANTED

SPECIFICATION

- ▶ Height above ground: 950mm
- ▶ Footing Depth: Only 630mm
- ▶ Options: Stainless steel & mild steel shroud available

**ALSO AVAILABLE IN
48KM/H & 64 KM/H
OPTIONS**



Ezi Security Systems
SERIOUS SECURITY IS EZI

safetyflex
ANTI-TERRORIST BOLLARDS
RAILINGS & CRASH FENCES

PSSA
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ASIAL
MEMBER
AUSTRALIAN SECURITY INDUSTRIES ASSOCIATION

SPRINGLINE 30

(BSI PAS68:2010) V/7500[N3C1]/48/90:3.4/6.4/400

ONLY 400MM FOUNDATION - FITTED AND TEST IN SOFT GROUND



- ▶ No need for deep foundations.
- ▶ Fitted and tested in soft ground (type 1 stone).
- ▶ No heavy transport needed to move it to and from sites.
- ▶ No heavy plant needed to install it.
- ▶ The fence system is delivered in breakdown kits with ready-made cages.

This newly designed fencing system can be fitted in soft waterlogged ground or hard ground with only a foundation of 400mm deep. The foundation post blocks are not linked underground so you do not have to run the fence in a straight line. The posts slings have also been designed so they are independently linked to each post so that the system can go up and down slopes and around corners, by just moving the slings.

No special parts are needed to do this as the cable slings are designed to be short so they are easy to handle and follow the contour of the ground by moving the slings on the posts. Once the slings are tightened you will have no rope drop in the line. The sling ground height can be set exactly to the drawing. A great advantage with this system is if you need an access along the fence line you can remove just part of the fence very quickly.

APPLICATION

- ▶ Nuclear Sites
- ▶ Sports Arenas
- ▶ Police Stations
- ▶ Critical Infrastructure
- ▶ Government Buildings
- ▶ Conference Centres

The Springline fence had capacity to be installed in short and long runs and can stop a to 7500kg truck.

Ezi also offers the Springline Fence 'Springline Fence 50'

SPRINGLINE 30 VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION	FOOTING DEPTH
V/7500KG	N2	48	90	3.4	400mm



SPRINGLINE 50

(BSI IWA14:2013) V/7200[N3C]/80/90:8.5

SHALLOW MOUNT IWA 14 CRASH TESTED FENCE ONLY 400MM FOUNDATION

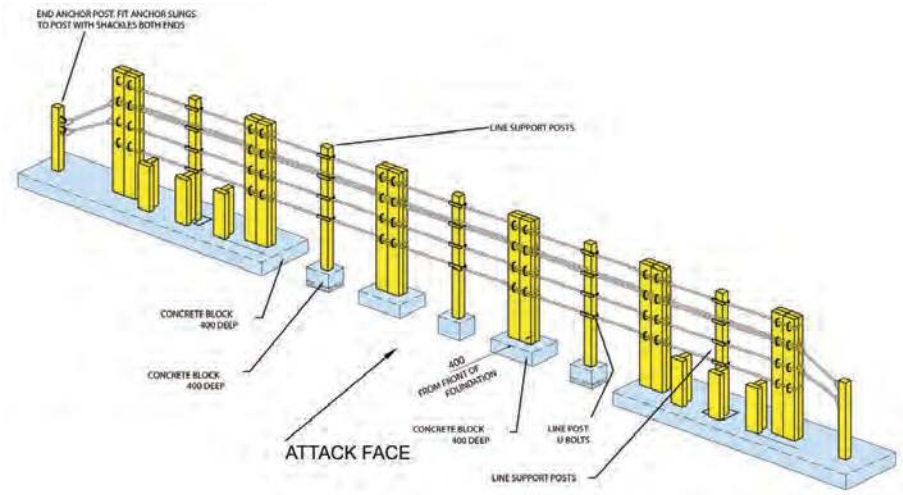


This new generation of crash fence has been designed to protect perimeters from any terrorist, criminal or accidental attacks. The IWA 14 Springline 50 crash fence has been designed for hostile vehicle mitigation. Safetyflex Barriers were commissioned to specially design a crash fence, with a very shallow foundation of only 400mm that could be installed into soft ground.

This IWA 14 Springline crash fence is designed to protect key sites like airports, MOD Bases, oil and gas infrastructure, or any other facility that requires hostile vehicle mitigation measures along the fence line, from any vehicle attack. The Springline 50 can be installed in short and long runs, and can stop a 7200kg truck at 80kph.

APPLICATION

- ▶ Airports
- ▶ MOD Bases
- ▶ Oil and Gas Infrastructure



SPRINGLINE 50 VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION	FOOTING DEPTH
V/7200KG	N3C	80	90	8.5	400mm



WEDGE II

(BSI PAS68) V/7500[N3]/80/90:0.0/20.7
(BSI IWA 14-1) V/7200[N3C]/80/90:0.0

STATE OF THE ART FOUNDATION AND REINFORCEMENT



Elkosta Wedge II is designed to guarantee the full level of security. Typical areas of application are embassies, government seats, research and development centres, power stations, industrial plants, military sites, airports and other high security areas. It can be installed as a single unit or in combination with other products (e.g. barriers, gates, tyre killers or bollards) in order to realise a sluice arrangement forming a vehicle check point.

"THE WEDGE II IS ALSO SUITABLE FOR INSTALLATION IN CITY CENTRES DUE TO ITS SHALLOW FOUNDATION DEPTH OF ONLY 300MM"

The new elkosta Wedge II was successfully tested to PAS 68:2013 and IWA 14-1:2013 standard stopping a 7.5 t vehicle travelling at 80 km/h with ZERO penetration. With its decreased installation depth and foundation footprint combined with the lowest foundation thickness in the world, the new Wedge II reduces installation costs significantly and allows installation in areas where foundation depths are limited due to underground utilities. Compared to the previous model, the Wedge II features many technically innovative details, like state of art foundation and reinforcement. It offers high energy efficiency due to employment of pressure spring pistons. Starting power and lifting power for raising of blocking element due to energy stored in pressure springs have been optimised as well. Further improvements are the scale downed versions of accumulator for EFO and RO3 function. The Wedge II effectively blocks the road within 3 sec., decreasing to 1 sec. (via optional accumulator). The WEDGE II working oil volume is reduced due to use of a single hydraulic cylinder. This means lower costs for higher security.

CONTROL OPTIONS

- ▶ Certified with a blocking width of 4m according to the following performance classifications:
- ▶ Extremely fast operation (approx 1 sec EFO option)
- ▶ State of art foundation and reinforcement
- ▶ Only 300mm installation depth (200mm foundation thickness + 100mm below road covering)
- ▶ With or without safety skirt - one version for all requirements
- ▶ Reduced working oil volume due to single hydraulic cylinder
- ▶ Scale-downed versions of accumulator for EFO and RO3 function
- ▶ Compact and easy to install assembly unit
Easy assembly for effortless maintenance
- ▶ LEDs available as optional extra

WEDGE II VEHICLE PERFORMANCE CLASSIFICATION

VEHICLE TEST WEIGHT	VEHICLE CLASS	VEHICLE SPEED	VEHICLE ANGLE	VEHICLE PENETRATION	25KG+ DISPERSION
V/7500KG	N3	80	90	0.0	20.7
V/7200KG	N3C	80	90	0.0	



WEDGE II

(BSI PAS68) V/7500[N3]/80/90:0.0/20.7
(BSI IWA 14-1) V/7200[N3C]/80/90:0.0

STATE OF THE ART FOUNDATION AND REINFORCEMENT



STANDARD TECHNICAL SPECIFICATIONS

Design	Wedge with electro-hydraulic drive in separate drive cabinet. Optional: Wedge fitted with safety skirt	Control Box	Control unit configuration STANDARD: HxWxD = 400x400x-200mm, IP 66 Control unit configuration STANDARD: HxWxD = 400x400x-200mm, IP 66 Control unit configuration VARIO BASIC: HxWxD = 600x400x200mm, IP 66 Control unit configuration VARIO EFO: HxWxD = 600x400x-20mm, IP 66 Control unit configuration VARIO RO3: HxWxD = 800x400x300 mm, IP 66			
Impact Load	1852 kJ (7.5 t @ 80 km/h) Certified according to PAS68 V/7500[N3]/80/90:0.0/20.7 and IWA 14-1 V/7200[N3C]/80/90:0.0	Weight	Approx. 1500 – 2000 (wedge) Approx. 280 – 400kg (drive cabinet)			
Blocking Width	2.0m, 2.5m, 3.0m, 3.5m and 4.0m		LED-strip lighting and front cover fitted to impact beam			
Blocking Height	1000mm	Lighting (Optional)	LED-strip lighting and front cover fitted to impact beam			
Base frame	L x W x H: (blocking width + 200mm) x 1950mm x300 mm	Colour (Standard)	Blocking element	RAL 7030 stone grey		
Drive Cabinet	H x W x D: 1400mm x 1200mm x 400mm incl. 200mm high base	Colour (Optional)	Base frame	RAL 7030 stone grey		
Emergency	Via hand pump (standard)		Cover plate	RAL 7030 stone grey		
Operation	Accumulator incl. rechargeable batteries for 3 movements (RO3) (optional)		Scissor joints	RAL 3000 flame red		
Operating Times	Raising: approx. 3.5 ec, lowering: approx. 3.5sec (standard) Emergency fast operation (EFO): approx. 1sec (with optional accumulator)		Hydraulic cylinder	RAL 3000 flame red		
Wheel Load	100kN according to SLW60 – DIN 1072		Drive cabinet	RAL 7035 light grey		
Drive	4.0kW, 400V (three-phase), 50Hz		Optional safety skirt	RAL 3000 flame red		
Hydraulic Fluid	Mineral oil HLP 22 or biodegradable oil Plantohyd 22 S, non-hazardous to water		Cover plate	V-striped RAL 1007 daffodil yellow / RAL 9005 jet black		
Control unit	PLC in control box installed in drive cabinet (standard), PLC in separate control box for wall mounting inside a building (optional), control voltage 24V			Optional safety skirt	V-striped RAL 3000 flame red / RAL 9010 pure white	
Supply voltage	400V (3Ph + N + PE), 50Hz				cross striped RAL 1007 daffodil yellow / RAL 9005 jet black	
					cross striped RAL 3000 flame red / RAL 9010 pure white or other RAL colours or DB colours	
		Scissor joints, hydraulic cylinder, blocking element and base frame: other RAL colours				

WEDGE II

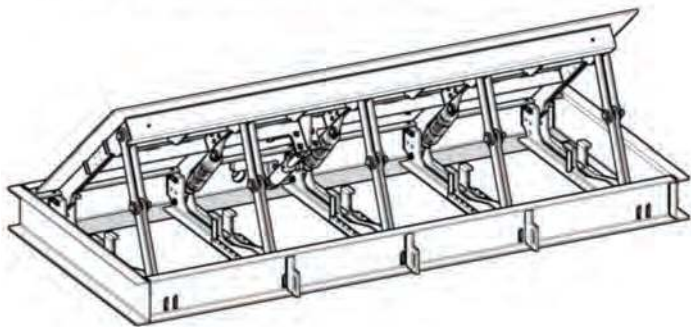
(BSI PAS68) V/7500(N3)/80/90:0.0/20.7
(BSI IWA 14-1) V/7200(N3C)/80/90:0.0

STATE OF THE ART FOUNDATION AND REINFORCEMENT



STANDARD TECHNICAL DRAWING

Wedge II standard configuration



Wedge II with optional safety skirt and LED-strip lightening



STRONG ARM M30 & M50

ASTM F2656-07 M30-P1 (M30)
ASTM F2656-07 M50-P2 (M50)

TAKING BARRIER ARMS TO THE EXTREME



StrongArm M30& M50 take barrier arms to the extreme. These machines stop a 15,000lb truck driving 48 kph in its tracks. While they protect nuclear power plants, government agencies, defence facilities and many other key assets, they also protect against accidental injury and death. Nearly all crash barrier accidents happen to authorised gate users, posing significant user peril and owner liability exposure.

*"STRONGARM M30& M50 MITIGATES THIS FACT BY EMPLOYING
MANY STANDARD SAFETY BENEFITS NOT OFFERED BY COMPETITOR OPERATORS"*

Lower barrier arms ensures that initial impact on small passenger vehicles occurs at the front of the vehicle, slowing or stopping the vehicle before the upper barrier arm impacts the passenger compartment. Most other designs, without a lower arm, would hit at windshield level sheering off the top half of a smaller vehicle. A smaller vehicle is more likely to be driven by a non-threatening innocent motorist. Entrapment shield around catch post prevents potential pedestrian entrapment or injury. Bright LED arm lighting increases visibility, especially at night and in harsh weather, to prevent accidental collision.

Integrated photo eye automatically detects people or vehicles in the way of the barrier arm during closing. The traffic signal clearly alerts motorists when it is safe to pass through the barrier arm opening.

The plate mount design allows foundation construction independent of equipment installation. Self contained controls and hydraulics reduce the need for expensive and time consuming trenching of hydraulic hose and wiring to a remote control panel. The arms also have ultra rugged hot dip galvanized steel for optimal corrosion protection. Available option: durable "Signal Yellow" polyester powder coat over zinc plate for an enduring, attractive finish. Shallow M30 mount foundation reduces installation time and worries about utilities, water table and other site concerns.

The StrongArm™ M30 and M50 barrier arm provides ultimate hardened security with unmatched user safety for the demanding reliability requirements of industrial, government and military users. The unique dual arm design prevents a 15,000lb (6.8 metric tons) truck or small passenger vehicle from penetrating a secure perimeter. Fast, continuous duty* arm speed minimises gate open time, and reduces traffic backup by moving more vehicles per hour through the access point.

STANDARD BENEFITS

- ▶ Ultra reliable hydraulics and controls
- ▶ Extremely low maintenance
- ▶ Highest lifetime value - low lifetime cost
- ▶ Dual arm design
- ▶ Highly visible LED lighting across entire length of upper arm
- ▶ Traffic signal
- ▶ Supervised photo eye
- ▶ Emergency Fast Close
- ▶ Hand pump for manual operation
- ▶ Integrated encoder provides precise arm positioning
- ▶ NEMA 3R all weather enclosure with superior hot dip galvanized anticorrosion finish
- ▶ Arm hydraulically locks - no need for Mag lock
- ▶ Environmentally friendly, wide temperature range fluid



STRONG ARM M30 & M50

ASTM F2656-07 M30-P1 (M30)
ASTM F2656-07 M50-P2 (M50)

TAKING BARRIER ARMS TO THE EXTREME



STANDARD TECHNICAL SPECIFICATIONS - STRONGARM M30

Crash Certified	ASTM F2656-07 M30, P1
Duty Cycle	Continuous duty*
Horsepower	2 hp
Open/Close	6 to 8 seconds depending on arm length
Emergency Fast Close Time	5 to 7 seconds depending on arm length
Clear Opening	12 ft to 24 ft in 2 ft increments (366 cm to 732 cm in 61 cm increments) Call for custom arm length
Ingress Protection	IP56
Temp Rating	-40° F to 158° F (-40° C to 70° C) using environmentally friendly Uniflow fluid -10° F to 158° F (-23° C to 70° C) using biodegradable fluid
1 Phase Power	208/230 VAC, 50/60 Hz 20A
3 Phase Power	208/230 VAC, 50/60 Hz 20A 380/480 VAC, 50/60 Hz 15A
Foundation	6 x 6 x 2 ft (183 x 183 x 61 cm) or 4 ft square (122 cm square) 3,000 psi concrete, #5 rebar, grade 60
Communication	RS-232, RS-485
Warranty	5 year

STANDARD TECHNICAL SPECIFICATIONS - STRONGARM M50

Crash Certified	ASTM F2656-07 M50, P2
Duty Cycle	Continuous duty*
Horsepower	2 hp
Open/Close	6 to 8 seconds depending on arm length
Emergency Fast Close Time	5 to 7 seconds depending on arm length
Clear Opening	12 ft to 24 ft in 2 ft increments (366 cm to 732 cm in 61 cm increments) Call for custom arm length
Ingress Protection	IP56
Temp Rating	-40° F to 158° F (-40° C to 70° C) using environmentally friendly Uniflow fluid -10° F to 158° F (-23° C to 70° C) using biodegradable fluid
1 Phase Power	208/230 VAC, 50/60 Hz 20A
3 Phase Power	208/230 VAC, 50/60 Hz 20A 380/480 VAC, 50/60 Hz 15A
Foundation	6 x 6 x 2 ft (183 x 183 x 61 cm) or 4 ft square (122 cm square) 3,000 psi concrete, #5 rebar, grade 60
Communication	RS-232, RS-485
Warranty	5 year

STANDARD TECHNICAL DRAWING

