

HOSTILE VEHICLE MITIGATION BROCHURE

PROTECTING PEOPLE & PLACES SINCE 1987



WHO ARE COVA SECURITY GATES?

SOME OF OUR UK TEAM...



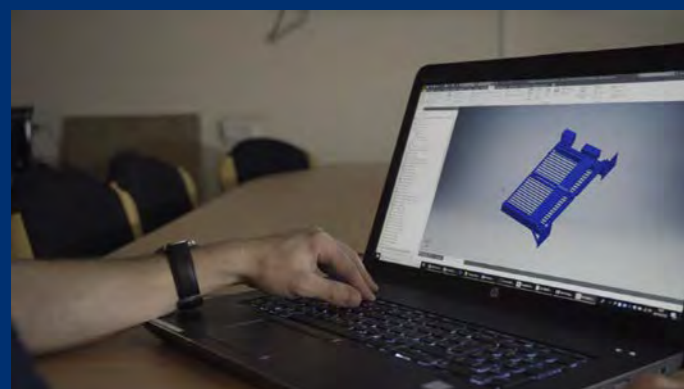
We are a leading manufacturer of high-quality perimeter security equipment including 'crash rated' products to deter and reduce the consequences of a hostile vehicle attack when being used as a weapon.

From our UK headquarters, Cova Security Gates design and manufacture trackless and tracked bi-folding gates, cantilevered sliding gates, shallow and full depth road blockers, static and rising bollards, boom and swing gate barriers, and pedestrian gates.

Celebrating 35 years of innovation we have shaped our business to provide valued clients a complete turnkey solution through the design, manufacture and installation of our perimeter security products, here in the UK and across the world.

Our commitment to our clients extends well beyond the initial purchase as we offer a range of after sales service and maintenance packages to suit your needs, maximising return on investment.

DESIGN



Our experienced team of mechanical and electrical design engineers work closely with our clients, to deliver the project to the bespoke site-specification required.

MANUFACTURE



Our skilled manufacturing team weld, fabricate, build and assemble our bespoke products specifically to the project design, inline with the client specifications.

INSTALLATION



We deliver, install, and commission our products for operation, to suit site conditions wherever the site is located in the world.

MAINTENANCE



No-one knows our gates better than we do, which is why we also offer breakdown repair, maintenance, remote technical support and spare part services.

OUR MISSION, VALUES & OBJECTIVES

OUR CRASH RATED PAS 68 & IWA 14-1 PRODUCT RANGE

Cova Security Gates Ltd was setup by two engineers in 1987, driven by their belief that they could offer a better solution to protect people and places.

Our headquarters, located in Crawley, serves as a hub for our UK and global operations, and we also foster strategic partnerships to enhance our reach and capabilities. We employ qualified professionals, sponsor training from apprenticeships to degree courses and offer a range of quality products and services. Our business adheres rigorously to our ISO 9001 quality management process. This standardised framework ensures that we maintain stringent quality control throughout our operations, promoting consistency, customer satisfaction, and continual improvement in all aspects of our business operation.

OUR MISSION

- To protect people and places.
- To enable our customers to safely protect their people and property from terrorist or criminal attack by providing thoughtful and well designed products properly installed and maintained, to ensure they do not fail at a critical time.

OUR VALUES

- Professional - Knowledgeable trained people, experts in their chosen field, continuous development of our staff.
- Innovative - Encourage and nurture creativity throughout the business, to develop engineered products and services.
- Creative - Delivering bespoke solutions.
- Excellence - Focused attention to detail.
- Relevance - Thinking of tomorrow's threats today.

OUR OBJECTIVES

- Identify and understand customer needs to meet and exceed their expectations with the appropriate measures necessary for success.
- Access identified markets through effective sales channels.
- Attract, retain and motivate high quality staff.
- Focus on continual improvement.
- Develop flexible and integrated products to handle future growth.

This brochure highlights our range of PAS 68 and IWA 14-1 compliant 'crash rated' products. Our PAS 68 and IWA 14-1 crash tested and rated products have been specifically developed and tested to create a stand off in case of a Vehicle-borne Improvised Explosive Devices (VBIED), the original purpose of HVM.

Hostile Vehicle Mitigation (HVM) is a phrase used to describe measures to counter the threat of terrorist vehicle bombs when considering the resilience against an attack of people or buildings and important infrastructure sites such as airports, shopping centres, railways stations, public areas etc.

Cova Security Gates' range of HVM products protect critical national infrastructure and high-profile sites and businesses across the world from vehicle impact at speeds of 30mph, 40mph and 50mph.



CSG 10140

Crash Tested Cantilevered Sliding Gate



CRASH TESTING DATA

(European Patent No 2369126)

Test Rating:

3m wide: PAS 68: 2010 V/7500[N2]/64/90:1.7/0.0*

5m wide: PAS 68: 2010 V/7500[N2]/64/90:2.0/0.0*

8m wide: PAS 68: 2010 V/7500[N2]/64/90:3.0/0.0*

RESULTS TABLE	3m Wide	5m Wide	8m Wide
Vehicle Test Weight:	7500kg	7500kg	7500kg
Vehicle Class:	N2	N2	N2
Vehicle Speed mp/h:	40	40	40
Vehicle Speed km/h:	64	64	64
Vehicle Angle:	90	90	90
Vehicle Penetration:	1.7	2.0	3.0
Dispersion Distance:	0.0	0.0	0.0

PRODUCT OVERVIEW

The CSG 10140 is designed to prevent a 7.5 tonne vehicle-borne terrorist/ram-raid threat at 40mph (64kmh). Constructed from regular steel section, rather than large and unsightly heavy weight materials. This gate can be aesthetically blended into the building or perimeter line, enabling hostile vehicle mitigation.

The standard material reduces production costs, offering an effective crash tested solution at a comparatively low cost when evaluated against other available products. The CSG 10140 requires a foundation depth of only 400mm, ideally suited to shallow and/or utility congested substructure.

Rated to 40mph / 64km/h



DIMENSIONS

Gate can be supplied to suit a maximum opening of 8000mm. Height of gate to suit fence line: standard heights 1800mm – 3000mm, higher if required.

CONSTRUCTION

Gate structure is manufactured from mild steel sections and proprietary folded track.

Infill typically vertical bar utilising 30mm RHS, a range of other options are available including palisade, bar configuration and mesh.

OPERATING SPEED

Enhanced Drive: 300mm/sec

Speed of operation of the gate is dependant on the gate size, infill, site location and force limitation safety requirements.

CONTROL

- CSG's in-house manufactured enhanced drive unit
- PLC based control system
- Operational Usage: 80% duty cycle

SAFETY

- Photocells
- CAT3 Safety Edge System

Designed to meet BS-EN13241-1 for installation, testing and ongoing compliance of automatic gate and door systems appropriate to location, usage and operational requirements.

Additional safety devices such as vehicle detection road loops and laser scanners may be required.

FINISH

- Shot blast to SA 2.5
- Primed: Either galvanised or zinc primer @60µm.
- Topcoat: Polyester top coat @60µm to a specific RAL No.

ELECTRICAL SUPPLY

Mains Supply: 230V 50Hz single phase rated @ 10 Amp

CSG 10503

Crash Tested Full Depth Road Blocker



CRASH TESTING DATA

The test was carried out using an Iveco (Ford) Cargo rigid truck ballasted to a test weight of 7,600kg and impacted the blocker at 82.1km/hr.

Test Rating:

PAS 68: 2005 V7500 (N2)/80/90:0/25*

RESULTS TABLE

Vehicle Test Weight:	7500kg
Vehicle Class:	N2
Vehicle Speed mp/h:	50
Vehicle Speed km/h:	80
Vehicle Angle:	90
Vehicle Penetration:	0.0
Dispersion Distance:	25

PRODUCT OVERVIEW

The CSG 10503 is the only product of its kind to have reduced the severity of a real life suicide bomber terrorist attack (FCO, Istanbul, 2003). The CSG 10503 (625mm high x 3000mm wide) full depth blocker has been tested at the Motor Industry Research Association (MIRA), Nuneaton, Warwickshire.

Rated to 50mph / 80km/h



DIMENSIONS

Available in a number of widths from 2000mm to 4000mm

Rise Height: Minimum 625mm (@35°)

Riser Plate (back to front): 1200mm

Width Nominal: 3000mm

Foundation Depth (from road level): 1000mm approx

Skirt: One piece 3mm thick sheet steel skirt

OPERATING TIME

Raise Speed: 4 to 6 seconds

Emergency Fast Raise (EFO): 1 to 2 seconds

Lower Speed: Gravity fall

CONTROL

- PLC based control system

- Hydraulic power unit (HPU)

- Manual hand pump for manual operation

- Operational Usage: 100% duty cycle

SAFETY

Unlike some crash rated blockers on the market the conventional one piece full depth skirt affords substantial pedestrian safety.

It is recommended that either a laser scanner or vehicle detection road loop system is installed with the road blocker.

OPTIONS

Accumulators can be incorporated to provide emergency fast operation and/or limited operation during power failure when combined with a 24VDC UPS.

FINISH

- Shot blast to SA 2.5

- Primed: Either galvanised or zinc primer @60µm.

- Topcoat: Polyester top coat @60µm to a specific RAL No.

ELECTRICAL SUPPLY

Mains Supply: 400V 50Hz three phase rated @ 10 Amp

CSG 10506

Crash Tested Shallow Depth Road Blocker



CRASH TESTING DATA

The CSG 10506 Shallow Depth Blocker has been tested at the Motor Industry Research Association (MIRA), Nuneaton, Warwickshire.

The test was carried out using an Iveco (Ford) Cargon rigid truck ballasted to a test weight of 7,755kg and impacted the blocker at 80.8 km/hr.

Under requirements contained within British Standards for vehicle security barriers, the test achieved a classification of Retractable blocker.

Test Rating:

Test Rating: PAS 68: 2005 V7500 (N2)/80/90:0/25*

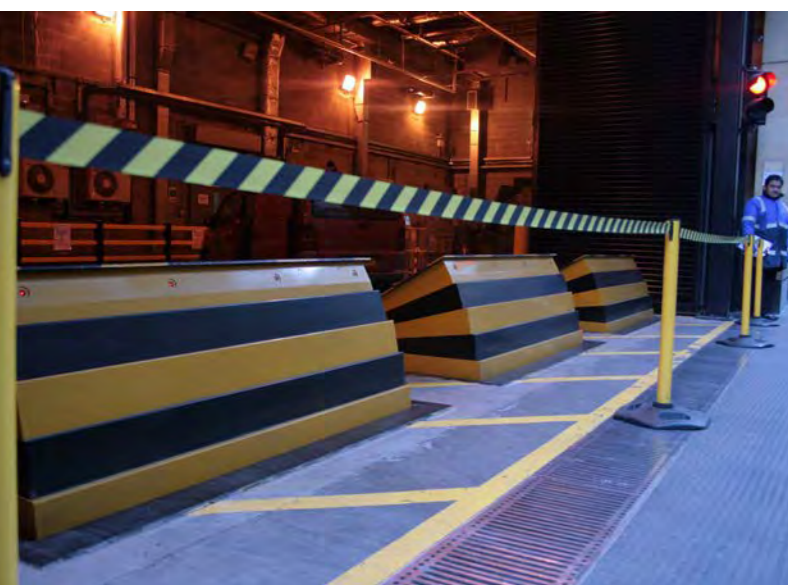
RESULTS TABLE

Vehicle Test Weight:	7500kg
Vehicle Class:	N2
Vehicle Speed mp/h:	50
Vehicle Speed km/h:	80
Vehicle Angle:	90
Vehicle Penetration:	0.0
Dispersion Distance:	25

PRODUCT OVERVIEW

The CSG 10506 is manufactured from heavy duty steel sections (fully welded). Tread plates are of 10mm thick (over plain) durbar and spragged on three faces with 400mm long heavy duty reaction buttresses on rear face at 560mm centres. Our Road Blocker has been designed for axle weights of 15 tonne and multiple widths are available to suit particular applications.

Rated to 50mph / 80km/h



DIMENSIONS

Available in a number of widths from 2000mm to 4000mm

Rise Height: Minimum 750mm (@35°)

Riser Plate (back to front): 1600mm

External Base Frame: 3180mm wide (across road) x 1940mm

Total Depth of Base Frame (below road level): 215mm

Foundation Depth (from road level): 450mm

Typical Foundation Area Required (for 3 metre wide riser): 4200mm wide x 3300mm

Skirt: Fully folding 4-sections

OPERATING TIME

Raise Speed: 4 to 6 seconds

Emergency Fast Raise (EFO): 1 to 2 seconds

Lower Speed: Gravity fall

CONTROL

- PLC based control system

- Hydraulic power unit (HPU)

- Manual hand pump for manual operation

- Operational Usage: 100% duty cycle

SAFETY

Unlike some crash rated blockers on the market the conventional one piece full depth skirt affords substantial pedestrian safety.

It is recommended that either a laser scanner or vehicle detection road loop system is installed with the road blocker.

OPTIONS

Accumulators can be incorporated to provide emergency fast operation and/or limited operation during power failure when combined with a 24VDC UPS.

FINISH

- Shot blast to SA 2.5

- Primed: Either galvanised or zinc primer @60µm.

- Topcoat: Polyester top coat @60µm to a specific RAL No.

ELECTRICAL SUPPLY

Mains Supply: 400V 50Hz three phase rated @ 10 Amp

CSG 10630

Crash Rated Trackless Bi-Folding Gate



CRASH TESTING DATA

Design Assessment: PAS 68:2010 D/3500[N1]/48/90

RESULTS TABLE

Vehicle Test Weight:	3500kg
Vehicle Class:	N1
Vehicle Speed mp/h:	30
Vehicle Speed km/h:	48
Vehicle Angle:	90
Vehicle Penetration:	2.2
Dispersion Distance:	N/A
Energy:	274kJ

PRODUCT OVERVIEW

Based off our CSG 10640/50 models, this gate has been engineered to suit your specific site requirements for preventing vehicle impact at 30mph (48km/h) by a car or light van Class N1 weighing 3500kg (7700lb).

This surface fixed crash rated bi-folding gate has been designed to overcome situations where it is impossible or impractical to excavate an existing slab such as in underground car parks, or sites where the slab depth is limited.

A standard profile base plate is 'surface fixed' to the road or car park using a minimal number of concrete anchors. The thickness of the base slab material for the gates to be fixed in place is minimum 250mm, thus eliminating the need for foundation excavation.

Rated to 30mph / 80km/h



DIMENSIONS

Maximum Width: 6000mm
Nominal Height: 2500mm

OPERATING TIME

Open Cycle: 8 to 14 seconds
Close Cycle: 8 to 14 seconds
Locking Pin Cycle: 3 seconds

Speed of operation of the gate is dependant on the gate size, infil, site location and force limitation safety requirements.

CONTROL

- PLC based control system
- Hydraulic motor drive (European patent No 1595050)
- Hydraulic power unit (HPU) mounted onto hinge post
- Manual hand pump for manual operation
- Hydraulically operated locking pin to secure gate leaf
- Operational Usage: 100% duty cycle

ELECTRICAL SUPPLY

Mains Supply: 230V 50Hz single phase rated @ 10 Amp

SAFETY

- Photocells
- CAT3 Safety Edge System

Designed to meet BS-EN13241-1 for installation, testing and ongoing compliance of automatic gate and door systems appropriate to location, usage and operational requirements.

Additional safety devices such as vehicle detection road loops and laser scanners may be required.

FINISH

- Shot blast to SA 2.5
- Primed: Either galvanised or zinc primer @60µm.
- Topcoat: Polyester top coat @60µm to a specific RAL No.

INSTALLATION

Surface fix

CSG 10640

Crash Tested Trackless Bi-Folding Gate



CRASH TESTING DATA

Test Rating:

4200mm Wide: PAS 68:2010 V/7500[N2]/64/90:2.2/0.0*
6000mm Wide: PAS 68:2013 V/7500(N2)/64/90:2.4/0.0*
6000mm Wide: IWA 14-1:2013 V/7200[N2A]/64/90:2.8*

LPS 1175 CERTIFIED

Available as an optional extra:

LPCB Cert. No. 1684g - B3 (SR2)
LPCB Cert. No. 1684h - C5 (SR3)
LPCB Cert. No. 1684i - B3 (SR2)

RESULTS TABLE

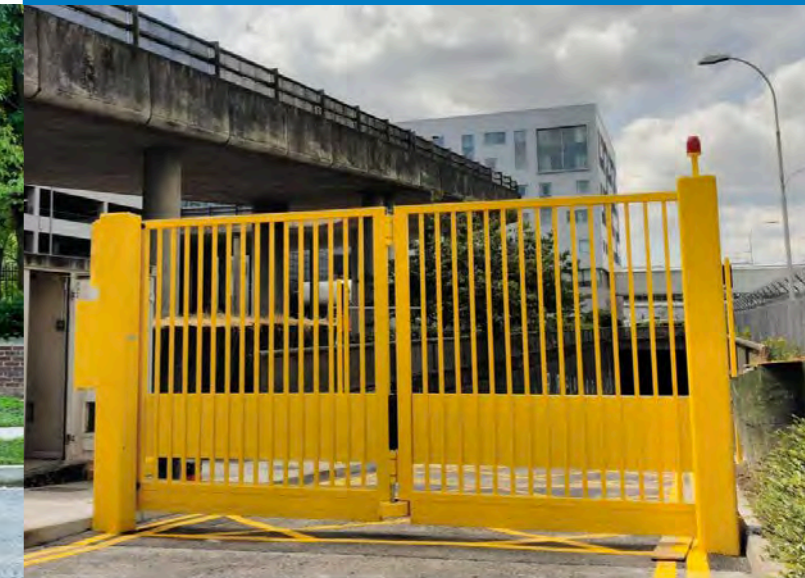
	PAS 68 4200mm	PAS 68 6000mm	IWA 14-1 6000mm
Vehicle Test Weight:	7500kg	7500kg	7200kg
Vehicle Class:	N2	N2	N2A
Vehicle Speed mp/h:	40	40	40
Vehicle Speed km/h:	64	64	64
Target Impact Energy:	N/A	1185.2	1137.8
Vehicle Angle:	90	90	90
Vehicle Penetration:	2.2	2.4	2.8
Dispersion Distance:	0.0	0.0	N/A

PRODUCT OVERVIEW

The CSG 10640/50 is the world's first crash tested trackless bi-folding gate. Designed to prevent vehicle borne terrorist threats, the gate blends seamlessly with any building or sit perimeter line, enabling discreet hostile vehicle mitigation with a field proven drive system. The gate requires a minimal foundation depth of 280mm, ideally suited to shallow and/or utility congested substructures.

The base design of the product allows 100mm topping, 380mm embedment depth and finished surface and the gate structure is manufactured from proprietary mild steel sections. This product can be modified to meet client requirements. It lends itself to the continuation of any high security fencing specification, powered fence, or security toppings across the normally vulnerable vehicular entrance to site.

Rated to 40mph / 64km/h



DIMENSIONS

Maximum Width: 6000mm
Nominal Height: 2500mm

OPERATING TIME

Open Cycle: 8 to 14 seconds
Close Cycle: 8 to 14 seconds
Locking Pin Cycle: 3 seconds

Speed of operation of the gate is dependant on the gate size, infil, site location and force limitation safety requirements.

CONTROL

- PLC based control system
- Hydraulic motor drive (European patent No 1595050)
- Hydraulic power unit (HPU) mounted onto hinge post
- Manual hand pump for manual operation
- Hydraulically operated locking pin to secure gate leaf
- Operational Usage: 100% duty cycle

ELECTRICAL SUPPLY

Mains Supply: 230V 50Hz single phase rated @ 10 Amp

SAFETY

- Photocells
- CAT3 Safety Edge System

Designed to meet BS-EN13241-1 for installation, testing and ongoing compliance of automatic gate and door systems appropriate to location, usage and operational requirements.

Additional safety devices such as vehicle detection road loops and laser scanners may be required.

FINISH

- Shot blast to SA 2.5
- Primed: Either galvanised or zinc primer @60µm.
- Topcoat: Polyester top coat @60µm to a specific RAL No.

INSTALLATION

Sub fixed

CSG 10650

Crash Tested Trackless Bi-Folding Gate



CRASH TESTING DATA

Test Rating:

Test Rating: PAS 68:2010 V/7500[N3]/80/90:6.8/9.1*

LPS 1175 CERTIFIED

Available as an optional extra:

LPCB Cert. No. 1684b - B3 (SR2)

LPCB Cert. No. 1684d - C5 (SR3)

RESULTS TABLE

Vehicle Test Weight:	7500kg
Vehicle Class:	N3
Vehicle Speed mp/h:	50
Vehicle Speed km/h:	80
Vehicle Angle:	90
Vehicle Penetration:	6.8
Dispersion Distance:	9.1

PRODUCT OVERVIEW

The CSG 10640/50 is the world's first crash tested trackless bi-folding gate. Designed to prevent vehicle borne terrorist threats, the gate blends seamlessly with any building or site perimeter line, enabling discreet hostile vehicle mitigation with a field proven drive system. The gate requires a minimal foundation depth of 280mm, ideally suited to shallow and/or utility congested substructures.

The base design of the product allows 100mm topping, 380mm embedment depth and finished surface and the gate structure is manufactured from proprietary mild steel sections. This product can be modified to meet client requirements. It lends itself to the continuation of any high security fencing specification, powered fence, or security toppings across the normally vulnerable vehicular entrance to site.

Rated to 50mph / 80km/h



DIMENSIONS

Maximum Width: 4200mm
Nominal Height: 2500mm

OPERATING TIME

Open Cycle: 8 to 14 seconds
Close Cycle: 8 to 14 seconds
Locking Pin Cycle: 3 seconds

Speed of operation of the gate is dependant on the gate size, infill, site location and force limitation safety requirements.

CONTROL

- PLC based control system
- Hydraulic motor drive (European patent No 1595050)
- Hydraulic power unit (HPU) mounted onto hinge post
- Manual hand pump for manual operation
- Hydraulically operated locking pin to secure gate leaf
- Operational Usage: 100% duty cycle

ELECTRICAL SUPPLY

Mains Supply: 230V 50Hz single phase rated @ 10 Amp

SAFETY

- Photocells
- CAT3 Safety Edge System

Designed to meet BS-EN13241-1 for installation, testing and ongoing compliance of automatic gate and door systems appropriate to location, usage and operational requirements.

Additional safety devices such as vehicle detection road loops and laser scanners may be required.

FINISH

- Shot blast to SA 2.5
- Primed: Either galvanised or zinc primer @60µm.
- Topcoat: Polyester top coat @60µm to a specific RAL No.

INSTALLATION

Sub fixed

CSG 10800

Articulated Shallow Depth Static Bollard



CRASH TESTING DATA

The system has been fully tested at the Transport Research Laboratories, Wokingham, Berkshire, including full testing of the end units in arrays of three bollards.

Test Rating:

Test Rating: PAS 68:2007 V/7500[N2]/80/90:0/17.9*

Test Rating: PAS 68:2007 V/7500[N2]/80/90:2.8/9.8*

RESULTS TABLE	CSG 10840	CSG 10850
Vehicle Test Weight:	7500kg	7500kg
Vehicle Class:	N2	N2
Vehicle Speed mp/h:	40	50
Vehicle Speed km/h:	64	80
Vehicle Angle:	90	90
Vehicle Penetration:	0.0	2.8
Dispersion Distance:	17.9	9.8

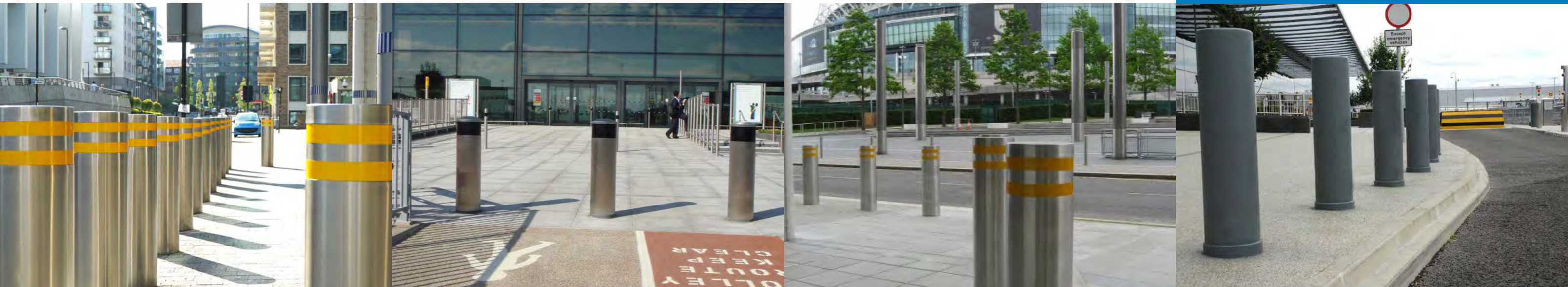
PRODUCT OVERVIEW

Current shallow depth bollard systems are restricted to straight line arrays on level sites - any directional or level changes necessitate bases and linkages to be specially engineered to suit the particular site conditions.

With this in mind, CSG have developed and tested the CSG 10840/50 articulated shallow depth static bollard. This product offers a unique articulated linkage for each bollard unit to accommodate gradients up to 3.6° (1:16), while allowing for convex and concave arrays.

This unique feature eliminates the necessity to survey and individually design and manufacture special units, allowing complete on-site freedom to adjust for height and position before tightening up connector plates to form a strong rigid link.

Rated to 50mph / 80km/h



DIMENSIONS

Core Diameter: 254mm
Full Height: 1050mm from FFL
Nominal Height Topping: 1000mm
Stainless Steel Sleeve Diameter: 279mm

Other sizes available on request.

CONSTRUCTION

- Mild steel circular hollow section
- Foot of bollard is embedded in 210mm concrete foundation.
- Unique articulated arm system allows the bollards to be installed on gradients, curved arrays and 90 degree angles achievable.
- Each bollard can be individually levelled via four jacking screws
- Left and right-hand end units fully tested to PAS 68:2007

OPTIONS

- Reflective 50mm wide band option sandwiched between two stainless steel bands
- Stainless steel sleeve option with DDA compliant band

FINISH

- Available in Galvanised or sleeved, painted to a specific RAL No
- Shot blast to SA 2.5
 - Primed: Either galvanised or zinc primer @60µm.
 - Topcoat: Polyester top coat @60µm to a specific RAL No.

CSG 10850FD

Full Depth Static & Removable Bollard



CRASH TESTING DATA

The system has been fully tested at the Transport Research Laboratories, Wokingham, Berkshire, including full testing of the end units in arrays of three bollards.

Test Rating:

Test Rating: PAS 68:2007 V/7500[N3]/80/90:10.6/11.1*

RESULTS TABLE	CSG 10850FD
Vehicle Test Weight:	7500kg
Vehicle Class:	N3
Vehicle Speed mp/h:	50
Vehicle Speed km/h:	80
Vehicle Angle:	90
Vehicle Penetration:	10.6
Dispersion Distance:	11.1

PRODUCT OVERVIEW

The CSG 10850FD is a bollard designed to safeguard vital national infrastructure against the threat of vehicle-borne improvised explosive devices.

It is constructed to be both static and detachable, providing complete coverage. This product has been individually tested as a single bollard, without any additional arrays. It offers a practical solution for sites that require a static bollard that does not need accommodate for shallow foundations.

Rated to 50mph / 80km/h



DIMENSIONS

Core Diameter: 273mm
Full Height: 1100mm from FFL
Nominal Height Topping: 1100mm
Stainless Steel Sleeve Diameter: 279mm

Other sizes available on request.

CONSTRUCTION

- Mild steel circular hollow section
- Foot of bollard is embedded in 850mm concrete foundation.

OPTIONS

- Reflective 50mm wide band option sandwiched between two stainless steel bands
- Stainless steel sleeve option with DDA compliant band
- The CSG 10850FD bollard can be removable when purchased with a galvanised inner liner.

FINISH

- Available in Galvanised or sleeved, painted to a specific RAL No
- Shot blast to SA 2.5
 - Primed: Either galvanised or zinc primer @60µm.
 - Topcoat: Polyester top coat @60µm to a specific RAL No.

CSG 10900

Manual Crash Tested Barrier - Miti-Gate®



CRASH TESTING DATA

CSG 10930 (Double Leaf) Test Rating:
PAS 68:2010 V/7500[N2]/48/90:2.5/0.0 tested at 10.8m

CSG 10940 (Single Leaf) Test Rating:
PAS 68:2010 V/7500[N2]/64/90:3.0/0.0 tested at 8.8m

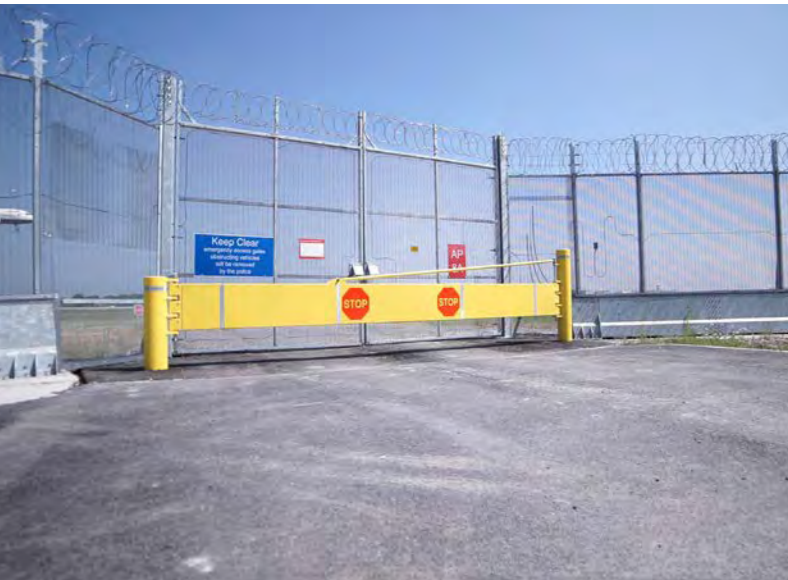
RESULTS TABLE	30mph	40mph
Vehicle Test Weight:	7500kg	7500kg
Vehicle Class:	N2	N2
Vehicle Speed mp/h:	30	40
Vehicle Speed km/h:	48	64
Vehicle Angle:	90	90
Vehicle Penetration:	2.5	3.0
Dispersion Distance:	0.0	0.0

PRODUCT OVERVIEW

This product has been developed and designed as an alternative, economical PAS 68 crash rated manual barrier for locations that have infrequent vehicular throughput, yet still require protection from a vehicle borne threat, ie; emergency vehicle access.

This product requires minimal civil work due to hinge and receptor posts only requiring 215mm foundation depth. With clear width availability of up to 10 metres utilising a double leaf format, the Miti-Gate® is by far the most cost effective, simple, PAS 68 compliant solution currently available. The Miti-Gate® lends itself to any site location where a vehicle borne threat exists, infrequent vehicular access is required, and pedestrian permeability is to be maintained. This product is a versatile manual barrier that can be hinged, bi-parting or removable, which offers the client a variety of options.

Rated to 40mph / 64km/h



DIMENSIONS

Maximum Width: 10,000mm
Nominal Height: 1100mm from FFL

CONSTRUCTION

Designed to be mounted between Cova's standard range of crash tested bollards, adapted with hinge and locking pins, the barrier can be hinged or completely removable.

The Miti-Gate® utilises CSG's patented arrestor system (European Patent No 2369126).

SECURITY

The Miti-Gate® can easily be secured in the closed position with a specific padlock which is applied to the hinge pin and locking pin.

FINISH

- Shot blast to SA 2.5
- Primed: Either galvanised or zinc primer @60µm.
- Topcoat: Polyester top coat @60µm to a specific RAL No.

ADVERTISING SPACE

The Miti-Gate® offers a large flat surface, a perfect advertising space. With use of graphics this gate can also be finished to blend with the installed environment.

INSTALLATION

Sub fixed

CSG 10940

Manual Crash Tested Barrier - Miti-Gate® R



NPSA (VADS)

- Small Vehicle - Class M1B
- Medium Vehicle - Class N1G

CRASH TESTING DATA

Test Rating:

IWA14-1:2013 V/1500[M1]/48/90:0.4

PAS 68:2010 Design assessment based on the original physical Miti-Gate® PAS 68 impact test.

RESULTS TABLE	IWA14-1	PAS 68
Vehicle Test Weight:	1500kg	7500kg
Vehicle Class:	M1	N2
Vehicle Speed mp/h:	30	40
Vehicle Speed km/h:	48	64
Target Impact Energy:	133.3	N/A
Vehicle Angle:	90	90
Vehicle Penetration:	0.4	3.0
Dispersion Distance:	N/A	0.0

PRODUCT OVERVIEW

An industry first Vehicle Security Barrier (VSB) independently tested to IWA14-1:2013, NPSA (Formerly CPNI) Vehicle Attack Delay Standards (VADS), and PAS68:2010, ensuring the most comprehensive protection against small, medium, and large vehicle threats.

The Miti-Gate® R is CSG's latest 'semi-permanent' manual swing barrier, borne from the highly successful Miti-Gate® introduced by Cova Security Gates in 2012. It has been Redesigned and Redeveloped to take account of new and emerging vehicle threats.

Rated to 40mph / 64km/h



DIMENSIONS

Maximum Width: 8000mm
Nominal Height: 1100mm from FFL

CONSTRUCTION

Designed to be mounted between Cova's standard range of crash tested bollards, adapted with hinge and locking pins, the barrier can be hinged or completely removable.

The Miti-Gate® utilises CSG's patented arrestor system (European Patent No 2369126).

SECURITY

The Miti-Gate® can easily be secured in the closed position with a specific padlock which is applied to the hinge pin and locking pin.

FINISH

- Shot blast to SA 2.5
- Primed: Either galvanised or zinc primer @60µm.
- Topcoat: Polyester top coat @60µm to a specific RAL No.

ADVERTISING SPACE

The Miti-Gate® offers a large flat surface, a perfect advertising space. With use of graphics this gate can also be finished to blend with the installed environment.

INSTALLATION

Sub fixed

CSG 11840

Crash Tested Full Depth Rising Bollard



CRASH TESTING DATA

Test Rating:

PAS 68: 2010 V7500 (N2)/64/90:1.0/19.4*

RESULTS TABLE

Vehicle Test Weight:	7500kg
Vehicle Class:	N2
Vehicle Speed mp/h:	40
Vehicle Speed km/h:	64
Vehicle Angle:	90
Vehicle Penetration:	1.0
Dispersion Distance:	19.4

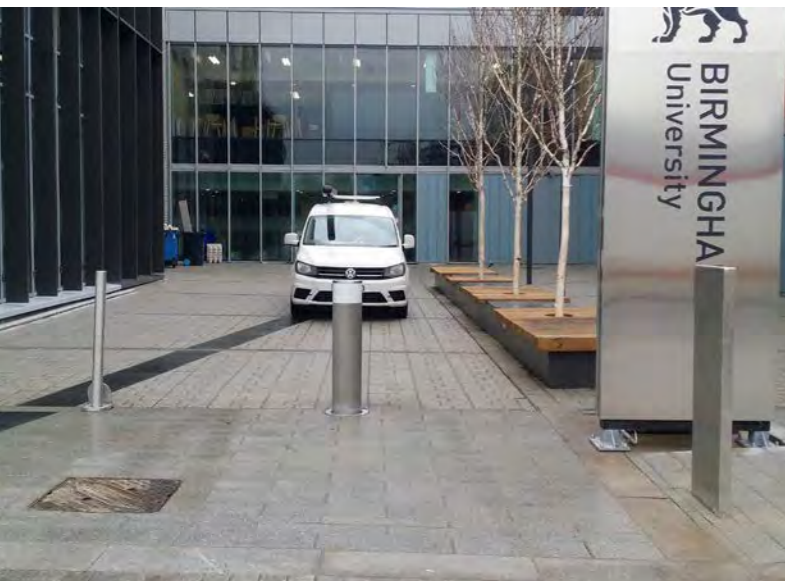
PRODUCT OVERVIEW

The CSG 11840 is the first crash tested, hydraulically operated bollard designed and manufactured by Cova Security Gates.

All sub-surface bollard components are easily accessed from above so that installation or routine maintenance can be safely carried out on the road surface.

The bollard has been crash tested with an allowance for 100mm of topping below finished level which is a unique feature and provides a neat finish to the final surface. The ground socket for this product withstood two crash tests. This would enable a replacement bollard to be installed quickly following a hostile attack, securing the site again against a secondary attack.

Rated to 40mph / 64km/h



DIMENSIONS

Bollard Diameter: 219mm
Raised Height 1000mm from FFL

Allowance for finished surfaces (paviors, slabs, tarmacadam): 100mm. Bollard ground socket supplied complete with integral reinforcement structure.

CONTROL

- PLC based control system
- Hydraulic power unit (HPU)
- Manual hand pump for manual operation
- Operational Usage: 100% duty cycle

SAFETY

A unique safety feature available is the pressure sensor facility. This will detect any obstruction on the rise cycle to stop and reverse the bollard on contact.

It is recommended that either a laser scanner or vehicle detection road loop system is installed with the rising bollard.

OPTIONS

Accumulators can be incorporated to provide emergency fast operation and/or limited operation during power failure when combined with a 24VDC UPS.

FINISH

Available as standard in a number of durable finishes to any standard RAL No. or with an optional selection of sleeves to suit the immediate environment.

Ground Socket: Hot dip galvanized

Bollard:

Hot dip galvanized and powder coated to a specified RAL No.

A range of DDA banding is available on request.

ELECTRICAL SUPPLY

Mains Supply: 400V 50Hz three phase rated @ 10 Amp

OPERATING TIME

Raise Speed: 4 to 6 seconds
Emergency Fast Raise (EFO): 1 to 2 seconds
Lower Speed: Gravity fall

INSTALLATION

Sub fixed



Cova Security Gates Ltd, Unit C1 Sussex Manor Business Park, Crawley, RH10 9NH

W: covasecuritygates.com
E: sales@covasecuritygates.com
T: +44(0)1293 553 888

