



Product Directory

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CONSULT | DEPLOY | PROTECT



Depot Locations

Barking

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General Information	

















Product List

Perimeter Security Specifications

Multibloc | Maxibloc

Hoarding

Hoarding Gate

Multifence

Multifence Gate

Fleximax

Maxigate

Multigate

Gallows Gate

Multibloc Curved Unit

Multibloc Corner Unit

Transition Unit

Multibloc F

M.A.S.S.

ScreenGuard

SiteGuard

Pedestrian Guard

Visirail Guard

MULTIBLOC	LENGTH	WIDTH	HEIGHT	WEIGHT
Multibloc	3000	450	800	2500
Maxibloc	3000	450	1400	4500
M.A.S.S.*	1500	500	420	55

^{*}Base unit only.

Ratings

Working Wi

CLASS	WIDTH	CLASS	WIDTH	CLASS	WIDTH	CLASS	WIDTH
W1	< 0.6m	W3	< 1.0m	W5	< 1.7m	W7	< 2.5m
W2	< 0.8m	W4	1.3m		2.1m		<
	0.8 m		1.3 m	-	2.1 m	•	3.5m

Impact Test Criteria

TEST	KM/H	ANGLE	MASS	TEST	KM/H	ANGLE	MASS
T1	80	8°	1.3 t	H1	70	15°	10 t
T2	80	15°	1.3 t	H2	70	20°	13 t
N1	80	20°	1.5 t	H3	80	20°	16 t
N2	110	20°	1.5 t	H4 ^A	65	20°	30 t
T3	70	8°	10 t	H4 ^B	65	20°	38 t

Dimensions shown in millimetres, weight shown in kilograms.



Perimeter Security



Multibloc is a temporary vertical concrete safety barrier which can be deployed quickly with no foundations and can be placed in curved configurations on both flat and uneven ground making it a versatile high-security solution for temporary to long-term protection.











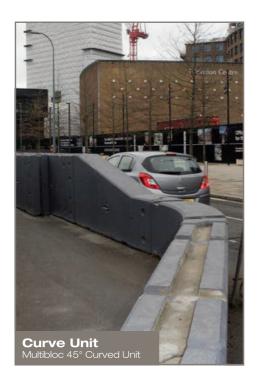
The Superbeam concrete barrier is ideal for blocking access to vacant property. With a length of 8m and weight of 4.8 t the unit sits across roadways and gateways protecting sites from the most determined of trespassers. This concrete barrier system utilises an innovative coupling system that ensures ease of installation while maximising safety. Ideal for a wide range of applications the Superbeam provides the ultimate protection.



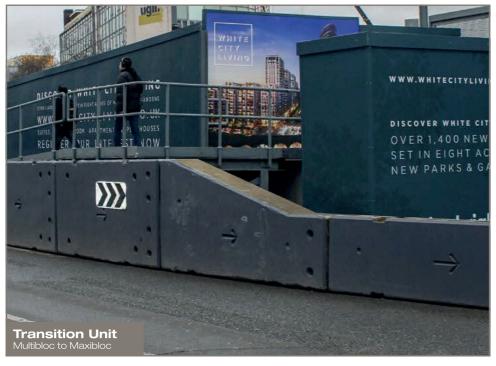














M.A.S.S. is specially designed to self stabilise when an errant vehicle drives on to the base units of the system, helping to protect the workforce and vehicle occupant. M.A.S.S. is highly versatile due to the selection of fencing panels that work together with the base unit to provide options for specific uses.









Product List

Urban and Rural Roads*

Multibloc

Maxibloc

Mass Anchor System M.A.S.S.

M.A.S.S. 1

ScreenGuard

SiteGuard

Pedestrian Guard

Visirail Guard

Specifications

MULTIBLOC	LENGTH	WIDTH	HEIGHT	WEIGHT
Multibloc	3000	450	800	2500
Maxibloc	3000	450	1400	4500
Single Mass Anchor	3000	450	800	2500
M.A.S.S.*	1500	500	420	55

Base unit only.

Dimensions shown in millimetres, weight shown in kilograms.

Ratings

Working Width

CLASS	WIDTH	CLASS	WIDTH	CLASS	WIDTH	CLASS	WIDTH
W1	< 0.6m	W3	< 1.0m	W5	< 1.7m	W7	< 2.5m
	U.6m		1.UM				2.5 m
W2	0.8 m	W4	- 1.3m	WB	2.1m	W8	<
	0.8 m		1.3 m	-	2.1 m		3.5 m

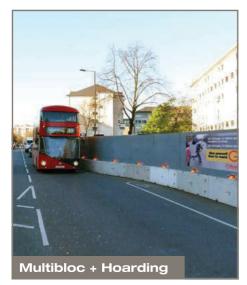
Impact Test Criteria

TEST	KM/H	ANGLE	MASS	TEST	KM/H	ANGLE	MASS
T1	80	8°	1.3 t	H1	70	15°	10 t
T2	80	15°	1.3 t	H2	70	20°	13 t
N1	80	20°	1.5 t	НЗ	80	20°	16 t
N2	110	20°	1.5 t	H4 ^A	65	20°	30 t
T3	70	8°	10 t	H4 ^B	65	20°	38 t

^{*}Lower than 60mph



Urban and Rural Roads



Designed to deflect vehicles away from hazards adjacent to roads which could cause danger to vehicle occupants, workforce or others.



Maxibloc is ideal for use at construction sites or depot areas, especially in locations with high volumes of HGVs and haulage traffic. 'W5 with double install as shown, W2 recessed installation.



The Mass Anchor System is specifically designed to anchor each end of a VRS where anchoring to the road surface is not possible.





M.A.S.S. is specially designed to self stabilise when an errant vehicle drives on to the base units of the system, helping to protect the workforce and vehicle occupant. M.A.S.S. is highly versatile due to the selection of fencing panels that work together with the base unit to provide options for specific environments and uses.









Product List

High-Speed Roads and **Highways**

Multibloc

with Fence

Maxibloc

Mass Anchor System

Zoneguard®

with Fence

Zoneguard® System 5

Varioguard®

Works Safety Gate (WSG)

VecuStop®

Rebloc® RB60H

Rebloc® RB80S

Rebloc® RB80SA

Rebloc® RB84XEAL

Rebloc® NB100/D

Rebloc® RB80A

Rebloc® RB80H

Rebloc® RB140SFS

Quest

Quadguard

Specifications

	LENGTH	WIDTH	HEIGHT	WEIGHT
Multibloc	3000	450	800	2500
Maxibloc	3000	450	1400	4500
Single Mass Anchor	3000	450	800	2500
Zoneguard®	12000	700	813	1104
Varioguard®	12000	700	900	1200
Zoneguard WSG	48 m*	700	813	-
Varioguard WSG	48 m*	700	900	-
VecuStop®⁺	4800	1050	900	-
Rebloc® RB60H	12000	260	600	2250
Rebloc® RB80S	12000	300	800	3000
Rebloc® RB80SA	12000	300	800	3000
Rebloc® RB84XEAL	8000	590	840	4800
Rebloc® NB100/D	8000	1000	950‡	6000‡
Rebloc® RB80A	8000	430	800	3700
Rebloc® RB80H	8000	560	800	4200
Rebloc® RB140SFS	5500	720	1400	6000

^{*}Minimum configuration length.

Dimensions shown in millimetres, weight shown in kilograms. Please contact us for more detailed information if required.

Ratings

Working Width

CLASS	WIDTH	CLASS	WIDTH	CLASS	WIDTH	CLASS	WIDTH
Wil	<	Wo	<	WE	<		<
WI	0.6 m	Wo	1.0m	Wo	1.7 m	W	2.5 m
WO	<		<	We	<	WO	<
WZ	0.8 m	W/4	1.3 m	WO	2.1 m	W8	3.5 m

TEST KM/H ANGLE MASS TEST KM/H ANGLE MASS

Impact Test Criteria

ILUI	10007 11	AHOLL	MAGG	ILUI	14111/11	AHOLL	IIIAGG
T1	80	8°	1.3 t	H1	70	15°	10 t
T2	80	15°	1.3 t	H2	70	20°	13 t
N1	80	20°	1.5 t	H3	80	20°	16 t
N2	110	20°	1.5 t	H4 ^A	65	20°	30 t
T3	70	8°	10 t	H4 ^B	65	20°	38 t

[†]Model P100/2:6 configuration.

[‡]Excludes sound absorber.



High-Speed Roads and Highways



Multibloc concrete barriers are designed to deflect an errant vehicle away from local hazards within or immediately adjacent to the highway which have the potential to cause danger to the occupants of an errant vehicle, the workforce, or others.



Maxibloc Concrete Barriers provide H4a (Very High Containment) protection and are designed to deflect heavy goods vehicles from temporary and permanent bridge supports, other vulnerable structures and amongst other uses, provide effective temporary parapet protection.



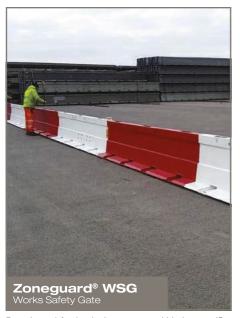


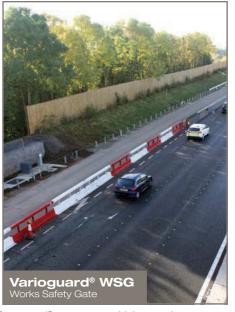


The Mass Anchor System is specifically designed to anchor each end of a VRS where anchoring to the road surface is not possible.



VecuStop® is a highly effective energy and impact absorbing element which is guided by a steel wire rope system.





Developed for both the approved Varioguard® and Zoneguard® temporary vehicle restraint systems, the WSG further raises the bar when considering the safety of road workers and the travelling public at the necessary works access points required within major road work schemes.



Zoneguard® is the lowest deflecting portable steel highway barrier in the world providing the ultimate protection for installers, road-workers and drivers. Permanent or temporary variants can be installed at rates of up to 400m per









hour and with a weight of just 92kg per metre requires fewer vehicle movements for efficient installation.



Asset Varioguard® is a steel temporary barrier tested with vehicles between 1.5 tonnes and 13 tonnes in weight. Errant vehicles driving onto the foot section stabilises the Varioguard® and limits deflection. Different types of anchorage are available for any situation including bridge decks, soft ground and standard carriageways.









RB80A is a single-sided concrete barrier system consisting of 8-metre long units anchored to the carriageway. Transition elements are available.



RB80H is a double-sided concrete barrier system consisting of 8-metre long free-standing units. Transition elements are available.



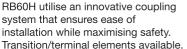


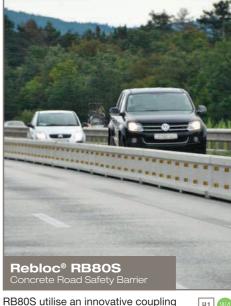
These pre-cast concrete units are used for long lasting protection on the central reservation and along the verge. Vehicles deviating from the road are retained or redirected and prevent a dangerous breakthrough onto the opposite carriageway. Restrains an impact of a 30t truck driving at 65km/h.











system that ensures ease of installation while maximising safety. Transition/terminal elements available.





N2 W4

The RB80SA is ideal for narrow road widths. The slim system width of 30cm and the low working width W1 are important determinants, if little space is available. Each 12-metre element is anchored with only 4 anchor pins, which can be easily installed and removed. Transition/terminal elements available.









The RB84XEA.3 is designed and tested in accordance with EN 1317-2. This permanent system can also be deployed as a temporary barrier by embedding the 8-metre long concrete units 40mm into the carriageway. The system is adaptive, transitioning into various standard and terminal elements.









The NB100/D is a free-standing integrated noise barrier system consisting of 8m long units topped by noise deflecting barrier units of equal length. The integrated noise barrier achieves an airborne sound insulation rating of D4 (EN 1793-6). This system has the added benefit of a significantly reduced working footprint.





Product List

Hostile Vehicle Mitigation

Multibloc PAS68

Zoneguard® Plus

Zoneguard® Plus Portal

Surface Bollard

Straight Barrier

Curved Barrier

Pedestrian Portal

Pitagone

Barge Unit

Swivel Post

Vertical Opening Gate

Swing Gate

Double Swing Gate

Pitagone

Specifications

	LENGTH	WIDTH	HEIGHT	WEIGHT
Multibloc PAS68	3000	450	800	2500
Barge Unit	2854	640	919	3072
Shallow Curved Barrier	3062	491	925	2934
Tight Curved Barrier	3072	689	925	2934
Straight Barrier	3010	416	919	2858
QuickLink Heavy	3000	416	925	2879
Zoneguard® Plus	12000	700	813	1104
Zoneguard® Plus Portal	1310*	600	2055*	-
Vertical Opening Gate	4500†	-	-	-
Swing Gate	4500†	-	-	-
Double Swing Gate	16000*	-	-	-
Pedestrian Portal	1217*	-	2298*	970
Surface Bollard	-	-	1090	880‡

^{*}Clear opening.

[†]Clear opening, other sizes available.

[‡]Base plate and bollard.

Dimensions shown in millimetres, weight shown in kilograms.



Hostile Vehicle Mitigation

For HVM standards please see page 29



With the addition of an anchored steel cable restraint the versatile Multibloc unit can be used as a highly effective HVM that can be installed in a range of lengths to suit your application. With its ability to be placed in curved configurations, it can be used in a multitude of locations. (Options see p7-9)





Zoneguard® Plus incorporates three high-tensile cables to provide a very high level of protection while facilitating quick and easy installation of short and long lengths. Anchor systems are also available for installation on varying ground conditions, ranging from shallow urban pavements to soft uneven fields.























PITAGONE is a portable and movable hostile vehicle mitigation barrier that is simple and easy to deploy whilst offering maximum protection against vehicle borne attacks.

The product can be assembled without the need for tools, is lightweight so can be assembled by a single person and is able to be transported in a van, yet is capable of stopping a 7.5 tonne truck travelling at a speed of 48km/h.

As well as providing maximum protection the units can be easily be moved to allow emergency vehicles to pass.



The Surface Guard solution prevents vehicular access but allows for a large flow of pedestrian footfall for busy events.

Supplied in individual units, each product is lightweight and able to be stacked completely flat making transportation very easy.

The completely surface mounted modular system is compact, lightweight and installation can be achieved across one standard road width with kerbs in just 40 minutes with four men and lifting bars.

By installing a Surface Guard Vehicle Access Point, emergency vehicle access can be maintained alongside the flow of pedestrian footfall.



All products are stored in Hardstaff Barriers' own depots, located in Nottingham, Barking and Newport (South Wales) as well as strategically located storage areas and operational facilities throughout the UK, including Manchester, Glasgow & Poyle

Hardstaff Barriers' have a committed and fully trained team of in-house installers. All products have Highways England Sector Scheme 2(b) training schemes to which installers are all accredited. Within Hardstaff Barriers' continuous improvement programme, ongoing 'in-house' installation training is provided through Lantra approved schemes alongside sister-company Asset International.

Hardstaff Barriers offers a 24 hour call out service for emergency requirements, often following a road traffic collision which has caused damage to a bridge parapet.

Our crews are always on standby and can react to any location in the UK within hours.

Hardstaff Barriers are FORS Gold Approved and has its own fleet of specialist artic units for installation and access to additional artic cabs for trailer haulage.





HVM Standards

PAS 68 has been prepared to address the needs of organizations who want assurance that vehicle security barriers will provide the level of impact resistance they require. As the characteristics across tested and untested systems differ, in both function and form, a comparative means of assessing their performance is required.

PAS 68 identifies impact test methods, tolerances, test vehicle type and vehicle performance criteria that need to be met in order to conform to PAS 68. PAS 68 cites a classification system for the performance of vehicle security barriers and their supporting foundations when subjected to a single horizontal impact by a 7500kg truck travelling at 30, 40 and 50mph. This standard is most commonly recognised across the UK and Europe.

PAS 170 PAS 170, Publically Available Specification, describes an efficient way of testing the performance of a single bollard when hit by a 2500kg vehicle at low speed.

PAS 170 provides a quick, inexpensive and proportionate way of evaluating bollards that will typically be installed in a car park or retail outlet; and will typically be hit accidentally by a low speed passenger vehicle or vehicle criminal at approximately 10 or 20mph.

IWA 14-1:2013 specifies the essential impact performance requirement for a vehicle security barrier (VSB) and a test method for rating its performance when subjected to a single impact by a test vehicle not driven by a human being.

This International Workshop Agreement (IWA) is a universal document that combines elements of BSI PAS 68 and ASTM F2656 meaning it is recognised globally, with different geographical and market conditions in mind. IWA 14-1 will soon be recognised by The International Organisation for Standardisation (ISO).

ASTM F2656 This test method provides a structured procedure to establish a penetration rating for vehicle perimeter barriers subjected to a vehicle impact at 30 (48km/h), 40 (64km/h) and 50mph (80km/h). Knowing the penetration rating provides the ability to select an appropriate barrier for site-specific conditions around a facility. Vehicle Security Barriers tested to ASTM F2656 will be rated against a 6800kg truck.

Supported by AASHTO (American Association of State Highways and Transportation Officials), this ASTM standard is a Vehicle Impact Testing Standard commonly used and recognised across the US and Middle East.

Road Barrier Standards

BS EN 1317 In order to improve and maintain highway safety, the design of safer roads requires, on certain sections of road and at particular locations, the installation of road restraint systems. These road systems are designated to redirect errant vehicles with a specified performance level and can provide guidance for pedestrians or other road users.

This European Standard identifies test methods and impact test acceptance criteria that the products for road restraint systems need to meet to demonstrate compliance with the requirements given. The design specification, for road restraint systems entered in the test report, identify important functional site conditions in respect of the test installation.

The performance range of the products for road restraint systems, designated in this standard, enables national and local authorities to recognise and specify the performance class to be deployed.

BS EN 1793 Where a sound reflecting surface is installed along a road, it may be effective to use sound absorbing devices on its traffic side to reduce additional noise nuisance caused by any reflected sound.

This European Standard specifies a test method for qualifying the sound absorption performance of noise reducing devices designed for roads (a measure of intrinsic performance). It is not concerned with determining insertion loss (extrinsic performance) which depends on additional factors which are not related to the product itself, such as the dimensions of the barrier and site factors.

The test is designed to allow the intrinsic sound absorption performance of the device to be measured under diffuse sound field conditions; the resulting rating should aid the selection of devices for particular roadside applications.

Definitions

Road Restraint System - General name for vehicle restraint system and pedestrian restraint system used on the road.

Vehicle Restraint System - System installed on the road to provide a level of containment for an errant vehicle.

Safety Barrier - Road vehicle restraint system installed alongside, or on the central reserve, of a road.

Permanent Safety Barrier - Safety barrier installed permanently on the road

Temporary Safety Barrier - Safety barrier which is readily removable and used at road works, emergencies or similar situations.

Single-Sided Safety Barrier - Safety barrier designed to be impacted on one side only.

Double-Sided Safety Barrier - Safety barrier designed to be impacted on both sides.

Terminal - The end treatment of a safety barrier.

Leading Terminal - Terminal placed at the upstream end of a safety barrier.

Trailing Terminal - Terminal placed at the downstream end of a safety barrier.

Transition - Connection of two safety barriers of different designs and/or performances.

Vehicle Parapet - Safety barrier installed on the edge of a bridge or on a retaining wall or similar structure where there is a vertical drop, and which may include additional protection and restraint for pedestrians and other road users.

Pedestrian Restraint System - System installed to restrain and to provide guidance for pedestrians.

Pedestrian Parapet - Pedestrian or 'other user' restraint system along a bridge or on top of a retaining wall or similar structure which is not intended to act as a road vehicle restraint system.

Pedestrian Guardrail - Pedestrian or 'other user' restraint system along the edge of a footway or footpath intended to restrain pedestrians and other users from stepping onto or crossing a road or other area likely to be hazardous.

Note: 'Other user' includes provision for equestrians, cyclists and cattle.

Abbreviations

ASTM American Society for Testing and Materials

BS British Standard

BSI British Standards Institution

DNV-GL Det Norske Veritas - Germanischer Lloyd

EN European Norm

FORS Fleet Operator Recognition Scheme

HGV Heavy Goods Vehicle HVM Hostile Vehicle Mitigation

ISO International Organisation for Standardisation

IWA International Workshop Agreement

KM/H Kilometres Per Hour

MPH Miles Per Hour

VSB

OHSAS Occupational Health and Safety Assessment Series

PAS Publically Available Specification RPG Rocket-Propelled Grenade **VRS** Vehicle Restraint System



Our Company

With over fifteen years' experience in the running of Hostile Vehicle Mitigation for UK government for National Barrier Asset, Hardstaff Barriers has become leaders in the design, development and deployment of perimeter security and road barrier systems including hostile vehicle mitigation. In conjunction with our extensive in-house haulage capability, we can provide a complete nationwide service incorporating the supply, transportation and installation of barriers and, if required, the manufacture of specialist concrete units.

This specialist expertise linked with our reputation for innovation, research and development, and reliability has been instrumental in establishing and maintaining excellent customer relations across a broad variety of client industries.

Our Services

Hardstaff Barriers manufacture and supply concrete barriers with our professional turnkey service. From the emergency deployment of gateway protection, for industrial and open farmland sites, to full event perimeter security solutions; we offer a full planning and consultation of the barrier deployment ensuring you have the most effective and cost-efficient product that matches vour requirements.

For barrier rental, we install the barriers, relocate and store as necessary, and then remove the barrier at the end of the job. Likewise, should you wish to purchase concrete barriers, we are able to install and relocate as required and can arrange storage as needed. Please contact the office for further information and quote to match your specific barrier needs.

Quality and Environment

Hardstaff Barriers has been accredited DNV-GL ISO 9001 Quality System Certification.

Hardstaff Barriers continues to strive towards becoming a sustainable organisation and will continue to implement sustainable development to enable the company to become a more successful business.

As a business, Hardstaff Barriers recognise the importance of the environment, not just as a physical entity but with regards to job specific pollution, i.e. noise and vibration. These forms of pollution are monitored on a regular basis and are reflected in comprehensive method statements and risk analysis.

regular audits are carried out on installations and uplift removals of our Sector Scheme 2(b) accredited installation teams including full health screening of the workforce. The feedback from these audits includes the identification of both good and best practices which are then fed back into product specific training courses provided by our technical and training team.

Hardstaff Barriers' comprehensive training of installers and staff includes environmental awareness, driven by a strong reporting culture. The in-house teams continually strive to ensure they exceed not only their legal environmental obligations are all their provided in the control of the obligations but their moral obligations as well.



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