



# Global Road Safety Range

Innovative solutions for a safer future







## Worldwide safety experts

### Safety regulations vary around the world.

At Highway Care, we understand the diverse compliance requirements, road layouts, and vehicle usage patterns in different locations around the world.

As experts in road safety, we know there's no one-size-fits-all approach; what works in one region may not be appropriate in another. That's why we work with in-country partners around the world to ensure you can always trust us to provide timely, compliant, and robust safety support, wherever projects may be.





## HighwayGuard<sup>™</sup> Portable Steel Barrier

HighwayGuard<sup>™</sup> is an innovative MASH 16 TL-3 & TL-4 compliant portable steel barrier, developed to provide a secure work zone for road workers and improve safety for road users. It is also a semi-permanent or permanent barrier solution.

Approved for use by authorities across North America and Australasia, as well as being specified in other territories, HighwayGuard<sup>™</sup> has been designed for versatility, ease, and speed of installation. It is a two-part system comprising a symmetrical barrier and a universal T-connector for ease of configuration and rapid connection and disconnection.

Suitable for use as a Minimum Deflection System (MDS), Lower Deflection System (LDS) or Standard Deflection System (SDS) using the same barrier sections and T-connectors, HighwayGuard<sup>™</sup> only requires changes to the anchoring arrangements to meet site-specific deflection specification requirements. It is the world's lowest deflecting portable barrier, enabling you to deliver the highest possible safety standards for road users, whilst maximising and protecting the available work area.





#### **Features & Benefits**

- Meets the latest standards MASH 16 TL-3 and TL-4 certified.
- Reduces your operational cost and resource lower transport costs with up to 252m of barrier on each load. Rapid installation and removal thanks to our patented T-connector and symmetrical barrier, which can also reduce the project's barrier requirement.
- Easy configuration for tight geometries, such as intersections and roundabouts, angle T-connectors/barrier are available. Optional insertable wheelsets enable easier barrier opening and movement.
- Maximises your working space space efficient with a section width as small as 0.25m up to a maximum width across the trafficable foot of 0.54m. The Lower and Minimum Deflection Systems are ideal for work environments with restricted space.
- Extended service life with a 20+ years lifespan and a tested connection to our BG800<sup>®</sup> portable steel barrier.



#### **Technical Specification**

Module Length: 6.00m Module Weight: 552kg T-Connector weight: 43kg System Weight: 99kg/m

### **BG800® Portable Steel Barrier**

Designed to protect both road users and road workers, BG800<sup>®</sup> is a high performance barrier able to withstand multiple impacts.

It features a unique stepped profile, which is proven to reduce damage to both vehicles and the barrier upon impact, minimising the need for repair or replacement. Tested to MASH TL-3, NCHRP 350 TL-3 & TL-4 and EN1317-2 H2, the system also provides an extremely shallow exit angle for vehicles during impact, reducing the risk of secondary road accidents.

BG800<sup>®</sup> requires up to six times fewer trucks for transportation as compared to traditional concrete barrier solutions.

At only 90kg per metre, the lightweight system is ideal for use on structures with weight limits, such as projects that involve protecting a bridge parapet, for example.

Thanks to its optional wheeled sections, which allow for movement of the barrier, BG800<sup>®</sup> is also ideal for movements in restricted spaces where lifting may not be possible, such as tunnels. It is also ideal for repetitive regular maintenance operations.



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### **Features & Benefits**

- Exceptional safety up to MASH TL-3, NCHRP 350 TL-3 & TL-4 and EN1317-2 H2 containment levels.
- Rapid deployment easy to install, thanks to a unique connector design, which allows installation of up to 300 metres per hour.
- Flexible configuration with 6 and 12 metre section lengths, special angle sections for protection around junctions and roundabouts, and optional radius sections, fence panels, wheeled, and gate sections, the system can be adapted to any requirement.
- Low whole life costs 20+ year lifespan and a tested connection with HighwayGuard.
- Suitable for security deployment also available as a compliant security system, tested to PAS68:2010, making it suitable for use close to the road network, keeping road users safe.



### **Technical Specification**

Length: 6m or 12m sections

Height: 800mm (or 915mm if used with T-Top)

Width: 540mm

Weight: 90kg per metre (or 135kg/m if used with T-Top)



### BG800® Gate

The BG800<sup>®</sup> Gate is a safety barrier gate that can be installed within other vehicle restraints, enabling emergency access points or maintenance access points without compromising the integrity of the barrier.



The BG800<sup>®</sup> Gate can be opened within 2 minutes, without the need for power tools. This modular system uses independent gate post anchoring to the foundations which means that no loads are passed to the connected barrier systems.

### **Features & Benefits**

- Maximum safety NCHRP 350 TL-3 compliant with a maximum deflection of 1.1m.
- Ease of integration connections available for both concrete and guardrail systems to connect seamlessly with existing infrastructure.
- ☑ Industry-leading flexibility multiple opening arrangements and customspecified options to meet project-specific requirements.
- Excellent build quality a durable system with a 20+ year lifespan and low maintenance requirements.
- ☑ Operational efficiency rapid opening and HDPE castor wheels for multidirectional movement.

### **Technical Specifications**

Gate length: 6m-36m (up to 50m bespoke gate option) Height: 800 or 915mm Width at base: 540mm Width at top: 240 or 474mm Weight per metre: 135kg



### **ArmorZone**<sup>™</sup>

Fully compliant with MASH TL-1 & TL2 and 100% recyclable, ArmorZone<sup>™</sup> is a multi-purpose, high-performance barrier designed to enhance safety for both road workers and road users, by protecting the works area.



Engineered to reduce impact forces, ArmorZone<sup>™</sup> has been rigorously crash tested to 70km/h as a longitudinal barrier with terminal ends, suitable for use throughout the Middle East within work zones. Upon impact with a range of vehicles, ArmorZone<sup>™</sup> safely redirected them from impact at angles up to 25° and speeds up to 70 km/h.

ArmorZone<sup>™</sup> can be deployed straight or with low curvature, on either roadside or median applications, on roads with speed limits of up to 70 km/h. The ArmorZone<sup>™</sup> barrier carries many advantages including high durability, high performance, faster, safer installation, excellent sustainability credentials and at a very competitive cost.



### **Technical Specification**

Length: 2000mm Height: 860mm Width: 450mm Weight: 56kg (496kg when full) Water required: 440L (per 2m section) Deflection: 2.1m (50 km/h)/4.1m (70 km/h) Leading point of need: 24m Minimum length of need: 50m Material: HD Stabilised PE (UV8) Connecting pin: Galvanised Steel Manufactured using up to 10% recycled plastic sourced from decommissioned ArmorZone™ barriers and every barrier is 100% recyclable at end of life. CAN ME



### **Features & Benefits**

- Easy to transport and install MASH TL-1 and TL-2 compliant, the water-filled nature of the ArmorZone™ barrier simplifies its deployment and transportation while increasing safety during the installation process, as the empty barriers weigh just 56kg and can be easily handled by two operatives. The deployment process involves interlocking the 2m long units with a unique connecting pin and filling each barrier with 440L of water.
- ✓ Reduced cost and environmental impact Container "friendly" dimensions allow for effective shipping (84 units fit in a 40' container), 100% recyclable and are manufactured with up to 10% plastic from decommissioned ArmorZone™ barriers.
- Exceptional safety Excellent work zone barrier protection and exceptionally good vehicle control and low deflection



### **ArmorWire**<sup>™</sup>

ArmorWire<sup>™</sup> is a high-tension cable barrier with unique oval-shaped steel posts, which mitigates the risk of sand buildup, making it ideal for use in desert and coastal areas.

Requiring very few components, it is the easiest system of its kind to install. Slots within each post house 3 or 4 barrier cables at the required height and each post also has a socketed concrete footing.

Crash tested up to MASH TL-4 and EN1317-2 H2, the system allows an impacting vehicle to be redirected in a safe and predictable manner, delivering reliability and exceptional performance using minimal inventory.

### **Features & Benefits**

- Exceptional safety the system is approved to MASH TL-3, TL-4 and EN1317-2 H2. The oval post design offers higher protection to vulnerable users while 19mm 3x7 strand cables (pre-stretched by 35%), and concrete with a 25 mpa minimum strength, ensure a robust system, that is highly effective at minimising any sand build-up.
- Versatile and adaptable 3 and 4 cable options enable specification to meet individual project needs, with a socketed system and post spacing between 2m and 6m. The system enables run lengths of up to 5000m, making the it suitable for major infrastructure projects.
- Suitable for demanding environments all posts are hot-dip galvanised to EN1461 (with optional powder coating) for durability and resilience.



#### **Technical specification**

Max height: 872mm

Post width: 97mm

Cable heights (3 cable): 530|650|770mm

Cable heights (4 cable): 530|650|770|790mm

### **RAPTOR™**

RAPTOR<sup>™</sup> is a MASH TL-1 compliant, bi-directional, non-redirective crash cushion with exceptional energy-absorbing capabilities, which reduce the consequences of vehicle collisions with utility poles, trees, or other single-point hazards.

Approximately 30% of run-off-road fatalities involve severe impacts with hard objects such as poles and trees. Removing or relocating these hazards may not be possible, and using Raptor reduces the impact severity for vehicle occupants in the event of a collision.

Installation and any repairs following an impact can usually be carried out in less than 30 minutes.





#### **Features & Benefits**

- Compliant meets MASH TL-1 (2,270kg pickup, 50kph head-on) criteria for non-redirective crash cushions.
- A practical solution with no foundations or anchoring required, installation typically takes less than 30 minutes.
- Robust and resilient the fully galvanised steel connector and fixings ensure durability and resilience. The UV-resistant plastic unit is fire and vandal resistant.
- ✓ Improved service life and sustainability the unit has a 25+ service life and can usually be repaired and redeployed following an impact. Any non-reusable components are fully recyclable, and the non-impacted side can be re-used following a collision.
- Attractive Raptor<sup>™</sup> can be provided in a range of colours to co-ordinate with the location, but is typically ordered in black or yellow.



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#### **Technical Specifications**

Overall Length: 2460mm | 2760mm Height: 1050mm Width: 1150mm Weight (per shell): 110kg Weight (per packet): 12kg Void size width: 590mm Void size length: 300mm | 600mm



### Innovative solutions for a safer future

We are experts in protecting people and places around the world. You can rely on us for:

- Market-leading solutions
- Technical knowledge
- Responsive customer service









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