Road Barrier Solutions

Innovative solutions for a safer future

highwaycare.com
Temporary Vehicle Restraint Systems

Our temporary barrier systems include a range of steel and concrete barriers, intended for different work zone needs. Both types of temporary VRS are low-deflection with a narrow footprint, allowing for larger work zone areas.

Safety is our number one priority so our temporary barriers are designed with road worker and road user protection in mind.
BG800® Temporary Steel Barrier

Highway Care's BG800® portable, temporary steel barrier is a leading, rapidly deployable, low-deflection vehicle restraint system (VRS) for the UK market.

Made from galvanised steel featuring a unique quick-link connector for rapid connection and installation.

Accepted for use on Highways England roads, BG800® offers an energy absorbing feature, which when hit, results in minimal damage to both errant vehicles and the barrier itself due to its distinguished stepped profile design.

Supply & Installation

With four depots located around the UK and our in-house Operational Delivery Services team available for all types of installation, Highway Care can service all scales installations and even provide emergency call-outs in the event of an unforeseeable accident.

BG800® can be hired in both 6m and 12m sections for rapid installation.

Our temporary steel barrier will be delivered, installed and maintained by our NHSS trained Operational Delivery Services team.

Benefits

• Work zone space saving - up to 800mm
• Road worker protection
• Minimum deflection system - only 200mm
• Project time savings via rapid deployment

Standards, Testing & Performance

EN1317 N2 W2 | EN1317 N2 W5 | EN1317 H2 W5

Technical Specifications

Weight: 90 kg per metre
Width: 540mm
Height: 800mm
Deployment: approx. 204m per truck
HC350 Concrete Barrier

A comprehensive alternative to steel, the HC350 concrete barrier has a narrow footprint of just 350mm.

A high performance, low-deflection barrier, which is the ideal solution for projects with limited space, such as bridges and bottlenecks.

The HC350 operates in narrow lane running and increases work zone areas. A great alternative to steel where highway work space is limited.

Light in weight for concrete at 250 kg per metre, for efficient transportation, lower project costs and quicker project completion.

Supply & Installation

The Highway Care Operational Delivery Services team can install the HC350, day or night, on a long or short-term or emergency basis.

The HC350 temporary concrete barrier solution will be delivered, installed and maintained by our NHSS trained Operational Delivery Services team.

Benefits

• Narrow footprint, ideal for bridges
• Project time savings
• Cost-savings
• Available in 1m, 3m, 6m sections

Standards, testing & performance:

EN1317 N2 W4

Technical Specifications

Weight: 250 kg per metre
Width: 350mm
Height: 660mm

Innovative solutions for a safer future
Permanent Vehicle Restraint Systems

Our permanent VRSs include a timber barrier alternative, tested to many different containment levels. The Tertu TimberRail offers an aesthetic alternative to steel barriers, ideal for Areas of Outstanding National Beauty, housing estates, car parks and showrooms.

Our permanent VRSs also include the BG800® steel barrier, detailed as a temporary barrier on page 3.
The Tertu TimberRail offers a range of high performance, quality, timber-clad permanent vehicle restraint systems. These systems boast the strength and performance of steel, with the look of timber, tested to varying containment levels and working widths to suit all types of housing, construction, and national park road safety projects.

In total, eight different EN 1317 steel-backed timber safety rails, depending on the working width requirements, whether there is limited space on a hilltop or more space to play with on a highway road, our engineers will work with you to ensure the right Tertu TimberRail solution is supplied, installed and maintained.

**Applications**
The Tertu TimberRail is the perfect solution for a variety of outdoor locations and developments where aesthetics are as important as road user safety such as:

- National parks
- Areas of Outstanding Natural Beauty
- Housing developments
- Retail parks
- Preservation areas
- Picnic areas
- Country roads
- Highways

**Benefits**
- Offers protection of steel barrier with a natural timber appearance
- Variety of containment levels, working widths and post spacing options available depending on project location
- Connection suitable with P4 end terminals, motorcycle protection and pedestrian handrails
- Made with sustainable Douglas Fir and can be recycled at end of life
- Bridge parapet and pedestrian parapet options available where robust safety solutions are required at height

**Standards and testing**
The Tertu TimberRail has been tested in accordance with EN1317. Each variation of guardrail barrier is CE rated and ISO 9001 certified

**Containment Levels and Working Width Class**
N1 W5, N2 W2, N2 W3, N2 W4, N2 W5, N2 W6, N2 W7, H2 W5
Supply & Installation

The Highway Care Operational Delivery Services team can install the HC350, day or night, on a long or short-term or emergency basis.

The HC350 temporary concrete barrier solution will be delivered, installed and maintained by our NHSS trained Operational Delivery Services team.

Options

- Compatible with P4 End Terminals
- Pedestrian handrail available
- Motorcycle friendly lower beam available
- Driven or surface mount posts
- 2m and 4m post spacings available (excluding T32)

<table>
<thead>
<tr>
<th>Barrier Ref</th>
<th>Post spacing (metres)</th>
<th>Containment Level</th>
<th>Working width</th>
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<tr>
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<td>N1</td>
<td>W5</td>
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<tr>
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<td>4m</td>
<td>N2</td>
<td>W7</td>
</tr>
<tr>
<td>T18 4M S2</td>
<td>2m</td>
<td>N2</td>
<td>W5</td>
</tr>
<tr>
<td>TM 18 4M</td>
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<td>W5</td>
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<tr>
<td>TM 18 4M S2</td>
<td>2m</td>
<td>N2</td>
<td>W4</td>
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<tr>
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<td>W3</td>
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<td>H2</td>
<td>W4</td>
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<tr>
<td>T40 4M S2 BP</td>
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<td>H2</td>
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<tr>
<td>TM 40 4M S2</td>
<td>2M</td>
<td>H2</td>
<td>W5</td>
</tr>
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</table>
Our range of barrier gates are ideal to create emergency crossing and access points for emergency services, particularly on busy motorways. There are currently SAB Gates and BG800® Gates in use on the M25 near the Dartford Crossing and the M26.

The barrier gates can be connected to steel or concrete barriers, including the BG800® temporary steel barrier and can be installed by Highway Care’s highly skilled operational delivery services team.
**BG800® Gate**

The BG800® Gate is a steel, emergency access gate for highways to allow quick and easy emergency access to the central reservation and between lanes. It connects to BG800® temporary barrier to create a secure run of central barrier which can be accessed quickly and easily.

The gate can be opened by one person in minutes, allowing instant emergency access or contra-flow emergency trafficking.

The BG800® gate is even compatible with narrow footprints such as on bridges.

**Supply & Installation**

BG800® Gate can either be opened or completely disconnected, dependant on access requirements.

To open the gate simply lower all sets of wheels, which simultaneously lifts the barrier and then remove the 3 gate pins. Alternatively to disconnect the gate, remove all 4 pins.

**Benefits**

- Quick and easy to open and close – can be opened in 2 minutes
- Emergency access and egress of traffic in minutes
- Improves traffic flow in emergency situations
- Can be connected to BG800® temporary barrier

**Standards, testing & performance**

Tested to Highways England BS EN 1317 Part 2 at performance levels N2 and H2 and working widths W5 and W8.

**Technical Specifications**

- Gate length: 6m - 36m
- Height: 800mm
- Width at base: 540mm
- Width at top: approx. 240mm
S-A-B Gate

The S-A-B gate is a steel gate, designed for both emergency crossing points and motorway crossing points.

It offers quick access through the central reserve barrier on a dual-carriageway or motorway, allowing for emergency vehicles to cross over lanes or for traffic to be diverted in case of accidents.

It can be connected to concrete barriers and steel barrier.

Supply & Installation
The S-A-B gate system can be opened fully or in part as required and can be opened by hand, without the need for any tools.

Several units can be joined together to suit various opening widths.

Each unit also has wheels, which when deployed, allow individual sections or the complete gate to be opened.

Benefits
• Quick and easy to install, no foundation required
• No tools required - can be opened at any joint by hand
• Modular - easily broken into small sections for ease of opening
• Impacted or damaged systems are quickly and easily replaced

Standards, testing & performance
Tested to Highways England BS EN 1317 Part 2 at performance levels N2 and H2

Technical Specifications
Gate length: 8.68m - 108.5m
Height: 1100mm
Width: 500mm
Weight: 123kg per metre
Test Level: EN 1317-2-4
Width at top: 240mm

Innovative solutions for a safer future
Vehicle Incursion Gates

Highway Care’s choice of vehicle incursion gates are solar-powered and easy to use and deploy. Our vehicle incursion and egress barriers negate the need for a site to be manned and do not need to be mains powered, saving on cost and carbon energy.

Available for long or short term rent.
SoSec Vehicle Incursion Gate

The SoSec vehicle incursion gate offers protection against incursions on highways work sites, construction sites and housing developments. It provides a stand alone, solar-powered and reusable access system, creating a safer environment for workers and reducing the need for manual management at site access points. The SoSec barrier can be deployed quickly to provide instant security; improving site safety by limiting access and preventing unauthorised work site incursions - both on the motorway and off-road work sites. Number of ways to open gate including remote, key fob, intercom and key code.

The SOSEC vehicle incursion gate is the perfect solution for long-term security site access on major road projects.

Supply & Installation
- Mobile, self-powered and reusable system
- Simple to install and relocate, delivered ready to site
- Solar and battery powered - no mains electric required
- Surface mounted vehicle detector senses movement to quickly lift

Benefits
- Sizeable cost-savings on site manning
- Safer working environment - less chance for injury or fatality
- Environmentally friendly, carbon savings
- Various access methods

Standards, testing & performance
Test level BSEN 12445 contact safety

Technical Specifications
Max length: 2m
Height: 2m
Clear passage: 3m
Max width: 1.5m
Weight: 750 kg
Instaboom and GS6 Boom Incursion Gates

The Instaboom is a portable, easily deployed, vehicle incursion gate for highway work zones and construction sites.

It is solar-powered, providing a viable alternative to a mains run barrier and site security personnel. It simply requires a charge from a 16 amp, which can be done on site or at a Highway Care depot once a fortnight.

The GS6 Boom is an over-height sensor which is an additional option for the Instaboom. The GS6 Boom automatically lowers the boom via sensor when an over-height vehicle approaches. This is an ideal option for sites near bridges and over-head cables.

**Supply & Installation**

- Mobile – wheeled into place, is simple to use and easy to deploy
- Delivered to site, one person set up
- Solar and battery powered - no mains electric required
- GS6 Boom option – sensor detects over-height vehicle approaching and deploys the boom

**Benefits**

- Safer working environment - less chance for injury or fatality
- Sizeable cost savings and ROI due to less site manning
- Carbon savings - environmentally friendly
- Quick and easy deployment by one operative

**Technical Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Width at top</td>
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</tbody>
</table>

**Innovative solutions for a safer future**

Highwaycare.com
Our range of crash cushions offer more and end terminals offer guardrail protection against errant vehicles, reaching speeds of up to 110 km/h.

Our crash cushions and end terminals are tested to recognised industry levels and are all compatible with BG800® VRS.
Leonidas Crash Cushion Family

The Leonidas family of crash cushions offer the largest selection available, providing solutions for 43 variants of width and speed performance. More choice and more tailored products to suit individual highway application types and hazard size.

There are four versions of Leonidas Crash Cushion on offer depending on width required and space on offer; Parallel for hazards in a smaller space, Semi-Wide for slip roads with an asymmetric curve on one side and the Wide and X-Wide for large, fixed hazards such as large rigid sign poles or wide tunnel entrances.

The simple replacement of the impact absorbing panels after a collision will save maintenance contractors project time and costs.

Applications
The Leonidas Crash Cushion range are supplied in four versions to suit different types of road layouts, speeds and type of possible hazards, including Parallel, Semi-Wide, Wide and X-Wide.

The Leonidas Parallel is ideal where space is limited e.g. narrow tunnel entrances and bypasses.

The Leonidas Semi-Wide is offset right or left e.g.on slip roads and junction schemes.

The Leonidas Crash Cushion Wide and X-Wide protect larger, wider hazards and fixed obstacles, including large rigid sign poles and larger tunnel entrances.

Various installation options for different types of ground, including asphalt and concrete.

Benefits
• Simple replacement of absorbing panels if impact occurs
• Cost savings and project times cut for maintenance contractors
• Largest selection of crash cushions available four types and 43 variants
• Market leading short system lengths for applications with limited space
• 110km/h Leonidas Parallel system has even passed an experimental high speed test at 130 km/h (80.8mph)

Technical Specifications
Dimensions: 1,600 - 6,130 mm
Width: 860 - 3,200mm
Height: 770 mm
Weight: 500 - 1,500kg
Test Level: EN1317 - 3
The Ermes P4 End Terminal offers the performance of a crash cushion at the price of a P4 terminal. The Ermes is a double-sided terminal and made entirely from steel, providing essential energy absorbing elements. They are repairable, just like a crash cushion, which reduces both maintenance cost and time.

Ermes End Terminals are shorter lengths than competitor systems, installing where others cannot. The Ermes P4 End Terminal offers best in class performance, meeting D1.1 and Z1 specification. Highway Care offer Ermes End Terminals in performance classes; P1 - 50 km/h, P2 - 80 km/h and the most frequently installed terminal, the P4 - 110 km/h.

Supply & Installation
Ermes End Terminals are applied to the end of safety barriers, which could present a hazard for motorists.

The Ermes End Terminal family offer flexible installation options for a number of surfaces including soil, asphalt and concrete.

On the all-purpose trunk road network, a P4 terminal is specified for roads with a speed of 80 km/h or more (50 mph).

Benefits
• Crash cushion performance for the price of a P4 terminal
• Bi-directional terminal, made of steel for energy-absorbing properties
• Repairable - savings on cost and time
• Shorter lengths for limited space
• Flexible installation for different surfaces

Standards, testing & performance
EN1317 Part 4
prEN 1317-7
Permanent lateral displacement zone class D1.1
Vehicle exit box class Z1

Technical Specifications
Length range: 2,250 mm - 5,900 mm
Width: 290 mm
Height: 620 mm
Test Level: EN131-4 110km/h, pr EN 1317-7
An automatic taper system allows for efficient and easy traffic management, including road and lane closures.

We offer the UK’s first automated taper system, which operates to manually implement lane closures, reducing risk by removing the need for road workers.

Automated Taper
SwiftGate

The SwiftGate is the UK’s first automated taper system. Designed to reduce risk by removing the need for road workers manually installing traffic management for road and lane closures.

The SwiftGate pivots horizontally and offers increased visibility using a high surface of reflective material and LED lighting.

The gate arm’s unique design provides strength, flexibility and durability. Manufactured with corrosion resistant materials, the SwiftGate is designed to withstand harsh roadside conditions and weather environments.

Multiple communication options allow SwiftGate to be operated, monitored and sequenced, locally and remotely. A system application may include one or many gate modules, which can be activated individually, in sequence, in groups or as part of an overall solution that brings together various traffic devices.

Supply & Installation

- Ideal for work site repetitive lane closures
- Central reservation crossover management
- Reversible lane access control
- Express lane access ramp control
- Tunnel/Bridge emergency closure
- Event traffic management
- On-ramp and off-ramp slip road control

Benefits

- Removes risk of injury to traffic management worker
- Deployment typically 23 seconds
- Can be connected to BG800 ®
- Mobile and standalone system
- Self-powered and reusable
- Weather proof electrical linear actuator
- Wired and wireless remote control options
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