



Highways Safety Solutions

www.glasdon.com

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Founded in Blackpool in 1959, over the last 65 years we have grown into a successful worldwide brand.

Distributed in **100**+ countries

Turnover **c.£40m**

280+ staff in UK, France & USA

B2B Dealing with Government funded sectors and with private and public companies worldwide.



The Environment is at our Core

We are passionate about our environment and are committed to continuously improving our environmental performance. Our goal is to drive lasting change to improve all of our futures, not only by improving our own processes but by providing our customers with the products to enable them to improve theirs.



Quality by Design

Our mission is to design, manufacture and supply innovative market-leading products that enable our customers to contribute towards a cleaner, safer and more sustainable environment.



Passive Safety

Passively safe street furniture is designed to minimise the severity of injury to occupants of a vehicle that collides with it. The European Standard BS EN 12767 defines a universal test that establishes the performance of a passively safe roadside structure.

The performance rating is displayed in the following format:

The first number indicates the class impact speed in kph: 50, 70 or 100kph. Tests are conducted with a small (900kg) car in a head-on, frontal impact.

The two letters represent the energy absorbed by the structure: High energy absorbing (HE) support structures slow the vehicle considerably on impact; Low energy (LE) structures measurably slow the vehicle but pose a much lower risk of injury to its occupants; Non-energy absorbing (NE) structures have negligible or nil effect on the speed of the vehicle.

The final letter represents the occupant safety level and is based on the Acceleration Severity Index (ASI) and Theoretical Head Impact Velocity (THIV) scales, according to European Standard BS EN 1317-1. The available levels are A-E, where 'A' represents the safest and 'E' the least safe.

Glasdon passively safe highways products are tested by accredited independent specialists at Horiba-MIRA,









Passively

Safe to

BS EN 12767

100-NE-A

TRL and Transpolis. Where testing has been conducted, the performance rating will be clearly shown on the page.

Sustainability

From integrating sustainable practices into our day-to-day working practices to using recycled and recyclable materials in our product ranges, we have made many improvements over the years to enhance our environmental accountability. These include:

- Using long-lasting, corrosion-resistant materials for extended product lifespan, reducing the need for frequent replacements and associated carbon footprint.
- Incorporation of recycled materials in manufacturing where possible.
- Designing products that are fully recyclable at the end of their service life, minimising waste.
- Using lightweight materials for reduced transportation emissions and easier handling.
- Supplying socketed products to eliminate the need for additional concrete foundations if a bollard needs replacing, further reducing the carbon footprint associated with installation and maintenance.

Choose a Bollard:

Our bollards are suitable for all customers, from councils to small businesses, and are available in both modern and traditional styles.



Specify the Material:

Choose between our rigid
Durapol® material or our passively
safe self-righting Impactapol®
material. Bollards made from 100%
recycled rubber or Enviropol®
material are also available.

See page 70 for more details about our high-performance materials.

Specify the Colour:

You can choose from a variety of colours including black, white, aircraft grey, millstone and granite.







Black

White

Aircraft Grey





Millstone

Granite

Choose the Reflective Banding Colour if Required:

Our reflective banding colour options conform to highway regulations. Red indicates a near-side edge of a carriageway; white, an off-side edge; and amber, the off-side edge of a dual carriageway.



Choose a Fixing:

Our selection of eight different fixing methods ensures that there will be one that is right for your application.

They fall under 4 categories:

- <u>Sockets</u>: ideal for permanent, semi-permanent and temporary applications. Once installed, sockets allow speedy bollard removal and replacement.
- <u>Bolt-Down Fixing</u>: fast, permanent installation into existing cured concrete subsurfaces.
- Concrete-in Fixings: for permanent, secure fixing into wet concrete.
- Special Purpose: Bridgemaster[™] is ideal for the transition between true land and bridge decking, and Guardsman[™] is an excellent anti-ram-raid feature.

See pages 67 to 69 for more details.

Highway Bollards

Glasdon have been designing and manufacturing bollards for more than 40 years. Our versatile road safety solutions are used all over the highways and byways of the United Kingdom, and we believe we have a product for every application.

Our highway bollards come in a variety of traditional and modern styles that can be specified as rigid Durapol® or flexible Impactapol® models. Most of our bollards have the option of a socket system, which reduces maintenance costs for councils and improves safety for road workers.



■ Advanced Neopolitan[™] 150 Bollard

DESIGN FEATURES

- · Available as a self-righting Rebound bollard or rigid Durapol®-material model.
- Choice of two fixing options: LockFast™ Socket System or permanent, belowground, extended base fixing.
- · Low maintenance and durable.
- Large, 150mm tall, retroreflective patches at the top of the bollard.
- · Large, 40mm lower reflector catches dipped headlights.
- Individual reflector recesses protect reflectors in the event of a drive-through collision.
- LockFast Socket allows quick and easy bollard top replacement.
- Optional blanking plate to prevent potential trip hazard if the bollard is temporarily removed from its socket.

SPECIFICATIONS

Height above ground: 925mm
Maximum diameter: 200mm
Depth below ground:

With socket: 350mm With extended base: 300mm

*Rebound Impactapol model only.

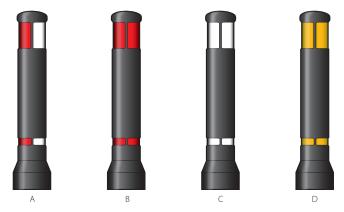






Bollard: Passively safe Impactapol* material or rigid Durapol material LockFast Socket: Durapol material.

Durapol material and Passively Safe Rebound Impactapol material: Black, White.



BANDING OPTIONS

A. 2 x 150mm and 2 x 40mm Red/White retroreflective patches#

B. 2 x 150mm and 2 x 40mm Red retroreflective patches#

C. 2 x 150mm and 2 x 40mm White retroreflective patches#

D. 2 x 150mm and 2 x 40mm Amber retroreflective patches#

"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.



LockFast Socket



Below-Ground, Extended Base



LockFast blanking plate: for use with LockFast socket

FIXING OPTIONS

LockFast Socket; Below-Ground, Extended Base.





■ Glasdon Manchester[™] Bollard

DESIGN FEATURES

- Available as a self-righting Rebound bollard or rigid Durapol®-material model.
- · Never requires painting, unlike cast iron equivalents.
- · Low maintenance and durable.
- A fraction of the weight of a metal bollard: can be installed by one person.
- Existing cast-iron bollards can be replaced over time to save cost.
- · Recessed areas for retroreflective or decorative banding.
- LockFast™ Socket allows quick and easy bollard top replacement.
- Optional blanking plate to prevent potential trip hazard if the bollard is temporarily removed from its socket.

SPECIFICATIONS

Height above ground:
Maximum diameter:
Depth below ground:
With socket:
With extended base:

*Rebound Impactapol model only.

1005mm 220mm

350mm 300mm







Black

Bollard: Passively safe Impactapol® material or rigid Durapol material. LockFast Socket: Durapol material.

Durapol material and Passively Safe Rebound Impactapol material: Black.



BANDING OPTIONS

- A. 1 x 63mm and/or up to 3 x 12mm Red/White retroreflective bands*
- B. 1 x 63mm and/or up to 3 x 12mm Red retroreflective bands#
- C. 1 x 63mm and/or up to 3 x 12mm White retroreflective bands#
- D. 1 x 63mm and/or up to 3 x 12mm Amber retroreflective bands*
- E. 1 x 63mm and/or up to 3 x 12mm Gold Decorative bands

"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.



LockFast Socket



Below-Ground, Extended Base



LockFast blanking plate: for use with LockFast socket

FIXING OPTIONS

LockFast Socket; Below-Ground, Extended Base.





Neopolitan[™] 150 Bollard

DESIGN FEATURES

- Available as a self-righting Rebound bollard or rigid Durapol®-material model.
- · Low maintenance and durable.
- · Recessed areas for retroreflective or decorative banding.
- · Wide range of fixing options available.
- Optional blanking plate to prevent potential trip hazard if the bollard is temporarily removed from its socket.

SPECIFICATIONS

Height above ground:

Socketed/extended-base/Guardsman™ models:

Bolted down:

Maximum diameter:

Depth below ground:

Socket:

Extended base:

Guardsman™ fixing:

Bridgemaster™ fixing:

Bolted down:

Adjustable depth, concrete-in anchors:

*Rebound Impactapol model only.



1005mm

200mm

500mm 420mm 745mm

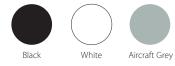
311mm

75mm

320mm (Max.)







Bollard: Passively safe Impactapol® material or rigid Durapol material.

Socket: Durapol material.

Durapol Material: Black, White, Aircraft Grey.

Passively Safe Rebound Impactapol Material: Black, White.



BANDING OPTIONS

A. 1 x 150mm and 1 x 20mm Red/White retroreflective bands#

B. 1 x 150mm and 1 x 20mm Red retroreflective bands#

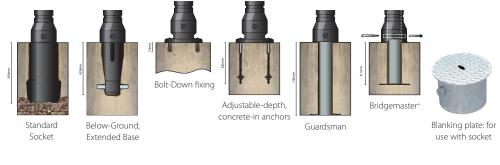
C. 1 x 150mm and 1 x 20mm White retroreflective bands* D. 1 x 150mm and 1 x 20mm Amber retroreflective bands*

E. 1 x 485mm Red/White, Red, White or Amber body sleeve (3 x 150mm bands are available for use with Rebound model)#

F. 1 x 150mm and 1 x 20mm decorative bands

150mm band is ideal for personalisation with your crest, logo

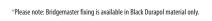
"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.



FIXING OPTIONS

Rigid Model: Standard Socket; Below-Ground, Extended Base; Bolt-Down fixing; Adjustable-depth, concrete-in anchors; Guardsman;

Passively Safe Rebound Model: Below-Ground, Extended Base; Bolt-Down fixing; Adjustable-depth, concrete-in anchors.







■ 600mm High Neopolitan[™] 150 Bollard

DESIGN FEATURES

- \bullet Designed for improved visibility at junctions and lay-bys.
- Available as a self-righting Rebound bollard or a rigid Durapol®-material model.
- · Low maintenance and durable.
- Recessed areas for retroreflective or decorative banding.
- Co-ordinates with Neopolitan 150 and Neopolitan 20 Bollards

SPECIFICATIONS

Height above ground:612mmMaximum diameter:200mmBase:300 x 300mm

Depth below ground:

Bolted down: 75mm Adjustable-depth, concrete-in anchors: 320mm (Max.)

*Rebound Impactapol model only.







Bollard: Passively safe Impactapol* material or rigid Durapol material

Durapol Material: Black, White.

Passively Safe Rebound Impactapol material: Black, White.



BANDING OPTIONS

A. 1 x 150mm and 1 x 20mm Red/White retroreflective bands#

B. 1 x 150mm and 1 x 20mm Red retroreflective bands#

C. 1 x 150mm and 1 x 20mm White retroreflective bands#

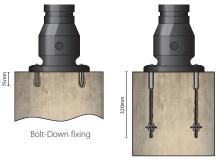
D. 1 x 150mm and 1 x 20mm Amber retroreflective bands*

E. 1 x 150mm and 1 x 20mm decorative bands

150mm band is ideal for personalisation with your crest, logo or message.

"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.





Adjustable-depth, concrete-in anchors

FIXING OPTIONS

Bolt-Down fixings; Adjustable-depth, concrete-in anchors.





■ Neopolitan[™] 20 Bollard

DESIGN FEATURES

- Available as a self-righting Rebound bollard or rigid Durapol®-material model.
- · Low maintenance and durable.
- · Recessed areas for retroreflective or decorative banding.
- · Wide range of fixing options available.
- Optional blanking plate to prevent potential trip hazard if the bollard is temporarily removed from its socket.

SPECIFICATIONS Height above ground:

Maximum diameter: 200mm

Depth below ground:

Socket: 500mm

Extended base: 420mm

Guardsman™ fixing: 745mm

Bridgemaster™ fixing: 311mm

Bolt-down fixing: 95mm

925mm

250mm (max.)

*Rebound Impactapol model only.

Adjustable-depth, concrete-in anchors:





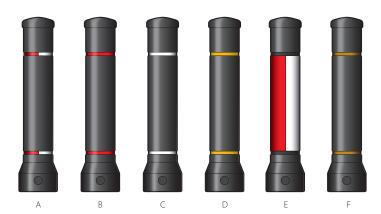


Bollard: Passively safe Impactapol® material or rigid Durapol material.

Socket: Durapol material.

Durapol Material: Black, White, Aircraft Grey.

Passively Safe Rebound Impactapol material: Black, White.

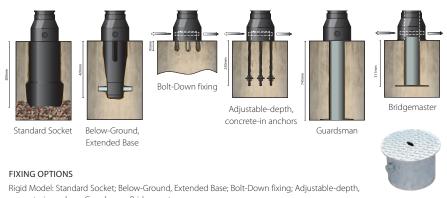


BANDING OPTIONS

- A. 2 x 20mm Red/White retroreflective bands#
- B. 2 x 20mm Red retroreflective bands*
- C. 2 x 20mm White retroreflective bands#
- D. 2 x 20mm Amber retroreflective bands#

- E. 1 x 485mm Red/White, Red, White or Amber body sleeve (3 x 150mm bands are available for use with Rebound model)#
- F. 2 x 20mm Gold decorative bands

"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.



concrete-in anchors; Guardsman; Bridgemaster.

Passively Safe Rebound Model: Below-Ground, Extended Base.

Blanking plate: for use with socket





■ Admiral[™] Bollard

DESIGN FEATURES

- · Available as a self-righting Rebound bollard or rigid Durapol®material model.
- · Low maintenance and durable.
- 80mm (Rigid) or 150mm (Rebound) banding recess.
- Optional blanking plate to prevent potential trip hazard if the bollard is temporarily removed from its socket.

SPECIFICATIONS

Height above ground: 936mm Maximum diameter: 198mm

Depth below ground:

500mm

Extended base (Impactapol® model): 300mm Extended base (Durapol® model): 430mm **PASSED** at 100 Km/h (62mph)



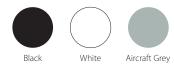
Glasdon focus on Highly Visible Junction Marker Bollards for Somerset County Council.

What the Customer says:

"Somerset County Council have found the Admiral junction marker to be a useful tool in their armoury, as part of integrated route treatment works in rural locations. It has been effective in reducing road accident casualties and gives drivers enhanced information on road layouts and potential

Mr Nick Cowling, Team Leader Accident Data and Engineering, Somerset Highways.

*Rebound Impactapol model only.



Bollard: Passively safe Impactapol material or rigid Durapol material. Socket: Durapol material.

Durapol material: Black, White, Aircraft Grey.

Passively Safe Rebound Impactapol material: Black, White.



BANDING OPTIONS

- A. 1 x 80mm Red/White retroreflective band*
- B. 1 x 80mm Red retroreflective band#
- C. 1 x 80mm White retroreflective band#
- D. 1 x 80mm Amber retroreflective band*
- E. 1 x 150mm Red/White, Red, White or Amber retroreflective band*

"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.

* Available with the self-righting Rebound model only.





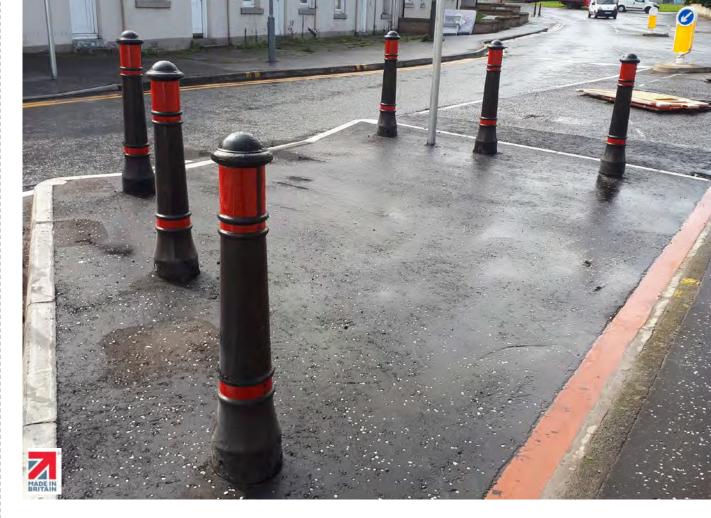
Below-Ground, Extended Base (Impactapol Model)



Blanking plate: for use with socket







■ Victory[™] Bollard

DESIGN FEATURES

- Available as a self-righting Rebound bollard or rigid Durapol®-material model.
- Never requires painting, unlike cast iron equivalents.
- · Low maintenance and durable.
- A fraction of the weight of a metal bollard: can be installed by one person.
- Recessed areas for retroreflective or decorative banding.
- Optional blanking plate to prevent potential trip hazard if the bollard is temporarily removed from its socket.

SPECIFICATIONS

Height above ground: 967mm
Maximum diameter: 200mm
Depth below ground:
With socket: 500mm
With extended base: 420mm

*Rebound Impactapol model only.







Bollard: Passively safe Impactapol* material or rigid Durapol material.

Socket: Durapol material

Durapol material and Passively Safe Rebound Impactapol material: Black.







D





A. 1 x 125mm and/or 1 x 20mm and/or 1 x 38mm Red/White retroreflective bands $^{\sharp}$

B. 1 x 125mm and/or 1 x 20mm and/or 1 x 38mm Red retroreflective bands*

C. 1 x 125mm and/or 1 x 20mm and/or 1 x 38mm White retroreflective bands*

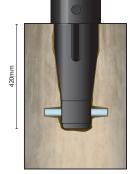
D. 1 x 125mm and/or 1 x 20mm and/or 1 x 38mm Amber retroreflective bands*

E. 1 x 125mm and/or 1 x 20mm and/or 1 x 38mm Gold decorative bands

125mm band is ideal for personalisation with your crest, logo or message.

"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.







Standard Socket

Below-Ground, Extended Base

Blanking plate: for use with socket

FIXING OPTIONS

Durapol Model: Standard Socket; Below-Ground, Extended Base. Passively Safe Rebound Model: Below-Ground, Extended Base.





■ Jubilee[™] Bollard

DESIGN FEATURES

- Available as a self-righting Rebound bollard or rigid Durapol®-material model.
- · Never requires painting, unlike cast iron equivalents.
- · Low maintenance and durable.
- A fraction of the weight of a metal bollard: can be installed by one person.
- · Versatile banding options.
- Optional blanking plate to prevent potential trip hazard if the bollard is temporarily removed from its socket.

SPECIFICATIONS

Height above ground: 942mm
Maximum diameter: 190mm
Depth below ground:
With socket: 500mm

With extended base: 420mm

*Rebound Impactapol model only.







Bollard: Passively safe Impactapol* material or rigid Durapol material.

Socket: Durapol material

Durapol material and Passively Safe Rebound Impactapol material: Black.



BANDING OPTIONS

A. 4 x 12mm and/or 1 x 27mm Red/White retroreflective bands*

B. 4 x 12mm and/or 1 x 27mm Red retroreflective bands#

C. 4 x 12mm and/or 1 x 27mm White retroreflective bands#

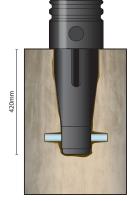
D. 1×580 mm Red/White, Red, White or Amber body sleeve, 4×12 mm and 1×27 mm retroreflective bands*

E. 4 x 12mm Gold decorative bands.

"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.



Standard Socket



Below-Ground, Extended Base



Blanking plate: for use with socket

FIXING OPTIONS

Rigid Model: Standard Socket; Below-Ground, Extended Base. Passively Safe Rebound Model: Below-Ground, Extended Base.



Sign-Carrying Bollards

Warn, inform and protect road users, cyclists and pedestrians with Glasdon sign-carrying bollards. Perfect for marking dedicated cycle paths and shared routes.

Rigid and rebound models are available to co-ordinate with our range of Neopolitan Bollards.





Infomaster[™] Bollard

DESIGN FEATURES

- Rigid Durapol®-material construction.
- · Optimum height for drivers.
- · Low maintenance and durable.
- Narrow footprint takes up minimal space on the pavement.
- Double-sided sign face helps to reduce cost.
- Recessed sign face deters vandalism.
- · Easily re-sited.



Adjustable-depth, concrete-in anchors

FIXING OPTIONS

Bolt-Down fixing; Adjustable-depth, concrete-in anchors.

SPECIFICATIONS

Height above ground: Width: Sign face dimensions:

Depth below ground: Bolted down:

Adjustable-depth, concrete-in anchors: 320mm (max.)

1196mm

370mm

60mm

308mm x 248mm





Black

Millstone

MATERIAL & COLOUR OPTIONS

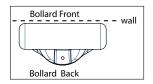
Durapol material in Black or Millstone.



OPTIONAL SIGN FACES

Available single or double sided, Infomaster can be used for a range of applications. Please see above for examples.

Disabled Badge Holder sign face available as a standard sign price option. Other non-standard sign faces are available. To discuss your requirements, please call our sales office on 01253 600411.



SIGN FACE ORIENTATION

If Infomaster is to be sited against a building/wall, please specify that the sign face is for the back of the bollard.



Ensign[™] Bollard

DESIGN FEATURES

- Rigid Durapol®-material construction.
- · Low maintenance and durable.
- Wide range of sign face options.
- Recessed areas for retroreflective or decorative banding.
- Optional blanking plate to prevent potential trip hazard if the bollard is temporarily removed from its socket.

SPECIFICATIONS

	around

Socketed: 1120mm
Bolted Down: 1206mm
Width: 338mm
Maximum stem diameter: 200mm
Sign face diameter: 300mm

Depth below ground:

Socket:500mmExtended-base:420mmBolt-down fixing:75mmAdjustable-depth, concrete-in anchors:320mm (max.)



Bollard: Rigid Durapol material. Socket: Durapol material. Durapol material: Black, White, Aircraft Grey.



BANDING OPTIONS

- A. 2 x 20mm Red/White retroreflective bands#
- B. 2 x 20mm Red retroreflective bands*
- C. 2 x 20mm White retroreflective bands#
- D. 2 x 20mm Amber retroreflective bands#
- E. 1 x 485mm Red/White, Red, White or Amber body sleeve
- F. 2 x 20mm Gold decorative bands

*All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.



takes two 210mm x 125mm signs.



also takes two Ø150mm signs.





Standard Socket



Below-Ground. Extended Base



Bolt-Down fixing



Adjustable-depth, concrete-in anchors



Blanking plate: for use with socket



10 Ref 957 11 Ref 957 Reversed



















9 Ref 956



- 1. Max. Speed Limit (5mph)
- 2. Max. Speed Limit (10mph)
- 3. No Entry
- 4. No Left Turn
- 5. Cycles Prohibited
- 6. Turn Left or Right
- 7. Keep Left or Right
- 8. Cycle Route
- 9. Cycle/Pedestrians Only
- 10. Cycle/Pedestrians Only "Route Marked"
- 11. Cycle/Pedestrians Only "Route Marked"

Sign-carrying bollards are also suitable for personalisation with safer routes to schools or your crest, logo or message. Please phone 01253 600411 for more information.

FIXING OPTIONS

Standard Socket; Below-Ground, Extended Base; Bolt-Down fixing; Adjustable-depth, concrete-in anchors.



■ Mini-Ensign[™] Bollard

DESIGN FEATURES

- Available as a self-righting Rebound bollard or rigid Durapol®-material model
- · Low maintenance and durable.
- Illuminated rebound model available.
- · Wide range of sign face options.
- · Recessed areas for retroreflective or decorative banding.
- Optional blanking plate to prevent potential trip hazard if the bollard is temporarily removed from its socket.

SPECIFICATIONS

Height above ground:

Socketed: 1010mm
Bolted down: 1087mm
Maximum diameter: 200mm
Sign face diameter: 150mm
Depth below ground:
Socket depth: 500mm
Extended base: 420mm

Bolt-down fixing: 75mm
Adjustable-depth, concrete-in anchors: 320mm (max.)
Sublite fixing: 226mm

*Rebound Impactapol model only.







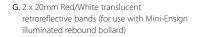
Bollard: Passively safe Impactapol® material or rigid Durapol material. Socket: Durapol material.

Passively Safe Rebound Impactapol material: Black, White. Illuminated rebound model is only available in White.



BANDING OPTIONS

- A. 2 x 20mm Red/White retroreflective bands*
- B. 2 x 20mm Red retroreflective bands*
- C. 2 x 20mm White retroreflective bands*
- D. 2 x 20mm Amber retroreflective bands#
- E. 1 x 485mm Red/White, Red, White or Amber body sleeve (3 x 150mm bands are available for use with Mini-Ensign Rebound models.)#
- F. 2 x 20mm Gold decorative bands



"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.



BOLLARD

White Mini-Ensign illuminated rebound bollard with Red/White translucent retroreflective bands.







- 3. Cycle/Pedestrians Only "Route Marked"
- 4. Cycle/Pedestrians Only "Route Marked" reversed
- 5. End of Cycle Lane / Track or Route

Sign-carrying bollards are also suitable for personalisation with safer routes to schools or your crest, logo or message. Please phone 01253 600411 for more information.



Standard Socket



Below-Ground. Extended Base

Down fixing; Adjustable-depth, concrete-in anchors; Sublite fixing



Bolt-Down fixing



Adjustable-depth, concrete-in anchors



Sublite fixing for Mini-Ensign illuminated rebound bollard



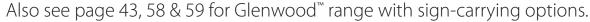




Blanking plate: for use with socket



(illuminated model).





Cyclemaster[™] Bollard

DESIGN FEATURES

- Available as a self-righting Rebound bollard or rigid Durapol® model.
- · Low maintenance and durable.
- Wide range of standard vandal-resistant sign face options.
- Can display up to 6 sign faces on front and rear (3 per side).
- Fluorescent yellow retroreflective panels provide high visibility in daylight conditions and under headlights at night.
- Recessed areas for retroreflective panels.
- Socket fixing allows quick and easy bollard top replacement.
- · Additional side and rear reflectors are available for increased visibility.

SPECIFICATIONS

Height above ground: 1000mm Width: 216mm Depth below ground:

Socket depth: 306mm Extended base: 256mm Bolt-down fixing: 75mm

Adjustable-depth, concrete-in anchors: 320mm (max.) Fixed-depth, concrete-in anchors: 250mm (max.)





Bollard: Rebound Impactapol* material or rigid Durapol material. Socket: Durapol material.

Durapol material and Rebound Impactapol material: Black, White.



OPTION 1 REFLECTORS

- 1 x Fluorescent Yellow retroreflective front panel
- 2 x Fluorescent Yellow retroreflective side panels



OPTION 2 REFLECTORS

- 1 x Fluorescent Yellow retroreflective front panel
- 4 x Fluorescent Yellow retroreflective side panels



OPTION 3 REFLECTORS

- 1 x Fluorescent Yellow retroreflective front panel
- 1 x Fluorescent Yellow retroreflective back panel
- 4 x Fluorescent Yellow retroreflective side panels



RETROREFLECTIVE PATCH OPTIONS

All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.





Below-Ground,

Extended Base







Adjustable-depth, concrete-in anchors

Fixed-depth, concrete-in anchors











3 Ref 957



& 6106R





& 606R





7 Ref 606 Straight Ahead

8 Ref 2602.2

FIXING OPTIONS

Socket

Socket; Below-Ground, Extended Base; Bolt-down fixing; Adjustable-depth, concrete-in anchors; Fixed-depth, concrete-in anchors.

STANDARD PRICE SIGN OPTIONS

Cyclemaster bollard has the option to carry up to 3 signs on each side.

- 1. Cycle Route
- 2. Cycle/Pedestrians Only
- 3. Cycle/Pedestrians Only "Route Marked"
- 4. Cycle/Pedestrians Only "Route Marked" reversed
- 5. Keep Left or Right
- 6. Turn Left or Right
- 7. Straight Ahead
- 8. Numbered Cycle Route

Other non-standard sign faces are available. Please contact our sales office for information.

Recycled-Material Bollards

Enviropol® recycled plastic material is manufactured predominantly from post-consumer plastics. By balancing these uncontaminated recycled waste materials, the result is a remarkably versatile product with many applications and benefits. Enviropol material will not chip or rust, is easy to clean and never needs painting.

Buffer[™] Bollard is manufactured from 100% recycled rubber tyres and is pressure moulded to create a strong, hard-wearing, weatherproof material.





■ Buffer[™] Bollard

DESIGN FEATURES

- · Available in two heights: 600mm or 900mm.
- · Low maintenance and durable.
- Reinforcing tube allows bollard to be flexible yet resilient.
- · Recessed area for retroreflective or decorative banding.
- · Made from 100% recycled rubber tyres.

SPECIFICATIONS

600mm or 900mm Height above ground: 248mm Maximum diameter: Depth below ground: 300mm Extended base:

95mm Bolted down: Adjustable depth, concrete-in anchors: 250mm (max.)

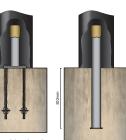


Black

MATERIAL & COLOUR

Bollard: 100% recycled rubber car tyres in Black Reinforcing tube: Galvanised mild steel.





Adjustable-depth, concrete-in anchors

Below-Ground. Extended Base

FIXING OPTIONS

Bolt-Down fixing; Adjustable depth, concrete-in anchors; Below-Ground, Extended Base.











BANDING OPTIONS

- A. 1 x 75mm Red/White retroreflective band*
- B. 1 x 75mm Red retroreflective band#
- C. 1 x 75mm White retroreflective band#
- D. 1 x 75mm Amber retroreflective band*
- E. 1 x 75mm Gold decorative band.

Ideal for personalisation with your crest, logo or message.

*All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.





■ Enviropol® Bollard

DESIGN FEATURES

- · Low maintenance and durable.
- · Available with a flat or round top.
- Recessed area for retroreflective or decorative banding.
- Made from 100% recycled material.
- · Below-ground, extended base fixing.

SPECIFICATIONS

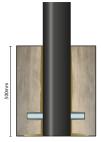
Height above ground: Maximum diameter: Depth below ground: 1000mm 150mm 500mm



MATERIAL & COLOUR OPTIONS

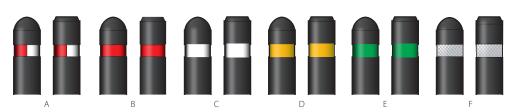
Bollard: 100% recycled Enviropol* material in Black.

Black



Below-Ground, Extended Base

FIXING OPTIONS Below-Ground, Extended Base



BANDING OPTIONS

- A. 1 x 80mm Red/White retroreflective band*
- B. 1 x 80mm Red retroreflective band*
- C. 1 x 80mm White retroreflective band

- D. 1 x 80mm Amber decorative band
- E.~1~x~80 mm~Green~decorative~band
- F. 1 x 80mm Silver decorative band

"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.

Active Travel Products

Active travel is a great way for people to reduce their carbon footprint whilst benefitting their physical fitness. We believe that cycle routes should be safe and visible, so we have developed products that will help make this a reality.

On the following pages, you will find our cycle lane defenders, waymarkers and cycle chicanes.



■ Endurokerb[™] Cycle Lane Defender

DESIGN FEATURES

- · Complies with DfT requirements.
- Modular system: can be configured to suit individual site requirements.
- Bolt-down fixings allow quick, easy installation for temporary and semi-permanent schemes.
- · Angled side reflectors offer high visibility to pedestrians, cyclists and motorists.
- · Safe manual handling weight for two people.
- · Made from 100% recycled & recyclable material.
- Compatible with existing Glasdon bollards, giving additional signage and demarcation.
- · Moulded-in cats' eyes.
- Kerb cover caps protect the fixing and prevent debris from clogging up the fixing points.
- · Water drainage gap allows surface water to drain away.
- Connector kit for linking modules together and aligning them when fixing bollards onto them.
- Optional 'No Parking' signage for the raised kerb module.
- Optional resin-in installation provides stronger ground fixing.

SPECIFICATIONS

Endurokerb 100	Bollard End	d Intermediate		Raised Intermediate		Bullnose
	Kerb	Kerb		Kerb		Kerb
Weight	22.4kg	23.5k	g	35.2kg		9.8kg
Length	700mm	1000mm		1000mm		500mm
Width	403mm	253mm		253mm		253mm
Height	100mm	100m	ım	223mm		100mm
Endurokerb 60	Bollard End Kerb		Intermedia	ate Kerb	Bullnose H	Kerb
Weight	13.2kg		9.5kg		5.1kg	
Length	700mm		1000mm		500mm	
Width	352mm		152mm		152mm	
Height	60mm		60mm		60mm	

Fixing Bolt Depth below ground: Endurokerb 100: 170mm (min.) Endurokerb 60: 120mm (min.)

MATERIALS

Kerb Module Material: Enduropol™ Material Kerb Connector Material: 100% Recycled PVC Fixing Plate Material: Stainless Steel

Choose Endurokerb sizes & modules:

Any combination of bollard kerb, bullnose kerb, intermediate kerb (all available as Endurokerb 60 and Endurokerb 100) and raised kerb (Endurokerb 100 only).



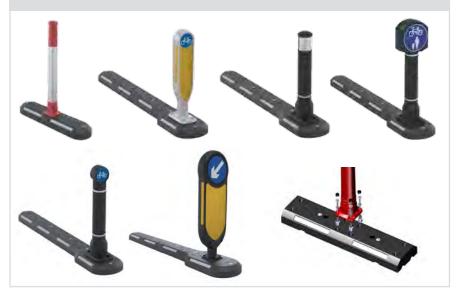
Specify number of kerb connectors & ground fixings:

Endurokerb can be fixed onto tarmac or concrete with our ground fixings or with resin. If modules are to be sited continuously, choose the required number of connector kits (1 kit per pair of modules).



Specify any bollards and bollard graphics required:

Endurokerb can be equipped with existing Glasdon bollards for additional signage and demarcation. Choose from Neopolitan Delineator, Cyclemaster, Neopolitan 150, Ensign, Mini-Ensign and Rebound Signmaster Ultra Compact. Fixings are available for securely attaching bollards to a module or across two modules.





Cyclemaster[™] Waymarker

DESIGN FEATURES

- Available as a self-righting Rebound bollard or rigid Durapol® model.
- · Low maintenance and durable.
- Wide range of standard vandal-resistant sign face options.
- Can display up to 6 sign faces on front and rear (3 per side).
- Fluorescent yellow retroreflective panels provide high visibility in daylight conditions and under headlights at night.
- Recessed areas for retroreflective panels.
- · Socket fixing allows quick and easy bollard top replacement.
- · Additional side and rear reflectors are available for increased visibility.

SPECIFICATIONS

Height above ground: 1000mm Width: 216mm Depth below ground:

Socket depth: 306mm
Extended base: 256mm
Bolt-down fixing: 75mm
Adjustable-depth, concrete-in anchors: 320mm (max.)

Fixed-depth, concrete-in anchors: 250mm (max.)





MATERIAL & COLOUR OPTIONS

Bollard: Rebound Impactapol* material or rigid Durapol material. Socket: Durapol material.

Durapol material and Rebound Impactapol material: Black, White.



OPTION 1 REFLECTORS

- 1 x Fluorescent Yellow retroreflective front panel
- 2 x Fluorescent Yellow retroreflective side panels



OPTION 2 REFLECTORS

- 1 x Fluorescent Yellow retroreflective front panel
- 4 x Fluorescent Yellow retroreflective side panels



OPTION 3 REFLECTORS

- 1 x Fluorescent Yellow retroreflective front panel
- 1 x Fluorescent Yellow retroreflective back panel
- 4 x Fluorescent Yellow retroreflective side panels



RETROREFLECTIVE PATCH OPTIONS

All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.





Below-Ground,

Extended Base







anchors





Fixed-depth, 5 Ref 610L & 6106R









2 Ref 956 3 Ref 957





& 606R



7 Ref 606 Straight Ahead

8 Ref 2602.2

FIXING OPTIONS

Socket

Socket; Below-Ground, Extended Base; Bolt-down fixing; Adjustable-depth, concrete-in anchors; Fixed-depth, concrete-in anchors.

STANDARD PRICE SIGN OPTIONS

Cyclemaster bollard has the option to carry up to 3 signs on each side.

- 1. Cycle Route
- 2. Cycle/Pedestrians Only
- 3. Cycle/Pedestrians Only "Route Marked"
- 4. Cycle/Pedestrians Only "Route Marked" reversed
- 5. Keep Left or Right
- 6. Turn Left or Right
- 7. Straight Ahead
- 8. Numbered Cycle Route

Other non-standard sign faces are available. Please contact our sales office for information.



■ Mini-Ensign[™] Waymarker

DESIGN FEATURES

- Available as a self-righting Rebound bollard or rigid Durapol®-material model
- · Low maintenance and durable.
- Illuminated rebound model available.
- Wide range of sign face options.
- · Recessed areas for retroreflective or decorative banding.
- Optional blanking plate to prevent potential trip hazard if the bollard is temporarily removed from its socket.

SPECIFICATIONS

Height above ground:

Socketed: 1010mm
Bolted down: 1087mm
Maximum diameter: 200mm
Sign face diameter: 150mm

Depth below ground: Socket depth:

Extended base: Bolt-down fixing:

Adjustable-depth, concrete-in anchors: Sublite fixing:

Jublice lixing.

500mm 420mm 75mm 320mm (max.)

226mm

Passively

Safe to BS EN 12767

100-NE-A

*Rebound Impactapol model only.







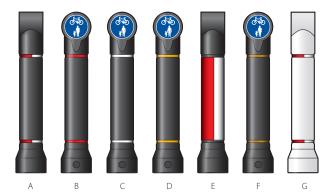
Black

White Aircraft Grey

MATERIAL & COLOUR OPTIONS

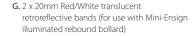
Bollard: Passively safe Impactapol® material or rigid Durapol material. Socket: Durapol material.

Passively Safe Rebound Impactapol material: Black, White. Illuminated rebound model is only available in White.



BANDING OPTIONS

- A. 2 x 20mm Red/White retroreflective bands#
- B. 2 x 20mm Red retroreflective bands*
- C. 2 x 20mm White retroreflective bands# D. 2 x 20mm Amber retroreflective bands*
- E. 1 x 485mm Red/White, Red, White or Amber body sleeve (3 x 150mm bands are available for use with Mini-Ensign Rebound models.)#
- F. 2 x 20mm Gold decorative bands



"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.



BOLLARD

White Mini-Ensign illuminated rebound bollard with Red/White translucent retroreflective bands.









STANDARD PRICE SIGN OPTIONS

- 1. Cycle Route
- 2. Cycle/Pedestrians Only
- 3. Cycle/Pedestrians Only "Route Marked"
- 4. Cycle/Pedestrians Only "Route Marked" reversed
- 5. End of Cycle Lane / Track or Route

Sign-carrying bollards are also suitable for personalisation with safer routes to schools or your crest, logo or message. Please phone 01253 600411 for more information.



Standard Socket



Below-Ground, Extended Base



Bolt-Down fixing



Adjustable-depth, concrete-in anchors



Sublite fixing for Mini-Ensign illuminated rebound bollard

FIXING OPTIONS

Rigid Model: Standard Socket; Below-Ground, Extended Base; Bolt-Down fixing; Adjustable-depth, concrete-in anchors.

Passively Safe Rebound Model: Below-Ground, Extended Base; Bolt-Down fixing; Adjustable-depth, concrete-in anchors; Sublite fixing (illuminated model).



Blanking plate: for use with socket



■ Ensign[™] Waymarker

DESIGN FEATURES

- Rigid Durapol®-material construction.
- · Low maintenance and durable.
- Wide range of sign face options.
- Recessed areas for retroreflective or decorative banding.
- Optional blanking plate to prevent potential trip hazard if the bollard is temporarily removed from its socket.

SPECIFICATIONS

Height above ground:

Socketed: 1120mm
Bolted Down: 1206mm
Width: 338mm

Maximum stem diameter: 200mm Sign face diameter: 300mm

Depth below ground:

Socket: 500mm Extended-base: 420mm Bolt-down fixing: 75mm

320mm (max.)

Adjustable-depth, concrete-in anchors:



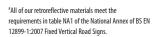
MATERIAL & COLOUR OPTIONS

Bollard: Rigid Durapol material. Socket: Durapol material. Durapol material: Black, White, Aircraft Grey.



BANDING OPTIONS

- A. 2 x 20mm Red/White retroreflective bands#
- B. 2 x 20mm Red retroreflective bands*
- C. 2 x 20mm White retroreflective bands#
- D. 2 x 20mm Amber retroreflective bands#
- E. 1 x 485mm Red/White, Red, White or Amber body sleeve
- F. 2 x 20mm Gold decorative bands





takes two 210mm x 125mm signs.



Ensign Bollard also takes two Ø150mm signs.





Standard Socket



Below-Ground. Extended Base



Bolt-Down fixing



Adjustable-depth, concrete-in anchors



Blanking plate: for use with socket





3 Ref 616









STANDARD-PRICE SIGN OPTIONS

- 1. Max. Speed Limit (5mph)
- 2. Max. Speed Limit (10mph)
- 3. No Entry
- 4. No Left Turn
- 5. Cycles Prohibited
- 6. Turn Left or Right
- 7. Keep Left or Right
- 8. Cycle Route
- 9. Cycle/Pedestrians Only
- 10. Cycle/Pedestrians Only "Route Marked"
- 11. Cycle/Pedestrians Only "Route Marked" reversed

FIXING OPTIONS

Standard Socket; Below-Ground, Extended Base; Bolt-Down fixing; Adjustable-depth, concrete-in anchors.



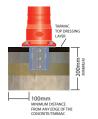


DESIGN FEATURES

- Manufactured from Reflexapol™ material for excellent rebound performance and passive safety.
- ullet Suitable for either bolt-down or socket installations: only one type of post needs to be stocked.
- · Low maintenance and durable.
- Choice of retroreflective banding options to suit different applications.
- 600mm retroreflective banding option conforms to TSRGD requirements.
- Compact Square Base: base requires minimal floor space for installation and is easy to install.
- Removable solution when coupled with LockFast™ Mini Socket and Quick-Release Socket Adaptor: key operated to prevent unauthorised removal or tampering.
- Passively safe: compliant to BS EN 12767. Passed at 100km/h, achieving 100-NE-A-NR.

SPECIFICATIONS MATERIAL AND COLOUR OPTIONS

Height above ground: 1000mm Body Material: Reflexapol™ Material Colours: Red or Black



CONCRETE

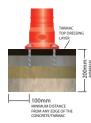
LE STORM STANCE

MANAGEMENT STANCE

FROM ANY EDGLE OF THE

CONCRET LEMBANC

CONCRET LEMBANC



Socketed Surface Mounted

FIXING OPTIONS

Socketed Surface Mounted

EASY REMOVAL FROM SOCKET IN 3 STEPS







Cover socket with optional cap

1. Insert key

2. Lift the post

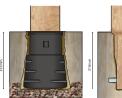




Glenwood[™] 170 Post & Glenwood[™] 170 Signhead Post

DESIGN FEATURES

- Two models available: Glenwood 170 Post and Glenwood 170 Signhead Post for displaying 150mm signs on all four sides.
- · Low maintenance and durable.
- Manufactured from Everwood™ Material, which has a unique realistic timber grain effect.
- · Lightweight and easy to install.
- · Recessed area for retroreflective banding.
- 150mm vandal-resistant sign faces.
- · Glenwood socket fixing option to facilitate access for maintenance vehicles.
- · Optional blanking plate for use with socket.



Glenwood Socket



Below-Ground. Extended Base



Blanking plate: for use with socket

FIXING OPTIONS

Glenwood Socket Below-Ground, Extended Base

SPECIFICATIONS

Height above ground: Glenwood 170 Post: Glenwood 170 Signhead Post: Depth below ground: Socketed: Extended base:

BANDING OPTIONS

A. 1 x 37mm Red/White retroreflective band#

"All of our retroreflective materials meet the requirements in table NA1 of

the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.

B. 1 x 37mm Red retroreflective band*

C. 1 x 37mm White retroreflective band*

D. 1 x 37mm Amber retroreflective band#

MATERIALS AND COLOURS

1000mm

1093mm

355mm

315mm

Post: Everwood material in Light Oak, Dark Oak. Glenwood socket: Durapol* material





Light Oak

Dark Oak













Ref 2610 2



OPTIONAL STANDARD SIGN FACES*

*Other non-standard sign faces are available. Please contact our sales office for information.



■ Glasdon Gateway Chicane / Waymarker

DESIGN FEATURES

- A low-maintenance, long-lasting alternative to traditional wooden sign carriers or chicanes.
- Hundreds of combinations of designs with various colours, slats, widths and heights available. Contact us for more information.



Below-Ground, Extended Base



Surface Mount Kit

Height: 1800mm (1300mm above ground) or 2300mm (1800mm above ground). Width: 960mm, 1500mm, 2000mm.

Post Width: 160mm

MATERIALS AND COLOUR OPTIONS

Posts/slats: Everwood™ Material in White, Light Oak or Dark Oak.

Fixing bolts: Stainless steel.

Surface mount bracket: 5mm Galvanised mild steel

FIXING OPTIONS

Below-Ground, Extended Base, Surface Mount Kit



See pages 61-63 for more details on the Glasdon Gateway.

Road Safety Signs

Glasdon chevron road signs and boards help prevent accidents and cut costs by outperforming traditional metal boards and postmounted chevron signs.

They are available in a range of designs & configurations from single-chevron signs for sharp bends on rural roads, to highly reflective chevron boards for use on roundabouts.



■ Chevroflex Ultra[™] Sign System

DESIGN FEATURES

- Certified passively safe to Performance Standard 100-NE-B.
- Highly visible wall effect: offers clear indication of a bend or hazard in the road.
- Easy-to-install socket for quick and simple sign replacement.
- · Low maintenance and durable.
- Three standard sizes of Chevron: 400mm, 600mm or 800mm.
- Modular socket design allows for unlimited number of chevrons.
- Available as left bend, right bend, a roundabout unit with a statute-compliant 606 sign face, a sight screen or a countdown marker.
- Available with or without high-visibility border.
- · AutoCAD model specifications available for all products.

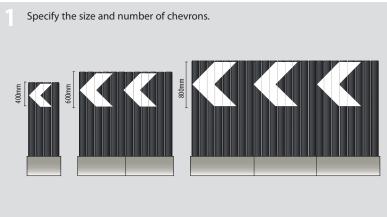
MATERIALS AND COLOUR OPTIONS

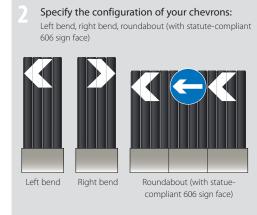
Uprights: Black Impactaflex[™] material Socket: Galvanised steel Hi-Vis surround: Yellow or Yellow/Green

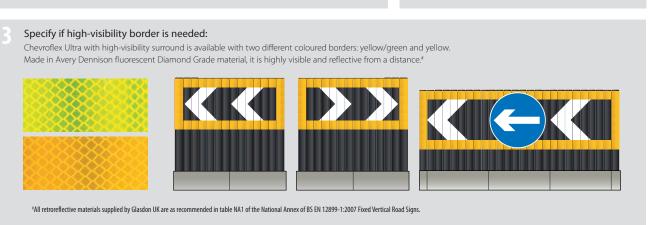


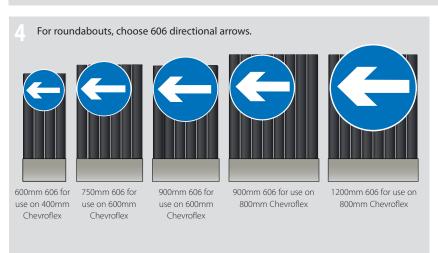


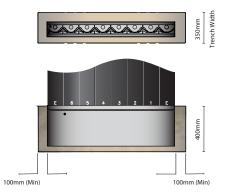












FIXING

The trench for the sockets should be 400mm deep, 350mm wide and 200mm longer than the overall length of the Chevroflex Ultra Sign.



■ Orbital[™] Chevron Sign

DESIGN FEATURES

- 1W LED power consumption reduces energy costs and carbon footprint. UMSUG code: 42 0001 0000 100.
- Illuminated 606 Sign Face meets TSRGD requirements of illuminating Ref 606 'Turn Left' sign face with low energy costs.
- Safe 24V operation above ground: 230V main supply is stepped down within the main control circuit to protect vehicle occupants and emergency services in the event of an accident.
- The 24V LED unit has a minimum lifespan of 100,000 hours (approx. 11.4 years) if operated 24/7 or longer if operated with a CMS device.
- Socket fixing option allows quick and easy sign replacement after any impact.
- Weather resistant, protected from water ingress, and low maintenance.
- · Cable, Snatch Plug and Socket allow safe disconnection and easy replacement if the sign carrier is damaged.
- $\bullet \text{ The Subsafe}^{\text{\tiny{IM}}} \text{ textured lid has a low profile when installed and its anti-slip texture gives added safety}.$
- · CMS compatible: moulded-in mounting suitable for use with multiple models of remote monitoring equipment.

SPECIFICATIONS

Chevron Board Size: 400mm
Depth: 150mm
Height Above Ground: 1770mm
Width: 1200mm
Depth Below Ground: 500mm

MATERIALS & COLOUR OPTIONS

Body: Durapol® in Black or Aircraft Grey. Orbital LockFast Socket: Durapol Socket Lock: Galvanised Steel







Orbital[™] Chevron Sign



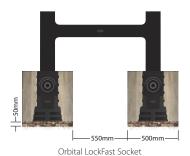
ORBITAL LOCKFAST™ SOCKET

In the event of road traffic accident damage, the Orbital Lockfast socket enables quick and easy replacement. This minimises time spent at the roadside, improving safety of roadside workers and reducing traffic management time, cost and traffic disruption.



Subsafe™ Installation Box

INSTALLATION OPTIONS



Below-Ground, Extended Base (Concrete-in or backfill installation)



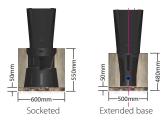




■ Apex[™] Chevron Sign

DESIGN FEATURES

- · Small footprint: ideal for narrow verges.
- The Apex LockFast™ socket allows quick sign replacement, improving safety for roadside workers and minimising traffic disruption.
- · Durapol® material body.
- · Low maintenance and durable.
- Non-Twist Signage Supports maintain sign face alignment even after being hit.
- Fixed Sign prevents the sign from slipping down the post, helping to lower maintenance costs.
- · Socketed model has achieved an NE classification in accordance with BS EN12767.
- · Optional High-Visibility Border: allows greater visibility where needed.



FIXING OPTIONS

Socketed, Extended Base

SPECIFICATIONS

Chevron Size: 600mm High-Vis Yellow Border 75mm Without High-With High-Vis Border Vis Border Width: 1050mm 900mm Depth: 300mm 300mm Height Above Ground: 1,600mm 1,675mm

Depth below ground: With Socket: 500mm

500mm With Extended Base: 430mm 430mm

MATERIALS

Body: Durapol® Socket: Durapol Socket Wedge: Galvanised Steel Sign: Dibond Material

> Passively Safe to BS EN 12767 100-NE-A

EASY REMOVAL FROM SOCKET IN 4 STEPS









1. Insert key

2. Lift plug

3. Twist anticlockwise

4. Lift

Road Safety Vergeposts

Glasdon hazard marker posts are ideal delineators for highlighting road layouts in urban traffic environments and bends on rural or trunk roads.

Manufactured with high-quality polymer materials, these marker posts increase road safety while providing protection for grass verges.



■ Vergemaster RX[™] Marker Post

DESIGN FEATURES

- Passively safe Reflexapol[™]-material construction.
- Extended base fixing model successfully tested to Performance Standard 100-NE-A by TRL.
- · Low maintenance and durable.
- Two arced microprismatic reflectors increase reflective performance and viewing angles for clear delineation by day and night.
- · Multiple fixing options available.

SPECIFICATIONS

Height above ground:

With extended base/fixing stake: 920mm
Bolted down: 886mm
Maximum diameter: 167mm
Depth below ground:

With extended base: 350mm
With fixing stake: 523mm
Bolt-down fixing: 100mm

320mm (max.)

*Below-Ground Extended Base model only.

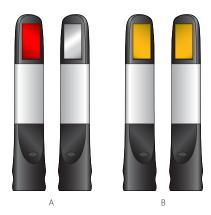
Adjustable-depth, concrete-in anchors:





MATERIAL OPTIONS

Marker post: Reflexapol™ material Fixing stake: Pressure-treated timber Bolt-Down Collar: Stainless Steel



VERGEMASTER REFLECTOR OPTIONS

A. Red & White

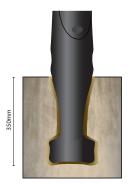
B. Amber & Amber

"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.

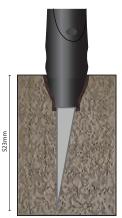


MOULDED-IN WHITE BAND

The post's white band is fused on with heat and compression.

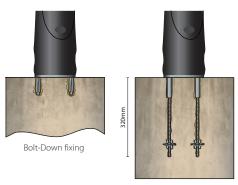


Below-Ground, Extended Base



00mm

Below-Ground Fixing Stake



Adjustable-depth, concrete-in anchors



Below-Ground, Extended Base; Below-Ground Fixing Stake; Bolt-Down fixing; Adjustable depth, concrete-in anchors







■ Flexmaster[™] Marker Post

DESIGN FEATURES

- Manufactured from highly durable Ultraflex[™] material that will withstand multiple vehicle impacts.
- · White band and reflector provide maximum visibility.
- Standard fixing can be installed in soft ground without the need for excavation. Advanced fixing provides a socket that allows the post to be easily removed and reinstated without ground works, improving safety for road workers.
- Offers excellent versatility for low-maintenance, high-visibility signage.

SPECIFICATIONS

Height above ground: 905mm
Height above ground (layby variant): 600mm,
500mm or 480mm
Width: 150mm
Depth below ground (standard fixing): 405mm
Depth below ground (advanced fixing): 400mm

MATERIAL OPTIONS

Marker post: Ultraflex™ material. Advanced socket fixing: Galvanised steel.



Standard Fixing Option



Advanced Fixing Option (socketed)



Red & White



ite Amber & Amb

FLEXMASTER REFLECTOR OPTIONS

"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899–1:2007 Fixed Vertical Road Signs.



OTHER APPLICATIONS

The versatility of the Flexmaster system offers excellent versatility for low-maintenance, high-visibility signage.

To discuss your requirements, please telephone our highways safety sales team on 01253 600411.



Optional Flexmaster Installation Tool

FIXING OPTIONS

Standard Fixing Option
Advanced Fixing Option (socketed)





■ Hazardmaster[™] Marker Post

DESIGN FEATURES

- \bullet Passively safe Impactapol $^{\circ}$ material construction for the highest risk areas.
- \bullet Successfully tested to Performance Standard 100-NE-A by TRL.
- · Ideal for use on hard surfaces.
- · Substantial, robust marker post.
- · Low maintenance and durable.
- Two large retroreflectors provide maximum visibility.

SPECIFICATIONS

Height above ground: 910mm Maximum diameter: 150mm Depth below ground: 300mm

MATERIAL

Marker post: Impactapol material



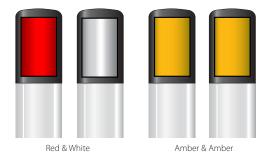




Below-Ground, Extended Base

FIXING

Below-Ground, Extended Base.



HAZARDMASTER REFLECTOR OPTIONS

"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.







■ Edgeliner[™] Bollard

DESIGN FEATURES

- Rigid Durapol® construction.
- · Low maintenance and durable.
- · Recessed area for decorative or retroreflective banding (due to the low height of the bollard, this is not approved for highways use).
- Co-ordinates with Neopolitan™ Bollards.

SPECIFICATIONS

Height above ground: 510mm Maximum diameter: 140mm Depth below ground: 276mm

MATERIAL AND COLOUR OPTIONS

Durapol material in Black, White or Granite.







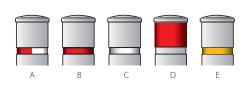
Black

Granite

Below-Ground. Extended Base

FIXING

Below-Ground, Extended Base.



BANDING OPTIONS

A. 1 x 19mm Red/White retroreflective band.#

B. 1 x 19mm Red retroreflective band.*

C. 1 x 19mm White retroreflective band.*

D. 1 x 98mm Red or White retroreflective band.#

E. 1 x 19mm Gold decorative band.

"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.





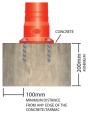


■ Neopolitan[™] Delineator Post

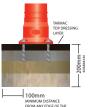
DESIGN FEATURES

- Manufactured from Reflexapol™ material for excellent rebound performance and passive safety.
- Suitable for either bolt-down or socket installations: only one type of post needs to be stocked.
- · Low maintenance and durable.
- Choice of retroreflective banding options to suit different applications.
- 600mm retroreflective banding option conforms to TSRGD requirements.
- Compact Square Base: base requires minimal floor space for installation and is easy to install.
- Removable solution when coupled with LockFast™ Mini Socket and Quick-Release Socket Adaptor: key operated to prevent unauthorised removal or tampering.
- Passively safe: compliant to BS EN 12767. Passed at 100km/h, achieving 100-NE-A-NR.

- 100mm MINIMUM DISTANCE FROM ANY EDGE OF THE CONCRETE/TARMAC



Surface Mounted



Socketed FIXING OPTIONS

Socketed Surface Mounted

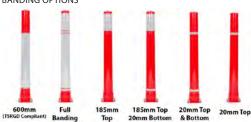
SPECIFICATIONS

Height above ground: 1000mm

MATERIAL AND COLOUR OPTIONS

Body Material: Reflexapol™ Material Colours: Red or Black

BANDING OPTIONS



EASY REMOVAL FROM SOCKET IN 3 STEPS









1. Insert key

2. Lift the post

3. Cover socket with optional cap





■ Glenwood[™] 150 Post

DESIGN FEATURES

- \bullet Manufactured from Everwood $^{\rm I\!M}$ material, which has a unique realistic timber grain effect.
- · Low maintenance and durable.
- · Lightweight and easy to install.
- Moulded-in saw grooves enable the post to be easily cut down to the desired height. Height options are 1000mm, 830mm and 500mm.
- · Recessed area for retroreflective banding.
- · 100mm vandal-resistant sign faces.

SPECIFICATIONS

Height above ground: 500mm, 830mm or 1000mm

Width: 150mm

Depth below ground: 450mm to 650mm



Post: Everwood material in White, Light Oak or Dark Oak.







Dark Oak



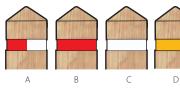
Below-Ground, Extended Base



Below-Ground, Extended Base with Fixing peg

FIXING OPTIONS

Below-Ground, Extended Base; Below-Ground, Extended Base with Fixing Peg (for when a height less than 500mm above ground needed).



BANDING OPTIONS

A. 1 x 37mm Red/White retroreflective band*

B. 1 x 37mm Red retroreflective band*

C. 1 x 37mm White retroreflective band*

D. 1 x 37mm Amber retroreflective band*

"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.



Ref 955



Ref 956





Ref 957 Ref 957 Reversed
OPTIONAL STANDARD

SIGN FACES*

*Other non-standard sign faces are available. Please contact our sales office

for information.







Glenwood[™] 170 Post & Glenwood[™] 170 Signhead Post

DESIGN FEATURES

- Two models available: Glenwood 170 Post and Glenwood 170 Signhead Post for displaying 150mm signs on all four sides.
- · Low maintenance and durable.
- Manufactured from Everwood™ Material, which has a unique realistic timber grain effect.
- · Lightweight and easy to install.
- · Recessed area for retroreflective banding.
- 150mm vandal-resistant sign faces.
- · Glenwood socket fixing option to facilitate access for maintenance vehicles.
- · Optional blanking plate for use with socket.



Glenwood Socket



Below-Ground. Extended Base



Blanking plate: for use with socket

FIXING OPTIONS

Glenwood Socket Below-Ground, Extended Base

SPECIFICATIONS

Height above ground: Glenwood 170 Post: Glenwood 170 Signhead Post:

BANDING OPTIONS

Depth below ground: Socketed:

Extended base:

MATERIALS AND COLOURS

1000mm

1093mm

170mm

355mm

315mm

Post: Everwood material in Light Oak, Dark Oak. Glenwood socket: Durapol* material





Light Oak

Dark Oak







Ref 2610 2



OPTIONAL STANDARD SIGN FACES* *Other non-standard sign faces are available. Please contact our sales office for information.

"All of our retroreflective materials meet the requirements in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.

A. 1 x 37mm Red/White retroreflective band#

B. 1 x 37mm Red retroreflective band*

C. 1 x 37mm White retroreflective band*

D. 1 x 37mm Amber retroreflective band#

Gateway Sign Carriers

Unlike recycled PVC units on the market, Glasdon gateway sign carriers are integrally strong and have no need for dangerous steel reinforcing poles.

We've been working with county & parish councils and highway contractors all over the UK to supply personalised entrance features for villages, communities and parish councils.



■ Glasdon Gateway

DESIGN FEATURES

- A low-maintenance, long-lasting alternative to traditional wooden sign carriers
- Hundreds of combinations of designs with various colours, slats, widths and heights available. Contact us for more information.
- Factory-fitted village name signs service available for use with Glasdon Gateway.
- Optional 600mm speed limit signs are available for the Glasdon Gateway. Signs include National Speed Limit, 30mph, 40mph and 50mph.

SPECIFICATIONS

Height: 1800mm (1300mm above ground) or 2300mm (1800mm above ground).

Ornate model height: 2421mm

Width: 960mm, 1500mm, 2000mm.

Ornate model width: 1690mm Post Width: 160mm

MATERIALS AND COLOUR OPTIONS

Posts/slats: Everwood™ Material in White, Light Oak or Dark Oak.

Fixing bolts: Stainless steel.

Surface mount bracket: 5mm Galvanised mild steel























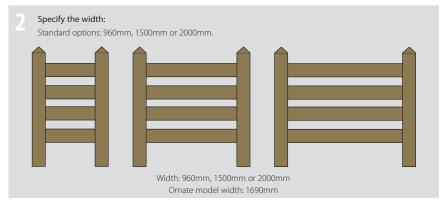


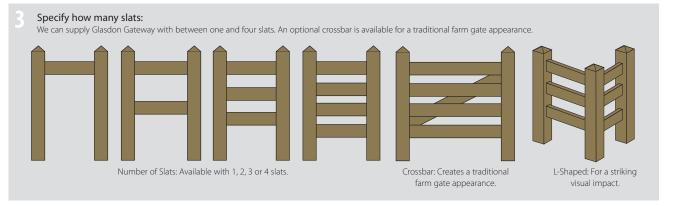




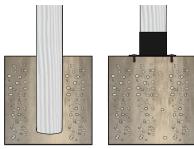








Choose a height: Standard options are 1800mm (1300mm above ground) or 2300mm (1800mm above ground)
Ornate model height: 2421mm

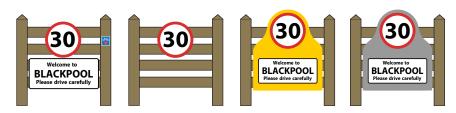


Below-Ground, Extended Base

Surface Mount Kit

FIXING OPTIONS

Below-Ground, Extended Base Surface Mount Kit



EXAMPLE SIGNAGE OPTIONS

Glasdon Gateway is supplied flat-packed with comprehensive instructions for easy assembly. Attaching your existing signage to the product is a simple job, or we can supply a sign made to your specification. If you're not sure about the dimensions of Gateway you need, we can recommend the right size based on the measurements of the sign you want to display. Please contact us for more information.



■ Orbital[™] Gateway Sign

DESIGN FEATURES

- · Space for up to 3 personalised signs.
- · Weather resistant and low maintenance.
- The sign arrives fully assembled and is quick and easy to install.
- 500mm installation depth allows for strong and secure installation.

SPECIFICATIONS

Depth: 150mm Height Above Ground: 1770mm Width: 1200mm Depth Below Ground: 500mm

MATERIALS & COLOUR OPTIONS

Body: Durapol* in Black or White. Orbital LockFast Socket: Durapol Socket Lock: Galvanised Steel Sign: Dibond Material





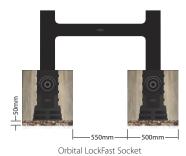




ORBITAL LOCKFAST™ SOCKET

In the event of road traffic accident damage, the Orbital Lockfast socket enables quick and easy replacement. This minimises time spent at the roadside, improving safety of roadside workers and reducing traffic management time, cost and traffic disruption.

INSTALLATION OPTIONS







Fixing Options & Materials

Our selection of eight different fixing methods ensures that there will be one that is right for your application.

Our highways safety products are made from a range of high-performance materials and undergo stringent checks to ensure durability and best value.

Glasdon has ISO9001:2015 and ISO4001:2015 accreditation, which underlines our commitment to quality.

LockFast[™] Socket System

The LockFast™ Socket System is the first Glasdon socket to be compatible with passively safe Impactapol® material bollards. The square shape prevents twisting during an impact and is easy to pave around. Bollards are quick and easy to remove and replace, making them ideal for permanent, semi-permanent and temporary applications. The socket will absorb the impact of most collisions, leaving the surrounding surfaces undamaged.

SAFETY NOTICE:

If the removal of a bollard creates a safety hazard, we strongly recommend the purchase of a socket blanking plate, which features a slip-resistant finish.

Moulded-in product code aids correct bollard top replacement.

Square shape prevents twisting during a drive-through collision and is easy to pave around.

Moulded-in arrow and logo aids correct installation.

Made from Durapol® material: a proven corrosion-resistant and impact-resistant material that is fully recyclable after its long service life.

Anchor points help to prevent uprooting.

Flat base: much easier to level.



Galvanised mild steel blanking plate removes trip hazard and aids installation.

The first Glasdon socketed bollard to be proven passively safe to Performance Standard 100-NE-A.

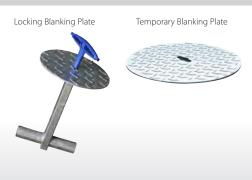












NEW Glenwood[™] Socket System also available for the Glenwood[™]

170 Post & Glenwood™ 170 Signhead Post.



Standard Socket System

Glasdon socketed bollards are quick and easy to remove and replace. making them ideal for permanent, semipermanent and temporary applications. The socket will absorb the impact of most collisions, leaving the surrounding surfaces undamaged.

SAFETY NOTICE:

If the removal of a bollard creates a safety hazard, we strongly recommend purchasing a socket blanking cap, which features a slip-resistant finish.







Below-Ground, Extended Base

The extended base and horizontal ground fixing peg of the bollard are secured in concrete for permanent installation.



Bolt-Down Fixing

Bolt-down fixings allow a bollard to be installed in under 8 minutes on existing concrete sub-surfaces. This provides a permanent fixing point with a flush ground finish that eliminates trip hazards if the bollard is removed. The bolt-down fixing is ideal for use where a below-ground installation is restricted or impossible.



Fixed-Depth, Concrete-in Anchors

The two-piece, fixed-depth, concrete-in anchors are suitable for a fresh concrete subsurface. providing additional anchorage and a permanent fixing point. This fixing is available with Durapol- and Impactapol-material bollards and requires a minimum depth of 250mm.



Adjustable-Depth, Concrete-in Anchors

For additional anchorage and to provide a permanent fixing point, use boltdown fixings with adjustable-depth. concrete-in anchors. Adjustable-depth. concrete-in anchors can be used anywhere a fresh concrete subsurface can be laid, creating a flush ground finish that eliminates trip hazards if the bollard is removed.



Bridgemaster™ Fixing Ideal for the transition between true land and bridge decking,

this fixing can be used where there is insufficient depth for a socketed bollard or when the surface/area is unsuitable for bolting down.

A galvanised steel reinforcing tube extends 311mm below ground level, providing an integral root for superb strength and anchorage.



Guardsman™ Anti-Ram-Raid Bollard Fixing

A galvanised steel reinforcing tube extends 745mm below around level, providing an integral root for superb strength and impact resistance. This tube is then filled with concrete. The bollard top is securely attached with hidden coupling bolts. Guardsman bollards are an excellent security feature and have been shown to stop an



Sockets and Demonstrations

We strongly recommend choosing Glasdon socket systems for your bollards. They improve safety for road workers by allowing damaged products to be removed and replaced in minutes. This can significantly reduce maintenance costs for councils by eliminating the need for specialist equipment or expensive traffic management.

The below sequence shows how easy it is to remove and replace a bollard that uses our socket systems:





1. Insert bollard key



2. Rotate Bollard anticlockwise



3. Bollard can be removed easily



4. Empty socket is a potential trip hazard



5. Blanking plate removes hazard

Arrange a Consultation

If you would like to see the benefits of our sockets and have a demonstration of how they work, we can visit you or schedule a video call. Arrange a no obligation consultation or site visit today.

■ Visit a Showroom

Alternatively, you can book a visit to our London exhibition centre or the Glasdon Discovery Centre at our head office in Blackpool.

Our purpose-built showrooms are available for you to have a closer look at the extensive Glasdon product range, and our experts will be there to demonstrate any products of interest.

To request your visit to a Glasdon showroom, please call us or complete our online form.



Exhibitions

We regularly showcase our products at the country's leading industry exhibitions and conferences. To see our upcoming exhibitions, visit our website.

High-Performance Materials

Glasdon bollards are manufactured from a range of high-performance materials and undergo stringent checks to ensure durability and best value. Glasdon has ISO 9001:2015 and ISO 14001:2015 accreditation, underlining our commitment to quality.

Durapol® Material

A strong, lightweight material that offers a number of advantages over traditional materials. Durapol material is self coloured, which means it will never need painting and scratches will not show. The material is totally corrosion free, so it will not chip or rust and is vandal resistant.





Passively Safe Impactapol Material

A flexible material with excellent recovery performance, meaning it will return to its original shape following a drive-through collision. Impactapol material products reduce maintenance budgets in vulnerable locations by continuing to perform to statutory requirements even after repeated impacts. Impactapol material offers all the additional benefits of Durapol material: it is self coloured and totally corrosion free.





Impactaflex[™] material has been specially developed by Glasdon to provide new Chevroflex Ultra with superior rigidity and resilience, and offers exceptional recovery performance after a drive-through collision. (Chevroflex Ultra: see pages 46-47)

Reflexapol[™] polymer is specially engineered for long service life in exposed locations. It has good recovery properties and will never need painting. (Vergemaster RX: see pages 52-53. Neopolitan Delineator Post: see pages 42 and 57)

Ultraflex polymer is formulated to withstand harsh environments and has enhanced flexibility and extensibility properties, offering good recovery performance after vehicular impact. (Flexmaster: see page 54)

Enviropol recycled plastic material is manufactured predominantly from post-consumer plastics. By balancing these uncontaminated recycled waste materials, the result is a remarkably versatile product with many applications and benefits. Enviropol material will not chip or rust, is easy to clean and never needs painting. (Enviropol: see page 32)



Buffer[™] Bollard is manufactured from 100% recycled rubber tyres and is pressure moulded to create a strong, hard-wearing, weatherproof material. (Buffer: see page 31)



EVERWOOd[™] material is a realistic timber grain polymer that requires minimal maintenance. Everwood material is vandal and weather resistant and will not rot, warp or crack. (Glenwood and Glasdon Gateway: see pages 43-44, 58-59 and 61-63)

Enduropol is an engineering-grade, recycled-rubber compound manufactured from 100% recycled rubber tyres and pressure moulded to create strong, hard-wearing and impact-resistant material. (Endurokerb: see pages 34 and 35)



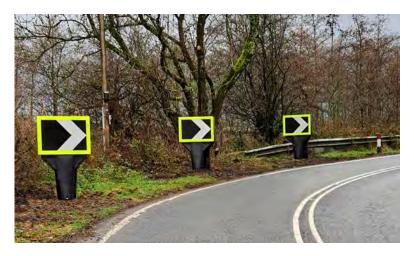
Photo Gallery

Our customers often approach us to help solve unique problems, and we are always happy to help. Have a look at some of our road safety products at work.



































www.glasdon.com



























Free Delivery

View our products on clearance here **Express Products** View our express products here

= Sign up for our



NEW

Neopolitan™ Delineator Post

- Compliant to BS EN 12767: 2019 Passed at 100km/h, achieving 100-NE-A-NR.
- Choice of retroreflective banding options to suit different applications.
- · Manufactured from Reflexapol* material for excellent rebound performance.

Find out more...





www.glasdon.com



















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