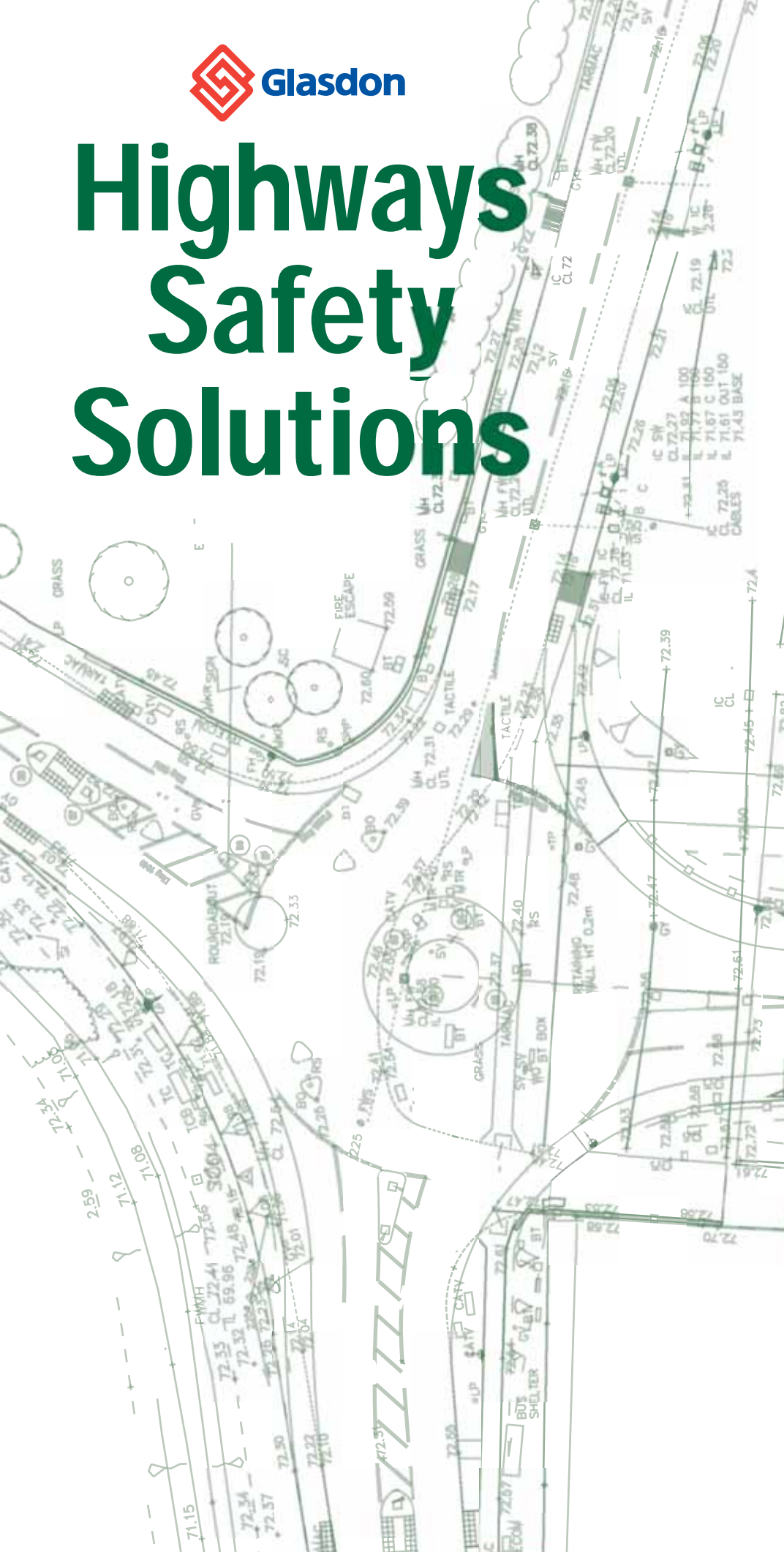


Highways Safety Solutions



Introduction

The Glasdon Group of Companies has more than fifty years of experience in the design, manufacture and supply of street furniture.

The first Glasdon road safety product was the original Vergemaster™ Marker Post, launched in the late 1960s. Vergemaster Mk I was designed to return to its original shape in the event of a vehicle impact – the beginning of over forty years of Glasdon crash friendly, passively safe, low maintenance road products.



Vergemaster replaced old fashioned concrete and timber posts.



Original Vergemaster Marker Post.

Testimony to the Glasdon commitment to continuous innovation, since that time we have introduced four new Vergemaster design variants. Each one has maximised the benefits of the very latest material and manufacturing methods.

The Vergemaster design has been continuously tested and revised since its launch and today's fifth generation product is one of the most advanced in the world.

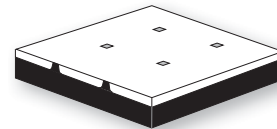
Vergemaster RX (Extended Base Fixing model) has been successfully tested to BS EN 12767:2000. Tested by TRL, the UK's leading centre for transport research, Vergemaster RX not only passed at the highest level of safety (NE4), but also returned upright and continued to function as a hazard marker post.

Vergemaster RX features a prominent large white band, which helps to provide greater visual impact. The white band is integrally moulded onto the body of the Vergemaster RX, and is 20 times thicker than paint requiring no maintenance or painting for the life of the product.

The current reflectors offer a much wider angle of bright reflected light, which marks a bend much further in both directions.



Moulded-in White Band Section of Material



Integral white bands fused to the post with HEAT and COMPRESSION.



Each reflector can be seen through 140°

In 1987 the number of vehicles colliding with road signs in the UK was over 2000. This ran up costs in terms of physical injury and replacement of signs. Traditional chevron signs were widely recognised as hazards in their own right due to their construction from rigid materials (usually including steel poles and aluminium sign faces).

This is when first generation Chevreflex™ was manufactured from a polymer called Ultraflex™ and was designed to bend on impact and allow vehicle drive-through and return to an upright position, surviving vehicle impacts at up to 50mph, even in sub-zero temperatures. This improved the safety of the vehicle occupants and ensured the hazards remained marked for other road users. Chevreflex comprised of a series of curved, flexible uprights inserted into a bank of linked polymer sockets, rooted in a narrow trench in the ground. Collectively, this bank of uprights form a chevron or series of chevrons with high visibility, one of its most important safety features.



Original Chevreflex Flexible Sign System.

With 25 years of product development Chevreflex Ultra is the latest generation of Chevreflex Sign System and further improves on the market-leading flexible solution.

For the first time, tested at over 100Km/h, Chevreflex Ultra is certified passively safe to performance standard NE3/100. Robust, weather resistant galvanised steel sockets allow damaged uprights to be replaced with minimum fuss. The socket and cover create a seal that prevents debris building up that would inhibit the function of the uprights. New Impactaflex™ material has been specially developed by Glasdon to offer superior rigidity and resilience combined with class-leading recovery performance after a drive-through collision.



Latest Chevreflex Ultra Flexible Sign System.

The Glasdon socketed bollard range began in the early 1980s with the Admiral™ and Regency bollards and our first generation socket system.

The socket allowed bollards to be easily removed and replaced for temporary, permanent or semi-permanent applications, and for the first time a damaged bollard could be quickly replaced without expensive groundworks. By 1995 the Glasdon bollard range had expanded to feature a wide variety of designs and a new, improved socket.

The development of Impactapol® Material in the 1990s allowed the manufacture of many of our most popular bollard designs in a crash friendly, passively safe format. Rebound bollards have been popular with highways engineers across the UK for over fifteen years.

The latest development to the road safety range sees the Advanced Neopolitan™ 150 and Glasdon Manchester™ bollards provide the ideal bollard solution for high risk traffic calming applications where vehicle impacts are expected.

By incorporating the newly designed and unique LockFast™ socket system and our Impactapol material, customers can install and replace a rebound bollard with ease, offering significant time and cost savings.



Regency Bollards.



Neopolitan 150 Rebound Bollards.



The first Glasdon socketed bollard proven passively safe to Performance Standard NE4/100.



Innovation & Export Centre

We are continually improving our facilities and have recently built a state of the art Innovation and Export Centre. This new structure houses our impressive Product Design team who are constantly designing and researching new products for the Glasdon range.

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 number 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 1-4, where Level 4 represents the safest and Level 1 the most dangerous.

Glasdon passively safe highways products are tested by accredited independent specialists at MIRA and TRL. Where testing has been conducted, the performance rating will be clearly shown on the page.

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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 9001:2008 and ISO 14001:2004 accreditation, underlining our commitment to quality.

Durapol® Polymer

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.



Durapol Material



Other Material

Passively Safe Impactapol® Polymer

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



Impactapol Material



Other Material

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 page 22-25)



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 page 26)



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 28-29)



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 21)



Buffer™ Bollard

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

(Buffer see page 21)



Everwood™

material is a realistic timber grain polymer, which requires minimal maintenance. Everwood is vandal and weather resistant, will not rot, warp or crack.

(Glasdon Gateway and Glenwood see page 32-34)



Bollard Fixing Options

1. LockFast™ Socket System

The new LockFast Socket System is the first Glasdon socket compatible with passively safe Impactapol 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, or 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 cap, which features a slip resistant finish.

Locking Blanking Cap

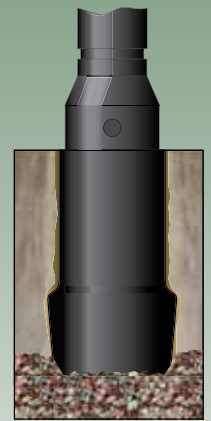
Temporary Blanking Cap



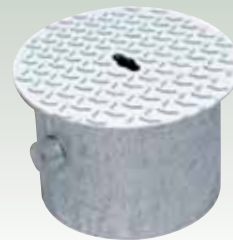
2. Standard Socket System

Glasdon socketed bollards are quick and easy to remove and replace, making them ideal for permanent, semi-permanent, or 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 cap, which features a slip resistant finish.

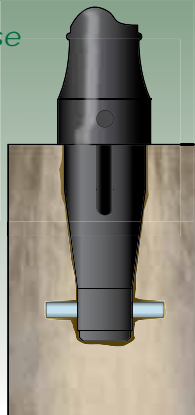


Locking Blanking Cap



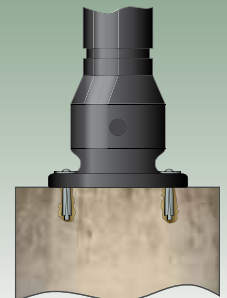
3. Below-Ground Extended Base

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



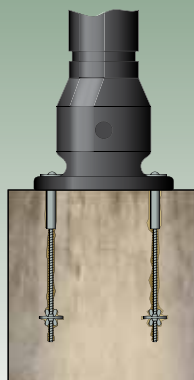
4. Bolt-Down Fixing

Bolt-down fixings allow a bollard to be installed on existing concrete sub-surfaces in less than 8 minutes. Bolt-down fixing is ideal for use where below-ground installation is restricted or impossible.



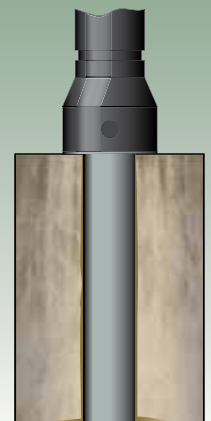
5. Bolt Down Fixings with Adjustable Depth Concrete-in Anchors

Concrete-in anchors offer additional anchorage and provide a permanent fixing point that allows bollards to be removed and reinstated without the need for additional groundwork. Optional adjustable depth concrete-in anchors can be used anywhere a fresh concrete sub-surface can be laid.



6. Guardsman™ Anti-Ram Raid Bollard Fixing

A galvanised steel reinforcing tube extends 745mm below ground 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 in tests to stop an unladen van dead at speeds of up to 30mph.



Auto CAD model specifications are available on all products.

Product Photo Gallery

Traffic Calming Measures and Hazard Warning

White Neopolitan™ 150 bollards with Red/White retroreflective bands.



Black Neopolitan™ 150 bollards with Red/White retroreflective bands.



White Neopolitan™ 150 bollards with Red/White retroreflective bands.

Black Jubilee™ bollards with Amber retroreflective body sleeve and bands.



Junction Marking

White Admiral™ rebound bollard with 150mm Red/White retroreflective band.



Black Victory™ bollards with Red/White retroreflective bands.



Black Neopolitan™ 150 bollards with Red/White retroreflective bands.



Product Photo Gallery

Pedestrian Refuges, Roadside Parking Bays and Delineation



Black Neopolitan™ 150 bollards and Black Neopolitan 20 bollards with Red/White retroreflective bands.



Black Jubilee™ bollard with decorative Gold bands.

Black Glasdon Manchester™ bollards with Red/White retroreflective bands.



Cycle Route Schemes and Sign Carrying Bollards



White Mini Ensign™ illuminated rebound bollards with Red/White translucent retroreflective bands and Black Edgeliner™ rebound bollards with Red/White retroreflective bands.



Black Mini Ensign™ bollards with Red retroreflective bands and signface ref: 956 and Black Neopolitan 150 bollards with Red retroreflective bands.



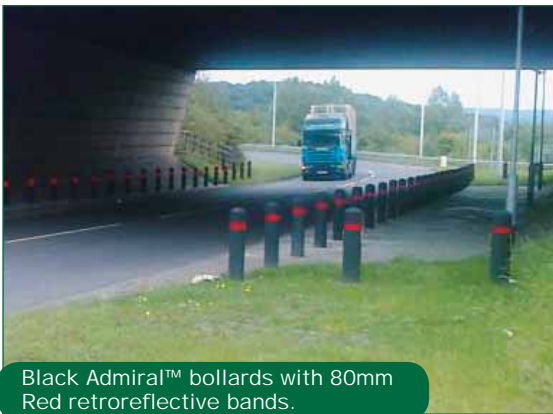
Black Infomaster™ bollard with signface ref: 661A and side reflectors.

Product Photo Gallery

Lay-bys



Bridge Structures



Verge Marking



Road Side Refuges



Advanced Neopolitan™ 150 Bollard

A passively safe Rebound bollard available with the LockFast™ Socket System.

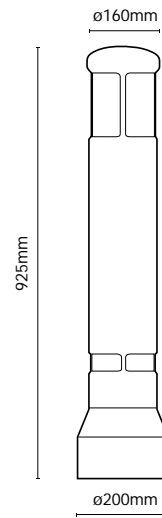
Passively Safe to BS EN 12767 100* NE4

*Rebound Impactapol model only.

Black Advanced Neopolitan 150 bollards with Red/White retroreflective patches.



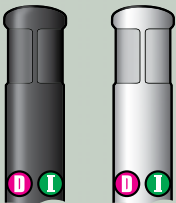
Scan to see the installation and product testing video.



Key Features:

- Rebound and rigid models available with LockFast sockets.
- One model available, flexible rebound model (choice of two fixing options).
- Large 150mm reflective top patches.
- Larger 40mm lower reflector catches dipped headlights.
- Individual reflectors offer enhanced drive-through performance.

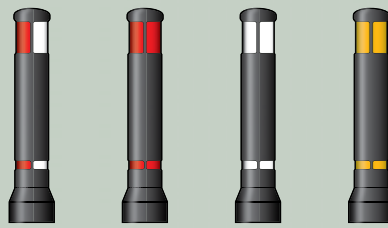
Advanced Neopolitan Colours



Black

White

Advanced Neopolitan Optional Banding



A.

B.

C.

D.

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#

Lockfast™ Socket

Moulded-in product code aids correct bollard top replacement.

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

Moulded-in arrow and logo aids correct installation.

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

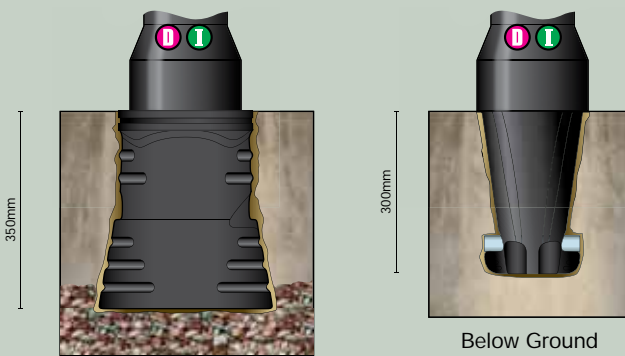
Anchor points help to prevent uprooting.

Flat base - much easier to level.



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

Advanced Neopolitan Fixing Options



Lockfast Socket

Below Ground Extended Base

P Rigid Durapol Material **I** Passively Safe Rebound Impactapol Material

The first Glasdon socketed bollard proven passively safe to Performance Standard NE4/100.



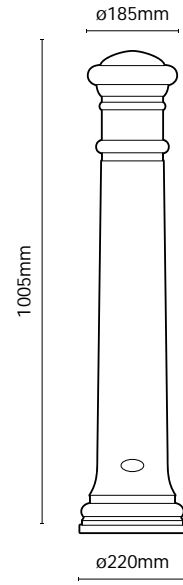
#All retroreflective materials supplied by Glasdon UK are as recommended in table NA1 of the National Annex of BS EN 12899-1 2007 Fixed Vertical Road Signs.

Glasdon Manchester™ Bollard

A passively safe traditional styled rebound or rigid bollard, available with the LockFast™ Socket System.

Passively Safe to BS EN 12767
100*
NE4

*Rebound Impactapol model only.



- Key Features:**
- Rebound and rigid models available with LockFast sockets.
 - Never requires painting – unlike cast iron or steel equivalents.
 - 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 help save cost.



Glasdon Manchester Colour

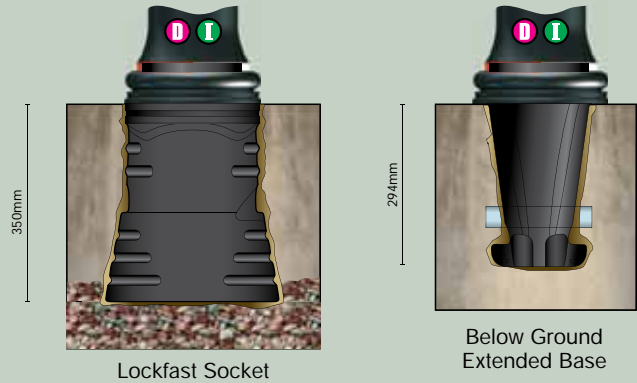


Glasdon Manchester Optional Banding



- 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*

Glasdon Manchester Fixing Options



Ⓜ Rigid Durapol Material Ⓜ Passively Safe Rebound Impactapol Material



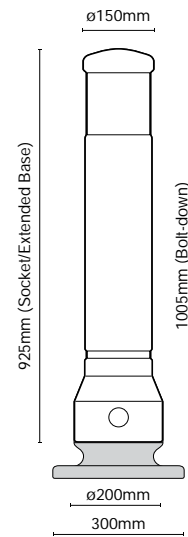
*All retroreflective materials supplied by Glasdon UK are as recommended in table NA1 of the National Annex of BS EN 12899-1 2007 Fixed Vertical Road Signs.

Neopolitan™ 150 Bollard

Our best-selling bollard, featuring a large 150mm top reflector for maximum visibility.

Passively Safe to BS EN 12767 100* NE4

*Rebound Impactapol model only.



Neopolitan 150 Colours

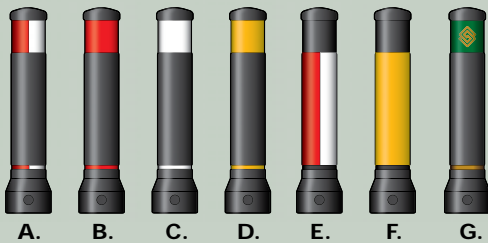
(Some colours are subject to a minimum order quantity. Please telephone our Sales Office for details.)



Key Features:

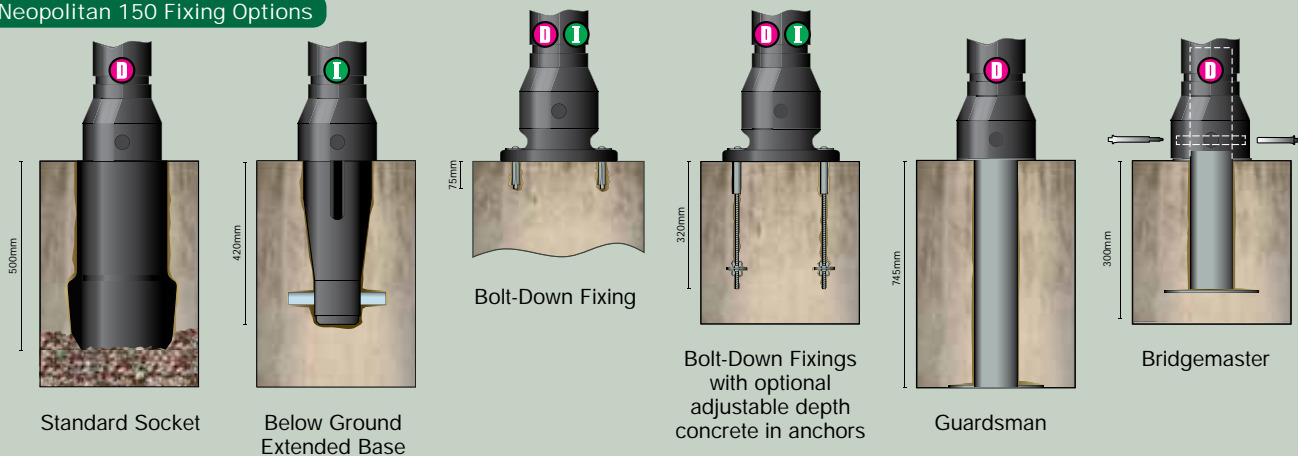
- Rigid socketed or rebound concrete in models available.
- Recessed areas for retroreflective or decorative banding.
- Wide range of fixing options available.

Neopolitan 150 Optional Banding



- 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 body sleeve (3 x 150mm bands are available for use with Rebound model)*
- F. 1 x 485mm Amber body sleeve (3 x 150mm bands are available for use with Rebound model)*
- G. 1 x 150mm and 1 x 20mm decorative bands
150mm band is ideal for personalisation with your crest, logo or message.

Neopolitan 150 Fixing Options



- Rigid Durapol Material
- Passively Safe Rebound Impactapol Material

#All retroreflective materials supplied by Glasdon UK are as recommended in table NA1 of the National Annex of BS EN 12899-1 2007 Fixed Vertical Road Signs.

600mm High Neopolitan™ 150 Bollard

A reduced height Neopolitan 150 for improved visibility at junctions.

Passively Safe to BS EN 12767
100*
NE4

*Rebound Impactapol model only.

Black 600mm High Neopolitan 150 bollards with Red/White retroreflective bands and Black Neopolitan 150 bollards with Red/White retroreflective bands.



PASSED
at 100 Km/h
(62mph)

Black 600mm High Neopolitan 150 bollards with Red/White retroreflective bands and Black Neopolitan 150 bollards with Red/White retroreflective bands.



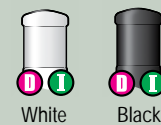
Black 600mm High Neopolitan 150 bollards with Red/White retroreflective bands and Black Neopolitan 20 bollards with Red/White retroreflective bands.



Key Features:

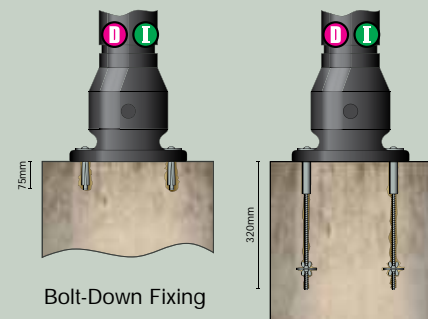
- Rigid or rebound models available.
- Recessed areas for retroreflective or decorative banding.

600mm High Neopolitan 150 Colours



(Some colours are subject to a minimum order quantity. Please telephone our Sales Office for details.)

600mm High Neopolitan 150 Fixing Options

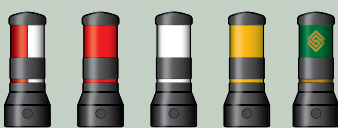


Bolt-Down Fixings with optional adjustable depth concrete in anchors

R Rigid Durapol Material

I Passively Safe Rebound Impactapol Material

600mm High Neopolitan 150 Optional Banding



A. B. C. D. E.

- 1 x 150mm and 1 x 20mm Red/White retroreflective bands*
- 1 x 150mm and 1 x 20mm Red retroreflective bands*
- 1 x 150mm and 1 x 20mm White retroreflective bands*
- 1 x 150mm and 1 x 20mm Amber retroreflective bands*
- 1 x 150mm and 1 x 20mm decorative bands
150mm band is ideal for personalisation with your crest, logo or message.

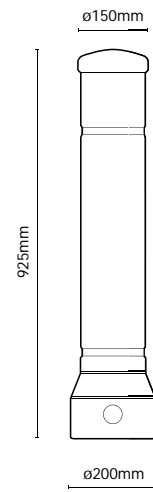
#All retroreflective materials supplied by Glasdon UK are as recommended in table NA1 of the National Annex of BS EN 12899-1 2007 Fixed Vertical Road Signs.

Neopolitan™ 20 Bollard

A durable, contemporary-styled bollard with two 20mm banding recesses.

Passively Safe to BS EN 12767
100*
NE4

*Rebound Impactapol model only.



PASSED
at 100 Km/h
(62mph)

Neopolitan 20 Colours

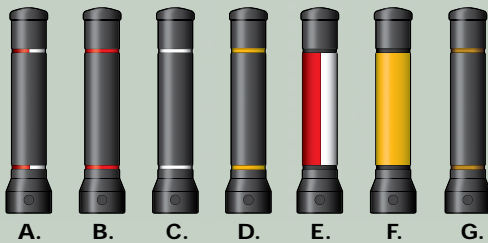
(Some colours are subject to a minimum order quantity. Please telephone our Sales Office for details.)



Key Features:

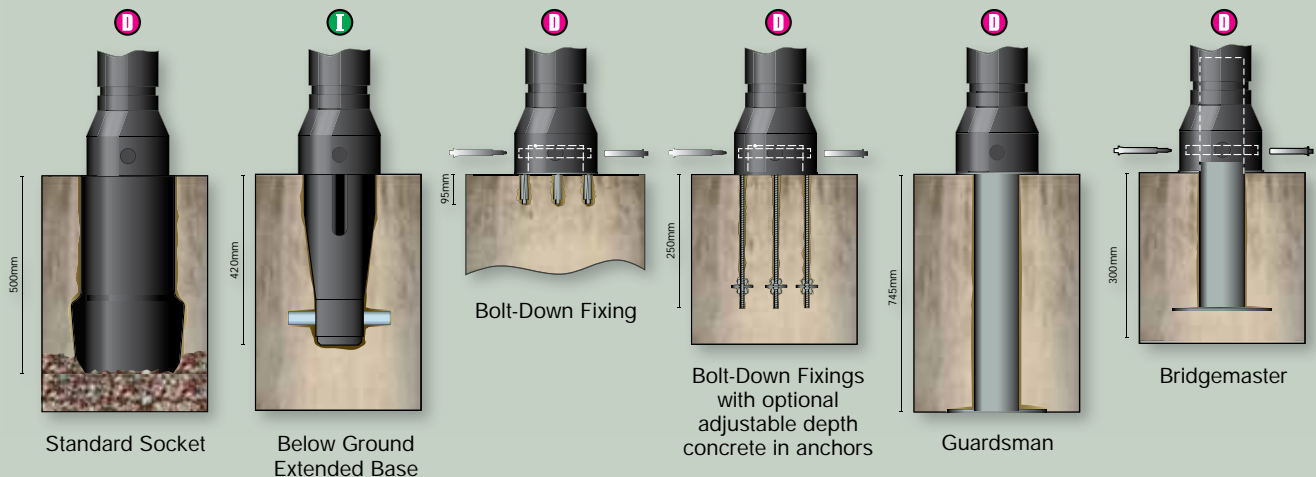
- Rigid socketed or rebound concrete in models available.
- Recessed areas for retroreflective or decorative banding.
- Wide range of fixing options available.

Neopolitan 20 Optional Banding



- 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 body sleeve (3 x 150mm bands are available for use with Rebound model)*
- F. 1 x 485mm Amber body sleeve (3 x 150mm bands are available for use with Rebound model)*
- G. 2 x 20mm Gold decorative bands

Neopolitan 20 Fixing Options



- Rigid Durapol Material
- Passively Safe Rebound Impactapol Material

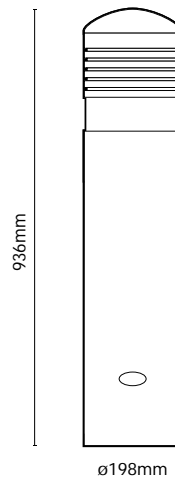
*All retroreflective materials supplied by Glasdon UK are as recommended in table NA1 of the National Annex of BS EN 12899-1 2007 Fixed Vertical Road Signs.

Admiral™ Bollard

A broad stemmed bollard ideal for use as a junction marker.

Passively Safe to BS EN 12767 100* NE4

*Rebound Impactapol model only.



PASSED
at 100 Km/h
(62mph)



Admiral Colours

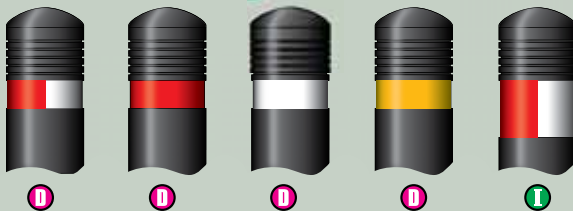
(Some colours are subject to a minimum order quantity. Please telephone our Sales Office for details.)



Key Features:

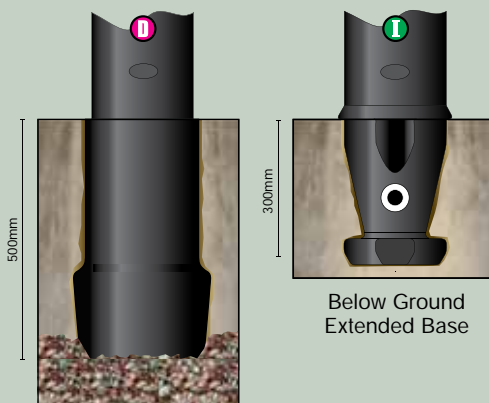
- Rigid socketed or rebound concrete in models available.
- 80mm (Rigid) or 150mm (Rebound) banding recess.

Admiral Optional Banding



- 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 retroreflective band*

Admiral Fixing Options



- Ⓜ Rigid Durapol Material - Textured finish
- Ⓜ Passively Safe Rebound Impactapol Material - Smooth finish



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 hazards."

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

For copies of the full case study please telephone 01253 600411.

#All retroreflective materials supplied by Glasdon UK are as recommended in table NA1 of the National Annex of BS EN 12899-1 2007 Fixed Vertical Road Signs.

Victory™ Bollard

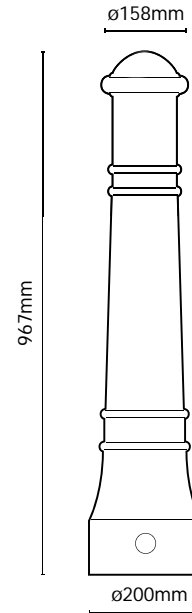
A traditional Victorian cannon-style bollard made from thoroughly modern materials.

Passively Safe to BS EN 12767
100*
NE4

*Rebound Impactapol model only.



PASSED
at 100 Km/h
(62mph)



Scan to see the product testing video.

Key Features:

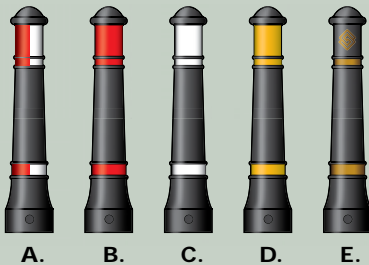
- Rigid socketed or rebound concrete in models available.
- Never requires painting – unlike cast iron or steel equivalents.
- A fraction of the weight of a metal bollard – can be installed by one person.
- Recessed areas for retroreflective or decorative banding.

Victory Colour



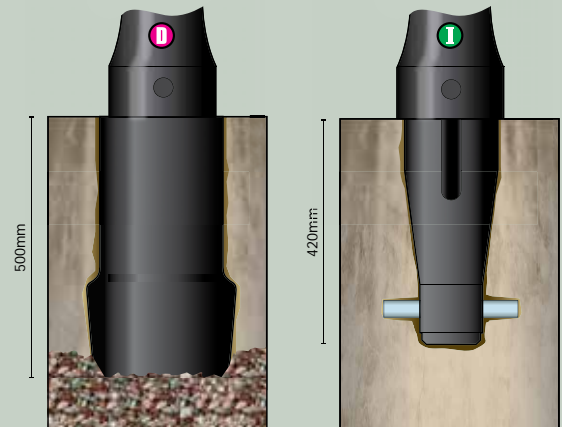
Black

Victory Optional Banding



- | | |
|---|--|
| <p>A. 1 x 125mm and/or 1 x 20mm and/or 1 x 38mm Red/White retroreflective bands#</p> <p>B. 1 x 125mm and/or 1 x 20mm and/or 1 x 38mm Red retroreflective bands#</p> <p>C. 1 x 125mm and/or 1 x 20mm and/or 1 x 38mm White retroreflective bands#</p> | <p>D. 1 x 125mm and/or 1 x 20mm and/or 1 x 38mm Amber retroreflective band#</p> <p>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.)</p> |
|---|--|

Victory Fixing Options



Standard Socket

Below Ground Extended Base

D Rigid Durapol Material

I Passively Safe Rebound Impactapol Material

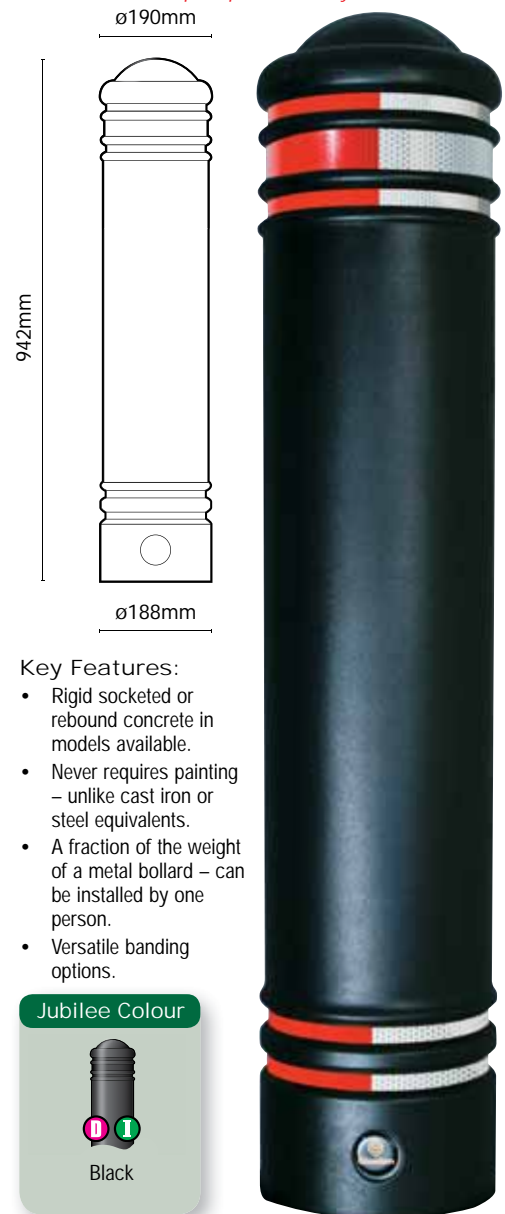
#All retroreflective materials supplied by Glasdon UK are as recommended in table NA1 of the National Annex of BS EN 12899-1:2007 Fixed Vertical Road Signs.

Jubilee™ Bollard

A traditionally styled bollard available with versatile banding options for maximum visibility.

Passively Safe to BS EN 12767 100* NE4

*Rebound Impactapol model only.



Key Features:

- Rigid socketed or rebound concrete in models available.
- Never requires painting – unlike cast iron or steel equivalents.
- A fraction of the weight of a metal bollard – can be installed by one person.
- Versatile banding options.

Jubilee Colour



Black

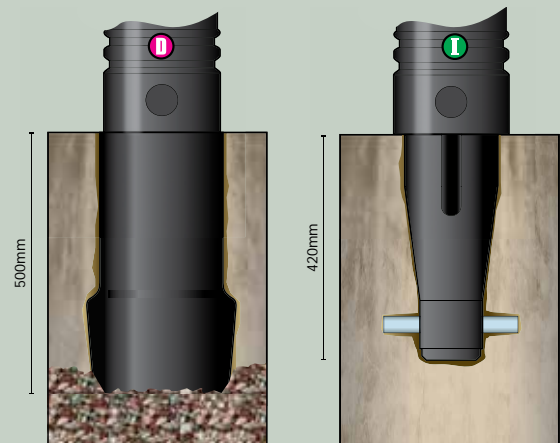


Jubilee Optional Banding



- | | |
|--|--|
| A. 4 x 12mm and/or 1 x 27mm Red/White retroreflective bands* | E. 1 x 580mm Amber body sleeve, 4 x 12mm and 1 x 27mm retroreflective bands* |
| B. 4 x 12mm and/or 1 x 27mm Red retroreflective bands* | F. 4 x 12mm Gold decorative bands. |
| C. 4 x 12mm and/or 1 x 27mm White retroreflective bands* | |
| D. 1 x 580mm Red/White body sleeve, 4 x 12mm and 1 x 27mm retroreflective bands* | |

Jubilee Fixing Options



- Ⓜ Rigid Durapol Material
- Ⓜ Passively Safe Rebound Impactapol Material

#All retroreflective materials supplied by Glasdon UK are as recommended in table NA1 of the National Annex of BS EN 12899-1 2007 Fixed Vertical Road Signs.

Sign Carrying Bollards

Ensign™, Mini Ensign™ & Neopolitan Signhead™
co-ordinate with Neopolitan bollards.

Passively
Safe to
BS EN 12767
100*
NE4

**Rebound Impactapol model only.*

Black Mini Ensign bollards with signface ref:957 reversed and Gold decorative bands.



Aircraft Grey Mini Ensign bollard with signface ref:957 reversed and White retroreflective bands.

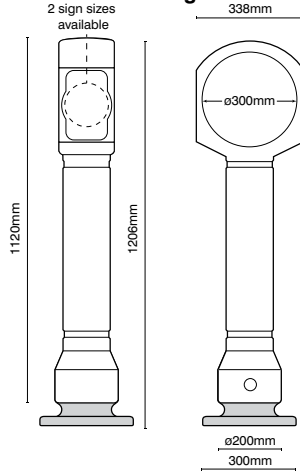


Scan to see
the product
testing video.

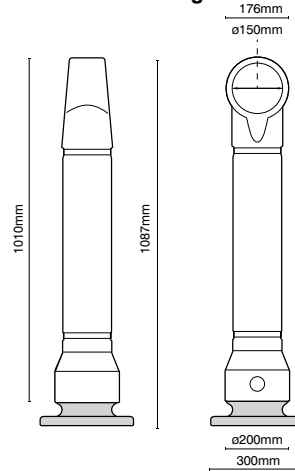
Key Features:

- Ensign available in rigid model only.
- Mini Ensign and Neopolitan Signhead available in rebound and rigid models.
- Mini Ensign also available as an illuminated model.
- Wide range of sign options available.
- Recessed areas for retroreflective or decorative banding.

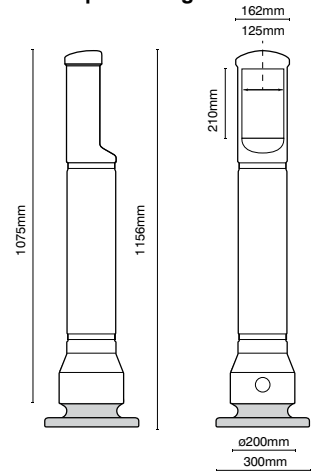
Ensign



Mini Ensign



Neopolitan Signhead



Black Ensign bollards with Amber retroreflective body sleeve and signface ref 956.



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

Sign Carrying Bollard Specifications

Sign Carrying Bollard Sign Options

Ensign takes 300mm signs as standard (see below for other options)
Mini Ensign takes 150mm signs as standard

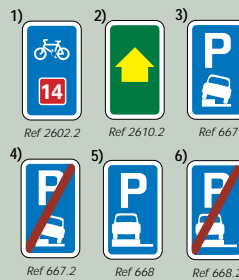
Standard Price Sign Options

- 1) 300mm Ref 670
- 2) 300mm Ref 670
- 3) 300mm Ref 616
- 4) 300mm Ref 613
- 5) 300mm Ref 951
- 6) 300mm Ref 606L & 606R
- 7) 300mm Ref 610L & 610R
- 8) 300-150mm Ref 955
- 9) 300-150mm Ref 956
- 10) 300-150mm Ref 957
- 11) 150-300mm Ref 957 Reversed
- 12) 300mm Ref 833
- 13) 300mm Ref 834
- 14) 300-150mm Ref 2610.2
- 15) 300mm

Ensign Bollard also takes two 210mm x 125mm signs. **Ensign Bollard also takes two Ø150mm signs.**

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
7. Keep Left
8. Cycle Route
9. Cycle/Pedestrians Only
10. Cycle/Pedestrians Only "Route Marked"
11. Cycle/Pedestrians Only "Route Marked" reversed
12. In*
13. Out*
14. Waymark
15. Disabled Sign



Neopolitan Signhead

Standard Price Sign Options

1. Numbered Cycle Route
2. Waymark
3. Vehicles may be parked partially on verge or footway
4. End of area where vehicles may be parked partially on verge or footway
5. Vehicles may be parked wholly on verge or footway
6. End of area where vehicles may be parked wholly on verge or footway

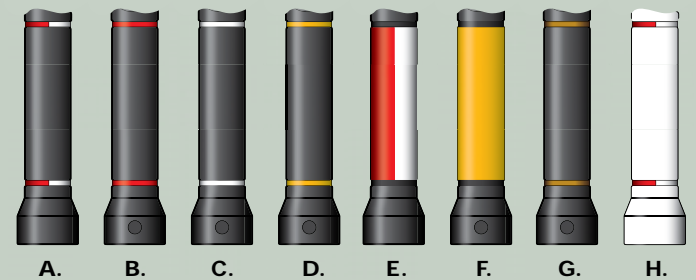
Sign Carrying Bollard Colours

(Some colours are subject to a minimum order quantity. Please telephone our Sales Office for details.)



Mini Ensign illuminated rebound bollard is only available in White. Please contact us to confirm colour availability for Mini Ensign rigid model.

Sign Carrying Bollard Optional Banding



- 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 body sleeve (3 x 150mm bands are available for use with Mini Ensign and Neopolitan Signhead Rebound models.)*
- F. 1 x 485mm Amber body sleeve (3 x 150mm bands are available for use with Mini Ensign and Neopolitan Signhead Rebound models.)*
- G. 2 x 20mm Gold decorative bands
- H. 2 x 20mm Red/White translucent retroreflective bands (for use with Mini Ensign illuminated rebound bollard)



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.

* For use on the public highway these options require prior approval from the DfT. All other standard options conform fully with the TSRGD.

Sign Carrying Bollard Fixing Options

Standard Socket 500mm

Below Ground Extended Base 420mm

Bolt-Down Fixing 75mm

Bolt-Down Fixings with optional adjustable depth concrete in anchors 320mm

Sublite Fixing for Mini Ensign illuminated rebound bollard

Rigid Durapol Material

Passively Safe Rebound Impactapol Material

*Ensign is not available in Impactapol material.

#All retroreflective materials supplied by Glasdon UK are as recommended in table NA1 of the National Annex of BS EN 12899-1 2007 Fixed Vertical Road Signs.

Infomaster™ Bollard

A narrow footprint bollard that displays landscape format signs and is easily installed and relocated.



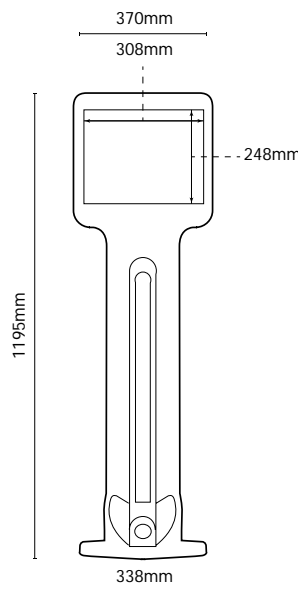
Black Infomaster bollard with signface ref: 661A and side reflectors.



Optimum height for drivers



Ref 637



Narrow footprint



Side reflectors available



Three point fixing prevents uplift from the ground.

Infomaster Colours

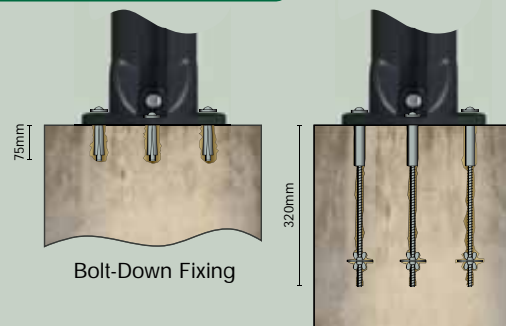


Black Millstone

Key Features:

- Rigid Durapol® polymer construction.
- Optimum height for drivers.
- Narrow footprint – takes up minimal space on the pavement.
- Double sided signface helps to reduce cost.
- Recessed signface deters vandalism.
- Easily re-sited.

Infomaster Fixing Options



Bolt-Down Fixing

Bolt-Down Fixing with adjustable depth concrete in anchors

Infomaster Signface Options

Available single or double sided and with optional side reflectors.



Ref 639

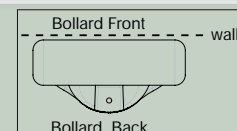
Ref 661.3

Ref 833

Infomaster can be used for a range of applications, please see above for examples. To discuss your requirements please telephone our sales office on 01253 600411.

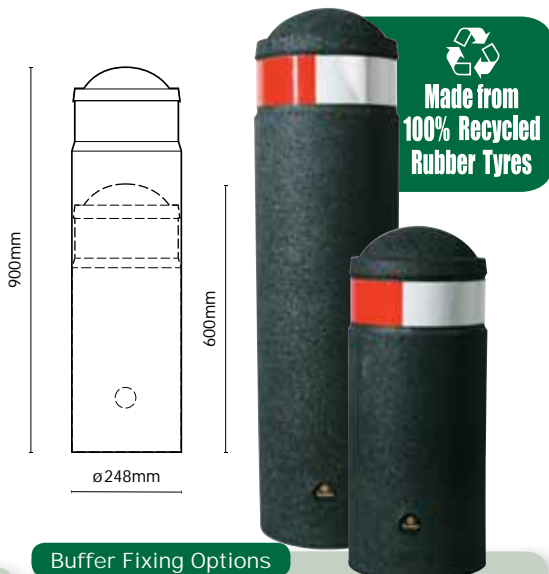
Signface Orientation

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



Buffer™ Bollard

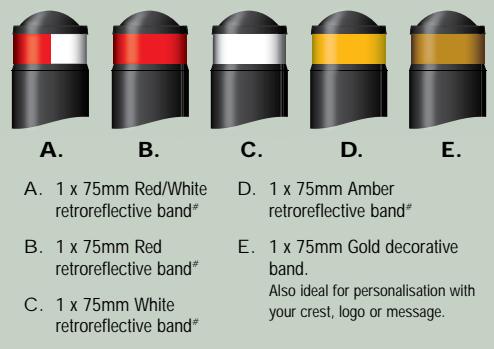
An impact-absorbing recycled rubber bollard.



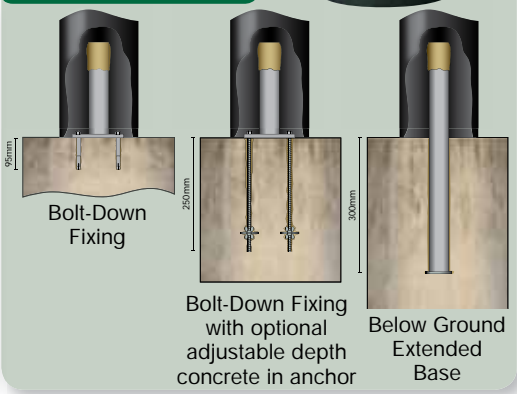
Key Features:

- Available in two heights 600mm or 900mm.
- Reinforcing tube, above which bollard is flexible, yet resilient.
- Recessed area for retroreflective or decorative banding.
- 100% recycled material.

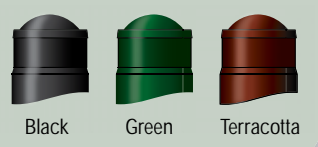
Buffer Optional Banding



Buffer Fixing Options



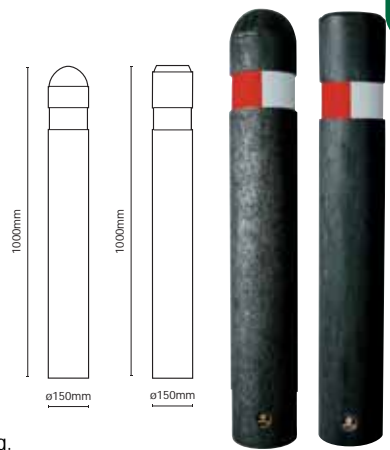
Buffer Colours



Enviropol® Bollard

An economical, environmentally friendly recycled material bollard.

100% Recycled Material



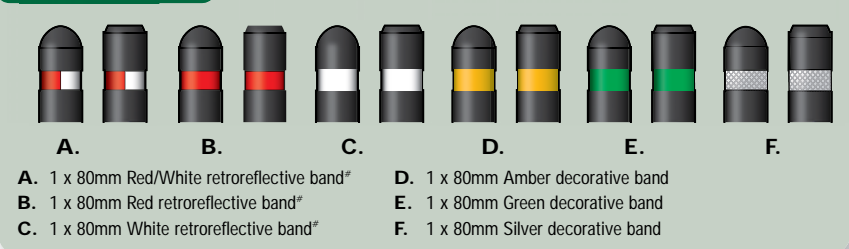
Key Features:

- Flat or Round top model.
- Recessed area for retroreflective or decorative banding.
- 100% recycled material.

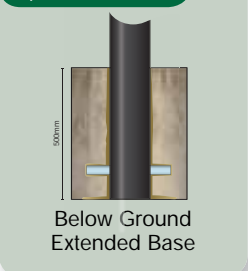
Enviropol Colours



Enviropol Banding



Enviropol Fixing Option



*All retroreflective materials supplied by Glasdon UK are as recommended in table NA1 of the National Annex of BS EN 12899-1 2007 Fixed Vertical Road Signs.

Chevroflex Ultra™ Sign System *Cuts costs, proven to prevent accidents and passively safe.*

Passively Safe to BS EN 12767
100
NE3

How does Chevroflex Ultra outperform traditional chevron signs?

1 Improved drive through performance - certified passively safe to performance standard NE3/100

Chevroflex Ultra exceeds industry standards for motorcycle friendly, passively safe street furniture. New Impactaflex™ material has been specially developed to offer superior rigidity and resilience combined with class-leading recovery performance after a drive-through collision.

Traditional Chevrons



Chevroflex Ultra



Scan to see drive-by footage of the Chevroflex Ultra Sign System.

2 Highly visible wall effect - offers a clear indication ahead of a bend or hazard in the road.

The large black uprights of Chevroflex Ultra and high visibility reflective border can be seen much earlier than traditional pole mounted metal signs, raising awareness of upcoming hazards. Chevroflex Ultra is motorcycle friendly and bends on impact, significantly reducing the risk of serious injury.

Before



After



Before

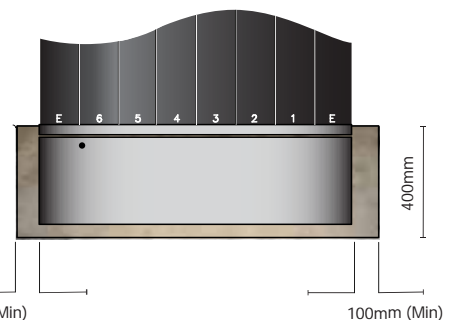
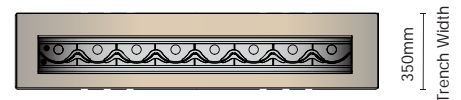


After



3 New, easy to install socket - quick and easy sign replacement.

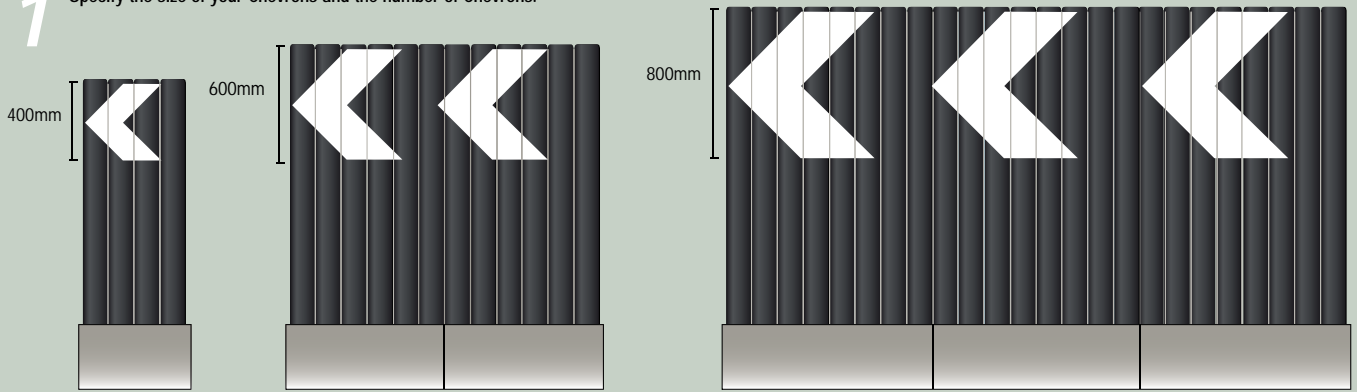
Chevroflex Ultra features an all new robust, weather resistant galvanised steel socket that allows damaged uprights to be swapped with minimum fuss. The socket and cover create a seal that prevents debris building up that would inhibit the functions of the uprights. A steel locking pin ensures the blades remain firmly fixed when impacted, but are easily removed for replacement or maintenance.



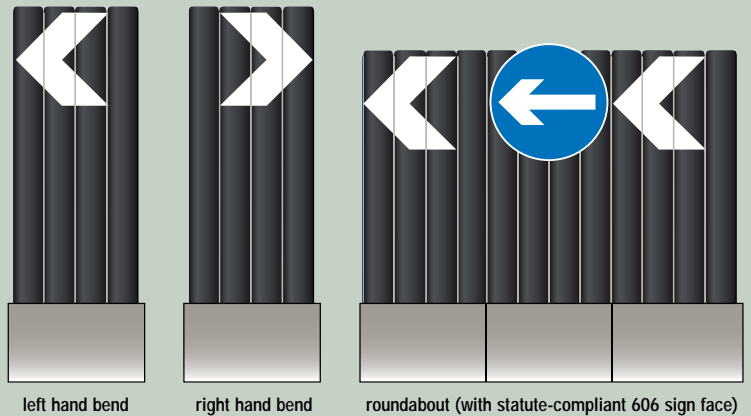
The trench for the sockets should be 400mm deep, 350mm wide and 200mm longer than the overall length of the Chevroflex Ultra Sign.

Configuration Options *Specifying Chevreflex Ultra is simple:*

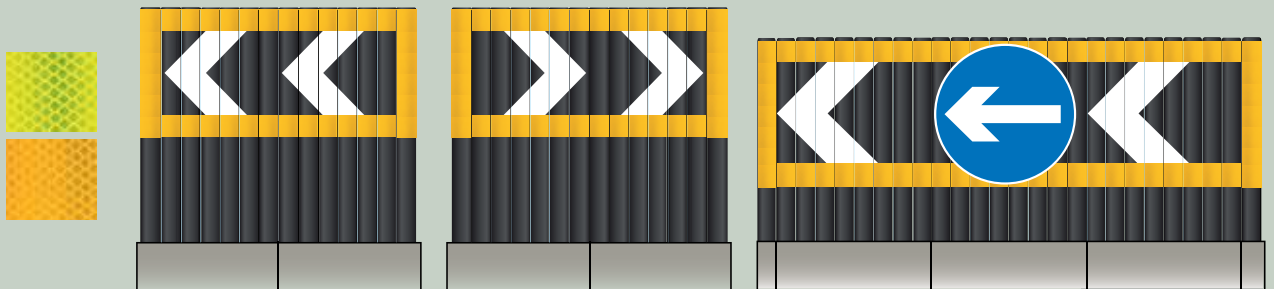
1 Specify the size of your Chevrons and the number of Chevrons.



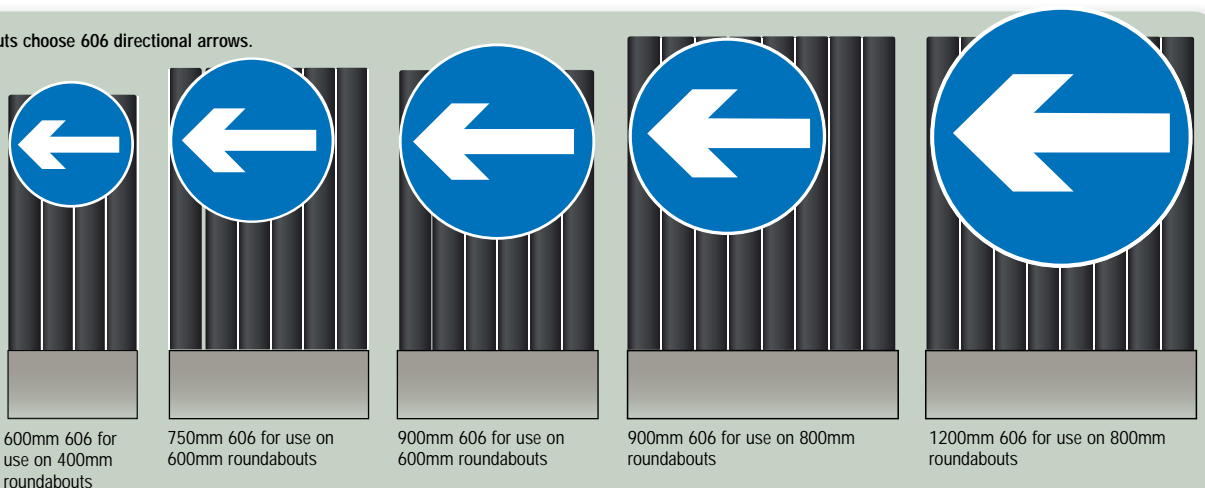
2 Specify the configuration of your Chevrons –
left hand bend
right hand bend
roundabout (with statute-compliant 606 sign face)



3 Choose with or without high visibility border - Chevreflex Ultra with Hi-Vis surround is available with two different coloured borders, yellow/green and yellow. Made in Avery Dennison fluorescent Diamond Grade material, it is highly visible and reflective from a distance.*



4 For roundabouts choose 606 directional arrows.



Auto CAD model specifications are available on all products.

*All retroreflective materials supplied by Glasdon UK are as recommended in table NA1 of the National Annex of BS EN 12899-1 2007 Fixed Vertical Road Signs.

Chevroflex Ultra Photo Gallery

400mm right hand bend, single chevron with yellow/green hi-visibility surround.



800mm roundabout, 4 chevrons with 900mm 606 directional arrow and yellow/green hi-visibility surround.



800mm right hand bend, 19 chevrons with yellow/green hi-visibility surround.



800mm roundabout, 15 chevrons with 1200mm 606 directional arrow.



400mm left hand bend single chevrons.



Other applications



Sight Screen



Sight Screen



Directional arrow central reservation



Countdown Markers



30mph Gateway

Sublite Lumino™ LED Uplighter

When Chevrolflex is sited on a roundabout, diagram 606 sign must be illuminated.



Key Features:

- Flush ground uplighter removes the potential impact hazard created by a traditional post-mounted downlighter.
- Low energy and low maintenance - only 12w power consumption.
- Highly resilient: 100% recycled Durapol® polymer IP67 rated.
- Versatile: Hinged LED plate allows adjustment after installation.
- Designed to withstand accidental drive-over.



Scan to see the product testing video.

Vergemaster RX™ Marker Post

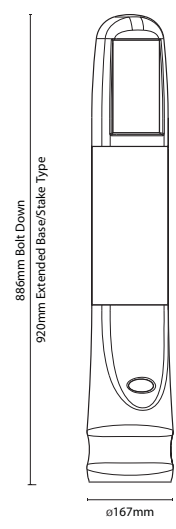
A passively safe verge marker with wide-angle reflector and a choice of fixing options.

Passively Safe to BS EN 12767
100*
NE4

*Below Ground Extended Base model only.



Arced reflectors offer a wide area of reflectivity.

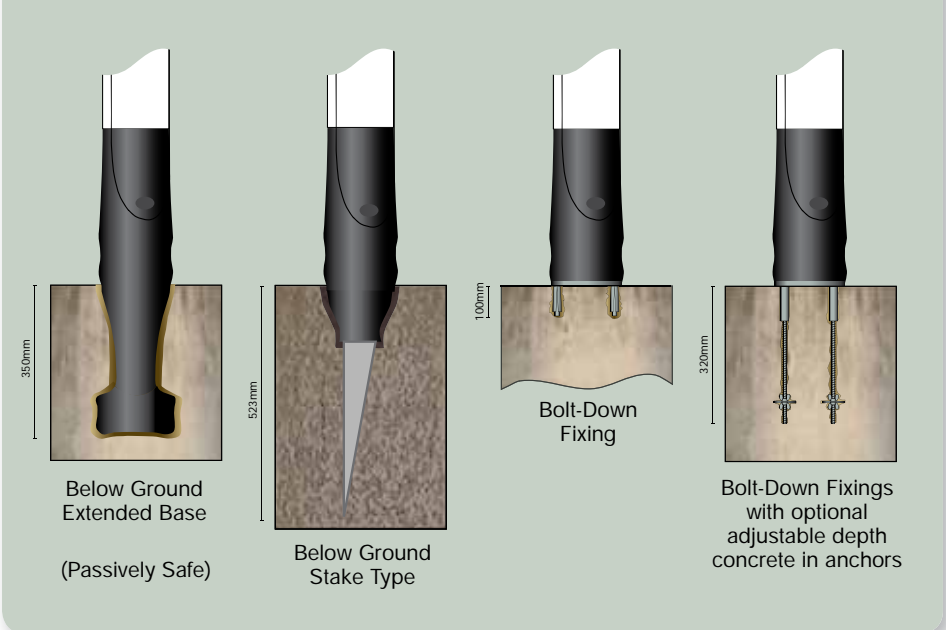


Key Features:

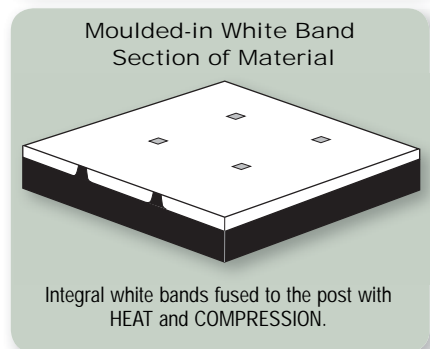
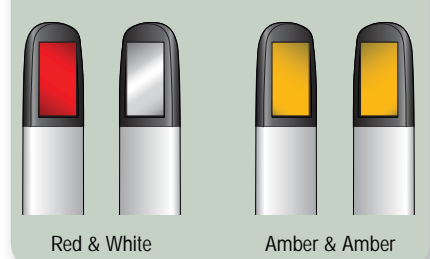
- Passively safe Reflexapol™ polymer construction.
- Successfully tested to Performance Standard NE4/100 Km/h by TRL.
- Two arced microprismatic Impactalight™ reflectors increase reflective performance and viewing angles for clear delineation by day and night.*
- Wide range of fixing options available.
- Moulded in white band.



Vergemaster Fixing Options



Vergemaster Reflector Options

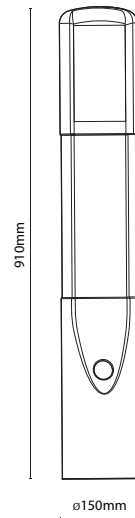


#All retroreflective materials supplied by Glasdon UK are as recommended in table NA1 of the National Annex of BS EN 12899-1 2007 Fixed Vertical Road Signs.

Hazardmaster™ Marker Post

A heavy-duty hazard marker designed to withstand repeated wheel-over collisions.

Passively Safe to BS EN 12767 100 NE4



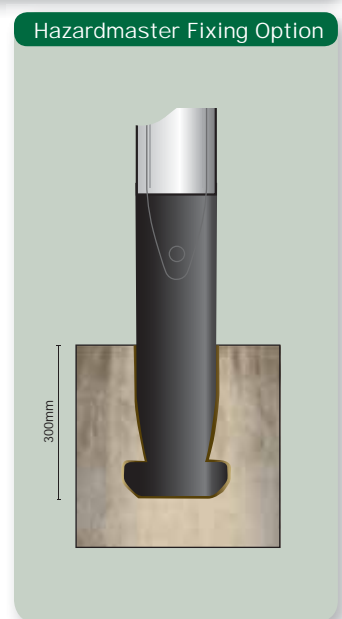
Key Features:

- Passively safe Impactapol® polymer construction for the highest risk areas.
- Performance tested to NE4/100 Km/h by TRL.
- Substantial, robust marker post.
- Two large retro reflectors provide maximum visibility.*



Hazardmaster Reflector Options

Red & White Amber & Amber



*All retroreflective materials supplied by Glasdon UK are as recommended in table NA1 of the National Annex of BS EN 12899-1 2007 Fixed Vertical Road Signs.

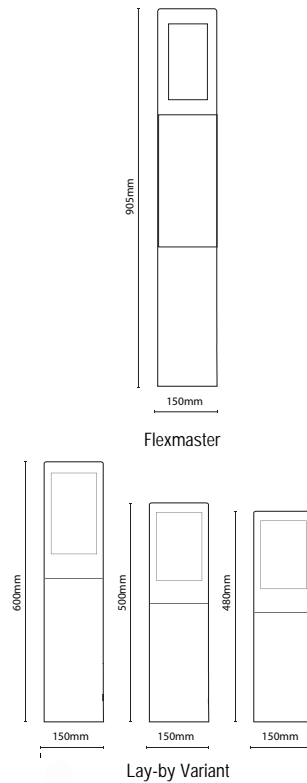
Flexmaster[®] Marker Post *Rebound Verge Post with versatile signing options.*



Flexmaster Marker Post.



Lay-by Flexmaster Marker Post.



Key Features:

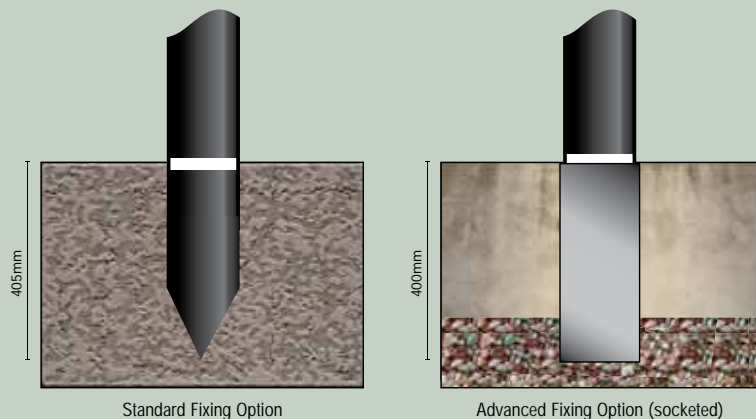
- A flexible "knock-down, spring-back" property makes Flexmaster ideal for high-risk locations.
- Manufactured from highly durable Ultraflex™ polymer which can withstand many vehicular impacts.
- The white band and reflector provides maximum visibility.*
- Easy to install without the need for digging holes or concreting.
- Versatile applications.

Easy to Install



Fixing tool for standard fixing option. Designed for easy installation into soft ground

Flexmaster Fixing Options



Standard Fixing Option

Advanced Fixing Option (socketed)

*All retroreflective materials supplied by Glasdon UK are as recommended in table NA1 of the National Annex of BS EN 12899-1 2007 Fixed Vertical Road Signs.

Flexmaster[®] Marker Post *Road Safety - Hazard Markers.*



Flexmaster Marker Post.



Danger Overhead Cables Flexmaster Marker Post.



Bridge Parapet Flexmaster Left-hand Side Marker Post.

HIGHLY COMMENDED
The IHT/Highways
Agency Health &
Safety at Work Award



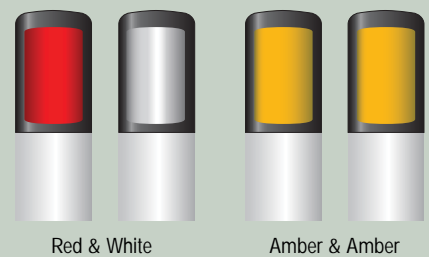
Danger Overhead Cables Barrier Strap

Other Applications

The versatility of the Flexmaster system offers infinite possibilities for low maintenance, high visibility signage. To discuss your requirements please telephone our dedicated highways safety sales team on (01253) 600411.



Flexmaster Reflector Options



Edgeliner™ Bollard *Durable mini bollards for hard or soft landscaping.*



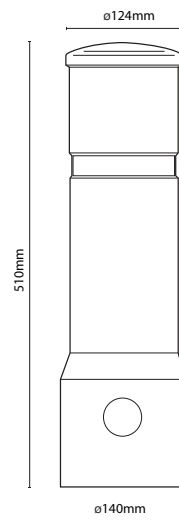
Black Edgeliner rebound bollards with Red/White retroreflective bands.



White Edgeliner bollard.



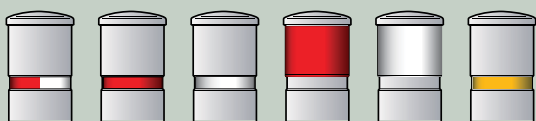
Black Edgeliner rebound bollard with Red/White retroreflective bands.



Key Features:

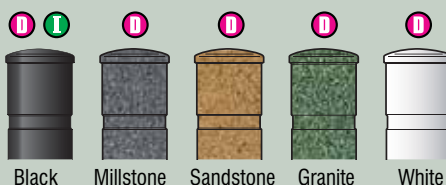
- Rigid or rebound concrete in models available.
- Recessed area for decorative or retroreflective banding. (Non Highways Use-19mm banding only).
- Co-ordinates with Neopolitan™ bollards.

Edgeliner Optional Banding (Non highways use-19mm banding only)



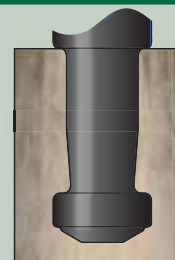
- | | |
|---|---|
| A. 1 x 19mm Red/White retroreflective band.* | D. 1 x 98mm Red retroreflective band.* |
| B. 1 x 19mm Red retroreflective band.* | E. 1 x 98mm White retroreflective band.* |
| C. 1 x 19mm White retroreflective band.* | F. 1 x 19mm Gold decorative band. |

Edgeliner Colours



- (R)** Rigid Durapol Material
- (I)** Passively Safe Rebound Impactapol Material

Edgeliner Fixing Option



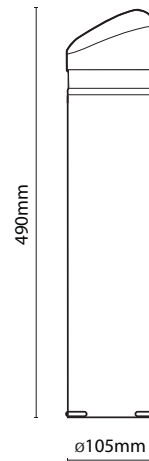
Below Ground
Extended Base

Edgemaster™ 20 Post *An attractive post to protect grass verges from vehicle damage.*

White Edgemaster marker post.



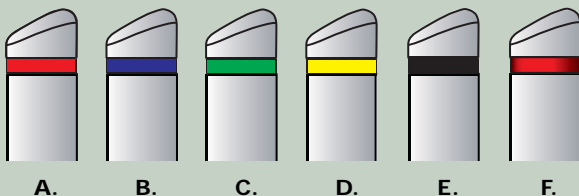
White Edgemaster marker post.



Key Features:

- Recessed area for decorative or retroreflective banding. (Non Highways Use).
- A Ground Level Marker helps to ensure the bollard is installed at the correct depth.

Edgemaster Optional Banding (Non highways use)



A. **B.** **C.** **D.** **E.** **F.**

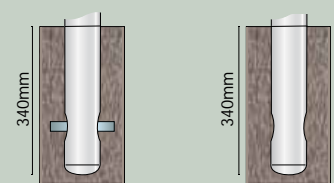
- | | |
|------------------------------------|------------------------------------|
| A. 1 x 20mm Red decorative band. | D. 1 x 20mm Amber decorative band. |
| B. 1 x 20mm Blue decorative band. | E. 1 x 20mm Black decorative band. |
| C. 1 x 20mm Green decorative band. | F. 1 x 20mm retroreflective band. |

Edgemaster Colour



White

Edgemaster Fixing Options



Below Ground Extended Base with Optional Ground Fixing Peg

Below Ground Extended Base Without Ground Fixing Peg

#All retroreflective materials supplied by Glasdon UK are as recommended in table NA1 of the National Annex of BS EN 12899-1 2007 Fixed Vertical Road Signs.

Glasdon Gateway *Ideal, low maintenance alternative to wood*

Key Features

- Manufactured from Everwood™ material, a unique, realistic timber grain polymer that requires minimal maintenance.
- Robust, low maintenance, long-lasting.
- Numerous colour, size and layout combinations available.
- Legs can be cut down to any size for variable installation.



Standard wooden gateways remain popular, but without regular treatment wood will split and rot.



Gateways are often painted white to improve visibility but the paint will begin to crumble and can look unsightly.

Non-porous Everwood™ material will never need painting and will not rot, warp or crack.

Specifying Gateway is simple:

1 Specify the colour: Light Oak or Dark Oak for a wood effect, or white for maximum visibility.

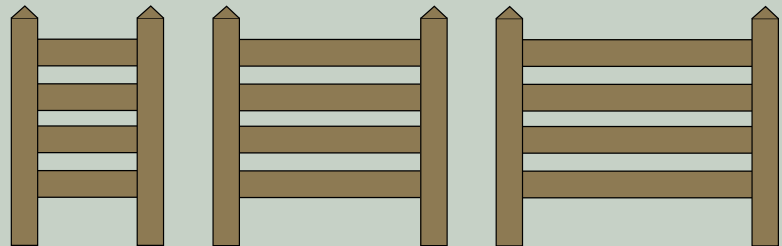


Light

Dark

White

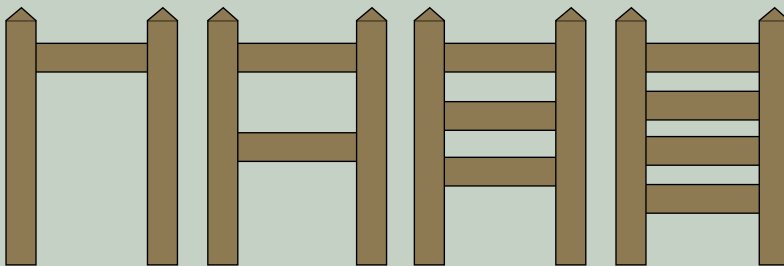
2 Specify the width: Standard options 960mm, 1500mm or 2000mm.



Width

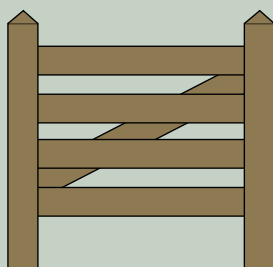
960mm, 1500mm or 2000mm

3 Specify how many slats: We can supply Glasdon Gateway with between one and four slats, with an optional crossbar for a traditional farm gate appearance.



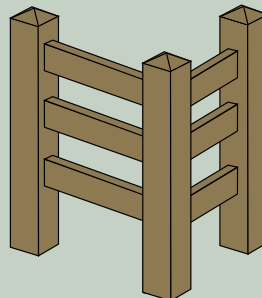
Number of Slats

Available with 1, 2, 3 or 4 slats.



Crossbar

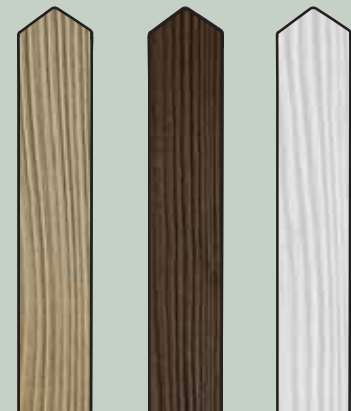
Creates a traditional farm gate appearance.



L-Shaped

For a striking visual impact.

Gateway Colours

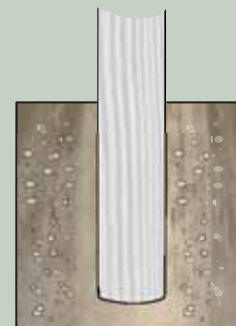


Light Oak

Dark Oak

White

Gateway Fixing Option

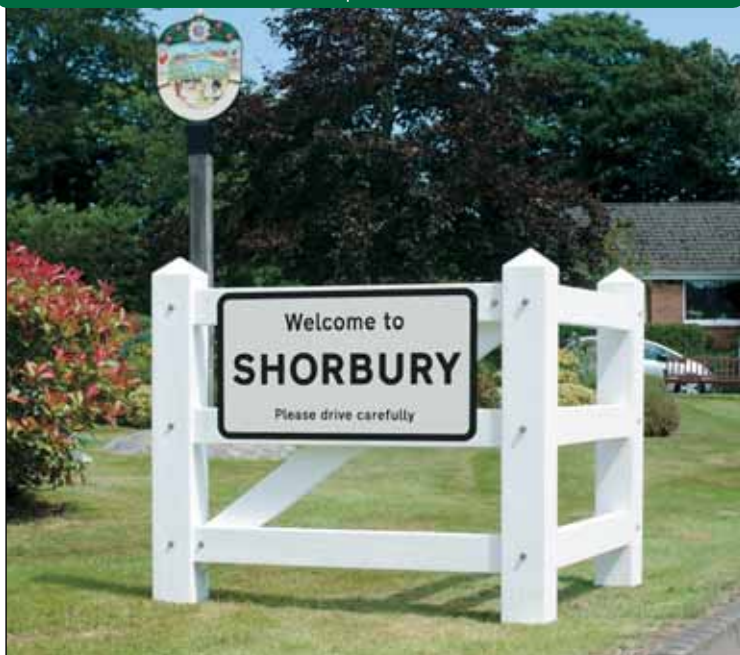


Below Ground Extended Base

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

Glasdon Gateway *Ideal, low maintenance alternative to wood*

White, 1800mm x 1500mm L Shaped model with 3 slats and 1 crossbar.



Light Oak, 2300mm x 2000mm with 4 slats.



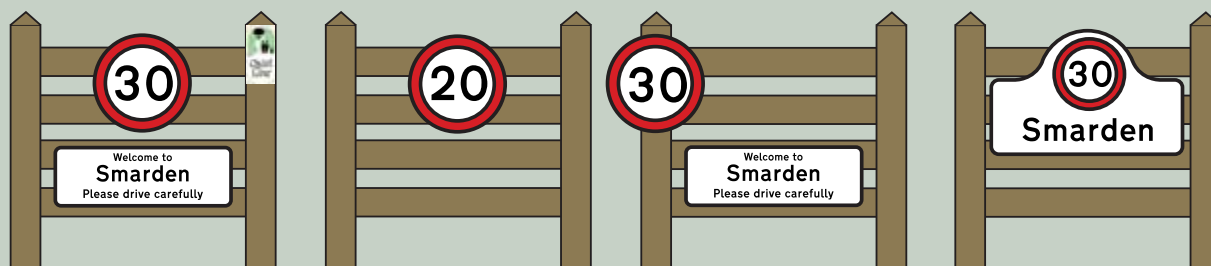
White, 2300mm x 1690mm, Ornate model.



Dark Oak, 1800mm x 1500mm sited on a pedestrian/cycle route in a staggered chicane with Dark Oak, 1000mm Glenwood post.



Example Signage Options



Glasdon Gateway is supplied flat pack 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 - contact us for more information.

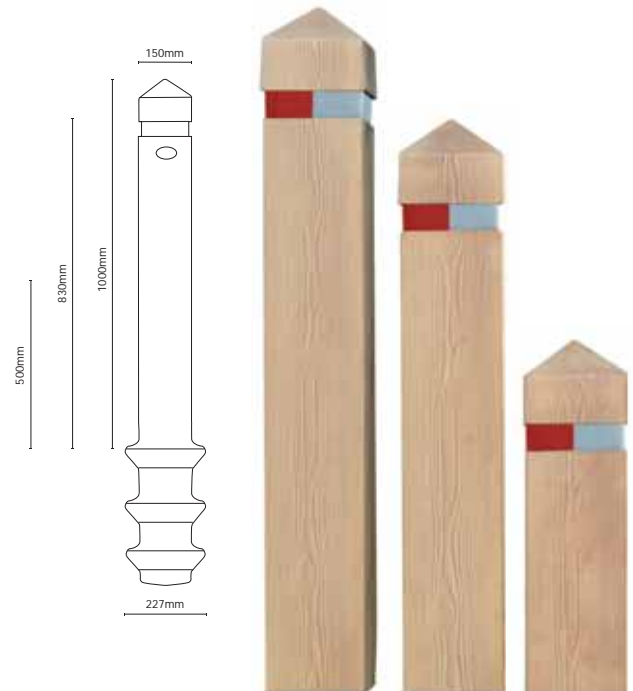
Glenwood™ Post

A strong and robust timber effect post that requires minimal maintenance.

1000mm Light Oak Glenwood post.



Scan to see the product testing video.



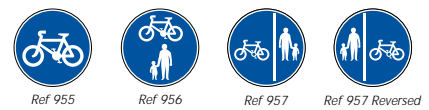
Key Features:

- Manufactured from Everwood™ material, a unique, realistic timber grain polymer that requires minimal maintenance.
- 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.
- 100mm vandal resistant recessed signfaces.

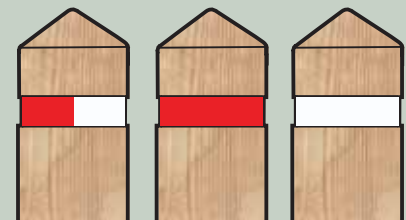
1000mm Dark Oak Glenwood post.



1000mm Dark Oak Glenwood post.



Glenwood Reflector Options



- A.** 1 x 37mm Red/White retroreflective band[#]
B. 1 x 37mm Red retroreflective band[#]
C. 1 x 37mm White retroreflective band[#]

Glenwood Colours

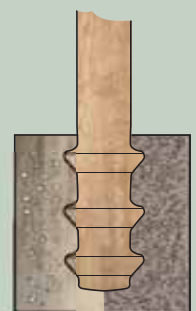


Dark Oak

Light Oak

White

Glenwood Fixing Option



Below Ground Extended Base

Chain Link Kit available as an optional extra.

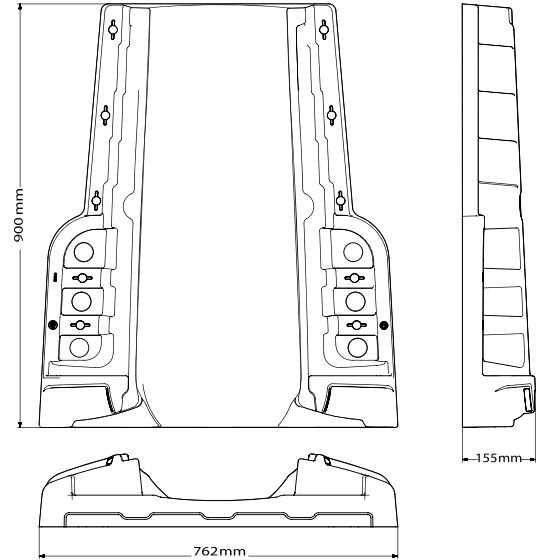
Drainagemaster™ Drainage Grip

A cost effective offlet solution to the problem of surface water.



Key Features:

- Efficiently channels running and pooling water from rural road surfaces into a parallel drainage ditch.
- Robust side ridges provide extra strength to allow vehicles to drive over the unit without damaging it.
- Quick and easy to install.
- Requires minimal maintenance – the wide, smooth surface discourages the build-up of debris, and is easily cleared with a shovel or brush.



Extension channel also available



Reflective patches are available so the unit can be easily located for maintenance checks.

Easy to Install

Step 1



Prepare hole next to the road edge, on a slight downward gradient.
(Approximate installation time - 15 minutes)

Step 2



Place the Drainagemaster into position.

Step 3



Secure with Ground Pegs.

Step 4



Cold bitumen can be added between Drainagemaster and the road edge to create a watertight seal.



www.safety4highways.com

Visit our website to see our full range of Passively Safe products, including Bollards, Hazard & Verge Markers and our Advanced Chevrolflex™ Flexible Sign System. Downloadable product literature, case studies and video clips are also available.



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Glasdon

**Glasdon U.K. Limited
Local Government
Highways Safety Division**

Preston New Road
BLACKPOOL
Lancashire
FY4 4UL

Tel: (01253) 600411
Fax: (01253) 792558
e-mail: hs@glasdon-uk.co.uk
web: www.glasdon.com



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