



ZENITH® STEEL & STAINLESS STEEL BOLLARDS

MADE IN
BRITAIN

ZENITH® STEEL & STAINLESS STEEL BOLLARDS



INTRODUCTION

An extensive range of durable bollards

The Zenith range of steel and stainless steel bollards is based around standard circular tubular sections, with varying degrees of embellishment - from plain domed versions, to sloped tops. Steel offers improved tensile strength compared with cast iron, meaning bollards are tougher and more suited to busy trafficked areas, whilst also benefiting from being lighter in weight. Heavier-walled sections steel bollards are ideal for building protection and security applications. The Zenith range is offered in a range of sizes and are available as standard fixed units and removable versions. We hold stock of some of the more popular models, but are also able to provide a quick turnaround for items that may need to be made-to-order.

Stainless steel bollards

Stainless steel is an attractive material suited to contemporary settings. Two material grades are available - G304 suits most locations, whilst G316 is recommended for more aggressive environments such as industrial or coastal sites. Varying levels of polishing can be achieved. Stainless steel is relatively maintenance-free, requiring only an occasional clean to remove any contaminants on the surface.



ZENITH® BOLLARD RANGE

The industry standard for over 15 years

Since the popular introduction of stainless steel to the street furniture market in the late 1990s, Furnitubes' Zenith range has become the benchmark of quality design and manufacture. With understated styling, Zenith bollards fit well within most contemporary settings, and in stainless steel they offer a hard-wearing, low maintenance and a 100% recyclable solution for vehicular and pedestrian traffic management purposes.

The bollard range comprises 2 basic styles of product - plain, sloped top - in a range of materials, sizes and finish options, including:

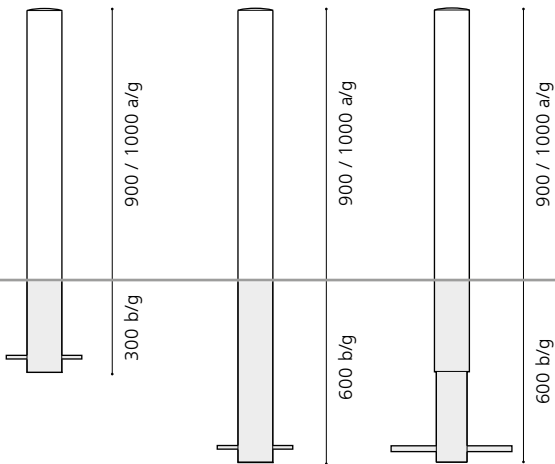
- Standard height and DDA versions
- Heavy duty security versions
- Stainless steel in grades 304 or 316 on all options
- Polished stainless steel to various finish grades



In addition to the extensive range of fixed bollard options, we are able to offer removable versions for situations where occasional access is required. Further adaptations available include the addition of reflective tape for improved visibility in highway and car park situations.

ZENITH® BOLLARD RANGE

All standard Zenith bollards are available as standard in a choice of two heights - 900mm and 1000mm above ground - although other sizes are available on request. We refer to the higher options as DDA versions - 1000mm is the minimum recommended height (as set out in Disabled Access guidelines) for freestanding objects in public areas for distinction by the visually impaired. The guidelines also recommend a colour contrast on such products to further improve their visibility and we are able to offer a reflective tape in a number of colours for this purpose. Zenith security bollards are of a heavier duty construction and a greater depth below ground than standard bollards, providing a much larger concrete embedment and improved resistance to vehicular impact. Both standard and security versions of Zenith bollards can be supplied in other heights above ground and depths below ground as required for individual schemes.



Standard bollard
(steel & stainless)

Security bollard
(steel)

Security bollard
(stainless) + steel core

Zenith bollard standard dimensions & details



ZENITH® BOLLARD RANGE

Standard bollard options

Refer to the table for individual product codes for the sizes and specifications offered as standard.

A/g:
B/g:

Standard versions:	
900mm	1000mm
300mm	300mm

Security versions:	
900mm	1000mm
600mm	600mm



ZENITH PLAIN
Circular bollard with shallow domed top available in stainless steel, satin finish.

Ø102mm
Ø115mm
Ø140mm

Ø170mm

ZEN700	ZEN800
ZEN701	ZEN801
ZEN703	ZEN803
ZEN702	ZEN802

n/a	n/a
ZEN701SC	ZEN801SC
ZEN703SC	ZEN803SC
ZEN702SC	ZEN802SC



ZENITH SLOPED TOP
Circular bollard with elliptical top plate sloped at 45 degree angle, available in stainless steel, satin finish.

Ø102mm
Ø115mm
Ø140mm

Ø170mm

ZEN450	ZEN850
ZEN451	ZEN851
ZEN453	ZEN853
ZEN452	ZEN852

n/a	n/a
ZEN451SC	ZEN851SC
ZEN453SC	ZEN853SC
ZEN452SC	ZEN852SC

Notes:

- Stainless steel security bollards comprise an inner core in galvanised mild steel, over which an outer sleeve in stainless steel is fitted.
- Mild steel security bollards are a single piece construction.

STANDARD
SPECIFICATION:
Grade 304 stainless steel
Satin polished finish

OPTIONS:
Base plated bollards
Grade 316 stainless steel
Stainless steel in satin polished finish
Reflective tape in various colours & sizes



ZENITH® BOLLARD RANGE



ZENITH® EXTENDED RANGE

Seating & litter bins

As well as bollard-based products, the Zenith range also comprises a number of seating and litter bin options that allow a coordinated range of products to be used across a scheme. The Zenith seating range includes an extensive choice of bench and full seat (with backrest) options that have been popular products in public realm projects since their introduction over a decade ago. Similarly, there are many choices of features and sizes in the Zenith litter bin range. All products are offered in stainless and mild steel. Please refer to our website for all options within the Zenith range.



ZENITH® REMOVABLE BOLLARDS

Removable bollards

Within a continuous line of fixed bollards there is often a requirement for a number of removable bollards to allow for occasional vehicular access. Most of our steel and stainless steel bollards are available as removable versions.

We offer two types of removable bollards - for use with **Standard** or **F1 Series** sockets - the features and operation of which should be considered in detail to determine which is the most suitable product for your application.

Standard sockets

- Simple economic solution using galvanised mild steel socket
- Ease of operation is convenient for situations where bollard needs to be removed quickly and / or frequently, such as emergency access routes
- Hasp fitted to bollard passes through slot in socket hinge plate for locking with an FB14 padlock (please order separately) or similar
- Hinged cover plate sits flush to finished ground level when closed but is not designed to be driven over - therefore most suited to short term removal situations
- Bollard, socket and padlock only - no further loose parts
- Loose fit of square bollard spigot locating in circular socket means bollard is not 100% rigid (but can't be removed if locked)



F1 series sockets

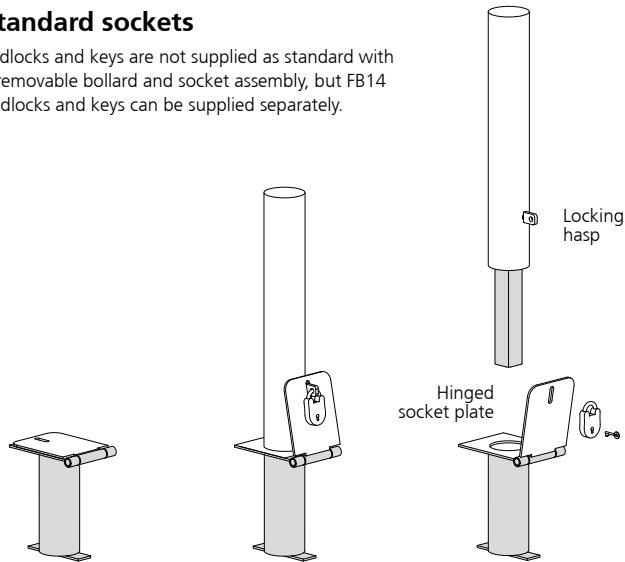
- Neat flush-fitting solution constructed in heavy duty cast iron, steel and hard-wearing plastics
- Takes longer (than standard socket) to insert / remove bollard, so may not be suitable for emergency vehicular routes or when bollard needs to be removed frequently
- Circular bollard (or welded on circular spigot for large diameter circular bollards and other shapes, such as square) locates in circular socket with locking bolts to fully rigidify the bollard
- Separate plug supplied for inserting into socket when bollard is removed
- Socket designed and tested to withstand vehicular over-run up to 12.5 tonnes point loading



ZENITH® REMOVABLE BOLLARDS

Standard sockets

Padlocks and keys are not supplied as standard with a removable bollard and socket assembly, but FB14 padlocks and keys can be supplied separately.



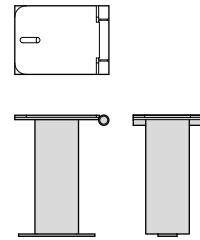
Closed socket

Secured bollard

Bollard removal

Operation

The base of the socket should be cleared of any build up of debris which could prevent the bollard spigot from being inserted to its full depth. Fold back the hinge plate and insert the bollard into the open socket in the orientation shown, rotate the plate over the locking hasp and secure with a padlock (please order separately). On removing the bollard, check there is no debris on the top face of the socket before lowering the hinge plate into the closed position. If installed correctly, the plate will be flush with the surrounding paving so as not to present a trip hazard. Socket hinges should be lubricated regularly to ensure continued smooth operation.

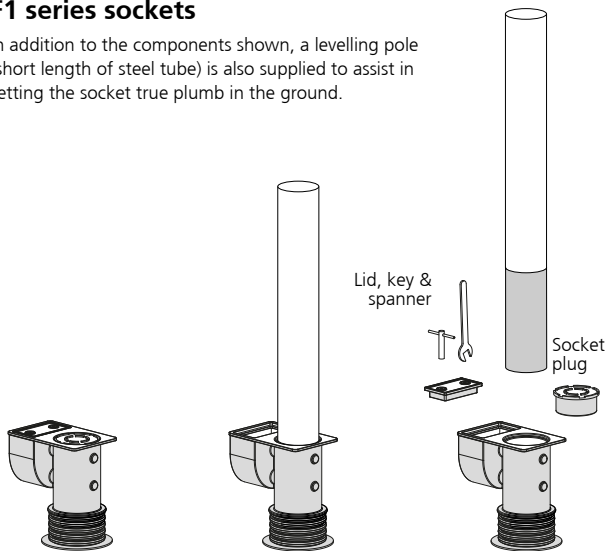


Dimensions

The plan dimensions of the socket hinge plate depend on the bollard type, size & shape at ground level - if these dimensions are important to you please contact us for details. For all sockets, the below ground socket root is typically 320mm deep.

F1 series sockets

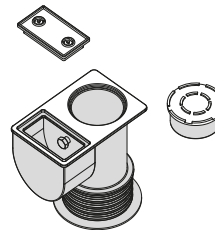
In addition to the components shown, a levelling pole (short length of steel tube) is also supplied to assist in setting the socket true plumb in the ground.



Closed socket

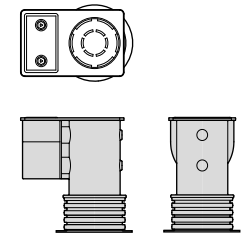
Secured bollard

Bollard removal



Operation

Insert the bollard / spigot into the open socket and tighten 2no. bolts in the locking chamber (spanner supplied) onto the sides of the root / spigot. Place and lock the lid on the locking chamber. When the bollard is removed insert the plug into the socket and secure with the same bolts. The socket should be flush with the ground if installed correctly.



Dimensions

The plan dimensions of the socket depend on the bollard type, size & shape at ground level - if these dimensions are important to you please contact us for details. For all sockets, the below ground socket root is typically 300mm deep.

ZENITH® BOLLARDS SPECIFICATION & INSTALLATION

General specification

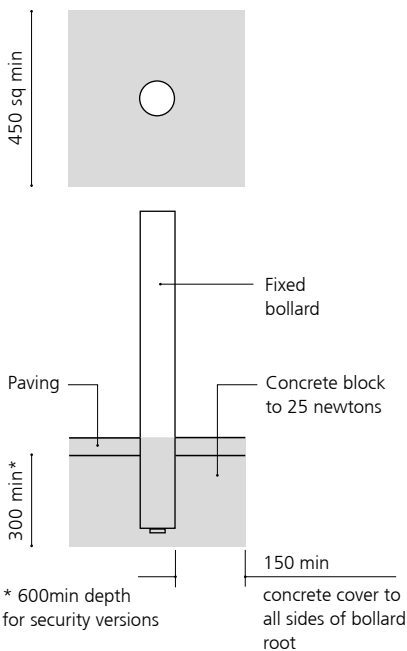
Mild steel bollards are generally supplied with a hot dip galvanised coating for long-lasting protection, with the option of an additional wet-painted or polyester powder coated decorative finish. Other more specialist coatings - such as nylon and other plastic coating systems - can be supplied on special request. Stainless steel products are supplied in either grade 304, which is suitable for most exterior situations, or grade 316 for more aggressive environments such as coastal or industrial locations. Satin or bright polishing are the standard finishes offered.

Installation details

It is important that bollards have a suitable foundation so that they remain firmly in place if they are knocked at any time. Shown below are the minimum recommended requirements for concrete foundation block for fixed and removable bollards in a typical installation in normal ground conditions. Particular attention should be paid to the following:

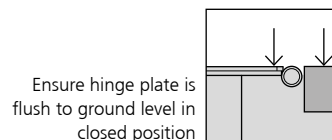
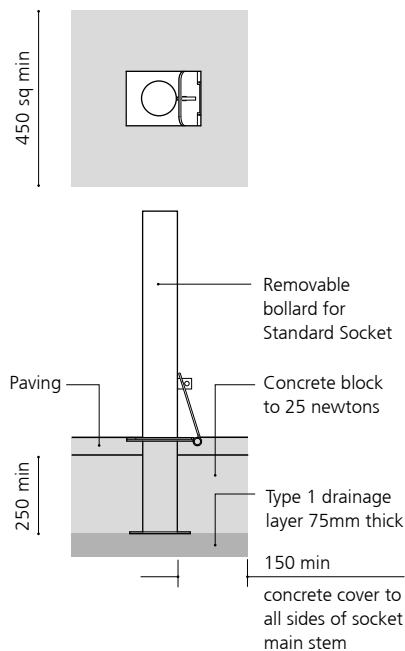
- Set the bollard at the depth / height as shown in the specific bollard illustration
- Ensure concrete penetrates through the below-ground apertures (where applicable) into the internal void of the bollard up to ground level

FIXED BOLLARD

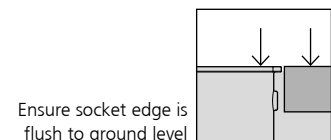
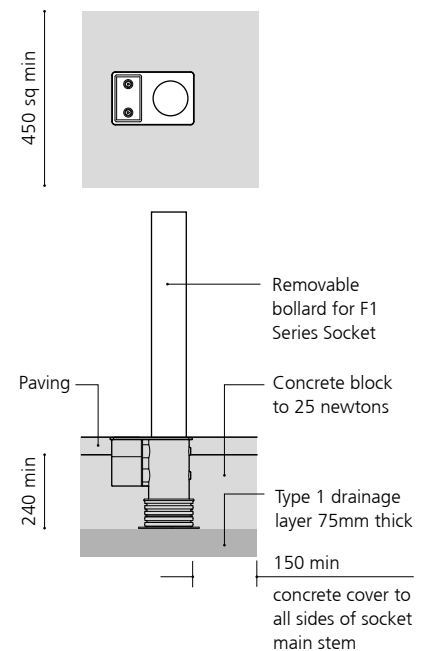


The professional advice of a highway / civil engineer should be sought if there are any queries regarding the ground conditions or doubts over the suitability of the foundation.

REMOVABLE BOLLARD: STD SOCKET



REMOVABLE BOLLARD: F1 SERIES SOCKET



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View or download other product e-brochures at the following link:

www.furnitubes.com/brochures



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