



## Bollards

### X-Last Bollard Socket Options



### Applications:

Footways, Cycle Routes, Car Parks, Town Centres, Equipment Protection

### Composite Socket

The Composite X-Last Socket allows bollards to be demounted by authorised personal when required for future maintenance or seasonal events. It is designed to be located in footway locations which are free from traffic. Bollards are secured in place with a metal pin which is located in a secure side chamber which is flush with the footway and a removable pedestrian plug can be secured in place when not in use.

### Advantages

- ◇ Shallow depth / simple installation
- ◇ Secure locking mechanism
- ◇ Withstands unlimited impacts
- ◇ Cost effective
- ◇ Duct and cable access point
- ◇ Pedestrian plug ensures pedestrian safety
- ◇ Ideal for everyday use



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## Emergency Access Socket

The Emergency Access Socket allows X-Last bollards to be removed and replaced by the emergency services. It is designed to be located in restricted areas which could require access in the event of an emergency.

Bollards are secured in place with an external emergency services padlock and a hinged pedestrian plug ensures the socket is left safe for pedestrians when the bollard is removed.



## Advantages

- ◇ Shallow depth / simple installation
- ◇ Emergency services padlock system
- ◇ Allows simple removal for emergency services
- ◇ Hinged pedestrian plug ensures pedestrian safety

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## Retention Socket

The Retention Socket allows X-Last bollards to be removed and replaced by authorised personal when required. They are designed to be installed in carriageway locations which are subject to heavy traffic.

Bollards are secured in place with 2nr stainless steel locking bolts which are located in a recessed side chamber and a removable cast steel pedestrian plug can be secured in place when not in use.



## Advantages

- ◇ Shallow depth / simple installation
- ◇ Secure locking mechanism
- ◇ Withstands unlimited impacts
- ◇ Duct and cable access point
- ◇ Pedestrian plug ensures pedestrian safety
- ◇ Ideal for heavy traffic



# Product Specification

## Composite Socket Specification

The Composite Sockets to be manufactured to suit base design of all 150mm X-Last Bollards designs.

Depth of socket must be no greater than 202mm.

Bollards must be locked into the socket with a 128mm steel pin.

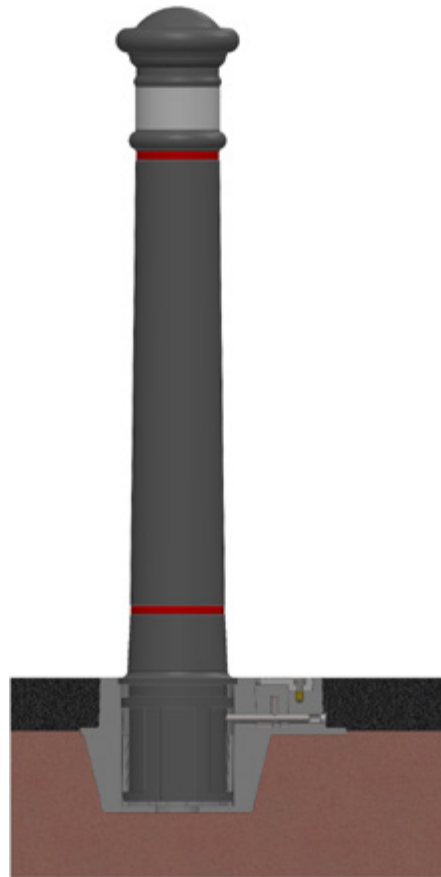
The securing pin must be housed in a lockable recessed side chamber which is flush with the surrounding surface.

Recessed side chamber covers must be locked in place with M8 stainless steel T-key fixing.

Sockets must be able to withstand unlimited vehicle impacts to the X-Last Bollards.

Pedestrian plugs must be tested to Class B BS5834-2: 2011.

Composite sockets are to be supplied to the above specification by NAL or any equally approved manufacturer.



## Emergency Access Socket Specification

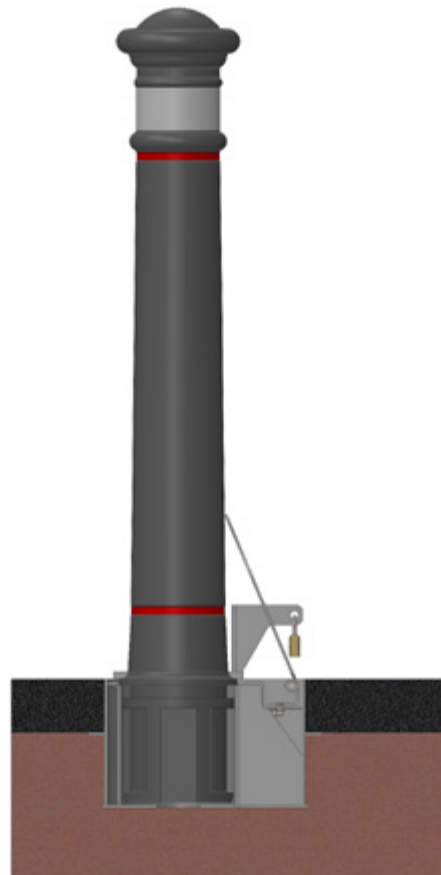
Emergency Access Sockets to be manufactured to suit base design of all 150mm diameter X-Last Bollard designs.

Depth of socket must be no greater than 210mm

Bollards must be locked in the socket with anti rotation ribs and padlock hasp.

Sockets must be able to withstand unlimited impacts to the X-Last Bollards.

Pedestrian plugs must be hinged and flush-fitting with no trip hazards.



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# Product Specification

## Retention Socket Specification

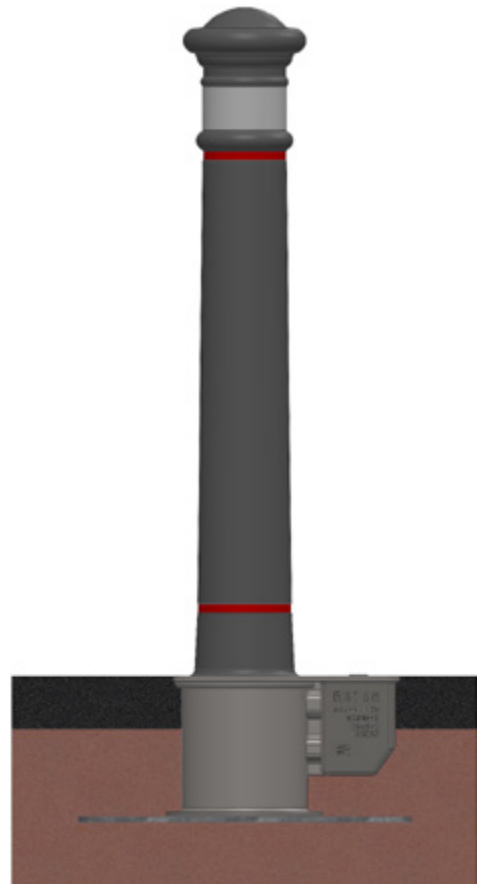
Retention Sockets tops must be constructed from cast steel to GS240 or ductile iron to BS2789 500-7.

Retention Sockets must be capable of withstanding high speed vehicle impact forces to steel posts with a wall thickness of 6mm.

Retention Sockets must be able to withstand impact without any structural surround to the top 80mm of the unit. A valid impact test must result in a post deflection greater than 30 degrees. All sockets must be impact tested. Test data and independent certification must be available to substantiate claims for sockets and foundations.

Posts must be positively secured into the Retention Sockets and be able to withstand a turning moment of 3.4kNm through a load of 230kg @ 1.5metre from the centre of post without any rotation.

All fixings which secure posts in place must be housed below ground ensuring no risk of damage, vandalism or theft.



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