



Retention Socket Overview



A CRH COMPANY

How it works

Each Retention Socket features a robust cast steel or ductile iron top section, complemented by various base types tailored to meet diverse application needs.

The street furniture is firmly secured within the socket by a stainless steel locking mechanism, discreetly housed in a recessed side chamber of the top section.

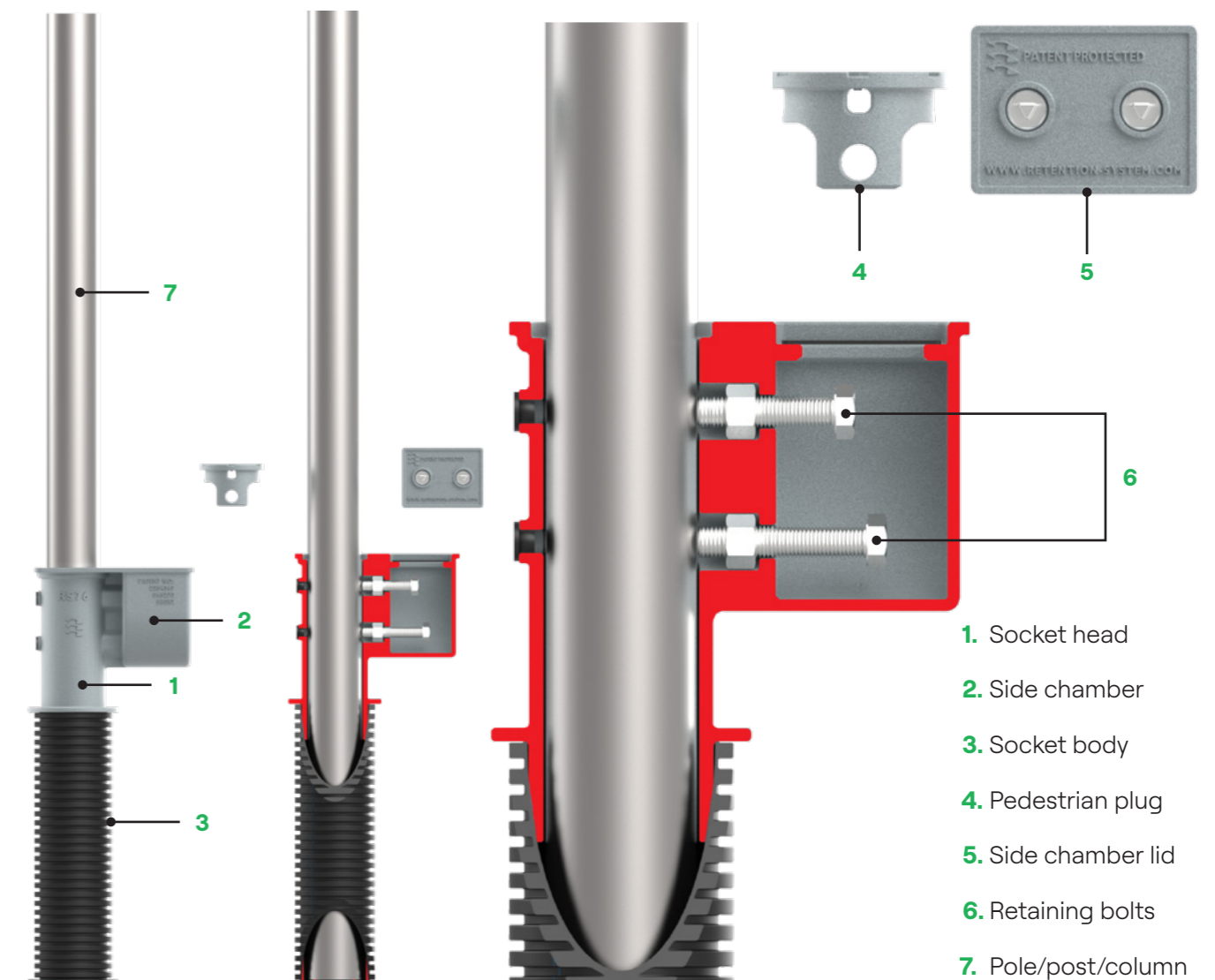
Retention Sockets are available in a variety of different apertures to suit all sizes of posts, poles and columns ranging from 48mm to 410mm, as well as different pole-planting depths from 300mm to 900mm deep.

What is a Retention Socket?

The NAL Retention Socket system offers an innovative solution for the secure installation of both illuminated and non-illuminated street furniture.

Designed for versatility and efficiency, these reusable foundations enable a quick and easy installation and removal of assets using just a key and spanner.

When furniture is impacted and damaged, the Retention socket allows a swift, simple replacement without requiring any civil related works.



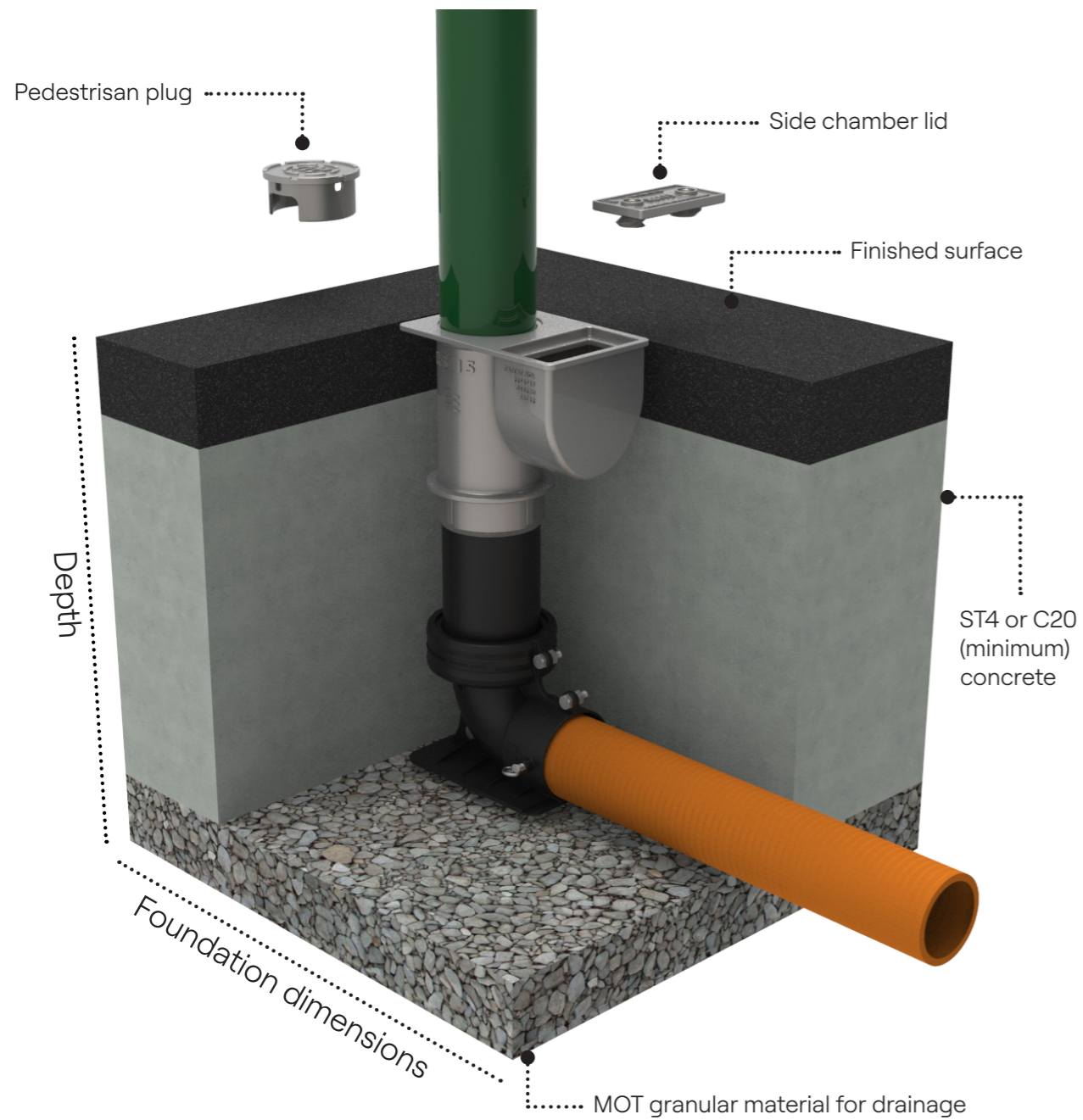
1. Socket head
2. Side chamber
3. Socket body
4. Pedestrian plug
5. Side chamber lid
6. Retaining bolts
7. Pole/post/column



Installation

Retention sockets can be installed at depths as shallow as 300mm from the finished surface. NAL provides a complimentary foundation design service to help determine the optimal foundation based on your specifications.

The Retention Socket system allows all civil installation work to be completed prior to the delivery of street furniture, eliminating the risk of costly damage that can occur when furniture is left unattended on-site.



Product range

Our Retention Sockets are available in a range of base types to suit all highways applications.



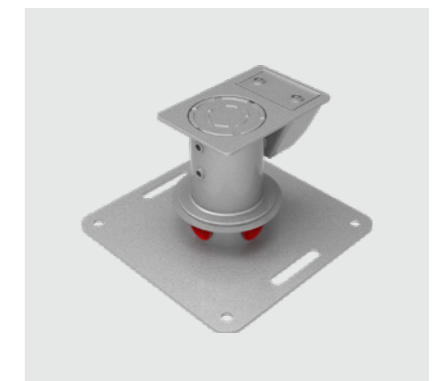
Flat base for non-illuminated furniture



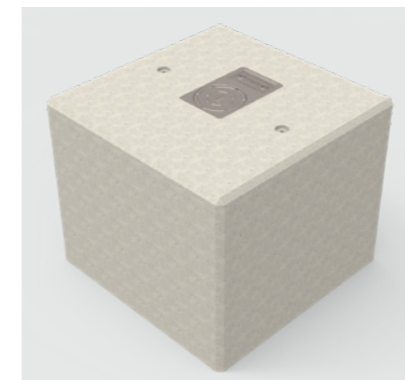
Duckfoot bend base for illuminated furniture



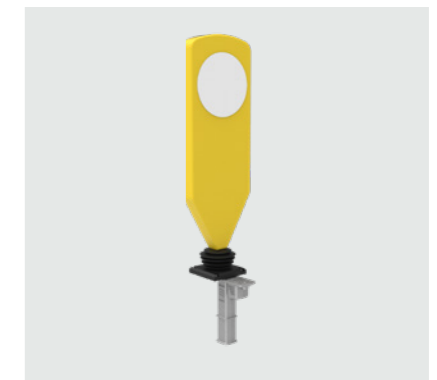
Tee bend base for illuminated furniture



Shallow foundation for depth restrictions



Pre-cast foundation



Systems for surface mounted furniture

Non-illuminated

A flat base with no provision for cable entry but has the ability to be shortened on site.

These are suitable for any type of non-illuminated street furniture.

Ideal for:

- ◇ Signage
- ◇ Guardrail
- ◇ Bollards
- ◇ Cycle hoops



Duckfoot Bend

A one way duct bend offering bottom cable entry and 360 degree swivel with the ability to be shortened on site.

This product is suitable for all directly cabled illuminated street furniture.

Ideal for:

- ◇ Traffic signal poles
- ◇ Street lighting columns
- ◇ EV charging dispensers
- ◇ Tourist information totems
- ◇ Bus stops



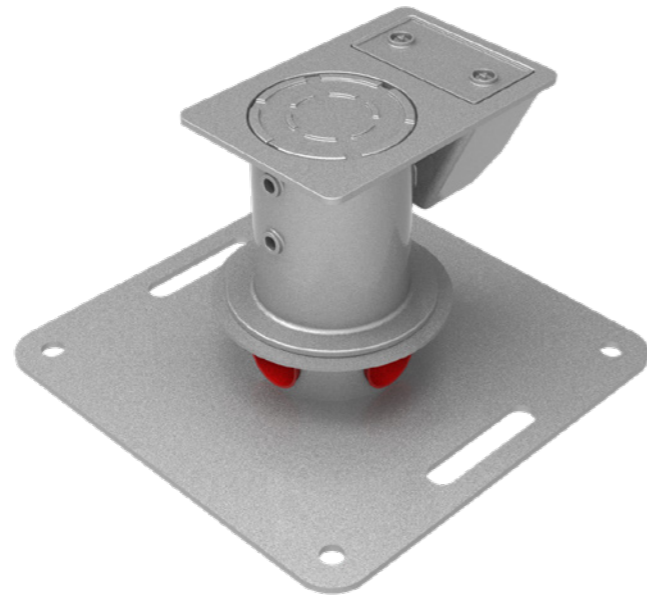
Shallow Foundation

Manufactured with a strengthening plate and an overall planting depth of 200-300mm with an option of four bottom cable entry points.

This product is suitable for both illuminated and non-illuminated street furniture installations with severe depth issues.

Ideal for:

- ◇ Traffic signal poles
- ◇ Street lighting columns
- ◇ EV charging dispensers
- ◇ Tourist information totems



Tee Bend

The Tee Bend Retention Socket is manufactured with a 2-way duct bend offering 360-degree swivel and cable entry through the base of the post.

This design simplifies the installation of cables to illuminated furniture that require looping in and out.

Ideal for:

- ◇ Street lighting columns
- ◇ Illuminated bollards
- ◇ EV charging dispensers



Surface Mounted System

The system is manufactured with a range of spigoted adapter plates or threaded inserts to which the surface mounted furniture base is fixed to.

A stainless steel locking mechanism located in the side chamber secures the adapter plate or threaded insert in place.

Ideal for:

- ◇ Keep left bollards
- ◇ Benches
- ◇ Bins



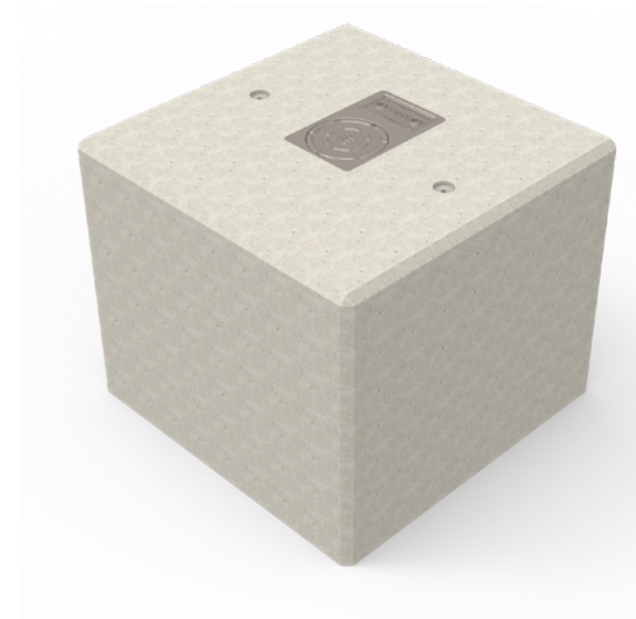
Pre-cast Foundations

Retention Sockets supplied in a pre-cast foundation designed to suit the furniture and ground conditions on site.

The system is simply lifted into position, leveled and backfilled removing the need for wet trade on site.

Ideal for:

- ◇ SVD radar
- ◇ Traffic signal poles
- ◇ Street lighting columns
- ◇ EV charging dispensers



Levelling Pole

The Levelling Pole is a simple tool used to ensure Retention Sockets are installed vertically at civils installation stage.

It eliminates the need to have street furniture on site during the civils works.

Once installed into the Retention Socket the levelling pole must ALWAYS be secured in place with the locking bolts.

With the levelling pole secure, contractors can use the pole as a lever to achieve the vertical level.

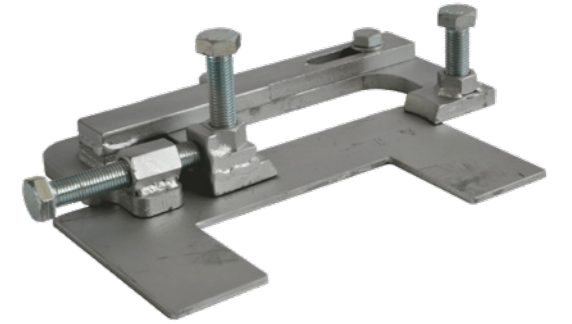
Levelling poles and associated tool kits are supplied with every Retention Socket order, free of charge.



Post Removal Tools

QRE (Quick Release Extraction Tool)

The QRE is designed to clamp onto the damaged post at ground level. The post is then extracted with two vertical lifting bolts which tighten onto a steel footplate.



QRW (Quick Release Wedge)

The QRW tool is designed to create a gradual shoulder to assist in the removal of damaged post. As posts are rotated onto the quick release wedge they are automatically lifted out of the Retention Socket.



Reducers

Reducers enable smaller posts to be installed in larger Retention Sockets.

Inserts are also available for bespoke shaped poles. Tapered inserts allow conical or octagonal columns to be installed in standard Retention Sockets.

Bolt down inserts enable any type of bolt down street furniture to be secured into Retention Sockets.



Drop Kerb Wedge

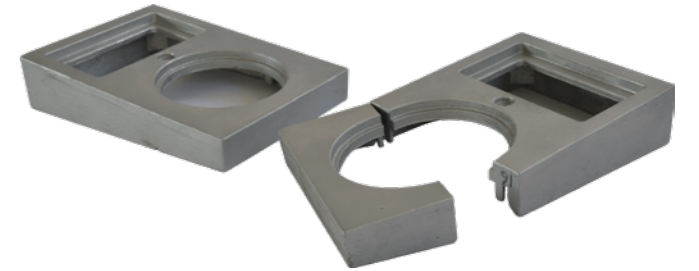
Retention Sockets installed in a modular paved footway with a gradient may require the installation of a Drop Kerb Wedge.

This is a superficial unit which is secured to the top of the Retention Socket allowing it to be positioned in line with the surrounding ground surface.

This simplifies the installation of the Retention Socket in tapered surfaces while ensuring posts remain vertical.

The retro fit drop kerb wedge can be installed after the poles have been fitted into the Retention Sockets.

Also available are a range of Retention Socket cover plates. These can be manufactured in many different finishes and colours including stainless steel and anti-slip material, allowing the Retention Socket to blend into the surrounding surface.



Pole Locator Tool

The Pole Locator Tool has been developed to assist with the installation of columns into the Retention Socket.

By locking the tool into place on the socket the curved edge creates a holding point allowing the column to be safely lifted into a vertical position and lowered into the Retention Socket.

The tool can be used in different positions to allow for the column to be installed from different angles.



Post Installer

This patented lifting system is designed to lift, lower or raise various types of highway furniture installed in NAL Retention Sockets.

It eliminates working at height and manual handling risks involved in the installation and maintenance of traffic signal poles, street lighting columns and sign posts.



Product Benefits

Installation Benefits

- ◇ Ability to be installed in shallow depth
- ◇ EN40 or BD9407 foundation design service
- ◇ Enables civils works to be completed without street furniture
- ◇ 360 degree bottom cable entry bend allows easier cabling works at ground level
- ◇ Enables furniture orientation change after installation

Additional Benefits (Pre-cast Foundations)

- ◇ No requirement for wet trade on site
- ◇ Over 50% reduction in installation time
- ◇ Installation unaffected by weather conditions
- ◇ Enables immediate installation of furniture



Maintenance Benefits

- ◇ Withstands unlimited impacts of any force
- ◇ Eliminates civils works on replacement of knockdowns
- ◇ Minimises disruption and traffic management cost during replacement
- ◇ Maintenance works can be carried out in a controlled environment
- ◇ Simplifies the erection and removal of seasonal street furniture



Product Benefits

Future Benefits

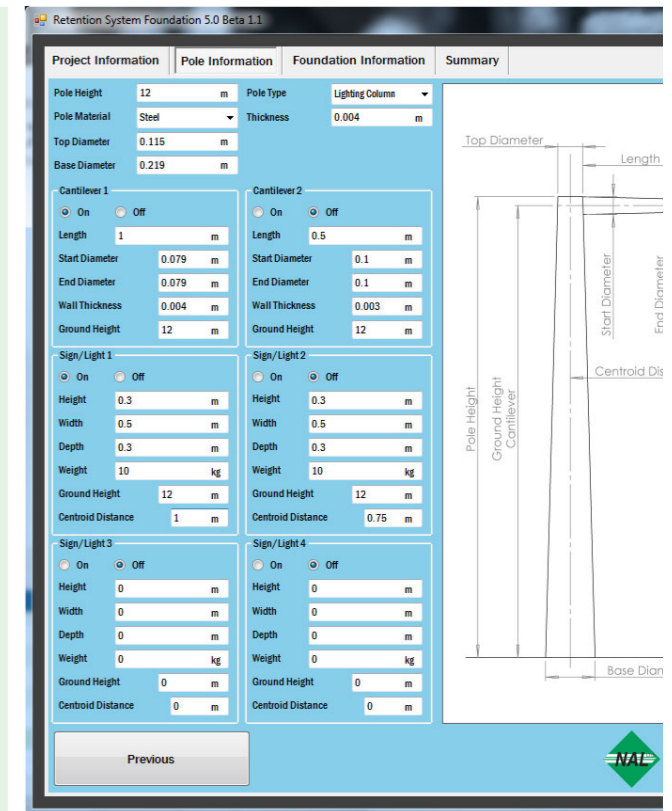
- ◇ Allows public areas to be cleared for events
- ◇ New and upcoming technology can be installed quickly and cost effectively in existing Retention Sockets
- ◇ Increased life expectancy of street furniture installed in Retention Sockets
- ◇ Simplifies the works involved with wide loads
- ◇ Retention Sockets have a life expectancy of 100 years. This allows for four street furniture life cycles



Free Foundation Design Service

NAL provide a free foundation service for Retention Socket installations.

Bespoke foundation designs can be carried out to suit site conditions. These are to the relevant standards applicable.



Retention Socket Overview

NAL
Weir Lane
Worcester
WR2 4AY

T: +44 (0)1905 427100
E: sales@nal.ltd.uk

www.nal.ltd.uk

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