

Ritherdon Atlas Sockets, when installed correctly, are designed to act as a secure foundation system that makes it very easy to remove and replace a post or column without excavation.

The Atlas Sockets are available in the following standard sizes:

Post diameter (mm)	Planting depth (mm)
76	450
89	450
115	450
140	450
168	450

Contact Ritherdon to specify sockets to suit your requirements - Atlas Sockets can be made to any size.



Whilst the planting depth of the standard units is 450mm, increasing the planting depth is very easy using extension pieces which are available in three sizes:

- 150mm,
- 300mm
- 450mm.

This allows the post planting depth of the Socket to be increased to 600mm, 750mm, 900mm, 1050mm, 1200mm and so on.

Extension pieces can also be made any size to suit specific requirements, call us to discuss!

- The Atlas Socket is fabricated using Stainless Steel grade 1.4003.
- This is a utility ferritic stainless steel. It was chosen because it offers the benefits of more highly alloyed stainless steels such as strength, corrosion and abrasion resistance, durability and low maintenance.
- In addition, type 1.4003 is weldable and formable allowing it to be fabricated using conventional techniques and is perfect for this application.
-

Go to <http://www.bssa.org.uk/topics.php> for lots more information about Stainless Steel.

Top Section

- The top part of the socket body is made to accommodate the clamping mechanism used to grip the post.
- All parts that make up the Atlas Socket are powder coated black gloss using Architectural Grade Polyester Powder



Go to <https://www.hmgpaint.com/products/industrial/powder/571/polyester-architectural-powder-827> for more information about Architectural Grade Polyester Powder.



Extension Pieces

- The extension pieces are connected to the socket top and bottom sections using grade A2/304 stainless steel screws, M5 x 8mm long with a Pozi-Drive head.

Bottom Section

- The bottom section is connected to the top section or extension pieces using grade A2/304 stainless steel screws, M5 x 8mm long with a Pozi-Drive head.
- The bottom plate has a hole in it to allow cable entry.
- A standard (Non-Illuminated) Socket will be blanked off using a blanking disc fixed in place with stainless steel Pop-Rivets.



If the post requires a power supply (Illuminated Socket), we have two options available. The Duct Foot Bend and the Sweeping Bend.



Duct Foot Bend

- The Duct Foot Bend can accommodate standard 110 ducting and the cable can be threaded through this and the duct foot, into the socket and on through the post to where it is needed.
- The top plate of the bracket which supports the Duct Foot is attached to the Bottom Section of the socket using grade A2/304 stainless steel nuts, washers and screws, M8 x 16mm long with a hexagon head. The slots allow the direction of the Duct Foot to be moved to suit the required direction of the clamp in the top of the socket.
- The height of the unit is 250mm which will have to be considered when excavating.



Sweeping Bend

- The Sweeping Bend is often used when stiff Wire Armored Cable is required. Occasionally, when trying to thread stiff cable through a duct foot, the cable doesn't bend and can get stuck or be very awkward.
- The use of the Sweeping Bend will almost eliminate these issues and makes threading the cable much easier. However, there is a tradeoff to be considered – the depth of this unit is 450mm and will require a deeper hole to be excavated.
- This unit can be rotated and is attached to the Bottom Section in exactly the same way as the Duct Foot.
- The height of the unit is 450mm which will have to be considered when excavating.

Clamping

- The fixings used to tighten the sliding clamp plate onto the post are also grade A2/304 stainless steel. Depending on the size of the socket they are M8, M10 or M12.
- The two parts of the cover plate are attached using grade A2/304 stainless steel screws, M5 x 12mm long with a socket button head.
- The two parts of the cover plate are made using 304 grade stainless steel, but can be made using 316 grade stainless steel for very harsh conditions.



Testing

Torsion test

This test was designed to determine the gripping strength of the clamp on the post. The figure recorded is the weight measured just before the failure weight.

Post diameter "mm"	Maximum weight applied "kg"	Force "N" (kg x 9.81)	Radius "m" (length of lever arm)	Maximum Torque "Nm"
76				
89				
115	97.5	960	1.46	1400
140				

- Having tested several products on the market, the Atlas Socket recorded the highest figures. The 115mm diameter Atlas Socket recording a maximum torque figure of 1400 Nm represents the clamping capacity to prevent a post with a 3 aspect RAG head on a 600mm D bracket from turning in a 136 mph wind.

Impact Test

- The Atlas Socket had a post installed in it which was subjected to an impact from a heavy goods vehicle.
- The post was bent as can be seen in the picture, but was easily removed and replaced.
- The Socket was undamaged.



Please contact our technical team if you require a more detailed report of the testing or you would like to see videos and pictures of the tests, or if you have any other questions and would like to discuss any aspect of this data sheet.