Ritherdon Atlas Socket

Foundation Information

Foundations for Replacement after Impact

If the post is not susceptible to impact, the foundations for the Atlas socket will be the same as those specified by the manufacturer of the post. If the post is likely to be hit by a vehicle however, the foundations must meet the requirements specified in this document to ensure that neither the socket nor the foundation are damaged or displaced after an impact. This will allow the post to be removed and replaced easily without the need to excavate and replace the socket.

The tables below contain foundation diameters as a function of foundation depth, pole diameter, pole thickness and ground condition around the foundation. Calculations were performed according to CD 354 – Design of Minor Structures assuming an impact height of 500mm and a paving depth of 75mm.

Table 1 - Foundation data for typical mild steel poles

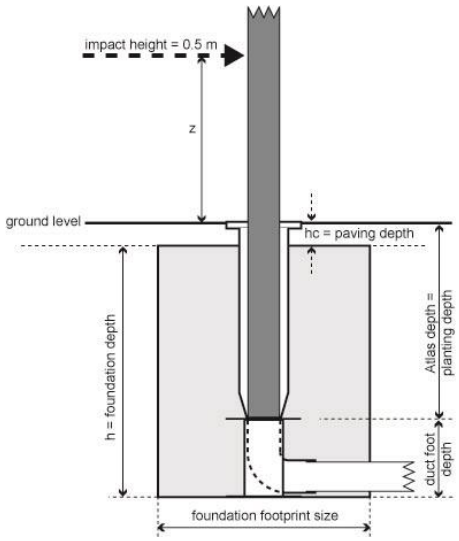
Steel Pole - Table of Foundation Diameters (mm)															
Foundation Depth (mm)		h = 600			h = 750			h = 900			h = 1050			h = 1200		
Ground condition		Poor	Average	Good	Poor	Average	Good	Poor	Average	Good	Poor	Average	Good	Poor	Average	Good
Pole diameter (mm)	Wall thickness (mm)															
76	3.2			950		850	550	950	550	350	650	400	250	450	300	200
89	3.2						800		800	500	950	550	350	700	400	250
115	3.2									850		950	600	1150	700	450
145	3.0												850		1000	600
168	3.2												1050		1200	750

Table 2 - Foundation data for typical aluminium poles

Aluminium Poles - Table of Foundation Diameters (mm)															
Foundation Depth (mm)		h = 600			h = 750			h = 900			h = 1050			h = 1200		
Ground condition		Poor	Average	Good	Poor	Average	Good	Poor	Average	Good	Poor	Average	Good	Poor	Average	Good
Pole diameter (mm)	Wall thickness (mm)															
76	3.5	1150	700	450	650	400	250	400	250	150	300	200	100	200	150	100
115	2.5		1150	750	1100	650	400	700	450	300	500	300	200	350	250	150
145	3.0						800		800	500	950	550	350	700	400	250
165	3.3						1150		1150	750		800	500	1000	600	350
200	3.3									1050		1200	750		850	550

Ground condition

Poor - Soft clay, clay loam, poorly compacted sand, clays containing a large amount of silt and vegetable matter, and made-up ground.
Average - Compact fine sand, medium clay, compact well drained sandy loam, loose coarse sand and gravels.
Good - Compact, well-graded sand and gravel, hard clay, well-graded fine and coarse sand, decomposed granite rock and soil.



Concrete

The concrete must be ST5/C25 grade or stronger.

Please contact our technical team to discuss your requirements for special conditions.