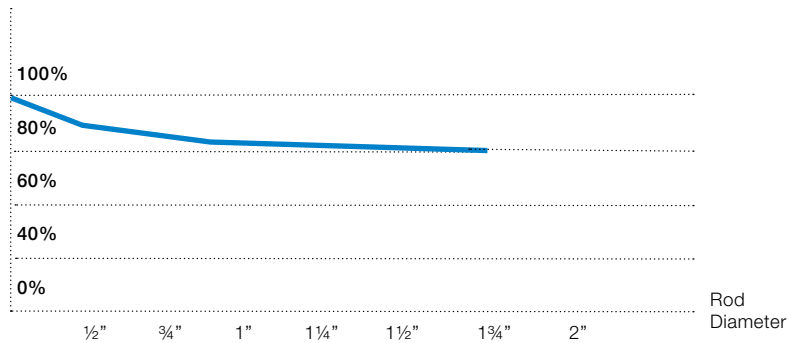


**Diameter of rod**

One common misconception is that the diameter of the rod has a drastic effect on lowering earth resistance. This is not true! As the graph shows, you only lower the resistance value by 9.5% by doubling the diameter of the rod (which means increasing the weight and the cost of the rod by approximately 400%).

**Thus the rationale is:** Use the most economical rod that soil conditions will allow you to drive. This is one of the ways to ensure that you don't waste money on over-dimensioned rods.

Effect of electrode diameter on resistance

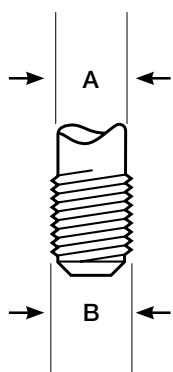


**Thread and shank diameters**

Confusion often arises between thread and shank diameters for threaded rods.

The thread rolling process, used by quality rod manufacturers, raises the surface of the rod so that thread diameter (B) is greater than shank diameter (A) (see drawing).

All threads are Unified National Coarse (UNC-2A).



Earth electrodes  
Earth rods



Threaded copperbond earth rod

Part no.	Nominal diameter (")	Length (mm)	Thread 'B' UNC (")	Shank 'A' (mm)	Weight each (kg)
RB105	0½	1,200	¼	12.7	1.18
RB110	0½	1,500	¼	12.7	1.55
RB115	0½	1,800	¼	12.7	1.76
RB125	0½	2,400	¼	12.7	2.36
RB205-FU	0¾	1,200	⅜	14.2	1.53
RB210	0¾	1,500	⅜	14.2	1.88
RB215	0¾	1,800	⅜	14.2	2.29
RB220-FU	0¾	2,100	⅜	14.2	2.51
RB225	0¾	2,400	⅜	14.2	3.00
RB235	0¾	3,000	⅜	14.2	3.79
RB305	0¾	1,200	¾	17.2	2.19
RB310	0¾	1,500	¾	17.2	2.73
RB315	0¾	1,800	¾	17.2	3.27
RB320-FU	0¾	2,100	¾	17.2	3.83
RB325	0¾	2,400	¾	17.2	4.35
RB335	0¾	3,000	¾	17.2	5.44

– High tensile low carbon steel core with minimum 250 microns of copper

Fittings

Part no.	Type (")	Weight (kg)
CG170	½ Coupling	0.09
CG270	¾ Coupling	0.08
CG370	¾ Coupling	0.13
ST100	½ Driving stud	0.05
ST200	¾ Driving stud	0.08
ST300	¾ Driving stud	0.12

Standards

IEC/BS EN 62561-2  
BS 7430

UL467 (RB125, RB225,  
RB235, RB325, RB335,  
CG270, CG370)

