

# 7 Portable Earthing - Equipment and materials

Portable earthing equipment is detailed and specified in Portable Earthing Technical Specification.

## 7.1 Earthing End Clamp

Earth End Clamp is designed to make positive line contact with the spherical stub no matter what the angle of application and it should be applied by means of the operating socket attached to the appropriate insulated operating pole.

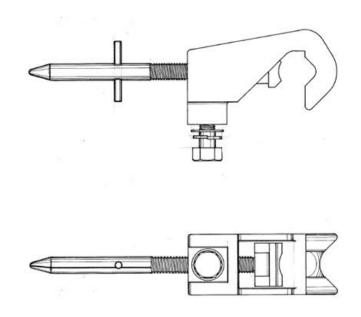


Figure 8: Standard earth end clamp suitable for ball type earthing stubs.



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#### 7.2 Portable Earth Leads

Earth Leads shall be only cables from approved manufacturers and terminations with approved compression end and support springs in accordance Portable Earthing Standards. are supplied for earthing leads for connecting between the Line End Clamps and the Earth End Clamps.

Flexible leads shall comply with BS 2627, type H68. This is a 150mm<sup>2</sup>, aluminium conductor consisting of 925/0.45mm wires laid up as a 37 strand rope, each of 25 wires in 3 layers.

The wires shall be sheathed with clear PVC of thickness 1.25mm minimum or other approved material. The lead shall be terminated at each end by a compression termination in accordance with the mentioned standards. A stainless steel spring shall also be provided at each termination to provide stress relief. The preferred fixing of the lead to the clamp will be via an M12 bolt, washer and spring washer. This allows for the replacement of damaged parts. Length of the portable leads shall be at last 3 meters.

The flexible conductor for earth leads shall be of light weight and manufactured from fine stranded aluminium sheathed with clear PVC or other approved material.

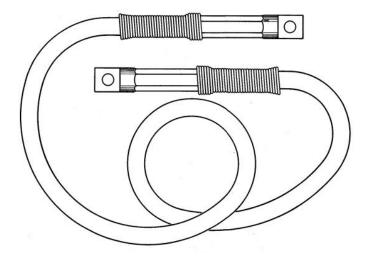


Figure 9: Earth lead



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### 7.3 Earthing End Clamp to Earthing Bar

The spring loaded feature of all types makes them suitable for application by hand to copper earth bars. The Earthing End Clamp shall be suitable for attachment to copper earthing bar (tape) consisting of flat strip ranging in width from 38mm to 50mm and thickness 3mm to 6.5mm.

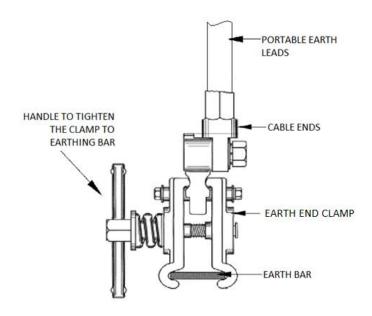


Figure 10: Earth end clamp for application to earthing bar.

## 7.4 Operating Poles

Made in strong glass fibre material or approved light material in accordance with C.E.G.B. Specification 43921. Supplied as single 2.4m (8ft) section complete with operating socket. The rods and operating socket shall be suitable for coupling together using the quick action joint.



Figure 11: Operating Pole.



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