

CAUTION : Read instructions thoroughly and completely prior to beginning installation.

Installation instructions for separable tee connector - type C interface

EUROMOLD®



(K),(M)480TB/G

Up to 36 kV





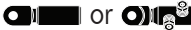










Only to be used on copper tape screened cable with extruded semi-conductive screen and conductors of copper or aluminium.



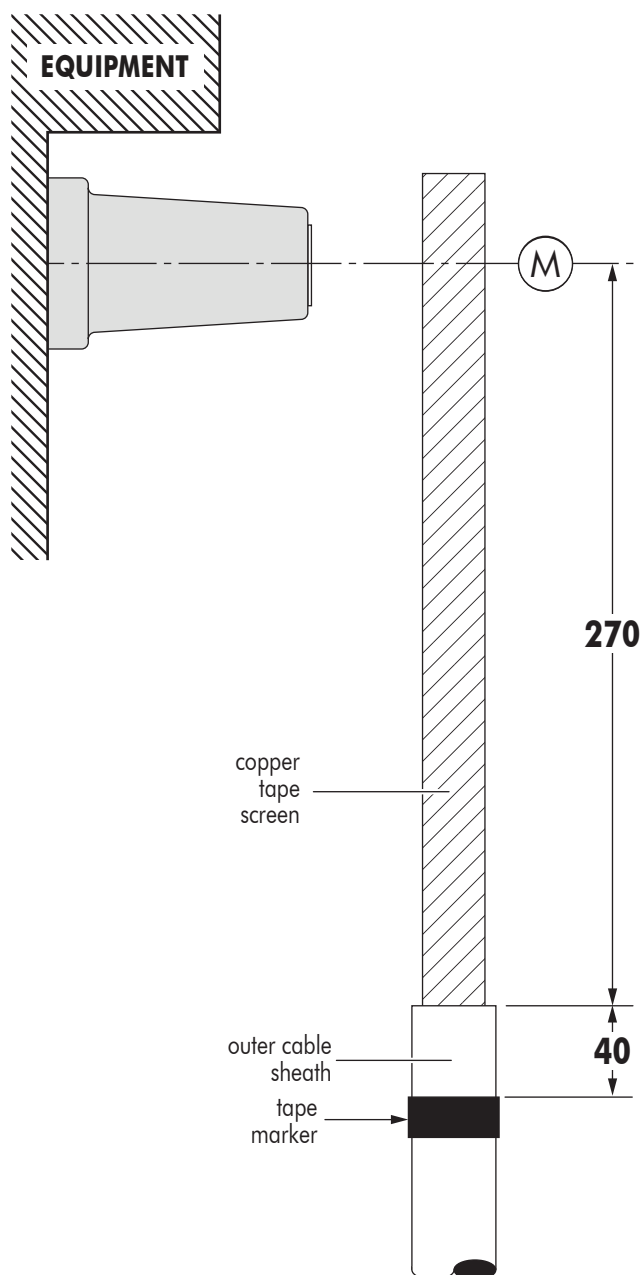
Check if the diameter over cable core insulation is in accordance with the cable reducer range as indicated in table below:

Cable reducer size (see label on cable reducer)	Dia. over core insulation (mm)	
	min	max
CA0-11	12.0	19.0
CA0-15	16.0	26.5
CA0-18	19.0	32.6
CA0-21	22.0	34.6
CA0-27	28.5	37.5

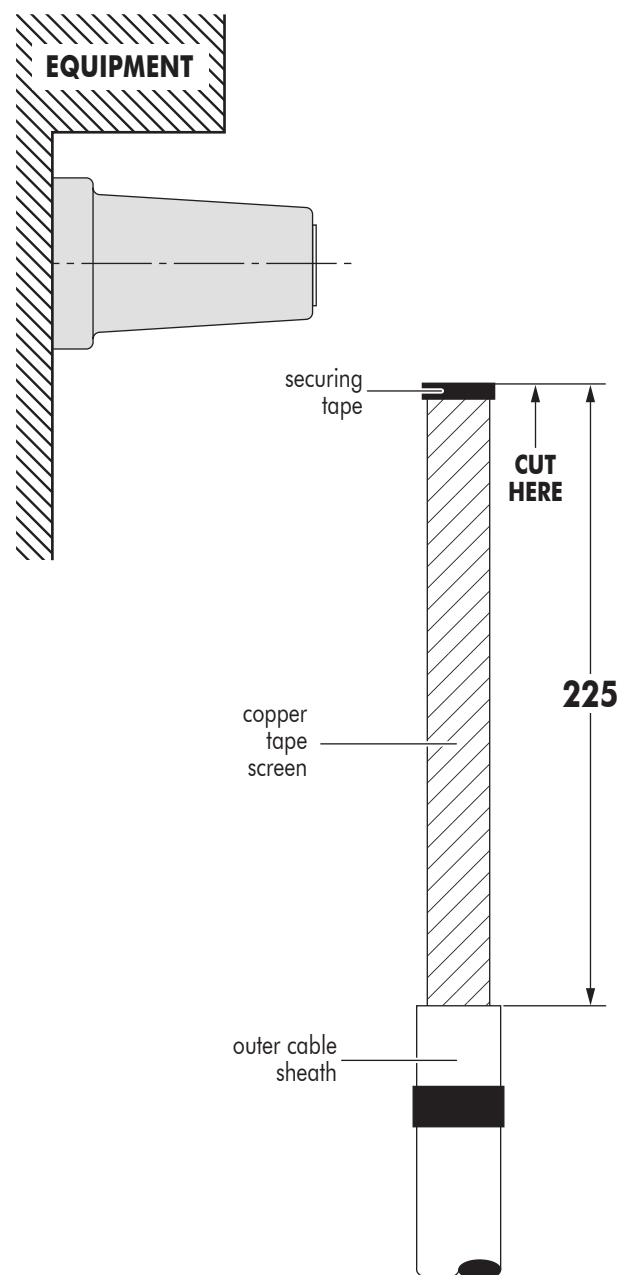
Required components for the connector installation :

 3 x Tee connector housing - 480BT	 3 x Cable reducer CA0-W	 3 x Clamping screw - 430TCS	 1 x Installation rod <small>(for conductor sizes 185 up to 300 mm²)</small>	 or  3 x Conductor contact - TBC-X or TMBC-X
 Water sealing mastic, type MWS	 or  3 x Basic insulating plug + cap - 800BIPR 3 x Basic insulating plug + cap - 800BIPA		 Silicone grease + wipers	 1 x Nylon vent rod
 Roll adhesive tape	 Earthing kit <small>(cleating wire, earthing braid & roll spring)</small>	 Gloves	 Installation instructions	

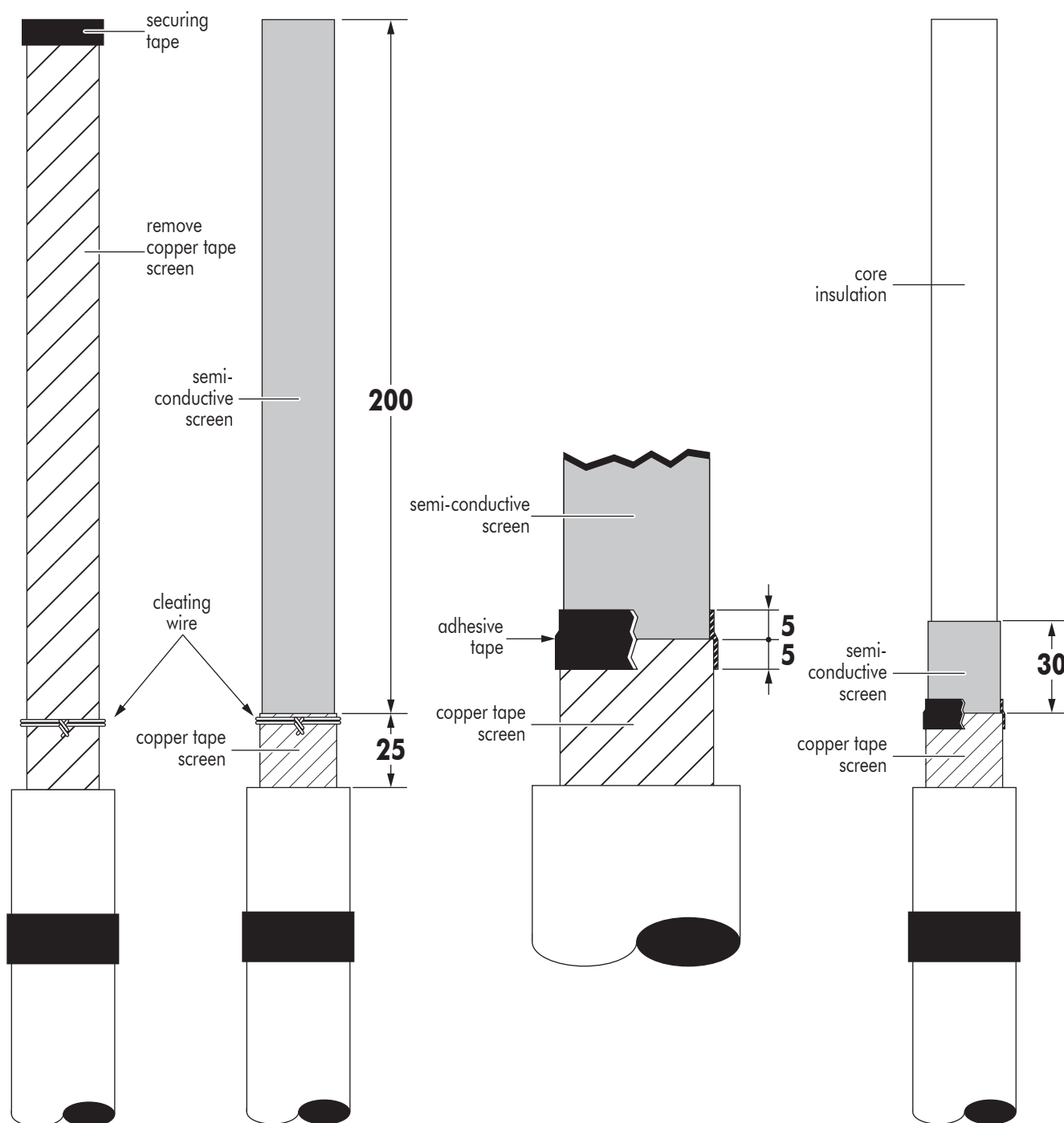
CABLE PREPARATION



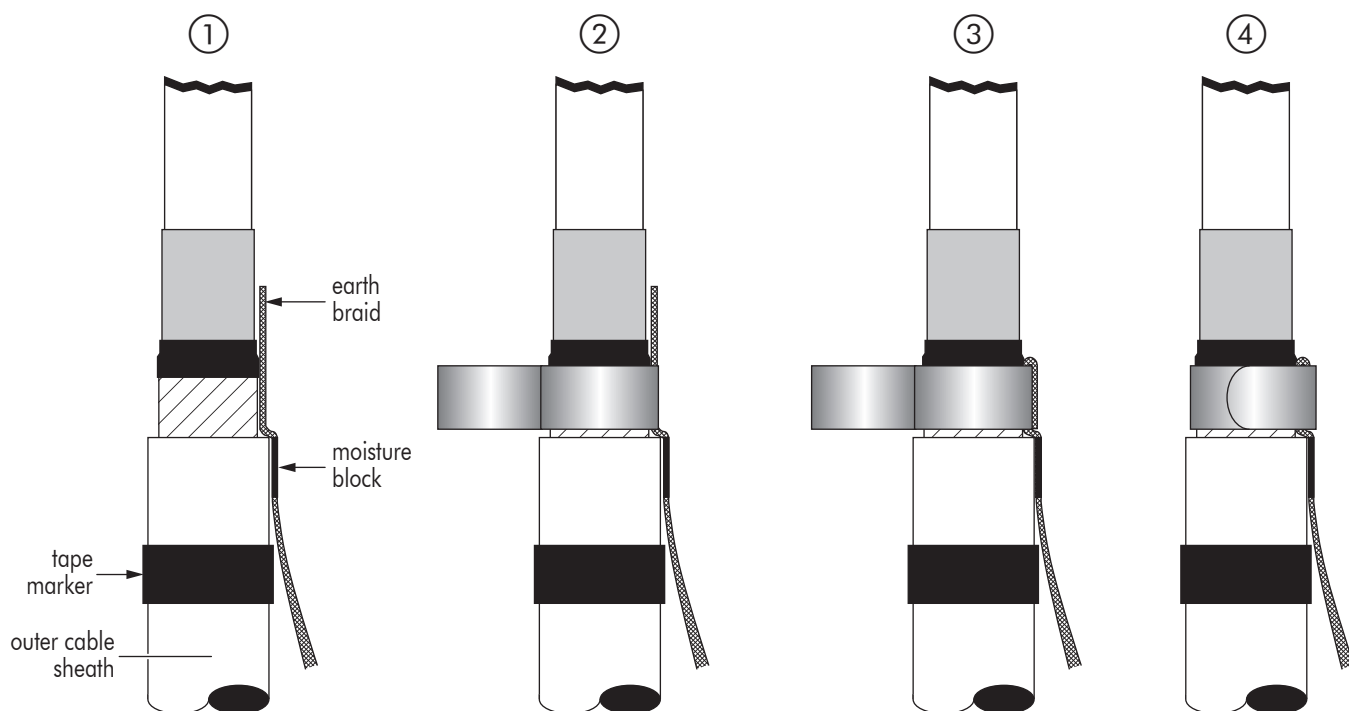
- 1 Train the cable into the approximate finished position next to the equipment bushing.
- 2 Remove the outer cable sheath to a point **270** mm from the centre line « **M** » of the bushing. Secure the copper tape screen with a wrap of adhesive tape.
- 3 Apply a tape marker on the outer cable sheath **40** mm from the cut back edge.



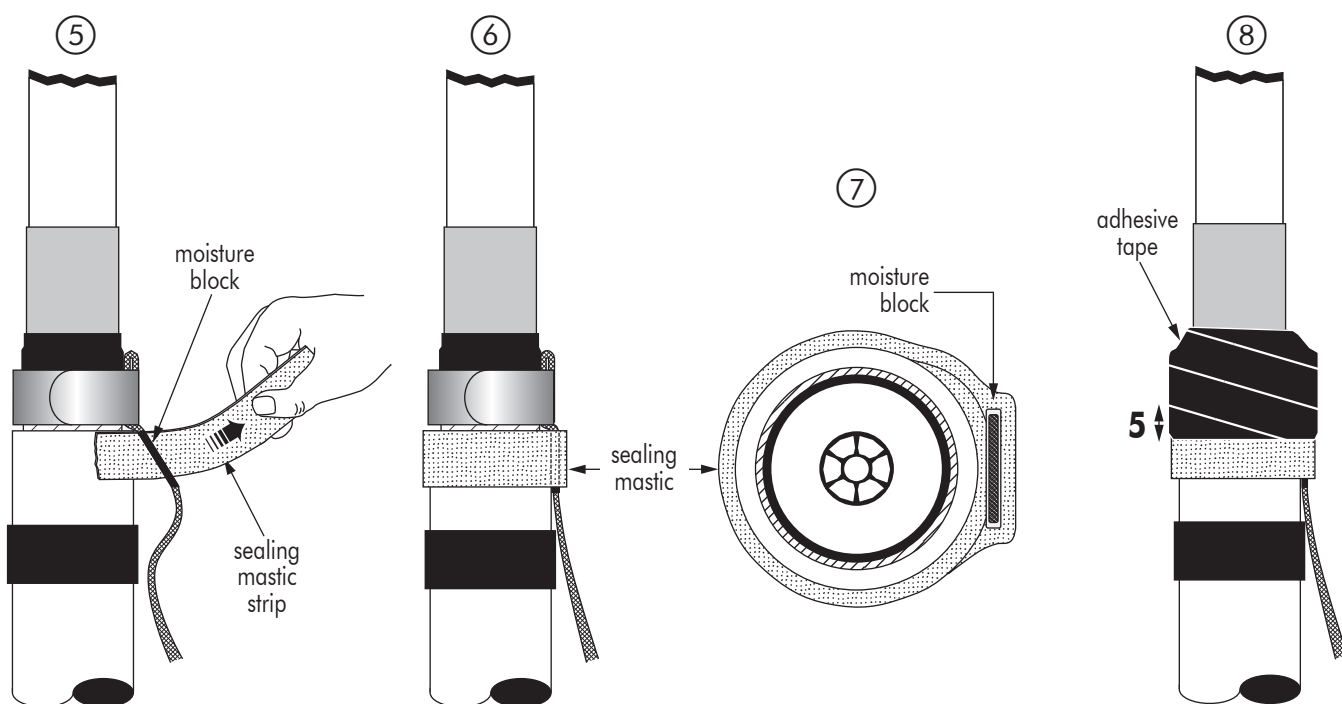
- 4 Square cut the cable, to a point **225** mm from the outer cable sheath and secure the copper tape screen end with a wrap of adhesive tape.



- 5** Tightly cleat the copper tape screen at **200** mm from the cable end, using the tinned copper wire.
- 6** Remove the securing adhesive tape from the copper tape screen ends.
- 7** Remove the copper tape screen up to a point **200** mm from the cable end.
- 8** Remove the cleating wire and secure the copper tape screen with one layer of adhesive tape.
- 9** With an appropriate stripping tool, remove the extruded semi-conductive screen to a point **30** mm from the copper tape screen end. Cut squarely taking care not to cut or damage the underlying core insulation.



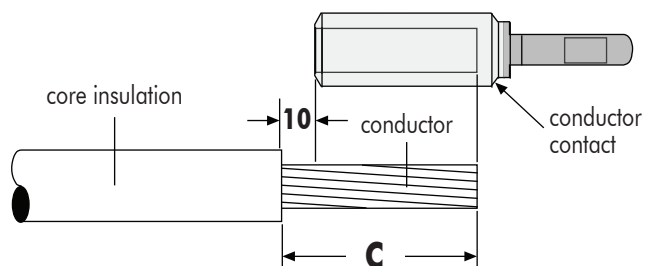
- 10** Position the earth braid with its moisture block flush with the edge of the outer cable sheath (①).
Apply one turn of the roll spring around the copper tape screen and earth braid (②).
- 11** Bend down the earth braid over the roll spring (③) and apply complete length of the roll spring (④).



- 12** Using the sealing mastic, apply one layer on the outer cable sheath, underneath the moisture block (⑤), and while pushing the moisture block into the mastic, continue wrapping the complete length of the mastic strip around the outer cable sheath and moisture block (⑥ and ⑦).
The 2 remaining pieces of sealing mastic will be used for the other phases.
- 13** Cover the roll spring with adhesive tape overlapping by **5** mm on the sealing mastic.
Make a cone shape as shown on fig. (⑧).

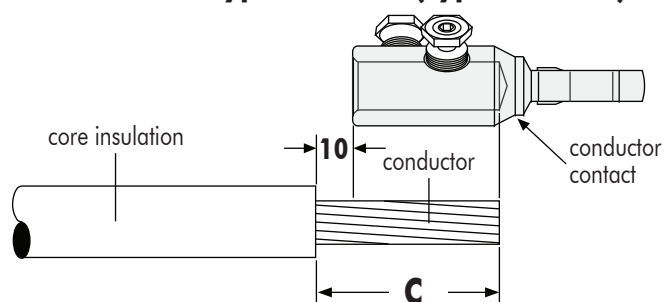
REMOVAL OF THE CORE INSULATION

A. Compression type contacts (Type TBC-X)

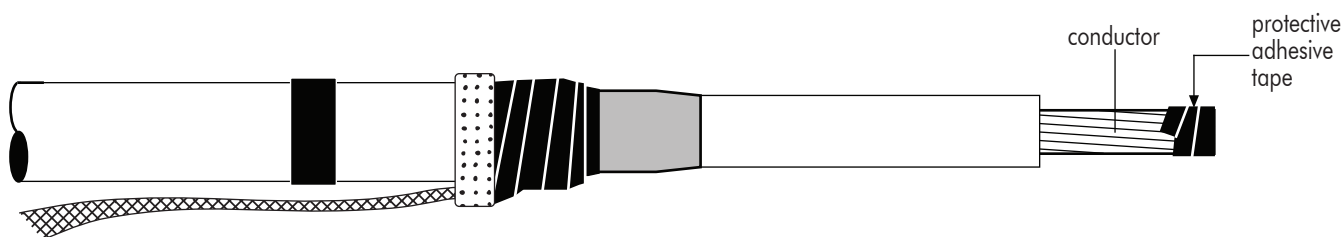


- 1 A. Remove the core insulation from the conductor for a distance « C » mm (C = depth of contact bore + 10 mm).

B. Mechanical type contacts (Type TMBC-X)



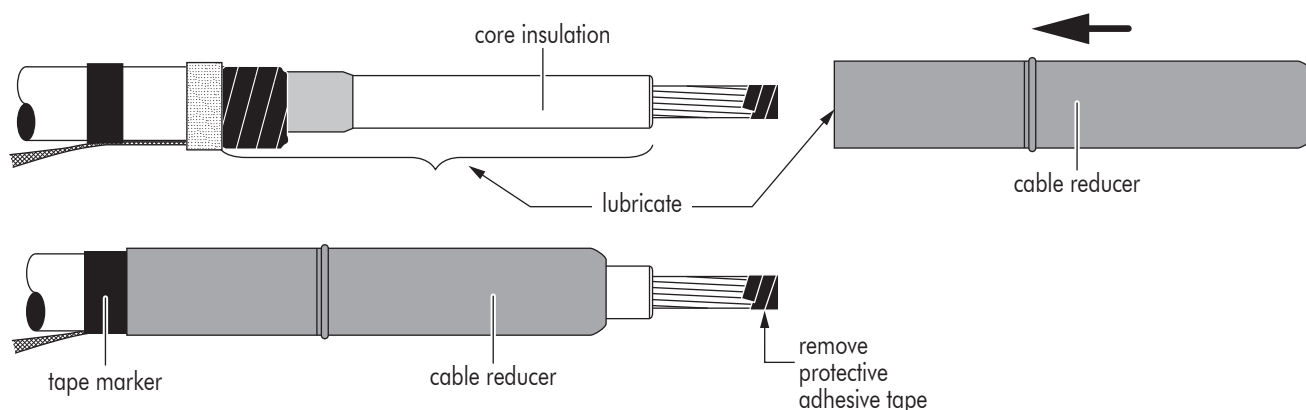
- 1 B. Remove the core insulation from the conductor for a distance « C » mm (C = depth of contact bore + 10 mm).



- 2 As a protection, wrap a few turns of adhesive tape around the conductor end.

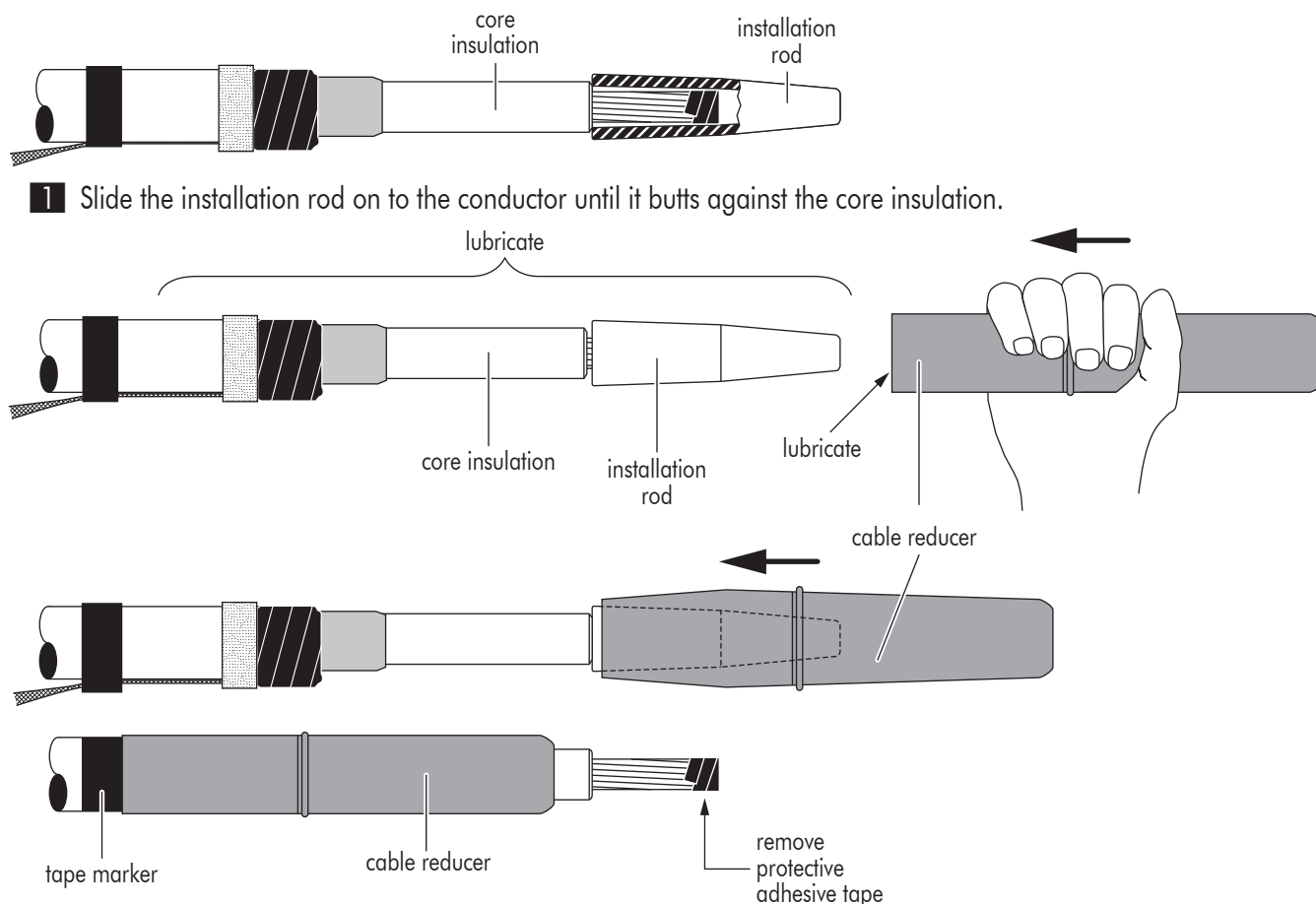
INSTALLATION OF THE CABLE REDUCER

For conductor sizes 16 up to 150 mm²



- 1** Lubricate* the indicated area: core insulation, semi-conductive screen, water sealing mastic and inner surface of the reducer.
- 2** Slide the reducer down the cable until flush with the tape marker.
- 3** Remove the protective adhesive tape from the conductor.

For conductor sizes 185 mm² up to 300 mm²

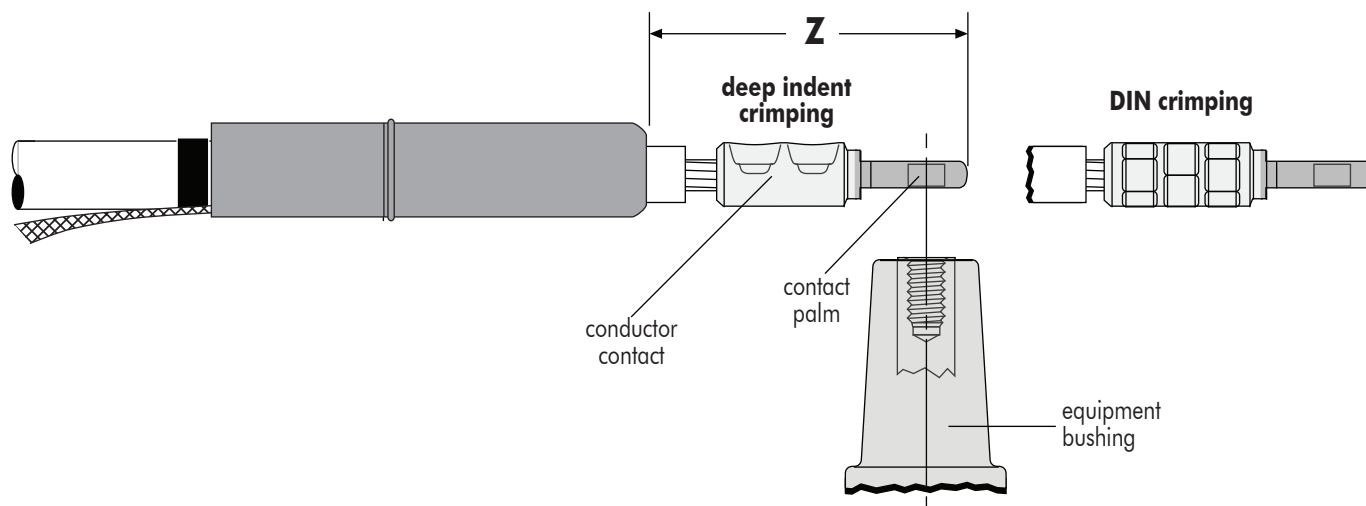


- 1** Slide the installation rod on to the conductor until it butts against the core insulation.
- 2** Thoroughly clean installation rod and core insulation. Always wipe towards the screen wires.
- 3** Lubricate* the indicated area: installation rod, core insulation, semi-conductive screen, water sealing mastic and inner surface of the reducer.
- 4** Slide the reducer on to the installation rod.
- 5** Slide the reducer down the cable until flush with the tape marker. Take care to slide the reducer without hesitation and in one smooth move.
- 6** Remove installation rod and protective adhesive tape from the conductor.

* USE ONLY THE SILICONE LUBRICANT SUPPLIED

A

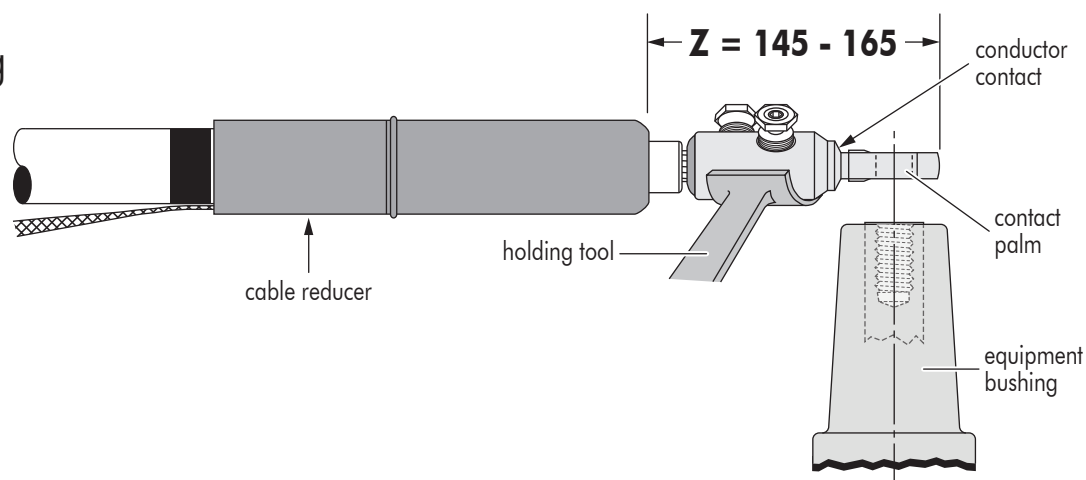
Compression type contacts (Type TBC-X)



- 1 For aluminium conductors : before installing the conductor contact, wire brush the conductor.
- 2 Fit the contact on to the conductor.
- 3 Position the crimp contact taking care that the contact hole aligns with the bushing hole.
- 4 Prior to crimping distance «**Z**» must be between **145** and **160** mm.
- 5 Crimp the contact. Please refer to the crimp chart for crimp sequence.
- 6 After crimping distance «**Z**» must be between **145** and **165** mm.
If necessary, adjust the position of the cable reducer until distance «**Z**» is within the tolerance range.
- 7 **Remove any burrs left after crimping and wipe-off excess inhibitor.**

B**Mechanical type contacts (Type TMBC-X)**

Before tightening



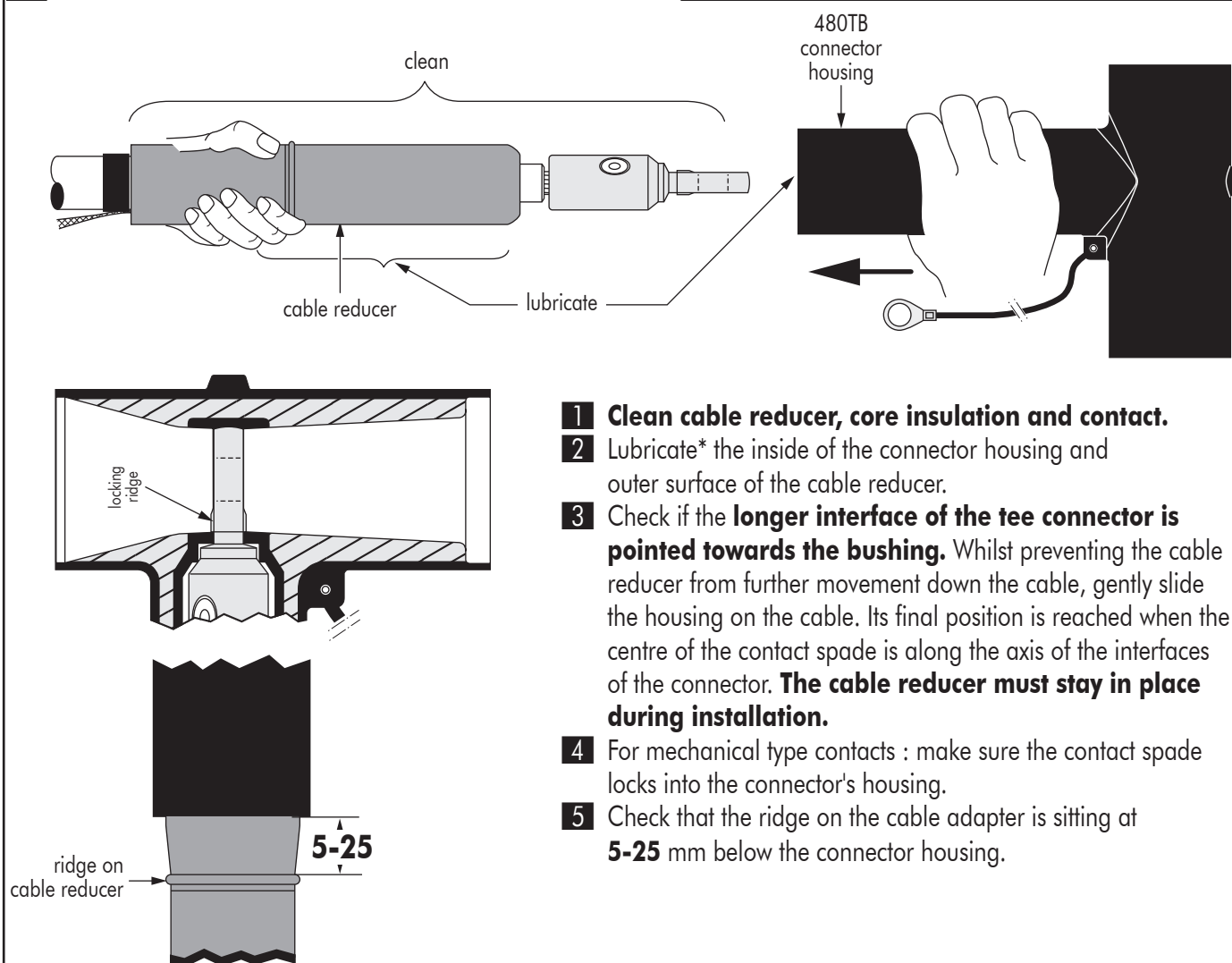
- 1 For aluminium conductors : before installing the conductor contact, wire brush the conductor.
- 2 Insert, if necessary, the centre ring into the contact barrel according to the table in the contact installation instruction.
- 3 Position the contact taking care that the contact hole aligns with the bushing hole.
- 4 Before tightening, distance « **Z** » must be between **145** and **165** mm.
- 5 Tighten the contact. Please refer to the installation instruction included with the contact.

After tightening



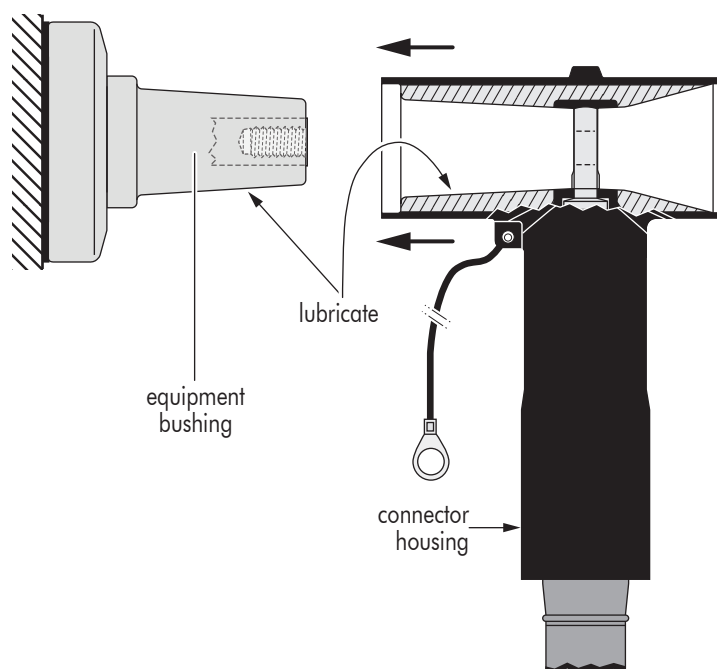
- 6 After tightening, distance « **Z** » must be between **145** and **165** mm.
If necessary, adjust the position of the cable reducer until distance « **Z** » is within the tolerance range.

CONNECTOR INSTALLATION ON CABLE

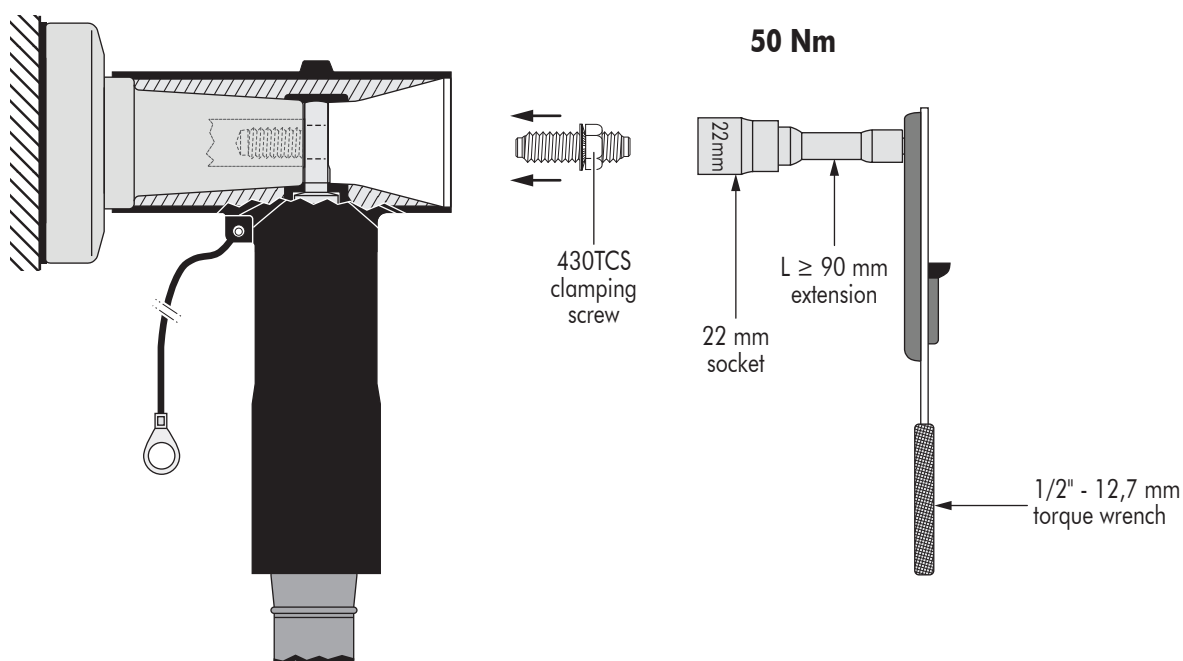


- 1 **Clean cable reducer, core insulation and contact.**
- 2 Lubricate* the inside of the connector housing and outer surface of the cable reducer.
- 3 Check if the **longer interface of the tee connector is pointed towards the bushing**. Whilst preventing the cable reducer from further movement down the cable, gently slide the housing on the cable. Its final position is reached when the centre of the contact spade is along the axis of the interfaces of the connector. **The cable reducer must stay in place during installation.**
- 4 For mechanical type contacts : make sure the contact spade locks into the connector's housing.
- 5 Check that the ridge on the cable adapter is sitting at **5-25** mm below the connector housing.

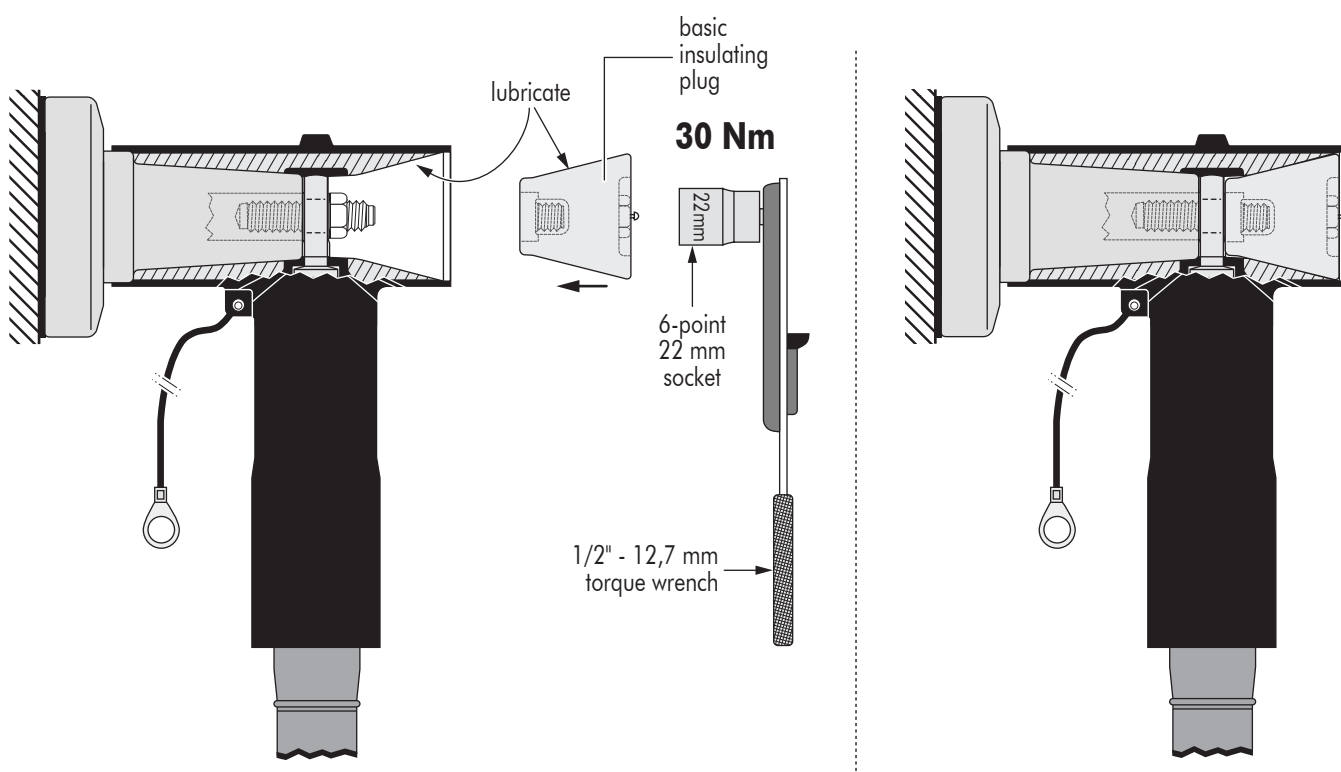
INSTALLATION OF THE 480TB CONNECTOR ON THE BUSHING



- 1 Clean and lightly lubricate* both connector and bushing interface.
- 2 Push the connector on to the bushing.



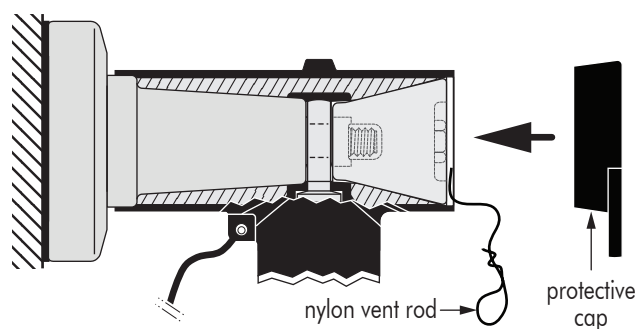
- 3 Insert the clamping screw into the threaded hole of the bushing **by hand**.
- 4 Use torque wrench with a socket wrench 22 and tighten exerting **50 Nm** (5 kgm or 36,9 foot-pounds) of torque.
In order to achieve the correct applied torque ensure that there is no lubricant on the threaded parts.



- 5 Clean and lubricate* the insulating plug for the opposite side of the connector.
- 6 Insert the plug in the connector and tighten assembly : use torque wrench with a 6-point socket of 22 mm and tighten exerting **30 Nm** (3 kgm or 22,1 foot-pounds) of torque.
In order to achieve the correct applied torque ensure that there is no lubricant on the threaded parts.

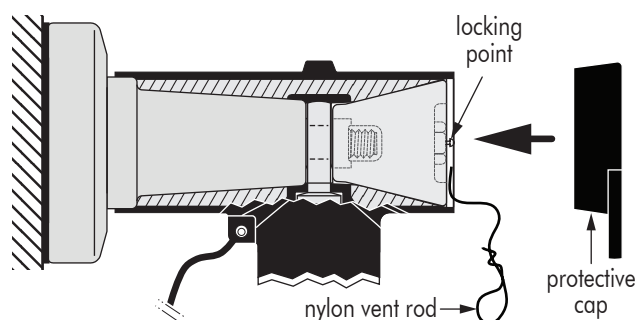
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INSTALLATION OF THE CAP



Installation on insulating plug BIPR without voltage detection point:

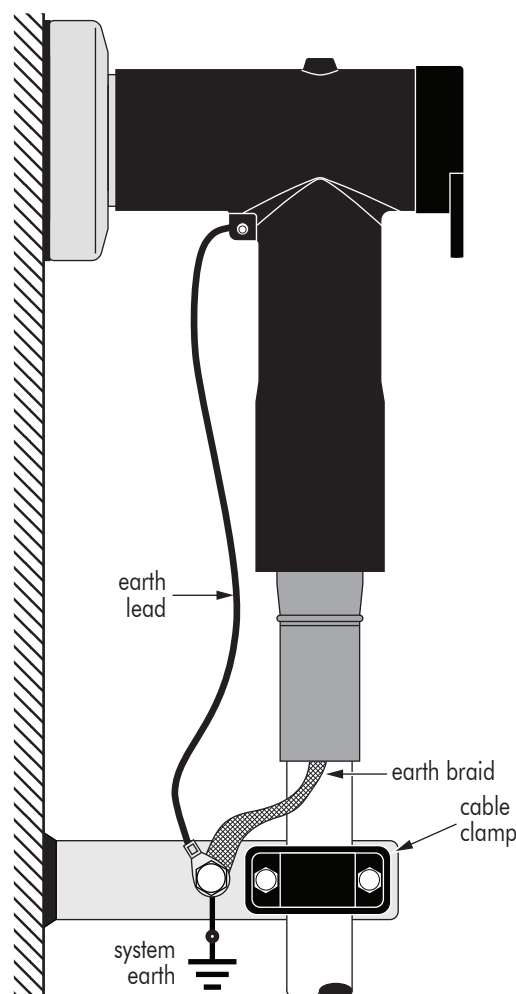
- Clean the inside of the cap and the outside surface of the connector and insulating plug.
- Place the nylon vent rod along the insulating plug (see fig.) to exhaust the air during assembly of the cap.
- Push the cap **firmly** over the connector and onto the insulating plug.
- Press the cap on all sides to make sure it is well positioned over the connector. Position the cap with the pulling tab pointing downwards.
- Remove the nylon vent rod.



Installation on insulating plug BIPA with voltage detection point:

- Clean the inside of the cap and the outside surface of the connector and insulating plug.
- Place the nylon vent rod along the insulating plug (see fig.) to exhaust the air during assembly of the cap.
- Push the cap **firmly** over the connector and onto the insulating plug.
- **Press the centre of the cap onto the locking point until it snaps into place.** Press the cap on all sides to make sure it is well positioned over the connector. Position the cap with the pulling tab pointing downwards.
- Remove the nylon vent rod.

CONNECTOR EARTHING AND CABLE CLAMPING



Connect the earth lead and earth braid to the system earth.

NOTE :

A connector/bushing mated combination should not be allowed to carry the full weight of the cable. Therefore clamp the cable as close as possible to the connector.

IMPORTANT NOTES :

- **Never disconnect the connector from energised equipment nor energise a disconnected connector without previously installing on its appropriate corresponding mating part.**
- **Do not allow hydrocarbon oils or solvents to contaminate the E.P.D.M. rubber. In the event of contamination, wipe the surface clean with a dry cloth.**