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

Installation instructions for separable tee connector - type C interface

EUROMOLD®

(K),(M),(P)480TB/G

Up to 20.8/36 (42) kV

Only to be used on cable with copper wire screen AND aluminium foil screen bonded to the outer sheath (type WISKI).

WARNING : CHANGED INSTALLATION

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

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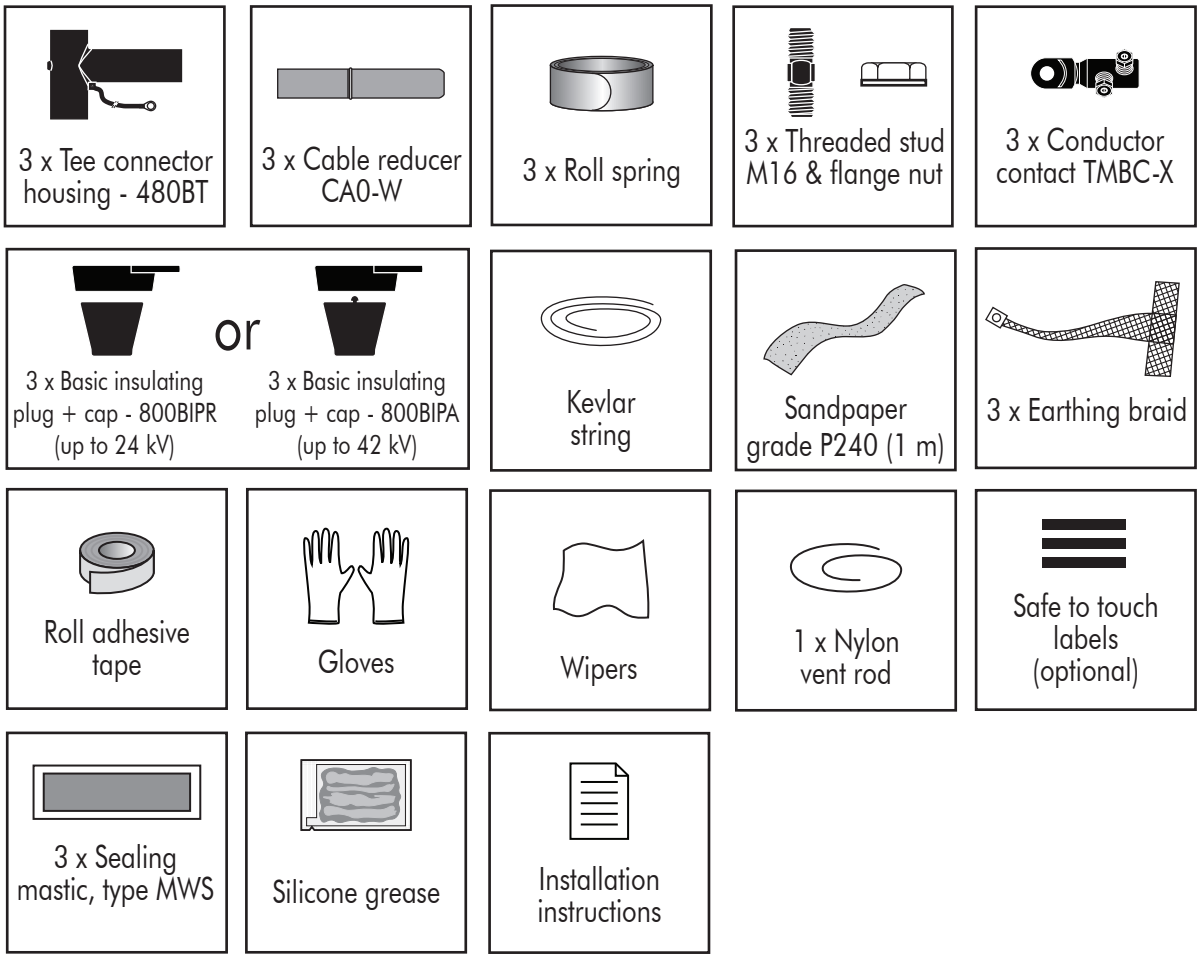
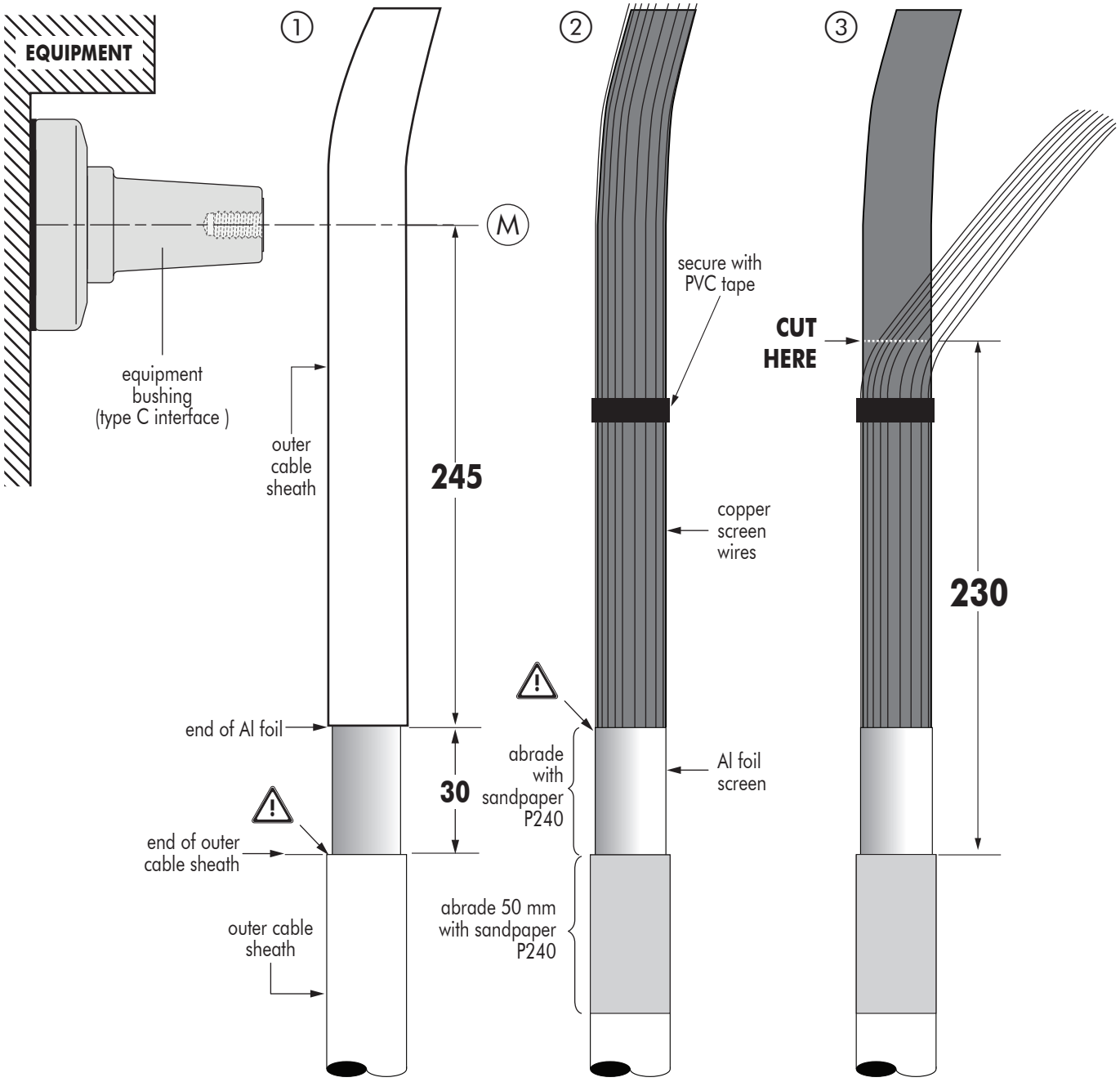
This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training or experience in such safety practices. These instructions do not attempt to provide for every possible contingency. Failure to follow these instructions could result in damage to the product and serious or fatal injury. IMPORTANT : Cable and associated apparatus must be de-energised, locked out, and tagged prior to product installation.

Required components for the connector installation :



NB : Only one phase is shown in these instructions. Make off all three phases the same way. Use a cable conversion kit for 3-core cables.

CABLE PREPARATION



1. Train the cable into the approximate finished position next to the equipment bushing.
2. Mark centre line **« M »** of the bushing.
3. Mark the end of the Al foil, at a distance of **245** mm from centre line "**M**".
4. Mark the end of the outer cable sheath (**30** mm from the end of the Al foil), remove only the outer sheath between end of the outer sheath and end of the Al foil.

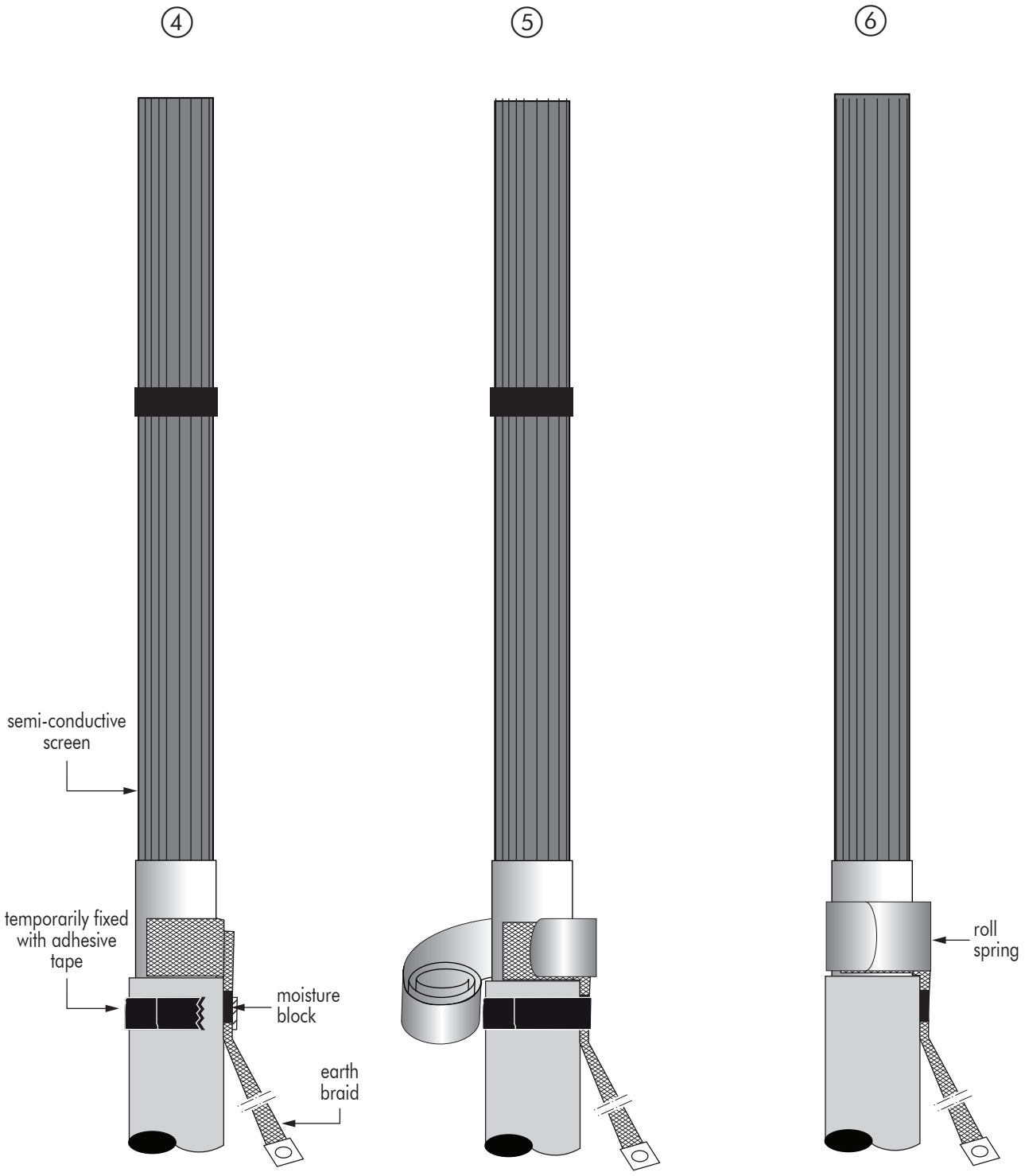
⚠ **Don't damage the Al foil.**

5. Clean and abrade the Al foil using appropriate tool/emery cloth.
6. Sand the outer sheath over a distance of **50** mm.
7. Mark the end of Al foil with a cutter as predetermined breaking point.
8. Remove the rest of the outer cable sheath with Al foil together.

⚠ **Don't damage the copper wire screen.**

9. Temporary secure the screen wires with the PVC tape.
10. Cut the cable to a point **230** mm from the outer sheath.

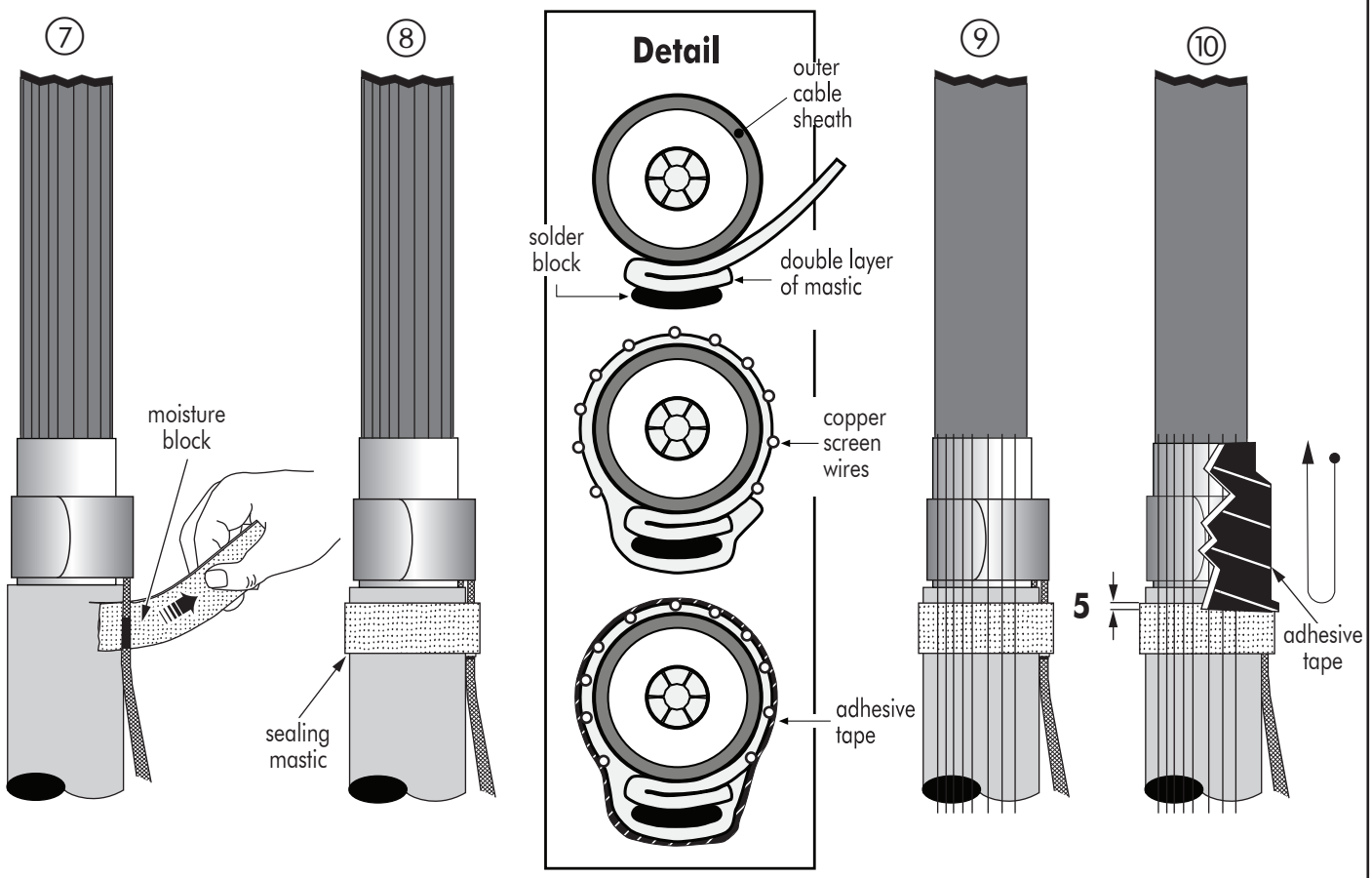
Caution: in the case of conductive coated outer cable sheaths, the conductive coating must be removed during the installation of accessories in order to be able to carry out e.g. cable sheath testing. For this purpose, the conductive coating of the outer cable sheath must be removed with a suitable stripping tool for a length of approx. 400 mm below the end of the cable sheath.



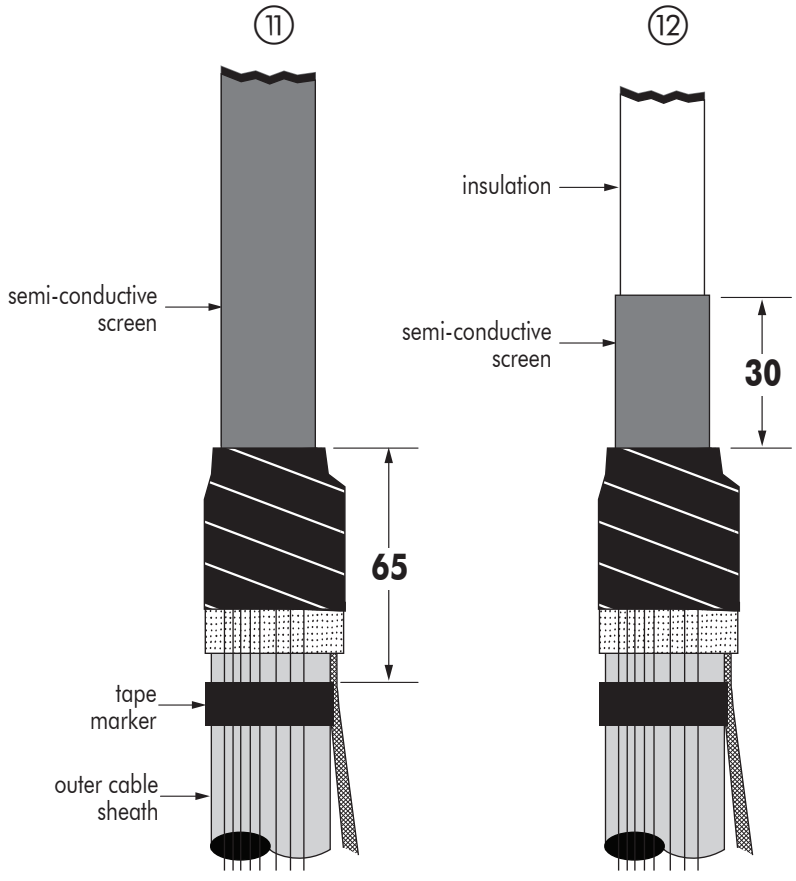
10 Position the T-piece of the earth braid around the aluminium foil screen, flush with the outer cable sheath. Fix temporarily with adhesive tape (④).

11 Apply the roll spring around the earth braid (⑤).

12 Remove the temporarily fixed adhesive tapes (⑥).

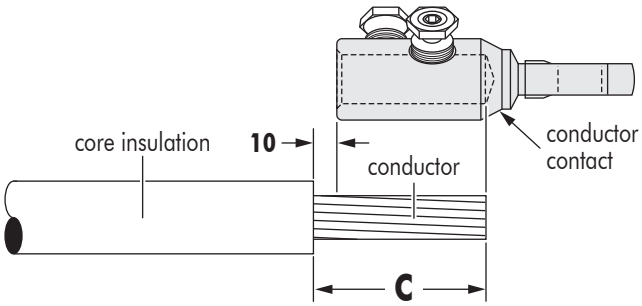


13 Apply two layers of watersealing mastic under the solder block (see detail).
14 Continue the water sealing mastic, slightly stretched around the cable and over the solder block (see detail) (⑧).
15 Bend all the copper screen wires down, pressing them equally spaced into the mastic. Avoid overlapping the T-braid (see detail) (⑨).
16 In order to avoid sharp edges apply 2 layers of adhesive tape. Start on the edge of the aluminium foil and continue towards the roll spring up to a point **5** mm on the mastic layer (⑩).



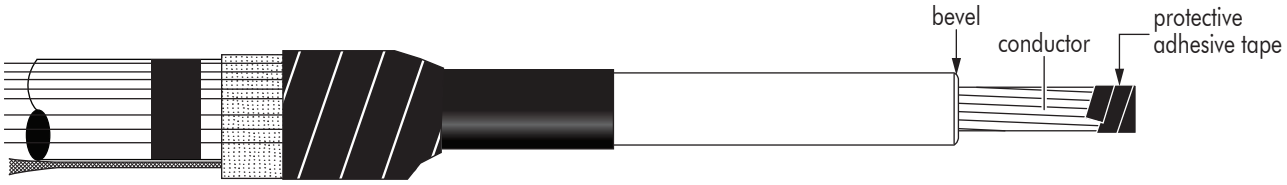
17 Apply a tape marker around the outer sheath **65** mm from the edge of the end of the aluminium foil.
18 With an appropriate tool, remove the semi-conductive screen to a point **30** mm from the aluminium foil.

REMOVAL OF THE CORE INSULATION



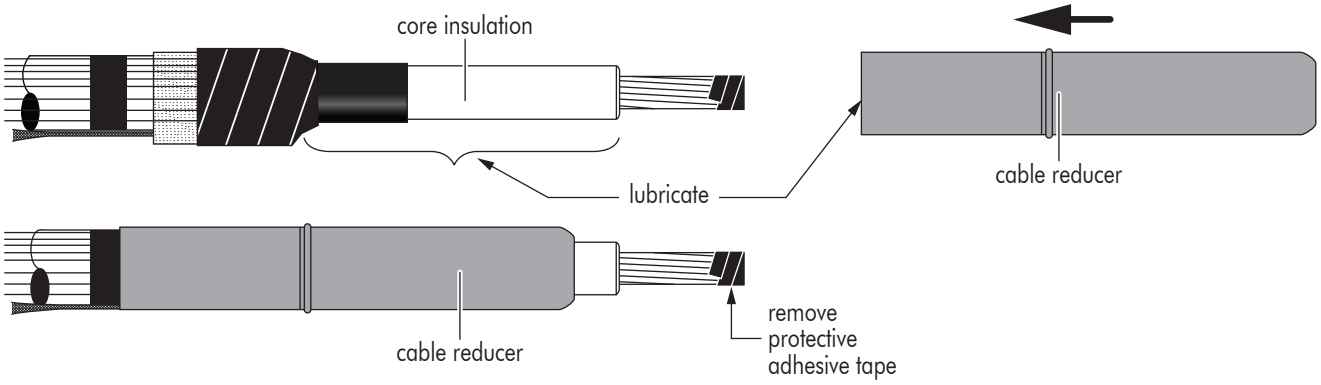
Type	Distance C
TMBC-16.95-X	50
TMBC-50.150-X	50
TMBC-95.240-X	66
TMBC-120.300-X	78

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



2 Slightly bevel the edge of the core insulation (max 2 mm). **Do not sharpen in cone-shape.**
3 **Thoroughly clean core insulation.** Always wipe towards the screen wires.
4 As a protection, wrap a few turns of adhesive tape around the conductor end.

INSTALLATION OF THE CABLE REDUCER



1 Lubricate* the indicated area: core insulation, semi-conductive screen 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.

* USE ONLY THE SILICONE LUBRICANT SUPPLIED

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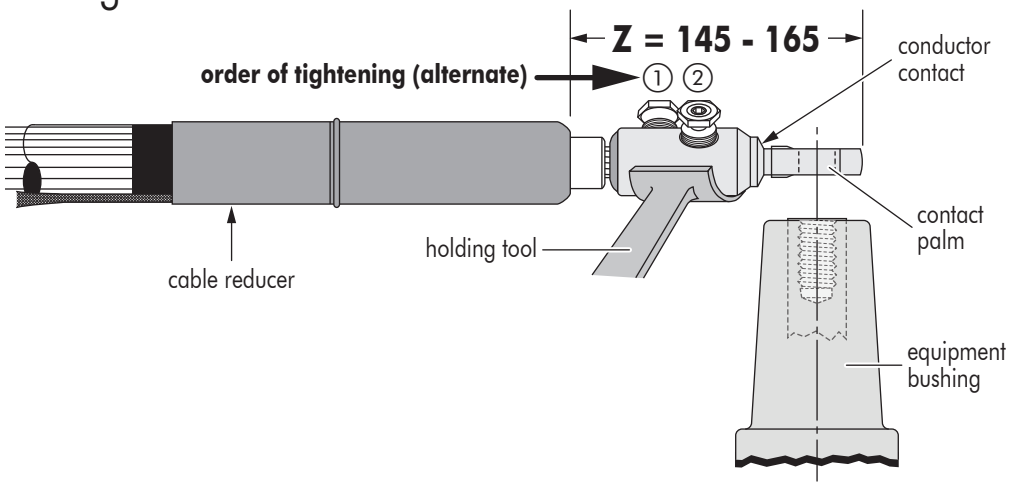
Before tightening



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 table 2.
3. Position the contact so that the contact hole aligns with the bushing hole.
4. Before tightening, distance **« Z »** must be between **145** and **165** mm.
5. Tighten the screws **slowly and alternately**, with the tool according to table 3, until the heads shear off. Shear off screw ① first, then screw ②. It is recommended to use the holding tool for ease of installation.
6. Remove any sharp points of the screws, protruding above the contact barrel.

Table 2: allocation of centre rings

Type	Centre ring	Al mm²	Cu mm²
TMBC-16.95-X	grey	16-50	16-50
	yellow	70-95	70-95
TMBC-50.150-X	grey	50	35-50
	yellow	70-95	70-95
	•	120-150	120-150
TMBC-95.240-X	red	95	95
	brown	120-150	120-150
	•	185-240	185-240
TMBC-120.300-X	blue	120-150	120-150
	•	185-300	185-300

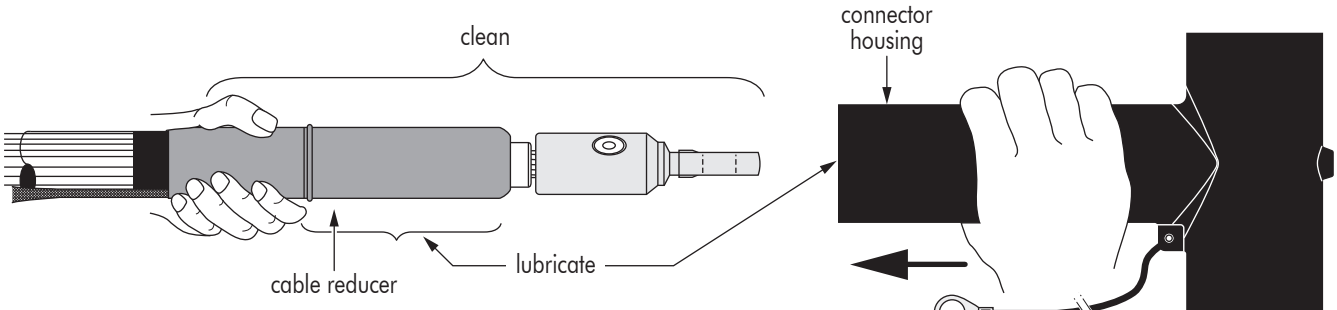
Table 3: tools to be applied

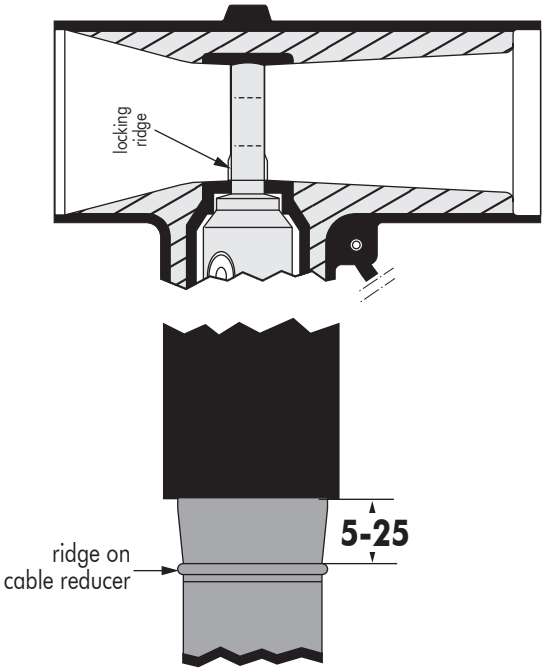
Type	Tool sw	Al mm²	Cu mm²
TMBC-16.95-X	10	16-50	16-50
	6 L > 15 mm	70-95	70-95
TMBC-50.150-X	10	50-120	35-95
	6 L > 15 mm	150	120
TMBC-95.240-X	13	95-185	95-150
	6 L > 19 mm	240	185-240
TMBC-120.300-X	19	120-240	120-240
	6 L > 19 mm	300	300

After tightening

7. 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.

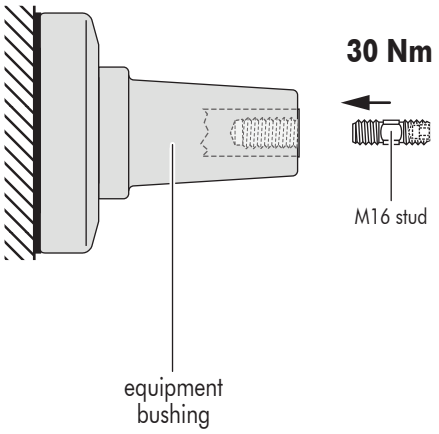
CONNECTOR INSTALLATION ON CABLE



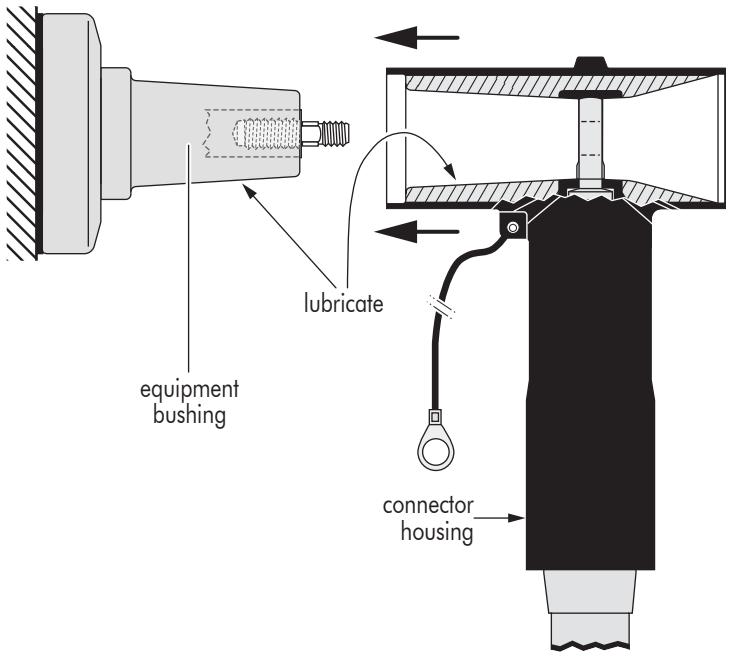


1. **Clean cable reducer, core insulation and contact.**
2. Lubricate* the inside of the connector housing and outer surface of the cable reducer.
3. Check if the **longer interface of the tee connector is pointed towards the bushing.** Whilst preventing the cable reducer from further movement down the 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.

CONNECTOR INSTALLATION ON BUSHING



1. Install M16 threaded stud into the bushing interface.
2. Using a 13 mm wrench or a hex key of 8 mm, tighten the stud exerting **30** Nm (3 kgm or 22,1 foot-pounds).



3. Clean and lightly lubricate* both connector and bushing interface.
4. Push the connector on to the bushing.

* USE ONLY THE SILICONE LUBRICANT SUPPLIED

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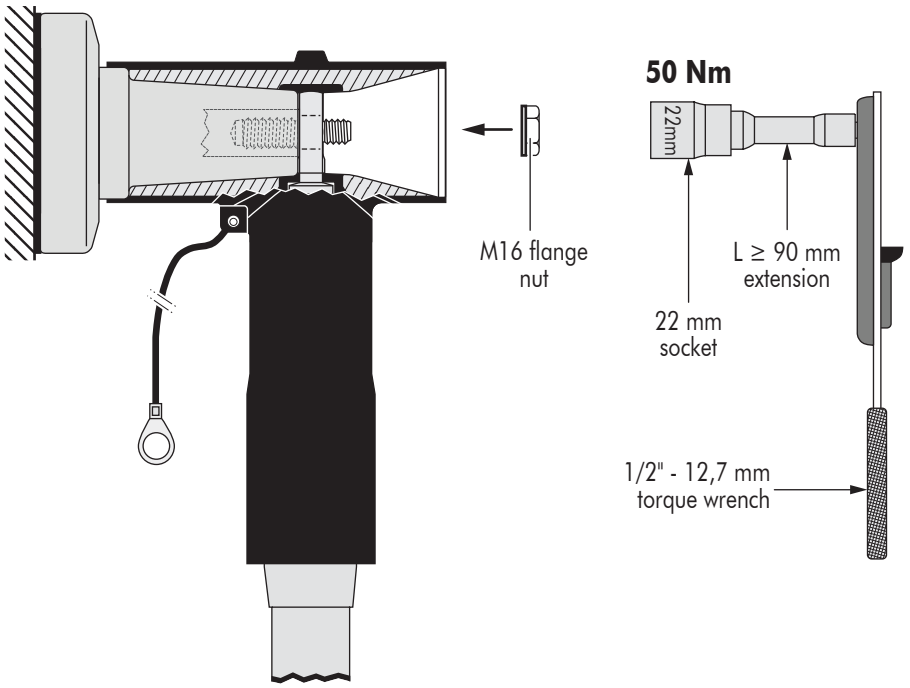
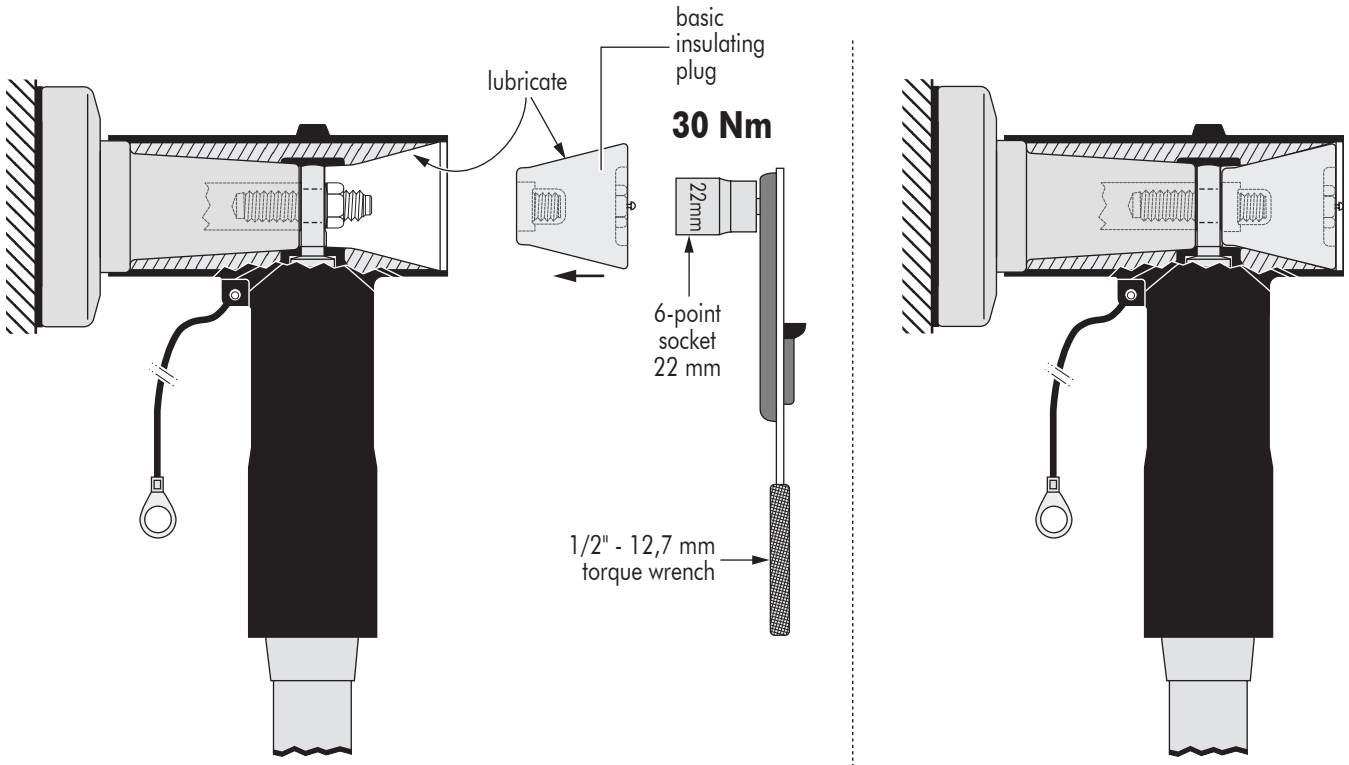


5 Install the M16 flange nut on to the threaded stud.

6 Use a 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.

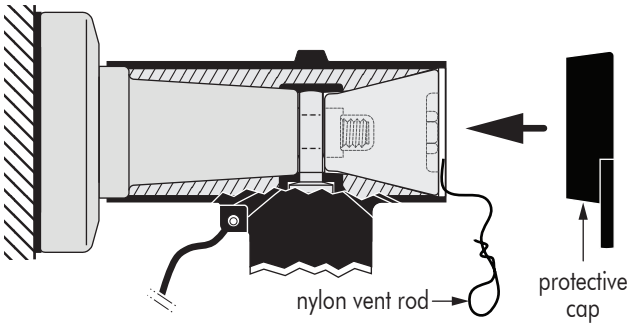


7 Clean and lubricate* the insulating plug for the opposite side of the connector.

8 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.

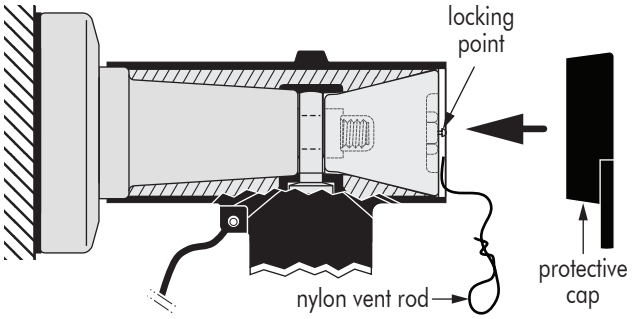
* USE ONLY THE SILICONE LUBRICANT SUPPLIED

INSTALLATION OF THE CAP



Installation on insulating plug BIPR without voltage detection point (for applications up to 24 kV only) :

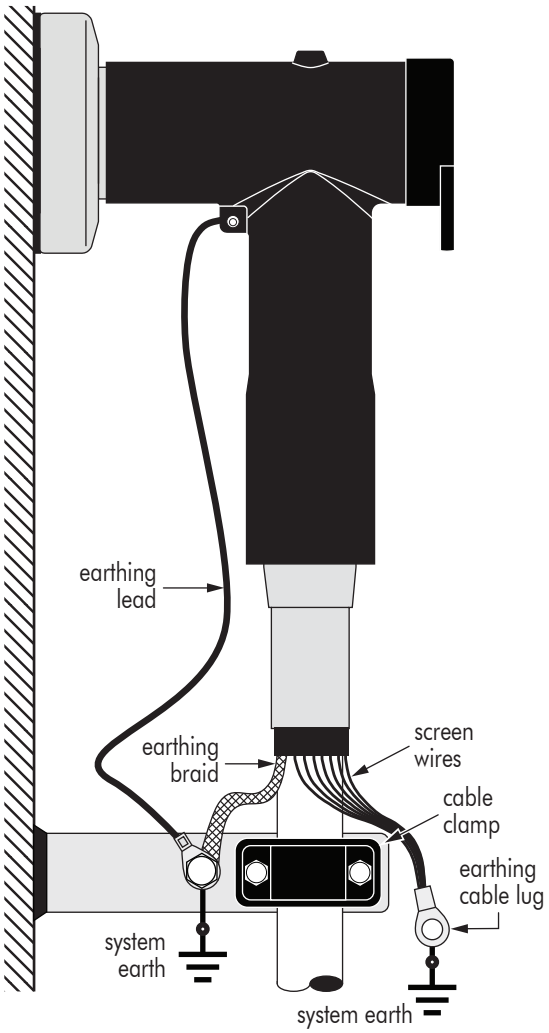
- Clean the inside of the cap and the outside surface of the connector and insulating plug.
- Place the nylon vent rod along the insulating plug (see fig.) to exhaust the air during assembly of the cap.
- Push the cap **firmly** over the connector and onto the insulating plug.
- Press the cap on all 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 (for applications up to 42 kV) :

- 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



1. Pull the screen wires to one side and twist them together to form a pigtail and fit into an earthing cable lug. Crimp the cable lug.
2. Connect screen wires, earthing braid and the connector earthing lead 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.**

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