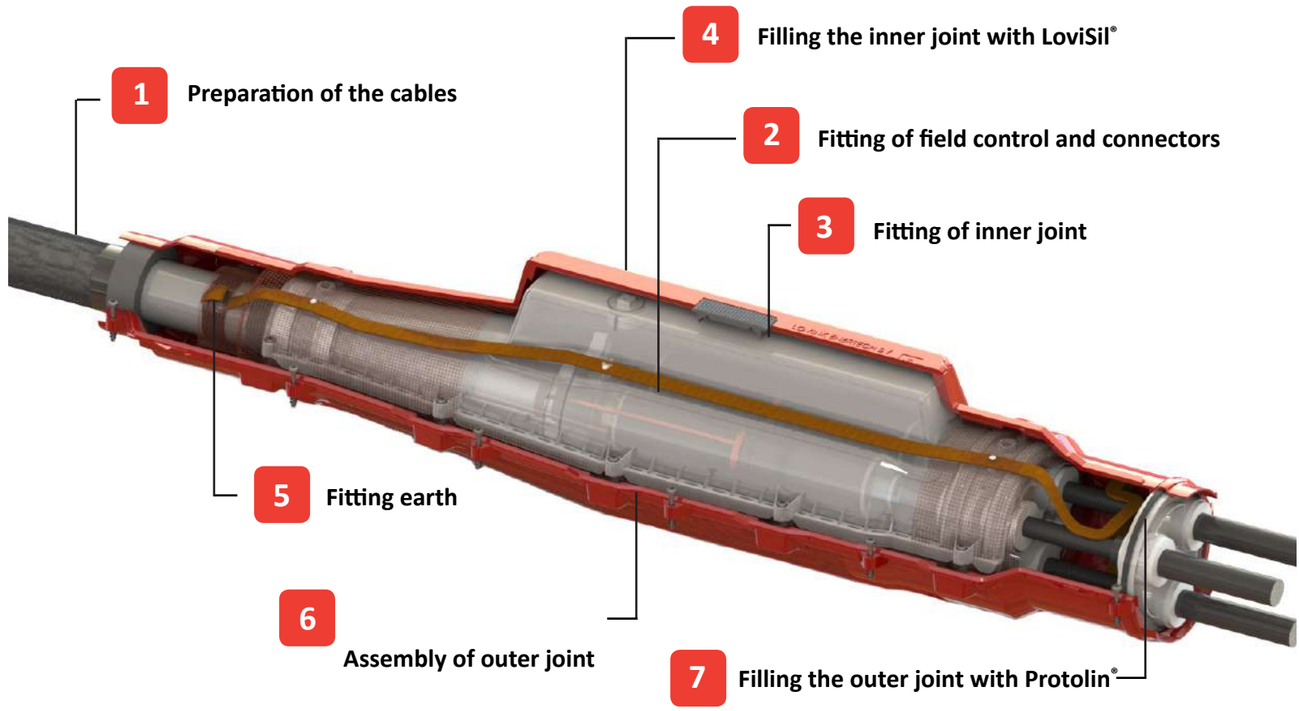
LoviSil® M-series

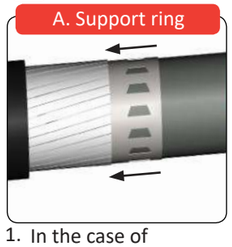
Installation instruction

3 - core PILC
3x1 - core XLPE

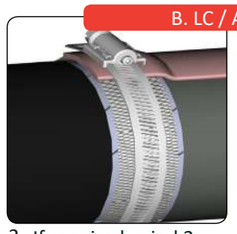
12 & 24kV
Conductor cross-section 70 - 400 mm²



5 Fitting the earth



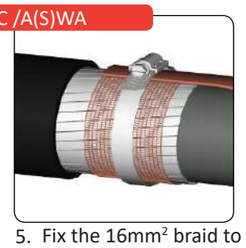
1. In the case of aluminium wire armour, place a support ring under the armour wires.



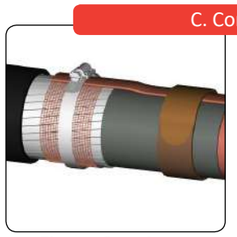
2. If required, wind 3 layers of gause over the armour (wires or tape). Fix the 16mm² braid to the armour with a jubilee clip.

3. Fit the 16mm² and 50mm² braid to the lead sheath with a constant force spring or LDV-clamp and tape up the connection with PVC tape.

4. Wind 3 layers of gause over the wire armour and tape screen

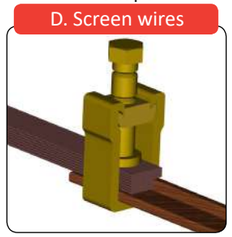


5. Fix the 16mm² braid to the armour by means of a jubilee clip.

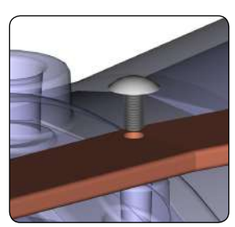


6. . Fit the 6mm² and 50mm² braid to the lead sheath with a constant force spring or LDV-clamp.

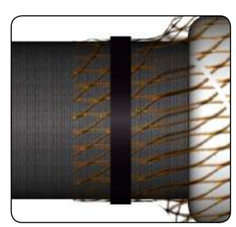
7. Run the main braid over the tape screen and fix it by means of a constant force spring. Tape up the constant force springs.



8. Connect the screen wires of the polymeric cables to the braid by means of an earth connector.

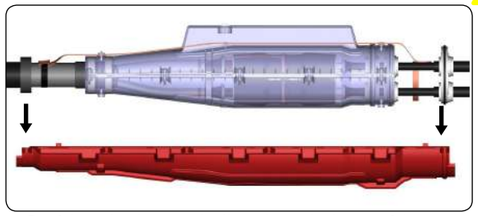


9. Fix the braid to the inner shell with the plastic nails provided.



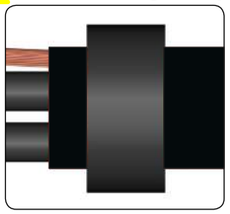
10. Pull the earth stocking over the inner joint and fasten the earth screen on both sides with a plastic tie wrap.

6 Assembly of outer joint

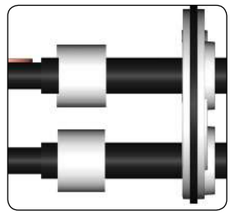


1. Position the lower shell and mark the positions of the self amalgamating tape and plate as on the inner joint.

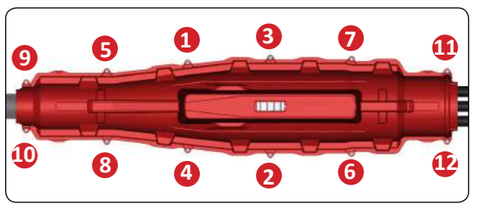
⚠ First few windings **firmly!**



2. Wind the selfamalgamating tape. Check the correct diameter using the Lovink (slide) callipers.



3. By using foam build-up tape (grey), tape up the cables to the correct diameter and slide the plate onto the center.



4. Place the upper shell and fix the screws according to the image above.

7 Filling the outer joint with Protolin®

⚠ **Support the joint and cables with sand.**

1. Mix the Protolin® resin according to the instructions on the bag and pour via one of the fill openings.

2. Push the cover in the filling hole. Cover the joint with sand and put into service according to the instructions of the network administrator.

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General remarks

⚠ Follow any **safety instructions** issued by the network administrator and/or your employer!

⚠ Make sure the connection stays **dry and clean** all through the assembly!

⚠ Note the **correct dimensions** as mentioned in this instruction when installing the joint!

⚠ Check whether **the paper-insulated cable** contains any moisture according to the instructions of the network administrator and/or your employer!

⚠ This instruction is meant as a guideline for **trained and certified jointers.** Knowledge of medium voltage technology and experience in cable preparation should be present!

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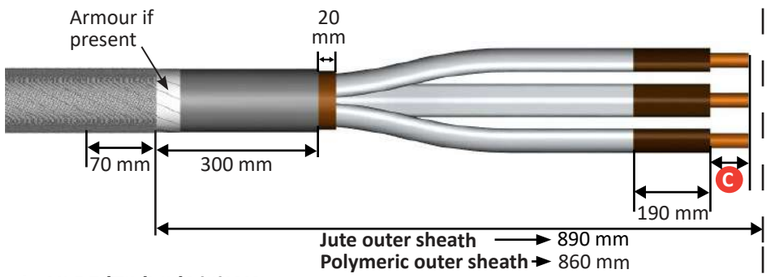
1 Preparation of the cables

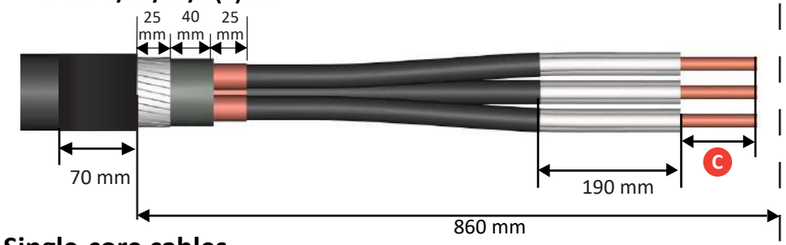
Three core cables

Center line

a. PILC

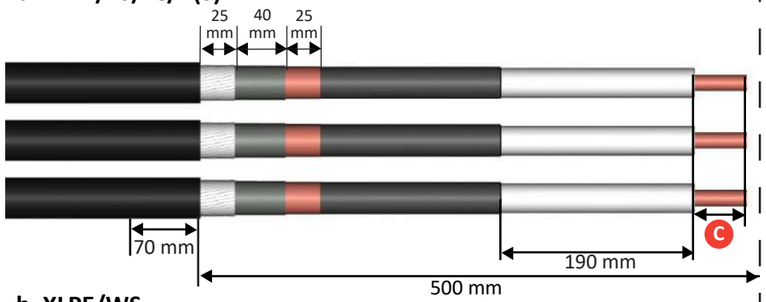


b. XLPE/TS/LC/A(S)WA

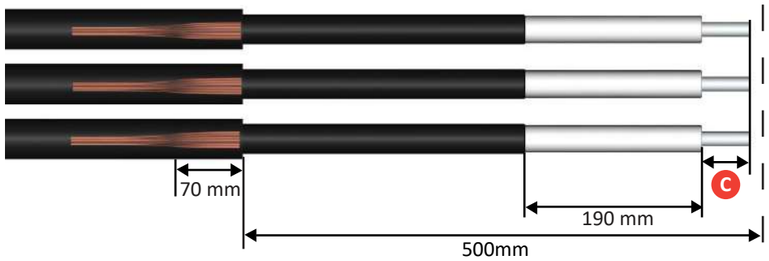


Single-core cables

a. XLPE/TS/LC/A(S)WA



b. XLPE/WS



Dimensions connectors

With blocked connectors:
½ connector + 5 mm

Without blocked connectors:
½ connector + 10 mm

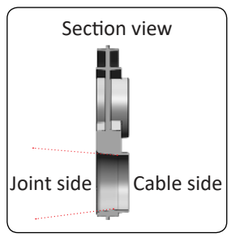
Always abrade polymeric outer sheath (70mm) and/or lead sheath!(300mm).

If necessary, make a **crossing** outside the joint on the single-core side.

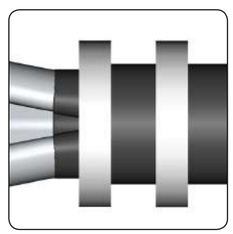
Bend the screen wires back but **do not** cut them!

2 Fitting of field control and connectors

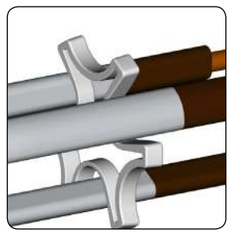
1. Fit the copper stocking and then the 3 spacer plates over the poly-meric cables.



2. Spacer plates should be fitted with the larger diameter toward the centre of the joint.

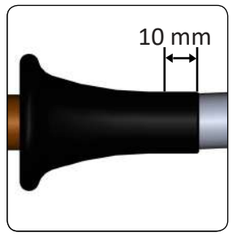


3. Place the two foam rings and build them up to size with 25mm foam tape (white).



4. Place the spacer on the 3-core side, taking care not to damage the semicon layer / paper.

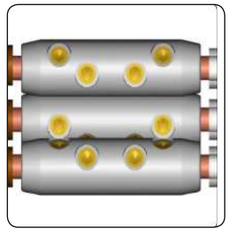
5. Position the stress cones on the cables.



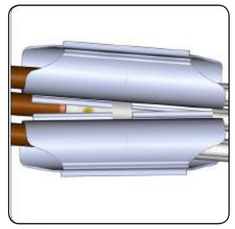
6. Position the stress cones 10mm onto the insulation screen.

3 Fitting of inner joint

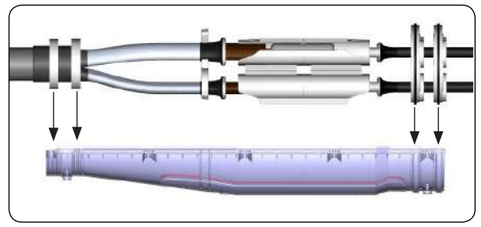
Clean all parts using a Lovink cloth before closing the inner shell !!



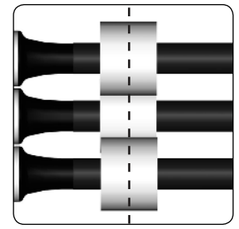
1. Fit the connectors according to the specifications of the supplier.



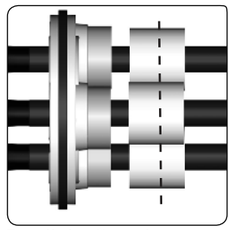
2. Click the tubes into each other and centralize over the connectors.



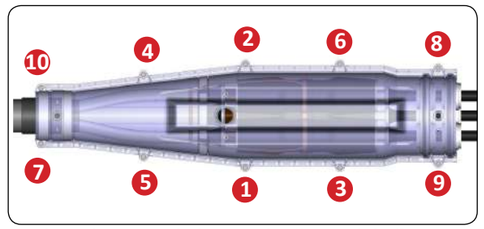
3. Offer up the bottom (inner) shell and mark the location of the foam rings and foam tape. **Mark the cores at the outer edge of the spacer to establish the centerline of the build-up tape.**



4. Tape up the first plate (closest to the centre of the joint) by using foam build-up tape (grey).

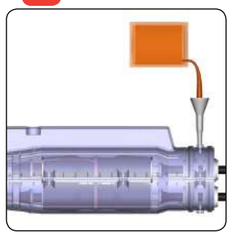


5. Pull the first plate onto the build-up tape. The smallest side of the plate should sit on the centre of the foam. Repeat this for the second plate.



6. Place the second plate as the first. While flexing the bottom shell, place it over the foam rings. Place the top shell and fix all screws in the order given above.

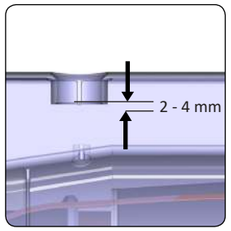
4 Filling the inner joint with LoviSil®



1. Fit both LoFit funnels and fill according Lofit instructions **at both ends**. Leave to cure.

2. Position the LoviSil® bag on the fill open-ing.

3. Hold the spout firmly in the fill opening while pouring.



4. Fill the inner joint with LoviSil® upto 2-4mm under the collar of the opening and close firmly.