



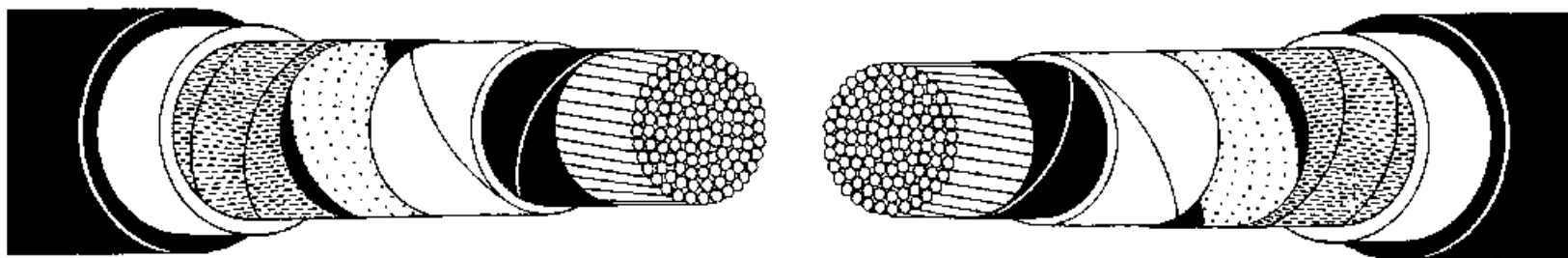
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**Shrink Polymer Systems**

Cable Installation Materials - 24 volts to 36 kV

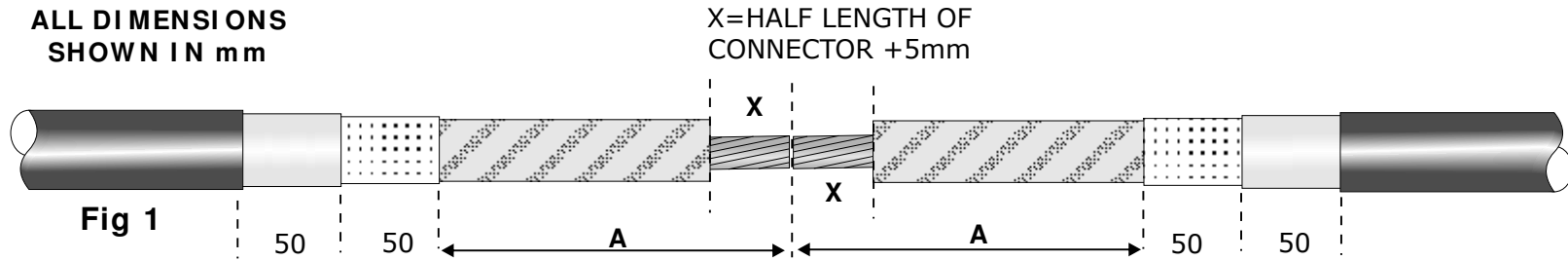
## INSTALLATION INSTRUCTIONS HEATSHRINK JOINT TO SUIT SINGLE CORE 7.2-36kV PAPER SCREENED CABLE TYPE



- THESE INSTRUCTIONS SHOULD BE FOLLOWED BY A TRAINED COMPETENT FITTER
- A PROPANE GAS TORCH IS THE PREFERRED METHOD FOR SHRINKING THESE MATERIALS
- ENSURE THAT THE MATERIALS ARE KEPT CLEAN AND DRY AND ARE FREE FROM DUST, SAND AND GREASE
- PLEASE CALL SHRINK POLYMER SYSTEMS FOR ANY ADVICE



ALL DIMENSIONS  
SHOWN IN mm



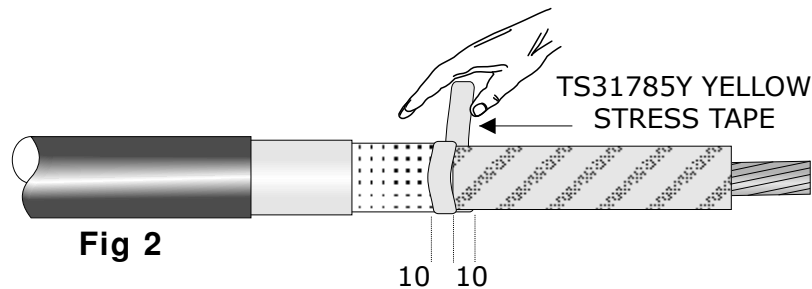
1. Prepare the cables to the dimensions shown in Fig 1 above and in accordance with Table 1 below depending upon voltage class. Tie a binder at a point 190mm from the end of the core insulation and remove the screen papers carefully to this point.
2. Clean and de-grease the lead sheath and remove any excess grease from the cores. Remove binder at screen point.

VOLTAGE TABLE			HEATSHRINK TUBE REQUIREMENT			
VOLTAGE	A	X	SCT	BTT	DWMV	TMI
7.2kV	180mm	HALF CONNECTOR LENGTH +5mm	1	---	1	1
12kV	190mm		1	---	1	1
17.5kV	200mm		1	1	1	1
24kV	220mm		1	1	1	1
36kV	250mm		1	2	1	1

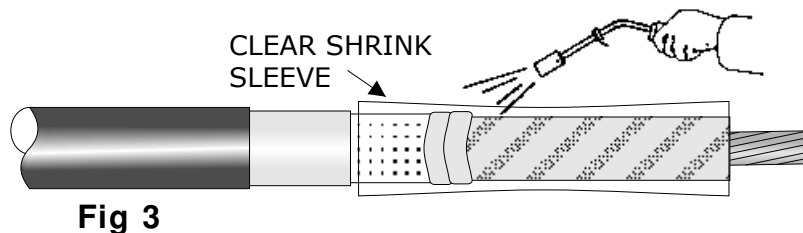
Table 1

SIZE (mm <sup>2</sup> )	MAX CONNECTOR LENGTH (mm)
25-95	100
120-185	140
185-300	150
400	170

Table 2



3. Stretch the yellow stress ape (TS 31785Y) and apply with half width overlap to each screen end. Extend the tape 10mm on to the paper screens and 10mm on to the insulation as shown in Fig 2.



4. Slide the clear shrink sleeves over the cores down to the lead cut. With a suitable heat source, shrink the sleeves into position.

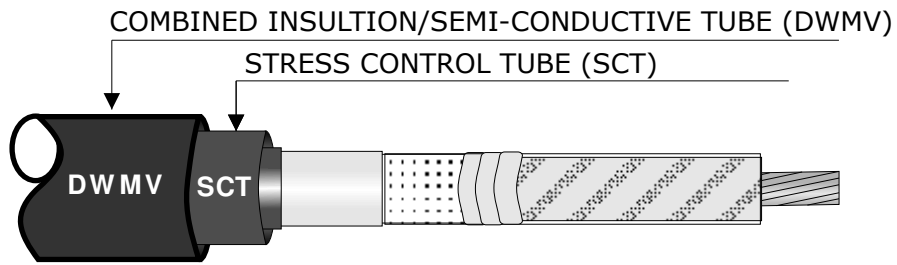


Fig 4

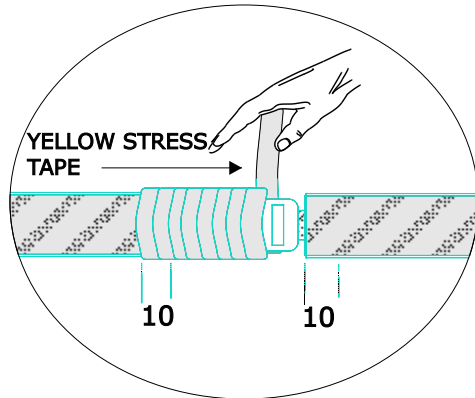


Fig 5

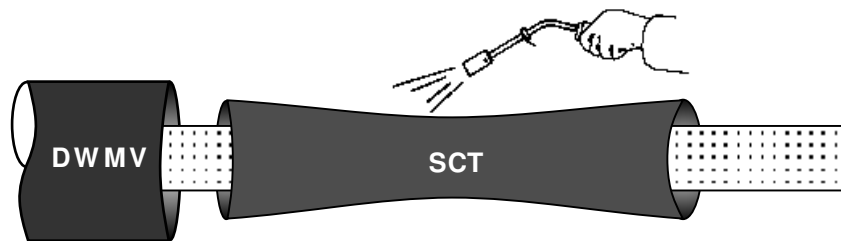


Fig 6

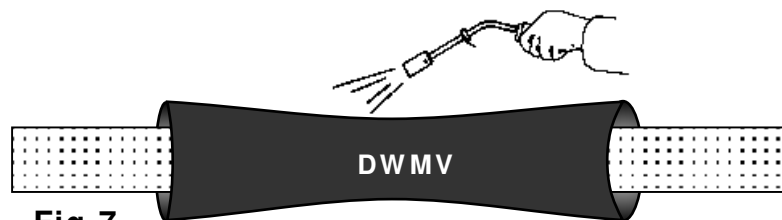


Fig 7

5. Before proceeding, slide the connector insulation tubes along with the outer shrink tube over one or both of the cable ends.

6. Strip the insulation to half the length of connector + 5mm and with an approved tool, crimp the connector. Remove any sharp points and clean and de-grease before proceeding.

7. Stretch the yellow stress tape (TS 31785Y) and apply with half width overlap to the connector and extend onto the insulation either side by 10mm as shown in Fig 5.

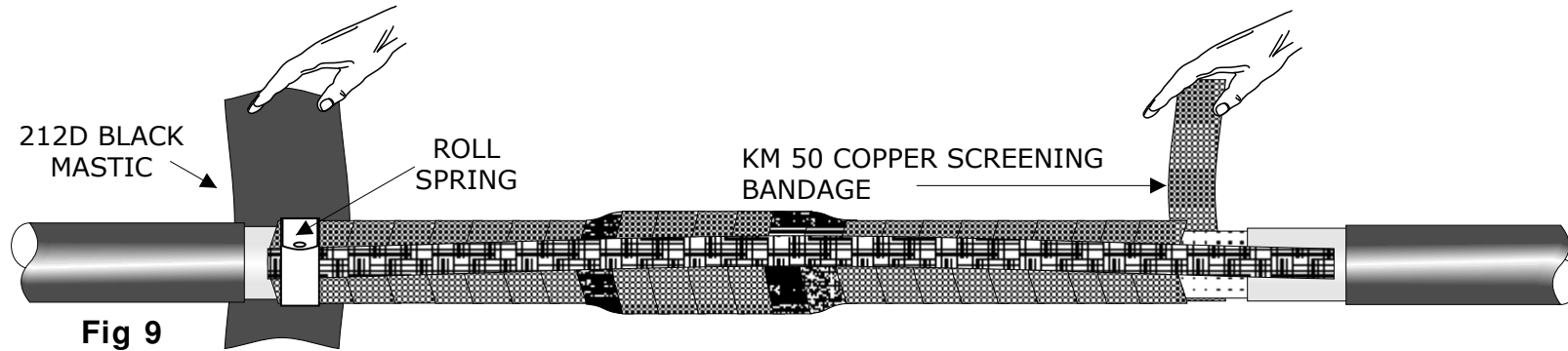
**Note:** Fill in the gap between primary insulation and connector. Also if using mechanical connectors, fill any voids that the bolts leave after they have been sheared.

8. Position the stress control tube (SCT) centrally over the connector. Shrink from the centre of the tube to one end at a time. Keep the flame on the move all around the Tube to ensure an even wall thickness. **Note:-** Allow to cool a little and clean the surface of the stress control tube with the cleaning tissue provided. This has been shown to improve electrical performance.

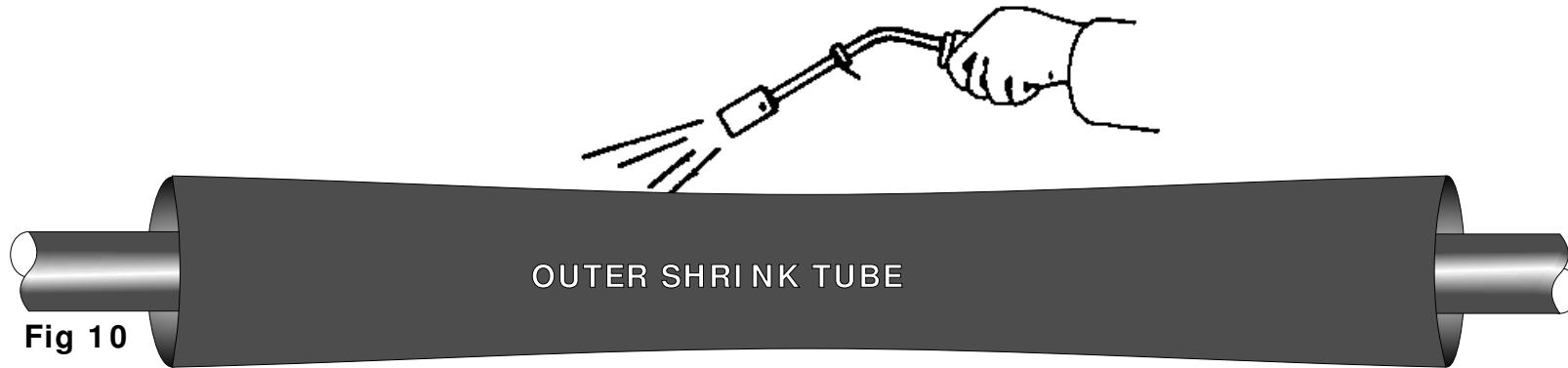
9. Position the Combined insulation/semi-conductive tube (DWMV) centrally over the stress control tube and shrink as before to ensure an even wall thickness.



10. Apply the pieces of grey mastic tape (4SC HV) to the connector insulation tube ends as shown in Fig 8. Overlap on to the DWMV tube and paper screen insulation by 10mm either way.



11. Apply the KM 50 copper screening bandage with slight overlap across the joint and secure to the lead sheath along with the main earth strap with roll springs (Or Plumb). Apply 212D black Mastmc over the earth connection extending onto the lead sheath.



12. Position the outer shrink tube centrally over the joint gap. Shrink from the centre of the tube to one end at a time. Keep the flame on the move and ensure the tube is wrinkle free once fully shrunk. Sealants should be seen at tube ends.

13. Allow the completed joint to cool before applying any mechanical strain.

## ARMOUR EARTH SUPPLEMENT I NSTRUCTION

### PI LC CABLE

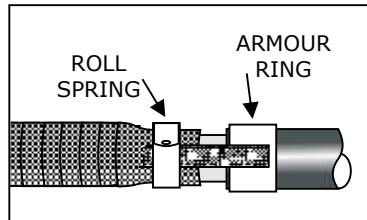
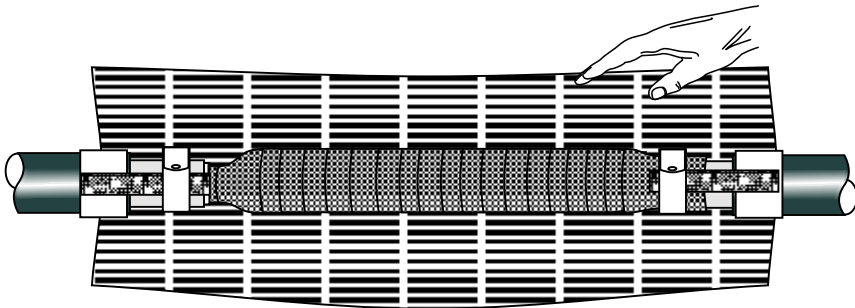


FIG 11

14. Position the armour support ring on the outer cable sheath as shown in Fig 11. Use 212D black mastic tape to build up the cable sheath diameter if too loose.



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