



# Shrink Polymer Systems

Cable Installation Materials – 24 volts to 36 kV

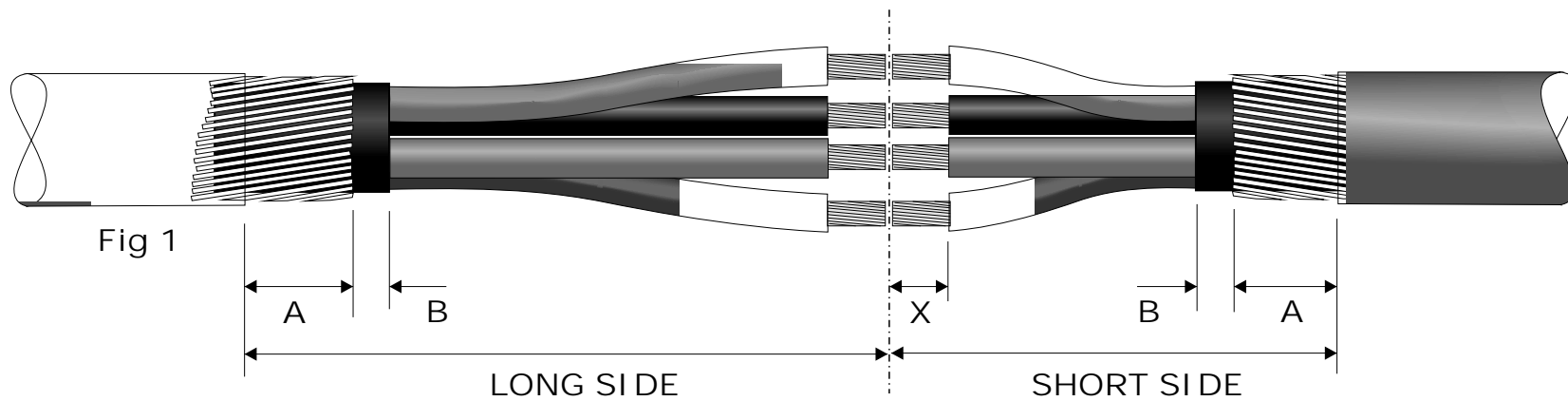
INSTALLATION INSTRUCTION  
ZERO HALOGEN LIMITED FIRE HAZZARD HEATSHRINK  
JOINT TO SUIT 3-4 CORE XLPE OR EPR ARMoured  
CABLES 0.6/1kV TYPE SPA NH AND SPA NHF



- 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



DATE OF ISSUE: 14.09.11



1. Ensure that the cables overlap and prepare as above using the dimensions given in Table 1 below.
2. Slide the outer shrink tube, worm drive clamps and fire barrier tube (if supplied) over the cable end/s.

CONDUCTOR SIZE (mm <sup>2</sup> )	LONG SIDE (mm)	SHORT SIDE (mm)	BEDDING B (mm)	ARMOUR A (mm)	X
1.5-6	120	80	10	30	HALF CONNECTOR LENGTH
10-16	150	120	20	35	
25-50	215	135	20	45	
70-95	280	180	20	50	
120-185	400	300	20	60	
185-400	530	390	30	70	

Table 1

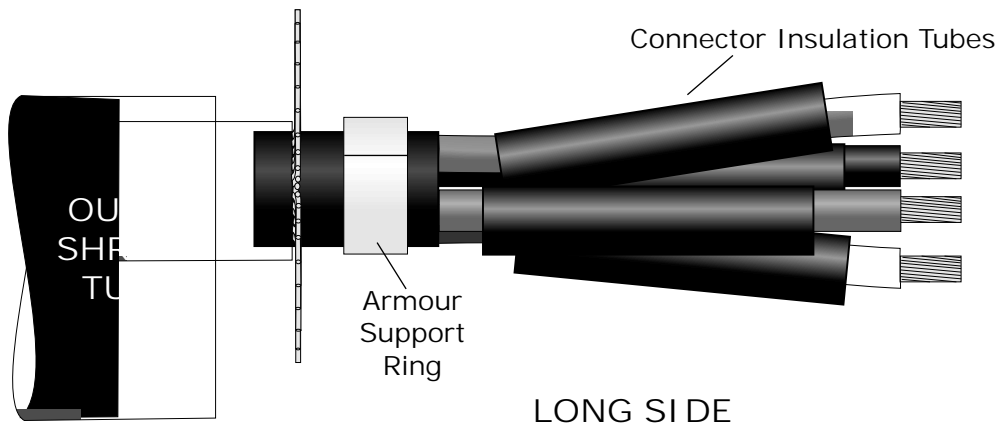


Fig 2

3. Bend back the armour wires and fit the armour support ring towards the end of the bedding. Fold back the armour wires upon it. No need to fit this if steel tape armoured.

Position the core tubes down the longer cores  
 Note: For the very largest joint it is advisable to stagger the connectors across the joint gap to achieve a lower joint profile. Be careful not to exceed the total dimensions shown, otherwise the outer tube maybe too short.

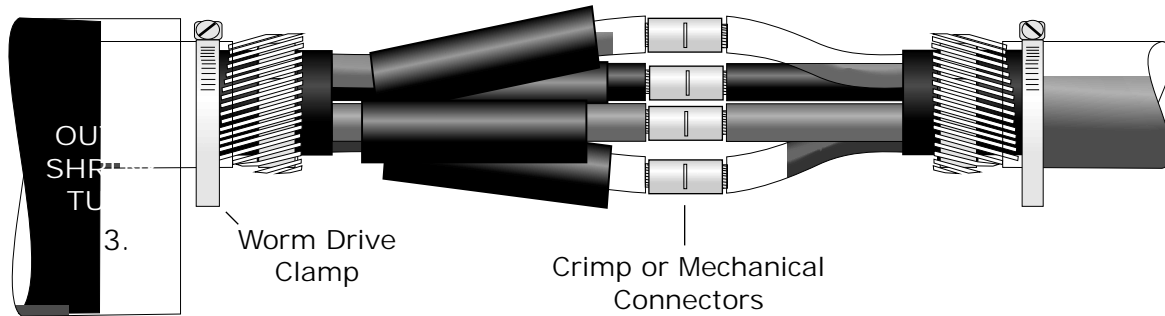


Fig 3

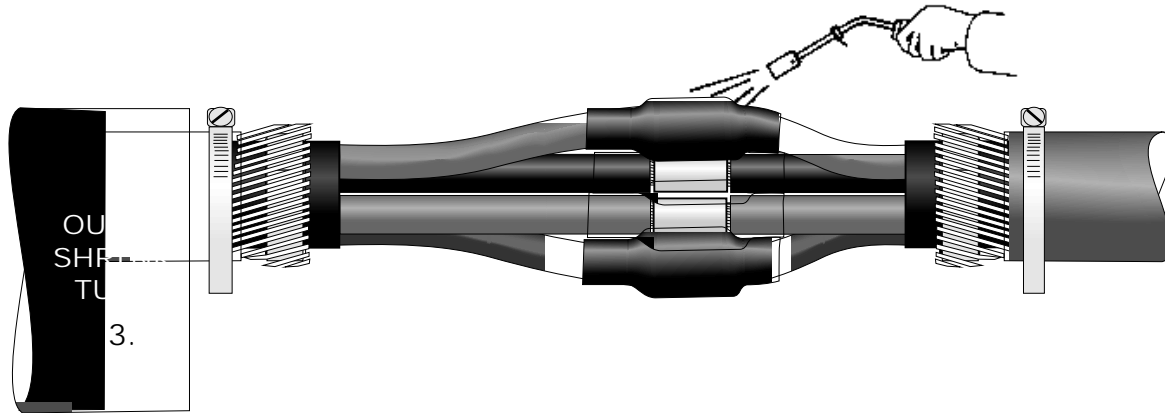


Fig 4

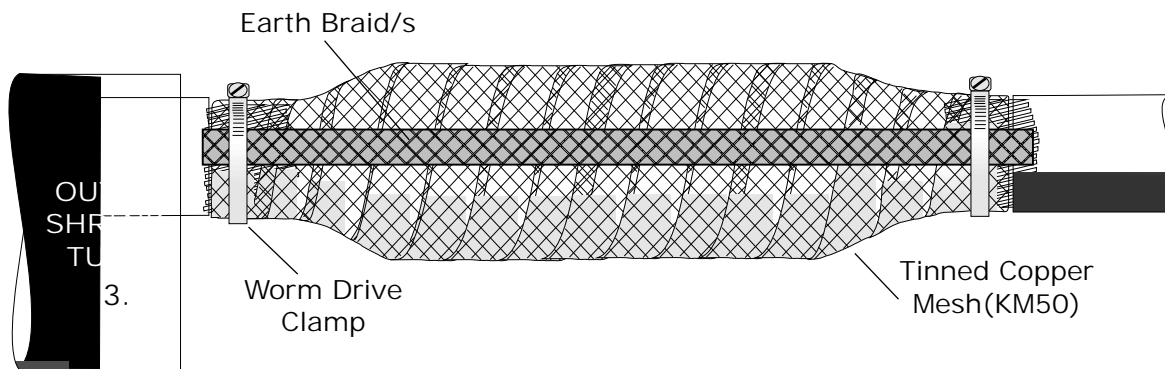


Fig 5

4. Before proceeding, ensure the outer shrink tube is over the outer sheath and the connector insulation tubes are positioned down the longer of the prepared Cores as shown in Fig 3 (or staggered if user wishes).

5. Using an approved method, connect the individual cores and clean and de-grease the Connectors.

Note: If using mechanical connectors, use low profile medium voltage type which will help keep the overall joint diameter down. Split type connectors are also available.

6. Centralise the individual connector insulation tubes over the connectors. Using a suitable heat source, start shrinking from the centre working to one end at a time. Keep the flame on the move all around the tube to ensure even shrinkage and adhesive flow.

Note: Due to the zero halogen tubes being a softer compound than normal tubes, allow them to cool before pulling the cores together to avoid damage.

7. Wrap the tinned copper mesh tightly around the joint with 50% overlap and extend onto the armours at both ends. Lay the earth braid/s across the joint and use the worm drive clamps to make a firm connection to the armour support ring as shown in Fig 5.

Trim any excess braid and apply a small amount of tape over any sharp areas.

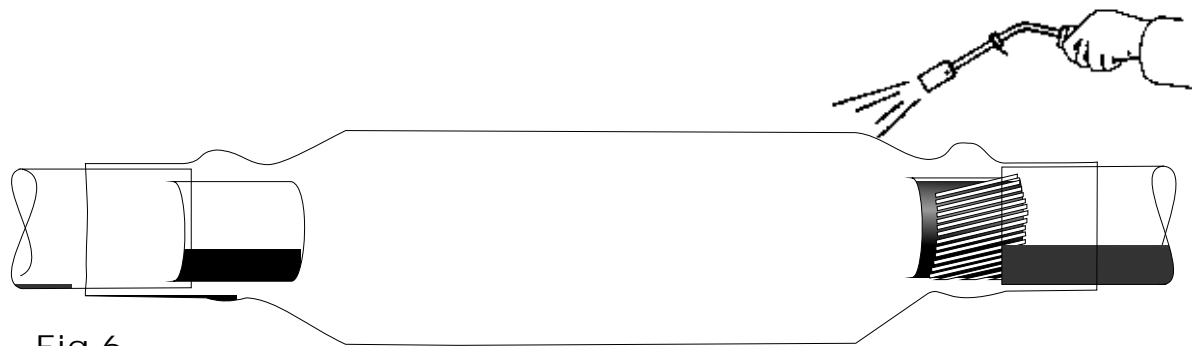


Fig 6

8. Clean, de-grease and abrade outer cable sheath before centralising the outer shrink tube over the joint gap. Using a suitable heat source, shrink from the centre to one end at a time. Keep the flame on the move all around the tube to ensure an even wall thickness.

Once fully recovered, sealant should be visible at each end.

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

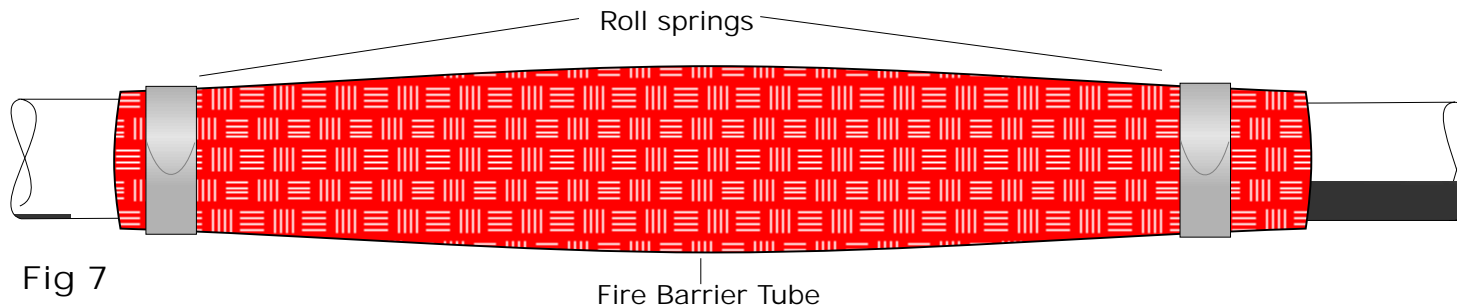


Fig 7

10. If Joint type SPA NHF is supplied, this incorporates a fire barrier tube. Joint type SPA NH is supplied without it. Position the red silicone coated fire barrier tube across the joint gap so that it overlaps equally distant at both sides. Secure at each side with a stainless steel roll spring as shown in Fig 7.



**WWW.CABLEJOINTS.CO.UK**  
**THORNE & DERRICK UK**  
 TEL 0044 191 490 1547 FAX 0044 477 5371  
 TEL 0044 117 977 4647 FAX 0044 977 5582  
**WWW.THORNEANDDERRICK.CO.UK**

