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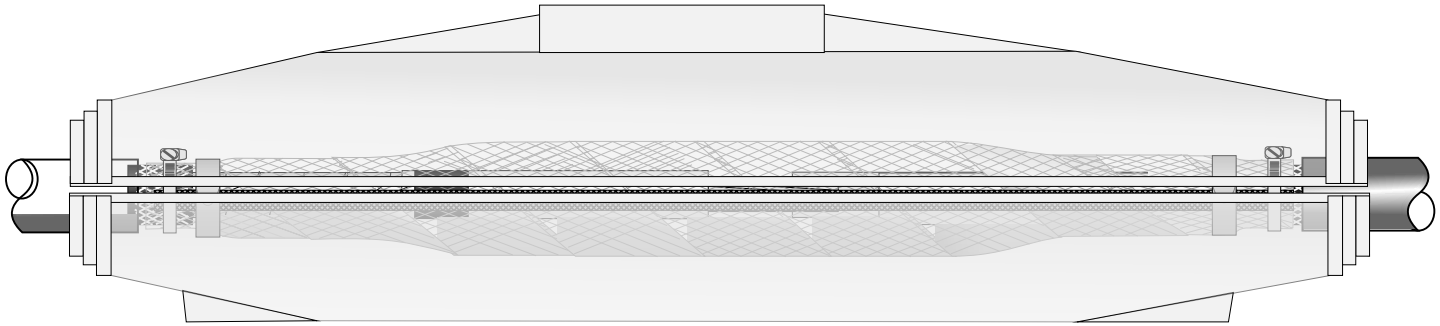
INSTALLATION INSTRUCTION
HEATSHRINK/RESIN COMBINATION JOINT TO SUIT SINGLE CORE 12kV EPR BRAID ARMOURED/SCREENED CABLE



- 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: 04.02.13

CABLE PREPARATION

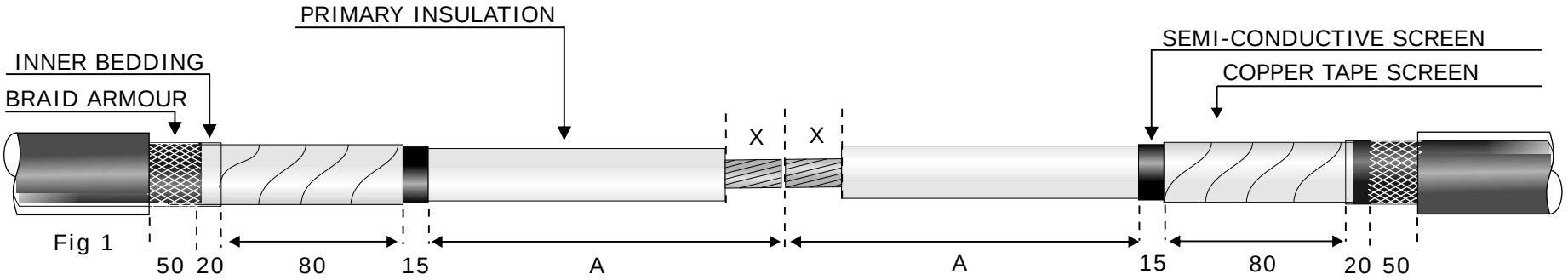


Fig 1

SIZE (mm^2)	DIMENSION A	DIMENSION X	MAX CONNECTOR LENGTH
25-70	160mm	HALF LENGTH CONNECTOR + 5mm	100mm
95-185	180mm		130mm
185-300	190mm		150mm
400-630	220mm		200mm

Table 1

Cable Preparation

1. Ensure that the cables overlap before proceeding. Use kit range dimensions as shown above.

Copper Tape Screen

2. Expose the copper tape screen by 80mm and the black semi-conductive screen by a further 15mm beyond it (See Fig 1 and Table 1 for dimension A). Expose the braid armour screen to 50mm and the inner bedding to 20mm. Note: If the cable has aluminium wire armours (AWA), prepare to the same dimensions as shown for the braided armour/screen as shown above in Fig 1.

Black Extruded Semi-Conductive Screen Removal

3. Carefully remove the semi-conductive screen layer using a suitable tool. Avoid scoring and damage to the primary insulation beneath. Note:- Screen removal tools are available and videos on screen removal feature on our website.

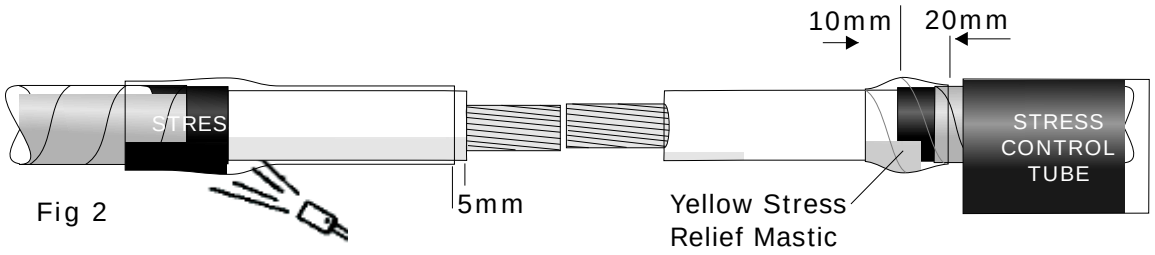


Fig 2

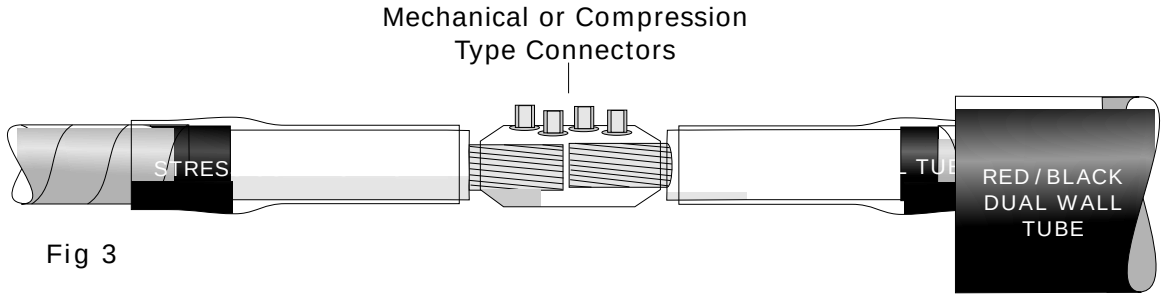


Fig 3

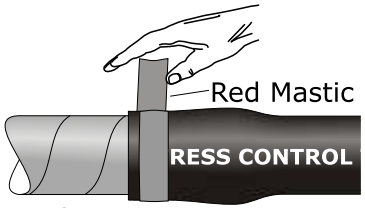


Fig 4

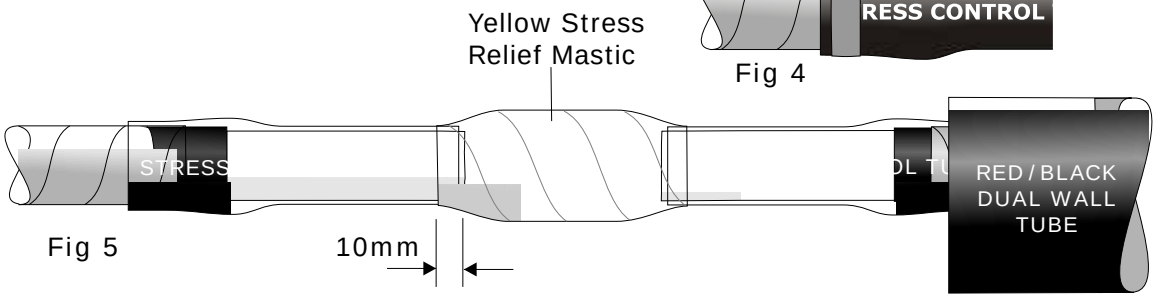


Fig 5

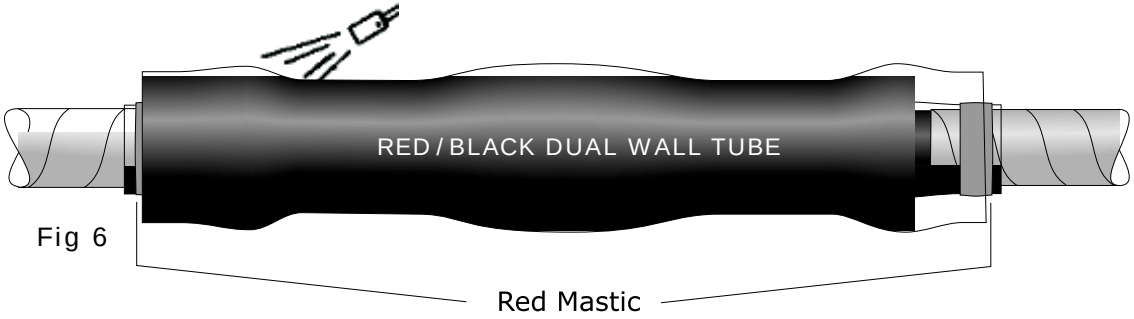


Fig 6

4. Position the stress control tubes the red/black dual wall tube over each core as shown in Fig 2.

5. Stretch the yellow stress relief tape and apply over the screen cut area, extending onto the primary insulation by 10mm and catching the copper tape screens as shown in Fig 2.

6. Position the stress control tubes as shown 5mm back from the insulation and starting from the insulation end, apply heat all around the tubes using a soft flame torch. Heat until fully recovered.

7. Fit the approved MV 'tapered' connectors using the appropriate tool. Clean and de-grease before proceeding.

8. Apply the yellow stress relief mastic over the connector area under tension and with a 50% overlap. Extend onto the short stress control tubes by 10mm, as shown in Fig 5.

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

9. Stretch and apply the short red mastic tape pieces over the stress control tubes as shown in Fig 4, so that the red/black tubes sit upon it. This will create an additional moisture seal.

10. Finally, centrally position the red/black dual wall tube so that it covers the screen end points. Starting in the middle and working towards the ends, shrink it whilst keeping the flame moving all around the tube to ensure an even recovery and wall thickness.

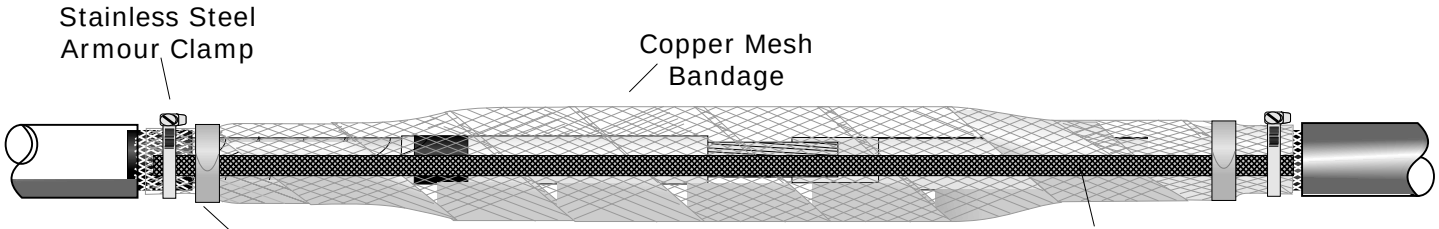


Fig 7

11. Fit the armour support rings if the cable has aluminium wire armours. If cable has braid screen armours still fit the ring if it is possible.

12. Wrap a layer of the copper mesh bandage (KM 50) with 50% overlap over the joint area and secure along with the main earth strap/s to the copper tape screens with a roll spring and to the armour wires/braid screen with the stainless steel armour clamp as shown above in Fig 7. If no armour support ring can be fitted, use the additional roll springs supplied.

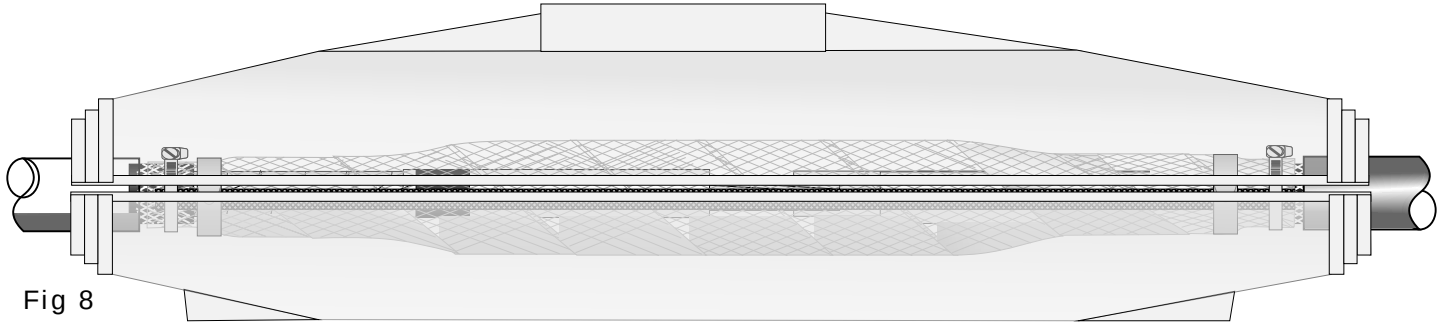


Fig 8

13. Clean/de-grease and abrade the outer cable sheaths. Position the joint shell so that it fits correctly to the cable diameter, trim the ends as necessary. Mix the resin according to the manufacturers instructions and completely fill the shell, replacing the filler cap supplied.

Allow the resin to set before any backfilling of the cable trench and energisation.

Important: Consideration should be given to the use of cross bonding earth kits on long cable runs to eliminate the possibility of high circulating currents induced within the earth screen. Consult SPS for more details should they be required.