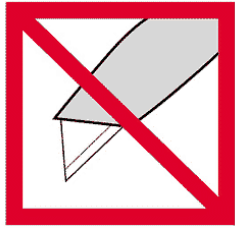


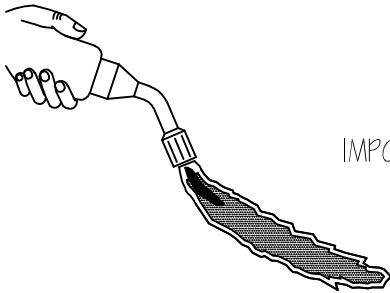
# JOINTING INSTRUCTION

This product should be installed by competent personnel familiar with electrical equipment and safe operating practices. Parts contained in this kit should be visually inspected for possible damage, and installed in accordance with these instructions. These instructions are not intended as a substitute for adequate training and experience.

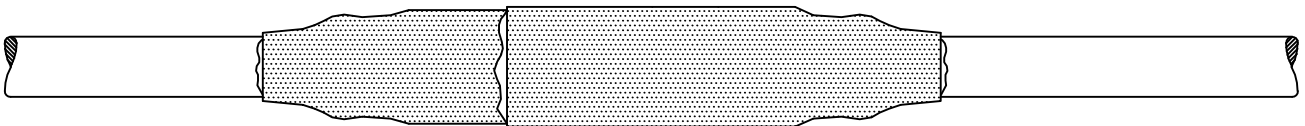
**PLEASE READ THE INSTALLATION INSTRUCTIONS BEFORE WORKING!**



Be sure to use tools designed for this kind of work.  
Do not use a knife!



**IMPORTANT:** Use a propane (preferred) or butane gas torch.  
Adjust torch to give a soft blue flame with yellow tip.  
Heatshrink tubes uniformly avoiding wrinkles along the surface.  
Keep the flame moving continuously and maintain adequate distance to avoid over heating.



Type:	Denomination:
<b>36GTS1...W</b>	<b>SINGLE CORE HEATSHRINKABLE STRAIGHT THROUGH JOINT</b>

CABLE TYPE : Solid insulation (XLPE/HEPR) / COPPER WIRE SCREEN  
VOLTAGE : Um = max up to 36 kV  
SECTIONS : 16-1200 mm<sup>2</sup> Cu/Al

The company reserves the right to alter or modify the information in this document at any time in the light of technical or any other developments.

**Nexans**

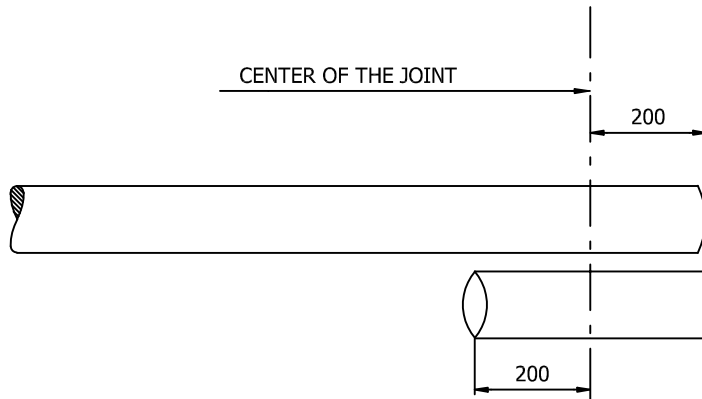
Prepared by  
**G.FUNARI**  
First issue  
16.05.19

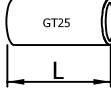
Checked by  
**M. Fuedlo**  
Rev.

Approved by  
**M. Fuedlo**

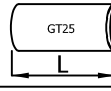
**IM1907I**  
Sheet 1/7

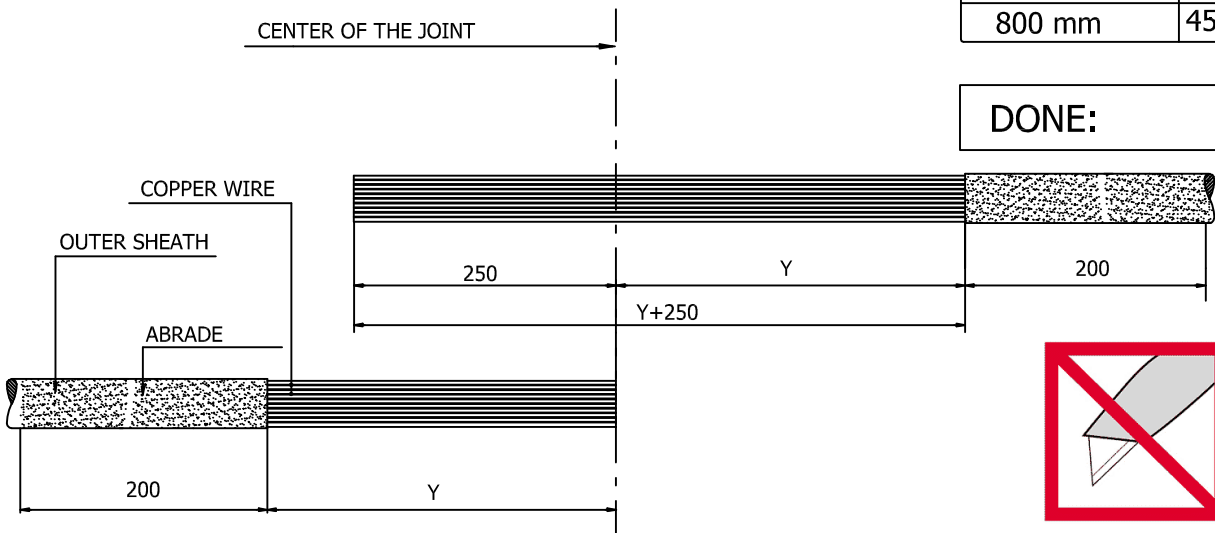
# 1. PRELIMINARY OPERATION



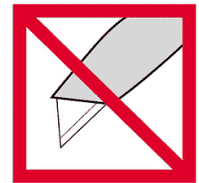
Length of "Dual wall" tube	L max
	36 kV
400 mm	100 mm
500 mm	150 mm
600 mm	250 mm
800 mm	290 mm

- 1.1 Straighten and set cables at the joint position.  
 Determine the centre of the junction and cut the cables with 200mm overlap.  
 Clean the outer sheaths for approx. 1,5 m.

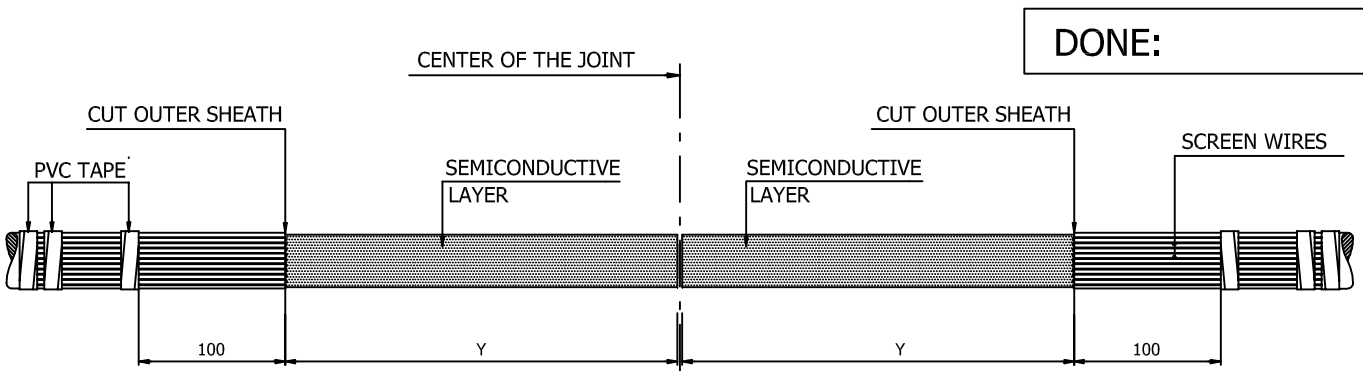
Length of "Dual wall" tube	Y
	
400 mm	270 mm
500 mm	310 mm
600 mm	360 mm
800 mm	450 mm



**DONE:**



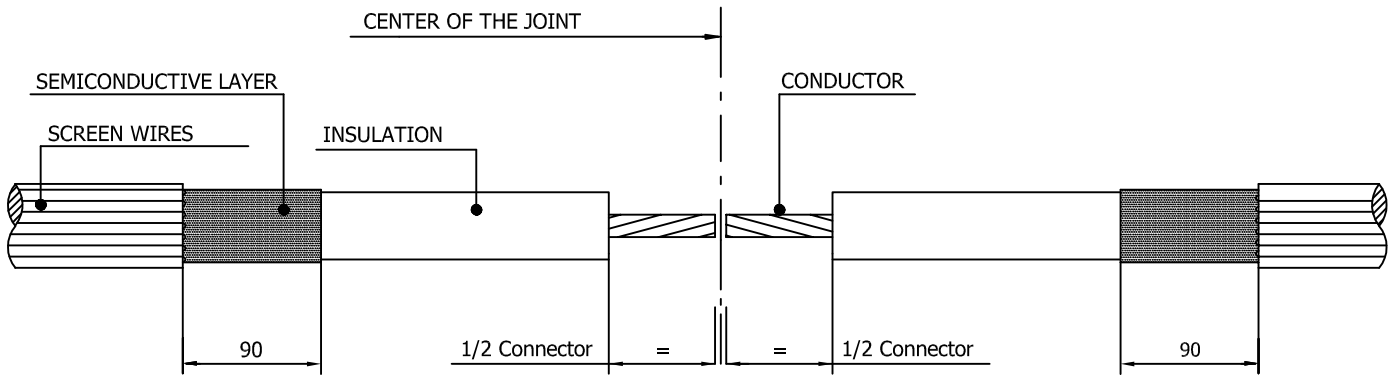
- 1.2 Measure the Dual wall tubes supplied in the kit and use the appropriate measurements to:  
 Remove the outer sheath ON THE SHORT SIDE for the length "Y"  
 Remove the outer sheath ON THE LONG SIDE for the length "Y+250mm"  
 (Refer to the table apposite).
- 1.3 De-grease and abrade the outer sheath for a further 200mm from the sheath cut.  
 Clean the abraded area.



**DONE:**

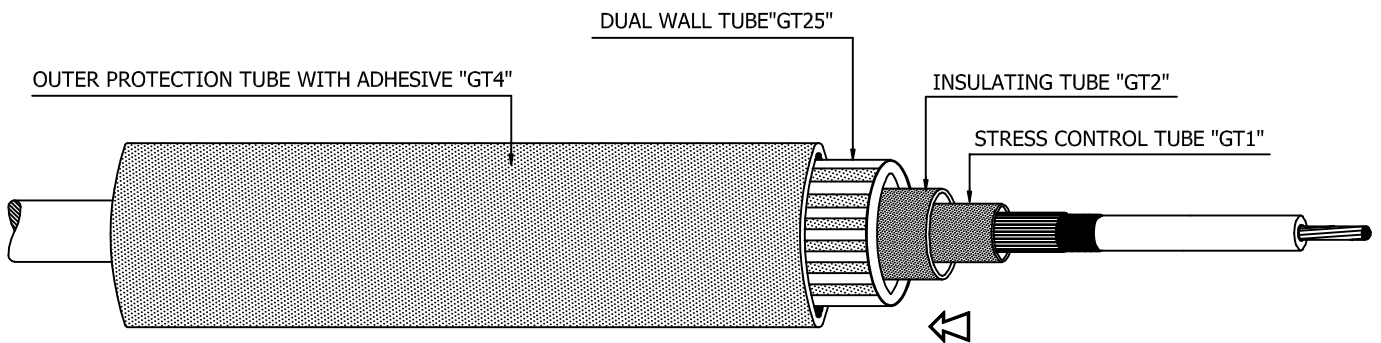
- 1.4 Fold back the screen wires and bind temporarily with PVC tape (do not cut the wires).  
 1.5 Cut the cable with the 250mm overlap to the correct distance "Y", as listed in the table.

**DONE:**



- 1.6 Remove the external semi-conductive layer of the cable leaving 90 mm out of the outer sheath  
Take care not to damage the core insulation.
- 1.7 Bare the conductor for a length of half connector.
- 1.8 Clean the insulation from eventual semi-conductive coating insulation by using fine grain paper (supplied).

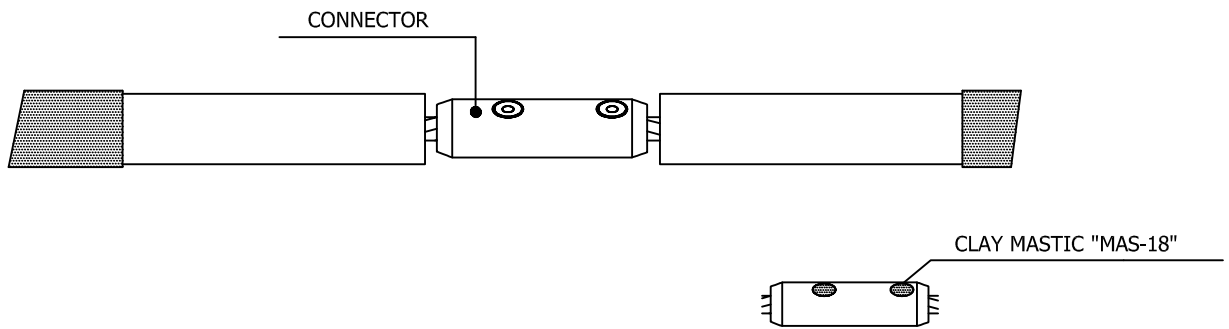
DONE:



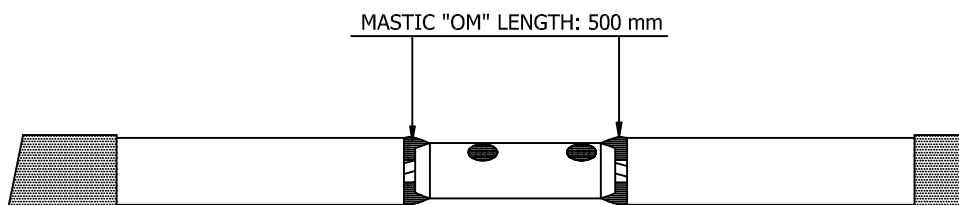
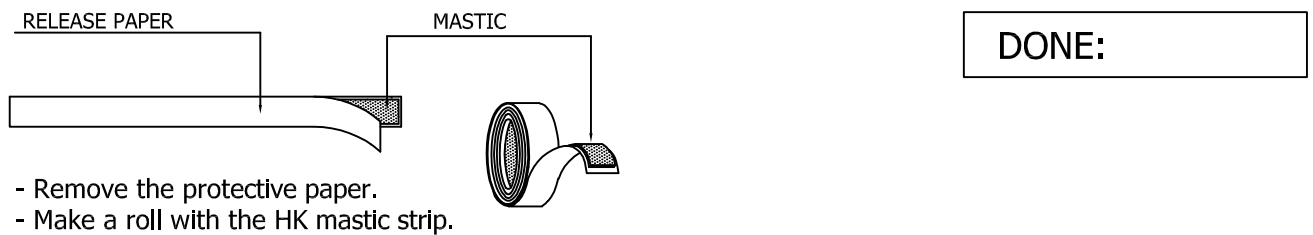
- 1.9 Slide all the heat shrinkable tubes over the cable: Outer Protection Tube "GT4", Dual Wall Tube "GT25", Insulating Tube "GT2" and the Stress Control Tube "GT1".

DONE:

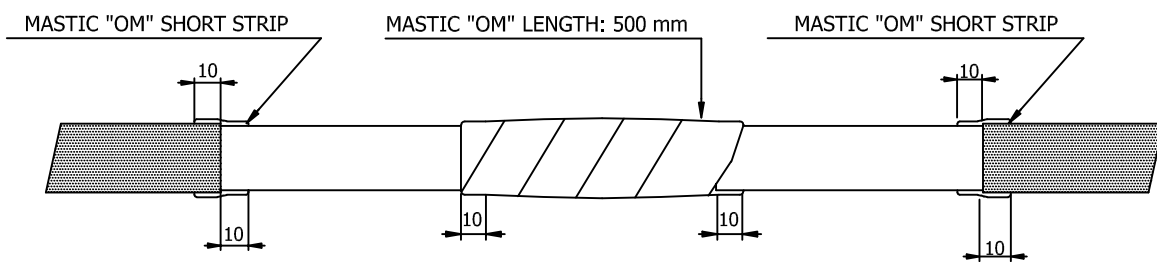
## 2. ASSEMBLY OF THE JOINT



2.1 Insert the connectors and make sure any indents left after shearing the bolts are filled with "CLAY" mastic "MAS-18". Clean the connector and insulation using solvent wipes.



2.2 Fill the sloped area between the insulation and the connector with the mastic "OM-500 mm".



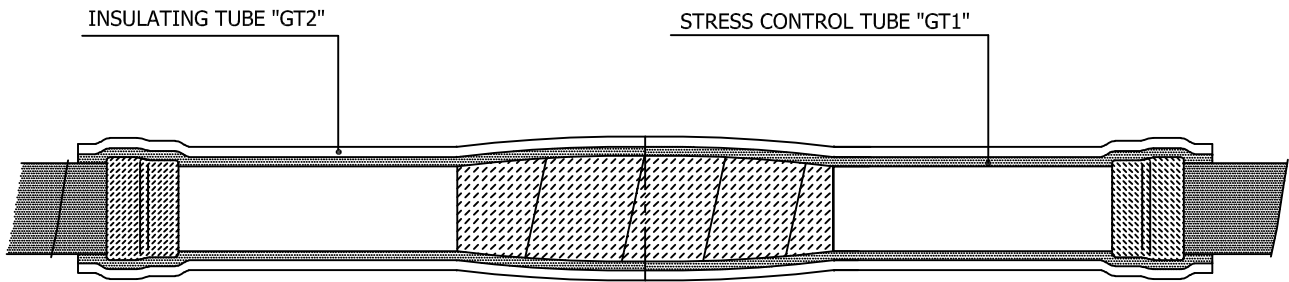
2.3 Build up the connector area with mastic "OM-500 mm" (500mm length strip) (50% overlap).

Build up the mastic to the cable insulation diameter plus 2mm. Overlap the cable insulation for 10mm both sides.

2.4 Wrap the short strip of stress relief mastic "OM" around both semi-conductive cuts,

lightly stretching it start 10mm on the semi-conductive layer and continue 10mm onto the core insulation.

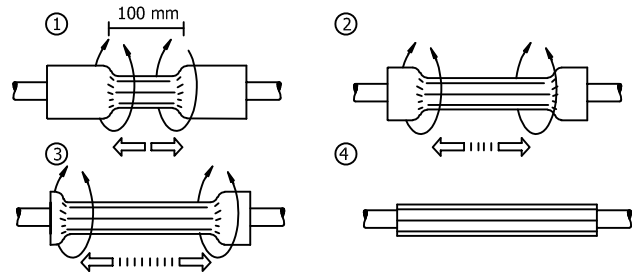
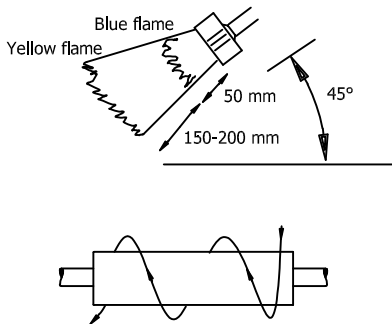
DONE:



2.5 Position the stress control tube "GT1" in the centre of the joint ensuring equal distance at both sides from the centre of the connector and start heatshrinking from the centre towards the extremities.

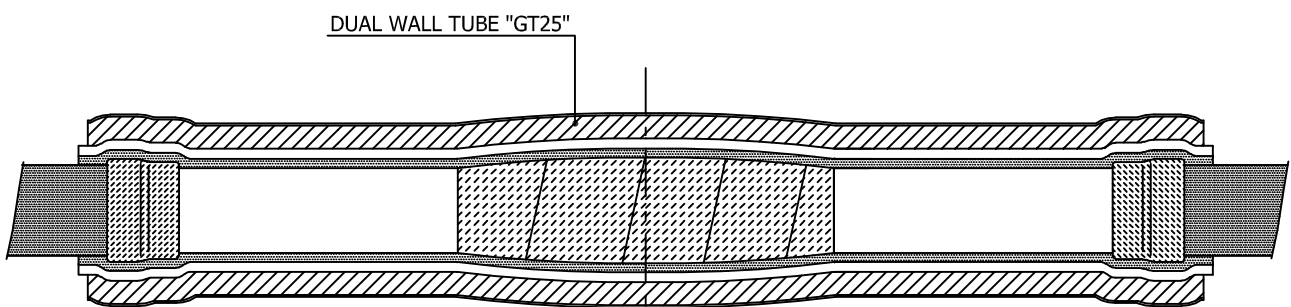
2.6 Position the insulating tube "GT2" centrally over the stress control tube "GT1" applied in 2.5 ensuring equal distance at both sides and start heat shrinking from the centre towards the extremities.

DONE:



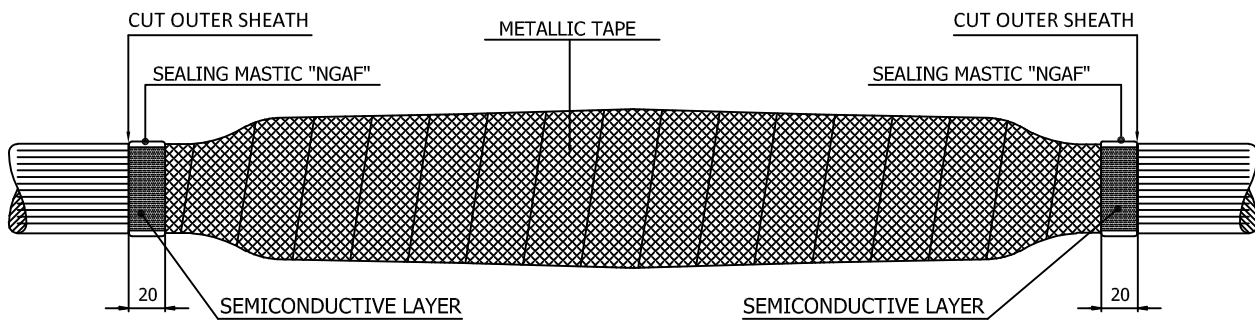
- To avoid over-heating of the heatshrinkable tube, keep the flame moving continuously and maintain an adequate distance with an angle of 45°.
- Pre-heat the tube for a minute as indicated in the figure.

- Heatshrink the tube from the center until obtaining a smooth surface.
- Continue the heatshrinking for circular sector of 100 mm alternating itself from both sides.
- At the end of the work, the surface of the heatshrinkable tube must be smooth.



DONE:

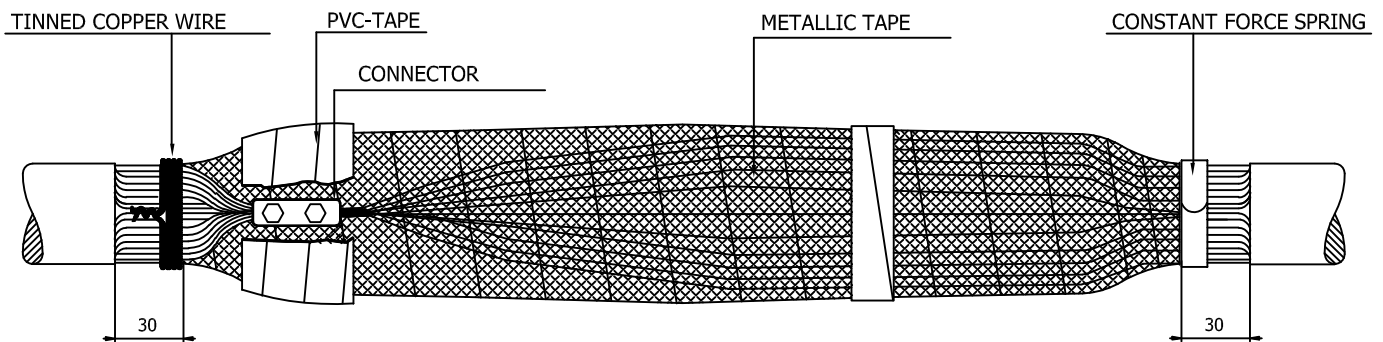
2.7 Position the dual wall tube "GT25" centrally over the insulating tube "GT2" applied in 2.6 ensuring equal distance at both sides and start heat shrinking from the centre towards the extremities.



2.8 Wrap the whole joint with metallic tape, using a 30% overlap, start and end at 20mm from cut outer sheath. Fix the extremity with a knot to prevent unwinding.

2.9 Apply one layer of sealing mastic "NGAF" starting from cut outer sheath, towards the metallic tape. Stretch the mastic to obtain a width of 20 mm.

DONE:



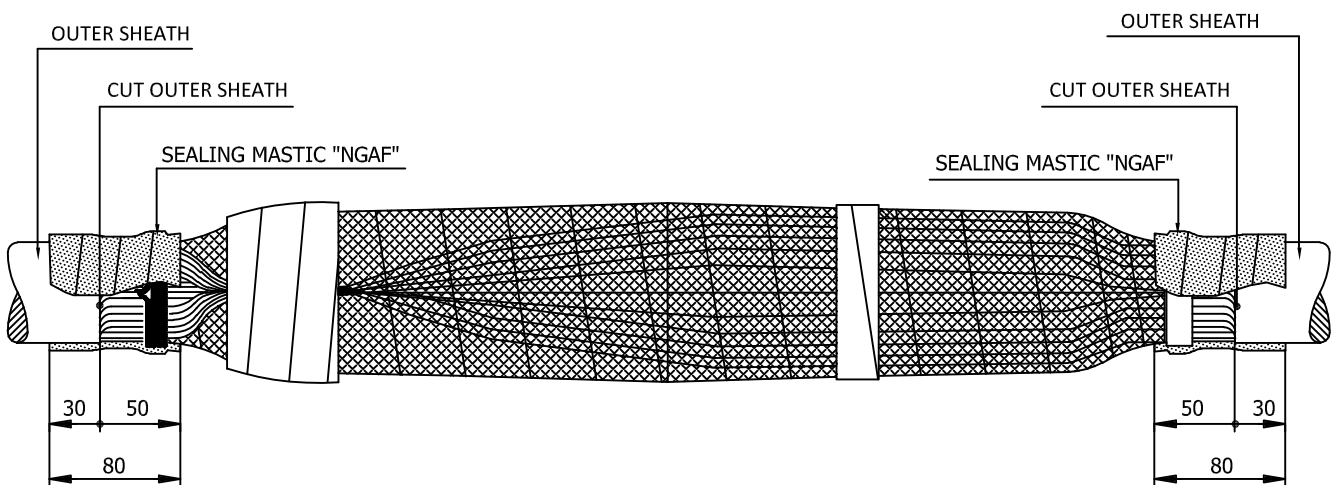
2.10 Remove the PVC tape previously applied to fix the screen wires.

Fold back the screen wires towards the centre of the joint.

Fix the screen wires to the metallic shielding tape with a constant roll force spring (if supplied) at 30 mm from cut outer sheath or with a binding of tinned copper wire.

Connect the screen wires through the connector and crimp it or break the screws if the ferrule is with shear-off-head bolted type.

Apply some layers of PVC tape over the connector and over the constant roll force spring (if supplied) to provide a smooth profile.

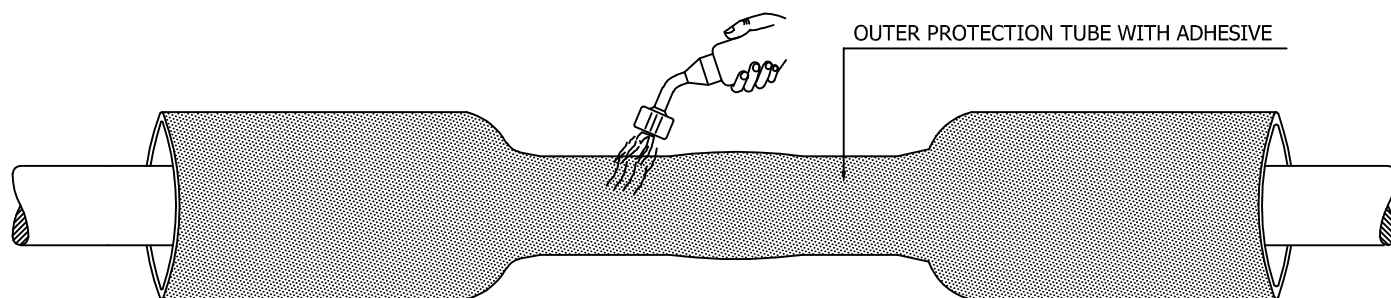


2.11 Clean the abraded area of the outer sheath.

2.12 Apply one layer of sealing mastic "NGAF" overlapping 30mm the extremities of the outer sheaths and 50mm the screen wires up to covering the constant force spring.

DONE:

### 3. COMPLETION OF THE JOINT



3.1 Position the protection tube at the centre of the joint and heatshrink starting from the centre towards the extremities.

DONE:

THE JOINT IS COMPLETED AND IS READY TO BE ENERGIZED.