

**Installation Instruction
EPP-1452-7/07**

**Raychem Terminations
for Polymeric Insulated
Cables
52 kV
with Cu. Wire Shield and
Al. Wire Armour**

Tyco Electronics Raychem GmbH
Energy Division
Finsinger Feld 1
85521 Ottobrunn
Munich, Germany
Tel. ++49-89-6089-0
Fax ++49-89-6096345

Before Starting

Check to ensure that the kit you are going to use fits the cable.

Refer to the kit label and the title of the installation instruction.

Components or working steps may have been improved since you last installed this product.

Carefully read and follow the steps in the installation instruction.

General Instructions

Use a propane (preferred) or butane gas torch.

Ensure the torch is always used in a well-ventilated environment.

Adjust the torch to obtain a soft blue flame with a yellow tip.

Pencil-like blue flames should be avoided.

Keep the torch aimed in the shrink direction to preheat the material.

Keep the flame moving continuously to avoid scorching the material.

Clean and degrease all parts that will come into contact with adhesive.

If a solvent is used follow the manufacturer's handling instructions.

Tubing should be cut smoothly with a sharp knife leaving no jagged edges.

Start shrinking the tubing at the position recommended in the instruction.

Ensure that the tubing is shrunk smoothly all around before continuing along the cable.

Tubing should be smooth and wrinkle free with inner components clearly defined.

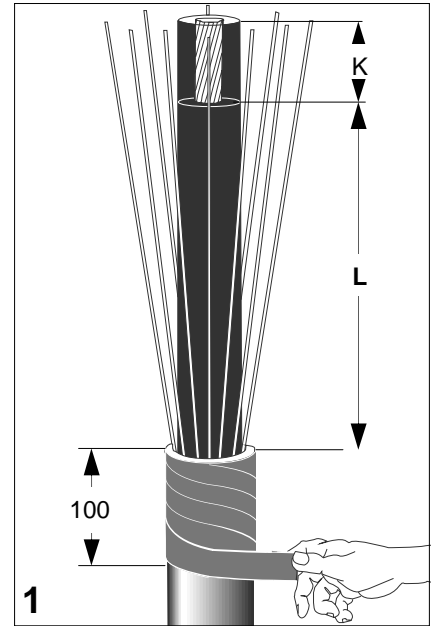
The Information contained in these installation instructions is for use only by installers trained to make electrical power installations and is intended to describe the correct method of installation for this product. However, Tyco Electronics has no control over the field conditions which influence product installation. It is the user's responsibility to determine the suitability of the installation method in the user's field conditions. Tyco Electronics' only obligations are those in Tyco Electronics' standard Conditions of Sale for this product and in no case will Tyco Electronics be liable for any other incidental, indirect or consequential damages arising from the use or misuse of the products. Raychem, TE Logo and Tyco Electronics are trade marks.

	Item	Description
Accessories	207R0xx	Insulating boots
	205W3xx	Skirts
	EPPA-007	Silicone grease
	EPPA-009	Copper mesh
	EPPA-029	Copper wire
	EPPA-034	Roll spring
	EPPA-036	Copper conductor with water block
	EPPA-042	Hose clamps
	EPPA-043	Textile tape
	EPPA-202	PVC insulating tape
	EPPA-220	Conductive paint
	EXRM-0542	Contact plate
	EXRM-0764	Kelvar string
	H019-PAPIER-HANDTUCH	Cleaning tissue
	S1085	Sealant (red)
	S1300	Stress control patch
Tubes	SCTM	Stress control tube (black)
	HVOT	Insulating tube (red)
	WCSM	Insulating tube (black)

Cable Preparation

Table 1

L Indoor mm	L Outdoor mm	K Crimped Connection	K Mechanical Connection
600	750	according to cable lug barrel + 5 mm	according to cable lug barrel - 5 mm

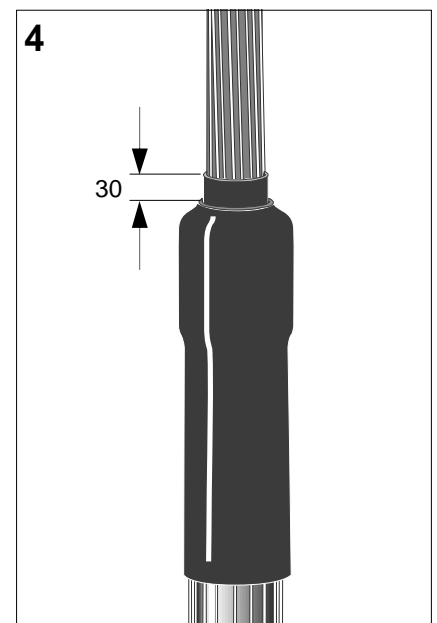
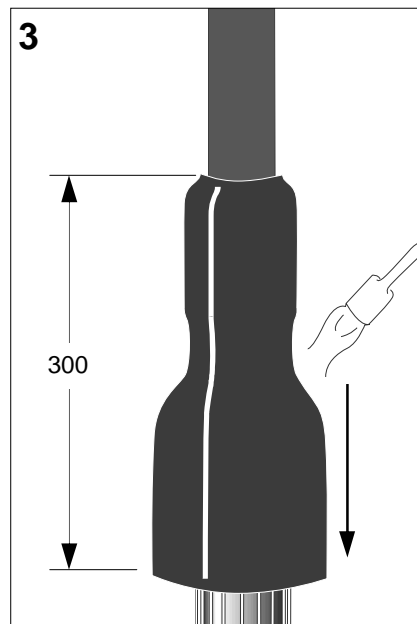
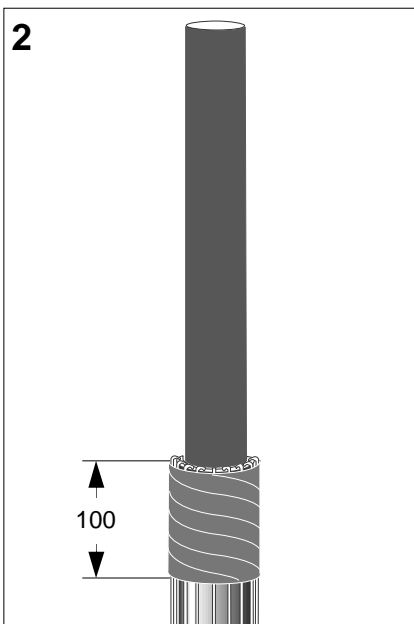


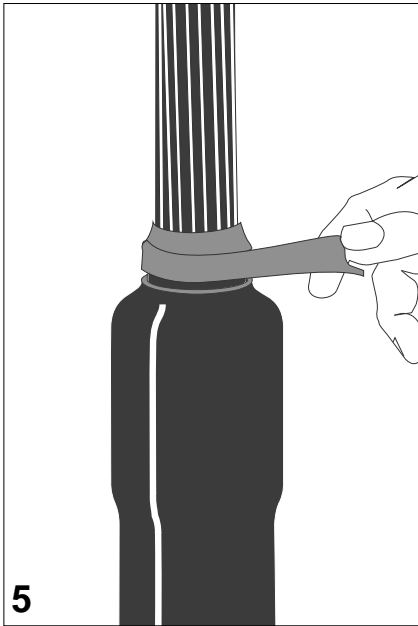
Remove the oversheath to dimension **L** given in table 1.
Clean the end of the oversheath for up to 200 mm.
Apply red sealant with slight tension over 100 mm of the oversheath.

Bend back the Armour wires onto the oversheath.
Apply red sealant with slight tension over 100 mm onto the Armour wires as shown.

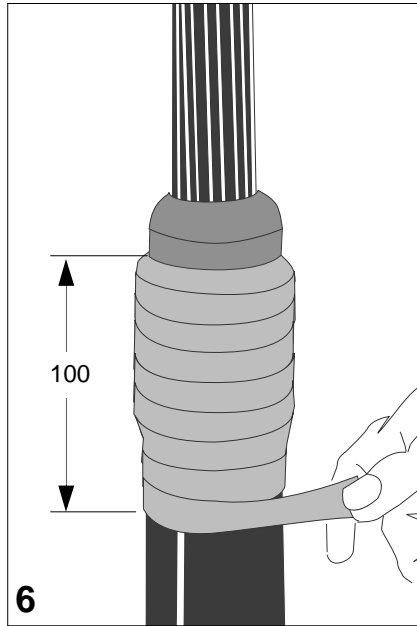
Cut the black tubing (WCSM 85/25) to a length of 300 mm.
Place it over the cable, its upper edge in line with the oversheath cut. Shrink down starting at the top and working downwards.

Remove the inner jacket to within 30 mm from the oversheath cut.

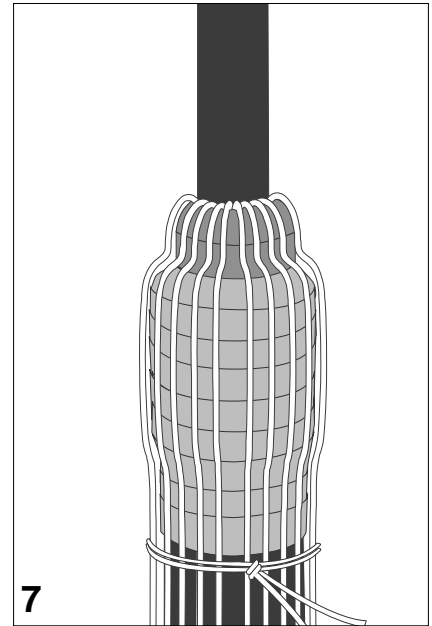




5 Apply red sealant with slight tension around the inner jacket.



6 Apply red sealant over a length of 100 mm starting at the oversheath cut.

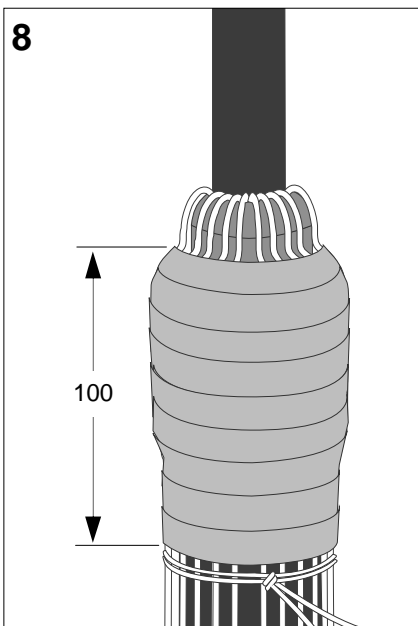


7 Bend back the copper shield wires onto the red sealant tape and fix them with a wire binder below the red sealant tape.

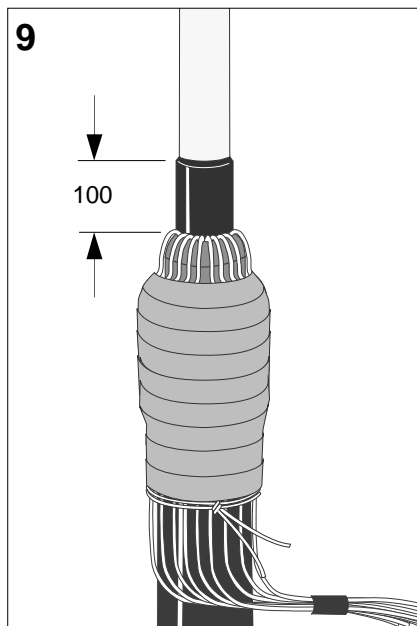
Wrap another layer of red sealant tape using only slight tension over the copper shield wires. Cover approx. 100 mm as shown.

Thoroughly remove the core screen to within 100 mm of the inner jacket cut. The surface of the insulation should be free from all traces of conductive material. Chamfer the core screen. Smooth out any irregularities. **Note:** Do not nick the insulation. Protect the area below from contamination.

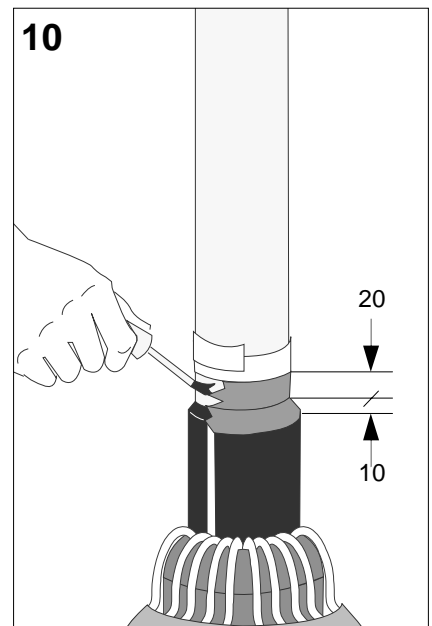
Apply a PVC tape (adhesive side up) to the core insulation leaving a distance of approx. 20 mm between the tape and core screen. Shake the bottle of conductive paint thoroughly. Apply the conductive paint onto the 20 mm length of core insulation overlapping the core screen by approximately 10 mm. When dry remove the PVC tape.



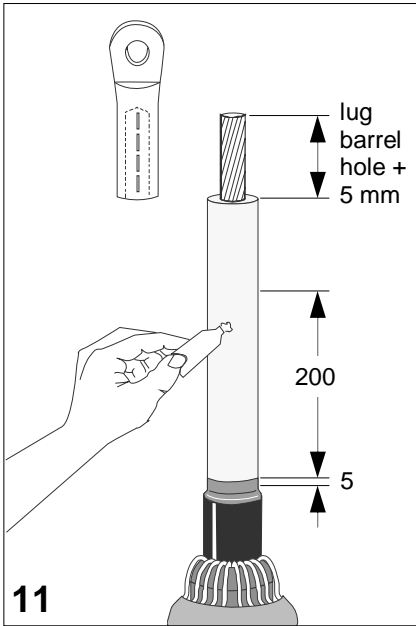
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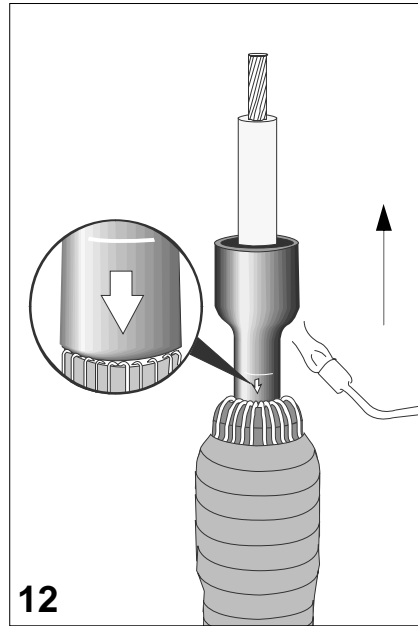
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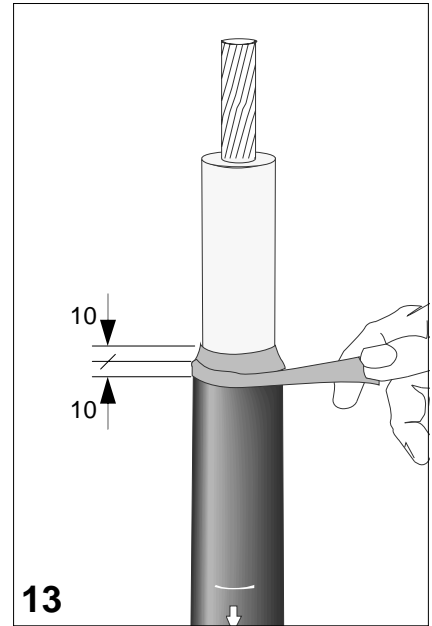
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Cut back the insulation according to cable lug barrel hole + 5 mm. Apply a thin film of silicone grease cover 5 mm of the conductive paint and 200 mm of the insulation.

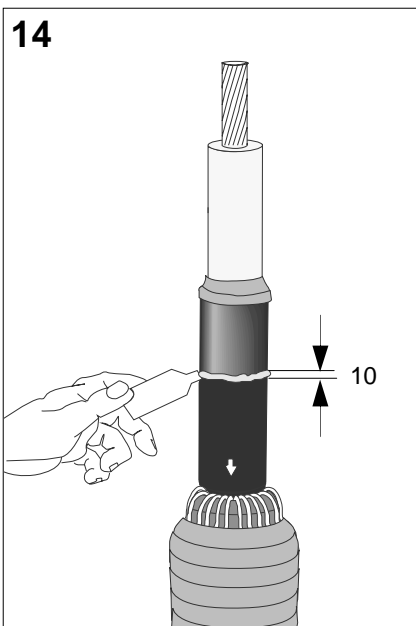


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Place the long stress control tubing (black) with the arrow pointing downwards over the core against the inner jacket cut. Shrink down starting at the bottom and working upwards.



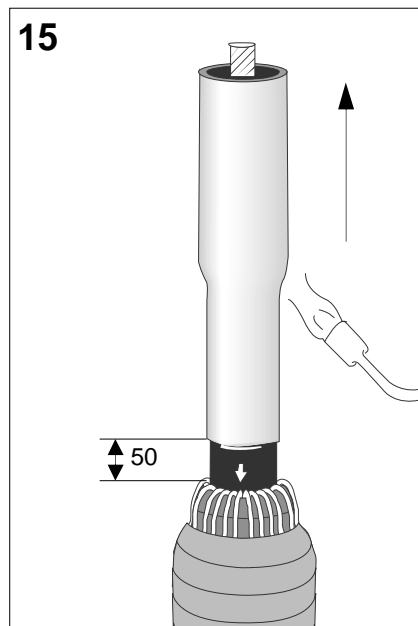
13
Apply red sealant using only slight tension and a small overlap. Cover 10 mm of the stress control tubing and 10 mm of the insulation.

Apply a thin film of silicone grease on approx. 10 mm on the edge of the matt surface of the stress control sleeve as shown.



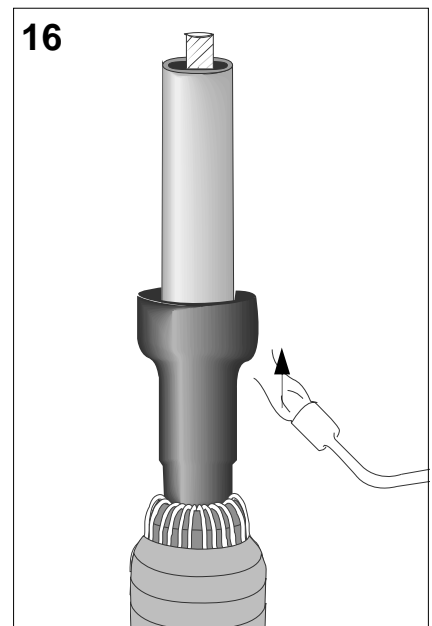
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Place the short tubing (red) over the core 50 mm above the inner jacket cut. Shrink down starting at the bottom and working upwards.

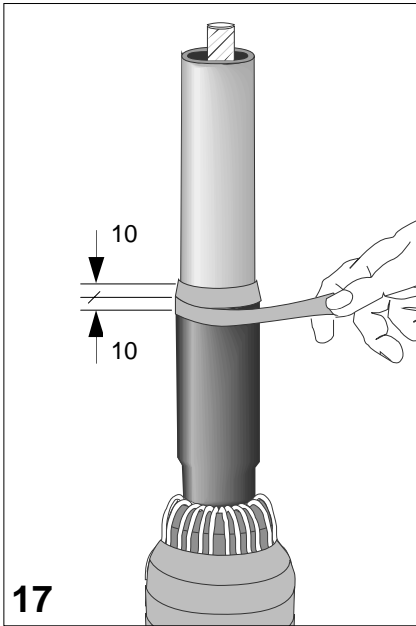


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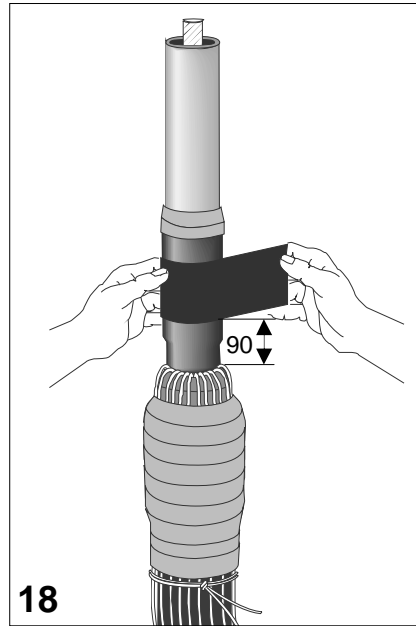
Place the short stress control tubing over the core against the inner jacket cut. Shrink down starting at the bottom and working upwards.



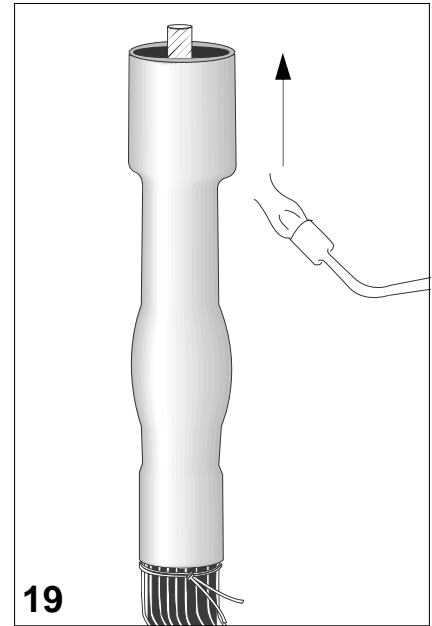
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Apply red sealant using only slight tension and a small overlap. Cover 10 mm of the stress control tubing and 10 mm of the red tubing.



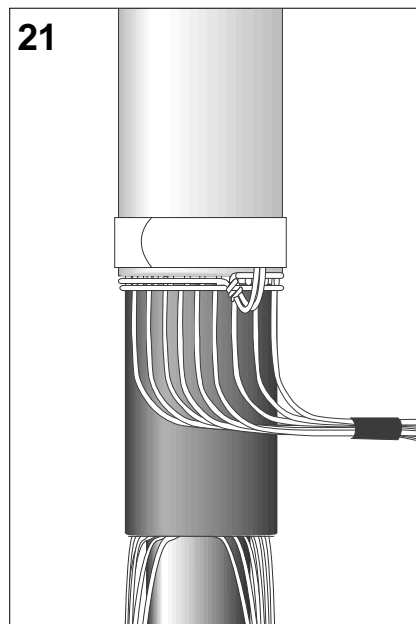
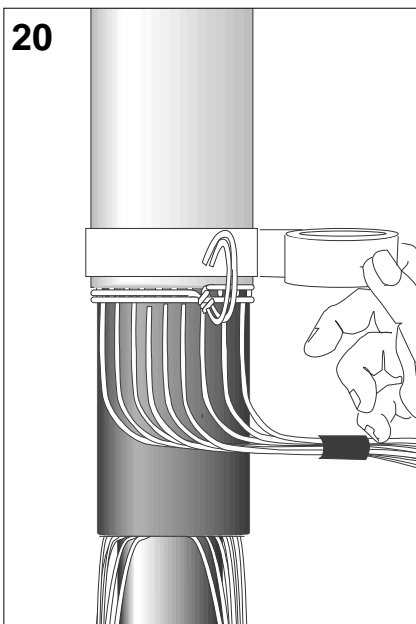
Wrap two layers of insulating profile over the stress control tubing starting 90 mm above the inner jacket cut.



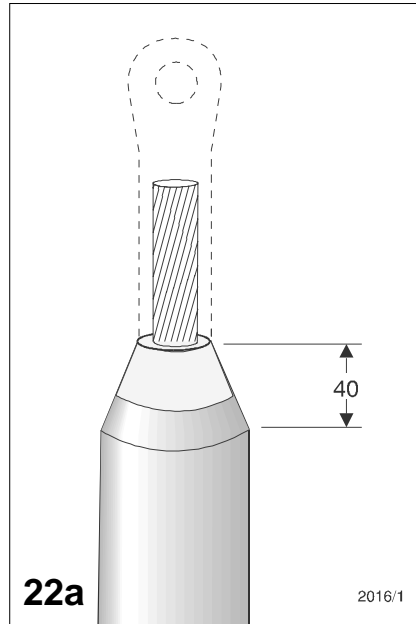
Place the long red tubing over the cable, completely covering the mastic. Shrink down starting at the bottom and working upwards.

Separate the armour wires from the shield wires. Form two separate earth leads by twisting the strands together. Wrap the roll spring twice over the tubing (red). Position two ends of the wire binder onto the roll spring. Wire ends should not overlap the roll spring.

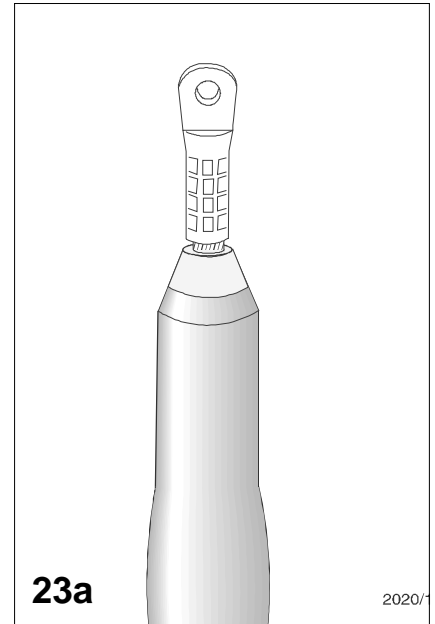
Fold the wires back and wrap the rest of the roll spring over the wire binder. Tighten the roll spring with a twisting action.



Termination with crimp connector



Cut back the tubing onto the insulation. Chamfer the insulation to the diameter of the cable lug to achieve a smooth transition.



Install, clean and degrease the cable lug.

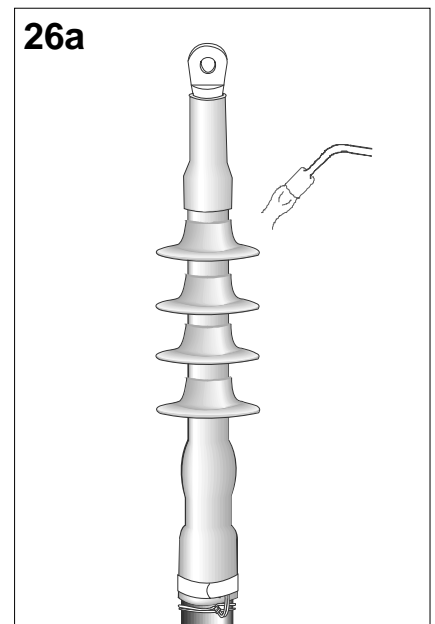
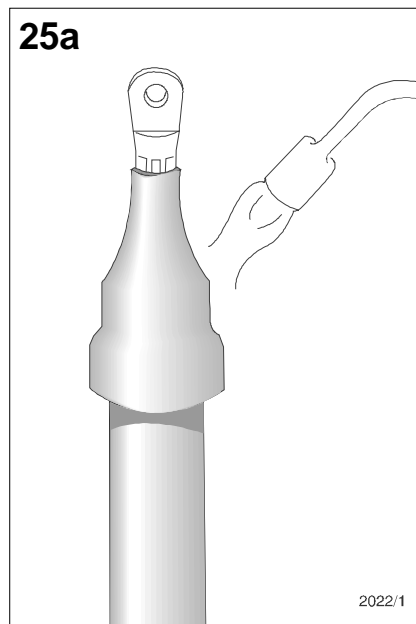
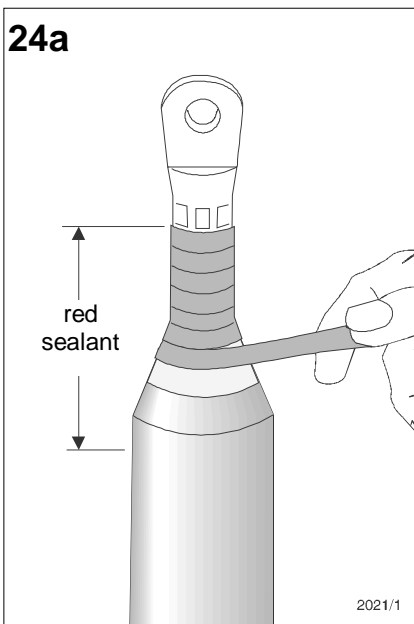
Wrap sealant (red) with slight tension around the insulation and connector. Fill up any gaps between insulation and cable lug.

Position the sealing boot so that it covers the core and connector equally and shrink it into place, starting at the top.

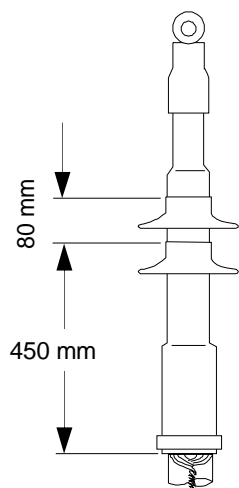
Shrink the skirts into place according to the dimensions at the last page.

Make sure that the first skirt is placed slightly above the end of the insulation profile which is located under the outer tubing.

Termination completed.

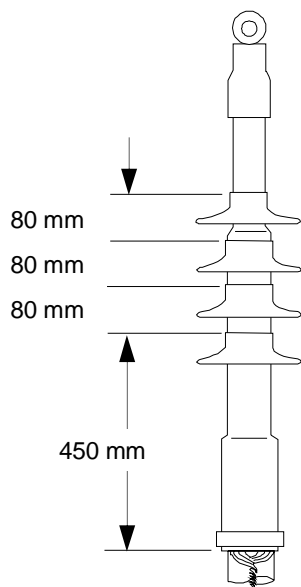


Indoor



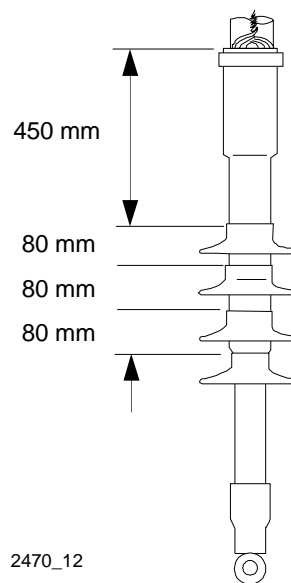
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Outdoor

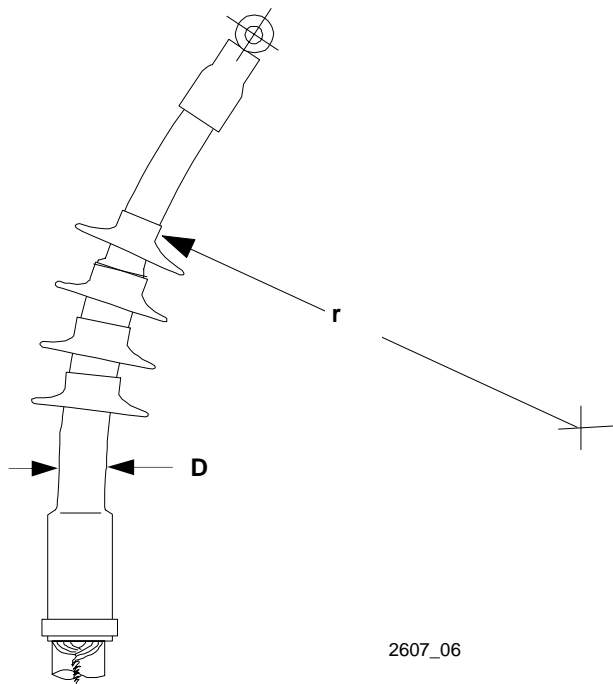


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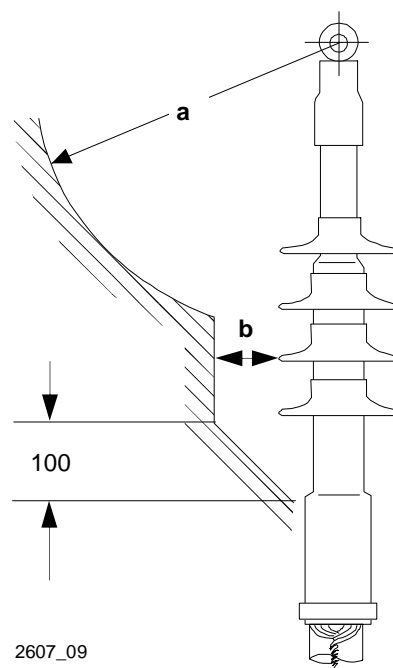
Reversed Installation



2470_12



2607_06



2607_09

Number of skirts per core		
kV	Indoor	Outdoor
52	2	4

Min. clearances	Max. system voltage 52 kV
a air clearance	according to local specifications
b between ph/ground [mm]	100
r min. bending radius $10 \times D$, before bending heat cores up to approx. 70° C	

Please dispose of all waste according to environmental regulations.

