ENSTO

Date: 06.08.1998

Offshore termination
Single core 7,2 - 24 kV
Offshore

Installation instruction
MB 501 E

Installation note
As Ensto Nor AS has no control over the field conditions which influence product installation, it is understood that the user must take this into account and apply his own experience and expertise when installing the product.

ENSTO NOR AS

Oslo	Bergen	Sarpsborg	Sortland	Stavanger	Larvik	Trondheim
Tlf. 22 90 44 00	91 30 08 44	91 30 02 72	91 30 02 66	51 66 01 45	91 30 02 75	73 54 02 88

General instructions

— Use a propane (preferred) or butane gas torch.

— Adjust the torch to obtain a soft blue flame with yellow tip. Pencil-like blue flames should be avoided.

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

— Keep the flame moving continouasly to avoid scorching the material.

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

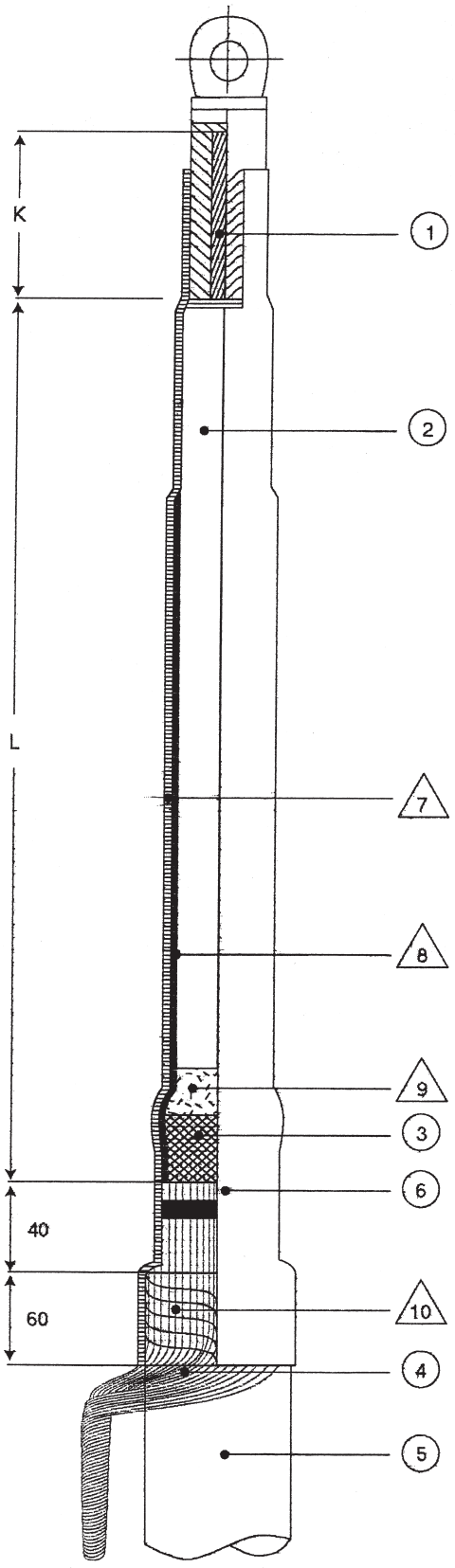
— If a solvent is used follow the manufacturer´s handling instructions.

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

— Start shrinking the tubing at the posotion recommended in the instruction.

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

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



○ Cable

△ Termination

① Conductor

② Core insulation

③ Semiconductive layer

④ Copper screen

⑤ Outersheat

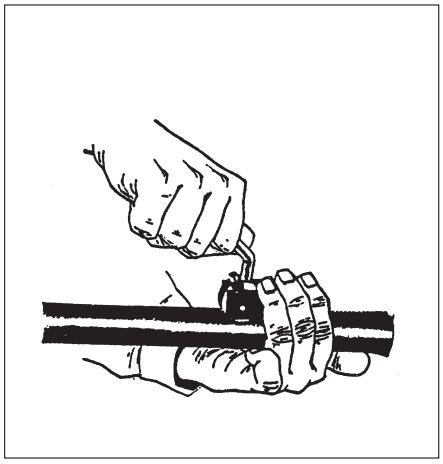
⑥ Innersheat

△7 Red insulation tubing (HVOT)

△8 Black stress control tubing (SCTM)

△9 Yellow void filler

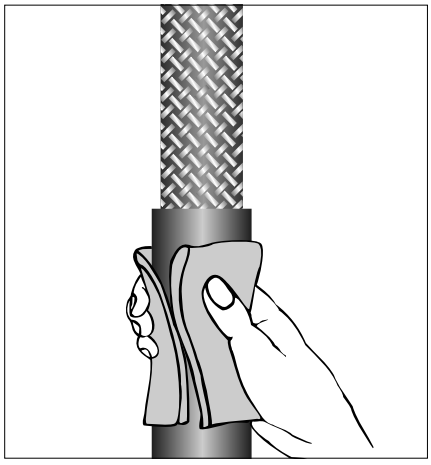
△10 Red mastic tape



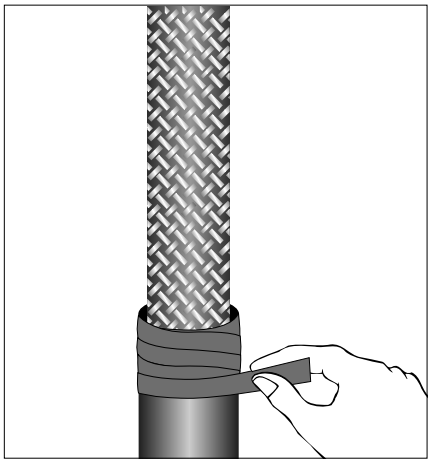
1.
Remove the outer sheat to a length of K + L + 40 mm
NOTE ! It may be necessary to remove more than K + L + 40 mm of the outer sheat. This is in order to make the copper screen reach the earting point.

Table 1

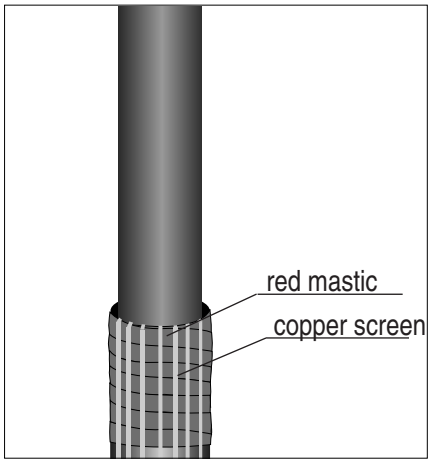
Voltage	L mm	K
7,2 12 17,5 24	150 190 230 270	according to depth of corrector barrel hole + 5 mm



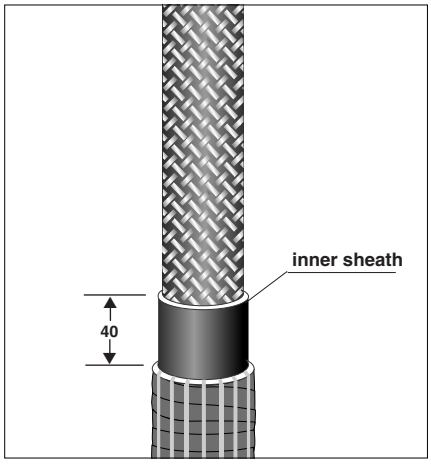
2.
Clean, rubb and degrease the last 40 mm of the outer sheath.



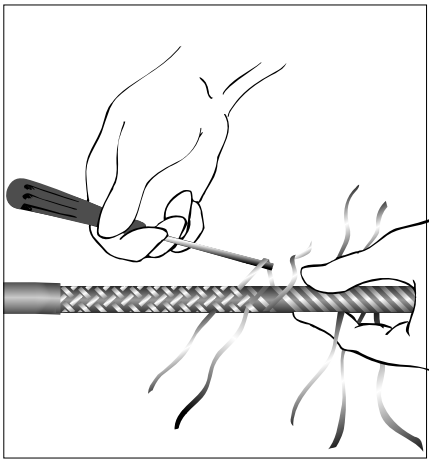
3.
Wrap one layer of red mastic sealant with a slight overlap around the end of the outer sheath, for about 40 mm.



4.
Comb out the outer stranded copper screen and bend it back over the red mastic sealant. Secure it with tape to the outer sheath.



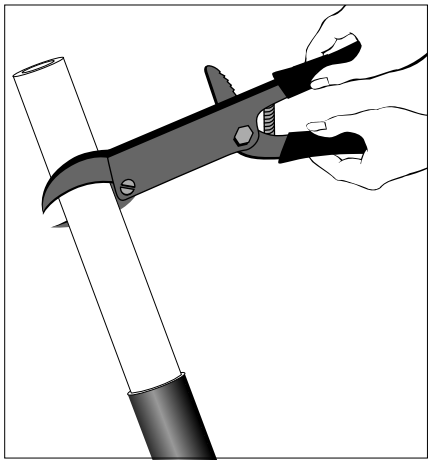
5.
Remove the inner sheath to length of K + L.



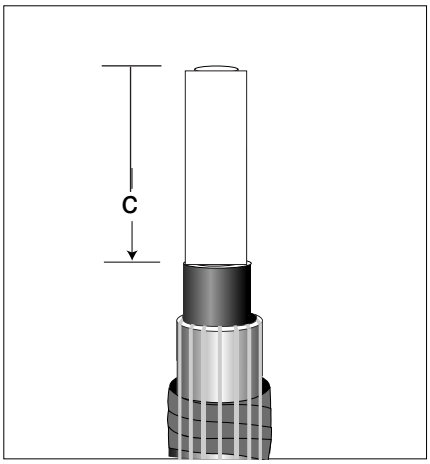
6.
Comb out the inner stranded copper screen, and bend it back over the outer copper screen, or if you want the screens to be separated, start wrapping red mastic sealant on the inner sheath. Then bend the copper screen back on to the sealant before gathering it in one bundle before it reaches the outer screen. Pass the green/yellow heatshrinkable tubing on to the inner screen bundle and shrink it down, making sure there is no contact between the screens.
Note: The green/yellow heatshrinkable tubing is not supplied with the kit.

Table 2

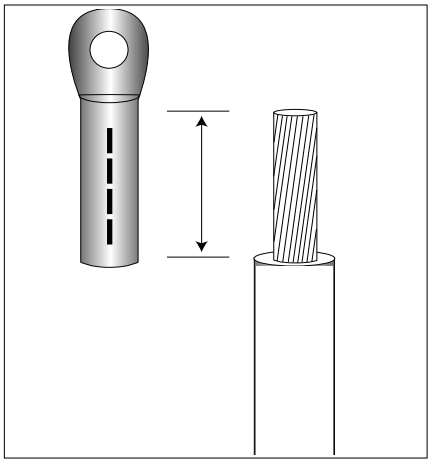
Voltage	C
7,2	110
12,0	150
17,5	190
24,0	230



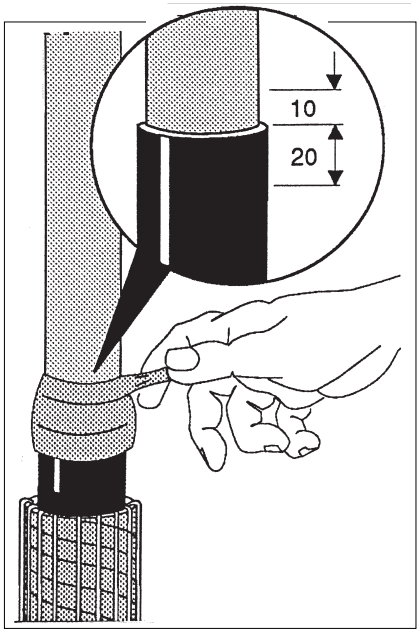
7.
If there is an overlenght of cable. Cut the cable back according to dimensions given in table 1.



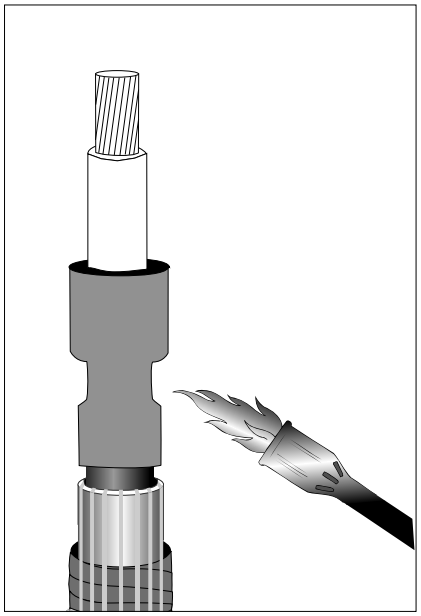
8.
Remove the semi-conducting layer to length C, as shown in table 2. Do not use a knife. If it is not possible to tear off the semi-conducting layer by hand, you will need a special tool for this purpose. Clean and degrease the core insulation so that the surface is free from all conductive materials.



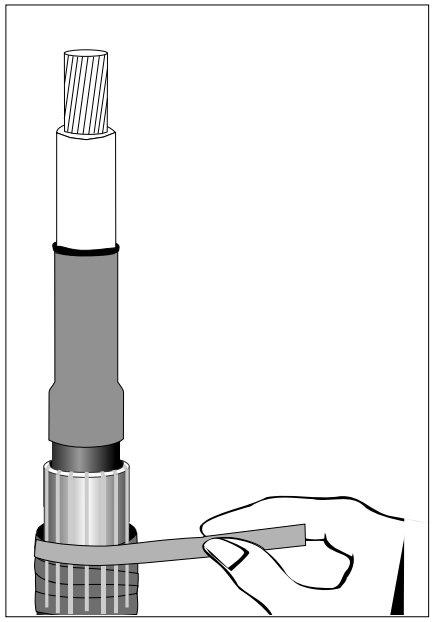
9.
Cut back the core insulation according to dimension **K = depth of cable lug barrel + 5 mm**. Clean and degrease the insulation and the lug.



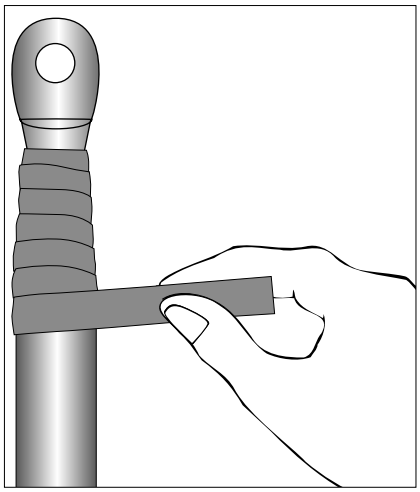
10.
Remove the release paper and wrap the void filling strip (yellow) around the end of the core screen. Cover 20 mm of the core screen and continue onto the insulation for 10 mm.
Stretch the strip to half of its original width to achieve a fine, thin edge onto the insulation.



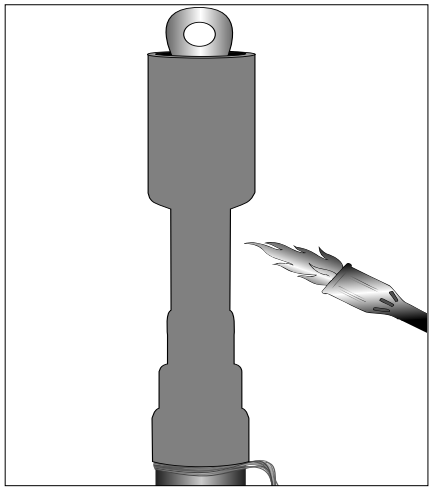
11.
Position the black stress control tubing (SCTM) so that it overlaps the end of the semi-conducting layer by about 40 mm, as shown in the drawing. Start shrinking the tubing over the end of the semi-conducting layer, working upwards.



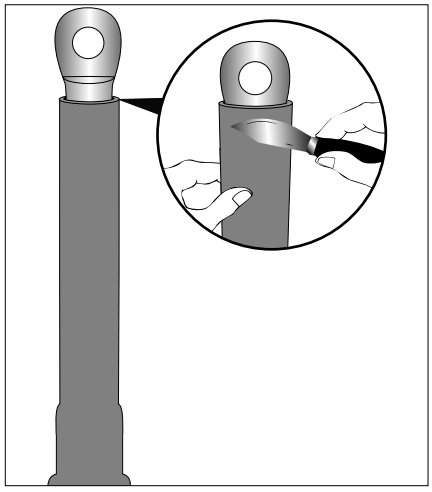
12.
Wrap one layer of red mastic sealant with a slight overlap over the copper screen. Starting at the end of the outer sheat and continuing 40 mm down.



13.
Wrap one layer of red mastic sealant with a slight overlap around the barrel of the cable lug and 10 mm over the core insulation.



14.
Place the red tubing (HVOT), so that it covers the red mastic sealant over the copper screen. Shrink the tubing down starting at the oversheat end, working towards the cable lug.



15.
Cut the tubing back onto the cable lug barrel if necessary. Clean the surface of the termination.
Indoor termination up to 17,5 kV completed.

Place dispose of all waste according to environmental regulations.

Supplier:
ENSTO NOR AS
P.O. Box 125, Alnabru
Prof. Birkelandsvei 26 A
0614 OSLO
Teleph. 22 90 44 00
Telefax 22 90 44 65
www.ensto.no