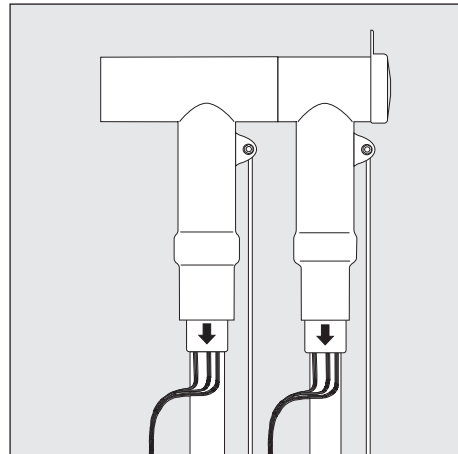




## TE's Raychem Cable Accessories



### Installation Instruction EPP-1770-8/18

**Raychem  
Screened Separable  
Coupling Connector  
up to 1250 A for  
Fit onto Base Connector Type  
RSTI-x95x used with  
bushings Type "C"  
according to EN 50181  
and screened Single Core  
Polymeric Insulated Cable  
up to 42 kV**

**Type: RSTI-CC-x95x**

#### **Safety Warning:**

**It is essential to observe the applicable safety regulations for working with high voltage equipment.**

**For precise safety information please contact the responsible authority.**

To view the TE Energy website:

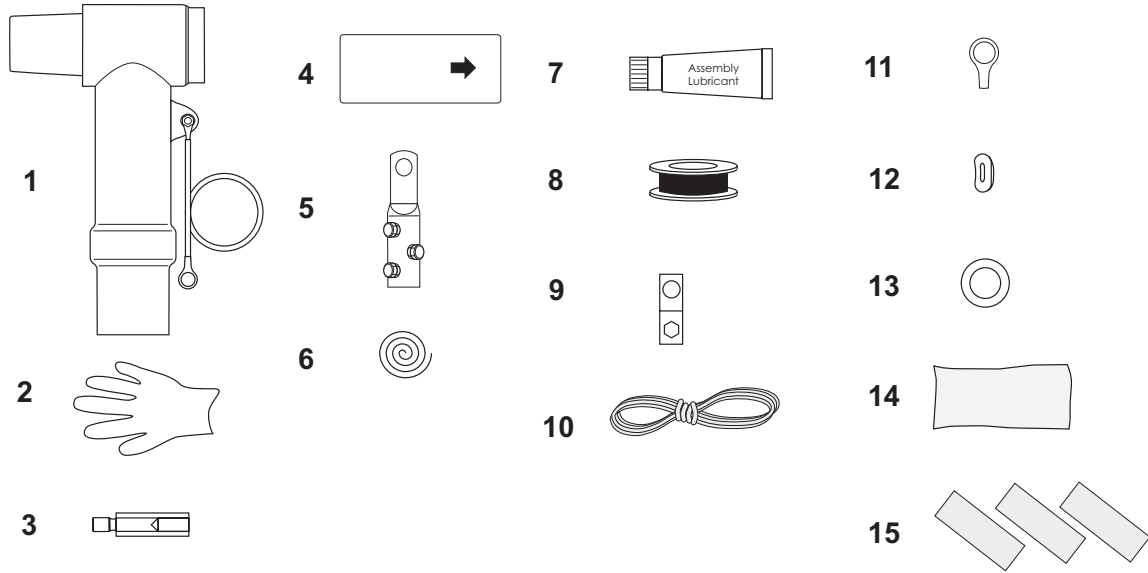


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# Before Starting

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.

## Kit Content



1	3 x Connector body	4	3 x Stress cone	7	2 x Assembly lubricant	11	3 x Screen cable lug
2	3 x Gloves	5	3 x Main cable lug	8	1 x PVC tape	12	3 x Spring washer (spare)
3	3 x Coupling bolt	6	1 x Binding wire	9	3 x Cable lug (16 - 70)	13	3 x Cu washer, tinned
				10	1 x String	14	3 x Protective bag
						15	3 x Sealing tape (grey)

Table 1

Cross Section	Voltage Class (U <sub>m</sub> )/kV	Ø Core Insulation		Reference No. Al or Cu
		min	max	
400	12	28.9	36.4	RSTI-CC-3951
500		28.9	36.4	RSTI-CC-3952
630		34.0	45.4	RSTI-CC-3953
800		34.0	45.4	RSTI-CC-3954
400	24	34.0	45.4	RSTI-CC-5951
500 - 630		34.0	45.4	RSTI-CC-5952
630		39.1	59.0	RSTI-CC-5953
800		39.1	59.0	RSTI-CC-5954
400	36 & 42	34.0	45.4	RSTI-CC-6951
500 - 630		39.1	59.0	RSTI-CC-6952
800		39.1	59.0	RSTI-CC-6953

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, TE Connectivity has no control over the field conditions which influence product installation.

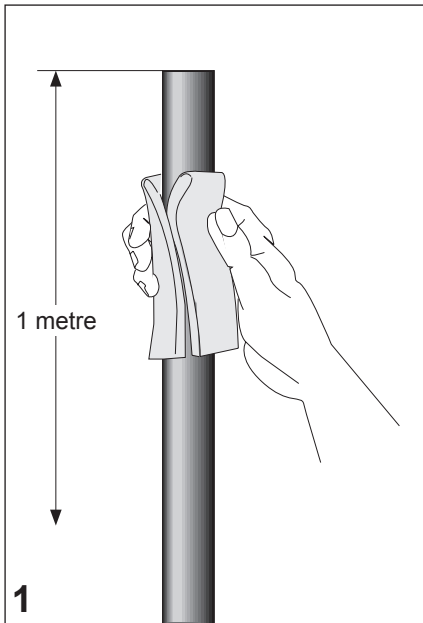
It is the user's responsibility to determine the suitability of the installation method in the user's field conditions.

TE Connectivity's only obligations are those in TE Connectivity's standard Conditions of Sale for this product and in no case will TE Connectivity be liable for any other incidental, indirect or consequential damages arising from the use or misuse of the products.

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## Cable Preparation

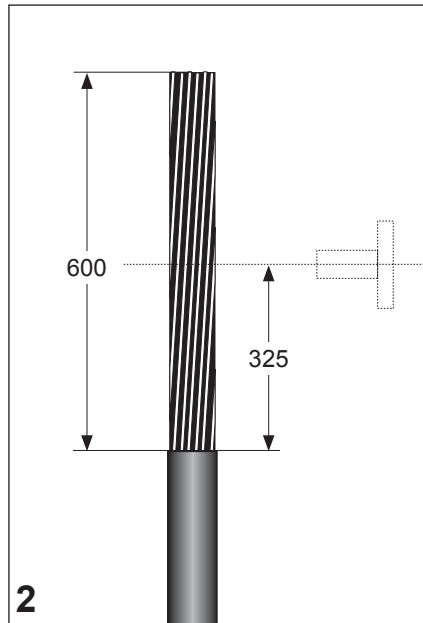
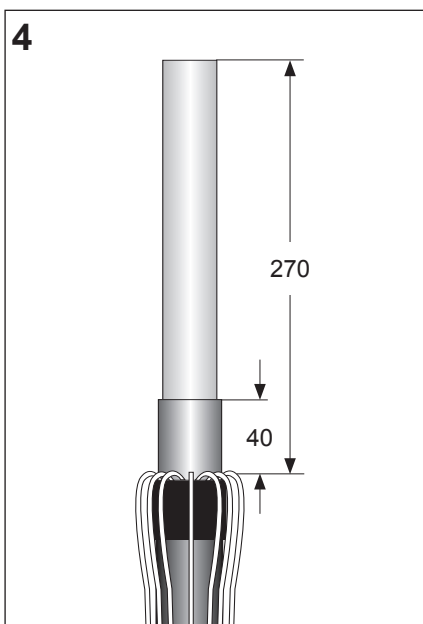


Preheat the cable and use appropriate devices to straighten the cable.

Clean and degrease the end of the overshath for a length of 1 metre with solvent wipe.

Cut the core according to the dimension given in the drawing. Remove the core screen with appropriate screen cutting tool according to the drawing. The surface of the insulation should be free from all traces of conductive material. Compare the diameter over insulation with application range as shown in **Table 1** as well as with marking of supplied stress cone.

### Application Check!



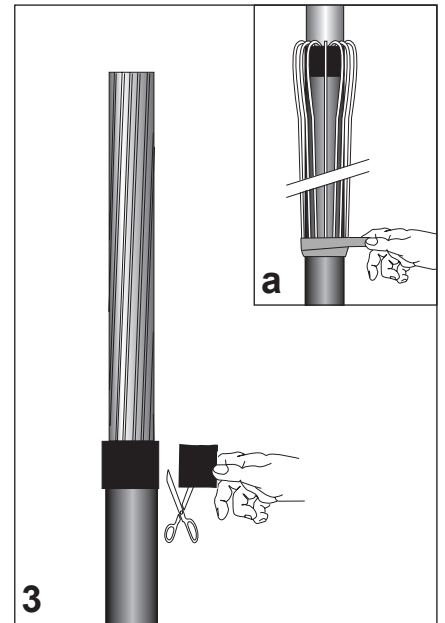
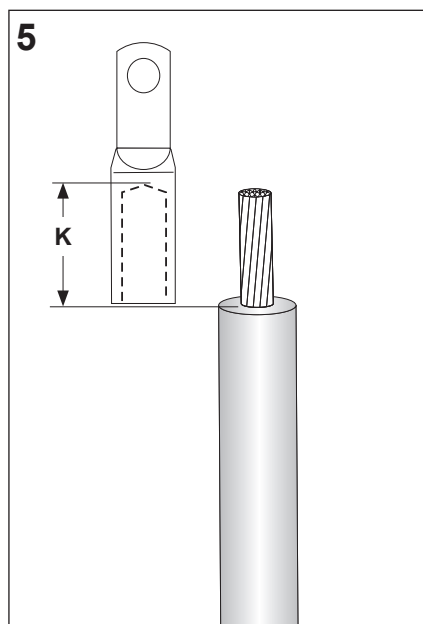
### Cable with wire shield

Position the cable with sufficient overlap to the bushing centre. Mark the overshath 325 mm below the bushing centre. Cut the cable 600 mm above the mark and remove the overshath over this distance. Cut off Cu-spiral screening tape flush with end of outer sheath.

**Edges** projecting beyond the outer sheath **must be avoided**, so that the stress cone can not be damaged during push on procedure.

Cut back the insulation according to dimension **K** given in drawing details.

Dimension **K** is identical to depth of bore. Barrel butts against insulation!



Wrap one turn of sealant tape (grey) with no overlap and slight tension around the end of the overshath.

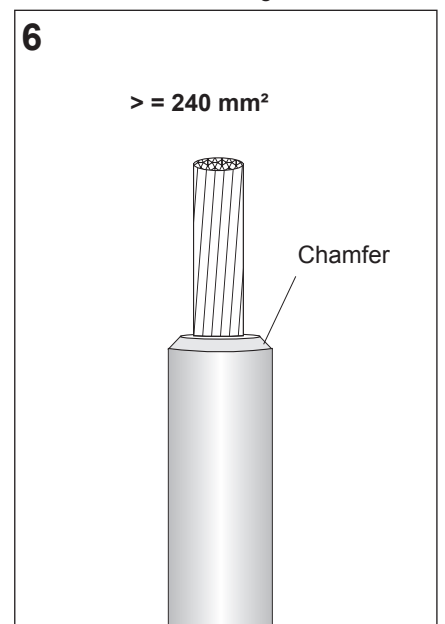
Cut the tape and push ends together.

Bend the shielding wires back onto the overshath.

Avoid crossing the individual wires. Temporarily secure the wires with a tape or wire binder (see detail).

### Recommendation for large cross sections

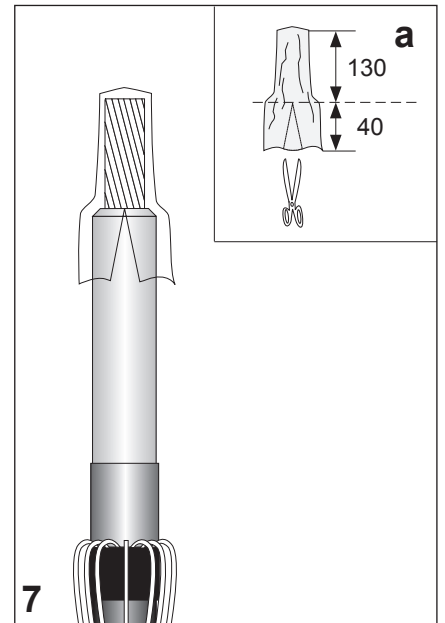
Convenient push on process of the stress cone requires chamfering of the insulation for cross section 240 mm<sup>2</sup> and above. See drawing!



## Core Preparation

Table 2 - Application Range of Mechanical Lugs

Part number	Cross section (mm <sup>2</sup> )	Ø over round stranded Al or Cu conductors (mm)	Ø over round solid Al conductors (mm)
BLMC-400-16-1250A	400	19.7 - 24.6	19.8 - 22.2
BLMC-500/630-16-1250A	500 - 630	25.3 - 32.5	24.0 - 28.3
BLMC-800-16-1250A	800	32.5 - 35.3	30.9 - 32.1



Cut the small protective bag (assembly aid) at the bottom end at a length of 40 mm on one side (see detail a).

Slide the protective bag over the exposed conductor as shown.

Tie the assembly aid down with a PVC tape as shown in the drawing.

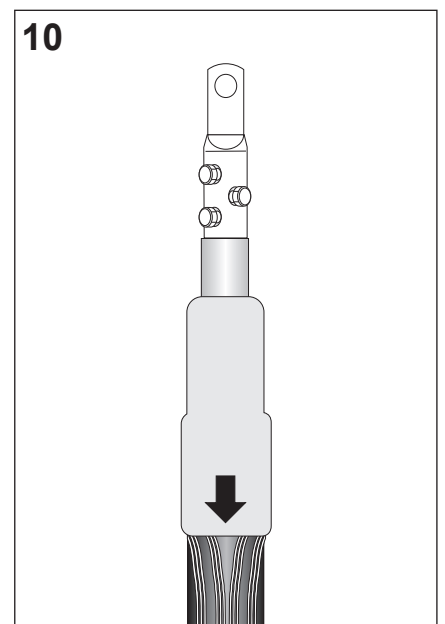
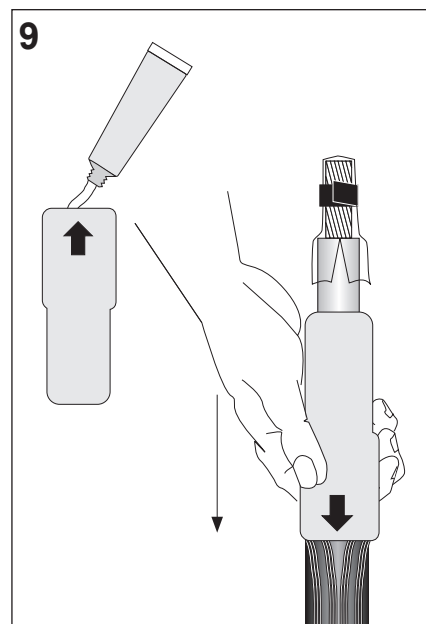
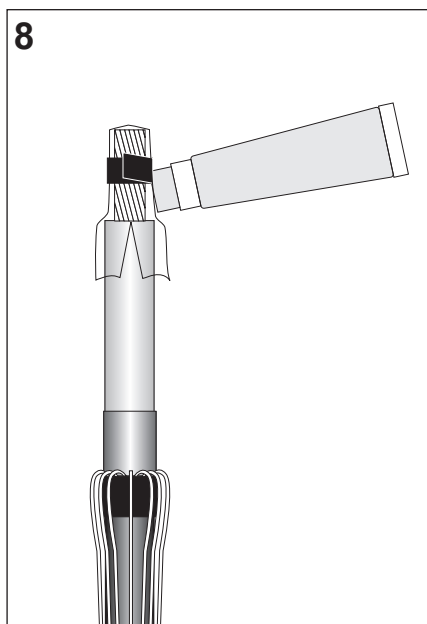
Gently lubricate the outer surface of the protective bag and the core insulation with a thin layer of assembly lubricant. Apply the lubricant layer with the sponge top as shown.

Apply onto the inner surface of the stress cone at the bottom end a 5 cm long sausage of assembly lubricant and spread it evenly over the inner surface. Use assembly lubricant without sponge top. Push the stress cone in one sequence with a twisting movement over the assembly aid completely onto the insulation until the inner collar of the stress cone stops at the oversheath cut back of the cable.

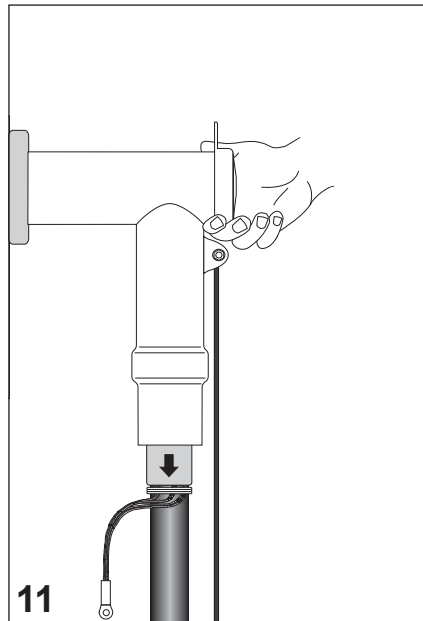
**Note:** The arrow on the stress cone should point onto the cable sheath. Remove the assembly aid from the conductor.

Remove the assembly aid and install the cable lug using a lug fixture. Tighten the bolt set alternately in several equal steps until the heads shear off.

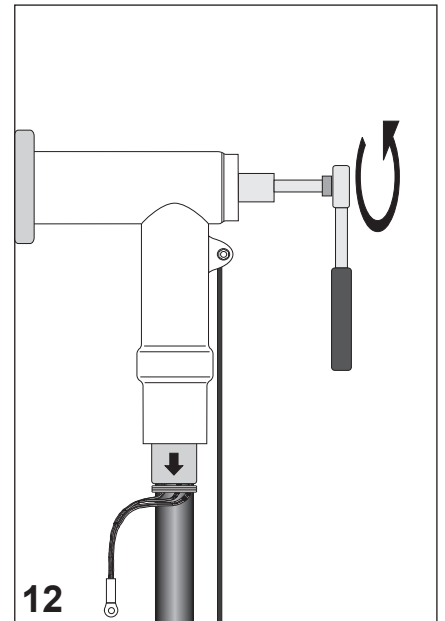
**Remove any sharp edges.**



## Preparation of Installed Screened Separable Connector



11 Remove from the installed connector the conductive endcap and save it in a clean container.



12 Remove from the installed connector the back plug and save it in a clean container.

## Installation of Coupling Connector

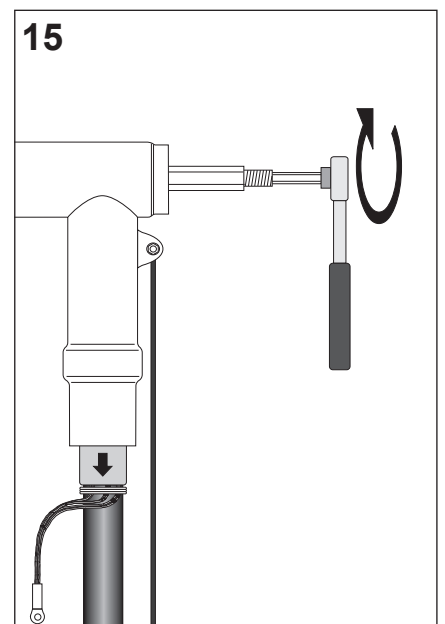
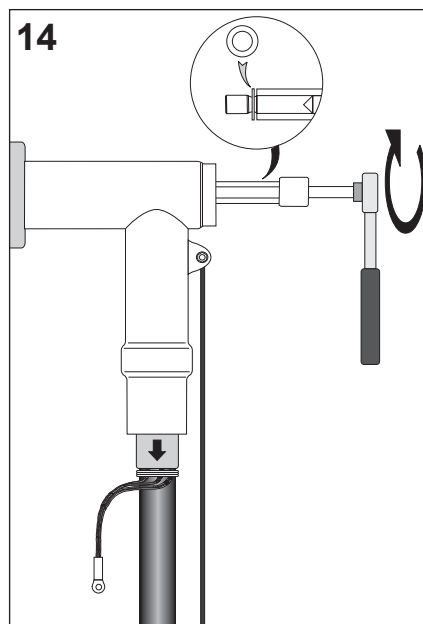
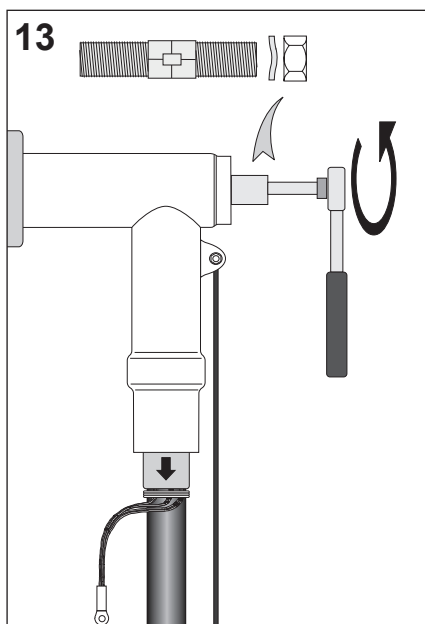
Remove from the installed connector **hexagon nut, washer, threaded pin** and save it in a clean container.

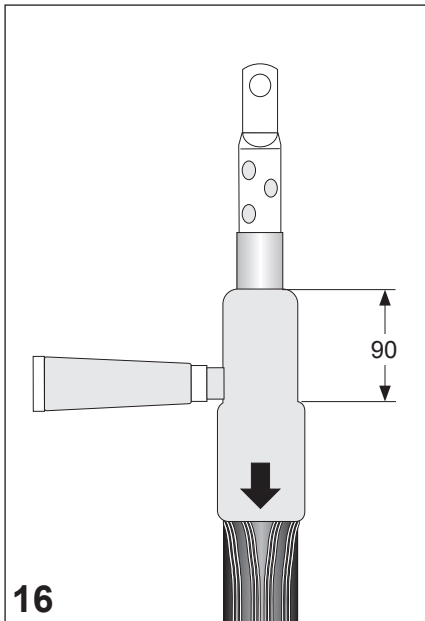
Ensure that the rear end of the already installed connector is lubricated with a thin layer of assembly lubricant.

Insert coupling stud with tinned Cu-washer (see detail) into the rear end of the connector and tighten it up with a torque wrench (27 mm).

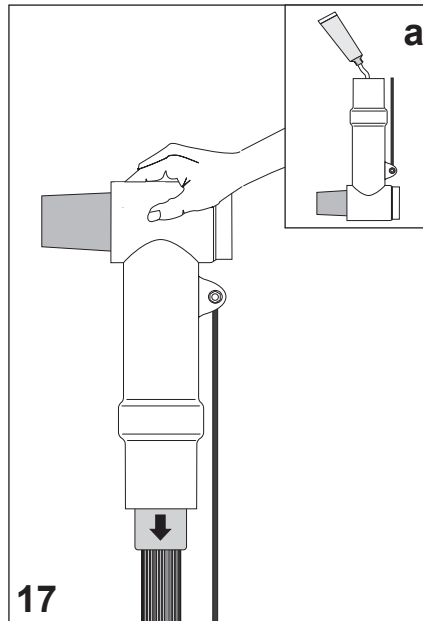
Maximum torque: **35 Nm**.

Insert the **threaded stud M16** into the rear end of the coupling stud and tighten it up with an Allen key (8 mm). Maximum torque: **30 Nm**.





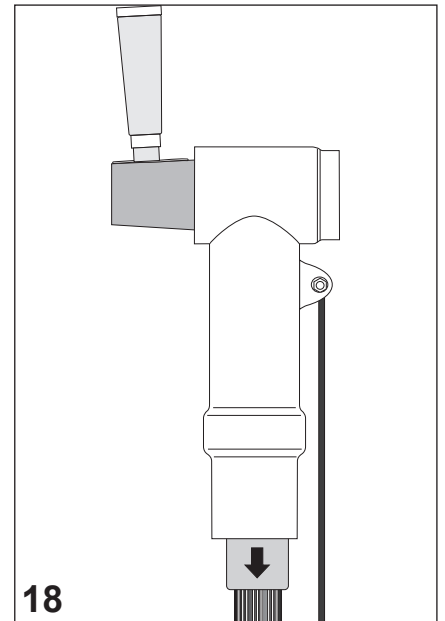
16  
Clean the outer surface of stress cone and apply a thin layer of lubricant onto the outer surface of the stress cone over a length of 90 mm with the sponge top as shown in the drawing.



17  
Clean the coupling connector body at the bottom end and apply a thin layer of lubricant onto the inner surface without the sponge top as shown in detail a.

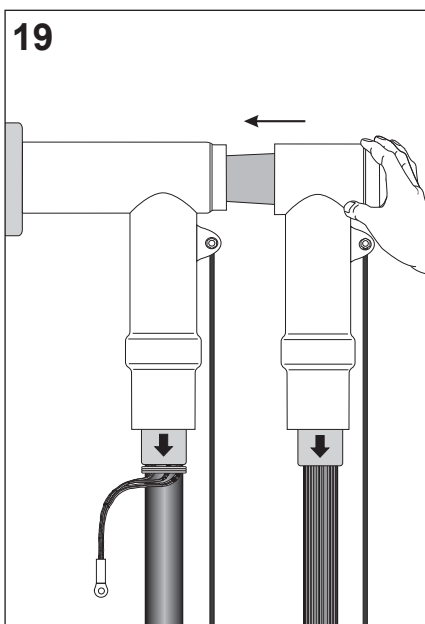
**Note:** Use one way glove to evenly lubricate the inner surface at a length of approx. 50 mm.

Push the coupling connector body with no interruption onto the stress cone and hold it.

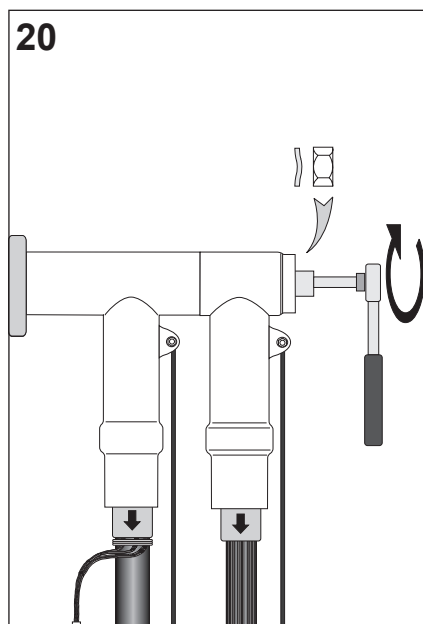


18  
Clean the conical front end of the coupling connector and apply a thin layer of lubricant onto the outer surface of the cone with the sponge top. Continue **immediately** with the next step.

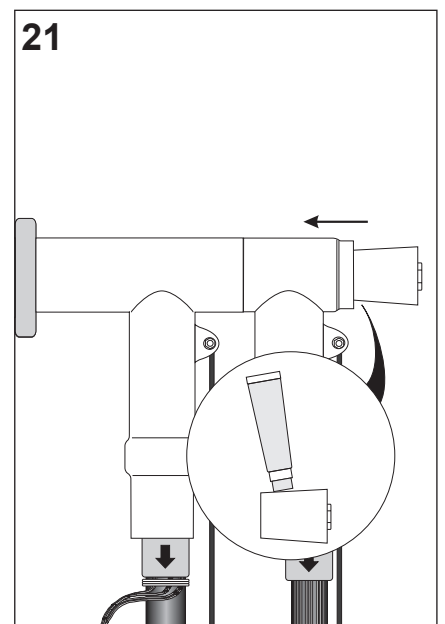
Align the conical front end of the coupling connector with the rear end of the already installed connector and push the coupling connector in position.

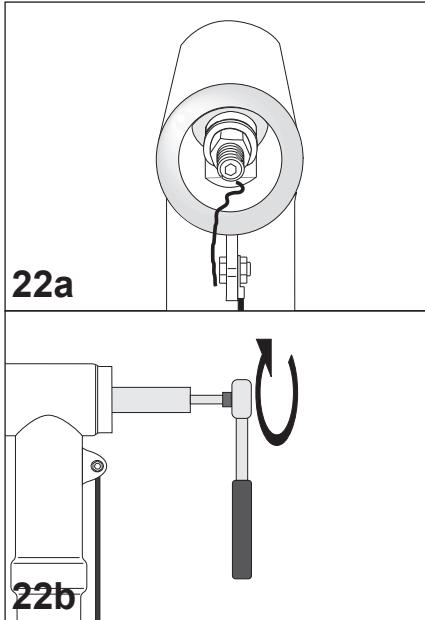


Insert the spring washer and hex nut as removed in step 13. Tighten the hex nut onto the stud with a torque wrench (24 mm) at a torque of 30 Nm.



Clean the inner surface of connector back end and apply a thin layer of assembly lubricant. Do the same with the conical interface of the back plug removed in step 12 (see also detail in drawing).

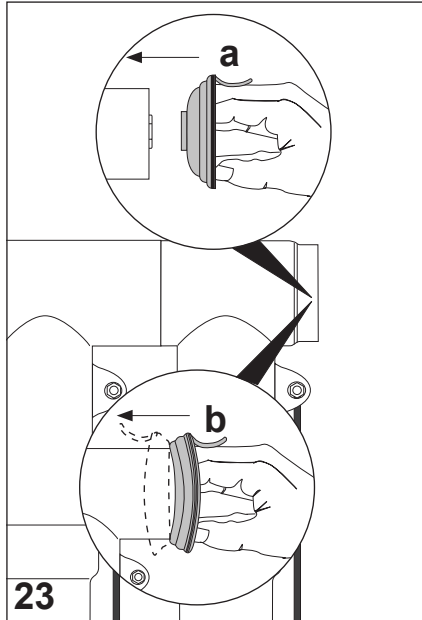




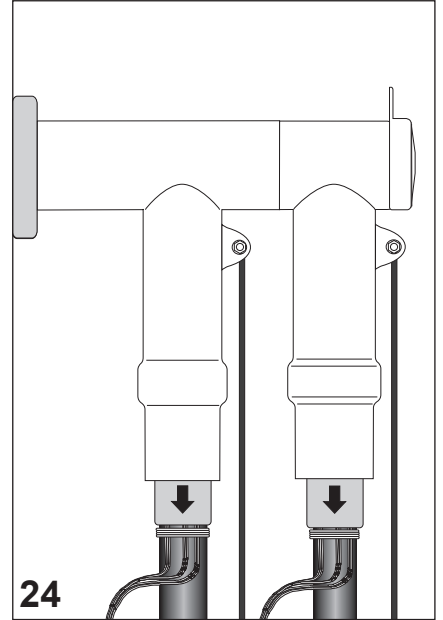
- a. Place a string into the rear entry of the connector as shown.
- b. Insert the back plug and screw it into place using a spanner (19 mm) at a torque of **30 Nm**.

Remove the string prior to the last two turns.

**Note:** Back plug has to be flush with connector end. In case of protrusion of back plug check steps 13 - 15 for correct installation of components.



- a. Flip-back the endcap as shown in detail **a**. Position the protruding ring onto test point.
- b. Flip the endcap into final position with your finger as shown in detail **b**.



Ensure that the grounding lead is fastened tightly.  
Fix the shielding wires with a wire binder (four layers) at the end of the stress cone.  
Gather the wires together to form an earth lead. Install at the end of the shielding wires the connection lugs supplied in the kit.

**Perform connection to ground.**

**Note:** Ensure that each cable is fixed with suitable cable cleats onto cable rack at a distance of 400 mm from the center of the bushing.

**Screened separable coupling connector completed.**

**Please dispose of all waste according to environmental regulations.**

