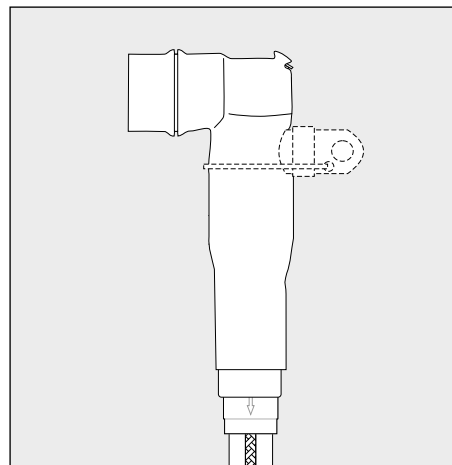




TE's Raychem Cable Accessories



Installation Instructions EPP-3054-6/19

**Screened Elbow Separable
Connectors 250 A
for Bushing Profile Type A
in Accordance with EN 50181
and Single Core Polymeric
Insulated Cable with
Copper Tape Screen
up to 24 kV**

Type: RSES-(VD)-525x-01

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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85521 Ottobrunn/Munich, Germany
Tel: +49-89-6089-0
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TE.com/energy

Before Starting

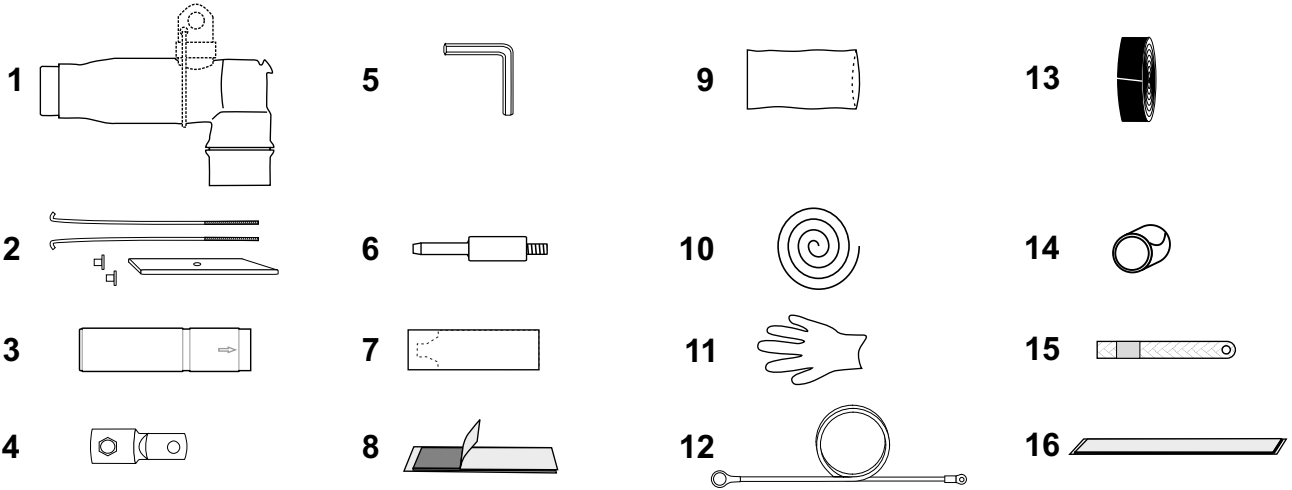
Check to ensure that the kit you are going to use fits the cable.

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

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

Carefully read and follow the steps in the installation instructions.

Kit Content



1	3 x Connector body	5	1 x Allen key	9	3 x Assembly aid	13	1 x PVC Tape
2	6 x Threaded hooks, 6 x Knurled nut, 3 x Back plate	6	3 x Contact pin	10	1 x Binding wire	14	3 x Roll spring
3	3 x Stress cone	7	9 x Assembly paste	11	3 x Gloves	15	3 x Copper braid
4	3 x Main cable lug	8	3 x Sealing mastic	12	3 x Earth lead	16	3 x Copper adhesive tape

Table 1

Type	Conductor cross-section [mm ²] at cable rated voltage *			Ø Conductor [mm]				Ø Core insulation [mm]
	12 kV	17,5 kV	24 kV	Al class 1	Al class 2	Cu class 1	Cu class 2	
RSES-(VD)-525A	16 - 70	16 - 50	16	4,1 - 11,0	5,6 - 12,5	3,5 - 11,0	4,6 - 12,5	12,7 - 19,2
RSES-(VD)-525B	95	50 - 95	25 - 95	4,1 - 11,0	5,6 - 12,5	3,5 - 11,0	4,6 - 12,5	17,9 - 25,0
RSES-(VD)-525C	95 - 150	70 - 120	70 - 95	8,7 - 13,8	9,3 - 15,0	8,7 - 13,8	9,3 - 15,0	17,9 - 25,0
RSES-(VD)-525D	-	120 - 150	70 - 150	8,7 - 13,8	9,3 - 15,0	8,7 - 13,8	9,3 - 15,0	21,9 - 28,5

* Applicable for conductors acc. to IEC 60228 class 2 Cu compacted

Work with **clean hands**.

We recommend installing the connector in a **clean environment**.

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.

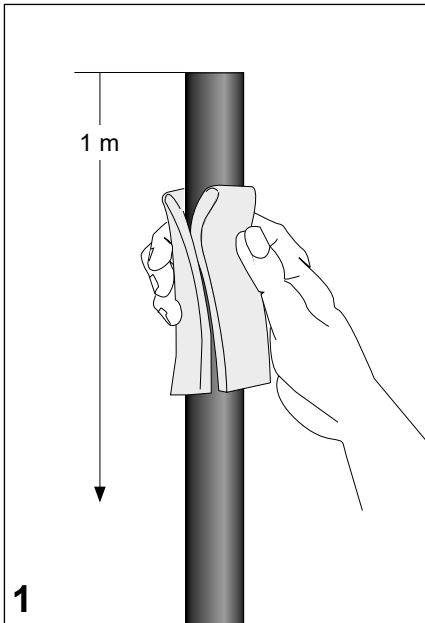
It is the user's responsibility to determine the suitability of the installation method in the user's field conditions.

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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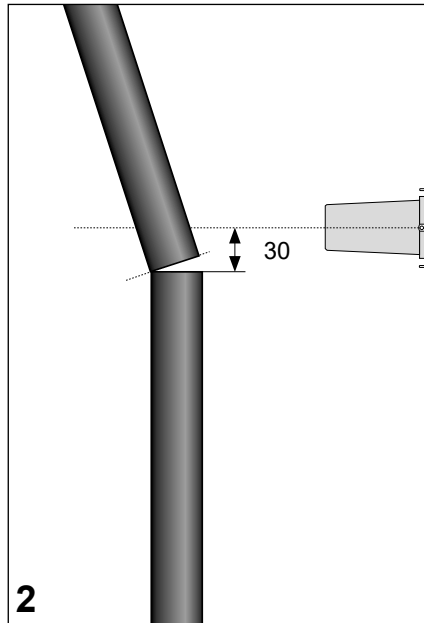
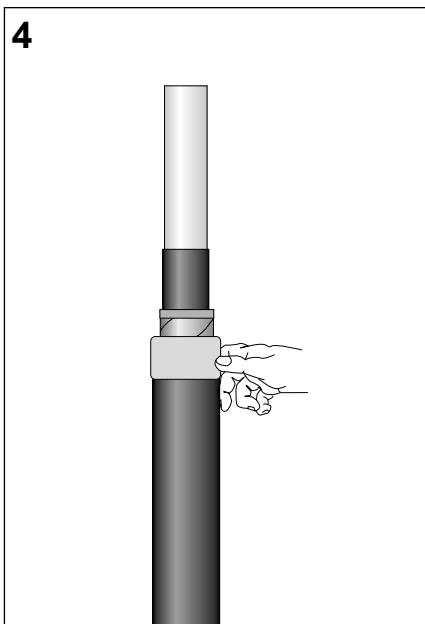
Cable Preparation



1
Clean and degrease the end of the oversheath for a length of 1 metre.

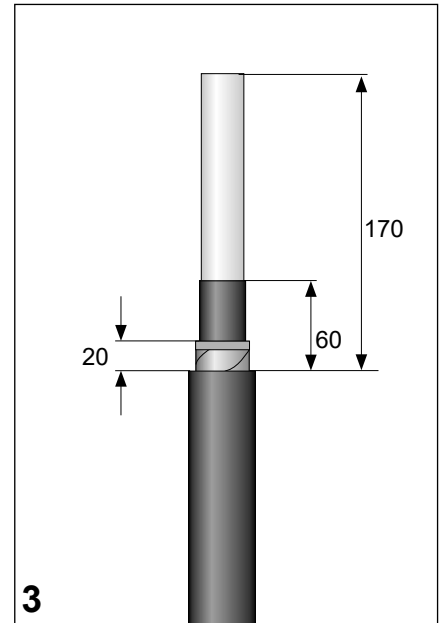
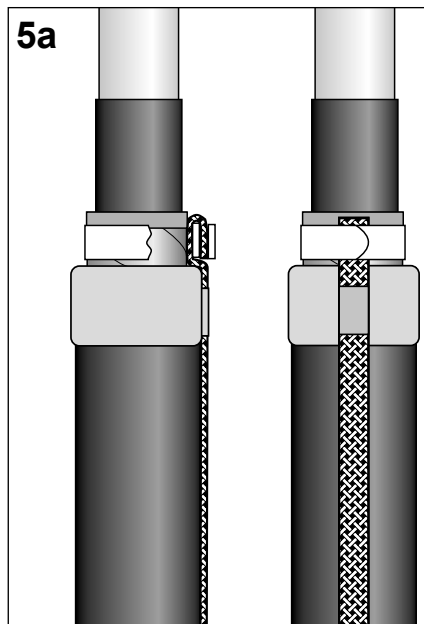
Wrap one turn of sealant tape (grey) with no overlap and slight tension around the end of the oversheath.

Cut the tape and push ends together.



2
Position the cable with sufficient overlap to the bushing centre line and cut the cable 30 mm below the bushing centre line.

- a. Position the moisture barrier of the copper braid on top of the sealant tape so that its top edge does not exceed over the oversheath cut. Fix the short tail of the copper braid directly onto the copper tape using two layers of rollspring. Bend the exceeding short tail of the copper braid back onto the two rollspring layers and fix it with the remainder of the rollspring. Cut off the exceeding rest of the copper braid's short tail.



3
Remove the oversheath over a distance of 170 mm.

Place a wire binder temporarily over the metal tape shield 20 mm away from the oversheath cut.

Remove the metal tape shield between the cable end and the wire binder.

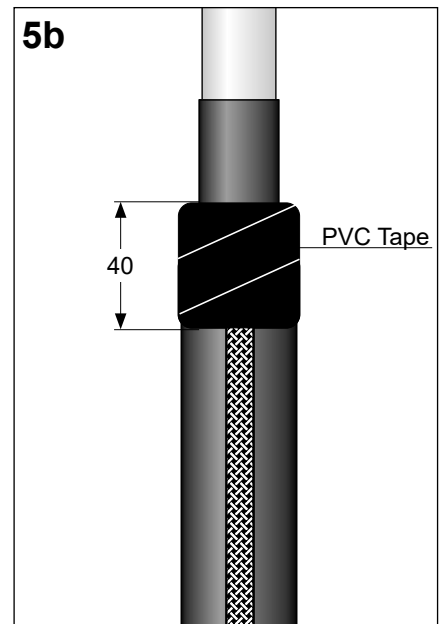
Replace the wire binder with two layers of copper adhesive tape applied onto the end of the metal tape shield.

Remove carefully the core screen with an appropriate stripping tool until 60 mm above the oversheath cut.

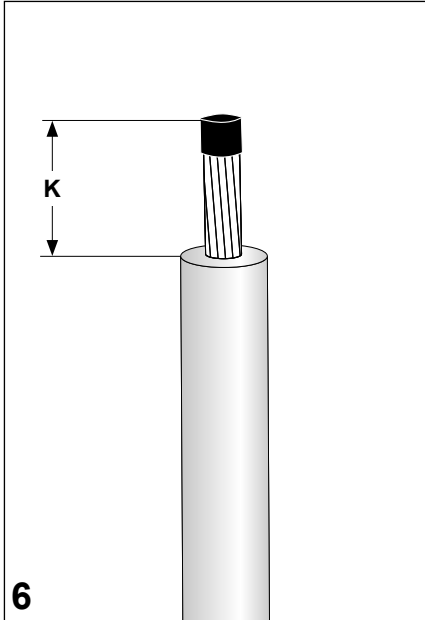
NOTE

Do not nick the insulation. The surface of the insulation must be even and free of all traces of conductive material.

- b. Apply two layers of PVC tape on top of the roll spring and continue wrapping onto the oversheath for a total length of 40 mm.



Core Preparation



Cut back insulation according to the dimension **K** given in **Table 2**.

Protect the end of the conductor with PVC tape.

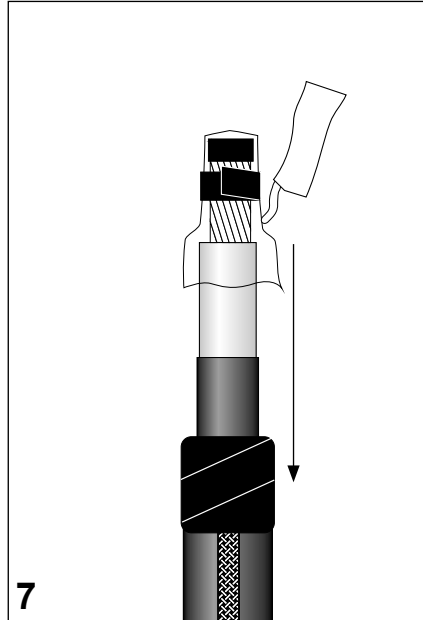
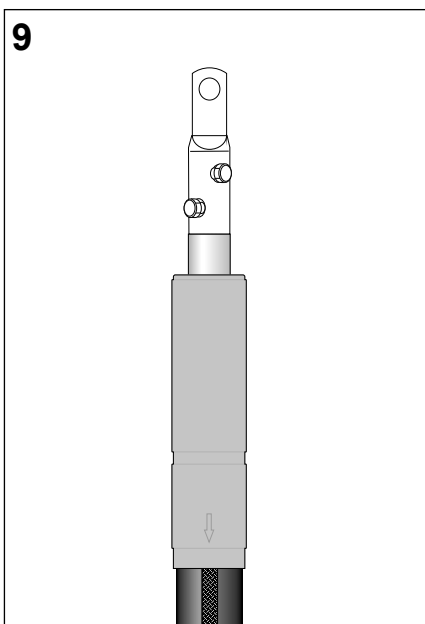
Remove sharp edges from the end of the insulating layer.

For mechanical lugs with inserts:

The insert inside the mechanical cable lug shall only be used for small cable cross sections as indicated in Table 3.

Align the bore in the lug to face in the direction of the bushing. **Use a lug fixture** to tighten the bolt until the head shears off.

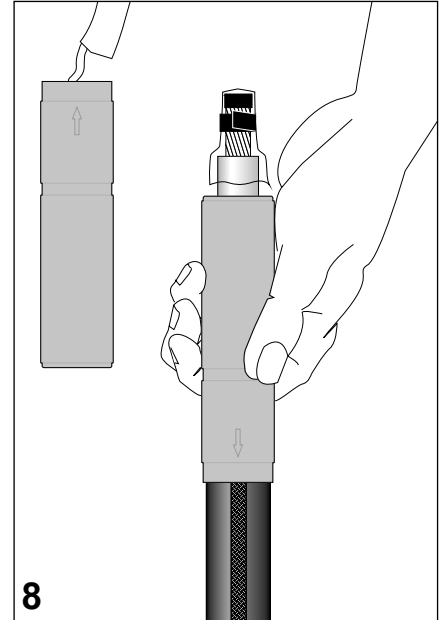
Remove any sharp edges and metal residues.



Clean the insulation and core screen.

Slide the small protective bag (assembly aid) over the conductor and tie it down with PVC tape as shown in the drawing.

Put on a disposable glove and gently lubricate the outer surface of the protective bag and the core insulation with a thick layer of assembly paste (approx. ½ packet).



Apply the remaining 50 % of the assembly paste packet onto the inner surface of the stress cone.

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 roll spring.

NOTE

The arrow on the stress cone should point onto the cable sheath.

Remove the assembly aid and PVC tape from the conductor.

Table 2

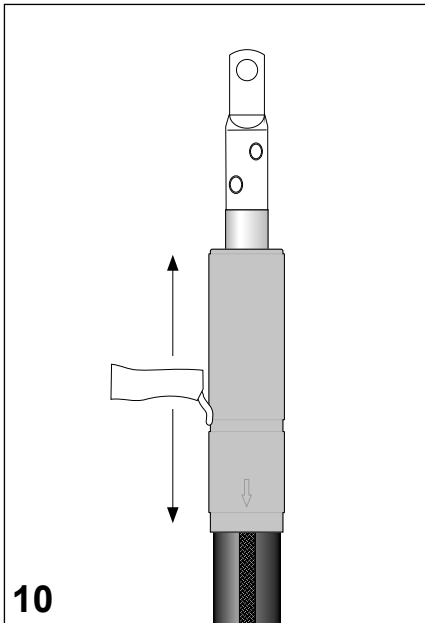
Kit	K mm
RSES-(VD)-525A	25
RSES-(VD)-525B	25
RSES-(VD)-525C	35
RSES-(VD)-525D	35

Table 3 – Use of inserts

Cross Section mm ²	Kit	
	RSES-(VD)-525A RSES-(VD)-525B	RSES-(VD)-525C RSES-(VD)-525D
16	YES	-
25	YES	-
35	YES	-
50	YES	-
70	NO	YES
95	NO	YES
120	-	NO
150	-	NO

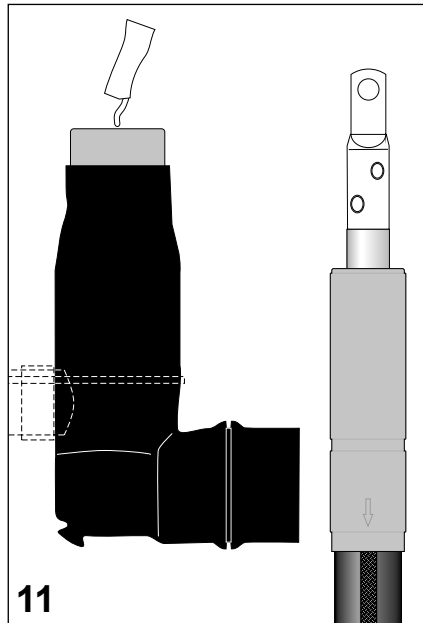
Attention: If insert is used, ensure that the retention of the insert is locked into the appropriate hole in the barrel.

Mounting of Connector Body



10 Ensure a clean surface of the stress cone, clean if necessary.

Put on a disposable glove and apply a thin layer of assembly paste onto the outer surface of the stress cone (approx. ½ packet) and spread it evenly on the surface.



11 Apply the remaining 50% of the assembly paste packet onto the inner surface.

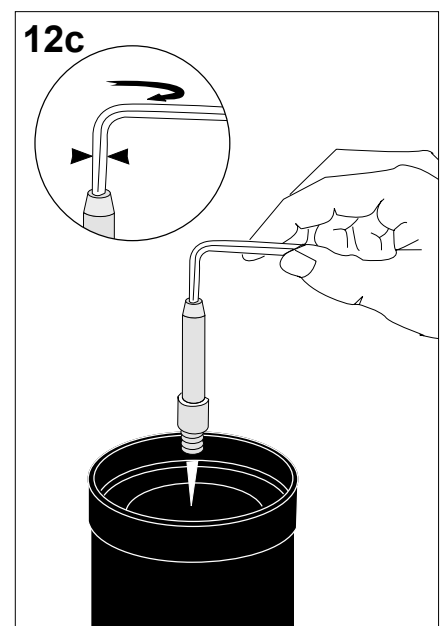
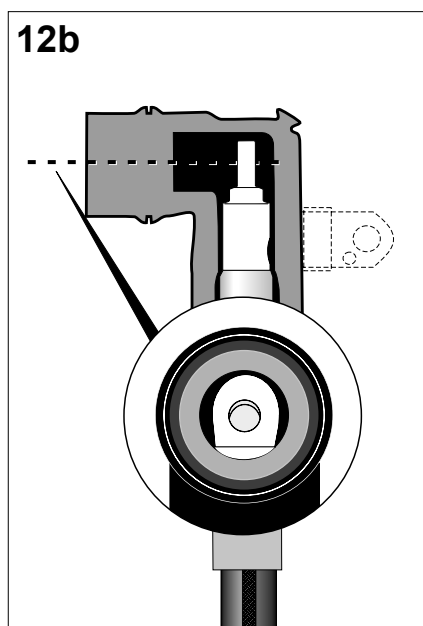
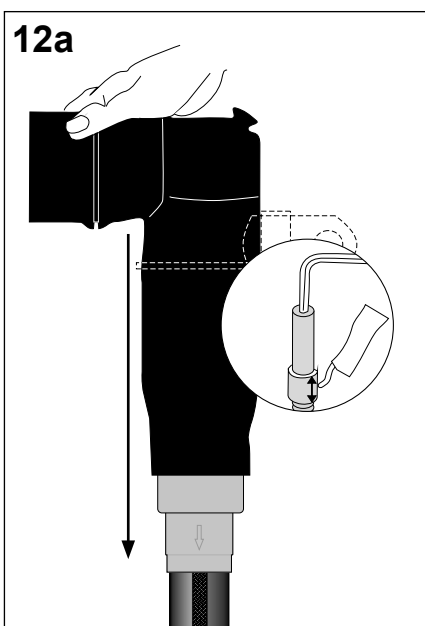
NOTE

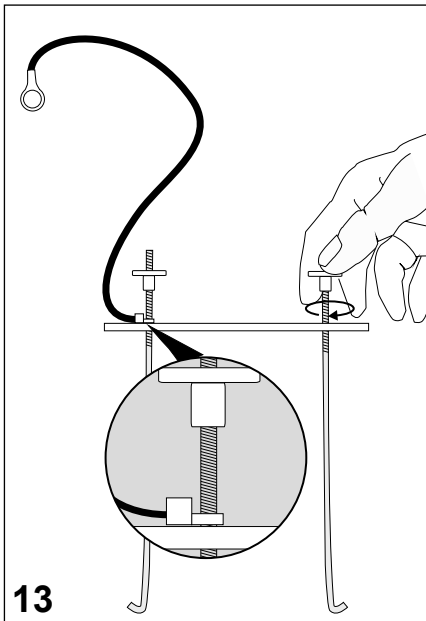
The assembly paste must evenly distributed over at least 50 mm of the entire inner surface.

- a. Push the connector body without interruption onto the stress cone and hold it in place. Insert the Allen key into the hex socket of the contact pin. Apply a thin layer of assembly paste to the wide section of the pin.

- b. Check alignment of the cable lug hole and the elbow body before installing the contact pin.

- c. Insert the contact pin into the lug and fasten it with the Allen key until the Allen key slightly starts to deform (approx. 7 Nm).





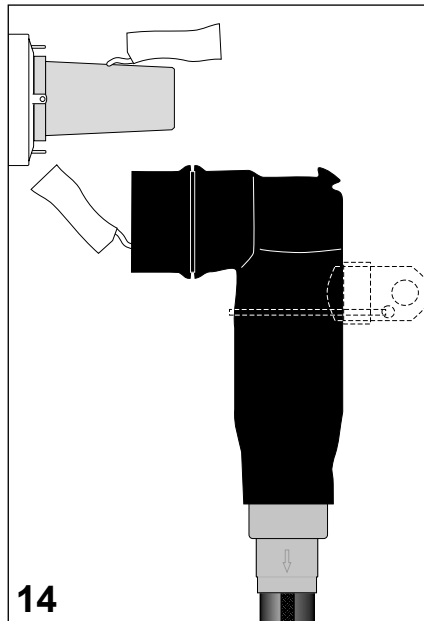
13

Preparing the bail restraint:

Feed the threaded hooks through the holes of the back plate.

Install the earth lead (flat part towards the bail plate) on one of the hooks.

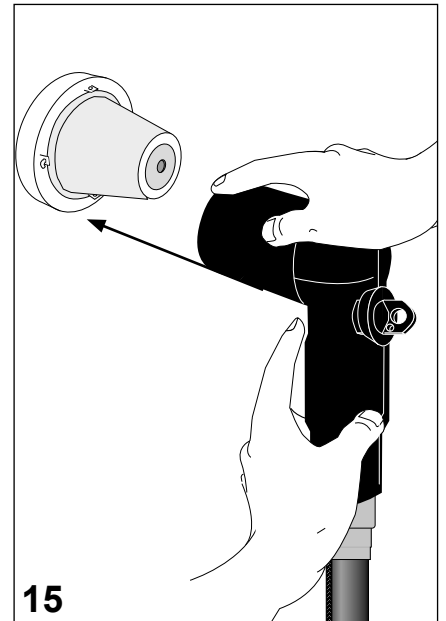
Screw both nuts on the end of hooks.



14

Clean the conical surface of the bushing and the inner surface of the connector.

Lubricate both with the assembly paste using a disposable glove (½ packet each).

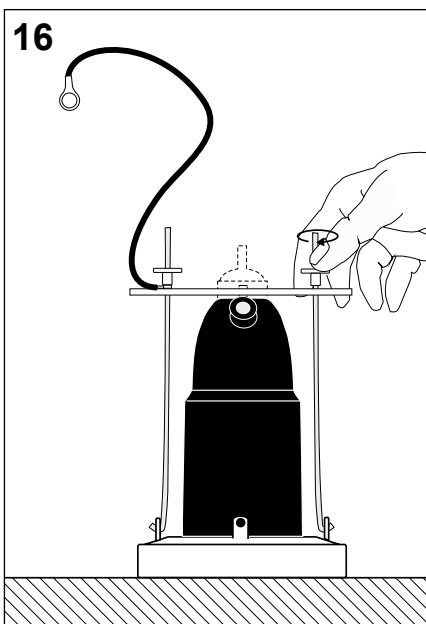


15

Align the front of the connector body with bushing centre and push the connector onto the bushing.

Install the bail restraint centrally behind the connector.

Tighten the knurled nuts evenly on both sides and firmly by hand.



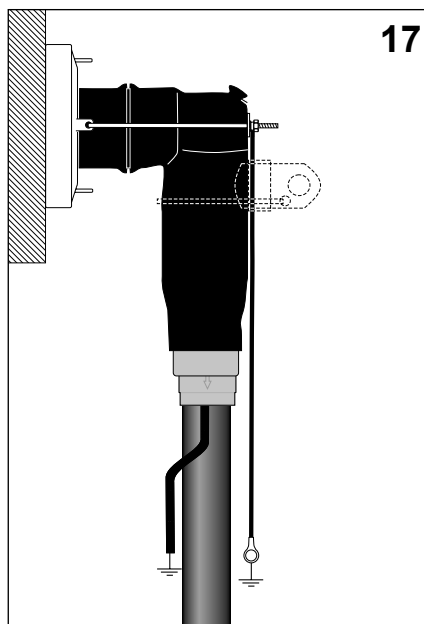
16

Fix cable according to local requirements.

Perform connection to ground.

Screened separable connector installation is now completed.

Please dispose of all waste according to environmental regulations.



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