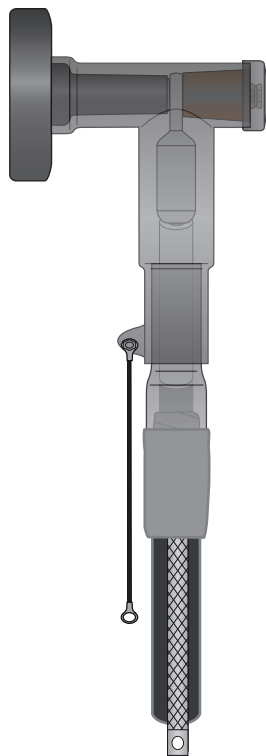




Saves Your Energy

**INSTALLATION INSTRUCTION PEM1750ENG
2016-04**

ENGLISH



SJCW2595.2 AND SJCW70240.2 ADDITIONAL EARTHING KIT FOR AHXAMK-W CABLE FOR SC-REINED SEPARABLE CONNECTORS CONT630, CONTB630 CONS250 AND CONE250

$U_o/U = 6/10$ kV, $U_m = 12$ kV

$U_o/U = 12.7/22$ kV, $U_m = 24$ kV

INDOOR AND OUTDOOR TERMINATIONS

Check accessory code and move to the correct page:

CONT630 p. 3

CONTB630 p. 13

CONS250 p. 24

CONE250 p. 33

GENERAL INFORMATION

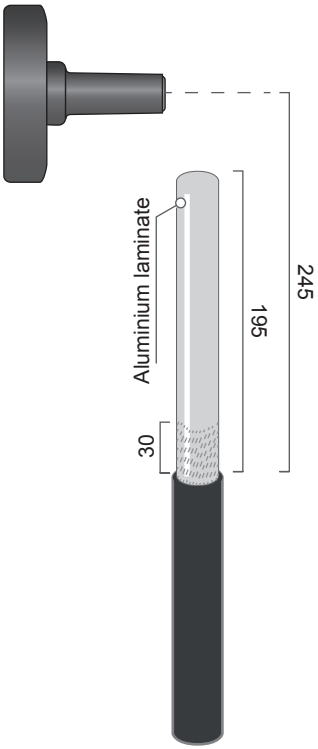
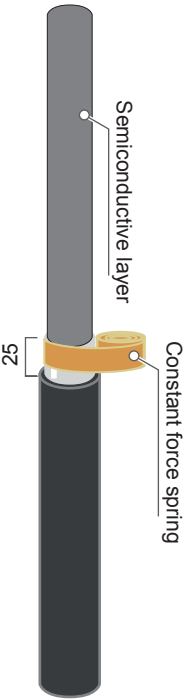
- Check that the kit is suitable for the cable type.
- Check the materials listed in the bill of materials for completeness.
- Read the installation instructions carefully before starting the installation.
- Install carefully and make sure the materials are clean during the installation.
- Clean the working place after the installation.

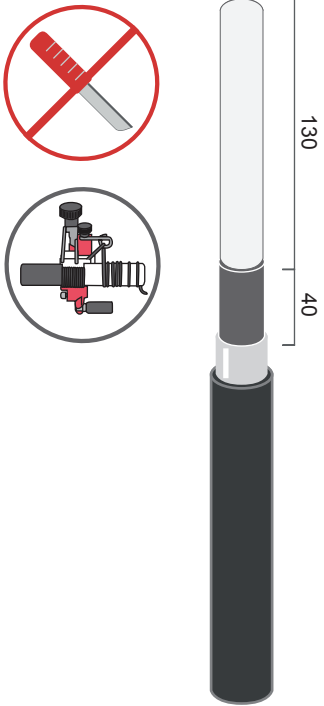
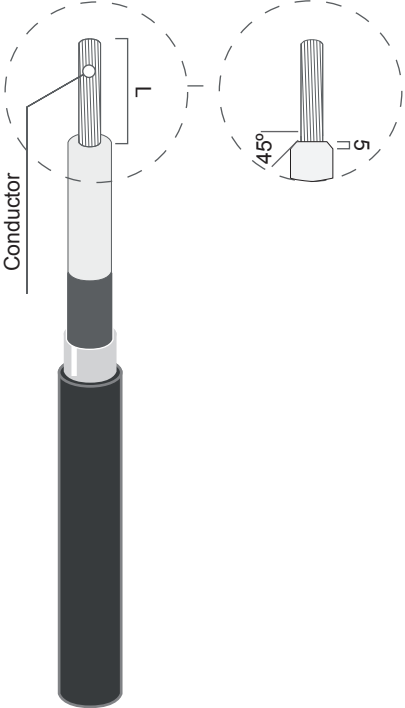
GENERAL INSTRUCTIONS FOR HEAT SHRINKING

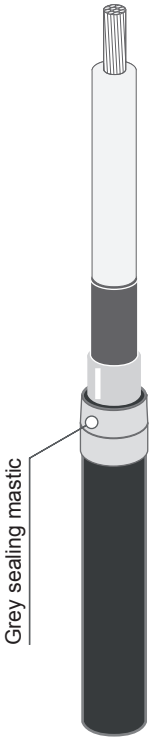
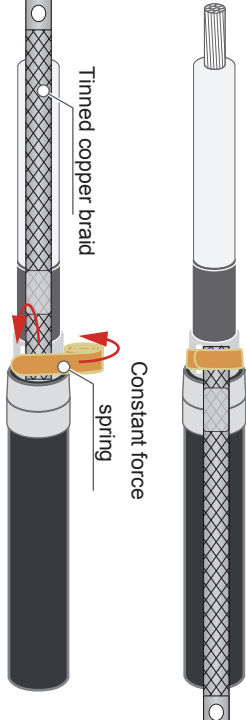
- Please note that in some working places a hot work permit is needed.
- Use a propane burner with a flame length of approx. 20-30 cm. Do not use too large or sharp flame.
- Move the flame all around the cable on the shrinking direction. Move the flame continuously to avoid overheating.
- Make sure that the ventilation is good and there are no flammable materials around.
- Clean the cable surfaces before shrinking.
- When shrinking, always follow the installation instructions and the relevant sequence to avoid trapped air.
- Check that the tube has shrunk evenly around the cable before you continue shrinking.
- If the tube turns around at the end of shrinking, straighten the tube by directing the flame inside the tube from the opposite direction.
- After shrinking the tubes should be smooth and even following the shape inside.

LEGAL NOTICE

- The product must be installed only by a competent person with sufficient training in installation practices and with sufficient knowledge of good safety and installation practices in respect of electrical equipment. If local legislation contains provisions in respect of such training or sufficient knowledge in respect of installation of electrical equipment such provisions shall be fulfilled by the said person.
- Ensto accepts no liability concerning claims resulting from misuse, incorrect installation or ignored national safety regulations or other national provisions.
- **WARNING:** Failure to follow the installation instructions may result in damage to the product and serious or fatal injury.

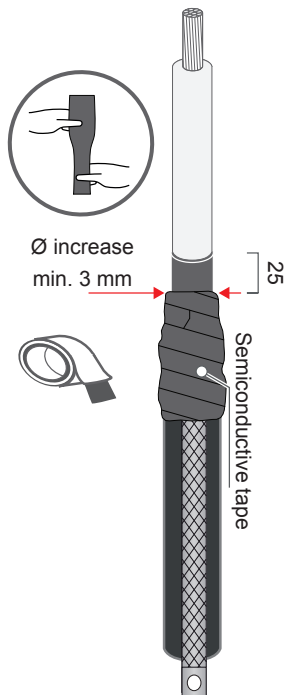
	CONT630
 <p>The diagram shows a cable with a dark grey head and a black outer sheath. A section of the cable is highlighted with a grey aluminium laminate. Dimension lines indicate a total length of 245 mm, an aluminium laminate length of 195 mm, and a 30 mm section at the end of the laminate that is to be ground.</p>	<p>1.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Check appropriate length of the cable. <input type="checkbox"/> Heat the outer sheath and use the peeling rope to remove the outer sheath to required length. <input type="checkbox"/> Grind the glue away from the aluminium laminate for a minimum of 30 mm without grinding through it.
 <p>The diagram shows a cross-section of the cable with a grey 'Semiconductive layer' and a black outer sheath. A yellow 'Constant force spring' is wrapped around the cable. A dimension line indicates a length of 25 mm for the spring's contact area.</p>	<p>2.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Remove the aluminium laminate with the help of a constant force spring. <input type="checkbox"/> Move the spring a few mm forward and remove the swelling tape against the spring. <input type="checkbox"/> Remove the spring.

	<p>3. <input type="checkbox"/> Remove the semiconductive layer with a suitable tool.</p> <p><input type="checkbox"/> Grind the insulation if necessary.</p>
	<p>4. <input type="checkbox"/> Remove the insulation according to the cable lug installation instruction.</p> <p><input type="checkbox"/> Recommendation for large cross-section cables: Chamfer the insulation for $\geq 240\text{mm}^2$ cables to make the adapter installation easier. Grinding paper can be used.</p>

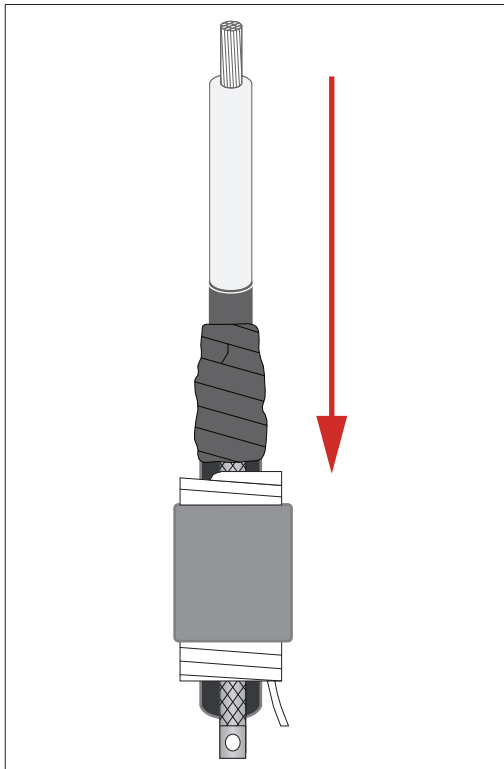
	<p>5. <input type="checkbox"/> Apply firmly two strips of grey sealing mastic on the cable outer sheath.</p>
	<p>6. <input type="checkbox"/> Apply the copper braid on the aluminium laminate.</p> <p><input type="checkbox"/> Place the constant force spring on the braid and fix with one turn of the spring and turn the braid over the cable outer sheath.</p> <p><input type="checkbox"/> Wrap the rest of the spring.</p>



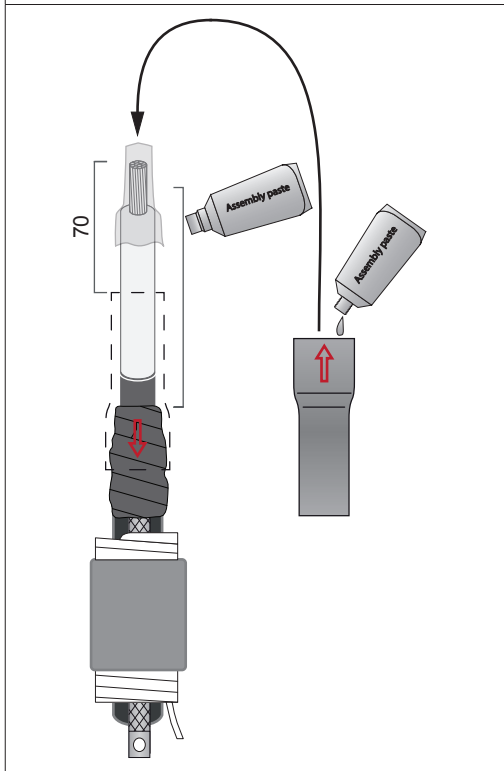
7. Cut a strip of grey sealing mastic in half and place the pieces over the tin blocking of the braid.



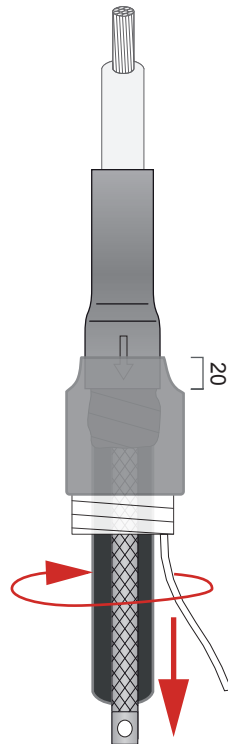
8. Apply semiconductive tape in the way that tightens the constant force spring according to the picture.
- Increase the diameter on the semiconductive layer with a minimum of 3 mm with semiconductive tape to have a stopping edge for the adapter.



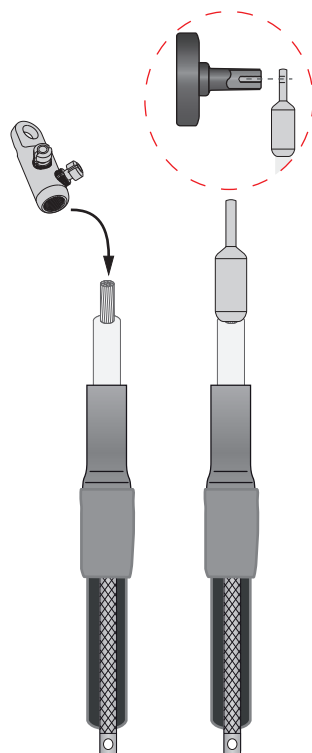
9. Place the cold shrink protection tube on the cable outer sheath as indicated in the picture.
- Clean the insulation and semiconductive layer.



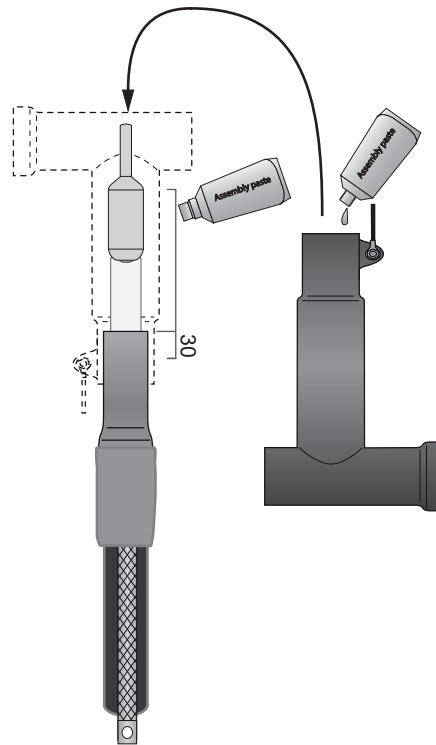
10. Clean the insulation and semiconductive layer.
- Place the protective plastic bag on the conductor.
- With small conductor sizes 25-95 mm² apply PVC-tape on blastic bag end at the edge of the conductor to prevent that the bag tears off.
- Apply assembly paste evenly according to the picture.
- Push the adapter on the cable with a continuous movement until the inner collar stops at the semiconductive tape.
- Remove the plastic bag.



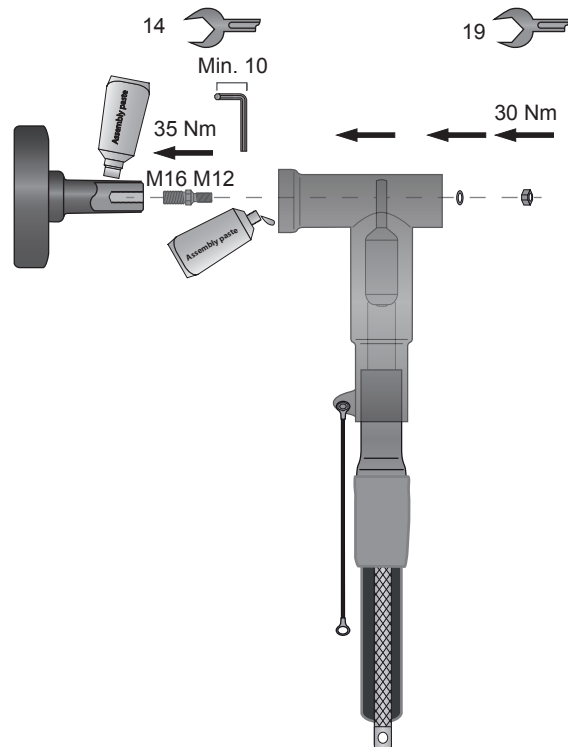
11. Remove the spiral from the protection tube so that it overlaps the adapter.
 The spiral is removed by pulling it while turning it counter-clockwise.



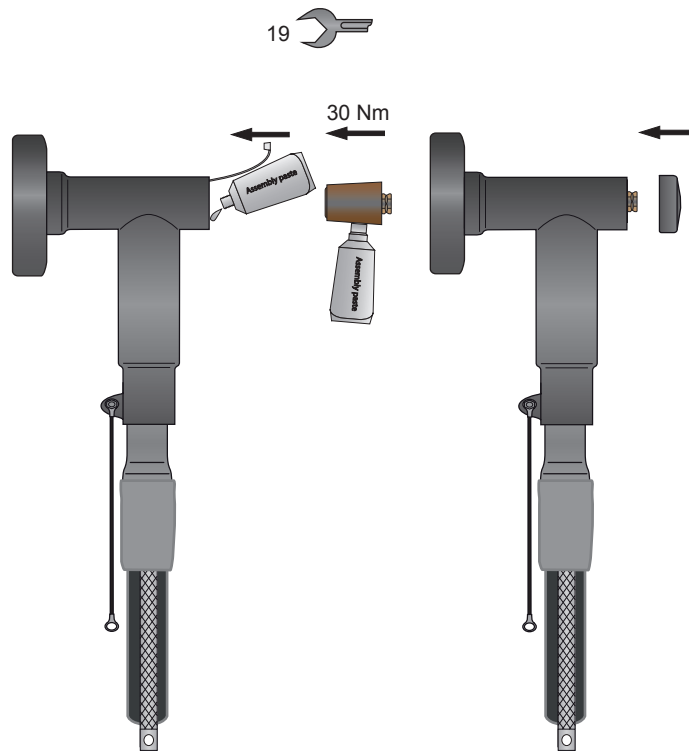
12. Orient the cable lug correctly.
 Install cable lug according to the lug's installation instruction.



13. Apply assembly paste evenly according to the picture.
- Push the connector body to the position indicated in the picture.

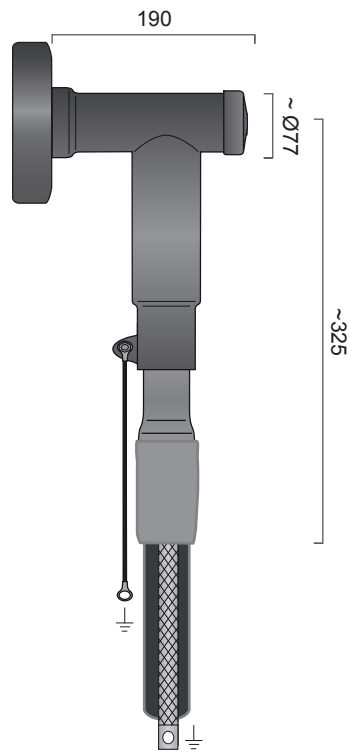


14. Screw the threaded bolt into the bushing.
- Clean bushing and inside of the connector body.
- Apply assembly paste on the bushing and inside of the connector body.
- Connect the bushing and connector body.
- Apply spring washer and nut and fasten.

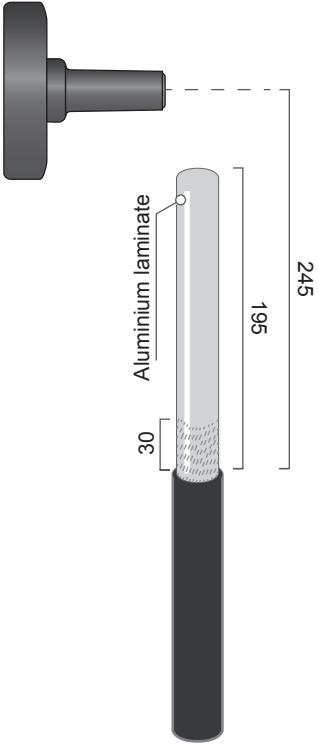
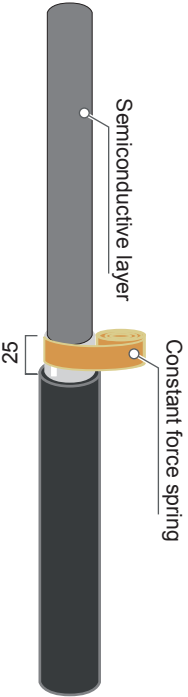


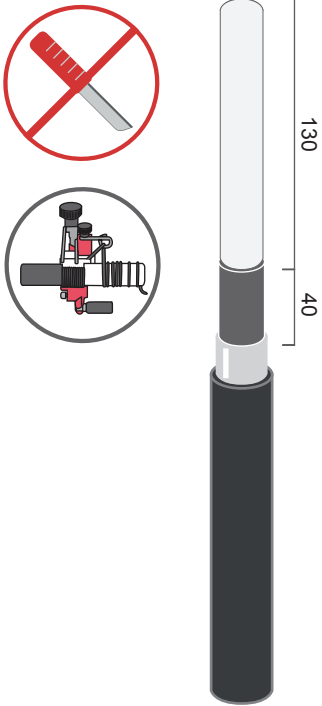
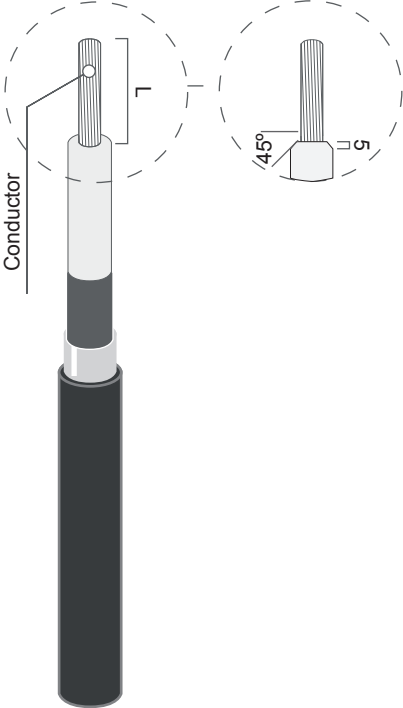
15. Clean the insulating plug and inside of the connector body.
- Apply assembly paste on the insulating plug and inside the connector body.
- Use a clean cable tie as help when pushing in the insulating plug.
- Remove the cable tie when the torque starts to be sufficient.
- Place the covering cap on the insulating plug.

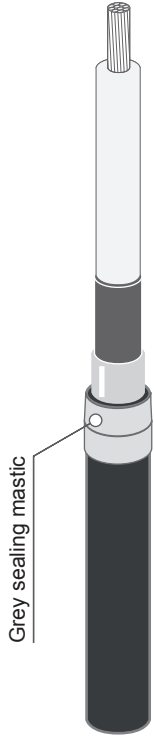
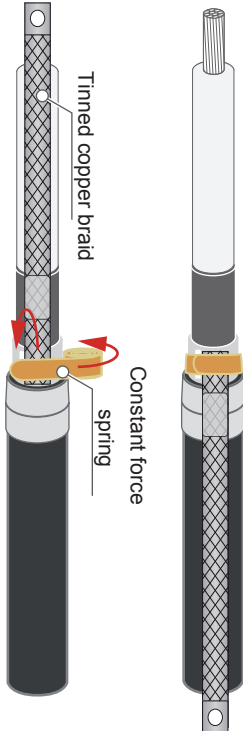
SJCW2595.2 & SJCW70240.2



16. The connector is ready for use!

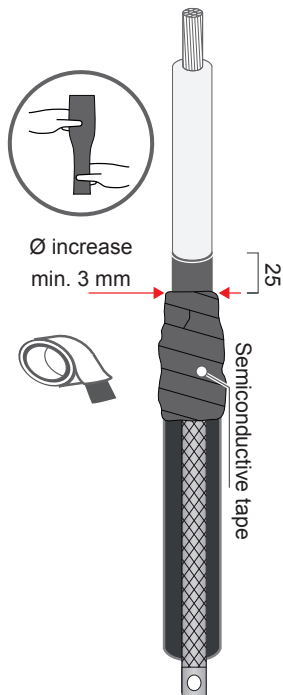
	<p>CONTB630</p> <p>1. <input type="checkbox"/> Check appropriate length of the cable.</p> <p> <input type="checkbox"/> Heat the outer sheath and use the peeling rope to remove the outer sheath to required length.</p> <p> <input type="checkbox"/> Grind the glue away from the aluminium laminate for a minimum of 30 mm without grinding through it.</p>
	<p>2. <input type="checkbox"/> Remove the aluminium laminate with the help of a constant force spring.</p> <p> <input type="checkbox"/> Move the spring a few mm forward and remove the swelling tape against the spring.</p> <p> <input type="checkbox"/> Remove the spring.</p>

	<p>3. <input type="checkbox"/> Remove the semiconductive layer with a suitable tool.</p> <p><input type="checkbox"/> Grind the insulation if necessary.</p>
	<p>4. <input type="checkbox"/> Remove the insulation according to the cable lug installation instruction.</p> <p><input type="checkbox"/> Recommendation for large cross-section cables: Chamfer the insulation for $\geq 240\text{mm}^2$ cables to make the adapter installation easier. Grinding paper can be used.</p>

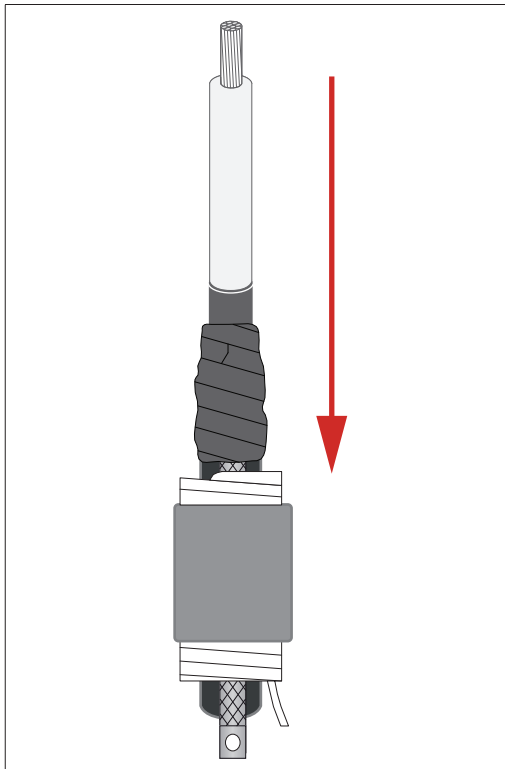
	<p>5. <input type="checkbox"/> Apply firmly two strips of grey sealing mastic on the cable outer sheath.</p>
	<p>6. <input type="checkbox"/> Apply the copper braid on the aluminium laminate.</p> <p><input type="checkbox"/> Place the constant force spring on the braid and fix with one turn of the spring and turn the braid over the cable outer sheath.</p> <p><input type="checkbox"/> Wrap the rest of the spring.</p>



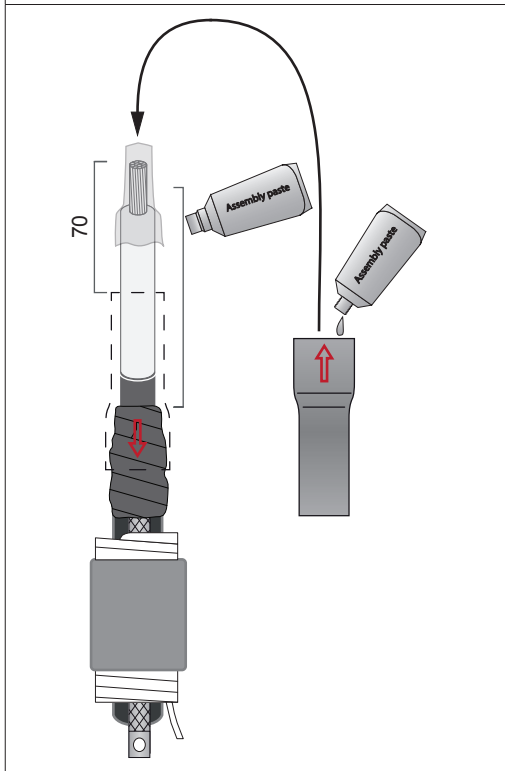
7. Cut a strip of grey sealing mastic in half and place the pieces over the tin blocking of the braid.



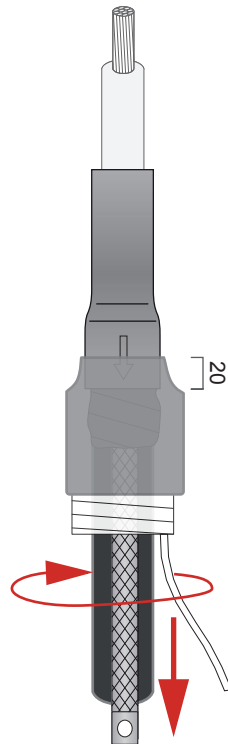
8. Apply semiconductive tape in the way that tightens the constant force spring according to the picture.
- Increase the diameter on the semiconductive layer with a minimum of 3 mm with semiconductive tape to have a stopping edge for the adapter.



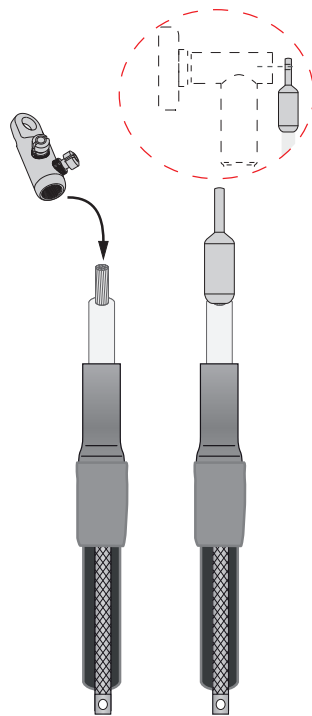
9. Place the cold shrink protection tube on the cable outer sheath as indicated in the picture.
- Clean the insulation and semiconductive layer.



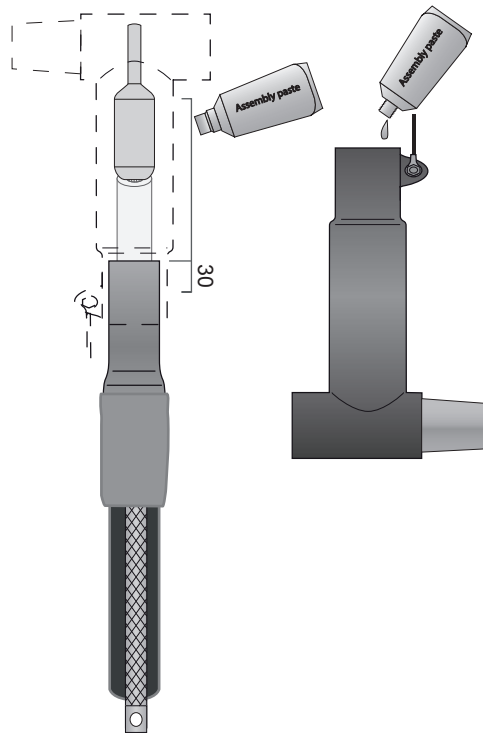
10. Clean the insulation and semiconductive layer.
- Place the protective plastic bag on the conductor.
- With small conductor sizes 25-95 mm² apply PVC-tape on blastic bag end at the edge of the conductor to prevent that the bag tears off.
- Apply assembly paste evenly according to the picture.
- Push the adapter on the cable with a continuous movement until the inner collar stops at the semiconductive tape.
- Remove the plastic bag.



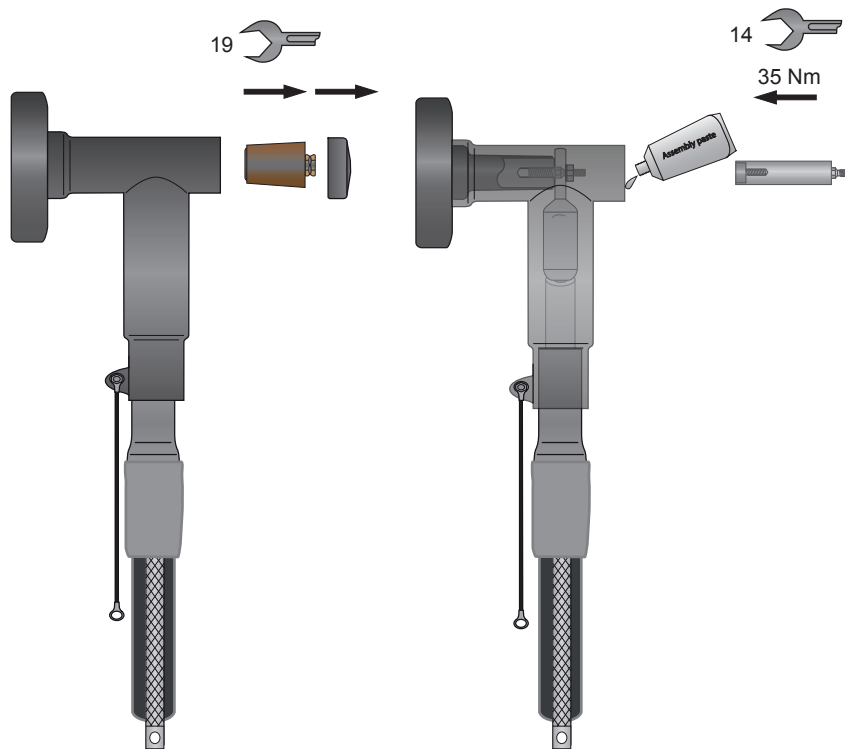
11. Remove the spiral from the protection tube so that it overlaps the adapter.
 The spiral is removed by pulling it while turning it counter-clockwise.



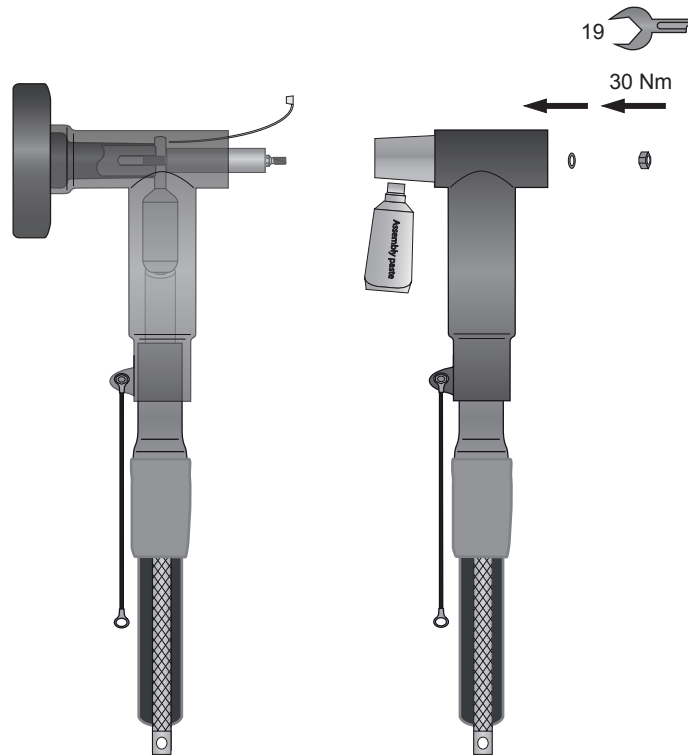
12. Orient the cable lug correctly.
 Install cable lug according to the lug's installation instruction.



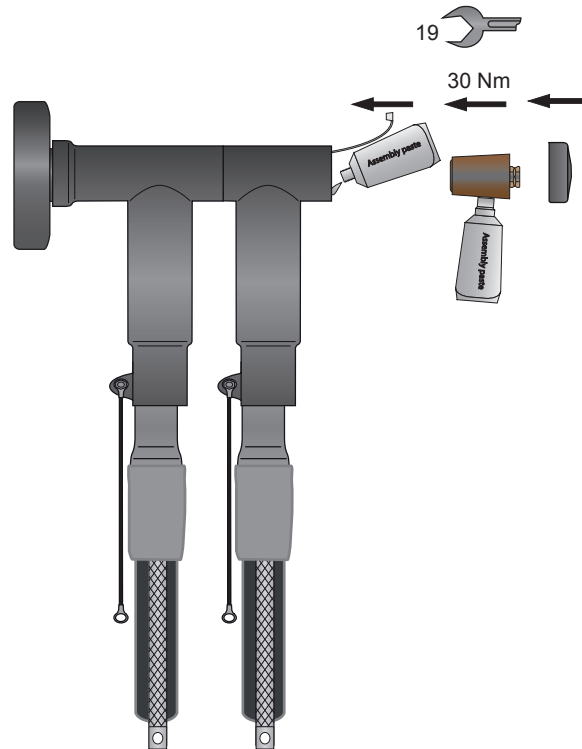
13. Apply assembly paste evenly according to the picture.
- Push the connector body to the position indicated in the picture.



14. Remove the covering cap and insulating plug from the CONT630 connector.
- Clean the inside of the connector body.
- Apply assembly paste on the threaded bolt and inside the CONT630 connector body.
- Fasten the threaded bolt.

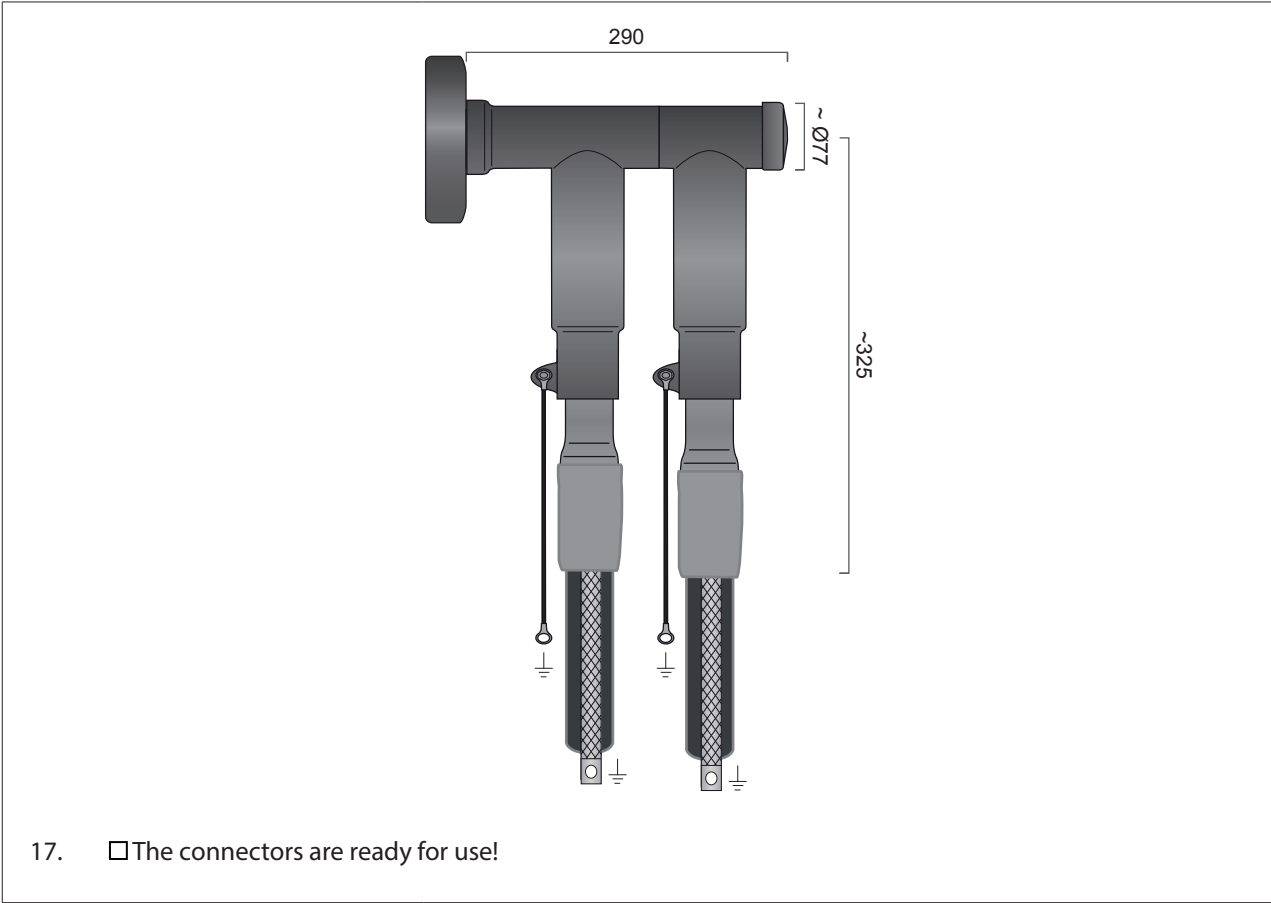


15. Clean the outside of the back connector body.
- Apply assembly paste on the outside of the back connector.
- Use a clean cable tie as help when pushing in the back connector.
- Apply spring washer and nut and fasten.

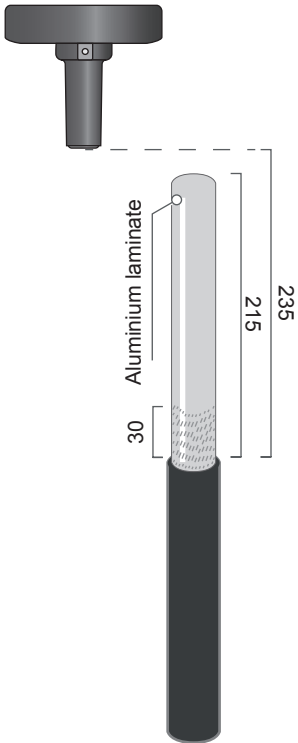
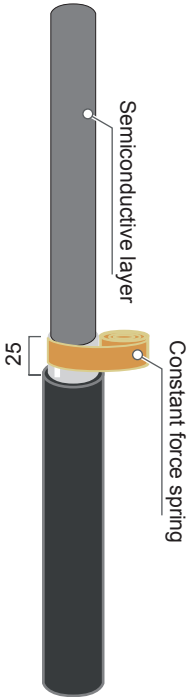


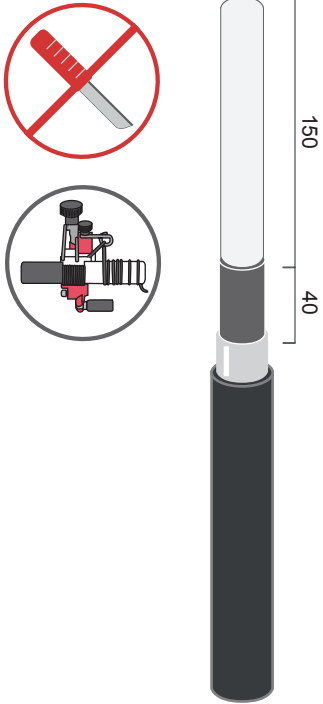
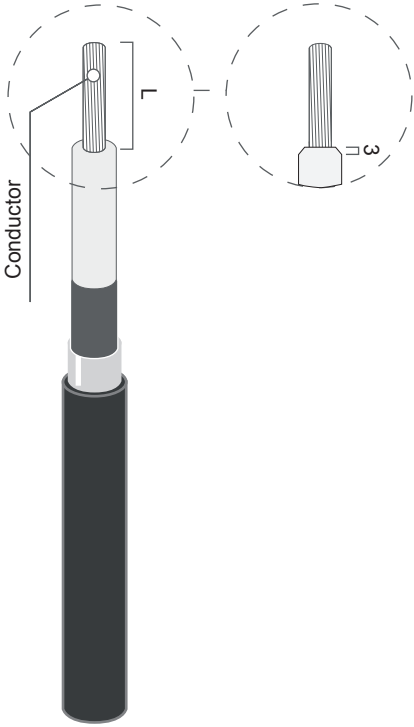
16. Clean the insulating plug and inside of the back connector body.
- Apply assembly paste on the insulating plug and inside the back connector body
- Use a clean cable tie as help when pushing in the insulating plug.
- Remove the cable tie when the torque starts to be sufficient.
- Place the covering cap on the insulating plug.

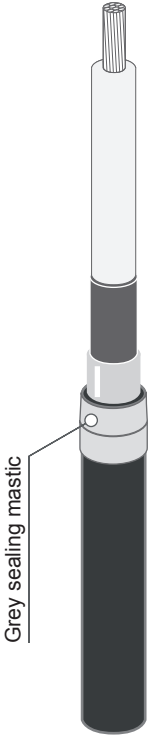
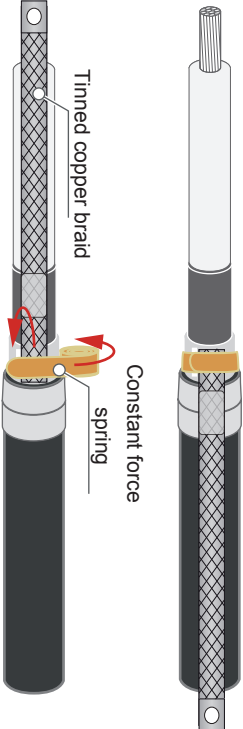
**SJCW2595.2 &
SJCW70240.2**


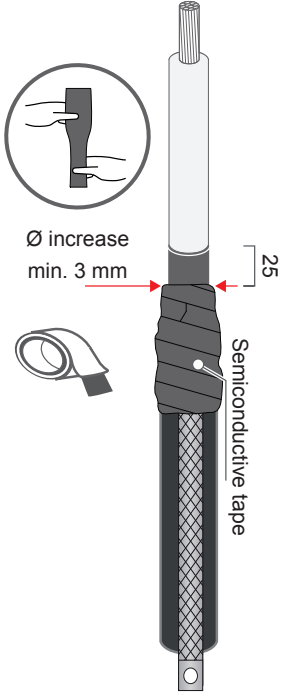


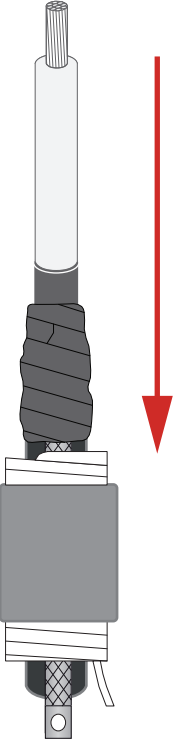
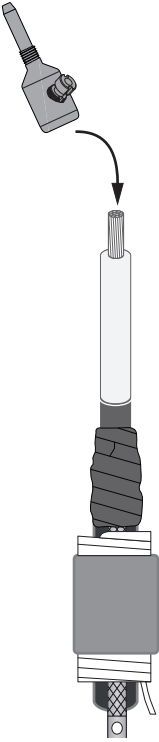
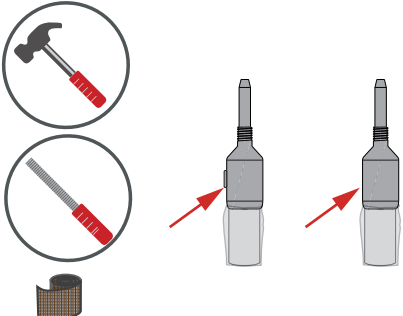
17. The connectors are ready for use!

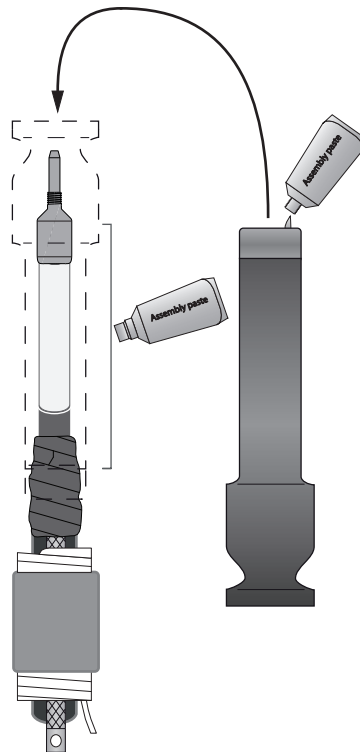
	CONS250
	<p>1.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Check appropriate length of the cable. <input type="checkbox"/> Heat the outer sheath and use the peeling rope to remove the outer sheath to required length. <input type="checkbox"/> Grind the glue away from the aluminium laminate for a minimum of 30 mm without grinding through it.
	<p>2.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Remove the aluminium laminate with the help of a constant force spring. <input type="checkbox"/> Move the spring a few mm forward and remove the swelling tape against the spring. <input type="checkbox"/> Remove the spring.

 <p>150</p> <p>40</p>	<p>3. <input type="checkbox"/> Remove the semiconductive layer with a suitable tool.</p> <p><input type="checkbox"/> Grind the insulation if necessary.</p>
 <p>Conductor</p> <p>L</p> <p>3</p>	<p>4. <input type="checkbox"/> Remove the insulation according to the cable lug installation instruction.</p> <p><input type="checkbox"/> Chamfer or smoothen the sharp insulation cutting point for a length of max. 3 mm. Grinding paper can be used.</p>

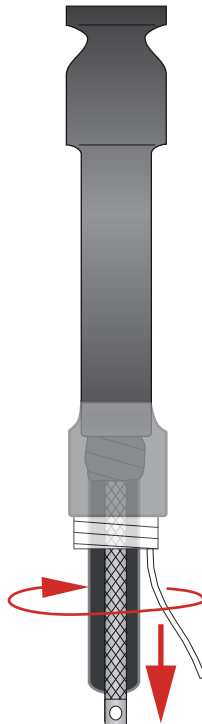
	<p>5. <input type="checkbox"/> Apply firmly two strips of grey sealing mastic on the cable outer sheath.</p>
	<p>6. <input type="checkbox"/> Apply the copper braid on the aluminium laminate.</p> <p><input type="checkbox"/> Place the constant force spring on the braid and fix with one turn of the spring and turn the braid over the cable outer sheath.</p> <p><input type="checkbox"/> Wrap the rest of the spring.</p>

 <p>A vertical cross-section diagram of a cable assembly. From top to bottom: a braided shield, a white insulation layer, a yellow ring of sealing mastic, a grey braided shield, a white insulation layer, and a metal connector terminal at the bottom.</p>	<p>7. <input type="checkbox"/> Cut a strip of grey sealing mastic in half and place the pieces over the tin blocking of the braid.</p>
 <p>A vertical cross-section diagram of a cable assembly with semiconductive tape applied. The tape is wrapped around the grey braided shield. A red arrow points to the tape with the text "Ø increase min. 3 mm". A bracket indicates a length of "25". A small inset shows hands applying the tape. A roll of tape is shown to the left. The text "Semiconductive tape" is written vertically next to the tape.</p>	<p>8. <input type="checkbox"/> Apply semiconductive tape in the way that tightens the constant force spring according to the picture.</p> <p><input type="checkbox"/> Increase the diameter on the semiconductive layer with a minimum of 3 mm with semiconductive tape to have a stopping edge for the connector body.</p>

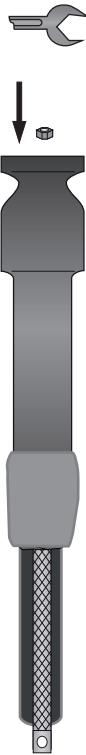
	<p>9. <input type="checkbox"/> Place the cold shrink protection tube on the cable outer sheath as indicated in the picture.</p> <p><input type="checkbox"/> Clean the insulation and semiconductive layer.</p>
	<p>10. <input type="checkbox"/> Install cable lug according to the lug's installation instruction.</p>
	<p>11. <input type="checkbox"/> If the screw breaks above the lug body surface use a suitable tool to remove sharp edges.</p> <p><input type="checkbox"/> Protect the insulation from burrs with e.g. plastic.</p>



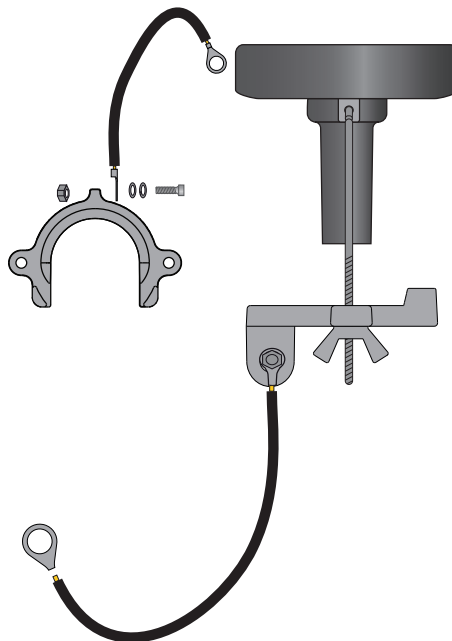
12. Clean the insulation, semiconductive layer and the cable lug.
- Apply assembly paste evenly according to the picture.
- Apply assembly paste inside the complete connector body!
- Push the connector body to the position indicated in the picture.



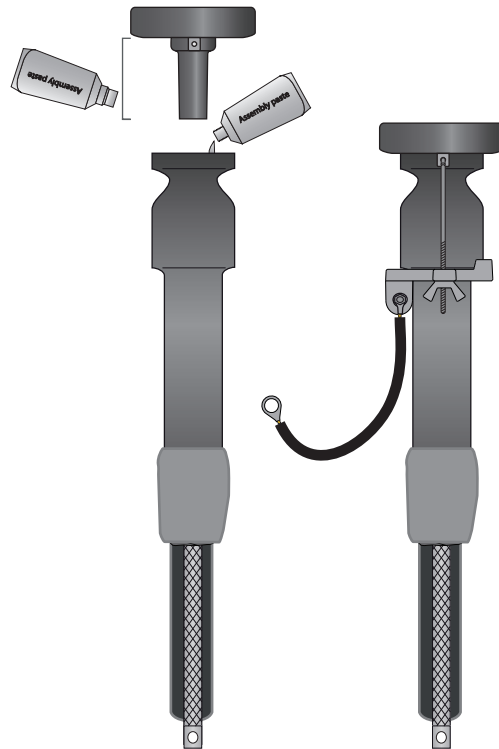
13. Remove the spiral from the protection tube starting from the edge of the connector black layer.
- The spiral is removed by pulling it while turning it counter-clockwise.



14. Fasten the nut on the cable lug.

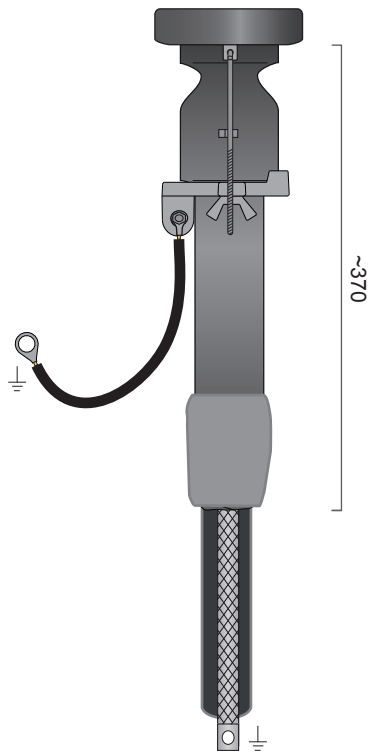


15. Assemble the fixing bail according to the picture.

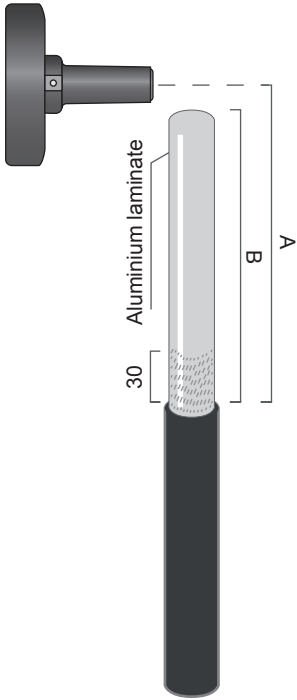
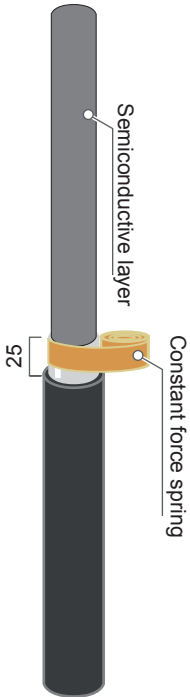


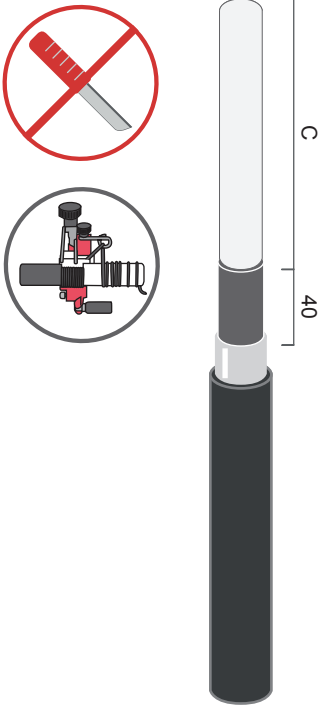
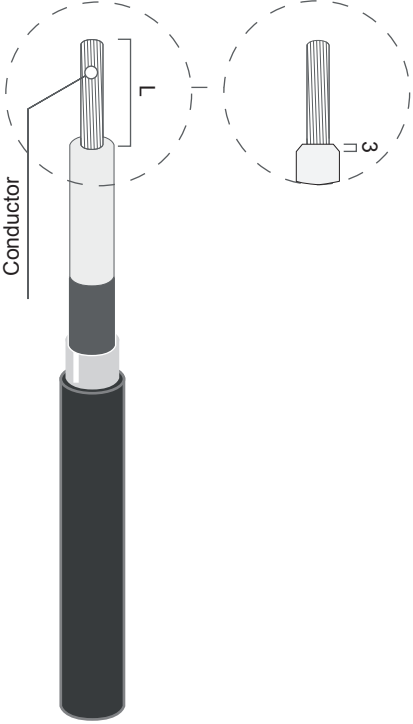
16. Clean bushing and inside of the connector body.
- Apply assembly paste on the bushing and inside of the connector body.
- Connect the bushing and connector body.
- Apply the fixing bail according to the picture.

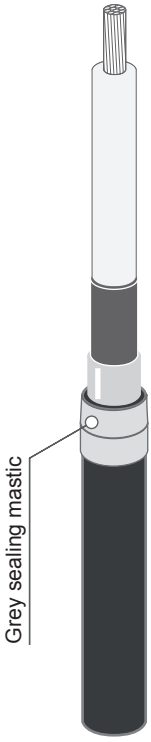
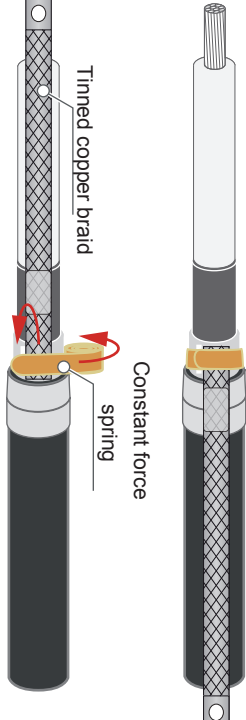
SJCW2595.2 & SJCW70240.2



17. The connector is ready for use!

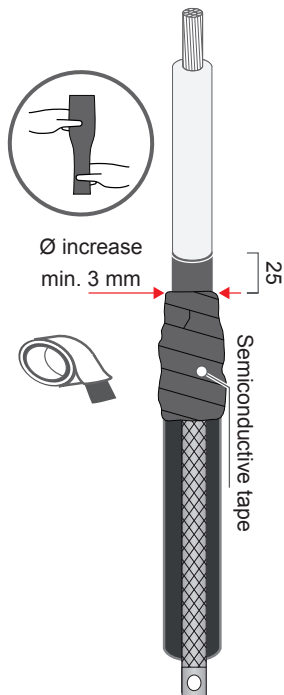
CONE250													
	<p>1. <input type="checkbox"/> Check appropriate length of the cable.</p> <p><input type="checkbox"/> Heat the outer sheath and use the peeling rope to remove the outer sheath to required length.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>12 kV mm²</th> <th>24 kV mm²</th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>95-120</td> <td>25-70</td> <td>220</td> <td>195</td> </tr> <tr> <td>-</td> <td>95-120</td> <td>215</td> <td>190</td> </tr> </tbody> </table> <p><input type="checkbox"/> Grind the glue away from the aluminium laminate for a minimum of 30 mm without grinding through it.</p>	12 kV mm ²	24 kV mm ²	A	B	95-120	25-70	220	195	-	95-120	215	190
12 kV mm ²	24 kV mm ²	A	B										
95-120	25-70	220	195										
-	95-120	215	190										
	<p>2. <input type="checkbox"/> Remove the aluminium laminate with the help of a constant force spring.</p> <p><input type="checkbox"/> Move the spring a few mm forward and remove the swelling tape against the spring.</p> <p><input type="checkbox"/> Remove the spring.</p>												

	<p>3. <input type="checkbox"/> Remove the semiconductive layer with a suitable tool.</p> <table border="1" data-bbox="764 338 1217 465"> <thead> <tr> <th>12 kV mm²</th> <th>24 kV mm²</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>95-120</td> <td>25-70</td> <td>130</td> </tr> <tr> <td>-</td> <td>95-120</td> <td>125</td> </tr> </tbody> </table> <p><input type="checkbox"/> Grind the insulation if necessary.</p>	12 kV mm ²	24 kV mm ²	C	95-120	25-70	130	-	95-120	125
12 kV mm ²	24 kV mm ²	C								
95-120	25-70	130								
-	95-120	125								
	<p>4. <input type="checkbox"/> Remove the insulation according to the cable lug installation instruction.</p> <p><input type="checkbox"/> Chamfer or smoothen the sharp insulation cutting point for a length of max. 3 mm. Grinding paper can be used.</p>									

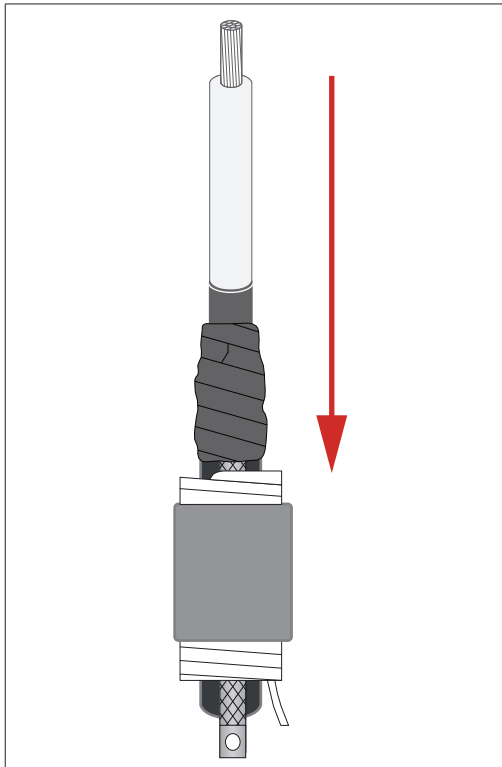
	<p>5. <input type="checkbox"/> Apply firmly two strips of grey sealing mastic on the cable outer sheath.</p>
	<p>6. <input type="checkbox"/> Apply the copper braid on the aluminium laminate.</p> <p><input type="checkbox"/> Place the constant force spring on the braid and fix with one turn of the spring and turn the braid over the cable outer sheath.</p> <p><input type="checkbox"/> Wrap the rest of the spring.</p>



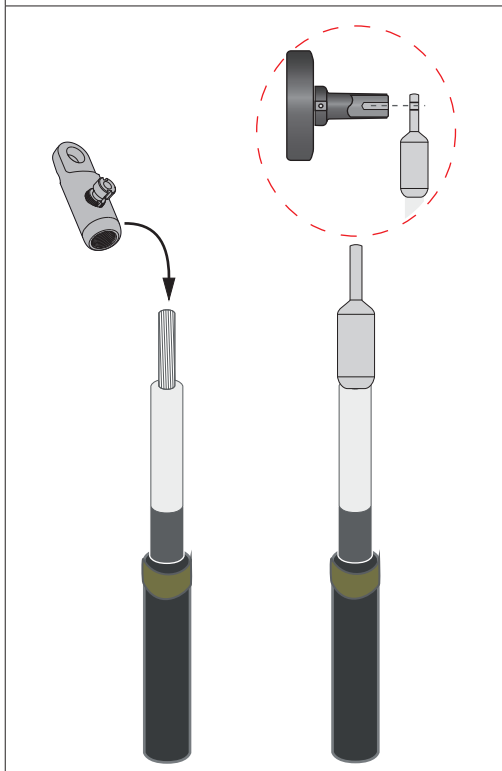
7. Cut a strip of grey sealing mastic in half and place the pieces over the tin blocking of the braid.



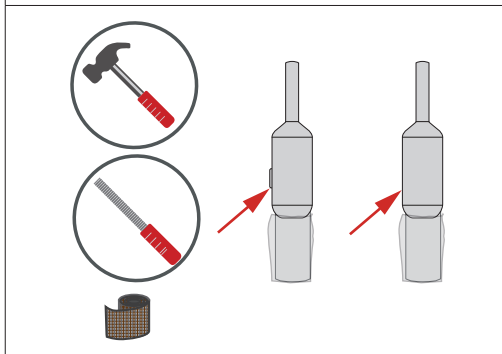
8. Apply semiconductive tape in the way that tightens the constant force spring according to the picture.
- Increase the diameter on the semiconductive layer with a minimum of 3 mm with semiconductive tape to have a stopping edge for the connector body.



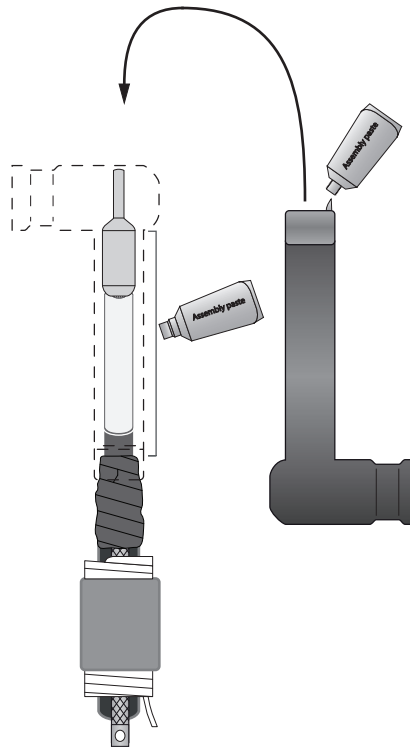
9. Place the cold shrink protection tube on the cable outer sheath as indicated in the picture.
- Clean the insulation and semiconductive layer.



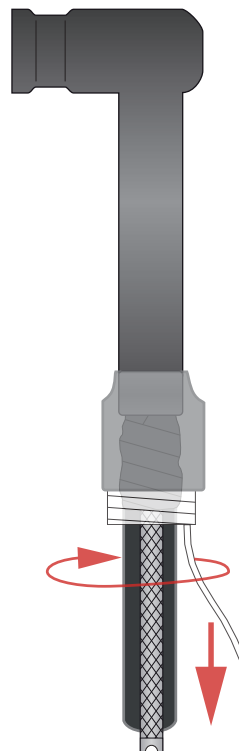
10. Orient the cable lug correctly.
- Install cable lug according to the lug's installation instruction.



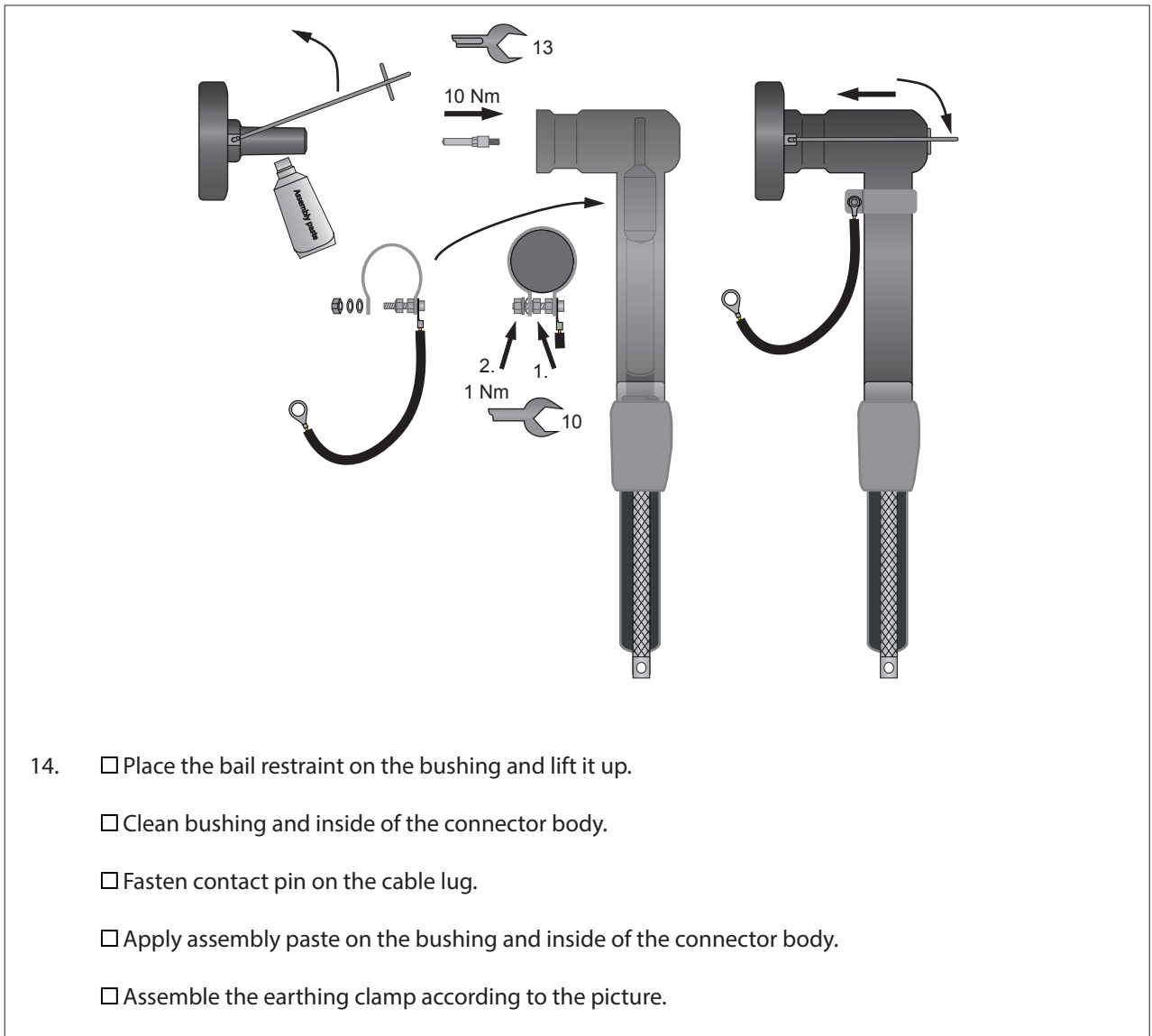
11. If the screw breaks above the lug body surface use a suitable tool to remove sharp edges.
- Protect the insulation from burrs with e.g. plastic.

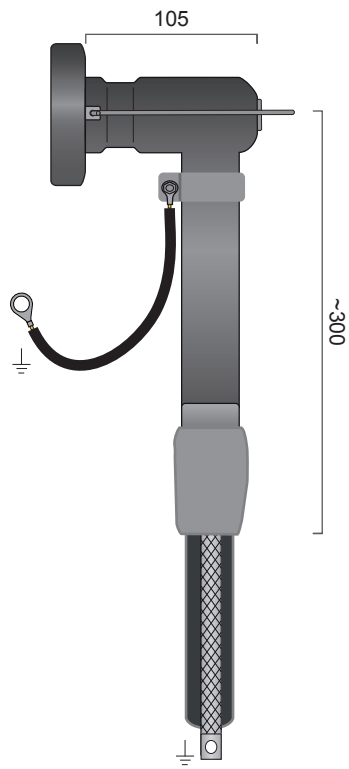


12. Clean the insulation, semiconductive layer and the cable lug.
- Apply assembly paste evenly according to the picture.
- Apply assembly paste inside the complete connector body!
- Push the connector body to the position indicated in the picture.

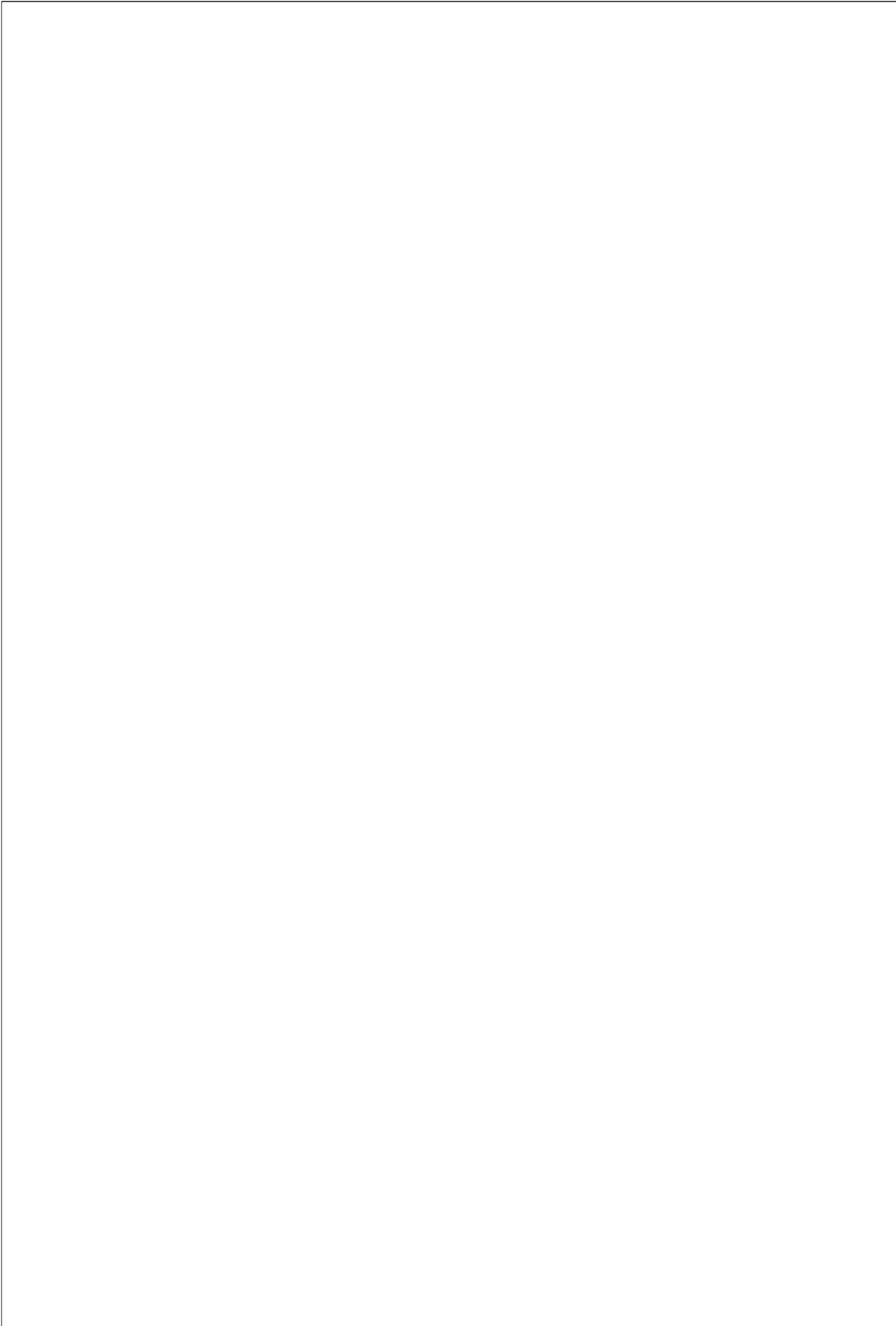


13. Remove the spiral from the protection tube starting from the edge of the connector black layer.
- The spiral is removed by pulling it while turning it counter-clockwise.





15. The connector is ready for use!





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