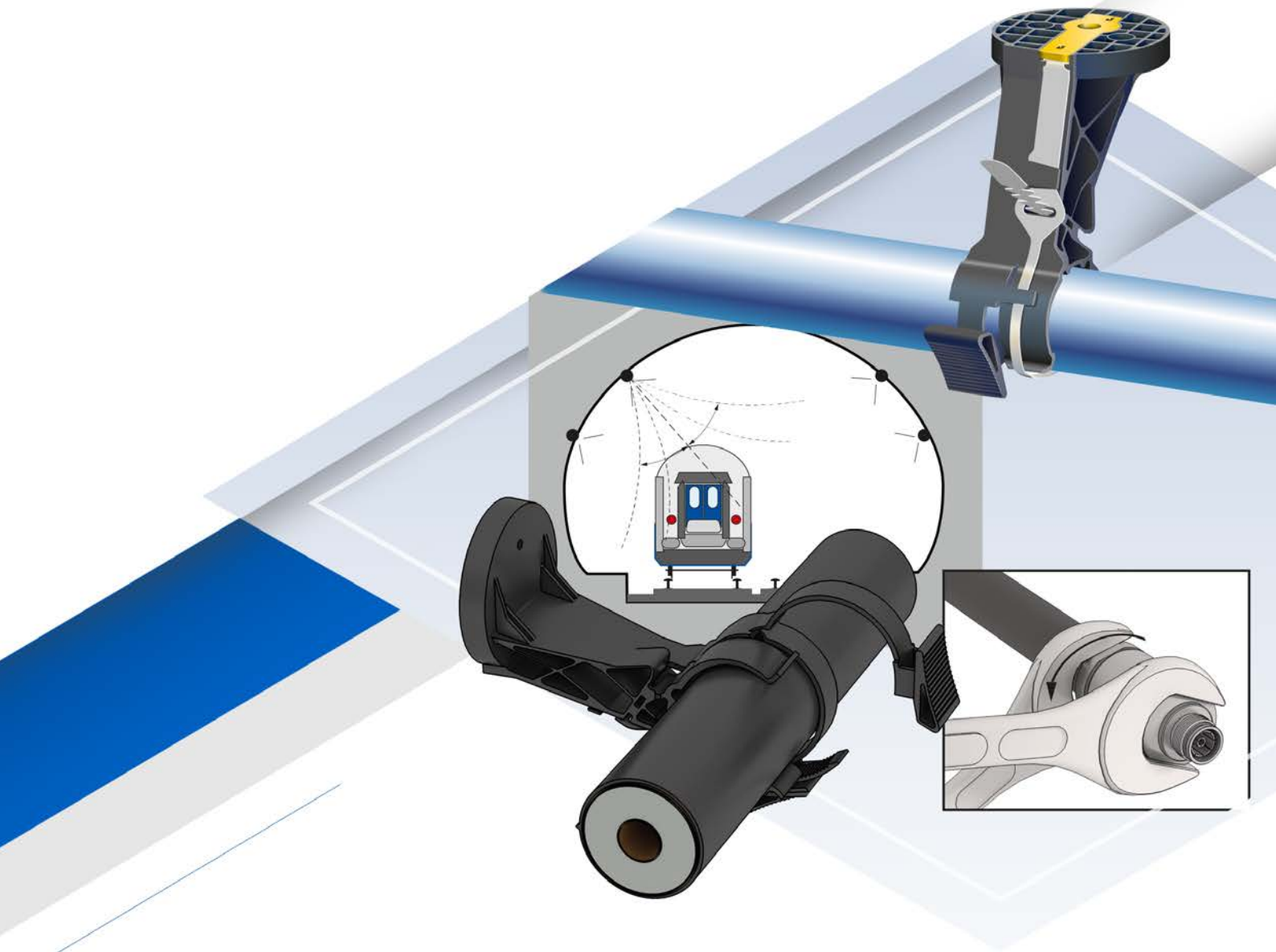


RADIATING CABLES

Installation Guide

Edition 2





Content

Radiating Cables Installation Edition 2

General instructions

- 4** Safety on site
- 5** Radiating Cable positioning in tunnels
- 6** Installation of EUCARAY® Radiating Cables
- 7** Orientation of slots for RMC Cables
- 8** Drilling and clamping
- 9** Mounting in tunnel
- 10** Installation recommendations

Installation instructions for clamps

- 12** SKH - Radiating Cables clamps - Wall or Ceiling mount of SKH
- 13** Wall or Ceiling mount of SKH with FSB
- 15** Installation instruction for clic clamp with Nylon plug and round base spacer
- 16** Installation instruction for clip hangers EUCH-xx-NH
- 17** Installation instruction for clip clamp with steel plug and steel spacer
- 18** Installation instruction for steel clamp DN-xx with set plug and steel spacer

Installation instructions for connectors

- 19** Connectors installation for Radiating Cables RC 400
- 20** Connectors installation for Radiating Cables 1/2"
- 21** Connectors installation for Radiating Cables 5/8"
- 22** Connectors installation for Radiating Cables 7/8"
- 23** Connectors installation for Radiating Cables 1-1/4"
- 24** Connectors installation for Radiating Cables 1-5/8"
- 25** Connectors installation for Radiating Cables 1-1/4" & 1-5/8" S-Type

- 27** Installation video

General instructions

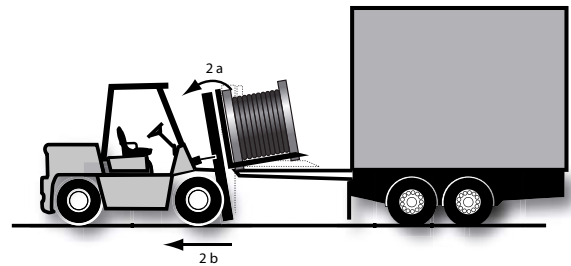
Safety on site

Cordoning - off the working area

- Warning Signs
- Warning Cones
- Warning Lights
- Warning Tape

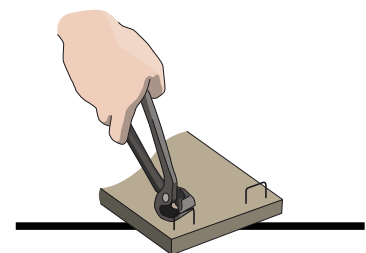
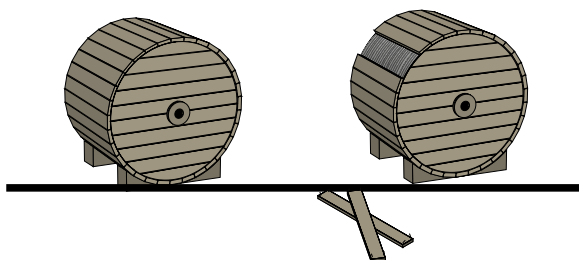
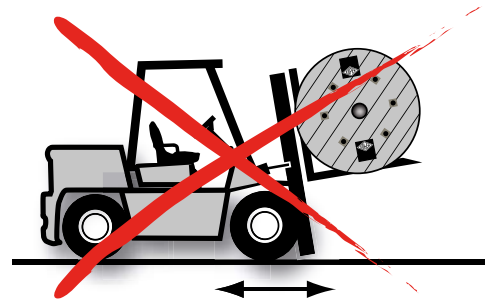
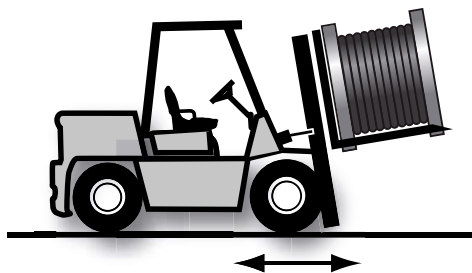
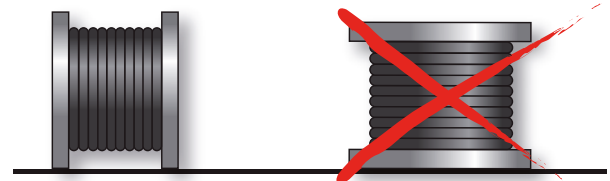
Keeping the access and emergency routes clear of

- Materials
- Tolls
- Vehicles




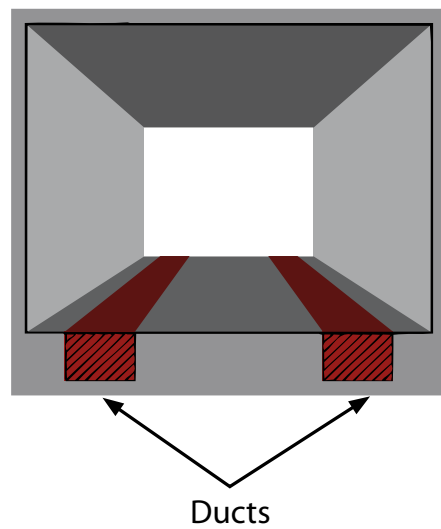
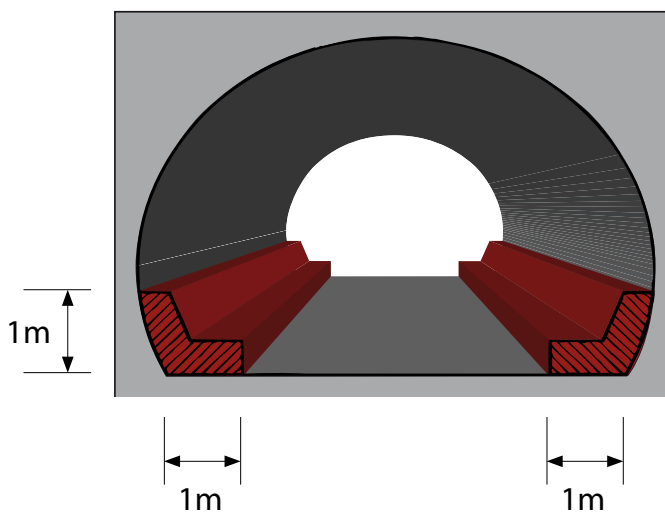
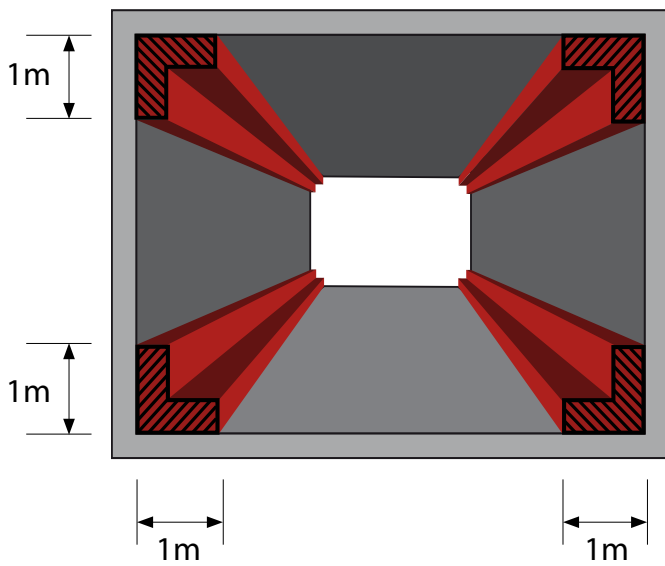
Fire precautions

- Easily inflammable materials should be ...
 - kept to a minimum
 - disposed of immediately if not necessary any longer
 - brought into the tunnel only in the amount required



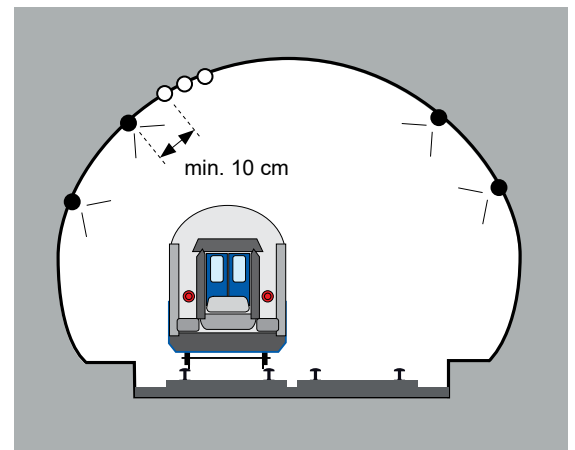
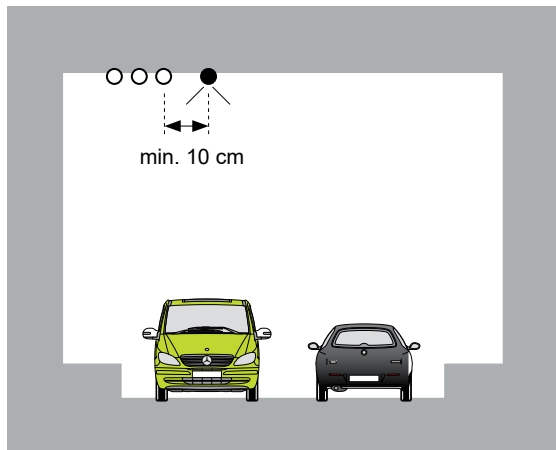
Radiating Cable positioning in tunnels

 No radiating cable in these areas

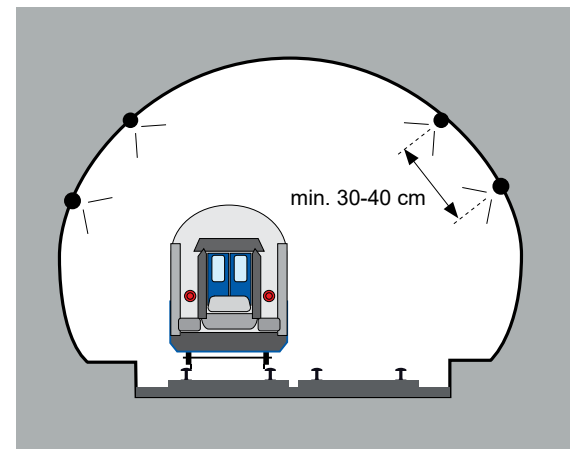
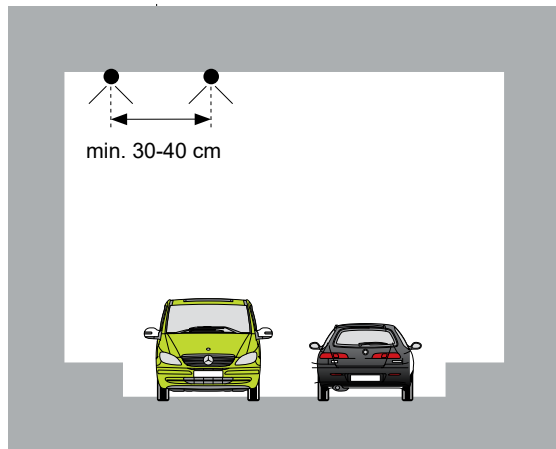


Installation of EUCARAY® Radiating Cables

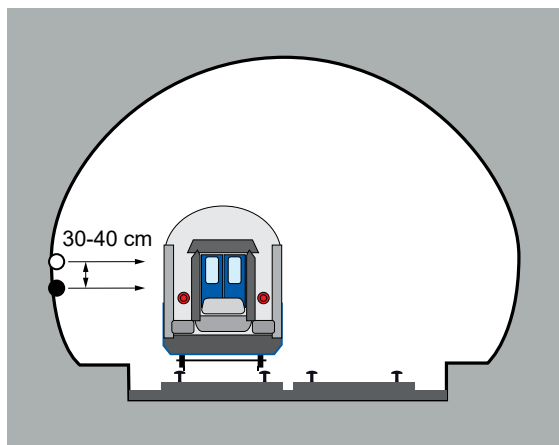
Typical spacing of Radiating Cable to other cable or obstacles



Typical spacing recommended for MiMo installation



Orientating the cable to the receiver leads to best results



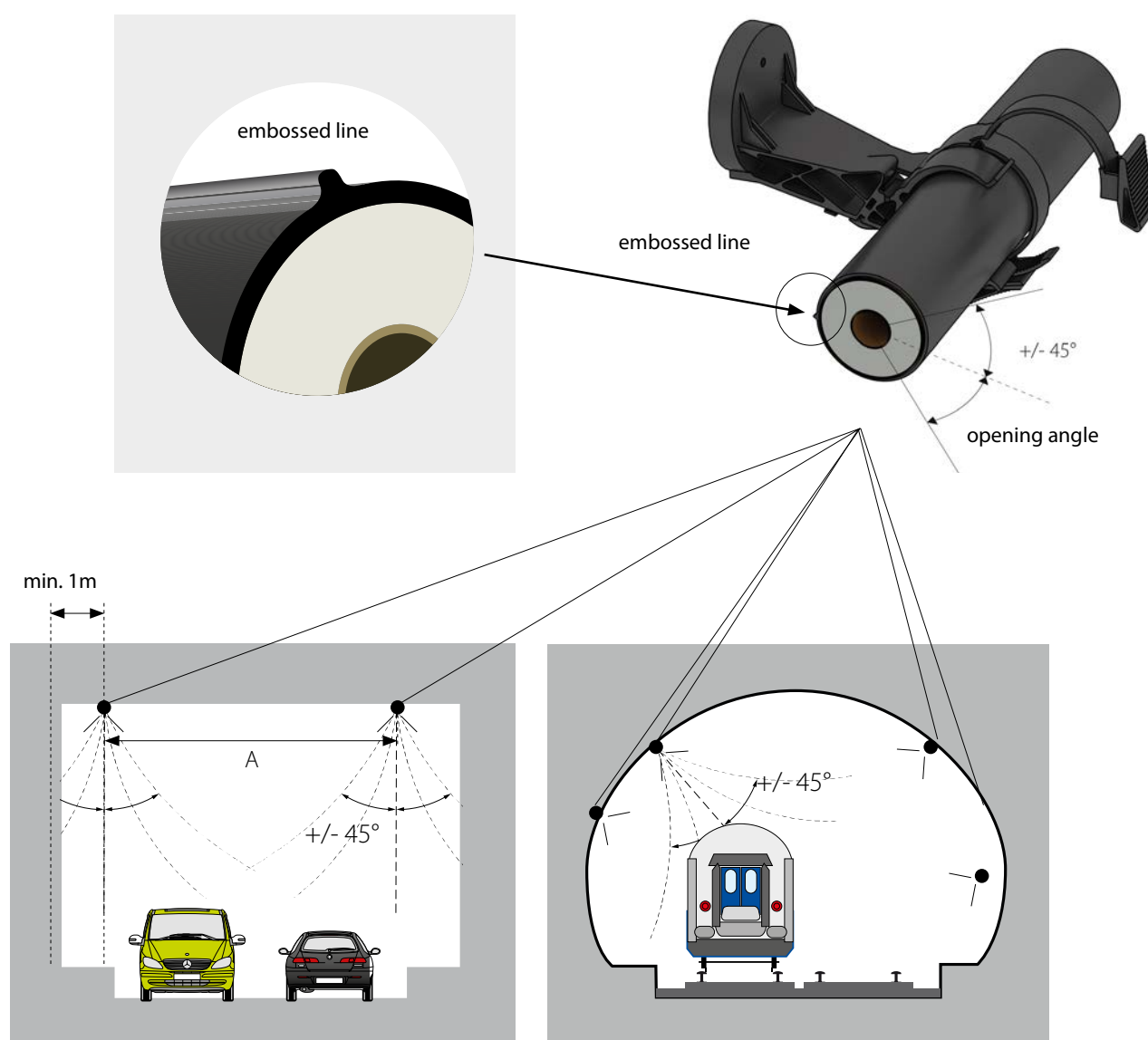
Note: the clamp spacing and recommended distance to wall per cable is stated on the data sheet (example):

- Recommended Clamp Spacing
m (ft) 1.0 (3.28)

- Distance to Wall Recommended / Min.
mm (in) 80 - 180 (3.15 - 7.00) / 50 (1.96)

Orientation of slots for RMC cables

Apertures oriented towards area to be covered.
The slots are located 180° opposite to an embossed line on the jacket.



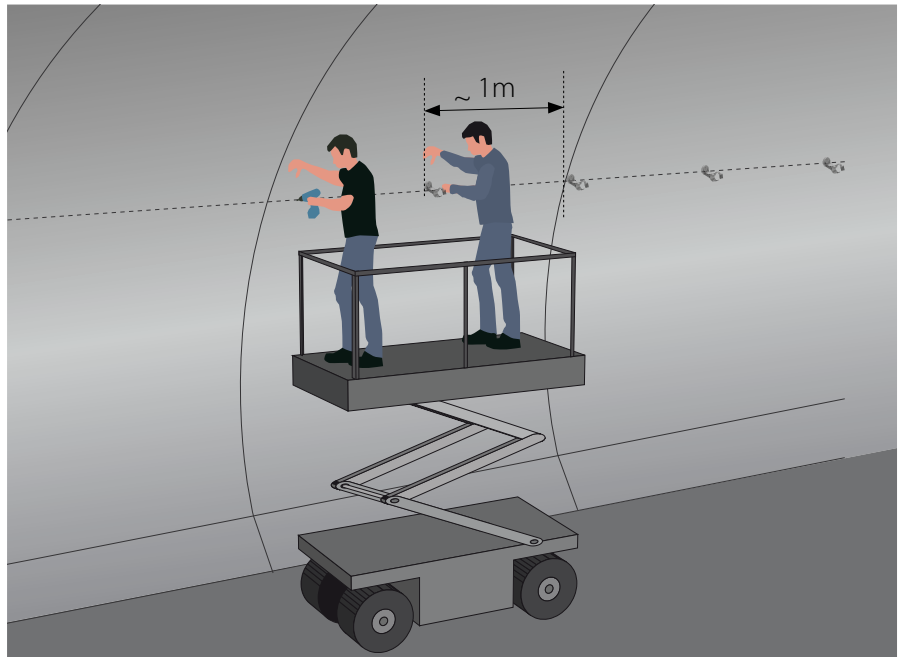
A= Recommended zone for RMC-cable

The slots are located 180° opposite to an embossed line on the jacket.

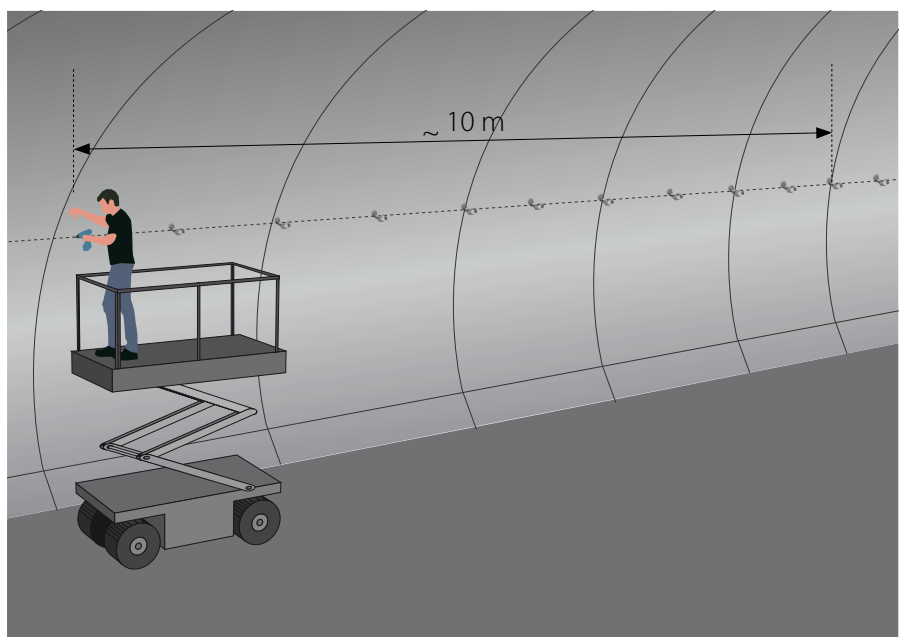
For LSC-and CMC-cables a cable orientation is not needed.

Drilling and clamping

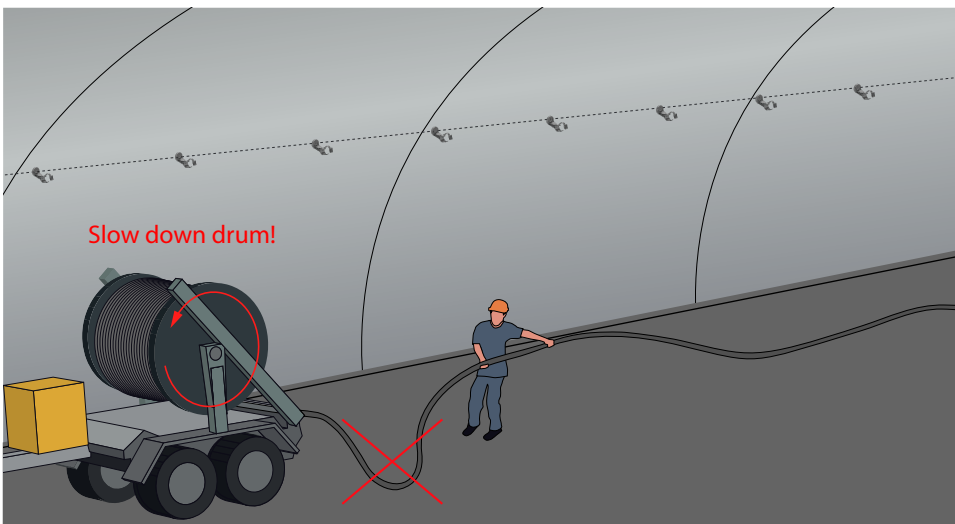
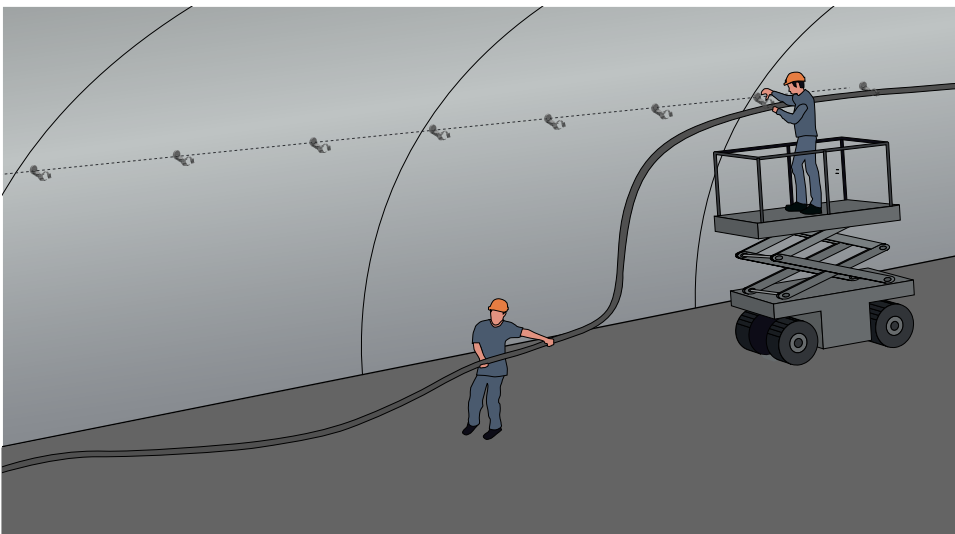
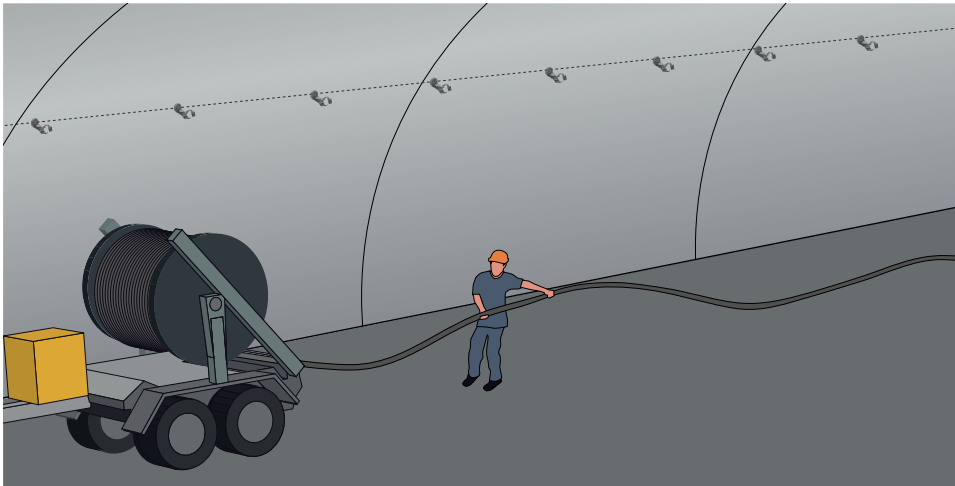
Every 1 meter, the recommended hangers can be clic clamps or clamps without fire resistant belt.



Every 10 meters, the recommended hangers should be of fire resistant type. They can be clamps with metal anchor and fire resistant belt, or clip hangers, or steel clamps.

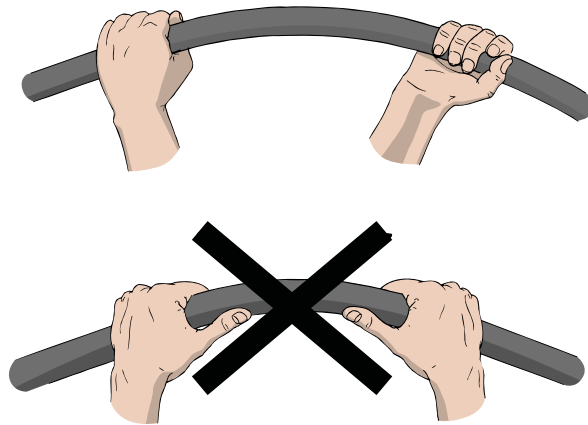


Mounting in tunnel

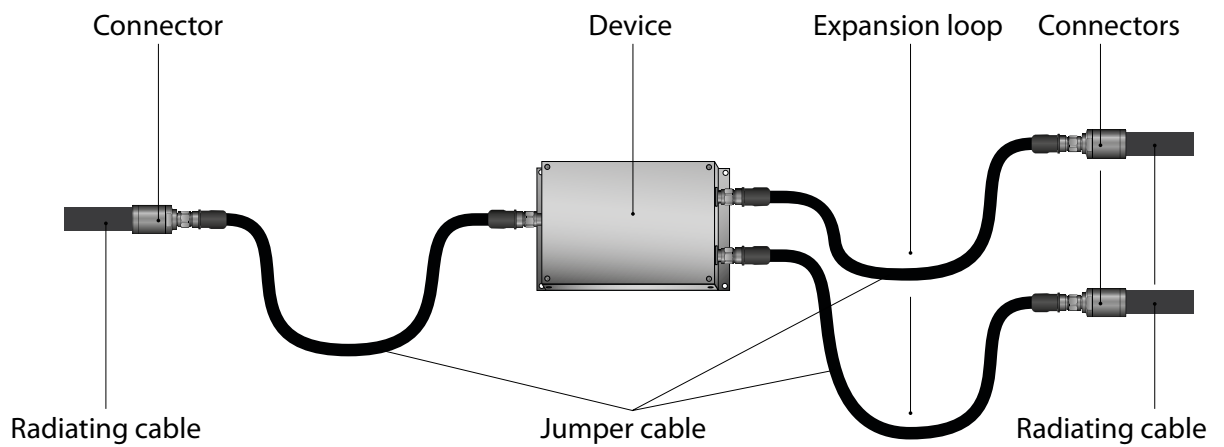


Installation recommendations

Bending of RF-Cables



Expansion loops



Connection of two EUCARAY® radiating cables

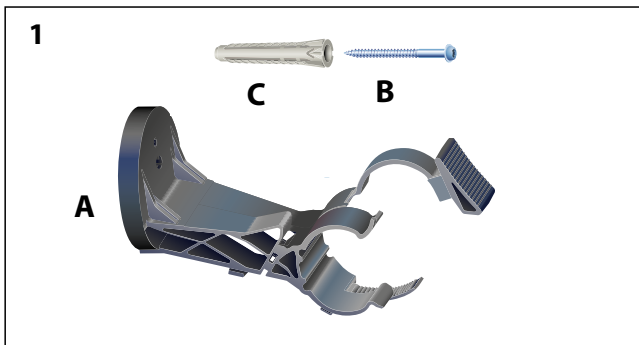


For long runs of radiating cables, when the required cable length exceeds the length on a standard drum, radiating cables can be connected together.

In order to absorb cable extensions due to temperature changes, it is recommended to use a jumper cable which runs in a loop (ring) between the two sections of radiating cables.

We recommend for this purpose Eupen EC4-HF-S-100-Hilfex jumpers.

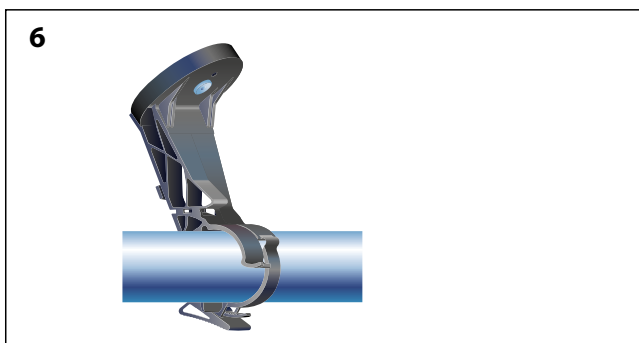
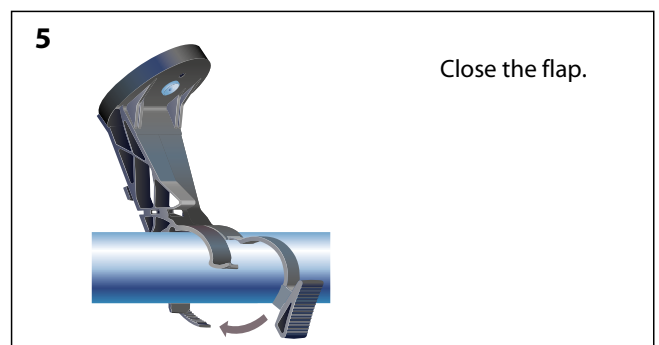
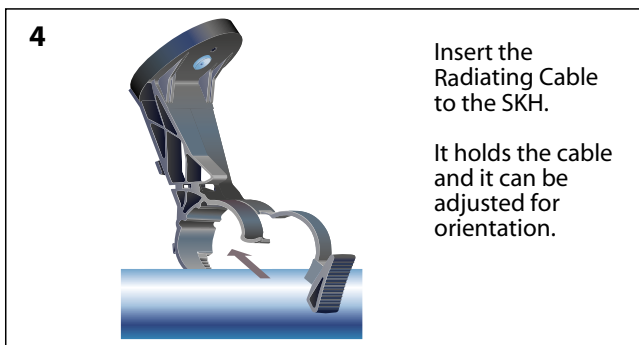
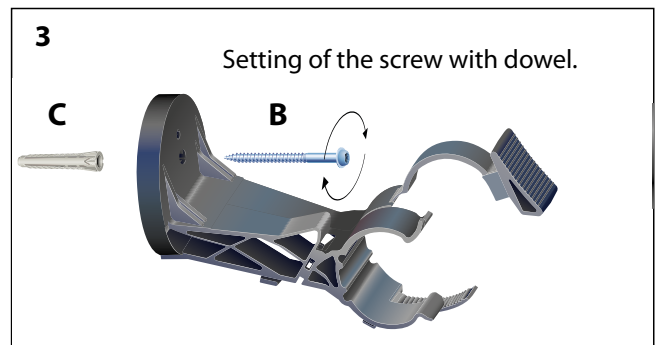
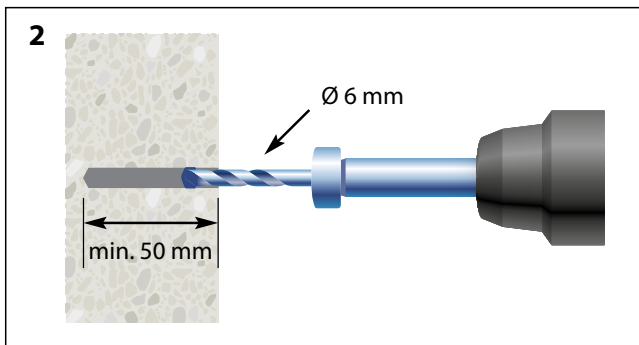
SKH - Radiating Cable clamps Wall or Ceiling mount of SKH



A - SKH - Strahlende Kabel Halter

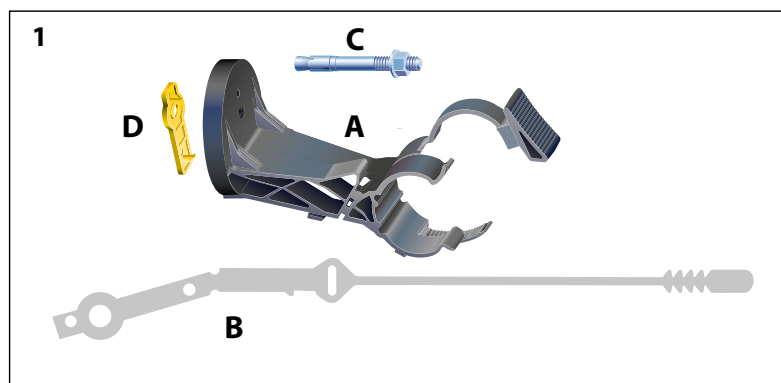
B - Screw \varnothing 4,5 mm x 55 mm

C - Dowel 6 x 50 mm



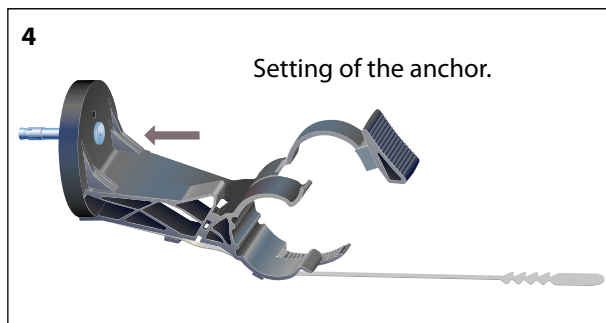
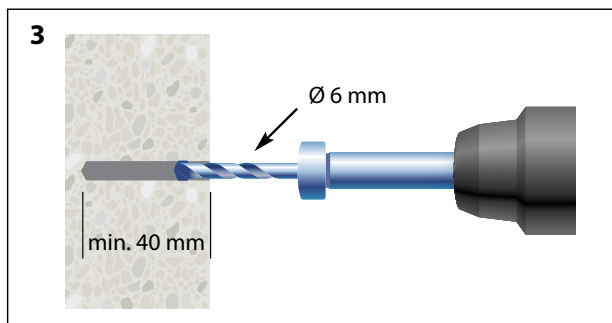
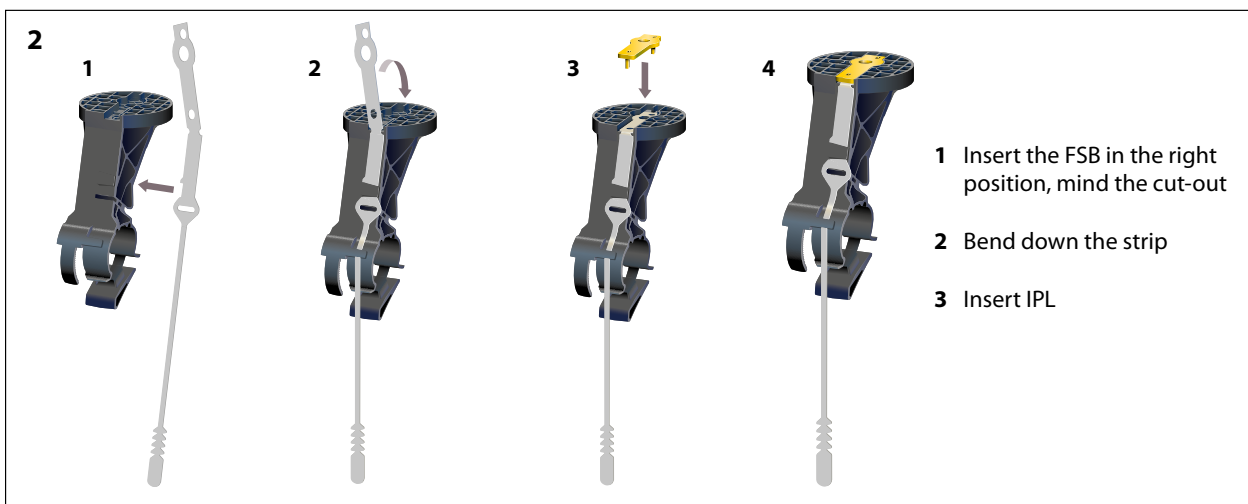
SKH - Radiating Cable clamps

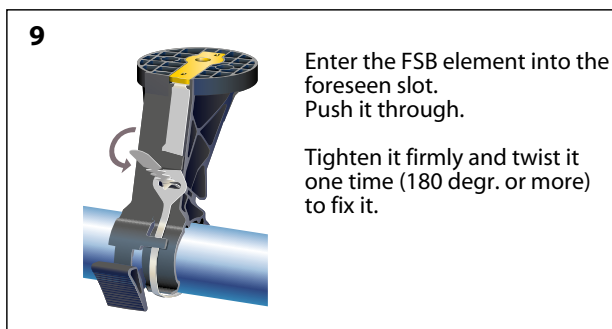
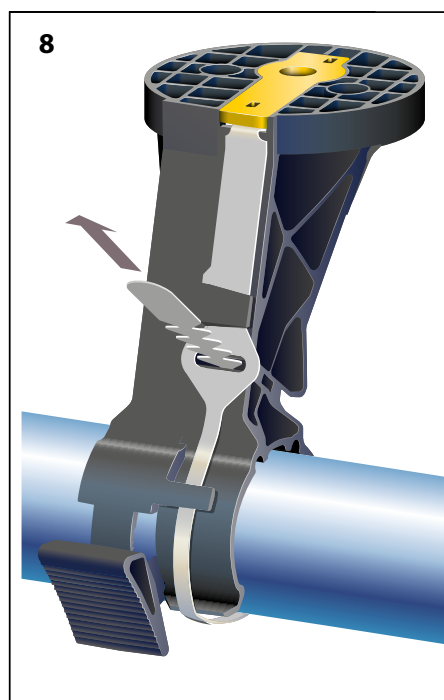
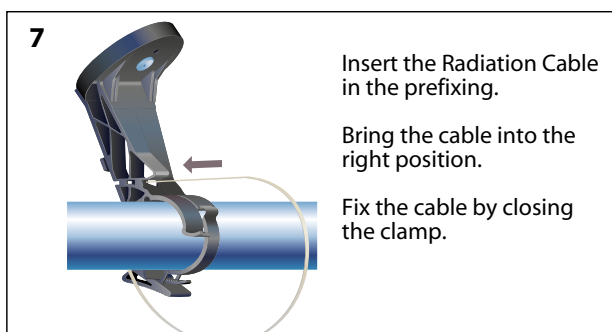
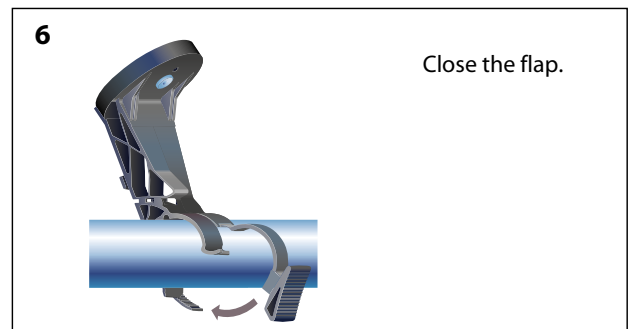
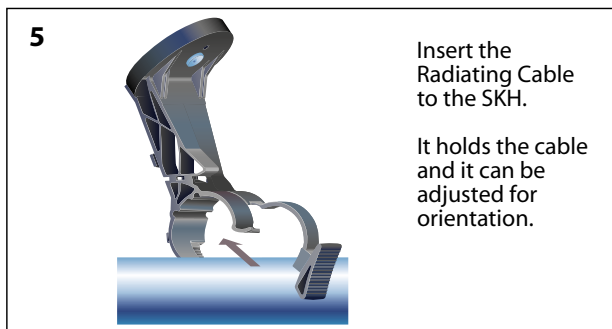
Wall or Ceiling mount of SKH with FSB (recommended every 10 meters)



- A SKH - Strahlende Kabel Halter
- B FSB - Fire resistant band
- C Metal anchor TILCA Ø 6mm x 69 mm
- D IPL

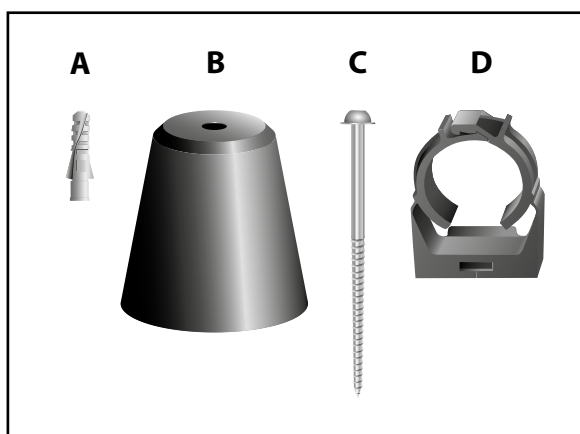
FSB Fire Safety Band to be added to SKH every 10m



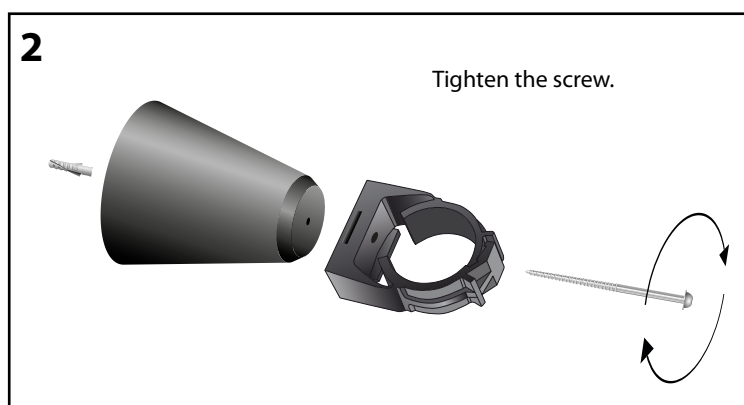
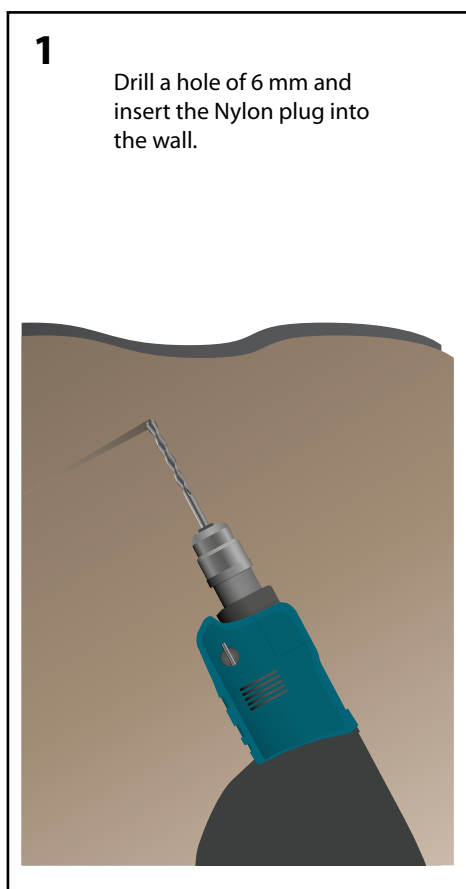


Installation instruction for clic clamp with Nylon plug and round base spacer

(recommended every 1 meter)

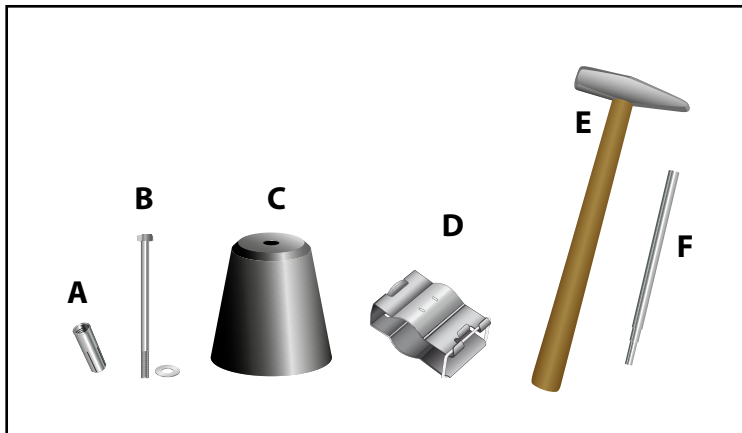


- A Nylon dowel 6 x 30 mm
- B Round base spacer RB80
- C Screw WS125 Ø 4,5 mm x 125 mm
- D Clic clamp

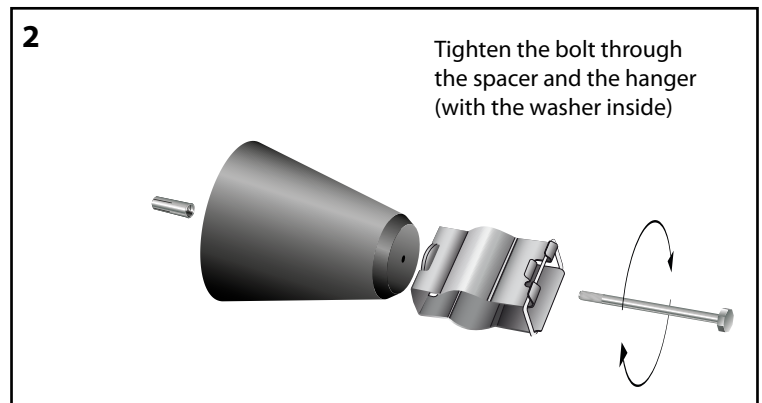
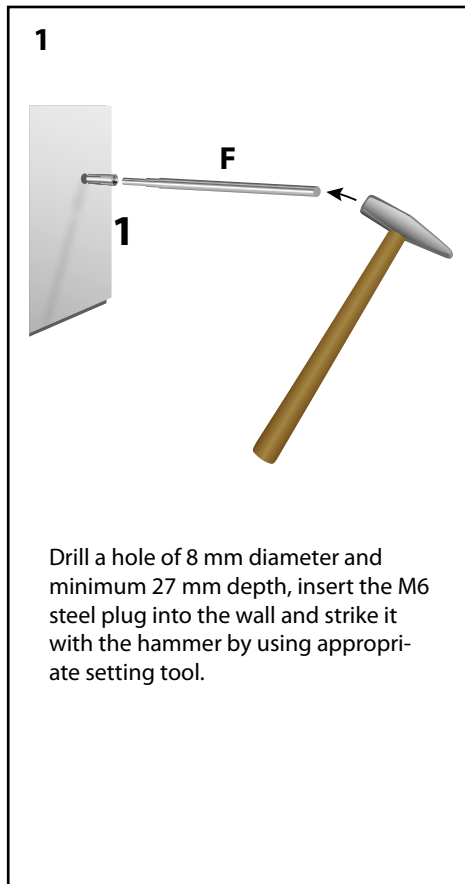


Installation instruction for clip hangers EUCH-xx-NH

(recommended every 10 meters)

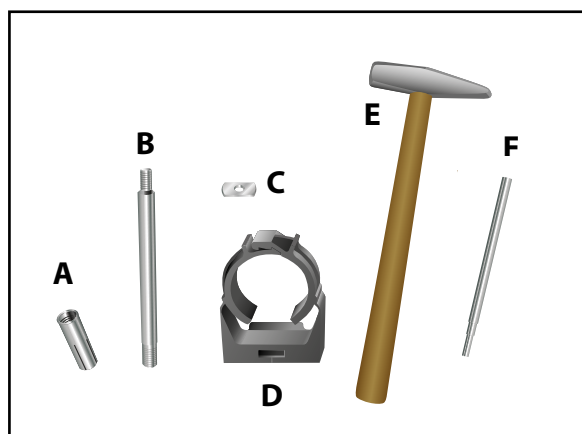


- A** Stainless steel plug M6 HPM6-SS
- B** Bolt with metric thread, stainless steel B6/90-SS (M6 x 90, hex socket head), with washer
- C** Round base spacer RB80
- D** Clip hanger EUCH-xx-NH
- E** Hammer
- F** Setting tool



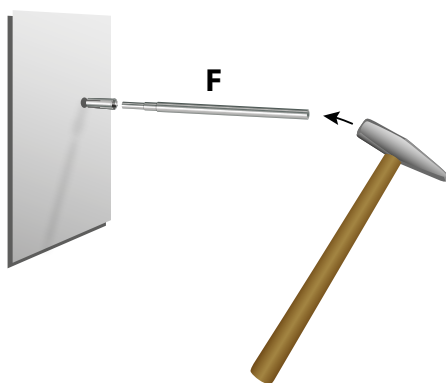
Installation instruction for clip clamp with steel plug and steel spacer

(recommended every 1 meter)



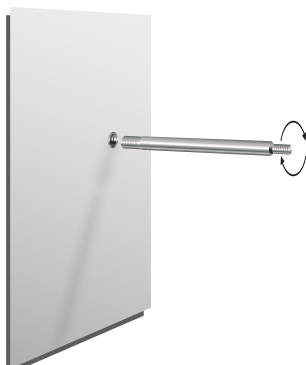
- A Stainless steel plug M8 HPM8-SS
- B Stainless steel spacer SSP6/75/8
- C Flat nut M6 FN6
- D Clic clamp
- E Hammer
- F Setting tool

1



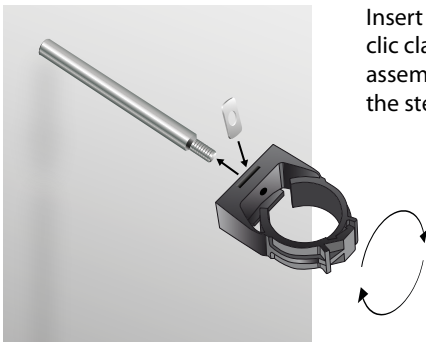
Drill a hole of 10 mm diameter and minimum 33 mm depth, insert the M8 steel plug into the wall and strike it with the hammer by using appropriate setting tool.

2



Tighten the spacer into the plug.

3

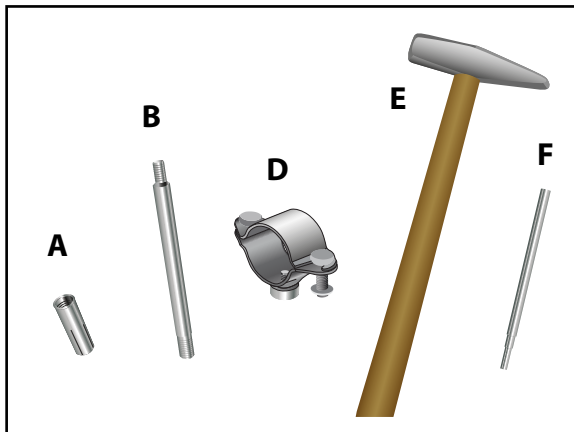


Insert the flat nut into the clic clamp and tighten the assembly by screwing it on the steel spacer.

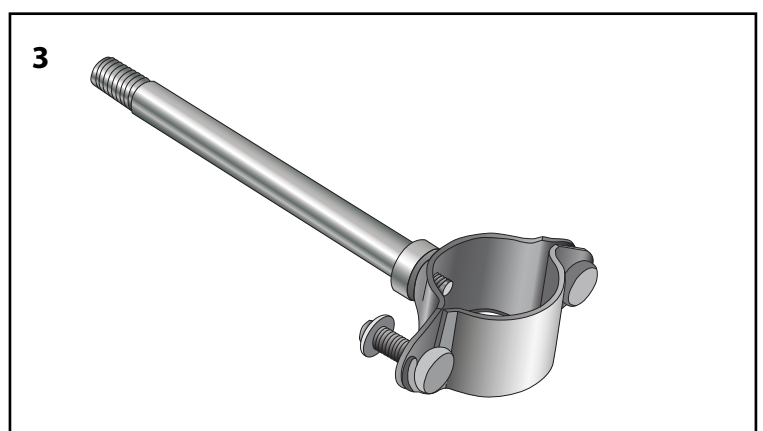
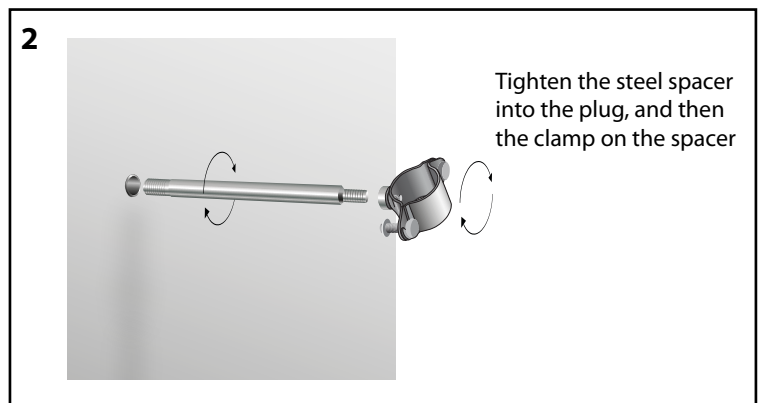
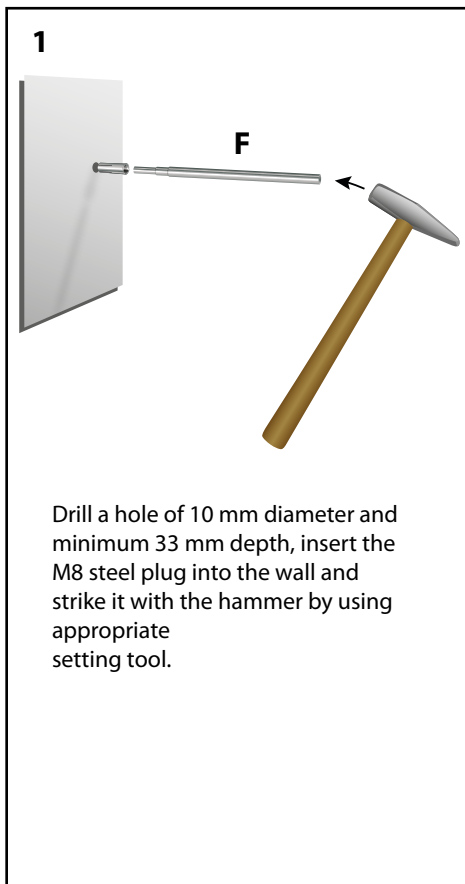


Installation instruction for steel clamp DNxx with set plug and steel spacer

(recommended every 10 meters)

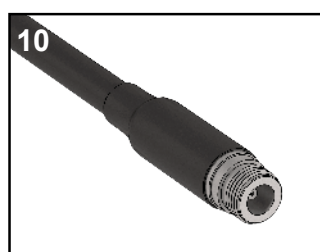
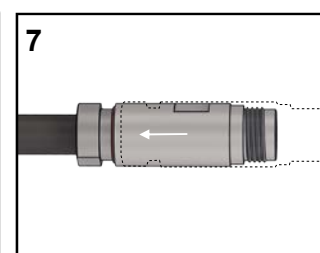
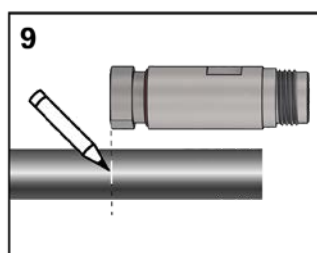
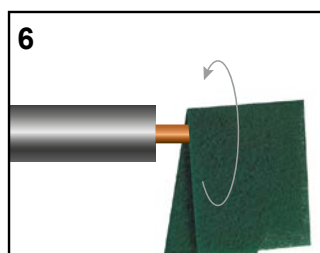
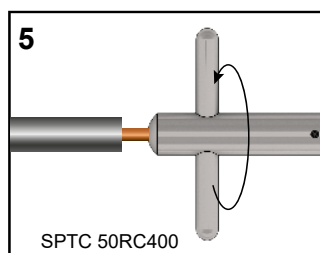
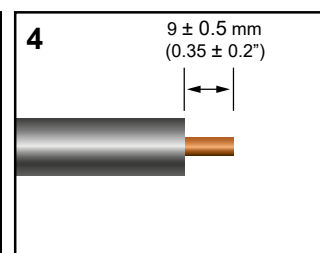
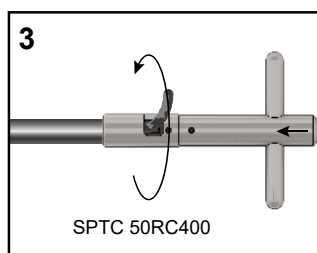
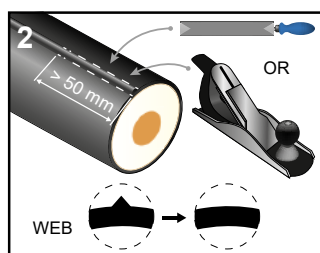
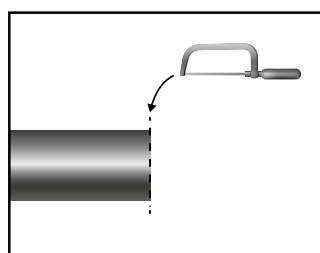
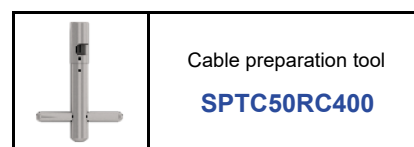
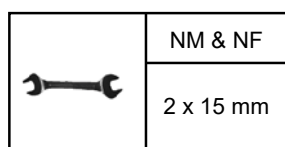
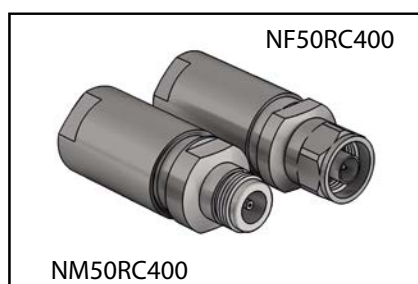


- A Stainless steel plug M8 HPM8-SS
- B Stainless steel spacer SSP6/75/8
- D Clamp DM-xx
- E Hammer
- F Setting tool



Installation instructions for connectors

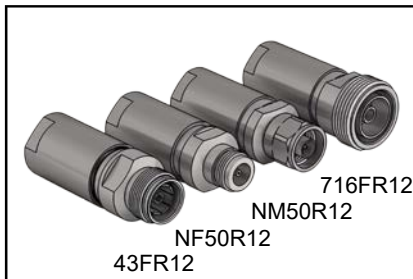
Connectors installation for Radiating Cables RC 400



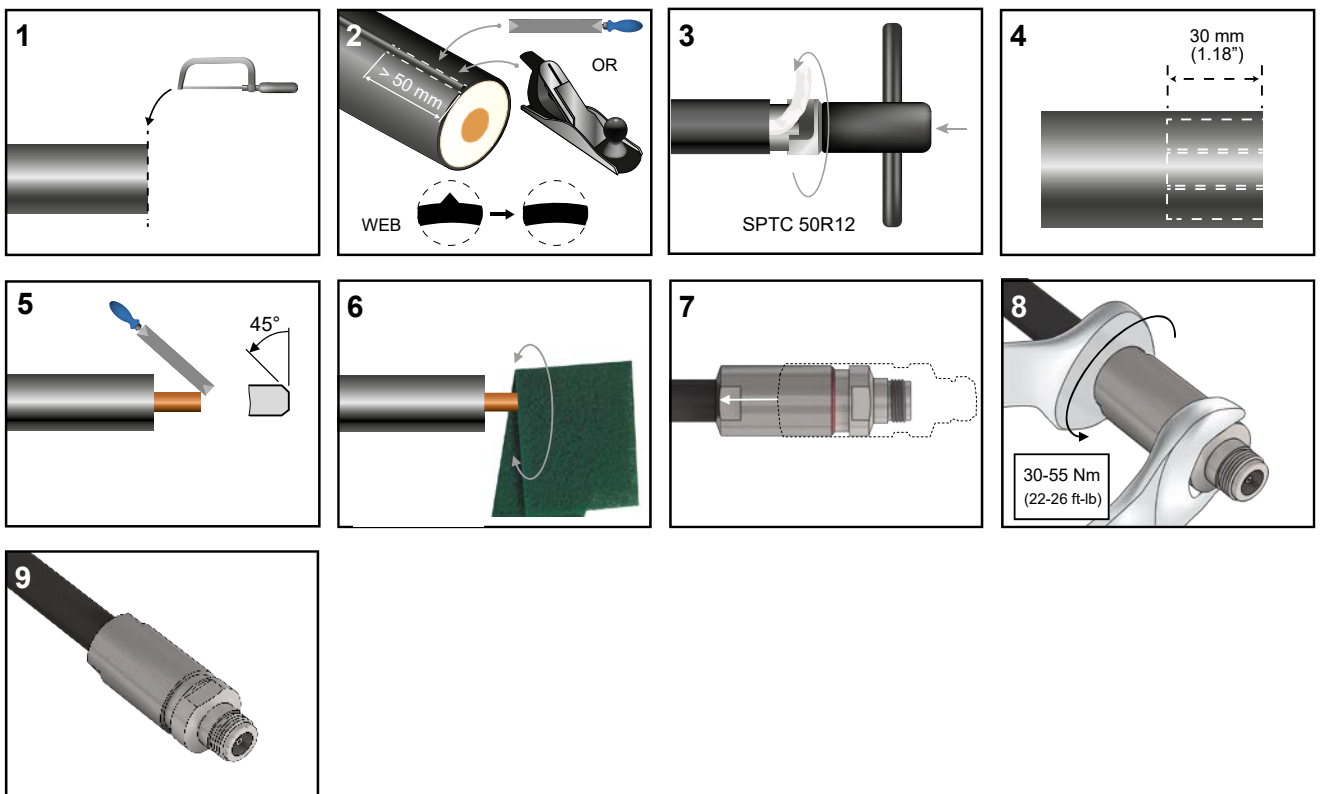
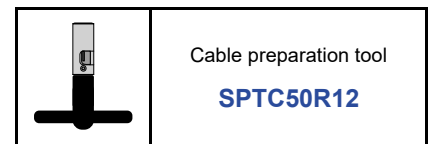
10 - for installations in harsh environments, the use of an optional heat-shrink is recommended.



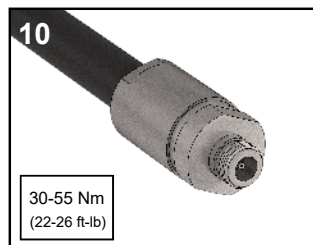
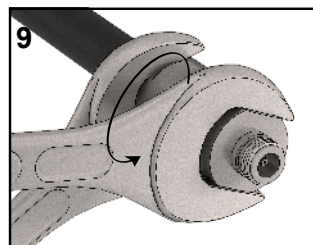
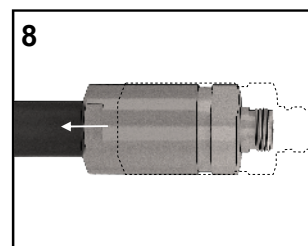
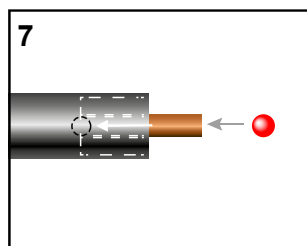
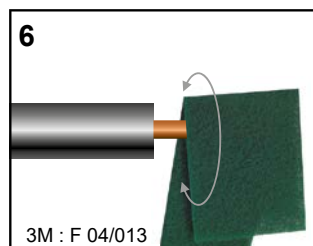
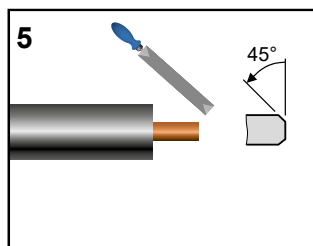
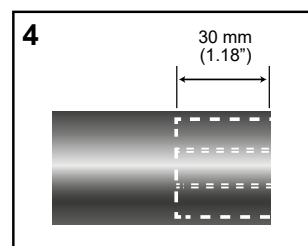
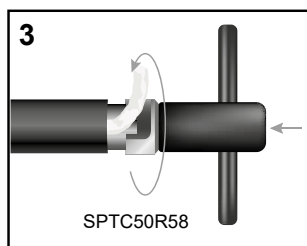
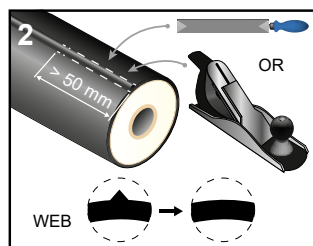
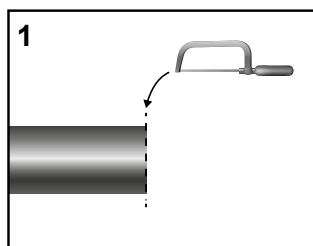
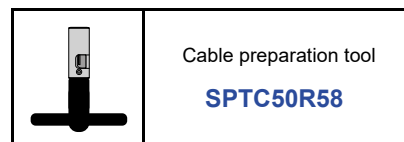
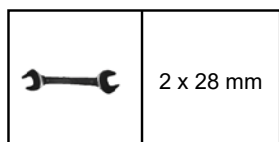
Connectors installation for Radiating Cables 1/2"



	NF, 7-16F	NM	7-16M
	2 x 22 mm	2 x 22 mm & 19 mm	2 x 22 mm & 32 mm

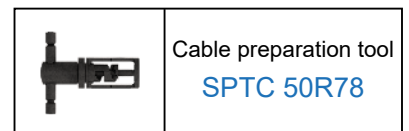
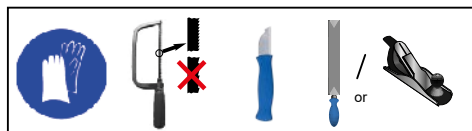
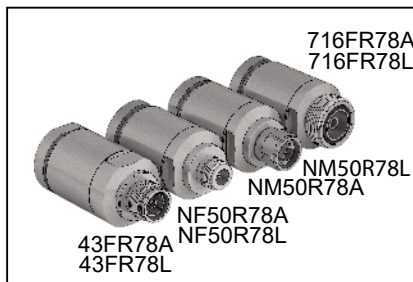


Connectors installation for Radiating Cables 5/8"

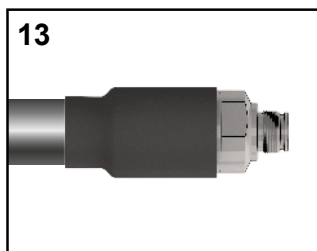
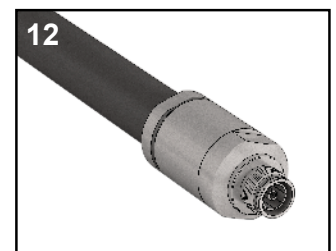
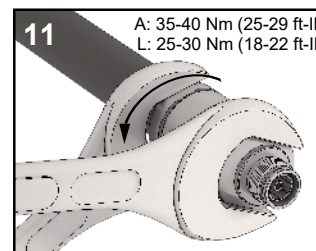
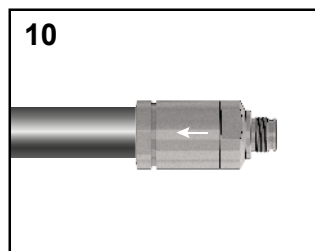
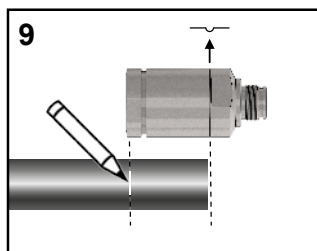
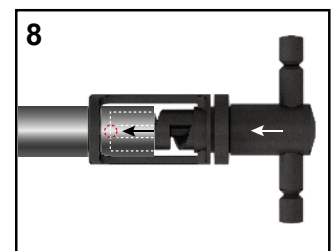
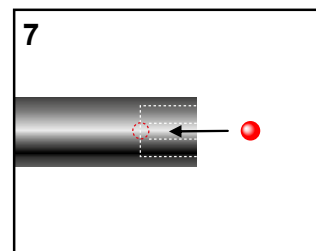
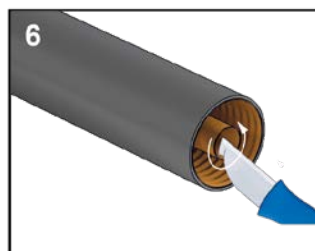
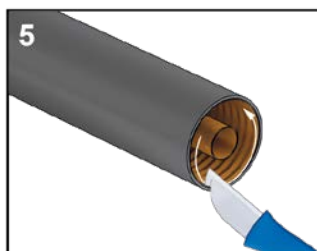
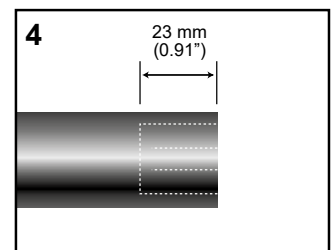
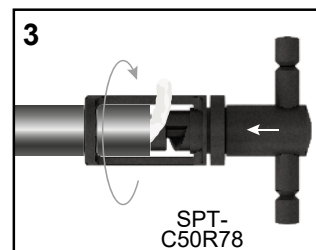
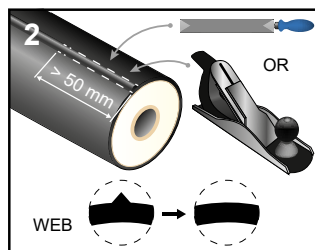
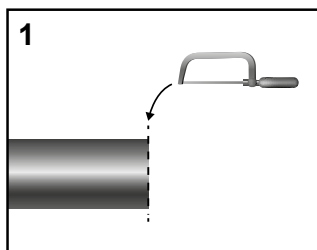




Connectors installation for Radiating Cables 7/8"

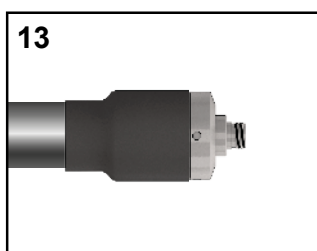
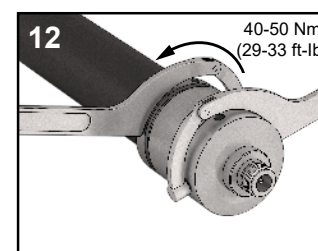
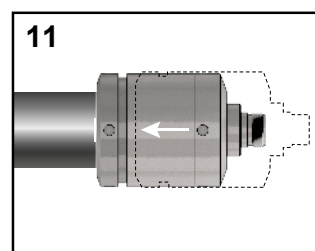
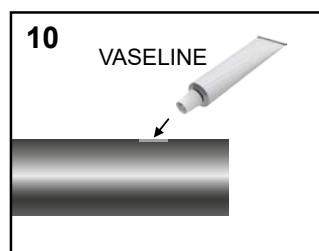
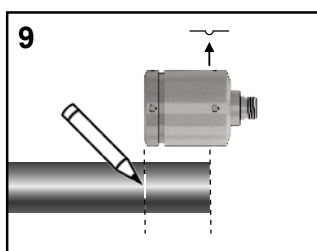
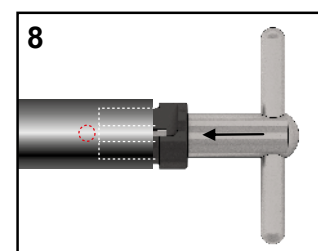
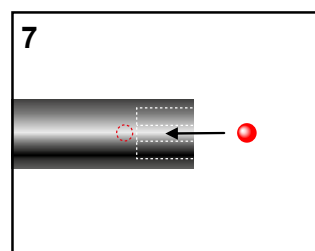
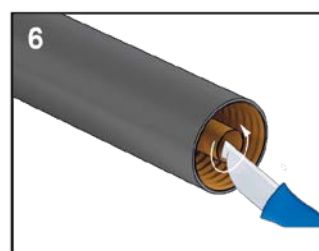
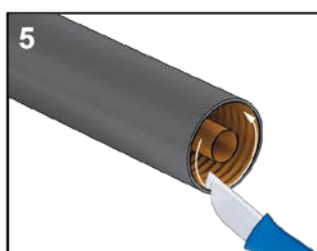
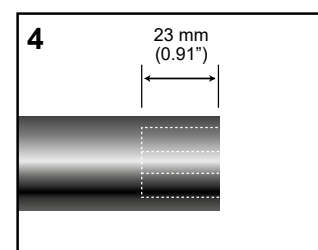
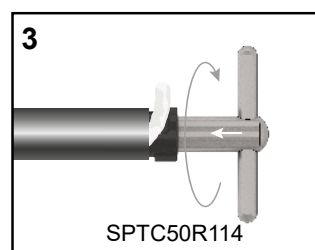
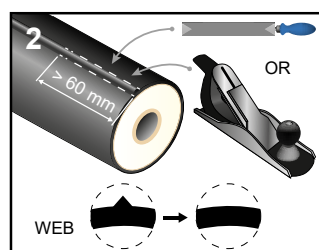
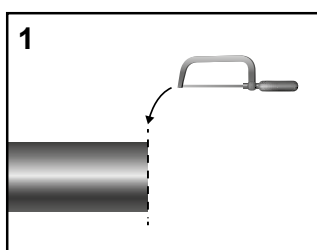
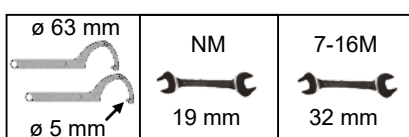
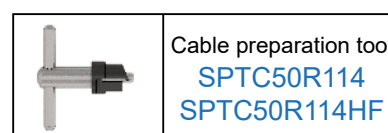
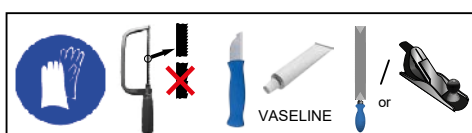


	NF, 7-16F, 4.3-10F	NM	7-16M
	2 x 34 mm	2 x 34 mm 19 mm	2 x 34 mm 32 mm



13 - for installations in harsh environments, the use of an optional heat-shrink is recommended.

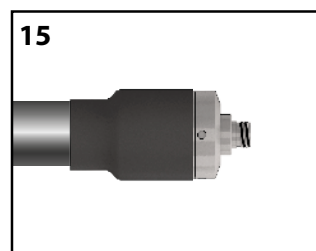
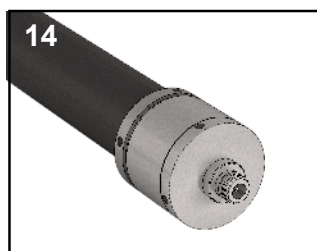
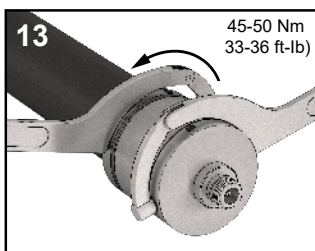
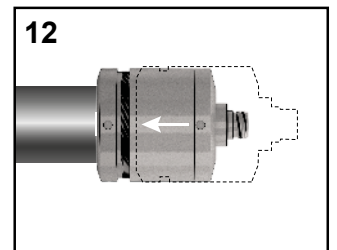
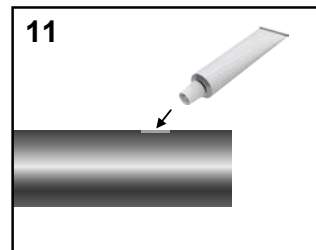
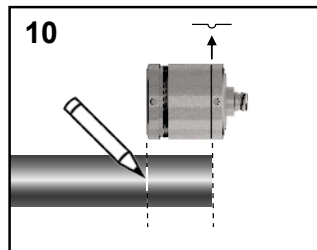
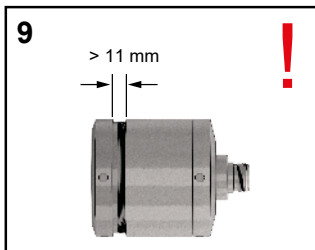
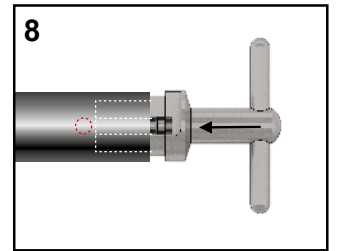
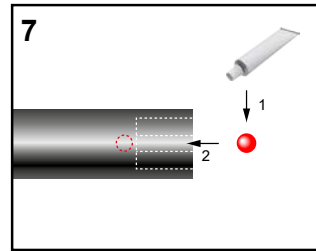
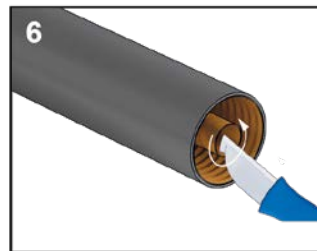
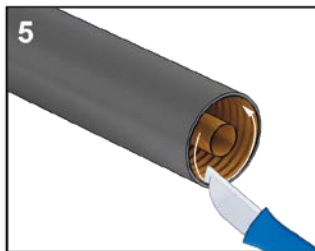
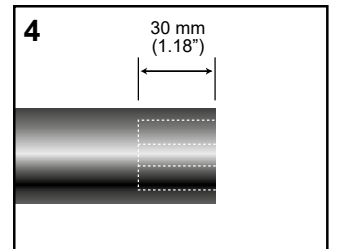
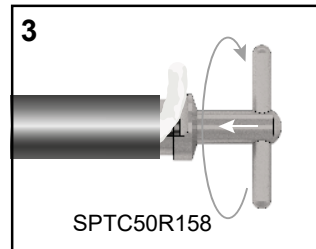
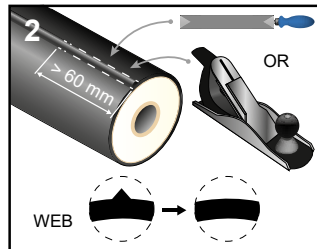
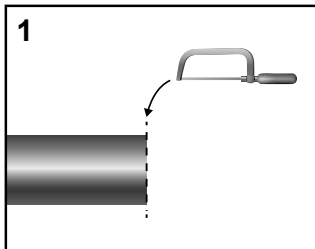
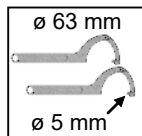
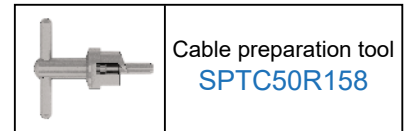
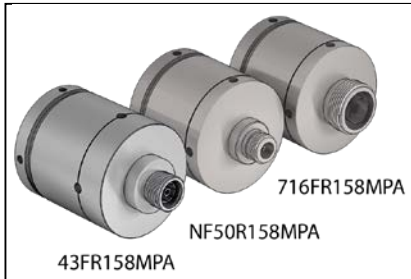
Connectors installation for Radiating Cables 1-1/4"



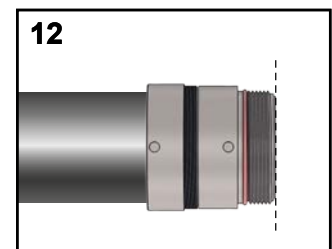
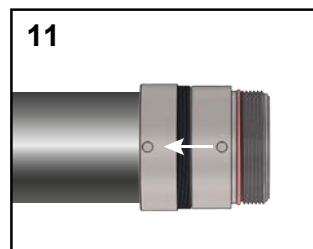
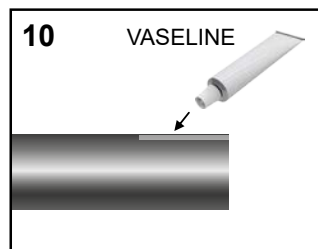
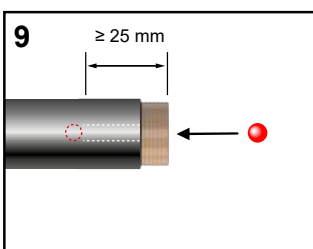
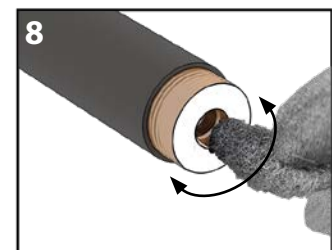
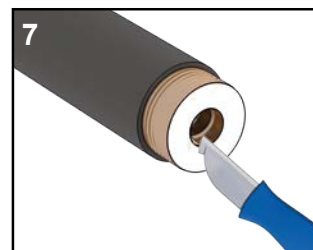
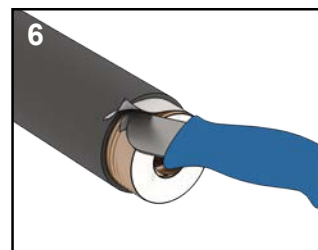
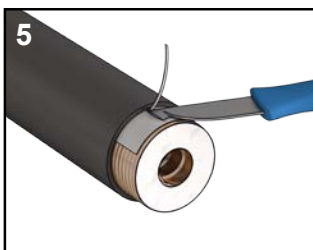
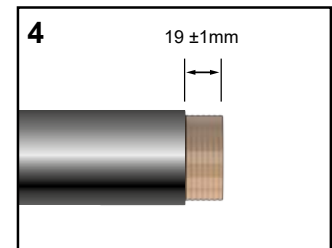
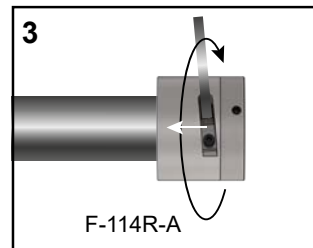
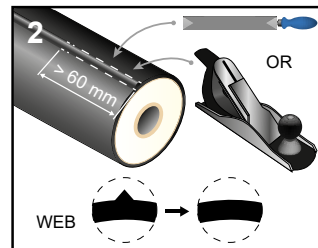
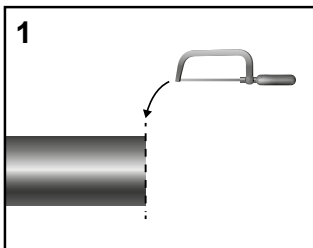
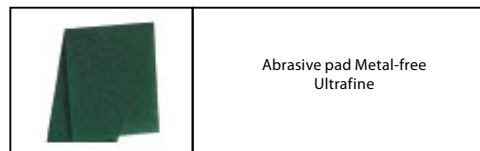
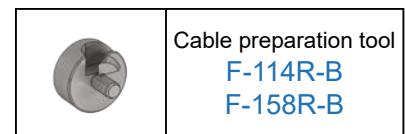
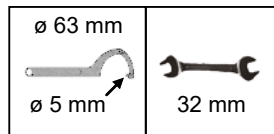
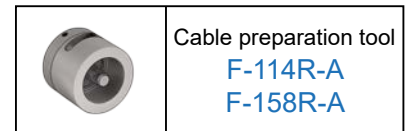
13 - for installations in harsh environments, the use of an optional heat-shrink is recommended.

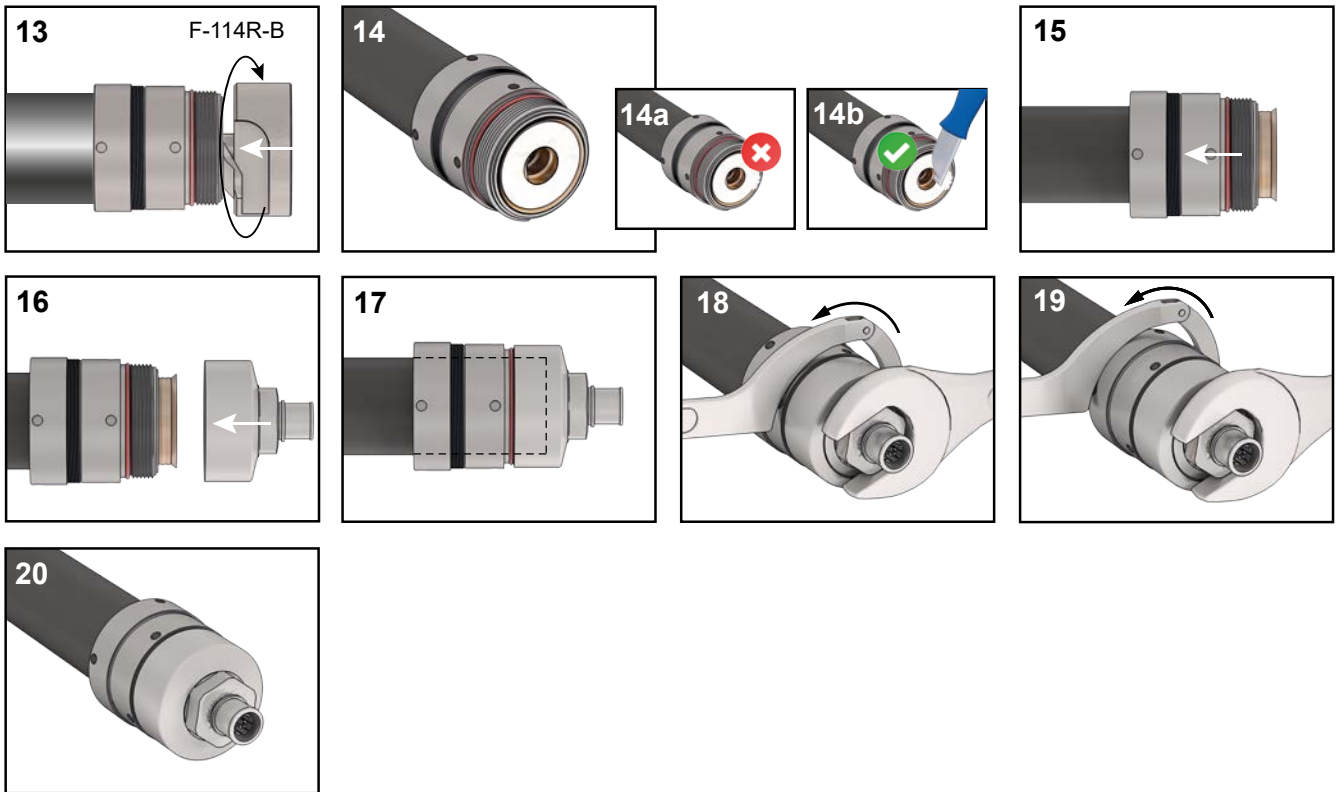


Connectors installation for Radiating Cables 1-5/8"



S-Type Connectors installation for Radiating Cables 1-1/4" & 1-5/8"





Installation video

How to install connectors on EUPEN feeder cables



Installation videos can be found on the YouTube chanel

www.youtube.com/@kabelwerkeupenag9930



Kabelwerk
EUPEN AG



Malmedyer Str. 9 - 4700 EUPEN - BELGIUM
Tel.: +32(0)87 59 70 00 e-mail: info@eupen.com
<http://www.eupen.com> ISO Certified Company