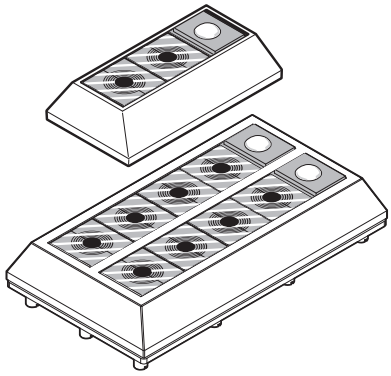
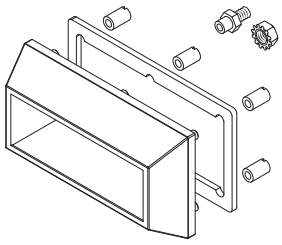
Installation instructions Roxtec CF 8 BG™ B and CF 32 BG™ B transits



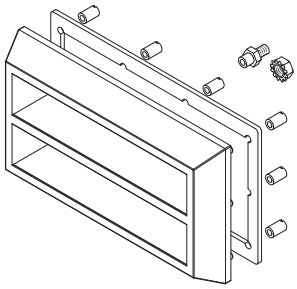
Safety information

Roxtec recommends that all installations are performed without facility operation. Follow national regulations and installation codes. Any action affecting the routed service should be performed according to manufacturer recommendations.

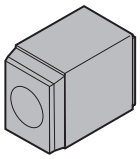
Components



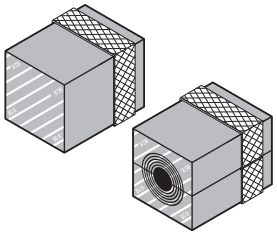
Roxtec CF 8 BG with earth terminal



Roxtec CF 32 BG with earth terminal



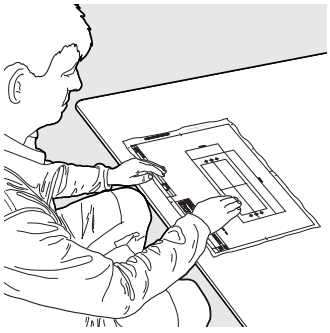
Compression unit



CM BG B modules

Roxtec Lubricant

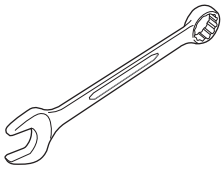
Additional information



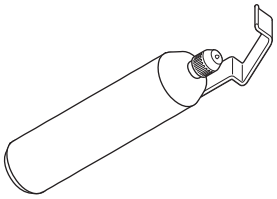
Additional information is available, such as drawings, apertures, videos, ratings and certificates.

Visit roxtec.com for additional information.

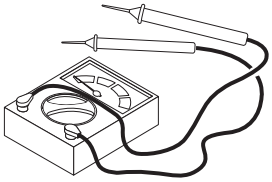
Tools



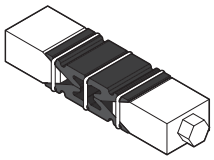
Spanner 13 mm
(not included)



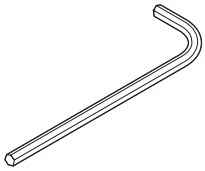
Cable stripper tool.
Recommended by the cable manufacturer
(not included)



Earth continuity tester
(not included)

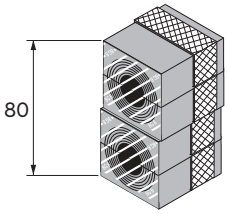


Roxtec pre-compression wedge 40 (not included)

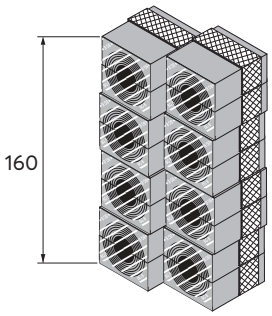


Allen key 5 mm
(not included)

Packing height



For CF 8 BG, the combined height of modules shall be 80 mm.



For CF 32 BG, the combined height of modules shall be 160 mm.

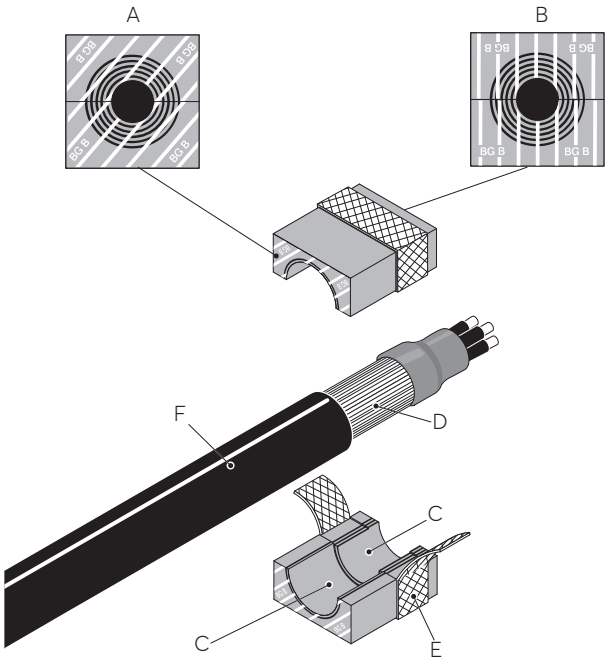
Technical data

The diameter range of the modules indicates the smallest diameter of the exposed cable armor to the largest diameter of the cable jacket. Unused modules can be used as spare capacity. Center cores must always be present in unused modules.

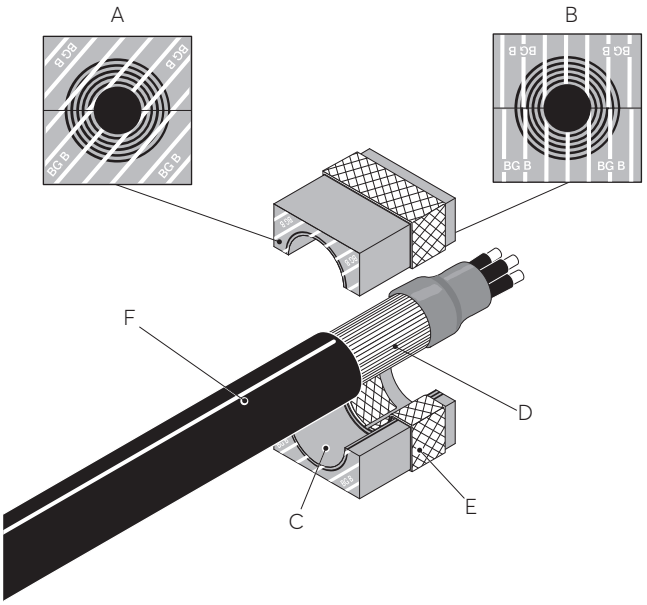
Name	External dimensions WxHxD (mm)	For cable/pipe Ø (mm)	Braid cross-section/cable (mm^2)	Approximately equivalent AWG
CM 20w40 BG B	40 x 20 x 40	3.5 – 16.5	4	11
CM 30w40 BG B	40 x 30 x 40	10 – 25	13	6
CM 20 BG B	20 x 20 x 40	4 – 14.5	8	8
CM 40 BG B	40 x 40 x 40	21.5 – 34.5	21	4
CM 40 10–32 BG B	40 x 40 x 40	9.5 – 32.5	21	4
CM 10w40/0 BG B	40 x 10 x 40	0	–	–
CM 20/0 BG B	20 x 20 x 40	0	–	–
CM 40/0 BG B	40 x 40 x 40	0	–	–

Principle of cable placement in module

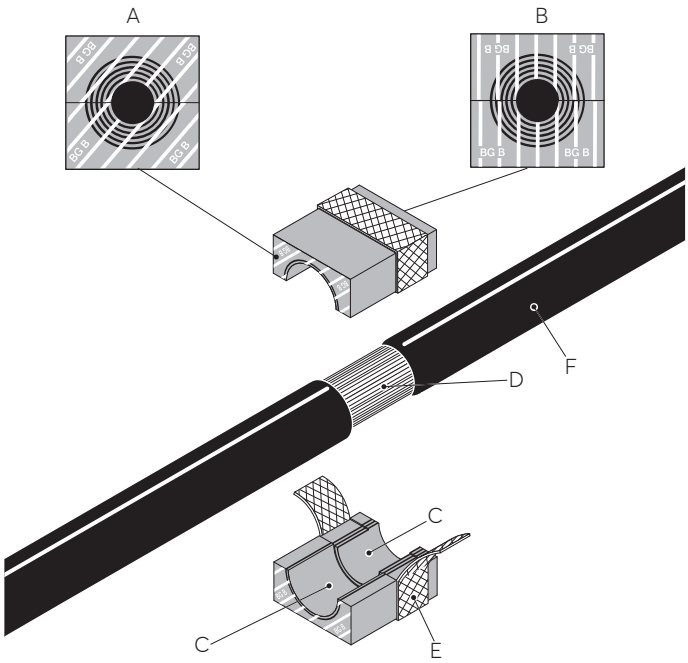
A. Environmental side
B. Termination/interior side
C. Removable layers
D. Cable armor
E. Bonding/grounding braid
F. Cable jacket



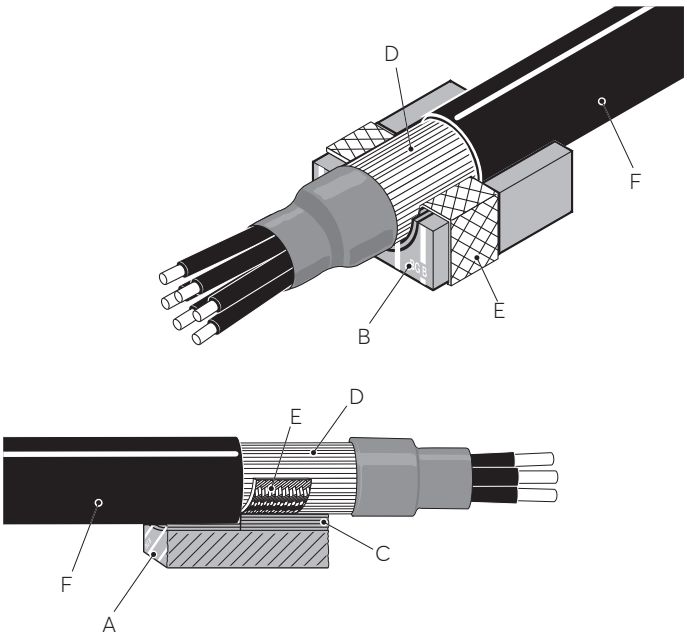
Cable with terminated armor.



The braid is folded in.

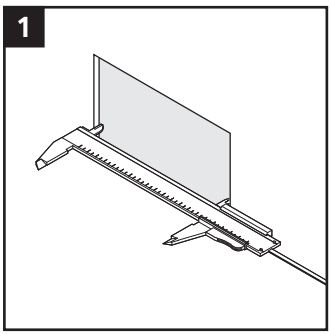


Cable with pass-through armor.

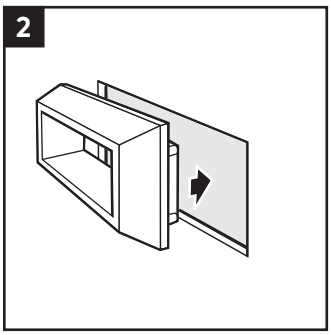


Cable placement in the module half. The cable jacket edge shall be in contact with the edge of the removable layers.

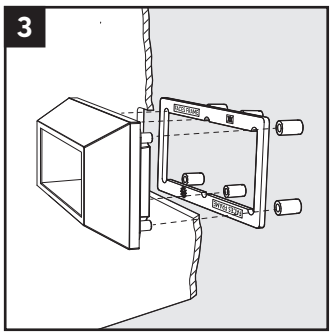
Installation



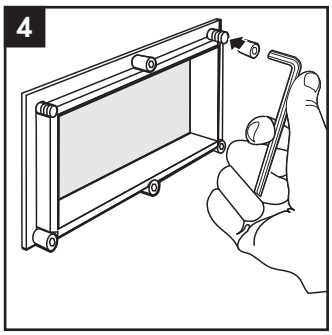
Make or verify an aperture.



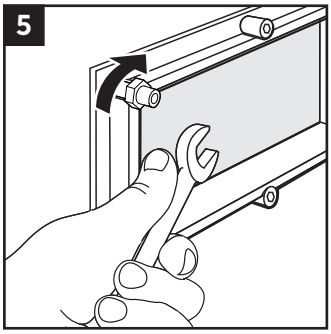
Insert the frame from the outside of the opening.



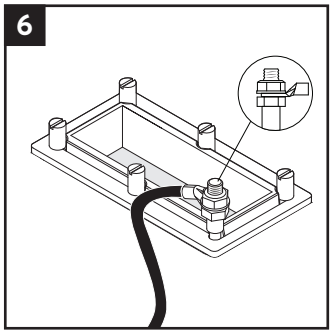
Insert the counter frame from the termination/interior side of the aperture. The text on the counter-frame shall face the frame.



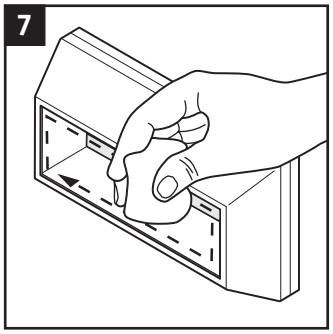
Tighten the nuts crosswise in small steps to 4 Nm. Start with the short sides.



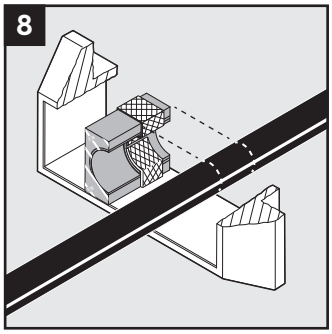
Install the protective bonding conductor. Tighten the nut to 4 Nm.



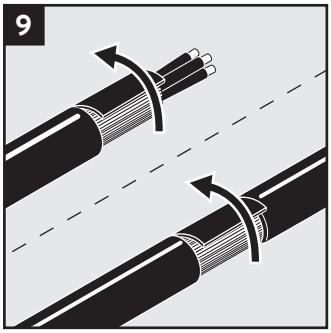
Install the protective bonding conductor. Tigthening torque 3 Nm. Use a spanner as counter-hold.



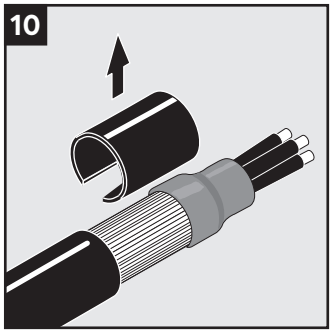
Clean the sealing surfaces of the frame to ensure good electrical conductivity.



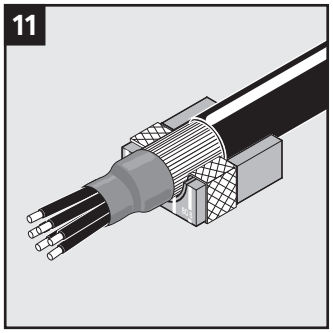
Mark where the outer jacket is to be removed to fit the module braid.



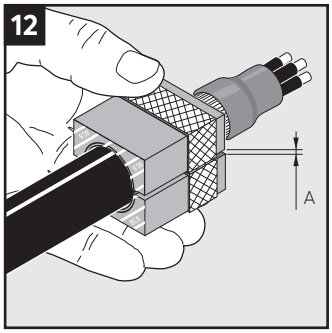
Remove the outer jacket and any plastic foil. The cable armor shall be clean and conductive.



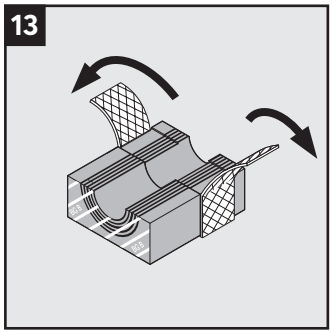
Suggestions for cable preparations are available on roxtec.com.



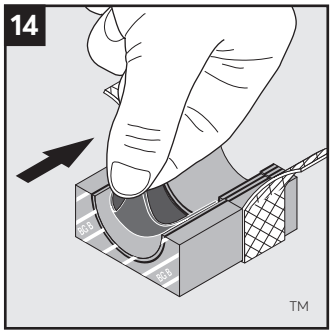
Correct placement of a cable in a Roxtec CM BG B module. The cable armor shall be visible outside the module.



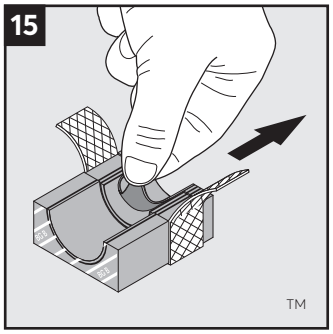
Achieve a 0.1-1.0 mm (A) gap between the two halves when held against the cable.



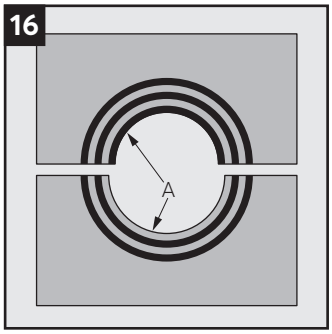
Remove the core and fold out the braid. Also see section for modules with multiple openings.



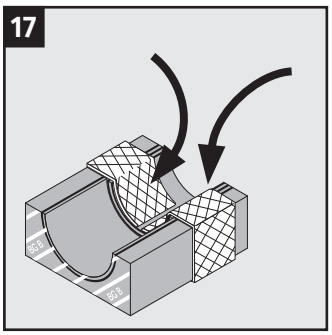
Adapt the layers that are in contact with the cable jacket.



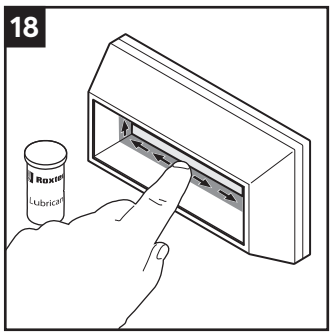
Adapt the layers that are in contact with the cable armor.



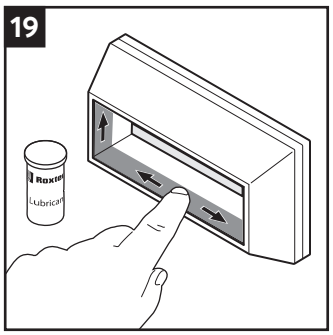
The number of layers may not differ (A) by more than one between the corresponding module halves.



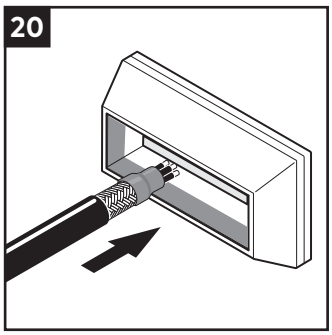
Fold the braid tightly inside the module half. Check the gap.



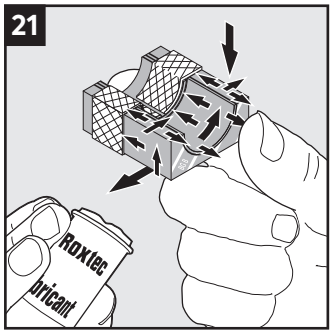
Lubricate the frame on the areas that will be in contact with the braid sparsely.



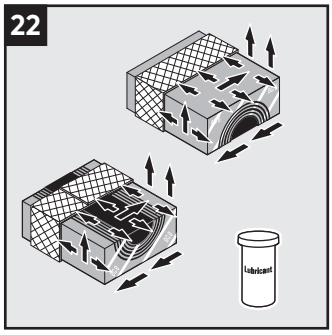
Lubricate the other sealing surfaces.



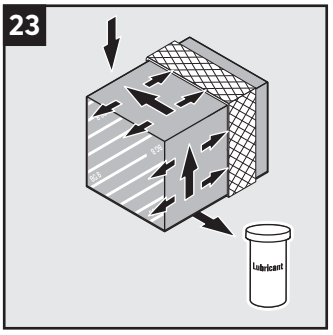
Route the cables.



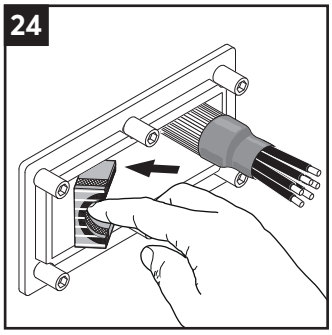
Lubricate the sealing surfaces of all modules. Avoid excess lubricant on the braid.



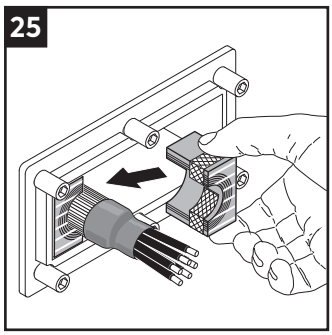
Lubricate the sealing surfaces of the spare modules. Do not remove the core.



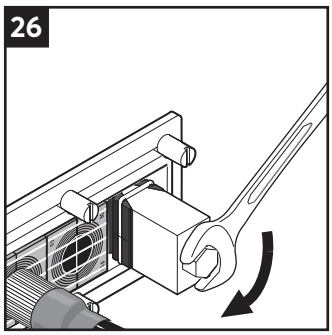
Lubricate the sealing surfaces of the solid modules.



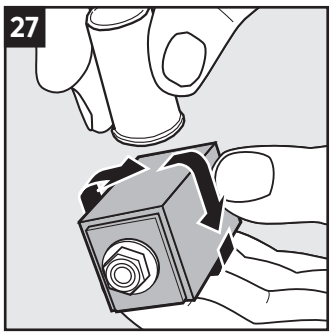
Insert the modules at an angle from the backside of the transit according to your packing plan.



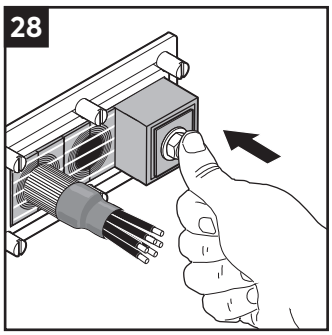
Place cables, according to your packing plan, in the module halves. Place corresponding module halves on top.



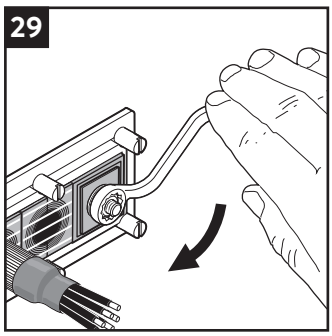
You may use the pre-compression tool to pre-compress the inserted modules.



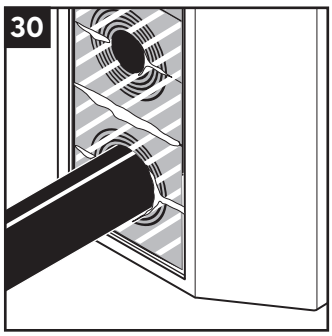
Lubricate the compression unit on all sides with Roxtec Lubricant.



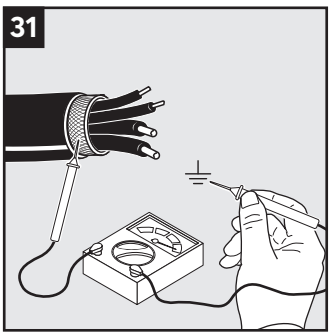
Insert the compression unit from the inside of the opening until stop.



Tighten the nut of the compression unit to 8-12 Nm. For CF 32, tighten the nuts crosswise in small steps.



Protruding excess lubricant indicates a tight seal.



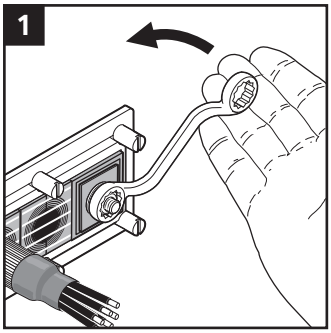
Electrical continuity testing is recommended.

Check additional documentation, if applicable.

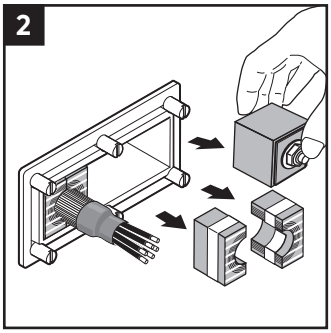
After installation inspection

- Are the compression screws fully tightened?
- Is the combined height of modules correct according to the frame packing height?
- Are all modules placed correctly and fully inserted after compression?
- Is there visible protruding lubricant?

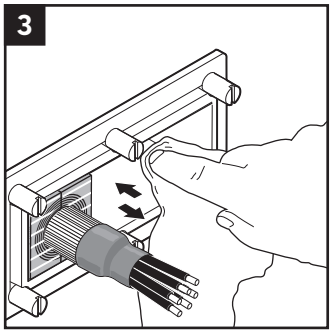
Disassembly



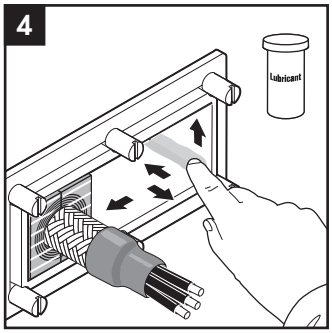
Release the compression by loosening the nut.



Remove the compression unit and modules required.

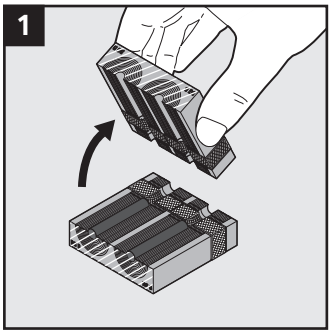


The inside surfaces of the exposed packing space shall be clean and conductive.

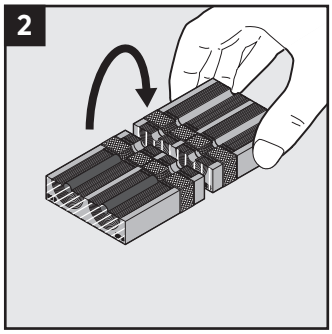


Lubricate the inside surfaces all around with Roxtec Lubricant, especially into the corners. Continue the reinstallation.

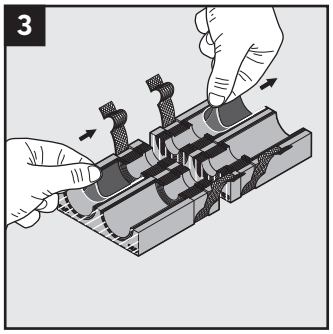
Modules with multiple openings



For modules with multiple openings, take extra care when peeling layers.



Folding the halves like this will line up corresponding openings.



Adapt one opening at a time by removing layers.

Note

- Integrated environmental sealing system for bonding and grounding applications. For use with armored cables.
- For non-armored/shielded cables, the cable jacket is not removed. No bonding/grounding functionallity will be achieved for the cable.
- For optimum reliability, wait 24 hours or longer after installation before exposing the cables to strain or pressure.
- To simplify installation in frames with more than one opening, fill all openings before tightening the compression units.
- Cables shall pass straight through the frame.
- All modules should be of the same type in each opening and turned in the same direction according to the markings on the module.
- The final complete bonding/grounding installation has to comply with applicable codes and regulations.
- Approvals or certificates may include amendments or limitations related to this application.
- The latest version of this and related documents are found at roxtec.com.

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