

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.



Installation instructions

Roxtec ComSeal™ 10 ES

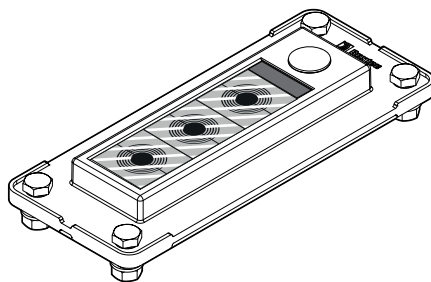
Roxtec ComSeal™ 12 ES

Roxtec ComSeal™ 15 ES

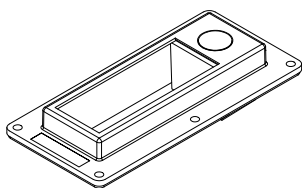
Roxtec ComSeal™ 16 ES

Roxtec ComSeal™ 30 ES

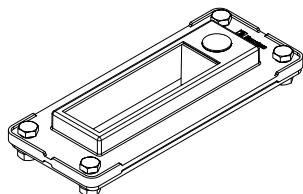
Roxtec ComSeal™ 32 ES



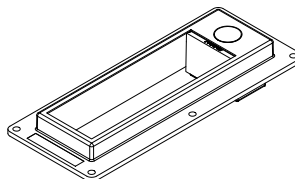
Components



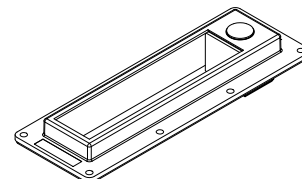
Roxtec ComSeal 10 ES frame



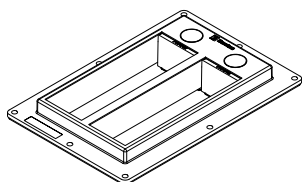
Roxtec ComSeal 12 ES frame



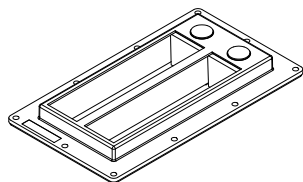
Roxtec ComSeal 15 ES frame



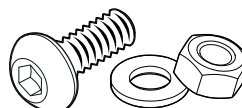
Roxtec ComSeal 16 ES frame



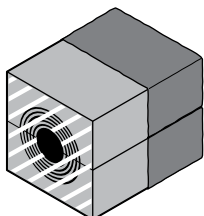
Roxtec ComSeal 30 ES frame



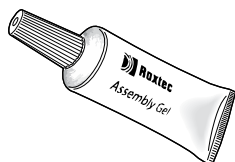
Roxtec ComSeal 32 ES frame



Fasteners

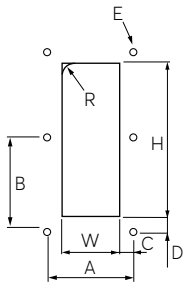


Roxtec CM XX/30 ES module

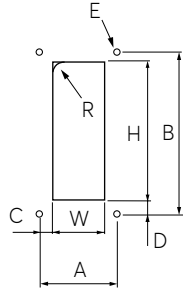


Roxtec Assembly Gel

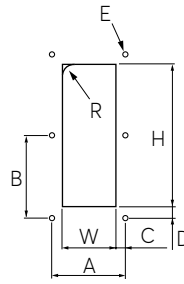
Aperture



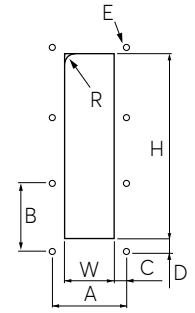
ComSeal 10 ES



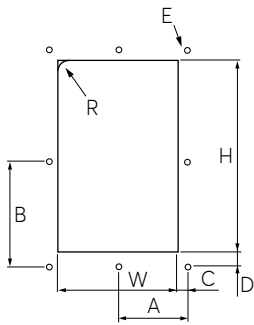
ComSeal 12 ES
FL 21 compatible



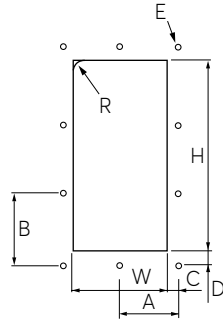
ComSeal 15 ES



ComSeal 16 ES



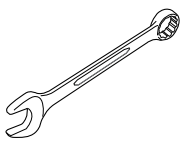
ComSeal 30 ES



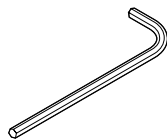
ComSeal 32 ES

	ComSeal 10 ES	ComSeal 12 ES	ComSeal 15 ES	ComSeal 16 ES	ComSeal 30 ES	ComSeal 32 ES
H	149 (+1/-1)	169 (+1/-1)	195 (+1/-1)	209 (+1/-1)	195 (+1/-1)	209 (+1/-1)
W	56 (+1/-1)	56 (+1/-1)	61 (+1/-1)	56 (+1/-1)	120 (+1/-1)	103 (+1/-1)
A	68.5 (+0.5/-0.5)	62 (+0.5/-0.5)	78.5 (+0.5/-0.5)	68.5 (+0.5/-0.5)	71.5 (+0.5/-0.5)	61.5 (+0.5/-0.5)
B	80.5 (+0.5/-0.5)	193 (+0.5/-0.5)	105.5 (+0.5/-0.5)	73.7 (+0.5/-0.5)	109.5 (+0.5/-0.5)	76.3 (+0.5/-0.5)
C	6.25 (+1/-1)	3 (+1/-1)	9 (+1/-1)	6.25 (+1/-1)	12 (+1/-1)	10 (+1/-1)
D	6 (+1/-1)	12 (+1/-1)	8 (+1/-1)	6 (+1/-1)	12 (+1/-1)	10 (+1/-1)
E ∅	5.5	9.5	5.5	5.5	5.5	5.5
R max	10	10	5	10	5	10

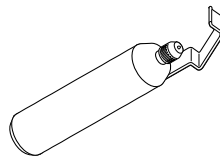
Tools



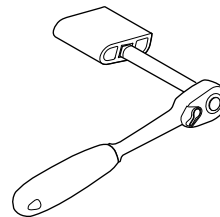
Spanner 13 mm
(not included)



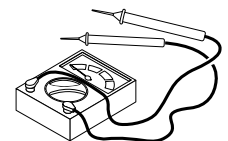
Allen key 3 mm
(not included)



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

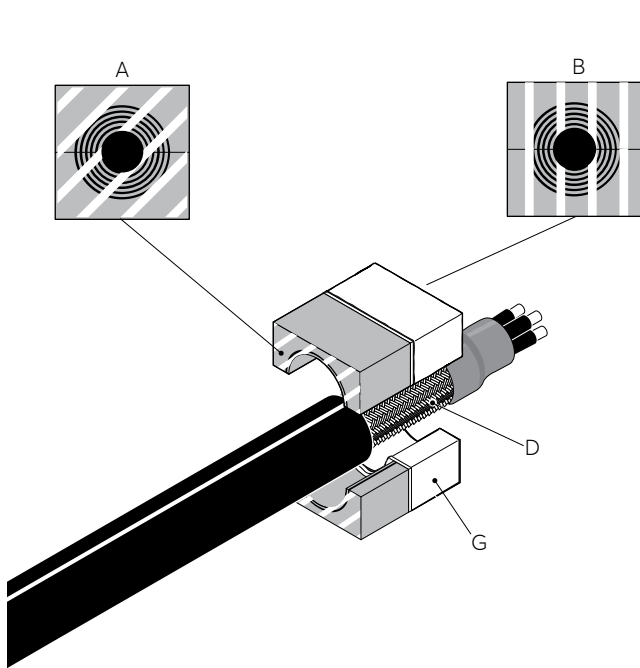


Roxel
pre-compression tool
(not included)

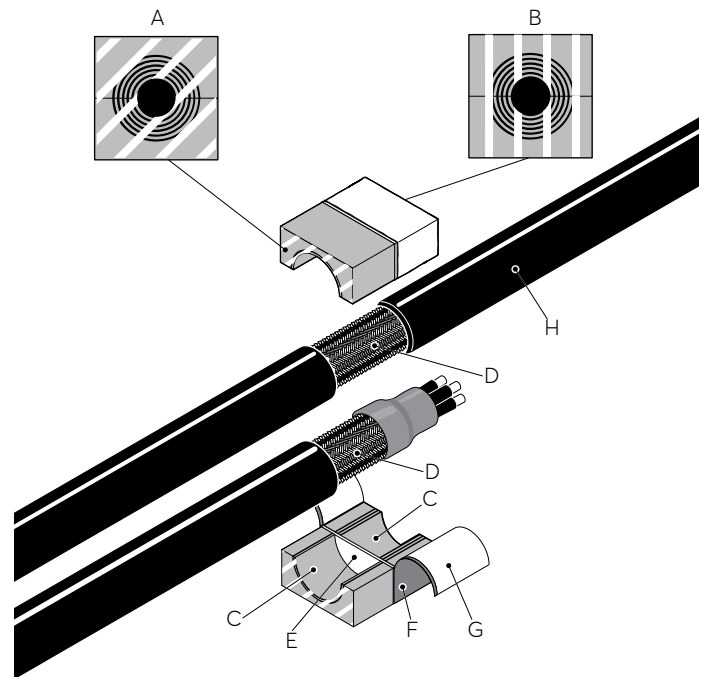


Continuity tester
(not included)

Roxtec CM XX/30 ES module



- A: Environmental side
- B: Termination/interior side
- C: Removable layers
- D: Cable shield



- E: Vertical shield
- F: Plastic film
- G: Conductive tape
- H: Cable jacket

Roxtec CM XX/30 ES modules

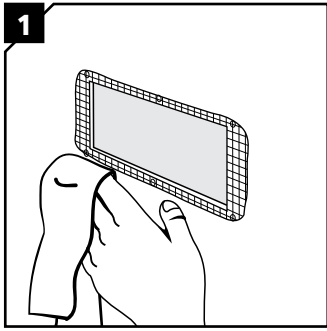
measures in millimeters (mm)

Module size	For cable outer diameter min-max
CM 15w40/30 ES	3.5-10.5
CM 20/30 ES	4-14.5
CM 20w40/30 ES	3.5-16.5
CM 30w40/30 ES	10-25
CM 40 10-32/30 ES	9.5-32.5
CM 40/30 ES	21.5-34.5
CM 50/30 ES	28-44

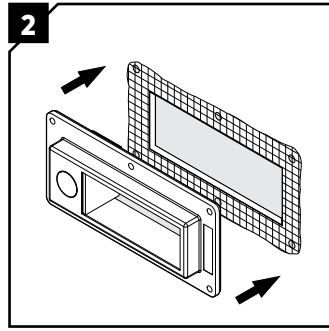
Note:

The range of the modules indicates the smallest diameter of the exposed cable shield to the largest diameter of the cable jacket. Modules with core can be used as spare parts.

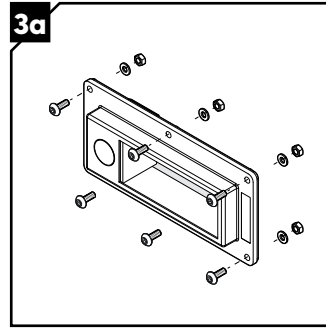
Installation



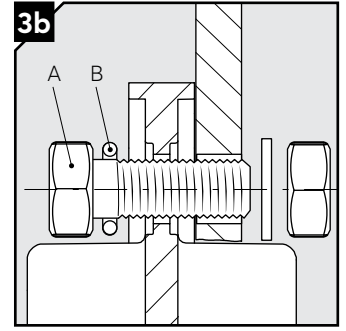
Ensure good electrical conductivity between the conductive gasket and mounting surface.



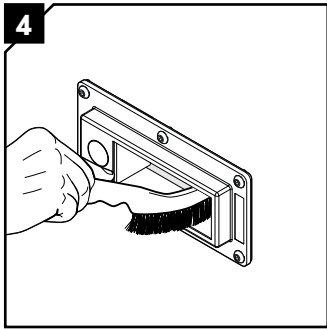
Insert the frame in the opening with the gasket facing the mounting surface. Make sure not to damage the gasket.



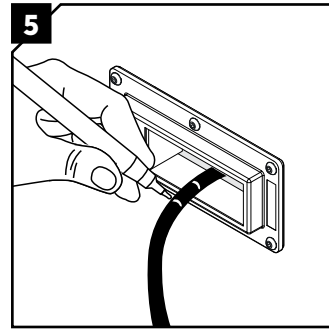
Attach the frame using the supplied fasteners.
NOTE: Compress the gasket to maximum 50% of its height.



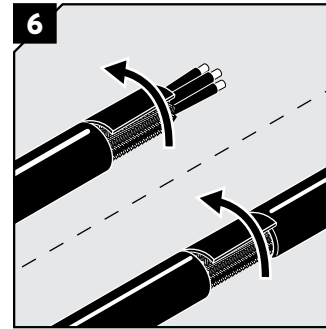
For ComSeal 12 ES, make sure that the O-ring (B) is mounted under the bolt head (A). Use a counter flange for structures thinner than 2 mm.



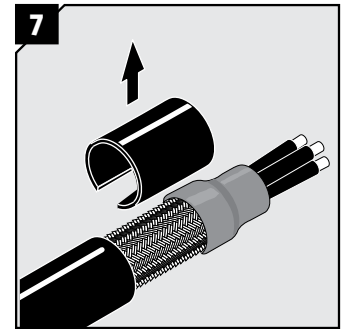
Clean the sealing surfaces of the frame to ensure good electrical conductivity.



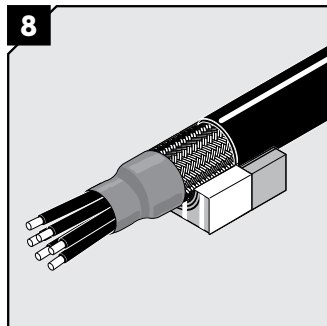
Mark where the outer jacket is to be removed to fit the module.



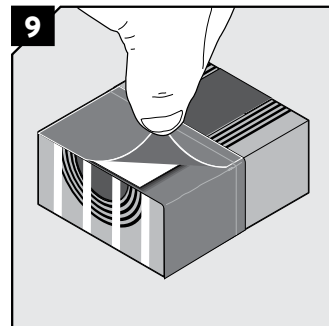
Remove the outer jacket and any plastic foil. The cable shield shall be clean and conductive.



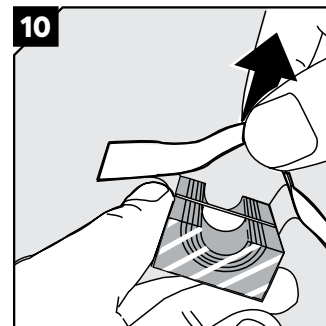
Secure the end of the cable shield. Suggestions for cable preparations are available on www.roxtec.com.



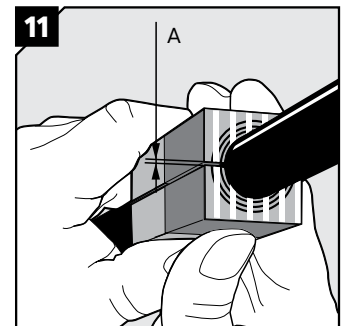
Correct placement of cable in the module. The cable shield shall be visible outside the module.



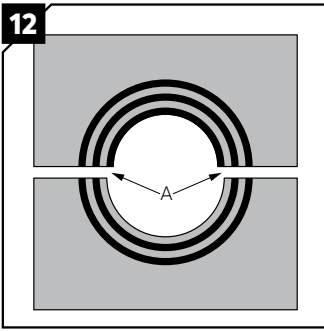
Lift the conductive tape.



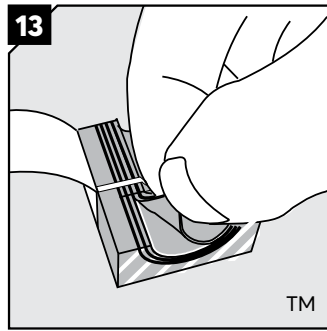
Remove the protection paper from all modules and fold out the conductive tape.



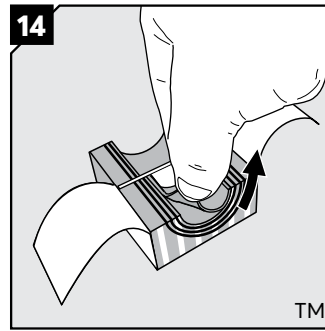
Achieve a gap of 0.1-1.0 mm (A) between the module halves by peeling off layers. The cable shield shall be in contact with the conductive tape.



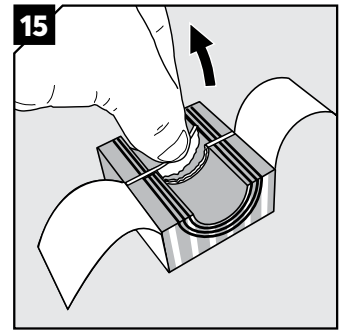
The number of layers may not differ (A) by more than one between the corresponding module halves.



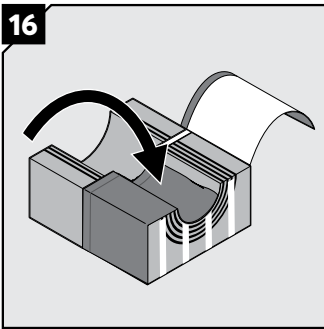
Adapt the layers that are in contact with the cable jacket.



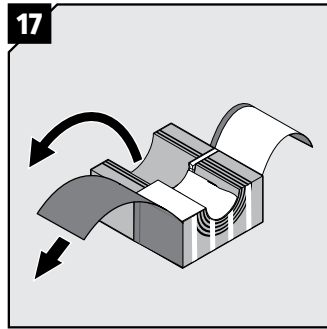
Adapt the layers that are in contact with the cable shield.



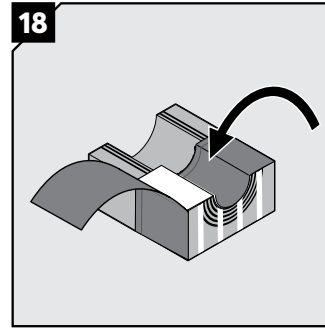
Adapt the vertical ES shield to the cable shield.



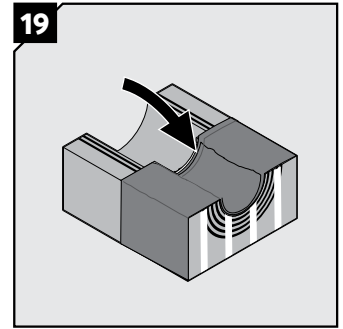
Fold the conductive tape tightly inside the module half from one side. Align the conductive tape with the vertical ES shield.



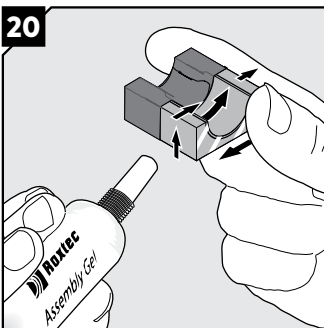
Separate the plastic film from the conductive tape and fold it to the side.



Fold the conductive tape on the other side tightly inside the module half.



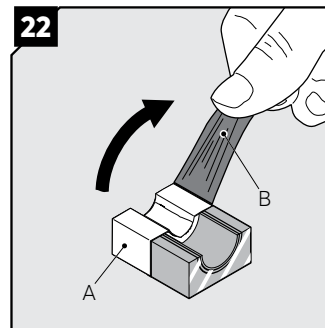
Fold the plastic film back inside the module half.



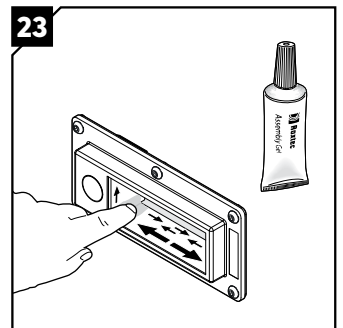
Lubricate the sealing surfaces of all modules with Roxtec Assembly Gel. Do not lubricate the plastic film.



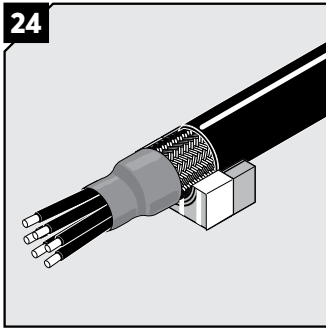
Lubricate the sealing surfaces of the spare modules. Do not remove the core.



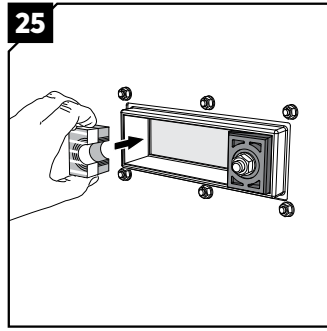
Remove the plastic film (B) on all modules. Keep the conductive tape (A) clean.



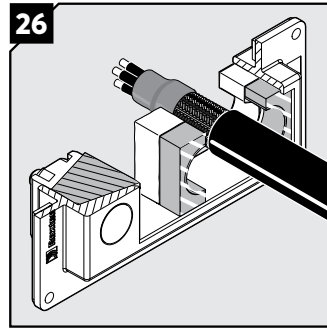
Lubricate the inside surfaces of the frame and especially its corners. Lubricate the area that will be in contact with the tape sparsely.



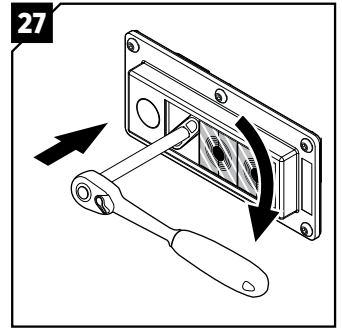
When placing cables in modules, the cable shield shall be visible outside the module at the termination side.



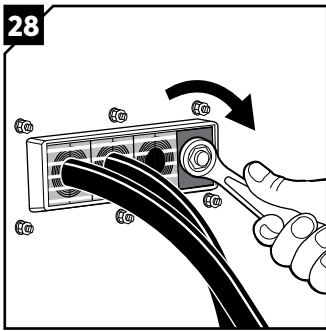
Place the modules from the inside of the cabinet. The modules should rest against the edge of the frame.



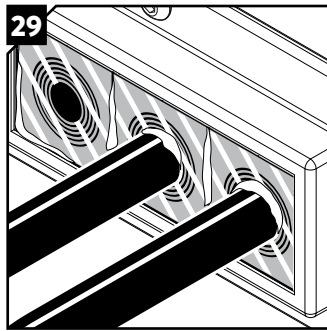
Place cables, according to your packing plan, in the module halves. Place corresponding module half on top.



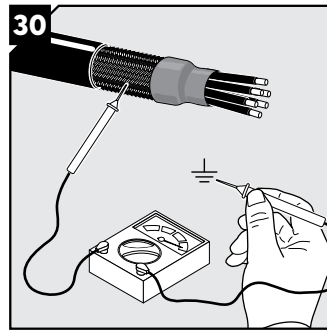
Use a Roxel pre-compression tool to make space for the last module if required.



Tighten the nut of the compression unit. Maximum torque 10 Nm.

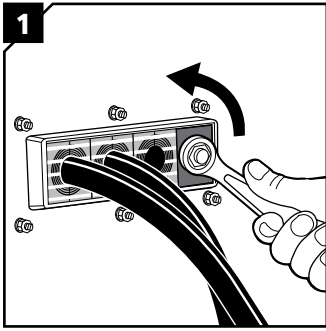


Excess assembly gel is a sign of good compression.

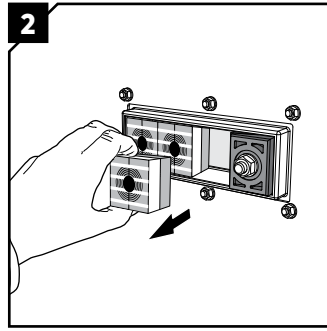


Optional: Verify earth continuity from each cable shield to earth. Use a suitable instrument.

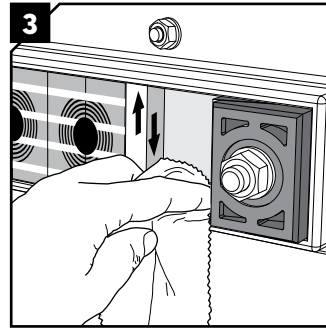
Disassembly and reinstallation



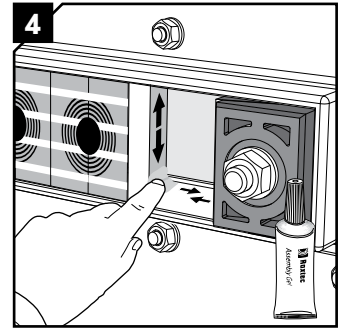
1
Untighten the nut of the compression unit.



2
Remove the modules needed.



3
The inside surfaces of the exposed packing space shall be clean and conductive.



4
Lubricate the inside surfaces, especially in the corners. Continue the reinstallation.

Note

- Integrated environmental sealing system for shielding applications, for use with shielded cables.
- For optimum reliability, wait 24 hours or longer after installation before exposing the cables/pipes to strain or pressure.
- To be used with CM ES 30 mm depth modules.
- To simplify installation of Roxtec ComSeal™ 30 ES and 32 ES, we recommend filling both openings before tightening the compression units.
- Cables shall go straight through the frame.
- Protection paper and plastic film must be removed from all modules.
- If the conductive tape is damaged, the module must be replaced.
- 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.

DISCLAIMER

"The Roxtec cable entry sealing system ("the Roxtec system") is a modular-based system of sealing products consisting of different components. Each and every one of the components is necessary for the best performance of the Roxtec system. The Roxtec system has been certified to resist a number of different hazards. Any such certification, and the ability of the Roxtec system to resist such hazards, is dependent on all components that are installed as a part of the Roxtec system. Thus, the certification is not valid and does not apply unless all components installed as part of the Roxtec system are manufactured by or under license from Roxtec ("authorized manufacturer"). Roxtec gives no performance guarantee with respect to the Roxtec system, unless (I) all components installed as part of the Roxtec system are manufactured by an authorized manufacturer and (II) the purchaser is in compliance with (a), and (b), below.

(a) During storage, the Roxtec system or part thereof, shall be kept indoors in its original packaging at room temperature.

(b) Installation shall be carried out in accordance with Roxtec installation instructions in effect from time to time.

The product information provided by Roxtec does not release the purchaser of the Roxtec system, or part thereof, from the obligation to independently determine the suitability of the products for the intended process, installation and/or use.

Roxtec gives no guarantee for the Roxtec system or any part thereof and assumes no liability for any loss or damage whatsoever, whether direct, indirect, consequential, loss of profit or otherwise, occurred or caused by the Roxtec systems or installations containing components not manufactured by an authorized manufacturer and/or occurred or caused by the use of the Roxtec system in a manner or for an application other than for which the Roxtec system was designed or intended.

Roxtec expressly excludes any implied warranties of merchantability and fitness for a particular purpose and all other express or implied representations and warranties provided by statute or common law. User determines suitability of the Roxtec system for intended use and assumes all risk and liability in connection therewith. In no event shall Roxtec be liable for indirect, consequential, punitive, special, exemplary or incidental damages or losses.*



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