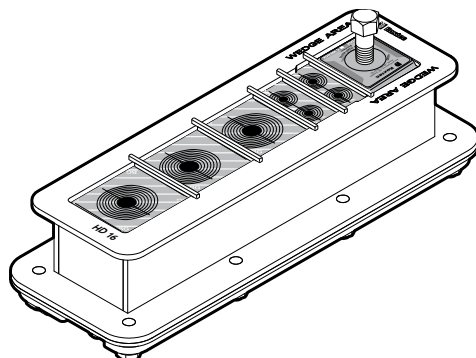


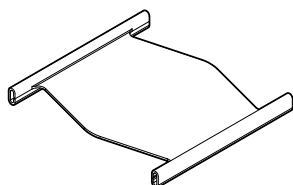
## Safety information

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.

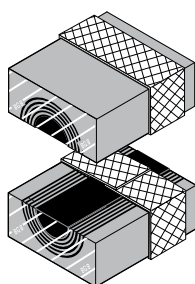


## Installation instructions Roxtec HD 16 with CM BG™ B modules

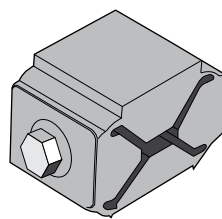
## Components



Stayplates



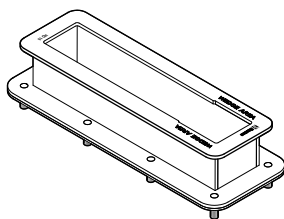
CM BG B modules



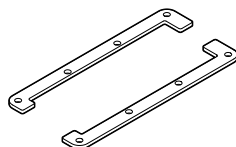
Compression unit  
C Wedge HD AISI 316



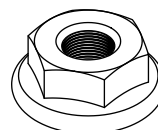
Roxtec Lubricant



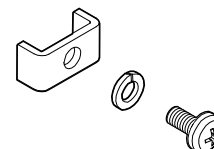
HD 16 frame  
including gasket



Counterframe



Nuts



Fasteners for protective  
bonding conductor

## Roxtec CM BG™ B modules

Measures in millimeters (mm)

Module size	For cable outer diameter min-max
CM 20 BG B	4-14.5
CM 20w40 BG B	3.5-16.5
CM 30w40 BG B	10-25
CM 40 10-32 BG B	9.5-32.5
CM 40 BG B	21.5-34.5

## Roxtec CM BG™ B solid modules

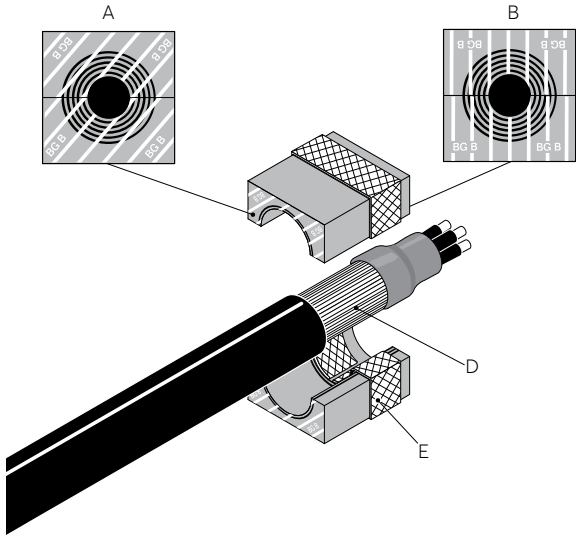
Module size

CM 10w40/0 BG B
CM 20/0 BG B
CM 40/0 BG B

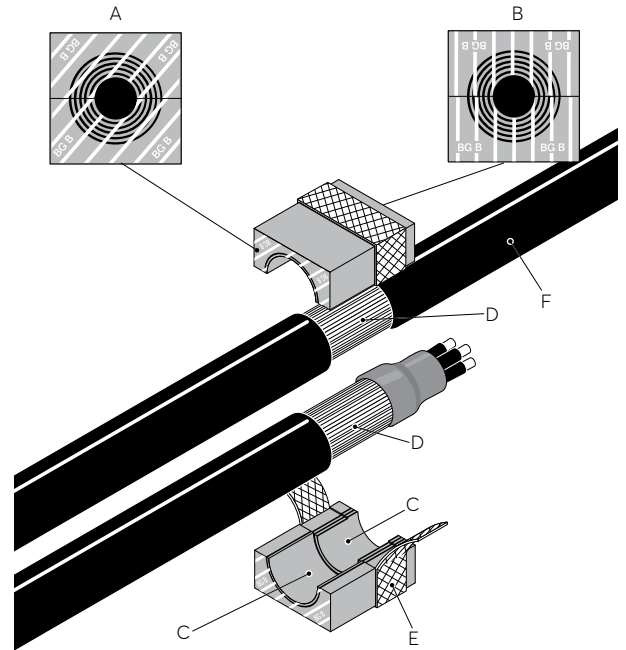
### Note:

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

# Roxtec CM BG™ B module



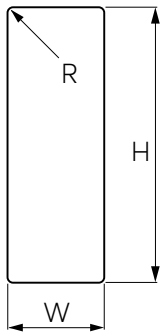
A: Environmental side  
 B: Termination/interior side  
 C: Removable layers  
 D: Cable armor  
 E: Module braid



E: Module braid  
 F: Cable jacket

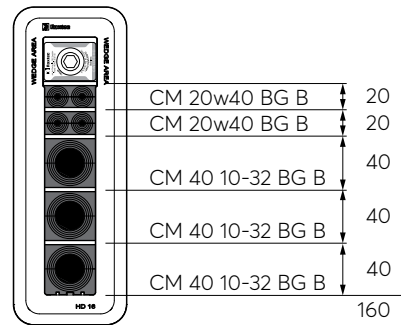
## Aperture dimensions

Max wall/cabinet thickness: 4 mm  
 Measures in millimeters (mm)



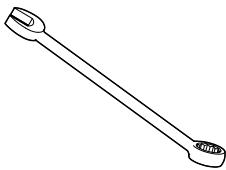
R: max 3.  
 H: 216 +1.0  
           -0.5  
 W: 64 +1.0  
           -0.5

## Packing space

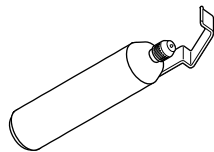


The sum of module heights must be 160 mm.

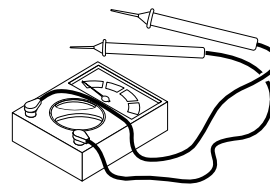
## Tools



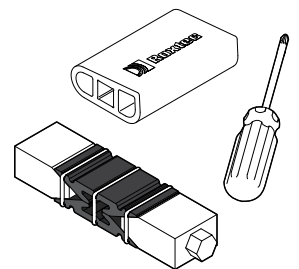
10 mm and 13 mm spanner  
 (not included)



Cable stripper tool  
 (not included)

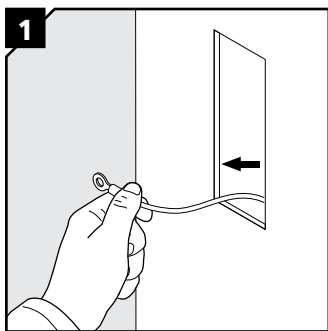


Continuity tester  
 (not included)

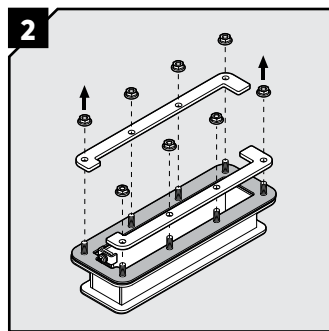


Roxtec  
 installation tools  
 (not included)

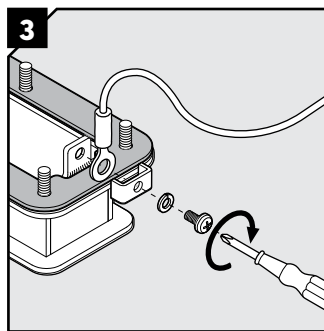
## Installation



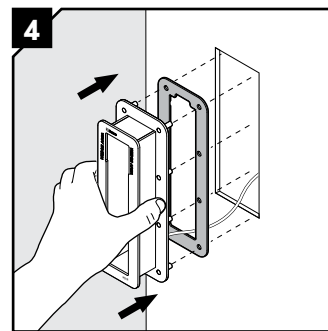
1 Route the protective bonding conductor through the aperture.



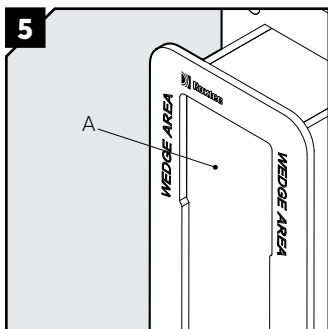
2 Remove all nuts and the two counterframes.



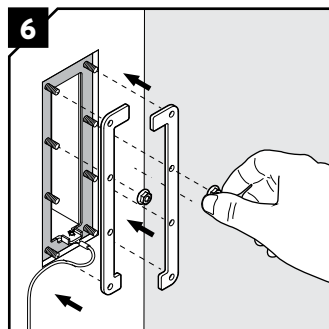
3 Attach the protective bonding conductor to the earthing terminal.



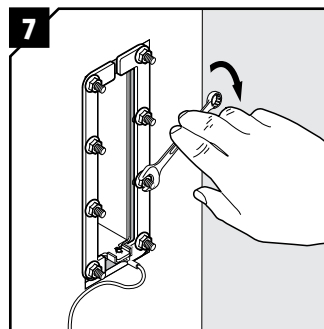
4 Insert the frame from the outside of the cabinet. Ensure that the gasket is placed between the frame and the cabinet.



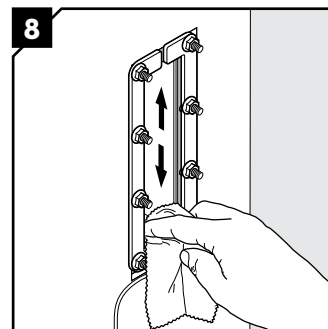
5 Observe the intended wedge areas (A) without stopping edges.



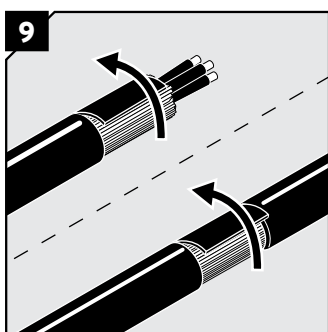
6 Attach the two counterframes from the inside of the cabinet.



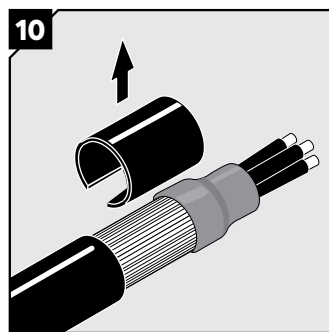
7 Tighten the nuts crosswise in small steps. Recommended torque 4 Nm. Do not overtighten the nuts.



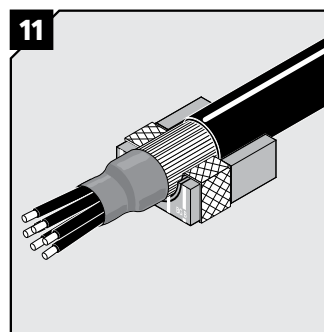
8 The frames must be clean and have electrical contact with protective earth. National regulations apply.



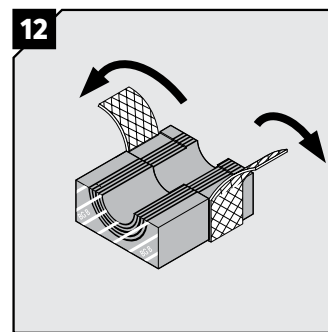
9 Remove the outer jacket and any plastic foil. The cable armor shall be clean and conductive.



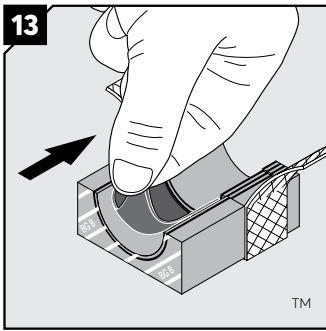
10 Secure the end of the cable armor. Suggestions for cable preparations are available on [www.roxtec.com](http://www.roxtec.com).



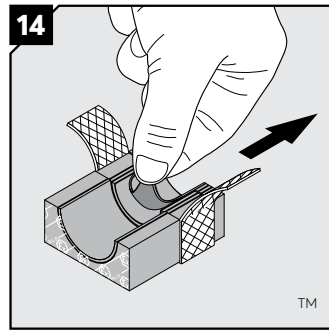
11 Correct placement of a cable in a CM BG B module. The cable armor shall be visible outside the module.



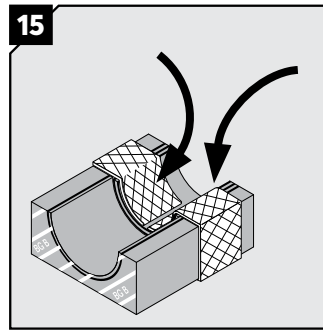
12 Remove the core and fold out the braid.



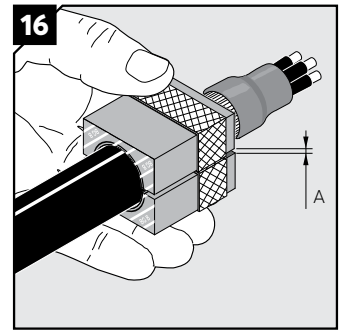
Adapt the layers that are in contact with the cable jacket.



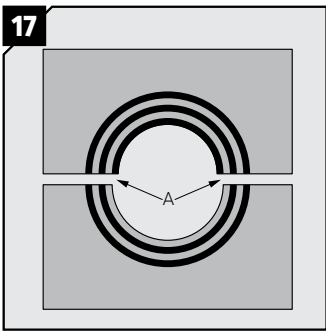
Adapt the layers that are in contact with the cable armor.



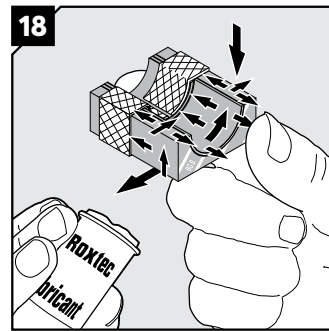
Fold the braid tightly inside the module half.



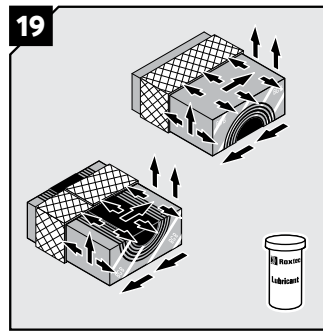
Achieve a gap of 0.1-1.0 mm (A) between the module halves by peeling off layers. The cable armor shall be in contact with the braid.



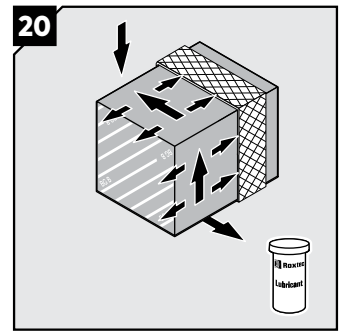
The number of layers may not differ (A) by more than one between the corresponding module halves.



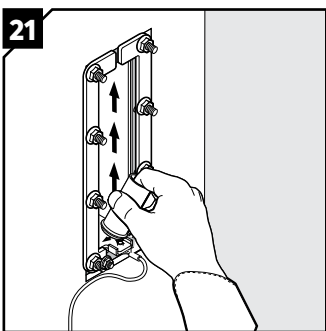
Lubricate the sealing surfaces of all modules with Roxtec Lubricant. Avoid excess lubricant on the braid.



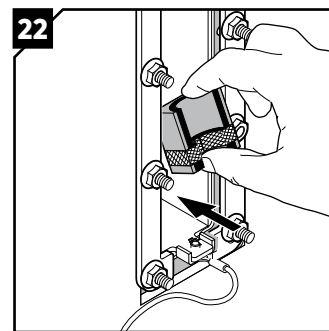
Lubricate the sealing surfaces of the spare modules. Do not remove the core.



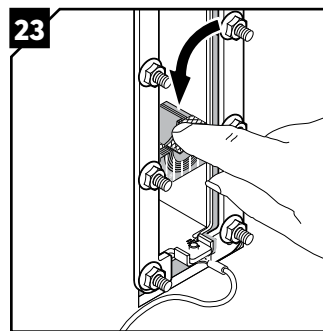
Lubricate the sealing surfaces of the solid modules.



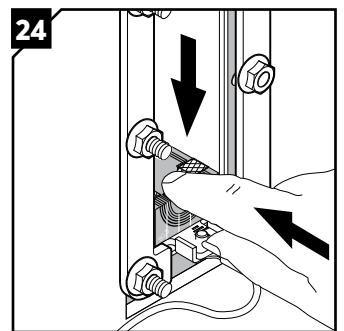
Lubricate the inside surfaces of the frame all around, especially into the corners. Lubricate the area that will be in contact with the braid sparsely.



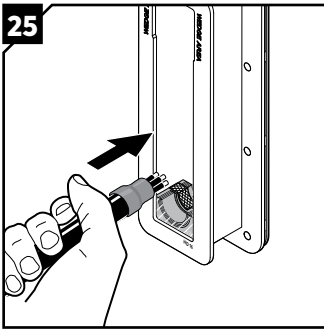
Insert the modules at an angle from the backside of the transit according to your installation plan.



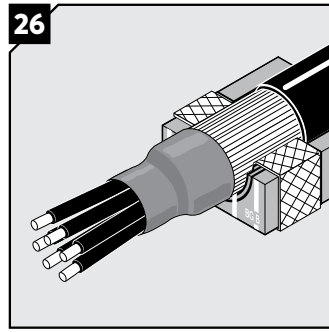
Turn the modules in line with the frame.



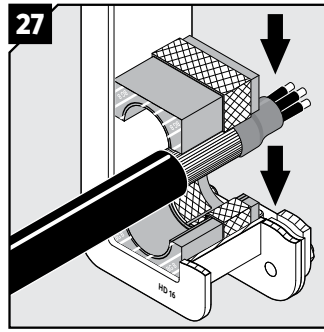
Push the modules in place. Ensure that the module rests against the stopping edge at the front.



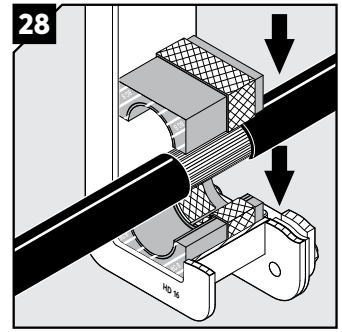
25 Insert the cables through the frame.



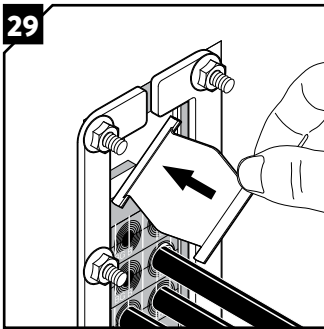
26 When placing cables in modules, the cable armor shall be visible outside the module at the termination side.



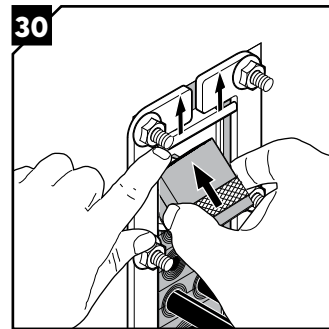
27 Place cables, according to your packing plan, in the module halves. Place corresponding module halves on top.



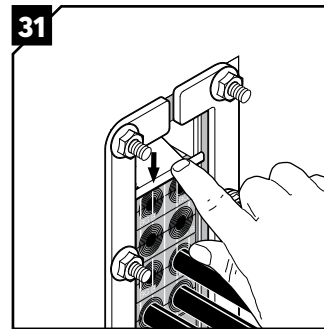
28 For pass-through cables, cable armor shall be visible on the termination side.



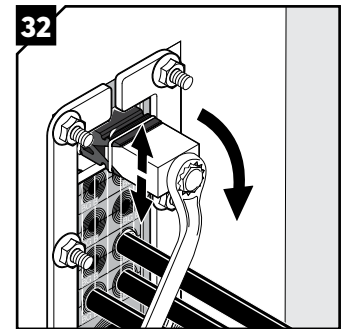
29 Before inserting the final module, insert a stayplate.



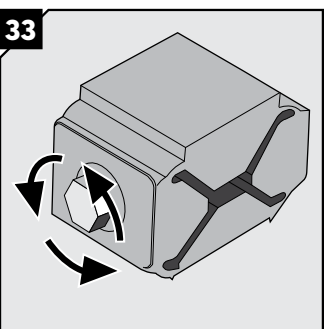
30 Lift up the stayplate and insert the last module underneath it.



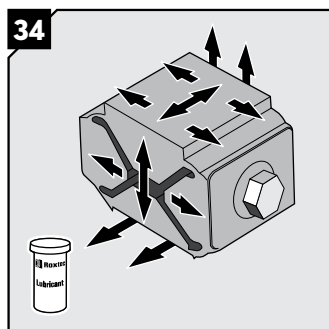
31 Drop the stayplate on top of the last module. Make sure the combinations of modules equal the 160 mm packing space.



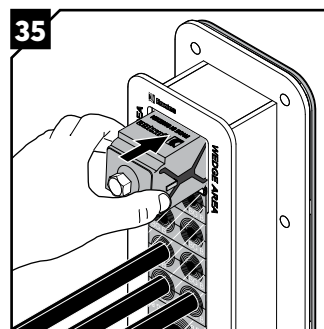
32 Use a Roxtec pre-compression tool to make space for the compression unit if required.



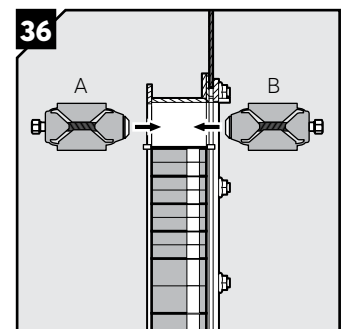
33 Turn the screw of the compression unit counter-clockwise to full stop.



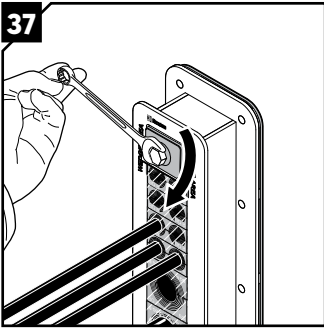
34 Lubricate the sealing surfaces of the compression unit.



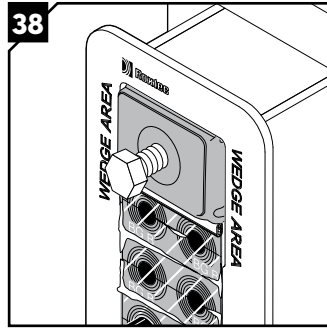
35 Insert the compression unit until stop.



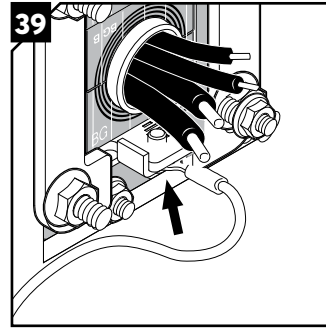
36 The compression unit can be placed with the screwhead facing the inside (B) or the outside (A) of the frame.



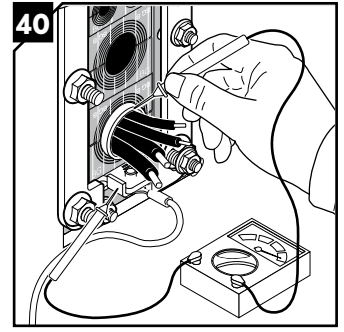
Tighten the screw of the compression unit until full stop, approx. 20 Nm.



Visible excess lubricant is a sign of good compression. Make sure that all modules are placed correctly and fully inserted after compression.

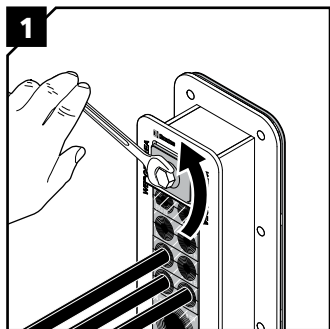


If applicable, check that the protective bonding conductor is correctly installed.

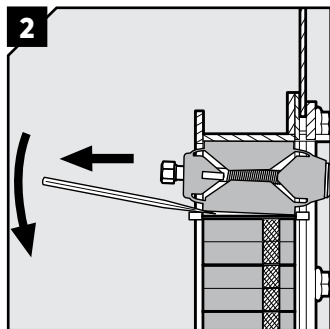


Verify earth continuity from each cable armor to the earthing terminal using a suitable instrument.

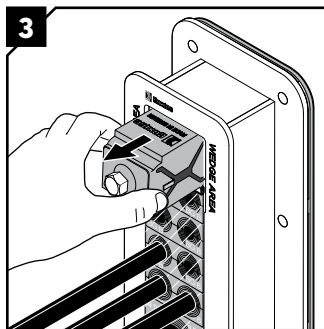
## Disassembly and reinstallation



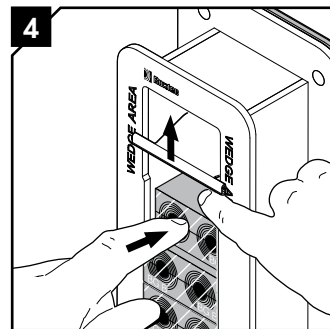
1 Untighten the screw of the compression unit.



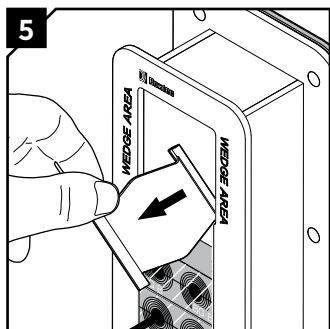
2 Insert a flat tool between the compression unit and the stayplate to simplify removal of the compression unit.



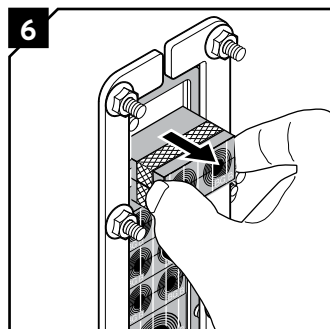
3 Remove the compression unit.



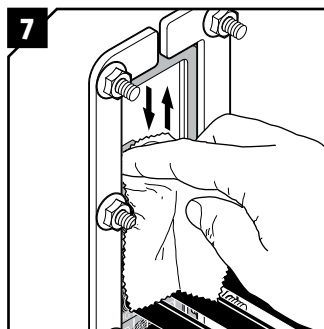
4 Lift up the stayplate and push out the first module from the front side.



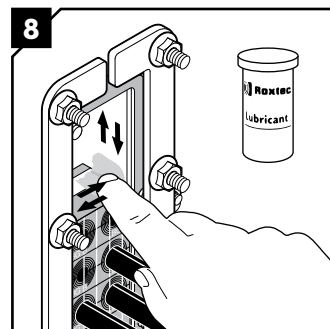
5 Remove the stayplate.



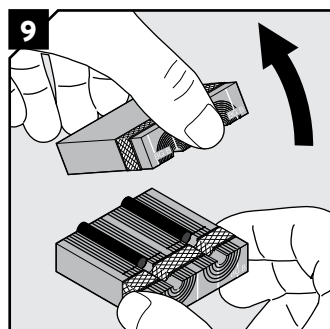
6 Continue to remove the modules by pulling them out from the backside of the frame. Do not damage the braids.



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



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



9 Separate the module halves and continue the reinstallation.

# Roxtec CM BG™ B modules

Braid conductor properties

Module size	Total braid cross-section mm <sup>2</sup>	Approximately equivalent AWG
CM 20 BG B	8	8
CM 20w40 BG B	4*	11
CM 30w40 BG B	13	6
CM 40 10-32 BG B	21	4
CM 40 BG B	21	4

\* Per cable

## Note

- Integrated environmental sealing system for bonding and grounding applications. For use with armored cables.
- For optimum reliability, wait 24 hours or longer after installation before exposing the cables or pipes to strain or pressure.
- Cables shall go straight through the frame.
- To be used with: Roxtec CM BG B components.
- 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](http://roxtec.com).
- Use appropriate special tools where applicable.

## 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.

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