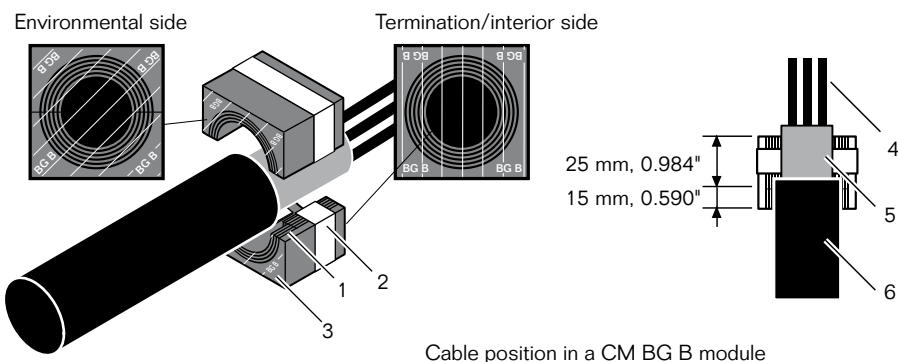




## Roxtec CM BG™ B module

Integrated environmental sealing system for bonding and grounding applications. For use with armored/shielded jacketed cables including smooth and corrugated cables such as interlocked and continuous welded metal clad cables or wired and braided cables.  
For approvals, see [www.roxtec.com](http://www.roxtec.com).

## Installation instructions Roxtec CF 8 BG™ B and CF 32 BG™ B kits



1. Multidiameter™ – adapts to cables and pipes of different sizes through removable layers
2. Bonding/grounding braid
3. Environmental side
4. Conductors
5. Cable armor/shield
6. Cable outer jacket

### Each kit consists of:

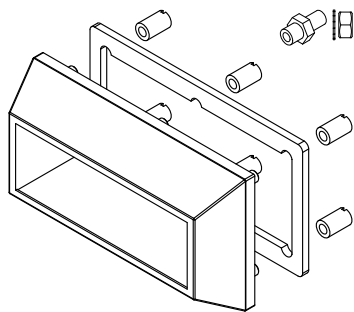


Fig. 1: CF 8 EMC BG with ground lug

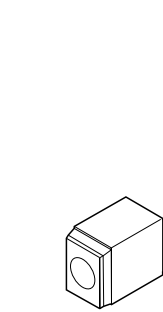


Fig. 2: Compression unit

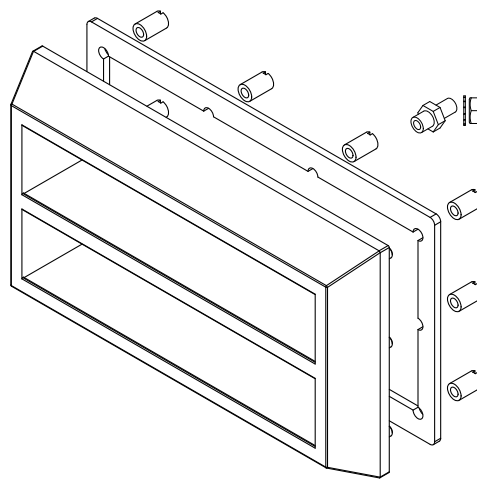


Fig. 3: CF 32 EMC BG with ground lug

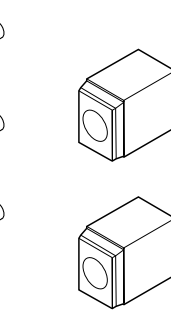


Fig. 4: Compression units

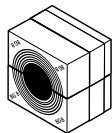


Fig. 5: CM BG B modules in different sizes depending on kit



Fig. 6: Lubricant

## Installation preparations

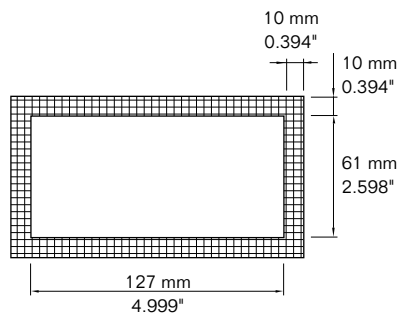


Fig. 7: CF 8 EMC aperture dimensions

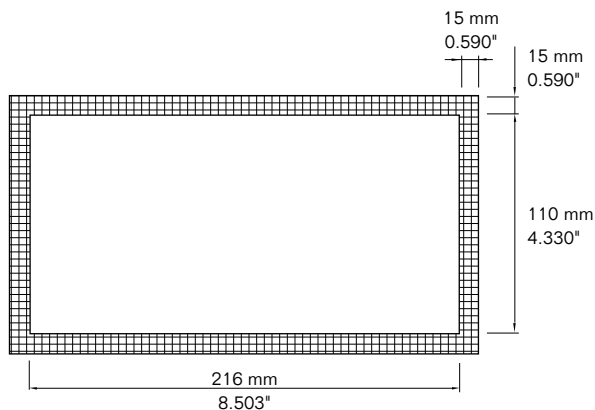



Fig. 8: CF 32 EMC aperture dimensions

 Area that must be free from corrosion, paint and other contamination when used without external ground conductor

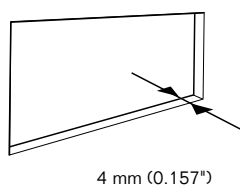
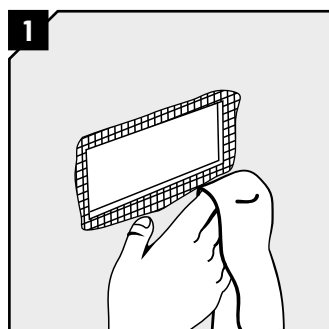


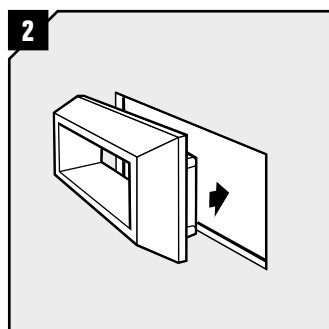
Fig. 9: Max wall thickness

**NOTE:** For structures with poor conductivity or composite wall materials, external grounding via ground lug is required. See picture 16.

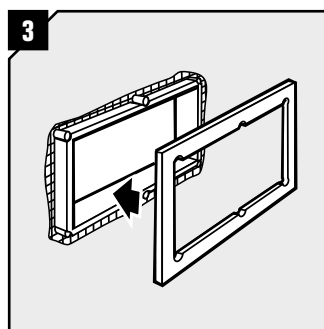
## Frame installation



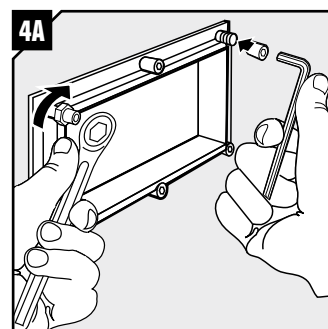
Ensure good electrical conductivity between the counter frame and the structure. Clean the surface around the opening from inside the opening. Remove any paint if necessary. See installation preparations.



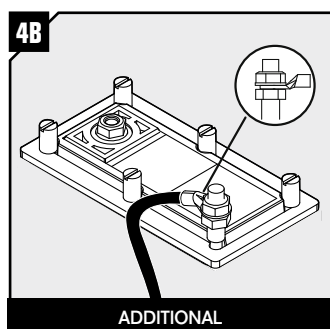
Insert the frame from the outside of the opening.



Insert the counter frame from the inside of the opening.

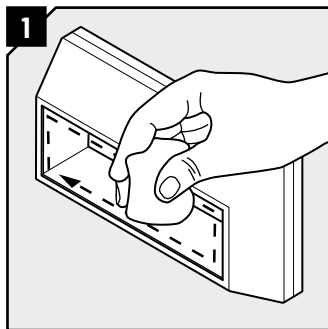


Fasten the frame by tightening the nuts with an allen key. Fasten the ground lug with a spanner.

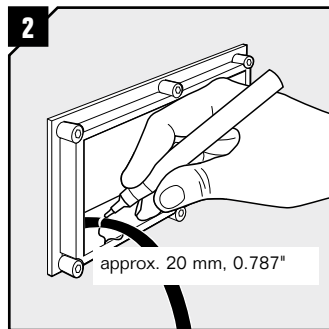


If applicable, install an external ground conductor and secure with the hex nut.

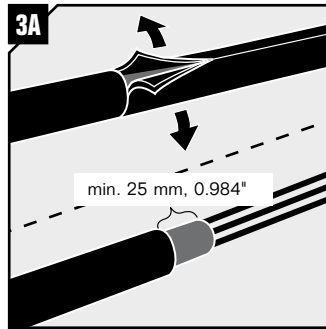
## Module installation



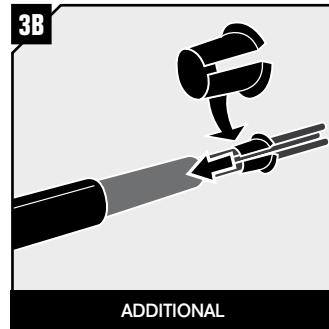
1 Clean the empty frame from paint, dirt etc. to secure good electrical conductivity.



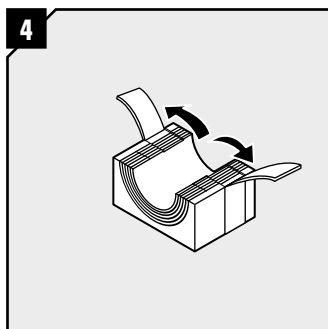
2 Mark where the outer jacket is to be cut.



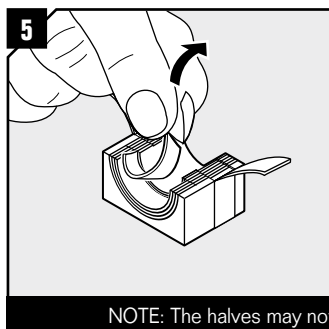
3A Remove the outer jacket and armor/shield with a tool of your choice. Make sure not to damage the cable screen/armor. Remove any protection tape or plastic.



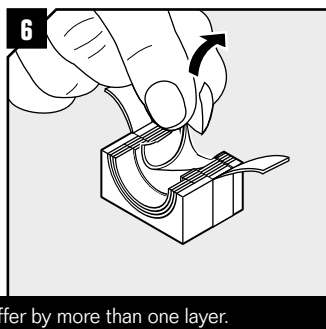
3B When required for inner conduction protection, fit an anti-short bushing at the end cut of the cable screen/armor.



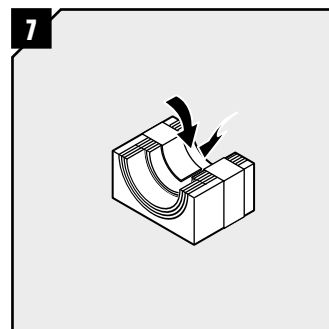
4 Remove the core and fold out the braid on modules that are to hold cables or pipes.



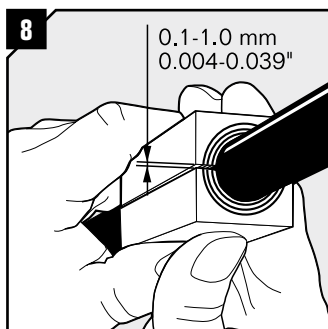
5 Adapt outer layers to cable/pipe on both module halves.



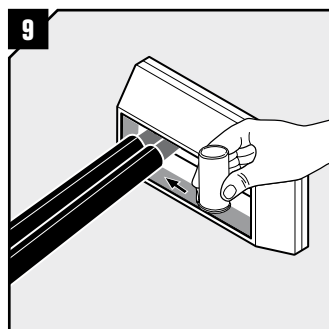
6 Adapt inner layers to cable screen/armor/pipe on both module halves.



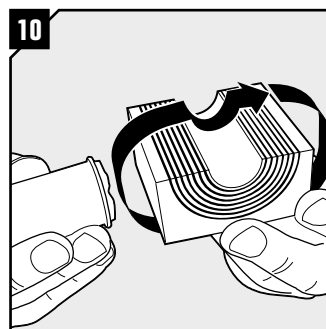
7 Fold the braid tightly inside the module.



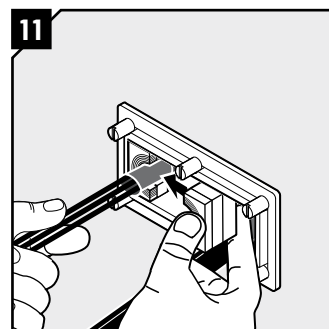
8 Achieve a 0.1-1.0 mm gap between the two halves when held against the cable or pipe.



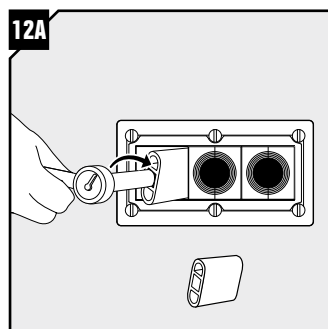
9 Lubricate the frame on the areas that will be in contact with the rubber of the modules. Avoid excess lubricant on areas in contact with the braid.



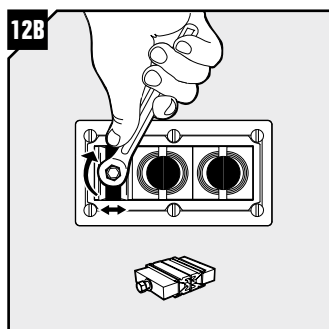
10 Lubricate all modules for the frame thoroughly, both the inside and the outside surfaces. Avoid excess lubricant on the braid.



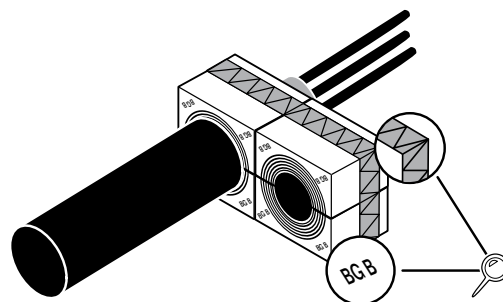
11 Insert the module halves around the cables from the inside of the cabinet. Make sure that the braid is in contact with the armor of the cable.



12A You may use the CF compression tool to pre-compress the inserted modules and make room for the last modules.

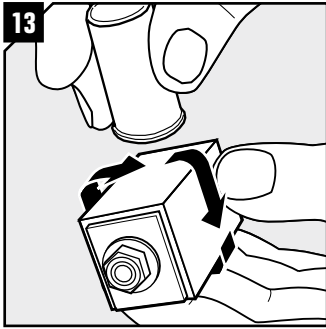


12B You can finalize pre-compression by using the Roxtec pre-compression wedge.

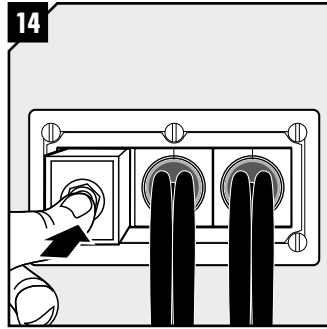


Markings on module

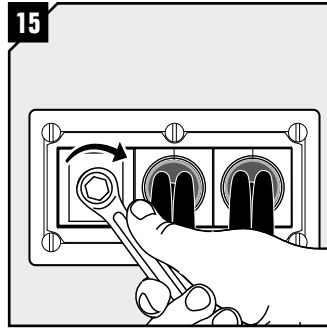
All modules should be of the same type in each opening and turned in the same direction. Please note the markings on the face of the module.



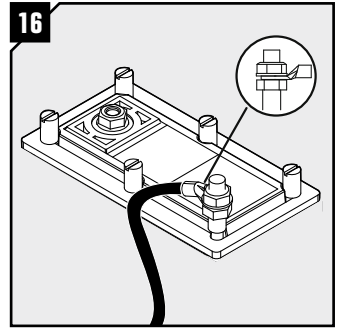
Lubricate the compression unit on all sides with Roxtec Lubricant.



Gently insert the compression unit from the inside of the cabinet until stop.



Tighten the compression unit to seal the frame. Recommended torque 8-12 Nm/5.9-8.8 lbf-ft.



If applicable, check that the ground lug is correctly installed.

## Disassembly

Reverse order

## Sizing chart

Module	For cable/pipe diameter		Total braid cross-section/cable sq mm	Approx. Eqv. AWG
	a-b (mm)	a-b (in)		
<b>CM 20w40 BG B</b>	0+3.5-16.5	0+0.138-0.650	4.16*	11
<b>CM 30w40 BG B</b>	0+10.0-25.0	0+0.394-0.984	13.24	6
<b>CM 40 10-32 BG B</b>	0+9.5-32.5	0+0.374-1.280	21.04	4

\* Per cable.

## Note

- For optimum reliability, wait 24 hours or longer after installation before exposing the cables/pipes 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.
- Anti-short bushing is not supplied by Roxtec.
- The final complete bonding/grounding installation has to comply with applicable codes and regulations.



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