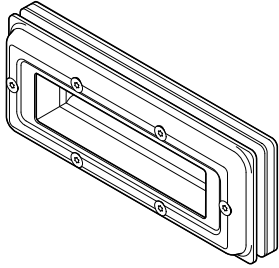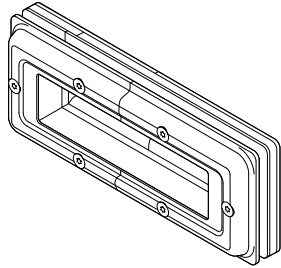## Safety information

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
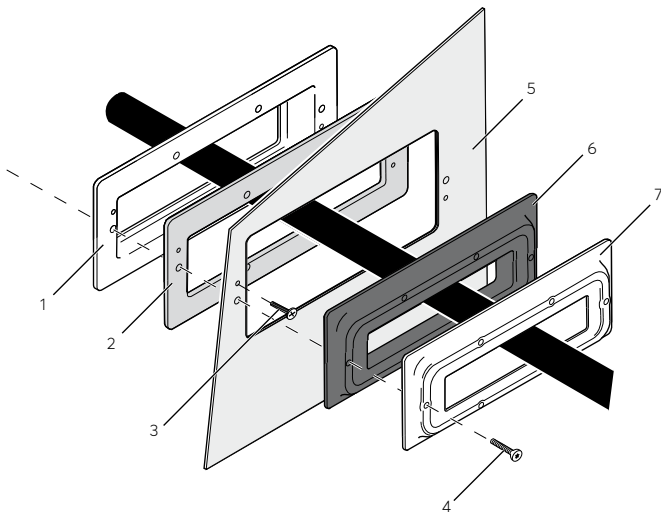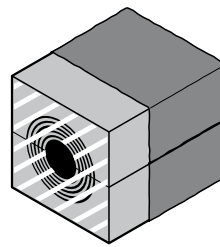# Roxtec CF 16 EMC and
Roxtec CF 16 EMC OPEN

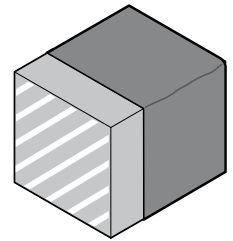Roxtec CF 16 EMC

Roxtec CF 16 EMC OPEN
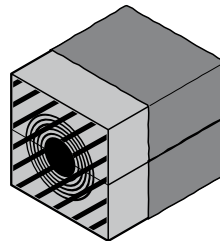Openable frame

Components

CF 16 frame

1. Back plate
2. EMC plate
3. Cross recess screws
4. Torx screws
5. Cabinet/wall
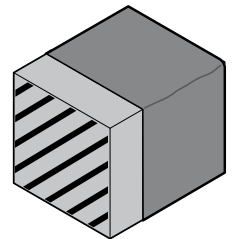6. Compression rubber
7. Front plate

Roxtec CM ES module

Roxtec CM ES solid module

Roxtec CM PE module

Roxtec CM PE solid module

Roxtec Lubricant

Tools

Phillips screwdriver
(not included)

Torx key
(included)

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

Aperture

A: Conductive area, this area shall always be conductive and connected to ground.
Maximum wall thickness is T: 4 mm.
Measurements in (mm).

Roxtec CM ES module

A: Environmental side
B: Termination/interior side
C: Cable jacket
D: Cable shield
E: Plastic film
F: Conductive tape
G: Vertical ES shield

Roxtec CM PE module

A: Environmental side
B: Termination/interior side
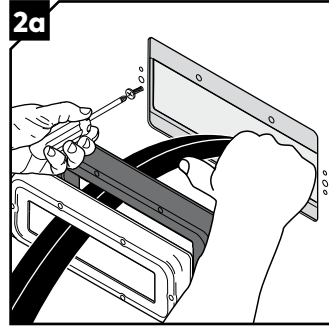C: Cable jacket
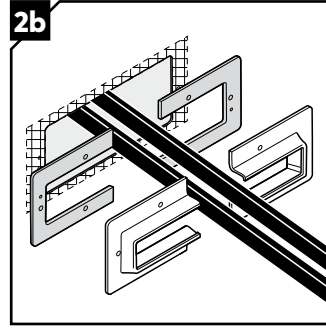D: Cable shield
E: Plastic film
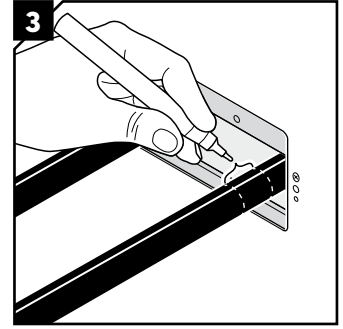F: Conductive tape

Installation

1

Clean the area in order to achieve good electrical conductivity between the EMC plate and the inside of the structure.
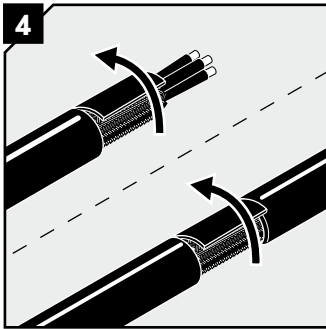
2a

Route the cable through the compression rubber and front plate. Install the back plate and the EMC plate inside the cabinet.
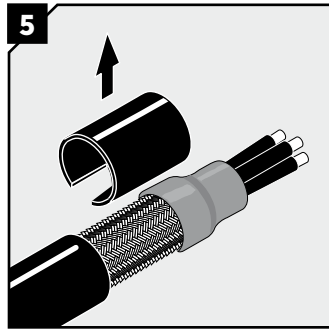
2b

For openable frames, install the back plate and the EMC plate around the cables inside the cabinet.
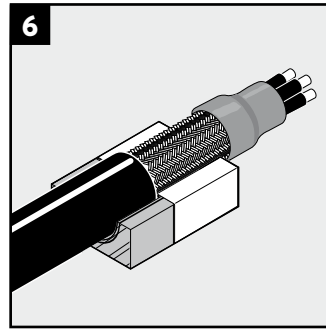
3

Mark where the outer jacket is to be removed to fit the conductive tape position (min 25 mm).

4

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

5

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

6

Correct placement of a cable in a CM ES or PE module. The cable shield shall be visible outside the module.

Roxtec CM ES modules

Module size	For cable/pipe outer diameter	
	Minimum	Maximum
CM 5w40/0 ES	0	0
CM 10w40/0 ES	0	0
CM 15w40 ES	3.5	10.5
CM 20w40 ES	3.5	16.5
CM 20 ES	4	14.5
CM 20/0 ES	0	0
CM 30w40 ES	10	25
CM 40 10-32 ES	9.5	32.5
CM 40/0 ES	0	0
CM 40 ES	21.5	34.5

Unused modules can be used as spare capacity.
Center cores must always be present in unused modules.

Roxtec CM PE modules

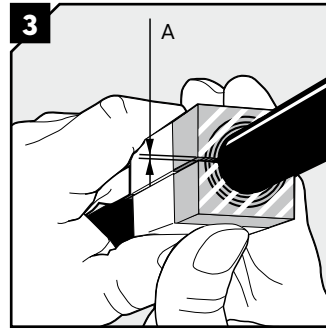| Module size	For cable/pipe outer diameter	
	Minimum	Maximum
CM 5w40/0 PE	0	0
CM 10w40/0 PE	0	0
CM 15w40 PE	3.5	10.5
CM 20w40 PE	3.5	16.5
CM 20 PE	4	14.5
CM 20/0 PE	0	0
CM 30w40 PE	10	25
CM 40 10-32 PE	9.5	32.5
CM 40/0 PE	0	0
CM 40 PE	21.5	34.5

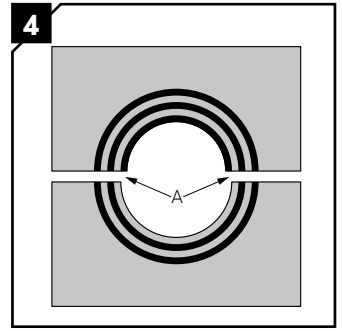# Installation of Roxtec CM ES modules
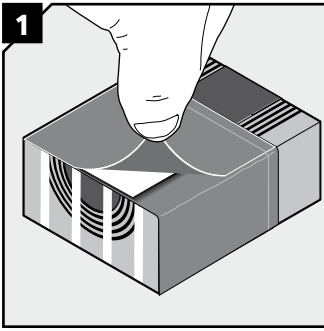
**1**

Lift the conductive tape.
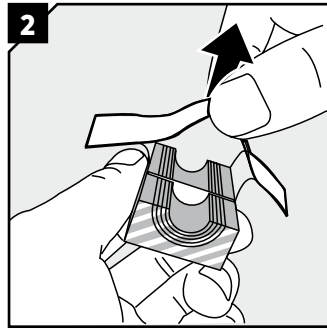
2

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

3

Acheive a gap of 0.1-1.0mm (A) between the module halves by peeling off layers. The cable shield shall be in contact with the conductive tape.
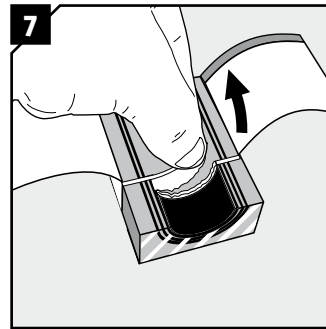
4

The number of layers may not differ (A) by more than one between the corresponding module halves.
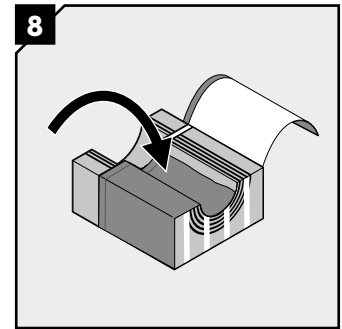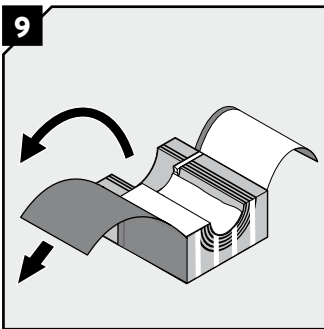
5

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

6
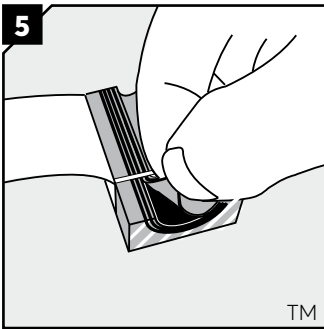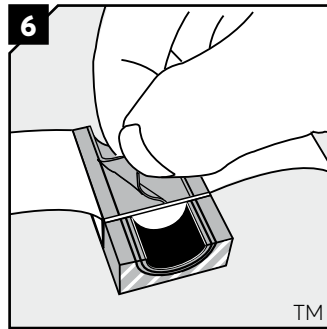
Adapt the layers that are in contact with the cable shield.

7

Adapt vertical ES shield to cable shield.

8

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

9

Separate the plastic film from the conductive tape and fold it to the side.
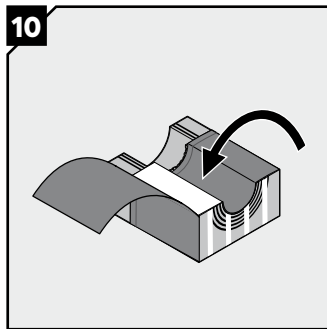
10

Fold the conductive tape on the other side tightly inside the module half.
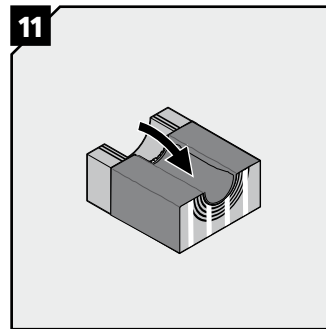
11

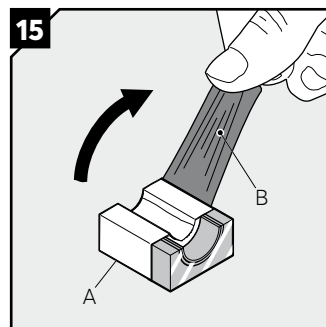Fold the plastic film back inside the module half.

12
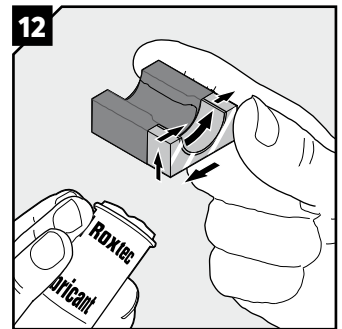
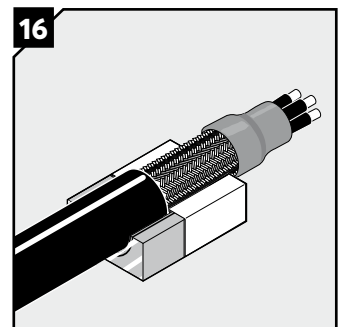Lubricate the sealing surfaces of all modules. Do not lubricate the plastic film.
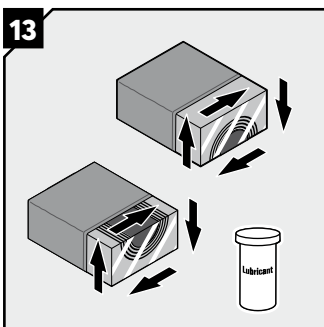
13

For spare modules, lubricate all inside sealing surfaces with Roxtec Lubricant. Do not lubricate the film.
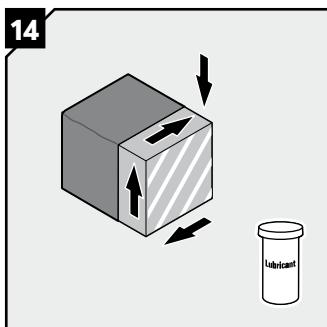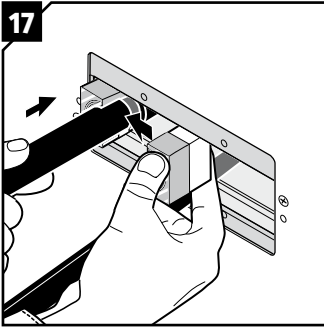
14

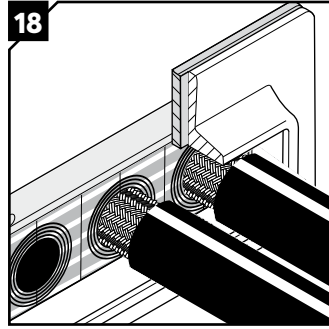Lubricate the sealing surfaces of the solid modules.

15

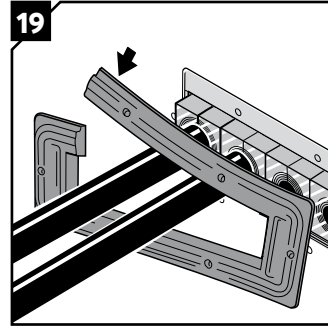Remove the plastic film (B) on all modules. Keep the conductive tape (A) clean.

16

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

17 Insert the modules from the outside of the cabinet with the conductive tape inwards.
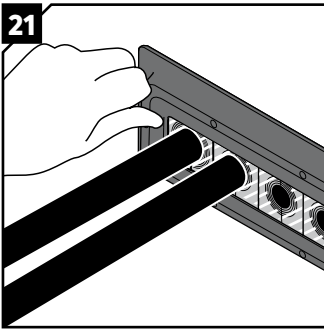

18 Cable shall be installed so that eventual any extra exposed cable shield runs into the cabinet.
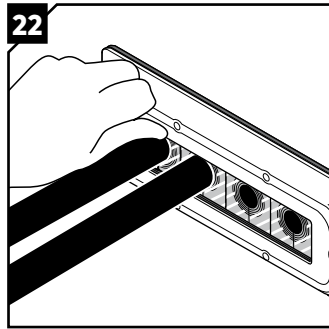

19 For openable frames, fit the compression gasket around the cables by using the pre-opened long side.
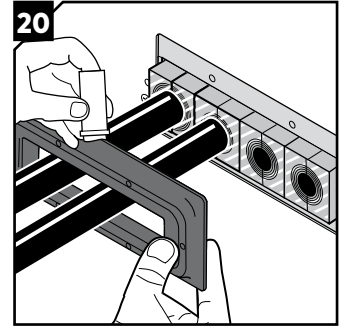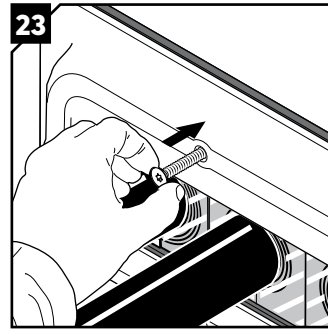

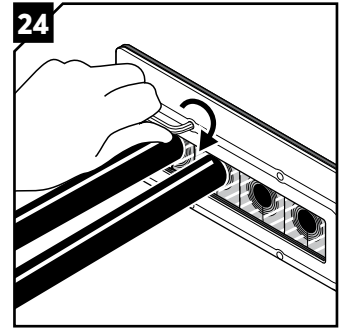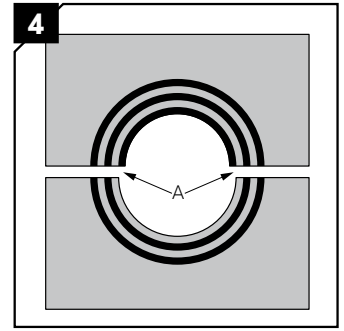**20** Thoroughly lubricate the compression rubber on both outside and inside surfaces with Roxtec Lubricant.

21 Position the compression rubber around the modules.

22 Position the front plate on the compression rubber.

23 Insert the screws.

24 Tighten the torx screws alternately in small steps. Always start with the short sides. Recommended torque 8-10 Nm.

Installation of Roxtec CM PE modules
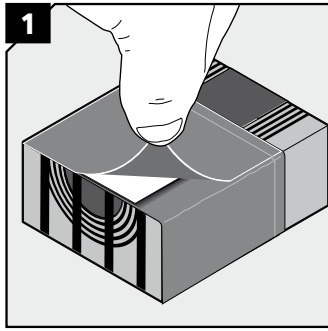
**1**

Lift the conductive tape.

2
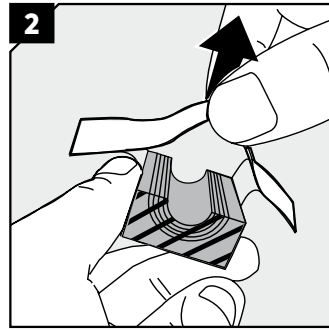
Remove the protection paper from all modules and fold out the conductive tape.
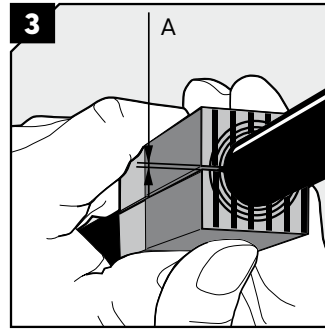
3

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.
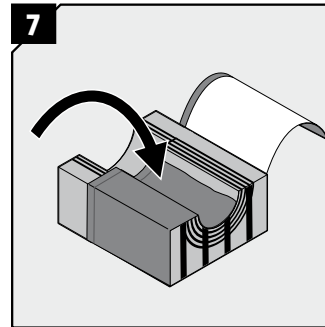
4

The number of layers may not differ (A) by more than one between the corresponding module halves.
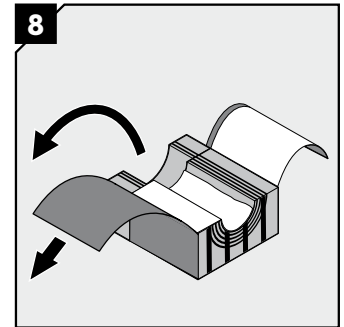
5
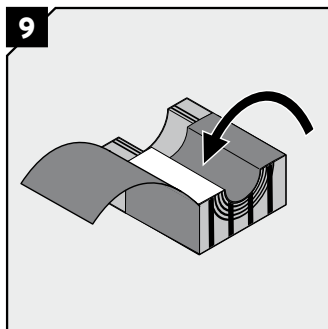
Adapt the layers that are in contact with the cable jacket.

6
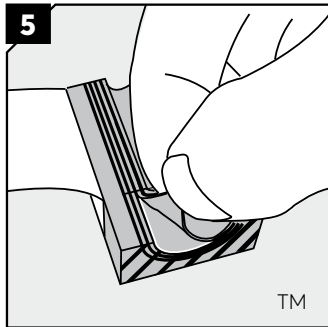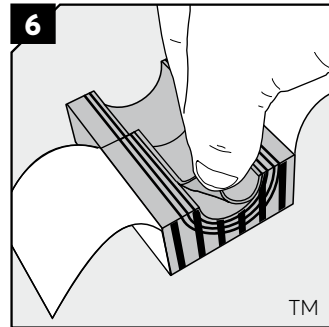
Adapt the layers that are in contact with the cable shield.

7

Fold the conductive tape tightly inside the module half from one side.

8

Separate the plastic film from the conductive tape and fold it to the side.
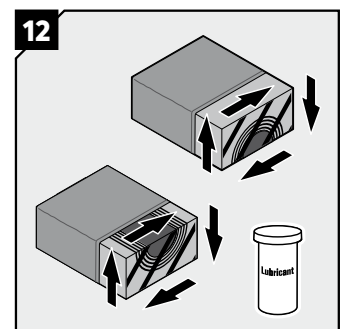
9

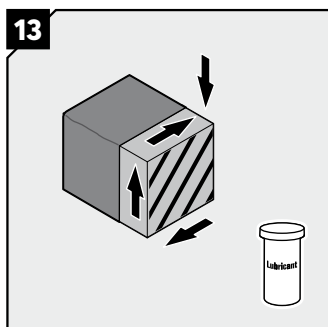Fold the conductive tape on the other side tightly inside the module half.
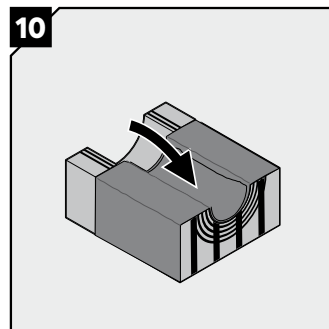
10

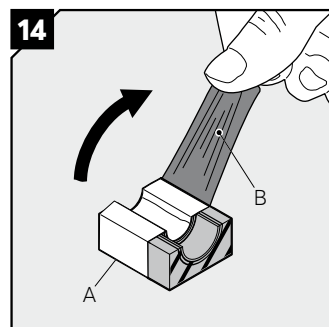Fold the plastic film back inside the module half.
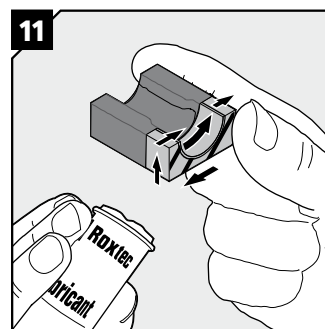
11

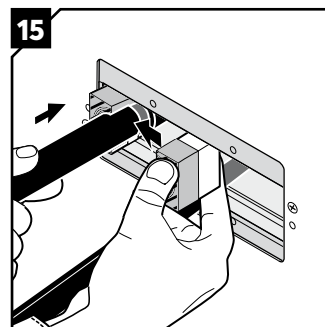Lubricate the sealing surfaces of all modules. Do not lubricate the plastic film.

12

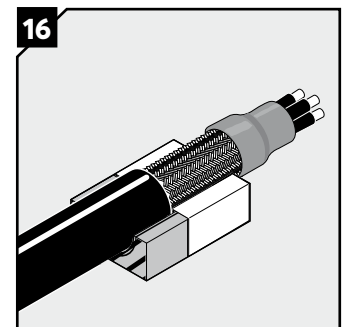Lubricate the sealing surfaces of the spare modules. Do not remove the core.

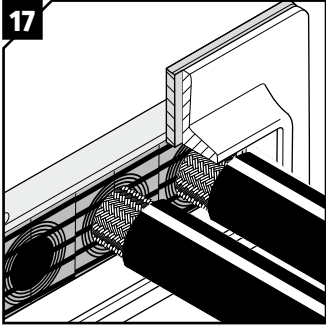**13**

Lubricate the sealing surfaces of the solid modules.

14

Remove the plastic film (B) on all modules. Keep the conductive tape (A) clean.
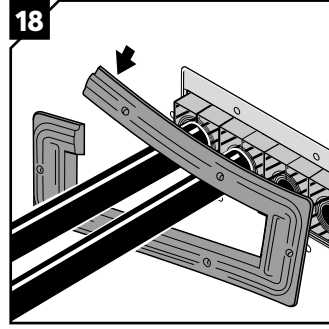
15

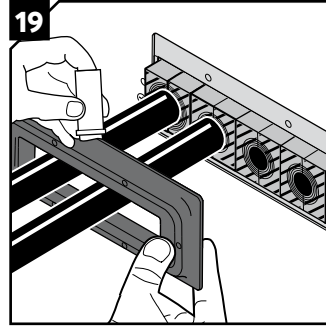Insert the modules from the out-side of the cabinet.

16

Correct placement of a cable in a CM PE module. The cable shield shall be visible outside the module.
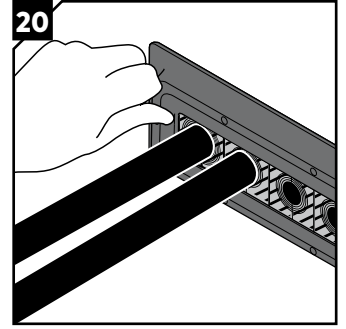
17 Cable shall be installed so that eventual any extra exposed cable shield runs into the cabinet.
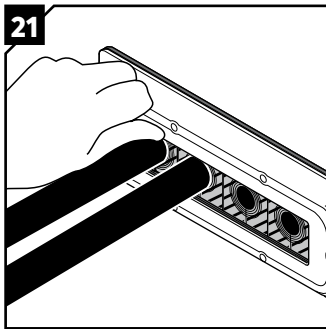

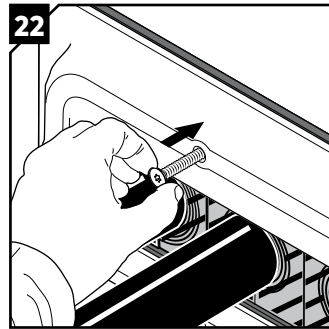**18** For openable frames, fit the compression gasket around the cables by using the pre-opened long side.

19 Thoroughly lubricate the compression rubber on both outside and inside surfaces with Roxtec Lubricant.
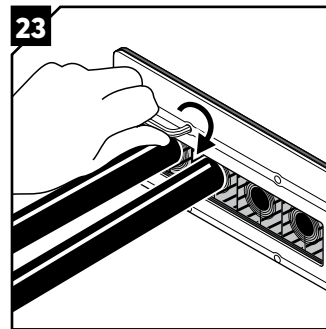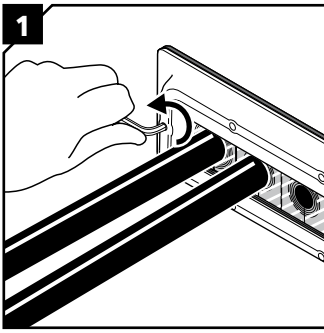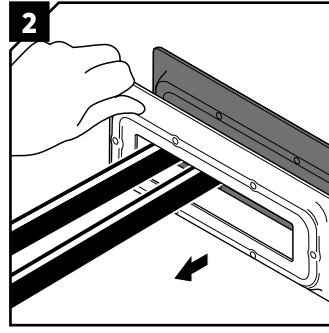

20 Position the compression rubber around the modules.

21 Position the front plate on the compression rubber.

22 Insert the screws.

23 Tighten the torx screws alternately in small steps. Always start with the short sides.
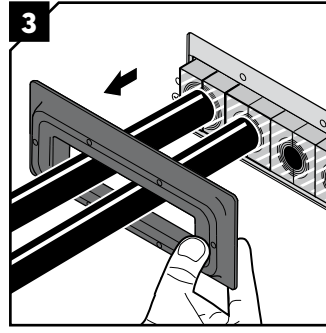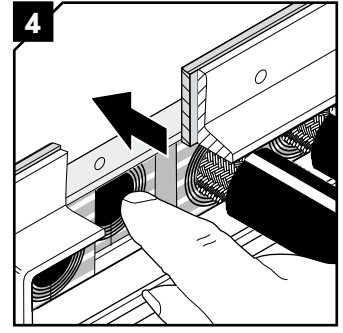Recommended torque 8-10 Nm.

Disassembly and reinstallation

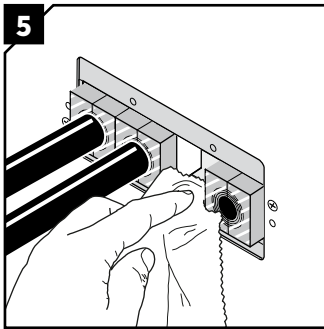**1** Untighten the torx screws alternately. Always start with the short sides.
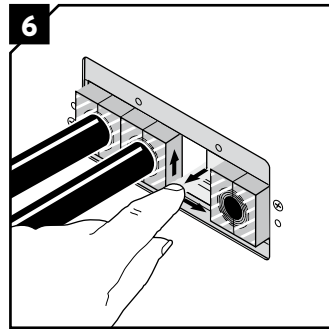

2 Remove the front plate.

3 Remove the compression rubber.

4 Push out the modules needed from the back side.

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

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

Note

◉ For optimum reliability, wait 24 hours or longer after installation before exposing the cables/pipes to strain or pressure.

◉ An incorrectly adapted module shall be replaced (layers shall not be reused).

◉ Cables shall go straight through the frame.

◉ Permitted Roxtec modules: CM ES and CM PE.

◉ 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.

◉ Protection paper and plastic film must be removed on all modules.

◉ If the conductive tape is damaged, the module must be replaced.

)))(Roxtec