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.

General information

Installation and maintenance:
For European member countries of CENELEC, standards
EN 60079-14 and EN 60079-17 shall be considered. For countries members of IECEx, standards IEC 60079-14 and IEC 60079-17 shall be be considered. For other countries, applicable national regulation shall be considered.

The products fulfill the following standards:

EN IEC 60079-0:2018 (IEC 60079-0:2017)
EN 60079-7:2015/A1:2018 (IEC 60079-7:2015/A1:2018)
EN 60079-31:2014 (IEC 60079-31:2013)

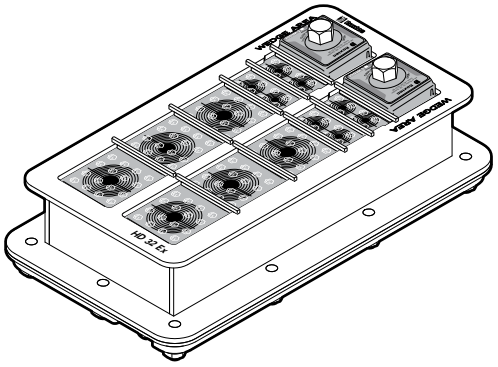
CSA Std. C22.2 No. 18.3-12
CSA Std. C22.2 No. 94.2-15
CAN-CSA C22.2 No. 60079-0: 15
CAN-CSA C22.2 No. 60079-7: 16
CAN/CSA C22.2 No. 60079-31: 15

UL Standard 514B, 6th Ed.
UL Standard 50E, 2nd Ed
UL 60079-0 - 6th Ed.
UL 60079-7 - 5th Ed
UL 60079-31 - 2nd Ed

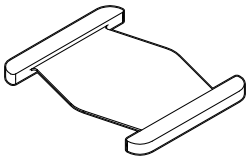
The cable transit devices are intended for use with permanently installed circular cross-section cables, with or without armoring or braided screen. Cable transit devices may also be used with permanently installed cables of types TECK90 according to standard C22.2 No. 131-07, ACWU according to standard UL4, MC according to standard UL1569 and ACIC cables according to CSA C22.1-06 CEC, UL 444, UL 1685, UL 13, UL2250, IEC 61158-2.

Roxtec

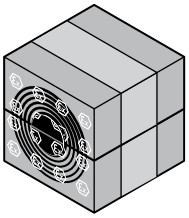
Installation instructions Roxtec HD 32 Ex with Roxtec CX modules



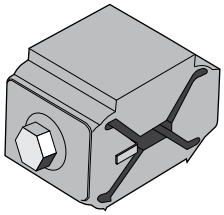
Components



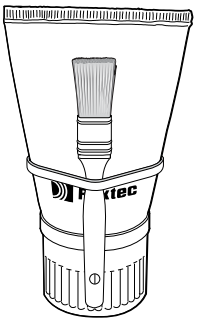
Stayplate Ex



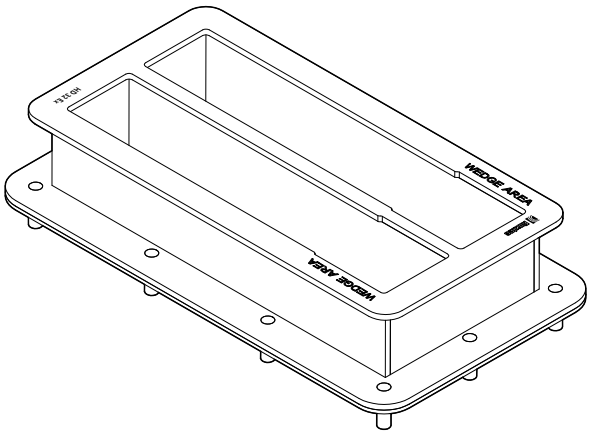
CX modules



Compression unit
C Wedge 40 Ex AISI 316



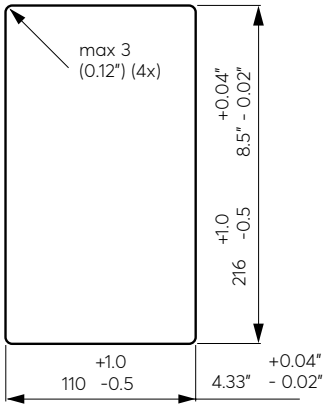
Assembly gel Ex



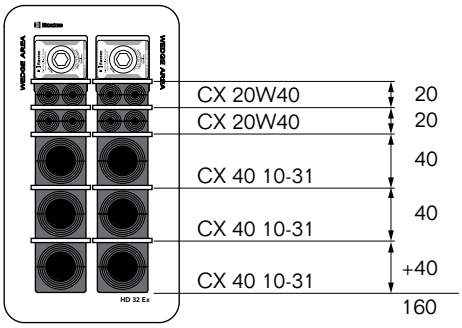
HD 32 Ex frame

Aperture dimensions in cabinet

Max wall/cabinet thickness: 4 mm (0.157")



Packing space



As module installation example shows, 160 mm can be the result of 3 pieces of CX 40 10-32 and 2 pieces of CX 20W40. Different module configurations must be totally 160 mm.

Adaptable CX modules

Module	Number of cables	For cable diameter a–b (mm)	a–b (in)
CX 15w40	3	0+ 4.0–9.5	0+ 0.157–0.374
CX 20	1	0+ 4.0–13.5	0+ 0.157–0.531
CX 20w40	2	0+ 4.0–15.5	0+ 0.157–0.610
CX 30w40	1	0+ 10.0–24.0	0+ 0.394–0.945
CX 40	1	0+ 21.5–33.5	0+ 0.846–1.319
CX 40 10–31	1	0+ 9.5–31.0	0+ 0.374–1.220

Solid compensation modules CX

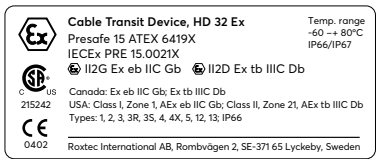
Module
CX 5w40/0
CX 10w40/0
CX 20/0
CX 40/0

Single diameter modules CX

Module
CX 20/14
CX 20/15
CX 20/16

Frame label:

Year of manufacture → XXXX



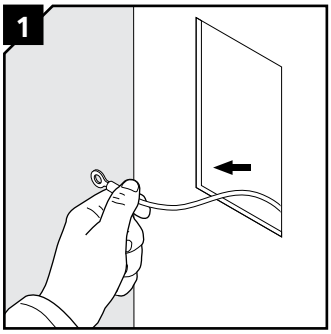
Note

- An incorrectly adapted module shall be replaced (layers shall not be reused).
- Temperature range -60 to +80°C.
- You find EC Type Examination certificate at www.roxtec.com, or contact your local Roxtec supplier.
- To be used with: Ex parts.
- Permitted Roxtec module types: CX and CX BG. This instruction is applicable for CX. Do not mix different module types in the same packing space.
- Cables shall go straight through the frame.

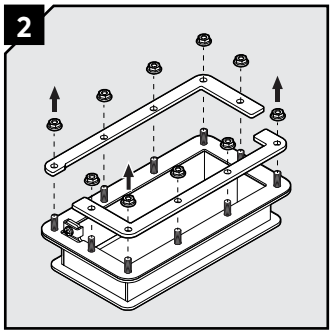
The following conditions for safe use shall be considered according to the EC Type Examination certificate and the IECEx Certificate of Conformity:

- For maintaining the explosion protection, the installation instructions that accompany the products shall be considered.
- Only cable for fixed installation is permitted for the cable entry.
- For optimum reliability, wait 24 hours or longer after installation before exposing the cables/pipes to strain or pressure.
- The cables shall have sufficient clamping to ensure that no pulling or twisting will be transmitted to the terminals.
- Cable transit devices must be installed in accordance with the applicable local electrical code and final acceptance is subject to inspection by the local authority having jurisdiction.

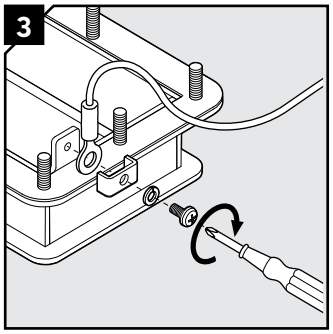
Installation of HD 32 Ex frame



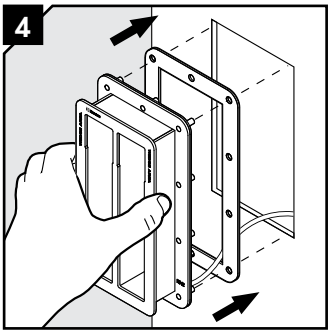
Route the earth cable through the aperture.



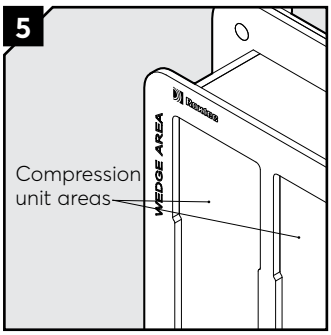
Remove all nuts and the two parts of the counter frame.



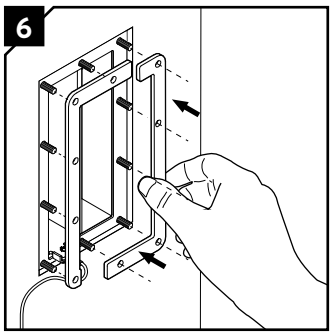
Attach the earth cable to the earth stud.



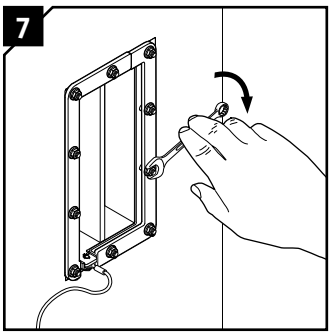
Insert the HD 32 Ex frame from the outside of the cabinet. Ensure that the gasket is placed between the frame and the cabinet.



Observe the intended wedge areas without stopping edges.

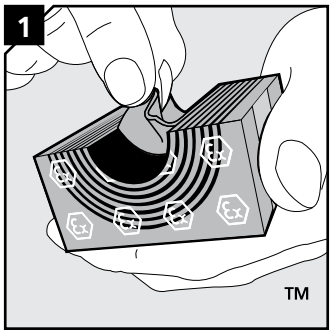


Attach the two parts of the counter frame from the inside of the cabinet.

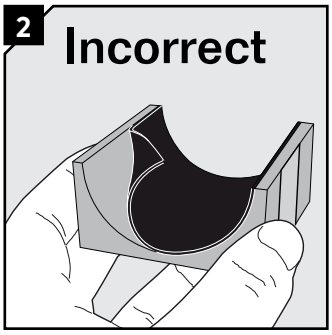


Tighten the nuts crosswise in small steps. Recommended torque
4 Nm. Do not overtighten the nuts.

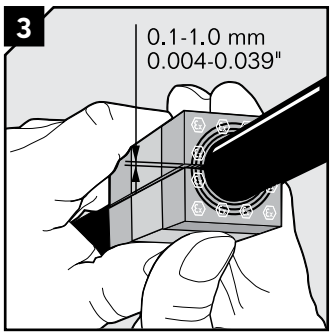
Installation of Roxtec CX modules



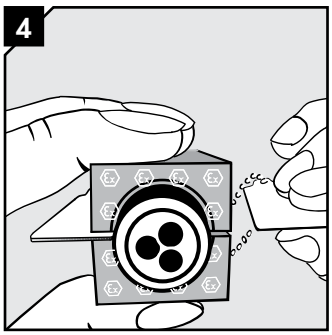
Adapt modules, which are to hold cables, by peeling off layers until you reach the gap seen in pic. 3. The number of layers may not differ by more than one between the halves.



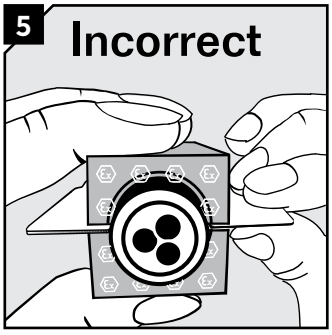
Do not remove the last layer. Do not remove the conductive tape.



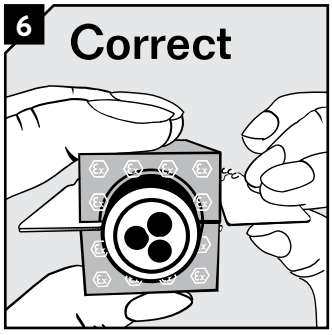
Achieve a 0.1-1.0 mm gap between the two halves when held against the cable.



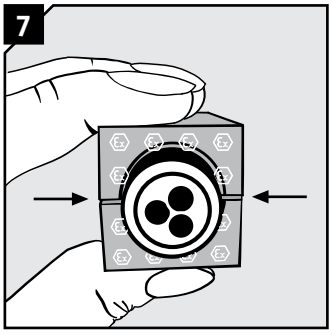
Measure the gap with the Ex Gap Gauge by holding blade one in one gap and checking the other with blade two.



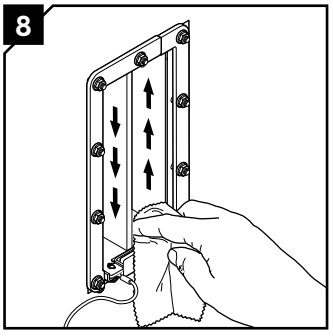
If the gap is too big, the gauge will slip in easily.



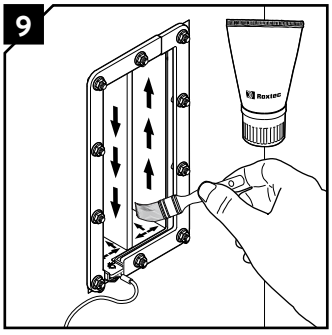
If the gap is correct, there will be no room for blade two.



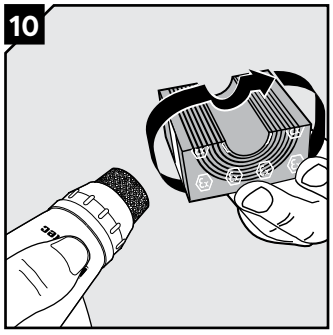
When checking without the gauge, there shall be a visual gap.



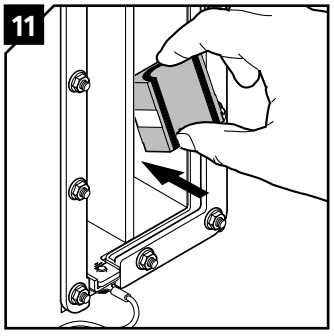
Make sure that the inside surfaces of the frame are free from dirt or dust.



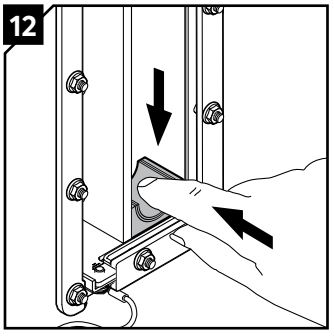
Lubricate the inside surfaces of the frame all around with Roxtec Assembly Gel Ex, especially into the corners.



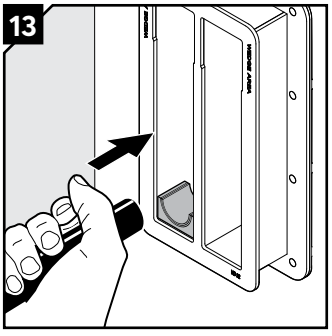
Lubricate all modules for the frame thoroughly with Roxtec Assembly Gel Ex, both the inside and the outside surfaces.



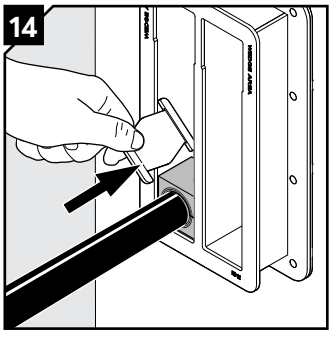
Insert the modules from the back side of the transit according to your installation plan (transit plan). Start with the largest modules.



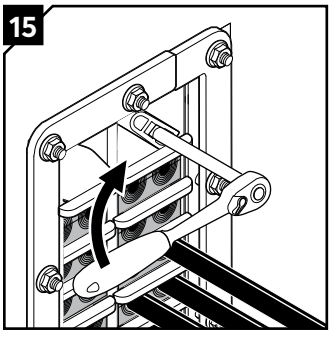
Push the modules in place. Ensure that the module rests against the stopping edge at the front.



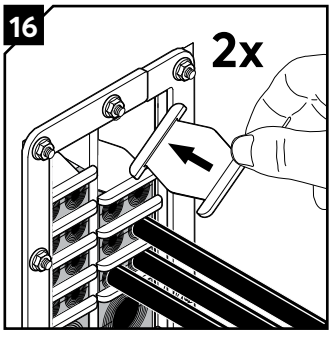
Insert the cables through the frame.



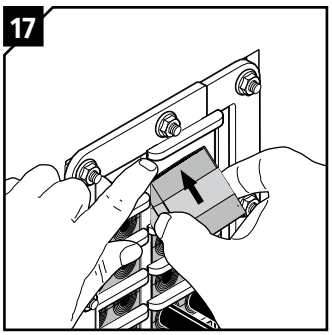
Insert a stayplate on top of every finished row of modules.



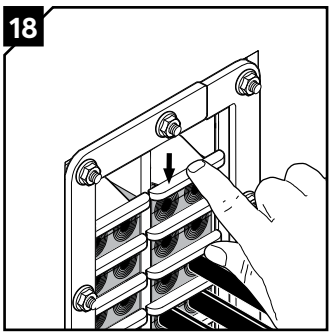
Use a Roxtec pre-compression tool to make space for the compression units if required.



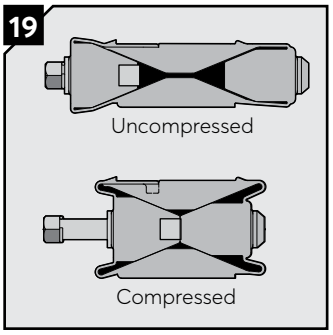
Before inserting the final module, insert two stayplates.



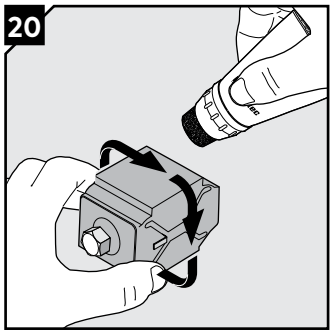
Lift up the upper stayplate and insert the last module underneath it.



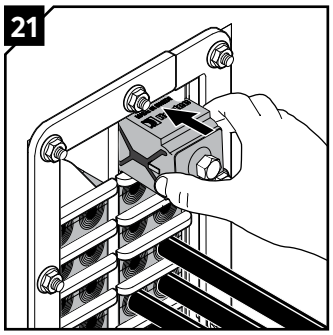
Drop the stayplate on top of the last row of modules. Make sure the combinations of modules equals to the 160 mm packing space. See example on page 2.

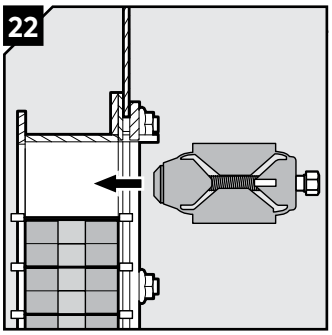


Ensure that the compression unit is fully uncompressed by untightening the screw of the compression unit before inserting it.

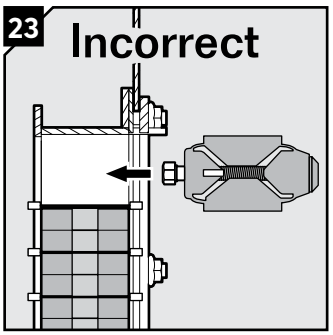


Lubricate the compression units on all sides with Roxtec Assembly Gel Ex.

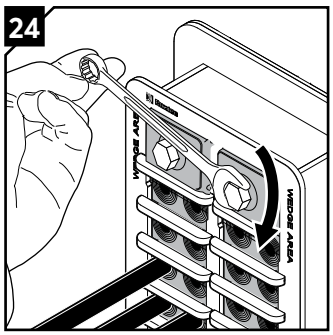




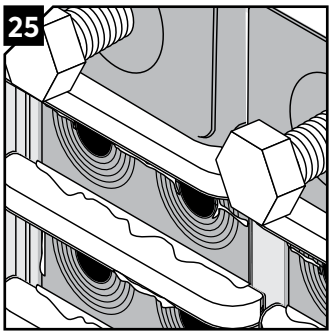
Insert the compression unit until stop. The compression unit can be inserted from any direction. Do not tighten the first compression unit until the second compression unit is inserted.



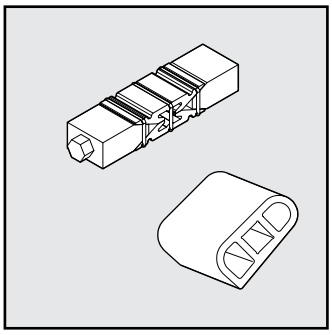
Do not install the compression unit with the screwhead facing the frame.



Tighten the screws of the compression units alternately until full stop.
Do not exceed 20 Nm (15 ft.lb.).

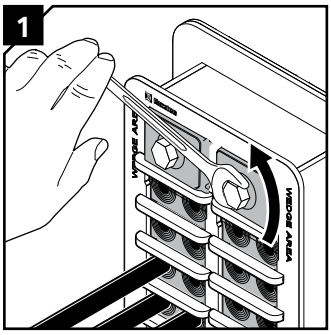


Visible excess assembly gel Ex is a sign of good compression. Make sure that all modules are placed correctly and fully inserted after compression.

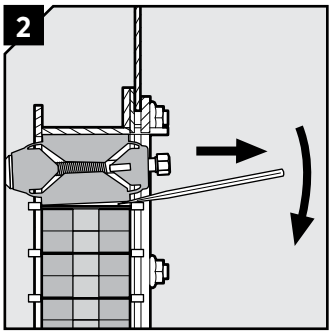


In order to further simplify installation, we provide tools for pre-compression of the modules in the frame. For more information about Roxtec tools, visit www.roxtec.com.

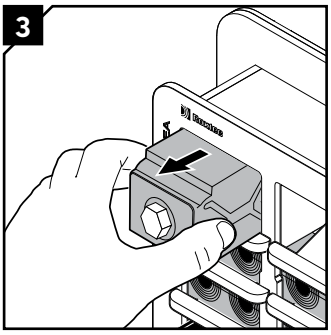
Disassembly and reinstallation



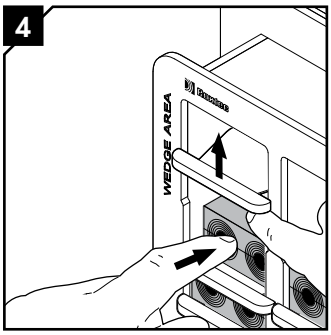
Untighten the screws of the compression units.



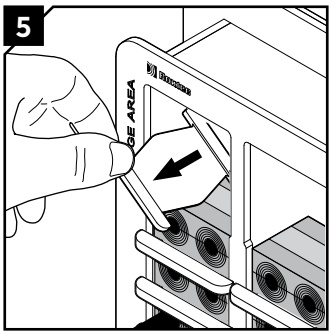
Insert a flat tool between the compression unit and the stayplate to simplify removal of the compression unit. Roxtec special tools are available.



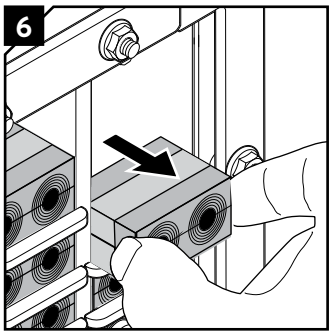
Remove the compression units.



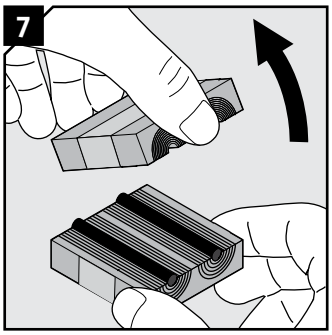
Lift up the stayplate and push out the upper module from the front side.



Remove the stayplate.



Continue to remove the modules by pulling them out from the backside of the frame.



Separate the module halves and continue the reinstallation at step 1 on page 4.

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

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