



Cable entry seals for  
cabinets and enclosures



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# No more cutting off connectors

The Roxtec sealing system allows pre-terminated cables to be routed through the opening of the entry seals. You avoid cutting and re-attaching connectors, which results in better connectivity and less risk for EMI and signal loss.



## **Avoid failure**

Connectors are often too large to fit through traditional cord grips and glands. They have to be removed when the cable is routed into the enclosure. Our Roxtec enclosure seals have large internal openings making them ideal for use with pre-terminated cables. This means that the time-consuming and insecure detaching and re-attaching of connectors on site is eliminated. By using pre-terminated cables you are

in total control. Full quality soldering and connections from the factory guarantee the undisturbed function of your system. With pre-terminated cables you can calibrate, adjust and trim the system from the start at the factory. This enables you to save a substantial amount of time.

- Allows cables with connectors
- Major time-savings
- Long-term operational reliability

# Maximize space in a cabinet



- Several cables and pipes per opening
- Enables smaller cabinets
- Allows work-bench assembly
- Adapter plates for cabinets



## **Make fewer openings**

Roxtec solutions guarantee very efficient installations. Each entry seal allows several cables or pipes to be routed and sealed through just one opening. This eliminates the need to punch numerous holes of different sizes for traditional cable glands in a cabinet.

## **Use smaller cabinets**

Thanks to the area efficiency and the compact design of the Roxtec solutions, it is also possible to reduce the size of the cabinet. Fewer holes for cables, pipes and hoses mean less space used for entry seals, which allows more space for equipment. Subsequently,



smaller cabinets can be used, which reduces costs.

## **One standard**

The flexibility to handle several cables and pipes of different sizes in one opening makes Roxtec an excellent standard solution for your cabinets and equipment.

## **Work-bench assembly**

A Roxtec entry seal can be pre-packed at the work-bench with cables and connectors ready for quick installation at manufacturing, or in the field. This saves time and simplifies installation work.



# Fewer warranty claims



- Less need for redesign
- Standardizes installations
- Engineered for flexibility

## **Designed for flexible installations**

Our customers use flexible Roxtec solutions to standardize their installation process. The ability to seal cables, pipes and hoses through one opening reduces lead times in projects and eliminates the need to redesign the routing at a later stage. The quicker a project can leave the factory, the shorter is the time-to-market.

## **Reduced costs**

An even bigger benefit is radical reductions in warranty claims. By using Roxtec, our clients have been able to achieve safer and more reliable installations of cables with connectors. This reduces their costs for repairs after delivery due to component failure and improper routing.

# Roxtec in the OEM industry

Roxtec transits are found in many places and applications within the OEM industry. Shown here are a few examples of installations where our customers benefit from the flexibility and efficiency of our solutions.



**Driver's cabin:** The Roxtec S 4x1 is used for mechanical anchorage of cables and reduced vibration.



**Cabinet:** The Roxtec EzEntry™ allows routing of pre-terminated cables.



**Switching cabinet:** The Roxtec RG M63 handles several cables in one opening.



**Power drive wall:** The Roxtec CF 24 can be installed around existing cables.



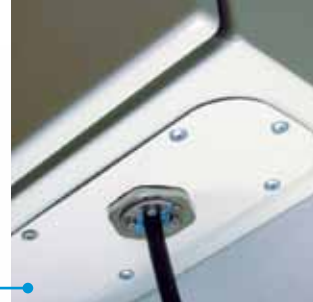
**Control cabinets:** The Roxtec S 6x3 transits used in cabinets on a container loading crane.



**Power supply cabinet:** The Roxtec CF 32 can accommodate several cables in a small space.



**Cabinet:** The Roxtec C RS T on an adapter plate attached to a standard opening for cabinets.

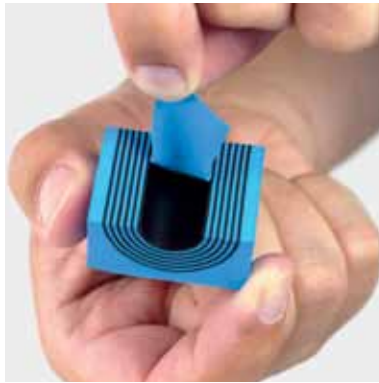


**Cabinet floor:** Roxtec KFO transits seal cables passing through from a substation.



**Robotic routing machine control cabinet:** The Roxtec CF 16 maximizes free space thanks to a compact design.

# A truly flexible sealing system



## Multidiameter™ by Roxtec

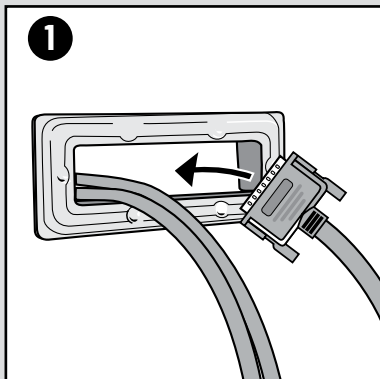
The Roxtec solution for adaptability makes installation of cables and pipes easy and safe. Our sealing modules have removable layers that enable a perfect fit to different sizes of cable or pipe. Just peel off layers until the seal fits the desired dimension. One Roxtec seal can replace as many as 41 traditional seals.



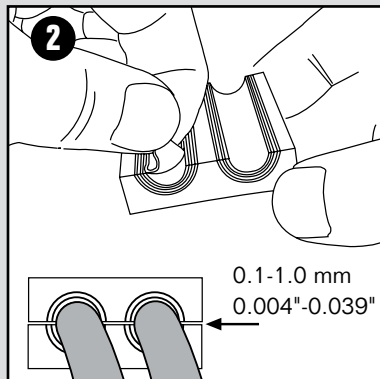
## Spare capacity

Whenever additional cables or pipes need to be installed, our unique sealing technology is ready. Multidiameter™ allows any previously unused seal in a frame to be opened and adapted to fit the new routing. The amount of the spare capacity can be decided from the start, allowing additional cables and pipes at no further cost.

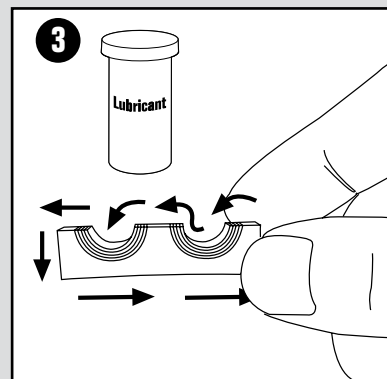
## How it works – example of Roxtec CF 16



1 Assemble the frame to the cabinet. Insert the cables through the frame.



2 Achieve a 0.1-1.0 mm gap between the module halves when testing with the cable.



3 Lubricate all the modules thoroughly with Roxtec Lubricant.



### Easy installation

Our products are easy to install. A Roxtec entry seal can easily be opened for maintenance and closed again. Thanks to the modular design and the Multidiameter™, cables and pipes can be added and retrofit is made easier.

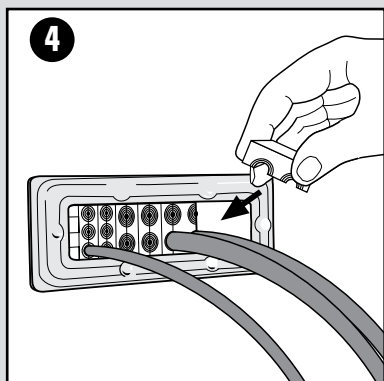


### Protection through Roxtec

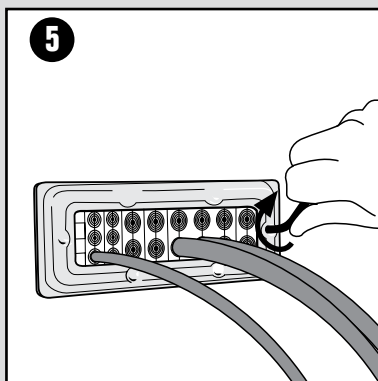
The Roxtec cable and pipe entry seals provide protection against a wide range of hazards. Typical examples are gas, smoke, dust, fire, vibration and electromagnetic interference. The system is tested and certified by the majority of authorities for ratings.

- IP 54, IP 66/67
- Fire protection
- Vibration damping
- IECEx/ATEX
- UL/NEMA 4, 4X, 12 and 13
- EMC
- Pull-out resistance

For details about specific product ratings, please contact us.



Insert the modules around the cables.

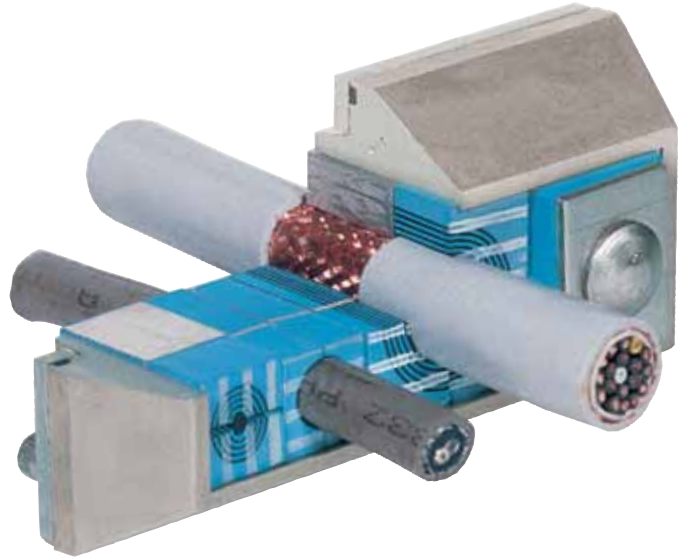


Tighten the frame screws to compress the seal.

The frame is mounted onto the enclosure, and cables are routed through the frame. The modules are then inserted around the cables inside the frame, creating an intrusion-proof seal by compressing the rubber modules after tightening. An existing seal can be opened and reconfigured in the same way it is assembled.

Examples show assembly of Roxtec CF 16. Other solutions work similarly, but may host different benefits.

# Shielded applications



The Roxtec EMC system is designed for applications where electromagnetic compatibility is of prime importance.

Electromagnetic compatibility, EMC, means that electric and electronic devices can operate together in a common electromagnetic environment, without causing malfunctions to each other. All electric and electronic devices affect the electromagnetic environment, often in a way that is detrimental to other such devices. Currents and voltages inadvertently generated by electric circuits are spread as unwanted cur-

rents, or as electromagnetic waves which in turn generate currents in metallic objects. Such “electromagnetic garbage” is called electromagnetic disturbance, and it may cause malfunctions in other electric or electronic devices.

## Interference

Electromagnetic disturbances may and do cause serious hazards by interfering with life support systems,

navigation equipment, signal and security systems, radio, TV, telecommunications and computer systems.

## Careful design

For practical purposes, EMC is the measure of two qualities in a device. 1) The level of electromagnetic disturbances generated – the less, the better, and 2) the level of immunity the device has to electromagnetic

**Roxtec EMC modules** are available in two different versions. The Roxtec ES (electromagnetic shielding) module, marked with white stripes, is developed for protection against RFI/EMI and secure potential equalization, and the Roxtec PE (potential

equalization) module, marked with black stripes, is designed for use when only potential equalization is of importance. Both versions also protect against water, gas, dust, and fire.



Roxtec EMC modules.

disturbances – the higher, the better.

The fact that most electric and electronic devices are interconnected by cables and wires means that electromagnetic disturbances are spread over large areas.

### **Shielded cables**

In electric and electronic installations, EMC is usually a matter of stopping and neutralizing the electromagnetic disturbance. This is done by using shielded (screened) cables and by proper grounding.

### **Grounding**

The cable screen protects the cable conductors from generated electromagnetic disturbance currents. It makes incoming electromagnetic waves generate currents in the screen, at the outside of the cable, rather than in the conductors inside the cable. Vice versa, the screen blocks electromagnetic

fields generated by the currents inside the cable from reaching outside the cable. The result is that currents and stray currents will flow in the cable screen. The influence of the stray currents is neutralized by providing them a path to ground. Ground, or earth, is an engineering term for a general reference point, 0 V, for most electric and electronic devices.

The Roxtec EMC system provides such a current path between cable screens and ground. The screens of the cables passing through the same cable inlet are grounded via the Roxtec EMC system modules and frame. Conductive layers inside the modules also stop electromagnetic waves which would otherwise pass between the cables from one side of the inlet to the other. These layers are also grounded via the frame which surrounds the modules.

### **Current path**

The frame itself must be grounded to a designated grounding point via a ground wire, or via the frame. The grounding point is to be selected according to the demands of each separate installation, after a professional analysis.

Please refer to the EMC product section of the Roxtec product catalogue or the Roxtec Technical Appendix for more information.



Protection against electromagnetic disturbances.

# About Roxtec

A company dedicated to smart solutions, efficient use of technology and continuous development of concepts.

Our vision encompasses more than the product we manufacture. We see a world, where the need for safety in people's lives, investments and projects is ever increasing. Our product ensures for example, operational reliability of telecommunication networks and signalling systems along our railroads.

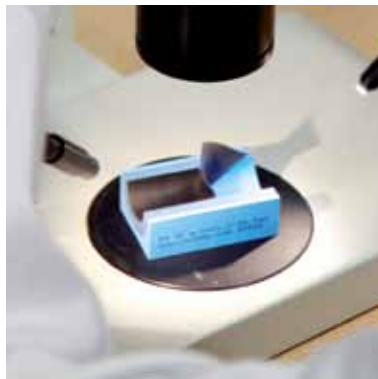
## **The world is our market**

Roxtec was established in 1990 in an empty garage and has today a

market leading position. During recent years, Roxtec has been one of the fastest growing industrial companies in Sweden.

## **Global support**

We can be found where the customers are. Local representatives and stocks mean that we can deliver on short notice after an order has been placed. We are present worldwide to make sure that our customers receive the support they need.



## **Roxtec references**

BAE Systems, US Army, Automated Packaging, ABB, Rockwell Automation, Oshkosh Truck Corporation, Solar Turbines, Navistar, Veeco, Delta Design, Siemens Transportation Systems, Rolls Royce, Halliburton Energy Services, GE Packaged Power, Ericsson, SAIC, FANUC Robotics, General Atomics, P&H Mining, AT&T, US Navy, Sprint Nextel, BP, Chevron, ConocoPhillips, ExxonMobil, Shell, Daewoo, Samsung and Hyundai.

### **More than 70 markets**

The Roxtec organization includes research, development and manufacturing in our factory and head office in Karlskrona, Sweden. We have a network of representatives in more than 70 markets as well as subsidiaries in several countries.



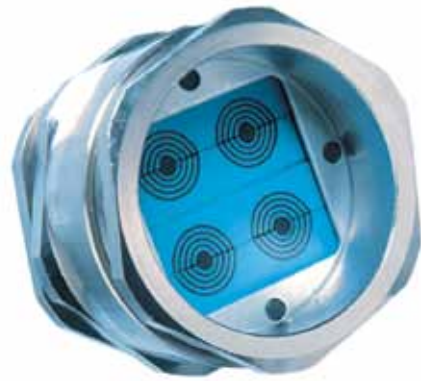
### **Logistical benefits**

The product will be delivered to your warehouse, production unit or straight to the production location. The installer receives a box containing a complete solution for the cable entry, including installation instructions.

### **Reliability guaranteed**

We believe that reliability depends upon details. That is why we let independent third party laboratories test our products. This ensures guaranteed quality in every single item of the system.

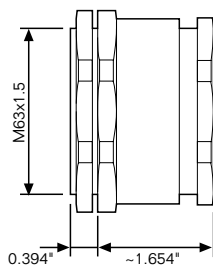
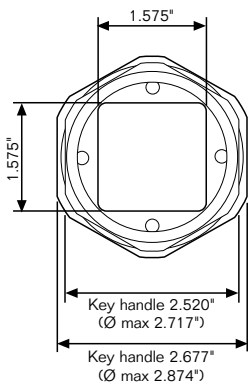
# Roxtec gland – RG M63



The Roxtec gland, RG M63, combines the traditional gland technique with the unique Roxtec technology for flexibility and adaptability.

The result is a new generation of glands with improved capacity and functionality. RG M63 has a compact design that makes it well

suited for small areas. It can seal between one and nine cables with diameters ranging from 0.138" to 1.280".



Type:	Roxtec Gland M63
External dimension:	Ø 2.874" x ~2.047"
Packing space* (mm):	40 x 40
Hole dimension in cabinet:	Ø 2.500"-2.520"
Material:	Nickel plated brass, PA 6, galvanized mild steel, EPDM rubber
Rating:	UL/NEMA 4, 4x, 12 and 13, CSA 4, 4x, 12 and 13 IP 66/67 according to IEC 60529

\*Packing space is the available space inside each frame for sealing modules and cables/pipes.

- Max thickness of cabinet wall is 0.158" with lock nut.
- The RG M63 is also available in stainless steel.
- Recommended knockout punch: Greenlee hole punch (size 2.52"/ISO 63)

## Roxtec Gland M63 kits

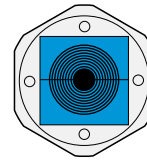
### Complete solutions for your projects

RG M63 is designed with three different module configurations. Each version is delivered as a complete sealing kit.



#### RG M63/1

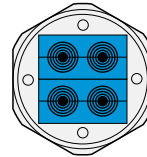
Accommodates one cable with a diameter range from 0.374" to 1.280".



1 pc GM 40 10-32

#### RG M63/4

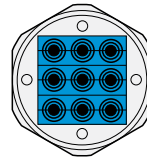
Accommodates up to four cables with a diameter range from 0.138" to 0.650".



2 pcs GM 20w40

#### RG M63/9

Accommodates up to nine cables with a diameter range from 0.138" to 0.414".



3 pcs GM 13.3w40

## Roxtec Gland M63 conduit adapter

The RG M63 adapter allows the gland to thread into one end, while the other end threads directly into 2 inch NPT. Depending on the version of RG M63 used, up to 9 cables can be sealed inside a 2-inch conduit. For additional adapter/conduit sizes, please contact your local Roxtec representative.



## Roxtec Gland M63 tools

64 and 68 mm wrenches to simplify assembly and disassembly.





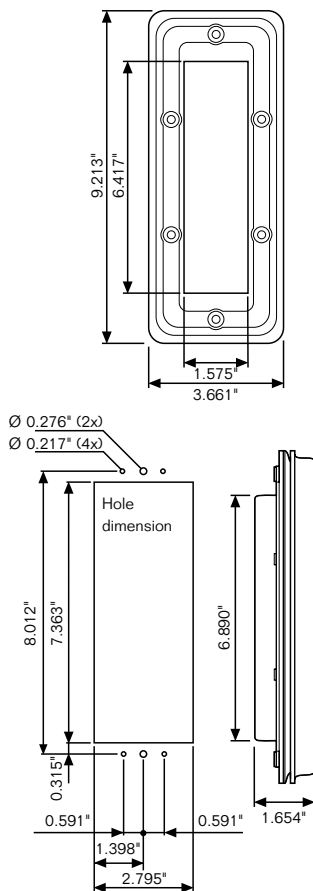
# Roxtec CF 16 frame



Roxtec CF 16 is a midsize cable entry seal ideally suited for all types of equipment enclosures.

Its slim design gives a smooth, clean appearance to the cable entry. The frame is also available in an open version for installation around

existing cables. Roxtec CF 16 accommodates up to as many as 30 cables ranging from 0.138" to 1.280".



Type:	Roxtec CF 16
External dimension:	9.213" x 3.661" x 1.654"
Hole dimension in cabinet:	7.362" x 2.795"
Packing space* (mm):	160 x 40
Frame material:	Powder coated steel or stainless steel, NBR rubber
Screw material:	Stainless steel
Rating:	UL/NEMA 4, 4x, 12 and 13, CSA 4, 4x, 12 and 13 IP 66/67 according to IEC 60529

\*Packing space is the available space inside each frame for sealing modules and cables/pipes.

- Max thickness of cabinet wall is 0.157".
- This frame is also available in an open version, the Roxtec CF 16 Open, for installation around existing cables.
- For information about Roxtec CF 16 frame in EMC applications, see page 39.

# Roxtec CF 16 kits

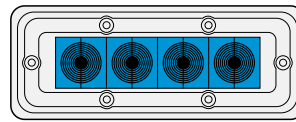


## Complete solutions for your projects

To simplify your order we have put together four Roxtec CF 16 kits with different module configurations. Each version is delivered as a complete sealing kit.

### Roxtec CF 16/4

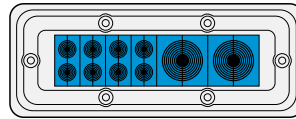
Accommodates up to four cables with a diameter range from 0.374" to 1.280".



4 pcs CM 40 10-32

### Roxtec CF 16/10

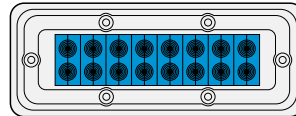
Accommodates up to ten cables; two with a diameter range from 0.374" to 1.280" and eight with a diameter range from 0.138" to 0.650".



2 pcs CM 40 10-32  
4 pcs CM 20w40

### Roxtec CF 16/16

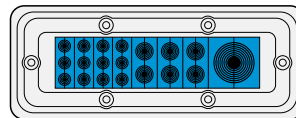
Accommodates up to 16 cables with a diameter range from 0.138" to 0.650".



8 pcs CM 20w40

### Roxtec CF 16/19

Accommodates up to 19 cables; one with a diameter range from 0.374" to 1.280", six with a diameter range from 0.138" to 0.650" and twelve with a diameter range from 0.138" to 0.414".



1 pc CM 40 10-32  
3 pcs CM 20w40  
4 pcs CM 15w40

For individual design, use the Roxtec CF 16 packing space grid on page 41.

For technical specifications on CM modules, see page 36.

## Installation tool

Pre-compression wedge. Used to compress the modules to make more space.



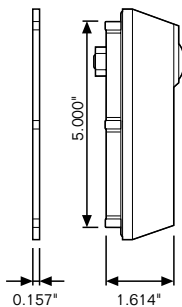
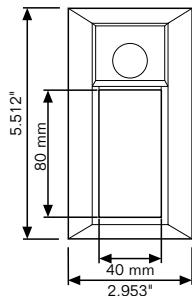


# Roxtec CF 8 frame

The Roxtec CF 8 is a small aluminum frame with a solid design.

It provides good mechanical anchorage for cables in compact installations. Though small, it can accom-

modate up to 15 cables and handle diameters ranging from 0.138" to 1.280".



Type:	Roxtec CF 8
External dimension:	5.512" x 2.953" x 1.613"
Hole dimension in cabinet:	5.00" x 2.40"±0.020"
Packing space* (mm):	80 x 40
Frame material:	Aluminum, PA 6.6, EPDM rubber
Screw material:	Stainless steel
Surface treatment:	Nickel plated
Rating:	UL/NEMA 4, 4x, 12 and 13, CSA 4, 4x, 12 and 13 IP 66/67 according to IEC 60529

\*Packing space is the available space inside each frame for sealing modules and cables/pipes.

- Max thickness of cabinet wall is 0.157" (0.315" without counter frame).
- For information about Roxtec CF 8 in EMC applications, see page 39.

## Roxtec CF 8 kits

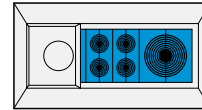


### Complete solutions for your projects

To simplify your order we have put together three Roxtec CF 8 kits with different module configurations. Each version is delivered as a complete sealing kit.

#### Roxtec CF 8/5

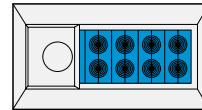
Accommodates up to five cables; one with a diameter range from 0.374" to 1.280" and four ranging from 0.158" to 0.571".



1 pc CM 40 10-32  
2 pcs CM 20w40

#### Roxtec CF 8/8

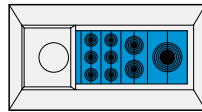
Accommodates up to eight cables with a diameter range from 0.138" to 0.650".



4 pcs CM 20w40

#### Roxtec CF 8/9

Accommodates up to nine cables; one ranging from 0.394" to 0.984", two with a diameter range from 0.138" to 0.650", and six ranging from 0.138" to 0.414".



1 pc CM 30w40  
1 pc CM 20w40  
2 pcs CM 15w40

For individual design, use the Roxtec CF 8 packing space grid on page 41.

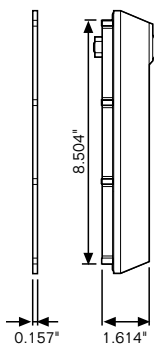
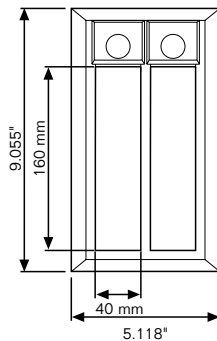
For technical specifications on CM modules, see page 36.



# Roxtec CF 32 frame



Roxtec CF 32 is the same type of aluminum frame as Roxtec CF 8. The difference is that its double aperture accommodates four times as many cables.



An integrated compression unit ensures an intrusion-proof seal in each opening after tightening. Roxtec CF 32 is ideally used when

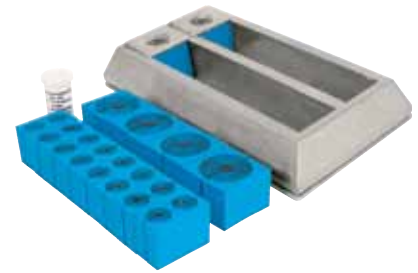
a large number of cables need to be sealed. It can handle up to 60 cables in one penetration and take diameters between 0.138" and 1.280".

Type:	Roxtec CF 32
External dimension:	9.055" x 5.112" x 1.614"
Hole dimension in cabinet:	8.504" x 4.331"±0.020"
Packing space* (mm):	160 x 40 (x2)
Frame material:	Aluminum, PA 6.6, EPDM rubber
Screw material:	Stainless steel
Surface treatment:	Nickel plated
Rating:	UL/NEMA 4, 4x, 12 and 13, CSA 4, 4x, 12 and 13 IP 66/67 according to IEC 60529

\*Packing space is the available space inside each frame for sealing modules and cables/pipes.

- Max thickness of cabinet wall is 0.157" (0.315" without counter frame).
- For information about Roxtec CF 32 in EMC applications, see page 39.

# Roxtec CF 32 kits

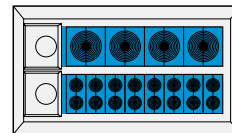


## Complete solutions for your projects

To simplify your order we have put together three Roxtec CF 32 kits with different module configurations. Each version is delivered as a complete sealing kit.

### Roxtec CF 32/20

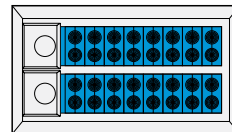
Accommodates up to 20 cables; four with a diameter range from 0.374" to 1.280" and 16 with a diameter range from 0.138" to 0.650".



4 pcs CM 40 10-32  
8 pcs CM 20w40

### Roxtec CF 32/32

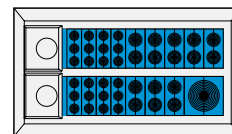
Accommodates up to 32 cables with a diameter range from 0.138" to 0.650".



16 pcs CM 20w40

### Roxtec CF 32/41

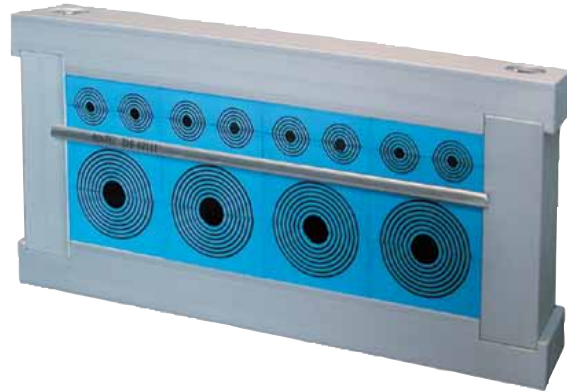
Accommodates up to 41 cables; one with a diameter range from 0.374" to 1.280", 16 with a diameter range from 0.138" to 0.650", and 24 with a diameter range from 0.138" to 0.414".



1 pc CM 40 10-32  
8 pcs CM 20w40  
8 pcs CM 15w40

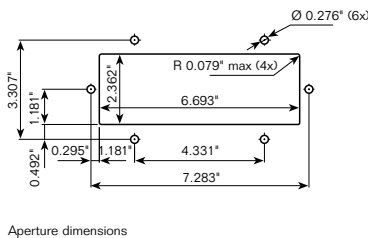
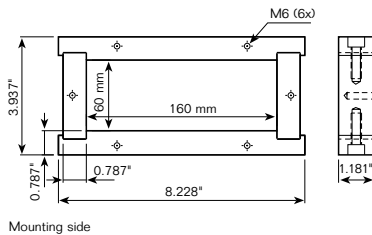
For individual design, use the Roxtec CF 32 packing space grid on page 41.

For technical specifications on CM modules, see page 36.



# Roxtec CF 24 frame

The Roxtec CF 24 is an openable compact frame intended for use in bulkheads and cabinets to minimize the cable inlet area.



The CF 24 is an effective sealing solution. Almost the entire transit area can be used as packing space for cables and sealing modules.

Each transit can accommodate a large amount of cables, creating an efficient use of valuable space and a well-organized cable installation.

Type:	Roxtec CF 24
External dimension:	8.228" x 3.937" x 1.181"
Hole dimension in cabinet:	6.693" x 2.362"
Packing space* (mm):	160 x 60
Frame:	Anodized aluminum (EN AW - 6082)
Gasket:	EPDM rubber, T=2 mm
Screw for mounting*:	MC6S M6x20, acid proof stainless steel
Module:	Roxylon™ rubber
Screw for assembly:	MC6S M8x25, acid proof stainless steel
Stayplate:	Acid proof stainless steel
Rating:	IP 66/67 according to IEC 60529

\* With this screw, maximum thickness of the wall is 0.394"

When the wall is thinner than 0.079" a counter flange is needed (supplied by Roxtec on your request)

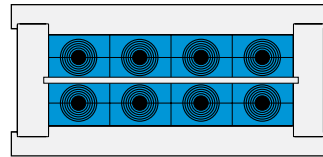
## Roxtec CF 24 kits

### Complete solutions for your projects

To simplify your order we have put together three Roxtec CF 24 kits with different module configurations. Each version is delivered as a complete sealing kit.

#### CF 24/8

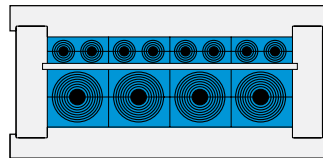
accommodates up to eight cables with a diameter range from 0.394" to 0.984".



8 pcs CM 30w40

#### CF 24/12

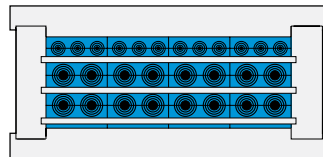
accommodates up to 12 cables; four with a diameter range from 0.374" to 1.280" and eight with a diameter range from 0.138" to 0.650".



4 pcs CM 40 10-32  
4 pcs CM 20w40

#### CF 24/28

accommodates up to 28 cables; 16 with a diameter range from 0.138" to 0.650" and 12 with a diameter range from 0.138" to 0.413".



4 pcs CM 15w40  
8 pcs CM 20w40

■ Kits include lubricant



# Roxtec C RS T seal



The Roxtec C RS T is designed for use as a single cable or pipe seal in thin cabinet walls.

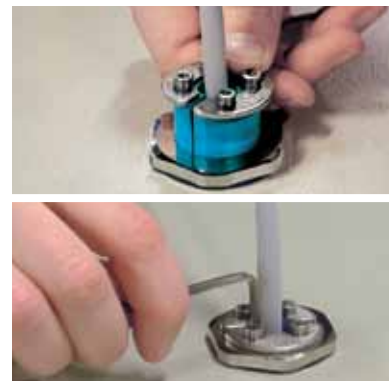
The Roxtec C RS T fits into structures with up to 1.102" thickness and is available in four sizes for

cables or pipes with diameters ranging from 0.142" to 1.181".

Type	Roxtec C RS T
Sleeve and nut	Nickel plated brass
Gasket	EPDM rubber
C RS T seal	Stainless steel AISI 316, EPDM rubber
Rating	UL/NEMA 4, 4x, 12 and 13, IP 66/67 according to IEC 60529

## Fast and easy installation

Insert the threaded sleeve in the hole and fasten it with the lock nut. Adapt the two halves of the C RS T seal to fit the cable or pipe by peeling off layers. The two halves are placed around the cable or pipe and inserted into the sleeve. Finally, the screws on the front fittings are tightened to compress and seal the transit.

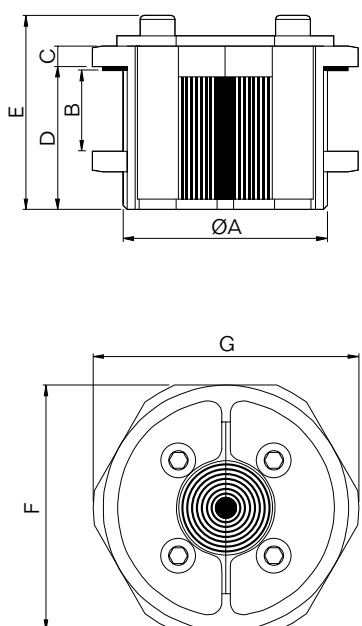




## Roxtec C RS T kits

### Complete solutions for your projects

To simplify your order we have put together four Roxtec C RS T kits with different module configurations. Each version is delivered as a complete sealing kit.



Type:	C RS T 25	C RS T 31	C RS T 43	C RS T 50
Cable range (in):	0.142–0.472	0.157–0.669	0.157–0.906	0.315–1.181
Rec. hole cut Ø (in):	1.260–1.299	1.575–1.614	1.968–2.047	2.480–2.559
Thread:	M32x1.5	M40x1.5	M50x1.5	M63x1.5
A (in):	1.260	1.575	1.969	2.480
B, wall thickness (in):	0.039–0.394	0.039–0.315	0.039–1.102	0.039–1.024
C (in):	0.157	0.197	0.197	0.236
D (in):	0.630	0.591	1.378	1.339
E (in):	0.984	0.984	1.890	1.890
F (in):	1.417	1.811	2.362	2.756
G (in):	1.535	1.968	2.559	3.071

### Kit components

- C RS T seal
- Threaded sleeve, including lock nut
- Gasket
- Lubricant
- Installation instructions



# Roxtec EzEntry™



The Roxtec EzEntry™ is a complete range of light-weight cable entry seals for cabinets and enclosures.

EzEntry™ is designed for easy single-side installation and enables routing of pre-terminated cables. It is certified by UL and available in versions for standard knock-outs. The seals are delivered as kit solu-

tions with an integrated compression unit and adaptable modules.

■ Other configurations than listed are available for all sizes except Roxtec EzEntry™ 4.



Roxtec EzEntry™ 4 mini



Roxtec EzEntry™ 4

## Roxtec EzEntry™ 4 mini and 4

Type:	EzEntry™ 4 mini	EzEntry™ 4
Packing space* (mm):	40 x 40	40 x 40
Frame material:	PA 66 25 % GF	PA 66 25 % GF
Modules:	Roxylon™ rubber	Roxylon™ rubber
Compression unit:	Integrated	Integrated
Rating:	UL/NEMA 12 and 13, IP 55 according to IEC 60529	UL/NEMA 4, 4x, 12 and 13, IP 66/67 according to IEC 60529

\*Packing space is the available space inside each frame for sealing modules and cables/pipes.

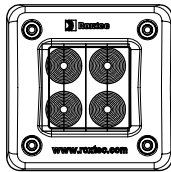
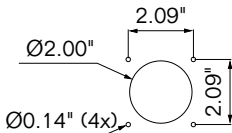
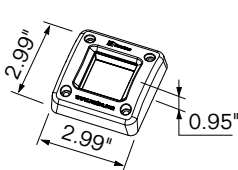
# Roxtec EzEntry™ 4 mini and 4 kits

## Complete solutions for your projects

To simplify your order, we have put together a Roxtec EzEntry™ 4 mini kit as well as a Roxtec EzEntry™ 4 kit. Each version is delivered as a complete sealing kit.

### Roxtec EzEntry™ 4 mini/4

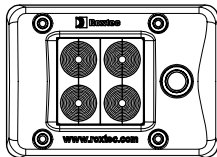
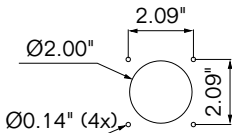
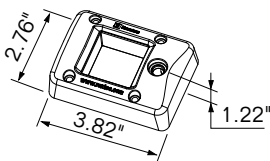
4 cables with a diameter range from 0.138 to 0.650"



2 pcs GM 20w40

### Roxtec EzEntry™ 4/4

4 cables with a diameter range from 0.138 to 0.650"



2 pcs EM 20w40

■ Kits include assembly gel (for EzEntry™ 4 mini) or lubricant (for EzEntry™ 4), screws, and hex keys.

## Roxtec GM and EM modules

Module type	For cable/pipe diameter	External dim. (mm) (H x W x D)
GM 20w40	0+0.138"-0.650"	20x40x15
EM 20w40	0+0.138"-0.650"	20x40x20

# Roxtec EzEntry™ 10

Type:	EzEntry™ 10
Packing space* (mm):	40 x 100
Frame material:	PA 66 25 % GF
Modules:	Roxylon™ rubber
Compression unit:	Integrated
Rating:	UL/NEMA 4, 4x, 12 and 13, IP 66/67 according to IEC 60529



Roxtec EzEntry™ 10

\*Packing space is the available space inside each frame for sealing modules and cables/pipes.

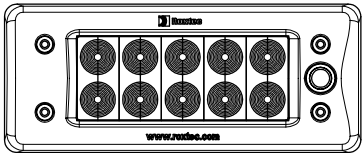
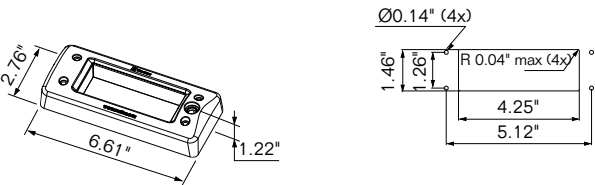
## Roxtec EzEntry™ 10 kit

### Complete solutions for your projects

To simplify your planning and purchasing, we have put together a Roxtec EzEntry™ 10 kit. It is delivered as a complete sealing kit.

### Roxtec EzEntry™ 10/10

10 cables with a diameter range from 0.138 to 0.650".  
Standard multi-pin 24 knock-out.



5 pcs EM 20w40

■ Kit includes lubricant, screws, and hex keys.

### Roxtec EM modules

Module type	For cable/pipe diameter	External dim. (mm) (H x W x D)
EM 20w40	0+0.138"-0.650"	20x40x20

# Roxtec EzEntry™ 16

Type:	EzEntry™ 16
Packing space* (mm):	40 x 160
Frame material:	PA 66 25 % GF
Modules:	Roxylon™ rubber
Compression unit:	Integrated
Rating:	UL/NEMA 4, 4x, 12 and 13, IP 66/67 according to IEC 60529



Roxtec EzEntry™ 16

\*Packing space is the available space inside each frame for sealing modules and cables/pipes.

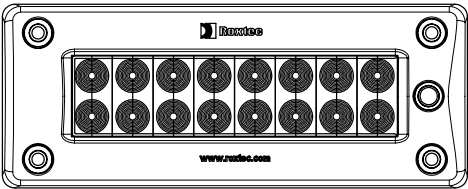
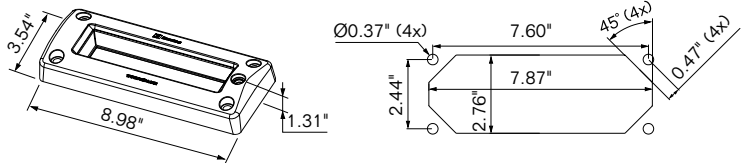
# Roxtec EzEntry™ 16 kit

## Complete solutions for your projects

To simplify your planning and purchasing, we have put together a Roxtec EzEntry™ 16 kit. It is delivered as a complete sealing kit.

## Roxtec EzEntry™ 16/16

16 cables with a diameter range from 0.138 to 0.650"



8 pcs EM 20w40

■ Kit includes lubricant, screws, and hex keys.

## Roxtec EM modules

Module type	For cable/pipe diameter	External dim. (mm) (H x W x D)
EM 20w40	0+0.138"-0.650"	20x40x20

# Roxtec EzEntry™ 24

Type:	EzEntry™ 24
Packing space* (mm):	(40 x 120) x 2
Frame material:	PA 66 25 % GF
Modules:	Roxylon™ rubber
Compression unit:	Integrated
Rating:	UL/NEMA 4, 4x, 12 and 13, IP 66/67 according to IEC 60529



Roxtec EzEntry™ 24

\*Packing space is the available space inside each frame for sealing modules and cables/pipes.

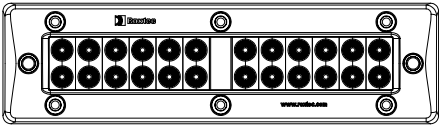
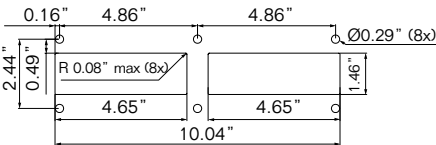
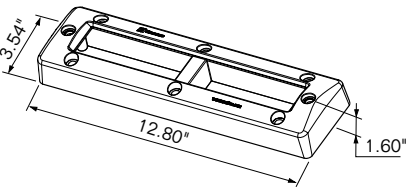
## Roxtec EzEntry™ 24 kit

### Complete solutions for your projects

To simplify your planning and purchasing, we have put together a Roxtec EzEntry™ 24 kit. It is delivered as a complete sealing kit.

### Roxtec EzEntry™ 24/24

24 cables with a diameter range from 0.138 to 0.650"



■ Kit includes lubricant, screws, and hex keys.

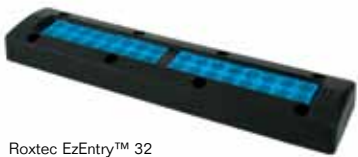
12 pcs CM 20w40

### Roxtec CM modules

Module type	For cable/pipe diameter	External dim. (mm) (H x W x D)
CM 20w40	0+0.138"-0.650"	20x40x30

# Roxtec EzEntry™ 32

Type:	EzEntry™ 32
Packing space* (mm):	(40 x 160) x 2
Frame material:	PA 66 25 % GF
Modules:	Roxylon™ rubber
Compression unit:	Integrated
Rating:	UL/NEMA 4, 4x, 12 and 13, IP 66/67 according to IEC 60529



Roxtec EzEntry™ 32

\*Packing space is the available space inside each frame for sealing modules and cables/pipes.

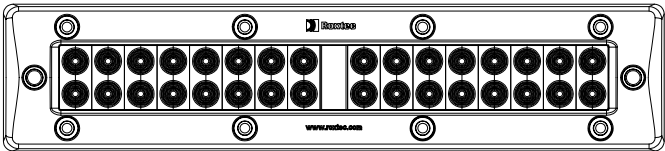
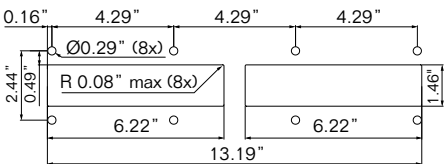
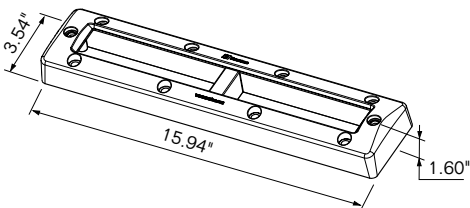
## Roxtec EzEntry™ 32 kit

### Complete solutions for your projects

To simplify your planning and purchasing, we have put together a Roxtec EzEntry™ 32 kit. It is delivered as a complete sealing kit.

### Roxtec EzEntry™ 32/32

32 cables with a diameter range from 0.138 to 0.650"



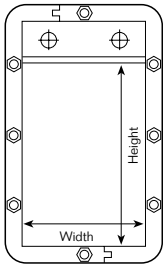
■ Kit includes lubricant, screws, and hex keys.

16 pcs CM 20w40

### Roxtec CM modules

Module type	For cable/pipe diameter	External dim. (mm) (H x W x D)
CM 20w40	0+0.138"-0.650"	20x40x30

# Roxtec KFO and C KFO frames



The KFO frame has been specifically developed for use in light-weight structures, such as sandwich, plexiglass or sheet-metal partitions. It is bolted in place with or without flange.

The KFO frame is a light-weight composite frame suitable for constructions where it is important to keep weight down to a minimum. The frame can be installed around existing cables. It can be supplied with a wide flange for bolting to fragile structures where it is impossible

to make exact holes. The C KFO is a compact version of the frame with a depth of 1.024". It is appropriate for various kinds of enclosures. The Roxtec KFO and C KFO frames are only available in size 6.

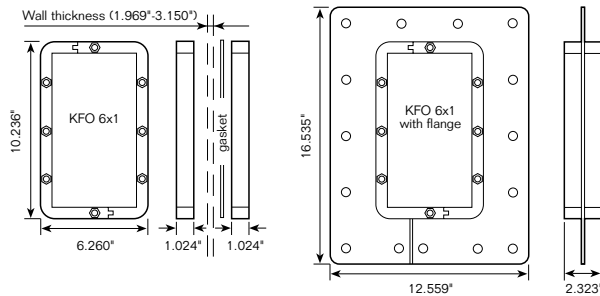
- **Materials:** The frame is made from a composite material (PA 6.6+GF) and the flange is made of plastic (PP). The screws supplied with the frame are made of galvanized steel (8 pcs M8x50, Hexagon socket head cap screw).
- KFO frames are certified for IP 66/67. C KFO frames are certified for IP 55.
- Packing space for all KFO versions: width 120 mm, height 180 mm.

## Dimensions

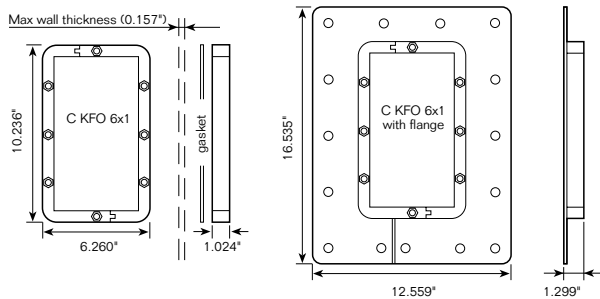
Type	Height	External dimensions (in)		Hole dimension in wall (in)	Inner opening in frame (in)
Width	Depth				
KFO 6x1	10.236	6.260	1.024+1.024+wall	8.780x4.764	8.740x4.724
KFO 6x1 with flange	16.535	12.559	2.323	10.630x6.693±0.157	8.740x4.724
C KFO 6x1	10.236	6.260	1.024+gasket+wall	8.780x4.764	8.740x4.724
C KFO 6x1 with flange	16.535	12.559	1.299	10.630x6.693±0.157	8.740x4.724

- Thickness of wall for the KFO frame without flange is 0.256"±0.06".
- Max thickness of wall for the C KFO frame without flange is 0.236". When wall thickness is less than 0.118" a Roxtec counter frame is required.
- The KFO frames are used together with RM modules and Roxtec Wedge kit.
- The C KFO frames are used together with CM modules and Roxtec C Wedge kit, see page 36.

### Roxtec KFO 6x1



### Roxtec C KFO 6x1 with flange

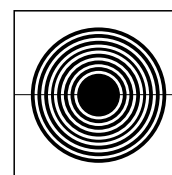
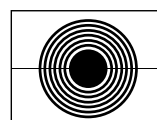
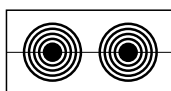
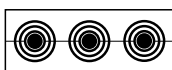


# Roxtec CM modules



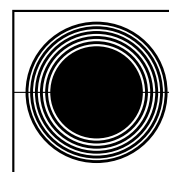
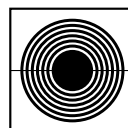
Our CM modules accommodate cables ranging from 0.138" to 1.358". The ES and PE versions give an efficient protection against electromagnetic disturbance.

Module type:	CM 15w40	CM 20w40	CM 30w40	CM 40 10-32
For cable/pipe diameter :	3x0+0.138"-0.413"	2x0+0.138"-0.650"	0+0.394"-0.984"	0+0.374"-1.280"
External dim. (mm) (height x width x depth):	15x40x30	20x40x30	30x40x30	40x40x30



## Additional modules for use with the C KFO

Module type:	CM 30	CM 40
For cable/pipe diameter :	0+0.394"-0.984"	0+0.846"-1.358"
External dim. (mm) (height x width x depth):	30x30x30	40x40x30



## Wedge kit, galvanized for use with C KFO

- The C Wedge kit includes one Roxtec Wedge 120, 6 stayplates, one lubricant and installation instructions.



## Roxtec CM solid compensation modules



Module type:	CM 5w40/0	CM 10w40/0
For cable/pipe diameter (in):	0	0
External dim. (mm) (height x width x depth):	5x40x30	10x40x30

## Roxtec CM ES, CM PE modules



CM 20w40 ES



CM 20w40 PE

Module type:	CM 15w40 ES	CM 20w40 ES	CM 30w40 ES	CM 40 10-32 ES
	CM 15w40 PE	CM 20w40 PE	CM 30w40 PE	CM 40 10-32 PE
For cable/pipe diameter:	3x0+0.138"-0.413"	2x0+0.137"-0.650"	0+0.394"-0.984"	0+0.374"-1.280"
External dim. (mm) (height x width x depth):	15x40x30	20x40x30	30x40x30	40x40x30

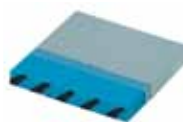
■ Minimum accommodation diameter of the module refers to the minimum cable screen diameter.

■ Maximum accommodation diameter of the module refers to the maximum cable sheath diameter.

## Roxtec solid compensation modules CM ES, CM PE



CM 5w40/0 ES



CM 5w40/0 PE

Module type:	CM 5w40/0 ES	CM 10w40/0 ES
	CM 5w40/0 PE	CM 10w40/0 PE
For cable/pipe diameter (in):	0	0
External dim. (mm) (height x width x depth):	5x40x30	10x40x30

# Roxtec Lubricant

Material: Natural tallow

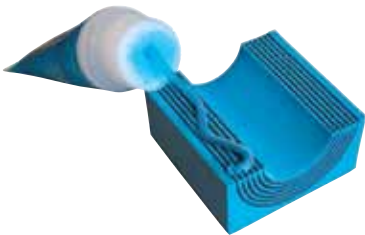
■ Natural tallow is used to lubricate the sealing modules, the Roxtec Wedge and the inside of the frame. This provides even compression and a secure seal.



# Roxtec Assembly Gel

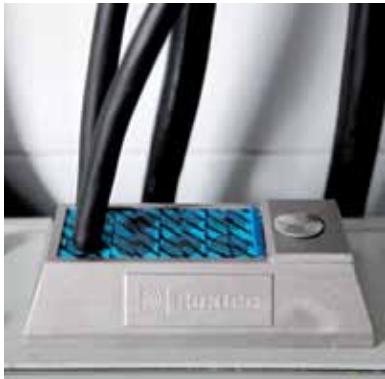
Material: Polyalkylene glycol

■ Roxtec Assembly Gel is intended for Roxtec ComPlus, Roxtec ComSeal™, Roxtec EzEntry™ 4 mini, and Roxtec CRL for easy installation. Secures an even compression and a tight seal.

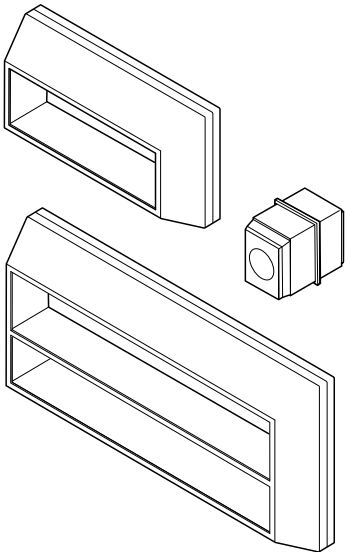


Product:	Lubricant	Roxtec Assembly Gel
Consistency:	Solid fat	Gel
Color:	White	Blue
Working temperature:	-4 °F to + 158 °F	-4 °F to + 158 °F
Handling:	Environmentally compatible and not irritating to skin	Environmentally compatible and not irritating to skin
Packaging:	10 ml or 25 ml cartridge	10 ml sachet or 30 ml tube with applicator

# Frames for EMC applications



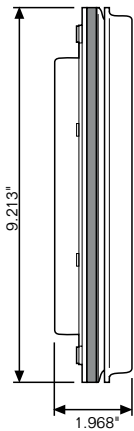
## Roxtec CF 8 EMC and Roxtec CF 32 EMC



■ When using Roxtec CF 8 and Roxtec CF 32 in ES applications, the frame comes together with a separate ES compression unit.  
**Note:** The compression unit is ordered separately.

■ For Roxtec CF 8/32 EMC dimensions, see page 20/22.

## Roxtec CF 16 EMC



Type:	Roxtec CF 16 EMC
External dimension:	9.213" x 3.661" x 1.968"
Hole dimension in cabinet:	7.362" x 2.795"±0.020"
Packing space* (mm):	160 x 40
Frame material:	Powder coated steel, chemically nickel plated aluminum, NBR rubber
Screw material:	Dacromet treated steel
Rating:	NEMA/UL 50 1, 2, 3, 4, 4X, 12 and 13, IEC 60529 for IP 66/67

\*Packing space is the available space inside each frame for sealing modules and cables/pipes.

■ Intended for use with ES or PE modules.

Fill the frame's packing space with CM modules. The diameter of the cables and pipes decides which modules are the most appropriate to use. See diameter range for each module on page 36.

packing space 120x180 mm

[illegible]

### Cables/pipes

[illegible]

(EMC ES, PE also available)

Cable/pipe Ø (in)	Module	HxWxD (mm)
3x0+0.138-0.413	CM 15w40	15x40x30
2x0+0.138-0.650	CM 20w40	20x40x30
0+0.394-0.984	CM 30w40	30x40x30
0+0.374-1.280	CM 40 10-32	40x40x30

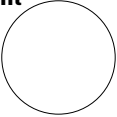
(EMC ES, PE also available)

Cable/pipe Ø (in)	Module	HxWxD (mm)
0+0.394-0.984	CM 30	30x30x30
0+1.102-2.126	CM 60	60x60x30

Module	HxWxD (mm)
CM 5w40/0	5x40x30
CM 10w40/0	10x40x30

**Roxtec CF 8**

packing space 40x80 mm

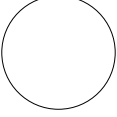
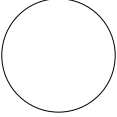
<b>Compression unit</b> 																	

**Roxtec CF 16**

packing space 40x160 mm


**Roxtec CF 32**

packing space 2 times 40x160 mm

<b>Compression unit</b> 																	
<b>Compression unit</b> 																	

Grid size 1 square = 10x10 mm, 0.394"x0.394"

## 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.

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 consequential, punitive, special, exemplary or incidental damages."



Roxtec International AB  
Box 540, 371 23 Karlskrona, SWEDEN  
PHONE +46 455 36 67 00, FAX +46 455 820 12  
EMAIL [info@roxtec.com](mailto:info@roxtec.com), [www.roxtec.com](http://www.roxtec.com)

Roxtec Inc.  
10127 E. Admiral Place, Tulsa, OK 74116, USA  
PHONE +1 800 520 4769, +1 918 254 9872  
FAX +1 918 254 2544  
EMAIL [oem@us.roxtec.com](mailto:oem@us.roxtec.com), [www.roxtec.com](http://www.roxtec.com)