

Telecom

### **Cable Entry Seals**







## Peace of mind

Safety and reliability are crucial qualities for maximized uptime in all types of telecom networks, mobile as well as fixed-line. With Roxtec's entry seals installed you can forget your worries and turn your focus to other important issues.

#### Reliable and efficient

Roxtec's cable entry seals have been designed for maximum customer benefit both in terms of reliable protection as well as simplicity in use. The result is an efficient solution that is easy to use for a wide range of applications where it provides longterm operational reliability.

#### **Getting out of jeopardy**

Certified protection through Roxtec helps to minimize the influence from hazards induced by humidity, rain, dust, sand, electromagnetic disturbance (RFI/EMI) and fire. The capacity of a Roxtec cable entry seal also includes the ability to prevent disturbance to equipment from snakes, bees, rats or other types of vermin.

#### Installer's dream

Thanks to our flexible technology Multidiameter<sup>TM</sup> it is easy to install and seal a whole range of different sizes of cable.



Whenever changes to an installation are needed, it is easy to open up the entry seal to add further cables. Maintenance is performed without disturbance to the uptime of the telecom network.

With both world class safety and operational reliability, thousands of Roxtec customers around the world now consider cable sealing one less concern.

- Longterm durable solution
- Protection including firestop
- Easy installation & maintenance
- Multidiameter<sup>™</sup>

## Fast rollout



#### Fits your project

The cable entry solutions from Roxtec are simple and flexible to install and use in the roll-out of sites. Roxtec frames and sealing modules can be integrated at any time during the site construction. This allows the shelters or buildings to be safely sealed before they are equipped later with cables and electronics. More over, the Roxtec entry seals improve space management.

#### Only one part number

We supply our customers with smart kit solutions, flexible enough to handle a wide variety of cable configurations. The Roxtec kit solutions, with one part number, make planning, purchasing and installation a lot easier. The Roxtec technology Multidiameter<sup>™</sup>, based on adaptable sealing modules, allows capacity for future installations and reduces future maintenance costs.

A kit installation can always be finished on site since the modules themselves compensate for any surprises or last-minute changes. Everyone in the project, from design to maintenance, will benefit.

# Sites are always upgraded







### Easy to add equipment and more operators

Sooner or later any telecom equipment and its cables will get changed, added or removed. A constant development of new technology and the addition of more operators to shared sites, means challenges through new needs. Roxtec provides a smart way for the future.

#### **Built-in spare capacity**

Whenever more cables or pipes need to be installed in the future, our unique sealing technology is ready. Multidiameter™, based on modules with removable layers, allows any previously unused seal in a frame to be adapted to fit the new cables or pipes. The amount of spare capacity can be decided from the start, allowing additional cables and pipes later at no additional cost.

- Full uptime during service
- Easy to open and close
- Handles a wide range of cables

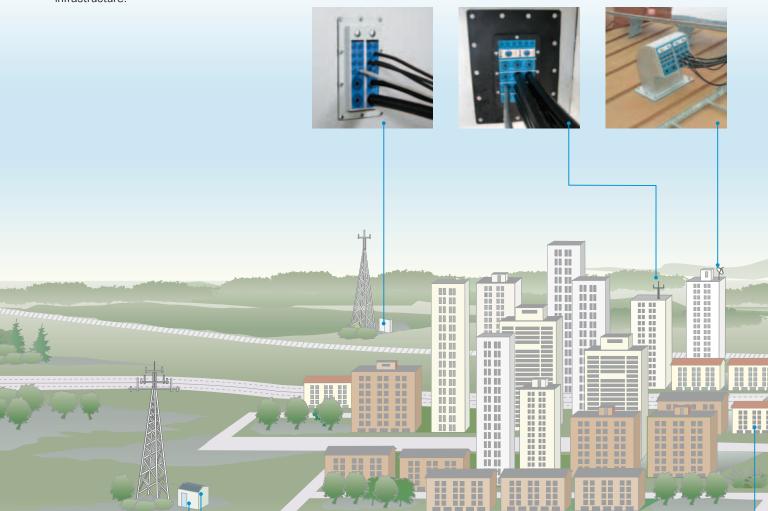
## Roxtec for maximum uptime in your networks

Shown here are examples of applications where Roxtec adds value and helps protect telecom infrastructure.

Outdoor cabinet: Sealing of cables passing from outside to inside of a cabinet.

**Roof top site:** Cable seal through the outer wall of the building for antenna cables.

Radio link: Roof-top cable seal handling antenna cables through the roof construction.







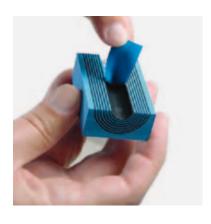
Base station shelter: Round sealing solution for openings in port hole plates.



Communication centers: Sealing fiber optics and cables in floors and outer walls.

Railway: Sealing of cables for GSM-R through floor and wall of Switch station: Cable Buildings: Feeding seals through floors and walls in the switch station. of single cables into buildings. FTTH: Conduits for fiber Cabinets: Cable entry Manhole: Sealing of power cables in vaults below ground. optics sealed in the founsolution to seal cables in dation of network shelter. outdoor cabinets.

# A truly flexible system



#### Multidiameter™

The smart adaptability of the technology makes installation of cables and pipes easy and safe. Each Roxtec seal has removable layers that enable a perfect fit to different dimensions of cable or pipe. Just peel a few layers and the seal fits the desired size of a cable or pipe.



#### **Space management**

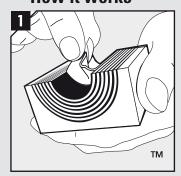
Thanks to the design and the modular build of a Roxtec entry seal, cables become neatly organized as they pass through the opening. A small but proper distance between each cable creates high area efficiency. It also allows for a good overview and easy maintenance.



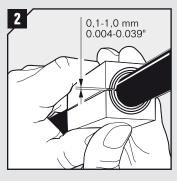
#### **Easy retrofit**

More and more coax cables need to run into shelters and cabinets. Roxtec retrofit frame solutions replace the traditional cable seals, such as port panels. The advantage is you can run two to three times as many cables through an existing opening without ever having to shut the system down.

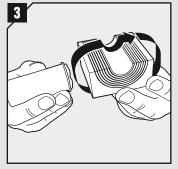
#### How it works



Adapt the modules to fit cables or pipes by peeling layers until you reach the gap seen in pic. 2.



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



Lubricate all modules for the frame thoroughly, both the inside and the outside surfaces.



Insert the modules according to your installation plan (transit plan). Usually start with the largest modules.





### Both mobile and fixed-line telecom

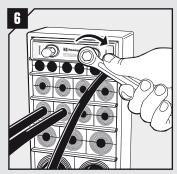
A benefit with Roxtec is that it is just as easy to use in mobile networks as in fixed-line systems. Regardless of the need for fast roll-out in mobile applications, or safety in vaults and buildings, Roxtec provides outstanding reliability everywhere.

#### **Cables and fibers**

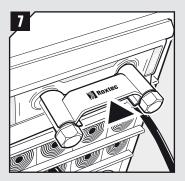
In terms of routed items Roxtec handles traditional cables and feeders just as well as new technologies, including fiber optics. This provides further benefits, when old and new solutions often need to be installed side by side.



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



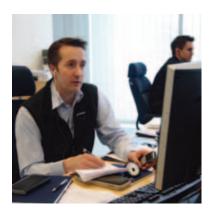
Insert the Wedge and tighten the screws until full stop, approx 20 Nm (15 ft.lb.).



Attach the Wedge Clip to the wedge bolts to check that the wedge has been properly tightened.

Basic steps in the assembly of a modular-based Roxtec sealing solution. (Extract from the original assembly instruction).

# We support you globally



### Local support for your site team

Roxtec is much more than a supplier. Our sales and support staff around the world play an active role in helping customers find their optimum solution. Our knowledge, acquired through many years of work in the field, means we can guide you to solutions that suit your needs and applications.

#### Talk to our technicians

Our extensive R&D resources with inhouse design departments, fire test lab and a technical center, enable us to continuously develop and improve solutions for our customers. A good example is the RTM Software, developed to simplify the design and planning of cable and pipe transits.

#### We help ensure quality

People often come and go in telecom projects during the



installation phase. Thanks to the support and documentation provided by Roxtec it is easy to make the transfer of knowledge to the installers on site to ensure a high level of quality assurance.

#### **Installation training**

Whenever desired we also provide product installation training through our sales staff and technicians. We are there to support and train you on site.

#### **Website for installers**

In the Installer's Section of our global website we have collected useful information designed for staff involved in assembly and installation of the Roxtec sealing system. Instructions and videos can be viewed online or downloaded for free.

# The world's most available modular seal

Roxtec solutions are available worldwide through our network of local suppliers. This means fast deliveries from local stocks in more than 70 markets. It also means direct support from local staff on site.



#### Among our Telecom customers you find:

Aircell, AT&T, Bharti, China Mobile, China Telecom, Dishnet, Ericsson, Ghana Telecom, GrameenPhone Ltd, Huawei, Hutchison, Idea, Mobinil, Motorola, Nokia Siemens Networks, Orange, Reliance, Sprint/Nextel, TATA Indicomm, Tele2, Telecom Italia Mobile TIM, Telefonica, Telenor, Telia Sonera, T-Mobile, VimpelCom, VIVO, Vodafone.