Applications:

<table>
<thead>
<tr>
<th>Electrical</th>
<th>Mechanical</th>
<th>Instrumentation and Controls</th>
<th>Communications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable Trenches/ Pull Boxes</td>
<td>Cabinets/ Enclosures</td>
<td>Control House’s/ PDC’s</td>
<td>Manholes/ Vaults</td>
</tr>
<tr>
<td>Conduit Seals/ Duct Banks</td>
<td>SCADA/ Telecom</td>
<td>We Seal Your World™</td>
<td></td>
</tr>
</tbody>
</table>
Protect Your Equipment with Roxtec

The Roxtec Sealing System seals cable and pipe entries from:
- Water
- Rodents/Pests
- Fire
- Electromagnetic Interference
- Hazardous gas
- Dust
- Lightning

Features:
- Retrofit around existing cables or pipes
- Corrosion resistant
- Adapts to cables and pipes of different sizes
- Pull-out tested
- Customized solutions
- Certified protection
- Lowest total cost of ownership
- Long term operational reliability
- Low maintenance
Engineered Solutions for Safety and Protection

What is a Cable and Pipe Transit?

Ensure life safety and protection of assets with a cable and pipe transit system. Cable and pipe transits provide an area efficient pass through for multiple cables and pipes running through walls, floors, cabinets/enclosures, conduits and duct banks.

Roxtec cable and pipe transit systems seal cable and pipe entries from water, fire, rodents/pests, hazardous gases, dust, humidity, electromagnetic interference and other environmental hazards. Roxtec also provides a very flexible system for future needs where cables and pipes can be added or removed as needed.

### Things to Consider When Choosing a Cable Seal

- Do you require water ingress protection?
- Is there a need to keep dust out?
- Do you need protection for a certified hazardous location?
- Do you need to keep rodents/pests out?
- Do you need to seal a range of cable and pipes?
- Do you have blast rated areas or buildings?
- Do you need vapor or gas tight protection?
- Will you need to install cables in wet or high relative humidity conditions?
- Is cable retention an issue?
- Do you need to protect people and assets from smoke and fire?
- If using armored cables, is there a need for bonding and grounding?
- Do you have frequent cable changes?
- Do you need flexibility for changing cable schedules?
- Is there a need for EMI protection?

### Applications:

- Conduit seals/Duct banks
- Junction boxes
- Railway passenger stations
- E-houses
- Switchgear
- Heat trace cabinets
- Elevated rail aerial decks
- Marshalling cabinets
- Hazardous locations
- Power distribution vaults
- Power distribution panels
- Railway trackside equipment
- Communication shelters
- Control rooms
- Terminal boxes
- Cable trenches/Pull boxes
- SCADA
- Mining Ventilation Doors
- Underground manholes/vaults/substations/communications

### Industries:

- Power Generation
- Power T&D
- Railway
- Oil and Gas
- Mining
- Cleanrooms
- Datacenters
- Wastewater treatment
- Commercial buildings
- Airports
- Nuclear
- Telecom
- Manufacturing
- Food and beverage
- Marine
- Offshore Oil and Gas
Cabinets/Enclosures

The Roxtec Cabinet Sealing System seals more cables with less cabinet. Replace cable glands with Roxtec to maximize the number of cables going into your cabinet and only cut one hole. Seal armored cables with the Roxtec BG™ system for bonding and grounding. Multiple sizes and materials available.

- Marshalling and heat trace cabinets, junction boxes
- More cables less cabinet
- Watertight
- Rodent/pest barrier
- Openable frames for sealing around existing cables
- Re-openable to make changes easily
- Long-term operational reliability
- Flexible and adaptable for various cable sizes

To achieve a complete seal, all of the Roxtec components must be installed.

<table>
<thead>
<tr>
<th>Cabinet Seal Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation: New &amp; Retrofit</td>
</tr>
<tr>
<td>■ Bolted</td>
</tr>
<tr>
<td>Available Material:</td>
</tr>
<tr>
<td>■ Nickle plated brass</td>
</tr>
<tr>
<td>■ Stainless steel</td>
</tr>
<tr>
<td>■ Powder coated steel</td>
</tr>
<tr>
<td>■ Aluminum</td>
</tr>
<tr>
<td>Tested:</td>
</tr>
<tr>
<td>■ UL/NEMA 4,4x,12,13</td>
</tr>
<tr>
<td>■ IP 66/67</td>
</tr>
<tr>
<td>■ Hazardous Locations</td>
</tr>
</tbody>
</table>

*Certificates and test reports available upon request.

More Cables... Less Cabinet

Cable Glands

Roxtect Cabinet Seal

30 Terminated 1/2" cables Size 6 Enclosure
32 Terminated 1/2" cables Size 3 Enclosure
Control Houses/PDC’s

The Roxtec Sealing System for wall, floor and roof top cable penetrations provides a complete environmental seal against the elements. The G Frame provides a clean pass-through for large and small cables and provides spare capacity for future cable changes.

- Watertight
- Rodent/pest barrier
- Humidity protection
- Openable frames for sealing around existing cables
- Low maintenance
- Re-openable to make changes easily
- Long-term operational reliability
- Flexible and adaptable for various cable sizes

To achieve a complete seal, all of the Roxtec components must be installed.

Roxtec G Frame

<table>
<thead>
<tr>
<th>Installation: New &amp; Retrofit</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Bolted</td>
</tr>
<tr>
<td>• Cast</td>
</tr>
</tbody>
</table>

Available Material:

| • Primed mild steel (un-painted) |
| • Galvanized steel              |
| • Stainless steel               |

Tested:

| • Watertight - 58 PSI            |
| • Fire - UL1479                  |
| • Rodent/Pests                   |

*Certificates and test reports available upon request.*
Cable Trenches/Pull Boxes

Keep water and rodents out of your building with the Roxtec cable sealing system. The Roxtec G frame provides a clean pass-through for large and small cables and provides spare capacity for future cable changes.

- Watertight
- Rodent/pest barrier
- Humidity protection
- Openable frames for sealing around existing cables

- Re-openable to make changes easily
- Long-term operational reliability
- Flexible and adaptable for various cable sizes

To achieve a complete seal, all of the Roxtec components must be installed.

<table>
<thead>
<tr>
<th>Roxtec G Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation: New &amp; Retrofit</td>
</tr>
<tr>
<td>■ Bolted</td>
</tr>
<tr>
<td>■ Cast</td>
</tr>
<tr>
<td>Available Material:</td>
</tr>
<tr>
<td>■ Primed mild steel (unpainted)</td>
</tr>
<tr>
<td>■ Galvanized steel</td>
</tr>
<tr>
<td>■ Stainless steel</td>
</tr>
<tr>
<td>Tested:</td>
</tr>
<tr>
<td>■ Watertight - 58 PSI</td>
</tr>
<tr>
<td>■ Fire - UL1479</td>
</tr>
<tr>
<td>■ Rodent/Pests</td>
</tr>
</tbody>
</table>

*Certificates and test reports available upon request.*
Conduit Seals/Duct Banks/Vaults

Protect conduits, duct banks and vaults from water and rodents with the Roxtec Sealing System. Keep water from backing up into the building and stop rodents and pests from entering through open holes. Single and multiple cable runs can be sealed with our selection of round frames.

- Watertight
- Rodent/pest barrier
- Humidity protection
- Openable frames for sealing around existing cables
- Re-openable to make changes easily
- Long-term operational reliability
- Flexible and adaptable for various cable sizes

Protect conduits, duct banks and vaults from water and rodents with the Roxtec Sealing System. Keep water from backing up into the building and stop rodents and pests from entering through open holes. Single and multiple cable runs can be sealed with our selection of round frames.

- Watertight
- Rodent/pest barrier
- Humidity protection
- Openable frames for sealing around existing cables
- Re-openable to make changes easily
- Long-term operational reliability
- Flexible and adaptable for various cable sizes

Roxtec Round Seals

Tested:
- Watertight - 58 PSI
- Fire - UL1479
- Rodent/Pests

Available Material:
- Galvanized steel fittings
- Stainless steel fittings

Installation: New & Retrofit
- Plug conduits and duct banks

To achieve a complete seal, all of the Roxtec components must be installed.
SCADA/Telecom

Replace traditional cable boots with Roxtec’s CRL Port Seal. The CRL provides increased line capacity to maxed-out entry ports without modifying the existing shelter or entry port. Each sealing module has removable layers that can accommodate various sizes of fiber, power and coax cables.

- Watertight
- Rodent/pest barrier
- Openable frames for sealing around existing cables
- Re-openable to make changes easily
- No need to cut additional holes in shelter
- Flexible and adaptable for various cable sizes
- Increased line capacity

To achieve a complete seal, all of the Roxtec components must be installed.

Roxtec CRL Port Seal

<table>
<thead>
<tr>
<th>Installation: New &amp; Retrofit</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Expansion frame</td>
</tr>
</tbody>
</table>

Available Material:

- Plastic (Polyamide) - 4”
- Primed Mild Steel - 5”

Tested:

- ■ IP 54

*Certificates and test reports available upon request.
Armored Cables

Seal armored and metal clad cables in the least amount of space with the Roxtec BG™ (Bonding & Grounding) sealing system. Ensure electrical safety and life safety where armored cables run through walls, floors, and cabinets/enclosures. Reduce costs, installation and design time.

- Reduced cabinet area by 70% compared to glands
- Faster installation time compared to glands
- Bonding and grounding protection
- Armor and metal clad cables
- Fire and blast rated, gas and watertight
- Approved for hazardous locations (Ex)
- Lightning protection
- Flexible and adaptable for various cable sizes

To achieve a complete seal, all of the Roxtec components must be installed.

Certified for Class 1, Zone 1 & 2 - Class 1, Division 2 (not division 1 enclosures)

Roxtec BG™

Installation: New & Retrofit
- Bolted
- Cast (G Frame)

Available Material:
- Primed mild steel (un-painted)
- Galvanized steel
- Stainless steel
- Cast aluminum (CF32)

Tested:
- UL/NEMA 4,4x,12,13
- IP 66/67
- AEx, IECEx, ATEX

*Certificates and test reports available upon request.
EMC Protection

Protect communication equipment such as SCADA cabinets, SCIFs and EMC enclosures from electromagnetic interference and electromagnetic pulses with the Roxtec EMC Sealing solutions.

- Complete electrically sealed environment
- Electromagnetic interference protection
- Electromagnetic pulse protection
- Watertight

- Rodent/pest barrier
- Re-openable to make changes easily
- Long-term operational reliability
- Flexible and adaptable for various cable sizes

<table>
<thead>
<tr>
<th>Roxtec EMC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation: New &amp; Retrofit</td>
</tr>
<tr>
<td>- Bolted</td>
</tr>
<tr>
<td>- Cast (G Frame)</td>
</tr>
<tr>
<td>Available Material:</td>
</tr>
<tr>
<td>- Primed mild steel (un-painted)</td>
</tr>
<tr>
<td>- Galvanized steel</td>
</tr>
<tr>
<td>- Stainless steel</td>
</tr>
<tr>
<td>- Cast aluminum (CF32)</td>
</tr>
<tr>
<td>Tested:</td>
</tr>
<tr>
<td>- UL/NEMA 4,4x,12,13</td>
</tr>
<tr>
<td>- IP 66/67</td>
</tr>
</tbody>
</table>

To achieve a complete seal, all of the Roxtec components must be installed.
EX/ATEX - Hazardous Locations

Protect lives and assets in hazardous locations or potential explosive atmospheres with Roxtec’s EX product family. Our cable and pipe sealing systems are approved for hazardous locations and are clearly marked in accordance with international directives. They are easily identified by the yellow Ex label.

- Fire and blast rated, gas and watertight
- Approved for hazardous locations (Ex)
- Flexible and adaptable for various cable sizes
- Easily identified for inspection
- CSA approval
- IECEx/ATEX
- Walls and Floors
- Cabinets and enclosures

To achieve a complete seal, all of the Roxtec components must be installed.
*Certified for Class 1, Zone 1 & 2 - Class 1, Division 2 (not division 1 enclosures)

Approved for hazardous areas

<table>
<thead>
<tr>
<th>Class/Zone/Division</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone 1 (gases)</td>
<td>A place in which an explosive atmosphere consisting of a mixture with air of dangerous substances in the form of gas, vapour or mist is likely to occur in normal operation between 10-1000 hrs per year.</td>
</tr>
<tr>
<td>Zone 21 (dust)</td>
<td>A place in which an explosive atmosphere in the form of a cloud of combustible dust in air is likely to occur in normal operation between 10-1000 hrs per year.</td>
</tr>
<tr>
<td>Zone 2 (gases)</td>
<td>A place in which an explosive atmosphere consisting of a mixture with air of dangerous substances in the form of gas, vapour or mist is not likely to occur in normal operation but, if it does occur, will persist for less than 10 hrs per year.</td>
</tr>
<tr>
<td>Zone 22 (dust)</td>
<td>A place in which an explosive atmosphere in the form of a cloud of combustible dust in air is not likely to occur in normal operation but, if it does occur, will persist for less than 10hrs per year.</td>
</tr>
</tbody>
</table>

Roxtec Ex

Installation: New & Retrofit
- Bolted
- Welded
- Cast

Available Material:
- Primed mild steel (un-painted)
- Stainless steel

Tested:
- IECEx
- ATEX
- CSA

*Certificates and test reports available upon request.
Pipe Seals

Roxtec round sealing solutions can be used for plastic pipes, metal pipes and conduits of various sizes. Provide protection for above ground and underground pipes running through walls and floors. Protect against water ingress, fire, rodents/pests, hazardous gases and other environmental hazards.

- Watertight
- Rodent/pest barrier
- Openable frames for sealing around existing pipes
- Firestop
- Long-term operational reliability
- Flexible and adaptable for various pipe sizes
- Re-openable to make changes easily
- Low maintenance

To achieve a complete seal, all of the Roxtec components must be installed.

Roxtec RS Seal

<table>
<thead>
<tr>
<th>Installation: New &amp; Retrofit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expansion frame</td>
</tr>
<tr>
<td>Sleeves available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Available Material:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Galvanized steel</td>
</tr>
<tr>
<td>Stainless steel</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Tested:</th>
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<tbody>
<tr>
<td>Watertight - 58 PSI</td>
</tr>
<tr>
<td>Fire - UL1479</td>
</tr>
<tr>
<td>Rodent/Pests</td>
</tr>
</tbody>
</table>

*Certificates and test reports available upon request.
Easy Installation With Roxtec

Installation Training and Tools

High safety standards require correctly installed and easily inspected products. On-site installation training for local contractors and post-installation inspection are part of our full line of service.

In addition to our on-site training we have developed a range of installation tools to simplify quick and safe on-site installations and reinstallations of Roxtec systems.

- Reduce installation time and labor costs
- Ensure quality installation
- Engineered for Roxtec products
- Online instruction videos available

Basic steps in the assembly of a modular-based Roxtec sealing solution

1. Adapt modules, which are to hold cables or pipes, by peeling off layers until you reach the gap seen in pic. 2. The halves may not differ by more than one layer.

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

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

4. Insert the modules according to your installation plan (transit plan). It is recommended to seal cables/pipes at the bottom of the frame and put spare modules on top.

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

6. Insert the Roxtec Wedge and tighten the screws until full stop.

7. Attach the Wedge Clip to the wedge bolts to check that the wedge is properly tightened.
Customers and project references: