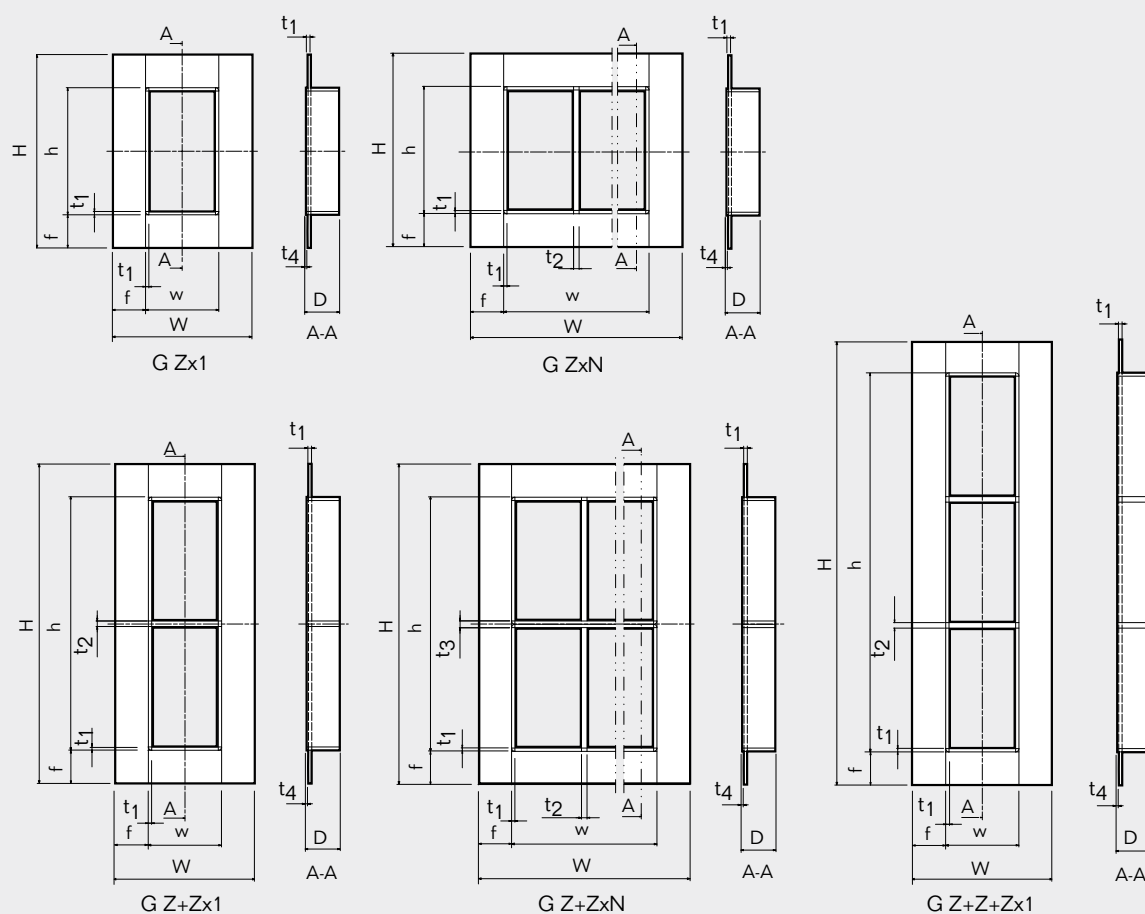


G frame, technical information



Pos	(mm)	(in)
h	H - 120	H - 4.724
w	W - 120	W - 4.724
D	60	2.362
f	60	2.362
t1	6	0.263
t2	10	0.394
t3	12	0.394
t4	3	0.118

Z = Frame size
N = Number of horizontal openings

Note: All dimensions are nominal values

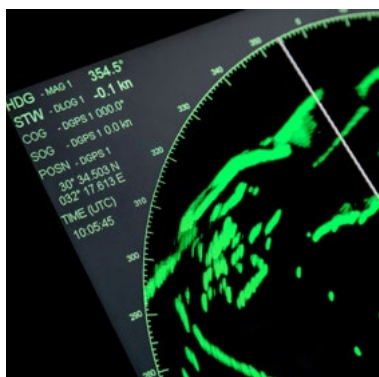


EMC SEALING SYSTEM



Electromagnetic compatibility

The use of sophisticated equipment onboard vessels has increased and resulted in an extensive need for protection against electromagnetic interference (EMI).



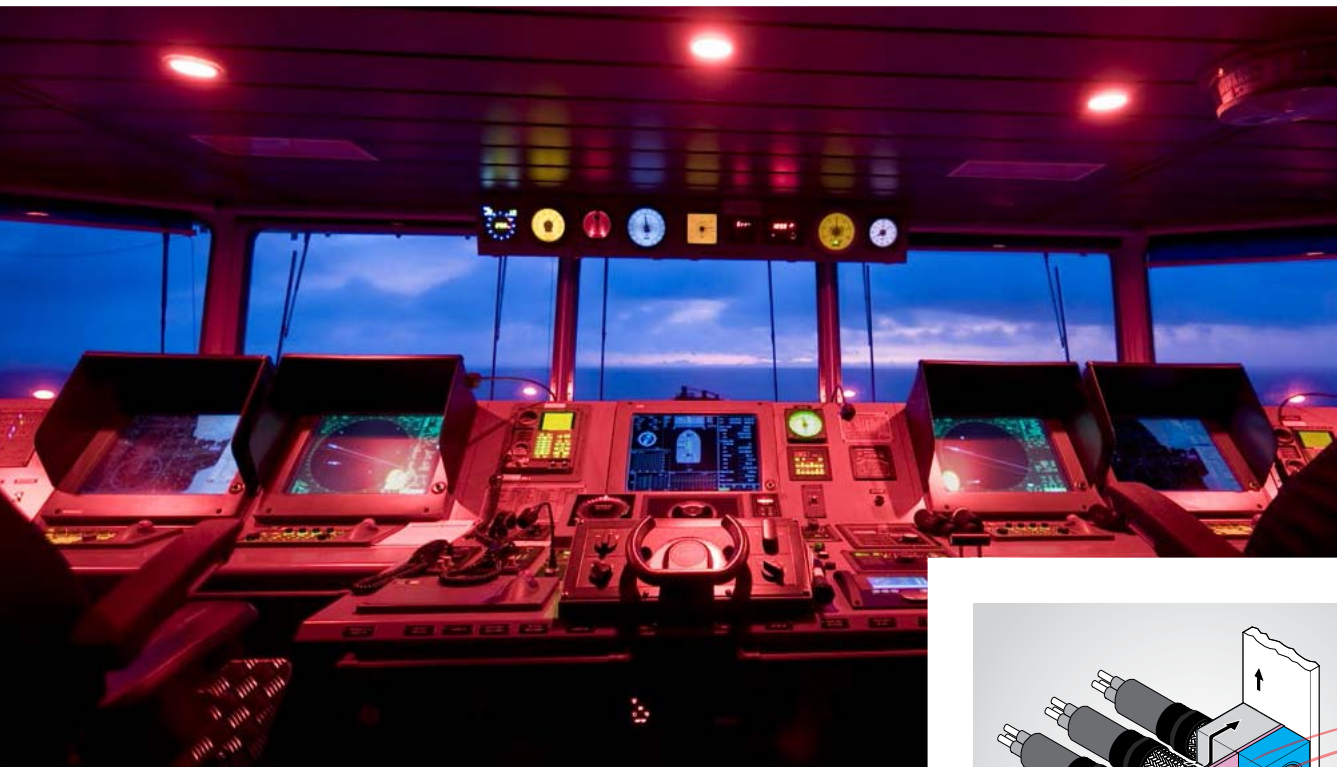
The impact from EMI can be difficult to foresee and can range from harmless symptoms to a severe issue arising from an initial exposure inside a control or safety system. EMI sources capable of causing such issues or levels of disturbance may be unpredictable and also numerous in the many routes they take. Therefore, EMC is a two-way thinking process. You have to make sure your equipment is not directly affected or impaired by various sources of EMI, and also make sure it operates effectively in its intended environment without becoming the disturbing

source of EMI for other technologies or equipment.

Combined protection

The Roxtec EMC product range for EMI protection can combine this with protection against fire, smoke, water, gas, explosion, vibration, dust and dirt. Every cable penetration has its own unique set of risk priorities in respect of its protection requirements. Even when EMC is the core concern, other levels of required protection are not compromised as a result of mitigating the EMI risk.

On a ship, where it is a great concern to ensure personal safety and protect large financial investments, owners can feel safe in the knowledge that the Roxtec EMC product range is performing multiple risk prevention functions at the same time.



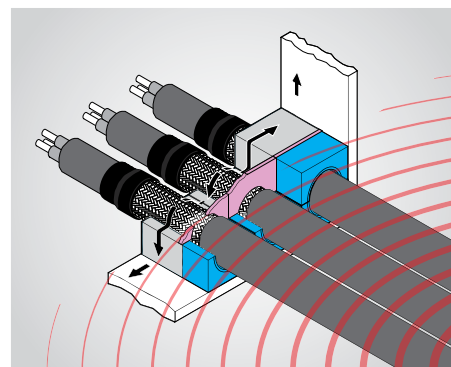
Electromagnetic threats

There are natural phenomena such as lightning strikes, but also predictable causes of interference from radar, wireless communication systems and side effects from switching devices or technical systems such as propulsion systems. Intentional electromagnetic interference and high power microwave (HPM) technology have also become threats that generate a great deal of concern. Electromagnetic disturbances have many different origins, but only two forms of travel. They are either conducted along a metallic object or propagate through air. It is also possible that one single source generates both forms of disturbance.

Increased EMI exposure

Marine vessels have miles of cables running through their whole structure. With advances in technology generating more and more sophisticated ships, the volumes and variations of different types of cables onboard are also growing.

A material that can conduct electricity can also transport unwanted signals. The armor in an armored cable can pick up and carry signals throughout its whole length and cause interference in a system far away from the original source. This means that normal working environments can generate EMI exposure and this risk is important for designers, engineers and owners to consider.



Required features

In order to eliminate such risks and achieve electromagnetic compatibility, ground connections must be as short as possible and have large contact areas exposed to its mating surface. With flat and wide conductors (tin-plated copper tape or braid) and barriers embedded inside the sealing module, the Roxtec EMC solutions ensure the very best properties over the full frequency spectra.



Plan for EMC to reduce risk and cost

Bonding and grounding solutions for electrical safety requirements such as protective earthing, equipotential bonding and lightning protection cannot be managed independently without considering EMC aspects. Including EMC into the initial electrical design is a way to avoid impairing or compromising the performance of any EMC solution by having to add it at a later stage. Malfunction of systems due to EMI can cause severe operational difficulties and trying to identify EMC problems and track the cause after the event is a difficult process. Predefining electromagnetic zones is a help to decide for a specific penetration where earthing is sufficient or where full electromagnetic shielding is required. A stage by stage approach to identify EMI requirements will enable a cumulative view in identifying the applicable solutions required along the route of the cable.

Only as strong as the weakest link

Roxtec EMI solutions are capable of managing a tight and compressed fit against both sides of a stripped braided armored cable. If not, one half of the cable security would be compromised. A strong and consistent connection to the cable armor is one of the keys for maximizing the EMI protection. With Multidiameter™, upfront knowledge of the exact dimension of each cable is not that important as the Roxtec BG/EMC products are separately adaptable to obtain the correct fit for both the outer sheet of the cable and the armor/shield. Roxtec products also support best practice EMI protection principles by providing a single entry and by having the earth path integrated within the cable entry. The use of combination frames with several openings simplifies the issue of cable segregation in order to avoid cable to cable interference.

Bonding and grounding for EMC

Cable armor, shields or screens all need to be connected to earth, but traditional earthing methods may be ineffective as earth paths for higher frequencies. Flattened braids are commonly used to resolve this problem by combining large copper masses in a flat form to deliver better high frequency properties than a circular conductor.

Embedded braid

The Roxtec BG B/BG solution addresses this issue by having a braid embedded in the seal. It is fitted at the point of cable entry and surrounded by the solid metal frame. Applying such methods for all earthing needs ensures that total EMC requirements are met.

The robust, but still flexible design of the Roxtec solution

- works very well with rigid and irregular cable armor
- withstands high currents if a fault occurs within the system
- withstands surges from lightning strikes
- is an effective protection against conducted interference.

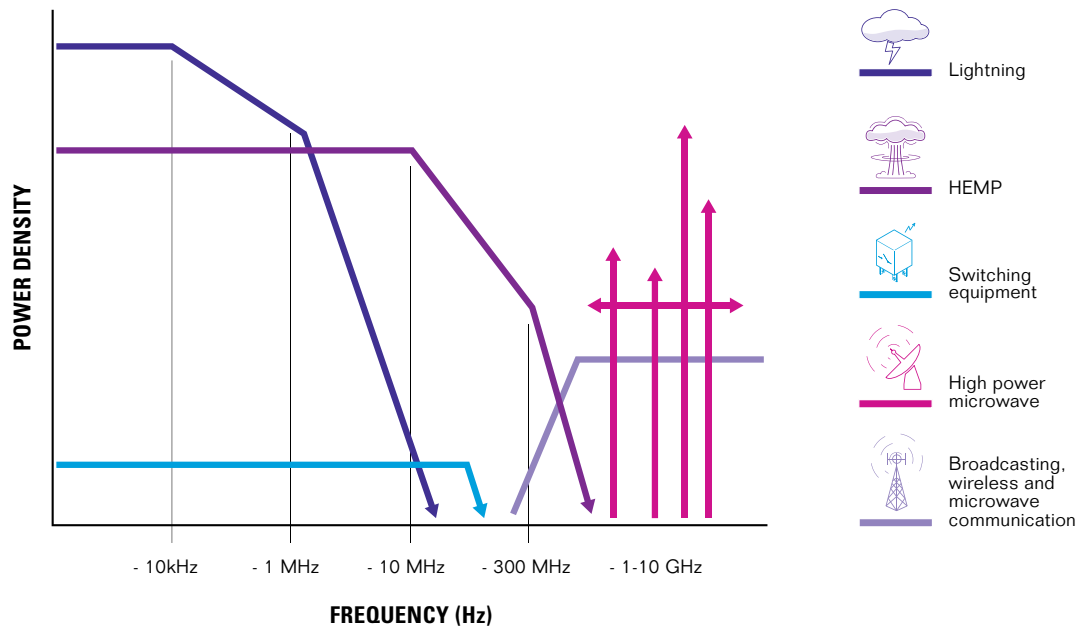
Electromagnetic shielding

To prevent very high frequencies from disturbing equipment, electromagnetically sealed enclosures and compartments are used. All cables going in or out from them have to be shielded and connected to earth, and cables with tight shields are required to protect inner conductors from interfering signals. In addition, the gaps between each cable have to

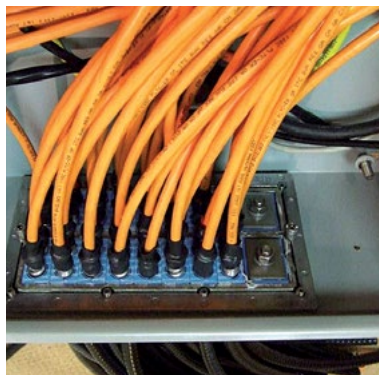
be electromagnetically sealed so the cable entry solution operates as an extension of the conductive wall. This prevents conducted and radiated electromagnetic signals from penetrating the enclosure wall.

The Roxtec ES B/ES solutions achieve this by having a barrier in each module sealing the gaps between the cable shield and the frame, or via the adjacent modules. The seals are tested to a minimum of 18GHz to prove the shielding effectiveness. Transfer impedance from cable shield to frame is also measured up to 30MHz.

Electromagnetic threats



Typical EMC application areas



Terminal and junction boxes

By using the compact versions of Roxtec EMC solutions, you can easily ensure area efficiency and electromagnetic compatibility in connections points all over the ship.



Control cabinets

Roxtec compact EMC seals shield and protect. They also allow the use of pre-terminated cables and provide built-in spare capacity for future modifications.



Communication area

RFI-shielded EMC solutions from Roxtec provide EMI protection for sensitive equipment as well as protection against fire, gas, smoke, water and vibration.



Motors, converters and switchgear

Ensure continuous operation with Roxtec EMC solutions for frequency converters, remote I/O and other disturbing or sensitive equipment, and combine IP ratings with protection against electromagnetic threats.



Outdoor deck area

Roxtec EMC solutions can be used in corrosive environments to ensure both environmental and EMI protection – a safe way to secure antennas and functionality in case of lightning strikes.

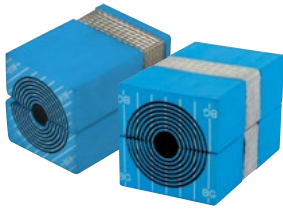


Bulkhead, deck and floor penetrations

Roxtec provides frames with rounded corners to reduce stress in bulkheads. This transit combines electromagnetic shielding with certified protection against fire, smoke and water.

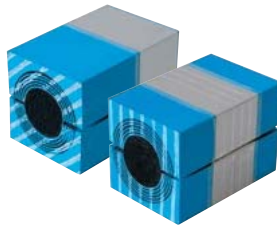
Roxtec modules for EMC

Roxtec full length modules are available for both single- and double-sided environmental protection while the shorter modules are available for single-sided environmental protection.



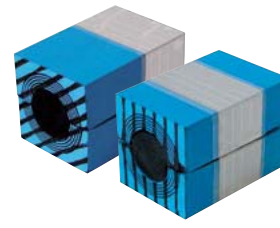
Roxtec BG B™/BG™

The BG B/BG product family is designed for bonding and grounding of armored and shielded cables. By design it also protects against conducted interference. The tin-plated copper braid shapes perfectly to the irregularities of the metallic armor and provides substantial copper mass to withstand high fault currents or surges from for example lightning strikes.



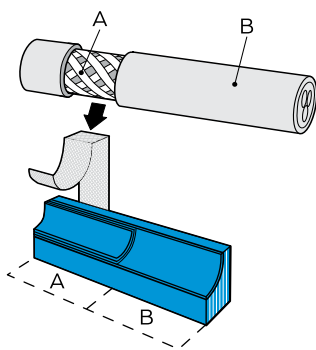
Roxtec ES B/ES

The ES B/ES product family is designed for shielded or screened cables where electromagnetic shielding is required in the cable entry. The low-impedance path from cable screen to earth eliminates conducted interference and provides at the same time a conductive barrier that efficiently prevents electromagnetic fields from penetrating the seal. The ES B/ES is intended for use with high quality shielded cables for entries into shielded environments such as enclosures or compartments of the ship.

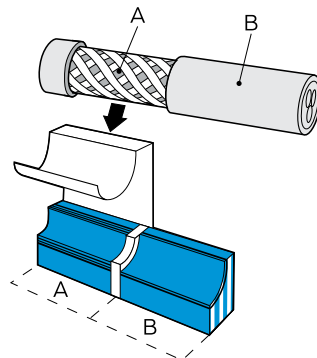


Roxtec PE B/PE

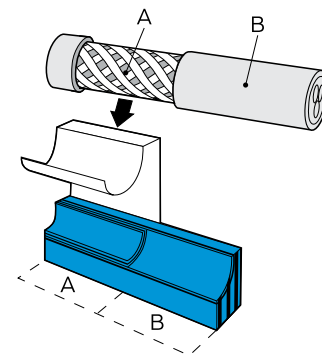
The PE B/PE products protect against conducted interference and are primarily intended for cables with braided and foil screens where current withstand capabilities and electromagnetic shielding are of less importance.



Section of a BG B module



Section of an ES B module



Section of a PE B module

Using the right cable and system

Cable constructions and types vary across the world, and the cables are designed with various specific purposes in mind. The fact that all Roxtec EMC products contact the first metallic layer, armor, screen or shield under the insulation influences the selection and installation of the correct products and frames.

Cable armor can be very rigid and made of corrugated aluminum or steel wires as its primary purpose is to provide mechanical protection. Other armor can be made of braided copper wires for

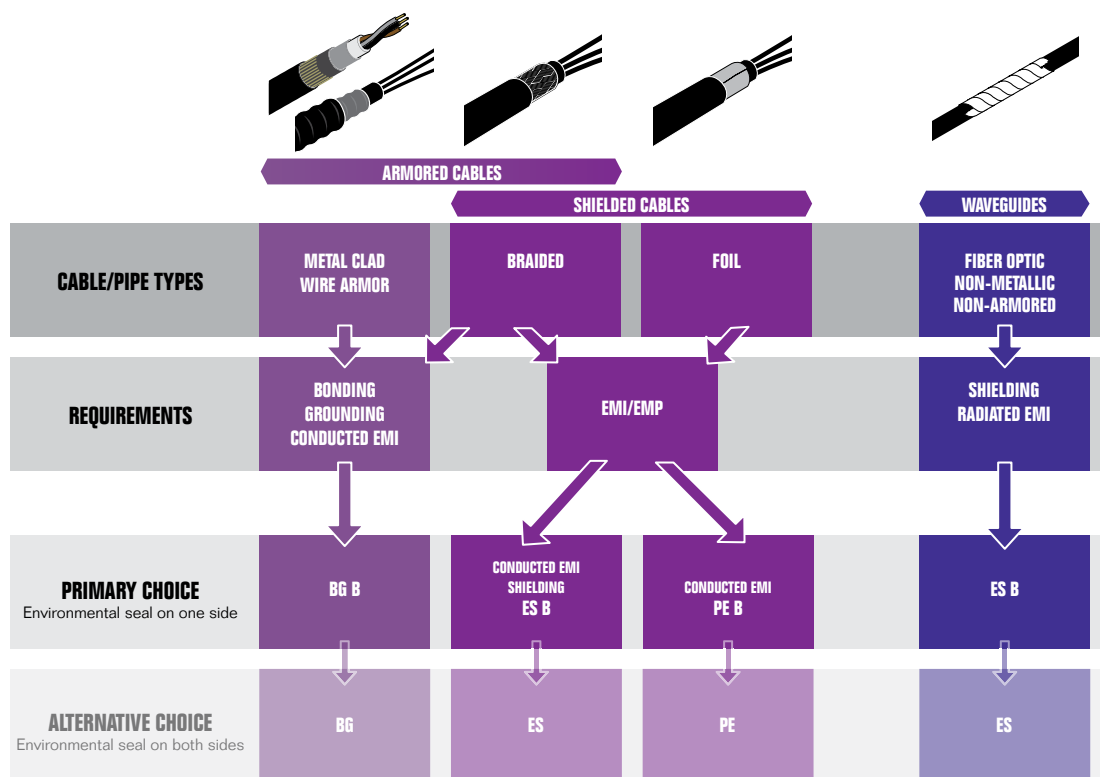
applications where flexibility is key. The tighter the braiding, the better electromagnetic shielding is achieved.

There are also cables with very thin screens of metallic foils for pure electromagnetic shielding and cable armor of copper wires with the function of being the return path for fault current, the protective earthing conductor. Therefore, it is important that the right cables are chosen for their intended purpose and installed in line with the intent.

The selection of what EMC seal-

ing system to use can be based on the expected cable or pipe type. If the application uses an armored cable, electrical safety must be considered meaning that a BG B/BG system is recommended. If the cables are shielded it is more likely an EMI application where the ES B/ES or PE B/PE system should be used. With the ES B/ES system, waveguide techniques can be applied when non-metallic fiber optic cables and plastic pipes or hoses run through an ES B/ES system into shielded environments.

EMC sealing system selection guide



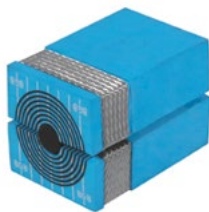
Pipes can use any module type depending on protection required.

See disclaimer on page 291.

Roxtec RM BG™ B modules



RM 40 10-32 BG B
– front view



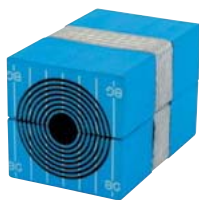
RM 40 10-32 BG B
– back view

See information and measurements on page 30.

For information about other module sizes, please contact your local Roxtec supplier or e-mail: info@roxtec.com

Module	Number of cables/pipes	For cable/pipe diameter		External dim. (mm) HxW (D=60 mm)	Weight		Art. No
		Ø _a -Ø _b (mm)	Ø _a -Ø _b (in)		(kg)	(lb)	
WITH CORE							
RM 20 BG B	1	0+4.0-14.5	0+0.157-0.571	20x20	0.04	0.088	103329
RM 20w40 BG B	2	0+3.5-16.5	0+0.138-0.650	20x40	0.07	0.154	103331
RM 30 BG B	1	0+10.0-25.0	0+0.394-0.984	30x30	0.08	0.176	103332
RM 40 10-32 BG B	1	0+9.5-32.5	0+0.374-1.280	40x40	0.14	0.309	103333
RM 60 24-54 BG B	1	0+24.0-54.0	0+0.945-2.126	60x60	0.33	0.728	103336
WITHOUT CORE							
RM 80 BG B woc	1	48.0-71.0	1.890-2.795	80x80	0.46	1.014	118502
RM 90 BG B woc	1	48.0-71.0	1.890-2.795	90x90	0.56	1.235	103338
RM 120 BG B woc	1	67.5-99.0	2.657-3.898	120x120	0.94	2.072	103313

Roxtec RM BG™ modules



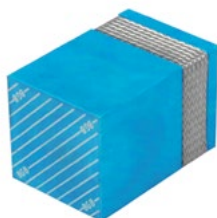
RM 40 10-32 BG

See information and measurements on page 30.

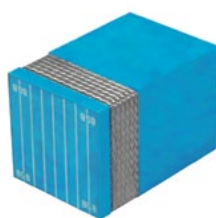
For information about other module sizes, please contact your local Roxtec supplier or e-mail: info@roxtec.com

Module	Number of cables/pipes	For cable/pipe diameter		External dim. (mm) HxW (D=60 mm)	Weight		Art. No
		Ø _a -Ø _b (mm)	Ø _a -Ø _b (in)		(kg)	(lb)	
WITH CORE							
RM 20 BG	1	0+4.0-14.5	0+0.157-0.571	20x20	0.04	0.088	102415
RM 20w40 BG	2	0+3.5-16.5	0+0.138-0.650	20x40	0.07	0.154	102416
RM 30 BG	1	0+10.0-25.0	0+0.394-0.984	30x30	0.08	0.176	102417
RM 40 10-32 BG	1	0+9.5-32.5	0+0.374-1.280	40x40	0.14	0.309	102419
RM 60 24-54 BG	1	0+24.0-54.0	0+0.945-2.126	60x60	0.33	0.728	102422
WITHOUT CORE							
RM 80 BG woc	1	48.0-71.0	1.890-2.795	80x80	0.46	1.014	118505
RM 90 BG woc	1	48.0-71.0	1.890-2.795	90x90	0.56	1.235	102424
RM 120 BG woc	1	67.5-99.0	2.657-3.898	120x120	0.94	2.072	102412

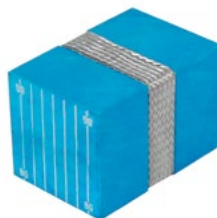
Roxtec RM BG™ B, RM BG™ solid compensation modules



RM 40/0 BG B
– front view



RM 40/0 BG B
– back view



RM 40/0 BG

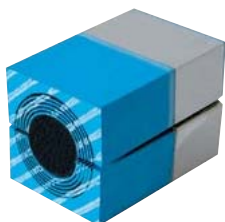
See information and measurements on page 30.

For information about other module sizes, please contact your local Roxtec supplier or e-mail: info@roxtec.com

Module	External dim. (mm) HxW (D=60 mm)	Weight (max)		Art. No
		(kg)	(lb)	
RM 10w120/0 BG B	10x120	0.12	0.256	109378
RM 20/0 BG B	20x20	0.04	0.088	103345
RM 30/0 BG B	30x30	0.08	0.181	103348
RM 40/0 BG B	40x40	0.15	0.320	103351
RM 60/0 BG B	60x60	0.34	0.754	103354
RM 10w120/0 BG	10x120	0.12	0.256	109376
RM 20/0 BG	20x20	0.04	0.088	102431
RM 30/0 BG	30x30	0.08	0.181	102432
RM 40/0 BG	40x40	0.15	0.320	102433
RM 60/0 BG	60x60	0.34	0.754	102434

Smart tip: Consider using an RM module rather than a solid module. A Roxtec RM module installed with a solid center core serves the same purpose as a traditional solid module, but it also provides spare capacity for future installations.

Roxtec RM ES B modules



RM 40 ES B
– front view



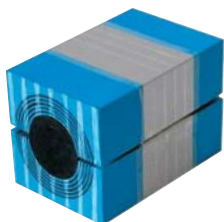
RM 40 ES B
– back view

See information and measurements on page 30.

For information about other module sizes, please contact your local Roxtec supplier or e-mail: info@roxtec.com

Module	Number of cables/pipes	For cable/pipe diameter		External dim. (mm) HxW (D=60 mm)	Weight		Art. No
		Ø _a -Ø _b (mm)	Ø _a -Ø _b (in)		(kg)	(lb)	
WITH CORE							
RM 15 ES B	1	0+3.0-11.0	0+0.118-0.433	15x15	0.02	0.044	ERM1100151181
RM 15w40 ES B	3	0+3.5-10.5	0+0.138-0.413	15x40	0.05	0.110	ERM1115401181
RM 20 ES B	1	0+4.0-14.5	0+0.157-0.571	20x20	0.04	0.088	ERM1100201181
RM 20w40 ES B	2	0+3.5-16.5	0+0.138-0.650	20x40	0.07	0.154	ERM1120401181
RM 30 ES B	1	0+10.0-25.0	0+0.394-0.984	30x30	0.08	0.176	ERM1100301181
RM 40 ES B	1	0+21.5-34.5	0+0.846-1.358	40x40	0.14	0.309	ERM1100401181
RM 40 10-32 ES B	1	0+9.5-32.5	0+0.374-1.280	40x40	0.14	0.309	ERM1140101181
RM 60 ES B	1	0+28.0-54.0	0+1.102-2.126	60x60	0.33	0.728	ERM1100601181
RM 60 24-54 ES B	1	0+24.0-54.0	0+0.945-2.126	60x60	0.33	0.728	ERM1160201181
WITHOUT CORE							
RM 60 ES B woc	1	28.0-54.0	1.102-2.126	60x60	0.26	0.573	ERM1000601181
RM 80 ES B woc	1	48.0-71.0	1.890-2.795	80x80	0.46	1.014	110100
RM 90 ES B woc	1	48.0-71.0	1.890-2.795	90x90	0.56	1.235	ERM1000901181
RM 120 ES B woc	1	67.5-99.0	2.657-3.898	120x120	0.94	2.072	ERM1001201181

Roxtec RM ES modules



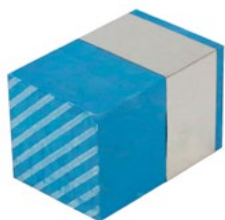
RM 40 ES

See information and measurements on page 30.

For information about other module sizes, please contact your local Roxtec supplier or e-mail: info@roxtec.com

Module	Number of cables/pipes	For cable/pipe diameter		External dim. (mm) HxW (D=60 mm)	Weight		Art. No
		Ø _a -Ø _b (mm)	Ø _a -Ø _b (in)		(kg)	(lb)	
WITH CORE							
RM 15 ES	1	0+3.0-11.0	0+0.118-0.433	15x15	0.02	0.044	ERM0100151181
RM 15w40 ES	3	0+3.5-10.5	0+0.138-0.413	15x40	0.05	0.110	ERM0115401181
RM 20 ES	1	0+4.0-14.5	0+0.157-0.571	20x20	0.04	0.088	ERM0100201181
RM 20w40 ES	2	0+3.5-16.5	0+0.138-0.650	20x40	0.07	0.154	ERM0120401181
RM 30 ES	1	0+10.0-25.0	0+0.394-0.984	30x30	0.08	0.176	ERM0100301181
RM 40 ES	1	0+21.5-34.5	0+0.846-1.358	40x40	0.14	0.309	ERM0100401181
RM 40 10-32 ES	1	0+9.5-32.5	0+0.374-1.280	40x40	0.14	0.309	ERM0140101181
RM 60 ES	1	0+28.0-54.0	0+1.102-2.126	60x60	0.33	0.728	ERM0100601181
RM 60 24-54 ES	1	0+24.0-54.0	0+0.945-2.126	60x60	0.33	0.728	ERM0160201181
WITHOUT CORE							
RM 60 ES woc	1	28.0-54.0	1.102-2.126	60x60	0.26	0.573	ERM0000601181
RM 80 ES woc	1	48.0-71.0	1.890-2.795	80x80	0.46	1.014	110097
RM 90 ES woc	1	48.0-71.0	1.890-2.795	90x90	0.56	1.235	ERM0000901181
RM 120 ES woc	1	67.5-99.0	2.657-3.898	120x120	0.94	2.072	ERM0001201181

Roxtec RM ES B, RM ES solid compensation modules



RM 40/0 ES B
– front view



RM 40/0 ES B
– back view



RM 40/0 ES

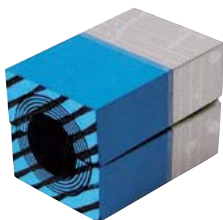
See information and measurements on page 30.

For information about other module sizes, please contact your local Roxtec supplier or e-mail: info@roxtec.com

Module	External dim. (mm) HxW (D=60 mm)	Weight (max)		Art. No
		(kg)	(lb)	
RM 5w120/0 ES B	5x120	0.06	0.126	ERM1351201181
RM 10/0 ES B	10x10	0.01	0.024	ERM1300101181
RM 10w120/0 ES B	10x120	0.12	0.254	ERM1310121181
RM 15/0 ES B	15x15	0.02	0.046	ERM1300151181
RM 20/0 ES B	20x20	0.04	0.088	ERM1300201181
RM 30/0 ES B	30x30	0.08	0.181	ERM1300301181
RM 40/0 ES B	40x40	0.15	0.320	ERM1300401181
RM 60/0 ES B	60x60	0.34	0.754	ERM1300601181
RM 5w120/0 ES	5x120	0.06	0.126	ERM0305121181
RM 10/0 ES	10x10	0.01	0.024	ERM0300101181
RM 10w120/0 ES	10x120	0.12	0.254	ERM0310121181
RM 15/0 ES	15x15	0.02	0.046	ERM0300151181
RM 20/0 ES	20x20	0.04	0.088	ERM0300201181
RM 30/0 ES	30x30	0.08	0.181	ERM0300301181
RM 40/0 ES	40x40	0.15	0.320	ERM0300401181
RM 60/0 ES	60x60	0.34	0.754	ERM0300601181

Smart tip: Consider using an RM module rather than a solid module. A Roxtec RM module installed with a solid centre core serves the same purpose as a traditional solid module, but it also provides spare capacity for future installations.

Roxtec RM PE B modules



RM 40 PE B
– front view



RM 40 PE B
– back view

See information and measurements on page 30.

For information about other module sizes, please contact your local Roxtec supplier or e-mail: info@roxtec.com

Module	Number of cables/pipes	For cable/pipe diameter		External dim. (mm) HxW (D=60 mm)	Weight		Art. No
		Ø _a -Ø _b (mm)	Ø _a -Ø _b (in)		(kg)	(lb)	
WITH CORE							
RM 15 PE B	1	0+3.0-11.0	0+0.118-0.433	15x15	0.02	0.044	PRM1100151181
RM 15w40 PE B	3	0+3.5-10.5	0+0.138-0.413	15x40	0.05	0.110	PRM1115401181
RM 20 PE B	1	0+4.0-14.5	0+0.157-0.571	20x20	0.04	0.088	PRM1100201181
RM 20w40 PE B	2	0+3.5-16.5	0+0.138-0.650	20x40	0.07	0.154	PRM1120401181
RM 30 PE B	1	0+10.0-25.0	0+0.394-0.984	30x30	0.08	0.176	PRM1100301181
RM 40 PE B	1	0+21.5-34.5	0+0.846-1.358	40x40	0.14	0.309	PRM1100401181
RM 40 10-32 PE B	1	0+9.5-32.5	0+0.374-1.280	40x40	0.14	0.309	PRM1140101181
RM 60 PE B	1	0+28.0-54.0	0+1.102-2.126	60x60	0.33	0.728	PRM1100601181
RM 60 24-54 PE B	1	0+24.0-54.0	0+0.945-2.126	60x60	0.33	0.728	PRM1160201181
WITHOUT CORE							
RM 60 PE B woc	1	28.0-54.0	1.102-2.126	60x60	0.26	0.573	PRM1000601181
RM 80 PE B woc	1	48.0-71.0	1.890-2.795	80x80	0.44	0.97	110109
RM 90 PE B woc	1	48.0-71.0	1.890-2.795	90x90	0.56	1.235	PRM1000901181
RM 120 PE B woc	1	67.5-99.0	2.657-3.898	120x120	0.94	2.072	PRM1001201181

Roxtec RM PE modules



RM 40 PE

See information and measurements on page 30.

For information about other module sizes, please contact your local Roxtec supplier or e-mail: info@roxtec.com

Module	Number of cables/pipes	For cable/pipe diameter		External dim. (mm) HxW (D=60 mm)	Weight		Art. No
		Ø _a -Ø _b (mm)	Ø _a -Ø _b (in)		(kg)	(lb)	
WITH CORE							
RM 15 PE	1	0+3.0-11.0	0+0.118-0.433	15x15	0.02	0.044	PRM0100151181
RM 15w40 PE	3	0+3.5-10.5	0+0.138-0.413	15x40	0.05	0.110	PRM0115401181
RM 20 PE	1	0+4.0-14.5	0+0.157-0.571	20x20	0.04	0.088	PRM0100201181
RM 20w40 PE	2	0+3.5-16.5	0+0.138-0.650	20x40	0.07	0.154	PRM0120401181
RM 30 PE	1	0+10.0-25.0	0+0.394-0.984	30x30	0.08	0.176	PRM0100301181
RM 40 PE	1	0+21.5-34.5	0+0.846-1.358	40x40	0.14	0.309	PRM0100401181
RM 40 10-32 PE	1	0+9.5-32.5	0+0.374-1.280	40x40	0.14	0.309	PRM0140101181
RM 60 PE	1	0+28.0-54.0	0+1.102-2.126	60x60	0.33	0.728	PRM0100601181
RM 60 24-54 PE	1	0+24.0-54.0	0+0.945-2.126	60x60	0.33	0.728	PRM0160201181
WITHOUT CORE							
RM 60 PE woc	1	28.0-54.0	1.102-2.126	60x60	0.26	0.573	PRM0000601181
RM 80 PE woc	1	48.0-71.0	1.890-2.795	80x80	0.44	0.97	110108
RM 90 PE woc	1	48.0-71.0	1.890-2.795	90x90	0.56	1.235	PRM0000901181
RM 120 PE woc	1	67.5-99.0	2.657-3.898	120x120	0.94	2.072	PRM0001201181

Roxtec RM PE B, RM PE solid compensation modules



RM 40/0 PE B
– front view



RM 40/0 PE B
– back view



RM 40/0 PE

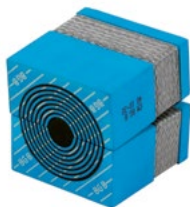
See information and measurements on page 30.

For information about other module sizes, please contact your local Roxtec supplier or e-mail: info@roxtec.com

Module	External dim. (mm) HxW (D=60 mm)	Weight (max)		Art. No
		(kg)	(lb)	
RM 5w120/0 PE B	5x120	0.06	0.126	PRM1351201181
RM 10/0 PE B	10x10	0.01	0.024	PRM1300101181
RM 10w120/0 PE B	10x120	0.12	0.254	PRM1310121181
RM 15/0 PE B	15x15	0.02	0.046	PRM1300151181
RM 20/0 PE B	20x20	0.04	0.088	PRM1300201181
RM 30/0 PE B	30x30	0.08	0.181	PRM1300301181
RM 40/0 PE B	40x40	0.15	0.320	PRM1300401181
RM 60/0 PE B	60x60	0.34	0.754	PRM1300601181
RM 5w120/0 PE	5x120	0.06	0.126	PRM0305121181
RM 10/0 PE	10x10	0.01	0.024	PRM0300101181
RM 10w120/0 PE	10x120	0.12	0.254	PRM0310121181
RM 15/0 PE	15x15	0.02	0.046	PRM0300151181
RM 20/0 PE	20x20	0.04	0.088	PRM0300201181
RM 30/0 PE	30x30	0.08	0.181	PRM0300301181
RM 40/0 PE	40x40	0.15	0.320	PRM0300401181
RM 60/0 PE	60x60	0.34	0.754	PRM0300601181

Smart tip: Consider using an RM module rather than a solid module. A Roxtec RM module installed with a solid centre core serves the same purpose as a traditional solid module, but it also provides spare capacity for future installations.

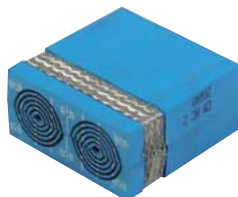
Roxtec CM BG B™ modules



CM 40 10-32 BG B
– front view



CM 20w40 BG B
– front view

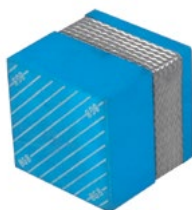


CM 20w40 BG B
– back view

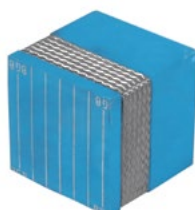
See information and measurements on page 31.

Module	Number of cables/pipes	For cable/pipe diameter		External dim. (mm) HxW (D=40 mm)	Weight		Art. No
		$\varnothing_a$ - $\varnothing_b$ (mm)	$\varnothing_a$ - $\varnothing_b$ (in)		(kg)	(lb)	
CM 20w40 BG B	2	0+3.5-16.5	0+0.138-0.650	20x40	0.05	0.110	103375
CM 30w40 BG B	1	0+10-25	0+0.394-0.984	30x40	0.08	0.176	103379
CM 40 10-32 BG B	1	0+9.5-32.5	0+0.374-1.280	40x40	0.10	0.220	103381

Roxtec CM BG B™ solid compensation modules



CM 40/0 BG B
– front view



CM 40/0 BG B
– back view

See information and measurements on page 31.

Module	External dim. (mm) HxW (D=40 mm)	Weight (max)		Art. No
		(kg)	(lb)	
CM 10w40/0 BG B	10 x 40	0.02	0.044	103903
CM 40/0 BG B	40 x 40	0.08	0.176	103366

Roxtec CM ES modules



CM 20w40 ES
– front view



CM 20w40 ES
– back view

See information and
measurements on page 31.

Module	Number of cables/pipes	For cable/pipe diameter		External dim. (mm) HxW (D=40 mm)	Weight		Art. No
		$\varnothing_a$ - $\varnothing_b$ (mm)	$\varnothing_a$ - $\varnothing_b$ (in)		(kg)	(lb)	
CM 15w40 ES	3	0+3.5-10.5	0+0.138-0.413	15x40	0.04	0.088	EC00115401181
CM 20 ES	1	0+4.0-14.5	0+0.157-0.571	20x20	0.03	0.066	EC00100201181
CM 20w40 ES	2	0+3.5-16.5	0+0.138-0.650	20x40	0.05	0.110	EC00120401181
CM 30w40 ES	1	0+10.0-25.0	0+0.394-0.984	30x40	0.08	0.176	EC00130401181
CM 40 10-32 ES	1	0+9.5-32.5	0+0.374-1.280	40x40	0.10	0.220	EC00140121181

Roxtec CM ES solid compensation modules



CM 10w40/0 ES
– front view



CM 10w40/0 ES
– back view

See information and
measurements on page 31.

Module	External dim. (mm) HxW (D=40 mm)	Weight (max)		Art. No
		(kg)	(lb)	
CM 5w40/0 ES	5 x 40	0.01	0.022	EC00305401181
CM 10w40/0 ES	10 x 40	0.02	0.044	EC00310401181
CM 40/0 ES	40 x 40	0.10	0.220	5EC0000000005

Roxtec CM PE modules



CM 20w40 PE
– front view



CM 20w40 PE
– back view

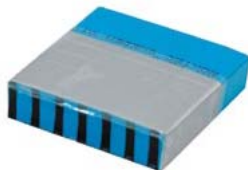
See information and
measurements on page 31.

Module	Number of cables/pipes	For cable/pipe diameter		External dim. (mm) HxW (D=40 mm)	Weight		Art. No
		$\varnothing_a$ - $\varnothing_b$ (mm)	$\varnothing_a$ - $\varnothing_b$ (in)		(kg)	(lb)	
CM 15w40 PE	3	0+3.5-10.5	0+0.138-0.413	15x40	0.04	0.088	PC00115401181
CM 20 PE	1	0+4.0-14.5	0+0.157-0.571	20x20	0.03	0.066	PC00100201181
CM 20w40 PE	2	0+3.5-16.5	0+0.138-0.650	20x40	0.05	0.110	PC00120401181
CM 30w40 PE	1	0+10.0-25.0	0+0.394-0.984	30x40	0.08	0.176	PC00130401181
CM 40 10-32 PE	1	0+9.5-32.5	0+0.374-1.280	40x40	0.10	0.220	PC00140101181

Roxtec CM PE solid compensation modules



CM 10w40/0 ES
– front view



CM 10w40/0 ES
– back view

See information and
measurements on page 31.

Module	External dim. (mm) HxW (D=40 mm)	Weight (max)		Art. No
		(kg)	(lb)	
CM 5w40/0 PE	5 x 40	0.01	0.022	PC00305401181
CM 10w40/0 PE	10 x 40	0.02	0.044	PC00310401181
CM 40/0 PE	40 x 40	0.10	0.220	PC00300401181



Roxtec Wedge EMC

The Roxtec Wedge EMC is used in frames with a rectangular packing space without built-in compression. Compresses and seals the installation of cables, pipes, modules and stayplates.

- For use with Group RM EMC frames and components

Roxtec BG™, PE system wedge kits/parts, galvanized/AISI 316



Wedge kit 120 galv



Wedge 120 galv



Wedge 60 galv

See information and measurements on page 34.

Wedge	External dimensions		Weight		Art. No
	W (mm)	W (in)	(kg)	(lb)	
Wedge kit 120 galv	120	4.724	1.5	3.307	AWK0001201018
Wedge 120 galv	120	4.724	0.8	1.764	ARW0001201018
Wedge 60 galv	60	2.362	0.4	0.882	ARW0000601018
Wedge kit 120 AISI 316	120	4.724	1.5	3.307	AWK0001201021
Wedge 120 AISI 316	120	4.724	0.8	1.764	ARW0001201021
Wedge 60 AISI 316	60	2.362	0.4	0.882	ARW0000601021

* The Wedge kit includes one Roxtec Wedge 120, five stayplates, one Wedge Clip, one lubricant and installation instructions.

Roxtec ES system wedge kits/parts, galvanized/AISI 316



Wedge kit 120 ES galv



Wedge 120 ES galv



Wedge 60 ES galv

See information and measurements on page 34.

Wedge	External dimensions		Weight		Art. No
	W (mm)	W (in)	(kg)	(lb)	
Wedge kit 120 ES galv	120	4.724	1.5	3.307	103400
Wedge 120 ES galv	120	4.724	0.8	1.764	ARW0000012391
Wedge 60 ES galv	60	2.362	0.4	0.882	103398
Wedge kit 120 ES AISI 316	120	4.724	1.5	3.307	103401
Wedge 120 ES AISI 316	120	4.724	0.8	1.764	103370
Wedge 60 ES AISI 316	60	2.362	0.4	0.882	103397

* The Wedge kit 120 ES includes one Roxtec Wedge 120 ES, five stayplates, one Wedge Clip, one lubricant and installation instructions.

Roxtec EMC frame selection guide

Suitable for EMC installations with BG, ES or PE modules.
Frames must be properly connected to earth.

	Rectangular frames					Enclosure frames				Sleeves for round frames/seals	
	S	SF	SK	SBTB	GHM	CF 8, CF 32 EMC	CF 8, CF 32 BG	ComSeal EMC	G	SLF R/RS	SL R/RS
Bonding and grounding	✓	✓	✓	✓	✓ 1	—	✓	—	✓ 3	—	—
Shielding	✓	✓ 3	✓	✓	✓ 2	✓	—	✓	✓ 3	✓ 2	✓
Conducted EMI	✓	✓	✓	✓	✓ 1	✓	✓	✓	✓ 3	✓ 2	✓

1. Comes without ground lug
2. Conductive gasket not included
3. If installed by welding



Ground lug

Recommended addition to frames used for bonding and grounding.
Frames with a ground lug with alternative flange dimensions available upon request.

Roxtec EMC marking tool



The marking tool is used for simple and quick guidance on where to remove the cable sheath and where to add check marks on the cables before assembly. This is to make sure that both the cable and its uncovered cable screen are fitted correctly into the module.

Tool	Art. No
EMC Marking Tool	IQR0002000000

Roxtec frames and seals for EMC applications

This is an overview showing Roxtec frames and seals suitable for EMC applications:



Roxtec S frame
See page 40.



Roxtec SK frame
See page 52.



Roxtec SBTB frame
See page 54.



Roxtec SF frame
See page 56.



Roxtec GHM frame
See page 61.



Roxtec G frame
See page 98.



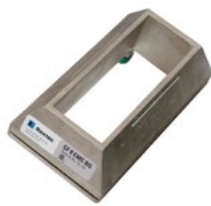
Roxtec R EMC frame
See page 125.



Roxtec RS EMC seal
See page 127.



Roxtec ComSeal™ EMC
See page 129.



Roxtec CF 8 EMC frame
See page 131.



Roxtec CF 32 EMC frame
See page 131.

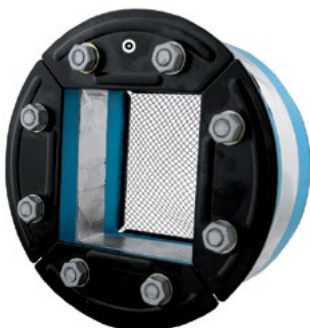


Roxtec R EMC frame

The Roxtec R EMC is a round expansion frame with a square packing space for cables, pipes and modules. Compression is integrated in the frame. Allows installation around existing cables and pipes.

- Compression by expansion
- For use with Roxtec RM ES and RM PE modules
- Sleeves are available

R EMC frame, galvanized mild steel fittings



R 150 EMC galv

See information and measurements on page 65.

See parts needed for a complete solution on page 26.

See sleeves on page 66.

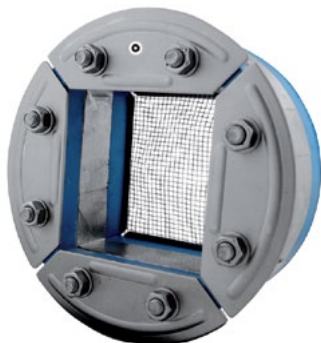
Installation instructions are available on www.roxtec.com

RATINGS

A class, H class, water and gas-tight

Frame	Packing space (mm)	For hole Ø		Weight		Art. No
		(mm)	(in)	(kg)	(lb)	
R 100 EMC galv	60 x 60	100 x 85	3.937 x 3.346	0.7	1.499	ER00A01001118
R 125 EMC galv	80 x 80	125 x 70	4.921 - 2.756	1,1	2.447	5R00000007751
R 127 EMC galv	80 x 80	127 x 70	5.000 x 2.756	1.1	2.447	ER00A01271118
R 150 EMC galv	90 x 90	150 x 70	5.906 x 2.756	1.6	3.638	ER00A01501118
R 200 EMC galv	120 x 120	200 x 70	7.874 x 2.756	2.6	5.732	ER00A02001118

R EMC frame, acid-proof stainless steel fittings



See information and measurements on page 65.

See parts needed for a complete solution on page 26.

See sleeves on page 66.

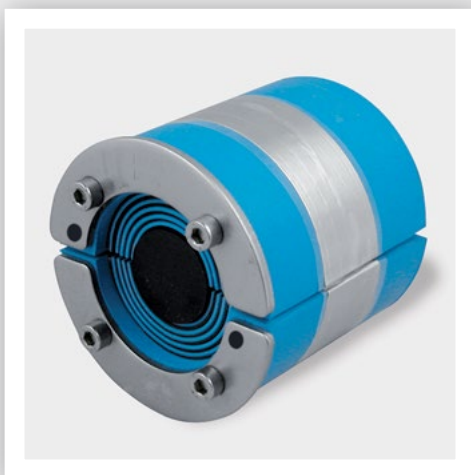
Installation instructions are available on www.roxtec.com

R 150 EMC AISI 316

RATINGS

A class, H class, water and gas-tight

Frame	Packing space (mm)	For hole Ø		Weight		Art. No
		(mm)	(in)	(kg)	(lb)	
R 70 EMC AISI 316	40 x 40	70 x 70	2.756 x 2.756	0.5	1.014	ER00A00701121
R 75 EMC AISI 316	40 x 40	75 x 70	2.953 x 2.756	0.5	1.102	ER00A00751121
R 100 EMC AISI 316	60 x 60	100 x 85	3.937 x 3.346	0.6	1.499	ER00A01001121
R 125 EMC AISI 316	80 x 80	125 x 70	4.921 x 2.756	1.1	2.447	5ER0000003976
R 127 EMC AISI 316	80 x 80	127 x 70	5.000 x 2.756	1.1	2.447	ER00A01271121
R 150 EMC AISI 316	90 x 90	150 x 70	5.906 x 2.756	1.6	3.638	ER00A01501121
R 200 EMC AISI 316	120 x 120	200 x 70	7.874 x 2.756	2.6	5.732	ER00A02001121

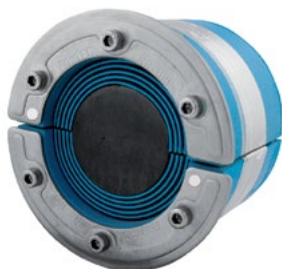


Roxtec RS EMC seals

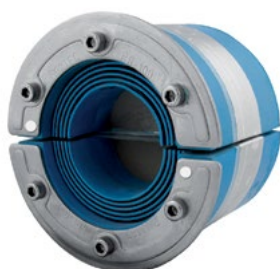
Roxtec RS EMC seals are round entry seals consisting of two halves with an adaptable center with removable layers. Compression is integrated in the seal. Allows installation around an existing cable or pipe.

- Electromagnetic shielding
- Potential equalization
- For one cable or one pipe
- Sleeves are available

RS ES seal, acid-proof stainless steel fittings



RS 100 ES AISI 316



RS 100 ES AISI 316 woc

See information and measurements on page 71.

See sleeves on page 73.

Installation instructions are available on www.roxtec.com

RATINGS

A class, H class, water and gas-tight

Seal	For cable/pipe Ø		External dimensions		Weight		Art. No
	(mm)	(in)	ØxD (mm)	ØxD (in)	(kg)	(lb)	
WITH CORE							
RS 25 ES AISI 316	0+3.6-12	0+0.142-0.472	25 x 40	0.984 x 1.575	0.04	0.093	ERS0100251121
RS 31 ES AISI 316	0+4-17	0+0.157-0.669	31 x 40	1.220 x 1.575	0.06	0.132	ERS0100311121
RS 43 ES AISI 316	0+4-23	0+0.157-0.906	43 x 78	1.693 x 3.071	0.2	0.529	ERS0100431121
RS 50 ES AISI 316	0+8-30	0+0.315-1.181	50 x 78	1.969 x 3.071	0.3	0.639	ERS0100501121
RS 68 ES AISI 316	0+26-48	0+1.024-1.890	68 x 78	2.677 x 3.071	0.5	1.102	ERS0100681121
RS 75 ES AISI 316	0+24-54	0+0.945-2.126	75 x 78	2.953 x 3.071	0.7	1.543	ERS0100751121
RS 100 ES AISI 316	0+48-70	0+1.890-2.756	100 x 83	3.937 x 3.268	1.0	2.205	ERS0101001121
RS 125 ES AISI 316	0+66-98	0+2.598-3.858	125 x 83	4.921 x 3.268	1.6	3.417	ERS0101251121

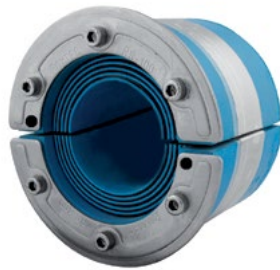
RS ES seal, acid-proof stainless steel fittings

Seal	For cable/pipe Ø		External dimensions		Weight		Art. No
	(mm)	(in)	ØxD (mm)	ØxD (in)	(kg)	(lb)	
WITHOUT CORE							
RS 100 ES AISI 316 woc	48-70	1.890-2.756	100 x 83	3.937 x 3.268	0.8	1.874	ERS0001001121
RS 125 ES AISI 316 woc	66-98	2.598-3.858	125 x 83	4.921 x 3.268	1.2	2.756	ERS0001251121
RS 150 ES AISI 316 woc	93-119	3.661-4.685	150 x 85	5.906 x 3.346	1.6	3.417	ERS0001501121

RS PE seal, acid-proof stainless steel fittings



RS 100 PE AISI 316



RS 100 PE AISI 316 woc

See information and measurements on page 71.

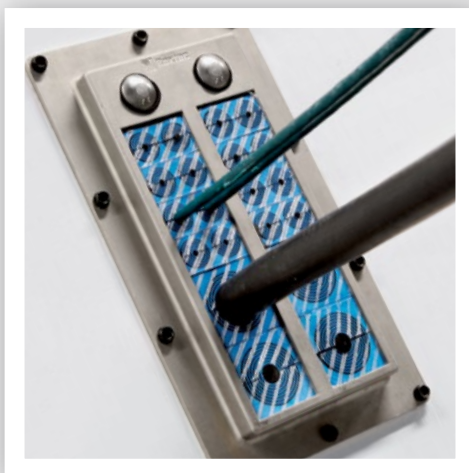
See sleeves on page 73.

Installation instructions are available on www.roxtec.com

RATINGS

A class, H class, water and gas-tight

Seal	For cable/pipe Ø		External dimensions		Weight		Art. No
	(mm)	(in)	ØxD (mm)	ØxD (in)	(kg)	(lb)	
WITH CORE							
RS 25 PE AISI 316	0+3.6-12	0+0.142-0.472	25 x 40	0.984 x 1.575	0.04	0.093	PRS0100251121
RS 31 PE AISI 316	0+4-17	0+0.157-0.669	31 x 40	1.220 x 1.575	0.06	0.132	PRS0100311121
RS 43 PE AISI 316	0+4-23	0+0.157-0.906	43 x 78	1.693 x 3.071	0.2	0.529	PRS0100431121
RS 50 PE AISI 316	0+8-30	0+0.315-1.181	50 x 78	1.969 x 3.071	0.3	0.639	PRS0100501121
RS 68 PE AISI 316	0+26-48	0+1.024-1.890	68 x 78	2.677 x 3.071	0.5	1.102	PRS0100681121
RS 75 PE AISI 316	0+24-54	0+0.945-2.126	75 x 78	2.953 x 3.071	0.7	1.543	PRS0100751121
RS 100 PE AISI 316	0+48-70	0+1.890-2.756	100 x 83	3.937 x 3.268	1.0	2.205	PRS0101001121
RS 125 PE AISI 316	0+66-98	0+2.598-3.858	125 x 83	4.921 x 3.268	1.6	3.417	PRS0101251121
WITHOUT CORE							
RS 100 PE AISI 316 woc	48-70	1.890-2.756	100 x 83	3.937 x 3.268	0.8	1.874	PRS0001001121
RS 125 PE AISI 316 woc	66-98	2.598-3.858	125 x 83	4.921 x 3.268	1.2	2.756	PRS0001251121
RS 150 PE AISI 316 woc	93-119	3.661-4.685	150 x 85	5.906 x 3.346	1.6	3.417	PRS0001501121



Roxtec ComSeal™ EMC

The Roxtec ComSeal EMC protects against EMI. The product family is designed for industrial and telecom applications such as converters, generators and cabinets. The frame is in nickel-plated aluminum and allows for pre-terminated cables.

- The frames are supplied as pre-defined kits
- Electromagnetic shielding
- Potential equalization

ComSeal™ EMC kits, nickel-plated aluminum, ES/PE system



ComSeal 10/4 ES

ComSeal 12/3 ES

ComSeal 15/3 ES

ComSeal 16/10 ES

ComSeal 30/6 ES

ComSeal 32/8 ES

See information and measurements on page 90.

Installation instructions are available on www.roxtec.com

See practical user guidelines on page 264.

Additional modules, depth 30 mm, can be purchased separately.

RATINGS

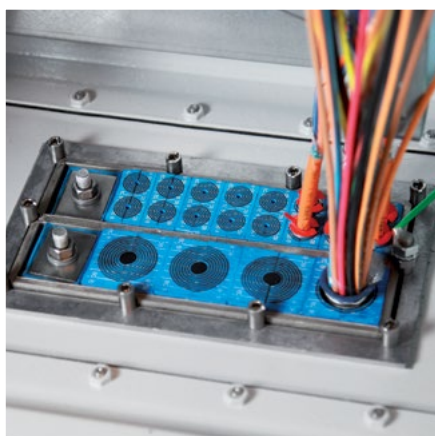
IP: 54

UL/NEMA: 12, 12K

Kit	Diameter range and number of cables/pipes Note: Module depth 30 mm			Weight		Art. No
	0+3.5-16.5 mm 0+0.138-0.650 in (CM 20w40 ES/PE 30)	0+9.5-32.5 mm 0+0.374-1.280 in (CM 40 10-32 ES/PE 30)	0+28-43 mm 0+1.102-1.693 in (CM 50 ES/PE 30)	(kg)	(lb)	
ComSeal 10/4 ES	2 cables/pipes	2 cables/pipes		0.52	1.14	CSE0000000104
ComSeal 10/7 ES	6 cables/pipes	1 cable/pipe		0.52	1.14	CSE0000000107
ComSeal 10/10 ES	10 cables/pipes			0.52	1.14	CSE00000001010
ComSeal 10/4 PE	2 cables/pipes	2 cables/pipes		0.52	1.14	CSP0000000104

ComSeal™ EMC kits, nickel-plated aluminum, ES/PE system

Kit	Diameter range and number of cables/pipes Note: Module depth 30 mm			Weight		Art. No
	0+3.5-16.5 mm 0+0.138-0.650 in (CM 20w40 ES/PE 30)	0+9.5-32.5 mm 0+0.374-1.280 in (CM 40 10-32 ES/PE 30)	0+28-43 mm 0+1.102-1.693 in (CM 50 ES/PE 30)	(kg)	(lb)	
ComSeal 10/7 PE	6 cables/pipes	1 cable/pipe		0.52	1.14	CSP0000000107
ComSeal 10/10 PE	10 cables/pipes			0.52	1.14	CSP00000001010
ComSeal 12/3 ES		3 cables/pipes		0.61	1.34	CSE00000001203
ComSeal 12/6 ES	4 cables/pipes	2 cables/pipes		0.61	1.34	CSE00000001206
ComSeal 12/9 ES	8 cables/pipes	1 cable/pipe		0.61	1.34	CSE00000001209
ComSeal 12/12 ES	12 cables/pipes			0.61	1.34	CSE00000001212
ComSeal 12/3 PE		3 cables/pipes		0.61	1.34	CSP00000001203
ComSeal 12/6 PE	4 cables/pipes	2 cables/pipes		0.61	1.34	CSP00000001206
ComSeal 12/9 PE	8 cables/pipes	1 cable/pipe		0.61	1.34	CSP00000001209
ComSeal 12/12 PE	12 cables/pipes			0.61	1.34	CSP00000001212
ComSeal 15/3 ES			3 cables/pipes	0.91	2.0	CSE00000001503
ComSeal 15/3 PE			3 cables/pipes	0.91	2.0	CSP00000001503
ComSeal 16/4 ES		4 cables/pipes		0.67	1.47	CSE0000000164
ComSeal 16/7 ES	4 cables/pipes	3 cables/pipes		0.67	1.47	CSE0000000164
ComSeal 16/10 ES	8 cables/pipes	2 cables/pipes		0.67	1.47	CSE0000000167
ComSeal 16/16 ES	16 cables/pipes			0.67	1.47	CSE00000001610
ComSeal 16/4 PE		4 cables/pipes		0.67	1.47	CSE00000001616
ComSeal 16/7 PE	4 cables/pipes	3 cables/pipes		0.67	1.47	CSP0000000164
ComSeal 16/10 PE	8 cables/pipes	2 cables/pipes		0.67	1.47	CSP0000000167
ComSeal 16/16 PE	16 cables/pipes			0.67	1.47	CSP00000001610
ComSeal 30/6 ES			6 cables/pipes	1.40	3.09	CSE00000003006
ComSeal 30/6 PE			6 cables/pipes	1.40	3.09	CSP00000003006
ComSeal 32/8 ES		8 cables/pipes		1.26	2.78	CSE00000003208
ComSeal 32/14 ES	8 cables/pipes	6 cables/pipes		1.26	2.78	CSE00000003214
ComSeal 32/20 ES	16 cables/pipes	4 cables/pipes		1.26	2.78	CSE00000003220
ComSeal 32/32 ES	32 cables/pipes			1.26	2.78	CSE00000003232
ComSeal 32/8 PE		8 cables/pipes		1.26	2.78	CSP00000003208
ComSeal 32/14 PE	8 cables/pipes	6 cables/pipes		1.26	2.78	CSP00000003214
ComSeal 32/20 PE	16 cables/pipes	4 cables/pipes		1.26	2.78	CSP00000003220
ComSeal 32/32 PE	32 cables/pipes			1.26	2.78	CSP00000003232

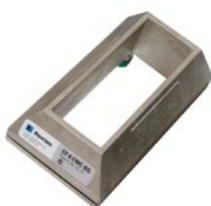


Roxtec CF 8/CF 32 EMC/BG frames/kits

The frames of cast aluminum with nickel-plating ensure good electrical conductivity. They can handle multiple pre-terminated cables/pipes in one opening.

- For use with CM BG B, CM ES or CM PE modules
- Electromagnetic shielding
- Potential equalization
- Bonding and grounding

CF 8 EMC/CF 32 EMC frames, ES/PE system



CF 8 EMC



CF 32 EMC

Note: The compression unit is ordered separately.

See information and measurements on page 93.

See practical user guidelines on page 264.

Installation instructions are available on www.roxtec.com



C Compression unit
ES AISI 316



C Compression unit
IP/PE AISI 316

RATINGS

IP: 66/67

UL/NEMA: 4, 4X, 12, 13

Frame	External dimensions		Weight		Art. No
	HxW (mm)	HxW (in)	(kg)	(lb)	
CF 8 EMC	140 x 75	5.512 x 2.952	0.6	1.213	ECF0000080035
CF 32 EMC	230 x 130	9.055 x 5.118	1.4	3.086	ECF0000320035
C Compression unit ES AISI 316	30 x 40	1.181 x 1.575	0.2	0.340	ECC0001001123
C Compression unit IP/PE AISI 316	30 x 40	1.181 x 1.575	0.2	0.340	CC00001001023

CF 8 BG™ B/CF 32 BG™ B kits/frames



CF 8/8 BG B



CF 32/8 BG B



CF 32/20 BG B



CF 32/32 BG B



CF 8 EMC BG



CF 32 EMC BG

Note: CF 8 EMC BG includes compression unit and ground lug.
CF 32 EMC BG includes compression units and ground lug.

See information and measurements on page 93.

See practical user guidelines on page 264.

Installation instructions are available on www.roxtec.com

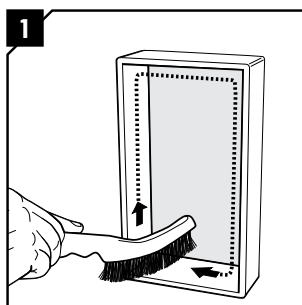
RATINGS

IP: 66/67

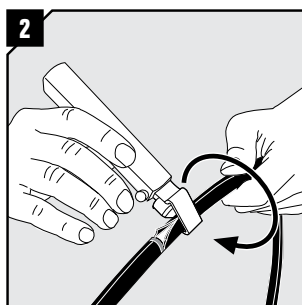
UL/NEMA: 4, 4X, 12, 13

Kit	Diameter range and number of cables/pipes		Weight		Art. No
			(kg)	(lb)	
	0+3.5-16.5 mm/ 0+0.138-0.650 in (CM 20w40 BG B)	0+9.5-32.5 mm/ 0+0.374-1.280 in (CM 40 10-32 BG B)			
CF 8/8 BG B	8 cables/pipes		0.70	1.543	103464
CF 32/8 BG B		8 cables/pipes	2.00	4.409	103462
CF 32/20 BG B	16 cables/pipes	4 cables/pipes	2.00	4.409	103463
CF 32/32 BG B	32 cables/pipes		2.00	4.409	103461
CF 8 EMC BG			0.6	1.213	103465
CF 32 EMC BG			1.4	3.086	102826

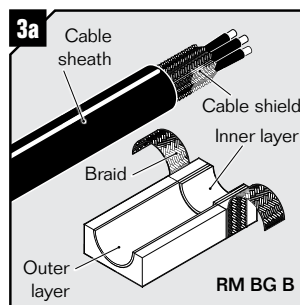
Basic steps



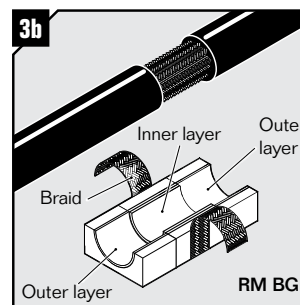
Clean the frame from dirt, paint etc. to secure good electrical conductivity.



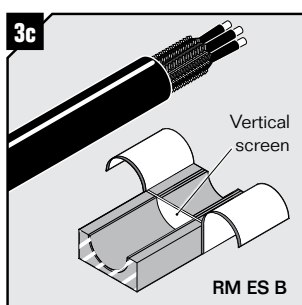
Cut and remove the outer sheath to expose the shield or armor of the cable.



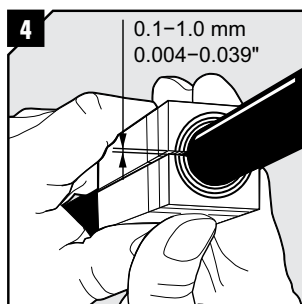
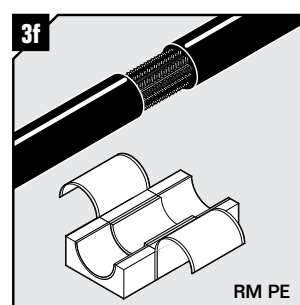
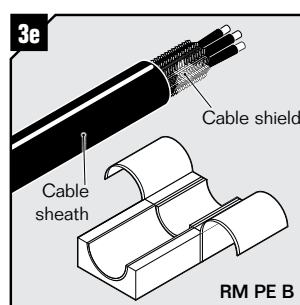
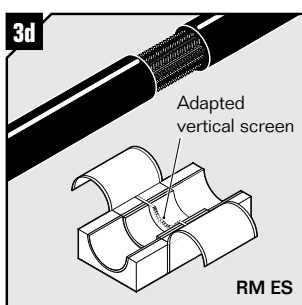
The following steps 3a–3f show the module preparation for the different types of EMC modules.



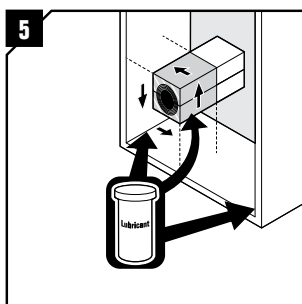
Fold back the tape or braid. Adapt the outer module layers to cable sheath and the inner ones to the cable shield.



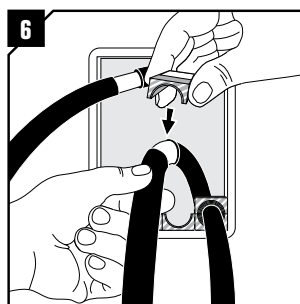
For ES modules, adapt vertical screen to cable shield.



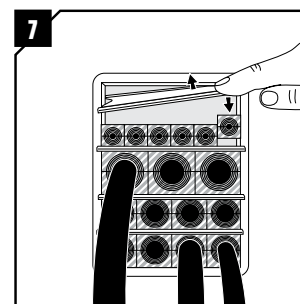
Achieve a 0.1–1.0 mm gap between the two halves when held against the cable/pipe. Fold the tape or braid tightly inside each module half.



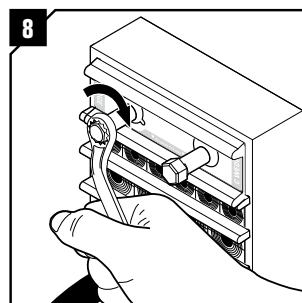
Lubricate the frame and modules.



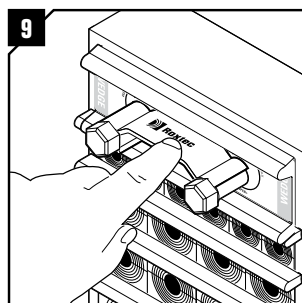
Place the cables in the module halves according to your packing plan.



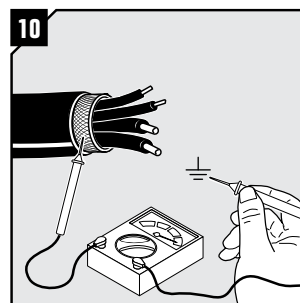
Insert a stayplate after every row of modules and fill the packing space.



Lubricate and insert the wedge. Tighten the bolts alternately until full mechanical stop.



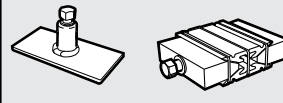
Attach the Wedge Clip to finalize the installation.



Verify earth continuity from each cable armor/screen to earth. Use a suitable instrument.

Installation tools

In order to further simplify installation, we provide tools for pre-compression of the modules in the frame. For more information about Roxtec tools, see page 214.



For complete installation instructions, please see www.roxtec.com

PIPE ENTRY SOLUTIONS



Covering a wide range of systems

Roxtec seals for pipe applications protect both life and assets against fire, water ingress and gas. They are designed to maintain the deck and bulkhead fire classifications after being penetrated by pipes.



A marine vessel is supported by a complex web of pipework which feeds various essential systems such as engine transfer systems, hydraulic fluid systems, sprinkler systems, hot and cold water and wastewater systems. The number of essential systems is matched by the variation in different types of pipe materials used to support them such as steel, copper, plastic and glass fiber.

Maintain the integrity

These variations in pipe material present multiple challenges when developing sealing solutions to protect pipe penetrations against hazards such as fire, water ingress and gas. To overcome



these difficulties, We have developed a wide range of pipe sealing solutions that offer protection against these hazards and maintain the integrity of the marine rated division.

Single or multiple pipes

Roxtec is also able to provide solutions that can be installed from only one side of the deck or bulkhead to increase flexibility within the installation process.

With a portfolio of certified pipe sealing solutions ranging from single to multiple penetrations and from 3.6 mm to 580 mm in diameter, we have the ability to meet all your pipe sealing needs.



Tested and certified

The sealing solutions offered by Roxtec provide protection to the following standards and ratings as defined by IMO and comply with the various testing programmes of each class society:

Fire rating: A class, B class, H class and jet-fire ratings

Water pressure: up to 6 bar

Gas-pressure: up to 2.5 bar

(All protection ratings depending on specific class society)

In addition to the standard Roxtec solutions, customized solutions can be designed and supplied which offer protection in areas that have higher demand requirements.

Safety and simplicity

The Roxtec pipe sealing solutions are designed to satisfy the various needs and requirements of

the marine segment. It is recognized that the demands in relation to fire integrity and water pressure requirements are different depending upon the location of the installation within the marine vessel.

Therefore, the Roxtec approach to its product range is to develop solutions that fit the relevant requirements for each of these areas in order to provide a safe and secure penetration seal that is both quick and easy to install. For this reason, the Roxtec product range includes firestop solutions, watertight and firestop solutions as well as solutions suitable for use either above or below the waterline.

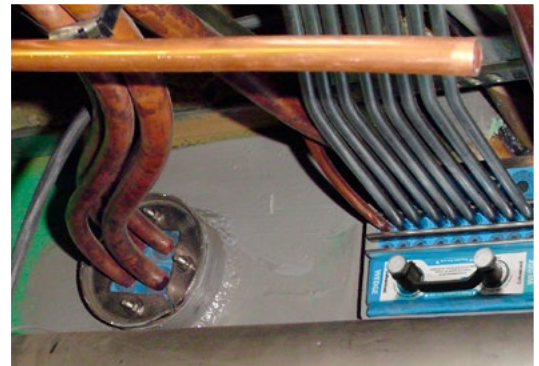
Developed for specific needs

In addition to these operating criteria, We have developed our solution to maintain a watertight seal after a fire has occurred. It is to be used when the requirements make this necessary due

to the use of heat sensitive materials passing through watertight bulkheads. To reduce the need for welding during the installation process, Roxtec has also developed pipe sealing products that are non-welding solutions. Roxtec pipe sealing solutions can be used in steel decks and bulkheads as well as in aluminum structures where galvanic corrosion and other installation issues have been resolved. Further Roxtec solutions are also available for use in some A and B rated sandwich panel structures.

Metal pipe solutions

Roxtec provides first class sealing solutions for single and multiple metal pipes when passing through in decks and bulkheads. Ship owners and shipbuilders appreciate the excellent fire-stopping and watertight features of our systems to ensure high degrees of security and to maintain a safe working environment.



Roxtec transits for metal pipes are available in a wide range of types and sizes for various environments and use. We supply modular-based transits for both multiple pipe penetrations and single pipe penetrations. There are frames for round and rectangular openings as well as frames specifically designed to maintain the structural integrity of certain openings when located in high demand areas.

- Water pipes
- Wastewater pipes
- Hydraulic pipes
- Pneumatic pipes
- Transfer and distribution systems
- Sprinkler systems
- Restaurant and beverage pipes



Roxtec RS seal

The Roxtec RS seal is a circular solution which protects single metal pipe as well as glass fiber pipe penetrations. It consists of two halves and an adaptable center with Multidiameter™ (removable layers for adaptability to pipes of different sizes).

- Tightness obtained by expansion within the seal
- Single pipe penetration
- Sleeves are available
- Single side installation
- Certified fire, water and gas protection

RS seal, with core, acid-proof stainless steel fittings



See sleeves on page 142.

See installation instructions on page 233.

See practical user guidelines on page 264.

RATINGS

Fire: A class, H class

Water pressure: 4 bar

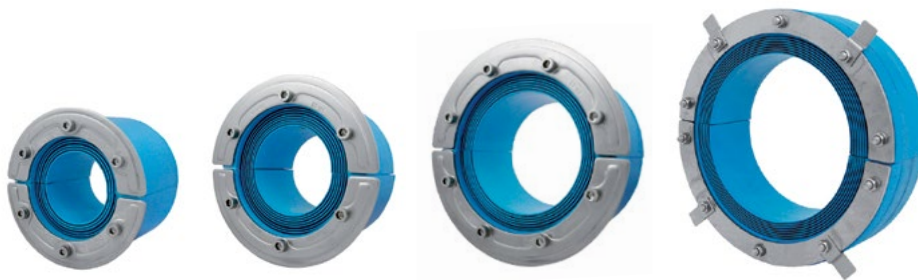
Gas pressure: 2.5 bar

Seal	For pipe Ø		For hole Ø		Weight		Art. No
	(mm)	(in)	(mm)	(in)	(kg)	(lb)	
RS 25 AISI 316	0+3.6-12	0+0.142-0.472	25-26	0.984 - 1.024	0.04	0.093	RS00100251023
RS 31 AISI 316	0+4-17	0+0.157-0.669	31-32	1.221 - 1.260	0.06	0.132	RS00100311023
RS 43 AISI 316	0+4-23	0+0.157-0.906	43-45	1.693 - 1.772	0.2	0.529	RS00100431023
RS 50 AISI 316	0+8-30	0+0.315-1.181	50-52	1.967 - 2.047	0.3	0.639	RS00100501023

RS seal, with core, acid-proof stainless steel fittings

Seal	For pipe Ø		For hole Ø		Weight		Art. No
	(mm)	(in)	(mm)	(in)	(kg)	(lb)	
RS 68 AISI 316	0+26-48	0+1.024-1.890	68-70	2.677 - 2.756	0.5	1.102	RS00100681023
RS 75 AISI 316	0+24-54	0+0.945-2.126	75-77	2.953 - 3.031	0.7	1.543	RS00100751023
RS 100 AISI 316	0+48-70	0+1.890-2.756	100-102	3.937 - 4.016	1.0	2.205	RS00101001023
RS 125 AISI 316	0+66-98	0+2.598-3.858	125-127	4.921 - 5.000	1.6	3.417	RS00101251023

RS seal, without core, acid-proof stainless steel fittings



RS 100 AISI 316 woc

RS 125 AISI 316 woc

RS 150 AISI 316 woc

RS 225-644 AISI 316 woc

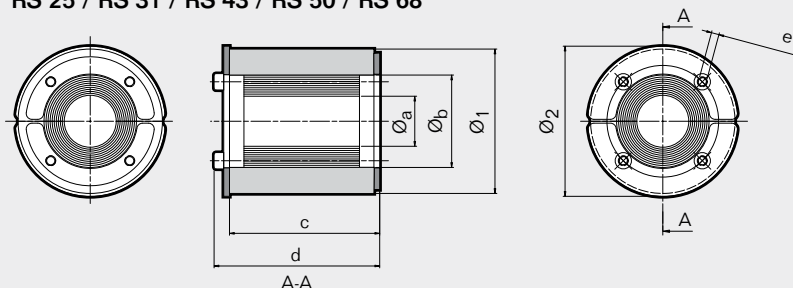
See sleeves on page 142.
See installation instructions on page 233.
See practical user guidelines on page 264.

RATINGS Fire: A class, H class Water pressure: 4 bar Gas pressure: 2.5 bar

Seal	For pipe Ø		For hole Ø		Weight		Art. No
	(mm)	(in)	(mm)	(in)	(kg)	(lb)	
RS 100 AISI 316 woc	48-70	1.890-2.756	100-102	3.937-4.016	0.8	1.874	RS00001001023
RS 125 AISI 316 woc	66-98	2.598-3.858	125-127	4.921-5.000	1.2	2.756	RS00001251023
RS 150 AISI 316 woc	93-119	3.661-4.685	150-152	5.906-5.984	1.6	3.417	RS00001501023
RS 175 AISI 316 woc	119-145	4.685-5.709	175-177	6.890-6.969	2.2	4.189	RS00175750021
RS 200 AISI 316 woc	138-170	5.433-6.693	200-203	7.874-7.992	2.8	5.732	RS00200750021
RS 225 AISI 316 woc	151-181	5.945-7.126	225-228	8.858-8.976	3.1	6.834	RS00002250021
RS 250 AISI 316 woc	176-206	6.913-8.110	250-253	9.843-9.961	3.3	7.275	RS00002500021
RS 300 AISI 316 woc	206-236	8.094-9.291	300-303	11.811-11.929	5.7	12.566	RS00003000021
RS 350 AISI 316 woc	244-286	9.614-11.259	350-353	13.780-13.898	7.3	16.094	RS00003500021
RS 400 AISI 316 woc	294-336	11.583-13.228	400-403	15.748-15.886	8.9	19.621	RS00004000021
RS 450 AISI 316 woc	344-386	13.551-15.197	450-453	17.717-17.835	10.7	23.589	RS00004500021
RS 500 AISI 316 woc	394-436	15.519-17.165	500-503	19.685-19.803	13.0	28.660	RS00005000021
RS 550 AISI 316 woc	444-486	17.488-19.134	550-553	21.654-21.772	14.4	31.746	RS00005500021
RS 600 AISI 316 woc	494-536	19.457-21.102	600-603	23.622-23.740	15.7	34.612	RS00006000021
RS 644 AISI 316 woc	538-580	21.189-22.835	644-647	25.354-25.472	17.0	37.478	RS00006440021

RS seal, technical information

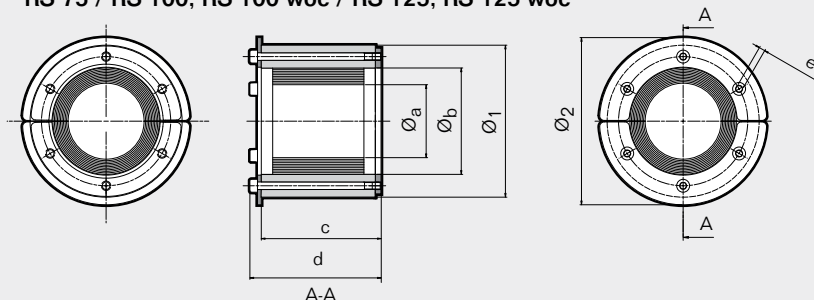
RS 25 / RS 31 / RS 43 / RS 50 / RS 68



	RS 25		RS 31		RS 43		RS 50		RS 68		RS 75	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
Ø _a	3.6	0.142	4	0.157	4	0.157	8	0.315	26	1.024	24	0.945
Ø _b	12	0.472	17	0.669	23	0.906	30	1.181	48	1.890	54	2.126
Ø ₁	25	0.984	31	1.220	43	1.693	50	1.969	68	2.677	75	2.953
Ø ₂	32	1.260	37	1.457	53	2.087	60	2.362	78	3.071	85	3.346
c	39	1.535	40	1.575	78	3.071	78	3.071	78	3.071	78	3.071
d	43	1.693	44	1.732	85	3.346	85	3.346	85	3.346	85	3.346
e	*	*	*	*	**	**	**	**	**	**	***	***

* SW2.5 mm (4x) / SW0.098" (4x) ** SW4 mm (4x) / SW0.157" (4x) *** SW4 mm (6x) / SW0.157" (6x)

RS 75 / RS 100, RS 100 woc / RS 125, RS 125 woc

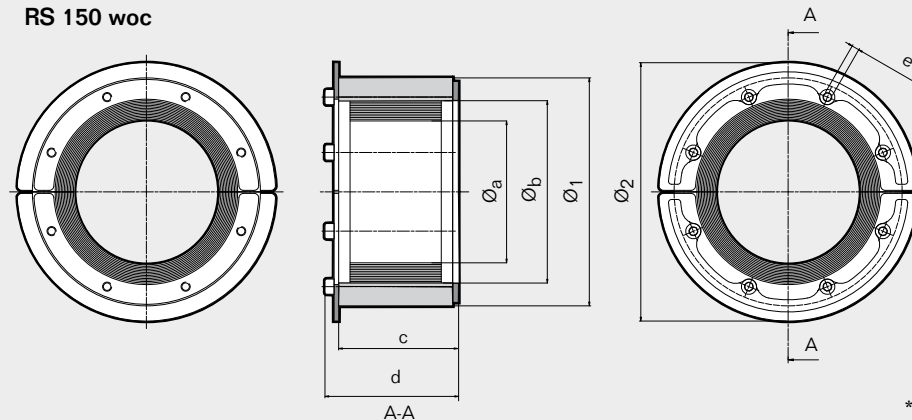


	RS 100 (woc)		RS 125 (woc)	
Pos	(mm)	(in)	(mm)	(in)
Ø _a	48	1.890	66	2.598
Ø _b	70	2.756	98	3.858
Ø ₁	100	3.937	125	4.921
Ø ₂	110	4.331	145	5.709
c	78	3.071	78	3.071
d	87	3.425	87	3.425
e	***	***	****	****

*** SW4 mm (6x) / SW0.157" (6x)

**** SW5 mm (6x) / SW0.197" (6x)

RS 150 woc



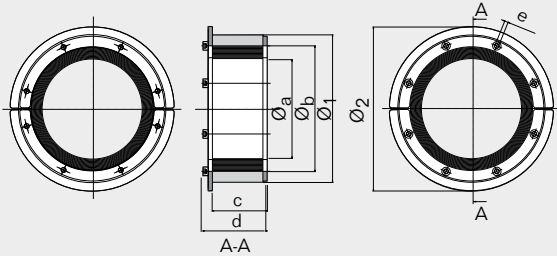
	RS 150 woc	
Pos	(mm)	(in)
Ø _a	93	3.661
Ø _b	119	4.685
Ø ₁	150	5.906
Ø ₂	170	6.693
c	79	3.110
d	88	3.465
e	*****	*****

***** SW5 mm (8x) / SW0.197" (8x)

Note: All dimensions are nominal values

RS seal, technical information

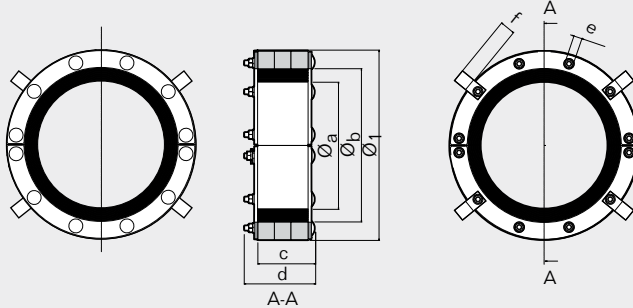
RS 175 woc / RS 200 woc



	RS 175 (woc)		RS 200 (woc)	
Pos	(mm)	(in)	(mm)	(in)
$\varnothing_a$	119	4.685	138	5.433
$\varnothing_b$	147	5.787	170	6.693
$\varnothing_1$	175	6.890	200	7.874
$\varnothing_2$	195	7.677	220	8.661
c	80	3.150	80	3.150
d	90	3.543	90	3.543
e	*	*	*	*

* SW 5 mm (8x) / SW 0.197" (8x)

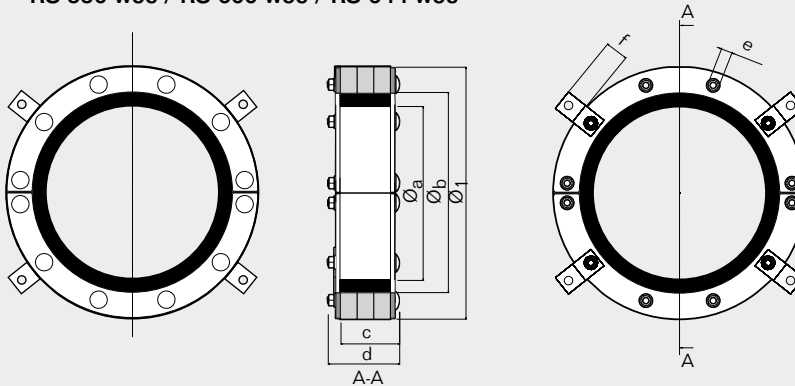
RS 225 woc / RS 250 woc



	RS 225 (woc)		RS 250 (woc)	
Pos	(mm)	(in)	(mm)	(in)
$\varnothing_a$	151	5.945	176	6.913
$\varnothing_b$	181	7.126	206	8.110
$\varnothing_1$	225	8.858	250	9.843
c	68	2.672	69	2.696
d	84	3.302	85	3.326
f	19	0.743	19	0.743
e	**	**	**	**

** SW 10 mm (10x) / SW 0.394" (10x)

RS 300 woc / RS 350 woc / RS 400 woc / RS 450 woc / RS 500 woc / RS 550 woc / RS 600 woc / RS 644 woc



	RS 300 (woc)		RS 350 (woc)		RS 400 (woc)		RS 450 (woc)		RS 500 (woc)		RS 550 (woc)		RS 600 (woc)		RS 644 (woc)	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
c	71	2.775	71	2.775	71	2.775	71	2.775	74	2.889	74	2.889	74	2.889	74	2.889
d	85	3.342	85	3.342	86	3.357	96	3.755	96	3.755	96	3.755	96	3.755	96	3.755
$\varnothing_a$	206	8.094	244	9.614	294	11.583	344	13.551	394	15.519	444	17.488	494	19.457	538	21.189
$\varnothing_b$	236	9.291	286	11.259	336	13.228	386	15.197	436	17.165	486	19.134	536	21.102	580	22.835
$\varnothing_1$	300	11.811	350	13.779	400	15.748	450	17.717	500	19.685	550	21.654	600	23.622	644	25.354
f	28	1.102	28	1.102	28	1.102	28	1.102	28	1.102	28	1.102	28	1.102	28	1.102
e	***	***	***	***	***	***	****	****	****	****	****	****	****	****	****	****

*** SW 13 mm (10x) / SW 0.512" (10x) **** SW 17 mm (10x) / SW 0.669" (10x)

Note: All dimensions are nominal values

Sleeves without flange, for RS seal



SLRS primed mild steel



SLRS acid-proof stainless steel



SLRS aluminum

See practical user guidelines on page 264.

Primed mild steel

Sleeve	Ø (mm)	External dimensions			Internal Ø		Weight		Art. No
		Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLRS 25 primed	34	1.339	35	1.378	25.5	1.004	0.11	0.24	ASL1000250012
SLRS 31 primed	40	1.575	35	1.378	31.5	1.240	0.14	0.30	ASL1000310012
SLRS 43 primed	52	2.047	65	2.559	44	1.732	0.31	0.68	ASL1000430012
SLRS 50 primed	63	2.480	65	2.559	51	2.008	0.54	1.19	ASL1000500012
SLRS 68 primed	83	3.268	65	2.559	69.5	2.736	0.81	1.79	ASL1000680012
SLRS 75 primed	89	3.504	65	2.559	76.5	3.012	0.83	1.83	ASL1000750012
SLRS 100 primed	114	4.488	65	2.559	101	3.976	1.10	2.43	ASL1001000012
SLRS 125 primed	140	5.512	65	2.559	126	4.961	1.50	3.31	ASL1001250012
SLRS 150 primed	164	6.457	65	2.559	151	5.945	1.63	3.58	ASL1001500012
SLRS 175 primed	189	7.441	65	2.559	176	6.929	1.60	3.53	ASLR100017512
SLRS 200 primed	214	8.425	65	2.559	201	7.913	1.80	3.97	ASLR100020012
SLRS 225 primed	239	9.409	55	2.165	227	8.937	1.90	4.19	ASL1002250012
SLRS 250 primed	264	10.394	55	2.165	252	9.921	2.10	4.63	ASL1002500012
SLRS 300 primed	314	12.362	55	2.165	302	11.890	2.50	5.51	ASL1003000012
SLRS 350 primed	364	14.331	55	2.165	352	13.858	2.90	6.39	ASL1003500012
SLRS 400 primed	414	16.299	55	2.165	402	15.827	3.30	7.28	ASL1004000012
SLRS 450 primed	464	18.268	55	2.165	452	17.795	3.70	8.16	ASL1004500012
SLRS 500 primed	514	20.236	55	2.165	502	19.764	4.10	9.04	ASL1005000012
SLRS 550 primed	564	22.205	55	2.165	552	21.732	4.50	9.92	ASL1005500012
SLRS 600 primed	614	24.173	55	2.165	602	23.701	4.90	10.80	ASL1006000012
SLRS 644 primed	658	25.905	55	2.165	646	25.433	5.30	11.68	ASL1006440012

Sleeves without flange, for RS seal

Acid-proof stainless steel

Sleeve	External dimensions				Internal Ø		Weight		Art. No
	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLRS 25 AISI 316	34	1.339	35	1.378	25.5	1.004	0.11	0.24	ASL1000250021
SLRS 31 AISI 316	40	1.575	35	1.378	31.5	1.240	0.14	0.30	ASL1000310021
SLRS 43 AISI 316	52	2.047	65	2.559	44	1.732	0.31	0.67	ASL1000430021
SLRS 50 AISI 316	63	2.480	65	2.559	51	2.008	0.54	1.18	ASL1000500021
SLRS 68 AISI 316	83	3.268	65	2.559	69.5	2.736	0.83	1.83	ASL1000680021
SLRS 75 AISI 316	89	3.504	65	2.559	76.5	3.012	0.83	1.83	ASL1000750021
SLRS 100 AISI 316	114	4.488	65	2.559	101	3.976	1.13	2.49	ASL1001000021
SLRS 125 AISI 316	140	5.512	65	2.559	126	4.961	1.53	3.37	ASL1001250021
SLRS 150 AISI 316	164	6.457	65	2.559	151	5.945	1.63	3.59	ASL1001500021
SLRS 175 AISI 316	189	7.441	65	2.559	176	6.929	1.60	3.53	ASLR101750021
SLRS 200 AISI 316	214	8.425	65	2.559	201	7.913	1.85	4.07	ASLR100020021
SLRS 225 AISI 316	239	9.409	55	2.165	227	8.937	2.20	4.85	5ASL000007919
SLRS 250 AISI 316	264	10.394	55	2.165	252	9.921	2.10	4.63	5ASL000008504
SLRS 300 AISI 316	314	12.362	55	2.165	302	11.890	3.00	6.61	ASL1003000021

Aluminum

Sleeve	External dimensions				Internal Ø		Weight		Art. No
	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLRS 25 Alu	34	1.339	35	1.378	25.5	1.004	0.05	0.11	5ASL000004450
SLRS 31 Alu	40	1.575	35	1.378	31.5	1.240	0.03	0.07	5ASL000003374
SLRS 43 Alu	52	2.047	65	2.559	44	1.732	0.10	0.22	5ASL000006302
SLRS 50 Alu	63	2.480	65	2.559	51	2.008	0.09	0.20	5ASL000000663
SLRS 68 Alu	83	3.268	65	2.559	69.5	2.736	0.12	0.26	5ASL000000516
SLRS 75 Alu	89	3.504	65	2.559	76.5	3.012	0.27	0.60	5ASL000000517
SLRS 100 Alu	114	4.488	65	2.559	101	3.976	0.38	0.84	5ASL000001259
SLRS 125 Alu	140	5.512	65	2.559	126	4.961	0.51	1.12	5ASL000000421
SLRS 150 Alu	164	6.457	65	2.559	151	5.945	0.53	1.17	5ASL000000191

Sleeves with flange, for RS seal



SLFRS primed mild steel



SLFRS galvanized mild steel



SLFRS aluminum

See practical user guidelines on page 264.

Primed mild steel

Sleeve	External flange Ø		External dimensions				Internal Ø		Weight		Art. No
	(mm)	(in)	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLFRS 25 primed	96	3.780	34	1.339	35	1.378	25.5	1.004	0.26	0.58	ASF1000250012
SLFRS 31 primed	102	4.016	40	1.575	35	1.378	31.5	1.240	0.30	0.65	ASF1000310012
SLFRS 43 primed	110	4.331	52	2.047	65	2.559	44	1.732	0.50	1.10	ASF1000430012
SLFRS 50 primed	140	5.512	63	2.480	65	2.559	51	2.008	0.93	2.05	ASF1000500012
SLFRS 68 primed	155	6.102	83	3.268	65	2.559	69.5	2.736	1.23	2.72	ASF1000680012
SLFRS 75 primed	165	6.496	89	3.504	65	2.559	76.5	3.012	1.33	2.93	ASF1000750012
SLFRS 100 primed	195	7.677	114	4.488	65	2.559	101	3.976	1.76	3.87	ASF1001000012
SLFRS 125 primed	213	8.386	140	5.512	65	2.559	126	4.961	2.07	4.56	ASF1001250012
SLFRS 150 primed	236	9.291	164	6.457	65	2.559	151	5.945	2.34	5.16	ASF1001500012
SLFRS 175 primed	255	10.039	189	7.441	65	2.559	176	6.929	2.30	5.07	ASFR101750012
SLFRS 200 primed	290	11.417	214	8.425	65	2.559	201	7.913	2.78	6.13	ASFR100020012
SLFRS 225 primed	320	12.598	239	9.409	55	2.165	227	8.937	3.35	7.39	5ASF000005709
SLFRS 250 primed	345	13.583	264	10.394	55	2.165	252	9.921	3.70	8.16	ASF1002500012
SLFRS 300 primed	395	15.551	314	12.362	55	2.165	302	11.890	4.40	9.70	ASF1003000012
SLFRS 350 primed	445	17.520	364	14.331	55	2.165	352	13.858	5.00	11.02	ASF1003500012
SLFRS 400 primed	495	19.488	414	16.299	55	2.165	402	15.827	5.70	12.57	ASF1004000012
SLFRS 450 primed	544	21.417	464	18.268	55	2.165	452	17.795	6.40	14.11	ASF1004500012
SLFRS 500 primed	595	23.425	514	20.236	55	2.165	502	19.764	7.60	16.76	ASF1005000012
SLFRS 550 primed	645	25.394	564	22.205	55	2.165	552	21.732	8.40	18.52	ASF1005500012
SLFRS 600 primed	695	27.362	614	24.173	55	2.165	602	23.701	9.10	20.06	ASF1006000012
SLFRS 644 primed	739	29.094	658	25.905	55	2.165	646	25.433	9.70	21.38	ASF1006440012

Sleeves with flange, for RS seal

Galvanized mild steel

Sleeve	External flange Ø		External dimensions				Internal Ø		Weight		Art. No
	(mm)	(in)	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLFRS 25 galv	96	3.780	34	1.339	35	1.378	25.5	1.004	0.26	0.58	ASF1000250015
SLFRS 31 galv	102	4.016	40	1.575	35	1.378	31.5	1.240	0.31	0.68	ASF1000310015
SLFRS 43 galv	110	4.331	52	2.047	65	2.559	44	1.732	0.50	1.10	ASF1000430015
SLFRS 50 galv	140	5.512	63	2.480	65	2.559	51	2.008	0.96	2.11	ASF1000500015
SLFRS 68 galv	155	6.102	83	3.268	65	2.559	69.5	2.736	1.26	2.78	ASF1000680015
SLFRS 75 galv	165	6.496	89	3.504	65	2.559	76.5	3.012	1.35	2.97	ASF1000750015
SLFRS 100 galv	195	7.677	114	4.488	65	2.559	101	3.976	1.79	3.95	ASF1001000015
SLFRS 125 galv	213	8.386	140	5.512	65	2.559	126	4.961	2.13	4.70	ASF1001250015
SLFRS 150 galv	236	9.291	164	6.457	65	2.559	151	5.945	2.41	5.31	ASF1001500015

Aluminum

Sleeve	External flange Ø		External dimensions				Internal Ø		Weight		Art. No
	(mm)	(in)	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLFRS 25 Alu	96	3.780	96	3.780	35	1.378	25.5	1.004	0.03	0.07	5ASF000008715
SLFRS 31 Alu	102	4.016	102	4.016	35	1.378	31.5	1.240	0.55	1.21	5ASF000002399
SLFRS 43 Alu	110	4.331	110	4.331	65	2.559	44	1.732	0.18	0.40	5ASF000002197
SLFRS 50 Alu	140	5.512	140	5.512	65	2.559	51	2.008	0.31	0.68	5ASF000002198
SLFRS 68 Alu	155	6.102	155	6.102	65	2.559	69.5	2.736	0.40	0.88	5ASF000007125
SLFRS 75 Alu	165	6.496	165	6.496	65	2.559	76.5	3.012	0.43	0.95	5ASF000008716
SLFRS 100 Alu	195	7.677	195	7.677	65	2.559	101	3.976	0.40	0.88	5ASF000004042
SLFRS 125 Alu	213	8.386	213	8.386	65	2.559	126	4.961	0.60	1.32	5ASF000003956
SLFRS 150 Alu	236	9.291	236	9.291	65	2.559	151	5.945	0.80	1.76	5ASF000008717

Openable sleeves with flange, for RS seal

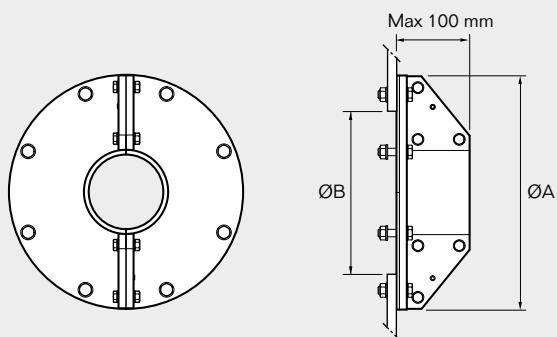


SLFO/RI acid-proof stainless steel

See practical user guidelines on page 264.

Acid-proof stainless steel

Sleeve	External flange diameter		Aperture diameter		Weight		Art. No
	ØA (mm)	ØA (in)	ØB (mm)	ØB (in)	(kg)	(lb)	
SLFO/RI 43 AISI 316	215	8.5	151	5.95	4.2	9.3	SLFORI0004321
SLFO/RI 50 AISI 316	226	8.9	162	6.4	4.7	10.4	SLFORI0005021
SLFO/RI 68 AISI 316	246	9.7	182	7.2	5.4	11.9	SLFORI0006821
SLFO/RI 75 AISI 316	252	9.9	188	7.4	5.5	12.1	SLFORI0007521
SLFO/RI 100 AISI 316	317	12.5	253	9.9	9.5	20.9	SLFORI0010021
SLFO/RI 125 AISI 316	343	13.5	279	10.9	10.8	23.8	SLFORI0012521
SLFO/RI 150 AISI 316	367	14.5	303	11.9	11.6	25.6	SLFORI0015021
SLFO/RI 175 AISI 316	392	15.4	328	12.9	12.6	27.8	SLFORI0017521
SLFO/RI 200 AISI 316	417	16.4	353	13.9	13.7	30.2	SLFORI0020021
SLFO/RI 225 AISI 316	450	17.7	386	15.2	16.8	37.1	SLFORI0022521
SLFO/RI 250 AISI 316	475	18.7	411	16.2	18.1	39.9	SLFORI0025021
SLFO/RI 300 AISI 316	525	20.7	461	18.2	20.5	45.2	SLFORI0030021
SLFO/RI 350 AISI 316	575	22.6	511	20.1	23.0	50.7	SLFORI0035021
SLFO/RI 400 AISI 316	625	24.6	561	22.1	25.5	56.2	SLFORI0040021
SLFO/RI 450 AISI 316	675	26.6	611	24.1	27.9	61.5	SLFORI0045021
SLFO/RI 500 AISI 316	725	28.5	661	26.1	30.4	67.1	SLFORI0050021
SLFO/RI 550 AISI 316	775	30.5	711	27.9	32.9	72.5	SLFORI0055021
SLFO/RI 600 AISI 316	825	32.5	761	29.9	35.3	77.8	SLFORI0060021
SLFO/RI 644 AISI 316	869	34.2	805	31.7	37.5	82.3	SLFORI0064421





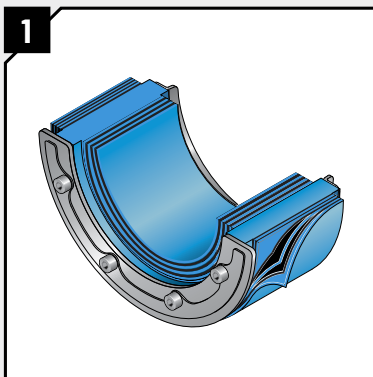
Roxtec RS OMD seal

The Roxtec RS OMD seal is a circular solution which protects single metal pipe penetrations. It can be adjusted on the outside to fit non-standard sleeve sizes, and its two halves and adaptable center are also equipped with Roxtec Multidiameter™ (removable layers for adaptability to pipes of different sizes).

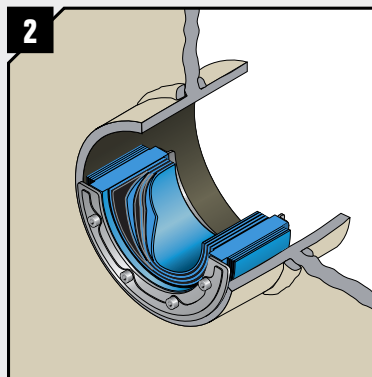
- Tightness obtained by expansion within the seal
- Multiple pipe dimensions covered by one product size
- Single side installation
- Certified for fire, water and gas protection
- Adaptability on the outside to fit round openings of varying sizes
- Single pipe penetration

How it works

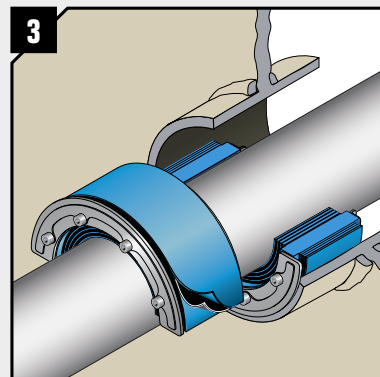
The example shows the features that make it quick and easy to install the RS OMD.



The Roxtec RS OMD has two halves equipped with removable layers on the outside. It can easily be adapted to fit openings of varying sizes and non-standard sleeve sizes.

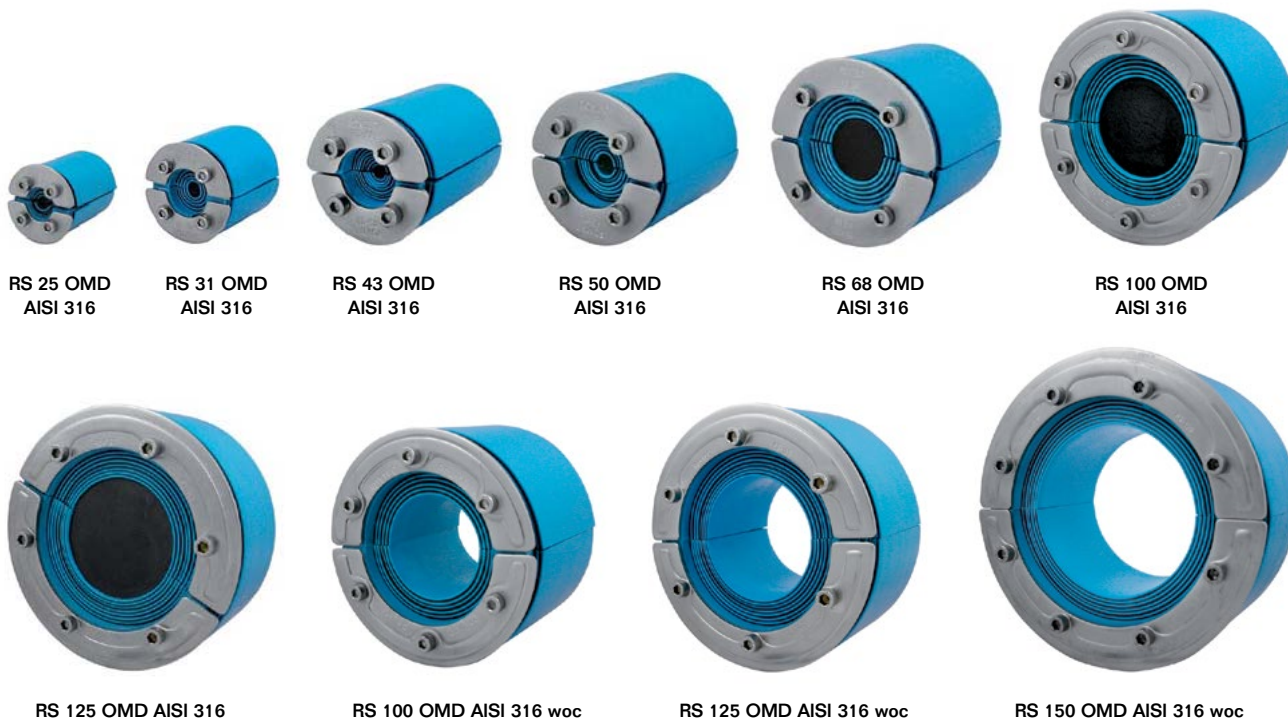


Each half of the seal is also equipped with removable layers inside in order to be adaptable to pipes of different sizes.



Each half is adapted on the inside and on the outside and the flexible solution is sealed by tightening the expansion mechanism.

RS OMD seal, acid-proof stainless steel fittings

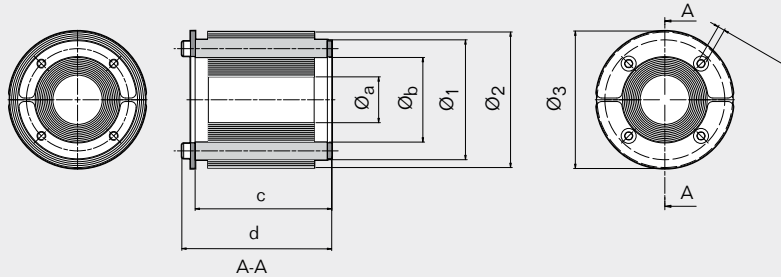


Installation instructions are available on www.roxtec.com

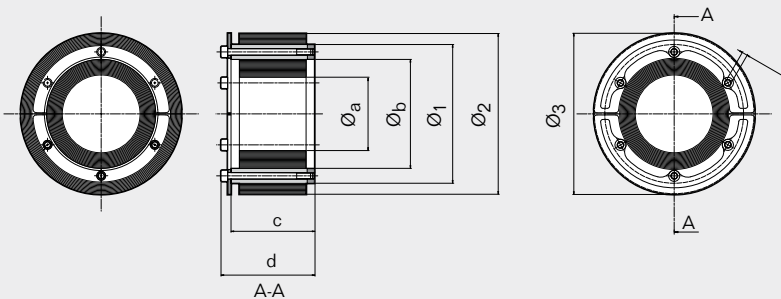
RATINGS Fire: A class Water pressure: 4 bar Gas pressure: 2.5 bar							
Seal	For pipe Ø		For hole Ø		Weight		Art. No
	(mm)	(in)	(mm)	(in)	(kg)	(lb)	
WITH CORE							
RS 25 OMD AISI 316	0+3,6-12	0+0.142-0.472	25-30	0.984-1.181	0.05	0.121	RSO0100251021
RS 31 OMD AISI 316	0+4-17	0+0.157-0.669	31.5-35.5	1.240-1.398	0.06	0.132	RSO0100311021
RS 43 OMD AISI 316	0+4-23	0+0.157-0.906	43.5-51.0	1.713-2.008	0.2	0.441	RSO0100431021
RS 50 OMD AISI 316	0+8-30	0+0.315-1.181	50.5-58.0	1.988-2.283	0.3	0.661	RSO0100501021
RS 68 OMD AISI 316	0+26-48	0+1.024-1.890	69.0-76.5	2.717-3.012	0.5	1.102	RSO0100681021
RS 100 OMD AISI 316	0+48-70	0+1.890-2.756	101.0-108.0	3.976-4.252	1.0	2.205	RSO0101001021
RS 125 OMD AISI 316	0+66-98	0+2.598-3.858	126.0-143.0	4.961-5.630	1.9	4.058	RSO0101251021
WITHOUT CORE							
RS 100 OMD AISI 316 woc	48-70	1.890-2.756	101.0-108.0	3.976-4.252	0.9	1.984	RSO0001001021
RS 125 OMD AISI 316 woc	66-98	2.598-3.858	126.0-143.0	4.961-5.630	1.2	2.756	RSO0001251021
RS 150 OMD AISI 316 woc	93-119	3.661-4.685	151.0-168.0	5.945-6.614	1.6	3.417	RSO0001501021

RS OMD seal, technical information

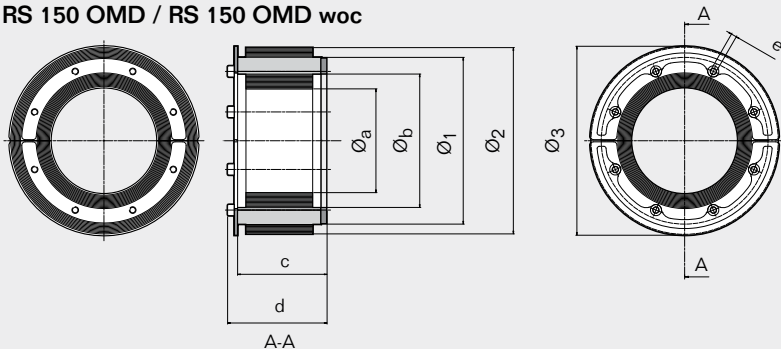
RS 25 OMD / RS 31 OMD / RS 43 OMD / RS 50 OMD / RS 68 OMD



RS 100 OMD / RS 100 OMD woc / RS 125 OMD / RS 125 OMD woc



RS 150 OMD / RS 150 OMD woc



	RS OMD 25		RS OMD 31		RS OMD 43		RS OMD 50		RS OMD 68		RS OMD 100		RS OMD 125		RS OMD 150	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
Ø _a	3.6	0.142	4	0.157	4	0.157	8	0.315	26	1.024	48	1.890	66	2.598	93	3.661
Ø _b	12	0.472	17	0.669	23	0.906	30	1.181	48	1.890	70	2.756	98	3.858	119	4.685
Ø ₁	25	0.984	31	1.220	43	1.693	50	1.969	68	2.677	100	3.937	125	4.921	150	5.906
Ø ₂	30	1.181	36	1.417	51	2.008	58	2.283	76	2.992	108	4.252	143	5.630	168	6.614
Ø ₃	32	1.260	37	1.457	53	2.087	60	2.362	78	3.071	110	4.331	145	5.709	170	6.693
c	38.5	1.516	40	1.575	78	3.071	78	3.071	78	3.071	78	3.071	78	3.071	79	3.110
d	43	1.693	44	1.732	85	3.346	85	3.346	85	3.346	87	3.425	87	3.425	88	3.465
e	*	*	*	*	**	**	**	**	**	**	***	***	****	****	*****	*****

* SW2.5 mm (4x) / SW0.098" (4x)

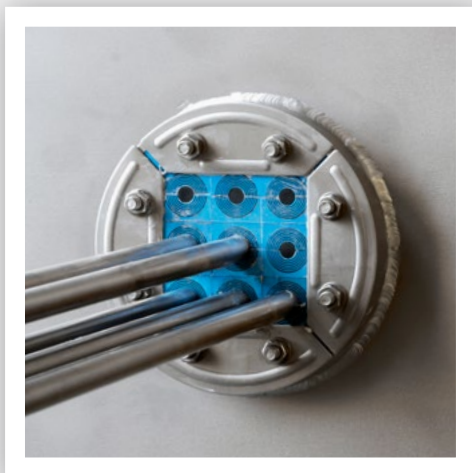
**** SW5 mm (6x) / SW0.197 (6x)

** SW4 mm (4x) / SW0.157 (4x)

***** SW5 mm (8x) / SW0.197 (8x)

*** SW4 mm (6x) / SW0.157 (6x)

Note: All dimensions are nominal values



Roxtec R frame

The Roxtec R frame is a circular frame with a square packing space to encase RM modules with Multidiameter™. The solution protects multiple metal pipes penetrating an opening and also allows for “future included” planning by including extra capacity for metal pipe additions. The frame is simply inserted into the sleeve and compressed by expansion to seal the transit.

- Tightness obtained by expansion within the seal
- Multiple pipe dimensions covered by one product size
- Multiple pipe penetrations included within one opening in the deck or bulkhead
- Single side installation
- Certified fire, water and gas protection
- Sleeves are available

R frame, galvanized fittings



R 100 galv



R 125 galv



R 127 galv



R 150 galv



R 200 galv

See parts needed for a complete solution on page 26.

See sleeves on page 153.

See installation instructions on page 231.

RATINGS Fire: A class, H class Water pressure: 4 bar Gas pressure: 2.5 bar

Frame	Packing space (mm)	For hole Ø		Weight		Art. No
		(mm)	(in)	(kg)	(lb)	
R 100 galv	60 x 60	100-102	3.937-4.016	0.7	1.499	R000001001018
R 125 galv	80 x 80	125-127	4.921-5.000	1.1	2.447	R000001251018
R 127 galv	80 x 80	127-129	5.000-5.079	1.1	2.447	R000001271018
R 150 galv	90 x 90	150-152	5.906-5.984	1.6	3.638	R000001501018
R 200 galv	120 x 120	200-202	7.874-7.953	2.6	5.732	R000002001018

R frame, acid-proof stainless steel fittings



R 70 AISI 316



R 75 AISI 316



R 100 AISI 316



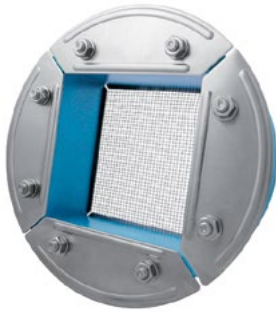
R 125 AISI 316



R 127 AISI 316



R 150 AISI 316



R 200 AISI 316

See parts needed for a complete solution on page 26.

See sleeves on page 153.

See installation instructions on page 231.

RATINGS

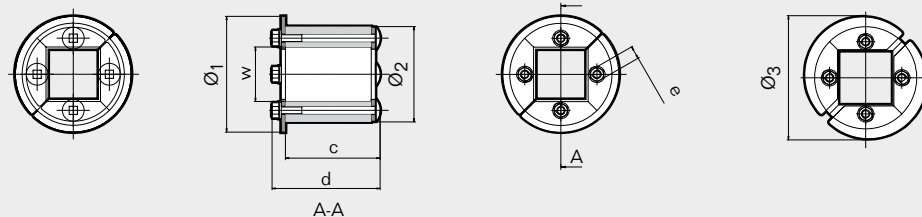
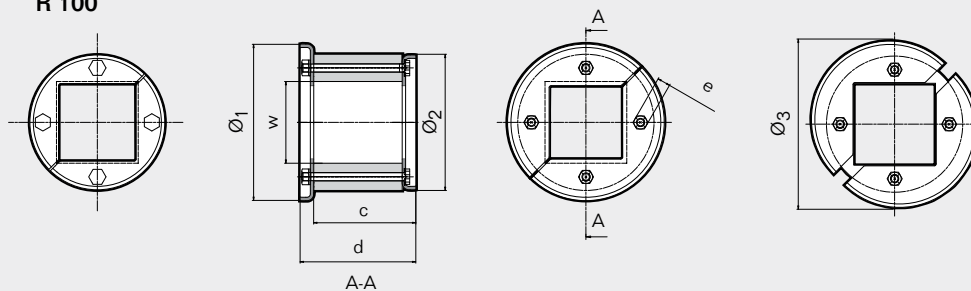
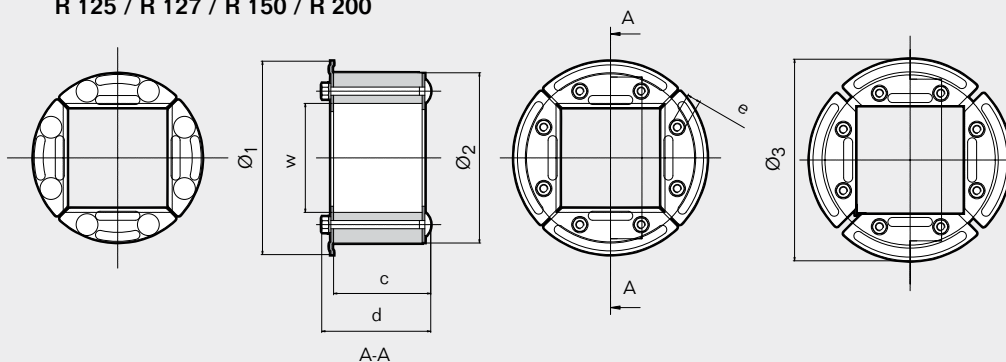
Fire: A class, H class

Water pressure: 4 bar

Gas pressure: 2.5 bar

Frame	Packing space (mm)	For hole Ø		Weight		Art. No
		(mm)	(in)	(kg)	(lb)	
R 70 AISI 316	40 x 40	70-72	2.756-2.835	0.5	1.014	R000000701021
R 75 AISI 316	40 x 40	75-77	2.953-3.031	0.5	1.102	R000000751021
R 100 AISI 316	60 x 60	100-102	3.937-4.016	0.6	1.499	R000001001021
R 125 AISI 316	80 x 80	125-127	4.921-5.000	1.1	2.447	R000001251021
R 127 AISI 316	80 x 80	127-129	5.000-5.079	1.1	2.447	R000001271021
R 150 AISI 316	90 x 90	150-152	5.906-5.984	1.6	3.638	R000001501021
R 200 AISI 316	120 x 120	200-202	7.874-7.953	2.6	5.732	R000002001021

R frame, technical information

R 70 / R 75

R 100

R 125 / R 127 / R 150 / R 200


	R 70		R 75		R 100		R 125		R 127		R 150		R 200	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
Ø ₁	85	3.346	85	3.346	115	4.528	142	5.591	142	5.591	165	6.496	215	8.465
Ø ₂	70	2.756	75	2.953	100	3.937	125	4.921	127	5.000	150	5.906	200	7.874
Ø ₃	91	3.583	91	3.583	125	4.921	148	5.827	148	5.827	171	6.732	223	8.780
w (□)	40	1.575	40	1.575	60	2.362	80	3.150	80	3.150	90	3.543	120	4.724
c	71	2.795	71	2.795	75	2.953	71	2.795	71	2.795	71	2.795	71	2.795
d	85	3.346	85	3.346	85	3.346	80	3.150	80	3.150	85	3.346	85	3.346
e	*	*	*	*	*	*	**	**	**	**	***	***	***	***

* SW10 mm (4x) / SW0.394" (4x) ** SW10 mm (8x) / SW0.394 (8x) *** SW13 mm (8x) / SW0.512 (8x)

Ø₃ = Dimension with front fittings in outer position.

Note: All dimensions are nominal values

Sleeves without flange, for R frame



SLR primed mild steel



SLR acid-proof stainless steel



SLR aluminum

See practical user guidelines on page 264.

Primed mild steel

Sleeve	External dimensions				Internal Ø		Weight		Art. No
	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLR 70 primed	83	3.262	55	2.165	71.5	2.815	0.58	1.27	ASLR100700012
SLR 75 primed	89	3.498	55	2.165	76.5	3.012	0.72	1.58	ASLR100750012
SLR 100 primed	114	4.480	55	2.165	101	3.976	0.93	2.05	ASLR101000012
SLR 125 primed	140	5.502	55	2.165	126	4.961	1.17	2.59	ASLR101250012
SLR 127 primed	140	5.502	55	2.165	128	5.039	1.01	2.23	ASLR101270012
SLR 150 primed	164	6.445	55	2.165	151	5.945	1.38	3.04	ASLR101500012
SLR 200 primed	214	8.410	55	2.165	201	7.913	1.80	3.97	ASLR102000012

Acid-proof stainless steel

Sleeve	External dimensions				Internal Ø		Weight		Art. No
	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLR 70 AISI 316	83	3.262	55	2.165	71.5	2.815	0.60	1.32	ASLR100700021
SLR 75 AISI 316	89	3.498	55	2.165	76.5	3.012	0.71	1.57	ASLR100750021
SLR 100 AISI316	114	4.480	55	2.165	101	3.976	0.96	2.12	ASLR101000021
SLR 125 AISI 316	140	5.502	55	2.165	126	4.961	1.21	2.66	ASLR101250021
SLR 127 AISI 316	140	5.502	55	2.165	128	5.039	1.09	2.41	ASLR101270021
SLR 150 AISI 316	164	6.445	55	2.165	151	5.945	1.39	3.07	ASLR101500021
SLR 200 AISI 316	214	8.410	55	2.165	201	7.913	1.85	4.07	ASLR102000021

Aluminum

Sleeve	External dimensions				Internal Ø		Weight		Art. No
	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLR 70 Alu	83	3.268	55	2.165	71.5	2.815	0.15	0.33	5ASLR00003974
SLR 75 Alu	89	3.504	55	2.165	76.5	3.012	0.22	0.49	5ASLR00008711
SLR 100 Alu	114	4.488	55	2.165	101	3.976	0.33	0.73	5ASLR00000894
SLR 125 Alu	140	5.512	55	2.165	126	4.961	0.40	0.88	5ASLR000007647
SLR 127 Alu	140	5.512	55	2.165	128	5.039	0.50	1.10	5ASLR00003246
SLR 150 Alu	164	6.457	55	2.165	151	5.945	0.45	0.99	5ASLR00003239
SLR 200 Alu	214	8.425	55	2.165	201	7.913	1.00	2.20	5ASLR00003240

Sleeves with flange, for R frame



SLFR primed mild steel



SLFR galvanized mild steel



SLFR aluminum

See practical user guidelines on page 264.

Primed mild steel

Sleeve	External flange Ø		External dimensions				Internal Ø		Weight		Art. No
	(mm)	(in)	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLFR 70 primed	160	6.299	160	6.299	55	2.165	71.5	2.815	1.05	2.31	ASFR100700012
SLFR 75 primed	165	6.496	165	6.496	55	2.165	76.5	3.012	1.20	2.63	ASFR100750012
SLFR 100 primed	195	7.677	195	7.677	55	2.165	101	3.976	1.58	3.48	ASFR101000012
SLFR 125 primed	213	8.386	213	8.386	55	2.165	126	4.961	1.82	4.00	ASFR101250012
SLFR 127 primed	213	8.386	213	8.386	55	2.165	128	5.039	1.67	3.68	ASFR101270012
SLFR 150 primed	236	9.291	236	9.291	55	2.165	151	5.945	2.10	4.63	ASFR101500012
SLFR 200 primed	290	11.417	290	11.417	55	2.165	201	7.913	2.78	6.13	ASFR102000012

Galvanized mild steel

Sleeve	External flange Ø		External dimensions				Internal Ø		Weight		Art. No
	(mm)	(in)	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLFR 70 galv	160	6.299	160	6.299	55	2.165	71.5	2.815	1.08	2.37	ASFR100700015
SLFR 75 galv	165	6.496	165	6.496	55	2.165	76.5	3.012	1.23	2.71	ASFR100750015
SLFR 100 galv	195	7.677	195	7.677	55	2.165	101	3.976	1.61	3.55	ASFR101000015
SLFR 125 galv	213	8.386	213	8.386	55	2.165	126	4.961	1.91	4.20	ASFR101250015
SLFR 127 galv	213	8.386	213	8.386	55	2.165	128	5.039	1.73	3.81	ASFR101270015
SLFR 150 galv	236	9.291	236	9.291	55	2.165	151	5.945	2.18	4.80	ASFR101500015
SLFR 200 galv	290	11.417	290	11.417	55	2.165	201	7.913	2.90	6.39	ASFR102000015

Aluminum

Sleeve	External flange Ø		External dimensions				Internal Ø		Weight		Art. No
	(mm)	(in)	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLFR 70 Alu	160	6.299	160	6.299	55	2.165	71.5	2.815	0.33	0.73	5ASFR00008713
SLFR 75 Alu	165	6.496	165	6.496	55	2.165	76.5	3.012	0.40	0.88	5ASFR00008712
SLFR 100 Alu	195	7.677	195	7.677	55	2.165	101	3.976	0.53	1.17	5ASFR00001917
SLFR 125 Alu	213	8.386	213	8.386	55	2.165	126	4.961	0.63	1.39	5ASFR00004286
SLFR 127 Alu	213	8.386	213	8.386	55	2.165	128	5.039	0.57	1.26	5ASFR00008714
SLFR 150 Alu	236	9.291	236	9.291	55	2.165	151	5.945	0.71	1.57	5ASFR00007671
SLFR 200 Alu	290	11.417	290	11.417	55	2.165	201	7.913	0.96	2.12	5ASFR00001918

Openable sleeves with flange, for R frame

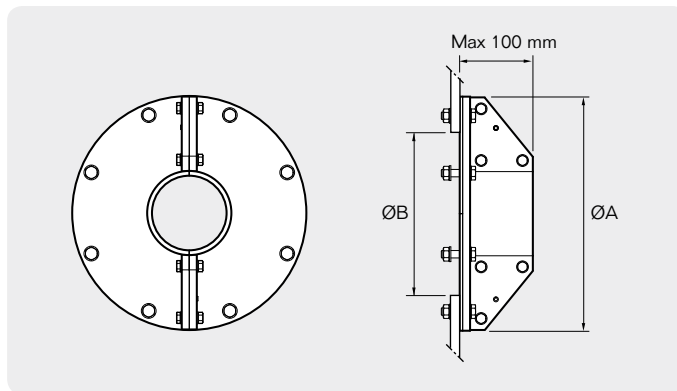


SLFO/RI acid-proof stainless steel

See practical user guidelines on page 264.

Acid-proof stainless steel

Sleeve	External flange diameter		Aperture diameter		Weight		Art. No
	ØA (mm)	ØA (in)	ØB (mm)	ØB (in)	(kg)	(lb)	
SLFO/RI 75 AISI 316	252	9.9	188	7.4	5.5	12.1	SLFORI0007521
SLFO/RI 100 AISI 316	317	12.5	253	9.9	9.5	20.9	SLFORI0010021
SLFO/RI 125 AISI 316	343	13.5	279	10.9	10.8	23.8	SLFORI0012521
SLFO/RI 150 AISI 316	367	14.5	303	11.9	11.6	25.6	SLFORI0015021
SLFO/RI 200 AISI 316	417	16.4	353	13.9	13.7	3	SLFORI0020021





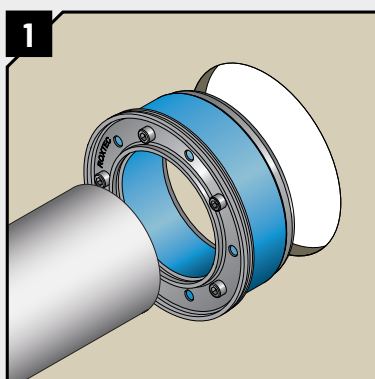
Roxtec SPM™ seal

The Roxtec SPM is a non-weld solution for any kind of metal pipe. It maintains a tight seal around the pipe as well as inside an uneven opening. The seal is quick and easy to install from only one side of steel decks or bulkheads which may range in thickness from 6 to 15 mm.

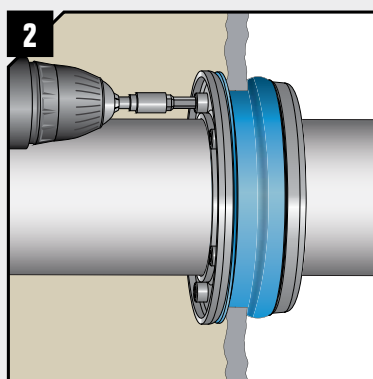
- Light-weight
- Single pipe penetration
- Single-side installation
- Non-weld solution
- Certified fire, water and gas protection

How it works

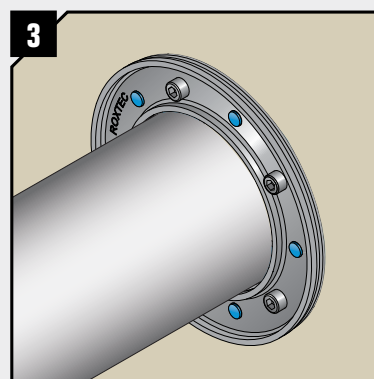
The example shows the features that make it a quick and easy process to install the Roxtec SPM seal.



1 Slide the pipe through the Roxtec SPM seal and insert it into the opening. The seal copes with wide tolerances towards both pipe and opening.



2 Fit the seal against the inside of the opening and tighten the bolts. It maintains a tight seal around the pipe and inside the opening.



3 The indicators show when full compression is achieved in order to simplify both installation and inspection.

SPM™ seal, acid-proof stainless steel fittings



SPM 81

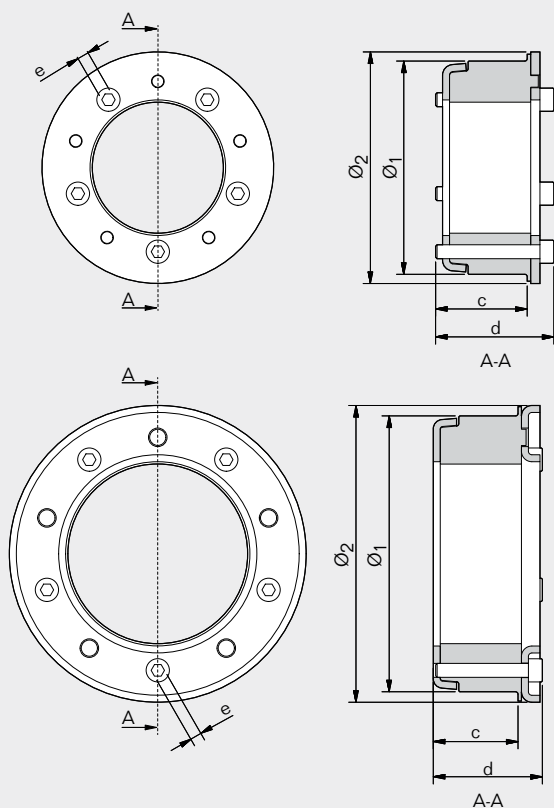
SPM 138

See installation instructions on page 235.

RATINGS Fire: A class Water pressure: 1 bar Gas pressure: 0.67 bar

Seal	For pipe outside Ø		For hole Ø		Weight		Art. no
	(mm)	(in)	(mm)	(in)	(kg)	(lb)	
SPM 41	12-16	0.472 - 0.630	41-45	1.614-1.772	0.1	0.263	153052
SPM 54	19-23	0.748 - 0.906	53.5-57.5	2.106-2.264	0.2	0.441	153060
SPM 59	24-28	0.945 - 1.102	58.5-62.5	2.303-2.461	0.3	0.551	153064
SPM 62	27-31	1.063 - 1.220	61.5-65.5	2.421-2.579	0.3	0.573	153068
SPM 69	32-36	1.260 - 1.417	68.5-72.5	2.697-2.854	0.3	0.683	153072
SPM 81	41.4-45.4	1.630 - 1.787	81-85	3.189-3.346	0.5	1.014	153040
SPM 87	47-51	1.850 - 2.008	87-91	3.425-3.583	0.5	1.102	153076
SPM 92	52-56	2.047 - 2.205	92-96	3.622-3.779	0.5	1.168	153080
SPM 103	56.2-61.1	2.213 - 2.406	103-107	4.055-4.213	0.7	1.433	153084
SPM 119	72.2-76.9	2.843 - 3.028	119-123	4.685-4.843	0.8	1.720	153088
SPM 138	88-92	3.465 - 3.622	138-142	5.433-5.591	1.1	2.315	153056
SPM 157	107-111	4.213 - 4.370	157-161	6.181-6.339	1.2	2.734	153092
SPM 168	113-117	4.449 - 4.606	168-172	6.614-6.772	1.6	3.461	153096
SPM 196	138.5-143	5.453 - 5.630	196-200	7.717-7.874	1.9	4.255	153100
SPM 226	167-171	6.575 - 6.732	226-230	8.898-9.055	2.4	5.291	153104
SPM 279	218-222	8.583 - 8.740	279-283	10.984-11.142	3.0	6.702	153036

SPM™ seal, technical information



	SPM 41		SPM 54		SPM 59		SPM 62		SPM 69		SPM 81		SPM 87		SPM 92	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
$\varnothing_1$	41	1.614	53.5	2.106	58.5	2.303	61.5	2.421	68.5	2.697	81	3.189	87	3.425	92	3.622
$\varnothing_2$	51	2.008	64	2.520	69	2.717	72	2.835	79	3.110	89	3.504	95	3.740	100	3.937
c	41	1.614	40	1.575	37	1.457	37	1.457	37	1.457	40	1.575	40	1.575	40	1.575
d	49	1.929	49	1.929	47	1.850	47	1.850	47	1.850	51	2.008	51	2.008	51	2.008
e	*	*	*	*	**	**	**	**	**	**	***	***	***	***	***	***

	SPM 103		SPM 119		SPM 138		SPM 157		SPM 168		SPM 196		SPM 226		SPM 279	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
$\varnothing_1$	103	4.055	119	4.685	138	5.433	157	6.181	168	6.614	196	7.717	226	8.898	279	10.984
$\varnothing_2$	112	4.409	128	5.039	147	5.787	166	6.535	180	7.087	206	8.110	238	9.370	291	11.457
c	41	1.614	37	1.457	41	1.614	41	1.614	46	1.811	46	1.811	46	1.811	46	1.811
d	51	2.008	47	1.850	51	2.008	51	2.008	58	2.283	58	2.283	58	2.283	58	2.283
e	***	***	***	***	***	***	***	***	****	****	****	****	****	****	****	****

* SW3 mm/SW0.118"

** SW4 mm/SW0.157"

*** SW5 mm/SW0.197"

**** SW6 mm/SW0.236"

Note: All dimensions are nominal values



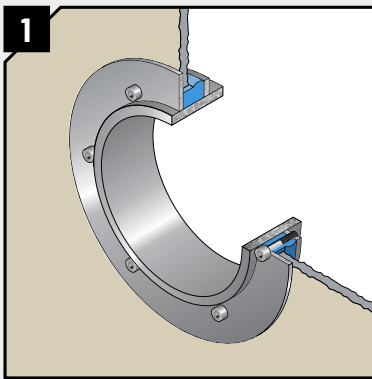
Roxtec R X, RS X seals

The Roxtec R X and RS X seals are designed for retrofit or installations late in the process when welding is not allowed. The kit consists of a non-welding sleeve (SLX) and an RS seal for a single pipe penetration or an R frame for multiple pipes. The R X solution also provides built-in spare capacity for future upgrades.

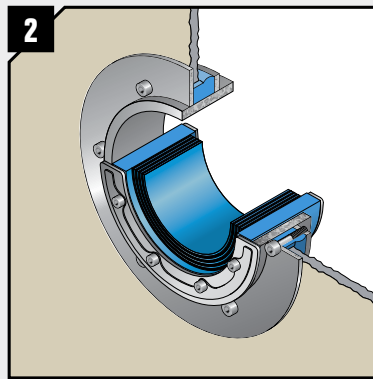
- R X for use with RM modules
- Single or multiple metal pipe penetrations
- Multiple pipe dimensions covered by one product size
- Single side installation
- Certified fire, water and gas protection

How it works

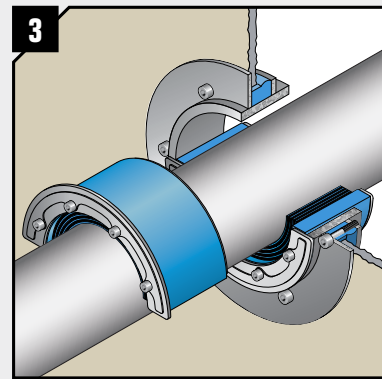
The example shows the features that allow the RS X to be installed in a deck or bulkhead without welding.



The Roxtec RS X is attached through expansion. Its rubber compresses and expands towards the inside of the opening to create tightness between the structure and the SLX sleeve (included in the kit).



The standard operation of the seal also compresses the rubber against the outside of the pipe.



Each half of the seal is equipped with removable layers in order to be adaptable to any pipe.

R X kits, galvanized with galvanized sleeve



R X 100 galv/galv

See information and measurements for R frame on page 152.
See parts needed for a complete solution on page 26.
Installation instructions are available on www.roxtec.com

RATINGS		Fire: A class		Water pressure: 4 bar		Gas pressure: 2.5 bar		
Kit	Packing space (mm)	Aperture dim. ± 1 mm (0.0394")		External dimensions sleeve		Weight sleeve		Art. No
		$\varnothing$ (mm)	$\varnothing$ (in)	$\varnothing \times D$ (mm)	$\varnothing \times D$ (in)	(kg)	(lb)	
R X 100 galv/galv	60 x 60	146	5.748	155 x 55	6.102 x 2.165	2.2	4.850	RXG0001001018
R X 125 galv/galv	80 x 80	171	6.732	180 x 55	7.087 x 2.165	2.8	6.173	RXG0001251018
R X 150 galv/galv	90 x 90	200	7.874	209 x 55	8.228 x 2.165	3.5	7.716	RXG0001501018
R X 200 galv/galv	120 x 120	251	9.882	260 x 55	10.236 x 2.165	4.6	10.141	RXG0002001018

R X kits, acid-proof stainless steel with galvanized sleeve



R X 100 AISI 316/galv

See information and measurements for R frame on page 152.
See parts needed for a complete solution on page 26.
Installation instructions are available on www.roxtec.com

RATINGS		Fire: A class		Water pressure: 4 bar		Gas pressure: 2.5 bar		
Kit	Packing space (mm)	Aperture dim. ± 1 mm (0.0394")		External dimensions sleeve		Weight sleeve		Art. No
		$\varnothing$ (mm)	$\varnothing$ (in)	$\varnothing \times D$ (mm)	$\varnothing \times D$ (in)	(kg)	(lb)	
R X 75 AISI 316/galv	40 x 40	116	4.567	125 x 55	4.921 x 2.165	1.6	3.527	RXG0000751021
R X 100 AISI 316/galv	60 x 60	146	5.748	155 x 55	6.102 x 2.165	2.2	4.850	RXG0001001021
R X 125 AISI 316/galv	80 x 80	171	6.732	180 x 55	7.087 x 2.165	2.8	6.173	RXG0001251021
R X 150 AISI 316/galv	90 x 90	200	7.874	209 x 55	8.228 x 2.165	3.5	7.716	RXG0001501021
R X 200 AISI 316/galv	120 x 120	251	9.882	260 x 55	10.236 x 2.165	4.6	10.141	RXG0002001021

RS X kits, acid-proof stainless steel with galvanized sleeve



RS X 100 AISI 316/galv



RS X 100 AISI 316 woc/galv

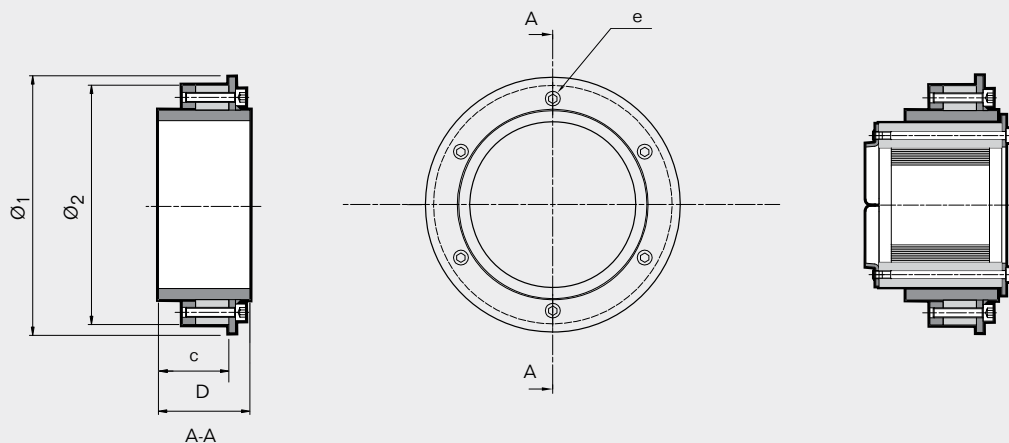
See information and measurements for RS seal on page 140.

Installation instructions are available on www.roxtec.com

RATINGS Fire: A class Water pressure: 4 bar Gas pressure: 2.5 bar

Kit	For pipe Ø		Aperture dim. ± 1 mm (0.0394")		External dimensions sleeve		Weight		Art. No
	(mm)	(in)	Ø (mm)	Ø (in)	ØxD (mm)	ØxD (in)	(kg)	(lb)	
WITH CORE									
RS X 43 AISI 316/galv	0+4-23	0+0.157-0.906	83	3.268	92 x 65	3.622 x 2.559	0.8	1.764	RSXG100431021
RS X 50 AISI 316/galv	0+8-30	0+0.315-1.181	91	3.583	100 x 65	3.937 x 2.559	1.2	2.646	RSXG100501021
RS X 75 AISI 316/galv	0+24-54	0+0.945-2.126	116	4.567	125 x 65	4.921 x 2.559	1.6	3.527	RSXG100751021
RS X 100 AISI 316/galv	0+48-70	0+1.890-2.756	146	5.748	155 x 65	6.102 x 2.559	2.2	4.850	RSXG101001021
RS X 125 AISI 316/galv	0+66-98	0+2.598-3.858	171	6.732	180 x 65	7.087 x 2.559	2.8	6.173	RSXG101251021
WITHOUT CORE									
RS X 100 AISI 316 woc/galv	48-70	1.890-2.756	146	5.748	155 x 65	6.102 x 2.559	2.2	4.850	RSXG001001021
RS X 125 AISI 316 woc/galv	66-98	2.598-3.858	171	6.732	180 x 65	7.087 x 2.559	2.8	6.173	RSXG001251021
RS X 150 AISI 316 woc/galv	93-119	3.661-4.685	200	7.874	209 x 65	8.228 x 2.559	3.5	7.716	RSXG001501021
RS X 175 AISI 316 woc/galv	119-145	4.685-5.709	221	8.701	230 x 65	9.055 x 2.559	5.03	11.089	RSXG001751021
RS X 200 AISI 316 woc/galv	138-170	5.433-6.693	251	9.882	260 x 65	10.236 x 2.559	6.55	14.440	RSXG002001021

R X, RS X kits, technical information



	R X 75		R X 100		R X 125		R X 150		R X 200	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
Ø ₁	125	4.921	155	6.102	180	7.087	209	8.228	260	10.236
Ø ₂	115	4.528	145	5.709	170	6.693	199	7.835	250	9.843
c	43	1.693	43	1.693	43	1.693	43	1.693	43	1.693
D	55	2.165	55	2.165	55	2.165	55	2.165	55	2.165
e	*	*	**	**	**	**	**	**	***	***

* SW 5 mm (4x) / SW 0.197" (4x) ** SW 5 mm (6x) / SW 0.197" (6x) *** SW 5 mm (8x) / SW 0.197" (8x)

	RS X 43		RS X 50		RS X 75		RS X 100 (woc)		RS X 125 (woc)	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
Ø ₁	92	3.622	100	3.937	125	4.921	155	6.102	180	7.087
Ø ₂	82	3.228	90	3.543	115	4.527	145	5.709	170	6.693
c	53	2.087	53	2.087	53	2.087	53	2.087	53	2.087
D	65	2.559	65	2.559	65	2.559	65	2.559	65	2.559
e	****	****	****	****	*****	*****	*****	*****	*****	*****

**** SW 4 mm (4x) / SW 0.157" (4x) ***** SW 5 mm (6x) / SW 0.197" (6x)

	RS X 150 (woc)		RS X 175 (woc)		RS X 200 (woc)	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)
Ø ₁	209	8.228	230	9.055	260	10.236
Ø ₂	199	7.835	220	8.661	250	9.843
c	53	2.087	53	2.087	53	2.087
D	65	2.559	65	2.559	65	2.559
e	*****	*****	*****	*****	*****	*****

***** SW 5 mm (6x) / SW 0.197" (6x)

Note: All dimensions are nominal values



Roxtec S frame

The Roxtec S frame is a metal frame attached by welding. It comes as a single opening or in various combination options and provides packing space for numerous sizes of Roxtec RM modules with Multidiameter™. The solution protects multiple metal pipe penetrations and also allows for “future included” planning by including extra capacity for future metal pipe additions.

- For use with Group RM components
- Attachment by welding
- Multiple pipe dimensions covered by one product size
- Multiple pipe penetrations included within one opening in the deck or bulkhead
- Single side installation
- Certified fire, water and gas protection

S frame, primed mild steel



S 6x1 primed

See parts needed for a complete solution on page 26.

See installation instructions on page 222.

See practical user guidelines on page 264.

Remove primer from the inside of the frame to ensure good conductivity in EMC applications.

For information about other frame combinations, or for openable versions of this frame, please contact your local Roxtec supplier or e-mail: info@roxtec.com

RATINGS

Fire: A class, H class

Water pressure: 4 bar

Gas pressure: 2.5 bar

Frame	Frame openings	Packing space (mm)	External dimensions (D=60 mm)		Weight		Art. No
			HxW (mm)	HxW (in)	(kg)	(lb)	
S 1x1 primed	1	60 x 60	121 x 80	4.764 x 3.150	1.6	3.527	SS01000000112
S 2x1 primed	1	60 x 120	121 x 141	4.764 x 5.551	2.2	4.938	S002000000112
S 2x2 primed	2	60 x 120	121 x 271	4.764 x 10.669	3.9	8.488	S002000000212
S 2x3 primed	3	60 x 120	121 x 402	4.764 x 15.827	5.5	12.037	S002000000312
S 2x4 primed	4	60 x 120	121 x 532	4.764 x 20.945	7.1	15.609	S002000000412
S 2x5 primed	5	60 x 120	121 x 663	4.764 x 26.102	8.7	19.158	S002000000512
S 2x6 primed	6	60 x 120	121 x 793	4.764 x 31.220	10.3	22.707	S002000000612
S 3x1 primed	1	120 x 60	180 x 80	7.087 x 3.150	2.3	5.071	SS03000000112

S frame, primed mild steel

Frame	Frame openings	Packing space (mm)	External dimensions (D=60 mm)		Weight		Art. No
			HxW (mm)	HxW (in)	(kg)	(lb)	
S 4x1 primed	1	120 x 120	180 x 141	7.087 x 5.551	2.8	6.151	S004000000112
S 4x2 primed	2	120 x 120	180 x 271	7.087 x 10.669	4.7	10.318	S004000000212
S 4x3 primed	3	120 x 120	180 x 402	7.087 x 15.827	6.6	14.484	S004000000312
S 4x4 primed	4	120 x 120	180 x 532	7.087 x 20.945	8.5	18.629	S004000000412
S 4x5 primed	5	120 x 120	180 x 663	7.087 x 26.102	10.3	22.796	S004000000512
S 4x6 primed	6	120 x 120	180 x 793	7.087 x 31.220	12.2	26.962	S004000000612
S 4x7 primed	7	120 x 120	180 x 924	7.087 x 36.378	14.1	31.129	S004000000712
S 4x8 primed	8	120 x 120	180 x 1054	7.087 x 41.496	16.0	35.296	S004000000812
S 4x9 primed	9	120 x 120	180 x 1185	7.087 x 46.654	17.9	39.440	S004000000912
S 4+4x1 primed	2	120 x 120	349 x 141	13.740 x 5.551	5.0	11.067	S004400000112
S 4+4x2 primed	4	120 x 120	359 x 271	14.134 x 10.669	9.5	20.878	S004400000212
S 4+4x3 primed	6	120 x 120	359 x 402	14.134 x 15.827	13.5	29.321	S004400000312
S 4+4x4 primed	8	120 x 120	359 x 532	14.134 x 20.945	17.1	37.743	S004400000412
S 4+4x5 primed	10	120 x 120	359 x 663	14.134 x 26.102	21.0	46.186	S004400000512
S 4+4x6 primed	12	120 x 120	359 x 793	14.134 x 31.220	24.8	54.630	S004400000612
S 4+4x7 primed	14	120 x 120	359 x 924	14.134 x 36.378	28.6	63.096	S004400000712
S 4+4x8 primed	16	120 x 120	359 x 1054	14.134 x 41.496	32.6	71.539	S004400000812
S 4+4+4x1 primed	3	120 x 120	519 x 141	20.433 x 5.551	6.6	14.550	S004440000112
S 4+4+4x2 primed	6	120 x 120	539 x 271	21.220 x 10.669	14.2	31.305	S004440000212
S 4+4+4x3 primed	9	120 x 120	539 x 402	21.220 x 15.827	19.9	43.872	S004440000312
S 4+4+4x4 primed	12	120 x 120	539 x 532	21.220 x 20.945	26.2	57.761	S004440000412
S 4+4+4x5 primed	15	120 x 120	539 x 663	21.220 x 26.102	31.3	69.004	S004440000512
S 4+4+4x6 primed	18	120 x 120	539 x 793	21.220 x 31.220	37.0	81.570	S004440000612
S 5x1 primed	1	180 x 60	238 x 80	9.370 x 3.150	2.8	6.173	SS05000000112
S 6x1 primed	1	180 x 120	238 x 141	9.370 x 5.551	3.3	7.363	S006000000112
S 6x2 primed	2	180 x 120	238 x 271	9.370 x 10.669	5.5	12.147	S006000000212
S 6x3 primed	3	180 x 120	238 x 402	9.370 x 15.827	7.7	16.909	S006000000312
S 6x4 primed	4	180 x 120	238 x 532	9.370 x 20.945	9.8	21.671	S006000000412
S 6x5 primed	5	180 x 120	238 x 663	9.370 x 26.102	12.0	26.455	S006000000512
S 6x6 primed	6	180 x 120	238 x 793	9.370 x 31.220	14.2	31.217	S006000000612
S 6x7 primed	7	180 x 120	238 x 924	9.370 x 36.378	16.3	35.979	S006000000712
S 6x8 primed	8	180 x 120	238 x 1054	9.370 x 41.496	18.5	40.763	S006000000812
S 6x9 primed	9	180 x 120	238 x 1185	9.370 x 46.654	20.7	45.525	S006000000912
S 6+6x1 primed	2	180 x 120	466 x 141	18.346 x 5.551	6.1	13.492	S006600000112
S 6+6x2 primed	4	180 x 120	476 x 271	18.740 x 10.669	11.1	24.537	S006600000212
S 6+6x3 primed	6	180 x 120	476 x 402	18.740 x 15.827	15.5	34.171	S006600000312
S 6+6x4 primed	8	180 x 120	476 x 532	18.740 x 20.945	19.9	43.827	S006600000412
S 6+6x5 primed	10	180 x 120	476 x 663	18.740 x 26.102	24.3	53.506	S006600000512

S frame, primed mild steel

Frame	Frame openings	Packing space (mm)	External dimensions (D=60 mm)		Weight		Art. No
			HxW (mm)	HxW (in)	(kg)	(lb)	
S 6+6x6 primed	12	180 x 120	476 x 793	18.740 x 31.220	28.6	63.140	S006600000612
S 6+6x7 primed	14	180 x 120	476 x 924	18.740 x 36.378	33.0	72.796	S006600000712
S 6+6x8 primed	16	180 x 120	476 x 1054	18.740 x 41.496	37.4	82.474	S006600000812
S 6+6x9 primed	18	180 x 120	476 x 1185	18.740 x 46.654	41.8	92.108	S006600000912
S 6+6x10 primed	20	180 x 120	476 x 1315	18.740 x 51.772	46.2	101.764	S006600001012
S 6+6+6x1 primed	3	180 x 120	694 x 141	27.323 x 5.551	8.2	18.078	S006660000112
S 7x1 primed	1	240 x 60	298 x 80	11.732 x 3.150	3.3	7.363	SS07000000112
S 8x1 primed	1	240 x 120	298 x 141	11.732 x 5.551	3.9	8.620	S008000000112
S 8x2 primed	2	240 x 120	298 x 271	11.732 x 10.669	6.1	13.382	S008000000212
S 8x3 primed	3	240 x 120	298 x 402	11.732 x 15.827	8.2	18.144	S008000000312
S 8x4 primed	4	240 x 120	298 x 532	11.732 x 20.945	10.4	22.928	S008000000412
S 8x5 primed	5	240 x 120	298 x 663	11.732 x 26.102	12.6	27.690	S008000000512
S 8x6 primed	6	240 x 120	298 x 793	11.732 x 31.220	14.7	32.452	S008000000612
S 8+8x1 primed	2	240 x 120	586 x 141	23.071 x 5.551	7.3	16.005	S008800000112
S 8+8x2 primed	4	240 x 120	596 x 271	23.465 x 10.669	12.3	27.006	S008800000212
S 8+8x3 primed	6	240 x 120	596 x 402	23.465 x 15.827	16.6	36.640	S008800000312
S 8+8x4 primed	8	240 x 120	596 x 532	23.465 x 20.945	21.0	46.341	S008800000412
S 8+8x5 primed	10	240 x 120	596 x 663	23.465 x 26.102	25.4	55.975	S008800000512
S 8+8x6 primed	12	240 x 120	596 x 793	23.465 x 31.220	29.8	65.609	S008800000612
S 8+8x7 primed	14	240 x 120	596 x 924	23.465 x 36.378	34.2	75.309	S008800000712
S 8+8x8 primed	16	240 x 120	596 x 1054	23.465 x 41.496	38.5	84.943	S008800000812
S 8+8x9 primed	18	240 x 120	596 x 1185	23.465 x 46.654	42.9	94.577	S008800000912
S 8+8x10 primed	20	240 x 120	596 x 1315	23.465 x 51.772	47.3	104.278	S008800001012
S 8+8+8x1 primed	3	240 x 120	874 x 141	34.409 x 5.551	9.9	21.826	S008880000112

S frame, acid-proof stainless steel



S 6x1 AISI 316

See parts needed for a complete solution on page 26.

See installation instructions on page 222.

See practical user guidelines on page 264.

For information about other frame combinations, or for openable versions of this frame, please contact your local Roxtec supplier or e-mail: info@roxtec.com

RATINGS Fire: A class, H class Water pressure: 4 bar Gas pressure: 2.5 bar							
Frame	Frame openings	Packing space (mm)	External dimensions (D=60 mm)		Weight		Art. No
			HxW (mm)	HxW (in)	(kg)	(lb)	
S 2x1 AISI 316	1	60 x 120	121 x 141	4.764 x 5.551	2.2	4.938	S002000000121
S 2x2 AISI 316	2	60 x 120	121 x 271	4.764 x 10.669	3.9	8.488	S002000000221
S 2x3 AISI 316	3	60 x 120	121 x 402	4.764 x 15.827	5.5	12.037	S002000000321
S 2x4 AISI 316	4	60 x 120	121 x 532	4.764 x 20.945	7.1	15.609	S002000000421
S 2x5 AISI 316	5	60 x 120	121 x 663	4.764 x 26.102	8.7	19.158	S002000000521
S 2x6 AISI 316	6	60 x 120	121 x 793	4.764 x 31.220	10.3	22.707	S002000000621
S 4x1 AISI 316	1	120 x 120	180 x 141	7.087 x 5.551	2.8	6.151	S004000000121
S 4x2 AISI 316	2	120 x 120	180 x 271	7.087 x 10.669	4.7	10.318	S004000000221
S 4x3 AISI 316	3	120 x 120	180 x 402	7.087 x 15.827	6.6	14.484	S004000000321
S 4x4 AISI 316	4	120 x 120	180 x 532	7.087 x 20.945	8.5	18.629	S004000000421
S 4x5 AISI 316	5	120 x 120	180 x 663	7.087 x 26.102	10.3	22.796	S004000000521
S 4x6 AISI 316	6	120 x 120	180 x 793	7.087 x 31.220	12.2	26.962	S004000000621
S 4+4x1 AISI 316	2	120 x 120	349 x 141	13.740 x 5.551	5.0	11.067	S004400000121
S 4+4+4x1 AISI 316	3	120 x 120	519 x 141	20.433 x 5.551	6.6	14.550	S004440000121
S 6x1 AISI 316	1	180 x 120	238 x 141	9.370 x 5.551	3.3	7.363	S006000000121
S 6x2 AISI 316	2	180 x 120	238 x 271	9.370 x 10.669	5.5	12.147	S006000000221
S 6x3 AISI 316	3	180 x 120	238 x 402	9.370 x 15.827	7.7	16.909	S006000000321
S 6x4 AISI 316	4	180 x 120	238 x 532	9.370 x 20.945	9.8	21.671	S006000000421
S 6x5 AISI 316	5	180 x 120	238 x 663	9.370 x 26.102	12.0	26.455	S006000000521
S 6x6 AISI 316	6	180 x 120	238 x 793	9.370 x 31.220	14.2	31.217	S006000000621
S 6+6x1 AISI 316	2	180 x 120	466 x 141	18.346 x 5.551	6.1	13.492	S006600000121
S 6+6x2 AISI 316	4	180 x 120	476 x 271	18.740 x 10.669	11.1	24.537	S006600000221
S 6+6x3 AISI 316	6	180 x 120	476 x 402	18.740 x 15.827	15.5	34.171	S006600000321
S 6+6x4 AISI 316	8	180 x 120	476 x 532	18.740 x 20.945	19.9	43.872	S006600000421
S 6+6x5 AISI 316	10	180 x 120	476 x 663	18.740 x 26.102	24.3	53.506	S006600000521
S 6+6x6 AISI 316	12	180 x 120	476 x 793	18.740 x 31.220	28.6	63.140	S006600000621

S frame, acid-proof stainless steel

Frame	Frame openings	Packing space (mm)	External dimensions (D=60 mm)		Weight		Art. No
			HxW (mm)	HxW (in)	(kg)	(lb)	
S 8x1 AISI 316	1	240 x 120	298 x 141	11.732 x 5.551	3.9	8.620	S008000000121
S 8x2 AISI 316	2	240 x 120	298 x 271	11.732 x 10.669	6.1	13.382	S008000000221
S 8x3 AISI 316	3	240 x 120	298 x 402	11.732 x 15.827	8.2	18.144	S008000000321
S 8x4 AISI 316	4	240 x 120	298 x 532	11.732 x 20.945	10.4	22.928	S008000000421
S 8x5 AISI 316	5	240 x 120	298 x 663	11.732 x 26.102	12.6	27.690	S008000000521
S 8x6 AISI 316	6	240 x 120	298 x 793	11.732 x 31.220	14.7	32.452	S008000000621
S 8+8x1 AISI 316	2	240 x 120	586 x 141	23.071 x 5.551	7.3	16.005	S008800000121
S 8+8+8x1 AISI 316	3	240 x 120	874 x 141	34.409 x 5.551	9.9	21.826	S008880000121

S frame, aluminum



S 6x1 ALU

See parts needed for a complete solution on page 26.

See installation instructions on page 222.

See practical user guidelines on page 264.

For information about other frame combinations, or for openable versions of this frame, please contact your local Roxtec supplier or e-mail: info@roxtec.com

RATINGS

Fire: A class, H class

Water pressure: 4 bar

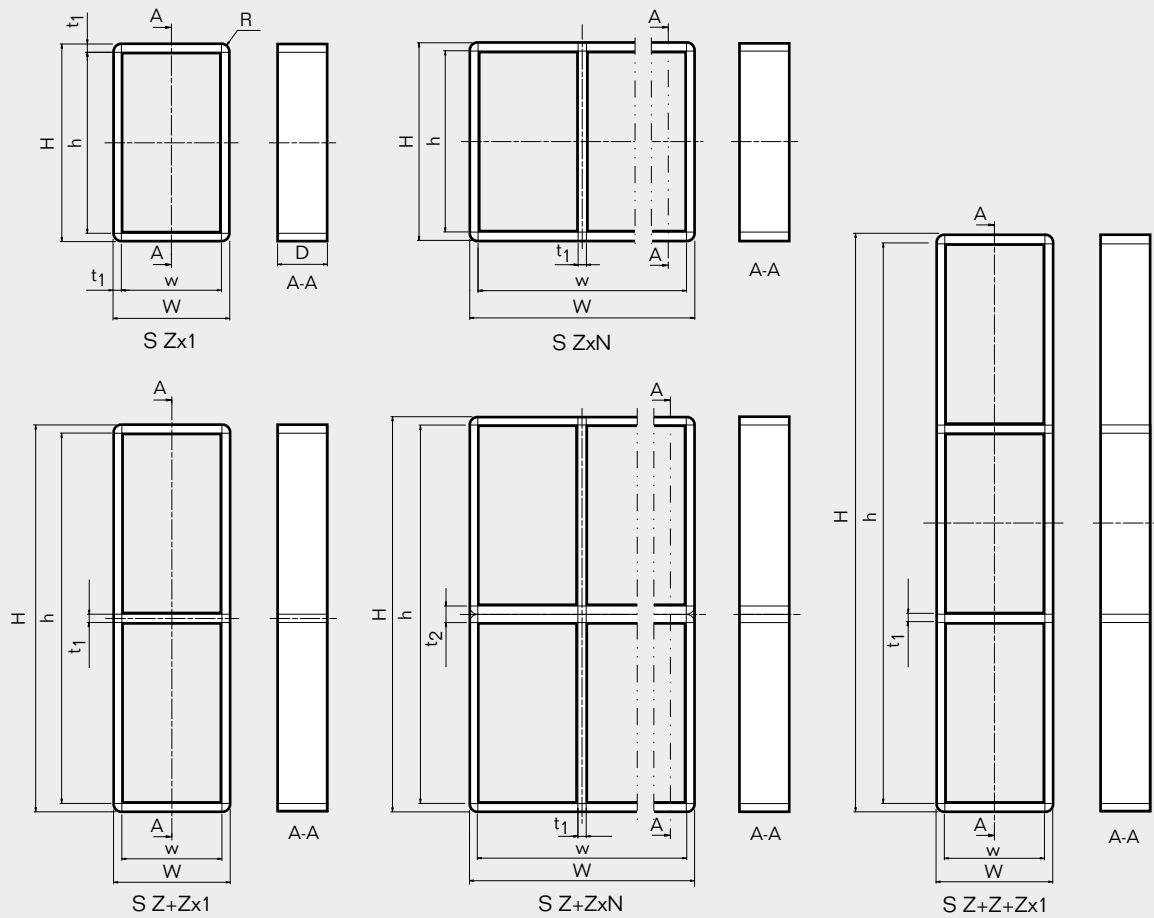
Gas pressure: 2.5 bar

Frame	Frame openings	Packing space (mm)	External dimensions (D=60 mm)		Weight		Art. No
			HxW (mm)	HxW (in)	(kg)	(lb)	
S 2x1 ALU	1	60 x 120	121 x 141	4.764 x 5.551	0.8	1.698	S002000000131
S 2x2 ALU	2	60 x 120	121 x 271	4.764 x 10.669	1.3	2.910	S002000000231
S 2x3 ALU	3	60 x 120	121 x 402	4.764 x 15.827	1.9	4.145	S002000000331
S 2x4 ALU	4	60 x 120	121 x 532	4.764 x 20.945	2.4	5.357	S002000000431
S 2x5 ALU	5	60 x 120	121 x 663	4.764 x 26.102	3.0	6.592	S002000000531
S 2x6 ALU	6	60 x 120	121 x 793	4.764 x 31.220	3.5	7.804	S002000000631
S 2+2x1 ALU	2	60 x 120	232 x 141	9.134 x 5.551	1.3	2.965	S002200000131
S 2+2+2x1 ALU	3	60 x 120	343 x 141	13.504 x 5.551	1.7	3.748	S002220000131
S 4x1 ALU	1	120 x 120	180 x 141	7.087 x 5.551	1.0	2.116	S004000000131
S 4x2 ALU	2	120 x 120	180 x 271	7.087 x 10.669	1.6	3.549	S004000000231
S 4x3 ALU	3	120 x 120	180 x 402	7.087 x 15.827	2.3	4.982	S004000000331

S frame, aluminum

Frame	Frame openings	Packing space (mm)	External dimensions (D=60 mm)		Weight		Art. No
			HxW (mm)	HxW (in)	(kg)	(lb)	
S 4x4 ALU	4	120 x 120	180 x 532	7.087 x 20.945	2.9	6.415	S004000000431
S 4x5 ALU	5	120 x 120	180 x 663	7.087 x 26.102	3.6	7.848	S004000000531
S 4x6 ALU	6	120 x 120	180 x 793	7.087 x 31.220	4.2	9.281	S004000000631
S 4+4x1 ALU	2	120 x 120	349 x 141	13.740 x 5.551	1.7	3.762	S004400000131
S 4+4x2 ALU	4	120 x 120	359 x 271	14.134 x 10.669	3.2	7.099	S004400000231
S 4+4x3 ALU	6	120 x 120	359 x 402	14.134 x 15.827	4.5	9.965	S004400000331
S 4+4x4 ALU	8	120 x 120	359 x 532	14.134 x 20.495	5.8	12.831	S004400000431
S 4+4+4x1 ALU	3	120 x 120	519 x 141	20.433 x 5.551	2.3	5.071	S004440000131
S 6x1 ALU	1	180 x 120	238 x 141	9.370 x 5.551	1.2	2.535	S006000000131
S 6x2 ALU	2	180 x 120	238 x 271	9.370 x 10.669	1.9	4.167	S006000000231
S 6x3 ALU	3	180 x 120	238 x 402	9.370 x 15.827	2.6	5.820	S006000000331
S 6x4 ALU	4	180 x 120	238 x 532	9.370 x 20.495	3.4	7.452	S006000000431
S 6x5 ALU	5	180 x 120	238 x 663	9.370 x 26.102	4.1	9.083	S006000000531
S 6x6 ALU	6	180 x 120	238 x 793	9.370 x 31.220	4.9	10.736	S006000000631
S 6+6x1 ALU	2	180 x 120	466 x 141	18.346 x 5.551	2.1	4.630	S006600000131
S 6+6x2 ALU	4	180 x 120	476 x 271	18.740 x 10.669	3.8	8.333	S006600000231
S 6+6x3 ALU	6	180 x 120	476 x 402	18.740 x 15.827	5.3	11.640	S006600000331
S 6+6x4 ALU	8	180 x 120	476 x 532	18.740 x 20.495	6.8	14.903	S006600000431
S 6+6x5 ALU	10	180 x 120	476 x 663	18.740 x 26.102	8.2	18.166	S006600000531
S 6+6x6 ALU	12	180 x 120	476 x 793	18.740 x 31.220	9.7	21.473	S006600000631
S 6+6+6x1 ALU	3	180 x 120	694 x 141	27.323 x 5.551	2.8	6.173	S006660000131
S 8x1 ALU	1	240 x 120	298 x 141	11.732 x 5.551	1.3	2.954	S008000000131
S 8x2 ALU	2	240 x 120	298 x 271	11.732 x 10.669	2.2	4.806	S008000000231
S 8x3 ALU	3	240 x 120	298 x 402	11.732 x 15.872	3.0	6.658	S008000000331
S 8x4 ALU	4	240 x 120	298 x 532	11.732 x 20.495	3.9	8.532	S008000000431
S 8x5 ALU	5	240 x 120	298 x 663	11.732 x 26.102	4.7	10.385	S008000000531
S 8x6 ALU	6	240 x 120	298 x 793	11.732 x 31.220	5.6	12.236	S008000000631
S 8+8x1 ALU	2	240 x 120	586 x 141	23.071 x 5.551	2.5	5.467	S008800000131
S 8+8+8x1 ALU	3	240 x 120	874 x 141	34.409 x 5.551	3.4	7.496	S008880000131

S frame, technical information



Pos	(mm)	(in)
h	H - 20	H - 0.787
w	W - 20	W - 0.787
D	60	2.362
t ₁	10	0.394
t ₂	20	0.787
R	R 10	R 0.394

Z = Frame size
N = Number of horizontal openings

Note: All dimensions are nominal values

Plastic pipe solutions

An increasing trend within the marine industry to use plastic pipe has led us to develop a significant portfolio of products to protect and seal plastic pipe penetrations.



The Roxtec plastic pipe seals are available in a wide range of types and sizes. Seals can be fitted for circular or rectangular openings for either single or multiple plastic pipe penetrations.

Reducing the risk

Plastic pipe penetration seals require an additional level of protection. In the event of a fire onboard a marine vessel, the plastic pipe will quickly soften, melt and disappear, thus leaving a hole in the deck or bulkhead through which the fire can escape and spread into the next compartment. Therefore, the Roxtec pipe sealing solutions need to react during the fire in order to plug or block the hole created by the disappearing plastic pipe to reduce the risk of a fire spreading.

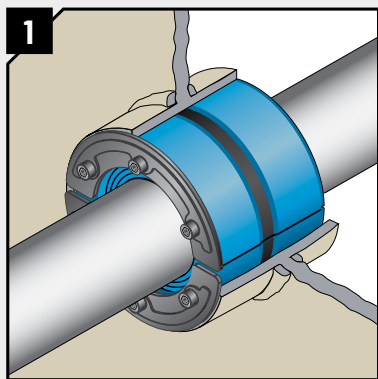
The Roxtec Sleeve-it™ solutions and the Roxtec R and RS PPS series contain a mix of intumescent based material. When exposed to the high temperatures of a fire, it reacts by expanding many times its volume. This creates a pressure inside and crushes the softening plastic pipe to form a plug of material which blocks the opening to stop the fire and smoke from spreading into the next compartment. In areas where higher watertight demands are required, we recommend pipe sealing options that incorporate Multidiameter™. In areas where watertight requirements do not exist or are lower,

such as within some installations above the waterline, we recommend the Roxtec Sleeve-it™ range. When the watertight integrity has to be maintained even after the fire, we can also offer a back-to-back solution (see page 188). Roxtec solutions for plastic pipes facilitate the decisions of ship owners and shipbuilders to use plastic pipe which may lead to lighter vessels, lower fuel costs, less corrosion issues and reduced maintenance costs. Roxtec seals do not only ensure safety, they also contribute to holding down the total cost of ownership.

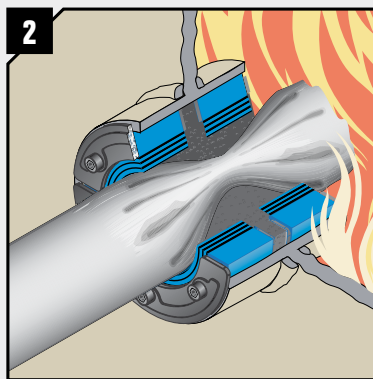
- Flexible solutions
- Solution choices to fit applicable requirements
- Single or multiple plastic pipe penetrations
- Certified protection for various types of plastic pipe
- Single-side installation
- Certified fire, water and gas protection

How it works

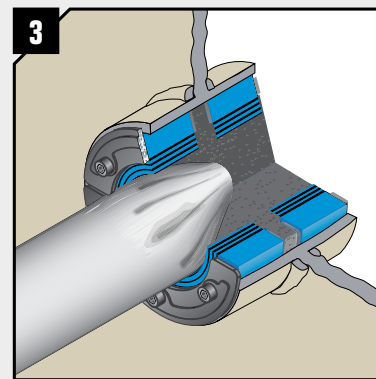
The example shows the RS PPS/S in action. The functionality of the other Roxtec plastic pipe solutions is fundamentally the same.



The Roxtec RS PPS/S seals the plastic pipe against leakage of water and gas through the steel division. Inside the seal, there is an intumescent based material.



This material will expand and close the middle void of the pipe whenever exposed to high temperatures, such as during a fire.



Should a fire occur and the plastic pipe start to burn and melt, the opening will close completely to prevent fire and smoke from spreading through the bulkhead or deck.



Roxtec RS PPS/S, single-side seal

The Roxtec RS PPS/S seal is a circular solution which protects single plastic pipe penetrations. It consists of two halves and an adaptable center with Multidiameter™ (removable layers for adaptability to pipes of different sizes). The two halves are simply inserted into a sleeve and the compression unit inside the seal is tightened in order to correctly protect the plastic pipe. Inside each half, a layer of intumescent based material is placed which reacts with the heat of a fire to protect the penetration once the plastic pipe begins to soften. This solution is installed from only one side of the deck or bulkhead.

- Approved for single-side installation
- Certified protection for various types of plastic pipe
- Single plastic pipe penetrations
- Multiple pipe dimensions covered by one product size
- Certified fire, water and gas protection

RS PPS/S seal, acid-proof stainless steel fittings



RS PPS/S 31
AISI 316



RS PPS/S 43
AISI 316



RS PPS/S 50
AISI 316



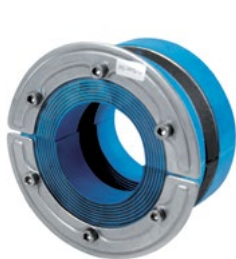
RS PPS/S 68
AISI 316



RS PPS/S 75
AISI 316



RS PPS/S 100
AISI 316 woc



RS PPS/S 125
AISI 316 woc



RS PPS/S 150
AISI 316 woc

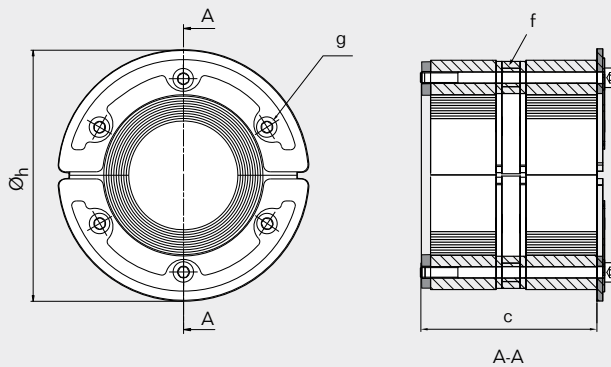
See sleeves on page 174.

See installation instructions on page 239.

RS PPS/S seal, acid-proof stainless steel fittings

RATINGS Fire: A class Water pressure: 4 bar Gas pressure: 2 bar							
Seal	For pipe Ø		For hole Ø		Weight		Art. No
	(mm)	(in)	(mm)	(in)	(kg)	(lb)	
WITH CORE							
RS PPS/S 31 AISI 316	0+ 4-17	0+ 0.157-0.669	31-32	1.221-1.260	0.065	0.143	PPSS000003121
RS PPS/S 43 AISI 316	0+ 4-23	0+ 0.157-0.906	43-45	1.693-1.772	0.251	0.553	PPSS000004321
RS PPS/S 50 AISI 316	0+ 8-30	0+ 0.315-1.181	50-52	1.967-2.047	0.300	0.661	PPSS000005021
RS PPS/S 68 AISI 316	0+ 26-48	0+ 1.024-1.890	68-70	2.677-2.756	0.490	1.080	PPSS000006821
RS PPS/S 75 AISI 316	0+ 24-54	0+ 0.945-2.126	75-77	2.953-3.031	0.606	1.336	PPSS000007521
WITHOUT CORE							
RS PPS/S 100 AISI 316 woc	48-70	1.890-2.756	100-102	3.937-4.016	0.939	2.070	PPSS000010021
RS PPS/S 125 AISI 316 woc	66-98	2.598-3.858	125-127	4.921-5.000	1.306	2.879	PPSS000012521
RS PPS/S 150 AISI 316 woc	93-119	3.661-4.685	150-152	5.906-5.984	1.649	3.635	PPSS000015021

RS PPS/S seal, technical information



(f) Intumescent material

* SW2.5 mm (4x) / SW0.098" (4x)
 ** SW4 mm (4x) / SW0.157" (4x)
 *** SW4 mm (6x) / SW0.157" (6x)
 **** SW5 mm (6x) / SW0.197" (6x)
 ***** SW5 mm (8x) / SW0.197" (8x)

For dimensions, please see page 140.

	RS PPS/S 31		RS PPS/S 43	
Pos	(mm)	(in)	(mm)	(in)
c	40	1.575	78	3.071
g	*	*	**	**
Ø _h	37	1.457	53	2.087

	RS PPS/S 50		RS PPS/S 68	
Pos	(mm)	(in)	(mm)	(in)
c	78	3.071	78	3.071
g	**	**	**	**
Ø _h	60	2.362	78	3.071

	RS PPS/S 75		RS PPS/S 100 woc	
Pos	(mm)	(in)	(mm)	(in)
c	78	3.071	83	3.267
g	***	***	***	***
Ø _h	85	3.346	110	4.331

	RS PPS/S 125 woc		RS PPS/S 150 woc	
Pos	(mm)	(in)	(mm)	(in)
c	83	3.267	83	3.267
g	****	****	*****	*****
Ø _h	145	5.709	170	6.693

Note: All dimensions are nominal values

Sleeves without flange, for RS PPS/S seal



SLRS primed mild steel



SLRS acid-proof stainless steel



SLRS aluminum

See practical user guidelines on page 264.

Primed mild steel

Sleeve	External dimensions				Internal Ø		Weight		Art. No
	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLRS 31 primed	40	1.575	35	1.378	31.5	1.240	0.14	0.30	ASL1000310012
SLRS 43 primed	52	2.047	65	2.559	44	1.732	0.31	0.68	ASL1000430012
SLRS 50 primed	63	2.480	65	2.559	51	2.008	0.54	1.19	ASL1000500012
SLRS 68 primed	83	3.268	65	2.559	69.5	2.736	0.81	1.79	ASL1000680012
SLRS 75 primed	89	3.504	65	2.559	76.5	3.012	0.83	1.83	ASL1000750012
SLRS 100 primed	114	4.488	65	2.559	101	3.976	1.10	2.43	ASL1001000012
SLRS 125 primed	140	5.512	65	2.559	126	4.961	1.50	3.31	ASL1001250012
SLRS 150 primed	164	6.457	65	2.559	151	5.945	1.63	3.58	ASL1001500012

Acid-proof stainless steel

Sleeve	External dimensions				Internal Ø		Weight		Art. No
	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLRS 31 AISI 316	40	1.575	35	1.378	31.5	1.240	0.14	0.30	ASL1000310021
SLRS 43 AISI 316	52	2.047	65	2.559	44	1.732	0.31	0.67	ASL1000430021
SLRS 50 AISI 316	63	2.480	65	2.559	51	2.008	0.54	1.18	ASL1000500021
SLRS 68 AISI 316	83	3.268	65	2.559	69.5	2.736	0.83	1.83	ASL1000680021
SLRS 75 AISI 316	89	3.504	65	2.559	76.5	3.012	0.83	1.83	ASL1000750021
SLRS 100 AISI 316	114	4.488	65	2.559	101	3.976	1.13	2.49	ASL1001000021
SLRS 125 AISI 316	140	5.512	65	2.559	126	4.961	1.53	3.37	ASL1001250021
SLRS 150 AISI 316	164	6.457	65	2.559	151	5.945	1.63	3.59	ASL1001500021

Aluminum

Sleeve	External dimensions				Internal Ø		Weight		Art. No
	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLRS 31 Alu	40	1.575	35	1.378	31.5	1.240	0.03	0.07	5ASL000003374
SLRS 43 Alu	52	2.047	65	2.559	44	1.732	0.10	0.22	5ASL000006302
SLRS 50 Alu	63	2.480	65	2.559	51	2.008	0.09	0.20	5ASL000000663
SLRS 68 Alu	83	3.268	65	2.559	69.5	2.736	0.12	0.26	5ASL000000516
SLRS 75 Alu	89	3.504	65	2.559	76.5	3.012	0.27	0.60	5ASL000000517
SLRS 100 Alu	114	4.488	65	2.559	101	3.976	0.38	0.84	5ASL000001259
SLRS 125 Alu	140	5.512	65	2.559	126	4.961	0.51	1.12	5ASL000000421
SLRS 150 Alu	164	6.457	65	2.559	151	5.945	0.53	1.17	5ASL000000191

Sleeves with flange, for RS PPS/S seal



SLFRS primed mild steel



SLFRS galvanized mild steel



SLFRS aluminum

See practical user guidelines on page 264.

Primed mild steel

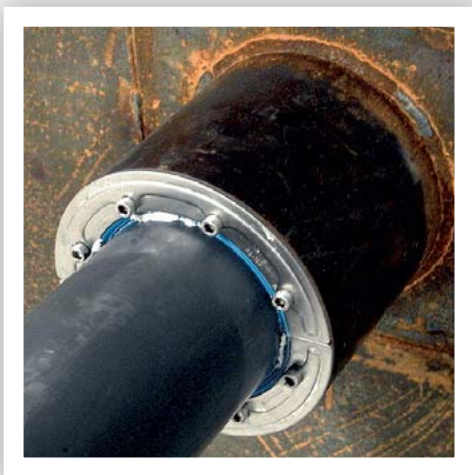
Sleeve	External flange Ø		External dimensions				Internal Ø		Weight		Art. No
	(mm)	(in)	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLFRS 31 primed	102	4.016	40	1.575	35	1.378	31.5	1.240	0.30	0.65	ASF1000310012
SLFRS 43 primed	110	4.331	52	2.047	65	2.559	44	1.732	0.50	1.10	ASF1000430012
SLFRS 50 primed	140	5.512	63	2.480	65	2.559	51	2.008	0.93	2.05	ASF1000500012
SLFRS 68 primed	155	6.102	83	3.268	65	2.559	69.5	2.736	1.23	2.72	ASF1000680012
SLFRS 75 primed	165	6.496	89	3.504	65	2.559	76.5	3.012	1.33	2.93	ASF1000750012
SLFRS 100 primed	195	7.677	114	4.488	65	2.559	101	3.976	1.76	3.87	ASF1001000012
SLFRS 125 primed	213	8.386	140	5.512	65	2.559	126	4.961	2.07	4.56	ASF1001250012
SLFRS 150 primed	236	9.291	164	6.457	65	2.559	151	5.945	2.34	5.16	ASF1001500012

Galvanized mild steel

Sleeve	External flange Ø		External dimensions				Internal Ø		Weight		Art. No
	(mm)	(in)	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLFRS 31 galv	102	4.016	40	1.575	35	1.378	31.5	1.240	0.31	0.68	ASF1000310015
SLFRS 43 galv	110	4.331	52	2.047	65	2.559	44	1.732	0.50	1.10	ASF1000430015
SLFRS 50 galv	140	5.512	63	2.480	65	2.559	51	2.008	0.96	2.11	ASF1000500015
SLFRS 68 galv	155	6.102	83	3.268	65	2.559	69.5	2.736	1.26	2.78	ASF1000680015
SLFRS 75 galv	165	6.496	89	3.504	65	2.559	76.5	3.012	1.35	2.97	ASF1000750015
SLFRS 100 galv	195	7.677	114	4.488	65	2.559	101	3.976	1.79	3.95	ASF1001000015
SLFRS 125 galv	213	8.386	140	5.512	65	2.559	126	4.961	2.13	4.70	ASF1001250015
SLFRS 150 galv	236	9.291	164	6.457	65	2.559	151	5.945	2.41	5.31	ASF1001500015

Aluminum

Sleeve	External flange Ø		External dimensions				Internal Ø		Weight		Art. No
	(mm)	(in)	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLFRS 31 Alu	102	4.016	102	4.016	35	1.378	31.5	1.240	0.55	1.21	5ASF000002399
SLFRS 43 Alu	110	4.331	110	4.331	65	2.559	44	1.732	0.18	0.40	5ASF000002197
SLFRS 50 Alu	140	5.512	140	5.512	65	2.559	51	2.008	0.31	0.68	5ASF000002198
SLFRS 68 Alu	155	6.102	155	6.102	65	2.559	69.5	2.736	0.40	0.88	5ASF000007125
SLFRS 75 Alu	165	6.496	165	6.496	65	2.559	76.5	3.012	0.43	0.95	5ASF000008716
SLFRS 100 Alu	195	7.677	195	7.677	65	2.559	101	3.976	0.40	0.88	5ASF000004042
SLFRS 125 Alu	213	8.386	213	8.386	65	2.559	126	4.961	0.60	1.32	5ASF000003956
SLFRS 150 Alu	236	9.291	236	9.291	65	2.559	151	5.945	0.80	1.76	5ASF000008717



Roxtec RS PPS back-to-back seal

The Roxtec RS PPS seal is a circular solution which protects single plastic pipe penetrations. The solution comes as a kit and consists of two RS seals and one intumescent based sealing strip that wraps around the plastic pipe, in between the two RS seals. Each RS seal has two halves and an adaptable center with Multidiameter™ (removable layers for adaptability to pipes of different sizes). The two halves are simply inserted into each side of the sleeve and the compression units inside the seals are tightened to correctly protect the plastic pipe. Unlike most Roxtec sealing solutions, the RS PPS seal has to be installed on both sides of the division.

- Intended for use with SL PPS sleeves
- Certified protection for various types of plastic pipe
- Multiple pipe dimensions covered by one product size
- Single plastic pipe penetrations
- Certified fire, water and gas protection

RS PPS seal, acid-proof stainless steel fittings



RS PPS 31 AISI 316



RS PPS 43 AISI 316



RS PPS 50 AISI 316



RS PPS 68 AISI 316



RS PPS 75 AISI 316



RS PPS 100 AISI 316 woc



RS PPS 125 AISI 316 woc



RS PPS 150 AISI 316 woc



RS PPS 175-200 AISI 316 woc



RS PPS 225-400 AISI 316 woc

See sleeves on page 179.

See installation instructions on page 237.

RS PPS seal, acid-proof stainless steel fittings

RATINGS

Fire: A class

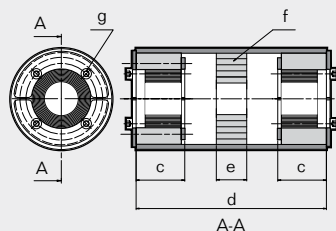
Water pressure: 4 bar

Gas pressure: 2.5 bar

Seal	For pipe Ø		For hole Ø		Weight		Art. No
	(mm)	(in)	(mm)	(in)	(kg)	(lb)	
WITH CORE							
RS PPS 31 AISI 316	0+ 4-17	0+ 0.157-0.669	31.5-32.0	1.240-1.260	0.2	0.353	PPS0000031021
RS PPS 43 AISI 316	0+ 4-23	0+ 0.157-0.906	43.5-44.0	1.713-1.732	0.4	0.816	PPS0000043021
RS PPS 50 AISI 316	0+ 8-30	0+ 0.315-1.181	50.5-51.0	1.988-2.008	0.5	1.102	PPS0000050021
RS PPS 68 AISI 316	0+ 26-48	0+ 1.024-1.890	69.0-70.0	2.717-2.756	0.8	1.676	PPS0000068021
RS PPS 75 AISI 316	0+ 24-54	0+ 0.945-2.126	75-77	2.953-3.031	0.9	1.962	PPS0000075021
WITHOUT CORE							
RS PPS 100 AISI 316 woc	48-70	1.890-2.756	100-102	3.976-4.016	1.3	2.866	PPS0000100021
RS PPS 125 AISI 316 woc	66-98	2.598-3.858	125-127	4.964-5.000	1.9	4.189	PPS0000125021
RS PPS 150 AISI 316 woc	93-119	3.661-4.331	150-152	5.945-5.984	2.6	5.732	PPS0000150021
RS PPS 175 AISI 316 woc	119-147	4.685-5.787	175-177	6.929-6.968	3.8	8.378	PPS0000175021
RS PPS 200 AISI 316 woc	138-170	5.433-6.693	200-202	7.913-7.953	7.2	15.873	PPS0000200021
RS PPS 225 AISI 316 woc	151-181	5.945-7.126	225-228	8.858-8.976	6.4	14.11	PPS0000225021
RS PPS 250 AISI 316 woc	176-206	6.929-8.110	250-253	9.843-9.961	6.8	14.991	PPS0000250021
RS PPS 300 AISI 316 woc	206-236	8.110-9.291	300-303	11.811-11.929	11.6	25.574	PPS0000300021
RS PPS 350 AISI 316 woc	244-286	9.606-11.260	350-353	13.780-13.898	14.8	32.628	PPS0000350021
RS PPS 400 AISI 316 woc	294-336	11.575-13.228	400-403	15.748-15.866	18	39.683	PPS0000400021

RS PPS seal, technical information

RS PPS 31 / RS PPS 43 / RS PPS 50 / RS PPS 68 / RS PPS 75



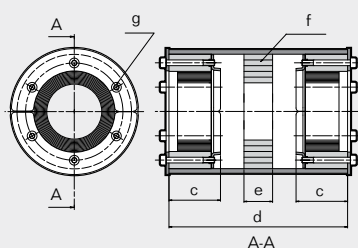
(f) Intumescent material

	RS PPS 31		RS PPS 43		RS PPS 50		RS PPS 68		RS PPS 75	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
c	40	1.575	40	1.575	40	1.575	40	1.575	40	1.575
d	156	6.142	156	6.142	156	6.142	156	6.142	156	6.142
e	25	0.984	25	0.984	25	0.984	25	0.984	25	0.984
g	*	*	**	**	**	**	**	**	***	***

* SW2.5 mm (4x) / SW0.098" (4x) ** SW4 mm (4x) / SW0.157" (4x)

*** SW4 mm (6x) / SW0.157" (6x)

RS PPS 100 woc / RS PPS 125 woc / RS PPS 150 woc

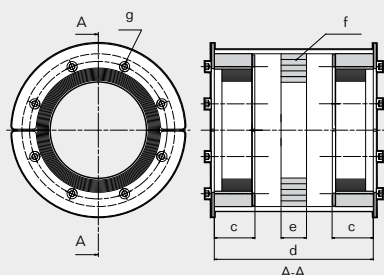


	RS PPS 100 woc		RS PPS 125 woc		RS PPS 150 woc	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)
c	45	1.772	45	1.772	45	1.772
d	156	6.142	156	6.142	156	6.142
e	25	0.984	25	0.984	25	0.984
g	***	***	****	****	*****	*****

*** SW4 mm (6x) / SW0.157" (6x) **** SW5 mm (6x) / SW0.197" (6x)

***** SW5 mm (8x) / SW0.197" (8x)

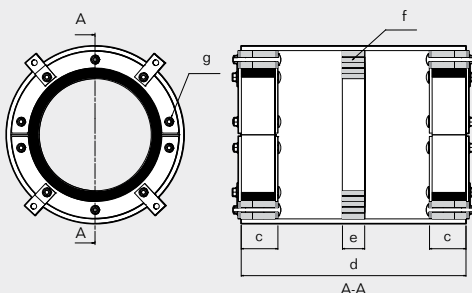
RS PPS 175 woc / RS PPS 200 woc



	RS PPS 175 woc		RS PPS 200 woc	
Pos	(mm)	(in)	(mm)	(in)
c	35	1.378	35	1.378
d	156	6.142	156	6.142
e	25	0.984	25	0.984
g	*****	*****	*****	*****

***** SW5 mm (8x) / SW0.197" (8x)

RS PPS 225 woc / RS PPS 250 woc / RS PPS 300 woc / RS PPS 350 woc / RS PPS 400 woc



	RS PPS 225		RS PPS 250		RS PPS 300		RS PPS 350		RS PPS 400	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
c	65	2.559	65	2.559	65	2.559	65	2.559	65	2.559
d	400	15.748	400	15.748	400	15.748	400	15.748	400	15.748
e	25	0.984	25	0.984	25	0.984	25	0.984	25	0.984
g	**	**	**	**	***	***	***	***	***	***

** SW 10 mm (10x) / SW 0.394" (10x)

*** SW 13 mm (10x) / SW 0.512" (10x)

For dimensions, please see page 140.

Note: All dimensions are nominal values

Sleeves without flange, for RS PPS seal, primed mild steel



SLPPS primed



SLPPS aluminum

See practical user guidelines on page 264.

Primed mild steel

Sleeve	External dimensions				Internal Ø		Weight		Art. No
	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLPPS 31 PRIMED D=156	40	1.575	156	6.142	31.5	1.24	0.55	1.22	5ASL000005820
SLPPS 43 PRIMED D=156	52	2.047	156	6.142	44	1.73	0.74	1.63	5ASL000005500
SLPPS 50 PRIMED D=156	63	2.480	156	6.142	51	2.01	1.32	2.90	5ASL000003416
SLPPS 68 PRIMED D=156	83	3.268	156	6.142	69.5	2.74	2.05	4.51	5ASL000004742
SLPPS 75 PRIMED D=156	89	3.504	156	6.142	76.5	3.01	2.02	4.45	5ASL000003445
SLPPS 100 PRIMED D=156	114	4.488	156	6.142	101	3.98	2.69	5.93	5ASL000003519
SLPPS 125 PRIMED D=156	140	5.512	156	6.142	126	4.96	3.58	7.90	5ASL000003446
SLPPS 150 PRIMED D=156	164	6.457	156	6.142	151	5.94	3.94	8.68	5ASL000003417
SLPPS 175 PRIMED D=156	189	7.441	156	6.142	176	6.93	4.56	10.06	5ASL000003769
SLPPS 200 PRIMED D=156	214	8.425	156	6.142	201.5	7.93	5.00	11.01	5ASL000005458
SLPPS 225 PRIMED D=400	239	9.409	400	15.748	227	8.94	13.79	30.40	5ASL000011648
SLPPS 250 PRIMED D=400	264	10.394	400	15.748	252	9.921	15.27	33.66	5ASL000010621
SLPPS 300 PRIMED D=400	314	12.362	400	15.748	302	11.890	18.23	40.19	5SLPPS0011514
SLPPS 350 PRIMED D=400	364	14.331	400	15.748	352	13.858	21.19	46.71	109368
SLPPS 400 PRIMED D=400	414	16.299	400	15.748	402	15.827	24.15	53.24	105698

Aluminum

Sleeve	External dimensions				Internal Ø		Weight		Art. No
	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLPPS 31 Alu D=156	40	1.575	156	6.142	31.5	1.24	0.19	0.419	109365
SLPPS 43 Alu D=156	52	2.047	156	6.142	44	1.73	0.23	0.507	5ASL000011395
SLPPS 50 Alu D=156	63	2.480	156	6.142	51	2.01	0.45	0.992	119603
SLPPS 68 Alu D=156	83	3.268	156	6.142	69.5	2.74	0.69	1.521	119604
SLPPS 75 Alu D=156	89	3.504	156	6.142	76.5	3.01	0.7	1.543	ASL0156007531
SLPPS 100 Alu D=156	114	4.488	156	6.142	101	3.98	0.85	1.874	5ASL000008932
SLPPS 125 Alu D=156	140	5.512	156	6.142	126	4.96	1.13	2.49	5ATS000009641
SLPPS 150 Alu D=156	164	6.457	156	6.142	151	5.94	1.24	2.734	5ASL000009835
SLPPS 175 Alu D=156	189	7.441	156	6.142	176	6.929	1.55	3.417	119601
SLPPS 200 Alu D=156	214	8.425	156	6.142	201	7.913	1.58	3.483	5ASL000012395



Roxtec SE PPS extension frame

The Roxtec SE PPS extension frame is an accessory which in conjunction with a standard Roxtec S/SF frame protects installations of several plastic pipe penetrations against the risk of fire. The solution includes a layer of intumescent based material which reacts with the heat of a fire to protect the penetration once the plastic pipe begins to soften.

- Single-side installation
- Certified protection for various types of plastic pipe
- Multiple pipe penetrations included within one opening in the deck or bulkhead
- Certified fire, water and gas protection
- Options to allow a mix of pipe materials (metal and plastic) and in some cases, even cables within the same opening

SE PPS extension frame, galvanized



SE PPS 6x1 galv

See parts needed for a complete solution on page 26.

See practical user guidelines on page 264.

Installation instructions are available on www.roxtec.com

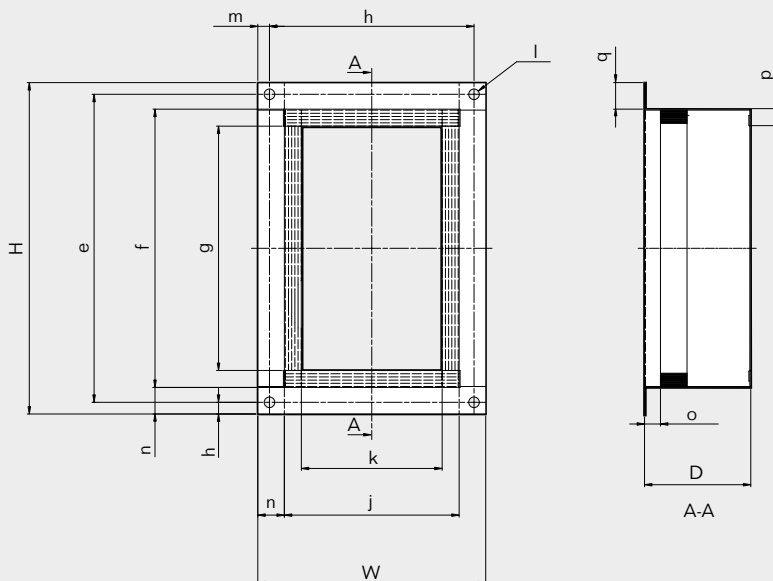
For information about other frame combinations, please contact your local Roxtec supplier or e-mail: info@roxtec.com

Frame	External dimensions (D=100 mm)		Weight		Art. No
	HxW (mm)	HxW (in)	(kg)	(lb)	
SE PPS 2x1 galv	195 x 215	7.677 x 8.465	0.8	1.653	5PPSE00003323
SE PPS 2x2 galv	195 x 345	7.677 x 13.583	1.2	2.668	5PPSE00003324
SE PPS 2x3 galv	195 x 476	7.677 x 18.740	1.7	3.704	5PPSE00005088
SE PPS 2x4 galv	195 x 606	7.677 x 23.858	2.7	4.718	5PPSE00005089
SE PPS 3x1 galv	254 x 155	9.999 x 6.102	0.7	1.543	5PPSE00003320
SE PPS 4x1 galv	254 x 215	9.999 x 8.465	0.9	1.984	5PPSE00003325
SE PPS 4x2 galv	254 x 345	9.999 x 13.583	1.5	3.197	5PPSE00003326

SE PPS extension frame, galvanized

Frame	External dimensions (D=100 mm)		Weight		Art. No
	HxW (mm)	HxW (in)	(kg)	(lb)	
SE PPS 4x3 galv	254 x 476	9.999 x 18.740	2.0	4.431	5PPSE00003327
SE PPS 4x4 galv	254 x 606	9.999 x 23.858	2.6	5.644	5PPSE00005090
SE PPS 5x1 galv	312 x 155	12.283 x 6.102	1.0	2.094	5PPSE00003321
SE PPS 6x1 galv	312 x 215	12.283 x 8.465	1.1	2.315	5PPSE00003328
SE PPS 6x2 galv	312 x 345	12.283 x 13.583	1.7	3.748	5PPSE00003329
SE PPS 6x3 galv	312 x 476	12.283 x 18.740	2.4	5.181	5PPSE00003330
SE PPS 6x4 galv	312 x 606	12.283 x 23.858	3.0	6.614	5PPSE00003331

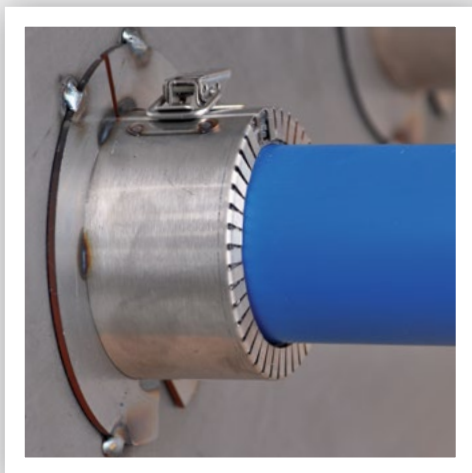
SE PPS extension frame, technical information



Pos	(mm)	(in)
e	H-22	H-0.866
f	H-50	H-1.968
g	H-82	3.228
h	W-22	H-0.866
j	W-50	H-1.968
k	W-82	3.228
l	Ø 10 (4x)	Ø 0.394 (4x)
m	11	1.969
n	25	0.984
o	15	0.591
p	16	0.630
q	25	0.984
D	100	3.937

	(mm)	(in)
Thickness steel sheet	0.9	0.035

Note: All dimensions are nominal values



Roxtec Sleeve-it™ Fire penetration seal

The Roxtec Sleeve-it Fire penetration seal is a circular solution which protects single plastic pipe penetrations against fire hazards. The solution requires no sleeve to be installed and its stainless steel casing contains layers of intumescent based material that react with the heat of a fire to protect the penetration once the plastic pipe begins to soften. The light weight and ease of installation benefits of this product make it an ideal solution when used in fire only rated divisions.

- Single-side installation
- Minimal hot work onboard as it only requires tack welding into place
- Certified protection for various types of plastic pipe
- Quick and easy to install
- The openable aspect benefits retrofit as well as new-build projects

Roxtec Sleeve-it™ Fire penetration seal, mild steel/stainless steel



Sleeve-it FC-MAR 16-40



Sleeve-it FC-MAR 50-225

See installation instructions on page 245.

RATINGS Fire: A class, B class

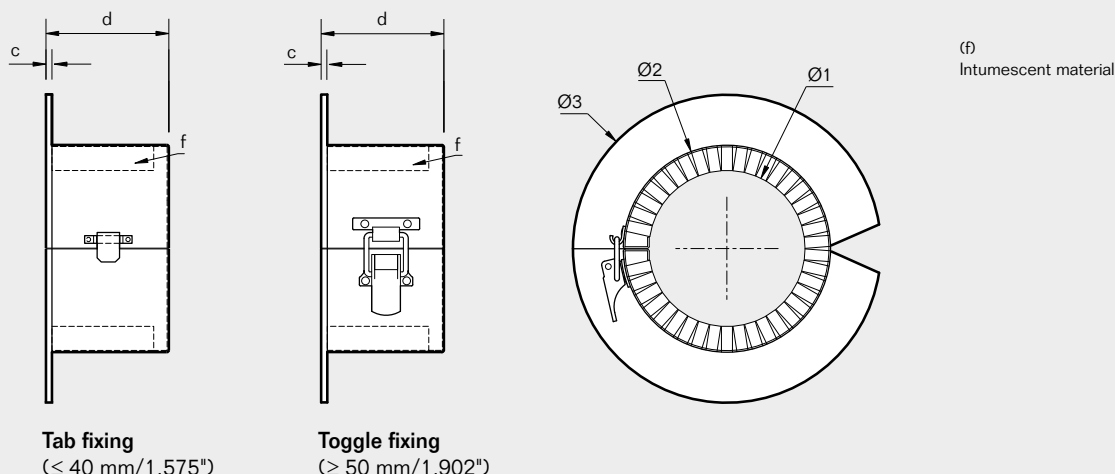
Seal	For pipe Ø		Aperture dim. ± 4 mm (0.157")		Weight		Art. No
	(mm)	(in)	Ø (mm)	Ø (in)	(kg)	(lb)	
Sleeve-it FC - MAR16M	16	0.63	22	0.866	0.09	0.198	106239
Sleeve-it FC - MAR20M	20	0.787	26	1.024	0.13	0.287	106245
Sleeve-it FC - MAR25M	25	0.984	31	1.220	0.15	0.331	106247
Sleeve-it FC - MAR32M	32	1.26	38	1.496	0.17	0.375	106249

Roxtec Sleeve-it™ Fire penetration seal, mild steel/stainless steel

Seal	For pipe Ø		Aperture dim. ± 4 mm (0.157")		Weight		Art. No
	(mm)	(in)	Ø (mm)	Ø (in)	(kg)	(lb)	
Sleeve-it FC - MAR40M	40	1.575	46	1.811	0.2	0.441	106251
Sleeve-it FC - MAR50M (1.5")	48.3	1.902	54	2.126	0.36	0.794	106253
Sleeve-it FC - MAR60M (2")	60.3	2.374	66	2.598	0.4	0.882	106255
Sleeve-it FC - MAR63M	63	2.480	69	2.717	0.41	0.904	106257
Sleeve-it FC - MAR66M	66	2.598	72	2.835	0.5	1.102	117916
Sleeve-it FC - MAR75M	75	2.953	81	3.189	0.55	1.213	106259
Sleeve-it FC - MAR82M	82	3.228	88	3.465	0.6	1.323	117919
Sleeve-it FC - MAR90M (3")	88.9	3.5	95	3.740	0.67	1.477	106261
Sleeve-it FC - MAR110M	110	4.331	116	4.567	0.83	1.830	106263
Sleeve-it FC - MAR115M (4")	114.3	4.5	120	4.724	0.83	1.830	106265
Sleeve-it FC - MAR125M	125	4.921	131	5.157	0.91	2.006	106267
Sleeve-it FC - MAR140M	140	5.512	146	5.748	1.05	2.315	106269
Sleeve-it FC - MAR160M	160	6.3	166	6.535	1.3	2.866	106271
Sleeve-it FC - MAR169M (6")	168.3	6.63	174	6.850	1.37	3.020	106273
Sleeve-it FC - MAR200M	200	7.87	206	8.110	1.86	4.100	106275
Sleeve-it FC - MAR219M (8")	219.1	8.63	225	8.858	1.95	4.299	106278
Sleeve-it FC - MAR225M	225	8.86	231	9.094	2.07	4.563	106280

Fire penetration seals to protect pipe sizes larger than 225 mm and up to 324 mm are available on request.

Roxtec Sleeve-it™ Fire penetration seal, technical information



	Sleeve-it FC - MAR16M		Sleeve-it FC - MAR20M		Sleeve-it FC - MAR25M		Sleeve-it FC - MAR32M		Sleeve-it FC - MAR40M		Sleeve-it FC - MAR50M (1.5")		Sleeve-it FC - MAR60M (2")	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
c	3	0.118	3	0.118	3	0.118	3	0.118	3	0.118	3	0.118	3	0.118
d	60	2.362	60	2.362	60	2.362	60	2.362	60	2.362	61	2.402	61	2.402
Ø1	16	0.63	20	0.787	25	0.984	32	1.26	40	1.575	48.3	1.902	60.3	2.374
Ø2	28	1.102	36	1.417	41	1.614	48	1.890	56	2.205	69	2.717	81	3.189
Ø3	58	2.283	66	2.598	71	2.795	78	3.071	86	3.386	119	4.685	131	5.157

	Sleeve-it FC - MAR63M		Sleeve-it FC - MAR66M		Sleeve-it FC - MAR75M		Sleeve-it FC - MAR82M		Sleeve-it FC - MAR90M (3")		Sleeve-it FC - MAR110M		Sleeve-it FC - MAR115M (4")	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
c	3	0.118	3	0.118	3	0.118	3	0.118	3	0.118	3	0.118	3	0.118
d	61	2.402	61	2.402	61	2.402	61	2.402	61	2.402	61	2.402	61	2.402
Ø1	63	2.48	66	2.598	75	2.953	82	3.228	88.9	3.5	110	4.331	114.3	4.5
Ø2	84	3.307	94	3.701	103	4.055	106	4.173	122	4.803	143	5.630	142	5.591
Ø3	133	5.236	144	5.669	153	6.024	156	6.142	172	6.772	193	7.598	192	7.559

	Sleeve-it FC - MAR125M		Sleeve-it FC - MAR140M		Sleeve-it FC - MAR160M		Sleeve-it FC - MAR169M (6")		Sleeve-it FC - MAR200M		Sleeve-it FC - MAR219M (8")		Sleeve-it FC - MAR225M	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
c	3	0.118	3	0.118	3	0.118	3	0.118	3	0.118	3	0.118	3	0.118
d	61	2.402	61	2.402	61	2.402	61	2.402	61	2.402	61	2.402	61	2.402
Ø1	125	4.921	140	5.512	160	6.3	168.3	6.63	200	7.87	219.1	8.63	225	8.86
Ø2	158	6.220	176	6.929	204	8.031	213	8.386	240	9.449	280	11.024	277	10.906
Ø3	206	8.110	225	8.858	253	9.961	253	9.961	290	11.417	330	12.992	326	12.835

Note: All dimensions are nominal values



Roxtec Sleeve-it™ Waterproof penetration seal

The Roxtec Sleeve-it Waterproof penetration seal is a circular solution which protects single plastic pipe penetrations against the risks of fire and water. Its stainless steel casing contains layers of intumescent based material that react with the heat of a fire to protect the penetration once the plastic pipe begins to soften. The specifically engineered rubber grommet is sized per specific pipe size in both metric and imperial sizes and designed to maintain a waterproof seal round the plastic pipe.

- Single-side installation benefits
- Certified protection for various types of plastic pipe
- Quick and easy to install
- Certified to 1 bar of water pressure
- Not to be used in high pressure watertight divisions

Roxtec Sleeve-it™ Waterproof penetration seal, mild steel/stainless steel



Sleeve-it WT-MAR 16-40



Sleeve-it WT-MAR 50-225



Sleeve-it WT-MAR INCH 1.5-8"

See installation instructions on page 249.

RATINGS Fire: A class, B class

Water pressure: 1 bar

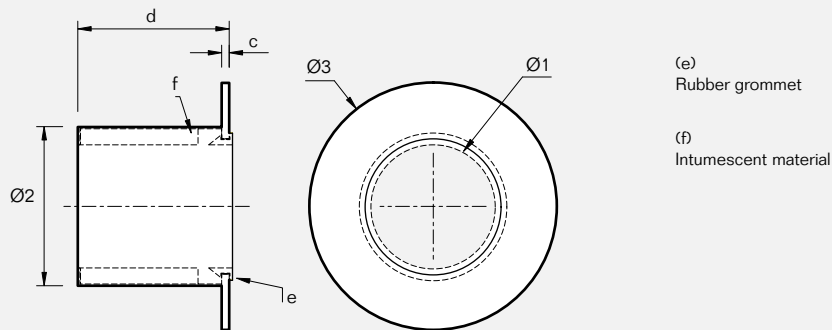
Seal	For pipe Ø		Aperture dim. ± 5 mm (0.197")		Weight		Art. No
	(mm)	(in)	Ø (mm)	Ø (in)	(kg)	(lb)	
Sleeve-it WT - MAR16M	16	0.63	41	1.614	0.25	0.551	106315
Sleeve-it WT - MAR20M	20	0.787	49	1.929	0.32	0.705	106316
Sleeve-it WT - MAR25M	25	0.984	51	2.008	0.34	0.750	106319
Sleeve-it WT - MAR32M	32	1.26	58	2.283	0.37	0.816	106322

Roxtec Sleeve-it™ Waterproof penetration seal, mild steel/stainless steel

Seal	For pipe Ø		Aperture dim. ± 5 mm (0.197")		Weight		Art. No
	(mm)	(in)	Ø (mm)	Ø (in)	(kg)	(lb)	
Sleeve-it WT - MAR40M	40	1.575	69	2.717	0.41	0.904	106325
Sleeve-it WT - MAR50M (1.5")	48,3	1.968	79	3.110	0.48	1.058	106359
Sleeve-it WT - MAR50M	50	1.902	79	3.110	0.47	1.036	106328
Sleeve-it WT - MAR60M (2")	60,3	2.374	90	3.543	0.52	1.146	106362
Sleeve-it WT - MAR63M	63	2.480	93	3.661	0.53	1.168	106331
Sleeve-it WT - MAR75M	75	2.953	112	4.409	0.72	1.587	106334
Sleeve-it WT - MAR90M (3")	88,9	3.49	134	5.276	0.98	2.160	106365
Sleeve-it WT - MAR90M	90	3.543	132	5.197	0.95	2.094	106337
Sleeve-it WT - MAR110M	110	4.49	153	6.024	1.2	2.646	106341
Sleeve-it WT - MAR115M (4")	114,3	4.331	152	5.984	1.16	2.557	106371
Sleeve-it WT - MAR125M	125	4.921	172	6.772	1.35	2.976	106344
Sleeve-it WT - MAR140M	140	5.512	180	7.087	1.5	3.307	106347
Sleeve-it WT - MAR160M	160	6.299	215	8.465	1.82	4.012	106350
Sleeve-it WT - MAR169M (6")	168,3	6.623	225	8.858	2	4.409	106373
Sleeve-it WT - MAR200M	200	7.874	250	9.843	2.6	5.732	106353
Sleeve-it WT - MAR219M (8")	219.1	8.626	286	11.260	3.5	7.716	106375
Sleeve-it WT - MAR225M	225	8.858	290	11.417	3.7	8.157	106356

Waterproof penetration seals to protect pipe sizes larger than 225 mm and up to 324 mm are available on request.

Roxtec Sleeve-it™ Waterproof penetration seal, technical information



	Sleeve-it WT - MAR16M		Sleeve-it WT - MAR20M		Sleeve-it WT - MAR25M		Sleeve-it WT - MAR32M		Sleeve-it WT - MAR40M		Sleeve-it WT - MAR50M (1.5") *		Sleeve-it WT - MAR50M	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
c	5	0.197	5	0.197	5	0.197	5	0.197	5	0.197	5	0.197	5	0.197
d	75	2.953	75	2.953	75	2.953	75	2.953	70	2.756	70	2.756	70	2.756
Ø1	16	0.630	20	0.787	25	0.984	32	1.260	40	1.575	48.3	1.902	50	1.969
Ø2	31	1.220	39	1.535	44.5	1.614	48	1.890	59	2.323	69	2.717	69	2.717
Ø3	71	2.795	79	3.110	84	3.228	88	3.465	102	4.016	112	4.409	112	4.409

	Sleeve-it WT - MAR60M (2") *		Sleeve-it WT - MAR63M		Sleeve-it WT - MAR75M		Sleeve-it WT - MAR90M (3") *		Sleeve-it WT - MAR90M		Sleeve-it WT - MAR110M		Sleeve-it WT - MAR115M (4") *	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
c	5	0.197	5	0.197	5	0.197	5	0.197	5	0.197	5	0.197	5	0.197
d	70	2.756	70	2.756	70	2.756	70	2.756	70	2.756	70	2.756	70	2.756
Ø1	60.3	2.374	63	2.480	75	2.953	88.9	3.500	90	3.543	110	4.331	114.3	4.500
Ø2	80	3.150	83	3.268	102	4.016	124	4.882	122	4.803	143	5.630	142	5.591
Ø3	121	4.764	121	4.764	142	5.591	164	6.457	165	6.496	183	7.205	186	7.323

	Sleeve-it WT - MAR125M		Sleeve-it WT - MAR140M		Sleeve-it WT - MAR160M		Sleeve-it WT - MAR169M (6") *		Sleeve-it WT - MAR200M		Sleeve-it WT - MAR219M (8") *		Sleeve-it WT - MAR225M	
Pos	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
c	5	0.197	5	0.197	5	0.197	5	0.197	5	0.197	5	0.197	5	0.197
d	70	2.756	70	2.756	70	2.756	70	2.756	70	2.756	70	2.756	70	2.756
Ø1	125	4.921	140	5.512	160	6.299	168.3	6.626	200	7.874	219.1	8.626	225	8.858
Ø2	162	6.378	170	6.693	205	8.071	215	8.465	240	9.449	276	10.866	280	11.024
Ø3	202	7.953	218	8.583	243	9.567	255	10.039	290	11.417	326	12.835	335	13.189

* Grommet in red color

Note: All dimensions are nominal values



Roxtec Sleeve-it™ Transition collar

The Roxtec Sleeve-it Transition collar is a stainless steel casing that wraps around the joint between a steel and plastic pipe. The casing contains layers of intumescent based material that react with the heat of a fire to protect the transition once the plastic pipe begins to soften. The solution is not a coupling between the steel and plastic pipe.

- For steel and plastic pipe connections – not a coupling mechanism
- For use in non-pressurized systems
- Certified protection for various types of plastic pipe
- Quick and easy to install – a non-welding solution

Roxtec Sleeve-it™ Transition collar, stainless steel



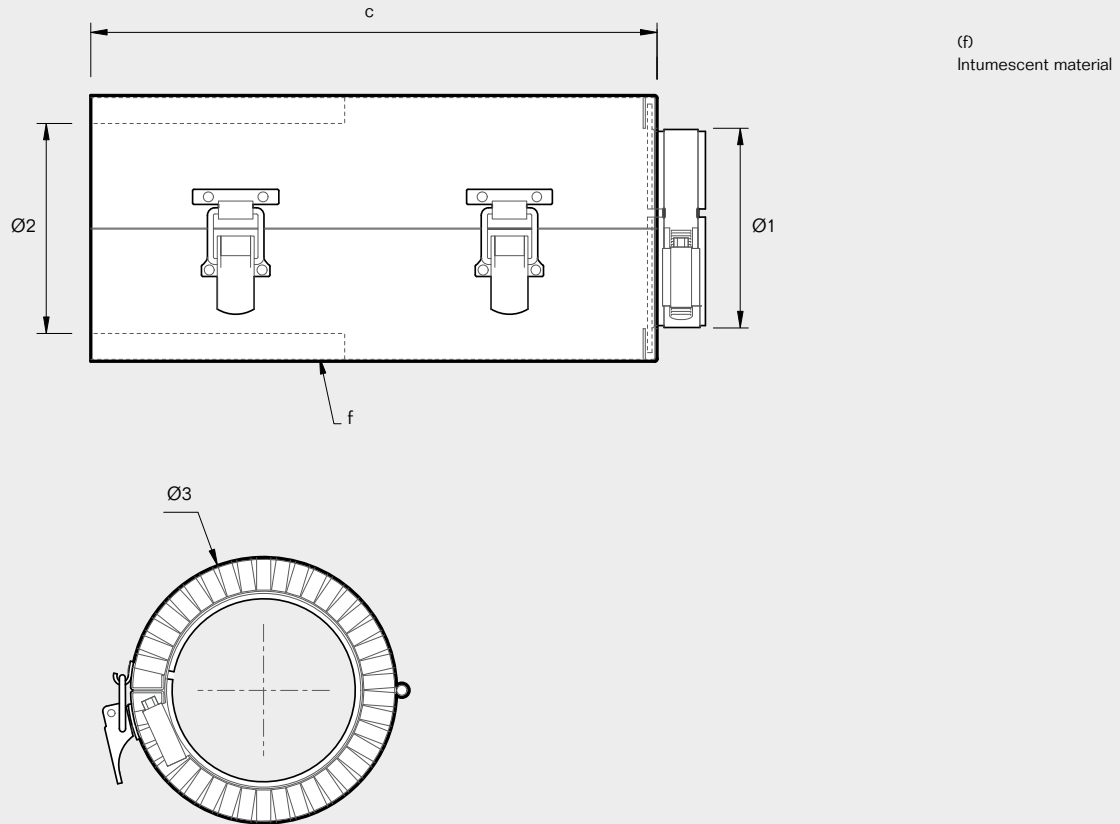
Sleeve-it TR-MAR

See installation instructions on page 251.

RATINGS Fire: A class

Transition type	Collar length - c		Collar - Ø3		Steel pipe opening - Ø1		Plastic pipe opening - Ø2		Weight		Art. no
	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(kg)	(lb)	
Sleeve-it TR - MAR 50/50	138	5.433	73	2.874	50	1.968	53	2.087	0.46	1.014	106289
Sleeve-it TR - MAR - 50/60 - (2")	138	5.433	80	3.150	50	2.953	62	3.071	0.5	1.102	106304
Sleeve-it TR - MAR - 75/75	138	5.433	101	3.976	75	1.968	78	2.441	0.66	1.455	106298
Sleeve-it TR - MAR - 75/90 - (3")	138	5.433	115	4.528	75	2.953	92	3.622	0.72	1.587	106307
Sleeve-it TR - MAR - 90/90	138	5.433	118	4.646	90	3.543	92	3.622	0.72	1.587	106310

Roxtec Sleeve-it™ Transition collar, technical information



Note: All dimensions are nominal values

Water-tightness after fire solutions

We are continuously working to find sealing solutions for our customers. One example is our “back-to-back” arrangements that maintain watertight integrity after a fire.

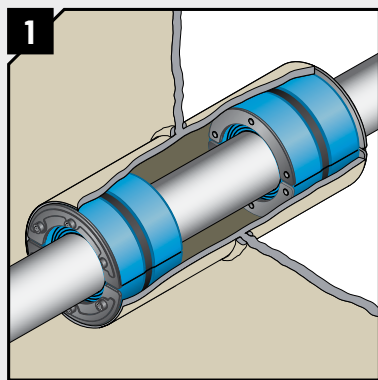
Wording within the applicable SOLAS regulations refers to heat sensitive material penetrating bulkhead structures below the waterline, where deterioration of such materials in the case of fire may impair the watertight integ-

riety of the bulkhead. The wording specifically applies to watertight installations in SPS vessels and passenger ships for penetrations below the waterline. In order to comply with this regulation, Roxtec has conducted a series

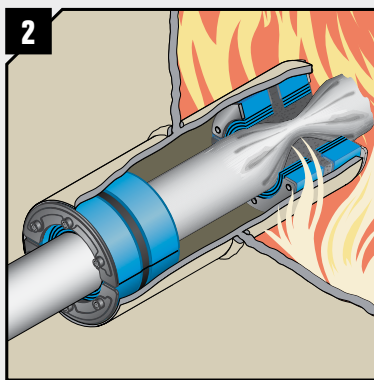
of tests with “back-to-back” arrangements within an elongated sleeve. These tests have successfully maintained watertight integrity after a fire exposure has occurred.

How it works

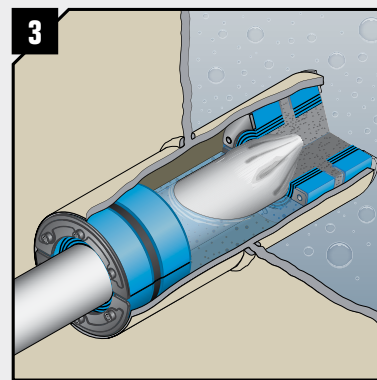
The example shows the Roxtec RS PPS/S F+WT seal in action.



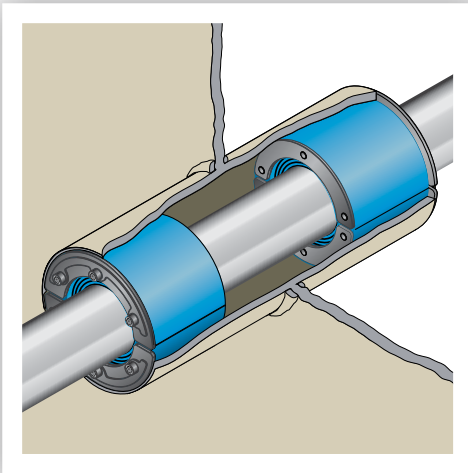
The Roxtec RS PPS/S F+WT sealing solution includes two RS PPS/S seals to provide a gas and watertight seal around the plastic pipe. Inside the seals we have a layer of intumescent based material designed to react during a fire.



Whenever exposed to the high temperatures of a fire, the material inside the RS PPS/S seal on the fire side of the penetration will exfoliate and expand to crush the softening plastic pipe in order to prevent the fire and smoke from spreading through to the next compartment.



Should a second catastrophic event such as a flood take place, the intumescent based material will not maintain a watertight seal however, the RS PPS/S seal that was not affected by the fire, will maintain its gastight and watertight qualities which will protect the penetration in the division against water ingress.



Roxtec RS F+WT

The Roxtec RS F+WT is a back-to-back sealing solution for openings with single metal pipe penetrations in bulkheads where there is a demand for water-tightness after fire. The kit consists of two RS seals providing protection against hazards caused by fire, gas and water. In case of fire, it efficiently blocks smoke and flames from passing through the penetration, and after a fire it still maintains watertight integrity.

- Double-sided installation inside an extended sleeve (length 312 mm)
- Certified protection for various types of metal pipes
- Single metal pipe penetrations
- Multiple pipe dimensions covered by one product size
- Certified fire, water and gas protection

RS F+WT kit, acid-proof stainless steel fittings



RS F+WT

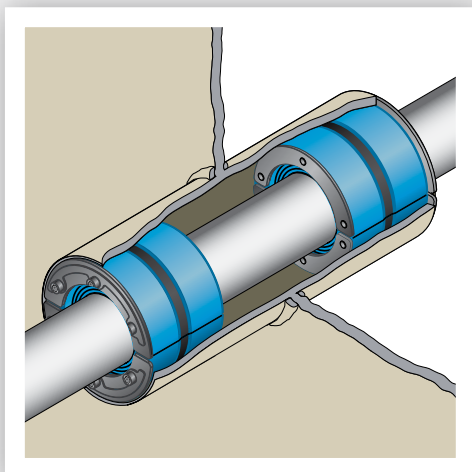
See information and measurements for RS seal on page 138.

See sleeves on page 193.

See installation instructions for RS seal on page 233.

RATINGS Fire: A class Water pressure: 1.33 bar

Kit	For pipe Ø		For hole Ø		Weight		Art. No
	(mm)	(in)	(mm)	(in)	(kg)	(lb)	
WITH CORE							
RS F+WT 43 AISI 316	0+ 4-23	0+ 0.157-0.906	43-45	1.693-1.772	0.4	1.058	152046
RS F+WT 50 AISI 316	0+ 8-30	0+ 0.315-1.181	50-52	1.967-2.047	0.6	1.278	152047
RS F+WT 68 AISI 316	0+ 26-48	0+ 1.024-1.890	68-70	2.677-2.756	1	2.204	152048
RS F+WT 75 AISI 316	0+ 24-54	0+ 0.945-2.126	75-77	2.953-3.031	1.4	3.086	152049
RS F+WT 100 AISI 316	0+ 48-70	0+ 1.890-2.756	100-102	3.937-4.016	2	4.41	152050
RS F+WT 125 AISI 316	0+ 66-98	0+ 2.598-3.858	125-127	4.921-5.000	3.2	6.834	152051
WITHOUT CORE							
RS F+WT 100 AISI 316 woc	48-70	1.890-2.756	100-102	3.937-4.016	1.6	3.748	152052
RS F+WT 125 AISI 316 woc	66-98	2.598-3.858	125-127	4.921-5.000	2.4	5.512	152053
RS F+WT 150 AISI 316 woc	93-119	3.661-4.685	150-152	5.906-5.984	3.2	6.834	152054

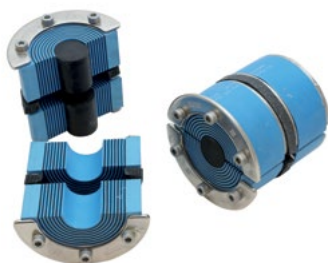


Roxtec RS PPS/S F+WT

The Roxtec RS PPS/S F+WT is a back-to-back sealing solution for openings with single plastic pipe penetrations in bulkheads where there is a demand for water-tightness after fire. The kit consists of two RS PPS/S seals providing protection against hazards caused by fire, gas and water. In case of fire, it efficiently blocks smoke and flames from passing through the penetration, and after a fire it still maintains watertight integrity.

- Double-sided installation inside an extended sleeve (length 312 mm)
- Certified protection for various types of plastic pipe
- Single plastic pipe penetrations
- Multiple pipe dimensions covered by one product size
- Certified fire, water and gas protection

RS PPS/S F+WT kit, acid-proof stainless steel fittings



RS PPS/S F+WT

See information and measurements for RS PPS/S seal on page 172.

See installation instructions for RS PPS/S seal on page 239.

RATINGS

Fire: A class

Water pressure: 1.33 bar

Kit	For pipe Ø		For hole Ø		Weight		Art. No
	(mm)	(in)	(mm)	(in)	(kg)	(lb)	
WITH CORE							
RS PPS/S F+WT 43 AISI 316	0+ 4-23	0+ 0.157-0.906	43-45	1.693-1.772	0.5	1.106	107487
RS PPS/S F+WT 50 AISI 316	0+ 8-30	0+ 0.315-1.181	50-52	1.967-2.047	0.6	1.322	107488
RS PPS/S F+WT 68 AISI 316	0+ 26-48	0+ 1.024-1.890	68-70	2.677-2.756	0.98	2.160	107489
RS PPS/S F+WT 75 AISI 316	0+ 24-54	0+ 0.945-2.126	75-77	2.953-3.031	1.21	2.672	107490
WITHOUT CORE							
RS PPS/S F+WT 100 AISI 316 woc	48-70	1.890-2.756	100-102	3.937-4.016	1.88	4.140	107491
RS PPS/S F+WT 125 AISI 316 woc	66-98	2.598-3.858	125-127	4.921-5.000	2.61	5.758	107492
RS PPS/S F+WT 150 AISI 316 woc	93-119	3.661-4.685	150-152	5.906-5.984	3.3	7.270	107493

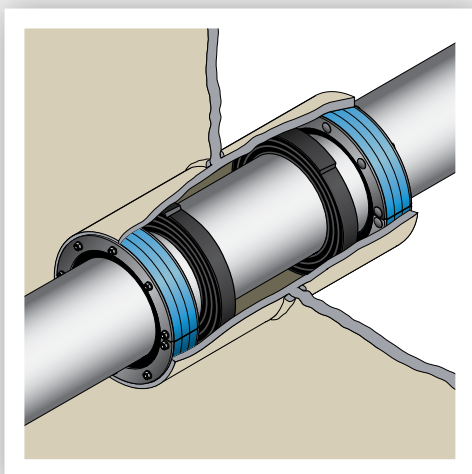
Sleeves for RS F+WT and RS PPS/S F+WT, primed mild steel



SLPPS primed mild steel

See practical user guidelines on page 264.

Sleeve	External dimensions				Internal dimensions		Weight		Art. No
	Ø (mm)	Ø (in)	L (mm)	L (in)	Ø (mm)	Ø (in)	(kg)	(lb)	
SLPPS 43 primed D=312	52	2.047	312	12.283	44	1.732	1.48	3.26	103626
SLPPS 50 primed D=312	63	2.480	312	12.283	51	2.008	2.64	5.80	103628
SLPPS 68 primed D=312	83	3.268	312	12.283	69.5	2.736	4.04	9.02	103630
SLPPS 75 primed D=312	89	3.504	312	12.283	76.5	3.012	4.10	8.90	103632
SLPPS 100 primed D=312	114	4.448	312	12.283	101	3.976	5.38	11.86	103634
SLPPS 125 primed D=312	140	5.512	312	12.283	126	4.961	7.16	15.80	103636
SLPPS 150 primed D=312	164	6.457	312	12.283	151	5.945	7.88	17.36	103638



Roxtec RS PPS F+WT

The Roxtec RS PPS F+WT is a back-to-back sealing solution for openings with single plastic pipe penetrations in bulkheads where there is a demand for water-tightness after a fire. The kit solution is an extension of the RS PPS/S F+WT solution as it protects larger plastic pipe diameters by following a similar design. To achieve this, the solution requires a longer extended sleeve. The kit also consists of two standard RS seals and two intumescent based sealing strips which need to be wrapped around the plastic pipe and placed inside the sleeve before the RS seals are tightened. Once installed, the sealing solution will efficiently block smoke and flames from passing through the penetration, and after a fire it will still maintain watertight integrity.

- Double-sided installation inside an extended sleeve (length 700 mm)
- Certified protection for various types of plastic pipe
- Single plastic pipe penetrations
- Multiple pipe dimensions covered by one product size
- Certified fire, water and gas protection

RS PPS F+WT kit, acid-proof stainless steel fittings



RS PPS F+WT

See information and measurements for RS PPS seal on page 176.

See installation instructions for RS PPS seal on page 237.

RATINGS		Fire: A class		Water pressure: 1.33 bar				
Kit		For pipe Ø (mm)	(in)	For hole Ø (mm)	(in)	Weight (kg)	(lb)	Art. No
WITHOUT CORE								
RS PPS F+WT 300 AISI 316 woc	206-236	8.110-9.291	300-303	11.811-11.929	11.8	26.015	109181	
RS PPS F+WT 350 AISI 316 woc	244-286	9.606-11.260	350-353	13.780-13.898	15	33.069	109182	
RS PPS F+WT 400 AISI 316 woc	294-336	11.575-13.228	400-403	15.748-15.866	18.2	40.124	109183	

Sleeves for RS PPS F+WT, primed mild steel



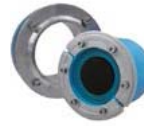
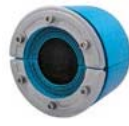
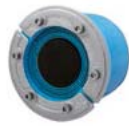
SLPPS primed mild steel

See practical user guidelines on page 264.

Sleeve	External dimensions				Internal Ø		Weight		Art. No
	Ø (mm)	Ø (in)	L (mm)	L (in)	(mm)	(in)	(kg)	(lb)	
SLPPS 300 primed D=700	314	12.362	700	27.559	302	11.890	31.9	70.33	121050
SLPPS 350 primed D=700	364	14.331	700	27.559	352	13.858	37.08	81.74	109190
SLPPS 400 primed D=700	414	16.299	700	27.559	402	15.827	42.26	93.17	123022

ROXTEC PIPE SEAL SELECTION GUIDE

FOR MARINE APPLICATIONS



APPLICATION – PIPE SYSTEM	TRADITIONAL PIPE MATERIAL	RS seal	RS OMD seal	SPM seal	RS X seal	RS PPS seal
		W NW SL AW BW +	W NW SL AW BW	NW AW BW	NW AW BW	W NW SL AW BW +
Grey water systems – transfer & collection	STEEL	✓	✓	✓	✓	
	PLASTIC					✓
	GLASS FIBER	✓	✓		✓	
Black water systems – transfer & collection	STEEL	✓	✓	✓	✓	
	PLASTIC					✓
	GLASS FIBER	✓	✓		✓	
Black water systems – vacuum piping	STEEL	✓	✓	✓	✓	
	PLASTIC					✓
	GLASS FIBER	✓	✓		✓	
Vacuum cleaning system	PLASTIC					✓
Laundry water systems	STEEL	✓	✓	✓	✓	
	COPPER	✓	✓	✓	✓	
	PLASTIC					✓
Potable water systems	STEEL	✓	✓	✓	✓	
	STAINLESS STEEL	✓	✓	✓	✓	
	COPPER	✓	✓	✓	✓	
	PLASTIC					✓
	MULTILAYER					✓
Wet waste system	STAINLESS STEEL	✓	✓	✓	✓	
	PLASTIC					✓
Fresh water generation & treatment systems	STEEL	✓	✓	✓	✓	
	PLASTIC					✓
Chilled water systems	STEEL	✓	✓	✓	✓	
	STAINLESS STEEL	✓	✓	✓	✓	
	COPPER	✓	✓	✓	✓	
	PLASTIC					✓
	MULTILAYER					✓
Water heating systems/ cooling water systems	STAINLESS STEEL	✓	✓	✓	✓	
	COPPER	✓	✓	✓	✓	
	GLASS FIBER	✓	✓		✓	
Deck/window washing & high pressure water systems	STEEL	✓	✓	✓	✓	
	STAINLESS STEEL	✓	✓	✓	✓	
Sprinkler systems	STEEL	✓	✓	✓	✓	
	STAINLESS STEEL	✓	✓	✓	✓	
CO2 extinguishing systems	STEEL	✓	✓	✓	✓	
	STAINLESS STEEL	✓	✓	✓	✓	
	COPPER	✓	✓	✓	✓	
Vents & overflow systems	STEEL	✓	✓	✓	✓	
	STAINLESS STEEL	✓	✓	✓	✓	
	COPPER	✓	✓	✓	✓	
	PLASTIC					✓
	MULTILAYER					✓
	GLASS FIBER	✓	✓		✓	

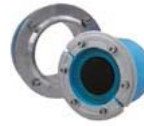
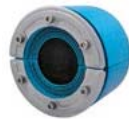
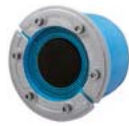


RS PPS/S seal	R frame	R X frame	S frame	SE PPS extension frame	Sleev-it Fire pen. seal	Sleev-it Waterproof pen. seal
W NW SL AW BW +	W NW SL AW BW	NW AW BW	W NW SL AW BW	W NW SL AW BW	W NW AW	W AW
	✓	✓	✓	✓		
✓				✓	✓	✓
	✓	✓	✓	✓		
✓				✓	✓	✓
	✓	✓	✓	✓		
✓				✓	✓	✓
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	✓	✓	✓	✓		
	✓	✓	✓	✓		
✓				✓	✓	✓
✓				✓	✓	✓

Note: Pipe seals should not be used in tank boundaries.

This guide is for indication purposes only. Please check the applicable type approval certificate to confirm pipe dimensions and materials.





APPLICATION – PIPE SYSTEM	TRADITIONAL PIPE MATERIAL	RS seal	RS OMD seal	SPM seal	RS X seal	RS PPS seal
		W NW SL AW BW +	W NW SL AW BW	NW AW BW	NW AW BW	W NW SL AW BW +
Water fire fighting system	STEEL	✓	✓	✓	✓	
	Air conditioning – cooling & heat recovery systems	✓	✓	✓	✓	
	STAINLESS STEEL	✓	✓	✓	✓	
	COPPER	✓	✓	✓	✓	
Ballast water systems	PLASTIC					✓
	STEEL	✓	✓	✓	✓	
	STAINLESS STEEL	✓	✓	✓	✓	
	COPPER	✓	✓	✓	✓	
	PLASTIC					✓
	MULTILAYER					✓
Scrubber systems	GLASS FIBER	✓	✓		✓	
	STEEL	✓	✓	✓	✓	
	STAINLESS STEEL	✓	✓	✓	✓	
	COPPER	✓	✓	✓	✓	
	PLASTIC					✓
	MULTILAYER					✓
Exhaust gas drainage systems	GLASS FIBER	✓	✓		✓	
	STEEL	✓	✓	✓	✓	
Bilge lines	GLASS FIBER	✓	✓		✓	
	PLASTIC					✓
	STAINLESS STEEL	✓	✓	✓	✓	
	STEEL	✓	✓	✓	✓	
Pneumatic/compressed air systems	COPPER	✓	✓	✓	✓	
	STAINLESS STEEL	✓	✓	✓	✓	
	STEEL	✓	✓	✓	✓	
Tank cleaning systems	COPPER	✓	✓	✓	✓	
	STAINLESS STEEL	✓	✓	✓	✓	
	STEEL	✓	✓	✓	✓	
Hydraulic fluid systems/ lubricating oil lines	COPPER	✓	✓	✓	✓	
	STAINLESS STEEL	✓	✓	✓	✓	
	STEEL	✓	✓	✓	✓	
Engine & fuel oil transfer systems	GLASS FIBER	✓	✓		✓	
	COPPER	✓	✓	✓	✓	
	STAINLESS STEEL	✓	✓	✓	✓	
	STEEL	✓	✓	✓	✓	
Azipod lubrication systems	STAINLESS STEEL	✓	✓	✓	✓	
	STEEL	✓	✓	✓	✓	
Bundle/multi-core pipe systems	COPPER	✓	✓		✓	
	STAINLESS STEEL	✓	✓		✓	
	STEEL	✓	✓		✓	
Insulated bundle pipe systems	PLASTIC					✓

Welded solution
 Non welded solution
 Requires a sleeve
 Above waterline solution
 Below waterline solution
 Water-tightness after fire (F+WT)



RS PPS/S seal	R frame	R X frame	S frame	SE PPS extension frame	Sleev-it Fire pen. seal	Sleev-it Waterproof pen. seal
W NW SL AW BW +	W NW SL AW BW	NW AW BW	W NW SL AW BW	W NW SL AW BW	W NW AW	W AW
	✓	✓	✓	✓		
	✓	✓	✓	✓		
	✓	✓	✓	✓		
	✓	✓	✓	✓		
✓				✓	✓	✓
	✓	✓	✓	✓		
	✓	✓	✓	✓		
	✓	✓	✓	✓		
✓				✓	✓	✓
✓				✓	✓	✓
	✓	✓	✓	✓		
	✓	✓	✓	✓		
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			✓			
			✓			
			✓			
✓					✓	✓

Note: Pipe seals should not be used in tank boundaries.

This guide is for indication purposes only. Please check the applicable type approval certificate to confirm pipe dimensions and materials.

RETROFIT SOLUTIONS

