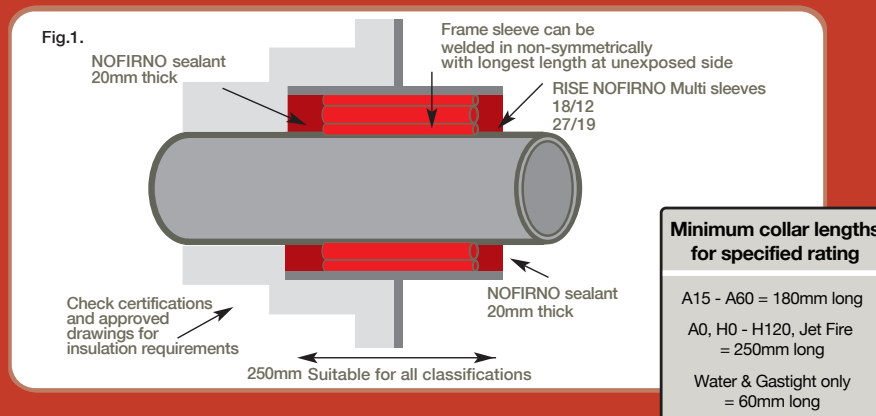


RISE[®] NOFIRNO

Flexible Pipe Penetration Sealing System

For A0 - A60, H0 - H120, Jet fire, blast, watertight & gastight ratings

The RISE NOFIRNO Flexible Pipe Sealing System is one of the most adaptive systems for sealing straight and angled pipe penetrations and can even accommodate multiple pipe runs. The system is designed to maintain the safety of vessels providing fire protection and ensuring bulkheads and decks remain gas and watertight when pipes need to pass through them. It consists of only two components: NOFIRNO sealant; a silicone based fire resistant, water repellent sealant and NOFIRNO multi-filler sleeves, supplied in bonded strips to make the system easy to install.



TOOLS REQUIRED:

- High ratio sealant gun (25:1)
- Long nosed pliers
- Approved degreasing wipes (De-solv-it 4000GDW)
- Cellulose sponges
- Cartridge cutter
- Head Torch
- Disposable nitrile gloves (Ansell Touch N Tuff)
- Water spray
- Sleeve cutting tool
- Metal rule (150mm)
- Dead blow hammer
- Wooden depth gauge (marked at 20mm)
- Longer cartridge nozzles & angle connectors

INSTALLATION INSTRUCTIONS METALLIC AND GRP PIPE APPLICATIONS



1. Make a visual inspection of the penetration, ensure all obstructions are removed and the penetration frame is painted or has a primer coating applied. Check length of the penetration frame against certification requirement. See fig.1.

2. Check clearance around each service pipe and ensure minimum clearance requirement is met (see clearance table for details). If there is insufficient clearance the pipe must be adjusted before the Nofirno system is installed. Any heat trace cables or electrical cables must be sleeved separately using a RISE Cable sleeve. Please see separate installation instructions.

3. Use approved degreaser wipes to thoroughly clean all surfaces where sealant will be applied. All dirt, dust or oil must be removed from inside 20-30mm edge of the penetration and the outside of any service pipe. Several wipes may be needed. The Nofirno sealant will not bond to any surface that is not clean and dry.

4. Use Nofirno filler sleeves to tightly pack the free space between the service pipe and penetration frame. The larger 27/19 multi sleeve should be used to pack this space with smaller 18/12 multi sleeves used to fill smaller gaps. Multi sleeves can easily be separated in to smaller quantities.

5. Push Nofirno filler sleeves in to the penetration frame leaving 20mm free space at the front. Use a wooden depth gauge marked at 20mm & long nosed pliers to adjust the sleeves to the correct depth. Allowing correct 20mm depth will ensure a suitable layer of sealant is applied. Ensure these are still tightly packed ready for application of the sealant layer. Install additional sleeves if required.

6. A sealant layer should be installed at both ends of the penetration. Before application of the sealant layer, use the degreaser wipes to clean the surfaces again to ensure that all dirt and oil residue is removed.

7. Using a specialist high ratio caulking gun (min ratio 25:1) apply Nofirno sealant across face of penetration. Apply the sealant against the inside edge of the penetration & around outside edge of each service pipe to the full 20mm deep layer required. This will help ensure a good bond is made with each surface. Apply sealant across the rest of the penetration face and against the sleeves allowing it to fill out to the required 20mm depth, ensure there are no gaps, using a head torch will help. A slight overfill is required. When working with Nofirno sealant we recommend using disposable nitrile gloves. Sealant cannot be applied on surfaces over 60 Deg C. (After curing service operating temperature max 180 Deg C).

8. Using a water spray dampen a cellulose sponge (this prevents sealant sticking to the sponge, soapy water MUST NOT be used). Use a dabbing motion to firmly pat down the Nofirno sealant ensuring the sealant makes good contact with the penetration frame and the service pipe.

9. The sealant layer should now be finished off by hand. Use the water spray to wet your nitrile gloves, this will ensure sealant does not stick to the glove. A good smooth finish can be obtained by using a fast skimming motion.

10. Use a torch to take final inspection of the sealant layer. Ensure the penetration is fully sealed and the finish is good. Any areas that do not seem sufficiently sealed add more sealant in this area and smooth off as before. Clean excess sealant from edge of penetration & service pipe. Complete second sealant layer using the same method. Curing the sealant layer is dependent on air humidity and environmental temperature. Generally curing will occur at 1 to 2mm per day.

Minimum clearance requirement around each service pipe

Service Pipe Size O/D	Minimum Clearance
Up to & including 4" Service Pipes (Up to & including 114.3mm O/D)	10mm
Above 4" up to & including 8" Service Pipes (Over 114.3mm and up to & including 219.8 O/D)	20mm
Above 8" up to & including 12" Service Pipes (Over 219.8mm and up to & including 323.9 O/D)	30mm
Above 12" up to & including 16" Service Pipes (Over 323.9mm and up to & including 419mm O/D)	40mm
Above 16" (Over 419mm O/D)	Please consult CSD

5 POINT FINAL CHECK

- ✓ Is minimum clearance met?
- ✓ Is there sufficient sealant applied?
- ✓ Are there any gaps in sealant layer?
- ✓ Is the sealant in good contact with penetration frame?
- ✓ Is the sealant in good contact with the service pipe?

Please see separate instructions for plastic pipe or electrical cable applications.

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