

THREAD SEALING

When considering thread sealing it is important to note.

- If the fitting is not to be taken apart, we recommend adhesive sealants.
- For the 3" Range only, TruDesign recommends adhesive sealants - we do not recommend Thread Tape or Pipe sealing Cord.
- For 90° and 120° fittings or fittings with 90° and 120° fittings mounted on them, we recommend adhesive sealants as this helps prevent the fitting turning from the weight of a hose.
- If parts are to be taken apart and have no risk of turning, thread tapes, pipe sealing chords or a lesser strength sealant such as Sika 591 and 3M 4200 can be used. A backing nut can also assist to prevent turning.
- When tightening a threaded fitting, do not over tighten, simply allow the adhesive sealant to provide the seal and orientation of the fitting.
- If the fitting is tightened – tighten to a maximum of 16 Nm (12 ft/lb).

About Adhesive Sealants

Adhesive sealants offer several advantages over traditional tape sealing methods. These advantages include: "Set and forget" installation – the fitting can be set in the correct orientation to better suit hose direction and flow. Greater strength – hose tails can sometimes have large hoses "working" the joint between the tail and ball valve. Adhesive sealants limit the possibility of movement of the seal. The permanent elasticity characteristic of sealants helps in keeping seals watertight when faced with conditions such as thermal expansion, water absorption, movement, and vibrations. The adhesive sealant should be applied to both the female and male threads and occupy the depth of the thread. TRUDESIGN™ has tested the following products for watertight sealing of threads on our fittings.

Adhesive Thread Sealers - Note: read Sealants manufacturer's instructions before use.

SIKAFLEX® 591 and 291i Marine Sealants. A one-part polyurethane adhesive/sealant. Full cure takes 24 hours. Note alcohol cleaners are not recommended for surface preparation. For best results pre-clean the skin fitting surface with Sika Activator-205 and allow to flash off for 10 minutes. – refer to manufacturer's product literature.

3M™ Marine Adhesive Sealant 5200 and 4200. A one-part polyurethane adhesive/sealant. Full cure takes 24 hours. Note alcohol cleaners are not recommended for surface preparation – refer to manufacturer's product literature.

Bostik® 920 Marine Sealant. A one-part urethane adhesive/sealant. Starts to cure (tack-free) in approx. 2 hours, after which ball valves and or hoses can be attached. Full cure takes 1.5 – 3 days.

LOCTITE® 5331

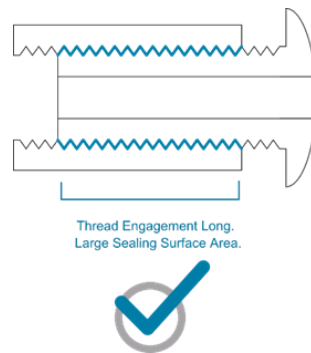
Thread Sealant - low strength. Used for threaded plastic or plastic/metal fittings carrying hot or cold water. Full cure is achieved within 96 hours (at min. 40% atmospheric humidity)

PTFE (Teflon™) tape (not for 3" Range) is a traditional thread sealing method which provides a good seal when applied correctly. However, in some cases if the position or tightness of the Ball Valve or Skin Fitting is incorrect, they have to be unscrewed and more tape applied, slowing the assembly process. Additionally, the fittings can sometimes be turned by hand after being installed. A backing nut can also assist to prevent turning.

LOCTITE® 55 Pipe Sealing Cord – (not for 3" Range).

A coated multi-filament cord designed as a faster method than Teflon tape to seal threaded fittings. The main advantage is that a component, for example a Ball Valve, could be screwed down then screwed back a turn to suit positioning whilst still maintaining a tight seal. This eliminates the need to remove the entire Ball Valve and apply more tape as with traditional Teflon tape. Colour = White.

Parallel Threads:



To comply with International Marine Standards, all TRUDESIGN™ Skin Fittings, Ball Valves and threaded connectors are manufactured with parallel threads. This ensures threaded connections utilise full thread engagement, resulting in greater strength and sealing ability. A backing nut can be used to help secure fittings in the desired direction.

TRUDESIGN™ parallel thread types are available in:

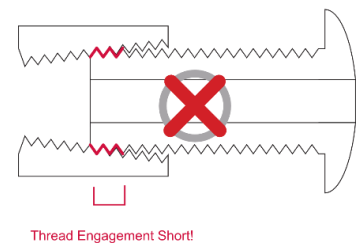
BSP(P) – British Standard Pipe (Parallel) – used widely throughout most parts of the world including Europe, Asia, and Australasia – Identified on parts with an embossed ‘B’.

NPS – National Pipe Straight (American National Pipe) – predominantly used within North America – Identified on parts with an embossed ‘N’.

Tapered Threads:

Do not use tapered thread valves in marine applications!

For safety reasons tapered BSPT and NPT threads, such as those used in the agricultural industry, should never be used in marine applications due to their lack of strength and sealing reliability caused by poor thread engagement.



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