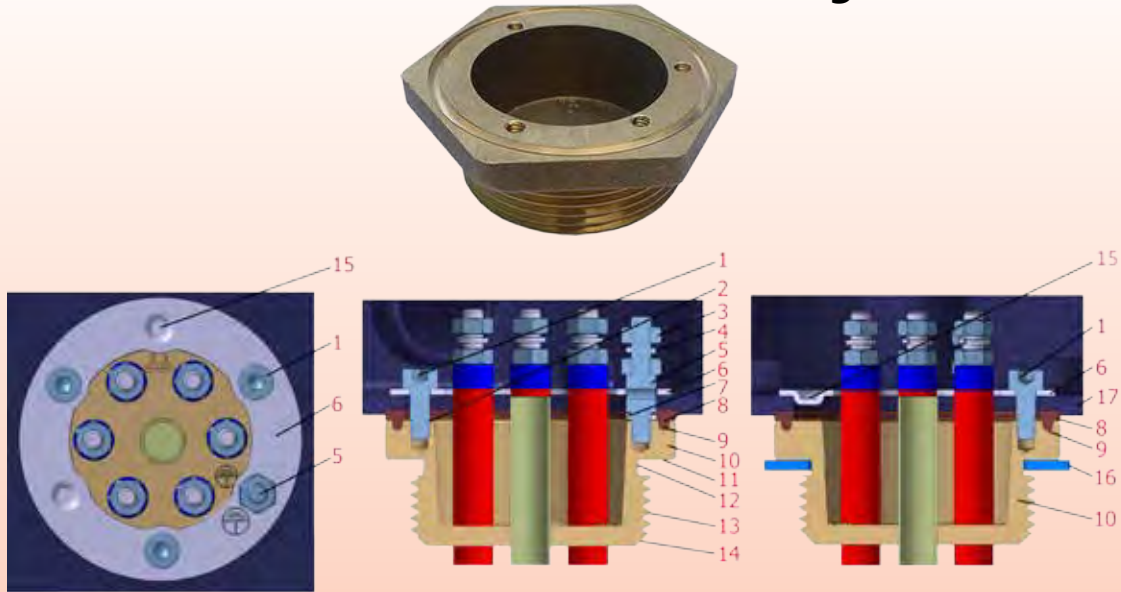


Immersion heaters brass fittings



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|-----------------------------|-------------------------------|-----------------------------|---------------------------|
| 1: Assembly screw, M4 or M5 | 5: Grounding stud M4 or M5 | 9: Anti-creep groove | 13: Metric or BSPP thread |
| 2: Machined flat surface | 6: Rotation ring | 10: Fitting | 14: Large chamfer |
| 3: Grounding nuts | 7: Dented washer | 11: Machined flat surface | 15: Centering embossing |
| 4: Dented washer and saddle | 8: Silicone waterproof gasket | 12: Unlosable gasket groove | 16: Unlosable gasket |
| | | | 17: Enclosure |

Design:

- Fittings for incorporation by immersion heater manufacturers
- Fit the full range of immersion heater enclosures
- Compact size and short length result in reduced weight (save +/- 30% compared to double thread fittings)
- The fitting thread lengths allow throw wall mounting with fiber gasket and nut on wall of 6 mm thickness (9 mm for 2" and above) or on threaded socket with gasket

- Allows a 360° rotation of enclosure when mounted with their rotation ring

Range: complete, covering all usual diameters from 1 1/4" to M77x2

Threads:

- Threads machined after forging according to:
 - ISO965-1 and 2 for metric threads
 - ISO228-1 (Pipe threads without sealing in the thread) for thread called "Gas Thread", also known as BSPP.
- Thread clearance for captive gasket
- Large chamfer facilitating correct assembly
- Large machined gasket seat

Manufacturing process:

Hot forged, followed by lathe machining.

This technique allows a limited machining and reduces material losses, significantly improves the mechanical properties and provides a good surface without porosity.

Assembly on enclosures:

- Through a hole in the enclosure. The enclosure is sandwiched between the fitting and a stamped inner ring. Bumps in the ring provide self-centering. This stamped ring costs only 10% of the conventional threaded inner rings.

On 2", M77x2 and 2 1/2" diameters, the drilling diameter is identical to models using a threaded ring. Therefore, no special drill diameter is needed.

Gasket between fitting and enclosure:

- 4 x 2 mm section, 50 Shore silicone gasket with anti-creep rib, absorbs flatness differences, and remains in place during tightening.
- Guaranteed IP65 ingress protection up to 200 ° C between fitting and enclosure, provided it has a flat bottom without asperities.

Grounding (earthing):

The grounding terminal does not impinge on the surface used for the heating elements brazing, allowing the larger diameter heating elements tubes and larger bending radius, and room for a center pocket tube. See general design of the grounding hereunder.

Fitting gasket:

Three models of captive gaskets can cover all applications

- Non-asbestos fiber gasket, thickness 2 mm
- NBR O-ring, dia. 4 mm
- Flat PTFE gasket, thickness 2 mm

Inner stamped ring:

- The outside diameter less than or equal to the threaded rings allows to replace them without footprint problem.
- Its large inner diameter does not reduce the passage for heating elements
- The clamping with 3 BTR screws at 120° ensures a good pressure distribution and an excellent mechanical strength. These screw positions increase the clearances between the screw heads and live parts of the heating elements (If respecting the most favorable angle when drilling heating element holes)
- The recessed hexagonal hole screw heads allow easy and stable entry of hex wrench when adjusting angular position (M4 screw up to 2" above M5)
- Ring made of stainless steel for better durability
- Unalterable stamped earthing logo

Brazed joint:

Wall thickness of 4 mm to ensure sufficient length of solder to minimize capillary leakage and provide good vibration resistance

Fitting clamping: 8mm wide hex part for easy passage of wrench

Pressure resistance: 2 MPa (Fitting undrilled and without heating elements). The minimum wall thickness meets the Schedule 10S specs.

Brazing and hard soldering ability:

Common brass alloys used for hot forging have a 2 to 3% lead content. This high percentage of lead weakens the brass when heated to high temperatures (as it happens in "Hard soldering" and brazing) and also makes them unsuitable for oxy-acetylene welding.

The alloy used for these connections has a low lead content, which improves its brazing ability.

Options:

- Hole drilling and chamfering for heaters according to customer drawing (MOQ apply)
- Customizing or customer references marking (MOQ apply)

