Office of the Technical Regulator

Parallel Threads

Gas Bulletin #11

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Australian Standard AS/NZS 5601.1 (Installation) prohibits the use of male parallel thread fittings on gas installations

Extract from AS/NZS 5601.1:2022:

Clause 4.4 Prohibited Types of Joints and Fittings - The following fittings shall not be used:

(g) A plain nipple, e.g. running nipple.

A parallel thread running nipple in steel or brass.

(d) A longscrew (Connector).

A fitting with a taper thread one end and a parallel thread and socket the other, using a back nut and grommet to obtain a seal on the parallel thread.



The combination of external and internal parallel threaded fittings is not permitted on gas installations except where no practical alternative is available.

NOTE: A brass external parallel thread to a brass internal parallel thread may be used, provided that the joint is welded or a suitable permanent quick-setting thread compound is used and a means of disconnection is provided immediately downstream. Wherever possible the fitting should be secured against disturbance.

The use of conventional thread sealants in the above mentioned fittings usually results in joint failure as there is no tightening effect with these fittings (the male thread bottoms out) and the joint depends on the use of copious amounts of thread tape to make a gas tight joint. Any subsequent movement or vibration is likely to cause an escape. This is of particular concern where brass fittings are used on copper gas supplies. Parallel to parallel threads are more common on brass fittings.

For threaded joints on steel pipe table 4.2 requires external taper threads and internal parallel threads to Australian Standard AS ISO 7.1 for operating pressures up to 100 kPa. Of course the jointing of screwed (black iron or galvanized pipe to AS 1074) using external taper to internal taper is also acceptable



The use of external parallel threads is not permitted on gas installations. The photographs in this bulletin show the acceptable alternate arrangements.



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