

Australian Standard™

AS 2888.1

Methods of testing plastics waste fittings

Method 1: Method of determining the suitability of connection threads of BSP form

PREFACE

This Standard was prepared by the Standards Australia Committee PL-045, Plastics Pipe Systems Test and Calculation, to supersede of AS 2888.1—1986.

Assessment of the suitability of plastics connection threads has been reduced to a single requirement, namely that the threads be capable of withstanding a tightening torque when assembled with the thread gauges. Tolerances have been introduced for the size of thread gauges and the failure criteria have been expanded.

METHOD

1 SCOPE

This Standard sets out a method for determining the ability of threaded components of plastics waste fittings to withstand a tightening torque without damage.

2 REFERENCED DOCUMENTS

The following document is referred to in this Standard—:

AS

1722 Pipe threads of Whitworth form

1722.2 Part 2: Fastening pipe threads

3 PRINCIPLE

The test specimen is assembled with a thread gauge of BSP form and tightened to the torque specified in the relevant fittings Standard. The test specimen is assessed on the basis of its ability to withstand application of the torque without jumping or stripping of threads, or cracking, breakage or other structural failure.

4 APPARATUS

The following apparatus is required—:

- (a) *Thread gauge for external threads* A thread gauge made from hardened steel with the pitch diameter ground to the maximum limit of AS 1722.2, Series G observing a tolerance of +0, −0.05 mm.
- (b) *Thread gauge for internal threads* A thread gauge made from hardened steel with the pitch diameter ground to the minimum limit of AS 1722.2, Series GA or GB observing a tolerance of +0.05, −0 mm.

- (c) *Torque wrench* A torque wrench or other device for measuring the torque applied to the gauge with an accuracy of 5%.
- (d) *Suitable adaptors* Suitable adaptors and PTFE washers as required, to enable the necessary torque to be applied where no shoulder or stop is present in the fitting (see Figures 1, 2 and 3).

5 CONDITIONING AND TESTING

For referee tests, the test specimen shall be conditioned in air at a temperature of $20 \pm 2^\circ\text{C}$ for a minimum of 24 h prior to testing in the same controlled environment. For routine tests, the test specimen may be tested at ambient conditions, but not exceeding 38°C .

6 PROCEDURE

The procedure shall be as follows:

- (a) Engage the appropriate thread gauge with the thread under test and run up by hand to a stop or suitable adaptor, as necessary.
- (b) Attach the torque wrench and apply the test torque as specified in the relevant fittings Standard. During testing, the threaded section of the component under test shall not be supported in such a way as to influence the result of the test.
- (c) Disengage thread gauge and examine the test specimen for evidence of cracking, breakage or other structural failure. Examine the threads of the test specimen for evidence of jumping or stripping.

7 REPORT

The report shall include the following:

- (a) Manufacturer, model, size and configuration of the test specimen.
- (b) Whether the specified test torque could be applied.
- (c) Whether the thread jumped or stripped as a result of the application of torque.
- (d) Whether the test specimen displayed evidence of cracking, breakage or other structural failure as a result of the application of torque.
- (e) Reference to this Australian Standard, i.e. AS 2888.1.

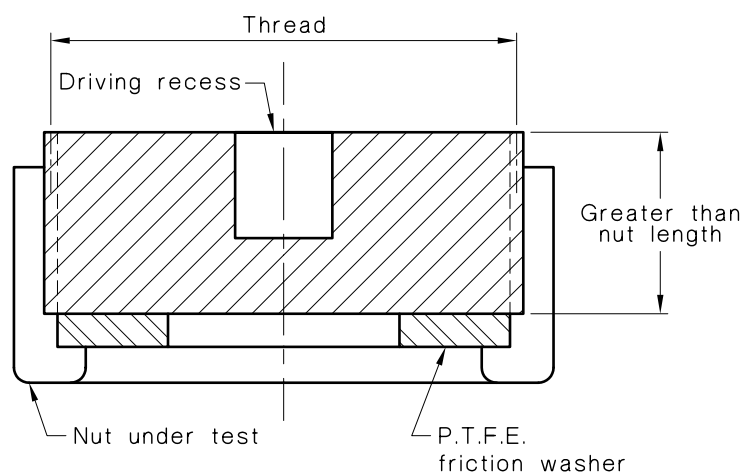


FIGURE 1 TYPICAL ADAPTOR/THREAD GAUGE FOR TESTING LOOSE UNION NUT

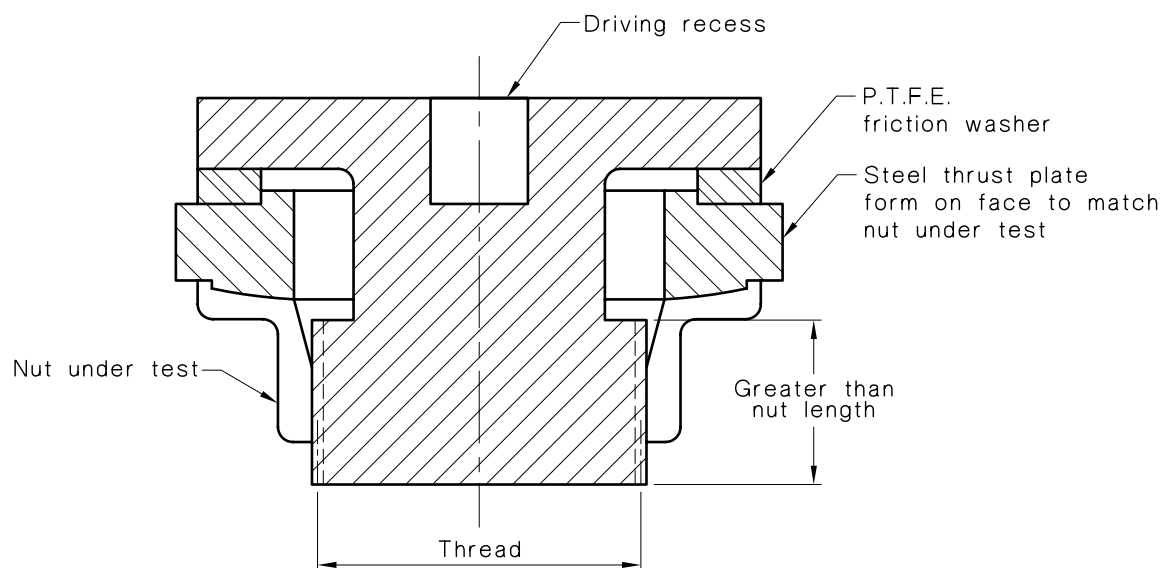


FIGURE 2 TYPICAL ADAPTOR/THREAD GAUGE FOR TESTING WASTE OUTLET BACKNUT