AS 3673—1989

Australian Standard®

Malleable cast iron threaded pipe fittings

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Australian Gas Association

Confederation of Australian Industry

Metal Trades Industry Association of Australia

Public Works Department, New South Wales

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PREFACE

This Standard was prepared by Standards Australia's Committee on Steel Pipes and Fittings — Water and Gas in response to a request from Standards Australia's Committee on the National Plumbing and Drainage Code.

In the preparation of this Standard reference was made to BS 143 and 1256:1986, *Specification for malleable cast iron and cast copper alloy threaded pipe fittings*, and ISO 49, *Malleable cast iron fittings threaded to ISO 7/1*, and the assistance gained from these sources is acknowledged.

This Standard does not indicate the services for which the threaded pipe fittings are appropriate. Where the use of threaded pipe fittings is not controlled by by-laws or regulations, reference should be made to the appropriate Code of Practice or application Standard. If the application is for pressure purposes, reference should be made to AS CB18, *SAA Pressure Piping Code — Part 1: Ferrous piping*.

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STANDARDS AUSTRALIA

Australian Standard
Malleable cast iron threaded pipe fittings

1 SCOPE. This Standard specifies requirements for the design and performance of malleable cast iron threaded pipe fittings for two basic designs, those having taper external and taper internal threads and those having taper external and parallel internal threads in accordance with AS 1722.1 for use with steel tubes and tubulars as specified in AS 1074.

NOTE: Guidelines on information that should be specified by the purchaser or agreed upon at the time of enquiry or order are given in Appendix A.

2 REFERENCED DOCUMENTS. The following documents are referred to in this Standard.

AS
1074 Steel tubes and tubulars for ordinary service
1650 Galvanized coatings
1722 Pipe threads of Whitworth form
1722.1 Part 1: Sealing pipe threads
1722.2 Part 2: Fastening pipe threads
1832 Iron castings — Malleable cast iron

ISO
49 Malleable cast iron fittings threaded to ISO 7/1

3 DEFINITIONS. For the purpose of this Standard the definitions below apply.

3.1 Fitting — a connecting piece, of one or more parts.

3.2 Nominal size (DN) — a numerical designation of size that is common to all components in a piping system other than components designated by outside diameters or by thread size. It is a convenient round number for reference purposes and is only loosely related to manufacturing dimensions.

NOTE: Nominal size is designated by the letters DN followed by a number, e.g. DN 32.

3.3 Fastening thread — a thread for fittings (or parts of a fitting) requiring simple mechanical assembly.

NOTE: Fastening pipe thread is specified in AS 1722.2 and its use in this Standard is covered by G series threads.

3.4 Sealing pipe thread — a thread for fittings requiring pressure tightness through the mating of the threads, with or without the use of thread sealants, at the same time providing mechanical assembly.

NOTE: Sealing pipe thread is specified in AS 1722.1 and its use in this Standard is covered by RP, R and RC series threads.

3.5 Chamfer — machined or cast surface in the form of a cone at the entrance of a thread to assist assembly and prevent damage to the start of the thread.

3.6 Reinforcement — additional material on the outside diameter of an internally threaded fitting in the form of a band or bead.

3.7 Rib — local and axially aligned additional material on the outside or inside of a fitting for assistance in manufacturing or assembly.

3.8 Outlet — threaded end of a fitting, that connects with a tube, fitting or other component.

3.9 Run — the principal axially aligned outlet of a fitting having two outlets or more.

3.10 Branch — side outlet(s) of a tee, pitcher tee or cross.

3.11 Centre to face dimension — the distance between the central axis and the face of an outlet of an angularly disposed outlet.

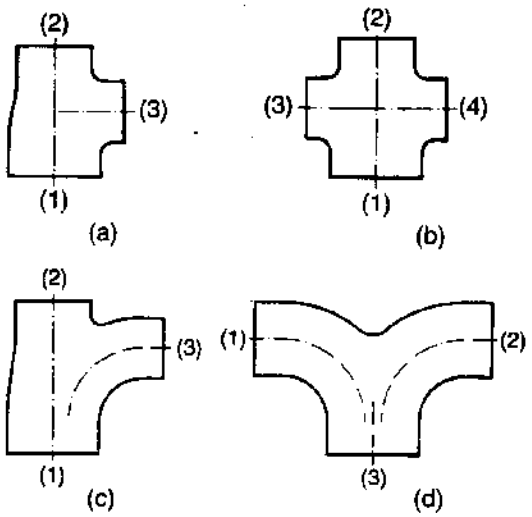
4 TYPES OF FITTINGS AND SYMBOLS. Names and type symbols of fittings specified in this Standard are given in Figures 4 to 22 inclusive.

5 NOMINAL SIZE RANGE. The nominal size shall be selected from the range as given in Table 1.

TABLE 1
NOMINAL SIZE RANGE

DN 6	DN 25	DN 80
DN 8	DN 32	DN 100
DN 10	DN 40	DN 125
DN 15	DN 50	DN 150
DN 20	DN 65	

6 NOMINAL SIZE DESIGNATION. Nominal size designation of equal fittings shall comply with Clause 5. Nominal size designation of unequal fittings shall follow the method as shown in Figure 1.



NOTE: The method of specifying outlets is in accordance with method (b) in ISO 49.

FIGURE 1 METHOD OF DESIGNATING NOMINAL SIZE WHERE FITTING HAS TWO OR MORE OUTLETS