ASME B16.12-2019

[Revision of ASME B16.12-2009 (R2014)]

Cast Iron Threaded Drainage Fittings

AN AMERICAN NATIONAL STANDARD

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The American Society of Mechanical Engineers
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CONTENTS

CAST IRON THREADED DRAINAGE FITTINGS

1 SCOPE AND GENERAL

1.1 Scope

This Standard for cast iron threaded drainage fittings covers

(a) sizes and method of designating openings in reducing fittings
(b) marking
(c) material
(d) dimensions and tolerances
(e) threading
(f) ribs
(g) coatings
(h) face bevel

1.2 Applicability

This Standard covers fittings intended for use in gravity drainage systems subject only to the gravity head of waste liquids at temperatures from ambient to approximately 100°C (212°F). The use of this Standard for pressurized waste handling systems is the responsibility of the user and is subject to the requirements of any applicable code.

1.3 Quality Systems

Requirements relating to the product manufacturers' Quality System Programs are described in Nonmandatory Appendix A.

1.4 References

Standards and specifications adopted by reference in this Standard are shown in Mandatory Appendix I, which is part of this Standard. It is not considered practical to identify the specific edition of each referenced standard and specification in the text where referenced. Instead, the specific editions of the referenced standards and specifications are listed in Mandatory Appendix I.

2 SIZE

2.1 Nominal Pipe Size

The sizes of the fittings scheduled in Tables 2.1-1 and 2.1-2 is identified by the corresponding nominal pipe size (NPS). For reducing tees, Y-branches, or crosses, the largest run opening shall be given first. The straight-line sketches (Figure 2.1-1) illustrate how the reducing fittings are read.

2.2 Denotation

NPS, followed by a dimensionless number, is the designation for nominal fitting size. NPS is related to the reference nominal diameter, DN, used in international standards. The relationship is, typically, as follows:

NPS	DN
1	25
$1^1/_4$	32
$1^1/_2$	40
2	50
$2^1/_2$	65
3	80
$3^1/_2$	...
4	100

GENERAL NOTE: For NPS ≥ 4, the related DN ≥ 25 × (NPS).

3 MARKING

Each fitting shall be marked with the manufacturer's name or trademark in accordance with the requirements of MSS Standard Practice No. SP-25.

4 MATERIALS

4.1 Castings

The dimensions prescribed in this Standard (Tables 4.1-1 through 4.1-11) are based on gray iron castings of high quality produced under regular control of chemical and physical properties by a recognized process. The manufacturer shall be prepared to certify that the product has been so produced and that its chemical and physical properties, as proved by test specimens, are equal to the requirements specified in ASTM A126.

4.2 Optional Material

Drainage fittings are regularly made of cast iron. At the option of the manufacturer, drainage fittings may be furnished of malleable iron complying with the minimum physical requirements of ASTM A197.

5 DIMENSIONS AND TOLERANCES

5.1 Dimensions

This Standard states values in both SI (metric) and U.S. Customary units. These systems of units are to be regarded separately as standard. Within the text, the U.S. Customary units are shown in parentheses. The