

INCH-POUND

MS14303B
31 July 2015
SUPERSEDING
MS14303A
22 February 1982

DETAIL SPECIFICATION SHEET

PIPE FITTINGS, STEEL, THREADED, PRESSURE CLASS 2000, 3000, AND 6000
POUND WOG

This specification is approved for use by all Departments and Agencies of the
Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and
ASME B16.11.

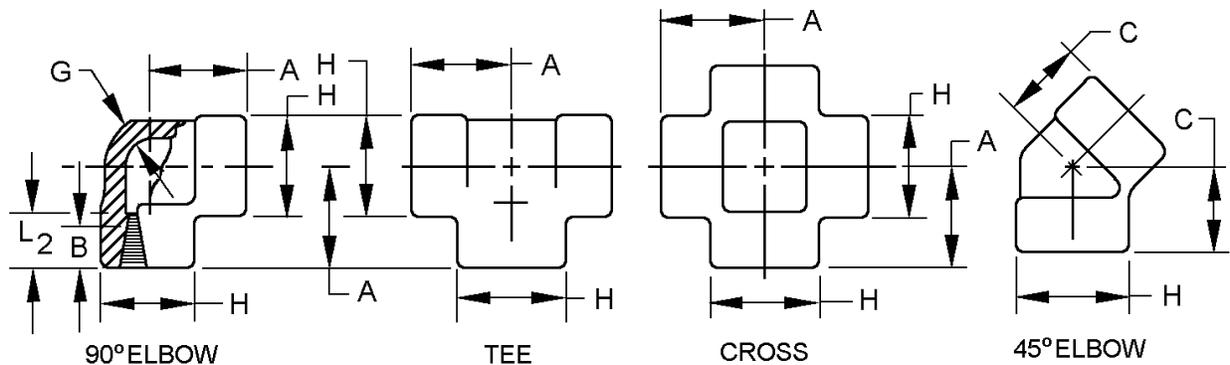


FIGURE 1. Design and dimensions.

REQUIREMENTS:

Dimensions are given in ASME B16.11 under the table for forged steel threaded fittings.

Forged carbon steel fittings shall be electrodeposited zinc coated when specified by the MS part number. The zinc coating shall conform to ASTM B633 Type I Class SC3 and shall be applied after machining and threading operations.

Material finish: The material and finish of the fitting are identified by a single digit as specified in table I.



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TABLE I. Fitting material and finish.

Code Number	Material and Finish (if applicable)
1	Carbon Steel (ASTM A105/A105M or ASTM A181/A181M Class 70), not zinc coated
2	Carbon Steel (ASTM A105/A105M or ASTM A181/A181M Class 70), zinc coated
3	4-6% Chromium – 1/2% Molybdenum (ASTM A182/A182M Grade F5)
4	1 1/4% Chromium – 1/2% Molybdenum (ASTM A182/A182M Grade F11)
5	2 1/4% Chromium – 1% Molybdenum (ASTM A182/A182M Grade F22)
6	304 Stainless Steel (ASTM A182/A182M Grade F304)
7	316 Stainless Steel (ASTM A182/A182M Grade F316)

Pressure class and kind of fitting: The kind of fitting and pressure class of the fitting are identified by a single alphabetic character as specified in table II.

TABLE II. Fitting kind and pressure class identifier.

Kind of fitting	Pressure Class Rating		
	Class 2000	Class 3000	Class 6000
Cross, pipe	A	B	C
Elbow, pipe (45°)	D	E	F
Elbow, pipe (90°)	H	J	K
Tee, pipe	P	R	T

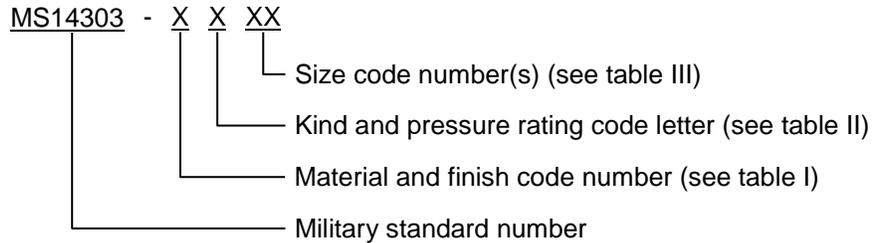
Nominal pipe size: The nominal pipe size of the fitting is normally identified by two digits as shown in table III. The size code number will contain two digits when the ends of the fitting are all the same size. However, when the ends of the fittings are different sizes, the size code number will contain groups of two digits which identify each end of the fitting (i.e. reducing elbow is 16 12 for 1-inch to 3/4 inch and reducing tee is 24 12 20 for run ends of 1 1/2 inch and 3/4 inch and branch end of 1 1/4 inch). Reducing cross and reducing tee ends shall be identified in arrangement order as specified in ASME B16.11. Reducing elbow ends will be identified by stating the larger pipe size first.

TABLE III. Fitting nominal pipe size identifier.

Size Code	Nominal pipe size	Size Code	Nominal pipe size
02	1/8 Inch	20	1-1/4 Inch
04	1/4 Inch	24	1-1/2 Inch
06	3/8 Inch	32	2 Inch
08	1/2 Inch	40	2-1/2 Inch
12	3/4 Inch	48	3 Inch
16	1 Inch	64	4 Inch

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Part or identifying number (PIN): The MS part number consists of the MS number with a dash after it, the material and finish code number, the kind and pressure rating code letter, and the size code number(s) as follows:



Examples of a PIN:

MS14303-2A16 is for a zinc coated, carbon steel, 1 inch, class 2000 pipe cross.

Referenced documents shall be of the issue in effect on date of invitations for bids or request for proposal.

For design feature purposes, this standard takes precedence over procurement documents referenced herein.

Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Reference documents. In addition to ASME B16.11 this document references the following:

- ASTM B633
- ASTM A105/A105M
- ASTM A181/A181M
- ASTM A182/A182M

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CONCLUDING MATERIAL

Custodians:

Army - AT
Navy - MC
Air Force - 99
DLA - CC

Preparing activity:

DLA - CC

(Project 4730-2015-051)

Review activities:

Army – AR, CE, EA
Navy - SA
Air Force – 71

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.