

MS51506B  
16 FEBRUARY 1988  
SUPERSEDING  
MS51506A  
17 January 1979

MILITARY SPECIFICATION SHEET

FITTINGS, HYDRAULIC TUBE, FLARED 37 DEGREE AND FLARELESS, STEEL;  
ELBOW, PIPE TO TUBE, 90 DEGREE, FEMALE PIPE END, 37 DEGREE FLARED

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 the issue of the following specification listed in that  
issue of the Department of Defense Index of Specifications and Standards (DoDISS)  
specified in the solicitation: MIL-F-18866.

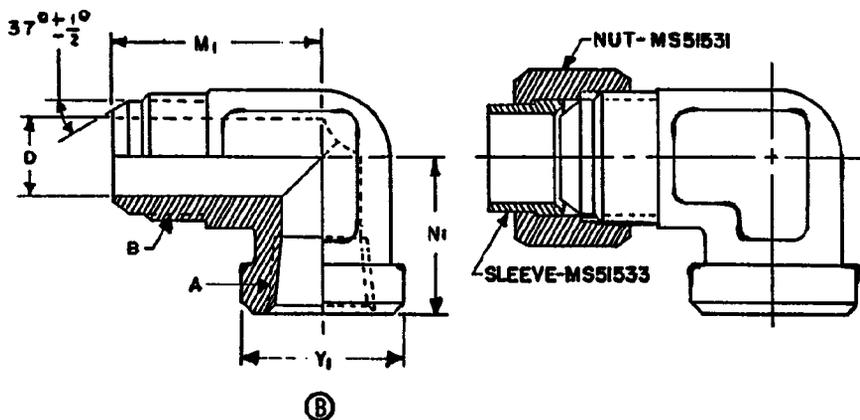


FIGURE 1. Elbow, Pipe to Tube, Female Pipe End, Flared.

Ⓑ Denotes change

AMSC N/A

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DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

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TABLE I. Dimensional data.

| DASH NUMBER |        | TUBE O.D. NOM | A<br>PIPE THREAD<br>NPTF | B<br>STRAIGHT THREAD | D     |               | <sup>(B)</sup><br>H <sub>1</sub> | <sup>(B)</sup><br>H <sub>1</sub> | <sup>(B)</sup><br>Y <sub>1</sub> |
|-------------|--------|---------------|--------------------------|----------------------|-------|---------------|----------------------------------|----------------------------------|----------------------------------|
| BODY        | ASSY   |               |                          |                      | BASIC | TOLERANCE     | +/- .030                         | +/- .030                         | +/- .020                         |
| B2          | A2     | 1/8           | 1/8                      | .3125-24 UNF-2A      | .062  | +/- .003      | 1.000                            | .660                             | .562                             |
| B3          | A3     | 3/16          | 1/8                      | .3750-24 UNF-2A      | .125  |               | 1.030                            | .660                             | .562                             |
| B4          | A4     | 1/4           | 1/8                      | .4375-20 UNF-2A      | .172  |               | 1.080                            | .660                             | .562                             |
| *B4-4       | *A4-4  | 1/4           | 1/4                      | .4375-20 UNF-2A      | .172  |               | 1.220                            | .880                             | .750                             |
| B5          | A5     | 5/16          | 1/8                      | .5000-20 UNF-2A      | .234  | +/- .004      | 1.080                            | .660                             | .562                             |
| *B6-2       | *A6-2  | 3/8           | 1/8                      | .5625-18 UNF-2A      | .297  |               | 1.060                            | .640                             | .562                             |
| B6          | A6     | 3/8           | 1/4                      | .5625-18 UNF-2A      | .297  |               | 1.230                            | .880                             | .750                             |
| *B6-6       | *A6-6  | 3/8           | 3/8                      | .5625-18 UNF-2A      | .297  |               | 1.310                            | 1.020                            | .875                             |
| *B8-4       | *A8-4  | 1/2           | 1/4                      | .7500-16 UNF-2A      | .391  | +/- .004      | 1.250                            | .890                             | .750                             |
| B8          | A8     | 1/2           | 3/8                      | .7500-16 UNF-2A      | .391  |               | 1.420                            | 1.020                            | .875                             |
| *B8-8       | *A8-8  | 1/2           | 1/2                      | .7500-16 UNF-2A      | .391  |               | 1.380                            | 1.230                            | 1.062                            |
| B10         | A10    | 5/8           | 1/2                      | .8750-14 UNF-2A      | .484  |               | 1.640                            | 1.230                            | 1.062                            |
| *B12-8      | *A12-8 | 3/4           | 1/2                      | 1.0625-12 UN-2A      | .609  | +/- .005      | 1.660                            | 1.230                            | 1.062                            |
| B12         | A12    | 3/4           | 3/4                      | 1.0625-12 UN-2A      | .609  |               | 1.890                            | 1.360                            | 1.312                            |
| B14         | A14    | 7/8           | 3/4                      | 1.1875-12 UN-2A      | .718  |               | 1.860                            | 1.420                            | 1.312                            |
| B16         | A16    | 1             | 1                        | 1.3125-12 UN-2A      | .844  |               | + .007/- .005                    | 2.170                            | 1.620                            |
| B20         | A20    | 1-1/4         | 1-1/4                    | 1.6250-12 UN-2A      | 1.078 | + .008/- .005 | 2.330                            | 1.700                            | 1.875                            |
| B24         | A24    | 1-1/2         | 1-1/2                    | 1.8750-12 UN-2A      | 1.312 |               | 2.890                            | 2.080                            | 2.562                            |
| B32         | A32    | 2             | 2                        | 2.5000-12 UN-2A      | 1.781 |               | + .010/- .005                    | 3.300                            | 2.390                            |

\*Not recommended for new design

REQUIREMENTS:

1. **MATERIAL:** Steel, carbon in accordance with procurement specification.  
Steel, corrosion-resisting in accordance with procurement specification.
2. **PROTECTIVE COATING:** Cadmium plated in accordance with procurement specification. Zinc plated in accordance with procurement specification. Phosphate coated in accordance with procurement specification. Passivation treatment in accordance with procurement specification.
3. **DIMENSIONS AND TOLERANCES:** Dimensions and tolerances not shown shall be in accordance with the SAE Standard for 37 Degree Flared Fittings (SAE J514).
- <sup>(B)</sup> 4. **THREADS:** Threads shall be in accordance with Screw-Thread Standards for Federal Services, FED-STD-H28.
5. **PART NUMBER:** The MS part number consists of the MS number plus the dash number.
  - a. For body only, cadmium plated, use the MS number, plus the body dash number. Example: MS51506B2.

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- b. For complete assembly (with nut and sleeve), cadmium plated, use the MS number, plus the assembly dash number. Example: MS51506A2.
  - c. For zinc coating add (Z) to the dash number. Example: MS51506B2Z or MS51506A2Z.
  - d. For phosphate coating add (P) to the dash number. Example: MS51506B2P or MS51506A2P.
  - e. For corrosion-resisting steel add (S) to the dash number. Example: MS51506B2S or MS51506BA2S.
6. The illustration is for identification purposes only and is not intended to restrict designs or shapes not dimensioned.
7. After 17 January 1979 bodies will be used for production only and ~~SHALL NOT~~ be stocked for maintenance. Existing stock of bodies should be used until depleted.
8. In the event of a conflict between the text of this Military Specification Sheet and the reference cited herein, the text of this Military Specification Sheet shall take precedence.
9. Referenced Government (or non-Government) documents of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation form a part of this Military Specification Sheet to the extent specified herein.

CUSTODIAN:

AIR FORCE - 99

ⓑ NAVY - OS

REVIEW ACTIVITIES:

ⓑ AIR FORCE - 82

ARMY - ER, ME

DLA-CS

USER ACTIVITIES:

ARMY - AT

NAVY - MC, YD

PREPARING ACTIVITY:

ARMY - AR

AGENT:

DLA-CS

(PROJECT 4730-0909)