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AS5173

FEDERAL SUPPLY CLASS  
4730

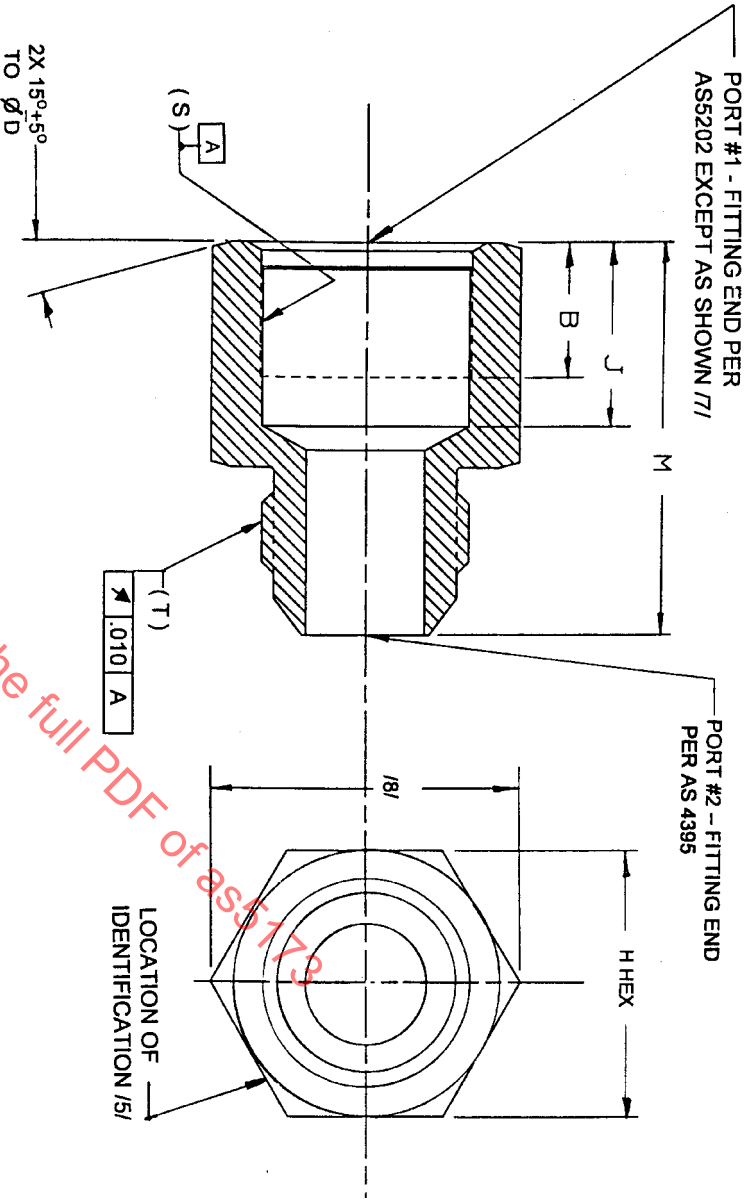
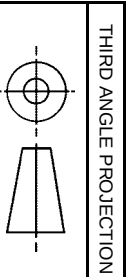


FIGURE 1 - FITTING



ISSUED 2000-01

CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS4875

**SAE** The Engineering Society  
of Automobile Engineers  
and Aerospace Engineers  
INTERNATIONAL  
400 Commonwealth Drive, Warrendale, PA 15096-0001

**AEROSPACE STANDARD**

FITTING, BUSHING, PORT, REDUCER

**AS5173**  
SHEET 1 OF 4

TABLE 1 - DIMENSIONS AND WEIGHTS

| BASIC NO.                | NOMINAL<br>TUBE SIZE | NOMINAL<br>TUBE SIZE | S THREAD               | T THREAD               | B    | D     | H       | J     | M     | LB EA             | LB EA              | LB EA              |
|--------------------------|----------------------|----------------------|------------------------|------------------------|------|-------|---------|-------|-------|-------------------|--------------------|--------------------|
| AS5173 /14/<br>SIZE CODE | PORT #1              | PORT #2              | PER AS8879<br>CLASS 3B | PER AS8879<br>CLASS 3A | min  | ±.010 |         |       |       | APPROX<br>AL(Ref) | APPROX<br>STL(Ref) | APPROX<br>TI (Ref) |
| 0302                     | .188                 | .125                 | .3750-24UNJF           | .3125-24UNJF           | .538 | .605  | .615 -  | .598  | 1.188 | .0319             | .0917              | .0506              |
| 0402                     | .250                 | .125                 | .4375-20UNJF           | .3125-24UNJF           | .568 | .668  | .678 -  | .672  | 1.297 | .0362             | .104               | .0573              |
| 0403                     | .250                 | .188                 | .4375-20UNJF           | .3750-24UNJF           | .568 | .668  | .678 -  | .672  | 1.297 | .0378             | .109               | .0599              |
| 0504                     | .312                 | .250                 | .5000-20UNJF           | .4375-20UNJF           | .568 | .730  | .740 -  | .672  | 1.500 | .0433             | .124               | .0685              |
| 0604                     | .375                 | .250                 | .5625-18UNJF           | .4375-20UNJF           | .470 | .793  | .803 -  | .630  | 1.391 | .0511             | .147               | .0809              |
| 0605                     | .375                 | .313                 | .5625-18UNJF           | .5000-20UNJF           | .470 | .793  | .803 -  | .630  | 1.375 | .0534             | .153               | .0846              |
| 0804                     | .500                 | .250                 | .7500-16UNJF           | .4375-20UNJF           | .562 | .980  | .990 -  | .750  | 1.609 | .0649             | .186               | .103               |
| 0805                     | .500                 | .313                 | .7500-16UNJF           | .5000-20UNJF           | .562 | .980  | .990 -  | .750  | 1.547 | .0672             | .193               | .107               |
| 0806                     | .500                 | .375                 | .7500-16UNJF           | .5625-18UNJF           | .562 | .980  | .990 -  | .750  | 1.547 | .0698             | .200               | .111               |
| 1004                     | .625                 | .250                 | .8750-14UNJF           | .4375-20UNJF           | .625 | 1.103 | 1.113 - | .810  | 1.672 | .0713             | .205               | .113               |
| 1005                     | .625                 | .313                 | .8750-14UNJF           | .5000-20UNJF           | .625 | 1.103 | 1.113 - | .810  | 1.656 | .0737             | .212               | .117               |
| 1006                     | .625                 | .375                 | .8750-14UNJF           | .5625-18UNJF           | .625 | 1.103 | 1.113 - | .810  | 1.641 | .0763             | .219               | .121               |
| 1008                     | .625                 | .500                 | .8750-14UNJF           | .7500-16UNJF           | .625 | 1.103 | 1.113 - | .810  | 1.750 | .090              | .258               | .143               |
| 1206                     | .750                 | .375                 | 1.0625-12UNJ           | .5625-18UNJF           | .688 | 1.353 | 1.363 - | .940  | 1.813 | .102              | .294               | .162               |
| 1208                     | .750                 | .500                 | 1.0625-12UNJ           | .7500-16UNJF           | .688 | 1.353 | 1.363 - | .940  | 1.922 | .116              | .334               | .184               |
| 1210                     | .750                 | .625                 | 1.0625-12UNJ           | .8750-14UNJF           | .688 | 1.353 | 1.363 - | .940  | 2.016 | .131              | .376               | .207               |
| 1606                     | 1.000                | .375                 | 1.3125-12UNJ           | .5625-18UNJF           | .688 | 1.603 | 1.613 - | .970  | 1.922 | .123              | .352               | .194               |
| 1608                     | 1.000                | .500                 | 1.3125-12UNJ           | .7500-16UNJF           | .688 | 1.603 | 1.613 - | .970  | 2.032 | .136              | .391               | .216               |
| 1610                     | 1.000                | .625                 | 1.3125-12UNJ           | .8750-14UNJF           | .688 | 1.603 | 1.613 - | .970  | 2.109 | .151              | .434               | .293               |
| 1612                     | 1.000                | .750                 | 1.3125-12UNJ           | 1.0625-12UNJ           | .688 | 1.603 | 1.613 - | .970  | 2.203 | .179              | .514               | .283               |
| 2008                     | 1.250                | .500                 | 1.6250-12UNJ           | .7500-16UNJF           | .688 | 1.863 | 1.863 - | 1.010 | 2.172 | .137              | .392               | .216               |
| 2010                     | 1.250                | .625                 | 1.6250-12UNJ           | .8750-14UNJF           | .688 | 1.863 | 1.863 - | 1.010 | 2.250 | .151              | .435               | .240               |
| 2012                     | 1.250                | .750                 | 1.6250-12UNJ           | 1.0625-12UNJ           | .688 | 1.863 | 1.863 - | 1.010 | 2.328 | .179              | .515               | .284               |
| 2016                     | 1.250                | 1.000                | 1.6250-12UNJ           | 1.3125-12UNJ           | .688 | 1.863 | 1.863 - | 1.010 | 2.297 | .224              | .642               | .354               |

## NOTES:

## /1/ MATERIAL:

- a. NO CODE LETTER: CARBON STEEL BAR, TYPE 4130 PER AMS 6370 OR TYPE 4140 PER AMS 6382.
- b. CODE LETTER D: TYPE 2024-T6 ALUMINUM ALLOY BAR PER AMS-QQ-225/6 OR AMS 4339, OR TYPE 2024-T851 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6.
- c. CODE LETTER J: TYPE 304 COND A CORROSION RESISTANT STEEL BAR PER AMS 5639 OR QQ-S-763.
- d. CODE LETTER K: TYPE 316 COND A CORROSION RESISTANT STEEL BAR PER AMS 5648 OR QQ-S-763.
- e. CODE LETTER R: TYPE 321 COND A CORROSION RESISTANT STEEL BAR PER AMS 5645 OR QQ-S-763.
- f. CODE LETTER T: TYPE 6AL-4V TITANIUM ALLOY BAR PER AMS 4928.
- g. CODE LETTER W: TYPE 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9 OR TYPE 7075-T7351 ALUMINUM ALLOY BAR PER AMS 4124.

2. HEAT TREATMENT: NONE, EXCEPT FOR NO MATERIAL CODE LETTER, SEE PROCUREMENT SPECIFICATION FOR HARDNESS REQUIREMENTS.

## 3. FINISH:

- a. NO MATERIAL CODE LETTER: CADMIUM PLATE PER QQ-P-416 TYPE II, CLASS 2, DYED BLACK. DIP IN MIL-PRF-6083 OR MIL-PRF-87253 FLUID.
- b. MATERIAL CODE LETTER D: ANODIZE PER AMS 2472 OR MIL-A-8625, TYPE II, CLASS 2, DYED BLUE, DUPLEX SEALED.
- c. MATERIAL CODE LETTER J, K, OR R: PASSIVATE PER AMS-QQ-P-35, TYPE VI OR VII.
- d. MATERIAL CODE LETTER T: ANODIZE PER AMS 2488 TYPE 2 OR FLUORIDE PHOSPHATE COAT PER AMS 2486, COLOR PER PROCUREMENT SPECIFICATION.
- e. MATERIAL CODE LETTER W: ANODIZE PER AMS 2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BROWN, DUPLEX SEAL PER PROCUREMENT SPECIFICATION.

/4/ PROCUREMENT SPECIFICATION: AS4875. USERS OF THIS STANDARD ARE ADVISED TO CONTROL SOURCE APPROVALS BY STANDARD PAGE SUPPLEMENT SHEET OR SIMILAR MEANS.

/5/ IDENTIFICATION: AT LOCATION SHOWN: MARK PER AS478 CLASS C OR D OR METHOD 7A3. 15A3, OR 15B MANUFACTURER'S NAME, TRADEMARK OR CAGE CODE, BASIC PART NUMBER, AND MATERIAL CODE LETTER.

6. INTENDED USE: THIS PART IS DESIGNED FOR USE IN SYSTEMS WITH OPERATING PRESSURES AS FOLLOWS:

- a. SIZES 02 THROUGH 16 IN ALL MATERIALS EXCEPT -16 ALUMINUM - 3000 psi.
- b. SIZE 16 ALUMINUM AND SIZES 20 THROUGH 32 IN ALL MATERIALS - 1500 psi.

THIS STANDARD IS THE FUNCTIONAL EQUIVALENT OF AN894 AND MS24398, EXCEPT WITH LONGER "M" LENGTHS IN SOME SIZES, AND IS INTENDED TO BE SUITABLE AS A REPLACEMENT STANDARD.

/7/ THE INTERNAL DIAMETERS SHALL END IN A CONICAL END OF 115° MINIMUM INCLUDED ANGLE.

/8/ THE HEX CORNERS MAY BE ROUNDED PER ARP1942.

9. INTERPRETATION OF DRAWING PER ARP4296.

10. SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36. REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES TO BE 125  $\mu$ in Ra. SURFACES OF HEX FLATS MAY BE 250  $\mu$ in Ra.

11. BREAK SHARP EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.

12. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1994.

13. DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS  $\pm$ .016, ANGULAR DIMENSIONS  $\pm$ 0°30'.