

**REV.  
D**

**AS5192**

**RATIONALE**

ADDED MATERIAL CODE "D" AND CLARIFIED NOTE /19/.

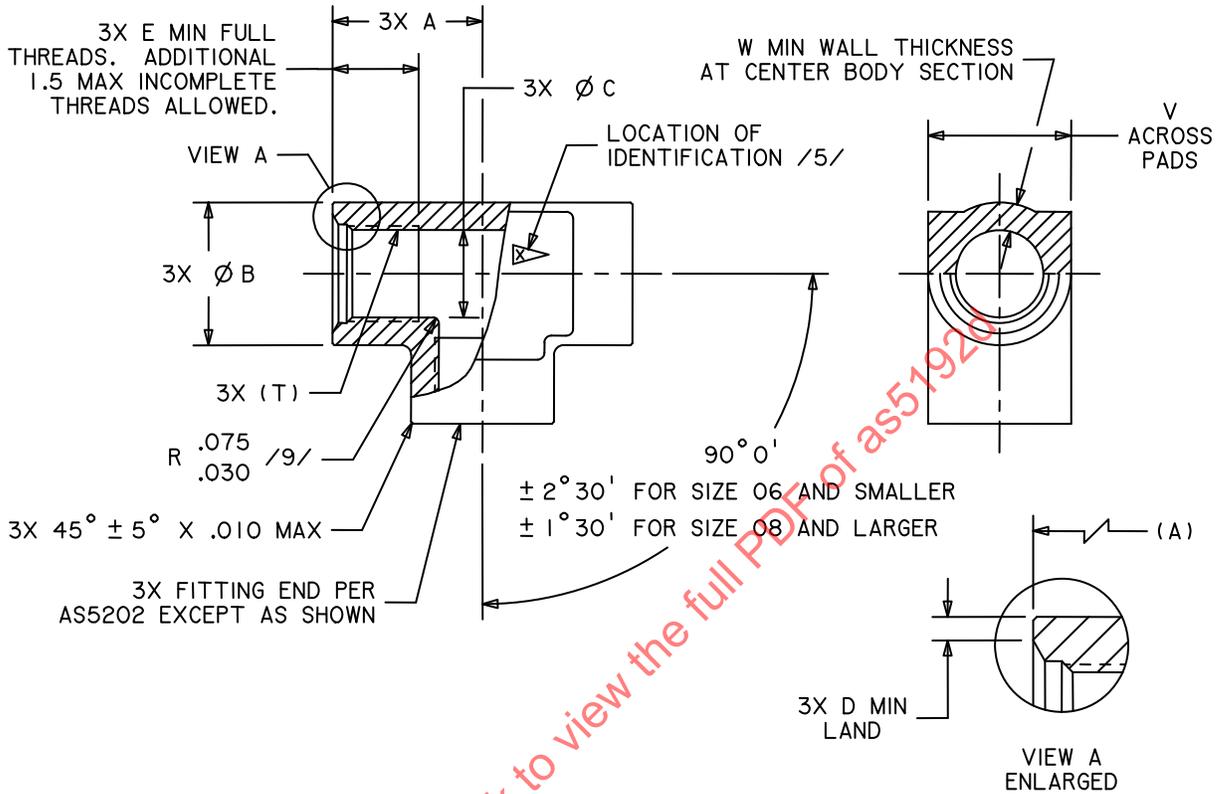
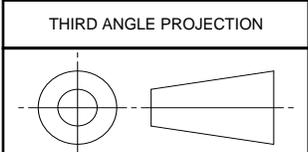


FIGURE 1 - FITTING, TEE

**MATERIAL USAGE RECOMMENDATIONS /19/**

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CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS4875



**AEROSPACE STANDARD**

FITTING, TEE, INTERNAL STRAIGHT THREAD PORT

**AS5192**  
SHEET 1 OF 5

**REV.  
D**

TABLE 1A - DIMENSIONS

| BASIC NO.<br>AS5192<br>/18/<br>SIZE CODE | (NOMINAL<br>TUBE<br>SIZE) | T THREAD<br>PER<br>AS8879<br>CLASS 3B | C     |            |                |      |      |             |      |
|--|---------------------------|---------------------------------------|-------|------------|----------------|------|------|-------------|------|
|  |                           |                                       | A     | B<br>±.016 | +0.00<br>-.015 | D    | E    | V           | W    |
| 04                                       | .250                      | .4375-20 UNJF                         | .787  | .688       | .397           | .040 | .483 | .735- .753  | .050 |
| 05                                       | .312                      | .5000-20 UNJF                         | .787  | .750       | .459           | .040 | .452 | .735- .753  | .050 |
| 06                                       | .375                      | .5625-18 UNJF                         | .849  | .813       | .516           | .040 | .475 | .797- .815  | .050 |
| 08                                       | .500                      | .7500-16 UNJF                         | 1.037 | 1.063      | .697           | .071 | .569 | 1.047-1.065 | .050 |
| 10                                       | .625                      | .8750-14 UNJF                         | 1.193 | 1.188      | .815           | .071 | .638 | 1.173-1.191 | .070 |
| 12                                       | .750                      | 1.0625-12 UNJ                         | 1.396 | 1.438      | .991           | .077 | .730 | 1.418-1.443 | .080 |
| 16                                       | 1.000                     | 1.3125-12 UNJ                         | 1.568 | 1.688      | 1.241          | .077 | .777 | 1.668-1.693 | .090 |
| 20                                       | 1.250                     | 1.6250-12 UNJ                         | 1.771 | 2.000      | 1.553          | .077 | .824 | 1.980-2.005 | .110 |

TABLE 1B - WEIGHTS

| BASIC NO.<br>AS5192<br>/18/<br>SIZE CODE | LB/EA<br>APPROX<br>REF<br>AL | LB/EA<br>APPROX<br>REF<br>STEEL | LB/EA<br>APPROX<br>REF<br>TI |
|--|------------------------------|---------------------------------|------------------------------|
| 04                                       | .0539                        | .155                            | .0854                        |
| 05                                       | .0534                        | .153                            | .0845                        |
| 06                                       | .0533                        | .153                            | .0844                        |
| 08                                       | .126                         | .362                            | .200                         |
| 10                                       | .170                         | .488                            | .269                         |
| 12                                       | .284                         | .814                            | .449                         |
| 16                                       | .378                         | 1.09                            | .599                         |
| 20                                       | .510                         | 1.47                            | .780                         |

NOTES:

NOTICE

THIS DOCUMENT REFERENCES A PART WHICH CONTAINS CADMIUM AS A PLATING MATERIAL. CONSULT LOCAL OFFICIALS IF YOU HAVE QUESTIONS CONCERNING CADMIUM'S USE.

/1/ MATERIAL:

- a. DASH AS CODE LETTER - TYPE 4130 STEEL FORGING OR BAR PER AMS6370 OR AMS-S-6758, OR TYPE 4140 STEEL BAR PER AMS6382. /2/
- b. CODE LETTER D - TYPE 2014-T6 ALUMINUM ALLOY FORGING PER AMS4134 OR 2024-T6 ALUMINUM ALLOY BAR PER AMS4112. /2/ /19/
- c. CODE LETTER J - TYPE 304 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS5639.
- d. CODE LETTER K - TYPE 316 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS5648.
- e. CODE LETTER R - TYPE 321 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS5645.
- f. CODE LETTER S - TYPE 347 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS5646. /19/

- g. CODE LETTER T - TYPE 6AL-4V TITANIUM ALLOY FORGING OR BAR PER AMS4928. /1/
  - h. CODE LETTER W - TYPE 7075-T73 ALUMINUM ALLOY FORGING PER AMS4141; OR TYPE 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9; OR TYPE 7075-T7351 ALUMINUM ALLOY BAR PER AMS4124. /2/
- /2/ HEAT TREATMENT:
- a. DASH AS MATERIAL CODE LETTER - SEE HARDNESS REQUIREMENT PER PROCUREMENT SPECIFICATION.
  - b. MATERIAL CODE LETTER D – SEE PROCUREMENT SPECIFICATION.
  - c. MATERIAL CODE LETTER W - SEE PROCUREMENT SPECIFICATION.
  - d. OTHER MATERIAL CODE LETTERS - NONE.
3. FINISH:
- a. DASH AS MATERIAL CODE LETTER - CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2, DYE BLACK AND COAT WITH A LIGHT FILM OF OIL PER PROCUREMENT SPECIFICATION.
  - b. MATERIAL CODE LETTER D - ANODIZE PER AMS2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BLUE, DUPLEX SEAL PER PROCUREMENT SPECIFICATION.
  - c. MATERIAL CODE LETTER J - PASSIVATE PER AMS2700 TYPE 6 OR TYPE 7 OR METHOD 2.
  - d. MATERIAL CODE LETTER K - PASSIVATE PER AMS2700 TYPE 6 OR TYPE 7 OR METHOD 2.
  - e. MATERIAL CODE LETTER R - PASSIVATE PER AMS2700 TYPE 6 OR TYPE 7 OR METHOD 2.
  - f. MATERIAL CODE LETTER S - PASSIVATE PER AMS2700 TYPE 6 OR TYPE 7 OR METHOD 2.
  - g. MATERIAL CODE LETTER T - ANODIZE PER AMS2488 OR FLUORIDE PHOSPHATE CONVERSION COAT PER AMS2486 WITH COLOR PER PROCUREMENT SPECIFICATION.
  - h. MATERIAL CODE LETTER W:
    - 1. ANODIZE PER AMS2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BROWN, DUPLEX SEAL PER PROCUREMENT SPECIFICATION.
    - 2. W CODE PARTS TO BE COATED WITH HIGH PURITY ALUMINUM ONLY WILL HAVE THE FINISH CODE LETTER "V" PLACED AFTER THE SIZE CODE IN THE PART NUMBER. THE FINISH WILL BE: COAT WITH HIGH PURITY ALUMINUM PER MIL-DTL-83488, CLASS 3, TYPE II, WITH MAXIMUM COATING THICKNESS OF .0005. GLASS BEAD PEEN PRESSURE SHALL BE 25 PSI MAXIMUM.
- /4/ PROCUREMENT SPECIFICATION: AS4875 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED BY AN ACCREDITED MANUFACTURER LISTED IN THE NATIONAL AEROSPACE AND DEFENSE CONTRACTORS ACCREDITATION PROGRAM (NADCAP) QUALIFIED MANUFACTURER LIST FOR THIS PRODUCT TYPE. THE QML IS AVAILABLE AT [www.eAuditNet.com](http://www.eAuditNet.com).
- /5/ IDENTIFICATION AT LOCATION SHOWN: MARK PER AS478 CLASS C OR D, OR METHOD 7A3, 15A3, OR 15B.
- a. FOR SIZES 06 AND SMALLER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, LETTERS "AS" AND MATERIAL CODE LETTER.
  - b. FOR SIZES 08 AND LARGER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, BASIC PART NUMBER AND MATERIAL CODE LETTER.

|   |  |                               |                         |
|---|--|-------------------------------|-------------------------|
|  | <b>AEROSPACE STANDARD</b>                      | <b>AS5192</b><br>SHEET 3 OF 5 | <b>REV.</b><br><b>D</b> |
|   | FITTING, TEE, INTERNAL<br>STRAIGHT THREAD PORT |                               |                         |

6. INTENDED USE: THIS PART IS DESIGNED FOR USE IN SYSTEMS WITH MAXIMUM OPERATING PRESSURES AS SHOWN IN TABLE 2.

TABLE 2 - OPERATING PRESSURES FOR ASSOCIATED MATERIAL

| SIZE  | MATERIAL                  | PSI  |
|-------|---------------------------|------|
| 04-08 | ALUMINUM ALLOY            | 3000 |
| 10-16 | ALUMINUM ALLOY            | 1500 |
| 20    | ALUMINUM ALLOY            | 1000 |
| 04-16 | STEEL                     | 3000 |
| 20    | STEEL                     | 1500 |
| 04-16 | CORROSION RESISTANT STEEL | 3000 |
| 20    | CORROSION RESISTANT STEEL | 1500 |
| 04-16 | TITANIUM ALLOY            | 3000 |
| 20    | TITANIUM ALLOY            | 1500 |

7. THIS STANDARD IS A FUNCTIONAL EQUIVALENT OF AN938 AND IS INTENDED TO BE SUITABLE AS A REPLACEMENT STANDARD.
8. WHEN MACHINED FROM BAR OR OVERSIZED FORGING, THE CENTER BODY DIMENSIONS SHALL CONFORM TO AS1376, TABLE 1.
- /9/ RADIUS APPLICABLE FOR TITANIUM ALLOY PARTS ONLY.
10. A CHANGE BAR (I) LOCATED IN THE LEFT MARGIN IS FOR THE CONVENIENCE OF THE USER IN LOCATING AREAS WHERE TECHNICAL REVISIONS, NOT EDITORIAL CHANGES, HAVE BEEN MADE TO THE PREVIOUS ISSUE OF THIS DOCUMENT. AN (R) SYMBOL TO THE LEFT OF THE DOCUMENT TITLE INDICATES A COMPLETE REVISION OF THE DOCUMENT, INCLUDING TECHNICAL REVISIONS. CHANGE BARS AND (R) ARE NOT USED IN ORIGINAL PUBLICATIONS, NOR IN DOCUMENTS THAT CONTAIN EDITORIAL CHANGES ONLY.
11. INTERPRETATION OF DRAWING PER AS4296.
12. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M. REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES TO BE 125 MICRONS Ra. FORGED SURFACES MAY BE 250 MICRONS Ra.
13. BREAK EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.
14. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1994.
15. DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS  $\pm 0.010$ , ANGULAR DIMENSIONS  $\pm 0$  DEGREES 30 MINUTES.
16. INVENTORIED PARTS CONFORMING TO THE PREVIOUS "LETTER CHANGE" MAY BE USED TO DEPLETION.
- /17/ TITANIUM AND CADMIUM SHALL NOT BE USED FOR OXYGEN OR POTABLE WATER SYSTEMS.
- /18/ EXAMPLE OF PART NUMBER:

