

REV.  
C

SAE AS1251

FEDERAL SUPPLY CLASS  
4730

# RATIONALE

AS1251C HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

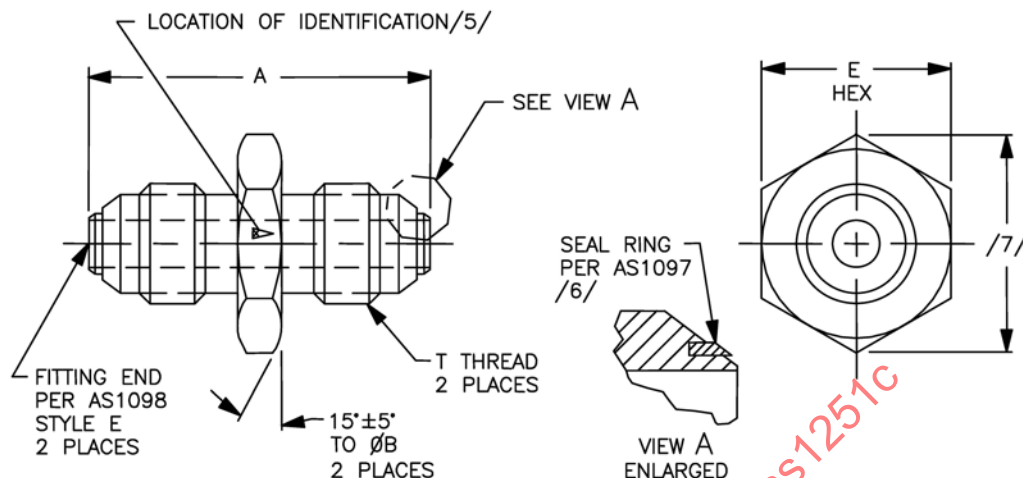


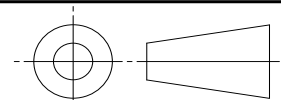
FIGURE 1 - FITTING, UNION, FLARED TUBE

TABLE 1 - DIMENSIONS AND WEIGHTS

| BASIC<br>NUMBER<br>AS1251<br>/15/<br>SIZE CODE | (NOMINAL<br>TUBE<br>SIZE) | T THREAD<br>PER<br>AS8879<br>CLASS 3A | A<br>+ .000<br>- .090 | B<br>± .010 | E           | LB/EA<br>APPROX<br>REF<br>ALUM | LB/EA<br>APPROX<br>REF<br>CRES |
|------------------------------------------------|---------------------------|---------------------------------------|-----------------------|-------------|-------------|--------------------------------|--------------------------------|
| 04                                             | .250                      | .4375-20UNJF                          | 1.266                 | .668        | .678-.691   | .0145                          | .042                           |
| 06                                             | .375                      | .5625-18UNJF                          | 1.391                 | .792        | .802-.815   | .0248                          | .072                           |
| 08                                             | .500                      | .7500-16UNJF                          | 1.578                 | .980        | .990-1.003  | .0462                          | .134                           |
| 10                                             | .625                      | .8750-14UNJF                          | 1.844                 | 1.103       | 1.113-1.128 | .070                           | .204                           |
| 12                                             | .750                      | 1.0625-12UNJ                          | 2.125                 | 1.353       | 1.363-1.380 | .122                           | .355                           |
| 16                                             | 1.000                     | 1.3125-12UNJ                          | 2.203                 | 1.603       | 1.613-1.630 | .173                           | .502                           |
| 20                                             | 1.250                     | 1.6250-12UNJ                          | 2.297                 | 1.853       | 1.863-1.880 | .238                           | .690                           |
| 24                                             | 1.500                     | 1.8750-12UNJ                          | 2.547                 | 2.099       | 2.109-2.135 | .360                           | 1.044                          |
| 28                                             | 1.750                     | 2.2500-12UNJ                          | 2.828                 | 2.474       | 2.484-2.510 | .538                           | 1.562                          |
| 32                                             | 2.000                     | 2.5000-12UNJ                          | 3.078                 | 2.724       | 2.734-2.760 | .669                           | 1.943                          |

SAE values your input. To provide feedback  
on this Technical Report, please visit  
<http://www.sae.org/technical/standards/AS1251C>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ KSC-F-124

**SAE Aerospace**  
An SAE International Group

## AEROSPACE STANDARD

FITTING, UNION, FLARED TUBE,  
FOR SEAL RING

**SAE AS1251**  
SHEET 1 OF 3

**REV.  
C**

NOTES:

/1/ MATERIAL:

- a. CODE LETTER D: TYPE 2024-T6 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6 OR AMS 4112; OR, TYPE 2024-T851 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6.
- b. CODE LETTER J: 304 CORROSION RESISTANT STEEL BAR PER AMS-QQ-S-763 OR AMS 5639.
- c. CODE LETTER K: 316 CORROSION RESISTANT STEEL BAR PER AMS-QQ-S-763 OR AMS 5648.
- d. CODE LETTER R: 321 CORROSION RESISTANT STEEL BAR PER AMS-QQ-S-763 OR AMS 5645.
- e. CODE LETTER S: 347 CORROSION RESISTANT STEEL BAR PER AMS-QQ-S-763 OR AMS 5646.
- f. 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 TREAT:

- a. ALL CODE LETTERS: NONE

3. FINISH:

- a. MATERIAL CODE LETTER D: ANODIZE PER MIL-A-8625 TYPE II, CLASS 2, DYE BLUE AND DUPLEX SEAL PER PROCUREMENT SPECIFICATION.
- b. MATERIAL CODE LETTERS J, K, R AND S; PASSIVATE PER AMS 2700, TYPE 6 OR TYPE 7.
- c. 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: KSC-F-124 JOHN F KENNEDY SPACE CENTER, NASA, SPECIFICATION FOR FITTINGS (PRESSURE CONNECTIONS), FLARED TUBE. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED BY AN ACCREDITED MANUFACTURER LISTED IN "PERFORMANCE REVIEW INSTITUTE" (PRI) "QUALIFIED MANUFACTURER LIST" (QML) FOR THIS TYPE PRODUCT. THE QML IS AVAILABLE AT [www.eauditnet.com](http://www.eauditnet.com). NADCAP QML AS7112, 7112/2

/5/ IDENTIFICATION: MARK PER AS478 CLASS C OR CLASS D; METHOD 7A3, 15A3 OR 15B.

- a. FOR SIZES 06 (.375 OD TUBE SIZE) AND SMALLER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, LETTERS "AS" AND MATERIAL CODE LETTER.
- b. FOR SIZES 08 (.500 OD TUBE SIZE) AND LARGER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, BASIC PART NUMBER AND MATERIAL CODE LETTER.

/6/ THE SEAL RING IS ORDERED SEPARATELY AS AN AS1097.

/7/ HEX CORNERS MAY BE ROUNDED PER ARP1942.

8. INTERPRETATION OF DRAWING PER ARP4296.

9. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M: REQUIREMENTS PER ASME B46.1 UNLESS OTHERWISE SPECIFIED; MACHINED SURFACES ARE TO BE 125  $\mu$ in Ra.

10. BREAK EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.

|                                                                                                                   |                                               |                                   |                         |
|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------------|-------------------------|
| <br>An SAE International Group | <b>AEROSPACE STANDARD</b>                     | <b>SAE AS1251</b><br>SHEET 2 OF 3 | <b>REV.</b><br><b>C</b> |
|                                                                                                                   | FITTING, UNION, FLARED TUBE,<br>FOR SEAL RING |                                   |                         |