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REV.  
A

AS6445

FEDERAL SUPPLY CLASS  
4730

## RATIONALE

ADDED STANDARD CONFIGURATIONS 202020 & 242424. ADDED REDUCER CONFIGURATION 101008. ERROR CORRECTION DIMENSION "JA" SIZE CODE 101012.

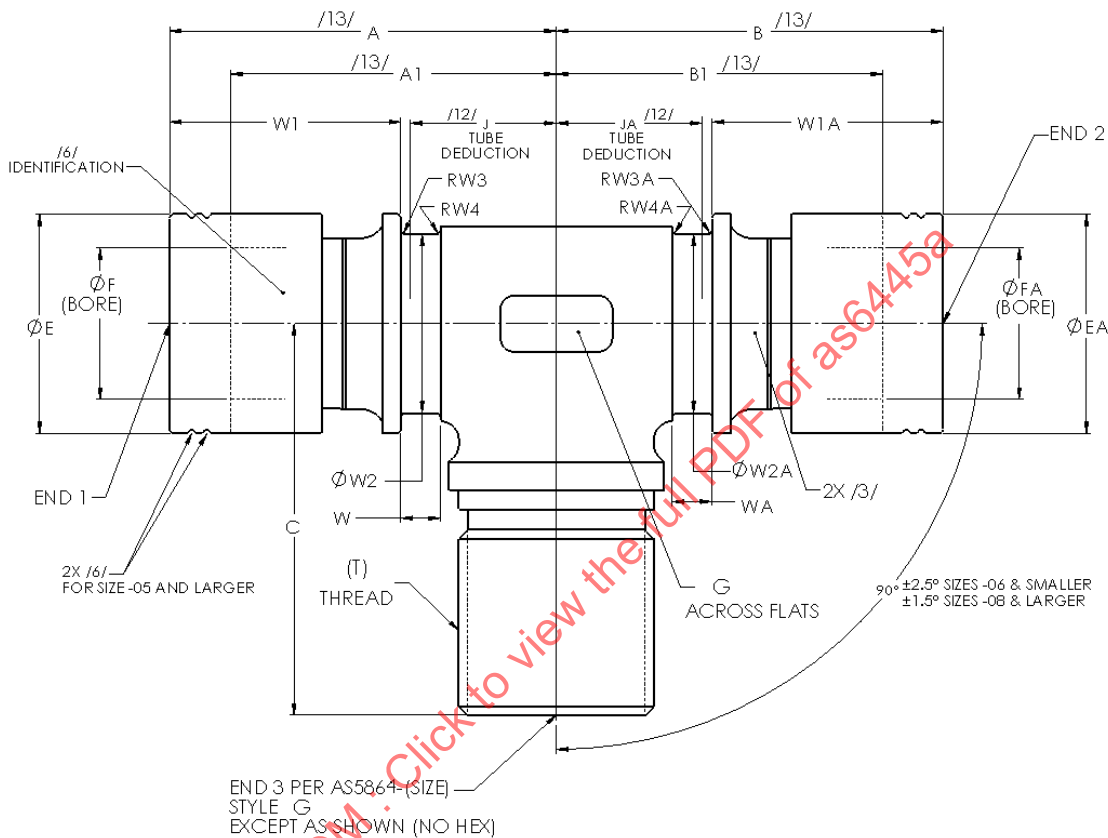
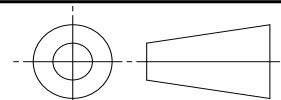


FIGURE 1 - FITTING ASSEMBLY, TEE, AXIALLY SWAGED ON THE RUN, BULKHEAD FLARELESS ON THE SIDE

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on this Technical Report, please visit  
<http://www.sae.org/technical/standards/AS6445A>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS6116



## AEROSPACE STANDARD

FITTING ASSEMBLY, TEE,  
AXIALLY SWAGED ON THE RUN, BULKHEAD FLARELESS  
ON THE SIDE, HYDRAULIC, UP TO 1500 PSI

AS6445  
SHEET 1 OF 4

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ISSUED 2011-08 REVISED 2015-05

**TABLE 1A - DIMENSIONS A THROUGH EA**

| BASIC NO.<br>AS6445 /15/<br>SIZE CODE | NOMINAL<br>TUBE SIZE<br>END 1 | NOMINAL<br>TUBE SIZE<br>END 2 | NOMINAL<br>TUBE SIZE<br>END 3 | A<br>MAX | A1<br>MAX | B<br>MAX | B1<br>MAX | C<br>±.015 | ØE<br>MAX | ØEA<br>MAX |
|---------------------------------------|-------------------------------|-------------------------------|-------------------------------|----------|-----------|----------|-----------|------------|-----------|------------|
| 040404                                | .250                          | .250                          | .250                          | 1.123    | .970      | 1.123    | .970      | 1.523      | .435      | .435       |
| 050505                                | .3125                         | .3125                         | .3125                         | 1.283    | 1.135     | 1.283    | 1.135     | 1.555      | .503      | .503       |
| 060606                                | .375                          | .375                          | .375                          | 1.470    | 1.243     | 1.470    | 1.243     | 1.711      | .580      | .580       |
| 080808                                | .500                          | .500                          | .500                          | 1.771    | 1.511     | 1.771    | 1.511     | 1.992      | .755      | .755       |
| 101008                                | .625                          | .625                          | .500                          | 1.856    | 1.616     | 1.856    | 1.616     | 1.982      | .929      | .929       |
| 101010                                | .625                          | .625                          | .625                          | 1.856    | 1.616     | 1.856    | 1.616     | 2.243      | .929      | .929       |
| 101012                                | .625                          | .625                          | .750                          | 1.942    | 1.702     | 1.942    | 1.702     | 2.492      | .929      | .929       |
| 121210                                | .750                          | .750                          | .625                          | 2.085    | 1.805     | 2.085    | 1.805     | 2.383      | 1.150     | 1.150      |
| 121212                                | .750                          | .750                          | .750                          | 2.085    | 1.805     | 2.085    | 1.805     | 2.492      | 1.150     | 1.150      |
| 161616                                | 1.000                         | 1.000                         | 1.000                         | 2.615    | 2.235     | 2.615    | 2.235     | 2.617      | 1.474     | 1.474      |
| 202020                                | 1.250                         | 1.250                         | 1.250                         | 3.060    | 2.645     | 3.060    | 2.645     | 2.898      | 1.768     | 1.768      |
| 242424                                | 1.500                         | 1.500                         | 1.500                         | 3.540    | 3.045     | 3.540    | 3.045     | 2.975      | 2.070     | 2.070      |

**TABLE 1B - DIMENSIONS F THROUGH JA**

| BASIC NO.<br>AS6445 /15/<br>SIZE CODE | NOMINAL<br>TUBE SIZE<br>END 1 | NOMINAL<br>TUBE SIZE<br>END 2 | NOMINAL<br>TUBE SIZE<br>END 3 | ØF<br>MIN | ØFA<br>MIN | G<br>±.015 | J /12/<br>TUBE<br>DEDUCTION | JA /12/<br>TUBE<br>DEDUCTION |
|---------------------------------------|-------------------------------|-------------------------------|-------------------------------|-----------|------------|------------|-----------------------------|------------------------------|
| 040404                                | .250                          | .250                          | .250                          | .253      | .253       | .438       | .430 +.150/-.180            | .430 +.150/-.180             |
| 050505                                | .3125                         | .3125                         | .3125                         | .3155     | .3155      | .465       | .460 +.150/-.180            | .460 +.150/-.180             |
| 060606                                | .375                          | .375                          | .375                          | .378      | .378       | .563       | .498 +.150/-.195            | .498 +.150/-.195             |
| 080808                                | .500                          | .500                          | .500                          | .503      | .503       | .750       | .596 +.150/-.210            | .596 +.150/-.210             |
| 101008                                | .625                          | .625                          | .500                          | .629      | .629       | .875       | .676 +.150/-.200            | .676 +.150/-.200             |
| 101010                                | .625                          | .625                          | .625                          | .629      | .629       | .875       | .676 +.150/-.200            | .676 +.150/-.200             |
| 101012                                | .625                          | .625                          | .750                          | .629      | .629       | 1.063      | .762 +.150/-.200            | .762 +.150/-.200             |
| 121210                                | .750                          | .750                          | .625                          | .754      | .754       | 1.063      | .765 +.150/-.245            | .765 +.150/-.245             |
| 121212                                | .750                          | .750                          | .750                          | .754      | .754       | 1.063      | .765 +.150/-.245            | .765 +.150/-.245             |
| 161616                                | 1.000                         | 1.000                         | 1.000                         | 1.004     | 1.004      | 1.304      | .925 +.150/-.330            | .925 +.150/-.330             |
| 202020                                | 1.250                         | 1.250                         | 1.250                         | 1.255     | 1.255      | 1.618      | 1.095 +.150/-.375           | 1.095 +.150/-.375            |
| 242424                                | 1.500                         | 1.500                         | 1.500                         | 1.505     | 1.505      | 1.806      | 1.215 +.150/-.425           | 1.215 +.150/-.425            |

**TABLE 1C - DIMENSIONS T THROUGH W1A**

| BASIC NO.<br>AS6445 /15/<br>SIZE CODE | NOMINAL<br>TUBE SIZE<br>END 1 | NOMINAL<br>TUBE SIZE<br>END 2 | NOMINAL<br>TUBE SIZE<br>END 3 | (T) THREAD<br>PER AS8879 | W<br>MIN | WA<br>MIN | W1<br>MAX | W1A<br>MAX |
|---------------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------|----------|-----------|-----------|------------|
| 040404                                | .250                          | .250                          | .250                          | .4375-20 UNJF-3A         | .185     | .185      | .604      | .604       |
| 050505                                | .3125                         | .3125                         | .3125                         | .5000-20 UNJF-3A         | .180     | .180      | .724      | .724       |
| 060606                                | .375                          | .375                          | .375                          | .5625-18 UNJF-3A         | .195     | .195      | .883      | .883       |
| 080808                                | .500                          | .500                          | .500                          | .7500-16 UNJF-3A         | .210     | .210      | 1.076     | 1.076      |
| 101008                                | .625                          | .625                          | .500                          | .7500-16 UNJF-3A         | .225     | .225      | 1.076     | 1.076      |
| 101010                                | .625                          | .625                          | .625                          | .8750-14 UNJF-3A         | .225     | .225      | 1.076     | 1.076      |
| 101012                                | .625                          | .625                          | .750                          | 1.0625-12 UNJ-3A         | .225     | .225      | 1.076     | 1.076      |
| 121210                                | .750                          | .750                          | .625                          | .8750-14 UNJF-3A         | .235     | .235      | 1.201     | 1.201      |
| 121212                                | .750                          | .750                          | .750                          | 1.0625-12 UNJ-3A         | .235     | .235      | 1.201     | 1.201      |
| 161616                                | 1.000                         | 1.000                         | 1.000                         | 1.3125-12 UNJ-3A         | .260     | .260      | 1.566     | 1.566      |
| 202020                                | 1.250                         | 1.250                         | 1.250                         | 1.6250-12 UNJ-3A         | .285     | .285      | 1.829     | 1.829      |
| 242424                                | 1.500                         | 1.500                         | 1.500                         | 1.8750-12 UNJ-3A         | .310     | .310      | 2.178     | 2.178      |



**AEROSPACE STANDARD**

FITTING ASSEMBLY, TEE,  
AXIALLY SWAGED ON THE RUN, BULKHEAD FLARELESS  
ON THE SIDE, HYDRAULIC, UP TO 1500 PSI

**AS6445**  
SHEET 2 OF 4

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**TABLE 1D - DIMENSIONS W2 THROUGH W4A AND WEIGHTS**

| BASIC NO.<br>AS6445 /15/<br>SIZE CODE | NOMINAL<br>TUBE SIZE<br>END 1 | NOMINAL<br>TUBE SIZE<br>END 2 | NOMINAL<br>TUBE SIZE<br>END 3 | ØW2<br>±.002 | ØW2A<br>±.002 | W3<br>MAX | W3A<br>MAX | W4<br>MAX | W4A<br>MAX | WEIGHT<br>APPROX<br>LB/EA |
|---------------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------|---------------|-----------|------------|-----------|------------|---------------------------|
| 040404                                | .250                          | .250                          | .250                          | .320         | .320          | .020      | .020       | .020      | .020       | .030                      |
| 050505                                | .3125                         | .3125                         | .3125                         | .371         | .371          | .020      | .020       | .020      | .020       | .045                      |
| 060606                                | .375                          | .375                          | .375                          | .463         | .463          | .020      | .020       | .020      | .020       | .060                      |
| 080808                                | .500                          | .500                          | .500                          | .595         | .595          | .020      | .020       | .020      | .020       | .110                      |
| 101008                                | .625                          | .625                          | .500                          | .758         | .758          | .020      | .020       | .020      | .020       | .145                      |
| 101010                                | .625                          | .625                          | .625                          | .758         | .758          | .020      | .020       | .020      | .020       | .165                      |
| 101012                                | .625                          | .625                          | .750                          | .758         | .758          | .020      | .020       | .020      | .020       | .230                      |
| 121210                                | .750                          | .750                          | .625                          | .903         | .903          | .025      | .025       | .025      | .025       | .240                      |
| 121212                                | .750                          | .750                          | .750                          | .903         | .903          | .025      | .025       | .025      | .025       | .270                      |
| 161616                                | 1.000                         | 1.000                         | 1.000                         | 1.196        | 1.196         | .035      | .035       | .035      | .035       | .450                      |
| 202020                                | 1.250                         | 1.250                         | 1.250                         | 1.460        | 1.460         | .035      | .035       | .035      | .035       | .745                      |
| 242424                                | 1.500                         | 1.500                         | 1.500                         | 1.704        | 1.704         | .035      | .035       | .035      | .035       | .980                      |

**NOTES:**

**/1/ MATERIALS:**

CODE LETTER "D"

BODY - TYPE 6061-T6 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/8.

RING - TYPE 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9.

**2. FINISH:**

BODY - CHEMICAL CONVERSION COATED PER MIL-DTL-5541 TYPE I CLASS 3.

RINGS - ANODIZE PER MIL-A-8625, TYPE II, CLASS 2, DYED GREEN, SIMILAR TO NO. 14187, 14193, OR 14223 OF FED-STD-595 AND SHALL BE DUPLEX SEALED.

**/3/ COATINGS/LUBRICANTS:**

BODY

- a. DRY FILM LUBRICANT PER AS5272 TYPE I SHALL BE APPLIED TO THE OD OF THE AXIALLY SWAGED FITTING END. ADDITIONAL LUBRICANT APPLIED SHALL BE SPECIFIED BY MANUFACTURER. THE LUBRICANTS SHALL NOT BE IN CONTACT WITH THE SYSTEM FLUID.
- b. POLYTETRAFLUOROETHYLENE (PTFE) COAT, LIGHT GREEN, SHALL BE APPLIED TO PORTIONS OF ID (BORE) UP TO THE FIRST GROOVE. OVERSPRAY IN GROOVE IS NOT PERMITTED.
- c. A MINIMUM OF TWO GROOVES (END SIZE .05 AND LARGER) SHALL BE FILLED WITH ELASTOMERIC DIMETHYL SILOXANE COMPOUND. FOR SMALLER SIZE ENDS, A MINIMUM OF ONE GROOVE SHALL BE FILLED WITH THE COMPOUND.

**/4/ PROCUREMENT SPECIFICATION:** AS6116 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED BY AN ACCREDITED MANUFACTURER LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST (QPL) PRI-QPL-AS6116 FOR THIS STANDARD. SEE [www.eAuditNet.com](http://www.eAuditNet.com) FOR THE CURRENT QPL ON-LINE.

**5. DIMENSIONS AND TOLERANCES** NOT DEFINED ON THIS STANDARD SHALL BE SPECIFIED AND CONTROLLED BY THE MANUFACTURER. THE MANUFACTURER IS RESPONSIBLE TO ENSURE COMPLIANCE WITH THE PROCUREMENT SPECIFICATION.

**/6/ IDENTIFICATION** SHALL BE IN ACCORDANCE WITH AS6116 AND SHALL BE IDENTIFIED ON EITHER RING IN THE AREA SHOWN. FOR SIZE .05 AND LARGER, THE RING O.D. SHALL HAVE TWO GROOVES INDICATING DUAL SEALING BACK UP FEATURE.

**7. FITTINGS** SHALL BE INSTALLED IN ACCORDANCE WITH AS6124.

**8. SURFACE TEXTURE:** SYMBOLS PER ASME Y14.36M. REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, THE MAXIMUM MACHINED SURFACES SHALL BE 125 MICROINCHES Ra.

**9. BREAK ALL EDGES** .003 TO .010 INCHES UNLESS OTHERWISE SPECIFIED.

|                                                                                     |                                                                                                                   |  |                               |                         |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|--|-------------------------------|-------------------------|
|  | <b>AEROSPACE STANDARD</b>                                                                                         |  | <b>AS6445</b><br>SHEET 3 OF 4 | <b>REV.</b><br><b>A</b> |
|                                                                                     | FITTING ASSEMBLY, TEE,<br>AXIALLY SWAGED ON THE RUN, BULKHEAD FLARELESS<br>ON THE SIDE. HYDRAULIC. UP TO 1500 PSI |  |                               |                         |