

REV.
A

AS4220

FEDERAL SUPPLY CLASS
4730

RATIONALE

THIS STANDARD HAS BEEN REVISED TO CORRECT THE AS-FORGED LEG DIMENSION TO ALLOW STANDARD TOLERANCE FORGINGS TO BE USED AND STILL MEET THE SPECIFICATION.

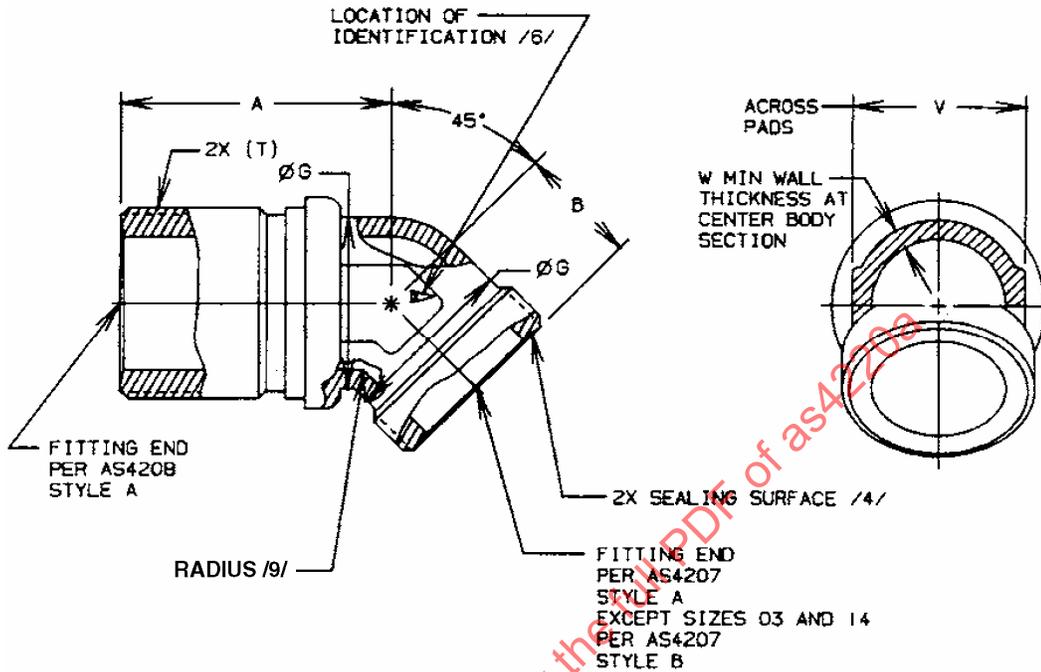
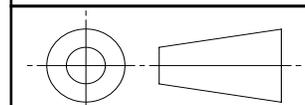


FIGURE 1 - FITTING, ELBOW, 45°, BULKHEAD

TABLE 1 - DIMENSIONS AND WEIGHTS

| BASIC NO. AS4220 /15/ SIZE CODE | (NOMINAL TUBE SIZE) | T THREAD PER AS8879 CLASS A | A | B | G MIN | V | W | LB/EA MAX CRES | LB/EA MAX TI |
|--|---------------------------|-----------------------------------|-------|-------|----------|-------------|------|----------------------|--------------------|
| 03 | .188 | .3750-28 UNJS | .987 | .378 | .330 | .360- .377 | .055 | .0391 | .0223 |
| 04 | .250 | .4375-24 UNJS | 1.028 | .420 | .374 | .360- .377 | .060 | .0510 | .0291 |
| 05 | .312 | .5000-24 UNJS | 1.046 | .438 | .436 | .423- .440 | .060 | .0655 | .0374 |
| 06 | .375 | .5625-20 UNJS | 1.120 | .471 | .499 | .485- .502 | .060 | .0827 | .0473 |
| 08 | .500 | .7188-20 UNJS | 1.246 | .528 | .650 | .547- .565 | .065 | .134 | .0767 |
| 10 | .625 | .8438-18 UNJS | 1.433 | .619 | .748 | .673- .691 | .070 | .197 | .112 |
| 12 | .750 | 1.0000-16 UNJ | 1.576 | .685 | .955 | .860- .878 | .095 | .288 | .165 |
| 14 | .875 | 1.1250-16 UNJ | 1.723 | .753 | 1.210 | 1.110-1.128 | .105 | .444 | .253 |
| 16 | 1.000 | 1.2500-14 UNJS | 1.725 | .783 | 1.210 | 1.110-1.128 | .110 | .467 | .267 |
| 20 | 1.250 | 1.5781-14 UNJS | 1.775 | .836 | 1.480 | 1.355-1.380 | .110 | .717 | .410 |
| 24 | 1.500 | 1.8438-14 UNJS | 2.027 | 1.003 | 1.740 | 1.605-1.630 | .130 | 1.09 | .624 |

THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: /5/ AS85421, AS85720

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

(R) FITTING, ELBOW, 45°, BEAM SEAL BULKHEAD

AS4220
SHEET 1 OF 3

**REV.
A**

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ISSUED 1996-05 REAFFIRMED 2001-12 REVISED 2006-06

NOTES:

/1/ MATERIAL:

- a. CODE LETTER T - TYPE 6AL-4V TITANIUM ALLOY FORGING OR BAR PER AMS 4965.
- b. CODE LETTER P - TYPE 17-4PH CORROSION RESISTANT STEEL FORGING OR BAR PER AMS 5643.
- c. CODE LETTER V - TYPE 15-5PH CORROSION RESISTANT STEEL FORGING OR BAR PER AMS 5659.

2. HEAT TREATMENT:

- a. MATERIAL CODE LETTER T - NONE.
- b. MATERIAL CODE LETTERS P AND V - HEAT TREAT TO CONDITION H 1075 PER AMS 2759/3.

3. FINISH:

- a. MATERIAL CODE LETTER T - NONE.
- b. MATERIAL CODE LETTERS P AND V - PASSIVATE PER AMS 2700.

/4/ DRY FILM LUBRICANT: APPLY DRY FILM LUBRICANT PER AS5272, TYPE I TO SEALING SURFACE. OVERSPRAY IN BORE IS NOT PERMITTED.

/5/ PROCUREMENT SPECIFICATION: AS85421 FOR OPERATING PRESSURES TO 4000 PSI AND AS85720 FOR OPERATING PRESSURES TO 5000 PSI, EXCEPT AS SPECIFIED ON THIS STANDARD. THIS PART SHALL BE QUALIFIED TO THE PROCUREMENT SPECIFICATION AS APPLICABLE IN A COMPLETE ASSEMBLY. USERS OF THIS STANDARD ARE ADVISED TO CONTROL SOURCE APPROVAL(S) BY STANDARD PAGE SUPPLEMENT SHEET OR SIMILAR MEANS.

/6/ IDENTIFICATION AT LOCATION SHOWN: MARK PER AS478 CLASS C OR D OR METHOD 7A3, 15A3, OR 15B. /7/

- a. FOR SIZES 06 (.375 OD TUBE SIZE) AND SMALLER: MANUFACTURER'S NAME OR TRADEMARK, MATERIAL CODE LETTER AND MAXIMUM PRESSURE RATING. (EXAMPLE: 5K = 5000 PSI.)
- b. FOR SIZES 08 (.500 OD TUBE SIZE) AND LARGER: MANUFACTURER'S NAME OR TRADEMARK, BASIC PART NUMBER, MATERIAL CODE LETTER AND MAXIMUM PRESSURE RATING. (EXAMPLE: 5K = 5000 PSI.)

/7/ THIS PART IS DESIGNED FOR USE IN SYSTEMS WITH MAXIMUM OPERATING PRESSURES AS FOLLOWS:

- a. SIZES 03 THROUGH 16 AT 5000 PSI
- b. SIZE 20 AT 3000 PSI
- c. SIZE 24 AT 2000 PSI

8. WHEN MACHINED FROM BAR OR OVERSIZED FORGINGS, THE CENTER BODY SECTION SHALL CONFORM TO AS1376, TABLE 4.

/9/ .030 TO .125 RADIUS UNLESS QUALIFICATION OF SPECIAL PROCESS WITH SMALLER RADIUS. APPLICABLE FOR TITANIUM PARTS ONLY.

10. INTERPRETATION OF DRAWING PER ARP4296.

11. SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36; REQUIREMENTS PER ANSI/ASME B46.1. UNLESS OTHERWISE SPECIFIED, SURFACES TO BE 125 μ in Ra. FORGED SURFACES MAY BE 250 μ in Ra.