

REV.  
B

AS85421/4

RATIONALE

THIS DOCUMENT IS REVISED TO INCLUDE PRI-QPL REQUIREMENTS AND REFORMATTED TO BE IN ACCORDANCE WITH SAE GUIDELINES.

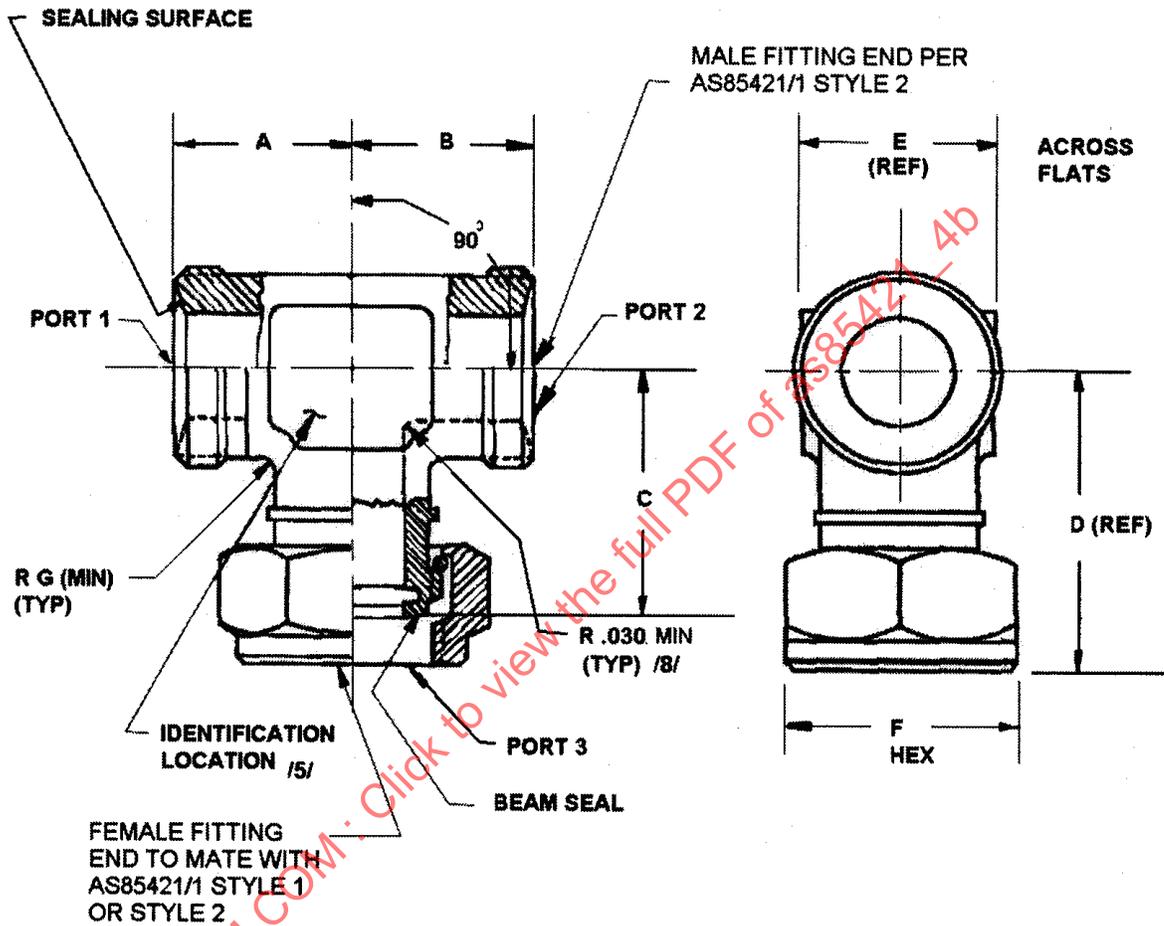
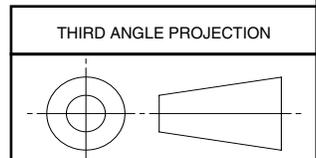


FIGURE 1



CUSTODIAN: SAE G-3

PROCUREMENT SPECIFICATION: AS85421 /4/

**SAE Aerospace**  
An SAE International Group

**AEROSPACE STANDARD**

(R) FITTING, TEE, REDUCER AND NON-REDUCER,  
BEAM SEAL, 3000/4000 PSI, MALE ON RUN,  
SWIVEL NUT ON BRANCH

**AS85421/4**  
SHEET 1 OF 4

**REV.  
B**

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ISSUED 2002-01 REVISED 2006-11

TABLE 1 - DIMENSIONAL DATA

PORT (1)	PORT (2)	PORT (3)	A	B	C	D (REF)	E (REF)	F		G RAD (MIN)	WT LB (MAX)	
								MIN	MAX		TI	CRES
04	04	04	.684	.684	.808	1.014	.500	.558	.565	.042	.035	.079
04	04	06	.684	.684	.945	1.178	.500	.688	.691	.042	.058	.102
06	06	04	.704	.704	.808	1.014	.500	.562	.565	.042	.063	.110
06	06	06	.704	.704	.945	1.178	.500	.688	.691	.042	.065	.115
06	06	08	.811	.811	1.045	1.294	.562	.875	.878	.070	.103	.183
06	06	10	.878	.878	1.178	1.485	.688	1.000	1.003	.070	.116	.204
06	04	08	.811	.791	1.045	1.294	.562	.875	.878	.070	.098	.173
08	04	06	.824	.791	.945	1.178	.562	.688	.691	.070	.097	.172
08	08	08	.824	.824	1.045	1.294	.562	.875	.878	.070	.090	.159
10	10	10	.955	.955	1.178	1.485	.875	1.000	1.003	.098	.137	.242
12	12	10	1.062	1.062	1.178	1.485	.875	1.000	1.003	.098	.226	.409
12	12	12	1.062	1.062	1.316	1.659	.875	1.125	1.128	.098	.230	.406
16	10	10	1.246	1.158	1.275	1.582	1.125	1.000	1.016	.098	.204	.360

## NOTES:

## /1/ MATERIAL:

- a. CODE LETTER P - TYPE 17-4PH CORROSION RESISTANT STEEL PER AMS 5643.
- b. CODE LETTER T - TYPE 6AL-4V TITANIUM ALLOY BAR PER AMS 4928 OR AMS 4965.
- c. CODE LETTER V - TYPE 15-5PH, CORROSION RESISTANT STEEL PER AMS 5659.

## 2. HEAT TREATMENT:

- a. MATERIAL CODE LETTER P - CONDITION H1075 PER AMS 2759/3.
- b. MATERIAL CODE LETTER T - NONE.
- c. MATERIAL CODE LETTER V - AGE TO CONDITION H 1075 PER AMS-H-6875 OR AMS 2759/3.

## 3. FINISH:

- a. MATERIAL CODE LETTER P - PASSIVATE PER AMS-QQ-P-35, TYPE VI OR VII.
- b. MATERIAL CODE LETTER T - NONE.
- c. MATERIAL CODE LETTER V - PASSIVATE PER AMS-QQ-P-35, TYPE VI OR VII.

- /4/ PROCUREMENT SPECIFICATION: AS85421 EXCEPT AS SPECIFIED ON THIS STANDARD. THIS PRODUCT SHALL BE QUALIFIED IN ACCORDANCE WITH SPECIFICATION AS85421. USERS OF THIS STANDARD SHALL PROCURE THE PRODUCT FROM ACCREDITED MANUFACTURER(S), OR ACCREDITED DISTRIBUTOR(S), AS LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST (QPL) PRI-QPL-AS85421 FOR THIS STANDARD. SEE [HTTP:WWW.PRI.SAE.ORG./QPL-AS85421/](http://www.pri.sae.org/qpl-as85421/) FOR CURRENT QPL ON LINE.
- /5/ IDENTIFICATION AT LOCATION SHOWN: MARK PER AS478 CLASS C OR D, OR METHOPD 7A3, 15A3, OR 15B.
- a. FOR SIZES 06 AND SMALLER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, LETTERS "AS" AND MATERIAL CODE LETTER, AND FORGING MANUFACTURER'S IDENTIFICATION WHEN MADE FROM FORGING.
  - b. FOR SIZES 08 AND LARGER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, BASIC PART NUMBER AND MATERIAL CODE LETTER, AND FORGING MANUFACTURER'S IDENTIFICATION WHEN MADE FROM FORGING.
6. INVENTORIED PARTS CONFORMING TO THE PREVIOUS "LETTER CHANGE" MAY BE USED TO DEPLETION.
7. INTENDED USE: THIS PART IS DESIGNED FOR USE IN SYSTEMS WITH MAXIMUM OPERATING PRESSURES AS FOLLOWS:
- a. CORROSION RESISTANT STEEL AT 3000 psi.
  - b. TITANIUM ALLOY AT 4000 psi.
- /8/ APPLICABLE FOR TITANIUM ALLOY PARTS ONLY.
9. DRY FILM LUBRICANT: APPLY DRY FILM LUBRICANT PER MIL-PRF-46010, TYPE I TO SEALING SURFACE. OVERSPRAY IN BORE IS NOT PERMITTED.
10. TITANIUM IS NOT RECOMMENDED FOR USE IN GASEOUS OR LIQUID OXYGEN SYSTEMS.
11. INTERPRETATION OF DRAWING PER ARP4296.
12. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M; REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES TO BE 125  $\mu\text{in}$   $R_a$ . FORGED SURFACES MAY BE 250  $\mu\text{in}$   $R_a$ .
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  $\pm .015$ , ANGULAR DIMENSIONS  $\pm 0^\circ 30'$
16. EXAMPLE OF PART NUMBER:

