

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

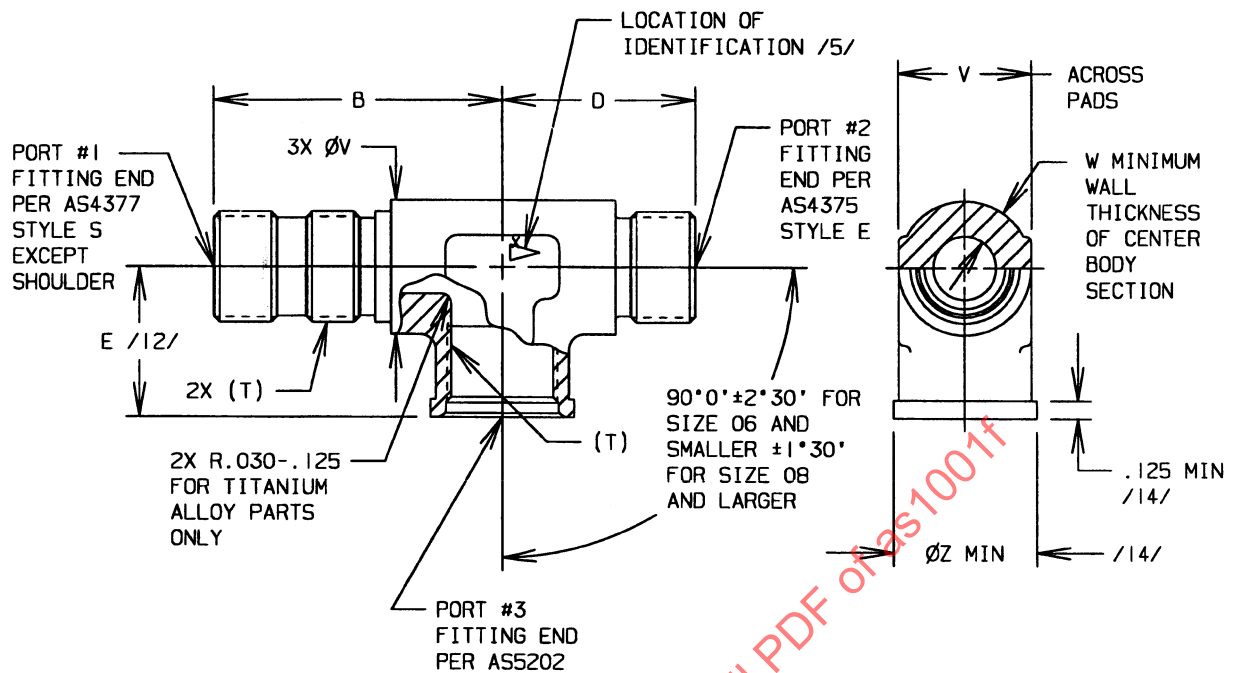


FIGURE 1 - FITTING, TEE, BULKHEAD END FOR OPTIONAL USE IN PORT INSTALLATION, PORT #3 SHOWN AS NON-REDUCER

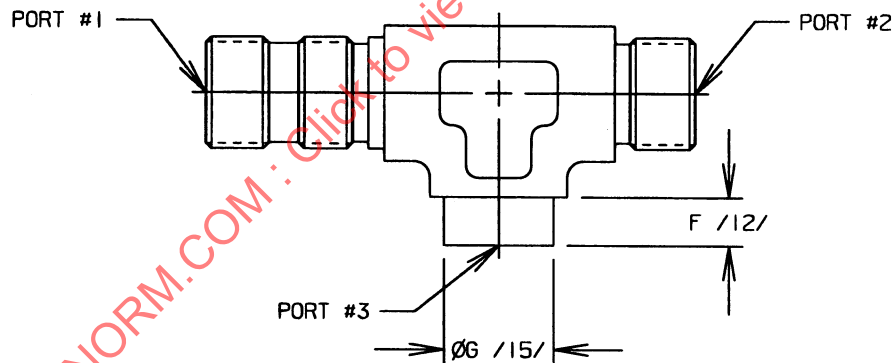
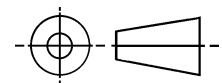


FIGURE 2 - FITTING, TEE, BULKHEAD END FOR OPTIONAL USE IN
PORT INSTALLATION, PORT #3 SHOWN AS REDUCER,
SAME AS FIGURE 1 EXCEPT AS SHOWN

INACTIVE IN PART /25/



THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS18280



(R)

AEROSPACE STANDARD

FITTING, TEE, STANDARD AND REDUCER,
BULKHEAD ON RUN, INTERNAL PORT ON
SIDE. FLARELESS

AS1001
SHEET 1 OF 7

REV.
F

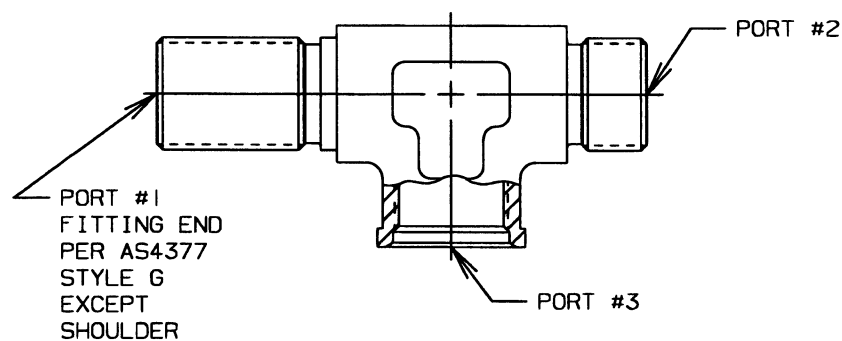


FIGURE 3 - FITTING, TEE, BULKHEAD END NOT FOR USE IN PORT INSTALLATION, PORT #3 SHOWN AS NON-REDUCER, SAME AS FIGURE 1 EXCEPT AS SHOWN

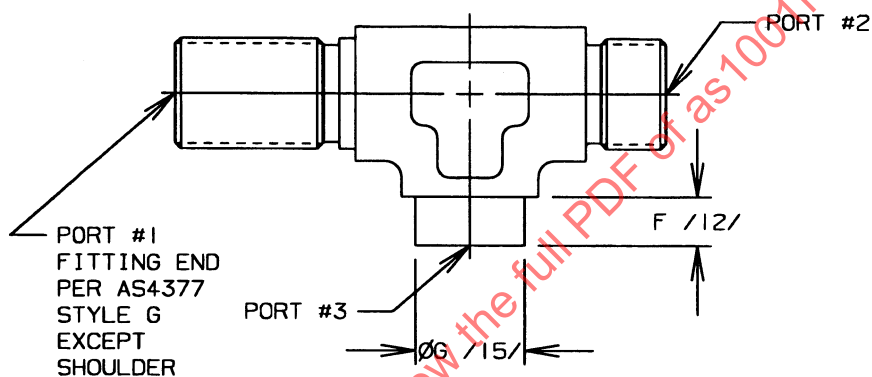


FIGURE 4 - FITTING, TEE, BULKHEAD END NOT FOR USE IN PORT INSTALLATION, PORT #3 SHOWN AS REDUCER, SAME AS FIGURE 1 EXCEPT AS SHOWN

AS1001

BASIC NO. AS1001 /13/ /24/ SIZE CODE	E /12/	F /12/	V	W	Z /14/	LB/EA APPROX REF ALUM	LB/EA APPROX REF STEEL	LB/EA APPROX REF TI
02	.648	-	.485- .502	.090	.562	.018	.051	.029
03	.711	-	.547- .565	.100	.625	.039	.104	.060
04	.773	.375	.735- .753	.110	-	.083	.233	.134
05	.773	.375	.735- .753	.120	.750	.099	.278	.160
06	.836	.375	.860- .878	.120	-	.116	.326	.188
08	1.023	.469	1.047-1.065	.150	-	.197	.554	.319
10	1.180	.625	1.047-1.065	.170	1.125	.206	.579	.334
12	1.367	.688	1.297-1.317	.185	1.375	.360	1.012	.583
14	1.507	.706	1.547-1.567	.200	-	-	-	-
16	1.555	.719	1.605-1.630	.205	1.625	.455	1.340	.773
20	1.742	.781	1.855-1.880	.240	1.938	.672	1.950	1.125

FORGING SIZE /13/ 02	TUBE SIZE OF PORT #1 03	TUBE SIZE OF PORT #1 04	TUBE SIZE OF PORT #1 05	TUBE SIZE OF PORT #1 06	TUBE SIZE OF PORT #1 08	TUBE SIZE OF PORT #1 10	TUBE SIZE OF PORT #1 12	TUBE SIZE OF PORT #1 14	TUBE SIZE OF PORT #1 16	TUBE SIZE OF PORT #1 20
02	1.398	-	-	-	-	-	-	-	-	-
03	1.430	1.477	-	-	-	-	-	-	-	-
04	1.585	1.632	1.695	-	-	-	-	-	-	-
05	1.585	1.632	1.695	1.695	-	-	-	-	-	-
06	1.758	1.805	1.868	1.868	1.914	-	-	-	-	-
08	1.727	1.774	1.837	1.837	1.883	2.055	-	-	-	-
10	1.804	1.851	1.914	1.914	1.960	2.132	2.273	-	-	-
12	1.883	1.930	1.993	1.993	2.039	2.211	2.352	2.461	-	-
14	2.040	2.087	2.150	2.150	2.196	2.368	2.509	2.618	2.618	-
16	2.102	2.149	2.212	2.212	2.258	2.430	2.571	2.680	2.680	2.680
20	2.242	2.289	2.352	2.352	2.398	2.570	2.711	2.820	2.820	2.820



REV.
F

REV. F	TABLE 3 - LEG LENGTH D /17/															
	FORGING SIZE /13/	TUBE SIZE OF PORT #2 02	TUBE SIZE OF PORT #2 03	TUBE SIZE OF PORT #2 04	TUBE SIZE OF PORT #2 05	TUBE SIZE OF PORT #2 06	TUBE SIZE OF PORT #2 08	TUBE SIZE OF PORT #2 10	TUBE SIZE OF PORT #2 12	TUBE SIZE OF PORT #2 14	TUBE SIZE OF PORT #2 16	TUBE SIZE OF PORT #2 20				
AS1001	02	.867	-	-	-	-	-	-	-	-	-	-				
	03	.883	.930	-	-	-	-	-	-	-	-	-				
	04	1.039	1.086	1.117	-	-	-	-	-	-	-	-				
	05	1.039	1.086	1.117	1.117	-	-	-	-	-	-	-				
	06	1.086	1.133	1.164	1.164	1.180	-	-	-	-	-	-				
	08	1.180	1.227	1.258	1.258	1.274	1.367	-	-	-	-	-				
	10	1.273	1.320	1.351	1.351	1.367	1.460	1.523	-	-	-	-				
	12	1.351	1.398	1.429	1.429	1.445	1.538	1.601	1.644	-	-	-				
	14	1.492	1.593	1.870	1.570	1.586	1.679	1.724	1.867	1.867	-	-				
	16	1.554	1.601	1.632	1.632	1.648	1.741	1.804	1.867	1.867	1.867	-				
	20	1.695	1.742	1.773	1.773	1.789	1.882	1.945	2.008	2.008	2.008	2.008				
	TABLE 4 - MACHINED ØG /15/ /17/															
	FORGING SIZE /13/	TUBE SIZE OF PORT #3 02	TUBE SIZE OF PORT #3 03	TUBE SIZE OF PORT #3 04	TUBE SIZE OF PORT #3 05	TUBE SIZE OF PORT #3 06	TUBE SIZE OF PORT #3 08	TUBE SIZE OF PORT #3 10	TUBE SIZE OF PORT #3 12	TUBE SIZE OF PORT #3 14	TUBE SIZE OF PORT #3 16					
	03	-	-	-	-	-	-	-	-	-	-					
04	.594	.656	-	-	-	-	-	-	-	-						
05	.594	.656	-	-	-	-	-	-	-	-						
06	.594	.656	.719	.781	-	-	-	-	-	-						
08	.594	.656	.719	.781	.844	-	-	-	-	-						
10	.594	.656	.719	.781	.844	-	-	-	-	-						
12	.594	.656	.719	.781	.844	1.062	-	-	-	-						
14	.594	.656	.719	.781	.844	1.062	1.188	1.438	-	-						
16	.594	.656	.719	.781	.844	1.062	1.188	1.438	1.562	-						
20	.594	.656	.719	.781	.844	1.062	1.188	1.438	1.562	1.688						
SAE Aerospace An SAE International Group											AEROSPACE STANDARD		AS1001 SHEET 4 OF 7		REV. F	
(R) FITTING, TEE, STANDARD AND REDUCER, BULKHEAD ON RUN, INTERNAL PORT ON SIDE, FLARELESS																

TABLE 5 - TUBE SIZE AND CORRESPONDING THREAD

PORT SIZE	(NOMINAL TUBE SIZE)	T THREAD PER AS8879
02	.125	.3125-24 UNJF
03	.188	.3750-24 UNJF
04	.250	.4375-20 UNJF
05	.312	.5000-20 UNJF
06	.375	.5625-18 UNJF
08	.500	.7500-16 UNJF
10	.625	.8750-14 UNJF
12	.750	1.0625-12 UNJ
14	.875	1.1875-12 UNJ
16	1.000	1.3125-12 UNJ
20	1.250	1.6250-12 UNJ

NOTES:

/1/ MATERIAL:

- a. NO CODE LETTER - TYPE 4130 LOW ALLOY STEEL FORGING OR BAR PER AMS 6370 OR AMS-S-6758 EXCEPT HEAT TREATMENT PER PROCUREMENT SPECIFICATION. /2/
- b. CODE LETTER D - TYPE 2024-T6 OR -T851 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6 OR TYPE 2014-T6 ALUMINUM ALLOY FORGING PER AMS 4133. /2/ /25/
- c. CODE LETTER F - TYPE 4130 LOW ALLOY STEEL FORGING OR BAR PER AMS 6370 OR AMS-S-6758 EXCEPT HEAT TREATMENT PER PROCUREMENT SPECIFICATION. /2/ /25/
- d. CODE LETTER J - TYPE 304 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS 5639 OR AMS-QQ-S-763 EXCEPT HARDNESS PER PROCUREMENT SPECIFICATION. /2/
- e. CODE LETTER K - TYPE 316 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS 5648 OR AMS-QQ-S-763 EXCEPT HARDNESS PER PROCUREMENT SPECIFICATION. /2/
- f. CODE LETTER R - TYPE 321 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS 5645 OR AMS-QQ-S-763 EXCEPT HARDNESS PER PROCUREMENT SPECIFICATION. /2/
- g. CODE LETTER S - TYPE 347 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS 5646 OR AMS-QQ-S-763 EXCEPT HARDNESS PER PROCUREMENT SPECIFICATION. /2/ /25/
- h. CODE LETTER T - TYPE 6AL-4V TITANIUM ALLOY FORGING OR BAR PER AMS 4928.
- i. CODE LETTER W - TYPE 7075-T73 ALUMINUM ALLOY FORGING PER AMS 4141 OR AMS-QQ-A-367; OR 7075-T7351 ALUMINUM ALLOY BAR PER AMS 4124; OR 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9. /2/

/2/ HEAT TREATMENT:

- a. NO CODE LETTER AND MATERIAL CODE LETTER F - HARDNESS SHALL BE 92 HRB TO 40 HRC PER SPECIFICATION.
- b. MATERIAL CODE LETTERS D AND W - ELECTRICAL CONDUCTIVITY AND HARDNESS PER PROCUREMENT SPECIFICATION.
- c. MATERIAL CODE LETTERS J, K, R AND S - HARDNESS SHALL BE Rb 80 MINIMUM PER PROCUREMENT SPECIFICATION.
- d. OTHER MATERIAL CODES - NONE.

3. FINISH:

- a. NO CODE LETTER AND MATERIAL CODE LETTER F - CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2.
- b. MATERIAL CODE LETTER D - ANODIZE PER AMS 2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE GREEN SIMILAR TO COLOR 14187 OF FED-STD-595.
- c. MATERIAL CODE LETTERS J, K, R AND S - PASSIVATE PER AMS-QQ-P-35, TYPE VI OR VII.