

RATIONALE

FEDERAL SUPPLY CLASS
4730

THIS SAE AEROSPACE STANDARD (AS) ESTABLISHES THE REQUIREMENTS FOR THE TEE, BULKHEAD ON SIDE, FLUID CONNECTION FITTING WITH 37 DEGREE SPHERICAL FLARED TUBE.

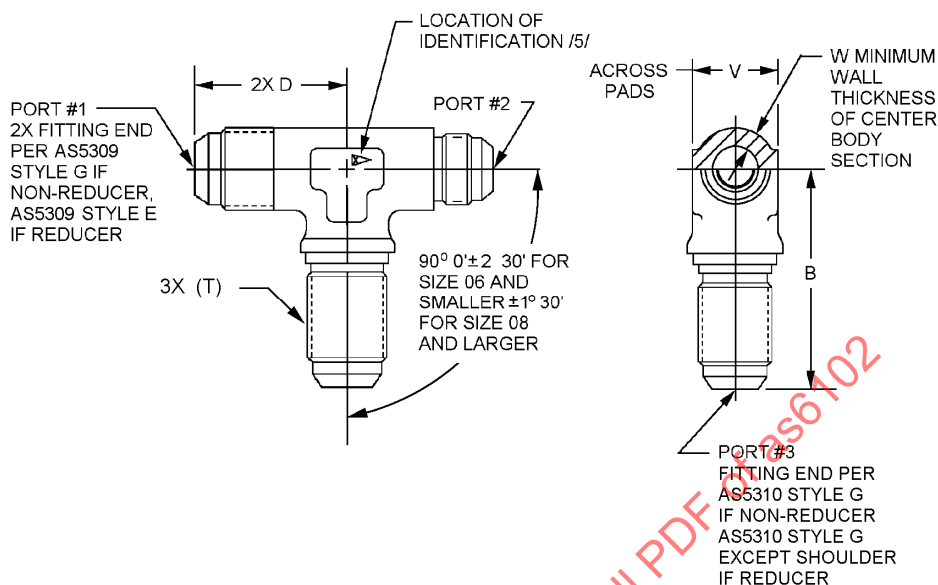


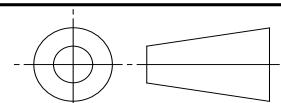
FIGURE 1 - FITTING, TEE, BULKHEAD END
PORT #2 SHOWN AS REDUCER

TABLE 1 – DIMENSIONS AND WEIGHTS /11/

BASIC NO. AS6102 /11/ /17/	SIZE CODE	V	W	LB/EA APPROX. REF ALUM	LB/EA APPROX. REF CRES	LB/EA APPROX. REF TI
02		.297-.314	.090	.0191	.0549	.0303
03		.360-.377	.100	.0269	.0774	.0427
04		.423-.440	.110	.0370	.106	.0586
05		.485-.502	.120	.0468	.134	.0741
06		.547-.565	.120	.0589	.169	.0933
08		.735-.753	.150	.128	.369	.203
10		.860-.878	.170	.167	.479	.264
12		1.047-1.065	.185	.302	.867	.478
16		1.292-1.317	.205	.429	1.23	.679
20		1.605-1.630	.240	.705	2.02	1.12
24		1.855-1.880	.250	.925	2.66	1.46
32		2.542-2.572	.350	2.03	5.82	3.21

SAE values your input. To provide feedback
on this Technical Report, please visit
<http://www.sae.org/technical/standards/AS6102>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS6076

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

FITTING, TEE, STANDARD AND REDUCER,
BULKHEAD ON SIDE, FLARED, 37 DEGREE
SPHERICAL

SAE AS6102
SHEET 1 OF 4

TABLE 2 – LEG LENGTH B

FORGING SIZE /11/	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 16	TUBE SIZE OF PORT #3 20	TUBE SIZE OF PORT #3 24	TUBE SIZE OF PORT #3 32
02	1.429	-	-	-	-	-	-	-	-	-	-	-
03	1.461	1.461	-	-	-	-	-	-	-	-	-	-
04	1.507	1.507	1.601	-	-	-	-	-	-	-	-	-
05	1.538	1.538	1.632	1.632	-	-	-	-	-	-	-	-
06	1.648	1.648	1.742	1.742	1.820	-	-	-	-	-	-	-
08	1.789	1.789	1.883	1.883	1.961	2.117	-	-	-	-	-	-
10	1.929	1.929	2.023	2.023	2.101	2.257	2.398	-	-	-	-	-
12	2.039	2.039	2.133	2.133	2.211	2.367	2.508	2.679	-	-	-	-
16	2.164	2.164	2.258	2.258	2.336	2.492	2.633	2.804	2.804	-	-	-
20	2.445	2.445	2.539	2.539	2.617	2.773	2.914	3.085	3.085	3.132	-	-
24	2.726	2.726	2.820	2.820	2.898	3.054	3.195	3.366	3.366	3.413	3.429	-
32	3.133	3.133	3.227	3.227	3.305	3.461	3.602	3.773	3.773	3.820	3.836	4.117

TABLE 3 – LEG LENGTH D

FORGING SIZE /10/	TUBE SIZE OF PORT #1 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 16	TUBE SIZE OF PORT #1 20	TUBE SIZE OF PORT #1 24	TUBE SIZE OF PORT #1 32
02	.851	-	-	-	-	-	-	-	-	-	-	-
03	.883	.914	-	-	-	-	-	-	-	-	-	-
04	.883	.905	.976	-	-	-	-	-	-	-	-	-
05	.937	.968	1.039	1.039	-	-	-	-	-	-	-	-
06	.993	1.024	1.095	1.095	1.101	-	-	-	-	-	-	-
08	1.158	1.189	1.260	1.260	1.266	1.367	-	-	-	-	-	-
10	1.260	1.291	1.362	1.362	1.368	1.469	1.570	-	-	-	-	-
12	1.373	1.404	1.475	1.475	1.481	1.582	1.683	1.789	-	-	-	-
16	1.482	1.543	1.584	1.584	1.590	1.691	1.792	1.898	1.945	-	-	-
20	1.669	1.700	1.771	1.771	1.777	1.878	1.979	2.085	2.132	2.179	-	-
24	1.716	1.747	1.818	1.818	1.824	1.925	2.026	2.132	2.179	2.226	2.351	-
32	2.031	2.044	2.115	2.155	2.121	2.222	2.323	2.429	2.476	2.523	2.648	2.898

TABLE 4– 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
16	1.000	1.3125-12 UNJ
20	1.250	1.6250-12 UNJ
24	1.500	1.8750-12 UNJ
32	2.000	2.5000-12 UNJ

NOTES:

NOTICE

THIS DOCUMENT REFERENCES A PART WHICH CONTAINS CADMIUM AS A PLATING MATERIAL. CONSULT OFFICIALS IF YOU HAVE QUESTIONS CONCERNING CADMIUM'S USE.

/1/ MATERIAL:

- a. CODE LETTER F - TYPE 4140 STEEL BAR PER AMS6349 OR AMS6382 OR TYPE 4130 STEEL FORGING OR BAR PER AMS-S-6758 OR AMS6370 EXCEPT HEAT TREATMENT PER PROCUREMENT SPECIFICATION.
- b. CODE LETTER J - TYPE 304 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS-QQ-S-763 OR AMS5639 EXCEPT HARDNESS PER PROCUREMENT SPECIFICATION.
- c. CODE LETTER K - TYPE 316 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS-QQ-S-763 OR AMS5648 EXCEPT HARDNESS PER PROCUREMENT SPECIFICATION.
- d. CODE LETTER R - TYPE 321 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS-QQ-S-763 OR AMS5645 EXCEPT HARDNESS PER PROCUREMENT SPECIFICATION.
- e. CODE LETTER T - TYPE 6AL-4V TITANIUM ALLOY FORGING OR BAR PER AMS4928.
- f. CODE LETTER W - TYPE 7075-T73 ALUMINUM ALLOY FORGING PER AMS4141; OR TYPE 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9; OR TYPE 7075-T7351 ALUMINUM ALLOY BAR PER AMS4124.

2. HEAT TREATMENT:

- a. MATERIAL CODE LETTER F - HARDNESS SHALL BE 92 HRB TO 40 HRC PER PROCUREMENT SPECIFICATION.
- b. OTHER MATERIAL CODE LETTERS - NONE.

3. FINISH:

- a. MATERIAL CODE LETTER F - CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2, DYE BLACK.
- b. MATERIAL CODE LETTERS J, K, AND R - PASSIVATE PER AMS2700, TYPE 6 OR 7.
- c. MATERIAL CODE LETTER T - FLUORIDE PHOSPHATE CONVERSION COAT PER AMS2486 OR ANODIZE PER AMS2488 TYPE 2.
- d. MATERIAL CODE LETTER W:
 1. ANODIZE PER AMS2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BROWN, DUPLEX SEAL PER PROCUREMENT SPECIFICATION.
 2. W CODE PARTS TO BE COATED WITH HIGH PURITY ALUMINUM ONLY WILL HAVE THE FINISH CODE LETTER "V" AFTER THE SIZE CODE IN THE PART NUMBER. HIGH PURITY ALUMINUM COAT PER PROCUREMENT SPECIFICATION.

/4/ PROCUREMENT SPECIFICATION: AS6076 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED BY AN ACCREDITED MANUFACTURER LISTED IN THE NATIONAL AEROSPACE AND DEFENSE CONTRACTORS ACCREDITATION PROGRAM (NADCAP) QUALIFIED MANUFACTURER LIST (QML) FOR THIS PRODUCT TYPE. THE QML IS AVAILABLE AT www.eauditnet.com.

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

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

 An SAE International Group	AEROSPACE STANDARD	SAE AS6102 SHEET 3 OF 4	
	FITTING, TEE, STANDARD AND REDUCER, BULKHEAD ON SIDE, FLARED, 37 DEGREE SPHERICAL		