

RATIONALE

FIGURE 1 REDRAWN FOR CLARITY. "INACTIVE IN PART" STATUS REPLACED BY "NOT RECOMMENDED IN PART." OPTIONAL MATERIAL SPECIFICATIONS ADDED. NOTE 2 REVISED. QML STATEMENT REVISED. INTENDED USE NOTE REVISED, TABLE 6 DELETED. GENERAL UPDATES INCORPORATED.

REV. G
AS1031™

SAE Executive Standards Committee 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 revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

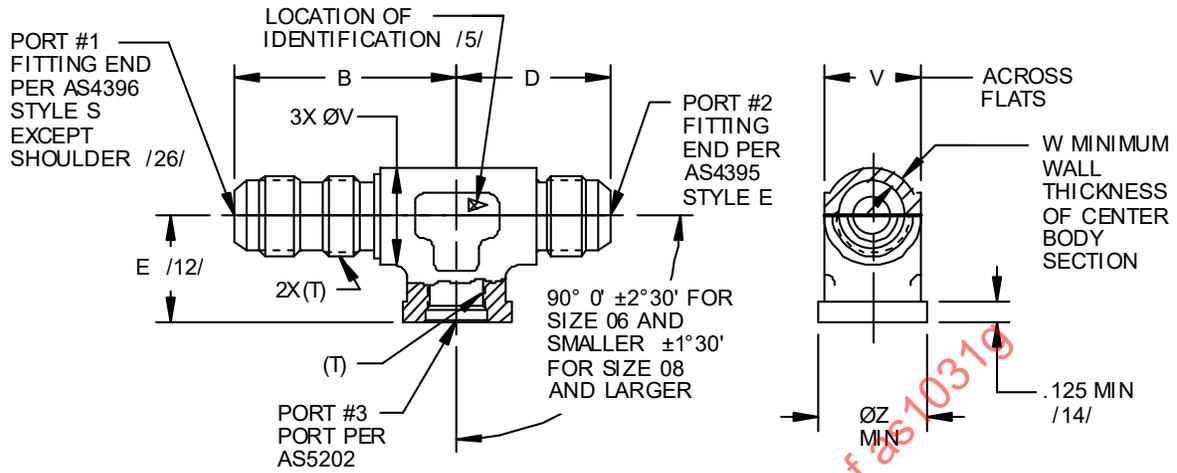


FIGURE 1 - FITTING, TEE, BULKHEAD END FOR OPTIONAL USE IN PORT
PORT #3 SHOWN AS NON-REDUCER

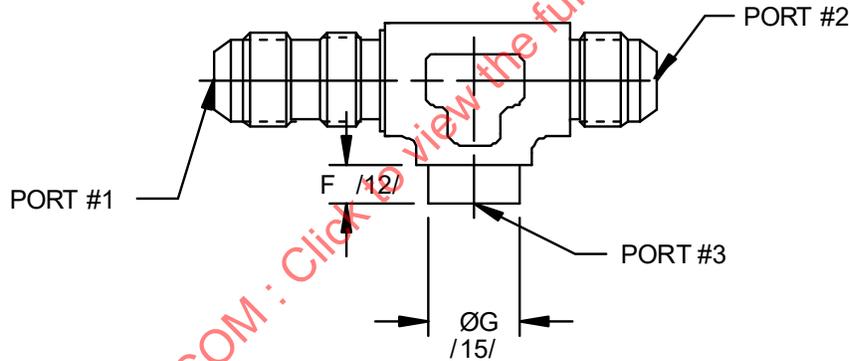
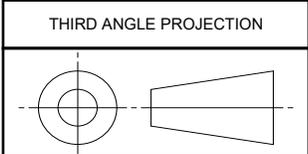


FIGURE 2 - FITTING, TEE, BULKHEAD END FOR OPTIONAL USE IN PORT
PORT #3 SHOWN AS REDUCER
SAME AS FIGURE 1 EXCEPT AS SHOWN

NOT RECOMMENDED IN PART /25/

For more information on this standard, visit
<https://www.sae.org/standards/content/AS1031G/>



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS4875/1 /4/

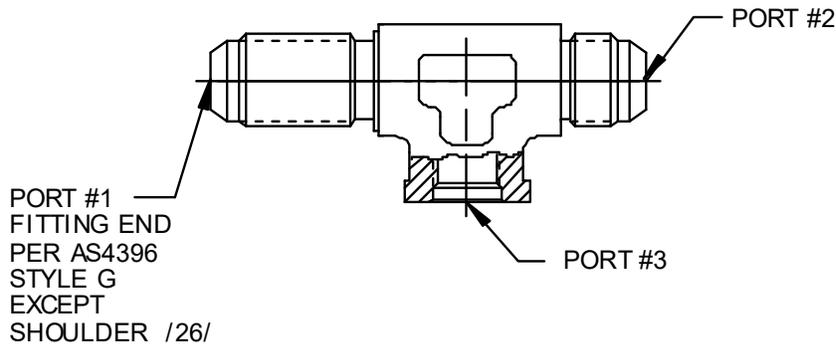


AEROSPACE STANDARD

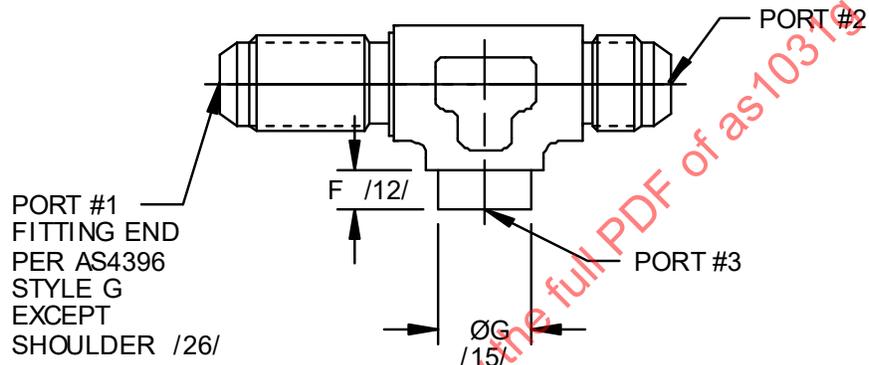
(R) FITTING, TEE, STANDARD AND REDUCER,
BULKHEAD ON RUN, INTERNAL PORT
ON SIDE, FLARED

AS1031™
SHEET 1 OF 6

REV. G



**FIGURE 3 - FITTING, TEE, BULKHEAD END NOT FOR USE IN PORT
PORT #3 SHOWN AS NON-REDUCER
SAME AS FIGURE 1 EXCEPT AS SHOWN /23/**



**FIGURE 4 - FITTING, TEE, BULKHEAD END NOT FOR USE IN PORT
PORT #3 SHOWN AS REDUCER
SAME AS FIGURE 1 EXCEPT AS SHOWN /23/**

TABLE 1 - DIMENSIONS E - Z AND WEIGHTS /16/

BASIC NO. AS1031 /13/ /23/ SIZE CODE	E /14/	F /14/	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	.0313	.0898	.0496
03	.711	-	.547- .565	.100	.625	.0410	.1179	.0650
04	.773	.375	.735- .753	.110	-	.0837	.2403	.1323
05	.773	.375	.735- .753	.120	-	.0810	.2313	.1278
06	.836	.375	.860- .878	.120	-	.1206	.3474	.1917
08	1.023	.469	1.047-1.065	.150	-	.1926	.5553	.3060
10	1.180	.625	1.047-1.065	.170	1.125	.1989	.5724	.3159
12	1.367	.688	1.292-1.317	.185	1.375	.3285	.9450	.5211
16	1.555	.719	1.605-1.630	.205	1.625	.4743	1.3590	.7515
20	1.742	.781	1.855-1.880	.240	1.938	.6561	1.9620	1.0800



AEROSPACE STANDARD
(R) FITTING, TEE, STANDARD AND REDUCER,
BULKHEAD ON RUN, INTERNAL PORT
ON SIDE, FLARED

AS1031™
SHEET 2 OF 6

**REV.
G**

TABLE 2 - LEG LENGTH B

FORGING SIZE /13/	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
02	1.491	-	-	-	-	-	-	-	-	-
03	1.523	1.523	-	-	-	-	-	-	-	-
04	1.679	1.679	1.773	-	-	-	-	-	-	-
05	1.679	1.679	1.773	1.773	-	-	-	-	-	-
06	1.851	1.851	1.945	1.945	2.023	-	-	-	-	-
08	1.851	1.851	1.945	1.945	2.023	2.179	-	-	-	-
10	1.929	1.929	2.023	2.023	2.101	2.257	2.398	-	-	-
12	2.008	2.008	2.102	2.102	2.180	2.336	2.477	2.648	-	-
16	2.227	2.227	2.321	2.321	2.399	2.555	2.696	2.867	2.867	-
20	2.367	2.367	2.461	2.461	2.539	2.695	2.836	3.007	3.007	3.054

TABLE 3 - LEG LENGTH D

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 16	TUBE SIZE OF PORT #2 20
02	.929	-	-	-	-	-	-	-	-	-
03	.961	.992	-	-	-	-	-	-	-	-
04	1.109	1.140	1.211	-	-	-	-	-	-	-
05	1.109	1.140	1.211	1.211	-	-	-	-	-	-
06	1.165	1.196	1.267	1.267	1.273	-	-	-	-	-
08	1.232	1.283	1.354	1.354	1.360	1.461	-	-	-	-
10	1.338	1.369	1.440	1.440	1.446	1.547	1.648	-	-	-
12	1.420	1.451	1.522	1.522	1.528	1.629	1.730	1.836	-	-
16	1.623	1.654	1.725	1.725	1.731	1.832	1.933	2.039	2.086	-
20	1.763	1.794	1.865	1.865	1.871	1.972	2.073	2.179	2.226	2.273

TABLE 4 - ØG /15/

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 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	-	-	-
16	.594	.656	.719	.781	.844	1.062	1.188	1.438	-
20	.594	.656	.719	.781	.844	1.062	1.188	1.438	1.688

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
16	1.000	1.3125-12 UNJ
20	1.250	1.6250-12 UNJ

NOTES:

NOTICE

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

1/ MATERIAL:

- a. DASH AS CODE LETTER: TYPE 4130 STEEL FORGING OR BAR PER AMS6370 OR AMS-S-6758, OR TYPE 4140 STEEL BAR PER AMS6349 OR AMS6382.
- b. CODE LETTER D: TYPE 2014-T6 ALUMINUM ALLOY FORGING PER AMS4133 OR AMS-QQ-A-367; OR 2024-T6 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6; OR 2024-T851 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6 OR AMS4339. /25/
- c. CODE LETTER J: TYPE 304 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS-QQ-S-763 OR AMS5639.
- d. CODE LETTER K: TYPE 316 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS-QQ-S-763 OR AMS5648.
- e. CODE LETTER R: TYPE 321 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS-QQ-S-763 OR AMS5645.
- f. CODE LETTER S: TYPE 347 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS-QQ-S-763 OR AMS5646. /25/
- g. CODE LETTER T: 6AL-4V TITANIUM ALLOY FORGING OR BAR PER AMS4928.
- h. CODE LETTER W: 7075-T73 ALUMINUM ALLOY FORGING PER AMS4141 OR AMS-QQ-A-367; OR 7075-T7351 ALUMINUM ALLOY BAR PER AMS4124; OR 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9.

2. HEAT TREATMENT:

- a. DASH AS MATERIAL CODE LETTER: REFER TO HARDNESS REQUIREMENT PER PROCUREMENT SPECIFICATION.
- b. MATERIAL CODE LETTERS D AND W: REFER TO ELECTRICAL CONDUCTIVITY AND HARDNESS REQUIREMENT PER PROCUREMENT SPECIFICATION.
- c. OTHER MATERIAL CODE LETTERS: NONE.

3. FINISH:

- a. DASH AS MATERIAL CODE LETTER: CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2, DYE BLACK AND COAT WITH A LIGHT FILM OF OIL PER PROCUREMENT SPECIFICATION.
- b. MATERIAL CODE LETTER D:
 - 1. ANODIZE PER AMS2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BLUE, DUPLEX SEAL PER PROCUREMENT SPECIFICATION.
 - 2. D CODE PARTS TO BE COATED WITH HIGH PURITY ALUMINUM ONLY WILL HAVE THE FINISH CODE LETTER "V" PLACED AFTER THE SIZE CODE IN THE PART NUMBER. HIGH PURITY ALUMINUM COAT PER PROCUREMENT SPECIFICATION. /23/

	AEROSPACE STANDARD	AS1031™ SHEET 4 OF 6	REV. G
	(R) FITTING, TEE, STANDARD AND REDUCER, BULKHEAD ON RUN, INTERNAL PORT ON SIDE, FLARED		