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REV.
F

AS1009

FEDERAL SUPPLY CLASS
4730

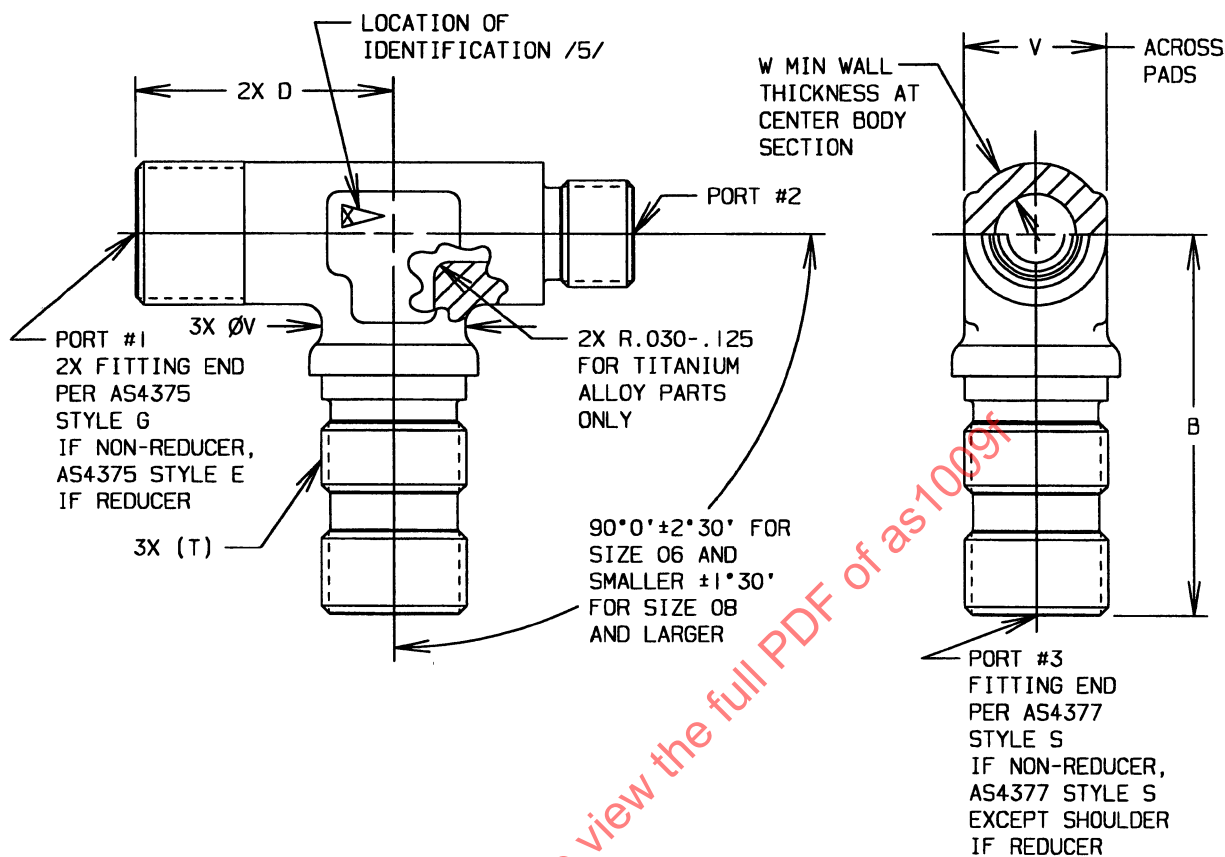
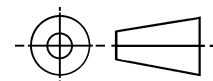


FIGURE 1 - FITTING, TEE, BULKHEAD END FOR OPTIONAL USE IN PORT INSTALLATION, PORT #2 SHOWN AS REDUCER



INACTIVE IN PART /22/

THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS18280

SAE Aerospace
An SAE International Group

(R)

AEROSPACE STANDARD

FITTING, TEE, STANDARD
AND REDUCER, BULKHEAD
ON SIDE, FLARELESS

AS1009
SHEET 1 OF 7

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ISSUED 1966-03 REVISED 2001-08 REAFFIRMED 2005-06

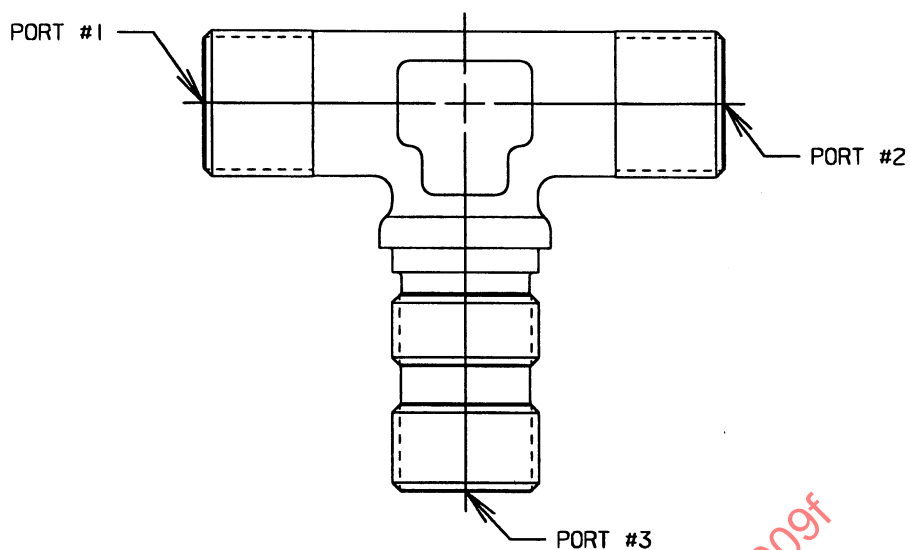


FIGURE 2 - FITTING, TEE, BULKHEAD END FOR OPTIONAL USE
IN PORT INSTALLATION, NON-REDUCER SHOWN, SAME
AS FIGURE 1 EXCEPT AS SHOWN

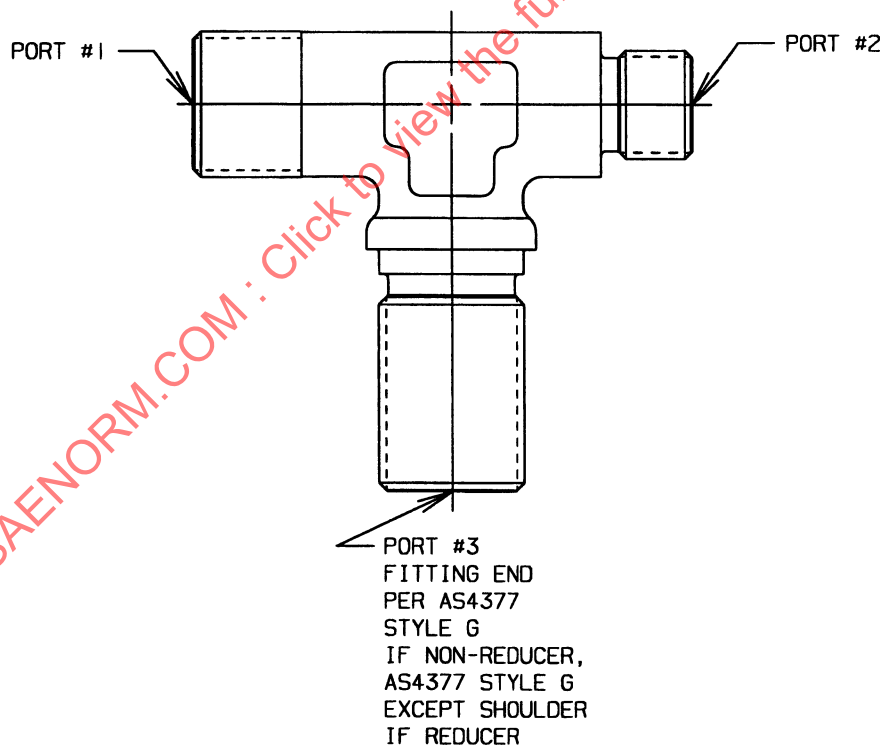


FIGURE 3 - FITTING, TEE, BULKHEAD END NOT FOR USE IN PORT
INSTALLATION, PORT #2 SHOWN AS REDUCER, SAME AS
FIGURE 1 EXCEPT AS SHOWN

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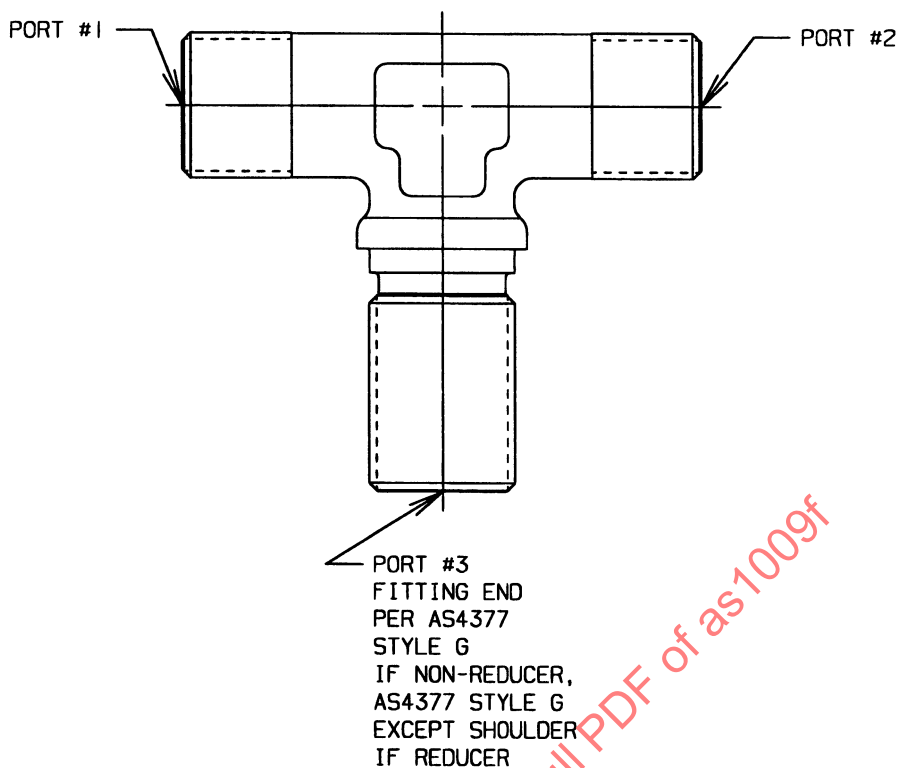


FIGURE 4 - FITTING, TEE, BULKHEAD END NOT FOR USE IN PORT
INSTALLATION, NON-REDUCER SHOWN, SAME AS FIGURE 2
EXCEPT AS SHOWN

TABLE 1 - DIMENSIONS AND WEIGHTS /13/

BASIC NO. AS1009 /12/ /21/ SIZE CODE	V	W	LB/EA APPROX REF ALUM	LB/EA APPROX REF STEEL	LB/EA APPROX REF TI
02	.297- .314	.090	.0198	.0558	.0315
03	.360- .377	.100	.0252	.0702	.0405
04	.423- .440	.110	.0297	.0846	.0486
05	.485- .502	.120	.0432	.127	.0729
06	.547- .565	.120	.0522	.140	.0801
08	.735- .753	.150	.0972	.274	.158
10	.860- .878	.170	.149	.405	.233
12	1.047-1.065	.185	.230	.630	.363
14	1.173-1.191	.200	-	-	-
16	1.292-1.317	.205	.308	.868	.500
20	1.605-1.630	.240	.558	1.55	.893
24	1.855-1.880	.250	.734	2.00	1.15
32	2.542-2.572	.350	-	-	-

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TABLE 2 - LEG LENGTH B /14/

FORGING SIZE /12/	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 14	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	1.336	1.367	1.413	1.445	1.555	1.664	1.804	1.914	2.024	2.039	2.320	2.602	2.992
03	-	1.414	1.460	1.492	1.602	1.711	1.851	1.961	2.071	2.086	2.367	2.649	3.039
04	-	-	1.523	1.555	1.665	1.774	1.914	2.024	2.134	2.149	2.430	2.712	3.102
05	-	-	-	1.555	1.665	1.774	1.914	2.024	2.134	2.149	2.430	2.712	3.102
06	-	-	-	-	1.711	1.820	1.960	2.070	2.180	2.195	2.476	2.758	3.148
08	-	-	-	-	-	1.992	2.132	2.242	2.352	2.367	2.648	2.930	3.320
10	-	-	-	-	-	-	2.273	2.383	2.493	2.508	2.789	3.071	3.461
12	-	-	-	-	-	-	-	2.492	2.617	2.617	2.898	3.180	3.570
14	-	-	-	-	-	-	-	-	2.543	2.617	2.898	3.180	3.570
16	-	-	-	-	-	-	-	-	-	2.617	2.898	3.180	3.570
20	-	-	-	-	-	-	-	-	-	-	2.898	3.180	3.570
24	-	-	-	-	-	-	-	-	-	-	-	3.180	3.570
32	-	-	-	-	-	-	-	-	-	-	-	-	3.773

TABLE 3 - LEG LENGTH D /14/

FORGING SIZE /12/	TUBE SIZE OF PORT #2 OR #3 02	TUBE SIZE OF PORT #2 OR #3 03	TUBE SIZE OF PORT #2 OR #3 04	TUBE SIZE OF PORT #2 OR #3 05	TUBE SIZE OF PORT #2 OR #3 06	TUBE SIZE OF PORT #2 OR #3 08	TUBE SIZE OF PORT #2 OR #3 10	TUBE SIZE OF PORT #2 OR #3 12	TUBE SIZE OF PORT #2 OR #3 14	TUBE SIZE OF PORT #2 OR #3 16	TUBE SIZE OF PORT #2 OR #3 20	TUBE SIZE OF PORT #2 OR #3 24	TUBE SIZE OF PORT #2 OR #3 32
02	.804	.883	.883	.977	.992	1.149	1.274	1.335	1.398	1.429	1.710	1.898	2.085
03	-	.930	.930	1.024	1.039	1.196	1.320	1.383	1.445	1.476	1.757	1.945	2.132
04	-	-	.961	1.055	1.070	1.227	1.352	1.414	1.476	1.507	1.788	1.976	2.163
05	-	-	-	1.055	1.070	1.227	1.352	1.414	1.476	1.507	1.788	1.976	2.163
06	-	-	-	-	1.086	1.243	1.368	1.430	1.492	1.523	1.804	1.992	2.179
08	-	-	-	-	-	1.336	1.461	1.523	1.585	1.616	1.897	2.085	2.272
10	-	-	-	-	-	-	1.524	1.586	1.648	1.679	1.960	2.148	2.335
12	-	-	-	-	-	-	-	1.649	1.742	1.742	2.023	2.211	2.398
14	-	-	-	-	-	-	-	-	1.693	1.742	2.023	2.211	2.398
16	-	-	-	-	-	-	-	-	-	1.742	2.023	2.211	2.398
20	-	-	-	-	-	-	-	-	-	-	2.023	2.211	2.398
24	-	-	-	-	-	-	-	-	-	-	-	2.211	2.398
32	-	-	-	-	-	-	-	-	-	-	-	-	2.398

TABLE 4 - TUBE SIZE AND CORRESPONDING THREAD

PORT SIZE	(NOMINAL TUBE SIZE)	T THREAD PER AS8879 CLASS A
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
24	1.500	1.8750-12 UNJ
32	2.000	2.5000-12 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/ /22/
- c. CODE LETTR F - TYPE 4130 LOW ALLOY STEEL FORGING OR BAR PER AMS 6370 OR AMS-S-6758 EXCEPT HEAT TREATMENT PER PROCUREMENT SPECIFICATION. /2/ /22/
- 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/ /22/
- 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 PROCUREMENT 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.