

REV.
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AS1037

FEDERAL SUPPLY CLASS
4730

RATIONALE

THIS DOCUMENT HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE 5-YEAR REVIEW POLICY.

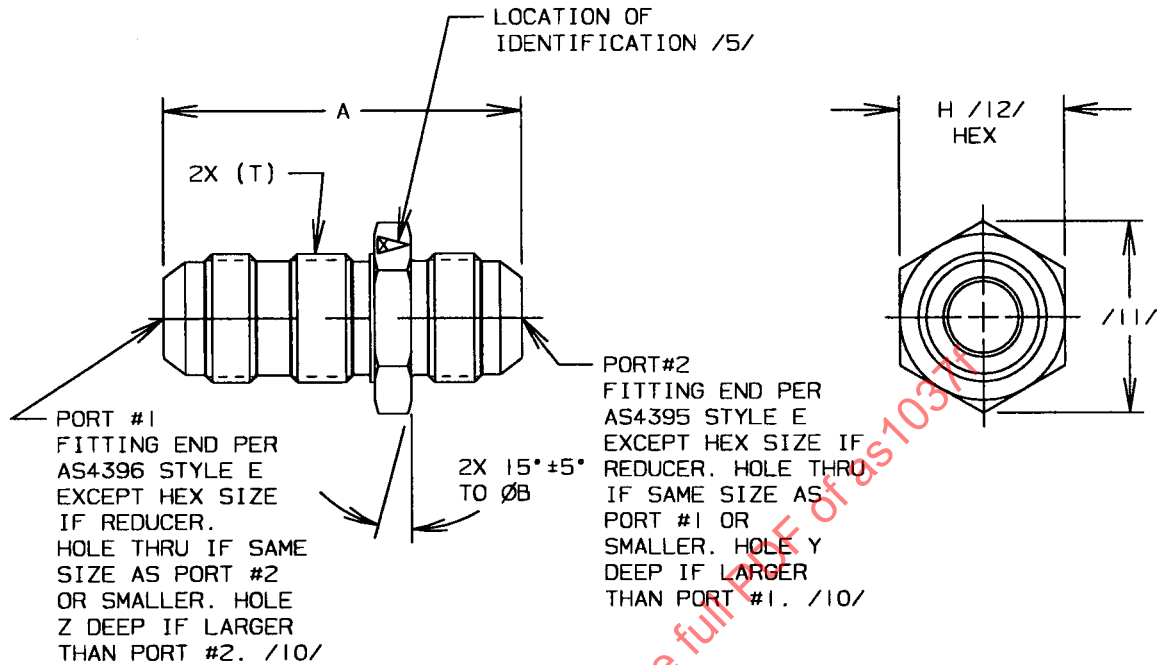


FIGURE 1 - FITTING, UNION, BULKHEAD END FOR OPTIONAL USE IN PORT NON-REDUCER

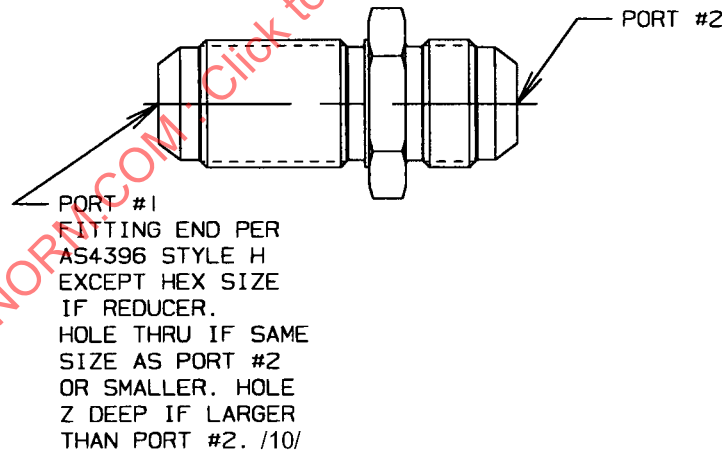
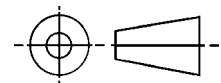


FIGURE 2 - FITTING, UNION, BULKHEAD END NOT FOR USE IN PORT NON-REDUCER, SAME AS FIGURE 1 EXCEPT AS SHOWN /20/

INACTIVE IN PART - SEE NOTE /21/

THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS4841

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

FITTING, UNION,
STANDARD AND REDUCER,
BULKHEAD, FLARED

AS1037
SHEET 1 OF 6

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ISSUED 1962-08 REVISED 2003-08 REAFFIRMED 2007-07

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TABLE 1 - OVERALL LENGTH A

TUBE SIZE OF PORT #2	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	1.526	1.641	1.758	1.758	1.924	2.057	2.222	2.428	2.428	2.459	2.491	2.756
03	1.672	1.557	1.789	1.789	1.955	2.088	2.257	2.459	2.459	2.490	2.522	2.787
04	1.766	1.766	1.753	1.860	2.026	2.159	2.324	2.530	2.530	2.561	2.593	2.858
05	1.766	1.766	1.860	1.753	2.026	2.159	2.324	2.530	2.530	2.561	2.593	2.858
06	1.860	1.860	1.954	1.954	1.837	2.165	2.330	2.536	2.536	2.558	2.599	2.864
08	1.938	1.938	2.032	2.032	2.110	2.126	2.431	2.637	2.637	2.668	2.700	2.965
10	2.063	2.063	2.157	2.157	2.235	2.391	2.430	2.738	2.738	2.769	2.801	3.066
12	2.204	2.204	2.298	2.298	2.376	2.532	2.673	2.769	2.844	2.875	2.907	3.172
16	2.251	2.251	2.345	2.345	2.423	2.579	2.720	2.891	2.879	2.922	2.954	3.219
20	2.469	2.469	2.376	2.376	2.454	2.610	2.751	2.922	2.922	2.973	3.001	3.266
24	2.423	2.423	2.517	2.517	2.595	2.751	2.892	3.063	3.063	3.110	3.177	3.391
32	2.657	2.657	2.751	2.751	2.829	2.985	3.126	3.297	3.297	3.344	3.360	3.708

TABLE 2 - HOLE DEPTH Y

TUBE SIZE OF PORT #2	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
03	.510	-	-	-	-	-	-	-	-	-	-
04	.581	.581	-	-	-	-	-	-	-	-	-
05	.581	.581	.581	-	-	-	-	-	-	-	-
06	.587	.587	.587	.587	-	-	-	-	-	-	-
08	.688	.688	.688	.688	.688	-	-	-	-	-	-
10	.789	.789	.789	.789	.789	.789	-	-	-	-	-
12	.895	.895	.895	.895	.895	.895	.895	-	-	-	-
16	.942	.942	.942	.942	.942	.942	.942	.942	-	-	-
20	.989	.989	.989	.989	.989	.989	.989	.989	.989	-	-
24	1.114	1.114	1.114	1.114	1.114	1.114	1.114	1.114	1.114	1.114	-
32	1.364	1.364	1.364	1.364	1.364	1.364	1.364	1.364	1.364	1.364	1.364

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TABLE 3 - HOLE DEPTH Z

TUBE SIZE OF PORT #1	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	TUBE SIZE OF PORT #2 24
03	.859	-	-	-	-	-	-	-	-	-	-
04	.953	.953	-	-	-	-	-	-	-	-	-
05	.953	.953	.953	-	-	-	-	-	-	-	-
06	1.032	1.032	1.032	1.032	-	-	-	-	-	-	-
08	1.219	1.219	1.219	1.219	1.219	-	-	-	-	-	-
10	1.360	1.360	1.360	1.360	1.360	1.360	-	-	-	-	-
12	1.531	1.531	1.531	1.531	1.531	1.531	1.531	-	-	-	-
16	1.532	1.532	1.532	1.532	1.532	1.532	1.532	1.532	-	-	-
20	1.578	1.578	1.578	1.578	1.578	1.578	1.578	1.578	1.578	-	-
24	1.968	1.968	1.968	1.968	1.968	1.968	1.968	1.968	1.968	1.968	-
32	1.875	1.875	1.875	1.875	1.875	1.875	1.875	1.875	1.875	1.875	1.875

TABLE 4 - TUBE SIZE AND CORRESPONDING THREAD

PORT SIZE	(NOMINAL TUBE SIZE)	T THREAD PER AS8879 CLASS 3A
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

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TABLE 5 - HEX DIMENSIONS AND WEIGHTS /13/

BASIC NO. AS1037 /20/ SIZE CODE	LARGEST PORT SIZE	B ±.010	H	LB/100 APPROX REF ALUM	LB/100 APPROX REF CRES	LB/100 APPROX REF TI
02	02	.542	.552- .565	.561	1.61	.899
03	03	.605	.615- .628	.433	1.24	.686
04	04	.668	.678- .691	.706	2.03	1.11
05	05	.730	.740- .753	.655	1.88	1.04
06	06	.782	.792- .815	.651	1.87	1.03
08	08	.980	.990-1.003	3.06	8.78	4.84
10	10	1.103	1.113-1.128	5.52	15.9	8.75
12	12	1.353	1.363-1.380	10.9	31.2	17.2
16	16	1.603	1.613-1.630	16.6	47.7	26.3
20	20	1.853	1.863-1.880	25.7	73.7	40.7
24	24	2.099	2.109-2.135	36.3	104	57.6
32	32	2.724	2.734-2.760	76.6	220	121

NOTES:

/1/ MATERIAL:

- a. DASH AS CODE LETTER - TYPE 4140 STEEL BAR PER AMS 6349 OR AMS 6382 OR TYPE 4130 LOW ALLOY STEEL BAR PER AMS 6370 OR AMS-S-6758 OR 4140 LOW ALLOY STEEL PER AMS 6382 EXCEPT HEAT TREATMENT PER PROCUREMENT SPECIFICATION.
- b. CODE LETTER D - TYPE 2024-T6 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6 OR 2024-T851 ALUMINUM ALLOY BAR PER AMS-Q-A-225/6. /21/
- c. CODE LETTER J - TYPE 304 CORROSION RESISTANT STEEL BAR PER AMS 5639 OR AMS-QQ-S-763 EXCEPT HARDNESS PER PROCUREMENT SPECIFICATION.
- d. CODE LETTER K - TYPE 316 CORROSION RESISTANT STEEL BAR PER AMS 5648 OR AMS-QQ-S-763 EXCEPT HARDNESS PER PROCUREMENT SPECIFICATION.
- e. CODE LETTER R - TYPE 321 CORROSION RESISTANT STEEL BAR PER AMS 5645 OR AMS-QQ-S-763 EXCEPT HARDNESS PER PROCUREMENT SPECIFICATION.
- f. CODE LETTER T - 6AL-4V TITANIUM ALLOY BAR PER AMS 4928.
- g. CODE LETTER W - TYPE 7075-T7351 ALUMINUM ALLOY BAR PER AMS 4124 OR 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9.

2. HEAT TREATMENT:

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