FEDERAL SUPPLY CLASS
4730

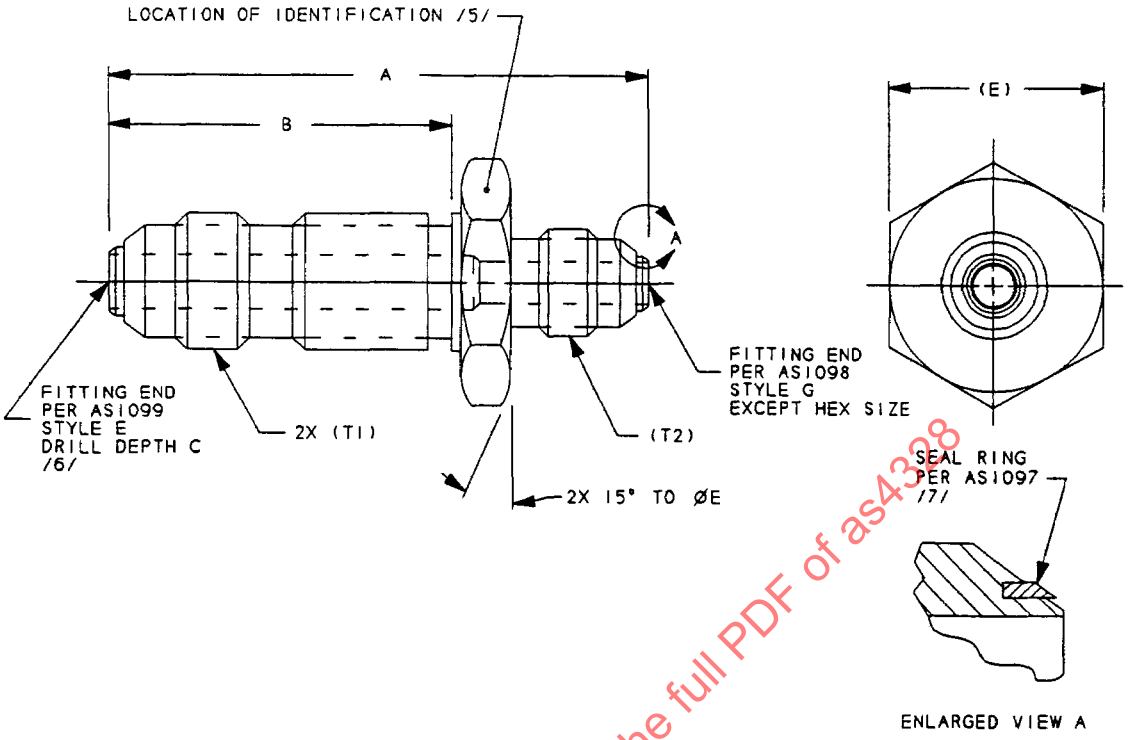


FIGURE 1 - UNION, REDUCER, FLARED TUBE END REDUCED

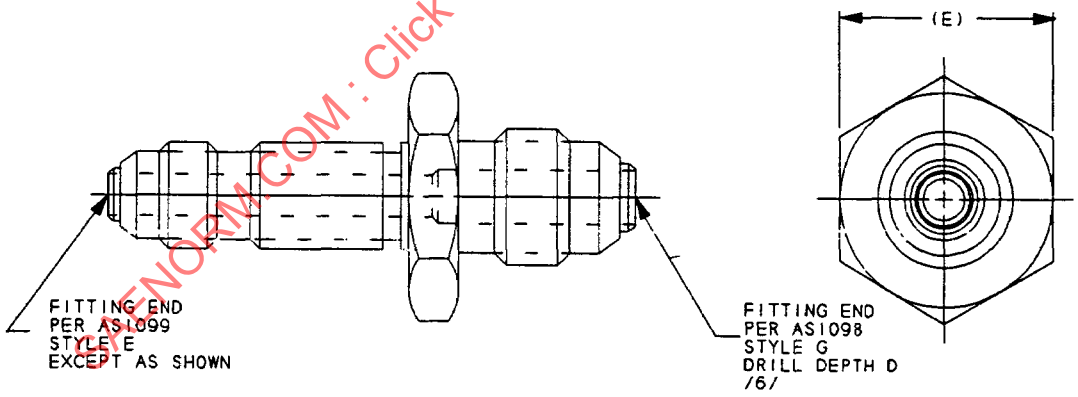
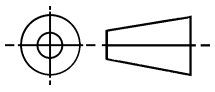


FIGURE 2 - UNION, REDUCER, BULKHEAD END REDUCED
SAME AS FIGURE 1 EXCEPT AS SHOWN

ISSUED 1993-08 REAFFIRMED 2001-12

THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ KSC-F-124

SAE The Engineering Society For Advancing Mobility Land Sea Air and Space®
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AEROSPACE STANDARD

UNION, REDUCER, BULKHEAD,
FLARED TUBE, FOR SEAL RING

AS4328
SHEET 1 OF 4

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TABLE 1 - DIMENSIONS

BASIC NUMBER AS4328 /13/ SIZE CODE	BULKHEAD END TUBE OD	BULKHEAD END T1 THREAD PER MIL-S-8879	FLARED TUBE END TUBE OD	FLARED TUBE END T2 THREAD PER MIL-S-8879	A +.000 -.090	B +.000 -.045	C +.000 -.045	D +.000 -.045	E
0406	.250	.4375-20 UNJF	.375	.5625-18 UNJF	2.147	1.208	---	.457	.813
0408	.250	.4375-20 UNJF	.500	.7500-16 UNJF	2.225	1.208	---	.538	1.000
0410	.250	.4375-20 UNJF	.625	.8750-14 UNJF	2.350	1.208	---	.618	1.125
0412	.250	.4375-20 UNJF	.750	1.0625-12 UNJ	2.491	1.208	---	.703	1.375
0416	.250	.4375-20 UNJF	1.000	1.3125-12 UNJ	2.538	1.208	---	.741	1.625
0420	.250	.4375-20 UNJF	1.250	1.6250-12 UNJ	2.569	1.208	---	.778	1.875
0604	.375	.5625-18 UNJF	.250	.4375-20 UNJF	2.219	1.286	.883	---	.813
0608	.375	.5625-18 UNJF	.500	.7500-16 UNJF	2.303	1.286	---	.538	1.000
0610	.375	.5625-18 UNJF	.625	.8750-14 UNJF	2.428	1.286	---	.618	1.125
0612	.375	.5625-18 UNJF	.750	1.0625-12 UNJ	2.569	1.286	---	.703	1.375
0804	.500	.7500-16 UNJF	.250	.4375-20 UNJF	2.352	1.442	1.008	---	1.000
0806	.500	.7500-16 UNJF	.375	.5625-18 UNJF	2.358	1.442	1.008	---	1.000
0810	.500	.7500-16 UNJF	.625	.8750-14 UNJF	2.584	1.442	---	.618	1.125
0812	.500	.7500-16 UNJF	.750	1.0625-12 UNJ	2.725	1.442	---	.703	1.375
0816	.500	.7500-16 UNJF	1.000	1.3125-12 UNJ	2.772	1.442	---	.741	1.625
1004	.625	.8750-14 UNJF	.250	.4375-20 UNJF	2.517	1.583	1.121	---	1.125
1006	.625	.8750-14 UNJF	.375	.5625-18 UNJF	2.523	1.583	1.121	---	1.125
1008	.625	.8750-14 UNJF	.500	.7500-16 UNJF	2.624	1.583	1.121	---	1.125
1012	.625	.8750-14 UNJF	.750	1.0625-12 UNJ	2.866	1.583	---	.703	1.375
1016	.625	.8750-14 UNJF	1.000	1.3125-12 UNJ	2.913	1.583	---	.741	1.625
1204	.750	1.0625-12 UNJ	.250	.4375-20 UNJF	2.723	1.755	1.258	---	1.375
1206	.750	1.0625-12 UNJ	.375	.5625-18 UNJF	2.729	1.755	1.258	---	1.375
1208	.750	1.0625-12 UNJ	.500	.7500-16 UNJF	2.830	1.755	1.258	---	1.375
1210	.750	1.0625-12 UNJ	.625	.8750-14 UNJF	2.931	1.755	1.258	---	1.375
1216	.750	1.0625-12 UNJ	1.000	1.3125-12 UNJ	3.084	1.755	---	.741	1.625
1220	.750	1.0625-12 UNJ	1.250	1.6250-12 UNJ	3.115	1.755	---	.778	1.875
1604	1.000	1.3125-12 UNJ	.250	.4375-20 UNJF	2.723	1.755	1.258	---	1.625
1608	1.000	1.3125-12 UNJ	.500	.7500-16 UNJF	2.830	1.755	1.258	---	1.625
1610	1.000	1.3125-12 UNJ	.625	.8750-14 UNJF	2.931	1.755	1.258	---	1.625
1612	1.000	1.3125-12 UNJ	.750	1.0625-12 UNJ	3.037	1.755	1.258	---	1.625
1620	1.000	1.3125-12 UNJ	1.250	1.6250-12 UNJ	3.115	1.755	---	.778	1.875
1624	1.000	1.3125-12 UNJ	1.500	1.8750-12 UNJ	3.256	1.755	---	.878	2.125
2004	1.250	1.6250-12 UNJ	.250	.4375-20 UNJF	2.754	1.802	1.295	---	1.875
2012	1.250	1.6250-12 UNJ	.750	1.0625-12 UNJ	3.068	1.802	1.295	---	1.875
2016	1.250	1.6250-12 UNJ	1.000	1.3125-12 UNJ	3.015	1.802	1.295	---	1.875
2024	1.250	1.6250-12 UNJ	1.500	1.8750-12 UNJ	3.303	1.802	---	.878	2.125
2416	1.500	1.8750-12 UNJ	1.000	1.3125-12 UNJ	3.147	1.817	1.308	---	2.125
2420	1.500	1.8750-12 UNJ	1.250	1.6250-12 UNJ	3.194	1.817	1.308	---	2.125
2820	1.750	2.2500-12 UNJ	1.250	1.6250-12 UNJ	3.379	1.973	1.433	---	2.500
2824	1.750	2.2500-12 UNJ	1.500	1.8750-12 UNJ	3.504	1.973	1.433	---	2.500
3224	2.000	2.5000-12 UNJ	1.500	1.8750-12 UNJ	3.629	2.098	1.533	---	2.750
3228	2.000	2.5000-12 UNJ	1.750	2.2500-12 UNJ	3.754	2.098	1.533	---	2.750

TABLE 2 - WEIGHTS

BASIC NUMBER AS4328 /13/ SIZE CODE	LB/EA MAX ALUM	LB/EA MAX CRES	BASIC NUMBER AS4328 /13/ SIZE CODE	LB/EA MAX ALUM	LB/EA MAX CRES	BASIC NUMBER AS4328 /13/ SIZE CODE	LB/EA MAX ALUM	LB/EA MAX CRES
0406	.0442	.122	1004	.103	.286	1620	.333	.923
0408	.0639	.177	1006	.106	.293	1624	.415	1.150
0410	.0958	.266	1008	.115	.319	2004	.299	.828
0412	.131	.362	1012	.169	.469	2012	.336	.931
0416	.179	.497	1016	.218	.604	2016	.331	.917
0420	.243	.674	1204	.161	.448	2024	.470	1.300
0604	.0466	.129	1206	.164	.455	2416	.425	1.180
0608	.0690	.191	1208	.173	.481	2420	.459	1.270
0610	.0898	.249	1210	.182	.505	2820	.549	1.540
0612	.136	.376	1216	.247	.686	2824	.584	1.640
0804	.0771	.214	1220	.312	.864	3224	.679	1.900
0806	.0796	.221	1604	.212	.589	3228	.731	2.050
0810	.110	.304	1608	.244	.676			
0812	.155	.430	1610	.233	.646			
0816	.204	.565	1612	.250	.692			

NOTES:

/1/ MATERIAL:
- a. CODE LETTER D: 2024T6 OR T851 ALUMINUM ALLOY BAR PER QQ-A-225/6
- b. CODE LETTER J: 304 CORROSION RESISTANT STEEL BAR PER QQ-S-763
- c. CODE LETTER K: 316 CORROSION RESISTANT STEEL BAR PER QQ-S-763
- d. CODE LETTER S: 347 CORROSION RESISTANT STEEL BAR PER QQ-S-763

2. HEAT TREAT PER PROCUREMENT SPECIFICATION.
3. FINISH:
   - a. ALUMINUM ALLOY: ANODIZE PER MIL-S-8625 TYPE II, CLASS 2, COLOR BLUE
   - b. CORROSION RESISTANT STEEL: PASSIVATE PER QQ-P-35, TYPE VI

/4/ PROCUREMENT SPECIFICATION: KSC-F-124 - JOHN F. KENNEDY SPACE CENTER, NASA, SPECIFICATION FOR FITTINGS (PRESSURE CONNECTIONS), FLARED TUBE.

/5/ IDENTIFICATION: MARK PER AS478-7A3, -15A3, -15B, CLASS C OR CLASS D.
   - a. FOR SIZES 06 (.375 OD TUBE SIZE) AND SMALLER: MANUFACTURER'S NAME, CAGE CODE NUMBER OR TRADEMARK AND MATERIAL CODE LETTER
   - b. FOR SIZES 08 (.500 OD TUBE SIZE) AND LARGER: MANUFACTURER'S NAME, CAGE CODE NUMBER OR TRADEMARK, BASIC PART NUMBER AND MATERIAL CODE LETTER

/6/ AT THE OPTION OF THE MANUFACTURER, THE SMALLER DIAMETER MAY BE DRILLED THROUGH.

/7/ THE SEAL RING IS ORDERED SEPARATELY AS AN AS1097.

8. INTERPRETATION OF DRAWING PER AS4296.
9. SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36: REQUIREMENTS PER ANSI/ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES TO BE 125 µin Ra.
10. BREAK EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.
11. DIMENSIONING AND TOLERANCING: ANSI Y14.5M
12. DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS ±.016, ANGULAR DIMENSIONS ±5°.