

REV. B

AS897

FEDERAL SUPPLY CLASS
4730

RATIONALE

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

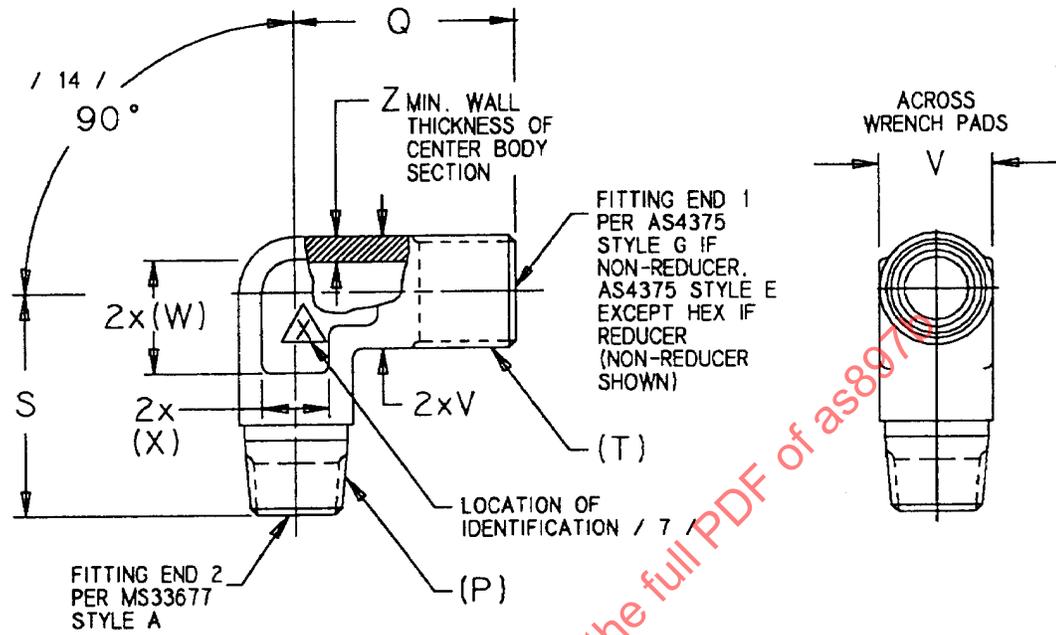
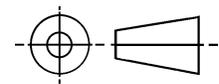


FIGURE 1 - FITTING, ELBOW, 90°, STANDARD AND REDUCER, FLARELESS TUBE TO PIPE, EXTERNAL THREAD

TABLE 1 - FORGING SIZE /8/

SIZE OF END 2	SIZE OF END 1 02	SIZE OF END 1 03	SIZE OF END 1 04	SIZE OF END 1 05	SIZE OF END 1 06	SIZE OF END 1 08	SIZE OF END 1 10	SIZE OF END 1 12	SIZE OF END 1 16	SIZE OF END 1 20	SIZE OF END 1 24	SIZE OF END 1 32
02	03	03	04	05	06	08	10	12	16	20	24	32
04	06	06	06	06	06	08	10	12	16	20	24	32
06	08	08	08	08	08	08	10	12	16	20	24	32
08	10	10	10	10	10	10	10	12	16	20	24	32
12	12	12	12	12	12	12	12	12	16	20	24	32
16	16	16	16	16	16	16	16	16	16	20	24	32
20	20	20	20	20	20	20	20	20	20	20	24	32
24	24	24	24	24	24	24	24	24	24	24	24	32
32	32	32	32	32	32	32	32	32	32	32	32	32

THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: /6/ MIL-F-18280



AEROSPACE STANDARD
FITTING, ELBOW, 90°, STANDARD AND REDUCER
FLARELESS TUBE TO PIPE, EXTERNAL THREAD

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ISSUED 1976-01 REVISED 1995-12 REAFFIRMED 2007-08

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TABLE 2 - DIMENSIONS

BASIC NO. AS897 /8/ /15/				
SIZE CODE	V	W	X	Z
03	.375	.375	.250	.090
04	.438	.500	.250	.110
05	.500	.500	.312	.120
06	.562	.625	.312	.120
08	.750	.625	.438	.150
10	.875	.750	.438	.170
12	1.062	.875	.500	.185
16	1.312	1.062	.625	.205
20	1.625	1.250	.750	.240
24	1.875	1.438	.875	.250
32	2.562	2.000	1.188	.350

TABLE 3 - LEG LENGTH Q, END 1

FORGING SIZE	SIZE OF END 1 02	SIZE OF END 1 03	SIZE OF END 1 04	SIZE OF END 1 05	SIZE OF END 1 06	SIZE OF END 1 08	SIZE OF END 1 10	SIZE OF END 1 12	SIZE OF END 1 16	SIZE OF END 1 20	SIZE OF END 1 24	SIZE OF END 1 32
03	.789	.836										
04	.820	.867	.898									
05	.883	.930	.961	.961								
06	.961	1.008	1.039	1.039	1.055							
08	1.086	1.133	1.164	1.164	1.180	1.273						
10	1.180	1.226	1.258	1.258	1.274	1.367	1.430					
12	1.272	1.320	1.351	1.351	1.367	1.460	1.523	1.586				
16	1.429	1.476	1.507	1.507	1.523	1.616	1.679	1.742	1.742			
20	1.585	1.632	1.663	1.663	1.679	1.772	1.835	1.898	1.898	1.898		
24	1.710	1.757	1.788	1.788	1.804	1.897	1.960	2.023	2.023	2.023	2.023	
32	2.148	2.159	2.226	2.226	2.242	2.335	2.398	2.461	2.461	2.461	2.461	2.461

TABLE 4 - LEG LENGTH S ±.031, END 2

FORGING SIZE	SIZE OF END 2 02	SIZE OF END 2 04	SIZE OF END 2 06	SIZE OF END 2 08	SIZE OF END 2 12	SIZE OF END 2 16	SIZE OF END 2 20	SIZE OF END 2 24	SIZE OF END 2 32
03	.727								
04	.789								
05	.789								
06	.898	1.085							
08	.993	1.196	1.211						
10	1.087	1.290	1.305	1.477					
12	1.179	1.382	1.397	1.569	1.585				
16	1.368	1.571	1.586	1.758	1.774	1.961			
20	1.758	1.961	1.976	2.148	2.164	2.351	2.383		
24	1.883	2.086	2.101	2.273	2.289	2.476	2.508	2.524	
32	2.337	2.540	2.555	2.727	2.743	2.930	2.962	2.977	3.008

SAE Aerospace
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AEROSPACE STANDARD

FITTING, ELBOW, 90°, STANDARD AND REDUCER
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TABLE 5 - TUBE SIZE AND CORRESPONDING THREAD

END SIZE	NOMINAL TUBE SIZE	T THREAD PER MIL-S-8879	P THREAD PER MIL-P-7105
02	.125	.3125-24 UNJF	.125-27 ANPT
03	.188	.3750-24 UNJF	—
04	.250	.4375-20 UNJF	.250-18 ANPT
05	.312	.5000-20 UNJF	—
06	.375	.5625-18 UNJF	.375-18 ANPT
08	.500	.7500-16 UNJF	.500-14 ANPT
10	.625	.8750-14 UNJF	—
12	.750	1.0625-12 UNJ	.750-14 ANPT
16	1.000	1.3125-12 UNJ	1.000-11.5 ANPT
20	1.250	1.6250-12 UNJ	1.250-11.5 ANPT
24	1.500	1.8750-12 UNJ	1.500-11.5 ANPT
32	2.000	2.5000-12 UNJ	2.000-11.5 ANPT

NOTES:

- /1/ MATERIAL CODE:
- "." = 4130 STEEL FORGING OR BAR PER MIL-S-6758 OR AMS 6370
 - "D" = 2014-T6 ALUMINUM ALLOY FORGING PER QQ-A-367 OR AMS 4133 OR 2024-T6 OR -T851 ALUMINUM ALLOY BAR PER QQ-A-225/6 OR AMS 4112
 - "J" = 304 CRES BAR PER QQ-S-763 OR AMS 5639
 - "K" = 316 CRES BAR PER QQ-S-763 OR AMS 5648
 - "R" = 321 CRES BAR PER QQ-S-763 OR AMS 5645
 - "S" = 347 CRES BAR PER QQ-S-763 OR AMS 5646 /4/
 - "W" = 7075-T73 ALUMINUM ALLOY FORGING PER QQ-A-367 OR AMS 4141 OR 7075-T73 OR -T7351 ALUMINUM ALLOY BAR PER QQ-A-225/9 OR AMS 4124
2. FINISH:
- "." = CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2
 - "D" = ANODIZE PER MIL-A-8625 TYPE II, CLASS 2 OR AMS 2472, DYE GREEN, SIMILAR TO COLOR 14187 OF FED-STD-595
 - "J" = PASSIVATE PER QQ-P-35, TYPE VI OR VII
 - "K" = PASSIVATE PER QQ-P-35, TYPE VI OR VII
 - "R" = PASSIVATE PER QQ-P-35, TYPE VI OR VII
 - "S" = PASSIVATE PER QQ-P-35, TYPE VI OR VII /4/
 - "W" = ANODIZE PER MIL-A-8625, TYPE II, CLASS 2 OR AMS 2472, DYE BROWN. SIMILAR TO COLOR 10080 OF FED-STD-595
- /3/ INTENDED USE: OXYGEN SYSTEMS AND GROUND SUPPORT EQUIPMENT ONLY. PARTS FOR OXYGEN SYSTEMS SHALL BE IDENTIFIED IN THE PART NUMBER AS CODE "A" AND SHALL BE FURNISHED CLEANED, PACKAGED, AND LABELED IN ACCORDANCE WITH AIR1176, TO A PROCESS APPROVED BY THE USER.
- /4/ 347 CRES INACTIVE FOR DESIGN AND PROCUREMENT. FOR REPLACEMENT USE PARTS CODED "R". PARTS CODED "S" MAY BE ISSUED FROM STOCK UNTIL DEPLETED.
5. WHEN MACHINED FROM BAR STOCK OR OVERSIZED FORGINGS THE CENTER BODY DIMENSIONS SHALL CONFORM TO AS1376, TABLE 1.
- /6/ PROCUREMENT SPECIFICATION: MIL-F-18280 EXCEPT AS SPECIFIED ON THIS STANDARD. THIS PART SHALL BE QUALIFIED TO THE PROCUREMENT SPECIFICATION IN A COMPLETE ASSEMBLY. USERS OF THIS STANDARD ARE ADVISED TO CONTROL SOURCE APPROVAL(S) BY STANDARD PAGE SUPPLEMENT SHEET OR SIMILAR MEANS.
- /7/ IDENTIFICATION: MARK PER AS478 CLASS C OR D OR METHOD 7A3, 15A3, OR 15B.
- FOR SIZES 06 (.375 OD TUBE SIZE) AND SMALLER: MANUFACTURER'S NAME, TRADEMARK OR CAGE CODE, LETTERS "AS" AND MATERIAL CODE LETTER
 - FOR SIZES 08 (.500 OD TUBE SIZE) AND LARGER: MANUFACTURER'S NAME, TRADEMARK OR CAGE CODE, BASIC PART NUMBER AND MATERIAL CODE LETTER
- /8/ FORGING SIZE IS DETERMINED BY CORRESPONDING END SIZES IN TABLE 1.
9. INVENTORIED PARTS CONFORMING TO THE PREVIOUS "LETTER CHANGE" MAY BE USED TO DEPLETION.
10. INTERPRETATION OF DRAWING PER ARP4296.
11. SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36; REQUIREMENTS PER ANSI/ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES TO BE 125 µin Ra.
12. BREAK ALL SHARP EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.
13. DIMENSIONS AND TOLERANCING: ANSI Y14.5M-1982