

REV. A

AS4685

FEDERAL SUPPLY CLASS
4730

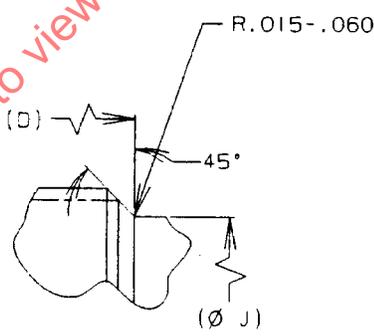
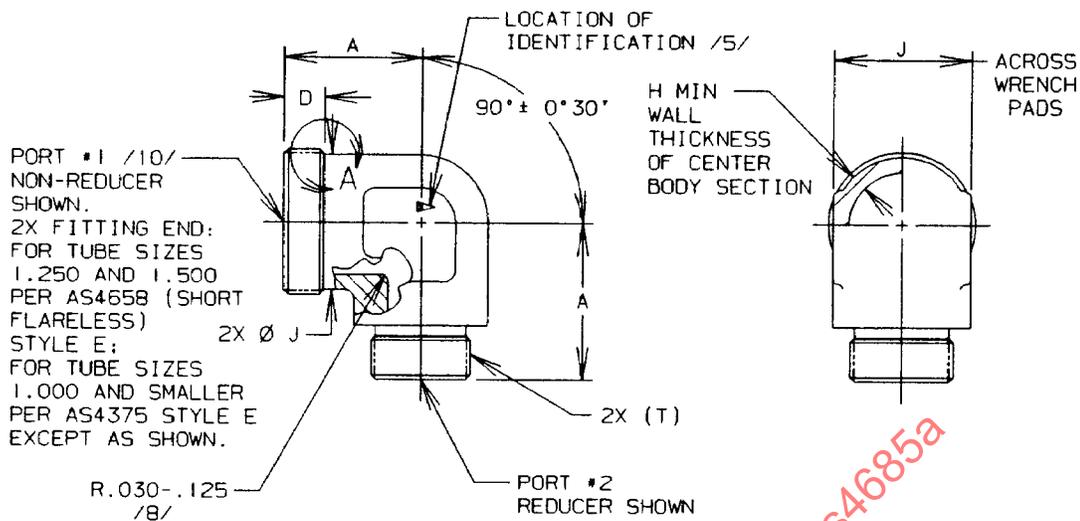
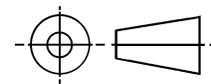


FIGURE 1 - FITTING, ELBOW, 90°, REDUCER

THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ MIL-F-18280

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

FITTING, ELBOW, 90°, REDUCER,
FLARELESS AND SHORT FLARELESS

AS4685
SHEET 1 OF 4

REV. A

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ISSUED 1992-07 REVISED 1994-12 REAFFIRMED 2004-07

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TABLE 1 - DIMENSIONS AND WEIGHTS

BASIC NO.					LB/EA	LB/EA	LB/EA
AS4685		J			MAX	MAX	MAX
/9/	/18/				ALUM	CRES	TI
SIZE	CODE	D	H	+ .005/- .020			
20		.517	.124	1.375	.277	.803	.467
24		.614	.156	1.688	.436	1.261	.730

TABLE 2 - LEG LENGTH A

SIZE OF PORT	FORGING SIZE /9/	
	20	24
02	1.585	1.710
03	1.632	1.757
04	1.663	1.788
05	1.663	1.788
06	1.679	1.804
08	1.772	1.879
10	1.835	1.960
12	1.898	2.023
14	1.898	2.023
16	1.898	2.023
20	1.673	1.798
24	--	1.798

TABLE 3 - TUBE SIZE AND CORRESPONDING THREADS

PORT SIZE	(NOMINAL TUBE SIZE)	
	T THREAD PER MIL-S-8879	
02	.125	.3125-24UNJF
03	.188	.3750-24UNJF
04	.250	.4375-20UNJF
05	.312	.5000-20UNJF
06	.375	.5625-18UNJF
08	.500	.7500-16UNJF
10	.625	.8750-14UNJF
12	.750	1.0625-12UNJ
14	.875	1.1875-12UNJ
16	1.000	1.3125-12UNJ
20	1.250	1.5625-12UNJ
24	1.500	1.8125-12UNJ

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NOTES:

/1/ MATERIAL:

- a. CODE LETTER T: TYPE 6AL-4V TITANIUM ALLOY PER AMS 4928
- b. CODE LETTER V: TYPE 15-5PH CORROSION RESISTANT STEEL PER AMS 5659
- c. CODE LETTER W: TYPE 7075-T73 ALUMINUM ALLOY FORGING PER AMS 4141 OR TYPE 7075-T7351 ALUMINUM ALLOY BAR PER AMS 4124

2. HEAT TREATMENT:

- a. MATERIAL CODE LETTER T: NONE
- b. MATERIAL CODE LETTER V: HEAT TREAT TO CONDITION H-1075 PER AMS 2759/3
- c. MATERIAL CODE LETTER W: NONE

/3/ FINISH:

- a. MATERIAL CODE LETTER T: FLUORIDE PHOSPHATE CONVERSION COAT PER AMS 2486
- b. MATERIAL CODE LETTER V:
 - (1) V CODE PARTS TO BE PASSIVATED ONLY WILL HAVE NO FINISH CODE LETTER AFTER THE SIZE CODE IN THE PART NUMBER. THE FINISH WILL BE: PASSIVATE PER QQ-P-35, TYPE II OR VIII.
 - (2) V CODE PARTS TO BE CADMIUM PLATED ONLY WILL HAVE THE FINISH CODE LETTER "P" AFTER THE SIZE CODE IN THE PART NUMBER. THE FINISH WILL BE: CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2.
- c. MATERIAL CODE LETTER W: ANODIZE PER AMS 2472 OR PER MIL-A-8625, TYPE II, CLASS 2 DYED BROWN SIMILAR TO COLOR 10080 OF FED-STD-595

/4/ PROCUREMENT SPECIFICATION: MIL-F-18280 EXCEPT AS SPECIFIED ON THIS STANDARD. THIS PART SHALL BE QUALIFIED TO THE PROCUREMENT SPECIFICATION AS APPLICABLE IN A COMPLETE ASSEMBLY. USERS OF THIS STANDARD ARE ADVISED TO CONTROL SOURCE APPROVAL(S) BY STANDARD PAGE SUPPLEMENT SHEET OR SIMILAR MEANS.

/5/ IDENTIFICATION AT LOCATION SHOWN: MARK PER AS478 CLASS C OR D OR METHOD 7A3, 15A3, OR 15B. MANUFACTURER'S NAME, TRADEMARK OR CAGE CODE, BASIC PART NUMBER, AND MATERIAL CODE LETTER.

6. THIS PART IS DESIGNED FOR USE IN SYSTEMS WITH OPERATING PRESSURES AS FOLLOWS:

- a. SIZES -20 AND -24 TITANIUM ALLOY AND CORROSION RESISTANT STEEL AT 3000 psi
- b. SIZES -20 AND -24 ALUMINUM ALLOY AT 600 psi

LARGEST PORT DETERMINES PRESSURE RATING.

7. WHEN MACHINED FROM BAR OR OVERSIZED FORGINGS, THE CENTER BODY SECTION SHALL CONFORM TO AS1376 TABLE 10.

/8/ RADIUS APPLICABLE FOR TITANIUM PARTS ONLY.

/9/ PORT #1 DETERMINES FORGING SIZE. MINIMUM FORGING SIZE IS -20.

/10/ PORT #1 IS LARGER THAN PORT #2.

11. THE (R) IS FOR THE CONVENIENCE OF THE USER IN LOCATING AREAS WHERE TECHNICAL REVISIONS, NOT EDITORIAL CHANGES, HAVE BEEN MADE TO THE PREVIOUS ISSUE OF THIS SPECIFICATION. IF THE SYMBOL IS NEXT TO THE SPECIFICATION TITLE, IT INDICATES A COMPLETE REVISION OF THE REPORT.

12. INVENTORIED PARTS CONFORMING TO THE PREVIOUS "LETTER CHANGE" MAY BE USED TO DEPLETION.

13. INTERPRETATION OF DRAWING PER ARP4296.

14. SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36; REQUIREMENTS PER ANSI/ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES TO BE 125 μ in Ra.

15. BREAK EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.