

FEDERAL SUPPLY CLASS

4730

REV.
C

AS1034

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

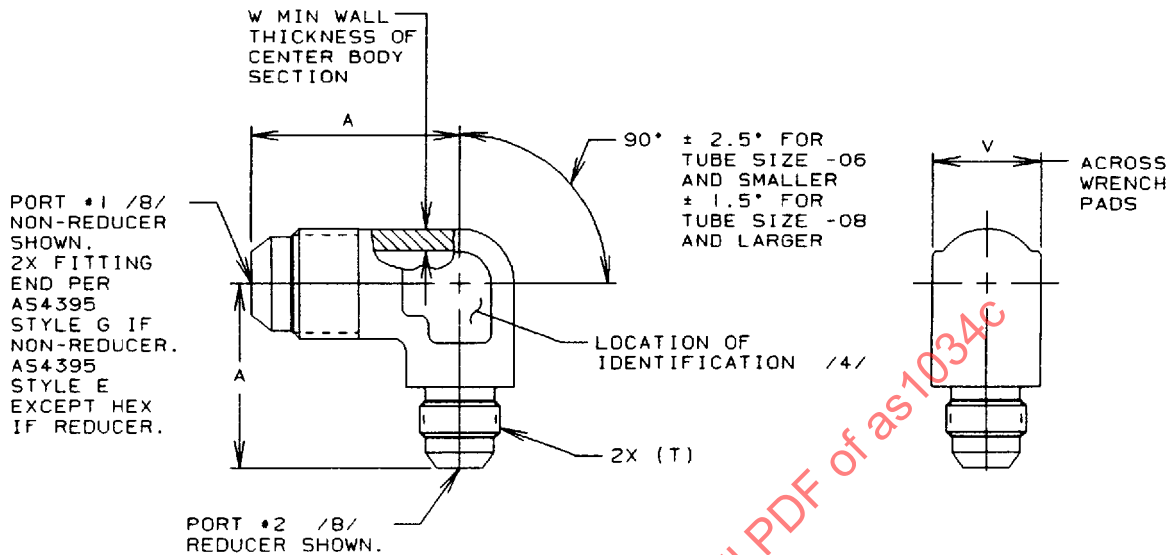
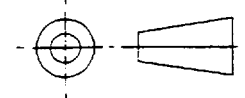


FIGURE 1 - ELBOW 90°

TABLE 1 - DIMENSIONS AND WEIGHTS

BASIC NO. AS1034	LB/EA MAX ALUM	LB/EA MAX CRES	LB/EA MAX TI
SIZE CODE	V	W	
02	.312	.090	-
03	.375	.100	-
04	.438	.110	-
05	.500	.120	-
06	.562	.120	-
08	.750	.150	-
10	.875	.170	-
12	1.062	.185	-
16	1.312	.205	-
20	1.625	.240	-
24	1.875	.250	-
32	2.562	.350	-

THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: /3/ MIL-F-5509

SAE The Engineering Society
For Advancing Mobility
Land Sea Air and Space
INTERNATIONAL

400 Commonwealth Drive, Warrendale, PA 15096-0001

AEROSPACE STANDARDELBOW, 90°, STANDARD AND
REDUCER, FLARED TUBE**AS1034**

SHEET 1 OF 4

REV.**C**

REV.
C

AS1034

TABLE 2 - LEG LENGTH A

SIZE OF PORTS	FORGING SIZE /9/ 02	FORGING SIZE /9/ 03	FORGING SIZE /9/ 04	FORGING SIZE /9/ 05	FORGING SIZE /9/ 06	FORGING SIZE /9/ 08	FORGING SIZE /9/ 10	FORGING SIZE /9/ 12	FORGING SIZE /9/ 16	FORGING SIZE /9/ 20	FORGING SIZE /9/ 24	FORGING SIZE /9/ 32
02	.788	.820	.820	.874	.978	1.064	1.166	1.263	1.373	1.576	1.716	2.201
03	-	.851	.843	.905	1.009	1.095	1.197	1.294	1.404	1.607	1.747	2.232
04	-	-	.914	.976	1.080	1.166	1.268	1.365	1.475	1.678	1.818	2.303
05	-	-	-	.976	1.080	1.166	1.268	1.365	1.475	1.678	1.818	2.303
06	-	-	-	-	1.086	1.172	1.274	1.371	1.481	1.684	1.824	2.309
08	-	-	-	-	-	1.273	1.375	1.472	1.582	1.786	1.925	2.410
10	-	-	-	-	-	-	1.476	1.573	1.683	1.886	2.026	2.511
12	-	-	-	-	-	-	-	1.679	1.789	1.992	2.132	2.617
16	-	-	-	-	-	-	-	-	1.836	2.039	2.179	2.664
20	-	-	-	-	-	-	-	-	-	2.086	2.226	2.771
24	-	-	-	-	-	-	-	-	-	-	2.351	2.836
32	-	-	-	-	-	-	-	-	-	-	-	3.086

TABLE 3 - TUBE SIZE AND CORRESPONDING THREAD

PORT SIZE	(NOMINAL TUBE SIZE)	T THREAD PER MIL-S-8879
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

REV.
C

AS1034

NOTES:

/1/ MATERIAL:

- a. NO CODE LETTER - 1137 STEEL FORGING OR BAR PER AMS 5024 OR ASTM A 108, OR 4130 STEEL FORGING OR BAR PER AMS 6370 OR MIL-S-6758.
- b. CODE LETTER D - 2014T6 ALUMINUM ALLOY FORGING PER AMS 4133 OR QQ-A-367; OR 2024T6 ALUMINUM ALLOY BAR PER AMS 4112 OR QQ-A-225/6; OR 2024T851 ALUMINUM ALLOY BAR PER QQ-A-225/6.
- c. CODE LETTER J - 30304 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS 5639 OR 304 CORROSION RESISTANT STEEL PER QQ-S-763.
- d. CODE LETTER K - 30316 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS 5648 OR 316 CORROSION RESISTANT STEEL PER QQ-S-763.
- e. CODE LETTER S - 30347 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS 5646 OR 347 CORROSION RESISTANT STEEL PER QQ-S-763.
- f. CODE LETTER T - 6AL4V TITANIUM ALLOY FORGING OR BAR PER AMS 4928.
- g. CODE LETTER W - 7075T73 ALUMINUM ALLOY FORGING PER AMS 4141 OR QQ-A-367; OR 7075T7351 ALUMINUM ALLOY BAR PER AMS 4124; OR 7075T73 ALUMINUM ALLOY BAR PER QQ-A-225/9.

2. FINISH:

- a. NO MATERIAL CODE LETTER - CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2, DYE BLACK.
- b. MATERIAL CODE LETTER D - ANODIZE PER AMS 2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BLUE, DUPLEX SEAL.
- c. MATERIAL CODE LETTER J - PASSIVATE PER QQ-P-35, TYPE VI OR VII.
- d. MATERIAL CODE LETTER K - PASSIVATE PER QQ-O-35, TYPE VI OR VII.
- e. MATERIAL CODE LETTER S - PASSIVATE PER QQ-P-35, TYPE VI OR VII.
- f. MATERIAL CODE LETTER T - FLUORIDE PHOSPHATE CONVERSION COAT PER AMS 2486.
- g. MATERIAL CODE LETTER W - ANODIZE PER AMS 2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BROWN, DUPLEX SEAL.

/3/ PROCUREMENT SPECIFICATION: MIL-F-5509 EXCEPT AS SPECIFIED ON THIS STANDARD. USERS OF THIS STANDARD ARE ADVISED TO CONTROL SOURCE APPROVAL(S) BY STANDARD PAGE SUPPLEMENT SHEET OR SIMILAR MEANS.

/4/ IDENTIFICATION AT LOCATION SHOWN: MARK PER AS476 CLASS C OR D OR METHOD 7A3, 15A3, OR 15B.

- a. FOR SIZES 06 (.375 OD TUBE SIZE) AND SMALLER MANUFACTURER'S NAME, CAGE NUMBER OR TRADEMARK, LETTERS "AS", AND MATERIAL CODE LETTER FOR CORROSION RESISTANT STEEL, TITANIUM AND 7075 ALUMINUM. NO MATERIAL CODE LETTER FOR CARBON STEEL EXCEPT LETTER "F" MAY APPEAR ON PARTS MADE FROM 4130 STEEL. LETTER "D" IS OPTIONAL ON PARTS MADE FROM 2014 AND 2024 ALUMINUM.
- b. FOR SIZES 08 (.500 OD TUBE SIZE) AND LARGER, MANUFACTURER'S NAME, CAGE NUMBER OR TRADEMARK, BASIC PART NUMBER, AND MATERIAL CODE LETTER FOR CORROSION RESISTANT STEEL, TITANIUM AND 7075 ALUMINUM. NO MATERIAL CODE LETTER FOR CARBON STEEL EXCEPT LETTER "F" MAY APPEAR ON PARTS MADE FROM 4130 STEEL. LETTER "D" IS OPTIONAL ON PARTS MADE FROM 2014 AND 2024 ALUMINUM.

THE PRESENCE OF SYMBOL "A" OR LETTERS "AN", "MS" OR "AN821", "MS24401" OR COMPLETE PART NUMBER FOR NONREDUCER FITTINGS SHALL NOT BE CAUSE FOR REJECTION.

- 5. THIS PART IS DESIGNED FOR USE AS SPECIFIED IN THE PROCUREMENT SPECIFICATION. FOR REDUCER CONFIGURATION, PRESSURE RATING IS DETERMINED BY LARGEST PORT.
- 6. THE NONREDUCER CONFIGURATION IS FUNCTIONALLY EQUIVALENT TO AN821 AND MS24401 FOR THE CORRESPONDING FORGING SIZE.
- /7/ WHEN MACHINED FROM BAR STOCK OR OVERSIZED FORGING, THE CENTER BODY DIMENSIONS SHALL CONFORM TO AS1376, TABLE 1.
- /8/ PORT #1 IS LARGER OR THE SAME SIZE AS PORT #2.
- /9/ FORGING SIZE IS DETERMINED BY LARGEST PORT REGARDLESS OF LOCATION.
- 10. INTERPRETATION OF DRAWING PER ARP4296.

SAE The Engineering Society
For Advancing Mobility
Land Sea Air and Space
INTERNATIONAL

AEROSPACE STANDARD

ELBOW, 90°, STANDARD AND
REDUCER, FLARED TUBE

AS1034
SHEET 3 OF 4

REV.
C