

REV.
A

SAE AS5242

FEDERAL SUPPLY CLASS
4730

RATIONALE

PROCUREMENT SPECIFICATION CHANGED FROM AS4444 TO AS18280 AND PROCUREMENT NOTE CLARIFIED. WARNING NOTICE FOR CADMIUM PLATING HAS BEEN INSERTED. UPDATES MADE TO BRING MATERIAL, HEAT TREAT, FINISH, AND PROCUREMENT REQUIREMENTS INTO COMPLIANCE WITH AS18280C. ADDED OPTION FOR OXYGEN CLEANING AND PACKAGING TO ARP1176.

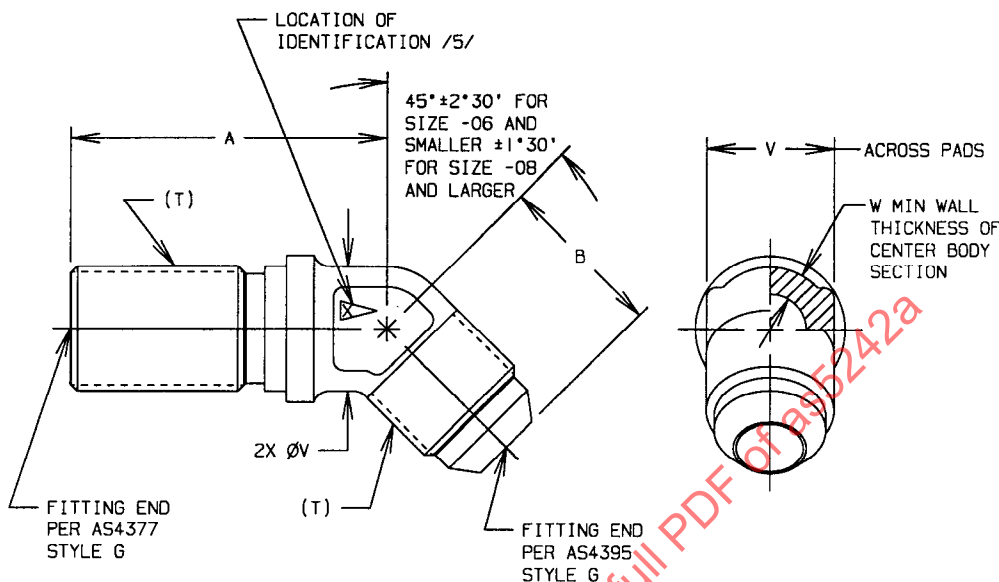


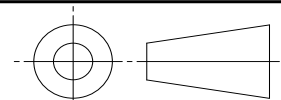
FIGURE 1 - FITTING, ELBOW, 45°

TABLE 1A - DIMENSIONS

BASIC NO. AS5242 /14/ SIZE CODE	(NOMINAL TUBE SIZE)	T-THREAD PER AS8879 CLASS 3A	A ±.023	B ±.023	V
03	.188	.3750-24 UNJF	1.351	.664	.360-.377
04	.250	.4375-20 UNJF	1.476	.726	.423-.440
05	.312	.5000-20 UNJF	1.476	.773	.485-.502
06	.375	.5625-18 UNJF	1.586	.836	.547-.565
08	.500	.7500-16 UNJF	2.836	.992	.735-.753
10	.625	.8750-14 UNJF	2.070	1.117	.860-.878
12	.750	1.0625-12 UNJ	2.273	1.289	1.047-1.065
16	1.000	1.3125-12 UNJ	2.398	1.476	1.292-1.317
20	1.250	1.6250-12 UNJ	2.429	1.601	1.605-1.630
24	1.500	1.8750-12 UNJ	2.445	1.789	1.855-1.880
32	2.000	2.5000-12 UNJ	2.601	2.226	2.542-2.572

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS5242A>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS18280

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

FITTING, ELBOW, 45°, BULKHEAD,
FLARELESS TO FLARED

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TABLE 1B - DIMENSIONS AND WEIGHTS

BASIC NO. AS5242 /14/ SIZE CODE	W	LB/EA APPROX REF AL	LB/EA APPROX REF STEEL	LB/EA APPROX REF TI
03	.100	.0197	.0566	.0312
04	.110	.0266	.0762	.0421
05	.120	.0341	.0980	.0540
06	.120	.0433	.124	.0686
08	.150	.0922	.265	.146
10	.170	.137	.349	.218
12	.185	.216	.621	.343
16	.205	.316	.905	.500
20	.240	.535	1.53	.846
24	.250	.707	2.03	1.12
32	.350	1.61	4.62	2.55

NOTES:

NOTICE

THIS DOCUMENT REFERENCES A PART WHICH CONTAINS CADMIUM AS A PLATING MATERIAL. CONSULT LOCAL OFFICIALS IF YOU HAVE QUESTIONS CONCERNING CADMIUM'S USE.

/1/ MATERIAL:

- a. DASH AS CODE LETTER - TYPE 4130 ALLOY STEEL FORGING OR BAR PER AMS6370. /2/
- b. CODE LETTER D - TYPE 2014-T6 ALUMINUM ALLOY FORGING PER AMS4134; OR TYPE 2024-T6 ALUMINUM ALLOY BAR PER AMS4339 OR AMS-QQ-A-225/6; OR TYPE 2024-T851 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6. /2/
- c. CODE LETTER J - TYPE 304 CORROSION RESISTANT STEEL PER AMS5639.
- d. CODE LETTER K - TYPE 316 CORROSION RESISTANT STEEL PER AMS5648.
- e. CODE LETTER R - TYPE 321 CORROSION RESISTANT STEEL PER AMS5645.
- f. CODE LETTER T - TYPE 6AL-4V TITANIUM ALLOY PER AMS4928.
- g. CODE LETTER W - TYPE 7075-T73 ALUMINUM ALLOY FORGING PER AMS4141; OR TYPE 7075-T7351 ALUMINUM ALLOY BAR PER AMS4124; OR TYPE 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9. /2/

/2/ HEAT TREATMENT:

- a. DASH AS CODE LETTER - SEE HARDNESS REQUIREMENT PER PROCUREMENT SPECIFICATION.
- b. CODE LETTERS D AND W - SEE ELECTRICAL CONDUCTIVITY AND HARDNESS REQUIREMENT PER PROCUREMENT SPECIFICATION.
- c. OTHER CODE LETTERS - NONE.

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3. FINISH:

- a. DASH AS CODE LETTER - CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2 AND COAT WITH A LIGHT FILM OF OIL PER PROCUREMENT SPECIFICATION.
- b. CODE LETTER D - ANODIZE PER MIL-A-8625, TYPE II, CLASS 2, DYE GREEN, DUPLEX SEAL PER PROCUREMENT SPECIFICATION.
- c. CODE LETTER J, K AND R - PASSIVATE PER AMS2700 PER PROCUREMENT SPECIFICATION.
- d. CODE LETTER T - ANODIZE PER AMS2488 OR FLUORIDE PHOSPHATE CONVERSION COAT PER AMS2486 WITH COLOR PER PROCUREMENT SPECIFICATION.
- e. CODE LETTER W - ANODIZE PER MIL-A-8625, TYPE II, CLASS 2, DYE BROWN, DUPLEX SEAL PER PROCUREMENT SPECIFICATION.

/4/ PROCUREMENT SPECIFICATION: AS18280 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED BY AN ACCREDITED MANUFACTURER AS LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST PRI-QPL-AS18280 FOR THIS STANDARD. SEE <http://www.eauditnet.com> FOR CURRENT QPL ONLINE.

NOTE: PRI-QPL LIMITATION - WITH REVISION A OF THIS STANDARD THE PROCUREMENT SPECIFICATION HAS BEEN CHANGED FROM AS4444 FOR 5000 psi TO AS18280 FOR 3000 psi. USERS OF THIS FITTING FOR 5000 psi APPLICATIONS PER AS4444 ARE ADVISED TO CONTROL SOURCE APPROVAL BY STANDARD PAGE SUPPLEMENT OR SIMILAR MEANS.

/5/ IDENTIFICATION AT LOCATION SHOWN: MARK PER AS478 CLASS C OR D OR METHOD 7A3, 15A3, OR 15B.

- a. FOR SIZE 06 AND SMALLER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, LETTER "AS", MATERIAL CODE LETTER AND FORGING MANUFACTURER'S IDENTIFICATION, WHEN MADE FROM FORGING.
- b. FOR SIZE 08 AND LARGER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, BASIC PART NUMBER, MATERIAL CODE LETTER AND FORGING MANUFACTURER'S IDENTIFICATION, WHEN MADE FROM FORGING.

6. INTENDED USE:

- a. THIS STANDARD IS THE FUNCTIONAL EQUIVALENT OF MS24654 AND IS INTENDED TO BE SUITABLE AS A REPLACEMENT STANDARD.
- b. CLEANING OF ALUMINUM ALLOY AND CORROSION RESISTANT STEEL FITTINGS IN ACCORDANCE WITH ARP1176 (CODE LETTER "A") IS REQUIRED FOR OXYGEN SYSTEMS TO AVOID FIRE DUE TO PARTICLES OR OTHER CONTAMINANTS.

7. WHEN MACHINED FROM BAR OR OVERSIZE FORGING, THE CENTER BODY DIMENSIONS SHALL CONFORM TO AS1376, TABLE 1.

8. INTERPRETATION OF DRAWING PER ARP4296.

/9/ ALUMINUM AND CORROSION RESISTANT STEEL PARTS USED IN OXYGEN SYSTEMS SHALL BE CLEANED AND PACKAGED IN ACCORDANCE WITH ARP1176 CATEGORY 2 FOR ALUMINUM AND CATEGORY 1C FOR CORROSION RESISTANT STEEL. THE CODE LETTER "A" SHALL BE ADDED TO THEIR PART NUMBER FOR IDENTIFICATION.

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