

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 revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

REV.
D

AS5196™

FEDERAL SUPPLY CLASS
4730

RATIONALE

"INACTIVE" STATUS REPLACED BY "NOT RECOMMENDED." CADMIUM WARNING NOTE RELOCATED AS FIRST NOTE. ALTERNATE MATERIALS ADDED TO NOTE 1. SPECIFICATION CALLOUTS UPDATED TO CURRENT ISSUE. NOTE 3.g.2 REVISED. QML STATEMENT REVISED. "INTENDED USE" NOTE REVISED. NEW NOTE 18 ADDED.

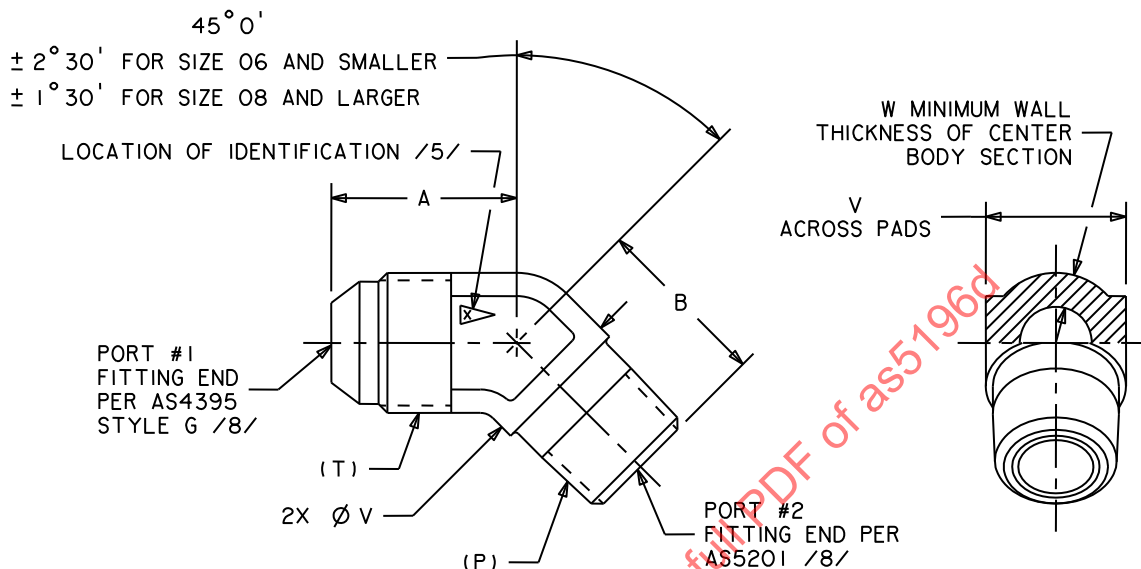
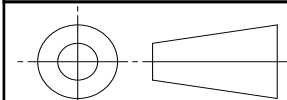


FIGURE 1 - FITTING, ELBOW, 45°

NOT RECOMMENDED IN PART - SEE NOTE /17/

For more information on this standard, visit
<https://www.sae.org/standards/content/AS5196D>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS4842/1 /4/



AEROSPACE STANDARD

(R) FITTING, ELBOW, 45°,
FLARED TO PIPE

AS5196™
SHEET 1 OF 4

REV.
D

TABLE 1 - DIMENSIONS A-B

BASIC NO. AS5196 /16/ SIZE CODE	(NOMINAL TUBE SIZE) PORT #1	(NOMINAL PIPE SIZE) PORT #2	P THREAD PER AS71051 ANPT	T THREAD PER AS8879 CLASS 3A	PORT #2 STYLE	A	B ±.016
0202	.125	.125	1/8-27	.3125-24 UNJF	B	.665	.500
0302	.188	.125	1/8-27	.3750-24 UNJF	B	.665	.500
0402	.250	.125	1/8-27	.4375-20 UNJF	C	.726	.625
0502	.312	.125	1/8-27	.5000-20 UNJF	C	.774	.625
0604	.375	.250	1/4-18	.5625-18 UNJF	A	.837	.844
0806	.500	.375	3/8-18	.7500-16 UNJF	C	.993	.938
1008	.625	.500	1/2-14	.8750-14 UNJF	C	1.118	1.156
1212	.750	.750	3/4-14	1.0625-12 UNJ	A	1.290	1.188
1612	1.000	.750	3/4-14	1.3125-12 UNJ	C	1.477	1.250
1616	1.000	1.000	1-11 1/2	1.3125-12 UNJ	A	1.477	1.469
2016	1.250	1.000	1-11 1/2	1.6250-12 UNJ	C	1.602	1.531
2020	1.250	1.250	1 1/4-11 1/2	1.6250-12 UNJ	B	1.602	1.656
2420	1.500	1.250	1 1/4-11 1/2	1.8750-12 UNJ	C	1.790	1.656
2824	1.750	1.500	1 1/2-11 1/2	2.2500-12 UNJ	C	1.977	2.000
3232	2.000	2.000	2-11 1/2	2.5000-12 UNJ	C	2.227	2.094

TABLE 1A - DIMENSIONS V-W AND WEIGHTS

BASIC NO. AS5196 /16/ SIZE CODE	V	W	LB/EA APPROX REF AL	LB/EA APPROX REF COPPER	LB/EA APPROX REF STEEL
0202	.297-.314	.090	.00918	.0279	.0268
0302	.360-.377	.100	.0133	.0405	.0383
0402	.423-.440	.110	.0189	.0575	.0543
0502	.485-.502	.120	.0251	.0765	.0722
0604	.547-.565	.120	.0356	.108	.103
0806	.735-.753	.150	.0732	.222	.210
1008	.860-.878	.170	.110	.334	.316
1212	1.047-1.065	.185	.173	.527	.497
1612	1.292-1.317	.205	.298	.909	.855
1616	1.292-1.317	.205	.278	.846	.799
2016	1.605-1.630	.240	.549	1.67	1.58
2020	1.605-1.630	.240	.469	1.42	1.35
2420	1.855-1.880	.250	.712	2.16	2.04
2824	2.230-2.260	.350	1.23	4.74	3.54
3232	2.542-2.572	.350	1.78	5.41	5.10



AEROSPACE STANDARD

(R) FITTING, ELBOW, 45°,
FLARED TO PIPEAS5196™
SHEET 2 OF 4REV.
D

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 – LOW ALLOY STEEL FORGING OR BAR, TYPE 4130 PER AMS-S-6758 OR AMS6370, OR TYPE 4140 PER AMS6349 OR AMS6382.
- b. CODE LETTER B – TYPE 377 COPPER ALLOY FORGING PER ASTM B124/B-124M OR AMS4614, OR BAR PER ASTM B138/B-138M.
- c. CODE LETTER D – TYPE 2014-T6 ALUMINUM ALLOY FORGING PER AMS-QQ-A-367 OR AMS4133, OR TYPE 2024-T6 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6, OR TYPE 2024-T851 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6 OR AMS4339. /17/
- d. CODE LETTER J – TYPE 304 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS-QQ-S-763 OR AMS5639.
- e. CODE LETTER K – TYPE 316 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS-QQ-S-763 OR AMS5648.
- f. CODE LETTER R – TYPE 321 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS-QQ-S-763 OR AMS5645.
- g. CODE LETTER W – TYPE 7075-T73 ALUMINUM ALLOY FORGING PER AMS-QQ-A-367 OR AMS4141, OR TYPE 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9, OR TYPE 7075-T7351 ALUMINUM ALLOY BAR PER AMS4124.

2. HEAT TREATMENT:

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

3. FINISH:

- a. DASH AS CODE LETTER – CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2, DYE BLACK AND COAT WITH A LIGHT FILM OF OIL PER PROCUREMENT SPECIFICATION.
- b. MATERIAL CODE LETTER B – CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 3 OR NONE.
- c. MATERIAL CODE LETTER D – ANODIZE PER AMS2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BLUE, DUPLEX SEAL PER PROCUREMENT SPECIFICATION.
- d. MATERIAL CODE LETTER J – PASSIVATE PER AMS2700, TYPE 6 OR 7.
- e. MATERIAL CODE LETTER K – PASSIVATE PER AMS2700, TYPE 6 OR 7.
- f. MATERIAL CODE LETTER R – PASSIVATE PER AMS2700, TYPE 6 OR 7.
- g. MATERIAL CODE LETTER W:
 1. ANODIZE PER AMS2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BROWN, DUPLEX SEAL PER PROCUREMENT SPECIFICATION.
 2. MATERIAL CODE W PARTS TO BE COATED WITH HIGH PURITY ALUMINUM ONLY WILL HAVE THE FINISH CODE LETTER "V" AFTER THE SIZE CODE IN THE PART NUMBER. HIGH PURITY ALUMINUM COAT PER PROCUREMENT SPECIFICATION. /16/

/4/ PROCUREMENT SPECIFICATION: AS4842/1 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT MANUFACTURED TO THIS STANDARD SHALL MEET THE REQUIREMENTS SPECIFIED HEREIN AND THE PROCUREMENT SPECIFICATION. ORIGINAL COMPONENT MANUFACTURERS (OCM) AND VALUE ADDED DISTRIBUTORS (VAD) SHALL BE LISTED IN THE NADCAP QUALIFIED MANUFACTURER LIST (QML) FOR THIS PRODUCT TYPE. THE QML IS AVAILABLE AT www.eAuditNet.com.

	AEROSPACE STANDARD	AS5196™ SHEET 3 OF 4	REV. D
	(R) FITTING, ELBOW, 45°, FLARED TO PIPE		