FEDERAL SUPPLY CLASS
4730

RATIONALE

AS5193A HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

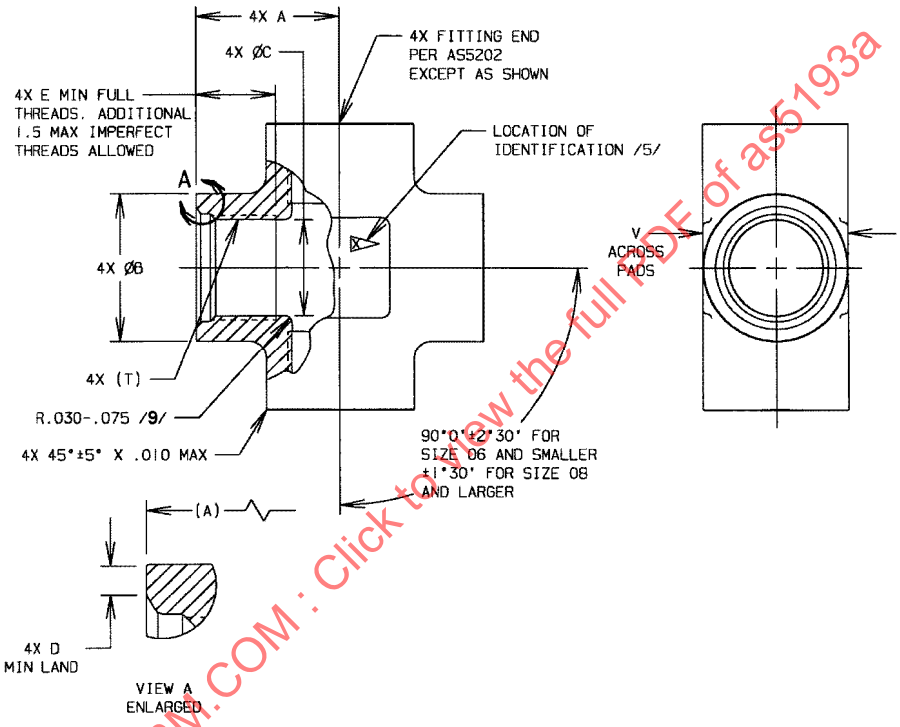
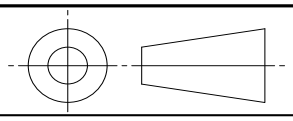


FIGURE 1 - FITTING, CROSS

INACTIVE IN PART /18/

SAE values your input. To provide feedback on this Technical Report, please visit
http://www.sae.org/technical/standards/AS5193A

THIRD ANGLE PROJECTION



ISSUED 2000-07 REVISED 2009-03 REAFFIRMED 2015-04

CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS4875

AEROSPACE STANDARD

FITTING, CROSS, INTERNAL
STRAIGHT THREAD PORT

AS5193
SHEET 1 OF 4

REV. A

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TABLE 1 - DIMENSIONS AND WEIGHTS

BASIC NO. AS5193 /15/ SIZE CODE	(NOMINAL TUBE SIZE)	T THREAD PER AS8879 CLASS 3B	A	B ±.016	C -.015/+.000	D	E	V	LB/EA APPROX. REF AL	LB/EA APPROX. REF STEEL	LB/EA APPROX. REF TI
04	.250	.4375-20 UNJF	.787	.688	.397	.040	.483	.735- .753	.0608	.175	.0963
05	.312	.5000-20 UNJF	.787	.750	.459	.040	.452	.735- .753	.0611	.176	.0972
06	.375	.5625-18 UNJF	.849	.813	.516	.040	.475	.797- .815	.0733	.211	.116
08	.500	.7500-16 UNJF	1.037	1.063	.697	.071	.569	1.047-1.065	.141	.406	.224
10	.625	.8750-14 UNJF	1.193	1.188	.815	.071	.638	1.173-1.191	.189	.544	.300
12	.750	1.0625-12 UNJ	1.396	1.438	.991	.077	.730	1.418-1.443	.317	.909	.300
16	1.000	1.3125-12 UNJ	1.568	1.688	1.241	.077	.777	1.668-1.693	.416	1.188	.658
20	1.250	1.6250-12 UNJ	1.771	2.000	1.553	.077	.824	1.980-2.005	.549	1.575	.869

NOTICE:

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

NOTES:

/1/ MATERIAL:

a. DASH AS CODE LETTER - TYPE 4130 STEEL FORGING OR BAR PER AMS-S-6758 OR AMS 6370, OR TYPE 4140 STEEL BAR PER AMS 6382. /2/

b. CODE LETTER D - 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 AMS 4339. /17/

c. CODE LETTER J - TYPE 304 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS5639

d. CODE LETTER K - TYPE 316 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS5648.

e. CODE LETTER R - TYPE 321 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS5645.

f. CODE LETTER S - TYPE 347 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS5646. /17/

g. CODE LETTER T - TYPE 6AL-4V TITANIUM ALLOY FORGING OR BAR PER AMS4928. /16/

h. CODE LETTER W - TYPE 7075-T73 ALUMINUM ALLOY FORGING PER AMS4141; OR TYPE 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9; OR TYPE 7075-T7351 ALUMINUM ALLOY BAR PER AMS4124. /2/

/2/ HEAT TREATMENT:

a. DASH AS MATERIAL CODE LETTER - SEE HARDNESS REQUIREMENT PER PROCUREMENT SPECIFICATION.

b. MATERIAL CODE LETTER W - SEE PROCUREMENT SPECIFICATION.

c. OTHER MATERIAL CODE LETTERS - NONE.

3. FINISH:

a. DASH AS MATERIAL 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 D:

1. ANODIZE PER AMS2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BLUE, DUPLEX SEAL PER PROCUREMENT SPECIFICATION.

2. D CODE PARTS TO BE COATED WITH HIGH PURITY ALUMINUM ONLY WILL HAVE THE FINISH CODE LETTER "V" PLACED AFTER THE SIZE CODE IN THE PART NUMBER. THE FINISH WILL BE: COAT WITH HIGH PURITY ALUMINUM PER MIL-DTL-83488, CLASS 3, TYPE II, WITH MAXIMUM COATING THICKNESS OF .0005. GLASS BEAD PEEN PRESSURE SHALL BE 25 psi MAXIMUM. /15/

c. MATERIAL CODE LETTERS J, K, R AND S - PASSIVATE PER AMS2700 TYPE 6 OR 7.

d. MATERIAL CODE LETTER T - ANODIZE PER AMS2488, TYPE 2 OR FLUORIDE PHOSPHATE CONVERSION COAT PER AMS2486 WITH COLOR PER PROCUREMENT SPECIFICATION.

e. MATERIAL CODE LETTER W:

1. ANODIZE PER AMS2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BROWN, DUPLEX SEAL PER PROCUREMENT SPECIFICATION.

2. W CODE PARTS TO BE COATED WITH HIGH PURITY ALUMINUM ONLY WILL HAVE THE FINISH CODE LETTER "V" PLACED AFTER THE SIZE CODE IN THE PART NUMBER. THE FINISH WILL BE: COAT WITH HIGH PURITY ALUMINUM PER MIL-DTL-83488, CLASS 3, TYPE II, WITH MAXIMUM COATING THICKNESS OF .0005. GLASS BEAD PEEN PRESSURE SHALL BE 25 psi MAXIMUM. /15/

/4/ PROCUREMENT SPECIFICATION: AS4875 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED BY AN ACCREDITED MANUFACTURER LISTED IN THE NATIONAL AEROSPACE AND DEFENSE CONTRACTORS ACCREDITATION PROGRAM (NADCAP) QUALIFIED MANUFACTURER LIS FOR THIS PRODUCT TYPE. THE QML IS AVAILABLE AT www.eAuditNet.com..

/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, LETTERS "AS" AND MATERIAL CODE LETTER.

b. FOR SIZE 08 AND LARGER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, BASIC PART NUMBER AND MATERIAL CODE LETTER.

6. INTENDED USE: THIS PART IS DESIGNED FOR USE IN SYSTEMS WITH MAXIMUM OPERATING PRESSURES AS SHOWN IN TABLE 2.

TABLE 2 – OPERATING PRESSURES FOR ASSOCIATED MATERIAL

SIZE	MATERIAL	PSI
04-08	ALUMINUM ALLOY	3000
10-16	ALUMINUM ALLOY	1500
20	ALUMINUM ALLOY	1000
04-16	STEEL	3000
20	STEEL	1500
04-16	CORROSION RESISTANT STEEL	3000
20	CORROSION RESISTANT STEEL	1500
04-16	TITANIUM ALLOY	3000
20	TITANIUM ALLOY	1500