

REV.  
B

SAE AS4136

# RATIONALE

FEDERAL SUPPLY CLASS  
4730

THE PRI-QPL NOTE AND CADMIUM WARNING NOTE HAVE BEEN REVISED. CLARIFICATIONS TO PASSIVATION NOTE AND INTENDED USE NOTE HAVE BEEN ADDED, AND UPDATES MADE.

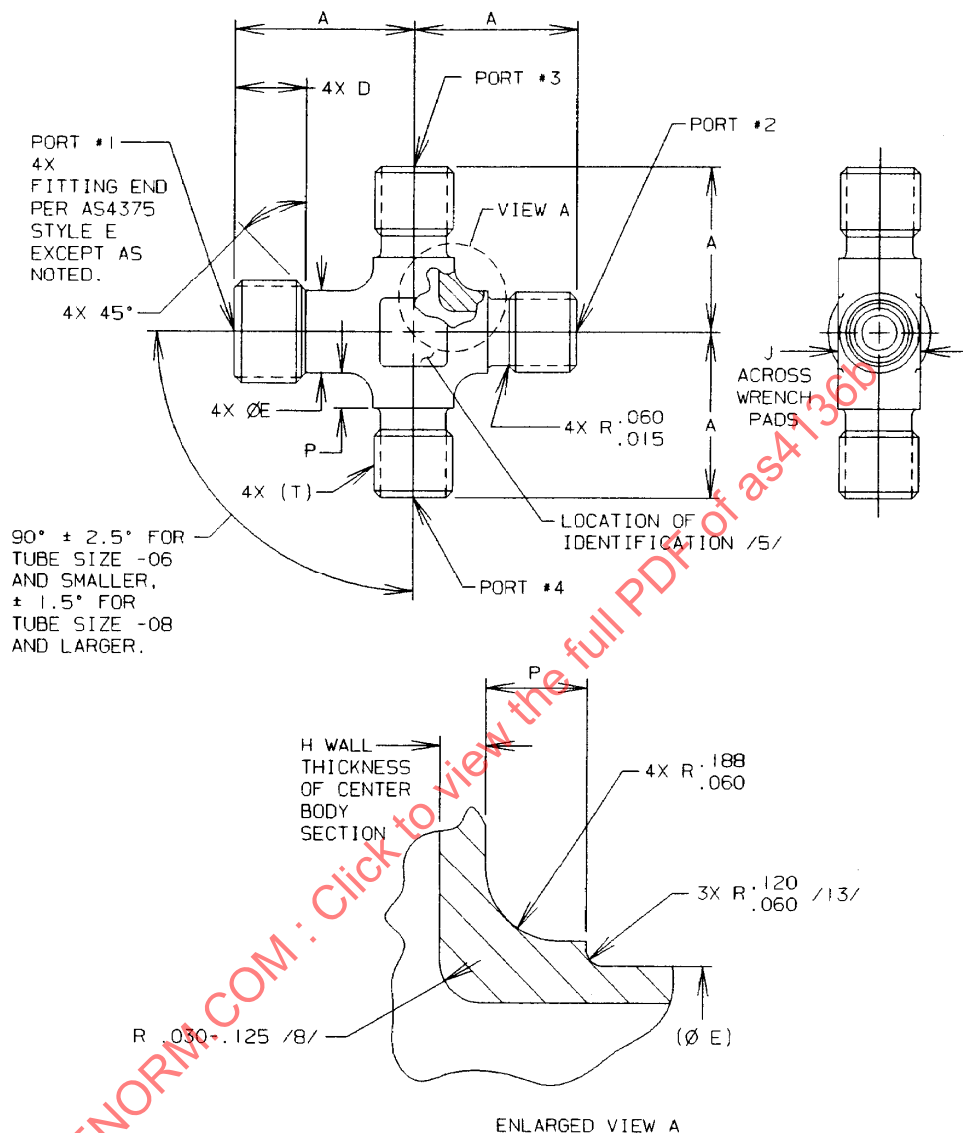
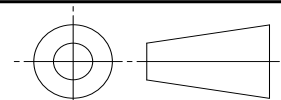


FIGURE 1 – CROSS, REDUCED BODY, FLARELESS

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS4136B>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS18280

**SAE Aerospace**  
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## AEROSPACE STANDARD

CROSS, STANDARD AND REDUCER, REDUCED BODY, FLARELESS

**SAE AS4136**  
SHEET 1 OF 4

REV.  
B

TABLE 1 – DIMENSIONS AND WEIGHTS

BASIC NO. AS4136 /18/ SIZE CODE	H MIN	J	P ±.030	LB/EA APPROX REF CRES	LB/EA APPROX REF TI
04	.050	.390	.030	.072	.040
05	.050	.453	.159	.083	.047
06	.050	.453	.137	.112	.063
08	.050	.577	.140	.217	.122
10	.070	.702	.157	.342	.192
12	.080	.890	.166	.512	.288
16	.090	1.140	.174	.763	.428
20	.110	1.390	.071	1.200	.674
24	.130	1.640	---	1.537	.863

TABLE 2 – FITTING END

SIZE CODE	TUBE OD	T THREAD PER AS8879 CLASS 3A	D	E
04	.250	.4375-20UNJF	.371	.350
05	.313	.5000-20UNJF	.371	.412
06	.375	.5625-18UNJF	.379	.453
08	.500	.7500-16UNJF	.461	.577
10	.625	.8750-14UNJF	.511	.702
12	.750	1.0625-12UNJ	.556	.890
16	1.000	1.3125-12UNJ	.556	1.140
20	1.250	1.6250-12UNJ	.556	1.390
24	1.500	1.8750-12UNJ	.556	1.640

TABLE 3 – LEG LENGTH A

FORGING SIZE	04	05	06	08	10	12	16	20	24
04	.898	---	---	---	---	---	---	---	---
05	.961	.961	---	---	---	---	---	---	---
06	1.039	1.039	1.055	---	---	---	---	---	---
08	1.164	1.164	1.180	1.273	---	---	---	---	---
10	1.258	1.258	1.274	1.367	1.430	---	---	---	---
12	1.351	1.351	1.367	1.460	1.523	1.586	---	---	---
16	1.507	1.507	1.523	1.616	1.679	1.742	1.742	---	---
20	1.663	1.663	1.679	1.772	1.835	1.896	1.896	1.898	---
24	1.788	1.788	1.804	1.897	1.960	2.023	2.023	2.023	2.023

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. CODE LETTER J: TYPE 304 CORROSION RESISTANT STEEL PER AMS5639
- b. CODE LETTER T: TYPE 6AL-4V TITANIUM ALLOY PER AMS4928
- c. CODE LETTER V: TYPE 15-5PH CORROSION RESISTANT STEEL PER AMS5659

2. HEAT TREATMENT

- a. MATERIAL CODE LETTER J: NONE
- b. MATERIAL CODE LETTER T: NONE
- c. MATERIAL CODE LETTER V: HEAT TREAT TO CONDITION H-1075 PER AMS2759/3

/3/ FINISH

- a. MATERIAL CODE LETTER J: PASSIVATE PER AMS2700 TYPE 6 OR 7
- b. MATERIAL CODE LETTER T: FLUORIDE PHOSPHATE CONVERSION COAT PER AMS2486
- c. MATERIAL CODE LETTER V:
  - (1) NO SUFFIX FINISH CODE LETTER: PASSIVATE PER AMS2700 TYPE 2 OR 8
  - (2) SUFFIX FINISH CODE LETTER "P": CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2

/4/ PROCUREMENT SPECIFICATION: AS18280 UNLESS SPECIFIED OTHERWISE 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 (QPL) PRI-QPL-AS18280 FOR THIS STANDARD. SEE [HTTP://WWW.EAUDITNET.COM](http://www.eauditnet.com) FOR CURRENT QPL ONLINE.

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

- a. FOR SIZES .06 (.375 OD TUBE SIZE) AND SMALLER: MANUFACTURER'S NAME, CAGE CODE OR TRADEMARK, LETTERS "AS", MATERIAL CODE LETTER AND FORGING MANUFACTURER'S IDENTIFICATION WHEN MADE FROM FORGING
- b. FOR SIZES .08 (.500 OD TUBE SIZE) 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. THIS PART IS INTENDED FOR USE IN SYSTEMS WITH OPERATING PRESSURES AS FOLLOWS:

- a. SIZES -04 THRU -16 AT 3000 psi
- b. SIZES -20 AND -24 AT 1500 psi

NOTE: OPERATING PRESSURES HAVE BEEN CHANGED FROM 4000 PSI AND 2000 PSI TO 3000 PSI AND 1500 PSI TO COMPLY WITH AS18280 SYSTEM PRESSURE REQUIREMENTS. USERS OF THIS STANDARD FOR 4000 PSI SYSTEM APPLICATIONS ARE ADVISED TO CONTROL SOURCE APPROVAL BY STANDARD PAGE SUPPLEMENT OR SIMILAR MEANS.

7. WHEN MACHINED FROM BAR OR OVERSIZED FORGING, THE CENTER BODY SECTION SHALL CONFORM TO AS1376, TABLE 2.

/8/ RADIUS APPLICABLE TO TITANIUM PARTS ONLY.

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

10. THIS PART IS A REDUCED BODY VERSION OF MS21906 IF NONREDUCER, OR AS1006 IF REDUCER.

/11/ SPECIFY END SIZES IN THIS ORDER: LARGEST END FIRST (PORT #1), OPPOSITE END ON RUN SECOND (PORT #2), LARGEST END ON SIDE THIRD (PORT #3), OPPOSITE END FOURTH (PORT #4).

 An SAE International Group	<b>AEROSPACE STANDARD</b>		<b>SAE AS4136</b> SHEET 3 OF 4	<b>REV.</b> <b>B</b>
	CROSS, STANDARD AND REDUCER, REDUCED BODY, FLARELESS			