

REV.
A

SAE AS4670

RATIONALE

FEDERAL SUPPLY CLASS
4730

CANCELED MILITARY STANDARD NUMBERS HAVE BEEN REPLACED. PRI-QPL NOTE HAS BEEN UPDATED AND CADMIUM WARNING NOTICE ADDED. OTHER UPDATES.

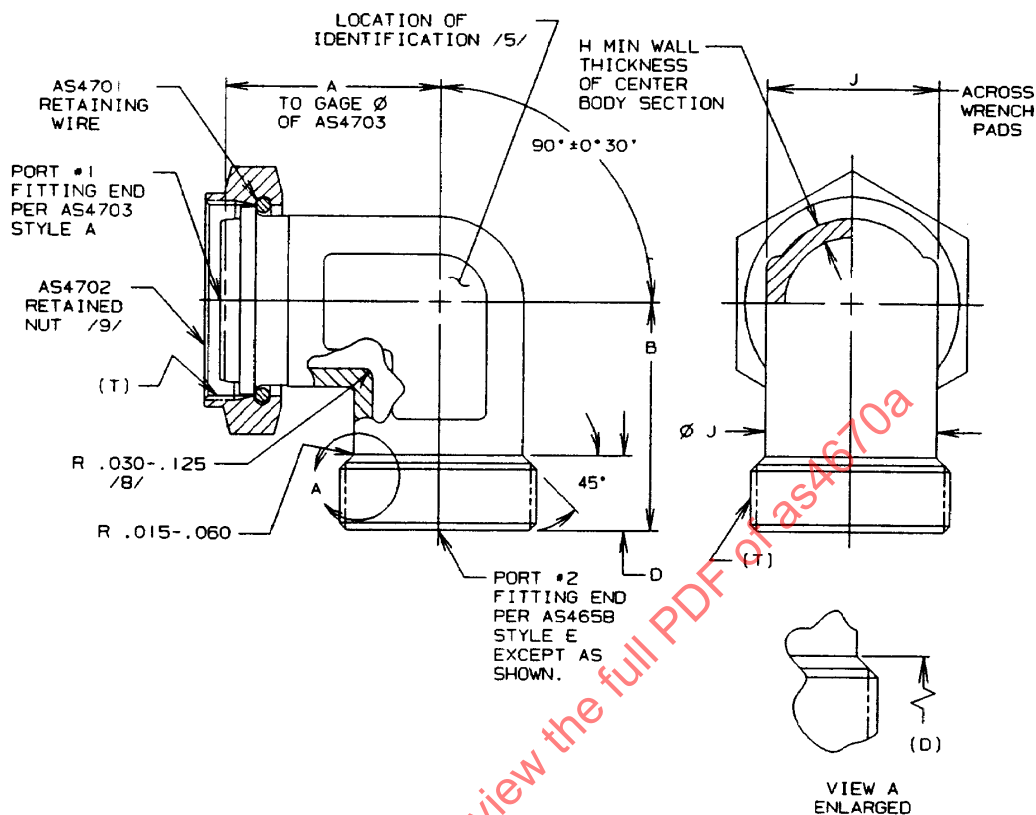


FIGURE 1 - ELBOW ASSEMBLY, 90°

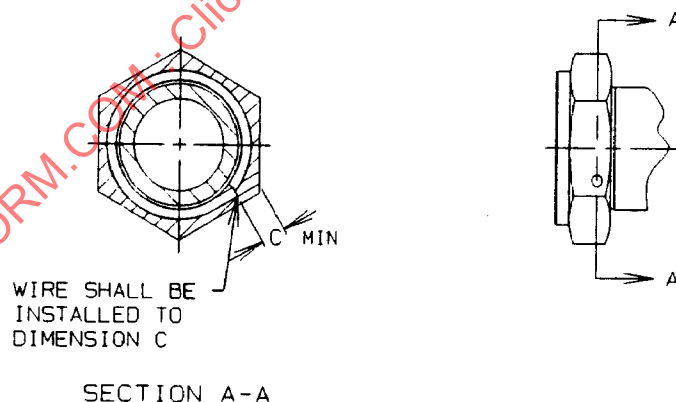
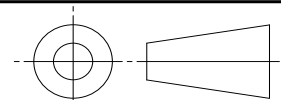


FIGURE 2 - INSTALLATION, RETAINED NUT AND RETAINING WIRE

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS4670A>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS18280

SAE Aerospace
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AEROSPACE STANDARD

ELBOW ASSEMBLY, 90°, RETAINER NUT, SHORT FLARELESS

SAE AS4670
SHEET 1 OF 4

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TABLE 1 - DIMENSIONS AND WEIGHTS

BASIC NO. AS4670 /10/ /17/ SIZE CODE	(NOMINAL TUBE SIZE)	T THREAD PER AS8879 CLASS 3A AND CLASS 3B	A	B	C	D	H	J +.005 -.020	LB/EA APPROX REF ALUM	LB/EA APPROX REF CRES	LB/EA APPROX REF TI
20	1.250	1.5625-12UNJ	1.603	1.678	.155	.517	.124	1.375	.332	.964	.560
24	1.500	1.8125-12UNJ	1.756	1.803	.180	.614	.156	1.688	.502	1.430	.828

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 T:

- (1) BODY: TYPE 6AL-4V TITANIUM ALLOY PER AMS4928
- (2) NUT: CODE LETTER T OF AS4702 REFERENCE (TYPE 6AL-4V TITANIUM ALLOY)
- (3) WIRE: PER AS4701 REFERENCE (CLASS 302 OR 305 CORROSION RESISTANT STEEL)

b. CODE LETTER V:

- (1) BODY: TYPE 15-5PH CORROSION RESISTANT STEEL PER AMS5659
- (2) NUT: CODE LETTER V OF AS4702 REFERENCE (TYPE 15-5PH CORROSION RESISTANT STEEL)
- (3) WIRE: PER AS4701 REFERENCE (CLASS 302 OR 305 CORROSION RESISTANT STEEL)

c. CODE LETTER W:

- (1) BODY: TYPE 7075-T73 ALUMINUM ALLOY FORGING PER AMS4141 OR TYPE 7075-T7351 ALUMINUM ALLOY BAR PER AMS4124
- (2) NUT: CODE LETTER W OF AS4702 REFERENCE (TYPE 7075-T73 ALUMINUM ALLOY)
- (3) WIRE: PER AS4701 REFERENCE (CLASS 302 OR 305 CORROSION RESISTANT STEEL)

2. HEAT TREATMENT:

a. MATERIAL CODE LETTER T:

- (1) BODY, NUT, AND WIRE: NONE

b. MATERIAL CODE LETTER V:

- (1) BODY: HEAT TREAT TO CONDITION H-1075 PER AMS2759/3
- (2) NUT: MATERIAL CODE LETTER V OF AS4702 REFERENCE (HEAT TREAT TO CONDITION H-1075)
- (3) WIRE: NONE

c. MATERIAL CODE LETTER W:

- (1) BODY, NUT, AND WIRE: NONE

/3/ FINISH:

a. MATERIAL CODE LETTER T:

- (1) BODY: FLUORIDE PHOSPHATE CONVERSION COAT PER AMS2486
- (2) NUT: CODE LETTER T OF AS4702 OR AS1790 WITH SUFFIX N REFERENCE (FLUORIDE PHOSPHATE CONVERSION COAT AND COAT WITH DRY LUBRICANT ON ID)
- (3) WIRE: PER AS4701 OR AS1791 REFERENCE (PASSIVATE AND COAT WITH DRY LUBRICANT)

b. MATERIAL CODE LETTER V:

- (1) BODY:
 - (a) V CODE PARTS TO BE PASSIVATED ONLY WILL HAVE NO FINISH CODE LETTER AFTER THE PART NUMBER. THE FINISH WILL BE: PASSIVATE PER AMS2700 TYPE 2 OR 8.
 - (b) V CODE PARTS TO BE CADMIUM PLATED ONLY WILL HAVE THE FINISH CODE LETTER "P" AFTER THE SIZE CODE IN THE PART NUMBER. THE FINISH WILL BE: CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2.
- (2) NUT: CODE LETTER V OF AS4702 OR AS1790 REFERENCE
 - (a) NO FINISH CODE LETTER AT END OF PART NUMBER: PASSIVATE AND COAT WITH DRY FILM LUBRICANT ON ID
 - (b) FINISH CODE LETTER P AT END OF PART NUMBER: CADMIUM PLATE
- (3) WIRE: PER AS4701 OR AS1791 REFERENCE (PASSIVATE AND COAT WITH DRY LUBRICANT)

c. MATERIAL CODE LETTER W:

- (1) BODY: ANODIZE PER AMS2472 DYED BROWN, SIMILAR TO COLOR 10080 OF FED-STD-595
- (2) NUT: CODE LETTER W OF AS4702 OR AS1790 WITH SUFFIX N REFERENCE (ANODIZE DYED BROWN AND COAT WITH DRY LUBRICANT)
- (3) WIRE: PER AS4701 OR AS1791 REFERENCE (PASSIVATE AND COAT WITH DRY FILM LUBRICANT)

/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> FOR CURRENT QPL ONLINE.

/5/ IDENTIFICATION AT LOCATION SHOWN: MARK PER AS478 CLASS C OR D OR METHOD 7A3, 15A3, OR 15B. MANUFACTURER'S NAME, TRADEMARK OR CAGE CODE, BASIC PART NUMBER AND MATERIAL CODE LETTER.

6. THIS PART IS DESIGNED FOR USE IN SYSTEMS WITH OPERATING PRESSURES AS FOLLOWS:

- a. SIZES -20 AND -24 TITANIUM ALLOY AND CORROSION RESISTANT STEEL AT 3000 PSI
- b. SIZES -20 AND -24 ALUMINUM ALLOY AT 600 PSI

NOTE: THIS IS A NON-REDUCER FITTING

7. WHEN MACHINED FROM BAR OR OVERSIZED FORGINGS THE CENTER BODY SECTION SHALL CONFORM TO AS1376, TABLE 10

/8/ RADIUS APPLICABLE FOR TITANIUM PARTS ONLY.

/9/ ASSEMBLE AS4702 RETAINED NUT TO FITTING BODY WITH AS4701 RETAINING WIRE AS SHOWN IN FIGURE 2. THE NUT SHALL BE FREE TO ROTATE AFTER ASSEMBLY.

/10/ THIS IS A NONREDUCER FITTING. ALL PORTS OF ANY GIVEN PART WILL BE THE SAME SIZE. FOR REDUCERS USE AS4687.

11. A CHANGE BAR (I) LOCATED IN THE LEFT MARGIN IS FOR THE CONVENIENCE OF THE USER IN LOCATING AREAS WHERE TECHNICAL REVISIONS, NOT EDITORIAL CHANGES, HAVE BEEN MADE TO THE PREVIOUS ISSUE OF THIS DOCUMENT. AN (R) SYMBOL TO THE LEFT OF THE DOCUMENT TITLE INDICATES A COMPLETE REVISION OF THE DOCUMENT, INCLUDING TECHNICAL REVISIONS. CHANGE BARS AND (R) ARE NOT USED IN ORIGINAL PUBLICATIONS, NOR IN DOCUMENTS THAT CONTAIN EDITORIAL CHANGES ONLY.

 An SAE International Group	AEROSPACE STANDARD	SAE AS4670 SHEET 3 OF 4	REV. A
	ELBOW ASSEMBLY, 90°, RETAINER NUT, SHORT FLARELESS		