FEDERAL SUPPLY CLASS
4730

RATIONALE

"FORGING" ADDED TO TITANIUM MATERIAL OPTION. REPLACE "INACTIVE FOR NEW DESIGN" BY "NOT RECOMMENDED FOR NEW DESIGN," HEAT TREATMENT NOTE EXPANDED TO SPECIFY ELECTRICAL CONDUCTIVITY REQUIREMENTS. UPDATED QML NOTE NOTE 19 ADDED.

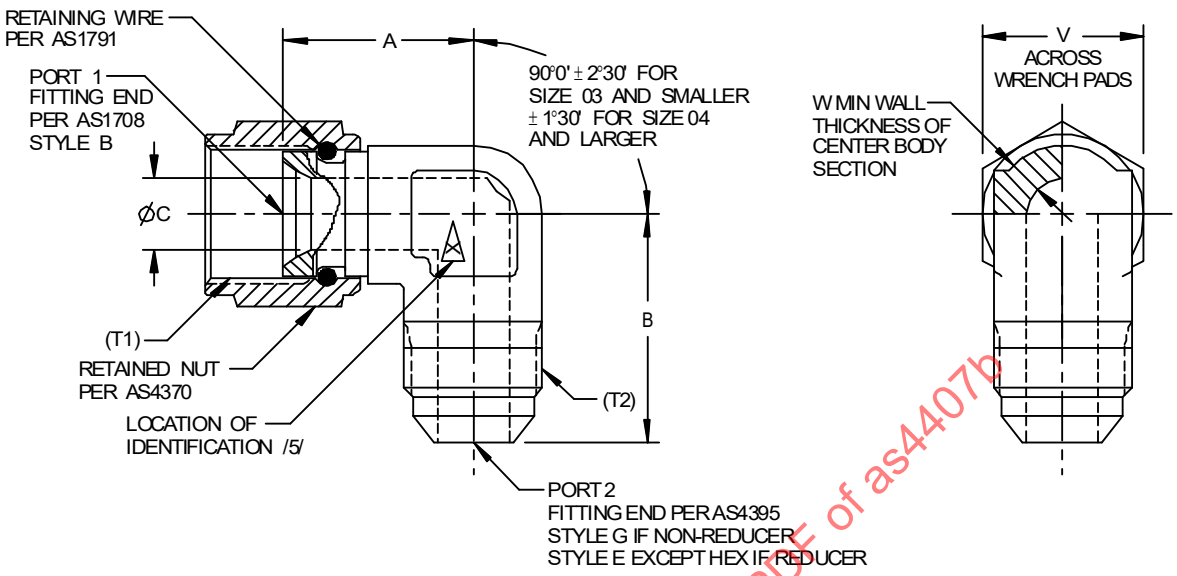


FIGURE 1 - FITTING ASSEMBLY, ELBOW 90°

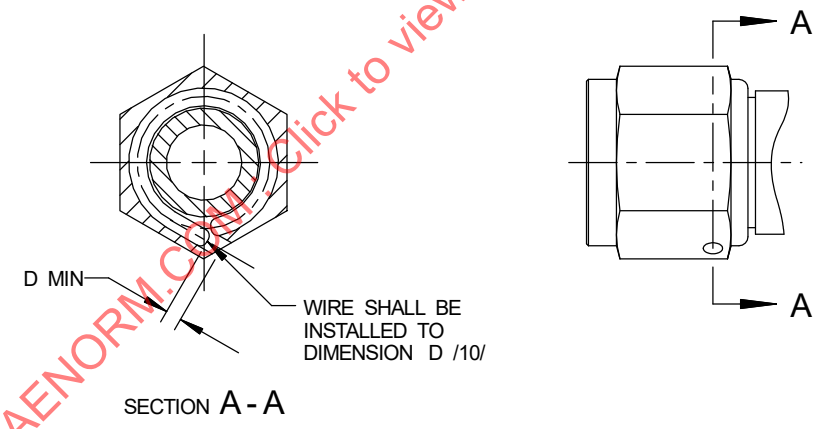
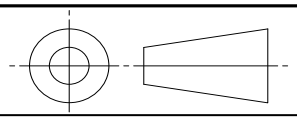


FIGURE 2 - INSTALLATION, RETAINED NUT AND RETAINING WIRE

NOT RECOMMENDED IN PART /18/

For more information on this standard, visit
https://www.sae.org/standards/content/AS4407B/

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS4841 /4/

AEROSPACE STANDARD

FITTING ASSEMBLY, ELBOW 90°, REDUCER AND NONREDUCER, INTERNAL FLARE TO FLARED TUBE

AS4407™
SHEET 1 OF 6

REV. B

ISSUED 1995-03 REAFFIRMED 2007-10 REVISED 2020-06

TABLE 1 - DIMENSIONS AND WEIGHTS

BASIC NO. AS4407 /17/ SIZE CODE	(NOMINAL TUBE SIZE)	T1, T2 THREAD PER AS8879	C	D	V	W	LB/EA APRROX REF ALUM	LB/EA APPROX REF CRES	LB/EA APPROX REF TI
02	.125	.3125-24 UNJF	.058- .065	.045	.297- .314	.090	.017	.049	.028
03	.188	.3750-24 UNJF	.121- .128	.045	.360- .377	.100	.023	.067	.038
04	.250	.4375-20 UNJF	.168- .175	.045	.423- .440	.110	.030	.086	.049
05	.312	.5000-20 UNJF	.230- .237	.045	.485- .502	.120	.034	.098	.056
06	.375	.5625-18 UNJF	.293- .301	.045	.547- .565	.120	.051	.147	.084
08	.500	.7500-16 UNJF	.387- .395	.055	.735- .753	.150	.092	.268	.154
10	.625	.8750-14 UNJF	.480- .488	.063	.860- .878	.170	.141	.409	.234
12	.750	1.0625-12 UNJ	.604- .614	.095	1.047-1.065	.185	.235	.681	.390
16	1.000	1.3125-12 UNJ	.839- .851	.125	1.292-1.317	.205	.386	1.120	.641
20	1.250	1.6250-12 UNJ	1.073-1.086	.155	1.605-1.630	.240	.661	1.920	1.099
24	1.500	1.8750-12 UNJ	1.307-1.320	.180	1.855-1.880	.250	.878	2.550	1.461
32	2.000	2.5000-12 UNJ	1.776-1.791	.180	2.542-2.572	.350	1.151	3.340	1.913

TABLE 2 - LEG LENGTH A

SIZE OF PORT #1	FORG. SIZE /8/ 02	FORG. SIZE /8/ 03	FORG. SIZE /8/ 04	FORG. SIZE /8/ 05	FORG. SIZE /8/ 06	FORG. SIZE /8/ 08	FORG. SIZE /8/ 10	FORG. SIZE /8/ 12	FORG. SIZE /8/ 16	FORG. SIZE /8/ 20	FORG. SIZE /8/ 24	FORG. SIZE /8/ 32
02	.658	.686	.743	.767	.884	.924	1.100	1.157	1.268	1.521	1.521	2.031
03	--	.672	.555	.587	.649	.743	.838	.931	1.056	1.213	1.338	2.015
04	--	--	.602	.633	.695	.789	.883	.976	1.101	1.258	1.383	1.890
05	--	--	--	.675	.737	.831	.925	1.018	1.143	1.300	1.425	1.937
06	--	--	--	--	.821	.915	1.009	1.102	1.227	1.384	1.509	1.968
08	--	--	--	--	--	1.023	1.117	1.210	1.334	1.491	1.616	2.130
10	--	--	--	--	--	--	1.167	1.260	1.383	1.540	1.665	2.098
12	--	--	--	--	--	--	--	1.224	1.348	1.505	1.630	2.098
16	--	--	--	--	--	--	--	--	1.387	1.524	1.649	2.150
20	--	--	--	--	--	--	--	--	--	1.571	1.696	2.243
24	--	--	--	--	--	--	--	--	--	--	1.776	2.286
32	--	--	--	--	--	--	--	--	--	--	--	2.442

TABLE 3 - LEG LENGTH B

SIZE OF PORT #2	FORG. SIZE /8/ 02	FORG. SIZE /8/ 03	FORG. SIZE /8/ 04	FORG. SIZE /8/ 05	FORG. SIZE /8/ 06	FORG. SIZE /8/ 08	FORG. SIZE /8/ 10	FORG. SIZE /8/ 12	FORG. SIZE /8/ 16	FORG. SIZE /8/ 20	FORG. SIZE /8/ 24	FORG. SIZE /8/ 32
02	.757	.789	.789	.843	.946	1.033	1.135	1.232	1.341	1.544	1.685	2.169
03	--	.820	.811	.874	.977	1.064	1.166	1.263	1.372	1.575	1.716	2.200
04	--	--	.882	.945	1.048	1.135	1.237	1.334	1.443	1.646	1.787	2.271
05	--	--	--	.945	1.048	1.135	1.237	1.334	1.443	1.646	1.787	2.271
06	--	--	--	--	1.054	1.141	1.243	1.340	1.449	1.652	1.793	2.277
08	--	--	--	--	--	1.242	1.344	1.441	1.555	1.753	1.894	2.378
10	--	--	--	--	--	--	1.445	1.542	1.651	1.854	1.995	2.479
12	--	--	--	--	--	--	--	1.648	1.757	1.960	2.101	2.585
16	--	--	--	--	--	--	--	--	1.804	2.007	2.148	2.632
20	--	--	--	--	--	--	--	--	--	2.054	2.195	2.679
24	--	--	--	--	--	--	--	--	--	--	2.320	2.804
32	--	--	--	--	--	--	--	--	--	--	--	3.054

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:

(1) BODY: TYPE 4130 STEEL FORGING OR BAR PER AMS6370 OR AMS-S-6758.

(2) NUT: DASH AS CODE LETTER OF AS4370 (TYPE 4130 STEEL).

(3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

B. CODE LETTER D /18/:

(1) BODY: TYPE 2014-T6 ALUMINUM ALLOY FORGING PER AMS4133; OR TYPE 2024-T6 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6; OR 2024-T851 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6 OR AMS4339.

(2) NUT: CODE LETTER D OF AS4370 (TYPE 2024 ALUMINUM ALLOY).

(3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

C. CODE LETTER J:

(1) BODY: TYPE 304 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS5639 OR AMS-QQ-S-763.

(2) NUT: CODE LETTER J OF AS4370 (TYPE 304 CORROSION RESISTANT STEEL).

(3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

D. CODE LETTER K:

(1) BODY: TYPE 316 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS5648 OR AMS-QQ-S-763.

(2) NUT: CODE LETTER K OF AS4370 (TYPE 316 CORROSION RESISTANT STEEL).

(3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

E. CODE LETTER S:

(1) BODY: TYPE 347 CORROSION RESISTANT STEEL FORGING OR BAR PER AMS5646 OR AMS-QQ-S-763.

(2) NUT: CODE LETTER S OF AS4370 (TYPE 347 CORROSION RESISTANT STEEL).

(3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

F. CODE LETTER T:

(1) BODY: TYPE 6AL-4V TITANIUM ALLOY BAR OR FORGING PER AMS4928.

(2) NUT: CODE LETTER T OF AS4370 (TYPE 6AL-4V TITANIUM ALLOY).

(3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

G. CODE LETTER W:

(1) BODY: TYPE 7075-T73 ALUMINUM ALLOY FORGING PER AMS4141; OR 7075-T7351 ALUMINUM ALLOY BAR PER AMS4124; OR 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9.

(2) NUT: CODE LETTER W OF AS4370 (TYPE 7075 ALUMINUM ALLOY).

(3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).

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 MATERIAL CODE LETTER:

      (1) BODY: CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2, DYE BLACK.

      (2) NUT: DASH AS MATERIAL CODE LETTER OF AS4370 (CADMIUM PLATE, DYED BLACK).

      (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

   B. MATERIAL CODE LETTER D:

      (1) BODY:
         a. ANODIZE PER AMS2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BLUE, DUPLEX SEAL PER PROCUREMENT SPECIFICATION.
         b. D CODE PARTS TO BE COATED WITH HIGH PURITY ALUMINUM ONLY WILL HAVE THE FINISH CODE LETTER “U” PLACED AFTER THE SIZE CODE IN THE PART NUMBER. HIGH PURITY ALUMINUM COAT PER PROCUREMENT SPECIFICATION. /17/

      (2) NUT: MATERIAL CODE LETTER D OF AS4370 (ANODIC COATING, DYE BLUE).

      (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

   C. MATERIAL CODE LETTER J:

      (1) BODY: PASSIVATE PER AMS2700, TYPE 6 OR TYPE 7.

      (2) NUT: MATERIAL CODE LETTER J OF AS4370 (PASSIVATED).

      (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

   D. MATERIAL CODE LETTER K:

      (1) BODY: PASSIVATE PER AMS2700, TYPE 6 OR TYPE 7.

      (2) NUT: MATERIAL CODE LETTER K OF AS4370 (PASSIVATED).

      (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

   E. MATERIAL CODE LETTER S:

      (1) BODY: PASSIVATE PER AMS2700, TYPE 6 OR TYPE 7.

      (2) NUT: MATERIAL CODE LETTER S OF AS4370 (PASSIVATED).

      (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

   F. MATERIAL CODE LETTER T:

      (1) BODY: ANODIZE PER AMS2488 TYPE 2 OR FLUORIDE PHOSPHATE CONVERSION COAT PER AMS2486.

      (2) NUT: MATERIAL CODE LETTER T OF AS4370 (FLUORIDE PHOSPHATE CONVERSION COAT).

      (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).