

SAE Executive Standards Committee 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.
C

AS4408™

FEDERAL SUPPLY CLASS
4730

RATIONALE

"INACTIVE" REPLACED BY "NOT RECOMMENDED." CLASS 3B ADDED TO TABLE 1 HEADING FOR THE THREADS. MATERIAL CODE LETTER R, CRES 321, INTRODUCED AS AN OPTIONAL MATERIAL. FINISH FOR MATERIAL CODE LETTER R BEING INTRODUCED. PROCUREMENT SPECIFICATION NOTE UPDATED TO CURRENT QML VERBIAGE. NOTE /8/ UPDATED SPECIFYING THAT PORT #1 IS EQUAL TO OR GREATER THAN PORT #2. UPDATED SPECIFICATION CALLOUTS FROM MIL-A-8625 TO MIL-PRF-8625 AND ARP4296 TO AS4296. NOTE /17/ REVISED TO REFLECT OPTIONAL DRY FILM CODE LETTER N CALLOUT FOR SWIVEL NUT. RECOMMENDATION USAGE NOTE FOR ALUMINUM IN NOTE /18/ REVISED. NEW USAGE RECOMMENDATION FOR MATERIAL 347 ADDED TO NOTE /18/. INVENTORY DISPOSITION NOTE 19 ADDED.

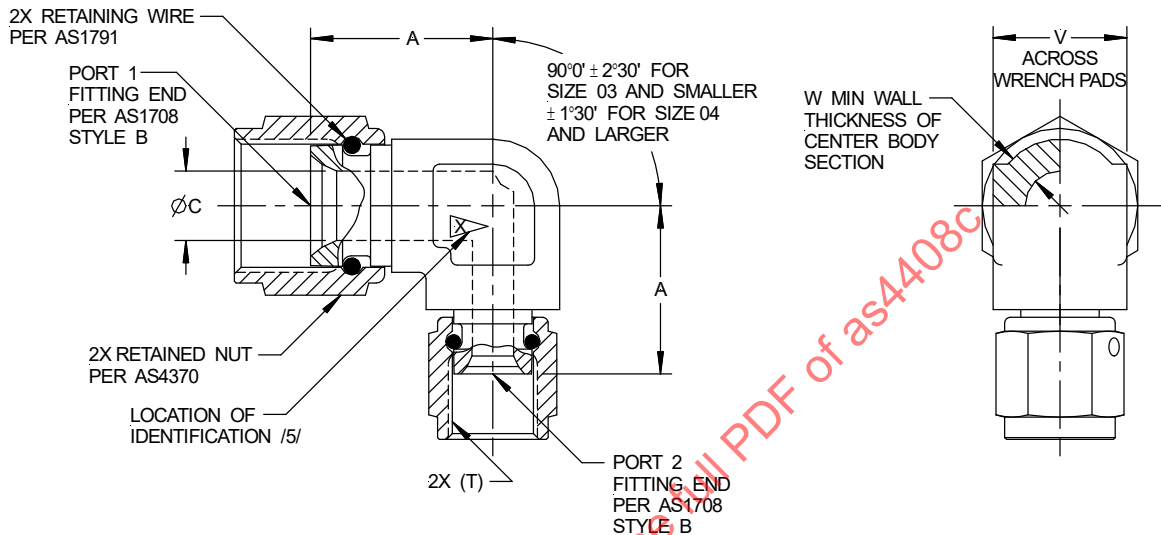


FIGURE 1 - FITTING ASSEMBLY, ELBOW 90°

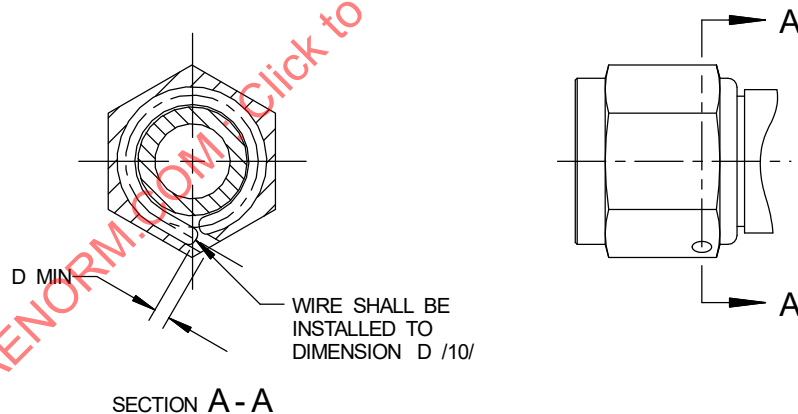
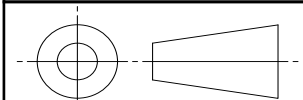


FIGURE 2 - INSTALLATION, RETAINED NUT AND RETAINING WIRE

NOT RECOMMENDED IN PART /18/

For more information on this standard, visit
<https://www.sae.org/standards/content/AS4408C/>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS4841 /4/



AEROSPACE STANDARD

FITTING ASSEMBLY, ELBOW 90°,
REDUCER AND NONREDUCER,
INTERNAL FLARE

AS4408™
SHEET 1 OF 5

REV.
C

Copyright © 2023 SAE International
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)
Fax: 724-776-0790

Tel: +1 724-776-4970 (outside USA)
Email: CustomerService@sae.org

SAE WEB ADDRESS: <http://www.sae.org>

ISSUED 1995-03 REVISED 2023-03

TABLE 1 - DIMENSIONS C-W AND WEIGHTS

BASIC NO. AS4408 /17/ SIZE CODE	(NOMINAL TUBE SIZE)	T THREAD PER AS8879 CLASS 3B	C	D	V	W	LB/EA APPROX REF ALUM	LB/EA APPROX REF CRES	LB/EA APPROX REF TI
02	.125	.3125-24 UNJF	.058- .065	.045	.297- .314	.090	.023	.068	.039
03	.188	.3750-24 UNJF	.121- .128	.045	.360- .377	.100	.031	.088	.051
04	.250	.4375-20 UNJF	.168- .175	.045	.423- .440	.110	.034	.099	.057
05	.312	.5000-20 UNJF	.230- .237	.045	.485- .502	.120	.044	.129	.074
06	.375	.5625-18 UNJF	.293- .301	.045	.547- .565	.120	.058	.167	.096
08	.500	.7500-16 UNJF	.387- .395	.055	.735- .753	.150	.103	.300	.172
10	.625	.8750-14 UNJF	.480- .488	.063	.860- .878	.170	.156	.451	.259
12	.750	1.0625-12 UNJ	.604- .614	.095	1.047-1.065	.185	.253	.732	.419
16	1.000	1.3125-12 UNJ	.839- .851	.125	1.292-1.317	.205	.388	1.126	.645
20	1.250	1.6250-12 UNJ	1.073-1.086	.155	1.605-1.630	.240	.812	2.355	1.349
24	1.500	1.8750-12 UNJ	1.307-1.320	.180	1.855-1.880	.250	1.055	3.060	1.753
32	2.000	2.5000-12 UNJ	1.776-1.791	.180	2.542-2.572	.350	1.940	5.630	3.225

TABLE 2 - LEG LENGTH A

PORT SIZE	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

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).



AEROSPACE STANDARD

FITTING ASSEMBLY, ELBOW 90°,
REDUCER AND NONREDUCER,
INTERNAL FLARE

AS4408™
SHEET 2 OF 5

REV.
C

- 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 TYPE 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 R:
- (1) BODY: TYPE 321 CORROSION RESISTANT STEEL BAR PER AMS5645 OR AMS-QQ-S-763.
 - (2) NUT: CODE LETTER R OF AS4370 (TYPE 321 CORROSION RESISTANT STEEL).
 - (3) WIRE: PER AS1791 (CLASS 302 OR 305 CORROSION RESISTANT STEEL).
- f. CODE LETTER S: /18/
- (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).
- g. CODE LETTER T:
- (1) BODY: TYPE 6Al-4V TITANIUM ALLOY FORGING OR BAR 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).
- h. CODE LETTER W:
- (1) BODY: TYPE 7075-T73 ALUMINUM ALLOY FORGING PER AMS4141; OR TYPE 7075-T7351 ALUMINUM ALLOY BAR PER AMS4124; OR TYPE 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 PER PROCUREMENT SPECIFICATION.
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).

	AEROSPACE STANDARD	AS4408™ SHEET 3 OF 5	REV. C
	FITTING ASSEMBLY, ELBOW 90°, REDUCER AND NONREDUCER, INTERNAL FLARE		

b. MATERIAL CODE LETTER D:

- (1) BODY: ANODIZE PER AMS2472 OR MIL-PRF-8625, TYPE II, CLASS 2, DYE BLUE, DUPLEX SEAL.
- (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 R:

- (1) BODY: PASSIVATE PER AMS2700, TYPE 6 OR TYPE 7.
- (2) NUT: MATERIAL CODE LETTER R OF AS4370 (PASSIVATED).
- (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

f. 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).

g. 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).

h. MATERIAL CODE LETTER W:

- (1) BODY: ANODIZE PER AMS2472 OR MIL-PRF-8625, TYPE II, CLASS 2 DYED BROWN, DUPLEX SEAL.
- (2) NUT: MATERIAL CODE LETTER W OF AS4370 (ANODIC COATING, DYE BROWN).
- (3) WIRE: PER AS1791 (PASSIVATE AND COAT WITH DRY FILM LUBRICANT).

i. SUFFIX CODE LETTER U:

- (1) BODY: HIGH PURITY ALUMINUM COAT PER PROCUREMENT SPECIFICATION.

j. SUFFIX CODE LETTER N:

- (1) NUT: SUFFIX CODE LETTER N OF AS4370 (COAT WITH DRY FILM LUBRICANT).

/4/ PROCUREMENT SPECIFICATION: AS4841, 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) SHALL BE LISTED IN THE NADCAP QUALIFIED MANUFACTURER LIST (QML) FOR THIS PRODUCT TYPE. THE QML IS AVAILABLE AT www.eAuditNet.com.

	AEROSPACE STANDARD	AS4408™ SHEET 4 OF 5	REV. C
	FITTING ASSEMBLY, ELBOW 90°, REDUCER AND NONREDUCER, INTERNAL FLARE		