

ADOPTION NOTICE

SAE AS5172, "Fitting, Adapter, Port, Reducer," was adopted on 26 May 2000 for use by the Department of Defense (DoD). Proposed changes by DoD activities must be submitted to the DoD Adopting Activity: Defense Supply Center, Columbus, DSCC-VAI, 3990 East Broad Street, Columbus, OH 43216-5000. DoD activities may obtain copies of this standard from the DoDSSP, Standardization Document Order Desk 700 Robbins Avenue, Building 4/D, Philadelphia, PA 19111-5094. The private sector and other Government agencies may purchase copies from the Society of Automotive Engineers International, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE AS5172 should be used instead of AN893 and MS24397, which was cancelled on 26 May 2000. SAE AS5202, referenced within SAE AS5172, has not been issued. Use MS33649 in place of SAE AS5202 until SAE AS5202 is published.

Note: To the users of this document, it is recommended that the use of carbon steel and cadmium plating be used only when other materials and finishes specified in SAE AS5172 cannot meet performance requirements.

Custodians:

Air Force - 99
Army - AV
Navy - AS
DLA - CC

Preparing activity:

DLA - CC

(Project 4730-0869)

Review activities:

Army - CR4
Air Force - 82
Navy - MC, SA

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SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised or cancelled. SAE invites your written comments and suggestions.

AS5172

FEDERAL SUPPLY CLASS
4730

PORT #1 - FITTING END PER
AS5202 EXCEPT AS SHOWN /7/

PORT #2 - FITTING END PER AS930
EXCEPT AS SHOWN

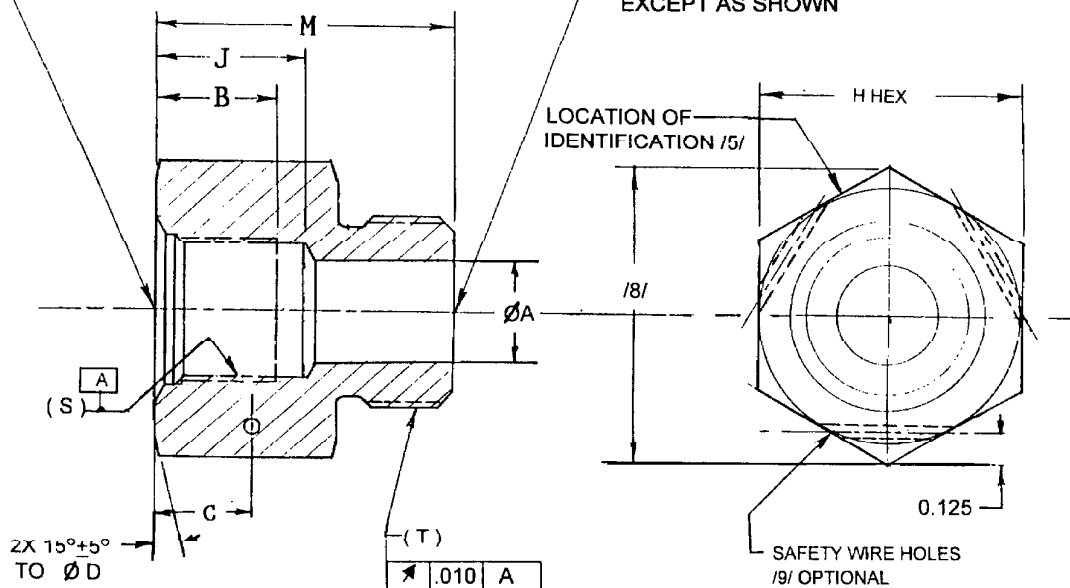
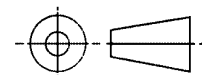


FIGURE 1 - FITTING-ADAPTER

THIRD ANGLE PROJECTION



ISSUED 2000-01

CUSTODIAN: SAE G-3/G-3B

PROCUREMENT SPECIFICATION: /4/ AS4875

SAE The Engineering Society
For Advancing Mobility
Land Sea Air and Space
INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

AEROSPACE STANDARD

FITTING, ADAPTER, PORT, REDUCER

AS5172
SHEET 1 OF 4

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AS5172

TABLE 1 - DIMENSIONS AND WEIGHTS

BASIC NO.	NOMINAL TUBE SIZE	NOMINAL PORT #1	NOMINAL PORT #2	S THREAD PER AS8879 CLASS 3B	T THREAD PER AS8879 CLASS 3A	A	B min	C	D ±.010	H	J	M	LB EA APPROX AL (Ref)	LB EA APPROX STL(Ref)	LB EA APPROX TI (Ref)
AS5172/15															
0405	250	312	.4375-20UNJF	.5000-20UNJF	.230 - .237	.230	.456	.375	.730	.740 - .753	.620	1.150	.0477	.137	.0756
0406	250	.375	.4375-20UNJF	.5625-18UNJF	.293 - .301	.293	.456	.344	.793	.803 - .816	.620	1.103	.0579	.166	.0918
0408	250	.500	.4375-20UNJF	.7500-16UNJF	.387 - .395	.387	.568	.156	1.103	1.113 - 1.128	.671	.763	.119	.341	.188
0410	250	.625	.4375-20UNJF	.8750-14UNJF	n/a	n/a	.568	.156	1.103	1.113 - 1.128	THRU	.753	.124	.356	.196
0412	250	.750	.4375-20UNJF	1.0625-12UNJ	n/a	n/a	.568	.203	1.353	1.363 - 1.380	THRU	.855	.191	.550	.303
0416	250	1.000	.4375-20UNJF	1.3125-12UNJ	n/a	n/a	.568	.203	1.603	1.613 - 1.630	THRU	.855	.278	.799	.441
0420	250	1.250	.4375-20UNJF	1.6250-12UNJ	n/a	n/a	.568	.203	1.863	1.863 - 1.880	THRU	.855	.388	1.11	.615
0506	312	.375	.5000-20UNJF	.5625-18UNJF	.293 - .301	.293	.456	.344	.793	.803 - .816	.620	1.134	.0552	.159	.0875
0508	312	.500	.5000-20UNJF	.7500-16UNJF	.387 - .395	.387	.568	.313	.980	.990 - 1.003	.671	1.081	.0927	.266	.147
0510	312	.625	.5000-20UNJF	.8750-14UNJF	n/a	n/a	.568	.156	1.103	1.113 - 1.128	THRU	.753	.121	.346	.191
0512	312	.750	.5000-20UNJF	1.0625-12UNJ	n/a	n/a	.568	.203	1.353	1.363 - 1.380	THRU	.855	.188	.539	.297
0516	312	1.000	.5000-20UNJF	1.3125-12UNJ	n/a	n/a	.568	.203	1.603	1.613 - 1.630	THRU	.855	.275	.788	.435
0520	312	1.250	.5000-20UNJF	1.6250-12UNJ	n/a	n/a	.568	.203	1.863	1.863 - 1.880	THRU	.855	.384	1.10	.609
0608	375	.500	.5625-18UNJF	.7500-16UNJF	.387 - .395	.387	.470	.313	.980	.990 - 1.003	.630	1.153	.0905	.260	.143
0610	375	.625	.5625-18UNJF	.8750-14UNJF	.484 - .488	.484	.598	.313	1.103	1.113 - 1.128	.724	1.128	.118	.338	.187
0612	375	.750	.5625-18UNJF	1.0625-12UNJ	n/a	n/a	.598	.203	1.353	1.363 - 1.380	THRU	.855	.184	.528	.291
0616	375	1.000	.5625-18UNJF	1.3125-12UNJ	n/a	n/a	.598	.203	1.603	1.613 - 1.630	THRU	.855	.271	.777	.429
0620	375	1.250	.5625-18UNJF	1.6250-12UNJ	n/a	n/a	.598	.203	1.863	1.863 - 1.880	THRU	.855	.380	1.09	.602
0810	500	.625	.7500-16UNJF	.8750-14UNJF	.484 - .488	.484	.562	.438	1.103	1.113 - 1.128	.750	1.316	.104	.298	.164
0812	500	.750	.7500-16UNJF	1.0625-12UNJ	.604 - .614	.604	.714	.203	1.353	1.363 - 1.380	.849	1.230	.169	.484	.267
0816	500	1.000	.7500-16UNJF	1.3125-12UNJ	n/a	n/a	.714	.203	1.603	1.613 - 1.630	THRU	.855	.255	.733	.404
0820	500	1.250	.7500-16UNJF	1.6250-12UNJ	n/a	n/a	.714	.203	1.863	1.863 - 1.880	THRU	.855	.365	1.05	.578
1012	625	.750	.8750-14UNJF	1.0625-12UNJ	.604 - .614	.604	.625	.203	1.353	1.363 - 1.380	.810	1.417	.155	.445	.246
1016	625	1.000	.8750-14UNJF	1.3125-12UNJ	n/a	n/a	.625	.203	1.603	1.613 - 1.630	THRU	.855	.243	.687	.384
1020	625	1.250	.8750-14UNJF	1.6250-12UNJ	n/a	n/a	.802	.203	1.863	1.863 - 1.880	THRU	.855	.352	1.01	.558
1216	750	1.000	1.0625-12UNJ	1.3125-12UNJ	.839 - .851	.839	.688	.203	1.603	1.613 - 1.630	.940	1.527	.213	.612	.338
1220	750	1.250	1.0625-12UNJ	1.6250-12UNJ	n/a	n/a	.688	.203	1.863	1.863 - 1.880	THRU	.855	.330	.947	.523
1820	1.000	1.250	1.3125-12UNJ	1.6250-12UNJ	1.073 - 1.086	1.073	.688	.203	1.863	1.863 - 1.880	.970	1.542	.277	.795	.439

NOTES:

/1/ MATERIAL:

- a. NO CODE LETTER: CARBON STEEL BAR, TYPE 4130 PER AMS 6370 OR TYPE 4140 PER AMS 6382.
- b. CODE LETTER D: TYPE 2024-T6 ALUMINUM ALLOY BAR PER AMS-QQ-225/6 OR AMS 4339, OR TYPE 2024-T851 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/6.
- c. CODE LETTER J: TYPE 304 COND A CORROSION RESISTANT STEEL BAR PER AMS 5639 OR QQ-S-763.
- d. CODE LETTER K: TYPE 316 COND A CORROSION RESISTANT STEEL BAR PER AMS 5648 OR QQ-S-763.
- e. CODE LETTER R: TYPE 321 COND A CORROSION RESISTANT STEEL BAR PER AMS 5645 OR QQ-S-763.
- f. CODE LETTER T: TYPE 6AL-4V TITANIUM ALLOY BAR PER AMS 4928.
- g. CODE LETTER W: TYPE 7075-T73 ALUMINUM ALLOY BAR PER AMS-QQ-A-225/9 OR TYPE 7075-T7351 ALUMINUM ALLOY BAR PER AMS 4124.

2. HEAT TREATMENT: NONE, EXCEPT FOR NO MATERIAL CODE LETTER, SEE PROCUREMENT SPECIFICATION FOR HARDNESS REQUIREMENTS.

3. FINISH:

- a. NO MATERIAL CODE LETTER: CADMIUM PLATE PER QQ-P-416 TYPE II, CLASS 2. DYED BLACK. DIP IN MIL-PRF-6083 OR MIL-PRF-87253 FLUID.
- b. MATERIAL CODE LETTER D: ANODIZE PER AMS 2472 OR MIL-A-8625, TYPE II, CLASS 2, DYED BLUE, DUPLEX SEALED.
- c. MATERIAL CODE LETTER J, K, OR R: PASSIVATE PER AMS-QQ-P-35, TYPE VI OR VII.
- d. MATERIAL CODE LETTER T: ANODIZE PER AMS 2488 TYPE 2 OR FLUORIDE PHOSPHATE COAT PER AMS 2486, COLOR PER PROCUREMENT SPECIFICATION.
- e. MATERIAL CODE LETTER W: ANODIZE PER AMS 2472 OR MIL-A-8625, TYPE II, CLASS 2, DYE BROWN, DUPLEX SEAL PER PROCUREMENT SPECIFICATION.

/4/ PROCUREMENT SPECIFICATION: AS4875. USERS OF THIS STANDARD ARE ADVISED TO CONTROL SOURCE APPROVALS BY STANDARD PAGE SUPPLEMENT SHEET OR SIMILAR MEANS.

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

- a. SIZES 02 THROUGH 16 IN ALL MATERIALS EXCEPT -16 ALUMINUM - 3000 psi.
- b. SIZE 16 ALUMINUM AND SIZES 20 THROUGH 32 IN ALL MATERIALS - 1500 psi.

THIS STANDARD IS THE FUNCTIONAL EQUIVALENT OF AN893 AND MS24397, EXCEPT WITH LONGER "M" LENGTHS IN SOME SIZES, AND IS INTENDED TO BE SUITABLE AS A REPLACEMENT STANDARD.

/7/ THE INTERNAL DIAMETERS SHALL END IN A CONICAL END OF 115° MINIMUM INCLUDED ANGLE.

/8/ THE HEX CORNERS MAY BE ROUNDED PER ARP1942.

/9/ SUFFIX LETTER L: CODE L PARTS SHALL HAVE SAFETY WIRE HOLES PER AS1043 STYLE G.

10. INTERPRETATION OF DRAWING PER ARP4296.

11. SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36. REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES TO BE 125 μ in Ra. SURFACES OF HEX FLATS MAY BE 250 μ in Ra.

12. BREAK SHARP EDGES .003 TO .015 UNLESS OTHERWISE SPECIFIED.

13. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1994.

14. DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS ± 0.016 , ANGULAR DIMENSIONS $\pm 0^{\circ}30'$.

AS5172

/15/ EXAMPLE OF PART NUMBER:

AS5172 W 0406 L

BASIC PART NUMBER

MATERIAL CODE LETTER /1/

SIZE CODE - TUBE SIZE OF PORT #1
IN .062 INCREMENTS

/9/ CODE LETTER FOR SAFETY WIRE HOLES
OMIT CODE LETTER IF SAFETY WIRE HOLES
ARE NOT REQUIRED

SIZE CODE - TUBE SIZE OF PORT #2
IN .062 INCREMENTS