

INCH-POUND

MS21954C
9 April 2015
SUPERSEDING
MS21954B
15 June 2000

DETAIL SPECIFICATION SHEET

BODY, CLUSTER FITTING, TWO-WAY, 90 DEGREE, FLARE

This specification is approved for use by all Departments and Agencies
of the Department of Defense .

The requirements for acquiring the product described herein shall consist of this specification sheet and
SAE-AS4875/1.

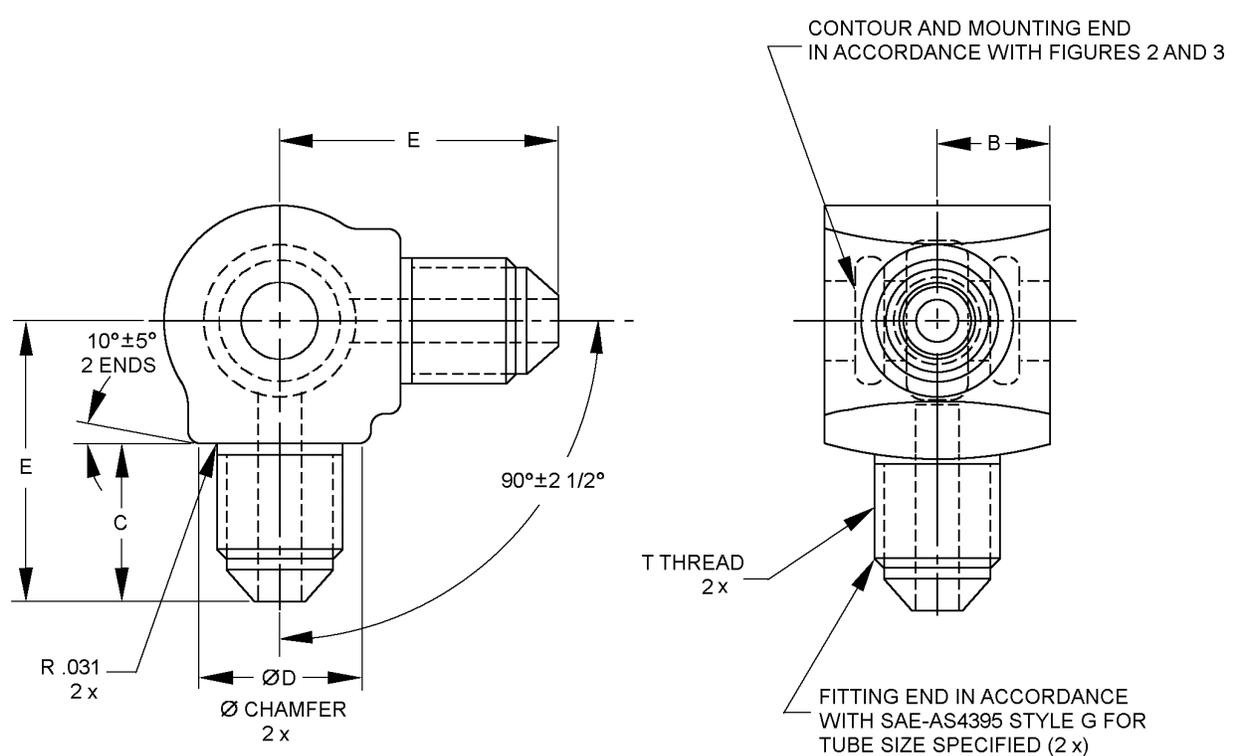


FIGURE 1. Body, cluster fitting.



MS21954C

Dimensions for low flow sizes.

Low Flow Size						
Al Alloy 7075	Tube OD	Thread T SAE-AS8879	B	C	D	E
W3L	.187	.375-24UNJF-3A	.500	.540	.710	1.109
W4L	.250	.4375-20UNJF-3A	.500	.625	.710	1.187
W5L	.312	.500-20UNJF-3A	.500	.625	.710	1.187
W6L	.375	.5625-18UNJF-3A	.500	.640	.710	1.203

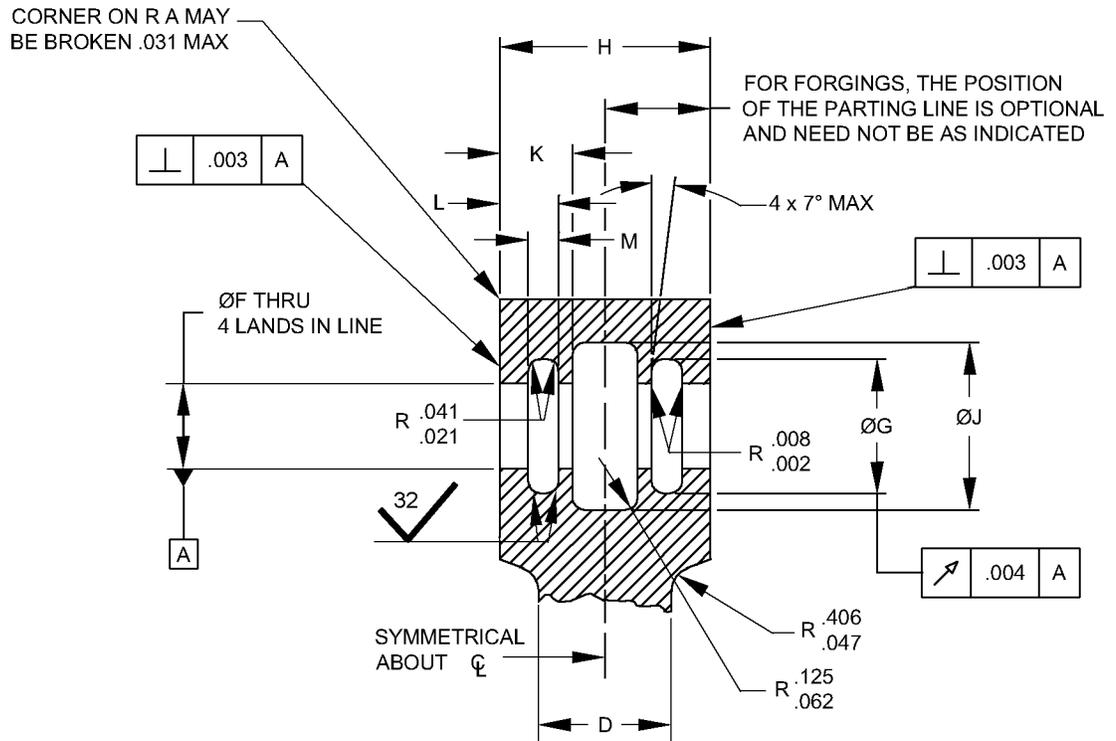
Dimensions for high flow sizes.

High Flow Size						
Al Alloy 7075	Tube OD	Thread T SAE-AS8879	B	C	D	E
W4H	.250	.4375-20UNJF-3A	.594	.625	.710	1.438
W5H	.312	.500-20UNJF-3A	.594	.625	.710	1.438
W6H	.375	.5625-18UNJF-3A	.594	.648	.710	1.460
W8H	.500	.750-16UNJF-3A	.594	.750	.750	1.562

NOTE: Dimensions are in inches. Unless otherwise specified, tolerances: decimals $\pm .010$ inch, angles $\pm .5^\circ$.

FIGURE 1. Body, cluster fitting - Continued.

MS21954C



MOUNTING END DIMENSIONS

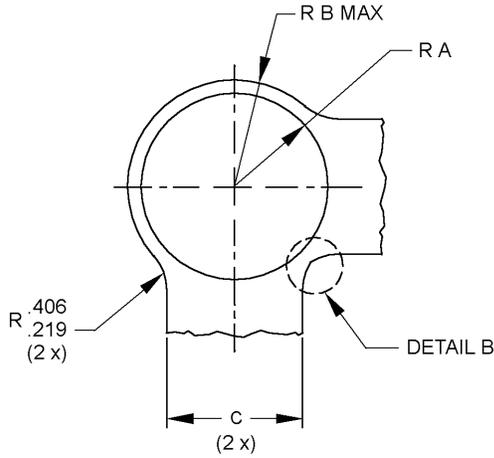
Type Fitting	D Max (see note 2)	F dia. ± .0005	G dia. ± .004	H ± .005	J dia. ± .010	K ± .010	L ± .004	M ± .005
Low Flow	.995	.5000	.664	1.000	.797	.312	.249	.143
High Flow	1.188	.8125	1.045	1.188	1.078	.375	.283	.175

NOTES:

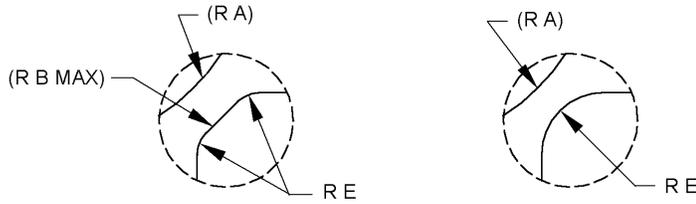
1. Dimensions in inches. Unless otherwise specified, tolerances: decimals ± .010 inch, angles ± .5°.
2. Dimension D represents the max envelope which shall be large enough to meet final part dimensions.

FIGURE 2. Mounting end.

MS21954C



CONTOUR DIMENSIONS
EXTERNAL



DETAIL B
ENLARGED

DETAIL B SHOWS SINGLE OR DOUBLE FILLET,
WHICHEVER IS APPLICABLE TO DIMENSION TABLE, SEE NOTE 4.
FOR ALL FILLETS BETWEEN LEGS.

Type Fitting	A ± .031	B Max (see note 2)	C Max (see note 3)	E ± .031 (see note 4)
Low Flow	.562	.636	.844	.125
High Flow	.812	.909	.844	.375

NOTES:

1. Dimensions in inches. Unless otherwise specified, tolerances: decimals ± .010 inch, angles ± .5°.
2. B radius is the max envelope dimension for forging draft, flash, and other projections on A radius.
3. Dimension C represents the max envelope which shall be large enough to meet final part dimensions.
4. Fillet radius E between legs shall not intersect A radius.

FIGURE 3. External contour.

MS21954C

REQUIREMENTS:

The requirements for acquiring the product described herein shall consist of this specification sheet and SAE-AS4875/1.

Dimensions. See figures 1, 2, and 3.

Dimensions and tolerancing in accordance with ASME Y14.5.

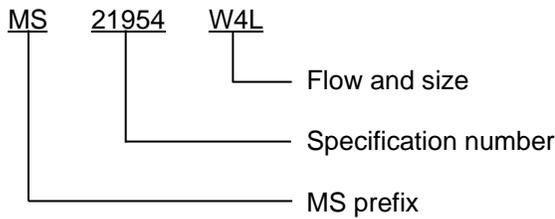
Fittings shall be free of all burrs and slivers.

All machined surfaces shall be finished to 250 µin Ra, unless otherwise specified. Surface finish shall be in accordance with ASME B46.1.

Material: Aluminum alloy 7075-T73 or T7351 in accordance with SAE-AMS4124. Aluminum alloy forging 7075-T73 in accordance with SAE-AMS-QQ-A-367.

Finish: See acquisition standard SAE AS4875/1. Aluminum alloy 7075 fittings shall be dyed brown.

Part or Identifying Number (PIN): The PIN consists of the MS prefix, specification number, and flow and size (see figure 1).



Example of a PIN: MS21954W4L represents a low flow two-way body cluster 90° flared fitting tube OD .250 inches.

Table I shows cancelled aluminum alloy 2014 and 2024 (-) PIN's which are replaced by aluminum alloy 7075 (W) PIN's.

TABLE I. Cancelled PIN to replacement PIN.

Cancelled PIN AL 2014 and 2024	Replacement PIN AL 7075
Low flow	
MS21954-3L	MS21954W3L
MS21954-4L	MS21954W4L
MS21954-5L	MS21954W5L
MS21954-6L	MS21954W6L
High flow	
MS21954-4H	MS21954W4H
MS21954-5H	MS21954W5H
MS21954-6H	MS21954W6H
MS21954-8H	MS21954W8H

MS21954C

Referenced documents shall be of the issue in effect on date of invitation for bid.

Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue, due to the extent of the changes.

Reference documents. In addition to SAE-AS4875/1 this document references the following:

- ASME B46.1
- ASME Y14.5
- SAE-AMS-QQ-A-367
- SAE-AMS4124
- SAE-AS4395
- SAE-AS8879

CONCLUDING MATERIAL

Custodians:
Navy - AS
Air Force - 99
DLA - CC

Preparing activity:
DLA - CC

(Project 4730-2015-031)

Review activities:
Navy - SA

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.