

INCH-POUND

MS21955C
6 April 2009
SUPERSEDING
MS21955B
15 June 2000

DETAIL SPECIFICATION SHEET

BODY, CLUSTER FITTING, TWO-WAY, 180°, 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.

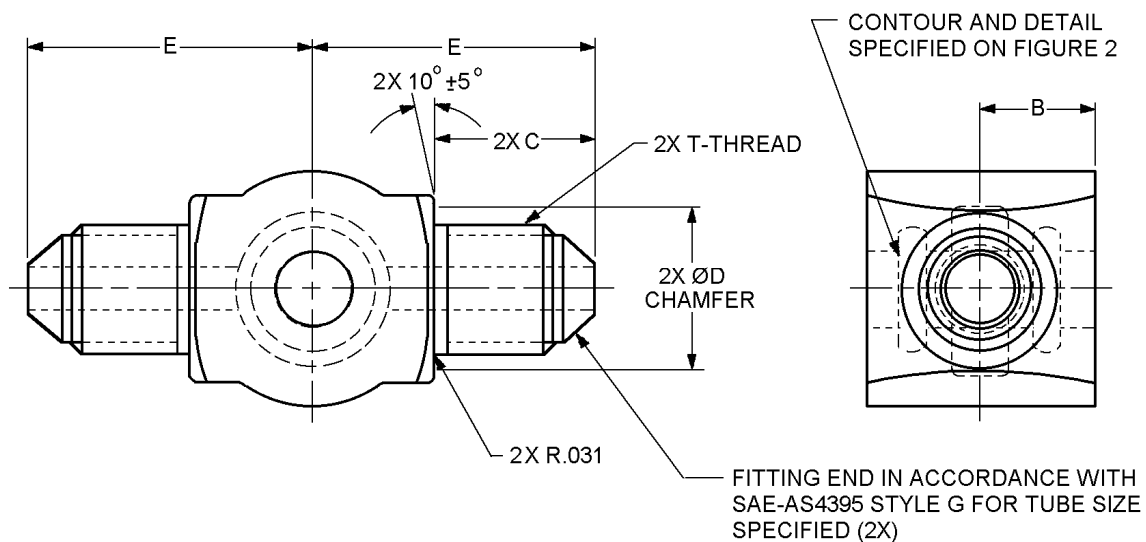


FIGURE 1. Body, cluster fitting.

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Low flow size	Tube OD inches (mm)	Thread T SAE-AS8879	B inches (mm)	C inches (mm)	D dia inches (mm)	E inches (mm)
W3L	.187 (4.75)	.375-24UNJF-3A	.500 (12.70)	.540 (13.72)	.710 (18.03)	1.109 (28.17)
W4L	.250 (6.35)	.4375-20UNJF-3A	.500 (12.70)	.625 (15.88)	.710 (18.03)	1.187 (30.15)
W5L	.312 (7.92)	.500-20UNJF-3A	.500 (12.70)	.625 (15.88)	.710 (18.03)	1.187 (30.15)
W6L	.375 (9.53)	.5625-18UNJF-3A	.500 (12.70)	.640 (16.26)	.710 (18.03)	1.203 (30.56)

High flow size	Tube OD inches (mm)	Thread T SAE-AS8879	B inches (mm)	C inches (mm)	D dia inches (mm)	E inches (mm)
W4H	.250 (6.35)	.4375-20UNJF-3A	.594 (15.09)	.625 (15.88)	.710 (18.03)	1.438 (36.53)
W5H	.312 (7.92)	.500-20UNJF-3A	.594 (15.09)	.625 (15.88)	.710 (18.03)	1.438 (36.53)
W6H	.375 (9.53)	.5625-18UNJF-3A	.594 (15.09)	.648 (16.46)	.710 (18.03)	1.460 (37.08)
W8H	.500 (12.70)	.750-16UNJF-3A	.594 (15.09)	.750 (19.05)	.750 (19.05)	1.562 (39.67)

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Dimensioning and tolerancing in accordance with ASME Y14.5M.
4. All machined surfaces shall be finished to 250 μ in (6.35 μ m) R_a , unless otherwise specified.
Surface finish shall be in accordance with ASME B46.1.
5. Fittings shall be free of all burrs and slivers.
6. Unless otherwise specified tolerances for three point decimals \pm .010 inch (0.25 mm).

FIGURE 1. Body, cluster fitting - Continued.

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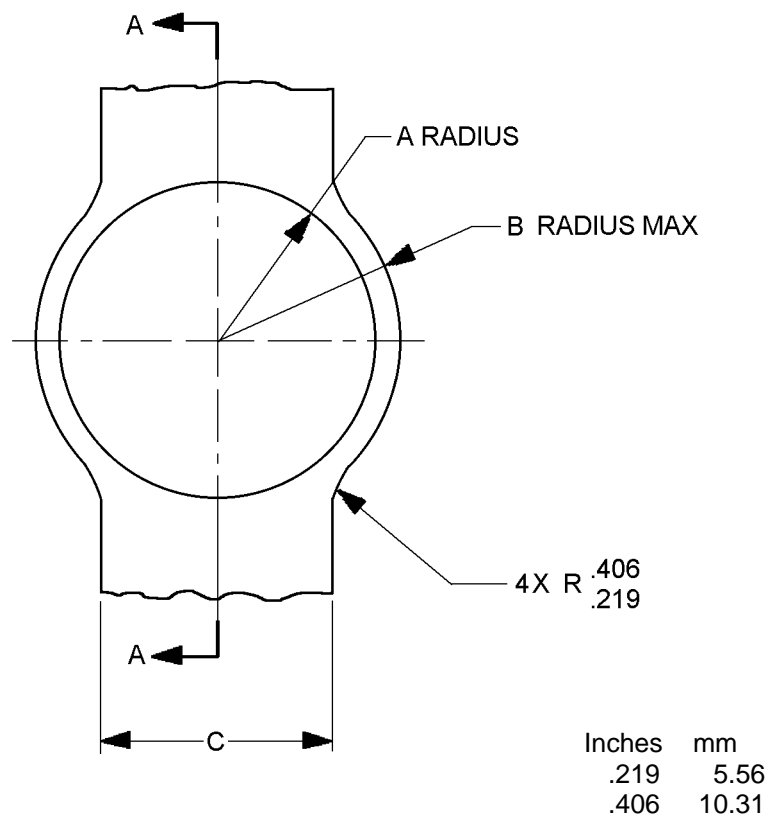
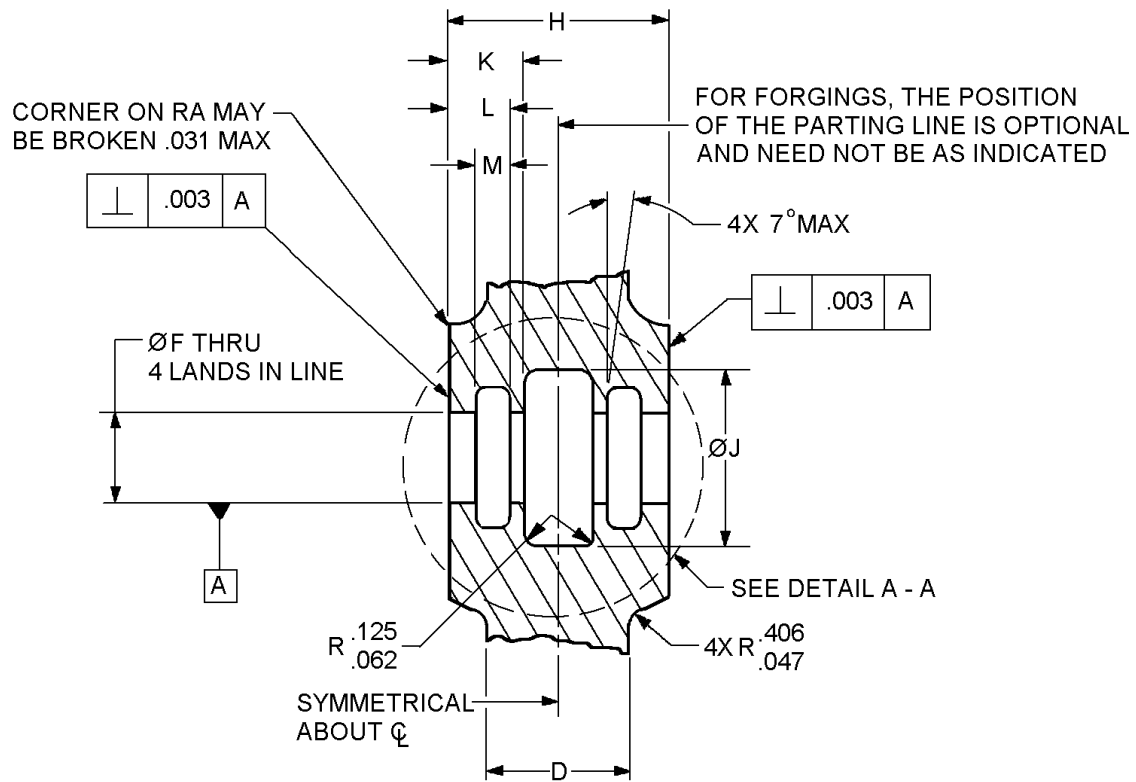


FIGURE 2. Cluster fitting body contour and mounting end.

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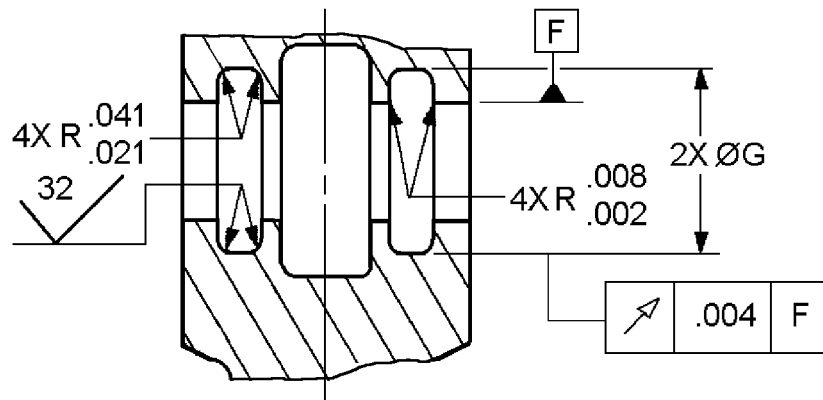


SECTION A - A

Inches	mm
.003	0.08
.031	0.79
.047	1.19
.062	1.57
.125	3.18
.406	10.31

FIGURE 2. Cluster fitting body contour and mounting end - Continued.

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DETAIL A - A

Inches	mm
.002	0.05
.004	0.10
.008	0.20
.021	0.53
.041	1.04

Type Fitting	A rad ± .031 inches (mm)	B rad Max (See note 7) inches (mm)	C Max (See note 8) inches (mm)	D Max (See note 8) inches (mm)	F ± .0005 (0.013) inches (mm)	G dia ± .004 (0.10) inches (mm)
Low Flow	.562 (14.27)	.636 (16.15)	.844 (21.44)	.995 (25.27)	.5000 (12.700)	.664 (16.87)
High Flow	.812 (20.62)	.909 (23.09)	.844 (21.44)	1.188 (30.18)	.8125 (20.638)	1.045 (26.54)

Type Fitting	H ± .005 (0.13) inches (mm)	J dia ± .010 (0.25) inches (mm)	K Max ± .010 (0.25) inches (mm)	L Max ± .004 (0.10) inches (mm)	M ± .005 (0.13) inches (mm)
Low Flow	1.000 (25.40)	.797 (20.24)	.312 (7.92)	.249 (6.32)	.143 (3.63)
High Flow	1.188 (30.18)	1.078 (27.38)	.375 (9.53)	.283 (7.19)	.175 (4.45)

FIGURE 2. Cluster fitting body contour and mounting end - Continued.

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NOTES:

1. Dimensions are in inches.
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3. Dimensioning and tolerancing in accordance with ASME Y14.5M.
4. All machined surfaces shall be finished to 250 μ in (6.35 μ m) R_a , unless otherwise specified. Surface finish shall be in accordance with ASME B46.1.
5. Fittings shall be free of all burrs and slivers.
6. Unless otherwise specified tolerances for three point decimals \pm .010 inch (0.25 mm).
7. B radius is the max envelope dimension for forging, flash, and other projections on A radius.
8. Dimensions C and D represent the max envelope which shall be large enough to meet final part dimensions.

FIGURE 2. Cluster fitting body contour and mounting end - Continued.

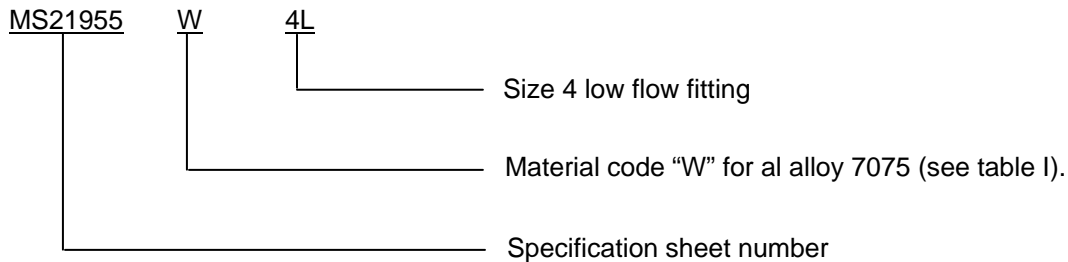
REQUIREMENTS:

Dimensions and configurations: See figures 1 and 2.

Material: Aluminum alloy 7075-T73 in accordance with SAE-AMS-QQ-A-225/9. Aluminum alloy forging, 7075-T73 in accordance with SAE-AMS-QQ-A-367.

Finish: See procurement standard SAE-AS4875/1.

Part or Identifying Number (PIN):



PIN Example: MS21955W4L identifies a .250 inch low flow cluster fitting.

Supersession data: Aluminum alloys 2014 and 2024 has been replaced by aluminum alloy 7075, see table I for replacement PIN's.

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TABLE I. Supersession data.

Low flow size replacement PIN's	
Superseded PIN Al alloy 2014/2024	Replacement PIN Al alloy 7075
MS21955-3L	MS21955W3L
MS21955-4L	MS21955W4L
MS21955-5L	MS21955W5L
MS21955-6L	MS21955W6L
High flow size replacement PIN's	
Superseded PIN Al alloy 2014/2024	Replacement PIN Al alloy 7075
MS21955-4H	MS21955W4H
MS21955-5H	MS21955W5H
MS21955-6H	MS21955W6H
MS21955-8H	MS21955W8H

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.

Referenced documents. In addition to SAE-AS4875, this document references the following:

ASME Y14.5M
ASME B46.1
SAE-AMS-QQ-A-225/9
SAE-AMS-QQ-A-367
SAE-AS4395
SAE-AS4875/1
SAE-AS8879

CONCLUDING MATERIAL

Custodians:

Navy - AS
Air Force - 99
DLA CC

Preparing activity:

DLA - CC

(Project 4730-2009-001)

Review activities:

Navy - SA
Air Force - 71

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 <http://assist.daps.dla.mil>.