

INCH-POUND

MS28780F
 w/AMENDMENT 1
 1 October 2009
 SUPERSEDING
 MS28780F
 24 April 2007

DETAIL SPECIFICATION SHEET

FITTING END, 45° ELBOW, ATTACHABLE, HYDRAULIC, HIGH
 PRESSURE HOSE 3000 PSI, FLARED TUBE

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 MIL-DTL-8789.

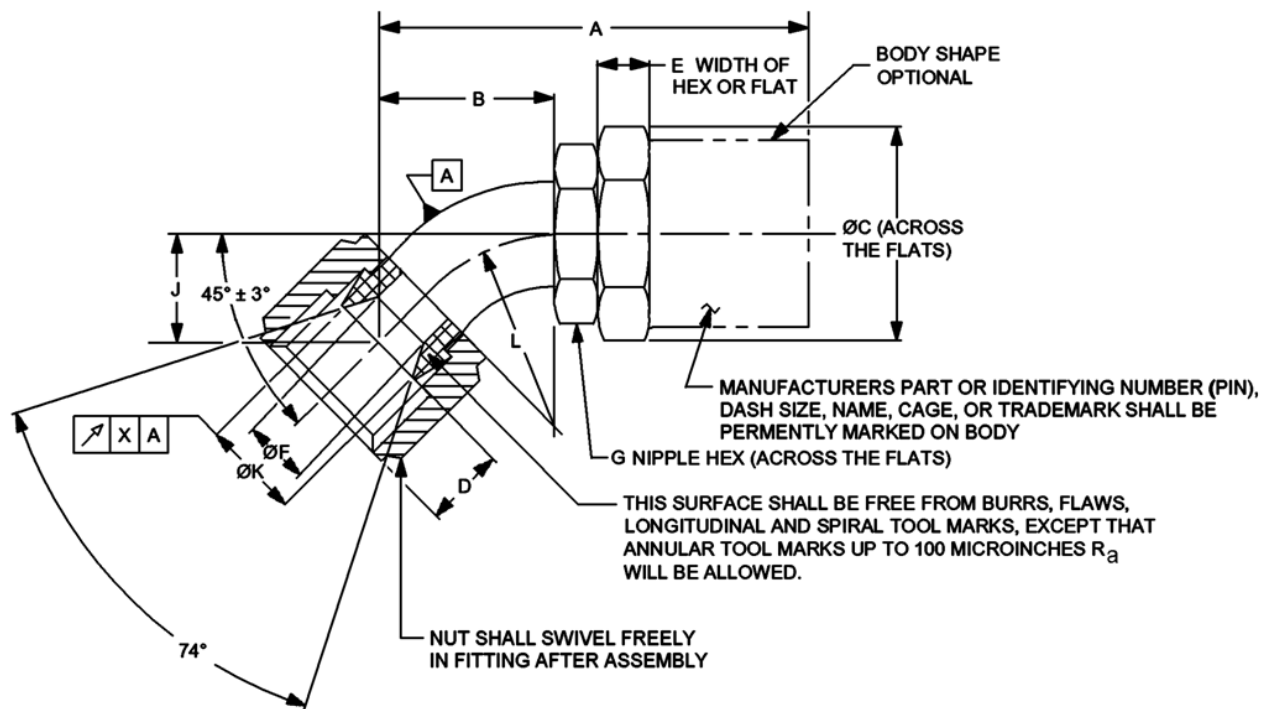


FIGURE 1. Fitting end, 45° elbow, flared tube dimensions and configuration.

MS28780F
w/AMENDMENT 1

Size dash number	Hose ID Ref inch (mm)	Tubing OD inch (mm)	Nut	A max inch (mm)	B max inch (mm)	C max inch (mm)	D inch (mm)	
4	.218 (5.54)	.250 (6.35)	AN818-4	2.875 (73.03)	.578 (14.68)	.875 (22.23)	.375 (9.53)	±.016 (0.41)
5	.281 (7.14)	.313 (7.95)	AN818-5	2.875 (73.03)	.656 (16.66)	.937 (23.80)	.375 (9.53)	
6	.344 (8.74)	.375 (9.53)	AN818-6	3.000 (76.20)	.719 (18.26)	1.160 (29.46)	.375 (9.53)	
8	.438 (11.13)	.500 (12.70)	AN818-8	3.125 (79.38)	.734 (18.64)	1.375 (34.93)	.438 (11.13)	
10	.563 (14.30)	.625 (15.88)	AN818-10	3.312 (84.12)	.859 (21.82)	1.550 (39.37)	.515 (13.08)	±.031 (0.79)
12	.688 (17.48)	.750 (19.05)	AN818-12	4.000 (101.60)	1.328 (33.73)	1.740 (44.20)	.562 (14.27)	
16	.875 (22.23)	1.00 (25.40)	AN818-16	4.750 (120.65)	1.500 (38.10)	2.000 (50.80)	.620 (15.75)	

Size dash number	E min inch (mm)	F min inch (mm)	G $\frac{5}{16}$ min inch (mm)	J max inch (mm)	K inch (mm)		L \pm .031 (0.79) inch (mm)	X inch (mm)	Weight max lbs (kg)
4	.188 (4.78)	.146 (3.71)	.563 (14.30)	.388 (9.86)	.295 (7.49)	±.010 (0.25)	.375 (9.53)	.005 (.13)	.13 (59.0)
5		.177 (4.50)	.625 (15.88)	.450 (11.43)	.355 (9.02)		.437 (11.10)		.14 (63.5)
6	.250 (6.35)	.271 (6.88)	.688 (17.48)	.480 (12.19)	.435 (11.05)		.500 (12.70)		.16 (72.6)
8		.365 (9.27)	.875 (22.23)	.490 (12.45)	.570 (14.48)		.010 (.25)	.25 (113.4)	
10	.312 (7.92)	.455 (11.56)	1.000 (25.40)	.562 (14.27)	.680 (17.27)	.625 (15.88)		.38 (172.4)	
12	.375 (9.53)	.568 (14.43)	1.250 (31.75)	.781 (19.84)	.850 (21.59)	1.250 (31.75)	.51 (231.3)		
16		.778 (19.76)	1.500 (38.10)	.844 (21.44)	1.103 (28.02)	±.015 (0.38)	1.500 (38.10)	.76 (344.7)	

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances are \pm .005 inch (0.13 mm).
4. The fitting identification shall be marked in accordance with MIL-DTL-8789.
5. Hex or flats shall fit standard wrench openings.
6. Threads shall be in accordance with SAE-AS8879.

FIGURE 1. Fitting end, 45° elbow, flared tube dimensions and configuration - Continued.

MS28780F
w/AMENDMENT 1

REQUIREMENTS:

These fittings are for use with MIL-DTL-8788 hose.

See figure 1 for fitting end sizes, dimensions and weights.

Material: Nipples, nuts, and elbows shall be made of steel and the body shall be made of aluminum in accordance with in MIL-DTL-8789.

Finish:

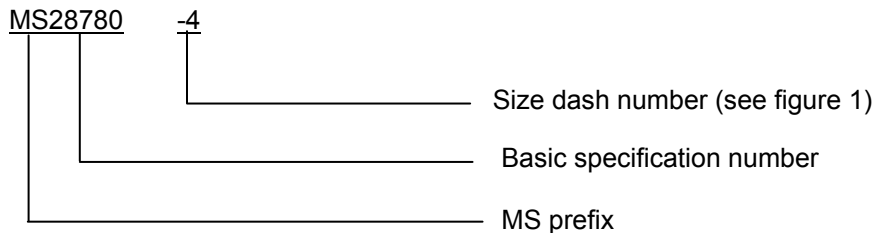
Aluminum alloy: Anodic treatment, in accordance with MIL-A-8625, type II.

Steel: Cadmium plate, in accordance with SAE-AMS-QQ-P-416, type II, class 3, color optional.

A non-standard swivel nut may be used provided the hex and thread dimensions are in accordance with AN818 and the nut shall not be removable from the assembly.

A true circular cross section is not required within angle of bend, however, a ball .031 inch (0.79 mm) smaller than "F" diameter (see figure 1) shall be able to pass through the entire fitting.

PIN:



Example of a PIN: MS28780-4 indicates a .250 inch (6.35 mm) 45° elbow fitting flared to hose.

Amendment notations. The margins of this specification are marked with vertical lines to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Referenced documents. In addition to MIL-DTL-8789, this document references the following:

MIL-A-8625
MIL-DTL-8788
AN818
SAE-AS8879
SAE-AMS-QQ-P-416

MS28780F
w/AMENDMENT 1

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:
DLA - CC

(Project 4730-2009-045)

Review activities:

Army - AV, MI
Navy - CG, MC, SA, SH
Air Force - 71

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