INCH-POUND

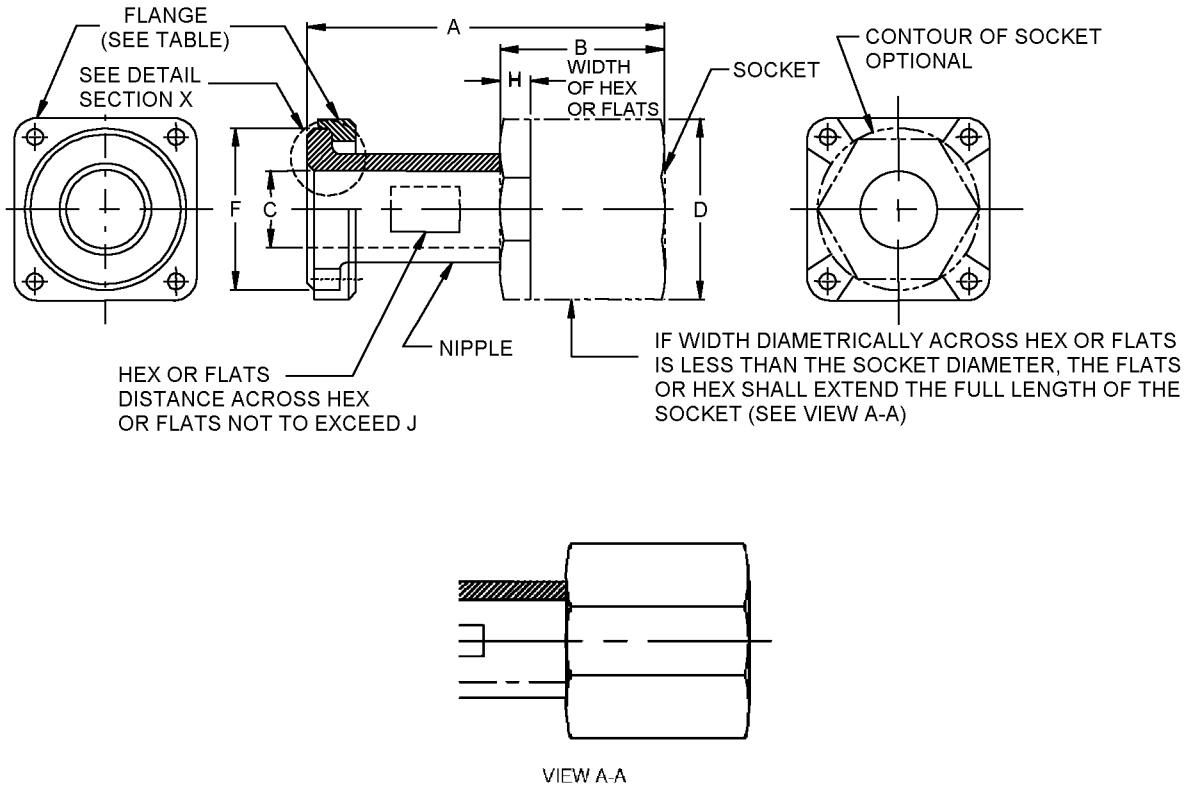
MS28753E
w/AMENDMENT 1
14 November 2018
SUPERSEDING
MS28753E
5 June 2012

DETAIL SPECIFICATION SHEET

FITTING END, SELF-SEALING FUEL HOSE, SWIVEL, DETACHABLE, FLANGED, STRAIGHT

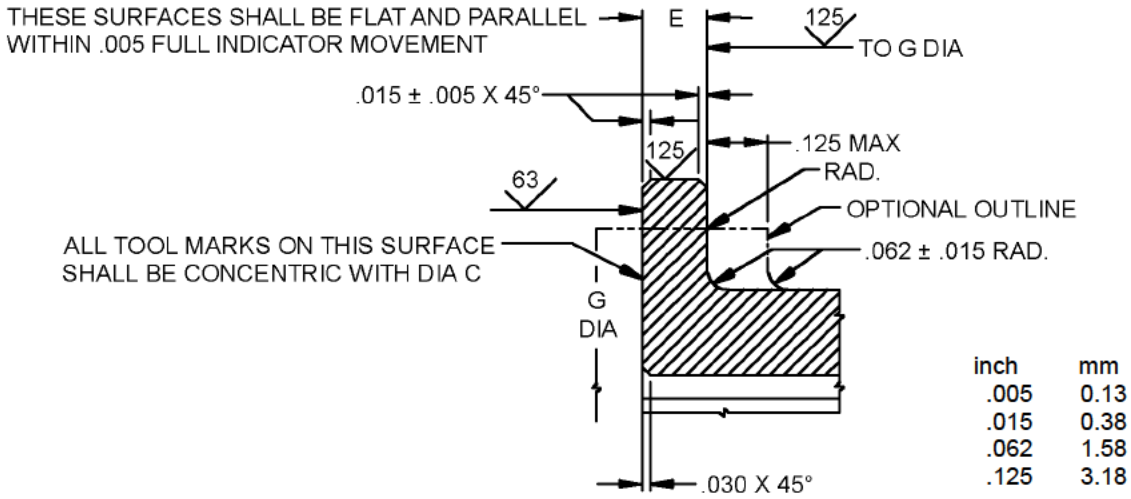
This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet.



See notes at end of figure.

FIGURE 1. Straight fuel hose fitting.



DETAIL SECTION X

Size designator	Nominal tubing and hose size (REF)	Flange PIN (see notes 4 and 5)	A Max inch (mm)	B Max inch (mm)	C Min (see note 6) inch (mm)	D Max inch (mm)
16	1 (1.000)	MS20756*16	3.141 (79.78)	2.000 (50.80)	.813 (20.65)	1.953 (49.61)
20	1 ¼ (1.250)	MS20756*20	3.141 (79.78)	2.000 (50.80)	1.047 (26.59)	2.313 (58.75)
24	1 ½ (1.500)	MS20756*24	3.078 (78.18)	2.000 (50.80)	1.281 (32.54)	2.563 (64.41)
32	2 (2.000)	MS20756*32	3.500 (88.90)	2.250 (57.15)	1.750 (44.45)	3.125 (79.38)
40	2 ½ (2.500)	MS20756*40	3.891 (98.83)	2.500 (63.50)	2.250 (57.15)	3.625 (92.08)
48	3 (3.000)	MS20756*48	3.891 (98.83)	2.500 (63.50)	2.875 (73.03)	4.438 (112.73)

Size designator	E +.000 -.005 (0.13) inch (mm)	F (see note 6) +.000 -.005 (0.13) inch (mm)	G Max (see note 6) inch (mm)	H Min inch (mm)	J Min inch (mm)
16	.156 (3.96)	1.500 (28.10)	1.188 (30.18)	.375 (9.53)	1.343 (34.11)
20	.156 (9.36)	1.844 (46.84)	1.500 (38.10)	.500 (12.70)	1.656 (42.06)
24	.188 (4.48)	2.125 (53.98)	1.750 (44.45)	.500 (12.70)	1.906 (48.41)
32	.188 (4.48)	2.750 (69.85)	2.375 (60.33)	.625 (15.88)	2.531 (64.29)
40	.188 (4.48)	3.281 (83.34)	2.875 (73.03)	1.000 (25.40)	3.051 (77.50)
48	.188 (4.48)	3.781 (96.04)	3.375 (85.73)	1.250 (31.75)	3.250 (82.55)

NOTES:
1. Dimensions are in Inches.
2. Metric equivalents are given for information only.
3. Unless otherwise specified, tolerances: decimals ± .010 (0.25 mm); angles ± .01°.
4. Part or Identifying Number (PIN).
5. Material designator D, W or T see MS20756.
6. Dimensions C, F and G shall be concentric within .010 inch (0.25 mm) full indicator reading.

FIGURE 1. Straight fuel hose fitting - Continued.

REQUIREMENTS:

Material: Materials shall be in accordance with table I and SAE-AS4841.

TABLE I. Material designators.

Material designator	Alloy	Finish
D	Aluminum alloy 2014 or 2024	Anodize in accordance with MIL-A-8625, type II. 1/
W	Aluminum alloy 7075	Anodize in accordance with MIL-A-8625, type II. 1/
Dash (-)	Titanium 2/	Fluoride phosphated in accordance with SAE-AMS2486 3/
T	Titanium 2/	Anodized in accordance with SAE-AMS2488, type 2

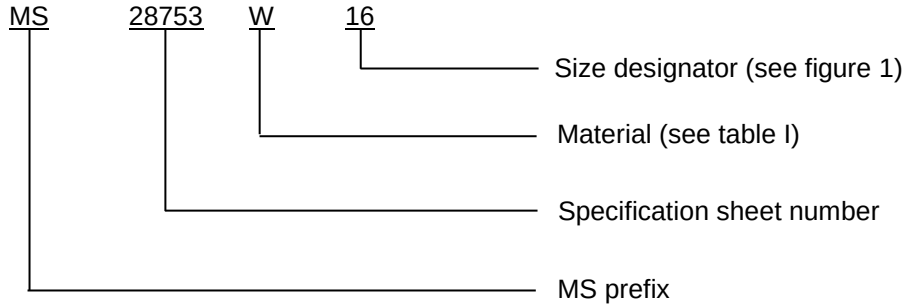
1/ Aluminum alloys 2014 and 2024 aluminum shall be dyed light blue. Aluminum alloy 7075 shall be dyed brown.
2/ Titanium shall not be used in oxygen systems.
3/ A pretreatment, a modification of the fluoride treatment, or a post treatment shall be applied so the final color of the fittings shall be similar to SAE-AMS-STD-595 colors 36076 through 36293.

Hex or flats shall fit standard wrench openings.

Surface roughness shall be in accordance with ASME-B46.1.

Remove all burrs and sharp edges. The interior surface of the fitting shall be smooth and free from projections.

PIN. The PIN shall consist of the prefix MS followed by the specification sheet number, letter for material designator, and a number for the size.



Example of PIN: MS28753W16 indicates a straight swivel with flange, aluminum, 1-inch hose or tubing size.

Fittings shall be permanently marked with the applicable MS PIN on an unfinished surface of the nipple.

Approximate weights are shown in table II.

TABLE II. Approximate weight.

Size designator	Weight (Approx) lb (g)	
	Aluminum	Titanium
16	.261 (118.4)	.43 (195.0)
20	.299 (135.6)	.49 (222.3)
24	.305 (138.3)	.50 (226.8)
32	.325 (147.4)	.54 (244.9)
40	.607 (275.3)	1.00 (453.6)
48	.954 (432.7)	1.58 (716.7)

Intended use: Hose assemblies using hose in accordance with MIL-PRF-7061.

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. This document references the following:

MIL-A-8625
MIL-PRF-7061
MS20756
ASME-B46.1
SAE-AMS-STD-595/36076
SAE-AMS-STD-595/36081
SAE-AMS-STD-595/36099
SAE-AMS-STD-595/36118
SAE-AMS-STD-595/36134
SAE-AMS-STD-595/36152
SAE-AMS-STD-595/36170
SAE-AMS-STD-595/36173
SAE-AMS-STD-595/36176
SAE-AMS-STD-595/36231
SAE-AMS-STD-595/36251
SAE-AMS-STD-595/36270
SAE-AMS-STD-595/36280
SAE-AMS-STD-595/36293
SAE-AMS2486
SAE-AMS2488
SAE-AS4841

CONCLUDING MATERIAL

Custodians:
Army - AV
Navy - AS
Air force - 99
DLA - CC

Preparing activity:
DLA - CC

(Project 4730-2018-116)

Review activities:
Navy - SH
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 https://assist.dla.mil.