

DETAIL SPECIFICATION SHEET

HOSE ASSEMBLY, RUBBER, LIGHTWEIGHT, MEDIUM PRESSURE,  
 FIELD ATTACHABLE END FITTINGS, FLANGE TO FLANGE

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-83796.

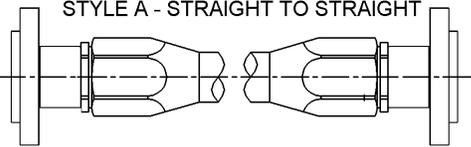
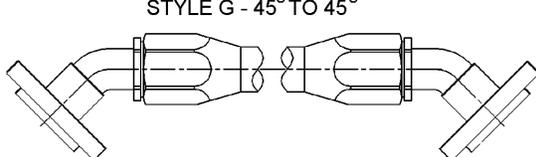
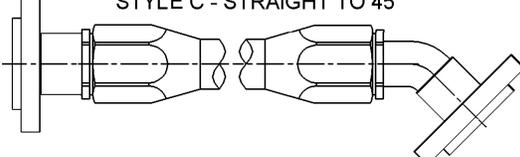
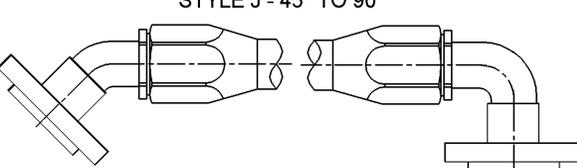
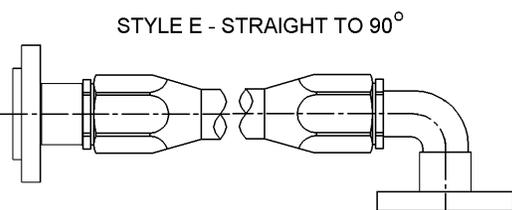
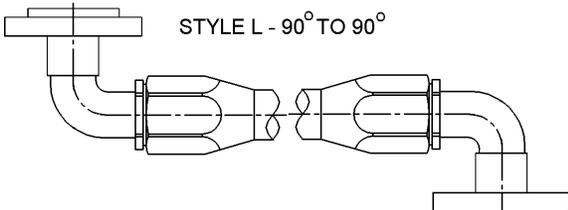
| FITTING 1  | FITTING 2  | FITTING 1 | FITTING 2 |
|--|--|-----------|-----------|
| <p>STYLE A - STRAIGHT TO STRAIGHT</p>  | <p>STYLE G - 45° TO 45°</p>   |           |           |
| <p>STYLE B - SAME AS STYLE A BUT WITH FIRESLEEVE</p>   | <p>STYLE H - SAME AS STYLE G BUT WITH FIRESLEEVE</p>   |           |           |
| <p>STYLE C - STRAIGHT TO 45°</p>      | <p>STYLE J - 45° TO 90°</p>  |           |           |
| <p>STYLE D - SAME AS STYLE C BUT WITH FIRESLEEVE</p>   | <p>STYLE K - SAME AS STYLE J BUT WITH FIRESLEEVE</p>   |           |           |
| <p>STYLE E - STRAIGHT TO 90°</p>      | <p>STYLE L - 90° TO 90°</p>  |           |           |
| <p>STYLE F - SAME AS STYLE E BUT WITH FIRESLEEVE</p>   | <p>STYLE M - SAME AS STYLE L BUT WITH FIRESLEEVE</p>   |           |           |

FIGURE 1. Hose assembly styles, field attachable fittings, flange-to-flange.

MIL-DTL-83796/9C

Hose cut-off factor (HCOF). HCOF is calculated as specified in table I.

TABLE I. Hose assembly, field attachable fittings, HCOF, styles A thru M.

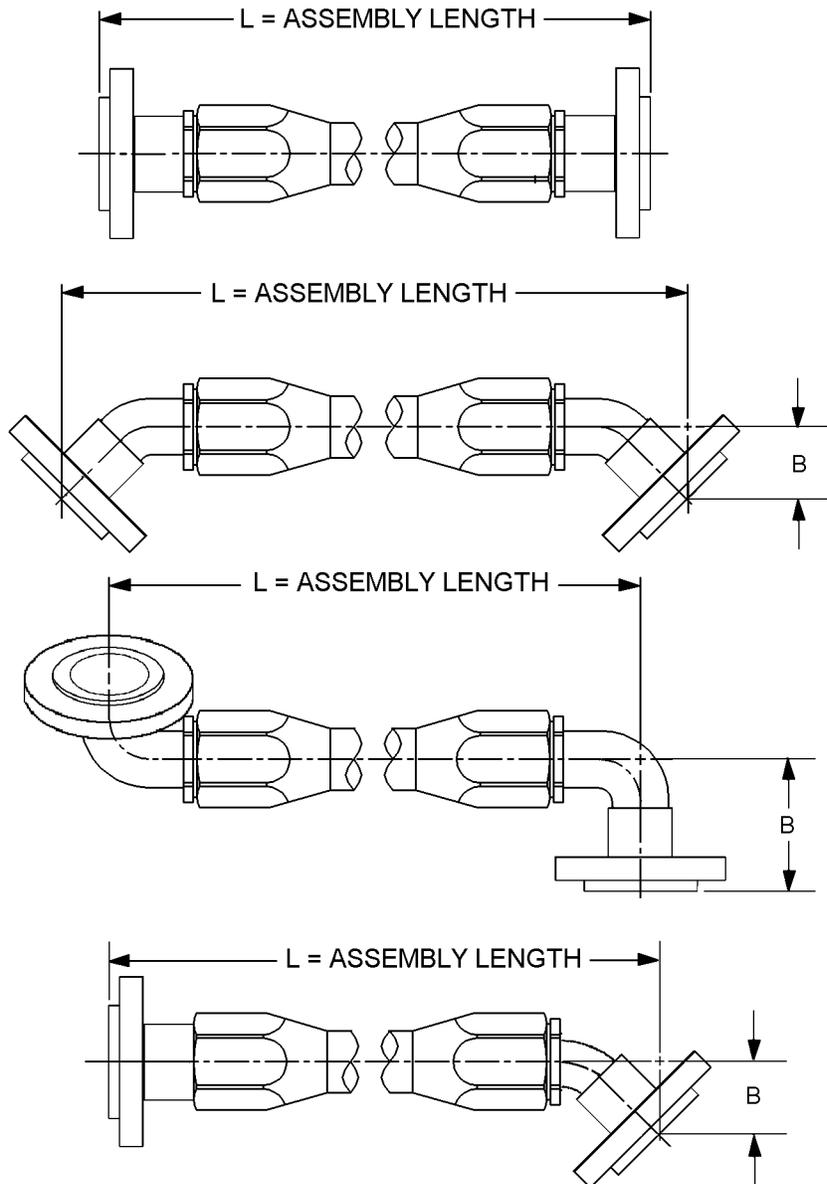
| Style   | Fitting ends<br>MIL-DTL-83798 |           | MIL-DTL-83797 HCOF <sup>1/</sup><br>inches verses hose dash size number |      |      |      |      |      |      |
|---------|-------------------------------|-----------|---|------|------|------|------|------|------|
|         | Fitting 1                     | Fitting 2 | -08   | -10  | -12  | -16  | -20  | -24  | -32  |
| A and B | M83798/7                      | M83798/7  | 2.30  | 2.28 | 2.50 | 2.92 | 3.54 | 3.20 | 3.48 |
| C and D | M83798/7                      | M83798/8  | 2.37  | 2.45 | 2.82 | 3.33 | 3.38 | 3.89 | 4.31 |
| E and F | M83798/7                      | M83798/9  | 2.30  | 2.41 | 2.84 | 3.39 | 4.00 | 4.07 | 4.60 |
| G and H | M83798/8                      | M83798/8  | 2.44  | 2.62 | 3.14 | 3.74 | 4.22 | 4.58 | 5.14 |
| J and K | M83798/8                      | M83798/9  | 2.37  | 2.58 | 3.16 | 3.80 | 4.34 | 4.76 | 5.43 |
| L and M | M83798/9                      | M83798/9  | 2.30  | 2.54 | 3.18 | 3.86 | 4.46 | 4.94 | 5.72 |

<sup>1/</sup> Example of HCOF: for a -08, ½ hose OD, 20-1/2 inch assembly length, style A, the bulk hose length = 20.50 - the HCOF = 20.50 - 2.30 = 18.20. Bulk hose length required is 18.20 inches.

Hose assembly length. The hose assembly length is calculated as shown on figure 2.

Hose assembly elbow fitting drop height. Elbow fitting drop height B is calculated as shown on figure 2.

MIL-DTL-83796/9C

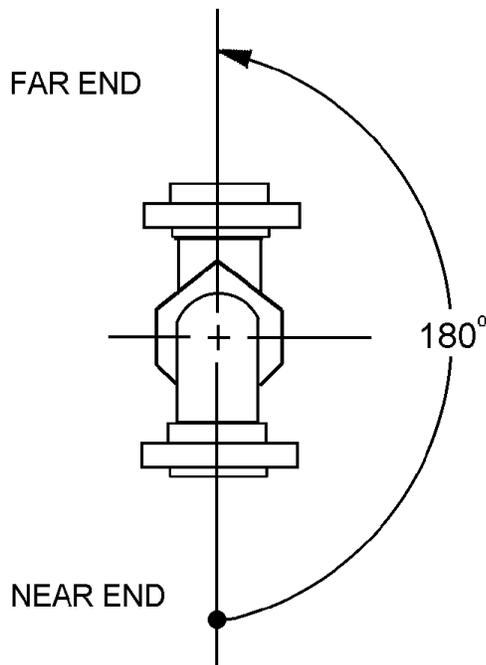


NOTES:

1. Drop height B can be found in the applicable MIL-DTL-83798 slash sheet as specified in table I herein.
2. Hose length "L" is measured from one fitting end to another fitting end.

FIGURE 2. Hose assembly dimensions.

Angular displacement. Angular displacement shall be as shown on figure 3.



NOTES:

1. Angular displacement for hose assemblies with elbow fittings on both ends shall have the angular displacement between elbows, measured counter-clockwise from the centerline of the nearest fitting, positioned at six-o' clock, to the centerline of the other fitting (see SAE-J517).
2. The near end of the connector shall be put in numerical order relative to the far end (see table I). Example: Near end adapter 45°, far end 90°.
3. Angular displacement shall be measured in degrees with a tolerance of  $\pm 3^\circ$  for lengths up to 2 feet (61 cm) and  $\pm 5^\circ$  for all lengths over 2 feet (61 cm).
4. The angular displacement shall be expressed in two digits number of degrees divided.
5. Making the angular determination in the wrong direction will result in an unacceptable part.

FIGURE 3. Elbow fitting angular alignment.

REQUIREMENTS

Hose assemblies shall be specified on figures 1, 2, and 3.

Fitting flange shall mate with MS20756 and flange installation shall be in accordance with MS33786 as applicable.

Hose assembly length tolerance shall be in accordance with MIL-DTL-83796.

Size codes shall be as specified in table II. Flange fittings not available for sizes -03, -04, -05, and -06.

MIL-DTL-83796/9C

TABLE II. Size code. 1/ 2/

|                   |                 |       |       |       |       |       |       |       |
|-------------------|-----------------|-------|-------|-------|-------|-------|-------|-------|
| Dash number       |                 | -08   | -10   | -12   | -16   | -20   | -24   | -32   |
| Size code         |                 | H     | J     | K     | M     | N     | P     | R     |
| Hose OD reference | Inches fraction | 1/2   | 5/8   | 3/4   | 1     | 1 1/4 | 1 1/2 | 2     |
|                   | Inches decimal  | .500  | .625  | .750  | 1.000 | 1.250 | 1.500 | 2.000 |
|                   | mm              | 12.70 | 15.88 | 19.05 | 25.40 | 31.75 | 38.10 | 50.80 |

1/ Dimensions are in inches.

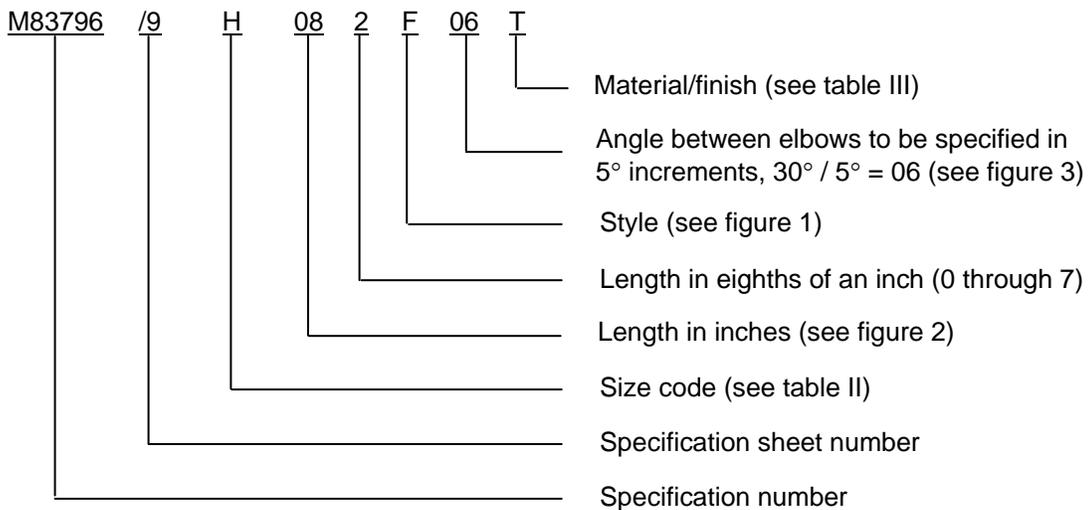
2/ Metric equivalents are given for information only.

Materials and finishes shall be in accordance with MIL-DTI-83796 and in table III.

TABLE III. Material and finish code.

| Part or Identifying Number (PIN) code dash letter | Material | Plating finish  |
|---|----------|---|
| Blank   | Aluminum | Anodize in accordance with MIL-A-8625, type II  |
| -T  | Titanium | Anodized in accordance with SAE-AMS2488, type 2 or fluoride phosphated in accordance with SAE-AMS2486 |

PIN example:



M83796/9H082F06T indicates - Hose assembly for 1/2 hose OD, 8 1/4 inches in length, style F, 30° between elbows, titanium alloy.

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

MIL-DTL-83796/9C

Referenced documents. In addition to MIL-DTL-83796, this document references the following:

|               |             |
|---------------|-------------|
| MIL-A-8625    | MS33786     |
| MIL-DTL-83797 | SAE-J517    |
| MIL-DTL-83798 | SAE-AMS2486 |
| MS20756       | SAE-AMS2488 |

CONCLUDING MATERIAL

Custodians:

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

Preparing activity:

DLA - CC

(Project 4720-2010-005)

Review activities:

Army - AT  
Navy - MC, SA  
Air Force - 71, 85

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.daps.dla.mil>.