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DETAIL SPECIFICATION SHEET

HOSE ASSEMBLY, POLYTETRAFLUOROETHYLENE, PERMANENTLY ATTACHED FITTINGS, HIGH TEMPERATURE, MEDIUM PRESSURE, FLARELESS-TO-FLARELESS

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-25579.

Hose assembly dimensions for style A: See table I.

TABLE I. Hose assembly dimensions for style A. 1/

Fitting ends		Hose size	Dimensions 2/ 3/			
1	2		A (nom)	B (max)	C (max)	F (max)
Straight	Straight	3/4	0.191	1.282	0.620	0.580
		4	0.222	1.222	0.620	0.654
		5	0.235	1.340	0.680	0.726
		6	0.230	1.469	0.750	0.798
		8	0.310	1.640	0.880	1.014
		10	0.356	1.940	0.967	1.158
		12	0.393	1.913	1.122	1.447
		16Z	0.429	2.298	1.480	1.736
		20Z	0.393	2.577	1.750	2.328
		24Z	0.398	2.800	2.150	2.621

1/ Style A uses class 1 fittings which are made from corrosion resistant steel (CRES).
2/ Dimensions are shown on figure 1.
3/ Apply NAS 1760 in accordance with MIL-DTL-25579/1, see requirements.

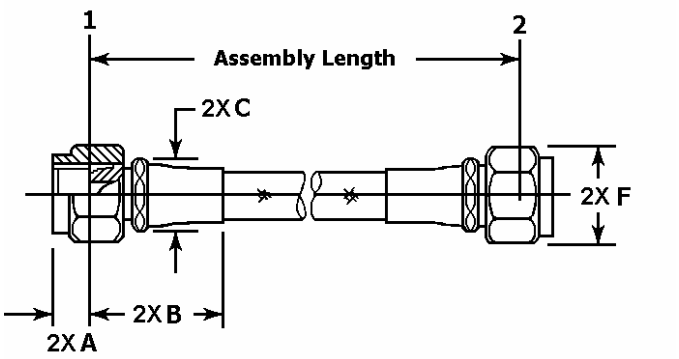


FIGURE 1. Style A hose assembly.

Hose assembly dimensions for style B: See table II.

TABLE II. Hose assembly dimensions for style B. 1/

Fitting ends		Hose size	Dimensions 2/ 3/							
1	2		A (nom)	B (max)	C (max)	D (max)	E (max)	F (max)	G (min)	G (max)
Straight	45°	3/4	0.191	1.282	0.620	1.240	0.950	0.580	0.412	0.537
		4	0.222	1.222	0.620	1.490	0.970	0.654	0.404	0.529
		5	0.235	1.340	0.680	1.495	1.017	0.726	0.428	0.553
		6	0.230	1.469	0.750	1.610	1.122	0.798	0.506	0.631
		8	0.310	1.640	0.880	1.722	1.426	1.014	0.542	0.789
		10	0.356	1.940	0.967	2.037	1.596	1.158	0.631	0.877
		12	0.393	1.913	1.122	2.368	1.739	1.447	0.631	0.952
		16Z	0.429	2.298	1.480	2.583	1.931	1.736	0.741	1.069
		20Z	0.393	2.577	1.750	2.946	2.084	2.328	0.863	1.196
		24Z	0.398	2.800	2.150	3.210	2.376	2.621	1.012	1.402

1/ Style B uses class 1 fittings which are made from CRES.
2/ Dimensions are shown on figure 2.
3/ Apply NAS 1760 in accordance with MIL-DTL-25579/1, see requirements.

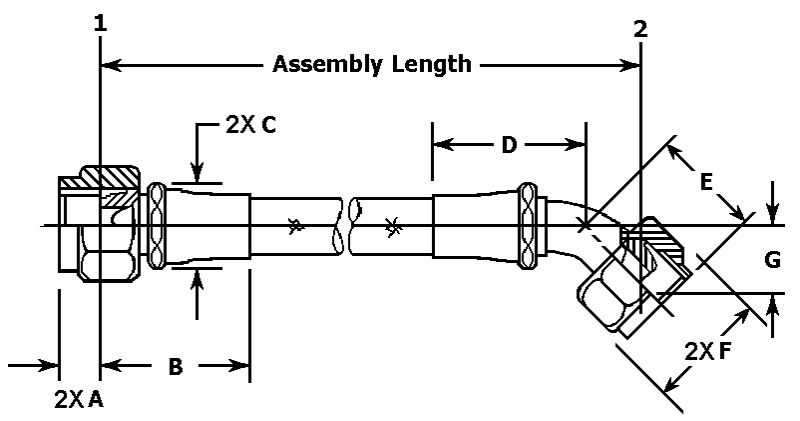


FIGURE 2. Style B hose assembly.

Hose assembly dimensions for style C: Seed table III.

TABLE III. Hose assembly dimensions for style C. 1/

Fitting ends		Hose size	Dimensions 2/ 3/							
1	2		A (nom)	B (max)	C (max)	F (max)	H (max)	J (max)	K (min)	K (max)
Straight	90°	3/4	0.191	1.282	0.620	0.580	1.845	1.350	0.721	0.846
		4	0.222	1.222	0.620	0.654	1.885	1.370	0.705	0.830
		5	0.235	1.340	0.680	0.726	1.980	1.550	0.788	0.975
		6	0.230	1.469	0.750	0.798	2.205	1.687	0.895	1.082
		8	0.310	1.640	0.880	1.014	2.495	2.032	1.032	1.282
		10	0.356	1.940	0.967	1.158	2.955	2.437	1.357	1.607
		12	0.393	1.913	1.122	1.447	3.705	2.795	1.591	1.841
		16Z	0.429	2.298	1.480	1.736	4.100	3.160	1.741	1.991
		20Z	0.393	2.577	1.750	2.328	4.835	3.664	2.021	2.396
		24Z	0.398	2.800	2.150	2.621	5.480	4.251	2.403	2.778

1/ Style C uses class 1 fittings which are made from CRES.
2/ Dimensions are shown on figure 3.
3/ Apply NAS 1760 in accordance with MIL-DTL-25579/1, see requirements.

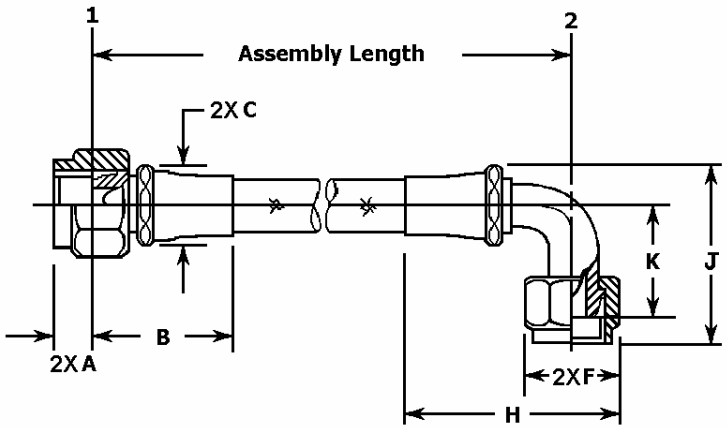


FIGURE 3. Style C hose assembly.

Hose assembly dimensions for style D: See table IV.

TABLE IV. Hose assembly dimensions for style D. 1/

Fitting ends		Hose size	Dimensions 2/ 3/						
1	2		A (nom)	C (max)	D (max)	E (max)	F (max)	G (min)	G (max)
45°	45°	3/4	0.191	0.620	1.240	0.950	0.580	0.412	0.537
		4	0.222	0.620	1.490	0.970	0.654	0.404	0.529
		5	0.235	0.680	1.495	1.017	0.726	0.428	0.553
		6	0.230	0.750	1.610	1.122	0.798	0.506	0.631
		8	0.310	0.880	1.722	1.426	1.014	0.542	0.789
		10	0.356	0.967	2.037	1.596	1.158	0.631	0.877
		12	0.393	1.122	2.368	1.739	1.447	0.631	0.952
		16Z	0.429	1.480	2.583	1.931	1.736	0.741	1.069
		20Z	0.393	1.750	2.946	2.084	2.328	0.863	1.196
		24Z	0.398	2.150	3.210	2.376	2.621	1.012	1.402

1/ Style D uses class 1 fittings which are made from CRES.
2/ Dimensions are shown on figure 4.
3/ Apply NAS 1760 in accordance with MIL-DTL-25579/1, see requirements.

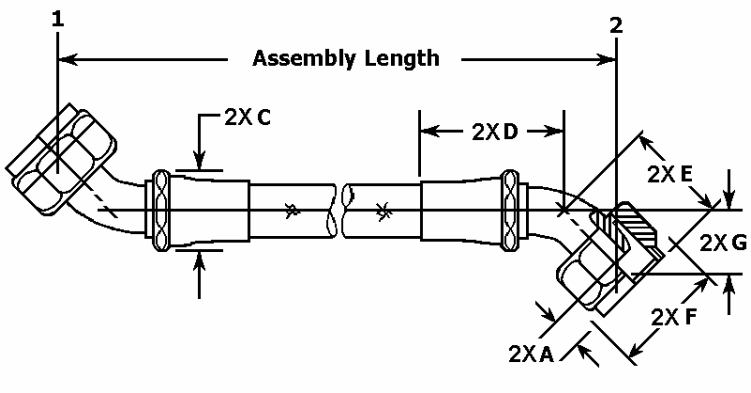


FIGURE 4. Style D hose assembly.

Hose assembly dimensions for style E: See table V.

TABLE V. Hose assembly dimensions for style E. 1/

Fitting ends		Hose size	Dimensions 2/ 3/										
			A	C	D	E	F	G	G	H	J	K	K
1	2		(nom)	(max)	(max)	(max)	(max)	(min)	(max)	(max)	(max)	(min)	(max)
45°	90°	3/4	0.191	0.620	1.240	0.950	0.580	0.412	0.537	1.845	1.350	0.721	0.846
		4	0.222	0.620	1.490	0.970	0.654	1.404	0.529	1.885	1.370	0.705	0.830
		5	0.235	0.680	1.495	1.017	0.726	0.428	0.553	1.980	1.550	0.788	0.975
		6	0.230	0.750	1.610	1.122	0.798	0.506	0.631	2.205	1.687	0.895	1.082
		8	0.310	0.880	1.722	1.426	1.014	0.542	0.789	2.495	2.032	1.032	1.282
		10	0.356	0.967	2.037	1.596	1.158	0.631	0.877	2.955	2.437	1.357	1.607
		12	0.393	1.122	2.368	1.739	1.447	0.631	0.952	3.705	2.795	1.591	1.841
		16Z	0.429	1.480	2.583	1.931	1.736	0.741	1.069	4.100	3.160	1.741	1.991
		20Z	0.393	1.750	2.946	2.084	2.328	0.863	1.196	4.835	3.664	2.021	2.396
		24Z	0.398	2.150	3.210	2.376	2.621	1.012	1.402	5.480	4.251	2.403	2.778

1/ Style E uses class 1 fittings which are made from CRES.
2/ Dimensions are shown on figure 5.
3/ Apply NAS 1760 in accordance with MIL-DTL-25579/1, see requirements.

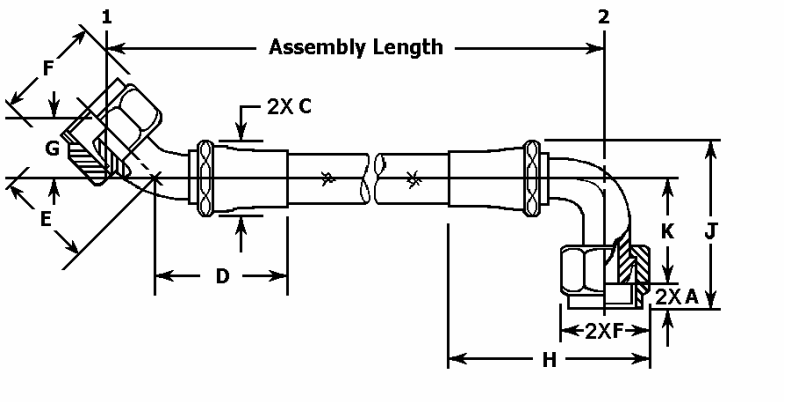


FIGURE 5. Style E hose assembly.

Hose assembly dimensions for style F: See table VI.

TABLE VI. Hose assembly dimensions for style F. 1/

Fitting ends		Hose	Dimensions 2/ 3/						
1	2	size	A (nom)	C (max)	F (max)	H (max)	J (max)	K (min)	K (max)
90°	90°	3/4	0.191	0.620	0.580	1.845	1.350	0.721	0.846
		4	0.222	0.620	0.654	1.885	1.370	0.705	0.830
		5	0.235	0.680	0.726	1.980	1.550	0.788	0.975
		6	0.230	0.750	0.798	2.205	1.687	0.895	1.082
		8	0.310	0.880	1.014	2.495	2.032	1.032	1.282
		10	0.356	0.967	1.158	2.955	2.437	1.357	1.607
		12	0.393	1.122	1.447	3.705	2.795	1.591	1.841
		16Z	0.429	1.480	1.736	4.100	3.160	1.741	1.991
		20Z	0.393	1.750	2.328	4.835	3.664	2.021	2.396
		24Z	0.398	2.150	2.621	5.480	4.251	2.403	2.778

1/ Style F uses class 1 fittings which are made from CRES.
2/ Dimensions are shown on figure 6.
3/ Apply NAS 1760 in accordance with MIL-DTL-25579/1, see requirements.

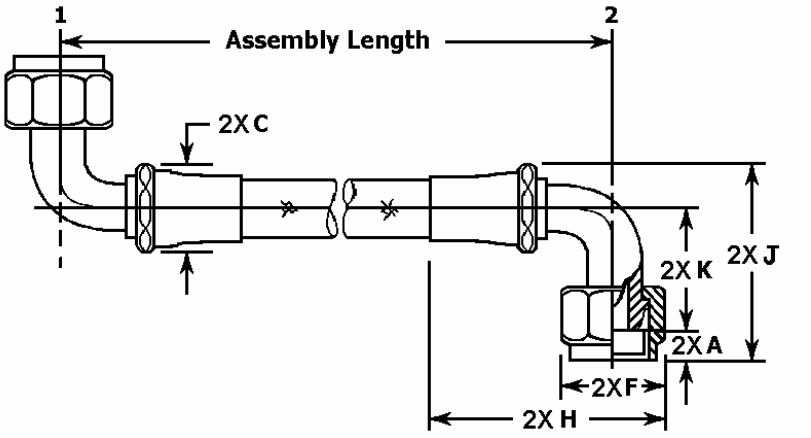


FIGURE 6. Style F hose assembly.

Hose assembly dimensions for style G: See table VII.

TABLE VII. Hose assembly dimensions for style G. 1/

Fitting ends		Hose size	Dimensions 2/ 3/			
1	2		A (nom)	B (max)	C (max)	F (max)
Straight	Straight	8	0.310	1.640	0.880	1.014
		10	0.356	1.940	0.967	1.158
		12	0.393	1.913	1.122	1.447
		16Z	0.429	2.298	1.480	1.736
		20Z	0.393	2.577	1.750	2.328
		24Z	0.398	2.800	2.150	2.621

1/ Style G uses class 2 fittings which are made from a combination of aluminum and CRES.
2/ Dimensions are shown on figure 7.
3/ Apply NAS 1760 in accordance with MIL-DTL-25579/1, see requirements.

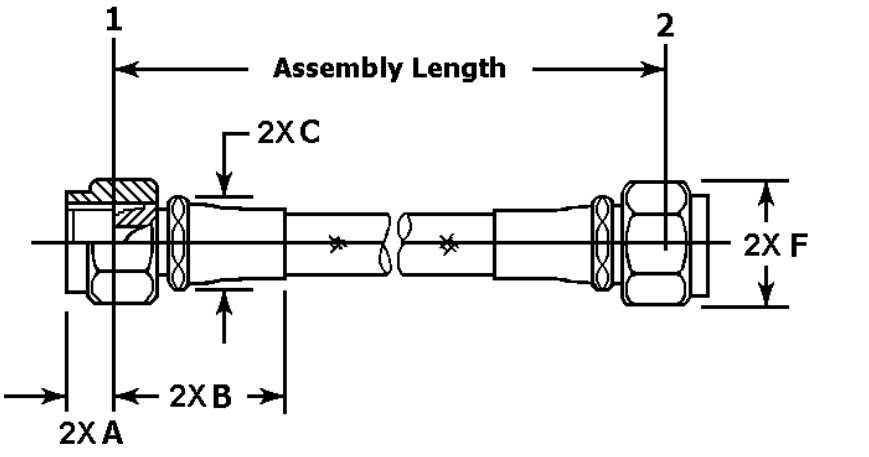


FIGURE 7. Style G hose assembly.

Hose assembly dimensions for style H: See table VIII.

TABLE VIII. Hose assembly dimensions for style H. 1/

Fitting ends		Hose size	Dimensions 2/ 3/							
1	2		A (nom)	B (max)	C (max)	D (max)	E (max)	F (max)	G (min)	G (max)
Straight	45°	8	0.310	1.640	0.880	1.722	1.426	1.014	0.542	0.789
		10	0.356	1.940	0.967	2.037	1.596	1.158	0.631	0.877
		12	0.393	1.913	1.122	2.368	1.739	1.447	0.631	0.952
		16Z	0.429	2.298	1.480	2.583	1.931	1.736	0.741	1.069
		20Z	0.393	2.577	1.750	2.946	2.084	2.328	0.863	1.196
		24Z	0.398	2.800	2.150	3.210	2.376	2.621	1.012	1.402

1/ Style H uses class 2 fittings which are made from a combination of aluminum and CRES.
2/ Dimensions are shown on figure 8.
3/ Apply NAS 1760 in accordance with MIL-DTL-25579/1, see requirements.

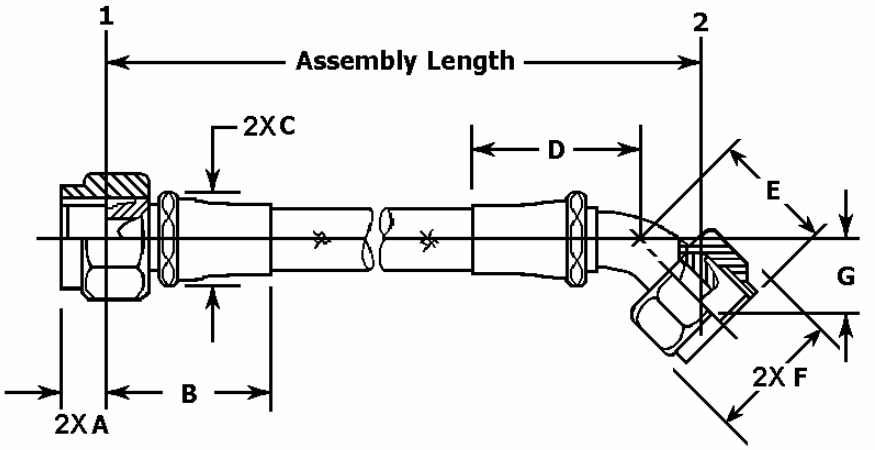


FIGURE 8. Style H hose assembly.

Hose assembly dimensions for style J: See table IX.

TABLE IX. Hose assembly dimensions for style J. 1/

Fitting ends		Hose size	Dimensions 2/ 3/							
1	2		A (nom)	B (max)	C (max)	F (max)	H (max)	J (max)	K (min)	K (max)
Straight	90°	8	0.310	1.640	0.880	1.014	2.495	2.032	1.032	1.282
		10	0.356	1.940	0.967	1.158	2.955	2.437	1.357	1.607
		12	0.393	1.913	1.122	1.447	3.705	2.795	1.591	1.841
		16Z	0.429	2.298	1.480	1.736	4.100	3.160	1.741	1.991
		20Z	0.393	2.577	1.750	2.328	4.835	3.664	2.021	2.396
		24Z	0.398	2.800	2.150	2.621	5.480	4.251	2.403	2.778

1/ Style J uses class 2 fittings which are made from a combination of aluminum and CRES.
2/ Dimensions are shown on figure 9.
3/ Apply NAS 1760 in accordance with MIL-DTL-25579/1, see requirements.

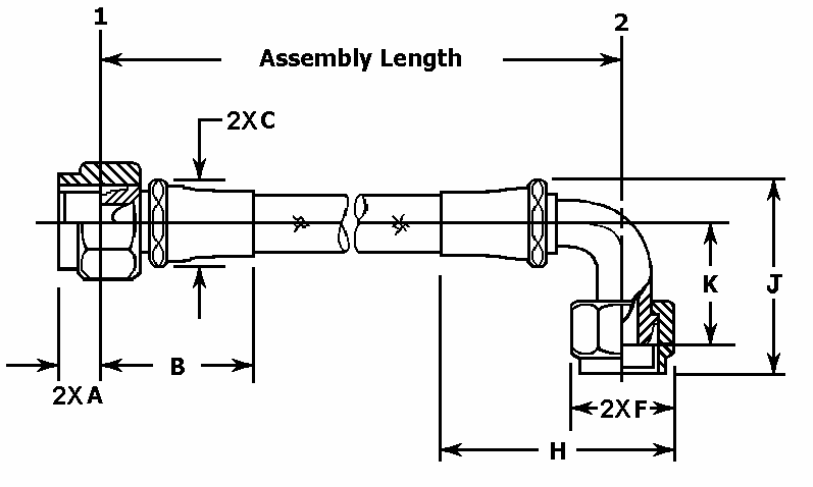


FIGURE 9. Style J hose assembly.

Hose assembly dimensions for style K: See table X.

TABLE X. Hose assembly dimensions for style K. 1/

Fitting ends		Hose size	Dimensions 2/ 3/						
1	2		A (nom)	C (max)	D (max)	E (max)	F (max)	G (min)	G (max)
45°	45°	8	0.310	0.880	1.722	1.426	1.014	0.542	0.789
		10	0.356	0.967	2.037	1.596	1.158	0.631	0.877
		12	0.393	1.122	2.368	1.739	1.447	0.631	0.952
		16Z	0.429	1.480	2.583	1.931	1.736	0.741	1.069
		20Z	0.393	1.750	2.946	2.084	2.328	0.863	1.196
		24Z	0.398	2.150	3.210	2.376	2.621	1.012	1.402

1/ Style K uses class 2 fittings which are made from a combination of aluminum and CRES.
2/ Dimensions are shown on figure 10.
3/ Apply NAS 1760 in accordance with MIL-DTL-25579/1, see requirements.

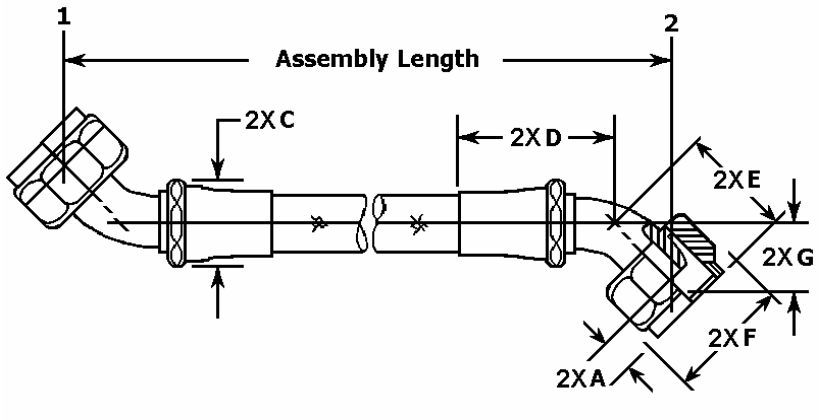


FIGURE 10. Style K hose assembly.

Hose assembly dimensions for style M: See table XI.

TABLE XI. Hose assembly dimensions for style M. 1/

Fitting ends		Hose size	Dimensions 2/ 3/										
			A	C	D	E	F	G	G	H	J	K	K
1	2		(nom)	(max)	(max)	(max)	(max)	(min)	(max)	(max)	(max)	(min)	(max)
45°	90°	8	0.310	0.880	1.722	1.426	1.014	0.542	0.789	2.495	2.032	1.032	1.282
		10	0.356	0.967	2.037	1.596	1.158	0.631	0.877	2.955	2.437	1.357	1.607
		12	0.393	1.122	2.368	1.739	1.447	0.631	0.952	3.705	2.795	1.591	1.841
		16Z	0.429	1.480	2.583	1.931	1.736	0.741	1.069	4.100	3.160	1.741	1.991
		20Z	0.393	1.750	2.946	2.084	2.328	0.863	1.196	4.835	3.664	2.021	2.396
		24Z	0.398	2.150	3.210	2.376	2.621	1.012	1.402	5.480	4.251	2.403	2.778

1/ Style M uses class 2 fittings which are made from a combination of aluminum and CRES.
2/ Dimensions are shown on figure 11.
3/ Apply NAS 1760 in accordance with MIL-DTL-25579/1, see requirements.

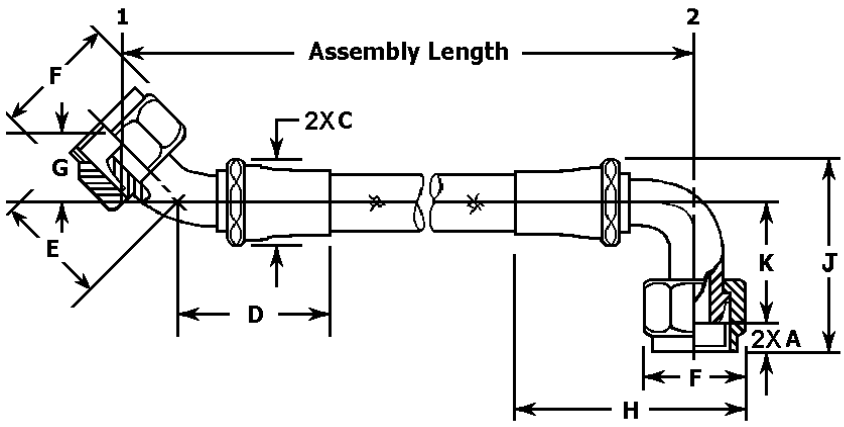


FIGURE 11. Style M hose assembly.

Hose assembly dimensions for style N: See table XII.

TABLE XII. Hose assembly dimensions for style N. 1/

Fitting ends		Hose	Dimensions 2/ 3/						
1	2	size	A (nom)	C (max)	F (max)	H (max)	J (max)	K (min)	K (max)
90°	90°	8	0.310	0.880	1.014	2.495	2.032	1.032	1.282
		10	0.356	0.967	1.158	2.955	2.437	1.357	1.607
		12	0.393	1.122	1.447	3.705	2.795	1.591	1.841
		16Z	0.429	1.480	1.736	4.100	3.160	1.741	1.991
		20Z	0.393	1.750	2.328	4.835	3.664	2.021	2.396
		24Z	0.398	2.150	2.621	5.480	4.251	2.403	2.778

1/ Style N uses class 2 fittings which are made from a combination of aluminum and CRES.
2/ Dimensions are shown on figure 12.
3/ Apply NAS 1760 in accordance with MIL-DTL-25579/1, see requirements.

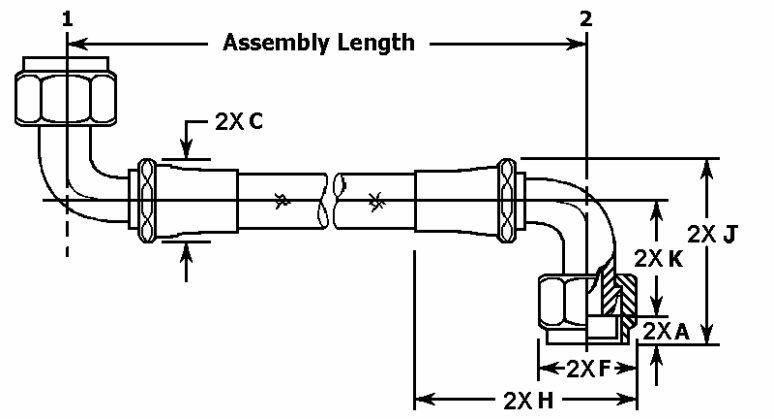


FIGURE 12. Style N hose assembly.

Protective sleeve code: See table XIII.

TABLE XIII. Protective sleeve code.

Code	Type
A	SAE AS1072 sleeve, fire protection, silicone covered, temperature ranging from -65°F to 450°F, and intermittently to 500°F, secured with CRES bands as required. 1/
B	SAE AS1073 - code B sleeve, abrasion protection, heat shrinkable, black polyolefin, temperature ranging from -65°F to 250°F.
C	SAE AS1291 - code A sleeve, chafe guard, extruded seamless white PTFE, temperature ranging from -65°F to 450°F, secured with CRES bands as required.
D	SAE AS1291 - code C sleeve, chafe guard, extruded seamless transparent FEP, temperature ranging from -65°F to 350°F, secured with CRES bands as required.
E	SAE AS1298 sleeve, heavy wall chafe guard, extruded seamless black PTFE, temperature ranging from -65°F to 450°F, secured with CRES bands as required.
L	Lock-wire hole
F	Code A + L
G	Code B + L
H	Code C + L
J	Code D + L
K	Code E + L

1/ To prevent wicking of fluids, the cut end of the fire protective sleeve (code A) shall be coated with Room Temperature Vulcanized (RTV) silicone rubber prior to installation. After installation, cracks and voids in the fire protective sleeve shall be coated with RTV rubber to prevent exposure of asbestos or fiberglass.

Hose assembly size code: See table XIV.

TABLE XIV. Hose assembly size code.

Size	Reference tube OD	Size code
3/4	1/	B
4	0.250	E
5	0.313	F
6	0.375	G
8	0.500	H
10	0.625	J
12	0.750	K
16Z	1.000	M
20Z	1.250	N
24Z	1.500	P

1/ Size 3/4 hose assembly consists of a size 4 tube OD hose assembled with size 3 tube OD fittings.

REQUIREMENTS

Dimensions: Unless otherwise specified, all dimensions are in inches. Dimensions “E (max)” and “J (max)” are installation dimensions and not design dimensions. Dimension “F” is measured across the corners.

Fittings: The swivel nut and nipple ends shall mate with SAE AS33514 fitting. The swivel nut threads shall be in accordance with SAE AS8879.

Assembly classification: Class 1 and class 2 hose assemblies, as specified in MIL-DTL-25579, have been incorporated into the PIN as a part of styles.

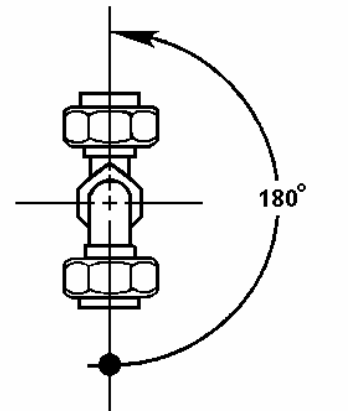
Angular alignment: Hose assemblies with elbow fittings on each end shall have the angular orientation between the elbows measured counter-clockwise from the centerline of the nearest fitting, positioned at six-o'clock, to the centerline of the other fitting (see figure 13). When applicable, the angular alignment shall be expressed in three digits and specified in the PIN.

Protective sleeve: If required, the hose assembly shall include a protective sleeve (see table XIII) and its code shall be included in the PIN. Fire protective sleeve shall be subjected to testing in accordance with MIL-DTL-25579.

Assembly length: Hose assembly shall be furnished in lengths as specified in the contract or purchase order (see MIL-DTL-25579); however, tolerances on the length of each hose assembly shall be as follows:

a. ±1/8 inch for lengths under 18 inches.
b. ±1/4 inch for lengths from 18 inches to 36 inches.
c. ±1/2 inch for lengths from 36 inches to 50 inches.
d. ±1% for lengths over 50 inches.

Flareless fitting, hose connector design: Use MIL-DTL-25579/1 for application of NAS 1760 design or radius ball-nose design.

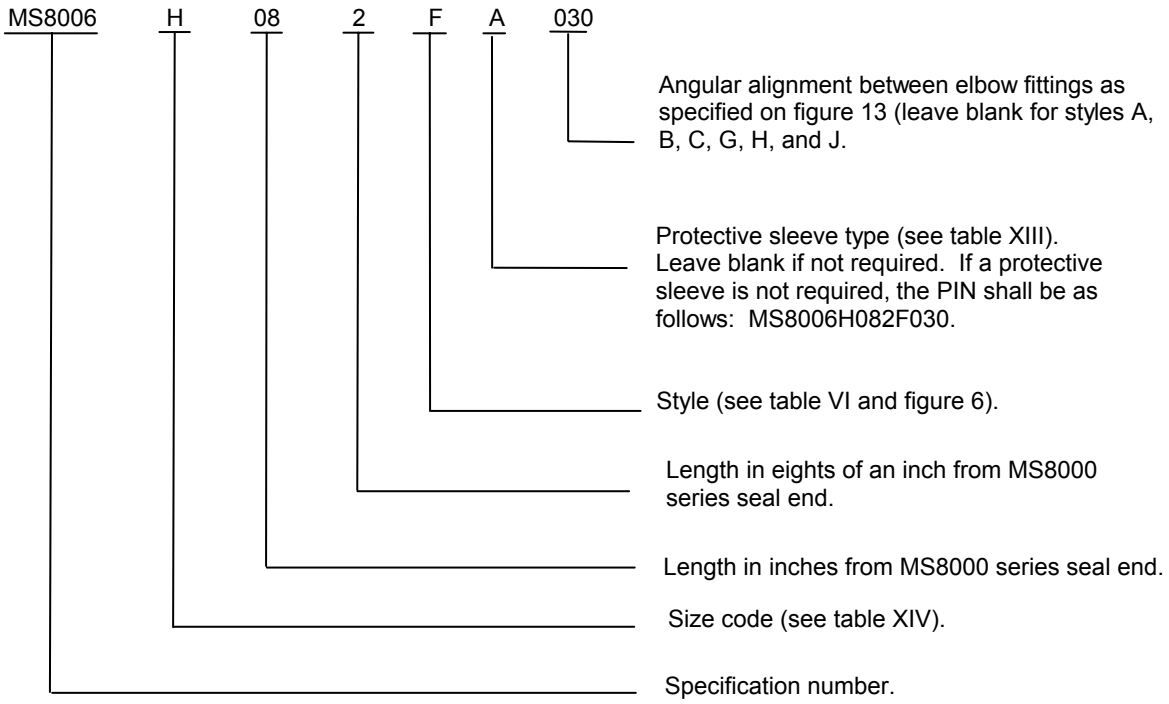


NOTE: Angular alignment shall be measured in degrees with a tolerance of ±2°.

FIGURE 13. Measurement of angular alignment between elbow fittings.

PIN: The PIN for each hose assembly shall include its size code, length, style, protective sleeve type, and the angular alignment between the elbow fittings, as applicable.

Example: The PIN for an 8.250 inch (209.55 mm) length, style F hose assembly with a.500 inch (12.70 mm) tube OD, a fire protective sleeve in accordance with SAE AS1072, and a 30° between the elbow fittings shall be as follows:



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-25579, this document references the following:

SAE AS8879
SAE AS33514
SAE AS1072
SAE AS1073
SAE AS1291
SAE AS1298
MIL-DTL-25579/1
NAS 1760
MS8000

CONCLUDING MATERIAL

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

Review activities:
Army - AR, AT, EA, MI
Navy - MC, SA, SH
Air Force – 70

Preparing activity:
DLA - CC

(Project 4720-0433-000)

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