



AEROSPACE STANDARD

AS120

Society of Automotive Engineers, Inc.
400 COMMONWEALTH DRIVE, WARRENDALE, PA. 15096

Issued August, 1976
Revised

HOSE ASSEMBLY, NONMETALLIC-3000 PSI, TFE, FLARELESS, 90° TO 90°, LIGHTWEIGHT

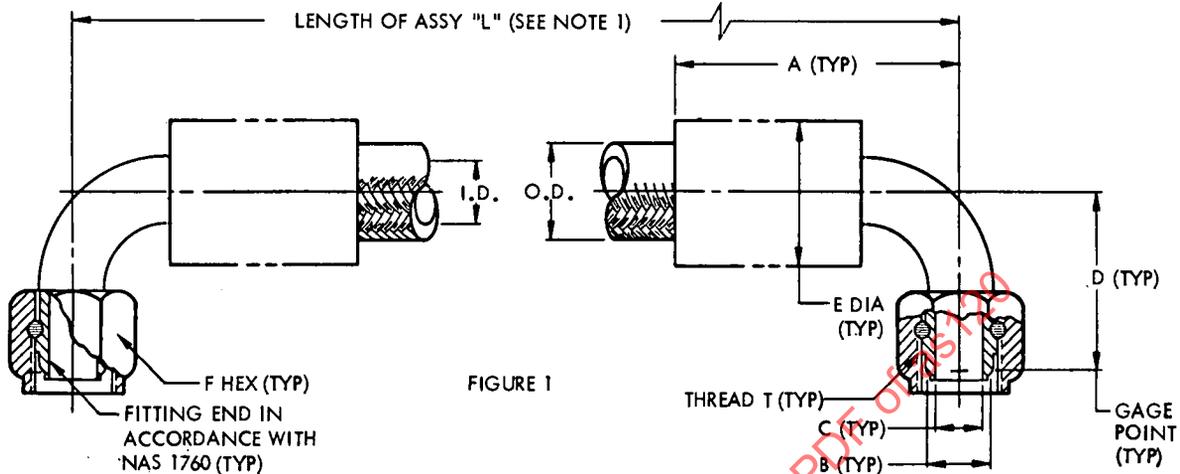


FIGURE 1

TABLE I

HOSE ASSEMBLY NO. AND SIZE CODE	HOSE ASSEMBLY SIZE REF	THREAD T PER MIL-S-8879 REF	I.D. MIN	A MAX	B GAGE DIA BASIC	C ⁸ MIN DIA THRU	D		E ⁷ DIA MAX WITHOUT SLEEVING	F HEX REF
							MIN	MAX		
AS120E	1/4	.4375-20 UNJF-3B	.212	1.75	.2930	.141	.69	.88	.69	.56
AS120G	3/8	.5625-18 UNJF-3B	.298	2.00	.4120	.250	.88	1.09	.80	.69
AS120H	1/2	.7500-16 UNJF-3B	.391	2.38	.5600	.360	1.00	1.31	.97	.88
AS120J	5/8	.8750-14 UNJF-3B	.485	2.81	.6730	.455	1.19	1.50	1.11	1.00
AS120K	3/4	1.0625-12 UNJ-3B	.602	3.25	.8100	.568	1.38	1.75	1.38	1.25
AS120M	1	1.3125-12 UNJ-3B	.852	4.00	1.0620	.760	1.69	2.06	1.66	1.50

TABLE II

HOSE ASSEMBLY LENGTH	AVAILABLE INCREMENTS	TOLERANCE
UNDER 18 INCHES	(NOT LESS THAN) 1/8 INCH	(PLUS OR MINUS) .125 INCH
18 TO 36 INCHES	(NOT LESS THAN) 1/4 INCH	(PLUS OR MINUS) .250 INCH
36 TO 50 INCHES	(NOT LESS THAN) 1/2 INCH	(PLUS OR MINUS) .500 INCH
OVER 50 INCHES	(NOT LESS THAN) 1 INCH	(PLUS OR MINUS) 1 PER CENT

TABLE III

SLEEVING CODE OR HOSE	TYPE OF SLEEVING OR HOSE	HOSE OR SLEEVE O.D. MAX					TEMPERATURE LIMIT
		HOSE SIZE					
		1/4	3/8	1/2	5/8	3/4	
NONE	HOSE ONLY	.410	.540	.640	.745	.990	400°F
A	TUBULAR ABRASION (TFE)	.580	.678	.800	.850	1.184	400°F
B	SPIRAL ABRASION	.508	.612	.754	.847	1.080	275°F
C	FIRESLLEEVE	.875	.940	1.100	1.230	1.480	400°F
D	INTEGRAL ABRASION	.500	.625	.708	.832	1.112	400°F
E	SHRINK ABRASION (FEP)	.470	.600	.700	.805	1.050	400°F
F	SHRINK ABRASION (POLYOLEFIN)	.470	.610	.700	.815	1.050	275°F

CONSTRUCTION AND PERFORMANCE: THESE HOSE ASSEMBLIES SHALL MEET THE CONSTRUCTION AND PERFORMANCE REQUIREMENTS OF ARP 1339. FITTINGS SHALL BE PERMANENTLY ATTACHED TO THE HOSE.

RATED OPERATING CHARACTERISTICS: SEE ARP 1339.

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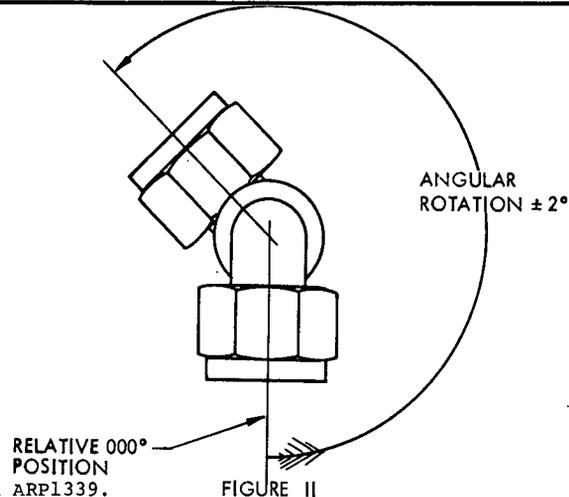


FIGURE II

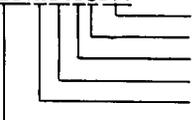
MATERIALS: HOSE AND FITTINGS - PER ARP1339.
 TUBULAR ABRASION SLEEVE (TFE)-BLACK, EXTRUDED SEAMLESS TFE TUBING PER AS1291.
 SPIRAL ABRASION SLEEVE-BLACK, NYLON COIL PER AS1294.
 FIRESLEEVE-ASBESTOS, IMPREGNATED WITH SILICON RUBBER PER AS1072 "SIL" CODED.
 INTEGRAL ABRASION SLEEVE-BLACK, INTEGRALLY BONDED SILICON/TFE COMPOSITE.
 SHRINK ABRASION SLEEVE (FEP)-TRANSLUCENT, SHRINKABLE FEP TUBING PER MIL-I-23053/11.
 SHRINK ABRASION SLEEVE (POLYOLEFIN)-BLACK, SHRINKABLE POLYOLEFIN TUBING PER AMS3587 OR MIL-R-46846 TYPE 5.

MARKING: THE HOSE ASSEMBLIES SHALL HAVE ALL IDENTIFICATION MARKING AS REQUIRED BY ARP1339, IMPRESSION STAMPED, ON AN ALUMINUM ALLOY BAND NOT MORE THAN 1.0 INCH WIDE, ANODIZED BLACK. THE CHARACTERS SHALL BE 1/16 INCH HIGH, EXCEPT THE "AS" PART NUMBER WHICH SHALL BE 1/8 INCH HIGH CHARACTERS. THE BAND SHALL BE TIGHT ON THE HOSE BUT WITHOUT PINCHING, AND ENCOMPASS A MINIMUM OF 340° OF THE HOSE PERIPHERY. THE BAND SHALL BE SUFFICIENTLY STRONG TO PREVENT REMOVAL BY HAND, BUT ALLOW REPOSITIONING ON THE HOSE WITH THE AID OF A STANDARD SCREWDRIVER. VARIABLE DATA, SUCH AS MANUFACTURING DATE AND "PT" SYMBOL MAY BE ELECTROETCHED ON ONE END FITTING OR FIRESLEEVE CLAMP.

- NOTES:**
1. LENGTH "L" IS A THREE DIGIT NUMBER OF WHICH THE FIRST TWO DIGITS DESCRIBE THE HOSE ASSEMBLY LENGTH IN WHOLE INCHES, AND THE THIRD DIGIT, THE FRACTION OF AN INCH IN EIGHTHS. LENGTH "L" IS MEASURED FROM "GAGE POINT" TO "GAGE POINT". SEE TABLE II FOR AVAILABLE LENGTH INCREMENTS AND TOLERANCES.
 2. THE FITTINGS ORIENTATION DASH NUMBER IS A THREE DIGIT NUMBER DEFINING THE RELATIVE POSITION OF THE END FITTINGS IN 1° INCREMENTS, (EXAMPLE 090 = 90°). FITTING ORIENTATION SHALL BE MEASURED COUNTERCLOCKWISE FROM THE NEAREST END FITTING, WHICH SHALL BE IN THE RELATIVE 000° POSITION (SEE FIGURE II). WHEN END FITTINGS ARE POINTED IN THE SAME DIRECTION, THIS DASH NUMBER SHALL BE 000.
 3. THE CUT ENDS OF THE FIRESLEEVE SHALL BE COATED WITH RTV SILICONE RUBBER, PRIOR TO INSTALLATION, TO PREVENT WICKING OF FLUIDS. THE FIRESLEEVE ENDS SHALL BE SECURED TO THE HOSE ASSEMBLY END FITTINGS WITH CORROSION RESISTANT STEEL BANDS. AFTER INSTALLATION, CRACKS OR VOIDS IN THE FIRESLEEVE, WHICH EXPOSE THE ASBESTOS, SHALL BE COATED WITH RTV SILICONE RUBBER.
 4. SPIRAL ABRASION SLEEVE, WHEN ASSEMBLED IN THE STRAIGHT CONDITION ON THE HOSE, SHALL HAVE MAXIMUM SPACING BETWEEN SPIRALS OF .05 INCHES. DISPLACEMENT OF THE SLEEVE, CAUSING A GREATER GAP, SHALL NOT BE CAUSE FOR REJECTION IF THE SPIRALS CAN BE REPOSITIONED TO MEET THE ABOVE REQUIREMENT. ENDS OF THE SPIRAL SLEEVE ARE TO BE SECURED BY A 1.00 INCH PIECE OF BLACK POLYOLEFIN TUBING PER MIL-I-23053/5 HEAT SHRUNK TO A TIGHT FIT OVER THE SPIRAL SLEEVE AND HOSE OR END FITTING COLLARS.
 5. TUBULAR ABRASION SLEEVES SHALL HAVE AN I.D. NO GREATER THAN HOSE O.D. + .05 INCH. AXIAL MOVEMENT OF THE SLEEVE INSTALLED ON THE HOSE SHALL NOT EXCEED .05 INCH.
 6. INTEGRAL ABRASION SLEEVE SHALL FORM AN INTEGRAL, PERMANENT PART OF THE HOSE AND SHALL TERMINATE .060 MAXIMUM FROM THE END FITTING COLLAR.
 7. DISTANCE ACROSS CORNERS OF COUPLING NUT MAY EXCEED THIS DIMENSION.
 8. MINIMUM I.D. THROUGH THE ELBOW BEND AREA, MAY BE .031 LESS THAN THE VALUE SHOWN, DUE TO OVALITY.
 9. DO NOT USE UNASSIGNED SIZE CODES OR SLEEVE CODES.

EXAMPLE OF PART NUMBER:

AS120H242C270



ANGULAR ORIENTATION IN 1° INCREMENTS, 270°. (SEE NOTE 2 and FIGURE II)
 SILICONE FIRESLEEVE. (SEE TABLE III) USE DASH (-) FOR UNSLEEVED HOSE
 FRACTIONAL LENGTH IN EIGHTHS OF AN INCH, 1/4 INCH. (SEE NOTE 1)
 LENGTH IN WHOLE INCHES, 24 INCHES. (SEE NOTE 1)
 BASIC HOSE ASSEMBLY SIZE, 1/2 INCH. (SEE TABLE I)
 BASIC HOSE ASSEMBLY PART NO.
 HOSE ASSEMBLY, NONMETALLIC - 3000 PSI, TFE, FLARELESS
 90° to 90° LIGHTWEIGHT

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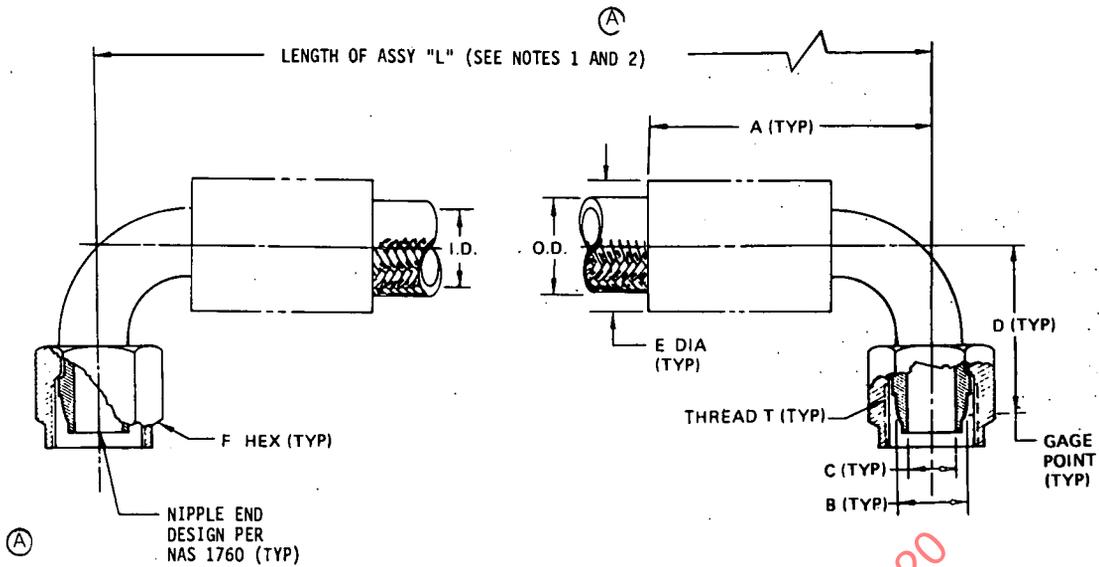


FIGURE 1

TABLE I

HOSE ASSEMBLY NO. AND SIZE CODE	HOSE ASSEMBLY SIZE REF	THREAD T PER MIL-S-8879 REF	I.D. MIN	A MAX	B GAGE DIA BASIC	C 11/ DRILL DIA MIN	D		E 12/ DIA MAX WITHOUT SLEEVING	F HEX REF
							MIN	MAX		
AS120E	1/4	.4375-20 UNJF-3B	.212	1.75	.2930	.135	.69	.88	.69	.56
AS120G	3/8	.5625-18 UNJF-3B	.298	2.00	.4120	.240	.88	1.09	.80	.69
AS120H	1/2	.7500-16 UNJF-3B	.391	2.38	.5600	.340	1.00	1.31	.97	.88
AS120J	5/8	.8750-14 UNJF-3B	.485	2.81	.6730	.410	1.19	1.50	1.11	1.00
AS120K	3/4	1.0625-12 UNJ -3B	.602	3.25	.8100	.510	1.38	1.75	1.38	1.25
AS120M	1	1.3125-12 UNJ -3B	.852	4.00	1.0620	.760	1.69	2.06	1.66	1.50

TABLE II

HOSE ASSEMBLY LENGTH	AVAILABLE INCREMENTS	TOLERANCE
UNDER 18 INCHES	(NOT LESS THAN) .125 INCH	(PLUS OR MINUS) .125 INCH
18 TO 36 INCHES	(NOT LESS THAN) .250 INCH	(PLUS OR MINUS) .250 INCH
36 TO 50 INCHES	(NOT LESS THAN) .500 INCH	(PLUS OR MINUS) .500 INCH
OVER 50 INCHES	(NOT LESS THAN) 1.000 INCH	(PLUS OR MINUS) 1 PERCENT

TABLE III

SLEEVING CODE OR HOSE	TYPE OF SLEEVING OR HOSE	HOSE OR SLEEVE O.D. MAX						TEMP LIMIT °F.
		HOSE SIZE						
		1/4	3/8	1/2	5/8	3/4	1	
NONE	HOSE ONLY	.410	.540	.640	.745	.990	1.270	400
A	TUBULAR ABRASION (TFE)	.580	.678	.800	.850	1.184	1.514	400
B	SPIRAL ABRASION	.508	.612	.754	.847	1.080	1.375	275
C	FIRE SLEEVE 10/	.875	1.032	1.152	1.230	1.480	1.840	400
D	INTEGRAL ABRASION	.500	.625	.708	.832	1.112	1.390	350
E	SHRINK ABRASION (FEP)	.470	.600	.700	.813	1.050	1.350	400
F	SHRINK ABRASION (POLYOLEFIN)	.480	.632	.722	.837	1.050	1.375	275
G	FIRE SLEEVE 9/	.875	1.032	1.152	1.230	1.480	1.840	400
H	INTEGRAL FIRE COVER-SILICONE 10/	.781	.891	1.016	1.141	1.328	1.593	400
J	INTEGRAL FIRE COVER-SILICONE 9/	.656	.766	.905	1.016	1.206	1.500	400
K	BRAIDED ABRASION (POLYESTER)	.490	.565	.680	.800	.959	—	300

Prepared by SAE Committee G-3, Aerospace Fittings, Hose and Tubing Assemblies.

Society of Automotive Engineers, Inc.
400 COMMONWEALTH DRIVE WARRENDALE, PA 15096

AEROSPACE STANDARD

HOSE ASSEMBLY, NONMETALLIC--3000 PSI, TFE,
FLARELESS, 90° TO 90°, LIGHTWEIGHT

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(A) TABLE IV

HOSE, SLEEVING, HOSE WITH PROTECTIVE COVER OR END FITTING.	UNITS	MAXIMUM WEIGHT					
		HOSE SIZE					
		1/4	3/8	1/2	5/8	3/4	1
HOSE ONLY	LBS/IN.	.010	.015	.021	.028	.055	.089
TUBULAR ABRASION (TFE)	LBS/IN.	.003	.003	.004	.004	.006	.009
SPIRAL ABRASION	LBS/IN.	.001	.002	.003	.003	.004	.005
FIRE SLEEVE 10/	LBS/IN.	.010	.014	.016	.017	.022	.026
INTEGRAL ABRASION WITH HOSE	LBS/IN.	.014	.021	.026	.035	.067	.104
SHRINK ABRASION (FEP) ONLY	LBS/IN.	.001	.003	.003	.004	.005	.006
SHRINK ABRASION (POLYOLEFIN) ONLY	LBS/IN.	.002	.003	.003	.004	.005	.006
FIRE SLEEVE 9/	LBS/IN.	.010	.014	.016	.017	.022	.026
INTEGRAL FIRE COVER WITH HOSE 10/	LBS/IN.	.030	.037	.046	.060	.091	.130
INTEGRAL FIRE COVER WITH HOSE 9/	LBS/IN.	.020	.030	.037	.048	.080	.117
BRAIDED ABRASION WITH HOSE	LBS/IN.	.012	.017	.023	.027	.040	—
FIRE SLEEVE CLAMP	LBS EA.	.025	.025	.025	.026	.026	.033
STD END FITTING-90°	LBS EA.	.078	.126	.218	.327	.615	.945

(A) TABLE V

HOSE SIZE	LENGTH (INCHES)
D4 06	2.00 ±.25
08 10	2.50 ±.25
12 16	3.00 ±.25

(A) TABLE VI

HOSE SIZE REF	SPHERICAL BALL SIZE FOR DETERMINING MIN THRU DIA 11/	
	MS19059 DASH NO.	DIA IN.
04	1007	.109
06	1012	.188
08	1016	.313
10	1018	.375
12	1021	.469
16	1029	.719

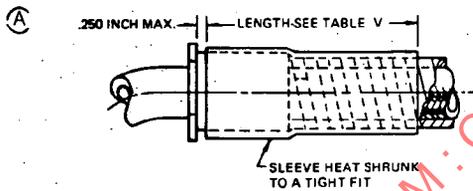


FIGURE 2

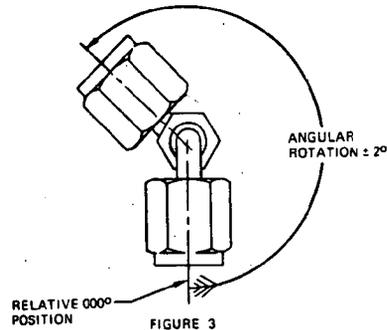


FIGURE 3

CONSTRUCTION AND PERFORMANCE: THESE HOSE ASSEMBLIES SHALL MEET THE CONSTRUCTION AND PERFORMANCE REQUIREMENTS OF AS 1339. FITTINGS SHALL BE PERMANENTLY ATTACHED TO THE HOSE.

RATED OPERATING CHARACTERISTICS: See AS 1339.

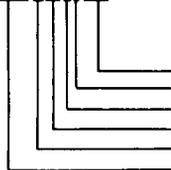
MATERIALS: HOSE AND FITTINGS - PER AS 1339.
 TUBULAR ABRASION SLEEVE (TFE) - BLACK, EXTRUDED SEAMLESS TFE TUBING PER AS 1291.
 SPIRAL ABRASION SLEEVE - BLACK, NYLON COIL PER AS 1294.
 FIRE SLEEVE - ASBESTOS, IMPREGNATED WITH SILICONE RUBBER PER AS 1072 "SIL" CODED.
 INTEGRAL ABRASION SLEEVE - BLACK, INTEGRALLY BONDED SILICONE/TFE COMPOSITE.
 SHRINK ABRASION SLEEVE (FEP) - TRANSLUCENT, SHRINKABLE FEP TUBING PER MIL-I-23053/11.
 SHRINK ABRASION SLEEVE (POLYOLEFIN) - BLACK, SHRINKABLE POLYOLEFIN TUBING PER AMS 3587 OR MIL-R-46846 TYPE 5.
 INTEGRAL FIRE COVER - EXTRUDED SILICONE
 BRAIDED ABRASION (POLYESTER)

MARKING: THE HOSE ASSEMBLIES SHALL HAVE ALL IDENTIFICATION MARKING, AS REQUIRED BY AS 1339, PERMANENTLY MARKED ON A PERMANENT STAINLESS STEEL BAND, NOT MORE THAN 1.0 INCH WIDE, OR ON THE END FITTING. THE CHARACTERS SHALL BE A MINIMUM OF 1/16 INCH HIGH. THE BAND SHALL BE SO DESIGNED AS TO REMAIN TIGHT ON THE HOSE TO PREVENT RELATIVE MOVEMENT AND RESULTANT CHAFING AND OF SUFFICIENT STRENGTH TO PREVENT REMOVAL BY HAND. VARIABLE DATA, SUCH AS MANUFACTURING DATE AND "PT" SYMBOL, MAY BE ELECTROETCHED ON ONE END FITTING OR FIRE SLEEVE CLAMP.

- NOTES:
1. LENGTH "L" IS A THREE DIGIT NUMBER OF WHICH THE FIRST TWO DIGITS DESCRIBE THE HOSE ASSEMBLY LENGTH IN WHOLE INCHES, AND THE THIRD DIGIT, THE FRACTION OF AN INCH IN EIGHTHS. LENGTH "L" IS MEASURED FROM "GAGE POINT" TO "GAGE POINT." SEE TABLE II FOR AVAILABLE LENGTH INCREMENTS AND TOLERANCES.
 - (A) 2. "END TO END" LENGTH MEASUREMENT IS THE SAME AS THE "GAGE POINT" TO "GAGE POINT" MEASUREMENT BECAUSE EACH END FITTING IS A 90° ELBOW.
 3. THE FITTINGS ORIENTATION DASH NUMBER IS A THREE DIGIT NUMBER DEFINING THE RELATIVE POSITION OF THE END FITTINGS IN 1° INCREMENTS, (EXAMPLE 090 = 90°). FITTING ORIENTATION SHALL BE MEASURED COUNTERCLOCKWISE FROM THE NEAREST END FITTING, WHICH SHALL BE IN THE RELATIVE 000° POSITION (SEE FIGURE 3). WHEN END FITTINGS ARE POINTED IN THE SAME DIRECTION, THIS DASH NUMBER SHALL BE 000.
 4. THE CUT ENDS OF THE FIRESLEEVE SHALL BE COATED WITH RTV SILICONE RUBBER, PRIOR TO INSTALLATION, TO PREVENT WICKING OF FLUIDS. THE FIRESLEEVE ENDS SHALL BE SECURED TO THE HOSE ASSEMBLY END FITTINGS WITH CORROSION RESISTANT STEEL BANDS. AFTER INSTALLATION, CRACKS OR VOIDS IN THE FIRESLEEVE, WHICH EXPOSE THE ASBESTOS, SHALL BE COATED WITH RTV SILICONE RUBBER.
 - (A) 5. SPIRAL ABRASION SLEEVE, WHEN ASSEMBLED IN THE STRAIGHT CONDITION ON THE HOSE, SHALL HAVE AN AVERAGE GAP BETWEEN SPIRALS NOT EXCEEDING .05 INCH. DISPLACEMENT OF THE SPIRAL SLEEVE, CAUSING A GREATER GAP, SHALL NOT BE CAUSE FOR REJECTION IF THE SPIRALS CAN BE REPOSITIONED TO MEET THE GAP REQUIREMENT. ENDS OF THE SPIRAL SLEEVE SHALL BE TERMINATED WITH A LENGTH OF MIL-I-23053/5 BLACK POLYOLEFIN TUBING PER TABLE V AND FIGURE 2.
 - (A) 6. TUBULAR ABRASION (TFE) SLEEVES SHALL HAVE AN I.D. NO GREATER THAN HOSE O.D. +.05 INCH. AXIAL MOVEMENT OF THE SLEEVE INSTALLED ON THE HOSE SHALL NOT EXCEED .05 INCH. ENDS OF THE TUBULAR SLEEVE SHALL BE TERMINATED WITH A LENGTH OF MIL-I-23053/11 (FEP) PER TABLE V AND FIGURE 2.
 7. INTEGRAL ABRASION SLEEVE SHALL FORM AN INTEGRAL, PERMANENT PART OF THE HOSE AND SHALL TERMINATE A MAXIMUM OF .060 INCH FROM THE END OF THE END FITTING COLLAR.
 - (A) 8. SHRINK ABRASION SLEEVES, FEP AND POLYOLEFIN, SHALL BE SHRUNK TO A SNUG FIT OVER THE HOSE AND END FITTING COLLARS.
 - (A) 9/ ADD "AS 1055 TYPE 11b CLASS A-S/P" TO IDENTIFICATION MARKING TO SHOW LEVEL OF COMPLIANCE, "FIRE RESISTANCE" (5 MINUTES), WITH AS 1055.
 - (A) 10/ ADD "AS 1055 TYPE 11b CLASS B-S/P" TO IDENTIFICATION MARKING TO SHOW LEVEL OF COMPLIANCE, "FIRE PROOF" (15 MINUTES), WITH AS 1055.
 - (A) 11/ A TRUE CIRCULAR CROSS SECTION IS NOT REQUIRED THROUGH THE END FITTING. HOWEVER, THE OVALITY OF THE ELBDW SHALL NOT EXCEED 7.5 PERCENT AND THE APPLICABLE BALL DIAMETER LISTED IN TABLE VI SHALL PASS THROUGH THE END FITTING AFTER THE END FITTING IS ATTACHED TO THE HOSE ASSEMBLY.
 - 12/ DISTANCE ACROSS CORNERS OF COUPLING NUT MAY EXCEED THIS DIMENSION.
 - (A) 13. STANDARD COUPLING NUTS SHALL BE IN ACCORDANCE WITH MS21921 OR MS27073. NONSTANDARD COUPLING NUTS MAY BE USED BUT SHALL COMPLY WITH THE REQUIREMENT (b) OF NAS1760 FOR NONSTANDARD NUTS AND SHALL BE RETAINED BY THE END FITTING.
 - (A) 14. HOSE ASSEMBLIES PURCHASED PRIOR TO REVISION "A" WITH ALUMINUM ALLOY IDENTIFICATION BANDS MAY BE USED UNTIL SUPPLY HAS BEEN DEPLETED.
 - (A) 15. HOSE ASSEMBLIES WITH SPIRAL ABRASION OR TUBULAR ABRASION SLEEVES PURCHASED AFTER DATE OF REVISION "A" SHALL CONFORM TO REQUIREMENTS OF TABLE V AND FIGURE 2. HOSE ASSEMBLIES IN STOCK MAY BE USED UNTIL SUPPLY IS DEPLETED.
 16. DO NOT USE UNASSIGNED SIZE CODES OR SLEEVE CODES.

EXAMPLE OF PART NUMBER:

AS120H242C270



ANGULAR ORIENTATION IN 1° INCREMENTS, 270°. (SEE NOTE 3 AND FIGURE 3)
 SILICONE FIRESLEEVE. (SEE TABLE III) USE DASH (-) FOR UNSLEEVED HOSE
 FRACTIONAL LENGTH IN EIGHTHS OF AN INCH, 1/4 INCH. (SEE NOTE 1)
 LENGTH IN WHOLE INCHES, 24 INCHES. (SEE NOTE 1)
 BASIC HOSE ASSEMBLY SIZE, 1/2 INCH. (SEE TABLE I)
 BASIC HOSE ASSEMBLY PART NO.
 HOSE ASSEMBLY, NONMETALLIC - 3000 PSI, TFE, FLARELESS
 90° TO 90° LIGHTWEIGHT

THE (A) SYMBOL IS USED TO INDICATE TECHNICAL CHANGES FROM THE PREVIOUS ISSUE OF THIS STANDARD

PREPARED BY SAE COMMITTEE G-3, AEROSPACE FITTINGS, HOSE AND TUBING ASSEMBLIES

AS120

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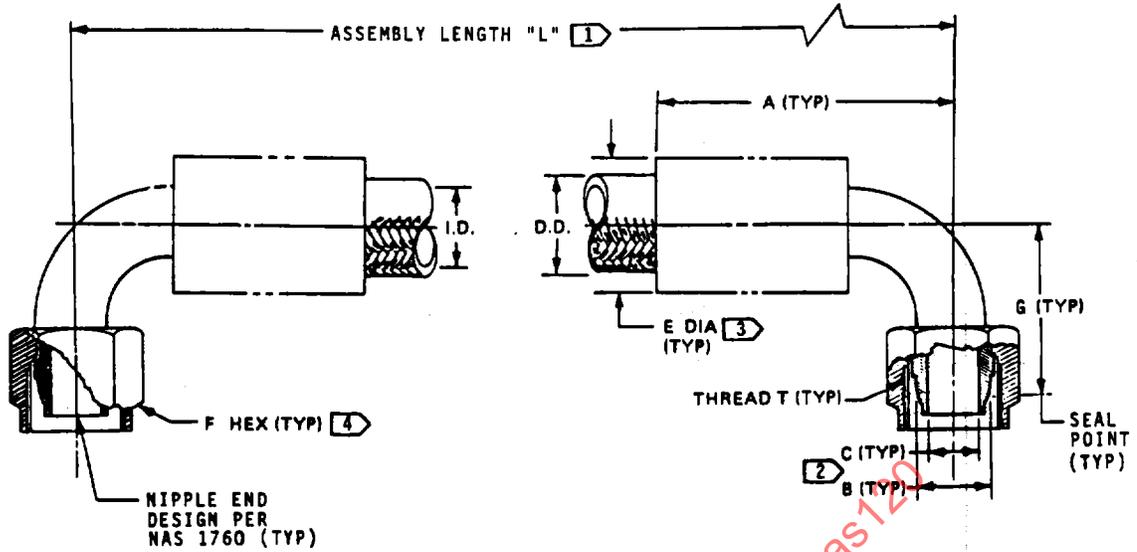


FIGURE 1

DIMENSIONS IN INCHES

TABLE I

HOSE ASSEMBLY NO. AND SIZE CODE	SIZE REF	THREAD T PER MIL-S-8879 REF	I.D. MIN	A MAX	B SEAL DIA BASIC	C ² DRILL DIA MIN	E ³ DIA MAX WITHOUT SLEEVING	F HEX REF	G		BALL SIZE MIN THRU DIA ²	
									MIN	MAX	MS19059 DASH NO.	DIA IN.
AS120E	1/4	.4375-20 UNJF-3B	.212	1.75	.2930	.135	.69	.56	.69	.88	4807	.109
AS120G	3/8	.5625-18 UNJF-3B	.298	2.00	.4120	.240	.80	.69	.88	1.09	4812	.188
AS120H	1/2	.7500-16 UNJF-3B	.391	2.38	.5600	.340	.97	.88	1.00	1.31	4816	.313
AS120J	5/8	.8750-14 UNJF-3B	.485	2.81	.6730	.410	1.11	1.00	1.19	1.50	4818	.375
AS120K	3/4	1.0625-12 UNJ -3B	.602	3.25	.8100	.510	1.38	1.25	1.38	1.75	4821	.469
AS120M	1	1.3125-12 UNJ -3B	.852	4.00	1.0620	.760	1.66	1.50	1.69	2.06	4829	.719

SHEET COMPLETELY REVISED

1	B	2	B	3	A	4	---
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LIST OF ACTIVE SHEETS

PREPARED BY SAE SUBCOMMITTEE G-3D, AEROSPACE HOSE, OF SAE COMMITTEE G-3, AEROSPACE FITTINGS, HOSE, & TUBING ASSEMBLIES

SAE The Engineering Resource For Advancing Mobility,
400 COMMONWEALTH DRIVE, WARRENDALE, PA 15094

AEROSPACE STANDARD
HOSE ASSEMBLY, NONMETALLIC, 3000 PSI, TFE, FLARELESS, 90° TO 90°, LIGHTWEIGHT

AS120 SH 1 OF 4

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REAFFIRMED

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4-93

AS120

TABLE II

SLEEVE CODE	SLEEVE MATERIAL	TEMP. LIMIT OF	TOLERANCE	HOSE OR SLEEVE OUTSIDE DIAMETER ⁵					
				HOSE SIZE					
				1/4	3/8	1/2	5/8	3/4	1
-	(-) INDICATES HOSE ONLY, NO SLEEVE (AS 1624)	400	MAX MIN	.390 .360	.490 .455	.615 .585	.730 .690	.990 .950	1.270 1.230
A	ABRASION SLEEVE TUBULAR (TFE-AS1291-CODE B) ⁶	400	MAX MIN	.500 .440	.600 .540	.730 .670	.840 .780	1.110 1.050	1.400 1.340
B	ABRASION SLEEVE COIL (NYLON AS1294) ⁷	275	MAX MIN	.450 .390	.550 .490	.695 .635	.810 .750	1.080 1.020	1.360 1.300
C	FIRE SLEEVE (AS1072 SIL-FG) (15 MIN) ⁸ ⁹ ¹³	400	MAX MIN	.625 .500	.750 .625	.875 .750	1.000 .875	1.250 1.125	1.500 1.375
D	ABRASION SLEEVE INTEGRAL SILICONE COMPOSITE ¹⁰ ¹⁴	350	MAX MIN	.500 .460	.600 .560	.700 .660	.830 .790	1.120 1.070	1.400 1.350
E	ABRASION SLEEVE SHRINK-ON (FEP) ¹¹	350	MAX MIN	.424 .374	.540 .480	.665 .615	.790 .730	1.070 1.010	1.350 1.290
F	ABRASION SLEEVE SHRINK-ON (POLYOLEFIN AS 1073 - CODE B) ¹¹	275	MAX MIN	.450 .400	.560 .505	.695 .645	.810 .750	1.080 1.020	1.360 1.300
G	FIRE SLEEVE (AS1072 SIL-FG) (5 MIN) ⁸ ⁹ ¹²	400	MAX MIN	.625 .500	.750 .625	.875 .750	1.000 .875	1.250 1.125	1.500 1.375
H	FIRE SLEEVE INTEGRAL SILICONE (15 MIN) (AS 1722) ¹³	400	MAX MIN	.660 .600	.745 .685	.895 .835	1.005 .945	1.220 1.160	1.515 1.455
J	FIRE SLEEVE INTEGRAL SILICONE (5 MIN) ¹²	400	MAX MIN	.660 .600	.745 .685	.895 .835	1.005 .945	1.220 1.160	1.515 1.455
K	INTEGRAL ABRASION SLEEVE (BRAIDED) POLYESTER ¹⁰	300	MAX MIN	.490 .444	.570 .535	.695 .650	.800 .760	1.070 1.030	1.350 1.310
L	ABRASION SLEEVE COIL (PTFE-AS1293) ⁷	400	MAX MIN	.500 .440	.600 .540	.730 .670	.862 .802	1.110 1.050	1.400 1.340

TABLE III

HOSE ASSEMBLY LENGTH	AVAILABLE INCREMENTS	TOLERANCE
UNDER 18 INCHES	(NOT LESS THAN) .125 INCH.	(PLUS OR MINUS) .125 INCH
18 TO 36 INCHES	(NOT LESS THAN) .250 INCH	(PLUS OR MINUS) .250 INCH
36 TO 50 INCHES	(NOT LESS THAN) .500 INCH	(PLUS OR MINUS) .500 INCH
OVER 50 INCHES	(NOT LESS THAN) 1.000 INCH	(PLUS OR MINUS) 1 PERCENT

TABLE IV

HOSE OR SLEEVE CODE	HOSE OR TYPE SLEEVE	UNITS	MAXIMUM WEIGHT					
			HOSE SIZE					
			1/4	3/8	1/2	5/8	3/4	1
-	HOSE ONLY	LBS/IN	.009	.015	.020	.027	.055	.085
A	ABRASION SLEEVE (TFE-AS1291-B)	LBS/IN	.003	.004	.004	.005	.007	.009
B	ABRASION SLEEVE (NYLON AS1294)	LBS/IN	.001	.002	.003	.003	.004	.005
C	FIRE SLEEVE (15 MIN) AS1072	LBS/IN	.007	.009	.011	.012	.017	.021
D	ABRASION SLEEVE INTEGRAL WITH HOSE	LBS/IN	.012	.016	.024	.034	.067	.110
E	ABRASION SLEEVE (FEP)	LBS/IN	.002	.003	.003	.005	.006	.007
F	ABRASION SLEEVE (AS1073B)	LBS/IN	.002	.003	.003	.004	.005	.006
G	FIRE SLEEVE (5 MIN) AS1072	LBS/IN	.007	.009	.011	.012	.017	.021
H	FIRE SLEEVE INTEGRAL (15 MIN) WITH HOSE	LBS/IN	.019	.027	.035	.047	.099	.117
J	FIRE SLEEVE INTEGRAL (5 MIN) WITH HOSE	LBS/IN	.019	.027	.035	.047	.099	.117
K	ABRASION SLEEVE POLYESTER WITH HOSE	LBS/IN	.012	.016	.022	.030	.060	.090
L	ABRASION SLEEVE (PTFE-AS1293)	LBS/IN	.003	.004	.005	.005	.006	.007
NONE	FIRE SLEEVE CLAMP	LBS/EA	.020	.020	.025	.026	.026	.033
NONE	FITTING END (HOSE SIZE - 90°)	LBS/EA	.078	.126	.218	.327	.615	.945

SHEET COMPLETELY REVISED

PREPARED BY SAE SUBCOMMITTEE G-3D, AEROSPACE HOSE, OF SAE COMMITTEE G-3, AEROSPACE FITTINGS, HOSE, & TUBING ASSEMBLIES

AEROSPACE STANDARD

HOSE ASSEMBLY, NONMETALLIC, 3000 PSI, TFE, FLARELESS, 90° TO 90°, LIGHTWEIGHT

AS120

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