

REV.
A

SAE AS5966

FEDERAL SUPPLY CLASS
4720

RATIONALE

REVISED PROCUREMENT NOTE /2/, COUPLING NUT NOTE /9/, AND ADDED NOTE /21/ TO CONFORM TO CURRENT REQUIREMENTS.

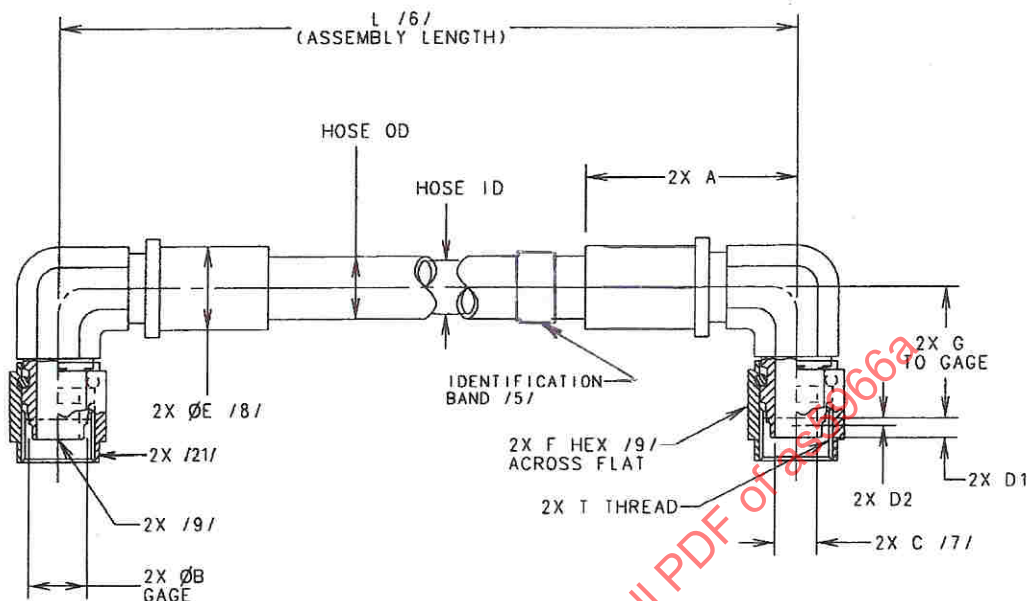


FIGURE 1 - HOSE ASSEMBLY DIMENSIONS

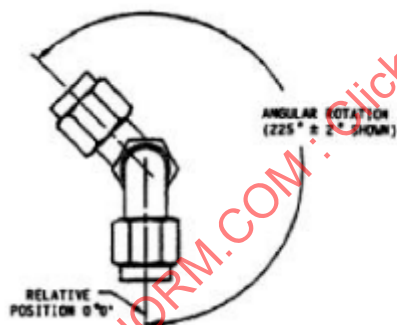


FIGURE 2 - FITTING ORIENTATION /17/

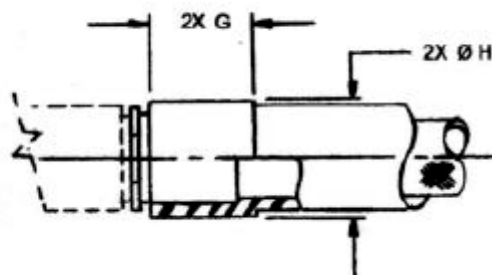
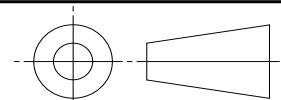


FIGURE 3 - INTEGRAL FIRESLEEVE CUFF /13/

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THIRD ANGLE PROJECTION



CUSTODIAN: SAE G-3/G-3D

PROCUREMENT SPECIFICATION: AS5960 /2/

SAE Aerospace
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AEROSPACE STANDARD

HOSE ASSEMBLY, POLYTETRAFLUOROETHYLENE
CRES BRAID REINFORCED, 400 °F, 5080 PSI
FLARELESS, 90° ELBOW TO 90° ELBOW

SAE AS5966
SHEET 1 OF 5

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A

TABLE 1 - HOSE ASSEMBLY DIMENSIONS

HOSE ASSEMBLY AS5966 SIZE CODE	SIZE	THREAD T PER AS8879	A MAX	ØB GAGE BASIC	C HEX	(D1) /9/	(D2) /9/
E	.250	.4375-28UNJEF-3B	2.78	.2930	.56	.16	.055
G	.375	.5625-24UNJEF-3B	3.05	.4120	.69	.16	.055
H	.500	.7500-20UNJEF-3B	3.39	.5600	.88	.19	.066
J	.625	.8750-20UNJEF-3B	3.69	.6730	1.00	.20	.066
K	.750	1.0625-18UNJEF-3B	4.05	.8100	1.25	.23	.066
M	1.000	1.3125-16UNJ-3B	4.92	1.0620	1.50	.30	.066
N	1.250	1.6250-16UNJ-3B	5.31	1.3160	1.81	.30	--

TABLE 1 - HOSE ASSEMBLY DIMENSIONS (CONTINUED)

HOSE ASSEMBLY AS5966 - SIZE CODE	SIZE	E MIN	E MAX	ØF MAX /8/	BALL SIZE MIN THRU IN /7/
E	.250	.74	.87	.88	.113
G	.375	.81	.94	1.00	.192
H	.500	.99	1.12	1.20	.281
J	.625	1.14	1.34	1.41	.349
K	.750	1.35	1.55	1.69	.434
M	1.000	1.57	1.77	2.00	.638
N	1.250	1.74	1.94	2.25	.786

TABLE 2 - HOSE AND SLEEVE OUTSIDE DIAMETER /10/

SLEEVE CODE	SLEEVE MATERIAL	TEMP LIMIT °F	TOLER- ANCE	SIZE .250	SIZE .375	SIZE .500	SIZE .625	SIZE .750	SIZE 1.000	SIZE 1.250
-	(-) INDICATES HOSE ONLY NO SLEEVE (SEE AS5960) REF	400 °F	MAX MIN	.510 .450	.620 .560	.760 .700	.960 .835	1.120 .995	1.430 1.305	1.685 1.560
C	FIRESLEEVE (AS1072 SIL-FG) (15 MIN) /11/ /12/ /14/	400 °F	MAX MIN	.970 .810	1.090 1.000	1.220 1.060	1.500 1.260	1.590 1.470	1.950 1.780	2.190 1.940
F	ABRASION SLEEVE SHRINK-ON (POLYOLEFIN AS1073-CODE B) /16/	275 °F	MAX MIN	.560 .480	.700 .590	.910 .760	1.045 .895	1.205 1.080	1.530 1.370	1.785 1.660
H	FIRESLEEVE, INTEGRAL SILICONE (15 MIN) /14/	400 °F	MAX MIN	.815 .755	.940 .880	1.060 1.000	1.200 1.075	1.420 1.295	1.740 1.615	2.000 1.875
K	INTEGRAL ABRASION SLEEVE (BRAIDED POLYESTER) /15/	300 °F	MAX MIN	.590 .530	.710 .650	.860 .735	1.065 .885	1.205 1.130	1.530 1.405	1.815 1.690

TABLE 3 - HOSE ASSEMBLY LENGTH TOLERANCE

HOSE ASSEMBLY LENGTH	TOLERANCE
UNDER 18 in	±.125 in
18 TO 36 in EXCLUSIVE	±.250 in
36 TO 50 in EXCLUSIVE	±.500 in
50 in AND OVER	±1%

TABLE 4 - WEIGHT (MAX)

HOSE OR SLEEVE CODE	HOSE OR TYPE SLEEVE	UNITS	SIZE .250	SIZE .375	SIZE .500	SIZE .625	SIZE .750	SIZE 1.000	SIZE 1.250
-	HOSE ONLY (SEE AS5960) REF	LB/IN	.022	.037	.046	.070	.105	.170	.220
C	TUBULAR FIRESLEEVE AS1072 (15 min)	LB/IN	.017	.020	.022	.030	.035	.040	.042
F	ABRASION SLEEVE (AS1073-CODE B)	LB/IN	.003	.004	.005	.006	.008	.010	.015
H	FIRESLEEVE INTEGRAL SILICONE ON HOSE (15 min)	LB/IN	.040	.060	.070	.095	.140	.220	.265
K	ABRASION SLEEVE, POLYESTER ON HOSE	LB/IN	.025	.040	.050	.070	.110	.180	.230
NONE	FIRESLEEVE CLAMP	LB/EA	.020	.025	.025	.025	.032	.032	.035
NONE	FITTING END (90° ELBOW) /18/	LB/EA	.066	.116	.198	.300	.360	.670	1.030

TABLE 5 - INTEGRAL FIRESLEEVE CUFF DIMENSIONS /13/

HOSE SIZE	G MAX	H Ø MAX
04	2.56	1.08
06	2.68	1.20
08	2.88	1.40
10	3.32	1.61
12	3.38	1.89
16	3.38	2.20
20	3.81	2.45

NOTES:

1. MATERIALS:

- a. HOSE AND FITTINGS - PER AS5960.
- b. THE COLLARS/SOCKETS MAY BE STAINLESS STEEL.
- c. SLEEVES - SEE APPLICABLE STANDARDS, TABLE 2.

/2/ PROCUREMENT SPECIFICATION: AS5960 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED AND ASSEMBLED BY AN ACCREDITED MANUFACTURER OR ASSEMBLED BY AN ACCREDITED DISTRIBUTOR LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST (QPL) PRI-QPL-AS5960 FOR THIS STANDARD. SEE www.eauditnet.com FOR CURRENT QPL ONLINE.

3. CONSTRUCTION AND PERFORMANCE PER AS5960. FITTINGS SHALL BE PERMANENTLY ATTACHED TO HOSE.
4. OPERATING CHARACTERISTICS PER AS5960.

	AEROSPACE STANDARD	SAE AS5966 SHEET 3 OF 5	REV. A
	HOSE ASSEMBLY, POLYTETRAFLUOROETHYLENE CRES BRAID REINFORCED, 400 °F, 5080 PSI FLARELESS, 90° ELBOW TO 90° ELBOW		

- /5/ MARKING: MARKING SHALL BE PER AS5960 ON A STAINLESS STEEL BAND NOT OVER 1.0 IN WIDE OR ON THE COLLAR. THE CHARACTERS SHALL BE A MINIMUM OF .06 in HIGH. THE BAND SHALL BE SO DESIGNED AS TO REMAIN TIGHT ON THE HOSE TO PREVENT RELATIVE MOVEMENT AND RESULTANT CHAFING. IT SHALL BE OF SUFFICIENT STRENGTH TO PREVENT REMOVAL BY HAND. HOSE ASSEMBLY DATE AND "PT" SYMBOL SHALL BE PERMANENTLY MARKED ON THE BAND OR ON AN END FITTING OR A FIRESLEEVE CLAMP.
- /6/ 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 "CENTERLINE OF ELBOW" TO "CENTERLINE OF ELBOW". FOR LENGTH INCREMENTS AND TOLERANCES SEE TABLE 3.
- /7/ HOSE ASSEMBLY INSIDE DIAMETER SHALL BE VERIFIED BY PASSING THE DESIGNATED, OR LARGER, SPHERICAL BALL PER TABLE 1 THROUGH THE HOSE ASSEMBLY.
- /8/ DISTANCE ACROSS CORNERS OF COUPLING NUT AND NIPPLE OR SOCKET/COLLAR HEX MAY EXCEED THIS DIMENSION.
- /9/ FITTING ENDS MUST COMPLY WITH NAS1760, AS4458, OR BE FUNCTIONALLY EQUIVALENT. DIMENSION D1 APPLY TO NAS1760 AND D2 APPLY TO AS4458. FITTINGS SHALL MATE WITH EN6123 OR AS5827. COUPLING NUTS SHALL BE FUNCTIONALLY EQUIVALENT TO AS4370 EXCEPT FOR THREAD AND WIRE GROOVE. THREADS AND WIRE GROOVE IN NUT, RETAINER WIRE, AND FITTING END WIRE GROOVE SHALL BE COATED WITH AS5272 TYPE 1 SOLID FILM LUBRICANT.
- /10/ DIAMETERS ARE LISTED FOR CLAMP SELECTION.
- /11/ THE TABLE 2 SLEEVE DIAMETERS FOR AS1072 SLEEVES APPLY WHEN THE SLEEVE IS COMPRESSED, OR CLAMPED TO CONTACT THE HOSE. IN THIS CASE A WRINKLE MAY OCCUR OVER APPROXIMATELY 10% OF THE SLEEVE CIRCUMFERENCE.
- /12/ 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 FIBERGLASS, SHALL BE COATED WITH RTV SILICONE RUBBER.
- /13/ THE ENDS OF THE INTEGRAL FIRESLEEVE AND FITTING SOCKET/COLLAR MAY BE COVERED WITH A SILICONE CUFF OR MOLDED SILICONE AS REQUIRED TO COMPLY WITH /14/
- /14/ IDENTIFICATION MARKING: ADD "AS1055 TYPE III CLASS B-S/P" TO IDENTIFICATION MARKING TO SHOW LEVEL OF COMPLIANCE, "FIREPROOF" (15 MIN), WITH AS1055.
- /15/ INTEGRAL ABRASION SLEEVE SHALL FORM AN INTEGRAL PERMANENT PART OF THE HOSE AND SHALL TERMINATE A MAXIMUM OF .200 in FROM THE END OF THE COLLAR.
- /16/ THE SHRINK-ON POLYOLEFIN SLEEVE SHALL COVER THE ENTIRE HOSE AND A MINIMUM OF 50% OF THE COLLARS ON BOTH ENDS OF THE ASSEMBLY.
- /17/ THE FITTING 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 2). WHEN END FITTINGS ARE POINTED IN THE SAME DIRECTION, THE DASH NUMBER SHALL BE 000.
- /18/ FITTING WEIGHTS ARE FOR REFERENCE ONLY.
19. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1994.
- /20/ SAFETY WIRE HOLES LOCATION AND DIAMETER PER AS1043:

L = TWO HOLES 180° APART UP TO 1.50 IN HEX INCLUSIVE.
THREE HOLES 120° APART FOR 1.625 in HEX AND LARGER.

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	HOSE ASSEMBLY, POLYTETRAFLUOROETHYLENE CRES BRAID REINFORCED, 400 °F, 5080 PSI FLARELESS, 90° ELBOW TO 90° ELBOW		