FEDERAL SUPPLY CLASS
4720

RATIONALE

AS1910C HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

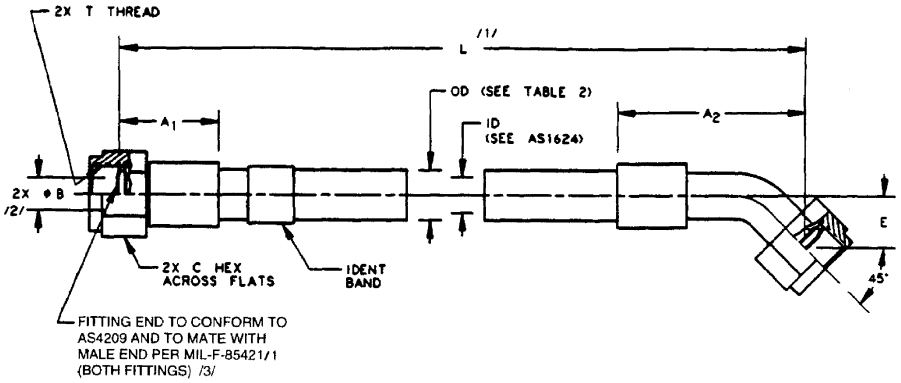

FIGURE 1 - HOSE AND FITTING DIMENSIONS

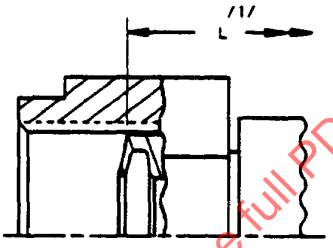

FIGURE 2 - FITTINGS
(ENLARGED VIEW)

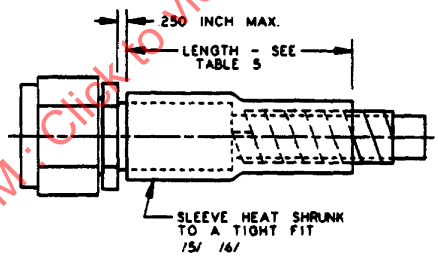

FIGURE 3 - ABRASION SLEEVE RETENTION

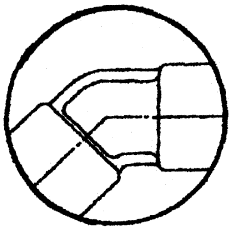

FIGURE 4 - ALTERNATE ELBOW CONFIGURATION /21/

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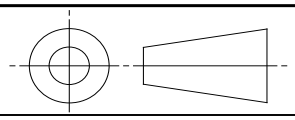
THIRD ANGLE PROJECTION



ISSUED 1985-08 REVISED 2003-02 REAFFIRMED 2015-01

CUSTODIAN: 3/G-3D

PROCUREMENT SPECIFICATION: /13/ AS1339

AEROSPACE STANDARD

(R) HOSE ASSEMBLY, POLYTETRAFLUOROETHYLENE, CRES REINFORCED, 400 °F, 3000 PSI, LIGHTWEIGHT, BEAM SEAL, STRAIGHT TO 45°

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TABLE 1- HOSE AND FITTING DIMENSIONS

HOSE ASSEMBLY NO. AND SIZE CODE	SIZE REF	THREAD T PER MIL-S-8879 REF	A_1 MAX	A_2 MAX	B /2/ DIA MIN	C HEX REF	E MIN	E MAX
AS1910-04	.250	.4375-24UNJS-3B	1.30	1.90	.135	.56	.450	.550
AS1910-06	.375	.5625-20UNJS-3B	1.44	2.35	.240	.69	.517	.600
AS1910-08	.500	.7188-20UNJS-3B	1.60	2.50	.340	.88	.513	.675
AS1910-10	.625	.8438-18UNJS-3B	1.70	2.70	.410	1.00	.620	.765
AS1910-12	.750	1.0000-16UNJ-3B	1.85	3.15	.510	1.125	.760	.874
AS1910-16	1.000	1.2500-14UNJS-3B	2.18	3.50	.760	1.50	.825	.950

TABLE 2 - HOSE OR SLEEVE OUTSIDE DIAMETERS

SLEEVE CODE	SLEEVE MATERIAL	TEMP. LIMIT °F	HOSE OR SLEEVE OUTSIDE DIAMETERS (MAX-MIN) /4/ .250	HOSE OR SLEEVE OUTSIDE DIAMETERS (MAX-MIN) /4/ .375	HOSE OR SLEEVE OUTSIDE DIAMETERS (MAX-MIN) /4/ .500	HOSE OR SLEEVE OUTSIDE DIAMETERS (MAX-MIN) /4/ .625	HOSE OR SLEEVE OUTSIDE DIAMETERS (MAX-MIN) /4/ .750	HOSE OR SLEEVE OUTSIDE DIAMETERS (MAX-MIN) /4/ 1.000
–	(–) INDICATES HOSE ONLY NO SLEEVE (SEE AS1339)	400	--	--	--	--	--	--
A	ABRASION SLEEVE TUBULAR /5/ (TFE-AS1291-CODE B)	400	.500/.440	.600/.540	.730/.670	.840/.780	1.110/1.050	1.400/1.340
B	ABRASION SLEEVE COIL /6/ (NYLON AS1294)	275	.450/.390	.550/.490	.695/.635	.810/.750	1.080/1.020	1.360/1.300
C	FIRESLEEVE (AS1072 SIL-FG) (15 min) /7/ /8/ /11/	400	.625/.500	.750/.625	.875/.750	1.000/.875	1.250/1.125	1.500/1.375
E	ABRASION SLEEVE SHRINK-ON (FEP) (M23053/11) /10/	350	.424/.374	.540/.480	.665/.615	.790/.730	1.070/1.010	1.350/1.290
F	ABRASION SLEEVE SHRINK-ON (POLYOLEFIN AS1073 - CODE B) /11/	275	.450/.400	.560/.505	.695/.645	.810/.750	1.080/1.020	1.360/1.300
H	FIRESLEEVE INTEGRAL SILICONE (15 min) /11/ /12/	400	.660/.600	.745/.685	.895/.835	1.005/.945	1.240/1.160	1.515/1.455
K	INTEGRAL ABRASION SLEEVE /9/ (BRAIDED) POLYESTER	300	.490/.444	.570/.535	.695/.650	.800/.760	1.070/1.030	1.350/1.310
L	ABRASION SLEEVE COIL /6/ (PTFE-AS1293)	400	.500/.440	.600/.540	.730/.670	.862/.802	1.110/1.050	1.400/1.340

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TABLE 3 - HOSE ASSEMBLY LENGTH TOLERANCES

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 - WEIGHTS

HOSE OR SLEEVE CODE	HOSE OR TYPE SLEEVE	UNITS	REFERENCE WEIGHT LB/IN /22/ HOSE SIZE .250	REFERENCE WEIGHT LB/IN /22/ HOSE SIZE .375	REFERENCE WEIGHT LB/IN /22/ HOSE SIZE .500	REFERENCE WEIGHT LB/IN /22/ HOSE SIZE .625	REFERENCE WEIGHT LB/IN /22/ HOSE SIZE .750	REFERENCE WEIGHT LB/IN /22/ HOSE SIZE 1.000
-	HOSE ONLY	LB/IN	.009	.015	.020	.027	.058	.085
A	ABRASION SLEEVE (TFE-AS1291-B)	LB/IN	.003	.004	.004	.005	.007	.009
B	ABRASION SLEEVE (NYLON AS1294)	LB/IN	.001	.002	.003	.003	.004	.005
C	FIRESLEEVE (15 min) AS1072	LB/IN	.007	.009	.011	.012	.017	.021
E	ABRASION SLEEVE (FEP)	LB/IN	.002	.003	.003	.005	.006	.007
F	ABRASION SLEEVE (AS1073B)	LB/IN	.002	.003	.003	.004	.005	.006
H	FIRESLEEVE INTEGRAL (15 min) ON HOSE	LB/IN	.019	.027	.035	.047	.099	.117
K	ABRASION SLEEVE POLYESTER WITH HOSE	LB/IN	.012	.016	.022	.030	.060	.090
L	ABRASION SLEEVE (PTFE-AS1293)	LB/IN	.003	.004	.005	.005	.006	.007
NONE	FIRESLEEVE CLAMP /23/	LB/EA	.025	.025	.025	.026	.026	.033
NONE	FITTING END (STRAIGHT) /23/	LB/EA	.060	.088	.142	.225	.355	.530
NONE	FITTING END (45°) /23/	LB/EA	.065	.095	.160	.240	.420	.700

TABLE 5 - SLEEVE LENGTHS

HOSE SIZE	LENGTH (in)
.250/.375	2.00 ± .25
.500/.625	2.50 ± .25
.750/1.000	3.00 ± .25

TABLE 6 - SPHERICAL BALL SIZE FOR DETERMINING MINIMUM HOSE ASSEMBLY ID /2/

HOSE SIZE	STRAIGHT FITTING	ELBOW FITTING
04	.122	.115
06	.216	.204
08	.306	.289
10	.369	.349
12	.459	.434
16	.684	.646

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NOTES:

/1/ LENGTH “L” IS A FOUR DIGIT NUMBER OF WHICH THE FIRST THREE DIGITS DESCRIBE THE HOSE ASSEMBLY LENGTH IN WHOLE INCHES, AND THE FOURTH DIGIT, THE FRACTION OF AN INCH IN EIGHTHS. LENGTH “L” IS MEASURED FROM OUTER CORNER OF SEALING SURFACE TO OUTER CORNER OF SEALING SURFACE AS SHOWN IN FIGURE 1. FOR LENGTH INCREMENTS AND TOLERANCES SEE TABLE 3.

/2/ A TRUE CIRCULAR CROSS SECTION IS NOT REQUIRED THROUGH THE FITTING I.D. HOWEVER, THE APPLICABLE BALL DIAMETER LISTED IN TABLE 6 SHALL PASS THROUGH THE END FITTING AFTER IT IS ASSEMBLED TO THE HOSE. DISTANCE ACROSS CORNERS OF THE COUPLING NUT MAY EXCEED THIS DIMENSION.

/3/ STANDARD COUPLING NUTS SHALL MATE WITH MIL-F-85421 FITTING ENDS. NONSTANDARD COUPLING NUTS MAY BE USED, PROVIDED THEY ARE DIMENSIONALLY AND FUNCTIONALLY EQUIVALENT AND PROVIDED THEY CANNOT BE REMOVED FROM THE FITTING. NUTS SHALL MEET TORQUE TEST REQUIREMENTS PER AS1339 EXCEPT TORQUE VALUES SHALL BE PER MIL-F-85421. THE THREAD AND ALL INTERNAL SURFACES SHALL BE DRY-FILM LUBRICATED WITH MIL-PRF-46010 TYPE I COATING. ALL EXTERNAL SURFACES MAY BE DRY-FILM COATED.

/4/ DIAMETERS ARE LISTED FOR CLAMP SELECTION. TUBULAR SLEEVES MAY NOT BE A PERFECT ROUND AND SHALL BE MEASURED WITH A DIAMETER TAPE RULER (OFTEN REFERRED TO AS PI-TAPE).

/5/ TUBULAR ABRASION (TFE) SLEEVES SHALL HAVE AN I.D. NO GREATER THAN HOSE O.D. +.05 in. AXIAL MOVEMENT OF THE SLEEVE INSTALLED ON THE HOSE SHALL NOT EXCEED .05 in. ENDS OF THE TUBULAR SLEEVE SHALL BE TERMINATED WITH A LENGTH OF M23053/11 (FEP) CLASS 1 OR 2, COLOR CLEAR, PER TABLE 5 AND FIGURE 3.

/6/ COIL ABRASION SLEEVES, WHEN ASSEMBLED ON A STRAIGHT HOSE, SHALL HAVE AN AVERAGE GAP BETWEEN COILS NOT EXCEEDING .05 in. DISPLACEMENT OF THE COILS OF THE SLEEVE, CAUSING A GREATER GAP, SHALL NOT BE CAUSE FOR REJECTION IF THE COILS CAN BE REPOSITIONED TO MEET THE GAP REQUIREMENTS. ENDS OF THE COIL SLEEVE SHALL BE TERMINATED WITH A LENGTH OF HEAT SHRINKABLE SLEEVING IN ACCORDANCE WITH TABLE 5 AND FIGURE 3. CODE “B” (NYLON COIL) ABRASION SLEEVES SHALL BE TERMINATED WITH M23053/5, CLASS 1 OR 3, COLOR BLACK. CODE “L” (COIL ABRASION) SLEEVES SHALL BE TERMINATED WITH M23053/12A, CLASS 1, COLOR TRANSPARENT, PTFE (OPTIONAL M23053/11 (FEP) CLASS 1 OR 2, COLOR CLEAR.)

/7/ THE TABLE 2 SLEEVE DIAMETERS FOR AS1072 SLEEVE APPLIES 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.

/8/ 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.

/9/ 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.

/10/ FEP PER M23053/11 AND POLYOLEFIN PER AS1073-CODE B SHRINK ABRASION SLEEVES SHALL BE SHRUNK TO A SNUG FIT OVER THE HOSE AND END FITTING COLLARS.

/11/ ADD “AS1055 TYPE IIb CLASS B-S/P” OR “AS150 TYPE IX bB” TO IDENTIFICATION MARKING TO SHOW LEVEL OF COMPLIANCE. “FIRE-PROOF” (15 min) WITH AS1055.

/12/ THE ENDS OF THE INTEGRAL FIRESLEEVE AND FITTING SOCKET/COLLAR MAY BE COVERED WITH A SILICONE CUFF OR MOLDED AS REQUIRED TO COMPLY WITH /11/.

/13/ THIS HOSE ASSEMBLY SHALL BE QUALIFIED IN ACCORDANCE WITH PROCUREMENT SPECIFICATION AS1339. USERS OF THIS STANDARD ARE ADVISED TO CONTROL SOURCE APPROVAL(S) BY STANDARD PAGE SUPPLEMENT SHEET OR SIMILAR MEANS.

CHANGE-OVER FROM USER-QPL TO PRI-QPL SHALL BE PERFORMED IN ACCORDANCE WITH AS1339E AND COMPLETED BY MARCH 1, 2002. USERS OF THIS STANDARD SHALL PROCURE THE PRODUCT FROM ACCREDITED MANUFACTURERS, OR THEIR ACCREDITED DISTRIBUTORS, AS LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCTS LIST PRI-QPL-AS1339 FOR THIS STANDARD.

14. MATERIALS: HOSE AND FITTINGS - PER AS1339.

15. CONSTRUCTION AND PERFORMANCE: AS1339 FITTINGS SHALL BE PERMANENTLY ATTACHED TO THE HOSE.

16. OPERATING CHARACTERISTICS: SEE AS1339.

17. DIMENSIONING AND TOLERANCING: ANSI Y14.5M-1982.

18. DIMENSIONS IN INCHES, UNLESS OTHERWISE SPECIFIED.
TOLERANCES: LINEAR DIMENSIONS ±.010, ANGULAR DIMENSIONS ±2°.

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