FEDERAL SUPPLY CLASS
4720

RATIONALE

ADD INTEGRAL FIRESLEEVE CUFF DIMENSIONS; ADD INTEGRAL ABRASION SLEEVE “M” CODE; ADD CONFIGURATION FOR A NEW "N" CODE THIN WALL INTEGRAL FIRESLEEVE (15 MINUTE); ADD 5 MINUTE FIRESLEEVE MATERIAL CODES; REMOVED AS1624 FROM FIGURE 1; REVISED QPL NOTE PER LATEST STANDARD (NOTE 13): ADDED G SLEEVE CODE.

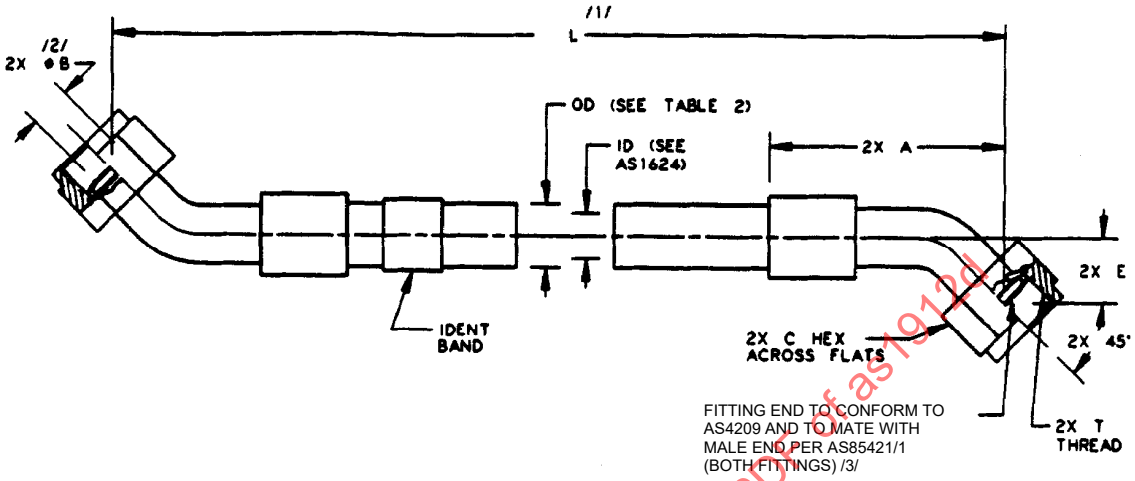


FIGURE 1 - HOSE AND FITTING DIMENSIONS

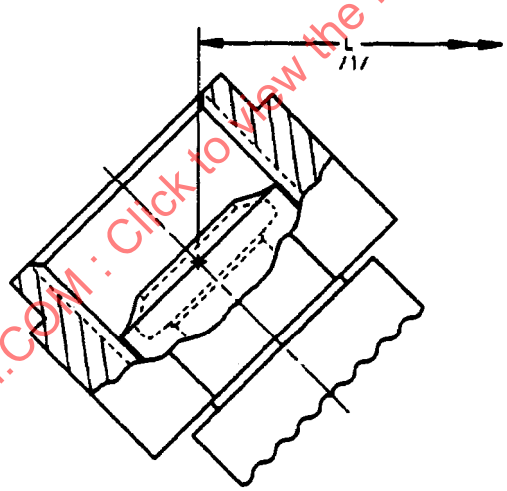
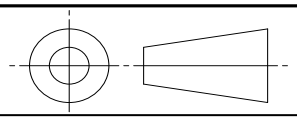


FIGURE 2 - FITTINGS (ENLARGED VIEW)

For more information on this standard, visit
https://www.sae.org/standards/content/AS1912D/

THIRD ANGLE PROJECTION



ISSUED 1985-08 REAFFIRMED 2015-01 REVISED 2022-12

CUSTODIAN: G-3/G-3D

PROCUREMENT SPECIFICATION: AS1339 /13/

SAE INTERNATIONAL

AEROSPACE STANDARD

HOSE ASSEMBLY, POLYTETRAFLUOROETHYLENE, CRES REINFORCED, 400 °F, 3000 PSI, LIGHTWEIGHT, BEAM SEAL, 45 TO 45 DEGREES

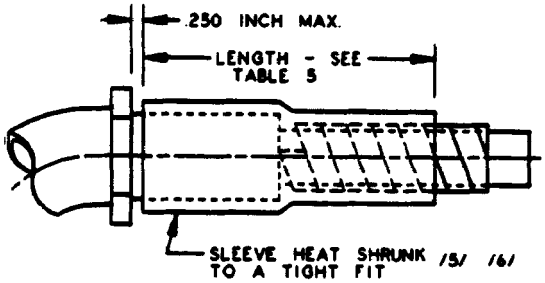


FIGURE 3 - ABRASION SLEEVE RETENTION

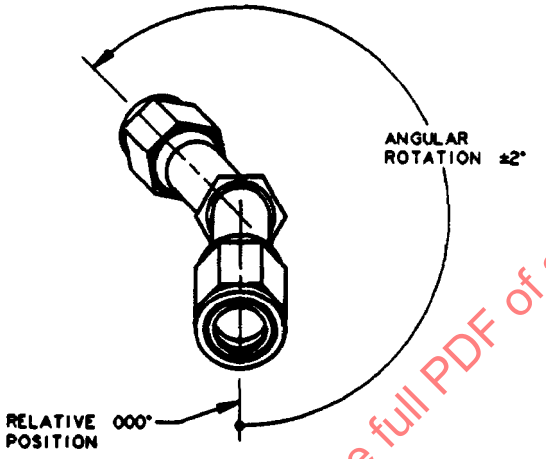


FIGURE 4 - FITTING ANGULAR ORIENTATION

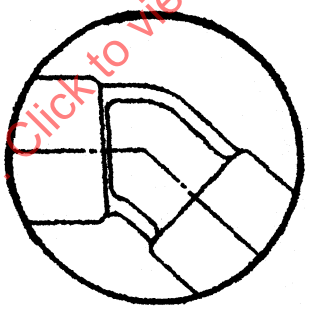


FIGURE 5 - ALTERNATE ELBOW CONFIGURATION /21/

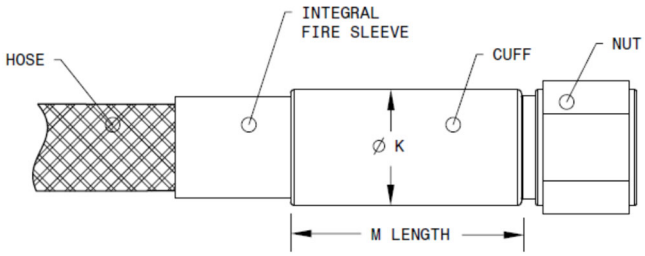


FIGURE 6 - INTEGRAL FIRESLEEVE CUFF DIMENSIONS - SEE TABLE 7 /28/

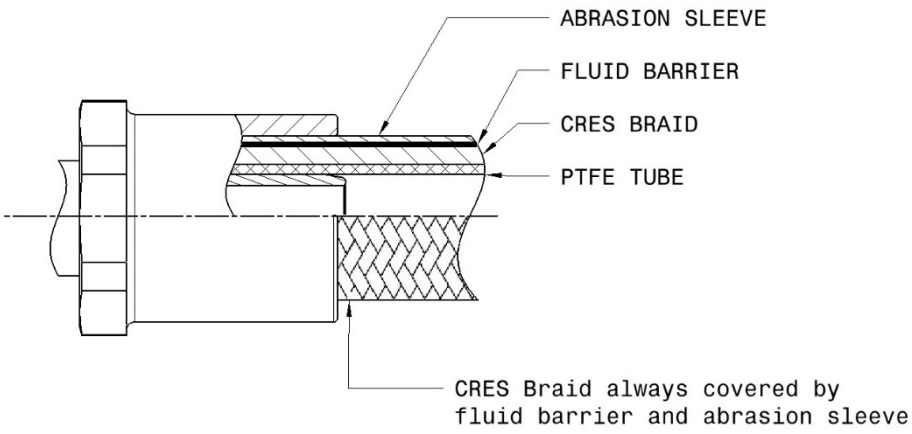


FIGURE 7 - FITTING CAPTURED INTEGRAL ABRASION SLEEVE WITH FLUID BARRIER /29/

TABLE 1 - HOSE AND FITTING DIMENSIONS

HOSE ASSEMBLY AS1912 SIZE CODE	SIZE (REF)	THREAD T PER AS8879 (REF)	A MAX	B /2/ DIA MIN	C HEX (REF)	E MIN	E MAX
E	.250	.4375-24 UNJS-3B	1.90	.135	.56	.450	.550
G	.375	.5625-20 UNJS-3B	2.35	.240	.69	.517	.600
H	.500	.7188-20 UNJS-3B	2.50	.340	.88	.513	.675
J	.625	.8438-18 UNJS-3B	2.70	.410	1.00	.620	.765
K	.750	1.0000-16 UNJ-3B	3.15	.510	1.125	.760	.874
M	1.000	1.2500-14 UNJS-3B	3.50	.760	1.50	.825	.950

TABLE 2 - HOSE OR SLEEVE OUTSIDE DIAMETERS

SLEEVE CODE	SLEEVE MATERIAL	TEMP LIMIT °F	TOLERANCE	HOSE OR SLEEVE OUTSIDE DIAMETER /4/ HOSE SIZE .250	HOSE OR SLEEVE OUTSIDE DIAMETER /4/ HOSE SIZE .375	HOSE OR SLEEVE OUTSIDE DIAMETER /4/ HOSE SIZE .500	HOSE OR SLEEVE OUTSIDE DIAMETER /4/ HOSE SIZE .625	HOSE OR SLEEVE OUTSIDE DIAMETER /4/ HOSE SIZE .750	HOSE OR SLEEVE OUTSIDE DIAMETER /4/ HOSE SIZE 1.000
-	(-) INDICATES HOSE ONLY, NO SLEEVE (REFER TO AS1339)	400	MAX						
			MIN						
A	ABRASION SLEEVE TUBULAR (TFE-AS1291 - CODE B) /5/	400	MAX	.500	.600	.730	.840	1.110	1.400
			MIN	.440	.540	.670	.780	1.050	1.340
B	ABRASION SLEEVE COIL (NYLON AS1294) /6/	275	MAX	.450	.550	.695	.810	1.080	1.360
			MIN	.390	.490	.635	.750	1.020	1.300
C	FIRESLEEVE (AS1072 SIL-FG) (15 MINUTES) /7/ /8/ /11/	400	MAX	.625	.750	.875	1.000	1.250	1.500
			MIN	.500	.625	.750	.875	1.125	1.375
E	ABRASION SLEEVE SHRINK-ON (FEP) (AS23053/11) /10/	350	MAX	.424	.540	.665	.790	1.070	1.350
			MIN	.374	.480	.615	.730	1.010	1.290
F	ABRASION SLEEVE SHRINK-ON (POLYOLEFIN AS1073 - CODE B) /10/	275	MAX	.450	.560	.695	.810	1.080	1.360
			MIN	.400	.505	.645	.750	1.020	1.300
G	FIRESLEEVE (AS1072 SIL-FG) (5 MINUTES) /7/ /8/ /26/	400	MAX	.625	.750	.875	1.000	1.250	1.500
			MIN	.500	.625	.750	.875	1.125	1.375
H	FIRESLEEVE INTEGRAL SILICONE (15 MINUTES) /11/ /12/	400	MAX	.660	.745	.895	1.005	1.240	1.515
			MIN	.600	.685	.835	.945	1.160	1.455
J	FIRESLEEVE INTEGRAL SILICONE (5 MINUTES) /26/ /12/	400	MAX	.660	.745	.895	1.005	1.240	1.515
			MIN	.600	.685	.835	.945	1.160	1.455
K	INTEGRAL ABRASION SLEEVE (BRAIDED) POLYESTER /9/	300	MAX	.490	.570	.695	.800	1.070	1.350
			MIN	.444	.535	.650	.760	1.030	1.310
L	ABRASION SLEEVE COIL (PTFE-AS1293) /6/	400	MAX	.500	.600	.730	.862	1.110	1.400
			MIN	.440	.540	.670	.802	1.050	1.340
M	FITTING CAPTURED INTEGRAL ABRASION SLEEVE (BRAIDED) WITH FLUID BARRIER /29/	275	MAX	.530	.610	.740	.870	1.105	1.450
			MIN	.444	.530	.650	.760	1.025	1.300
N	THIN WALL FIRESLEEVE INTEGRAL SILICONE (15 MINUTES) /11/ /12/	400	MAX	.625	.725	.850	.955	1.230	1.515
			MIN	.490	.585	.715	.820	1.080	1.370

TABLE 3 - HOSE ASSEMBLY LENGTH TOLERANCES

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

TABLE 4 - HOSE WEIGHT MAX - ALL OTHERS REFS

HOSE OR SLEEVE CODE	HOSE OR TYPE SLEEVE	UNITS	HOSE SIZE .250	HOSE SIZE .375	HOSE SIZE .500	HOSE SIZE .625	HOSE SIZE .750	HOSE SIZE 1.000
-	HOSE ONLY	LB/IN	.009	.015	.020	.027	.058	.085
A	ABRASION SLEEVE (TFE-AS1291 - CODE 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 MINUTES) AS1072	LB/IN	.007	.009	.011	.012	.017	.021
E	ABRASION SLEEVE (FEP)	LB/IN	.002	.003	.003	.005	.006	.007
F	ABRASION SLEEVE (AS1073 - CODE B)	LB/IN	.002	.003	.003	.004	.005	.006
G	FIRESLEEVE (5 MINUTES) AS1072	LB/IN	.007	.009	.011	.012	.017	.021
H	FIRESLEEVE INTEGRAL (15 MINUTES) WITH HOSE	LB/IN	.019	.027	.035	.047	.099	.117
J	FIRESLEEVE INTEGRAL (5 MINUTES) WITH 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
M	FITTING CAPTURED INTEGRAL ABRASION SLEEVE (BRAIDED) WITH FLUID BARRIER	LB/IN	.004	.005	.006	.007	.010	.015
N	THIN WALL FIRESLEEVE INTEGRAL (15 MINUTES) WITH HOSE	LB/IN	.018	.026	.034	.045	.098	.117
NONE	FIRESLEEVE CLAMP /24/	LB/EA	.025	.025	.025	.026	.026	.033
NONE	FITTING END (45 DEGREES) /24/	LB/EA	.065	.095	.160	.240	.420	.700

TABLE 5 - SLEEVE LENGTHS

HOSE SIZE	LENGTH (INCHES)
.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	ELBOW FITTING
E	.115
G	.204
H	.289
J	.349
K	.434
M	.646

TABLE 7 - INTEGRAL FIRE SLEEVE CUFF DIMENSIONS /26/

HOSE SIZE	"K" MAX (INCHES)	"M" MAX (INCHES)
E	.96	2.05
G	1.08	2.18
H	1.22	2.55
J	1.37	2.67
K	1.54	2.67
M	1.87	3.10

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 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 ID. HOWEVER, THE APPLICABLE BALL DIAMETER LISTED IN TABLE 6 SHALL PASS THROUGH THE END FITTING AFTER IT IS ASSEMBLED TO THE HOSE.

/3/ STANDARD COUPLING NUTS SHALL MATE WITH AS85421 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 AS85421. THE THREAD AND ALL INTERNAL SURFACES SHALL BE DRY-FILM LUBRICATED WITH AS5272 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 ID NO GREATER THAN HOSE OD +.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 AS23053/11 (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 INCH. 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 AS23053/5, CLASS 1 OR 3, COLOR BLACK. CODE "L" (COIL ABRASION) SLEEVES SHALL BE TERMINATED WITH AS23053/12A, CLASS 1, COLOR TRANSPARENT, PTFE. (OPTIONAL AS23053/11 (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 INCH FROM THE END OF THE COLLAR.

/10/ FEP PER AS23053/11 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/ OR /26/.

/13/ PROCUREMENT SPECIFICATION: AS1339 EXCEPT AS SPECIFIED ON THIS STANDARD. PRODUCT MANUFACTURED TO THIS STANDARD SHALL MEET THE REQUIREMENTS SPECIFIED HEREIN AND THE PROCUREMENT SPECIFICATION. ORIGINAL COMPONENT MANUFACTURERS (OCM) AND VALUE ADDED DISTRIBUTORS (VAD) SHALL BE LISTED IN THE PRI QUALIFIED PRODUCTS LIST (QPL) PRI-QPL-AS1339 FOR THIS STANDARD. SEE www.eAuditNet.com FOR CURRENT QPL ONLINE.