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SAE AS157

RATIONALE

FEDERAL SUPPLY CLASS
4720

ADDITIONAL CODE CALLOUT BEING INTRODUCED FOR OPTIONAL SAFETY WIRE HOLES. QPL NOTE REVISED.

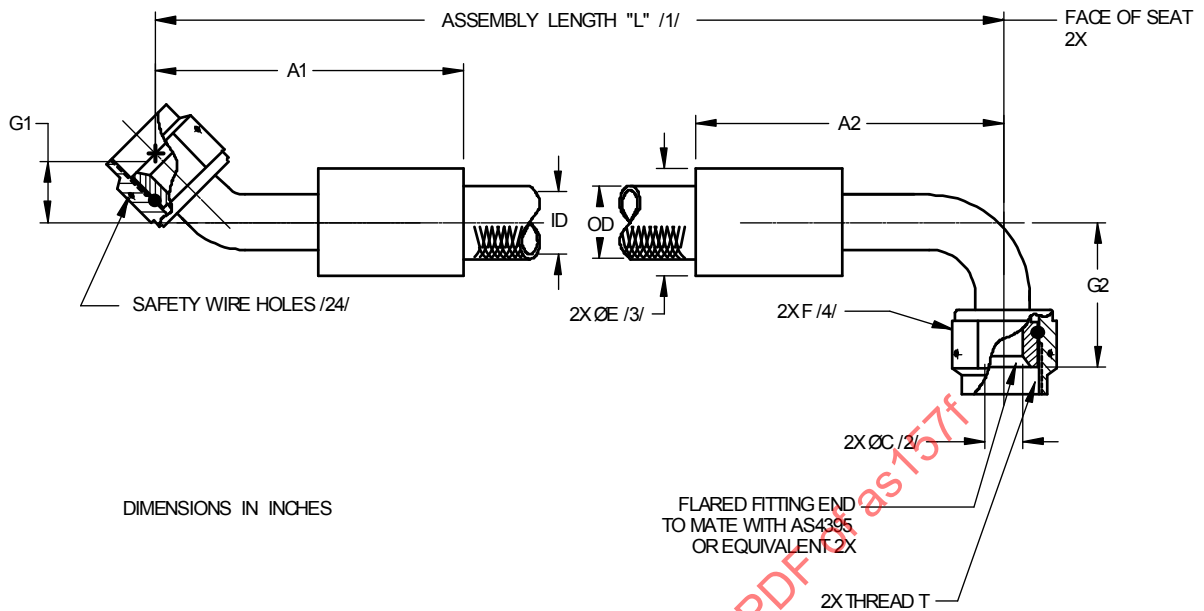


FIGURE 1 - HOSE AND FITTING DIMENSIONS

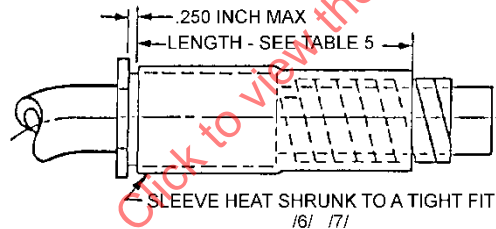
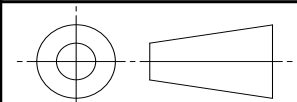


FIGURE 2 - TUBULAR/COIL ABRASION END

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on this Technical Report, please visit
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THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3D

PROCUREMENT SPECIFICATION: AS1339 /20/

SAE Aerospace
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AEROSPACE STANDARD

HOSE ASSEMBLY, PTFE, CRES REINFORCED,
3000 PSI, 400 °F, 45 DEGREE TO 90 DEGREE,
FLARED, LIGHTWEIGHT

SAE AS157
SHEET 1 OF 6

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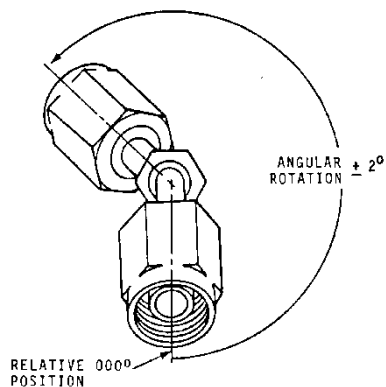


FIGURE 3 - FITTING ANGULAR ORIENTATION

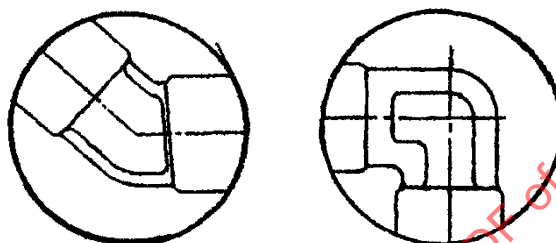


FIGURE 4 - ALTERNATE ELBOW CONFIGURATION /21/

TABLE 1 - ASSEMBLY DIMENSION

HOSE ASSEMBLY AS157 SIZE CODE	SIZE	THREAD T PER AS8879	ID MIN (REF)	A ₁ MAX	A ₂ MAX	C /2/ DIA MIN	E /3/ DIA MAX WITHOUT SLEEVING	F HEX (REF)	G ₁ MIN	G ₁ MAX	G ₂ MIN	G ₂ MAX
E	.250	.4375-20 UNJF-3B	.212	2.08	1.75	.135	.69	.56	.280	.450	.615	.740
G	.375	.5625-18 UNJF-3B	.298	2.29	2.00	.240	.80	.69	.370	.565	.830	.920
H	.500	.7500-16 UNJF-3B	.391	2.61	2.38	.340	.97	.88	.430	.645	.910	1.140
J	.625	.8750-14 UNJF-3B	.485	3.09	2.81	.410	1.11	1.00	.510	.675	1.110	1.310
K	.750	1.0625-12 UNJ-3B	.602	3.44	3.25	.510	1.38	1.25	.590	.720	1.340	1.500
M	1.000	1.3125-12 UNJ-3B	.852	3.75	3.30	.760	1.66	1.50	.680	.820	1.805	1.865

TABLE 2 - HOSE AND SLEEVE OUTSIDE DIAMETER

SLEEVE CODE	SLEEVE MATERIAL	TEMP. LIMIT °F	TOLE- RANCE	HOSE OR SLEEVE OUTSIDE DIAMETER	HOSE OR SLEEVE OUTSIDE DIAMETER	HOSE OR SLEEVE OUTSIDE DIAMETER	HOSE OR SLEEVE OUTSIDE DIAMETER	HOSE OR SLEEVE OUTSIDE DIAMETER	HOSE OR SLEEVE OUTSIDE DIAMETER
				/5/ HOSE SIZE .250	/5/ HOSE SIZE .375	/5/ HOSE SIZE .500	/5/ HOSE SIZE .625	/5/ HOSE SIZE .750	/5/ HOSE SIZE 1.000
-	(-) INDICATES HOSE ONLY, NO SLEEVE (SEE AS1339)	400	MAX MIN						
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	FIRESLEEVE (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 AS1073 - CODE B) /11/	275	MAX MIN	.450 .400	.560 .505	.695 .645	.810 .750	1.080 1.020	1.360 1.300
G	FIRESLEEVE (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	FIRESLEEVE INTEGRAL SILICONE (15 min) /13/	400	MAX MIN	.660 .600	.745 .685	.895 .835	1.005 .945	1.240 1.160	1.515 1.455
J	FIRESLEEVE INTEGRAL SILICONE (5 min) /12/	400	MAX MIN	.660 .600	.745 .685	.895 .835	1.005 .945	1.240 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 3 - 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

HOSE OR SLEEVE CODE	HOSE OR TYPE SLEEVE	UNITS	MAXIMUM WEIGHT HOSE SIZE .250	MAXIMUM WEIGHT HOSE SIZE .375	MAXIMUM WEIGHT HOSE SIZE .500	MAXIMUM WEIGHT HOSE SIZE .625	MAXIMUM WEIGHT HOSE SIZE .750	MAXIMUM WEIGHT 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	FIRE SLEEVE (15 min) AS1072	LB/IN	.007	.009	.011	.012	.017	.021
D	ABRASION SLEEVE INTEGRAL WITH HOSE	LB/IN	.012	.016	.024	.034	.067	.110
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	FIRE SLEEVE (5 min) AS1072	LB/IN	.007	.009	.011	.012	.017	.021
H	FIRE SLEEVE INTEGRAL (15 min) WITH HOSE	LB/IN	.019	.027	.035	.047	.099	.117
J	FIRE SLEEVE INTEGRAL (5 min) WITH HOSE	LB/IN	.019	.027	.035	.047	.099	.117
K	ABRASION SLEEVE POLYESTER WITH	LB/IN	.012	.016	.022	.030	.060	.090
L	HOSE ABRASION SLEEVE (PTFE-AS1293)	LB/IN	.003	.004	.005	.005	.006	.007
NONE	FIRE SLEEVE CLAMP	LB/EA	.025	.025	.025	.026	.026	.026
NONE	FITTING END (HOSE SIZE – 45 DEGREE)	LB/EA	.075	.121	.207	.306	.566	.780
NONE	FITTING END (HOSE SIZE – 90 DEGREE)	LB/EA	.075	.121	.207	.306	.584	.840

TABLE 5 - SLEEVE LENGTH

HOSE SIZE	LENGTH (INCHES)
E G	2.00 ± .25
H J	2.50 ± .25
K M	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

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. IF HOSE LENGTH IS AN EXACT WHOLE NUMBER IN INCHES (NO FRACTIONAL LENGTH ADDITIONS), FOURTH DIGIT SHALL BE SPECIFIED AS "0".

LENGTH "L" IS MEASURED FROM "FACE OF SEAT" TO "FACE OF SEAT." FOR LENGTH TOLERANCES SEE TABLE 3.

/2/ HOSE ASSEMBLY INSIDE DIAMETER SHALL BE VERIFIED BY PASSING THE DESIGNATED, OR LARGER, SPHERICAL BALL PER TABLE 6 THROUGH THE HOSE ASSEMBLY.

/3/ DISTANCE ACROSS CORNERS OF THE COUPLING NUT MAY EXCEED THIS DIMENSION.

 <i>An SAE International Group</i>	AEROSPACE STANDARD		SAE AS157 SHEET 4 OF 6	REV. F
	HOSE ASSEMBLY, PTFE, CRES REINFORCED, 3000 PSI, 400 °F, 45 DEGREE TO 90 DEGREE, FLARED, LIGHTWEIGHT			