

REV.
C

SAE AS631

FEDERAL SUPPLY CLASS
4720

RATIONALE

AS631C HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

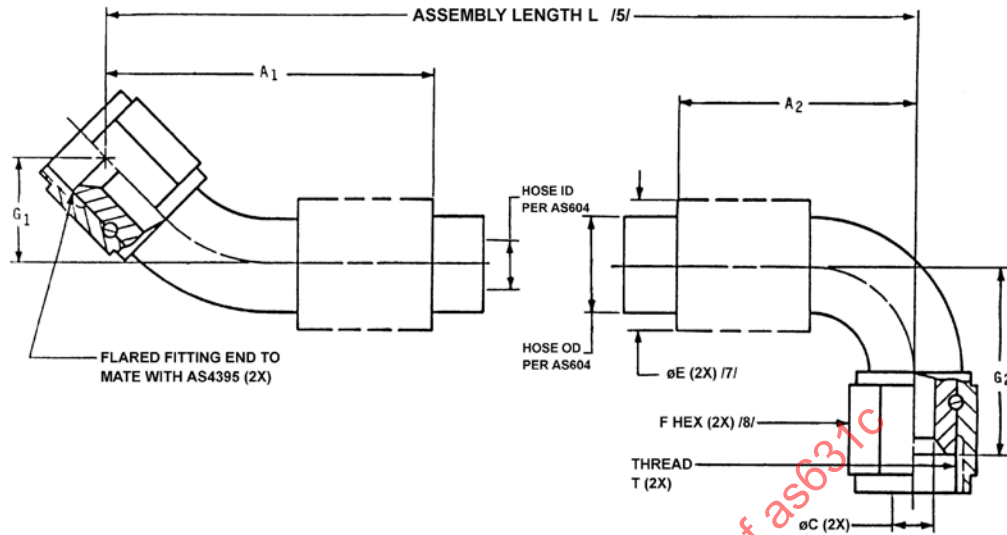


FIGURE 1 - HOSE AND FITTING DIMENSIONS

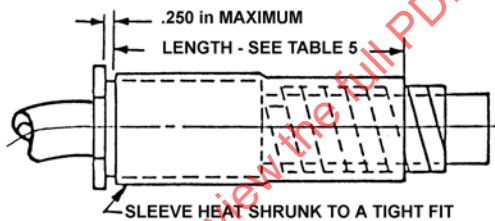


FIGURE 2 - TUBULAR/COIL ABRASION END /9/ /10/

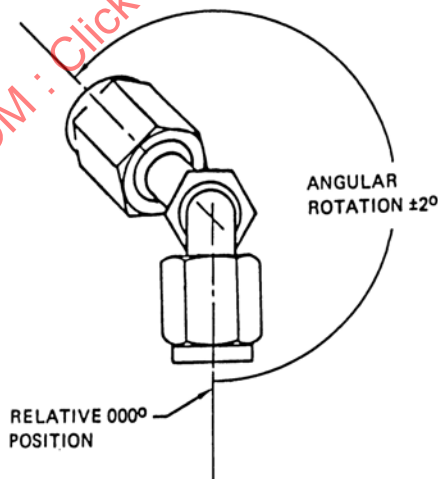
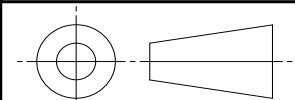


FIGURE 3 - FITTING ANGULAR ORIENTATION /18/

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS631C>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3D

PROCUREMENT SPECIFICATION: AS604 /2/

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

HOSE ASSEMBLY, 3000 psi, PTFE, FLARED,
45° TO 90°, HEAVYWEIGHT

SAE AS631
SHEET 1 OF 6

REV.
C

TABLE 1 - ASSEMBLY DIMENSIONS

HOSE ASSEMBLY AS631 SIZE CODE	HOSE ASSEMBLY SIZE (REF)	THREAD T PER AS8879 (REF)	A ₁ MAX	A ₂ MAX	C /6/ MIN	E MAX WITHOUT SLEEVEING	F HEX (REF)
E	.250	.4375-20 UNJF-3B	1.90	1.58	.135	.88	.56
G	.375	.5625-18 UNJF-3B	2.25	1.80	.240	1.00	.69
H	.500	.7500-16 UNJF-3B	2.65	2.40	.340	1.20	.88
J	.625	.8750-14 UNJF-3B	3.19	3.04	.410	1.41	1.00
K	.750	1.0625-12 UNJ-3B	3.56	3.35	.510	1.69	1.25
M	1.00	1.3125-12 UNJ-3B	4.35	4.26	.760	2.00	1.50
N	1.25	1.6250-12 UNJ-3B	4.50	4.50	.925	2.13	2.00

TABLE 1 (CONTINUED)

HOSE ASSEMBLY AS631 SIZE CODE	HOSE ASSEMBLY SIZE (REF)	G ₁ MIN	G ₁ MAX	G ₂ MIN	G ₂ MAX	INSPECTION BALL SIZE DIA IN
E	.250	.280	.450	.615	.740	.115
G	.375	.370	.565	.830	.920	.204
H	.500	.430	.645	.910	1.140	.289
J	.625	.510	.675	1.110	1.310	.349
K	.750	.590	.720	1.340	1.500	.434
M	1.00	.760	.820	1.805	1.865	.646
N	1.25	1.120	1.180	2.34	2.400	.786

TABLE 2 - HOSE OR SLEEVE OUTSIDE DIAMETER /13/

SLEEVE CODE	SLEEVE MATERIAL	TEMP. LIMIT °F	HOSE SIZE .250	HOSE SIZE .375	HOSE SIZE .500	HOSE SIZE .625	HOSE SIZE .750	HOSE SIZE 1.00	HOSE SIZE 1.25
NONE	(-) INDICATES HOSE ONLY, NO SLEEVE	400	.455 .395	.595 .535	.735 .675	.935 .875	1.090 1.030	1.410 1.350	1.650 1.590
A	ABRASION SLEEVE TUBULAR (TFE-AS1291-CODE B) /9/	400	.540 .468	.715 .635	.855 .770	1.025 .960	1.195 1.125	1.515 1.445	1.825 1.755
B	ABRASION SLEEVE COIL (NYLON AS1294) /10/	275	.509 .413	.684 .584	.809 .733	1.005 .923	1.170 1.088	1.492 1.408	1.750 1.690
C	FIRE SLEEVE (AS1072 SIL-FG) (15 min) /11/ /12/ /17/	400	.688 .562	.875 .750	1.000 .875	1.250 1.125	1.375 1.250	1.750 1.625	2.000 1.875
E	ABRASION SLEEVE SHRINK-ON (FEP) /15/	350	.458 .417	.638 .592	.773 .727	.973 .927	1.148 1.102	1.438 1.392	1.688 1.632
F	ABRASION SLEEVE SHRINK-ON (POLYOLEFIN AS1073 - CODE B) /15/	275	.490 .443	.670 .618	.795 .745	.997 .937	1.174 1.112	1.482 1.428	1.740 1.680
G	FIRE SLEEVE (AS1072 SIL-FG) (5 min) /11/ /12/ /16/	400	.688 .562	.875 .750	1.000 .875	1.250 1.125	1.375 1.250	1.750 1.625	2.000 1.875
H	FIRE SLEEVE INTEGRAL SILICONE (15 min) /17/	400	.700 .640	.880 .820	1.000 .940	1.203 1.143	1.343 1.283	1.656 1.596	1.906 1.846
J	FIRE SLEEVE INTEGRAL SILICONE (5 min) /16/	400	.705 .645	.880 .820	1.005 .945	1.217 1.143	1.382 1.280	1.748 1.593	1.906 1.846
K	INTEGRAL ABRASION SLEEVE (BRAIDED) POLYESTER /14/	300	.505 .480	.675 .645	.795 .765	.985 .955	1.150 1.120	1.470 1.440	1.720 1.680
L	ABRASION SLEEVE COIL (PTFE-AS1293) /10/	400	.522 .449	.692 .622	.817 .747	1.007 .937	1.172 1.102	1.492 1.422	1.750 1.690

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 - WEIGHTS (NOMINAL)

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 1.00	HOSE SIZE 1.25
NONE	HOSE ONLY	LB/IN	.012	.028	.040	.062	.086	.140	.154
A	ABRASION SLEEVE (TFE-AS1291-CODE B)	LB/IN	.003	.004	.004	.005	.007	.009	.011
B	ABRASION SLEEVE (NYLON AS1294)	LB/IN	.001	.002	.003	.003	.004	.005	.007
C	FIRESLEEVE (15 min) AS1072	LB/IN	.007	.010	.011	.015	.017	.021	.025
E	ABRASION SLEEVE (FEP)	LB/IN	.002	.003	.003	.005	.006	.007	.009
F	ABRASION SLEEVE (AS1073-CODE B)	LB/IN	.002	.003	.003	.004	.005	.006	.008
G	FIRESLEEVE (5 min) AS1072	LB/IN	.007	.010	.011	.015	.017	.021	.025
H	FIRESLEEVE INTEGRAL (15 min) ON HOSE	LB/IN	.022	.042	.056	.081	.102	.154	.190
J	FIRESLEEVE INTEGRAL (5 min) ON HOSE	LB/IN	.022	.042	.056	.081	.102	.154	.190
K	ABRASION SLEEVE POLYESTER WITH HOSE	LB/IN	.013	.028	.039	.060	.082	.130	.160
L	ABRASION SLEEVE (PTFE-AS1293)	LB/IN	.003	.004	.005	.005	.006	.007	.009
NONE	FIRESLEEVE CLAMP (*)	LB/EA	.020	.020	.025	.026	.026	.033	.038
NONE	FITTING END (45°) (*)	LB/EA	.075	.135	.220	.306	.584	.820	1.510
NONE	FITTING END (90°) (*)	LB/EA	.075	.140	.230	.315	.584	.840	1.630

(*) NOTE: FIRESLEEVE CLAMP AND FITTING END ARE IN POUNDS EACH.

TABLE 5 - SLEEVE LENGTH

HOSE SIZE	LENGTH (INCHES)
.250	2.00 ± .25
.375	
.500	2.50 ± .25
.625	
.750	3.00 ± .25
1.00	
1.25	3.50 ± .25