

REV.  
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SAE AS651

FEDERAL SUPPLY CLASS  
4720

RATIONALE

ESTABLISH CUFF DIMENSIONAL REQUIREMENTS FOR INTEGRAL FIRE SLEEVE ON HOSE AND SLEEVE CODE H & J CONFIGURATIONS, FOR STANDARIZATION PURPOSES.

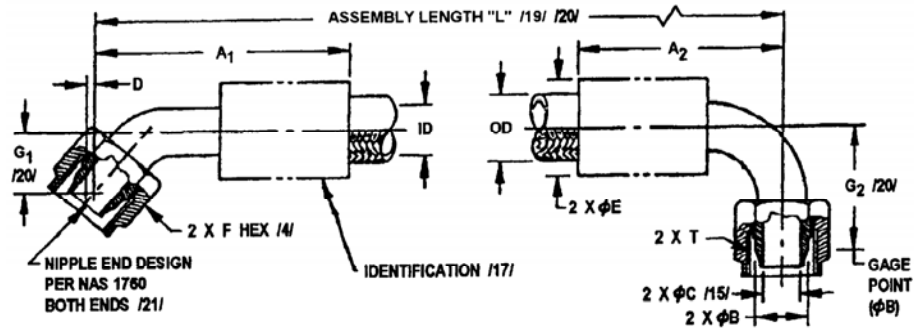


FIGURE 1 - HOSE ASSEMBLY

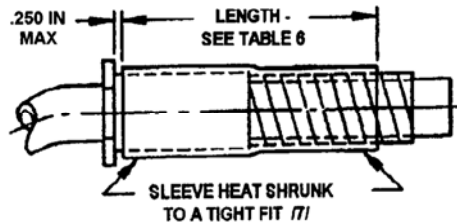


FIGURE 2 - ABRASION SLEEVE ATTACHMENT

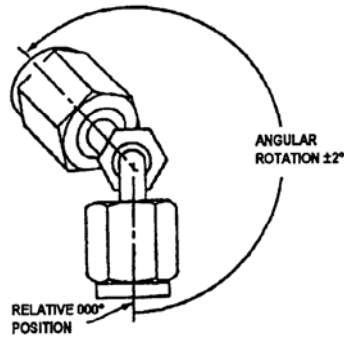
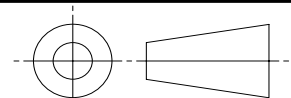


FIGURE 3 - FITTING ANGULAR POSITION /26/

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THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3D

PROCUREMENT SPECIFICATION: /14/ AS1946

**SAE Aerospace**  
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**AEROSPACE STANDARD**

HOSE ASSEMBLY, POLYTETRAFLUOROETHYLENE,  
METAL BRAID, MEDIUM PRESSURE, FLARELESS,  
45° TO 90°

**SAE AS651**  
SHEET 1 OF 7

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ISSUED 1992-06 REAFFIRMED 2007-07 REVISED 2011-06

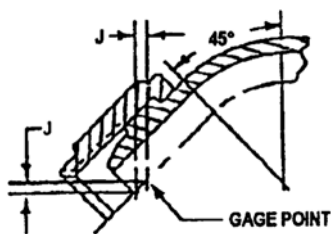


FIGURE 4 - GAGE POINT - SEE TABLE 7 /19/

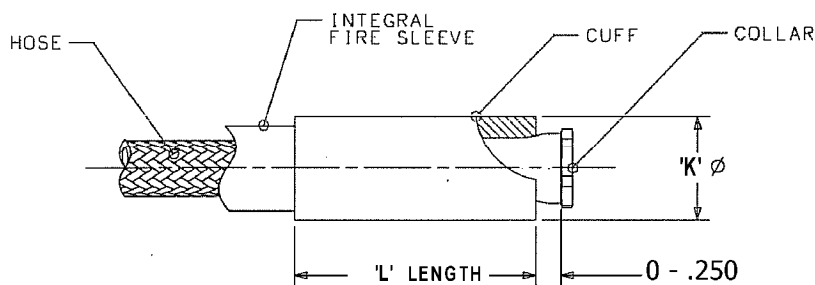


FIGURE 5 - SEE TABLE 8 /27/

TABLE 1 - DIMENSIONS

Hose Assembly No. & Size /24/	Hose Size (ref)	Fitting Matl /24/ /25/	Thread T per AS8879 (ref)	Hose ID Min (ref)	A		B Gage Basic	C Dia Min /15/	Min Ball Dia /15/	D (ref)	E Max Without Slewing /16/	F Hex (ref)	G1		G2	
					A1 Max	A2 Max							Min	Max	Min	Max
AS651D (-03)		CRES	.3750-24UNJF-3B	.110	1.660	1.340	2340	.080	.068	.10	.49	.500	.336	.477	.612	.761
		AL	.3750-24UNJF-3B	.110	1.660	1.340	2340	.080	.068	.10	.49	.500	.336	.477	.612	.761
		TI	.3750-24UNJF-3B	.110	1.660	1.340	2340	.080	.068	.10	.49	.500	.336	.477	.612	.761
AS651E (-04)		CRES	.4375-20UNJF-3B	.173	1.730	1.410	2930	.132	.112	.11	.55	.562	.350	.485	.624	.768
		AL	.4375-20UNJF-3B	.173	1.730	1.410	2930	.132	.112	.11	.55	.562	.350	.485	.624	.768
		TI	.4375-20UNJF-3B	.173	1.730	1.410	2930	.132	.112	.11	.55	.562	.350	.485	.624	.768
AS651F (-05)		CRES	.5000-20UNJF-3B	.235	1.910	1.580	3500	.193	.164	.11	.63	.625	.368	.512	.730	.917
		AL	.5000-20UNJF-3B	.235	1.910	1.580	3500	.193	.164	.11	.63	.625	.368	.512	.730	.917
		TI	.5000-20UNJF-3B	.235	1.910	1.580	3500	.193	.164	.11	.63	.625	.368	.512	.730	.917
AS651G (-06)		CRES	.5625-18UNJF-3B	.298	2.120	1.700	4120	.256	.218	.12	.70	.688	.434	.589	.794	1.023
		AL	.5625-18UNJF-3B	.298	2.120	1.700	4120	.256	.218	.12	.70	.688	.434	.589	.794	1.023
		TI	.5625-18UNJF-3B	.298	2.120	1.700	4120	.256	.218	.12	.70	.688	.434	.589	.794	1.023
AS651H (-08)		CRES	.7500-16UNJF-3B	.391	2.380	1.960	5600	.340	.289	.13	.83	.875	.497	.744	.912	1.218
		AL	.7500-16UNJF-3B	.391	2.380	1.960	5600	.340	.289	.13	.83	.875	.497	.744	.912	1.218
		TI	.7500-16UNJF-3B	.391	2.380	1.960	5600	.340	.289	.13	.83	.875	.497	.744	.912	1.218
AS651J (-10)		CRES	.8750-14UNJF-3B	.485	2.850	2.370	6730	.430	.366	.14	.97	1.000	.576	.822	1.100	1.529
		AL	.8750-14UNJF-3B	.485	2.850	2.370	6730	.430	.366	.14	.97	1.000	.576	.822	1.100	1.529
		TI	.8750-14UNJF-3B	.485	3.743	3.623	6730	.430	.366	.14	.97	1.000	1.180	2.172	2.780	2.906
AS651K (-12)		CRES	1.0625-12UNJ-3B	.615	3.120	2.650	8100	.548	.466	.16	1.17	1.250	.582	.903	1.400	1.772
		AL	1.0625-12UNJ-3B	.615	3.120	2.650	8100	.548	.466	.16	1.17	1.250	.582	.903	1.400	1.772
		TI	1.0625-12UNJ-3B	.615	4.270	4.260	8100	.548	.466	.16	1.17	1.250	1.210	1.40	3.020	3.283
AS651M (-16)	0	CRES	1.3125-12UNJ-3B	.851	3.500	3.340	1.0620	.778	.661	.21	1.52	1.500	.648	.976	1.541	1.859
		AL	1.3125-12UNJ-3B	.851	3.500	3.340	1.0620	.778	.661	.21	1.52	1.500	.648	.976	1.541	1.859
		TI	1.3125-12UNJ-3B	.851	5.038	5.290	1.0620	.778	.661	.21	1.52	1.500	1.405	1.616	3.820	4.067
AS651N (-20)	0	CRES	1.6250-12UNJ-3B	1.101	4.070	3.670	1.3160	1.000	.850	.21	2.00	2.000	.799	1.132	1.900	2.091
		AL	1.6250-12UNJ-3B	1.101	4.325	4.400	1.3160	1.000	.850	.21	2.00	2.000	1.300	1.513	3.400	3.641
		TI	1.6250-12UNJ-3B	1.101	5.165	5.650	1.3160	1.000	.850	.21	2.00	2.000	1.650	1.861	4.665	4.891
AS651P (-24)	0	CRES	1.8750-12UNJ-3B	1.344	4.600	4.190	1.5650	1.125	1.063	.26	2.28	2.125	1.000	1.307	2.285	2.644
		AL	1.8750-12UNJ-3B	1.344	4.966	5.170	1.5650	1.125	1.063	.26	2.28	2.125	1.500	1.729	4.050	4.292
		TI	1.8750-12UNJ-3B	1.344	5.939	6.670	1.5650	1.125	1.063	.26	2.28	2.125	1.900	2.132	5.550	5.792

TABLE 2 - TOLERANCES

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

TABLE 3 - HOSE AND SLEEVE CODES

HOSE OR SLEEVE CODE	SLEEVE MATERIAL	TEMP. LIMIT °F
-	(-) INDICATES HOSE ONLY, NO SLEEVE (AS639)	450
A	ABRASION SLEEVE TUBULAR (PTFE - AS1291 - CODE B) /6/	450
B	ABRASION SLEEVE COIL (NYLON AS1294) /7/	275
C	FIRE SLEEVE (AS1072 SIL-FG) (15 MIN) /8/ /9/ /13/	450
E	ABRASION SLEEVE SHRINK-ON (FEP) /11/	350
F	ABRASION SLEEVE SHRINK-ON (POLYOLEFIN AS1073 - CODE B) /11/	275
G	FIRE SLEEVE (AS1072 SIL-FG) (5 MIN) /8/ /9/ /12/	450
H	FIRE SLEEVE INTEGRAL SILICONE (AS1723) (15 MIN) /13/ /27/	450
J	FIRE SLEEVE INTEGRAL SILICONE (5 MIN) /12/ /27/	450
K	INTEGRAL ABRASION SLEEVE (BRAIDED) POLYESTER /10/	300
L	ABRASION SLEEVE COIL (PTFE - AS1293) /7/	450

TABLE 4 - HOSE AND SLEEVE OUTSIDE DIAMETERS

HOSE OR SLEEVE CODE	TOLERANCE	HOSE SIZE	HOSE SIZE	HOSE SIZE	HOSE SIZE	HOSE SIZE	HOSE SIZE	HOSE SIZE	HOSE SIZE	HOSE SIZE	HOSE SIZE
		/5/	/5/	/5/	/5/	/5/	/5/	/5/	/5/	/5/	/5/
-	MAX	.188	.250	.313	.375	.500	.625	.750	1.000	1.250	1.500
	MIN	.285	.343	.406	.469	.585	.687	.812	1.140	1.390	1.707
A	MAX	.234	.304	.367	.430	.546	.641	.766	1.078	1.328	1.637
	MIN	.390	.473	.524	.620	.715	.818	.955	1.295	1.550	1.841
B	MAX	.320	.393	.454	.515	.645	.748	.870	1.210	1.450	1.771
	MIN	.339	.409	.472	.535	.669	.767	.896	1.224	1.474	1.807
C	MAX	.260	.330	.393	.456	.590	.681	.810	1.122	1.372	1.681
	MIN	.692	.692	.780	.840	.970	1.090	1.220	1.590	1.900	2.190
E	MAX	.533	.533	.598	.658	.778	.908	1.038	1.288	1.658	1.898
	MIN	.301	.375	.438	.507	.635	.749	.887	1.288	1.440	1.761
F	MAX	.248	.320	.383	.452	.578	.679	.811	1.146	1.358	1.667
	MIN	.341	.411	.474	.547	.663	.769	.904	1.244	1.482	1.823
G	MAX	.278	.348	.411	.484	.600	.699	.834	1.158	1.396	1.729
	MIN	.692	.692	.780	.840	.970	1.090	1.220	1.590	1.900	2.190
H	MAX	.533	.533	.598	.658	.778	.908	1.038	1.288	1.658	1.898
	MIN	.641	.641	.704	.766	.891	1.016	1.141	1.454	1.704	2.016
J	MAX	.537	.594	.657	.719	.844	.949	1.074	1.394	1.649	1.957
	MIN	.641	.641	.704	.766	.891	1.016	1.141	1.454	1.704	2.016
K	MAX	.537	.594	.657	.719	.844	.949	1.074	1.394	1.649	1.957
	MIN	.378	.430	.499	.559	.665	.772	.887	1.210	1.460	1.782
L	MAX	.320	.390	.450	.510	.625	.726	.841	1.148	1.398	1.712
	MIN	.375	.445	.508	.571	.687	.789	.914	1.242	1.492	1.809
	MAX	.267	.333	.407	.470	.586	.681	.828	1.138	1.388	1.697
	MIN										