

REV.
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SAE AS649

RATIONALE

FEDERAL SUPPLY CLASS
4720

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

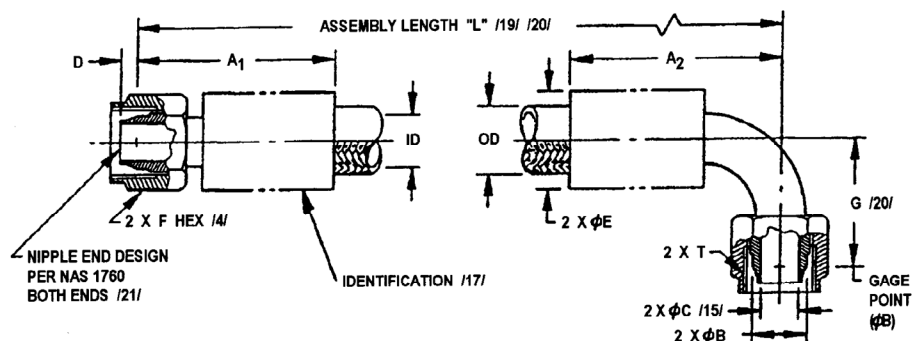


FIGURE 1 - HOSE ASSEMBLY

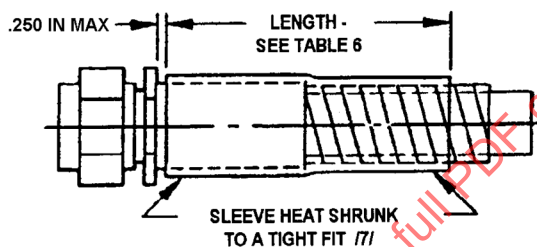


FIGURE 2 - ABRASION SLEEVE ATTACHMENT

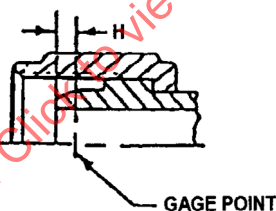


FIGURE 3 - GAGE POINT - SEE TABLE 7 /19/

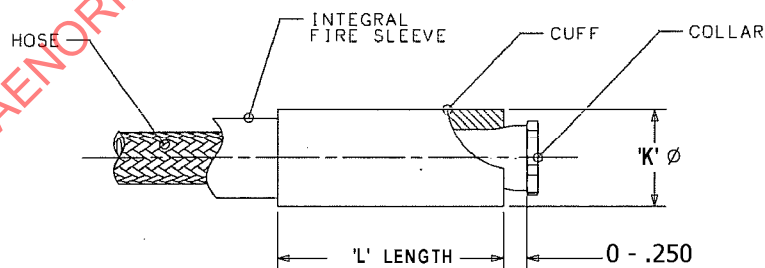
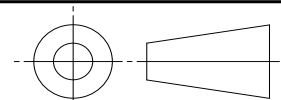


FIGURE 4 - SEE TABLE 8 /27/

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/AS649C>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3D

PROCUREMENT SPECIFICATION: /14/ AS1946

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

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

SAE AS649
SHEET 1 OF 7

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TABLE 1 – DIMENSIONS

Hose Assembly No. & Size /24/	Hose Size (ref)	Fitting Type /25/	Fitting Matl /24/ /26/	Thread T per AS8879 (ref)	Hose ID Min (ref)	A1 Max	A2 Max	B Gage Basic	C Dia Min /15/	Min Ball Dia ELB/STR /15/	D (ref)	E Max Without Slewing /16/	F Hex (ref)	G Min	G Max
AS649D (-03)	.188	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AS649D (-03)	.188	S	CRES	.3750-24UNJF-3B	.110	1.20	1.34	.2340	.080	.068/.072	.14	.49	.500	.612	.761
			AL	.3750-24UNJF-3B	.110	1.20	1.34	.2340	.080	.068/.072	.14	.49	.500	.612	.761
			TI	.3750-24UNJF-3B	.110	1.20	1.34	.2340	.080	.068/.072	.14	.49	.500	.612	.761
AS649D (-03)	.188	E	CRES	.4375-20UNJF-3B	.110	1.20	1.30	.2930	.080	.068/.072	.16	.49	.562	.612	.768
			AL	.4375-20UNJF-3B	.110	1.20	1.30	.2930	.080	.068/.072	.16	.49	.562	.612	.768
			TI	.4375-20UNJF-3B	.110	1.20	1.30	.2930	.080	.068/.072	.16	.49	.562	.612	.768
AS649E (-04)	.250	R	CRES	.3750-24UNJF-3B	.173	1.21	1.28	.2340	.080	.068/.072	.14	.55	.500	.624	.761
			AL	.3750-24UNJF-3B	.173	1.21	1.28	.2340	.080	.068/.072	.14	.55	.500	.624	.761
			TI	.3750-24UNJF-3B	.173	1.21	1.28	.2340	.080	.068/.072	.14	.55	.500	.624	.761
AS649E (-04)	.250	S	CRES	.4375-20UNJF-3B	.173	1.21	1.41	.2930	.132	.112/.119	.16	.55	.562	.624	.768
			AL	.4375-20UNJF-3B	.173	1.21	1.41	.2930	.132	.112/.119	.16	.55	.562	.624	.768
			TI	.4375-20UNJF-3B	.173	1.21	1.41	.2930	.132	.112/.119	.16	.55	.562	.624	.768
AS649E (-04)	.250	E	CRES	.5000-20UNJF-3B	.173	1.23	1.36	.3500	.132	.112/.119	.16	.55	.625	.730	.931
			AL	.5000-20UNJF-3B	.173	1.23	1.36	.3500	.132	.112/.119	.16	.55	.625	.730	.931
			TI	.5000-20UNJF-3B	.173	1.23	1.36	.3500	.132	.112/.119	.16	.55	.625	.730	.931
AS649F (-05)	.312	R	CRES	.4375-20UNJF-3B	.235	1.33	1.57	.2930	.132	.112/.119	.16	.63	.562	.643	.786
			AL	.4375-20UNJF-3B	.235	1.33	1.57	.2930	.132	.112/.119	.16	.63	.562	.643	.786
			TI	.4375-20UNJF-3B	.235	1.33	1.57	.2930	.132	.112/.119	.16	.63	.562	.643	.786
AS649F (-05)	.312	S	CRES	.5000-20UNJF-3B	.235	1.35	1.58	.3500	.193	.164/.174	.16	.63	.625	.730	.917
			AL	.5000-20UNJF-3B	.235	1.35	1.58	.3500	.193	.164/.174	.16	.63	.625	.730	.917
			TI	.5000-20UNJF-3B	.235	1.35	1.58	.3500	.193	.164/.174	.16	.63	.625	.730	.917
AS649F (-05)	.312	E	CRES	.5625-18UNJF-3B	.235	1.36	1.65	.4120	.193	.164/.174	.16	.63	.685	.794	1.023
			AL	.5625-18UNJF-3B	.235	1.36	1.65	.4120	.193	.164/.174	.16	.63	.685	.794	1.023
			TI	.5625-18UNJF-3B	.235	1.36	1.65	.4120	.193	.164/.174	.16	.63	.685	.794	1.023
AS649G (-06)	.375	R	CRES	.5000-20UNJF-3B	.298	1.42	1.65	.3500	.193	.164/.174	.16	.70	.625	.730	.931
			AL	.5000-20UNJF-3B	.298	1.42	1.65	.3500	.193	.164/.174	.16	.70	.625	.730	.931
			TI	.5000-20UNJF-3B	.298	1.42	1.65	.3500	.193	.164/.174	.16	.70	.625	.730	.931
AS649G (-06)	.375	S	CRES	.5625-18UNJF-3B	.298	1.45	1.70	.4120	.256	.218/.230	.16	.70	.688	.794	1.023
			AL	.5625-18UNJF-3B	.298	1.45	1.70	.4120	.256	.218/.230	.16	.70	.688	.794	1.023
			TI	.5625-18UNJF-3B	.298	1.45	1.70	.4120	.256	.218/.230	.16	.70	.688	.794	1.023
AS649G (-06)	.375	E	CRES	.7500-16UNJF-3B	.298	1.57	1.65	.5600	.256	.218/.230	.19	.70	.875	.912	1.218
			AL	.7500-16UNJF-3B	.298	1.57	1.65	.5600	.256	.218/.230	.19	.70	.875	.912	1.218
			TI	.7500-16UNJF-3B	.298	1.57	1.65	.5600	.256	.218/.230	.19	.70	.875	.912	1.218
AS649H (-08)	.500	R	CRES	.5625-18UNJF-3B	.391	1.52	1.72	.4120	.256	.218/.230	.16	.83	.688	.794	1.540
			AL	.5625-18UNJF-3B	.391	1.52	1.72	.4120	.256	.218/.230	.16	.83	.688	.794	1.540
			TI	.5625-18UNJF-3B	.391	1.52	1.72	.4120	.256	.218/.230	.16	.83	.688	.794	1.540
AS649H (-08)	.500	S	CRES	.7500-16UNJF-3B	.391	1.64	1.96	.5600	.340	.289/.306	.19	.83	.875	.912	1.218
			AL	.7500-16UNJF-3B	.391	1.64	1.96	.5600	.340	.289/.306	.19	.83	.875	.912	1.218
			TI	.7500-16UNJF-3B	.391	1.64	1.96	.5600	.340	.289/.306	.19	.83	.875	.912	1.218
AS649H (-08)	.500	E	CRES	.8750-14UNJF-3B	.391	1.71	2.22	.6730	.340	.289/.306	.20	.83	1.000	1.279	2.005
			AL	.8750-14UNJF-3B	.391	1.71	2.22	.6730	.340	.289/.306	.20	.83	1.000	1.279	2.005
			TI	.8750-14UNJF-3B	.391	1.71	2.22	.6730	.340	.289/.306	.20	.83	1.000	1.279	2.005
AS649J (-10)	.625	R	CRES	.7500-16UNJF-3B	.485	1.81	2.76	.5600	.340	.289/.306	.19	.97	.875	1.300	2.165
			AL	.7500-16UNJF-3B	.485	1.81	2.76	.5600	.340	.289/.306	.19	.97	.875	1.300	2.165
			TI	.7500-16UNJF-3B	.485	1.81	2.76	.5600	.340	.289/.306	.19	.97	.875	1.300	2.165
AS649J (-10)	.625	S	CRES	.8750-14UNJF-3B	.485	1.96	2.37	.6730	.430	.366/.387	.20	.97	1.000	1.100	1.529
			AL	.8750-14UNJF-3B	.485	1.96	2.37	.6730	.430	.366/.387	.20	.97	1.000	1.100	1.529
			TI	.8750-14UNJF-3B	.485	1.96	2.37	.6730	.430	.366/.387	.20	.97	1.000	1.100	1.529
AS649J (-10)	.625	E	CRES	.1.0625-12UNJ-3B	.485	1.96	2.37	.8100	.430	.366/.387	.23	.97	1.250	1.400	1.658
			AL	.1.0625-12UNJ-3B	.485	1.96	2.37	.8100	.430	.366/.387	.23	.97	1.250	1.400	1.658
			TI	.1.0625-12UNJ-3B	.485	1.96	2.37	.8100	.430	.366/.387	.23	.97	1.250	1.400	1.658
AS649K (-12)	.750	R	CRES	.8750-14UNJF-3B	.615	2.10	2.76	.6730	.430	.366/.387	.20	1.17	1.000	1.540	2.317
			AL	.8750-14UNJF-3B	.615	2.10	2.76	.6730	.430	.366/.387	.20	1.17	1.000	1.540	2.317
			TI	.8750-14UNJF-3B	.615	2.10	2.76	.6730	.430	.366/.387	.20	1.17	1.000	1.540	2.317
AS649K (-12)	.750	S	CRES	.1.0625-12UNJ-3B	.615	2.17	2.65	.8100	.548	.466/.493	.23	1.17	1.250	1.400	1.772
			AL	.1.0625-12UNJ-3B	.615	2.17	2.65	.8100	.548	.466/.493	.23	1.17	1.250	1.400	1.772
			TI	.1.0625-12UNJ-3B	.615	2.17	2.65	.8100	.548	.466/.493	.23	1.17	1.250	1.400	1.772
AS649K (-12)	.750	E	CRES	.1.3125-12UNJ-3B	.615	2.27	2.76	1.0620	.548	.466/.493	.30	1.17	1.500	1.600	1.859
			AL	.1.3125-12UNJ-3B	.615	2.27	2.76	1.0620	.548	.466/.493	.30	1.17	1.500	1.600	1.859
			TI	.1.3125-12UNJ-3B	.615	2.27	2.76	1.0620	.548	.466/.493	.30	1.17	1.500	1.600	1.859
AS649M (-16)	1.000	R	CRES	.1.0625-12UNJ-3B	.851	2.45	3.02	.8100	.548	.466/.493	.23	1.52	1.250	1.030	2.033
			AL	.1.0625-12UNJ-3B	.851	2.45	3.02	.8100	.548	.466/.493	.23	1.52	1.250	1.030	2.033
			TI	.1.0625-12UNJ-3B	.851	2.45	3.02	.8100	.548	.466/.493	.23	1.52	1.250	1.030	2.033
AS649M (-16)	1.000	S	CRES	.1.3125-12UNJ-3B	.851	2.55	3.34	1.0620	.778	.661/.700	.30	1.52	1.500	1.541	1.859
			AL	.1.3125-12UNJ-3B	.851	2.55	3.34	1.0620	.778	.661/.700	.30	1.52	1.500	1.541	1.859
			TI	.1.3125-12UNJ-3B	.851	2.55	3.34	1.0620	.778	.661/.700	.30	1.52	1.500	1.541	1.859
AS649M (-16)	1.000	E	CRES	.1.6250-12UNJ-3B	.851	2.67	3.24	1.3160	.778	.661/.700	.30	1.52	2.000	1.900	2.141
			AL	.1.6250-12UNJ-3B	.851	2.67	3.24	1.3160	.778	.661/.700	.30	1.52	2.000	1.900	2.141
			TI	.1.6250-12UNJ-3B	.851	2.67	3.24	1.3160	.778	.661/.700	.30	1.52	2.000	1.900	2.141
AS649N (-20)	1.250	R	CRES	.1.3125-12UNJ-3B	1.101	2.25	2.90	1.0620	.778	.661/.700	.30	2.00	1.500	2.100	2.317
			AL	.1.3125-12UNJ-3B	1.101	2.25	2.90	1.0620	.778	.661/.700	.30	2.00	1.500	2.100	2.317
			TI	.1.3125-12UNJ-3B	1.101	2.25	2.90	1.0620	.778	.661/.700	.30	2.00	1.500	2.100	2.317
AS649N (-20)	1.250	S	CRES	.1.6250-12UNJ-3B	1.101	2.48	3.67	1.3160	1.000	.850/.900	.30	2.00	2.000	1.900	2.091
			AL	.1.6250-12UNJ-3B	1.101	2.48	3.67	1.3160	1.000	.850/.900	.30	2.00	2.000	1.900	2.091
			TI	.1.6250-12UNJ-3B	1.101	2.48	3.67	1.3160	1.000	.850/.900	.30	2.00	2.000	1.900	2.091
AS649N (-20)	1.250	E	CRES	.1.8750-12UNJ-3B	1.101	2.55	3.15	1.5650	1.000	.850/.900	.37	2.00	2.000	2.300	2.542
			AL	.1.8750-12UNJ-3B	1.101	2.55	3.15	1.5650	1.000	.850/.900	.37	2.00	2.000	2.300	2.542
			TI	.1.8750-12UNJ-3B	1.101	2.55	3.15	1.5650	1.000	.850/.900	.37	2.00	2.000	2.300	2.542

Hose Assembly No. & Size /24/	Hose Size (ref)	Fitting Type /25/	Fitting Matl /24/ /26/	Thread T per AS8879 (ref)	Hose ID Min (ref)	A1 Max	A2 Max	B Gage Basic	C Dia Min /15/	Min Ball Dia ELB/STR /15/	D (ref)	E Max Without Sleeving /16/	F Hex (ref)	G Min	G Max
AS649P (-24)	1.500	R	CRES	1.6250-12UNJ-3B	1.344	2.85	3.67	1.3160	1.000	.850/.900	.30	2.28	2.000	2.400	2.641
			AL	1.6250-12UNJ-3B	1.344	2.85	5.17	1.3160	1.000	.850/.900	.30	2.28	2.000	3.900	4.141
			TI	1.6250-12UNJ-3B	1.344	2.85	6.67	1.3160	1.000	.850/.900	.30	2.28	2.000	5.400	5.641
AS649P (-24)	1.500	S	CRES	1.8750-12UNJ-3B	1.344	2.85	4.19	1.5650	1.250	1.063/1.125	.37	2.28	2.125	2.285	2.644
			AL	1.8750-12UNJ-3B	1.344	2.85	5.17	1.5650	1.250	1.063/1.125	.37	2.28	2.125	4.050	4.292
			TI	1.8750-12UNJ-3B	1.344	2.85	6.67	1.5650	1.250	1.063/1.125	.37	2.28	2.125	5.550	5.792
AS649P (-24)	1.500	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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

TABLE 5 - HOSE WEIGHT MAX. ALL OTHERS REF

HOSE OR SLEEVE CODE OR FITTING	FITTING TYPE /25/	UNITS	HOSE SIZE .188	HOSE SIZE .250	HOSE SIZE .313	HOSE SIZE .375	HOSE SIZE .500	HOSE SIZE .625	HOSE SIZE .750	HOSE SIZE 1.000	HOSE SIZE 1.250	HOSE SIZE 1.500
-		LB/IN	.005	.007	.008	.010	.012	.016	.020	.045	.058	.074
A		LB/IN	.003	.004	.004	.006	.007	.008	.010	.014	.020	.045
B		LB/IN	.001	.001	.002	.002	.003	.004	.004	.005	.006	.009
C		LB/IN	.009	.009	.011	.012	.017	.018	.028	.030	.040	.037
E		LB/IN	.001	.002	.002	.002	.003	.004	.006	.007	.007	.008
F		LB/IN	.002	.002	.002	.002	.003	.003	.005	.006	.006	.007
G		LB/IN	.009	.009	.011	.012	.017	.018	.028	.030	.040	.037
H		LB/IN	.016	.018	.020	.023	.030	.037	.045	.085	.107	.132
J		LB/IN	.016	.017	.018	.021	.027	.035	.042	.079	.100	.123
K		LB/IN	.006	.008	.009	.011	.015	.018	.023	.050	.063	.081
L		LB/IN	.003	.004	.004	.005	.008	.009	.011	.018	.022	.028
FIRESLEEVE CLAMP		LB/EA	.015	.016	.018	.019	.021	.023	.025	.029	.033	.037
FITTING END STR /26/ A/D - CRES	R	LB/EA	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	S	LB/EA	.040	.055	.075	.085	.155	.235	.330	.535	.995	1.370
	E	LB/EA	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
B/E - ALUM	R	LB/EA	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	S	LB/EA	---	---	---	.050	.073	.117	.164	.255	.473	.638
	E	LB/EA	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
C/F - TI	R	LB/EA	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	S	LB/EA	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	E	LB/EA	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
FITTING END 90° /26/ A/D - CRES	R	LB/EA	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	S	LB/EA	.053	.065	.080	.099	.231	.328	.425	.659	1.419	1.854
	E	LB/EA	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
B/E - ALUM	R	LB/EA	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	S	LB/EA	---	---	---	.055	.080	.110	.165	.290	.485	.685
	E	LB/EA	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
C/F - TI	R	LB/EA	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	S	LB/EA	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
	E	LB/EA	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD

TABLE 6 - SLEEVE LENGTH

HOSE SIZE	LENGTH
.188, .250, .313, .375	2.00 ± .25
.500, .625	2.50 ± .25
.750, 1.000	3.00 ± .25
1.250, 1.500	4.00 ± .25

TABLE 7 - DIMENSION H (SEE FIGURE 3) /19/

SIZE CODE	H	J
3	.085	.0601
4	.062	.044
5	.058	.041
6	.059	.042
8	.064	.045
10	.078	.055
12	.069	.049
16	.132	.093
20	.090	.064
24	.134	.095

TABLE 8 – INTEGRAL FIRE SLEEVE CUFF DIMENSIONS /27/

HOSE SIZE (REF)	'K' MAX	'L' MAX
.250	.90	1.61
.313	.97	1.70
.375	1.03	2.18
.500	1.15	2.50
.625	1.29	2.67
.750	1.41	2.67
1.00	1.71	3.10
1.25	2.04	2.80
1.50	2.37	2.95

NOTES:

1. CONSTRUCTION AND PERFORMANCE: AS1946, FITTINGS SHALL BE PERMANENTLY ATTACHED TO THE HOSE.
2. OPERATING CHARACTERISTICS: SEE AS1946.
3. MATERIALS:
 - a. HOSE AND FITTINGS - PER AS1946 /26/
 - b. SLEEVES - SEE APPLICABLE STANDARDS, TABLE 3
- /4/ STANDARD COUPLING NUTS SHALL BE IN ACCORDANCE WITH AS21921, AS1790 OR AS4370 AND MATE WITH AS33514, AS4377 OR AS4375 FITTING ENDS. NONSTANDARD COUPLING NUTS MAY BE USED, PROVIDED THEY ARE FUNCTIONALLY EQUIVALENT, AND PROVIDED THEY CANNOT BE REMOVED FROM THE FITTING. NUTS SHALL MEET THE TORQUE TEST REQUIREMENTS PER AS1946.
- /5/ DIAMETERS ARE LISTED FOR CLAMP SELECTION. TUBULAR SLEEVES MAY NOT BE A PERFECT ROUND AND SHALL BE MEASURED WITH A DIAMETER MEASUREMENT TAPE.
- /6/ THE INSTALLED TUBULAR ABRASION SLEEVES AXIAL MOVEMENT ON THE HOSE SHALL NOT EXCEED .05 IN. ENDS OF THE TUBULAR SLEEVE SHALL BE TERMINATED WITH A LENGTH OF AMS-DTL-23053/11 (FEP) CLASS 1 OR 2, COLOR CLEAR, PER TABLE 6 AND FIGURE 2.
- /7/ 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 6 AND FIGURE 2. CODE "B" (NYLON COIL) ABRASION SLEEVES SHALL BE TERMINATED WITH AMS-DTL-23053/5 CLASS 1 OR 3, COLOR BLACK. CODE "L" (COIL ABRASION) SLEEVES SHALL BE TERMINATED WITH AMS-DTL-23053/12, CLASS 1, COLOR TRANSPARENT, PTFE. (OPTIONAL FOR BOTH SLEEVES AMS-DTL-23053/11 (FEP) CLASS 1 OR 2, COLOR CLEAR).
- /8/ THE TABLE 4 SLEEVE DIAMETERS FOR AS1072 SLEEVES APPLY 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.
- /9/ THE CUT ENDS OF THE FIRE SLEEVE SHALL BE SEALED USING RTV SILICONE RUBBER, PRIOR TO INSTALLATION, TO PREVENT WICKING OF FLUIDS. THE FIRE SLEEVE ENDS SHALL BE SECURED TO THE HOSE ASSEMBLY END FITTINGS WITH CORROSION RESISTANT STEEL BANDS. AFTER INSTALLATION, CRACKS OR VOIDS IN THE FIRE SLEEVE, WHICH EXPOSE THE FIBERGLASS, SHALL BE COATED WITH SILICONE RUBBER.
- /10/ INTEGRAL ABRASION SLEEVE SHALL FORM AN INTEGRAL, PERMANENT PART OF THE HOSE AND SHALL TERMINATE A MAXIMUM OF .250 FROM THE END OF THE COLLAR.
- /11/ FEP AND POLYOLEFIN SHRINK ABRASION SLEEVES SHALL BE SHRUNK TO A SNUG FIT OVER THE HOSE AND END FITTING COLLARS. SLEEVE SHALL COVER A MINIMUM OF ONE HALF THE COLLAR.
- /12/ ADD "AS1055 TYPE IIb CLASS A-S/P" OR "AS150 TYPE VIIbA" TO IDENTIFICATION MARKING TO SHOW LEVEL OF COMPLIANCE, "FIRE RESISTANT (5 min), WITH AS1055 OR AS150"
- /13/ ADD "AS1055 TYPE IIb CLASS B-S/P" TO IDENTIFICATION MARKING TO SHOW LEVEL OF COMPLIANCE, "FIRE PROOF (15 min), WITH AS1055"
- /14/ PRODUCT SUPPLIED TO THIS SPECIFICATION SHALL BE MANUFACTURED AND ASSEMBLED BY AN ACCREDITED MANUFACTURER OR ASSEMBLED BY AN ACCREDITED ASSEMBLING DISTRIBUTOR LISTED IN THE PERFORMANCE REVIEW INSTITUTE (PRI) QUALIFIED PRODUCT LIST FOR PRI-QPL-AS1946 FOR THIS STANDARD. SEE <http://www.eauditnet.com> FOR CURRENT QPL ONLINE.

 An SAE International Group	AEROSPACE STANDARD	SAE AS649 SHEET 5 OF 7	REV. C
	HOSE ASSEMBLY, POLYTETRAFLUOROETHYLENE, METAL BRAID, MEDIUM PRESSURE, FLARELESS, STRAIGHT TO 90°		