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REV.
B

AS4503

FEDERAL SUPPLY CLASS

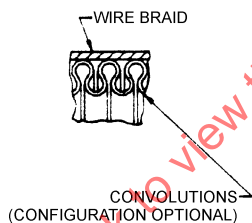
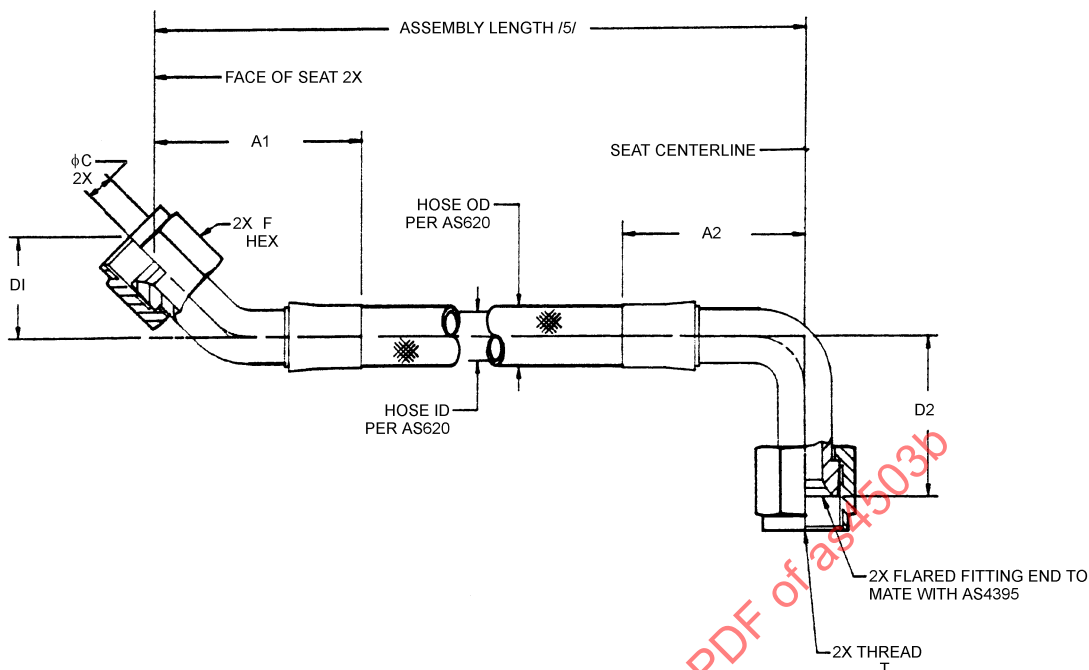


FIGURE 1 - HOSE ASSEMBLY

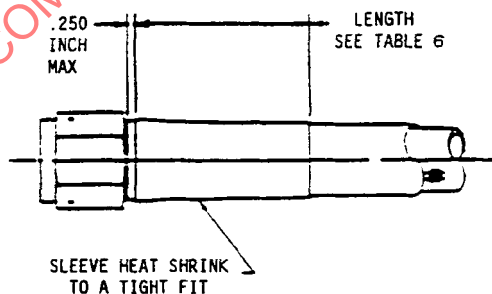


FIGURE 2 - SPIRAL ABRASION COVER /6/

CUSTODIAN: SAE G-3/G-3D

PROCUREMENT SPECIFICATION: AS620 /2/

SAE Aerospace
An SAE International Group

AEROSPACE STANDARD

(R) HOSE ASSEMBLY, CONVOLUTED,
POLYTETRAFLUOROETHYLENE, METALLIC REINFORCED
CONDUCTIVE, FLARED, 45° TO 90°

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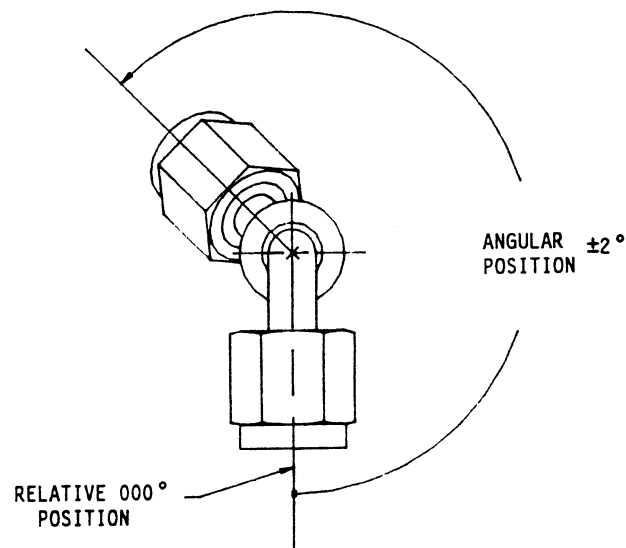


FIGURE 3 - FITTING ANGULAR ORIENTATION /16/

TABLE 1 - ASSEMBLY DIMENSIONS

HOSE ASSEMBLY AS4503 SIZE CODE	HOSE ASSEMBLY SIZE (REF)	THREAD T PER AS8879 REF	A ₁ MAX	A ₂ MAX	C / 8/ MIN	D ₁ MIN	D ₁ MAX	D ₂ MIN	D ₂ MAX	E / 9/ MAX WITHOUT SLEEVEING	F HEX (REF)
E	.250	.4375-20UNJF-3B	1.44	1.24	.132	.312	.382	.607	.677	.55	.56
G	.375	.5625-18UNJF-3B	1.86	1.56	.256	.436	.506	.855	.925	.68	.69
H	.500	.7500-16UNJF-3B	2.18	1.85	.345	.537	.607	1.072	1.142	.86	.88
J	.625	.8750-14UNJF-3B	2.42	2.14	.430	.608	.678	1.246	1.316	.95	1.00
K	.750	1.0625-12UNJ-3B	2.77	2.67	.635	.644	.714	1.370	1.440	1.28	1.25
M	1.00	1.3125-12UNJ-3B	3.05	2.87	.835	.755	.825	1.673	1.743	1.47	1.50
N	1.25	1.6250-12UNJ-3B	3.68	3.39	1.085	.894	.964	2.015	2.085	1.70	1.81
P	1.50	1.8750-12UNJ-3B	3.95	3.65	1.310	1.016	1.086	2.335	2.405	2.00	2.12

TABLE 2 - ASSEMBLY LENGTH TOLERANCE

HOSE ASSEMBLY LENGTH	TOLERANCE
UNDER 18 in	$\pm .125$ in
18 TO 36 in EXCLUSIVE	$\pm .250$ in
36 TO 50 in EXCLUSIVE	$\pm .500$ in
50 in AND OVER	$\pm 1\%$

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TABLE 3 - HOSE OR COVER OUTSIDE DIAMETER

HOSE OR COVER CODE	HOSE OR TYPE OF PROTECTIVE COVER	HOSE SIZE E	HOSE SIZE G	HOSE SIZE H	HOSE SIZE J	HOSE SIZE K	HOSE SIZE M	HOSE SIZE N	HOSE SIZE P	UPPER TEMP. LIMIT °F
NONE (REF)	HOSE ONLY PER AS620									
B (REF)	SPIRAL ABRASION /6/	.505	.615	.825	.935	1.140	1.358	1.630	1.890	275
H ± .032	INTEGRAL FIRESLEEVE /10/	—	.830	1.010	1.170	1.360	1.510	1.750	2.000	400
N (REF)	FIRESLEEVE SIL/FG (AS1072) /10/ /11/ /12/	.760	.870	1.030	1.130	1.370	1.630	1.870	2.130	400
K ± .032	INTEGRAL ABRASION /7/ (BRAIDED) POLYESTER	.500	.630	.840	.920	1.135	1.373	1.600	1.870	300
J ± .032	INTEGRAL FIRESLEEVE /13/	.685	.795	.995	1.090	1.300	1.530	—	—	400

TABLE 4 - HOSE ASSEMBLIES PHYSICAL CHARACTERISTICS

HOSE SIZE (REF)	OPERATING PRESSURE MAX PSI	PROOF PRESSURE MIN PSI	BURST PRESSURES ROOM TEMP MIN PSI	BURST PRESSURES HIGH TEMP MIN PSI	BEND RADIUS AT INSIDE OF BEND INCHES (HOSE ONLY)
E	1000	2000	4000	2800	1.25
G	1000	2000	4000	2800	2.25
H	1000	2000	4000	2800	2.88
J	1000	1800	3600	2500	3.00
K	1000	1800	3600	2500	3.75
M	1000	1800	3600	2500	5.00
N	1000	1800	3600	2500	6.25
P	750	1500	3000	2100	7.50

TABLE 5 - WEIGHTS (NOM)

HOSE SIZE (REF)	HOSE ONLY LB/IN	HOSE WITH SPIRAL ABRASION COVER CODE B LB/IN	HOSE WITH INTEGRAL FIRESLEEVE COVER CODE H & J LB/IN	HOSE WITH TUBULAR FIRESLEEVE COVER CODE N LB/IN	HOSE WITH POLYESTER ABRASION COVER CODE K LB/IN	45° END FITTING LB EACH	90° END FITTING LB EACH	HOSE LENGTH CORRECTION FACTOR-IN /15/ 45°	HOSE LENGTH CORRECTION FACTOR-IN /15/ 90°
E	.008	.011	—	.018	.009	.06	.06	.81	.61
G	.010	.014	.028	.021	.012	.10	.12	1.11	.82
H	.015	.020	.032	.030	.018	.18	.19	1.43	1.10
J	.020	.025	.042	.035	.022	.28	.30	1.52	1.10
K	.027	.032	.050	.044	.028	.40	.42	1.72	1.48
M	.033	.039	.055	.057	.038	.60	.66	2.02	1.84
N	.050	.060	.070	.077	.045	.96	1.00	2.21	2.01
P	.060	.071	.082	.107	.058	1.33	1.41	2.45	2.28

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TABLE 6 - SLEEVE LENGTH

(REF) HOSE SIZE	LENGTH (in)
E/G	2.00 ± .25
H/J	2.50 ± .25
K/M	3.00 ± .25
N/P	3.50 ± .25

TABLE 7 - MINIMUM INSPECTION BALL SIZE
FOR VERIFYING HOSE ASSEMBLY ID /8/

HOSE SIZE (REF)	ELBOW END FITTING DIA IN
E	.112
G	.218
H	.293
J	.366
K	.540
M	.710
N	.922
P	1.114

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