

REV.
B

MA2178

FEDERAL SUPPLY CLASS
4720

RATIONALE

MA2178B HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

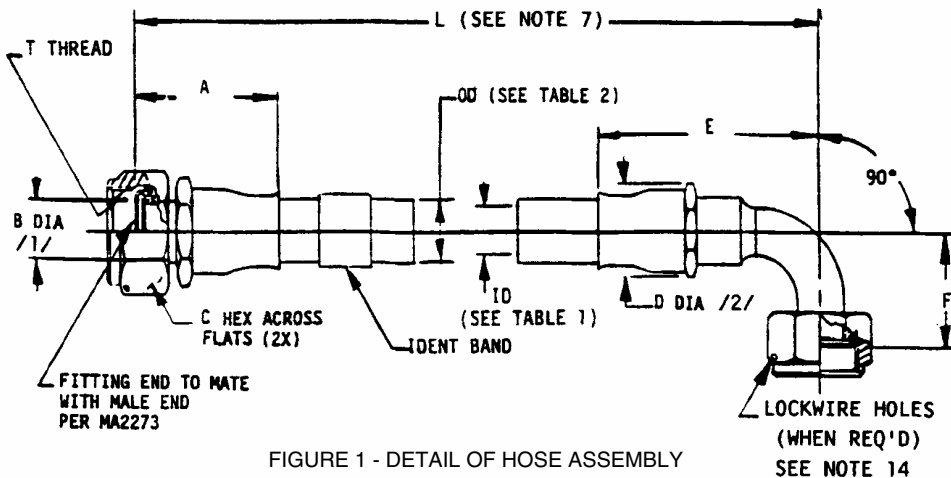


FIGURE 1 - DETAIL OF HOSE ASSEMBLY

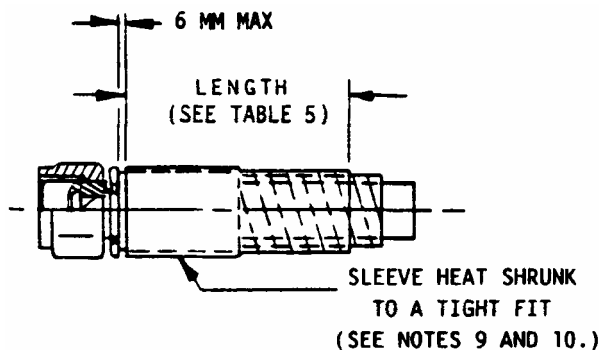


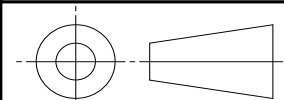
FIGURE 2 - DETAIL OF SLEEVE ASSEMBLY

TABLE 1 - FITTING DIMENSIONS

HOSE ASSEMBLY NO. AND SIZE CODE	SIZE REF	THREAD T PER MA1370 (ISO 5855) 4H-5H REF	I.D. MIN	A MAX	B DRILL DIA MIN /1/	C HEX	D DIA MAX /2/	E MAX	F MIN	F MAX	BALL SIZE THRU DIA MS19059 DASH NO.	MIN /1/
MA2178-06	6.0	MJ 12X1.25	4.39	28.19	6.502	16.0	14.2	39.37	20.37	24.89	4807	3.02
MA2178-10	10.0	MJ 16X1.5	7.57	33.53	6.502	21.0	18.0	45.70	24.00	34.80	4812	5.84
MA2178-12	12.0	MJ 18X1.5	9.93	36.83	8.636	22.0	21.4	50.55	24.00	34.80	4816	7.95
MA2178-16	16.0	MJ 22X1.5	12.32	40.64	10.922	27.0	26.0	60.20	29.46	40.39	4818	9.93
MA2178-20	20.0	MJ27X1.5	15.62	45.72	13.919	32.0	30.0	75.69	35.05	49.53	4821	13.08
MA2178-25	25.0	MJ 33X1.5	21.62	53.85	19.761	41.0	38.6	82.04	38.10	68.07	4829	19.05
MA2178-32	32.0	MJ 39X1.5	27.97	51.82	25.400	50.0	50.8	85.34	43.69	69.85	4834	24.61
MA2178-40	40.0	MJ 50X2.0	34.14	62.23	31.750	54.0	58.0	89.92	48.51	82.55	4841	30.18

SAE values your input. To provide feedback on this Technical Report, please visit <http://www.sae.org/technical/standards/MA2178B>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3D

PROCUREMENT SPECIFICATION: MA2126



AEROSPACE STANDARD

HOSE ASSEMBLY, POLYTETRAFLUOROETHYLENE, PTFE CRES REINFORCED, 232 °C, 10,500 KPA, BEAM SEAL, STRAIGHT TO 90°, METRIC

MA2178
SHEET 1 OF 4

REV.
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Documents

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TABLE 2 - LENGTH INCREMENTS

HOSE ASSEMBLY LENGTHS	AVAILABLE INCREMENTS	TOLERANCE
UNDER 457 MM	(NOT LESS THAN) 3 MM	±3 MM
457 TO 914 MM	(NOT LESS THAN) 7 MM	±7 MM
915 TO 1270 MM	(NOT LESS THAN) 13 MM	±13 MM
OVER 1270 MM	(NOT LESS THAN) 26 MM	±1%

TABLE 3 - MAXIMUM WEIGHTS

HOSE OR SLEEVE CODE	HOSE OR TYPE SLEEVE	UNITS	HOSE SIZE 06	HOSE SIZE 10	HOSE SIZE 12	HOSE SIZE 16	HOSE SIZE 20	HOSE SIZE 25	HOSE SIZE 32	HOSE SIZE 40
-	HOSE ONLY	KG/M	0.13	0.18	0.25	0.30	0.38	0.80	1.02	1.32
A	ABRASION SLEEVE (TFE-AS1291-B)	KG/M	0.05	0.05	0.07	0.09	0.11	0.14	0.16	0.20
B	ABRASION SLEEVE (NYLON AS1294)	KG/M	0.02	0.04	0.05	0.07	0.07	0.09	0.11	0.16
C	FIRE SLEEVE (15 MIN) AS1072	KG/M	0.20	0.27	0.30	0.38	0.46	0.64	0.38	0.40
E	ABRASION SLEEVE (FEP)	KG/M	0.04	0.04	0.05	0.07	0.13	0.18	0.15	0.16
F	ABRASION SLEEVE (AS1073B)	KG/M	0.02	0.04	0.05	0.05	0.09	0.13	0.12	0.20
H	FIRE SLEEVE INTEGRAL	KG/M	0.34	0.45	0.57	0.68	0.80	1.41	1.79	2.21
K	ABRASION SLEEVE POLYESTER W/HOSE	KG/M	0.16	0.25	0.34	0.39	0.48	0.89	1.13	1.54
L	ABRASION SLEEVE (PTFE-AS1293)	KG/M	0.07	0.09	0.14	0.16	0.20	0.32	0.39	0.49
NONE	FIRE SLEEVE CLAMP	KG/EA	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02
NONE	FITTING END (HOSE SIZE-STRAIGHT)	KG/EA	0.02	0.04	0.06	0.08	0.10	0.17	0.22	0.31
NONE	FITTING END (HOSE SIZE-90°)	KG/EA	0.02	0.03	0.06	0.08	0.11	0.21	0.32	0.39

TABLE 4 - HOSE OR SLEEVE OUTSIDE DIAMETERS

SLEEVE CODE	SLEEVE MATERIAL	TEMP LIMIT °C	TOLERANCE	HOSE SIZE 06	HOSE SIZE 10	HOSE SIZE 12	HOSE SIZE 16	HOSE SIZE 20	HOSE SIZE 25	HOSE SIZE 32	HOSE SIZE 40
-	(-) INDICATES HOSE ONLY NO SLEEVE	204	MAX MIN	8.71 7.72	11.91 10.92	14.86 13.87	17.45 16.28	20.62 19.46	28.96 27.38	35.31 33.7	43.36 41.58
A	ABRASION SLEEVE TUBULAR (TFE-AS1291 - CODE B)	204	MAX MIN	12.01 8.74	14.86 11.94	18.16 14.88	20.78 17.30	23.88 20.47	32.51 28.40	38.46 34.75	46.38 42.60
B	ABRASION SLEEVE COIL NYLON (AS1294)	135	MAX MIN	10.39 8.38	13.59 11.58	16.99 14.99	19.58 17.30	22.76 20.57	31.09 28.50	37.44 34.85	45.69 42.70
C	FIRE SLEEVE (AS1072 SIL-FG) (15 MIN) /3/	204	MAX MIN	15.88 13.58	19.05 16.71	22.23 19.76	25.40 22.63	28.58 23.27	35.31 32.72	44.45 40.0	50.80 47.93
E	ABRASION SLEEVE SHRINK-ON (FEB)	177	MAX MIN	10.24 8.13	13.69 11.48	16.64 14.68	19.23 17.25	22.53 20.60	31.19 28.65	36.68 34.49	44.63 42.34
F	ABRASION SLEEVE SHRINK-ON (POLYOLEFIN AS1073-CODE B)	135	MAX MIN	10.44 8.84	13.89 12.29	16.84 15.24	19.53 17.75	22.71 20.93	31.29 29.11	37.64 35.46	45.95 43.56
H	FIRE SLEEVE INTEGRAL SILICONE (15 MIN) (AS1722)	204	MAX MIN	16.28 15.09	19.46 18.26	22.63 21.44	25.81 24.10	28.98 27.28	36.93 35.41	43.28 41.88	51.21 49.71
K	INTEGRAL ABRASION SLEEVE (BRAIDED) POLYESTER	149	MAX MIN	10.92 9.91	14.20 12.95	16.89 15.88	19.61 18.44	22.53 21.36	30.73 29.16	37.08 35.51	45.26 43.48
L	ABRASION SLEEVE COIL (PTFE-AS1293)	204	MAX MIN	11.30 8.46	14.50 11.68	19.23 14.88	20.04 17.30	23.22 20.47	31.55 28.40	37.90 34.80	45.95 42.85

	AEROSPACE STANDARD	MA2178 SHEET 2 OF 4 	REV. B
	HOSE ASSEMBLY, POLYTETRAFLUOROETHYLENE, PTFE CRES REINFORCED, 232 °C, 10,500 KPA, BEAM SEAL, STRAIGHT TO 90°, METRIC		

