

REV.
A

MA2103

FEDERAL SUPPLY CLASS
4720

RATIONALE

MA2103A HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

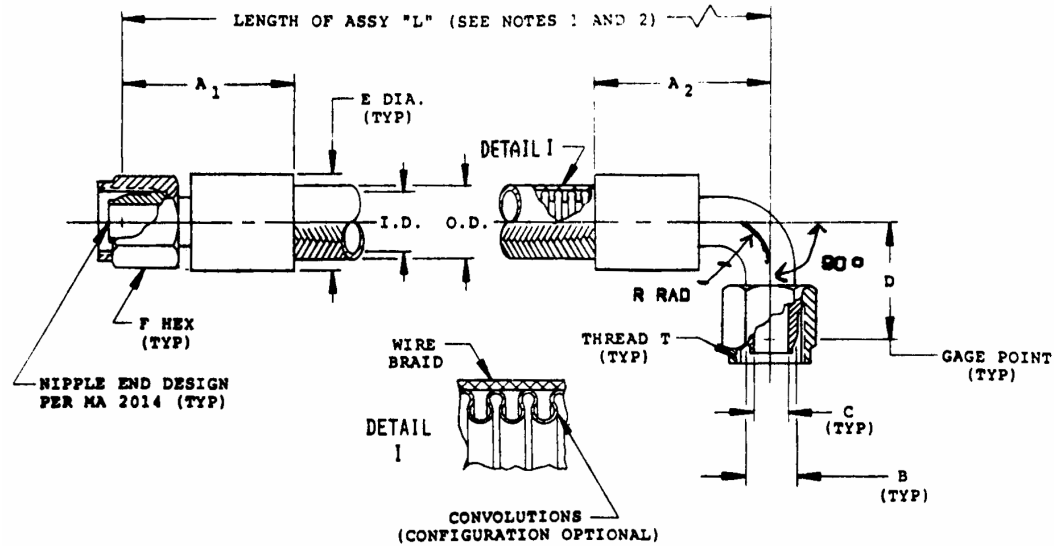


FIGURE 1
TABLE 1

HOSE ASSY PART NUMBER	HOSE ASSY SIZE (DN) ¹	THREAD T PER MA1370 4H5H	A ₁ MAX MM	A ₂ MAX MM	B GAGE DIA BASIC	C MIN DIA THRU	D		E ENVELOPE DIA MM	F HEX (REF) MM	R RAD (REF) MM
							MIN MM	MAX MM			
MA2103E	DN06	MJ12X1.25	31.8	37.9	7.5	3.35	21.1	27.4	22.9	14	6.4
MA2103G	DN08	MJ14X1.5	35.1	43.1	9.5	6.50	24.8	31.2	30.5	17	9.5
MA2103H	DN12	MJ18X1.5	39.6	51.7	13.5	8.76	31.2	39.1	33.0	22	12.7
MA2103J	DN16	MJ22X1.5	44.5	60.5	17.5	10.92	39.6	47.5	38.1	27	15.9
MA2103K	DN20	MJ27X1.5	49.3	69.4	21.5	14.4	42.4	52.1	44.2	32	19.0
MA2103M	DN25	MJ33X1.5	53.9	79.0	26.5	19.3	46.7	56.4	58.4	41	25.4
MA2103N	DN32	MJ42X2	60.5	92.6	33.5	23.4	53.9	65.8	72.4	46	31.8

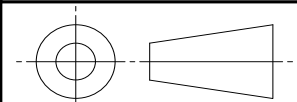
¹DN = NOMINAL TUBE OUTSIDE DIAMETER

TABLE 2

HOSE SIZE (DN) NOM	HOSE		21 °C (70 °F)			BALL SIZE MM (SEE NOTE 5)	CORRECTION FACTOR MM (SEE NOTE 2)	
	ID MIN MM	OD MAX MM	OPERATING PRESSURE MAX KPA	PROOF PRESSURE MIN KPA	BURST PRESSURE MIN KPA		STRAIGHT FITTING	45 DEG FITTING
06	5.5	11.0	13 750	20 650	55 150	3	4.1	0
08	7.0	13.5	12 000	18 000	48 000	6	4.5	0
12	11.0	20.5	9 800	14 500	38 600	8	4.8	0
16	14.0	24.5	8 300	13 400	33 000	10	5.0	0
20	17.5	29.0	7 200	10 700	29 000	14	5.8	0
25	23.0	36.0	5 500	8 300	22 000	18	7.6	0
32	30.0	44.0	3 800	5 700	15 200	22	9.4	0

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on this Technical Report, please visit
<http://www.sae.org/technical/standards/MA2103A>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3D (SEE NOTE 7)

PROCUREMENT SPECIFICATION: MA2100



AEROSPACE STANDARD

HOSE ASSEMBLY, METAL, MEDIUM PRESSURE,
FLARELESS, WELDED, STRAIGHT TO 90°
FITTING ENDS, METRIC

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TABLE 3

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

CONSTRUCTION AND PERFORMANCE: THESE HOSE ASSEMBLIES SHALL MEET THE CONSTRUCTION AND PERFORMANCE REQUIREMENTS OF MA2100 (ISO/DIS7314).

OPERATING CHARACTERISTICS: SEE PROCUREMENT SPECIFICATION.

MATERIALS AND FINISH: 321 OR OTHER CORROSION RESISTANT STEEL, PASSIVATED, IN ACCORDANCE WITH THE PROCUREMENT SPECIFICATION.

IDENTIFICATION: SEE MA2100, 3.7

PROCUREMENT SPECIFICATION: MA2100 (ISO/DIS7314)

NOTES:

1. LENGTH "L" IS MEASURED FROM GAGE POINT TO GAGE POINT. SEE TABLE 3 FOR AVAILABLE LENGTH INCREMENTS. IN THE EXAMPLE OF PART NUMBER BELOW, LENGTH "L" IS DEFINED BY A FOUR DIGIT DASH NUMBER DESCRIBING THE HOSE ASSEMBLY LENGTH IN MM.
2. TO CONVERT "GAGE POINT TO GAGE POINT" TO "END TO END" MEASUREMENT, ADD TO "L" THE APPROPRIATE TABLE 2 CORRECTION FACTOR FOR EACH END FITTING.
3. THE HOSE ASSEMBLIES ARE INTENDED FOR USE IN LOW AND MEDIUM PRESSURE PNEUMATIC SYSTEMS UP TO 425 °C WITH SHORT DURATION EXCURSIONS TO 650 °C. MAXIMUM RATED OPERATING PRESSURE IS DEPENDENT ON AMBIENT OPERATING TEMPERATURE AND CAN BE DETERMINED FROM MA2100, TABLE 2.
4. DIMENSIONS IN MM. DIMENSIONING AND TOLERANCING ARE PER ANSI Y14.5M AND UNIT SYMBOLS ARE PER ANSI Y10.19, SAE J916 AND ANSI Z210.1.
5. A TRUE CIRCULAR CROSS SECTION IS NOT REQUIRED THROUGH THE END FITTING. HOWEVER, A BALL OF THE SIZE DIAMETER LISTED IN TABLE 2 SHALL PASS THROUGH THE END FITTING AFTER THE END FITTING IS ATTACHED TO THE HOSE ASSEMBLY.
6. DO NOT USE UNASSIGNED SIZE CODES.
7. CHANGES TO THIS STANDARD DRAWING SHALL BE COORDINATED WITH SAE COMMITTEE E-25, GENERAL STANDARDS FOR AEROSPACE AND PROPULSION SYSTEMS.
8. EXAMPLE OF PART NUMBER:

MA2103 E 0360

— = 360 mm LENGTH (SEE NOTE 2)

— = DN06 NOMINAL DIAMETER SIZE (SEE TABLE 1)

— = BASIC PART NUMBER FOR A METAL, WELDED, MEDIUM PRESSURE HOSE ASSEMBLY WITH STRAIGHT TO 90 DEG END FITTINGS

9. THE CHANGE BAR (I) LOCATED IN THE LEFT MARGIN IS FOR THE CONVENIENCE OF THE USER IN LOCATING AREAS WHERE TECHNICAL REVISIONS, NOT EDITORIAL CHANGES, HAVE BEEN MADE TO THE PREVIOUS ISSUE OF THIS DOCUMENT. AN (R) SYMBOL TO THE LEFT OF THE DOCUMENT TITLE INDICATES A COMPLETE REVISION OF THE DOCUMENT.

	AEROSPACE STANDARD	MA2103 SHEET 2 OF 2	REV. A
	HOSE ASSEMBLY, METAL, MEDIUM PRESSURE, FLARELESS, WELDED, STRAIGHT TO 90° FITTING ENDS, METRIC		



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