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AS22520™/23

FEDERAL SUPPLY CLASS
5120

RATIONALE

REVISION REQUIRED TO CORRECT DIMENSIONS IN FIGURE 2 DETAIL B AND TABLE 1.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS22520.

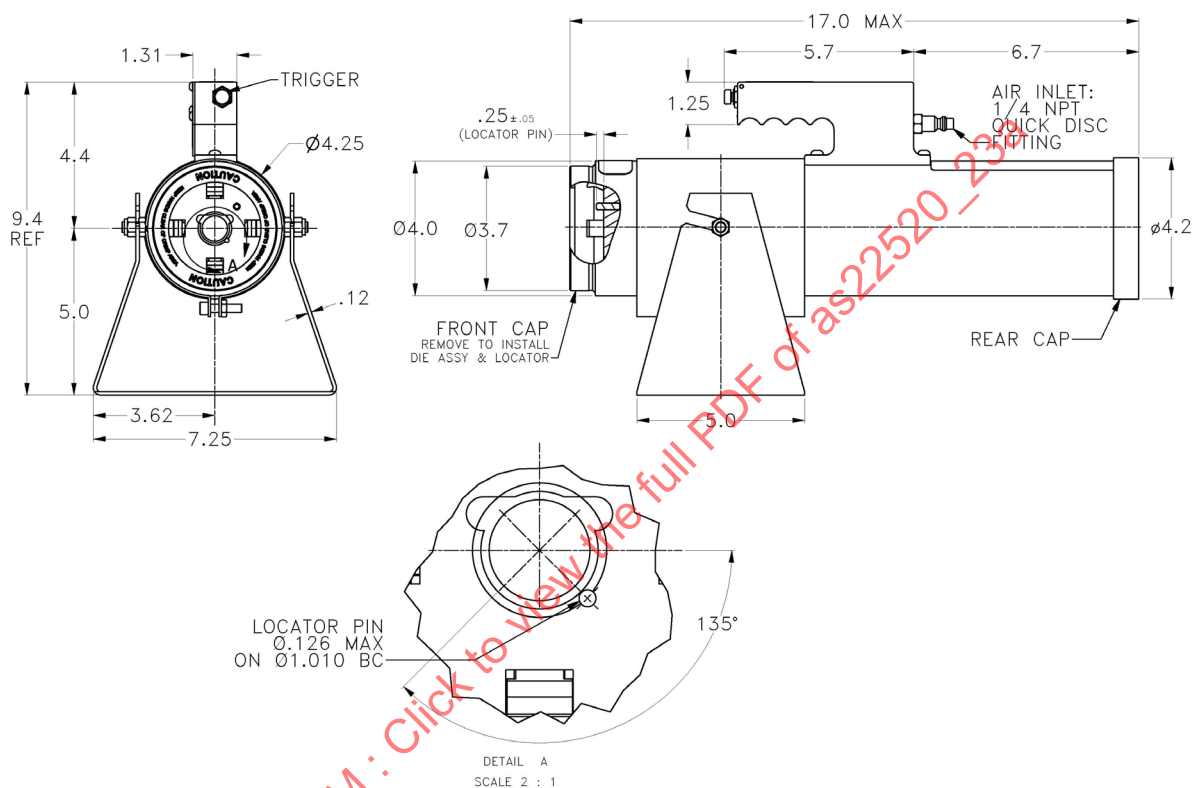
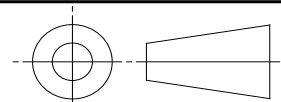


FIGURE 1 - M22520/23-01 BASIC TOOL

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THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C2

PROCUREMENT SPECIFICATION: AS22520

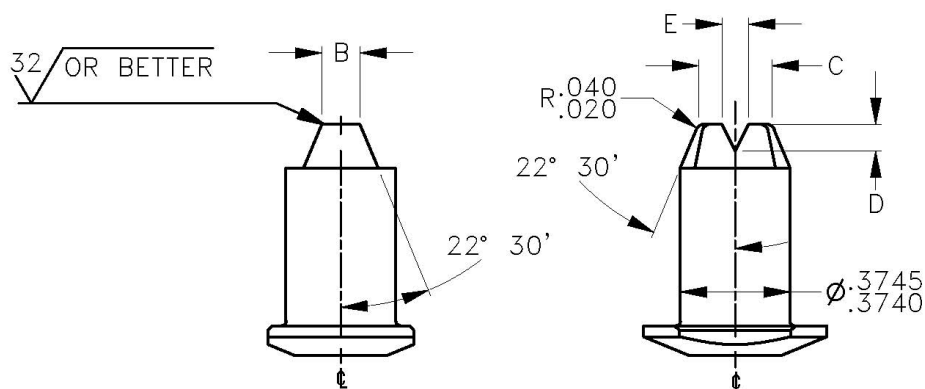


AEROSPACE STANDARD

CRIMP TOOLS, TYPE 1, TERMINAL, HAND OR POWER ACTUATED, WIRE TERMINATION, PNEUMATIC TOOL FOR WIRE BARREL SIZES 0000 THROUGH 8

AS22520™/23
SHEET 1 OF 8

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DETAIL B: INDENTERS

FIGURE 2 - DIE CAP AND DIE ASSEMBLY (CONTINUED)

TABLE 1 - INDENTER HOUSING AND INDENTER DIMENSIONS

DIE ASSEMBLY PART NUMBER	FOR CONTACT SIZE	DETAIL A	DETAIL B			
		A DIA +.010/-0.000	B ±.002	C ±.002	D ±.002	E ±.002
M225520/23-02	8	.500	.050	.170	.055	.055
M225520/23-03	6	.500	.060	.174	.060	.060
M225520/23-04	4	.650	.065	.187	.062	.062
M225520/23-05	0	.690	.094	.198	.070	.070
M225520/23-06	00	.850	.100	.210	.075	.075
M225520/23-07	0000	.875	.130	.250	.090	.090
M225520/23-08	1	.650	.091	.203	.047	.047

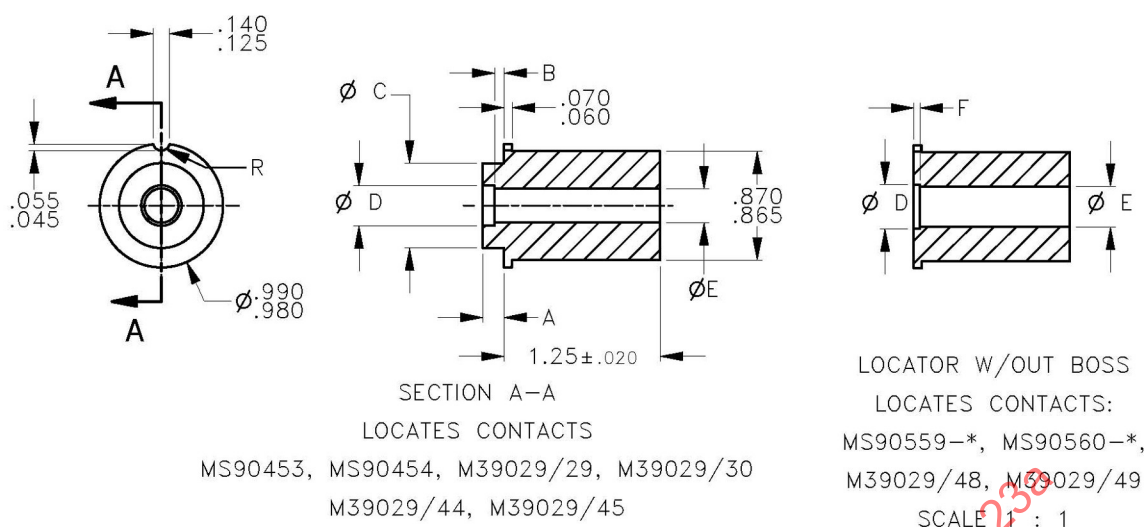


FIGURE 3 - CONTACT LOCATORS

TABLE 2 - LOCATOR DIMENSIONS

LOCATOR PART NUMBER	CONTACT SIZE (MATING END)	A ±.005	B ±.005	Ø "C" ±.005	Ø "D" +.010 -.000	Ø "E" +.010 -.000	F ±.005
M22520/23-09	8	.170	.075	.495	.316	.266	---
M22520/23-10	6	---	---	---	.348	.316	.050
M22520/23-11	4	.170	.065	.495	.423	.343	---
M22520/23-12	4	---	---	---	.423	.338	.050
M22520/23-13	1/0	.170	.025	.675	.618	.520	---
M22520/23-14	1/0	---	---	---	.615	.520	.050
M22520/23-15	2/0	---	---	---	.694	.660	.050
M22520/23-16	4/0	---	---	---	.787	.754	.050

REQUIREMENTS: THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS22520.

1. CONFIGURATION:

- TOOL CONFIGURATION SHALL BE IN ACCORDANCE WITH FIGURES 1 TO 3, AND TABLES 1 AND 2. DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE FIGURE 1 TOLERANCE IS $\pm .125$ INCHES, AND FIGURES 2 AND 3 TOLERANCE IS $\pm .005$ INCHES.
- BREAK ALL SHARP EDGES.
- AIR PRESSURE SOURCE REQUIREMENT SHALL BE 90 TO 120 LB/IN² (SEE APPLICATION NOTE).
- INDENTER CLOSURE SELECTOR POSITIVE DETENT AT EACH IS NOT REQUIRED.
- THE CENTERLINES OF OPPOSING INDENTERS MUST ALIGN WITHIN .020 INCH.
- INDENTER LENGTH IS CONTROLLED BY GAUGE CALLOUTS.
- CRIMP JOINT MAY BE OBTAINED WITH AID OF A DIE ASSEMBLY.
- M22520/23-01 BASIC TOOL WEIGHT, LESS DIES AND LOCATORS, SHALL BE 19 POUNDS MAXIMUM.

5. ASSEMBLY AND APPLICATION INSTRUCTION IS REQUIRED FOR EACH BASIC TOOL.

6. PERFORMANCE REQUIREMENT:

TOOL PERFORMANCE SHALL BE IN ACCORDANCE WITH AS22520 WITH THE FOLLOWING EXCEPTIONS.

a. INSPECTION GAGING:

INSPECTION GAGING OF THE TOOL IS NOT APPLICABLE.

INSPECTION GAGING OF EACH DIE ASSEMBLY IS REQUIRED. THE "GO" GAGE SHALL PASS FREELY THROUGH THE DIE SET. THE "NO-GO" GAGE MAY ENTER, BUT SHALL NOT PASS THROUGH THE DIE SET.

PERFORM THE INSPECTION BY SELECTING THE APPROPRIATE AS22520/3 GAGE (OR EQUIVALENT PRECISION GAGE) FOR THE DIE SET FROM TABLE 3, ACTUATE THE TOOL TO THE FULLY CLOSED POSITION BY HOLDING THE TRIGGER BUTTON DOWN AND INSERT THE "GO" AND "NO-GO" GAGE BETWEEN THE INDENTERS.

b. HUMIDITY (STEADY STATE) IS NOT REQUIRED.

c. HANDLE, INDENTER AND DIE RETURN OPERATION (FULL CYCLING) SHALL BE REQUIRED AFTER EACH CRIMP. THE AIR PRESSURE REQUIRED TO CRIMP A 4/0 CONTACT WITH PART NUMBER M39029/112 -4/0-2/0L WIRE BARREL BUSHING TO A 2/0 WIRE MAY REQUIRE 100 POUNDS PER SQUARE INCH.

d. RATCHETING MECHANISM NOT REQUIRED.

e. FULL CYCLING MECHANISM REQUIRED (REQUIREMENT AND TEST METHOD BELOW).

REQUIREMENT: THE DIFFERENCE BETWEEN THE FIRST AND THIRD CRIMP MEASUREMENTS SHALL NOT EXCEED .010 INCH.

TEST METHOD: WITH 90 LB/IN² AIR SUPPLIED TO THE TOOL, CRIMP A .312 INCH DIAMETER SOFT COPPER ROD WITH A M22520/23-04 DIE ASSEMBLY. MEASURE AND RECORD THE ROD THICKNESS BETWEEN OPPOSING INDENTS. STARTING WITH A LOW AIR PRESSURE THAT WILL NOT ALLOW THE INDENTERS TO OPEN WHEN CRIMPED ON THE ROD, INCREASE THE AIR PRESSURE UNTIL THE TOOL COMPLETES THE CYCLE AND THE INDENTERS OPEN. AT THIS SAME AIR PRESSURE, CRIMP THE ROD A THIRD TIME. MEASURE AND RECORD THE THICKNESS BETWEEN OPPOSING INDENTS.

f. HIGH COMPRESSION FORCE NOT REQUIRED.

g. COMPRESSION FORCE NOT REQUIRED.

h. DEFORMATION AND AXIAL CONCENTRICITY: AFTER CRIMPING TO WIRE (WIRED CONTACTS), THE TOTAL INDICATOR READING (TIR) SHALL NOT EXCEED .030 INCHES FOR CONTACT SIZES 0000 THRU 8.

i. VOLTAGE DROP SHALL BE IN ACCORDANCE WITH TABLE 4 AT THE SPECIFIED WIRE TEST CURRENT. VOLTAGE DROP SHALL BE TESTED IN ACCORDANCE WITH THE METHOD SPECIFIED IN AS22520. TEST LEADS SHALL BE PLACED 1/2 INCH FROM THE END OF THE CRIMP INDENTS, OR THE MINIMUM DISTANCE BEYOND 1/2 INCH.

TABLE 4 - MAXIMUM VOLTAGE DROP FOR EACH CONTACT SIZE

DIE ASSEMBLY PART NUMBER	LOCATOR PART NUMBER	CONTACT SIZE	WIRE TEST CURRENT (AMPS)	MAX VOLTAGE DROP (MILLIVOLTS)
M22520/23-02	M22520/23-09	8	46	5.0
M22520/23-03	M22520/23-10	6	60	4.5
M22520/23-04	M22520/23-11	4	80	4.0
M22520/23-04	M22520/23-12	4	80	4.0
M22520/23-05	M22520/23-13	1/0	125	3.0
M22520/23-05	M22520/23-14	1/0	125	3.0
M22520/23-06	M22520/23-15	2/0	185	8.0
M22520/23-07	M22520/23-16	4/0	225	6.0
M22520/23-08	M22520/23-14	1	125	3.5

j. TENSILE STRENGTH SHALL BE THE IN ACCORDANCE WITH AS22520 (TYPE I TOOL).

k. LOW TEMPERATURE CRIMP NOT REQUIRED.

l. SHOCK EXPOSURE NOT REQUIRED.

	AEROSPACE STANDARD	AS22520™/23 SHEET 6 OF 8	REV. A
	CRIMP TOOLS, TYPE 1, TERMINAL, HAND OR POWER ACTUATED, WIRE TERMINATION, PNEUMATIC TOOL FOR WIRE BARREL SIZES 0000 THROUGH 8		