

# AF8 (M22520/1-01)

## Standard Adjustable Crimp Tool



### UPPER RANGE CRIMP TOOL AF8 M22520/1-01

The DMC AF8, qualified to MIL-DTL-22520/1\*, has virtually limitless application within the specified wire range of 12 through 26 AWG. Over a thousand turret heads are available to adapt the tool frame to your specific military or proprietary contact/wire combination. The 8 impression crimp, which is standard in the AF8, assures absolute maximum tensile strength with almost every closed barrel contact. Special indent configurations and gaging are available upon request.

For proper operation, the tool must be mated with one of the following optional accessories: a military standard or non-military turret head (TH-XXX Part No. Series), a military standard or non-military positioner (TP-XXX Part No. Series), or an adjustable head (Part No. UH2-5). This is done simply by orienting the head in

the keyed position, and by tightening the hex socket screws provided as part of the head.

The precision ratchet controls cycling of the tool in both directions of handle movement. This assures the same accurate crimp every time. It's like having a quality control inspector at every work station.

Positive crimp depth is controlled by an 8 position selector knob conveniently located on the tool frame. The operator simply dials the desired step for the wire being used. This setting can be secured by use of a locking pin or safety wire.

The carefully engineered design achieves the absolute maximum mechanical advantage and the tool's light weight helps minimize operator fatigue.

A permanent dataplate is affixed to all turret heads and positioners. This plate lists specific contact part numbers, the corresponding position color code (for 3 position turret heads),

and suggested selector depth settings for the wire size being used.

The adjustable head (P/N UH2-5) is ideally suited for lab work and prototype production applications. This head is attached in the same manner as explained above. The selected contact is inserted through the entry hole on the opposite side of the tool frame from the head. The height adjusting screw is then rotated until the contact is in the proper position for crimping. The screw can be secured with the locknut provided. Some testing will be necessary to determine the optimum selector setting for your contact/wire combination.

The AF8 is approximately 9 $\frac{3}{4}$ " x 2 $\frac{1}{2}$ " x 1 $\frac{1}{4}$ " and weighs 15 oz.



\* Change to SAE AS22520 in process consult DMC for status.



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Other than keeping the unit clean and properly stored when not in service, no operator maintenance is required. DMC offers complete factory service by knowledgeable technicians within a reasonable turnaround time. Complete instructions concerning the use, care and warranty are supplied with each tool. Additional copies are available on request.



The DMC1186 tool kit contains the AF8 tool frame, tool gage, and all mil-spec positioners and turret heads. Also included in the DMC1186 are tool instruction sheets and a tool selection chart.

MILITARY P/N	DMC P/N	DESCRIPTION	NSN
M22520/1-01	AF8	TOOL FRAME	5120-01-335-8571
M22520/1-02	TH1A	TURRET	5120-01-335-8834
M22520/1-03	TH4	TURRET	5120-01-335-8835
M22520/1-04	TH163	TURRET	5120-01-335-8836
M22520/1-05	UH2-5	ADJUSTABLE POSITIONER	5120-01-335-8583
M22520/1-06	TP45	POSITIONER	5120-01-335-8584
M22520/1-07	TP85	POSITIONER	5120-01-335-8585
M22520/1-08	TH199S	TURRET	5120-00-016-7654
M22520/1-09	TP360	POSITIONER	5120-01-335-8586
M22520/1-10	TP365	POSITIONER	5120-01-335-8587
M22520/1-11	TP465	POSITIONER	5120-01-335-8588
M22520/1-12	TH270	TURRET	5120-01-335-8838
M22520/1-13	TH285	TURRET	5120-01-036-9221
M22520/1-14	TH286	TURRET	5120-01-036-9222
M22520/1-15	TP485	POSITIONER	5120-01-335-8589
M22520/1-16	TP513	POSITIONER	5120-01-335-8590
M22520/1-17	TP651	POSITIONER	5120-01-335-8591
M22520/3-1	G125	GAGE	5220-01-016-6002
	DMC1186	M22520/1 Tool Kit	

Periodic gaging is recommended to insure accurate calibration. This can be done easily by setting the tool selector knob to position #4, and checking indenter closure with the M22520/3-1 "GO/NO-GO" gage (DMC part no. G125).



INSERT CONTACT



INSERT PRE-STRIPPED WIRE



CLOSE / OPEN HANDLE



REMOVE TERMINATED WIRE ASSEMBLY

# ADJUSTABLE CRIMP TOOL AF8 (M22520/1-01)

**DMC** DANIELS  
MANUFACTURING  
CORPORATION  
**DATASHEET**

THIS HAND TOOL MUST NOT BE USED IN ANY POWERED  
"PRESS" AS DEFINED BY OSHA CFR 1910.211 (46)

SEE REVERSE SIDE FOR IMPORTANT INFORMATION CONCERNING  
LIMITED WARRANTY, AND LIMITATION OF LIABILITY.

## GENERAL INFORMATION:

1. Designation AF8 (M22520/1-01) refers to basic tool without positioner.
2. Wire crimp range 26 to 12 AWG
3. The tool has a double action ratchet, and cannot be opened without completing the cycle.

## INSTALLATION OF POSITIONER:

1. Tool must be in open position.
2. Press positioner trigger latch which releases turret to indexing position.
3. Place positioner onto retaining ring with alignment pin in alignment hole.
4. After positioner is seated against retainer ring, tighten socket head screws with 9/64" hex. key.
5. Refer to dataplate on positioner. From color code column, select the positioner color that corresponds with the appropriate part number and size of contact to be crimped.
6. With tool in open position, rotate until color coded insert is in line with the index mark. Press turret until it snaps in latched position.
7. Refer to dataplate. From wire size column, determine the selector setting that corresponds with the contact being used.
8. Remove spring clip from selector knob and rotate until correct setting is in line with selector mark.

## CRIMPING INSTRUCTIONS:

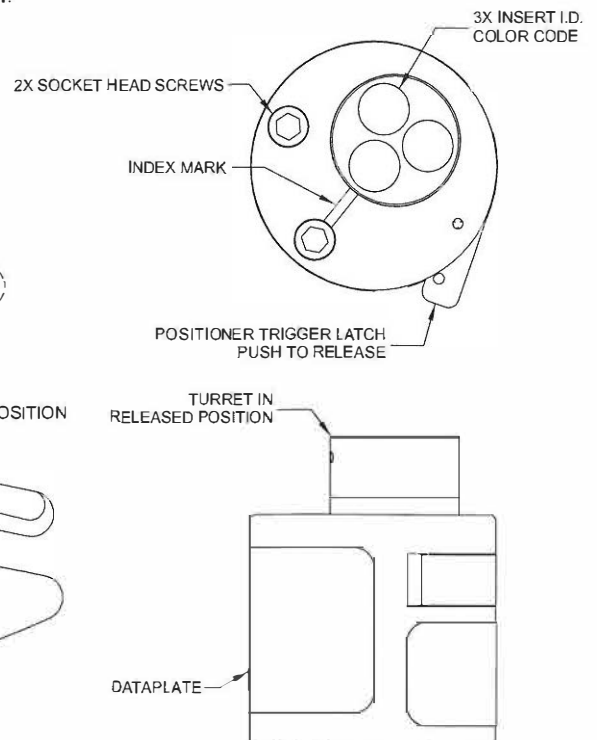
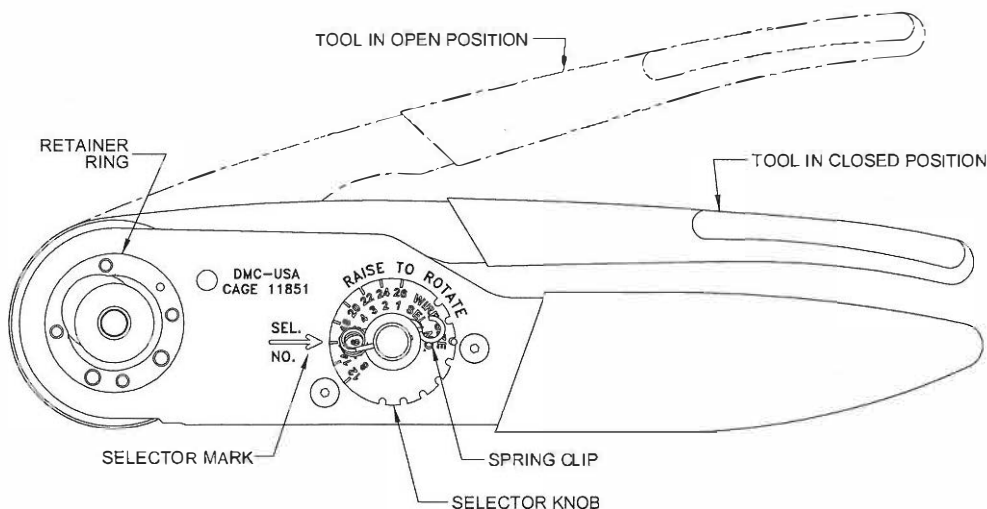
1. Insert contact and prepared wire through the indenter opening into the positioner.
2. Squeeze handles together until ratchet releases. Handle will return to open position.

## REMOVING POSITIONER:

1. With tool in open position, release turret. Loosen screws until threads are disengaged from retainer ring and remove with a straight lifting motion.

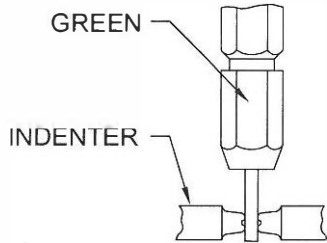
## CAUTION:

TOOL MUST BE IN OPEN POSITION WHENEVER  
POSITIONER IS BEING INSTALLED, REMOVED OR RELEASED.  
DAMAGE TO TURRET HEAD AND/OR CRIMP TOOL MAY RESULT  
IF THIS PROCEDURE IS NOT FOLLOWED.



"GO" GAGING

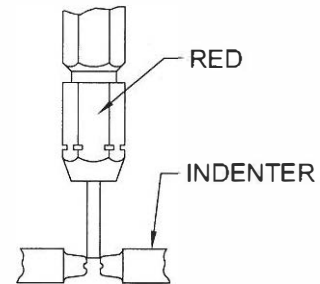
Operate the tool to the fully closed position. Maintain firm hand pressure on the tool handles. Insert the "GO" gage end as shown. The gage must pass freely between the indenter tips.



GAGING INSTRUCTIONS

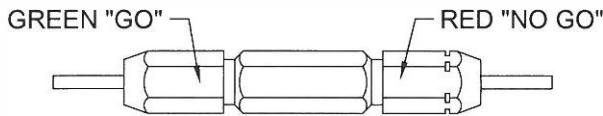
"NO-GO" GAGING

Operate the tool to the fully closed position. Maintain firm hand pressure on the tool handles. Try to insert the "NO-GO" gage end as shown. The "NO-GO" gage may partially enter the indenter opening, but must not pass completely through.



GAGING LIMITS

SEL NO	INSPECTION GAGE	
	Ø GO ±.0001	Ø NO-GO ±.0001
1	.0280	.0330
2	.0320	.0370
3	.0360	.0410
4	.0390	.0440
5	.0450	.0500
6	.0520	.0570
7	.0590	.0640
8	.0680	.0730



GAGE: USE G125 (M22520/3-1) ON SEL #4

**CAUTION!**  
**DO NOT CRIMP GAGE !!**

CARE OF TOOL

There is virtually no maintenance required. However, it's good practice to keep indenter tips free of residual deposits and other debris. A small wire brush may be used for this purpose.

We strongly recommend that you:

1. DO NOT immerse tools in cleaning solution.
2. DO NOT spray oil into tool to lubricate.
3. DO NOT attempt to disassemble tool or make repairs.

This is a precision hand crimp tool and should handled as such.

DMC offers complete refurbishing and recalibrating services.

DMC specially engineers and manufactures complete tool kits to satisfy individual customer requirements, such as total aircraft support, general shop maintenance or production, on board ship and vehicle service, etc.

LIMITATION OF LIABILITY

DANIELS MANUFACTURING CORPORATION IS NOT LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY NATURE OR KIND RESULTING FROM THE USE, MISUSE, OF ANY OF ITS PRODUCTS. OWNERS AND USERS OF DMC PRODUCTS ASSUME FULL RESPONSIBILITY FOR INSTRUCTING THEIR EMPLOYEES IN THE PROPER AND SAFE USE OF SUCH PRODUCTS.

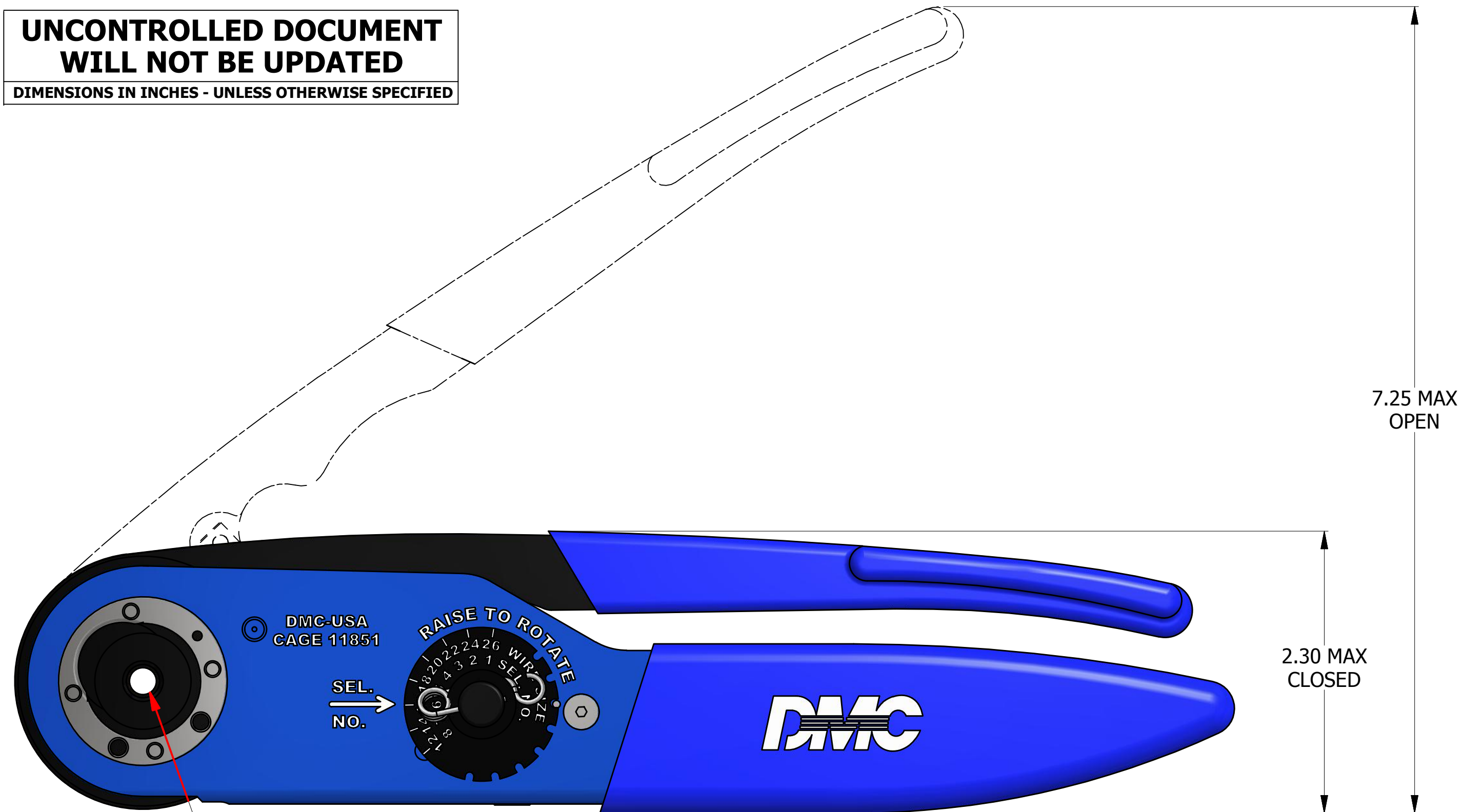
LIMITED WARRANTY

DMC (Daniels Manufacturing Corporation) warrants each new product sold by it to be free from defects in material and workmanship under normal use and service. DMC's obligation under this warranty is limited to the free correction or, at DMC's option, the refund of the purchase price of any such product which proves defective in normal service within ninety (90) days after delivery to the first user, provided that the product is returned to DMC with all transportation charges prepaid and which shall appear to DMC's satisfaction, after DMC's inspection, to have been defective in material or workmanship, it being understood that DMC products are not consumer products. This warranty shall not cover any damage to any products which, in the opinion of DMC, was caused by normal wear, misuse, improper operation, tampering, neglect or accident. This warranty is in lieu of all other warranties express or implied. No warranty, express or implied, is made or authorized to be made or assumed with respect to products of Daniels Manufacturing Corporation other than those herein set forth.



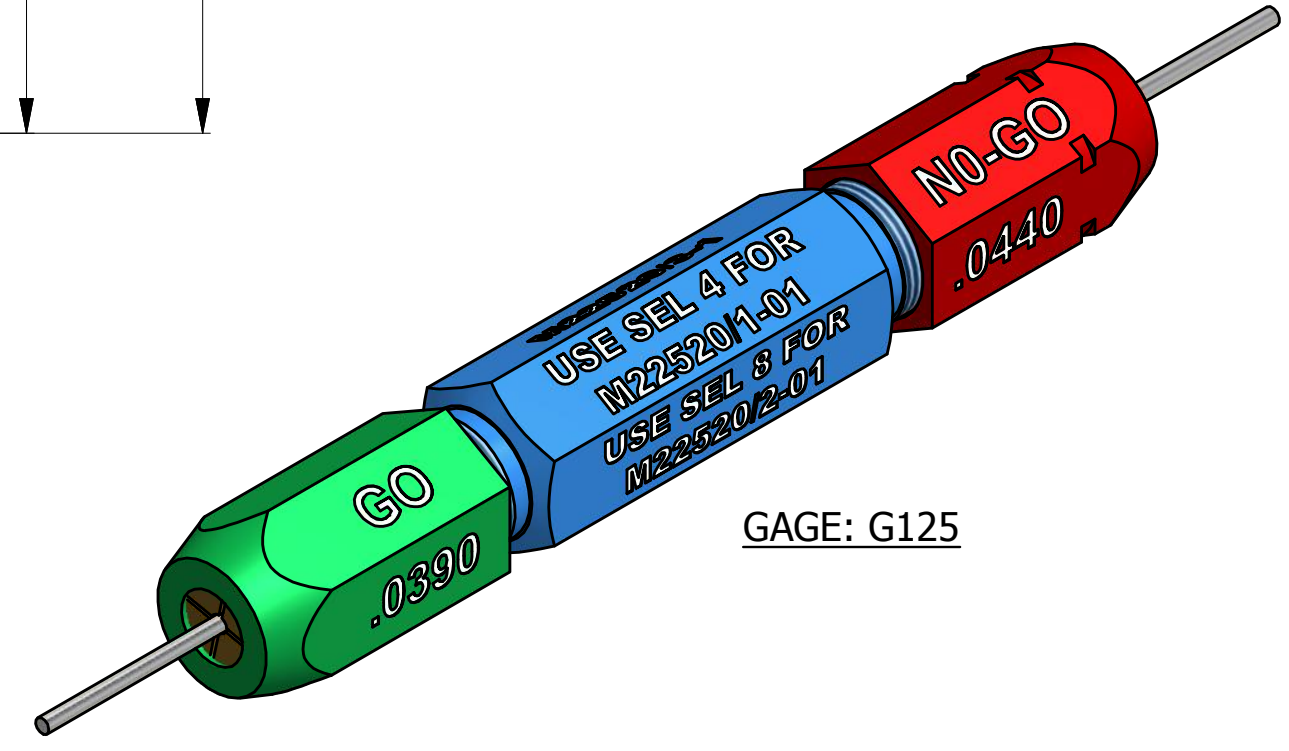
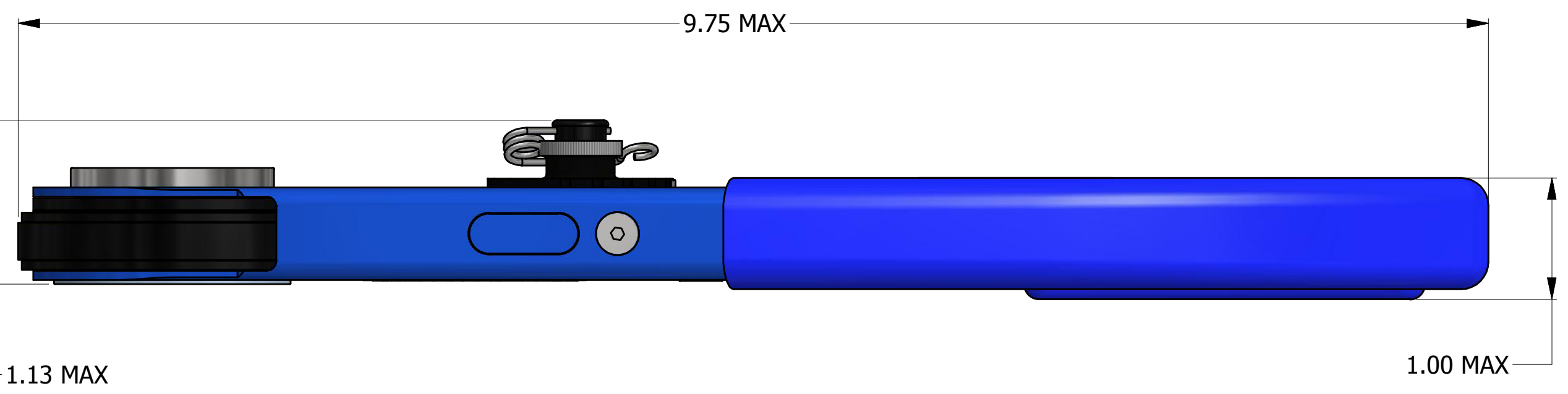
REVISIONS						
REV	ECO NO.	DESCRIPTION	BY	DATE	APP'D BY	DATE
1		ORIGINAL RELEASE	AAM	11/16/1992	DE	11/16/1992
2		ADDED Ø.218	AAM	7/29/1996	DE	7/29/1996
3	23590	UPDATED AND ADDED GAGE	TD	11/18/2014		

**UNCONTROLLED DOCUMENT  
WILL NOT BE UPDATED**  
DIMENSIONS IN INCHES - UNLESS OTHERWISE SPECIFIED



GAGING LIMITS OF INDENTERS		
SEL NO	INSPECTION GAGE	
	Ø GO ±.0001	Ø NO-GO ±.0001
1	.0280	.0330
2	.0320	.0370
3	.0360	.0410
4	.0390	.0440
5	.0450	.0500
6	.0520	.0570
7	.0590	.0640
8	.0680	.0730

CHECK WITH GAGE: G125 SEL #4



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CREATED FROM AN INVENTOR MODEL.  
CHANGES MUST BE REFLECTED IN THE 3D PART  
DO NOT SCALE DRAWING

MATERIAL	ITEM	PART NO.	QTY.	DESCRIPTION / REMARKS
N/A	DRN. A. MOO-YOUNG CHK'D. DE	DATE 11/16/1992 DATE 11/16/1992		<b>DMC</b> DANIELS MANUFACTURING CORP. ORLANDO, FLORIDA GAGE 11851
HEAT TREAT	NOTE: THIS DRAWING IS AN OUTLINE DRAWING OF THE RESPECTIVE DMC PART NUMBER INDICATED. ACTUAL DMC PART NUMBER IS CAD PART NUMBER WITHOUT THE "-ENV" SUFFIX		TITLE CRIMP TOOL (M22520/1-01) ENVELOPE DRAWING	
FINISH	WHERE USED:		SIZE	CAD P/N
N/A	AF8-ENV		SCALE	SHEET
	AF8		1.25X	1 OF 1
				REV. 3