

Technical Brochure



COLUMBIA MARKING TOOLS

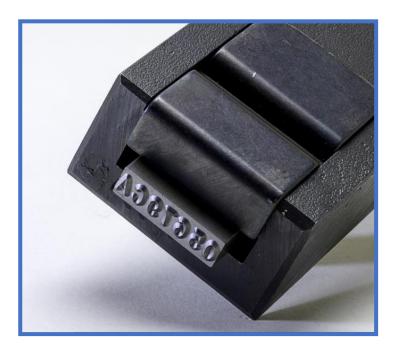
Hand Holders General Use

For efficiency in production marking, the choice to move from individual hand stamps to a multi-character holder, or "gang" stamp is easy. One hammer blow to the hand holder will make the mark of 4-8 characters, and the time savings is extensive for repeated marks.

The upgrade process involves a couple of decisions:

1) If the current marking process is hand stamping with individual hand stamps, then the ability to use a hammer to make the complete mark must be reviewed. This is a simple review of the force generated with a hammer and the force needed for the complete mark.





2) How often is the marking legend changed? Each mark or daily. The answer to this question will determine the selection of the type of holder.

Individual hand stamps can be the slowest point in a production process. "Gang" the mark into one hit with a CMT Hand Holder.

Columbia Marking Tools offers a wide range of marking tools for production marking. CMT can assist with reviewing your special application and assist with upgrades and cost saving improvements to your production marking.

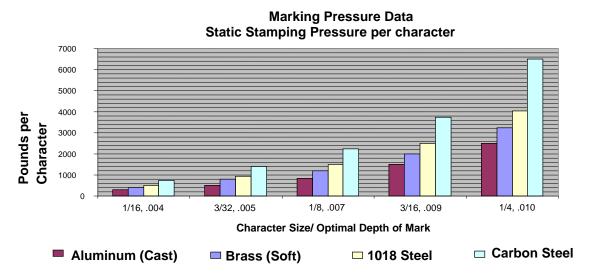


Marking Force Required

The marking force required is determined by the:

- Character Size
- Number of characters
- · Material being marked

First, determine the force for each character by using the cart below, and the information about your mark including the character size and the material.





Second, multiply the force required for each character by the number of characters. The estimated force per hammer blow will determine the size of hammer required to mark the complete legend in a hand holder.

Force per Hammer Blow (in lbs)

Size of Hammer	Average machinist	Experienced Machinist	The "Big Guy"		
3/4 lbs	3,000	4,000	5,000		
1lbs	4,400	6,000	7,400		
1 1/2lbs	6,000	8,000	10,000		
2lbs	9,000	12,000	15,000		
2 1/2 lbs	12,800	17,000	21,200		
3lbs	22,400	30,000	37,400		

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Standard Release Hand Holder

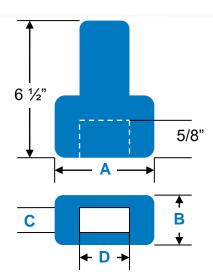
All CMT hand holders are designed and built for safety and durability. The CMT Standard Release Hand Holder is 6" > long. This long length allows the operator to safely put their full hand around tool and not get injured by the hammer during the marking process. The Standard Release Hand Holder uses a pin to retain the type in the holder.

The pin method of retaining the type will not fail when marking near a part relief. To change the type, simply pull the pin out and change the type. The pin retention method is faster to change type than the set screw method.

The Standard Release Hand Holder uses the CMG groove type. Long shank for safe use Retention Pin – spare part **Uses CMG Groove Type**

Features:

- Solid hand holder body.
- Made from quality carbon steel
- Hardened stamp seat maintains uniformly even marking even after the strongest hammer blows.
- Spring Clip for type retention with use of CMG standard groove type. Manufactured from quality spring steel, Do not use cotter pin.



Standard Hand Holder Drawing:

- 6 ½" tool length. The shank allows ample room to hold comfortably with whole hand.
- The following specification chart provides dimensions for a wide configuration of type capacities.
- The standard type will extend out 1/4" from the holder body. Extended CMG special length available for marking in recess.

Standard Hand Holder Specifications

Catalog No.	Dimensions				CMG Style Type Capacity					
	"A"	"B"	"C"	"D"	1/16"	3/32"	1/8"	5/32"	3/16"	1/4"
HAG-50	1"	3/4"	1/4"	1/2"	8	5	4			
HAG-75	1 3/4"	3/4"	1/4"	3/4"	12	8	6			
HAG-100	1 3/4"	3/4"	1/4"	1"	16	10*	8			·
HAG-150	2 1/2"	3/4"	1/4"	1 ½"	24	16	12			
HAG-200	3"	3/4"	1/4"	2"	32	21**	16			
HBG-100	1 3/4"	1"	5/16"	1"				5	5	
HBG-150	2 1/2"	1"	5/16"	1 ½"				8	8	
HBG-200	3"	1"	5/16"	2"				10***	10***	
HCG-100	2"	1"	3/8"	1"						4
HCG-200	3"	1"	3/8"	2"						8

Note:5/32" characters are CMG16W *1/16" spacer required **1/32" spacer required ***1/8" spacer required

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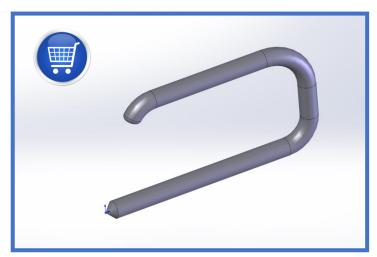


Spare Parts and Accessories

- Spring clip is the only spare component required for this tool. Each one of the models comes with a different length of clip.
 - Order instructions: HAG50 3, or #####-3 where ####
 is the model number.



- 3. CMG type is use int the Standard Hand Holder.
 - Individual type, punctuation, and symbols available.
 - Reverse, and Dot Style characters available.



- 2. A TYPEBOX is a great accessory for this tool. The storage system will help with quick setup of marking legends.
 - TYPEBOX1 and TYPEBOX2 are wooden boxes as shown with place for tool and dies.

