

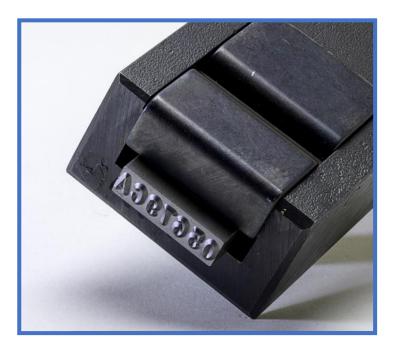
Hand Holders General Use

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.

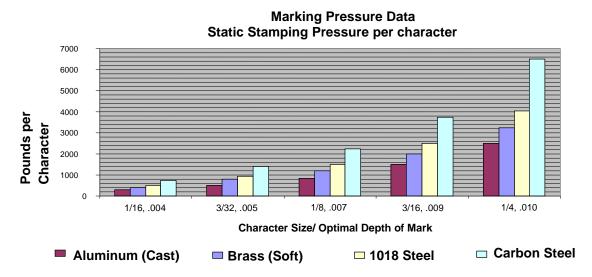


Marking Force Required

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		

R-Buster Hand Holder

All CMT hand holders are designed and built for safety and durability, but the R-Buster is the ULIMATE hand holder. The CMT R-Buster Hand Holder is 12" > long. This long length also includes a safety shield allows the operator to safely put a full hand around the tool and not get injured by the hammer during the marking process. The R-Buster Hand Holder uses a pressure clip to retain the type in the holder.

The clip method of retaining the type is very fast to change the marking legends. To change the type, simply press the clip and the type fall out. The R-Buster Hand Holder offers the maximum in safety and fast changeover.

The Quick Release Hand Holder uses the CMS step type.

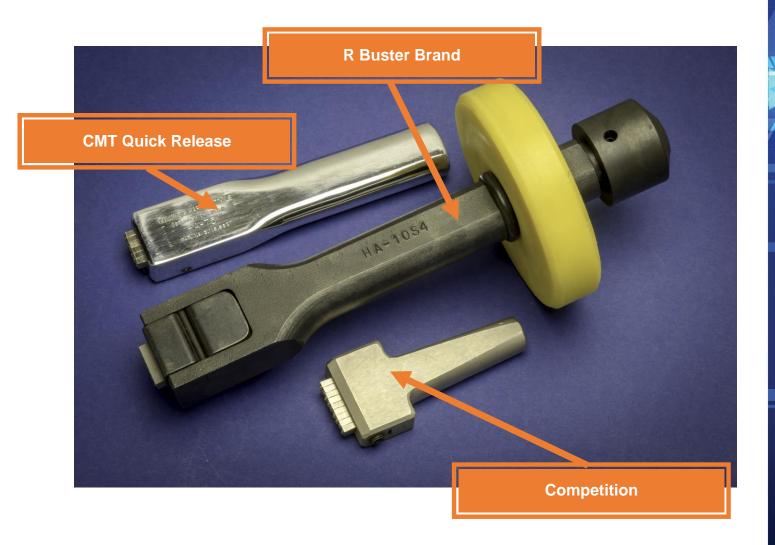


TECHNICAL GUIDE

Features

- Solid hand holder body.
- Extra length with safety guard and replaceable end cap
- Made from quality carbon steel.
- Hardened stamp seat maintains uniformly even marking even after the strongest hammer blows.
- Quick release push clip is used with CMS standard step style type. CMT unique design for the fastest hand holder marking legend changeover.

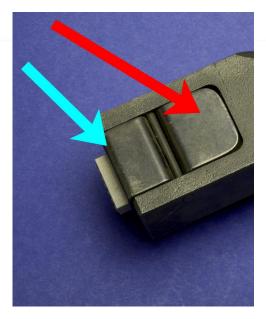
Compared to other hand holders the R Buster provides the MAXIMUM hand safety with the hand guard, and extra length to assure precise hand control.



Quick Release Mechanism

- To quickly release the type, press on the end of the clip pointed to by the red arrow.
- The other end of the clip will lift and release the CMS step type.
- There are three replaceable components to the QUICK-RELEASE
 - HR3 Compression spring, with a quantity of 1 or 2 depending on the length of the marking legend.

Model #	HR-3 Compression Spring - QTY	HR-4 Clip Size-QTY	HR-5 Rod Length	
LIADEO		4 /2 !!	4.4/2!!	
HAR50	1	1/2" wide -1	1 1/2"	
HAR75	1	3/4" wide - 1	1 3/4"	
HAR100	1	1" wide - 1	2"	
HAR150	2	3/4" wide - 2	2 1/2"	
HAR200	2	1" wide - 2	3"	
HBR100	1	1" wide - 1	2"	
HBR150	2	3/4" wide - 2	2 1/2"	
HBR200	2	1" wide - 2	3"	
HCR100	1	1" wide - 1	2"	
HCR200	2	1" wide - 2	3"	

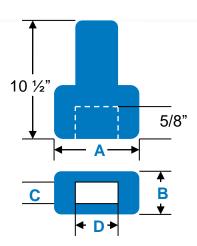


- 2. HR-4 Clip, with a quantity of 1 or 2 depending on the length of the marking legend.
- HR-5 Rod of varying lengths depending on the model.



R Buster Hand Holder Drawing

- 10 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 CMS special length available for marking in recess.



R Buster Hand Holder Specifications

Catalog No.	Dimensions				CMS Style Type Capacity					
	"A"	"B"	"C"	"D"	1/16"	3/32"	1/8"	5/32"	3/16"	1/4"
HAR-50	1"	3/4"	1/4"	1/2"	8	5	4			
HAR-75	1 3/4"	3/4"	1/4"	3/4"	12	8	6			
HAR-100	1 3/4"	3/4"	1/4"	1"	16	10*	8			
HAR-150	2 1/2"	3/4"	1/4"	1 ½"	24	16	12			
HAR-200	3"	3/4"	1/4"	2"	32	21**	16			
HBR-100	1 3/4"	1"	5/16"	1"				5	5	
HBR-150	2 1/2"	1"	5/16"	1 ½"				8	8	
HBR-200	3"	1"	5/16"	2"				10***	10***	
HCR-100	2"	1"	3/8"	1"						4
HCR-200	3"	1"	3/8"	2"						8

^{*1/16&}quot; spacer required **1/32" spacer required ***1/8" spacer required







Spare Parts and Accessories

- 1. The Quick-Release Hand Holders have (3) replaceable parts.
 - The HR-3 Compression
 Spring, HR-4 Clip, and HH-5
 Rod
 - The part may be ordered as a kit HR-QR-Kit through the online store.



- 3. CMS type is use int the Quick-Release 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.



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4. Hand Safety Shield

o HR-S Yellow safety shield may be replaced to extend the life of the tool.

5. Replaceable End Cap

 zHR-E End cap is considered a wearable part and when worn can be replaced.





"The R Buster Hand Holder reduced hand injures immediately upon adding tool to production. This tool has saved hours of downtime."