



# **Hand Holder Guide**

## **Technical Brochure**

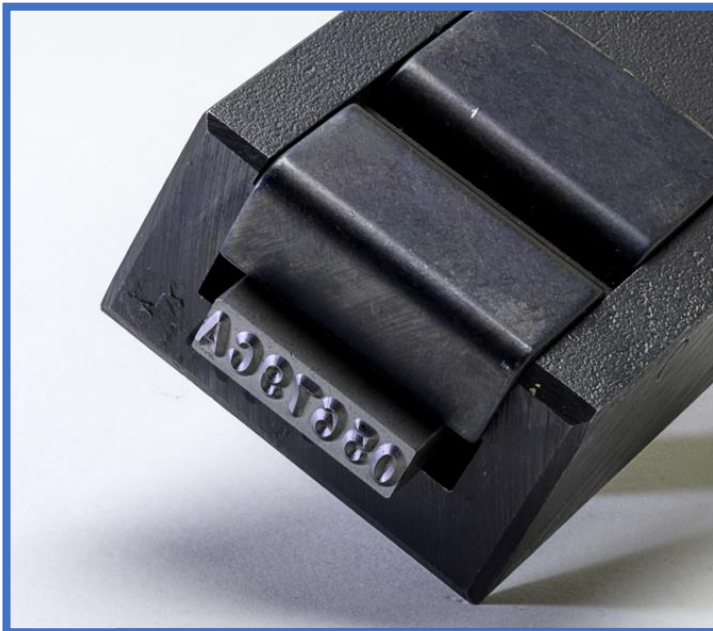


### Hand Holders General Use

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.

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

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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.



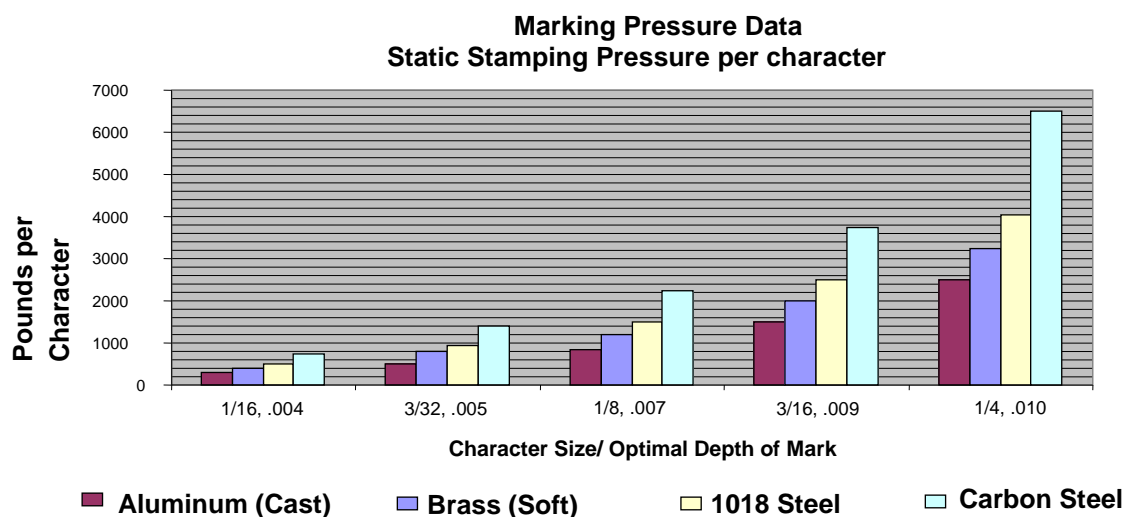


## Marking Force Required

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 chart 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

### Hand Holder Comparison

Columbia Marking Tools manufactures a complete line of heavy industrial tooling. The hand holder product line demonstrates this industrial design.

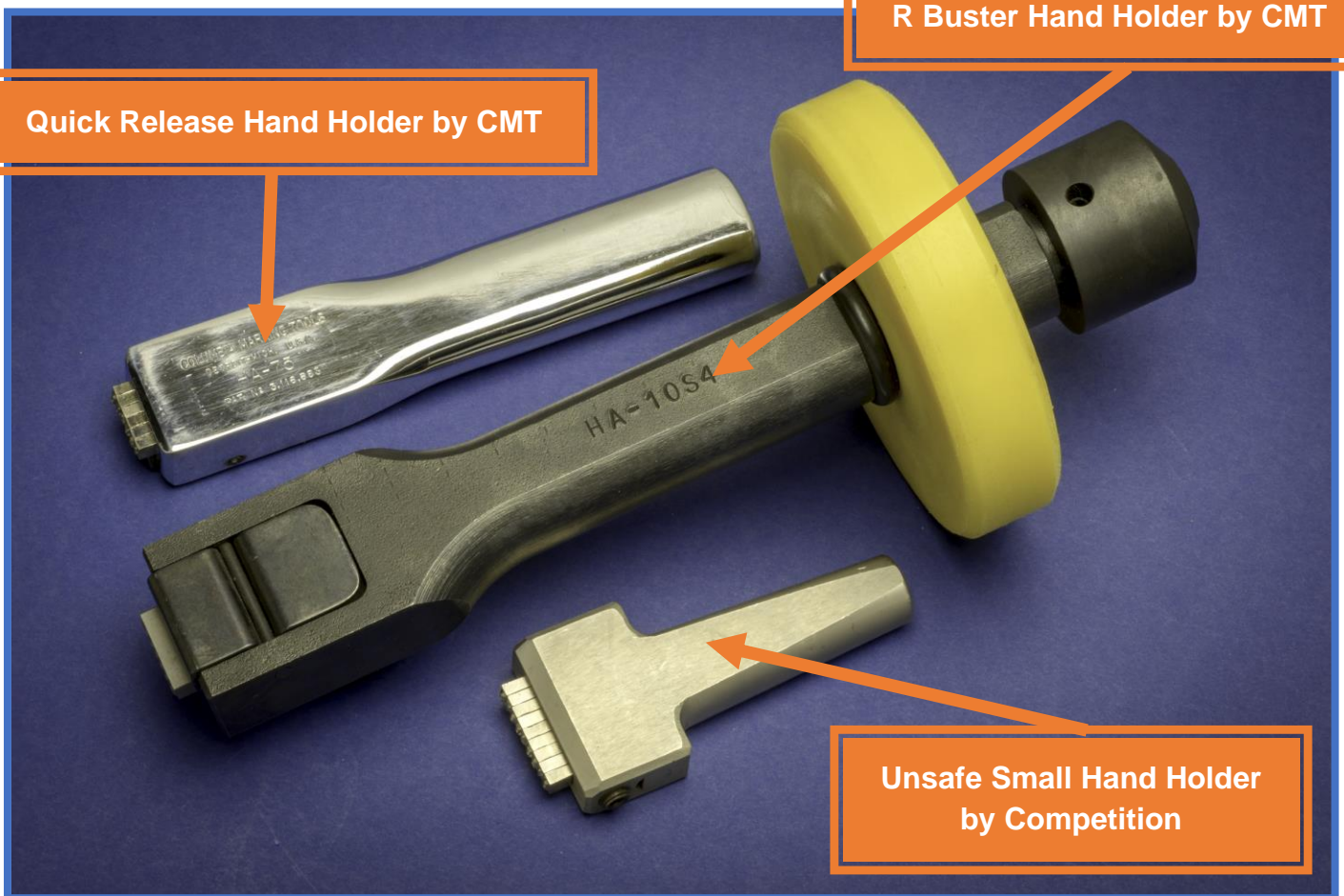
Three hand holders are shown in the picture below.

1. The largest tool is the R Buster Hand Holder by CMT, designed for maximum safety and longevity of tool life.
2. The medium sized hand holder is the Quick Release Hand Holder by CMT, designed for quick changeover of marking legends.
3. The small holder is the competition. These hand holders are too small for a hand to fit around and safely mark. The competition hand holders also use set screw retention method to hold the type in place. The set screw is time consuming to remove and offers no time savings over the use of individual hand stamps.

R Buster Hand Holder by CMT

Quick Release Hand Holder by CMT

Unsafe Small Hand Holder by Competition

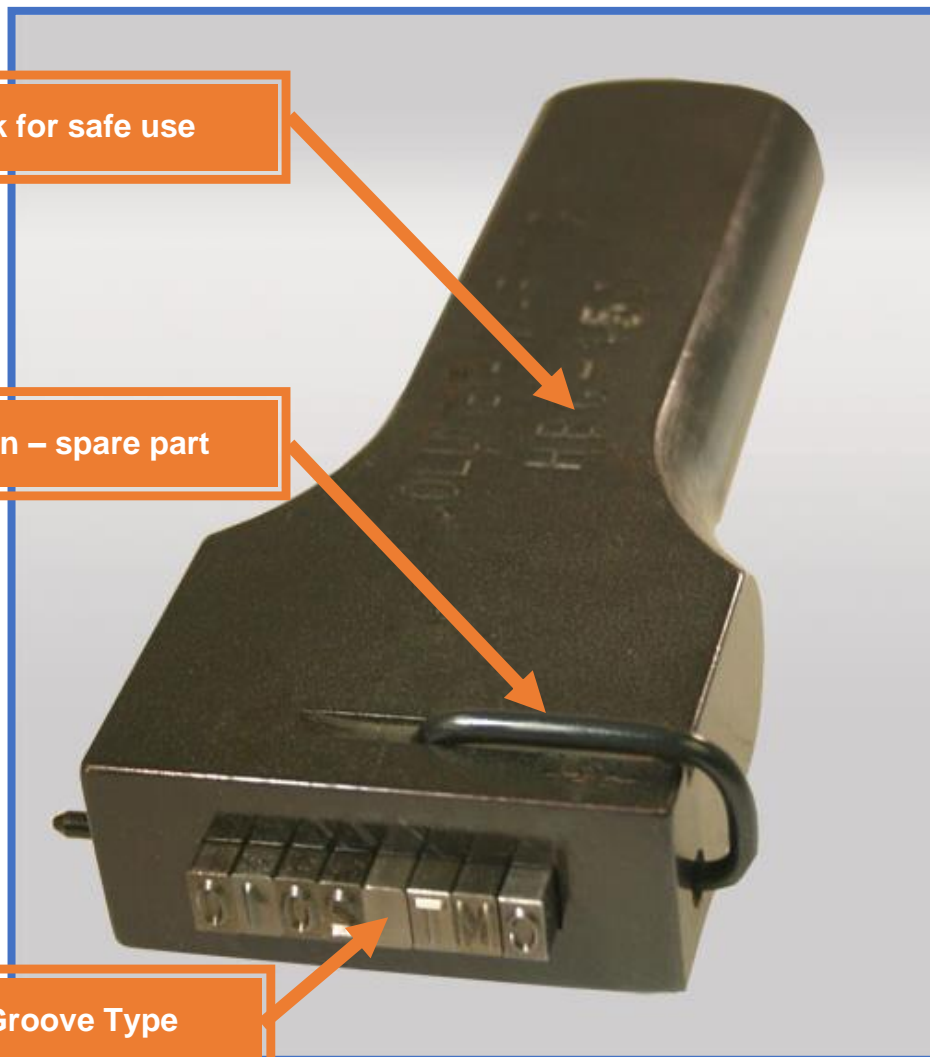


## Standard Release Hand Holder

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

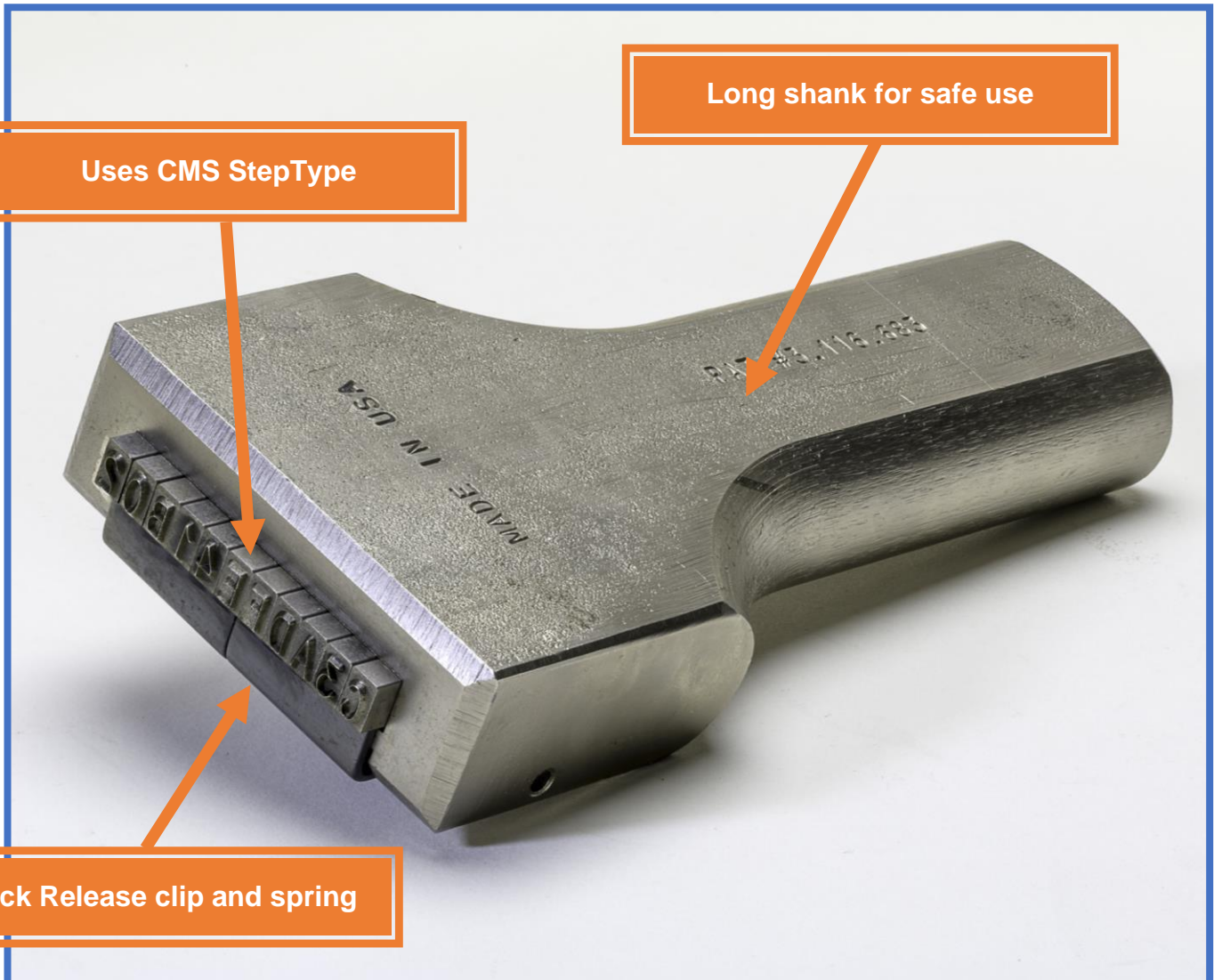


### Quick Release Hand Holder

All CMT hand holders are designed and built for safety and durability. The CMT Quick Release Hand Holder is 6" > long. This long length allows the operator to safely put a full hand around the tool and not get injured by the hammer during the marking process. The Quick Release 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 Quick-Release clip is the most popular hand holder.

The Quick Release Hand Holder uses the CMS step type.



## 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.

