



Technical Brochure

## CMT I-Mark IMM75

Dot-Peen Marking Machine



# IMM75 I-Mark Dot-Peen Marking Machine

The complete I-Mark direct part marking dot-peen machine with 3" x 3" (75 x 75 mm) marking window

The M-Series dot-peen systems marks a wide variety of metal and plastic parts with a selection of fonts for alpha/numeric, serial numbers, date codes, logos, and 2D codes. This machine features the easy to use I-Mark software.

Complete marking system:

- Pneumatic Dot-Peen Marking Head
- Bench-top stand with Standard aluminum
- T-slot table 12" x 14" (305 x 380mm) includes heavy duty column with manual vertical adjustment for parts up to 10 ¾" (275mm) tall.
- Model 100 I-Mark controller
- Windows PC
- Free I-Mark software
- Keyboard and monitor with optional touch-screen upgrade
- Shut-off/filter/regulator
- All cables required to set-up marking station



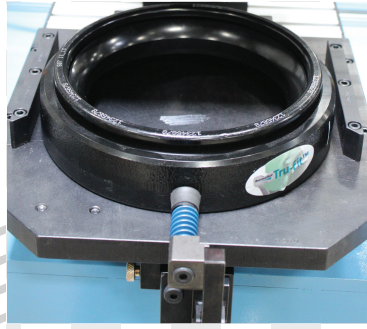
## Marking Pin Options

The M-Series dot-peen system is offered with a selection of pin styles including; standard, fixed dot, and extended.





# I-Mark



## Fixtures

CMT engineering can provide complete fixturing solutions. CMT has standard tag and vice fixtures, and offers custom designs and automated solutions.



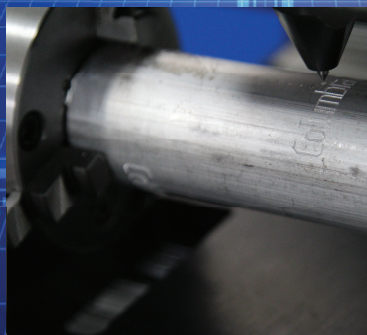
## Machine Base

CMT offers an optional all steel industrial machine base. The durable base can provide a sturdy, and mobile platform for the I-Mark M series marking machine.



## Light Curtain

Upgrades to the machine safety include light curtains and guarding. Combining the light curtain with semi-automated fixturing improves cycle time and productivity.



## Rotator

Marking on the OD of round parts is possible with the 3rd axis upgrade rotator. The chuck to mount the parts comes in 3" or 5" size.

[www.marking-machines.net](http://www.marking-machines.net)





## Fixed Dot Vs Standard

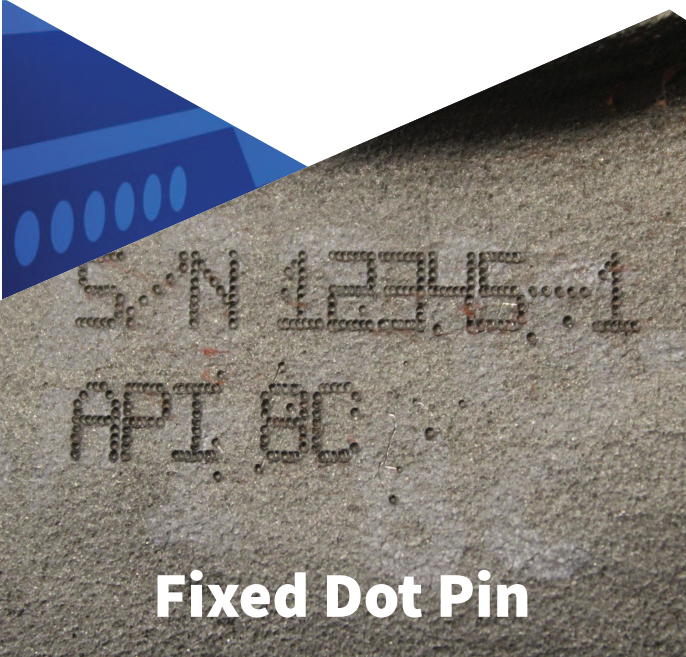
### *Fixed Dot - makes deeper marks*

The carbide pin impacts the material with up to 900 psi. The pin has approximately 1/4" (8mm) of pin stroke. The workpiece is placed about 3/16" (5mm) away from the retracted position to assure the best mark. The pin is able to mark over uneven and curved surfaces. The single pulse provides a deep and discrete mark.

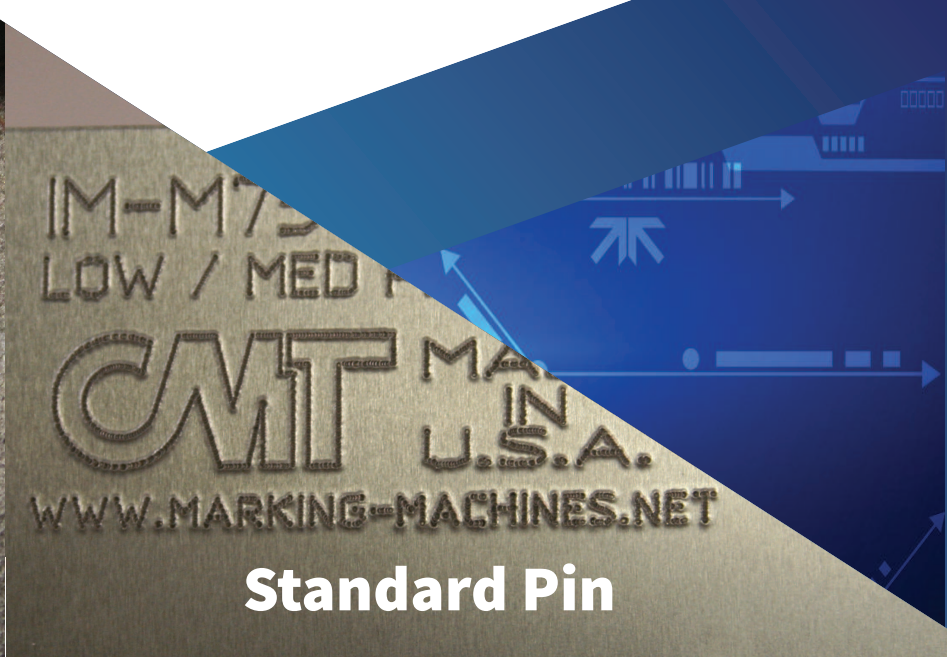
- *Extra-long design for more pin throw*
- *Extra Mass*
- *More force for deeper mark*

### *Standard Pin (includes extended configurations)*

The vibrating carbide pin impacts the material with up to 700 psi. The pin has approximately 3/16" (5mm) of pin stroke. The workpiece is placed about 1/8" (3mm) away from the retracted position to assure the best mark. The pin is able to mark over slightly curved surfaces.



**Fixed Dot Pin**



**Standard Pin**

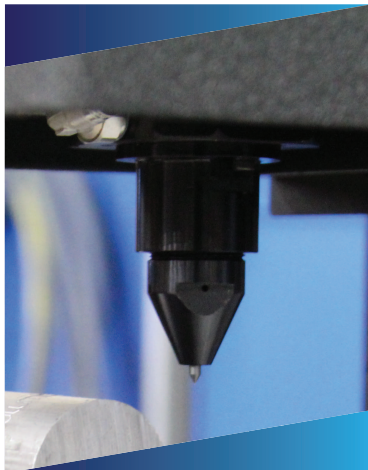




**Helping you  
make your mark!**



## Pin Styles for the I-Mark M Series



**Standard**

- IMIDPHA – Pin housing assembly
- IMIDPH – housing and O ring
  - IMIDSPRING – spring
  - IMIDPIN – pin

**1" Extended pin mount**  
May be used with either standard or extended pin



**Extended**

- IMIDPHEX10A- 1" Extended Pin assembly including:
- IM-IDPINEX10 (extended pin 1")
  - IM-IDPHEX10 ( Extended pin housing)
  - IMIDSPRING – spring
  - IMIDPINex10 - 1" extended pin



**Fixed Dot**

- IMFDPHA -
- Fix dot housing
  - pin shaft
  - shaft bearing
  - spring
  - shaft bushing
  - carbide marking pin

**[www.marking-machines.net](http://www.marking-machines.net)**



# Making it a complete solution

Columbia Marking Tools has a large selection of accessories that can be combine with the M series I-Mark dot-peen marking machine to create the complete marking station:

- Machine base
- Guarding
- Light Curtain

# CMT

**Columbia  
Marking  
Tools**



## Machine Base

Part#MACHBASE

Industrial all steel machine base comes complete with castors to move machine from location to location. When purchased with the I-Mark M series the controls and stand will be mounted and preassembled.

Dimensions: 23" x 28" x 32"

## Safety Upgrades

Part#IMMG1

3 sides of safety guarding

Part#IMMG2

Includes the 3 sided guarding and the light curtain on the front of the machine. The system also has a push button cycle start and E-stop.

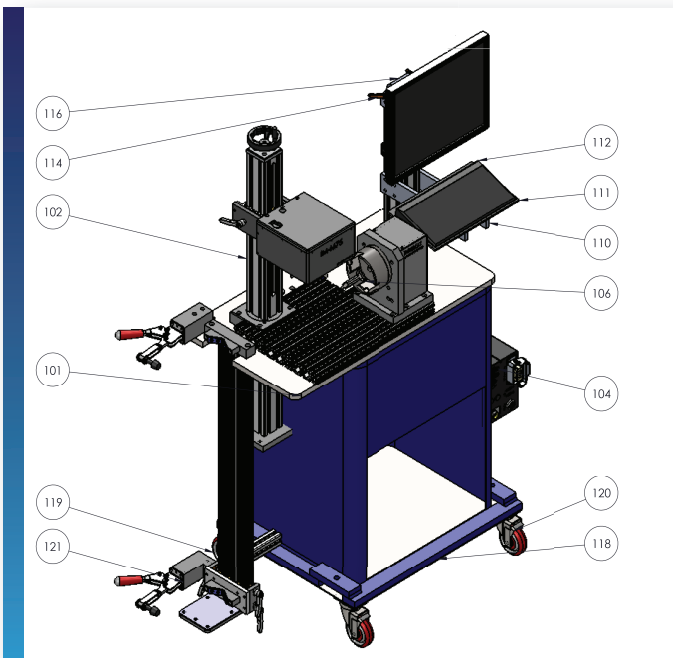




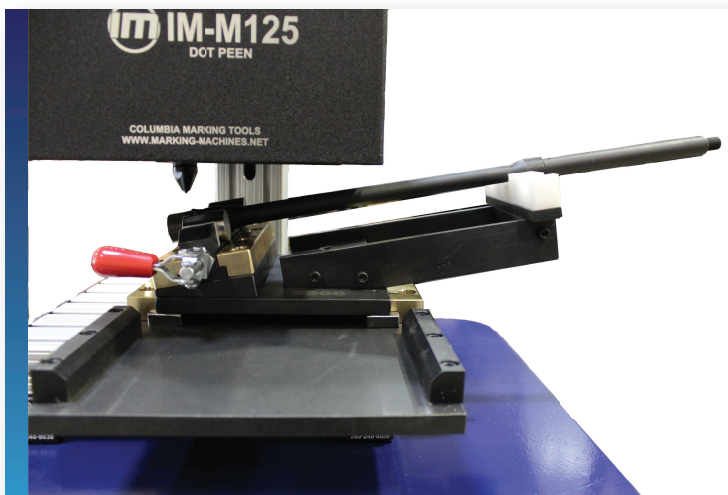


Designed to order:

- Marking head custom mounting
- Height extensions
- Outrigger support
- External part support.



Custom design to final build and test



Out rigger support for long parts



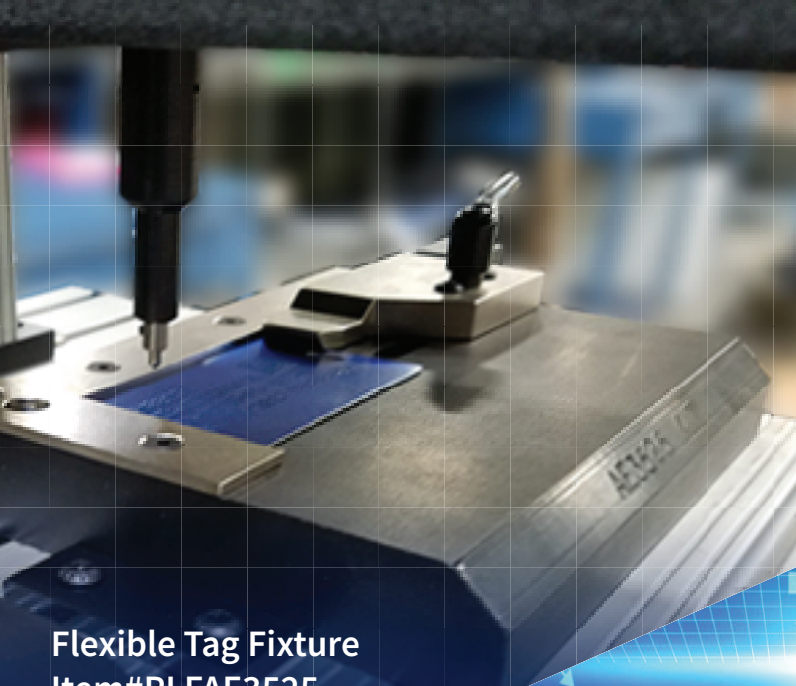


Custom  
fixturing from CMT  
assures that the marking  
machine can meet production  
requirements immediately  
upon receipt.

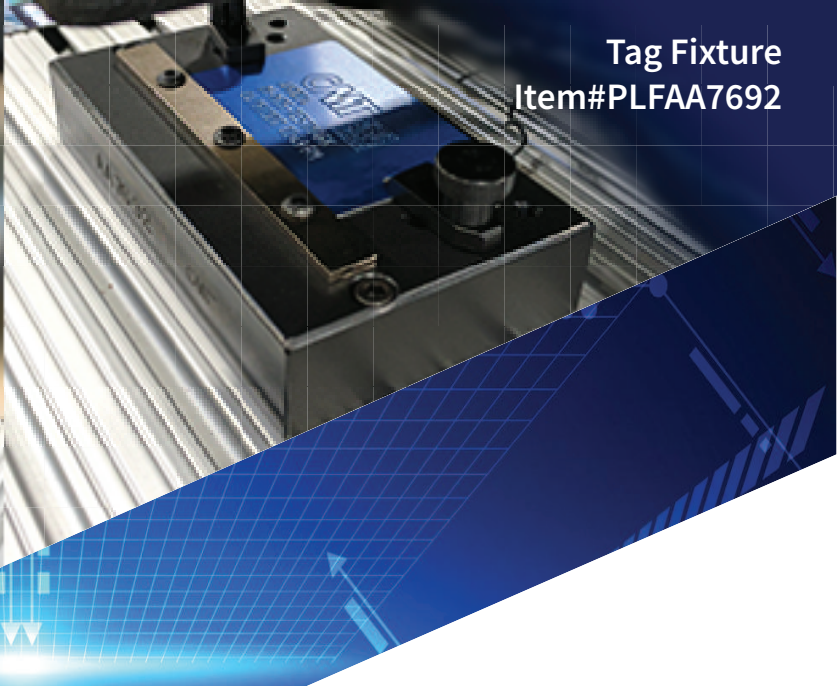


Dot-peen and scribe marking methods require secure workholding. At the same time, the fixtures need to be quickly released for changeover from part to part. CMT has an experienced inhouse design team to provide custom workholding with “no tooling required” changeover as needed for moderate production.

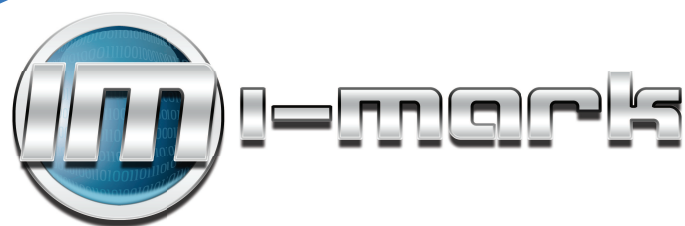




Flexible Tag Fixture  
Item#PLFAE3525

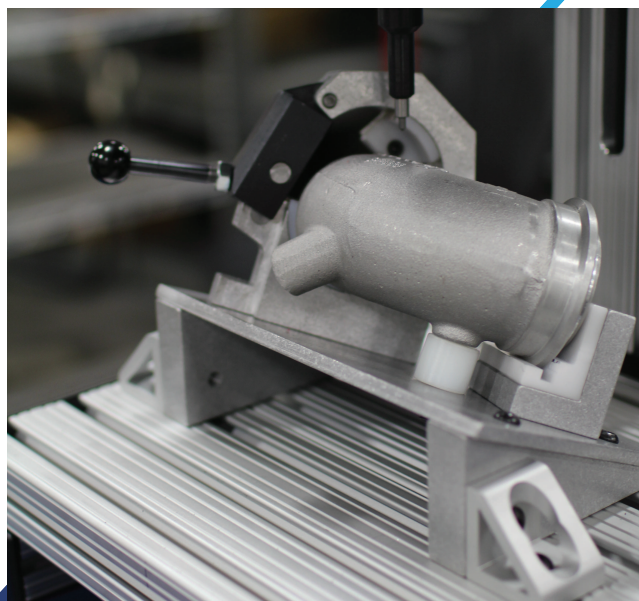


Tag Fixture  
Item#PLFAA7692



## Fixtures

Quality workholding designs are a key elements to efficient manufacturing process.



**Item# PLF10 Custom fixture** design includes:

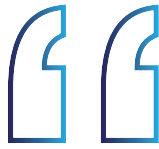
- Designed for part per customer provided part print with marking location noted.
- Approval drawing for review prior to build.
- Part at proper angle to ensure marking surface is perpendicular to pin motion.
- Solid part rest with quick release mechanism.
- Commissioning of I-Mark marking machine included free with purchase of fixture
- Runoff and marking test provided to customer for review prior to shipment of machine.

[www.marking-machines.net](http://www.marking-machines.net)





# I-Mark Software



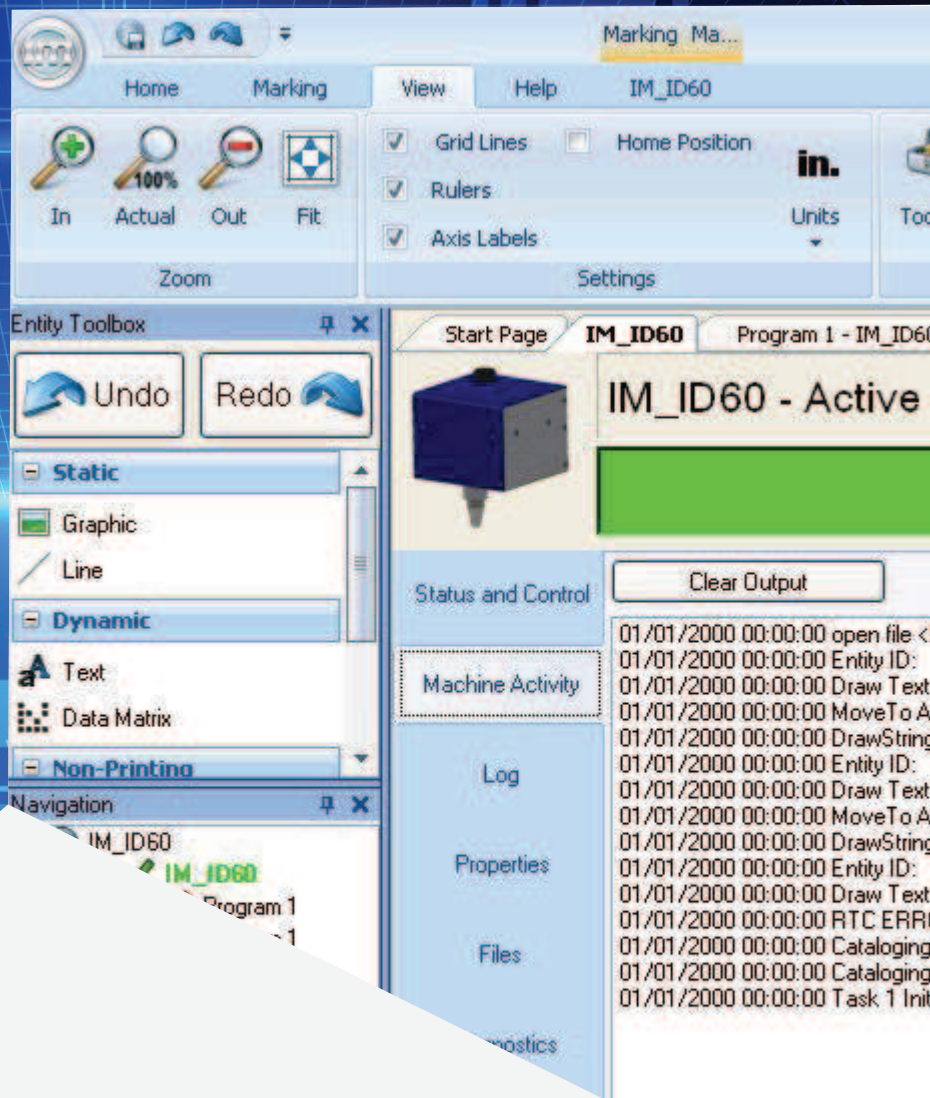
I-Mark software is provided free with the purchase of any I-Mark machine. I-Mark software has a tremendous amount of horsepower, but it is extremely Windows® user-friendly and easy to operate. Simple drag-and-drop functionality makes program creation and entity sizing easy. CMT even includes several dozen video tutorials to enable the operator to refresh his/her memory if they've forgotten exactly how to do something.





# More Features

The I-Mark software is used to create marking legends for all the I-Mark machines. More than marking information, the software can also control additional axis used in the marking process including rotators, and automated Z axis.

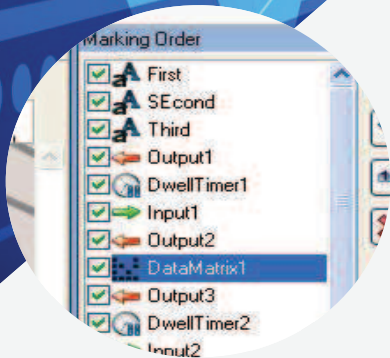


## Marking Order

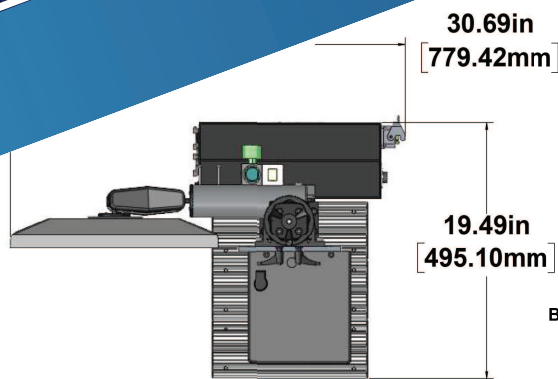
A wide variety of other non-printable marking utilities are also provided to set way points, inputs/outputs and even programmable dwell times. After the marking program is configured, the operator can preview the sequence of operations before actually marking and can modify the sequence if necessary.

## 2D Code standard

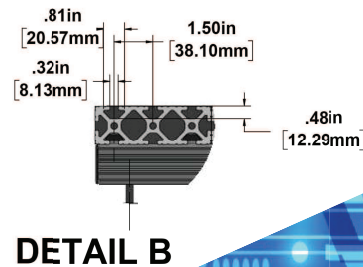
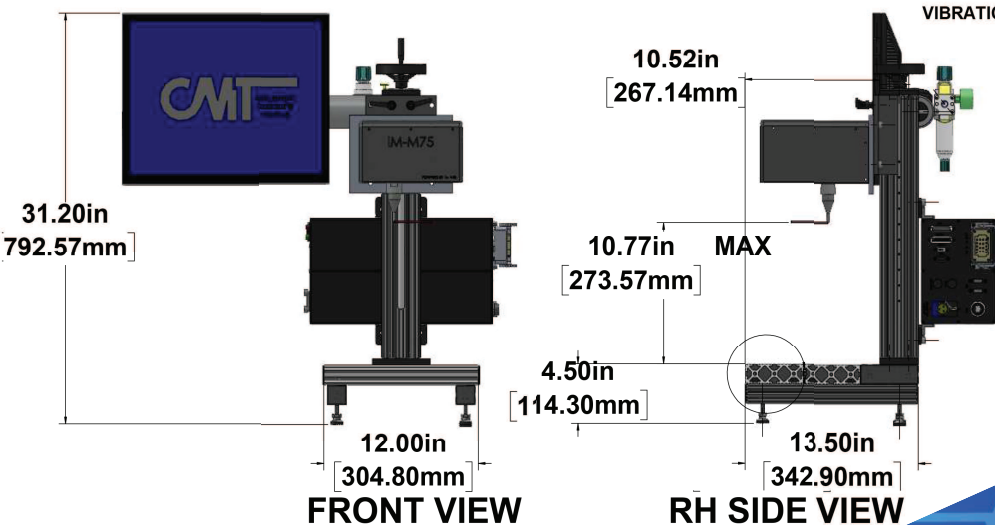
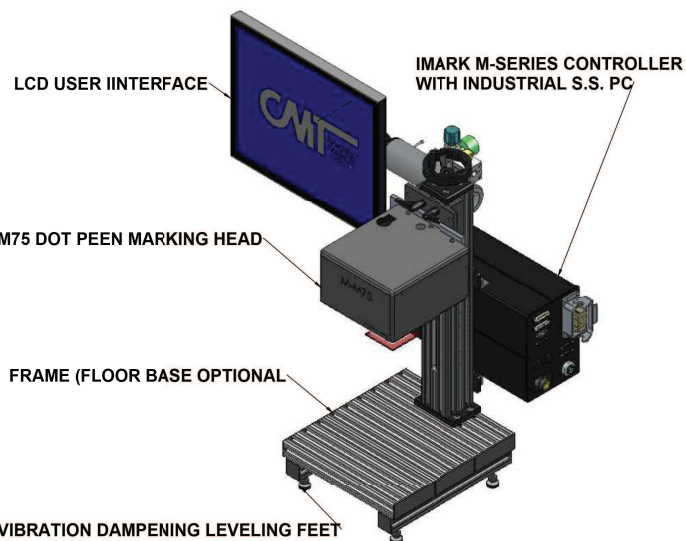
The I-Mark software creates a layout for a mark made with any combination of graphics, text, date codes, proprietary fonts or 2D UID codes including Military Specification 130. A DXF import tool is used to place required graphics in the marking layout.







**TOP VIEW**



**DETAIL B**



## Marking Window

The marking window is 3" x 3" (75 x 75mm). Other marking windows available: 5" x 5" (124x 125mm), 8" x 8" (200 x 200mm).



## Table Height

The height of the marking head is manually adjusted. The pin can be raised to a height of 10.75 in (275 mm) over the table.



## Table size

The size of the master fixture table that is included at no extra charge is 14 x 15 in (355 x 380 mm). The table uses standard 8020 T-Nuts.



## Marking Speed

4-5 characters per second for the standard pin, and 2-3 characters per second for the Fixed dot pin.

**[www.marking-machines.net](http://www.marking-machines.net)**



# M-Series

IMM75 - Standard  
marking window 3" x  
3" (75 x 75mm)

IMM125 - Large mark-  
ing window 5" x 5"  
(125 x 125mm)

IMM200 Extra large  
marking window 8" x  
8" (200 x 200mm)



## Components

- Marking head with 2 axis carbide pin
- Benchtop stand with manual Z axis adjustment
- Fixture mounting plate - T Slot table
- FRL - filter regulator lubricator and Air connection
- Power cable
- PC connection cable
- Windows software - Free

## Specifications

- Power - 110 VAC
- Compatible OS - Windows XP and newer
- PC Connection - USB, cable length 3 ft
- Compressed Air - Required, 1/4 NPT
- Power Range - 30 to 75 PSI





**Webpage - Video - Quote Request**

Made in USA by  
**Columbia Marking Tools**

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