

**Programmable  
Marking Catalog  
Dot-Peen, Scribe,  
& Laser**

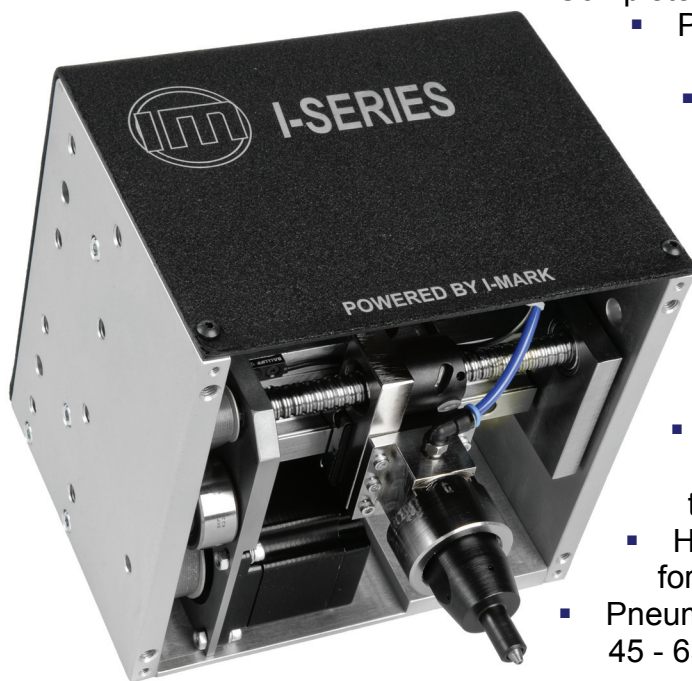




# Tomorrow's marking technology...today!

## I-Series Silent Scribe

**"Silent Scribe"** version of the popular I-Series Dot-Peen. This ball screw drive system has a marking speed of 4 characters per second in scribe mode. The systems come with two marking window options: medium and large size. This system is UID/2D Square-Dot® Compatible. The I-Mark controller uses the latest in drive technology.



Complete marking unit for integration:

- Pneumatic Scribe Marking Head in two window sizes
- Model 200 I-Mark Controller
  - I-Mark software for programming (details page 22)
  - Power cable, Marking head cable, Cross over cable, and LAN cable

### The I-Mark-IS Marking Head:

- Air and controller connection located on back of marker.
- Solid aluminum frame with ½" plates on three sides for easier mounting, all 3 pre-drilled & tapped.
- High torque stepper motors and ball screw drives for precise positioning.
- Pneumatic pin with diamond tip to mark hard parts 45 - 65 Rc

- Mountable in any orientation

### The I-Mark Model 200 controller:

- Compact design for easy installation into production equipment.
- Communication options including remote programming over LAN, and operational controls via I/O, Modbus, Serial, Ethernet IP ect.
- Touch screen/monitor upgrade and more details page 18

### Options:

- Pedestal mount
- Upgrades: database and camera integration



## I-Series Silent Scribe

### I-Series Scribe How to Order

| To Order: Select only the symbols that represent the marker feature that is needed. Place that symbol in the sequence as shown. |        |                 |
|---|--------|-----------------|
| Model/Feature   | Symbol | Example         |
| I-Mark Scribe   | IM-IS  | IIM-IS60-D-X-25 |
| Medium Marking Window   | 60     |                 |
| Large Marking Window  | 200    |                 |
| Without Shield  | -      |                 |
| With Shield   | D      |                 |
| Standard Pin  | -      |                 |
| 1" Extended Pin   | X      |                 |
| 10 ft Cable   | -      |                 |
| 25 ft Cable   | 25     |                 |

### Utilities:

- Controller requires 110 VAC power, 6 ft (1.8m) electrical cord supplied
- Air power required, 8mm push-in tube fitting requires connection to air supply (30-75 PSI operating range)

### Features:

- High torque stepper motors with ball screw drive
- 2D and Square-Dot® capable
- 2 marking windows;
  - Medium = 1.59" x 2.35" (40 x 60mm)
  - Large = 3.18" x 7.87" (80mm x 200mm)
- Marking speed of 4-5 (1/8", 3mm) cps
- 10 ft (3m) or 25 ft (7.5m) cable from head to controller
- Diamond pin included – Marks hard and carbide metals (up to 65 RC)
- Weight of marking head assembly: 19lbs



### Envelope dimensions:

Medium - 8.44" high x 7.1" x 7.1"  
(214 x 180 x 180mm)

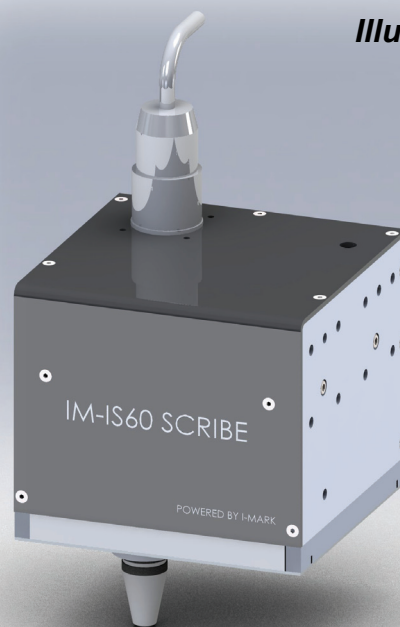
Large: 8.44" high x 8.7" x 12.8"  
(214 x 220 x 325mm)

### Marking windows:

Medium - 1.59" x 2.35"  
(40 x 60mm)

Large - 3.18" x 7.47"  
(80mm x 200mm)

### Illustration of IM-IS series



Mounting  
available on  
three sides

Standard pin or 1"  
pin extension for  
marking in  
recesses

Complete detailed drawings available for  
download at [www.marking-machines.net](http://www.marking-machines.net)

Upgrade for industrial debris shield

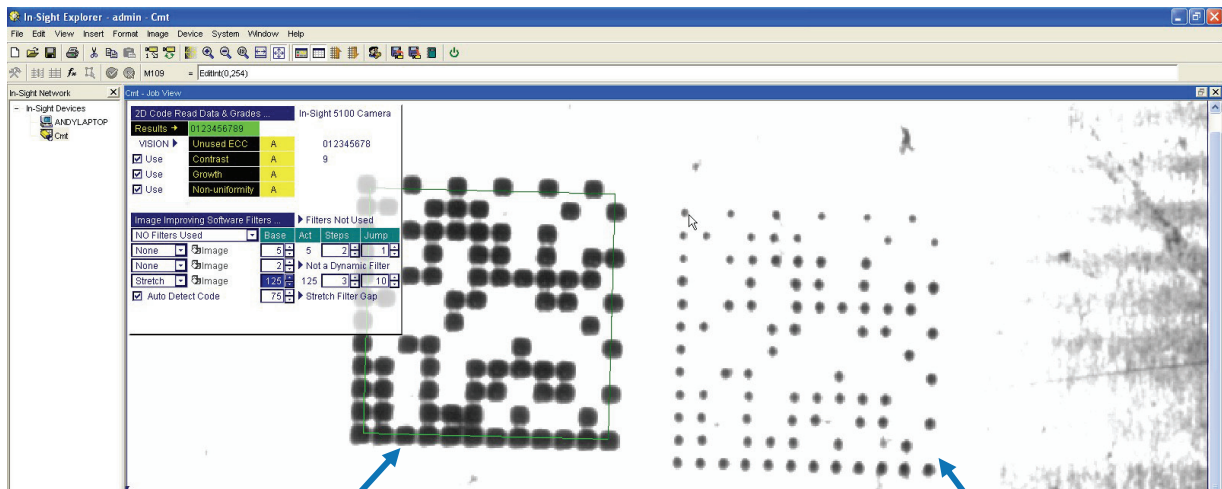




# Tomorrow's marking technology...today!

## Square-Dot®

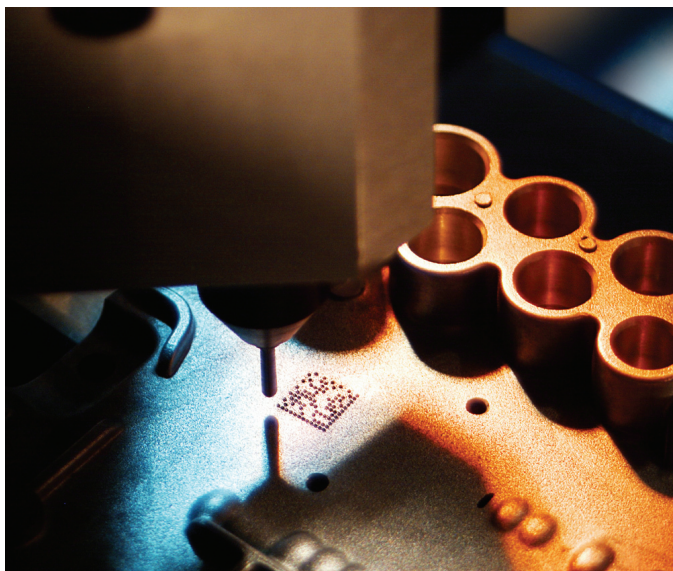
CMT's **patented high resolution marking process** to apply **2D/UID machine readable codes** to a variety of materials. This process scribes a matrix of small square cells into the material. The mark provides the best direct part reading with a vision system as the cells are filled in similar to a laser mark but much deeper and often with better contrast.



**Square-Dot® UID/2D**

**All the rest (dot-peen)**

The Square-Dot® process may be implemented with any of CMT'S I-Mark Scribe systems, these include I-Series air Scribe & the C-Series electric or air scribe.



The Square-Dot® patented process uses a diamond tip to draw squares on material to create a machine readable 2D/UID code. This technique creates both a depressed square and a raised ridge as shown below. The "filled cell" reflections create a more defined matrix as shown above, and therefore, offers better readability.



*"successfully read 10 out of 10 attempts on a rough aluminum casting with the hand-held reader." Per vision system manufacturer test.*





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## Options

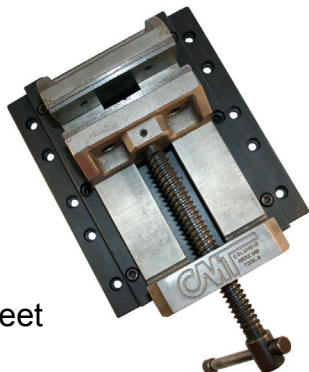
Part locating fixtures provide exact positioning to assure mark is placed on the proper place on the work piece. CMT provides standard and custom fixturing.

### Adjustable Vise with Master Fixture Plate

To easily position parts on standard CMT benchtop frames.

Dimensions:  
4" (100mm) wide  
opening  
4" (100mm) across  
jaws  
1 9/16" (40mm) depth

Also included (4) t-slot feet  
and mounting bolts  
*Part Number: PRGVISE*

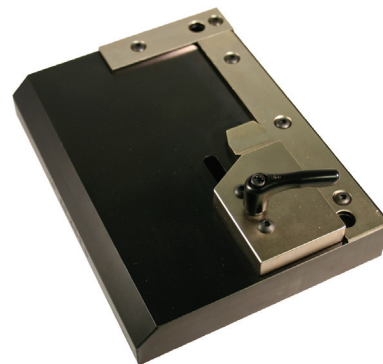


### Adjustable Tag Fixture Plate

To provide adjustable fixture for a wide range of tags on standard CMT benchtop frames.

Tag  
Dimensions:  
2" - 5" (50mm -  
125mm)  
1" - 4" (25mm -  
100mm)

Also included  
(2) t-slot feet  
and mounting bolts  
*Part Number: PLFAE3525*

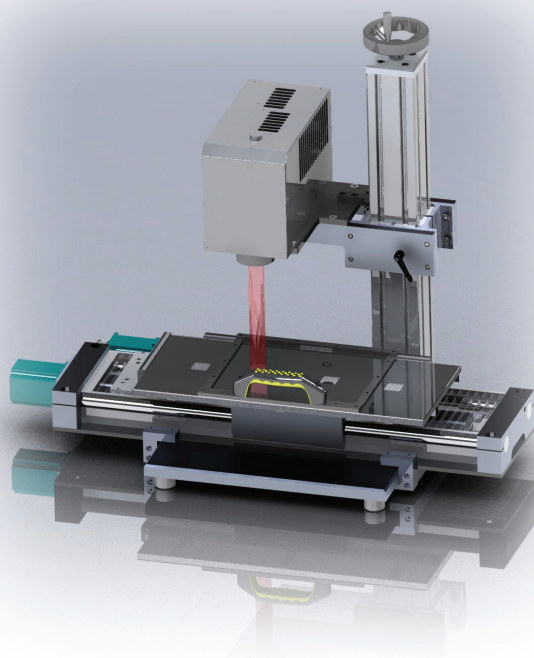


### Custom Fixtures

Custom designed and manufactured to meet application parameters.

- Integrated Cameras
- Multi-part designs
- Turn tables with integrated stations for marking and other operations
- Linear tables
- Part handling including conveyor systems and part orientation

Custom designs provided with 3D modeling for the design approval process.





# CMT

## COLUMBIA MARKING TOOLS



**Wide Range of Products:**  
**Programmable Systems**  
**Dot-Peen & Scribe**  
**Laser**

**Air Impact Markers**

**Numbering Heads**

**Roll Marking Machines**

**Air & Hydraulic Presses**

**Hot Stamping Machines**

**Stamping Dies & Retainers**

**Standard Type**

**Hand Tools**

**Custom Marking Dies**

**Embossing Dies**



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