Machine Guarding

Technical Brochure

Machine Guarding and Light Curtains

Meets and exceeds OSHA requirements

In regular dot-peen and scribe marking operations no additional guarding is required. The pinch point between the moving pin and the part being marked is less than ¼". The ¼" distance is used by OSHA to determine a pinch point of injury. The application may require guarding depending on how the pin moves to the part from the home position, or when the marking station uses an automated axis or feeding system.

Laser systems include a light tight frame surrounding the marking source. Some safety officers elect to have the addition of the light curtain with the automated door upgrade. The light curtain is electronically tied into the laser or marking source. Any interruption of the beam between the two opposing sensors will stop the marking process and any motion. CMT does design the automated door with the feature of not closing if any resistance is met.

Compatible Systems

- I-Mark M and MS series
- I-Mark C Series
- CMT Eclipse LER Rotary Turn Table
- CMT Eclipse Tunnel Automated Conveyor

Safety Upgrades

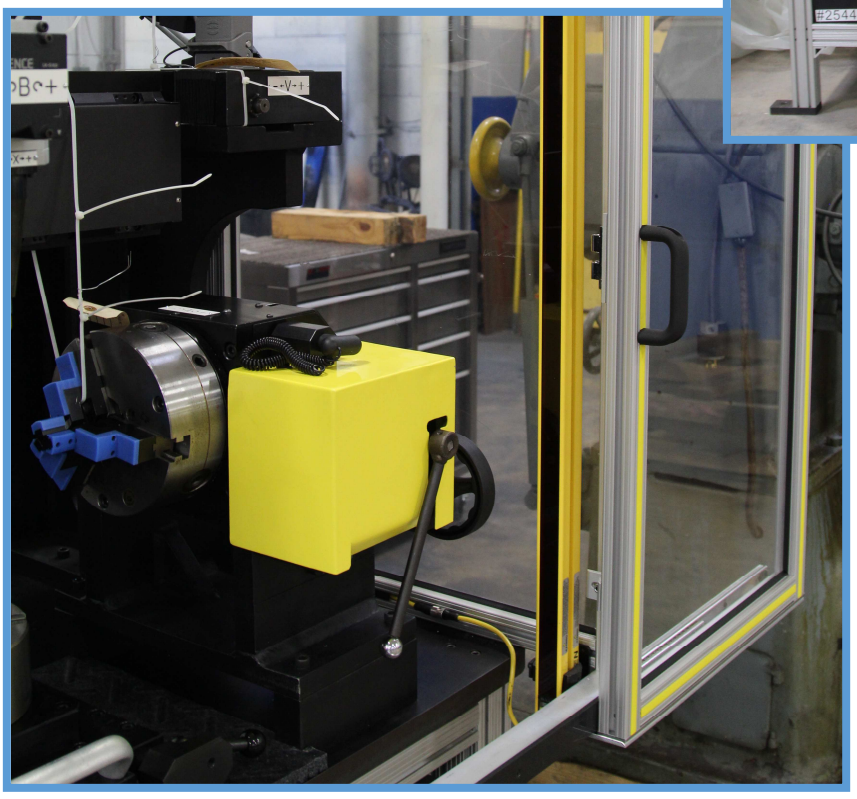
I-Mark M and MS series

Part#IMMG1 – 3 sides of safety guarding
Part#IMMG2 – Includes 3 sides of guarding and the light curtain in the front of the machine. Shown with push button start.

C Series Custom

The C series custom machines usually have an automated Z axis and require the addition of the light curtain for operator safety. The mechanical guarding of the C series may be made with a clear shield or a metal mesh.

Signage is also included to warn the operator that movement inside the light curtain will stop the machine. Once faulted a normal restart procedure must be followed.



Access doors in the guarding have safety locks. If the doors are opened during the marking cycle, the system will stop.

CMT Eclipse Laser Machines

The LER rotary turntable and the LET conveyor laser marking systems have automated doors. Both designs are used for high volume throughput. If the high-volume marking station is used in a fully fenced automated production cell then no additional guarding is required.

However, if the conveyor or the turntable are manually loaded, CMT will include the light curtain in the proposal. The alternative is OSHA palm buttons which the operator must hold during the complete marking cycle. For high volume applications, this choice would be counterproductive.