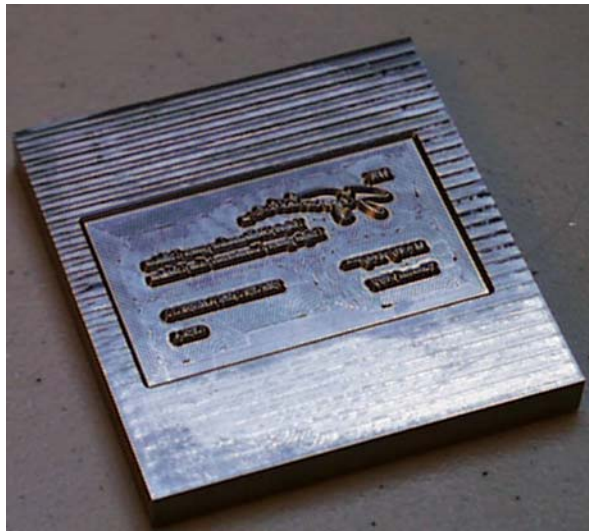




DATRON DYNAMICS, INC.
 454 Route 13
 Phone: 603-672-8890
 Fax: 603-672-8067

Application Notes

Part:..... Sharp Faced Steel Stamp
Material: D2 Tool Steel
Machine Used:..... M9
Features Utilized: High frequency spindle, automatic tool change unit with tool length sensor and Micro-Jet oil mister
Software Used:..... Type 3 Engraving Software
Total Cycle Time: 44 minutes



Machining Details:

- Tool 1: 45 degree x .020" tip carbide engraving tool at 15,000 rpm x 60 inches per minute feed rate
- Tool 2: 45 degree x .010" tip carbide engraving tool at 22,000 rpm x 50 inches per minute feed rate
- Tool 3: 45 degree x .005" tip carbide engraving tool at 26,000 rpm x 40 inches per minute feed rate
- Tool 4: 45 degree x .002" tip carbide engraving tool at 30,000 rpm x 30 inches per minute feed rate

The part was secured in a Chick vice.
 The surface was face milled with a 3mm four flute end mill.

Application Summary:

The combination of the M9 machining center with Type 3 software offers a seamless turn-key solution for producing sharp faced steel-stamps. Precise, 45 degree flank angles with straight flanks and sharp corners are achieved by combining the high frequency spindle with solid carbide microtooling. The superb stability of the M9's steel cast construction with its inherent precision provides for clear definitions with smooth and consistent surface finishes. The M9's compact footprint and generous work volume allows for simultaneous set-up for larger parts or multiple workpieces. Features such as the automatic tool length sensor allow the M9 to check for tool breakage and aide in automating the machining process.

The PC based control offers great flexibility and growth potential by simplifying any interfacing with other CAD/CAM software. The menu driven, on-board canned cycles offer the ability to swiftly set-up jobs and perform basic machining operations, without having to use an external Cad/Cam package. The low power requirements and modular design makes the M9 a compact, easy, and efficient system to own, operate, and maintain. The Datron M9 with its inherent dedication to micro-CNC-machining is the ideal machining system for steel dies of any shape and form.