Application Notes

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Part: ..... Decorative Bowl with Substantial Contour and Pebbled Finish

Material: ..... 1.4mm Copper

Machine Used: M5 4750

Features Utilized: ..... "Z" Height Correction Probe, High Frequency Spindle & Integrated Coolant System

Software Used: ..... Type 3 Engraving Software (Scanned Artwork & Applied Tool Path)

Total Cycle Time: ..... 28 Minutes Engraving / 21 Minutes Probing Time

Machining Details:

Cavity Milled Design:

Roughing: 30 degree x .075" tip
Semi roughing: 30 degree x .030" tip
Finishing: 30 degree x .015" tip

RPM Range: 25,000 to 35,000

Feed Rate Range: 1.5 to .5 Metres per Min.

Summary of the Application:

We were able to offer an excellent turn-key solution for this difficult engraving application. The "Z" compensation probe effectively measured and mapped the bowl contour and provided consistent engraving depths. The high frequency spindle is also essential to this application due to small tooling. The high rpm used and integrated coolant system in this application offered excellent machining times. The large working volume also offers greater versatility for parts or batch production. This would save the operator from having to constantly load a new part per cycle. In batch production, the machine could run for most of a day with multiple parts mounted on the bed with no operator interfacing.

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