



**DATRON DYNAMICS, INC.**  
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## Application Notes

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**Part:** ..... Milling the perimeter edge of an etched zinc sign  
 (supplied by customer)

**Material:** ..... 1/8" Zinc

**Machine Used:** ..... M5 - 4750

**Features Utilized:** ..... 2 Kwatt spindle & tool change unit

**Software Used:** ..... PrimCam

**Total Cycle Time:** ..... 126 seconds



### Machining Details:

(2) Rough Cuts: 1/8" single flute end mill at 40,000 rpm / 120 i.p.m. - 30 seconds

(1) Finish Cut: 1/8" single flute end mill at 40,000 rpm / 60 i.p.m. - 23 seconds

Corner sharpening: 1/16" end mill at 45,000 rpm / 20 i.p.m. - 15 seconds

Tool Change: 20 seconds

Spindle Wind-up / down: 7 seconds each

See enclosed video for more details.

### Summary of the Application:

We are able to offer the customer superb feed rates and edge finishes due to the high frequency spindle utilized in the machining. The large working volume also offers capabilities for doing multiple parts. The part was secured to a substrate by clamps and industrial adhesive tape. Pending the scope of the parts, a vacuum table system might be more beneficial for mounting. If the part was machined in a configuration of 10 parts or greater per sheet, that would greatly reduce the part per time as you can amortize the tool change over several parts. Additionally if the etched background area extended by a 1/4" more, one roughing tool path could be eliminated. We estimate the part time could be reduced to 90 seconds or better pending quality of edge surfaces required.