



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

Application Notes

Part: Timing Belt Block
Material: 3/8" thick 6061 aluminum
Machine Used: M5 - 4750
Features Utilized: Tool Change Unit
Software Used: Datron Macro Programming Software
Total Cycle Time: 117 seconds (both sides)



Machining Details:

6mm single flute end mill at 40,000 rpm /
100 i.p.m. machined grooves and perimeter

45 degree chamfering tool at 25,000 rpm /
30 i.p.m machine 1mm bevel on reverse
side perimeter edge

Summary of the Application:

The Datron M5 system was able to provide an excellent cycle time due to the high rpm spindle. The part was burr free with no secondary operation required for de-greasing the part due to the coolant used. The part was secured to a sub-plate with four machine screws with two locator pins used to register the bevel on the reverse side. The large M5 table (30" x 40") would allow larger parts to be machined or multiple fixtures could be continuously mounted, saving set-up time. A fixture could also be designed for batch production, reducing the part cycle time by amortizing the tool change time. The batch production also allows the operator more time to perform other tasks while the machine produces multiple parts. In conclusion, this part not only demonstrates the speed and efficiency of a Datron machining system but also the versatility.