



DATRON DYNAMICS, INC.
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Application Notes

Part:..... Aerospace Panel
Material: 0.235" Cast Acrylic
Machine Used:..... M5 - 4750
Features Utilized: 600 watt spindle & Tool Change Unit
Software Used:..... Surfcam
Total Cycle Time: 5 minutes & 15 seconds



Machining Details:

Tool 1 - 12mm (.47") double flute end mill
 at 15,000 rpm at 150 i.p.m.

Tool 2 - 6mm (.236") single flute end mill at
 25,000 rpm at 120 i.p.m.

Tool 3 - 2mm (.078") single flute end mill at
 32,000 rpm at 80 i.p.m.

Material affixed by double sided tape to
 PVC.

Summary of the Application:

We are able to offer an excellent solution for this aerospace application with Datron's compact, high-speed, milling system. The high frequency spindle was utilized in the intricate machining and provided an excellent cycle time with good surface finishes. The large working volume of 40" x 29 1/2" x 7 1/2" will allow the customer to affix a large sheet of acrylic to the table and "cookie cut" multiple parts at once. This will reduce the amount of operator interaction and cycle time. Also, the cycle time can be reduced by amortizing tool changes over multiple parts. In conclusion, the best testament for this application isn't just the part itself but the success of our Datron customers machining similar products.