

Vertical Machining Center G-Spec

Sept. 27th 2007



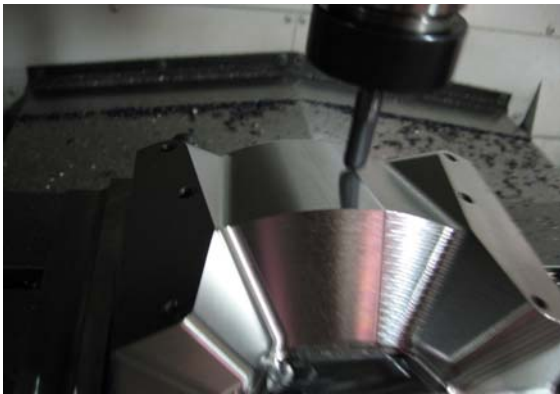
- 15K Big Plus Cat 40 Spindle
- 32ATC
- Super Nurbs
- Thru Spindle Air Blow
- Thru Spindle Coolant
- Tool Breakage Detection
- Tool Life Management

Other Options

- Renishaw Probe
- Renishaw Laser

Test Cut Conditions

Customers Haas Running part at 5 hours and 15 minutes
 Customers Program ran on MB at Hartwig with Super-Nurbs 4hr 13min
 Reprogrammed Part on Mastercam X2 ran 2hrs 15min



← OSG List 2006 Finisher

Process

- Used Mastercam X2 to create new toolpath
- Used Okuma Super-Nurbs
- Used OSG finishing tool
- Used customers Sandvik Button cutter, Ingersol Inserted E.M. and Garr tooling

Galaxy Tool asked Hartwig to do a Test cut on there part to see if we could beat the cycle time and have a better surface finish. Eugene Hendrix assisted me in the testing of this die. Galaxy sent us 2 blanks of S7 material, a 2.00 Sandvik Button cutter, 3/4 Ingersol 2 inserted E.M. and mutiple Garr End Mills. We ran there progam(Mastercam V9) with Super-Nurbs on the first Test cut. Eugene and I felt that there could be much improvement in there process as well so I reprogrammed the part on Mastercam X2, we ran it on a pc of P20 material with the same tooling. We then ran Galaxy's 2nd pc of material on the day they came to Hartwig.

For more detailed information please see Galaxy Test Cut.xls

Jason Schumacher