

Customer Spotlight

Gil Machine & Tool



Improving Productivity & Efficiency on the Shop Floor

Gil Machine is a Cimquest customer in Eastern PA and their owner, Al Gil, often recommends Mastercam to other shops. He finds it invaluable to his business and couldn't imagine operating without it. Mastercam helps him visualize his entire project so that the toolpaths are perfect every time allowing him to make superior products, quickly.

The day we visited, Al performed a roughing test with some GW Shultz end mills to measure the speeds of how quickly they could ramp into parts and remove material using Mastercam's Dynamic Motion toolpaths. His test included ramps at 5 degrees, 10, 20, 30 and 40 degrees. He was very impressed with the 40 degree ramping and surprised at the clean finish of the end part.

Gil Machine is also using Mastercam Lathe for their turning jobs. Al feels that Mastercam is the answer to making the more complicated or tighter tolerance parts. Not only does it offer the Dynamic toolpaths

to get roughing done quickly, but it also offers "bread and butter" toolpaths that you can experiment with in a timely manner. It's very easy to make changes, repost, and get back to the machine and run. He's done extensive testing of the Dynamic toolpaths and cut many different materials including plastics, steels, titanium – you name it, he's cut it and has experienced quality results.

Al also utilizes 3D printing in his business mostly to build fixtures. Instead of taking extensive time to make a complicated fixture, he now just quickly prints it. Printing even a simple fixture can save him hours of machining time and cost.

Al feels that Cimquest excels at providing their customers not only with great support, but also with new and better ways of doing things. He loves having a trusted resource who informs him of the newest technologies, ensuring that his shop stays competitive over the years.

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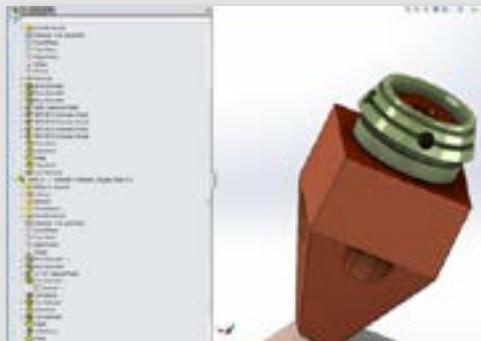
 **CIMQUEST**
MANUFACTURING SOLUTIONS

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Staying Competitive with the Latest Technologies

Mastercam For Solidworks

Gil Machine uses Mastercam For Solidworks (MCFSW) for a variety of applications. Using the advanced modeling features, Al designed a 5-axis drilling fixture for a complicated assembly. If the hole angles ever change, the fixture was built in context, allowing the toolpaths to update.



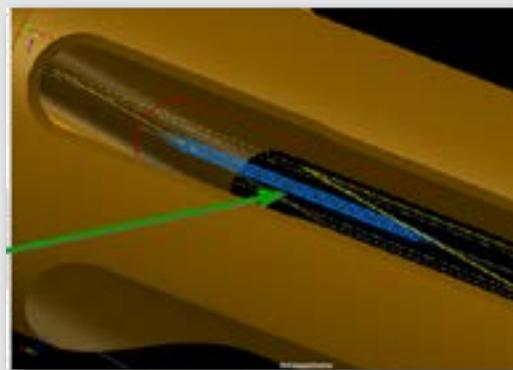
Fixture for serialized aircraft component 1/3 scale model airplane, tail wheel.

3D Printing Services

Jigs and fixtures are essential tools used in most manufacturing processes. 3D printing provides a cost efficient alternative for producing fixtures that would otherwise require machining with lengthy lead times. Al took advantage of Cimquest's full 3D printing service bureau and had us print a fixture to hold 4 stainless castings during post operations. Traditionally, this fixture was fabricated through two milling ops per casting (eight total). The 3D printed mold was printed in less than a day reducing operations from eight, down to only one.

Cimquest Post Processors

A custom Cimquest post for a Star SR-20R11 allows for complex dynamic motion in a swiss lathe. This particular part went from a build time of 9 minutes to 5. With a build quantity of 1,000, Al was able to save a total of 4,000 minutes.



Throttle Body Shaft.

Watch their story.



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