# 5th Axis, Inc. Powers Hi-Speed Machining Centers with hyperMILL® from OPEN MIND

**11** years ago in San Diego, California two experienced and energetic entrepreneurs, Steve Grangetto and Chris Taylor co founded 5th Axis, Inc. As the company's name implies they recognized that 5-axis machining would give their new company a competitive advantage and entry into demanding niche markets like Aerospace, Medical, and other challenging high-tech industries.

Now, they not only do complex precision machining to meet a broad range of custom requirements but have evolved to manufacture their own product line of 5-axis work holding fixtures.

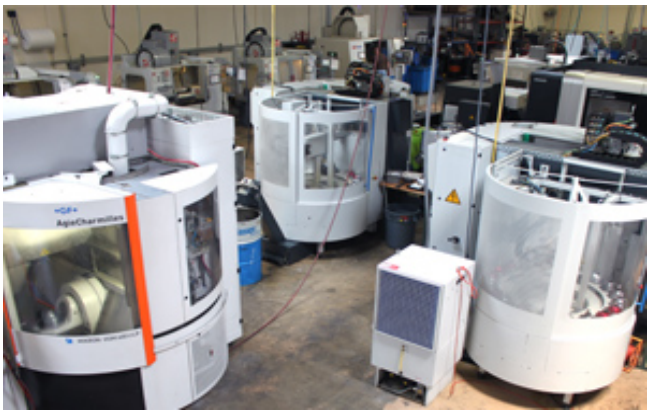
5-axis work holding fixtures are now a substantial part of 5th Axis' business.

"There weren't many good 5-axis work holding fixtures available when we started." Chris Taylor said, "So, out of necessity our team started designing and building their own fixtures. Those fixtures and work holding products matured, and we began selling them around five years ago, and now this product line is a substantial part of our business."

Chris Taylor boils down his company's philosophy into one sentence: "From day one 5th Axis' strategy has been to take advantage of the most technologically advanced software, equipment and technologies available."

Today, a walk through their bustling shop floor, lined with the best of the best 3 and 5-axis high-speed machining centers from the U.S., Germany, Switzerland and Japan, and all controlled by hyperMILL® from OPEN MIND, clearly demonstrates their commitment to this strategy. But it wasn't always this way.

Business grew dramatically over their first three years. To meet this growing demand 5th Axis began purchasing new high-speed 5-axis equipment including super fast 14,000 rpm Mikron HSM 5000U's, followed by Hermle C 30 U's, Haas VF 3 5 Axis mills and Okuma MB-5000H horizontal machining centers. But, when they did they were dismayed to find that their existing CAM software had huge shortcomings. They were faced with unexpected machining collisions and couldn't fully utilize the speed, capabilities and potential of their new high-end machines.



The best of the best 3 and 5-axis machining centers from the U.S., Germany, Switzerland and Japan, - all controlled by hyperMILL® from OPEN MIND.

**About 5th Axis, Inc.**

*"5th Axis Inc. is Southern California's leading CNC machining facility."*

5th Axis Inc. offers:

- Expert Mechanical Engineering
- Mass Production
- Rapid Turnaround
- Cost Efficiency
- Quality Manufacturing
- Customer Satisfaction

Their high-speed Five Axis CNC machines facilitate rapid and efficient machining.

> www.fifth-axis.com.

Chris Taylor and his team began looking for new CAM software for their high-end equipment, and at trade shows one of the questions they asked machine manufacturers presenting 5-axis machining demos was, 'What software did you program that demo with?' "And, without exception every single 5-axis demo, hands down, was programmed in hyperMILL®."

Encouraged by this feedback, they decided to experience hyperMILL® first hand. Chris recounts that, "We demoed hyperMILL® on a complicated 5-axis part that was giving us fits, and were very impressed by the efficient tool paths, reliable collision avoidance, and how seamlessly the software integrated into SolidWorks. The demo clinched the deal and we've been successfully using hyperMILL® ever since."

**HyperMILL® MAXX Machining- Super Fast and Efficient Tool Paths**
Jessie Norton, Director of Manufacturing and Senior Programmer has been programming with hyperMILL® for seven years and in addition to echoing Chris Taylor's praise for the hyperMILL®/SolidWorks® integration he pointed out that with hyperMILL® he is able to simulate not only the part in his fixture, but the tool, the tool holder, the spindle and the entire machine casing itself. "I can step through the tool path and watch it remove material and verify that it clears the machine and that there aren't going to be any collisions. This is an invaluable time saver since I don't have to walk out to the shop floor and manually look inside a machine with coolant flowing to check clearances."

"hyperMILL® MAXX Machining creates extremely efficient tool paths because it never air cuts, never doubles back on itself and always cuts the same amount of material by design, and it extends tool life by maintaining a constant chip load, never overloading the cutter or wearing out tools prematurely. We use MAXX Machining on materials from aluminum right up to hard materials like inconel because our high-speed machines are fast enough to keep up with the rapid tool path iterations that hyperMILL® generates. Bottom-line, using hyperMILL® MAXX Machining results in super efficient and fast tool paths."

**OPEN MIND Support - The Big Differentiator**
Chris Taylor said that, "hyperMILL® support is one of the things that really separates OPEN MIND from all other CAM software vendors on the market."

"OPEN MIND takes complete ownership of post processor development, and that's a really big deal, especially with 5-axis machining where an accurate post becomes extremely critical in avoiding crashes. The machine does exactly what we simulate on the computer screen.

"The combination of high quality tool paths and the advanced capabilities of the CAM software along with the post processor support, plus having a team of extremely skilled technical support people on call when we program very complex parts give us the confidence to take on ever more challenging jobs.
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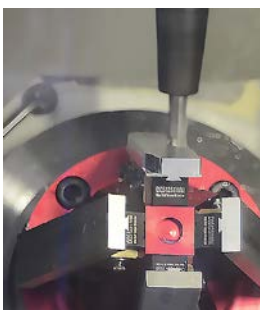
"hyperMILL®, and our excellent working relationship with the OPEN MIND team has allowed us to make aggressive decisions that have helped us grow to where we are today!"



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