



Reel Productivity – Mastercam helps renowned fly reel manufacturer compete internationally



“A lot of precision machined fly reels are being manufactured offshore now, and the only way I can compete is by using the multi-tasking mill-turn center to reduce the number of setups and handling of major reel components. The programming is considerably more complicated, but I have learned that with Mastercam X2 CAD/CAM software, we can program a Y-axis sub spindle machine just like a 3-axis or 4-axis vertical milling machine and build better products at far less cost.”

- Joe Saracione, Owner
Saracione Manufacturing Co.
Sandy, Oregon

World famous fly reel designer and manufacturer Joe Saracione has refined the design of his latest classic fly reels (the Mark IV series) so that 90% of the parts can be manufactured in a single setup.

Previously, fans of the Saracione fly reel could only purchase the product direct from the manufacturer because there was not enough margin for the retailers to want to carry the product. Not so today because Mastercam allows Saracione to produce a modern, high tech reel at prices that allow for very competitive pricing in both the retail and wholesale markets.

The Challenge

Improve manufacturing productivity so that a classic fly reel manufacturer can compete effectively in a global market place.

The Solution Mastercam Mill, Lathe, and Reseller Training



Benefits

- Mastercam training provides fast transition to more profitable multiaxis manufacturing
- Mastercam's Solids module allows for efficient designing of entire assemblies
- Fine control over toolpaths eliminates secondary operations while improving overall cosmetics and product quality

Project Details

World famous fly reel designer and manufacturer Joe Saracione has refined the design of his latest classic fly reels (the Mark IV series) so that 90% of the parts can be manufactured in a single setup on a newly acquired Doosan Puma 2000SY Mill/Turn center, equipped with Y-axis and sub-spindle.

Previously, fans of the Saracione fly reel could only purchase the product direct from the manufacturer. There was not enough margin for the retailers to want to carry the product. Not so today. The new technology allows Saracione to produce a modern, high tech reel with the classic lines and styling that he is famous for at prices that allow for very competitive pricing in both the retail and wholesale markets.

A Mastercam user since version 7, Saracione said that creating toolpaths for the 3- and 4-axis machines was second nature to him. However, he soon found creating toolpaths for his multi-tasking mill-turn system was a new challenge. After a month of trying to go it alone, he gave in and took a 3-hour training session with Tim Rowley at his Mastercam dealership, MCAM Northwest. Tim explained the configuration and post processing variations, and then a very useful and simple tool to use; the C-View Utility in Mastercam. Then things started to come together quickly for Saracione.

He said "I realized that when you break it down, it's just like working with a 3-axis machine tool. And with Solids you are able to roll back features on the solid model so you can lathe-turn, then as you progress through the solid model machining of each part feature, you roll back up through the solid exposing the different milling features as you progress. It is very powerful software and it's not all that difficult if you break it down feature by feature."

With Mastercam, Saracione designs his new reels as complete assemblies within the software's Solids module. Then each part can be separated out from the model and toolpaths created again within the solid model. Productivity has gone off the charts, particularly for parts manufactured on the mill/turn system.



For example, one critical part for the reel, the frame, required five setups and nearly an hour of total machining and handling time; 2-lathe operation set-ups and three separate milling ops. “Now we have it down to just under 20 minutes with a single setup on the mill/turn machine,” Saracione said.

He has also used the fine control of toolpaths to chamfer all edges and create smooth toolpath lead-ins and lead-outs that eliminate the need for secondary finishing operations. That translates into more times savings, not to mention a better-looking product.

Quality has also improved. There is no longer a stack-up of tolerances due to multiple setups. As a result, mating parts align with greater precision for a smoother acting reel and faster, easier assembly.

Due to his solids-based CAD/CAM system and single setup multi-axis, multi-tasking manufacturing, Saracione has driven out nearly 75% of his former manufacturing costs for comparable products. Today, the company is selling more in a month than he would previously sell in a good year.