

Aerospace toolmaker moves to PowerMILL to remove programming bottleneck

G. Parker Aero Tooling Solutions, a rapidly expanding aerospace toolmaker, has changed to Delcam's PowerMILL CAM software to remove a programming bottleneck that was limiting the company's productivity.

The company, which has been based in Accrington in the North-West of England for over forty years and is now in its second generation of family ownership, produces a wide range of tooling, including jigs and fixtures, exclusively for the aerospace industry. It has been closely involved in designing and manufacturing tooling for many of the world's most prestigious aircraft programmes, including all Airbus platforms, plus the Eclipse and Honda VLJ programmes. Virtually all of

the tooling is made as a 'one-off' so developing the most efficient machining approach for each project involves a steep learning curve.

Most of the staff are time-served toolmakers with a wealth of aerospace knowledge, and their skills and expertise are needed on almost every job. In addition, Managing Director, Mike Parker, puts a strong emphasis on encouraging direct interaction between his staff and his customers. "We have built up a detailed knowledge

of our customers' equipment so we can make tooling that will be easy for them to install and efficient for them to use," he claimed.

"We have always designed our tooling with the same CAD/CAM system that is used by most of our customers, and have been happy with that aspect of the software," said Mr. Parker. "However, we have ten machines, including several five-axis machining centres, all demanding programs. We were experiencing a serious bottleneck with our two seats

of the machining software as we couldn't supply toolpaths quickly enough."

Mr. Parker investigated a number of alternative CAM programs before deciding on PowerMILL. The software provided a complete machining package that covers all the bases for the range of projects at G. Parker Aero Tooling Solutions, plus the price was very competitive. In addition, the company was already using Delcam's PowerINSPECT inspection software and had been impressed with both

the software and the support provided.

Even though the staff have only been using PowerMILL for a few months, the effects have been dramatic. "We have effectively doubled our programming capacity with the three seats of PowerMILL because the software is so much easier to use," reported Mr. Parker.

Craig Cooke, Production Manager, had used an alternative CAM system for all his working life but hasn't found anything that PowerMILL can't do. "All four people that we have trained in PowerMILL have been very motivated. Of course, introducing new software has seen some difficulties but nothing insurmountable," he said.

A key benefit of PowerMILL for G. Parker Aero Tooling Solutions is that it is purely a machining package so it is much easier to introduce onto the shop floor. "It is much simpler to exchange knowledge between the different users because it is so much easier to use," said Mr. Cooke.

"The calculation times are around 25% faster, which, along with the ease of use, means we can generate programs more quickly," he continued. "Stock models are much easier to use in PowerMILL so we are able to reduce air cutting and shorten machining times with rest machining. We had always struggled with creating undercuts but programming for disc cutters is extremely quick in PowerMILL. The

surface finish we get now is very good; it is extremely smooth with no faceting. This has reduced polishing time by an average of 20%."

Operator Robbie Cooke has also been impressed with the Delcam software. "PowerMILL is very graphical with pictures to tell you what the system is going to do," he explained. "The measuring tools for angles and undercuts help me to choose the best strategy and cutting tools to use, while the automation in the software means that I can complete programs more quickly. I've only been using the software for a few months so the simulation tools are really valuable. They make it easy to see if you are going wrong and to put it right. They also give me the confidence to put jobs onto the machine straight away. I've already programmed all sorts of jobs – press tools, jigs, fixtures and so on. PowerMILL handles it all."

The productivity boost from introducing PowerMILL has come at an important time for G. Parker Aero Tooling Solutions. "Business is pretty good," claimed Mr. Parker. "We already have enough projects lined up to make 2016 a better year than 2015. We have plans to add more five-axis machines as they always seem to be fully booked and we will be recruiting two more apprentices. Extra training, including more PowerMILL courses, is also planned for the existing staff to make them more flexible so we are able to take on more projects."

For more details visit www.delcam.com



All machines at G. Parker Aero Tooling Solutions are now programmed with Delcam's PowerMILL CAM software

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