



## TOMCO wins more business with WorkNC



### Highlights

- A job that took three hours on the company's former CAM system can now be completed in five minutes with WorkNC.
- The speed of WorkNC's program preparation has enabled Tomco to cut lead times from one week to two days.
- The company selected WorkNC for its ease of use and the quality of its cutterpaths. The software's reputation and recommendations from other leading manufacturers were also influential.

« WorkNC is the best software we have for 3 and simultaneous 5-axis machining. Our engineers prefer it by far, and it is used much more than any of the other CAM systems we have. »

Haruki Matsui,  
General Manager Operations Department, Tomco Co., Ltd.

#### ■ High quality and short lead times

Japanese company TOMCO Co., Ltd. based in Maebashi City, Gunma Prefecture, selected WorkNC for its 3 and 5-axis programming primarily because of its ease of use. Specializing in machining complex parts such as power train components for the automotive industry and hard and brittle parts for industrial machinery applications, TOMCO prides itself on delivering high technology and high quality components with the some of the shortest lead times in the industry. Founded in 1953, TOMCO installed its first NC machine in 1973 and moved entirely to CNC machining for all operations in 1980.

#### ■ Ease of use for complex 3D machining

Haruki Matsui, General Manager Operations Department, explains the reasons why the company was looking for a new CAM system. *"The CAM software we had at the time sometimes took an enormous amount of time to create NC code, and we also needed a new system for our increasingly complex 3D machining requirements. Our main criterion was that the new system must be easy and intuitive to operate."*

The company evaluated several CAM systems, which included performing cutting trials, and chose WorkNC for its ease of use, the quality of its cutterpaths, its reputation, and because of recommendations from other leading manufacturers. Haruki Matsui says, *"WorkNC certainly met our expectations. It lives up to its claims that it is easy to use, unlike our old software, which required a lot of adjustments to its cutting strategies to achieve a satisfactory result. We also found that WorkNC's toolpath editing facilities were first class, enabling us*



*to get exactly the cutterpath we wanted very simply indeed."* TOMCO had installed a 5-axis machining centre, so the automated 5-axis programming capabilities of WorkNC were another important benefit.

#### ■ Lead time reductions & efficiency

Not only did TOMCO simplify its 3 and 5-axis programming, but it also achieved some critical lead-time reductions Haruki Matsui adds, *"A job that took three hours on our old CAM system can now be completed in five minutes with WorkNC. It has helped us to maximize our productivity and profitability by enabling us to handle more work, faster. We can also utilize our resources more effectively, spending extra time on other functions and on improving our operational efficiency."*

#### ■ Software for a Samurai

To demonstrate its technological capabilities, TOMCO used WorkNC to machine a scale model of a Kabuto, the ornate helmet worn by Samurai warriors. Collaborating with Sescoi, TOMCO engineers commenced with a 3D scan of an original Kabuto which was then manipulated in CATIA V5 ready for machining in WorkNC. Starting from a solid block they used the software's powerful roughing, semi-finishing and finishing routines in 3-axis and 5-axis to reach deep inside the part with the shortest and most rigid cutters possible.

The finished helmet now often takes pride of place on Sescoi's booth at leading international industry shows, a testament to the power of the software and the skills of the TOMCO engineers.

#### ■ Program preparation speed

The company particularly likes the automatic toolpath creation and interactive toolpath editing in WorkNC. Haruki Matsui says, *"Prototype parts demand rapid delivery, and the speed of program preparation has enabled us to cut lead times from one week to two days."* Other features which TOMCO finds especially useful include the analysis function which colour codes radii, so that the right tools can be selected from the tool library; the dynamic cross section and semi-transparent part views, which make it easy to examine complex parts; and the 3D stock model which eliminates unnecessary retract and air cutting moves.

#### ■ Error free data import

Handling large and complicated CAD files is a daily task at TOMCO, so WorkNC's ability to achieve error free import of data is very important. Haruki Matsui adds, *"WorkNC manipulates even very large files, such as the one we imported when machining the Kabuto, very rapidly and without any problems. With other CAM systems we have had problems selecting surfaces and profiles. This is not the case with WorkNC, which allows us to operate smoothly every time."*

He concludes, *"WorkNC is the best software we have for 3 and simultaneous 5-axis machining. Our engineers prefer it by far, and it is used much more than any of the other CAM systems we have. Since we installed it we have been able to greatly increase the amount and range of complex 3D machining we can undertake, it has definitely enabled us to win more business."*

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