Customer Interview: Simulation

hyperMILL®

SMART FACTORY tonasco

Tonasco is a precision machining company specializing in complex and small components for high-tech sectors such as Semicon, Optical, Medical and Diagnostics sectors. Tonasco Smart Factory is based in Malaysia and focus largely on export markets, including Europe and Japan. Since 2018, Tonasco has embarked on the Industry 4.0 journey and is one of the leading Smart Factories in high precision machining in Malaysia.
www.tonasco.com

Interviewee:
Tonasco Programming Team

CNC machines are a big investment for a business owner. How important is generating reliable NC code and running reliable simulations to you?
It is very important to us. Running a reliable NC and reliable simulation helps to reduce the probability of accidents and part rejections. Accidents can cause damage to the machine, equipment such as work holding, tools, and/or workpiece. This will be negative impact financially to repair the machine, replace equipment and to reproduce the parts. Another very important reason to do simulation is to solve as much of the problems in the CAM instead of on the work floor. This will help to improve our uptime of our machines. We do not have exact measurements for this, but we estimate that the lead time of our First Article production has improved by 30 %.

You opted for *hyper*MILL® VIRTUAL Machining to generate and simulate your NC programs. What functions or concept that drives the technology clinched it for you?
Having an all-in-one programming, simulation and optimization solution simplifies the programming workflow for us. It reduces the need to use third-party simulation software to simulate NC programs. Being able to simultaneously simulate the NC program while still working on the programming is a big advantage as it reduces extra programming work and eliminates the need to integrate different software.

When you compare the simulation solution with other systems, what does it mean when OPEN MIND talks about processing CAM information in the simulation, and what advantages does this give you?
We have experience using other simulation software, the information transfer between CAM and Simulation software in *hyper*MILL® and Virtual Machining Center is faster compare to different Simulation software.
Since *hyper*MILL® and Virtual Machining Center from same environment the information flow between CAM and Simulation is more compared to other simulation software. Example if there is deburring cycle used in *hyper*MILL®, this information will flow to Virtual Machining Center and it will detect as collision, where else in other simulation software it will be detected as collision, and we must check and ensure the collision is intentional from deburring cycle.

How long have you been using OPEN MIND's VIRTUAL Machining simulation, and how satisfied are you with it? Has the technology met your expectations?
We have been using OPEN MIND's *hyper*MILL® VIRTUAL Machining Center since June 2022, for about 7 months now. We are quite satisfied with the software, and it met our expectation.

Has anything changed in your workflows since you started using VIRTUAL Machining simulation?
Yes, simulating NC code before releasing to shopfloor became part of standard operating procedure. It applies to complex 5-axis program to simple 3-axis program, this extends to even modification made to the program during FAI stage.

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www.openmind-tech.com/en/cam/connected-manufacturing/

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