PRESS RELEASE

OPEN MIND at MACH 2022

*hyper*MILL® end-to-end CAM solution is now even more powerful

**Hall 17, Stand 440**

Wessling (Germany), February 02, 2022 – From the 4th to the 8th of April, OPEN MIND Technologies will once again be returning to the MACH exhibition at the Birmingham NEC, giving its MACH exhibition premiere to the latest version of its *hyper*MILL®CAD/CAM software*.* Version 2022.1 will incorporate more features, optimised strategies and a host of major enhancements for more powerful and simplified machine and controller independent NC programming.

On Stand 440 in Hall 17, OPEN MIND experts will demonstrate the optimisations to *hyper*MILL® *that include* enhancements to the 5-axis strategies in VIRTUAL Machining. This will provide users with better results in terms of surface quality, new options for 2D functionality as well as efficient innovations in electrode manufacturing that deliver more convenient and faster programming.

*hyper*MILL® VIRTUAL Machining is all about generating, optimising, and simulating NC code reliably through a collection of targeted solutions. Virtual Machining can be used to map all process steps in CNC manufacturing for perfect process control. The modular technology now also supports additive machining programs. The Optimizer module, which delivers powerful optimisation algorithms for efficient multi-axis machining, also features the ‘Optimized Table-Table Logic’ function for easy programming and reduced air time between cuts. The user selects a distance value, and the Optimizer automatically calculates the safety distances using the raw part, component and clamps selected in the job list.

The defined distance is maintained for all components and the movement sequences are automatically optimised. This makes the generating of ideal linking movements even easier. Also, the new feature of direct data transmission in the CONNECTED Machining module provides additional safety during tool input. Instead of the traditional manual input, the parameters are transferred directly from *hyper*MILL®to the controller.

**Seamlessly merging the virtual and real world**

The three *hyper*MILL® VIRTUAL Machining modules for the seamless merging of the virtual and real worlds form the core of the safe simulation solution. The Center module virtually maps real machining situations for the machine and controller and simulates these based on the NC code. The Optimizer module provides powerful optimisation algorithms that ensure efficient multi-axis machining. It also automatically identifies the best inclination for top machining results. The CONNECTED Machining module enables in-depth networking and synchronisation with the machine.

**Intelligent component alignment at the touch of a button**

Another tool for ensuring greater efficiency and cost-effectiveness in machining is the intelligent real-time component alignment in CAM using *hyper*MILL® BEST FIT. The unaligned component is probed on the machine using 3D probing, and the probing points are sent back to the CAM system in the form of a measuring log. *hyper*MILL® BEST FIT then precisely adjusts the NC code to the actual component position. The adapted NC code is subsequently simulated in the virtual machine on the actual clamping setup and optimised automatically.

**5-axis radial machining**

Machining strategies for 2.5D, 3D, HSC, Mill/Turn and 5-axis applications offer the ideal solution for any machining situation. In the area of 5-axis radial machining, new improvements raise the bar in blow mould machining. The new ‘Flow Equidistant’ infeed strategy is the first of its kind that supports the generation of toolpaths with a constant infeed for vertical and challenging surfaces. This means that these surfaces can be integrated into the overall machining sequence and processed in a single step to provide seamless machining with a very high surface finish quality.

New undercut detection automatically identifies undercuts and makes the corresponding machining adjustments, if desired. This means that undercut areas can now be skipped with no manual intervention necessary. As a result, users do not need to generate additional surfaces.

A dedicated 3-axis machine mode greatly simplifies the use of radial machining on these machines, and the ‘Smooth Overlap’ function can be applied to the general milling area without selecting a boundary curve. For instance, the ‘Smooth Overlap’ function blends the transitions between two surfaces that have been milled in different machining directions. This results in perfectly transition-free surfaces. To find out more, come and talk to our experts at MACH on Stand 440 in Hall 17 from the 4th to the 8th of April at the Birmingham NEC.

**Available images**

The following images are available for download in printable format at:
<https://kk.htcm.de/press-releases/open-mind/>

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| Ein Bild, das Text, Mikroskop enthält.  Automatisch generierte BeschreibungSource: OPEN MIND***hyper*MILL® VIRTUAL Machining: NC code simulation of additive toolpaths** | Source: OPEN MIND**Tool information is transmitted directly to the controller for improved safety** |
| Source: OPEN MIND**New infeed strategy delivers top surface qualities for 5-axis radial machining**  |

About OPEN MIND Technologies AG

OPEN MIND is one of the world’s most sought-after developers of powerful CAM solutions for machine and controller-independent programming.

OPEN MIND develops optimized CAM solutions that include a high number of innovative features not available elsewhere to deliver significantly higher performance in both programming and machining. Strategies such as 2.5D, 3D as well as 5-axis milling/mill turning, and machining operations like HSC and HPC are efficiently built into the *hyper*MILL® CAM system. *hyper*MILL® provides the maximum possible benefits to customers thanks to its full compatibility with all current CAD solutions and extensive programming automation.

OPEN MIND strives to be the best and most innovative CAD/CAM manufacturer in the world, helping it become one of the top five in the CAM industry according to the “NC Market Analysis Report 2021” compiled by CIMdata. The CAD/ CAM solutions of OPEN MIND fulfil the highest demands in the automotive, tool and mold manufacturing, production machining, medical, job shops, energy and aerospace industries. OPEN MIND is represented in all key markets in Asia, Europe and America, and is a Mensch und Maschine company.

You can find more information at [www.openmind-tech.com](http://www.openmind-tech.com).

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