PRESS RELEASE

OPEN MIND presents *hyper*MILL® at the Formnext exhibition and conference:

3D Printing Would Not be Possible Without Rework Machining

**Hall 12.0, Booth A39**

Wessling (Germany), 27 September 2022 – CAM and post-processing are both essential for additive manufacturing, which is why OPEN MIND will be on hand as an exhibitor from 15 to 18 November 2022 at Formnext 2022 (Messe Frankfurt, Hall 12.0, Booth A39). OPEN MIND will be showcasing its [*hyper*MILL® ADDITIVE Manufacturing](https://www.openmind-tech.com/en/cam/additive-manufacturing/) CAD/CAM solution along with [*hyper*MILL® BEST FIT](https://www.openmind-tech.com/en/cam/best-fit/), which offers an innovative way to use a digital twin.

*hyper*MILL® ADDITIVE Manufacturing opens up the flexible options available with highly complex 5-axis simultaneous machining to direct energy deposition (DED) and wire arc additive manufacturing (WAAM). The application of material can be easily programmed using OPEN MIND’s software that can be automatically simulated to avoid collisions. *hyper*MILL® can also be used to tap the potential of powder bed fusion (PBF), another additive manufacturing process. Additionally, post-processing and the removal of support structures in 5-axis machining can also be programmed in *hyper*MILL®.

**The virtual world is adapting to the real world**

Aside from the special case of hybrid machines, where additive and subtractive manufacturing are carried out in subsequent steps, only minimal alignment of a nearly finished part in the machine tool is required for remachining. OPEN MIND’s *hyper*MILL® BEST FIT revolutionizes this step to prepare for machining. Instead of having to manually align the clamped stock to the NC program using a dial gauge, control cycles, plus a great deal of sensitivity, the *hyper*MILL® CAM system automatically aligns the NC program to the component position. Based on the [virtual machine](https://www.openmind-tech.com/en/cam/nc-simulation/) in *hyper*MILL®, this method saves time and increases process reliability. The misaligned stock is probed on the machine by way of a 3D measurement, the measurement log is sent to the CAM system, and *hyper*MILL® BEST FIT adjusts the NC code to the actual position of the component. The virtual world (programming) is adapted to the real world (clamping), not the other way around! The adjusted NC code is then simulated in the virtual machine on the actual clamping setup and automatically optimized.

**Examples at the show**

To showcase its additive manufacturing solutions at Formnext, OPEN MIND will be presenting examples from the fields of medical engineering and the aerospace industry.

**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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| Source: OPEN MIND**Detailed image of the laser machining head in *hyper*MILL®.** | Source: OPEN MIND**Turbine nozzle for use in aerospace applications made with the aid of *hyper*MILL® ADDITIVE Manufacturing.**  |
| Source: OPEN MIND**Knee implants produced using additive manufacturing and post-processed with *hyper*MILL® for optimum surface quality.**  |

**Available videos**

You can find the following videos on our YouTube channel:
<https://youtu.be/TyFDUSzS4nk>

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| Source: OPEN MIND**The video demonstrates the additive manufacturing process used to make a turbine nozzle, with programming performed in *hyper*MILL® ADDITIVE Manufacturing.**  |

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 2022” 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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