hyperMILL ®

For automated
programming and efficient
manufacturing

CAM STRATEGIES

☰ OPEN MIND
THE CAM FORCE

*hyper*MILL® reduces programming and milling times

One CAM software for everything: The broad spectrum of machining strategies and optimisation features enables parts to be programmed flexibly and efficiently. Stock tracking, collision checking and avoidance, and the tool database can be used across all strategies, ensuring reliable and efficient working methods.
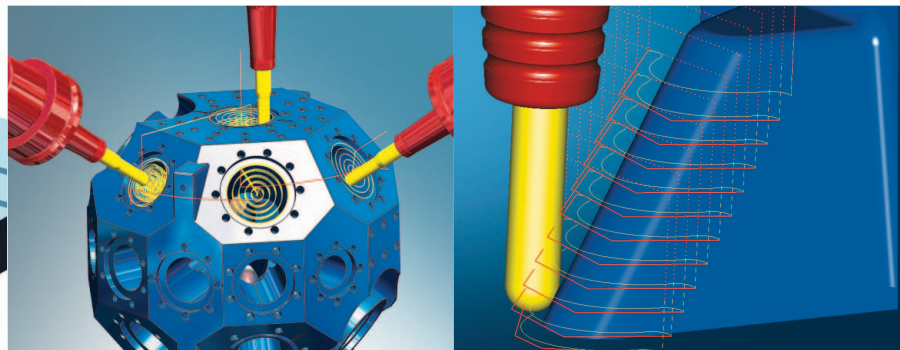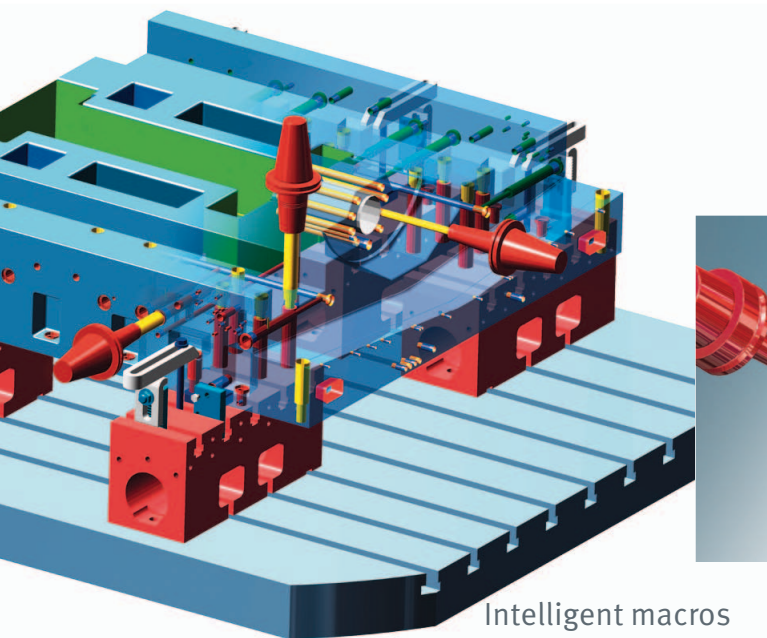
Intelligent macros
Users can save rules and conditions, on the basis of which geometry features are automatically assigned to machining steps and adjusted.

Job-Linking allows multiple job steps with the same tool to be combined into a single operation. Connections between job steps are checked for collision, without continually moving the cutter to a safety position. Job linking is available regardless of whether 2D, 3D, or 5axis machining is involved.

Production mode
The production mode reduces approach and retract movements within a job by allowing unmachined areas to be bypassed free of collisions along the shortest possible path.

*hyper*MILL® – The most comprehensive range of CAM strategies under a single interface

From 2D, 3D, HSC and 5axis milling, to mill turning and special applications, *hyper*MILL® CAM software integrates all available strategies and applications under one simple, Windows-oriented user interface. *hyper*MILL® thus makes it possible to program the complete machining of even the most sophisticated parts with just one CAM software system. And that is always an advantage to users looking for continuous processes, reduced processing times and high levels of reliability.
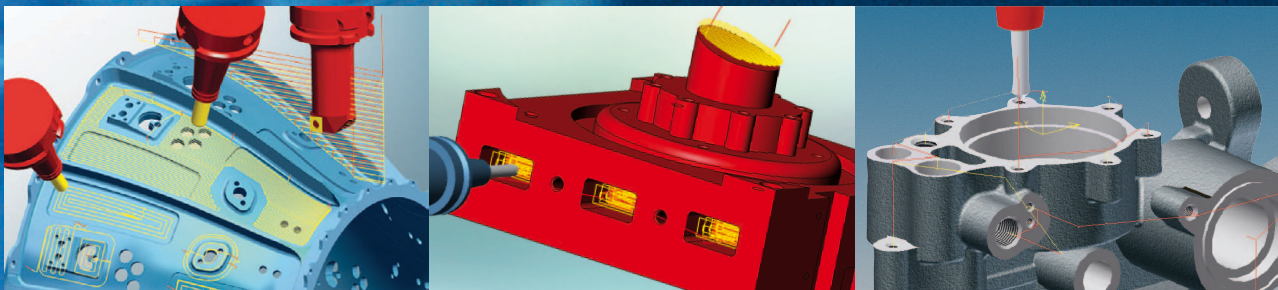
Seamlessly integrated: A completely integrated version of *hyper*MILL® is available within *hyper*CAD®, SOLIDWORKS and Autodesk® Inventor®. Direct interfaces also enable seamless data imports from CATIA V4® and CATIA V5®, PTC Creo, Siemens NX and SOLIDWORKS. Furthermore, the most common standard interfaces such as IGES and STEP... are available for data exchange.

Everything in a single user interface: Just one user interface for all strategies results in significant simplification in terms of training and daily work. The option to structure jobs based on a job list provides more transparency and helps minimise errors.

Less input time: *hyper*MILL® strongly supports automated programming and clever utilisation of existing manu-facturing know-how. Feature and macro technology ena-bles users to export existing geometry and production information from the CAD system and to edit it in the CAM system. Thanks to intelligent macros, users can save predefined rules and conditions for every stage of the machining process. Job steps are then automatically assigned and adjusted on the basis of these rules and depending on geometry information.

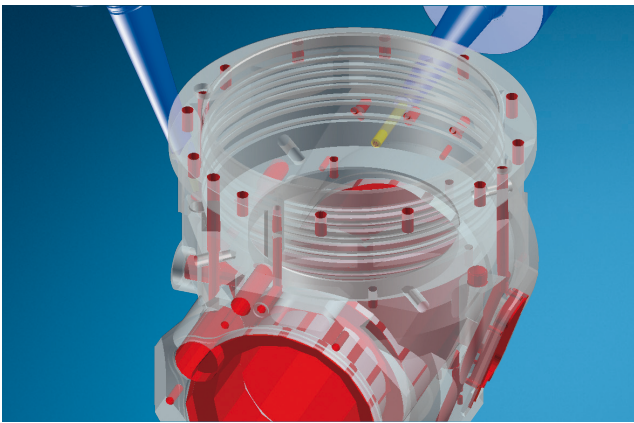**Integrated solutions for *hyper*CAD®, SOLIDWORKS and Autodesk® Inventor®**
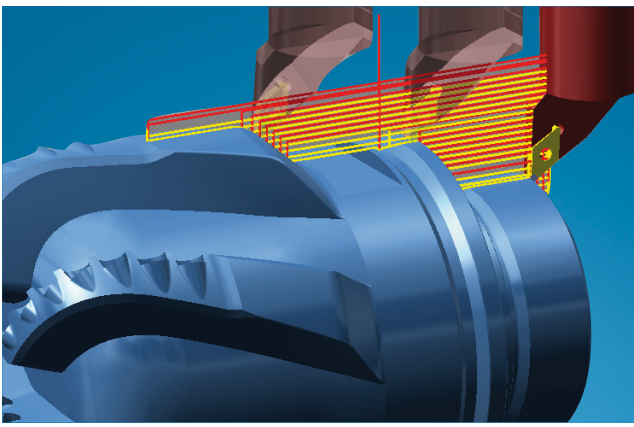
Rough turning and finish turning
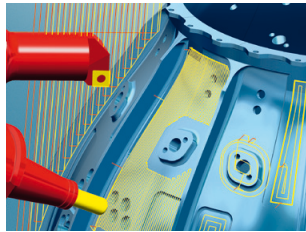
Turning with *hyper*MILL® *mill*TURN: The *mill*TURN module is completely integrated with *hyper*MILL® and allows users to freely combine milling and turning strategies in a single program. *hyper*MILL® *mill*TURN integrates turning strategies for roughing, finishing, grooving, thread cutting and drilling. Lengthwise, planar or contour-parallel roughing is possible. During finishing, various approach and retract macros enable optimised machining. Falling contours can also be taken into account.

2D-machining: Typical 2D tasks are programmed using machining strategies such as face milling, pocket machining, contour milling, rest machining, drilling and 5axis drilling. The fact that controller cycles, such as those for pocket machining, are also supported is a particular highlight of the software. Thanks to feature recognition and processing, pockets and holes can be programmed with particular efficiency. Holes can be defined as center drilling, simple drilling, drilling with chip break, deep drilling, reaming and boring, thread milling and drilling, or gun drilling.


**5axis drilling
Contouring
Rest machining**
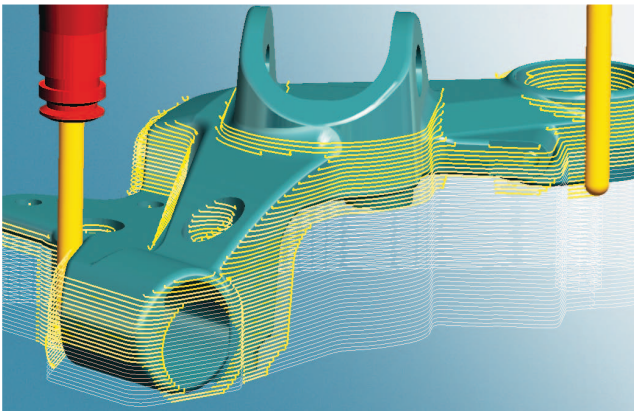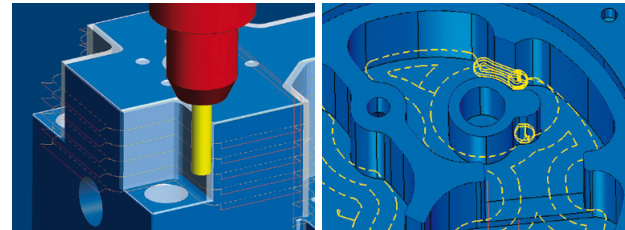
3D-machining: Simple and complex parts can be machined efficiently with 3D strategies – from arbitrary stock roughing to Z-level and profile finishing, to rest machining and special strategies such as complete or equidistant finishing. Active collision avoidance during roughing automatically helps to prevent collisions with the shank or holder. If a collision is detected, *hyper*MILL® offsets the toolpath laterally, and then continues deeper where possible. *hyper*MAXX®, a new function in stock roughing for high-performance machining, facilitates a significant reduction in milling times.

**Undercut detection
High-performance
roughing**
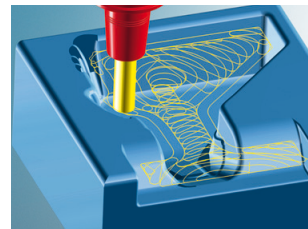
**Pencil milling
Filleting of
corner radii**
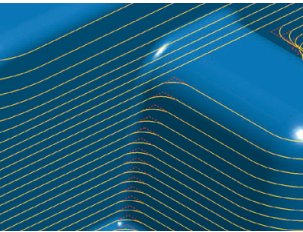
HSC with *hyper*MILL®: To respond appropriately to the strict requirements for precision, surface quality, tool life and machine dynamics, several 3D and 5axis strategies offer special functions for high-speed cutting. These include:
- Filleting of corner radii for high feedrates with continuous machine movements
- Smooth plunging and infeeding for optimal cutting conditions and tool movements between toolpaths
- Spiral or trochoidal machining jobs
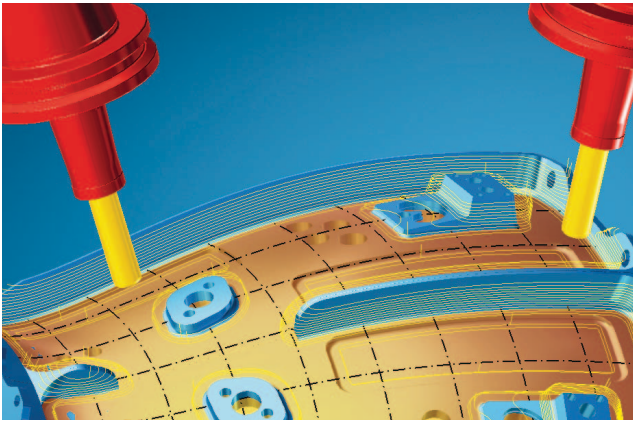
**5axis contour offset finishing
5axis swarf cutting
5-axis rework machining**

5axis-machining: *hyper*MILL® 5AXIS is known worldwide for its innovative, easy-to-use and reliable 5axis technology. Depending on the machining task and the machine kinematics, users can choose the optimal type of 5axis machining from a variety of tilt strategies, including milling with fixed tool angle 3+2, automatic indexing and 5axis simultaneous machining. *hyper*MILL® 5AXIS offers all the 3D strategies of *hyper*MILL® in addition to 5axis tool positions. A whole range of special 5axis strategies are available, such as 5axis top milling, 5axis swarf cutting, 5axis contouring and 5axis cutting edge machining.
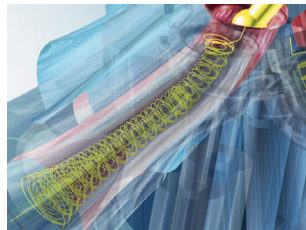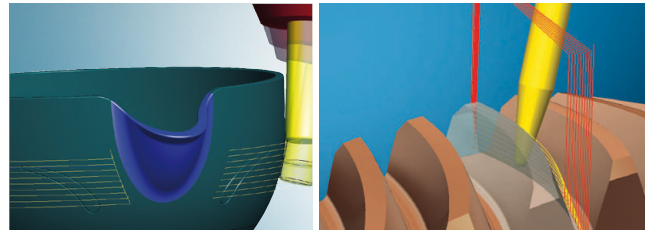
**Tube and
multiblade milling**

Special applications: Geometries such as multiblades, blisks, blades, tubes and tyres have special requirements that standard strategies cannot satisfy. With this in mind, *hyper*MILL® offers special user-friendly applications that allow users to program easily. Special functions, such as the 'rolling ball' feature for milling transition radii on turbine blades, or the simple definition for tube machining, ensure optimal machining results. The user has the entire spectrum of machining strategies integrated completely in *hyper*MILL®.

Service, support, upgrades

Together, our post-processor development, training and support divisions ensure optimal user support. The Upgrade Agreement includes regular software updates, as well as the free use of the service hotline of our branches worldwide. Please ask your OPEN MIND Technologies sales representative for more details.

Headquarters
OPEN MIND Technologies AG
Argelsrieder Feld 5 • 82234 Wessling • Germany
Phone: +49 8153 933-500
E-mail: Info.Europe@openmind-tech.com
          Support.Europe@openmind-tech.com

UK
OPEN MIND Technologies UK Ltd.
Units 1 and 2 • Bicester Business Park
Telford Road • Bicester • Oxfordshire OX26 4LN • UK
Phone: +44 1869 290003
E-mail: Info.UK@openmind-tech.com

USA
OPEN MIND Technologies USA, Inc.
1492 Highland Avenue, Unit 3 • Needham MA 02492 • USA
Phone: +1 888 516-1232
E-mail: Info.Americas@openmind-tech.com

Brazil
OPEN MIND Tecnologia Brasil LTDA
Av. Andromeda, 885 SL2021
06473-000 • Alphaville Empresarial
Barueri • Sao Paulo • Brasil
Phone: +55 11 2424 8580
E-mail: Info.Brazil@openmind-tech.com

Asia Pacific
OPEN MIND Technologies Asia Pacific Pte. Ltd.
33 Ubi Avenue 3 #06-32 • Vertex (Tower B)
Singapore 408868 • Singapore
Phone: +65 6742 95-56
E-mail: Info.Asia@openmind-tech.com

China
OPEN MIND Technologies China Co. Ltd.
Suite 1608 • Zhong Rong International Plaza
No. 1088 South Pudong Road
Shanghai 200120 • China
Phone: +86 21 588765-72
E-mail: Info.China@openmind-tech.com

India
OPEN MIND CADCAM Technologies India Pvt. Ltd.
3C-201, 2nd Floor • 2nd Main Road • Kasturi Nagar
Bangalore 560 043 • Karnataka • India
Phone: +91 80 3232 4647
E-mail: Info.India@openmind-tech.com

Japan
OPEN MIND Technologies Japan K.K.
Misumi Bldg. 3F • 1-17-18, Kichijojihigashicho
Musashino-shi • Tokyo 180-0002 • Japan
Phone: +81 422 23-5305
E-mail: info.jp@openmind-tech.co.jp

Taiwan
OPEN MIND Technologies Taiwan Inc.
3F, No. 153, Hwan-Pei Road • Chungli City 320
Taiwan, R.O.C.
Phone: +886 3 46131-25
E-mail: Info.Taiwan@openmind-tech.com

OPEN MIND Technologies AG is represented worldwide with own subsidiaries and through competent partners and is a member of the Mensch und Maschine technology group, www.mum.de

www.openmind-tech.com

OPEN MIND
THE CAM FORCE

We push machining to the limit