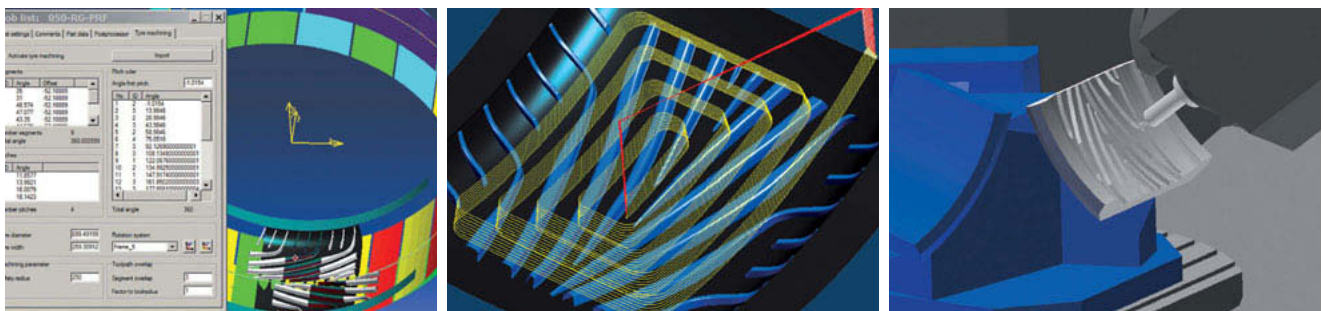


## Tyre mold: milled on a DMU 80P duoBLOCK®

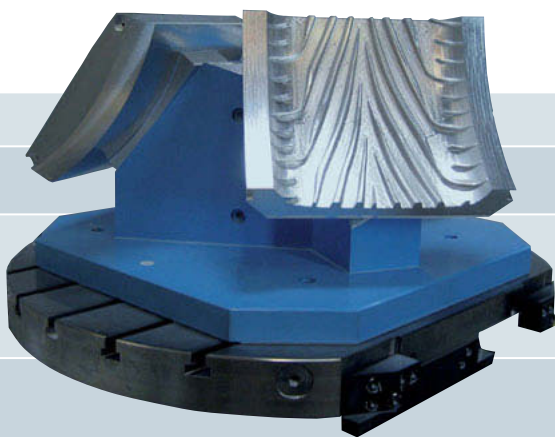
The *hyperMILL®* Tyre Package is the CAD/CAM solution for the automated manufacture of tyre moulds. It offers an efficient method for time-saving programming based on feature technology. In addition, the input masks of all 2.5D, 3D and 5-axis strategies have been extended with special parameters and intelligent functions.



**The Tyre Clock:** The tyre module in *hyperMILL®* enables the user to focus on single tyre pitches with his programming efforts and expand the resulting programs automatically to the according tyre mould segments.

**Automated updates :** *hyperCAD®-S* parametric sketching and *hyperMILL®* 5-axis Contour Machining form a template, which is automatically updated by changing the segment angle in the parameter sheet.

**Simulation and Postprocessing:** *hyperVIEW®* simulates and posts the segments to the predefined fixture positions. The tool path is automatically trimmed to the extension of every segment, in order to avoid air cut.



### Machine: DMU 80P duoBLOCK®

Main drive (motor spindle)	RPM range	up to 18.000 min <sup>-1</sup>
Workspace	Rapid traverse/feedrate X/Y/Z	60 min <sup>-1</sup>
	Traverse path X/Y/Z	800/800/800 mm
BC Head (45° Notator) Table	Clamping surface	785 x 630 mm
	Rapid traverse/feedrate	A-/C-Axis 20/35 min <sup>-1</sup>
	Max. workpiece weight	1.200 kg
	Traverse path B-Axis	-30°/+180°
Workpiece	Traverse path C-Axis	360°
	Controller	Heidenhain ITNC 530
	Dimensions	300 x 270 x 100 mm
	Material	Aluminium (AlMg 4,5)

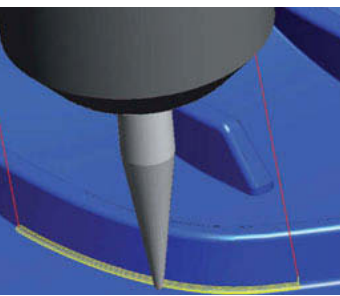


**OPEN MIND Technologies AG**  
 Argelsrieder Feld 5 • 82234 Wessling • Germany  
 Phone: +49 8153 933-500 • Fax: +49 8153 933-501  
 E-mail: [Info.Europe@openmind-tech.com](mailto:Info.Europe@openmind-tech.com)  
 Internet: [www.openmind-tech.com](http://www.openmind-tech.com)

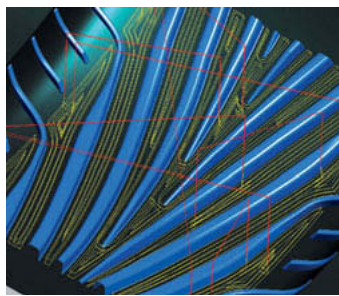


**DECKEL MAHO Pfronten GmbH**  
 DECKEL MAHO-Straße 1 • 87459 Pfronten • Germany  
 Phone: +49 8363 89-0 • Fax: +49 8363 89-222  
 E-mail: [info@gildemeister.com](mailto:info@gildemeister.com)  
 Internet: [www.gildemeister.com](http://www.gildemeister.com)

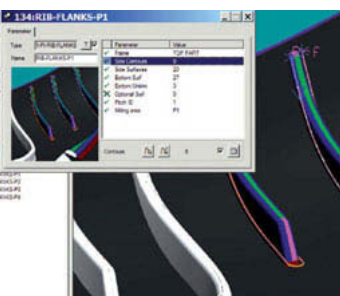
# Used *hyperMILL*® Cycle Strategies



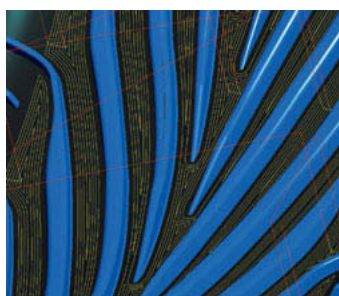
**5-axis Rest Material with conical tools** *hyperMILL*® enables the save use of conical tools and guarantees high performance cutting with a minimum of programming efforts.



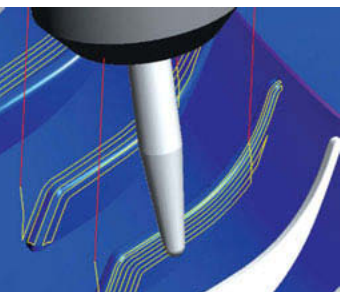
**5-axis Top Milling** 5-axis Top Milling with multi step down is generating an extremely high performing 5axis pocket roughing with little efforts on the programming side.



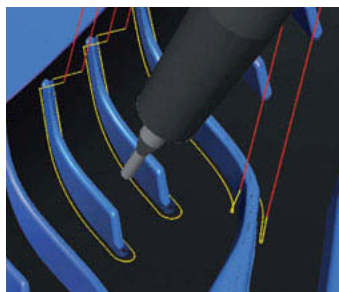
**User Defined Features** User Defined Features give the user the possibility, to automate and document the programming of similar shapes. The *hyperMILL*® macro technology keeps complex projects transparent and enables the user to perform changes in a fast and safe way.



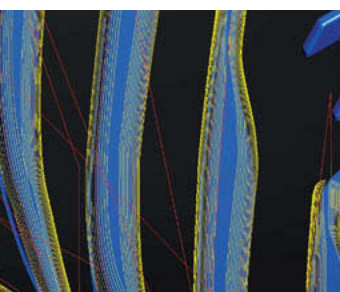
**5-axis Top Milling** With pocket options generates a super fast finishing tool path normal to segment bottom.



**5-axis Rework with automatic indexing** 5-axis Rework with Automatic indexing turns 3D equidistant tool path into multi fixed tool path. A sequence of two jobs produces an arbitrary number of indexing steps in one flow. *hyperMILL*® 5AXIS technology determines all tool inclinations automatically with collision check and avoidance.



**5-axis Swarf Machining** 5-axis swarf machining with global selection finishes side walls of ribs and according sharp bottom edges. Very high quality can be achieved in minimum machining time. The programming can be done globally on an unlimited number of walls. Side detection and contact to bottom are calculated automatically. The collision check is performs with tool, holder and spindle nose against the entire 3D Model.



**3D ISO Machining** 3D ISO Machining finishes 3D Fillets in Equidistant mode. The user interaction is very fast and easy. Non trimmed surface patches are connected automatically to be machined in one flow. Superior surface quality as result is produced in much optimized machining time.