

Broadening your horizons: Haas grinding software

multigrind[®]
horizon



Some things are easy to imagine.*



Why new grinding software?

In the past, grinding machine manufacturers' number one priority was improving the operation of their machines. Grinding software was regarded as something of a by-product. We were no different. As this was an unsatisfactory state of affairs for users, Haas changed their approach to software development some time ago. We sat down and invested a considerable amount of time and effort into the development of an entirely new grinding software. At Haas, our software is just as important to us as our Multigrind® grinding machines.

New horizons: Multigrind® Horizon

Our goal was to develop intuitive, geometry-based grinding software using entirely new software architecture. The result is a grinding software that opens up new horizons in terms of user-friendliness, transparency and performance. The name says it all: Multigrind® Horizon. This software enables users – from design engineers to machine operators – to concentrate fully on the tools and components they're manufacturing.



Multigrind® Horizon: our new grinding software is a powerful design tool.

All the data relating to our grinding machines, clamping devices and grinding wheels are stored as variables in the database, separate from the back-end and the user interface. The new grinding software uses geometry and technology to calculate the optimal grinding program and can read NC code.

Our grinding software runs directly on the machine, so the user can stay in their usual operating position and no longer has to switch to the control monitor.



* For everything else, there's Multigrind® Horizon, our new grinding software.

Hermle inside



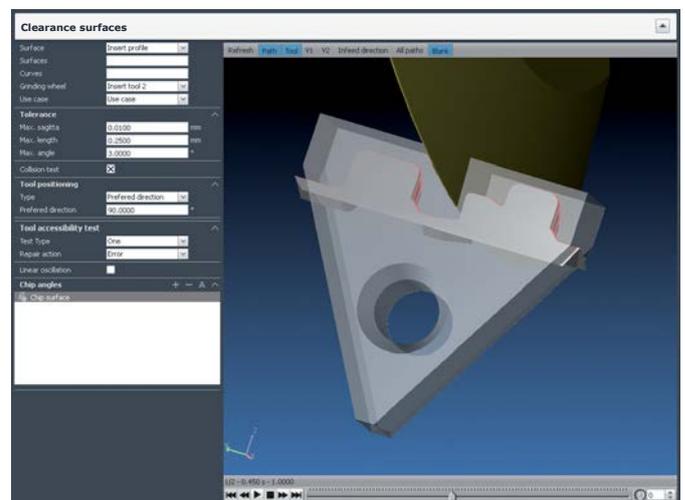
Wolfram Hermle,
Head of Software Development at Haas

Advanced software architecture, simple navigation

When you open Multigrind® Horizon for the first time, you'll be presented with a clearly arranged chess board – rather than a confusing input screen. The software's simple navigation hierarchy and standardized controls mean you can confidently move through the program one step at a time. All the most important parameters can be checked at a glance: blank, clamping system, contour, geometry, grinding operations, grinding wheels and the grinding machine. And you can directly access all relevant information.

Links and references between the parameters are visible at all times, which represents a real step forward. The analytical software and the user interface are separate, so you'll receive graphic feedback to your parameters – in real time! We've also separated the database from the back-end software; open interfaces and a modular system enable you to individually adjust your manufacturing environment.

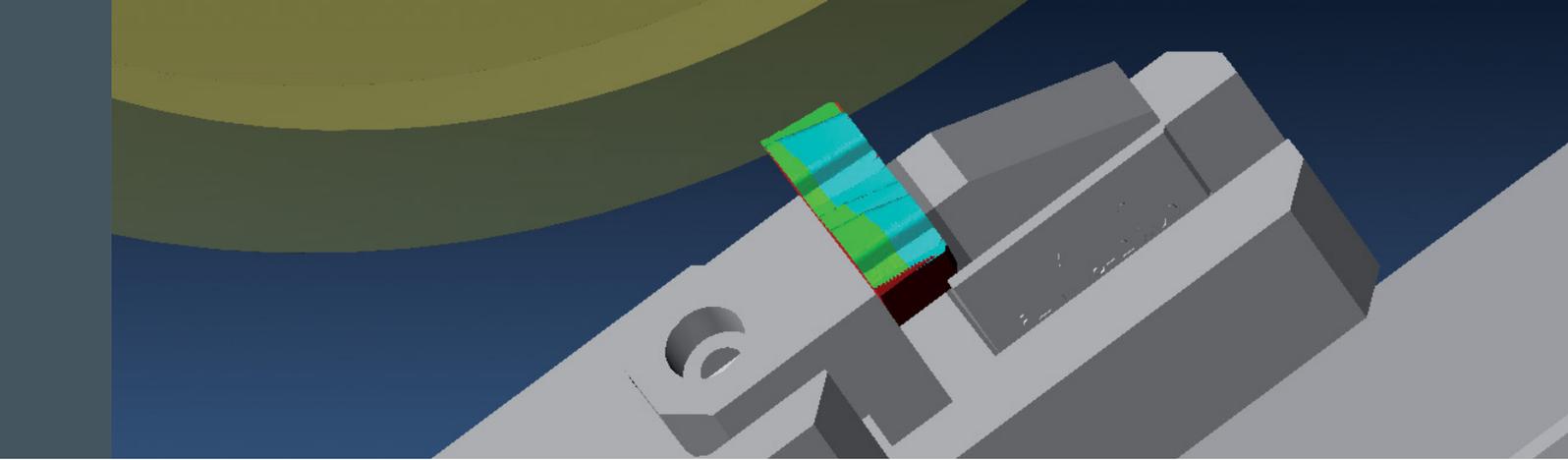
The modular architecture also means the user can alter the look and feel of the program, as well as the functions, to suit their requirements. Instead of having to program every new workpiece, they can simply call up the parameters of saved workpiece types.



An elegant rollover function enables you to quickly enlarge and minimize every mask on the chess board. All input parameters can be reviewed visually and if necessary modified and corrected.

Not only does this save time, it also ensures greater process reliability – today's grinding technology is simply too complex for the manual programming of individual workpieces. Whereas previously users just about had to have an IT degree under their belt to enjoy any success with their grinding software, the new Multigrind® Horizon enables them to focus on their workpiece. This level of user-friendliness ensures fast, transparent processes and greater cost-efficiency. Both in the design phase and on the grinding machine.

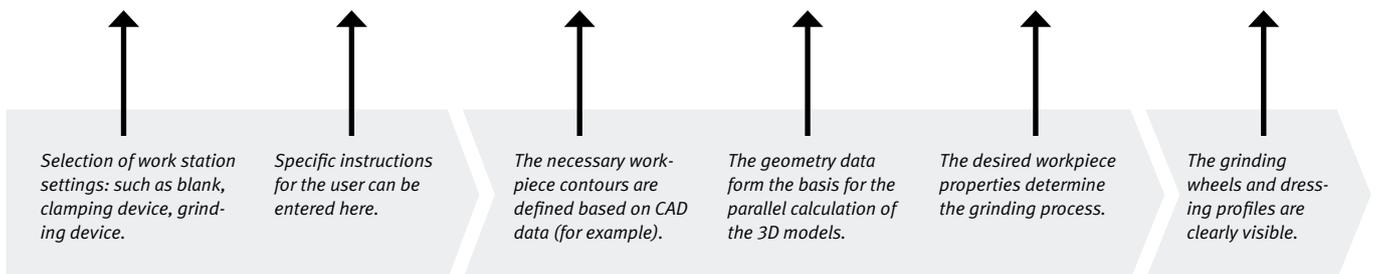
multigrind®
horizon



Example of the clearly subdivided user interface (profile insert module shown here). All necessary parameters can be accessed quickly via the input screens.

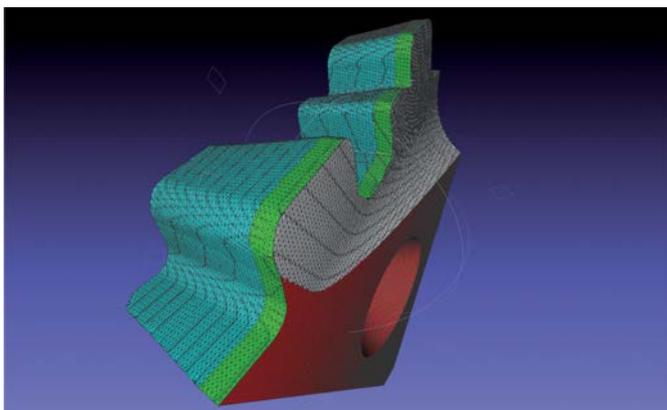
Product Insert XXM

General	Comments	Geometries	Processing	Operations	Tools available
Abstract [Screenshot]		Insert geometry Insert profile [Screenshot]	Insert clearance angle Clearance surfaces [Screenshot]	Infeeder Clearance angle [Screenshot]	Grinding wheel 14F1 Grinding wheel 14F1 [Screenshot]
Placement Insert tools [Screenshot]			Insert chip angle plane Chip surface [Screenshot]	Infeeder Chip angle [Screenshot]	Profile wheel Insert tool 2 [Screenshot]
Blank Blank PWP 25x8x26,5 [Screenshot]					Grinding wheel 11V9 Grinding wheel 11V9 [Screenshot]
Fixture Fixture PWP 3-8 [Screenshot]					Grinding wheel 1A1 1A1 Wheel [Screenshot]
					Profile wheel 1A1 round 1 [Screenshot]





Hubert Reiser,
Application Engineer



Workpiece simulations can be easily exported in a variety of CAD formats.

Grinding simulation and process visualization

In addition to the constant graphic display of all links and input parameters, Multigrind® Horizon can also produce four different simulations:

1. Grinding simulation in real time on the calculated object – visible after the entry of every parameter
2. Status simulation on the position of the workpiece in the machine
3. Material removal simulation
4. Process visualization, which shows a 3D display of data from the machine's control unit

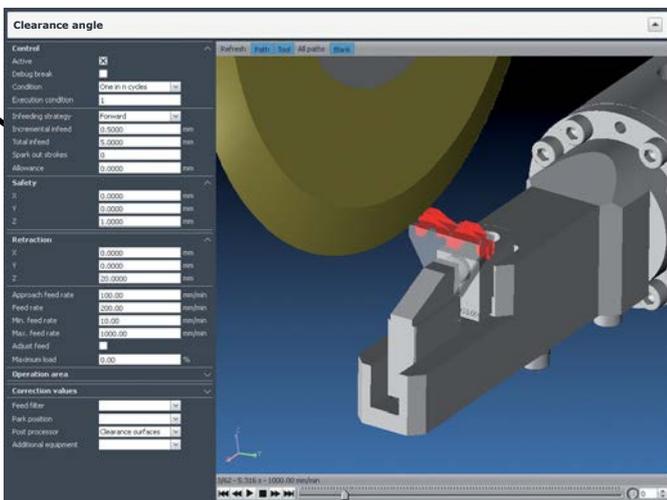
Future-proof software concept

Innovations such as multiprocessors and multi-reading technology (multiple calculations during a single process) were taken into account during the development of the new software, as were open interfaces and customizing options. Automated logging and bug tracking were included as matter of course and we also offer country-specific versions.

We look forward to showing you what Multi-grind® Horizon, is capable of and above all, how it can benefit you. If you'd like to find out more, please write to us at:

software@multigrind.com

Open your horizon!



The speed, feed, wheel position, infeeds and coolant input can be determined by clicking on a grinding operation.

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Schleifen Sie gut!