

HELITRONIC TOOL STUDIO 3 R1



**RELEASE 1
UPGRADE**

New capabilities

The current release version 3 R1 includes new possibilities for the CAD/CAM grinding software HELITRONIC TOOL STUDIO. Our customers can use the version 3 R1 for more efficiency and higher productivity to increase their competitiveness.



Grinding



Eroding



Laser



Measuring



Software



Customer Care

Walter Maschinenbau GmbH

WALTER has produced tool grinding machines since 1953. Today, our product range is supplemented by tool eroding machines and fully automated CNC measuring machines in the HELICHECK series for contactless complete measurement of tools and production parts.

Walter Maschinenbau GmbH is part of the UNITED GRINDING Group. Together with our sister company, Ewag AG, we consider ourselves to be a supplier of systems and solutions for the complete machining of tools and can offer a wide range of products, including grinding, rotary eroding, laser machining, measurement and software.

Our customer focus and our global sales and service network of company-owned locations and employees has been appreciated by our customers for decades.

HELITRONIC TOOL STUDIO 3 R1

The version 3 R1 for the grinding software HELITRONIC TOOL STUDIO extends its capabilities as one of the leading grinding software. WALTER is the expert in tool machining and inspires customers with its solutions. Plenty of new abilities gives your WALTER grinding, measuring or eroding machine new possibilities for tool machining and tool measurement.



Software

HELITRONIC TOOL STUDIO 3 R1 at a glance

Application

- Design, programming, simulation, production of rotationally symmetrical tools and production components
- Grinding and regrinding of complex tool geometries in a single clamping cycle
- Economical from batches of 1 to mass production
- HELITRONIC TOOL STUDIO with licence erosion

Software

- HELITRONIC TOOL STUDIO with integrated wizard technology (WALTER knowledge base)
- Numerous options and extensions for more features and special applications

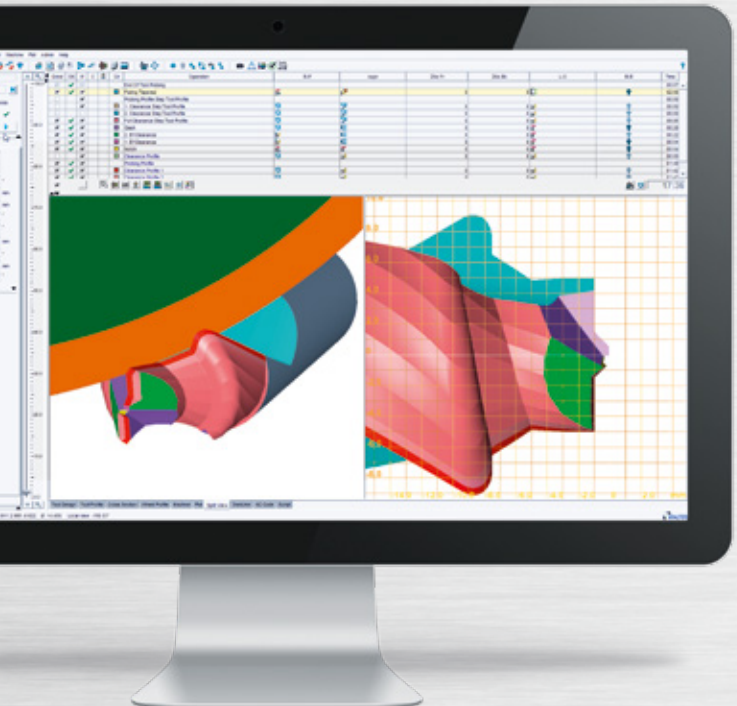
“What you see is what you grind” – this variant of Microsoft founder Bill Gates’ world-famous quote “what you see is what you get” brings the philosophy of HELITRONIC TOOL STUDIO into focus.



¹⁾ No need for a hardware extension for machines with HMC 600 control.
Machines with controls type HMC 400 and 500 require a hardware extension.

Machines

- Fully automatic CNC tool grinding machines and/or tool erosion machines from the HELITRONIC series
- Grinding machines with Andron control will still be supported ¹⁾
- Compatible with PCs and laptops with Windows XP, Windows 7, Windows 8, Windows 8.1 and Windows 10





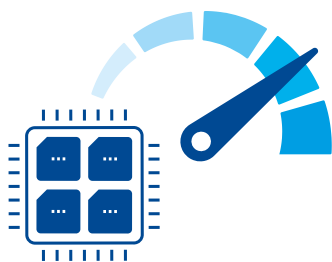
1. Online update

Overview:

- Automated update check in HELITRONIC TOOL STUDIO

Benefit:

- Get automatic notification and information about the latest upgrades and Info about new features.
- Download a actual version (patch)
- Install a new version on your own (patch)



2. Performance boost for simulation

Overview:

- Overworked multi-core support with a much faster simulation enhances a state of the art work flow
- Available as option also for HELITRONIC TOOL STUDIO 2.0/2.1
- Please see minimum software requirements

Benefit:

- Much faster parameter changes for a timesaving way of working



External calculation/
simulation on your PC
(via Ethernet)

3. HELITRONIC TOOL STUDIO Remote (new machines only)

Overview:

- Connect your own PC to your WALTER grinding machine to be independent of the FANUC control in terms of simulation and calculation speed
- Please see hardware requirements

Benefit:

- High performance option to ensure high speed simulation/calculation at any time independent of the machine control





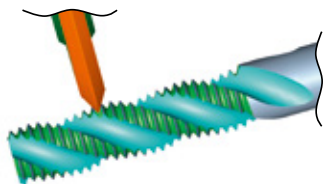
1. Pocket extensions

Overview:

- The enhancement improves the usability of pocket operations. There is now a possibility to import and grind DXF-pocket shapes. The definition of the pocket shape via "point to point" movement of the grinding pin center is also possible

Benefit:

- Additional functionality



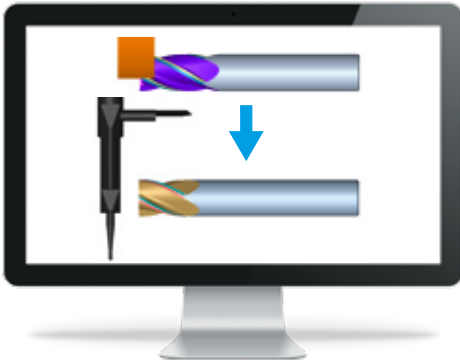
2. Thread milling cutter

Overview:

- Create, grind and probe easily a thread mill operation

Benefit:

- Time saving due to easy setup of the thread
- High quality tools due to operation linking
- Perfect positioning of the grinding wheel due to radial probing



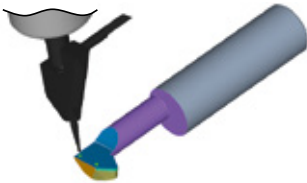
1. Cut off operation and EOT refinement

Overview:

- The new operation probes the end of the tool after the cut off operation and determines the new position of the “real” end face of the tool

Benefit:

- Time saving and user friendly grinding process without the need to correct the cut off wheels



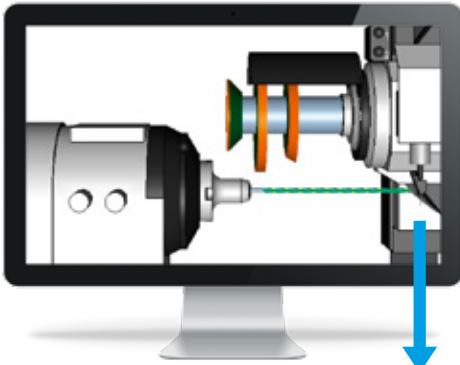
2. Probe and align asymmetric flats

Overview:

- New functionality to define probing points to a asymmetric flat, to probe the exact position for a perfect alignment of the tools

Benefit:

- Time saving due to easy and quick setup to avoid manual prepositioning of tools
- High flexibility for more usability in tool designing



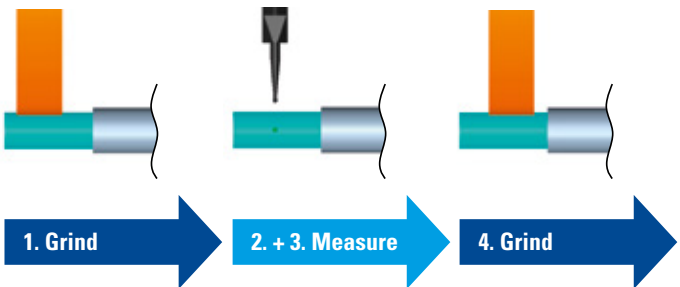
3. HELITRONIC MICRO: Probe from side

Overview:

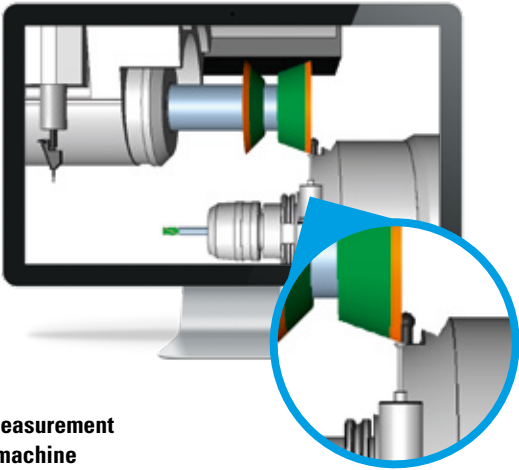
- The actual grinding length on a HELITRONIC MICRO is limited. The new probe position on c-axis 90° enhances more space for probing. The grinding length can be extended from 120 mm ¹⁾ grinding length up to ~ 200 mm ¹⁾ grinding length!
- Please see hardware requirements

Benefit:

- More flexibility and more grinding length for a extended use of the HELITRONIC MICRO



¹⁾ Depending on the application, wheel diameter etc.



4. Wheel measurement inside the machine

Overview:

- This new functionality allows the operator to probe the wheel geometry inside the machine during the grinding process. The wheel wear can be compensated automatically and will be taken for the next tool
- Please see hardware requirements

Benefit:

- Increase productivity due to on time measurement and compensation of the grinding wheels
- Higher quality due to a complete controlled grinding process

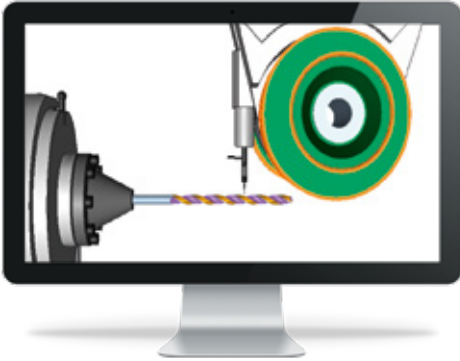
5. Diameter compensation after profile grinding

Overview:

- New operation for profile grinding with automatic compensation of the ground diameter on the same tool
- Automatic grinding and probing until target diameter is reached

Benefit:

- Time saving working process due to unmanned production



6. Core compensation for long tools

Overview:

- New option to automatically probe and compensate drill cores inside the grinding machine.

Benefit:

- Constantly high quality of every drill for max. stability and best possible function





1. Automated electrical machine axis referencing

Overview:

- The automated electrical machine axis referencing replaces the so far used manual axis referencing with an automated process. The precise positioning of the axes which works with electrical conductivity makes the measurement independent of the operator and eliminates the factor human.
- Please see hardware requirements

Benefit:

- Highest accuracy of the measuring results by precise positioning of the axes via electrical contact. Eliminates human errors
- Significant time savings of automatic operation compared to the manual measuring method
- Valuable working hours of employees can be used for other tasks
- Can be retrofitted to existing machines with FANUC control

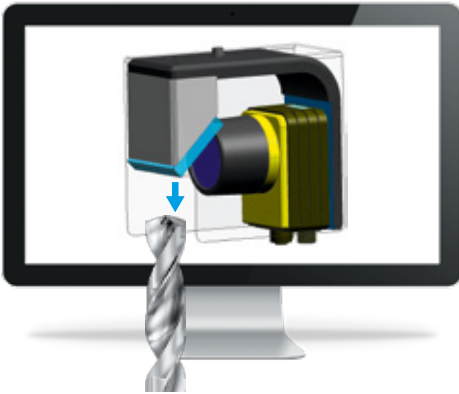
2. Wheel data interface for HELISET

Overview:

- The interface enhances the operator to measure wheel/wheelsets on a HELISET device and afterwards send and import it via data file to HELITRONIC TOOL STUDIO. Also wheels/wheelsets can be imported from HELITRONIC machines to the HELISET.

Benefit:

- Paperless work via data transfer
- Time saving and safe way of working due to less incorrect entered data by hand



3. Coolant hole detection with camera

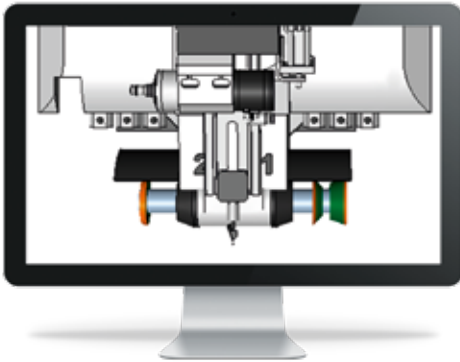
Overview:

- New camera system to detect and orientate the coolant holes according to the tool geometry on carbide blanks
- Please see hardware requirements

Benefit:

- The timesaving function is placed in the robot cell and will be executed while machine is running in process
- Due to the optical measurement on the small tools a damage of the tool tip or cutting edge is not possible. A higher quality of the tools is the result





4. HF spindle (50.000 rpm)

Overview:

- Full integration of the option "HF-spindle" in HELITRONIC TOOL STUDIO

Benefit:

- Timesaving workflow due to a perfect simulation and crash detection in HELITRONIC TOOL STUDIO

5. Top loader

Overview:

- Full integration of the option "Top loader" in HELITRONIC TOOL STUDIO

Benefit:

- Timesaving workflow due to a perfect simulation and crash detection in HELITRONIC TOOL STUDIO



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