HELITRONIC TOOL STUDIO 2.1 R1

RELEASE 1 UPGRADE

New capabilities

The current release version 2.1 R1 includes new possibilities for the CAD/CAM grinding software HELITRONIC TOOL STUDIO. Our customers can use the version 2.1 R1 for more efficiency and higher productivity to increase their competitiveness.

WALTER


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 2.1 R1

The version 2.1 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 2.1 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

Software

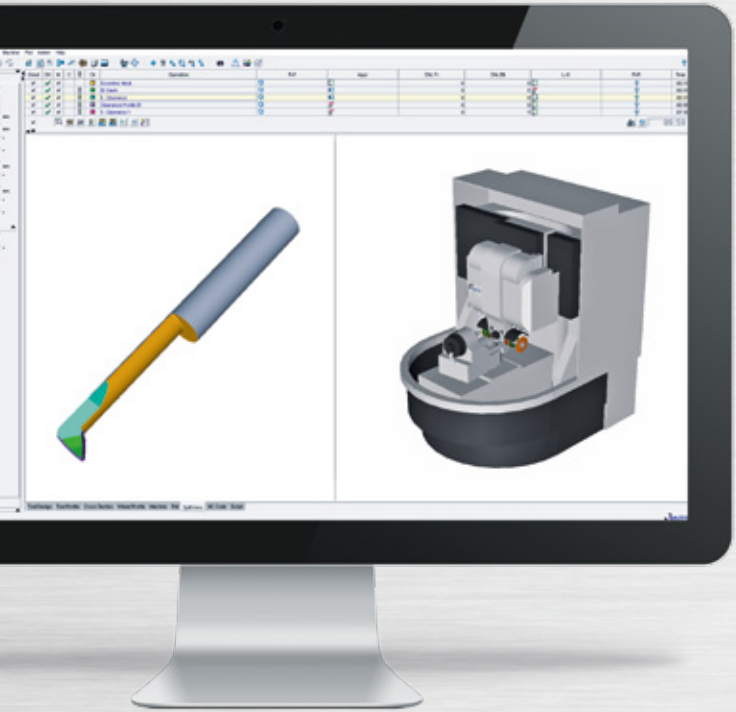
- HELITRONIC TOOL STUDIO with integrated wizard technology (WALTER knowledge base)
- Numerous options and extensions for more features and special applications

"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 and Windows 8.1



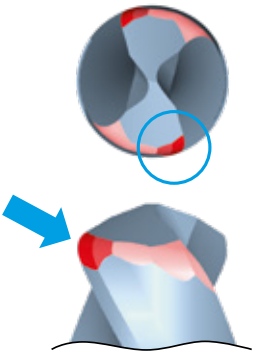
1. Combination necking eccentric

Overview:

- Preconfigured set of grinding moves to grind tools with eccentric necks

Benefits:

- Enhanced functionality of existing operation



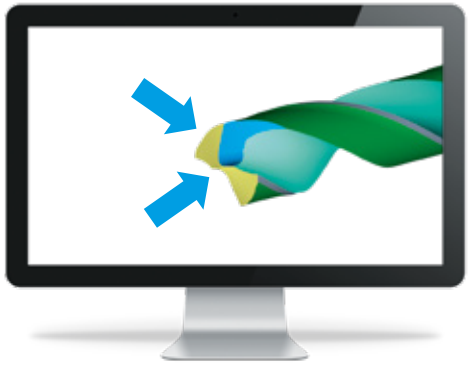
2. Corner radius for drills

Overview:

- New wizard page to select corner radius
- Available in drill and step tool wizard

Benefits:

- Easy way to add and configure corner radius on drill tips. Approach and lift-off options for smooth blending



3. New enhanced drillpoint grinding

Overview:

- New grinding method for drillpoint

Application area:

- Large point angles 60 – 160°
- Large clearance angles 0 – 16°
- Large gashout angles 30 – 80°

Benefits:

- New grinding method for drillpoints with conical face polishing

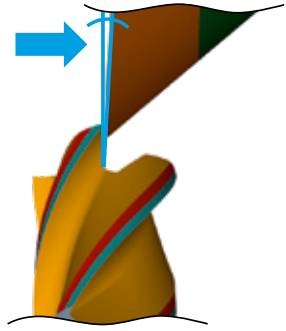
4. Grinding the flute at the end face with the grinding wheel radius

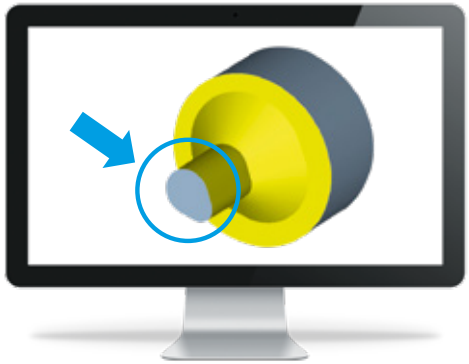
Overview:

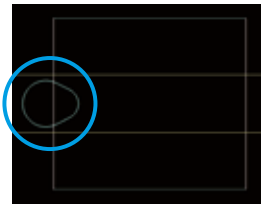
- Use of the approach angle to grind the fluting end face

Benefits:

- Better surface quality







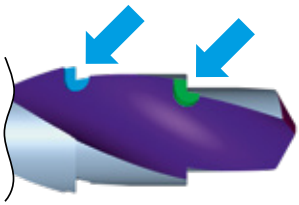
5. Profile preforming cross section

Overview:

- Operation for profile grinding a closed DXF profile

Benefits:

- Extended flexibility and perfectly suitable to design special clamping profiles, e.g. at tool tips



6. Seat pocket operation

Overview:

- New option to define seat pockets according to parameter input in HELITRONIC TOOL STUDIO

Benefits:

- Time saving due to easy parameter input (“Flexprog” not needed)
- Flexibility due to different design types

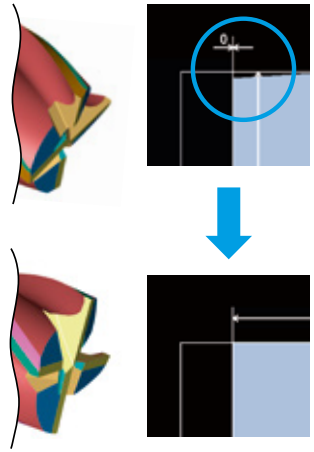
7. Combination of base operations

Overview:

- Possibility to intersect a profile clearance angle operation with two base operations. This picture shows a profile clearance angle operation intersected with an end face and fluting operation.

Benefits:

- More flexibility in tool designing
- Easy handling
- Simulation is according to grinding result. No probing required to get a proper simulation result



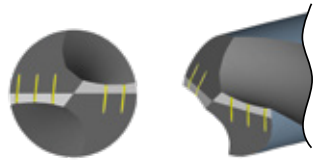
8. Chip breaker for drills (operation)

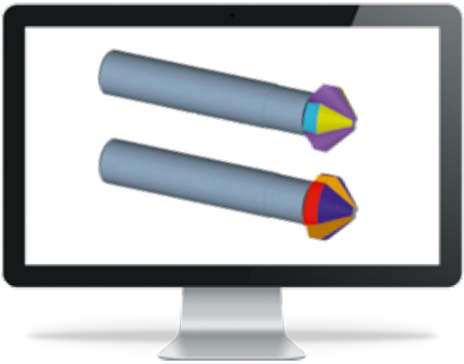
Overview:

- Add chip breaker operations for drill tips to easily define the tool tip for your purposes

Benefits:

- Enhancement on drill tips for more flexibility





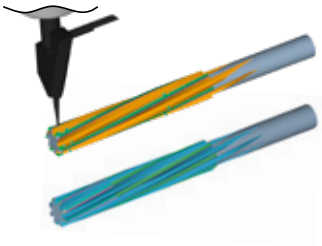
1. New countersink wizard

Overview:

- New wizard for countersinks
- Types:
  – Fan gash
  – Axial gash

Benefits:

- Ability to grind additional family of tools



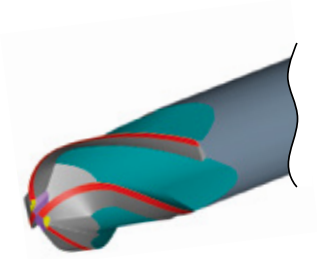
2. Enhanced reamer wizard for regrinding

Overview:

- New regrinding option in wizard
- New reapply wizard

Benefits:

- Ability to regrind reamers



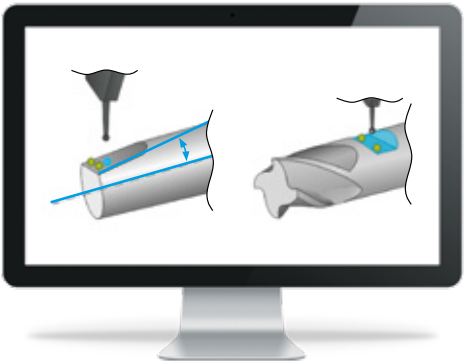
3. Wizard option for bullet nose tools

Overview:

- Create bulletnose tools in the HELITRONIC TOOL STUDIO wizard

Benefits:

- Easy configuration of special radii tools therefore time saving



1. Probing align flat

Overview:

- Probe and align the position of a flat/surface on the tool horizontal.
- Probing direction is from top

Benefits:

- Extended functionality for tools like knives or tools to align relative to a flat surface

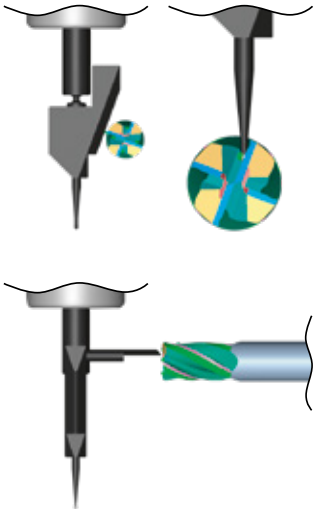
2. Smartprobing

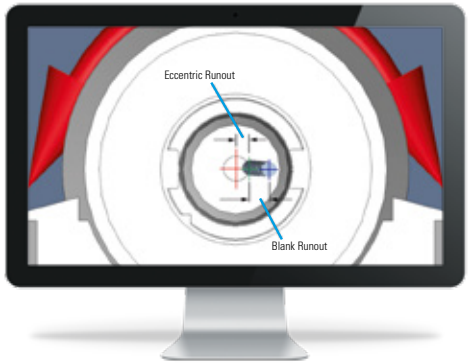
Overview:

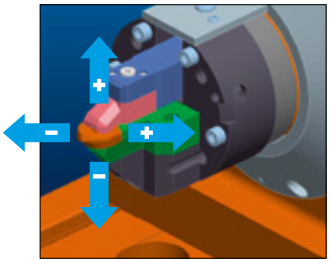
- Probe and record parameters of the tool with integrated probe
- For regrinding of endmills
- No manual input of actual parameters necessary

Benefits:

- Simplifies regrinding of endmills







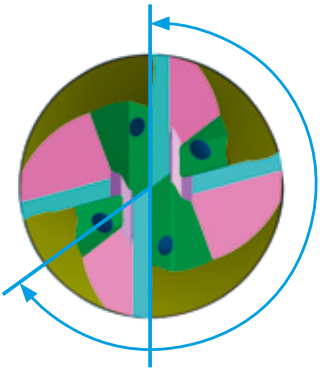
3. Eccentric runout probing and compensation

Overview:

- Probe and/or enter eccentric runout of a tool/blank
- Compensate eccentric runout

Benefits:

- Grinding of tools with major eccentric runout errors when clamped within the required runout tolerance range



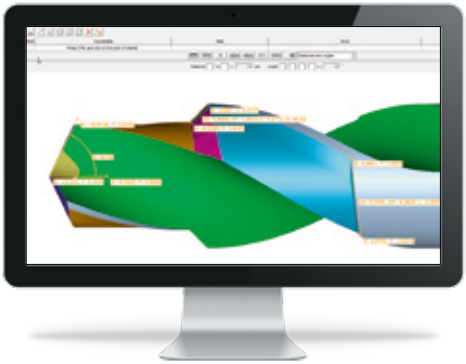
4. Measure unequally indexed coolant holes

Overview:

- Probing and alignment of unequally indexed coolant holes on the blank

Benefits:

- Allows grinding of tools with unequally indexed coolant holes



1. Onscreen measurement extensions

Overview:

- Additional 2D-onscreen measurement options
- Transmitted-light-like measurement

Benefits:

- Extension of additional functionality
- Quick inspection of tool geometry

2. Detailed status in batch manager

Overview:

- Display the detailed status of grinding and IMS in batch manager list view

Benefits:

- Quick overview of status of loader batch

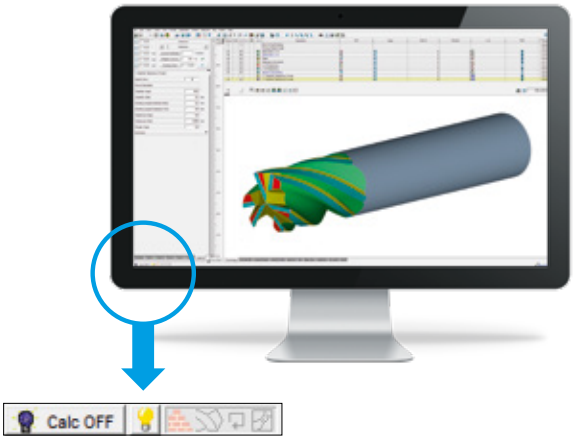
3. Enhanced batch editor

Overview:

- Edit or create new batch jobs while another batch job is running

Benefits:

- Time saving due to parallel preparation of loader jobs



4. One button update/delayed update mode

Overview:

- Parameter change without live simulation
- Simulation is visible and tool can be completely zoomed, turned or rotated

Benefits:

- Timesaving due to multiple parameter change

5. Auto-save functionality

Overview:

- Save the IDN automatically
- Auto-save interval is adjustable

Benefits:

- Prevents data-loss in case of crash or power failure
- Accidental save of the IDN can be reverted

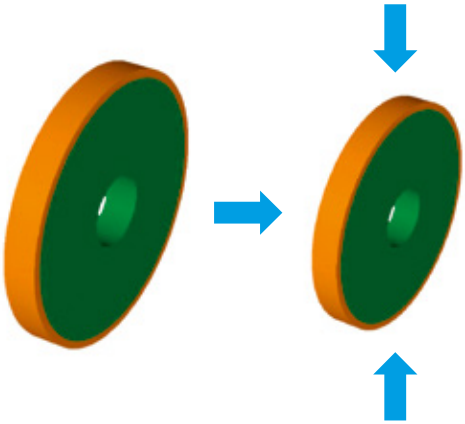
1. Wheel correction over parts or wheel usage

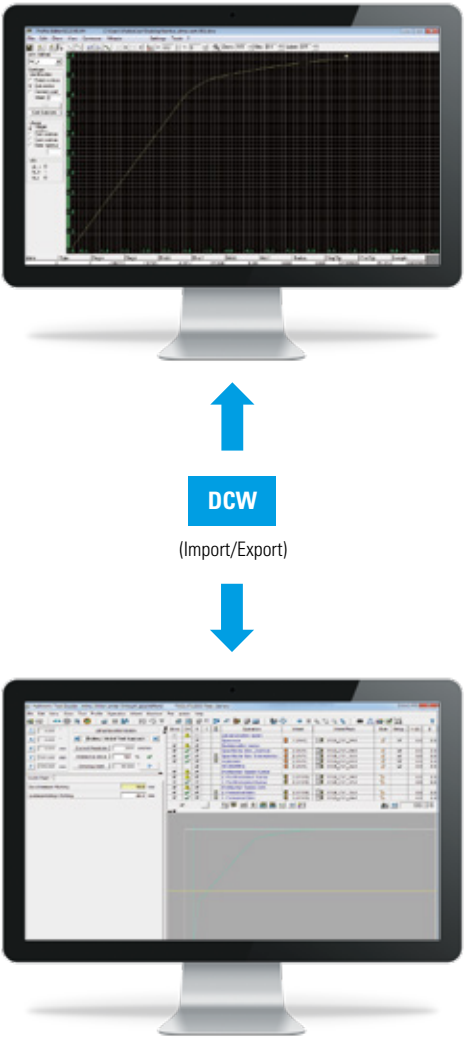
Overview:

- Correct the diameter and/or length of the grinding wheel depending on
  – wheel usage (meter) or
  – number of parts ground

Benefits:

- Automatic correction of wheel wear based on empirical values





2. WWM – Profile interface (FTC)

Overview:

- Import/Export of profiles in WWM-Format (DCW)

Benefits:

- Corrected profiles from HELICHECK can be used in HELITRONIC TOOL STUDIO (convex, no sharp corners)

3. Process analyzer

Overview:

- Visualization of probing results:
  - Tool length
  - Runout
  - Tool diameter
  - A-Position
  - Calibration
  - etc.

Benefits:

- Fast overview over the last probing results
- Possibility to save the results
- Possibility to open older runs

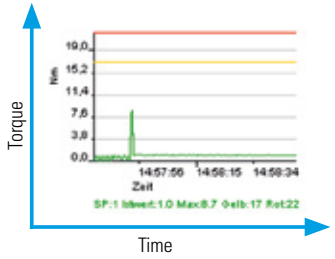
4. Spindle torque as graphic view

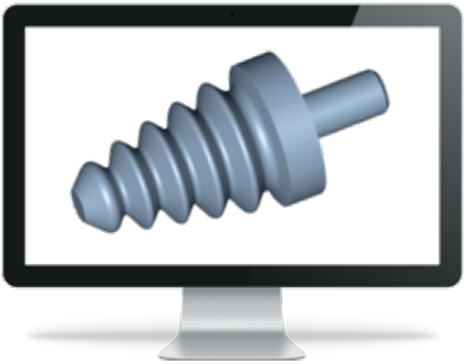
Overview:

- New graphic view to track the spindle torque according to the grinding time

Benefits:

- Better and more detailed overview of the spindle torque





5. Improved simulation for special blank types

Overview:

- Optimization of the actual blank view for a perfect simulation of any blank profile

Benefits:

- Better display quality for optimized blank simulation

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