

numroto®
Total solution for tool grinding

News - Presentation

GrindingHub in Stuttgart 05. - 08.05.2026

New features in NUMROTO 5.1.0 – 5.2.2

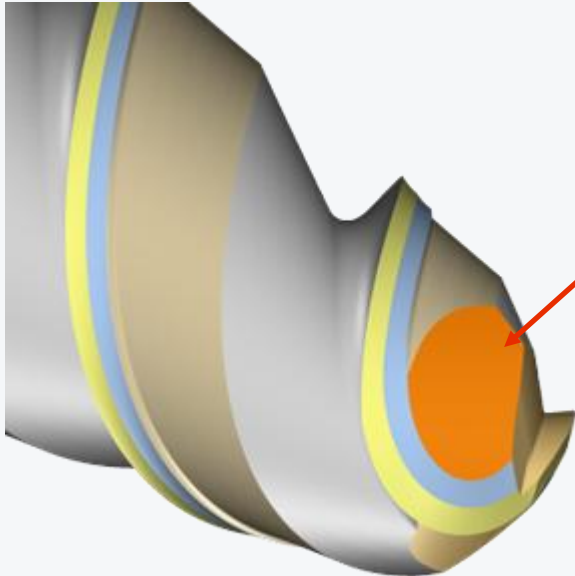
numroto



- End mills
- Drills / Step drills
- Form cutter
- 3D-Simulation
- NR-Draw
- Other topics
- Planned innovations 5.2.2
- Planned innovations > 5.2.2

Ball clearance 5.1.0

- New operation 'Ball clearance'.
- Optimally adapted to the chamfer of the reference relief.
- Straight clearance (surface) or clearance with radius of curvature selectable.
- Swivel angle selectable or automatically according to number of teeth and helix angle.



Tip/Ball clearance

Geometry

Wheel

Feedrates

Cycles/Infeed

Increments

General

Modifications

Change positions

Grinding position

Cooling Valves

Division/Helix

ISO disengagement program

ISO program

Swivel angle: 24.00000 ° A

Radius of curvature: 24.00000 mm

Engagement length: 2.40000 mm

Grinding length: 9.60000 mm

Relief width correction: Center 0.00000 Cylinder start 0.00000 mm

Grinding point offset: calculated mm A

Correction of grinding point offset (per tooth group):

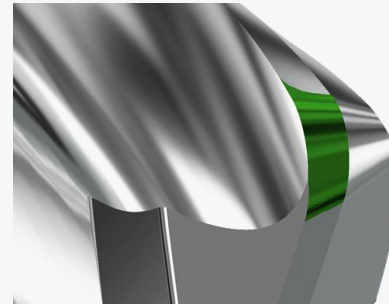
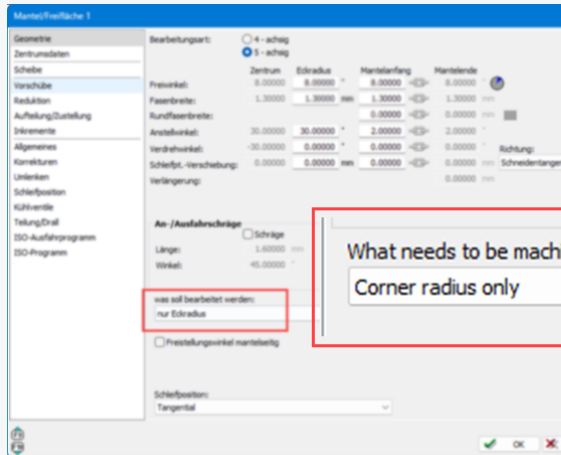
1 0.10000 2 0.30000 mm

Reference relief: 6 Cylinder/Relief 2 A

- A custom increment for the ball clearance operation. (5.1.1)
- The calculation of the grinding point offset has been optimized. (5.1.1)
- You can now manually adjust the grinding point offset relative to the default value. (5.1.1)
- You can program a correction for grinding point offset (per tooth group). (5.2.0)
- The default values for the engagement and disengagement distance are calculated more accurately. (5.2.1)
- For ball clearance, you can now program a relief width correction at the center and the cylinder start. (5.2.1)

Corner radius relief: grind ,corner radius only‘

- As an alternative to grinding the relief of a corner radius cutter in one go (from the center to the shank), the following cutting division is now possible:
 - Relief ‘Cylinder only‘
 - Manual tip relief (Machining direction ‘from outside‘)
 - Relief ‘Corner radius only‘
- Can be an advantage for tools with a tightly toothed tip geometries.



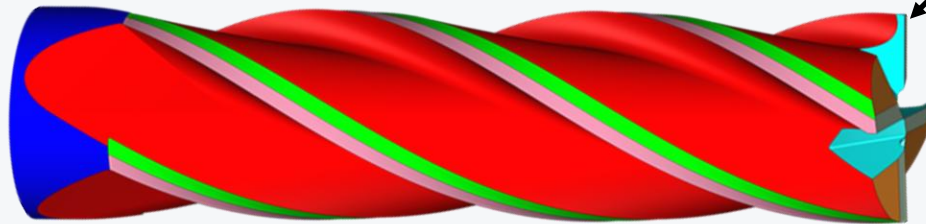
Grind into flute along length 5.1.1

- For end mills with a programmed tip rotation angle, the grind into flute along length is now also displayed.

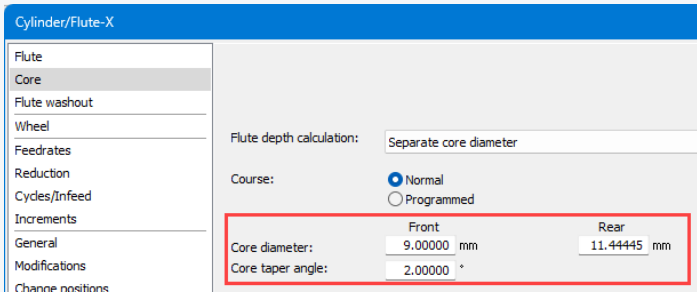
Geometry

Cylinder geometry		
Teeth		
Blank		
Info		
Protection		
Attachment		
Clamping		
Pass over		
Increments		
CNC		

Cutting edge length:	<input type="text" value="35.00000"/>	mm
Outside diameter:	<input type="text" value="10.00000"/>	mm
Core diameter:	<input type="text" value="9.00000"/>	mm
Taper (\varnothing):	<input type="text" value="0.00000"/>	mm/100mm <input type="text" value="0.00000"/> °
Dish angle:	<input type="text" value="1.00000"/>	°
Tip rotation angle:	<input type="text" value="3.30797"/>	°
Grind into flute along length:	<input type="text" value="0.50000"/>	mm

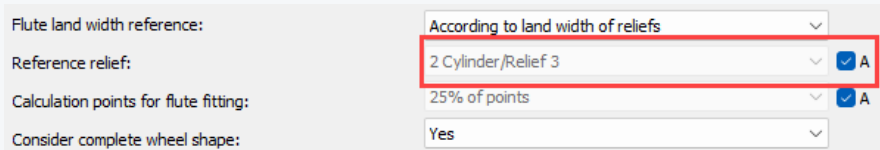


- The separate core diameter can now also be defined using the core taper angle and the ‘front & rear’ core diameters. (5.1.1)



The screenshot shows the 'Cylinder/Flute-X' configuration window. On the left is a navigation menu with options: Flute, Core, Flute washout, Wheel, Feedrates, Reduction, Cycles/Infeed, Increments, General, Modifications, and Change positions. The 'Core' option is selected. The main panel shows 'Flute depth calculation' set to 'Separate core diameter' and 'Course' set to 'Normal'. A red box highlights the 'Core diameter' and 'Core taper angle' fields. The 'Core diameter' field has two sub-fields: 'Front' with a value of 9.00000 mm and 'Rear' with a value of 11.44445 mm. The 'Core taper angle' field has a value of 2.00000 °.

- If the selected reference relief is deleted, the next available relief is automatically used as the reference relief, provided that the corresponding auto-select option is enabled. (5.1.1)

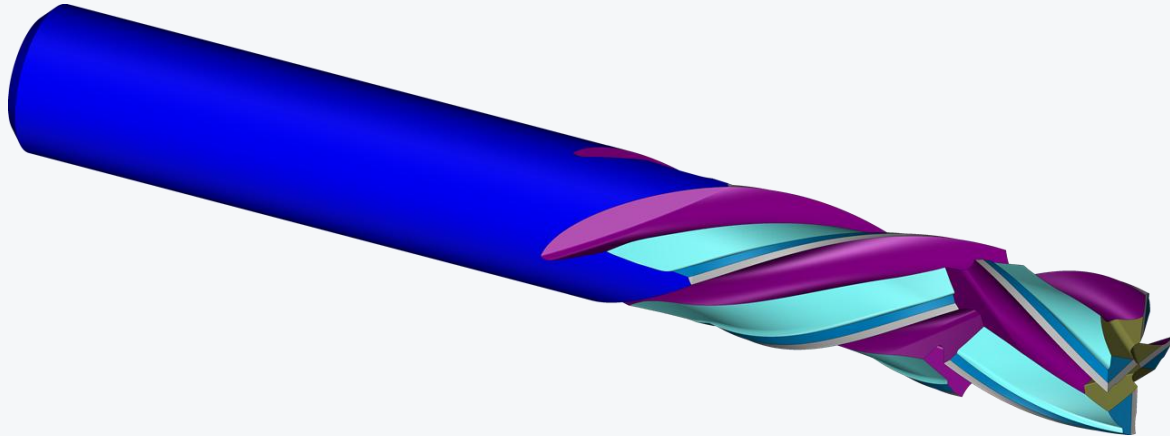


The screenshot shows a configuration panel with four settings. A red box highlights the 'Reference relief' dropdown menu, which is set to '2 Cylinder/Relief 3'. To the right of this dropdown is a blue checkmark and the letter 'A'. The other settings are: 'Flute land width reference' set to 'According to land width of reliefs', 'Calculation points for flute fitting' set to '25% of points' (with a blue checkmark and 'A' to its right), and 'Consider complete wheel shape' set to 'Yes'.

- When creating an XML file, the flute-X is also included in the XML (if available in the program). (5.2.0)

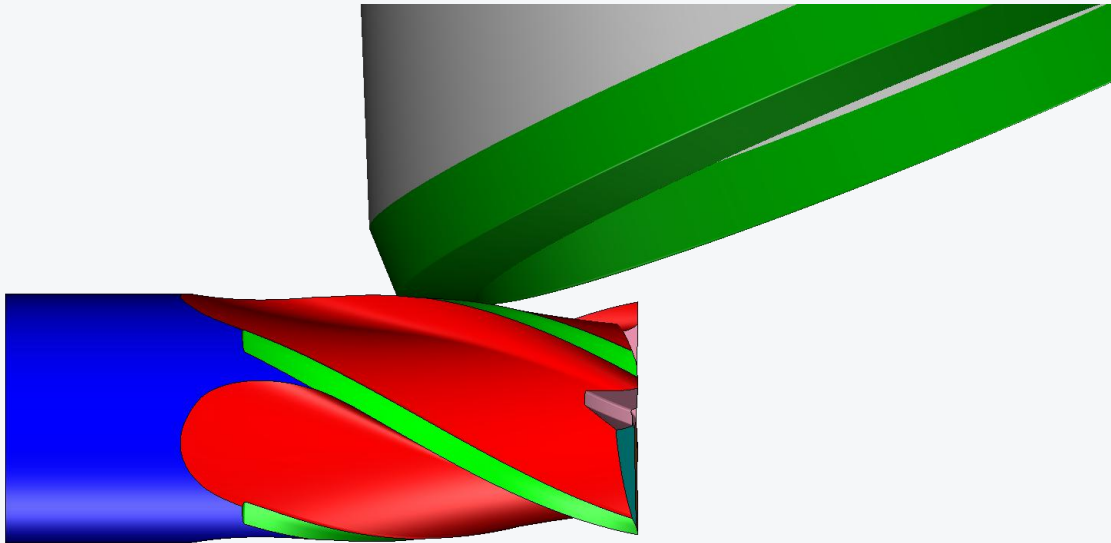
Up & Down End mill innovations 5.2.0

- With the up-down cutter, the cutting edge length of both helices can now be probed. (5.2.0)
- The rotation angle before the probing applies to helix 1 and helix 2. (5.2.0)
- The automatic calculation of the flute length modification works correctly if the sign of the start angle changes based on the probe result. If this is the case, the left flute length modification is reset to 0 when the sign changes from negative to positive. (5.2.0)



Other innovations End mill 5.0.1 – 5.2.1

- For end mills , the increments for 'flute washout intermediate points' are now included in the default values and in the operation itself. (5.2.1)
- The side distance is scaled when the diameter changes.(5.1.1)
- Wheel type 11V5 is now also suitable for radial reliefs. (5.0.1)



New features in NUMROTO 5.1.0 – 5.2.2

numroto



- End mills
- **Drills / Step drills**
- Form cutter
- 3D-Simulation
- NR-Draw
- Other topics
- Planned innovations 5.2.2
- Planned innovations > 5.2.2

Diameter probing at several points with automatic compensation 5.1.1

- Just like the core diameter, the tool diameter can now also be probed at multiple points.
- This new function is only available for drills within the Straight-line and Form Grinding operations.
- To be able to probe at multiple points, 'measuring in process' and the 'modify diameter' checkbox must be enabled.
- If these conditions are met, the checkbox "Measure at several points according to diameter correction" appears under 'Probing'.

The image displays three screenshots of the NUM software interface, illustrating the configuration for diameter probing at multiple points.

Left Screenshot: CG Diameter 1/Straight-line grinding

- Geometry: Range / Direction
- Wheel
- Feedrates
- Cycles/Infeed
- Tool spindle
- General
- Modifications
- Change positions
- Grinding position
- Cooling Valves
- ISO program

Corrections (related to machine)

Transversal modification: 0.00000 mm
Vertical correction: 0.00000 mm

Grinding time correction: 0.0 s

Modify diameter Diameter modifications...

Middle Screenshot: Course of β -Modification

Calculation method: Ramp

Automatic correction points for edge drop
 Split distance evenly
 Define correction course

Points	Distance from	β -Modif. [μ]	Diameter
1	0.00000	0.000	10.00000
2	8.00000	0.000	10.00000
3	16.00000	0.000	10.00000
4	24.00000	0.000	10.00000
5	32.00000	0.000	10.00000
6	40.00000	0.000	10.00000

Right Screenshot: CG Diameter 1/Straight-line grinding

Measurement task: Diameter

Number of tools @ execution: 1 (only for loader operation)

Measure at several points according to diameter correction

Rotation before measuring: 2.00000 Add start angle correction

Modification of probe result: 0.00000 mm

Probing procedure: Probe shank

Measure on both sides (caliper gauge)

Retract talstock before probing
 Retract support before probing
 Retract steady rest before probing

Probe tool position

Clamping length
 Circular offset

Probe now...

Infeed 'Wheel axis' for Countersink flute 5.2.0

- For the countersink flute you can now select the infeed 'wheel axis'. (5.2.0)

Point/Countersink flute

Geometry
Wheel
Feederates
Cycles/Infeed
General
Modifications
Change positions
Grinding position
Cooling Valves
Division/Helix
ISO disengagement program

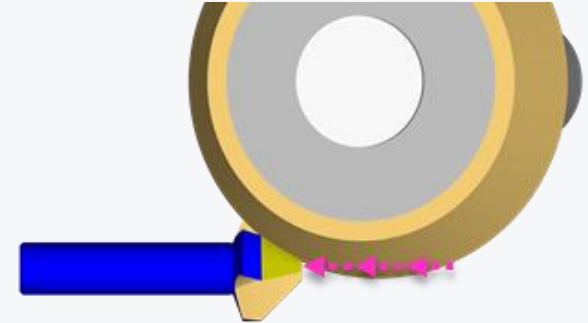
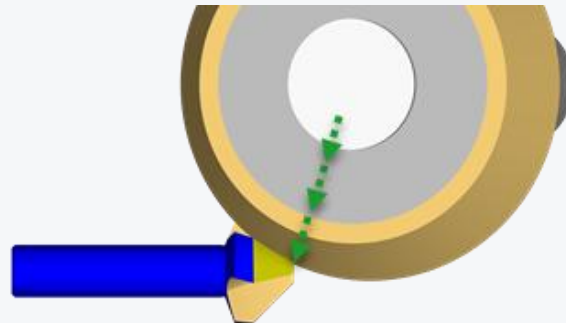
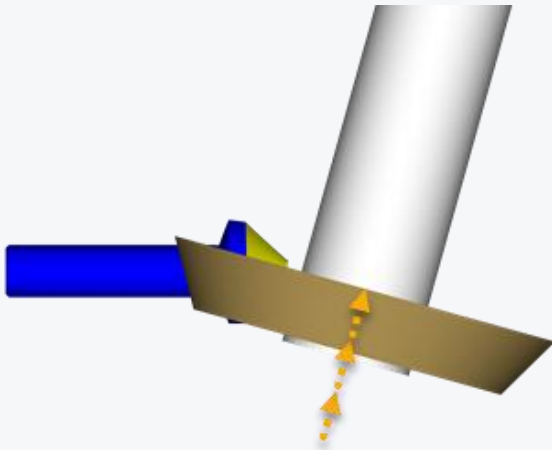
Cycles

Cyclic 1 Cycles

Infeed

Wheel axis
Wheel axis
Perpendicular to surface
Axial

A	V-Factor	Feederate	N_passes	Stock	per pass	
1	<input checked="" type="checkbox"/>	1.000	25.0	3	3.00000	1.00000



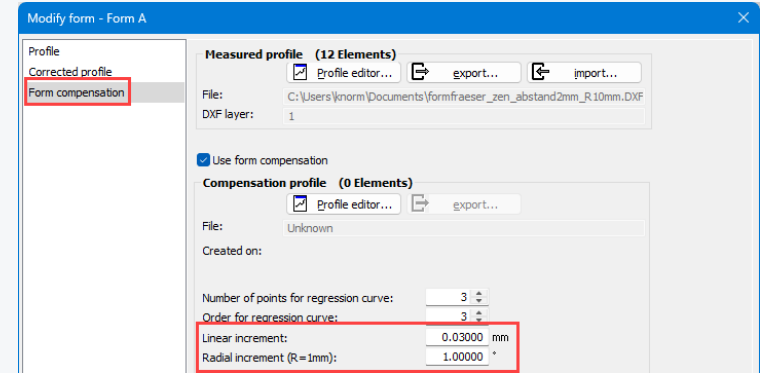
New features in NUMROTO 5.1.0 – 5.2.2

numroto

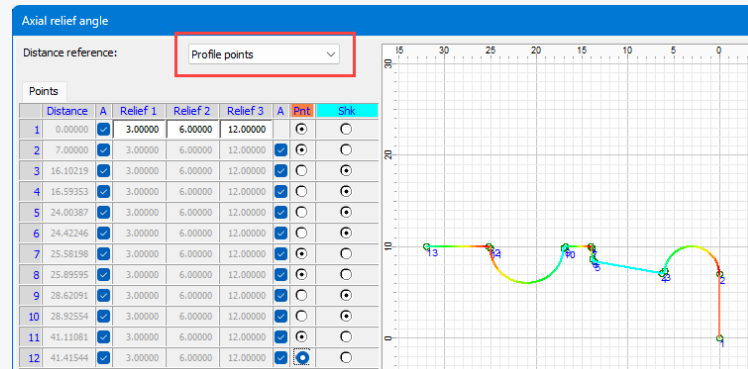


- End mills
- Drills / Step drills
- **Form cutter**
- 3D-Simulation
- NR-Draw
- Other topics
- Planned innovations 5.2.2
- Planned innovations > 5.2.2

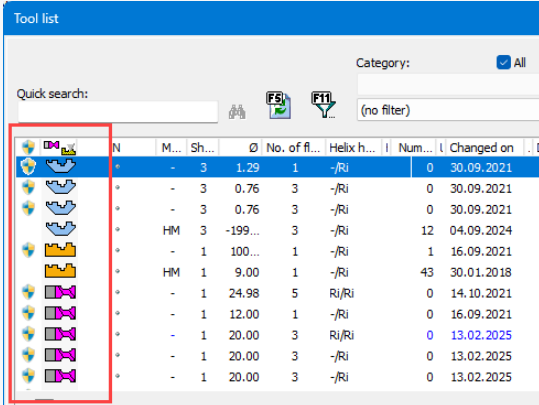
- In the “Form compensation” dialog, there is now the option to define custom increments (linear and radial increments) for the compensation profile. (5.2.0)














- Similar to the position of the swivel axis, you can now select the distance reference ‘Profile points’ in the ‘Axial relief angle Definition’. (5.2.0)

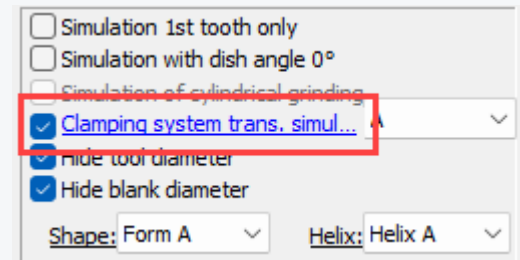


- Custom 'preview icons' for inserts and profile inserts in the tool list. (5.2.1)



Icon	N	M...	Sh...	Ø	No. of fl...	Helix h...	Num...	t	Changed on
	*	-	3	1.29	1	-/Ri	0		30.09.2021
	*	-	3	0.76	3	-/Ri	0		30.09.2021
	*	-	3	0.76	3	-/Ri	0		30.09.2021
	*	HM	3	-199...	3	-/Ri	12		04.09.2024
	*	-	1	100...	1	-/Ri	1		16.09.2021
	*	HM	1	9.00	1	-/Ri	43		30.01.2018
	*	-	1	24.98	5	Ri/Ri	0		14.10.2021
	*	-	1	12.00	1	-/Ri	0		16.09.2021
	*	-	1	20.00	3	Ri/Ri	0		13.02.2025
	*	-	1	20.00	3	-/Ri	0		13.02.2025
	*	-	1	20.00	3	-/Ri	0		13.02.2025

- In the 2D simulation, you can switch directly to the clamping system transformation via link. (5.2.1)



- Simulation 1st tooth only
- Simulation with dish angle 0°
- Simulation of cylindrical grinding
- Clamping system trans. simul...
- Hide tool diameter
- Hide blank diameter

Shape: Form A Helix: Helix A

News Form cutter 5.2.0 – 5.2.1

- For 'External calculation' the same infeed can be used as for example for end mills and additionally 'in the negative longitudinal direction'. (5.2.1)

Form / External Calculation

External Calculation

Wheel

Feedrates

Cycles/Infeed

General

Modifications

Cycles

Infeed

- Wheel radius
- Wheel axis
- Axial
- Negative longitudinal direction

- Tap grinding – display taper to length. (5.2.0)

Cylinder/Grind tap

Geometry

Wheel

Feedrates

Cycles/Infeed

General

Modifications

Change positions

Grinding position

Cooling Valves

Division/Helix

Cylindrical part

Pitch: 2.50000 mm

Outside diameter (positioning): 20.00000 mm

Pitch diameter (lead angle calculation): 18.37620 mm A

Plunge depth: 1.53358 mm A

Path extension at front: 0.00000 mm

Total length: 45.00000 mm A

Taper (α): 0.25000 mm/10mm to length: 1.12500 mm

Transv. displacment: 0.00000 mm

Modification of swivel axis angle: 0.00000 °

- The 'orientation' of the insert can be applied directly via a checkbox in 'STL details – Translation / Rotation'. This ensures that the insert is immediately in the correct position in the 3D simulation. (5.2.1)

Geometry

Insert

Orientation

Info

Protection

Attachment

Clamping

Clamping system transformatio.

Position of insert: Horizontal tip plane / rake surface on top

Radial angle:	1.00000 °	Longitudinal offset:	2.00000 mm
Shear angle:	3.00000 °	Vertical offset:	13.50000 mm
Crank angle:	2.00000 °	Transversal offset:	-7.80000 mm

STL details

STL-file: (File size: 4 MB)
E:\NR95\Demowerkzeuge\Aktuell\TEMP\Wendeplatte_TEST\STL_DXF-Daten\PLATTE_3-

Import file
 Save link to file

File units: mm

Use translations / rotations

	Translation	Rotation
Longitudinal:	2.00000 mm	3.00000 °
Vertical:	13.50000 mm	2.00000 °
Transversal:	-7.80000 mm	1.00000 °

Adopt values from insert orientation
 Apply values from the clamping system

Orientation: Z+

Move blank by programmed clamping length

OK Cancel ?

New features in NUMROTO 5.1.0 – 5.2.2

numroto



- End mills
- Drills / Step drills
- Form cutter
- **3D-Simulation**
- NR-Draw
- Other topics
- Planned innovations 5.2.2
- Planned innovations > 5.2.2

Automatic feed optimization via 3D removal rate 5.2.0



- The new option 'NUMROTO feed optimization according to removal rate' allows the automatic optimization of feed rates for nearly all machining operations.
- The following NUMROTO options are required for this:
CH-50052750 NUMROTO–Feed rate optimization based on 3D removal rate and CH-50052720 NUMROTO-3D special functions
- The feed rate is optimized based on the following information:
 - Maximum allowed QW' per machining operation
 - Maximum removal rate per machining operation
 - Precise specifications for the blank
 - Exact specifications for the shortening amount and the stock amount on diameter of the blank.
- Please note the following:
 - The increments must be chosen fine enough as needed
 - Engagement routes can only be optimized limited (since it is a distance without intermediate points)
 - Cyclic operations cannot be optimized
 - Reverse finishing is intentionally not optimized
 - Cylindrical grinding operations cannot be optimized

Automatic feed optimization via 3D removal rate 5.2.0

- Setting per operation (also available per tool and in the settings)

Settings for feed optimization according to removal rate

Using the tool settings

Maximum feed factor: with removal 0: 10.00000 with removal > 0: 15.00000

Weighting of feed factor: 98.00000 %

Optimized engagement

Number of points: 5

Moderation factor: 30.00000 %

Delete removal rate information OK Cancel ?

- Calculation settings (manual mode recommended when using NR-Control and measuring in process)

Settings

Options

Folder

Client details

Email

Password protection for settings

Use only wheels of current machine category

Always use this function in the wheel list

Protect individual tool parameter

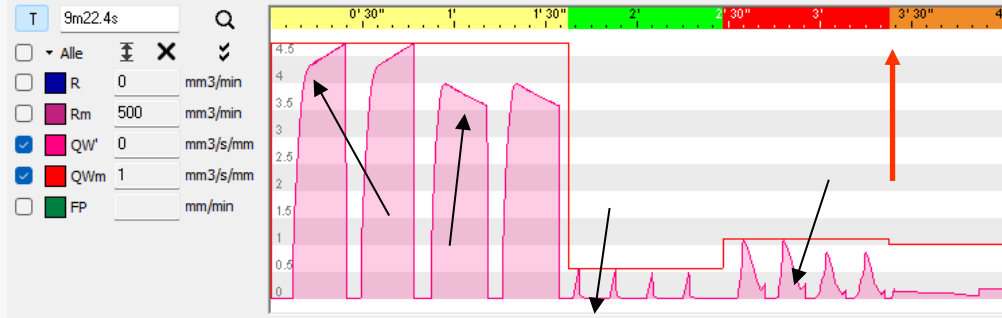
Use wheel selection limitations

Automatically run calculation for feed optimization

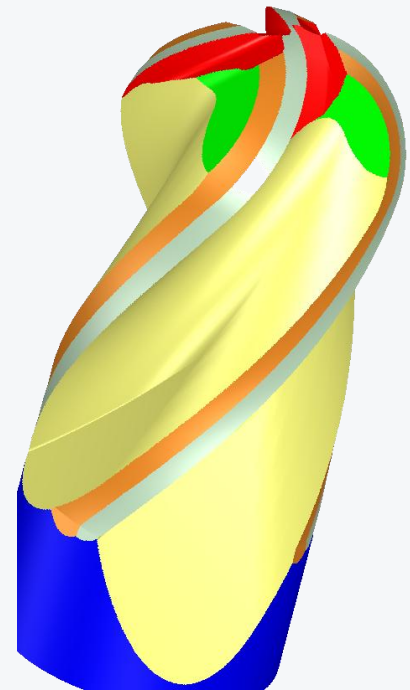
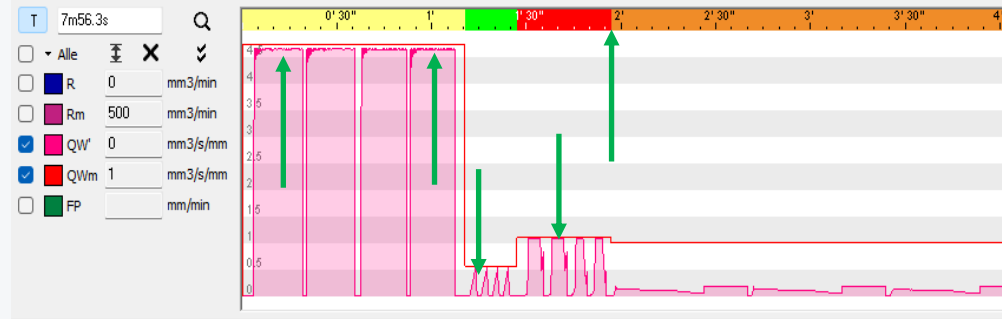


Automatic feed optimization via 3D removal rate 5.2.0

- Example of a flute (multi-helix), ball clearance and gash-out, machining time: 9m22s



- 3 machining operations optimized, machining time 7m56s (relief intentionally left unoptimized)



New checkbox per wheel 'Brush' 5.1.0

- New checkbox in wheel data 'Brush (non-cutting)'.
- Such a wheel / brush does not remove any material in the 3D simulation.
- This allows to precisely analyze the position and orientation of the brush in relation to the cutting edge.
- The wheel which is defined as a brush, is also shown like that in the 3D simulation. (5.2.0)

Wheel data (---P00_10)

Info
Geometry
Default / maximum values
Compensation

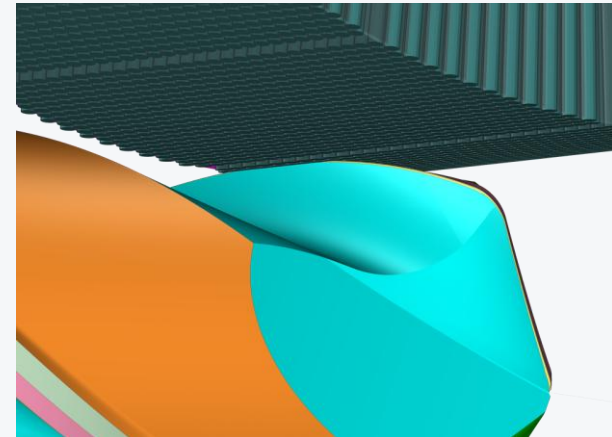
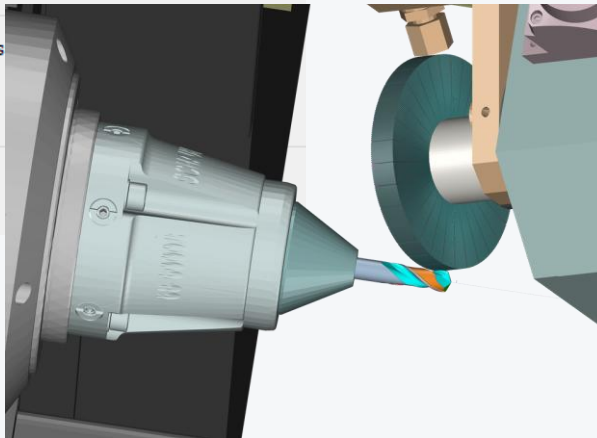
Default values of wheel

Use always the following values

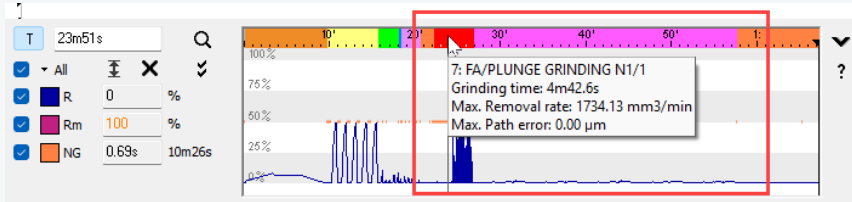
Rotation speed:

Cutting speed:

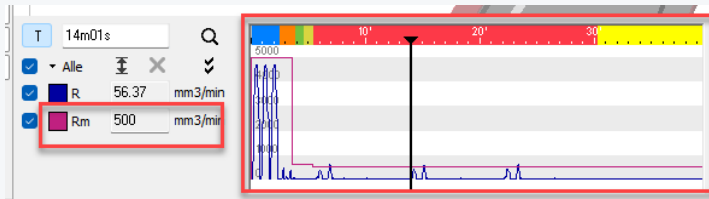
Brush (non-cutting)



- The grinding time is now displayed as a 'tooltip' for each operation when you hover the mouse pointer over the timeline in the graphical analysis window.

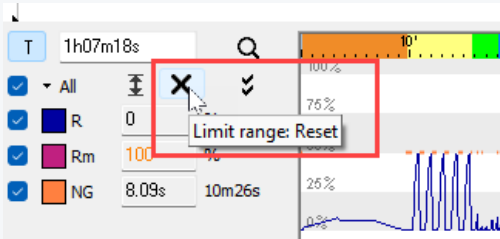


- Just like the maximum QW' value, the maximum removal rate is now also shown on the graph.

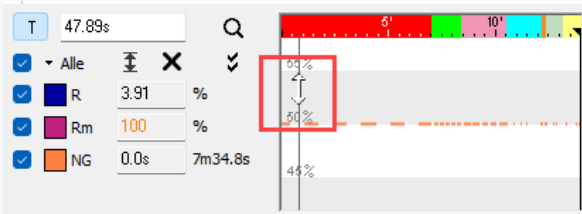


- Additional values have been added to the model resolution for 3D collision detection.

- The 3D simulation now includes a button to reset the 'limited range' in the graph analysis window.

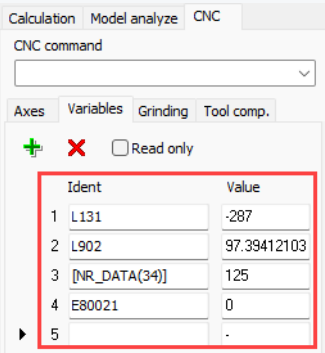


- You can now zoom vertically in the graph analysis window by scrolling the mouse wheel while the cursor is positioned at the left edge of the window. While this has always been possible by using the Ctrl key in combination with the mouse wheel, a white arrow now appears when the mouse cursor is positioned at the left edge of the window.



Other innovations 3D-Simulation 5.2.1

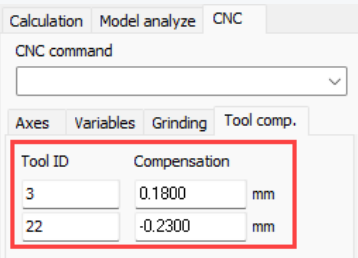
- In the 'CNC' section of the 3D simulation, the variables defined are now logged during the simulation. This ensures that the correct values for each variable are always displayed when reviewing a simulation.



The screenshot shows the 'CNC' section of the simulation interface. It includes a 'CNC command' dropdown, tabs for 'Axes', 'Variables', 'Grinding', and 'Tool comp.', and a 'Read only' checkbox. A table with two columns, 'Ident' and 'Value', is highlighted with a red box. The table contains five rows of data.

Ident	Value
1 L131	-287
2 L902	97.39412103
3 [NR_DATA(34)]	125
4 E80021	0
5	.

- It is possible to simulate wheel compensation in the 3D simulation. However, this new view only appears if wheel compensation is active somewhere in the program.



The screenshot shows the 'CNC' section of the simulation interface, specifically the 'Tool comp.' tab. A table with two columns, 'Tool ID' and 'Compensation', is highlighted with a red box. The table contains two rows of data, with the compensation values in millimeters.

Tool ID	Compensation
3	0.1800 mm
22	-0.2300 mm

New features in NUMROTO 5.1.0 – 5.2.2

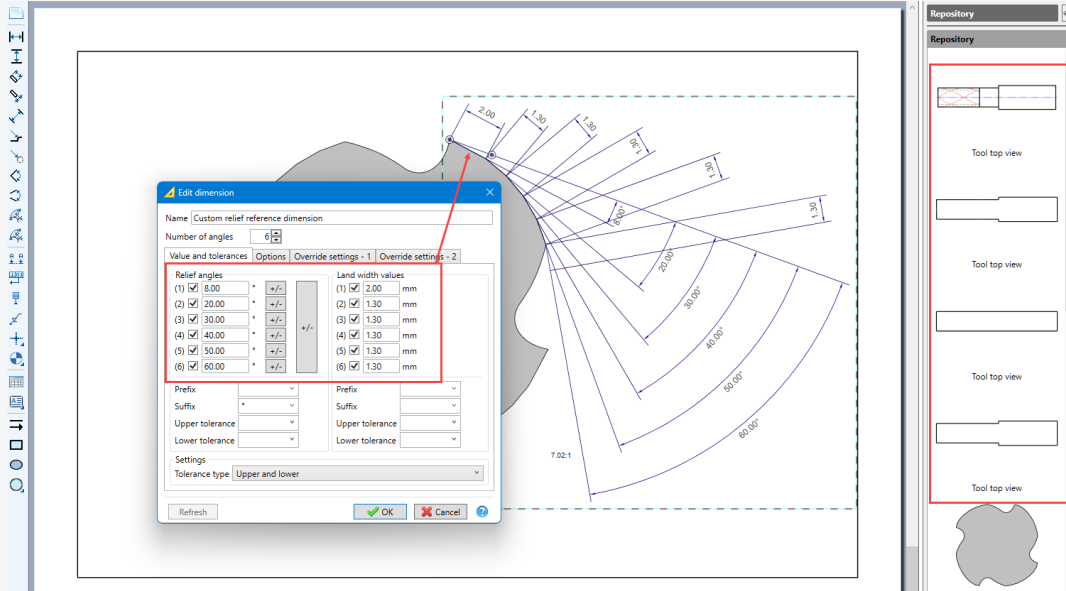
numroto



- End mills
- Drills / Step drills
- Form cutter
- 3D-Simulation
- **NR-Draw**
- Other topics
- Planned innovations 5.2.2
- Planned innovations > 5.2.2

News NR-Draw 5.2.0 – 5.2.1

- The values for land width and relief angle are now automatically retrieved from the tool program and entered accordingly. (5.2.0)
- The parameters 'Programmed form', 'Cylindrical', 'Blank geometry', and '2D Profile (DXF)' of the blank are now transferred directly from NUMROTO to NR-Draw as a potential 'tool top view'. (5.2.1)



New features in NUMROTO 5.1.0 – 5.2.2

numroto



- End mills
- Drills / Step drills
- Form cutter
- 3D-Simulation
- NR-Draw
- **Other topics**
- Planned innovations 5.2.2
- Planned innovations > 5.2.2

Thermal growth compensation 'pausing' 5.2.2

- Thermal growth compensation (TGC) can be paused on a 'time-based' or 'tolerance-based' basis.
- This function is intended for use with NUMROTO Control, and once the relevant condition is met, the TGC is paused until the end of the active job.
- Tolerance-based = Thermal growth compensation is paused when a certain number of measurements fall within a defined tolerance.
- Time-based = Thermal growth compensation is paused after a defined period time.
- Both versions work with the tool probe and the wheel probe.

The image displays two side-by-side screenshots of the 'Thermal growth compensation' configuration screen in the NUMROTO Control software. Both screens show a 'General' tab with various settings for tool and wheel probe measurements.

Left Screenshot (Tolerance-based):

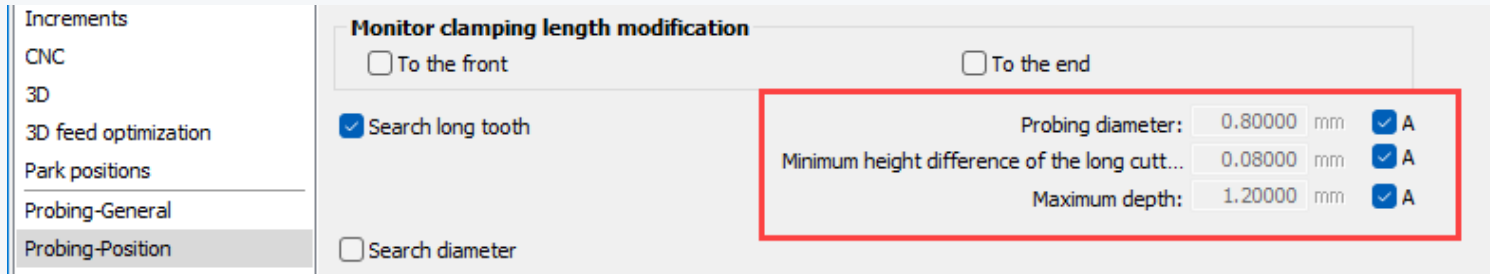
- Number of tools till execution: 1 (only for loader operation)
- Weighting of the measurement result: 100.00000 %
- Measurement with tool probe: Y, X, Z (all checked)
- Measurement with wheel probe: Y, X, Z (all checked)
- Maximum difference for one axis when using both probes: 0.10000 mm
- Calculation of the values when using both probes for one axis: Average value
- Wärmegang-Kompensation pausieren:** Toleranzbasiert (highlighted with a red box)
- Anzahl Messungen innerhalb Toleranz: 3
- Toleranz: 0.10000 mm

Right Screenshot (Time-based):

- Number of tools till execution: 1 (only for loader operation)
- Weighting of the measurement result: 100.00000 %
- Measurement with tool probe: Y, X, Z (all checked)
- Measurement with wheel probe: Y, X, Z (all checked)
- Maximum difference for one axis when using both probes: 0.10000 mm
- Calculation of the values when using both probes for one axis: Average value
- Wärmegang-Kompensation pausieren:** Zeitbasiert (highlighted with a red box)
- Dauer der Pause: 0 h 15 min (highlighted with a red box)

Search long tooth 5.2.1

- The probing sequence can now be defined more detailed.
- Probing diameter: Specifies the diameter at which the long tooth is searched. The automatic percentage value can be defined in the default values.
- Minimum height difference of the long cutting edge: There must be at least this difference between two teeth to be recognized as a long tooth.
- Maximum depth: The depth to which the probe is inserted to locate the long tooth. If contact with the cutting edge is not established within this distance, the probing process is aborted.



Monitor clamping length modification

To the front To the end

Search long tooth

Search diameter

Probing diameter:	0.80000 mm	<input checked="" type="checkbox"/> A
Minimum height difference of the long cutting edge:	0.08000 mm	<input checked="" type="checkbox"/> A
Maximum depth:	1.20000 mm	<input checked="" type="checkbox"/> A

New Import functions 5.2.0

- New import dialog with various options for importing wheels, programs, and collets.
- Overwrite (prefer imported objects) = Data from the import program is given priority.
- Create copy = Existing objects are duplicated and saved as copies.
- Skip (keep existing object) = existing objects are retained.

Import

How would you like to resolve conflicts with existing objects?

Tools:

Wheels:

Collets, ext. calculations:

Further options

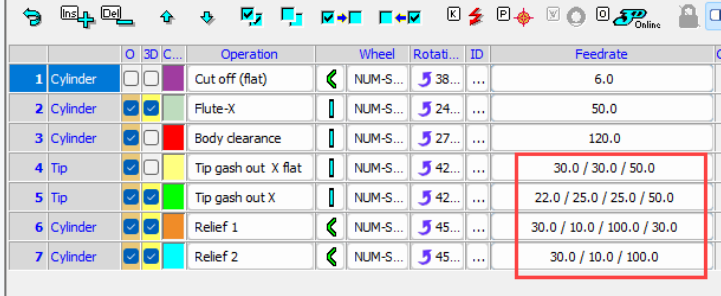
With wheels

With collets

With external calculation definitions

Change master tools to master copy

- For operations involving multiple feed rates, these are now clearly displayed in the 'feedrate' section.



	3D C...	Operation	Wheel	Rotab...	ID	Feedrate
1	Cylinder	Cut off (flat)	NUM-S...	38...	...	6.0
2	Cylinder	Flute-X	NUM-S...	24...	...	50.0
3	Cylinder	Body clearance	NUM-S...	27...	...	120.0
4	Tip	Tip gash out X flat	NUM-S...	42...	...	30.0 / 30.0 / 50.0
5	Tip	Tip gash out X	NUM-S...	42...	...	22.0 / 25.0 / 25.0 / 50.0
6	Cylinder	Relief 1	NUM-S...	45...	...	30.0 / 10.0 / 100.0 / 30.0
7	Cylinder	Relief 2	NUM-S...	45...	...	30.0 / 10.0 / 100.0

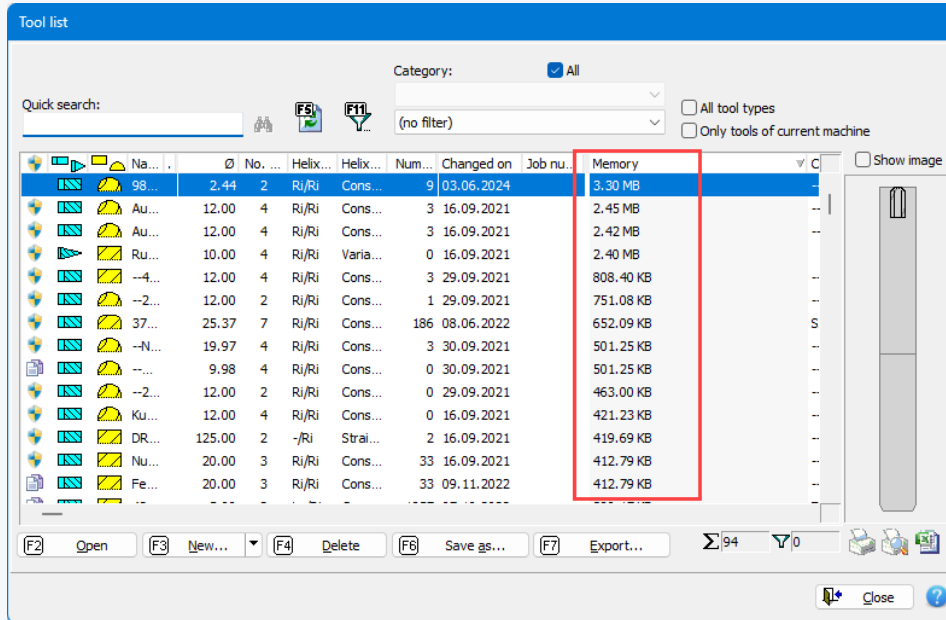
- You can see the distance per wheel rotation. (Depending on the feed rate and the wheel rotation speed)



Tip/Tip gashout

Geometry	Engagem.:	200.00 mm/min	Distance per wheel rotation	
Center data	Gash out:	35.00 mm/min		0.0127 mm
Widening	Walk travel/Radius:	30.00 mm/min		0.0109 mm
Wheel	Opening:	20.00 mm/min		0.0073 mm
Feedrates	Disengagement:	2000.00 mm/min	<input type="checkbox"/> Fast travel diseng.	
Reduction				
Cycles/Infeed				
Increments				
General				
Modifications				
Change positions				

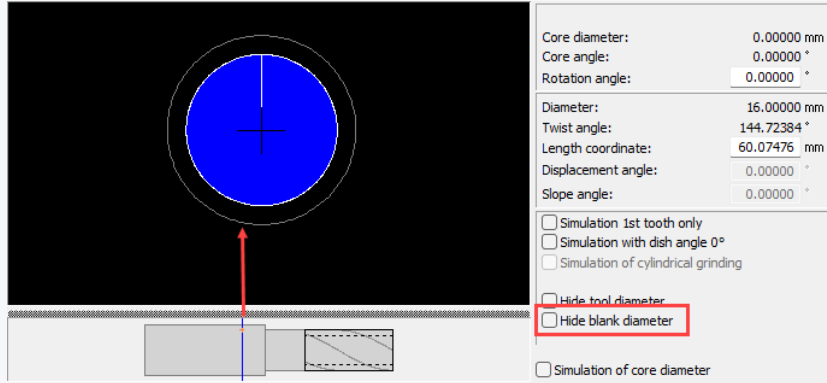
- In the tool list, tools can be sorted by memory. The memory refers to the size of the attachments in the tool program.



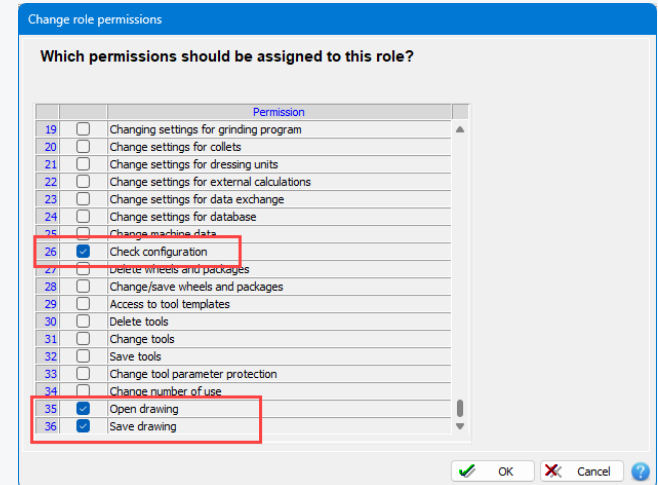
The screenshot shows the 'Tool list' window with a table of tool data. The 'Memory' column is highlighted with a red box, indicating that the tools are sorted by their memory size. The table includes columns for Name, No., Helix, Helix, Num., Changed on, Job nu., and Memory. The tool with the highest memory (3.30 MB) is highlighted in blue.

Name	No.	Helix	Helix	Num.	Changed on	Job nu.	Memory
98...	2.44	2	Ri/Ri	Cons...	9	03.06.2024	3.30 MB
Au...	12.00	4	Ri/Ri	Cons...	3	16.09.2021	2.45 MB
Au...	12.00	4	Ri/Ri	Cons...	3	16.09.2021	2.42 MB
Ru...	10.00	4	Ri/Ri	Varia...	0	16.09.2021	2.40 MB
--4...	12.00	4	Ri/Ri	Cons...	3	29.09.2021	808.40 KB
--2...	12.00	2	Ri/Ri	Cons...	1	29.09.2021	751.08 KB
37...	25.37	7	Ri/Ri	Cons...	186	08.06.2022	652.09 KB
--N...	19.97	4	Ri/Ri	Cons...	3	30.09.2021	501.25 KB
--...	9.98	4	Ri/Ri	Cons...	0	30.09.2021	501.25 KB
--2...	12.00	2	Ri/Ri	Cons...	0	29.09.2021	463.00 KB
Ku...	12.00	4	Ri/Ri	Cons...	0	16.09.2021	421.23 KB
DR...	125.00	2	-/Ri	Strai...	2	16.09.2021	419.69 KB
Nu...	20.00	3	Ri/Ri	Cons...	33	16.09.2021	412.79 KB
Fe...	20.00	3	Ri/Ri	Cons...	33	09.11.2022	412.79 KB

■ Hide blank diameter. (5.2.0)



■ More role permissions like Open / Save drawing and Check configuration. (5.1.0 / 5.2.0)



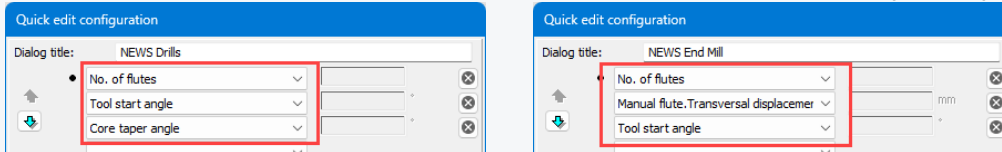
- Display wheel measurements after probing during dressing. (5.2.1)



The 'Dressing wheel' dialog box shows a comparison of wheel parameters before and after dressing. The 'Wheel' section has three checked items: Diameter (129.30300 mm), Flange distance (80.00000 mm), and Width (6.00000 mm). A 'Wheel measurements...' button is highlighted with a red box.

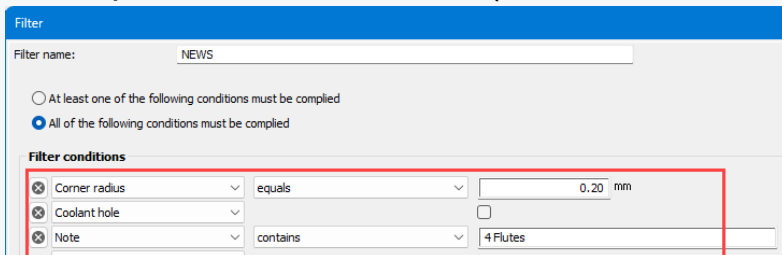
Accept value	Before	After dressing
<input checked="" type="checkbox"/> Diameter:	129.30300 mm	129.30300 mm
<input checked="" type="checkbox"/> Flange distance:	80.00000 mm	80.00000 mm
<input checked="" type="checkbox"/> Width:	6.00000 mm	6.00000 mm

- New parameters in Quick edit for drills and end mills. (5.2.1)



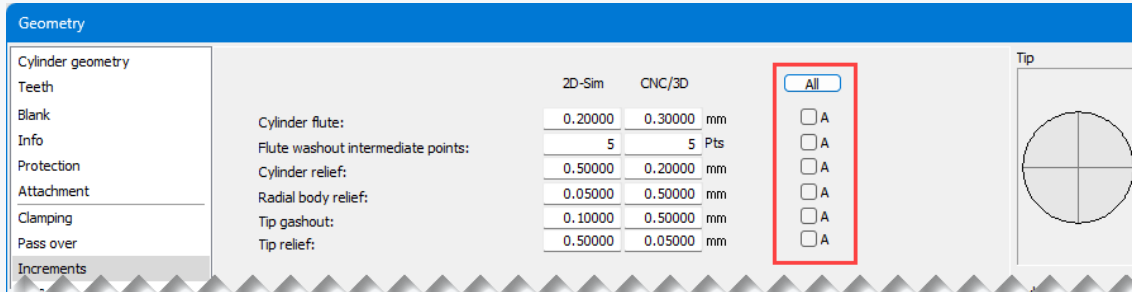
Two screenshots of the 'Quick edit configuration' dialog box. The left one is for 'NEWS Drills' and the right one is for 'NEWS End Mill'. Both have a red box highlighting the 'No. of flutes', 'Tool start angle', and 'Core taper angle' (for drills) or 'Manual flute.Transversal displacemer' (for end mills) parameters.

- New options for the tool filter (corner radius, coolant hole and note). (5.2.1)

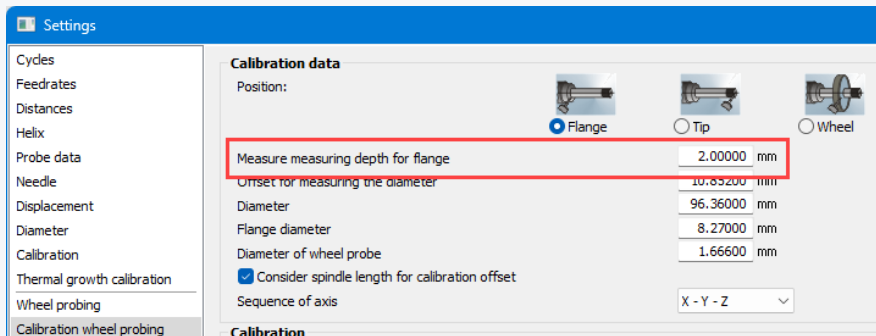


The 'Filter' dialog box shows a filter named 'NEWS'. It has two radio buttons for conditions: 'At least one of the following conditions must be complied' (unselected) and 'All of the following conditions must be complied' (selected). Under 'Filter conditions', three items are listed with red boxes around them: 'Corner radius' (equals 0.20 mm), 'Coolant hole' (checkbox), and 'Note' (contains 4 Flutes).

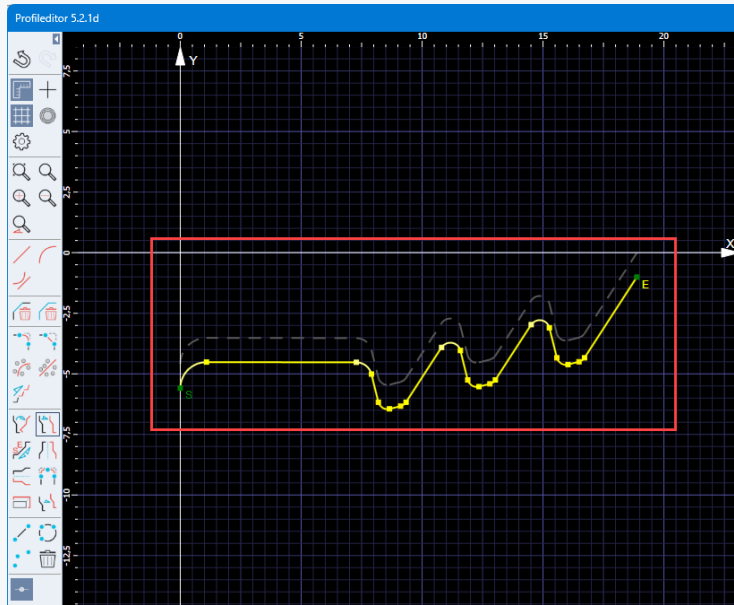
- The checkboxes for the increments can be selected or deselected all at once.



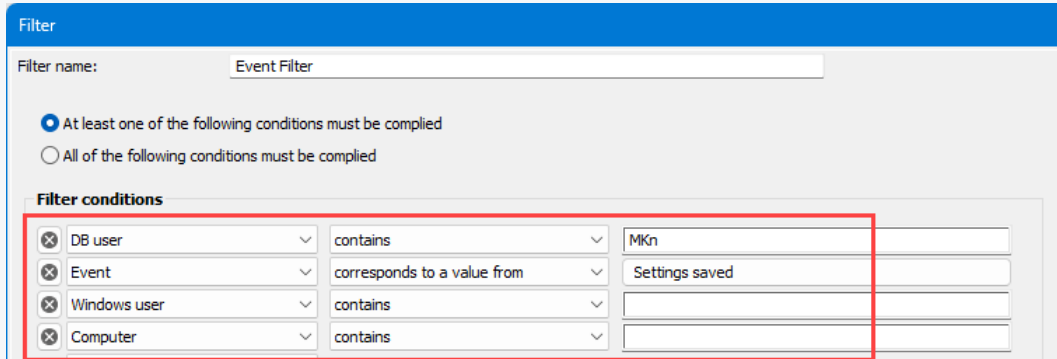
- When calibrating the wheel probe , the 'measuring depth for flange' can be programmed. Previously this was a fixed value.



- A comparison profile is displayed in Profile Editor X
- A comparison profile is useful for example, when calculating a wheel profile or performing form compensation to clearly see the difference from the previous profile.



- The event display has included a filter function since version 5.0.1.
- Since there are sometimes issues with logging or displaying all events, you can use the 'Filter function' to narrow down the events.
- Optimized display of a large number of events. (5.2.2)



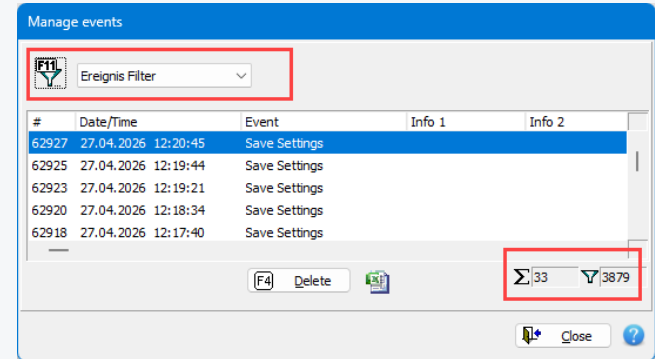
Filter

Filter name:

At least one of the following conditions must be complied
 All of the following conditions must be complied

Filter conditions

<input checked="" type="checkbox"/> DB user	contains	<input type="text" value="MKn"/>
<input checked="" type="checkbox"/> Event	corresponds to a value from	<input type="text" value="Settings saved"/>
<input checked="" type="checkbox"/> Windows user	contains	<input type="text"/>
<input checked="" type="checkbox"/> Computer	contains	<input type="text"/>



Manage events

#	Date/Time	Event	Info 1	Info 2
62927	27.04.2026 12:20:45	Save Settings		
62925	27.04.2026 12:19:44	Save Settings		
62923	27.04.2026 12:19:21	Save Settings		
62920	27.04.2026 12:18:34	Save Settings		
62918	27.04.2026 12:17:40	Save Settings		

Σ 33 Y 3879

New features in NUMROTO 5.1.0 – 5.2.2

numroto



- End mills
- Drills / Step drills
- Form cutter
- 3D-Simulation
- NR-Draw
- Other topics
- **Planned innovations 5.2.2**
- Planned innovations > 5.2.2

Plannend innovations 5.2.2

- Retrieve the offset angle for the probe result after probing the coolant hole.
- Measuring in process (diameter) for rough profile.
- Grinding time calculation with values of the 3D simulation.

Manufacturing times and memory requirement											
	Operation	Engagem...	Air-Grin...	Acceler...	Machining	Grinding	Aux. Ti...	Auxiliary	Modific...	Cycles	Tot
2	Tip/Tip gash out X	1.4s	2.6s	1.1s	18.0s	19.6s	25.2s	24.9s	0.00s	1	
4	Cylinder/Relief 6	5.8s	9.6s	2.9s	17.2s	13.3s	17.0s	18.9s	0.00s	1	
5	Cylinder/Relief 5	5.8s	9.8s	1.7s	17.2s	13.1s	3.0s	0.6s	0.00s	1	
6	Cylinder/Relief 4	15.4s	6.6s	1.5s	1m35s	1m44s	3.0s	4.4s	0.00s	1	1
7	Cylinder/Relief 3	13.0s	6.6s	1.5s	1m35s	1m41s	3.0s	4.2s	0.00s	1	1
8	Cylinder/Relief 2	6.3s	3.8s	1.5s	1m35s	1m38s	3.0s	4.7s	0.00s	1	1
9	Cylinder/Relief 1	0.02s	8.4s	2.1s	1m43s	1m34s	5.0s	8.1s	0.00s	1	1

Calculated total time:	9m09s	Last: 9m09s
	9m31s	

Total memory requirement:	131 KB	Last: 131 KB
---------------------------	---------------	--------------

Apply and close Close

New features in NUMROTO 5.1.0 – 5.2.2

numroto



- End mills
- Drills / Step drills
- Form cutter
- 3D-Simulation
- NR-Draw
- Other topics
- Planned innovations 5.2.2
- **Planned innovations > 5.2.2**

- Consider form wheel profile for flute X.
- Around end of 2026 (probably with NUMROTO version 6.0) Windows 7 and 8 will no longer be supported. The minimal Windows version will then be Windows 10.
- NR-Draw – more parameter in the tool parameter table.
- Simulating grinding program splitting in 3D simulation.

■ Thank you for your attention.

