



RTV ***Precision-Rotary-Table-Grinding-Machine***

RTV 1000 CNC



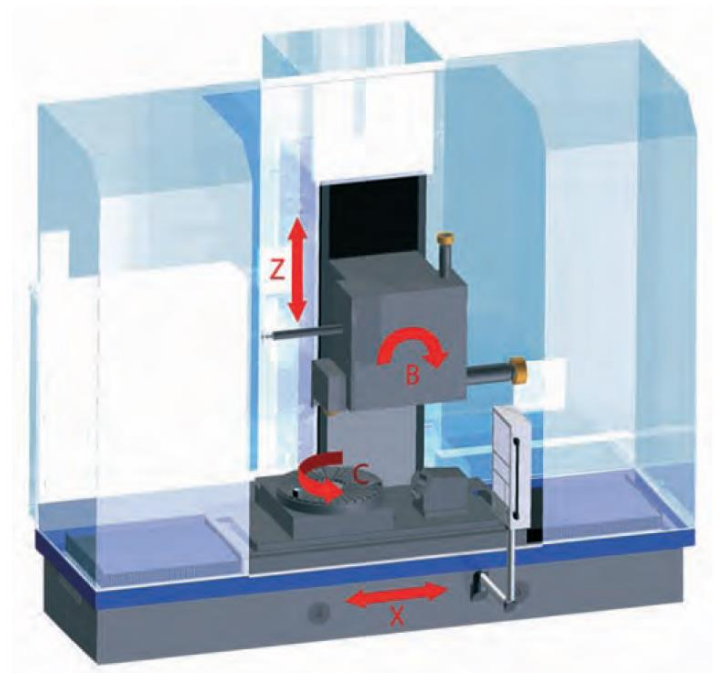
- Complete encapsulation
- Vertical grinding spindle
- Grinding wheel
- Grinding wheel mount
- Setting blocks
- Coolant reservoir
- Cleaning set
- Air cleaning set
- Electro permanent magnetic clamping plate with regulable adhesion force and demagnetisation.
- Automatic dressing from the table with compensation

MAIN TECHNICAL FEATURES

The machine makes use of proven methods to achieve a high level of precision.

In developing the machine, reliability, safety, strength, accuracy and output were major considerations.

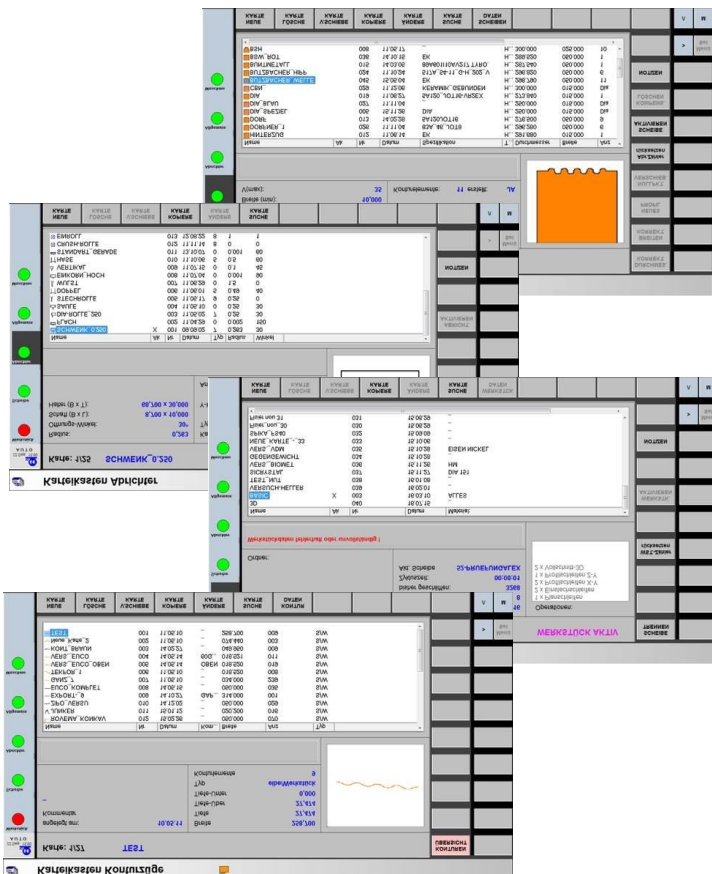
It was built following the successful software designs that are used through the range of high precision grinders produced by G+H for aerospace, automotive, bearing gear manufacturers and general engineering industry sectors



CNC-Control for high demands and flexibility



- Dialog guided input of the process parameters
- Taking over of the axes positions with Teach-buttons
- Electric hand-wheel on the control satellite for a comfortable operation
- Virtual filing boxes for the data of workpieces, grinding wheels and dressing units for simple and quick changeover of the machine.
- Comfortable execution of the contours of grinding wheels and workpieces
- Network connection and remote maintenance are possible



For a quick change-over of the machine, the data of workpieces, grinding wheels and dressers and the profile contours are stored in virtual file cabinets.

The input of all data is dialogue based. All geometrical data can be entered as absolute values or using the Teach-In process. For single production or adjustment, all axes can be controlled with the electrical hand wheel.

Different grinding processes are available and belong to the basic equipment of the machine. The interlinking of several grinding cycles enables the operator to machine workpieces with different grinding tasks fully automatically.

B-AXIS

The B-axis enables to install and use a maximum of 3 grinding spindles and one caliper in the machine.



Vertical Grinding Spindle

For internal or external grinding



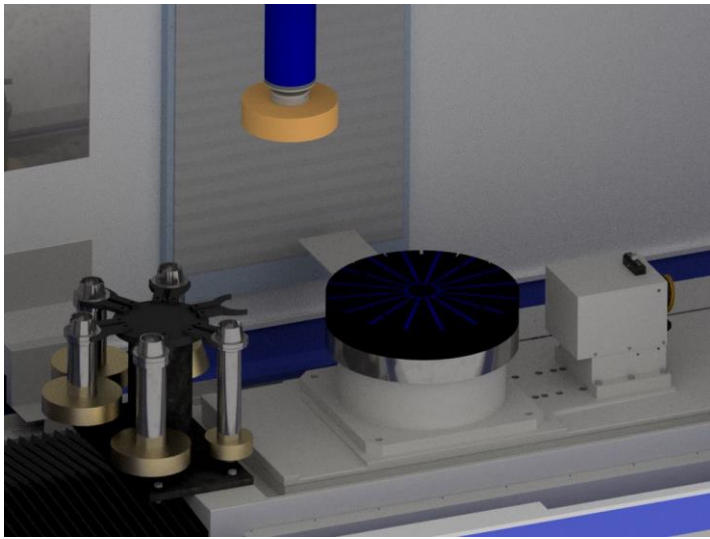
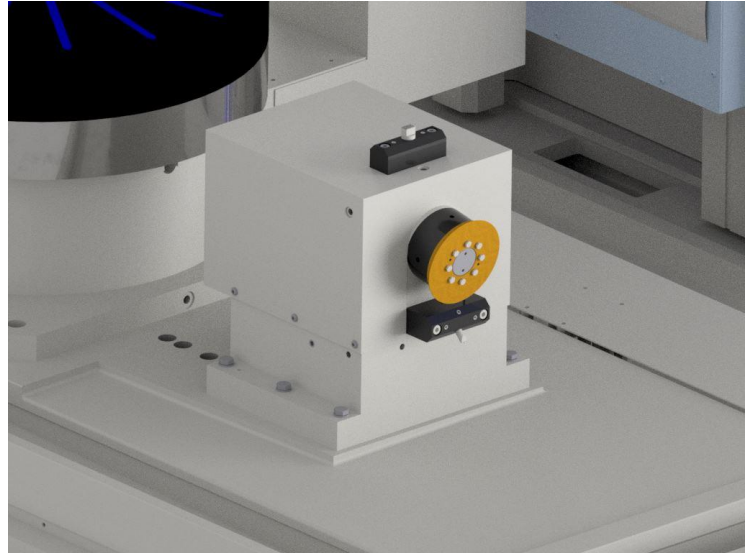
Caliper

with part measuring probe



Dressing with compensation

Automatic dressing of the grinding wheel from the table allows highest precision. The respective dressing amounts are compensated. In combination with the continuously variable rotation speed of the grinding spindle, the peripheral speed of the grinding wheel remains constant. If required, a dressing cycle can be started manually during the grinding process.



Automatic tool exchanger

Linear guideways

All linear guideways are constructed as V-flat slideways. The moving elements are coated with TURCITE B®. This coating guarantees a high absorption to reach the best surface finish. The coating is ground and rubbed.

Optionally, hydrostatic guideways in the X-axis are possible.



Lubrication system

The fully automatic circular lubrication system provides the linear guideways of the axes with lubricating oil.

Models of machines		RTV 600 CNC	RTV 800 CNC	RTV 1000 CNC	RTV 1200 CNC	RTV 1500 CNC
Grinding surface	mm	∅ 600	∅ 800	∅ 1.000	∅ 1.200	∅ 1.500
Grinding height	mm	500	500	700	700	700
Table load	kg	1.500	2.000	2.500	3.000	3.500

C-AXIS = ROTARY MOTION OF THE TABLE

Table speed	min ⁻¹	5 - 120	5 - 110	5 - 100	5 - 90	5 - 80
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Z-AXIS = VERTICAL MOVEMENT

Speed of the vertical movement	mm/min	6.000	6.000	6.000	6.000	6.000
Internal resolution of the measuring system	mm	0,0001	0,0001	0,0001	0,0001	0,0001

X-AXIS = LONGITUDINAL MOVEMENT

Speed of the longitudinal movement	mm/min	10.000	10.000	10.000	10.000	10.000
Internal resolution of the measuring system	mm	0,0001	0,0001	0,0001	0,0001	0,0001

VERTICAL GRINDING SPINDLE C1

Power of the grinding spindle motor	kW	7	7	9	9	9
Type of grinding spindle		with a motor directly installed, motor with water cooling				
Speed of the grinding spindle	min ⁻¹	1.000 – 3.180	1.000 – 3.180	1.000 – 3.000	1.000 – 3.000	1.000 – 3.000
Grinding wheel, standard	mm	∅ 300	∅ 300	∅ 400	∅ 400	∅ 400

HORIZONTAL GRINDING SPINDLE A1 (Option)

Power of the grinding spindle motor	kW	9	9	9	9	9
Type of grinding spindle		belt driven, motor with water cooling				
Speed of the grinding spindle	min ⁻¹	1.000 – 2.380	1.000 – 2.380	1.000 – 2.380	1.000 – 2.380	1.000 – 2.380
Grinding wheel, standard	mm	400 x 50 x 127	400 x 50 x 127	400 x 50 x 127	400 x 50 x 127	400 x 50 x 127

VERTICAL GRINDING SPINDLE C2 (Option)

Power of the grinding spindle motor	kW	7	7	7	7	7
Type of grinding spindle		with a motor directly installed, motor with water cooling				
Speed of the grinding spindle	min ⁻¹	1.000 – 9.000	1.000 – 9.000	1.000 – 9.000	1.000 – 9.000	1.000 – 9.000
Grinding wheel, standard	mm	120 x 30 x 51	120 x 30 x 51	120 x 30 x 51	120 x 30 x 51	120 x 30 x 51

Dimensions	m	4,7 x 2,4 x 4,2	4,7 x 2,6 x 4,2	6,0 x 3,0 x 4,6	6,0 x 3,2 x 4,6	6,7 x 3,5 x 4,6
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Technical modifications reserved

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