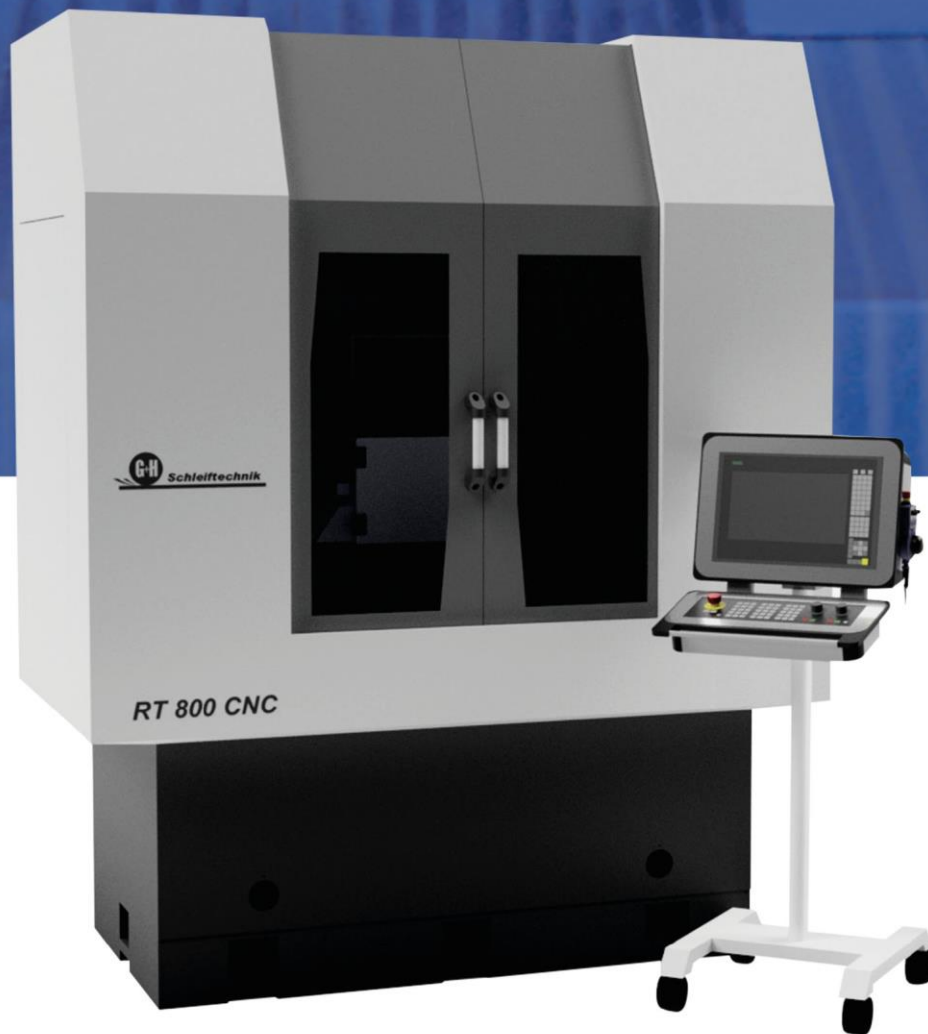


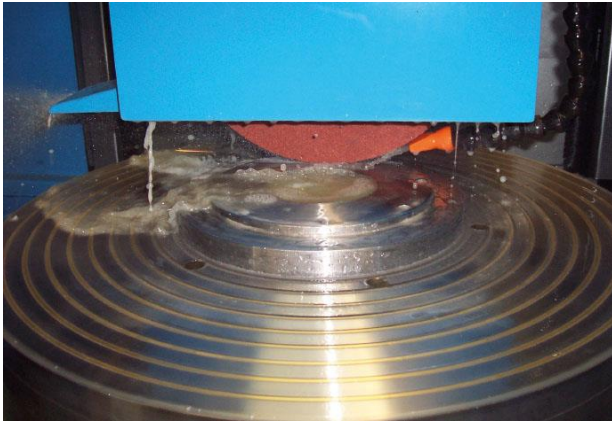


# Precision rotary table grinding machine



ROTARY  
TABLE  
GRINDING  
MACHINE

# Precision rotary table grinding machine



The face- and step-processing of flat rotationally symmetric work pieces is in many cases easier than with a classical cylindrical grinding machine. Especially heavy work pieces can easily be loaded and positioned onto the working table. Serial parts can be worked much economically as with a classical surface grinding machine, as the acceleration at the reverse points is not existent.

## Special features

### 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.

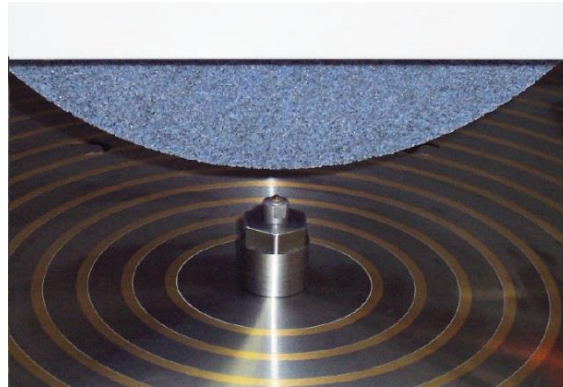
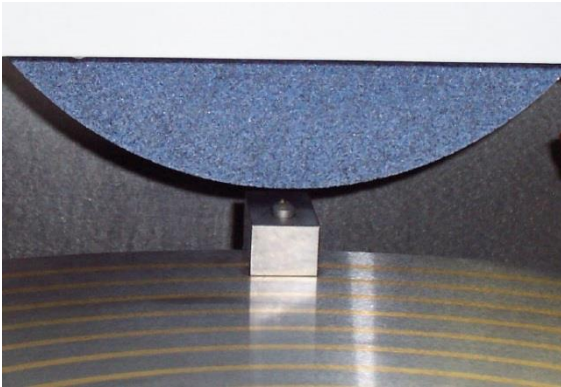
### Central lubrication

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

### Table drive with torque motor

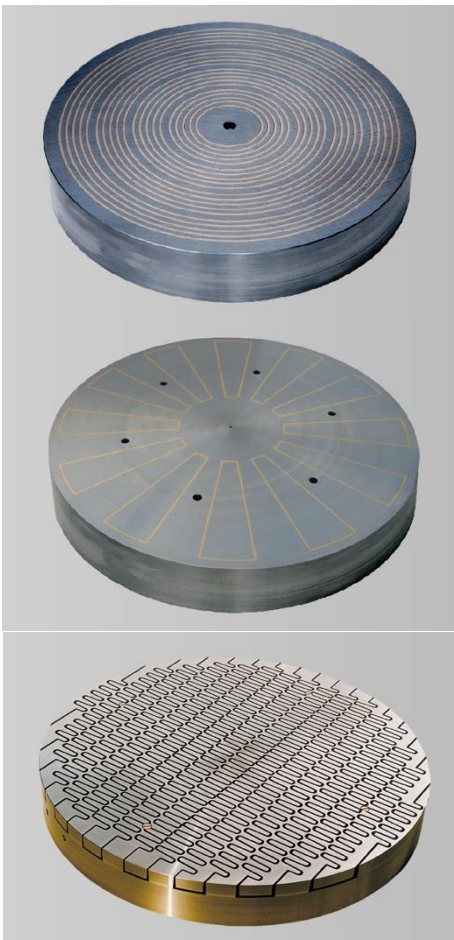
The drive of the work table is made directly by a torque-motor. The speed is continuously regulable and is automatically updated into the process.





## Dressing with compensation

Automatic dressing of the grinding wheel from the table allows highest precision. The dresser can be installed at any place of the rotary table. The respective dressing amounts are compensated. In combination with the continuous 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.



## Electro permanent magnetic clamping plate

with regulable adhesion force and demagnetisation.

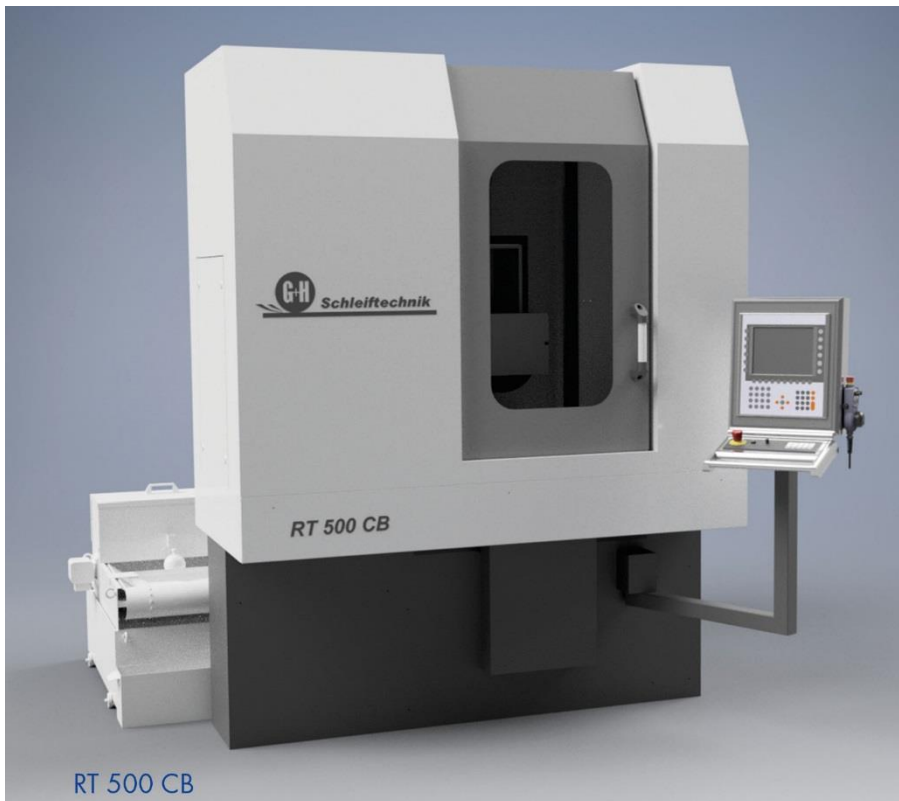
The type of the magnetic clamping plate can be adapted to the required application.:

- Ring pole spacing for many small work pieces
- Radial pole spacing for ring circular work pieces
- Sinusoidal pole spacing for particularly high adhesion force

## Regulation of the circumferential speed

Each machine is basically equipped with a regulation system for the rotational speed of the grinding spindle and a V-constant control system.

# CB-CONTROL SYSTEM



RT 500 CB

## Advantages

- Clearly arranged control elements
- Dual operating system
- Numerical input of the numerical values
- Electric manual wheel on the operating satellite
- Geometrical data can be entered by using the Teach-In-Keys
- Surface, plunge and multi-plane grinding

In a workshop, there are usually many persons who work with one and the same machine. For this reason, the operation of the machine is easy and clearly arranged. Special programming or operation skills are not necessary.

## CB-Control – performant and clear

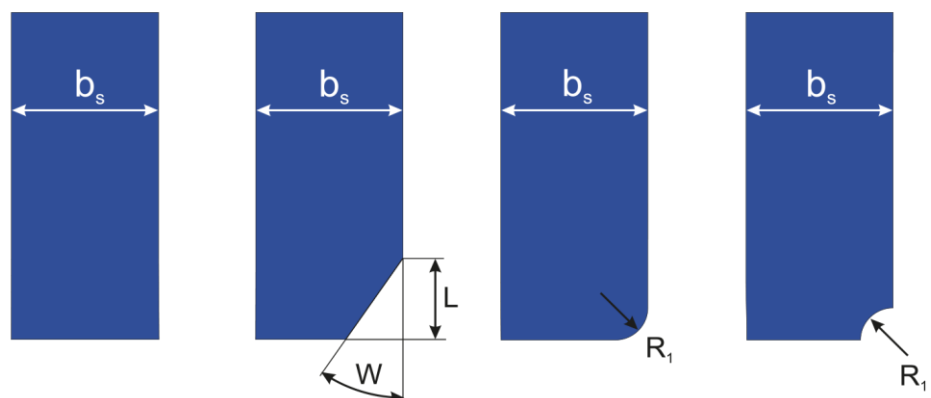
This rotary table grinding machine with CB-control was planned and designed for single part production or small-scale production. In workshops, it is necessary that grinding machines are easy to use. Process modifications must be easy to realize. The CB-control has been developed exactly for this scope of operations. Especially for adjustment work, the infeed can be made with  $\mu\text{m}$ -precision by means of the electric manual wheel – analogue to the manual wheel of a hand-controlled machine.



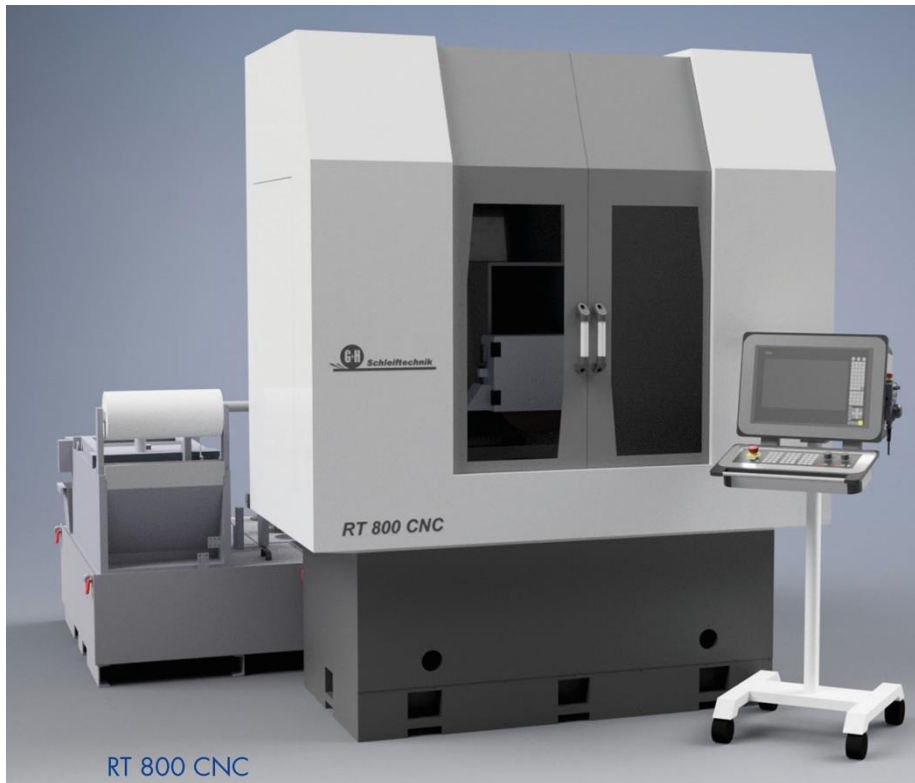
## CB

The grinding wheels can be provided with radii or bevels on their edge. The corresponding dressing amounts, as well in diameter as in width of the grinding wheel, are compensated.

It is possible to interlink up to 8 different grinding cycles per workpiece.



# CNC-CONTROL SYSTEM



## Advantages

- Integration of additional axes
- Integration of additional grinding spindles
- Contours are free programmable
- Up to 30 grinding cycles combinable with one another

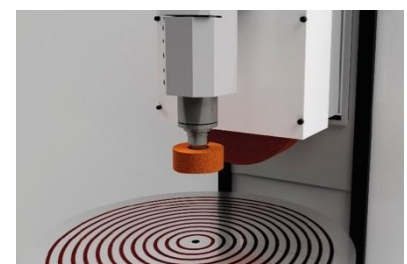
## CNC-Control for high demands and flexibility

- 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



## Additional axes and grinding wheels

Rotary table grinding machines with a CNC-control allow the operator to integrate additional axes or grinding spindles into the machine. With a vertical grinding spindle, it is possible to treat as well the inner as the outer diameter of a workpiece. With a horizontal grinding spindle, the flat surface can be treated.



## Accessories



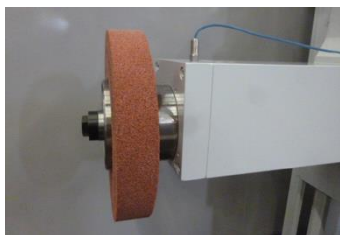
### Universal paper band filter

The universal paper band filter assures the continuous cleaning of the coolant by filtering impurities.

Electronically regulated pumps improve operating comfort and reduce energy consume. The coolant volume flow can easily be regulated from the control panel.

### Permanent-Magnet-Filter

The permanent-magnetic-filter is conceived for the continuous cleaning of the coolant by means of separating the ferro-magnetic impurities. Magnetic and non-magnetic materials (p. e. abrasive particles) are retained by the filter.

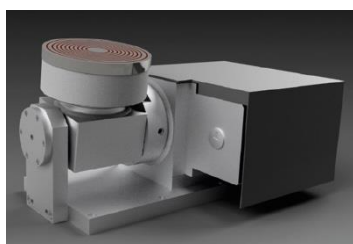
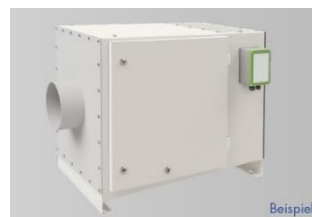


### Pre-installation of a mobile balancing device

A balanced grinding wheel is the basis for good grinding results. The sensors for the mobile balancing device are installed in the machine. The connection to the device is comfortably made with two connection cables.

### Compact air cleaning set

The compact air cleaning set helps to reduce the pollution of the atmosphere with coolant mist and to filtrate it.



### Rotary table with swivelling axis

With an electronically controlled swivelling axis, the rotary table can be tilted forward to a free programmable angle position. So, it is possible to grind surfaces held in a clamping device under different angles. This option improves not only the flexibility of the machine but also the process runtime, without that persons must intervene into the work operation.

### Vertical grinding spindle

With a vertical grinding spindle, it is possible to treat as well the inner as the outer diameter of the workpiece. With this feature, well-proven functions of the G+H-cylindrical machine program can also be used.



| Type  | RT 400 | RT 500      | RT 600          | RT 800      | RT 1000           | RT 1200       | RT 1500       |
|---|--------|-------------|-----------------|-------------|-------------------|---------------|---------------|
| Grinding length                                   | mm     | Ø 400       | Ø 500           | Ø 600       | Ø 800             | Ø 1.200       | Ø 1.500       |
| Diameter magnetic clamping plate                  | mm     | Ø 400       | Ø 500<br>Ø 600* | Ø 600       | Ø 800<br>Ø 1.000* | Ø 1.200       | Ø 1.500       |
| Grinding height                                   | mm     | 200         | 200             | 350         | 350               | 500           | 500           |
| Grinding height (Option)                          | mm     | 400         | 400             | 550         | 550               | 700           | 700           |
| Table load  | kg     | 400         | 500             | 1.000       | 1.000             | 2.000         | 2.500         |
| <b>X-Axis rotative movement of the work table</b> |        |             |                 |             |                   |               |               |
| Rotation speed of the table                       | mm     | 420         | 650             | 850         | 1.050             | 1.250         | 850           |
| <b>Y-Axis – vertical movement</b>                 |        |             |                 |             |                   |               |               |
| Distance between table** and spindle              | mm     | 140 – 350   | 140 – 350       | 190 – 600   | 190 – 600         | 240 – 750     | 240 – 750     |
| Distance between table** and spindle (Opt.)       | mm     | 140 – 550   | 140 – 550       | 190 – 800   | 190 – 800         | 240 – 950     | 240 – 950     |
| Vertical speed                                    | mm/min | 50 – 4.000  | 50 – 4.000      | 50 – 4.000  | 50 – 4.000        | 50 – 4.000    | 50 – 4.000    |
| <b>Z-Axis – transversal movement</b>              |        |             |                 |             |                   |               |               |
| Cross movement, max.                              | mm     | 300         | 350             | 450         | 550               | 750           | 900           |
| Cross speed                                       | mm/min | 50 – 4.000  | 50 – 4.000      | 50 – 4.000  | 50 – 4.000        | 50 – 4.000    | 50 – 4.000    |
| <b>C-Axis – grinding spindle</b>                  |        |             |                 |             |                   |               |               |
| Power of grinding spindle motor CB                | kW     | 3,7         | 3,7             | 11          | 11                | 15            | 15            |
| Power of grinding spindle motor (Option)          | kW     | 7   9       | 7   9           | 15   17     | 15   17           | 17   22       | 17   22       |
| Power of grinding spindle motor CNC               | kW     | 7           | 7               | 11          | 11                | 17            | 17            |
| Power of grinding spindle motor CNC (Opt.)        | kW     | 9   11      | 9   11          | 17          | 17                | 22            | 22            |
| Grinding speed                                    | m/s    | 32          | 32              | 32          | 32                | 32            | 32            |
| Grinding speed (Option)                           | m/s    | 50          | 50              | 50          | 50                | 50            | 50            |
| Grinding wheel, Standard                          | mm     | 300x50x76,2 | 300x50x76,2     | 400x100x127 | 400x100x127       | 500x100x203,2 | 500x100x203,2 |

\* The dressing of the grinding wheel with this bigger magnetic plate is only restrictively possible.

\*\*on the magnetic plate

Technical modifications reserved



[www.ghtech.cz](http://www.ghtech.cz)

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## Who we are:

On our site in Homberg (Ohm) in Hessen, precision grinding machines and their accessory equipment are being produced since 1956. Now, more than 10.000 manufactured machines are in action all over the world.

All machines that are supplied by Geibel & Hotz are assembled, put into service and subjected to an extensive quality control on our site in Homberg.

Thanks to the central situation of our company, every place in Germany can be reached by car within 8 hours. Service interventions can be arranged optimally for our customers from our location.