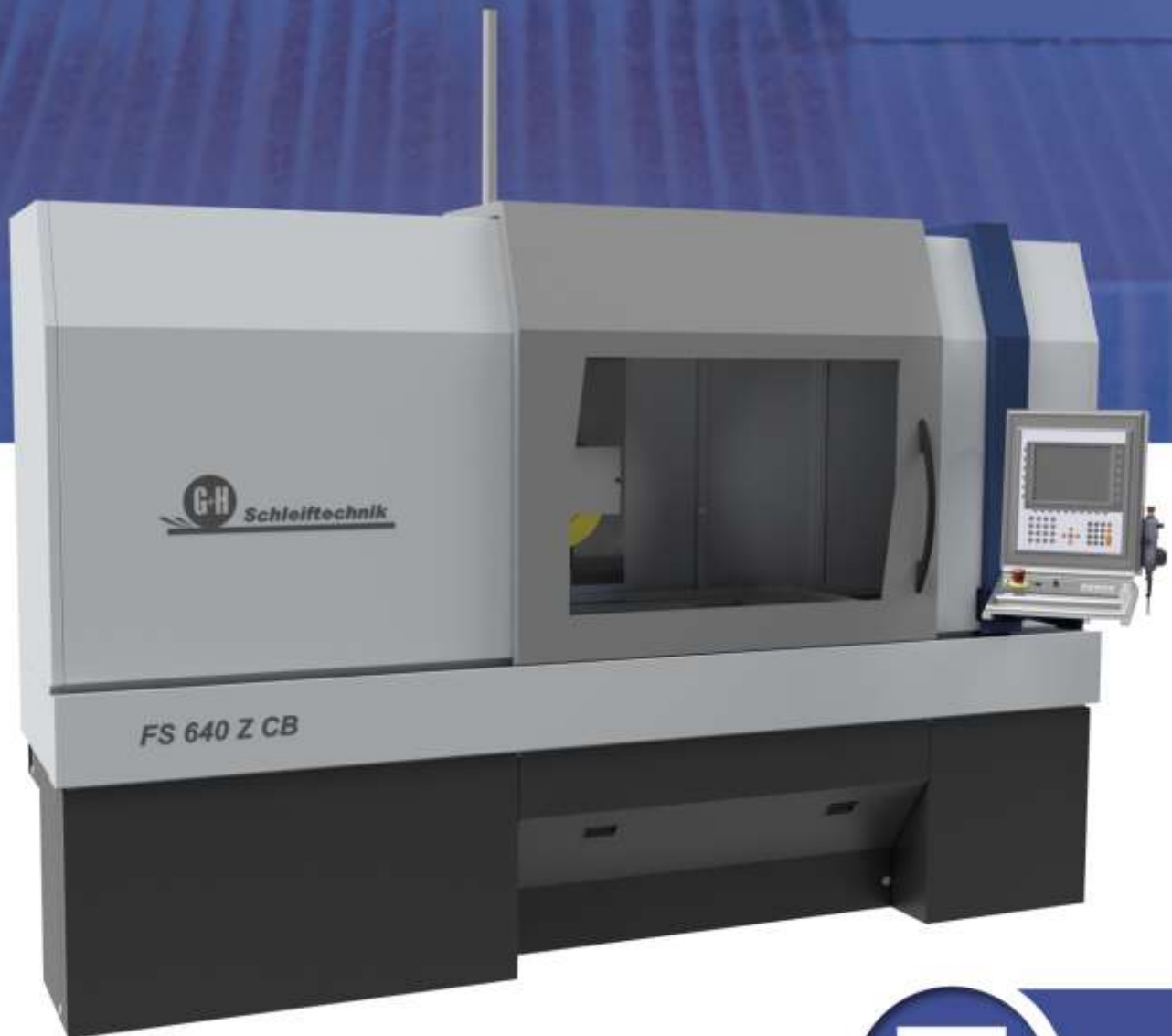




# Precision surface and profile grinding machine CB



**SURFACE  
GRINDING  
MACHINE**

# Precision surface grinding machine



This machine was conceived especially for individual and small-lot production. In a workshop, it is necessary that surface grinding machines are easy to use. Process modifications must be easily realisable. The CB-control was developed 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.

Thanks to the chain linking of cycles, the machine is also suitable for serial operation.

## Special features



### Guideways

All 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.



### Electro-mechanical table drive

The electro-mechanical table drive allows regulable table speeds between 1 and 35.000 mm/min. Therefore, the machine is suitable as well for speed stroke grinding as for creep feed grinding. The working table can also be actuated very precisely to be set up.

## Central lubrication

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



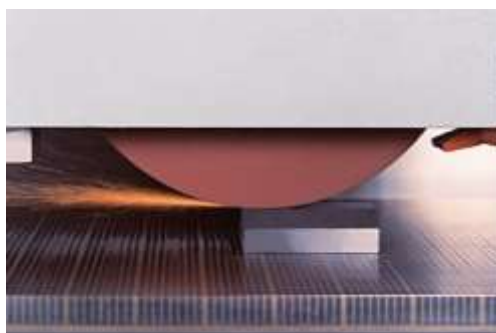
## Dressing with compensation

Automatic dressing from the table allows highest precision. A dresser can be installed at every place of the working area. 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, the dressing cycle can be started manually during the grinding process. By means of the twin dresser, it is possible to undercut the grinding wheels and to profile the edges of the grinding wheels.



## Electro-permanent-magnetic-clamping plate

with regulation of the adhesive force and demagnetisation. Bores for compressed air in the magnetic plate are optional.



## Regulation of the rotation speed

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



## Advantages

- clear arrangement of the control elements
- dual operating concept
- numerical input of numerical values
- electric manual wheel on the operating satellite
- transfer of machine positions with teach in buttons

In a workshop, many persons frequently operate on one and the same grinding machine. For this reason, the functioning is easy and the configuration clearly arranged. No program skills are necessary.

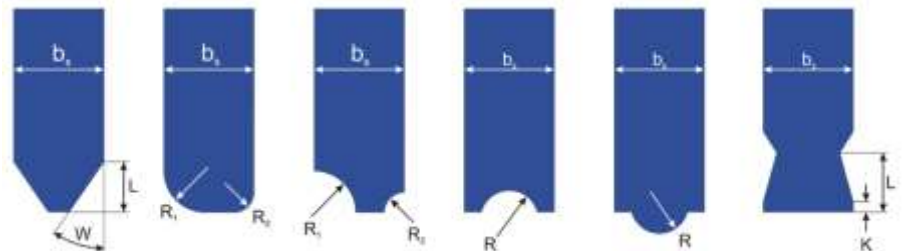
## Functions of the CB-control

- Surface grinding
- Plunge grinding
- Slot grinding (grinding of several parallel slots)
- Multi-surface grinding
- Face grinding
- Creep-feed grinding
- Dressing with compensation
- Automatic undercut of the grinding wheel with compensation
- Automatic profiling of the edges of the grinding wheel
- Digital vertical axis with ball screw and glass scale
- Digital transversal axis with ball screw and glass scale
- Regulation of the rotation speed of the grinding spindle
- Regulation of the adhesive force of the magnetic clamping plate and demagnetisation
- Workpiece data storage for 100 units
- Grinding wheel data storage for 20 grinding wheels
- Interlink possibility for up to 8 grinding cycles
- TFT screen, colour, with touch-function
- Electric manual wheel on the operating satellite
- USB-connection for data storage

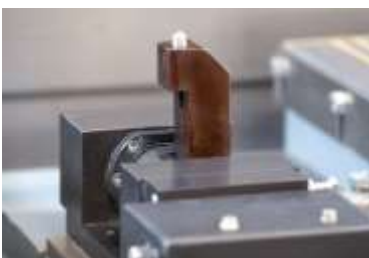


## Profiling of the grinding wheel

On the grinding wheels you can realize radii or bevels. The corresponding dressing amounts are compensated, as well diametral as in the width.



## Accessories



### Foldaway dresser

The foldaway dresser offers the same precision as a dresser mounted onto the work table. After termination of the dressing process, the dresser folds away under the surface of the magnetic clamping plate.



Type	FS 420 Z CB	FS 640 Z CB	FS 840 Z CB	FS 850 GT CB	FS 1050 GT CB	FS 1250 GT CB	FS 1550 GT CB	FS 2050 GT CB
Grinding length	400	600	800	800	1.000	1.200	1.500	2.000
Grinding width	200	400	400	500	500	500	500	500
Grinding height	300	375	375	425	425	425	425	425
Grinding height (Option)	450	565	565	625	625	625	625	625
Table load	150	600	700	1.100	1.380	1.650	1.970	2.930
<b>X-Axis – longitudinal movement of the grinding table</b>								
Table longitudinal movement	10 – 420	10 – 650	10 – 850	50 – 850	50 – 1.050	50 – 1.250	50 – 1.550	50 – 2.050
Table speed	0,001 – 35	0,001 – 35	0,001 – 35	0,001 – 35	0,001 – 35	0,001 – 35	0,001 – 35	0,001 – 35
<b>Y-Axis – vertical movement</b>								
Distance table to grinding spindle	110 – 415	140 – 525	140 – 525	180 – 625	180 – 625	180 – 625	180 – 625	180 – 625
Distance table to grinding spindle (option)	110 – 565	140 – 715	140 – 715	180 – 825	180 – 825	180 – 825	180 – 825	180 – 825
Vertical speed	50 – 4.000	50 – 4.000	50 – 4.000	50 – 4.000	50 – 4.000	50 – 4.000	50 – 4.000	50 – 4.000
<b>Z-Axis – transversal movement</b>								
Transversal movement (max.)	200	400	400	500	500	500	500	500
Transverse speed	50 – 4.000	50 – 4.000	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	4	4	4	11	11	11	11	11
Power of grinding spindle motor (Option)	5,5   7	7   9	7   9	15   17	15   17	15   17	15   17	15   17
Rotation speed of grinding spindle	1.000 – 4.240	1.000 – 3.180	1.000 – 3.180	800 – 2.380	800 – 2.380	800 – 2.380	800 – 2.380	800 – 2.380
Grinding wheel, standard	225x25x51	300x50x76,2	300x50x76,2	400x100x127	400x100x127	400x100x127	400x100x127	400x100x127

Technical modifications reserved

Type	FS 1060 GT CB	FS 1260 GT CB	FS 1560 GT CB	FS 2060 GT CB	FS 1070 GT CB	FS 1570 GT CB	FS 2070 GT CB	FS 15100 GT CB	FS 20100 GT CB
Grinding length	mm	1.000	1.200	1.500	2.000	1.500	2.000	1.500	2.000
Grinding width	mm	600	600	600	700	700	700	1.000	1.000
Grinding height	mm	425	425	425	600	600	600	750	750
Grinding height (Option)	mm	625	625	625	800	800	800	950	950
Table load	kg	1.560	1.850	2.380	3.110	2.380	3.110	2.380	3.110
<b>X-Axis – rotative movement of the grinding table</b>									
Table longitudinal movement	mm	50 – 1.050	50 – 1.250	50 – 1.550	50 – 2.050	50 – 1.050	50 – 2.050	50 – 1.550	50 – 2.050
Table speed	m/min	0,001 – 35	0,001 – 35	0,001 – 35	0,001 – 35	0,001 – 35	0,001 – 35	0,001 – 30	0,001 – 30
<b>Y-Axis – vertical movement</b>									
Distance table to grinding spindle	mm	180 – 625	180 – 625	180 – 625	180 – 625	180 – 800	180 – 800	240 – 1.000	240 – 1.000
Distance table to grinding spindle (option)	mm	180 – 825	180 – 825	180 – 825	180 – 825	180 – 1.000	180 – 1.000	240 – 1.200	240 – 1.200
Vertical speed	mm/min	50 – 4.000	50 – 4.000	50 – 4.000	50 – 4.000	50 – 4.000	50 – 4.000	50 – 4.000	50 – 4.000
<b>Z-Axis – transversal movement</b>									
Transversal movement (max.)	mm	600	600	600	700	700	700	1.000	1.000
Transverse speed	mm/min	50 – 4.000	50 – 4.000	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	kW	11	11	11	11	15	15	15	15
Power of grinding spindle motor (Option)	kW	15   17	15   17	15   17	15   17	17   22	17   22	17   22	17   22
Rotation speed of grinding spindle	min <sup>-1</sup>	800 – 2.380	800 – 2.380	800 – 2.380	800 – 2.380	800 – 2.380	800 – 2.380	600 – 1.520	600 – 1.520
Grinding wheel, standard	mm	400x100x127	400x100x127	400x100x127	400x100x127	400x100x127	400x100x127	500x100x203,2	500x100x203,2



[www.gh-schleiftechnik.de](http://www.gh-schleiftechnik.de)



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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.