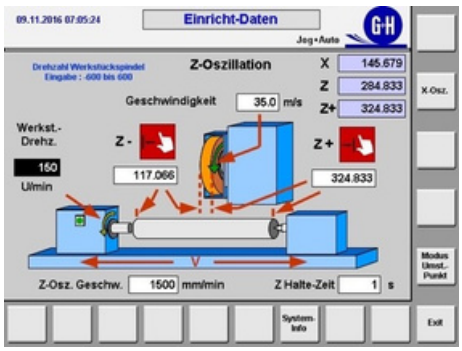
Precision
Cylindrical Grinding Machine CB

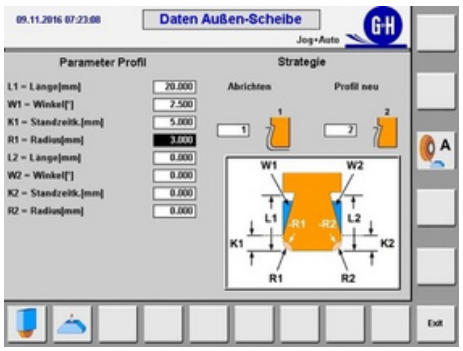
CYLINDRICAL
GRINDING
MACHINE

BASIC CONFIGURATION

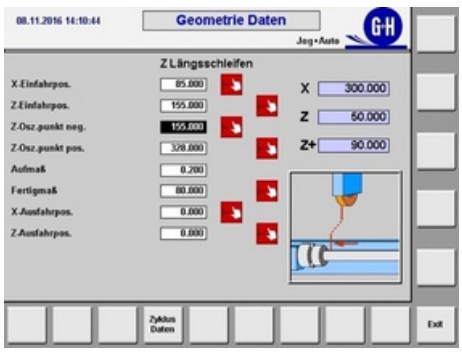
- Complete encapsulation
- Grinding wheel
- Grinding wheel mount
- Levelling elements
- Cooling lubricant reservoir
- Cleaning set
- Two centring points with carbide insert
- Automatic dressing
- Speed control of the grinding spindle

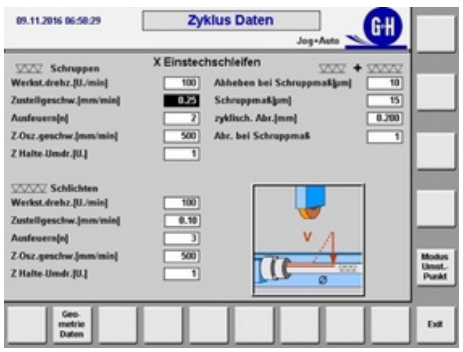
Clear setup of the machine





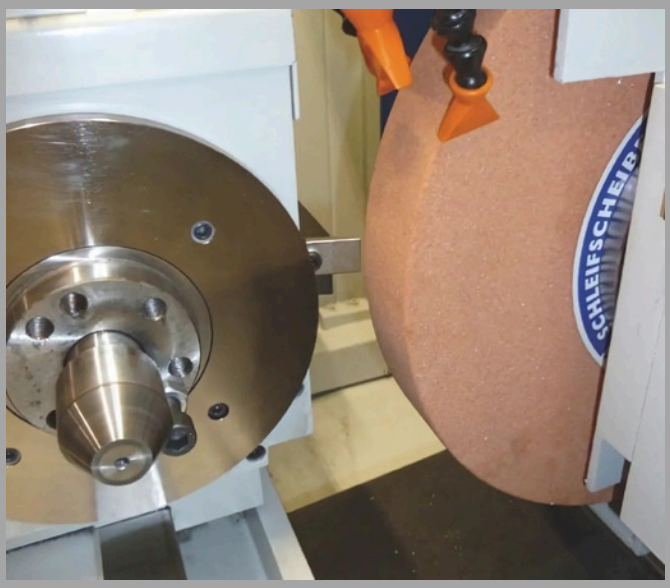
Clear programming of grinding cycles





CB – CONTROL FOR CYLINDRICAL GRINDING

- Clear arrangement of the controls
- Numerical input of numerical values
- Electric handwheel
- Accepting machine positions with teach buttons
- Longitudinal grinding with infeed at the turning points
  Plunge grinding in X-direction with short-stroke oscillation
  Plunge grinding in Z-direction with short-stroke oscillation
  Angular plunge grinding
- Virtual file boxes for workpieces, grinding wheels and dressers



Dressing with compensation

The automatic dressing of the grinding wheel from the work headstock enables the highest precision. The respective dressing amounts are compensated. In conjunction with the infinitely variable speed control, the cutting speed remains constant.
If necessary, a dressing cycle can be started manually while the grinding process is running.

Guideways

All linear guides are designed as V-flat slideways. The respective moving element is provided with the TURCITE-B® slideway coating. This coating ensures good damping to achieve the highest surface quality. The cast side is ground and scraped. The fully automatic circulating lubrication system supplies all guideways and ball screws of the axles with lubricating oil.

TECHNICAL DATA

Type		RS 300 CT	RS 600 C bis RS 1000 C	RS 600 CU bis RS 2000 CU
Distance between centres	mm	300	600	1.000	600	2.000
Centre height (Option)	mm	140	175	175	180 (230)	180 (230)
Grinding length	mm	300	600	1.000	600	2.000
Component weight between centres	kg	50	100	100	150	150
Component weight, cantilever	Nm	30	20	20	120	120
X-Axis – infeed movement						
Infeed speed	mm/min	0,01 – 4.000	0,01 – 5.000	0,01 – 5.000	0,01 – 8.000	0,01 – 8.000
Linear measurement system, int. resolution	mm	0,0005	0,0005	0,0005	0,0005	0,0005
Z-Axis – table movement						
Table speed	mm/min	0,01 – 10.000	0,01 – 10.000	0,01 – 10.000	0,01 – 12.000	0,01 – 12.000
C-Axis – workpiece spindle head						
Rotation speed	min^{-1}	0 – 600	0 – 600	0 – 600	0 – 600	0 – 600
Power of the motor	kW	2,0	2,0	2,0	2,0	2,0
Chuck cone		MK 4 / KK 5	MK 4 / KK 5	MK 4 / KK 5	MK 5 / KK 5	MK 5 / KK 5
Grinding spindles						
Power of grinding spindle motor	kW	5	7,5	7,5	11	11
Peripheral speed of grinding wheel	m/s	35 (50)	35 (50)	35 (50)	35 (63)	35 (63)
Grinding wheel, standard	mm	300 x 25 x 51	500 x 50 x 203,2	500 x 50 x 203,2	500 x 80 x 203,2	500 x 80 x 203,2
Face grinding wheel, right hand (Option)	mm		250 x 30 x 127	250 x 30 x 127	300 x 40 x 127	300 x 40 x 127
Internal grinding spindle (Option)			on demand	on demand	on demand	on demand
Tailstock						
Chuck cone		MK 4	MK 4	MK 4	MK 4	MK 4
Workpiece fixture		spring tension manual withdrawal	spring tension manual (hydraulic) withdrawal	spring tension manual (hydraulic) withdrawal	spring tension manual (hydraulic) withdrawal	spring tension manual (hydraulic) withdrawal

( ) Option

TECHNICAL DATA

Type		RS 1000 CM	bis	RS 4000 CM	RS 2000 CP	bis	RS 6000 CP	RS 2000 CPA	bis	RS 6000 CPA
Distance between centres	mm	1.000		4.000	2.000		6.000	2.000		6.000
Centre height (Option)	mm	300		300	400		400	400 (500)		400 (500)
Grinding length	mm	1.000		4.000	2.000		6.000	2.000		6.000
Component weight between centres	kg	800		800	2.000		2.000	4.000		4.000
Component weight, cantilever	Nm	200		200	600		600	1.600		1.600
X-Axis – infeed movement										
Infeed speed	mm/min	0,01 – 8.000		0,01 – 8.000	0,01 – 8.000		0,01 – 8.000	0,01 – 8.000		0,01 – 8.000
Linear measurement system, int. resolution	mm	0,0005		0,0005	0,0005		0,0005	0,0005		0,0005
Z-Axis – table movement										
Table speed	mm/min	0,01 – 8.000		0,01 – 6.000	0,01 – 8.000		0,01 – 6.000	0,01 – 8.000		0,01 – 6.000
C-Axis – workpiece spindle head										
Rotation speed	min^{-1}	0 – 300		0 – 300	0 – 200		0 – 200	0 – 200		0 – 200
Power of the motor	kW	5,0		5,0	8,2		8,2	8,2		8,2
Chuck cone		MK 5 / KK 6		MK 5 / KK 6	MK 6 / KK 8		MK 6 / KK 8	ME 80 / KK 11		ME 80 / KK 11
Grinding spindles										
Power of grinding spindle motor	kW	15		15	18		18	23		23
Peripheral speed of grinding wheel	m/s	35 (63)		35 (63)	35 (63)		35 (63)	35 (63)		35 (63)
Grinding wheel, standard	mm	600 x 80 x 203,2		600 x 80 x 203,2	750 x 80 x 304		750 x 80 x 304	750 x 80 x 304		750 x 80 x 304
Face grinding wheel, right hand (Option)	mm	300 x 40 x 127		300 x 40 x 127	400 x 40 x 127		400 x 40 x 127	400 x 40 x 127		400 x 40 x 127
Internal grinding spindle (Option)		on demand		on demand	on demand		on demand	on demand		on demand
Tailstock										
Chuck cone		MK 5		MK 5	MK 6		MK 6	ME 80		ME 80
Workpiece fixture		Spring tension hydraulic withdrawal		Spring tension hydraulic withdrawal	Servomotor		Servomotor	Servomotor		Servomotor

( ) Option

Technical data are subject to change without notice

Grinding Tailored to You.

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Who we are

At our site in Homberg (Ohm), Hesse, precision grinding machines and accessories have been manufactured since 1956. Today, more than 12,000 of our machines are in operation worldwide.
Every Geibel & Hotz machine is assembled, commissioned, and subjected to thorough quality control at our headquarters. This ensures the highest standards of precision and reliability.
Our service is centrally coordinated and strengthened by a global network of authorized partners. Working closely with our experienced factory fitters, they provide expert support and dependable service wherever you are in the world.