

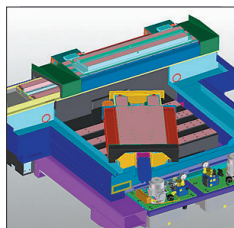
TSCHUDIN T35

THE MODULAR PRODUCTION
CYLINDRICAL GRINDING MACHINE



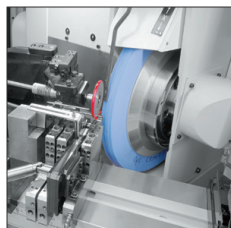
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THE MODULAR PRODUCTION CYLINDRICAL GRINDING MACHINE



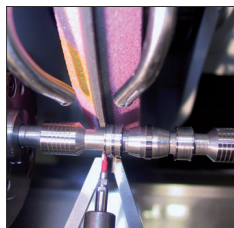
Axes configuration

- Straight or angular
- Range $+6^\circ$ to -30° configurable



Prismatic grinding system

- Very efficient production grinding process
- Shortest part changing time, rapid retooling
- Fully integrated handling with modular peripherals and great autonomy



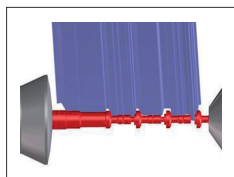
Burr-free grinding

- Several patented processes
- Production of sharper, burr-free edges



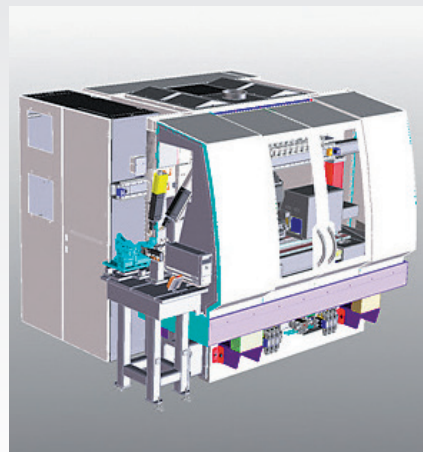
Match grinding

- Highly accurate automatic process with several extension possibilities
- Automatic cylindrical correction within $0.1\mu\text{m}$ range



Grinding from hardened bar stock

- High precision parts can be finish-ground directly from hardened bar stock
- Optimal process to produce non-machined parts with high precision centers and minimum over measure for subsequent operations

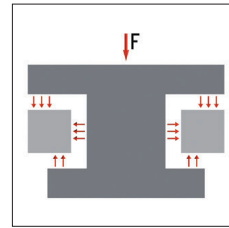


Automation

- Modular concept for peripherals and handling systems
- Wide application range from small integrated handling to complex systems with autonomous cells
- Unrestricted use, water or oil
- Customer-specific solutions possible

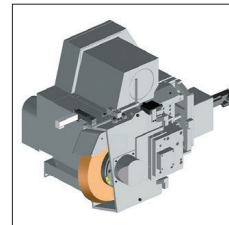
Technical Data Tschudin T35

Dimensions		
Distance between centers	mm	400
Grinding length	mm	400
Centre height	mm	125 / 175
Max. workpiece diameter	mm	249
Workpiece weight		
between centres	kg	150
Base / Table slide		
Travel z axis	mm	600
Rapid traverse	m/min	15
Resolution	µm	0.1
Upper table		
Swivelling range	degr	+/- 6 °
Wheel slide		
Travel x axis	mm	350
Rapid traverse	m/min	7.5
Resolution	µm	0.1
Wheelhead OD		
Wheel (appl. spez.)	mm	400 - 500 x 80 x 203.2
Diameter	mm	up to 600
Width	mm	up to 120
opt	mm	500 x 120 x 203.2
Peripheral roller bearing	m/s	0 - 120
Peripheral hydrodynamic	m/s	45 / 60
Spindle speed	min-1	V const (opt)
Motor output	kW	10 (opt. up to 20)
Workhead		
Spindle speed	min-1	5 - 1,500 (opt. 3,000)
Motor output	kW	2.1
Spindelnose taper		MT5 / Ø 70 mm // MT6 / Ø 90 mm
Spindelnose bore	mm	34
Spindle torque	Nm	20
Tailstock		
Sleeve retraction	mm	80
internal taper		MT3
Control		Bosch / Siemens



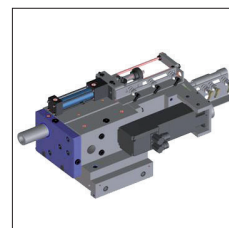
Hydrostatics with holding device

- X and Z guideways
- No stick slip
- Good damping
- High dynamics



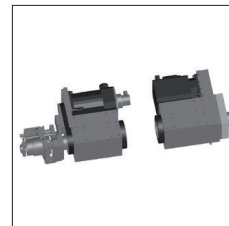
Wheelhead

- Hydrodynamic spindle bearings
- Roller bearing variant for applications up to 120 m/sec.
- Grinding wheels 400 – 600 mm



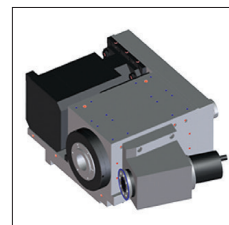
Tailstock

- In manual or automatic versions
- Version for automatic taper correction



Workhead

- MT5 and MT6 versions in modular construction
- Synchronously running workheads left and right for special grinding applications



Dressing device

- Formed dressing roll unit installed behind workhead, tailstock or on the table
- CNC controlled profiling roll unit fitted behind the wheelhead

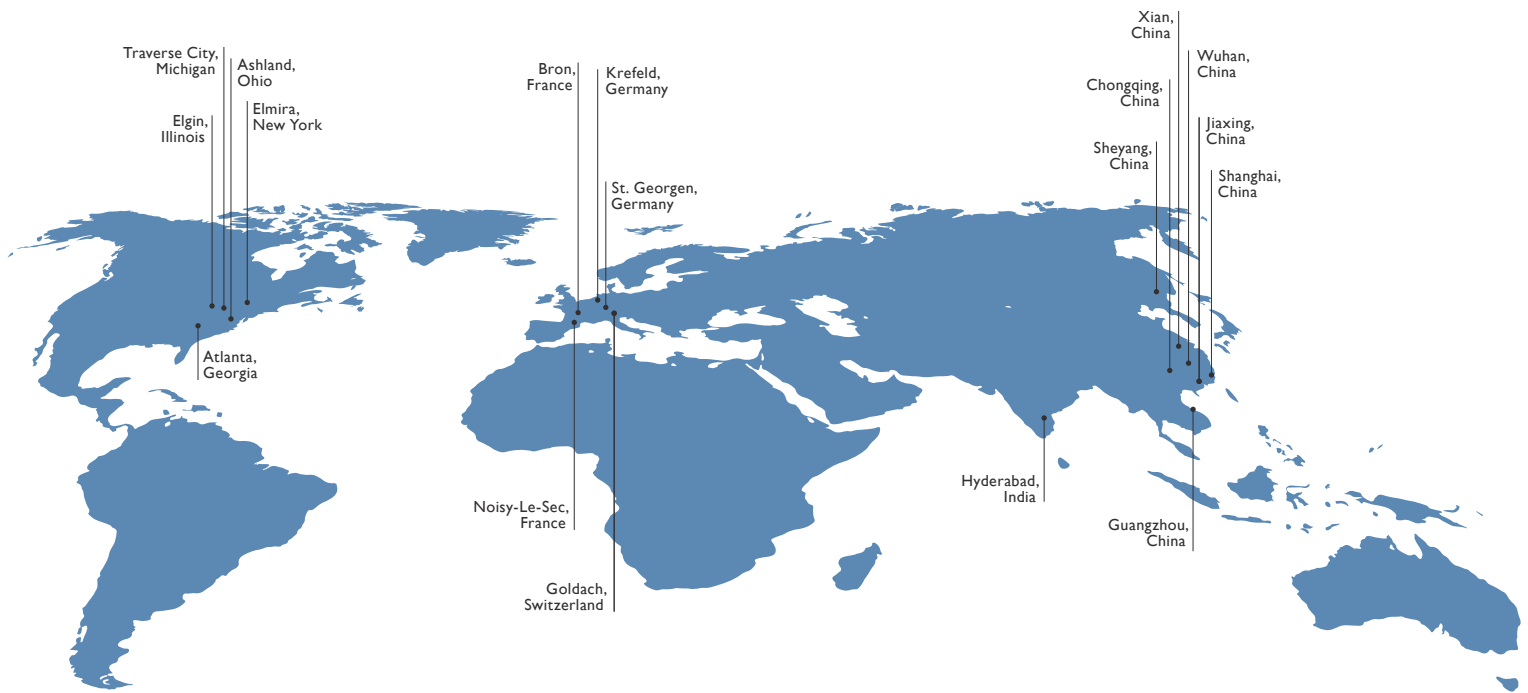


Control systems

- Siemens 840 D
- Bosch Rexroth MTX

The software for the control system was developed by grinding specialists and thus permits optimum programming of grinding and dressing processes. A particular highlight is the integration of part-specific features such as measurement technology, handling and additional processing units.

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The diverse products we offer enable us to support a variety of market applications in industries including aerospace, agricultural, automotive, construction, consumer products, defense, energy, medical, technology, transportation and more.

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