

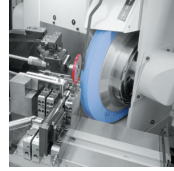
KELLENBERGER TS1000

The modular production
Cylindrical Grinding Machine



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The modular production Cylindrical Grinding machine



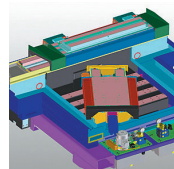
Burr-free grinding

Several patented processes
Production of sharper,
burr-free edges



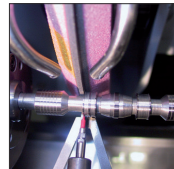
Axes configuration

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



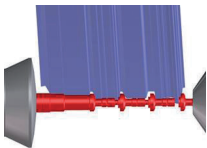
Prismatic grinding system

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



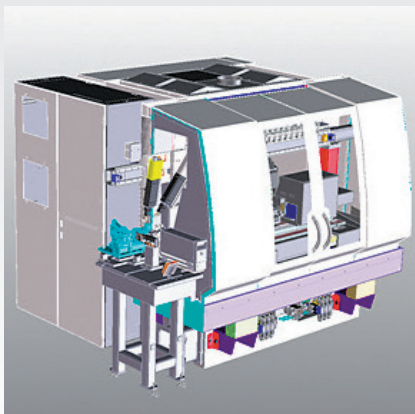
Match grinding

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 Kellenberger TS1000

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
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Base / Table slide

Travel z axis	mm	600
Rapid traverse	m/min	15
Resolution	µm	0.1

Upper table

Swivelling range	degr	+/- 6 °
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Wheel slide

Travel x axis	mm	350
Rapid traverse	m/min	7.5
Resolution	µm	0.1

Wheelhead OD

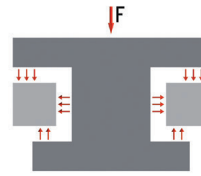
Wheel (appl. spez.)	mm	400 - 500 x 80 x 203.2
Diameter	mm	up to 600
Width	mm	up to 120
opt	mm	500 x 120 x 203.2
Peripheral roller bearing	m/s	0 - 120
Peripheral hydrodynamic	m/s	45 / 60
Spindle speed	min-1	V const (opt)
Motor output	kW	10 (opt. up to 20)

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

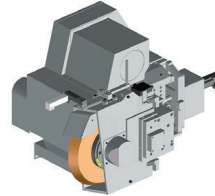
Tailstock

Sleeve retraction	mm	80
internal taper		MT3
Control		Bosch / Siemens



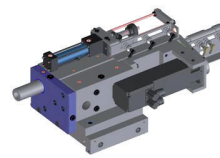
Hydrostatics with holding device

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



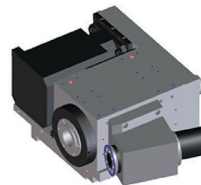
Tailstock

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 system

Siemens Sinumerik ONE

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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All prices and details are subject to change without notice. 1/2025

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