Machine construction

1 Machine bed
- Welded construction, celle design
- Thermally relieved and vibration damped
- Smooth interior for good cooling water drainage and cleaning
- Through-hardened precision guide ways

2 Machine table
- Cast-iron or electromagnetic chucks with steplessly variable speeds
- One or two axis tilting devices for hollow or face grinding
- Automatic workpiece lifting devices

3 Grinding head carriage
- Heavy duty cast-iron construction for best load distribution and smooth operation
- All-side roll system for horizontal movement
- Adjustable, long flat guide ways for vertical movement

4 Down feed
- Ballscrew system with hydraulic weight compensation for precise downfeed steps and rapid machine adjustments

5 Grinding spindle RH
- High precise bearing arrangement available as friction or roller bearing
- Rotating wheel cone with fixed double speed supported axis

6 Grinding spindle RV
- Special construction with high precise roller bearings
- Hollow motor shaft for coolant water supply
- Motor tilting device for hollow or face grinding

7 Grinding wheels RH
- Straight wheels with cone flange
- Dressing devices

8 Grinding tools RV
- Segment heads, ring wheels, cup wheels
- Dressing devices

9 Coolant water unit
- Strong coolant and cleaning pumps
- Large sized coolant tanks
- Fully automatic cleaning units

10 Machine control
- Free pre-programmable grinding cycles
- Cleartext operator guidance
- Loop-controlled axis
- Steplessly variable speeds
- Automatic gauging devices

Our further manufacturing program

- Vertical long-table surface grinders, profile grinders
  grinding motor capacity of 2 to 350 kW
  grinding lengths of 900 to 15 000 mm
  grinding widths up to 1200 mm
- Horizontal long-table surface grinders, profile grinders
  grinding motor capacity 10 to 60 kW
  grinding lengths of 900 to 15 000 mm
  grinding widths up to 1000 mm
- Knife grinding machines for straight and circular knives. Tungsten Carbide knives
- Roll grinding machines
  grinding motor capacity 3 to 50 kW
  roll diameter up to 1000 mm
  roll lengths up to 6000 mm
- Face (end) grinding machines
  grinding motor capacity from 10 bis 50 kW
  angles up to 50°
- Handling systems and robots with and without CNC are steps of automation to increase output and tobe more economic for all machine types.

Gustav Göckel Maschinenfabrik GmbH · D-64293 Darmstadt
Phone: +49 61 51/8 83 36-0 • Fax: +49 61 51/8 83 36-70 • e-mail: g.goeckel@t-online.de

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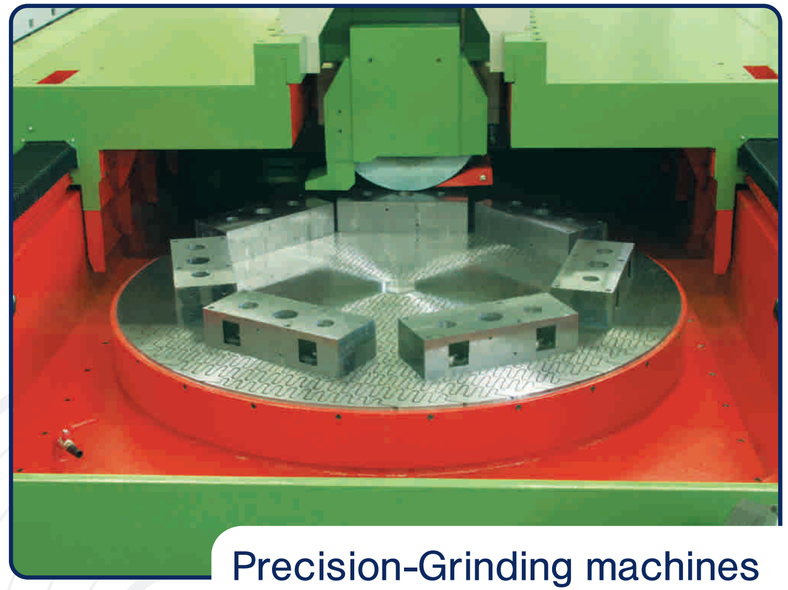
Founded in 1883

Göckel
Precision-Grinding machines



Precision-Grinding machines
for your production

modern and cost-effective grinding with the Göckel system

Our company has more than 115 years‘ tradition in mechanical engineering and has specialized in precision grinding machines for decades.

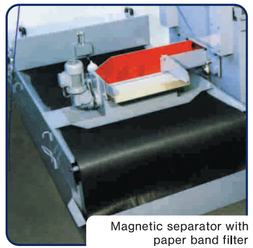
We offer you innovation for your production with our proven Göckel system

Horizontal rotary-table Surface grinding machine Type RH

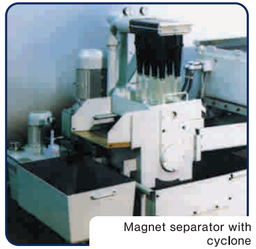
Table ø 500-1800 mm, Capacity 14-60 kW

RH 60/500

	RH 50	RH 60	RH 80	RH 100	RH 130	RH 150	RH 180
Grinding table ∅ mm	500	600	800	1000	1300	1500	1800
Grinding height mm	250				300		
Grinding capacity kW	15		22		45-60		
Grinding speed U/min	1200-2200				1000-2000		
Grinding tool ∅ mm	350	350/500			500/600		
Rapid positioning mm/min	1000						
Down feed mm	0,001-0,2						
Table speed U/min	50-200		20-150		20-100		
Table drive kW	4		6		7,5	11	
Coolant l/min	160		240		400		
Grinding accuracy mm	± 0,002				± 0,005		



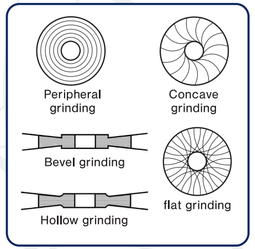
Magnetic separator with paper band filter



Magnet separator with cyclone

Coolant tank with paperbandfilter

Controldesk



Vertical rotary-table Surface grinding machine Type RV

Table ø 500-1800 mm, Capacity 25-185 kW

RV 180

RH 180/500

	RV 50	RV 60	RV 80	RV 100	RV 130	RV 150	RV 180
Grinding table ∅ mm	500	600	800	1000	1300	1500	1800
Grinding height mm	250				300		
Grinding capacity kW	30		52		90-185		
Grinding speed U/min	1000		750		600		
Grinding tool ∅ mm	450		500	600	800	1000	
Rapid positioning mm/min	1000						
Down feed mm	0,001-0,2						
Table speed U/min	50-200		20-150		20-100		
Table drive kW	4		6		7,5	11	
Coolant l/min	2 x 160		160 + 240		2 x 240		
Grinding accuracy mm	± 0,005				± 0,01		

Founded in 1883

Precision Grinding Machines

Technical Data

required space	clearance	grinding width	table width	grinding motor	grinding tool diameter	traverse drive speed
•length = grinding length+A •width •height (mm)	•height •width (mm)	(mm)	•Cast •el •elD •Pl (mm)	kW (PS)	(mm)	(m/min)
•A 1800 • 900 • 1400	•120/140 •260	•225	•200 •155 - 200 •80 •200	2 - 11 (3 - 15)	•250	•3 - 25 •0,02 - 30

Tolérance de rectification ± 0,005 mm/m

Machine Construction

1 machine bed, welded construction in cell design

2 guideways, hardened and ground way bands or hardened and ground solid ways

3 machine table, sturdy construction as fixed chuck (PL) or electromagnetic-rotating-chuck (el) or electromagnetic-double-chucks (elD) with adjustment and clamping device

4 grinding carriage, cast iron construction with anti-liftrolls, support guiding system with tapered gibs

5 downfeed system, for grinding tool, play free screw and nut system, impulse feed with scale, digital display or operator panel, rapid positioning

6 grinding motor with strong hollow shaft and high precision bearings, tiltable for cross and radial grinding

7 grinding tool, ring wheels, segmental heads, diamond and CBN wheels

8 traverse drive, variable adjustable

9 coolant water through the hollow motorshaft and from the sides, filtration cleaning

10 electric cabinet, separate installed

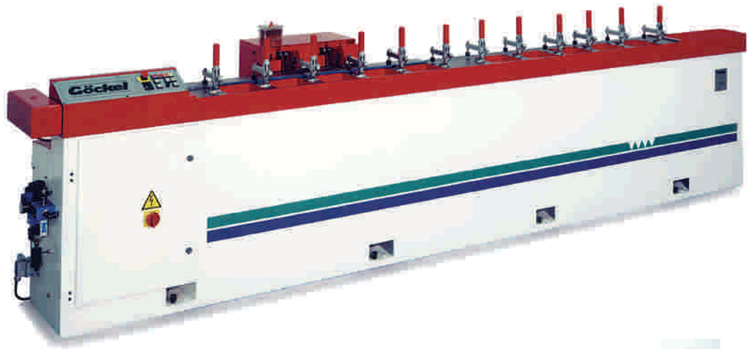
All data can be changed based to the individual requirements.

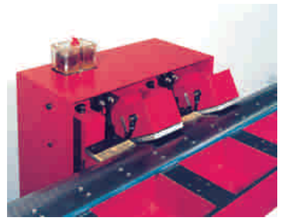
different specifications steps to automation

- electromagnetic quickchange device for grinding wheels
- electronic demag units
- stelessy variable grinding motors
- automatic sizing units with wheel wear compensation
- Program controls for automatic grinding cycles
- Pendolum and creep feed grindding
- NC- and CNC-Controls
- grinding system for tapered gibs
- grinding system for curved knives
- multiple chuck arrangements
- special fixturing
- two stationary grinding
- grinding vapour extraction units
- handling systems

Edge-Honing-Machine type MSA

To deburr and hone industrial knives





Honing heads make the difference

- Completely automated cycle.
- Automatic setting of proper angle and honing pressure.
- Knives of any length and of any angle can be honed together in one set up.

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Phone: +49 61 51/8 83 36-0 • Fax: +49 61 51/8 83 36-70 • e-mail: g.goeckel@t-online.de

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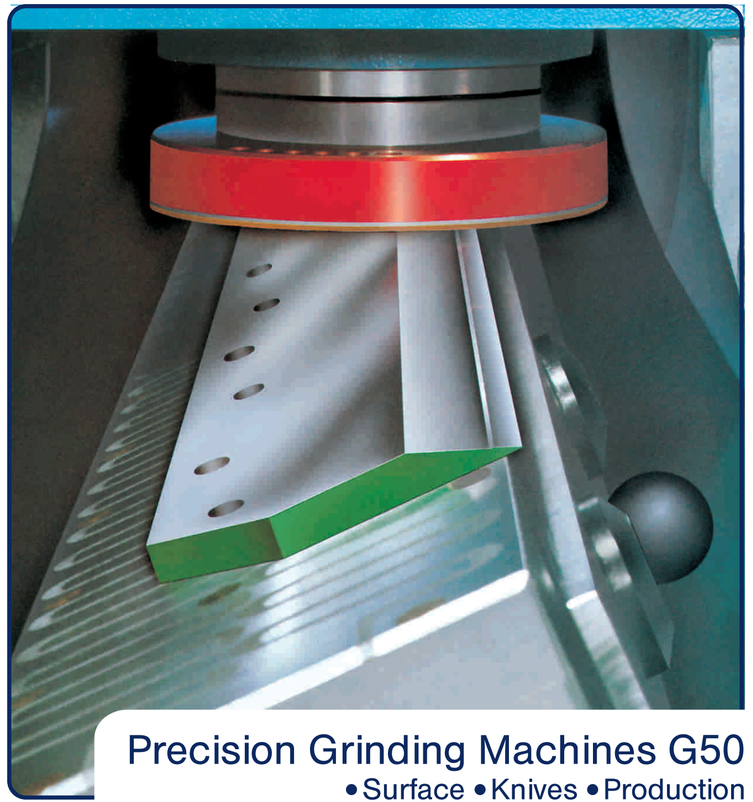

Precision Grinding Machines G50

• Surface • Knives • Production

G 50 RS el

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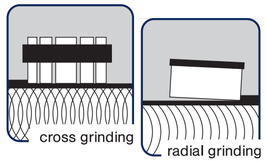
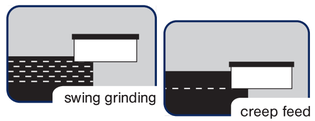
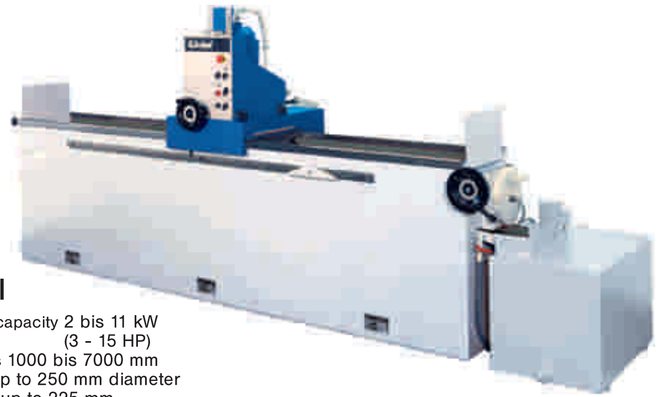






G 50 RS el

Grinding motor capacity 2 bis 11 kW
(3 - 15 HP)
Grinding lengths 1000 bis 7000 mm
Grinding head up to 250 mm diameter
Grinding widths up to 225 mm

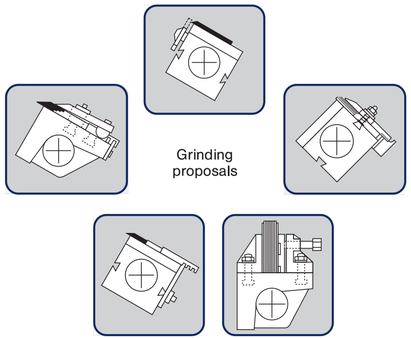
G 50 elT

Grinding motor capacity 2 bis 11 kW
(3 - 15 HP)
Grinding lengths 1000 bis 7000 mm
Grinding head up to 250 mm diameter
Grinding widths up to 225 mm

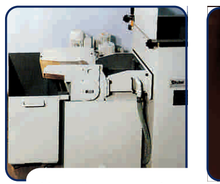
G 50 el

G 50 elT rob

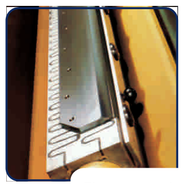
With NC-control and automatic cycle



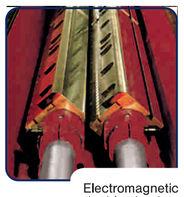
Grinding proposals



Magnetic separator for cleaning of coolant water



Electromagnetic clamping



Electromagnetic double chuck

Patented electromagnetic quick changing device for grinding tools

Operator panel for NC-control

Edge Honing Device

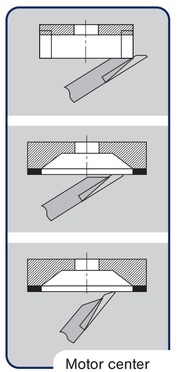
Superfinish-Grinding-Attachment

Grinding Carbide Knives

1 Recessing the steel body

2 Roughing of Carbide
Finishing of Carbide

3 Grinding the bevel of Carbide



Motor center line is unvarried