

Bevel Gear Grinding Machine

Stock number:	1118-1626
Type of machinery:	Bevel Gear Grinding Machine
Manufacturer:	KLINGELNBERG
Type:	OERLIKON G60
Year:	2005
Control unit:	CNC
Maker of control unit:	SINUMERIK 840 D
Country of origin:	Germany
Item location:	ex stock
Delivery time:	immediately
Freight basis:	EXW



Seller

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Technical specs

max. wheel diameter:	600 mm
gear width:	mm
max. module:	12
normal module range:	2-12 mm
adjustable dividing cone angle:	-90 to +90 °
max. axial adjustment over / below center:	+/-100 mm
max. grindable number of teeth:	360
grindable spiral angle (in tooth center):	without limit
diameter of the workpiece holder:	203.2 mm
grinding wheel diameter:	406 mm
max. height of grinding wheel with base plate:	135 mm
Grinding spindle speed max.:	4.500 1/min
spindle taper:	HSK-E63
grinding head (X-axis):	:
Travel:	340 mm
traversing speed:	20.000 mm/min
Kind of drive:	Synchronservomotor wassergekühlt
spindle pitch:	15 mm
grinding slide (Y-axis):	:
Travel:	1.310 mm
Max. travel speed:	60.000 mm/min
Speeding up max.:	2,5 m/sec ²
Kind of drive:	Linearmotor wassergekühlt
Axis radial (Z-axis):	:
Travel:	300 mm
traversing speed:	20.000 mm/min
Kind of drive:	Synchronservomotor wassergekühlt
spindle pitch:	10 mm
workpiece axis (B axis):	:
max. workpiece spindle speed:	40 1/min

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worm drive ratio:	1:75
swivel axis workpiece (C axis):	:
traversing speed:	10800 %/min
max. Speed:	100 U/min min-1
Dimension length x width x height:	3,65 x 5,5 x 3,1 m
machine weight ab.:	19.500 kg

Description

Equipment and accessories

- Control Siemens 840 D with operating system Windows XP, drives Siemens Simodrive 611, Profibus interfaces.
- Single grinding head with fully automatic grinding wheel threading device for exact determination of the tooth gap position at any workpiece position. No manual adjustment is necessary in series operation.
- System-independent grinding of almost all spiral bevel and hypoid gears pre-toothed in single-part and continuous processes.
- Extremely efficient and precise grinding of spur gear couplings, such as Curvic® couplings.
- Fully CNC-controlled machine concept designed for shortest set-up and changeover times as well as highest gear accuracy and grinding performance.
- Manual data input or read-in via data carrier from the KIMoS calculation program with the possibility of data storage for repeat cases on fixed memory disk or floppy disk.
- Workpiece-specific pre-programmable fully automatic work sequences with automatic threading of the grinding wheel into the pre-machined workpiece profile.
- High grinding performance due to 31 kW grinding wheel drive, intensive wet grinding and eccentric grinding spindle unit to avoid structural damage due to grinding burn.
- Low proportional tool costs through optional use of commercially available ceramic, vitrified bonded SG or CBN grinding wheels.
- Free profile modification possibilities through path-controlled dressing of the ceramic and vitrified bonded grinding wheels by means of a diamond roller.
- Automatic tracking of the cooling oil nozzles during dressing.
- Workpiece spindle with 8 inch mounting
- Automatic emergency retraction in case of overload of the drives
- Lockable maintenance room for hydraulics, pneumatics, lubrication, extinguishing system
- Automatic central lubrication and integrated hydraulic and pneumatic system
- Liquid cooled grinding spindle unit and direct drives
- Hydraulic workpiece and grinding wheel clamping device
- Pressure relief flap with release contact for an extinguishing system
- 1 set of fixators for precise alignment of the machine
- automatic work area door
- documentation in German language, double version
- integrated control cabinet with automatic cooling unit, completely installed with network-compatible full CNC control for all working and setting axes and integrated PLC
- high resolution absolute or incremental encoders for all linear and rotary axes
- liquid cooled motors and spindles for grinding with eccentric and dressing
- 2 machine lights in the work area
- Machine status light
- Exhaust system for the working area
- Program hours approx. 32.000h
- The machine has an interface to an automatic loading unit (Promot RZ)

Scope of delivery of the machine as described, but without:

- Coolant nozzle package
- 3D probe head
- Hoffmann coolant system