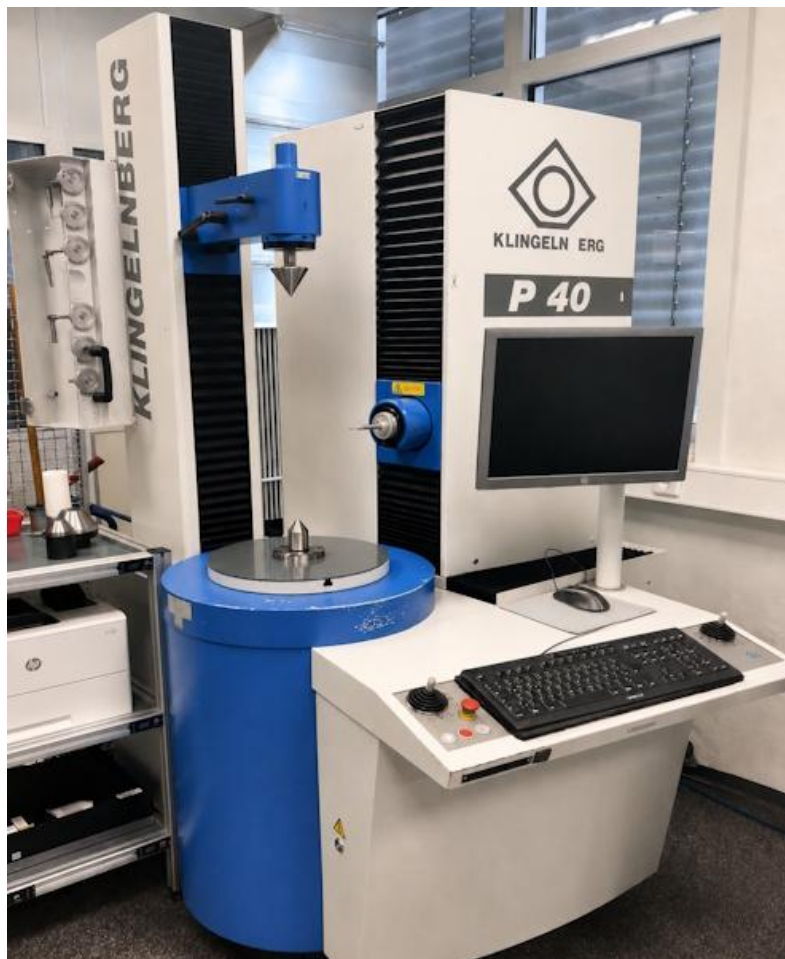


### TECHNICAL DATASHEET

#### CNC-Gear Measuring Center

Manufacturer	<b>KLINGELNBERG</b>
Type	<b>P 40</b>
Built	<b>2005</b>



The KLINGELNBERG P 40 is a fully automatic CNC-controlled gear measuring center with a compact machine design. It was specifically designed for the lower workpiece diameter range up to 400 mm and is suitable for the precise inspection of a wide variety of rotationally symmetrical components.

The measuring center can be used, among other applications, for the inspection of spur gears, shaving cutters, gear cutting tools, worms and worm wheels, hobs, and bevel gears. In addition, the machine is also suitable for general dimensional, form, and position measurements as well as for the inspection of camshafts, rotors, and similar workpieces.

The P 40 features a rigid mechanical structure with machine bed, workpiece rotary drive, column with tailstock, and horizontal, vertical, and tangential measuring axes. In combination with a 3D probe system, a 4-axis path control, and an evaluation computer, the machine enables highly accurate and automated measuring processes.

Operation is practical and efficient. After switching on the machine, the reference points of the individual measuring axes are approached automatically. Once the measuring program and workpiece data have been transferred from the evaluation computer to the machine control, the measuring center is ready for operation.

For new workpieces, a corresponding measuring program is first created via the evaluation computer. For recurring inspection tasks, stored measuring programs can be conveniently called up by entering the respective workpiece number.

Extensive software functions are available for evaluating the measuring results, allowing detailed analysis and documentation of the measured data.

### Range of Application

Module range	0,5 - 15	mm
Gear width, continuously traceable (Z-axis)	max. 550	mm
Min. /Max. helix or lead angle	0 - 90	°
Max. outer diameter of the gear	400	mm
Max. workpiece weight, including fixtures	300	kg
Distance between centers	15 - 800	mm

### Dimensions and weight

Machine dimensions approx.	2,5 x 1,5 x 2,4	m
Machine weight approx.	1.900	kg

### Connection Data

Supply Voltage	400	V
Frequency	50	Hz
Connected Load	3	kVA
Cable Cross-Section	2,5	mm <sup>2</sup>
Fuse Rating	3 x 20	A

### Equipment and Accessoires

- Counterholder with probe holder
- 2 probe holders without probe tips
- Ceramic calibration sphere with a diameter of 14.9993 mm
- HP EliteDesk workshop PC with Windows 10 operating system
- 19-inch HP E190i monitor, keyboard, and mouse
- Operator terminal with joystick and graphical axis display
- Ongoing measurement equipment monitoring by Klingelberg; last calibration in 2025

KLINGELBERG software for measuring:

- Spur and helical gears
- Shaping gears
- Hob cutters
- Shafts
- Contour scanning

The measurement software runs on an HP EliteDesk industrial PC with the Windows 10 operating system

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# FLECKENSTEIN

## Werkzeugmaschinen

