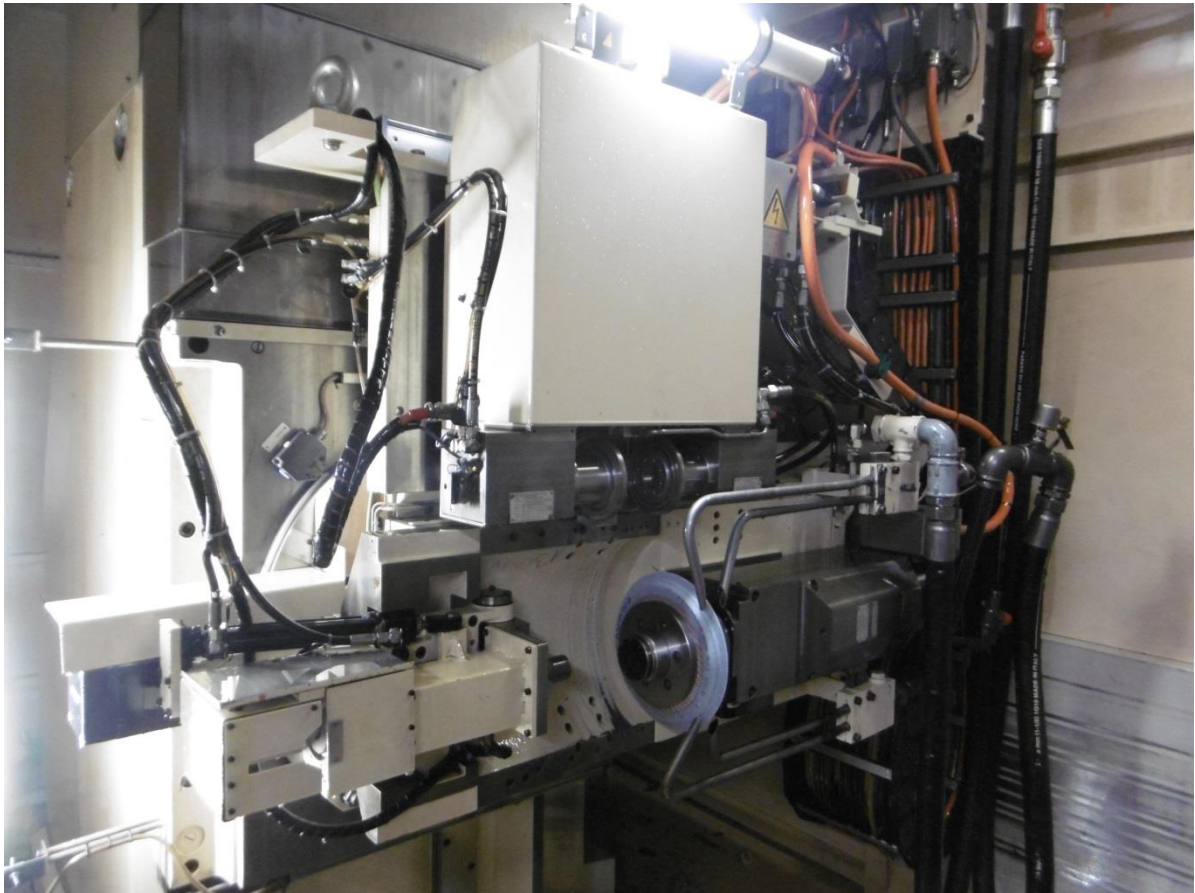


TECHNICAL DATA  
CNC-Profile-Grinding-Machine

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Manufacturer	<b>PFAUTER</b>
Type	<b>PE 1600 G</b>
Control	<b>SINUMERIK 840 C</b>
built	<b>1997</b>

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**Working Area**

Nominal workpiece diameter for external grinding head	1.600 mm
Max. Radial travel (X axis)	970 mm
Max. Tangential travel (Y axis)	300 mm
Max. Axial travel (Z axis)	1.000 mm
Max. Tread depth	80 mm
Grinding spindle swivel angle (A-axis)	+/- 45 Grad
Max. Module	20 mm

## Workpiece table

outer diameter	1.200	mm
Bore diameter x depth	Ø 300 x 875	mm
Max. permissible load	15.000	kg
Max. Table speed	4,5	1/min
Hydrostatic radial bearings		

## Grinding Spindle

drive power	24	kW	Medium-frequency three phase motor, liquid cooled
Max. Module	20	mm	
speed range	1.200 – 8.000	1/min	
Grinding mandrel Ø	80	mm	
Profile grinding wheel max. dimension	400x80x127	mm	
Automatic balancing device			

## Feeds

Axis X	3	m/min
Axis Y	3	m/min
Axis Z	6	m/min

## CNC-Control SINUMERIK 840 C

- Modular design in 1-channel configuration
- 5 axes + 1 spindle and gear interpolation
- 19" flat control panel with 10" TFT display
- 40 Mbyte hard disk capacity
- Electric override with emergency strategy
- Incremental measuring systems
- Digital drive technology
- operating handset

### Gearing software

- Dialog programming for the automatic generation of part programs for profile
- Grinding of external gears.
- Automatic cutting division
- centering device
- PFAUTER Software Package "Profile Grinding
- Gear measurements for involute external gear workpieces
- The following measurements can be performed: Profile measurement, flank line measurement
- Pitch and concentricity testing, tooth width measurement

### Machine description and equipment

- Basic machine PE 1600 G
- warm-up program
- Grinding time calculation - integrated
- NC dressing device
- power dressing
- Software for fault diagnosis
- Super special accuracy
- Centre device with touch probe
- dust exhausting
- Interlock-controlled grinding in single flank grinding
- double slanted centre
- double helical gearing
- grinding of asymmetric flank line modifications
- Automatic cutting division
- Gear measurement according to DIN 3961
- Colour printer interface for input data or measurement evaluations
- Main column raised (vertical travel 1,000 mm)
- Centre device with touch probe
- gear measurement
- Measurement of head and foot circle diameter
- Workpiece table with separate servo drive and 1-speed double worm gear unit
- Hardened and ground ball screws with preloaded nuts
- Full work area cover with pressure relief flap
- Hoffmann coolant system, tank capacity 2,300 litres, 2 x 150 l/min pump capacity,
- Coolant cleaning with fine filter (without using filter consumables)
- Oil recooling system with cooling circuits for the lubricating and cooling lubricant system as well as for the grinding spindle drive
- Machine without steady rest

### Dimension, weight

Space required approx..	7,5 x 7,3 x 4,0	m
Machine weight approx..	17.000	kg

### Electrical Connection values

Total connected load	80	kVA
Operating voltage	400	V
Operating frequency	50	Hz
Control voltage	24	V DC