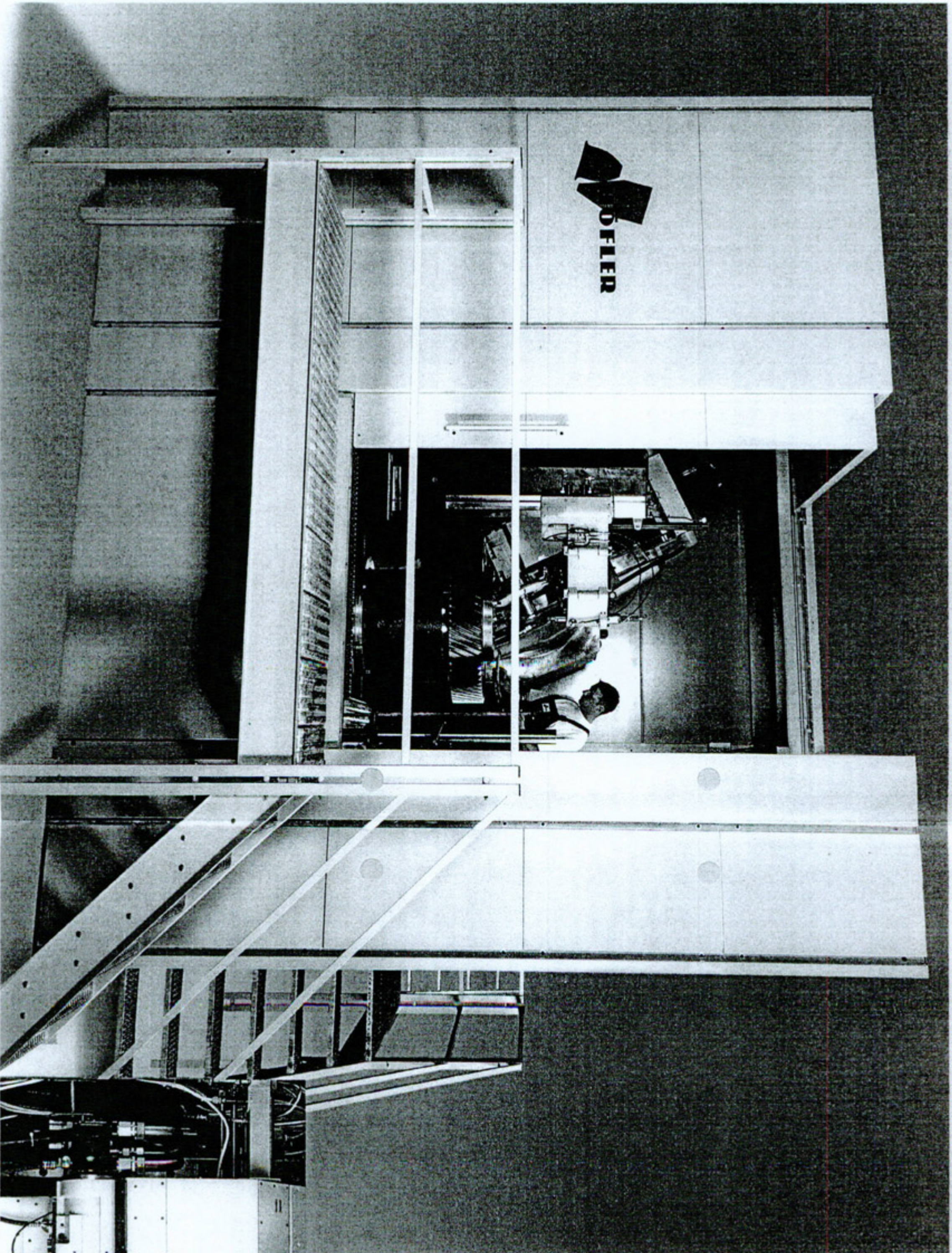


**The SUPRA series from HÖFLER.
Gear grinding machines
for highest requirements**



Fast

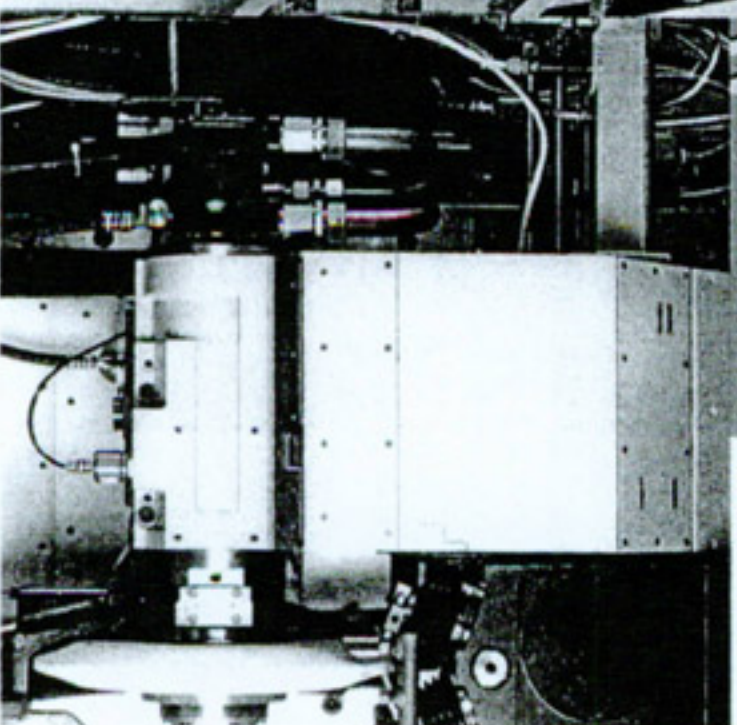
Powerful, cooled, hydraulically operating 20 kW grinding wheel motor, coaxially mounted to the grinding spindle, rpm adjustable with constant cutting speed. Stock removal up to 0.8 mm (0.03") span measurement (0.4 mm/0.016" per flank). Double flank deep feed grinding, line of action grinding modes. Infinitely variable generating speeds for roughing and finishing passes. Sensor controlled automatic centering of the grinding wheel into the tooth gap. High spot finding and automatic start up and finish grinding to size. Profile and lead modifications without additional grinding time. Shortest possible setup time supported by the convenient machine control in dialog mode with the machine operator. Pallet loading system available.

Accurate

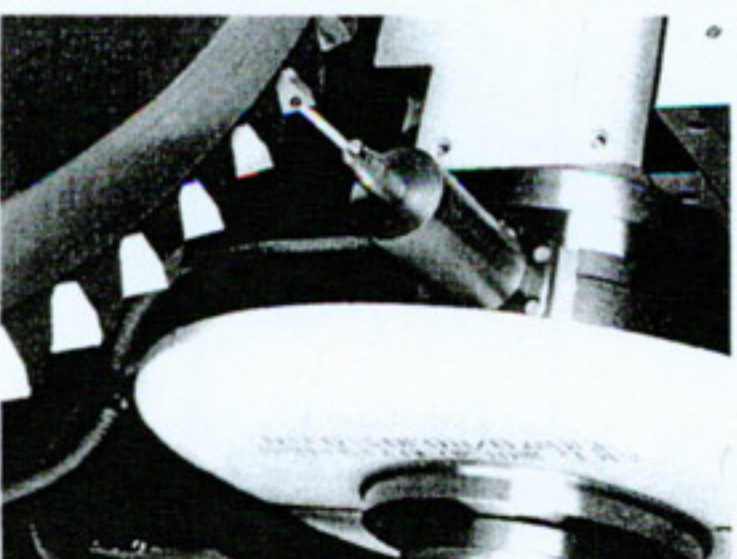
Extremely accurate profile and lead generation. High precision generating indexing gear and worn with automatic electronically working error compensation. Absolutely wearfree, zero backlash hydrostatic guideways with temperature controlled hydrostatic oil. Grinding wheel motor, stroke motor, hydraulic, lubricating and grinding oils are temperature constant. Thermally stable, vibration dampening main components from mineral cast. Highly accurate process integrated grinding wheel balancing unit. Fully automatic gear inspection for profile, lead and pitch checks. Measuring results are displayed on the machine monitor along with recommendations for the readjustment of the machine should this be necessary. An integrated plotter is available for measuring diagrams according to DIN standards.

SUPRA

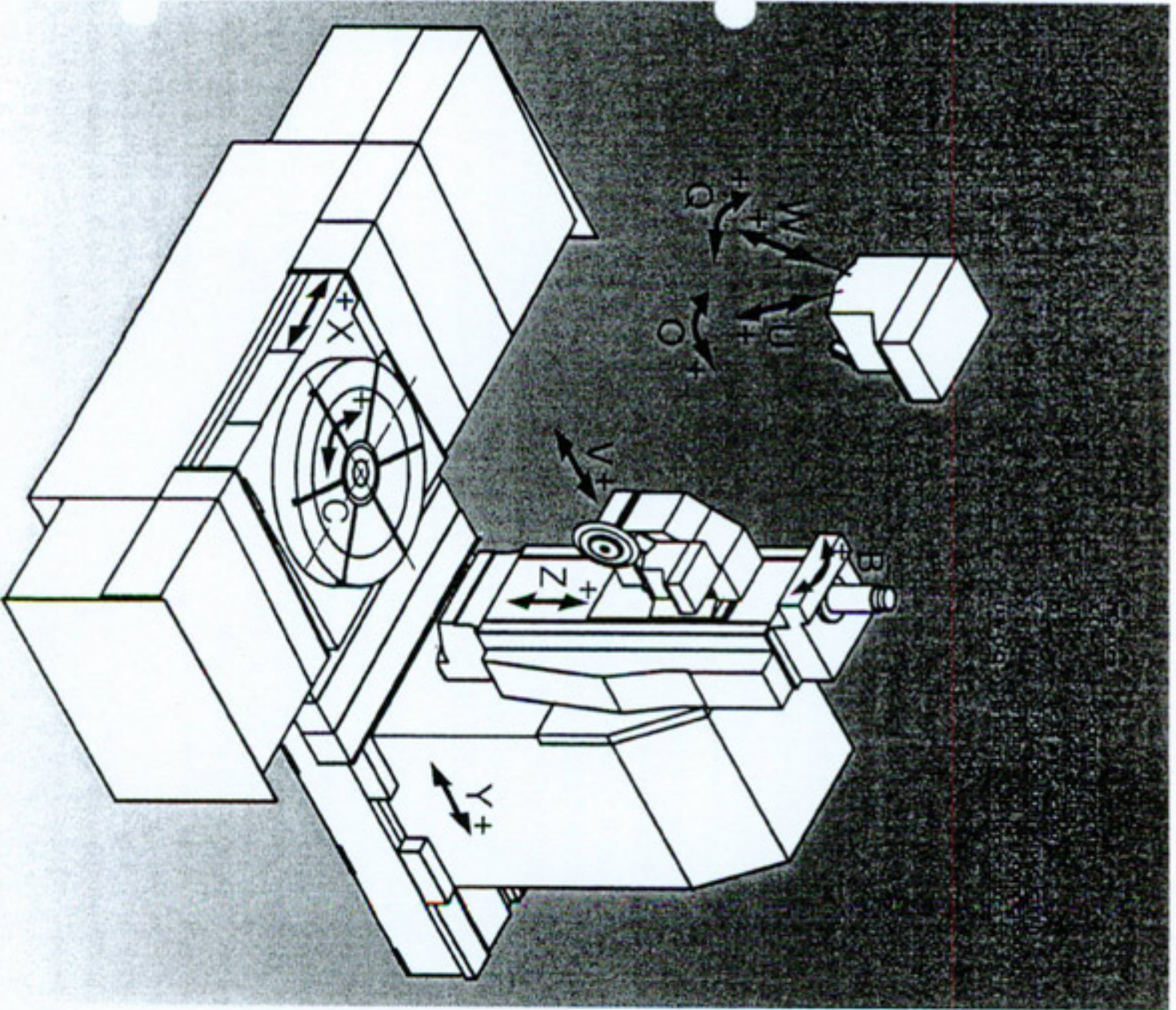
Tool axis



Gear measuring probe



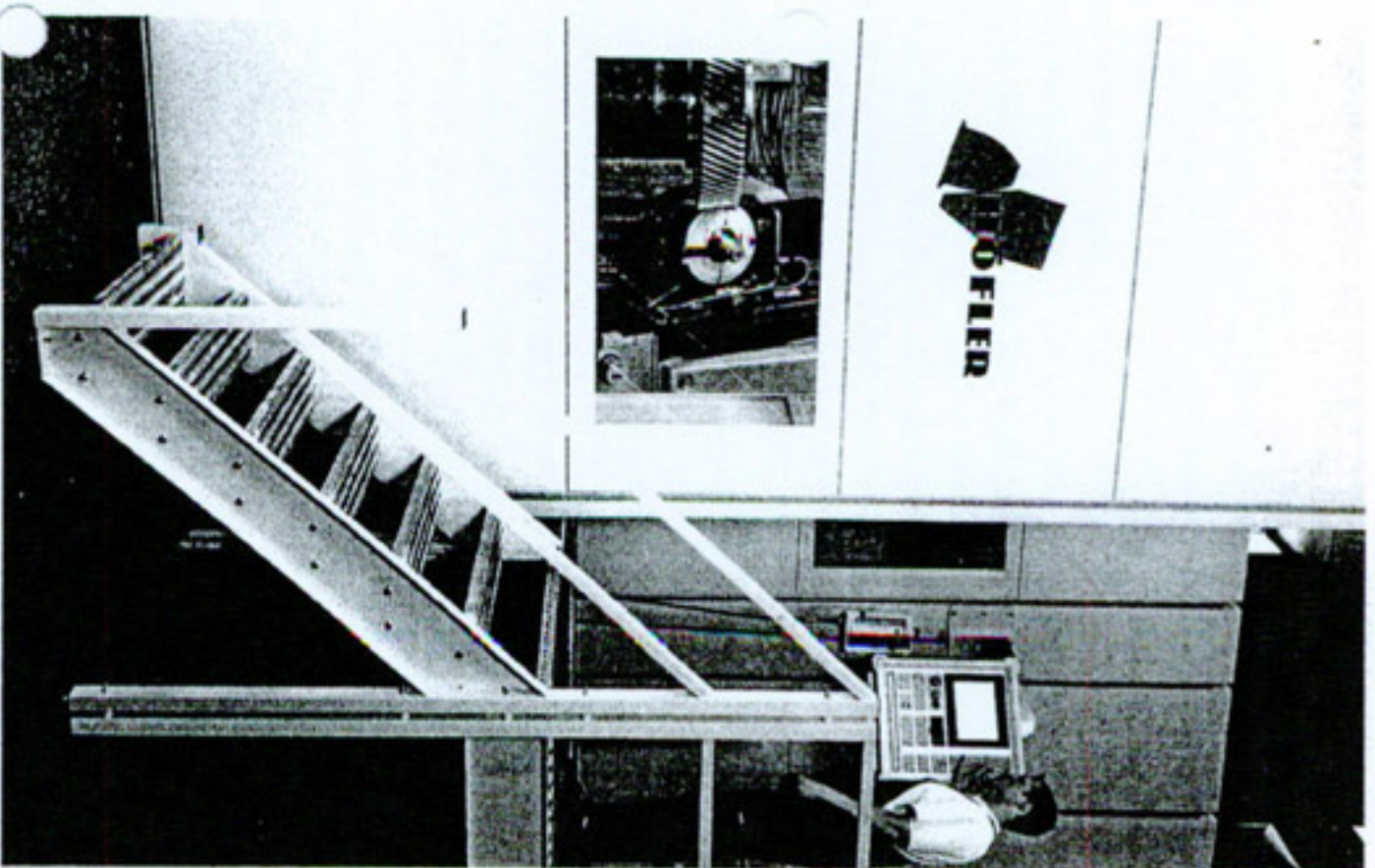
Machine design



Heavy, 2-bed design. Machine table bed, column bed, column and steady rest are made from thermal resistant vibration dampening mineral cast (exception: table bed of the 2504 M and 3504 M). Absolutely wearfree, double sided hydrostatic guideways in stroke slide, machine table and generating slide. Coaxially driven grinding stroke spindle, generating feed screw, table worm, diameter setting and grinding wheel spindle. Learning machine axes with the built-up of correction tables. CNC grinding wheel dresser with automatic wheel wear compensation and to dress all profile modifications. Comfortable, operator-friendly dialog controls for all machine functions with integrated measuring scales. Error diagnostic system with phone/fax modem for easy and fast service should this be necessary. Workroom enclosure according to safety standards with electrostatically operating oil mist absorber. Quantity controlled, adjustable pressurized grinding oil, grinding oil filtering unit, cooling unit for grinding oil, hydraulic and hydrostatic oils. The 2-bed design allows individual machine installation in accordance with special customer needs.

Double flank grinding
Single flank grinding
Line of action grinding
HTS - Deep feed grinding
All tooth modifications
On machine inspection

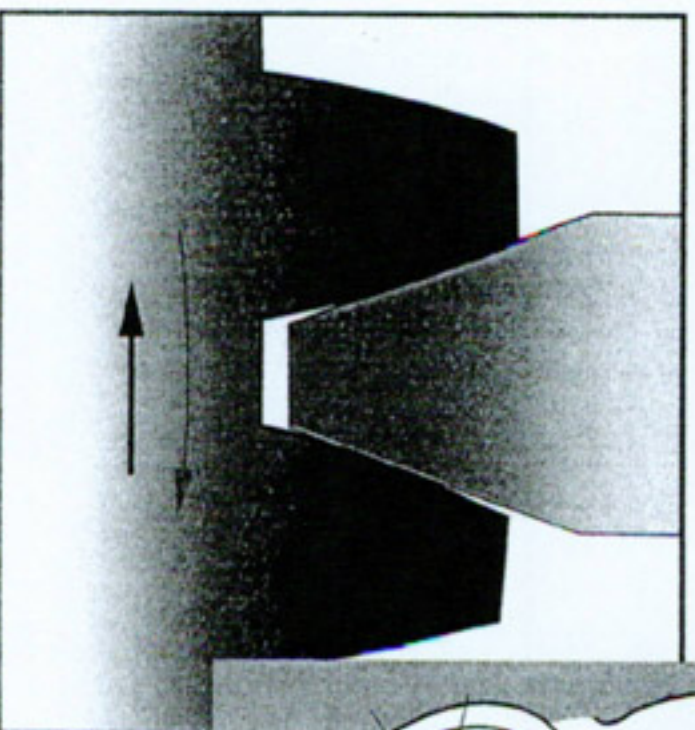
Flexible Easy



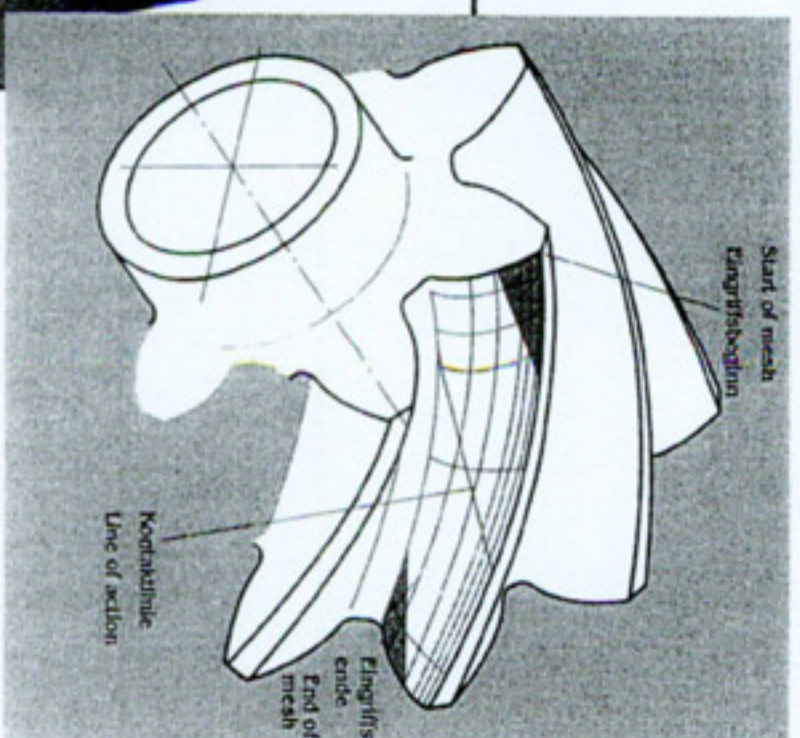
Operator side SURFA

The grinding wheel is simply dressed to the straight sided shape of a single rack tooth. Thus the setup time and procedure of redressing are extremely short. The tooth profile is generated by the machine table, the lead is produced by the stroking of the grinding wheel along the lines of action, the meshing lines of a gear set. All known profile and lead modifications can be easily ground. In addition, only possible in the generating gear grinding method, generated tooth modifications can be ground for better meshing conditions and quieter running gears.

The generating method is the easiest gear grinding method to operate and understand. The highly sophisticated CNC machine control guides the operator in dialog mode to all functions of the machine. There is no programming necessary. The tooth profile is generated along the rack formed grinding wheel. The tooth profile corresponds exactly with the true meshing conditions of a gear pair. All lead modifications are ground without any influence on the involute form of the gear. Because of the continuously changing point-line contact of the grinding wheel on the tooth flank during grinding, the grinding wheel remains cool. Burning of the tooth flanks is thus avoided.

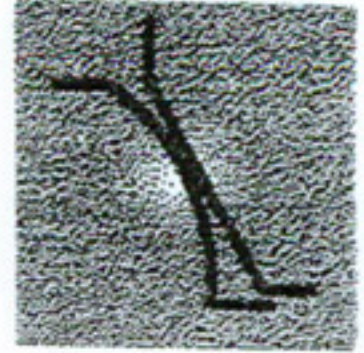


Double flank grinding



Generated tooth modifications

Zahnrad-
Schleifmaschinen
Zahnrad-
Fräsmaschinen
Gear Grinding
Machines
Gear Hobbing
Machines



HÖFLER

SUPRA 1504 – 579

TECHNICAL DATA*:

| | | |
|--|--------------------|---|
| Gear diameter | da max. df min. | 1920 mm (75,5") 80 mm (3.1") |
| Grindable number of teeth | z: | unlimited |
| Module (D.P.) | min./max. | 2 - 29 mm (DP) |
| Grinding stroke length | | 750 mm (29.5") |
| Face width at 0° helix angle Grinding slide double stroke speed | max. | 730 mm (28.7") 20 - 200 min ⁻¹ |
| Helix angle | L + R | 0 - 35 degr. |
| Grinding wheel pressure angle | | 12 - 25 degr. |
| Grinding wheel diameter | max./min. | 400 / 300 mm (15.7 / 11.8") |
| Grinding wheel thickness | max. | 45 mm (1.8") |
| Grinding wheel circumferential speed | | 35 or 45 m/s(114.8 or 147.6 ft/s) |
| Hydro-motor driven grinding wheel drive incl. cooling circuit for temperature constant operation Pump capacity: | | 20 KW |
| Machine table: | | |
| Outside diameter | | 1000 mm (39.4") |
| Table load | max. | 6000 kg (13220 lbs) |
| Number of teeth in index gear | | 288 |
| Total machine weight | approx. | 28000 kg (61600 lbs) |
| Dimensions for space requirement: length x width x height | approx. | 7500 x 7500 x 4500 mm (295.3 x 295.3 x 177.2") |
| Machine colour: | | Pebble Grey RAL 7032 |
| Voltage and frequency (others upon request): | | 3-phase, 400 V, 50 Hz. |

The machine needs to be mounted on a plain foundation.

*Subject to technical changes



Höfler Maschinenbau GmbH
Industriestraße 19
D-76275 Ettlingen/Germany
Tel. +49(0)7243 599-0

www.hofler.com

Geschäftsführer
Hagen H. Hofmann

Registergericht Karlsruhe HRB 237E
USt-IdNr. DE143239507

Commerzbank AG Karlsruhe
(660 400 18) 220 292 700
Deutsche Bank Ettlingen
(660 70004) 0 705 707
Volksbank Ettlingen
(66091200) 150 100
Sparkasse Ettlingen
(66051220) 1 051 333