

REISHAUER

Gear Grinding Technology

RZ 550



MACHINES

PERIPHERAL SYSTEMS

TOOLING

TECHNOLOGY

SERVICES

Gear Grinding Machines

Generating Grinding: Invented and Refined to Perfection by Reishauer



Invented and refined to perfection by Reishauer – our gear grinding process offers valuable advantages:

- Maximum productivity due to high material removal rates and short idle times
- Excellent grinding results
- Extreme process reliability due to continuous shifting and dressing of the grinding worm on the spindle
- Low perishable costs due to long life of the dressing tool and grinding wheel
- CNC machine kinematics allow a wide range of gear flank modifications
- Application of Reishauer Low Noise Shifting technology to produce quiet running gears
- Short contact times between gear and grinding worm flank result in high compressive residual stresses
- Grinding of root to achieve optimum load capacity
- Reishauer TwistControl Grinding technology enables the setting of defined values for flank twist

Customer value is the focus of our innovation

Swiss precision made by Reishauer

For over 70 years, Reishauer generating gear grinding machines have enjoyed an outstanding worldwide reputation. These machines guarantee the most reliable and efficient gear grinding processes.

The RZ 550 combines advanced technologies in order to provide excellent results over the entire life cycle of the machine.

Your benefit:

- Hybrid design of machine bed and spindles manufactured for maximum stiffness and dampening
- Complex acoustic emission analysis for automatic set-up and dressing
- Highly accurate Reishauer balancing system for fully automatic balancing of the grinding wheel on the spindle of the machine
- Highly accurate Reishauer generating module for best possible gear quality
- Multiple sealed guideways for long life and high value retention
- CNC tailstock for accurately programmable quill forces and optimum reproducibility
- Rotating machine column for change of gear and clamping fixtures during dressing of the grinding wheel

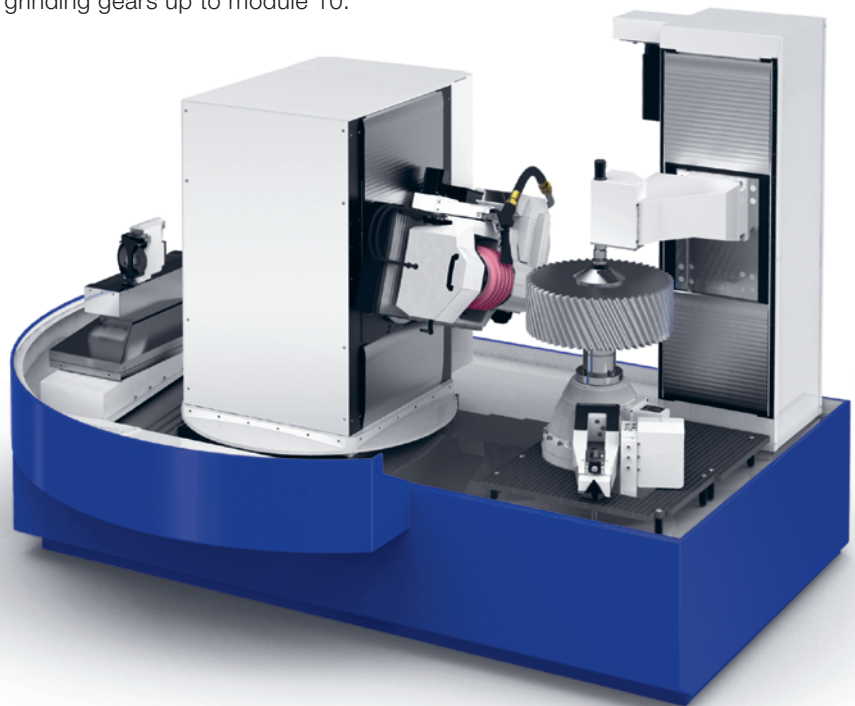
Added value to your gears

If the future is unknown

Within the Reishauer product line the RZ 550 represents maximum flexibility, succeeding the successful RZ 400 of which there are over 300 installations worldwide.

The working range of the new machine has been increased to 550 mm diameter and the machine is capable of grinding gears up to module 10.

Due to the large variety of options, the RZ 550 is easily adapted to the wide ranging needs of different customers and industries. Many of these options can be added to the machine after it has been installed at the customer's plant.



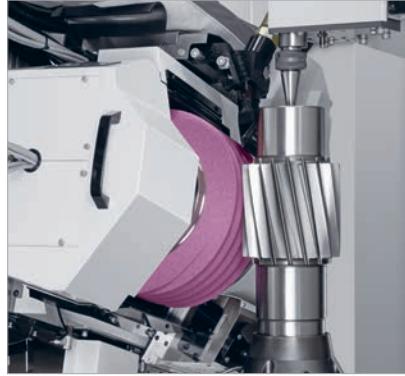
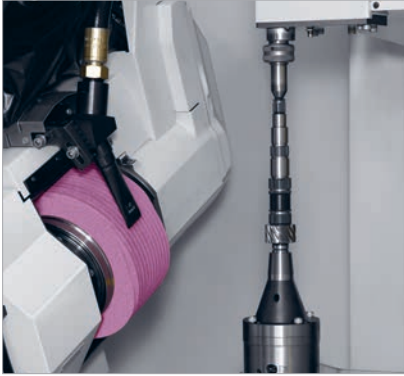
Grinding position



Wheel changing position



Dressing position

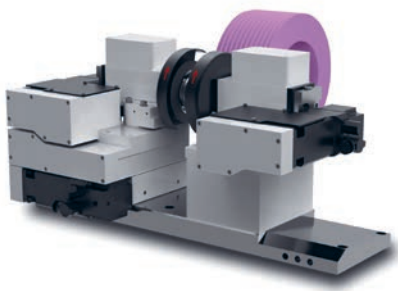


Your choice

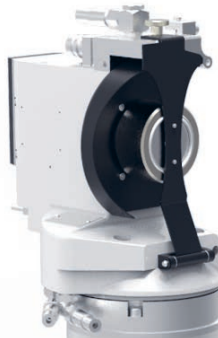
The RZ 550 can be equipped with a CNC tailstock. When using this option (W-axis), the stroke of the tailstock can be adjusted accurately, allowing precise and reproducible clamping forces.

You can choose between three different dressing devices, all equipped with a CNC pivoting axis. The choice of dressing units provides for a wide range of dressing methods that allow each customer to customize their machine to achieve the ideal mix of productivity and flexibility within their given budget.

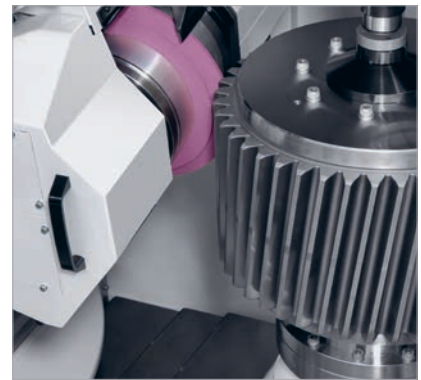
For very small lot sizes form grinding may be the most viable alternative to the continuous generation method made famous by Reishauer. Discontinuous profile grinding using CBN plated or dressable grinding wheels is offered as an option on the RZ 550. Profile grinding increases the module range to 15 mm. Specifically in discontinuous profile grinding, the ability to measure the gear inside the machine is a useful option. By using on-board inspection, the changeover time can be significantly reduced.



RP 164-2



RP 163



Profile grinding



Gear inspection

Quick changeover

The unique architecture of the RZ 550 provides optimum accessibility during operation and changeover. By using a turret, the grinding spindle can be rotated between grinding position, dressing position and wheel-changing position. During the changeover this configuration allows the operator to change the clamping fixture while the grinding wheel is being dressed on the opposite side of the column.

Technical Data

Technical Data*

Workpiece diameter	5 – 560 mm
Module range	0.5 – 10.0 mm
Swivel angle (wheel head)	+/- 45°
Grinding stroke (max.)	300 mm
Shaft length (max.)	700 mm
Workpiece rpm (max.)	600 min-1
Workpiece weight (max. incl. fixture)	600 kg
Operating speed (max.)	80 m/s
Grinding wheel outside diameter (max.)	300 mm
Grinding wheel width (max.)	145 (160) mm
Diameter of dressing tools	160 mm

*Out of range dimensions can be verified upon request

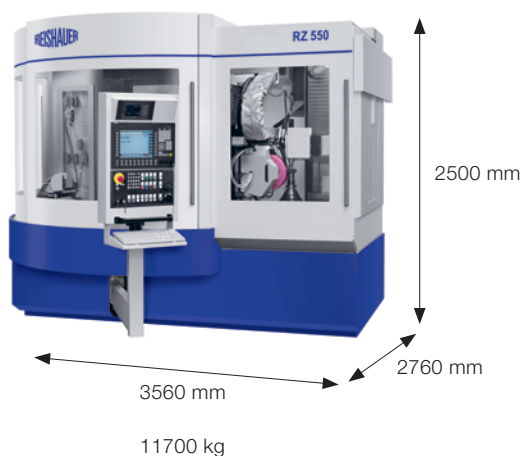
Options (Extract)

Pivoting dressing unit
Gear inspection device
Profile grinding
Reishauer TwistControl Grinding Technology – generation of specific twist
Polish grinding
Grinding of conical gears (beveloid gears)
Grinding of non-involute gears
Line dressing
Reishauer ECO mode

Control

Siemens Sinumerik 840D Solution Line
Reishauer PrecisionDrive
Reishauer operating software

All technical specifications are subject to change.



Circle of Competence



The Reishauer Circle of Competence

The gear grinding machine, both in qualitative and quantitative performance levels for the large volume production of high-accuracy gears, is at the core of the continuous generating grinding technology invented by Reishauer. To ensure a steady and high production output of our machines at constant quality, and at lower costs per piece, we have

continuously extended our technical competency and support structure in the areas of automation, tooling, application engineering and service. Hence, today we are a single source supplier, and thus we guarantee our customers a long service life of the machine system and lower life cycle costs.

Reishauer worldwide

SWITZERLAND

Reishauer AG
Industriestrasse 36
8304 Wallisellen
Switzerland
☎ +41 44 832 22 11
info@reishauer.com

GERMANY

Reishauer GmbH
Humboldtstrasse 32
70771 Leinfelden-Echterdingen
Germany
☎ +49 711 947 56 0
germany@reishauer.com

CHINA

Reishauer AG
Beijing Representative Office
Room 1708, SCITECH TOWER
No.22 Jian Guo Men Wai Da Jie
Beijing 100004
China
☎ +86 10 651 571 75
china@reishauer.com

USA

Reishauer Corp.
1525 Holmes Road
Elgin, IL 60123
USA
☎ +1 847 888 38 28
usa@reishauer.com

FRANCE

Reishauer AG
21 rue de la Croix Blanche
33000 Bordeaux
France
☎ +33 6 0830 64 20
france@reishauer.com

JAPAN

Reishauer KK
Nisso Dai-17 Bldg. 3F
2-14-30 Shinyokohama
Kohoku-ku, Yokohama-shi
222-0033 Kanagawa-ken
Japan
☎ +81 45 476 58 33
japan@reishauer.com

Find additional representatives at www.reishauer.com

Head Office:

Reishauer AG

Industriestrasse 36
8304 Wallisellen
Switzerland
☎ +41 44 832 22 11
reishauer.com



REISHAUER

Gear Grinding Technology