

REISHAUER

Gear Grinding Technology

RZ 260



MACHINES

PERIPHERAL SYSTEMS

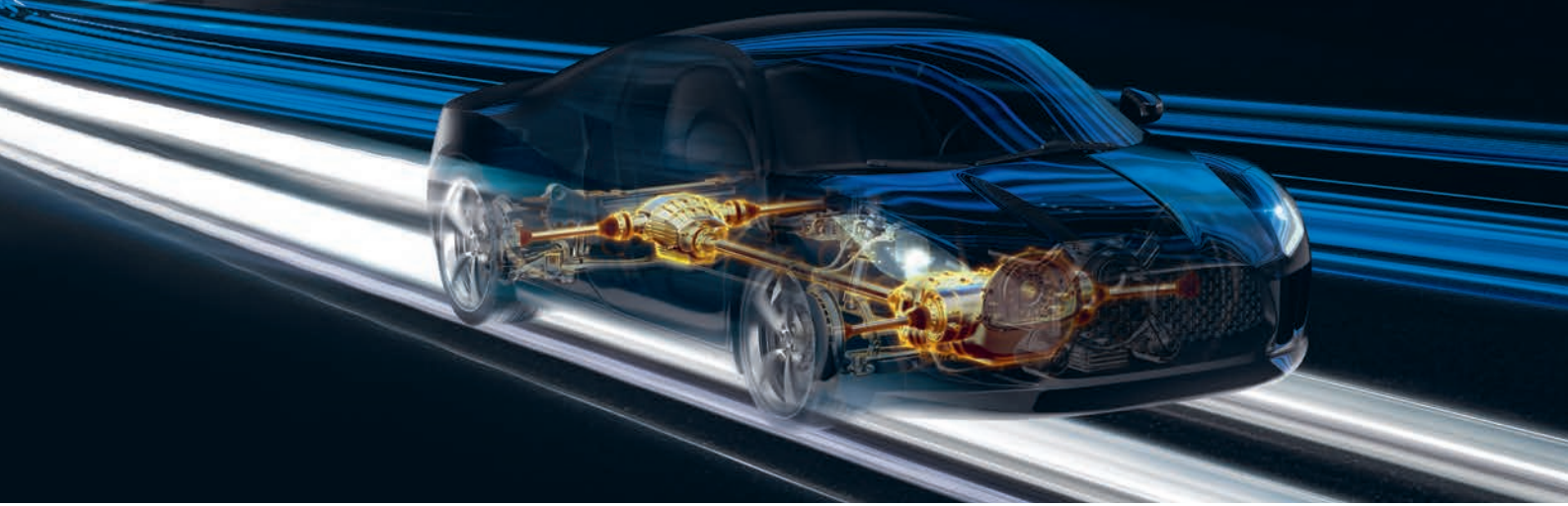
TOOLING

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

Your benefit:

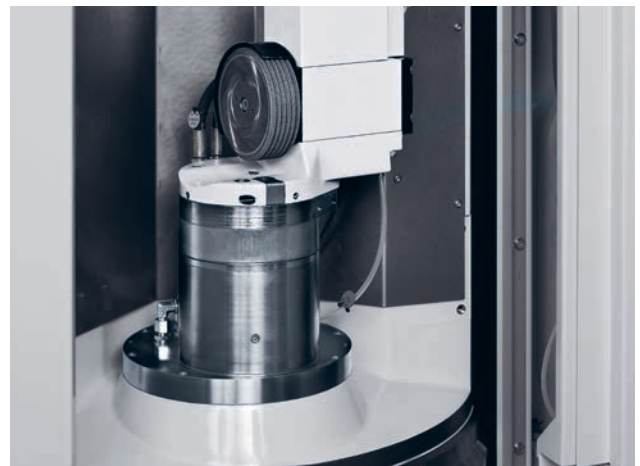
- Hybrid design of machine bed and spindles manufactured for maximum stiffness and damping
- Acoustic emission analysis for automatic set-up and dressing
- Precise Reishauer balancing system for automatic balancing of the grinding wheel on the spindle of the machine
- Highly accurate Reishauer generating module for best gear quality
- Multiple sealed guideways for long life and high value retention
- CNC tailstock with programmable axis forces for optimum reproducibility
- Backlash free swivel axis for the dressing unit (option) with the application of flexible dressing tools

New definition of modularity and flexibility

Successful concept

The RZ 260 is based on established concepts which have been enhanced and improved. The result is a unique gear grinding machine with the highest efficiency and quality for gears with diameters up to 260 mm:

- Rotating workspindle turret for optimum accessibility during set-up and loading
- Totally enclosed working area to avoid release of oil and oil mist
- Parking position for the dresser to protect it during grinding



Pivoting dressing unit Reishauer RP 121



Gear in grinding position



Loading and meshing into grinding position away from the grinding area

Flexibility and productivity

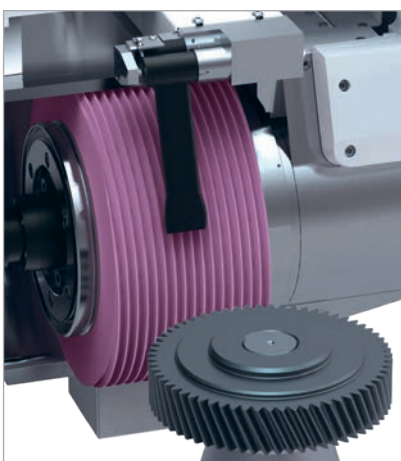
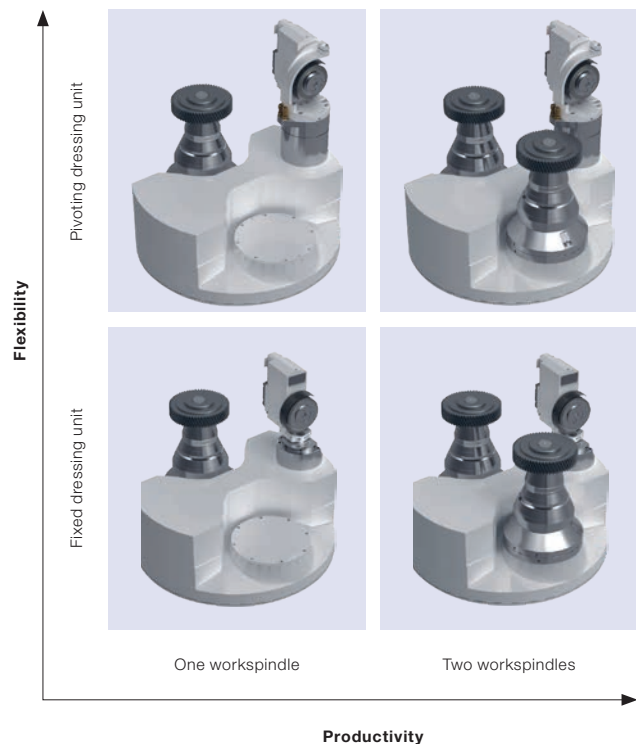
The RZ 260 is available in four versions. In the basic version, the RZ 260 is equipped with one workspindle. For loading the workspindle this is automatically moved into an easily accessible loading position.

For high productivity demands, the machine can be equipped with two workspindles. In this configuration the ground gear can be exchanged while another gear is ground on the second spindle.

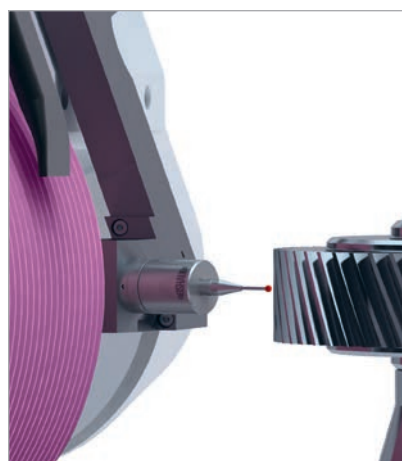
The machine is equipped with a fixed dressing unit if only a small variety of gears are to be ground. Different gear geometries can be ground by using workpiece specific dressing tools.

Maximum flexibility can be achieved by using a pivoting dressing unit which accommodates dressing tools that can be used for a wide range of gears.

Configuration of the workspindle turret



Continuous generating grinding



Gear inspection



Profile grinding with profile grinding head

Technical Data

Technical Data*

Gear outside diameter	0 – 262 mm
Module	0.5 – 5 mm
Swivel angle (grinding head)	+/- 48°
Grinding stroke (max.)	180 mm
Shaft length (max.)	490 mm
Workspindle speed (max.)	1600 min ⁻¹
Workpiece weight (incl. fixture) (max.)	50 kg
Grinding speed (max.)	100 m/s
Grinding wheel outside diameter (max.)	275 mm
Face width of grinding wheel (max.)	125 / 160 mm
Diameter of dressing tools	123 / 140 mm

*Out of range dimensions can be verified upon request

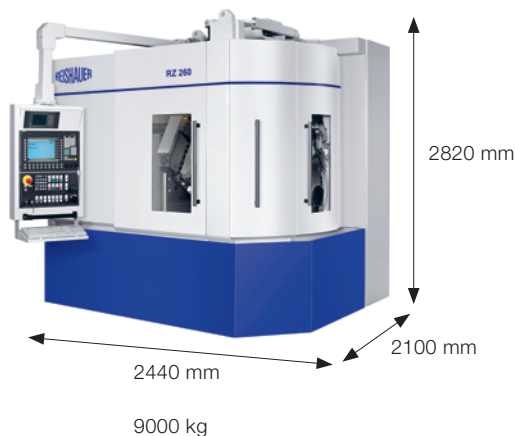
Options (Extract)

Additional work spindle (C1- & C2-Axis)
Pivoting dressing unit (C4-Axis)
CNC tailstocks (W1- & W2-axis)
Profile grinding head
Gear inspection device
Polish grinding
Profile grinding
Reishauer TwistControl Grinding Technology – generation of specific twist
Grinding of conical gears (beveloid gears)
Grinding of non-involute gears
Line dressing
Integrated oil spinning
Reishauer ECO mode

Control

Siemens Sinumerik 840D Solution Line
Reishauer PrecisionDrive
Reishauer operating software

All technical specifications are subject to change.



The RZ 260 is a very compact machine. The operator's panel can be easily moved from the grinding to the dressing position.

All service components are easily accessible and located in a central position, making the machine very user-friendly and efficient to operate.

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.

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