

REISHAUER

Gear Grinding Technology

Dressing Tools



MACHINE

AUTOMATION

TOOLING

TECHNOLOGY

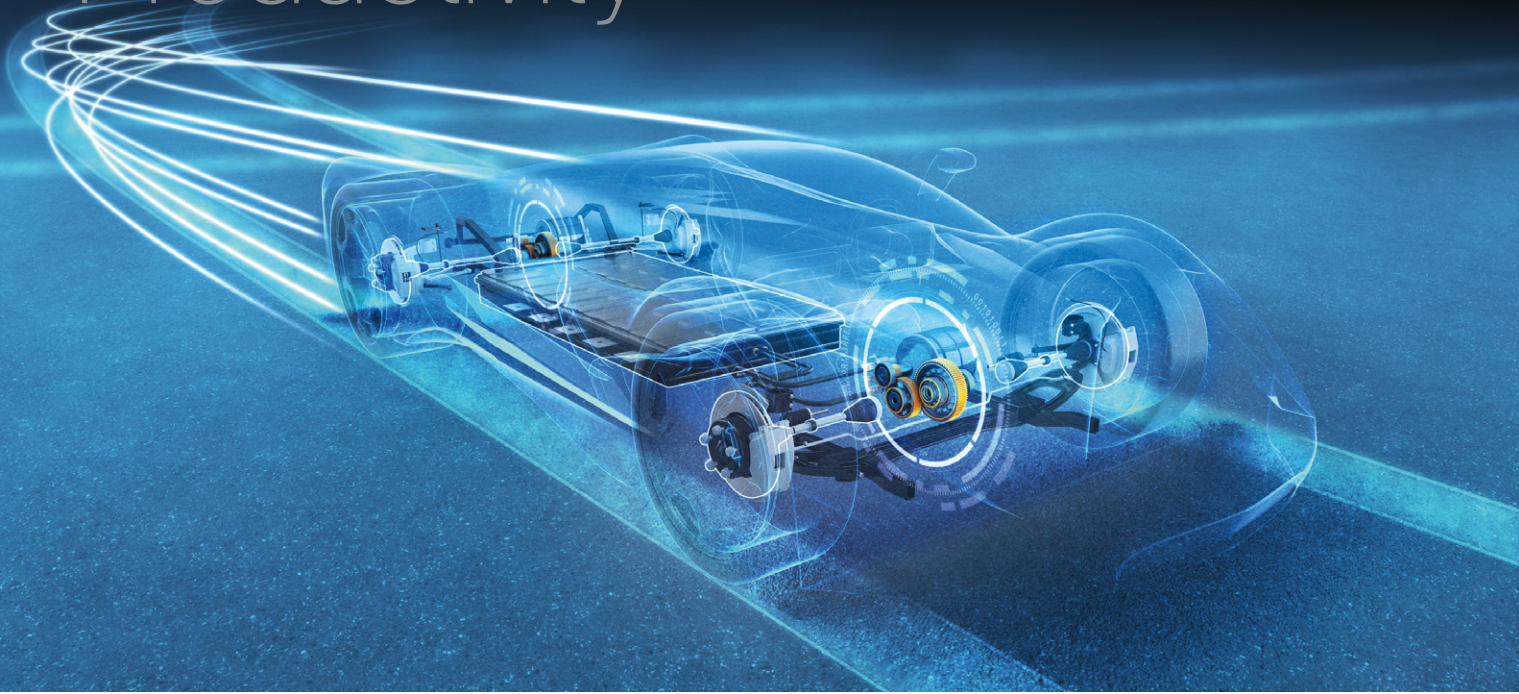
DIGITAL

SERVICES

Diamond & CBN Tools



For Highest Precision and Productivity



The Reishauer Tool Division develops, produces and markets highly specialized diamond and CBN tools in electroplated bond for dressing, grinding, in addition to other special applications. High quality, in terms of precision tool life and wear resistance, is based on many years of experience and a great willingness to innovate.

Diamond and CBN Tools

The Reishauer Tool Division develops, produces and markets highly specialized diamond and CBN tools in electroplated bond for dressing, grinding, cut-off operations, boring and polishing, in addition to other special applications. High quality in terms of precision, tool life and wear resistance is based on many years of experience and a great willingness to innovate. This brochure provides you with a brief overview of the tools designed for hard finishing applications used in advanced gear manufacturing.

Dressing Disks



- 1** Single taper disk
- 2** Single & double radius forming roll
- 3** Composite roll
- 4** Full profile roll
- 5** Composite profile and radius roll

For the Dressing of Cylindrical Grinding Wheels

Reishauer strives for the best possible technical and cost-effective solution in each case. This also applies to our dressing disks and dressing rolls. The different tasks required for the manufacture of small, medium or large lot sizes as well as specific demands regarding geometry and flexibility determine the tool profile for each application. In combination with the corresponding dressing process virtually all demands are met in the dressing of grinding wheels for the continuous generating grinding of involute and non-involute gear teeth. Reishauer's competence and manufacturing quality guarantee optimum process reliability.

Dressing Gears



1 Diamond dressing gear

For profiling Honing Rings

The manufacture of these tools places the highest technological demands on the production process.

Reishauer's long experience as a developer and manufacturer of high precision gear grinding machines brings additional benefits in tool production. Leading edge technological know-how creates valuable synergies applied during manufacture and directly benefits the customer. In addition to the high level of precision tool life is a particularly important feature of these tools. Through the use of carefully selected diamond grit and optimized manufacturing processes, our tools possess excellent performance characteristics.

Profile & Form Rolls



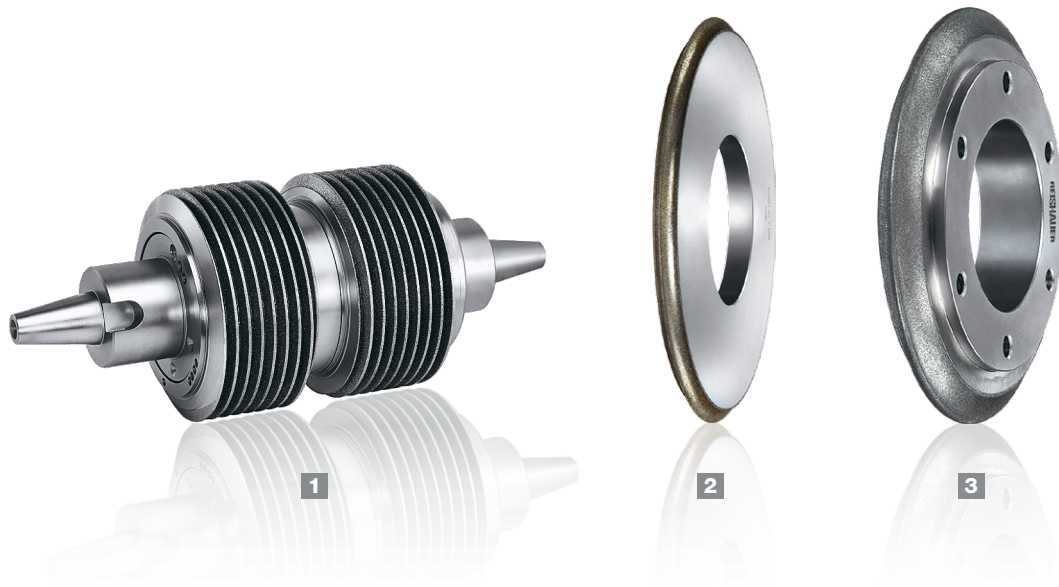
- 1** Profile roll, convex
- 2** Profile roll, concave
- 3** Special profiles
- 4** Thread roll
- 5** Radius form roll

For the Efficient Dressing of Small and Large Lot Sizes

Diamond profile rolls are used for the dressing of grinding wheels where large volume series production is required. Since they are already equipped with the necessary profile contour, they guarantee extremely short dressing times. In the manufacture of diamond profile rolls the profile and form tolerances as well as acute angles and small radii are critical dimensions. The dressing tools manufactured by Reishauer impress by virtue of extremely high technical standards. Wherever necessary, highly stressed edges and profiles are built with suitable reinforcements.

Diamond form rolls are used for the dressing of wheels on CNC grinding machines. The dressing of these grinding wheels requires no additional dressing tools. Form rolls are high precision tools. The tolerances are maintained within a range of just a few microns. The demands placed on these tools with regards to precision and tool life will continue to increase as further developments of innovative grinding machines continue. Reishauer is already well equipped to provide support and as a strong technological partner can help you overcome new challenges.

CBN Grinding Tools



- 1 CBN grinding wheel
- 2 Profile grinding disk without flange
- 3 Profile grinding disk with flange

For Process Reliability in Gear and Profile Grinding

In the manufacture of gears two proven and extremely productive basic tool types have evolved in the shape of Reishauer CBN profile wheels and CBN grinding wheels. Cubic boron nitride is a synthetic abrasive material with a hardness in the region of 7,000 HV. Since CBN shows no affinity to steel, it is used predominantly for the processing of ferrous materials. Reishauer CBN grinding tools are characterized by extremely high profile accuracy within a tolerance range of a few microns. In order to manufacture these high quality tools, experienced engineering is just as important as applying the latest, up-to-date production and measurement equipment or special grinding machines. Therefore the selection of the appropriate CBN grain size and skilful control of the electroplating process require an exceptional level of technical knowledge.

Customized Tools



Reishauer develops customized grinding and dressing tools in close cooperation with each individual customer.



Reishauer is the leading manufacturer of gear grinding machines. In the field of tool production Reishauer has established an excellent reputation for special dressing and CBN grinding tools. A full appreciation of the customer's needs and the response to a variety of specifications has been a long tradition at Reishauer. Numerous Reishauer patents provide proof of our high level of competence, including in the development of special tools. Reishauer has produced both standard and special tools for virtually all sectors of industry. Large lot sizes are also supplied to prominent industrial users of grinding tools. A range of sharpening tools is offered under the trade name MULTIDIAMANT.

Systematic Quality Control

Reishauer does not allow any tool to leave the factory without thorough quality control. Dressing tools which are used on Reishauer gear grinding machines are tested on compatible equipment. High quality awareness is an integral part of our corporate culture. Ultimately measured and irrefutable test results are what count. For this reason Reishauer invests considerable resources in state-of-the-art measurement equipment and employs an experienced team of inspectors and quality engineers.

Strong Commitment to Innovate

Besides the market and customer orientated manufacture of special tools Reishauer focuses on the innovative continuous development of diamond and CBN tools. Our engineering department analyses the exact requirements in cooperation with the customer. Internal research and development projects are frequently undertaken in collaboration with leading research institutes. Through innovation Reishauer has become a leading player. Through innovation we will continue to impress in the future.

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