

PRECISION THROUGH DIAMOND

From a small enterprise, run from home, to a modern company with a worldwide reputation.

Dr. Michael Kaiser started his "shop for diamond tools" over forty years ago as a small enterprise run from home. The company has grown to a modern company with a world-wide reputation, constantly expanding product lines through the creation of flexible and powerful production units. The company's goal has always been to be a problem-solver for all customers' questions, "regarding the grinding zone". The company's success comes from providing the highest precision products by consulting with individual customers to produce the best possible performance for its tools. The company, founded in 1977, had its first office in a cellar while the production of its first product, stationary diamond dressing tools, was performed on simple, small machines in a garden shed with an area of 7.55 m². In 1979, the company relocated to its first manufacturing facility 'Am Wassertum' and started production of rotary diamond dressing tools. In 1986, the product line was expanded with the introduction of a production department to manufacture diamond wear protection components and point crush dressing tools for the profiling of vitrified bond diamond grinding wheels. Over the years, the number of production departments has grown in order to focus our manufacturing capabilities on the customer's production requirements. In order to maximize performance of our rotary diamond dressers, a production department for dressing spindles using speed control and acoustic sensing technology was established. In 1989, the precision electroplating department started production of electroplated dressing wheels with special focus on the dressing of gear grinding wheels. Production departments for manufacture of special application tools, such as stationary dressing tools using man-made diamonds and rotary dressers for ceramic bond cBN grinding wheels were established as new products based on existing

DR. KAISER products and manufacturing technologies. This was done in order to build a focused, customer-oriented manufacturing organization.

In 2004, the production department for hard machining applications using electroplated cBN and diamond grinding products was established.

The high precision reverse plated profile roller department, which provides high precision and geometrically complex dressing tools, was established as an independent department in 2007.

In 2009, DR. KAISER established manufacturing and technical support capability for the production and application of vitrified cBN and diamond grinding wheels.

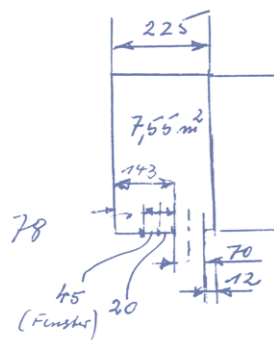
In 2017, the application engineering division was founded with the aim of optimizing customer support and the implementation of application-oriented training seminars for customers.

In 2018, the first construction phase started with the grinding center on the new company site two kilometers away from the headquarters. In the next few years, the entire company will be relocated here, expanding its total production area up to 20,000 m², which will double its current capacity.

DR. KAISER now has the ability to offer our customers a complete system solution for high performance super abrasive grinding wheels and diamond dressing tools.

Regular recertifications verify the quality management system introduced in 1999 according to DIN EN ISO 9001.

DR. KAISER is represented by a worldwide team of technical organizations providing product and process solutions to grinding and dressing operations.



Layout of the first production site of Dr. Kaiser.

DR.-ING. M. KAISER
DIAMANTWERKZEUGE

DR. KAISER
diamant-abrichtrollen
diamant-abrichtblöcke

DR. KAISER
präzision durch diamant



The beginnings of Dr. Kaiser from 1977, the corner stone for innovative precision tools.

Completion of the first production hall in Altenhagen/Celle at the end of 2017



TOOL TECHNOLOGY FOR

4

AUTOMOBILES & COMMERCIAL VEHICLES

CLUTCHES · BRAKES · GEAR BOXES · MOLDS AND DIES · DRIVE COMPONENTS · GAS PROPS · INJECTION SYSTEMS · VALVES · CAM AND CRANK SHAFTS · BALL HUBS

5

ENERGY

DRIVE SHAFTS · BEARINGS · COG WHEELS · TURBINES · SOLAR TECHNOLOGY

6

DRIVE TECHNOLOGY

GEAR SHAFTS · CLUTCHES · GEAR BOXES · BEVEL GEARS · SPUR GEARS · PISTONS · HYDRAULIC COMPONENTS

7

CHEMICAL & PROCESS ENGINEERING

CUTTERS · MOLD AND DIE PRODUCTION · WEAR PROTECTION · EXTRUDER · INJECTION MOLDING

8

AERONAUTICS

TURBINE BLADES · WEAR PROTECTION · HYDRAULIC AND CONTROL SYSTEMS · TURBO PUMPS

9

MEDICINE & OPTICS

IMPLANTS · DENTAL TECHNOLOGY · PROSTHESES · CANNULAS · STENTS · BALL- AND SOCKET JOINTS · LABORATORY AND REHAB TECHNOLOGY

10

MACHINE TOOLS & MEASURING

FLAT, PROFILE, THREADED, CENTERLESS, GEAR, INTERNAL/EXTERNAL CYLINDRICAL AND TOOL GRINDING MACHINES

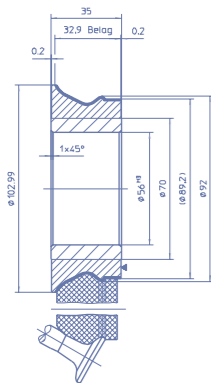
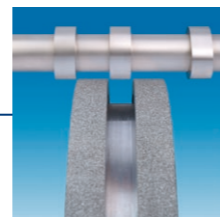
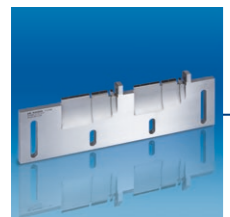
11

APPLICATION ENGINEERING

GRINDING · DRESSING · PROCESS OPTIMIZATION

12

OUR FIELDS OF ACTIVITY

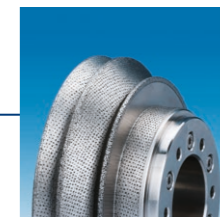
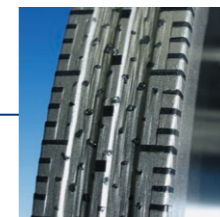
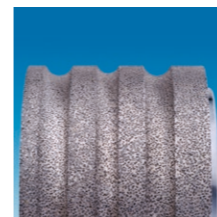


PROCESS RELIABILITY

... is a vital factor of success in the automobile and commercial vehicle industries. In the mass production of items such as crank shafts, cam shafts, valves, valve pins or drive components, powerful precision tools are irreplaceable. Here, they must always meet the highest quality demands, continually contribute toward process optimization and be able to meet new challenges.

Innovative and reliable precision tools from DR. KAISER also guarantee technological progress in the continuous optimization of new, future-proof technologies.

Because: The only solution to the sustainable use of our limited global resources is to optimize production to reduce costs and improve efficiency.



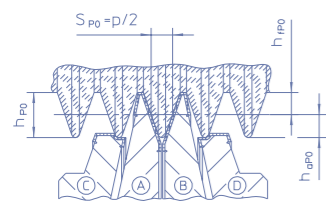
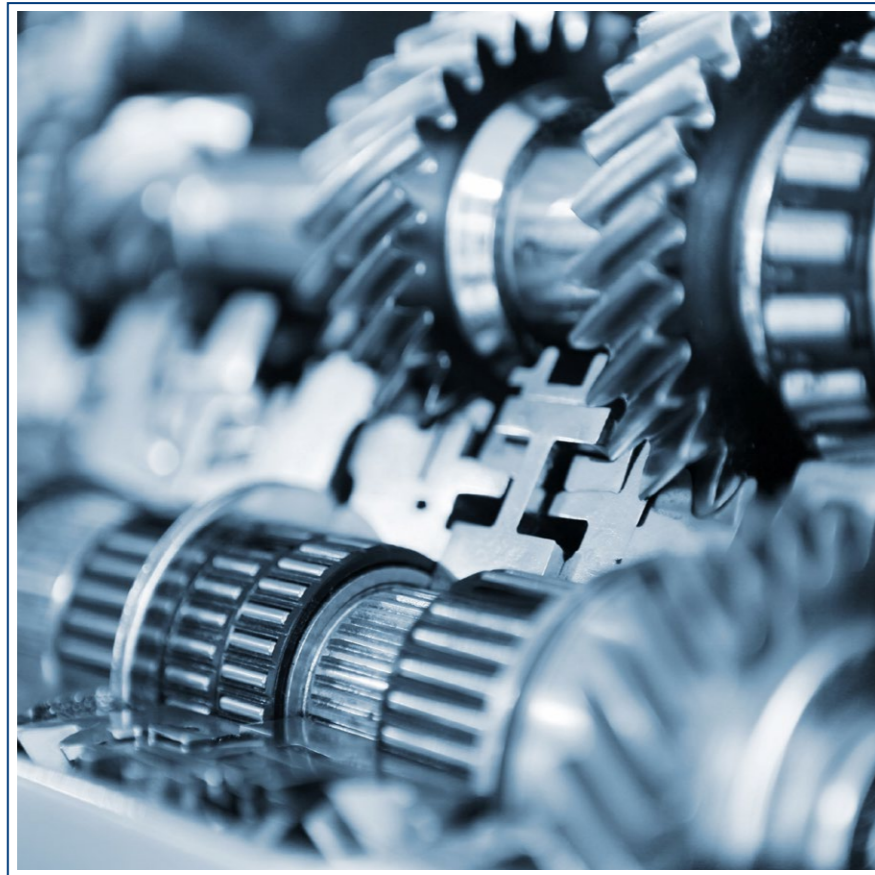
FLEXIBILITY

... is what drives efficient production. In the fast growing power generation market, quickly adaptable solutions guarantee the smooth functioning of this sophisticated technology. For example, the power train of wind power plants is often strained during energy production.

Gear boxes and rotating parts have to be optimally designed and produced with regards to size, weight and life span.

In a wind power plant's power train, innovative grinding processes have significantly increased surface quality and form accuracy to achieve high erosion resistance. High-precision dressing tools are a fundamental requirement for optimizing machining. Our customers appreciate the excellent cutting performance and high wear resistance. Day by day, process by process.

6

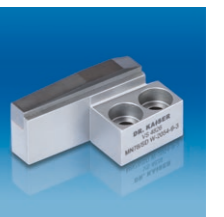
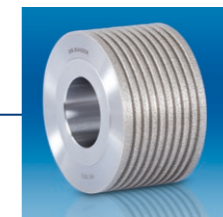
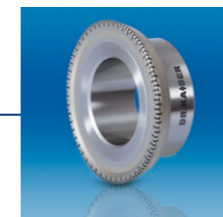
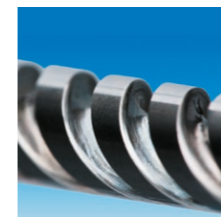


ADVANCE

... and technological innovations are the key to success in driving technology. New concepts and production methods are continuously being introduced at a rapidly increasing rate and demand innovative production possibilities. With more than 40 years of experience in this field, DR. KAISER is a trustworthy partner for manufacturers of modern drive components and OEM.

A continuous flow of innovative developments accompany the daily production of high-quality tools in this area for customers in all areas of the world: fueled by our own interest and drive - but, more importantly, in the interest of the customers.

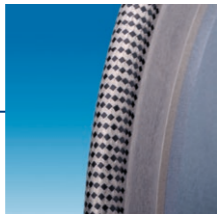
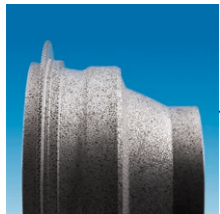
7



DIVERSITY

... is our daily business, as our customers are involved with almost every industry. In chemical and food industries, wear on mechanical components is often a result of adhesion and abrasion as well as oxidation, corrosion and diffusion.

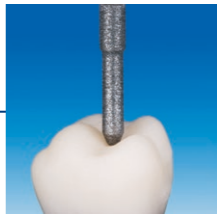
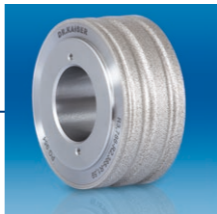
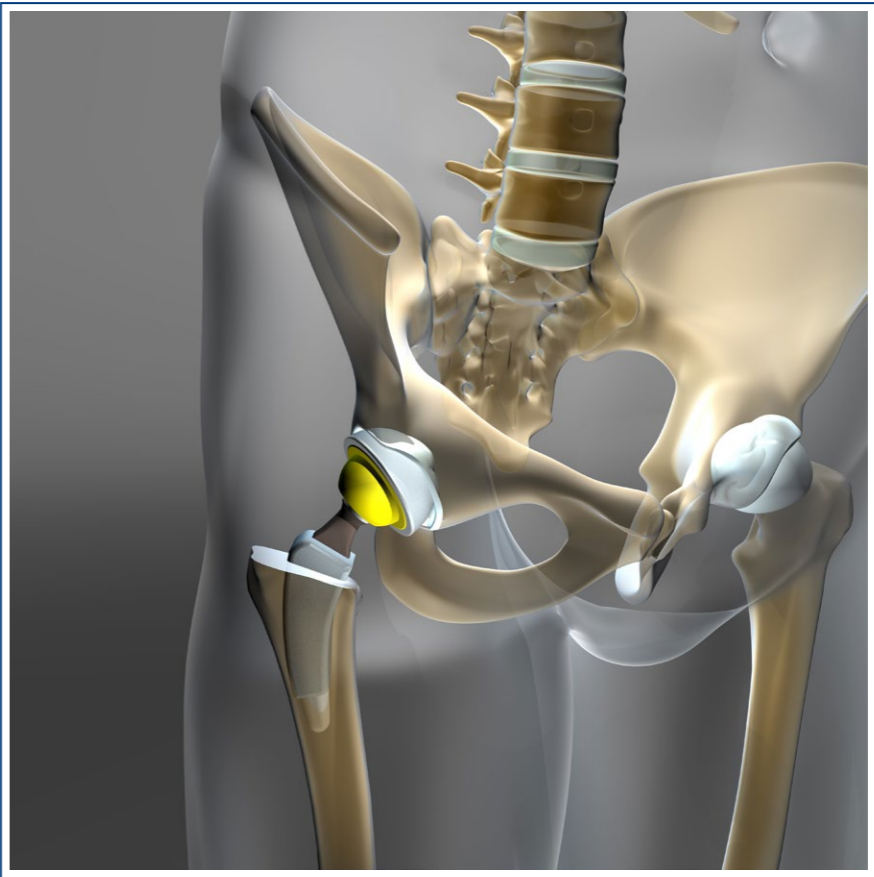
DR. KAISER is able to integrate these requirements into innovative products for a wide range of applications. Diamond and cBN, in their various modifications, are very high performing materials. Very often, high accuracies are necessary to ensure longevity and process reliability.



RELIABILITY

... is a criterion of vital importance in aeronautics and aerospace engineering. Here, components and modules designed for security and performance are just as vital as energy saving turbines. The functionality of the individual systems has to be guaranteed in particular under the most demanding technical, economic and ecological conditions.

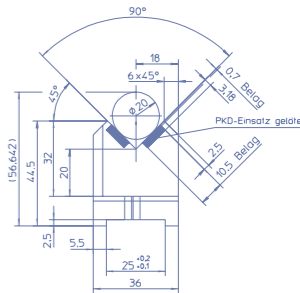
The manufacturing processes for these components have to be continuously optimized, in order to meet most cost-efficient future production chains. Precision tools guarantee precise, reproducible products that are widely available. As a development partner we provide our clients and customers continuous innovation to make their manufacturing even more effective and flexible.

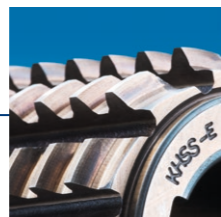
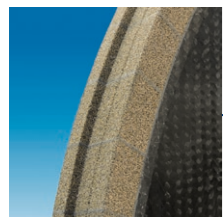


CONFIDENCE

... is a special challenge, especially if it is about preserving and restoring human health. Taking into account individual requirements, innovations ensure a high degree of quality of life for every individual. Complex solutions must combine medical requirements and optimal engineering services. In the development of medical components and optical components, the highest priority is reliability and suitability.

In manufacturing technology, complex shapes and high-strength, challenging materials are a particular challenge. The decisive competitive advantages are those who rely on a competent partner; a partner who is the leader in the development of precision tools and can also seem to realize the impossible.

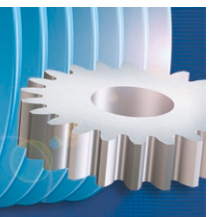
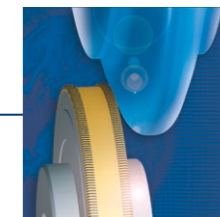




INNOVATIVE STRENGTH

... in the construction of tools and machinery is just as important as the demand for product quality. Only those who develop technical innovations today guarantee their success in the future. Machines with optimally functioning systems are the fundamental requirement for stability and growth. As a supplier, we will meet the demand for constant process optimization by the continuous development of new, well-engineered and efficient precision tools.

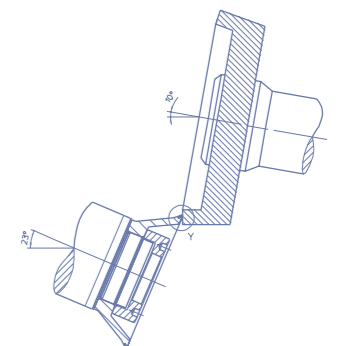
The realization of new product generations and manufacturing processes does not just require wear-resistant guides and supports, but also optimal drive units for adaptable dressing tools and technologies. For this purpose, DR. KAISER persistently continues to develop precision tools and measurement equipment parts. The visions of today are the solutions of tomorrow.



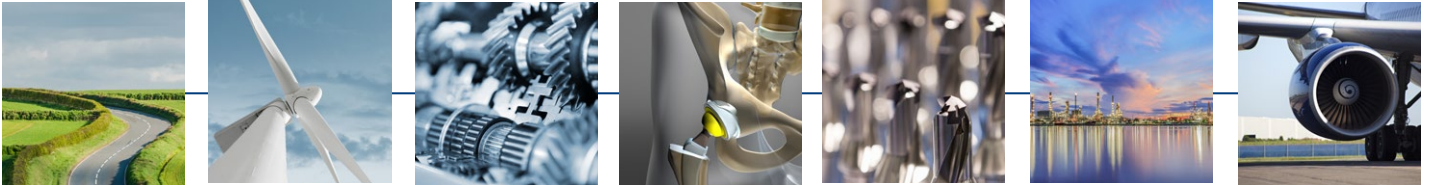
IMPROVEMENT

... leads to success. Process reliability, optimum quality and high profitability are always the most important requirements of our customers. To meet these goals, special design and manufacturing knowledge is needed. High quality machines and experienced employees alone are not sufficient for many machining applications. The problems are caused by details of the machining process with its many parameters, and of course other influences.

Many customers of DR. KAISER take advantage of our vast experience spanning more than 40 years. Trained application engineers work together with your staff to develop improved machining strategies and to optimize your processes. We will also sign non-disclosure agreements and will keep our work together confidential. We can provide training seminars here in Celle or at your facility.



OUR FIELDS OF ACTIVITY



EVERYTHING FROM
A SINGLE SOURCE:

DRESSING DISCS

DRESSING ROLLERS

STATIONARY DRESSING TOOLS

CVD DIAMOND DRESSING TECHNOLOGY

DRESSING SYSTEMS FOR VITRIFIED
CBN GRINDING WHEELS

DRESSING TOOLS FOR GEAR GRINDING

DRESSING SPINDLE SYSTEMS

CBN AND DIAMOND GRINDING WHEELS

PCD AND PCBN CUTTING TOOLS

PCD AND CVD DIAMOND WEAR

PROTECTION COMPONENTS

APPLICATION ENGINEERING

SEMINARS AND TRAINING

DR. KAISER
präzision durch diamant

DR. KAISER DIAMANTWERKZEUGE
GmbH & Co. KG

Am Wasserturm 33 G · 29223 Celle
Tel. +49 (0)5141 9386-0
info@drkaiser.de · www.drkaiser.de