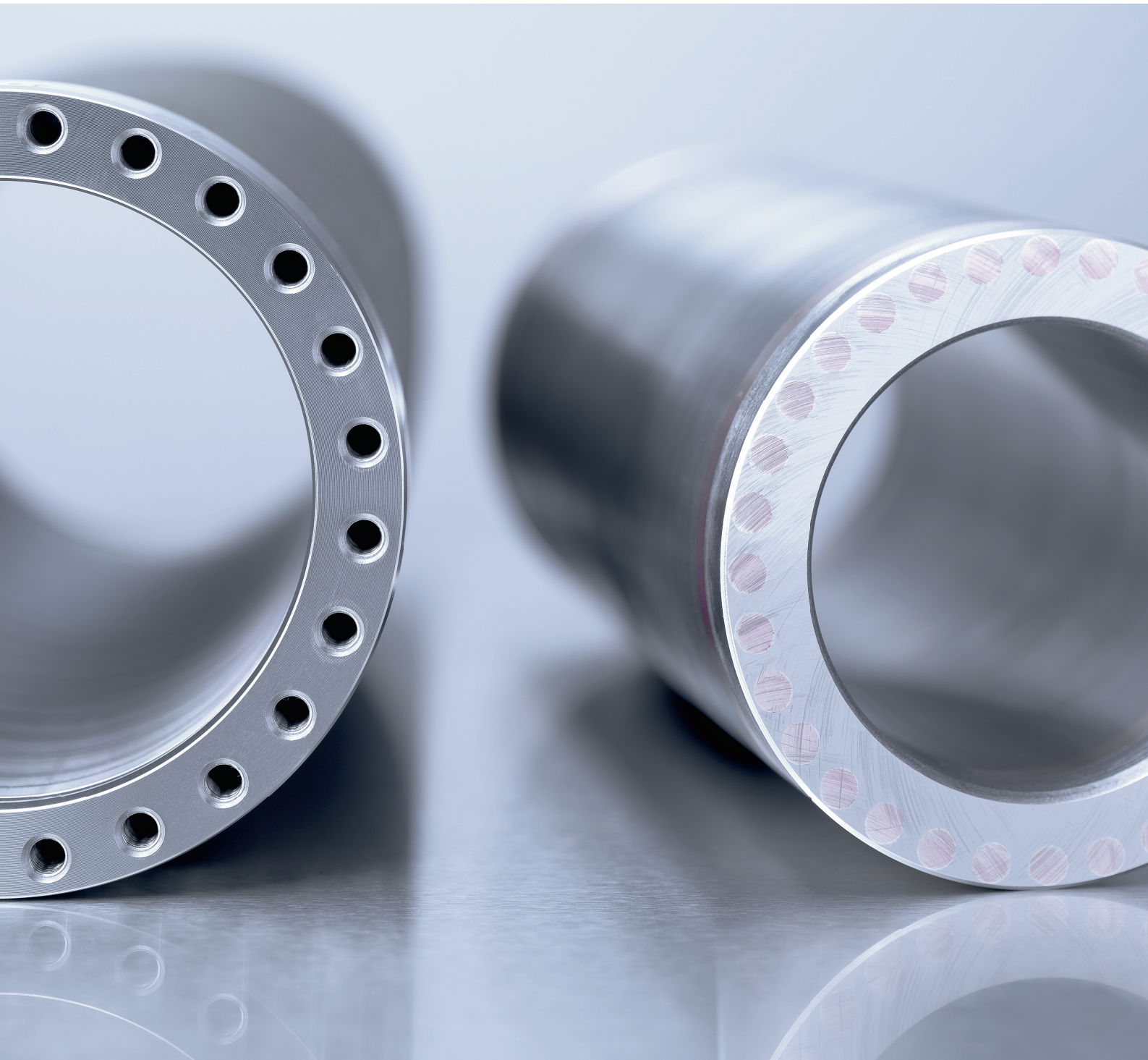
Elektromaschinen
und Antriebe

Motors are our element



High tech for motors

Whether used in the aerospace or in the machine tools manufacturing industry, drives that can withstand high stresses are in demand wherever working machines operate round the clock. Despite their compact size, e+a electrical motor elements have an incredibly high power output. They are reliable and accurate, and have been used all over the world for more than 25 years.

Drives tailored to individual requirements

The capability of machine tools is largely dependent on the performance of their drives. Optimum functionality of the machine can only be guaranteed if the motor elements have been adapted individually to specific requirements and manufactured through careful workmanship. This is why the engineers at e+a develop stators and rotors in close collaboration with customers. Our in-house research institute ensures that our products are developed further on an ongoing basis.

Faster than the speed of sound

High-speed drives can achieve speeds at which the surface velocity of the rotor exceeds the speed of sound. e+a develops fast-running motor elements with extremely high speeds as well as elements with low speeds that are capable of producing high torques.

Our product range has the right element for every application: from competitively priced rotors in cast aluminium cages to bar-type copper rotors and permanent magnet rotors through to custom-built prototypes.

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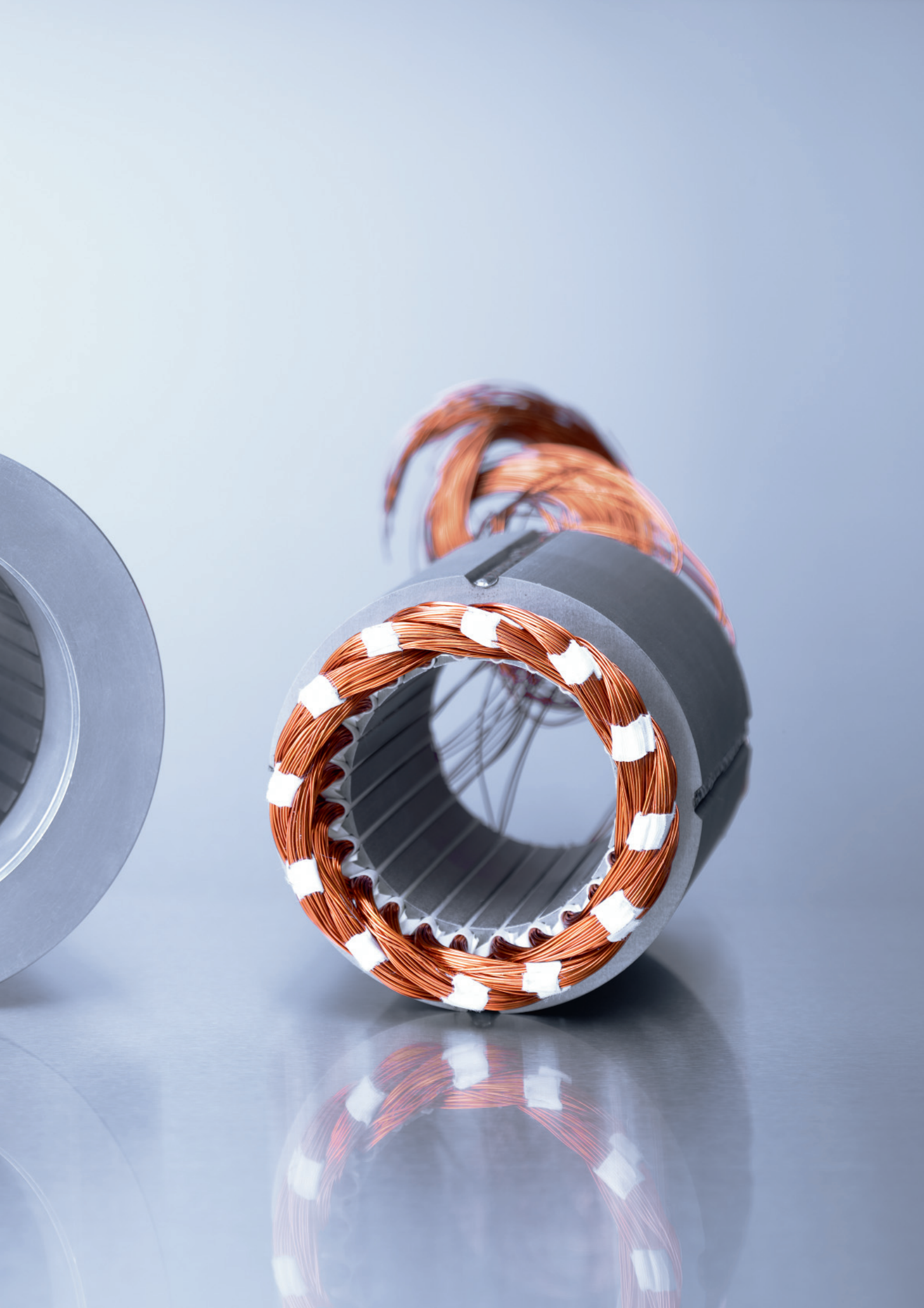


High performance for more than 25 years

e+a Elektromaschinen und Antriebe was founded in 1981 and today is one of the world's leading manufacturers of fast-running motor elements. From the development stage through to sales and distribution – e+a is an innovative partner for the machine industry.

Close to our customers

The company is located centrally in Europe with its headquarters in the Swiss town of Möhlin in the 'Dreiländereck' – the region where Switzerland, Germany and France meet.

The motor elements are subjected to a precise, continuously developed calculation process using our in-house calculation software. Our efficient development process saves our customers time and money.

Our customers are advised by engineers who are familiar with their products and their specific branch of industry. Comprehensive service included. Our customers are provided with detailed information on the frequency inverter settings, for example. We calculate the tolerance oversize and provide guidelines for the machining of motor elements. We test your prototypes on our own performance testing rig.

Asynchronous motor elements

Many asynchronous motor elements that have become established in many branches of the industry are favourably priced and robust. In the low-voltage range they are designed for any given voltage and frequency. The rotor is mounted directly on the driven shaft. e+a motor elements are characterised by a high efficiency, high power density and large rotor bore. If a frequency inverter is used, drives with variable speeds can also be produced.

Swiss precision

We aim to meet the highest of quality expectations. We only use high-quality materials and semi-finished products and check each one of our motor elements several times before it leaves our works. This is why e+a motor elements are guaranteed to run every time without fail.

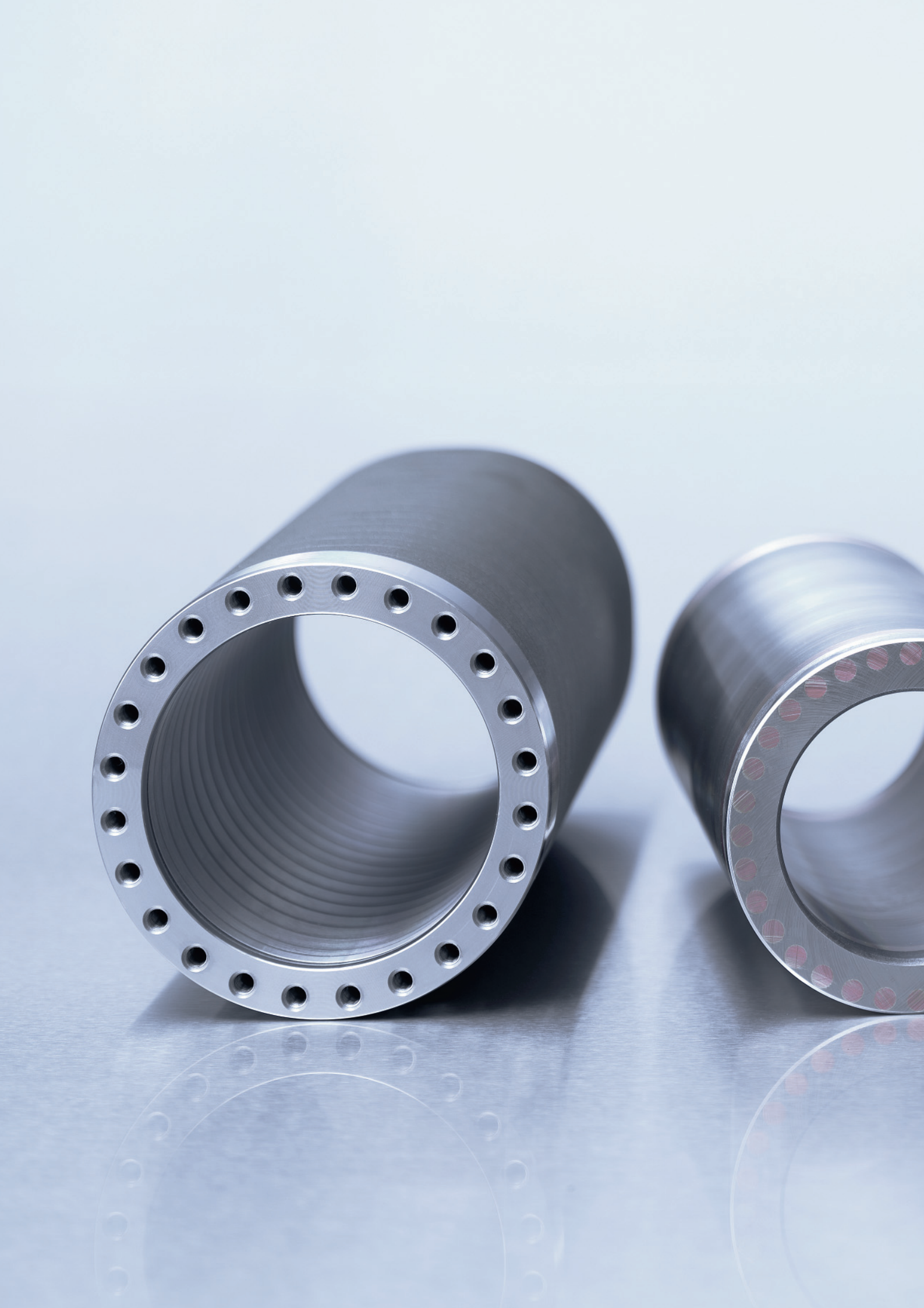
Solid workmanship

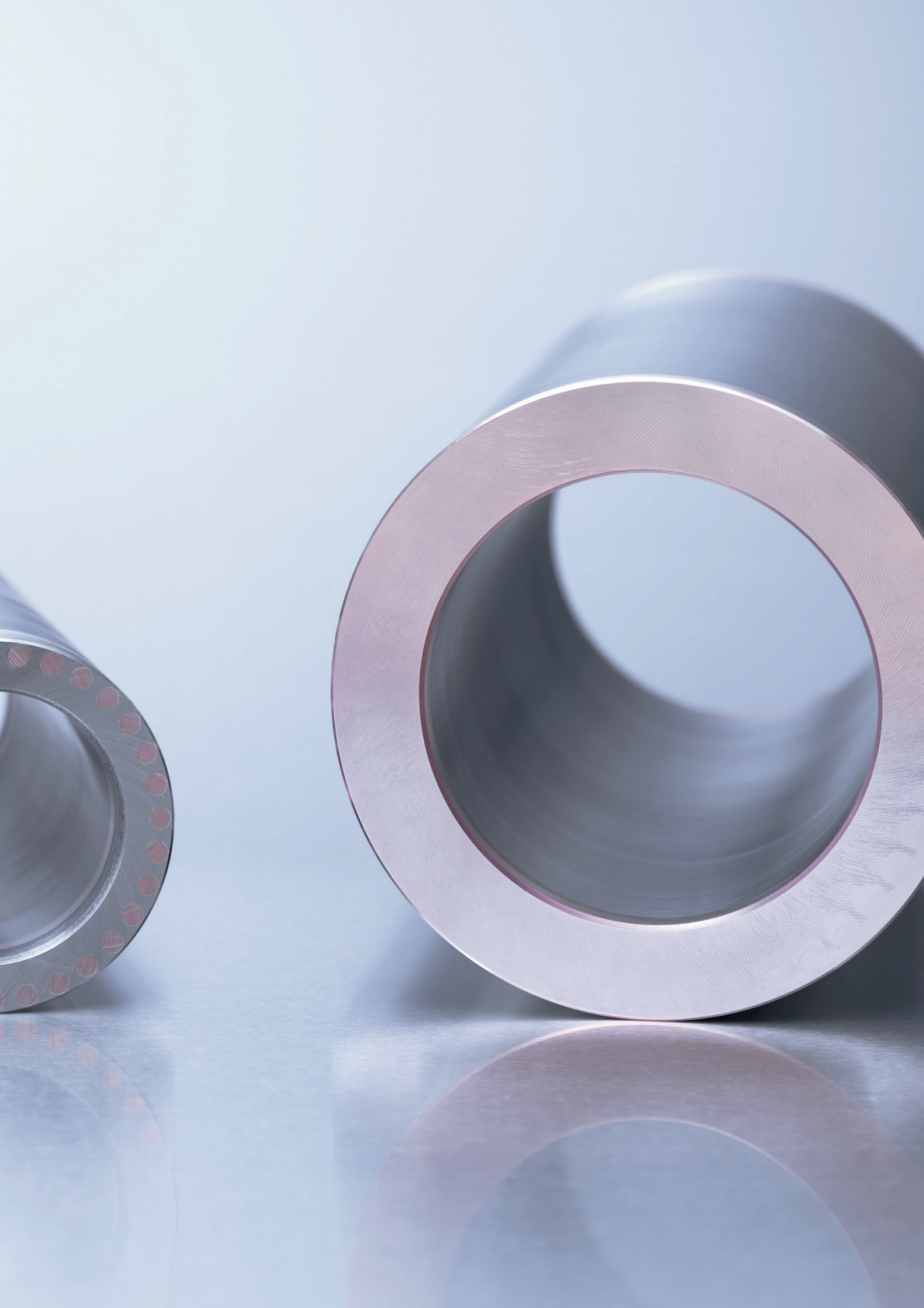
Fully automatic tests, state-of-the-art measuring and testing equipment and a maximum number of testing parameters ensure problem-free functioning of our motor elements. We document our measurements comprehensively and can make the test report available if requested. Our products are carefully packed and reach our customers safely – also on the other side of the world.

Our exclusive partner Kaufmann AG produces the motor elements we develop in modern manufacturing facilities. Traditional manufacturing methods and innovative technology are effectively combined at our production facility to achieve an efficient and flexible manufacturing process. Finished motor elements are also available. From prototype to individual item through to series products: e+a motor elements are renowned throughout the world for their cutting-edge technology and first-class quality.

Synchronous motor elements

The powerful drive for electrically operated spindles is suitable for extremely high torques and large rotor bores. The permanent magnet rotor can reach high speeds in an extremely short space of time and can be integrated into all conventional inverter systems. These are quickly installed, and no thermal treatment of the rotor or shaft is required. e+a synchronous motor elements are available as 2-, 4-, 6- and 8-pole types as standard and also with ENCA™ or ALKA™ winding protection, depending on their size.



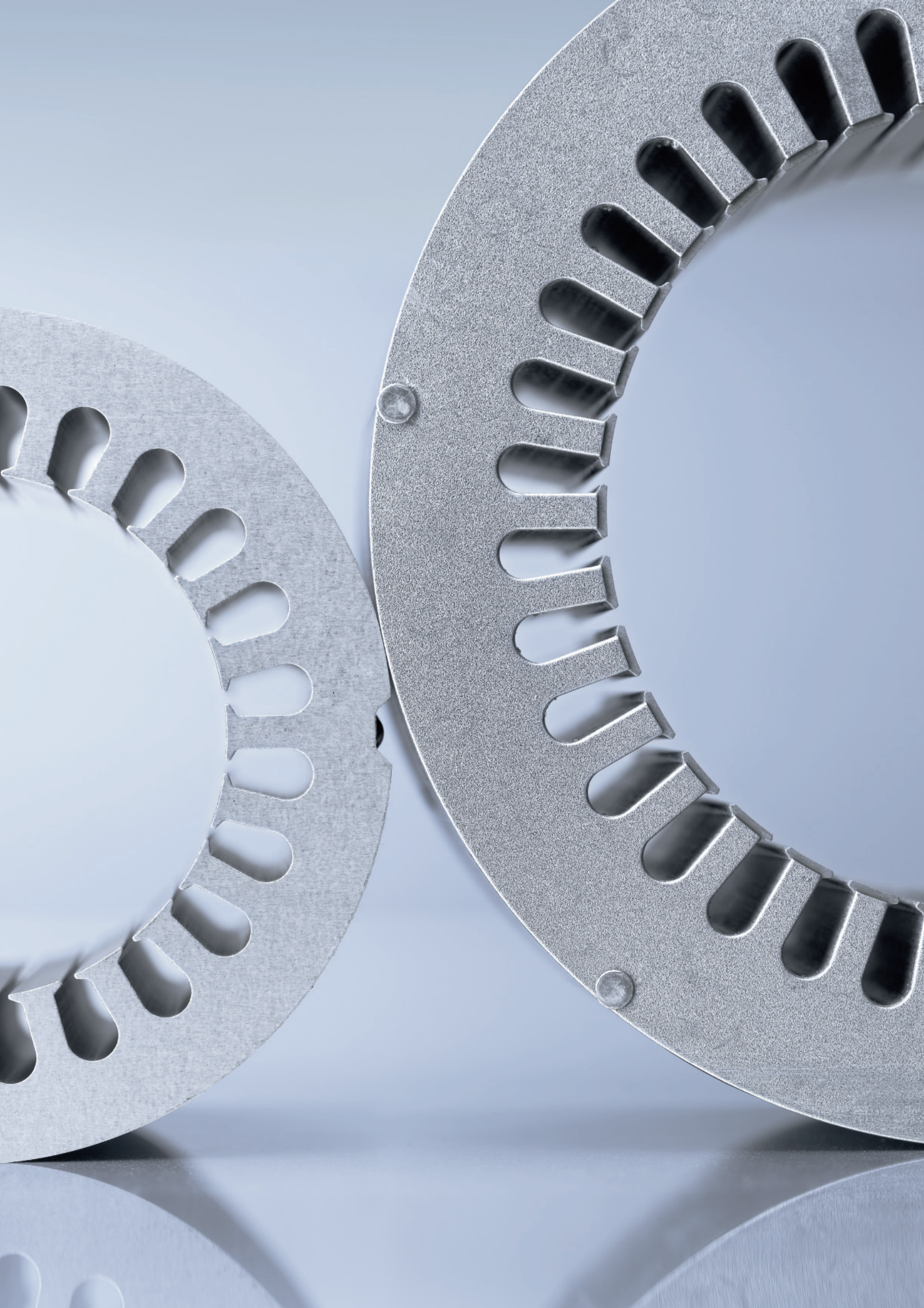


e+a research institute

The development of our high-performance drive starts at the e+a research institute. We develop our products on an ongoing basis together with our customers, internationally renowned universities and technical colleges. We ensure that the essential skills required to develop and manufacture the product are available as a one-stop service – from e+a.

We carry out fundamental research to ensure that our highly dynamic drives can withstand the extremely high loads to which they are subjected. A thorough knowledge of materials and a wide-ranging basic knowledge on the calculation of electric rotating machines are equally decisive factors.

We offer young engineers further training and participate in international projects. In this way we not only stay in touch with the latest developments, we also considerably influence developments in our industry.



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