

customized drives, perfectly crafted

Your partner for innovation and quality

SERVAX is a pioneer and leading European manufacturer of customized electric drives and industrial door automation. We stand for innovative solutions in premium Swiss quality.

Working with our customers from around the world, we design solutions for advanced machine drives in all areas of mechanical engineering, automation, logistics, energy technology and agriculture. Our electric motors and system solutions stand out with their exceptionally high power density as well as with their efficiency and resilience, safety and ease of maintenance.

SERVAX electric drives form the core of machines and systems, granting you a powerful added value against your competitors.

Customized electric drives

SERVAX builds its electric drives using state-of-the-art technology geared to the specific requirements and ideas of our customers. This is how we ensure that your machine or system is perfectly matched to its intended use and that you are at the forefront of technology in your markets.

A unique depth of production

A flexible engineering platform allows us to combine different modules and develop the ideal drive for your machine or system. We determine the best technology, cooling type and design for each application, offering you a vertical range of manufacture that is unique in Europe and includes all components for the construction of an electric motor:

Joint definition of requirements

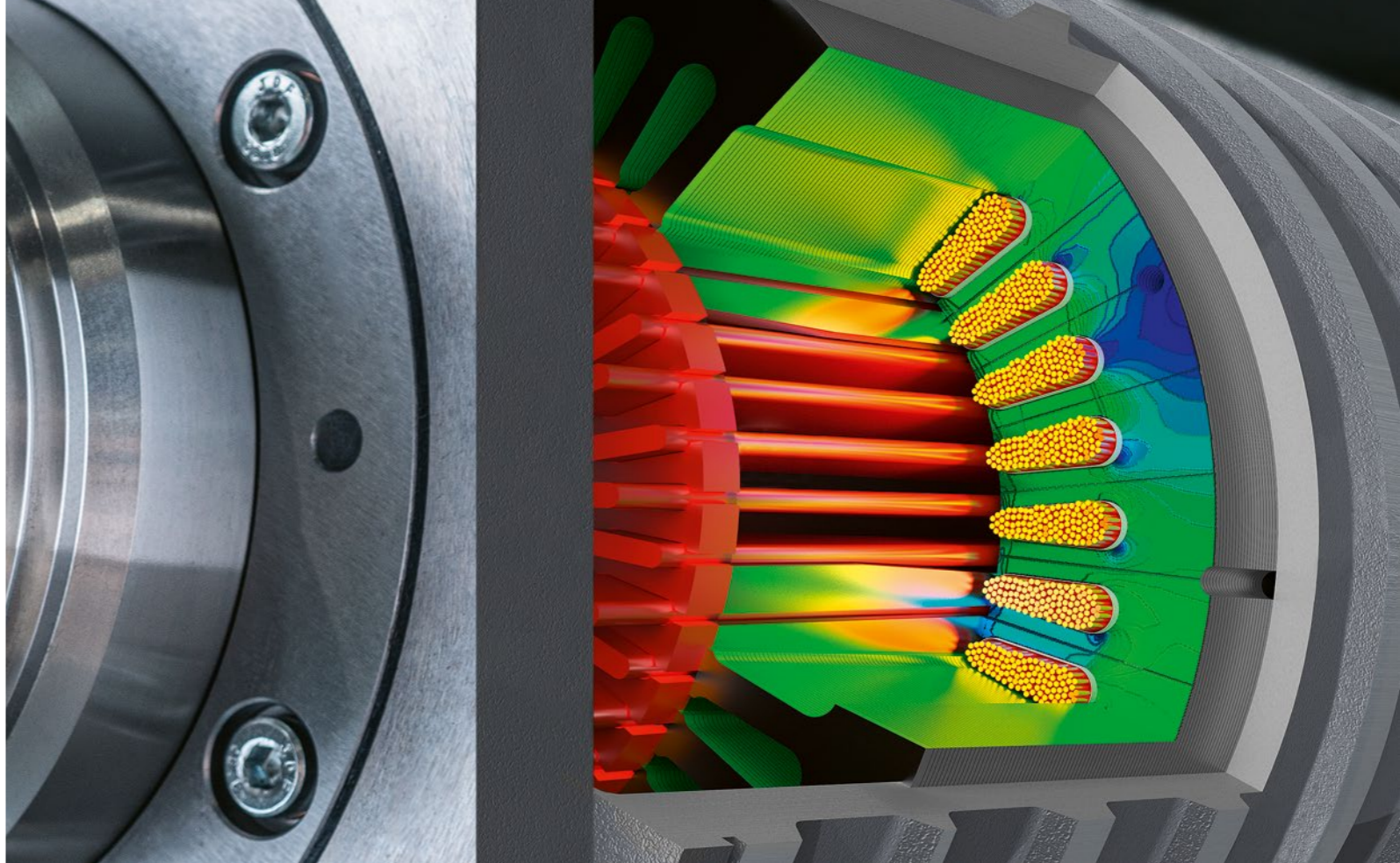
As a machine engineer, you know the underlying parameters, while we know the potential you can unlock with electric motors.

Electromagnetic design

We calculate the magnetic circuit and design the active parts to extract the best possible performance from your new motor.

Construction of mechanical elements

We fully exploit the technological potential and integrate the drive perfectly into your machine.



Prompt delivery of the first sample

Standardised technology modules enable us to respond to your specific needs with the utmost speed and flexibility.

Data checks in the in-house laboratory

Our engineers process and evaluate the measurement data to gain insights on the newly built motor.

Serial production, commissioning

SERVAX delivers a perfectly matching, fully developed solution for your project.

Delivery and maintenance

We maintain the supplied drives throughout their life cycle.

Our collective expertise at your service

We develop and manufacture all our drive systems at our headquarters in Switzerland. This gives us full control over their development process and ensures that our collective expertise feeds into existing and future customer projects.

A wide range of applications

SERVAX motors offer distinct advantages for machines and systems throughout the mechanical engineering sector and especially in the textile, tool and plastics processing industries: they stand out with their high integration level, their performance, durability and safety, their easy maintenance and reliability.

Machine tools

SERVAX motors are perfectly suited for use in machine tools thanks to their compact design, full integration capability, high dynamics, low heat emission and wide speed range.

Textile machines

SERVAX drives offer maximum production output and silent running in year-round 24-hour operation.

Plastics processing

We optimise drives for their dynamics, speed and precision, allowing you to build maximum productivity into your machines.

Railway industry

With their robustness and precision, SERVAX drives stand the test of time against shocks and vibrations on rails all over the world.

Construction industry

Our drives have the outstanding advantage of being indestructible – which they prove thousands of times every day around the globe.

Our drives are the ideal solution for countless other demanding applications in keeping with our company motto: customized electric drives.



Renewable energies

Automation

Textile machines

Stretching godets for BCF systems, weaving machines, spinning machines (drafting systems)

Propeller drives

Railway industry

Turnout systems, rail grinding trains

Defence

Plastic injection moulding machines

Extruder drive, injection axis, ejector, safety doors

Construction industry

Concrete processing, concrete reinforcement lattice welding systems

Agriculture

Machine tools

Glass manufacturing

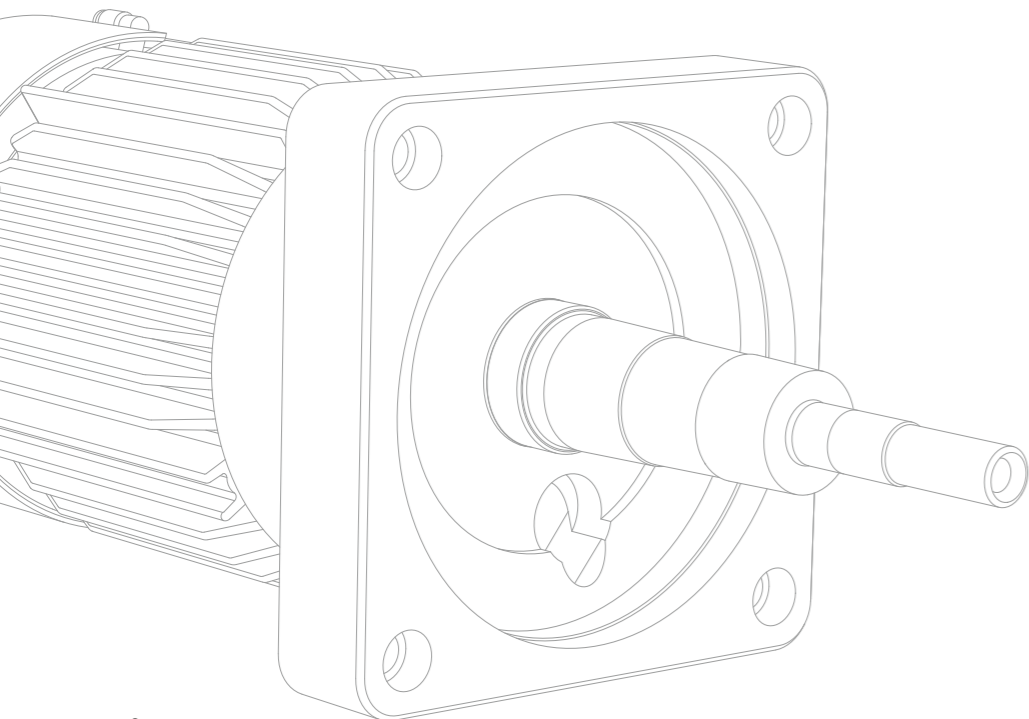
Built-in spindle drives (grinding, turning, milling, honing), safety doors

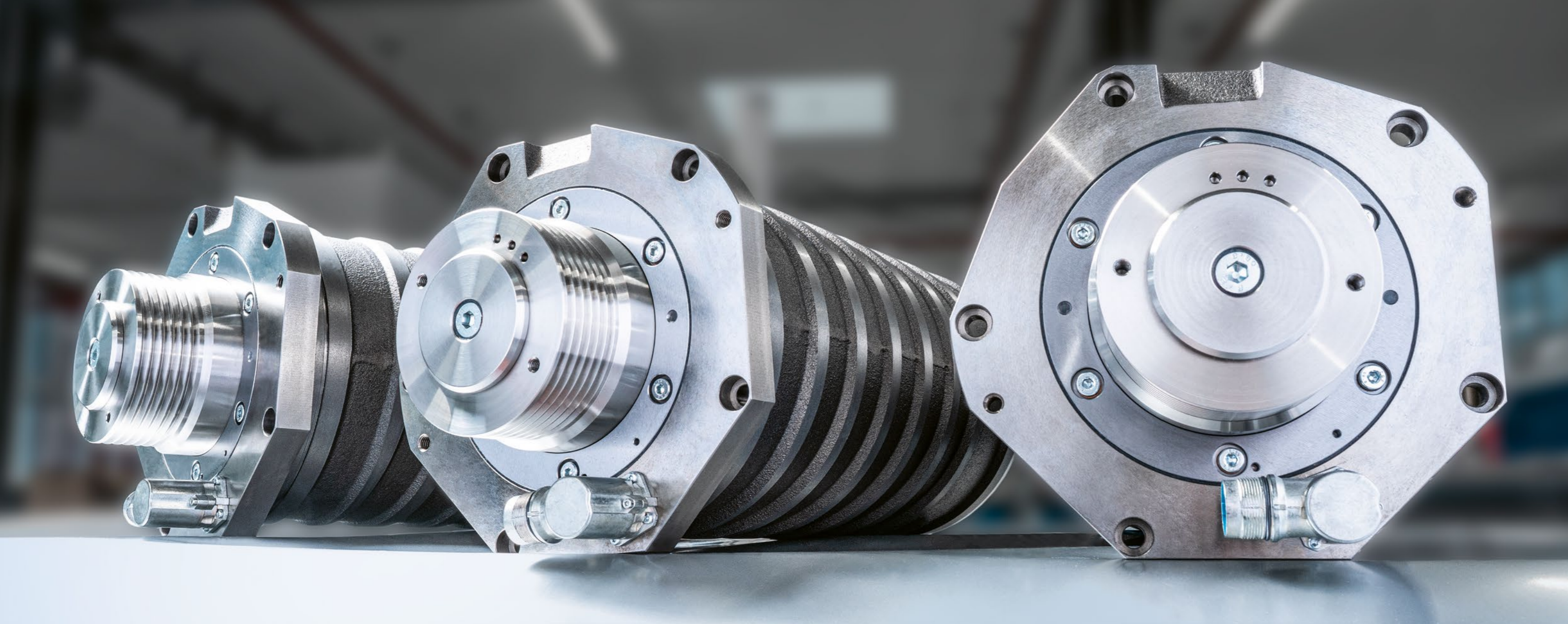
Pick & place robots

Electromobility

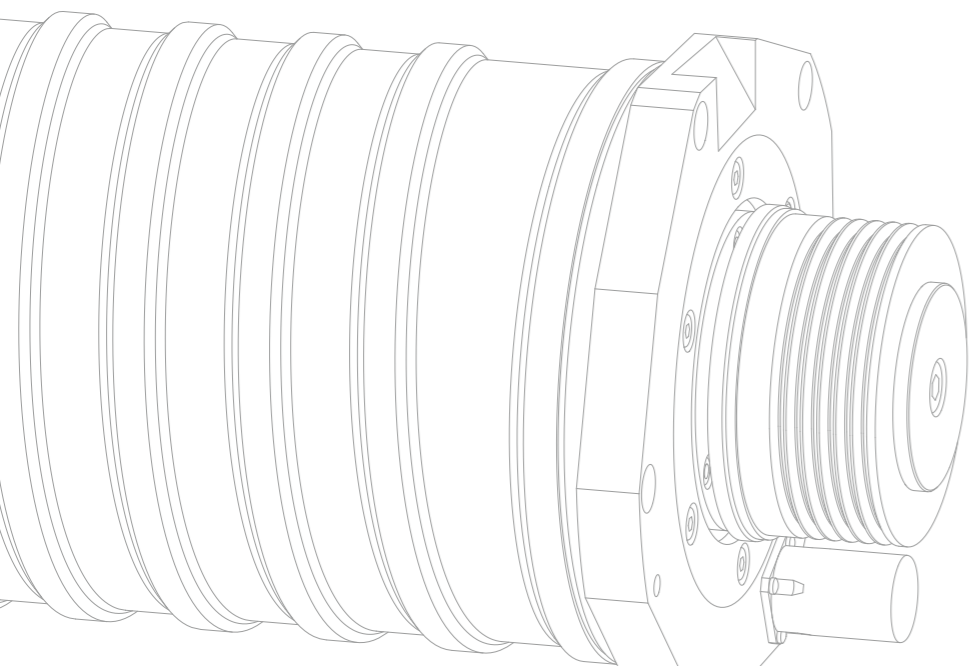
Air-cooled motors

Most electric motors worldwide are air-cooled. Their heat loss is released into the environment via convection of air on their housing, which is the most cost-effective form of cooling. However, because the cooling fins require additional space, air-cooled drives are significantly larger than liquid-cooled models.





Liquid-cooled motors

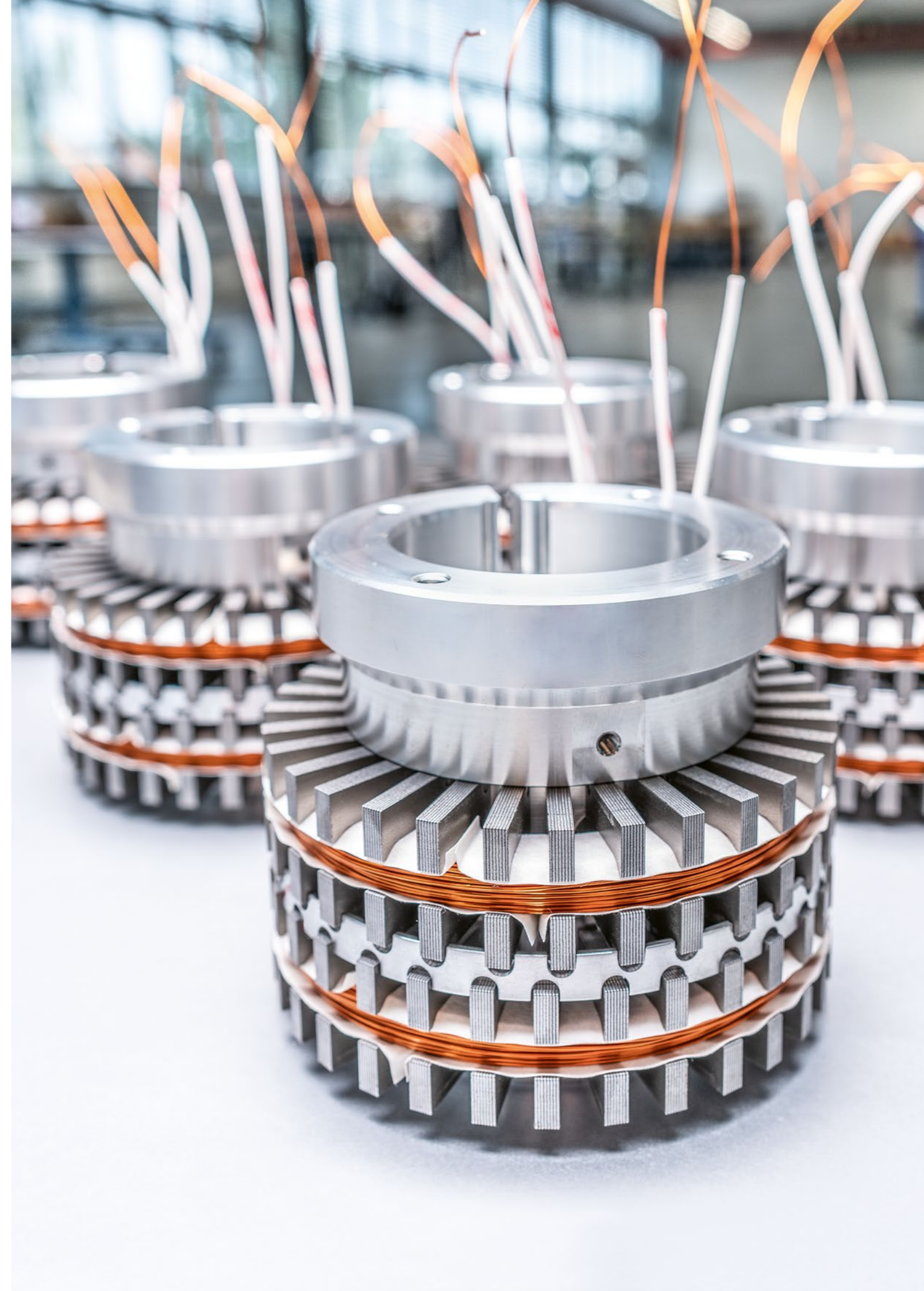
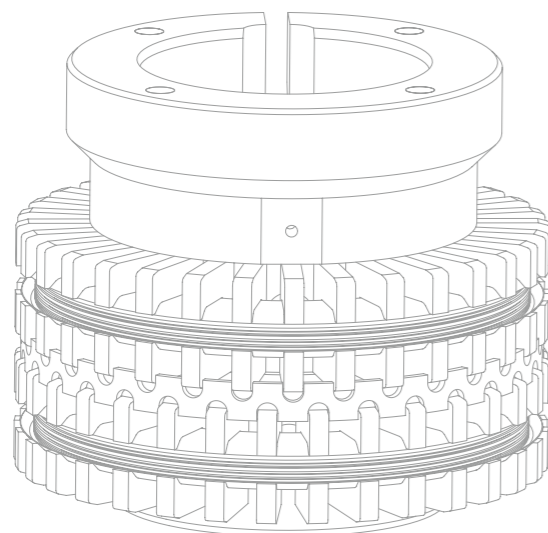


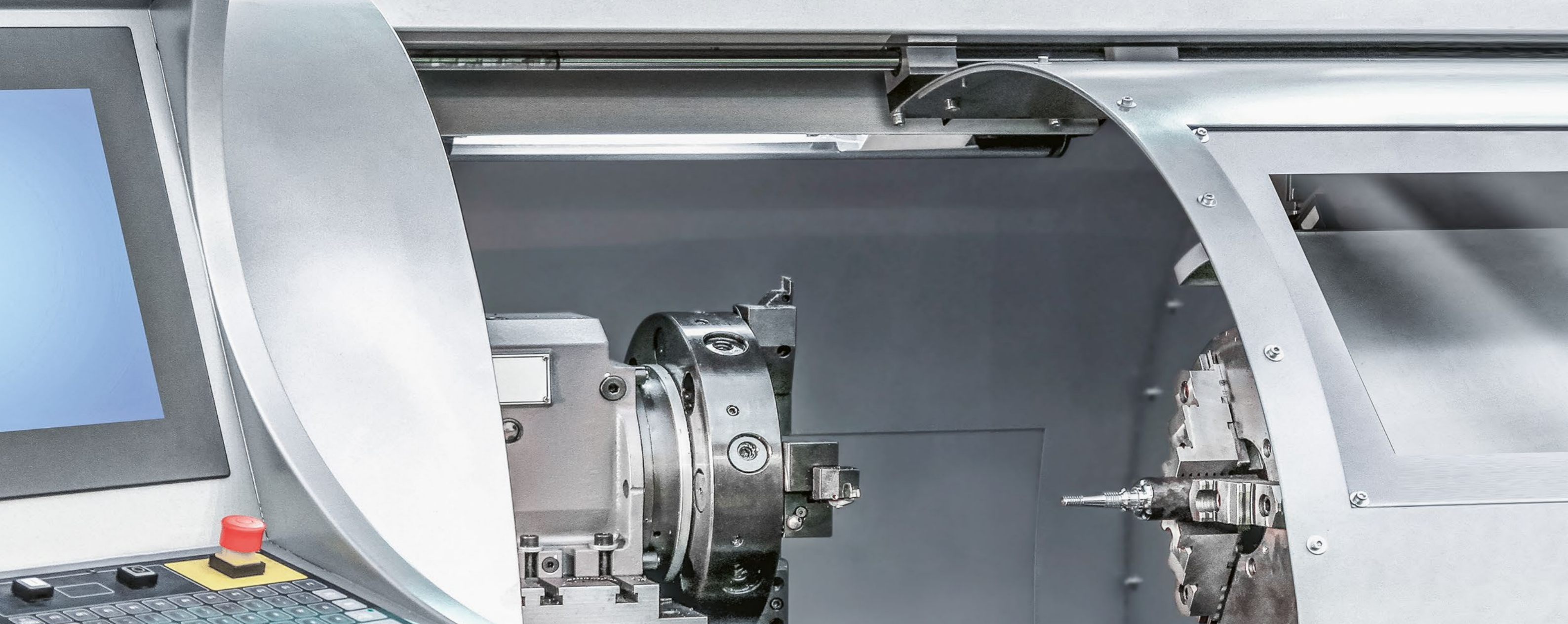
Liquid-cooling allows for a particularly high power density in electric motors. They run extremely smoothly and do not require any regular maintenance or cleaning. They are suitable for a wide range of applications, from construction industry to cleanrooms.

Motor components

Motor components for built-in motors are becoming increasingly common, especially in the machine tool industry. Thanks to their high performance, their compact construction volume and light weight, these drives can be fully integrated into the spindle as a direct drive.

The modular design allows SERVAX to provide you with economically attractive customized solutions even for small batch sizes. The motor components are available in both synchronous and asynchronous versions.





Intelligent protective machine door systems

In addition to customized drives, SERVAX also has a division for protective machine door systems which offer first-class protection and ease of use. The drives consist of high-torque direct drive motors and matched motor controls. They combine integrated security and intelligent controls into a powerful all-round solution that is easy and quick to integrate in any given situation.

SERVAX offers the full range of asynchronous and synchronous motors, including hybrid and special drives. Global and regional industrial players rely on the successful SERVAX model of promptly meeting customer requirements based on standardised technology modules, maximum flexibility and premium quality standards. SERVAX offers many advantages that set you apart from your machine building competitors.

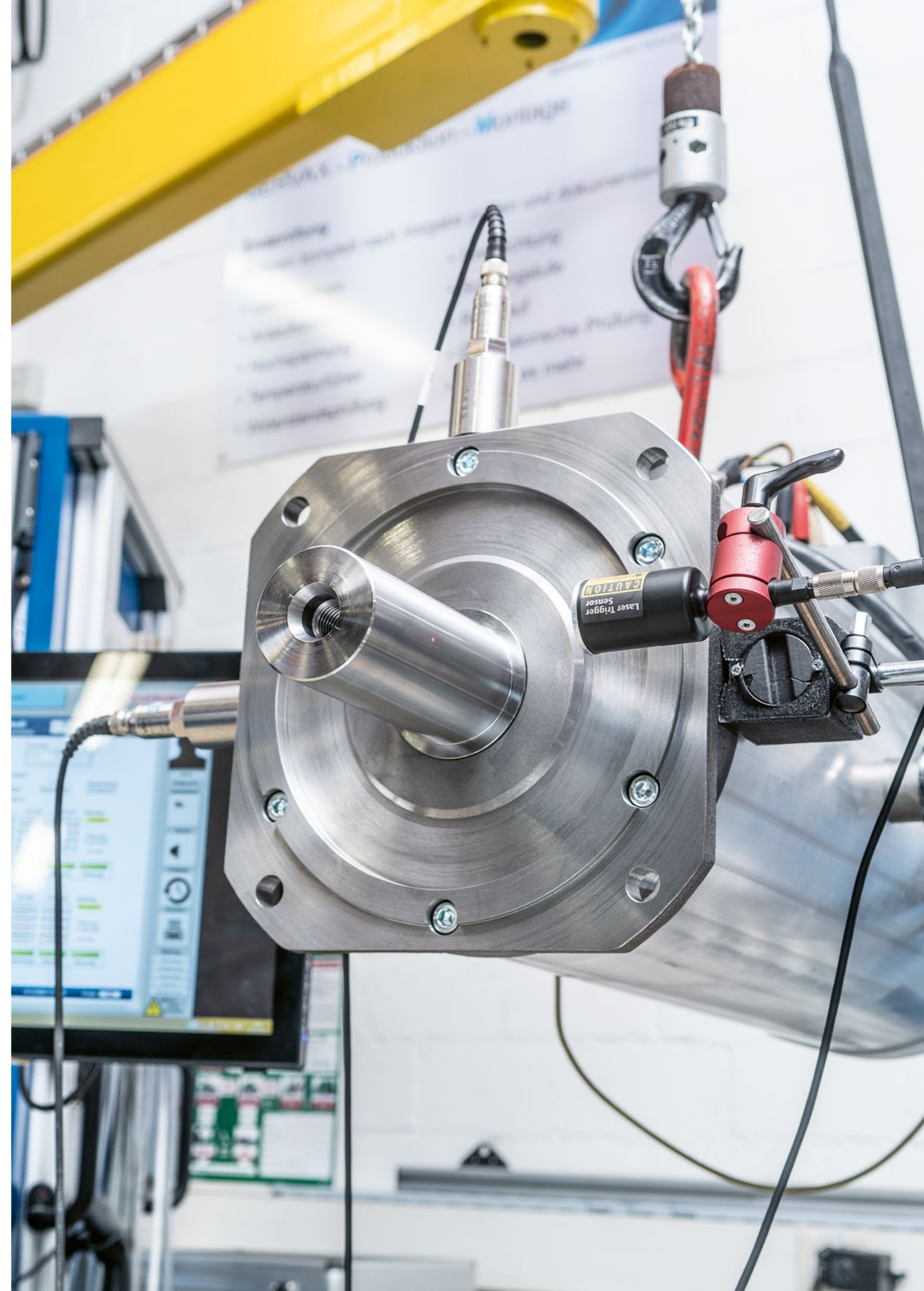
Why you should choose SERVAX

Efficiency	We establish the required torque characteristic with the most compact dimensions by defining the appropriate drive technology and adjusting the geometry of the electrical sheets to the application.
Full system integration	Because they provide maximum flexibility at the electrical and mechanical interfaces, our drives can be fully integrated as direct drives.
Flexible design	With our drives, the overall length can be optimised or the moment of inertia can be reduced for the highest dynamics.
Economic efficiency	Because the motor is designed exactly to the required speed, the drive consumes less power and less expensive converters can be used.
Low heat radiation	We optimise the design of the drive to ensure that the rotor and surface stay as cool as possible.
Rapid availability	Standardised technology modules enable us to have the first prototype ready for testing within a matter of weeks.

Extending your technological lead

SERVAX customers are innovative manufacturers of machines for a wide range of market segments. Our processes are consistently geared to their needs, allowing them to extend the technological lead of their machine. We do not simply serve our customers with ready-made solutions but support them continuously with upgrades and our own innovative solutions as they further develop and replace their systems and machines.

We have been testing motors ever since we started building them. We test prototypes, development and technology projects as well as serial motors in our own, well-equipped laboratory according to the current IEC standards. By the way, the SERVAX test lab is also available for tests on your existing machine drives.



SERVAX is a division of the LANDERT Group, a privately held group of companies characterised by innovation, first-class quality and true entrepreneurship. Its headquarters are in Switzerland, in Bulach near Zurich. Founded in 1924, the group has over 1000 employees and is made up of two divisions: SERVAX (customized electric motors) and TORMAX (automatic pedestrian and industrial door systems).

For many decades, SERVAX drives have been at the core of sophisticated machines and systems all over the world. They offer clear advantages for all areas of mechanical engineering: They stand out with their efficiency, full system integration, flexible design, cost-effectiveness, low heat emission and ready availability.

Pioneer of customized electric motors

Thanks to these properties, our customized drives do their job in all industrial sectors. With its automatic protective machine door systems, SERVAX also offers a safe and intelligent system solution that optimises both productivity and workplace ergonomics.



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