



WITTENSTEIN

The WITTENSTEIN group

Companies, products
and services
of the WITTENSTEIN group



Our fields of competence are

Mechanical and systems engineering



For decades, we have served as a competent partner to companies involved in the development, design and manufacture of machines for factory and process automation. During this time we have built up unrivaled know-how in a variety of industries. Our customers profit from our outstanding expertise in the following fields:

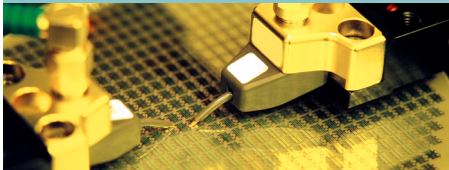
Automation, robotics, handling



Plastics & rubber processing



Semiconductors & electronics assembly



Woodworking



Food and packaging



Machine tools



Other industries



Aerospace



Automotive and e-mobility



Energy



The aviation industry must develop ever more efficient aircraft, without compromising on safety. Thanks to their excellent power-to-weight ratio and reliability, our mechatronic systems contribute towards achieving and exceeding this objective. Our EASA approval and global service network enables us to offer all services, for our entire product range, to provide system suppliers, aircraft manufacturers and airlines with reliable mechatronic driver capacity for the entire life cycle of an aircraft.

Since 2006, WITTENSTEIN has set benchmarks in power-to-weight ratio, efficiency and intelligence for powertrains of electric and hybrid vehicles. By way of example, we offer traction drives, generators and electric drives for turbochargers and compressors, including intelligent control software. Our unique engineering solutions and serial products are specialized for space-restricted applications with small serial quantities.

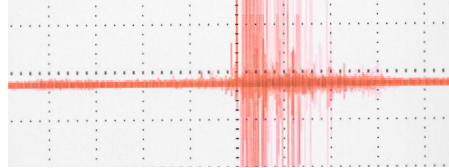
We have long been working successfully with our customers on solutions for energy-efficient drives, new generations of power generators and energy recovery systems for many sectors. Thanks to their extremely high resistance to radioactivity, our radiation-proof rotary servo motors, actuators and generators open up completely new possible applications for nuclear power plant operators. On request, we build products in strict compliance with IEEE guidelines and explosion-proof to ATEX guidelines.

Medical technology



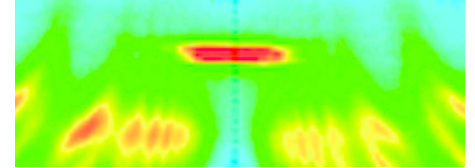
For more than 20 years, WITTENSTEIN has been supporting its customers in the medical technology sector with the most advanced solutions in the field of mechatronics. Reliability and safety are two core values that, combined with extreme compactness and responsiveness, characterize the products developed. The wide range of solutions includes motors, gear-boxes, sensors and drive systems that are ideal for many medical and laboratory applications as well as for robotic surgery.

Measurement and testing technology



Modern production processes are increasingly complex. To control them accurately and reliably, the measuring and testing technology must be taken to new levels of precision and compactness. Our IDS3010 sensor enables dynamic, nanoprecise measurements in industrial applications for the first time. Our ultra-compact, customized drives simultaneously open up new possibilities for developing systems and equipment – even in extreme environmental conditions.

Nanotechnology



In order to record, research and further develop the nanotech world, you need instruments that work reliably even in the sub-atomic range. For over 10 years now, we have been developing and producing nano-precise sensor, actuator and microscopy solutions that push the limits of what is physically and technically possible. This work is interdisciplinary and innovative: We are ready to forge new and highly innovative paths with our customers.

Oil and gas exploration



The harsh ambient conditions in the oil and gas industry place stringent demands on machines and systems: Our rotary servo motors and generators are available with and without housing, are highly shock and vibration-resistant and enable stator winding temperatures up to 240°C and ambient pressures up to 2100 bar. Specifically to enable oil and gas to be processed and extracted on land or below the ocean surface, we offer highly integrated mechatronic systems with extremely robust designs and high-precision calibrations.

Simulation



Flight simulators enhance air safety significantly. These can be used to provide civilian and military pilots with practical instruction and training. Control Loading Systems are the sensitive human-machine interfaces in such simulators. We offer our customers these systems from a single source, including all the integrated hardware and peripherals as well as the necessary software systems and programming for aircraft type-specific databases.

Simulation



Digitalization is a chance to make growing complexity and the increasing trend towards mass customization manageable. This can only happen within a digitally networked manufacturing environment. That is why we develop a broad range of products and solutions for manufacturing environments in which production machinery and logistics systems are linked together and will have the capability to organize themselves in the future. We also offer our customers digital services which support condition monitoring or predictive maintenance, for instance, as well as attractive online tools that provide valuable assistance from a product finder to after-sales.

Marine industry



The electrification of boats is a reality today, which involves both propulsion for increased environmental sustainability and the accessories of larger yachts due to the technical advantages over traditional hydraulic solutions. The WITTENSTEIN group has been active in the sector for more than a decade. As a partner, we understand and meet the needs of the marine industry. Our products are extremely compact, efficient and really silent, for greater comfort on board. Our 30 years of experience in the design of mechatronic products for demanding applications guarantees the quality and reliability needed for the marine industry.

Battery production



Maximum throughput with a high level of economic efficiency and flexibility is a key factor in the battery manufacturing industry. These requirements can be met by the extensive product portfolio of the whole WITTENSTEIN group and its professional expertise. From cell production to cell and pack assembly, and right through to general automation technology, we take your application to the next level with our innovative solutions. This ensures that the demand for reliability and maximum precision over the entire period of use is met in combination with excellent reproducibility.

Attractions industry



More than a stopover. People want to take a short vacation together with their family or friends, looking for more thrills and fun. New parks and resorts worldwide are opening their doors for an epic adventure. More real. More intense. More thrills. An experience like never before. Themes and attractions let visitors plunge into history. Film heroes and mythical creatures come alive while a journey into the future creates a once-in-a-lifetime experience.

WITTENSTEIN helps you secure key competitive advantages

We develop, produce and sell systems and solutions for highly dynamic motion, maximum-precise positioning and smart networking for mechatronic drive technology. Our aim is to provide innovative and future-proof solutions that help you stay at the cutting edge. We have six Strategic Business Division for this purpose with specific core competencies united under one roof.

You can find our products in industry, in space and underground.

Our portfolio includes low-backlash planetary gearboxes, complete electromechanical drive systems and AC servo systems and motors. They are used, among other things, in robotics, machine tools, medical technology and aerospace.



WITTENSTEIN alpha develops, produces and sells mechanical and mechatronic servo drive systems for sectors that require maximum precision. Our products continue to set new standards around the world.

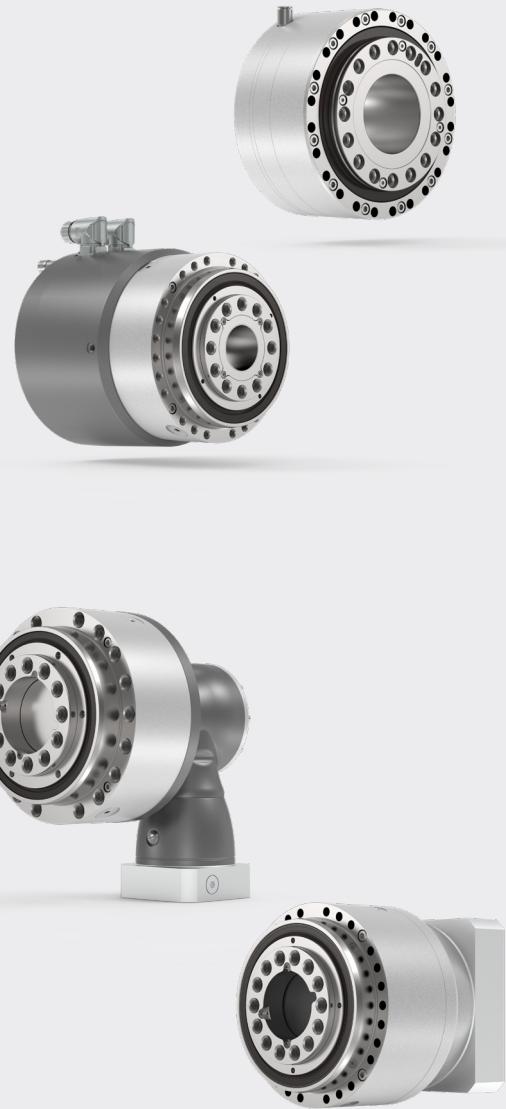
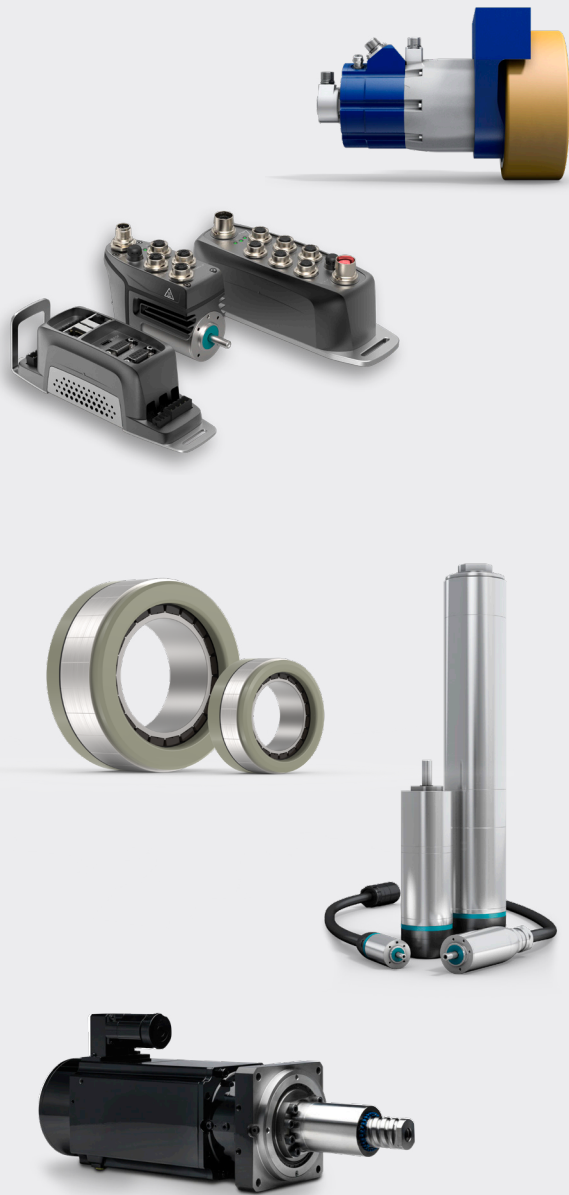
We have divided our product portfolio into four segments in order to meet varying, application-specific requirements: while the Premium and Advanced segments focus on technology and performance, the Value and Basic segments place more emphasis on price and satisfying basic customer requirements.

WITTENSTEIN cyber motor

Highly dynamic servo motors and drive electronics

WITTENSTEIN galaxie

Superior gearboxes and drive systems



WITTENSTEIN cyber motor develops, produces and sells technologically advanced servo motors with sophisticated drive electronics as well as complete mechatronic drive systems with maximum power density. Our particular expertise lies in specialized motors for ultra-high vacuums, radioactive environments and high temperatures.

We collaborate closely with our customers on individual projects. During the development process, we share knowledge, learn from one another and develop new ideas together. The resulting solutions help differentiate our customers from their competitors.

WITTENSTEIN galaxie develops, produces and sells radically innovative gearboxes and drive systems, whose functional superiority is based on an entirely new operating principle. Our unique expertise makes us the global leader in rotary mechatronic drive technologies.

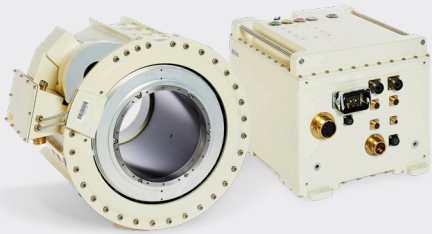
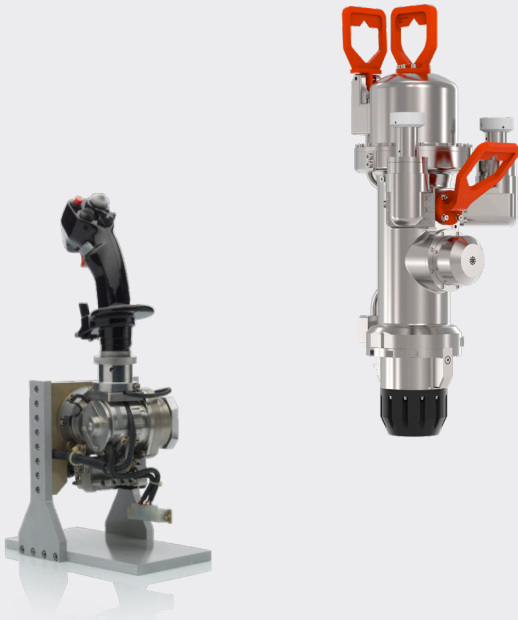
Our innovations enable our customers to implement their machines and systems with previously unattainable performance parameters. This will help them to remain ahead of the competition in the future. Moreover, our solutions allow products to be manufactured in an efficient way that conserves resources.

WITTENSTEIN motion control

Drive systems for the most extreme environmental requirements

attocube systems

Nanoprecision drive and measurement technology solutions



WITTENSTEIN motion control develops, produces and sells customized systems for critical environmental conditions using servo motors, gearboxes, electronics and software. Our development expertise and the high level of vertical integration of the components ensure that our technologies meet our customers' requirements.

We focus our innovative solutions on fields that rely on maximum performance, robustness and reliability: aviation, the defense sector, simulator applications and subsea. Real-time security software completes our product portfolio.

attocube develops, produces and sells drive and measurement technology for highly demanding nanotech applications. Its product range includes everything from nano drives and complete microscope systems to innovative sensor solutions, which far exceed current measurement technology in their precision, speed and compactness and can also be used under extreme conditions.

Years of experience and expertise in both the scientific and industrial market segments have yielded an inspiring product catalog boasting maximum precision and user-friendliness. This superior technology revolutionizes existing applications and guarantees lasting competitive advantages for our customers.



Digitalization

To enable us to drive digitalization forward, we have set up a separate organizational unit – the Digitalization Center. There, we are systematically developing our competencies in the areas of software, sensors, electronics and data. We have defined four strategic focuses, referred to as agile trains:

Smart Factory & Smart Operations addresses an environment in which production machinery and logistics systems have the capability to organize themselves.

Smart Products & Data Driven Services examines how products can collect information both on their environment and on their own status. This serves as a starting point for our customers to improve their production processes in real time and lays the foundation for customized services.

Smart Customer Journey provides, and continuously develops, digital touchpoints in the form of online sizing tools.

Without the Digital Transformation train, all of this would be unthinkable. To enable us to become a digital innovation leader, we endorse an agile culture and seek to acquire sustainable skills. This train also puts the emphasis on maintaining and expanding the partner network as well as on the development of digital business models.

Our Digitalization Center has a vision: in the future, self-learning products and systems will become interconnected through digital awareness. The human beings at the center of the factory control the physical value added by means of virtual replicas of the value chain – from suppliers through customers to our production facilities.

baramundi provides companies and organizations worldwide with efficient, secure and cross-platform management of networked endpoints in IT and manufacturing. The Management Suite provides our customers with integrated, future-orientated unified endpoint management.

baramundi leads the way in regard to unified endpoint management in networked production environments. We develop this solution in close cooperation with the WITTENSTEIN Digitalization Center.



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WITTENSTEIN – one with the future

www.wittenstein-group.com