

GOOD ENGINEERING

# Motion Control Technologies Center

# Motion Control Technologies Center

For us, engineering is one of the **most creative ways to turn dreams** into reality.

**We began our journey in 1998** with the aim of integrating engineering with art, industry with nature, factories with the environment, and technology with life. **Our founding purpose was to understand, develop, and direct movement, and to control movement by drawing inspiration from its nature.**

By raising our quality to international standards and leveraging the strength of our R&D center, **we produce technological products and develop projects for all systems that require movement and control.**

Specializing in different motion and control technologies, **we continue to manufacture with the goal of becoming the world's center** for industrial motion control technologies with exemplary versatile engineering solutions.

**“Our dreams shape our thoughts and our thoughts shape our strength.”**

ilham ÇELEBİ

**While utilizing our engineering expertise, we strive to respect living beings and the environment, ensure safe working and living conditions for people, create awareness and innovation, support internal and external training, continuously improve our quality criteria and share our knowledge gained through experience.**

# Good Engineering

In addition to taking part in engineering processes such as idea development, project planning, and manufacturing across all sectors, HKTm also symbolizes a dynamic structure, the ability to turn dreams into reality, and a strong commitment to education.



Ensures the welfare of nature and all living creatures is increased in line with scientific and technical principles.



Listens to others, and does not confine any requests created to expectations.



Shares its knowledge and experience, notwithstanding any condition or benefit.



Does not take any action that may be in contradiction with scientific principles.



Ensures that its suggestions are not momentary and is based on persistency and sustainability.



Prevents any discrimination, and meets the principle of equality at its own environment.



Ensures that the solutions developed by it comply with environmental and occupational safety requirements.



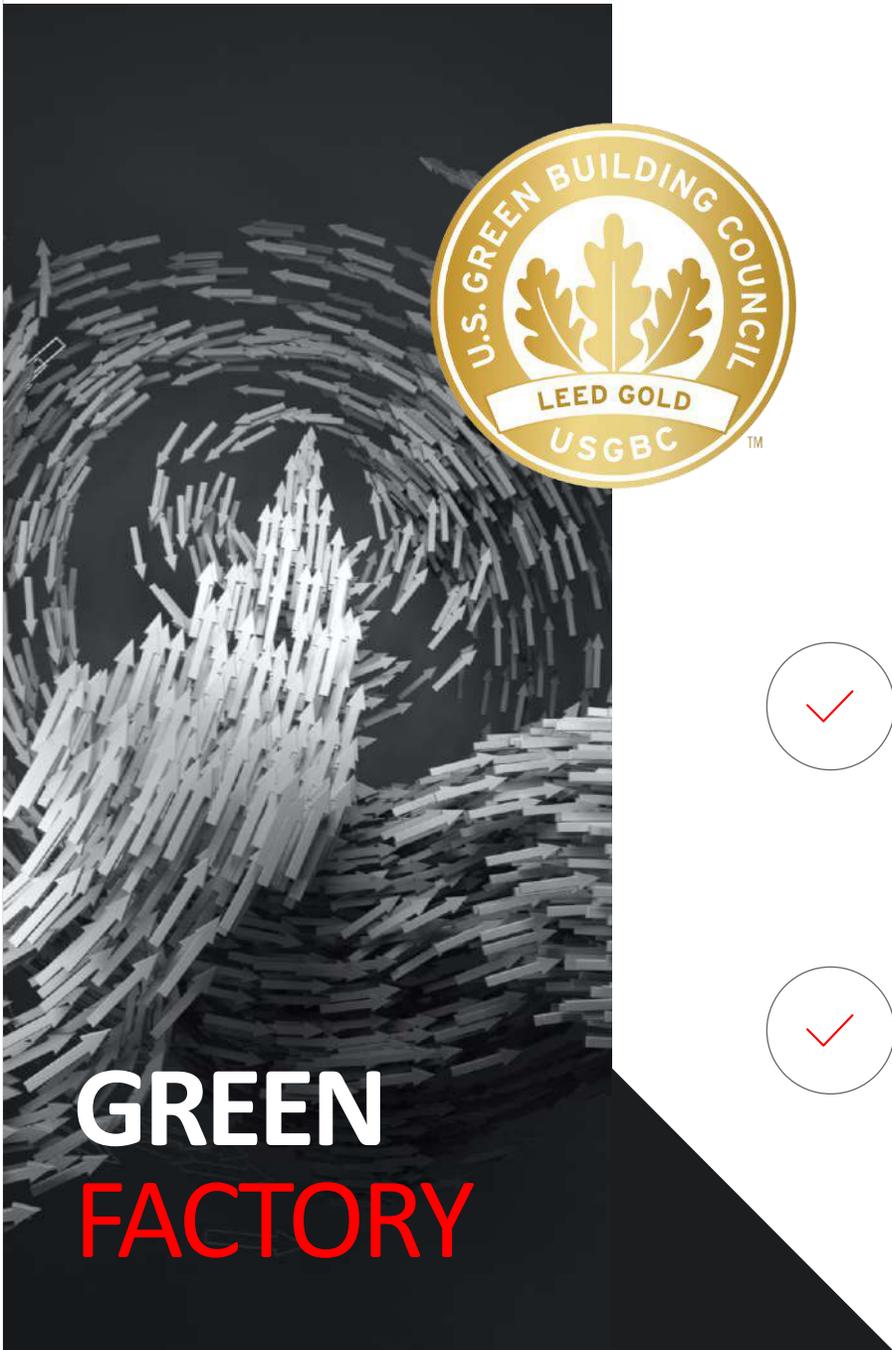
Does not generate an excuse but a skill, as it has a comprehensive understanding of its field of activity.

# Al-Jazari 800 Years Later at HKTm

The visionary mind of Al-Jazari, who inspired engineering 300 years before Leonardo da Vinci, now lives on at HKTm.

One of his extraordinary engineering marvels, the "Elephant Water Clock" has been reinterpreted by sculptor İskender Giray in line with HKTm's aspiration to unite "the power of the past with the excitement of the future."





HKTM stands out with its innovative practices at its 7,000 m<sup>2</sup> environmentally friendly factory located in the Gebze Plastics Organized Industrial Zone. Thanks to its environmentally friendly and sustainable policies, including high energy and water efficiency, indoor environmental quality, and the effective use of materials and resources, it has earned the **LEED (Leadership in Energy and Environmental Design) certification at the GOLD level, one of the world's most prestigious green building certifications. With this achievement, it became the first in its sector and the 14th factory in Turkey to receive this certification.**



### **The Award-Winning Factory of Good Engineering**

Our green factory, designed in line with our vision of becoming a hub for motion and control technologies, has been recognized by numerous domestic and international organizations.



### **We Save 92 Mature Trees Every Year**

At our factory, we aim to reduce our carbon footprint as much as possible by using solar energy systems (photovoltaic panels, solar walls).





**Certified  
Excellence  
Partner**

**rexroth**  
A Bosch Company

## **Bosch Rexroth** Certified Excellence Partner

As a Certified Excellence Partner of Bosch Rexroth, we prioritize quality in all our activities, drawing strength from **this prestigious partnership.**

Our partnership, which has continued since our establishment, is one of the most important factors that has **strengthened our leading position** in the industry and enabled us to respond to customer demands with the highest standards..

**Our greatest responsibility is to develop the world's most innovative technologies while respecting limited resources.**

Guided by this awareness, we remain committed to upholding the latest environmental standards throughout our production processes, while carefully considering environmental impacts at every stage.

From product design to delivery to the end user, we embrace an environmentally conscious approach at every stage.



**ISO 50001**

Energy Management System



**ISO 9001**

Quality Management System



**ISO 140001**

Environmental Management System



**Facility Security Certificate**



**ISO 10002**

Customer Satisfaction Management System



**ISO 27001**

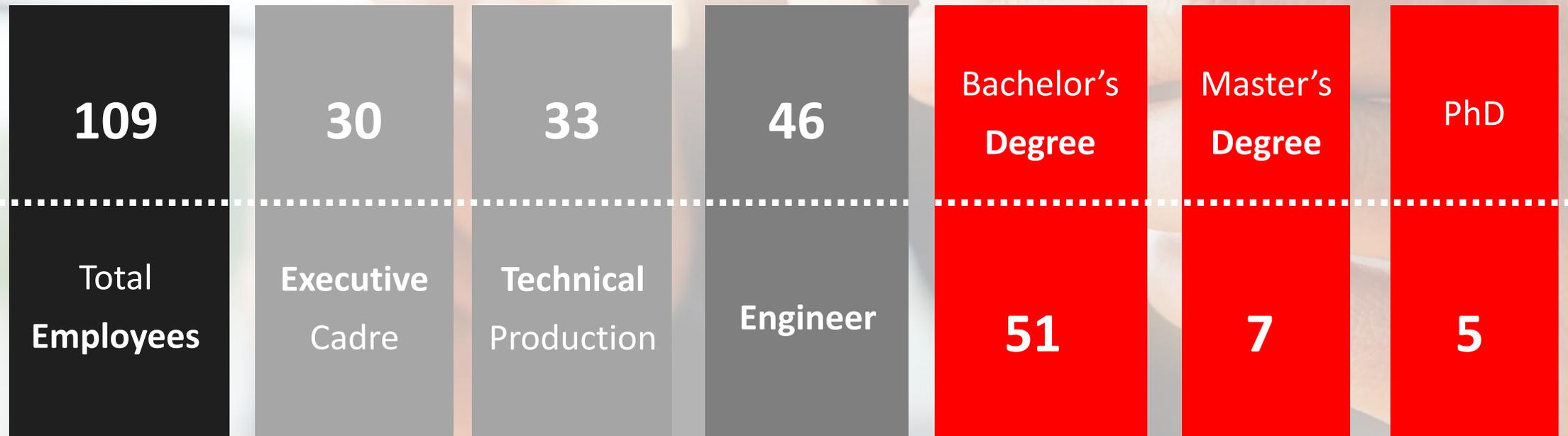
Information Security Management System



**OHSAS 18001**

Occupational Health and Safety Management System

# Human Resources



# Financial Data

Total  
Turnover

532.000.000 TL

Overseas  
Turnover

55.000.000 TL

R&D  
Expenses

55.300.000 TL



**hktm**

*Good  
Engineering*

# Design and Manufacturing Capabilities

**We are innovatively advancing our production line every day with the capabilities we have developed.**

Our capabilities in the fields of Mechanical Automation & Robotics and Hydromechanical Systems are backed by the experience we have gained to date.



### Design Office

All hydromechanical and mechatronic projects and 3D designs, simulations, and project controls for unit products are carried out in our design office.

**Once the preliminary design has been approved by the customer, manufacturing drawings are prepared and transferred to the production department.**



### Machining Production

CAM work is first carried out to ensure that manufacturing parts can be produced with high precision.

Expert CNC machine operators process the parts in accordance with the technical drawings. **All processed parts are checked with precision measuring instruments to ensure quality assurance.**



### Welding Applications

**We provide welding services in accordance with ISO standards with our internationally certified personnel.**

We prepare Welding Procedure Specification (WPS) reports for welding operations performed on each system.



### Painting Operations

In our paint shop, equipped with ventilation, filtration, and heating systems compliant with OHS standards, we provide services in accordance **with international regulations.**

The process is carried out using acrylic and epoxy paints with a minimum primer thickness of 60–80 microns and the coating thickness is verified with paint thickness measurement devices.



### Hydromechanical System Assembly

Products arriving at the assembly site from the factory and warehouse are carefully checked for project compliance prior to assembly.

Hydromechanical projects, hydraulic units, valve stands, control blocks, battery stands, hydraulic cylinders, and rotary actuators are assembled in accordance with quality standards, and customizations **can also be made according to customer requests.**



### Electromechanical and Robotic System Assembly

**We manufacture and assemble robotic production lines and electrical panels.**

In addition to the manufacturing and assembly process, our team also provides training on system installation and use. Different disciplines such as pneumatics, mechanical design, electrical panels, and software are applied together in the same project.



### Quality Management

**Materials other than shelf products are sourced from our partner suppliers.**

After quality control, the products are transferred to the assembly area. Consumables that are used continuously are produced by companies with proven quality standards and kept on consignment.



### R&D Center

As one of Turkey's leading companies in the field of motion control technologies, we strive to develop innovative and value-added solutions.

**Since 2018, we have been operating as an R&D center approved by the Ministry of Industry and Technology.**

# Supply and Stocking Capabilities

Thanks to our **extensive stock and supply network**, we offer fast and flexible solutions for our projects.

**With 300 m<sup>2</sup> of warehouse space, 65,000 stock cards, and 815,000 stocked products**, we provide robust inventory management.

The products in our inventory enable us to establish a **strong and sustainable supply chain** thanks to the cooperation we have established with the companies we represent.





Good  
Engineering  
League

We offer versatile engineering solutions for large-scale projects by combining the imagination, engineering skills, and industry experience of companies specializing in different motion and control technologies.

**hktm** | İyi Mühendislik  
Good Engineering

7.500 m<sup>2</sup>  
GEBZE / KOCAELİ

**hksm** | Yerinde Mühendislik  
On site Engineering  
444 7457

500 m<sup>2</sup>  
GEBZE / KOCAELİ

**makers** | Innovative Engineering

GEBZE / KOCAELİ: 1.200 m<sup>2</sup>  
DÜZCE: 1.500 m<sup>2</sup>

**sfm** | Steel Frame Manufacturing

1.000 m<sup>2</sup>  
DİLOVASI / KOCAELİ



**met** | Didactic

400 m<sup>2</sup>  
MANİSA

**acd** | data engineering

125 m<sup>2</sup>  
ESKİŞEHİR

**INO** ROBOTICS

152 m<sup>2</sup>  
ESKİŞEHİR

**hktm** | İyi Mühendislik  
Good Engineering

Produces robotic solutions in factory automation and hydraulic solutions in heavy industry.

**met** | Didactic

Creates content for technical and vocational trainings, develops tools using current technological opportunities, and manages the process.

**makers** | Innovative Engineering

In industrial automation, robotics is applied in welding, transfer, adhesive bonding, and assembly line operations.

**sfm** | Steel Frame Manufacturing

It forms steel structures in the manufacturing processes of hydraulic tanks, machine chassis, and general constructions.

**acd** | data engineering

It develops data engineering-based software and artificial intelligence solutions for the digitalization of factories.

**INC** ROBOTICS

We develop data engineering-based software and artificial intelligence solutions for the digitalization of factories.

**mers** | Unbegrenzte Technologie

It aims to meet its customers' expectations with its complementary services.

**hksm** | Yerinde Mühendislik  
On site Engineering  
444 7457

Pipeline installation engineering, maintenance applications, assembly, and service offerings.

# Our Areas of Activity



Good Engineering

hktm

# Our History

Inspired by the essence of movement in nature, we set out under the leadership of Tunç ATIL to control industrial movement with **“Good Engineering”** solutions and to do so on a global scale.

**We walked with our interest in the new, the knowledge we gained with every step we took, and the love we had for our work.**



# Our History

## 2005 – BIG AIMS

Building on major steel investments such as Erdemir, it has played an active role in hundreds of steel projects in Turkey and 19 neighboring countries.

## 2008 – BOSCH REXROTH

In its 10th year, it became the company that uses **Bosch Rexroth** products the most in Turkey.

## 2009 – PRODUCTION LINE

By starting the production of fully automatic gluing lines in the white goods sector, it has become one of the few companies in the world to establish end-to-end gluing lines.

## 2013 – HKTM

It changed its name to **Hidropar Motion Control Technologies Center San. ve Tic. A.Ş.** to reflect its goal of becoming a center for motion control technologies.

## Turning Ideas into Motion

## 1998 – FOUNDATION

Hidropar Kocaeli Ltd. Şti. was founded by a team of three people led by **Tunç ATIL**.

## 2007 – HYDRAULIC SYSTEM MANUFACTURING

It took over the manufacture of hydraulic systems and over the years, began producing hydraulic systems with a storage capacity of up to 40,000 liters.

## 2009 – INDUSTRIAL ROBOT

It implemented its first industrial robot project and successfully launched hundreds of special projects on robotic systems.

## 2011 – DELTA ROBOT

The first domestically manufactured delta robot in Turkey was put into operation as part of a TÜBİTAK project. (TEYDEB Project: 3100448)

## 2014 – HKSM

**HKSM** was established with the aim of providing better service in the service sector by adopting a “**Systematic Maintenance**” approach.

### 2015 – GREEN FACTORY

By moving to an environmentally friendly building with an area of 7,000 m<sup>2</sup> that incorporates new technologies, **it has increased its production capacity fourfold.**

### 2016 – SERVO CYLINDER

**Turkey's first high-frequency servo cylinder** and domestic control card project completed.  
(TEYDEB Project: 1150110)

### 2017 – REGISTRY

The company name and logo are registered in **28 European countries and Turkey.**

### 2018 – R&D CENTER

It became the first R&D center established in the field of **motion control systems in Turkey.**

### 2018 – CARTESIAN ROBOT

It established international business partnerships by starting to **produce cartesian systems for the plastic injection industry.**

### 2016 – PATENT

**It has provided two utility models and one patent application** with the systems it has developed in the field of mechanical automation.

### 2017 – LEED GOLD

**It became the first factory in its sector and the 14th factory in Turkey to receive LEED (Leadership in Energy and Environmental Design) Gold certification.**

### 2017 – QUALITY CERTIFICATES

Its quality is certified by documents issued by **Bureau Veritas.**

### 2018 – MOTTO

It has patented the use of the motto **“Good Engineering”** in Turkey.

### 2019 – ROTARY ACTUATOR

It has begun to produce solutions and develop products **for the defense industry and mobile sectors.**

## 2019 – DEFENSE INDUSTRY

Reached an agreement for its first major project in the defense industry.

## 2020 – ELECTROMECHANICAL

It has begun production of a new generation of actuators for industrial motion systems.

## 2022 – MAKERS

Established **Makers** with the aim of making robotic applications in the white goods, automotive, glass, and general industries sustainable internationally.

## 2022 – PUBLIC OPENING

HKTM, the center of industrial movement, went public.

## 2022 – MERS TECHNOLOGY GMBH

With the decision to expand its production and services in areas such as mechanical automation, robotics, and hydromechanical systems, it established **Mers Technology GmbH**, headquartered in Germany.

## 2023 – GOOD ENGINEERING LEAGUE

**Good Engineering League** was established to enable companies specializing in specific fields to combine their imagination, engineering expertise, mobility, and artistic talents with innovation and technology to collaborate on complex projects.

## 2019 – MET DIDACTIC

By participating in the education sector, it emphasized the importance of training personnel equipped with the sector's unique knowledge and incorporated **Met | Didactic** into its organization.

## 2021 – ELEPHANT WATER CLOCK

Sculptor İskender Giray brought history to life with his magnificent work spanning 2.5 years, reinterpreting the **Filli Water Clock** for **HKTM 800 years** later.

## 2022 – SFM

With the aim of producing steel bases for engineering, it established the **SFM company** as a group company.

## 2022 – ACD and INNOVATION ENGINEERING

It has added **ACD Data Engineering and Innovation Engineering**, companies specializing in software, to its ecosystem.

## 2022 – GALATAPORT PROJECT

With its expertise in motion control systems and innovative engineering solutions, it participated in the **Galataport project**.

## 2024 – SHEREC PROJECT

The **SHEREC project**, which he coordinates and which is supported by the **European Union**, was launched with the aim of introducing new technologies and sustainable practices to the ship recycling industry.

# Product Groups

We procure the products of the brands we represent through our own import department and keep them in stock.

In addition to using these products in our projects, we also offer them to our customers, creating a wide network of solutions.

**hktm** | Good  
Engineering



**Hydromechanical Products**

All gear and variable displacement pumps, motors, hydraulic valves, accumulators, and filter elements used in hydraulic systems are available in our stock.

In order to provide solutions for our customers' spare parts needs, great care is taken in selecting products from our stock and similar products for all projects.

---



**Mechatronics Products**

Lubrication valves, pumps, linear elements, servo motors, planetary gear reducers, couplings, and sensors required **by machine manufacturers** are regularly available in our stock.

---



**Control, Automation, and Robotics Products**

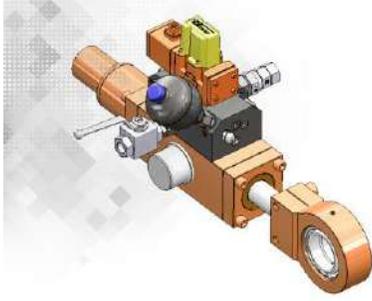
**Our inventory management programs** regularly monitor the stock levels of standard products. This ensures that customer demands are met seamlessly alongside projects.

# Hydromechanical Products

**Our hydraulic products** offer reliable operation, precise control, and low maintenance advantages even under harsh conditions with comprehensive solutions consisting of pumps, valves, motors, cylinders, and system components.

Designed with Bosch Rexroth technology, these products maintain efficiency and provide maximum durability.

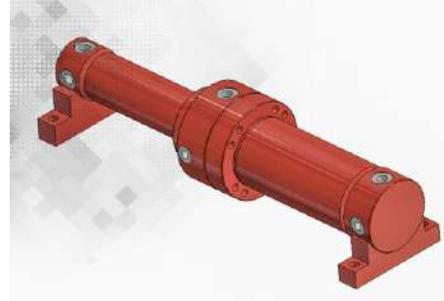




### Hydraulic Servo Cylinder Product Group

Within the scope of our TÜBİTAK-supported TEYDEB project, we offer customized solutions for high precision and frequency requirements with the hydraulic servo cylinders we have developed using our engineering and production infrastructure.

Equipped with advanced control technologies, the cylinders deliver high performance even under challenging conditions; they enhance efficiency, strengthen system reliability, and can be customized to meet customer needs.



### Pressure Boosters Product Group

In order to ensure that special liquids or gases can be used effectively at high pressure ranges, we carefully manufacture our pressure boosters, which are specially designed for each project, in our own production infrastructure.

These units, which are driven by hydraulic systems, are optimized to fully meet process requirements and are developed to offer high reliability, precision, and performance.



### Cylindrical Flow Divider Product Group

There are different methods we use in hydraulic systems to divide the flow. The most synchronized of these are cylindrical flow dividers designed according to the number and volume of cylinders where the oil will be evenly distributed.

We manufacture cylindrical flow dividers specifically for each project.





## Industrial Hydraulics Product Group

It includes shaft types, rotors, and application cylinders suitable for different working conditions, power units that can be configured compactly or modularly, axial piston pumps, and external and internal gear pumps.

Additionally, we offer solutions for applications requiring high torque and precision with axial piston motors, external gear motors, and radial piston motors. We create integrated and safe systems with directional valves, pressure valves, and flow control valves that control the system.

**rexroth**  
A Bosch Company



## Mobile Hydraulics Product Group

The mobile hydraulic product group, which is generally preferred for machines that operate in open areas and are constantly on the move, is used in many different application areas such as tractors, excavators, cranes, dump trucks, construction machinery, and agricultural equipment.

We offer a comprehensive product range of hydraulic components, modules, and application-specific solutions in the field of drive, control, and motion technologies.

**rexroth**  
A Bosch Company



## Gear Technologies Product Group

The gearboxes we have developed for applications such as main drive in palletized vehicles, wheel drive systems in wheeled vehicles, rotation drives in structures requiring rotational movement, and crane drives in load lifting systems are designed to meet high performance expectations.

We contribute to efficient operations in your field applications by providing high power transmission and durability in harsh conditions.

**rexroth**  
A Bosch Company



### Safety Locks Product Group

With our safety lock product group, we increase the safety of both equipment and personnel in the work area by preventing hydraulic or mechanically driven cylinders from falling suddenly and uncontrollably.

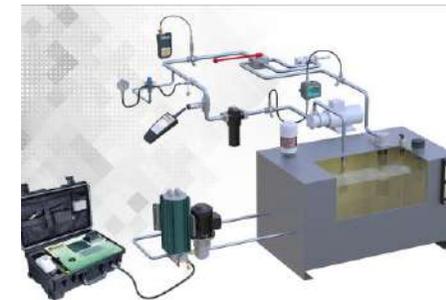
In press machines, lifting systems, and heavy-duty industrial applications, we easily integrate them into existing lines thanks to their compact structures. In unexpected situations such as power outages or system failures, we ensure that the load is safely held, providing uninterrupted safety in production processes.



### Hydraulic Battery Product Group

We develop customized solutions for different system requirements with piston, bladder, and membrane type hydraulic accumulators.

With Roth accumulators, which are preferred in a wide range of applications from press lines to mobile equipment, we increase system efficiency and provide users with both operational flexibility and reliability.

**Roth**

### Hydraulic Tank and Accessories Product Group

We offer a wide range of products that can be used as sets or parts in mechanical and electronic systems for different tank models and application needs.

With our continuously developed and enhanced range of hydraulic accessories, we respond to the growing needs in the design and production of tanks, reservoirs, power units, and gear systems in industrial and mobile hydraulic applications, providing our users with high-quality solutions.

**STAUFF**



## Machining

Machining processes are widely used in the metalworking industry to produce various parts with the desired dimensions and surface quality. Machining is a process that increases the quality and durability of parts produced by HKTm, particularly in areas such as hydraulic systems, robotic production systems, machinery, and automation components.

These processes ensure that products are perfectly machined before moving on to the assembly stage. Additionally, machining is essential for the production of critical components such as machine parts, gear systems, and hydraulic components.



## Hydraulic Cylinder

We design and manufacture high-performance hydraulic cylinders for heavy industry and special applications. Cylinder solutions developed specifically to meet customer needs across a wide range of diameters and strokes offer reliability, long life, and high efficiency even in harsh field conditions.

Our cylinders can be manufactured in diameters ranging from  $\varnothing 25$  mm to  $\varnothing 800$  mm and stroke lengths from 10 mm to 6000 mm. Our products have a standard operating pressure of 250 bar and can be designed to withstand pressures up to 700 bar for special projects.



## Rotary Actuator

Rotational motion is achieved by pressurized oil converting hydraulic energy into mechanical energy, which drives the gear system inside the actuator by linearly moving a piston.

In applications where angular motion is required and high torque and rotational capability are desired, hydraulic cylinders can be mechanically restrictive due to the need for long strokes and high energy consumption.



# Mechatronics Products

We provide a comprehensive range of mechanical products for the basic needs of industrial motion systems quickly and reliably thanks to our strong stock infrastructure.





**Automatic Lubrication  
Product Group**

Our range of lubrication products, which automatically transfer liquids and grease to extend the life of machinery and equipment, provides excellent lubrication for your equipment in many areas, from manufacturing plants to the food and beverage industry, energy, and mining.

Our products, which ensure that machinery and equipment are lubricated regularly and correctly, prevent wear and tear, damage caused by overheating, and workplace accidents.



**Coupling and Drums  
Product Group**

Widely used in industrial automation and energy sectors, our product group offers high-efficiency solutions, providing torque transmission, vibration control, and overload protection for precise and reliable performance.

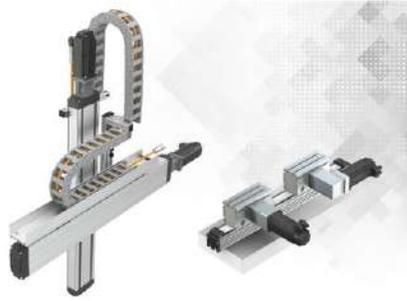
Our power transmission product group increases business efficiency while reducing operational costs with its durability, long service life, and low maintenance requirements.



**Gearbox  
Product Group**

We enhance system performance with our gear reducer product range, which provides reliable and efficient power transmission in applications requiring high torque, low speed, and precise movement in industrial automation, heavy industry, mobile equipment, and the energy sector.

We help you achieve high efficiency in many areas, from lifting systems to conveyor lines, crane applications to motion control projects.



## Linear Motion Product Group

Our linear motion and assembly systems product group offers effective solutions for applications requiring high precision, repeatability, and systematic integration. Thanks to its modular structure and wide range of products, it enables user-friendly system designs.

Within the scope of linear motion systems, our product range includes linear slides and rail systems, screw shafts and nut systems, as well as linear axes and bearing products.



## Aluminum Profile Product Group

Our systems are adapted to Bosch Rexroth sigma profiles and designed to be reusable for modifications and expansions.

Thanks to our system profiles, you can quickly create components such as machine frames, ergonomic workstations, shelves, or safety fences without the need for complex planning.

We test each component from start to finish and support it with comprehensive data, offering design options that meet the highest quality and sustainability standards.



# Control Automation and Robotics Products

In the field of motion and control technologies, we offer all the basic automation products necessary for all motion systems, both as components and as complete installations, from a single source.

With integrated solutions tailored to your needs, we guarantee that your systems will operate efficiently and reliably.

**hktm** | *Good  
Engineering*



## Cartesian Robots Product Group

We have been successfully manufacturing linear Cartesian systems with different capacities for many years. In order to meet the increasing automation needs of the plastic injection molding industry, we offer 4-axis Cartesian robot solutions with carrying capacities of 6, 12, 25, and 60 kg, which are designed and manufactured in-house.

These systems, which stand out for their high-precision axis movements and modular design, can be easily integrated into various injection machines, minimizing cycle times and maximizing efficiency.



## Modules Product Group

We design and manufacture high-performance linear motion systems that fully meet the needs of our customers in the field of custom machine manufacturing.

Our screw-driven, timing belt-driven, and rack-driven solutions consist of linear modules that can operate on the X, Y, and Z axes, as well as electromechanical cylinders. Our systems are optimized for maximum efficiency and longevity, with drive methods selected based on the application's required speed, precision, and load capacity.



## Servo Motor Drive Systems Product Group

Our product range of synchronous and asynchronous servo motors, integrated with IndraDrive drive systems, meets all the needs of modern factory automation.

With our products that provide high dynamic performance, precise control, and energy efficiency, we increase flexibility in production processes, reduce cycle times, and maximize system efficiency. With our expertise in this field, we ensure that you use your servo motors and drive systems in the most efficient way possible.





## Resistance Welding Product Group

MFDC resistance welding units, which we commonly use in the automotive, ancillary industry, and white goods sectors, offer significant advantages over AC welding systems. Our MFDC welding product group provides higher efficiency and energy savings, while also maximizing welding quality.

By reducing energy costs, they enhance operational efficiency while contributing to sustainable production processes. Additionally, thanks to the compatible control applications of MFDC welding systems, high quality is maintained even under varying production conditions.



## Electric Screwdriver Product Group

Our electric screwdriver product group is widely used in many industries, especially in the automotive and assembly industries. Precision and consistency in screwdriving operations directly affect product quality.

Electric screwdrivers provide higher quality results compared to pneumatic screwdrivers and offer energy savings of up to 50%. Our screwdriver products offer communication support compatible with common protocols and can provide solutions suitable for every industry with expandable handheld unit options.



## Doosan Robotics Product Group

Doosan collaborative robots (Cobots) stand out thanks to their ability to work safely alongside humans and their flexible usage options that cater to different industries.

With a wide range of products, we integrate cobots with different load capacities and reach distances into our processes. Thanks to the M, A, H, E, and P series robots, we offer the most suitable solutions for applications ranging from precise assembly in tight spaces to high-load palletizing.

# Distributorships

We procure the products of the brands we represent through our own import department and keep them in stock.

In addition to using these products in our projects, we also offer them to our customers.

**hktm** | *Good Engineering*



**WITTENSTEIN**



# Hydromechanical Projects and Systems

Hydraulic design is carried out meticulously by HKTM's experienced project engineers to ensure full compliance with customer requirements and existing system requirements.

Good  
Engineering

hk<sup>tm</sup>





### Hydraulic Power Units

Designed by our project engineers to meet the needs of our customers and system requirements, our hydraulic power units have different tank capacities ranging from 20 liters to 40,000 liters.

Manufactured in accordance with efficiency, durability, and high performance criteria, our units offer a reliable solution for industrial applications.



### Valve Control Blocks

We design valve control blocks, one of the most important components of hydraulic systems, to optimize direction, speed, and pressure settings.

Manufactured from GGG40 spheroidal graphite iron or aluminum, these blocks can be designed in various sizes and capacities up to 4000 kilograms.



### Valve Stands

We manufacture valve stands containing valve control blocks that best suit system requirements, based on specifications determined by our project engineers and detailed work by our design team.



### Battery-Nitrogen Tube Stands

We produce systems that enable the storage of pressurized oil for sudden needs by combining piston accumulators, nitrogen cylinders, or balloon hydraulic accumulators through collectors. These systems are designed for high-efficiency energy storage and use.



### Load Platforms

We design and manufacture fully equipped loading platforms tailored to customer needs. Our extensive experience in various industries and our team of experts enable us to optimize each project in the most efficient way, delivering high quality and reliability.



### Special Hydraulic Presses

We offer customized special hydraulic press solutions with capacities ranging from 2 tons to 10 tons, tailored to the needs of our customers and industry requirements. Each project is designed in detail to best meet customer expectations.



### Testing Systems

With over 30 years of experience, we combine our knowledge of hydraulic cylinders and their applications with advanced manufacturing and testing processes at our factory.

Our company also manufactures test systems specially developed for proportional and on/off type hydraulic valves that can successfully perform function, pressure, leakage, and position control tests.



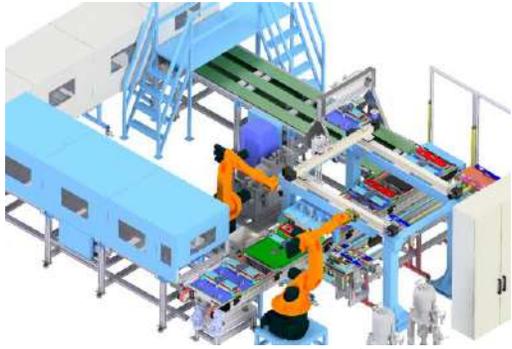
### Filtration and Circulation Groups

We offer customized solutions to meet your specific needs by connecting circulation pumps, online filters, filters, and coolers in series to ensure oil cleanliness and temperature control in hydraulic systems.

# Automation and Robotics Systems

Our company, which has a large engineering team, has in-depth expertise in system design, parts manufacturing, and product procurement. In the field of robotic systems, we offer customized solutions for many industries, producing customized and efficient designs for every need.

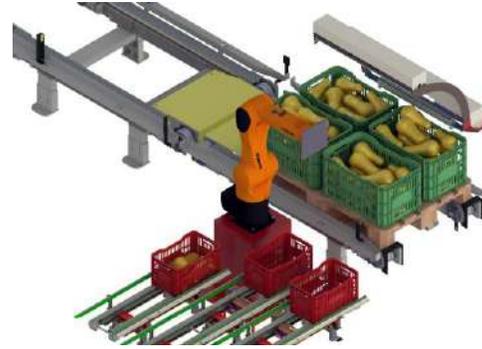




### Bonding Lines

Our adhesive lines, which can be integrated into the production processes of different industries, offer efficient and reliable solutions by operating with high precision within low tolerance ranges.

We design and manufacture systems tailored to specific technical requirements using single or dual-component adhesives and sealing materials. The adhesive lines we have developed specifically for the white goods industry optimize production processes by prioritizing quality and durability.



### Packaging Applications

By maintaining the highest hygiene standards in food production lines, we ensure that products are packed and palletized without human contact using automated systems.

Products that have undergone the necessary processes are safely prepared for shipment using integrated packaging solutions under precise and hygienic conditions. Our systems are designed to meet the specific requirements of the food industry, thereby increasing efficiency and quality.



### Transportation and Palletizing

We offer flexible, economical, and reliable robotic system solutions for transportation and packaging processes in various industries. Our systems, which can be integrated into production lines, increase efficiency while optimizing operational processes.

Our automated transportation and packaging solutions are specially designed for applications that require high speed and precision, ensuring that production processes run smoothly and safely.



### Part Processing and Cutting

Our robot-assisted cutting and processing systems offer effective solutions in a wide range of applications, including complex parts.

These systems provide precision and repeatability, optimizing production processes while also offering cost advantages. Developed to suit different materials and industrial needs, our solutions enable high-speed, high-quality processing.



### Palletizing

We design and implement robot-based and automation-based feeding, unloading, transportation, packaging, boxing, and palletizing systems tailored to the needs of different industries.

Developed with the goals of high efficiency, process optimization, and work safety in mind, these systems offer flexible solutions that can be integrated into production lines.



### Special Solutions

We offer efficient, reliable, and cost-effective end-to-end systems with machine line solutions designed specifically for customer requirements.

These systems increase process performance while also providing businesses with advantages in terms of ease of maintenance and energy efficiency.



### Resistance Welding Applications

We develop energy-efficient, low-cost, high-quality welding systems using MFDC welding technology in the white goods, automotive, and related industries.



### Assembly Line Applications

We provide our customers with fast and error-free modular solutions using Bosch Rexroth's MTpro design program for assembly technology and transfer systems.



### Linear Modules

For linear transfer applications, we provide compact solutions with cams, rack and pinion, and screw drives that offer optimal solutions based on speed, load, and stroke.



### Transfer Systems

Our KRS series robots, designed for plastic injection molding machines, are equipped with Bosch Rexroth's dynamic servo motors, high-precision linear motion components, and engineering design, enabling them to operate at the same speed and position in every cycle for part picking, product placement, and quality control applications.



### Mega Cartesian Robots

In systems where multiple production machines operate in the same production area, we increase production efficiency with mega-sized Cartesian robot solutions designed according to need.

The modules we develop offer a flexible structure that can be shaped according to customer requests and customized for different needs.



### Electric Cylinders

Electromechanical cylinders equipped with modern control technology offer a high-performance alternative to pneumatic and hydraulic cylinders and are at the forefront in terms of energy efficiency.

They can be used effectively even in high power requirements. Parameters such as force, position, and speed can be adjusted as desired by the user and can be flexibly adapted to new tasks thanks to the drive system.

# Sectors and Applications

HKTM offers reliable solutions by accurately analyzing customer needs with its expert and experienced team in the field.

With its application experience in different sectors combined with its in-depth knowledge of design and production processes, it responds to customer requests in the most effective and high-quality manner in every project.

**hktm**

*Good  
Engineering*



# Sectors and Applications



Iron and Steel



Machine Manufacturing



Aluminum



Energy



Defense Industry



Kinetic Architecture



Marine



Mobile Hydraulics



Food and Packaging



Automotive



White Goods



Tire

# Research Development

Our R&D department, which develops sustainable and environmentally friendly solutions, also contributes to projects through TÜBİTAK and other national and international support programs.

To date, through our R&D efforts, we have developed 5 patents, 4 utility models, and 7 innovative products. We successfully completed the H2020 project funded by the European Union.

We have implemented 25 R&D projects supported by TÜBİTAK, KOSGEB, and the Ministry of Industry and Technology. Our R&D activities are conducted under headings that align directly with our company's core areas of expertise.

As HKTm, our goal is to produce globally competitive and innovative solutions in the field of motion control technologies and to bring Turkey's engineering strength to the world stage through our R&D efforts.





### Gyroscopic Pitch Stabilizer

These devices, which operate using gyroscope technology, have been developed to maintain the balance of a platform or object. They are used in areas that require precise balance, such as maritime, aviation, space, and defense industries.

Marine vessels offer effective solutions with eight different product options developed for yachts and boats up to 64 meters in length.



### Wing-Type Yaw Dampener

This system, used on ships and yachts to reduce the rolling motion caused by waves, consists of adjustable flaps.

It is designed especially for marine vessels such as passenger and naval ships. A prototype for the system has been developed and successfully tested on a 3-meter boat.



### Plasma Surface Application System

Cold plasma treatment is an advanced technology used for surface cleaning, sterilization, and improving adhesion performance.

It has a wide range of applications in many industries, including packaging, electronics, glass, white goods, automotive, and aerospace. A prototype for this technology has been developed, and its application has yielded successful results.



### Magnetic Bearing

A magnetic bearing is a type of advanced bearing that allows the rotor to rotate without physically contacting the stator. It can be used in various industries such as manufacturing, marine, aviation, construction, and mining.

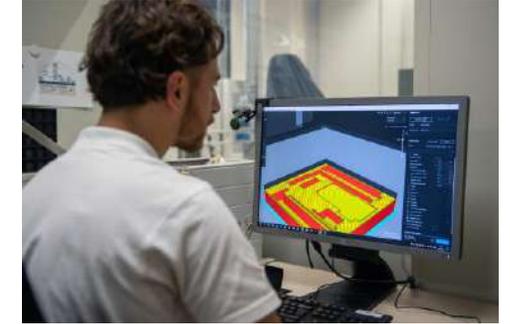
A prototype is being developed for use in applications such as turbo machines, electric motors, hydraulic pumps, compressors, and generators.



### High Pressure Water Pump

A high-pressure water pump is a system that creates powerful water jets by delivering water at very high pressures. It is widely used in industrial applications such as cleaning, cutting, and hydroblasting.

A prototype with a pressure of 6000 bar is being developed for water jet cutting applications for this system, which has potential for use in the automotive, aerospace, and renewable energy sectors.



### AHVC Crane Systems

AHVC Crane Systems, specially developed for use on offshore platforms, are designed to meet the needs of safe and precise load handling and underwater balancing in harsh marine conditions.

They stand out for their robust construction, which is resistant to conditions specific to the marine environment, such as wave action, rolling movements, and limited space. Their heavy-duty design, marine-grade materials, and corrosion-resistant coatings ensure long-lasting performance.



### SHEREC Project

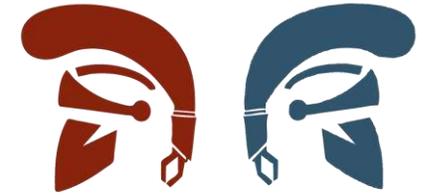
The SHEREC Project aims to create a safe, healthy, and environmentally friendly recycling process by integrating robotic and artificial intelligence systems into the ship recycling industry.

Within the scope of the project, it is planned to create digital twins of ships, conduct field surveys with artificial intelligence-supported unmanned aerial vehicles, and use robots to perform cutting operations.



### S4MILE Project

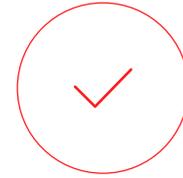
The S4MILE Project aims to develop new-generation solid-state batteries with high energy density and integrate them into electric vehicles in order to provide a more efficient and safer energy solution.



### TWIN-IT ROMANS Project

The TWIN-IT-ROMANS Project aims to develop multifunctional and sustainable robotic cells for advanced manufacturing processes.

Innovative technologies such as positioners, collaborative robotic manipulators, and interchangeable tooling systems are used within the scope of the project.



Thanks

[www.hktm.com.tr](http://www.hktm.com.tr)