Spindle solutions from the expert

KEBA Germany (formerly LTI Motion) and Heinz Fiege (part of KEBA group) offer customized and thus tailor-made spindle technology of the highest standard. These spindle solutions supplement the precision-oriented drive and automation technology of KEBA to create the "Perfect fit" for our customers.

Our goal is set on optimizing your machine in a cooperative way. You, our customer, are the focus of attention and benefit from our many years of expertise in the field of spindle and automation technology.

Highest Quality
Excellent engineering combined with high-quality materials

Industry-optimized solutions

Grinding

Grinding and high-speed grinding processes require extremely precise and reliable solutions. KEBA offers various solutions for demanding customers which range from individual spindles, via coordinated packages with additional servo controllers to complete automation systems.

Laser processing

Safe, compact and energy-efficient automation systems with their own flexible CNC core provide maximum performance for your laser- and micro-processing machines. Best precision, even at high speeds, is guaranteed by our contour-synchronous laser control.

6D drilling – Vibrated-assisted drilling

Vibration-assisted 6D drilling with magnetic bearing spindles has brought about a completely new drilling process, resulting in shorter chips and fewer burns as well as increased process speed and drill hole quality. The integrated sensor technology also enables intelligent process control with material detection.

Individual system solutions for machine tools

Our individual system solutions for the most diverse of industries satisfy the highest precision and dynamic standards. Thanks to the perfectly harmonized components of our modular system, we have everything you need to realize your customized and innovative machine.
Spindle technology
Precision and performance for all our solutions

High-performance spindles
- Externally driven spindles
- Motor spindles
- For all precision machines
- Up to 120 kW and 50,000 rpm

Special spindles
- Tailored to your application
- Based on standard spindle to reduce costs
- Integration of additional components on request
- Condition Monitoring optional

Custom-engineered spindles
- Developed according to your wishes
- To meet your special requirements e.g. stainless version
- Integration of additional components on request
- Condition Monitoring optional

6D drilling spindles
- Active magnetic bearing
- Vibration assistance
- Reverse deburring
- Deep hole drilling
- Shaft deflection freely programmable

Drive technology
System integration for additional performance

ServoOne single-axis system
- Universal AC/AC servo controller from 0.4 - 250 kW
- Fast: Motor output frequencies up to 1,600 Hz
- Multi-motor interface for various motor and encoder types
- Profile concuring fieldbuses and profiles, e.g. for EtherCAT, PROFINET, Sercos, PROFIBUS or CANopen
- Versatile I/O for the evaluation of sensors and setpoints
- CODESYS 3 programmable system and monitoring functions
- Online/offline datalogger
- Motion safety according to SIL3, PLe

ServoOne CM multi-axis system
- Environmentally friendly due to energy exchange and central power supply
- Compact with three-, two- and one-axis modules
- Wide range of performance from 0.75 - 120 kW (1.5 - 210 A)
- Movement safety up to SIL3, PLe

SystemOne CM CNC automation system
- Scalable CODESYS 3 machine controls for up to 64 axes
- PLC, motion, CNC and robot packages in one control only
- Safety control FSM

Tools – IoT ready
- Intuitive graphical system commissioning and diagnostics
- Condition Monitoring analysis and online evaluation of mechanical or electrical faults
- Autotuning
Your benefits

Custom-engineered or standard
spindles specific to your needs or from our standard program

Condition Monitoring and Predictive Maintenance
by integrating sensors

Integration of external systems
such as Acoustic Emission sensors or automatic balancing systems

Highest precision
with maximum concentricity at tool holder < 0.002 mm

Short delivery time
despite customization

Consultation and service
at eye level and promptly

Tuned drive technology
with open interfaces and leading control performance

Condition Monitoring
Higher productivity and no unplanned downtime

Bearing monitoring
Improving your services – We monitor your bearing loads with the aid of temperature and acceleration sensors and document this load during the entire service life.

Acoustic Emission
Based on a optimal acoustic emission measurement, you can reduce your non-productive time and benefit from more accurate process monitoring and analysis as well as crash and wear monitoring.

Clamping state control
The sensor technology checks whether the tool sits safely and correctly in the holder before releasing the rotational movement.

PTC/KTY
Sensors protect the winding and the motor at high temperatures.

Crash monitoring
Vibration sensors record overload and crash situations.

Balancing systems
An integrated balancing system ensures an absolutely unbalanced-free run and thus a protection of the bearings. The balancing systems are available in an open-centre electromagnetic version and for automatic tool clamping systems.

Condition Monitoring
Bearing monitoring
Acoustic Emission
Clamping state control
PTC/KTY
Crash monitoring
Balancing systems

Higher productivity and no unplanned downtime
Fit for the future with KEBA.

KEBA AG is an internationally successful electronics company with headquarters in Linz/Austria and locations worldwide. For 50 years, KEBA has been developing and producing according to the claim „Automation by innovation“ innovative automation solutions of the highest quality for a wide variety of industries.

LTI Motion GmbH, a technologically leading German supplier of drive solutions, has been part of the KEBA Group since the end of 2018. Both companies have years of experience in the areas of control and safety technology as well as servo drive technology.

The bundled competencies result in complete solutions from a single source – appropriate for the respective industries.

Since the beginning of 2020, the joint appearance under the KEBA brand underlines once again the perfect complement to the portfolios, the bundling of know-how and innovative strength.

www.keba-lti.com