INDUSTRIAL SYSTEMS

WEISS

WEISS
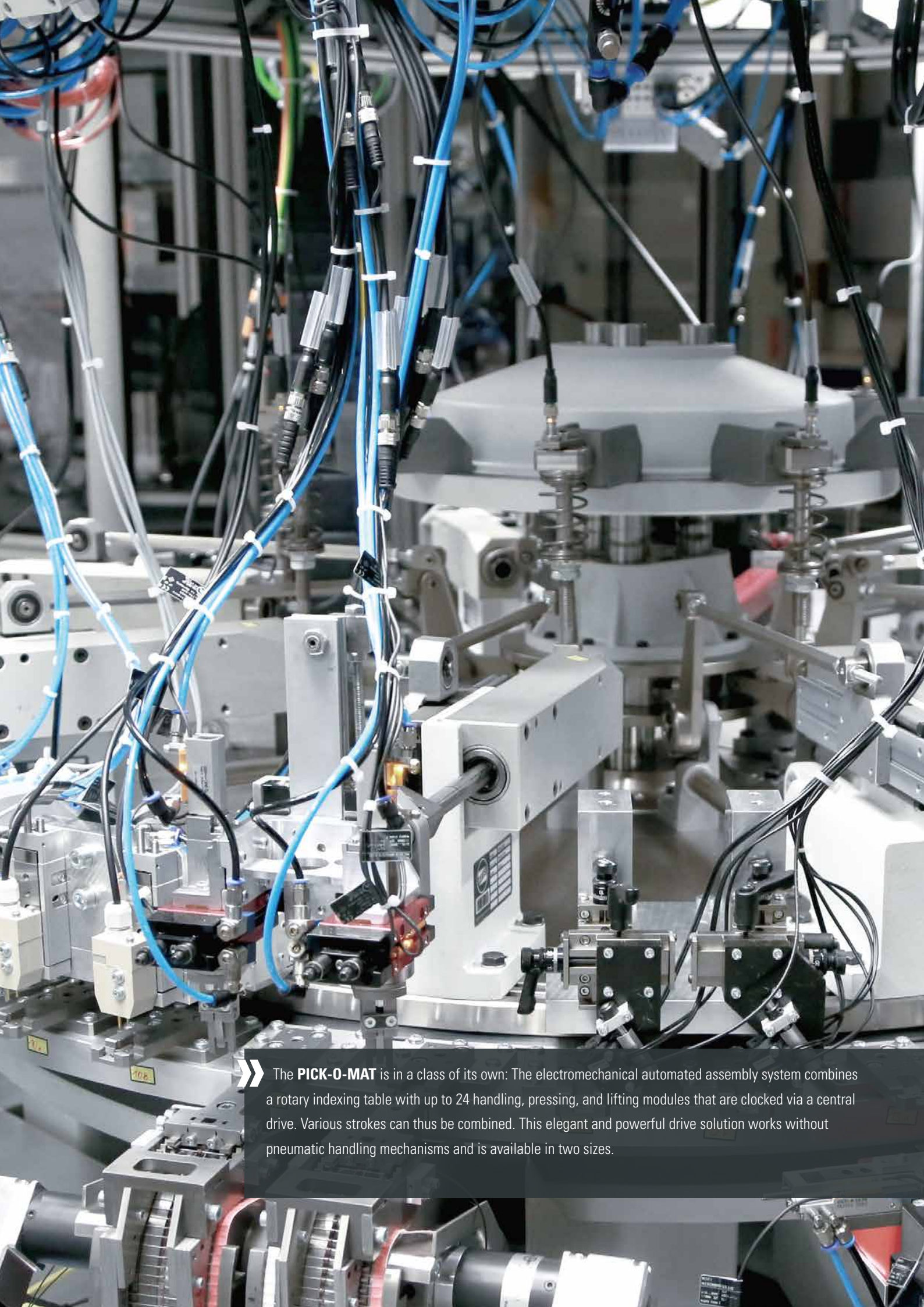
SIMPLY REDUCING PROJECT COMPLEXITY

The **PICK-O-MAT** is in a class of its own: The electromechanical automated assembly system combines a rotary indexing table with up to 24 handling, pressing, and lifting modules that are clocked via a central drive. Various strokes can thus be combined. This elegant and powerful drive solution works without pneumatic handling mechanisms and is available in two sizes.

THE 5 LEVELS OF PERFECT
AUTOMATION

Rotary indexing tables or linear transfer systems form the foundation. With them, we ensure rapid and absolutely precise transport – even in a second life cycle when necessary. Our products become a mechatronic system with added value via the WEISS Control Package, which also allows you to integrate and control our linear axes, rotary units, and pick & place modules in the simplest way. Accessories like highly precise plates, extensions, or frames significantly reduce your planning costs even more. Develop your full potential with complete WEISS system solutions. Topped off with its professional service, WEISS offers you the complete carefree package.
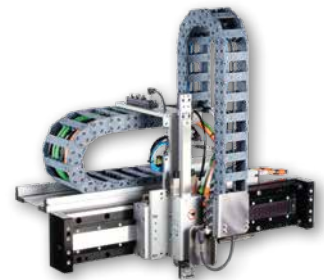
1 PLATFORMS

2 HANDLING

3 ACCESSORIES

4 SYSTEM SOLUTIONS

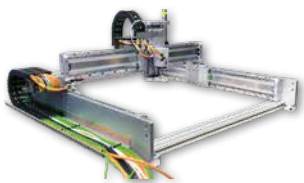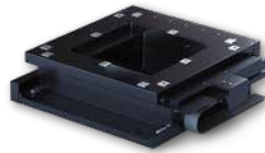**5** SERVICES COMMISSIONING MAINTENANCE SPARE PARTS

AR⁺ AUGMENTED REALITY - ALL PRODUCTS IN 3D

You can learn how this works at:
**www.weiss-gmbh.de/AR**

TRAINING

In the context of ever shorter project times and increasingly scarce resources, products are required that simplify project complexity. WEISS therefore offers you variable system solutions for certain typical automation tasks. The key element of these intelligent functional units, consisting of mechanical, electronic, and software systems, are the core components like rotary table, linear motor axis, or pick & place module, an adapted controller, interfaces, and preconfigured software for quick commissioning. All the components are synchronized with one another so that you only have to specify the strokes, load capacity and desired interfaces in order for us to deliver the system configured in this way in a ready-to-use state – plug & play. This allows you to concentrate fully on your processes, thus sparing valuable time during engineering and commissioning.

SYSTEM SOLUTIONS
SIMPLIFYING COMPLEXITY

XY-PORTAL **LP**
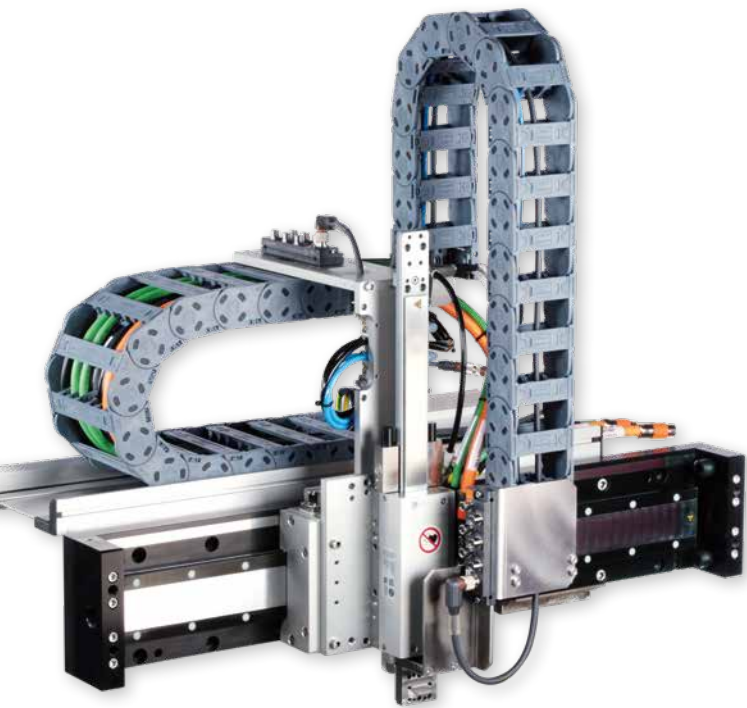
▶ BENEFITS

· Just four specifications on strokes, load capacity, and interfaces
· Completely configured and assembled system
· Reduced engineering times

PRECONFIGURED LP MODULE

PLUG AND PLAY SYSTEM

The LP linear portal is an intelligent functional unit made of mechanical, electronic, and software systems. The primary components of this variable industrial solution are the HN and HL linear motor axes, an adapted controller, and software as well as various fieldbus interfaces including OPC UA for communication.

All the components are synchronized with one another so that the customer only has to specify the strokes, load capacity and desired interfaces in order for us to deliver the system configured in this way in a ready-to-use state.

Our linear systems are always equipped with the **WEISS Control Package**. This turns your linear system into a complete mechatronic system consisting of WEISS components, electronics, and software.

Not only are the cables and drive controllers preassembled and ready-to-connect, the software is also preconfigured with the most important settings. Plug in, turn on, and put into operation.

W·A·S

PRODUCT + ELECTRONICS + SOFTWARE + INTERFACES

AUTOMATED ASSEMBLY SYSTEM
PICK-O-MAT PM

❯ BENEFITS

· Automated assembly system with a rotary indexing table and up to 24 integrated handling, pressing, and lifting modules

· Central cam drive for all movements of the module

· Powerful, cost-effective, and easy-to-integrate complete solution - upon request with a base plate, base frame (SR or SK series), and control system

The Pick-o-Mat is in a class of its own: The electromechanical automated assembly system combines a rotary indexing table with up to 24 handling, pressing, and lifting modules that are clocked via a central drive.

Various cam strokes can thus be combined. This elegant and powerful drive solution works without pneumatic handling mechanisms and is available in two sizes.

Handling module

Lifting module

Pressing module

TECHNICAL DATA

Repeatability	± 0.03 mm
Max. horizontal stroke (handling module)	140 mm
Max. vertical stroke (handling module)	50 mm
Mechan. standard cycles/min. at 50 Hz	32*, 48*, 60*, 75*
Max. handling weight	2 kg
Drive of rotary table & central unit	AC brake motor
Motor voltage	400 V/50 Hz or 440-480 V/60 Hz
Drive output	0.25 - 0.37 kW
Monitoring sensor	24 V, PNP contact

	PM 1100	PM 1500
Rotary indexing table, basis	TC 320 T	TR 1100A
Max. number of modules	16	24
Number of stations on rotary table	4 to 36	6 to 36
Stationary plate ø	760 mm	1210 mm
Rotary plate ø	Standard 1050 mm (others available)	Standard 1500 mm (others available)
Available base frames	SR0200B / SK0300B	SR0300B / SK0300B

SR/SK SWITCHING TABLE MACHINE

▶ BENEFITS

· Guaranteed quality
No surprises: From just one source we provide the machine you want in terms of design, accuracy, dimensions, and color; guaranteed and documented. You receive an inspection report with each machine.

· Shortest delivery time
There is no need to reinvent the wheel: Based on optimized standards, we implement your solution precisely with a keen focus on your goals and requirements.

· Time and cost savings
Reduced total costs through transfer of project management and engineering work, no interface problems, and one contact person.

· Surface finishing
We apply the desired surface treatment to all components for you: anodized, hard-coated, bronzed, nickel-plated.

Proven standard modules form the basis for highly customized system solutions: From the design through the accuracy and dimensions up to the color, all parameters can be set individually. You get an inspection report and the certainty that everything fits together.

Take advantage of our complete package for basic machines based on rotary tables. We support you in optimizing time, costs, and resources when creating your system. You have one contact person, no interface problems, and receive everything from a single source.

▶ INDIVIDUAL PLATES

CUSTOM
SOLUTIONS

With our well-assorted mechatronics kit, we can handle almost any task. From simple movements on a rotary table to highly complex motion sequences. Precise, fast, dynamic. Practical applications provide the proof.
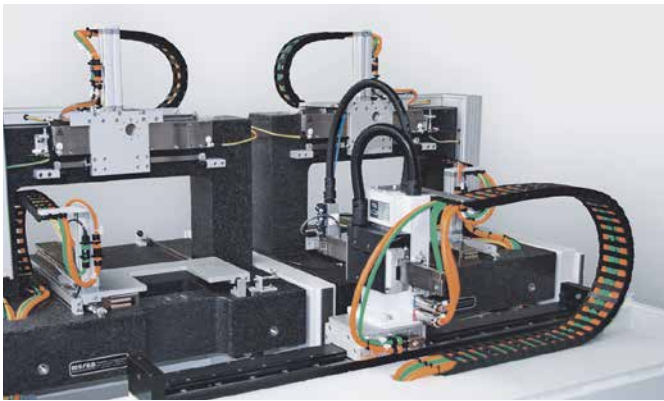
HANDLING APPLICATION
FOR PRECISE LASER CUTTING

A complex handling and processing module used for laser processing. The application combines a standard 3-axis pick & place module with special linear motor axes to move the laser sources and the workpieces. Laser processing is performed in two cells and two processing steps. In the first cell, the laser makes a vertical cut. In the second cell, the material strip is further reduced in size by a horizontal cut. The handling system with the axis and the HP pick & place module transports the cut material from one workstation to another.
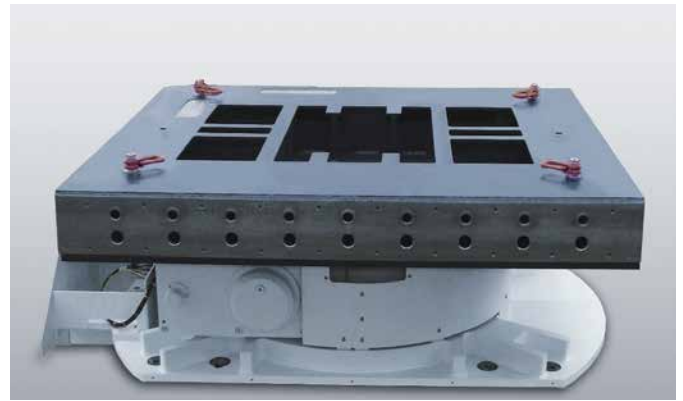
SUBSYSTEM FOR
CHANGING WORKPIECES

Central unit of a workpiece changer for laser post-processing of body parts for the automotive industry. The focus is on accuracy. Whether its post-processing, assembly, or surface coating – rotary table subsystems from WEISS are used in many industries. In the automotive industry, this central unit of a workpiece changer is used for laser processing. It rotates in 180 degree increments on a freely programmable heavy-duty ring indexer while the machine operator is off-loading finished parts and loading new parts to be processed. For our customer, this machine is a standard component that is manufactured in large quantities.

SYSTEM DETAILS

· Customer-specific steel base frame

· Two granite portals with directly mounted
  linear motor axes

· 3-axis handling unit consisting of one
  HN linear motor axis and one HP pick & place module

SYSTEM DETAILS

· Substructure: height-adjusted STM indexing machine base.

· The suitable standard table from WEISS is selected according to the application (dynamics, payload, static load, cost, etc.). In this case, the CR700C was chosen because of its accuracy and high torque.

· Integral plate (welded construction for holding workpiece holders)

· Integrated sensors to detect position and overruns. Ensuring smooth back-and-forth operation.

WEISS CONTROL PACKAGE
THE PREMIUM SOLUTION

A complete package of hardware and software components that is unparalleled in terms of intuitive operation and easy startup. It includes the respective automation components, custom-fit motor and encoder cables, as well as matching drive controllers.

The WEISS Application Software (W.A.S.) is the integral component. It makes commissioning a breeze and provides application-related services. Numerous interfaces and standards ensure excellent system connectivity.

HARDWARE

SOFTWARE

CONNECTIVITY

WEISS PRODUCT ELECTRONICS

In addition to the Safe Torque Off (STO) function up to SIL3, the drive controllers also offer a Safe Motion function. Motor and encoder cables are tailored precisely to the system and your requirements. Coded, marked, and cut to the right length.

THIRD-PARTY DRIVES

The system openness of our solution is virtually without limits. It is even possible to integrate third-party drives into the package.

With the **W.A.S.**, we have created a software that reduces the complexity of the control system to such an extent that commissioning can be done without any special knowledge. You will not have to spend much time with details on the drive hardware or programming the drive programs. The most important mechanical data and control settings are preconfigured.

- Fast commissioning
- Maximum ease of operation
- Preconfigured and designed for use with automation hardware
- Application-related data at the touch of a button
- Integrated maintenance and diagnostic functionalities

FIELDBUS INTERFACES

PROFIBUS DP | PROFINET I0 | EtherCAT Ethernet / IP | Ethernet Powerlink Modbus / TCP | Ethernet / UDP
The openness of the system goes even further with the integration of the interoperable OPC UA interface. This interface allows you to transfer functionalities to external systems quickly and easily – without a detour through the superordinate control level.

CONDITION MONITORING

AUTO-TUNING

OPC UA

DATA ACQUISITION
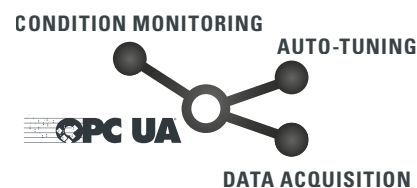
SMART SERVICES TODAY

» CONDITION MONITORING

Predict errors before they occur. The power consumption of the motor is analyzed constantly using PCM (Permanent Current Monitoring). If it changes, the machine can be checked and unexpected production downtimes avoided.

» AUTO-TUNING

When existing components are placed in a new context, the associated controller usually does not work anymore. With "auto-tuning", the necessary readjustment can be done quickly, easily, and at the touch of a button. The W.A.S. independently determines the new optimum control parameters and adjusts the drive controllers accordingly.

» DIAGNOSTIC REPORTS

Cryptic error messages are now a thing of the past. Our messages are tailored to the application, easy to understand, and provide specific handling recommendations that you can implement directly.

WEISS EXPERTISE
COMPLETE MECHATRONIC SYSTEMS

Product design in a complete system ‹

Application development with customers ‹

Validation and service life testing ‹

› Tailored electronics packages

› Intuitive operating software

› Open and compatible with other systems

ENGINEERING

SOFTWARE

WEISS

PRODUCTION

DIGITALIZATION
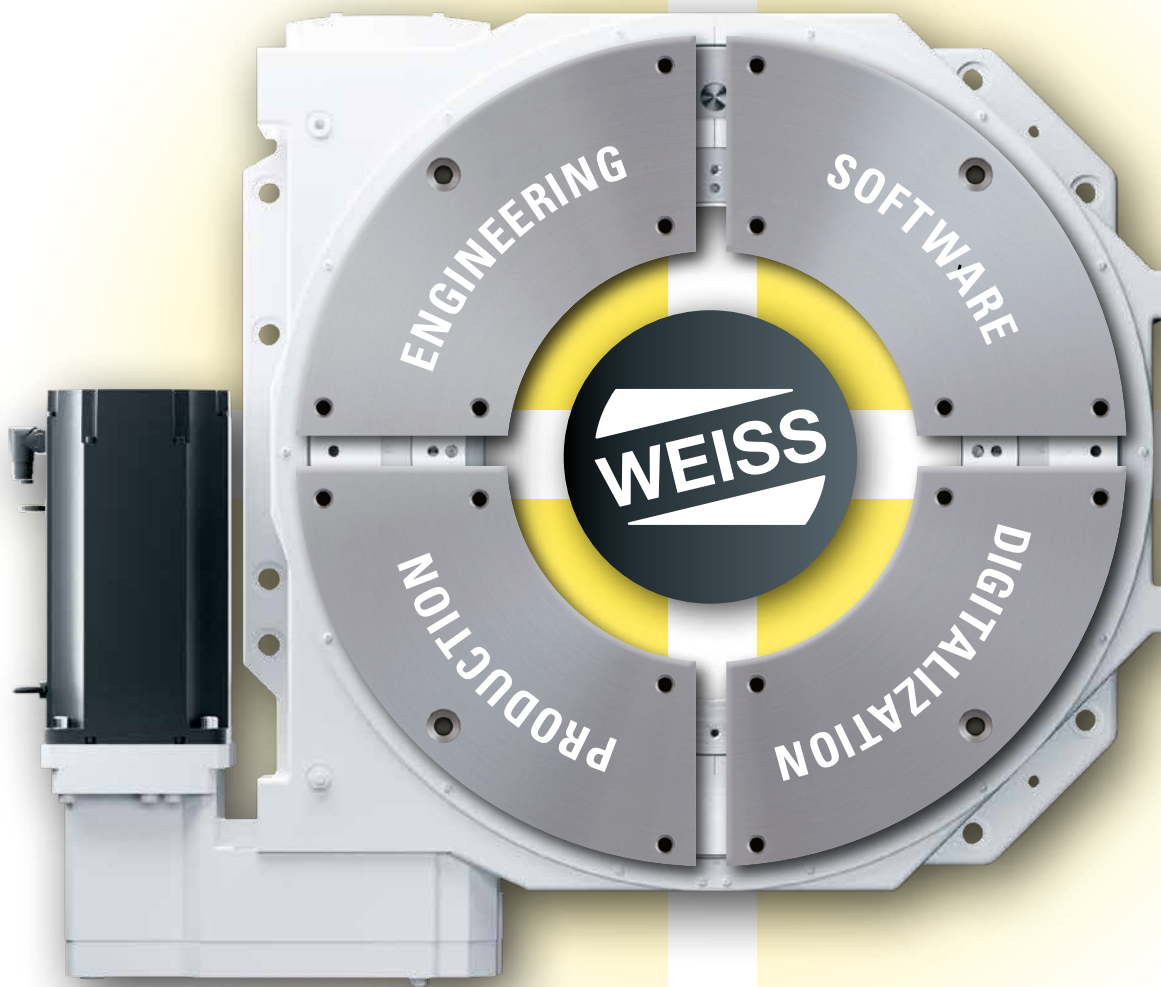
Own production of cams, bearings, and guides ‹

Highest production quality ‹

High level of in-house production ‹

› **IoT** (Internet of Things)

› **AI** (Artificial intelligence)

› **Cloud Computing**

INSPIRING PEOPLE **GREAT SOLUTIONS**

WEISS AR APPS

ANDROID   iOS

WINDOWS PC: **www.weiss-gmbh.de/AR**

WEISS GMBH

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