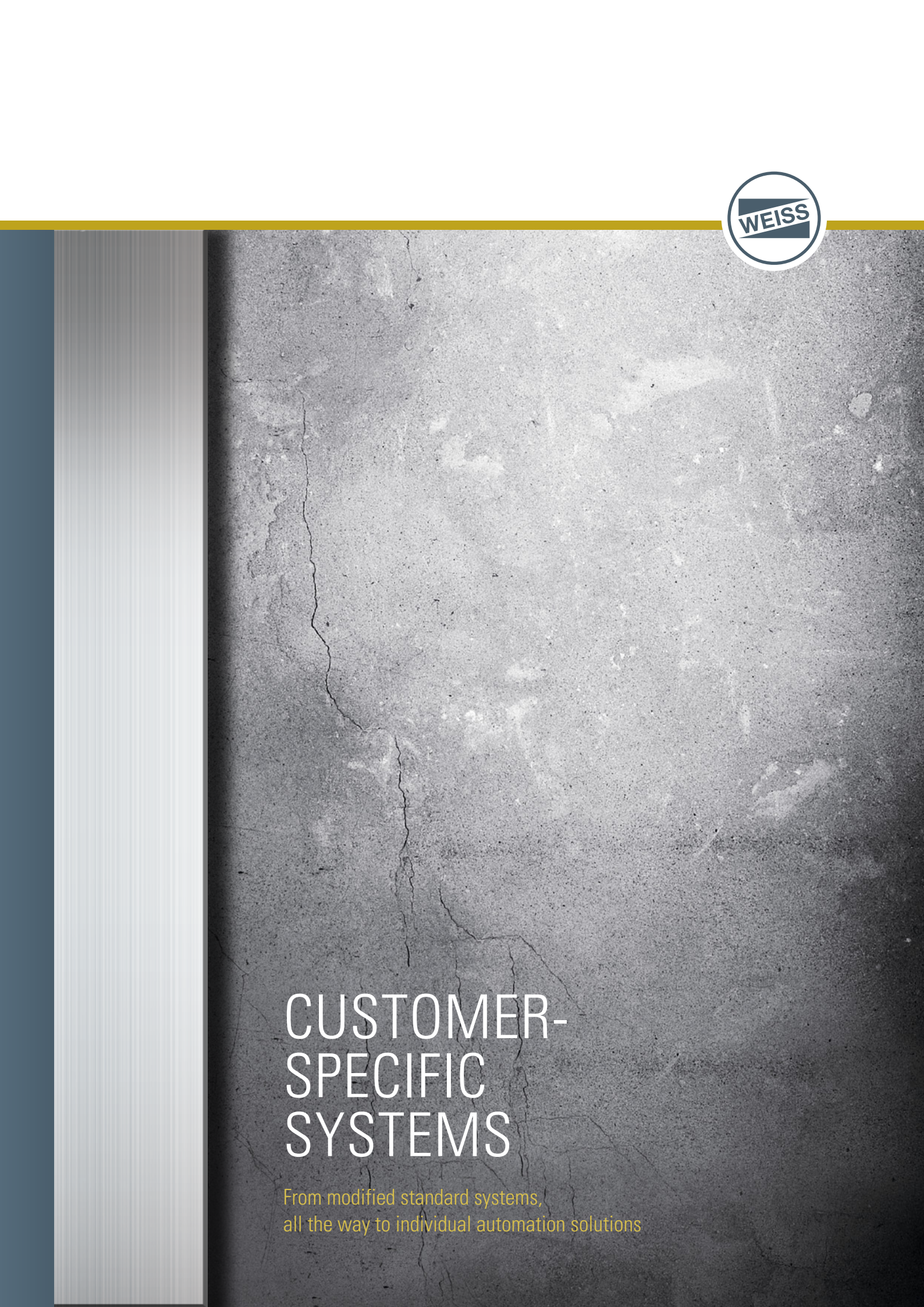
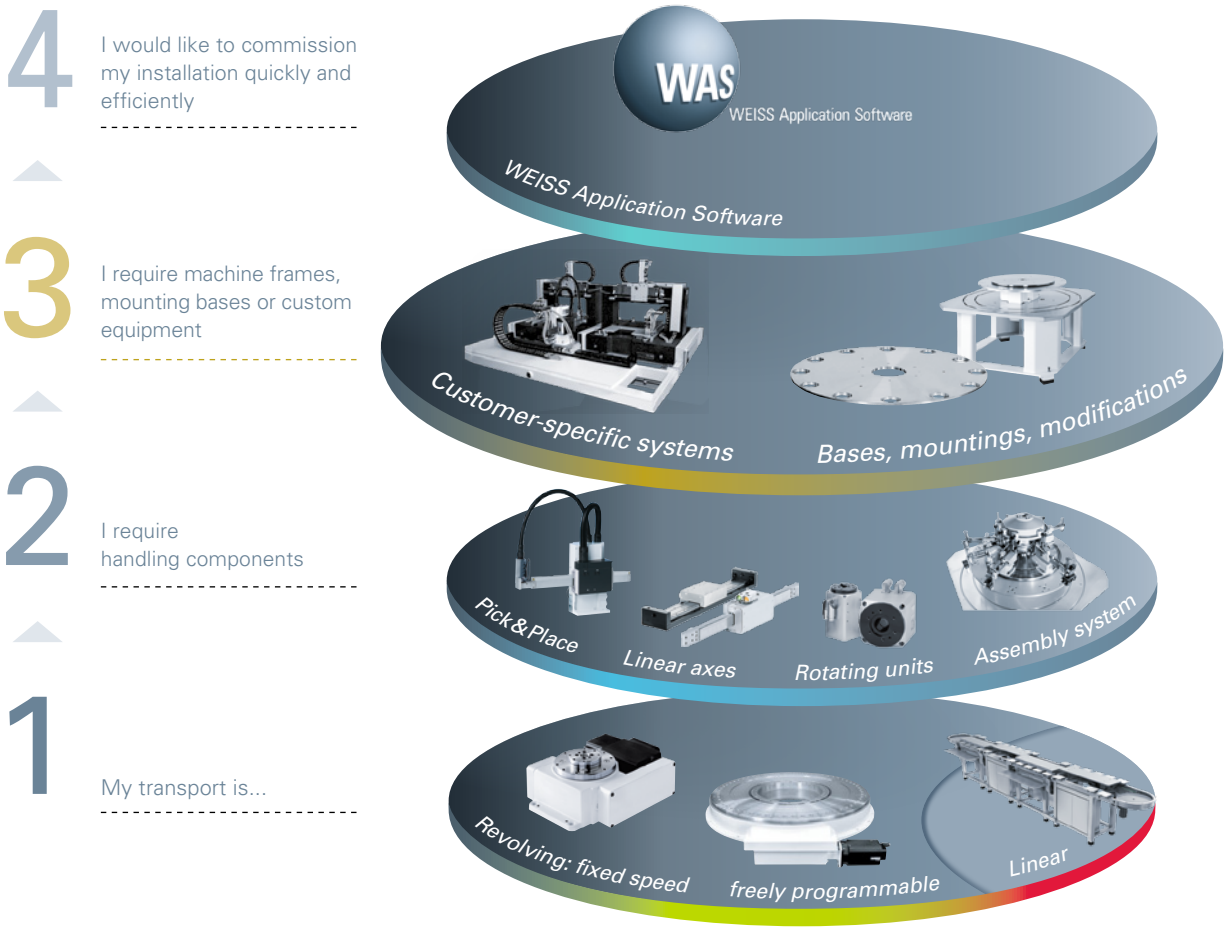


CUSTOMER-SPECIFIC SYSTEMS

From modified standard systems,
all the way to individual automation solutions

AN EASY WAY TO REDUCE THE COMPLEXITY OF PROJECTS



The WEISS product portfolio: from the basic machine, through handling units, right up to individual solutions. Commissioning can be performed using the WEISS Application Software.

From special processing, all the way to system solutions

Machines and systems are becoming more and more complex, while product lifecycles become ever shorter. This is making the work of custom machine manufacturers increasingly challenging. We make life easier for our customers by helping our business partners keep both hands free to focus on their core fields of expertise.

We supply customer-specific solutions for the entire field of kinematics. This starts with revised standard components, such as plates, attachments and base plates for our rotary indexing tables, and continues with high-grade individual drive solutions, for which we cover all bases – from project planning, through design and assembly, all the way up to system commissioning (including laser measurement if necessary).

For our customers, this always results in economically optimised solutions, characterised by lower overall costs throughout the entire added value chain.

WE TAKE CARE OF THE KINEMATICS, SO YOU CAN FOCUS ON THE PROCESSES

Are you looking to transport a workpiece from A to B? Within a specific time period? WEISS products reliably transport and position parts with accuracy and speed with unmatched precision.

Our approach is based on our modular mechatronic system with intelligent components. All of our products are available in a variety of sizes and ratings for circular or linear manufacturing. This is complemented by our handling systems with Pick&Place modules, linear motor axes and rotary units.

Our customers benefit from Weiss engineering experience and expertise, from the project planning phase including project management support, through project implementation including professional services during and after project startup.

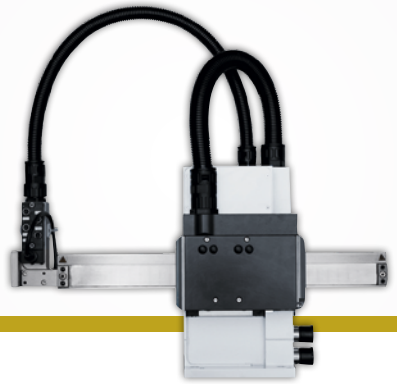
WEISS focuses on base frames, kinematics, and product sub-systems that support the tasks performed by the system manufacturer.

„Ready to work“ kinematic sub-systems

Save time and avoid unnecessary stress. We can supply you with complete kinematic sub-systems for your installation from a single source – as intelligent functional units that combine mechanics, electronics and software. Ready for installation and with the familiar, no-compromise WEISS quality as standard.

Our assembled solutions are based on proven WEISS standard components. In addition, we offer matched connection elements, tailored electronic components and services, which combine to form key elements of your system solution.

In essence, you receive a complete solution, which reduces complexity and permanently lowers your engineering costs. This allows you to focus all of your efforts on the core of your system: the processes.



CUSTOMER-SPECIFIC AND PRACTICAL

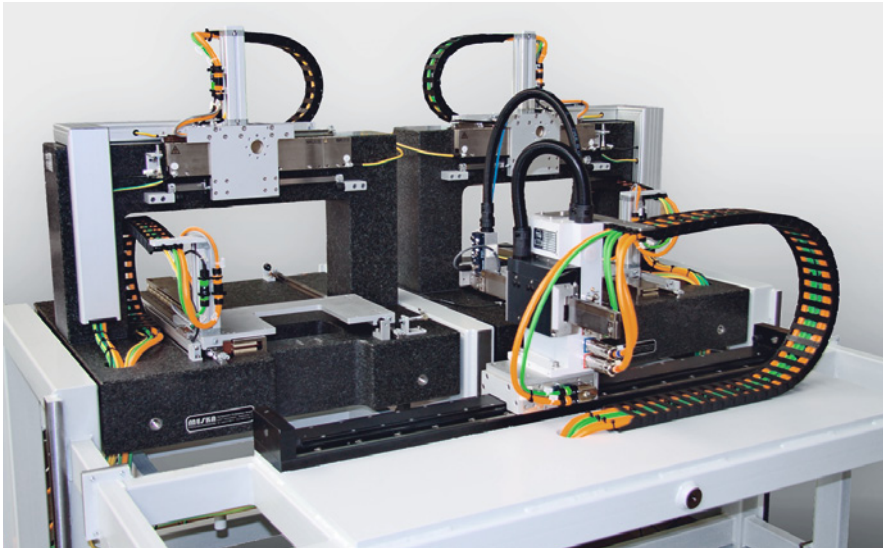
With our well organised, modular mechatronic system we can handle virtually any task. From simple movements on a rotary table, all the way up to highly complex motion sequences. Precise, fast, dynamic. Practical applications we have implemented serve as evidence of this.

Handling application for precise laser cutting

Use of a complex handling and machining module for laser machining. The application combines a triple-axis standard Pick&Place module with special linear motor axes for moving the laser sources and workpieces.

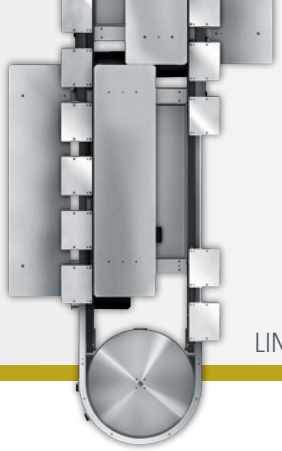
The laser machining is performed in two cells and two processing steps. In the first cell, the laser performs a vertical cut. In the second cell, the material strip is then minimised further by a horizontal cut. The handling system with the axis and the HP Pick&Place transports the machined material from one machining station to the other.

The central challenge with this application does not lie in its dynamics. Instead, both laser cutting axes must be capable of executing extremely accurate and smooth movements to guarantee a precise cut. Precision and constant speed are therefore the key criteria here. The laser and workpiece axes are also decoupled from one another – a concept that makes a major contribution to the high precision (< 5µm in the operating range). In addition to this, the machining axes were mounted directly on the granite base. To guarantee extremely precise constant speed and prevent any ripple forces, the machining axes were equipped with dedicated, ironless linear motors.



System Details:

- *Customer-specific steel base frame*
- *Two granite portals with directly mounted linear motor axes*
- *Triple-axis handling unit, consisting of one HN linear motor axis and one HP Pick&Place*



LINEAR ASSEMBLY SYSTEM

INDEXING TABLES

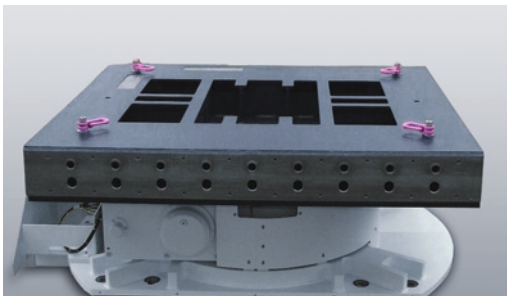
Modular basic machine for a flexible assembly line

Use of the LS 280 linear assembly system as the platform for a fully automatic assembly line with placement, assembly and inspection processes for production of connection terminals.

The LS 280 has traditionally been used in a variety of industries. For example, automotive industry control equipment, medical industry diagnostic pen systems, and furniture assembly applications. The LS 280, with it's modular design, provides a tailored solution for every application. Plates for product assembly or packaging for instance, can be designed specifically to customer requirements. Modules that handle vertical process forces or pre-assembly frames are available. Furthermore, we offer a special cleanroom version of the LS 280.

System Details:

- *Cycle speed of the LS 280: 25/min*
- *Indexing pitch used: 280 mm*
- *Stopped positions: 45*
- *Steel base frames with integrated control cabinets*
- *Steel mounting bases with customer-specific drilling pattern*
- *WAS – WEISS Application Software with visualisation and monitoring functions for easy and fast commissioning*



Sub-system for workpiece changeovers

Central unit of a workpiece changer for post-production laser machining of bodywork parts for the automotive industry. The focus is on precision here.

Rotary indexing table sub-systems are used in many diverse applications, including assembling, packaging, coating, and welding in the automotive industry. For example, on a high volume automotive application, fixtures are positioned at 180 degree increments on a heavy duty table, where precision laser machining is performed in a guarded cell, while the machine operator is off-loading finished parts, and loading new parts on to the fixtures. The WEISS indexer is a sub-component to the machine builder's system solution.

System Details:

- *Sub-frame: height-adjusted STM indexing machine base.*
- *The appropriate WEISS standard table is selected based on the application in question (dynamics, load, static load, costs, etc.). In this case, the CR 700C was chosen due to the requisite precision and high torque.*
- *Integrated plate (welded structure for mounting the workpiece holder)*
- *Integrated sensor system for position and overtravel detection. Guarantees fault-free alternating operation.*

07/2012

Company HQ and production facilities in Buchen: Our 100% vertical range of manufacture and our strict quality control system guarantee the quality of our products and ensure a long service life.

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