SMART MANUFACTURING FOR STAMPING & BODY IN WHITE

WEBEN SMART

www.weben-smart.eu
WEBEN, the key to build your smart factory.
25 years of experience...

1997 Creation in Shanghai

400 Employees worldwide

28k m² of workshops

60 M€ turnover in 2018

ISO 9001 2020

Creation in Europe

Demand excellence.
WEBEN SMART is an international company established in 1997, with a registered capital of 6 million euros. Every day, around 400 employees in our headquarter in Shanghai and around the world merge their expertise to ensure smart and turnkey solutions for your day-to-day needs. WEBEN SMART offers various and diversified solutions from a single source: the individual components to fully automated systems. Aiming to provide the intelligent customized equipment and services, we attach a great importance being a high-level engineering center with high-quality engineers, representing 70% of our employees.

Whether it is robotics, automation, logistics or software, our wide range of solutions may be addressed to every sector such as automotive, aerospace, shipbuilding, pharmaceutical and/or general industry. For every step of your process, WEBEN SMART has a flexible system integrated solution for your application, either it is stamping, welding, assembly, machining or warehousing.

After 25 years of experience and development, WEBEN SMART has become a renowned supplier of intelligent manufacturing, industrial grippers, and hydraulic fixtures in China and abroad. Since 2013, WEBEN SMART was successfully identified as one of the Shanghai High-tech Enterprises and was within China’s Top 10 providers of intelligent systems for 4 consecutive years.
WEBEN SMART is a turnkey integrator of press automation solutions. Our goal is to help you optimizing press shop productivity by integrating robots, machines, technologies, and our know-how.

Our team has a deep experience in robot integration, allowing us to offer a tangible and cost-effective solution to optimize the press line while reducing the complexity with an easy to use system. We can help optimizing productivity, adaptability, availability, and reliability while keeping quality and safety as our first priority. From planning and design all the way to commissioning and support, we stand by our customer to assist them in every step of the project.

Our range of solution covers:

Whether it is a cold forming or hot forming line, WEBEN SMART has various solutions for transfer press and tandem lines.

WEBEN SMART may integrate suitable systems across the complete press line, for all sub-processes in the area of press shop. We provide different levels of flexible robotized automation, from a portion to the whole press-line. From a flexible blanking solution, to cost-efficient front of line destacking area for aluminum and/or steel blanks, and from a productive transfer press to a reliable end of line racking.
Front Of Line (FOL) is key to a high speed and flexible line. WEBEN SMART offers a wide range of FOL solutions depending on the space and production needs, suitable for different part sizes, material, and weight. This includes destacking table, centering table, infeed conveyor with magnetic or vacuum belt technology, destacking robot, loading robot, oiler, cleaner, and washer.

WEBEN SMART develops, implements, and supports complex robotic solutions adapted to the growing requirements of customers. Creating an easy communication between robot and presses, of any kind and size, is the way to have a fully automated production cell. To fit your production needs and technical specifications, our scope includes 6-Axis and 7-Axis robots. Each robot process may run through simulation studies and is designed to be flexible for product changeovers. The focus is always on increasing efficiency.

Our range of services goes from retrofits through modernization of existing press lines to new equipment, with an output from 8 to 15 strokes per minute (SPM). For any needs you might have, WEBEN SMART offers technical advice, support, and tailor-made solutions all from one hand, with your available space conditions, presses size and distances, the expected cycle time, part sizes, requested automation degree, and the available budget.

Avoiding a loss in cycle time may require an automated racking system and logistics concepts in the End of Line (EOL) area of the press line. WEBEN SMART will help you eliminate the material handling bottleneck at the end of the line. The EOL also helps to ensure consistent part quality thanks to a vision system. From the last press stage, the stamped panels are either placed on an outfeed conveyor or shuttle system; then transported to be stacked in respective containers.

This service may also consider logistics and container management to be able to supply an automatic stacking system with enough stacking racks within cycle time, and to ensure that full containers are removed.

Our long experience and know-how are at your disposal, with modular and flexible dedicated systems.
WEBEN SMART is a turnkey integrator of body-in-white (BIW) and body parts production line. Our main business covers the body process planning synchronous engineering, sub-assembly workcell, white body welding production line and body parts production welding unit. From automotive to aerospace, our solutions are suitable for many different areas of application. The technology offers decisive advantages in the production of medium and large batch sizes.

The purpose of our strong technical engineering and project management team is to maintain an advanced level and high-quality solutions at an effective price. At every phase of the integration, from project inception to the end of the equipment’s service life, WEBEN SMART’s teams can help you, wherever you are. We design and offer solution to answer the BIW positioning and work holding needs. Our goal is to ensure the highest quality, proven process reliability and high output with maximum safety requirements. Precision, dynamism, control, and reliability are the prerequisites for viable solutions in these sensitive areas.

Our solutions cover handling, process and geometry technologies, spot welding, arc welding, glue stations, laser welding process and riveting. We can create a solution for and help you choose the process most suitable for your purposes. The automated processes increase the speed, precision, quality while minimizing the inconsistent welds of manual welding.
Automated processes reduce cycle times, unit costs, error rates and the cost of spot repairs. The use of robots ensures that processes are efficient, reproducible and guarantees the consistent quality of the applications. With our robotic solutions, we can maximize the utilization capacity by assigning multiple tasks to the robots such as welding, screwing, gripping or hemming.

**APPLICATIONS**

- **Welding Line**  
  Static or moving line, fully automated or semi-automated

- **Arc Welding Station**  
  For higher product quality, productivity, and reduced costs

- **Spot Welding Station**  
  Resistance welding of steel and aluminum parts

- **Hemming**  
  Roller hemming or tabletop hemming, your solution for small or large batch production is here.

- **Glue Station**  
  Improving gluing precision, productivity, and consumption

- **Laser Welding**  
  For quick process, reduced reworking and deep welding

When looking for a partner who can offer innovative and efficient single-operation or entire system solutions for your production parts, **WEBEN SMART** is your choice!
WEBEN SMART has been designing and manufacturing End-of-Arm Tooling (EOAT) for 25 years, offering full gripping solutions. We may supply from concept to commission each unique gripper whether it is handling, geometry or process grippers. Our grippers work on the main lines of BIW and sub-assembly lines, for production line robots and manipulators. Whether you need a simple gripper or a very complex one, we offer you a comprehensive and overall solution: design, installation, and commissioning.

In addition to EOAT, WEBEN SMART design and develop jig manufacture for any application needed in the body in white process. From simple racks to assembly, drilling, clamping, or testing jigs, the jig will provide repeatability, accuracy, and flexibility in the manufacturing of products while assisting the robot or manual process.
WEBEN SMART represents a complete range of services, and our automation concepts are created individually for your plant. Research and development activities are conducted at our corporate research centers, where we bring together a highly skilled international team of engineers. Our roughly 100 designers, represented in any fields and allocated in every area of expertise may assist you for mechanical, electric, pneumatic, PLC design and simulation.
Our engineering and consulting services are based on efficient production processes, **reliable statement on cycle times, process safety, and fast commissioning**. Whether it is a new installation or a retrofit of existing systems, we may assist you with **personalized solutions**. From **FEA analysis**, to **SPM simulation**, our experts will support at every step of your project.

For a completely new design, development from standard, or previously realized systems, WEBEN SMART will find the correct solution with an efficient design. From the beginning of the concept, we consider different requests you have in term of **environmental matters and energy savings**.

To check the **feasibility** and optimize your automatized project, our engineering team can run a **3D visualization** of a complete installation using design and simulation tools such as: **DASSAULT SYSTEMS (CATIA, SOLIDWORKS, DELMIA)**, **GUDEL MOTION DESIGNER**, **SIEMENS (PROCESS SIMULATE, UNIGRAPHICS)**. These analyses allow you to consider the operational environment, simulate various production scenarios, **prevent collisions**, determine, and **optimize cycle time**, and prepare **offline programming** of your robots and/or machines.

Our approach is clear: we develop a close partnership based on our technical and sales expertise so that we can work together to build the most suitable overall solution for your needs.

Focusing on engineering solution is our way to reduce your costs while **facilitating commissioning**: cycle time optimization, time saving in try-out and programming, are some of the possibilities to save time and money.
To guarantee the complete success of your project, WEBEN SMART has a strong technical team composed of nearly 50 technicians for the assembly, adjustment, and programming of your installation. From the conceptual design phase, we guarantee you the support of our specialists, whose longstanding experience will help you avoid planning errors at an early stage. Our engineering skills, robotic knowledge and simulation tools will help you shorten overall commissioning time.

We support you commissioning new and existing production, the system will be fully tested and adjusted to ensure optimum production capability. Our technicians will attend to your robot, cell, safety devices, EOAT and PLC system; one thing matters most: reducing downtime to a minimum while maximizing your performances.

Our team will assemble the mechanic, pneumatic and electric components to bring to life your new equipment. After test and debugging in our facilities, it will be shipped to you.

We offer commissioning engineers with extensive experience in robots and systems, whether it is KUKA, ABB, YASKAWA or FANUC. Their know-how, backed by the expertise of our design team, makes commissioning fast and smooth and lays the foundation for reliable and efficient operation. The installation and commissioning of robotic products and systems on site is one of our core competencies.
Whether, it is the result of the simulation used as offline programming, and/or development of the program on site, we will ensure quick, intuitive, optimized, and cost-efficient implementation of the application on your system. We will get most out of the robots, reducing cycle-time while keeping motor torques at an acceptable level so your robot should need less maintenance, robotic system will operate longer without stoppages and extend the lifetime of your system to boost your performance and productivity.

They ensure that the robot is configured and efficiently integrated into the production system, and they provide full installation testing and assistance with the production start-up. A robot that is well commissioned will run better, more reliably, use less energy, and have a longer life.

We offer you ready-made program modules and flexible control concepts for the robot. Our range of services also includes finding the appropriate PLC interface and programming your system controller whether it is Siemens, Allen Bradley, Mitsubishi, or Omron.

Upgrading your controls systems will ensure shorter production runs and quicker changeovers. Our team is highly skilled in Controls Engineering and know the importance of commonality, reliability, architecture, safety, and usability. In close cooperation with you, we optimize the process sequences and support you with the integration of robots into your production system.

We are determined to deliver solutions, which help our customers to gain a competitive advantage. The complete guarantee and post-guarantee services, ensures that we take care of every aspect of the post-implementation phase and leave our customers worriless.
Smart logistics makes your production more effective and efficient at each step. WEBEN SMART combines its expertise and experience in the automation, logistic and warehousing automation fields to offer you a turnkey solution. In addition to transport equipment (AMR & AGV), trolleys, conveyors, stackers, shuttles, shelves, WEBEN SMART developed its warehouse management system (WMS) to control and automate completely the whole process of storage. Our WMS system will bring flexibility, control, low overhead, real-time stock visibility, product tracking, just-in-time manufacturing support, improved runtime in manufacturing processes with a fast return on investment (ROI).

Not only you will benefit from a smart logistic with connected devices and intelligent asset tracking tools, but the solution has been designed to suit small floor space thanks to high-rises shelves. Our intelligent warehousing is your adapted solution for raw material, final parts, small tools and dies, blanks and EOAT. WEBEN SMART has the solution to improve traffic through the plant, while improving safety, reducing the number of forklifts within the factory.
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