

WE DELIVER SOLUTIONS

AUTOMATION TECHNOLOGY ENGINEERING INDUSTRIAL TRADE INDUSTRIAL SERVICE TECHNICS

- | Control engineering
- | Drive systems and feedback control technology
- | Visualisation and process control systems
- Data acquisition systems
- | Robotics

- | Handling systems
- Conveying systems
- | Palletizing and packing systems
- | Warehousing systems / logistics
- | Worldwide commissioning and online service



WHAT IS SO SPECIAL ABOUT **ENGINEERING SERVICES FROM BLUMENBECKER?**

TAILOR-MADE SOLUTIONS.



Engineering by Blumenbecker means: solutions that are not simply offthe-peg, but tailor-made to meet your requirements. Solutions that, time and again, keep setting standards through their innovative power.

Thanks to the broad-based know-how that our employees have at their disposal, we are able to answer virtually any question relating to the design and implementation of your new installations or concerning refits and upgrades to your existing facilities. With subsidiaries in numerous countries, we accompany you and your automation projects wherever you are in the world, supporting you in the face of global competition.

Our engineers and technicians will work closely with you to develop and improve your individual processes and production flows. We integrate new and existing machines and robots, develop appropriate automation solutions and program the relevant software.

We specialise in production-related industrial conveying systems and in robotics. Among others things, we offer turnkey solutions for combined conveying and palletising systems.

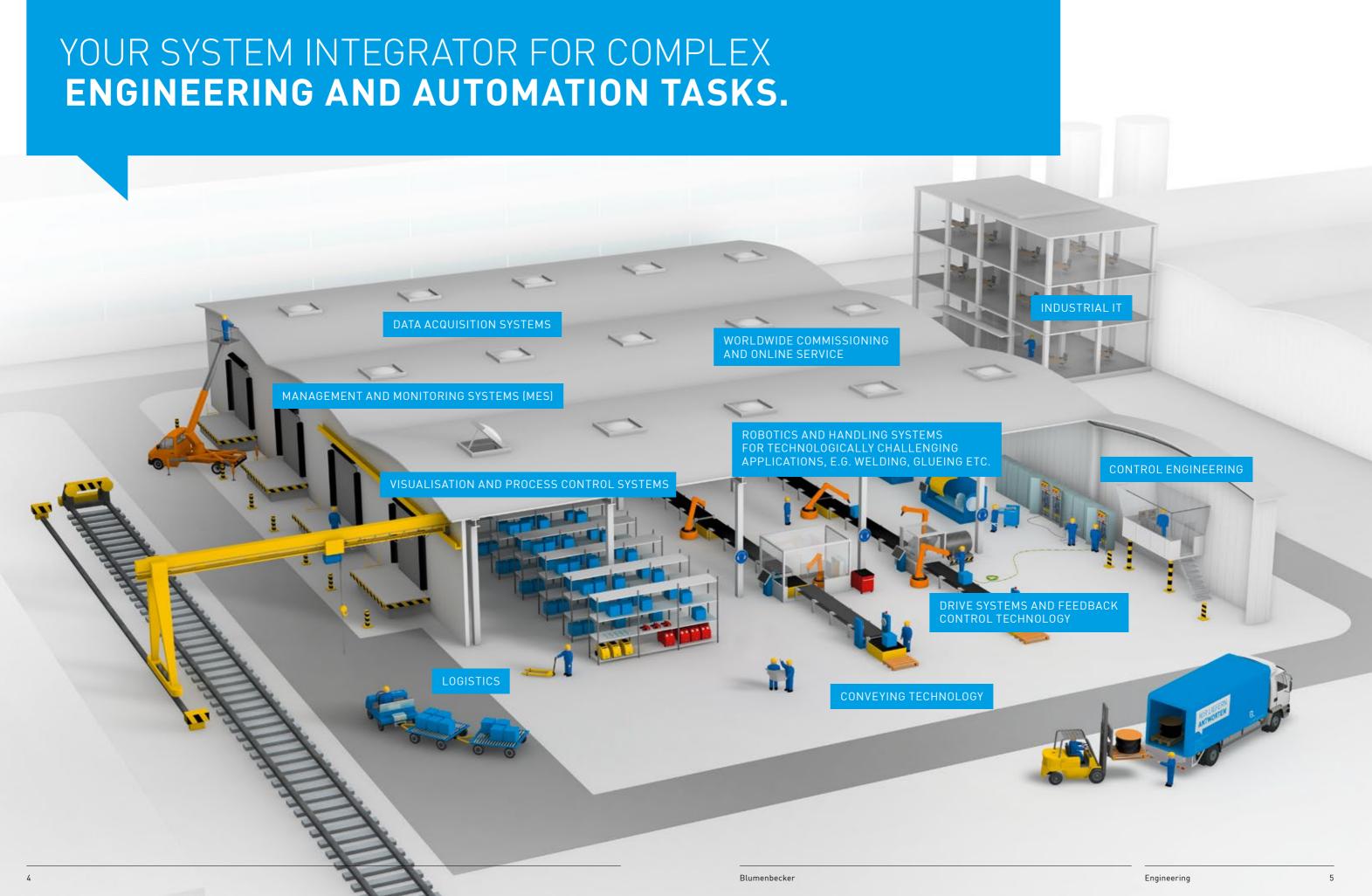
facturers and being able to offer services ranging from programming and offline simulation all the way to commissioning, we can provide you with solutions that precisely match your needs. We also develop advanced positioning technologies and design one-off robot com- systems. ponents in-house. Based on our longstanding experience in auto body manufacture we are ideally positioned to offer complete solutions for the electrotechnical side of robotic welding applications.



We also realise complex industrial networks for you and integrate them into your company network. Furthermore, we are your partner when it is about visualising processes, from fault-reporting and data By working closely with leading robot manu- input systems to local screen displays

and central control systems. Additional services include the deployment of operating systems for optimising manmachine communication and operating data acquisition using database-oriented

»Our capacity for on-going innovation means we are always setting new standards.«



WHAT SETS YOUR PRODUCTION PLANT SOLUTIONS APART FROM THE REST?

MAXIMUM EFFICIENCY AND FLEXIBILITY.





EVERYTHING UNDER CONTROL

When it comes to controlling complex production processes, you need a partner who is able to keep track of things and meet your requirements perfectly and on time. Rely on proven solutions. Rely on Blumenbecker.

Production plant automation is a complex business involving conveying equipment, robotic handling systems, process visualisation and process control technology. You can depend on us to deliver customised solutions coupled with maximum system reliability.

We provide the full range of automation systems on a manufacturerindependent hardware basis. We can help with the design and implementation of new installations and can also carry out upgrades and refits on existing systems.

We work with standards such as ABB, Allen Bradley, Phoenix Contact, Siemens, Wonderware and others, and with all current bus systems and components, including PROFIBUS, INTERBUS, PROFINET, DeviceNet, AS-Interface, Industrial Ethernet, serial interfaces, etc.

OUR RANGE OF SERVICES INCLUDES:

- Planning of complex automation systems
- Project planning in EPLAN
- Client-specific hardware planning
- Preparation of customer-specific documentation using CAD systems
- Software development for Programmable Logic Controllers and computer-controlled switchgear
- | Modernisation of outdated automation systems (e.g. replacement of the older centralised Simatic S5 systems with the new Simatic S7 system with decentralised modules)





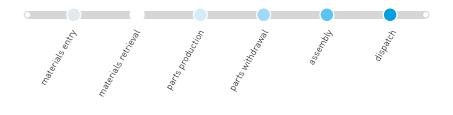
WE ALSO ACT AS A SYSTEM INTEGRATOR FOR YOU, PROVIDING FULLY INTEGRATED SOLUTIONS.

- System networking
- Installation of operator systems for optimum man-machine communication
- Selection, programming and parameterisation of controlled drive systems with inverters (SEW, Bosch, Lenze, Siemens)
- Installation of sophisticated inverter-based positioning functions (SEW, Rexroth, Lenze, Siemens)
- Switchgear design and manufacture within the Blumenbecker group

SOLUTIONS FOR CONVEYING AND LOGISTICS.







We develop concepts for complete drive and control systems together with the necessary visualisation and operating technology. We specialise in solutions for conveying, logistics and warehouse management operations.

WE AUTOMATE:

- BELT CONVEYORS
- | ROLLER CONVEYORS
- SKID AND CHAIN CONVEYORS
- | PUSHER CONVEYORS AND ACCUMULATOR CONVEYORS
- **|** MONORAIL SYSTEMS (EMS)
- | P & F CONVEYOR SYSTEMS
- AND ALL AUXILIARY COMPONENTS AND EQUIPMENT

Keeping in view your specifications, we design and configure electrotechnical equipment, Closely working together with you, we develop the most cost-effective solution, including all aspects of the project - from building the electrical equipment through to the drawing up of specifications for head controllers.

With many different projects already delivered to a wide range of industries automotive, mining, logistics, rubber and tyres, timber, packaging materials, plastics, foodstuffs, paper, steel and cement - we have the experience required to complete even the most unusual and challenging commissions.

Our conveying solutions range from planning, robotics applications and the latest testing and measurement techniques for quality control through to plant commissioning. This is based on a precise selection of all system components and strict quality control at each and every stage of the build. We carry out all the necessary testing ourselves.

Blumenbecker

Order flow

OPTIMISED MATERIALS FLOW

Our conveying and handling solutions are the backbone of manufacturing excellence, guaranteeing optimised materials flow on all your production lines.

OUR CONVEYING SOLUTIONS: Automation of conveyor systems

- Visualisation technology
- Data archiving and report generation
- Enhancing equipment reliability and system redundancy
- | Management and monitoring systems (MES)

OUR RANGE OF SERVICES INCLUDES:

- Connecting conveyor technology
- Adaptation to existing conveyor systems
- Equipment maintenance
- Process data display
- Process data acquisition
- Malfunction logging

WHAT DO YOU MEAN BY WORKING IN **PARTNERSHIP?**

AT BLUMENBECKER, WE NOT ONLY HELP YOU TO CONVEY YOUR PRODUCTS, WE ALSO HELP YOU TO CONVEY A GOOD IMAGE.

HANDLING SYSTEMS AND ROBOTICS.

ADVANCED **ROBOTICS** FROM A SINGLE SOURCE.

Handling technology comprises a vast array of methods and equipment, from feeder systems to interlinked machines, grippers, pickers and industrial robots through to assembly line transfer technology. Handling technology, therefore, plays a key role in the organisation and configuration of efficient production processes.

When properly designed and installed, handling systems accelerate the manufacturing process and reduce material consumption. However, because of the diverse nature of the specific operating requirements, standard solutions are rarely effective in such cases.

The answer lies in practical solutions that are tailor-made to meet your needs. Because of our extensive experience in many different branches of industry, we are able to manage the entire range of technologies and processes involved and devise a suitable system for you. Our own in-house design and fabrication department can also take on unusual commissions for a fast and reliable turnaround.

OUR RANGE OF SERVICES INCLUDES:

- | 3-D planning of robot work cells
- Offline programming
- | Modifying and improving existing programs offline
- | Trial runs on complete units in our own workshops
- Development of automated assembly solutions
- Cycle time optimisation for interlinked assembly processes
- Commissioning
- | Training on-site or in our own robotics workshops
- Customer support and spare parts

We are your reliable partner for all aspects of robotics. Drawing on years of experience acquired from many areas of application, our certified engineers have what it takes to help your company get the most from robotic technology.

We are completely product-neutral and build robotics applications based on KUKA, Fanuc, ABB, Comau, Motoman, Kawasaki for operations such as handling, arc welding and spot welding, including online and offline programming (RobCad and Process Simulate).

In certain project areas we also act as a system integrator and prime contractor and will provide advice and guidance when it comes to build quality and technology. We coordinate component suppliers and fabricate our own components for robotic applications.

Machine vision and **industrial cameras** have opened up a whole range of new possibilities for **production-line automation**. Blumenbecker camera systems are now used for tasks such as:

- **Measuring:** measuring the specific dimensions of a product
- Product checks: checking the correct position of all parts of a product
 Product identification: barcode and 2-D code reading, identifying a product type based on shape, size and other characteristics
- Product sorting: bin picking, using 3D cameras and dedicated software
 Robot navigation: information on the position of a product on a conveyor belt and its relevant coordinates for robot-led palletising, de-palletising and other activities





CAN YOU PROVIDE ME WITH ALL-IN-ONE SOLUTIONS?

WE SUPPLY **DESIGN** AND PROGRAMMING SERVICES, ARRANGE PRODUCT SHIPMENTS AND **PROVIDE COMMISSIONING**, TRAINING AND **CUSTOMER BACKUP** – ALL FROM A SINGLE SOURCE.

THE REQUIRED PARTS AND COMPONENTS ARE MANU-FACTURED BY US.

MAIN APPLICATIONS:

- I WELDING (SPOT WELDING, ARC WELDING AND LASER WELDING)
- | GLUING AND BONDING
- | HANDLING
- | PALLETISING
- | CUTTING AND MILLING

HOW CAN **INDUSTRIAL IT** BENEFIT ME?

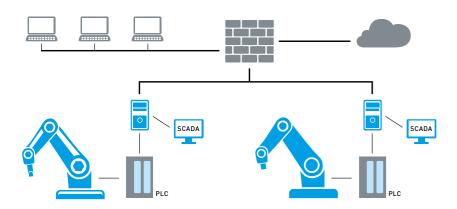
BY HELPING TO **MANAGE MATERIAL FLOWS** IN YOUR PRODUCTION CHAIN.

We provide professional support for designing and selecting drive systems and sensor technology, programming sequencing controls, setting-up and operating visualisation processes, installing and optimising logistics monitoring equipment, designing warehouse management routines and creating links to existing ERP systems.

We supply individually designed and developed software to meet your specific needs and install ready-made computer systems matched to your particular requirements. We develop complex systems for data acquisition and storage and for the management of production processes.

By deploying mobile production control systems developed inhouse, we are able to display all production relevant systems on a standardised visual interface using a PDA or smartphone. Alerts, faults and other events are transmitted by WLAN to the mobile devices. By incorporating RFID technology it also becomes possible to trace the position of a product at any time.

PLC network topology



Our services in detail:

| Acquisition, archiving and analysis systems for production data based on SQL and Oracle relational databases

| Client-specific software solutions

- | **Process visualisation** of fault reporting and data input systems via decentralised screen displays through to central control systems
- | MES systems for business production analysis of overall equipment effectiveness (OEE) based on products such as GE Fanuc Proficy (iHistorion, Plant App, Portal) and other newly developed solutions
- | Industrial RFID solutions (Moby, EMS) for product tracking

Systems for master production control and product tracking, interfacing with SAP







INFORMATICS SOLUTIONS FOR A WIDE RANGE OF INDUSTRIES

We provide informatics solutions for customers in a whole range of industrial sectors, supported by a variety of program languages (C++, Delphi, .NET, ASP, Java) and relational databases (SQL, Oracle).



ALL-ROUND PEACE OF MIND: SERVICES, QUALITY, **PARTNERSHIP.**





Carrying out installation and assembly work to high industrial standards means delivering a fast, meticulous and reliable service. Our project supervisors and site managers undertake construction projects for you all over the globe.

Plant commissioning and start-up is always overseen by our own team of specialists. Our project engineers are actively involved in this stage of the operation. Start-up monitoring, availability testing and process optimisation are included as a matter of course so that new equipment can quickly be integrated into the production process.

Our services also include on-shift supervision by our own engineers and the training of clients' operating and maintenance personnel.

After-sales service

Our partnership does not end with commissioning and start-up. We continue to offer a plant maintenance service and will undertake software and hardware modifications as and when these are required for the production process. We can also provide a full service package for industrial robots, which includes all aspects of maintenance and repair work. We provide on-call service with rapid remote diagnosis by our trained engineers – helping you to resolve your problems without production losses.

Quality and continuous training

Quality is built into everything we do. As well as complying with DIN EN ISO 9001 standards, we place great emphasis on the continuous training and upskilling of our workforce. What is more, international exchange ensures that we keep up-to-date with the latest technological practices.

Collaboration with industry leaders

Many of our operating companies have exclusive national cooperation agreements with leading manufacturers, including Siemens, Rockwell, ABB, KUKA and Fanuc.

The majority of our companies are also gualified Siemens Solution Partners and Wonderware System Partners.

THE BLUMENBECKER **PROMISE:** FAST, THOROUGH. RELIABLE.

YOU CAN FIND US IN NUMEROUS LOCATIONS:

- Germany
- Poland
- Czech Republic
- Slovakia
- Russia
- Ukraine
- China

WHAT **ADDED VALUE** DOES BLUMENBECKER OFFER ITS CUSTOMERS?

Worldwide competition means that your industrial production must be of the highest standard possible. It must be flexible, reliable, fast and inexpensive. For that reason you need partners who are just as flexible, innovative and expert in their field as you are.

With the Blumenbecker Group, you benefit from the synergies between the five areas: **AUTOMATION TECHNOLOGY, ENGINEERING, INDUSTRIAL TRADE, INDUSTRIAL SERVICE, and TECHNICS.** With more than 1,200 employees at our national and international sites, we offer services to support all your projects, no matter how complex.

With a wide range of products and services, the Blumenbecker Group assists you in achieving your goals. All of our activities, including the automation of plants and machinery, the development of innovative robotics solutions, the supply of products from catalog parts to machine tools, the inspection, maintenance and repair of your plants, and special-purpose machine building, are supplied from a single source – wherever you are in the world.

»Blumenbecker lives a company culture that favours change and constant innovation, with the aim of continually improving our products and processes.«



ASTRID BLUMENBECKER Majority shareholder

WE BELONG TO A **STRONG GROUP.**



But perhaps most importantly, we regard ourselves as a partner to our customers. For that reason we attach so much importance on maintaining a dialogue with you. Only when we take the time to consider your questions can we be sure to give you the right answers.

These answers also entail, us passing on our specialist knowledge to you, thus allowing you to enjoy an added value that will serve you well in the future. Customised solutions coupled with the best possible service. That is Blumenbecker.



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WE LOOK FORWARD TO **HEARING FROM YOU.**

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