<table>
<thead>
<tr>
<th>Plant automation</th>
<th>Visualisation</th>
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<tbody>
<tr>
<td>Machine automation</td>
<td>Worldwide assembly</td>
</tr>
<tr>
<td>Switchgear production</td>
<td>and commissioning</td>
</tr>
<tr>
<td>Programming</td>
<td>Electrical engineering supplies</td>
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</table>
The field of control engineering is as broad as the areas of application in which it is employed. What it certainly requires is plenty of experience and know-how. And our engineers and technicians prove time and again, day in day out, that they have what it takes.

We enter into an intensive dialogue with you, the customer, to develop solutions that meet your requirements. From individual switchgear units to highly complex systems, we produce and install a wide variety of switchgear installations to suit your needs, in both individual and serial production, and in compliance with all relevant standards and regulations.

Our portfolio also covers the entire range of automation and control services: from planning the customer-specific hardware and producing the documentation in CAD systems to coding the software and commissioning systems all over the world.

You will have one authorised contact from your initial consultation to your after-sales service. Not only does this make your relationship with us easier, it makes responsibilities clearer and ensures that everything will go smoothly.

One of our strengths is the development of end-to-end solutions. We start with our customers’ requirements and then optimise the entire value chain. We integrate in our internal processes our customers’ processes to deliver better quality, lower prices and faster delivery times. Our approach works, and it shows in the awards we have received and in our longstanding relationships with major corporations.

Moreover, thanks to our industry-spanning expertise in plant and mechanical engineering, e.g. in metal forming, as well as in the plastics, packaging and logistics sectors, we are able to transfer valuable knowledge to each and every of our projects.
THE FULL SPECTRUM OF AUTOMATION TECHNOLOGY.
We start our relationship with an in-depth consultation in which we analyse your requirements and identify areas where we see room for improvement. We then design and configure the technical installations to meet your requirements, always taking costs into account.

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We program controllers for many sectors of industry. Our solutions cover every aspect of automation and are manufacturer-independent. We help you design and build new technical installations and modernise existing ones.

We are system suppliers for a wide range of automation systems (incl. visualisation and drive technology) from Siemens, Schneider Electric, Rockwell, SEW, Danfoss and ABB, to name just a few. We also employ all common bus systems and components, such as PROFINET, PROFIBUS, INTERBUS, AS-Interface, Industrial Ethernet, DeviceNet, ControlNet, and Ethernet/IP.

Once the technical installations are in place, they are commissioned by our specialists. And our partnership with you does not end after commissioning and start-up. We continue to offer a plant maintenance service and will undertake software and hardware modifications as and when those are required for modernising your production processes.

DO YOU ONLY WORK WITH CERTAIN MANUFACTURERS?

WE ARE MANUFACTURER-INDEPENDENT AND WORK WITH ALL MAJOR BRANDS.

WE ADVISE AND WORK TOGETHER WITH YOU, TO FIND THE BEST SOLUTION.

EVERYTHING FROM A SINGLE SOURCE

Blumenbecker provides the full spectrum of automation services – ranging from consulting and development of solutions to software development and extending to switchgear production and commissioning.
We can supply single-source end-to-end solutions because we produce the switchgear ourselves. Since our design and production teams work shoulder to shoulder, design changes can be implemented very quickly, ensuring a high degree of flexibility to the very end of the project phase.

Systematic testing and occasional pre-commissioning ensure our systems will run smoothly and reliably for a long time to come. Blumenbecker switchgear is installed on every continent and has proven to be a solid performer.

We can produce and assemble a wide variety of switchgear in job and series production – from individual switching cabinets to highly complex technical installations in compliance with all relevant standards and regulations (DIN/EN, VDE/ISO, etc.).

We are also used to making custom products for unusual requirements, such as special paints or uncommon cabinet/console formats.

Our well-equipped workshop includes, amongst others, a CNC machining centre and cable processing capability.

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**SWITCHGEAR PRODUCTION:**
**WE SWITCH FASTER - WORLDWIDE.**
Nearly one third of all equipment fires are caused by overheating electrical components. Our thermal imaging tests can provide early identification of heat pockets in your switchgear units – thereby reducing the equipment failure rate by 80%. For you this means:

- Early detection of potential hazards and weak spots
- Increased plant availability
- Avoidance of secondary damages

We install your switchgear along with the electrical wiring and components for your machinery and technical installations, and then perform the commissioning on site. Our experts have performed such projects all over the world.

Once the technical installations are in place, they are commissioned by our specialists. They monitor the start-up process, test availability and optimise processes to quickly integrate the technical installations into the production process. Our services also include shift supervision by our engineers and the training of operators and maintenance personnel.

Our services for installing machines and technical installations:

- Short-circuit and power flow calculations
- Cable sizing and route planning
- Procurement, installation planning, execution and supervision
- EX/II certificates
- Measurements to document:
  - The effectiveness of the protective earth circuits
  - Insulation resistance
  - Short-circuit strength
  - With appropriate measuring reports

Switchgear commissioning with:

- Cold test run, I/O check
- Functional test
- Optimisation of controllers, sensors, etc.
YOUR LINK TO HIGHER PROFITABILITY, GROWTH AND QUALITY.

With our modular B-Connect partner system, we offer you a wide range of service modules, ranging from the assumption of standard tasks in production and series and variant manufacturing all the way to complete business process cooperation.

In addition to production capacity and flexible resources, B-Connect also offers you maximum possible safety and reliability, from planning through to installation. Quality, know-how, a high innovation rate and full use of your improvement potential further contribute to making B-Connect the solution of choice. Last, but not least, B-Connect relieves your management of routine tasks and maximises ROI.

YOUR BENEFITS:
- REDUCTION OF FIXED COSTS AND RISKS
- MORE OPTIONS TO ACT IN THE GLOBAL MARKET PLACE
- RELIEF FROM ROUTINE TASKS
- SERVICE-ORIENTED COOPERATION
- ENHANCED FLEXIBILITY IN RESPONSE TO CHANGES IN CAPACITY UTILISATION

A STRONG NETWORK OF COMPETENT PARTNERS:
- ENGINEERING
- SWITCHGEAR PRODUCTION
- SERVICES
- INDUSTRIAL ASSEMBLY

B-CONNECT

MANUFACTURING CONTRACT:
- BASIC
  - We assume standard tasks in manufacturing and series and variant production (OEM).
- APFM (Automation for Plant + Machinery)
  - We deliver engineering services for automation systems and undertake switchgear production.

SERVICES CONTRACT:
- SERV
  - We carry out a range of services, including purchasing, logistics, programming and documentation.
- GLOBAL
  - We carry out planning, manufacturing and industrial assembly and installation on site, as well as delivering local services for international clients.

BUSINESS PROCESS COOPERATION:
- We take on assignments previously performed in-house, such as consulting, engineering, switchgear production and automation systems, and integrate your workforce into the Blumenbecker process flow.

R&D PROCESS COOPERATION:
- We take over hardware and software engineering, programming, software application and the development of automation and drive concepts – working as an OEM partner to optimise your process parameters and manufacturing costs.

COMBINE OUR MODULES TO OPTIMALLY SUIT YOUR REQUIREMENTS!
highly skilled staff.

In no small measure, the outstanding quality of our products and services is based on the quality of our personnel. That is why we put great emphasis on on-going further training. In addition to supporting external further training for our staff, we provide numerous qualification measures in-house.
Quality is a top priority at Blumenbecker. We are certified to DIN EN ISO 9001:2008 and SCC** and have an in-house continuous improvement process to drive process and interface optimisation.

<table>
<thead>
<tr>
<th>Testing and certifications in our test bay</th>
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<tbody>
<tr>
<td>We don't just certify our quality; we also certify our products and services. Highly skilled personnel in our independent test bay perform tests and inspections in conformity with all major standards and regulations.</td>
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<table>
<thead>
<tr>
<th>UL-certified testing</th>
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<tr>
<td>We manufacture and test products also to UL requirements and are authorised to apply UL labels to our switchgear.</td>
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<th>Electrical engineering supplies</th>
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<tr>
<td>We can supply you directly from the comprehensive stocks held in our own switchgear workshops, and even specialised items can be obtained at very short notice. We can also provide an order picking service for your spare parts requirements.</td>
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<tr>
<th>After-sales service</th>
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<tbody>
<tr>
<td>Even after commissioning your plant and equipment, we are at your service to provide help and advice. Our customers appreciate our fast response, e.g. when spares need to be delivered urgently.</td>
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**OTHER TESTING AND CERTIFICATIONS:**
- Testing to BGV A3 (accident prevention regulations for electrical equipment)
- VDE and DIN
- Testing to UVV (accident prevention regulations)
- State regulations

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<table>
<thead>
<tr>
<th>BRAND ANALYSIS OF THE BLUMENBECKER GROUP</th>
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<tbody>
<tr>
<td><strong>Readyness to recommend</strong></td>
</tr>
<tr>
<td><strong>80.5%</strong></td>
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<table>
<thead>
<tr>
<th><strong>Overall satisfaction</strong></th>
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<tbody>
<tr>
<td><strong>Grade: 2.10</strong></td>
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<td>(on a scale from 1 to 6, 1 being the best)</td>
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**June 2010**

Source: DIM Deutsches Institut für Marketing

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<tr>
<th>QUALITY SERVICE</th>
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<tbody>
<tr>
<td>When it comes to service, highest quality is a matter of course for us. Our longstanding partnership with many customers is proof of this.</td>
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</tbody>
</table>
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 1,000 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 C 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.

«Tailor-made solutions coupled with optimum service. That is Blumenbecker.»

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. Tailor-made solutions coupled with optimum service. That is Blumenbecker.
WE LOOK FORWARD TO YOUR QUESTIONS.