

Automation solutions.

Innovative automation solutions
for the sugar industry.





The BMA Group – Passion for Progress

For machinery, individual process steps or entire factories – BMA has been your partner for over 160 years, in the industrial-scale production and refining of sugar, crystalline fructose and dextrose.

BMA are well known in the global sugar industry as a pioneer of technical development and for their commitment and reliability. Solutions from BMA combine technological expertise from all specialist fields of the BMA Group to create the optimum system.

The scope is determined by you.



Automation solutions from BMA for more plant efficiency in sugar factories, worldwide.

From an initial consultation and project design, to engineering, the development of hardware and software solutions and commissioning, to continued assistance during production: BMA delivers comprehensive automation solutions including a lifetime service for the sugar and food industries.

Expert knowledge for a clear advantage

We know all processes in sugar production to the last detail. Which is why customers around the globe place their trust in us when it comes to optimising an existing plant or choosing efficient machinery and equipment for a new plant. Like no other company, BMA adds its broad expert knowledge of automation to sound process experience gained in more than 160 years of plant engineering. This unique combination makes us a skilled and experienced partner for complex automation projects worldwide. Whatever the task – automation modules for single plants, or custom process control systems for individual production lines or whole factories – we ensure perfect interaction between all components and maximum plant efficiency.

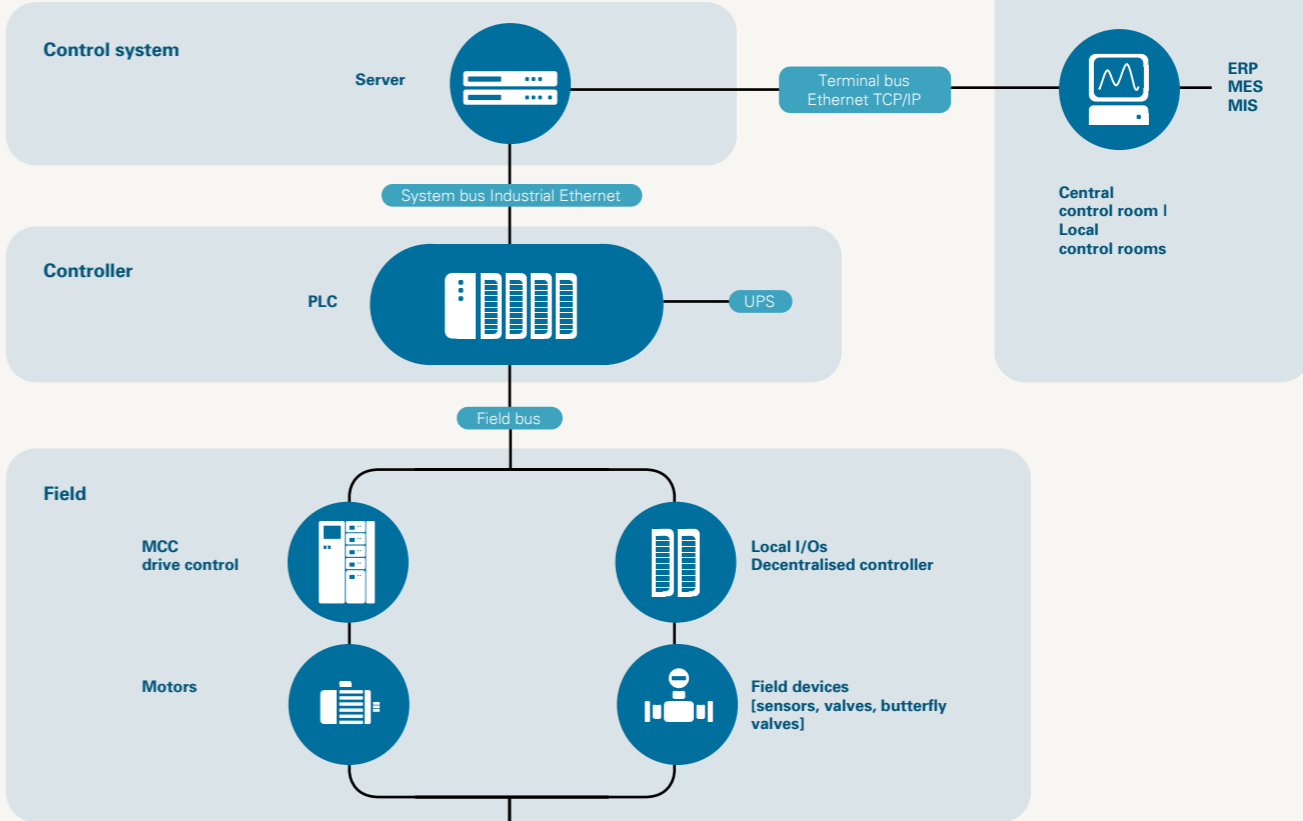
Engineering made in Germany – available worldwide

Solutions from BMA are in use around the globe. We provide first-class support to our international customers, wherever they may be, with the help of the BMA subsidiaries and representatives. Or even by remote access. Whether you are interested in plant optimisation, upgrades or extensions, or if you have a question about ongoing operations, our local partners will help you at all times. No red tape, quick answers, plus the technical expertise that BMA is known and valued.

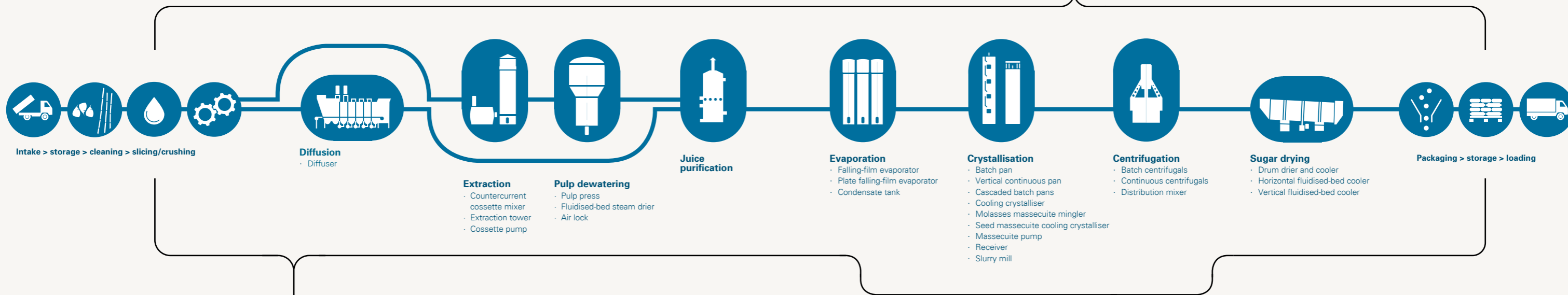
From raw materials to white sugar.

Controls, automation and energy supply for the whole sugar process.

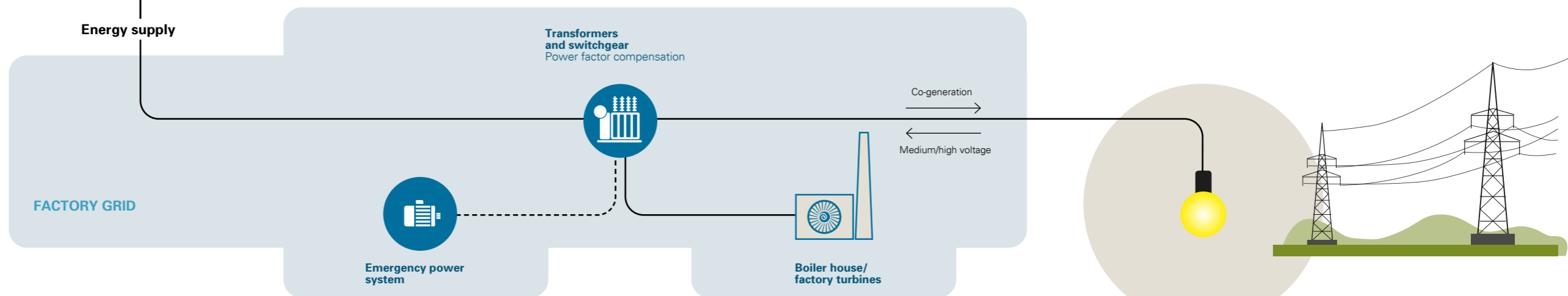
AUTOMATION

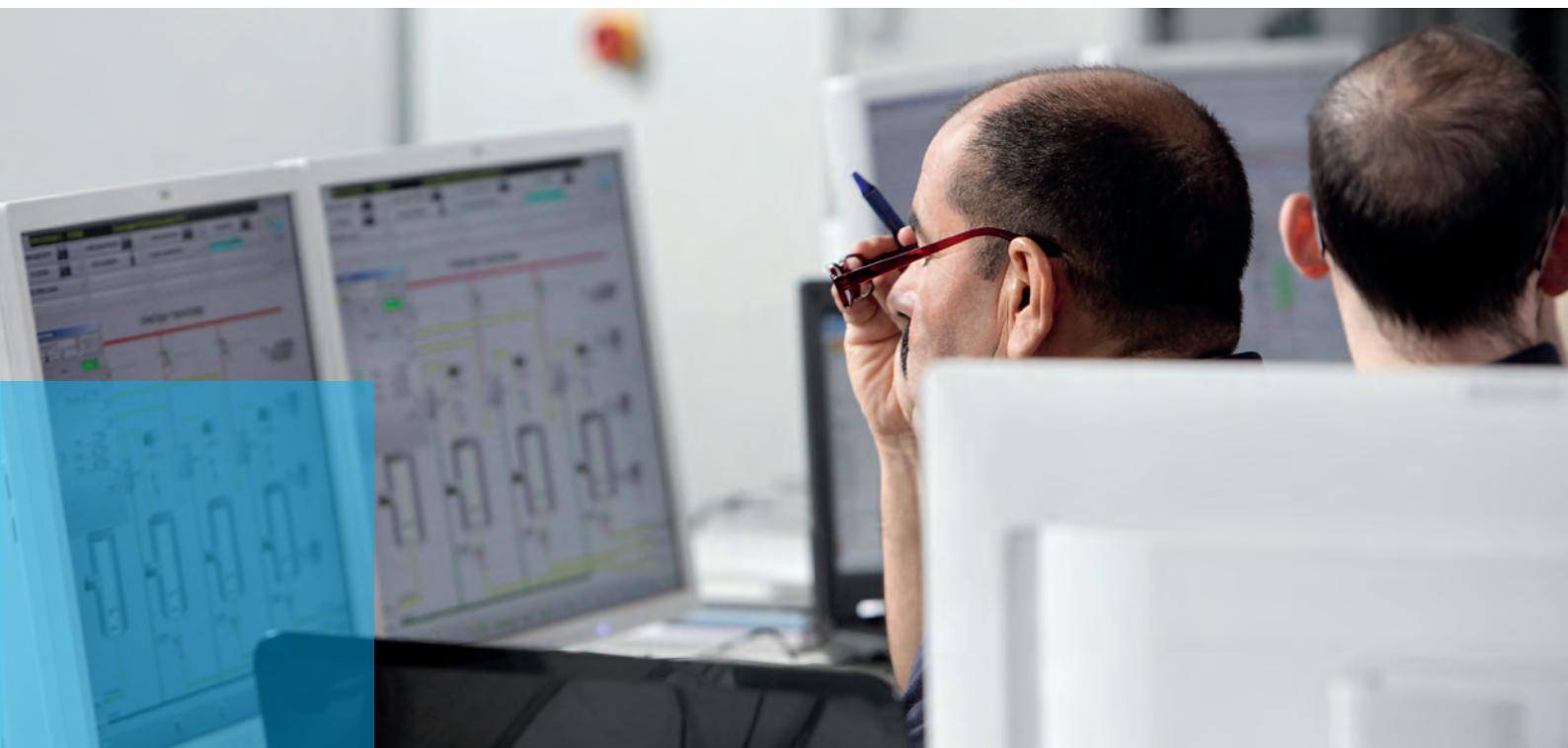


PROCESS



Energy supply





Our engineering services comprise a range of fields

Only when an automation concept has been well thought out, can implementation get underway. Which is why planning includes gathering expert knowledge from all relevant fields and integrating it into the process as a whole. Our engineering tools let us bundle and synchronise data from all project fields (such as process, mechanical and electrical engineering, hydraulics, pneumatics, etc.). With speedy exchanges and smooth workflows on an integrated engineering platform, we can design integrated complete solutions that are perfectly tailored to each customer's specific requirements.

Basic engineering

As part of our C&I basic engineering, we specify and configure the electrical field devices based on a P&ID. This step also comprises enclosure planning including 3D layout planning. The result: complete equipment specifications.

Detailed engineering for hardware and software

What components are required for construction? How can they best be connected? As part of detailed engineering, we handle all implementation planning for your plant's electrical and control systems. What sets us apart from others: as plant engineers with more than 160 years of experience, we know the sugar process inside out, including what needs to be controlled and where.

As part of software engineering, we design automation functions, customising the BMA software functional modules. PLC/SCADA-based automation solutions or process control systems for a whole factory are the result. Our automated and monitored solutions are fully integrated from the field level up to the point of data transfer to MES and ERP systems.

From the first consultation to the finishing touches. Our services at a glance.



Electrical & automation systems

BMA offers its customers a complete range of services, from the initial concept and planning, to production and programming, and finally to the installation of energy, measurement, control and automation systems.



Consulting
& engineering

Manufacturing
& assembly

Installation
& commissioning

After-sales
service

Electrical & automation systems

Automation modules for the sugar industry.

BMA is the preferred supplier of modules and systems for the automation and electrification of plants, machinery and equipment for sugar production.

Perfectly matching components

In our workshops, we build complete enclosures according to planning specifications, both for series and one-off production. We use our own sensors for sugar industry-specific applications, as well as sourcing the necessary field devices for instrumentation from well-known manufacturers and long-term BMA partners. This allows us to deliver to our customers integrated, manufacturer-independent system solutions that perfectly match your requirements. We manufacture all our products to international standards (DIN, EN, ISO) or to comply with any national standards you require.

Application testing for confidence

To find out whether a plant is running smoothly and meets all requirements of use in practice, even before installation, virtual operation lets us together simulate real-life production scenarios, visualise process access options, or test alert functions. This helps operators get to know their new plants better and gain an idea of the full integration and error-free control of new process steps. Further customisation is then possible well before commissioning, saving considerable time and costs in this phase.

Our range of supplies

Controls

- Stand-alone HMI operator panels
- Client-server HMI systems for individual process steps
- Client-server process control systems for a whole factory
- Motor control center (MCC)
- Remote I/O cabinets
- Controls switchgear

Instruments & Equipment

- Sensors, valves and butterfly valves
- Motors
- CCTV systems

BMA sensor systems

- DynFAS MW
- DynFAS FS

Energy supply

- Medium-voltage distribution
- MV/LV transformers
- Low-voltage distribution
- Power factor compensation



Consulting
& engineering

Manufacturing
& assembly

Installation
& commissioning

After-sales
service

Electrical & automation systems

Until everything is running smoothly. Services directly on site.

Complex automation solutions do not self-assemble. And very often, the devil is in the detail. We'll be there for you, right through commissioning.

Installation and commissioning: all working as desired

Only when you report that result are we satisfied. Our engineers will gladly install and commission your plants as swiftly as possible. But if you prefer to install them yourself, you can, of course – relying on our technical assistance whenever you need it.

Whichever option you take, the I/O check of the installed automation solution will show whether everything is in working order. It is followed first by cold commissioning (without the process product) and then hot commissioning (with the product) of all functions to ensure a smooth

start of production. At this stage, you can count once more on all our expertise and knowledge. With your SAT (site acceptance test), you confirm that the agreed performance level is met.

As-built documentation

When everything is running smoothly, we prepare the final documentation for the electrical equipment and automation system (hardware and software) as it is handed over to the customer.

Always on the move for you: the BMA Service teams.

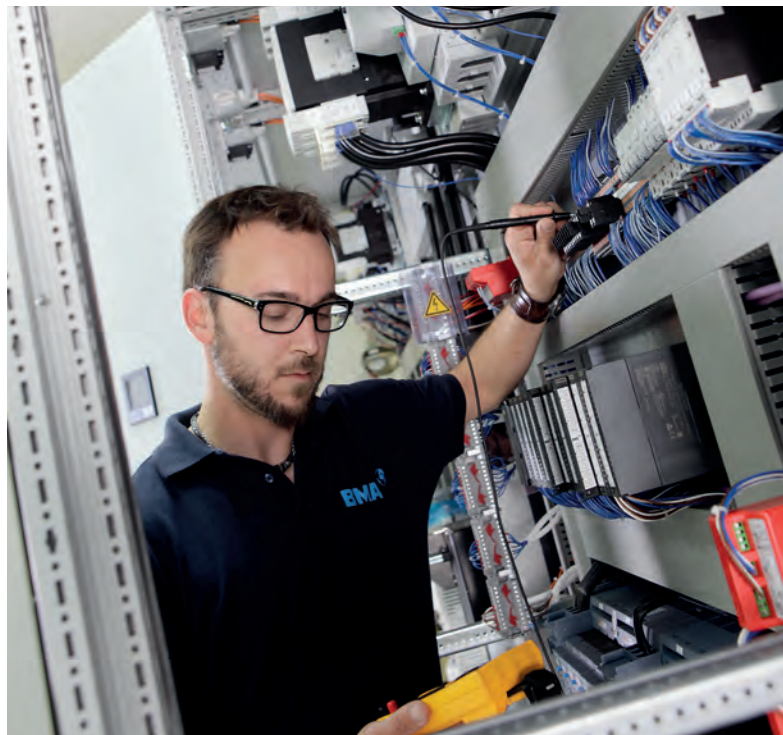
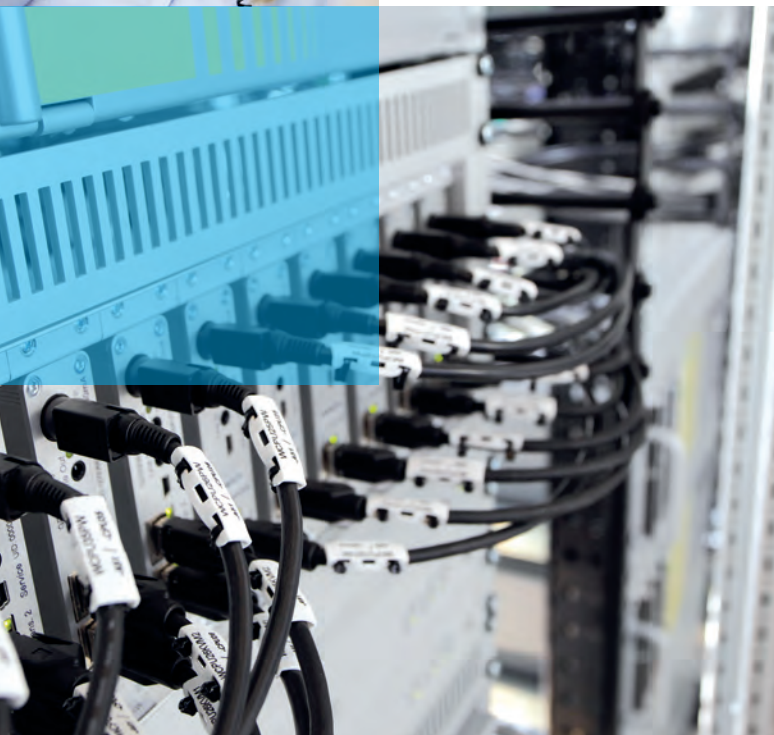


Spare parts: OEM and high availability

BMA systems are known around the globe for their superior quality and durability. But wear and tear leave their mark even on the best electrical system components. Which is why, to us, the reliable worldwide supply with OEM parts is so important. Thanks to our OEM-quality mechanical and electrical parts, your equipment will continue to function perfectly, so production can run at a consistently high level. Around the globe, we do our utmost to ensure smooth logistics and reduce procurement times to a minimum.

Upgrades: up to date throughout the life cycle of your plant

We have been developing BMA product solutions and services that are geared to customer requirements for many years. With regular upgrades, we can considerably improve the performance and efficiency of your existing plants, bringing them up to date to meet the latest production standards. Changed safety requirements are implemented quickly and efficiently. We will also be delighted to help you improve the energy efficiency of individual plant sections, or whole process steps and even factories. An ROI calculation documenting the potential benefit for you is prepared in advance.



Maintenance and repair services: available around the clock

Should you have any plant-related questions during operation or disruptions in production, simply contact one of our experts. We will handle all urgent questions and deploy our most experienced technicians to deal with your problems, around the clock. Whenever possible, we will correct faults in your plants by immediately remote access.

Scheduled regular maintenance provides the best protection from disruptions in production and the resulting losses. We would be delighted to put together an attractive maintenance package that is tailored to your requirements.

Training: how to...

With any automation solution, however well and fully documented, you will not find answers to all your questions. Which is why we offer tailor-made training units for your machine operators and maintenance teams, to ensure your plant runs smoothly.

They are taught by experienced experts sharing both theoretical knowledge and their own practical skills.

BMA AG
Phone +49 531 804-0
sales@bma-de.com

BMA China
Phone +86 771 555 1347
sales@bma-cn.com

BMA MENA Industries
Phone +216 70 245 974
info@bma-mena.com

BMA America
Phone +1 970 351 0878
info@bma-us.com

BMA France
sales@bma-fr.com

BMA Russia
Phone +7 473 260 69 91
info@bma-ru.com

BMA – Passion for Progress

For over 160 years, BMA has been developing and manufacturing machinery and equipment for industrial-scale sugar production. BMA system solutions for sugar factories and refineries are in demand wherever minimum energy consumption and consistently high product quality are top priorities. With a workforce around the globe and in-depth knowledge of process engineering, BMA has an exceptional service profile in the sugar industry.



© BMA

BMA Braunschweigische
Maschinenbauanstalt AG
Postfach 32 25
38022 Braunschweig
Germany

+49 531 804-0

sales@bma-de.com

www.bma-worldwide.com