

**BMA Assistance.
Always on the move.**

Service solutions from a single source.



The BMA Group – a passion for progress

For machinery, individual process steps or entire factories – whenever it comes to the industrial-scale production and refining of sugar, crystalline fructose and dextrose, BMA is your contact.

What we can offer you: advanced solutions and sustainable personal commitment throughout the process chain, ranging from planning and consulting to engineering and project management, to plant construction and automation, and to maintenance, advanced development and training. BMA is well known in the industry around the globe as a model of value creation, commitment and reliability.





BMA Assistance – service throughout the life cycle of your plant.

Existing plants or new investments, mechanical parts or automation, maintenance, modifications, parts service or staff training – whatever it is you need, BMA Assistance will ensure that your plants are running smoothly.

Working globally for your success

As the BMA Group's customer service division, we are dedicated service enthusiasts with a clear goal: enhancing the reliability and efficiency of your plants – at all times and throughout their life cycle. Our range of expertise extends across the entire portfolio of the BMA Group, including automation hardware and software.

Experts from BMA Assistance are deployed at BMA sites across the globe. How you benefit: wherever you may need our assistance, there will be a highly qualified BMA service technician near you! And should there ever be a local shortage, we can easily fall back on staff at one of our sites in Europe, Asia, Russia, Africa or the Americas.

On hand in critical situations

An emergency requires immediate assistance. Which is why simple and reliable communication is vital, particularly in a global network.

At BMA Assistance, this is achieved partly with standardised ERP and after-sales management systems: they ensure a smooth information flow and shorter response times, as well as providing an overview of stocks throughout the Group. This prevents any unpleasant surprises whenever an unexpected request or an urgent parts order comes in. You can find the number of our 24/7 service hotline on the back of this brochure.

Only delighted customers make us happy.



Much can happen throughout the service life of a plant. Machinery and equipment are constantly changing. With our all-round service programme, you can be sure that your investment will turn into a success story.

With you from the first bolt

Good service starts well before the first problem arises. We make sure from the outset that problems are less likely to happen.

Because of their size, BMA machinery and equipment can't always be shipped fully assembled. Which is where BMA Assistance steps in, helping you with the installation. Our experts will develop a comprehensive assembly engineering package and provide assembly supervision based on our strict guidelines. So there are no obstacles to successful acceptance.

Once installation is complete, we will assist you during commissioning, ensuring that your employees receive a detailed introduction to the operation of the systems.

In additional BMA Academy courses taught by our experts, your employees will gain valuable process knowledge well beyond mere operation. Such additional knowledge is essential, particularly in view of the increasing importance of control and automation systems. You can find more information about BMA Academy in the section "Success through knowledge".

Worth keeping an eye on

A plant that is installed and regularly serviced by experts will score not only with higher productivity and better product quality. Additional benefits include a longer service life and longer investment intervals. Which is why it makes sense to invest in a well-thought out service concept right from the start.

We can offer you flexible service contracts that are tailored to your requirements, giving you the necessary security, precisely calculated costs, and the service you need when you need it.



Services and service packages

| | Blue service package | Silver service package | Gold service package | Bespoke services |
|--|----------------------|------------------------|----------------------|------------------|
| <ul style="list-style-type: none"> • Inspections • Maintenance • Repairs • Parts service • Emergency service • Extended warranty | ✓ | ✓ | ✓ | |
| <ul style="list-style-type: none"> • Modifications • Software updates • Assembly • Commissioning • Training | | | | ✓ |

You handle production –
we handle the rest.





Customer focus for us means reliability and availability

To ensure maximum availability of machinery and plants, we offer our customers bespoke service contracts. Here is an example of what such an agreement could look like:

Together with one of our customers, we developed a comprehensive maintenance schedule to cover regular maintenance and unscheduled repairs of his 130 centrifugals at eight sites. Today (as at 2015) four of our highly trained service technicians look after our customer's plants on site.

They carry out regular inspections based on checklists, prepare detailed status reports for each machine, and make recommendations regarding repairs, necessary replacement parts, or modifications. All required repairs are then carried out by experts from BMA Assistance and billed separately.

Our customer is more than delighted with this service and makes good use of it. This has quickly resulted in a noticeable improvement of machine availability in all participating factories.

A second life for your equipment

The challenge: Some years ago, one of our customers closed down one of his older sugar factories as scheduled. But the extraction tower from BMA that formed part of this plant was only 21 years old and thus hardly ready for retirement.

The solution: We disassembled the tower and moved it to another sugar factory. As a typical service by BMA Assistance, we used the opportunity to update this plant technically: we replaced the complete drive with an up-to-date version and renewed the entire automation system.

In addition to these necessary upgrades, we suggested to our customer a capacity extension, which could easily be implemented as part of the conversion. With specific modifications, particularly a tower extension, we were able to increase nominal capacity by 15 % while considerably lowering energy consumption and CO₂ emissions.

One month after commissioning of the electrical system, the process technology for the complete extraction plant was commissioned. Its nominal capacity was reached after only a short time.





Superior quality: original BMA parts

BMA machinery and equipment are known around the globe for their superior quality and durability. But natural wear and tear leave their mark even on the best plants. Which is why, to us, the reliable worldwide supply with original BMA parts is so important. Thanks to our OEM-quality mechanical and electronic parts, your equipment will continue to function perfectly, so production can run at a consistently high level.

At many sites around the globe, we stock around 10,000 BMA parts at all times. Thanks to our sophisticated logistics and parts warehouses located in Germany, Russia, the United States, and as far afield as China, Brazil or Tunisia, you can be sure of rapid deliveries, wherever your factory may be.



BMA Academy – success through knowledge.

Putting practical experience to practical use

A good plant needs good personnel. As part of the BMA Academy programme, we offer a wide range of courses addressing the topics sugar production, BMA equipment and BMA process components. They are taught by experienced BMA experts presenting theoretical background knowledge, which is then expanded in hands-on training units.

Each of our training programmes is tailor-made for your employees and their various levels of knowledge. Those

new to the field can start with the different stages of sugar production, while others with more advanced knowledge will focus on the operation of our machinery and equipment. Experienced participants can learn about troubleshooting and optimising production.

Your highly trained staff will then be able to ensure the continued efficient use of your plant. As an extra bonus, in addition to increased productivity and competitiveness, you will also have happier employees!

Becoming an expert, step by step

| LEVEL 1 | LEVEL 2 | LEVEL 3 |
|--|---|---|
| <p>For those with little prior knowledge</p> <p>Gives participants an overview of the whole sugar process. These courses address the basic principles of individual process steps such as extraction or diffusion, energy management or different factory concepts.</p> | <p>For those with prior knowledge</p> <p>Gives participants precise details of the functioning and operation of BMA equipment.</p> | <p>For those with experience</p> <p>Gives participants in-depth, detailed knowledge of BMA equipment and processes, enabling them to independently monitor processes and solve problems as they arise.</p> |



BMA Academy

Telephone +49 531 804-366
Fax +49 531 804-216
academy@bma-de.com

BMA America

Telephone +1 970 351 0878
Fax +1 970 351 0190
service@bma-us.com

BMA Automation

Telephone +49 531 804-240
Fax +49 531 804-269
automation@bma-de.com

BMA Brazil

Telephone +55 11 3097 9328
Fax +55 11 3032 2386
info@bma-br.com

BMA China

Telephone +86 871 6832 5226
Fax +86 871 6832 6329
sales@bma-cn.com

BMA MENA Industries

Telephone/Fax +216 71 181 823
assistance@bma-mena.com

BMA Russia

Telephone/Fax +7 473 260 6991
assistance@bma-ru.com

To restart your BMA plant in the event of unscheduled downtimes, what you want is expert assistance. Whether it is parts you need or a service technician – you can rely on our global service network, 24 hours a day, 365 days a year.

Simply call the BMA **emergency hotline** on **+49 531 804 666**.

**© BMA Assistance**

Postfach 32 25
38022 Braunschweig
Germany
Telephone +49 531 804-370
Fax +49 531 804-216
assistance@bma-de.com

www.bma-worldwide.com