

What and who is BMA Engineering?



BMA's engineering department (TPE) has increasingly made its mark in recent years. BMA's customers are not the only ones to rely on the competence of the engineering staff during the process design phases of their projects. Internally, other BMA departments also turn to the TPE engineers when seeking support in process engineering and sugar technology matters. The specialisations of the members of the engineering team highlight the wide range of technical aspects the department deals with.

Planning is the first thing that comes to mind in connection with engineering work. For the required engineering services at the different process design stages, BMA has been relying on the expertise of a highly competent team of experts for many years. With our focus on new production plants, the extension and optimisation of existing plants, in particular for the production and processing of sugar (such as in beet sugar factories, sugar refineries, cane sugar factories), or starch sugar production, we have very successfully handled a large number of orders.

BMA assists its customers with engineering services through all the stages of a project: from the original idea until the plant is ready for operation. This includes a first analysis that serves as a basis for developing possible concepts for an existing or a new plant, accounting for all the basic conditions and proposing alternative options; the

basic engineering phase, during which a concept is prepared that enables the customer to organise the steps involved in plant construction (enquiries for equipment, provision of a site, staff planning, supply and disposal requirements, obtaining the necessary permits); and the detailed engineering phase, where a document is prepared that customers can use to actually build their plant. These services are primarily provided when BMA equipment is installed.

In addition, the TPE staff provide support for the commissioning of BMA equipment and the necessary performance runs. Consulting services for various problems of plant operation also form part of the service portfolio. As a special option, the engineering staff are available as instructors for in-company training or for seminars organised for a wider target group; these events at the same time provide an excellent platform for an exchange of experience.

TPE made a significant contribution to the success of various large-scale projects, on which we reported in previous BMA Information brochures. Examples are the construction of the Liuxing refinery in China; the extension of beet sugar factory capacities and the capacity of the Cosumar sugar refinery in Morocco; the construction of the NKF refinery in Iran; the construction and extension of beet sugar factories in Egypt; the extension of the Mostorod maize starch factory, also in Egypt;

and the integration of a fluidised-bed drying plant for beet pulp in the Cumra sugar factory in Turkey.

Some of TPE's less publicised services are the consulting services and studies that document the outcome of successful discussions with experts from BMA and accompany the strategic decisions of BMA's customers. The following list of issues should convey some idea of the wide range of technical problems the engineering department deals with:

- Optimisation of energy utilisation in sugar production, in particular optimised steam utilisation (heat management)
- Optimisation of evaporation plants and evaporator operation
- Selected liquor clarification and decolouration systems
- Assessment of options available at individual stations for enhancing the capacity of sugar factories
- Feasibility study for the installation of continuous white-sugar crystallisation plants
- Analysis and assessment of the energy savings potential in potato processing plants
- Optimisation of beet, cane and starch sugar crystallisation

With a very broad range of specialised knowledge and experience, the team, which mainly consists of engineers, is able to reliably handle an equally broad range of engineering tasks.

The engineering team works very closely together with other technical BMA departments (project management, design, drying technology). Other collaboration partners include the BMA Automation staff, whenever C&I or electrical

engineering problems have to be solved; the BMA colleagues in the Netherlands in connection with potato processing projects; BMA MENA, BMA China and BMA America. Tools the engineering staff has at its disposal are a CAE system for efficient process documentation and EDP equipment with specialised computation elements.

True to the "Passion for Progress" vision, BMA Engineering makes a very valuable contribution to BMA's high standards of quality and reliability of equipment as well as service. Some of the members of BMA's staff are also members of the Verein deutscher Zuckertechniker (the German Association of Sugar Technologists), thus showing their personal commitment to progress, in particular in the field of sugar technology.

*Dr Andreas Lehnberger
Thomas Fischer*

Benefits

- Process engineering know-how as a basis for innovative capacity
- Efficient use of equipment
- Planning services from one single source
- High-quality planning
- Broad-based expert consulting services