

# BMA to play a key role in the construction of the new BELKAS II production line in Egypt



*Main process building of the BELKAS sugar factory*

The Dakahlia sugar factory, known as BELKAS, was the first beet sugar factory in Egypt. It was built as part of a successful cooperation between BMA and SIIC, now known as ESIIC. Two years ago, this factory was extended with help from BMA and today it processes 10,000 t/d of beet.

Following the extension of the first phase, a second beet processing line, BELKAS II, is now to be constructed with a processing capacity of 10,000 t/d of beet. The sugar factory concept allows for the processing of sugar beets into white sugar as well as the refining of imported raw sugar. This mode of operation is already being applied in all modern Egyptian beet sugar factories.

The Egyptian sugar industry has a long tradition. Although both raw materials, cane and beet, are cultivated and processed into sugar, the last factories were built for processing beet. With the new BELKAS II sugar factory to be constructed next to the first processing line on the same premises, this trend continues. It is worth mentioning that the Egyptian sugar industry is

a dynamic one that contributes to economic development across regions. At the same time, it is growing in importance in the Arabian sugar industry.

BELKAS I and II are located in an area that has been further developed to increase cultivation capacity. For the first processing line, Dakahlia has already extended beet cultivation to include more areas in order to secure its supply of raw materials. This has been its key to success.

ESIIC will not only assign sugar experts for the project team, but also locally manufacture a considerable amount of the equipment. BMA and ESIIC are able to look back on many years of successful cooperation having set up several sugar factories together such as Fayoum, Belkas and Delta.

BMA's scope of supply comprises the core components made in Germany and documentation for local manufacture in Egypt; this follows the pattern of previous projects implemented jointly with ESIIC. BMA's scope includes:

- Basic and detailed engineering for the main process with a processing capacity of 10,000 t/d of beet. This engineering sets the course for BMA for a new generation of beet sugar factories in Egypt.
- Extraction plant consisting of a countercurrent cossette mixer and an extraction tower, the pulp pumps as well as the complete measuring, instrumentation and control system for the plant. This system will be designed and supplied by BMA Schaltanlagen.
- Juice purification station and evaporator station: BMA will supply the engineering services as well as components and manufacturing drawings of the evaporator station.
- Sugar house – will be planned and designed entirely by BMA. In addition to basic and detailed engineering, the components and manufacturing drawings will be supplied.
- Sugar drying/cooling: for this station, the tried and tested combination of a drying drum and a fluidised-bed cooler with integrated cooling elements will be supplied. The placing of both aggregates together with optimised air flow volumes and their circulation within the plant allow the sugar produced to be well dried and cooled with minimum energy consumption.
- Personnel assignment for quality monitoring of local manufacture, supervision of construction of BMA-supplied core components and the supplementary components manufactured locally, test runs, commissioning and the verification of the technological performance data.

To select the processes and the related equipment, the state-of-the-art technology concepts applied in Egypt so far have been supplemented by new ideas for the evaporator station and the sugar drying/cooling station. The scope of BMA supplies listed above demonstrates that the BELKAS II factory will be built in accordance with the latest technical and technological findings and correspond to international standards regarding processing and economic efficiency.

The factory will therefore set new standards for the future development of the Egyptian sugar industry, both in terms of the concept (beet + refinery) and its high capacity of 10,000 t/d.

BELKAS has selected an experienced team to manage and organise the project. Project management is performed to a very high standard, which greatly contributes to the success of the project. BMA is proud of its continuing successful cooperation with its Egyptian partners Dakahlia and ESIC and is glad to support them with help and advice. Commissioning of the factory is scheduled for the 2010 campaign.

*Dr. Mohsen Makina*



*Visit to BMA's manufacturing shops:*

*Mr. Mohamed Abdelkader,*

*Chairman Dakahlia (right)*

*with Dr. Mohsen Makina*