

# Diffuser projects for the Beles 1 and Beles 2 sugar factories in Ethiopia



*Lunch break during a project meeting with*

*ELMES GROUPS*

In April 2012, BMA received an order from the Metals and Engineering Corporation for the supply of the diffuser stations destined for the two new Ethiopian cane sugar factories to be built, Beles 1 and Beles 2.

The factories will be located about 600 km from Addis Ababa in the Northwest of Ethiopia and are designed to have a nominal capacity of 12,000 tcd. The design of the diffusers and the peripheral equipment is based on the basic and detailed engineering completed by BMA at the end of 2012, which comprised the following:

- List of equipment and specifications
- Mass and heat balances
- Piping & instrumentation diagrams
- Layout drawing and load plan
- Process description
- Piping plan
- Electrical and measuring & instrumentation basic engineering

The main dimensions of the diffuser are:

- Length                approx. 59.00 m
- Width                approx. 14.00 m
- Height                approx. 10.50 m

BMA will prepare specifications and shop drawings for the plant components and equipment to be provided locally, and will supply the following key components: loosening screws for the megasse inside the diffuser, the block chain for conveying the megasse including reversing shaft and idler rollers, two complete drive shafts with bearings and drive units consisting of gearbox and gear motor, as well as the rotary screens for raw juice, two process control systems, and the complete measuring and control instruments with switchgear cabinets for electrical equipment.

As part of BMA's services, about 300 shop drawings including parts lists were completed and supplied on schedule for local manufacture. In addition, BMA specialists will supervise assembly and provide continuous quality assurance for the locally manufactured components.

The last BMA-made key components are scheduled for shipment in mid-2013, while commissioning of the plants is envisaged for 2013 / 2014.

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