

# Moorhead extraction plant under construction

*Arrival of the individual  
deliveries on site at  
Moorhead*



At present, BMA is building a new extraction plant on the basis of the proven "Tower 2000" extraction concept. This plant for the Moorhead sugar factory of American Crystal Sugar in Minnesota, in the Midwest of the USA, will comprise an extraction tower, countercurrent cossette mixer (CCC mixer), defoamer, sand separator, and a rake classifier. Commissioning is scheduled for the beginning of the 2011/2012 beet campaign.

The new tower will replace the old "Silver Slope" extraction, in its place, the new CCC mixer (5.2 m x 8.0 m) has been erected within the building. For this purpose, the components were lifted over the 25 m roof into the building and mounted on the existing foundation.

The new extraction tower (8.2 m x 20.03 m) was designed for a nominal beet slice rate of 6,600 sh/d (~ 5,990 t/d) and a campaign period of up to 270 days. During the campaign, frosted beets with temperatures of down to 10 °F (-12 °C) are processed for much of the time.

This is the first Tower 2000 with the dimensions 8.2 m x 20.03 m. Its screen section, conveying

flights and stops were manufactured in massive stainless steel, and the inner wall and conveying shaft are clad with stainless steel. The majority of components such as tubular shaft courses, sections, housings and platforms were manufactured in the USA, at Brewer Steel in Greeley, Colorado, with personnel support from Braunschweig.

In addition to the new deliveries described, various services such as the supervision of manufacture and coordination of assembly were performed under the direction of BMA specialists. The extremely low outdoor temperatures and the long winters with temperatures of down to -40 °F represent a special challenge for the manufacture and assembly of the components. Specific measures ensure continuous manufacture and assembly in order to keep to the commissioning date. Another factor that has been decisive for the smooth progress on site is the excellent cooperation between ACSC, the assembly companies, Brewer Steel and BMA.

After commissioning, the factory personnel will be trained by BMA experts during operation.

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