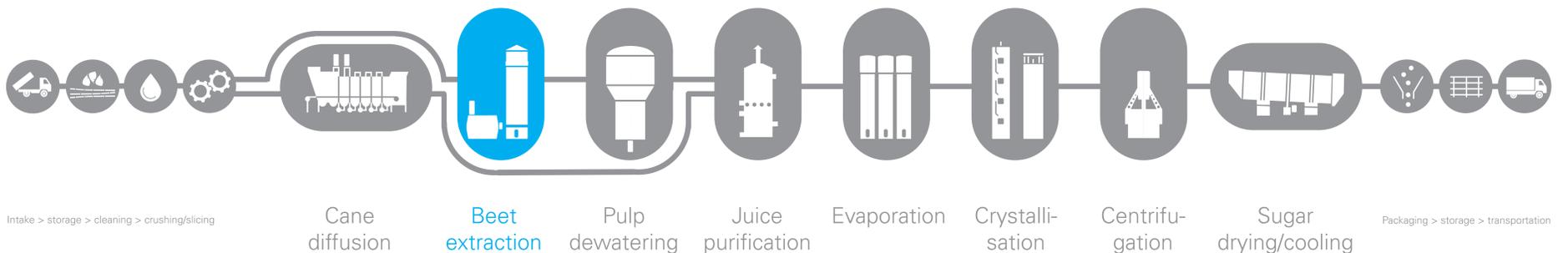




Extraction plants



Intake > storage > cleaning > crushing/slicing

Cane diffusion

Beet extraction

Pulp dewatering

Juice purification

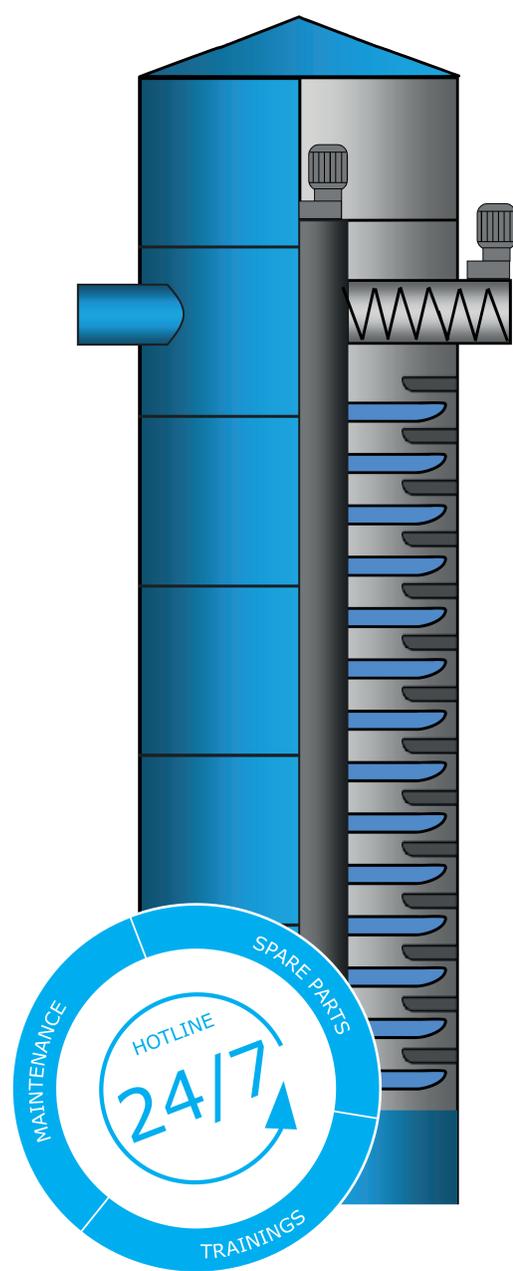
Evaporation

Crystallisation

Centrifugation

Sugar drying/cooling

Packaging > storage > transportation



Principle of operation

Continuous extraction plants from BMA are used to extract sugar from beet cossettes. The cossettes pass through a countercurrent cossette mixer and extraction tower, producing low-temperature, high-purity raw juice with a high dry substance content. With sterile operation in an airtight environment, infections and the resulting sugar losses are minimised. A beet extraction plant from BMA has two main components for different process tasks:

- A countercurrent cossette mixer, for thermal cell disruption, heat exchange between the cossettes and the juice, and defoaming.
- An extraction tower, for the solid/liquid extraction of sucrose from beet cossette cells using the countercurrent principle. One major design feature is the discharge of draught juice exclusively via lateral screens.
- Highly accurate temperature control and adjustable cossette packing density in the countercurrent cossette mixer and extraction tower permit optimum cell disruption.

Benefits

-  **Variable throughput**
The throughput can vary between 70 and 120 % of the nominal capacity.
-  **Primary energy**
Secondary heat is used to heat the juice during purification.
-  **Raw juice draught**
Low sugar losses even with small draught volumes up to 100 % o.b. .
-  **Risk of infection**
Fewer infections thanks to improved design without dead spaces.
-  **Easy to operate**
Sequential start-up of all subprocesses with an automatic start-up system.
-  **Wear and tear**
Torque control for synchronised running of the multiple drives.

up to **99%** EXTRACTION WITH PLANTS FROM BMA.

Technical data

Beet processing [t/d]	3,000 to 17,000
Extraction tower ø [m]	6.5 to 13.6
Extraction length [m]	17.93 to 25.43
CCC mixer ø [m]	3.5 to 9.0

Reference extract

Customer	Year	Capacity [t/d BP]	Tower ø x length [m]
Al Sharkiya	2016	12,000	13.6 x 20.43
3 x Belarus	2012/13	3 x 10,000	9.6 x 22.73
Dakahlia	2008	10,000	10.6 x 22.83
Cumra	2003	10,000	10.6 x 22.83

More information



<https://www.bma-worldwide.com/extraction-plants-for-sugar-beet-factories.html>



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