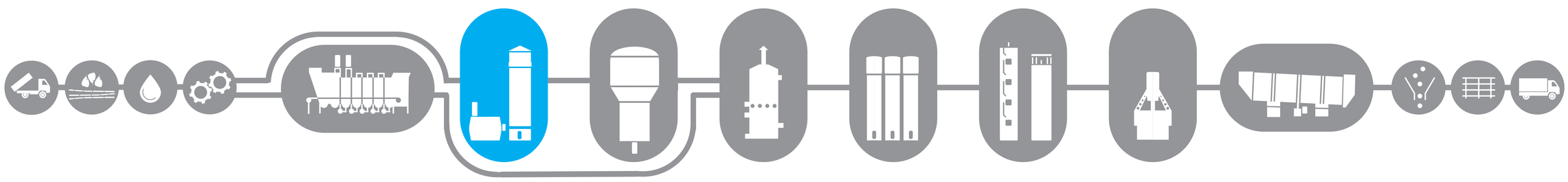
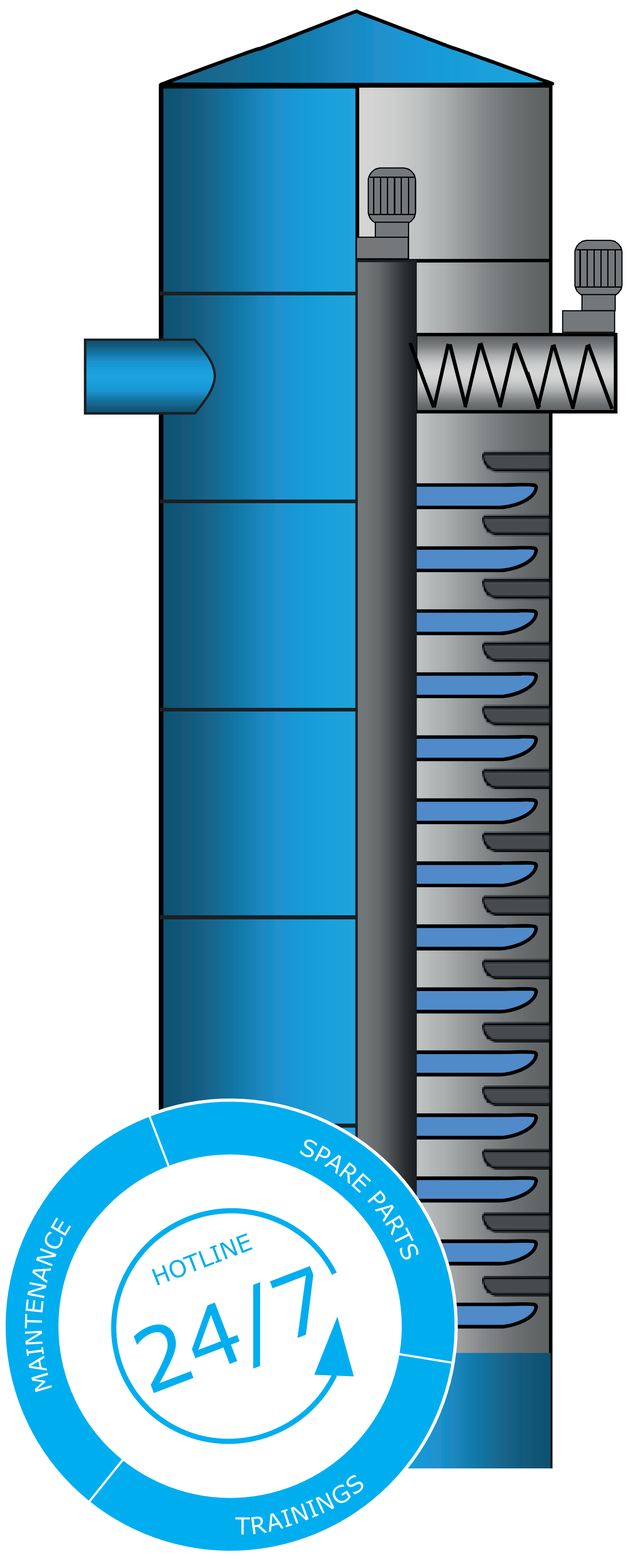
Area of application

BMA

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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