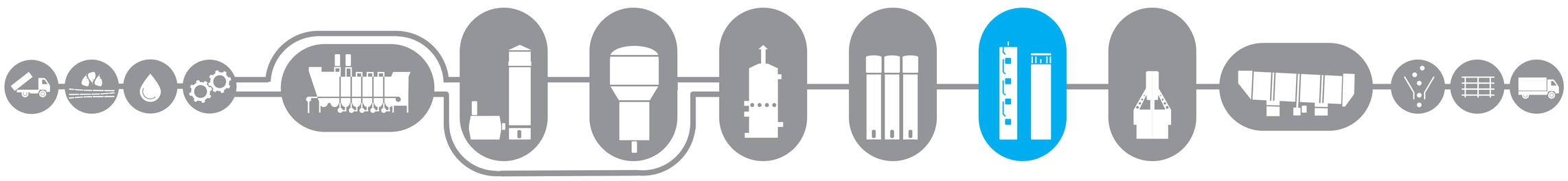
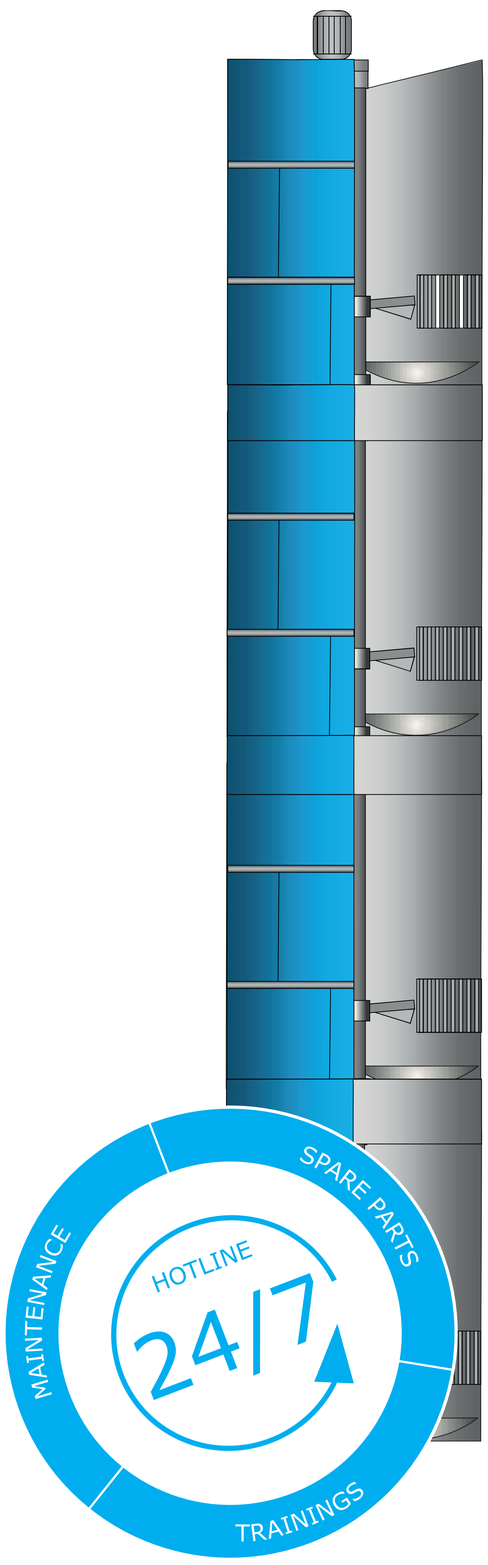
Area of application

BMA

Vertical vacuum pan (VKT)



Intake > storage > cleaning > crushing/slicing | Cane diffusion | Beet extraction | Pulp dewatering | Juice purification | Evaporation | Crystalli-sation | Centrifu-gation | Sugar drying/cooling | Packaging > storage > transportation



Principle of operation

The continuous vertical vacuum pan from BMA comprises vertically stacked crystallisation chambers, creating a cascade of vessels with agitators. Gravity dictates that the massecuite flow must pass through these chambers from top to bottom.

Each chamber features a mechanical agitator and a double-cone bottom, as this combination has been shown to optimise circulation of the massecuite. A low massecuite level and the related low hydrostatic pressure of the massecuite column permit the use of very low-pressure heating steam. Depending on the upstream evaporation plant, operation with vapour from the third or fourth effect is possible.

Automation of the process ensures optimum operation. The DynFAS MW sensor from BMA is used in process monitoring to measure the solids content. Process disruptions are mostly handled automatically, and start-up, shut-down and cleaning processes receive perfect support.

Benefits

Heating steam
Thanks to optimised circulation of the massecuite and a low boiling point, only low-pressure heating steam is required.

Increasing capacity
Capacity can be increased simply by retrofitting another chamber.

Process continuity
Continuous crystallisation process with low massecuite levels. Even tapping and discharge of the process media.

Availability
Thanks to a bypass system, the massecuite flow can be directed around a chamber during cleaning, so production need not be interrupted.

0.5-1.0 bar* STEAM PRESSURE REQUIRED FOR OPERATION.

* abs

Technical data

Heating surface [m²]	988 to 2,544
Diameter [mm]	3,600 to 5,600
Capacity [m³]	62.1 to 243

Reference extract

Customer	Year	Country	Throughput [t/h]	Raw material
Cassa	2015	San Salvador	60	Cane
Nordzucker	2014	Germany	35	Beet
ICPL	2014	India	112	Cane
Etihad	2013	Iraq	148	Raw sugar

More information

https://www.bma-worldwide.com/crystallisation/vertical-vacuum-pan-vkt.html

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After sales after-sales@bma-de.com

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