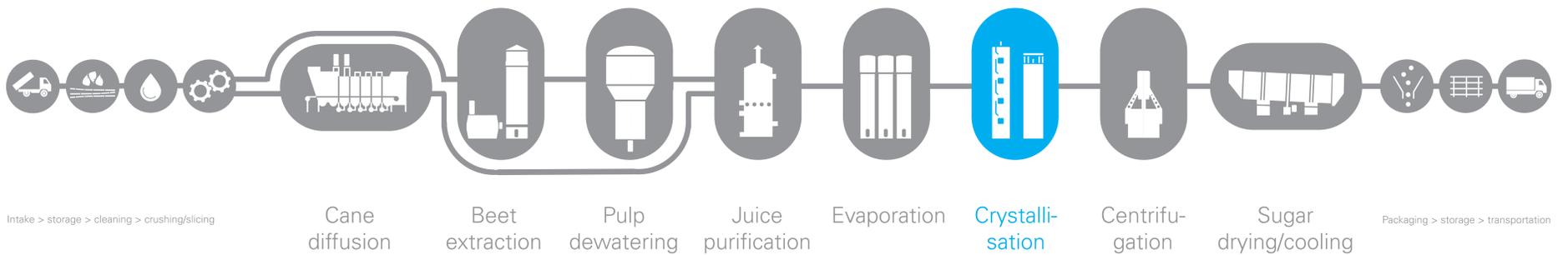




Vertical vacuum pan (VKT)



Intake > storage > cleaning > crushing/slicing

Cane diffusion

Beet extraction

Pulp dewatering

Juice purification

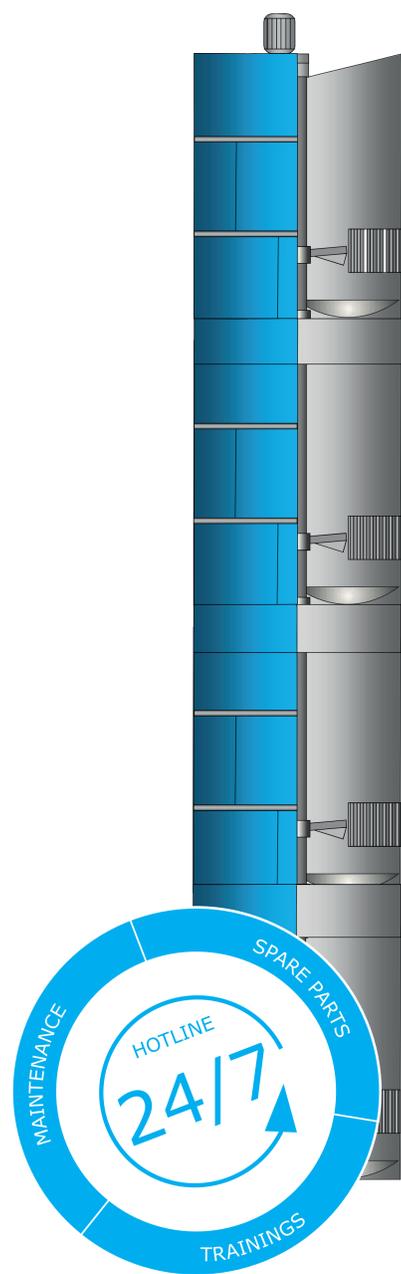
Evaporation

Crystallisation

Centrifugation

Sugar drying/cooling

Packaging > storage > transportation



Principle of operation

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*

* abs

**STEAM PRESSURE
REQUIRED FOR
OPERATION.**

Technical data

Heating surface [m ²]	988 to 2,544
Diameter [mm]	3,600 to 5,600
Capacity [m ³]	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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