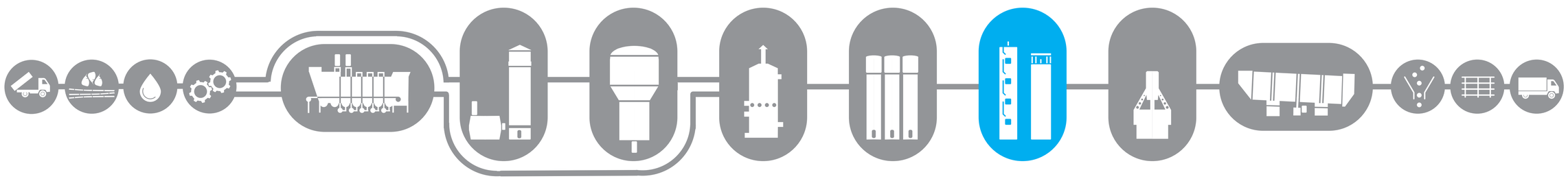
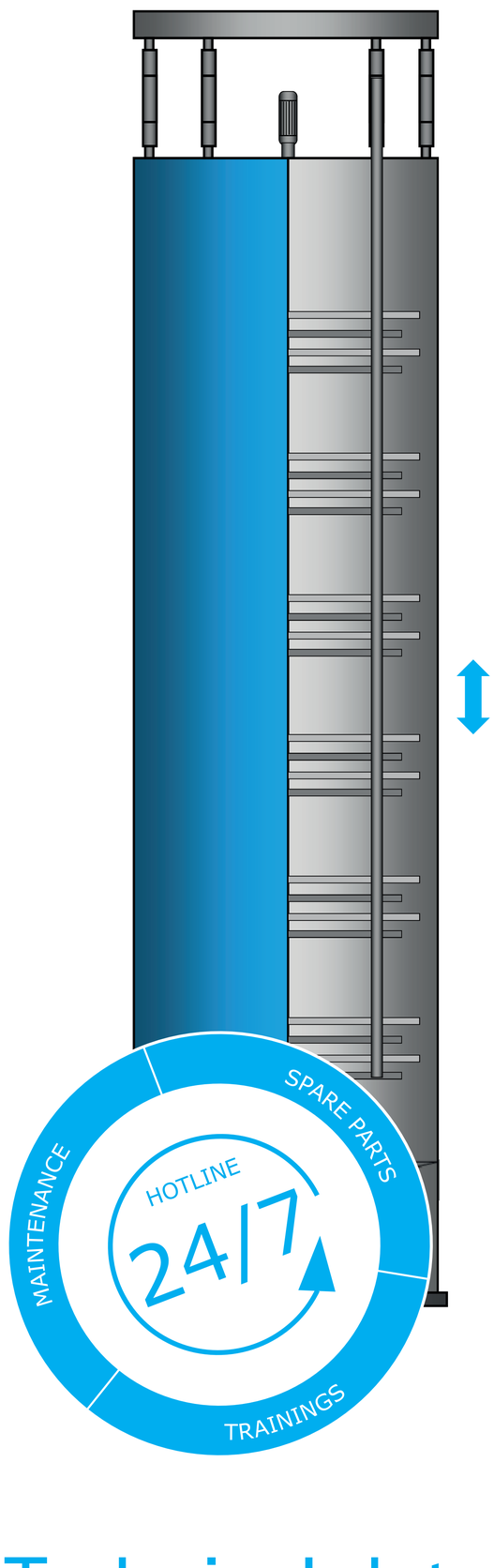
Area of application

BMA

Vertical oscillating cooling crystalliser (OVC)



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 cooling system of an OVC consists of standardised bundles of cooling tubes, with the cooling water guided countercurrent to the massecuite flow. The whole system oscillates in vertical direction, driven by a hydraulic unit.

- Cooling crystallisers are used for the crystallisation of sugar from low-purity crystal suspensions (C-massecuite); they are economical and produce excellent results.
- By lowering the temperature, the mother liquor is crystallised to extract as much sucrose as possible.
- A special distribution system ensures even massecuite feeding and thus a narrow distribution of retention times.
- The vertical movement of the cooling tubes is designed to permit operation at the optimum non-sugar-to-water ratio and thus when viscosity is high. This has the maximum desugaring effect.
- The integrated control technology monitors and controls the hydraulic system, ensuring a constant temperature gradient and even cooling.

Benefits

Crystal output
Perfect non-sugar-to-water ratio and maximum viscosity.

Caking
Excellent self-cleaning effect of oscillating cooling surfaces.

No formation of fine crystals
Thanks to even cooling or a constant temperature gradient.

Footprint
Requires little floor space because of vertical installation, even outdoors.

5-7* % OF ADDITIONAL SUGAR OUTPUT FROM MOLASSES.

*with an additional cooling crystalliser installed.

Technical data

Cooling surface [m²]	406- 1,100
Volume [m³]	220 to 667
Capacity [t]	up to 1,000
Diameter [mm]	5,200

Reference extract

Customer	Year	Capacity [t/h]	Add. sugar output [%]	ROI [m €/year]
ICPL	2014 - 2015	42	+ 5	1.30
SUJ Refinery	2013 - 2014	10	+ 7	1.40

More information

https://www.bma-worldwide.com/crystallisation/cooling-crystallizers.html

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