

# Cail & Fletcher vertical crystallizer and massecuite reheater



-10  
points of  
molasses purity

+5%  
sugar production

<1  
crop for ROI\*

*\*Return On Investment*

Maximize molasses exhaustion and ensure best massecuite quality for optimum centrifugal performance

- A cost-effective solution to maximize capacity
- Outstanding performance
- Low maintenance, compact footprint

Cail & Fletcher vertical crystallizer and reheater achieve outstanding performances by maximizing molasses exhaustion.

#### A COST-EFFECTIVE SOLUTION FOR MAXIMIZING CAPACITY

- Purity drop achieved in molasses is between 5 and 10 points
- Low electricity consumption: 0.03 to 0.05 kWh per ton of cane

#### LOW MAINTENANCE REQUIREMENTS, SMALL FOOTPRINT

- 100% seamless tubes fixed
- 100% tubes junction welds outside the equipment
- The system is clean
- Stand-alone equipment installed on exterior civil base

#### OUTSTANDING PERFORMANCE

- Centre shaft suspended in heavy duty spherical roller bearing
- High heat transfer coefficient and low temperature difference between massecuite and water
- Maximum exhaustion by combined control of massecuite shear rate and control of temperature
- High height to diameter ratio in order to enhance the plug-flow effect
- S/V ratio from 1.1 to 1.9 m<sup>2</sup>/m<sup>3</sup>
- Reheater of high heating surface (up to 1,400 m<sup>2</sup>) and optimized upstream flow characteristics with no dead zone, designed to avoid sugar losses and any inverted or burnt sugar

#### OPTION

- Mobile tube layers technology for high capacities

- 1 Continuous Vacuum Pan
- 2 SUMO™ pump
- 3 Vertical crystallizers
- 4 Reheater
- 5 Continuous centrifugals



Reheater 1,400m<sup>2</sup> - Guatemala

#### Vertical crystallizer sizes and dimensions

Volume (m <sup>3</sup> )	Surface (m <sup>2</sup> )	Diameter (m)
150 - 700	165 - 1,330	4.50 - 5.75

#### Reheater sizes and dimensions

Surface (m <sup>2</sup> )	Length (m)	Width (m)	Height (m)
140 - 1,400	2.80 - 6.30	0.88 - 3.80	2.80 - 4.70

- A secure and reliable product
- Optimized technology to maximize the revenue
- Strong, constant performance throughout the lifecycle

The information provided on this document is for information purposes only and does not constitute a legal obligation or a warranty, expressed or implied, of any kind.

#### CONTACT

fivescail@fivesgroup.com  
T +33 (0)3 20 88 96 00

Fives FCB (Headquarters)  
50, rue de Tieléni – 59650 Villeneuve d’Ascq – France  
[www.fivesgroup.com/energy-sugar](http://www.fivesgroup.com/energy-sugar)

  
**fives**  
Industry can do it