

Continuous Ice Cream Production

CRA223 Continuous Crystallization

Optimize processes and test new formulas

The OMVE CRA223 is the new generation in the crystallization range, specially designed for ice cream applications. The CRA223 design not only offers accurate control of the aeration (for overrun) but also improves the heat transfer, allowing the operator to more accurately control the properties of the ice cream (i.e. creaminess and smoothness).

Features & Benefits

- Continuous aeration & crystallization process
- Easy control by colour touch screen
- Temperature control during production
- Controlled aeration for overrun
- Hygienic design

Applications

- Ice cream



Working Principle

The ice cream mix is introduced into the balance tank (product inlet vessel). From here, a product pump continuously feeds the mix into the system. Before the mix reaches the first crystallizer, the required amount of air is injected into the product line. The mix then flows into the first and second crystallizers, which are scraped surface heat exchangers cooled by a glycol mixture from an external cooling unit. The cooling temperature for each crystallizer is adjustable via a manual flow control valve in the glycol line.

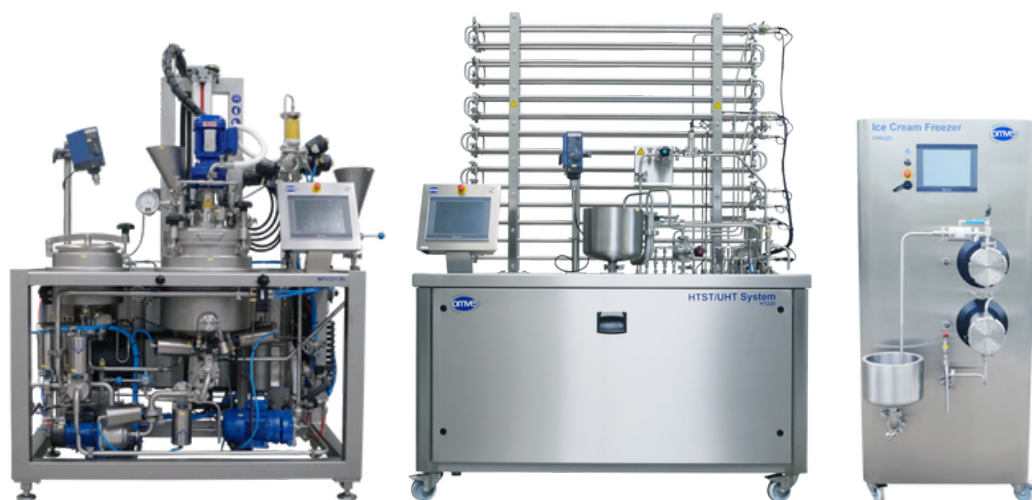
A back pressure valve, operated by air, maintains the product at the correct pressure. After the back pressure valve, the final ice cream product is ready for filling.

The system includes an integrated CIP (Clean-In-Place) pump for efficient cleaning.



Specifications

Product code	CRA223
Nominal flow rates	10-20L/hr
Additional CIP pump (optional)	Up to 1200L/hr
Refrigeration system (external)	-25°C [-13°F]
Scraped Surface Heat Exchanger	
Max. particle size	4mm
Max. rotating speed	730 rpm
Inner diameter	65mm
Dead volume per barrel	810 ml
Weights & Dimensions	
Weight	500kg [1100lbs]
L x W x H	1500 x 1000 x 1750mm [59 x 39,4 x 68,9"]
Required utilities	
Electrical supply	370-400Vac/ 3ph+N+E/ 50Hz/ 32A or 200-240Vac/ 3ph+E/ 60Hz/ 32A
Compressed air	7bar [87psi]
Tap water	2-4bar(g) [29-58psi]
Drains	Required



Emulsifier with HT220 and CRA223 ice cream machine

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Lab & Pilot Equipment

