Hoyer Frigus® SF 1200 C1

Self-contained continuous ice cream freezer

MACHINERY WORLD

Tetra Pak

protects what's good™

Application

The continuous production of ice cream by the mixing, whipping and freezing of ice cream mix and air.

Operating principle

Ice cream mix and air are pumped to a freezing cylinder by means of a special, patented, positive displacement pump containing two pistons.

The freezing cylinder is cooled by a built-in freon compressor. Inside the cylinder, the air is incorporated into the mix by the whipping action of the dasher. The stainless steel blades mounted on the dasher, continuously scrape the frozen ice cream from the inside wall of the cylinder. A gear pump forwards the ice cream from the outlet end of the freezing cylinder to a filling machine.

Standard design

Sturdy construction
All parts are produced from high quality materials and engineered to meet strict standards for reliability and durability. The frame and panelling are manufactured from stainless steel.

Control panel
From the control panel push buttons activate start-up of pump, dasher and compressor.

Manometers show overrun valve pressure, cylinder pressure and refrigeration pressure.

Output capacity is stepless variable and adjusted from the control panel.

Efficient freezing
The horizontal freezing cylinder with its hard-chromium plated construction provides a highly effective heat exchange between the ice cream mix and the refrigerant. The stainless steel dasher and scraper blades are designed to impart a smooth and uniform consistency to the product.

Automatic hot gas defrosting
In the case of forced stoppages, rapid hot gas defrosting of the freezing cylinder can take place to avoid freeze-up and enable production to start again without damage to the machine.

Mix pump unit
A reliable pump unit, a gear-box and a variable speed motor driven by a frequency converter are mounted inside the machine.

Outlet pump
A rotary type outlet pump is mounted at the front of the machine for easy inspection and maintenance.

Overrun control
The patented, positive displacement pump provides a constant overrun and thereby ensures efficient and economic production.
The overrun control system functions as follows.
- The first piston draws in the ice cream mix and pumps it to the second piston.
- The second piston receives the measured amount of mix from the first piston together with the air, accurately dosed by a pneumatic system.

Cleaning
The Hoyer Frigus 1200 C freezer is designed for CIP operation to ensure maximum hygiene.

Installation and start-up
The freezer is a self-contained unit, ready to operate after connection to power, compressed air, water and mix supply.

Standard accessories
Set of spares.

Nominal output

400-1200 litres per hour (106-317 US Gals.)

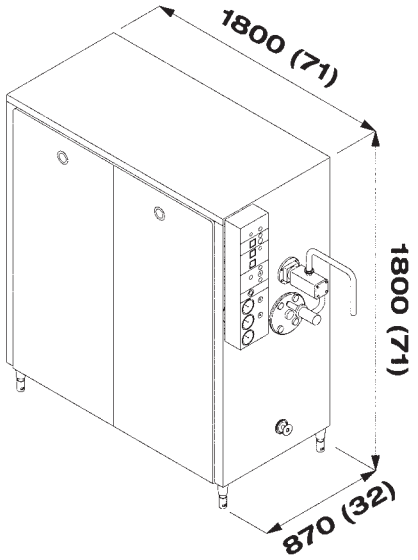
The output capacity is based on the following conditions:

Inlet of mix	+5°C (+41°F)
Outlet of the ice cream	–5°C (+23°F)
Suction of temperature	–25°C (–13°F)
Overrun	100%

Mix type: Normal ice cream mix containing 38% total solids. Upon receipt of the actual mix recipe a precise capacity and outlet temperature can be determined.

Technical data

Built-in compressor	2 x 10 = 20 kW
Refrigerant gas	R404 A (other freon types on request)
Refrigerant content	5.3 kg
Dasher motor	9,2 kW
Mix pump motor	1.5 kW
Outlet pump	0.75 kW
Overall installed power	32 kW
Air consumption	20 nl/min.
Air inlet pressure required	6 bar (87 psi)
Condenser consumption	Tower water 6000 l/h (2160 US Gals)
	Tap water 2000 l/h (723 US Gals)
Mix inlet piping, outside	1''
Ice cream outlet piping, outside	11/2''
Air inlet piping, outside	1/2''
Water connection	11/2''



Mesurements in mm (inches)

Shipping data

Net weight	1080 kg	(2376 lbs)
Gross weight	1480 kg	(3256 lbs)
Shipping volume	6 m^3	(212 ft^3)

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