



Gram Equipment



FREEZERS

Self Contained & External Refrigeration

- Color touch-screen
- Open design for easy cleaning and maintenance access
- Capacity ranges span from 20 to 4,500 liters/hour
- Technical back-up with spare parts stocked and prompt service worldwide
- All stainless steel wash down construction
- High degree of safety

...ice cream the way you like it

THE ICE CREAM FREEZER

The heart of every production line

The continuous ice cream freezer is the heart of every ice cream production system. Choosing the right freezer is key to both product and production goals.

Consistent, repeatable ice cream product is the ultimate goal for any ice cream operation. To achieve it, we help you explore all issues that influence your equipment choice and ultimate system success.

Product concept

Consideration is given to the characteristics of your planned product. These are influenced by mix formulation, overrun and crystallization.

Our freezer specialists will help you determine the very best way of operation on your new freezer, to ensure that the product lives up to your satisfaction.

Capacity

As part of a system your freezer must accommodate the supply requirements of downstream equipment.

Gram Equipment freezers meet any demand for capacity you might have. Our freezers capacity ranges from 20 LPH to 4500 LPH.

Workmanship

The freezer must suit the skills and experience of your operators. The less skill, the more requirement for automation technology.

At Gram Equipment we can provide solutions for all level of experience in operating freezers. Our programming team will collaborate with you to find the right solution.

Installation

Allowable plant space and layout of the ice cream system influence freezer selection.

At Gram Equipment we always help the customer find the optimal situation for placing the freezers in the production.

At Gram Equipment we produce a wide variety of both self-contained freezers and freezers for external refrigeration.

We take pride in finding the right type of freezer for our customers needs and to deliver the best equipment possible every time.

All our freezers are build with the necessary standards required and they meet all safety demands.

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WS SERIES

Meeting tomorrow's challenges today

Gram Equipment manufactures only high quality freezers. Our freezer's control system is one of the most sophisticated, but yet reliable system in the industry.

All Gram Equipment freezers are designed to meet the highest 3A sanitary and quality standards.

Gram Equipment is working closely with the Ice Cream Industry to provide the latest freezer technology. The WS series freezers provide the most efficient process control in the industry.

A mix flow meter coupled with an air mass controller provides extremely accurate control of the overrun, mix and air.

All WS freezers utilize product discharge pumps to isolate the freezing cylinder from downstream pressure variations, as a result excellent control of all freezer parameters.

The WS ice cream freezer is the leading example of why the industry relies on Gram Equipment for the most advanced solutions to their ice cream process needs.

Capacity

6 models gives you a range from 120 LPH to 4500 LPH

Consistent viscosity at any flow rate:

Fully-automatic WS freezers feature the Gram proven Viscontrol, which maintains constant ice cream viscosity, whether it is stiff and dry for extrusions or soft and flowable for mold filling. It helps maintaining an accurate filling, and controlling the extrusion portion.

Precise overrun control for repeatable profitability:

Superior overrun control is a major advantage common to all WS freezers. Variations are virtually eliminated through the use of a product discharge pump. This feature effectively isolates the freezer cylinder from high downstream pressures, often encountered in extrusion applications.



WS SERIES

Meeting tomorrow's challenges today

Stainless steel construction for improved cleaning:

The WS freezer is designed to reduce maintenance and enhance cleaning. The extensive use of stainless steel for all frame components, side panels, doors and even the refrigeration jacket and internal refrigeration piping eliminates the need of periodic rust removal, repainting, and the possibility of bacteria entrapment.

Direct coupled/variable frequency-controlled pump drives for improved performance:

Direct-coupled gear head drives and frequency-controlled pump drives simplify maintenance, and improve performance by assuring consistent and reliable operation.

Dasher:

It is easy to customize any of the WS freezers to suit the application. Gram offers a choice of two dashers suitable to all varieties of frozen product formulations, viscosities, textures and overruns. Both feature rugged stainless steel constructions, with hardened stainless steel scraper blades.

CREAM Technology

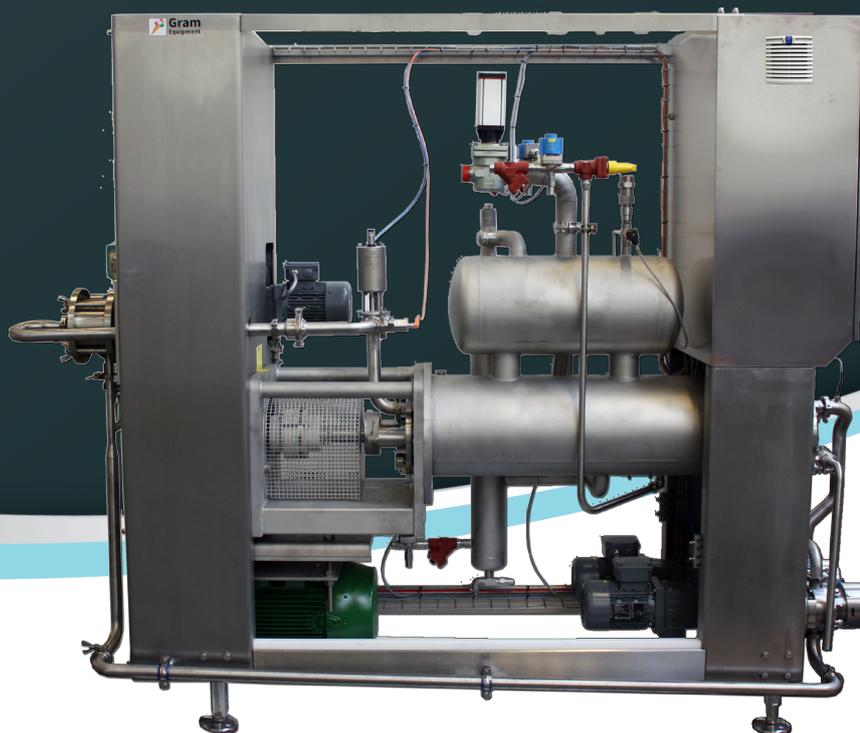
The acronym "CREAM" stands for:

- Continuous
- Re-circulation with
- Emulsification of
- Air and
- Mix

The CREAM freezer has the same footprint as a standard WS-Freezer. You CAN incorporate ALL the same variegates and inclusions! CREAM system provides the benefits of low draw temperature technology utilizing a more practical approach.

Gram Equipment's patented CREAM technology provides the benefits of low draw temperature technology in a more practical approach. CREAM technology does not simply rely on reducing the ice cream draw temperature.

This technology allows the addition of all the same variegates and inclusions in the normal manner.



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MF SERIES

Perfectly suited for smaller productions or lab test

The MF series ice cream freezer is an example of the expertise and knowhow that Gram Equipment is known for.

The Gram Equipment Cream MF series ice cream freezers are designed to assure efficient control of the process. The MF series freezers are completely self-contained units with integral refrigeration are ready for use once mix, air, power and water connections are completed. All MF freezers are built according to the 3-A sanitary standards. Furthermore, the MF freezers comply with all European safety standards, and are CE-marked.

Gram Equipment offers a choice of two dashers suitable to all varieties of frozen product formulations, viscosities, textures and overruns.

Both feature rugged stainless steel constructions, with hardened stainless steel scraper blades.

The MF freezer is designed to reduce maintenance and enhance cleaning.

The extensive use of stainless steel for all frame components, side panels, doors and even the refrigeration jacket eliminate rust and the possibility of bacteria entrapment.

Capacity

Gram Equipment offers two models of the popular MF Freezer MF 50 and MF 75.

Both are ideal for small production and laboratory testing. The two models span from 20 to 150 litres/hour (6 to 121 gallons/hour)



GIF SERIES

Compact self-contained industrial freezer

These self-contained continuous ice cream freezers combine remarkable efficiency with compact size.

The GIF 600/1200 is a self-contained unit that requires no on-site adjustment when delivered.

As soon as the connections for tower water, electricity and compressed air are established, the unit is ready to operate.

Made as a full stainless steel construction with very efficient refrigeration plant and freezing cylinder.

The electrical box is integrated in the top part of the frame and encloses all the controls and the operator interface. Incorporating a highly user-friendly interface with pushbuttons and Allen Bradley CompactLogix PLC color touch display with graphical overview of valves, motors and compressors, using the GIF series is simple and easy. All working parameters are computer-controlled. Visualisation of operating data on the display and memory of up to 100 recipes is just some of the features.

Capacity

The capacity ranges from 20 LPH to 1200 LPH depending on model with an overrun at 100%.

Features

- Automatic overrun control with air mass flow meter
- Automatic mix flow control with volumetric mix flow meter
- Mix and discharge gear pumps in CIP design
- Automatic cylinder pressure control
- Automatic Start/Stop
- Saving-memory of working parameters (up to 25 recipes)
- High efficiency air filtering and sterilising system
- Built-in hermetic Scroll compressor (2 in GIF 1200)



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ADDITIONAL OPTIONS

More Ways To Increase Profit



All Gram Equipment freezers utilize Waukesha metal lobe pumps as standard. The rotors of these pumps are made of the non-galling lead-free Waukesha "88" alloy. This alloy allows the rotors run at a very close tolerance without touching, which provides extremely long rotor life.

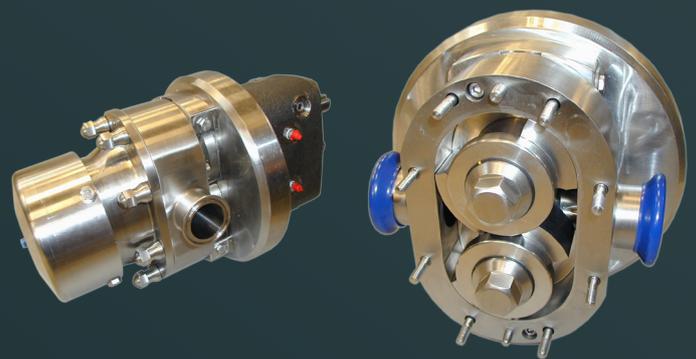
These pumps are fully CIP-able and have by-pass covers that allowing the necessary high flow during CIP.

A magnetic flow meter is used to provide very accurately closed loop control of the mix flow.



We offer both a solid and an open dasher, each have their own advantages.

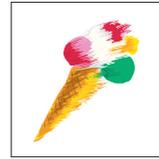
Gram Equipment freezers employ a unique Wave Inter Beater that increases product shear, while greatly reducing maintenance costs.



Pre-aeration and re-circulation ice cream pump is a key component to optimizing your freezer operation. The pre-aeration mixer mechanically works the fat globules in the mix, resulting in a very creamy texture.

The mechanical shearing of the mix and overrun air creates a fine emulsion prior to the freezing cylinder, which in turn creates a very consistent product that yields very tight package weight control.

This emulsion contains very fine air cells and these fine air cells promote the formation of small ice cream crystals. The mixer transfers less heat energy into the product prior to the freezing cylinder than working the product in the freezing cylinder while it is in a more viscous state.



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CONTACT INFORMATION

Please contact Gram Equipment for further information

Headquarters

Aage Grams Vej 1
6500 Vojens - Denmark
Tlf.: +45 73 20 17 00
Fax: +45 73 20 17 01
sales@gram-equipment.com

Aarhus, Denmark

Graham Bells Vej 6
8200 Aarhus - Denmark
Tlf.: +45 87 41 20 00
Fax: +45 87 41 20 01
sales@gram-equipment.com

Northvale, USA

267 Livingston Street
Northvale, NJ 07647 - USA
Tel.: +1 201 784 1101
Fax: +1 201 784 1116
sales@gramequipment-usa.com

Tampa, USA

1212 N. 39th. Street, Suite 438
Tampa, Florida, 33605 - USA
Tel +1 813 2481978
Fax +1 813 2482314
sales@gramequipment-usa.com

Phillippines

27 Antonia St. Centerville Subdivision
Pasong Tamo, Quezon City 1107
Phillippines
Tel +63 918 9420745
gram-eqpt@pacific.net.ph

Moscow, Russia

Petrovka Street
17/4, 53
Moscow - Russia
Tel +7 985 101 8319
sbl@gram-equipment.com

www.gram-equipment.com