



# GENIUS T&i

ICE-CREAM PRODUCTS

INDUSTRIAL LAB



*The perfect solution  
for industrial and craftsmen's  
laboratories*

## *What is GENIUS?*

Genius is an innovative and exclusive **pasteurization** system for artisan gelato mixes with integrated automatic **homogenization**. It has been developed to improve the quality of produced gelato, especially in products requiring chilling and storage. It speeds up production times and simplifies work processes including the final washing – all in the most compact design.

## *Who is supposed to use GENIUS?*

Genius is intended for **medium and large workplaces where gelato is produced** using even only raw materials. In these labs mix homogenization is a simple yet functional step as their production rates and/or the room available would not justify an industrial pasteurization unit. Genius is the tailored equipment required to automate the production of gelato mixes subject to further batch-freezing in traditional batch-freezers or in continuous freezers and/or to resale mix after prior quick-freezing, after ready-to-use pasteurization.

## *Why GENIUS?*

Because Genius is the first **integrated pasteurization system** designed also for medium production rates that not only enhances all the advantages of homogenization but also solves the criticalities that prevent the integration of homogenizers and traditional batch-freezers.

## *The plus of GENIUS*

The homogenization process, which affects the surface tension of all the molecules in the mix, and the correct balancing of gelato, make Genius able to produce not only Italian traditional artisan gelato but also high quality, clean label gelato without “E” i.e. **without the use of additives, emulsifiers, thickeners and gelling agents.**

### *GENIUS's peculiarities*

> *COMPACT DESIGN*

> *CONNECTION PIPES*

> *CLEANING AND SANITATION*

> *FLEXIBILITY*

> *USER FRIENDLY*

> *CUSTOMIZATION*



## *GENIUS's peculiarities*

### > *COMPACT DESIGN*

Genius **occupies 1/3 of the space** compared with an industrial system processing the same quantity and quality of mix and therefore suits any room needs.

### > *CONNECTION PIPES*



Rubber pipes are standard supplied, stainless steel pipes are supplied as optional. They are provided with special fittings to pour mix under pressure in total safety and without the risk of accidental leakage.

### > *CUSTOMIZATION*

Customizable according to customers' requirements.

## > CLEANING AND SANITATION

No CIP (clean in place) is required for this fully automatic equipment. Genius sanitation is easy, fast and cheap.



## > FLEXIBILITY

GENIUS is the perfect machine for both those who process **a mix from raw materials** and those who use a **ready for use mix** and then flavour it. It is the ideal equipment also for those who use traditional batch-freezing, where the operator manually pours the mix into the batch-freezer. And for those who prefer a continuous freezer with automatic pouring of the mix from the vat to the freezer. For the latter, on request, Valmar supplies tailored hydraulic connections.

## > USER FRIENDLY

Thanks to the **touch & type technology** the operator easily selects the chosen programme and monitor each step of the production process. GENIUS manages the 3 steps of the thermal process (heating – homogenization – ageing) automatically. No external operating panel is required as **each step is managed by the electronic brain** of the different components of the equipment.



# Machine operation and components

Genius performs each step of the mix thermal process automatically and independently:

01

## MIX HEATING



Heating at 85°C and then pre-cooling at 72°C as required to sanitize the bacterial load and activate the hydrocolloid ingredients of the mix. Genius combines the characteristics of the well-known and appreciated Sweetly pasteurizer of TTi series with an improved resistance heating system up to 98 °C to reduce processing times.

02

## PUMP AND SAFETY PRESSURE SWITCH



A dedicated pump, easy and quick to sanitize, makes mix pouring from the pasteurization tank to the homogenizer much easier. The pump is provided with a pressure switch to prevent accidental problems related to the use of a homogenizer and caused by a possible irregular mix flow during the processing of traditional artisan gelato.

**03****HOMOGENIZATION**

One-step homogenizer with 2 pumping pistons. It operates at a pressure higher than 200 bar and makes any kind of mix perfectly homogeneous. A more creamy gelato texture is obtained thanks to the reduction of molecule surface tension and the homogenization of fats and hydrocolloids into particles. As a result the use of additives, emulsifiers, thickeners and gelling agents may be reduced or even eliminated and the gelato produced is more digestible, less cold on the palate, easy to work with the spatula and with a higher overrun.

**04****MIX COOLING AND AGEING**

Mix cooling and ageing are performed in a dedicated cooling vat provided with an improved cooling system with a 9-speed inverter for a quick mix cooling up to +4°C and subsequent ageing. This prevents mix stressing and the risk of impairing the benefits of homogenization.

*N°1 SWEETY 130 TTI*  
*N°1 HOMOGENIZER*

Max production rate: 125 l

*GENIUS S 130*

*N°1 SWEETY 180 TTI*  
*N°1 HOMOGENIZER*

Max production rate: 175 l

*GENIUS S 180*



*Your lab with GENIUS*



*GENIUS M 130*

Max production rate: 125 l

*N°1 SWEETY HOT 130 TTI*  
*N°1 HOMOGENIZER*  
*N°1 SWEETY AGE COOL 130 TTI*

*GENIUS M 180*

Max production rate: 175 l

*N°1 SWEETY HOT 180 TTI*  
*N°1 HOMOGENIZER*  
*N°1 SWEETY AGE COOL 180 TTI*



*N°2 SWEETY HOT 130 TTI*  
*N°1 HOMOGENIZER*  
*N°2 SWEETY AGE COOL 180 TTI*

Max production rate: 250 l

## *GENIUS L 130*

*N°2 SWEETY HOT 180 TTI*  
*N°1 HOMOGENIZER*  
*N°2 SWEETY AGE COOL 180 TTI*

Max production rate: 350 l

## *GENIUS L 180*



Genius is available in more configurations to meet the production requirements of the customers.



## *GENIUS XL 130*

Max production rate: 500 l

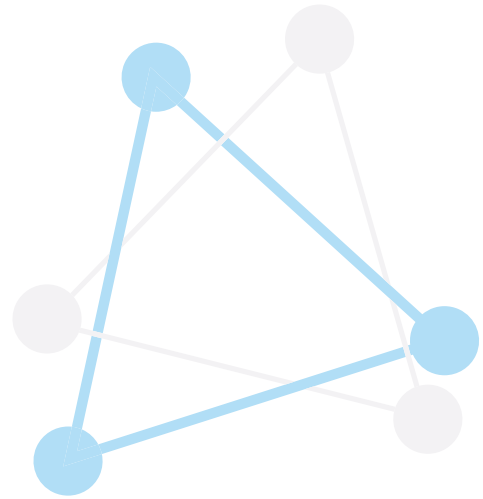
*N°2 SWEETY 130 TTI*  
*N°1 HOMOGENIZER*  
*N°2 SWEETY AGE COOL 130 TTI*

## *GENIUS XL 180*

Max production rate: 700 l

*N°2 SWEETY 180 TTI*  
*N°1 HOMOGENIZER*  
*N°2 SWEETY AGE COOL 180 TTI*

# Valmar's operating methodology



Genius is not just supplying an equipment but a complete project that meets customers' expectations. The following steps sum up its operating methodology:

> SPECIFICATION OF THE SYSTEM PRODUCTION RATE

> INSPECTION OF CUSTOMER'S WORKPLACE

> STUDY AND DEVELOPMENT OF THE LAB LAYOUT TO OPTIMIZE PRODUCTION FLOWS AND REDUCE OVERALL DIMENSIONS.

> SUPPLY OF TECHNICAL DRAWINGS REQUIRED TO PROVIDE THE LAB WITH THE NECESSARY WATER AND POWER SUPPLY CONNECTIONS

> SUPPLY OF THE EQUIPMENT REQUIRED AND SUITABLE FOR THE PROJECT IMPLEMENTATION

> EQUIPMENT INSTALLATION AND START-UP BY QUALIFIED TECHNICIANS FROM VALMAR



# *INDUSTRIAL PRODUCTION SYSTEM*



# *ARTISAN PRODUCTION SYSTEM*

## TECHNICAL FEATURES

MODEL	Max production rate (l)	Mix/cycle (l)	Power (kW)	Power supply*	Condensing unit**	Net weight	Dimensions		
							Width	Height	Depth
GENIUS S 130	125	40 - 125	17,7	400/50/3	Water***	442	1140	1046+100	1046
GENIUS S 180	175	60 - 175	20,7	400/50/3	Water***	470	1570	1046+100	1046
GENIUS M 130	125	40 - 125	20,5	400/50/3	Water***	570	2110	1046+100	1046
GENIUS M 180	175	60 - 175	24,1	400/50/3	Water***	670	2970	1046+100	1046
GENIUS L 130	250	40 - 250	23,3	400/50/3	Water***	920	3310	1046+100	1046
GENIUS L 180	350	60 - 350	27,5	400/50/3	Water***	1120	3830	1046+100	1046
GENIUS XL 130	500	40 - 250	23,3	400/50/3	Water***	984	3310	1046+100	1046
GENIUS XL 180	700	60 - 350	27,5	400/50/3	Water***	1180	3830	1046+100	1046

### LITRE COUNTER



### CONNECTIONS



### BUCKET REST



\* Other voltages and frequency available with additional charge.

\*\* Built-in air condensing unit available with additional charge.

Note: weights and dimensions of machines equipped with this optional equipment are different from those in the table.

\*\*\* Water consumption can vary according to water temperature.

Any model is available with remote compressor + air condenser with additional charge.

Note: weights and dimensions of machines equipped with this optional equipment are different from those in the table.

NOTE: Production rates may vary according to the types of ingredients used and the selected stirring mode.

All technical data stated herein are purely indicative. Valmar reserves the right to make changes without notice.

VALMAR GLOBAL d.o.o.  
 Dombrova 1a, 5293 Volčja Draga, Slovenija  
 Tel.: +386 5 331 17 77, +39 333 6955539,  
 Fax: +386 5 331 17 78  
 www.valmar.eu  
 E-mail: info@valmar.eu

Agent/Dealer