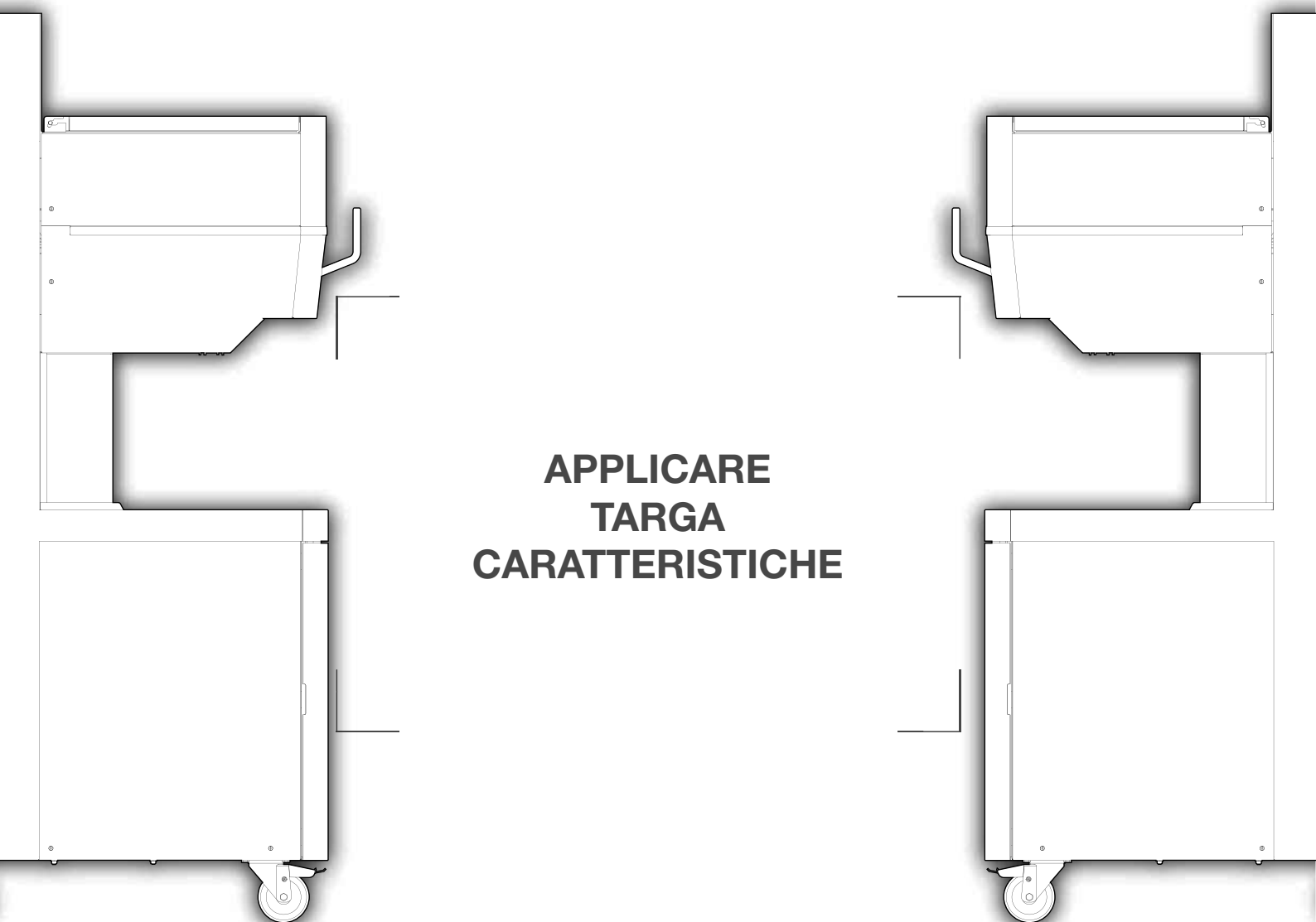


INSTRUCTION MANUAL

EVD 3



**APPLICARE
TARGA
CARATTERISTICHE**



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🌐 carpigiani.com

We wish to thank you for purchasing one of Carpigiani's machines.

Since 1993, Carpigiani manufactures utilising the Quality Control Management System that is today certified according to UNI-EN-ISO 9001-2008.

Carpigiani's machines conform to the requirements of the following European Directives:

- "Machinery" Directive 2006/42/EC;
- "Low Voltage" Directive 2006/95/EC;
- "EMC" Directive 2004/108/EC;
- "PED" Directive 97/23/EC;
- Regulation 2004/1935/EC relating to "Materials and articles in contact with foodstuffs".

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Carpigiani's policy pursues constant research and development and therefore it reserves the right to make changes and revisions whenever deemed necessary and without being bound to the purchaser for any previous statements.

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FOREWORD

Instruction manual

In writing this manual, the European Community directions on safety standards as well as on free circulation of industrial products within the E.C. were taken into due account.

Purpose

This manual was conceived taking machine users' needs into due account.

Issues regarding the correct use of the machine have been analysed in order to keep the longstanding quality features characterising CARPIGIANI's machines all over the world unchanged.

A significant part of this manual refers to the conditions required for using machine and, above all, to the necessary procedures to follow while cleaning and during routine and special maintenance.

Nevertheless, this manual cannot meet all demands in details. In case of doubts or missing information, please apply to:



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Manual structure

This manual is divided in sections, chapters and subchapters in order to be consulted more easily.

Section

A section is the part of the manual identifying a specific topic related to a machine part.

Chapter

A chapter is that part of a section describing an assembly or concept relevant to a machine part.

Subchapter

It is that part of a chapter detailing the specific component of a machine part.

Any person employed to use the machine must have first read and fully understood the parts of the manual that refer to his/her competence and in particular:

- the Operator must have read the chapters regarding starting the machine, the functioning of the machine units and the prescribed safety precautions;
- a skilled technician involved in the installation, maintenance, repair, etc., of the machine must read all parts of this manual.

Additional documentation

Along with an instruction manual, each machine is also supplied with additional documentation:

- Spare parts list: a list of spare parts provided with the machine for its maintenance.
- Wiring diagram: a diagram of wiring connections placed in the machine.





WARNING



Before using the machine read the instruction manual carefully.

Pay attention to the safety instructions.



Standard symbols

 **ELECTRIC SHOCK** 
DANGER



This warns personnel concerned that the operation described could cause electric shock if not carried out while respecting safety norms.

 **DANGER FROM HIGH** 
TEMPERATURES



This warns personnel concerned that the operation described could cause burns and scalds if not carried out while respecting safety norms.

 **DANGER** 
MOVING PARTS


This warns personnel concerned about the presence of moving organs and the risk of physical injury if safety norms are not respected.

 **CRUSHING** 
HAZARD


This warns personnel concerned about the risk of having a finger, hand or other body part crushed if the described operation is not carried out while respecting safety norms.

 **GENERAL** 
HAZARD



This warns personnel concerned that the operation described may cause injury if not carried out respecting safety norms.

 **NOTE** 

This points out significant information for the personnel concerned.

 **WARNING** 

The personnel involved is warned that the non-observance of warning may cause loss of data and damage to the machine.


 **PROTECTION** 

This symbol located next to description means that the operator must use personal protection against an implicit risk of accident.


Qualification of the personnel

Personnel using/working on the machine can be differentiated according to training and responsibility as follows:


OPERATOR

 This term identifies unqualified personnel who have no specific technical qualifications and who can carry out only simple tasks such as operating the machine using the controls on the keyboard, loading and unloading product utilised during production, loading of any consumable materials, basic maintenance operations (cleaning, removing simple obstruction, controlling instrumentation, etc.).

MAINTENANCE ENGINEER

 He/she is a skilled engineer for the operation of the machine under normal conditions; he/she is able to carry out interventions on mechanical parts and all adjustments, as well as maintenance and repairs. He/she is qualified for interventions on electrical and refrigeration components.

CARPIGIANI ENGINEER

 He/she is a skilled engineer that the manufacturer has assigned to field interventions for complex jobs under particular conditions or in accordance with agreements made with the machine's owner.

Safety

When using the machine be aware that drive mechanisms (rotary motion), high voltage components and parts subject to high temperatures may cause serious injury/damage to persons and things.

The person in charge of plant safety must check that:

- any incorrect use or handling is avoided;
- safety devices are not removed or tampered with;
- the machine is regularly maintained;
- only original spare parts are used especially with regards to those components with safety functions (e.g., protection microswitches, thermostats, etc.);
- suitable personal protective equipment is worn;
- great care is taken during hot product cycles;
- particular attention is paid to organs in movement.

To achieve the above, the following is necessary:

- at the work station an instruction manual relevant to the machine must be available;
- the documentation must be carefully read and requirements must consequently be met;
- only adequately skilled personnel should be assigned to electrical equipment.

IMPORTANT

Ensure that technical personnel do not carry out operations that are not within their capabilities, knowledge and responsibility.



NOTE



According to the norms in force, a SKILLED ENGINEER is a person who, thanks to his/her:

- training, experience and education;
- knowledge of rules, prescriptions and interventions on accident prevention;
- knowledge of machine operating conditions.

Is able to recognize and avoid any danger and has also been authorised by the person in charge of plant safety to carry out all types of interventions.

Warning

When installing the machine, insert a differential thermomagnetic protection switch on all poles of the line, adequately sized to the absorption power shown on machine data plate and with contact opening of 3 mm at least.

- Never put your hand into the machine during production and cleaning operations. Before carrying out any maintenance operation, make sure that the machine is in the Stop position and the main switch has been switched OFF.
- Using a jet of pressurized water to wash the machine is forbidden.
- Removing panels in order to reach the machine inside before the machine has been disconnected is forbidden.
- Carpigiani will not respond to accidents that might happen during the use, cleaning and/or maintenance of its machines if the specified safety norms have not been complied with.

1. GENERAL INFORMATION

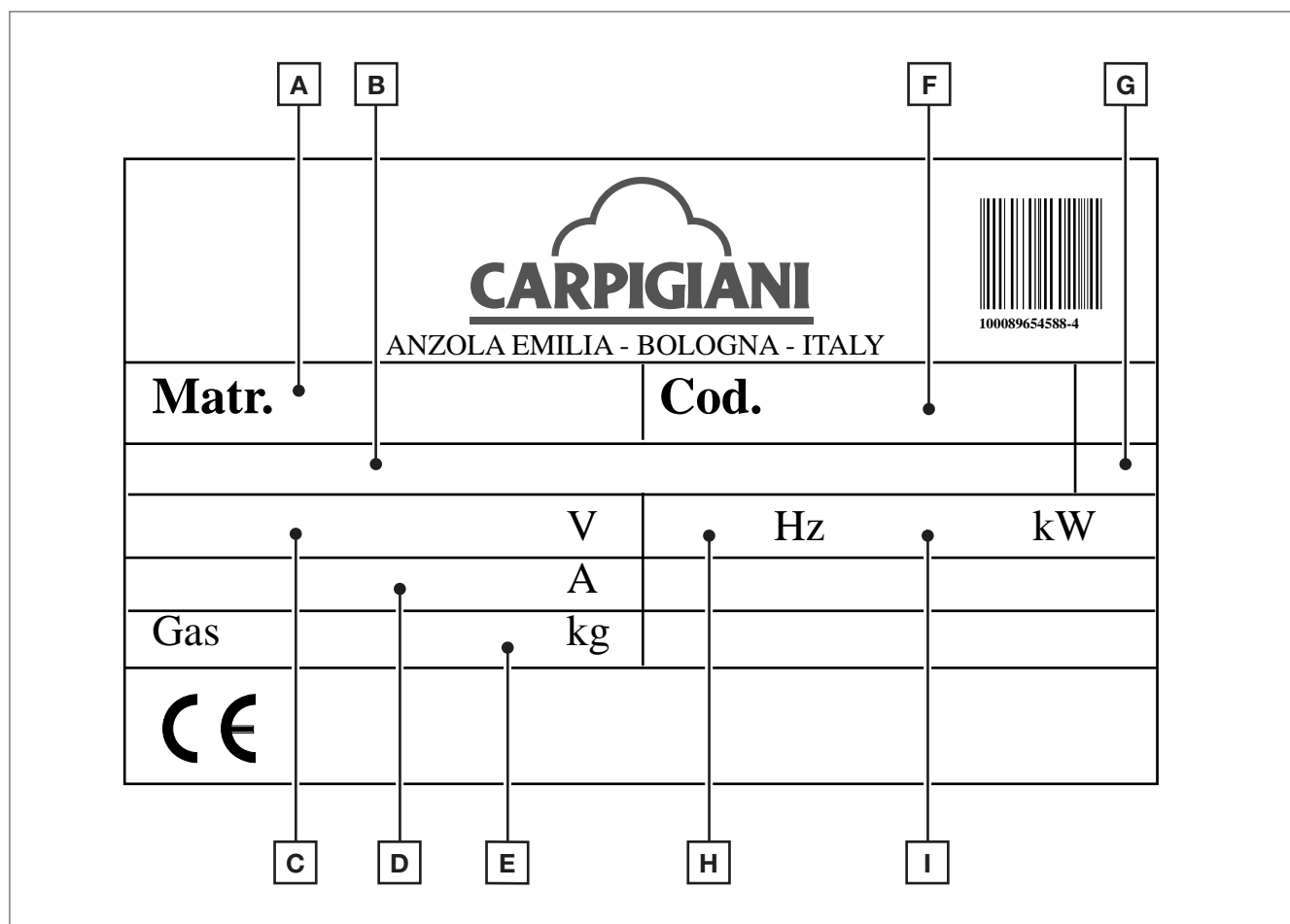
1.1 General information

1.1.1 Manufacturer's identification data

The machine has a data plate that was assigned to the machine when it was manufactured, showing the manufacturer's data, machine type and serial number.

A copy of the machine data plate can be found on the first page of this manual.

Fig. 01



A Serial number

B Machine type

C Voltage

D Main-switch amperometric value

E Gas type and weight

F Machine code

G Condensation (A= Air - W= Water)

H Frequency

I Power input

1.1.2 Information about maintenance

All operations of routine maintenance are hereby described in the section "Maintenance". Any additional operation requiring a technical intervention on the machine must be cleared with the manufacturer who will also examine the possibility of a factory technician field intervention.

1.1.3 Information for the user



- Carpigiani is at the disposal of the user for any clarification or necessary/integrative information regarding the functioning of the machine or any improvement modifications to the machine.

- Contact the area distributor in the event of any problems or the manufacturer if a distributor is not available.
- The customer assistance service is available at any time to respond to customer requirements regarding the functioning of the machine, requests for spare parts or technical assistance that may eventually be necessary.

1.2 Information about the machine

1.2.1 General data

It is an electronic machine for the production and instant distribution of variegated ice cream that has the following main characteristics:

- refrigerated upper tank;
- electronic control of product consistency via the “Hard-o-tronic” system;
- automatic pasteurisation system of the product contained in the tank and cylinder during non-production periods (e.g., at night) (only for “SP” machines);
- system for the production of variegated ice cream (only for “R” machines);
- Dry Filling (only for “DF” machines);
- height adjustment system of the machine’s production unit (optional).

Carpigiani recommends using top quality raw materials always in the production of ice cream and confectionery products to satisfy the most demanding requirements of customers. Any cost saving of the mix utilized affects the quality and much greater losses will occur apart from the economic losses.

Taking into account everything mentioned above, the following recommendations should be taken into account:

- only you produce the mix using top quality natural products, or receive supplies from serious and trustworthy companies;
- scrupulously follow the mix preparation instructions that are supplied by the supplier;
- Do not modify suggested recipes without knowing the characteristics of the ingredients;
- taste the final product and place it on sale only if you are completely satisfied;
- advise your personnel that the machine must always be kept clean.

Contact only the Carpigiani Technical Assistance Service for any repairs to the machine.

1.2.2 Technical features

MODEL*	75g CONES / HOUR**	TANK CAPACITY	FLAVOURS	ELECTRICAL POWER SUPPLY***			CONDENSER***	INSTALLED POWER OUTPUT	NET WEIGHT
		l		V	Phase	Hz		kW	Kg
EVD 3	670	13 + 13	2+1	400	3	50	Air	5,5	320

* Available in the following models:

- EVD 3 SP (with an automatic pasteurising system);
- EVD 3 R (with a syrup system for variegating the ice cream);
- EVD 3 DF (with a Dry Filling system).

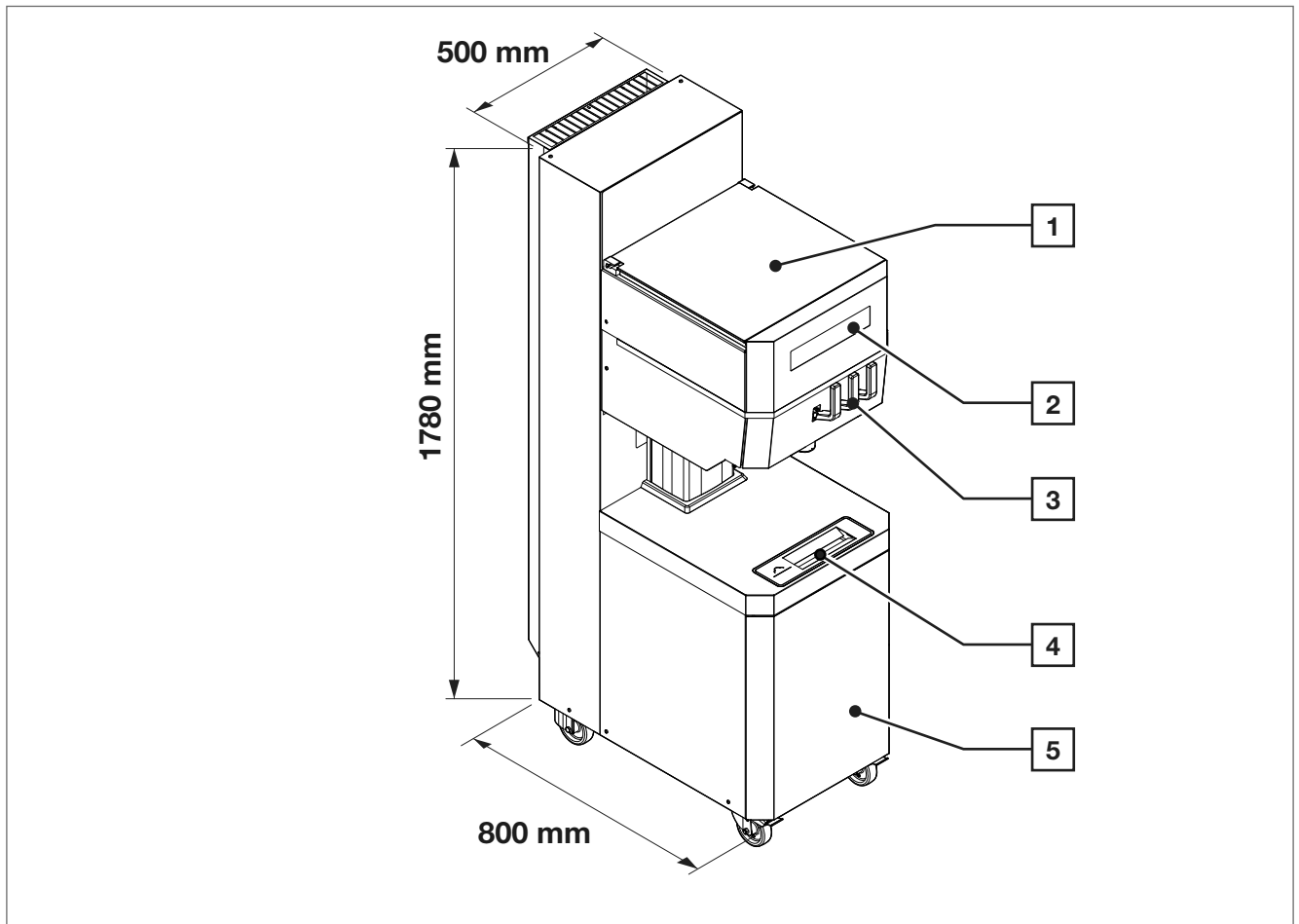
** The hourly production and mix quantity for each ice cream can vary depending on the temperature and type of mix utilised and on the increase in volume (overrun) required.

*** Also available with a water-cooled condenser and other types of electrical power supply.

Performances refer to room temperature of 25°C at a water temperature of 20°C in the condenser.

1.2.3 Location of machine groups

Fig. 02



- | | |
|---------------------------|-------------|
| 1 Tank lid | 4 Drip tray |
| 2 Control panel | 5 Cabinet |
| 3 Product dispensing door | |

1.3 Intended use

The machine must only be used for the production of ice cream and patisserie products, in compliance with what has been stated in paragraph 1.2.1 "General information", and within the operating limits indicated here below.

- Voltage: $\pm 10\%$
- Min. air temperature: 10°C
- Max. air temperature: 43°C
- Min. water temperature: 10°C
- Max. water temperature: 30°C
- Min. water pressure: $0,15\text{ MPa (15 bar)}$
- Max. water pressure: $0,8\text{ MPa (8 bar)}$
- Max. relative humidity: 85%

This machine has been designed for use in rooms not subject to explosion-proof laws and therefore it can only be utilised in rooms that conform to a normal atmosphere.

1.4 Noise

Continuous acoustic pressure level equivalent to Weighting A in the working place is less than 70 dB(A) for both water-cooled and by air-cooled machines.

1.5 Storing a machine

The machine must be stored in a dry and damp-free environment.

Before storing the machine, cover it with a sheet to protect it against dust and dirt.

1.6 Disposal of packing materials

When removing the machine from its packaging, subdivide the packing materials into the various types and dispose of them in accordance with the norms in force in the destination country.

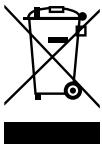
WARNING

It is forbidden to dispose of packaging materials in the environment.

GENERAL HAZARD

Do not leave packaging materials within reach of children because they could cause suffocation.

1.7 WEEE (Waste Electrical and Electronic Equipment)



In conformity with the European Directives 2006/66/EC, on batteries and accumulators and waste batteries and accumulators, and 2002/96/EC, also known as WEEE, the presence of this symbol on the side of the product or packaging means that the product must not be disposed of with normal urban waste. Instead, it is the user's responsibility to dispose of this product by returning it to a collection point designated for the recycling/treatment of electrical and electronic equipment waste.

Differentiated collection of this waste material helps to optimise the recovery and recycling of any reclaimable materials and also reduces the impact on human health and the environment.

For more information concerning the correct disposal of this product, please contact your local authority or the retailer where this product was purchased.

1.8 Bacterial contamination detection

A qualified bacteriologist must periodically analyse samples of the product to check for the presence of bacteria. The bacteria count in the samples should be below the following figures:

Standard Plate Count (SPC).....	50,000
Coliforms	10

If the bacteria count exceeds the above-mentioned figures, there is a source of bacterial contamination. This source must be immediately identified and eliminated. A high bacteria count means that the product is not fit for consumption and a correct cleaning and sanitization of the machine must be carried out to eliminate the continued bacterial contamination of the product.

NOTE

Soft yogurt normally has a high bacteria count and therefore it is necessary to highlight the product. In any case, coliform bacteria contamination IS NOT ACCEPTABLE in any type of product. The following information will help you to prevent coliform bacteria contamination problems.

The following list indicates the possible sources of bacterial contamination and the methods to prevent it.

SOURCES OF CONTAMINATION	HOW TO PREVENT CONTAMINATION
Operator contact.	<ul style="list-style-type: none"> Wash hands and forearms thoroughly. Wear rubber gloves if they are cut or have skin problems. Wash hands several times a day.
Residues / deposits of material (milk clots).	<ul style="list-style-type: none"> Utilise the appropriate brushes. To clean thoroughly, scrub the parts and components to prevent the formation of milk clots because milk clots are fertile material for the proliferation of bacteria that could contaminate the fresh milk.

SOURCES OF CONTAMINATION	HOW TO PREVENT CONTAMINATION
<p>Worn or damaged parts.</p>	<ul style="list-style-type: none"> • Lubricate all rubber parts that come into contact with the mix using a food-grade lubricant. • Replace damaged O-rings only with original spare parts. • Systematically check the drip drawers to avoid excessive dripping.
<p>Cleaning and wrong hygienic procedures.</p>	<ul style="list-style-type: none"> • The container in which the pieces are washed must be perfectly clean and contain enough detergent/sanitising solution to completely cover even the largest components. Use the brushes to clean and sanitise the machine regularly. • Utilise the appropriate brushes, lubricants and disposable cloths. • Store and utilize the detergents as per the manufacturer's instructions. • Follow expert personnel's cleaning habits. Ensure the personnel can complete cleaning procedures coherently, correctly and without interruption. • Leave the sanitising solution in the cylinder and tank at least for the time suggested by the manufacturer of the sanitising solution. • Each time after using, wash and sanitise the utensils used for cleaning and the tube containing the lubricant. Always replace the cap on the tube. • The machine components and the brushes must be left to dry in the open. Do not put them back into the machine whilst they are wet or damp. • Always carry out the daily cleaning procedure. Regularly clean the outside of the machine and the dispenser with a sanitized cloth.

SOURCES OF CONTAMINATION	HOW TO PREVENT CONTAMINATION
<p>Wrong method of storing the mix.</p>	<ul style="list-style-type: none"> • Utilise leftovers of mixes with the oldest date first. Be careful of the expiry date. • Put the mix directly in the fridge. Do not accumulate mix outside in direct sunlight before putting it in the fridge. • In the fridge, leave at least 2-3 cms of space between the mix and other products to allow air to circulate. • The mix must not be left at ambient temperature for long periods of time. • The storage temperature of the tank must be maintained at 4.4°C (40°F). Storage temperatures above 4.4°C would permit the multiplication of bacteria to dangerous levels within less than one hour. • Once the mix has been placed inside the tank, place the lid on the tank to store the mix at the correct temperature and minimise the possibility of contamination.



2. INSTALLATION

2.1 Space necessary to use the machine

The machine must be positioned so that there is enough space for air to freely circulate from the bottom to the top of the machine.

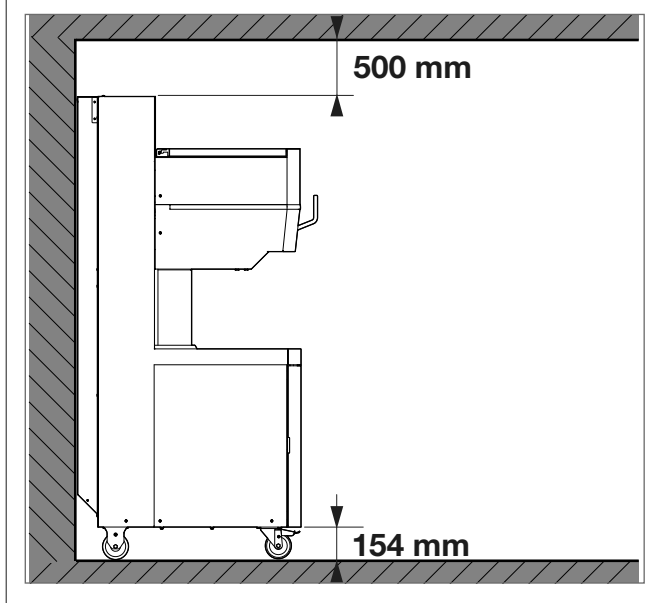
Space for access to the machine must be left free in order to enable the operator to act without constraint and also to immediately leave working area if necessary.



It is also advisable to have a minimum access operating area for the machine of at least 150 cms, bearing in mind the space occupied by the opening of the cabinet door.

 **NOTE** 

Insufficient air circulation affects the operation and the output capacity of the machine.


Fig. 03



 **WARNING** 

Machines with an air-cooled condenser must be installed leaving a minimum distance (at least 50 cms) above the chimney for the free circulation of the condensate air.



2.2 Water supply connection

 Connect the machine to a drinking water supply that has a pressure of not more than 0.8 MPa (8 bar).

2.3 Machine with air-cooled condenser



Machines with an Air-cooled condenser must be installed leaving a minimum distance (at least 50 cms) above the chimney for the free circulation of the condensation air.

 **NOTE** 

An insufficient air circulation affects operation and output capacity of the machine.

2.4 Machines with water-cooled condenser



A water-cooled machine must be connected to a mains water supply or to a cooling tower to operate it.

The water must have a pressure of between 0.15 MPa and 0.8 MPa (1.5-8 bar) and a flow capacity at least equal to the estimated hourly consumption.

Connect the inlet pipe marked by the "Water Inlet" plate to the water supply by installing a shut-off valve and the outlet tube marked by the "Water Outlet" plate to a drainage pipe by installing a shut-off valve.

2.4.1 Water valve adjustment



IMPORTANT



If the water valve needs be reset, this operation must be carried out only by skilled personnel.

 **NOTE** 

Water consumption increases if the temperature of the inlet water is above 20°C.

 **WARNING** 

Do not leave the machine in a room with a temperature below 0°C without first draining the water from the condenser.

2.5 Electrical connection



Before connecting the machine to the mains supply, check that the machine voltage indicated on the data plate corresponds with the mains supply voltage.

Position a class D section thermomagnetic circuit breaker switch correctly rated to the absorption power required and with a contact aperture of at least 3 mm. The machines are delivered with a 5 wire cable: the blue wire must be connected to the neutral lead.

IMPORTANT

The yellow/green ground wire must be connected to an adequate ground plate.

2.5.1 Replacing the power cable



Should the machine's power cable become damaged, it must be replaced immediately by one with similar characteristics.

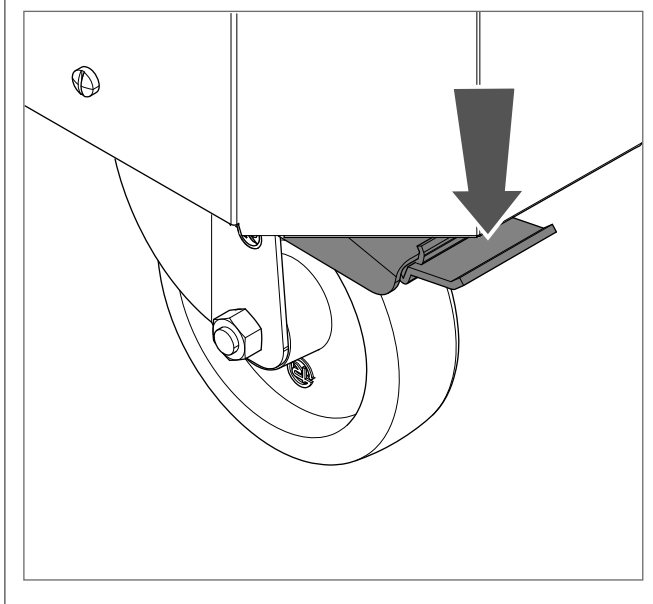
The replacement must be carried out only by a skilled technician.

2.6 Location



The machine is equipped with wheels to facilitate its positioning. There are mechanical blocking devices that once engaged stop the machine from being moved about and ensure that it is maintained in a safe position.

Fig. 04



2.7 Refilling



The type of motor installed in the machine is a lubricated-for-life motor. No checking/replacing or topping up is necessary.

The correct quantity of gas for the refrigeration circuit is put in by Carpigiani when testing the machine. A new machine does not need any topping up or refilling.

If it becomes necessary to top up or fill the system with gas, the procedure must be carried out in conditions of safety and by a qualified technician capable of establishing the cause of the anomaly prior to topping up.

2.8 Machine testing



The machine is tested by Carpigiani at the end of the assembly procedure. The foreseen operational and production functions are checked.

Machine testing on the end user's premises must be carried out by skilled technicians or by one of Carpigiani's engineers.

After positioning the machine and making the correct connections, carry out all operations necessary for functionality check and operational testing of the machine.

3. INSTRUCTIONS FOR USE

3.1 Machine safety warnings

When using industrial equipment and plant, be aware that drive mechanisms (rotary motion), high voltage components, as well as parts subject to high temperatures may cause serious injury/damage to persons and things.

The person in charge of plant safety must check that:

- any incorrect use or handling is avoided;
- safety devices are not removed or tampered with;
- the machine is regularly maintained;
- only original spare parts are used especially with regards to those components with safety functions (e.g., protection microswitches, thermostats, etc.);
- suitable personal protective equipment is worn;
- great care is taken during hot product cycles.

To achieve the above, the following is necessary:

- at the work station an instruction manual relevant to the machine must be available;
- the documentation must be carefully read and requirements must consequently be met;
- only adequately skilled personnel should be assigned to electrical equipment;
- ensure that technical personnel do not carry out operations that are not within their capabilities, knowledge and responsibility.

3.2 Machine configuration

The machine is composed of a motor for operating the beater unit, a cooling system with a water-cooled or air-cooled condenser and electronic management of the main functions.

The preparation of soft ice cream occurs by placing the cold mix (+4°C) inside the tanks and starting an automatic production cycle until the set programmed optimum consistency of the ice cream is reached.

The mix enters into the whipping cylinders already mixed with air. The ice cream is produced only at the moment in which it is served.

By using the ice cream dispensing levers positioned on the front of the machine, a portion of soft ice cream requested will be dispensed.

Simultaneously, an equal quantity of mix passes from the upper refrigerated tanks to the whipping cylinder.

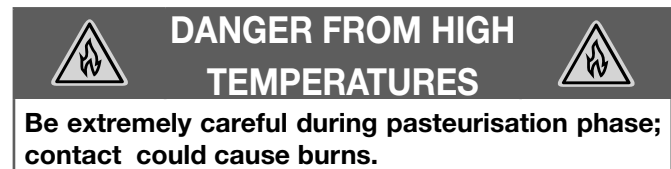
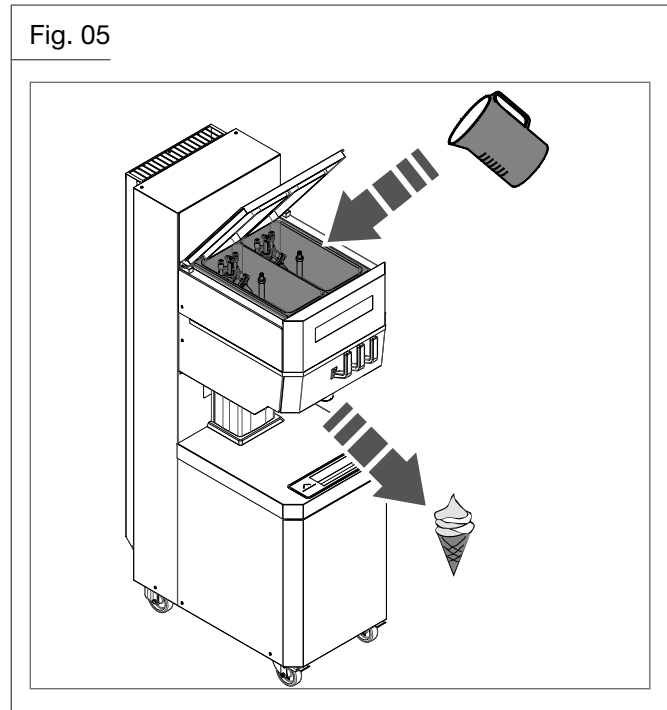


Fig. 05

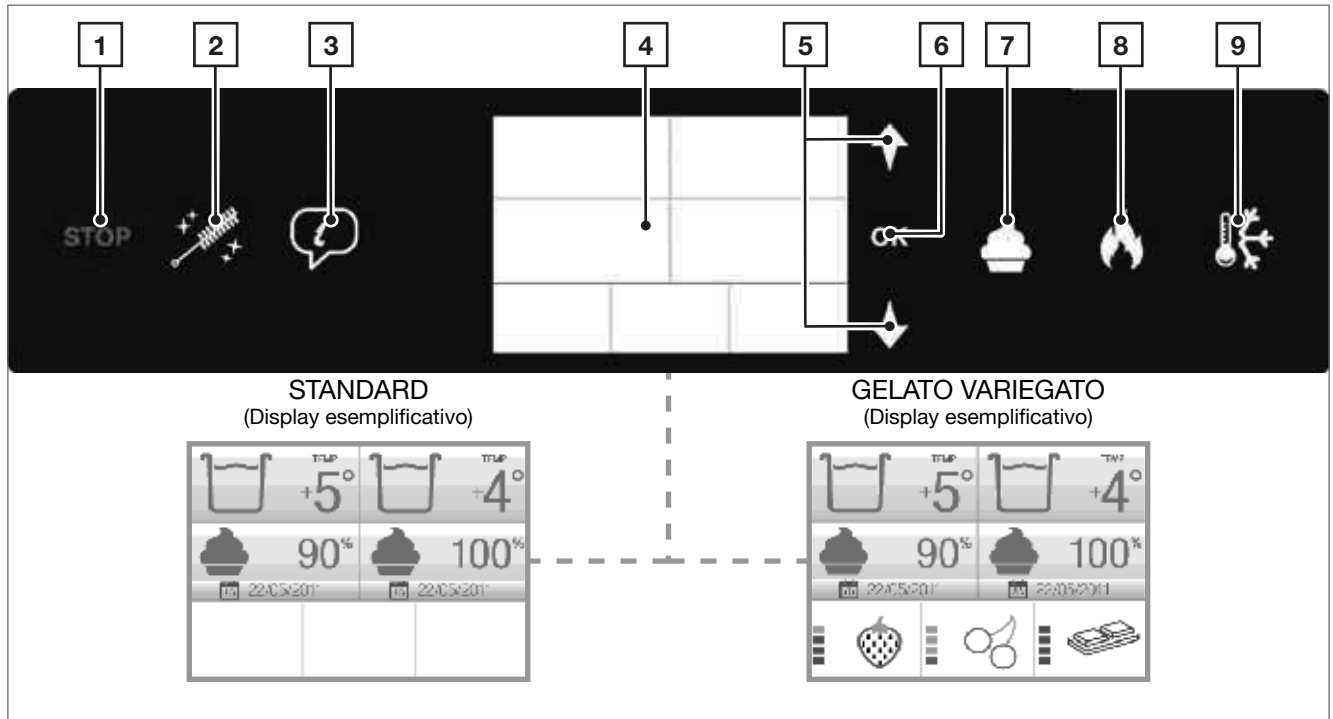


3.3 Controls

3.3.1 Push-button panel

The machine is equipped with a push-button panel fitted on the front panel; each button is marked by an explanatory symbol of the assigned function.

Fig. 06



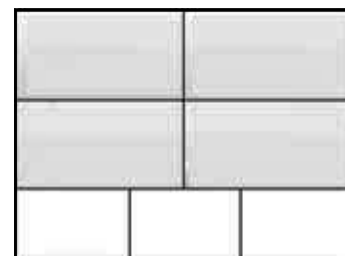
- | | |
|--|---|
| <ul style="list-style-type: none"> 1 Stop the machine from functioning 2 Cleaning 3 Information 4 Touch screen display 5 Production unit movement. 6 Confirm | <ul style="list-style-type: none"> 7 Production 8 Pasteurisation 9 Storage/Alarm Reset |
|--|---|



NOTE



The display is touch screen with 7 sensitive zones:

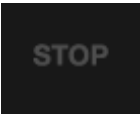

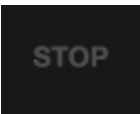


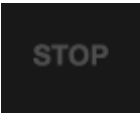




























NOTE











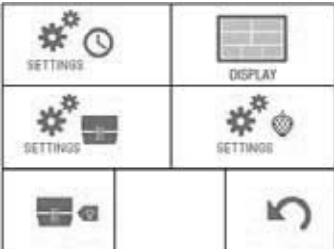











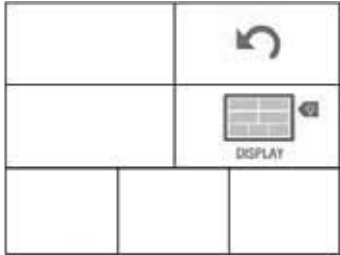


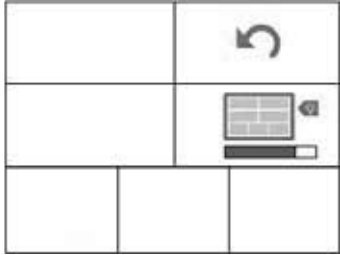

The keypad emits an acoustic signal when the key pressed has been accepted.







3.3.2 Functions





















BUTTONS	DESCRIPTION OF FUNCTIONS
<p>STOP</p> 	<p>In Stop mode, with the Stop key back lit, the machine is at stop. From the Stop position any machine function can be accessed. To change function, returning first to Stop IS ALWAYS REQUIRED.</p> <p>The display indicates the time, date and the indication of the tank and water sprayer levels (if present).</p>  <p>To place the machine in Stop mode whilst in Production, Pasteurisation or Storage mode, press the Stop key for approximately 2 seconds. This avoids making wrong selections by lightly brushing the key with the finger.</p>
<p>WHY IN STOP ??</p>  <p>With the machine in Stop mode for more than 30 seconds.</p>	<p>If the machine is left in Stop mode with the level covered, after 30 seconds the message “Why in STOP ??” is visualised to alert the user to put the machine into Production, Pasteurisation or Storage mode.</p>  <p>Press the  key to cancel the alarm message from the display. Refer to alarms.</p>
<p>WASH TODAY!</p>  <p>With the machine in Stop mode for more than 24 hours.</p>	<p>From Stop mode, there is a time countdown if the tank level is covered. If this time exceeds 24 hours, the display visualises the message “Wash today!”.</p>  <p>The user must carry out machine washing procedure before restarting Production.</p> <p>Press the  key to cancel the alarm message from the display. Refer to alarms.</p>



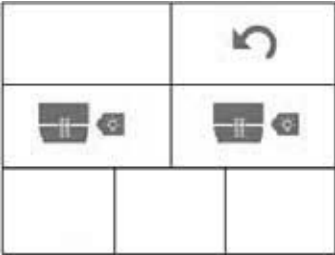



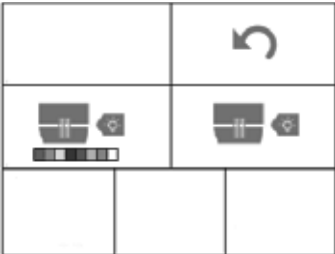




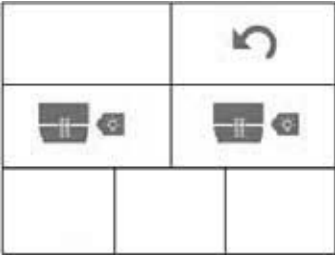

BUTTONS	DESCRIPTION OF FUNCTIONS
<p>INFO whilst in Stop mode</p>  <p>Functions that can be selected from INFO whilst the machine is in Stop mode:</p> <ul style="list-style-type: none"> • Pasteurisation history • Events history • Key locking • Settings 	<p>Pressing the Info  key whilst in Stop mode, the display visualises the following functions that can be selected directly on the touch screen:</p> <ul style="list-style-type: none"> • Pasteurisation history   • Events history   • Key locking  • Settings   <p>Press the  key to go back to the previous page.</p>
<p>INFO – PASTEURISATION HISTORY</p>  <p>With the machine in Stop mode press:</p> <ul style="list-style-type: none"> • INFO • PASTEURISATION HISTORY 	<p>Pressing the Pasteurisation History   key the display visualises the list of pasteurisations carried out successfully.</p>  <p>Utilise the  and  arrow keys to scroll the different events.</p>
<p>INFO – EVENTS HISTORY</p>  <p>With the machine in Stop mode press:</p> <ul style="list-style-type: none"> • INFO • EVENTS HISTORY 	<p>Pressing the Historical Events   key the display visualises the list of events that include function changes, alarms and pasteurisation steps.</p>  <p>Utilise the  and  arrow keys to scroll the different events.</p> <div style="background-color: #cccccc; padding: 5px; text-align: center;"> <p> NOTE </p> <p>The maximum number of memorizable events is 1000.</p> </div> <p>When a successive event occurs the last event is removed.</p>








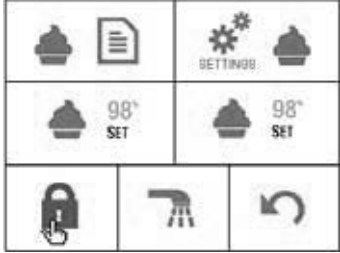



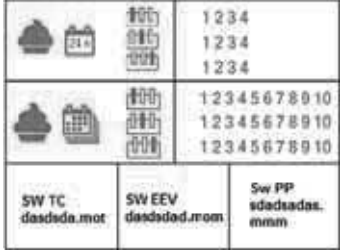




BUTTONS	DESCRIPTION OF FUNCTIONS
<p>INFO – KEY LOCKING</p>  <p>With the machine in Stop mode press:</p> <ul style="list-style-type: none"> • INFO • KEY LOCKING 	<p>The key locking key is present in all functions of the machine. Pressing the  key locking key for 10 seconds (wait for the visualisation of the display to return to the source function) and all keys are disabled, except for those inside the display. To permit the front panel to be cleaned without accidentally activating functions, the machine returns to the previous function.</p>  <p>To re-enable the keys press any key; The window with a lock will re-appear: press it for 10 seconds to enable the keys.</p>
<p>INFO - SETTINGS</p>  <p>With the machine in Stop mode press:</p> <ul style="list-style-type: none"> • INFO • SETTINGS <p>Functions that can be selected from SETTING mode:</p> <ul style="list-style-type: none"> • Setting the time • Display • Setting the machine • Setting the syrups • LED bar 	<p>Pressing the Settings  key, the display visualises the following functions that can be selected directly on the touch screen:</p> <ul style="list-style-type: none"> • Setting the time  • Display  • Setting the machine  • Setting the syrups (if present)  • LED bar  
<p>INFO – SETTING THE TIME</p>  <p>With the machine in Stop mode press:</p> <ul style="list-style-type: none"> • INFO • SETTINGS • SETTING THE TIME 	<p>Pressing the Setting the time  key, the display visualises:</p>  <p>Pressing on the hour the background of the key becomes grey and the  and  si arrow keys light up so that the hour can be modified. Confirm using the  key.</p>  <p>To modify minutes and date follow the same procedure.</p>










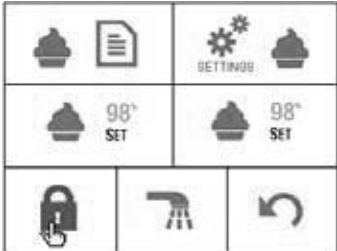


BUTTONS	DESCRIPTION OF FUNCTIONS
<p>INFO - DISPLAY</p>  <p>With the machine in Stop mode press:</p> <ul style="list-style-type: none"> • INFO • SETTINGS • DISPLAY 	<p>Pressing the Display  key, the display visualises:</p>  <p>The display luminosity bar (intensity of the backlight) of the display appears when pressing on the display and the  and  arrow keys light up to allow modification.</p>  <p>Confirm using the  key.</p>
















BUTTONS	DESCRIPTION OF FUNCTIONS																																										
<p>INFO – MACHINE SETTING</p>  <p>With the machine in Stop mode press:</p> <ul style="list-style-type: none"> • INFO • SETTINGS • MACHINE SETTING (Programming) 	<p>Pressing the Machine setting  key, access is gained to the first step of user programming.</p>  <p>To scroll the various steps, utilise the  and  arrow keys. The display visualises the first step of user programming. E.g., U07 - Language: Eng. The value is modifiable using the left and right arrow keys visualised on the touch screen. Refer to the Programming table.</p> <table border="1" data-bbox="391 757 1426 1014"> <thead> <tr> <th>Step</th> <th>Display ITA</th> <th>Display ENG</th> <th>Min</th> <th>Max</th> <th>De-fault</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>U07</td> <td>Linguaggio</td> <td>Language</td> <td>Ita</td> <td>Esp</td> <td>Ita</td> <td></td> </tr> <tr> <td>U08</td> <td>Ora Avvio Prod.</td> <td>Start Prod. Time</td> <td>00</td> <td>23+no+auto</td> <td>08</td> <td></td> </tr> <tr> <td>U09</td> <td>Ora Avv.Pas-Con</td> <td>Start Past. Stor.</td> <td>00</td> <td>23+no</td> <td>02</td> <td></td> </tr> <tr> <td>U10</td> <td>Abilita Beep Liv</td> <td>Lev. Beep Enable</td> <td>No</td> <td>Yes</td> <td>Yes</td> <td></td> </tr> <tr> <td>U15</td> <td>Lato Attivo</td> <td>Active Side</td> <td>1</td> <td>3</td> <td>3</td> <td></td> </tr> </tbody> </table> <p>U07 - Language: Setting the language in Italian, English, German or Spanish.</p> <p>U08 - Start Prod. Time: Setting of the start hour of automatic Production. Set at “No” automatic Production will not start. Set at “auto” automatic Production starts as soon as the Pasteurisation cycle has been completed.</p> <p>U09 - Start Past. Stor.:</p> <p><u>For pasteurising machines:</u> Setting of the start hour of automatic Pasteurisation. Set at “No” automatic Pasteurisation will not start.</p> <p><u>For non-pasteurising machines:</u> Setting of the start hour of automatic Storage. Set at “No” automatic Storage will not start.</p> <p>U10 - Lev. Beep Enable: Set at “Yes” an intermittent acoustic beep sounds when the medium level is uncovered, except when the machine is in Stop mode which remains off even when enabled.</p> <p>U15 - Active Side: There are three settings (1, 2 or 3). Set the side on which to operate.</p> <p>1= Left side 2= Right side 3= Both sides</p> <p>To exit from user programming, do not press any key for approximately 30 seconds or press  on the display. At this point the machine returns to the previous menu. On exiting user programming, if the table has been updated, the message “Table Updated M.” appears on the display.</p>	Step	Display ITA	Display ENG	Min	Max	De-fault	Notes	U07	Linguaggio	Language	Ita	Esp	Ita		U08	Ora Avvio Prod.	Start Prod. Time	00	23+no+auto	08		U09	Ora Avv.Pas-Con	Start Past. Stor.	00	23+no	02		U10	Abilita Beep Liv	Lev. Beep Enable	No	Yes	Yes		U15	Lato Attivo	Active Side	1	3	3	
Step	Display ITA	Display ENG	Min	Max	De-fault	Notes																																					
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U10	Abilita Beep Liv	Lev. Beep Enable	No	Yes	Yes																																						
U15	Lato Attivo	Active Side	1	3	3																																						








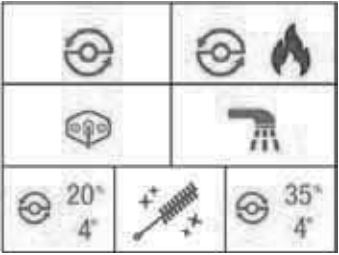









BUTTONS	DESCRIPTION OF FUNCTIONS
<p>INFO – SYRUP SETTING (if present)</p>  <p>With the machine in Stop mode press:</p> <ul style="list-style-type: none"> • INFO • SETTINGS • SYRUP SETTING <p>Functions that can be selected from SYRUP SETTING:</p> <ul style="list-style-type: none"> • Icon selection • Syrup quantity 	<p>Pressing the Syrup Setting  key, the display visualises the following functions that can be directly selected on the touch screen:</p> <ul style="list-style-type: none"> • Icon selection  • Syrup quantity   <p>Pressing the Icon selection  key, the background of the key becomes grey (selected).</p> <p>Pressing a syrup ,  or , key, the background of the key becomes grey and the  and  arrow keys light up. Using these keys, the icon associated to the key selected can also be selected (Apple, Banana, Chocolate, Strawberry, Amarena, Chestnut, Green and Red).</p> <p>Press the  key or the relative syrup icon key to confirm the image chosen.</p> <p>Pressing the Syrup quantity  key, the background of the key becomes grey (selected).</p> <p>Pressing any , , , syrup key the background of the key becomes grey and the  and  arrow keys light up.</p> <p>A number lights up and the quantity of syrup can be adjusted by pressing the  and  arrow keys.</p> <p>The number on the side increases and decreases accordingly.</p>














































BUTTONS	DESCRIPTION OF FUNCTIONS
<p>INFO – LED BAR</p>  <p>With the machine in Stop mode press:</p> <ul style="list-style-type: none"> • INFO • SETTINGS • LED BAR (colour and intensity) 	<p>Pressing LED Bar  the display visualises:</p>  <p>Pressing the  LEFT key (LED bar colour), the LED bar lights up as do the  and  arrow keys which allow the colour of the LED bar to be modified from a selection of eight possible colours.</p>  <p>Confirm by pressing the  key.</p> <p>Pressing the  RIGHT key (LED bar intensity), the LED bar lights up as do the  and  arrow keys which allow the intensity of the LED bar colour to be modified.</p>  <p>Confirm by pressing the  key.</p>



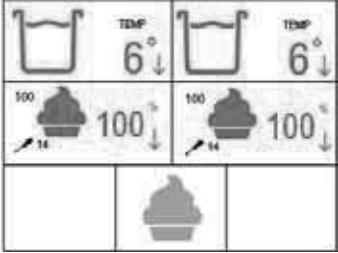
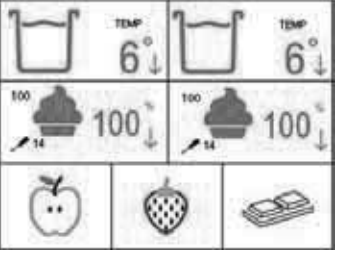

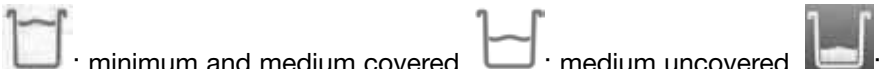









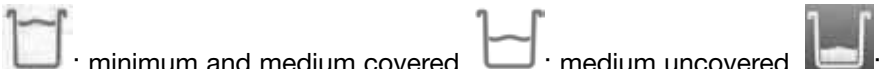








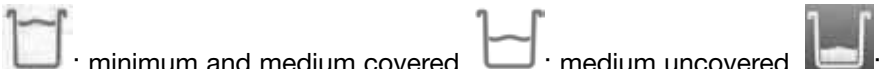











BUTTONS	DESCRIPTION OF FUNCTIONS
<p>INFO from Production mode</p>  <p>Functions that can be selected from INFO whilst the machine is in Production mode:</p> <ul style="list-style-type: none"> • Cones and Software Versions • Setting • Modify Set Hot • Key locking • Water Sprayer 	<p>Pressing the  key whilst in Production mode, the display visualises the following functions that can be selected directly on the touch screen:</p> <ul style="list-style-type: none"> • Cones and Software Versions  • Setting (if present)  • Modify Set Hot  • Key locking  • Water Sprayer   <p>Use the  key to return to the previous page.</p>
<p>INFO – CONES AND SOFTWARE VERSIONS</p>  <p>With the machine in production mode press:</p> <ul style="list-style-type: none"> • INFO • CONES AND SOFTWARE VERSIONS 	<p>Pressing the Cones and software versions  key, the display visualises the only read page that reports the following data:</p> <ul style="list-style-type: none"> • Daily cones • Total cones • SW versions  <p>To return to the previous function press the  key or wait 15 seconds.</p>
<p>INFO - SETTING (if present)</p>  <p>With the machine in production mode press:</p> <ul style="list-style-type: none"> • INFO • SETTINGS 	<p>Pressing the Setting  key, access is gained to the whipping cycle selection menu (if present).</p> <p>To return to the previous function press the  key or wait 15 seconds.</p>




























BUTTONS	DESCRIPTION OF FUNCTIONS
<p>INFO – MODIFY SET HOT</p>  <p>With the machine in production mode press:</p> <ul style="list-style-type: none"> • INFO • MODIFY SET HOT 	<p>Pressing the Modify Set Hot  key, the background of the key becomes grey and the  and  arrow keys light up to permit the modification of the value.</p>  <p>After having set the desired value, confirm by pressing the  key.</p> <p>If the  key is pressed again, the value is not memorised.</p>
<p>INFO - KEY LOCKING</p>  <p>With the machine in production mode press:</p> <ul style="list-style-type: none"> • INFO • KEY LOCKING 	<p>Pressing the  key locking key for 10 seconds and all keys are disabled, except for those inside the display. To permit the front panel to be cleaned without accidentally activating functions, the machine returns to the previous function.</p>  <p>To re-enable the keys, press any key and the window with the lock appears. Pressing the Key locking key for 10 seconds, all keys are re-enabled.</p>
<p>INFO - WATER SPRAYER (if present)</p>  <p>With the machine in production mode press:</p> <ul style="list-style-type: none"> • INFO • WATER SPRAYER 	<p>Pressing the Water Sprayer  key activates the dispensing of water via the Water Sprayer positioned inside the cabinet of the machine.</p> <p>The dispensing stops after 3 minutes or by pressing the same key again.</p>



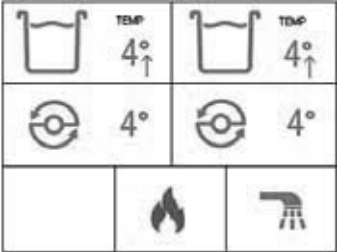























BUTTONS	DESCRIPTION OF FUNCTIONS
<p>INFO whilst in Cleaning mode</p>  <p>Functions that can be selected whilst in INFO mode with the machine in Cleaning mode:</p> <ul style="list-style-type: none"> • Key locking 	<p>Pressing the  key whilst in Cleaning mode, the display visualises the following functions that can be selected directly on the touch screen:</p> <ul style="list-style-type: none"> • Key locking  <p>Pressing the  key locking key for 10 seconds and all keys are disabled, except for those inside the display. To permit the front panel to be cleaned without accidentally activating functions, the machine returns to the previous function.</p> <p>To re-enable the keys, press any key and the window with the lock appears. Pressing the Key locking key for 10 seconds, all keys are re-enabled.</p> <p>Using the  key the menu returns to the previous page.</p>
<p>INFO whilst in Pasteurisation mode</p>  <p>Functions that can be selected whilst in INFO mode with the machine in Pasteurisation mode:</p> <ul style="list-style-type: none"> • Key locking 	<p>Pressing the  key whilst in Pasteurisation mode, the display visualises the following functions that can be selected directly on the touch screen:</p> <ul style="list-style-type: none"> • Key locking  <p>Pressing the  key locking key for 10 seconds and all keys are disabled, except for those inside the display. To permit the front panel to be cleaned without accidentally activating functions, the machine returns to the previous function.</p> <p>To re-enable the keys, press any key and the window with the lock appears. Pressing it for 10 seconds, all keys are re-enabled.</p> <p>Using the  key the menu returns to the previous page.</p>
<p>INFO whilst in Storage mode</p>  <p>Functions that can be selected whilst in INFO mode with the machine in Storage mode:</p> <ul style="list-style-type: none"> • Key locking 	<p>Pressing the  key whilst in Storage mode, the display visualises the following functions that can be selected directly on the touch screen:</p> <ul style="list-style-type: none"> • Key locking  <p>Pressing the  key locking key for 10 seconds and all keys are disabled, except for those inside the display. To permit the front panel to be cleaned without accidentally activating functions, the machine returns to the previous function.</p> <p>To re-enable the keys, press any key and the window with the lock appears. Pressing the Key locking key for 10 seconds, all keys are re-enabled.</p> <p>Using the  key the menu returns to the previous page.</p>


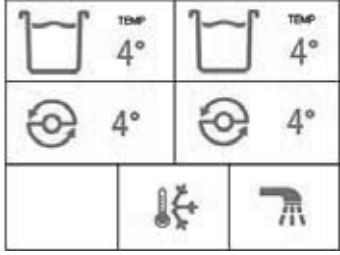

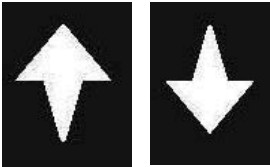







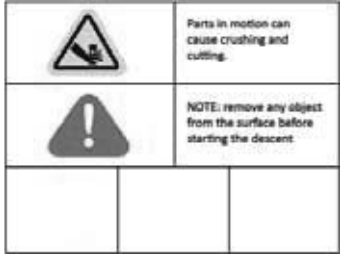




BUTTONS	DESCRIPTION OF FUNCTIONS
<p>CLEANING</p>  <p>Functions that can be selected whilst in Cleaning mode:</p> <ul style="list-style-type: none"> • Beating • Heated beating • Pump • Water dispensing • Syrup cleaning 	<p>Pressing the Cleaning  key the display visualises the following functions that can be selected directly on the touch screen:</p> <ul style="list-style-type: none"> • Beating  • Heated beating  • Pump  • Water dispensing (if present)  • Syrup cleaning (if present)   <p>The last line visualises the temperature of the cylinder and the consistency of the product .</p> <p>The keys that can be activated have a coloured icon (blue or red) and once pressed the background becomes grey.</p> <p>The keys that cannot be activated have a grey icon. Refer to the key  on the above display.</p> <p>The 2  and  functions can be activated simultaneously.</p>
<p>CLEANING – BEATING</p>  <p>Press:</p> <ul style="list-style-type: none"> • CLEANING • BEATING 	<p>Pressing the Beating  key the beater motor is activated/deactivated.</p> <p>When the motor is functioning, the background of the relative function becomes grey.</p>  <p>After 30 seconds the symbol returns to a white background and the motor switches off.</p> <p>The Beating function is utilised to wash the cylinder and facilitate the emptying of the product from the cylinder.</p>
<p>CLEANING – PUMP</p>  <p>Press:</p> <ul style="list-style-type: none"> • CLEANING • PUMP 	<p>Pressing the Pump  key (only machines with a pump), the pump motor is activated/deactivated.</p> <p>When the motor is functioning, the background of the relative function becomes grey.</p> <p>After 30 seconds the symbol returns to a white background and the pump switches off.</p> <p>The function is utilised to load the mix from the tank to the cylinder and to pressurize the cylinder to facilitate the dispensing of the product.</p>

BUTTONS	DESCRIPTION OF FUNCTIONS												
<p>CLEANING - HEATED BEATING</p>  <p>Press:</p> <ul style="list-style-type: none"> • CLEANING • HEATED BEATING 	<p>Pressing Heated Beating   the beater motor with heating is activated/deactivated.</p> <p>When Heated Beating is activated the background of the function becomes grey.</p> <p>The cylinder is heated until a set temperature is reached.</p> <p>On reaching this temperature the symbol changes back to the white background and Heated Beating is deactivated.</p>												
<p>CLEANING - WATER DISPENSING</p>  <p>Press:</p> <ul style="list-style-type: none"> • CLEANING • WATER DISPENSING 	<p>Pressing the Water Sprayer  key activates/deactivates (only if present) the dispensing of water via the Water Sprayer positioned inside the cabinet of the machine. The maximum dispensing time is 3 minutes. To stop the water dispensing before 3 minutes, press the Water Sprayer key again.</p> <p>When Water Sprayer is active, the background of the function becomes grey; when it is deactivated the symbol changes back to the white background.</p>												
<p>CLEANING – SYRUP CLEANING</p>  <p>Press:</p> <ul style="list-style-type: none"> • CLEANING • SYRUP CLEANING 	<p>If the machine has the syrop option, once the Cleaning key is pressed the display visualises:</p> <table border="1" data-bbox="820 985 1158 1236"> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td> 20" 4"</td> <td> 35" 4"</td> </tr> </table> <p>Pressing the Syrup Cleaning  key the display visualises three Syrup Cleaning icons at the bottom of the display.</p> <table border="1" data-bbox="815 1350 1153 1601"> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </table> <p>Pressing a Syrup key, its associated key lights up with a grey background  and the associated syrup pump is activated for 20 seconds at maximum speed so that the syrup line can be washed</p> <div data-bbox="464 1760 1503 1850" style="background-color: #cccccc; padding: 5px; text-align: center;"> <p>NOTE</p> </div> <div data-bbox="464 1850 1503 1906" style="border: 1px solid black; padding: 5px;"> <p>It is not possible to select two syrups simultaneously.</p> </div> <p>To stop the cleaning in advance press the same key. Once the syrup cleaning procedure is completed, the associated syrup icon changes back to white.</p> <p>To return to the Cleaning screen press the  key again or one of the four keys on the display.</p>					 20" 4"	 35" 4"						
													
													
 20" 4"	 35" 4"												
													
													
													

BUTTONS	DESCRIPTION OF FUNCTIONS																						
<p>PRODUCTION</p> 	<p>Production can be accessed only when the minimum level is covered.</p> <p>Pressing the key  the display visualises:</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Standard Machine version</p> </div> <div style="text-align: center;">  <p>Variegated Ice Cream machine version</p> </div> </div> <p>Where:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;"></td> <td>The tank level.</td> </tr> <tr> <td style="text-align: center;"></td> <td>: minimum and medium covered,  : medium uncovered,  : minimum uncovered.</td> </tr> <tr> <td style="text-align: center;">-10 </td> <td>Number of cones that can be dispensed with the level uncovered. It appears only if the minimum level becomes uncovered.</td> </tr> <tr> <td style="text-align: center;">4°</td> <td>Temperature in the tank. If <40°C the temperature visualised is blue. If >=40°C the temperature visualised is red.</td> </tr> <tr> <td style="text-align: center;">4° ↓</td> <td>Arrow lit: when the tank is cooling.</td> </tr> <tr> <td style="text-align: center;">100</td> <td>Set consistency to be reached.</td> </tr> <tr> <td style="text-align: center;"></td> <td>Product cannot be sold yet. When it reaches consistency it becomes .</td> </tr> <tr> <td style="text-align: center;">100 %</td> <td>Current consistency.</td> </tr> <tr> <td style="text-align: center;">100 % ↓</td> <td>Arrow lit: if the cylinder is cooling.</td> </tr> <tr> <td style="text-align: center;"> 14</td> <td>Number of days left to Cleaning</td> </tr> <tr> <td style="text-align: center;"></td> <td>Flavour (syrup) selected (if foreseen). All flavours can also be disabled (white background) (neutral).</td> </tr> </table> <p>The machine brings set <u>ice cream</u> in the cylinder to the right consistency every 10 minutes.</p> <p>Press the  key to force this time. The consistency will conform to the set value.</p>		The tank level.		: minimum and medium covered,  : medium uncovered,  : minimum uncovered.	-10 	Number of cones that can be dispensed with the level uncovered. It appears only if the minimum level becomes uncovered.	4°	Temperature in the tank. If <40°C the temperature visualised is blue. If >=40°C the temperature visualised is red.	4° ↓	Arrow lit: when the tank is cooling.	100	Set consistency to be reached.		Product cannot be sold yet. When it reaches consistency it becomes  .	100 %	Current consistency.	100 % ↓	Arrow lit: if the cylinder is cooling.	 14	Number of days left to Cleaning		Flavour (syrup) selected (if foreseen). All flavours can also be disabled (white background) (neutral).
	The tank level.																						
	: minimum and medium covered,  : medium uncovered,  : minimum uncovered.																						
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4°	Temperature in the tank. If <40°C the temperature visualised is blue. If >=40°C the temperature visualised is red.																						
4° ↓	Arrow lit: when the tank is cooling.																						
100	Set consistency to be reached.																						
	Product cannot be sold yet. When it reaches consistency it becomes  .																						
100 %	Current consistency.																						
100 % ↓	Arrow lit: if the cylinder is cooling.																						
 14	Number of days left to Cleaning																						
	Flavour (syrup) selected (if foreseen). All flavours can also be disabled (white background) (neutral).																						
<p>PRODUCTION – CHANGE OF FLAVOUR</p> 	<p>CHANGE OF FLAVOUR PROCEDURE</p> <p>Pressing the  key for 10 seconds the symbol on the display turns grey and cooling is deactivated of the side relative to the pressed cone key. Beating is activated and the pump operates for one minute to permit the emptying of the cylinder and the tank of product. If the product has not been completely removed after one minute, reactivate the function for a further minute by pressing the  key again. At this point fill the empty tank with a different flavour.</p> <p>To exit from the procedure, press the  key for 10 seconds and the key changes back to blue.</p>																						

BUTTONS	DESCRIPTION OF FUNCTIONS								
<p>PRODUCTION – SYRUP PUMP SPEEDS only for syrup version</p> 	<p>MODIFY QUANTITY OF SYRUP DISPENSED</p> <p>To modify the speed of the syrup pump and consequently the quantity of syrup dispensed select the flavour by, for example, pressing the  key and the background becomes grey.</p> <p>Press the key  again for three seconds until the  and  arrow keys light up. At this point modify the speed utilising the  and  arrow keys. The values can be modified from 90 to 245.</p> <p>To exit from the procedure, press the  key again for three seconds until the  and  arrow keys are switched off, or wait one minute.</p>								
<p>PRODUCTION - LED BAR</p> 	<p>LED BAR</p> <p>The LED bar lights up in intermittent/slow mode during the phase of reaching consistency of the product.</p> <p>When the product has reached the right consistency, the LED bar remains lit in fixed mode and the product can be dispensed via the ice cream dispensing handles.</p> <p>When the medium level is uncovered in one or both tanks, the LED bar flashes in intermittent/fast mode.</p>								
<p>PRODUCTION VERSIONS WITH WATER SPRAYER AND MIXER</p> 	<p>VERSIONS WITH WATER SPRAYER AND MIXER</p> <p>The versions of the machine that do not have the syrup function show the information indicated as follows on the third line of the display:</p> <table border="1" data-bbox="464 1111 1445 1995"> <tbody> <tr> <td data-bbox="464 1111 959 1245"> <p>Basic machine.</p> <p>The cone indicates that the machine is in Production mode. The key is not active.</p> </td> <td data-bbox="959 1111 1445 1245">  </td> </tr> <tr> <td data-bbox="464 1245 959 1626"> <p>Machine with a water sprayer.</p> <p>The cone indicates that the machine is in Production mode. The key is not active. The water sprayer is an active (blue) key. Pressing the  key the water solenoid valve is opened which allows water to be dispensed by manually activating the water sprayer. Dispensing stops after 3 minutes or by pressing the same key again.</p> </td> <td data-bbox="959 1245 1445 1626">  </td> </tr> <tr> <td data-bbox="464 1626 959 1794"> <p>Machine with a mixer.</p> <p>The cone indicates that the machine is in Production mode. The grey key is not active. The mixer is an active (blue) key.</p> </td> <td data-bbox="959 1626 1445 1794">  </td> </tr> <tr> <td data-bbox="464 1794 959 1995"> <p>Machine with a mixer and a water sprayer.</p> <p>The cone indicates that the machine is in Production mode. The key is not active. The mixer is an active (blue) key. The water sprayer is an active (blue) key.</p> </td> <td data-bbox="959 1794 1445 1995">  </td> </tr> </tbody> </table>	<p>Basic machine.</p> <p>The cone indicates that the machine is in Production mode. The key is not active.</p>		<p>Machine with a water sprayer.</p> <p>The cone indicates that the machine is in Production mode. The key is not active. The water sprayer is an active (blue) key. Pressing the  key the water solenoid valve is opened which allows water to be dispensed by manually activating the water sprayer. Dispensing stops after 3 minutes or by pressing the same key again.</p>		<p>Machine with a mixer.</p> <p>The cone indicates that the machine is in Production mode. The grey key is not active. The mixer is an active (blue) key.</p>		<p>Machine with a mixer and a water sprayer.</p> <p>The cone indicates that the machine is in Production mode. The key is not active. The mixer is an active (blue) key. The water sprayer is an active (blue) key.</p>	
<p>Basic machine.</p> <p>The cone indicates that the machine is in Production mode. The key is not active.</p>									
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BUTTONS	DESCRIPTION OF FUNCTIONS												
<p>PASTEURISATION</p> 	<p>Pasteurisation can be accessed only when the medium level is covered.</p> <p>Pressing the Pasteurisation  key for 5 seconds, the display visualises:</p> <div style="text-align: center;">  </div> <p>Where:</p> <table border="1" data-bbox="389 730 1321 1406"> <tr> <td data-bbox="389 730 539 927">  </td> <td data-bbox="539 730 1321 927"> The tank level.  : minimum and medium covered,  : medium uncovered  : minimum uncovered. </td> </tr> <tr> <td data-bbox="389 927 539 1061"> TEMP 4° </td> <td data-bbox="539 927 1321 1061"> Temperature in the tank. If <40°C the temperature visualised is blue. If >=40°C the temperature visualised is red. </td> </tr> <tr> <td data-bbox="389 1061 539 1128">  </td> <td data-bbox="539 1061 1321 1128"> Arrow lit to one side of the temperature: Up if the tank is in heating mode and Down if in cooling mode. </td> </tr> <tr> <td data-bbox="389 1128 539 1240"> 4° </td> <td data-bbox="539 1128 1321 1240"> Temperature in the cylinder. If <40°C the temperature visualised is blue. If >=40°C the temperature visualised is red. </td> </tr> <tr> <td data-bbox="389 1240 539 1330">  </td> <td data-bbox="539 1240 1321 1330"> Function active: heating. Do not remove product. </td> </tr> <tr> <td data-bbox="389 1330 539 1406">  </td> <td data-bbox="539 1330 1321 1406"> Water dispenser if foreseen. </td> </tr> </table> <p>If the machine pasteurises, the Pasteurisation cycle occurs automatically every day at a predetermined time (if set in User Programming).</p> <p>When the machine is in Production or Storage mode at the time set for pasteurisation, it automatically goes into Pasteurisation mode.</p> <p>To activate Manual Pasteurisation, keep the  key pressed for 5" seconds.</p> <p>If the Pasteurisation cycle is not successfully completed, the machine CANNOT gain access to Production mode until a Pasteurisation cycle is completely carried out.</p> <p>During the Pasteurisation cycle, the product in the tank or in the cylinder is heated to 65°C, maintained at this temperature for 30 minutes (fixed) and then cooled until the storage temperature is reached.</p> <p>At the end of the cycle, the display visualises  with the hour and the day of the week, which means that the pasteurising process has been carried out correctly.</p>		The tank level.  : minimum and medium covered,  : medium uncovered  : minimum uncovered.	TEMP 4°	Temperature in the tank. If <40°C the temperature visualised is blue. If >=40°C the temperature visualised is red.		Arrow lit to one side of the temperature: Up if the tank is in heating mode and Down if in cooling mode.	4°	Temperature in the cylinder. If <40°C the temperature visualised is blue. If >=40°C the temperature visualised is red.		Function active: heating. Do not remove product.		Water dispenser if foreseen.
	The tank level.  : minimum and medium covered,  : medium uncovered  : minimum uncovered.												
TEMP 4°	Temperature in the tank. If <40°C the temperature visualised is blue. If >=40°C the temperature visualised is red.												
	Arrow lit to one side of the temperature: Up if the tank is in heating mode and Down if in cooling mode.												
4°	Temperature in the cylinder. If <40°C the temperature visualised is blue. If >=40°C the temperature visualised is red.												
	Function active: heating. Do not remove product.												
	Water dispenser if foreseen.												

BUTTONS	DESCRIPTION OF FUNCTIONS
<p>STORAGE/ALARM RESET</p> 	<p>The Storage cycle is automatically carried out every day at an established time. Storage has the function of bringing the product in the tank and the cylinder to a temperature of 4°C.</p> <p>Once entering the Storage cycle the display shows as follows:</p>  <p>To start Storage manually keep the key  pressed for 5 seconds. The button allows also to reset the alarms that might be shown on the display.</p>
<p>VERTICAL TANK MOVEMENT (if present)</p> 	<div style="border: 1px solid black; padding: 5px; text-align: center;">  <p>CRUSHING HAZARD</p>  <p>Remove all objects from the surface before activating the movement of the head. The presence of objects could cause malfunctioning. No liability is accepted by Carpigiani for malfunctioning, breakages or damages arising from misuse of tank movement.</p> </div> <p>To make the cleaning of the tank easier, the tank column can be moved vertically (if provided).</p> <p>To raise or lower the tank utilise the  and .</p> <p>By pressing the  key and keeping it pressed, the tank rises; release the key to stop the tank in the most suitable position. The maximal height is set by reaching the uppermost limit switch.</p> <p>Pressing the  key starts tank lowering procedure but in this case the display visualises warning messages to avoid the danger of being crushed.</p> <p>Pressing the  key the display visualises:</p>  <p>The  key flashes for 5 seconds. If no key is pressed within that time period the display returns to the previous page.</p> <p>If the  key is pressed instead, the key stops flashing and by pressing the  key the tank starts to be lowered with a beeping tone signal.</p> <p>As soon as the  key is released the movement of the tank stops and the display returns to the previous page.</p>

3.4 Dispensing handles



To dispense the product, place a cup or a cone underneath the dispensing door and, with the machine in production mode, slowly lower the dispensing handle.

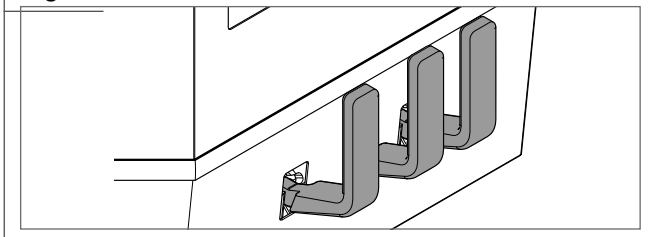
As soon as the product starts to come out, move the cup or cone with a circular motion to give the ice cream a conical shape.

Once a sufficient amount of product has been dispensed, close the dispensing handle and move the cup or cone quickly downwards to give the portion a pointed tip.

The product dispensing handle can also be easily removed by lifting it upwards.

In this way it can also be used as a key to stop the machine being used.

Fig. 07

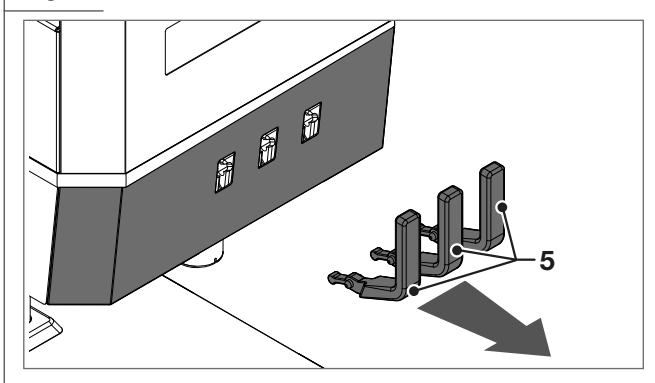


3.4.1 Modify the quantity of product dispensed

To modify the quantity of product dispensed by the various handles, carry out the following procedure:

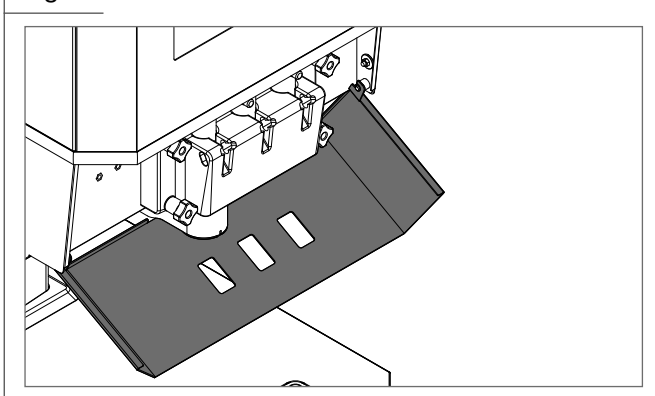
- Remove the ice cream dispensing handle (5).

Fig. 08



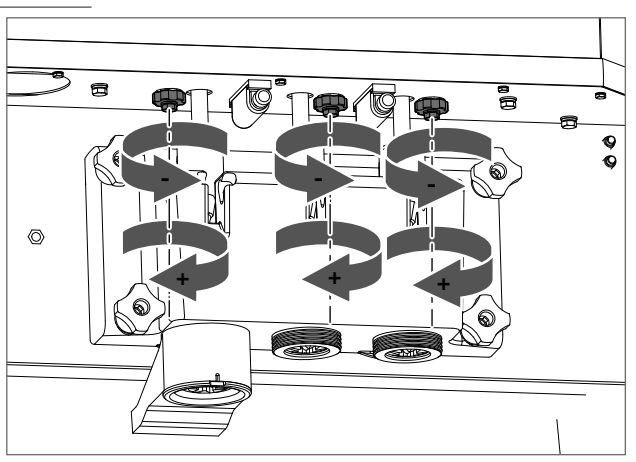
- Open the door cover panel

Fig. 09



- Adjust the three knobs. Rotating them in an anti-clockwise direction the quantity of product dispensed is reduced. Rotating them in a clockwise direction increases the quantity.

Fig. 10



3.4.2 Self closing


The machine is equipped with an automatic return system that brings the ice cream dispensing handle to rest automatically.

This occurs via a spring system connected to the dispensing piston.



NOTE

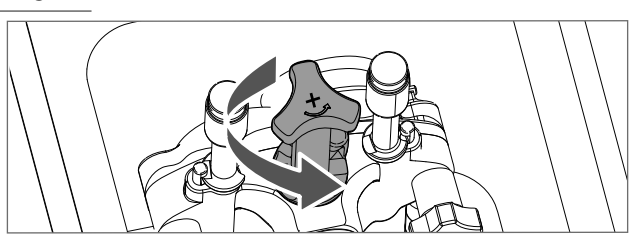


When the  symbol is visualised in Production mode, remove a cone by lowering the dispensing handle until it stops. Re-position the handle in the closed position.

3.5 Machines fed by pump and semi-submersible pump

The pump allows a variation in the proportion of air/mix sent to the cooling cylinders. Therefore, within certain limits, it allows to adjust the volume increase (overrun) suitable to the type of mixed used. By turning the middle handle counter-clockwise the overrun is increased.

Fig. 11

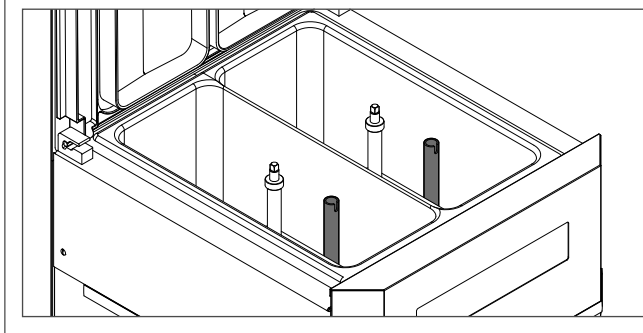


3.6 Gravity-fed machines – feed needle

Instructions for achieving and maintaining the good functioning of the machine.

- Always keep the level of the mix in the tank high (at least more than half). The mix in the tank is stored at 4°C whether in Production mode or Storage mode.
- During the day periodically stir the mix in the tank using a spatula to avoid the separation of the mix, especially after long stoppage periods in Storage mode.
- Always use a fluid mix free of large lumps. A very dense mix with large lumps could block the slot of the feed needle thereby stopping the loading of the whipping cylinder.
- Keep the cursor of the feed needle (pos. 52) in a position that permits the mix to fall correctly from the tank into the whipping cylinder. Rotating the slot of the cursor in correspondence to the lower hole diameter, the quantity of mix is reduced that drops into the tank. Rotating the slot of the cursor in correspondence to the upper hole diameter, the quantity of mix is increased that drops into the tank.
- Position the feed needle in such a way that the entry hole of the product is turned towards the centre of the tank.
- Do not exceed the production indicated in paragraph 1.2.2 and maintain regularity in the distribution of cones and tubs. Exceeding the limits of production capacity indicated could block the machine. In this case the alarm message “ICE” could appear on the display. If this occurs, reset the functionality of the machine as follows:
 - Place the machine in Stop mode.
 - Remove the feed needle to allow a free fall of mix into the cylinder.
 - Place the machine in Cleaning mode for a few minutes.
 - Ensure that a liquid product pours out from dispensing tap.
 - Replace the feed needle checking that the cursor is sufficiently open.
 - Switch on the machine again and put it into Production mode. Wait for it to stop and then commence distribution again.

Fig. 12

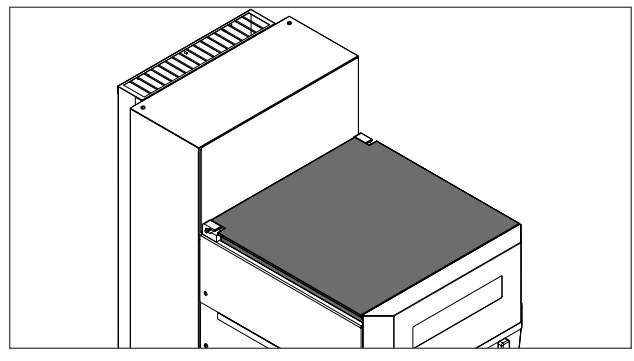


3.7 Utilizzo corretto del coperchio vasca

Il coperchio vasca EVD 3 ha tre posizioni:

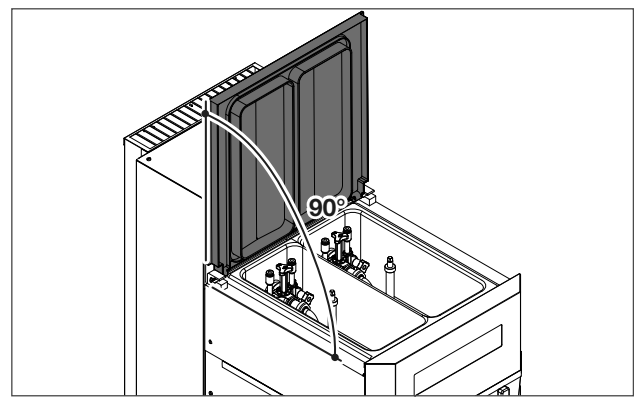
- Cover closed.

Fig. 13



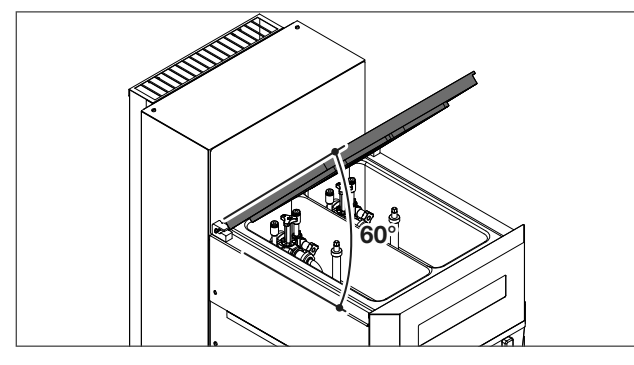
- Cover open at 90°, useful for the disassembly of tank components and for the removal of the same cover.

Fig. 14



- Cover open at 60°, useful for loading the mix into the tanks.

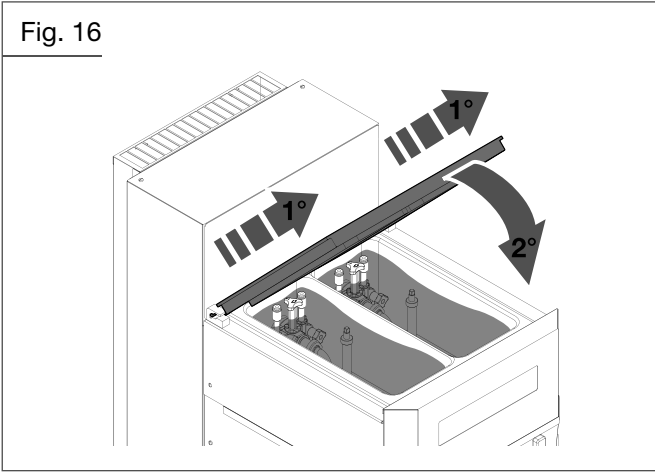
Fig. 15



Follow this procedure to close the cover that is open 60°:

- Pull the cover forwards (towards the user).
- Close the cover by lowering it.

Fig. 16



AVVERTENZA



During the closing phase do not place pressure on the lower part of the cover because it could be damaged.

3.8 Preliminary operations, washing and sanitising

Before using the machine for the first time, thoroughly clean all component parts as well as sanitising the parts that come into contact with the ice cream.

Refer to section 5 of this manual for machine disassembly and cleaning procedures.



NOTE



Cleaning and sanitisation are operations that must be carried out with maximum care to ensure production quality and compliance with required hygienic norms.

3.9 Commissioning the machine

After installing the machine in compliance with the instructions contained in the "Installation" chapter of this manual and after thoroughly washing and sanitising the machine, proceed as follows:

3.9.1 Starting the machine that has a pump

Remove the compression tube from the bottom of the tank and plunge it into the cleaning/sanitising solution for 5/10 minutes (refer to the indications of the manufacturer of the product used).

Loading the tank:

- Take a tub of mix from the refrigerator.
N.B. Load a mix that has a temperature of 4-5°C.
- Pour a small quantity of mix (approximately 100 ml) into the tanks, lower the ice cream dispensing levers and let the mix flow completely out so as to eliminate any residues of water and detergent/sanitising solution. Bring the ice cream dispensing levers back to the original position and continue to pour the mix so that it fills the cylinder by gravity.
- When the cylinder is full and the tank almost empty,




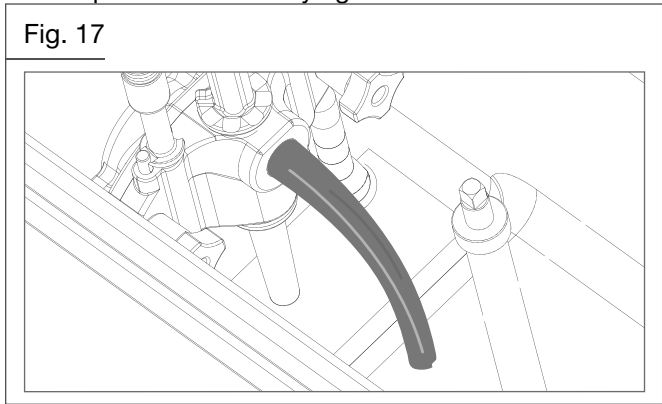
press the  key and then press the  key to verify the correct functioning of the pump (the flow of the mix must be a good jet). In the event of malfunctioning, refer to paragraph 6.1. To deactivate the function press the  key again.

Fig. 17



Assembling the compression tube:

- With clean, sanitised hands (or wearing disposable gloves) take the compression tube from the sanitising solution and place it onto the bottom of the tank.
- Rotate the compression tube counter-clockwise in order to align it with the pump. Insert the connecting tube (pos. 207) into the pump and rotate it until it is fastened.
- Pour the mixture into the tanks until they are full.

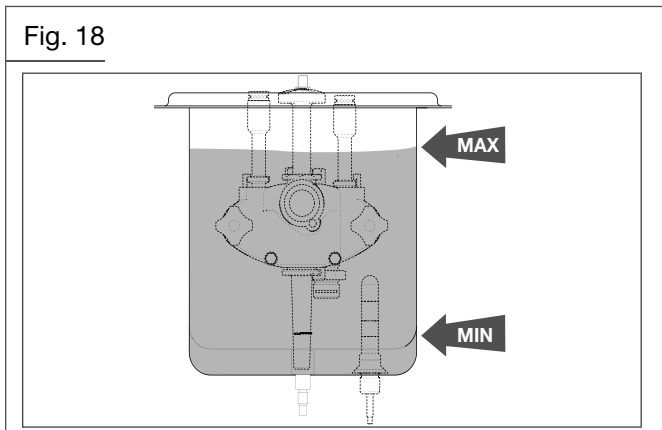


NOTE



The level of mix in the tanks must not exceed the maximum level indicated on the tank walls.

Fig. 18



3.9.2 Starting a gravity-fed machine

Remove the feed needle from the bottom of the tank and immerse it in the detergent/sanitising solution for 5/10 minutes (in accordance with that indicated by the manufacturer of the product utilised).

Loading the tank:

- Take a pack of mix from the refrigerator. **NB.: Utilise a mix that has a temperature of 4°C/5°C.**
- Pour a small quantity of mix (approximately 100 ml) into the tanks, lower the ice cream dispensing levers and let the mix flow completely out so as to eliminate any residues of water and detergent/sanitising solution. Bring the ice cream dispensing levers back to their original positions and continue to pour the mix so that it fills the cylinder by gravity.
- During this phase only the cylinders are filled. The tank remains empty to carry out the following described operations.

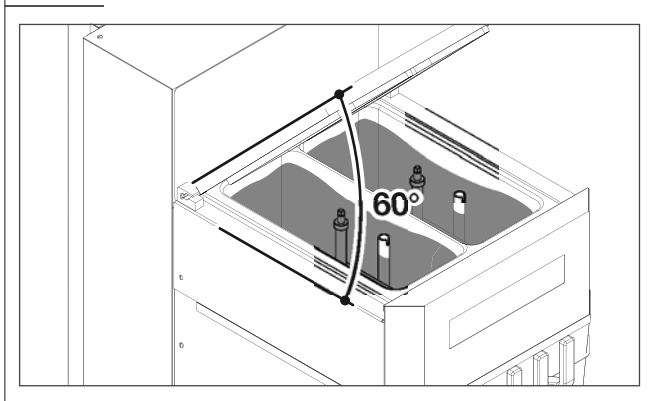
Assembly of the feed needle:

- Using clean and sanitised hands (or wearing disposable gloves), remove the feed needle from the sanitising solution and insert it into the bottom of the tank.

NOTE

The level of mix in the tanks must never exceed the height of the feed needle.

Fig. 19



NOTE

After having cleaned the machine and, more precisely, after having closed the front door, press the key to start production within 60 minutes. After 60 minutes, the machine accepts the key no longer and it automatically sets to heat-treatment function. In other words, carry out the "Complete sanitisation of the machine" and the "Mix priming" within 60 minutes, then press the key.

- Close the tank lid (Refer to paragraph 3.7).
- Place the machine in Production mode by pressing the key.
- After few minutes the product can be dispensed.

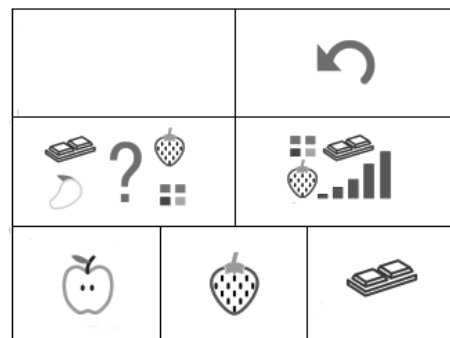
3.9.3 Loading the syrup circuits (Variegated version only)

- Connect the syrup tubes to their appropriate containers.
- Place an empty container under the door.
- Press the key, then the key and then press the icon associated with the syrup.
- As soon as the syrup flows out from the door press and throw away the dispensed syrup.
- Repeat the operation for all syrup lines.
- Clean the syrup compartment and the door of the compartment utilizing a clean and sanitised cloth.

3.9.4 Syrup adjustment (Variegated version only)

From Stop press the key.

Pressing the key the following page is accessed:



Pressing the key, the background of the key becomes grey (selected).

Pressing a Syrup , key or key the key background becomes grey and the arrow keys and light up. A number lights up and the corresponding syrup pump is activated for a time set in Programming. During this time, the quantity of syrup can be adjusted by pressing the and arrow keys. The number

at the side consequently increases and decreases. To stop the dispensing in advance, press the same key.

Press the key to go back to previous page.

3.9.5 Dry filling (if present)

WARNING

All machines predisposed for the dry filling function must have an exclusive connection to the drinking water mains system. If the microbiological characteristics of the water are not periodically checked and/or the powdered food preparatives utilised are not sterile, CARRYING OUT PASTEURISATION HEAT TREATMENT IS HIGHLY RECOMMENDED each time they are loaded and topped up.

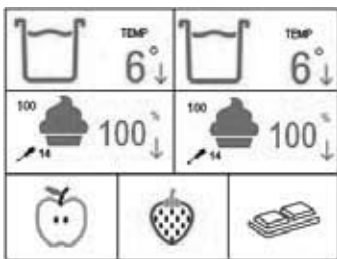
LOADING THE MIX - How to carry out a Dry Filling after cleaning and sanitising machine

Carrying out a DF procedure must take place only once the machine has been cleaned. The DF procedure is enabled if the Medium level or the Minimum level is uncovered (and consequently the Medium level).

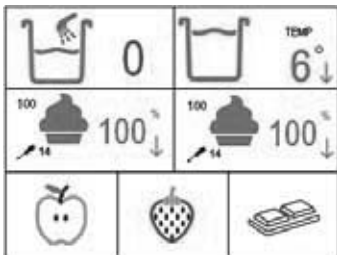
With clean, sanitised hands (or wearing disposable gloves) proceed as described below.

- Take the water sprayer from the cabinet and point it towards the inside of tank.
- The machine is in Stop mode. Press the key.

The display visualises:

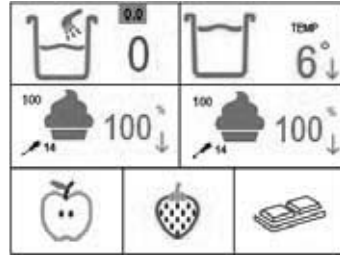


- By pressing the key the display shows:

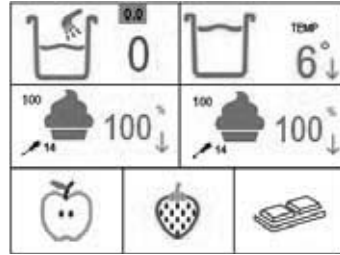


If no key is pressed for ten seconds the visualisation returns to the standard display.

- By pressing the key the display shows:

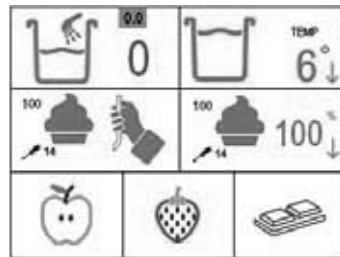


- The and keys lights up to allow the modification of the quantity in litres shown on display.



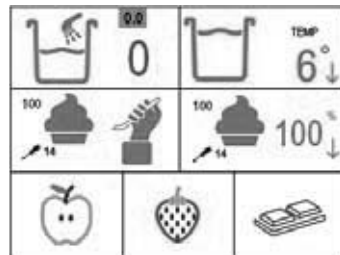
- The quantity can be modified by utilising the arrow keys in steps of 0.1 of a litre. If no key is pressed for ten seconds the visualisation returns to the standard display.

- To start the DF procedure, press the key.
- At this point add the powdered mix. In the meantime, clean the upper part of the machine with a sanitised cloth and close the lid of the tank (Refer to paragraph 3.7).
- If the DF procedure is carried out with the minimum level uncovered (and the previous function was Stop), after completing the DF procedure, the mixing and the loading for 30" with pump, the display visualised as follows:



to indicate to de-pressurise the cylinder by pulling the relative handle.

- After pulling the lever, on the display is shown:



to indicate to de-pressurise the cylinder by pulling the relative handle.

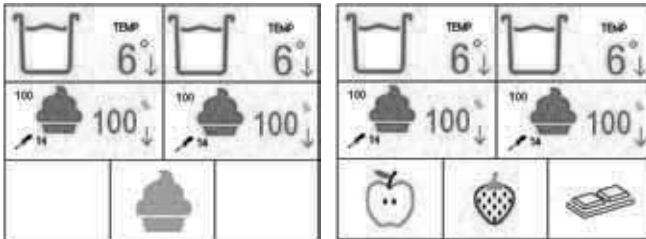
- After a few minutes the beating stops and the machine is ready for production.

3.10 Production

Production can be accessed only when the minimum level is covered.



Pressing the key the display visualises:



Standard machine version

Variegated Ice Cream machine version

Where:

	The tank level. : minimum and medium covered, : medium uncovered, : minimum uncovered.
	Number of cones that can be dispensed with the level uncovered. It appears only if the minimum level becomes uncovered.
	Temperature in the tank. If <40°C the temperature visualised is blue. If >=40°C the temperature visualised is red.
	Arrow lit: if the tank is cooling.
	Set consistency to be reached.
	Product cannot be sold yet. When it reaches the consistency it becomes .
	Actual consistency (HOT).
	Arrow lit: if the cylinder is cooling.
	Number of days left to Cleaning.
	Flavour (syrup) selected (if provided). All flavours can also be disabled (white background) (neutral).

Led Bar

The LED bar lights up in intermittent/slow mode during the phase of reaching consistency of the product. When the product has reached the right consistency, the LED bar remains lit in fixed mode and the product can be dispensed via the ice cream dispensing handles. When the medium level is uncovered in one or both tanks, the LED bar flashes in intermittent/fast mode.

Versions with water sprayer and mixer

In the version without syrups, the three keys are visualised as follows, where:

<p>Basic machine. The cone indicates that the machine is in Production mode. The key is not active.</p>	
<p>Machine with a water sprayer. The cone indicates that the machine is in Production mode. The key is not active. The water sprayer is an active (blue) key.</p>	
<p>Pressing the key the water solenoid valve is opened which allows water to be dispensed by manually activating the water sprayer. Dispensing stops after 3 minutes or by pressing the same key again.</p>	
<p>Machine with a mixer. The cone indicates that the machine is in Production mode. The grey key is not active. The mixer is an active (blue) key.</p>	
<p>Machine with a mixer and a water sprayer. The cone indicates that the machine is in Production mode. The key is not active. The mixer is an active (blue) key. The water sprayer is an active (blue) key.</p>	

NOTE

During the production phase it is recommended to activate the "Key locking" function described in paragraph 3.3.2 of this manual.

NOTE

When the level indicator lights up, only 10 portions can be dispensed after which the dispensing keys are locked until the tank is filled with mix.

NOTE

When the symbol is visualised in Production mode, remove a cone by lowering the dispensing handle until it stops. Re-position the handle in the closed position.

3.11 Pasteurisation (for the “SP” machines)

The machine is equipped with a system that allows to carry out Pasteurisation automatically every day at an established time.

Pasteurisation can also be activated manually by pressing the pasteurisation key.

The product, whether in the tank or the cylinder, is heated to 65°C and maintained at this temperature for 30 minutes. Then it's cooled until the storage temperature has been reached.

At the end of the cycle the display visualises “Pasto End” which means that the pasteurisation process has been carried out correctly.

Pasteurisation cannot be started if the mix in the tank is less than half full.

3.12 Daily cleaning – Opening and closing procedures

3.12.1 Daily closing procedures

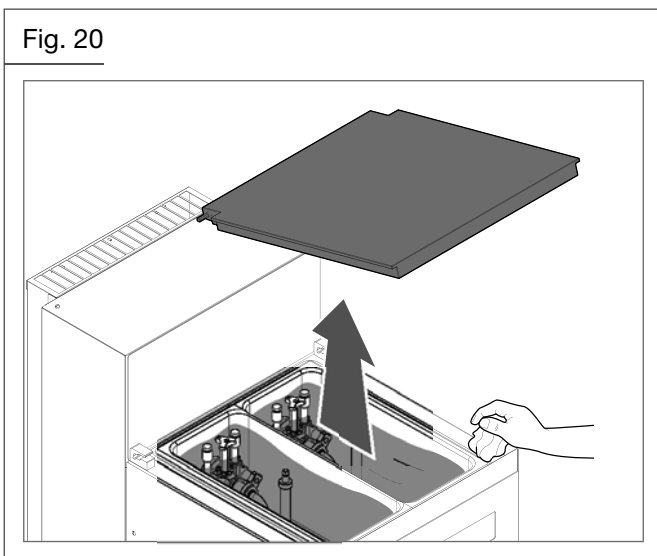
With clean, sanitised hands (or wearing disposable gloves) carry out the following procedures

- Keep the machine in Production mode.

Disassembly and cleaning of the components:

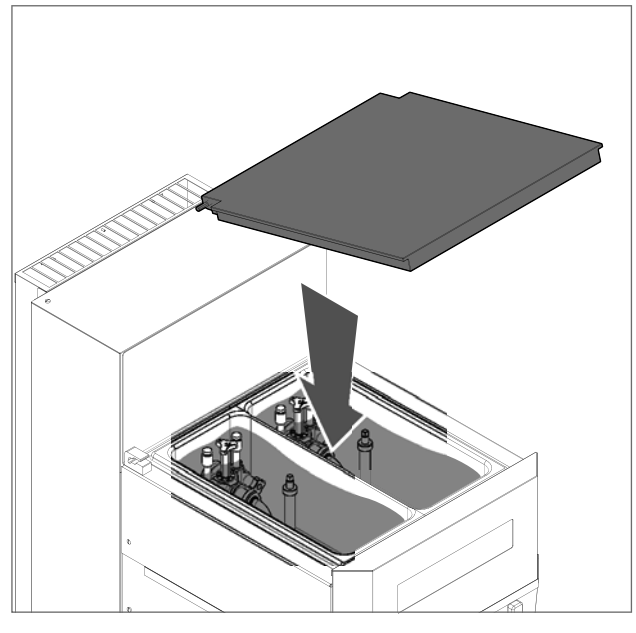
- Remove the tank cover, then wash, sanitise and rinse it in a container.
- Clean the outside part of the tanks by using a clean, sanitised cloth.

Fig. 20



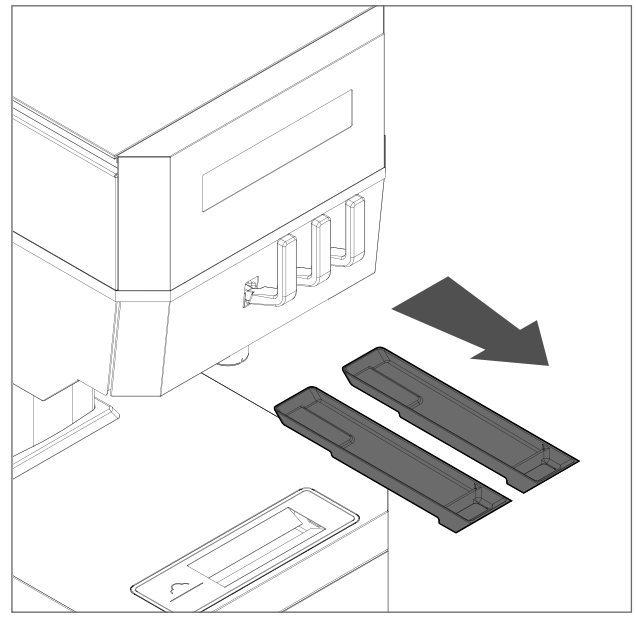
- Reposition the cover onto the tank after sanitization.

Fig. 21



- Remove the drip drawers on the front of the machine, then wash, sanitise and rinse them.

Fig. 22



NOTE

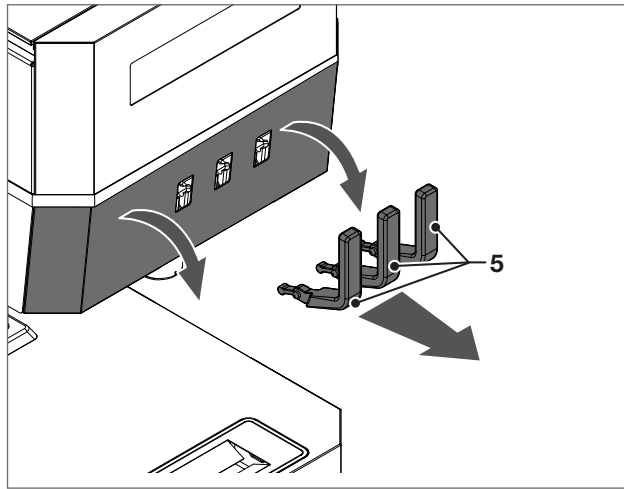


Notify an authorised technician if any mix leaks from the drip drawers.

- Reposition the drip drawers onto the machine.

- Remove the dispensing handles (5).
- Using both hands, grip the upper part of the door cover panel and pull forward.

Fig. 23



- Using one hand, apply pressure to the panel in correspondence to the pin so that the slot pops out and the panel can be completely removed.

Fig. 24

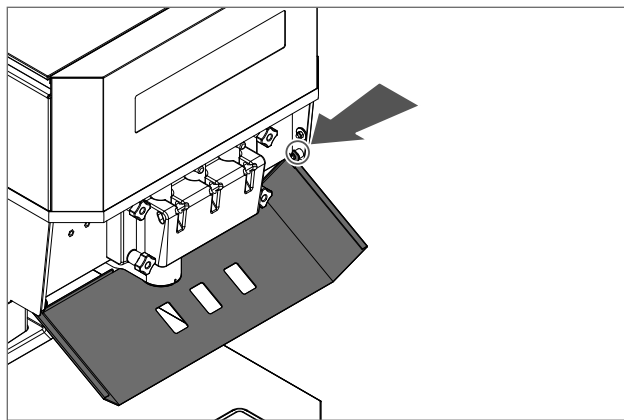
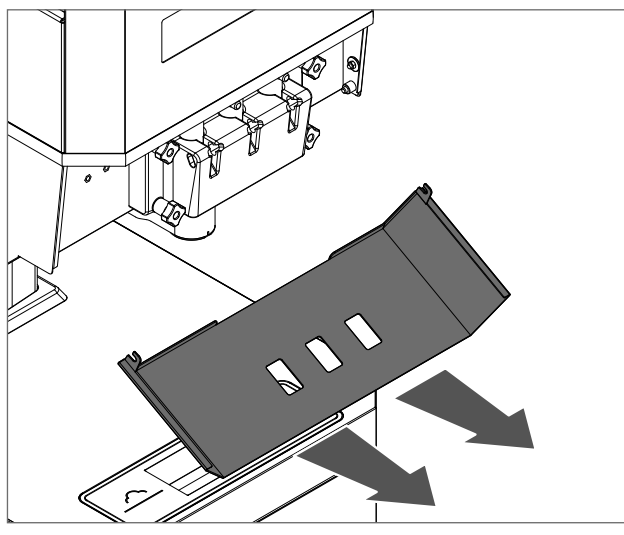
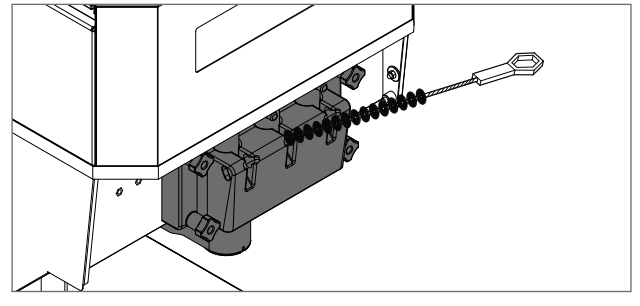


Fig. 25



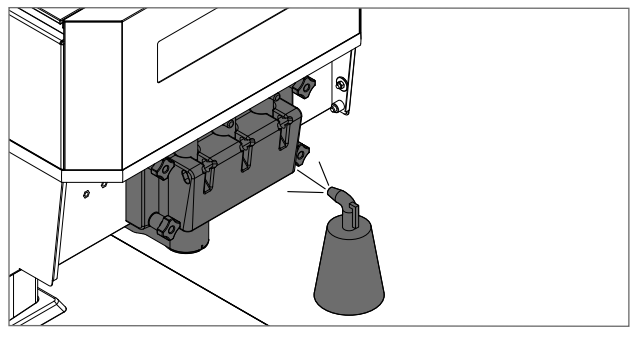
- Wash and sanitise the door cover panel and the ice cream dispensing handles.
- Fill a bucket with cleaning/sanitising solution. Dip the provided brush into the cleaning/sanitising solution and clean the door dispenser and the door itself (especially the plunger area) several times.

Fig. 26



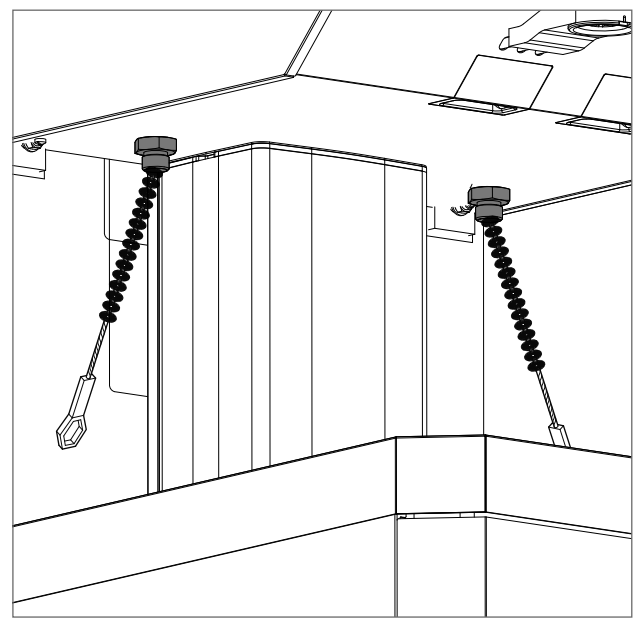
- Spray the sanitising solution on the door's dispensing point and on the door, particularly in the area of the plunger.

Fig. 27



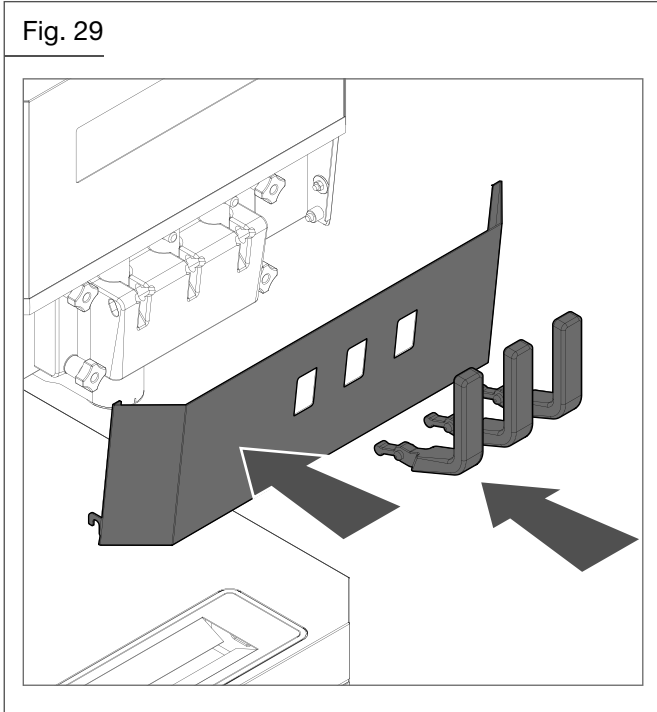
- Clean the pump drip pipes located on the side of the front of the machine by means of the provided fine brush.

Fig. 28



- Clean the door area, the steel part underneath it, the machine front and all “splash” areas with a clean, sanitised cloth, carefully removing any kind of dampness and remains of product or cleaning/sanitising solution.
- Re-assemble the door cover panel and the ice cream dispensing handles.

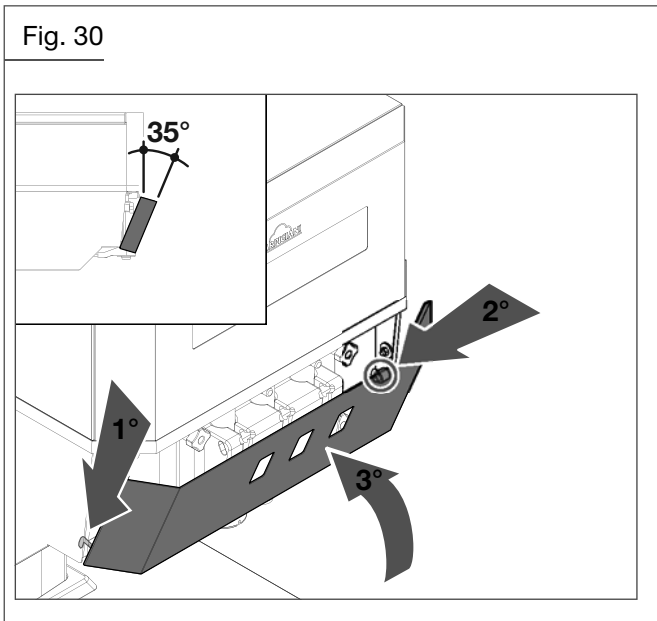
Fig. 29



WARNING

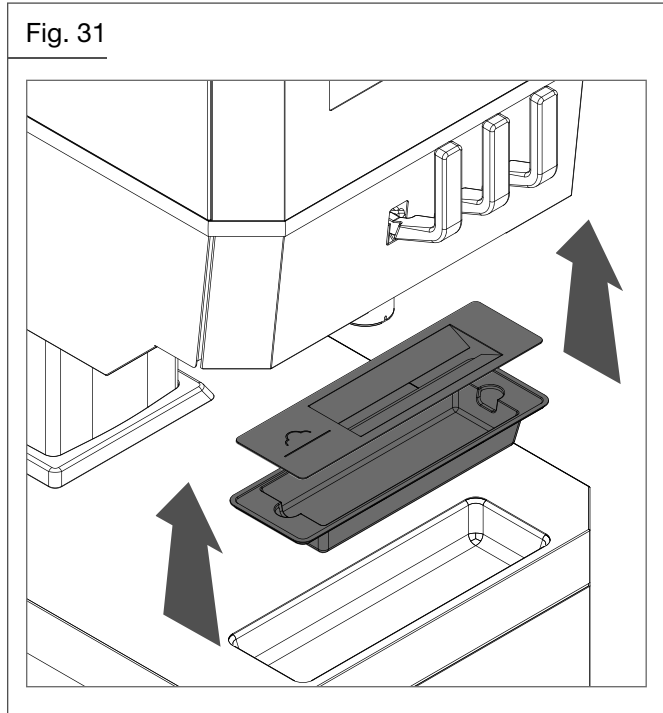
For machines with a syrup system: whilst re-assembling the door cover panel, position the panel above the syrup block and fix the two slots to the respective pins (as indicated in the figure).

Fig. 30



- Remove the drip tray and its cover; wash, sanitise, rinse it and then reassemble the machine.

Fig. 31



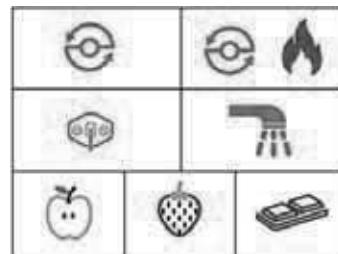
CLEANING AND SANITISATION OF THE SYRUP LINES (Variegated version only)


- Remove the syrup tubes from their containers.
- Clean the outside of the syrup tubes with a clean, sanitised cloth.
- Remove the syrup containers from the syrup compartment.

Cleaning the syrup lines:

- Place an empty bucket underneath the door. Fill the bucket with cleaning/sanitising solution.
- Place the syrup tubes into the bucket with cleaning/

sanitising solution, press  then press the  key and the display visualises the three syrup icons at the bottom of the screen.




When pressed, the Syrup key illuminates with a grey background  and the associated syrup pump is activated for 20 seconds at maximum speed so that the syrup line can be washed.



To stop the cleaning before 20 seconds has passed press the same key again.

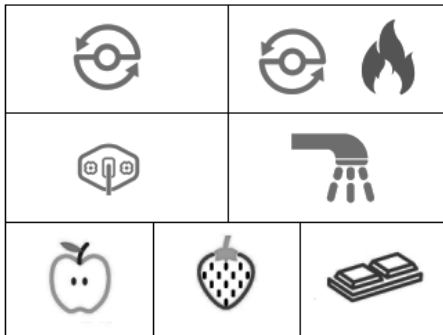
Once the cleaning of the syrup line has been completed, its syrup icon turns white.


- Repeat the operation until the solution that flows out is clear.
- Repeat the operation for all syrup lines.

- To return to the cleaning page press the  key again.

Rinsing the syrup lines:

- Fill a bucket with clean water and insert the syrup tubes.
- Press  then press the  key and the display visualises the three syrup icons at the bottom of the display.



When pressed, the Syrup key illuminates with a grey background  and the associated syrup pump is activated for 20 seconds at maximum speed so that the syrup line can be washed.

To stop the cleaning in advance, press the same key.




Once the cleaning of the syrup line has been completed, its syrup icon turns white.

- Repeat the operation until the solution that flows out is clear.
- Repeat the preceding procedure with drinking water for all syrup lines.

Emptying the syrup lines:

- To remove the rinse water from the tubes remove the syrup tubes from the containers of water and repeat the previous operation.

Loading the lines with syrup:

- Connect each syrup tube inside the associated syrup container.
- Place an empty container beneath the door.
- Press the  key, then the  key and then press the icon associated with the syrup until the syrup is dispensed. Throw away the dispensed syrup.
- Press  to stop the syrup pump.
- Repeat the operation for all syrup lines.

- By using a clean sanitised cloth clean the syrup compartment and the compartment door.

Prepare the machine for the pasteurisation night cycle (for “SP” machines)

- Open the lid of the tanks to check the level of the mix.
 - Fill the tanks with mix at least up to the medium level.
- Keep the machine in Production mode.



WARNING



If the mix in the tank is below the medium level the Pasteurisation cycle will not start.

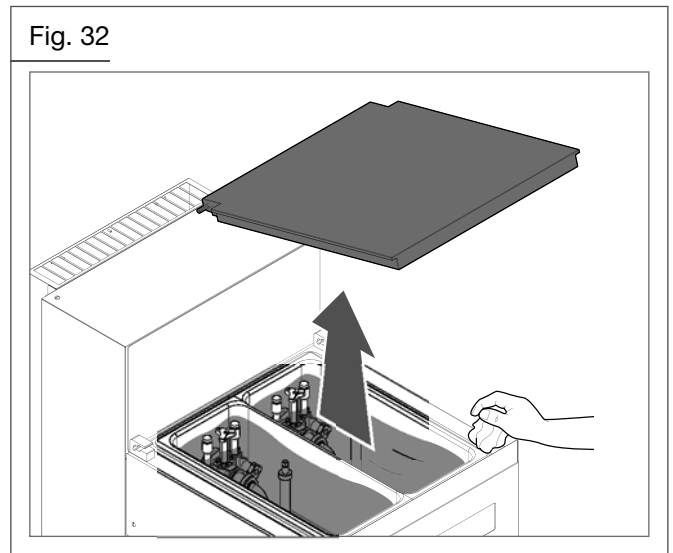
The Pasteurisation cycle is automatic and occurs overnight at the set time.

3.12.2 Daily opening procedure

With clean, sanitised hands (or wearing disposable gloves) carry out the following procedures.

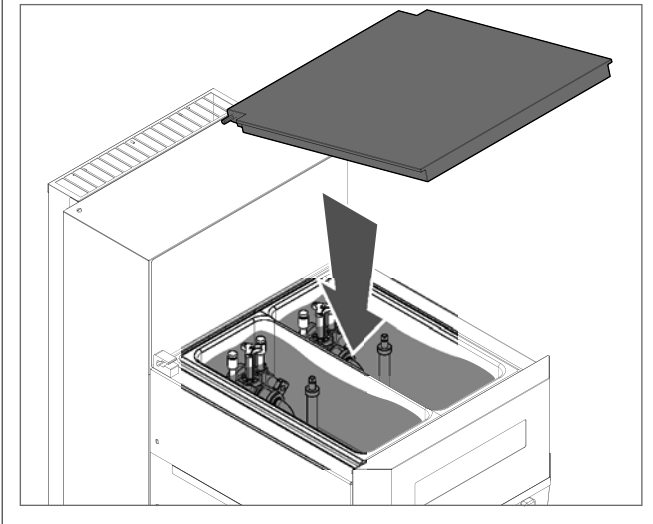
Disassembly and cleaning of the cover:

- Remove the tank cover, wash, sanitise and rinse it in a container.
- Clean the outside part of the tank by using a clean, sanitised cloth.



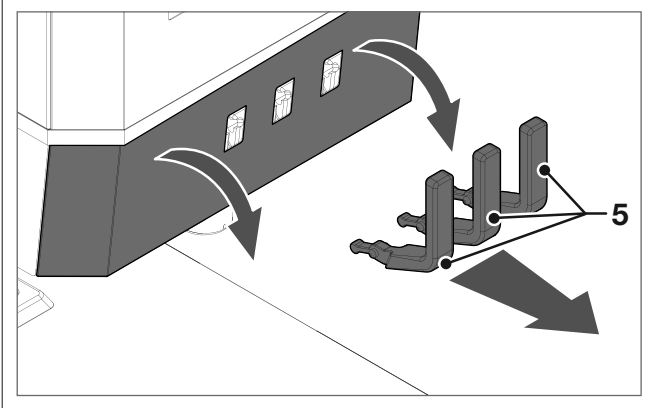
- Reposition the lid onto the tank after sanitization.

Fig. 33

**Door area sanitising:**

- Extract the dispensing handles (5).
- Using both hands, grip the upper part of the door cover panel and pull forward.

Fig. 34



- Using one hand, apply pressure to the panel in correspondence to the pin so that the slot pops out and the panel can be completely removed.

Fig. 35

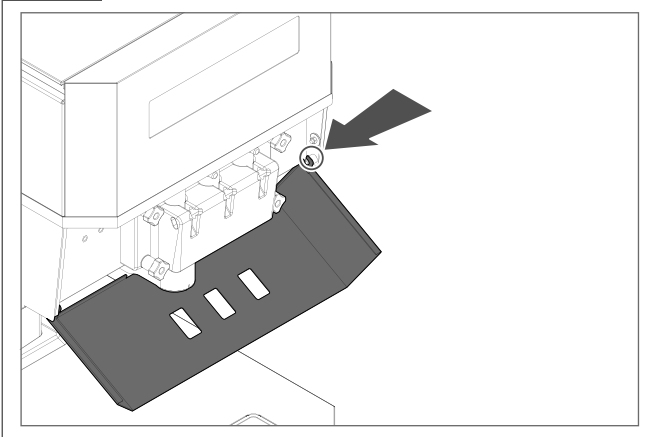
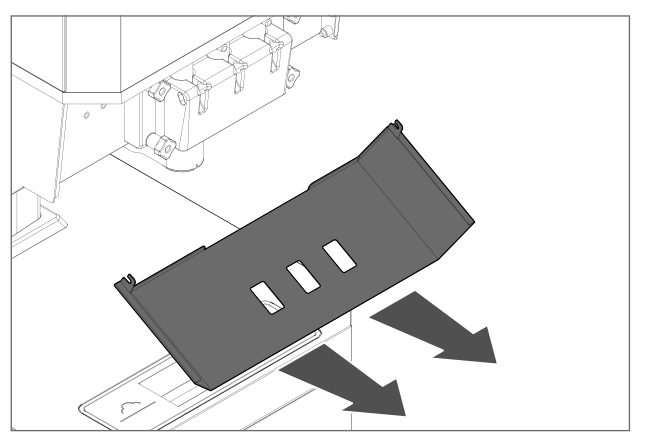


Fig. 36

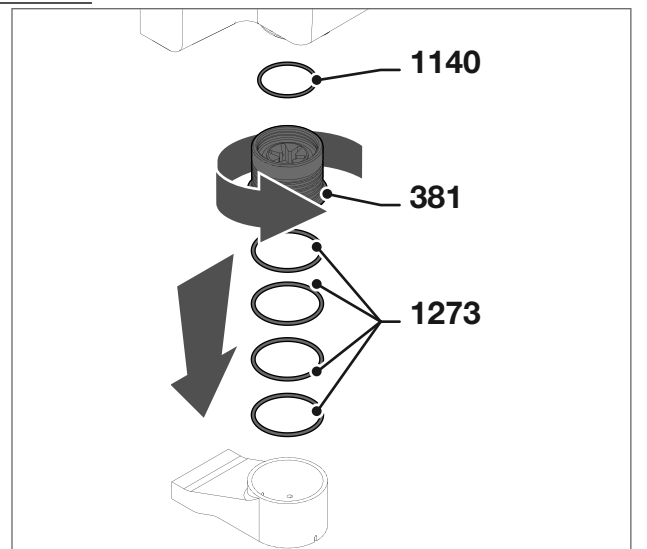


- Wash and sanitise the door cover panel and the ice cream dispensing handles.

(for Variegated version only):

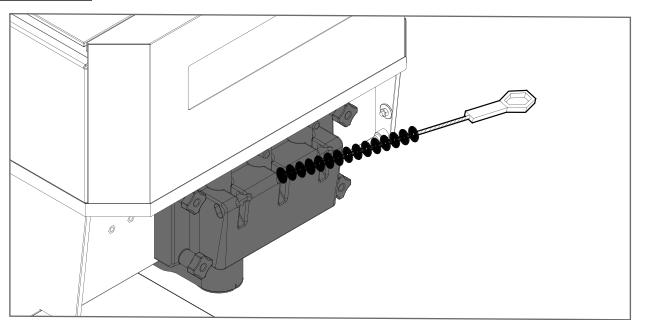
- By using the provided wrench (93) unscrew the syrup dispenser (381) counter-clockwise and remove the O-rings (1273 e 1140).
- Wash and sanitize all the disassembled items.

Fig. 37



- Fill a bucket with cleaning/sanitising solution. Immerse the supplied brush into the cleaning/sanitising solution and clean the door dispenser and the area of the door plunger several times.

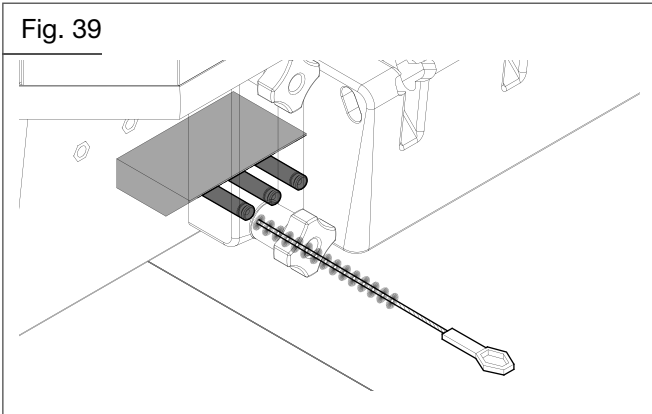
Fig. 38



(for Variegated version only):

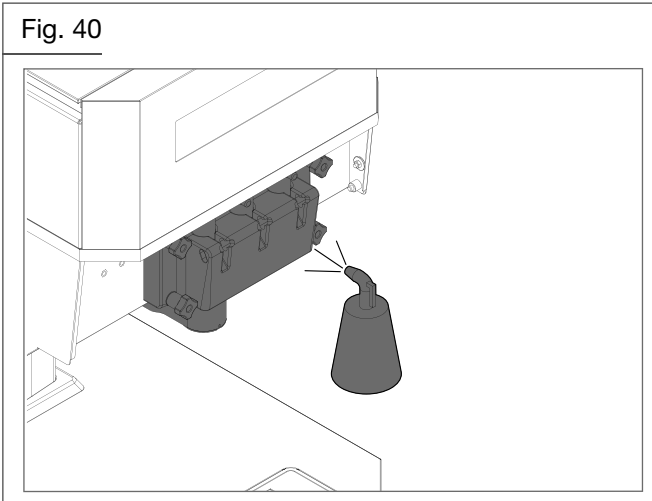
- Clean the syrup holes on the front of the machine by using the provided fine brush.

Fig. 39



- Spray the cleaning/sanitising solution on the door dispenser and the door itself, particularly in the plunger area.

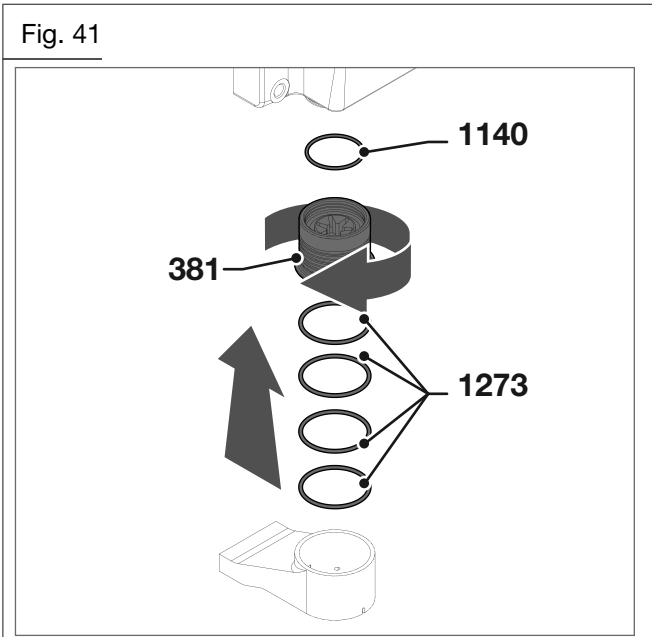
Fig. 40



(for Variegated version only):

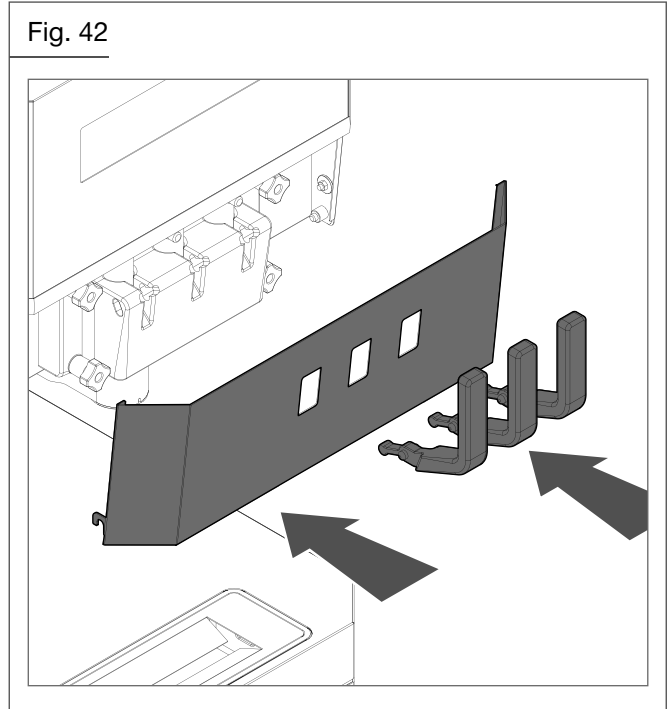
- After having cleaned and sanitised the dispensing area, use the supplied wrench (93) to re-assemble the O-rings (1140 and 1273) to the syrup distributor (381) and screw it back onto the door.

Fig. 41



- Clean the door area, and the machine front with a clean, sanitised cloth, carefully removing any kind of dampness and remains of product or cleaning/sanitising solution.
- Re-assemble the door cover panel and the ice cream dispensing handles.

Fig. 42



- Make sure the machine is in Production mode and ready to serve.

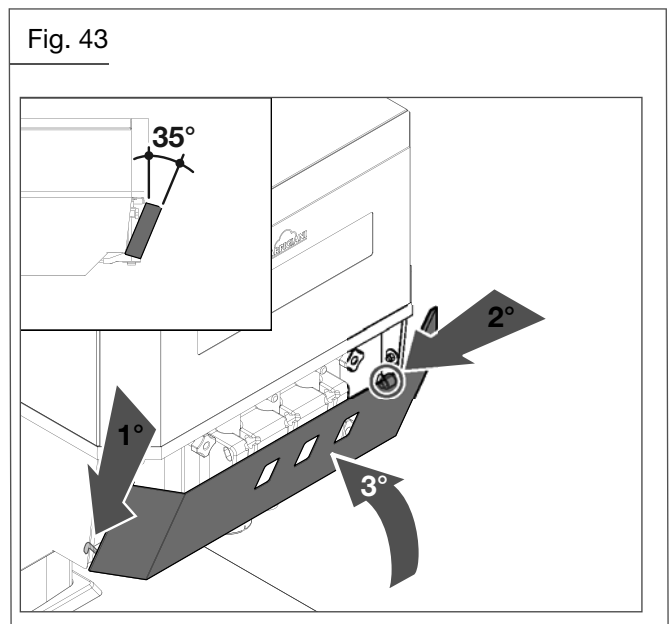


WARNING



For machines with a syrup system: whilst re-assembling the door cover panel, position the panel above the syrup block and fix the two slots to the respective pins (as indicated in the figure).

Fig. 43




4. SAFETY DEVICES

4.1 Alarms

The machine signals possible alarms visualising them on the display with a flashing message.






In the case in which an alarm signal has flashed and then been reset, the alarm signal stays lit on the display without flashing.










To delete the alarm message from the display press the  key.

The machine can be used in Production mode even if an alarm message is being visualised. If it is a critical alarm, the machine stops access to Production mode. In this case, press Stop and do not use the machine until the machine has been repaired.

The list of alarms is reported in the following table:

 ALARM	DESCRIPTION
 Mix Out	The display indicates  when the minimum mix level is uncovered.
 Add Mix	When the medium level is uncovered the display visualises its symbol  .
Safety Therm.C.1 (TESC1)	Left cylinder safety thermostat tripped. The machine goes into Stop mode.
Safety Therm.C.2 (TESC2)	Right cylinder safety thermostat tripped. The machine goes into Stop mode.
Safety Therm. Hop (TESV)	Tank safety thermostat released. The machine goes into Stop mode.
Overload Beat.1 (PTMA1)	Left beater motor bi-metal thermal circuit breaker switch tripped. The machine goes into Stop mode.
Overload Beat.2 (PTMA2)	Right beater motor bi-metal thermal circuit breaker switch tripped. The machine goes into Stop mode.
Pressure Switch (PR)	Pressure switch released. The machine goes into Stop mode: <ul style="list-style-type: none"> • after established number of interventions. • if the contact of the pressure switch remains open for as long as 2 minutes at a time. Repeat pasteurisation if the machine is in Pasteurisation mode.
Overload Compres (RTC)	Compressor motor thermal relay released. The machine goes into Stop mode.
Al. Hopper Probe1 (TEV1)	Faulty left tank sensor. Being a critical alarm the machine goes into Stop mode whether in Production mode, Storage mode or Pasteurisation mode.
Al. Hopper Probe2 (TEV2)	Faulty right tank sensor. Being a critical alarm the machine goes into Stop mode whether in Production mode, Storage mode or Pasteurisation mode.

 ALARM	DESCRIPTION
Al. Cyl.1 Probe (TEC1)	Faulty cylinder 1 sensor. Being a critical alarm, the machine goes into Stop mode whether in Storage mode or Pasteurisation mode, whilst the consistency, being already controlled in Production mode, remains in the same function.
Al. Cyl.2 Probe (TEC2)	Faulty cylinder 2 sensor. Being a critical alarm, the machine goes into Stop mode whether in Storage mode or Pasteurisation mode, whilst the consistency, being already controlled in Production mode, remains in the same function.
Al. IceHop. Probe (TGV)	Faulty Tank evaporator sensor. The alarm places the machine into Stop mode.
Spigot Opened (IMS)	Magnetic circuit breaker safety switch.
Al. Evap. Probe (TE1)	Cylinder evaporator sensor alarm. The alarm places the machine into Stop mode.
Power On	Voltage return after a blackout. Checking of No Voltage table in Pasteurisation and Production. The event is recorded in any function.
IceCylinder (ICE)	Anti-ice cylinder. The alarm may appear due to poor feeding into the cylinder.
Timeout Prd.	Refrigeration problems; the product does not harden. Check loading of mix into cylinder, the tank pump and the refrigeration implant.
Belt alarm (DELTA TGV-TEV)	The tank beater does not rotate. Check the insertion of beater in its seat.
 Wash in n days (Wash)	“  14 ” is visualised in Production mode which means there are nth days (14 for example) left before cleaning machine. The Wash can be activated even with the machine in Stop mode with the level covered for 24 hours. Refer to WEEKLY CLEANING. In the case of a “Wash today!” alarm, the alarm must be first reset by pressing the Storage key, to open the piston for cleaning the machine.
 Do Not Serve !	In Production mode, every time the consistency drops below the programmed value, the symbol on the display becomes  .
Switch Phases	The two phases must be inverted on the three-phase line to obtain the correct rotational direction of the beater.
Pasto Needed!	When the machine is positioned in Stop mode for more than 60 minutes with the low level covered, the temperature is checked. If it is greater or equal to 15°C, a Pasteurisation cycle is required. Pressing the Production key, the machine goes automatically into Pasteurisation mode.

 ALLARME	DESCRIZIONE
Why in STOP ??	<p>If the machine is left in Stop mode with the level covered, the flashing message “Why in STOP ??” appears on the display after 30 seconds and a beeping tone signal is emitted.</p> <p>The tone alerts the user to set the machine in Production, Pasteurisation or Storage mode.</p> <p>The message is cancelled when entering Production mode, uncovering the mix level or pressing the Reset key (Storage).</p> <p>Re-access Production, Storage or Pasteurisation mode to make the message reappear.</p>
Setting in progr	<p>Automatic setting of the central unit.</p> <p>Occurs at the start of Pasto or after a blackout. The alarm is automatically reset; do not press any key.</p>
Table Updated M.	<p>This message appears every time the Programming table is modified.</p>
Table Updated R.	<p>“Table Updated R.” is visualised every time the Programming Table is modified by remote control.</p>
Alarm H.P.	<p>High pressure alarm.</p>
Alarm L.P.	<p>Low pressure alarm.</p>
Communic.Error E	<p>Communication problems with the EEV card.</p>
Communic.Error P	<p>Communication problems with the keypad.</p>
	<p>When the symbol seen here is visualised in Production mode, extract a cone and lower the dispensing handle until it stops. Re-position the handle in the closed position.</p>

4.1.1 Blackout

When the electricity returns after a blackout occurring while the machine was in Cleaning mode, the machine goes into Stop mode.

When the electricity returns while the machine is in Heating mode of a Pasteurisation cycle or Pause during a Pasteurisation cycle, the machine restarts in the function it was in before the blackout (with “**Power On**” written on the display).

If the machine was in Cooling mode of a Pasteurisation cycle, when electricity comes back the machine checks the TEV temperature and the duration of the blackout. If the time is more than that indicated in the table, the machine completely repeats the pasteurisation cycle and memorises the alarm “**Power On**” in its ‘events list’.

If the time is less than that indicated in the following table, the machine returns to the function it was in before the blackout.

TEMPERATURE TEV	TIME
68°C ÷ 50°C	30 minutes
49°C ÷ 15°C	10 minutes
14°C ÷ 10°C	20 minutes
9°C ÷ 4°C	2 hours

If the machine was in Production or Storage mode, check the TEV temperature when the electrical power supply returns and if it is less than the threshold set by the manufacturer the machine returns to the same function visualizing the “Power On” alarm. If the TEV is greater than the threshold set by the manufacturer and the time exceeds that of the above table, the Pasteurisation cycle is repeated.

5. DISASSEMBLY, CLEANING AND REASSEMBLY OF THE PARTS IN CONTACT WITH THE PRODUCT

5.1 General description



Cleaning and sanitisation are operations that must be carried out with utmost care on a routine basis and at the end of each production run to guarantee production quality and compliance with required hygienic norms.

Letting soiling dry out can greatly increase the risk of ringmarks, spots and damage to surfaces.

Removing soiling is much easier if it is done immediately after use some elements containing acid and saline substances can corrode the surfaces. Prolonged soaking is recommended.

5.2 Washing conditions

Avoid using solvents, alcohol or detergents that could damage the component parts, the machine or pollute the functional production parts.

When manually washing never utilise powder or abrasive products, abrasive sponges or pointed utensils which can dull surfaces, remove or deteriorate the protective film that is present on the surface thus scoring the surface.

Never ever use metal scouring pads or synthetic abrasives whose scouring action could remove ferrous parts and risk causing oxidisation or making the surfaces vulnerable.

Avoid using detergents that contain chlorine and its composites. The use of these detergents such as bleach, ammoniac, hydrochloric acid and decalcifiers can attack the composition of the steel, marking it and oxidising it irreparably and causing damage to the "plastic" parts.

Do not use dishwashers and their detergent products.

The use of a cleaning/sanitising solution allows to optimize the washing and sanitising process since it avoids two procedure phases (i.e. a rinse and a washing phase); in substance the use of a cleaning/sanitising solution allows saving time by facilitating and simplifying washing/sanitising procedures.

5.3 Suggestions

Use a non-aggressive detergent solution to wash the parts.

Manually wash the parts in water (max 60°C) using a non-aggressive detergent and the provided cleaning brushes.

Use drinking water (bacteriologically pure) to rinse the parts.

To sanitise leave the disassembled parts in sanitised tepid water for the time recommended by the manufacturer (**use the sanitising product following the instructions of the manufacturer**) and rinse them before reassembling.

When the washing procedure has been completed and before reassembling components, dry each one thoroughly with a clean, soft cloth suitable for use with foodstuffs, in order to remove any traces of humidity rich in mineral salts and chlorine that could attack the metal surfaces and leave opaque traces.

Carpigiani recommends the use of a cleaning/sanitising solution to wash the machine.

The use of a cleaning/sanitising solution optimises the washing and sanitising procedures in that it eliminates two phases of the procedure (a rinse and a washing phase). In substance the use of a cleaning/sanitising solution saves time by facilitating and simplifying washing/sanitising procedures.



WARNING



Every time the machine is washed and its parts that come into contact with the ice cream mix are disassembled, it is essential to carry out a visual control of all its parts in thermosetting materials; plastics, elastomers, silicone and metal (for example, scrapers, pump gears, beaters, etc...). All parts must be whole, not worn, without cracks or splits, or opaque if originally polished/ transparent. Carpigiani declines all responsibility for any damage caused by imperfection and/or undetected breakages and not promptly solved by the substitution of original spare parts and is available for consultation and for any specific request made by the customer.

5.4 How to use cleaning/sanitising solution



Follow the instructions on the label of the product used to prepare the cleaning/sanitising solution.

Washing/sanitisation by immersion of components

- Manually remove the bulk residues utilising the supplied brushes.
- Remove finer residues with a jet of water.

- Dip the parts to clean into the cleaning/sanitising solution.
- Leave the solution to act for the time indicated by the manufacturer.
- Rinse the parts with care, using plenty of clean drinking water.



5.5 Daily cleaning

Cleaning and sanitisation are operations that must be carried out daily with the utmost care and attention every time the machine is switched on and switched off to guarantee the quality of the production. Respect hygienic standards by scrupulously following the instructions shown in paragraph 3.10.

5.6 Scheduled cleaning

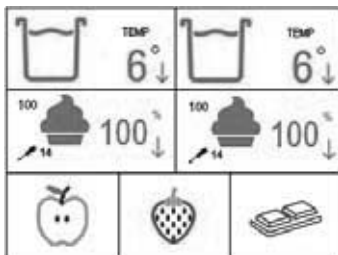
The machine is equipped with an automatic system which activates cleaning of the parts in contact with the product at scheduled times.

Such system, called "WASH", inhibits the dispensing function when the scheduled time comes.


WARNING


Cleaning and sanitising procedures have to be carried out with the utmost care on a regular basis according to the scheduled date shown on the machine display to ensure production quality and the compliance with the necessary hygienic rules.

In Production mode the days left until the next wash are visualised as follows:





On the day when the machine is to be washed, Production mode is blocked and the machine does not accept the function. The visualisation becomes:



To reset the number of days to the programmed value (Wash Days), machine must be washed.

5.7 Tank emptying

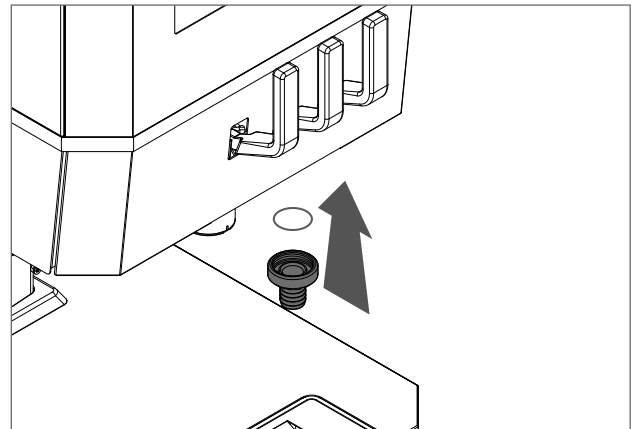

NOTE


In this machine model the production assembly can be lowered to facilitate the cleaning procedures. In this case mount the supplied rubber tube connection and its O-ring onto the door since there is no space to place a container/bucket underneath the discharge door. At this point connect the supplied tube to the connection and insert it in an outside container to empty the tank.


WARNING


The rubber tube connection, its O-ring and any tube used must be washed and sanitised after use.

Fig. 44




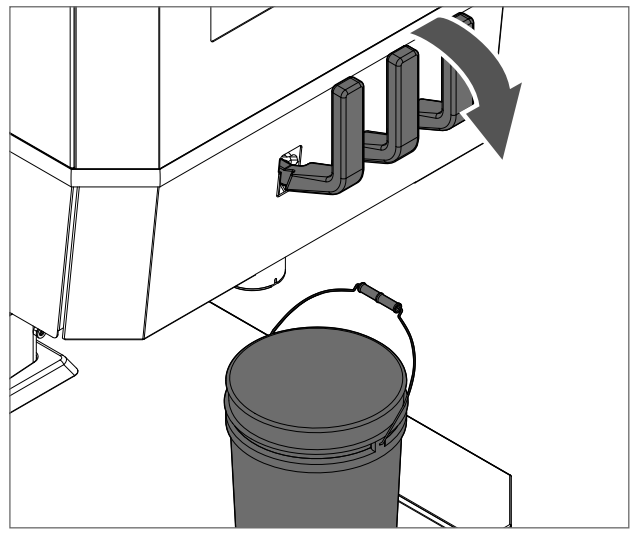

- Place a bucket under the dispenser door.
- Press the button .
- Lower the dispensing handle and drain out all the product from the cylinder.


Fig. 45



- Select the function  and then select .

NOTE

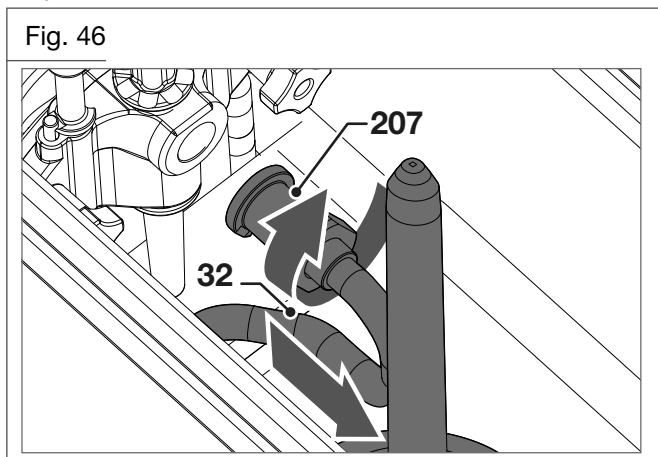
It is recommended to select the **Beating Heating**  to make emptying the cylinder easier if ice cream is still inside.

- When the mix becomes liquid (over 10°C), press the **STOP**  key and keep the dispensing handles lowered.
- Open the tank cover to 90°.

5.7.1 Machines that have a pump

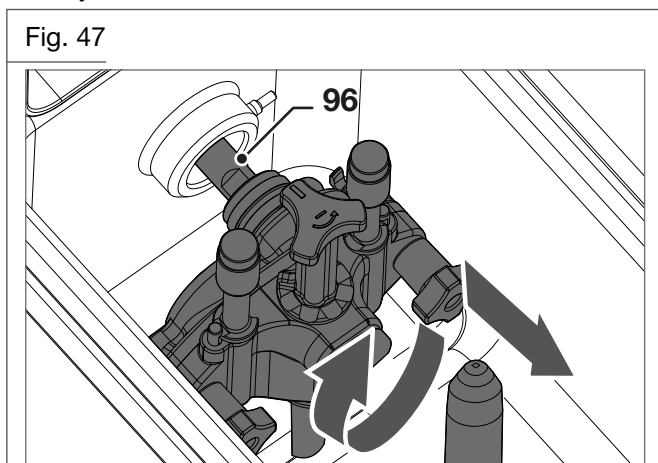
- Rotate the connection tube (207) until its notch is aligned with the pin on the pump, pull it forward so as to disconnect it from the pump.
- Remove the compression tube (32) by rotating it 90° and removing it from its seat in the tank. At this point wait for the product to come completely out from the tank and bring the dispensing handle back to closed position.

Fig. 46



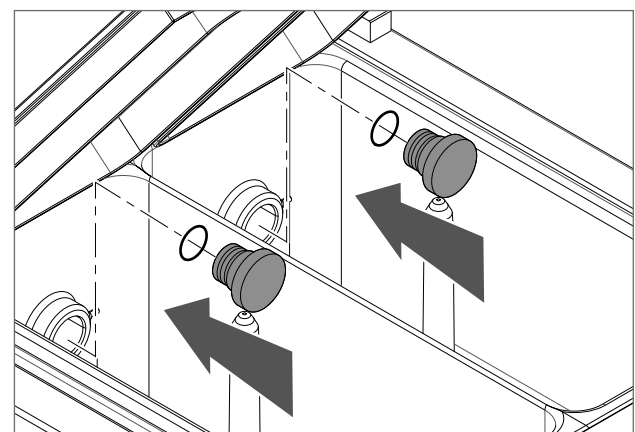
- Repeat the two previous operations on the second tank.
- Disassemble the pump by rotating it of 45° clockwise and by taking it out frontally.
- Take the pump shaft (96) apart by taking it out frontally.

Fig. 47



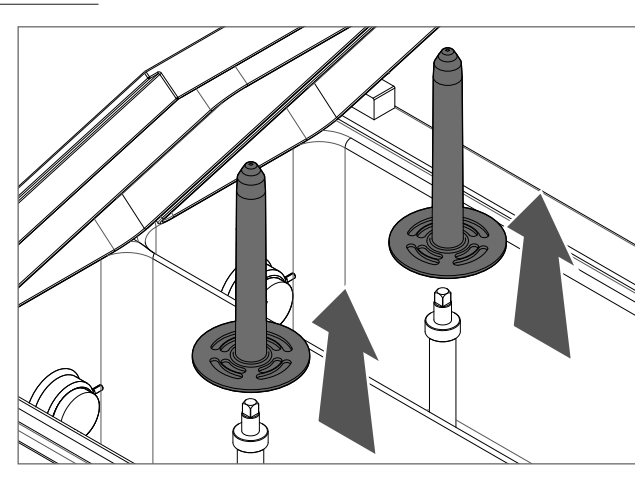
- Insert the plug and its O-ring provided with the kit into the pump housing hole so as to close the tank.

Fig. 48



- Remove the beaters in the tank by pulling them upwards.

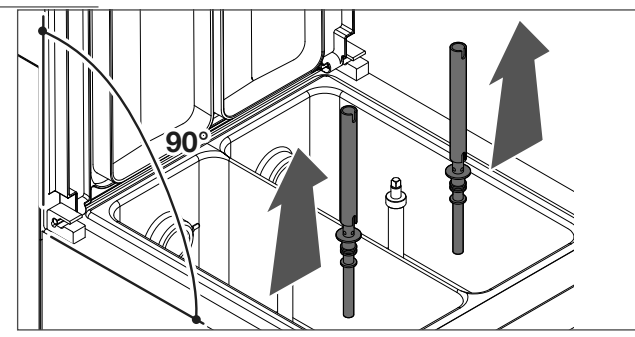
Fig. 49



5.7.2 Gravity-fed machines

- Remove the feed needles from the bottom of the tank.

Fig. 50



- Pour clean warm water into the tank.

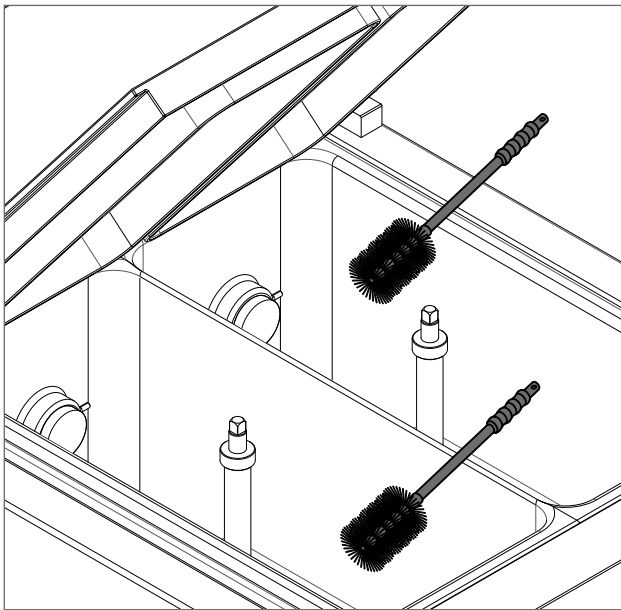
WARNING

Never exceed the maximum level indicated on the tank.

Use the supplied brushes to clean the sides of the tank, the level sensors, the beater shafts and its interstice and the tank. Using the smallest brush, clean the seats of the compression tube or the feed needle on the bottom of the tank. Discharge water from the tanks using the dispensing handles and repeat the operation until clean water is obtained.

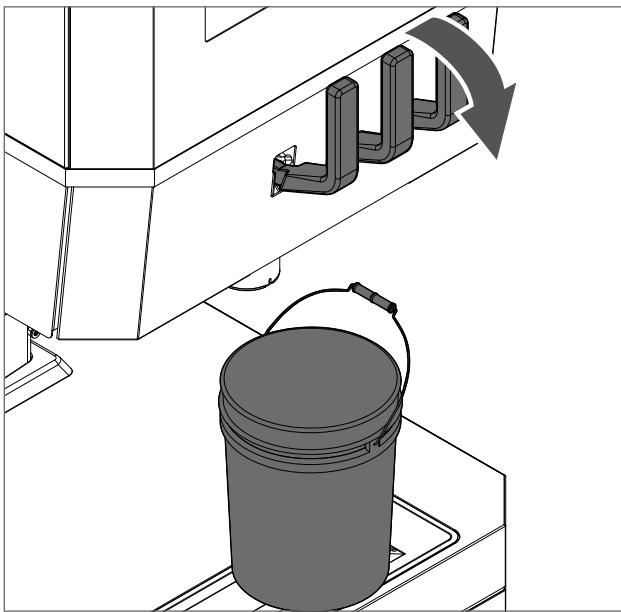
- Repeat the two previous procedures by using a cleaning/sanitising solution.

Fig. 51



- Position a bucket underneath the door, lower the dispensing handle and allow the solution to flow.

Fig. 52



- Rinse with warm water until clean water comes out.




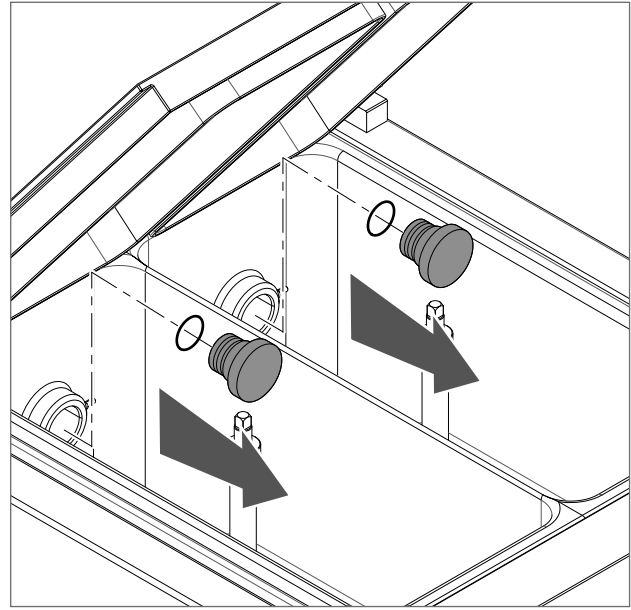
- Select the function  and then select . Let the machine function for 10 seconds.
- Press the button  and discharge the water from the machine.
- Remove the plug from the pump housing hole.

Fig. 53



- Spray the cleaning/sanitising solution around the pump housing hole. Immerse a fine brush in the cleaning/sanitising solution and clean the pump housing hole several times.

**NOTE**



The plug and its O-ring must be washed and sanitised.

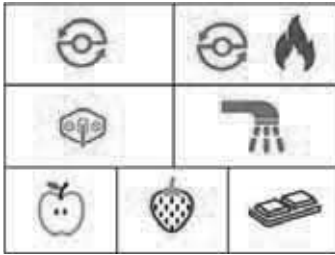
5.8 Washing and sanitisation of the syrup lines (only for the Variegated version)


- Remove the syrup tubes from their containers.
- Clean the outside of the syrup tubes with a clean sanitised cloth.
- Remove the syrup containers from the syrup compartment.

Cleaning the syrup lines:


- Place an empty bucket underneath the door. Fill the bucket with a cleaning/sanitising solution.

- Place the syrup tubes into the bucket with the Cleaning/sanitising solution, press  then press the  key. The display visualises the three associated icons at the bottom of the screen.





Pressing a Syrup key it lights up with a grey background  and its syrup pump is activated for 20 seconds at maximum speed so that the syrup line can be washed.





Press the same key to stop the cleaning in advance. Once the cleaning of the syrup line has been completed, the syrup icon turns white.

- Repeat the operation until the solution that flows out is clear.
- Repeat the operation for all syrup lines.
- To return to the cleaning page press the  key again.

Rinsing the syrup lines:

- Fill a bucket with clean water and insert the syrup tubes.
- Press , then press the  key and the display visualises the three syrup icons at the bottom of the display.



Pressing a Syrup key , or , or , the corresponding key lights up with a grey background  and its syrup pump is activated for 20 seconds at maximum speed to allow washing of the syrup line.

Press the same key to stop the cleaning in advance.

Once the cleaning of the syrup line has been completed, its associated syrup icon turns white.

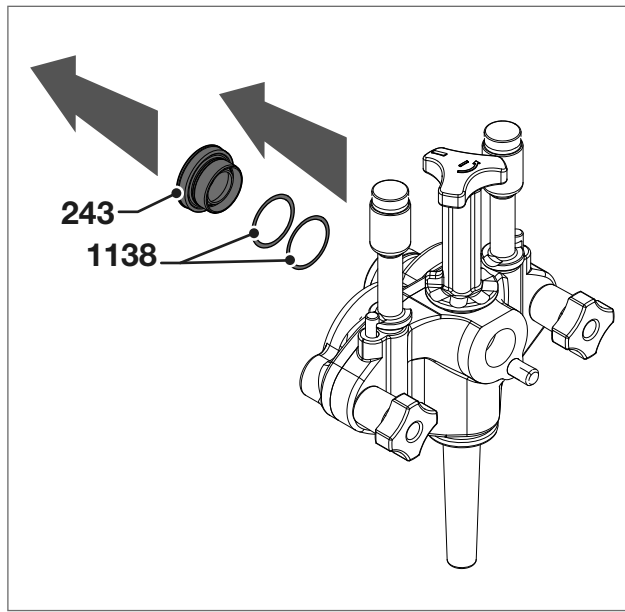
- Repeat the operation until the solution that flows out is clear.
- Repeat the operation for all syrup lines using drinking water.

Emptying the syrup lines:

- Remove the syrup tubes from the containers of water, repeat the previous operation and discharge the washing water from the syrup lines.

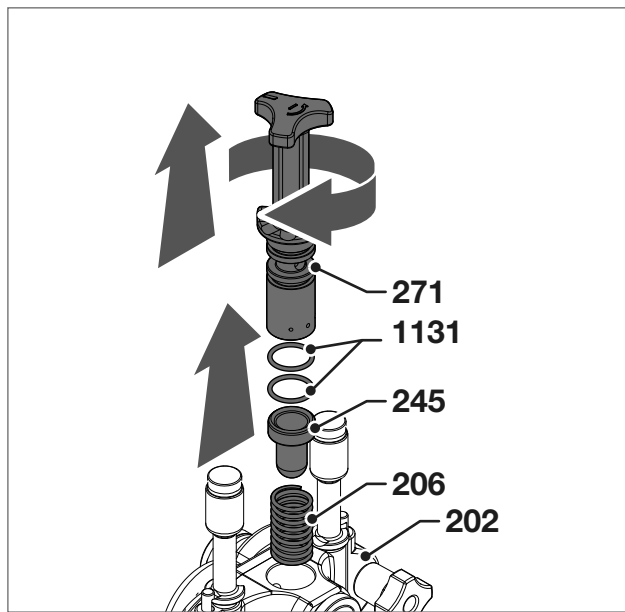
- Remove the seal (243) and the two O-rings (1138).

Fig. 55



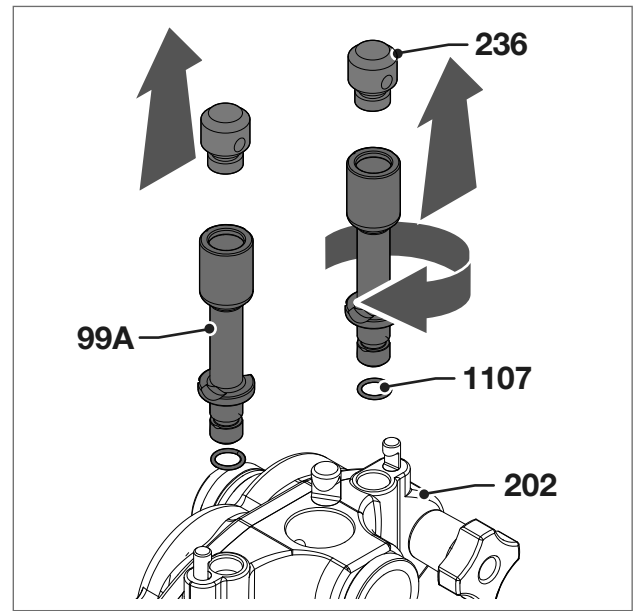
- Remove the pump regulator (271) from the pump cover (202) by rotating it clockwise until the notch is aligned with the pin situated on the pump cover located on the regulator and pull it out. Use the O-ring extractor (1131) to remove the two O-rings located on the pump regulator.
- Remove the spring (206) and the pump valve (245).

Fig. 56



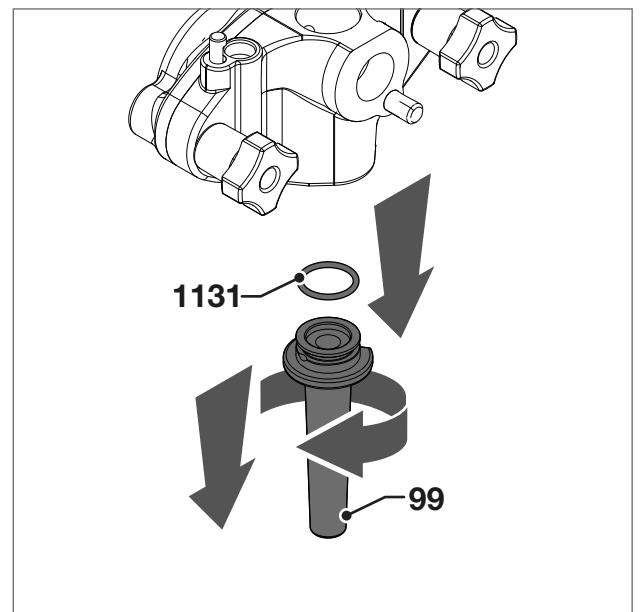
- Remove the two air inlet tubes (99A) from the pump cover (202), pushing and rotating them until the notches positioned on the tubes are aligned with the pins situated on the pump cover, and remove them.
- Remove the plugs (236) from the air inlet tubes (99A).
- Remove the O-rings (1107) from the air inlet tubes (99A).

Fig. 57



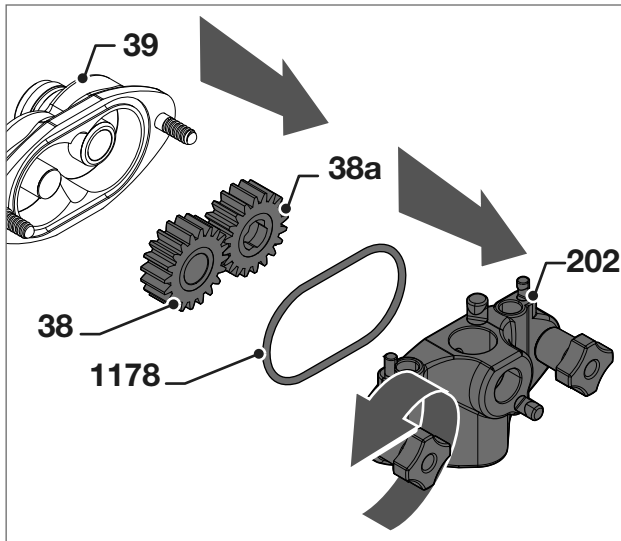
- Keep the suction pipe (99) vertical, rotate it until the notch is aligned with the pin situated on the pump.
- Use an O-ring extractor to take the O-ring (1131) out from the suction pipe (99).

Fig. 58



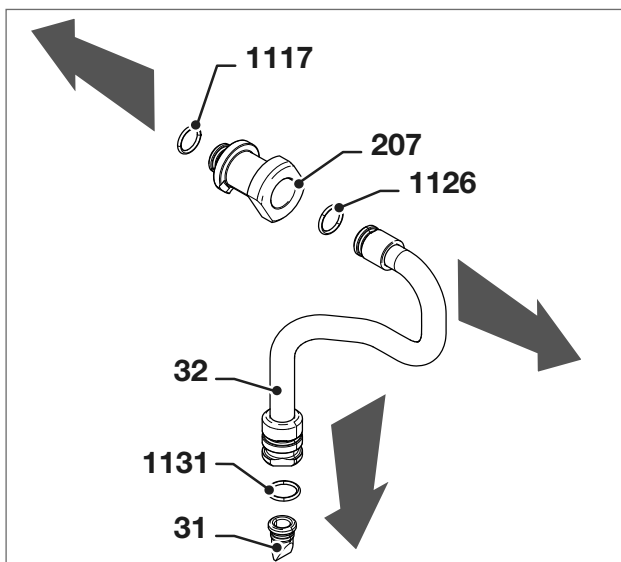
- Unscrew the two knobs and separate the pump cover (202) from the pump body (39).
- Use an O-ring extractor to remove the O-ring (1178).
- Remove the gears (38-38A).

Fig. 59



- Remove the connection tube (207) from the compression tube (32).
- Remove the O-rings (1117), (1126), (1131) and the valve (31).

Fig. 60

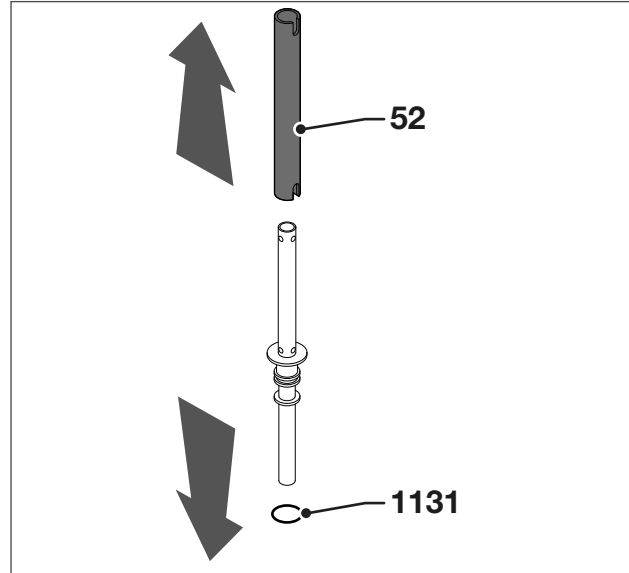


5.10 Gravity-fed machines – removal of the feed needle

Proceed as follows to remove the feed needle:

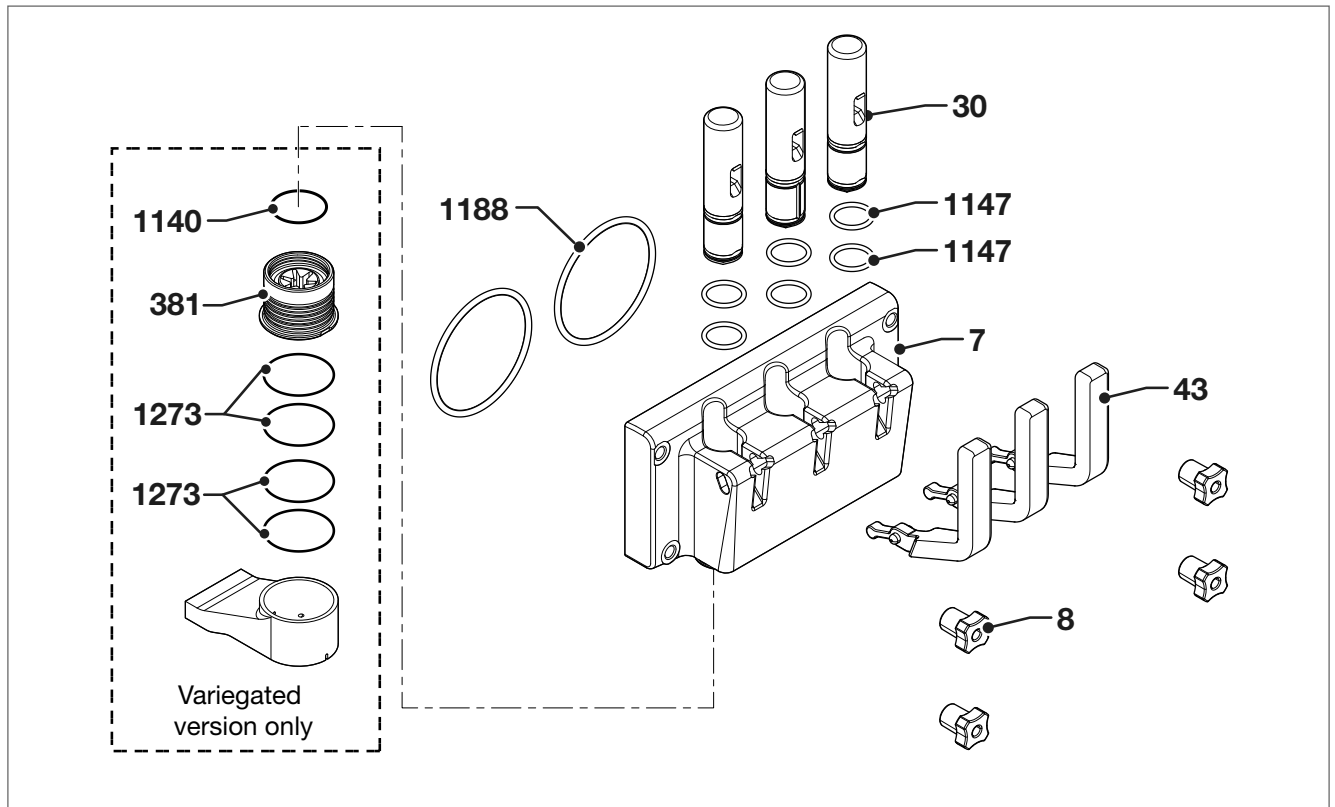
- Remove the cursor of the feed needle (52).
- Remove the O-rings of the needle (1131).

Fig. 61



5.11 Disassembly of the door

Fig. 62



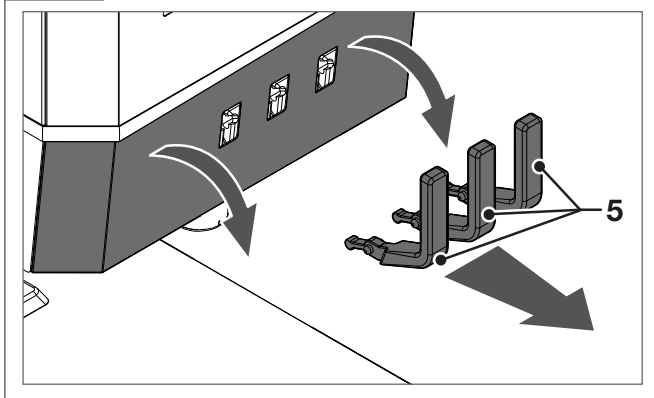
- | | | | |
|------------|---|-------------|----------------------------------|
| 7 | Dispensing door | 1140 | O-ring (Variegated version only) |
| 8 | Knob | 1147 | O-ring |
| 5 | Dispensing handles | 1188 | O-ring |
| 30A | Piston | 1273 | O-ring (Variegated version only) |
| 381 | Syrup dispenser (Variegated version only) | | |

WARNING

Before disassembling the dispensing door, make sure the tanks and the cylinders are empty.

- Remove the dispensing handles (5).
- Using both hands, grip the upper part of the door cover panel and pull forward.

Fig. 63



- Using one hand, apply pressure to the panel in correspondence to the pin so that the slot pops out and the panel can be completely removed.

Fig. 64

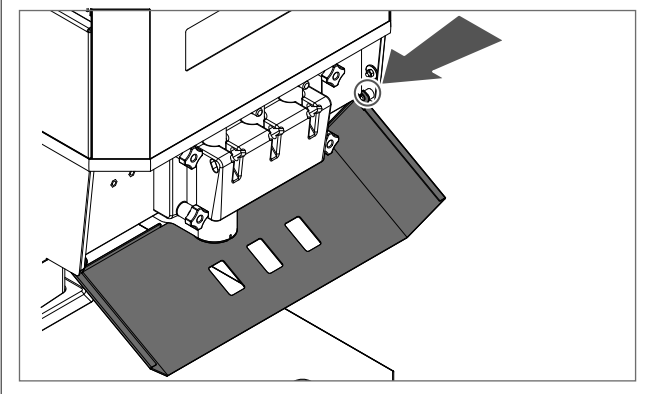
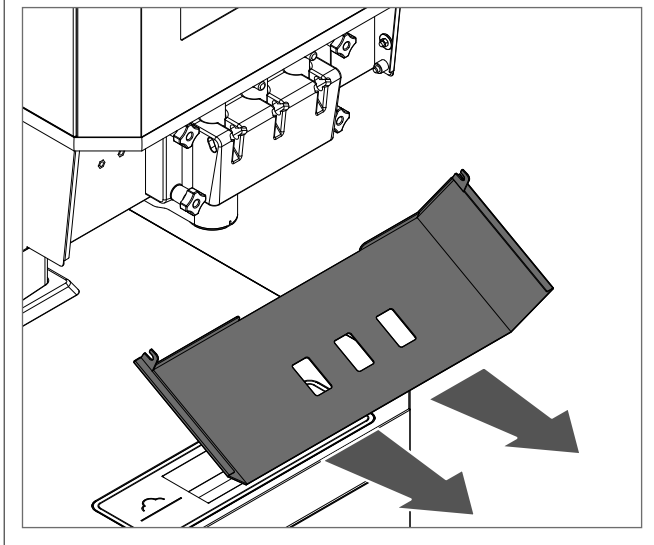
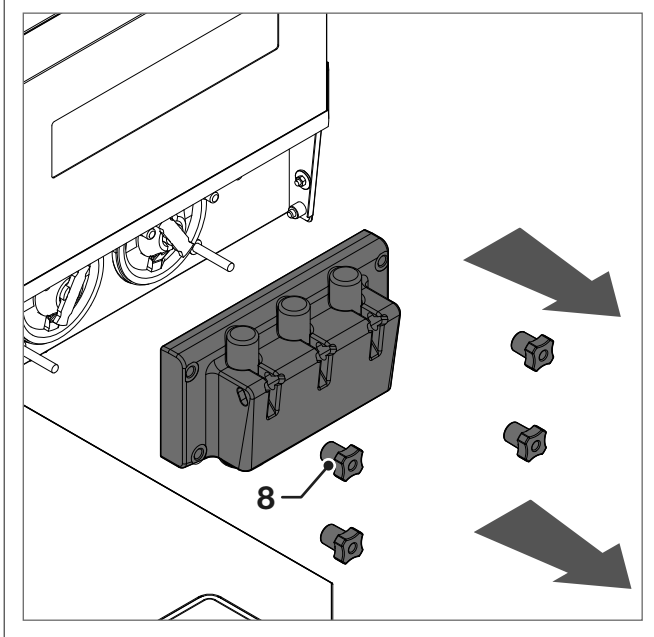


Fig. 65



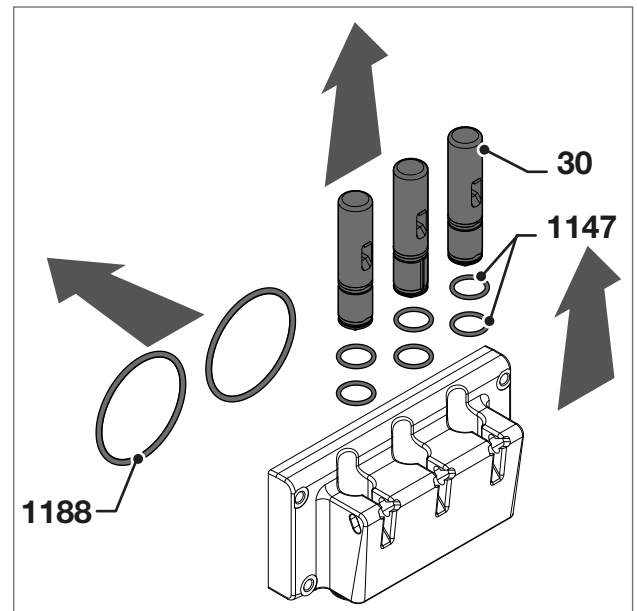
- With the machine in Stop mode, remove the two knobs (8) and pull the dispensing door by removing it from the machine front part.

Fig. 66



- Take the plunger out.
- Use an O-ring extractor to take out:
 - The two O-rings (1147) of the plunger.
 - The O-ring of the dispensing door (1188).

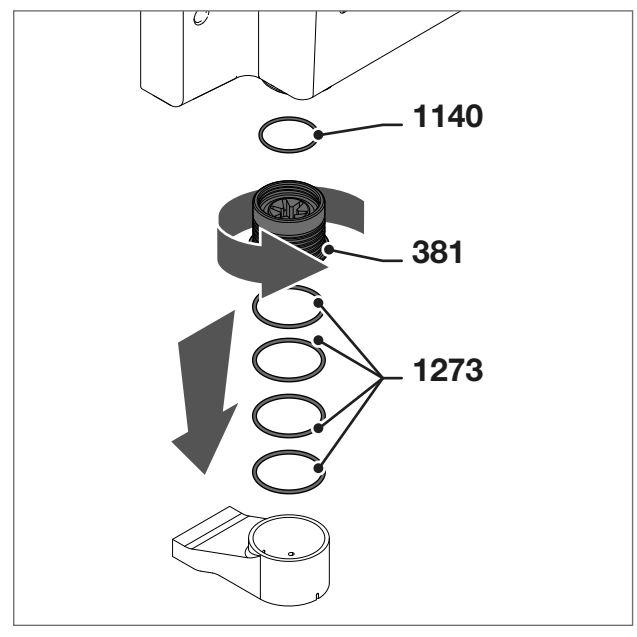
Fig. 67



(for Variegated version only):

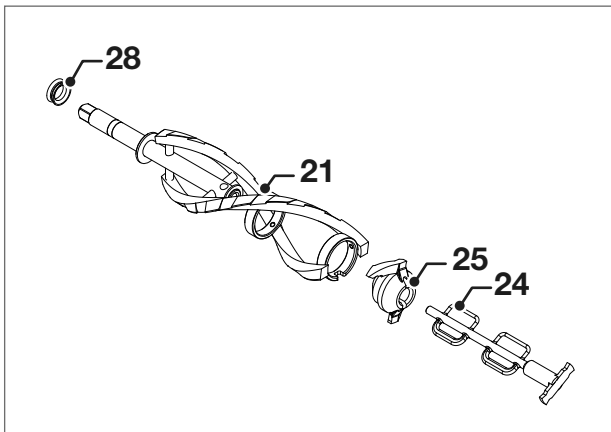
- Unscrew the syrup dispenser (381) anticlockwise and remove the O-rings (1273 e 1140) by using the provided wrench (93).

Fig. 68



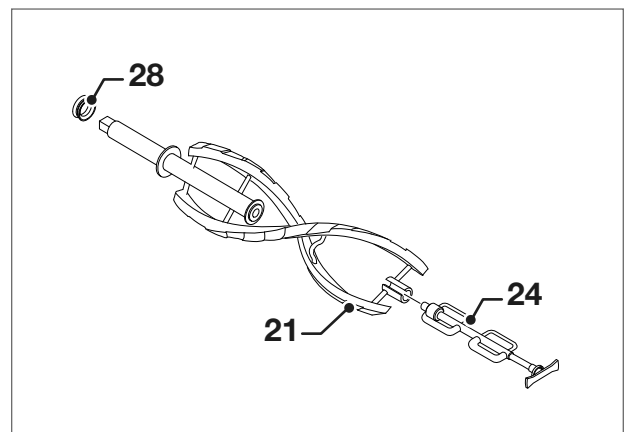
5.12 Disassembly of beaters

Fig. 69



Beater with terminal

- 21** Beater
- 24** Idler
- 25** Pusher beater end
- 28** Seal



Beater without terminal

- 21** Beater
- 24** Idler
- 28** Seal

- Take the beaters (21) out from the cylinders.

Fig. 70 with terminal

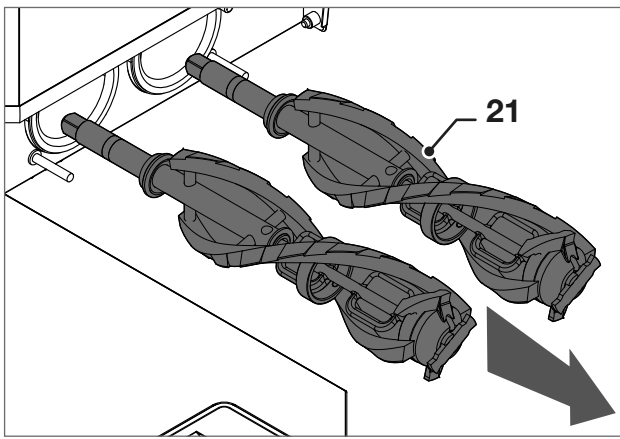
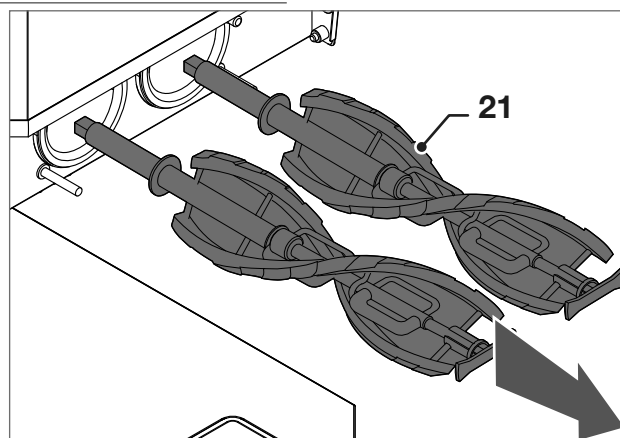
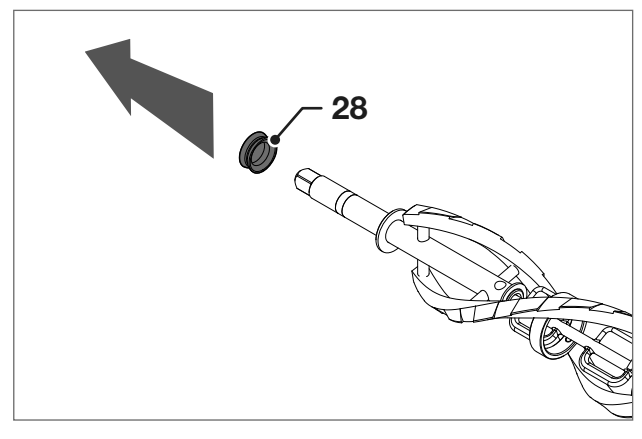


Fig. 71 without terminal



- Let the seal (28) slide on the beater axle and remove it.

Fig. 72



- Remove the idler (24) from the shaft.

Fig. 73 with terminal

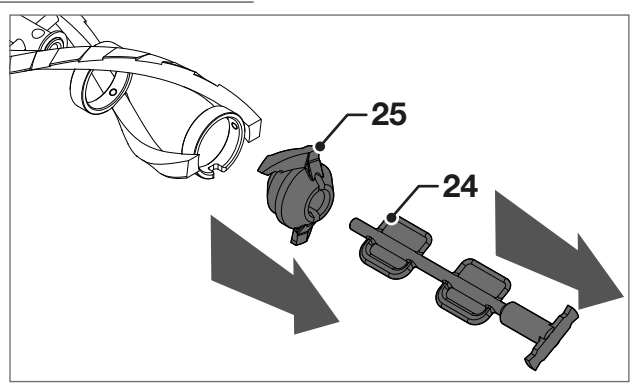
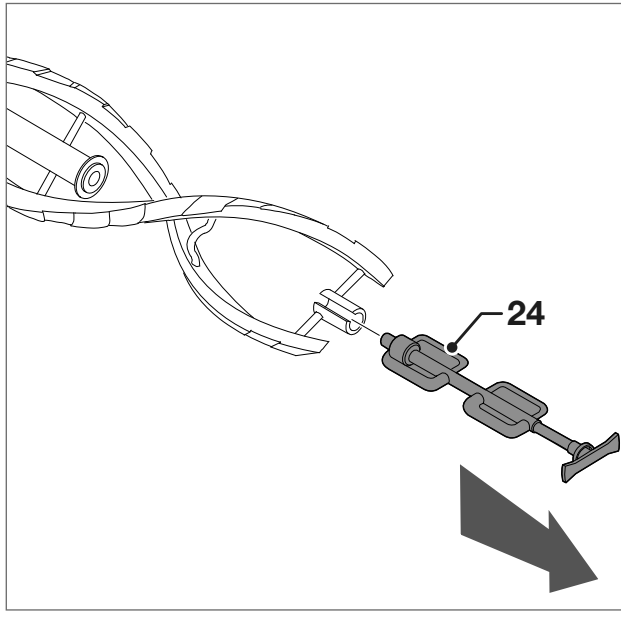


Fig. 74 without terminal

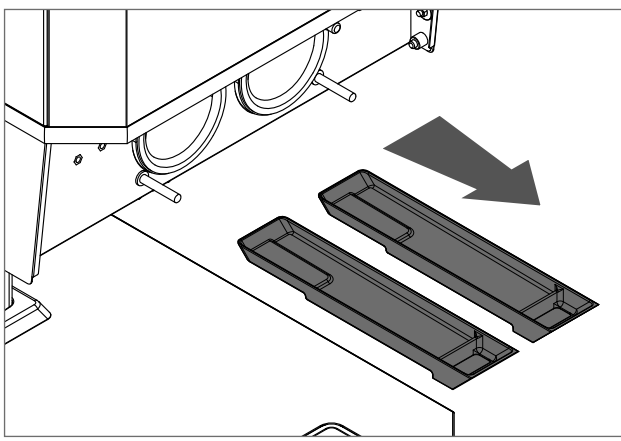
**WARNING**

The seal is very important for the cylinder tightness. Check its wear on a regular basis according to the maintenance plan (Refer to paragraph 6.1). Furthermore always lubricate the seal properly during washing operations in order to avoid mix leaking into the drip tray tank.

5.13 Disassembly and cleaning of the drip drawer, the pump drip tubes, the drip tray and the tank lid

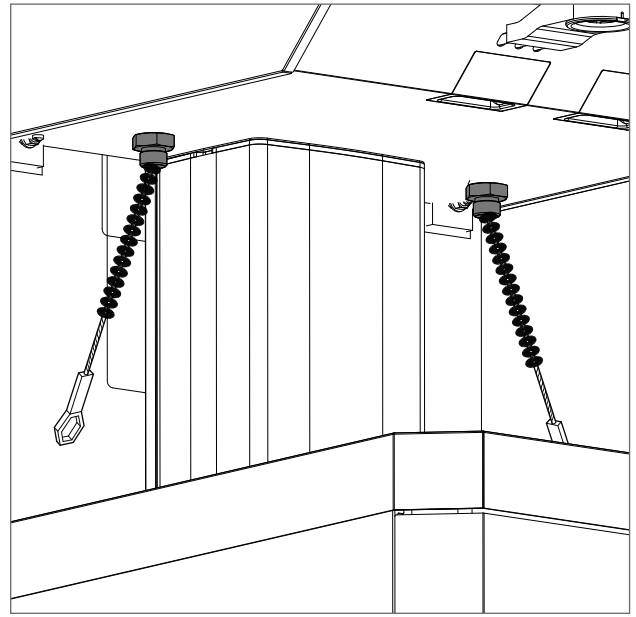
- Take the drip drawers out from their seats on the front of the machine.

Fig. 75



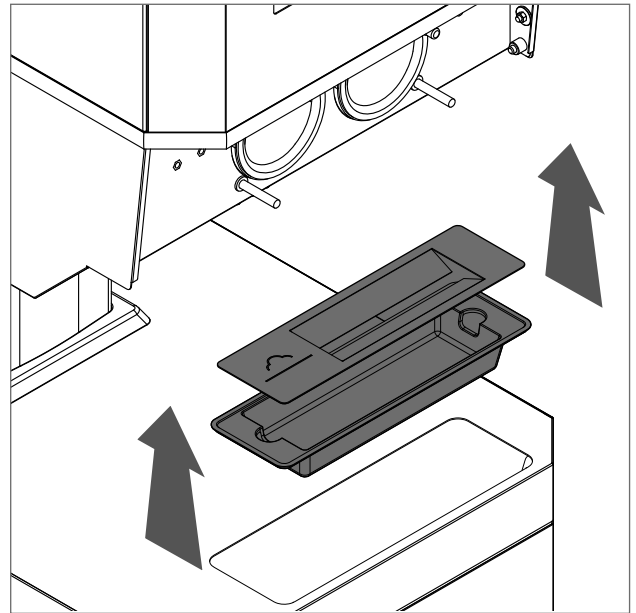
- Clean the pump drip tubes located under the movable head on the left and right side by using the provided fine brush immersed into a cleaning/sanitising solution.

Fig. 76



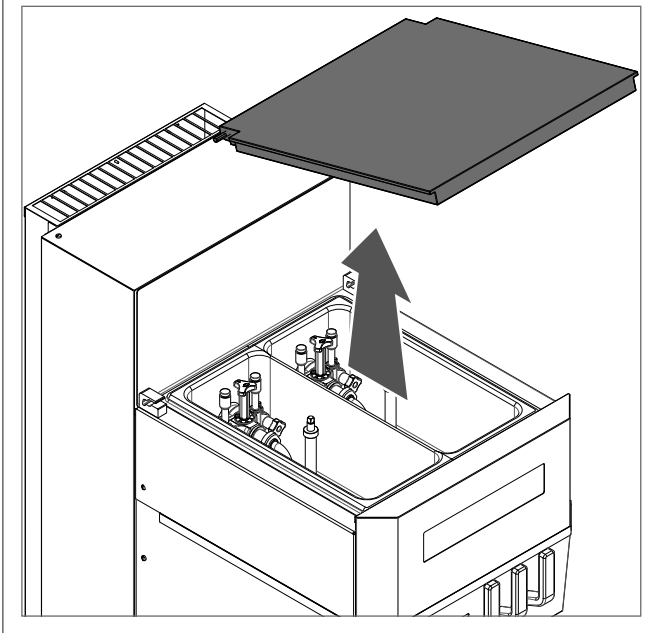
- Remove the drip tray and relevant cover.

Fig. 77



- Disassemble the tank cover.

Fig. 78



5.14 Cleaning and sanitising of the components

WARNING

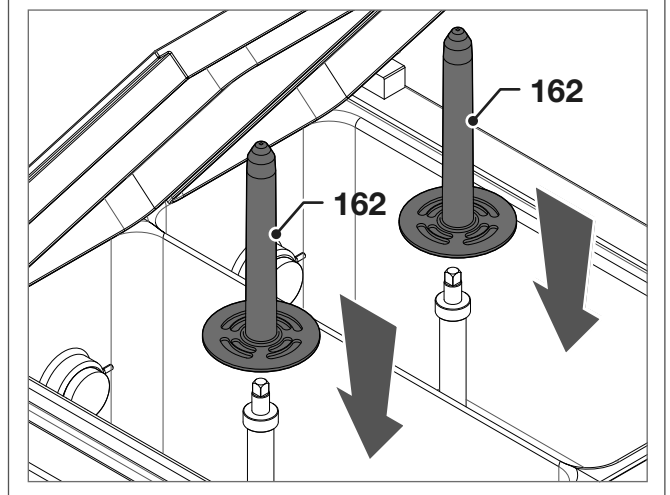
As regards the use of cleaning/sanitising solution, refer to the manufacturer's instructions on the label of the solution used.

- Fill a sink with a cleaning/sanitising solution prepared according to the manufacturer's indications.
- Use the provided brushes and vigorously brush all components and holes found on the same components (the holes on the pump, suction pipes, nonreturn valves, pump seal and its interstice, etc...).
- Dip the components into the cleaning/sanitising solution and let it work for the time indicated by the manufacturer.
- Rinse the parts with care by using plenty of drinking water.
- Place the components onto a clean, sanitised tray and let them dry in air.
- Dip a small brush into the cleaning/sanitising solution and clean the cylinder.
- Immerse a brush in the cleaning/sanitising solution and clean the pump housing holes, the compression tubes and the sides of the tanks.
- Spray the cleaning/sanitising solution on the bottom of the cylinders and on the tank surface.
- Repeat the last three steps some times.

5.15 Reassembly of the tank beater

- Replace the beater (162) in its seat, ensuring that it is engaged correctly

Fig. 79



5.16 Reassembly of the beater

- Position the idler (24) into the beater through the terminal pusher. Make sure the the idler shaft is in the rear seat of the beater.

Fig. 80 with terminal

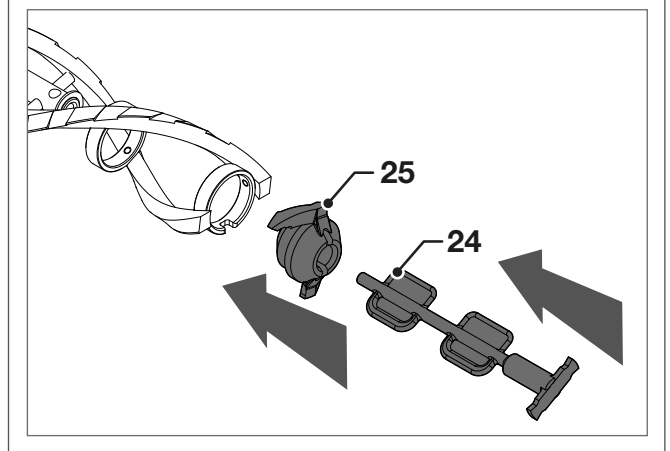
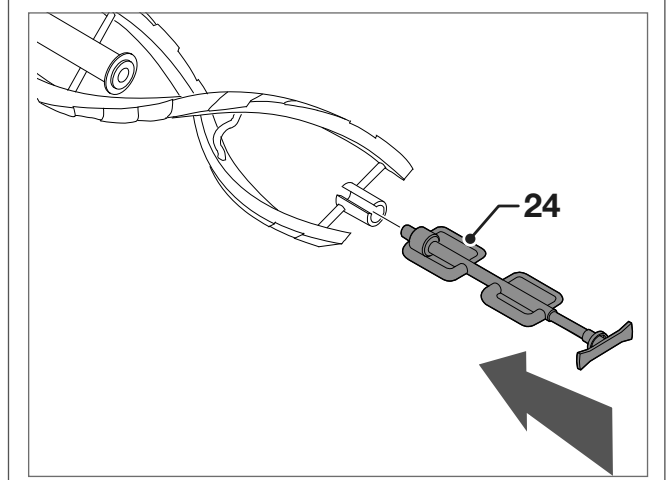
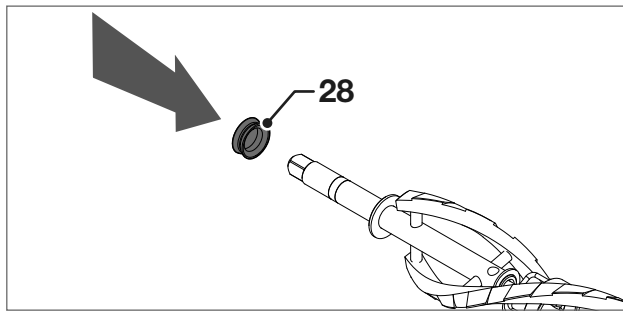


Fig. 81 without terminal



- Lubricate both sides of the beater seal (28) and let it slide it onto the beater shaft.

Fig. 82



- Insert the beater assemblies into the cylinders.
- Push the assemblies while turning them clockwise until they engage in their rear hub otherwise the dispensing head cannot be fastened properly and mix can flow out which could cause serious damages to the machine.

Fig. 83 with terminal

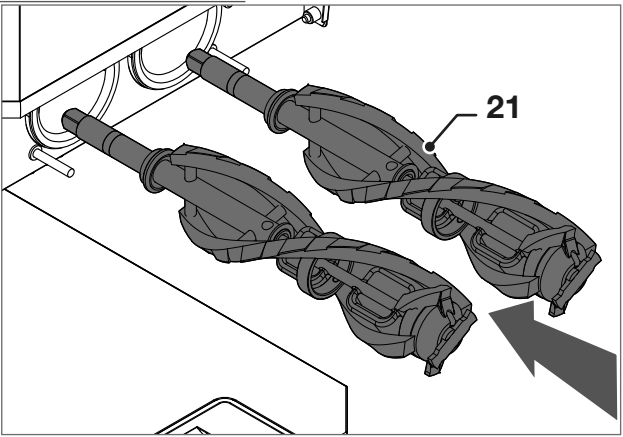
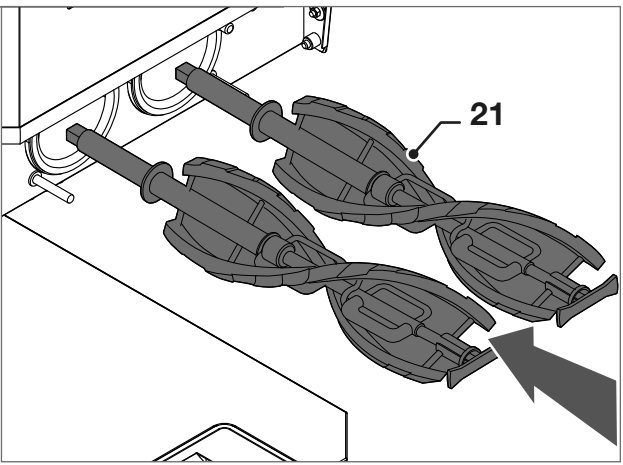


Fig. 84 without terminal

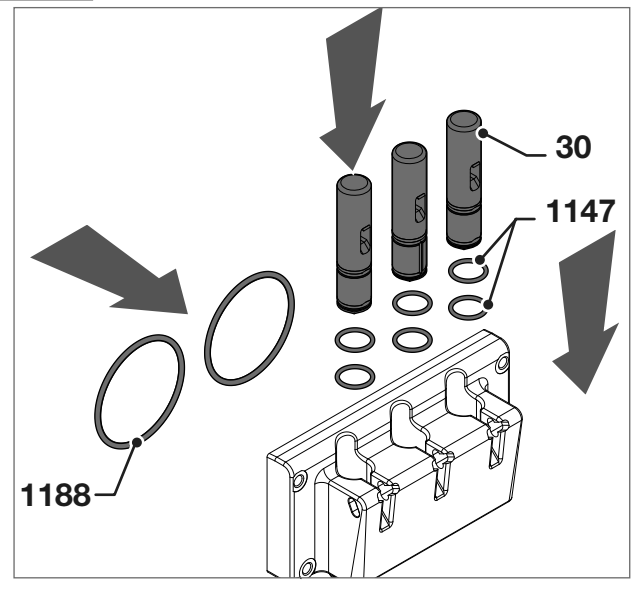
**NOTE**

**Check the beater seal for integrity. Replace if worn or damaged.
Refer to the maintenance plan to carry out the replacement.**

5.17 Reassembly of the dispensing door

- Lubricate the plunger O-rings (1147) and let them slide along their seat.
- Lubricate the plungers (30) and insert them into the dispensing heads (7), with the end downwards as shown by the picture, making sure the plunger square notch corresponds to the rectangular opening on the front of the door.
- Lubricate the large dispensing O-rings (1188) and let them slide along their seat.

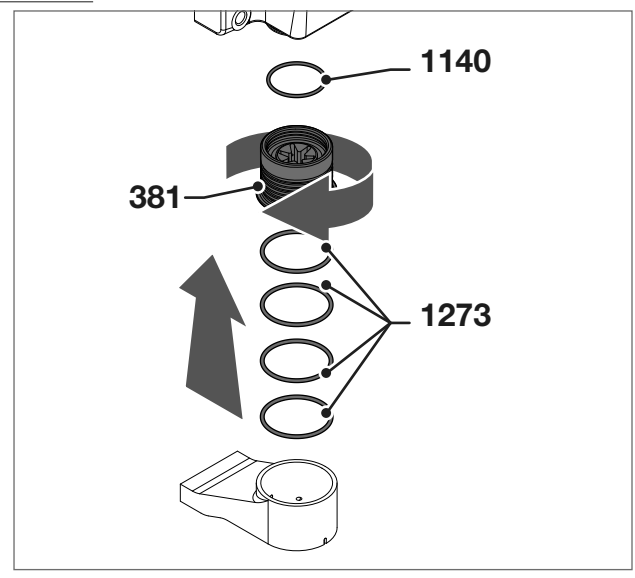
Fig. 85



Door for Variegated version:

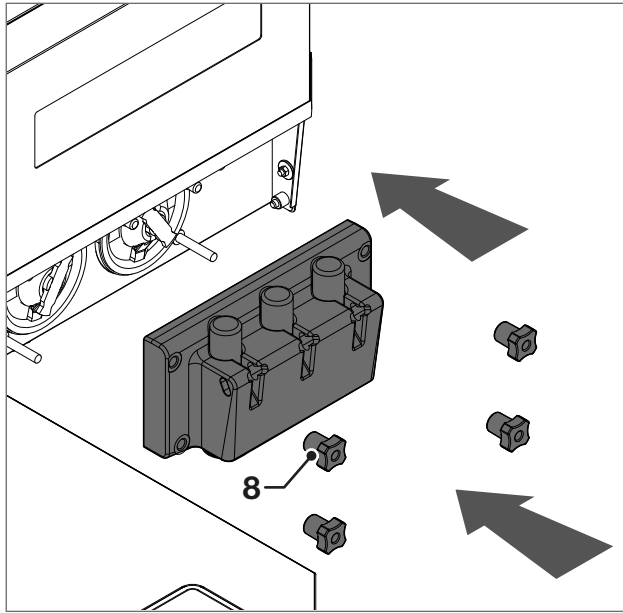
- Lubricate the O-rings (1140 and 1273) and mount them onto the syrup dispenser (381).
- Screw the syrup dispenser onto the door clockwise by using the provided wrench.

Fig. 86



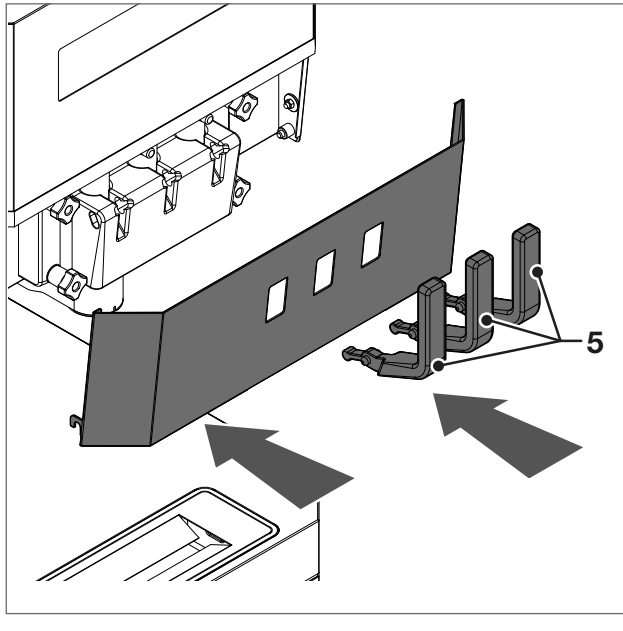
- Insert the dispensing door assembly onto the two front panel pins and tighten it using the knobs (8) properly.

Fig. 87



- Replace the door cover panel.
- Reassemble the dispensing handles (5) onto the door.

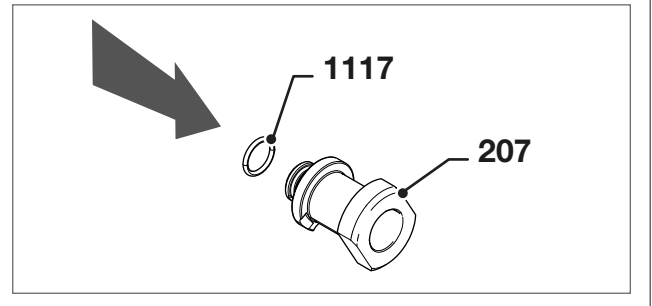
Fig. 88



5.18 Machines with pumps – reassembling the pump

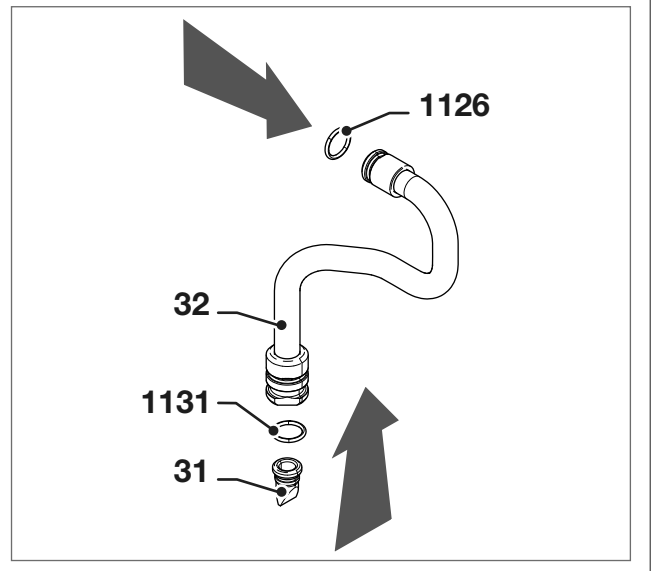
- Lubricate and insert the O-rings (1117) on the connection tube (207).

Fig. 89



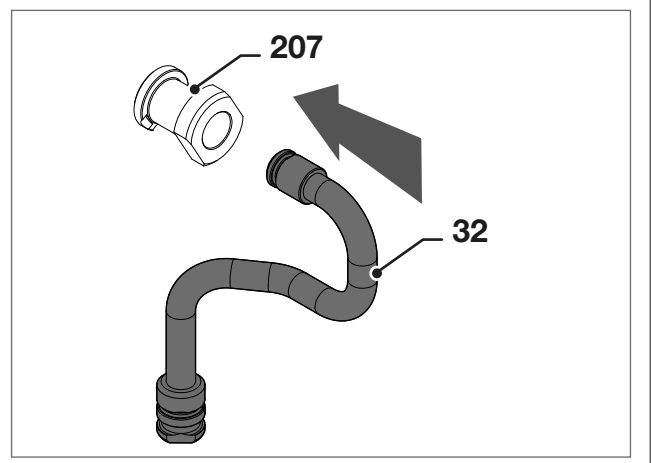
- Lubricate and insert the O-rings (1126), (1131) and the duck bill valve (31) on the pressure pipe (32).

Fig. 90



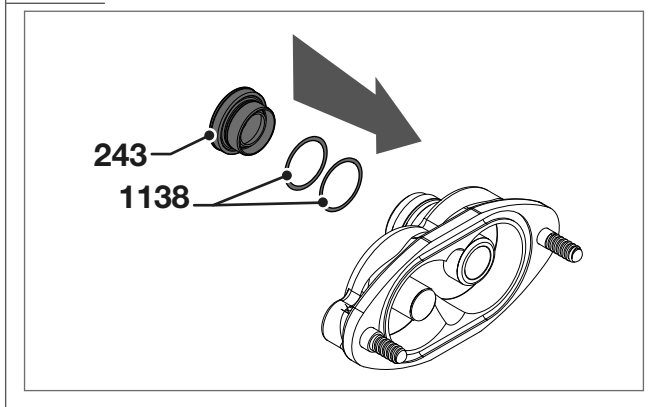
- Insert the connection tube (207) assembly in the pressure pipe (32).

Fig. 91



- Leave the pressure tubes on the tray. They will be sanitised and mounted during the “mix preparation procedure”.
- Lubricate and insert the O-rings (1138) onto the body of the pump.
- Lubricate and insert the seals (243) into the body of the pump.

Fig. 92



- Lubricate and insert the O-rings of the body of the pumps (1178).
- Lubricate the surface of the pump gears (38-38A) and insert them into the pump bodies (39).

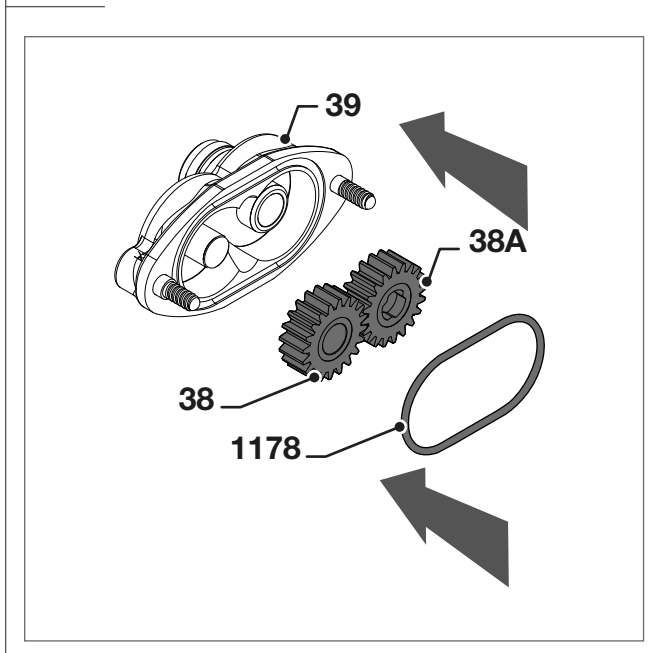


WARNING



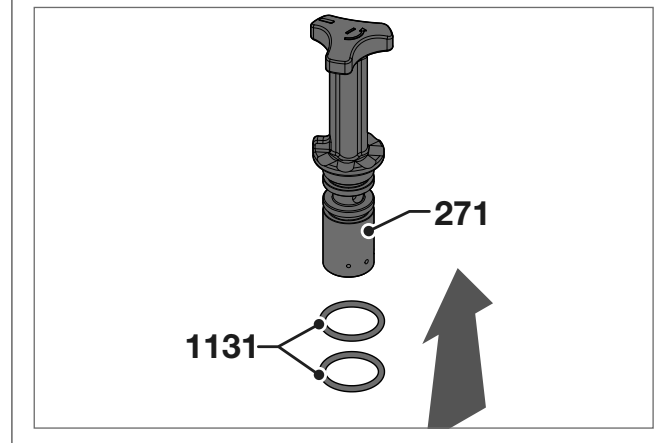
Do not lubricate the teeth of the gears. Carry out checks on wear as instructed in paragraph 6.1.

Fig. 93



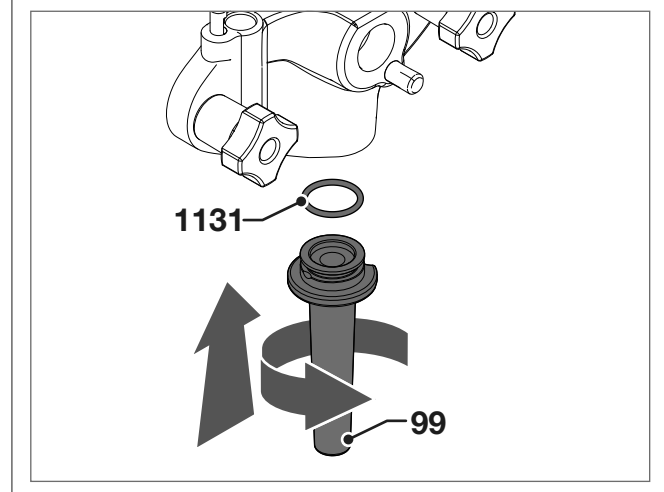
- Lubricate and insert the two O-ring (1131) on the feeding tube (271).

Fig. 94



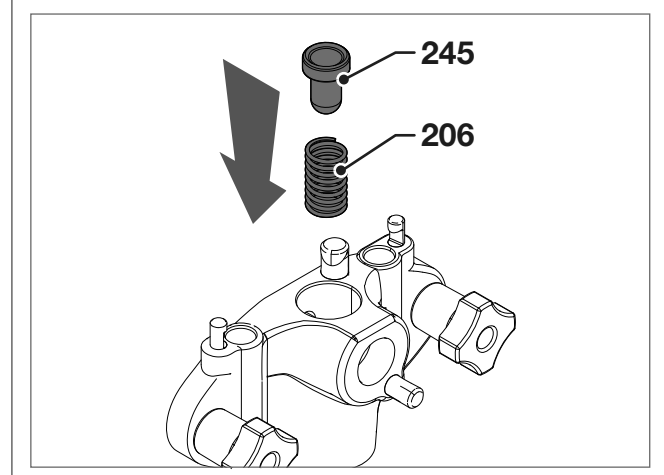
- Lubricate and insert the O-ring (1131) on the feeding tube (99).
- Holding the pump cover insert the feeding tube (99) by pushing and turning it clockwise.

Fig. 95



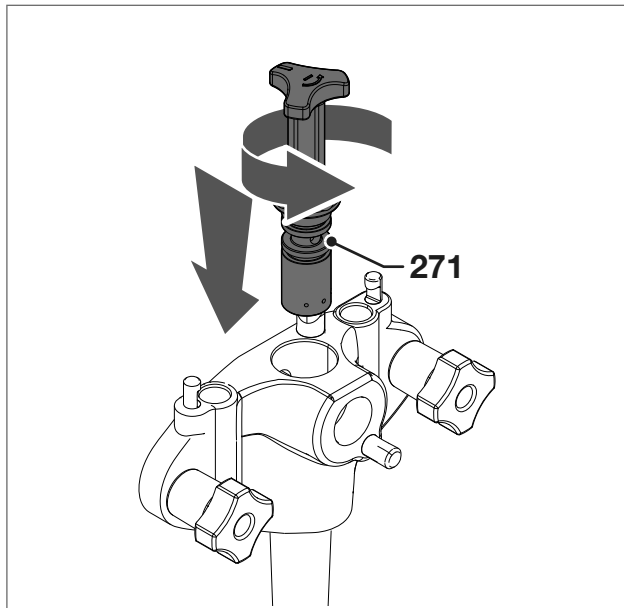
- Insert the spring (206) and the pressure relief valve (245) into the pump cover.

Fig. 96



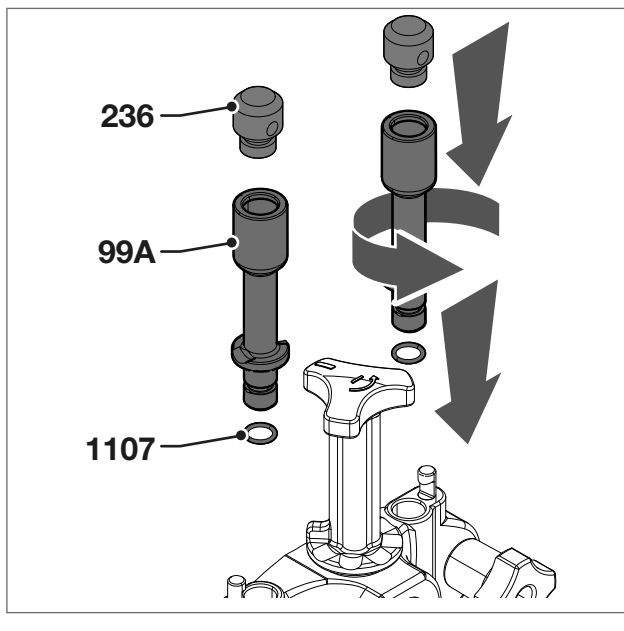
- Insert the pump regulator (271) on the pump cover aligning the pump regulator notch to the pin on the pump cover and turning to lock it.

Fig. 97



- Lubricate and insert the O-rings (1107) onto the air inlet tubes (99A).
- Insert the two plugs (236) on the air intake tubes valve holder (99A).
- Insert the two air intake tubes valve holders (99A) on the pump cover aligning the tube notch to the pin on the pump cover and turning the tubes until they are locked.

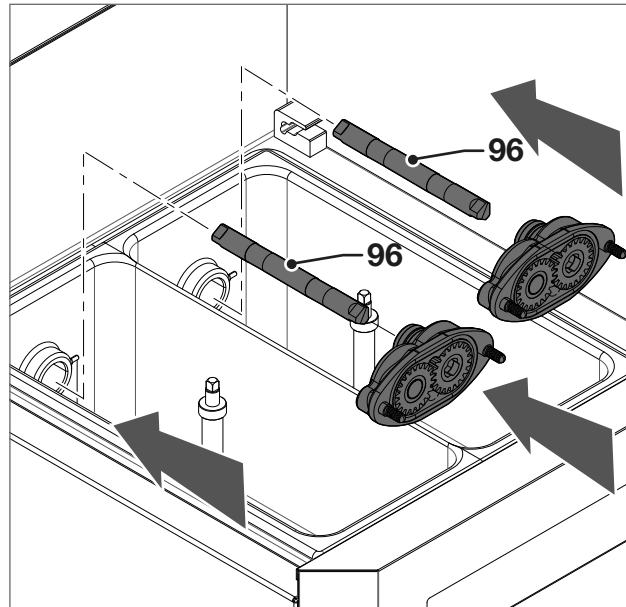
Fig. 98



- Make sure the machine is in Stop mode and lubricate the pump shaft (96). Position the drive shaft at the rear of mix hopper, pushing it towards the back and rotating it slightly until it enters the drive hub. Hold

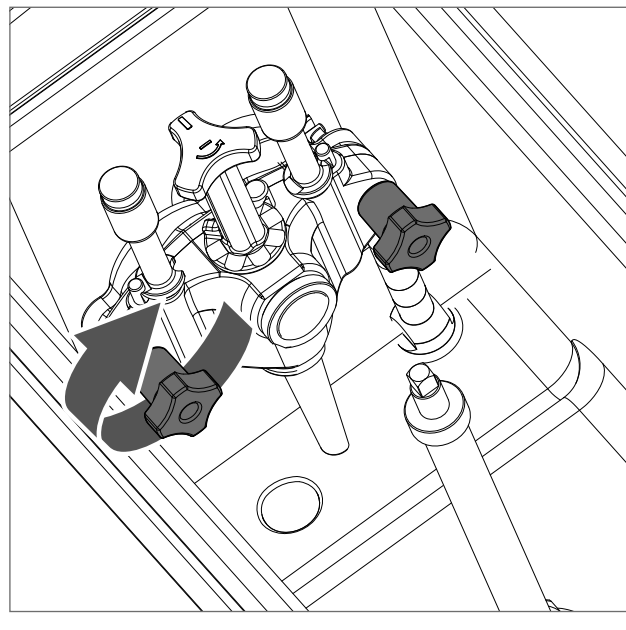
the pump body assembly, with the blocking pin hook on the right. Keeping your thumbs over the pump gears so that they remain in place, push and turn the pump clockwise until the drive shaft matches with the driving gear. Now turn the pump counterclockwise until it locks into the blocking pin.

Fig. 99



- Assemble the pump cover with the feeding tube downwards onto the pump body and turn the two knobs tightly.

Fig. 100

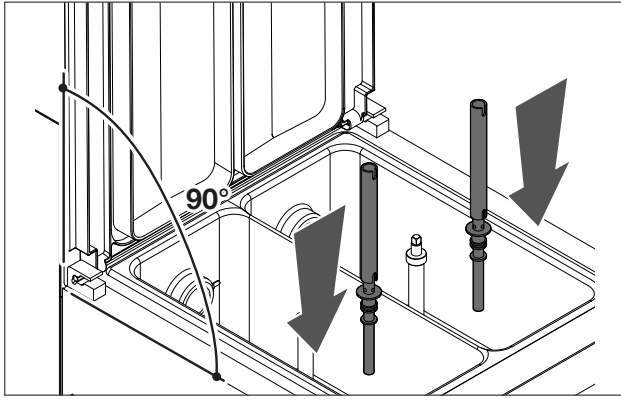


- Reassemble the drip drawer, the drip tray and its cover and the tank cover previously washed and sanitised.

5.19 Gravity-fed machines – reassembly of the feed needle

- Lubricate the O-ring (1131).
- Reassemble the feed needle.

Fig. 101



- Re-position the feed needle in its seat on the bottom of the tank.

5.20 Complete sanitisation of the machine

The machine must be sanitised before mix is poured into the tank.



NOTE



After having cleaned and sanitised the machine and, more precisely, after having closed the front door of the machine, operate the machine in




Production mode (by pushing  key) within 60 minutes. After 60 minutes, the machine does

not accept the  key anymore and automatically passes to the pasteurisation function. In other words, carry out the “Complete sanitisation of the machine” and “Mix Preparation” within 60

minutes, then push the  key.

5.20.1 Sanitising the hopper

- With the machine in Stop mode, fill the cleaning/sanitising solution into the tank up to the maximum level so that it drains into the cylinder.
- Using the brush, clean the mix level sensors, the whole surface of the mix hopper, the surface of the mix pump and the outside of the tank beater.

- Press the  key and then press  and let the beater operate for approximately 5 seconds. Press the  key.
- Pour a little cleaning/sanitising solution into a bucket.
- Open the door cover panel, immerse the supplied brush in the detergent/sanitising solution and brush the dispensing point of the door.
- Wipe the exterior of machine with clean, sanitised cloth. Repeat the operation twice and close the door cover panel.
- Leave the cleaning/sanitising solution in the tank for the time indicated by the manufacturer.

5.20.2 Draining the cleaning/sanitising solution



NOTE



In this machine model the production assembly can be lowered to make the emptying of the tank easier. In this case mount the supplied rubber tube connection and its O-ring onto the door since there is no space to place a container/bucket underneath the discharge door.

At this point connect a tube to the connection and insert it in an outside container to empty the tank.



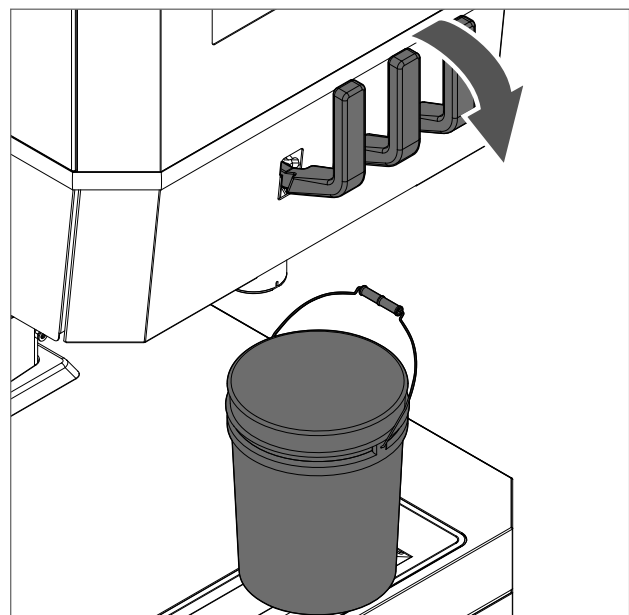
WARNING









The rubber tube connection, its O-ring and any tube used must be washed and sanitised after use.

- Place an empty bucket underneath the door and lower the dispensing handles.

Fig. 102



- Allow all of the cleaning/sanitising solution to drain out.
- If the cleaning/sanitising solution does not flow completely, keep the dispensing handles open and press the  key then press  to operate the beater for 5 seconds at the most to remove the last residues of solution, then press .
- Fill the tank with drinking water to rinse it out thoroughly.
- Allow all of the water to drain out by opening the dispensing handle.
- If water does not flow completely, keep the dispensing handle open and press the  key then press  to operate the beater for 5 seconds at the most to remove the last residues of solution, then press .



WARNING



Do not keep the beater running for more than the time strictly needed to complete washing and sanitisation. Mix butterfat lubricates beater blades; without this lubrication the beater blades wear out quickly.

- Refer to the paragraph 3.9 of this manual for filling the tank and starting production.

6. MAINTENANCE



WARNING



Never put your hands into the machine while it is in Production or Cleaning modes. Before performing any maintenance, make sure the machine has been placed in Stop mode and the main switch has been switched OFF.

6.1 Maintenance



WARNING



Any maintenance operation requiring that the machine's protective panels be opened, must be performed with the machine in Stop mode and with machine disconnected from the electrical power supply! The cleaning or lubricating of moving parts is forbidden! "Repairs on the machine or its electrical, mechanical, pneumatic or refrigeration system must be performed by authorised, qualified personnel and in accordance with scheduled and unscheduled maintenance as agreed with the customer with regards to specific service methods on the basis of destination of use of the machine".



Procedures necessary for the good operation of the machine are such that most maintenance is completed during the Production cycle.

Maintenance operations, such as the cleaning of parts coming into contact with the product and disassembling the beater, are to be normally all carried out at the end of each work shift, thereby keeping maintenance effort at a minimum.

Below is a list of normal maintenance operations:

- Cleaning and replacement of beater seal
Cleaning must be carried out on the set date indicated on the display. The part should be substituted if it is noticeably worn and mix is leaking into drip tray.
- Cleaning of the beater assembly
Cleaning must be carried out on the set date indicated on the display.
- Cleaning of the dispensing head
Cleaning must be carried out on the set date indicated on the display.
- Cleaning of the pump unit
Cleaning must be carried out on the set date indicated on the display.

How to check condition of gears:

This check must be carried out during the periodical cleaning of the machine.

Disconnect the compression tube after depressurising the cylinder. If all parts of the pump are correctly assembled and the gears are OK the pump produces a strong stream of mix (fig. 103). If all parts of the pump are correctly assembled but the gears are worn the stream of mix is very weak (fig. 104).

Fig. 103

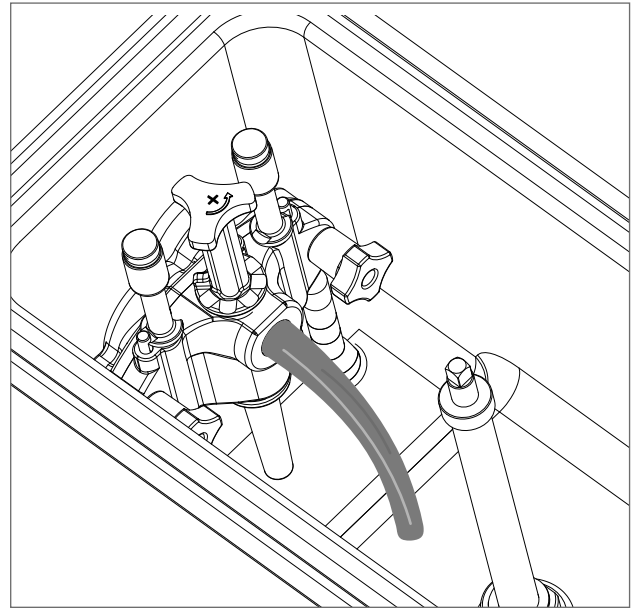
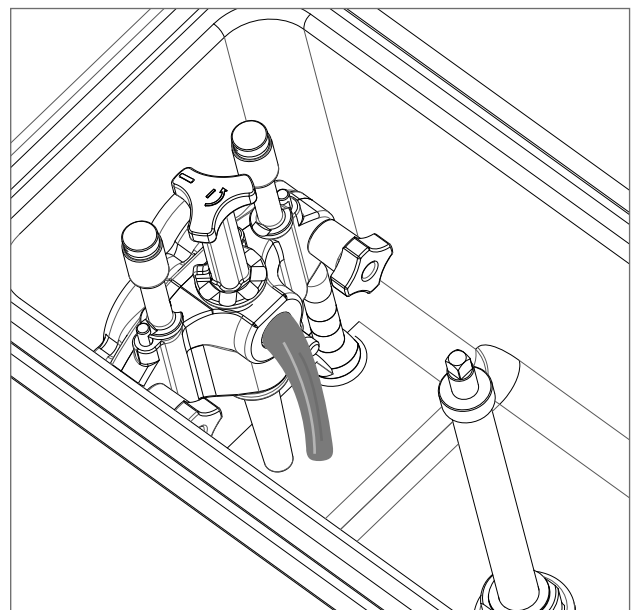


Fig. 104



How to avoid wear of the gears:

- Do not operate the pump without mix inside the tank or only with water for more than a few seconds: the fat/grease content of the mix acts as a lubricant for the gears (like the oil of a car). Without the mix the gears would wear much quicker.

- No foreign object or food piece must enter the pump, not even a little piece of plastic, a tomato skin, a piece of straw that may have accidentally fallen into the tank; they could block the feed and damage the gears.
- During cleaning operations handle the gears with care. Their correct functioning could be jeopardised if they are accidentally dropped.
- Cleaning of blades, drip drawer and tray support shelf.

It must be performed daily utilizing neutral soaps and ensuring that detergents never be used inside the beater unit.

- Cleaning and sanitisation:

It must be carried out on the set date indicated on the display according to the procedures indicated in section 5 of the manual.



WARNING



To clean the machine and its parts never use abrasive sponges which could scratch the surfaces.

6.2 Instructions for replacement of the peristaltic pump tube (Variegated version)

6.2.1 Removal of the pump tube


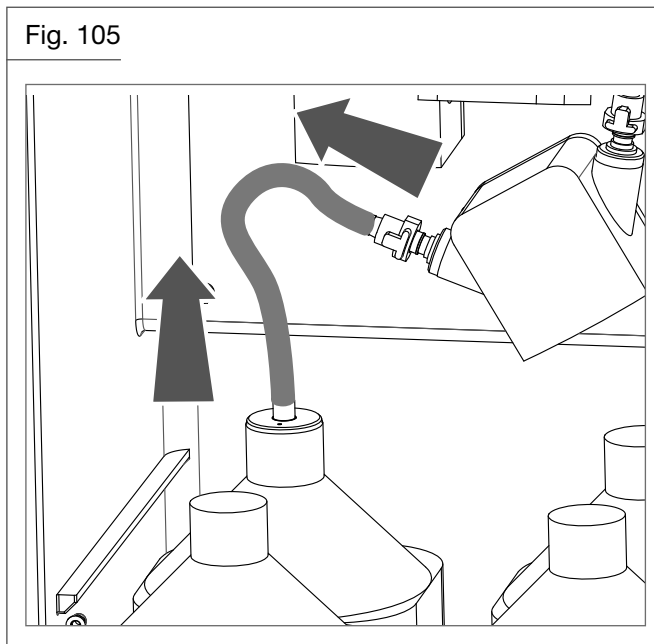
- Remove the syrup tubes from their containers. Clean the outside of the tubes with a clean, sanitised cloth.
- Remove the syrup containers.
- Insert the tubes into a bucket of cleaning/sanitising solution. In order to avoid possible contamination, cover the syrup containers with plastic covering.
- Press .
- Press the Syrup key twice so that the cleaning/sanitising solution starts flowing through the syrup line.
- Let the cleaning/sanitising solution drain until all the syrup drains out from the lines.
- Once there is no more syrup in the line, remove the feed tubes from the cleaning/sanitising solution and let the pump work until there's no more liquid in the line.
- Press on the quick release connector to disconnect the collection tube from the pump tube.
- Press on the quick release connector to disconnect the feeding tube from the pump tube.
- Open the pump by pressing the hinged cover downwards.
- Grip the pump tube on one side, pull it upwards then pull the other side outwards. Remove the pump tube.

Fig. 105



6.2.2 Installing of the pump tube

- Sanitise the new pump tubes and lubricate the O-rings of the syrup line units.
- Place the pump tube into the pump body.
- Pull the cover upwards to close the pump.
- Connect the feeding tube to the pump tube unit.
- Connect the collect tube to the pump tube unit.
- Reposition the syrup containers.
- Fill the syrup lines. Dispense a sole syrup portion into a cup then throw the product away.
- Calibrate the syrup system according to instructions of the provided in the manual.

6.3 Water-cooling



For those machines equipped with a water-cooled condenser, all water must be drained out of condenser at the end of selling season to avoid any trouble should the machine be stored in an environment where the temperature may drop below 0°C.

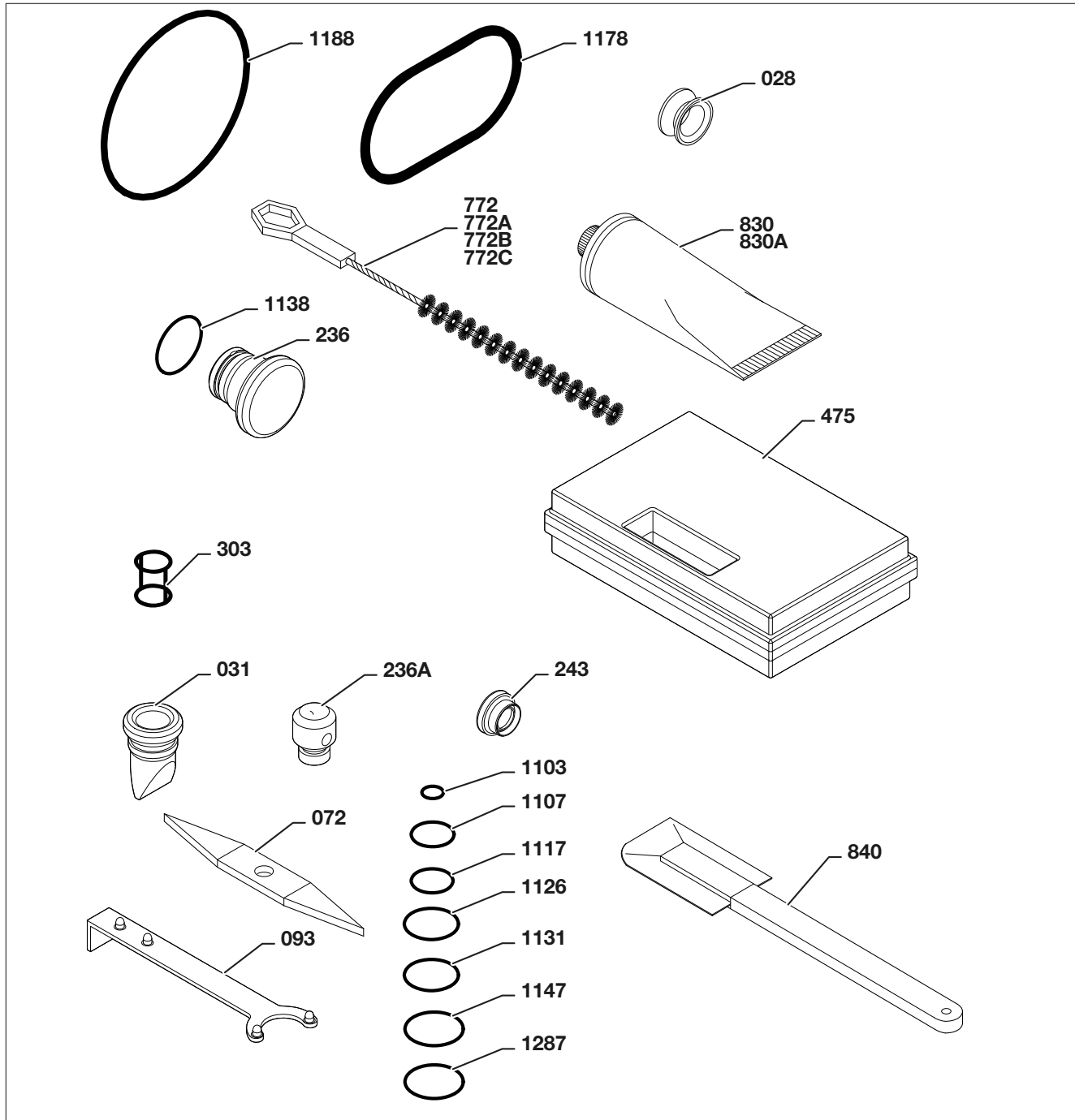
After closing the water inlet pipe, withdraw drain pipe from its seat and let water flow out from circuit.

6.4 Ordering spare parts

When one or more parts are worn out or broken, place the order through your local distributor.

6.5 Supplied accessories

Fig. 106



Legend:

- 28** Beater shaft seal-drive
- 31** Membrane valve
- 55** Fitting hose
- 72** O-ring extractor
- 93** Wrench
- 236** Closure plug for pump hole
- 236A** Plug
- 243** Body pump seal-drive
- 303** Plunger dispense O-ring
- 475** Case
- 772** Brushes
- 830** Carpilube tube

- 830A** Lubrifilm tube
- 840** Cleaning spatula
- 1103** O-ring
- 1107** O-ring
- 1117** O-ring
- 1126** O-ring
- 1131** O-ring
- 1138** O-ring
- 1140** O-ring
- 1147** O-ring
- 1178** O-ring
- 1188** O-ring
- 1287** O-ring

7. TROUBLESHOOTING GUIDE

IRREGULARITY	CAUSE	PROCEDURE TO FOLLOW
Compressor starts and then stops after a few seconds.	<ul style="list-style-type: none"> If it's a water-cooled machine: the water is not circulating. 	<ul style="list-style-type: none"> Open water inlet cock and check that pipe is not squashed or bent.
	<ul style="list-style-type: none"> If it's an air-cooled machine: the air is not circulating. 	<ul style="list-style-type: none"> Check that the machine is positioned so that there's enough space for air to circulate freely upwards from below (at least 50 cms of space above the chimney).
		<ul style="list-style-type: none"> Call for service assistance if necessary.
Mix or ice cream leaks out from above and/or below the plunger even though the door is closed.	<ul style="list-style-type: none"> Piston without O-ring or the O-ring is worn out. 	<ul style="list-style-type: none"> Stop the machine and insert or replace it with a new one if worn out.
Mix leaks out of the drip drawer.	<ul style="list-style-type: none"> Stuffing box missing or worn out. 	<ul style="list-style-type: none"> Stop the machine and install it if missing. If worn out, replace it with a new one.
The dispensing handle is hard to operate.	<ul style="list-style-type: none"> Dry sugar on piston. 	<ul style="list-style-type: none"> Stop the machine and wash thoroughly and grease the plunger and the O-ring with edible fat.
Ice cream comes out from front lid.	<ul style="list-style-type: none"> O-ring missing or not properly fitted. 	<ul style="list-style-type: none"> Stop the machine and check then act accordingly.
	<ul style="list-style-type: none"> Front lid knobs not tightened evenly. 	<ul style="list-style-type: none"> Stop machine, loosen and tighten them again.
Low ice cream overrun.	<ul style="list-style-type: none"> Pump not adjusted correctly. 	<ul style="list-style-type: none"> Adjust the position of the central knob of the pump.



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