

APPLICARE

TARGA

CARATTERISTICHE

**INSTRUCTION HANDBOOK** 

**Compacta VariO 8 US Pro** 





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# FOREWORD

### **INSTRUCTION HANDBOOK**

Editing this handbook, it was taken into due account community directions on safety standards as well as on free circulation of indstrial products within E.C..

### PURPOSE

This handbook was edited while taking into due account needs of machine users.

Topics relevant to a correct use of the machine have been analyzed in order to keep unchanged in the long run quality features of the worldwide **Coldelite** machines.

A significant part of this handbook refers to the conditions necessary to the machine use and to the necessary behaviour during cleanout as well as routine and special maintenance.

Nevertheless, this handbook cannot meet in details all demands; in case of doubts or failing information, please apply to:

Coldelite	
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Via Emilia, 45/A - 40011 Anzola dell'Emilia (Bologna) - Italy Tel. +39 051 6505310 - Fax +39 051 6505311

# HANDBOOK STRUCTURE

This handbook is structurilized in sections, chapters and subchapters in order to consult it more easily.

Section

A section is the part of handbook identifying a specific topic referred to a machine part. **Chapter** 

A chapter is that part of section describing a group or concept relevant to a machine part. **Subchapter** 

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

It is necessary that each person involved in the machine running reads and clearly understands those parts of the handbook of own concern, and particularly:

- The Operator must have a look at chapters concerning the machine start-up and the operation of machine groups.
- A skilled technician employed in installation, maintenance, repair, etc., must read all parts of this handbook.

# ADDITIONAL DOCUMENTATION

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

- **machine equipment:** A list of spare parts delivered together with the machine for its maintenance.
- Wiring diagram: A diagram of wiring connections put into the machine.

Before using the machine read crefully the instruction handbook. Pay attention to the safety instruction.





# **CONVENTIONAL SYMBOLS**







# CAUTION: ELECTRIC SHOCK DANGER

The staff involved is warned that the non-obsevance of safety rules in carrying out the operation described may cause an electric shock.

# CAUTION DANGER FROM HIGH TEMPERATURES

This warns the staff involved that failure to abide by safety rules in carrying out the operation described involves the risk of burns and scalds.

### CAUTION CRUSHING HAZARD

This warns the staff involved that failure to abide by safety rules in carrying out the operation described involves the risk of suffering crushed fingers or hands.

# CAUTION: GENERAL HAZARD

The staff involved is warned that the operation described may cause injury if not performed following safety rules.



**NOTE** *It points out significant information for the staff involved.* 



### WARNINGS

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



# PROTECTIONS

This symbol on the side means that the operator must use personal protection against an implicit risk of accident.

# SYMBOLOGY QUALIFICATION OF THE STAFF

The staff allowed to operate the machine can be differentiated by the level of preparation and responsibility in:



### MACHINE OPERATOR

Identify unqualified personnel, those without any specific technical abilities who are capable of carrying out simple jobs, such as: operating the machine using the commands available on the keypad, the loading and unloading of products used during production, the loading of any consumable materials, basic maintenance operations, (cleaning, simple blockages, controls of the 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.



### **COLDELITE ENGINEER**

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



# SAFETY

When using industrial equipment and plants, one must be aware of the fact that drive mechanisms (rotary motion), high voltage components, as well as parts subject to high temperatures may cause serious damages to persons and things.

- Who is in charge of plant safety must be on the look-out that
- an uncorrect use or handling is avoided.
- Safety devices must neither be removed nor tampered.
- The machine shall be regularly serviced.
- Only original spare parts are to be used especially as far as those components with safety functions are concerned (ex.: protection microswitches, thermostats).
- That appropriate individual protection equipment is used.
- High care must be payed during hot product cycling.

To achieve the above, the following is necessary:

- At working place an instruction manual relevant to the machine should be available.
- Such documentation must be carefully read and regulations must consequently be followed.
- Only adequately skilled personnel will have to be assigned to electrical equipment.

**IMPORTANT!** 

One must be on the look-out that the staff does not carry out any operation outside its own sphere of knowledge and responsibility (refer to "Symbology qualification of the staff").

# NOTE:

According to the standard at present in force, a SKILLED ENGINEER is who, thanks to: - training, experience and education,

- knowledge of rules, prescriptions and interventions on accident prevention,
- knowledge of machine operating conditions,

is able to realize and avoid any danger and has also been allowed by the person in charge of plant safety to carry out all kinds of interventions.

# WARNINGS

When installing the machine, insert a differential magnetothermal 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, alike during production and cleaning operations. Before carrying out any maintenance operation, make sure that the machine is in "STOP/RESET" position and main switch has been cut out.
- It is forbidden to wash the machine by means of a bolt of water under pressure.
- It is forbidden to remove panels in order to reach the machine inside before disconnecting the machine.
- **Coldelite** is not responsible for any accident that might happen during operation, cleaning and/or servicing of its units, if this warning has not been fully complied with.











# 1. RECEIVING, MOVING, OPENING THE PACKING

# **1.1 RECEPTION**

- Before unpacking the machine, check that packing shows no external damages due to collisions during transportation.
- An external damage could mean the machine itself is damaged: in this case, immediately apply to insurance company and leave everything as it was on reception.

# 1.1.1 Lifting a packed machine

To lift the packing, insert lift forks into the space between pallet feet, so as to balance the machine weight and consequently packing barycenter.

# 1.1.2 Forbidden material handling equipment

Material handling equipment not in compliance with following safety characteristics must never be used:

- Lifting capacity lower than machine weight or unsuitable construction features of the lift (ex.: too short forks)
- Unconforming ropes and cables or worn ropes or cables



Fig. 1

# 1.2 OPENING A PACKING CRATE

A **wooden packing** can be opened by means of proper tools; it is recommended to protect exposed parts, such as hands with gloves, against wood splinters.

- 1- Remove nails starting from the upper part until the machine still fastened to the pallet (board) is left uncovered.
- **2-** Remove protection film wrapping the machine.
- **3-** Check that the machine has not been damaged during transportation.

**Board packing** is externally closed by steel straps.

- 1- Cut the steel straps with a pair of tin shears, holding one side with the free hand.
- 2- Remove the packing by lifting it vertically up.
- **3-** Remove the protective polystyrene packing and the polypropilene bag.
- **4-** Cut the steel straps which secure the machine to the base.

# CAUTION

Act with utmost care, as one may hurt himself when cutting the straps, if they are not strongly held during this operation.













# **1.2.1** Machine removal from pallet

1- Remove the four screw fastening both bars between pallet and machine.





- CAUTION Removal from pallet must be carried out from TWO people properly instructed in material handling. Remove machine from pallet only after carefully reading following instructions.
- 2- Place the wooden skid the machine is equipped with, in relation to the machine rear.
- 3- Push the machine from its rear till both bars drop, thence withdraw them sideaway.



4- Descent of machine from skid must be controlled by TWO people, one standing by machine rear and the other by frontside

### CAUTION

While moving the machine, mind it does not run too fast or it does not stop suddenly against the floor, as in both cases it might overturn thus bringing about damage to people and/or things all around.







# **1.3 STORING A MACHINE**

The machine must be stored in a dry and dump-free place. Before storing the machine, wrap it in a cloth in order to protect it against dust and else.

### **IMPORTANT:**

When storing a packed machine, never place a crate on another.



# 1.4 DISPOSAL OF PACKING STUFFS

When opening the packing crate, divide packing stuffs per type and get rid of them according to laws in force in machine installation country.

# **1.5 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 the 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 optimize 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.











# 2. GENERAL INFORMATION

# 2.1 GENERAL INFORMATION

# 2.1.1 Manufacturer's identification data

The machine has a data plate carrying manufactuer's data, machine type and identification number given when it is manufactured.

					Fac	:.ID.
I	Phase			Hz		
Max Breaker Fuse Size Minimum Circuit Ampacity						
	DESIGN	PRE		OPE	RATING	PRE
HIGH SIDE, PSIG						
LOW SIDE, PSIG						
REFRIGERANT REFRIGERANT			(02	<u>Z</u> )		
QTY	VOLT	HP	FLA	VRLA	LRA	
	1					
	1		$\top$			
			+			
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# 2.1.2 Client/user's identification data

CLIENT:
ADDRESS:
TELEPHONE:
Machine serial number: Machine delivered on: Instr. handbook delivered on:

# 2.1.3 Information about service

All operations of routine maintenance are described in section "Maintenance" of this handbook; any further operation requiring radical interventions on the machine must be agreed with the manufacturer, who will also examine the possibility of a direct action on the spot.

# 2.1.4 Information to the user

- The manufacturer of the machine here described is at user's disposal for any explanation and information about the machine operation.
- In case of need, the interlocutor is the distributor being present in user's country, or the manufacturer if no distributor is in that market.
- Manufacturer's service department is at clients' disposal for any information about operation, and requests of spare parts and service.
- The manufacturer reserves the right to carry out all machine changes deemed as opportune without previous notice.
- Descriptions as well as pictures contained in this handbook are not binding.
- Reproduction rights are reserved to **Coldelite**.







# 2.2 INFORMATION ABOUT THE MACHINE

# 2.2.1 General information

Floor standing machine for the production of ice cream, skim or fruit ice cream. The machines are provided with an electronic control keyboard for the access to all functions. Following are the main components of **Compacta VariO**:

- Top cylinder for heating and pasteurization
- Lower cylinder for production and execution of production cycles
- Electronic control panel divided by heating and production sides
- Flexible shower-head for cleaning the cylinders
- Lids for ice cream filling in heating and freezing cylinders
- Levers for ice cream dispense and transfer from top cylinder to lower cylinder
- Front lids with safety devices for cylinders opening
- Wheels for easy moving

**Coldelite** recommends to always use high quality mix for milk shake production in order to satisfy your customers, even the hardest-to-please ones.

Any saving made to the prejudice of quality will surely turn into a loss much bigger than the saving itself.

Bearing in mind the above statements, please take heed of the following suggestions:

- Make your mixes yourselves from high quality natural ingredients or buy them from reliable companies.
- Follow closely instructions given by your mix supplier for the preparation of the mixes.
- Do not alter your mix supplier's recipies, by adding, for instance, water or sugar.
- Taste milk shake before serving it and start selling it only if entirely satisfactory.
- Make sure your staff always keeps the machine clean.

Have your machine serviced always by companies authorized by Coldelite.

### CAPTION:

- 1 Flexible shower-head
- 2 Electronic control panel
- 3 Lid for ice cream filling in heating cylinder
- 4 Top cylinder (heating and pasteurization)
- 5 Lever for ice cream dispense and pass from top cylinder to down cylinder
- 6 Lid for ice cream filling in freezing cylinder
- 7 Down cylinder (freezing and execution of production cycles)
- 8 Wheels for easy moving
- 9 Tub support shelf







### Compacta VariO 8 US Pro

# **2.2.2 Technical features**

Model	Quantity per batch Mix filling kg		E	lectric pow	er	Installed power
	Min	Max	Volt	Hz	Phases	kW
Compacta VariO 8 US Pro	1,5	8	208-230	60	3	9,7

\* The hourly production and quantity of mix for ice cream can vary depending on the temperature, the type of mix utilised and the required increase in volume (over-run).

# 2.2.3 Machine lay-out

Model	Diı	nensions o	em	Weight
Model	Width	Depth	Height	Kg
Compacta VariO 8 US Pro	60	77	153	325





# 2.3 INTENDED USE

The **Compacta VariO** must only be used, conforming with content of paragraph 2.2.1 "General Information", within the functional limits hereunder reported:

- Voltage:.....±10%
- Air min. temperature °C: .....10°C
- Air max. temperature °C:.....43°C
- Water min. temperature ......10°C
- Water max. temperature......30°C
- Water min. pressure .....0,1 Pa (1 bar)
- Water max. pressure.....0,8 Pa (8 bar)
- Max air relative humidity: ......85%
- This machine has not been designed for use not in compliance with its original design and purpose.

# 2.4 NOISE

The steady acoustic pressure level weighed A in a working place alike by watercooled and by aircooled machines is less than 70 dB(A).



# 3. INSTALLATION

# 3.1 ROOM NECESSARY TO THE MACHINE USE

The machine must be installed in such a way that air can freely circulate all around. Rooms for the approach 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 need be.

The minimum approach room to working area should be at least 150 cm in consideration of space taken by opened doors.



Fig. 10

# 3.2 WATER SUPPLY CONNECTION

The machine must be connected to running water which pressure must not be higher than 8 bars.

By aircooled machines, water connection for drinking water (for machine wash) is placed under the machine.

By watercooled machines water connections (for machine wash and gas cooling) are placed under the machine.

# 3.3 MACHINES WITH AIRCOOLED CONDENSER

Machines with aircooled condenser must be installed no closer than 50 cm to any wall in order to allow free air circulation around the condenser.

### NOTE:

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









# 3.4 MACHINES WITH WATERCOOLED CONDENSER



Watercooled machines can run when only connecting it to running water supply, as the same water inlet is also used for washing water.

Water must have a pressure of 1 Bar at least and a delivery at least equal to the estimated hourly consumption.

Connect inlet pipe marked by the plate "Entrata Acqua" (=Water inlet) to water supply, installing a shut-off valve, and the outlet pipe marked by the plate "Uscita Acqua" (=Water outlet) to a drain pipe, isntalling a shut-off valve.





# 3.4.1 Water valve adjustment

# **IMPORTANT:**

*If water valve needs to be reset, such an operation must be effected by skilled personnel, only.* Set water valve so that, with machine off no water comes out and lukeawarm water flows out when on.

Estimated water consumption is shown in the table at paragraph 2.2.3 "Technical features".



# NOTE:

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

ATTENTION! Do not leave the machine in a room with temperature below 0°C without first draining water from condenser (see Section 7)





# 3.5 ELECTRICAL CONNECTION

Before connecting the machine to the mains, check that the voltage is the same as the one stated on its plate. Be sure to install, between the machine and the power mains, a **class D differential circuit breaker** of the correct size for the required power input and with a contact gap of at least 3 mm.

The machines are delivered with a 5 wire cable: blue wire must be connected to the neutral one.

# IMPORTANT:

Yellow/green ground wire must be connected to a good ground plate.

# 3.5.1 Replacing the imput cable

Should the main cable of the machine be damaged, it needs to be replaced immediately through a cable with similar features. Replacement shall be carried out by skilled technicians, only.

# **Beater rotation**

By machine models **Compacta VariO** the direction of beater rotation for production side is *anticlockwise*.



# Reversing the rotation direction

If the direction of rotation is not correct, interchange two of the three leads coming from the circuit breaker.

# NOTE:

To check whether the direction of rotation is correct, close the front lid, start the machine and then eye through the arrow-shaped slit on the machine rear. The direction of rotation must be the same as the arrow one.

# NOTE:

When checking the direction of rotation, the machine must run but the beater relevant to the production side must be disconnected, in order to avoid a quick wear of the beater. To remove the beater, withdraw it from its seat by pulling it forwards.

















# **3.6 MACHINE LOCATION**



The machine is provided with wheels for its easy location; such wheels are equipped with mechanical locks, which once engaged, lock the wheels and so keep the machine standstill.



# 3.7 CLEANOUT

Eliminate dust from machine, as well as the protective material the machine was strewed with. Use just water and, if need be, add a soap-based mild detergent with a soft cloth.

ATTENTION Never use neither solvents, alcohol or detergents that may damage the machine parts and contaminate parts coming into contact with product.

# 3.8 REFILLING

Motor installed in the machine is of the type with lubrication for life; no action of checking/replacing or topping up is necessary.

Gas filling necessary to the freezing system is carried out at Coldelite works during machine postproduction testing.

If a gas addition happens to be made, this must be carried out by skilled technicans, only, who can also find out trouble origin.

# 3.9 MACHINE TESTING



A postproduction test of the machine is carried out at COLDELITE premises; operation and output functionality of the machine are thoroughly tested.

Machine test at end user's must be carried out by skilled technicians or by one of Coldelite engineers.

After the machine positioning and correct connections, also carry out all operations necessary to functional check and test of the machine.







# 4. DIRECTIONS FOR USE

# 4.1 MACHINE SAFETY WARNINGS

When using industrial equipment and plants, one must be aware of the fact that drive mechanisms (rotary motion), high voltage components, as well as parts subject to high temperatures may cause serious damages to persons and things.

Who is in charge of plant safety must be on the look-out that

- an uncorrect use or handling is avoided.
- Safety devices must neither be removed nor tampered.
- The machine shall be regularly serviced.
- Only original spare parts are to be used especially as far as those components with safety functions are concerned (ex.: protection microswitches, thermostats).
- That appropriate individual protection equipment is used.
- High care must be payed during hot product cycling.

To achieve the above, the following is necessary:

- At working place an instruction manual relevant to the machine should be available.
- Such documentation must be carefully read and regulations must consequently be followed.
- Only adequately skilled personnel will have to be assigned to electrical equipment.

# 4.1.1 Machine configuration

The machine consists of two drive mechanisms for the running of the beater assemblies, of a cooling unit with water or air condensation (or both, depending on the version).

The product is prepared by filling the cooking cylinder or the freezing cylinder with the mix and starting the automatic production cycle.

When the cycle ends, the product is ready to be dispensed by means the special levers.

# CAUTION

In any case, do not touch the door during the heating stage or the stages immediately after, since it can reach very high temperatures.

# CAUTION

Pay high care during hot product cycling and/or distribution, for it may cause injuries. Do not open neither door neither discharge door during product cycling.

### CAUTION

To make product dispensing easier, only use the plastic spatula supplied. Never use metal spatulas as these could damage the machine.













# 4.2 CONTROLS



# 4.2.1 Electronic control keyboard

The machine is equipped with an electronic keyboard positioned on the operator front panel. Each key is identified by explanatory symbology of the assigned function.



# 4.2.2 Common functions



### **INCREASE key**

This key increases the values that can be modified in the functions where it is permitted.



### **DECREASE** key

This key decreases the values that can be modified in the functions where it is permitted.

When in Stop mode, pressing this key continuously allows Autosetup to be carried out of all programmes.

This key is also used for resetting alarm messages (whether boiler alarms or whipping alarms).



### WATER DISPENSING key

Pressing this key at any moment activates the solenoid valve for the dispensation of water.

The solenoid valve deactivates when pressing the same key again, or the Stop key (whether on the boiler side or on the whipping side) or after 3 minutes.

Once the solenoid valve is activated, the dispensing of water starts by pressing the lever on the wand.



### 4.2.3 Functions available to the operator BOILER UNIT (upper section)

The upper part of the machine is relative to the boiler, the keys are an orange colour and relative messages are visualised on the first line of the display.



### STOP key

In this function, the upper part of the machine is off.

From this position one has access to all functions relevant to the section boiler (upper section).

STOP has priority over all upper section functions On display:

11:15:08 MON



### **HEATING/RECIPE** key

This function allows selecting the cycle to be carried out, whether a simple Heating or a recipe.

Recipes consist of two phases: the heating phase and the cooling phase, that will continue inside the cylinder after the product will be poured in after cooking. For a detailed description of these cycles please see below.

Once key is pressed, the display will show the following message:

Mix introduced?

### WARNING

before enabling any boiler cycle, ensure that there is mix inside the cylinder, or sensors TER1-2-3 could get damaged and heating elements could get burnt.

By pressing the Heating key within approx. 15" it is possible to select the type of heating or recipe and start the cycle as usual, otherwise the machine will go back to Stop mode.

Once the key is pressed the selected cycle is displayed, which can then be edited with the Increase and Decrease buttons among the following options:

ITALIAN CUSTARD BUTTER CUSTARD GANACHE JAM FRUIT CUSTARD FRUIT ICE CREAM SPREAD HEATING+90 HEATING+85 HEATING+65 FREE HEATING

Upon pressing the Heating key or automatically after 3" it is possible to use Increase and Decrease buttons to select among the following filling options:

Maximum filling Medium filling Minimum filling Extramin filling

During recipe execution the display will ask you to pour the ingredients in the boiler

cylinder and to confirm the operation with the key:

Pour Ingredients. PRESS OK

At this point, after pouring the ingredients, press the OK key and hold it for 3" to start the actual recipe execution.









key.

+86 10:59 +85 2

The temperature parameters can be edited (when applicable) by pressing

while the speed can be set by pressing key ;

anyway, the new set will be saved by pressing again the edit key until the arrow key LED will turn off.

At the end of the cycle the machine will show the massage "EXTRACT" and you

will be requested to confirm by pressing and holding key for 3" in order to begin the actual extraction phase at the desired speed. The message "EXTRACTION" will appear.

In case of recipe with a hot/cold cycle, it is possible to STOP the machine at any

time by pressing the STOP key at the top right during heating and the STOP

key **use** at the bottom right during cooling.



# **BEATER key**

Pressing the beater key, the Beater starts and continues until the **STOP** key is pressed or the timer of 1 minute expires.

The display visualises the temperature of the product:



# ATTENTION

1 minute after the Beater starts the machine goes automatically into Stop mode to avoid excessive wear of the beater and the cylinder.





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# 4.2.4 Functions and arrangements of the operator WHIPPING section (lower part)

The lower part of the machine refers to the whipping unit; the keys are a light red colour and the relative messages are visualised on the second line of the display.

### **STOP key**

Pressing the Stop key the machine stops and the relative LED is lit. In Stop mode, access can be gained to User Programming.

In Stop mode, pressing the Stop key continuously permits the reading of the events of the machine.



# **BEATER SPEED MODIFICATION key (whipping unit)**

key whilst in Whipping, Extraction or Beating mode, Pressing the the Increase/Decrease LEDs light up and using the relative keys the Beater speed can be modified.



# **BEATER/EXTRACTION key**

### **Beater function:**

Pressing the Beater key in Stop mode, the Beater is activated for 1 minute. The display visualises:



Pressing the key once, slow beating (speed 3) is activated and on the left the display visualises the decreasing timer and on the right the beater speed. When the time has expired, the machine goes into Stop mode.

Ρ		
	MIN	MAX

key, the LEDs of the Increase/Decrease keys light up. Pressing the Using the Increase/Decrease keys, modify the speed of the beater motor from 1 to 7, or select speed "G" used for granita.

### **Extraction function:**

Beater speed 7 (can be set in User Programming) is activated when the Extraction key is pressed in Production mode.

After 5 seconds the machine goes into Stop mode.

Repeatedly pressing the Extraction key, the extraction speed set by the user is activated alternatively (refer to User Programming), step U11and U12.

Pressing the Whipping key once the extraction process is activated, a cold cycle is activated for a time depending on the selected load. If the time is not sufficient, press the Whipping key again to activate the cold cycle once again. The LED of the Whipping key remains on during the activation of the cold cycle. When speed "G" is activated, the Post Cooling cycle cannot be activated.



### WHIPPING key

Press FREEZING key to access Freezing recipes specifically constructed for ice cream production:

-	Vanilla Max	-	Ice Cream Max
-	Vanilla Med	-	Ice Cream Med
-	Vanilla Min	-	Ice Cream Min
-	Vanilla Extramin.	-	Cremolata Max
-	Fruit Max	-	Cremolata Med
-	Fruit Med	-	Cremolata Min
-	Fruit Min	-	Slush Max
-	Fruit Extramin	-	Slush Med
		-	Slush Min

Cooling







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The "VANILLA" recipes are preferably used with milk-based products to obtain the classic whipped ice cream.

The "FRUIT" recipes are preferably used with water-based products. The "ICE CREAM" recipes are used with milk-based products to obtain an American-type ice cream.

The set recipes are calibrated during the Coldlite testing phase and are ready to be used even by less-expert operators.

To obtain a quality product utilising the set recipes, it is recommended to use the following quantities of product:

Model	Extra Min	Min	Med	Max
VariO 8	1	2,5	5	8

### ATTENTION

Utilising the recipes using a quantity of product less than 4 litres causes excessive wear of the Beater's scrapers.

A prolonged use of the "MIN" or "EXTRAMIN" recipe causes excessive wear of the scrapers due to the reduced quantity of product utilised.

Utilising the "EXTRAMIN" and "MIN" recipes using large quantities (3-7 litres) causes an increase in whipping times and the lack of reaching the maximum set consistency with the risk of obtaining a product not adequately whipped.

Pressing the WHIPPING key, the display visualises the last executed recipe. The recipe to be launched (e.g., "Vanilla Max") can now be selected within 5 seconds using the Increase/Decrease keys. It will be automatically executed after 5 seconds. The following message appears on the display:



On the second line of the display, the consistency of the product is visualised on the left, the consistency value to reach on the right and the ramp in the middle represents the consistency progress. The last character is the set speed for beating.

### Modifying the ice cream consistency

To modify the set consistency, press the WHIPPING key (the LEDs of the Increase/ Decrease keys light up) and within 10 seconds modify the consistency using the Increase/Decrease keys.

### Cremolata recipe

The display visualises:

08:40 -02°C 10

On the second line, the decreasing timer is visualized on the left, the actual temperature of the product in the middle and the time set of the Cremolata Whipping on the right.

### Modifying the timer of the cremolata whipping



To modify the whipping time, press the key (the LEDs of the INCREASE/ DECREASE keys light up) and within 10 seconds modify the timer using the IN-CREASE/DECREASE keys.









# 4.3 PRELIMINARY OPERATIONS, WASHING AND SANITIZING

<u>Before starting the machine for the first time</u>, it is necessary to thoroughly clean its parts and then sanitize the parts in contact with food products (see detailed procedure in section 6).

# IMPORTANT:

Cleaning and sanitizing shall be carried out as a habit at the end of each production with utmost care in order to guarantee quality and in the observance of necessary hygienic rules.

# 4.3.1 Preliminary cleanout

To clean the machine, do as follows:

- 1. Fill both cylinder with water by means of the shower (351) installed on the machine front.
- 2. After letting water in, press the **BEATING** key for boiler section and the **BEATING** key for production section.

When programmed time is over, the machine will automatically set at STOP.

- 3. Turn the handle (502) and lower the knob (5), so as to drain water from the cylinders.
- 4. Once the production cylinder has been emptied out, (front lid can be easily opened by lifting the lever (289) and pulling it rightwards), it is recommended to clean the cylinder with a direct water spout and keep the beater locked in its seat.
- **5.** As to disassembling of the machine parts, see instructions given in section 6 "Cleaning, disassembling and reassembling parts in contact with food product".

# WARNING! To avoid a useless wear of both freezing cylinder and beater do NOT use this function more than 3 minutes.





To use the shower (**351**) installe onto the machine, take the hose out of its seat, press **WATER INLET** key and then to activate water spout press the push-button on the shower hose. Before placing the shower back to its seat and after deactivating it, press **STOP** or **WATER INLET**, drain water from the hose by holding down the push-button on hose.



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### | 4.3.2 Sanitizing

With the machine at Stop, fill the two cylinders with water and put in NON-CORROSIVE sanitising solution.

After adding the sanitizing solution, press the **BEATING** key for boiler section and the **BEAT-ING** key for production section.

### WARNING

Too a long running in "BEATING" position with empty cylinders or filled with water and sanitizers brings about a quick and early wear of beaters and cyclinders.

Wait for the sanitising solution to take effect (approximately 10/15 minutes, depending on the type of sanitiser utilised and the instructions given by the manufacturer of the sanitiser).

Bleed out all sanitizing solution using the levers (5 and 502).



# NOTE:

It is recommended to rinse with running water before starting the machine again.



CAUTION Do not touch sanitized parts with hands, napkins or else.

# 4.3.3 Hygiene

Ice cream mix fat contents are an ideal ground for mildew and bacteria to proliferate. To eliminate them, it is necessary to thoroughly wash and clean all parts in contact with mix and ice cream, as described above.

Stainless steel and plastic materials, as well as rubber used in the construction, and also their particular shapes and design make cleanout easy, but cannot prevent proliferation of mildew and bacteria if not properly cleaned..



### WARNING

Before using the machine again, thoroughly rinse with water, only, in order to remove residues of sanitizing solution.



# 4.4 STARTING THE MACHINE

# 4.4.1 Description and use of boiler section

The boiler unit is on the upper part of the machine and it consists of a heating/pasteurising cylinder, the chamber where mix is heated and in which you find a beater for stirring the product. The heating cylinder is hermetically closed by a lid (**301**) that can be opened by lifting and pulling the handle (**289**) rightwards.





For filling with mix, lift the lid **290** and pour it into.



The heating of the mix inserted in the cooking cylinder is started while STOP position is still active, by pressing **HEATING** key.

This key selects the cycle to be carried out.

Once the key is pressed the first cycle is displayed. Select cycle with the Increase and Decrease buttons.

After 5 seconds or as soon as Heating key is pressed, the display will show the filling. Select or edit the desired filling with the Increase and Decrease buttons.

The specific cycle will be activated after about 5" or as soon as Heating key is pressed.



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WARNING! The door on the heating/pasteurization section is equipped with a heatproof shield (accident prevention). In any case, avoid all contact with the door during the heating, cooking or pasteurization stages as well as in the stages immediately after, since the door reaches extremely high temperatures.

After pasteurizing the mix, you can transfer it to the production cylinder by gradually lowering the handle **5**.



# 4.5 ICE CREAM PRODUCTION (WHIPPING)

After washing, sanitising and thoroughly rinsing immediately before using and in accordance with that mentioned previously, take the mixture from storage and pour the required quantity into the loading hopper respecting the minimum and maximum quantities indicated in the table (Section 2).

- Before pouring in the mixture, check that the door is closed properly.
- Pour the required quantity of mixture into the tank.
- Pressing the WHIPPING key, the display visualises the first foreseen whipping recipe. The recipe to be launched (e.g., "Vanilla Max") can now be selected within 5 seconds using the INCREASE/DECREASE keys. It will be automatically executed after 5 seconds or by press-

ing the key.

- When whipping is finished, an acoustic signal advises the operator that the ice cream is ready.
- Place the correct size container underneath the ice cream outlet, grab the handle of the door and turn it in a clockwise direction until it stops. Press the EXTRACTION key.
- This operation is carried out at Beater speed 7 (that can be set by the user; refer to User Programming). If required, a cooled extraction can be selected by pressing the WHIPPING key.
- Speed 3 can be activated (set by the user) by pressing the extraction key again or modifying

the speed using the key.

- Each pressure of the key activates POST COOLING for a time that depends on the selected load.
- When extraction is finished, close the door using grabbing the handle and turning it in an anticlockwise direction.

### ATTENTION

Never introduce objects into the metal grill of the extraction door whilst the Beater is operating; it could damage the door and the Beater of the machine.







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# 4.6 CREMOLATA PRODUCTION



key, access is gained to the 6 Cremolata/Slush recipes appropriately prepared Pressing the for the production of Cremolata or Sicilian Slush.

- Cremolata Max
- Cremolata Med
- Cremolata Min
- Slush Max
- Slush Med
- Slush Min

To obtain a quality product utilising the set recipes, it is recommended to use the following quantities of product:

Model Min		Med	Max
VariO 8	2,5	5	8

### ATTENTION

Utilising the "MAX" recipes using a quantity of product less than 4 litres causes excessive wear of the Beater's scrapers.

Utilising the "MIN" or "MED" recipes using large quantities (5-7 litres) causes an increase in whipping times and the lack of reaching the maximum set consistency with the risk of obtaining a product not adequately whipped.



key, the display visualises the last process carried out. Using the Increase/ Pressing the Decrease keys, the recipe to be launched (e.g.; Cremolata Max) can be selected within 5 seconds

that will be carried out automatically after 5 seconds or by pressing the

Proceed as follows:

- Pour the Fruit mixture into the whipping cylinder using the loading hopper.
- With the machine in STOP mode, press the key and the display visualises the first of the available recipes.
- The recipe to be launched (e.g., "Cremolata Max") can now be selected within 5 seconds using the INCREASE/DECREASE keys. It will be automatically executed after 5 seconds.
- When the cycle is finished, an acoustic signal and message appears on the display to advise the operator that the Cremolata is ready.
- Position an adequate container underneath the ice cream exit door, open the door and manually extract the CREMOLATA utilising the spatula supplied as standard.
- When extraction is finished close the door.

### ATTENTION

Do not introduce any object into the metal grill of the extraction door whilst the beater is moving; it could damage the door and the beater of the machine.













# **.7** SLUSH PRODUCTION



Pressing the key, access is gained to the 6 Cremolata/Slush recipes appropriately prepared for the production of Cremolata or Sicilian Slush.

- Cremolata Max
- Cremolata Med
- Cremolata Min
- Slush Max
- Slush Med
- Slush Min

To obtain a quality product utilising the set recipes, it is recommended to use the following quantities of product:

Model	Min	Med	Max
VariO 8	2,5	5	8

### ATTENTION

Utilising the "MAX" recipes using a quantity of product less than 4 litres causes excessive wear of the Beater's scrapers.

Utilising the "MIN" or "MED" recipes using large quantities (5-7 litres) causes an increase in whipping times and the lack of reaching the maximum set consistency with the risk of obtaining a product not adequately whipped.

Pressing the key, the display visualises the last process carried out. Using the Increase/ Decrease keys, the recipe to be launched (E.g.; Sicil. Slush MED) can be selected within 5 seconds

that will be carried out automatically after 5 seconds or by pressing the key.

Proceed as follows:

- Pour the Fruit mixture into the whipping cylinder using the loading hopper.
- With the machine in STOP mode, press the key and the display visualises the last cycle carried out.
- The recipe to be launched (e.g., "Slush MAX") can now be selected within 5 seconds using the INCREASE/DECREASE keys.
- Using the INCREASE/DECREASE keys, select the percentage of sugar required (refer to the message on the display). The recipe will be automatically carried out after 5 seconds or by

pressing the key.

- When the cycle is finished, an acoustic signal and message appears on the display to advise the operator that the Slush is ready.
- Position an adequate container underneath ice cream exit door, open the door and manually extract the **SLUSH** utilising the spatula supplied as standard.
- When extraction is finished close the door.

### ATTENTION

<u>\</u>

Do not introduce any object into the metal grill of the extraction door whilst the beater is moving; it could damage the door and the beater of the machine.



# 4.8 CONSTRUCTION OF AN AVAILABLE FREE CYCLE

A free cycle is a freezing cycle divided into 3 consistency ranges, each having customizable parameters. For each range it is possible to program HOT, Speed and Cooling Power.

With both sides in Stop mode, press the key for 5 seconds; on the lower line is visualised the names of the available free cycles:

15:26:14 Mon

Using the Increase/Decrease keys, select the cycle to construct (e.g.; Available flavour 1). Pressing

key, the display visualizes:

15:26:14

the

Free Program 1

020 -->20502V=3 F=3

The second line indicates the following from left to right::

Mon

- 020 --> 050: the extremes of HOT of step 1 (e.g.; from 20 to 50 of HOT)
- V=3: the beater speed in the selected band
- F=3: the cooling power in the band selected (can be modified from 1 to 3)

At the start, the value 50 (first intermediate set of HOT) flashes and the value can be modified using the Increase/Decrease keys. The value is set from the lower limit of the band (e.g.; 20) to 120.

Once the correct value has been selected and confirmed using the event, key, the beater speed value starts to flash. The value can be modified from 1 to 7 using the Increase/Decrease keys.

15:26:14 Mon 020 --> 050 V£3 K=3

Once the correct value has been selected and confirmed using the *confirmed*, ikey, the cold power value starts to flash. The value can be modified from 1 to 3 using the Increase/Decrease keys.

To pass to the successive consistency band, press the key for 3 seconds. The preset values are visualized relative to step 2 and the first modifiable parameter starts to flash:

Set the values of steps 2 and 3 as described above.

Pressing the key for 3 seconds during the setting up of the parameters of step 3, the entire cycle is memorised and the message "CYCLE MEMORISED" appears on the display.



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# 4.8.1 Execution of an available free cycle

At the moment in which an available free cycle is memorised, it is enabled and therefore made available in the Ice Cream Menu.

To carry out an available free cycle, press the key when in Stop mode, select the available

free cycle to be carried out and start the process by pressing the key again or wait a few seconds.







*Note:* Both available free cycles and automatic cycles foresee a pre-cooling phase that occurs with the beater at speed 3 and maximum cold power.

*Note:* Available free cycles can be disenabled exactly the same as automatic cycles (the cycle is "hidden" to the user but the set values remain memorized and the cycle can be reset by carrying out the "Construction of an available free cycle" procedure.

*Note:* By default, the available free cycles are disenabled and do not appear in the list of production cycles. Only when the construction of the cycle is carried out will the programme be entered into the list of executable cycles.

Note: all automatic cycles can be activated by pressing and holding Increase button from Stop.



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# 4.9 USER PROGRAMMING

Pressing the Stop key (on the Whipping side) and Decrease key simultaneously, the user can enter User Programming where some functions can be set on the basis of user preference. The display will then read "Manager Menu" followed by:

Time	
Step U01	15

Use the INCREASE and DECREASE keys to edit the time settings if necessary. Press the Stop key (on the Whipping side) and the steps of the following table appear in sequence

that can be all modified by using the INCREASE and DECREASE keys. To exit from User Programming, wait 60 seconds without pressing any key or press the Beater key (on the Whipping side) to force the exit.

The modified values are memorised automatically.

Step	Display	Notes	U.M.	MIN	MAX	DEFAULT
U01	Hours		Hours	0	23	
U02	Minutes		Min	0	59	
U03	Day of the Week		DD	Sun	Sat	
U04	Day of the Month		DD	1	31	
U05	Month		MM	1	12	
U06	Year		YYYY	2000	2099	
U07	Language	Ita, Eng. Fra, Deu, Esp	n°	Ita	Esp	ITA
U10	Temp. Backlight		min	0	60	03
U11	Extr. 1 Speed	GS= Slush Speed	n°	1	7+GS	07
U12	Extr. 2 Speed	GS= Slush Speed	n°	1	7+GS	03
U13	Display TEC PRF		Y/N	Ν	Y	Ν

U01-U06: Setting the date and hour

- U07: Setting the language
- U10: With the machine in Stop mode, after several minutes (energy saving can be set at this step) the display disengages to save energy. If step U10 is at 10, the display remains illuminated.
- U11-U12: Activating the extraction function, the beating cycle is also activated at the speed set at step U11. Repeatedly pressing the Extraction key, the speeds set at steps U11 and U12 are alternatively activated.
- U13: enabling this step Timer and TEC can be displayed during freezing cycle (instead of the increase bar).



# 4.10 ENABLEMENT/DISENABLEMENT OF PROCESSES

### To disenable the processes:

Select the process as if to be executed and on the display is visualised the name of the cycle to disenable. Continuously press the Ice Cream key if it is the Whipping cycle, or the Heating key if it is the Heating cycle until the cycle selected is disenabled (in correspondence to an acoustic signal) and the successive cycle appears.



N.B. If the only enabled Heating cycle is the Free Heating cycle, press the Heating key in Stop mode and access is immediately gained to the selection of the load.

N.B. If all Heating or Whipping cycles are disenabled, the display visualises "No Programme" when the pressing the relative key. Re-enable the processes as follows.

### To enable all processes:

In Stop mode, press the key for 10 seconds and the display visualises "Loading Programmes" and all processes (of the Heating unit and the Whipping unit) are enabled.



# 5. SAFETY DEVICES

# 5.1 MACHINE SAFETY DEVICES

# **CAUTION!**

It is forbidden to run the machine after inhibiting, changing or tampering with safety devices the machine is fitted with.

Coldelite is NOT responsible for any damage to persons and/or things if protections for the operator and other machine safety devices have been inhibited, changed or tampered with.

Following are safety systems the machine is fitted with:

### THERMAL RELAYS

They sense anomalous inputs of beater motor and motocompressor; reaching the maximum setting values causes the machine stop and activation of alarm system.

Before resetting, it is necessary to find out reason of relay tripping. Thermal relay reset automatically.

# PRESSURE SWITCH

Cooling system protection. It stops the cooling compressor if there is no water into the circuit (by machine with watercondenser) or no air circulation into the condenser (by machines with aircondenser). Reset is automatic.

# CAUTION

Too a long operation of the compressor or repeated stops and restartings mean an insufficient condensation; check its causes.

# FUSES

They protect the electric circuit of controls against overloads. When they trip and before replacing them, find out trouble causes and put remedy.

### NOTE:

To identify values and characteristics of fuses, please see the machine wiring diagram.

### NOTE:

Whenever a safety device trips, the machine gives a message on the display showing which automatic device has tripped.











# 5.1.1 Safety devices for the operator

This machine is fitted with safety devices on front lids in order to prevent accidents to the operator.

### HEAT PROTECTION ON FRONT LID - HEATING/PASTEURIZATION SIDE

During heating cycle, the front lid relevant to cooking side reaches high temperatures; in order to avoid damages to the operator, it has been protected with a heat shield 257. Do not remove this protection during working cycles.

### **CAUTION!**

The door on the heating/pasteurization section is equipped with a heatproof shield (accident prevention). In any case, avoid all contact with the door during the heating, cooking or pasteurization stages as well as in the stages immediately after, since the door reaches extremely high temperatures.

# PROXIMITY SWITCH FOR HEATING TOP FRONT LID

Whenever you open lid mouthpiece cover **290** or front lid **301**, the beater is blocked in order to avoid possible damages to the operator.

On closing the lid mouthpice cover back, the beater starts again.



# MICRO, LOWER FRONT LID, PRODUCTION SIDE

Whenever you open front lid **301**, a microswitch will stop the batch freezer in order to avoid possible damages to the operator; when closing back the front lid, the beater will re-start.

# MICRO, PROTECTION GRID, PRODUCTION SIDE

Whenever you remove the protection grid **769** to fill the freezing cylinder with the ingredients, a microswitch will block the beater relevant to production side.

The beater starts again if you put the grid back within 2 seconds, otherwise the machine will set at STOP poisition.

### NOTE:

Whenever a safety device trips, the machine will give a message on display, showing which automatic device has tripped.







# 5.2 ALARMS

<u>When the machine is in STOP</u>, the alarm is shown in the relevant row on the display. E.g. (Alarm TEV over and PTMA Breaker under):

# Alarm TEV PTMA Breaker

To delete the message, press the Decrease key. If the alarm is not reset this means that it is still active.

# **BOILER SECTION (TOP PART)**

TER_1 alarm	"TER1" temperature probe broken or short circuited. The top part does not pass to Stop mode but it deactivates the relevant heating element. Check the temperature probe TER1 and replace, if necessary. A possible cause is heating activation without the presence of mix inside the boiler.			
TER_2 alarm	"TER2" temperature probe broken or short circuited. The top part does not pass to Stop mode but it deactivates the relevant heating element. Check the temperature probe TER2 and replace, if necessary. A possible cause is heating activation without the presence of mix inside the boiler.			
TER_3 alarm	"TER3" temperature probe broken or short circuited. The top part does not pass to Stop mode but it deactivates the relevant heating element. Check the temperature probe TER3 and replace, if necessary. A possible cause is heating activation without the presence of mix inside the boiler.			
TEV alarm	"TEV" temperature probe broken or short circuited. The top part passes to Stop mode. Check the temperature probe TEV and replace, if necessary.			
Boiler MA Breaker	Beater(RTA) breaker switch intervention An intervention by this alarm will set the top part of this machine to STOP mode. When the breaker is reset, the alarm will pass from flashing to fixed and can be reset by pressing the Increase key.			
Lid Open	Top Door Lid Open or Top Door Open An intervention by this alarm will NOT set the machine (top part) in Stop mode but in any case, it blocks the active outputs. The same IMS (IMSA on the screen) intercepts the opening of both the lid and the door.			



# **BATCH FREEZER SECTION (LOWER PART)**

The alarm is visualised on the second line of the display. To delete the message, press the DECREASE key in the alarm section where the message remains on the display. If the alarm does not reset, this means that it is still active.

Alarm table:

Display	Description
Thermal contact breaker PTMA	Intervention of the Beater thermal contact breaker The intervention of this alarm places the machine in Stop mode.
Inv. alarm MA	Beater Inverter Check the integrity of the Beater's inverter and eventually substitute it. This alarm places the machine in Stop mode.
Inv. Alarm MC	Compressor Inverter Check the integrity of the Beater's inverter and eventually substitute it. This alarm places the machine in Stop mode.
TESV Alarm	Boiler thermostat The alarm will signal an excessive heating of the boiler. This alarm trig- gers machine Stop.
PMTC Thermal cutout	ICompressor overload cutout tripped. This alarm triggers machine Stop.
TEC Probe Alarm	"TEC" temperature probe switched off or short-circuited. Check TEC temperature probe and replace it if necessary.
Thermal contact breaker PMTC	Intervention of the Compressor thermal contact breaker The intervention of this alarm places the machine in Stop mode.
TEC sensor alarm	TEC temperature sensor interrupted or in short-circuit. Check the TEC temperature sensor and substitute if necessary.
Door open	Lower door open. When this alarm intervenes, the machine goes to Stop and automatically resets when the door is closed.
Pressure switch	Intervention of the safety pressure switch When this alarm intervenes, the compressor stops. If the pressure switch intervenes repeatedly three times, or it remains active for two consecutive minutes, the machine goes to Stop and the message "Pressure switch" appears on the display. Check the inlet and outlet water tubes to ensure that the water circulates freely when the compressor is ON. For air-cooled machines, check that the condenser fan operates when the compressor is ON, or check that the air condenser is not blocked. If blocked, clean it with a jet of compressed air.
Timeout Prd	Timeout Prod (Cooling difficulty). This alarm intervenes when the machine does not cool. If the compressor remains ON continuously during whipping for more than 20' and HOT does not reach a Discriminating value (fixed), the machine goes to Stop and the alarm message "Timeout Prd" appears on display. It can be reset by pressing any key. One of the possible causes of this type of problem could be the lack of gas in the system.

# 5.2.1 Blackout

If there is a blackout, as soon as power is restored, the machine will restart in Stop mode for the boiler part in case of simple heating, while it will restart the interrupted freezing cycle, only if it was a Cooling cycle.

In case of a Recipe, with both heating or cooling on, the machine will restart from the same phase it was when it was stopped: in case of heating, you will be asked to confirm product filling before starting cycle again.



# 6. CLEANOUT DISASSEMBLING AND REASSEMBLING OF PARTS IN CONTACT WITH THE PRODUCT

# 6.1 GENERAL INFORMATION

Cleaning and sanitisation are operations that must be carried out habitually and with maximum care at the end of each production run to guarantee the production quality and respect the necessary hygienic norms.

Giving dirt the time to dry out can greatly increase the risk of rings, marks and damage to surfaces.

Removing dirt is much easier if it is done immediately after use because some elements containing acid and saline substances might corrode the surfaces. A prolonged soaking is not recommended.

# 6.2 WASHING CONDITIONS

- Avoid using solvents, alcohol or detergents that could damage machine parts or pollute the functional production parts.
- When manually washing never utilise powder or abrasive products, abrasive sponges or pointed tools. There is a risk of dulling the surfaces, removing or deteriorating the protective film that is present on the surface and scoring the surface.
- Never use metal scouring pads or synthetic abrasives that could cause oxidization or compromise the surfaces integrity.
- Avoid using detergents that contain chlorine and its composites. The use of detergents such as bleach, ammonia, hydrochloric acid and limescale removers can attack the composition of the steel, marking and oxidising it irreparably and causing damage to the parts made from plastic materials
- Do not use dishwashers and their detergent products.

# 6.3 TIPS

- 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 cleaning brushes supplied as standard.
- Use drinking water (bacteriologically pure) to rinse the parts.
- To sanitise leave the disassembled parts in sanitised lukewarm water for the time indicated on the sanitising product label and rinse them before reassembling.
- When the washing procedure has been completed and before reassembly, dry each component thoroughly with a clean and soft cloth that is suitable for coming into contact with foodstuffs, to avoid leaving any humidity rich in mineral salts and chlorine that could attack the metal surfaces and leave opaque traces.

# Coldelite 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). Basically, the use of a cleaning/sanitising solution saves time by facilitating and simplifying washing/ sanitising procedures.

# WARNING

Every time the machine is washed and the parts that come into contact with the ice cream mix are disassembled, it is essential to carry out a visual inspection of all the parts made in thermosetting, plastic, elastomer-based and silicon-based materials and metal such as sliding shoes, pump gears, beaters, etc. ).

All parts must be integral and not worn, without cracks or splits, or opaque if originally polished/transparent.

Coldelite declines all responsibility for any damage caused by imperfections and/or undetected breakages and not promptly solved by the replacement with original spare parts. The manufacturer is available for consultation and for any specific requests made by the customer.











# 6.4 HOW TO USE CLEANING/SANITISING SOLUTION

Prepare a solution of water and sanitising detergent following the instructions shown on the label of the product being utilised.

Washing/sanitisation by immersion of components

- Manually remove the bulk residues utilising the supplied brushes
- Remove finer residues with a jet of water
- Immerse the parts to be cleaned into the solution
- Let the solution react for the time indicated on the label of the product being utilised
- Rinse the parts with care, using plenty of clean drinking water

# 6.5 CLEANOUT

To clean the machine do as follows:

- 1 Fill both cylinders with water using the special hose.
- 2 After filling with water, press the key **BEATING** for heating side and the key **BEATING** for production side.

When programmed time has elapsed, the machine will automatically set at STOP position.

- **3** By first turning the lever **502** and then lowering the handle **5**, let all water come out of the cylinders.
- 4 After emptying the freezing cylinder, (front lid is opened by lifting the lever **289** and pulling it to the right), it is advisable to clean the cylinder with a bolt of water while keeping the beater blocked in its seat.
- 5 Remove the drip tray 27, then wash and sanitize it.
- 6 Remove the tub support shelf 50, then wash and sanitize it.

# CAUTION

When removing and refitting the tub support shelf, be careful of any risks to hands or fingers through crushing.

7 Wipe the machine exterior clean with a damp cloth before sanitizing.









# 6.6 TOP FRONT LID DISASSEMBLY (BOILER)

To disassemble front lid 301 release it by lifting lever 289 and shifting it to the right.

- Open the front lid by shifting it to the left and lift it while extracting it from the spigot pin.
- Disassemble the spigot by unscrewing pin 5 and pushing it out of its seat.
- By means of the special extractor, remove seal **303**, thoroughly wash and lubricate it with edible fat before reassembling.
- Disassemble front lid mouthpiece protection **290** by extracting check pin **6**.
- Remove the beater **21A**, by taking it out from the seat, withdraw the stuffing box **28A** and wash them.
- Remove the blades **430** and pivots **744A** and **726**.
- Wash all disassembled parts and sanitize them, also wash the inside cylinder, then reassemble the beater by inserting it into the seat after installing the stuffing box and all other parts.
- To reassemble the front lid, do all previous operations inversely.



### ATTENTION! Carry out cleaning operations with sanitising solution at the end of each work day.

CAUTION Handle with care, as a fall to the ground might damage the beater.





# 6.7 BEATER





- While disassembling the beater, also check that springs **433** and OR **1101** are intact and clean, or replace them, if need be.
- Thoroughly wash all parts with water and reassemble.











# 6.7.1 Stuffing box checking

When removing the stuffing box, check whether its shows defects. If not, after washing and greasing the stuffing box, you can use it again.

Carry out cleaning operations with sanitising solution at the end of each work day.

If, on the contrary, you find ice cream rests in the drip drawer **27**, you would be better to change it since, most problably, it is worn out and consequently leaks.

The spare stuffing box is to be found in the spare parts kit (see section "Maintenance").





# 6.8 LOWER FRONT LID DISASSEMBLY (BATCH FREEZER)

To disassemble front lid **301** release it by lowering lever **289** and shifting it to the right.

- Open the front lid by shifting it to the left and lift it while extracting from spigot pin.
- Disassemble ice cream door 501 and ice cream door lever 502 by withdrawing downwards, after removing gasket 304.
- Disassemble lid mouthpiece cover **290** and protection grid **769**.
- Wash well all parts with water and reassemble.



ATTENTION! Carry out cleaning operations with sanitising solution at the end of each work day.





### **Compacta VariO US 8 Pro**



# 6.9 SANITIZATION

This operation is required after each production cycle. Refit the tub support shelf and the drip tray.

# **CAUTION!**

### When removing and refitting the tub support shelf, be careful of any risks to hands or fingers through crushing.

With the machine in Stop, fill the cylinder boiler with water and sanitise. Start the beater by pressing the key **BEATING**. After 30 seconds beating, transfer the sanitizing solution to the freezing cylinder, then press the key **BEATING** to run the beater for the same time as by the side previously sanitized.



WARNING The prolonged functioning in the "BEATER" position with empty cylinders or with sanitising solution in the cylinders causes rapid wear of the beaters.

Wait for a time necessary to the action of the sanitizing solution (), then fully drain the solution using levers 5 and 502.

Before starting the machine, it is necessary to rinse it with just running fresh and sterile wa-







**CAUTION!** Do not touch sanitized parts with hands, napkins, or else, any longer.

# 6.10 HYGIENE

Note:

ter.



Mildew and bacteria rapidly grow in mix fat contents. To eliminate them, it is necessary to wash and clean all parts in contact with the preduct, as described above.

Stainless steel and plastic materials, as well as rubber used in the construction of the machines, and also their particular shapes and designs make cleanout easy, but cannot prevent proliferation of mildew and bacteria if not properly cleaned.



**CAUTION!** Before using the machine again, thoroughly rinse with just running fresh and sterile water.



### **Compacta VariO 8 US Pro**

# 7. MAINTENANCE

# 7.1 SERVICING TYPOLOGY

# CAUTION!

Any servicing operation requiring the opening of machine panels must be carried out with machine set at stop and disconnected from the main switch!

Cleaning and lubricating moving parts is forbidden!

"Repairs to the wiring, mechanical, air supply or cooling systems, or to parts of same must be carried out by qualified personnel with permission to do so and if necessary, according to the routine and extraordinary maintenance schedules as envisaged by the customer with reference to specific intervention methods, according to the use for which the machine is destined".

Operations necessary to proper machine running are such that most of servicing is completed during production cycle.

Servicing operations, such as cleaning of parts in contact with the product, replacing of stuffing box, disassembling of beater assembly are to be carried out at the end of a working day, so as to speed up serving operations required.

Herebelow you can find a list of routine servicing operations:

- Cleanout and replacement of stuffing box

Cleaning should be carried out at the end of a working day, whilst replacement only after checking of stuffing box and in the event product drips inside drip drawer.

- Cleanout of beater assembly At the end of a working day
- Cleanout of sliding shoes At the end of a working day
- Door cleaning
- To be performed at the end of each shift
- Clean the sheet metal parts, tub support shelf and drip tray To be carried out daily with neutral soap, seeing to it that cleansing solution never reaches beater assembly in its inside.
- Cleanout and sanitization At the end of every working day, according to procedures described in section 6.

### **CAUTION!**

Never use abrasive sponges to clean machine and its parts, as it might scratch their surfaces.









# 7.2 WATERCOOLING



By machines with watercooled condenser, water must be drained from condenser on selling season end, so as to avoid troubles in the event the machine is stored in rooms where temperature may fall under  $0^{\circ}$ C.

- Withdraw water inlet and outlet pipes from their seat and let water flow out from circuit by operating the machine a few seconds.

# 7.3 AIRCOOLING







### CAUTION!

When using compressed air, put on personal protections in order to avoid accidents; put on protective glasses!

# **CAUTION!**

Never use sharp metal objects to carry out this operation. Good working of a freezing plant mostly depends on a clean condenser



By machines with air- and watercondenser, take heed of cautions described at § 7.2 and 7.3.

# 7.4 ORDERING SPARE PARTS

Should one or more parts wear out or break, place your order to a **Coldelite** Technician and always mention the machine type and its serial number stamped on data plate you find on the machine rear.









7.5 SPARE PARTS TABLE Ô 28 287 291 1216 9 P Ŷ Y 830 352 255 304 303 - 1271 - 1251 - 1101 840 72 Fig. 32 Q.ty Description Position Nr 1 Beater stuffing box 28 Beater stuffing box Nr 1 28 Nr 1 OR extractor 72 Nr 4 Screws 255 Nr 1 Pipe fitting 3/4 x 16 287 Nr 1 Front lid gasket 291 Nr 1 Special OR piston 303 Nr 1 Gasket 304 Nr 1 Pipe fitting gasket 352 Nr 1 Petrol-gel tube 830 Cleaning brush Nr 1 840 Nr 6 OR 1101 Nr 1 OR 1216 Nr 1 OR 1251 1271 Nr 1 OR





# Compacta VariO 8 US Pro

# 8. TROUBLESHOOT GUIDE

Trouble	Ca	use	Re	medy
Machine does not start	a)	Main switch open	a)	Close the main switch
	b)	Machine unplugged	b)	Check and plug in
	c)	Machine not set at produc- tion, alike in production side and in cooking side	c)	Check that PRODUC- TION button is lit
	d)	Front lids not perfectly closed	d)	Check front lids closure
Machine does not start (display is lit)	a)	The 3rd wire feeding com- pressor and electric motors is unconnected	a)	Connect the 3rd wire or check whether a fuse burnt out.
Compressor starts but stops after a few seconds without the	a) Watercooled machine: wa-	a)	Open water cock.	
icecream being thick				Check that rubber pipe is not squashed or very doubled up.
		Aircooled machine: air not circulating	b)	Check the machine rear is at least 50 cm far from wall.
				Clean condenser obstruct- ed by rags, dust, etc.
				Check that fan motor runs regularly
After 15 minutes freezing, the mix does not freeze down and the machine returns to STOP	a)	No gas	a)	Check leak and then weld and refill
	b)	Pressure switch out of or- der	b)	Check the connection and replace it, if need be.
Machine runs but no ice cream comes out of ice cream door	a)	Not enough sugar in the mix	a) .	Allow to thaw, then modify or replace the mix
Machine runs but ice cream is too soft	a)	Too much sugar in the mix	a)	Modify or replace the mix
Ice cream mix in the drip drawer	a)	Stuffing box missing or worn	a)	Insert if mixing. Replace if worn
Ice crem comes out behind the ice cream door	a)	Gasket missing or not prop- erly installed	a)	Check and insert
Bacteria tests show too high level	a)	Too high bacteria charge in the mix	a)	Improve preparation pro- cedure by sanitizing all containers, spoons, etc., and have the mix analyzed before pouring it into the machine.
	b)	Machine not clean and sterile enough	b)	Empty and clean the ma- chine thoroughly. Sanitize as described in chapter 6.

