

**INSTRUCTION HANDBOOK**

**COMPACTA  
USA**

**APPLICARE**

**TARGACARATTERISTICHE**

***COLD ELITE***

**COLDELITE**

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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 industrial products within E.C. (R.E.C. Council direction 89/392 and subsequent, known as "Machines Direction".

### AIM

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:

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## 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.

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## ATTENTION!

*Before using the machine read crefully the instruction handbook.*

*Pay attention to the safety instruction*

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## 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
- Only original spare parts are to be used especially as far as those components with safety functions are concerned (ex.: protection microswitches, thermostats).

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.

## QUALIFICATION OF THE STAFF

Staff attached to the machine can be distinguished according to training and responsibility as follows:



### OPERATOR

- A person who has not necessarily a high technical knowledge, just trained for ordinary operation of the machine, such as: startup, stop, filling, basic maintenance (cleanout, simple blocking, instrumentation checkings, etc.).



### SKILLED ENGINEER

- A person engaged on more complicated operations of installation, maintenance, repairs, etc.

### 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.



### 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.

**CONVENTIONAL SYMBOLS**

**ATTENTION: ELECTRIC SHOCK DANGER**

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



**ATTENTION: GENERAL DANGER**

The staff involved is warned that the operation described may do harm if not carried out in the observance of safety rules.



**NOTE**

It points out significant information for the staff involved.



**WARNINGS**

The staff involved is warned that the inobservance of information may cause a loss of data and damages to the machine.



**MACHINE OPERATOR**

It deals with an unskilled person, who has no specific competences and can only carry out easy functions, such as the machine operation by means of controls available on push-button panel, and filling and drain of products used during production.



**MAINTENANCE ENGINEER**

He is a skilled engineer for operation of the machine under regular conditions; he is able to carry out interventions on mechanical parts and all regulations, as well as maintenance and repairs. He is qualified for interventions on electrical and freezing plants.



**COLDELITE ENGINEER**

It deals with a skilled engineer the manufacturer puts at clients' disposal for complicated interventions und particular conditions or anyhow in accordance with agreements taken with the machine's user.



**PROTECTIONS**

This symbol placed by description side means that the operator must use personal protections against an implicit risk of accident.





## WARNING

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.



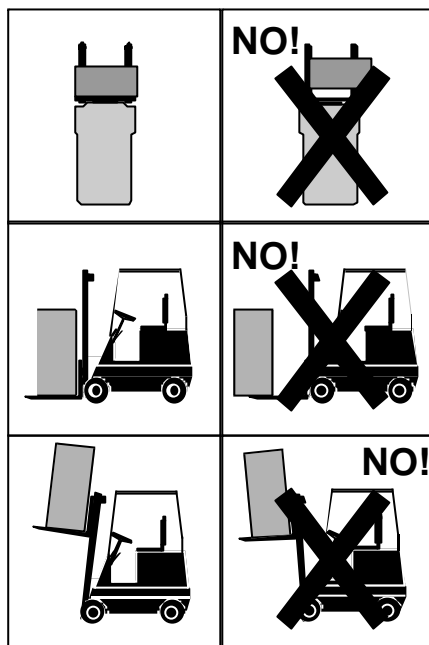
# 1. RECEIVING, MOVING, OPENING THE PACKING

## 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

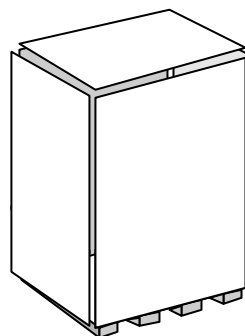
Material handling equipment not in compliance with following safety characteristics must never be used:

- 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.

## 1.2 OPENING A PACKING CRATE

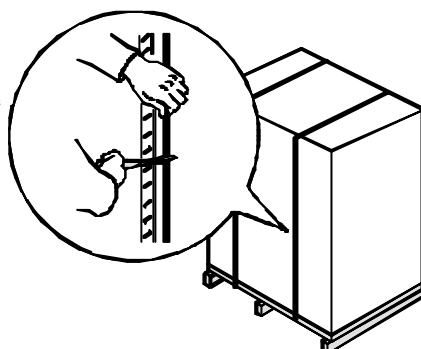
A **wooden packing** can be opened by means of proper tools; it is recommended to protect exposed parts, such as hands with gloves, against wood splinters.

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



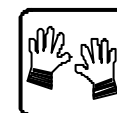
**Board packing** is externally closed by steel straps.

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



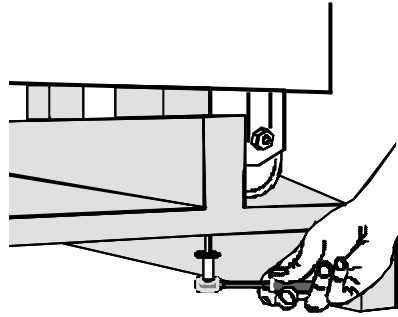
**CAUTION:**

*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

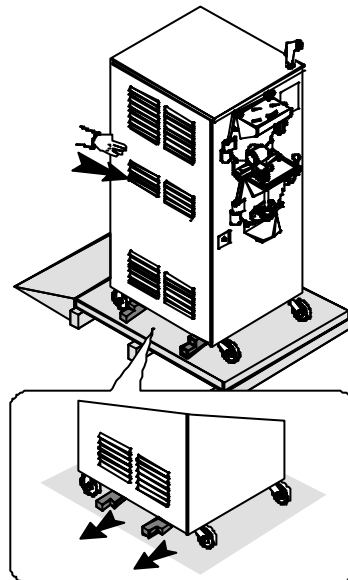
- Remove the four screw fastening both bars between pallet and machine.



**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.

- Place the wooden skid the machine is equipped with, in relation to the machine rear.
- Push the machine from its rear till both bars drop, thence withdraw them sideways.

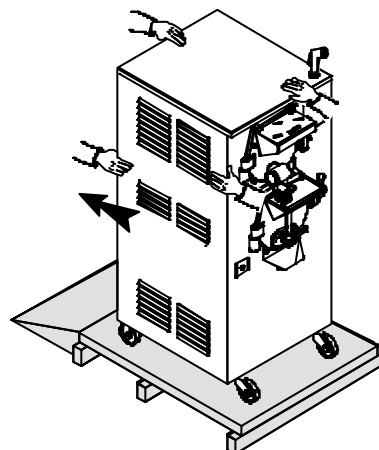


- Descent of machine from skid must be controlled by TWO people, one standing by machine rear and the other by frontside



**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.

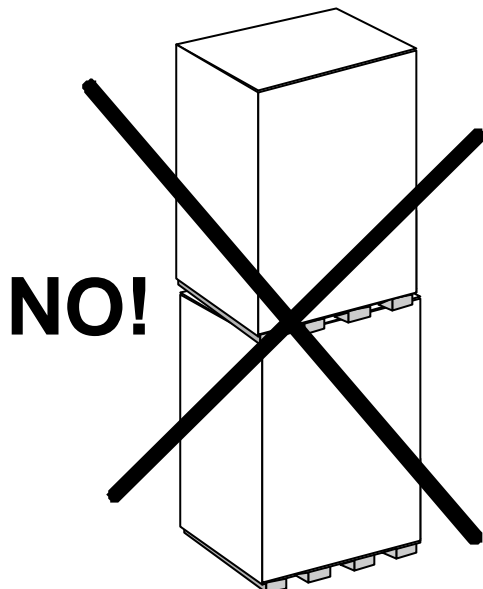


### 1.3 STORING A MACHINE

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

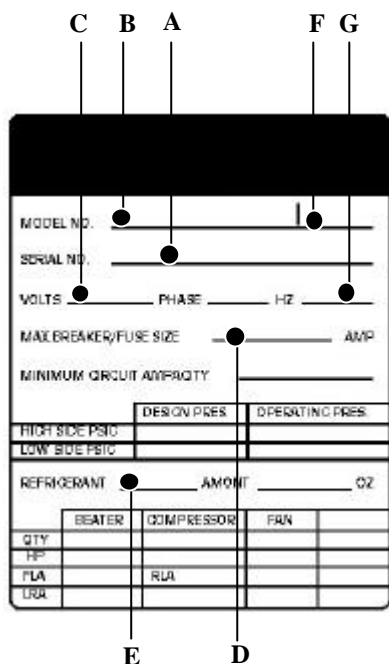


## 2. GENERAL DATA

### 2.1 GENERAL INFORMATION

#### 2.1.1 Manufacturer's identification data

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



A= Serial number

B= Machine type

C= Voltage

D= Fuse Current

E= Gas type and weight

F= Condensation  
W=Water

G= Frequency

#### 2.1.2 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.

#### 2.1.3 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.
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## 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**:

- Top cylinder for heating and mixing
- 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.

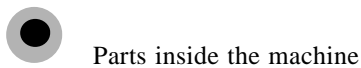
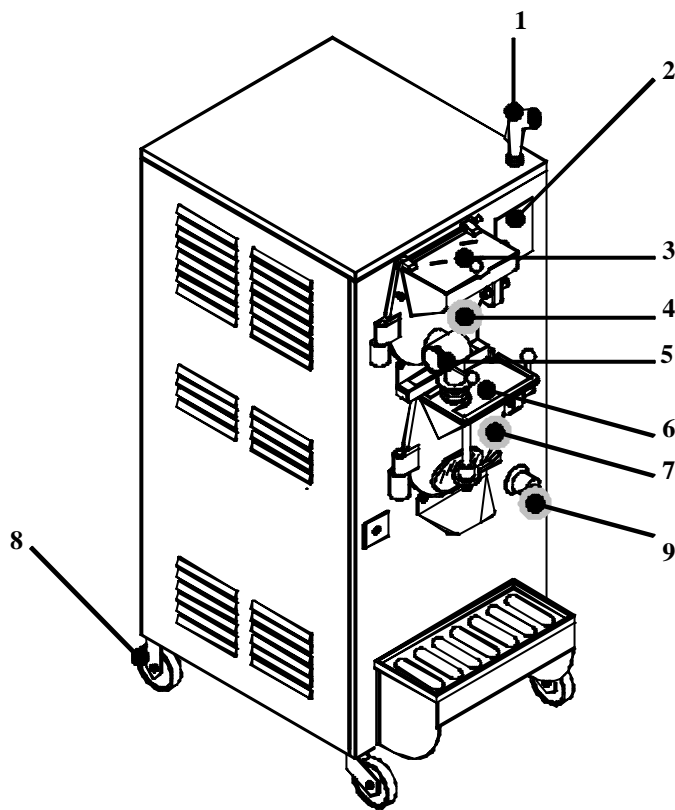
Bearing in mind the above statements, please take heed of the following suggestions:

- 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 recipes, 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 mixing)
- 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 Water tap



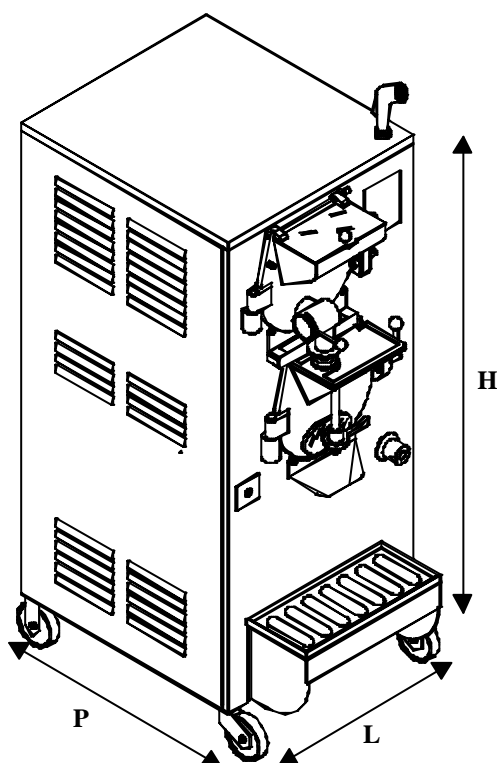
### 2.2.2 Technical features

Model	Mix per batch kg	Installed power	Electric power			Water consumption litres/h*	Weight kg
			Volt	Hz	ph		
Compacta 3001	2/5	7 kW	208-230	60	3	370÷180	240
Compacta 3003	5/10	15 kW	208-230	60	3	810÷350	420

\* Water consumption is higher during the first minutes cooling

### 2.2.3 Machine lay-out

Model	Dimensions		
	Width mm. (L)	Depth mm. (P)	Height mm. (H)
Compacta 3001	610	860	1430
Compacta 3003	610	860	1530



## 2.3 INTENDED USE

The Compacta must only be used in 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 ..... 1 bar
- Water max. pressure ..... 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

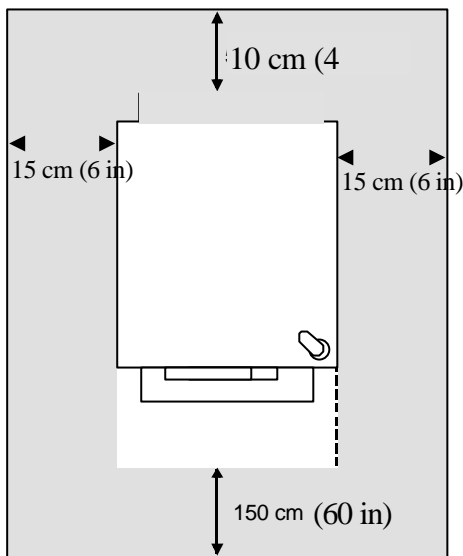
Sound pressure level of this machine is minus 70 dB(A).



### 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 (60 in) in consideration of space taken by opened doors.



#### 3.2 WATER SUPPLY CONNECTION

The machine must be connected to running water which pressure must not be higher than 8 bars. By watercooled machines water connections (for machine wash and gas cooling) are placed under the machine.

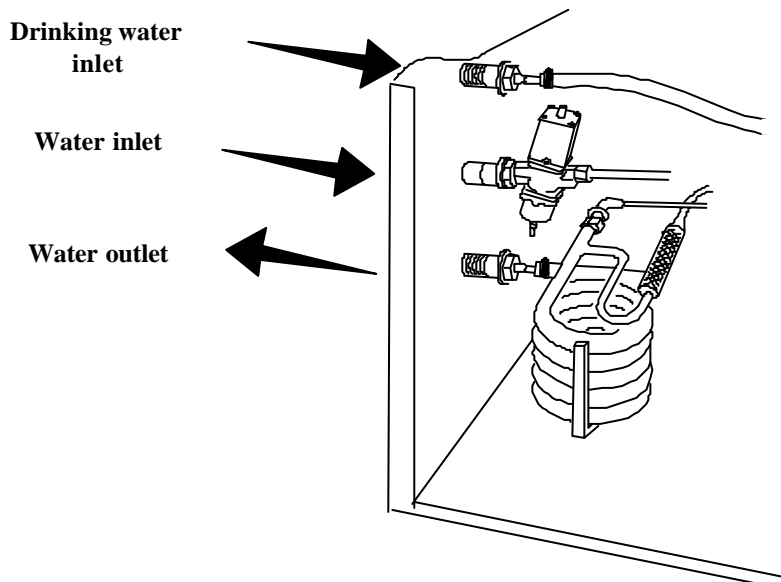


#### 3.3 MACHINES WITH WATERCOOLED CONDENSER

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, installing a shut-off valve.





### 3.3.1 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)**

### 3.4 ELECTRICAL CONNECTION

Before connecting the machine to the mains, check that the voltage is the same as the one stated on its plate. Between the machine and the mains, insert a magnetothermic differential sectioning switch properly dimensioned to the input required, and having a contact opening of 3 mm, at least.

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.

#### 3.4.1 Replacing the input 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.

**Checking and reversing rotation direction**

Beater and pump rotation directions are anticlockwise. This can be checked on pump shaft after disassembling the pump (see Section 6, "Disassembling and reassembling of parts in contact with the product").

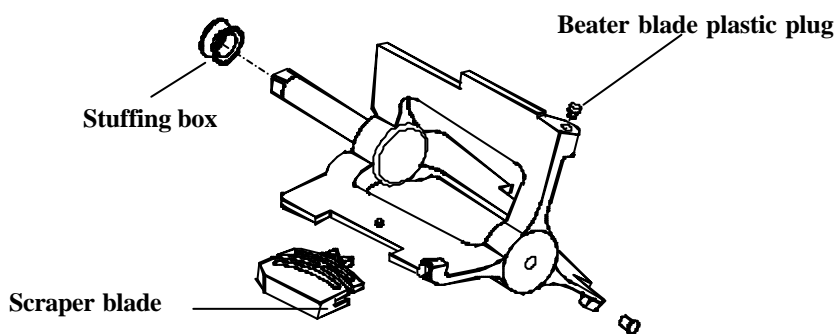
To reverse rotation direction, interchange two of the three leads coming from the circuit breaker.

**Beater rotation**

By machine models **COMPACTA** 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.



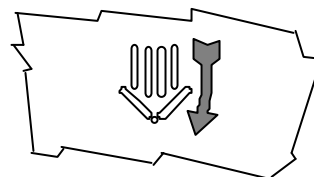
**NOTE:**

*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.*

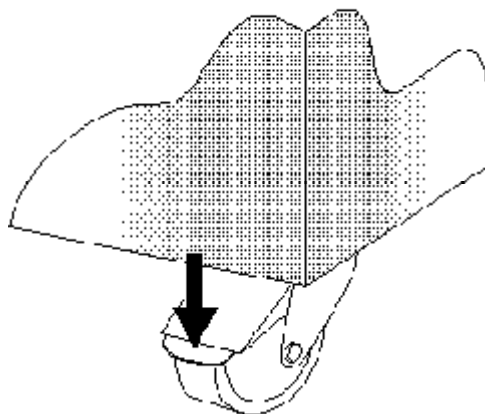
**NOTE:**

*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.*



### 3.5 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.



### 3.6 CLEANOUT

Eliminate dust from machine, as well as the protective material the machine was stored 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.



### 3.7 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 technicians, only, who can also find out trouble origin.



### 3.8 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 incorrect use or handling is avoided
- Safety devices must neither be removed nor tampered
- Only are original spare parts to be used especially as far as those components with safety functions are concerned (ex.: protection microswitches, thermostat).

To achieve the above, the following is necessary:

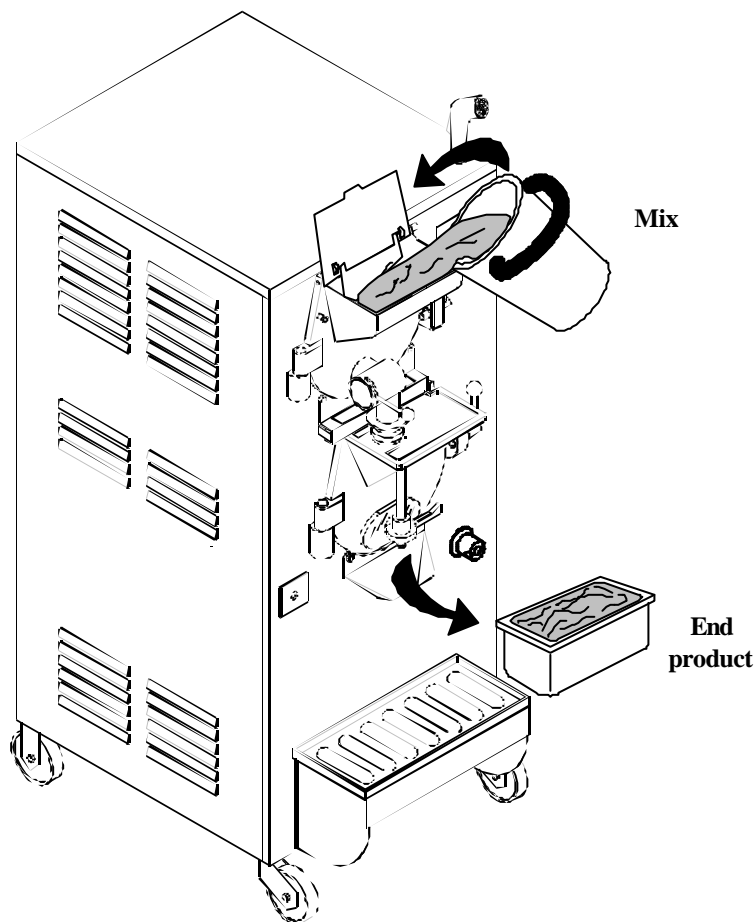
- At working place an instruction manual relevant to the machine should be available.
- Such documentation must be carefully read and regulations must consequently be followed.
- Only must adequately skilled personnel be assigned to electrical equipment.

#### 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 condensation.

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.





## 4.2 CONTROLS

The machine is fitted with an electronic control keyboard; to every key a machine function corresponds.

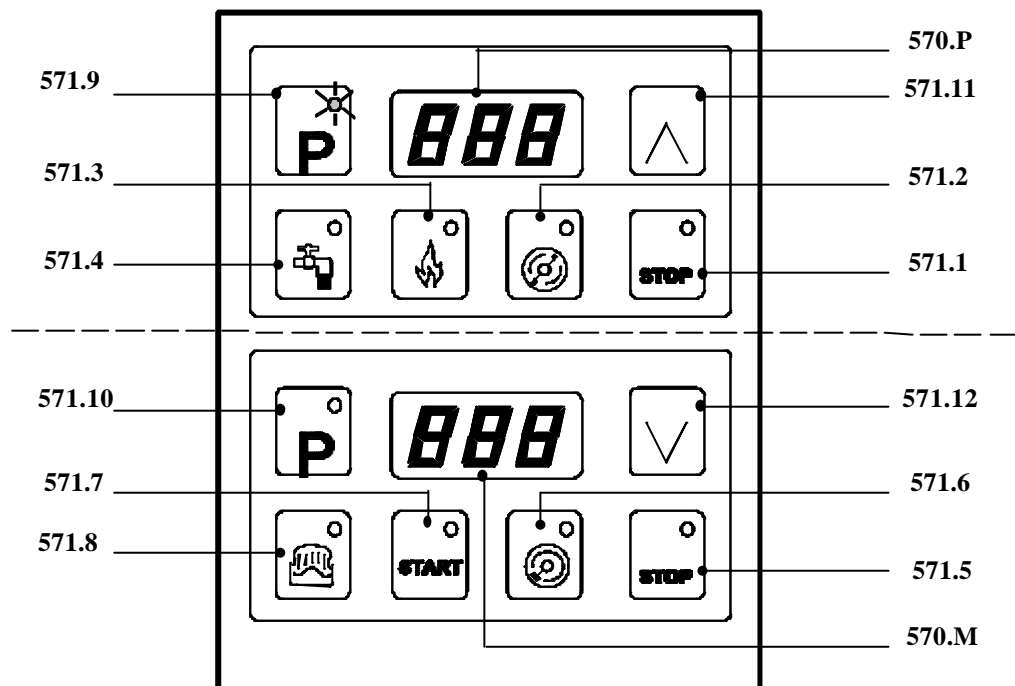
For a correct use of the keys, press on the symbol or anyway in the middle of the key; to every key a LED (light emitting diode) also corresponds; when a LED lights up, the relevant function has been entered.

### 4.2.1 Electronic control keyboard

#### HEATING/MIXING SIDE

**CAPTION:**

- 571.9 Heating/mixing programming
- 571.3 Heating
- 571.4 Water inlet for shower
- 570.P Alphameric display
- 571.11 Increase
- 571.2 Beating
- 571.1 Stop key

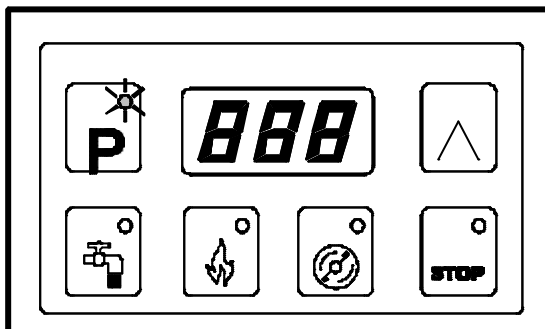


#### PRODUCTION SIDE

**CAPTION:**

- 571.10 Freezing/Mixing programming
- 571.7 Production
- 571.8 Distribution
- 571.12 Decrease or program selection
- 571.6 Cleanout
- 571.5 Stop key
- 570.M Alphameric display

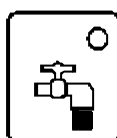
4.2.2 Functions available to the operator



**HEATING/MIXING SIDE**

**571.9 PROGRAMMING key**

It enables the access to the display of the parameter relevant to the **CYLINDER HEATING TEMPERATURE**. The parameter can be changed by the operator by means of INCREASE and DECREASE keys.



**571.4 SHOWER WATER INLET key**

It activates water inlet for shower which stops when pressing again the same key or by pressing STOP key. This function can always be activated.

**CAUTION**

**Disable this key when you do not need it, so as to avoid possible damages to the machine or to the operator.**



**571.2 BEATING key**

It activates the beater running inside the heating cylinder. The beater runs until you press STOP key.

**NOTE:**

*After 3 minutes since beating activation, the machine automatically stops in order to avoid a severe wear of beater and cylinder.*



**571.3 HEATING key**

By this key you heat the product up to a temperature that can be set 50 °C to 85°C, with beater on.

After selecting this function and pressing relevant key, the display will show the heating temperature; pressing PROGRAMMING key you can vary the temperature by means of INCREASE and DECREASE buttons. When the temperature inside the cylinder has been reached, the heating cycle will start: time here, too, can be changed by pressing PROGRAMMING key and following the same procedure as by the temperature change.

When heating is completed, the beater inside the cylinder will keep on running unless you press STOP key; otherwise it will automatically stop 3 minutes later.



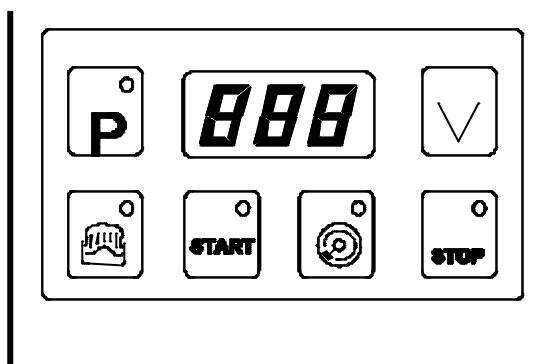
**571.11 Increase key**

By this button you can increase the programmable values on display.



**571.1 Stop key**

You can stop the function in progress and start another one.



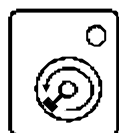
**571.10 PROGRAMMING key**

It enables the access to the display of the value relevant to the PRODUCT CONSISTENCY. The parameter can be changed by the operator through INCREASE and DECREASE keys.



**571.7 START key**

It allows to start the cycle or the function selected.



**571.6 CLEANOUT key**

It allows the beater of freezing cylinder to run, without connecting the cooling unit. The beating time in cleanout mode can be programmed and it also applies to distribution .

Beater speeds:

- in ice cream freezing side .....Normal speed



**571.8 DISTRIBUTION key**

By this key ice cream dispense from freezing cylinder is allowed. Beating time is programable and also applies to cleanout.

Distribution speeds:

- in ice cream freezing side .....High speed



**571.12 Decrease or program selection key**

By this button you can decrease the modifiable value on display and select in a sequence all production semi-automatic cycles programmed for this machine.



**571.5 Stop key**

The STOP button allows to stop the function in progress and to start a new one.



### 4.3 PRELIMINARY OPERATIONS, WASH AND SANITIZATION

Before starting the machine, it is necessary to thoroughly clean it and sanitize all parts in contact with the product.

**IMPORTANT:**

*Cleaning and sanitizing are important operations that should be carried out at the end of every working day, with accuracy, in order to guarantee high quality and the observance of all hygienic rules.*

#### 4.3.1 Preliminary cleanout

To clean the machine do as follows:

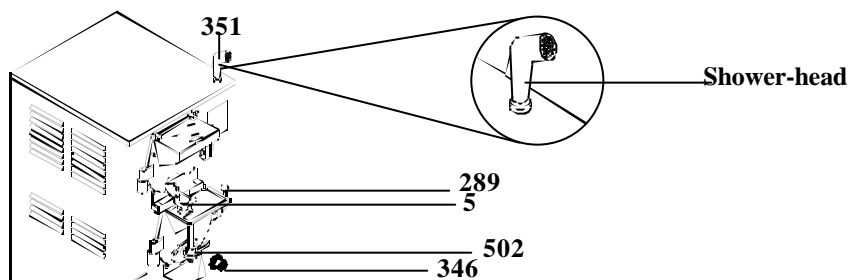
- Opening shut-off valve **346** on machine front side.
- Fill both cylinders with water using the special hose **351**.  
To use shower **351** placed on the top of the machine, withdraw the hose from its seat,



press the button and then the button you find on shower handle in order to open water jet.



Before putting the shower back, shut it off and press **STOP** or shower handle, drain water from the hose by keeping down the button on shower handle.



- After pouring washing water, press the button  for heating side and the button



for production side.

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

- By first turning the lever **502** and then lowering the handle **5**, let all water come out of the cylinders.
- 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.
- Disassemble then the machine by removing its parts.

*Note:*

*As far as disassembling of the machine parts is concerned, please see instructions described at section 6 "Cleanout, disassembling and reassembling of parts in contact with the product".*

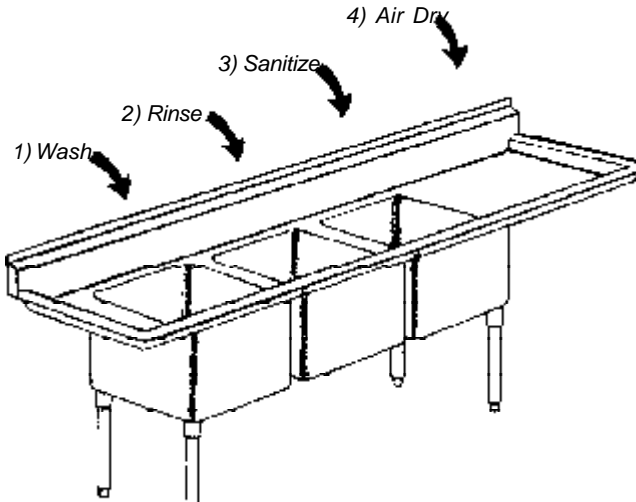
Wash the removed machine parts in luke warm (80-90 F) water and mild non-foaming detergent. Scrub each of the parts with the cleaning brushes provided in the machines spare parts kit.

**IMPORTANT**

*DO NOT use hot water on any of the plastic parts as this may result in damaging these parts.*



Using your three-tank sink, wash, rinse and sanitize all of the disassembled machine parts. Mix the sanitizing solution to a 200ppm concentration with warm water. Allow the parts to soak in the sanitizing solution for 3-5 minutes before removing. Allow the parts to air-dry on the clean, sanitized counter at the end of the sink. **DO NOT** towel or sponge dry these part



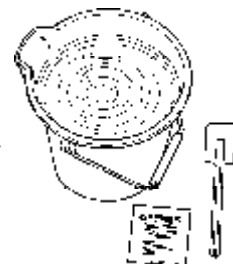
**4.3.2 Sanitizing the machine**

Prior to filling the machine with fresh liquid mix, the assembled machine must be sanitized. The frequency of cleaning and sanitizing must comply with your local and/or state health regulations. If uncertain of these regulations, contact your local Health Departments or Department of Agriculture.

Sanitizing your machine is very important. This procedure will retard the growth of bacteria and insure excellent product bacteria test results performed by your local inspectors.

To begin, you will need the sanitizer, spatula, large cleaning brush, (all included in the start up kit), and clean pail.

Mix the sanitizer into a clean pail with at least two gallons of warm water. Mix the sanitizer and water to make a 200-PPM. concentration of sanitizer solution. Using the spatula, stir the solution until the sanitizer is completely dissolved.



**IMPORTANT**

*Do not exceed the formula recommended by the sanitizer manufacturer as it will not add to the sanitizing effectiveness. DO NOT use straight chlorine bleach since it does not clean properly and will damage plastic components. Do not leave the sanitizing solution in the machine longer than one hour as it can corrode some parts.*

With machine off (not working), fill both cylinders with water and ad a NON CORROSIVE sanitizing solution.



After that, press the button for heating side and the button for the production side.

**CAUTION**

**Too a long operation of the machine set at "CLEANOUT" and "BEATING" positions with empty cylinders, or with only water and sanitizer causes a quick wear of beaters and cylinders.**

Wait for a time necessary to the action of the sanitizing solution (about 10-15 minutes, depending on sanitizer used).

Fully drain the sanitizing solution using levers **5** and **502**.

**IMPORTANT**

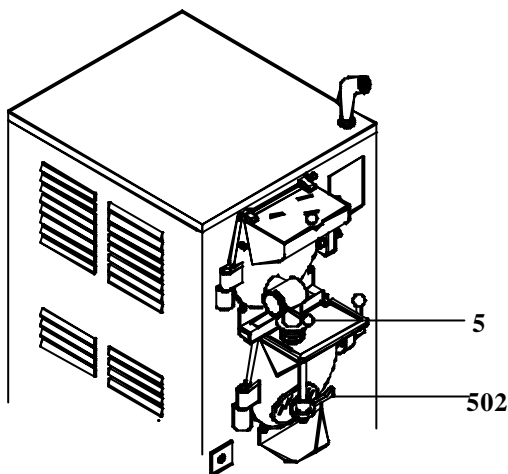
*The machine is now sanitized and ready to be filled with fresh liquid mix. Do not wipe out any residual sanitizing solution from the cylinders as this will contaminate the machine with bacteria.*





**CAUTION**

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



**4.3.3 Hygiene**

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 product, 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 water, in order to eliminate any residues of sanitizing solution.



**4.4 MACHINE STARTING**

When turning on the machine, the top display shows **CMP** and the lower one displays the version of installed programme. Soon after the top display shows **MOD**, whilst the lower one displays a number corresponding to the programming table of the machine.



**NOTE:**






Above codes are useful to inform technical service about the program type installed in the machine.



**4.4.1 Display and change of programable values**

All operation parameters set by **COLDELITE** guarantee a profitable and first-quality production. The operator can however change the **cylinder heating temperature** (heating/mixing side) as well as the **product consistency** (production side) according to production needs. The change of parameter value has to be carried out during the execution of the function involved:

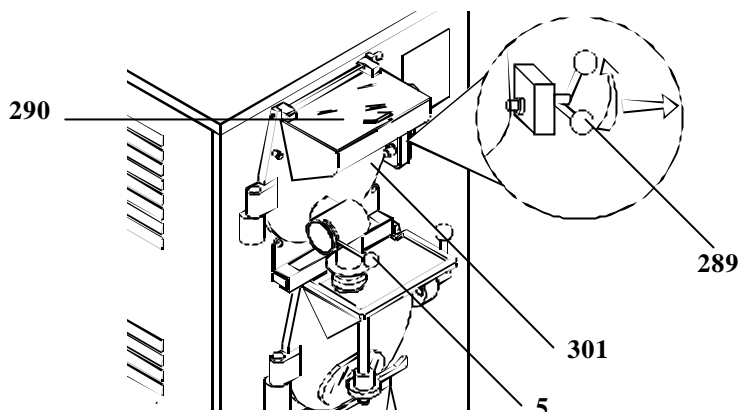


- To have the access to the display of **cylinder heating temperature**, press the button  you find on the electronic control keyboard relevant to heating/mixing side. On the display you will see the value blinking.
- To have the access to the display of the **product consistency**, press the button  you find on the electronic control keyboard relevant to production side. On the display you will see the value blinking.
- To change the value, use keys INCREASE  (for value increase) or DECREASE  (for value decrease).
- When you set the desired value, you can confirm it either by pressing  again or waiting for a few seconds.

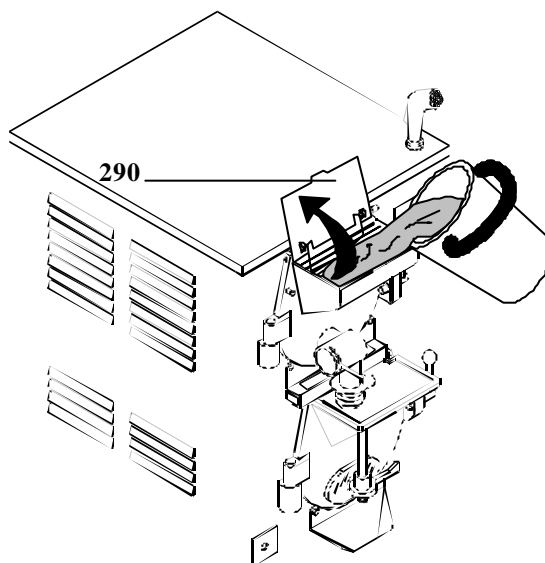


#### 4.4.2 Description and use of heating/mixing side

The heating side is on top of the machine and consists of a heating/mixing cylinder, the chamber where the mix is heated, in which a beater for stirring the product is placed. The heating cylinder is hermetically closed by front lid 301 which can be opened by lifting and pulling the lever 289 towards the right.



In order to pour the mix into the cylinder, lift ice cream door 290.



In this side, the machine can heat (mix or boil) while beating up to a temperature that can be set 50° C to 85° C.

**CAUTION !**

**Milk ice cream mixes need to be mixed at 65° C, at least.  
Mixing at a lower temperature only suits fruit ice cream mixes.**

From STOP position being activated, the mix poured into the boiling cylinder is heated by





pressing the key

The top display will show the temperature of the product inside the cylinder.



To display set value of heating temperature, press





The temperature set will blink and can be changed by means of buttons  and ; to


confirm the value, press again  or wait for a few seconds.

Once the programmed temperature has been reached, inside the cylinder, the cooking cycle starts.

When the cooking cycle ends, the beater inside the cylinder will keep on running until you

press  or it will stop 3 minutes later, automatically.

To start beating in the cooking cylinder without starting any heating , press the key 

and to switch the beater off, press .

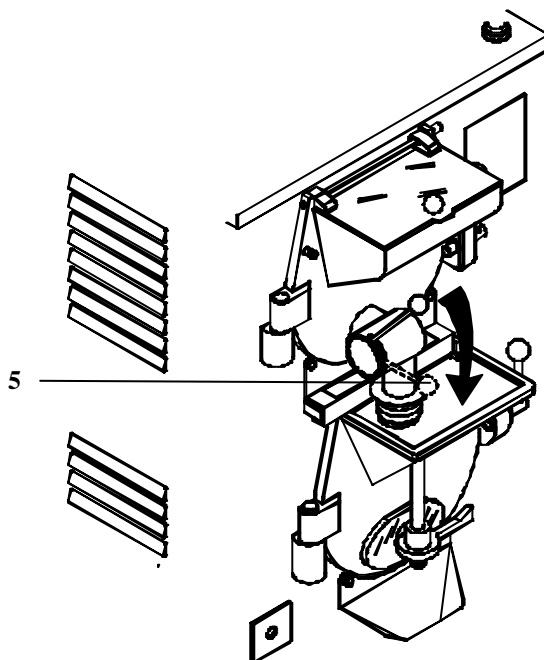
**NOTE:**

*After 3 minutes since the beater started running, the machine will automatically set at Stop position in order to avoid a severe wear of both beater and cylinder.*

**CAUTION!**

**The front lid of heating/mixing side is provided with a thermal shield (safety protection). Touching, however, the front lid when heating, cooking, mixing and in the following phases is not advisable.**

After mixing the mix you can it to the freezing cylinder by gradually lowering the lever 5.






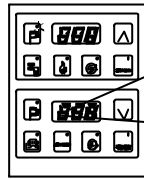
### 4.4.3 Description and use of production side

In the production side the execution of several production cycles are made possible. The product to be worked can reach the freezing cylinder either from the cooking cylinder through the tap described at chapter 4.4.2 .

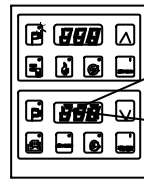
If you do this while the beater inside the freezing cylinder is running, the machine will stop in order to avoid possible damages to the operator.



Pressing the button  allows one of the two semi-automatic machine cycles on the monitor of production side to be displayed, namely:



Ice cream freezing





Skim or fruit ice cream


**PRODUCTION (FREEZING) CYCLE**

The production cycles is used to produce ice cream.





With production side set at STOP, press the button  in order to select  on the lower display (production side).




After pouring the mix into the freezing cylinder, press . Ice cream freezing starts, now, and the display will display a number which corresponds to the product consistency. When ice cream reaches the programmed consistency value, an audible alarm will be emitted and the compressor disconnected. If ice cream is not taken out immediately, it is held at its perfect consistency by the compressor which starts running as soon as ice cream tends to soften.

The audible alarm switches off on compressor starting and switches on when compressor is off again.

The programmed consistency value can be changed by pressing  and then  or




 as long as you reach the desired value on display.

Consistency value range is **60 to 105**.

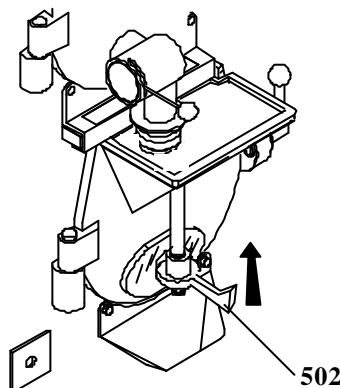
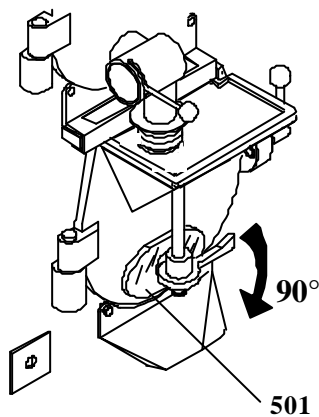
Beater rotation speed is normal during freezing process.



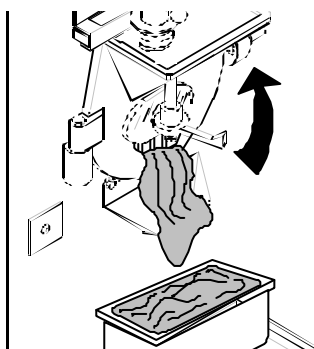
To withdraw ice cream when the freezing cycle ends, press the button  and open the ice cream door **501** turning the lever **502** by **90°** towards the left and then lifting the ice cream door upwards.

Secure the ice cream door **501** by turning the lever towards the right.

The dispense button increases beater speed in order to give a higher push to the product coming out.




While dispensing the product you can start an extra cooling lasting **20 seconds**, if you press






## SKIM OR FRUIT ICE CREAM PRODUCTION

This production cycle is used to produce ice cream (skim or fruit ice cream) in small quantities.

With the production side set at STOP, select  on lower display (production side) by

pressing the button .

After pouring the mix into the freezing cylinder, press  and follow the same procedure as by traditional ice cream described on page 13.

The only difference consists in a typical consistency value set at **80 points** for fruit (or skim) ice cream.

Freezing is here checked with a higher accuracy, in order to avoid an extreme cooling and consequently a burnt-tasting ice cream.



## 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. Reset is automatic.

---

#### CAUTION

**Too a long operation of the compressor or repeated stops and restartings means 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.*

*Such messages are to be found on page 5.*



### 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/MIXING 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.

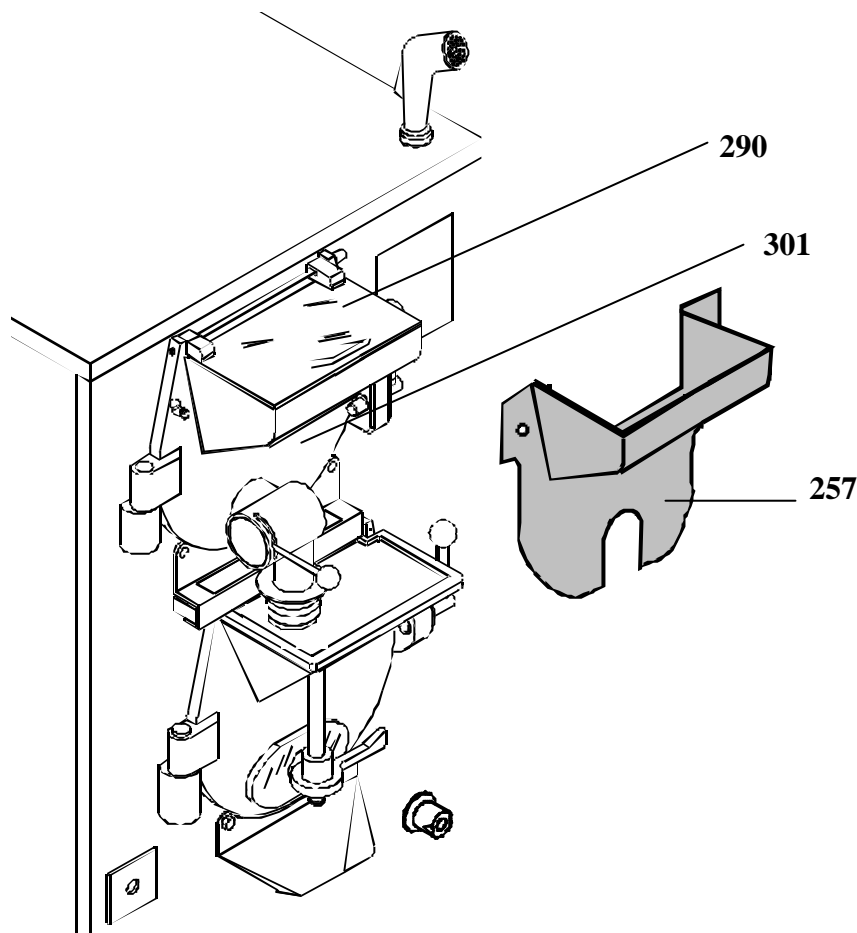


**NOTE:**

*Do not touch the front lid, anyway, either during the heating phase (or cooking and mixing) or in the next phases.*

#### MICRO TOP FRONT LID HEATING

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 mouthpiece 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.

## 5.2 ALARMS

The main alarm messages on the electronic control keyboard being also displayed on the machine displays, are hereafter reported:

### DISPLAY HEATING/COOKING SIDE

Message	Appears when	It means	Reset	Call the technician
<b>TEV</b>	Any moment	TEV sensor is open or short-circuited *	Automatic	Yes
<b>rtA</b>	In Beating or Heating	Thermalrelays alarms; machine sets at STOP.	From any key (excepted Programming, Increase and Decrease ones)	Yes
<b>IMS</b>	Any moment	With open lid, beater blocks	Automatic after closind lid	No

### DISPLAY PRODUCTION SIDE

Message	Appears when	It means	Reset	Call the technician
<b>rt</b>	In Distribution, Cleanout or Production	Thermal relay*.	From Stop, Start and Cleanout keys	Yes
<b>MIP</b>	Any moment	Micro lid alarm	Automatic.	No
<b>Err</b>	In Production	After 15' consistency has not reached the threshold	Automatic.	Yes
<b>TEC</b>	Any moment	TEC sensor opern or short-circuited	Automatic.	Yes

## 5.3 BLACKOUT

In the case of a temporary blackout, on power return the machine will turn on and set at STOP.



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

**IMPORTANT:**

Cleanout and sanitization are important operations that must be carried out at the end of every working day with utmost accuracy, as a rule, in order to guarantee a high quality product and the observance of all hygienic rules.





### 6.1 PRELIMINARY CLEANOUT

To clean the machine do as follows:

- With the machine OFF, opening shut-off valve on machine front side.
- Fill both cylinders with water using the special hose.



- After filling with water, press the button  for heating side and the button  for production side.

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

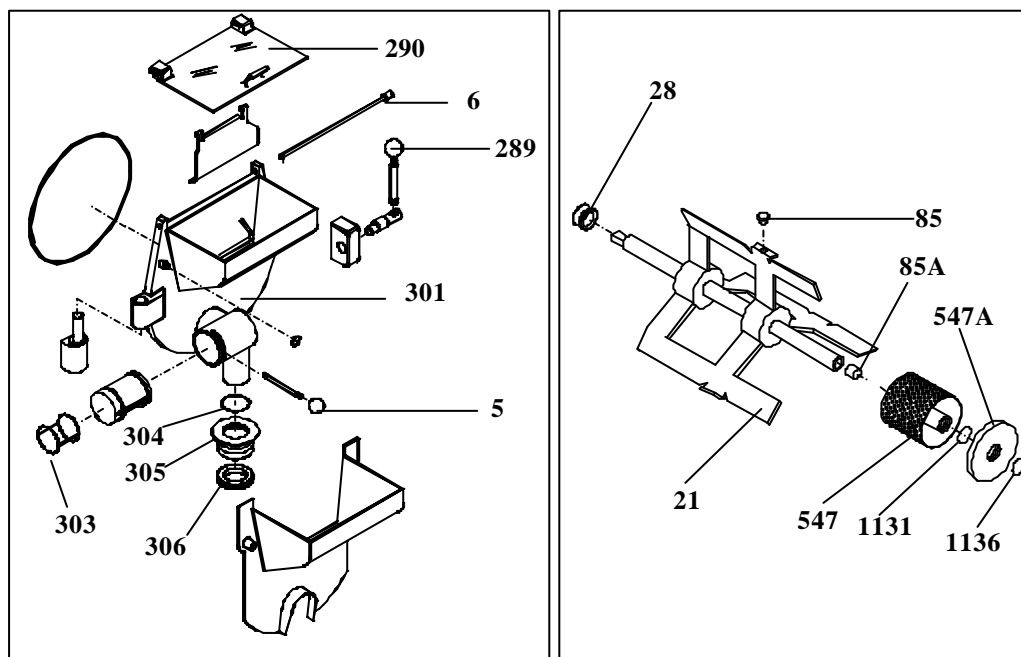
- By first turning the lever 502 and then lowering the handle 5, let all water come out of the cylinders.
- After emptying the freezing cylinder, (front lid is opened by lifting the lever 289 and pulling it to the right), it is advisable to clean the cylinder with a bolt of water while keeping the beater blocked in its seat.
- Disassemble then the machine by removing its parts.



### 6.2 TOP FRONT LID DISASSEMBLY (HEATING/MIXING SIDE)

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.
- Disassemble front lid mouthpiece protection 290 by extracting check pin 6.
- Disassemble beater 21 after extracting it from its seat, withdraw stuffing box 28 wash them and, if dirty, also remove plastic plugs 85.
- Withdraw the flavour-case 547, OR 1131 and 1136, cover 547A.



**CAUTION!**

Clean with sanitizers at the end of every working day.  
Handle with care, as a fall to the ground might damage the beater.

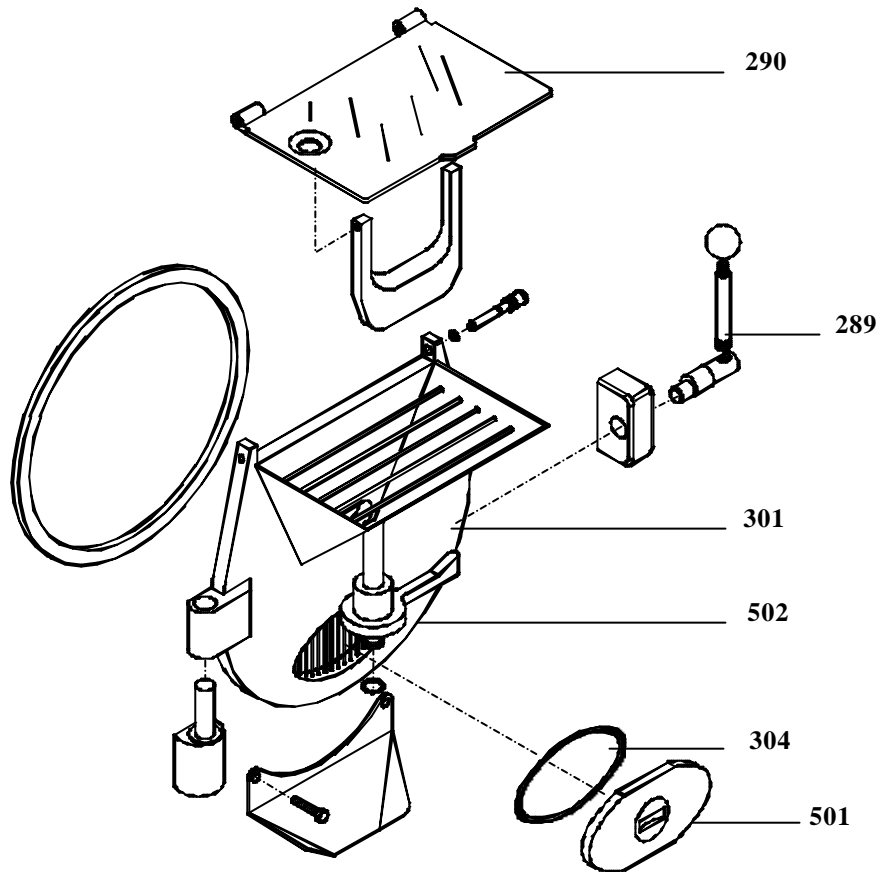




### 6.3 LOWER FRONT LID DISASSEMBLY (PRODUCTION SIDE)

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**.



#### CAUTION!

Clean with sanitizers at the end of every working day.

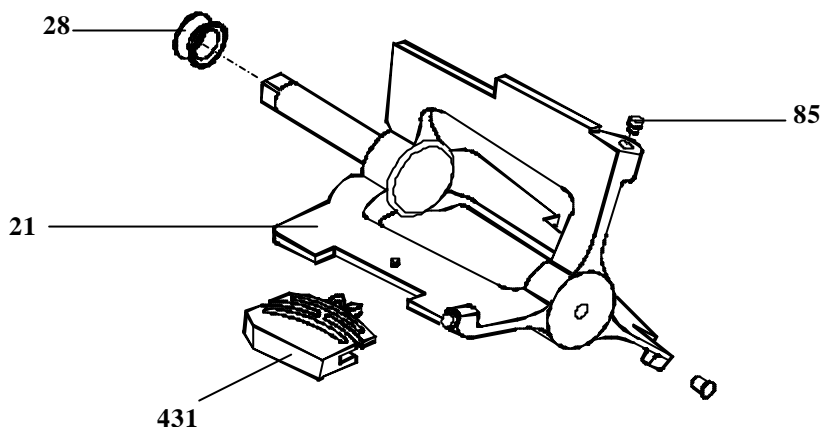


## 6.4 BEATER DISASSEMBLY

- Disassemble the beater 21 by withdrawing it from the cylinder, remove the scraper blades 431, the stuffing box 28 and beater plastic plugs 85.

**CAUTION**

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



**CAUTION!**

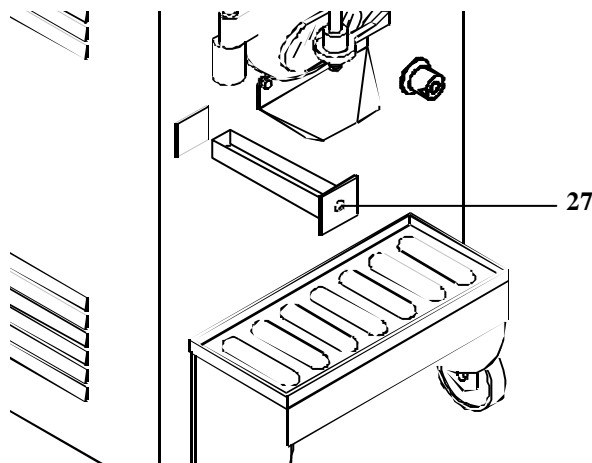
Clean with sanitizers at the end of every working day.

### 6.4.1 Stuffing box checking

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

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

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



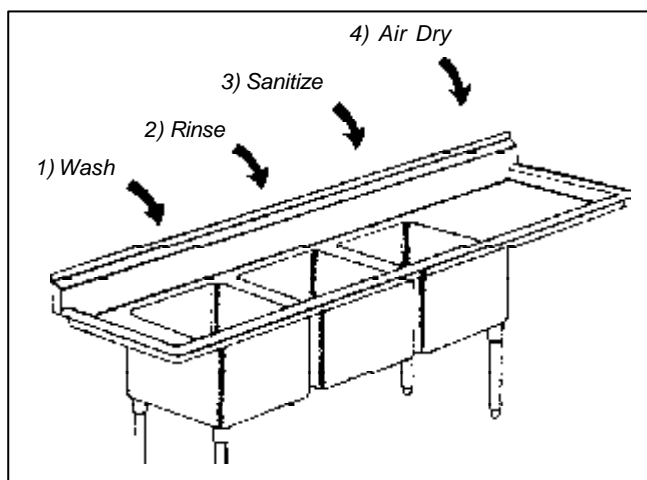


## 6.5 CLEANING OPERATIONS

- Wash all parts in lukewarm water (80-90°F) using a mild non-foaming detergent. Scrub each of the parts with the cleaning brush provided in the machines spare parts kit.

### CAUTION

**Do not use hot water on plastic parts as damage to the parts can result.**



Using your three-tank sink, wash, rinse and sanitize all of the disassembled machine parts. Mix the sanitizing solution to a 200ppm concentration with warm water. Allow the parts to soak in the sanitizing solution for 3-5 minutes before removing. Allow the parts to air-dry on the clean, sanitized counter at the end of the sink. **DO NOT** towel or sponge dry these part

## 6.6 ASSEMBLY OF PARTS

Once the parts have been washed, rinsed and sanitized, the freezer is ready to be re-assembled. Prior to beginning the re-assembly procedure, sanitize your hands by submerging them in the sanitizing solution.

- Lubricate all rubber parts with the lubricant included in the Start-Up Kit.
- Reassemble the components in reverse order to the disassembly procedure previously stated.

## 6.7 SANITIZING THE MACHINE

Prior to filling the machine with fresh liquid mix, the assembled machine must be sanitized. The frequency of cleaning and sanitizing must comply with your local and/or state health regulations. If uncertain of these regulations, contact your local Health Departments or Department of Agriculture.

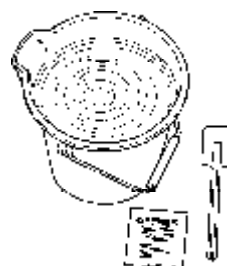
Sanitizing your machine is very important. This procedure will retard the growth of bacteria and insure excellent product bacteria test results performed by your local inspectors.

To begin, you will need the sanitizer, spatula, large cleaning brush, (all included in the start up kit), and clean pail.

Mix the sanitizer into a clean pail with at least two gallons of warm water. Mix the sanitizer and water to make a 200-PPM. concentration of sanitizer solution. Using the spatula, stir the solution until the sanitizer is completely dissolved.


### **IMPORTANT**


**Do not exceed the formula recommended by the sanitizer manufacturer as it will not add to the sanitizing effectiveness. DO NOT use straight chlorine bleach since it does not clean properly and will damage plastic components. Do not leave the sanitizing solution in the machine longer than one hour as it can corrode some parts.**






With machine off (not working), fill the boiling cylinder or boiler with non-corrosive sanitizing solution.

Start the beater by pressing the key  571.2.

After 30 seconds beating press the key  571.1. Wait for a time necessary to the action of the sanitizing solution (10-15 minutes). Transfer the sanitizing solution to the freezing

cylinder, then press the key  571.6 to run the beater for 30 seconds, then press the

key  571.1

**CAUTION**

**Too a longer operation of the machine set at "CLEANOUT" and "BEATING" with empty cylinders or just full of water with sanitizer, causes a quick wear of the beaters.**



Wait for a time necessary to the action of the sanitizing solution (10-15 minutes), then fully drain the solution using levers 5 and 502.

**CAUTION**

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



**6.8 HYGIENE**

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 product, 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.





## 7. MAINTENANCE

### 7.1 SERVICING TYPOLOGY

#### ATTENTION

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 of electrical and freezing plants must be carried out by skilled engineers!

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
- **Cleanout of panels**  
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°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 ORDERING SPARE PARTS

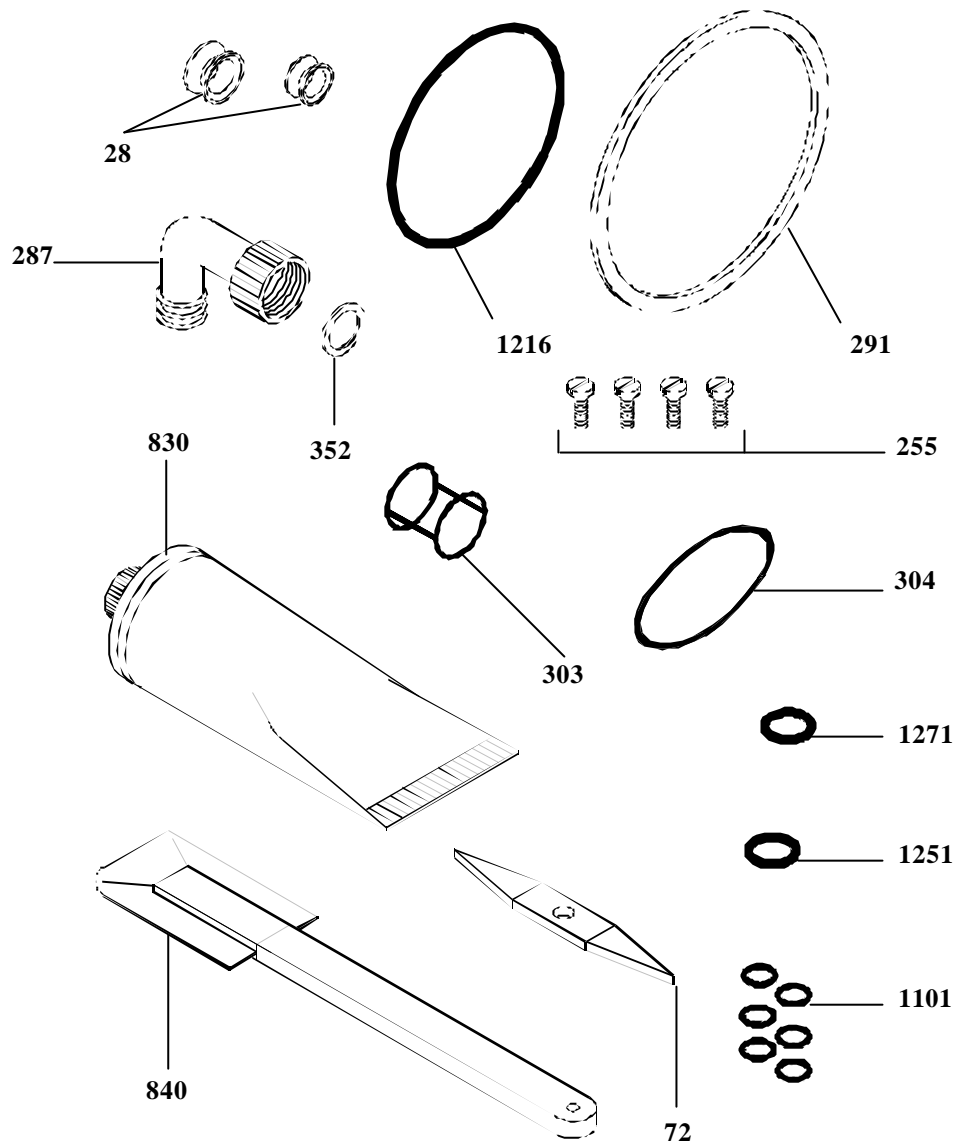
Should one or more parts wear out or break, place your order to a **COLDELITE** Technician and always mention the machine type and its serial number stamped on data plate you find on the machine rear.



**COLDELITE**

## 7.4 SPARE PARTS TABLE

### MODELS COMPACTA



### SPARE PARTS KIT COMPACTA

Q.ty	Description	Position
Nr 1	Beater stuffing box	28
Nr 1	Beater stuffing box	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
Nr 1	Cleaning brush	840
Nr 6	OR	1101
Nr 1	OR	1216
Nr 1	OR	1251
Nr 1	OR	1271

## 8. TROUBLESHOOT GUIDE



Trouble	Cause	Remedy
<b>Machine does not start</b>	a) Main switch open	a) Close the main switch
	b) Machine unplugged	b) Check and plug in
	c) Machine not set at production, alike in production side and in cooking side	c) Check that PRODUCTION button is lit
	d) Front lids not perfectly closed	d) Check front lids closure
<b>Machine does not start (display is lit)</b>	a) The 3rd wire feeding compressor and electric motors is unconnected	a) Connect the 3rd wire or check whether a fuse burnt out.
<b>Compressor starts but stops after a few seconds without the icecream being thick</b>	a) Watercooled machine: water not circulating	a) Open water cock.  Check that rubber pipe is not squashed or very doubled up.
<b>After 15 minutes freezing, the mix does not freeze down and the machine returns to STOP</b>	a) No gas	a) Check leak and then weld and refill
	b) Pressure switch out of order	b) Check the connection and replace it, if need be.
<b>Machine runs but no ice cream comes out of ice cream door</b>	a) Not enough sugar in the mix	a) Allow to thaw, then modify or replace the mix
<b>Machine runs but ice cream is too soft</b>	a) Too much sugar in the mix	a) Modify or replace the mix
<b>Ice cream mix in the drip drawer</b>	a) Stuffing box missing or worn	a) Insert if mixing. Replace if worn
<b>Ice crem comes out behind the ice cream door</b>	a) Gasket missing or not properly installed	a) Check and insert
<b>Bacteria tests show too high level</b>	a) Too high bacteria charge in the mix	a) Improve preparation procedure 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 machine thoroughly. Sanitize as described in chapter 6.

