



APPLICARE

TARGA

CARATTERISTICHE

INSTRUCTIONS HANDBOOK

**PASTOMASTER 30/60/120
TRONIC**

CARPIGIANI

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INDEX

SECT. FOREWORD.....	V
INSTRUCTION HANDBOOK.....	V
HANDBOOK STRUCTURE.....	V
SAFETY.....	VI
STAFF QUALIFICATION.....	VI
CONVENTIONAL SYMBOLS.....	VII
WARNING.....	VIII

SECT. 1 RECEIVING, MOVING, UNPACKING

1.1 RECEPTION.....	2
1.1.1 LIFTING A PACKED MACHINE.....	2
1.1.2 FORBIDDEN MATERIAL HANDLING EQUIPMENT.....	3
1.2 UNPACKING.....	3
1.3 STORING A MACHINE.....	5
1.4 DISPOSAL OF PACKING STUFFS.....	5

SECT. 2 GENERAL INFORMATION

2.1 GENERAL DATA.....	2
2.1.1 MANUFACTURER'S IDENTIFICATION DATA.....	2
2.1.2 USER'S/CLIENT'S IDENTIFICATION DATA.....	2
2.1.3 INFORMATION ABOUT SERVICE.....	2
2.1.4 INFORMATION TO THE USER.....	2
2.2 INFORMATION ABOUT THE MACHINE.....	3
2.2.1 GENERAL INFORMATION.....	3
2.2.2 MACHINE LAYOUT.....	3
2.2.3 TECHNICAL FEATURES.....	3
2.3 INTENDED USE.....	4
2.4 NOISE.....	4

SEC. 3 INSTALLATION

3.1 ROOM NECESSARY TO THE MACHINE USE.....	2
3.2 MACHINES WITH AIRCOOLED CONDENSER.....	2
3.3 WATER SUPPLY CONNECTION.....	2
3.4 MACHINES WITH WATERCOOLED CONNECTION.....	3
3.4.1 ADJUSTMENT OF WATER VALVE.....	4
3.5 WASH.....	4
3.6 WATER CONNECTION.....	4
3.6.1 REPLACING A POWER CABLE.....	5
3.6.2 BUFFER BATTERY.....	5
3.7 LOCATION.....	6
3.8 CLEAN OUT.....	6
3.9 REFILLING.....	6
3.10 MACHINE TESTING.....	6

SEC. 4 INSTRUCTIONS FOR USE

4.1 MACHINE SAFETY WARNINGS 2

4.2 MACHINE CONFIGURATION 2

4.3 CONTROLS 3

 4.3.1 CONTROL PANEL 3

 4.3.2 COMMON FUNCTIONS 3

 4.3.3 MANUAL FUNCTIONS 4

4.4 PRELIMINARY OPERATIONS, WASH AND STERILIZATION 7

 4.4.1 CLEANOUT 7

 4.4.2 STERILIZATION 8

 4.4.3 HYGIENE 8

4.5 AUTOMATIC PROGRAMMING 9

 4.5.1 PROGRAM NR 1 HIGH PASTEURIZATION 9

 4.5.2 PROGRAM NR 2 LOW PASTEURIZATION 9

 4.5.3 PROGRAM NR 3 CHOCOLATE 9

 4.5.4 PROGRAM NR 4 MIDDLE PASTEURIZATION 10

 4.5.5 PROGRAM NR 05 EGG PASTEURIZATION 10

 4.5.6 PROGRAM NR 06 INVERT SUGAR 10

 4.5.7 PROGRAM NR 07 STORAGE 10

4.6 SEMIAUTOMATIC PROGRAMMING 11

 4.6.1 EXAMPLE OF PERSONALIZED PROGRAMMING 12

 4.6.2 NOTES TO READ THE FUNCTIONS (STEPS) OF A PROGRAM 13

4.7 MACHINE STARTING 14

 4.7.1 USE OF MIX DISPENSING SPIGOT 15

SEC. 5 SAFETY DEVICES

5.1 MACHINE SAFETY DEVICES 2

SEC. 6 CLEAN OUT, DISASSEMBLING AND REASSEMBLING OF PARTS IN CONTACT WITH THE PRODUCT

6.1 PRELIMINARY CLEAN OUT 2

6.2 DISASSEMBLING OF SPIGOT PISTON 2

6.3 DISASSEMBLING OF TANK COVER 4

6.4 DISASSEMBLING OF BEATER 5

6.5 STERILIZATION 6

6.6 HYGIENE 6

SEC. 7 MAINTENANCE

7.1 SERVICE TYPOLOGY 2

7.2 WATERCOOLING 3

7.3 AIRCOOLING 3

7.4 ORDERING SPARE PARTS 3

7.5 TABLE OF EQUIPMENT 4

SEC. 8 TROUBLESHOOT GUIDE

8.1 TROUBLESHOOT GUIDE 2

FOREWORD

INSTRUCTIONS 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".

PURPOSE

This handbook was edited while taking needs of machine users into due account. Topics relevant to a correct use of the machine have been analyzed in order to keep unchanged in the long run quality features characterizing CARPIGIANI machines throughout the world.

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:

CARPIGIANI GROUP-ALI S.p.A - Via Emilia, 45 - 40011 Anzola Emilia (Bologna) - Italy
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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.

ATTENTION!!

Before operating the machine, carefully read this handbook.

Also carefully safety instructions





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 are neither removed nor tampered
- The machine is regularly serviced.
- Only are original spare parts 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 must adequately skilled personnel 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.

**CARPIGIANI ENGINEER**

It deals with a skilled engineer the manufacturer puts at clients' disposal for complicated interventions and 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 hands into the machine, alike during production and cleaning operations.
Before carrying out any maintenance operation, make sure that the machine is in "STOP" 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.
- CARPIGIANI 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.

RECEIVING, MOVING, UNPACKING

SECTION INDEX

1.1	RECEPTION.....	2
1.1.1	LIFTING A PACKED MACHINE.....	2
1.1.2	FORBIDDEN MATERIAL HANDLING EQUIPMENT.....	3
1.2	UNPACKING.....	3
1.3	STORING A MACHINE.....	5
1.4	DISPOSAL OF PACKING STUFFS.....	5



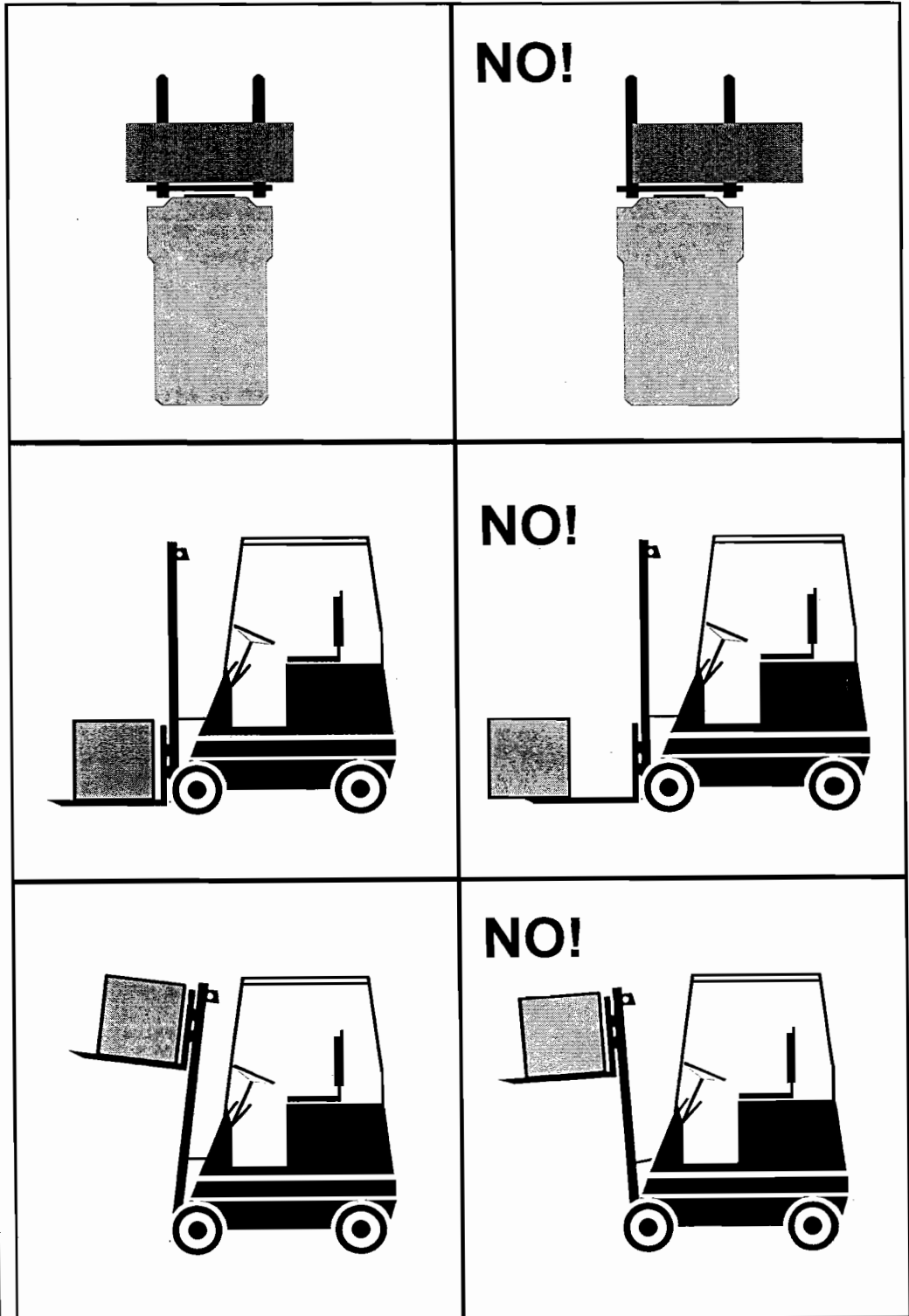
1.1 RECEPTION

- ▨ 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
- Unsuitable construction features of the lift (ex.: too short forks)
- Construction features altered by use
- Unconforming ropes and cables
- Worn ropes or cables.

1.2 OPENING A PACKING CRATE

There are two types of packing: wooden type or in corrugated board.

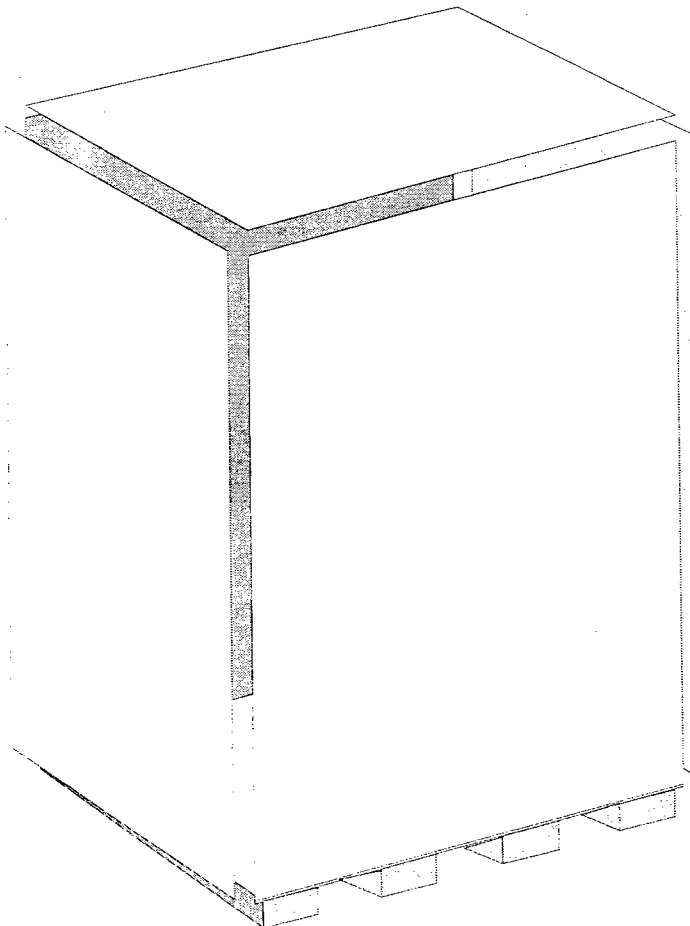
Walls of a wooden packing are nailed and the machine is fastened by means of stay bolts connecting machine frame bottom to packing wooden base .

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.

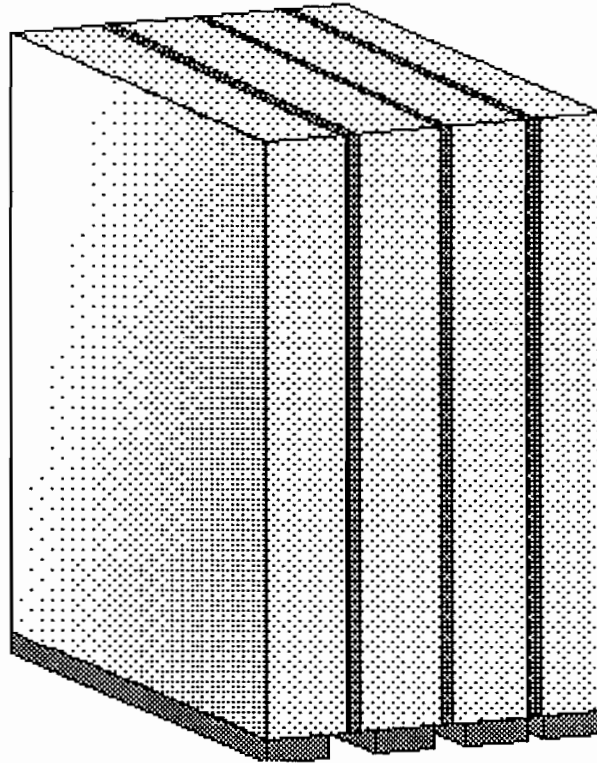




Board packing is externally closed by three steel straps.
The machine is secured at the inside through other straps.
This packing can be opened with snips.



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

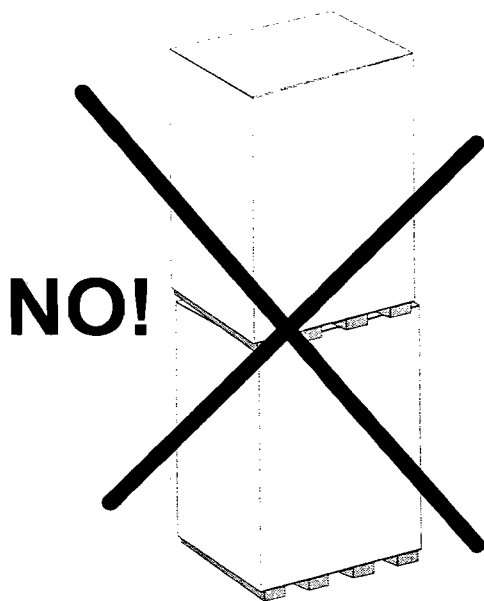


Attention:

Inside the machine you will find an instruction handbook; it is necessary to carefully read it before operating the machine.

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.

GENERAL INFORMATION

SECTION INDEX

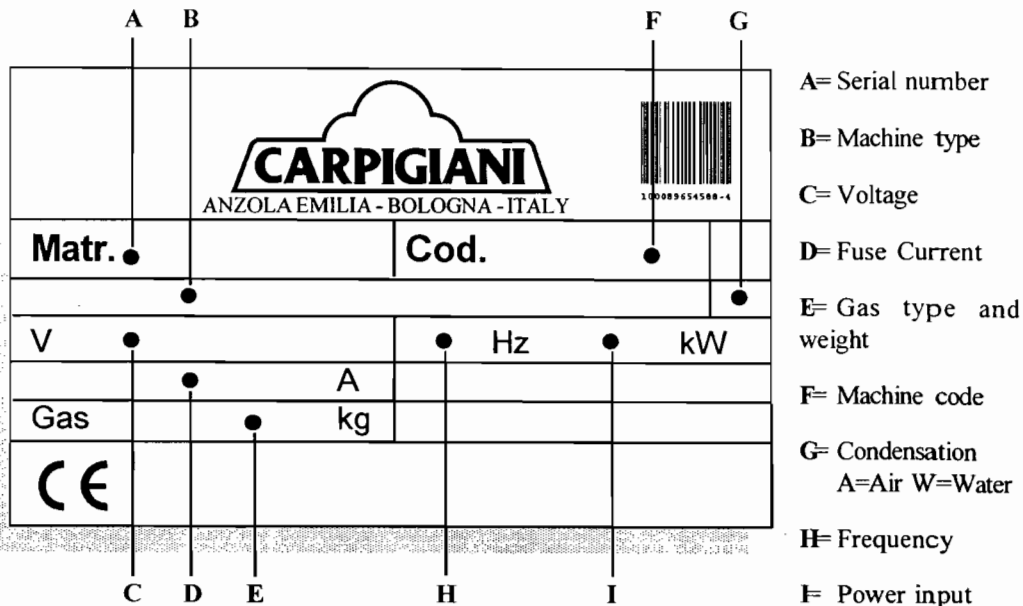
2.1	GENERAL DATA.....	2
2.1.1	MANUFACTURER'S IDENTIFICATION DATA.....	2
2.1.2	USER'S/CLIENT'S IDENTIFICATION DATA.....	2
2.1.3	INFORMATION ABOUT SERVICE.....	2
2.1.4	INFORMATION TO THE USER.....	2
2.2	INFORMATION ABOUT THE MACHINE.....	3
2.2.1	GENERAL INFORMATION.....	3
2.2.2	MACHINE LAYOUT.....	3
2.2.3	TECHNICAL FEATURES.....	3
2.3	INTENDED USE.....	4
2.4	NOISE.....	4



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.



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.
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2.2 INFORMATION ABOUT THE MACHINE

2.2.1 GENERAL INFORMATION

PASTOMATER TRONIC are pasteurizers which prepare, pasteurize, homogenize, age and transfer ice cream mixes to other units.

An electronic microprocessor steadily checks each working cycle selected.

Two alphanumeric monitors display all steps of a working cycle and send audio-visible messages.

The following are the main components:

- three-speed heat pump;
- ergonomic display console with low voltage 24V controls;
- electrical, freezing and soundproofing units complying with international standards;
- graduated tank, with inside water dispenser for wash;
- high resistant steel frame, treated with rust inhibitors; glazed stainless steel panels.

CARPIGIANI recommends to always use high quality ingredients for the preparation of confectionery products, in order to satisfy your customers, even the most hard-to-please ones.

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

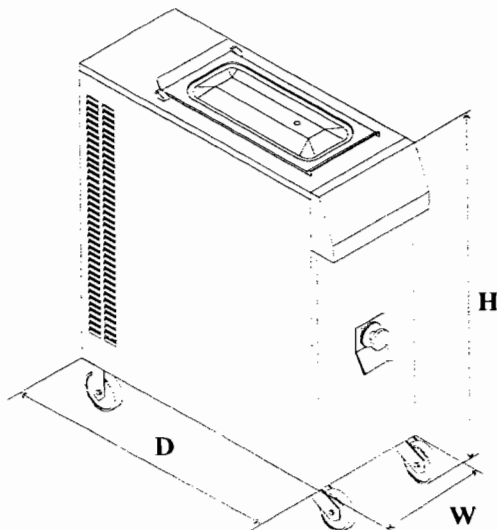
Bearing in mind the above statements, please take heed of the following suggestions:

- ☐ Choose high quality natural ingredients or buy semifinished products from reliable companies.
- ☐ Follow closely instructions given by your supplier .
- ☐ Do not alter your supplier's recipes, by adding, for instance, water or sugar.
- ☐ Taste your products before serving and start selling only if entirely satisfactory.
- ☐ Make sure your staff always keeps the machine clean.
- ☐ Have your machine serviced always by companies authorized by CARPIGIANI.

2.2.2 MACHINE LAY-OUT

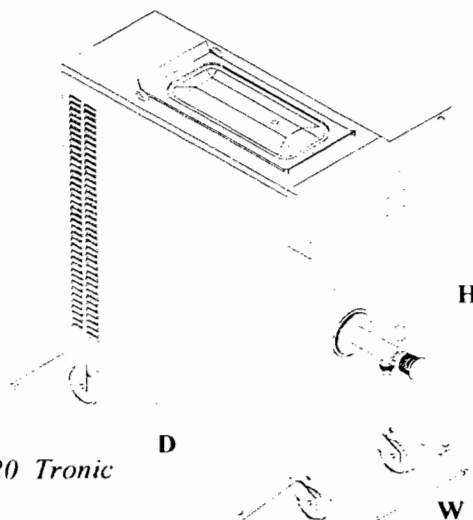
NOTE:

Dimensions herebelow reported may change depending on type of condensation.



Pastomaster 30 Tronic

TRONIC SERIES MODEL	Dimensions		
	Width mm. (W)	Depth mm. (D)	Height mm. (H)
PASTOMASTER 30	350	915	1070
PASTOMASTER 60	350	915	1070
PASTOMASTER 120	600	915	1070



Pastomaster 60/120 Tronic

2.2.3 TECHNICAL FEATURES

TRONIC SERIES MODEL	Production in 2 hours***	Tank capacity		Electric power*			Installed Power	Condenser	Water consumption	Net Weight kg
	kg	MIN. Litres	MAX. Litres	volts	Hz	Ph	kW		Litres/h	
PASTOMASTER 30	30	15	30	380o220	50	3	3,3	Water**	150	138
PASTOMASTER 60	60	15	60	380o220	50	3	6,4	Water**	300	154
PASTOMASTER 120	120	30	120	380/220	50	3	9	Water**	450	235

* Other voltages and cycles available.

** Also available in aircooled versions

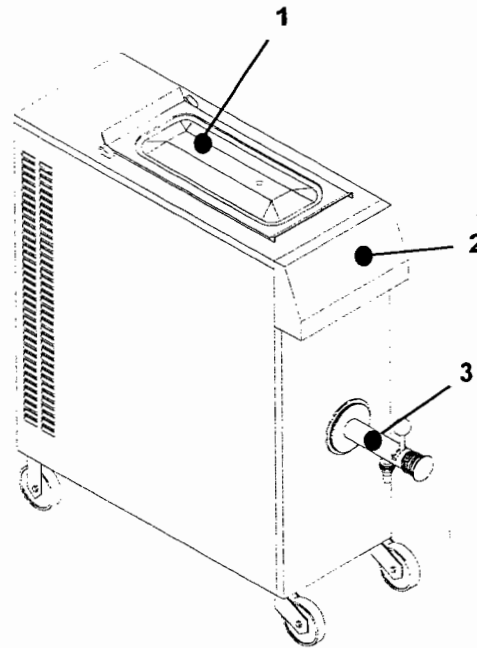
*** The complete production cycle consists of two parts: heating and cooling which require about 1 hour time.

Performances featured by a 25°C room temperature and 20°C cooling water temperature.

2.2.4 GROUPS LOCATION

Caption

- 1 Tank with cover
- 2 Control panel
- 3 Dispensing spigot



Note : this drawing refers to Pastomaster 60 tronic.



2.3 INTENDED USE

PASTOMASTER TRONIC, models 30, 60, 120 must only be used conforming with contents 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 been designed for its use in rooms not subject to explosion-proof laws;
its use is thus bound to complying rooms and normal atmosphere.

2.4 NOISE

Sound pressure level of this machine is 77 dB/A.

INSTALLATION

SECTION INDEX

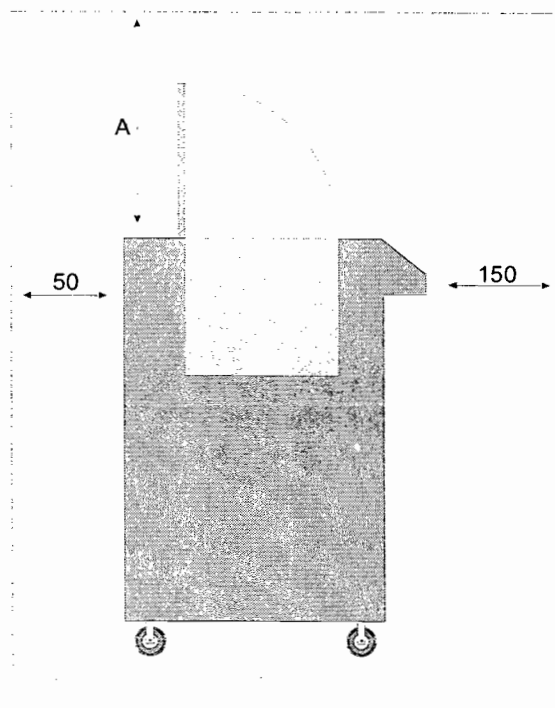
3.1	ROOM NECESSARY TO THE MACHINE USE.....	2
3.2	MACHINES WITH AIRCOOLED CONDENSER.....	2
3.3	WATER SUPPLY CONNECTION.....	2
3.4	MACHINES WITH WATERCOOLED CONNECTION.....	3
3.4.1	ADJUSTMENT OF WATER VALVE.....	4
3.5	WASH.....	4
3.6	WATER CONNECTION.....	4
3.6.1	REPLACING A POWER CABLE.....	5
3.6.2	BUFFER BATTERY.....	5
3.7	LOCATION.....	6
3.8	CLEAN OUT.....	6
3.9	REFILLING.....	6
3.10	MACHINE TESTING.....	6



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.



MODEL	A
Pastomaster 30 tronic	50
Pastomaster 60 tronic	55
Pastomaster 120 tronic	60

3.2 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.

Clean the floor under and near to the machine, in order to avoid that paper or else may hinder air circulation.

Furthermore, it is necessary to clean the condenser monthly, so as to avoid that dust, paper, etc. may obstruct it, thus jeopardizing the regular operation of the machine.

NOTE

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



3.3 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 on the rear panel.

There are three connections, all of them being alined along the same vertical.



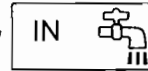
3.4 MACHINES WITH WATERCOOLED CONDENSER

Watercooled machines can run when only connecting them to running water supply or to a cooling tower.

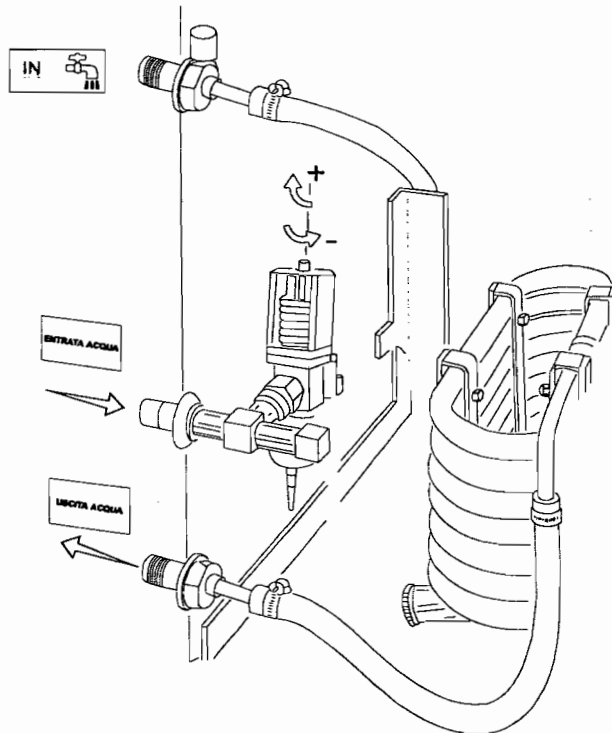
Water must have a pressure of 1 Bar at least and a delivery at least equal to the estimated hourly consumption. Connect inlet pipe marked by the plate "Entrata Acqua" (=Water inlet) to water supply, installing a shut-off valve, and the outlet pipe marked by the plate "Uscita Acqua" (=Water outlet) to a drain pipe, installing a shut-off valve.



The machine is also provided with a connection to drinking water, marked "IN"

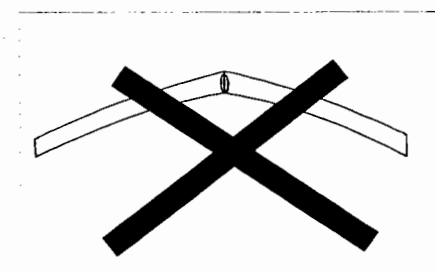


We recommend to use rubberized canvas tubes with a working pressure up to 8 Bars.



Note:

When disconnecting and then reconnecting water pipes, pay attention not to bend them, so as to avoid any possible breakings.





3.4.1 WATERVALVEADJUSTMENT

IMPORTANT

If water valve needs to be reset, such an operation must be carried out by skilled personnel, only.

Set water valve so that, with machine off no water comes out and lukeawarm water flows out when on.

Water consumption

Estimated water consumption per hour is shown in the table 2.2.3, page 4, Sec. 2.

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 WASH

Alike aircooled and watercooled machines, as well as the ones with double condenser have been provided with a separate inlet pipe for washing water. Only has drinking water to be connected to this pipe that can be found on lower base of the machine. The plate shown herebelow is, instead, on lower left side close to the connection.



To make clean out easy, we recommend to connect warm water used in your laboratory directly to wash pipe, installing a shut-off valve.

3.6 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 complete with a power cable (a 5-wire cable by threephased machines and a 3-wire cable by siglephased machines; blue wire must be connected to the neutral one.

IMPORTANT

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



3.6.1 REPLACING POWER CABLE

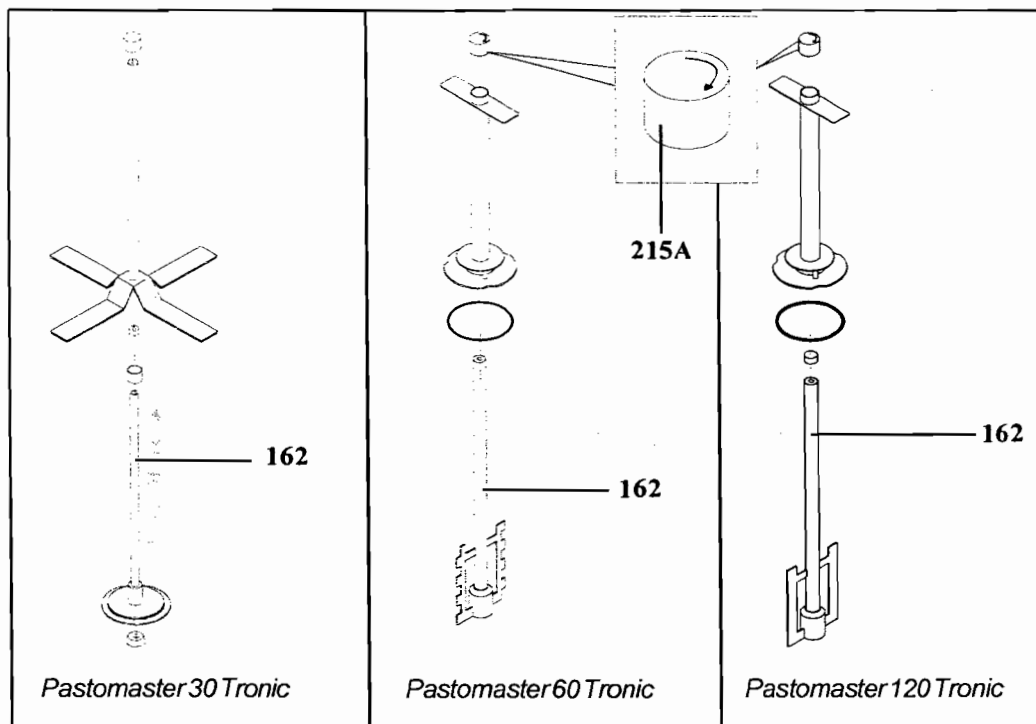
Should the main cable of the machine be damaged, it needs to be replaced immediately through a cable with similar features.

Replacement shall be carried out by skilled technicians, only.

Direction of rotation

Direction of rotation of the beater pos.162 in *Pastomaster 30 Tronic* is anticlockwise.

By *Pastomaster 60/120 Tronic* beater rotation direction is, instead, *clockwise* and it is indicated on cap pos. 215A covering the beater in its upper part.



Reversal of rotation direction

If the beater rotation is not correct, reverse it by interchanging two of the three leads coming from the circuit breaker.



3.6.2 BUFFER BATTERY

The machine is equipped with a battery (A) for managing the electronic system in the event of a power failure.

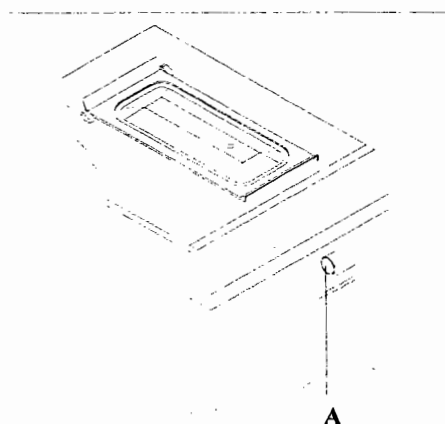
If the machine is left idle for a long time, in order to recharge the battery you have simply to connect the machine to the mains for about 48 hours.

Battery type is Nickel Cadmium 4,8 V, 170mA/h.

In the event of battery malfunctioning, the monitor displays the message AL06.BAT LOW meaning that the battery is down or disconnected.

Check battery and relevant connection, then replace it, if need be.

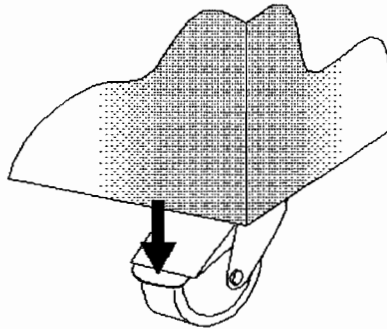
NB. replacement must only be carried out by a skilled engineer of Service Department.





3.7 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.



3.8 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

Do not use either solvents, or alcohol and detergents that may damage the machine parts and contaminate parts coming into contact with product.

3.9 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 CARPIGIANI 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.

3.10 MACHINE TESTING



A postproduction test of the machine is carried out at Carpigiani 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 CARPIGIANI engineers.
 After the machine positioning and correct connections, also carry out all operations necessary to functional check and test of the machine.

INSTRUCTIONS FOR USE

4.1	MACHINE SAFETY WARNINGS.....	2
4.2	MACHINE CONFIGURATION.....	2
4.3	CONTROLS.....	3
4.3.1	CONTROL PANEL.....	3
4.3.2	COMMON FUNCTIONS.....	3
4.3.3	MANUAL FUNCTIONS.....	4
4.4	PRELIMINARY OPERATIONS, WASH AND STERILIZATION.....	7
4.4.1	CLEAN OUT.....	7
4.4.2	STERILIZATION.....	8
4.4.3	HYGIENE.....	8
4.5	AUTOMATIC PROGRAMMING.....	9
4.5.1	PROGRAM NR 01 HIGH PASTEURIZATION.....	9
4.5.2	PROGRAM NR 02 LOW PASTEURIZATION.....	9
4.5.3	PROGRAM NR 03 CHOCOLATE.....	9
4.5.4	PROGRAM NR 04 MIDDLE PASTEURIZATION.....	10
4.5.5	PROGRAM NR 05 EGG PASTEURIZATION.....	10
4.5.6	PROGRAM NR 06 INVERT SUGAR.....	10
4.5.7	PROGRAM NR 07 STORAGE.....	10
4.6	SEMIAUTOMATIC PROGRAMMING.....	11
4.6.1	EXAMPLE OF PERSONALIZED PROGRAMMING.....	12
4.6.2	NOTES TO READ THE FUNCTIONS (STEPS) OF A PROGRAM.....	13
4.7	MACHINE STARTING.....	14
4.7.1	USE OF MIX DISPENSING SPIGOT.....	15



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 are neither removed nor tampered
- Only original spare parts to be used especially as far as those components with safety functions are concerned (ex.: protection microswitches, thermal relays).



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 be assigned to electrical equipment.

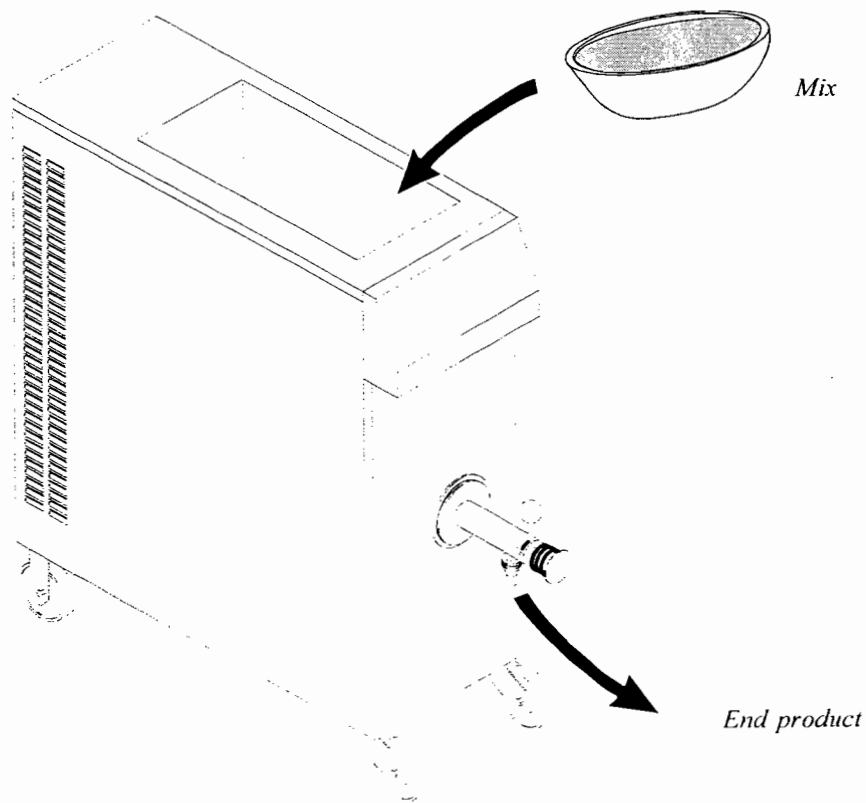
4.2 MACHINE CONFIGURATION

The machine consists of a transmission of movement for beater assembly, a heating and cooling system with aircooled or watercooled condenser.

The product is prepared by pouring a mix into the tank and starting the production cycle, while referring to minimum and maximum quantities reported in Section 1, table on page 6.

As the machine is provided with specific programs for the preparation of various products, one must set the program relevant to the selected product before starting the cycle.

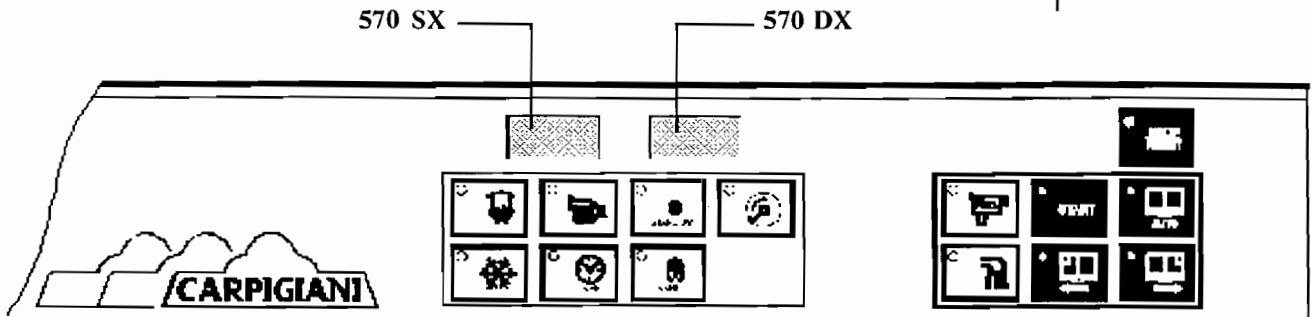
When the cycle ends, the product can be taken out from the special spigot.



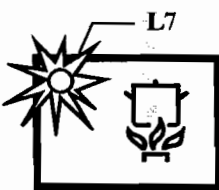
4.3 CONTROLS

4.3.1 CONTROL PANEL

For a correct use of the buttons on the electronic control units, press on symbol or in the middle of the button.



4.3.2 COMMON FUNCTIONS



Function insert led (pos.L1-L17)

When a led is on, it means that the function relevant to the symbol next to the led has been selected.

Example in the picture sideways : Led L7 on , HEATING function inserted.



Monitors (pos. 570 SX / 570 DX)

These digital monitors display a series of messages as the machine is turned on and also during its operation. The monitor 570 DX usually displays actual mix temperature in the tank, and the monitor 570 SX displays temperature set to be reached.



STOP/RESET button

When selecting STOP function, its warning light is on. From STOP position you can have access to AUTO as well as to MANUAL functions. To change with an automatic function, it is necessary to first return to STOP pressing relevant buttons, and then the button relevant to the desired function.

N.B.: Buttons relevant to functions of START, AUTO, BACKWARD, FORWARD, RECORD belong to "automatic functions".



All other functions are described as " manual functions ".
For a change of manual functions it is not necessary to return to STOP .

STOP/RESET button is also used to reset thermal relays after their tripping.

4.3.3 MANUAL FUNCTIONS

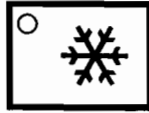
Following are manual functions:



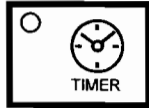
Beating



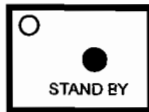
Heating



Cooling



Timer

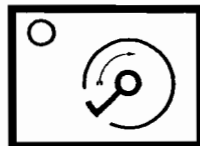


Stand-by



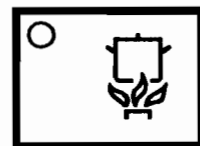
Buzzer

Access to the machine manual functions is allowed from STOP position.
Press MANUAL button, then the one relevant to the desired manual function.



Beating

When this function is selected, relevant led is on.
Pressing the button for BEATING the beater starts and runs at low speed until STOP is pressed.

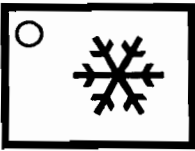


Heating

On selecting this function, its led will be on and monitor 570 SX will display "+85°C", i.e. the temperature in °C to be reached.
By pressing buttons BACKWARD and FORWARD, the set value of this temperature can respectively be decreased and increased.

During heating cycle the monitor 570 DX displays a number which refers to the mix temperature in the tank until the value set on monitor 570 SX is reached.

A 10" fix sound signal as well as the blinking of monitor DX mean that the set value has been reached.



Cooling

On selecting this function, its led will be on and monitor 570 SX will display + 1°C, i.e. the temperature in °C to be reached.

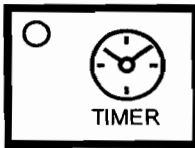
The storage temperature can be adjusted through BACKWARD button to decrease it and FORWARD button to increase it.

During the cooling cycle, monitor 570 DX displays a digit referring to the mix temperature in the tank until the value set on monitor 570 SX is reached.

A 10" fix sound signal as well as the blinking of monitor DX mean that the set value has been reached.

If the temperature keeps within the desired range, the compressor remains off and the beater starts every 30 seconds and runs 10 seconds.

When pressing the button BEATING during the cooling cycle, the beater will keep on running also when the compressor is off.



Timer

Pressing the button TIMING, leds relevant to Timing, Buzzer, Backward and Forward will be on, whilst monitor 570 SX displays "S 00", i.e. TIMER programming at "00" seconds.

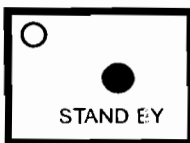
By the buttons FORWARD and BACKWARD, timing seconds can respectively be increased and decreased.

If TIMING is pressed again by 2 seconds since it was last pressed, monitor 570 SX displays "m 00", i.e., TIMER programming at "00" minutes; by the buttons of FORWARD AND BACKWARD timing minutes can respectively be increased and decreased. If TIMING is pressed again by 2 seconds since it was last pressed, monitor 570 SX displays "h 00", i.e., TIMER programming at "00" hours.

By the buttons FORWARD and BACKWARD, timing hours can respectively increased and decreased.

If, after setting the desired time, neither TIMING, nor FORWARD and BACKWARD are pressed within 2 seconds, count down of time set will start. When count down is over, the buzzer will sound 10 seconds long and timer will set to zero as at the starting point.

During countdown, one can let water in by pressing relevant button.



Stand-by

When selecting this function, relevant led is on.

Pressing the button STAND-BY, alike during heating and cooling, the product can be kept at its current temperature (displayed on the monitor in that moment) without stopping the beater.

To leave this function, press STAND-BY button again.

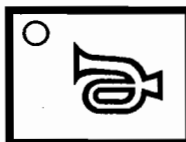
**Washing water**

When inserting this function, the relevant led lights on.

Water inlet is only allowed if the machine is in STOP and by pressing the button MANUAL.

On pressing the button, water inlet starts and it stops by pressing the same button again or the STOP one.

NOTE: The machine is provided with an automatic lock system, so that it automatically stops water inlet after 5 minutes and returns to STOP. Time set can be changed by applying to a skilled engineer.

**Audio-visible alarm**

If the button is pressed during heating cycle, the buzzer will ring at the temperature of + 50 °C.

If the button is pressed during cooling cycle, the buzzer will ring at the temperature of + 65 °C.

Every time a programmed temperature is reached and a pause time set elapses, an audio-visible alarm will warn the operator.

4.4 PRELIMINARY OPERATIONS, WASH AND STERILIZATION

Before starting the machine for the first time, it is necessary to clean its components thoroughly and then also sterilize the parts in contact with the product.


IMPORTANT

Clean out and sterilization must be carried out at the end of every working day, as a habit and with utmost care, in order to guarantee high quality and the observance of all healthy rules.

4.4.1 CLEAN OUT

With machine off, and STOP led on  , press the button MANUAL 

Make sure that the machine spigot pos. 505 is off and, with the flexible nozzle, let water

enter in the quantity necessary to wash, by pressing WATER INLET  button.

Press the button for BEATING  and leave a few minutes in that position.

Press "STOP".

Drain all water from the tank opening the dispensing spigot.

Open tank cover pos.250.

Remove the beater by slightly pulling it upwards and minding not to damage it.

Wash all parts in water.

Also wash inside tank walls and tank cover.

Remove the tap, wash it thoroughly and mount it back.

Reassemble all disassembled parts after lubricating ORs and stuffing box with a film of edible fat, such as GELILUBE.



4.4.2 STERILIZATION

With machine off, after removing the beater and checking that tap pos. 505 is off, fill the tank with a NON CORROSIVE sterilizing solution.

Press the button for BEATING



and let the beater run one minute.

WARNING

Too a longer running in position "BEATING" with empty tank or just filled with water and sterilizing solution brings about wear of the beater.

Drain the sterilizing solution through tap pos.505 .

ATTENTION

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

ATTENTION

Do not touch sterilized parts with hands, napkins, or else.

4.4.3 HYGIENE

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

4.5 AUTOMATIC PROGRAMMING

The electronic memory has been inserted with 6 fully automatic programs which are described hereafter.



4.5.1 PROGRAM NR 1 HIGH PASTEURIZATION

- 1 BEATING and HEATING up to reaching +50°C with an audio-visible alarm, then HEATING keeps on.
- 2 At +85°C COOLING starts and stops at +65°C with an audio-visible alarm, then COOLING up to +4 °C.
Beater and compressor stop at the same time, now.
- 3 During storage, BEATING starts every 30 minutes and runs 10 seconds .
- 4 When the temperature raises back to +6°C, both compressor and beater start again at the same time and they stop at +4°C.

4.5.2 PROGRAM NR 2 LOW PASTEURIZATION

- 1 BEATING and HEATING up to +50°C with audio-visible alarm, then HEATING starts again and stops at +65°C with a 30 minutes pause at this temperature.
- 2 After this time, COOLING starts and on reaching +4°C, both the beater and the compressor stop at the same time.
- 3 During storage, BEATING starts every 30 minutes and runs 10 seconds.
- 4 When the temperature raises back to +6°C, both compressor and beater start at the same time and stop at +4°C.

NOTE: by units for the Japanese market , the temperature has been set at 70°C instead of 65°C..




4.5.3 PROGRAM NR 3 CHOCOLATE

- 1 BEATING and HEATING up to +50°C with audio-visible alarm, then HEATING keeps on.
- 2 At +90°C COOLING STARTS and stops at +65°C with audio-visible alarm, then COOLING starts again up to reaching +4°C .
Both beater and compressor stop at the same time, now.
- 3 During storage, BEATING starts every 30 minutes and runs 10 seconds.
- 4 When the temperature raises back to +6°C both compressor and beater start again at the same time and stop at +4°C.

4.5.4 PROGRAM NR 04 MIDDLE PASTEURIZATION

- 1 BEATING and HEATING up to reaching +50°C with audio-visible alarm.
- 2 During heating cycle, the monitor pos.570.1 displays the pasteurization temperature to be reached. Using BACKWARD and FORWARD buttons, the pasteurization temperature can respectively be decreased and increased within a range of +65°C to +85°C .
- 3 On reaching the pasteurization temperature as set at point 2, a pause begins and lasts according to a time reckoned automatically in order to secure a perfect pasteurization.
- 4 When this time is over, COOLING starts and, on reaching +4°C, both compressor and beater stop at the same time.
- 5 During storage , BEATING starts ever 30 minutes and runs 10 seconds.
- 6 When the temperature raises back to +6°C, both compressor and beater start again and stop at +4°C.

4.5.5 PROGRAM NR 05 EGG PASTEURIZATION

- 
- 1 BEATING and HEATING up to reaching +64°C.
 - 2 At +64°C COOLING starts up to reaching +4°C .
Both beater and compressor stop at the same time, now.
 - 3 During storage, BEATER starts every 30 minutes and runs 10 seconds.
 - 4 When the temperature raises to +6°C, both compressor and beater start again at the same time and stop at +4°C.

4.5.6 PROGRAM NR 06 INVERT SUGAR

- 1 BEATING and HEATING at the same time, up to reaching +90°C .
- 2 Beater and compressor are cut out for a time of 2 minutes and then the machine goes in STOP.

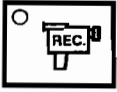
4.5.7 PROGRAM NR 07 STORAGE

- 1 BEATING, and then compressor, too, starts.
- 2 When reaching +4°C both beater and compressor stop at the same time.
- 3 During storage at +4°C BEATING starts every 30 minutes and runs 10 seconds.

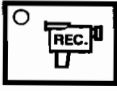
4.6 SEMIAUTOMATIC PROGRAMMING

There are 15 semiautomatic programs that can be used to insert mix treatment cycles on a personalized basis.

Procedure to program a personalized cycle not included among the ones listed in section 4.5 (see ref. in picture 5).


1 - Press RECORD ; the monitor 570.SX displays "REC" and the monitor pos. 570.DX displays ST01, which means step 01 or first operation of the personalized cycle.


2 - Select the first work operation by pressing the button relevant to the operation itself (Beating, Heating, Cooling, Timer). When selecting the function, the relevant led lights on.


3 - Press the button RECORD  in order to store the first operation inserted at item 2; the monitor pos. 570.DX displays "ST02", which means step 02. The monitor pos. 570.SX displays "REC".

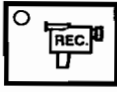
4 - Select the second operation desired, then repeat RECORD procedure in order to store the operation itself.

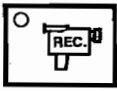
5 - Proceed as described till you reach the last step desired (If a timing is also foreseen among the functions selected, the monitor pos. 570.SX displays time set value.

6 - Press STOP/RESET ; the monitor pos. 570.SX displays "SEL ?" and the monitor pos. 570.DX displays 8, i.e. the number to be given to the personalized cycle.


7 - If position 8 was already given to another program, then press BACKWARD 



or FORWARD  in order to give a new number to your cycle, always keeping in mind that available numbers are 8 to 23.


8 - By pressing RECORD  the monitor pos. 570.SX displays "OK?" and the monitor pos. 570.DX the number set at the previous item 7.

9 - Press RECORD  in order to confirm the number given to your personalized cycle.

All functions inserted in the new cycle are by this stored and automatically executed when calling the program.

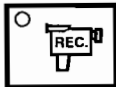
10 - In order to call a personalized program, press AUTO  and BACKWARD


 or FORWARD  so that the monitor pos. 570.DX will display the number of the function desired.

To start the function, press START .

4.6.1 EXAMPLE OF A PERSONALIZED PROGRAMMING

Supposing to create program Nr 1 (see section 4.5) and to store it at Nr 8 , proceed as follows:

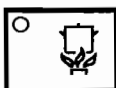
1 - Press RECORD  ; the monitor pos. 570.SX displays "REC" and the monitor pos. 570.DX displays "ST01".

2 - Press HEATING  ; the monitor 570.DX will automatically display "85°C".

3 - Through the button BACKWARD  , bring the temperature displayed on the monitor 570.DX to 50°C.

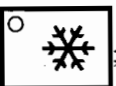
4 - Press RECORD  in order store step ST01.

5 - The monitor pos. 570.DX now displays "ST02".

6 - Press HEATING  , and 85°C will automatically be displayed ; in this example, value set does not need to be changed as it already reads 85°C.

7 - Press RECORD  in order to store step ST02


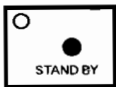
8 - The monitor pos. 570.DX displays "ST03".

9 - Press COOLING  ; the monitor pos. 570.DX displays 4°C.

10 - Through the button FORWARD  , bring the temperature displayed on the monitor 570.DX to 65°C.

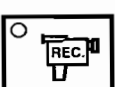
11 - Press RECORD  in order to store step ST03.

12 - The monitor pos. 570.DX displays "ST04".

13 - Press COOLING  and STAND-BY  in order to store the mix at 4°C.

14 - Press RECORD  in order to store step ST04.

15 - Press STOP/RESET 

16 - Press RECORD  in order to confirm that the program insreted shall be stored at position 8.


17 - Press RECORD again  in order to close the operation.


Program Nr 1 has now been rebuilt also at position 8.

To start the program, press AUTO  and soon after START .

4.6.2 NOTES TO READ PROGRAM FUNCTIONS (STEPS)

In order to read the steps of a program or to make any change, proceed as follows:



1- Press RECORD  the monitor pos.570.SX displays "REC" and the monitor pos.570.DX displays "ST01".

2- Press FORWARD  so that the program number to be read will be displayed on the monitor pos. 570.DX .


3- Press START .

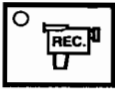
4- The monitor pos. 570.SX displays "REC" and the monitor pos. 570.DX displays those program data you are examining.


5- Press the RECORD  in order to read all program steps.

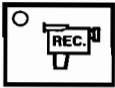
6- Press FORWARD  or BACKWARD  for any change of read values.

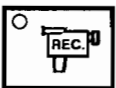
7- Program end is confirmed by the fact that all control leds are off and the monitor pos. 570.DX displays "ST.."

8 - When program reading is over , press STOP/RESET  TWICE.

If some changes have been made during reading (item 6), **DO NOT** press STOP/RESET but press, instead, RECORD  ;the monitor pos. 570.SX will display "SEL?" and the monitor pos. 570.DX will display "8" , being the number to be given to the program you have modified, always provided that this number had not already been assigned to another program.

9 - If position "8" had already been assigned , press FORWARD  in order to assign a new number, always keeping in mind that numbers available are 8 to 23.

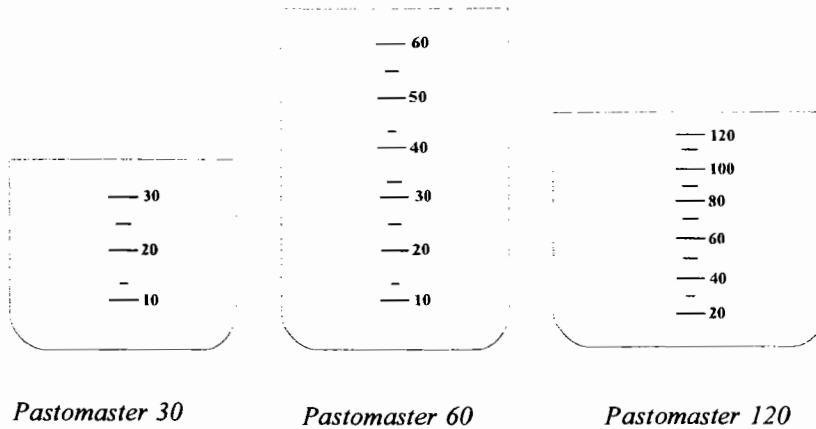
10 - By pressing RECORD  the monitor pos. 570.SX displays "OK?" and the monitor pos. 570.DX displays the program number assigned.

11 - Press RECORD  to confirm storage.

By this, all operations inserted are stored and automatically executed every time this program is called.

4.7 MACHINE STARTING

After washing, sterilizing and thoroughly rinsing the machine right before its use, as per previous descriptions, pour the mix into the tank according to the quantity desired and respecting the minimum and maximum values shown in the table (Sec. 2, page 4); the tank is provided with an inside graduation for an approximate indication of mix quantity therein contained (see picture below).




Before pouring the mix, make sure that the dispensing spigot is perfectly closed.


Note: a non perfectly closed tank cover hinders the machine functioning.

The machine has two possible operation modes, namely:

- 1 Automatic operation;
- 2 Manual operation;

1 AUTOMATIC OPERATION

Using AUTOMATIC and SEMIAUTOMATIC (personalized) PROGRAMS, a working cycle of the pasteurizer can start from STOP position  being inserted (led on).

- Press AUTO  : the monitor 570.SX will display "STOP" and the monitor 570.DX will display the name of the last program used.

- Select the name of the program desired by using the buttons BACKWARD and FORWARD





- When the name of the desired program appears on the monitor, press START .

- The program will end when the monitor pos. 570.SX displays "OK", soon followed by the number of the program selected.

The manual cycle can start from STOP position being inserted (led on)



- Press MANUAL , then press the button relevant to the manual function you want to insert.

- The function so inserted will end when the button STOP  or the one relevant to any other manual function is inserted.

4.7.1 HOW TO USE THE MIX DISPENSING SPIGOT

To take out the mix, it is necessary to turn the spigot handle all to the left A (see picture below).

The spigot allows a suitable stirring of the mix depending of its thickness, as follows :

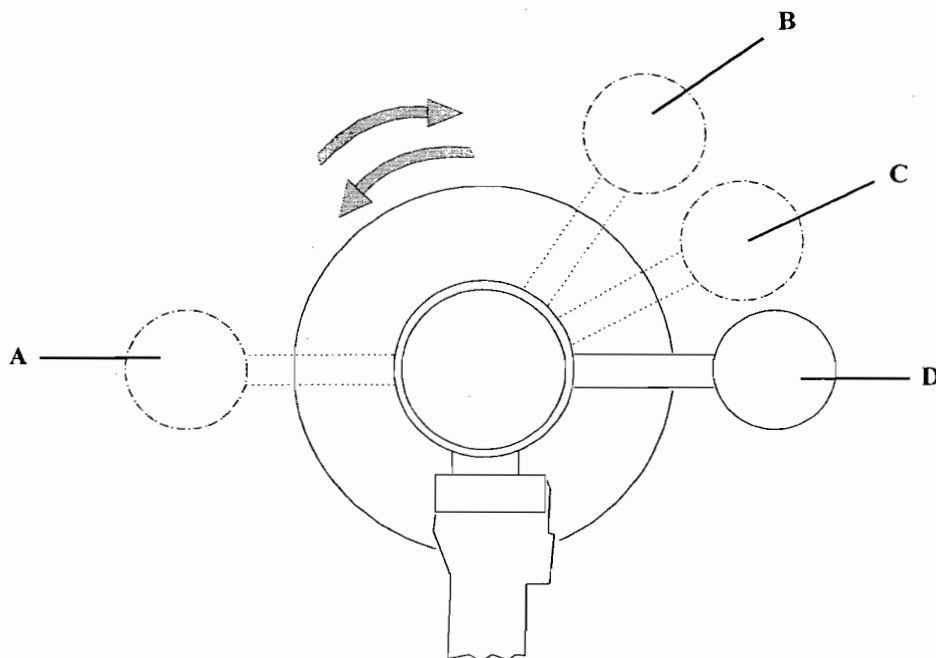
Position B - MINIMUM beating

Position C - MEDIUM beating

Position D - MAXIMUM beating

Closing

To close the dispensing spigot, move the handle all to the right, to its closing position.



Note :Pastomaster 30 Tronic are neot provided with the three beating positions, as the product is taken out by pressing the relevant distribution knob.



SAFETY DEVICES

SECTION INDEX

5.1	MACHINE SAFETY DEVICES	2
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5.1 MACHINE SAFETY DEVICES

The pastochef has been provided with a series o safety devices to protect both machine and the operators.

The tripping of each safety device comes up to an alarm on control unit display.

Please find herebelow the mentioned ALARMS:

AL 01 BLACK-OUT

A power failure has occurred. The machine is provided with an Electronic Memory which is active even during a possible power failure.

On power return, the Electronic Memory will only restart the function in progress, if temperature and time values can grant that the mix has not been altered during black-out, otherwise a new Pasteurization restarts and the operator receives a warning message (AL01-BLACK-OUT).

On power return, the temperature of the mix in tank is checked.

In the event the power failure during COOLING cycle extended for a longer time than the one relevant to the temperature ranges as reported in the table below, the machine will execute the cycle from the beginning and the monitor will display **AL01**.

By recipes requiring no heating process, the cycle will not be executed again but the machine will, instead, execute program Nr 2, LOW PASTEURIZATION.

Power failure table

<i>Temperature range</i>	<i>Time</i>
85 °C to 65 °C	1 hour
65 °C to 50 °C	30 minutes
50 °C to 15 °C	10 minutes
15 °C to 4 °C	20 minutes
4 °C raises up to 10 °C	2 hours

Press STOP/RESET to reset the alarm message on the monitor and restart the normal cycle.

AL 02 THERMAL RELAY TRIPPING

They take overheating of beater motor and compressor motor; reaching the maximum setting values brings about the machine stop: the machine sets to STOP, and the MONITOR displays **AL 02**.

To reset this alarm, press STOP/RESET.

AL 03 TRIPPING OF SAFETY PRESSURE SWITCH

It protects the cooling unit and stops the freezing compressor if there is now water inside the circuit itself (watercooled machines) or if air does not circulate inside the condenser (aircooled machines).

Reset is automatic.

Check water inlet and outlet pipes so that water can circulate unhindered, when the compressor runs. By aircooled machines; check that condenser fan runs when compressor is on, or that air condenser is not obstructed; in this case, clean it with a bolt of compressed air.

WARNING

Too a long running of compressor or its repeated stops and restarts mean that condensation is not sufficient; check where trouble originates.



AL 04 TRIPPING OF SAFETY THERMOSTAT

Reset is automatic.

AL 05 TANK COVER POS. 250 IS OPEN

Whenever one opens tank cover during the machine operation, the machine will immediately stop and will only restart after closing the tank cover (automatic reset after 2 seconds since alarm occurred).

AL 06 BAT LOW

Battery is down or disconnected. Apply to an engineer.

AL07 NO INPUT (24V) ON 16-PIN CONNECTOR

Check connection to the card; call technician, if need be.

CLEAN OUT, DISASSEMBLING AND REASSEMBLING OF PARTS IN CONTACT WITH PRODUCT

SECTION INDEX

6.1	PRELIMINARY CLEAN OUT	2
6.2	DISASSEMBLING OF SPIGOT PISTON	2
6.3	DISASSEMBLING OF TANK COVER	4
6.4	DISASSEMBLING OF BEATER	5
6.5	STERILIZATION	6
6.6	HYGIENE	6






IMPORTANT

Cleaning and sterilizing must be carried out at the end of every working day with utmost care in order to guarantee quality of production in the respect of all hygienic rules.




6.1 PRELIMINARY CLEAN OUT

With machine still and STOP  led on, make sure that spigot pos. 30 is closed; let then water enter according to the quantity necessary to wash , by pressing the button

WATER IN TANK.



Press BEATING  and leave a few minutes in this position.

Press "STOP"



Through the dispensing spigot, drain all water from the cylinder (see par. 4.7.1, sect. 4).

Disassemble all machine parts, now.

6.2 DISASSEMBLING OF SPIGOT PISTON

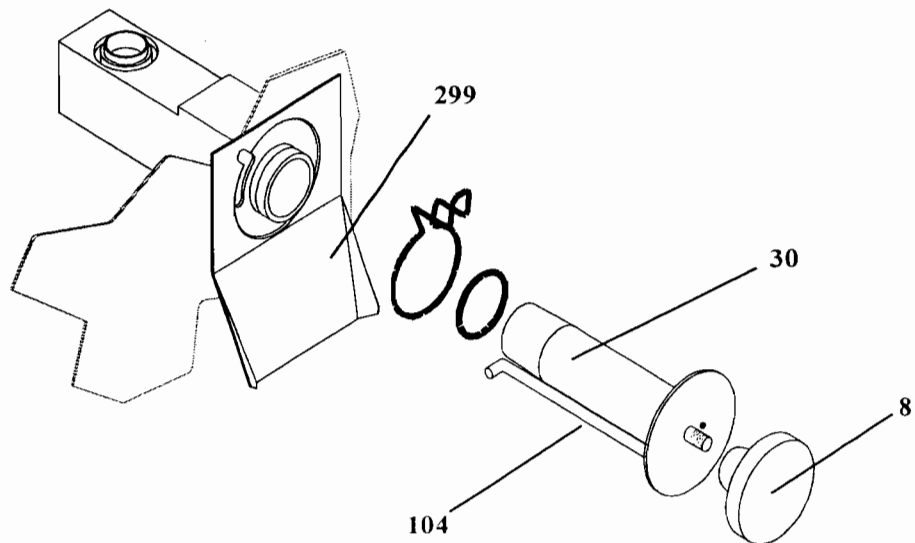
PASTOMASTER 30 TRONIC

To disassemble the spigot piston, turn the drip shoot pos. 299 anticlockwise up to lock, then withdraw the piston pos. 30 by pulling it to the outside.

Disassemble then all other spigot parts.

Thoroughly wash all parts in water using the special brush you will find in the accessories kit.

When reassembling the parts, do not forget to place the drip shoot back to its position by turning it clockwise up to lock.



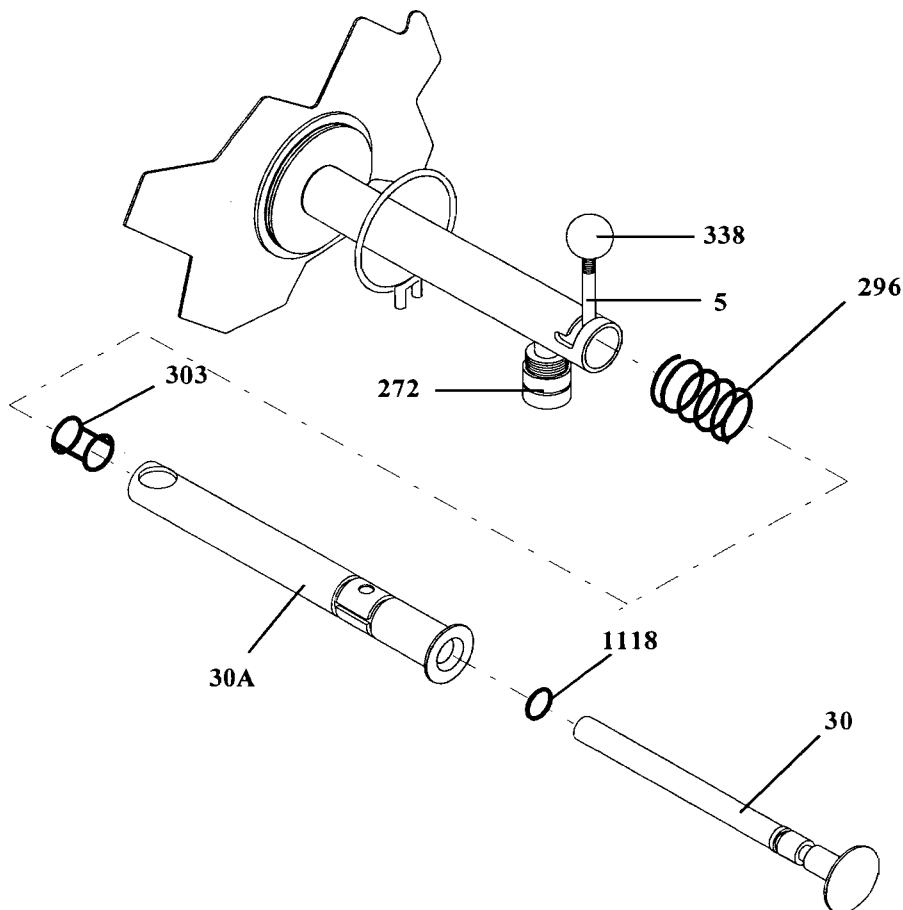
PASTOMASTER 60-120 TRONIC

In order to disassemble the spigot piston, unscrew the pin pos. 5 and remove the piston pos. 30 from its seat in the piston pipe pos. 30A.

Disassemble all other spigot parts, now, according to the indications in the picture below.

Thoroughly wash all parts in water using the special brush you will find in the accessories kit.

When reassembling the spigot piston, do not forget to lubricate gaskets pos. 303 and 1118 with edible fat.



6.3 DISASSEMBLING OF TANK COVER



Note: The machine is provided with a safety device on its cover; every time you lift the cover while the machine is running, the machine will stop.

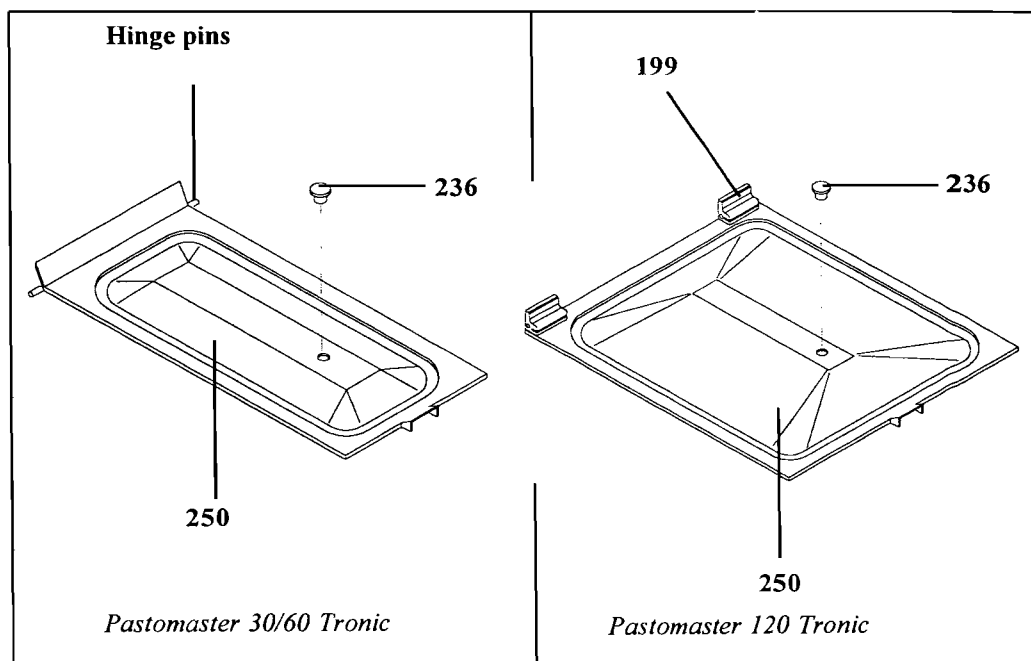
The tank cover pos. 250 is completely removable.

Place the cover vertically; deeply push on cover pos. 250 until a pin comes out.

Withdraw the cover by lifting it vertically and pushing forward on the fixed hinges.

NOTE: One can also remove just the cover by taking it out from fastening hinges which will remain fastened to the machine.

Wash the whole thoroughly and reassemble.



6.4 DISASSEMBLING OF BEATER

PASTOMASTER 30 TRONIC

Remove cover pos. 215A and beater pos. 162 by slightly pulling upwards and minding not to damage the blades.

WARNING

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

Disassemble all other beater parts.

Wash the beater parts and reassemble them following the reverse procedure.

PASTOMASTER 60/120 TRONIC

Turn the cover pos. 215A anticlockwise (opposite to the arrow), so that you can take it out.

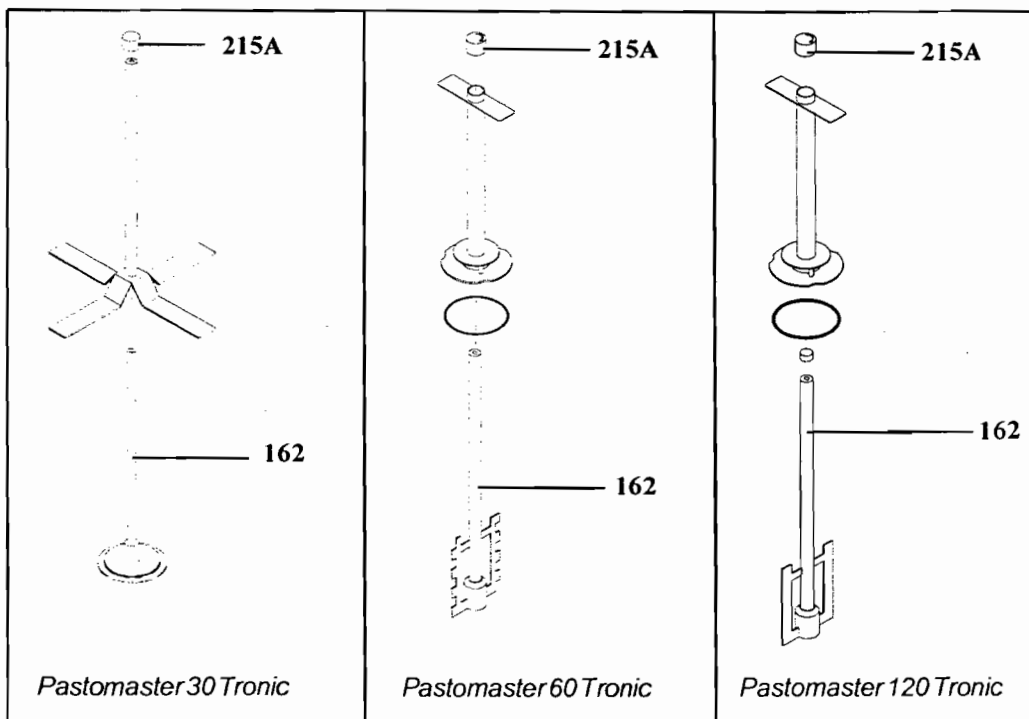
Remove the beater pos. 162 by slightly pulling it upwards.

WARNING

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

Wash all beater parts thoroughly, also perfectly clean its inside using the special brush you will find in the accessories kit.

Reassemble the beater, now, following the reverse procedure.





6.5 STERILIZATION

With machine off, after reassembling the beater and checking that spigot pos. 505 is closed, fill the tank with a NON CORROSIVE sterilizing solution.

Press the button BEATING



and let the beater run one minute.



WARNING

Too a long running in "BEATING" position with empty tank or just filled with water and sterilizing solution, brings about a quick wear of the beater .

Drain all sterilizing solution by opening the spigot pos. 268.



WARNING

Before starting again with production, rinse thoroughly with just water, in order to remove any residue of sterilizing solution.



ATTENTION

Do not touch the sterilized parts with hands, napkins, or else.

6.6 HYGIENE



Mix fat contents are ideal fields for proliferation of mildew and bacteria.

To eliminate them, parts in contact with mixes and creams must be thoroughly washed and cleaned.

Stainless steel materials as well as plastic and rubber ones used for the construction of these parts and their particular design make cleaning easy, but cannot prevent the growth of mildew and bacteria if not properly cleaned.

MAINTENANCE

SECTION INDEX

7.1	SERVICING TYPOLOGY	2
7.2	WATERCOOLING	3
7.3	AIRCOOLING	3
7.4	ORDERING SPARE PARTS	3
7.5	TABLE OF EQUIPMENT	4



7.1 SERVICING TYPOLOGY



ATTENTION

Any servicing operation requiring the opening of machine panels must be carried out with machine set to stop and disconnected from 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 of beater assembly**
At the end of a working day
- **Cleanout of panels**
To be carried out daily with neutral soap, seeing to it that no cleansing solution reaches the beater assembly at its inside.
- **Cleanout and sterilization**
At the end of every working day, according to procedures described in section 6.



WARNING

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

7.2 WATERCOOLING

By machines with watercooled condenser, water must be drained from condenser at the end of selling season in order to avoid troubles in the event that the machine is stored in rooms where temperature may fall under 0°C.

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

7.3 AIRCOOLING

Clean the air filter, periodically, in order to remove dust and impurities that may hinder air circulation to the condenser.

Use a brush with long bristles or a bolt of compressed air.

ATTENTION!

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



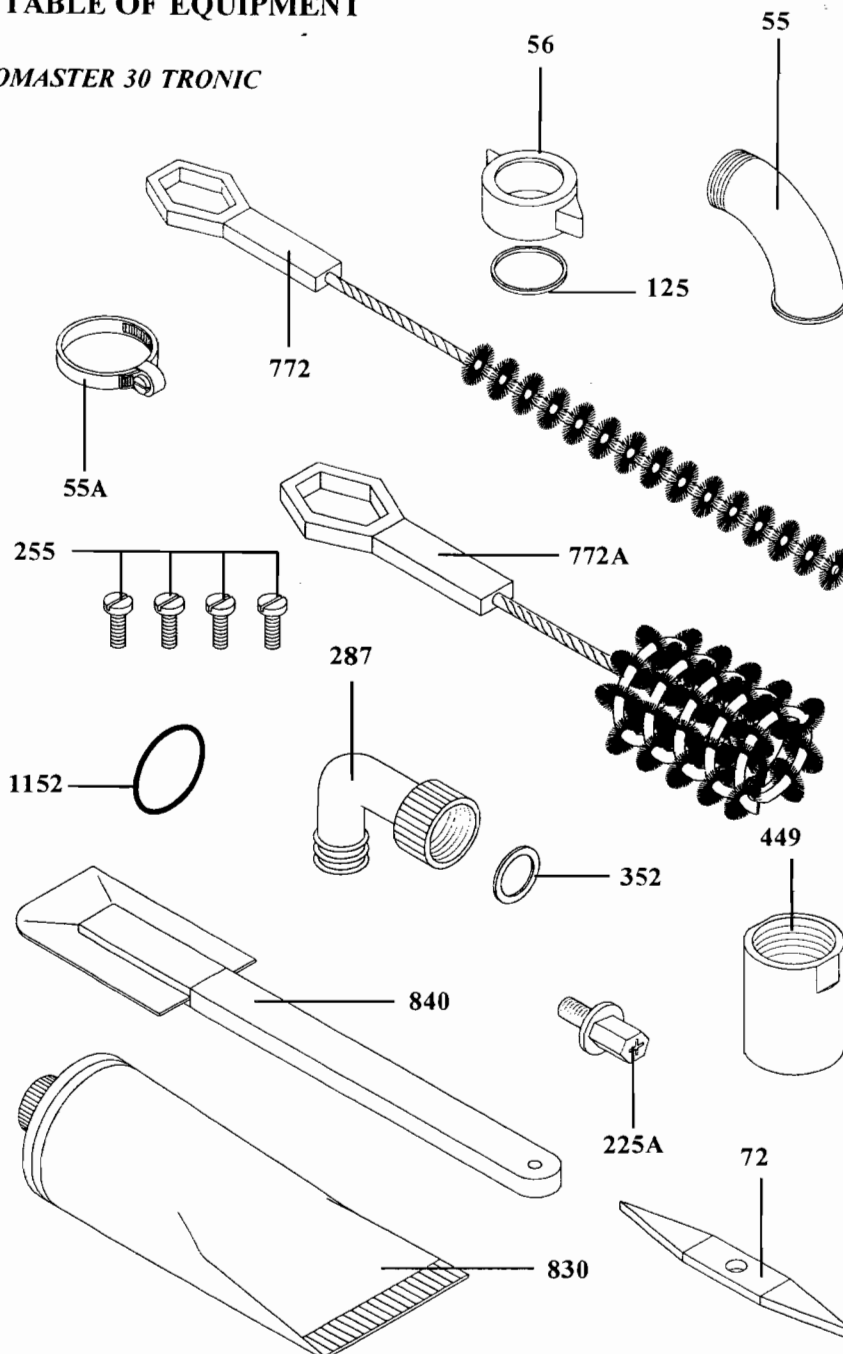
NEVER USE SHARP METAL OBJECTS TO CARRY OUT THIS OPERATION. GOOD WORKING OF A FREEZING PLANT MOSTLY DEPENDS ON CLEANING OF CONDENSER.

7.4 ORDERING SPARE PARTS

In the event of breaking or wear of one or more parts, request the new ones directly to a Carpigiani Engineer, always detailing machine type and serial number printed on data plate you will find on the rear of the machine.

7.5 TABLE OF EQUIPMENT

PASTOMASTER 30 TRONIC

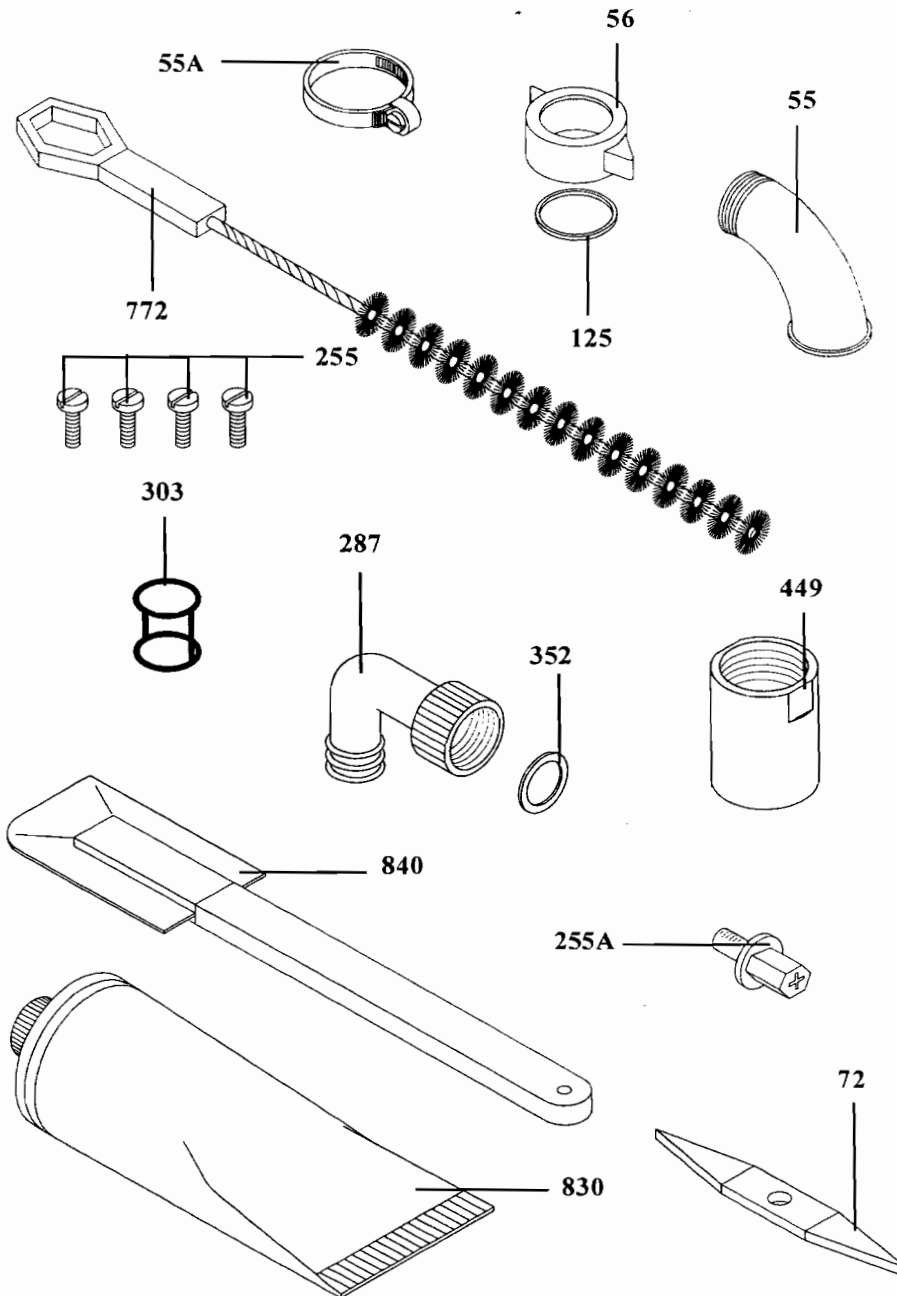


ACCESSORIES TO PASTOMASTER 30 TRONIC

Q.ty	Description	Position Nr
Nr 1	OR extractor	72
Nr 4	Screws	255
Nr 2	Rubber pipe fitting 3/4 x 20	287
Nr 5	Pipe fitting gasket	352
Nr 1	Swab D 30x640	772
Nr 1	Swab D 12x35x280	772A
Nr 1	Gelilube tube	830
Nr 1	Cleaning brush	840
Nr 2	OR	1152

Japanese version

Nr 1	Rubber pipe connection	55
Nr 1	Hose clamp	55A
Nr 1	Rubber pipe nut	56
Nr 1	Gasket	125
Nr 4	Screws	225A
Nr 2	Rubber pipe fitting 3/4 x 20	287
Nr 5	Pipe fitting gasket	352
Nr 1	Plug	449



ACCESSORIES TO PASTOMASTER 60/120 TRONIC

Q.ty	Description	Position Nr
Nr 1	OR extractor	72
Nr 4	Screws	255
Nr 3	OR	303
Nr 1	Swab D 30x640	772
Nr 1	Gelilube tube	830
Nr 1	Cleaning brush	840

Japanese version

Nr 1	Rubber pipe connection	55
Nr 1	Hose clamp	55A
Nr 1	Rubber pipe nut	56
Nr 1	Gasket	125
Nr 4	Screws	225A
Nr 2	Rubber pipe fitting 3/4 x 20	287
Nr 5	Pipe fitting gasket	352
Nr 1	Plug	449
Nr 1	Gelilube tube	830
Nr 1	Cleaning brush	840

TROUBLESHOOT GUIDE

SECTION INDEX

8.1	TROUBLESHOOT GUIDE	2
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8.1 TROUBLESHOOT GUIDE

TROUBLE	CAUSE	CURE
Machine does not start	The main switch is off	Turn it on
	Machine is unplugged	Check and plug in
Control unit does not accept a control	Control unit	Replace the control unit
		Call after-sale service
Product coming out from dispensing spigot	Gasket is strained, cut, etc.,	Check and replace through a new one
Inside noise	Gearmotor or compressor	Call after-sale service
Bacteria test shows too high level	Too many bacteria in the mix	Improve preparation procedure, by sterilizing all containers, spoons, etc.
	Machine not clean and sterilized enough	Empty and clean the the machine with care. Sterilize as per section 4.

