

08/2009

Mod:SPS/60A

Production code: COREMIX 60 AIR



Dear customer,

*we congratulate you for choosing a high quality product
which will surely satisfy your expectations.*

*With our thanks for choosing us,
we kindly invite you to examine the present operating
instructions manual before operating your new device.*

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WARNING:



**GENERAL/MECHANICAL
DANGER**



**DANGEROUS
VOLTAGE**



**DANGEROUS
TEMPERATURE**

A TEXT IN UPPER-CASE, IDENTIFIED BY ONE OF THE SYMBOLS ABOVE, CONTAINS INSTRUCTIONS THAT, IF NOT FOLLOWED, MAY CAUSE HARM TO PEOPLE.



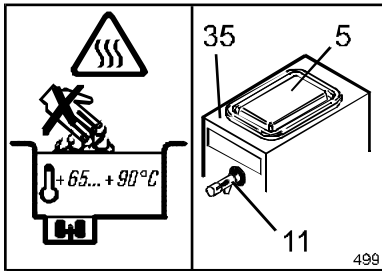
A text in lower-case, identified by this symbol, contains instructions that, if not followed, could cause damages or malfunctions to the device, or falls in its quality.

1 IMPORTANT SAFETY SUGGESTIONS AND PRECAUTIONS



CAREFULLY READ THE INSTRUCTIONS CONTAINED IN THE PRESENT OPERATING INSTRUCTIONS MANUAL BEFORE INSTALLING AND OPERATING THIS DEVICE. THESE INSTRUCTIONS HAVE BEEN DRAFTED FOR THE SAFETY OF INSTALLATION, OPERATION AND MAINTENANCE OF THIS DEVICE.

- The present manual of Operating Instructions, placed on the device in the packing and supplied with the Technical Handbook, the EC's conformity certification and the electrical tests schedule, is an essential part of the pasteurizer (also defined, in the present manual of operating instructions, simply with the term, device) and must be preserved for any future consultation.
- The technical handbook must always be given, together with the device, to the Assistance Service's personnel or to the technicians, to whom you will eventually request assistance.
- In case of selling or transferring to other user, all the above mentioned documentation must be handed to the new user, so that he can be informed of the operation and relative technical information and safety instructions.



RESIDUAL HAZARD: DURING PASTEURIZATION, THE PRODUCT BECOMES VERY HOT (+65...+90°C). SERIOUS HEALTH DAMAGE CAN BE CAUSED BY CONTACT WITH THE LID [5], THE TAP [11] AND THE DEVICE'S SURFACE [35] TOO. WHEN LID IS OPENED THE MACHINE STOPS, HOWEVER, THE MIXTURE REMAINS VERY HOT. PLEASE FOLLOW THESE RULES:

- Always check pasteurizing cycle is completed or the product's temperature, as shown on the display, is sufficiently low before opening the lid or the tap.
- Pay attention if an electrical power supply failure (or a blackout) occurs during a pasteurizing cycle, as the mixture's temperature inside the tub could be still very high and the device thermometer would not be able to display it.
- If in doubt whether the mixture's temperature is sufficiently low, do not open the lid or the tap, unless it is absolutely necessary. Should this occur, wear protective clothing (gloves, overalls, etc.), in order to avoid direct contact with the product.



DO NOT INTRODUCE YOUR FINGERS OR OBJECTS IN THE DEVICE'S LOOPHOLES.



DO NOT REMOVE OR HIDE, FOR ANY REASON, ANY LABEL APPLIED ON THE DEVICE.



NEVER OPEN THE PROTECTING PANELS. THE DEVICE DOES NOT CONTAIN, IN ITS INSIDE, PARTS WHICH CAN BE OPERATED BY THE USER.



THE USER MUST NOT EXECUTE OPERATIONS WHICH ARE NOT CLEARLY CONTAINED IN THE PRESENT USER'S MANUAL. ANY OPERATION WHICH REQUIRES TOOLS NOT GIVEN IN THE DEVICE'S EQUIPMENT IS TO BE CARRIED OUT ONLY BY THE ASSISTANCE SERVICE OR BY TECHNICALLY AUTHORISED PERSONNEL.

- Always unplug the device before undertaking any operation requiring access to the device's moving parts (i.e. the beater).
- Any modifying of the electrical supply must be exclusively performed by professionally qualified and certified personnel.
- Any use of the machine other than producing pasteurized mixture is considered improper.
- Do not connect and/or operate the device when any part is missing, except for specifically mentioned cases.
- The device has been made to be operated by adults, prohibit children to play with it.
- Modifying, or attempting to modify this device, can be dangerous and would void any type of warranty.
- Always use original spare parts.
- In the event of the use of the device being no longer required, deactivate the machine by severing the electric cable (after unplugging it from wall socket). In addition, follow these recommendations:
 - avoid dispersing the freezing gas and the oil contained in the device;
 - carry out the draining and/or recycling according to the local provisions of the law currently in force on this matter.

2 SAFETY DEVICES

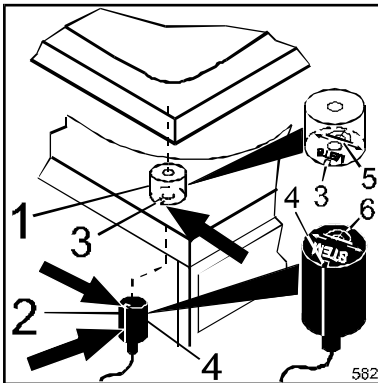


DO NOT ALTER THE SAFETY DEVICES AND DO NOT UTILIZE THE MACHINE IF THE SAFETY DEVICES ARE DAMAGED OR MALFUNCTIONING.



THE MANUFACTURER IS NOT RESPONSIBLE FOR POSSIBLE DAMAGES CAUSED TO PEOPLE OR OBJECTS BY THE ALTERING OR BYPASSING SUCH DEVICES OR RELATIVE CIRCUITS.

2.1 Lid's magnetic sensor



This safety device, featuring an approved type magnet [1] and a magnetic contact [2] avoids accidents caused by the accidental starting of the beater when the lid is open. In consequence the device can't operate when the lid is open, and if it is opened during its functioning the beater immediately stops.

In any case the lid's magnetic sensor **MUST NOT** be considered a control to be used for the normal stop of the device.

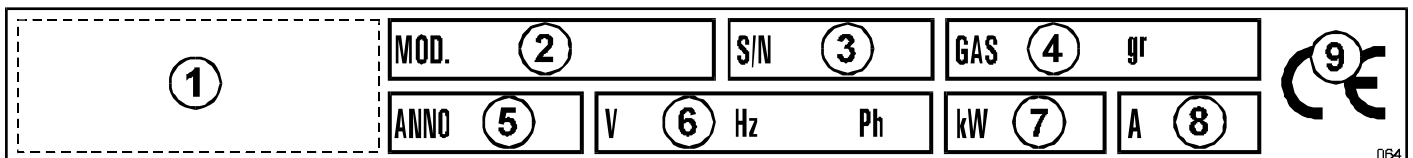


DURING THE NORMAL USE, THE DEVICE MUST BE STOPPED ONLY BY USING THE BUTTONS ON THE CONTROL KEYPAD, AND NOT BY OPENING THE LID.

The magnet [1] and the magnetic contact [2] must be assembled as follows: the grooves [3] and the stencilled semicircle [5] on the bottom of the magnet [1] must coincide with the grooves [4] (marked by a white line down the side) and the stencilled semicircle [6] on top of the magnetic contact [2]. **The device will not work unless all parts have been correctly assembled in accordance with these instructions.**

3 TECHNICAL DATA

3.1 Technical data plate and CE marking



The technical data plate and CE marking must not be removed. It is located on the back part of the device and identifies:

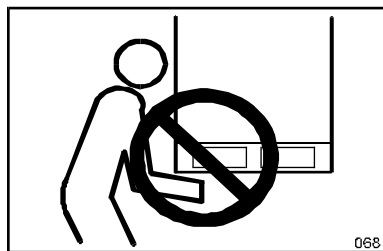
- the name and address of the manufacturer [1];
- the designation of the model [2] and the relative series number [3];
- the type and quantity of freezing gas contained [4];
- the year of construction [5];
- the values of voltage and frequency [6], and the power [7] and current [8] consumption;
- the CE marking [9].

3.2 Acoustic pressure level

The average equivalent continuous acoustic pressure level of this device is quoted in the Technical Handbook (Technical Data section). This data has been measured at 1 meter from the surface of the device and at 1.60 meters from ground-level, during the device's functioning.

4 CARRYING AND UNPACKING

Note: We suggest you to let the Assistance Service or qualified technicians carry out the transportation, unpacking and installation.



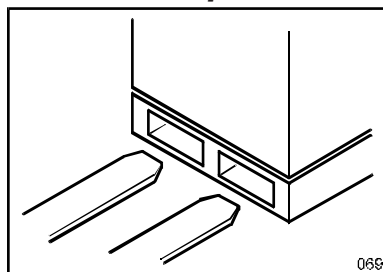
TO LIFT THE DEVICE ALWAYS USE AN ADEQUATE LIFTING DEVICE. ATTEMPTING TO LIFT IT MANUALLY IS DANGEROUS AND CAN DAMAGE YOUR HEALTH.

The device's weight specifications, both inclusive of packaging and net, can be found in both the supplied documents and on the packaging itself.



To prevent the oil contained in the compressor to flow into the refrigerating circuit, it is necessary to always keep the device in upright position, both during carrying and during the installation and operation. Always follow the instructions on the packing.

4.1 Transportation of the packed device

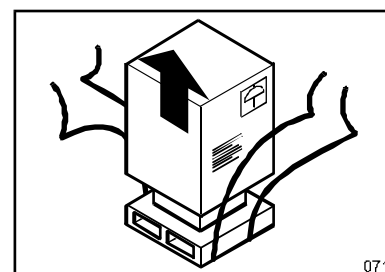
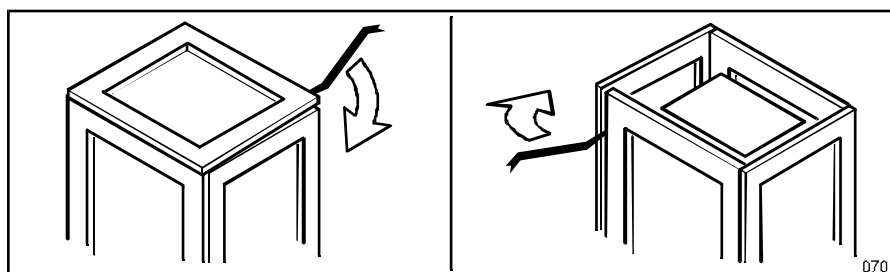


The packing has been projected to assure at the device the highest protection.

It is therefore suggested to transport the device while it is packed as near as possible at the place where it will be installed.

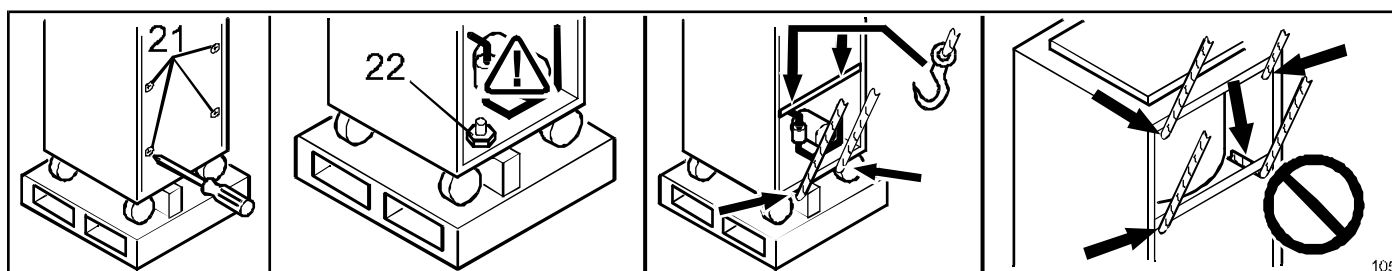
To carry the packed device, use an elevator, or a bench trolley, inserting its forks in the basement's holes.

4.2 Unpacking



- WOOD PACKING: unnailed the top panel, then separate the lateral panels.
- CARDBOARD PACKING; cut the strips and remove the cardboard from the top;

After having opened the packing, make sure the device isn't damaged. In case of doubt, do not use it, and call the Seller.



THE OPENING OF THE LATERAL PANEL IS ONLY ALLOWED TO THE ASSISTANCE SERVICE OR TO QUALIFIED TECHNICIANS AND MUST BE MADE BEFORE CONNECTING IT. MAKE SURE NOT TO DAMAGE THE INTERNAL PARTS OF THE DEVICE.

- Remove both the lateral panels unscrewing the relevant fixing screws [21];

- Find and unscrew the bolts [22] which fix the device's frame at the packing's basement;



The outlet of the supply cable is placed on the device's lower side. During the lifting make sure not to damage it.

- Lift the device from the basement, possibly working on the lower side, near the wheels, and however, only on the frame's carrying parts. Remove the basement, and lean the device on the floor avoiding bumps;



DO NOT insert objects, ropes or brackets for the lifting THROUGH the device, since these could damage the inside parts.

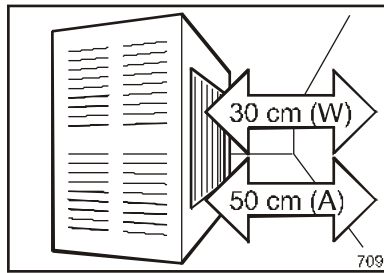
- Re-close the lateral panels;
- Replace or move the packing, which is produced with entirely recyclable materials (♻️).

5 INSTALLATION



THE INSTALLATION MUST BE CARRIED OUT ONLY BY THE ASSISTANCE SERVICE OR BY TECHNICALLY AUTHORISED PERSONNEL AND IN COMPLIANCE WITH THE LAWS IN FORCE, ALWAYS FOLLOWING INSTRUCTIONS OF THE MANUFACTURER.

5.1 Placing and check of the parts

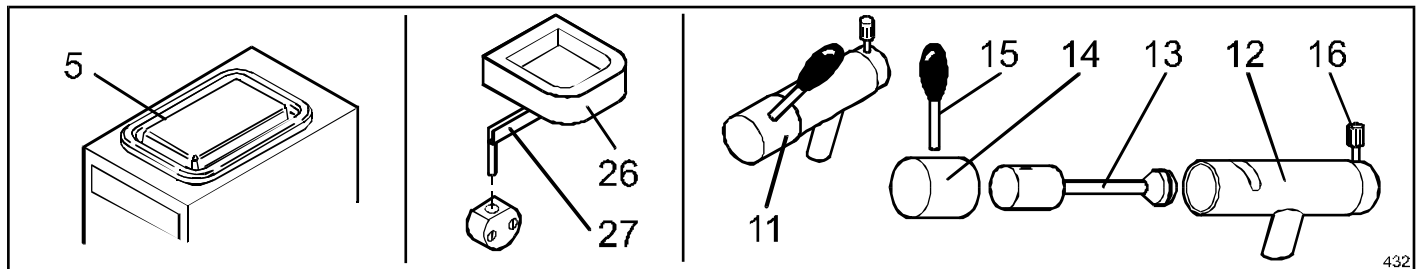


Place the device on the floor, on a flat and steady surface.

Install the device away from any source of heat, avoiding a direct exposition to sun radiation and making sure that air can freely circulate around each side of the device itself.



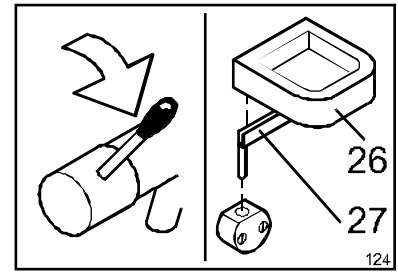
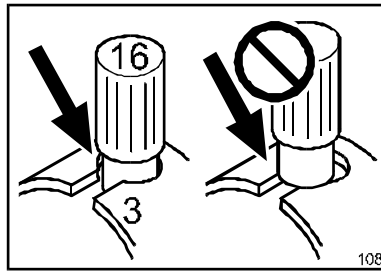
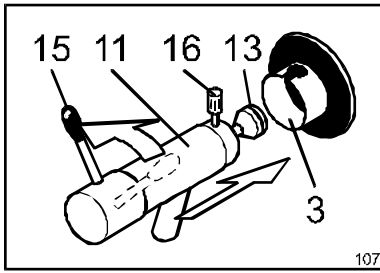
The devices with AIR CONDENSING need at least a 50 cm free space in front of the condenser's grill, to assure the refrigerating plant correct functioning. Further information are reported on the Technical Book (Technical Data section).



Check that all of the listed components are present (double quantities in the case of 2 tank-models):

- lid [5] attached to the machine;
- Drip tray [26] with bracket [27];
- Tap [11] including: inner body [12]; piston [13]; cover [14], lever [15]; fastening knob [16];
- all the **technical documentation** (in addition to this handbook): the Technical Handbook, the EC's Conformity Certification and Electrical Test's Schedule.

5.2 Device's parts reassembling



- Before inserting the tap, turn the lever [15] fully to the LEFT (OPEN position). Failing to do so might prevent the tap from fully inserting in the slot;
- Ease (do not fully unscrew it) knurled fastening knob [16];
- If necessary, lubricate the piston's end [13], inside the slot [3], and their gaskets, with food-compatible grease (i.e. vaseline);
- Fully insert [11] into the slot [3] and tighten fastening knob [16];



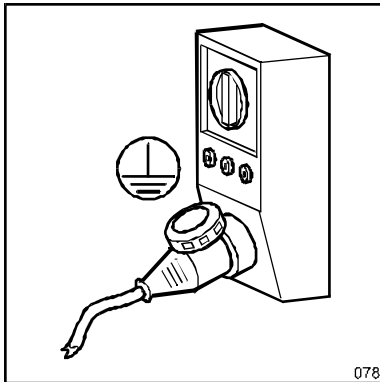
Check that the knob's head [16] is correctly and firmly fixed in the slot [3], as to avoid damage to the gaskets and subsequent leakages.

- Turn tap's lever fully to the RIGHT (CLOSED position). Check that there is no excessive strain on the part.
- Install drip tray [26] (with its bracket [27]) onto the front panel.

5.3 Electrical connection



THE SUPPLY'S VOLTAGE REQUIRED BY THE DEVICE IS HIGH, SO, IT IS PARTICULARLY DANGEROUS. THE WORKS ON THE SUPPLY'S ELECTRICAL CIRCUITS MUST BE MADE WORKMANLIKE BY QUALIFIED STAFF.



THE ELECTRICAL SAFETY OF THIS DEVICE IS REACHED ONLY WHEN THE SAME IS CORRECTLY CONNECTED, BY QUALIFIED AND CERTIFIED PERSONNEL, TO AN EFFICIENT EARTHING SYSTEM, MADE AS PROVIDED FOR IN FORCE SAFETY REGULATIONS.

The manufacturer must not be considered responsible for eventual damages caused by an inadequate electric plant or earthing.

All the device's electrical features required for the system's proportioning are reported on the Technical Data Plate and on the Technical Handbook.

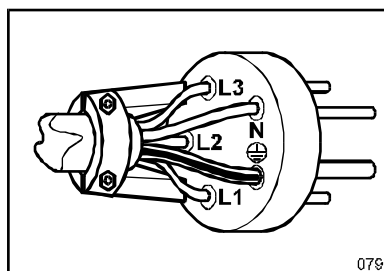


FOR THE PREPARATION OF THE ELECTRICAL PLANT WHICH SUPPLIES THE DEVICE, IT IS COMPULSORY TO FOLLOW THE PRESCRIPTIVE STANDARDS IN FORCE. IN PARTICULAR:

- The electrical capacity of the plant must exactly match the supply's voltage and frequency required by the device;
- the current capacity of the plant must be suitable for the device's input;
- the plant must end with an accepted 5 pole (400V-415V-3~), or 4 pole (200V-230V-3~), or 3 pole (220V-1~), electrical socket and with electrical and mechanical suitable characteristics. The electrical socket's poles must be marked with appropriate letters (phases R-S-T + neutral N + earth); the earth's pole must be recognizable;
- the electrical socket must prevent, through appropriate mechanical measures, the plug's wrong connection;
- the electrical socket must have, above or annexed, a breaker, conformed to the in force safety laws, with an associated gearing positioned near the device, in a place easily reachable by the operator. It must also be protected by fuses, above or annexed, with characteristics suited at the current absorbed by the device.



A WRONG CONNECTION ON THE EARTH TERMINAL MAY CAUSE SERIOUS DANGER.



A 5 pole (400V-415V-3~), or 4 pole (200V-220V-3~), or 3 pole (230V-1~) plug, suitable with the current socket, must be installed at the end of the device's power supply cable.

The device's power supply cable is composed by 5 or 4 or 3 coloured wires, and eventually marked with appropriate bands, which must be connected to the relevant plug's terminals, as shown in the following table.



A WRONG CONNECTION IN THE PLUG'S INSIDE MAY CAUSE SERIOUS DANGER. FOR THE CONNECTION, ONLY ADDRESS YOURSELVES TO QUALIFIED AND AUTHORIZED TECHNICIANS.

Kind of supply	Wire colour	Wire marking band	Code marked near plug's terminal
EARTH	GREEN/YELLOW	None	PE or
Phase R	BLACK		R or L1
Phase S	BROWN		S or L2
Phase T	BLACK		T or L3
NEUTRAL	BRIGHT or SKY BLUE		N



Before using the device it is necessary to:

- connect it to the water network (Ref. Par. 5.4);
- carry out the initial functioning check (Ref. Par. 5.5).

5.4 Connection to the water network

If your machine is provided with an AIR condenser, only water INLET pipe is necessary (for washing operations); in case the machine is provided with a WATER condenser, both INLET and OUTLET pipes are necessary.

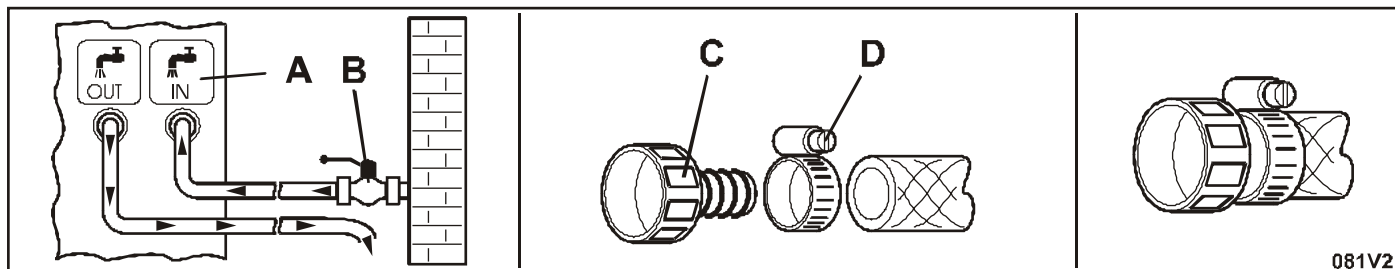


FOR THOSE MACHINES PROVIDED WITH A WATER CONDENSER: Do not let water from a TOWER in, unless they have been specifically designed to utilize water from a tower. Unless otherwise specified, the machine is designed to utilize water from a WELL.

Note: In the "Technical Data" section of the Technical Handbook you will find the necessary specifications regarding the water's correct temperature in order to operate the machine.



The use of below standard tubes and connections may cause water drops, with consequent inconvenience for Your laboratory and, if the drop is abundant with squirts, damage the device.



Use linen-rubber tubes for water connection, arranged for 15 Bar pressures, interposing a valve or a faucet [B] **ABOVE** the delivery pipe; use a 3/4" rubber holder [C], well fixed with a proper band [D] to connect the tubes at the device's union.

Note: Tubes for the water feeding of households are on the market (ex. dishwashers) which, in addition to being cheap, feature the requested characteristics and are predisposed with a rubber holder.

Pipe unions are placed on the machine's rear panel, they are labelled [A] and marked:

IN: fresh water **INLET**

OUT: waste water **OUTLET**

i Follow the following precautions to avoid damages at the device's water circuit:

- do not invert the connection of tubes;
- if water in the area presents a high quantity of spur, install a suitable decalcification or filtration device above the delivery pipe;
- if not otherwise mentioned in the Technical Handbook, the incoming water's pressure must be comprehended between 1.5 and 6 Bar (ideal pressure: 3 Bar). If the pressure in the device is higher, it is necessary to interpose a pressure limiting device, appropriately regulated, above the delivery pipe.



AVOID CONSTRICTION OR NARROW TURNS OF THE TUBES.

Note: The water outcoming the condensator, though being hot and not drinkable, is not polluted and can be reutilised.

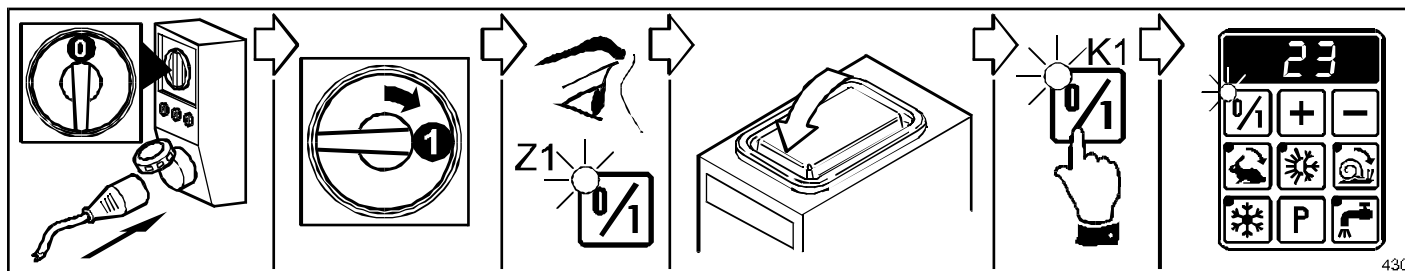


Before storing the device in rooms with a temperature lower to 0°C it is **INDISPENSABLE** to get rid of the water in the condensator (with WATER condensation) and in the inlet, outlet and washing pipes. Call the Assistance Service.

5.5 Initial functioning check

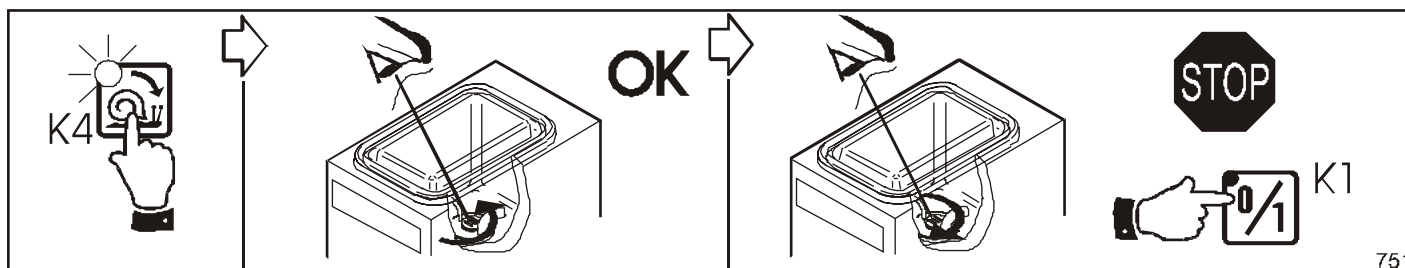


At the end of the installation, and before utilising the device, it is indispensable to let a qualified technician check the correct connection, by performing the following procedure.



- Before proceeding, check that the socket's Main switch is in position "0";
- insert the plug and turn the Main switch to position "1": only the green lights of the START button [Z1] should light up on the control panel;
- close the lid and press the START button [K1]. The machine prepares to operate and tank temperature appears on the display;

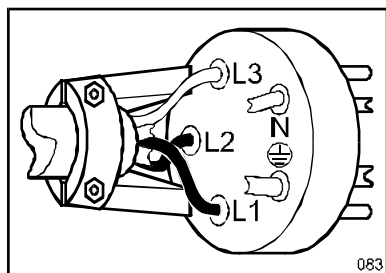
Note: if "o o o" (three small squares) appears on the display, it means that the rotor lid has not been assembled correctly. The machine will not work in these conditions.



- press the SLOW BEATING ACTION button [K4] and observe BEATER rotation. If it is ANTICLOCKWISE (as shown in the drawing) the machine is connected correctly and is ready for use;

Note: do not unnecessarily start pasteurization cycle or refrigerator.

- if rotation is in a **CLOCKWISE** direction, three-phase connection voltage is wrong and must be modified as follows:



- Turn off the device by pressing ON/OFF [K1];



TURN THE SOCKET'S MAIN SWITCH TO POSITION "0" AND PULL OUT THE PLUG;

- Open the plug's shell and invert TWO of the THREE conductors connected at the phases (R-S, R-T or S-T);
- Close the plug's shell, plug in the device and repeat the check.

6 DEVICE'S OPERATION

6.1 Warnings



WHEN USING THE DEVICE, AS WITH ALL ELECTRICAL APPARATUS, ESSENTIAL RULES MUST BE COMPLIED WITH, PARTICULARLY:

- never touch it if your feet or hands are wet;
- never operate it while barefoot;
- never pull the supply cable to disconnect it from the mains network;
- avoid liquids to penetrate in the device, for example during its cleaning;
- forbid children and unable people to operate it.

In case of failure and/or malfunctioning of the device - and every time you notice damages, mainly at the supply cable or at the safety devices - switch it off from the main breaker and unplug it. Contact qualified and certified personnel for assistance.



NEVER operate the machine in DRY conditions or with an amount of mixture other than the one recommended.

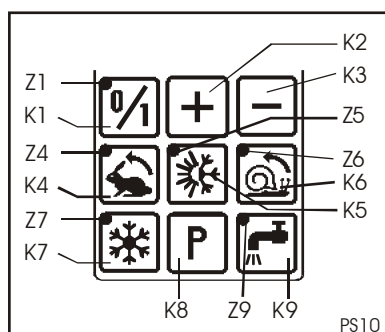


The beater is designed to shift liquids, NOT to grind solids.



NOT RESPECTING THESE RULES, IN ADDITION TO VOIDING ANY FORM OF WARRANTY, CAN SERIOUSLY COMPROMISE THE SAFETY, PERFORMANCES AND FUNCTIONING OF THE SAME DEVICE.

6.2 Controls and indicators



All controls and indicators for the use of the device are grouped in a single control panel placed on the frontal panel. Its functioning is electronically managed in low voltage.

In this manual, the buttons and indicators are identified with the relative symbol, and/or with an imprint ([K...] for pushbuttons, [Z...] for indicators).

The functioning of every control is described hereby: to obtain the best results, an acknowledgment is suggested.



ON/OFF Pushbutton [K1]

When the electric supply is connected, the machine is ready to be turned on, the green indicator [Z1] is on. When pressing [K1], the machine is on, a short electronic test is performed and the other pushbuttons are enabled. The display shows the temperature inside the tub, in °C.



ADJUSTMENT Pushbuttons [K2] - [K3]

These pushbuttons are enabled only after pressing SET UP [K8]. They increase or decrease set values. For more details on their use, see Par. 6.3 "Setting Up".



FAST BEATING button [K4]

On pressing the button, the relative [Z4] light comes on and the beater works CONTINUOUSLY AT HIGH SPEED. This command can also be inserted during the pasteurisation and ageing cycle. When the button is pressed again, the beater stops and the light goes off.



PASTEURIZATION Pushbutton [K5]

On pressing the button a complete and automatic Pasteurisation cycle is set in motion. Once finished, the machine goes into Ageing mode. For further details see Par. 6.3 - Pasteurisation cycle.

The [Z5] light remains on until the command has been removed.



SLOW BEATING button [K6]

On pressing the button, the relative light [Z6] comes on and the beater operates CONTINUOUSLY AT LOW SPEED. This command can also be inserted during the pasteurisation and ageing cycle. When the button is pressed again, the beater stops and the light goes off.



MANUAL REFRIGERATION/PRESERVATION Pushbutton [K7]

When the pushbutton's indicator [Z7] is on, the machine is in preservation mode: the mixture inside the tub is maintained at a temperature of approximately 4°C (or the final preset temperature). The beater, starting at the same time as the refrigerator, shifts the mixture to maintain it homogenous and to maintain the temperature uniform.

To manually activate (light on) or deactivate (light off) the Ageing mode, or to interrupt the heating phase during the pasteurisation cycle and start the cooling process, simply press the button.



SET UP Pushbutton [K8]

The main pasteurisation and ageing cycle values can be viewed on the display by pressing this button. They can be adjusted (where necessary) by pressing [K2] and [K3]. For further instructions see Par. 6.3 and 6.4 Ð Programming



WASH Pushbutton [K9]

When pressing, the automatic washing of the tap commences. See also Par. 6.5 "Washing the tap".



Digital Display

When turning on and during regular functioning, the display always shows the temperature inside the tub (together with that of the mixture inside);

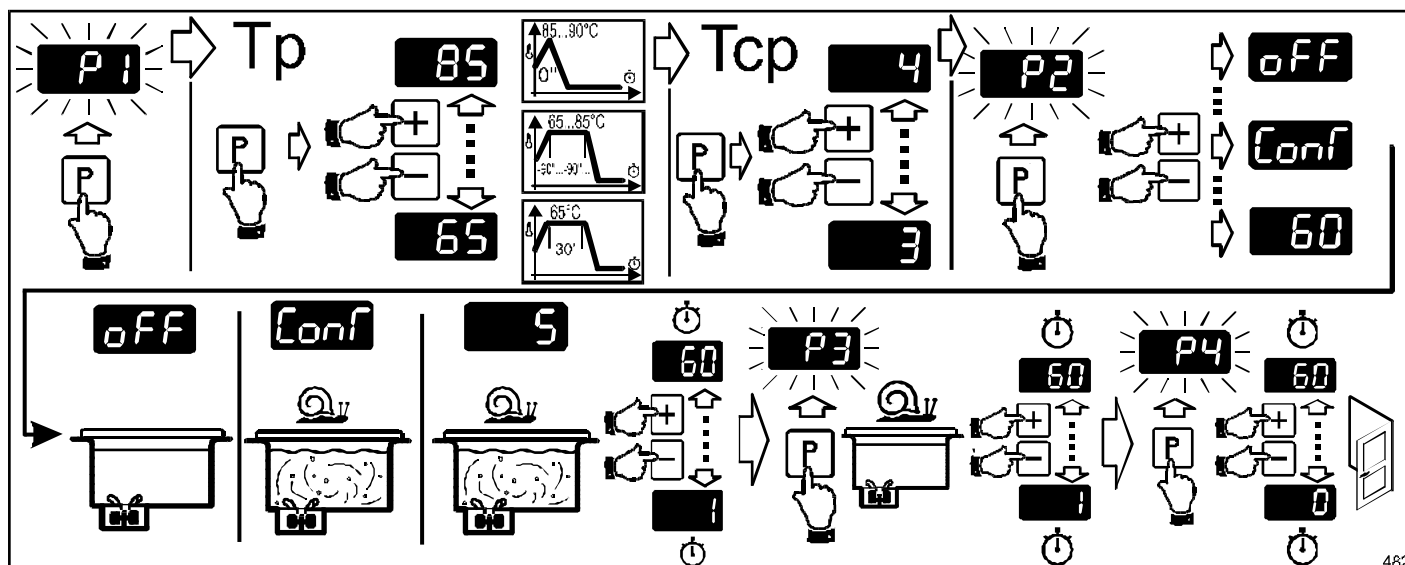
- During setting up, the display shows current settings;
- If "o o o" (three small squares) appear, the lid is open or is not correctly closed, or else beater motor protection has been activated.

6.3 Programming the pasteurisation cycle



The machine was programmed during testing phase using the advised values (85°C for pasteurisation, 4°C for ageing). These can be adjusted according to one's own requirements.

Note: Programme the cycle before beginning production



- Press the START button [K1] and once the machine is working press the PROGRAMMING button [K8]. "P1" will flash on the display, indicating that you have entered Programming mode and that the temperatures for the automatic Pasteurisation cycle can be set;

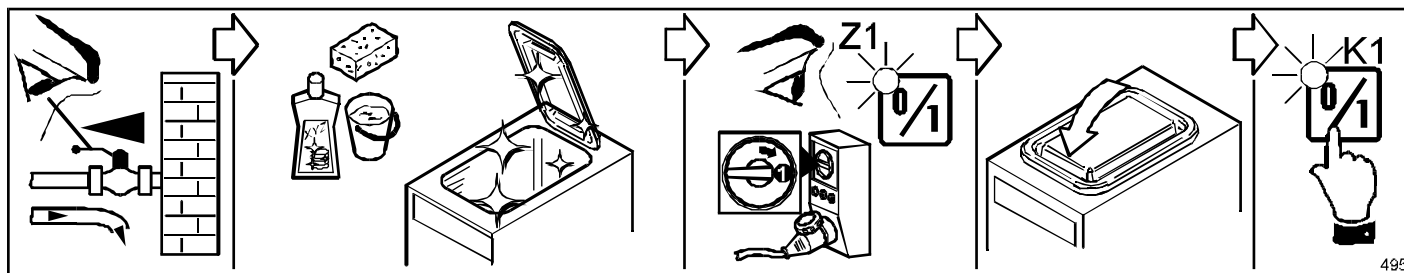
Note: If more that 10 second pass without any buttons being pressed the new settings are automatically memorised and the machine exits Programming mode.

- once again press the PROGRAMMING button [K8]. The advised (85°C) high pasteurisation temperature [Tp] will appear on the display. Where necessary, temperature can be adjusted according to the mix to be pasteurised by pressing [K2] or [K3]. The adjustment field is +65... + 90°C;

Note: The idle period preceding the onset of the cooling process (which completes pasteurisation) is set automatically according to the chosen temperature (30' for +65°C, from 65°C to +85°C subtract 90" for each extra degree, from +85°C to +90°C the time is 0).

- once again press the PROGRAMMING button [K8]. The ageing temperature (Tcp) appears on the display. It can be adjusted where necessary by pressing [K2] or [K3]. The advised temperature (set in the factory) is +4°C. The adjustment field is +1°C... +6°C;
- once again press the PROGRAMMING button [K8]. "P2" will flash on the display, indicating that you have entered the SLOW BEATING FUNCTION of the ageing cycle.
- once again press the PROGRAMMING button [K8]. One of the three options available with the adjustment buttons [K2] or [K3] will appear on the display. The OFF option excludes slow beating; the CONT option allows slow and continuous beating; the numerical option allows slow beating for a determined amount of time (expressed in minutes). The adjustment field is 1...60'. The advised beating time (set in the factory) is 5 minutes. To confirm an option press [K8].
- if the option chosen is the numerical one, press the PROGRAMMING button [K8] once again. "P3" will flash on the display, indicating that you have entered SLOW BEATING IDLE mode.
- once again press the PROGRAMMING button [K8]. Slow beating stopping time (expressed in minutes) will appear on the display. The advised idle time (set in the factory) is 15 minutes. To confirm an option press [K8]. The adjustment field is 1...60'.
- once again press the PROGRAMMING button [K8]. "P4" will flash on the display, indicating the programming of the additional time to the term of the phase of heating, to press the PROGRAMMING button [K8] again, in order to set up the time in minutes, the adjustment field is 1...60 minutes.
- to memorise pre-set data and to exit Programming mode press [K8]. Alternatively, simply wait a few seconds.

6.4 Production

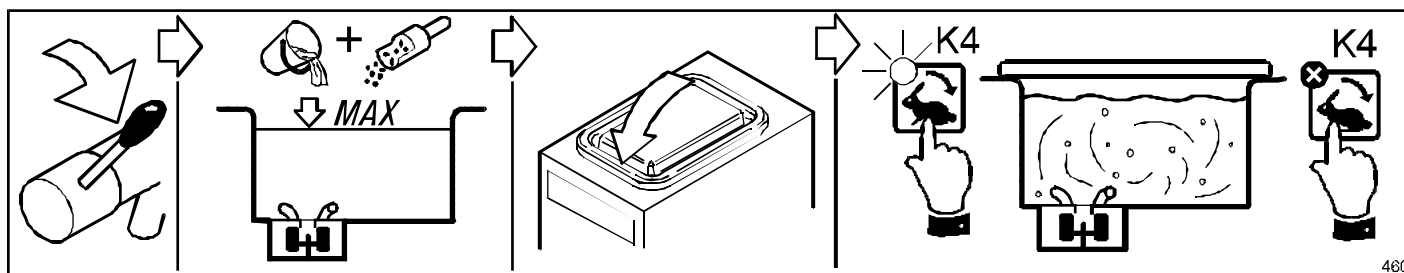


Check that the condensation water's faucet is open;

- Before beginning the production, wash, rinse and proceed at the hygienisation with a detergent and disinfecting solution (see section 7 - WASHING).

Note: If you plan to have more than one consecutive production cycles, you can avoid the washing between a cycle and the other, making sure you begin with the clearer mixtures.

- check that the START light [Z1] is on. If not, check that the plug has been inserted properly and that the Main switch is in position "1";
- **check that the lid is closed, otherwise the device will not operate;**
- press ON/OFF [K1].

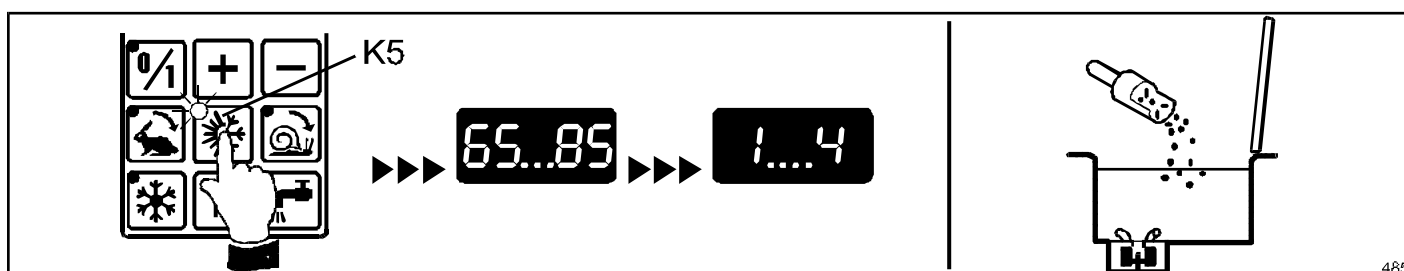


- check that the mix extraction tap is well turned off (turned completely towards the right) and transfer the mix to be pasteurised into the tank. MAXIMUM tank capacity is 60 litres (120 litres for mod.120), recommended MINIMUM quantities are generally:
- **1/2** of maximum capacity during **pasteurization**;
- **1/4** of maximum capacity during **preservation**.

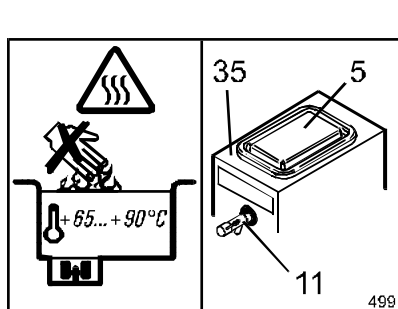


Too little mixture can cause excessive overheating or the development of ice and cause damage or irregular squirts and foam during production; too much mixture can slow down or not complete the process of pasteurization and cause overspills.

- add ingredients to be pasteurized with the mixture;
- close lid; if you require to pre-blend the ingredients, operate whipper by pressing FAST BEATING[K4], when ready, press it again, to stop whipper;



- having programmed (see par 6.3. PROGRAMMING THE PASTEURISATION CYCLE), press the PASTEURISATION button [K5];



RESIDUAL HAZARD: DURING PASTEURIZATION, THE PRODUCT BECOMES VERY HOT (+65...+90°C). SERIOUS HEALTH DAMAGE CAN BE CAUSED BY CONTACT WITH THE LID [5], THE TAP [11] AND THE DEVICE'S SURFACE [35] TOO. WHEN LID IS OPENED THE MACHINE STOPS, HOWEVER, THE MIXTURE REMAINS VERY HOT.

IT IS THEREFORE RECOMMENDED THAT YOU ALWAYS CHECK THAT PASTEURIZATION CYCLE IS COMPLETED OR, IN ANY CASE, THAT DISPLAY SHOWS A SUFFICIENTLY LOW TEMPERATURE BEFORE OPENING LID OR TAP.

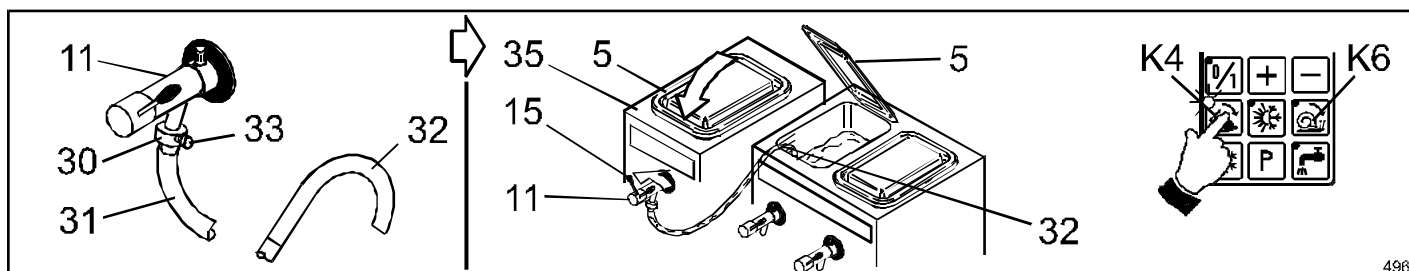
Note: The total cycle lasts approximately 90...100 minutes (120...130 minutes for mod.120) and varies according to the mixture quantity, type and thickness. In the case of two-tub machines, when both tubs are operating, the cycle lasts 135...150 minutes.

- wait until the process is finished. This is signalled on the display by the low Ageing temperature [Tcp].

Note: Once the lid is correctly closed and the light [Z5] of the [K5] PASTEURISATION/AGEING button is on, the machine itself sees to the ageing of the mix at pre-set temperature [Tcp].

In case ingredients need adding to the mixture:

- open the lid;
- add the ingredients and close the lid;

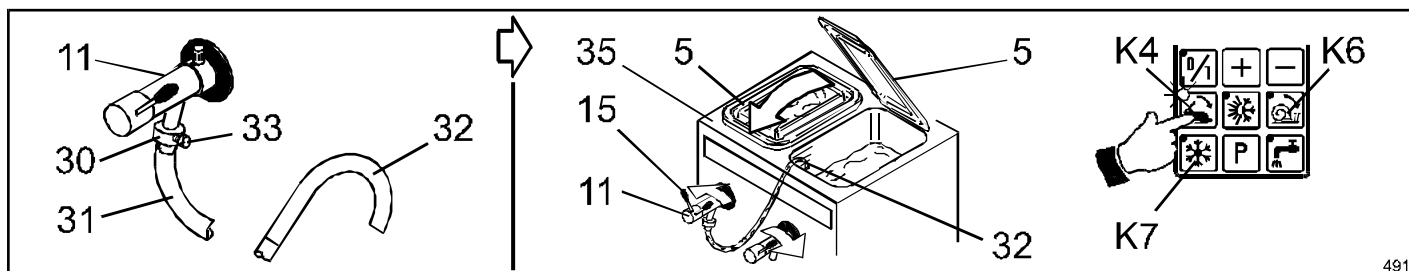


RESIDUAL HAZARD: DURING PASTEURIZATION, THE PRODUCT BECOMES VERY HOT (+65...+90°C). SERIOUS HEALTH DAMAGE CAN BE CAUSED BY CONTACT WITH THE LID [5], THE TAP [11] AND THE DEVICE'S SURFACE [35] TOO.

When the heating cycle or the pasteurisation cycle is finished, it is possible to transfer the mix into the tank of another device (for example an AGEING VAT or COOLING VAT), by using an appropriate pail or the enclosed transferring kit and by observing the following instructions:

- insert the hose connection [30] with relative tube [31] complete with terminal [32] to the extraction tap [11] of the tank, making sure to turn the knob [33] well;
- open the lid [5] of the eventual device and attach the terminal [32] to the FRONT side of the tank (as shown in the drawing);
- close the lid [5], turn on the left tap [15] and press the slow beating [K6] or fast beating [K4] button;

2 TANK-MODELS:

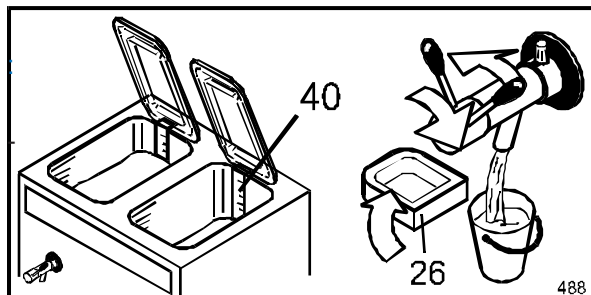


- insert the hose connection [30] with relative tube [31] complete with terminal [32] to the extraction tap [11] of the left tank, making sure to turn the knob [33] well;
- open the lid [5] of the right tank and attach the terminal [32] to the FRONT side of the tank (as shown in the diagram);

- close the lid [5] of the left tank, turn on the left tap [15] and press the slow beating [K6] or fast beating [K4] button;

At the end of the transferring operation:

- remove the terminal [32] from the FRONT side of the tank, close the lid [5] and press the ageing button [K7] of the right tank;



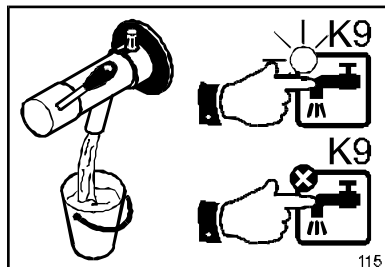
The mix is extracted as follows:

- turn drip tray [26] sideways and place suitable container beneath the tap;
- extract the required quantity of mix by turning the extraction tap leftwards. Quantities can be measured using the stick supplied [40]. Turn off the tap and place the drip tray under it;



In case all of the mixture is extracted, turn machine off.

6.5 Partial tap washing



Immediately following an extraction of mix (however small), all trace of the mix must be removed from the inside of the tap. This is so as to avoid the proliferation of bacteria and their transferral to the product during a later extraction.

Note: partial washing is carried out with the tap off.

Place a container under the extraction tap and press the WASH button [K9]. Allow the water to run until it is clear. Then stop the process by pressing the WASH button [K9] again.

7 WASHING



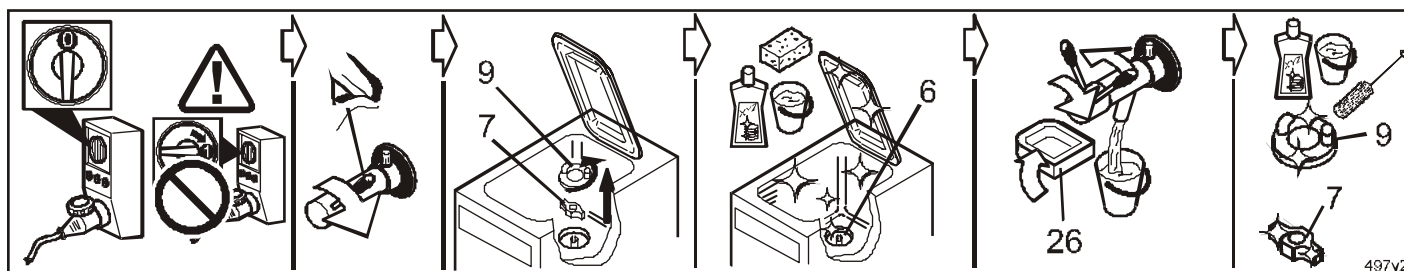
THE FATS CONTAINED IN THE ICE-CREAM MIXTURES ARE IDEAL FOR THE GROWTH OF BACTERIA, WE RECOMMEND TO WASH AND CLEAN WITH THE MAXIMUM CARE EVERY PART IN CONTACT WITH PRODUCT, WHEN THE USE OF THE DEVICE IS SUSPENDED.

In accordance with present hygiene norms, all parts of the machine which come into contact with the product must be accurately washed. During washing, all removable components must be disassembled and washed separately.

Note: Additionally to the operations mentioned in this Chapter, it is recommended to clean machine's outer panels and all of its outside parts, taking particular care to clean drip tray [26] and its bracket [27], after removing them from the front panel.

For a long life of the device we suggest not to use too hot water, solvents, abrasive detergents, or rough sponges, in particular on the plastic parts.

7.1 Washing the tank accurately



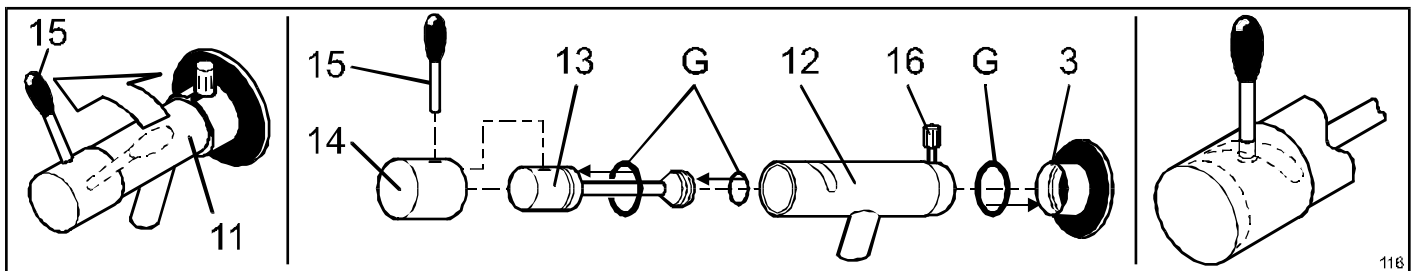
WASHING MUST BE CARRIED OUT ONLY WHEN THE MAIN SWITCH IS IN POSITION "O". DO NOT ALLOW WATER OR OTHER LIQUIDS TO PENETRATE THE MACHINE OR ITS MOTORS.

If the machine remains unused (even for a few hours) after production has been completed, all traces of mix must be removed from the surfaces.

- Check that the mix extraction tap is closed;
- remove the beater cover [9] and the beater [7] by turning them leftwards;
- open the lid, pour lukewarm water and non-abrasive detergent/disinfectant into the tank. Detergent/disinfectant **MUST BE SAFE TO USE NEAR FOOD**;
- wash all tank surface, lid [5] and beater seat [6] using a sponge or appropriate brush
- to empty the tank place a container under the extraction tap and turn the tap on;
- rinse by repeating the operation with fresh water;
- prepare a solution of lukewarm water and non-abrasive detergent/disinfectant. Detergent/disinfectant **MUST BE SAFE TO USE NEAR FOOD**;
- using an appropriate implement or the swab provided, carefully wash the beater [7] and the cover [9];
- then rinse the components using fresh water.

7.2 Complete and accurate tap washing

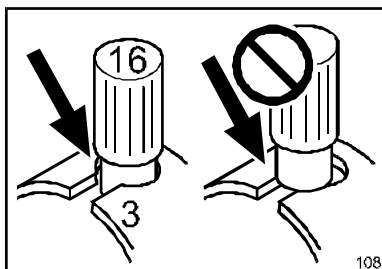
Note: To simplify maintenance, all of the tap's components can be dismantled by the operator, quickly and effortlessly, without the aid of any tool.



- Turn lever [15] to the LEFT to open tap;
- ease knurled fastening knob [16] and remove tap from slot [3];
- remove lever [15] and remove cover [14];
- remove piston [13] from tap's inner body [12];
- remove gaskets [G] (see Par. 8.1);

Wash all the parts carefully using lukewarm water and non-abrasive detergent/disinfectant. Detergent/disinfectant **MUST BE SAFE TO USE NEAR FOOD**. Then rinse with fresh water. Reassemble the tap as follows:

- lubricate gaskets [G] on piston [13] and inside the slot [3] with food-compatible grease;
- reinstall gaskets [G] in their seatings (see Par. 8.1);
- insert piston [13] in the inner body [12] so that the piston's threaded hole is in line with the inner body's diagonal aperture;



- insert cover [14] onto inner body [12] and screw lever [15], through the cover's hole, into the piston's [13] threaded hole;
- put the tap in OPEN position by turning lever completely to the LEFT (or else tap would not fit);
- fully insert tap [11] into the slot [3] and tighten fastening knob [16]. Check that the knob's head [16] is correctly and firmly fixed in the slot [3].

Note: The gaskets must be periodically replaced (ref. Par. 8.1).

8 MAINTENANCE

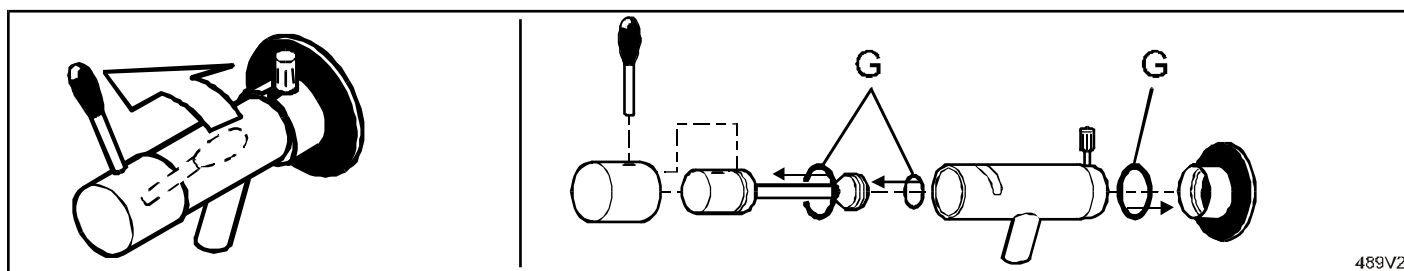
The device requires a very limited maintenance. Periodically, we suggest to:

- check the good state of the parts of the device. The disassembly, for example during the accurate washing, is an ideal opportunity for a similar check (ref. Par. 8.1);
- check that electric power cable, pipe fittings (rubber holder) and water pipes are not damaged;
- Try the efficiency of the safety disposals (ref. Par. 8.2).

It is then useful to maintain the external panels clean and the surrounding area. Dust, paper fragments or other small objects may penetrate in the device through the ventilation loopholes (in particular if equipped with air condensation and rapidly compromise its correct functioning.

The inside parts, to which the user **MUST NOT** accede, must be checked by the Assistance Service (ref. Par. 8.3)

8.1 Maintenance during the components disassembling



Occasionally check the washers [G] shown in the drawing. Replace them if broken, worn or dilated (in the latter case washers tend to come out of their sockets).

Use exclusively original gaskets realised with food rubber. The spare bag contains a complete series of gaskets approved by the manufacturer.

A replacement of all gaskets once every year is suggested. We suggest you to always keep a spare supply: to order it, reference to the Spares Section contained in the Technical Handbook.



To correctly replace the gaskets it is necessary to:

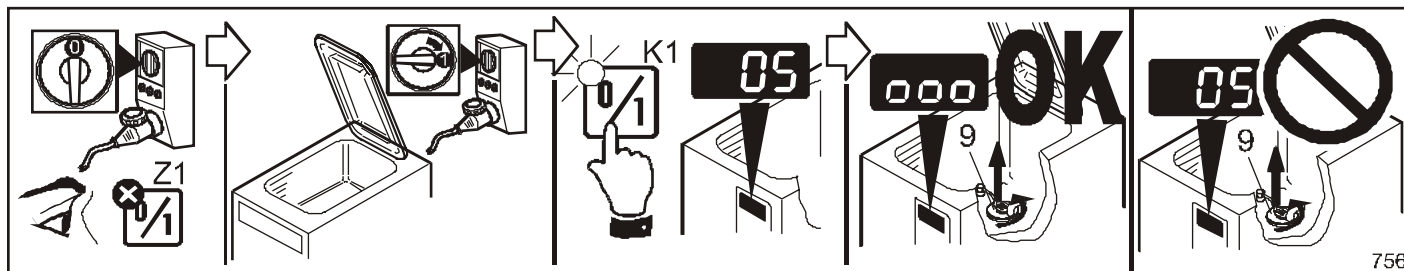
- remove old gaskets with an appropriate tool, possibly non-metallic, paying attention not to damage them or their seatings;
- lubricate new gaskets with food-compatible grease before replacing.

8.2 Check of safety devices



ONLY SKILLED AND QUALIFIED TECHNICAL STAFF IS ALLOWED TO EFFECTUATE THE CONTROL OF THE SAFETY DEVICES

Periodically, check the efficiency of all the safety devices, carrying out the following check:



- turn off the machine by pressing the START button [K1]. Turn the Main switch to position "0". If the Main switch functions properly, the START command light [Z1] will turn itself off;
- close the lid and turn the main switch to position "1";

- press the START button [K1] and subsequently the START button [K1] (the button green light must be on and the temperature must appear on the display). Remove the rotor lid [9] by turning it left. If the magnet works correctly, 3 small squares will appear on the display, in case the magnet did not work the temperature will remain displayed.



THE MACHINE MUST NOT BE USED IF ONE OR MORE OF THE SAFETY DEVICES SHOULD RESULT DAMAGED OR MALFUNCTIONING!

8.3 Yearly maintenance

Periodically (basing yourself on the environmental conditions in which the device operates) and in any case once every year, make sure to have a general checkup.



THE CHECK-UP MUST BE MADE BY THE AUTHORISED ASSISTANCE SERVICE, OR, IN ANY CASE, BY TECHNICALLY AUTHORISED PERSONNEL WITH ADEQUATE TOOL. THE MAINTENANCE OPERATIONS RESERVED TO THE SERVICE ASSISTANCE CAN BE DANGEROUS IF CARRIED OUT BY NON-PROFESSIONALS, THEREFORE, FOR HIS OWN SAFETY, THE USER MUST NEVER CARRY THEM OUT.

9 PERIODS OF INACTIVITY

If long periods of inactivity are foreseen, proceed as follows:

- ensure that the Main switch is in position "0";
- pull out the plug.
- wash up completely the device (see Chapter 7);
- close the water faucet and relieve pressure from inside the delivery pipe by unscrewing one of the pipe fittings. Remove both delivery and drain pipes and let all water out. Before using the pipes again, following a long period of inactivity, check for any damages or cracks and replace, if necessary, pipe fittings' gaskets.
- if the device will be stored in a different place, group all the documentation, together with the present manual, and enclose it at the device (for example inside the tank).



Before storing the device in rooms with a temperature lower to 0°C it is INDISPENSABLE to get rid of the water in the condensator (with WATER condensation) and in the inlet, outlet and washing pipes. Call the Assistance Service.

10 MALFUNCTIONS



WE RECOMMEND YOU TO CALL IMMEDIATELY THE ASSISTANCE SERVICE IF A MALFUNCTION DIFFERENT FROM THOSE HERE DESCRIBED IS FOUND.

Note: the following malfunctions do not refer to problems noticed in the installation phase, but ONLY on correctly installed - and already functioning - devices.

THE DEVICE DOES NOT SEEM TO BE WORKING AT ALL.

With the Main Breaker on 1 the ON/OFF indicator [Z1] DOES NOT TURN ON.

Cause: The plug is not correctly plugged.

The socket is defective. A qualified technician should substitute it.

Power in the socket is missing. Check that the Main Switches, the breakers and the differentials (lifesavers) on the electric plant are closed. If they aren't, before closing them, make sure that no one is making electrical maintenance.

A protective fuse of the electric plant is cut down. Find and eliminate the eventual cause of overcharge. Substitute cut down fuses with others of the same kind.

The supply cable is defective. BEFORE, cut down electrical feeding at the socket by opening the breaker above it, then disconnect the plug and call the Assistance Service.



DO NOT TOUCH THE DAMAGED ELECTRICAL CABLES BEFORE HAVING CUT DOWN THE ELECTRICAL SUPPLY!

With the Main Breaker on 1 the ON/OFF indicator [Z1] TURNS ON, but the display shows 3 small squares and the device does not work.

Cause: The lid is not correctly closed or tends to open;

The lid's magnet is damaged. Call the Assistance Service.

The lid magneto has been positioned incorrectly. Call the Assistance Service

The beater motor protection device has activated. Call assistance.

The thermal protection of the compressor has been activated (only mod. 60 - 120). Call assistance.

The high pressure device has activated (only mod. 60 - 120). Call the Assistance Service.



THE MAGNETIC CONTACT AND THE RELATIVE MAGNET ARE IMPORTANT SAFETY DISPOSALS!

With the Main Breaker on 1 the ON/OFF indicator [Z1] TURNS ON, but the device does not work.

Cause: Break down of inside parts or at the electronic controls. Call the Assistance Service.

THE DEVICE CAUSES REPEATED RELEASES OF THE ELECTRICAL PROTECTIONS OR THE INTERRUPTION OF FUSES.

Cause: The capacity of the electrical plant is not sufficient to feed the device.

The electrical characteristics of protections and fuses are not adequate.

Inside breakdown of the device. Call the assistance service.

THE REFRIGERATION IS INSUFFICIENT OR DISACTIVATES IN AN ANOMALOUS WAY.

Cause: The thermal protection of the compressor has been activated, due to excessive stress (repeated startings, high pressure, overheating). Stop the device, wait a few minutes and try starting again. If the device doesn't work or inconvenient frequently repeat, call the assistance service.

Note: it may be necessary to wait up to 30 minutes for the thermal protections to cool down.

WATER CONDENSATION



Cause: The flow of condensation water is interrupted or insufficient.

The water tubes present constrictions. Avoid constrictions or narrow turns.

The water condensation faucet/s are partially or totally closed.

The static pressure valve must be newly regulated, otherwise it is broken. Call the Assistance Service.

Note: To check if the water correctly flows and if the static pressure valve is regulated, it is sufficient to temporarily detach the water outlet tube (at the end not connected at the device). Water must flow only when the refrigerating plant is in function.

The incoming water's temperature is higher than that prescribed in the Technical Handbook.

AIR CONDENSATION devices

Cause: Obstacles are placed at the air conditioning's opening, at a distance lower than that described. Restore the minimal distance reported in the Technical Handbook.

The room temperature is too high and condensation is inadequate.

The air condensator is dirty. Request the cleaning at the Assistance Service.

The condensator's fan is broken. Call the Assistance Service.

Break down of the refrigerating system or at the electrical controls. Call the Assistance Service.

Cause: The compressor is overheated due to a lack of ventilation. Clean the loopholes and restore the minimal distances for the circulation of air at the sides of the device.

Note: It may be necessary to wait up to 30 minutes for the thermal protections to cool down.

Break down at the refrigerating plant, or at the electrical controls. Call the Assistance Service.

UNUSUAL NOISINESS.

The noise comes mainly from the tank, when beating is on.

Cause: There are solids or heavy sediments inside the tank or on the beater. Stop the machine, wait until mixture has cooled down, empty the tank and remove them.

The beater's motor is damaged. Call Assistance Service.

The noise does NOT come from the tank, but is heard even when no beating is on.

Cause: Inside break down. Call the Assistance Service.

ALARM CODE

The Display shows an alarm code A – – / AEE / P – – / PEE



TAKE THE POWER SUPPLY OFF at once by the Main Breaker.

Note: Alarm signals are unusual but possible under special circumstances. Before deciding that machine is out of order, switch machine off for as long as it takes to normalize temperatures (30...60 minutes), turn back on and check for alarm signals.

Alarm code "A – –": the GLYCOL's temperature probe detects a temperature HIGHER than the safety limits.

Cause: There are air bubbles in glycol system and pump cannot circulate it. Bubbles can be due to a leak or because machine is placed side down or upside down (THIS OPERATION IS ALWAYS TO BE AVOIDED). Call Assistance Service.

Cause: Glycol system pump is broken. Call Assistance Service.

Cause: Glycol temperature probe is broken (cut off or out of range). Call Assistance Service.

Cause: The control circuits can't take the power supply off to the glycol system heating elements (they are kept on). Relevant power relay has likely locked. Call the Assistance Service.

Alarm code "AEE": the GLYCOL's temperature probe detects a temperature LOWER than the safety limits.

Cause: Glycol temperature probe is broken (due to a short circuit) or wiring is damaged. Call Assistance Service.

No other causes can be supposed, as the glycol system is not directly refrigerated.

Alarm code "P – –": the TANK's temperature probe detects a temperature HIGHER than the safety limits.

Note: If a very high PASTEURISATION TEMPERATURE is programmed (see par. 6.3, P1 programming) the alarm may go off (this occurs, however, only in certain circumstances).

Cause: Machine is running dry or product in the tank is insufficient. Restore minimum quantity of product.

Cause: The tank temperature probe is broken (interrupted or out of tolerance range). Call Assistance Service.

Alarm code "PEE": the TANK's temperature probe detects a temperature LOWER than the safety limits.

Cause: The tank temperature probe is broken (due to a short circuit) or wiring is damaged. Call Assistance Service.

Cause: The control circuits can't take the power supply off to the compressor (it is kept on). Relevant power relay has likely locked. Call the Assistance Service.

Cause: The tank temperature probe is broken (cut off or out of range). Call Assistance Service.
