CHOCOLATE TECHNOLOGY



TEMPERING MACHINE S LINE

Instruction Manual Use and Maintenance

General

The SL machine is designed to temper various types of chocolate, it consists of a heating and melting unit and a cooling unit.

All settings relating to temperature, dosing times and auxiliary management are activated via the touch screen control panel.

The machine has been designed to ensure the best results provided that all operating and maintenance instructions as well as all recommendations contained in this manual are complied with.

To obtain the best results, **Pomati Group S.r.l** recommends that all cleaning and maintenance operations are carried out regularly, to keep the machine in the best condition.

Of particular importance is the training of the personnel responsible for the machine, both in its use and maintenance, the control of operating procedures and all the safety rules contained in this manual.

Statements

The declarations visible here in facsimile are attached to the manual, but not paginated inside. These attached declarations must be kept and made available to anyone who requests them.





Consultation of the USER manual

This manual has been organized in such a way that the user can easily and quickly find the information required for the operation and maintenance of the machine.

The operator will have to read it in its entirety and very carefully, making sure that he has perfectly understood the information contained therein.

The secondary function of this manual is to be used as reference and reference documentation, whenever it is necessary to perform a procedure or operation.

Therefore, it must always be kept available to the personnel involved in the various maintenance operations and to the operators, so that it can be consulted at any time.

The consultation of this manual is facilitated by the presence of the general index, which allows you to immediately locate the topic of interest, and by the index of each chapter, repeated for each of them. For the sake of clarity, some safety symbols have been inserted on the side of certain paragraphs to highlight their importance and ease of identification for the reader.

Pay special attention to these notes!.

Testing, Warranty and Responsibility_

Test

The entire machine is sent to the customer prepared for installation, after passing the tests and inspections required by the manufacturer, in accordance with the laws in force.

Guarantee

During the twelve months of warranty, **Pomati Group S.r.l.** undertakes to supply, at no cost, those parts of its production that are defective in terms of material or workmanship.

These parts must be returned to Pomati Group S.r.l. with carriage prepaid.

Warranty refers to the supply of parts that may be defective.

All travel, food, lodging, transport and labour expenses relating to the possible replacement of parts by **Pomati Group S.r.I**. technicians are excluded from the warranty., which will be entirely borne by the client. All wearing parts are excluded from the warranty.

As far as commercial components are concerned, the supplier's warranty will be applied.

No compensation will be given for expenses, damages, or lost profits incurred by the customer.

The installation of commercial parts that do not comply with Pomati **Group S.r.l.**, if traded, or not supplied by **Pomati Group S.r.l.**, if produced by it, voids the warranty as well as the improper use of the machine.

Responsibility

Pomati Group S.r.I. however, it is not responsible for malfunctions or general faults, caused by the unauthorized use of the machine or by interventions and/or modifications carried out by external persons not authorized by **Pomati Group S.r.I. itself.**

Conditions ambientali

The working environmental conditions of the machine must follow the following indications:

- Temperature 0°C ÷ +55°C (32°F ÷ 131°F)
- Humidity 10% ÷ 90% (non-condensing)



The machine must be placed in an environment sheltered from rain

Environmental conditions other than those specified may cause serious damage to the machine and in particular to electronic equipment.



Positioning the machine in environments that do not correspond to those indicated will void the warranty for the parts to be replaced

Storage of the machine when not in operation allows for temperature variation between $+10^{\circ}$ C (50°F) and 70°C (158°F), without prejudice to other precautions.

Symbology of the manuale

The following symbols will be used in the manual to highlight particularly important indications and warnings:



PROHIBITION

This symbol indicates that it is forbidden to perform certain manoeuvres and/or operations with the machine, which under certain conditions, may threaten the safety of the operator and the machine itself. Please read the note carefully



DANGER

This symbol indicates important warning messages, which are essential for the safety of the operator and

Please read the note carefully



ELECTRICAL HAZARD

This symbol indicates the existence of an electrical hazard.

IMPORTANTE! This symbol indicates a note in the manual that is considered to be particularly important.

Request for intervention – Technical support

Any request for assistance to the Customer Technical Assistance service must be sent by fax or e-mail to one of the following addresses:

Pomati Group S.r.l.

Customer Service

Fax +39.0377.330.92

pomati@pomati.it e-mail

Specifying:

- Type of machine, serial number, serial number and year of installation. 1.
- 2. Defects found.
- 3. Dealer where the machine was purchased.
- 4. Fiscal document that proves the date of purchase by the user.

Ordering spare parts

Any request for spare parts must be sent by fax or e-mail to one of the following addresses:

Pomati Group S.r.l.

Customer Service

Fax +39.0377.330.92

e-mail pomati@pomati.it

Specifying:

- Model of the machine. 1.
- 2. Serial number (see manual title page).
- 3. Part number to be ordered (see spare parts manual attached).
- 4. Quantity required.
- Means of shipping. 5.

In addition, for each electrical equipment, indicate the following:

- 1. Wiring diagram number.
- 2. Abbreviation of the equipment shown on the diagram (can be found on the same equipment)
- 3. Equipment location number on wiring diagram (top of page)

Please also indicate whether it is an execution order or a price request, specify the delivery date you requested, the shipping address, the billing address and any shipping instructions. Also provide the name, telephone and fax number of the person who will be our future contact person for everything related to the supply of spare parts. After receiving your order, we will send you our order confirmation with the prices, the final delivery date and the conditions of delivery.

General security notes

The rules listed below must be read carefully to become a fundamental part of daily practice in the operation and maintenance of all equipment, in order to prevent any type of injury to people and/or damage to property.



Do not attempt to operate the machine until you have clearly understood its operation. If you have any doubts, despite having read this manual carefully and completely, please contact the Pomati Group S.r.l. customer service.

Ensure that all safety requirements are known to all personnel involved in the use, cleaning and maintenance of the system.



Before starting the system, the operator must check for visible defects on the safety devices and the machine.

In this case, immediately notify Pomati Group S.r.l. of any obvious breakage in the structure of the system or in any functional part

Never start the machine until you have warned and removed all personnel in the vicinity of the machine. Check all switches and safety devices daily for proper operation.

Safety devices must never be removed or rendered ineffective when the plant is in production.

Under no circumstances must the safety circuit breakers be short-circuited.

During maintenance, adjustment, or repair, it may be necessary to exclude certain safety devices from service. This operation should only be carried out by authorized personnel.

It is mandatory to keep all plates bearing safety or danger signs in perfect condition, in case they are damaged, they must be promptly replaced.

The operator must be familiar with the function and position of the **STOP** and EMERGENCY buttons.

Replace the parts deemed faulty with original spare parts, guaranteed by the manufacturer.

Never try risky solutions.

Do not operate with wet hands or objects when the machine is connected to the mains power supply.

All work on live parts must only be carried out by authorized personnel.

Before starting work, the system must be disconnected from the mains using the main switch located in the electrical cabinet.

Do not make joints of any kind in the electrical connections of electrical circuits.



In the case of maintenance work inside the protections, it will be necessary to:

- 1. Padlock the main switch
- 2. Remove the keys from the lock
- 3. Carry them with you throughout the surgery

Do not operate the machine automatically with the fixed and/or mobile guards disassembled

Do not work on moving parts for any reason, even if it is to unclog a jam.

Do not wear clothing, ornaments, accessories that can get caught in moving parts.

Keep the ground and/or the platform in the area surrounding the machine constantly clean of both obstructions and water.

Always wear goggles, ear protectors and any other personal protective equipment in areas that require it. Pay close attention to all precaution, warning, and danger signs placed on the machine.

Always apply and enforce the safety rules, if any doubt arises, consult the following manual again before acting.

It is forbidden to inhibit the safeties.

It is forbidden to inspect the machine during operation.

It is forbidden to sit and/or lean on top of the machine's components.

It is forbidden to modify the parts of the machine.

It is forbidden to attach additional devices to the machine.

Clean machine components, panels and controls with soft, dry cloths.

It is forbidden to use any type of solvent, such as alcohol or gasoline or thinner for cleaning all surfaces.

Check the machines as stipulated at the time of ordering.

It is forbidden to have work carried out on the machine by personnel with a qualification other than that required by the table in the paragraph "Number of operators".

Do not put your hands, arms, or any part of your body in the vicinity of moving parts.

To search for or remove any cause of damage or inconvenience, take all the precautions described in the manual, suitable to prevent any damage to persons and/or property and/or pets.

Before starting any work, focus all your attention on what you are going to do.

It is necessary to be extremely careful to always keep the attention and the readiness of reflexes alert, these are fundamental conditions for the operator.

If the operator is subject to discomfort or unfavourable physical conditioning, even slight, which may reduce the degree of vigilance, he must avoid putting the machine into operation or acting on aggregated or accessory equipment and consequently inform the plant manager.

Do not operate the machine and equipment when you are under the influence of alcohol, psychiatric drugs, or drugs.

The operator's clothing should be as suitable as possible, i.e. not too loose and free of fluttering parts and holds.

Belts, rings, bracelets and chains should not be worn. Long hair should be tied up in a special net. It is forbidden to use these machines by disabled people.

Children under the age of 18 are prohibited from using these machines.

The machine must be used only and exclusively for the uses for which it was intended and in accordance with the contractual provisions of the **Pomati Group S.r.l.**

DO NOT USE THE MACHINE FOR ANY OTHER PURPOSE THAN AS INDICATED IN THE MANUAL. DO NOT PROCESS PRODUCTS OTHER THAN THOSE INDICATED IN THE MANUAL

Improper use of the machine can cause danger to the operating personnel and damage the machine itself. Before proceeding with uses other than that permitted, contact **Pomati Group S.r.l**. for authorization. For any problem that may arise during the operating life of the machine and in any case not covered by this technical documentation, you must contact our customer service in order to solve the problem as soon as possible.

Definition of security terms

In this manual, in relation to safety, the following terms will be used:

Danger zone: Any area inside and/or near the machine where the presence of an exposed person poses a risk to the safety and health of such personnel.

Exposed person: Anyone who finds himself, either completely or partially, in a danger zone.

Operator: A person responsible for installing, operating, adjusting, maintaining, cleaning, repairing, transporting parts of the machine and all other activities necessary for operation.

Safety components: a component specially designed by the manufacturer and marketed separately from the machine in order to perform safety functions. Therefore, a safety component will be considered to be a mechanism whose failure to work would jeopardize the safety of exposed persons.

Security symbols and stickers

On the machine there are signs to highlight: prohibitions, indications and warnings that are particularly important:



This symbol indicates that there is a risk of crushing of the upper limbs.

Faced with this signal, the operator should approach the machine only when it is stationary and without electrical voltage.



This symbol indicates the presence of an electrocution hazard.

Faced with this signal, the operator should approach the machine only when it is stationary and without electrical voltage.

In any case, always approach wearing detach gloves.

Obligations of the user

The user of the machine must ensure that:

The machine is intended solely and exclusively for the intended and contracted uses. The service instructions are at the complete disposal of the personnel in charge and that the latter has been correctly instructed about the use of the machine, and that it complies with all safety and accident prevention regulations and the specifications of the machine itself.

Service staff

Selection and qualification of personnel

The operators are classified as follows:

GENERAL OPERATOR: non-specialized personnel able to operate the machine through the use of the controls arranged on the push-button panel, loading and unloading operations of the materials used for production and simple functions of starting or resuming production following a forced stop.

MECHANICAL MAINTENANCE TECHNICIAN: qualified technician able to operate the machine in normal conditions, intervene on the mechanical parts to carry out all the necessary adjustments, maintenance and repairs. It is not authorized to intervene on the electrical system in the presence of voltage.

ELECTRICAL MAINTENANCE TECHNICIAN: qualified technician able to operate the machine in normal conditions, he is in charge of all electrical adjustment, maintenance and repair interventions. It is enabled to operate in the presence of voltage inside the electrical cabinet and in the junction boxes.

EXTERNAL TECHNICIAN: qualified technician made available by the manufacturer or distributor of sophisticated commercial components, able to intervene for modifications, repairs or replacements.

TECNICO Pomati Group S.r.I.: qualified technician made available by Pomati Group S.r.I. or by one of its agents to carry out operations of a complex nature, installation and commissioning.

Personal Protective Equipment_



It is the employer's obligation to inform the staff on the following topics related to safety in the use of the line:

- Accident risks
- Devices designed for operator safety
- General accident prevention rules provided for by international directives and the legislation of the country of destination of the machinery

Before starting work, the operator must be familiar with the layout and operation of the controls and the characteristics of the line, and must also have read this manual in its entirety and, if necessary, the accompanying manuals.



The operator must always

- Pay close attention to all precaution, warning, or hazard signs placed on the machine.
- Use gloves for maintenance work on the machine.
- Do not wear clothing, ornaments, or accessories that can become entangled in moving parts



Always apply and enforce the safety rules, if any doubt arises, consult this manual again before taking action

The personal protective equipment that the operators assigned to the use of the machine must have in compliance with the legislation in force and in relation to the action they must perform, if in maintenance or if in normal use, be the following:

PPE for normal use

Normal use is the activity that the operator performs to carry out production, the operator has the task of loading the various raw materials to obtain the final product.

For these activities, the following PPE have been identified:

Clothing



The clothing with which the operators must be equipped must be made of material resistant to the type of product to be filled, and must also allow perfect mobility in the movements that the operator must make.

Lightweight gloves (hand protection)



They must be suitable for the hand of the operator who will have to wear them and must be long enough to cover the elasticated garment on the operator's wrist. They must guarantee a safe and fast grip as well as guarantee a high performance of resistance to the product to be handled. They must guarantee comfort and good sweat absorption.



Hair retention cap

It must be of a suitable size for the head and suitable for holding the hair inside. It must ensure good breathability of the scalp.

PPE for maintenance

These are the activities aimed at restoring the functionality of the machine and/or the plant. Several actions are involved, including elevation, therefore the PPE to be adopted in maintenance actions are as follows:

Clothing



The clothing with which the operators must be equipped must be made of material resistant to the type of product to be filled, and must also allow perfect mobility in the movements that the operator must make. The ends of these garments must remain well adhered to the body (elastic bands) especially at the ankles, wrists, neck and belly, in order to prevent a fluttering part of the garment from coming into contact with moving parts, generating serious dangers. The garment must guarantee the absolute impermeability of the product.

Footwear (foot protection)



They must have an anatomical anti-stress insole for the comfort of the foot and the upper part must be impenetrable to contact with the product to be used. They must completely cover the ankle by overlapping with the trousers and must be of the quick-release type to allow rapid evacuation of the foot in the event of accidental contact with the product. They must also allow the foot itself to breathe.

Gloves (hand protection)



They must be suitable for the hand of the operator who will have to wear them and must be long enough to cover the elasticated garment on the operator's wrist. They must guarantee a safe and fast grip as well as guarantee a high performance of resistance to the product to be handled. They must guarantee protection and comfort against both high and low temperatures and good sweat absorption.

Noise emission

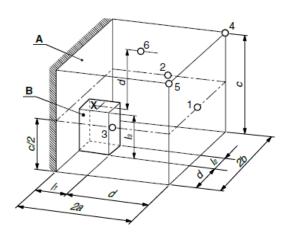
The machine has been designed and built in such a way as to reduce noise at the source. Measurements carried out at the operator's station of a machine belonging to the same series led to the determination of the following values:

1. A-weighted equivalent continuous sound pressure level: LAeq = 72dB(A)

2. A-weighted sound power level emitted by the machine: Lpc < 80 dB(C)

The measurement of the equivalent A-weighted sound pressure level is carried out in accordance with EN ISO 3744.

As required by this standard, the machine is positioned with the center at the center of the dummy reference box, the longitudinal axis directed as the x-axis and the front facing point 1 (see fig. below).



After the machine is positioned, wait for the motor to pre-heat time, reaching the normal operating temperature of the machine.

The instrumentation used to perform the measurements is as follows:

- Brüel & Kjær integrative sound level meter mod.2221 class 1 to IEC 651 and IEC 804 requirements
- 4230 Class 1 sound level calibrators compliant with IEC 942 requirements

If the machine is placed in a reverberant environment or in the presence of other sources of noise and the level of personal daily exposure is higher than 85 dB(A), there is a risk condition, so in this case it is the employer's obligation to provide the worker with personal protective equipment (earmuffs, caps).

Vibration

Determination of the vibration level emitted by equipment - A(w)sum

The magnitude of the vibrational stresses produced by the equipment must be characterized, for each exposure condition, in terms of equivalent frequency-weighted acceleration $A_{(W)}m/s2$. The equivalent acceleration, preferably expressed (*) in S.I. units (meters per second per second – m/s^2), must be quantified for each handle along three standardized directions called X, Y and Z, applying the frequency weighting required by the standard (Wh), which asserts the maximum sensitivity of the hand-arm system to vibrational stresses of compressed frequency between 5.6 and 1400 Hz. This range is bounded by the octave bands rated frequency 8 and 1000 hz (inclusive), or by the 1/3 octave bands rated at frequency 6.3 to 1250 hz (inclusive).



The three axial results will then need to be added together sectorally to obtain the total weighted acceleration

$$A_{(w) \text{ sum}} = \sqrt{a_{wx}^2 + a_{wy}^2 + a_{wz}^2}$$

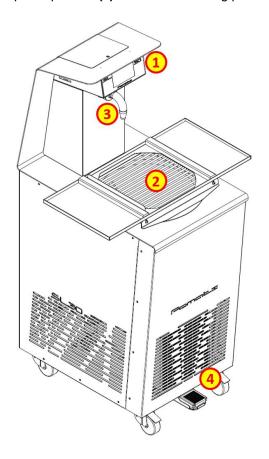
The three standardized directions refer to a biodynamic coordinate system, with an origin at the top of the third metacarpal bone and the **Z** axis identified by the longitudinal axis of this bone, the **X** axis crosses the palm of the hand while the **Y** axis is orthogonal to the previous two.

On the basis of the measurements carried out with operational simulation at the test room of the company **Pomati Group S.r.l.** and applying the UNI EN ISO 5349-1:2004 standard

THE TEST DOCUMENTS AND CERTIFICATES OF THE INSTRUMENTS ARE DEPOSITED WITH THE COMPANY POMATI GROUP S.R.L. AT THE DISPOSAL OF THE SUPERVISORY AUTHORITIES

Operator position

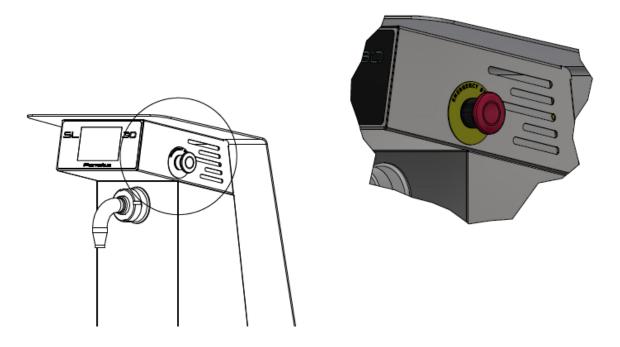
The SL requires the use of a single operator, who must be positioned in front of it both in the case of in-line and off-line machinery in order to be able to set the controls through the operator panel (1) to be able to load the tank (2) and use the tempered product (3) and use the dosing pedal (4)



Security Devices

The SL has an emergency button, when pressed it immediately stops the operation of the machine without disconnecting the power to the main panel and the operator panel. To restore operating conditions, you will need to:

- A. Eliminate the cause of the shutdown.
- B. Lift the red mushroom button to rearm it.





It should not be used for service stops, but only for emergency stops. Its activation does not exclude the residual risks of the machine, for their complete elimination it is necessary to activate further procedures

Notes on using the machine

Intended Use

The SL machine has been designed and manufactured specifically for the tempering of chocolate.

IT IS STRICTLY FORBIDDEN:

- Replace parts with non-original spare parts
- Modify electrical connections to bypass safety devices
- Use the machine in environments with explosive and/or aggressive atmospheres

Before any modification, it is mandatory to contact Pomati Group S.r.l. for approval.

Permitted Use

The machine can process many products of different shape and texture.

If there are any doubts about some products to be used, ask **the** technicians of **Pomati Group S.r.l.**, or after having read and learned all the instructions contained in this manual, otherwise **Pomati Group S.r.l.** declines all responsibility for the system.

Prohibited Use

All uses other than those described in the "intended use" and "permitted use" paragraphs are considered prohibited uses.

Unauthorized use of the machine will result in the immediate forfeiture of the warranty.

Security Warning



This chapter is intended for specialized and suitably trained personnel.

Loading and unloading involves a high level of danger to people.

The handling activities described in this paragraph must only be carried out by qualified personnel specially trained to safely carry out loading and unloading operations and handling of packages, using lifting equipment such as forklifts.

Local staff should be aware of the accident prevention rules.

Before each handling, always make sure that the forklift is suitable for lifting the load to be moved.

Check that the stability of the load cannot be the source of hazards and/or accidents.

Ensure that the vehicles and logistics facilities used are in compliance with the use and in perfect operating condition.

Keep clear of suspended loads.

During handling operations, operators must be equipped with the appropriate means of personal protection, such as: gloves, shoes with non-slip soles and work helmets.

Pre-installation checks

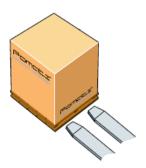
Before installing the machine, the following checks must be carried out:

- Check that the installation surface is sufficient, considering the additional space required for mounting.
- Prepare the utility connection points.

- Make sure that the height and width for the passage are sufficient (in any case, leave a distance of 800÷1000mm from walls, pillars, and anything that may create impediments to operation and maintenance).
- Make sure that the specific load capacity at the floor is sufficient to support the weight of the machine.
- Equip yourself with a forklift with sufficient capacity to lift the machine.

Packaging transport

Transport by pallet truck by inserting the forks in the appropriate pallet seats. Use pallet trucks with a suitable capacity (>150kg). When the machine is delivered, it must be checked that no damage is caused during transport, in addition to visible damage, that could affect its correct functioning.



Lifting

Once the packaging has been brought close to the place where the machine is installed, it must be opened by cutting the straps (A). Open the wooden crate (B) taking care not to damage the contents, take the documents attached to the machine and remove all the parts of the machine's packaging cover, cut the straps that bind the machine to the pallet.











Be especially careful when removing the straps, as they may accidentally hit the operator during cutting.

If the machine is to be stored during periods of inactivity, it is recommended to store it in a covered room, which allows the machine to be protected from the weather, and in an environment free of aggressive chemicals. Before storing it, it is also recommended to disconnect it from the power supply and to carry out a complete cleaning of it. The machine should be stored in environments with suitable temperature (+10°C to +60°C) (50°F to 140°F)

Power supply/Pneumatic supply

The machine must be powered at the voltage corresponding to the value indicated on the CE plate; Connect the machine only to a line with efficient ground cable to ground. If in doubt, don't plug it in.



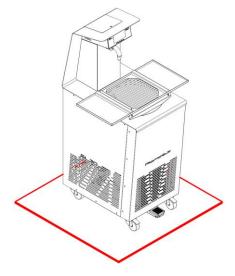
The use of extension cords that are too long or power supply with power generators can give rise to the following inconveniences:

- A. Slow start of the engine with intervention of the guards.
- B. Engine overheating with loss of power.
- C. On/off device not operating.

Space needed for the operator

The space required by the operator for a correct use of the machine as well as for maintenance workers, must be 1000/1200mm.

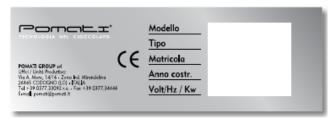
This space must be left throughout the entire life of the machine. Also consider, in the event that the physical characteristics and/or handling needs to perform the above operations require more space, this will have to be increased.



Marking

All the identification data of the machine are engraved on the plate, these must always appear in every communication document between the user and the manufacturer, for example in every request for assistance or for the request of spare parts, etc.

The following identification plate is located on the machine





IT IS STRICTLY FORBIDDEN TO REMOVE OR TAMPER WITH THE IDENTIFICATION PLATE.

Re-installation

To dismantle the machine, in case of sale, reinstallation or storage at the customer's premises, proceed according to the following disassembly procedure:

- Decide on the basis of the size of the means of transport available and the number of parts into which you want to divide the machine how to break it down and into which parts.
- Place the moving parts of the machine in the most favorable position for transport.
- At the junction points, number all the parts that will be separated, in order to make future reassembly more immediate.
- Disconnect the power supply.

For the new positioning and connection, please refer to the relevant paragraphs of this manual.

Demolition and smaltimento

At the end of the real life cycle, the user company must proceed with the disposal of the machine in compliance with current regulations, first of all providing for the emptying of the lubricating fluids and the general cleaning of the various elements and then the separation of the pieces that make up the machine. After disassembling the machine according to the previous disassembly procedure, the various materials must be separated in accordance with the regulations of the country in which the machine is to be disposed of. The machine does not contain any hazardous components or substances that require special removal procedures.

Materials that make up the machine

As far as disposal is concerned, it must be borne in mind that the materials of which the machine is made are not of a hazardous nature and consist essentially of:

- 1. Painted, plastic-coated or galvanised ferritic steel, stainless steel, copper
- 2. Polyethylene plastic material, filled or unfilled, or adiprene
- 3. Electric motors
- 4. Electrical cables and their sheaths
- 5. Electronic control and actuation devices
- 6. Support wheels and derived rubber materials

ATTENTION

During the disposal process, it will be necessary to comply with the regulations in force in the country.

Set up

Before putting the machine into operation, carry out a general check of its main components:

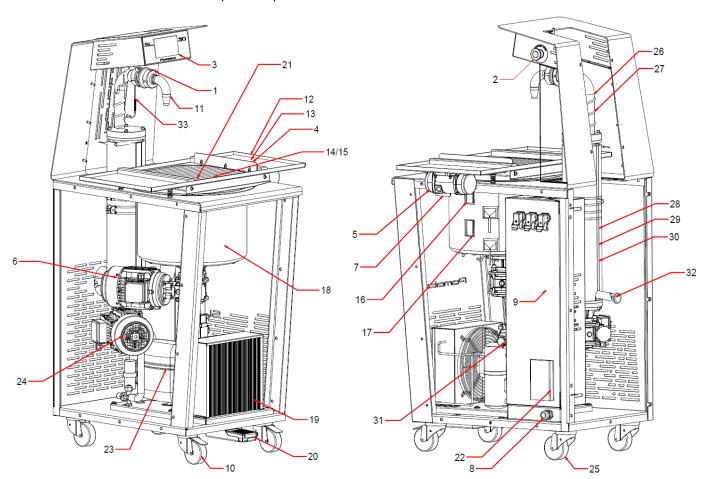
- 1. Carry out a particularly careful check of all connections, fasteners and tightening of bolts that may have loosened during transport or installation.
- 2. Check the electrical connections.
- 3. Check that the mains voltage corresponds to the input voltage
- 4. Automatic shutdown of the machine's motors if the emergency stop button is pressed.

Description of the machine groups

Before putting the machine into operation, carry out a general check of its main components:

- 1. Swivel fixing spout work
- 2. Emergency button
- 3. HMI touch screen
- 4. Scraper
- 5. Vibrating table motor
- 6. Agitator gear motor
- 7. Micro Safety Switch
- 8. Power Cord
- 9. Electrical panel
- 10. Front wheels
- 11. Working spout
- 12. Worktop
- 13. Awning
- 14. Drain grate
- 15. Grid Resistance
- 16. Bathtub probe 1
- 17. Bathtub probe 2
- 18. Product tank
- 19. Capacitor
- 20. Dosing pedal
- 21. Agitator
- 22. Switch
- 23. Refrigerator compressor
- 24. Auger gear motor
- 25. Rear wheels

- 26. Auger/working spout connection tube
- 27. Resistance of the auger/working spout connection pipe
- 28. Auger heating probe
- 29. Cochlea
- 30. Auger resistance
- 31. Thermostatic valve
- 32. Chocolate drain
- 33. Chocolate temperature probe



Operation commands

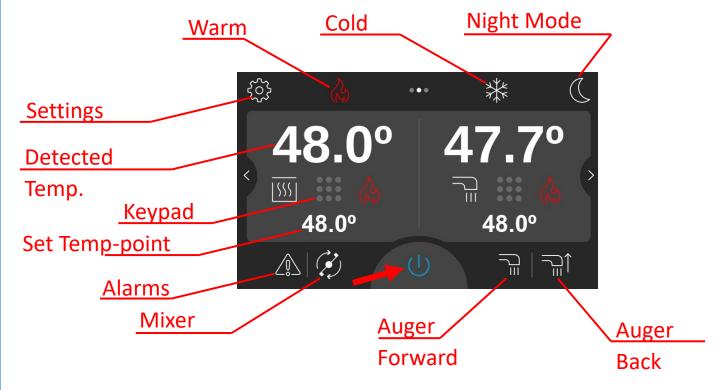
A touch screen control panel is installed on the SL tempering machine where all the movements of the machine can be controlled and set (see next paragraph).

An emergency button (see safety controls above) installed on the side of the machine, and a power button on the side of the machine.

Control Panel Touch screen

The functions of the control panel are as follows:

When the machine is turned on, a page with the PACKAGED logo is displayed for a few seconds, in the corner of the screen you can read the version of the HMI software, you will be automatically redirected to the main work screen, press on the power icon to start the machine, once it is turned on it will turn blue and it will no longer be possible to turn off unless you turn off the power to the machine:



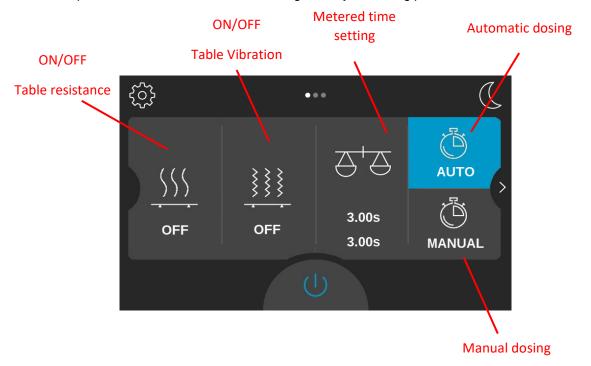
On the left it is possible to read the detected temperature of the tank and the setpoint that can be set by clicking on the dots in the center of the block, the same goes for the right side where it is possible to view the detected temperature and the auger setpoint, in the photo above are indicated the various functions of the buttons on the main screen.

When starting the machine for the first time, it will be necessary to wait until the minimum machine starting temperatures, 38°C, for the tank and the auger, at which point it will be possible to start the motors.

The following are the various cases that may occur while using the machine:

- At the first start-up, if the minimum temperatures (38°C) for the tank and/or auger have not been reached, the motors will not start, after which they will no longer be considered;
- It is not possible to start the tempering phase if the auger motor is switched off;
- In the event that you enter the tempering with only the auger motor on, the agitator will also be switched on automatically;
- As long as you are in temper it is not possible to act on the motors;
- When you switch from tempering to heat, a 5-minute timer starts within which, if you give the auger
 off command, the motor will continue to run until the timer expires and then make an automatic
 conversion, it is possible to recognize this case because the auger icons forward and backward will
 flash:
- In the case described in the above point, it is possible to stop the agitator instead, if you want to go back, i.e. not to perform an automatic reversal, you can click again on the forward auger icon and you will exit the automatic cycle;
- It is possible to activate the night mode in any condition, depending on which the machine will behave differently:

- If you are in tempering/cold, the machine will bring the temperature of the chocolate to the value established in the night mode settings, once reached it will stop the motors to make an automatic reversal and start the cyclic stirring phases if active;
- o If you are in heat/melt with a temperature lower than the night setpoint the machine will bring the chocolate temperature to the value established in the night mode settings, once reached it will stop the motors to make an automatic reversal and start the cyclic stirring phases if active:
- o If you are in heat/melt with a temperature higher than the night setpoint, the machine will perform an automatic reversal and begin the cyclic stirring phases if active.

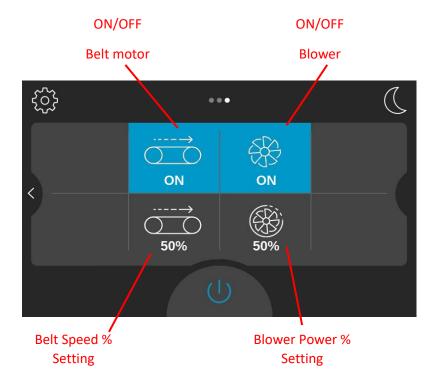


Clicking on the left arrow or swiping from left to right moves you to the control page of the vibrating table and dosing settings with foot pedal:

- When the heating element of the vibrating table or motor is switched on, with a click on the icon, the corresponding region will become blue, as far as use with the pedal is concerned, it is possible to choose to work automatically or manually:
- In automatic operation, the machine, at the single touch of the pedal, will stop the flow of chocolate for 2 seconds, restart for the time set on the panel by clicking on the scale icon (below you will see a timer that goes to 0 starting from the set time), stop for another 2 seconds and restart the continuous flow of the product;
- Please note that the dosing time can only be set if the automatic job selection is active.
- In manual operation, the machine will stop the flow as long as the pedal is depressed to restart when it is released.

By swiping from right to left or by clicking on the arrow you can return to the main page.

By swiping from left to right or by clicking on the right arrow, you can go to the control page of the recoating carriage:



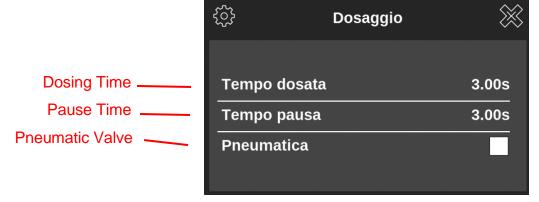
When the belt is turned on, the icon will turn blue, in the same way when the blower icon is pressed, under the ON/OFF icon it is possible to set the speed in % for both the belt and the blower:

On any of the 3 pages described above, you can enter the settings menu:



It is possible to set the language of the program by clicking on the corresponding flag, it is also possible to enter the 3 user settings menus which are respectively:

1) Dosage:



It is possible to activate and deactivate the presence of the pneumatics, when the square is white it means that it is not present and the behavior of the machine when the dosing pedal is pressed will be as described above, when the presence is activated the icon will turn green and when the pedal is pressed it will enter the dosing cycle with pneumatic exchange, and the two times that can always be set on this page will be respected.

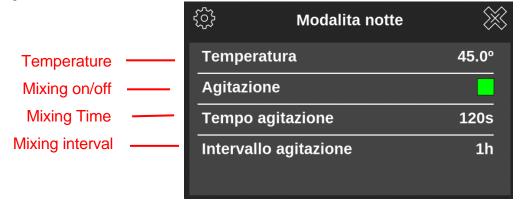
2) Options:



By entering the options menu you can:

- set and activate the intermediate tempering temperature under intermediate stage;
- Turn off/on the upper portion of the tub (only for SL30/50/80);
- Turn off/on the screw tank heating elements to carry out maintenance.

3) Night Mode:



In this sub-menu it is possible to set the set-point temperature of the night mode and activate or deactivate the cyclic stirring and its respective times, stirring time in seconds indicates the time for which the product will be mixed in the tank, Stirring interval in hours indicates the stirring intervals, both these parameters can be set by the customer at will.

General Maintenance Procedure

Before taking maintenance action, the following general procedure must be applied:

- a) Position the various moving parts of the machine in the most convenient condition for the maintenance to be carried out.
- b) Turn off the power supply.
- c) Padlock the main switch in the closed position.
- d) Carry out maintenance or repair operations according to the respective description in this manual.
- e) Once all the operations have been completed, switch on the power supply again and make sure before putting the machine back into operation that:
- All safety devices are in working order.
- All tools used have been stowed away.
- All moving parts have been secured.
 - f) Check that the machine is operating properly before putting it back into production.

Checks and maintenance interventions

Nature and frequency of checks and maintenance interventions

The systematic verification of the operation of some of the most stressed and wear-sensitive parts of the machine can avoid future operating problems and help to keep the machine at the highest levels of productivity, ensuring constant operation over time.

Maintenance

Maintenance is the set of organized operations that must be carried out on the machine's parts in a periodic and systematic manner.

Routine **maintenance** is divided into:

- Checking the operating status of the various parts
- Elimination or correction of anomalies, even those which, although not constituting an immediate reason for danger or technical disservice, may lead to inconveniences as a result of their persistence.

Extraordinary maintenance consists of the complete replacement of parts or parts of the machine that have reached their average life, in order to prevent breakages that cause machine and production stops. For each ordinary or extraordinary maintenance intervention, the frequency calculated in operating hours, the operator authorized to perform the operation, the average time required and a detailed description of the intervention procedure are reported.

The frequency calculated for each intervention and the time required to carry it out are purely indicative in order to allow maintenance to be scheduled. Only after a continuous maintenance service and its critical analysis, it is possible to determine the real needs in accordance with the main needs of the company. Below are two summary tables with the various maintenance interventions, the respective frequency and the possible presence of the unit on the machine.