

# ROLLER IRONERS

## INSTRUCTIONS FOR USE MAINTENANCE AND INSTALLATION

TRANSLATION OF ORIGINAL INSTRUCTIONS  
KEEP FOR FUTURE REFERENCE



The manufacturer's data are shown  
on the package it contains  
the documentation of the machine.  
The envelope is an integral part  
of documentation

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## 1. CONTENTS OF THE MANUAL

This manual is dedicated to the description of the use, maintenance and installation of industrial ironing machines called hollow mangles. It is drawn up in the light of the Community directives in force. The information is addressed to the installer and the user, who must be sure to have fully understood it before operating the machine. The user manual must always be available for consultation. In case of loss or damage, ask the manufacturer for a new manual. The manufacturer is not liable for the consequences of careless use of the machine due to failure or incomplete reading of this manual. The manufacturer reserves the right to modify the specifications mentioned in this manual or the characteristics of each machine. Some figures in this manual may contain details that are partially different from those assembled on the machines. Drawings and technical data may be modified without notice.

This manual is supplemented by the following annexes: EU declaration of conformity, technical data sheet and wiring diagram. All documents are contained in an envelope that accompanies the machine. The wiring diagram, depending on the versions of the machinery, is contained inside the electrical panel

The manual and its attachments are an integral part of the device: therefore they must be kept and accompany the device, even in the case of transfer to another user.

The manual, the same attachments and the exploded view with the relative spare parts, can be found in the technical area of the manufacturer's website. Before accessing the site, it is essential to have the serial number of the machine.



**ATTENTION!**

The manufacturer declines all responsibility for possible inaccuracies contained in this manual due to printing or transcription or translation errors. It reserves the right to make changes to its products that it deems necessary or useful, without prejudice to their essential characteristics. It is forbidden to reproduce, even partially, texts or images of this manual, without the prior authorization of the manufacturer.

This manual is also available in electronic format on the manufacturer's website (technical area).

## 2. SAFETY REGULATIONS



**ATTENTION!**

**Risk of suffocation, injury or permanent disability!**

Failure to comply with the following safety rules may cause damage to people, property and animals.

The installation and maintenance of the machines described in this manual must be done by authorized personnel who know the product and compliance with European industry standards. Incorrectly made repairs can seriously endanger the user's safety.

Before putting the machine into operation, please read these instructions carefully: make the instructions accessible to all persons in charge of using the dryer.

The intended use of the mangles described here is the professional ironing of clothing and linen: it is therefore forbidden any other intended use unless it has been previously authorized in writing by the manufacturer.

Never put your hands between the lower chute and the roller when the machine is running or the machine is still hot.

No other items to be ironed must be introduced into the machine.

It is forbidden to iron garments that are soaked in substances manifestly harmful to the health of operators, poisons or carcinogenic products.

Do not approach or iron with this machine fabrics soaked in fuels or flammable substances, including oils and greases in order to avoid the risk of fire and explosion.

Always follow the ironing instructions on each item of linen very carefully.

It is forbidden to use the machine to children under the age of 16.

Do not allow children to play with the equipment.

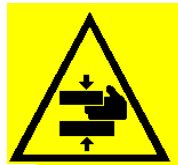
Keep packaging materials out of the reach of children.

Keep detergents or chemicals used for ironing out of the reach of children.

Keep children and pets away from the equipment door when it is open and machine running.

Additional connections to the machine from the outside, not carried out in a workmanlike manner, relieve the manufacturer of any liability.

#### IMPORTANT WARNINGS



#### CRUSH HAZARD

It is forbidden to work with the side doors open or with the guards of the machines removed!

It is forbidden to insert your hands under the roller, even when the machine is stationary!

In order to avoid burns or crushing of the limbs, it is absolutely forbidden to remove, even temporarily, the protection panels and security systems!

Always check the correct functioning of the safety devices every time the machine is started! At each start-up, carry out the control procedure indicated in the relevant paragraph.

It is mandatory to know the operation of the machine and its emergency systems!

The operator, when introducing the fabric into the machine, must not accompany it below the hand-saving bar. The fabric must be flattened on the entrance board, here the ripples or folds must be removed. Then the fabric must be accompanied on the roller that will drag it into the heating bed.

It is strictly forbidden to iron fabrics folded in several layers or several layers of overlapping fabric.

It is forbidden to introduce bars, slats or metal objects between the ironing chest and the roller. In case of emergency, always perform the procedures described below.



#### DANGER OF BURNS

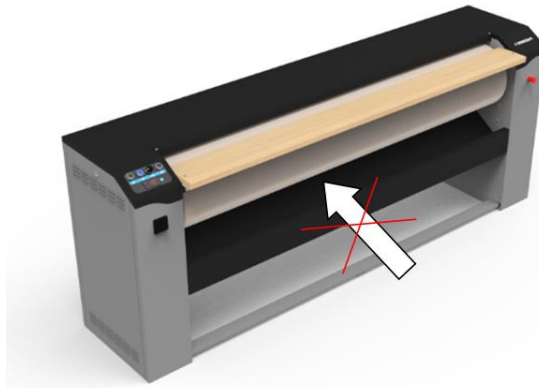
The machine, by the very nature of the activity for which it is intended, presents the danger of burns. Any burns can be caused:

- From contact with the fabric leaving the machine;
- From contact with the upper edge of the chest during the insertion of the fabric;
- From contact with the chest following its opening;
- From contact with the chest during maintenance operations performed "hot";
- From contact with the extracted fabrics after being trapped between the cylinder and the heating bed;



#### ATTENTION

To avoid possible sunburn, never insert your hands under the roller!



The machine must always and only be used by properly trained personnel and in the presence of at least one other operator!

READ CAREFULLY AND INFORM ALL OPERATORS ABOUT INTERVENTION SYSTEMS IN CASE OF SUDDEN POWER FAILURE OR IN CASE OF ENTRAPMENT: CHECK THE POSITION OF THE RELEASE SYSTEMS



#### DANGER OF ELECTROCUTION

Any intervention on the electrical parts of the machine must be carried out only by qualified personnel and after removing the power supply to the machine.

The power and control circuits can only be tampered with by the manufacturer's personnel, under penalty of forfeiture of the warranty conditions.

On the electrical panel there is the following monitoring plate that must be replaced with an identical one in case it has been damaged or removed.



#### ATTENTION

Even when the position of the main switch is "0", the cables upstream of the main switch are live!



#### PSYCHOPHYSICAL CONDITIONS OF THE OPERATOR

The operator assigned to the machine must be in perfect psychophysical condition; During the work you must assume the vertical posture in front of the machine. Sudden movements or uncontrolled gestures must be avoided, for example when picking up and inserting fabrics to be ironed to avoid dangerous collisions with the machine frame.

If other operators or other personnel are present, they must not be a source of distraction for the operator assigned to the machine.

During the use of the machine, the operator must not be distracted by televisions, radios, etc. or be subject to any other source of distraction.



#### LIGHTING

In the room where the machine is installed, uniform illumination of intensity 300-500 lux must be present, annoying glare must also be avoided.

**ATTENTION!**

These warnings do not cover all possible risks. The user must therefore proceed with the utmost caution in compliance with the rules.

### 3. MANUFACTURER'S LIABILITY

The instructions in this manual do not replace but supplement the obligations for compliance with current legislation on safety and accident prevention standards. With reference to what is reported in this manual, the manufacturer declines all responsibility in case of:

- use of the machine contrary to the laws in force on safety and accident prevention.
- incorrect installation of the machine.
- lack of periodic and scheduled maintenance.
- failure or incorrect observance of the instructions provided in the manual.
- voltage and mains supply defects.
- unauthorized changes to the machine.
- use of the machine by unauthorized personnel.

### 4. TRANSPORT AND UNPACKING

During transport, and possible storage, the equipment must remain within the following environmental conditions:

- temperature:  $-25^{\circ}\text{C} \div 55^{\circ}\text{C}$
- Humidity:  $0\% \div 90\%$  (non-condensing)

It is recommended to check the machine upon receipt, taking care to report to the carrier any damage caused during transport, both to the internal components and to the external bodywork.

**ATTENTION!**

During the handling phase, use a forklift with forklifts that are as open as possible.

**ATTENTION!**

During the handling phase, the machine must remain in a horizontal position. The machine must never be placed in an upright position!

The machine must be completely unpacked near the installation site.

The strapping must be cut, and the cover wrapper removed.

The packaging materials must not be dispersed in the environment and must be stored in the appropriate collection spaces according to current regulations.

Open both side doors with the supplied side key.

Remove with a wrench the bolts fixing to the pallet, visible at the base of the right and left shoulder of the machine.

**ATTENTION!**

Check the net and gross weight on the technical data sheet, attached to the machine documentation: check compatibility with the lifting equipment available.

To get the mangle off the pallet, pass the forklifts under the chute of the machine (taking care to avoid scratching the paint).

Lift the machine with the forklift: remove the pallet from below and place the machine.

**ATTENTION!**

The pallet should not be used as a normal machine holder! The machine must always be taken off the pallet and positioned as described in the relevant paragraph.

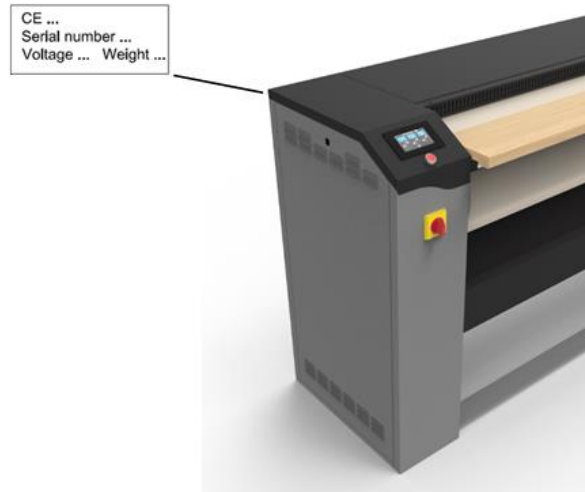


**ATTENTION!**

The machine must be handled only when it is fixed to its pallet: the handling and lifting through the forklift must be performed only by qualified and competent personnel.

**5. MACHINE IDENTIFICATION**

The equipment is identifiable by an adhesive plate bearing the serial number, model, power and technical characteristics. Spare parts and/or interventions presuppose the exact identification of the model for which they are intended.



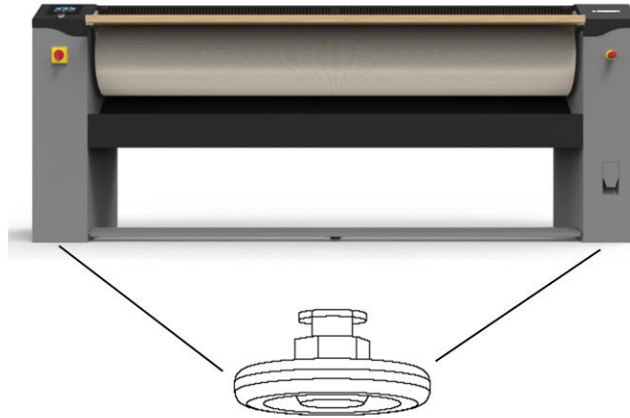
Tampering, removal, lack of identification plates or anything else that does not allow the safe identification of the machine, makes any installation and maintenance operation difficult and automatically voids the warranty.

Manganes are intended exclusively for ironing fabrics and are intended for the professional and industrial sector.

MODELS AND MAXIMUM INTRODUCTION CAPACITY		
MODELS AND MAXIMUM INTRODUCTION CAPACITY (flat linen single ply, wet 20-15% single-ply flat linen, damp at 20-15%)		
ROLLER IRONERS A CONCA / FLATWORK IRONERS: (FI)	MAXIMUM FABRIC WIDTH / MAXIMUM WIDTH OF THE FABRIC: (mm)	HOURLY PRODUCTIVITY: (Kg/h)
1000/25	1000	25
1200/25	1200	30
1500/25	1500	35
1600/33	1600	40
1800/33	1800	50
2000/33	2000	60

**6. INSTALLATION AND PLACEMENT**

All installation operations must be performed by professionally qualified personnel. Place the machine on a flat surface stably and horizontally using the adjustable feet at the base of the sides. The adjustment of the feet is done from the outside, screwing or unscrewing them until they reach the bubble positioning.



Check that the floor capacity is compatible with the weight of the machine that can be detected from the attached technical sheet. The load of the machine can be considered totally static. Make sure that the floor is clean and heat resistant.

For proper use, operation and maintenance, leave a free space of at least 500 mm around the machine. The ambient temperature must be between +5°C and +40°C and the relative humidity of 50%. The environment in which the machine is installed must have sufficient air exchange.

The degree of protection is IP24.

Do not install or use the machine if it is damaged.

Correct operation is guaranteed up to altitudes of 1000 m.slm.



**ATTENTION!**

Ensure that the machine has clean air and not air contaminated with chlorine, fluorine or other solvent vapours.

Do not use or store gasoline, oil or other flammable materials near the machine. It could cause fires or explosions.

Provide in the vicinity of the machine a fire extinguisher chosen and kept in maintenance according to current regulations.



**ATTENTION!**

The machine **MUST NOT** be installed outdoors, but in a **CLOSED** environment specifically built and used as a laundry.

## 7. INFORMATION ON NOISE EMISSION

The airborne noise produced by the machine produces an A-weighted continuous sound pressure level of less than 70 dB.

## 8. ELECTRICAL CONNECTION



**ATTENTION!**

The electrical connection must be performed by professionally qualified personnel and must meet the requirements of current local and national rules and / or regulations. Check that the supply voltage corresponds to that indicated in the license plate data (voltage tolerance  $\pm 10\%$ , frequency tolerance  $\pm 1\text{Hz}$ ).

The license plate data is visible on the rear of the car. For the connection use a cable of the type H05 VV – F or higher sized according to what is reported in the license plate data. Interpose upstream of the device an

omnipolar disconnection device interlocked with padlock (for example a residual current circuit breaker) with an opening between the contacts that allows complete disconnection under the conditions of surge category III, and complies with the relevant regulations.

The breaking power of the circuit breaker shall be at least 10 kA.



**ATTENTION!**

**Provide electrical protection by means of an RCD cut-off device of type B (sensitive to the average current value).**

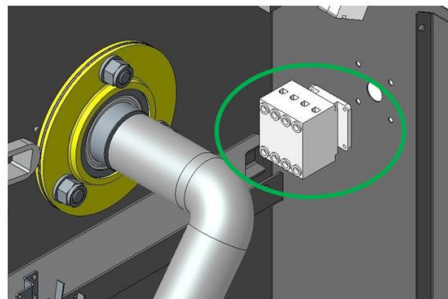
Make sure that the main circuit breaker of the system is in the "0" (OFF) position when connecting the machine.

Open the left side door using the key that is given with the machine documentation.

Remove the door by rotating it at the base.

Pass the power cord through the cable gland located inside the left shoulder of the machine and lay it on the channel so that it can reach the disconnecter.

The power supply must in fact be performed on a disconnecter and ground terminal (already present in the appliance) marked.



Depending on the type of power supply provided by the serial number plate of the machine, connect the wires, with the help of the tip of a screwdriver, to the disconnecter and to the earth terminal marked as follows:



: earth clamp

L1, L2, L3: phase connections

N: neutral connection

When installing or replacing the power cord, the ground conductor must be at least 5 cm longer than the others.



**ATTENTION!**

In machines equipped with microprocessor or manual, but with the roller speed control (presence of the inverter in the electrical panel) it is not necessary to check the direction of rotation of the motor, since the intake fans are single-phase, and that the roller motor is driven by an inverter.

In machines NOT equipped with inverters, it is instead necessary to verify that, during ironing, the roller rotates in the direction of introduction of the fabrics: otherwise, disconnect the power supply and reverse two phases of the power supply.

The device must be connected to an effective earthing system: the manufacturer declines all responsibility in the event that this connection is not made according to the provisions of the regulations in force.

Before any maintenance operation, disconnect the power supply: for maintenance, refer to the wiring diagram of the machine, inserted in the left side door or available on the manufacturer's website.

The sections for power cables expressed in mm<sup>2</sup>, are as follows:

	1ph230V	3ph230V	3ph400V
Mod. 1000 Mod. 1200	6 mm <sup>2</sup>	4 mm <sup>2</sup>	2.5 mm <sup>2</sup>
Mod. 1500 Mod. 1600 Mod. 1800	10 mm <sup>2</sup>	6 mm <sup>2</sup>	4 mm <sup>2</sup>
Mod. 2000	16 mm <sup>2</sup>	10 mm <sup>2</sup>	6 mm <sup>2</sup>



**ATTENTION!**

The minimum sections shown may vary depending on the length of the connection. For lengths greater than 5 meters, increase the section proportionally to the additional length.



**ATTENTION!**

Even when the position of the main switch is "0", the cables upstream of the main switch are live!



**ATTENTION!**

The machine must always be connected according to the serial data (power, supply voltage, frequency). For supply voltages other than those expected, ask the manufacturer for information.

**9. HUMID AIR EXHAUST DUCT**

The humid air exhaust duct (for machines with suction system) must be made according to current regulations.

The drain duct can have a maximum linear length of 15 meters and must be equipped with a condensate collection system, so as to avoid water returning to the aspirator.

To prevent humid air and noise from escaping, the joints of the exhaust from the machine to the outside must be made airtight, with materials (putties, mastics, silicone preparations) resistant to high temperatures.

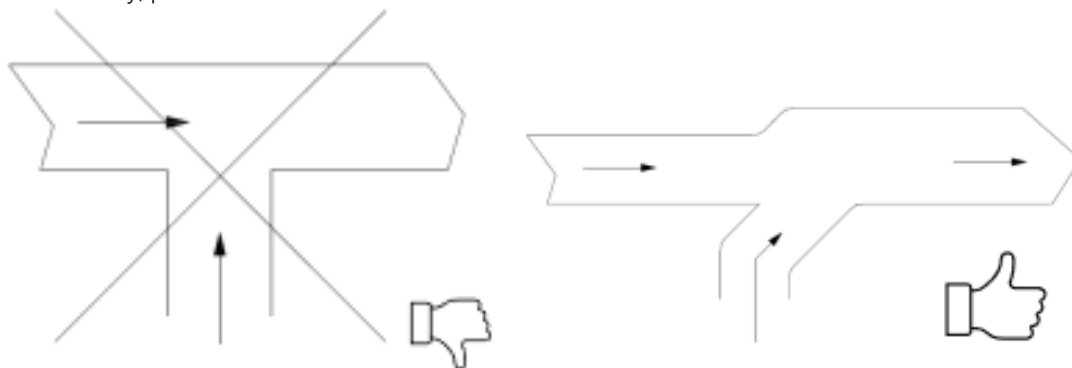
To avoid pressure drops, avoid using spiral ducts: therefore use smooth and rigid metal pipes. The material used must be compatible with the discharge temperatures of the machine.

To reduce pressure drops, avoid 90° curves, preferring two 45° curves.

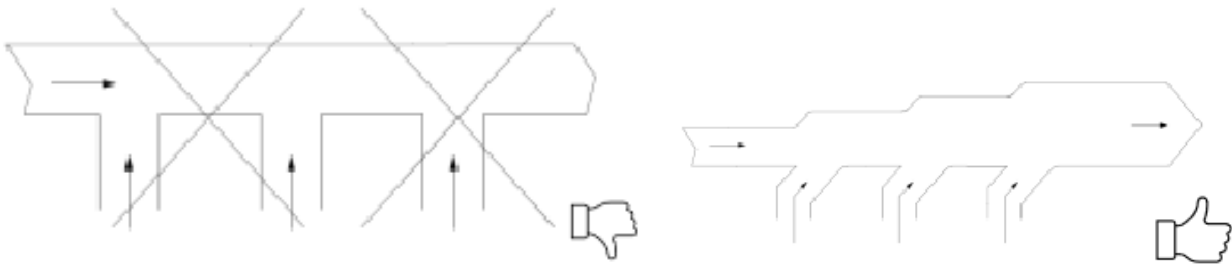
A steam trap shall be provided at the lowest point and the connection of this trap shall comply with local provisions for connection to the water drain.

The pipeline must withstand crushing.

In the case of input into a collector, do not make "T" connections and consider the correct value of the collector section. If necessary, provide for an increase in the collector section.



The exhaust manifold for several machines cannot be shared with other types of machinery, even more so it cannot be shared with machinery equipped with gas heating.



The outlet of the exhaust pipe must not flow to human height and / or be directed towards residential units.

### 10. THE INTRODUCTORY TABLE

The fixing system of the introduction table allows you to customize its position. During installation, adjust its position according to the user's requests.



Loosen the screws on both sides of the machines, position the table at the desired inclination, and finally close the screws on both sides of the machine.

### 11. KNOW THE MANGANO

The mangano is characterized by some elements that you need to know immediately, before starting to use the machine.



1. Access door to the electrical panel of the mangano. The door can be opened using the plastic key that is delivered with the machine documentation. Access to the electrical panel must be allowed only to specialized and competent personnel.
2. Main switch: when you operate it by bringing it to the "I" (ON) position, you power the machine electrically.
3. Command area of the mangano.
4. Hand saving bar: when raised, the machine stops.
5. Pedals: the roller turns in the direction of introduction after pressing the pedalboard. The roller stops when the pedalboard is pressed again.
6. Emergency release: if pulled causes the immediate lifting of the chest.
7. Emergency button that must be pressed whenever it is necessary to stop the mangano quickly for emergency reasons.



### ATTENTION!

The openings for the passage of air on the backrest of the machine must always remain free. The passage of air through the louvers must not be restricted in any way.

## 12. USE OF THE EMERGENCY BUTTON

In case of emergency and need for quick stop of the machine, press the emergency mushroom on the side of the machine.

When the emergency mushroom is pressed, the ironing roller stops, at the same time the conch is raised.

When the emergency has been resolved, rearm the emergency mushroom, rotating it according to the indications on the mushroom itself.

Press the SAFETY RESET button to re-enable the operation of the machine.

Stop Category 1: Controlled stop with power available to the actuators to achieve the stop and then the removal of the power supply when the stop is reached.

## 13. USE OF THE MANGANO RELEASE LEVER

In case of emergency, such as entrapment or blackout, you can use the panic bar.

The lifting of the release lever causes the immediate opening of the chest and the automatic shutdown of the machine.

The release lever must in any case be used during blackout, to lift the chest from the roller and avoid burning the roller cover or trapped linen.



When the emergency is resolved, push the release lever and return it to the standard position. Then press the SAFETY RESET button to re-enable the operation of the machine.

## 14. IRONING

During operation, remember to use the entire length of the roller, so as to keep the temperature uniform over

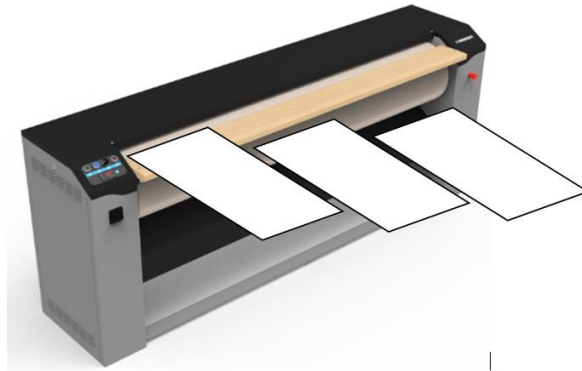
the entire length of the machine.

Therefore, regardless of the size of the linen, introduce the same as shown in the figure.



**ATTENTION!**

These machines should not be used to perform bending.



The temperature to be used must comply with the temperatures permitted by the characteristic plates of the linen to be ironed.

Remember that at the end of the work, the machine cannot be stopped, at least until the temperature has dropped below 80 ° C.

Also remember that the moisture conditions of the fabrics must be no more than 20% for manganes. Manganes should be used on fabrics that have been previously treated by a dryer. Its purpose is therefore only to iron the flat garments, and not to dry them.

At the end of the ironing cycle and the cooling phase, turn off the machine, and bring the main switch to position "0".



**ATTENTION!**

The formation of yellow stains on ironed fabrics signals the presence of detergent not carefully eliminated during rinsing or a temperature of use of the machine higher than that provided for the fabric!



**ATTENTION!**

The formation of folds on stretched fabrics can be generated on fabrics that have too low residual humidity when introduced into the machine.



**ATTENTION!**

Important differences in the thickness of the fabrics to be ironed (due for example to seams or hems), can give rise to the formation of wrinkles, folds and low ironing quality.

Even the passage of a double-ply or folded fabric can be the source of folds or curls and sometimes the introduction is not possible or easy.



**ATTENTION!**

The formation of horizontal pleats can be generated by a bad sliding of the fabric on the ironing chest. Always keep the chest clean and possibly perform a paraffin cleaning. Make sure that the ironing temperature conforms to the type of fabric to be ironed: excessive temperatures lead to the slippage of the fabric with respect to the dragging action of the roller and the inevitable formation of folds. Excessive temperatures can still lead to melting or deterioration of the fiber.

**ATTENTION!**

Carefully avoid ironing fabrics that have buttons inserted or fabrics that have nylon seams. The high temperature could cause it to melt and the consequent soiling of the ironing chest. It is advisable to avoid exposing the fabric maintenance label to direct contact with the chest: it could burn and smear the ironing chest: iron the garments with the maintenance label facing down. Also avoid ironing fabrics with metal parts such as zips: they could cause the surface of the roller or the ironing bowl to be affected.

**ATTENTION!**

The side filters placed on the ventilation passages must always be free: avoid occluding the passage of air and keep them clean from fluff by cleaning them every day.

### 15. CASE OF ENTRAPMENT OF A LIMB

In the case of entrapment of a limb, it is necessary to be able to manually open the chest.

There are several procedures that can be used for unlocking:

- pressure of the pedalboard with one foot, while the roller is turning in the direction of introduction: in normal operation this operation opens the chest.
- Pressure of the rod saves hands with your hands: immediately opens the chest.
- Pressure of the emergency mushroom with your hands: immediately opens the chest.
- Lifting the release lever: immediately opens the chest.

**ATTENTION!**

It is important that the Laundry Manager is aware of the unlocking procedures listed above and that he ensures that the personnel who will use the machine are aware of the dangers of the machine itself and know the emergency procedures.

Periodic tests are carried out on the personnel using the machine to ensure that the procedures have been correctly understood.

### 16. WHAT TO DO IN CASE OF POWER FAILURE

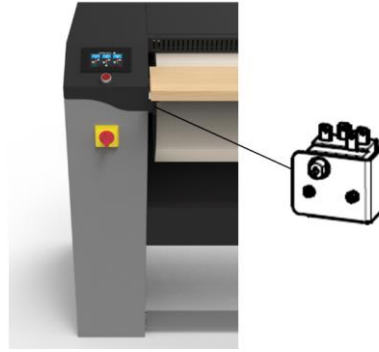
In the event that the power supply fails, it is possible that one or more garments remain stuck between the roller and the chest risking burning.

In this case lift the release lever: the chest opens automatically freeing the garment and avoiding the burning of the cloth that covers the roller.

### 17. INTERVENTION OF THE SAFETY THERMOSTAT

The safety thermostat intervenes when the temperature of the chest exceeds 230 ° C, turning off the heating of the machine and without forwarding any alarm to the display. When the thermostat has intervened, the machine does not heat. In this case it is necessary to rearm it.

The safety thermostat is reset by pressing the button that can be reached by unscrewing the small black cap located under the introduction board, on the left side of the machine.



## 18. USE OF THE MACHINE

When switching on, during use of the machine, and during shutdown, strictly follow the following instructions:



**ATTENTION!**

The garments to be treated with the marrow must be taken from a rotary dryer with a residual moisture of 10-20%, to allow proper ironing.



**ATTENTION!**

Before stopping ironing, make sure that the temperature of the roller is below 80°C. By suspending the work at a higher temperature, you can have burns of the ironing sheet.



**ATTENTION!**

In case of faults or malfunctions, turn off the equipment immediately and call the authorized technical assistance center!



**ATTENTION!**

At the end of the program do not leave the garments inside the machine stationary or above the collection compartment: you could run into a phenomenon of self-combustion!

## 19\_S SMART VERSION: START AND STOP

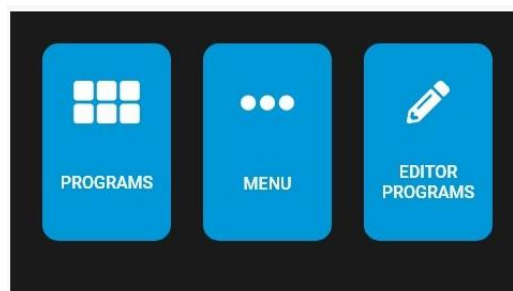
Turn on the machine by bringing the main switch, described in the previous paragraph, to position "I" (ON).

Make sure that the emergency button is in the rest position, and that it has not been activated during transport or before the last shutdown of the machine.

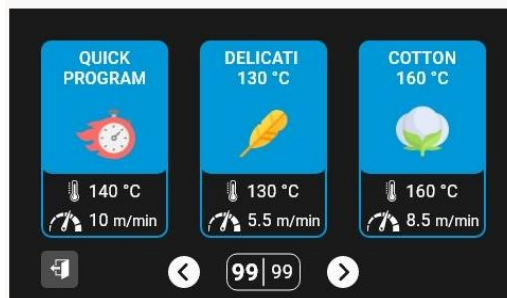
Before starting the machine, always carry out the safety check procedure (check the relevant paragraph).

When you turn on the machine, the display shows for a few moments the software version of the installed microprocessor and its release date.

Then display the selection menu:



Press on the "PROGRAMS" icon to view and select programs in memory:

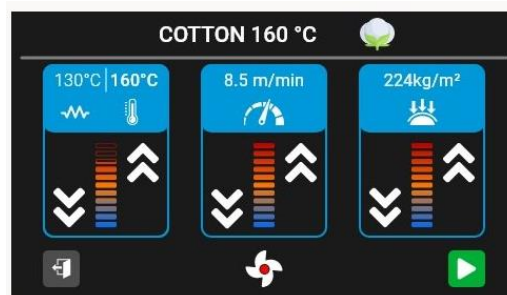


To select a program, simply tap the desired icon.

To view additional programs in memory, slide the screen, or tap one of the two arrows.

When a program is selected, its name (editable: see the relevant paragraph), its numerical storage and its characteristics appear on the display.

For example,:



Below is a detailed description of the programming parameters that may appear during the preview phase:

*HEATING* (symbols "blue and red thermometers")

It is the temperature set for the ironing cycle.

Please note that the choice of temperature must be made referring to the specific characteristics of the fabric. The definition of the temperature is also related to the choice of roller speed.

*ROLLER SPEED* (symbol "speedometer")

It is the rotation speed of the roller fixed for the ironing cycle.

Please note that the choice of speed must be made referring to the specific characteristics of the fabric. The definition of the speed is also related to the choice of the temperature of the ironing chest.

*CONCH PRESSURE* (symbol "pressure")

It is the pressure that the chest exerts on the roller during the ironing cycle.

The lower the pressure chosen and:

- less wear of machine linings
- lower the heat exchange and the consequent hourly productivity
- greater the delicacy in the treatment of the fabric

The higher the pressure chosen, and:

- the greater the wear of the machine linings
- greater the heat exchange and the consequent hourly productivity
- less delicacy in the treatment of the fabric

*SUCTION* (only for machines that are equipped with it, symbol of a 4-blade fan)

When ON, it activates the humid air extractor; when in OFF, the vacuum cleaner is switched off. In the case of (calenders), the vacuum cleaner is always present and always in ON, during the ironing cycle.

## PLEASE NOTE

After the cycle has been started, all the parameters described so far can be modified using the relevant icons on the display: these changes, however, will not remain in the program's memory.

When the desired program is displayed on the display, simply press the START button to start it.

Pressing the START button starts the heating system.

To start the rotation you need to press the pedalboard.

The ironing roller continues to turn in the direction of introduction and turns until the pedalboard is pressed again

While the machine is running, it is possible to adjust the temperature, speed and ironing pressure (see paragraphs).

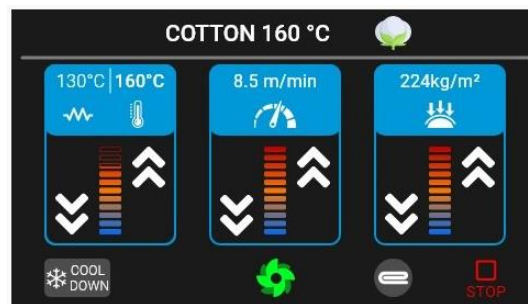
At the first achievement (after switching on) of the set temperature value, the buzzer emits some beeps, to warn the user that the ironing temperature has been reached and that it is now possible to start ironing.

In any case, do not start ironing work until the minimum temperature of 80°C is reached.

At the end of the ironing cycle, the machine can be stopped by pressing the *STOP* button.

To extend the life of the coating, make sure that at the end of the cycle there is no residual moisture on the roller: it is advisable to let the roller rotate in contact with the chest for another two / three minutes, without introducing additional fabrics at a temperature below 80 ° C.

The machine can also be stopped using the *COOL DOWN* button (see the relevant paragraph).



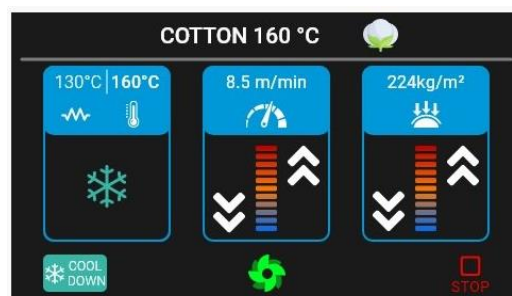
## ATTENTION!

The machine is equipped with an automatic shutdown time. If the machine therefore waits for the pedal activation control for too long, the microprocessor automatically puts it in *OFF condition*.

## 20\_S. HOW TO USE COOL DOWN (SMART VERSION)

Cool down is a function that saves and optimizes the thermal energy stored in the machine. When you are at the end of your shift, or when you need to stop ironing, you can use this function. Cooling is activated and deactivated by pressing the *COOL DOWN* button.

When the function is activated, the thermoregulation is interrupted: the activated cooling signal slides to the display.




The roller continues to spin until the temperature drops below 80°C. Once this temperature is reached, the

machine stops completely.

If it is necessary to reactivate the thermoregulation, the cool down function can be deactivated, before reaching 80°C, by pressing the *COOL DOWN* button again. In this way, the set point temperature is restored and the work cycle can be resumed. After cooldown you can set the main switch to "0" (OFF).

### 21\_S. THE "ASPIRATOR" BUTTON

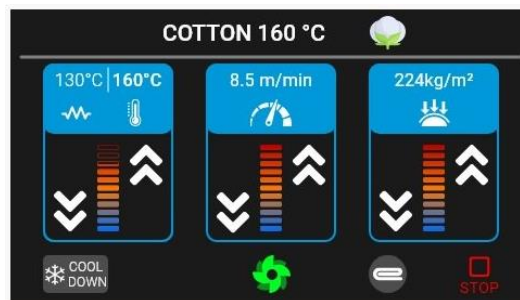
If equipped with suction, the user can decide whether or not to activate the suction through the appropriate *FAN button* .

The suction allows to take the moisture that is deposited on the windings of the ironing roller, and to bring it outside through the exhaust duct.


The suction is activated and deactivated by pressing the *FAN button* on the display.

When the function is activated on the display, the icon of a fan rotates.

To turn off the suction, press the *FAN key again*.



### 22\_S. "THICK" FUNCTION

For properly configured machines it is possible to use the "THICK" function that allows you to treat thick fabrics or with large seams. By pressing the relative icon , this function is activated which allows you to start ironing by pressing pedals and starting to rotate the roller without immediately closing the chest: the fabric fits so easily under the chest without receiving direct pressure.

After a few moments the roller starts its rotation again and the chest begins to close on the fabric, crushing the incoming edge of the fabric in a precise and uniform way.

When the icon is pressed and the functionality activated, every time the pedal board is operated the ironing machine can be used in this mode.

This function eliminates unwanted creases on the incoming edge of the fabric and facilitates the elimination of creases on the stretched fabric.



### 23\_S. HOUR METER MANAGEMENT

During machine activity, a counter of working hours is increased and stored in memory between a shutdown and the next re-ignition. The installer is able to view the number of working hours by accessing a reserved area of the microprocessor.

### 24\_S. SPEED TEMPERATURE COMPENSATION

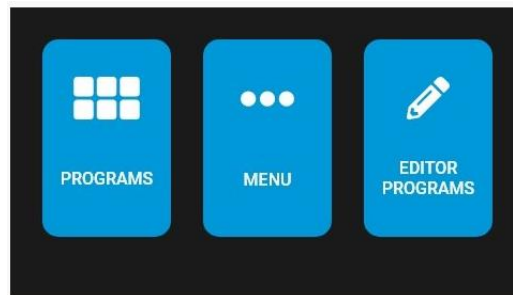
It is possible to manage the ironing machine in order to vary the speed automatically when the temperature

changes. The variation changes the rate value within a range of 1% to 20% from the set point value. Based on the percentage difference between the current temperature value and the set one, the roller speed with respect to its set point value is also varied in direct proportion and by the same percentage amount. This management is optional: if you want to apply or remove it, request it from the Installer, who will reconfigure the microprocessor.

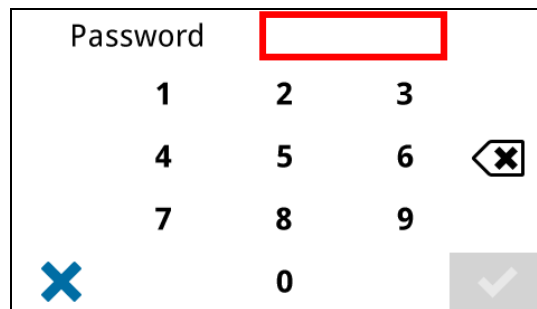
## 25\_S. PROGRAMMING

It is possible to make a series of changes to the default data by entering the user menu or the PROGRAM EDITOR.

To log in, while the machine is stationary, press the relevant icon:



The screen appears on the display:



Enter the 6-digit code for access to the user area (default password) "123456". Once the sequence is completed, the screen with the menu list appears on the display. This screen is the gateway to the user programming area. Browsing it you can access the configuration of:

- PROGRAMS
- SETTINGS
- RECORDINGS

By entering PROGRAMS you can change the default settings of a program by choosing the following functions:

- Select the number of the program to edit;
- NAME: The name of the program will appear above its icon.
- CYCLE TEMPERATURE: the temperature of the program.
- ROLLER SPEED: the speed of the program.
- CHEST PRESSURE: the pressure of the chest.
- SUCTION: (if available) possibility to activate the suction

By entering SETTINGS you can choose the following functions:

- CHANGE LANGUAGE: to define the communication language of the touch screen.
- SET DATE: to adjust the local date.
- SET TIME: to adjust the local time.
- TEMPERATURE °C/°F: to decide the display of the temperature in °C or °F.
- DISABLE TOUCH: to decide that, while using the machine, the only active button on the keyboard is the STOP button (it is therefore impossible to change the parameters of the program in progress).
- USER PASSWORD: to customize the user password (you will be prompted for the current one)
- UPLOAD/DOWNLOAD PROGRAMS: to manage sets of own programs
- BEEP KEYBOARD: to enable an acoustic signal at each typing or selection.
- PANEL MANAGEMENT: to move program icons, delete programs, select program icons
- LOAD ICONS FROM USB: allows you to load custom program icons via a special USB interface.
- LOAD SYSTEM ICONS FROM USB: allows you to load new custom system icons via a dedicated USB interface.
- MACHINE ON: allows you to manage the warning of the machine on when no ironing activity is in progress.
- PEDAL: allows you to manage the functionality of the pedals.
- TEMP./VEL. COMPENSATION: allows you to activate or deactivate the speed compensation according to the temperature reached.
- MAX COMPENSATION %: defines the TEMP./VEL compensation in % value.
- CONCH PRESSURE: unit of measurement Kg/m<sup>2</sup> or lb/ft<sup>2</sup>.

Entering inside RECORDINGS you can check the diagnostics of the machine:

- WORKING HOURS: the total working hours of the machinery can be verified.
- PROGRAM STATISTICS: you can check the total number of programs performed and the repetitions of each individual program.
- DOWNLOAD RECORDINGS: you can download the entire contents of the recordings menu to USB.
- ENERGY STATISTICS: It is possible to consult the electricity consumption referred to the last ironing cycle, referring to the entire working day and referring to the total.

### **26.E. START AND STOP (EASY version)**

Turn on the machine by bringing the main switch, described in the previous paragraph, to position "I" (ON).

Make sure that the emergency button is in the rest position, and that it has not been activated during transport or before the last shutdown of the machine.

Before starting the machine, always carry out the safety check procedure (check the relevant paragraph).



When switched on, the display shows the ambient temperature.

To activate the ironing cycle, press the green START button and select the temperature on the digital thermostat: press the SET button and then set the desired ironing temperature using the "UP" and "DOWN" arrows. This activates the heating system.

To start ironing, press the pedalboard and the roller will start to rotate.

The machine can be equipped with the following optional features:

- speed control: in this case you can use the adjustment wheel ("speedometer" icon) to adjust the rotation speed of the ironing roller
- Suction system: in this case you can activate or deactivate the suction ("fan" icon) by pressing the corresponding blue button
- To stop spinning, press the pedal board again.
- To stop the loop press the red STOP button.

## 27. MALFUNCTION REPORTS

In the event that malfunctions occur, the microprocessor provides complete diagnostics. The alarm list is followed. However, the user is invited to contact, in these cases, an authorized service center for the solution of the problem occurred.

Please note that the activation of each of the following alarms is accompanied by the intermittent and continuous sound of the buzzer.

### - OVERTEMPERATURE

The temperature of the roller exceeded the safety limit. In the event that this alarm occurs, the chest opens automatically and the suction is inserted (if any). The alarm is automatically removed when the temperature drops below the full scale.

While the alarm is active, the roller cannot be started. Call Technical Support to verify the fault.

### - GUASTA PROBE

There is a failure of the temperature probe, The behavior of the machine is the same as in case of overtemperature seen previously. Call Technical Support.

### - THERMAL ENGINE

There is a signal from the motor-saving thermal device when there is a failure of the inverter that feeds the motor that drives the roller. The machine activates the cool down and turns on the vacuum cleaner (if present). Once the cool down temperature is reached, the machine turns off: the alarm remains on the display and can be reset by turning off the machine. Call Technical Support.

### - WDT CONCA

If the rest position of the chest is not reached within the time limit by the ascent command, the machine is positioned in *OFF*.



**ATTENTION!**

**In the event that this alarm occurs, immediately suspend the use of the machine and immediately call the Technical Support service.**

### - ACTIVATION OF SAFETY RESET BUTTON

Below the touch screen is the SAFETY RESET button of the safety system. This system intervenes, illuminating the button, when one of the following events occurs:

- o intervention of the hand-saving bar;
- o activation of the panic bar;
- o opening of one of the side doors;
- o emergency mushroom pressure;

Safety is restored by pressing the SAFETY RESET button.

If the light does not go out, the alarm has not gone off.

It means that at least one of the elements listed above has not yet been restored, and that the machine is still on standby, waiting to return to safety conditions.

## 28. MANGANO MAINTENANCE



**ATTENTION!**

There is a risk of injury or damage to the equipment.

Any ordinary or extraordinary maintenance must be carried out by professionally qualified personnel.

Make sure all power supplies are disconnected before performing any maintenance.



**ATTENTION!**

Perform any type of maintenance only when the machine has completed cooling and has reached, in all its parts, the ambient temperature.

Lock the interlocked switch.

For cleaning do not spray water or steam.

Ordinary and extraordinary maintenance are carried over to follow at the scheduled intervals.

Do not allow the accumulation of lints around the machine.

For daily cleaning use a soft, damp cloth. Do not use abrasive products, abrasive sponges, solvents or metal objects.

- **EVERY DAY:**



**ATTENTION!**

**The cleanliness of the machine is extremely important. The accumulation of fluff could generate the risk of developing a fire!**

At the end of each working day, clean the side filters of the machine from any accumulated fluff.

- **EVERY THREE MONTHS:**

Check the cleanliness of the vacuum cleaner (for machines that are equipped with it). Open the left side door, unscrew the screws closing the auger, and check the cleaning of the same. Check the tightening of the mechanical connection screws and impeller clamping screw on the shaft.

- **EVERY SIX MONTHS**

Verification of the goodness of the cloth and the spring that cover the ironing roller. The replacement of the cloth and the spring is necessary when the first burns on the ironing fabric occur. Please note that the machine must be used along the entire length, in order to avoid burns concentrated in certain areas (classically on the sides of the roller), and that the machine must be turned off only after the temperature of the chest has dropped below 80 ° C.

Check the diameter of the ironing roller with a tape measure at different points of the roller: near the right and left shoulders and in the center.

The replacement of the steel wool roller cover is necessary when the diameters of the rollers, complete with cloth and spring, fall below the following values:

- 785 mm circumference for manganes with a diameter of 25 cm
- 1005 mm circumference for manganes with a diameter of 33 cm

When the steel wool cover is replaced, the cloth and the clothespin are also replaced. Please note that the machine must be used along the entire length, in order to avoid the formation of depressions of the padding (classically in the center of the roller).

Completed the first part of steel wool coating, the ideal dimensions of the roller are:

- 790±5 mm in circumference for manganes whose roller has a diameter of 25 cm
- 1045±5 mm circumference for manganes whose roller has a diameter of 33 cm

Once the second part of the coating with cloth and clothespin has been completed, the final dimensions of the roller are:

- 810±5 mm in circumference for manganes whose roller has a diameter of 25 cm
- 1070±5 mm circumference for manganes whose roller has a diameter of 33 cm

**- EVERY TWELVE MONTHS**

Verification of the efficiency of gas springs.

The replacement of gas springs is necessary when the chest can no longer approach the roller to perform ironing or its pressure is no longer sufficient (case of gas leaks and relative inefficiency of the spring)

**29. IRONING PROBLEMS**

In case there are poor results in the stretched fabrics, check the following trouble shooting.

ISSUE DETECTED	Probable SOLUTION
<p>The fabric struggles to slide between the chest and the roller with the formation of curls at the exit.</p>	<p>a) Proceed to clean the chest. The cleaning of the chest must be performed by passing a thin fabric folded once, which covers the entire length of the roller, and which contains powder paraffin inside. By stretching the folded fabric, the paraffin melts and is spread on the hollow. b) Check the selected ironing pressure: it may be too high</p>
<p>The fabric tends to get stuck between the chest and the roller.</p>	<p>a) Check that there are no solid residues on the chest. In this case the chest must be dismantled and cleaned with a brush equipped with brass bristles. The brush should be used in the direction of passage of the tissues. Do not brush horizontally (from right to left!). b) Check the selected ironing pressure: it may be too high</p>
<p>Fabrics come out with yellowish spots.</p>	<p>a) Check that the rinses performed with the washing machine are accurate and completely eliminate detergent residues. The PH must be between 5 and 6.</p>
<p>Fabrics come out yellowed.</p>	<p>a) Check that the ironing temperature is compatible with the temperatures expected for the fabric: it is possible that the ironing temperature is too high b) Check that the ironing speed is not too low</p>
<p>Black lines form on the cloth along one or more circles.</p>	<p>a) Check that there are no punctual residues on the chest due to the fusion of buttons or nylon seams. b) Check that the chrome plating has not been affected by zip or metal elements.</p>

ISSUE DETECTED	Probable SOLUTION
The fabrics come out with irregular folds, neither parallel nor perpendicular to the chest.	a) Check the degree of residual moisture at introduction. Fabric that is too dry may not be ironed properly
The fabrics still come out wet.	a) Check the degree of residual moisture at introduction, which must not exceed 20%. b) Check the ironing speed: too high a speed could prevent complete drying. c) Check the selected temperature: it may be too low. d) Check the humid air extractor: a clogging may limit its efficiency. e) Check the selected pressure: it may be too low.

### 30. PROCEDURE FOR CHECKING SAFETY DEVICES

After turning on the machine, before starting the ironing cycle, it is always necessary to check the perfect functioning of the safety devices, The user must always strictly carry out the following procedure:

Sequence of ACTIONS	CONSEQUENT REACTIONS
Press the ON/OFF button on the digital keyboard ...	... the cylinder MUST NOT start rotation
Operate the foot control without introducing any fabric to iron ...	... the cylinder MUST start rotating and MUST close the chest.
Lift the hand-saving bar ...	... the roller MUST stop. The chest MUST open again
As long as the hand-saving bar remains raised ...	... the machine MUST NOT be able to be restarted
Restart the machine and press the pedalboard ...	... the cylinder MUST start rotating and MUST close the chest.
During normal operation, operate the emergency mushroom ...	... the roller MUST stop and the chest MUST rise.
As long as the emergency mushroom is inserted ...	... the machine MUST NOT be able to be restarted
Rearm the emergency mushroom: restart the machine and press the pedals ...	... the cylinder MUST start rotating and MUST close the chest.
Lift the release lever ...	... The chest must open instantly.



**ATTENTION!**

After turning on the machine and before starting work, it is always necessary to check the perfect functioning

of all safety devices.

### 31. SCRAPPING

When the life cycle of the machine is over, proceed with the scrapping according to current regulations, separating the metal parts from the plastic parts, from the glass parts, from the electrical / electronic parts.

*Pursuant to art. 13 of Legislative Decree 25 July 2005, n. 151 "Implementation of Directives 2002/95 / EC, 2002/96 / EC and 2003/108 / EC, relating to the reduction of the use of hazardous substances in electrical and electronic equipment, as well as waste disposal"*



The crossed-out bin symbol on the equipment or its packaging indicates that the product must be collected separately from other waste at the end of its useful life.

The separate collection of this equipment at the end of its life is organized and managed by the manufacturer. The user who wants to get rid of this equipment must therefore contact the manufacturer and follow the system that this has adopted to allow the separate collection of the equipment at the end of its life.

Adequate separate collection for the subsequent disposal of discarded equipment for environmentally compatible recycling, treatment and disposal helps to avoid possible negative effects on the environment and health and promotes the reuse and/or recycling of the materials of which the equipment is composed.

The abusive disposal of the product by the holder involves the application of the penalties provided for by current legislation.

### 32. WARRANTY CONDITIONS

For warranty conditions, please refer to the manufacturer's price list.



**ATTENTION!**

In order to take advantage of the manufacturer's warranty, the requirements contained in the manual must be scrupulously observed, and in particular

- always operate within the limits of use of the machine;
- always carry out constant and diligent maintenance;
- use the machine properly instructed personnel;
- use only original spare parts indicated by the manufacturer



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