



ARCOBALENO[®]
PASTA MACHINES

MODEL ASM100 OPERATING, INSTALLATION & MAINTENANCE MANUAL



IMPORTANT SAFETY NOTICE

This manual contains important safety instructions which must be strictly followed when using this equipment.

FOR SERVICE, CONTACT ARCOBALENO

If you have any questions or issues regarding your machine, please contact us at: **717.394.1402** or **service@arcobalenollc.com**. When contacting us, please have your serial number and model number available so we can assist you based on your machine's individual specifications.



A R C O B A L E N O[®]

Arcobaleno Machine Certification

The following machine(s) have been inspected and tested by Arcobaleno prior to shipment to customer:

Model number(s): _____

Serial Number(s): _____

And found to meet the following requirements as certified by the undersigned.

- ☐ All safety switches and E-stops function properly
- ☐ Machine power connections are installed correctly and function properly
- ☐ All covers and guards are present and undamaged
- ☐ The machine has been run and tested to meet the required standards
- ☐ An operating manual has been included in the packaging
- ☐ Appropriate tools have been included in the packaging
- ☐ The machine has been packaged properly and is free of physical defects

Authorized Arcobaleno Representative Signature: _____

Date: _____



SAFETY NOTICE/WARRANTY

MODEL ASM100

IMPORTANT SAFETY NOTICE

To insure both safe and trouble-free performance, we stress that all personnel that will be involved with your new Arcobaleno Pasta Machine **must** read and understand these instructions **before** attempting to operate this unit.

LIMITED WARRANTY

Warranty Effective only when Certificate of Acceptance is received.

Please mail back with enclosed pre-paid envelope.

If not received within 14 days warranty is VOID.

Arcobaleno Pasta Machines, LLC. guarantees this device against defects in workmanship or material under use and service **for a period of twelve (12) months, which begins upon receipt of machine by the customer.** All obligations and liabilities under this guarantee are limited to repairing or replacing, at our option, F.O.B. our plant of such allegedly defective units as are returned and carrier charges prepaid. All repairs or replacements are made subject to factory inspection of returned parts at company plants. No liability is accepted for consequential damage which may include but is not limited to: damage or failure that has occurred due to misuse, acts of God, damage due to reinstallation labor or improper application. This warranty does not include electrical parts. Defects as defined in the above paragraph shall not include decomposition by chemical action (corrosion).

In the event that a defect in material or workmanship occurs during the first ninety (90) days of the warranty and if Arcobaleno determines that field service is required, Arcobaleno will provide the required service and parts free of charge. The buyer will be responsible for and invoiced for all out of pocket travel and living expenses incurred by such a service call. After the initial ninety (90) days of the warranty, Arcobaleno will service the equipment at the customer's facility at its prevailing labor rates plus expenses. A purchase order will be required for any parts or service ordered under this warranty.

Defects due to materials or manufacturing shall be examined at our expense but if the claim is unjustified, all repairs and replacement costs have to be borne by the customer. The guarantee does not cover accidental damage, negligence or inappropriate treatment, incorrect use or phenomena not depending on the regular functioning or use of this machine.

Guarantee on equipment and accessories furnished by outside manufacturers shall be limited to the guarantees of the respective equipment and/or accessory manufacturer for such units. This guarantee is null when the machine has been repaired by non-authorized personnel and/or when spare parts have been supplied that have not been approved by the manufacturer.

FOR WARRANTY SERVICE

Contact the Arcobaleno warranty service department at **(800) 875-7096** or **(717) 394-1402** to report warranty claims before arranging repair or attempting to return the unit to Arcobaleno Pasta Machines, LLC.



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The following specifies the symbols and their meanings, which will be used in the manual:



DANGER

It shows the danger presence for those who work on the machine and for those in the vicinity, so the indicated activity must be performed in accordance with the accident prevention standards and with the indications shown in the manual.



PRECAUTION

It shows a warning on useful information and/or further recommendations and/or alertness about the actual operation.



ATTENTION

It shows an operation to perform with attention to avoid damage to the machine.

NOTES: _____



GENERAL INFORMATION

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GENERAL INFORMATION

MODEL ASM100

1.1 GENERAL

This publication, hereinafter simply defined as the “manual”, includes any information regarding installation, use, and maintenance of the “ASM100” manufactured by Arcobaleno Pasta Machines, LLC.

The recipients of this publication, generally defined as “users”, include all individuals who, according to their relevant involvement, need and/or are required to provide instructions or to attend this machine operationally.

These individuals can be identified as follows:

- ✓ Directors
- ✓ Chief of Operations
- ✓ Heads of Department
- ✓ Machine operators who are directly involved in its transportation, storage, installation, use, and maintenance, starting from its market introduction until its dismantling
- ✓ Private direct users

This publication must be considered as being an integral part of the machine and, as such, it must be kept for future references until final dismantling and scrapping of the machine. Besides to show all useful notices for the operators, the manual contains the electric diagrams that will be used for the possible maintenance interventions and repairs.

Before putting the machine into use, or if there is a question to its function, it is obligatory for the operator to read the use instructions. If there are additional questions, please call Arcobaleno.

1.2 PURPOSE OF MANUAL

The purpose of this manual is to allow specific individuals to learn how to use this machine safely for a long period of time in order to perform all relevant tasks; provided that such individuals shall take any measure and arrange in advance any human resources and materials as necessary. The machine's intended use and configuration are the only ones approved by the manufacturer; users are advised to avoid usage of the machine in a way non-compliant with the instructions given. Every other use or configuration should be previously agreed with the manufacturer and, in such case, an Annex will be attached to this manual. The machine operator shall comply with any applicable labor law in force at the machine's place of installation.

1.3 WHERE AND HOW TO KEEP THIS MANUAL

This manual should be kept in a safe and dry place where it is always available for consultation. It is advisable to make a copy which should be kept on file. In the event of exchanges of information taking place with the manufacturer, please refer to the rating plate and serial number. This manual should be kept for the entire life of the machine, and if needed, (for example damage that compromises its consultation, even if only partially, etc.), the user must purchase a new copy which should be requested to the manufacturer only.



GENERAL INFORMATION

MODEL ASM100

1.4 MANUAL UPDATE

This manual forms an integral part of the machine and reflects its current status upon its market introduction. This publication complies with any law, directive, and regulations in force at that time; it shall not be deemed unsuitable if updated at a later time.

Any changes, adjustments, etc. made on machines marketed afterwards shall cause the manual to be reviewed, however, any manual always represents the current condition of the machine associated with it.

Any additions to this manual that the manufacturer considers appropriate to send to every user should be kept in conjunction with its relative manual.

1.5 COOPERATION WITH THE USER

The manufacturer is available for any additional information its clients may need and for taking into consideration any suggestion as to improve its products in order to make this manual more responsive to users' needs. In case of equipment transfer, the equipment should be accompanied by this manual. In this regard, the principal user should send the address of the new user to the manufacturer, so that the manufacturer will be able to provide him/her with any necessary information and/or updates.

Arcobaleno Pasta Machines, LLC. reserves title to this publication and warns against any reproduction, in whole or in part, without its prior written consent.

1.6 MANUFACTURER'S WARRANTY

In order to benefit from the manufacturer's warranty, users should strictly comply with any precautions set forth in this manual, in particular such as:

- ✓ To operate the machine within its usage limits
- ✓ To carry out regular and accurate maintenance
- ✓ To select qualified personnel having the necessary skills and capabilities and being appropriately trained to use this machine

The manufacturer accepts no responsibility, direct or indirect, arising from:

- ✓ Non-compliance with operating instructions and uses which differ from those provided in this manual
- ✓ Usage from personnel unaware of any instructions and details included in this manual
- ✓ Non-compliant usage with specific regulations in force in the installation country
- ✓ Changes made on the machine without prior authorization
- ✓ Unauthorized repairs
- ✓ Use of unoriginal parts
- ✓ Exceptional events



GENERAL INFORMATION

MODEL ASM100

The manufacturer isn't responsible for damages caused from improper use of the machine and documentation or for damages caused from imperative standards violation, negligence, lack of experience, imprudence or failure to respect regulation standards on behalf of the employer, of the operator or the maintenance personnel. The manufacturer isn't responsible for any possible damage caused from an irrational, improper and/or wrong use.

Any transfer of the machine to a second user shall take place in conjunction with its related manual; the lack of it shall automatically cause decline of any responsibility on the part of the manufacturer for any incorrect use of the machine.

If the machine is transferred to a second user residing in a country whose language differs from the country of the first user, such first user shall be responsible for providing the second user with a reliable translation of this manual in the language of the country where the machine is transferred to.

1.7 AFTER-SALE SERVICE

For any after-sale service please refer directly to the manufacturer at the following address:

Arcobaleno Pasta Machines, LLC.
160 Greenfield Road
Lancaster, PA 17601

Tel: 717.394.1402
Fax: 717.397.0258

service@arcobalenollc.com
www.arcobalenollc.com

AFTER HOURS TECH SUPPORT contact Antonio at 610.656.0391



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2.1 COMPLIANCE OF RATING PLATES - LABELING

As shown in particular in A, the rating plate includes main data on the manufacturer and on the machine in addition to the EC labeling. The rating plate is secured with four rivets.

As shown in particular in B, C, D, and E other rating plates are added in order to display general warnings as to the correct use of the machine.

The supplied machine and object of the present instructions manual is constituted with groups and parts included in the CE conformance declaration.

Readability and preservation of rating plates:

Rating plates should always be kept in readable form concerning all data included. For such purpose, they should be cleaned on a regular base. In case of degradation and/or illegibility of any one piece of Information included, users should request another plate from the manufacturer. Upon such request, they should mention the details included in the original plate and arrange for its substitution.

WARNING: The below rating plates should not be removed or covered with others.



A



B



C



D



E

2.2 PACKING - HANDLING

Machines are delivered completely assembled so that packaging and/or special protections are not included in the delivery. In case of different agreements between the manufacturer and the user regarding packing of parts or the entire machine as well as handling, see any specific instructions attached to this publication.

All transportation and lifting operations must be performed by personnel adequately informed and trained and must have read and understood the safety prescriptions shown in the manual.



PRELIMINARY INFORMATION

MODEL ASM100

1. Always perform the machine lifting and transportation when it is empty,
2. Verify that the lifting means are able to support the weight and size of the load in safe conditions and that they are approved and submitted to regular maintenance,
3. Adopt all necessary measures to ensure the maximum stability of loads in relation to their masses and center of masses,
4. Avoid sudden shocks or accidental knocks to the machine during the lifting and the unloading,
5. Perform the lifting with continued movements, without pulls or repeated impulses.

2.3 STORAGE UPON RECEIPT

Storage can take place soon after delivery of the machine and is allowed for a maximum period of two years in sheltered areas with the following features:

- The storage area should be a sheltered place with a temperature of no less than 41° F / 5° C and not over 104° F / 40° C, with a humidity ratio not exceeding a value equal to 80%.
- Should the above mentioned values change in the course of storage, it shall be required to perform some preliminary checks before setting the machine at work (please consult with the manufacturer).
- Should the temperature within the storage area exceed or drop below the above mentioned values and the relative humidity goes over 80%, it shall be necessary to take proper measures such as using a bag barrier and hygroscopic salt.

WARNING: For storage periods longer than two years or under different environmental conditions, please request the relevant preservation procedures from the manufacturer.

2.4 MACHINE AND SUPPLY KIT INSPECTION

The machine and its relative supply kit (as agreed with the manufacturer) should be in perfect conditions. Before shipping, each item is carefully checked and inspected, however, upon its receipt, it is always advisable to verify the completeness and working condition of the goods shipped.

In case of any defects and/or incompleteness, please inform the manufacturer immediately and comply with his instructions before proceeding with the installation of the machine.

Verify any possible damages to the frame, buckles, etc. cracks or tears of electrical conductors, etc... Take the machine's documentation and verify the absence or any discrepancy between what is stated in the shipping documents and the goods received.

Standard supply kit:

- ✓ Machine Certification
- ✓ Certificate of Acceptance - Please mail back with enclosed pre-paid envelope.
If not received with-in 14 days warranty is VOID.
- ✓ Operator's manual - installation, usage, and maintenance



TECHNICAL DESCRIPTION & OPERATION

MODEL ASM100

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TECHNICAL DESCRIPTION & OPERATION

MODEL ASM100

3.1 GENERAL FEATURES

The ASM100 Spiral Mixer is designed to mix doughs for pasta, pizza, and bakery. It is for high hydration doughs up to 80%.

The machine has the following elements:

1. Main Switch (side of machine):
2. Touchscreen
3. Emergency Stop Button
4. Safety Cover Lid
5. Bowl
6. Spiral



All machine parts that come in contact with the food products, such as the bowl, spiral, etc... are in stainless steel materials or plastic material addressed to be in contact with the food.

The machine settings can be adjusted via the touchscreen on the front of the unit.



Any possible further usable ingredients must not be dangerous for the operator and maintenance personnel health. Besides they must not determine explosive zones. Use caution when mixing ingredients with a fine particulate. Always consult the technical data and the safety cards about the dangers of every food product.

If a dusty zone is generated, put on adequate protective mask, both during the manual loading and during the machine operation.



TECHNICAL DESCRIPTION & OPERATION

MODEL ASM100

3.2 TECHNICAL DATA

Model	ASM100
Bowl Capacity	100 liters (105 quarts)
Mixer Production (flour + liquid)	Up to 155 lbs/batch
Speeds	75 rpm up to 230 rpm (spiral) 5.5 rpm up to 16 rpm (bowl)
Electrical Power	220V/3/60Hz 12 Amps
Nema Plug	L15-20
Machine Dimensions	26.5"W x 43.75"D x 47"H
Shipping Dimensions	30"W x 48"D x 55"H
Machine Weight	850 lbs
Shipping Weight	950 lbs
Shipping Class	70

3.3 EXPECTED USE - INTENDED USE

The ASM100 Spiral Mixer is designed to mix doughs for pasta, pizza, and bakery. It is for high hydration doughs up to 80%.

The use herein indicated is the only one recognized by the manufacturer. In the event that the manufacturer and the user agreed on specific operating conditions, these will be documented and enclosed as annexes to the machine manual, thus forming an integral part of it.

3.4 OPERATING ENVIRONMENT

The expected operating environment must have the following features:

- Temperature:
Minimum: 41° F / 5° C
Maximum: 104° F / 40° C
- Maximum relative humidity/dampness: 80%

The machine cannot be operated in open places, or in fire or explosion risk environments, or in such places where usage of explosion-proof components is required.

The machine is not for use in environments where there are contaminated agents: for example powders, acids, corrosive gas, salts and similar.



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The machine is not for use in environments where there are potentially explosive atmospheres classified as area 0 or area 1 or area 2, area 20 or area 21 or area 22.

The machine is not for use in environments where there are ionized and not ionized radiations: for example microwaves, ultraviolet rays, lasers, X rays and similar.

The electrical equipment is unsuitable for operating in environments with vibrations and impacts; otherwise, it should be assembled away from the machinery and anti-vibration mounts should be provided.

Machine should be positioned on the floor and have at least 31.5 in. (800mm) of space between adjacent equipment to ensure adequate airflow for cooling and space for the operator to freely move around.

3.5 USERS

In selecting the most appropriate person (operator) to operate the machine, who will necessarily be someone fit for work in compliance with the regulations in force, the individual in charge of company security shall take into consideration the physical aspect (no impairment), the psychological aspect (mental balance, sense of responsibility), as well as the educational level, training, experience and knowledge of rules, instructions, and measures designed for accident prevention.

Based on the dispositions and skills emphasized by the operator, the individual in charge of company security shall arrange for his/her training on the machine as to provide him/her with a complete knowledge of this machine.

In addition the operator will learn the content of this manual as well as its attachments.

WARNING: Don't allow anyone to approach the area when the machine is working and prohibit its usage by individuals unfamiliar with ongoing operations.

The machine management is only allowed to an authorized and trained personnel equipped with sufficient technical experience. The personnel operating the machine must be aware that the application of knowledge and safety standards is an integral part of their work. The operator must have received an adequate training.

Non-qualified personnel must not have access to the operating area when the machine is used.



INSTALLATION & START UP

MODEL ASM100

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INSTALLATION & START UP

MODEL ASM100

4.1 PRELIMINARY CHECKS

- Verify the packaging condition and integrity. Check that the package has not suffered visible damages during the transportation and lifting operations.
 - In case of damages or incomplete packaging, notify the manufacturer immediately.
- Verify the integrity and perfect condition (no signs of rust, humidity, dent, etc.) of both the machine and of any anticipated accessories within the consignment.
- Assess the integrity of the electric installation wiring (no signs of cracks, squashes, etc.)
- Verify that the expected way to get to the installation place (machine handling) is free from any possible obstacles (things or persons). Foresee contingent protection barriers and get to the selected installation place.

4.2 INSTALLATION

Proceed with the machine setting in the area specifically designed pursuant to instructions given in Sections 2 and 3 of this manual.

Operator

This machine requires one operator for the installation.

During normal working order the operator must stay in its proximity, at “visual” distance in order to intervene in case of malfunction or loading/downloading operations, as the case may be.

Lighting system

This machine is not equipped with an off-the-shelf lighting system. The lighting level of the environment should always avoid shadow areas and ensure that any operation is within the maximum levels of security in relation to its usage type.

Should servicing be necessary in parts where there is not enough lighting, it is mandatory to be equipped with portable lighting systems in order to avoid shadows that prevent or reduce visibility on the place of intervention or in its surroundings.

Stability

The machine stability is designed so that in the foreseen operating conditions, taking into consideration the climate conditions, it is such as to allow use without risk of overturning, falling or untimely movement.

Taking the machine construction and its position into consideration, the machine will be steady and does not need to be fastened to the work surface.



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Ensure that the surface the mixer is placed on is stable and free of vibrations when machine is in operation. Machine should be positioned on the floor and have at least 31.5 in. (800mm) of space between adjacent equipment to ensure adequate airflow for cooling and space for the operator to freely move around.

4.3 CONNECTION TO THE ELECTRIC LINE

The operator is responsible for providing a suitable electric system. The operator should arrange for connection to a proper power source equipped with wires of suitable sizes. The supply source should be suited to the machine and comply with any relevant regulations.

Any electrical equipment of Arcobaleno LLC meets the standards CEI-EN 60204, therefore, supply should be within a $\pm 10\%$ range based on the current value and within a $\pm 1\%$ range continuously, as well as within a $\pm 2\%$ range for a brief period of time based on the frequency value.

The electric system should be equipped with an automatic release system, having a differential thermal-magnetic switch, as well as with a ground system able to ensure the minimal parameters requested by regulations. It should also respect specific provisions of the law in force in the machine's installation country.

Prior to performing any connection, verify that the features of the electric line corresponds to any technical information included in the electrical system's diagram and in the Arcobaleno name plate located on the machine.

Any equipment connection to the electric system (when the manufacturer didn't already prearrange for a cable with a EC plug), should be carried out only by qualified and trained staff, directly to the terminal or the master switch through the relevant fairlead.

USER ELECTRIC PLANT

The user plant, upstream of the control and check equipment of the machine, must be designed, installed and maintained in conformance with the applicable prescriptions of the safety rules for "low voltage users plants" in accordance with IEC 60364 / HD384 / CEI 64-8 (last issues)..

About the energy distribution electric plant that feeds the control and check equipment of the machine, is obligatory its regular/integral belonging to one of the TT or TN normalized systems in accordance with IEC 60364-4-41 / HD382-4-41 / CEI 64.8 (4_41) (last issues)..

About the above prescriptions / indications, the correlative grounding system must be in conformance with the applicable requirements for the coordination with the associated active devices, in accordance with IEC 60364 - 5-54 / HD382-5-54 / CEI 64.8 (5-54) (last issues).



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ELECTRIC FEEDING

The electric feeding connection must be in conformance with the country legislation in which it is used. The electric feeding must be maintained in conformance with the following technical prescriptions:

1. The electric feeding must be always of type and have an intensity corresponding to the specifications indicated in the machine plate. If excessive voltages are applied, some components will be damaged irreparably,
2. A differential device must be foreseen coordinated with the protection circuit, respecting the legislation, the legislative and regulation disposals in force in the installation country;
3. The electric feeding cable outside the machine cover must be made pass in the spaces prepared from you and adequately protected;
4. If the neutral conductor (N) is present before feeding the electric equipment, as for you its continuity must be guaranteed (connected and available).
5. Before to feed the electric equipment, as for you must be guaranteed the continuity (connected and available) of the green yellow conductor of the protection equipotential circuit.

PERSONAL PROTECTION AGAINST INDIRECT CONTACTS

In the event of failure, protection measures against indirect contact by automatically interrupting the equipment's power supply circuit, consist in interrupting one or more line conductors by means of a protective device automatically intervening.

This disconnection must be triggered in a sufficiently brief time to limit the duration of the contact voltage so it is not dangerous. The interruption times are indicated in Standard IEC 60364 / HD384 / IEC 64-8 (last editions).

This measure requires coordination between:

1. The type of power supply and the grounding system
2. The impedance values of the various elements of the equipotential protection system
3. The characteristics of the protection devices that detect insulation faults

The automatic power supply interruption of any failed insulation circuit avoids a dangerous situation deriving from a contact voltage. Said protective measure includes:

1. The equipotential protective connection of masses
2. And:
 - a. Protective devices against over-currents assuring power supply automatic interruption if insulation in the TN systems, fails, or
 - b. Protective devices to differential current to start power supply automatic interruption if insulation of an active part to masses or to ground in the TT systems, fails, or
 - c. Insulation or differential current protective devices controllers to start power supply automatic interruption of the IT systems.



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The electrical device's electrical equipment DOES NOT INCLUDE the device offering protection against indirect contact (see the wiring diagram). In any case, the person responsible for the first start-up or any subsequent installations following the electrical equipment's transfer must:

1. Check presence of protective device detecting insulation faults
2. Check type of power supply and grounding system
3. Measure the impedance value of the fault loop (TN systems) or ground resistance (TT and IT systems)
4. Coordinate the protective device and impedance value of the fault loop or earth resistor, based on the relation $R \times I_a \leq U_L$ (for TT systems) or $Z_s \times I_a \leq U_0$ (for TN systems), for the protective device to trip within the maximum downtime specified in standards IEC 60364_4_41 / HD382_4_48 / IEC 64.8 (4_48) (last editions).

PROTECTION DEVICE AGAINST OVERCURRENTS

The equipment is designed to withstand a short-duration symmetrical short-circuit current not exceeding 5 kA. If the expected permissible conditional rated short-circuit current at the installation point is greater than the indicated value, it must be adequately limited.

Since the electrical equipment supplied for controlling and operating the machine does not incorporate electronic circuits that operate on direct current, it is recommended to take appropriate measures to ensure protection against indirect contact: within the scope of protection by automatic disconnection of the power supply, provide appropriate residual current devices (RCDs). The residual current device must be of a type highly resistant to surge overvoltages of atmospheric and switching origin (see EN 61008-1 latest editions).

It is also specified that:

1. The electrical power disconnect device at the head of the electrical panel does not have a rated breaking capacity, as it is a socket/plug combination; furthermore, it must be protected against short circuits with a protective device having a rated current not exceeding the technical specifications.
2. Upstream of the power cable of the electrical equipment, the overcurrent protection device must be installed and maintained in accordance with the requirements of the technical regulations.



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ASSEMBLY / DISASSEMBLY

Assembly/disassembly of any machine part must be carried out with the machine at standstill and the plug disconnected from the socket, i.e. with the disconnecting device in the 'OFF' position.

MAIN POWER DISCONNECT SWITCH

The main power disconnect switch, as verifiable as described by the electrical diagram delivered in the machine manual, is provided by the only power supply of the machine.

In case of incompatibility between the outlet and the machine's plug, consult electrician or Arcobaleno.

The main power disconnect switch allows the electrical equipment of the machine to be isolated from the power, to make it possible to carry out maintenance without risks of electrical shocks.

The main power disconnect switch has two possible positions



Switch set to "O" / "OFF":
OFF or "disconnected", electric equipment
sectioned from the electric feeding



Switch set to "I" / "ON":
ON or "connected", electric equipment
connected to the electric feeding



The assembly / disassembly, cleaning, and maintenance operations of any machine part must be performed with the machine stopped, turned off, and with the plug disconnected from the outlet.



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INSTALLATION & START UP

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4.4 SAFETY INSTRUCTIONS



Failure to apply safety standards and procedures can be a source of danger and damage. The machine is intended for use only if the end user complies with:

1. All rules regarding integration into the environment and personal conduct established by applicable laws and/or standards; with particular reference to the correct installation of the supplied machine and its equipment/function;
2. All further instructions and warnings for use included in the technical/graphic documentation accompanying the machine



Personnel in charge of installation, connection, maintenance, re-installation and reuse, troubleshooting, demolishing and dismantling, except where otherwise specified, must be experienced, trained on safety and informed on the residual risks, having the safety competences of the maintenance technicians, i.e. belonging to the Authorized Service Center.

All specific skills and tasks as well as the dangerous areas, in which the operator and maintenance technician are supposed to perform the functions of this manual, are given in the chapters below.

Such expert personnel must be capable of assessing the work assigned to them, and recognizing any possible hazards on the basis of their training, knowledge, and professional experience and their knowledge of the machines, the relative equipment and the applicable standards and legislation; they must also be in possession of an adequate professional qualification concerning the machine in question. Must be trained on safety and informed of the residual risks.

The personnel must be experienced and not just trained, meaning they must be a qualified technician or hold a degree with knowledge of the machine and its equipment and the corresponding standards and legislation, and must also have specific technical knowledge and training.

In addition to performing all maintenance work, these persons must also be able to support the operator in certain cases. The maintenance technician can also access the electrical panel.



The presence of other persons, except the operator, is not admitted for safety purposes in the areas around the machine during operation.

The only exception to this rule is the presence of maintenance technicians expressly authorized by the person in charge of production.

The person responsible for adjusting/tuning, using and servicing must immediately suspend activities and inform the employer or department foreman or person in charge if any defects or operating anomalies are noted.

If the user does not have any expert or skilled personnel, the activities in question must be outsourced to a suitable qualified external company such as, for example, the supplier.



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For safety reasons:

- Always disconnect the machine from the power supply (unplug the machine from the socket) if left unattended and before assembling, disassembling or cleaning it
- The machine must not be used by persons under 16 years of age; children must not play with the machine
- Keep the machine and cable out of reach of persons under 16 years of age
- If the power cable is damaged, it must be replaced by the manufacturer or their technical service department or a similarly qualified person in order to prevent any risk
- In order to avoid damaging the machine, it is absolutely forbidden to use it unloaded
- The product must be inserted before starting the motor
- Every 30-45 minutes of use, the engine must be stopped to avoid possible overheating
- Use the machine with appropriate clothing, avoiding wearing necklaces, bracelets, ties or other clothing or accessories that could become entangled with the moving parts
- It is compulsory to switch off the machine and unplug the power cable from the power socket before carrying out set-up, cleaning or maintenance work on the equipment
- It is compulsory to keep the power cable with the plug in view during any work on the machine to ensure that it remains disconnected from the power supply

OBLIGATIONS AND DUTIES

PERSONNEL GENERAL REQUIREMENTS

The personnel that work with the machine must:

1. Have read and understood all safety prescriptions shown in the instructions manual;
2. Present normal psychophysical conditions;
3. Be previously informed and trained about:
 - 3.1. The dangers of injuries or other damage that may result from direct or indirect contact;
 - 3.2. The dangers caused by excessive temperatures, electrical arcs or radiation produced and/or emitted by any electrical equipment that may be present;
 - 3.3. The non-electrical hazards which, as experience shows, may arise from any electrical equipment that may be present;
 - 3.4. The dangers of injury or other damage resulting from the residual risks identified in the instruction manual;
4. Have (or acquire through adequate training), the following requirements:
 - 4.1. General and technical knowledge at a sufficient level to understand the content of this instruction manual and to correctly interpret any accompanying electrical diagrams and all technical drawings;
 - 4.2. Knowledge of the main hygiene standards, accident prevention measures and technological standards;
 - 4.3. A comprehensive understanding of the machine and any electrical equipment present;
 - 4.4. Know how behave in the event of an emergency;
 - 4.5. Know where to find personal protective equipment and how to use it correctly if the manufacturer's instructions require it or if collective protective measures are insufficient;



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5. Must also:

- 5.1. Immediately report to the employer any deficiencies in safety and protection devices and equipment, as well as any other potential hazards they may observe, and, in case of emergency and within their competence and capabilities, take direct action to eliminate or reduce these deficiencies or hazards;
- 5.2. Not remove or modify safety and protection devices and equipment without authorization;
- 5.3. Not perform operations or works on one's own initiative that aren't of their competence and that can compromise their or other people's safety;
- 5.4. Not wear rings, wrist-watches, jewels, torn clothes, scarves, ties, or any other clothes or hanging accessory that can be a risk source; keep sleeves tightly fastened around the wrists, and always keep hair neatly secured.

ENVIRONMENTS AND WORKING PLACES

The working environment must meet the requirements of Directive 89/654/EEC and subsequent amendments and additions. No foreign objects should be present in the work area.

The user, in compliance with Directive 89/391/EEC concerning the introduction of measures to encourage improvements in the safety and health of workers at work, must eliminate or reduce the identified residual risks, as specified in this manual.

WARNINGS ABOUT THE RESIDUAL RISKS



The employer must provide training to personnel on the risks of accidents, on safety devices, and on the general rules for accident prevention stipulated by EU directives and the legislation of the country and state where the machine is installed.

It is therefore necessary that operation, user maintenance, and cleaning be entrusted to trained and competent personnel.

It is the employer's responsibility to ensure that the instructions given have been adequately understood. When necessary, it is also the user's responsibility to:

1. Organize a training course, possibly in collaboration with the machine manufacturer, so that operators and maintenance personnel are adequately instructed on the general risks and the residual risks indicated in this manual;
2. Provide personal protective equipment compliant with REGULATION (EU) 2016/425, as amended and updated, as well as information on authorized uses.



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RESIDUAL RISKS DUE TO THE NOISE

According to experimental tests, the machine produces an A-weighted sound pressure level of less than 70 dB.

To avoid the risk of hearing damage from loud or persistent noise, the operator, in addition to being adequately informed and trained, must always use appropriate hearing protection devices during machine operation, such as earmuffs, earplugs, or similar personal hearing protection.



RESIDUAL RISK DUE TO POSSIBILITY OF FIRE

To avoid the dangers resulting from a fire, the user, in addition to adequately training and informing the operator and maintenance personnel, must provide suitable fire extinguishing systems (e.g., portable fire extinguishers for initial response) near the machine's work area, appropriate to the type of materials that could catch fire, such as the electrical and electronic components of the equipment. Water must not be used to extinguish fires.



RESIDUAL RISK DUE TO SAFETY-RELATED CONTROL SYSTEMS:

It should be noted that the safety functions and safety-related control systems are implemented in accordance with PL = "c"; however, a malfunction may occur, i.e., a residual risk due to a failure to stop, as a result of a fault.

Upon activation of the machine's stop command or in the event of a power supply failure, either the operator or the maintenance worker, before accessing the moving parts of the machine, must ensure that they have actually stopped by visually inspecting the area from the top of the machine through the machine's opening.



RESIDUAL RISK DUE TO THE REMOVAL OF FIXED GUARDS, INTERVENTIONS ON BROKEN/ WORN PARTS

Under no circumstances should the operator attempt to open or remove a fixed guard or tamper a safety device. The manufacturer is **NOT LIABLE** for any tampering of the machine!

During the preparation, maintenance, and cleaning phases of the tooling, and during all subsequent manual operations that involve inserting hands or other body parts into the dangerous areas of the machine, a residual risk persists, mainly due to:

1. Collisions with structural parts of the machine,
2. Friction and/or abrasion with rough parts of the machine,
3. Cutting with sharp parts of the tools.

The operator and the maintenance personnel, in addition to being adequately informed and trained, must, whenever performing the operations indicated above, use protective devices for the head, hands, feet, appropriate clothing for the workplace, and respiratory protection, such as, for example, a safety helmet, cut-resistant gloves with metal fibers, and non-slip, durable shoes suitable for the specific nature of the risk, with steel toe caps.



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Furthermore, the operator and the maintenance personnel must be trained for interventions involving manual operations with open shelters, they must be instructed on the associated risks, and they must be authorized by a responsible person.



RESIDUAL RISK DUE TO LIFTING OPERATIONS AND INTERVENTIONS REQUIRING MANUAL OPERATIONS

The lifting and transport operations of the machine or its parts are manual operations that involve a residual risk due primarily to collisions, crushing, entanglement, dragging, friction, or abrasion. The person responsible for transport and handling operations must adequately inform personnel about these residual risks.

There is a residual risk of collision, abrasion, cutting, puncture, dragging, and friction during maintenance, cleaning, and subsequent manual operations, for both the operator and the maintenance personnel, due also to the need to disassemble and/or position parts of the tools, etc.

The personnel responsible for handling the materials, whether they are operators or maintenance personnel, must, in addition to being adequately informed and trained and adhering to the prescribed operating procedures, use appropriate head, hand, foot, and body protection devices suitable for the workplace and of the respiratory way, such as, for example: safety helmets, cut-resistant gloves with metal fibers, and sturdy, slip-resistant safety shoes with steel toes, appropriate to the specific nature of the risk.



RISK DUE TO POSSIBLE SLIPPING AND/OR FALLING

To prevent the risk of slipping and/or falling on the working surface during normal operation of the machine and during maintenance procedures, the operator and maintenance personnel, in addition to being adequately informed and trained, must always use appropriate foot protection devices, such as non-slip, durable shoes suitable for the specific nature of the risk.

The user must in any case keep the walking surface on which the operator and the maintenance personnel move clean and free of substances that could cause slipping, such as liquids or any type of granular or dusty substance.



RISK DUE TO THE NATURE OF THE PRODUCTS USED IN THE MACHINE

The machine is designed to mix doughs, both hard and soft, made from flour, salt, leavening agents, fats, and liquids (water, eggs, etc.), potatoes, and ground meat and other ingredients used in the food industry and in food processing facilities.

Any additional ingredients must not pose a health risk to the operator or handler. Furthermore, they must not create potentially explosive atmospheres.



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Always consult the technical data and safety data sheets regarding the hazards of each food product. If dusty conditions arise, wear appropriate protective half-masks, both during manual loading and during machine operation.



RISK OF FAILURE OF THE CENTRALIZED VACUUM SYSTEM AS INTENDED BY THE USER
During the loading of dry products into the bowl or during normal processing, airborne dust may be generated (e.g., flour dust).

Ingredients and packaged products must be handled carefully, minimizing the height from which they are poured into the bowl.

Packages should be opened carefully at the bottom of the bowl to facilitate the release of flour dust in the shortest possible time.

During flour loading and during the machine's normal operating cycle, a centralized suction system, located at the top of the machine, must be activated and kept running.

In any case, to mitigate the residual risk due to the malfunction of the extraction system, the operator and the maintenance personnel in addition to being adequately informed and trained, must use respiratory protective equipment, such as dust masks or other appropriate devices, whenever they approach working areas.

Furthermore, operating must be stopped immediately and the internal maintenance service must be activated to restore the suction system to working order.



Personal protective equipment must also be used by the operator and the maintenance personnel when performing machine cleaning operations.

PROTECTIVE DEVICES ON ELECTRICAL EQUIPMENT

The protective devices and safety features of electrical equipment must not be removed.

If they must be removed for routine or extraordinary maintenance, measures must be taken immediately to highlight and minimize the resulting danger.

The safety protection or device must be immediately put back into place once the reasons for their temporary removal have ceased.



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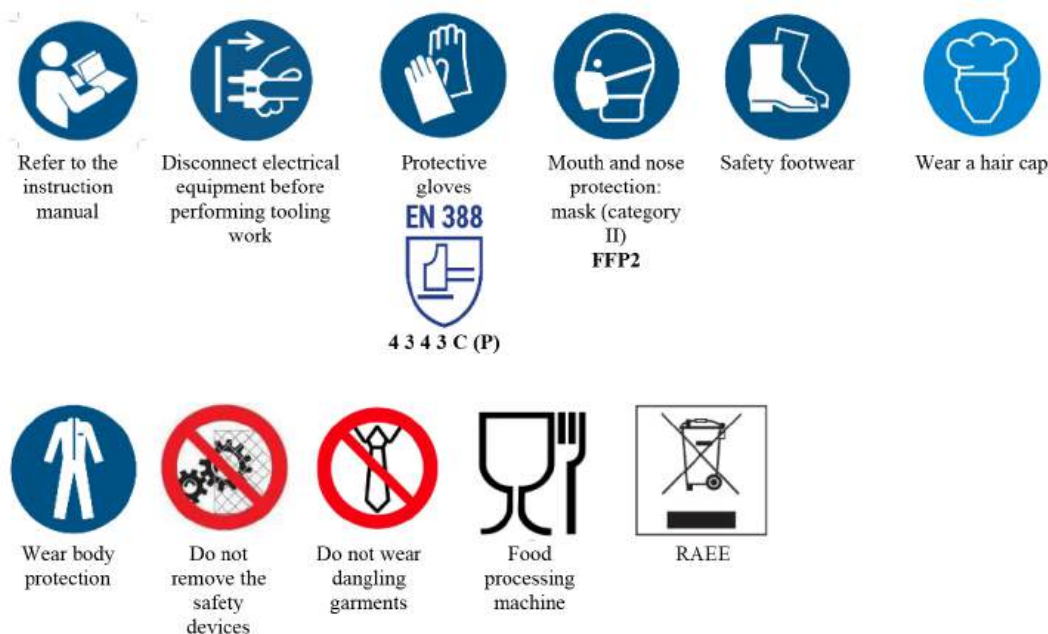


PLATES

The plates and signs must always be clearly visible and must never be removed.

The plates and signs are a safety device and should not be treated lightly.

The user is required to immediately replace any safety and/or warning labels that become illegible due to wear and tear.



WITH THE FIXED GUARDS REMOVED,
THERE ARE DANGEROUS MOVING
PARTS PRESENT.

**BEFORE ACCESSING THE DANGEROUS
MOVING PARTS, WAIT AT LEAST 10
SECONDS AFTER THE POWER SUPPLY
HAS BEEN SWITCHED OFF.**



EQUIPMENT IS LIVE EVEN WHEN THE
ACCESS DOOR IS OPEN.

**TO REMOVE POWER, OPERATE THE
DISCONNECTING DEVICE** (unplug
the plug from the socket).



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PROTECTION DEVICES ON THE MACHINE



The machine guards and safety devices must not be removed.

If they need to be removed for extraordinary maintenance purposes, appropriate measures must be immediately taken to highlight and minimize the resulting danger.

The guard or safety device must be restored to its original position and functionality as soon as the reasons that necessitated its temporary removal have ceased.

The machine is protected by a casing, also made with fixed guards, which prevents access to any dangerous parts of the machine, except in the front working area, which is protected by an interlocked movable guard (safety cover lid) that covers the upper part of the moving bowl, and in the rear area of the moving bowl, which is protected by a safety shaft.

TYPE - POSITION	SAFEGUARDED DANGER TYPE
Fixed guards Back and upper zone	In the back and upper zone, to prevent contact with the motion transmission components, there are fixed shields made of steel sheet with a thickness of not less than 2 mm.
Moving guard Front zone	In the front area, to prevent the tool from coming into contact with the bowl, there is a solid, interlocked, movable guard made of steel grid that covers the upper part of the moving bowl. When the interlocked movable guard is opened, a mechanically driven, positive-opening safety microswitch stops the movement of both the tool and the bowl.
Safety shaft Left side area	In the left side area, to prevent the risk of the hand being caught during the rotation of the bowl, there is an interlocked safety shaft made of steel. When the safety shaft is activated, the mechanically operated, positively opening safety microswitch stops the movement of both the tool and the bowl.
Fixed guards Left, right and underneath bowl area	On some models, in the left and right side areas behind the bowl and under the rotating bowl, there are either clearances greater than 50 mm, or fixed protective steel plates with a minimum thickness of 2 mm and clearances of less than 4 mm relative to the rotating bowl to prevent fingers from being caught.



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Regarding fixed guards, it is further specified that:

1. The dimensions of the fixed guards are such that they do not leave any openings in the protected hazardous work area when they are in place;
2. Fixed guards that are not permanently welded to the machine are secured with screws that require the use of special tools (Allen wrenches) and can only be removed by maintenance personnel using the appropriate tool;
3. Access to openings protected by a fixed guard is permitted only to maintenance personnel. Under no circumstances should the operator attempt to open a fixed guard;
4. It is not possible to assemble a guard in an incorrect position that would leave dangerous openings in the enclosure;
5. If the guards are not secured in their housing with the specially designed screws, they cannot remain seemingly closed and seated in that housing without the fastening elements.

In the design and selection of shelters and safety devices, the accessibility of people aged 16 years or older was taken into consideration.

For all safety functions, including the safety-related parts of the control and command systems, with reference to PL 'c', well-proven safety principles and components were used.



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4.5 CONTROLS AND CONTROL FUNCTIONS

1. Main switch (side of machine):
I = On
O = Off
2. Touchscreen:
Start and stop the machine.
Adjust the machine settings and speeds.
Access and save recipes.
3. Emergency Stop Button:
Stops machine when button is pushed in.



1. Main switch
(side of machine)



MAIN SWITCH CONTROLS

The main switch is on the side of the machine. With the machine plugged into the outlet, rotate the switch to power the machine on or off.

- I = On
- O = Off

TOUCHSCREEN CONTROLS:

Home Screen:

- A few seconds after switching on the machine, the home screen will display.
- Clicking the date and time allows these data to be set.
- Clicking the flags allows the desired language to be selected.
- From the home page, one of three operating modes can be selected:
 1. Manual Mode
 2. Simple Automatic Mode
 3. Expert Automatic Mode



The following pages review each mode.



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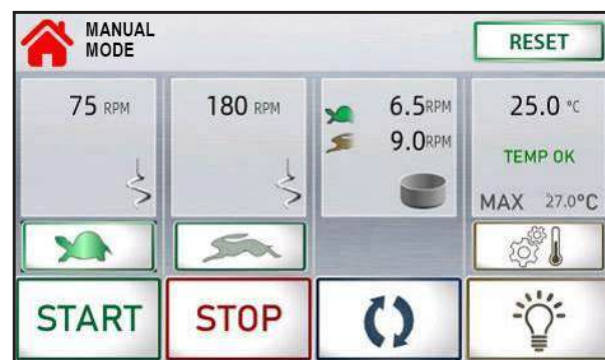
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Manual Mode:

With the TURTLE (slow speed) and HARE (fast speed) buttons you simply select the desired operating speed, which is preset for both the whisk and the bowl.

In this example we have a slow whisk setting of 75 rpm which corresponds to a bowl speed of 6.5 rpm.

The fast whisk setting is 180 rpm which corresponds to a bowl speed of 9 rpm.

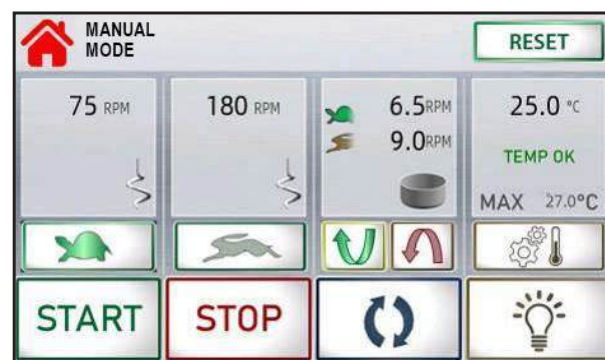


25°C indicates the measured temperature of the dough (or ambient room if the bowl is empty). When the set temperature limit (27°C) is reached, the machine will give an acoustic and visual alarm. By clicking on the temperature display area, the desired threshold value can be set. By clicking on the temperature settings button, the probe calibration can be corrected.

When the machine is running, the GREEN and RED ARROW buttons appear below the bowl setting box. With these arrows you can decide the rotation direction of the bowl or more specifically, to activate its reversal (RED ARROW) for a certain period of time at a certain speed.

The lamp button activates the bowl LED lighting.

The rotating blue arrows button allows the rotation of the bowl, as long as you hold it down, to facilitate emptying the bowl.



The START button starts the machine at the set speed, which will not stop until the STOP button is pressed or the bowl safety cover lid is lifted. Switching between slow and fast speed must be done manually and can also be done while the machine is running.

The whisk and bowl rpm settings can be changed by clicking on them and will be saved for the next use. If you want to return to the preset ones, just press RESET.

WARNING: If the machine does not stop when the safety cover lid is opened, stop operation and contact the manufacturer IMMEDIATELY. Continued use of the machine can result in serious injury.



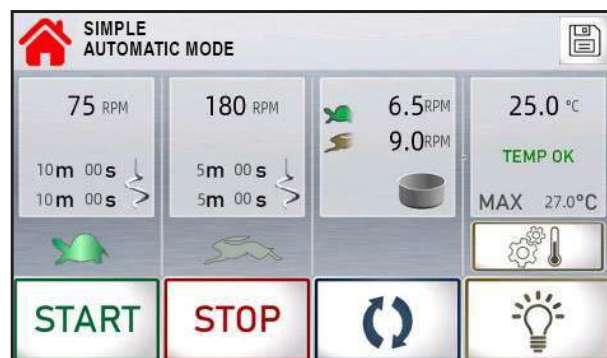
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Simple Automatic Mode:

In this mode you can set the working speed and the working time for each speed. When the START button is pressed, the machine will start kneading at low speed for the set time and then automatically switch to higher speed for the set time.

It is possible to activate the timed reversal of the bowl as in manual mode.



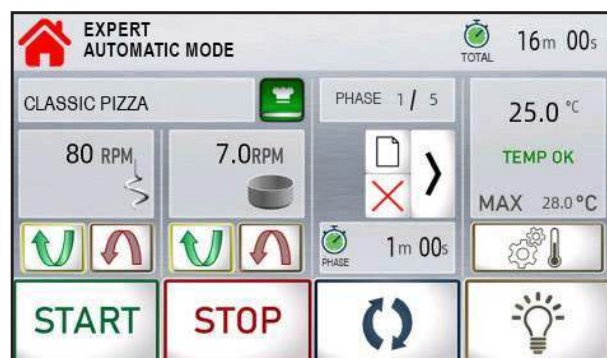
Pressing the save button takes you to EXPERT AUTOMATIC MODE, where you can save these settings as a recipe and give it a name. See Recipe instructions on following page for more details.

Expert Automatic Mode:

In this mode, the work cycle can be set for individual phases (up to 30 different ones) in which speed, stasis, timing, direction of rotation and dough temperature limit can be defined.

In this example recipe, which has been saved as “CLASSIC PIZZA” in the recipes, there are 5 different phases with a total duration of 16m 00s. The first phase involves:

1. 80 rpm for the whisk with forward rotation direction (Green Arrow highlighted)
2. 7 rpm for the bowl with forward rotation direction (Green Arrow highlighted)
3. 1m 00s duration of this phase
4. 28°C temperature limit for this phase.



By pressing the forward arrow (or backward arrow if there is a previous phase) below the phase indicator, you can see the settings for each individual phase.

For example, the third phase of this recipe involves:

1. 110 rpm for the whisk with forward rotation direction (Green Arrow highlighted)
2. 7 rpm for the bowl with reverse direction of rotation (Red Arrow highlighted)
3. 1m 00s duration of this phase
4. 28°C temperature limit of this phase





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Editing A Recipe Or Creating A New One

If you want to change this recipe, or use it as a basis for creating a new one, simply press on the parameters to be changed and use the + and - keys to set the new values. For the direction of rotation of the whisk and bowl, simply press the GREEN ARROW for forward or RED ARROW for reverse. Changing the time of each phase updates the total time of the recipe.

To delete a work phase, first select it, then press the red X. To insert a new work phase, press the new sheet icon. For example, a phase 4 will be inserted by copying phase 3 and renaming the two existing subsequent phases as 5 and 6. The new phase 4 can then be reset at will.

After finishing the settings of the various phases, the name of the starting recipe is followed by an asterisk to indicate that it has been changed and must be saved for safekeeping (it is still possible to start the machine without saving).

Saving A Recipe

To save changes to an existing recipe, from the EXPERT AUTOMATIC MODE, press the cookbook icon. The following page will be displayed where you must select the name of the recipe to be updated and press the save button. It will ask for confirmation to overwrite the recipe. The keyboard will open with the name selected and pressing ENTER will complete the operation.



Please note that you must first select the row, then press save to write down the name of the recipe you want to save, but it does not take into account whether this row is already occupied or not. When updating an existing recipe, it first asks for confirmation to overwrite the name, which can also be changed, and pressing ENTER completes the operation.

The abc... button only appears if you select an existing name in the table and allows you to rename the recipe.

The red X button allows a recipe to be deleted and the open button to load a saved recipe.

Press the up or down arrow keys next to the table to reorder the table.

The copy and paste buttons allow you to copy and paste an existing recipe onto a free line.

The new button allows an empty line to be inserted before the selected one.

Use the < and > keys to scroll through the table pages.



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EMERGENCY STOP AND DIAGNOSTICS

In addition to the main switch (disconnect) that interrupts the machine's power supply, the machine is equipped with six emergency stop devices:

- Emergency push-button (with two contacts)
- Bowl safety cover lid
- Thermal protection of the spiral motor
- Thermal protection of the bowl motor
- Protection rods against the bowl wall (left and right)

The intervention of one of these devices stops the machine when working in manual mode or pauses it when working in automatic mode. Each intervention is signaled on the display by highlighting the corresponding icon (ex: bowl safety cover lid).

If you exit the screen with the left arrow button without having resolved the emergency, the ALARM message remains on the automatic or manual operation screen. Pressing it reopens the warning window. Even if there are no active alarms, pressing in the area where ALARM appears accesses diagnostics. All active alarms are listed descriptively in the table with the exception of the bowl safety cover lid, which stops the machine. Alarms concerning inverters are reported in the Inverter Status table and if they are not resolved by restarting the machine, contact Arcobaleno at 717-394-1402.

WARNING: If the machine does not stop when the safety cover lid is opened, stop operation and contact the manufacturer IMMEDIATELY. Continued use of the machine can result in serious injury.

STARTING

The machine can only be started by voluntarily activating the control device designed for this purpose.

1. Plug machine in.
2. Set the Main Switch to "I" / "ON".
3. Select the desired mode on the touchscreen (manual or automatic).
4. Load the desired recipe or adjust the settings as desired.
5. Push the Start button on the touchscreen to start mixing.



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STOPPING

1. To stop the machine, push the Stop button on the touchscreen.
2. To stop the machine in an emergency, push the Emergency Stop button. Once out of the emergency turn the emergency button clockwise to cycle it.
3. In case of momentary or extended stop, before starting machine function, all food products must be removed from the machine: set the Main Switch to “O” / “OFF” and disconnect the plug from the socket.
4. In case of extended stop, set the Main Switch to “O” / “OFF” and disconnect the plug from the socket.

SWITCHING OFF

The switching off operations must be performed in succession as follows:

1. Before switching off the machine, wait for the machine operating to conclude;
2. Stop the machine by pushing the Stop button;
3. Completely empty the dough bowl;
4. Set the Main Switch to “O” / “OFF”;
5. Unplug the machine;
6. Perform the cleaning operations

FUNCTIONING SAFETY

If the machine is under stress or submitted to an overloading, the machine stops immediately for the thermal protection functioning. In this case, wait until the machine is completely cooled before starting it again.

LOSS OF SUPPLY VOLTAGE

In the event the machine loses supply voltage, first restore supply voltage. To restart the machine, see starting procedure on previous page.

OPENING THE SAFETY COVER LID

If the machine is in operation and the safety cover lid is lifted, the machine stops immediately due to the safety micro switch.

Machine operation can be resumed by lowering the safety cover lid to its lowest position, then following the procedure for “STARTING”.

WARNING: If the machine does not stop when the safety cover lid is opened, stop operation and contact the manufacturer IMMEDIATELY. Continued use of the machine can result in serious injury. **36**



USE OF THE MACHINE

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USE OF THE MACHINE

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5.1 CERTIFICATION

Before starting for the first time any operating activity, perform the checks provided for in Section 4

- Supply the electric box
- Activate any circuit by turning on the master switch

5.2 OPERATIVENESS

WARNING: A complete reading of this instruction manual and of any related attachments is necessary prior to starting any operating activity. The warranty according to the working order of the machine within safety conditions and absolute performance according to its expected use, is strictly dependent on the accurate application of this instruction manual and of any related attachments.

Operator

He/she should be a person fit for work and able to attend to any needs regarding the machine operation (see Section 3). He/she should not allow any other person to approach the area when the machine is working and should forbid its use by staff unfamiliar with such activities. He/she should follow any directions provided in this manual in order to achieve maximum performance, minimum wear and tear, and greater security for both himself/herself and others.

WARNING: If machine is not functioning properly, don't perform any operations that might compromise the good working order of the whole unit. When in doubt, always request the help of the manufacturer.

✓ ANY VIOLATION OR DAMAGE TO THE EQUIPMENT ON THE PART OF THE USER RELIEVES THE MANUFACTURER FROM ANY LIABILITY AND MAKES THE USER EXCLUSIVELY LIABLE FOR ACCIDENT PREVENTION TO THE COMPETENT AUTHORITY

WARNING: DO NOT remove safety devices before or during machine operation! Doing so may damage machine and users. The manufacturer is NOT LIABLE for any tampering of the machine!

WARNING: It is advisable to read any specific paragraph several times and, if in doubt, to consult the manufacturer indicating the passage whose construction seems unclear.

Before switching on the machine, perform the following operations:

- Read with attention the technical documentation,
- Know which protections and emergency devices are on the machine, their location and functioning.

The non-authorized use of commercial parts and accessories that are part of the protections and of the safety devices can provoke malfunctioning and a dangerous situation for the operator.



USE OF THE MACHINE

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5.3 WORK POSITIONS AND OPERATORS TASKS

The machine is designed to be controlled by an operator trained and informed on the residual risks, but with the competences, in safety matter, of the maintenance personnel, and having professionalism as previously shown.

The operator must be a competent person, or a designated person, trained and qualified for knowledge and practice experience and supplied with the necessary instructions so that the requested tasks are performed in safety.

Only during the lifting operations, the operator is helped from a second operator to assist in the case there are objects with a mass greater than 55lbs (25kg).

The normal work zone of the operator is the machine front zone near the bowl (loading/unloading zone) in normal working conditions of the manual loading/unloading operations of the food product in the bowl, with the fixed shelters in closed position and blocked, and with the moving reopening interblocked lifted or lowered.

The operator has the task of:

1. Manually loading into the bowl the ingredients that must be mixed to obtain the desired dough, with the safety cover lid open to assist with loading ingredients. During the machine operation, some ingredients (ex. liquid) can also be added with the safety cover lid closed.
2. Manually unloading the bowl when the mixture has reached the desired consistency by stopping the machine and opening the safety cover lid.
3. Withdrawing dough samples from the bowl by stopping the machine and opening the safety cover lid.

In addition, the operator has the task of supervising the machine when in operation, circulating freely around it in safety zones with the safety cover lid in the closed and blocked position.

The operator is responsible for the working process and has the task to control the machine through the control actuators placed in the control panel. Besides the normal machine operation, the operator has the task to start and stop the machine in normal conditions and stop it in emergency conditions.

The verification operations belong to the operator; these tasks are easy, performed in safe conditions and clearly described in the following points. The operator has the task of general supervision on the machine operation; in case of necessity they must not make interventions but they must activate the maintenance service.

The operator performs the external parts cleaning of the machine, the bowl, tool internal zones and every other part that needs to be cleaned, with the machine stopped and unplugged for safety, at the end of every use. The internal parts cleaning, that involves a fixed shelters disassembly, is entrusted to the maintenance personnel.



USE OF THE MACHINE

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5.4 OPERATING THE MACHINE

VERIFICATIONS AND CHECKS BEFORE STARTING

VERIFICATION / CHECKS	METHOD TO CHECK
Verify the absence of any objects on the machine or within the bowl.	Visually check all parts of the machine for any objects that aren't the food product (for example: various tools, clothes, etc.) . If any objects are on or in the machine, remove them before starting the machine.
Verify that the following are cleaned: • The bowl • The spiral • The safety cover lid • The external surface of the machine	Visually check that the parts mentioned have been cleaned before using the machine. To check the internal part of the bowl, lift the safety cover lid. If molds or other type of dirt are present, follow the cleaning procedure indicated in the "CLEANING" section of the manual
Verify the integrity of the following: • The fixed protections • The safety cover lid • The bowl • The body of the machine	All the fixed protections, the safety cover lid, etc. must perform the function for which they are foreseen. Visually check the integrity of the parts mentioned. The parts must be changed at the first signs of erosion or breaking.
Verify the functionality of the following: • The control system parts / safety controls • The control devices	All devices must perform the function for which they are foreseen. Test the devices directly to determine the expected function. The actuators and all parts must be changed at the first signs of erosion or breaking.
Verify the absence of strange noises after starting the machine.	During machine operation, check the control devices. If there are strange noises, due to mechanical breaks for example, stop the machine immediately and activate the service maintenance.

For any service intervention or to change damaged parts, activate the service maintenance. The replacement should be done with original parts from the manufacturer. If there are any questions, call Arcobaleno at 717-394-1402.



USE OF THE MACHINE

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OPERATION

After checking all controls and safety devices as previously mentioned, the operator can set in function the machine, following in order the below instructions.

The food ingredients must be loaded manually into the bowl, with the safety cover lid open. During the machine operation, some ingredients (ex. liquid) can also be added with the safety cover lid closed.



The ingredients and the packaged products must be handled with care, reducing at minimum the height over the bowl base from which they are poured out. Bags should be carefully opened at the bottom of the bowl to prevent flour dust being dispersed into the air.

1. After closing the safety cover lid, it is possible to start the machine, at low speed (in the two-speed version) for the first 8-10 minutes at least, to allow bowl rotation and the equipment to mix the dough uniformly up to the desired consistency.



It is recommended to always start kneading at low speed for at least 8-10 minutes and to use the equipment's higher speeds only when the dough has reached a hydration of more than 50% so as not to overload the device motor.



Never attempt to take dough samples from the bowl with the machine moving.

2. When the dough has reached the desired consistency, stop the machine, open the safety cover lid and take the dough from the bowl.

All machine parts that come in contact with the food products, such as the bowl, spiral, etc... are in stainless steel materials or plastic material addressed to be in contact with the food.

5.5 NORMAL USE, IMPROPER USE, NOT CORRECT/ FORBIDDEN USE

The machine described in this manual is foreseen to be used by only a skilled operator who is prepared on residual risks, but with the competence, in matter of safety, of maintenance personnel.



In its **NORMAL USE** and reasonably foreseeable use, the machine can only be used to mix doughs (up to 80% hydration).

The loading of products into the bowl must comply with the following order:

1. Introduce liquid products into the bowl
2. Introduce powder products
3. Handle packaged products with care by minimizing the height above the base of the bowl that they are poured from
4. Carefully open the packages at the bottom of the bowl in order to add the flour without creating dust as far away as possible
5. Use temporary bowl lids to minimize the openings through which flour can escape



USE OF THE MACHINE

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Expected use - precautionary standards and measures:

Correct use of the machine allows operators to fully benefit from its performance within complete safety conditions. Such potential is guaranteed only by compliance with the directions provided thereunder, therefore:

1. ALWAYS follow this manual's directions and instructions and, prior to start up production, verify the integrity of the machine parts.
2. ALWAYS observe any instructions and possible warnings marked on the machines; any warning sign displayed on the machine should always be readable.
3. ALWAYS assess the appropriateness of upkeep (cleaning, etc.) both of the machine and its main parts.
4. ALWAYS verify the suitability and working order of the electrical system; in particular check the connection and make sure there are no insecure or dangerous connections.
5. ALWAYS work under the best lighting conditions as to the whole installation and, in particular, in the application area.
6. Before leaving the work area, ALWAYS disconnect the machine's feeding line as necessary.
7. At any time during inspections, repairs, routine maintenance services of the machine, ALWAYS disconnect the machine and the electric box.
8. ALWAYS keep the floor clean and dry surrounding the machine.
9. At any time during operation, ALWAYS wear suitable work clothes (including individual safety devices) subject to work environment safety standards and warning signs displayed on the equipment designed to prevent possible accidents.
10. ALWAYS report any defect during running (suspected breakage, incorrect movements, excessive noise) to the department head and put the machine out of order by disconnecting the equipment.
11. Use proper signs to indicate that the machine or the whole production line is out of order.
12. ALWAYS use the machine in a sheltered area, within a suitable operating environment as specified in this manual.
13. ALWAYS use original replacement parts.
14. In case of servicing of the machine's electric system ALWAYS contact qualified and trained personnel.
15. In case of doubt as to the real construction of any operating procedures described in this manual, ALWAYS contact the manufacturer; don't perform any actions if the operating procedures seem unclear to you.



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The machine must not be used **IMPROPERLY**: in particular:

1. It must not be used for domestic use,
 2. It must not be used with parameters different from those in the technical data table,
 3. The manufacturer declines every responsibility for every use of the machine with procedures different from those shown in the manual,
 4. The user is responsible for the damages resulting from the lack of exercising conditions in accordance with the agreed technical specifications and order confirmation,
 5. Do not operate the machine empty,
 6. Do not tamper with or intentionally damage, nor remove or hide the labels or safety devices.
- The manufacturer is **NOT LIABLE** for any tampering of the machine!



The machine must not be used in an **INCORRECT** or **FORBIDDEN WAY** in which it could cause damages or injuries to the operator; in particular:

1. It is forbidden to empty sacks of flour or other powdery products into the bowl when it is stationary or rotating with the safety cover lid closed; only small quantities of products may be added through the opening provided in the upper guard
2. It is forbidden to move the machine when it is connected to the electric outlet;
3. It is forbidden to pull the electric cord or the machine to disconnect the electric plug,
4. It is forbidden to put weights on the machine or on the electric cord,
5. It is forbidden to put the electric cord on sharp parts or in areas with danger of burning,
6. It is forbidden to use the machine with damaged or incomplete electric cords or control devices;
7. It is forbidden to leave the machine off with the electric cord connected with the electric plug,
8. It is forbidden to leave the loaded machine unguarded;
9. It is forbidden to insert any type of object inside the motor ventilation cap;
10. It is forbidden to put the machine above different objects from the working bench used in the food field of height included between 35.45 in / 43.30 in. (900 / 1100mm) from the trampling level,
11. It is forbidden to insert any type of object under the machine base or place clothes or other objects between the machine support feet and the working surface,
12. It is forbidden to use inflammable, corrosive or harmful substances for cleaning,
13. It is forbidden to plunge the machine in water or other liquids;
14. It is forbidden for non-authorized personnel to use the machine,
15. It is forbidden for the machine to be used with clothes different than shown for the use,
16. It is forbidden to introduce products or objects with characteristics different from those shown in the normal use, (for example: bones, frozen meat, non food products, or other objects such as scarves, utensils, etc,)
17. It is forbidden to use the machine with protection covers and fixed covers that are not engaged correctly or have been removed.
18. It is prohibited to partially or completely disable, remove, modify, or otherwise render ineffective the safety microswitch protections and danger warnings. The manufacturer is **NOT LIABLE** for any tampering of the machine!



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19. It is forbidden to use the machine without taking all precautions to eliminate residual risks on behalf of the user,
20. It is forbidden to smoke or use open flame devices and manipulate incandescent materials, especially without suitable safety measures adopted,
21. It is forbidden to operate or adjust control and blocking devices such as knobs or similar, either during operation of the machine or if you are not authorized
22. It is forbidden to use ingredients that are risky for the operator and maintenance personnel health. Use caution when mixing ingredients with a fine particulate. Always consult the technical data and the safety cards about the dangers of every food product. If a dusty zone is generated, put on adequate protective mask, both during the manual loading and during the machine operation. Furthermore, these ingredients must not create potentially explosive atmospheres, as the machine is not suitable for use with or for processing products that could lead to such conditions.



The user is responsible for the damages resulting from the lack of observance of the specified normal use conditions. For possible doubts contact Arcobaleno.

Any machine usage for unauthorized operations, its improper use and lack of service can endanger personnel safety in addition to compromising functionality and security.

The measures provided hereunder, which obviously cannot cover the whole spectrum of improper usage possibilities, represent those more “reasonably” expected and, therefore, should be considered absolutely forbidden:

1. NEVER use the machine under unexpected environmental conditions.
2. NEVER use the machine with “temporary” connections, such as temporary cables which are not insulated.
3. NEVER allow any unfit persons to use the machine.
4. NEVER use the machine without wearing suitable work clothes (including individual safety devices) subject to work environment safety standards and warning signs displayed on the equipment designed to prevent accidents.
5. NEVER change any safety devices, remove protection measures and/or damage the equipment.
6. DO NOT remove safety devices before or during machine operation! Doing so may damage machine and users. The manufacturer is NOT LIABLE for any tampering of the machine!
7. NEVER leave the machine unattended when already qualified for operating activities.
8. NEVER use the machine to perform tasks different from the ones for which it was intended.
9. NEVER change functional and performance features of the machine and/or of its components in order to increase production capacity.
10. NEVER allow personnel unfamiliar with ongoing operations to approach the area when the machine is working.
11. NEVER use or service the machine under inadequate or poor lighting/visibility.
12. NEVER use the machine if the content of this instruction manual was not fully understood.



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13. NEVER carry out any routine maintenance activity, inspections or repairs without first deactivating the machine and the whole production line.
14. NEVER use any replacement parts not original or not recommended by the manufacturer.
15. NEVER have the machine serviced by inexperienced staff.
16. NEVER leave the machine unattended after any service without posting the appropriate warning sign and informing the department head.

5.6 STANDSTILL AND EMERGENCY OPERATIONS

To bring the machine to a temporary stop, press the STOP button.

To stop the machine in case of emergency, press the EMERGENCY STOP button.

If during operation, you open the lid of the bowl, the machine stops automatically.

WARNING: If the machine does not stop when the lid is opened, stop operation and contact the manufacturer IMMEDIATELY. Continued use of the machine can result in serious injury.

5.7 DEACTIVATION

To deactivate the machine at the end of the work shift, turn off the master switch and make sure that the light of the numbered switches on the control panel goes off.

Deactivate the department feeder line relative to the electric box.

Proceed with routine maintenance procedures scheduled to take place daily after the end of production. (See specific paragraph in Section 6.)

WARNING: Whenever necessary, post a sign on the machine indicating any defects and/or adjustments which occurred during its use or usage of the equipment related to the entire production line. Before leaving the work place, please inform the department head about the above.



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6.1 GENERAL

The maintenance plan includes routine procedures, that is operations that should be performed daily and don't need any special instruments and/or equipment; and scheduled procedures, that is operations which may involve partial disassembly and removal of safety devices.

For scheduled maintenance procedures contact only competent and experienced department maintenance staff as mentioned in the SAFETY section of the manual.

WARNING: Prior to carrying out any maintenance procedure make sure that the equipment is disconnected from the power outlet.

6.2 MAINTENANCE MAN REQUIREMENTS

The term "maintenance" should be understood not only as the periodic checking of the machine's normal operation but also as the analysis and subsequent correction of all causes that for any reason put it out of service.

The personnel performing the operations described in this section, in addition to possessing the characteristics described in the SAFETY section of the manual, must have read and understood the safety instructions regarding residual risks, as outlined in the same section.

It is absolutely essential that maintenance, cleaning, parts replacement, and troubleshooting activities performed by the user be entrusted to skilled, competent personnel authorized by the employer.

This expert personnel must be able to assess the work assigned to them and recognize potential hazards based on their training, knowledge, and professional experience, as well as their understanding of the machine, related equipment, and relevant regulations; they must also possess adequate professional qualifications for operating the machine. They must be trained in safety procedures and informed about the residual risks discussed in the SAFETY section of the manual.

Furthermore, they must be knowledgeable and not merely informed; that is, they must be a certified or licensed technician with knowledge related to the machine and its associated equipment and relevant standards, and who possesses particular technical competence or training.



All maintenance, cleaning, and parts replacement operations, without exception, must be performed with the machine completely shut down and isolated from external power sources (unplugged from the outlet).



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Before any maintenance, cleaning, parts replacement, or troubleshooting procedures, pay close attention to the labels placed on the machine. During these activities, do not tamper, disconnect, or remove the warning labels or safety devices for any reason, nor create bypasses, nor use them for purposes other than those intended by the manufacturer. In case of damage to or illegibility of the warning labels, immediately contact the manufacturer.

The maintenance man has the job to:

1. Perform the preparation of the tools, calibration and adjustment of the machine, even in the dangerous areas of the machine with the fixed guards in the closed and locked position, with the dangerous moving parts disconnected and safely stopped.
2. Perform cleaning of the internal parts of the machine (possibly by disassembling components), maintenance, service interventions, troubleshooting, replacement of worn or damaged parts or structural components, with dangerous moving parts disconnected and safely shut down.
3. Perform the interventions mentioned in the previous points, also removing the fixed shelters.

6.3 MAINTENANCE PRESCRIPTIONS

REMOVAL OF SHELTERS AND/OR PROTECTIVE DEVICES

For some of the procedures discussed in this section, it is necessary to remove some fixed shelters from their positions.

The removal can only be performed by the maintenance personnel.

At the end of the interventions, these guards must be put back in place and secured in their original position, using the fastening systems that were in place before the intervention.

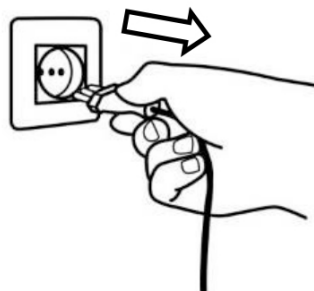
The maintenance personnel must completely shut down and disconnect the machine, as described below, before proceeding with the removal of a fixed guard and/or the replacement of a component.

ISOLATION OF EXTERNAL POWER SOURCES

Before performing any maintenance, cleaning, or parts replacement operations, the external power sources must be disconnected and isolated.

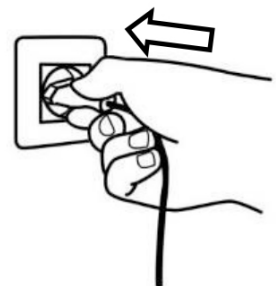
Plug disconnected

Electrical equipment
disconnected



Plug inserted

Electrical equipment
live



6.4 ORDINARY MAINTENANCE



The personnel performing the operations described in this section, in addition to possessing the characteristics mentioned in the SAFETY section of the manual, must have read and understood the safety requirements described in the same section.

WARNING: In case of abnormal conditions or failure of any equipment component first make sure that the instructions provided in the previous paragraphs have been followed correctly.

DON'T ever carry out rush or course repairs which might compromise the good working order of the machine and of any related equipment. Whenever in doubt, request servicing by specialized staff authorized by the manufacturer.

ROUTINE MAINTENANCE THAT CAN BE PERFORMED BY THE OPERATOR

FREQUENCY	VERIFICATION / CONTROL	METHOD TO CHECK
Before every shift	Work area control: Must be cleaned and without dust	The work area and all external parts of the machine must be cleaned; in addition, any parts placed on the machine that could prevent its proper functioning or compromise the safety features originally built into the machine must be removed. For any type of intervention or for the replacement of parts, contact the maintenance service.
At least once a week	Verify the functionality: - Of the safety devices of in the SAFETY section of the manual - Of the stop functions	Perform a visual inspection and functional test of the safety devices, interlocks, and stop functions to verify their correct operation and the stopping of moving parts. For any type of intervention or part replacement, activate the maintenance service.
At least once a week	Visual integrity check: All instruction plates, signal and warning	If they are illegible, they must be requested from the manufacturer or they must in any case be replaced by the user with others containing the same information, as indicated in the SAFETY section of the manual.



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ROUTINE MAINTENANCE THAT CAN BE PERFORMED BY THE OPERATOR

FREQUENCY	VERIFICATION / CONTROL	METHOD TO CHECK
At least once a month	Visual integrity check: Tools and bowl	The use of the tools can determine their wear over time. Following the opening of the safety cover lid, and after cleaning, visually inspect the tool for any chips or scratches. If any damage is found during this inspection, replace the tool. Any replacement must be carried out using original manufacturer parts and specifications. For further information, contact Arcobaleno at 717-394-1402.
At least monthly	Inside the covers – motor openings	All internal surfaces and the areas of the machine where the motors are installed must be kept clean and dry. Provide adequate and common means (such as a vacuum cleaner and a dry dusting brush, and absorbent cloths for any water spills) to maintain these areas properly.
At least monthly	Verify the effectiveness: Mechanical connections	Using the appropriate tools, perform a check of the tightness of terminals, clamps, screws, nuts, bolts, and connections in general.
At least quarterly	Verify the functionality: - Motor contactors, - All control circuit relays	Perform a visual inspection to check the condition of the relay contacts, the power contacts of the contactors, and the internal and external wiring and conduits of the enclosures. In the event that these components, including single-core and/or multi-core cables, are not in normal working condition, replace them to ensure proper functionality.
At least quarterly	General verifications: Electric equipment	Check all electrical equipment for continuity of service and operational requirements. It must be verified that the parts of the electrical equipment subject to wear and tear, such as cables and conduits, all control actuators operated by the operators, etc., are intact and functional.

ROUTINE MAINTENANCE THAT CAN BE PERFORMED BY THE OPERATOR

FREQUENCY	VERIFICATION / CONTROL	METHOD TO CHECK
At least half-yearly	Verify the effectiveness: Of the equipotential circuit and protection connections	With appropriate instrumentation, the resistance to ground of the equipotential bonding and protective grounding system and of each connection must be measured and monitored, so that the measured values fall within the acceptable limits defined by the installation standards and according to the regulations in force at the installation site. The associated grounding system mentioned above must fully comply with the applicable requirements for coordination with the associated active devices, according to IEC 60364-5-54 / HD382-5-54 / IEC 64.8 (5-54) (latest editions).
At least half-yearly	Verify: The electrical insulation of the motor	With appropriate instrumentation, the insulation resistance of the motors must be measured and monitored, so that the measured values fall within the acceptable limits defined by the installation standards and according to the regulations in force at the installation site.
At least half-yearly	Verify: The absorption in each phases of the uses and motors	With appropriate instrumentation, the current draw on each power supply conductor for uses and motors must be measured. If the values recorded during normal operation fall outside a range of 10% of the values indicated in the electrical diagram, activate the maintenance service to verify all the use/motor characteristics, as it could fail in the near future.
At least yearly	Verify the effectiveness: Of the connections and electric components within and outside the covers	Check for any loose connections. If present, restore the connections in a durable way by tightening them with the appropriate torque, applied directly to the electrical components. The inspection must also cover: - The integrity of the junction boxes, covers, control panels, and protective coverings of the electrical cables; - The functionality of all control and power actuators.

Any replacement parts must be original manufacturer parts. Contact Arcobaleno at 717-394-1402.



6.5 EXTRAORDINARY MAINTENANCE

For extraordinary maintenance interventions and parts replacements resulting from breakdowns, overhauls, or mechanical or electrical failures, a service request must be submitted directly to the manufacturer.

Instructions regarding extraordinary maintenance are not included in this user manual and therefore must be explicitly requested from the manufacturer.

For the disposal of used and replaced materials, refer to the instructions described in Section 7.



Furthermore, please note the following:

1. Do not attempt any replacement and/or repair of significant components.
2. Do not perform any welding on potentially damaged parts.
3. Never use the machine if it is not in full working order.



After significant repair work or replacement of parts, and before the equipment is put back into service, the inspections, recordings, and verifications indicated in the manual must be performed, checked, and yield positive results.

For the disposal of used and replaced materials, please refer to the requirements in Section 7.

6.6 TROUBLESHOOTING AND UNBLOCKING OF MOVING PARTS



Before performing any intervention or analysis:

1. Post a sign indicating that maintenance is being performed.
2. Before restarting the machine, always ensure that no personnel are still performing cleaning and/or maintenance operations.
3. For electrical checks and minor repairs, use only qualified and properly certified professional electricians and/or electromechanical technicians.
4. For mechanical repairs, always contact the manufacturer.
5. Always consult the manufacturer using the methods indicated in the first pages of this manual.



The interventions for troubleshooting faults or malfunctions and unblocking moving parts that can be performed by qualified maintenance personnel, as previously defined, are indicated below.

TROUBLESHOOTING THAT MUST BE PERFORMED BY MAINTENANCE PERSONNEL

TYPE	POTENTIAL CAUSES	SOLUTIONS
No mains voltage	1. General power outage 2. Tripping of fuses or circuit breakers located upstream of the machine supply line	1. Contact the electricity distribution company. 2. After eliminating the cause of intervention, restore the protection device. If the problem persists, contact an electrician.
Interruption of operation	1. Intervention of the protective device inside the machine 2. Non-identifiable cause(s)	1. Contact an electrician: after eliminating the cause for intervention of a protective device, restore it. If the fuses are blown, replace them with fuses of the same type, rating and intervention curve. 2. Contact the manufacturer directly
The machine does not work and no noise can be heard	1. Disconnecting devices set to "OFF" 2. Disconnected plug 3. General power outage 4. Power cable broken inside sheathing 5. Tripping of fuses or circuit breakers located upstream of the machine supply line 6. Intervention of the protective device inside the machine 7. Failure of the start button 8. Thermal intervention due to overheating. 9. Non-identifiable cause(s)	1. Turn the disconnecting devices to the "ON" position 2. Insert the power plug into a suitable electrical outlet. 3. Verify that the mains voltage is present and contact the electricity company if necessary. 4. Try vigorously moving the cable at the point where it connects to the machine's power input while holding down the power button, and if the machine starts, the cable needs to be replaced. 5. After eliminating the cause of intervention, restore the protection device. If the problem persists, contact an electrician. 6. If the fuses are blown, replace them with fuses of the same type, rating and intervention curve. 7. Check the effectiveness of the control devices and, if necessary, contact the manufacturer directly. 8. Wait for the machine to cool down completely before restarting it. 9. Contact the manufacturer directly



6.7 CLEANING



It is forbidden to clean by hand any moving parts and elements.

All cleaning interventions must be made only and exclusively after unloading the food product from the machine, turning the machine off, setting the Main Switch to “O” / “OFF” and disconnecting the plug from the socket.

For cleaning the machine, electric equipment and components, never use fuel, solvents or inflammable and/or corrosive fluids.

The machine, the electric equipment and the components must never be washed using jets of water. You must use a DAMP cloth or sponge (wring out cloth before use). Never directly put the machine in the sink or under the tap.

Use non-flammable and non-toxic solvents, commercial and approved. Respect the use modalities and adopt the possible individual protection devices foreseen from the supplier of these substances.

The hygiene level classification of the associated machine and tools, for the foreseen use, is 2 (two): machine that, following an hygiene risk evaluation, is in conformance with the applicable international standards requirements, but requests a programmed disassembly for the cleaning.

AT THE END OF EVERY SHIFT AND HOWEVER NEEDED BEFORE THE DAILY USE

All the surfaces and the machine parts destined to come in contact with the food product or with the food zones (bowl internal surface, and the safety cover lid, the spiral, and the machine front zone) and the machine external surface, must be cleaned and disinfected with the under shown modalities.

- Scrape possible food product residuals from the surfaces (for example with plastic scrapers);
- Suction the flour residuals or the food products with an extractor fan having pressure between 2 - 3 atm, with the machine stopped in guaranteed safety.
- Clean the entire food zone surfaces and external zone with a dampened cloth (wring out cloth before use). Don't use a soaked cloth.
- With a towel clean inside the tools. Use specific product for the steel, these must be liquids (no cream or abrasive pastes) and above all must not include chlorine. Against greasy substances, de-natured alcohol can be used.

PERIODS OF LONG INACTIVITY

Thoroughly clean the machine. During periods of long inactivity of the machine, make sure to vigorously pass over all steel surfaces (especially stainless steel) a cloth soaked in Vaseline oil so as to spread a protective veil.



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THINGS NOT TO DO BEFORE OR DURING THE CLEANING:

- Enter towards the moving elements without previously checking if they are stopped;
- Enter towards the moving elements without having stopped the machine in guaranteed safety stop (main switch set to off, machine unplugged, blockage in zero position of the electric feeding sectioning devices)

PRODUCTS NOT TO USE:

- Compressed air with jets towards the zones with flour and in general towards the machine;
- Vapor equipment;
- Detergents that contain chlorine (also if diluted) or its compounds as: the bleach, the muriatic acid, products to clear the drain, products for the marble cleaning, in general decalcifying, etc ... can attack the steel composition, staining and oxidizing it unavoidably. The above described products fumes can oxidize and in any case corrode the steel;
- Steel wool, brushes or abrasive discs produced with other metals or alloys (ex, common steel, aluminum, brass, etc ...) or tools that have previously cleaned other metals or alloys, that can cause scratches to the surfaces.
- Detergents in abrasive dust;
- Fuel, solvents or inflammable and/or corrosive fluids;
- Substances used to clean the silver.



SCRAPPING & DISPOSAL, ELECTRICAL DIAGRAM MODEL ASM100

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SCRAPPING & DISPOSAL, ELECTRICAL DIAGRAM MODEL ASM100

7.1 SCRAPPING AND DISPOSAL

If the machine is decommissioned because it is obsolete and/or irreparably broken or worn out, requiring costly repairs, it must be decommissioned by rendering it inactive and safe. The decommissioning of the machine must be entrusted to qualified and properly equipped personnel.

Once the dismantling activities are complete, all identification plates and all other documents relating to the machine must be destroyed.

The machine can be disposed of without needing to be broken into pieces; disconnect the main components and place them on the dedicated transport vehicle for scrapping at an appropriate waste disposal facility.

Dispose of the materials in compliance with the applicable regulations, seeking the assistance of the delegated authorities and/or companies specialized in the disposal of industrial scrap and/or waste. Ensure that plastic materials, metal materials and electric components are properly separated for differentiated disposal.

The user must be aware of the statutory legislation in force in the country of use, and must comply with such provisions.



It is forbidden and punishable to abandon the machine in the environment.

Don't drop the machine in very busy areas as it might endanger persons lives, minors and animals in particular; the owner of the machine shall be held responsible for any claims arising in connection with the above.

DEMOLITION

The main sequential phases for disassembly and dismantling include (indicative, non-exhaustive list):

1. The external power supply disconnect device must be locked with a padlock in the "OFF / 0" position.
2. Disconnect the conductors from all components inside the electrical panel and from all components installed on the machine, and send them to specialized collection organizations or waste separation companies in compliance with current regulations;
3. Disassemble all components present inside the electrical panel and installed on the machine and send them to specialized collection organizations or waste separation companies in compliance with current regulations;
4. All metal or plastic casings, screws, and any other steel or plastic parts must be sent to specialized collection organizations or waste separation companies in compliance with current regulations.

All disconnection operations must be performed using appropriate tools of the correct size (e.g., slot-ted or Phillips head screwdrivers, hexagonal wrenches, Allen keys, etc.), depending on the screws to be loosened. Once the demolition activities are complete, all identification plates and all other documents relating to the machine must be destroyed.

SCRAPPING & DISPOSAL, ELECTRICAL DIAGRAM MODEL ASM100

7.2 ELECTRICAL DIAGRAM

