Use and Maintenance Manual

Bench spiral mixer

Model : ATENA

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0 General information

0.1 Introduction

This manual should be considered part of the scope of supply as it contains instructions necessary for operator safety and for proper machine operation.

Compliance with these instructions allows:

- to avoid unnecessary risk and danger to the operator's safety.
- to extend the life of the machine while maintaining its optimal working conditions at all times.
- to reduce repair costs and downtime.

For these reasons, the instructions are intended directly for the operator, who should keep them handy at all times to make consultation possible, easy and continuous.

The manufacturer therefore disclaims any liability for damage caused or suffered by non-compliance with the instructions or information in this manual.

The manufacturer also disclaims any liability for direct and/or indirect damage due to improper use of the machine.

00_Introduzione.Fm

0.2 Storing the instruction manual

The instruction manual supplied with the machine should be kept in a protected and dry place and should always be available for reference until the machine is disposed of.

Note! The wiring diagram is contained in this manual.

0.3 Transfer of the machine

The manual is an integral part of the machine, according to this principle, the manual **SHOULD** follow the machine in case of transfer.

Note! The buyer should notify the manufacturer of the new installation address of the machine in order to receive any relevant upgrades.

0.4 Safety warnings

The machine was built in accordance with the standards contained in the Machine Directive 2006/42/EC.

Compliance with these construction standards does not preclude the possibility that incorrect use of the machine may cause damage to the operator and the machine itself.

It is therefore recommended that the machine be used only and exclusively for the purpose for which it was designed (described in the section on machine characteristics).

Any changes made to the machine or changes in its operation must be made by the manufacturer.

All repair, maintenance and cleaning operations must be carried out by previously trained personnel, who are experienced and familiar with these use and maintenance instructions.

Care should be taken when carrying out cleaning and repairs not to forget cans, rags, screwdrivers, keys or any other objects used on or near the machine.

0.5 To work safely

Caution! With this symbol.

The operator shall :

- read and heed the warnings indicated by these symbols.
- read this manual carefully before starting, operating, and maintaining the machine.
- follow all decals or plates attached to the machine
- replace damaged or illegible ones immediately.

Note! The best accident prevention is care and caution.

0.5.1 Preparation for commissioning

Caution! The following is mandatory for all users and/or maintenance operators:

- earn on a practical and theoretical level what is necessary for proper and safe use of the machine.
- be informed about interventions under his or her specific responsibility.
- be informed about the Standard regarding accident prevention in the workplace.

WARNING!

Do not tamper in any way with the safety measures and protection systems installed on the machine.

Verification and preparation for commissioning should be carried out by qualified and experienced personnel.

Caution! Abnormal and dangerous situations may arise during verification and preparation operations: act with care and caution.

1 General characteristics

1.1 Intended use

The machine was designed and built for use in the food sector only, for the production of flour-based doughs for bakeries, pastry shops, pizzerias and use at home.

Importante! IT IS ABSOLUTELY FORBIDDEN TO USE THE MACHINE FOR ANY PURPOSES OTHER THAN THOSE DESCRIBED ABOVE.

1.2 Reasonably foreseeable misuse

The machine is not suitable for use in work environments with explosive atmospheres classified according to the ATEX Directive.

The machine is not suitable for OUTDOOR use.

01_Caratteristiche.Fm

1.3 Warranty

The manufacturer guarantees that the machine has been tested to meet all its functions and safety requirements.

The warranty period for the machine is 12 months from delivery (the date of the delivery document will be the date of delivery), excluding motors and electrical parts.

Note! The warranty only covers the cost of the parts to be replaced, transportation costs are the buyer's responsibility.

Important! Excluded from the warranty are damages resulting from falls, failure to observe maintenance regulations as well as from misuse or improper use of the machine.

Caution! Tampering with safety devices will void the WARRANTY and relieve the manufacturer of any liability.

For warranty interventions, contact your supplier only.

1.4 Technical data

Available models

Model
ATENA 6

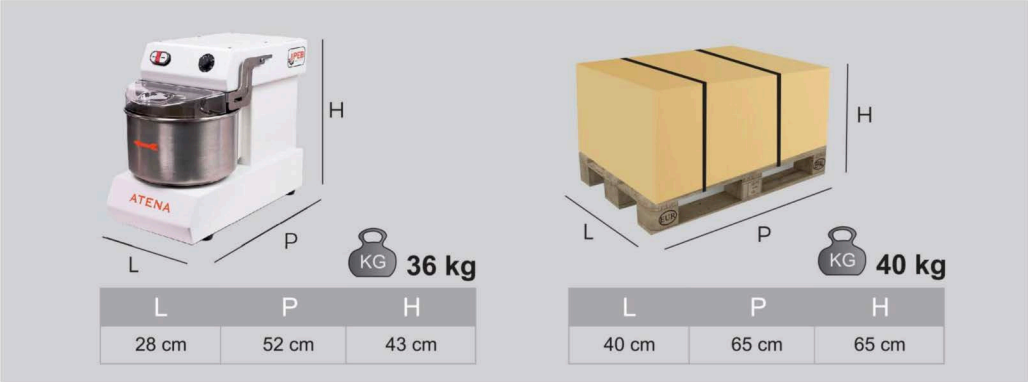
Number of motors	1
Motor power	0,37 Kw
Power supply voltage	230 Volt - 50 Hz
Speed	50/300 rpm
Speed controller	Inverter
Transmission	with belt
Bowl	stainless steel
Shaft	stainless steel
Spiral	stainless steel
Bowl volume	9 lt
Mixing capacity	6 Kg
Flour capacity	Min. 300 g Max. 3 Kg
Dimensions	28x51x43 cm
Weight	36 Kg

01_Caratteristiche.Fm

1.5 Connections

A suitable power outlet is not included in the scope of supply; it will be the responsibility of the end user to set up a suitable power outlet with protection in the room, as required by current regulations.

1.6 Dimensions



L	P	H
28 cm	52 cm	43 cm

L	P	H
40 cm	65 cm	65 cm

01_Caratteristiche.Fm

1.7 Machine description

The highest quality bench spiral mixer ideal for pizzerias, artisanal laboratories and use at home.

The machine is available in a 220-volt version with speed regulation from a minimum of 50 to a maximum of 300 rpm, and with reverse bowl rotation as standard.

The mixer is equipped with a reinforced spiral, a calibrated dough crusher shaft and a rounded bowl. All parts in contact with the dough are made of stainless steel.

The brand new transmission belt makes this machine a very silent mixer that requires no periodic maintenance.

An opening at the front of the movable guard in the bowl is used to add ingredients such as water, salt, yeast, flour, etc. without stopping the work cycle.

Inspection of the machine's interior is made simple by the large, movable rear casing.

The anti-vibration feet provide excellent stability and quietness during the work cycle.

01_Caratteristiche.Fm

1.8 Description of parts

Ref.	Description
1	Structure
2	Upper casing
3	Control panel
4	Bowl
5	Shaft
6	Spiral
7	Movable guard with safety limit switch

01_Caratteristiche.Fm

1.9 Upper casing

The upper casing is a fixed guard that eliminates the danger of dragging and crushing associated with the moving elements of the spiral transmission.

1.10 Rear casing

The rear casing is a fixed guard that eliminates the danger of dragging and crushing associated with the moving elements of the bowl transmission.

1.11 Movable guard

The machine is equipped with a mobile interlocked guard that covers the upper part of the bowl, preventing the operator from accessing the working area of the moving spiral, thus avoiding the danger of entrapment, dragging, crushing, fractures, entanglement, impact and bruising.

The guard has the additional function of limiting the production of dust during the working cycle.

A flour guard made of stainless steel AISI 304 is mounted on the machine column to reduce leakage and to prevent hazards such as entrapment, dragging, crushing, fractures, entanglement, impact and contusion.

This means that:

- if the guard is lifted (in open position), the spiral cannot rotate;
- if the guard is lifted from the working position above the bowl while the spiral is rotating, the machine stops;
- closing the guard allows the spiral and bowl to rotate, but does not control the start-up.

01_Caratteristiche.Fm

2 Safety

2.1 Warnings for use

Importante! Follow the instructions on this page carefully to ensure the safety of both the machine and the operators using it.

Do not process materials other than those normally used in the production of dough for baking and pastry.

Do not apply accessories that are not specified by the manufacturer.

Do not tamper with the safety devices the machine is originally equipped with.

Use one of the safety devices to stop dangerous situations.

Periodically check the stability of the machine with respect to the supporting surface.

Scrupulously carry out the periodic maintenance listed in this manual.

In case any abnormality occurs, please contact the manufacturer.

Follow the instructions in this manual to put the machine into operation.

2.2 Installed safety/control devices

ON/OFF button (1)

Enables machine start up (arrow buttons) and stop (red button).

Note! The correct direction of rotation of the mixing bowl is clockwise.

Speed controller (2)

Allows adjustment of the working speed.

Movable guard limit switch (3)

Detects the opening of the movable guard and instantly stops machine operation.

Note! To restore machine operation close the guard and press the ON/OFF button.

2.3 Residual risks

The structure of the machine, the kind of processing, and the nature of the product make it impossible to totally eliminate the possibility of hands entering the work areas, even with all the safety measures and precautions put in place to avoid accidents.

2.4 Safety signs

a) Never put your hands between the movable guard and the bowl. Never introduce any solid object into the bowl during processing.

b) It is also forbidden to climb on the machine or use it as a foothold.

c) While the machine is in operation, it is FORBIDDEN to remove the guards, perform maintenance operations or lubricate the machine.

d) If left on the ground, the machine constitutes an obstacle and source of tripping and/or falling hazard: it is advisable to report its presence and/or to keep the room guarded.

02_Sicurezze.fm

2.5 Staff clothing

Appropriate clothing that complies with both current food production hygiene and safety regulations must be worn to safely operate the machine.

Clothing worn by the operator should be tight-fitting and free of fluttering parts.

Never wear unbuttoned jackets or shirts.

Wear slip-resistant footwear and, where situations require it, gloves, goggles.

Hair should always be tied and placed inside the cap.

Avoid wearing watches, rings or pendant necklaces.

Importante! The machine uses flour for processing. If there is flour dust in the atmosphere, the operator must be informed of the risk. The use of air-filtering masks is recommended.

02_Sicurezze.fm

2.6 Noise

The measurement of sound pressure level was performed in accordance with the specifications of UNI EN ISO 11201.

The continuous weighted equivalent sound pressure level was found to be 60 dB(A).

The noise level emitted by the machine in the outdoor environment is minimal, nevertheless it can be harmful if the surrounding environment is particularly quiet and/or at night.

Nota! In case of prolonged exposure, it is recommended to use hearing protection such as earplugs or soundproofing earphones.

3 Environmental values

3.1 Environment

For the proper operation of electrical and mechanical equipment, ambient temperature should be between 5° and 40°c and the humidity should be between 30 and 95% **without** ondensation.

3.2 Work area

- The machine should be placed in a well-lit and dry place and have sufficient space (green area) around it, also taking the escape routes into account.

- The floor supporting the machine must be level and resistant to the weight of the machine.
- Since the machine is intended for the food sector, the place where the machine is to be used must meet legal requirements.

Attenzione! It is absolutely forbidden to use the machine for any other purposes than those described above.

03_Valori_ambientali.fm

04_Trasporto.fm

4 Transportation, unpacking, connections

4.1 Packaging

The whole machine is protected by a protective nylon film to insulate it from moisture and placed in a box to protect it from shocks and weathering.

Attenzione! Handling the machine during loading and unloading can lead to a hazardous situation for hanging loads.

It is forbidden to pass under or stand near the machine if it is lifted off the ground.

04_Trasporto.fm

4.2 Lifting

When transporting and lifting, all necessary precautions should be taken so as not to damage the various parts that make up the machine.

Avoid sudden braking, acceleration, or sudden changes of direction.

Caution! Use means and handling systems appropriate for the weight and size of the machine.

Important! During any lifting with belts or hoists bear in mind that the machine is mounted on feet that keep the structure lifted off the ground

04_Trasporto.fm

4.3 Disimballaggio

Pull the machine out of the protective box.

Remove the lateral guards and the protective film covering the machine.

After removing the various packaging elements and the machine protection, check the machine's condition and structural integrity.

If necessary, after unpacking is complete, identify the machine's working position and proceed with its placement.

Important! The machine should be placed in a dry, airy, and well-lit place

Place the machine at a minimum distance of 5 cm from walls and/or other objects.

Also ensure that there is sufficient space around the machine for the operator's movements and for easy cleaning and maintenance

04_Trasporto.fm

Bench spiral mixer

All packaging materials used are 100% recyclable.

Important! The end user shall arrange for their disposal in accordance with the applicable environmental protection laws and regulations in the country of installation.

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Usually the materials used for packaging are :

Material	INITIALS	CODE
Bubble wrap	LDPE	4
Stretch film	LDPE	4
Shrink film	LDPE	4
Cardboard	PAP	21
Corrugated cardboard	PAP	20
Adhesive tape	PP	5
Wood	FOR	50
Staples	FE	40
Nails	FE	40
Polypropylene strap	PP	5
Strapping buckle	FE	40
Barrier bag	PE	1

04_Trasporto.fm

4.4 Electrical connection

The machine is equipped with an electrical system installed according to current EEC regulations.

For connection to the power supply, it is equipped with a cable with a grounded plug.

Single-phase plug

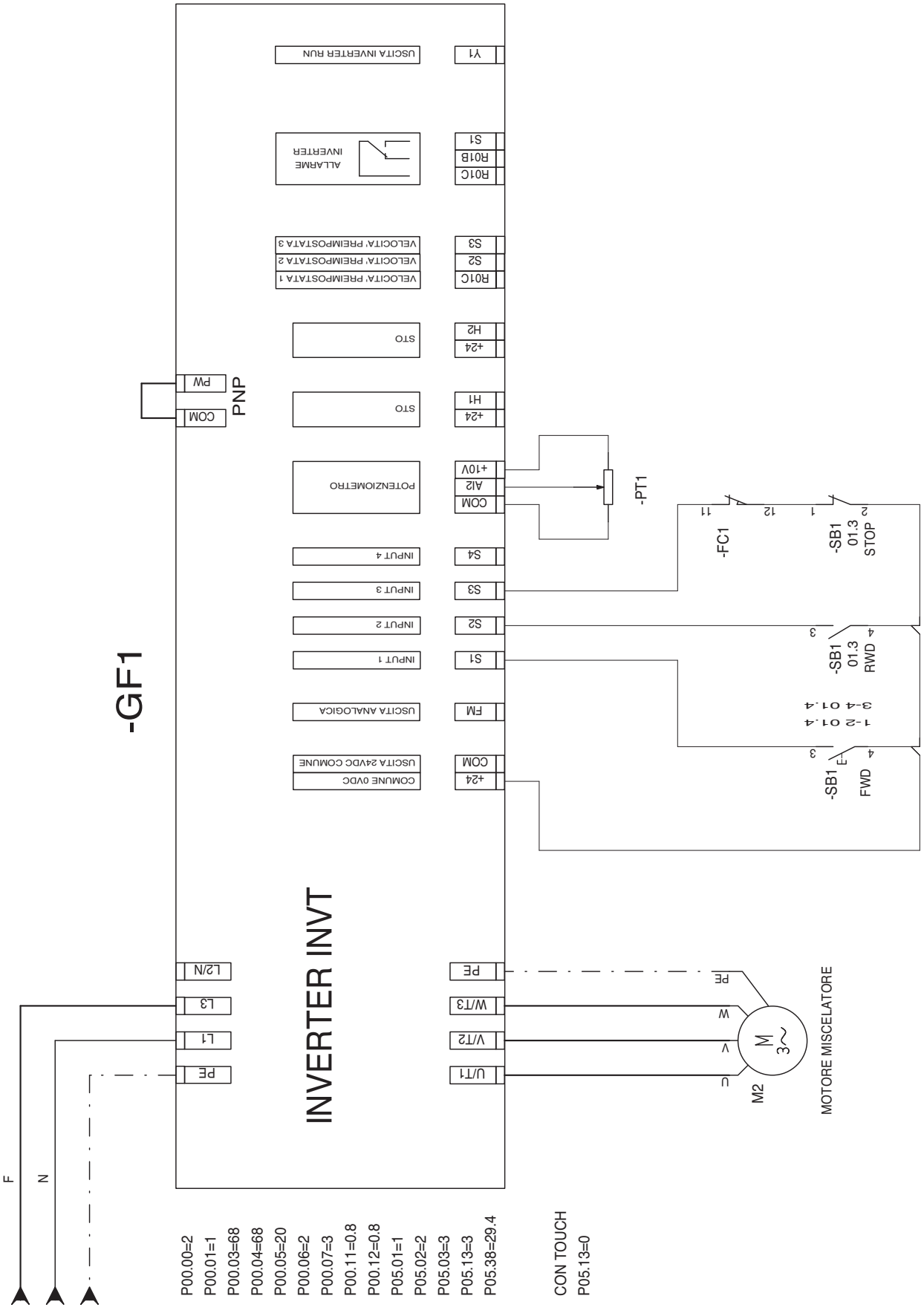
04_Trasporto.fm

Caution! Check that the electrical system to which the machine is connected has the voltage and frequency characteristics required by the machine.
Check the nameplate on the machine. Check that the point of connection to the electricity mains is protected by a circuit breaker of adequate capacity and with a grounding connection.

Important! In case of doubts, contact an electrician for relevant checks and adjustments of the system before operating the machine.

Bench spiral mixer

4.5 Wiring diagram 220V



04_Trasporto.fm

5 Electrical controls

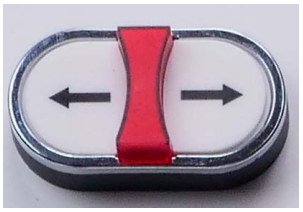
5.1 Electrical system

The electrical panel is enclosed within the machine structure, closed by the rear casing.

This does not only provide the necessary protection against the entry of external solid bodies, but also protects the operator from the risk of direct contact with electrical parts, which can result in burns, serious injury and death.

5.2 5.2 Button function description

Start/Stop of the machine



By pressing one of the two white arrow-shaped buttons (), the machine starts the work cycle by rotating left or right;

Pressing the red STOP button (O) during the work cycle stops the machine.

Note! The correct direction of rotation of the mixing bowl is clockwise.

Note! For correct mixing, press the left arrow.

05_Comandi_elettrici.fm

Machine speed adjustment

Using the potentiometer, it is possible to adjust the speed of the bowl and spiral so as to adapt the machine to the type of processing.

The adjustment range is from min. 50 to a max. of 300 rpm.

Machine timer

(optional)

The timer is located of the right rear side of the mixer.

To set the time, rotate the knob to the right to the desired value, the mixer will stop automatically at the end of the set time.

To operate the machine without timer, rotate the knob to the left, positioning the arrow in correspondence with the symbol of a hand : manual operation.

Note! If the timer is set to zero, the mixer does not work.

Bowl led lighting

(optional)

When the machine is plugged in and powered, the bowl lighting LED turns on.

The LED is turned off by disconnecting the power supply to the machine.

05_Comandi_elettrici.fm

06_Messa_in_funzione.fm

6 Commissioning

6.1 Pre-start-up checks

After the machine has been installed and connected to the power supply, it should be checked for any breakage or abnormality due to transport, handling and installation operations, which could impair start-up operations and cause damage to the machine or personnel present.

Important! These operations must be carried out by trained technical personnel when the machine is empty.

6.2 Machine operation description

When the machine is started, the three-phase, inverter-controlled, 1-speed asynchronous motor sets the spiral and the bowl in motion.

The spiral rotates around a fixed vertical axis, the rotation of the bowl transfers the dough into the processing area of the spiral; the rotation speed of the spiral is synchronised with that of the bowl and can be adjusted using the potentiometer.

The machine can be stopped by pressing the red 0 button.

If the movable guard is lifted, the machine stops.

Note! We recommend that the opening provided on the movable accident-prevention guard is used to check the dough or to add ingredients.

06_Messa_in_funzione.fm

6.3 Start / Stop

Before operating the machine, the operator must:

- read and understand the content of this manual;
- check that the machine is intact and that all parts are assembled;
- check that all parts are functioning properly.

Start the machine by pressing one of the arrows () in the start/stop button located on the front panel. The bowl and the spiral start rotating.

6.3.1 Preliminary machine preparation

Carry out the following steps in sequence:

– Completely lift the movable guard;
– Introduce the elements of the recipe in the maximum amount of the mixing capacity (max. 6 kg).
– Respect the maximum hardness limit of the dough (see table).

Caution! The introduction of flour should be done in such a way as to produce as little dust as possible. Inhaling flour can be health-damaging and can cause rhinitis, watery eyes and, in severe cases, asthma. In case of prolonged exposure, the use of air-filtering masks is recommended.

– Lower the movable guard.

06_Messa_in_funzione.fm

Note! Use the slot on the guard to check the dough or to add ingredients during the work process.

6.3.2 Dough characteristics

Model	Soft doughs	Medium-hard doughs
ATENA 6	From 55% to 100% Max 6 Kg of dough	From 50% to 55% Max 3 Kg of dough

07_Ricerca_guasti.fm

7 Troubleshooting

FAULTS	CAUSES	REMEDIES
The machine does not work	The machine is not powered	Insert the plug into the power outlet
	The movable guard safety limit switch is incorrectly adjusted	For adjustment, call the service department.
The motor does not run	Thermal protector triggered	Allow the motor to cool down
	Motor overheating	
Abnormal noise during processing	Improper tensioning of the transmission belt. Worn bearing	Tension the belt. Replace bearings

07_Ricerca_guasti.fm

8 Cleaning and maintenance

8.1 General information

WARNING!

All cleaning and maintenance should be done only when the machine is switched off and unplugged.

When cleaning the parts in contact with the dough, do not use sharp, metal, abrasive tools or otherwise products that can damage the surfaces.

Do not use toxic products, solvents, irritants, or products that may contaminate the processed product.

Important! All the products used (cleaners, lubricants, greases etc.) must be food compatible.

Note! Do not use solvents on painted surfaces.

8.2 Cleaning

Daily, at the end of the working cycle, it is recommended to thoroughly clean the parts of the machine directly in contact with the product to be processed : **bowl, shaft, spiral** and **movable guard**.

These parts can be cleaned with plain water.

To facilitate this operation, it is advisable to use plastic spatulas, cloths etc. to remove any product residues.

It is also advisable to clean the entire exterior of the machine in order to remove any dough/flour residue so as to ensure that the machine is clean and ready to use.

Important! It is advisable to move the machine in order to clean the floor underneath.

At the end of cleaning, cover the machine with a clean cloth to prevent dust or dirt from settling.

9 Spare parts

9.1 Spare parts

Spare parts should be obtained directly from the manufacturer, indicating the nameplate data of the machine for proper identification.

Note! When ordering spare parts, always indicate the data on the machine's nameplate.

For any repairs, special maintenance, overhaul, or problems not described in the machine's use and maintenance manual, please contact the manufacturer.

All parts of the machine can be supplied at the customer's request; however, it should be remembered that their replacement must be carried out by the manufacturer or by specialized firms specified by the manufacturer. Otherwise, the manufacturer disclaims all liability for any malfunction of both the machine and the parts supplied and for any damage suffered by people or property.

10 Disposal

10.1 Methods of dismantling and disposal

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Note! Adequate separate collection of decommissioned equipment is fundamental in avoiding possible adverse environmental and health effects, and in promoting reuse and/or recycling of all its materials.

At the end of the machine's life, it must be taken out of service and demolished by separating individual parts and/or materials in compliance with applicable environmental protection laws and regulations.

In order to ensure that the dismantling and disposal of the machine, or parts of it, is carried out correctly, it is advisable to contact specialised and officially authorised companies.

The Manufacturer takes no responsibility for damage to people or property resulting from the reuse of individual parts of the machine taken out of service for assembly situations other than the original ones.

10_Smaltimento.fm