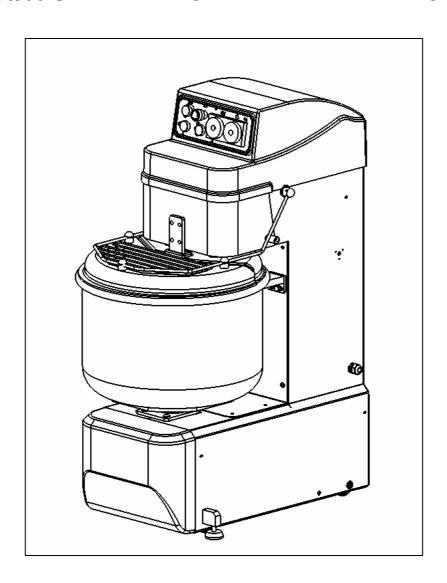


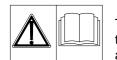


# USE AND MAINTENANCE INSTRUCTION MANUAL FOR 50/60 SILVER AND GREENLINE MIXER MACHINE



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# USE AND MAINTENANCE INSTRUCTION MANUAL FOR 50/60 SILVER AND GREENLINE MIXER MACHINE



This instruction, use and maintenance manual provides the instructions necessary for transportation, starting-up, use and maintenance of the mixer. It must be consulted before

any one of these acts.

The manual must be read not only by maintenance technicians, but also by operators in charge of the mixer who must correctly carry out what is within their line of competence.

The manual is an integral part of the mixer. It must be kept in a suitable place where it can remain intact and where it can be consulted during the whole life of the machine.

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#### SAFETY INSTRUCTIONS.

The safe and systematic use of the mixer is subordinated to compliance with behaviour and standards listed hereafter.

#### Safety standards

- Personnel must be in good physical and mental conditions and be adequately instructed on the use of the mixer having read this publication.
- The safety manager of the company, of the operating area and of the department, when choosing the person who must use this equipment (a person suitable for the job according to Standards in force), must consider his/her cultural preparation, physical suitability and the psychological aspect (mental stability, sense of responsibility, etc.). Moreover, based on the attitudes and capacity that were verified, the manager must provide this person with proper training, having him/her read the present publication, in order to have full knowledge of the mixer and of the rules of behaviour applying to it.
- The area around the mixer must be well lit, free from other objects and clean.
- The personnel in charge of running, cleaning and carrying out maintenance on the mixer must wear the required PPE (personal protective equipment).
- Do not wear dangling clothing or fluttering hems (ties, napkins, torn suits, open jackets etc.) to avoid getting entangled.
- During maintenance and cleaning, the operator must disarm the master switch and place the system in safe conditions (for example, removing the plug).
- Never leave the mixer unattended while it is running. Be careful of abnormal noises or behaviour. Keep away from rotating parts. Never open the grid before the equipment has come to a complete stop.
- At the end of work, empty the machine completely, disconnect the master switch cutting the power, place it in safe conditions and clean it with a neutral degreasing agent (i.e. with Marseille soap).

#### Safety devices.

The mixer is equipped with some devices which protect its operation as well as the safety of the operator. They must not be removed or modified. Their functioning must be checked periodically.

- Master switch: cuts power from the mixer, for maintenance in safe conditions.
- Circuit breaker switch: cuts power if the electric motor overheats.
- Fixed guards: All casings and guards fixed with screws or mechanical locks can be removed only for maintenance, by specialised personnel and in the prescribed modalities. When the work is over, they must be mounted immediately.
- Mobile guards: Movement of the grid activates a micro switch which prevents the mixer from running if the grid is open. If the grid is lifted while the mixer is running, it stops the cycle unconditionally, just like an emergency stop. The start button must be pressed for the mixer to restart.

#### Safety Standards applied to the mixer.

- EN 292 Safety of machinery.
- EN 294 Minimum distances to prevent accidental contact.
- CEI 17-13. Low-voltage switchgear and control gear assemblies.
- Community Directives: 89/392/EEC, 89/336/EEC, 91/368/EEC, 93/44 EEC, 93/68 EEC.

#### **RESIDUAL RISKS**



Danger for limbs: Going beyond the protective grid or removing the casing during maintenance, it is possible to access the moving organs of the mixer.



They are dangerous areas where serious physical injuries can occur. Do not introduce limbs or other objects without having placed the mixer in safe conditions.



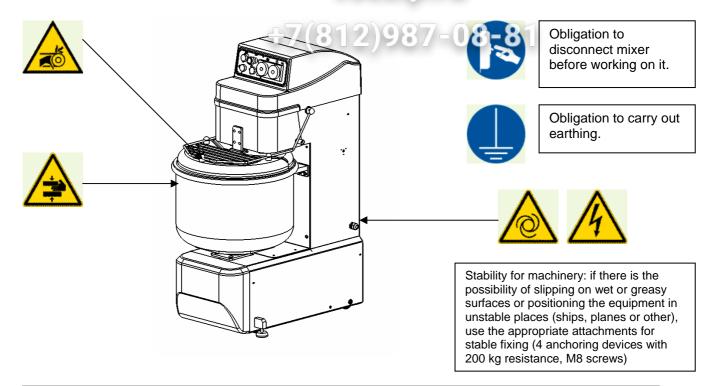
Danger of electrocution: the mixer must not operate without an adequate earthing system. It must be connected to a system built in compliance with construction standards in force in the country where it is installed.



Automatic cycle: after starting up the mixer, it follows an automatic operating cycle. Never go past the safety barriers with your limbs or other objects while it is running.

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#### RESIDUAL RISKS, PROHIBITIONS, OBLIGATIONS: Summarised table.



#### ATTENTION!

- Wear the required PPE during operations.
- Clean the mixer thoroughly after use.
- Do not remove the safety devices or protective casings.
- Do not introduce any object through the protective grid with organs in movement: danger of objects being thrown.
- Before carrying out any manoeuvre beyond the protective grid, wait for the mixer to come to a complete stop.

#### SYMBOLS USED AND QUALIFICATIONS OF THE PERSONNEL.

The following indicates the qualifications of personnel required to operate the mixer.

The symbols placed on a chapter mean to recall the specific skill needed for the intervention described therein. Wherever no symbols are present, the chapter applies to everyone.

| Symbol   | Description                                 | Features  |
|----------|---|---|
|          | OPERATOR                                    | Person acquainted with operating, adjusting and programming the mixer and its protection and safety systems, who knows possible work cycles and ingredients to be used with relative maximum admitted amounts and who has read and understood the use and maintenance manual. |
|          | ELECTRICAL<br>MAINTENANCE<br>TECHNICIAN     | Person in good health who due to qualification, job or experience is qualified to carry out the profession of electrical maintenance technician and who has read and understood the use and maintenance manual.   |
|          | MECHANICAL<br>MAINTENANCE<br>TECHNICIAN     | Person in good health who due to qualification, job or experience is qualified to carry out the profession of mechanical maintenance technician and who has read and understood the use and maintenance manual.   |
| 2        | PERSON IN<br>CHARGE OF<br>HANDLING<br>ZIONE | Person in good health who due to qualification, job or experience is qualified to carry out handling of loads and who has read and understood the use and maintenance manual.   |
|          | ASSISTANCE                                  | <ul> <li>Requesting manual updates.</li> <li>Phone customer assistance concerning functioning, starting or faults of machinery.</li> <li>Requesting spare parts, repairs, system overhauls, interventions on site.</li> <li>Training courses</li> </ul>                       |
| <u>^</u> | ATTENTION.                                  | This sign requests you to pay particular attention to the operations indicated.  Lack of compliance can cause harm to personnel or damage to the mixer.   |

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#### USE AND DESCRIPTION OF THE MIXER:



The mixers of the SILVER series are designed to amalgamate food mixtures which use water and flour as their main ingredients. A spiral rotates mixing, amalgamating, refining and exygenating the mixture in the rotary bowl and, thanks to the mechanical action of the system, the mix is quickly and efficiently prepared. Conceived to make dough for bread, the mixer is suitable for all types of leavened mixtures and products to be baked, made from the following ingredients: all types of flour, water, yeast, grease - butter, sugar, aromas and colourings allowed by law, salt, Liqueurs, and other ingredients for making bread and pastry.

Adapting the mixer to other work processes would implicate not only modifying the machinery by authorised personnel but also the amendment of this manual.

The high-power motor, the transmission system and the steel framework make it sturdy and reliable, with a large size suitable for professional use. The safety devices and electrical control equipment complying with European Standards complete the machinery.

The mixer, loaded with the ingredients, usually water, flour and additives in the order and maximum amounts described further down, is started from the controls panel and performs a manual or times cycle of a few minutes where the spiral rotates together with the bowl, amalgamating the ingredients. In order to remove the mixture, turn off the mixer by switching off the master switch, lift the grid and remove it from the bowl by hand. Use a plastic, aluminium or wooden spatula (which do not scratch the bowl) to make the operation easier.

#### CONDITIONS FOR USE:

Atmospheric conditions: The mixer needs to be installed inside of a lit, ventilated building, on top of a solid and level support. Temperatures from 5 to 40°C with humidity no greater than 90%.

Lighting: the light at disposal of the operator must comply with the type of work carried out, in relation to general lighting, according to the Standards in force. It must on any account be sufficient to read the controls and danger signs and must not blind the operator.

- Vibrations: in correct working conditions, vibrations do not create dangerous situations.
- Noise emissions: 70 dbA for normal use.
- Electromagnetic environment: the machine has been built to work correctly in an industrial type of electromagnetic environment.



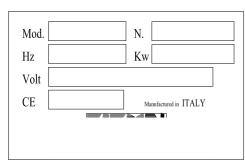
Environments with risk of explosion: An atmosphere capable to being transformed into an explosive atmosphere due to room and/or operating conditions is defined a potentially explosive atmosphere.

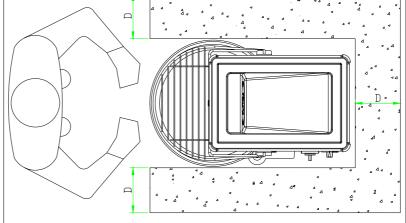
The mixer was not built to work in environments with potentially explosive atmospheres.

#### IDENTIFICATION, POSITION OF THE OPERATOR AND DANGEROUS AREAS.

There is a plate on the back of the mixer like the one shown which carries indications concerning the manufacturer, the type of machine, serial number, electrical features, frequency, absorbed power and the number of phases and the year of construction. The figure at the side shows the position of the plate, that of

the operator respect to the mixer and the AS danger area which must be free from people for a distance A = 400 mm.





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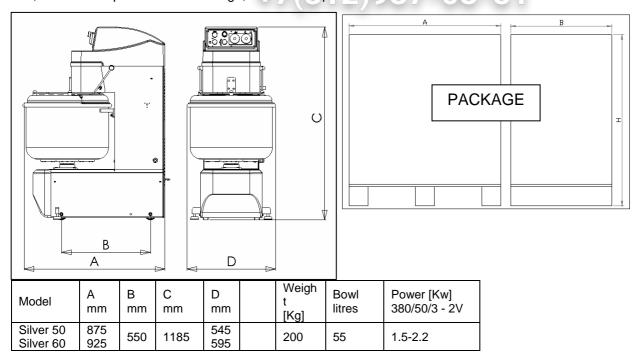






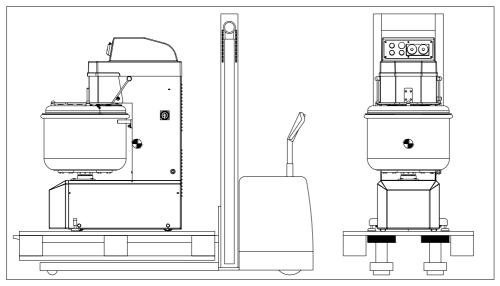
#### TECHNICAL DATA, PACKAGING, DIMENSIONS AND WEIGHT.

There are four types of packaging: machine on pallet wrapped in cellophane, machine on pallet in cardboard box, machine on pallet in wooden cage, machine on pallet with crate.



| PACKAGE      | Cellophane + pallet |      | Cardboard +   | Wooden cage or crate |               |               |     |
|--------------|---------------------|------|---------------|----------------------|---------------|---------------|-----|
| Model        | AxBxH cm Weight     |      | AxBxH cm      | Weight               | AxBxH cm      | AxBxH cm Weig |     |
|              |                     | [kg] |               | [kg]                 |               | [k            | g]  |
| Silver 50/60 | 1000x650x1350       | 215  | 1000x650x1400 | 225                  | 1000x650x1500 | 230           | 240 |

#### TRANSPORTATION AND HANDLING.





#### Lifting standards of the mixer on pallet.

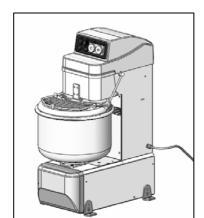
Always use a lift truck or lifting means with forks.

- Make sure the lifting device is adequate for the load.
- Widen the lifting forks as much as possible, make sure they come out from the pallet and the grip is barycentric.
- Work in an area free from persons and animals.
- During movement, always keep the load as close to the ground as possible.

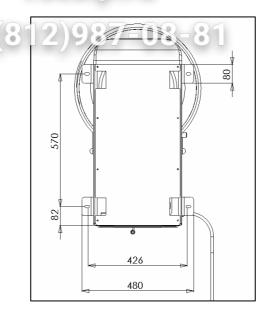
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#### Use the required P.P.E.

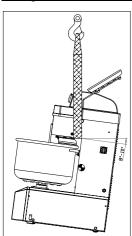
#### **VERSION WITH SHIP ATTACHMENT:**



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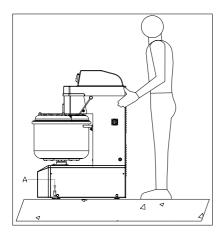
#### Lifting standards of the mixer without pallet.



Due to its instability, the mixer must be handled with a suitably-sturdy strap, having it pass below the head, as in the figure at the left.

- Before lifting, stand the grid up vertically to avoid interference with the lifting strap.
- Make sure the lifting equipment is adequate for the load.
- Act on an empty area, and during movement, always keep the load as close to the ground as possible.
- Use the required P.P.E.
- The mixer inclines by 8-10 degrees when lifted.





#### Transport standards of the mixer with wheels.

- Act on an empty area, and on a floor with adequate sturdiness (concrete, tiles, etc. as long as it has load capacity > 20 kgcm²), smooth, even and without any differences in level.
- Use the required P.P.E.
- Fully tighten support "A", the mixer will rest completely on the wheels.
- Push the fixer as shown in figure.
- Once the wanted location is reached, tighten the two supports "A" until the front wheels are lifted from the ground.



ATTENTION.

Do not make the mixer function only on wheels, always tighten the two supports "A" until the wheels are fully lifted.

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#### STORAGE:

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#### Storage of packed mixer:

The mixer must be stored in a closed and sovered place on a smooth and solid surface protected from dust and filth, sheltered from atmospheric agents and hygienically safe.

The temperatures must remain between -20 and +50°C, and humidity no greater than 90%.

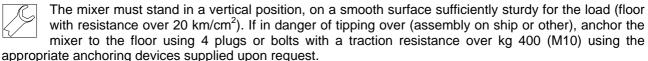
#### Storage of unpacked mixer.

If the mixer has already been unpacked, in addition to that above, it must be lifted from the ground with a pallet or other and covered in order to protect it from humidity, dust and filth. If wrapped in cellophane or another type of plastic, avoid airtight closing below the mixer in order to prevent corrosion linked to condensate.



ATTENTION! The mixer must not be stored in the open!!

#### **INSTALLATION**





#### ATTENTION.

Do not make the mixer function only on wheels, always tighten the two supports "A" until the wheels are fully lifted.



#### Connection to electrical mains

The electrical connection must be carried out by a specialised electrician, according to the modalities and standards in force in the country where it is installed. Make sure that the voltage and frequency of the system are the same as those on the mixer identification plate. Incorrect connection makes the warranty void.

#### PRESERVATION OF THE MACHINE

Storage before a long period out of service Clean the mixer thoroughly.
Disconnect it from the electrical mains.
If possible, put it back into its original packing.

#### WARRANTY TERMS

Validity: The warranty starts from the delivery date and lasts 12 months, if:

- The mixer was not damaged during transportation, and it was installed, commissioned, used and serviced as prescribed in this manual.
- It was not tampered with, modified and no unintended tools were installed on it.
- It did not undergo modifications or repairs carried out by the customer or third parties in an incompliant fashion or without the prior consent of the supplier.

The following conditions constitute improper use of the mixer:

- Loading more than what is allowed or use of unsuitable ingredients.
- Cleaning with unsuitable tools or instruments that can scratch the bowl or damage the mixer or paint.

• Use of the mixer in unsuitable places.

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#### Modality for granting the warranty

If the customer finds defects in the mixer, he must immediately inform the supplier, who will carry out a quick analysis of the lack of compliance and will establish the intervention made with the customer.

The customer must provide the needed time and opportunity to carry out modifications, improvements, repairs or the supply of spare parts which the supplier deems reasonably necessary. If this does not occur, the supplier will not be held liable.

#### Parts subject to wear

Some components are scaled for a life duration far longer than that of normal mixer use during the time of its warranty. Breakage or malfunctioning of these pieces depends on their use. They are therefore considered parts subject to wear and are not included in the warranty, unless they manifest evident defects in the parts or machinery.

The parts subject to wear are: transmission belts, motors, bearings and bowl.



#### INSTRUCTIONS FOR USE.

The mixer is provided with a master switch on the right side. It is controlled by one of the front panels shown below.

The first panel has a manual timer with a selector for inversion of the rotation direction of the bowl and one for the exclusion of the timers in the event of a failure. There are start and stop switches on the equipment to start and stop the mixer.

The second and third panel, besides the selector inverting the rotation direction of the bowl and the one excluding the timers in the event of a failure, also has an electromechanical emergency button which immediately stops the mixer wherever it is.

The exclusively digital timers are adjusted by pressing the select key and setting the time by means of the + and - keys. Having set the time of the first speed, press the select key to set the time on the second timer.

When the times have been set, press select once again to confirm the selection and to start work with the mixer.



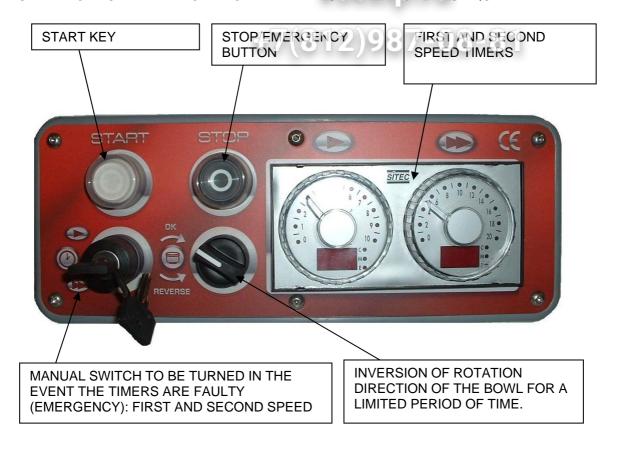
ATTENTION: The grid must be down for the mixer to work. Otherwise the safety system will block its functioning.

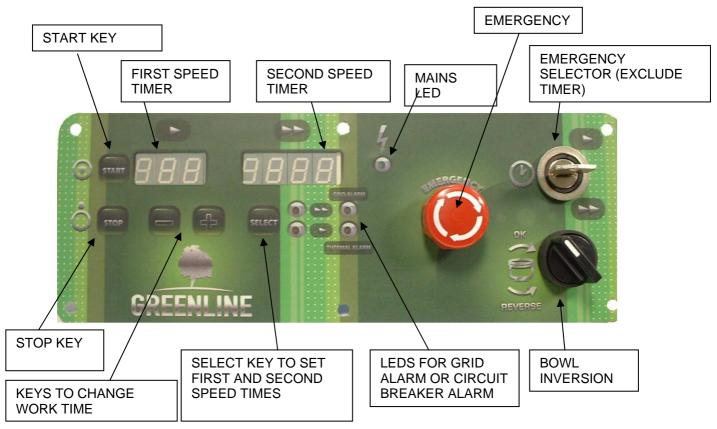


Check the correct rotation direction of the bowl (clockwise, according to the arrow). If incorrect, contact a qualified electrician.

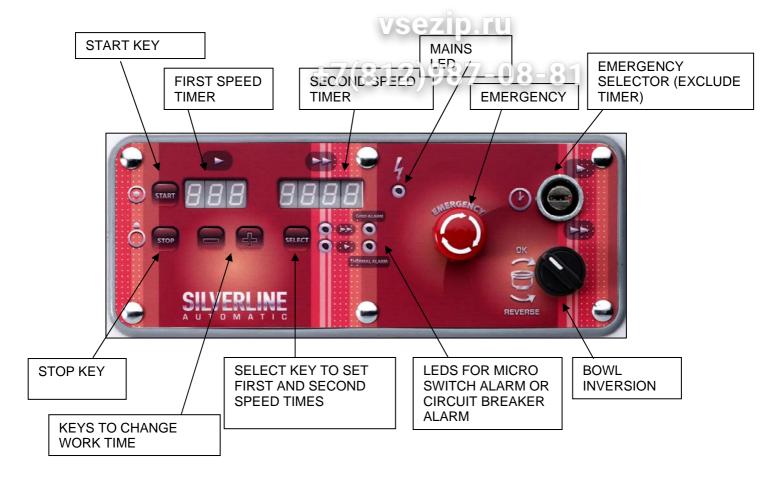
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## DO NOT REMOVE OR TAMPER WITH THE PROTECTIONS AND SAFETY DEVICES BOTH ELECTRICAL AND MECHANICAL WITH WHICH THE NACHINE S EQUIPPED.





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#### PROCESSING WITH THE MIXER.



The mixer is now ready to mix. Follow some simple rules:

- Firstly pour the required amount of water into the bowl.
- Add the correct amount of flour, so that the mix hardens gradually to the right consistency.

  On the contrary, adding water to flour creates lumps of flour on the base that must be worked longer with consequent damaging of the mix.
- The other ingredients (salt, yeast, oil, etc.) are added at will.

The spiral mixer is a machine where the work load is established by the customer. Despite all the information regarding using the spiral mixers, many problems arise due to them being submitted to improper use. The limit of use of the mixer is reached not by exceeding on the amount of the pasta, limited by the volume of the bowl, but by the too low percentage of water.

A first but valid indication is supplied by the following table:

| MODEL.    | PASTA kg | FLOUR kg | WATER %   | WATER litres |
|-----------|----------|----------|-----------|--------------|
| Silver 50 | 45       | 19-20    | 55 / 60 % | 25-26        |

The use of flours rich in gluten creates very doughy mixes which absorb a lot of power. In this case, as well as in the case of mix with percentages of water below those indicated in the table, it is necessary to reduce the maximum mix capacity of the mixer.

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#### CONTROL OF INSTALLED SAFETY SYSTEMS AND ELECTRICAL SYSTEM

The installed safety systems and the electrical system are subject to periodical checks carried out by a specialised electrician.

| Key of control intervals:<br>(INTERVAL)           | Key of how to carry out the controls: (METHOD)  |
|---|---|
| d = daily. w = weekly. m = monthly. a = annually. | O = observation: requires simple eye check (i.e. alarm light) F = Function: requires a physical control of the action (i.e. pressing the emergency button the mixer must stop) M = Measurements: requires a control with an appropriate instrument (i.e. control of earthing values). |

#### Master switch.

Purpose: protection of power line.

Function: this equipment separates the machinery from the mains, it is placed on the upright of the mixer, downstream the differential protection board.

| Control  |        |  |  |  |  |  |  |
|----------|--------|--|--|--|--|--|--|
| Interval | Method |  |  |  |  |  |  |
| а        | F      |  |  |  |  |  |  |

#### Safety micro switch of grid.

Purpose: stop the machine temporarily. Function: by lifting the protection grid, the motor power supply interrupts, temporarily stopping the machine. To reset the machinery functioning, lower the grid and press the START button.

| Cor      | ntrol  |
|----------|--------|
| Interval | Method |
| m        | F      |

#### Stop Circuit (emergency).

Purpose: to stop the mixer immediately and unconditionally. Function: pressing the STOP button cuts the power supply to the mixer, stopping it totally and not systematically. To restore functioning of the machinery, the operator must release the emergency button and start the cycle once again by pressing the START button.

| Control  |        |  |  |  |  |  |  |
|----------|--------|--|--|--|--|--|--|
| Interval | Method |  |  |  |  |  |  |
| m        | F      |  |  |  |  |  |  |

#### Controls of system

Periodically the mixer's automation functioning and earthing must be checked. The operating modes, safety functions, terminal board contacts need to be controlled as well as the integrity of the cables, luminous LEDs and earthing system.

| Control  |        |  |  |  |  |
|----------|--------|--|--|--|--|
| Interval | Method |  |  |  |  |
| а        | F, M   |  |  |  |  |

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#### CLEANING AND MAINTENANCE OPERATIONS.



## DO NOT CARRY OUT ANY MAINTENANCE OR CLEANING WITH ELECTRICITY CONNECTED

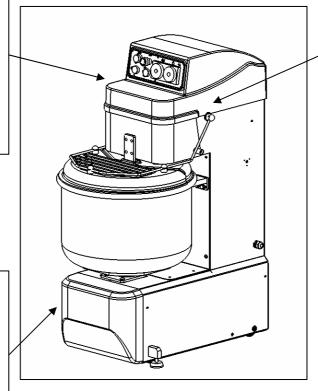




The mixer does not require particular maintenance operations. All bearings and transmission parts are lubricated for life. Keep the mixer clean to avoid flour from depositing in the moving organs thus generating bothersome creaking and abnormal wear.



To tension the belt, remove the upper casings, loosen the motor bolts and act on the appropriate register. Fasten the motor bolts, place the casings back and test the machine.



Anomalies of the grid micro: remove the upper protection casing, intervene on the micro, close the casing again and test the machine.



Electric interventions: they must be carried out by qualified electrician, with reference to the layouts attached at the end of the manual



Should a power cable be damaged, replace it with a **H07RN/F** cable with a 3x1.5 mm<sup>2</sup> section



To tension the chain and the lower bowl dragging chain remove the lower casing (tilt the machine) and act on the appropriate registers. Replace the casing and test the machine



Cleaning: the mixer is not jetproof. Do not wash it with running water. Clean it with a moist cloth and neutral detergents, such as degreasing agents based on Castile soap



#### **EXTRAORDINARY MAINTENANCE:**

To carry out interventions not specially mentioned in the manual, refer to personnel authorised by SIGMA SrL. To replace the motor or the circuit boards, or else if the mixer falls, contact our assistance service for an intervention on site or else an overhaul at the factory

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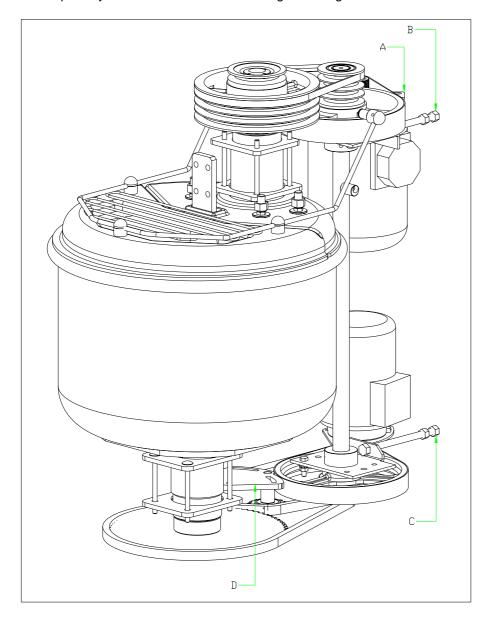
#### TENSIONING OF THE BELTS.

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the operation must be carried out by a specialised mechanic in assisting our machines.

- Tensioning of the upper motor belts (primary transmission of the spiral): loosen the tightening bolts of plate "A" and act on the appropriate register until the correct tension is reached.
- Tensioning of the secondary transmission chains of the spiral: loosen the tightening bolts of the support plate of the intermediate pulley and act on the appropriate register "B" until the correct tension is reached. The tensioning of the secondary transmission causes tension variations of the primary transmission that must be registered again.



- Tensioning of the lower motor belts (primary transmission of the bowl): loosen the tightening bolts of the plate of the intermediate pulley and act on the appropriate register "C" until the correct tension is reached. The tensioning of the primary transmission causes tension variations of the chain, that must be registered again.
- Tensioning of the belt (secondary transmission of the bowl): loosen the tightening bolts of plate "D" and act on the appropriate register until the correct tension is reached.

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#### PERIODICAL MAINTENANCE.





#### DAILY CLEANING AND CONTROL OPERATIONS:

- Cleaning outside surfaces of the bowl and tools with cloth and neutral degreasing agent.
- Operative and emergency controls check.

#### MONTHLY, ANNUAL MAINTENANCE OPERATIONS



#### Monthly maintenance:

- Thorough cleaning of the mixer.
- Operative and emergency controls functioning check.
- Mixer's external components' check: tools, bowl, protective grid.
- Transmission noise check.

#### Annual maintenance:

- Thorough cleaning and check of entire machinery.
- · Thorough check of transmission organs.
- · Bolt tightening check for entire machinery.

#### Bolt tightening torques.

|                             | M6   | M8 | M10 | M12 | M14 | M16 |
|-----------------------------|------|----|-----|-----|-----|-----|
| Mixer screws (8.8) [Nm]     | 9.7  | 23 | 47  | 80  | 130 | 196 |
| Stop rod screws (10.9) [Nn] | 13.6 | 33 | 6   | 113 | 180 | 275 |



Installed safety systems check.

#### **SPARE PARTS**

SIGMA S.r.l. reserves the right to carry out all the modifications that it deems necessary for its mixer models. It is therefore always necessary to specify:

- Type of mixer
- Serial number
- Year of construction
- Position, description, item code and desired amount of pieces requested.

#### Send the request to:

#### MAIN COMPONENTS:

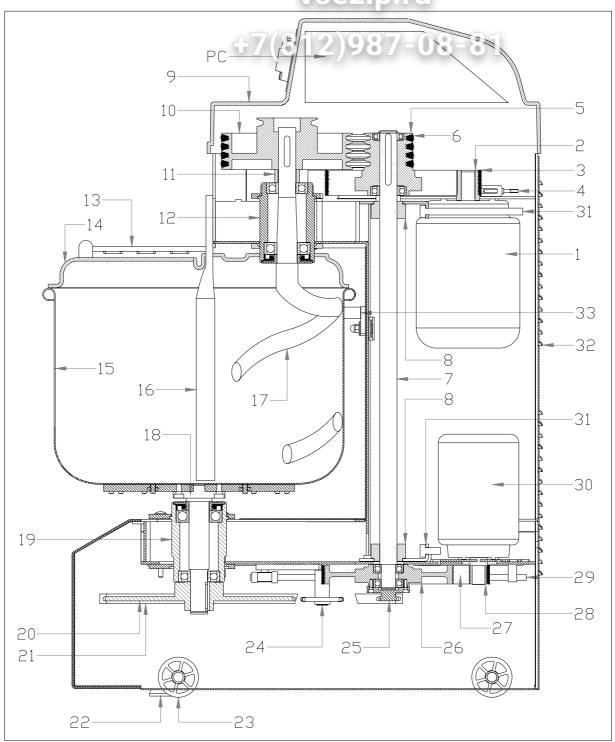
- Raw materials used: almost all of the components of the mixer are made of steel, cast iron, brass and plastic. All of these components can be disposed of easily and do not represent a danger for environmental pollution and/or personal safety. Separate the different materials for subsequent reuse or differentiated waste collection.
- The electrical system must be dismantled and disposed of through a specialised company.
- Treatment of surfaces: painting of metallic surfaces with products compatible for food use.
- Sigma packaging replies fully with that required by Directive 94/62/EC and by Legislative Decree 05/02/97 n. 22 (and subsequent amendments and integrations). They thus can easily be assimilated with city waste and can be inserted in any public differentiated waste program.

#### DISMANTLING AND WASTE DISPOSAL:

The purchaser is responsible for putting the mixer out of service, who must comply with local standards and regulations. Dismantling of mechanical and electrical parts must be entrusted to competent personnel.

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### SL-50 STANDARD VERSION SPARE PARTS LIST



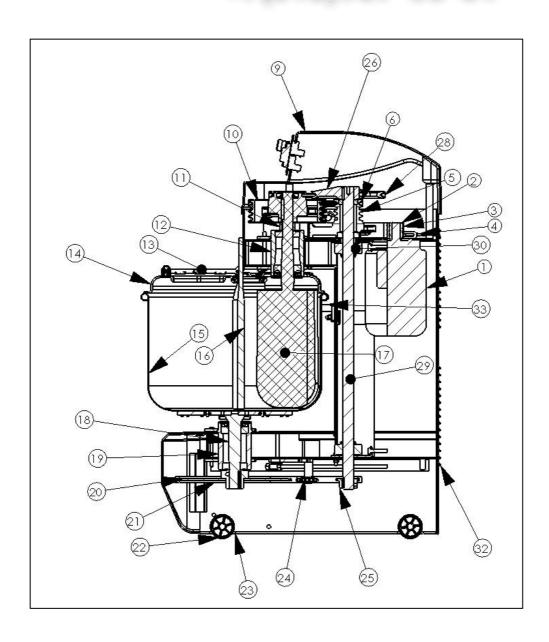
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| N.   Code   Type   Qty   Description   | 0  | , I | Qtv    | Туре        | Code        | N. |
|--|--|-----|--------|-------------|-------------|----|
| 2 01173029   Silver 50   | W 380V 50 Hz 2/4 P OI FS 2 speed or 90 R14 |     |        |             |             |    |
| 3  |  |     |        |             |             |    |
| A   02173021   Silver 50   |  |     |        |             |             |    |
| 5  |  |     |        |             |             |    |
| 13000306   | V WITH GROOVES                             |     |        |             |             |    |
| 13000317   |  |     |        | Oliver 50   |             | ٦  |
| 6         12003103         Silver 50         4         BELT SPA 857           7         01173035         Silver 50         1         2 Motor version transmission shaft           8         02173083         Silver 50         1         Upper casing.           9         03173066         Silver 50         1         Upper casing.           10         01173024         Silver 50         1         Bearings spacer           12         01173024         Silver 50         1         Bearings spacer           12         01173024         Silver 50         1         Bearings spacer           12         01173049         1         Bearings spacer           13000327         1         Plate with lower spiral bush square           13000328         1         Plate with lower spiral bush square           14         13000327         1         BEARING 6302 2RS 30-72-19           15         13000328         1         Ring MIM 45-80-10           13000328         1         Mixture guard support grid.           13173097         1         Pin for micro side grid           13173097         1         Pin for micro switch.           14         03173097         1         Mobile mixture guard. |  |     |        |             |             |    |
| Total  | 700 02 10                                  |     |        | Silver 50   |             | 6  |
| 8  | ansmission shaft                           |     |        |             |             |    |
| 9 03173066   Silver 50   1   Upper casing.   |  |     |        |             |             |    |
| 10   |  |     |        |             |             |    |
| 11   |  |     |        |             | 01173051    | 10 |
| 12   |  |     | 50 1   | Silver 50   | 01173063    | 11 |
| 01173049   |  |     | 50 1   | Silver 50   | 01173024    | 12 |
| 01173049   | piral bush square                          | 1   | 1      |             | 27173037    |    |
| 13000327   | ush square                                 |     | 1      |             | 01173049    |    |
| 13000328   |  |     | 4      |             |             |    |
| 19000025   |  |     |        |             |             |    |
| 01173048   |  |     |        |             |             |    |
| 13   | 0.   |     |        |             |             |    |
| 01173092   |  |     |        | 0.1 2.0     |             | 46 |
| 01173076   | port grid.                                 |     |        | Silver 50   |             | 13 |
| 01145044/45  | nui d                                      |     |        |             |             |    |
| 1  | gria                                       |     |        |             |             |    |
| 14         03173097         Silver 50         1         Mobile mixture guard.           15         01173039         Silver 50         1         Plate Bowl 50 Kg           16         01173057         Silver 50         1         Stop rod.           17         01173041         Silver 50         2         Spiral.           18         01173032         Silver 50         1         Bowl support.           19         01173025         Silver 50         1         Bowl support.           19         01173049         1         Bowl support.           1         Plate with bowl bush square           1         Bush fastening plate           2         Square head screw M8x110           1         BEARING 6306 2RS 30-72-19           1         BEARING 6307 2RS 35-80-21           1         Ring MIM 45-80-10.           1         Labyrinth flange           20         01173047           01173046         In Bowl crown wheel.           21         Silver 50         1           22         14002811         Silver 50         2           23         01173094         Silver 50         3           24         01173070         Washer.  | sh.  |     |        |             | 01145044/45 |    |
| 03173097   |  |     |        | Silver 50   | 02172000    | 11 |
| 15         01173039<br>04173040         Silver 50         1         Plate<br>Bowl 50 Kg           16         01173057         Silver 50         1         Stop rod.           17         01173041         Silver 50         2         Spiral.           18         01173025         Silver 50         1         Bowl shaft.           19         01173025         Silver 50         1         Bowl support.           173049         1         Bush fastening plate           27173037         1         Bush fastening plate           3000327         1         BEARING 6306 2RS 30-72-19           13000328         1         BEARING 6307 2RS 35-80-21           19000025         1         Ring MIM 45-80-10.           1173048         1         Labyrinth flange           20         01173047         Silver 50         1         Bowl crown wheel.           21         Silver 50         1         Bowl crown wheel.           21         Silver 50         2         Support foot 12x50           23         01173094         Silver 50         4         Washer.           24         01173070         Old Transpart         Belt tightener pin         Crown for belt tightener           0117              |  |     |        | Sliver 50   |             | 14 |
| 04173040   | ii d                                       |     |        | Silver 50   |             | 15 |
| 16         01173057         Silver 50         1         Stop rod.           17         01173041         Silver 50         2         Spiral.           18         01173032         Silver 50         1         Bowl shaft.           19         01173025         Silver 50         1         Bowl support.           19         01173049         1         Plate with bowl bush square           10173049         1         Bush fastening plate           201173049         1         BEARING 6306 2RS 30-72-19           1         BEARING 6307 2RS 35-80-21           1         Ring MIM 45-80-10.           1         Labyrinth flange           20         01173048         1           20         01173047         Silver 50         1           21         Silver 50         1           22         14002811         Silver 50         2           23         01173094         Silver 50         3           24         01173070         Silver 50         4           24         01173071         Belt tightener plate.           01173078         Belt tightener pin           01173085         Tensioning pin of belt tightener.           25   |  |     | ,      | Silver 50   |             | 13 |
| 17         01173041         Silver 50         2         Spiral.           18         01173032         Silver 50         1         Bowl shaft.           19         01173025         Silver 50         1         Bowl support.           27173037         1         Plate with bowl bush square           1173049         1         Bush fastening plate           20         13000327         1         BEARING 6306 2RS 30-72-19           13000328         1         BEARING 6307 2RS 35-80-21           19000025         1         Ring MIM 45-80-10.           1173048         1         Labyrinth flange           20         01173047         Silver 50         1           1         Bowl crown wheel.           21         Silver 50         1         Bowl crown wheel.           21         Silver 50         1         Bowl crown wheel.           22         14002811         Silver 50         2         Support foot 12x50           23         01173074         Silver 50         4         Washer.           24         01173070         Silver 50         1         Belt tightener pin Crown for belt tightener Tensioning pin of belt tightener.           25         01173033         Silve           |  |     | 50 1   | Silver 50   |             | 16 |
| 18         01173032         Silver 50         1         Bowl shaft.           19         01173025         Silver 50         1         Bowl support.           27173037         1         Plate with bowl bush square           01173049         1         Bush fastening plate           4         Square head screw M8x110           13000327         1         BEARING 6306 2RS 30-72-19           13000328         1         BEARING 6307 2RS 35-80-21           19000025         1         Ring MIM 45-80-10.           01173048         1         Labyrinth flange           20         01173047         Silver 50         1         Bowl crown wheel.           4         Hub for Bowl crown wheel.           4         Hub for Bowl crown wheel.           21         Silver 50         1         Bowl chain           22         14002811         Silver 50         2         Support foot 12x50           23         01173094         Silver 50         4         Washer.           24         01173070         Silver 50         1         Belt tightener pin Crown for belt tightener           01173085         Tensioning pin of belt tightener.           25         01173033         Silver 50            |  |     |        |             |             |    |
| 19         01173025         Silver 50         1         Bowl support.           27173037         01173049         1         Plate with bowl bush square           01173049         1         Bush fastening plate           4         Square head screw M8x110           13000327         1         BEARING 6306 2RS 30-72-19           13000328         1         BEARING 6307 2RS 35-80-21           19000025         1         Ring MIM 45-80-10.           1173048         1         Labyrinth flange           20         01173047         Silver 50         1           1         Bowl crown wheel.           21         Silver 50         1         Bowl chain           22         14002811         Silver 50         2         Support foot 12x50           23         01173094         Silver 50         4         Washer.           24         01173070         Silver 50         1         Belt tightener plate.           01173078         Crown for belt tightener         Tensioning pin of belt tightener.           25         01173033         Silver 50         1         Pinion for bowl transmission  |  |     |        |             |             |    |
| 27173037   |  |     |        |             |             |    |
| 01173049   | ush square                                 |     |        |             |             |    |
| 4  |  |     | 1      |             | 01173049    |    |
| 13000328   | w M8x110                                   |     | 4      |             |             |    |
| 19000025   |  |     | 1      |             |             |    |
| 01173048         1         Labyrinth flange           20         01173047         Silver 50         1         Bowl crown wheel.           1         Hub for Bowl crown wheel.           21         Silver 50         1         Bowl chain           22         14002811         Silver 50         2         Support foot 12x50           23         01173094         Silver 50         4         Washer.           24         01173070         Silver 50         1         Belt tightener plate.           01173078         Belt tightener pin Crown for belt tightener         Crown for belt tightener           01173035         Tensioning pin of belt tightener.           25         01173033         Silver 50         1         Pinion for bowl transmission   | RS 35-80-21                                | 1   | 1      |             | 13000328    |    |
| 20         01173047 01173046         Silver 50         1         Bowl crown wheel. Hub for Bowl crown wheel.           21         Silver 50         1         Bowl chain           22         14002811         Silver 50         2         Support foot 12x50           23         01173094         Silver 50         4         Washer.           24         01173070         Silver 50         1         Belt tightener plate. Belt tightener pin Crown for belt tightener pin Crown for belt tightener Tensioning pin of belt tightener.           25         01173033         Silver 50         1         Pinion for bowl transmission  | 0.   |     |        |             |             |    |
| 01173046   |  |     |        |             |             |    |
| 21         Silver 50         1         Bowl chain           22         14002811         Silver 50         2         Support foot 12x50           23         01173094         Silver 50         4         Washer.           24         01173070         Silver 50         1         Belt tightener plate.           01173071         Belt tightener pin         Crown for belt tightener           01173085         Tensioning pin of belt tightener.           25         01173033         Silver 50         1         Pinion for bowl transmission  |  |     | 50   1 | Silver 50   |             | 20 |
| 22         14002811         Silver 50         2         Support foot 12x50           23         01173094         Silver 50         4         Washer.           24         01173070         Silver 50         1         Belt tightener plate.           01173071         Belt tightener pin         Crown for belt tightener           01173085         Tensioning pin of belt tightener.           25         01173033         Silver 50         1         Pinion for bowl transmission  | vn wneel.                                  |     |        | Oilure = 50 | 011/3046    | 04 |
| 23         01173094         Silver 50         4         Washer.           24         01173070         Silver 50         1         Belt tightener plate.           01173071         Belt tightener pin         Crown for belt tightener           01173085         Tensioning pin of belt tightener.           25         01173033         Silver 50         1         Pinion for bowl transmission   | 70   |     |        |             | 44000044    |    |
| 2401173070Silver 501Belt tightener plate.0117307101173078Crown for belt tightener01173085Tensioning pin of belt tightener.2501173033Silver 501Pinion for bowl transmission   | U  |     |        |             |             |    |
| 01173071 Belt tightener pin 01173078 Crown for belt tightener 01173085 Tensioning pin of belt tightener. 25 01173033 Silver 50 1 Pinion for bowl transmission  |  |     |        |             |             |    |
| 01173078 Crown for belt tightener 01173085 Tensioning pin of belt tightener. 25 01173033 Silver 50 1 Pinion for bowl transmission  | Ե.   |     | DU   T | Sliver 50   |             | 24 |
| 01173085Tensioning pin of belt tightener.2501173033Silver 501Pinion for bowl transmission  | ntener                                     |     |        |             |             |    |
| 25 01173033 Silver 50 1 Pinion for bowl transmission   |  |     |        |             |             |    |
|  |  |     | 50 1   | Silver 50   |             | 25 |
| 120   O I I OOO I   OIIVOI OO   I   OIIGIII IGIOOOIIII IG DUIIIGV.   |  |     |        |             |             |    |
| 27   12003945   Silver 50   1   Multigrip chain J895 12 RIB  |  |     |        |             |             |    |
| 28 01173027 Silver 50 1 Bowl motor pulley.   |  |     |        |             |             |    |
| 29 Silver 50 1 Chain tensioning threaded bar   |  |     |        |             | 31110021    |    |
| 30   11000501   Silver 50   1   4 poles motor 0.55 Kw gr 71 B14  |  |     |        |             | 11000501    |    |
| 02173022 Bowl motor plate  | - <b>-</b> - · ·                           |     |        |             |             |    |
| 31 23010151 Silver 50 2 Tie-rod M6   |  |     | 50 2   | Silver 50   |             | 31 |
| 32 02173010 Silver 50 1 Rear casing.   |  |     |        |             |             |    |
| 33 01173079 Silver 50 2 Bowl stop block.   |  |     |        |             |             |    |

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# SL-50 GREEN-LINE VERSION SPARE PARTS LIST DUTU

## +7(812)987-08-81



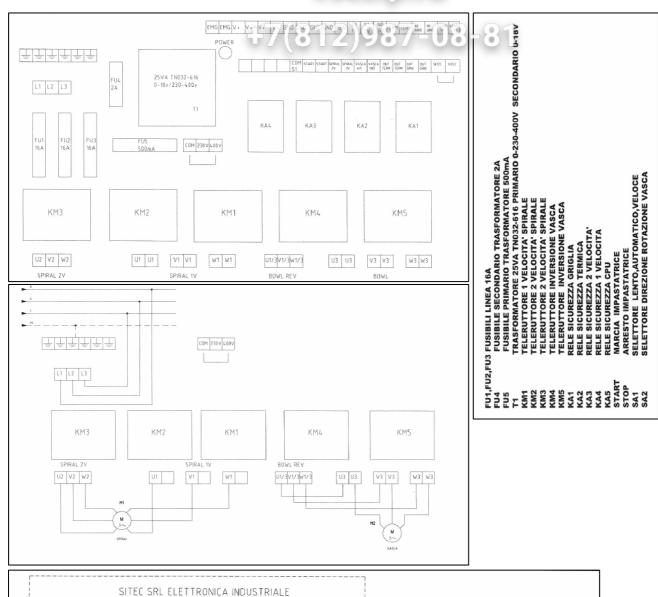
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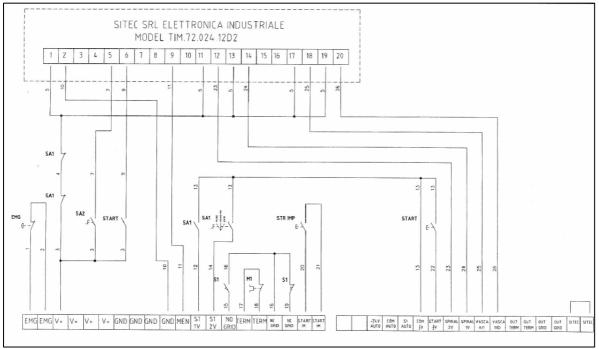
| N.       | Code        | Туре      | Qty  | Description  |
|----------|-------------|-----------|------|--|
| 1        | 11001108    | Silver 50 | 1    | MOTOR 2.2/1.5 kg/ 380 / 50 Hz 2/4 FOLES 2 speed gr. 90 B14 |
| 2        | 01173029    | Silver 50 | 1    | MOTOR PULLEY 50Hz  |
| 3        | 12003947    | Silver 50 | 1    | MULTIGRIP BELT J813 18 RIB                                 |
| 4        | 02173021    | Silver 50 | 1    | Motor plate with tensioner                                 |
| 5        | 01173050    | Silver 50 | 1    | NEUTRAL PULLEY WITH GROOVES                                |
| 5        | 13000306    | Silver 50 | 1    | Bearing 6006 2RS 30-55-15                                  |
|          | 13000306    |           | 1    | Bearing 6206 2RS 30-62-16                                  |
| 6        |             | Silver 50 | 4    | BELT SPA 857   |
| 6        | 12003103    |           | _    |  |
| 9        | 03173066    | Silver 50 | 1    | Upper casing.  |
| 10       | 01173051    | Silver 50 | 1    | PULLEY of spiral   |
| 11       | 01173063    | Silver 50 | 1    | Bearings spacer  |
| 12       | 01173024    | Silver 50 | 1    | Bush of spiral.  |
|          | 27173037    |           | 1    | Plate with lower spiral bush square                        |
|          | 01173049    |           | 1    | Plate with spiral bush square                              |
|          |             |           | 4    | Square head screw M8x110.                                  |
|          | 13000502    |           | 1    | BEARING 30307 Koyo   |
|          | 13000506    |           | 1    | BEARING 32208 Koyo   |
|          | 19000025    |           | 1    | Ring MIM 45-80-10.   |
|          | 01173048    |           | 1    | Labyrinth flange   |
| 13       | 05173101    | Silver 50 | 1    | Mixture guard support grid.                                |
|          | 01173092    |           | 1    | Pin for grid   |
|          | 01173076    |           | 1    | Pin for micro side grid                                    |
|          | 01145044/45 |           | 1    | Spacer + block   |
|          |             |           | 1    | Safety micro switch.                                       |
| 14       | 03173098    | Silver 50 | 1    | Mobile mixture guard.                                      |
|          | 03173097    |           | 1    | Fixed mixture guard  |
| 15       | 01173039    | Silver 50 | 1    | Plate  |
|          | 04173040    |           |      | Bowl 50 Kg   |
| 16       | 01173057    | Silver 50 | 1    | Stop rod.  |
| 17       | 01173041    | Silver 50 | 2    | Spiral.  |
| 18       | 01173032    | Silver 50 | 1    | Bowl shaft.  |
| 19       | 01173025    | Silver 50 | 1    | Bowl support.  |
|          | 27173037    |           | 1    | Plate with bowl bush square                                |
|          | 01173049    |           | 1    | Bush fastening plate                                       |
|          |             |           | 4    | Square head screw M8x110                                   |
|          | 13000327    |           | 1    | BEARING 6306 2RS 30-72-19                                  |
|          | 13000328    |           | li i | BEARING 6307 2RS 35-80-21                                  |
|          | 19000025    |           | 1    | Ring MIM 45-80-10.   |
|          | 01173048    |           | 1    | Labyrinth flange   |
| 20       | 01173047    | Silver 50 | 1    | Bowl crown wheel.  |
|          | 01173046    |           | '    | Hub for Bowl crown wheel.                                  |
| 21       |             | Silver 50 | 1    | Bowl chain   |
| 22       | 14002811    | Silver 50 | 2    | Support foot 12x50   |
| 23       | 01173094    | Silver 50 | 4    | Washer.  |
| 24       | 01173094    | Silver 50 | 1    | Belt tightener plate.                                      |
| <b>4</b> | 01173070    | Oliver 50 | '    | Belt tightener pin   |
|          | 01173071    |           |      | Crown for belt tightener                                   |
|          |             |           |      |  |
| 25       | 01173085    | Cilver FO | 1    | Tensioning pin of belt tightener.                          |
| 25       | 01173072-1  | Silver 50 | 1    | Pinion for GREEN-LINE version bowl transmission            |
| 26       | 01173052-1  | Silver 50 | 1    | GREEN-LINE transmission shaft pulley                       |
| 28       | 12003103    | Silver 50 | 1    | Belt SPA 857 GREEN-LINE transmission.                      |
| 29       | 01173034-1  | Silver 50 | 1    | GREEN-LINE version transmission shaft                      |
| 30       | 13006506    | Silver 50 | 2    | Support UCFL 206   |
| 32       | 02173010    | Silver 50 | 1    | Rear casing.   |
| 33       | 01173079    | Silver 50 | 2    | Bowl stop block.   |

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#### **ELECTRICAL LAYOUT: STANDARD VERSION**

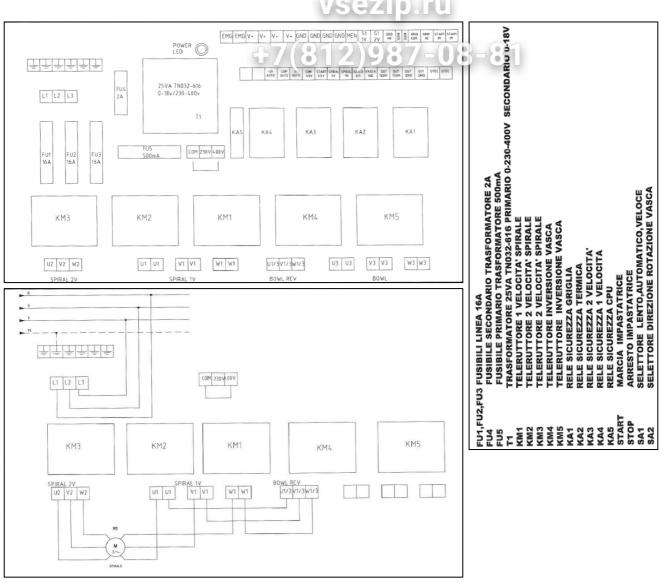
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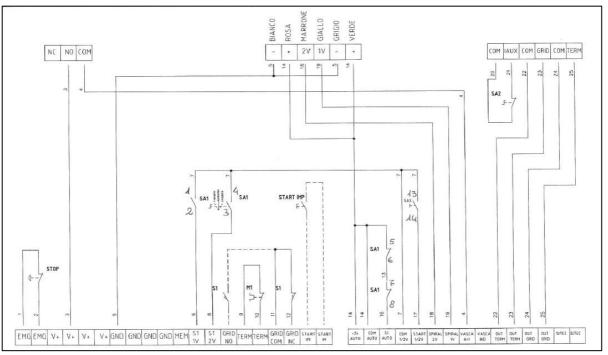




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#### **ELECTRICAL LAYOUT: GREEN-LINE VERSION**





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# BLOCKAGE OF MACHINERY AND NECESSARY REMEDIES

| OPERATION<br>ANOMALIES  | POSSIBLE CAUSES 7-0   | 8-81 REPAIR  |
|---|---|--|
| Turning the master switch into position, the warning light does not turn on | Plug not inserted correctly or wires detached.  | 1) Check connection.   |
| Pressing the run button, the mixer does not start.                          | <ol> <li>The protection grid is open</li> <li>Safety micro switches anomalies.</li> </ol> | <ol> <li>Rotate it and reposition it in closed position.</li> <li>Replace the micro switches.</li> </ol> |
| Continuous noise.   | Check the efficiency of the bearings.   | 1) Replace the bearings.   |
| The tool does not perform its normal revolution on the tool holder shaft.   | <ol> <li>Loose belt.</li> <li>Worn belt.</li> </ol>                                       | 1) Tighten the belt.<br>2) Replace the belt.   |

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## Obligations of informing users

Information model for users of "professional" products



#### INFORMATION FOR USERS

In compliance with art. 13 of the Legislative Decree of July 25, 2005, n. 151 "Implementing of Directives 2002/95/EC, 2002/96/EC and 2003/108/EC, relative to the reduction of the use of hazardous substances in electrical and electronic appliances as well as disposal of waste"

The symbol of the barred waste bin on the appliance or its packaging indicates that the product at the end of its useful life it must be disposed of separately from other waste.

Differentiated waste collection of this appliance having reached the end of its life is organised and managed by the manufacturer. The user who desires to dispose of the present appliance must therefore contact the manufacturer and abide by the system that has been chosen to allow separate collection of the appliance when reaching the end of its life.

Adequate differentiated waste collection for successive recycling, treatment and environmentally compatible disposal contributes to prevent negative effects on the environment and on human health and favours the reuse and/or recycling of the materials making up the appliance.

Illicit disposal of the product by the user entails the application of administrative sanctions foreseen by Standards in force.

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