

Telefoon (0317) 619 108

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**SERVICE TEAM NEDERLAND**



bedrijfskoeling



grootkeukens



witech catering equipment

# DOUGH SPIRAL MIXER **MANUAL**



\*415.016 - \*415.020

## **INTRODUCTION**

### **READ THIS ENTIRE MANUAL BEFORE UNPACKING AND INSTALLING THIS PRODUCT.**

Dear client,

Thank you for choosing a quality product manufactured by us.

Our expert production follows the guiding principle of the strictest quality control of each component so as to guarantee that our products will function efficiently far into the future.

The mechanical, electrical, and electronic parts were designed and manufactured to guarantee reliability and high-quality functioning.

The use of parts that are not original could cause functioning problems or damage to the product. Therefore, always ask for any spare parts from authorized dealers to return the product to perfect working order and to guarantee that it will last longer.

All the machines we manufacture are made using modern technology and systems of tested reliability. We systematically referred to the current standards and regulations for mechanical products, specifically the UNI standards and the CEI standards for electric and electronic equipment. The units that are described in this manual, like all our products, are manufactured according to criteria of good practice and in strict compliance with the European directives and related regulations.

#### **Note:**

**The unit that is illustrated or described could be different from your unit for commercial or technical reasons, depending on the standards and safety regulations in force in the different countries in Europe and in the world. The technical specifications and dimensions, the described functioning, and any equipment cited are not binding. The figures show a generic unit only for illustrative purposes.**



**Before operating on the machine, read carefully the technical instructions included in this manual and follow the indications described.**

**Keep this manual and all the annexed literature in a readily accessible place and known to all the users (operators and maintenance personnel).**

## GENERAL TABLE OF CONTENTS

### **Section 1: General information - Instructions**

- 1.1 - Introduction and safety recommendations
  - 1.1.1 - Residual risks
- 1.2 - Machine data and use
  - 1.2.1 - Application sectors
- 1.3 - EC Declaration of Conformity
- 1.4 - Technical specifications
  - 1.4.1 - Sound level
  - 1.4.2 - Productivity
- 1.5 - Machine description
- 1.6 - Packing and standard equipment
- 1.7 - Safety devices
  - 1.7.1 - Safety devices of electric equipment - Wiring diagram
  - 1.7.2 - Safety devices of mechanical equipment
  - 1.7.3 - Operator safety

### **Section 2: Installing the machine**

- 2.1 - Unpacking
- 2.2 - Position in place
- 2.3 - Connection to the electrical power supply
- 2.4 - Preliminary installation requirements
  - 2.4.1 - Technical information reserved to the qualified installer

### **Section 3: Intended use of machine**

- 3.1 - Controls descriptions
- 3.2 - Machine start-up
- 3.3 - Cleaning the machine
- 3.4 - Regular maintenance
- 3.5 - Troubleshooting
- 3.6 - Long inactivity periods
- 3.7 - Disposal

### **Section 4: Electric Diagram**

- 4.1 - Connecting diagram

### **Appendix**

- Warranty terms



## SECTION 1

### GENERAL INFORMATION - INSTRUCTIONS

#### 1.1 Introduction and safety recommendations

These operating and maintenance instructions are intended to operators and qualified personnel for the correct use of the machine.

In order to facilitate understanding of the content of this manual, we provide a list of terms and symbols used:

<b>Definition - Symbol</b>	<b>Description</b>
<i>Danger Zone</i>	Any area within and/or around the machine in which an exposed person is subject to a risk to his health or safety.
<i>Exposed Person</i>	Any person who is wholly or partially in a danger zone.
<i>Operator</i>	Person in charge of installing, operating, adjusting, servicing and cleaning the machine.
	Provides significant information.
	Indicates a potentially hazardous situation that may arise if the operations described are not carried out correctly, and which may result in damage to the machine and/or serious injury to operators.

Warnings of precautions and safety are written in this manual in order to remind the operator and staff on the possible dangers due to improper use of this machine.

The instructions or the warnings do not want to substitute the safe working practice but to complete them and to stimulate their compliance.



**Only warning does not eliminate the hazard.**

**Failure to observe this safety recommendations and improper use of the device may pose risk of accidents for the operator or other people.**

### 1.1.1 Residual risks

In compliance with section 1.7.3 "Warning of residual risks" of the Machine Directive 89/392 and subsequent amendments, if the protections applied, also in compliance with the aforementioned Directive, do not observe the following recommendations regarding:

- ▶ clothing that must be used (with no loose parts and/or accessories hanging down from the body);
- ▶ connection to the mains (respect the cyclic frequency of the phases to avoid that the spiral and the bowl turn in opposite directions);

the risk of crushing and/or shearing of pieces will not be completely eliminated.

### 1.2 Machine data and use

The manual describes the operating instructions for the **spiral kneaders with fixed bowl**.

Models: **S-10; S-16; S-20; S-30; S-40; S-50;**  
**L-16; L-20; L-30; L-40; L-50.**



This type of electrical machine transforms, with the addition of water and, sometimes, vegetable or animal fats and oils or any other ingredient, a mix of flour, into a doughy and homogeneous mass used to make pizza, bread, pastry or sweets.

The model identification plate, placed at the rear part of the machine, next to the power line is as follows:

<b>Model:</b> _____			
<b>Serial Nr.</b> 1055/04895	<b>Year</b> 2010		
___ Volt	_ N~		___ kW
50 Hz			___ Kg

### 1.2.1 Application sectors

All the models are suitable to be used in the field of handmade or professional products, therefore, they can be used in:

- ▶ Kitchens of restaurants, communities, canteens, pizza houses, etc.
- ▶ In bakeries or pasta factories.
- ▶ Wherever it is necessary to prepare flour dough.

### 1.3 EC Declaration of Conformity

**DICHIARAZIONE DI CONFORMITÀ / CERTIFICATE OF COMPLIANCE  
DECLARATION DE CONFORMITÉ / KONFORMITÄTserklärung  
DECLARATION OF CONFORMIDAD**

**CE**

**DESCRIZIONE DELLA MACCHINA / MACHINE DESCRIPTION / DESCRIPTION DE LA MACHINE / MASCHINENBESCHREIBUNG /  
DESCRIPCION DE LA MAQUINA:**  
IMPASTATRICE A SPIRALE / DOUGH SPIRAL MIXER / SPIRALNETMASCHINEN / PETRINA A SPIRALE / AMASADORAS CON ESPIRAL

**MARCA / MAKE / MARQUE / MARKE / MARCA:**

**TIPO / MODEL / TYPE / TYPE / TIPO:**

**ALIMENTAZIONE ELETTRICA / POWER SUPPLY / ALIMENTATION ELECTRIQUE / VERSORGUNG / ALIMENTACION ELECTRICA**

**NUMERO DI SERIE / SERIAL NUMBER / NUMERO DE SERIE / SERIENNUMMER / NUMERO DE SERIE (SN):**

**ANNO DI FABBRICAZIONE / YEAR OF PRODUCTION / ANNEE DE PRODUCTION / SAUJAHR / AÑO DE FABRICACION:**

**DIRETTIVE DI RIFERIMENTO E SUCCESSIVI AGGIORNAMENTI / REFERENCE DIRECTIVES AND SUBSEQUENT UPDATES /  
DIRECTIVES OF REFERENCES ET MODIFICATIONS ULTERIEURES / GELTENDE RICHTLINIEN UND SPÄTERE ÄNDERUNGEN  
/ DIRECTIVAS DE REFERENCIA Y SUCESIVAS ACTUALIZACIONES:**

- GESTIONE RIFIUTI RAEE / WASTE MANAGEMENT RAEE / GESTION REBUT RAEE / ABFALLEBETUNG RAEE / GESTION BASURAS RAEE 2002/96/CE
- DIRETTIVA RHM / DIRECTIVE RHM / DIRECTIVE RHM / RICHTLINE / DIRECTIVA RHM 2002/94/CE
- MACCHINE / MACHINERY / MACHINES / MASCHINENRICHTLINE / MÁQUINAS 2006/42/CE (M 2006/42/CE)
- COMPATIBILITÀ ELETTROMAGNETICA / ELECTROMAGNETIC COMPATIBILITY / COMPATIBILITE ELECTROMAGNETIQUE / ELEKTROMAGNETISCHE VERTRÄGLICHKEIT / COMPATIBILIDAD AD ELECTROMAGNETICA 2004/108/CE
- BASSA TENSIONE / LOW TENSION / BASSE TENSION / NIEDERSpannung / BAJA TENSION 2006/95/CE
- MATERIALI A CONTATTO CON PRODOTTI ALIMENTARI / MATERIALS IN CONTACT WITH FOODSTUFFS / MATERIAUX EN CONTACT AVEC PRODUITS ALIMENTAIRES / MIT LEBENSMITTEL IN BERÖHRUNG GELANGENDE MATERIALIEN / MATERIALES EN CONTACTO CON PRODUCTOS ALIMENTICIOS 1989/1069/CEE
- SICUREZZA IGIENE ALIMENTARE / FOOD HYGIENE SAFETY / SECURITE HYGIENE ALIMENTAIRE / LEBENSMITTELHYGIENESICHERHEIT / SEGURIDAD HIGIENE ALIMENTARIA 2002/95/CE

TENUTO CONTO DI QUANTO ESPOSTO NELLE "ISTRUZIONI PER L'USO", DICHIARO SOTTO LA MIA ESCLUSIVA RESPONSABILITÀ CHE LA MACCHINA SOPRA IDENTIFICATA, COME OGGETTO DELLA PRESENTE DICHIARAZIONE È CONFORME ALLE PRESCRIZIONI DELLE DIRETTIVE DI SOPRALIENATE / IN CONSIDERATION OF THE CONTENTS OF THE "INSTRUCTIONS FOR USE" I DECLARE UNDER MY OWN SOLE RESPONSABILITY THAT THE MACHINE IDENTIFIED ABOVE AD THE OBJECT OF THE CERTIFICATE COMPLIES WITH THE REQUIREMENTS OF THE ABOVE QUOTED CE DIRECTIVES / SUR LA BASE DES INSTRUCTIONS D'UTILISATION, JE SOUSCRIS "NOTICE D'UTILISATION". DECLARE SOUS MON ENTIERE RESPONSABILITE QUE LA MACHINE SPECIFIEE CI-DESSUS FALSANT L'OBJET DE LA PRESENTE DECLARATION EST CONFORME AUX PRESCRIPTIONS DES DIRECTIVES SUOMENTIONNEES / AUFRORDR DER IN DER BETRIEBSANLEITUNG ENHALTENEN ANGABEN ERKLÄRE ICH AUF EIGENE VERANTWORTUNG, DASS DIE VORGENANNTEN MASCHINE ALS GEGENSTAND DER VORLIEGENDEN KONFORMITÄTserklärung MIT DEN VORSCHRIFTEN IN DEN AUFGEFÜHRTEN RICHTLINIEN KONFORM IST / CONSIDERANDO LO ESPOSTO EN LAS "INSTRUCCIONES PARA EL USO", DECLARO BAJO MI EXCLUSIV A RESPONSABILIDADQUE LA MAQUINA ANTES IDENTIFICADA COMO OBJETO DE LA PRESENTE DECLARATION SE AJUSTA A LO DISPUESTO POR LAS NORMAS DE LA DIRECTIVAS PRECEDENTEMENTE SEÑALADAS.

**Administratore / Managing Director / Administrateur / Geschäftsführer / Administrador**

IMPASTATRICE A SPIRALE / DOUGH SPIRAL MIXER / SPIRALNETMASCHINEN / PETRINA A SPIRALE / AMASADORAS CON ESPIRAL

### 1.4 Technical specifications

Model	External measurements (mm)	Bowl capacity (mm)	Packages dimensions (mm)	Weight (Kg)	Gears motors in oil bath
<b>S-10</b>	L x P x H 280x460x600	10 lt 7 kg Ø260x200	L x P x H 330x560x740	35	X
<b>S-16</b> <b>L-16</b>	L x P x H 340x640x695	16 lt 13 kg Ø320x210	L x P x H 450x700x920	56	X
<b>S-20</b> <b>L-20</b>	L x P x H 400x660x695	21 lt 17 kg Ø360x210	L x P x H 450x700x920	60	X
<b>S-30</b> <b>L-30</b>	L x P x H 435x780x800	32 lt 25 kg Ø400x260	L x P x H 540x850x970	83	X
<b>S-40</b> <b>L-40</b>	L x P x H 490x800x800	41 lt 35 kg Ø450x260	L x P x H 540x850x970	90	X
<b>S-50</b> <b>L-50</b>	L x P x H 490x800x800	48 lt 42 kg Ø450x300	L x P x H 540x850x970	96	X

Model	Single-phase installed power 230V 50Hz	Three-phase installed power 400V 50Hz	2 Speed Three-phase installed power TR 400V 50Hz
<b>S-10</b>	0,55 kW 0,40 Hp	-	-
<b>S-16</b> <b>L-16</b>	0,55 kW 0,75 Hp	0,55 kW 0,75 Hp	1,1/0,8 kW
<b>S-20</b> <b>L-20</b>	0,75 kW 1 Hp	0,75 kW 1 Hp	1,1/0,8 kW
<b>S-30</b> <b>L-30</b>	1,1 kW 1,5 Hp	1,1 kW 1,5 Hp	1,7/1,3 kW
<b>S-40</b> <b>L-40</b>	1,5 kW 2 Hp	1,5 kW 2 Hp	2,2/1,5 kW
<b>S-50</b> <b>L-50</b>	1,5kW 2 Hp	1,5kW 2 Hp	2,2/1,5 kW

Transmission with gear motors in oil bath and chain.

### 1.4.1 Sound level

The machine has been designed to operate within the power limits established by the legislation in force. The average sound level in the work place during the main operating phases, according to the DIN45635/a standard is the following:

- ▶ No Load Noise 55dB(A).
- ▶ Noise in working mode 67dB(A).

### 1.4.2 Productivity

Model	Maximum productive capacity per cycle
S-10	± 7 Kg of dough
S-16/L-16	± 12 Kg of dough
S-20/L-20	± 17 Kg of dough
S-30/L-30	± 25 Kg of dough
S-40/L-40	± 35 Kg of dough
S-50/L-50	± 42 Kg of dough

Adding water or other kinds of ingredients to the partially kneaded dough inside the bowl has to be gradual, following the proportion: about 2 Kg of flour for every litre of liquid. It is recommended to pour first the water and then the flour.



**Do not exceed the maximum quantity of dough that the machine can cope with during each productive cycle.**

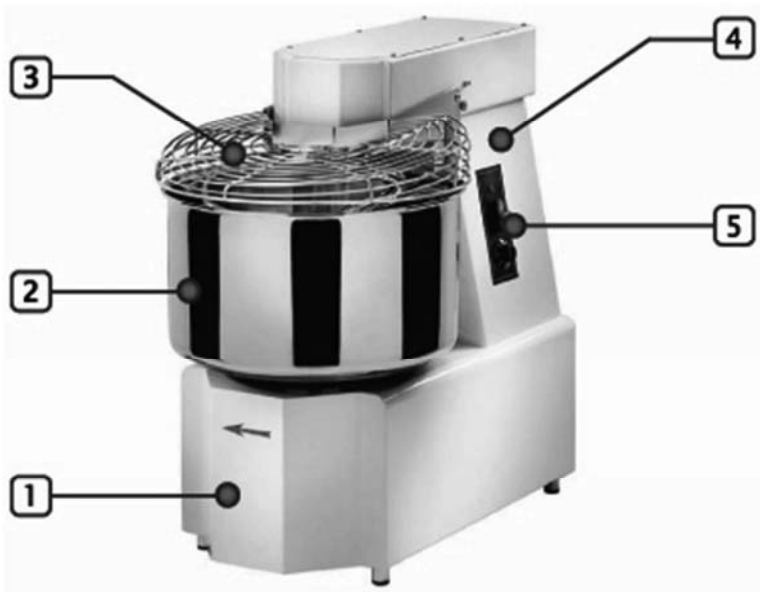
The duration of the working cycle, according to the machine model, may vary from 14 to 20 minutes approximately.



### 1.5 Machine description

The machine consist mainly of the following groups:

- 1) Base;
- 2) Mixing bowl;
- 3) Cover;
- 4) Column;
- 5) Push button control panel (1 or 2 speed).



### 1.6 Packaging and standard equipment

In order to avoid any damage during handling or transport, the machines are supplied with:

Type of packaging	Objective
Box of heavy corrugated cardboard	Protection against careless impacts and movements
Anti-static PVC bag	Protection against dust

Protective wrapping of semi-rigid expanded polystyrene shaped to the machine

Internal stability and anti-shock protection

The packaging of all the models is secured to a wooden support (pallet) so that they can be perfectly handled with lifting means/transport.

The standard equipment of all the models consists of the following:

- ▶ An operations and maintenance instructions manual
- ▶ A catalogue of spare parts with exploded diagram
- ▶ Warranty Certificate
- ▶ EC Declaration of Conformity



Only the price list and the order confirmation of Your machine certify the effective general configuration with standard equipment and accessories.

### 1.7 Safety devices

In order to ensure observance of the Essential Safety and Health Protection Requirements (ESHRs), all our products comply with the requirements of the following European Directives:

- ▶ Electrical Safety Directive (2006/95/EC).
- ▶ Electromagnetic Compatibility Directive (2004/108/EC).
- ▶ Machine Directive (2006/42/EC).

and include the criteria and the suitable devices that ensure all the provisions.



All the protection and safety devices of the machine and the equipment installed and all the signs that indicate danger, or provide information or recommendations must be kept in good conditions in their corresponding places.



**To tamper, modify or change the elements of the machine and the safety devices constitute fraudulent actions and bear civil and penal responsibilities for any direct or indirect damage to people, animals, objects or the environment.**

### 1.7.1 Safety devices of the electrical equipment – Wiring diagram

The electrical circuits of the machine, the wiring diagram, the buttons, the switches and the selectors are all designed and manufactured in conformity with the specific standards

To preserve safety:

- ▶ The electrical system that supplies the auxiliary circuits is powered by a low voltage transformer (IEC 96-2).
- ▶ A specific micro-switch with forced opening of contacts blocks operation at the moment the protection of the rotating bowl (cover) is lifted
- ▶ An interface circuit between the command and the power ones prevents the spontaneous restart after a voltage reduction or after the interruption of the supply voltage, by making indispensable the voluntary reset intervention of the machine operation circuit.
- ▶ The electrical appliances and the circuit are inserted in the corresponding containers with IP 55 protection level.

The wiring diagram has been carried out according to the standard instructions related to the electric equipments of industrial machines.



There is a copy of the wiring diagram in the appendix of this manual.

### 1.7.2 Safety devices of the mechanical equipment

In order to obtain the maximum degree of safety and reliability, the mechanical safety devices are integrated to the structure of the machine and can't be violated:

- ▶ The "L" series kneaders are supplied with the bowl cover made of transparent polycarbonate with a hole for the water introduction without lifting the cover of the bowl or interrupting the operation of the system.  
The "S" series kneaders are supplied with a wire cover made of stainless steel suitable for food. The possibility of seeing the dough and adding water and flour through the wire weft facilitates the working process a lot.
- ▶ A vertical polycarbonate protective glass, permanently fixed to the bowl, prevents that hands, fingers and other parts of the body get crushed or trapped between the kneading column and the bowl.



**Keep hands, arms or any other part of the body away from the rotating bowl or the moving parts inside it.**

**Do not remove the rear or upper crankcase, or the polycarbonate protection during machine operation.**

### 1.7.3 Operator safety

The operators must:


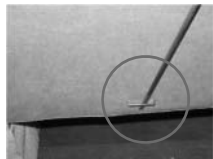
- ▶ reach the age foreseen by the social laws,
- ▶ have good general competence and manual ability for coordination and be precise;
- ▶ have received proper technical and practical preparation (training) from a skilled operator;
- ▶ be aware of the dangers that derive from an improper use of the machine or from carrying out the prescriptions of this manual in a different way;
- ▶ operate the machine without using scarves, ties, rings, watches, bracelets or any other object that may get caught between the parts of the machine;
- ▶ observe working clothes (with tight sleeves) and have your hair up;
- ▶ wear personal protection equipment (thermal insulation gloves, glasses, masks, etc.) in compliance with the safety legislation and regulations in force in the respective country, as prescribed by Directive 89/391/EEC and annexed directives.



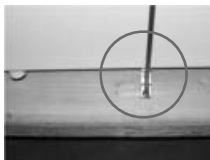
## SECTION 2

### INSTALLING THE MACHINE

#### 2.1 Unpacking

Normally unpacking involves:

Step	Action	
1	Remove the fastening strap from the cardboard box and the wooden bedplate (pallet) by using a suitable tool (pair of scissors, cutter, etc).	
2	Introduce the point of a screwdriver between the cardboard and the points that fasten the lower part of the packaging and remove them by pulling outwards.	

3	Remove the upper cover of the cardboard packaging.	
4	Take away the anti-static PVC bag and the expanded polystyrene.	
5	Unscrew the "L" elements around the machine.	
6	<p>Open the packaging completely and introduce the ropes and the lifting belts under the bedplate, towards both ends (make sure the capacity of the ropes are adequate for the weight of the machine).</p> <p><b>Adjust the ropes or the belts so that all the lifting points are wrapped around and there is no chance that they slip off and the weight loses its balance.</b></p>	
7	Carefully sling the machine by protecting the parts of the structure that make direct contact with the lifting ropes/belts.	
8	Lift the machine from the wooden bedplate (pallet) and unload it in the allotted site on the ground.	
9	If necessary, use a soft and dry cloth to clean the outside part.	



**The machine must be handled only by personnel who are trained and familiar with the risks and the procedures related to unpacking, lifting and correct handling.**

## 2.2 Position in place

To position the machine in place proceed as follows:

Step	Action
1	Place the machine in a suitable area protected against atmospheric agents; considering the size and the space necessary for the containers of raw and finished materials. Check that there is an electricity distribution system in the area suitable to provide the machine with the required power.
2	Place the feet under the bedplate on a solid levelled surface.



The machine does not need to be fastened with any kind of strap onto the work table.

## 2.3 Connection to the electrical power supply



**The electrical connection to the power supply and the operation of the machine must be done, pursuant to the law, only by a qualified technician, who will previously check (IEC standards), with suitable means and tools, the effectiveness of the ground electrodes and the earthing system to which the device will be connected.**

**For installations outside the national territory, observe strictly the regulations in force in the country where the machine will be used.**


## 2.4 Preliminary installation requirements

Install the machine only after you have checked that:

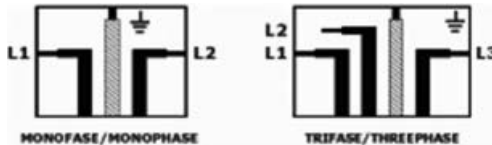
- ▶ the voltage indicated on the plate is the voltage the machine will be supplied with;
- ▶ the voltage and absorbed power characteristics of each machine model (Sec. 1.4) are suitable for the available voltage and power;
- ▶ the distribution system has an effective earthing system and safety switch.

All the components and materials necessary to perform the installation must: be done in full compliance with the laws in force and abide by the dictates of the low voltage directive and the electromagnetic compatibility directive in force.

The installation technician must:

Step	Action
1	Strictly follow the technical specifications contained in the IEC 64-8 standard to determine the electrical features of the disconnecting switch (with possible interlocking control) and the differential thermo-magnetic switch.
2	Check that the power plug of the machine is connected to a suitable socket (interlocking type preferred) in compliance with IEC 309 and EN 60 309 standard.
3	<p>Check that the direction of rotation of the bowl coincides with the direction of rotation indicated by the arrow on the bowl. If they do not coincide in models with three-phase power supply, invert the two phases on the plug so that the correct direction of rotation is restored.</p> 

The machine with three-phase power supply should be connected to a safety grip according to the cyclic frequency of the phases.



Once operating checks and inspections are finished, the installer will have to issue the Declaration of Conformity in compliance with the provisions of Act 46/90

#### 2.4.1 Technical information reserved to the qualified installer



**The following informations are aimed, only, at qualified technical staff.**

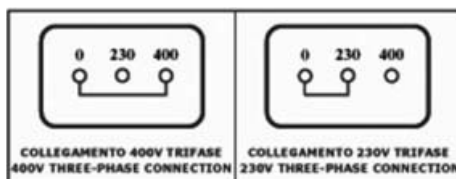
The three-phase motor 400V 50Hz has two flexible wires, each of them consisting of three wires, in three different colours:

- ▶ the three wires of different colours of one of the two straps are short-circuited and segregated at a terminal or at a terminal board;

- ▶ the other three wires are directly connected to the interface card of the machine control panels.

If you want to change the provided connection to 400V three-phase (star connection) for the operation at 230V three-phase (delta connection), proceed as follows:

Step	Action
1	Separate the three short-circuited wires from each other.
2	Combine the wires with the same colour, then restore the connection of the wires grouped together to the card terminal marked with the references U1 – V1 – W1.
3	Proceed to the new connection of the bridge cable between the references 0 – 400V by sliding these last ends to the new value of 230V.
4	Carry out the functional test and the control of the correct direction of the motor rotation.



Disposing the machine with single-phase power supply:

Step	Action
1	Install to the ends of the power supply cable to a corresponding loose plug, conforming to the IEC 309-1 and 2 standard.
2	Install to the wall or to the connector box, close to the machine, the corresponding power socket attached to the plug.









## SECTION 3








### MACHINE USE

#### 3.1 Controls description

The electrical control panel is placed in front of the machine in an ergonomic position, next to the mechanical controls and is configured as follows:

SINGLE SPEED SWITCH	DOUBLE SPEED SWITCH	EMERGENCY BUTTON (ONLY IN DIGITAL MODEL)
		
DIGITAL SINGLE SPEED PANEL	DIGITAL SINGLE SPEED PANEL + TIMER	DIGITAL DOUBLE SPEED PANEL
		

#### Control description

	“OPERATION/START-UP” button: when pressed the machine starts.
	“OPERATION/START-UP” button for second speed: when pressed, the machine starts at the highest speed.
	“STOP” button: when pressed, the machine stops. Under normal conditions of use, the operating cycle can be restored at any time by activating the operation (B) button.
	Switch to increase the time of the TIMER
	Switch to decrease the time of the TIMER
	TIMER display. The double speed digital control unit is provided with 2 TIMER (one for each speed). If you set them both and push the start button, the machine will switch to the next speed automatically and instantaneously once the time set for starting has run out.
	Mechanical Timer – Once the set time runs out the machine will stop.







Do not open the cover during the operation. This operation stops the machine by deactivating the general connector.



### 3.2 Machine start-up



Before starting an operating cycle, ensure that the materials that will be used are suitable and available in the quantity needed based on the kind of product that will be produced.

This is the correct procedure that the operator must follow to start the machine:

Step	Action	
1	Ensure that the main switch on the switchboard installed near the machine is in "0/DISINSERITO/OFF".	
2	Remove the plug from the socket.	
3	Lift the cover of the bowl.	
4	Pour the water in the bowl and add other liquids necessary for the dough.	
5	Add about the 50% of the flour and other solid ingredients.	
6	Close the cover of the bowl by lowering it to the end of the stroke.	
7	Introduce the plug in the socket and turn the main switch on the switchboard to "ON".	
8	Check pre start-up by verifying: I. mains voltage (green light ON of the control panel of the machine);	

	II. that the protection cover of the rotating bowl is closed in the right position.	
9	<p>Concerning the machines having a TIMER, set the working time. In the digital double speed machine each speed has its own timer. If you set them both and push the start button, the machine will switch to the next speed automatically and instantaneously once the time set for starting has run out.</p> <p>Start the machine by pressing the "MARCIA/ON" button of the control panel of the machine.</p> <p>For machines equipped with second speed, start the working procedure with second speed by pressing the button "D" (see p.18).</p>	
10	<p>After about 1 minute:</p> <ul style="list-style-type: none"> <li>I. stop the machine ("ARRESTO/STOP" button on the control panel);</li> <li>II. lift the cover, add the remaining flour and close it;</li> <li>III. restart the device (push button "B" if equipped with single speed or push button "D" for the second speed).</li> </ul> <p><b>For 2-speed machine start with at about 5 minutes cycle in second speed (the higher one) using the TIMER. Then go to the first speed to end the work.</b></p>	
11	When the cycle ends, detach the dough from the bowl and take it to the work table.	
12	Clean the bowl thoroughly (see section "Cleaning the machine").	



**During operation, no matter its stage, it is strictly forbidden to carry out or try to carry out mechanical or other kind of adjustments on the machine.**

### 3.3 Cleaning the machine



It is recommended to clean the machine daily, both for it to be clean and to preserve it over time and ensure proper operation.



**It is recommended to use odourless non toxic cleaning products and for food use.**

**Do not use abrasive detergents, anti-calcareous detergents, solvents or diluents.**

**Do not use synthetic abrasives or metallic sponges.**

Before carrying out cleaning (or maintenance) procedures:

- ▶ turn the main switch to 0/DISINSERITO/OFF;
- ▶ remove the machine plug from the socket.

To clean adequately the:

- ▶ *bowl, spiral and fixed bar*: Use a clean sponge soaked in hot water to remove all remaining dough; once this operation is finished, dry thoroughly the elements with a soft, clean and dry cloth.
- ▶ *Outside the machine*: Use a clean sponge with a small amount of adequate detergent and cleaning products.



Once cleaning operations of the different pieces of the machine are finished, refit them in their initial position and make sure they are correctly placed by tightening the corresponding fixing devices when necessary.



**Do not wash and/or clean:**

- I. by spraying water jets on the machine or its components;**
- II. by immersing the machine in liquids or detergents.**

### 3.4 Regular maintenance

If the machine is used as prescribed and indicated in this manual, the adequate manufacture of the mechanical pieces and the choice for suitable materials will allow the machine to operate with no faults and no need for maintenance for many years.

Whenever regular maintenance operation is performed on the machine, make sure that the machine is not connected to the mains (cable disconnected and green warning light off).

### 3.5 Troubleshooting

Problem	Probable cause	Recommended solution
Machine does not start	No power supply	<ul style="list-style-type: none"> <li>I. Check that the plug is properly connected;</li> <li>II. check that the thermo-magnetic switch has been activated ("ON");</li> <li>III. verify that the differential switch is active (if you press the "TEST" button and the lever remains still in high/upper position, this may indicate that there is no power);</li> <li>IV. check if there is power in other points close to the machine;</li> <li>V. have the machine installed by a duly trained technician.</li> </ul>
Burnt fuses. Short-circuit	Lightning or sudden change in voltage	Have the machine installed by a duly trained technician.
Trip operation	Clearance/ abnormal chain lengthening	Have the machine installed by a duly trained technician.



**In case of faults during operation, stop the machine, disconnect it from the mains and immediately contact a specialized technician.**



It is absolutely forbidden for the user to modify the machine for any reason. The manufacturer shall not be liable for any damages to people, animals, objects or the environment that may derive from:

- ▶ tampering with the machine;
- ▶ installation of non original spare parts;
- ▶ modifications to safety devices and systems;

carried out by the user or any other person not expressly authorized by the manufacturer.

### 3.6 Long inactivity periods

If the machine is not used for an extended period of time, it is compulsory to:

- ▶ clean it thoroughly;
- ▶ protect it against dust, by wrapping it, up to the base, with a clean and dry cloth (avoid the use of synthetic materials and bags).

### 3.7 Machine disposal

If the machine needs to be dismantled or destroyed, its parts are not as dangerous as to require the adoption of special precautions.

To facilitate material recycling, all the components of the electrical system, the thermoplastic components and the drive belts of the machine must be separated.

**USER INFORMATION – pursuant to art. 13 of the Legislative Decree No 151 of July 25<sup>th</sup>, 2005, “Implementation of Directives 2002/95/EC, 2002/96/EC and 2003/108/EC, on the reduction of use of hazardous substances in electrical and electronic equipment, as well as waste disposal”.**

The appliance and packaging are marked with the crossed-out dust bin symbol, which indicates that the product must be collected separately from other waste at the end of its lifetime.



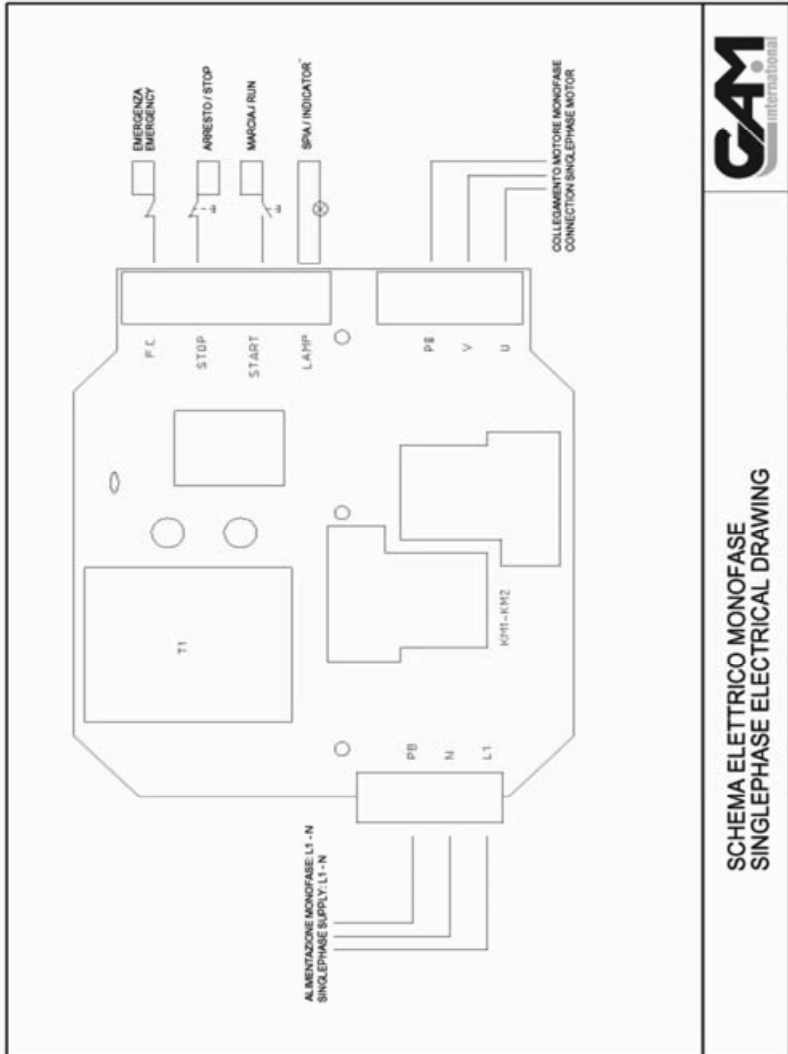
Adequate separated collection of waste for later recycling, treatment and environmentally-friendly disposal is an important contribution towards avoiding a negative impact on the environment and health, and it also facilitates the recycling and/or re-use of the appliance's components.

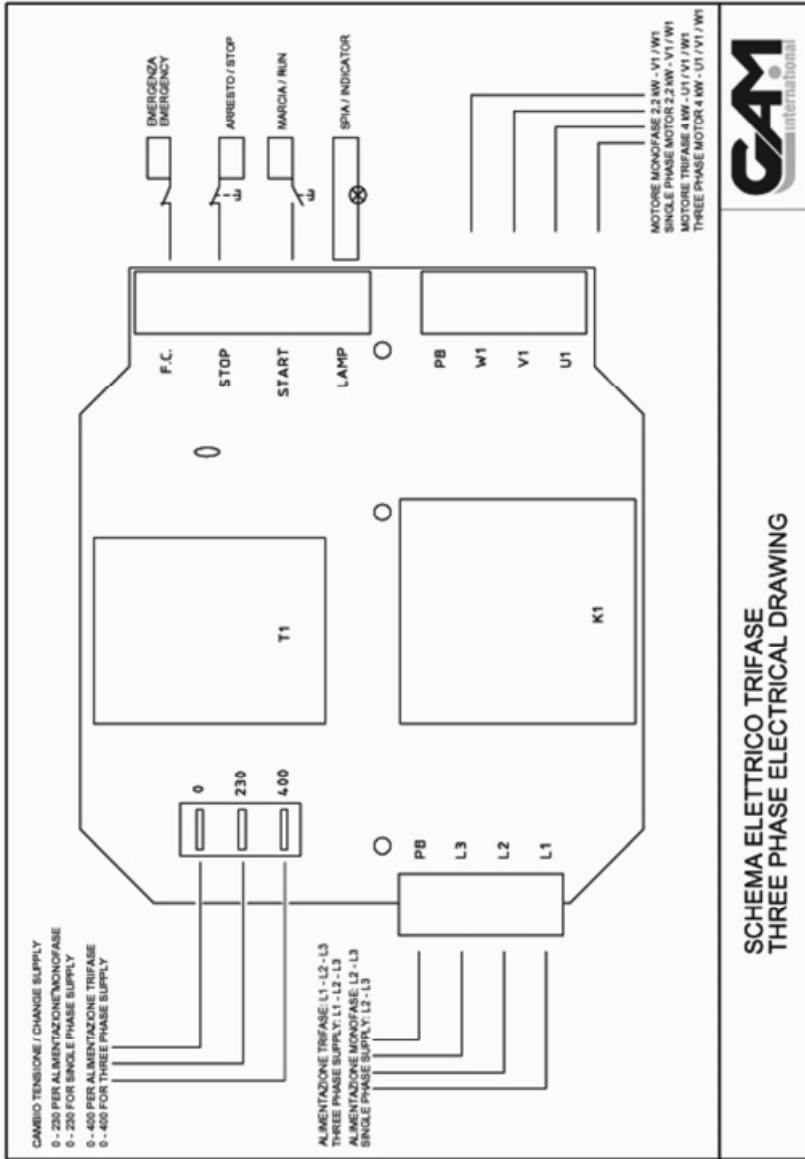
Users who dispose of products in an unauthorised manner shall be liable for administrative penalties in compliance with the legislation in force.

Registration in the electrical and electronic material manufacturer's register with the number: **IT08030000004407**.

## SECTION 4 - ELECTRIC DIAGRAM

### 4.1 Connecting diagram







## **Warranty conditions**

1) *The manufacturer guarantees the operation and the duration of the products it manufactures. These products were built in a professional manner and underwent a functioning test in the manufacturer's workshop according to the specifications listed on the information plate and according to the theoretical normal working conditions. This warranty is valid for 12 (twelve) months from the date of purchase which is listed on the delivery documents or which can be deduced from the receipt issued by the dealer.*

2) *The warranty covers all the unit's components except for the electrical parts, the plastic parts and other fragile parts, the knobs, the removable parts, the painting and the chromium plating, and any accessories, since their condition depends directly on the user's care. The following are also not covered by the warranty: all damage caused by carelessness when transporting or handling the product, by negligence or incompetence when using the machine, by incorrect or bad installation or maintenance, by an inadequate electrical system to which the machine is connected, and by tampering by unauthorized personnel and/or personnel who are not qualified to work on the machine in a professional manner, as well as for any other reason that does not depend on the manufacturer.*

3) *During the warranty period the manufacturer pledges, through the dealer that made the sale and according to what is stated in the previous paragraph, to replace or repair free of charge those parts that are defective due to original material defects or due to defects in workmanship. If on-site service is requested, the user must pay a fixed charge for service calls according to the local rates in force or according to the national industry rates. If the machine must be repaired at the factory, the user will be exclusively responsible for all transport costs. Any repairs performed during the warranty period will not extend it.*

4) *To be eligible for service under warranty, the user must exhibit the warranty certificate and the receipt or delivery document to validate the purchase date of the machine. These documents must be impeccably compiled and absolutely free of tampering, corrections, erasures, etc.*

5) *The manufacturer does not undertake any other responsibilities except for those regarding the replacement of parts found to be defective according to its own unquestionable judgment. No responsibility is undertaken for any damages to the client due to the machine not running, or due to the time necessary to perform any service under warranty.*

6) *The manufacturer acknowledges only the warranty conditions listed on this certificate. No one is authorized to modify them or to issue other verbal or written warranty conditions.*

7) *The Court of Manufacturer's Town will be the exclusive competent court for any dispute arising concerning the interpretation and/or the application of these warranty conditions. Italian law will be applied exclusively regarding all legal aspects.*