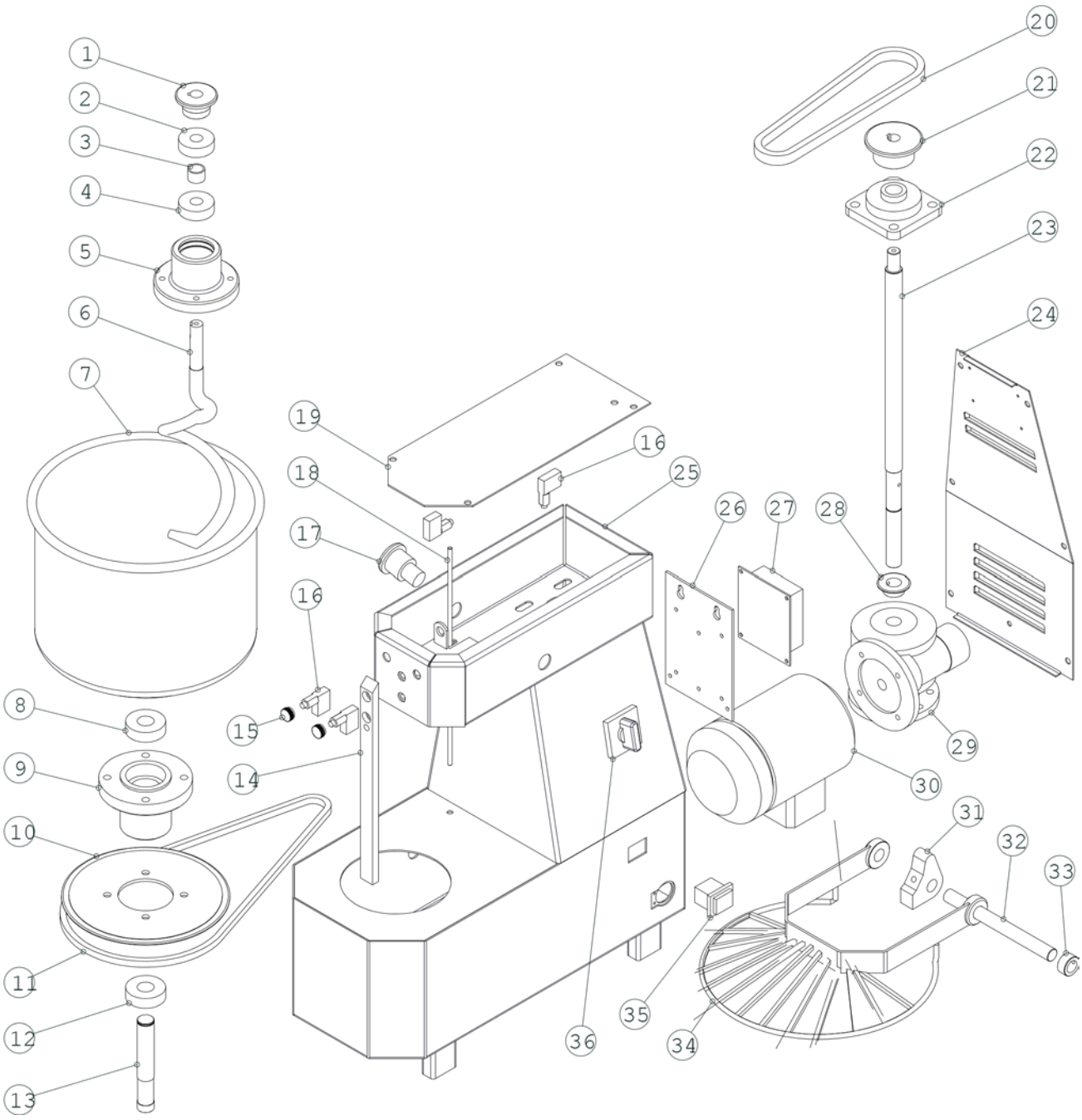
PIZZA AND CATERING EQUIPMENT PROFESSIONALS

SPARE PARTS & INSTRUCTION MANUAL LLKEM20

LLKEM20



• DESCRIPTION •

POS.

	MODEL NUMBER	PART DESCRIPTION	PART NUMBER
1	LLKEM20	PINION	I03.101
2	LLKEM20	BEARING	I03.102
3	LLKEM20	SPACER OF BEARING	I03.103
4	LLKEM20	BEARING	I03.104
5	LLKEM20	WHISK SUPPORT	I03.105
6	LLKEM20	WHISK (SPIRAL)	I03.106

7	LLKEM20	BOWL (POT)	I03.107
8	LLKEM20	BEARING	I03.108
9	LLKEM20	SUPPORT	I03.109
10	LLKEM20	RIM	I03.110
11	LLKEM20	LOWER CHAIN	I03.111
12	LLKEM20	BEARING	I03.112
13	LLKEM20	SHAFT	I03.113
14	LLKEM20	BAR (DOUGH SEPARA-TOR)	I03.114
15	LLKEM20	MICROSWITCH CAP	I03.115
16	LLKEM20	MICROSWITCH	I03.116
17	LLKEM20	MUSHROOM-SHAPED EMERGENCY SWITCH	I03.117
18	LLKEM20	SAFETY BAR	I03.118
19	LLKEM20	UPPER CASING	I03.119
20	LLKEM20	UPPER CHAIN	I03.120
21	LLKEM20	PINION	I03.121
22	LLKEM20	U.C.F. SUPPORT	I03.122
23	LLKEM20	SHAFT	I03.123
24	LLKEM20	LOWER CASING	I03.124
25	LLKEM20	FRAME	I03.125
26	LLKEM20	CARD-CARRYNG PLATE	I03.126
27	LLKEM20	POWER CARD	I03.127
28	LLKEM20	PINION	I03.128
29	LLKEM20	TRANSFORMER	I03.129
30	LLKEM20	MOTOR	I03.130
31	LLKEM20	RABBET	I03.131
32	LLKEM20	PIVOT	I03.132

• DESCRIPTION •

POS.	MODEL NUMBER	PART DESCRIPTION	PART NUMBER
33	LLKEM20	RING.	I03.133
34	LLKEM20	SAFETY DEVICE	I03.134
35	LLKEM20	MAIN SWITCH	I03.135
36	LLKEM32	DOUBLE SPEED SWITCH	I03.136

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GUARANTEE

All equipment parts, except for the electric devices, are covered by a 36-mounth guarantee, provided that faults are due to manufacturing. The delivery of the above mentioned parts is to be paid by the receiver. An invoice will be issued for any replacement of parts covered by the manufacturer's guarantee; on receiving the equipment parts for which replacement was required (carriage-free goods),customers will be given a credit note. Replacement of the entire equipment is not covered by guarantee, nor are manufacturing costs necessary to replace parts or any other additional expenses.

SHIPMENT

Goods are shipped at Buyer's risk. Any complaint about the faulty condition of cargo must be made to the carrier immediately after delivery. Please check that goods were not damaged during shipment and if so inform the carrier immediately after delivery. We are not liable for damage which was not reported to the carrier shortly after receiving the shipment, even if it was forwarded free of charge and with invoice.

COMPETENT FORUM

For every controversy the manufacturer head office is competent.

Instructions manual for the use	
Issue	**03.2011**

MANUALE d'USO e MANUTENZIONE
MANUAL for USE and MAINTENANCE
MODE d'EMPLOI et d'ENTRETIEN
GEBRAUCHSANWEISUNG und WARTUNG
MANUAL de USO y MANUTENCION

Prodotto • Product • Produit • Produkt • Producto	**ELECTRIC MIXER**

Modelli • Models • Modéles • Modell • Modelo	**LLKEM20**

Modelli • Models • Modéles • Modell • Modelo	**LLKEM30**

Modelli • Models • Modéles • Modell • Modelo	**LLKEM40**

Modelli • Models • Modéles • Modell • Modelo	**LLKEM50**

Modelli • Models • Modéles • Modell • Modelo	
	

Trifase • Triphase • Triphasé • Dreiphasig • Trifase	**3 PE AC 400 V 50 Hz**	❑
	3 PE AC 400V 60Hz	❑

Monofase • Monophase • Monophasé • Einphasig • Monofase	**1 N PE AC230V 50Hz**	❑
	1 N PE AC 110V 60Hz	❑

DICHIARAZIONE CE DI CONFORMITÀ

DECLARATION CE OF CONFORMITÀ
DECLARATION CE DE CONFORMITE
BESTÄTIGUNG CE DER GESETZMÄSIGKEIT
DECLARACION CE DE CONFORMIDAD

2006/42/CE

Il sottoscritto, rappresentante il seguente costruttore:
The under signed, representative and builder:
Le soussigné, représentant le constructeur suivant:
Der Unterzeichnete, in Vertretung des Herstellers:
Yo, representante el siguiente constructor:

Nome	**Linda Lewis Kitchens Ltd**
Indirizzo	**3-5 Belgrave Industrial Est, Honeywell Lane, Oldham OL8 2JP**

ha incaricato di la persona autorizzata a costituire e conservare il fascicolo tecnico
instructed by the person authorized to establish and maintain the technical file
instruit par la personne autorisée à établir et à maintenir le dossier technique
durch die beauftragte Person berechtigt zu schaffen und die technischen Unterlagen erhalten
las instrucciones de la persona autorizada para establecer y mantener el expediente técnico

Nome	**Linda Lewis Kitchens Ltd**
Indirizzo	**3-5 Belgrave Industrial Est, Honeywell Lane, Oldham OL8 2JP**

Il sottoscritto costruttore dichiara qui di seguito che la macchina
The undersigned manufacturer declares hereby that the machine
Le fabricant soussigné déclare par les présentes que la machine
Der Unterzeichnete Hersteller erklärt hiermit, dass die Maschine
El fabricante declara que suscribe declara que la máquina

Denominazione generica / commerciale	**IMPASTATRICE ELETTRICA** ELECTRIC MIXER PÉTRISSEUSE ELECTRIQUE ELEKTRISCHE KNETMASCHINE AMASADORA ELECTRICA
Funzione	**Mescolatrice planetaria con vasca fissa utilizzata per il trattamento di vari ingredienti** Rotary Mixer with bath used for the treatment of various ingredients Rotary Mixer avec salle de bains utilisés pour le traitement de divers ingrédients Rotary Mixer mit Bad für die Behandlung von verschiedenen Zutaten verwendet Rotary Mixer con baño para el tratamiento de los distintos componentes
Modello	**LLKEM20/LLKEM30/LLKEM40/LLKEM50**
Tipo	_____
Matricola	_____
Anno di costruzione	**20__**

risulta in conformità a tutte le diposizioni pertinenti previste dalle seguenti direttive comunitarie (comprese tutte le modifiche applicabili)

esults in conformance with what foreseen from the following communitarian directives, (Included all applicable modifications):

est en conformité avec toutes les lois pertinentes a donné les directives suivantes (y compris toutes les modifications applicables)

wird in Übereinstimmung mit allen einschlägigen Rechtsvorschriften hat die folgenden Richtlinien (einschließlich aller zutreffenden Änderungen), sofern

está en conformidad con todas las leyes pertinentes ha proporcionado las siguientes directivas (incluyendo todas las modificaciones aplicables)

2006/42/CE - Direttiva Macchine

2006/95/CE - Direttiva Bassa Tensione

Ai sensi della direttiva Compatibilità Elettromagnetica, sono state applicate le seguenti norme armonizzate:

EN 61000-6-1:2007 Compatibilità elettromagnetica (EMC) — parte 6- 1: Norme generiche — Immunità per gli ambienti residenziali, commerciali e dell'industria leggera

EN 61000-6-3:2007 Compatibilità elettromagnetica (EMC) — parte 6- 3: Norme generiche — Emissione per gli ambienti residenziali, commerciali e dell'industria leggera.

Le parti costituenti la macchina e destinate a venir a contatto con il prodotto alimentare sono conformi al:

The parts constituting the machine and destined to come into contact with the food product are in conformance with:

Les parties qui constituent la machine et destinées à entrer en contact avec le produit alimentaire sont conformes au:

Die Bestandteile des Geräts, die dazu bestimmt sind, mit Lebensmitteln in Berührung zu kommen, sind konform mit:

Las partes constituyentes la máquina y destinadas a venir a contacto con el producto alimenticio están conformes al:

REGOLAMENTO CE n. 1935/2004

REGOLAMENTO CE n. 2023/2006

Pietracuta di San Leo ____ / ____ / _____

Jenna Lewis
(il legale rappresentante)

1. SUPPLYING VALIDITY

The Electric Mixer here follow called “machine” is designed to amalgamate doughes, both tough both soft, made from flour, salts, yeasts, fats and liquids (water, eggs, ...), potatoes and minced meat and other ingredients in the industry and in the food shops.
In accordance with the model and the commercial requests, the machine can be constituted with different configurations, optional and technical data, in accordance with the combinations individuated and identified in the chapter n. 2.

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

The machine is supplied with an identification plate on which the following data are showed:

[fac simile]

	CE
DESIGNATION	**ELECTRIC MIXER**
SERIES / MODEL	
REGISTRATION NUMBER	
MACHINE MASS	**kg**
MANUFACTURING YEAR	**20**
NOMINAL VOLTAGE	**... PE AC .... V .... Hz**
FULL CHARGE CURRENT	**… A**
SHORT CIRCUIT CURRENT	**… kA**
ELECTRIC DIAGRAM NUMBER	**…**

For information on the machine correct use, consult the instructions manual

2. CONTENT ORGANIZATION AND CONSULTATION MODALITY

2.1. MANUAL PURPOSE

MANUAL IMPORTANCE

The present instructions manual for the use is to be considered as **integral parts of the machine**:

1. must be kept for all machine life.
2. must be coupled with the machine in case of its ceasing.
3. besides to show all useful notices for the operators, contains (collected in specific chapters) the electric diagrams that will be used for the possible maintenance interventions and reparation.

SCOPE / MANUAL PURPOSE

The instructions manual for the use **has the purpose to** provide to the commitment all necessary information so that, except of an adequate supplied machine use, is able to manage the same in the more autonomous way and possible safe. Besides the present manual has been written with the purpose to supply **indications and warnings** to know the supplied machine, to understand its principles and functioning limits. For possible doubts you can call the Authorized Assistance Centre.

RECEIVERS

The present instructions manual for the use, delivered in number of n. 1 copy together with the machine, is supplied as integral part of the machine, is turned both to the operators both to the skilled technicians qualified to the installation, use and maintenance.

The prevention and protection service responsible of the commitment and **the additional employees,** to whom is assigned the machine, must take vision of the present instructions manual for the use, with the aim to adopt all technical and organizational measures

Before to put in function the machine, and every time a doubt about its functioning appears, it is obligatory for the operator to read with attention the use instructions.

PRESERVATION

- The present instructions manual for the use must be preserved in the immediate vicinities of the machine sheltered from liquids, from humidity, excessive heat and what else can compromise the readably condition.
- Consult the Manual so as to not damage all or in part the content.
- Don't remove pages from the Manual.
- Don't write on the Manual pages

UPDATINGS, INTEGRATIONS AND CHANGE

- If the present manual suffers damages or is lost, it is possible to request a copy to the Authorized Assistance Centre.
- The present manual reflects the technique condition during the machine manufacturing; the manufacturer reserves the right to update the production and of consequence other manual issues, without the obligation to update productions or previous manuals, if not in particular cases regarding the people health and safety.
- If the commitment desires to receive further informations, he is asked to contact directly the Authorized Assistance Centre.
- **The commitment is invited, in case of machine ceasing,** to signal to the Authorized Assistance Centre the identification data of the new receiver, to facilitate the transmission of possible integrations to the manual that, as yet remembered, must couple the removing container/distributor also in case of removal.

2.2. RESPONSIBILITY

- If the present manual endures damages or is lost, it is possible to request a copy to the Authorized Assistance Centre.
- The present manual reflects the technical state during the machine manufacturing; the manufacturer reserves the right to update the production and of consequence other manual issues, without the obligation to update productions or previous manuals, if not in particular cases regarding the people health and safety.
- Pay particular attention to the residual risks content present on the machine and the prescriptions to which the operators must keep.
- The manufacturer is the responsible for the machine in its original configuration.
- The manufacturer isn't the responsible for damages caused from the improper use or not correct of the machine and documentation or for damages caused from the imperative standards violation, negligence, lack of experience, imprudence and the not respect of regulation standards on behalf of the employer, of the operator or the maintenance man and for every possible damage caused from an irrational, improper and/or wrong use
- The manufacturer isn't the responsible for the consequences caused from the not original spare parts use or of equal characteristics.
- The manufacturer is the responsible only for the information showed in the manual original version in Italian language.
- The non-fulfillment prescriptions included in this manual will cause the guarantee immediate decay.

The factory responsibles, that supervision to the working activities, in the field of the foreseen respective attributions and competences must:

- Carry out the foreseen safety measures;
- Make informed the operators about the specific risks whom are exposed and bring to their knowledge the prevention essential standards;
- Prepare and require that the single operators observe the safety standards and use the protection means put at their disposal:
- Get down working more operators, contemporary, on this product.

It explains besides that following the put in service of the machine, the same is subjected to what foreseen / prescribed from the directive 89/655/CEE and the successive modifications

2.3. SIMBOLOGY MEANING

Here follow it is clearly specified the symbols and definitions meaning, which will be used in the present document.

DANGER
It shows the danger presence for who works on the machine and for who is the vicinity, so the indicated activity must be performed in accordance with the actual accident prevention standards and with the indications showed in the present manual.

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

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

3. GENERAL INFORMATION AND CHARACTERISTICS

3.1. TESTS PERFORMED BEFORE THE DELIVERY

Before the delivery, c/o manufacturer head office, the machine has been subjected to the safety tests foreseen from the actual and applicable legislation and to the functioning tests in accordance with the purpose defined in the present instructions manual for the use. Besides, all installed components are subjected to a detailed visual and instrumental check, with the aim to guarantee also the agreement to the contractual requirements.

3.2. PURPOSE AND MANUFACTURING PARTS

The Electric Mixer here follow called "machine" is designed to amalgamate doughes, both tough both soft, made from flour, salts, yeasts, fats and liquids (water, eggs, ...), potatoes and minced meat and other ingredients in the industry and in the food shops.

The machine is generally constituted from the following elements (cfr. annexed):

1. n. 1 structure constituted from a unique melting, which supports and includes the motor parts and the control devices. In some models, the machine superior part, or the head, can be tipped over to allow the tool change, the bowl removal and the load/unload of the food product. The head closure position is guaranteed through a quick mechanical hook, while the open position is guaranteed from an appropriate preloaded cylinder;
2. n. 1 bowl containing the food products to amalgamate placed in the machine front zone and fastened to the same machine. The bowl rotates mechanically in clockwise, for the effect of an electric motor started directly. In the machines with tipping over head, the bowl can be removed manually;
3. n. 1 tools of dough on a vertical fixed board, placed on the machine head that rotates inside the bowl. The tool can be spiral shaped or spatula. The tool rotates mechanically for the mechanical returns effect, controlled from the same motor used for the bowl rotation; in some models the tool rotates for the effect of a second electric motor starter directly. In the machines with tip-up head, the tool can be removed manually for the change and cleaning.
4. n. 1 dough breaker constituted from a fixed metallic pole, assembled on the machine head, placed in front of the tool. The dough breaker allows a better mixture of the food products and to amalgamate in uniform way all food products;
5. n. 1 interblocked mobile shelter that recovers the bowl superior part in motion and that when it is opened, using an interblock applied to the control system, produces the stop within 4 seconds of the dangerous mobile elements. The mobile shelter can be full or full with opening in the front zone in transparent material, or in a steel grid. In the not full recover versions is allowed the manual feeding of the dry ingredients with bowl in work position.

The electric motors can be mono phase or three phase with one or more speeds (cfr. Technical data).

All machine parts addressed to be on contact with the food products, as bowl, tools, dough breaker, etc… are in stainless steel materials or plastic material addressed to be on contact with the food.

The automatic functions, the programming and the machine operative sequence, included the delay times for the tool stop, the speeds selection, etc…, are managed from electromechanical and electronic components, in wired logic, through the control and check panel placed in the machine front zone (cfr. annexed)

In accordance with the functioning and production requirements, the machine can be constituted with different optional parts (cfr. Technical data).

The possible further useable ingredients must not be dangerous for the operator and maintenance man health. Besides they must not determine explosive zones. Consult always the technical data and the safety cards about the dangers of every food product.

Eventually if dusty zone are generated, put on adequate protective mask, both during the manual loading, and both during the machine working.

3.3. CONFIGURATIONS

For the detailed technical data, the production and the mechanical drawings, cfr. annexed.

TECHNICAL DATA	LLKEM
FIXED HEAD	
TIP UP HEAD	■
FIXED BOWL	■
REMOVABLE BOWL	
ROUNDED BOWL EDGE	
FLAT EDGE BOWL EDGE	
SPIRAL TOOL	■
SPATULA TOOL	
FIXED TOOL	■
INTERCHANGEABLE TOOL	
UNIQUE MOTOR FOR BOWL AND TOOL	■
A MOTOR FOR BOWL AND ONE FOR TOOL	
THREE-PHASE MOTOR	■
TWO SPEEDS THREE-PHASE MOTOR	■
MONOPHASE MOTOR	■
ELECTROMECHANICAL CONTROLS	■
ELECTRONIC CONTROLS WITH STOP DELAY TIMER	
ELECTRONIC CONTROLS WITH TIMER FOR SPEED SWITCHING	

3.4. SERVICE CONDITIONS

DATA	LLKEM
Level of acoustic power continue equivalent weighted A	Minor of 70dBA
Current nature – Frequency	Cfr. machine plate
Current full charge value	Cfr. machine plate
Use nominal voltage	Cfr. machine plate
Allowable presumed current of nominal short circuit conditioned	6 kA symmetric
Mass and neutral	TT e TN
Protection degree	IP X3
Machine positioning	**Work bench used in the food field** of height included between **900/1100mm** from the trampling floor of adequate capacity, in which it is possible to circulate freely around the machine with a free space of at least **800mm**
Use place	Inside
Maximum temperature of the work environment air	+40°C
Requested minimum lighting	500 lux
Further use conditions	**Inadequate** machine for functioning in environments where there are contaminated agents: for example powders, acids, corrosive gas, salts and similar. **Inadequate** machine for functioning in environments where there are potentially explosive atmospheres classified as zone 0 or zone 1 or zone 2. **Inadequate** machine for functioning in environments where there are ionized and not ionized radiations: for example microwaves, ultraviolet rays, lasers, X rays and similar. **Inadequate** electric equipment to be equipped with machines or to function in environments where there are vibrations and shocks: in contrary case assembly it far from the device and foresee antivibrating supports
PROTECTION DEVICE RECOMMENDED AGAINST THE OVERCURRENTS	
Insulation nominal voltage	Ui = > 690 V
Nominal current	In = > see electric diagram
Magnetic relay setting	Im = < see electric diagram
Thermal relay setting	Ir = see electric diagram
Maximum value of the damage ring impedance	0.1 Ω

3.5. NORMAL USE, IMPROPER USE, NOT CORRECT USE OR FORBIDDEN

The machine described in the present instructions manual for the use is foreseen to be used **from an only operator** skilled and prepared on residual risks, but with the competence, in safety matter, of maintenance employees.

In its **NORMAL USE** and reasonably foreseeable, the machine can be used only to amalgamate doughes, both tough both soft, made from flour, salts, yeasts, fats and liquids (water, eggs, ...), potatoes and minced meat and other ingredients in the industry and in the food shops.

The machine must not be used **IN IMPROPER USE:** in particular:

1. it must not be **used for domestic use**,
2. it must not functioned with parameters different from those showed in the technical characteristics table,
3. for every use of the machine with modalities different from those showed in the present manual, the manufacturer declines every responsibility,
4. the user is responsible of the damages resulting from the lacked exercise conditions observance in accordance with the agreed technical specifications and order confirmation,
5. **don't work with the vacuum machine**,
6. not tamper or damage intentionally nor remove or hide the labels.

The machine must not be used **IN NOT CORRECT WAY or FORBIDDEN** so some damages or injuries could be caused for the operator; in particular:

1. it is forbidden **to move the machine** when it is connected to the electric feeding;
2. it is forbidden **to draw the electric feeding cable or the machine** to disconnect the feeding plug,
3. it is forbidden **to put weights** on the machine or on the electric feeding cable,
4. it is forbidden to **put the electric feeding cable** on sharp parts or with burn danger,
5. it is forbidden the machine use with the damaged and not integer **electric feeding cable or with the control devices**;
6. it is forbidden to **leave the machine off** with the electric feeding cable connected with the feeding plug,
7. it is forbidden **to leave the loaded machine unguarded**;
8. it is forbidden **to insert any type of object** inside the motor ventilation cap;
9. it is forbidden **to put the machine above different objects from the working bench** used in the food field of height included between 900 - 1100mm from the trampling level,
10. it is forbidden **to insert any type of object** under the machine base or place clothes or other between the machine support pressure feet and the working bench,
11. it is forbidden **the use of inflammable substances, corrosive or harmful for the cleaning**,
12. it is forbidden **to plunge the machine** in water or other liquids;
13. it is forbidden **the not authorized personnel use** and with clothes different from what showed for the use,
14. it is forbidden **to introduce products or objects having characteristics** different from those showed in the normal use, as for example bones, frozen meat, not food products, or other objects as scarves, etc…,
15. it is forbidden the functioning **with protection covers and fixed ones not blocked correctly or removed**;
16. it is forbidden the **partial or total neutralization, removal, modification or make however ineffective** the protections of the safety micro switches and danger signals.
17. it is forbidden the functioning without that all **precautions about the residual risks elimination** have been adopted on behalf of the user,
18. it is forbidden **to smoke or use free flame devices** and manipulate incandescent materials, unless some suitable safety measures aren't adopted,
19. it is forbidden to activate or **to set the control and blockage devices as knobs or similar** both during the machine functioning both if you aren't authorized,
20. it is forbidden to use **risky ingredients for the operator and maintenance man health.** Besides must not determine potentially explosive zones, so the machine isn't adequate for the use or treat products that determine potentially explosive zones.

The user is however responsible of the damages resulting from the lacked observance of the specified normal use conditions. For possible doubts contact the Authorized Assistance Centre.

4. SAFETY INSTRUCTIONS

The lacked standards and safety procedures application can be danger and damage sources.
The machine means bound in the use for the respect, on behalf of the final user, of:

1. all rules, of insertion in the environment and of people behavior, fixed from the laws and/or applicable standards; with particular reference to the fixed plant upstream of the supplied machine and for its connection/functioning;
2. all further instructions and use warnings making part of the technical/graphic documentation annexed to the same machine.

4.1. OBLIGATIONS AND DUTIES

PERSONNEL GENERAL REQUIREMENTS
The personnel that work with the machine must:

a. Have read and understood all safety prescriptions showed in the instructions manual for the use;
b. Present normal psychophysical conditions;
c. Be previously informed and trained about:
   - c.1. the wounds dangers or other damages that can derive from direct or indirect contacts;
   - c.2. the dangers caused from over temperatures, electric arcs or radiations produced and/or emitted from the device eventually present;
   - c.3. the not electric dangers that, as the experience teaches, can derive from the electric material eventually present;
   - c.4. the wounds dangers or other damages consequent on the residual risks showed in the instructions manual for the use;
d. so have (or acquire through adequate training), the following requirements:
   - d.1. general and technical culture with sufficient level to understand the content of the actual instructions manual for the use and interpret correctly the electric diagram eventually annexed and all technical drawings;
   - d.2. knowledge of the main hygienic, accidents and technological standards;
   - d.3. total knowledge of the machine and of the electric device eventually present;
   - d.4. know how behave in emergency case;
   - d.5. know where find the individual protection devices and how use them correctly if the manufacturer indications prescribe it or if the collective protections are insufficient;
e. must besides:
   - e.1. signal immediately to the employer the deficiencies of the devices, the safety and protection means, nor the other possible danger conditions, if they come to know, helping them directly, in urgency case and in the field of their competences and possibilities to eliminate or reduce these deficiencies or dangers;
   - e.2. not remove or modify the devices and the other safety and protection means without have obtained the authorization;
   - e.3. not perform, on one's own initiative, operations or works that aren't of their competence and that can compromise their or other people safety:
   - e.4. not wear rings, wrist-watches, jewels, torn clothes, scarves, ties, or any other clothes or hanging accessory that can be a risk source; tighten well the sleeves around the wrists, and keep well collected the hairs.

Except where differently specified, the **personnel that perform the interventions of installation, fastening, maintenance, reinstallation, and reusing, damages research or failures, demolition and dismantling** must be a **skilled personnel** trained in safety matter and informed on the residual risks, with the competences, in safety matter, of the maintenance men.

All the specific competences, tasks and dangerous zones within which the operator and the maintenance man must intervene to perform the functions of the present manual, are showed in the following chapters.

This skilled personnel must be able to evaluate his work and recognize the possible dangers on the basis of his preparation, knowledge and professional experience of the machine, of the relative equipment and of the relative standards; he must besides have an adequate professional qualification on the machine. He must be trained in safety matter and informed on the residual risks.

He must besides be **expert and not informed,** or must be a qualified and graduated technician with knowledges about the machine and the relative equipment and the relative standards and that he has a technical competence or training.
He besides **to perform all maintenance works,** in some cases is on support to the operator for fitting activities. The maintenance man can besides access to the electric panel with the equipment in voltage.

For safety reasons, during the working operations, in the zone around the machine, isn't allowed the presence of other people apart from the operator.
Making an exception to this prescription the maintenance personnel presence is allowed expressly authorized from the production responsible.

The personnel assigned to the setting/registration, to the use and to the maintenance must immediately suspend the activities and inform the employer or the department responsible or the charged if they would find defects or anomalies in the functioning.

If **the user hasn't skilled or warned personnel** he must order the relative activities to a society competent to this purpose, as for example the supplier of the same.

4.2. ENVIRONMENTS AND WORKING PLACES

The work environment must answer to the directive 89/654/CEE requirements. In the working area extraneous objects must not be present.
The employer, in the respect of the directive 89/391/CEE, concerning the measures actuation turned to promote the workers safety and health improvement during the work, must provide to eliminate or reduce the residual risks showed as foreseen in the present manual.

4.3. WARNINGS ABOUT THE RESIDUAL RISKS

The employer must provide to train the personnel on the accident risks, on the safety devices and on the general rules about the accident prevention foreseen from the communitarian directives and from the State legislation where the machine is installed.
It is so necessary that the **use, the maintenances performed from the user and the cleaning** are entrusted to trained and competent personnel.
The employer responsibility is to check that the given instructions have been adequately received. When necessary, **is of user responsibility:**

1. to activate a training course, eventually in cooperation with the machine manufacturer, so that **the operators and the maintenance men** are adequately trained on the risks in general and on the residual risks showed in the present manual,
2. the **individual protection means supplying** in conformance with what showed in the directive 89/656/CEE and the successive amendments and updatings and **the information on the allowed uses**.

RESIDUAL RISKS DUE TO THE NOISE

The machine produces, as from performed experimental tests, **an acoustic power level equivalent weighed A inferior to 70 dB.**
To avoid the injure dangers to the ears for tearing or persistent noises, the operator, besides to be adequately informed and trained, during the machine functioning **must always use appropriate ears protection devices, as for example caps or protective stoppers or similar personal auricular protections.**

RESIDUAL RISK DUE TO THE FIRING

To avoid the dangers consequent to a fire, the user besides to train and inform adequately the operator and the maintenance man, **near the machine work zone,** must prepare suitable **antifire systems** (for example the portable extinguishers of first intervention) adequate to the materials typology that can fire: as for example the electric and electronic devices of the electric equipment. The water must not be used for the fires extinction.

RESIDUAL RISK DUE TO THE CONTROL/CHECK SYSTEMS CONNECTED TO THE SAFETY:

It is signaled that the safety functions and the control/check systems connected to the safety are produced in **conformance with the safety category 1;** nevertheless for a break effect a malfunctioning can be present, or a residual risk due to the lacked stop, in accordance with what foreseen.

From the machine stop control activation or for the feeding electric energy absence, both the operator both the maintenance man, **before to access to the machine moving parts, must check their effective stop, checking visually from the machine superior zone, through the machine neck.**

RESIDUAL RISK DUE TO THE FIXED SHELTERS REMOVAL, INTERVENTION ON BROKEN/WORN PARTS

For any occasion **the operator must not ever try to open or remove a fixed shelter or tamper a safety device.**

In the phase of **tooling, maintenance, and cleaning**, and **during all further manual operations** that happen introducing the hands or other body parts in the dangerous areas of the machine, a residual risk remains due above all to:

1. **knocks with machine manufacturing parts,**
2. **grazing and/or abrasion with the machine rough parts,**
3. **cut with tools sharpened parts.**

The operator and the maintenance man besides to be adequately informed and trained, every time that they perform the above operations, **must use head protection devices, of the feet, clothes adequate to the work place and of the respiratory way, as for example the anti knock helmet, anti cutting gloves with metallic fibers, anti chute footwear, resistant and suitable to the risk particular nature, with the iron tip**.

Besides, the operator and the maintenance man **must be trained for the intervention connected to the manual operations with open shelters,** must be trained on the consequent connected risks and must be authorized from a responsible person.

RESIDUAL RISK DUE TO THE LIFTING OPERATIONS AND TO THE INTERVENTIONS THAT REQUIRE MANUAL OPERATIONS

The machine lifting and transportation operations or its parts are manual operations that involve a residual risk due **above all to knocks, crushing, dragging, grazing or abrasion.** The transportation/livening operations responsible must inform adequately the personnel on these residual risks.

A residual risk is present, of knock, abrasion, cut, injection and dragging, during **the maintenance, the cleaning and the further manual operations,** for the operator and the maintenance man due also to the necessity to disassembly and/or place the tools parts, etc…

Both the personnel assigned to the livening both the operator and the maintenance man besides to be adequately informed and trained and to respect the foreseen use modalities, **must use head protection devices, of the feet, clothes adequate to the work place and of the respiratory way, as for example the anti knock helmet, anti cutting gloves with metallic fibers, anti chute footwear, resistant and suitable to the risk particular nature, with the iron tip.**

RISK DUE TO THE POSSIBLE CHUTTING AND/OR FALLING

To avoid, **during the machine normal use and during the maintenance interventions,** the chutting and/or falling dangers on the reference level (trampling), the operator and the maintenance man, to be adequately informed and trained, **must always use appropriate feet protection devices, as for example anti chute footwear, resistant and suitable to the risk particular nature.**
The user must however maintain cleaned the trampling level on which the operator and the maintenance man move and to be free of substances that facilitate the sliding, as for example liquids or any type of granular or dust substance.

RISK DUE TO THE PRODUCTS NATURE USED IN THE MACHINE

The machine is designed to amalgamate doughes, both tough both soft, made from flour, salts, yeasts, fats and liquids (water, eggs, ...), potatoes and minced meat and other ingredients in the industry and in the food shops.

The eventual further useable ingredients must not be risky for the operator and maintenance man health. Besides they must not determine potentially explosive zones.
Consult always the technical data and the safety cards about the dangers of every food product.

Eventually if dusty zones are generated, put on an adequate protective mask, both during the manual loading, both during the machine working.

RISK DUE TO THE LACKED FUNCTIONING OF THE SUCTION CENTRALIZED SYSTEM FORESEEN FROM THE USER

During the loading operations of the dry products in the bowl or during the normal working **some hanged dusts** can be determined (for example flour dust).

The ingredients and the packaged products must be handled with care, **reducing at minimum the height over the bowl from which they are poured**.
The packages must be opened with care in the bowl inferior part to promote the flour dust release in the less possible time.
During the flour loading and during the machine functioning normal cycle, a suction centralized system must be prepared and functioning, placed **in the machine superior part.**

In any case, **against the residual risk due to the lacked functioning of the suction system,** the operator and the maintenance man besides to be adequately informed and trained, every time that approach in the working zones, **must use respiratory ways protection devices, as for example anti dust respiratory masks or other suitable devices.**

Besides, the working must be immediately interrupted and the internal maintenance service must be activated to function the suction system.
The same individual protection devices must be used from the operator and from the maintenance man when perform the machine cleaning operations.

4.4. PLATES

The plates and the signs must always be well visible and must not be ever removed.
The plates and the signs are safety instrumentation and must not be considered with superficiality.
The user is kept to change immediately all safety plates and/or warnings that after the wear can become illegible

LIST AND MEANING OF THE PRESENT PLATES


Gloves with metallic fibers


Safety footwear


Body protection


Don't remove the safety devices


Machine for food use


RAEE

WITH THE REMOVED FIXED SHELTERS DANGEROUS MOVING ELEMENTS IN MOVEMENT ARE PRESENT.

BEFORE TO ACCESS TO THE DANGEROUS MOVING ELEMENTS WAIT AT LEAST **10 SECONDS** AFTER THE FEEDING ENERGY INTERRUPTION E

400V 50Hz

DEVICE IN VOLTAGE ALSO WITH OPENED DOOR

TO REMOVE VOLTAGE WORK ON THE SECTIONING DEVICE (disconnect the plug from the socket)

4.5. PROTECTION DEVICES ON THE MACHINE

The machine protections and safety devices must not be removed.
If they must be removed for extraordinary maintenance requirements **some measures will have to be immediately adopted ready to put in evidence and to reduce at the minimum possible limit the eventual danger.**
The replacement and the efficiency of the protection or of the safety device must happen when the reasons that have made necessary their temporary removal are finished.

The machine is protected from a fairing, produced also with fixed protections, that doesn't allow the access to any dangerous part of the machine, if not in the work front zone, protected from a interblocked moving shelter that recovers the bowl superior part in motion and in the bowl back zone in motion, protected from a safety sensitive shaft (cfr. annexed).

TYPE - POSITION	SAFEGUARDED DANGER TYPE
Fixed shelters **Back and superior zone**	In the back and superior zone, to avoid the contact with the movement transmission devices, some fixed shelters are present in steel sheet metal with thickness not inferior to 2mm (cfr. Annexed)
Moving shelters **Front zone**	In the front zone, to avoid the tool reaching within the bowl, it is present an interblocked moving shelter full in transparent material or in steel grid that recovers the bowl superior part in movement. With the interblocked moving shelter opening, the safety micro switch, driven mechanically and in positive opening, determines the tool and bowl movement stop (cfr. Annexed)
Safety shaft **Left lateral zone**	In the left lateral zone, to avoid the hand carrying during the bowl rotation, it is present an interblocked safety shaft in steel. With the interblocked moving shelter opening, the safety micro switch, driven mechanically and in positive opening, determines the tool and bowl movement stop (cfr. Annexed)
Tip-up head interblock **Front zone**	In some models, the machine head can be tipped up allowing the tool change, the bowl removal and the loading/unloading of the food product. During the head lifting, the safety micro switch, driven mechanically and in positive opening, determines the tool and bowl movement stop (cfr. Annexed).
Bowl interblock **Front zone**	In some models, the machine bowl can be removed allowing the food product unloading. As soon as the bowl is rotated in anticlockwise, the safety micro switch determines the machine STOP maintenance (cfr. Annexed).

For what concern the **fixed shelters, is specified** that:

1. the fixed shelters sizes are such as not leave openings in the protected dangerous working zone when are fastened in seat;
2. the fixed shelters not welded permanently to the machine are fastened with screws that request the use of special wrenches (allen spanner) and can be removed, with the suitable wrench, only from the maintenance responsibles;
3. the access to the places protected from a fixed shelter is allowed only from the maintenance man. For any occasion, the operator must not ever try to open a fixed shelter;
4. it isn't possible to reassembly a shelter in wrong position so as to leave in the fairing dangerous openings;
5. if the shelters aren't fastened in their seats, with the appropriate special screws, cannot remain apparently closed and supported in that seat for lack of the fastening elements.

In the dimensioning and in the choice of the shelters and of safety devices, **the people accessibility of equal age or oldest of 14 years is taken into consideration.**

For all **safety functions** including the control and check systems parts connected to the safety, with reference **to the safety category 1,** components, safety principles and well-tested components have been used.

5. TRANSPORTATION, PUT IN SERVICE AND USE

The machine management is allowed only to an authorized and opportunely trained personnel equipped with a sufficient technical experience.

The personnel involved in the machine driving must be aware that the knowledge and the safety standards application is the integrating part of their work.

The not qualified personnel must not have the access in the operative area when the machine is used.

Before to switch on the machine perform the following operations:

- Read with attention the technical documentation,
- Know what protections and emergency devices are available on the machine, their localization and functioning.

The not authorized use of commercial parts and accessories making part of the protections and of the safety devices can provoke the confirmation of malfunctioning and the danger situation arising for the operator.

The operator must besides have received an adequate training.

5.1. WORK POSITIONS AND OPERATORS TASKS

The machine is designed to be driven from **an operator** trained and informed on the residual risks, but with the competences, in safety matter, of the maintenance employed, and having professionalism as previously showed.
The operator must be a competent person, or a designated man, opportunely trained and qualified for knowledge and practice experience and supplied with the necessary instructions to make so that the requested tasks are performed in safety.
Only during the livening operations, the operator **is helped from a second operator that** has only the function to assist the operations of the first operator in the case there are some objects having mass superior to 25kg.

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

The operator has the task of:

1. manual loading in the bowl of the fed ingredients that must be amalgamated to obtain the desired dough, with the open moving shelter (where foreseen). During the machine functioning some ingredients can be added also with the closed moving reopening if supplied with an appropriate opening or if in steel grid form (where foreseen);
2. manual unloading of the bowl, when the mixture has reached the desired consistency or after the programmed functioning time, opening the interblocked moving shelter or lifting the machine head (where foreseen). In any case (where foreseen) the bowl can be removed to facilitate the mixture unloading operations;
3. product samples manual withdrawal, with appropriate tools and with the closed moving shelter (if foreseen from the proper opening or with the steel grid), or with the opened moving shelter.

The operator performs also the tooling tasks as the removal and the tools repositioning (where foreseen) and the bowl (where foreseen), with the fixed shelters in closet position and blocked, with the moving shelter and the lifted head and with the disconnected dangerous moving elements and stopped in safety. The tooling zone includes the machine front zone.

Besides the operator has the task to supersede the machine functioning and driving, circulating freely around the same in fixed shelters safety zones in closed position and blocked.
The operator is the working process responsible and has the task to control the machine, through the control actuators placed in the control panel.
Besides the machine normal driving, the operator has the task to start and stop the machine in normal conditions and stop it in emergency condition.
The verification operations belong to the operator; these tasks are easy, performed in safety conditions and clearly described in the following points.
Besides he has the task of general supervision on the machine driving; in case of necessity he must not make interventions but he must activate the maintenance service.

Besides he performs the external parts cleaning of the machine and the bowl and tool internal zones and of every other part that needs to be cleaned, with disconnected movements and stopped in safety, after have stopped the machine, at the end of every use and however before of a new use. The machine internal parts cleaning, that involves a fixed shelters disassembly, is entrusted to the maintenance man.

5.2. TRANSPORTATION, LIVENING AND STORAGE

All transportation and livening operations must be performed from **personnel adequately informed and trained** and **must have read and understood** the safety prescriptions showed in the present instructions manual for the use.

Occur:

1. perform the machine livening and transportation always when it is unloaded,
2. verify that the lifting means are able to support the weight and the size of the loading in safety conditions and that they are approved and submitted to a regular maintenance,
3. adopt all measures necessary to assure the maximum stability of means and loads in relation to their masses and barycentres,
4. avoid to make suffer to the machine sudden shocks or accidental knocks during the livening and the unloading,
5. perform the livening with continue movements, without pulls or repeated impulses.

STORAGE

The machine destined for the internal installation, in case of storage, must be stored in warehouse, in aired place, sheltered from the dust. The delivered machine must remain packaged up to the final installation in the use place.
In case of **long inactivity** the machine must be stored with the precautions relative to the place and to the storage times:

1. Store the machine in a closed place;
2. Protect the machine from knocks and stresses;
3. Protect the machine from the humidity and from excessive thermal ranges (make reference to the under table);
4. Avoid that the machine is on contact with corrosive substances.

The machine has been designed so as to support the temperatures, the humidity and the transportation and storage vibrations.

Environment temperature	-25 / +40 °C (if the electric material has a protection degree at least of IP54) 0 / +40 °C (if the electric material has a protection degree inferior to IP54)	Avoid places in which unexpected temperature jolts that can provoke condense or freezing
Storage temperature	-25 / +55 °C (if the electric material has a protection degree at least of IP54) 0 / +55 °C (if the electric material has a protection degree inferior to IP54)	
Relative humidity	100% to the temperature of +25°C (if the electric material has a protection degree at least of IP54) Inferior to 50% to the temperature of +40°C Inferior to 90% to the temperature of +20°C (if the electric material has a protection degree inferior to IP54)	
Vibrations	5.9 m/s^2 (0.6G) or bigger	
Atmospheric pressure	900 mbar or bigger	

The storage temperature is intended **as a short term values** as for example the transportation. The condense or the freezing happen normally in places where the temperature jolts are high. Also if the relative humidity in these cases can be included in the values showed in the table, it is necessary avoiding these places.

CONTROLS DURING THE RECEIVING

It is very important to perform a **good control during the parcels incoming,** in the same moment of their receiving. The control performs in two phases for every parcel received with the aim to avoid possible errors of the carrier.

Administrative verification

1. Container and parcels number;
2. Weight and size;
3. Transportation document information correspondence with what delivered (description, registration number, etc. The technical data on the machine identification plate correspond with those ones included in the delivered technical documentation);
4. Transportation document data corresponding to the order.

Technical verification

1. Package condition and integrity.
2. The package has not suffered visible damages, in the transportation and livening operations.

In case of damages or incomplete or mistaken supplying, signal the fact directly to the manufacturer commercial department.

For what above described, the manufacturer remembers to the user that, for the current international and national standards, the goods travels always with risk and danger of this last one and, if not differently underwritten in the order confirmation phase, the goods travels not ensured.

TRANSPORTATION AND LIVENING

The machine transportation can happen on container or road haulage contractor. In the two cases the same packaging is foreseen. For what regard the sizes and weights, see previous technical data.

The livening and the transportation must happen FROM THE BOTTOM through lifting with an elevator trolley or transpalett, ensuring that the appendices of the lifting device will use, are placed in **exact correspondence of the pallet openings on which the packaged machine is placed**.
If there isn't the pallet, assure that the appendices of the lifting device will use, are placed in **exact correspondence of the points signed from the symbol constituted from a black equilateral triangle on white background with the vertex** towards the ground and perpendicular to it.
During the livening keep the loading at the possible minimum height from the floor **to exceed the possible obstacles present; this both for a better loading stability, both for a better visibility**.

In the case the loading doesn't allow a sufficient visibility of the ground, **request the presence of a second person on ground**.

For the stability, the machine independently from the form and morphology **must remain standing**.
The machine will have to be transported closest possible to the place foreseen for the use, that it will have been preliminarily verified for the sizes and for the necessary spaces.

In case of successive livening, verify in advance that all possible particulars, or groups and under groups that can suffer movements during the livening, are firmly fastened (through capacity systems), avoiding dangerous movements that can compromise the loading stability and weighing, parts accidental falls or possible reversal.

5.3. PACKING REMOVAL – OPENING MODALITY

PACKING DESCRIPTION – HOW GET RID OF THE PACKING MATERIAL
The machines are packaged so that the seepage/liquids insight, organic matters or alive beings is avoided: it is represented from a **covering in polyethylene around the machine,** and all inserted in a **cardboard box** of adequate size, placed on a wood pallet. The empty spaces within the box are occupied from the **fill material.**

Don't waste the packaging in the environment, but restore it for possible transportations or to address it to the recycling agencies.
The evaluation and the management with the aims of the biological compatibility of the products used in the packaging are of the user competence and responsibility.

It is an employer obligation **to be acquainted of the actual laws in own country and work so that to observe these legislations.**

It is forbidden and besides liable to fines, leave the machine and the electric equipment in the environment.

5.4. PRELIMINARY PREPARATION OPERATIONS

STABILITY
The machine stability is designed so that, in the foreseen functioning conditions, taking into consideration of the climatic conditions is such as to allow the use **without reversal risk, fall,** or **inopportune movement.**
Taking into consideration of the conformation and its position, **the machine results to be intrinsically steady without fastening needs to the working bench**.

USER ELECTRIC PLANT
The user plant, upstream of the control and check equipment of the machine, must be designed, installed and maintained in conformance with the applicable prescriptions of the safety rules for "low voltage users plants" in accordance with IEC3644 / HD384 / CEI 64-8 (last issues).
About the **energy distribution electric plant that feeds the control and check equipment** of the machine, is obligatory its regular/integral belonging to **one of the TT or TN normalized systems** in accordance with IEC364_4_41 / HD382_4_41 / CEI 64.8 (4_41) (last issues).
About the above prescriptions / indications, **the correlative grounding system** must be in conformance with the applicable requirements for the coordination with the associated active devices, in accordance with IEC364-5-54 / HD382-5-54 / CEI 64.8 (5-54) (last issues).

ELECTRIC FEEDING

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

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

PROTECTION DEVICE AGAINST THE OVERCURRENTS

The device is designed to resist to a **symmetrical short circuit current of short duration not superior to 6kA.** If the acceptable assumed current of conditioned nominal short circuit, in the installation point results to be major to the showed value, must be adequately limited.
Given that in the electric equipment supplied for the machine control and check, the electronic circuits aren't incorporated that function with continue current, it is recommended to take adequate precautions to assure the protection against the in direct contacts: in the protection field for the feeding automatic disconnection foresee **APPROPRIATE DIFFERENTIAL DEVICES.** The differential device must be strongly resistant to the impulsive over voltages of atmospheric and operation origin (cfr. EN 61008-1 last issues).
It is specified besides that:

1. in the electric feeding sectioning device, in the head of the electric panel **any nominal interruption power isn't adapted because it is a plug/socket combination**; besides it must be protected against the short circuits with a protection device having nominal current not superior to the technical data,
2. upstream the electric equipment feeding cable **the protection device against the over currents** must be installed and maintained in conformance with the technical rules prescriptions.

ELECTRIC FEEDING SECTIONING DEVICE

The feeding sectioning device, as comparable from what described in the power circuits diagram delivered with the electric equipment, is supplied for the **machine feeding** unique source**.**
In case of incompatibility between the net socket and the device plug **change the socket with another type suitable from maintenance personnel.**
The feeding sectioning device allows **separating (insulate) the machine electric equipment** from the feeding, with the aim to make possible the interventions fulfillment without electric shocks risks.
The sectioning device presents two possible positions:

OFF or "disconnected", electric equipment **sectioned** from the electric feeding

ON or "connected", electric equipment **connected** to the electric feeding

5.5. ASSEMBLY / DISASSEMBLY

The assembly / disassembly operations of any machine part **are performed with the stopped machine and with the plug disconnected from the socket,** or with the sectioning device in OFF.

TOOLS CHANGE

In the machine with tip-up head, the tool can be removed manually for its change and cleaning.
The tools change must happen as showed follow (cfr. annexed):

1. pull the unblocking knob of the tip-up head;
2. lift manually the tip-up head up to its possible highest position;
3. take the tool inserted in the machine dinghy;
4. lift manually the tool blocking ferrule and extract the tool;
5. introduce the new tool in the dinghy so that the mechanical hook is inserted and that the ferrule returns in its initial rest position;
6. lower manually the tip-up head up to its possible lowest position so that the mechanical hook is inserted and the knob returns in its initial rest position;

BOWL CHANGE

In the machine with tip-up head, the bowl can be removed manually for the dough unloading, for its change and cleaning. The tools change must happen as showed here follow (cfr. annexed):

1. pull the unblocking knob of the tip-up head;
2. lift manually the tip-up head up to its possible highest position;
3. take the bowl and rotate in anticlockwise up to its complete unhooking,
4. extract manually the bowl (if of mass superior to 25kg use adequate lifting and hooking systems);
5. after having changed or emptied completely the bowl, place it near the hooking system and rotate it in clockwise up to its complete block;
6. lower manually the tip-up head up to its possible lowest position so that the mechanical hook is inserted and the knob returns in its initial rest position;

5.6. DEVICES AND CONTROL FUNCTIONS

Here follow the main **control devices** are showed (cfr. annexed):

ELECTRIC MIXER LLKEM20/30/40/50		
CONTROL	**ACTION**	**POSITION**
GENERAL SWITCH	(I) FEEDING / (O) SECTIONING	MACHINE RIGHT SIDE
BUTTON OF ON	(ON) DRIVES THE MACHINE MOVEMENT	FRONT
BUTTON OF OFF	(OFF) STOPS THE MACHINE MOVEMENT	FRONT
MOTOR SWITCH WITH TWO SPEEDS	IT CHANGES THE TOOL ROTATION SPEED IN SLOW (BUTTON WITH SYMBOL “TORTOISE”) AND FAST (BUTTON WITH SYMBOL “HARE”).	MACHINE RIGHT SIDE (WHEN PRESENT)
MUSHROOM BUTTON 	STOPS THE MACHINE IN EMERGENCY CONDITION.	MACHINE LEFT SIDE

STARTING

The machine starting is possible only **with a voluntary action on the control device foreseen for this aim**.

STARTING TIME	MODEL	ACTION
Starting from switched off machine	**LLKEM 20/30/40/50**	1. place the general switch on (I) 2. rotate the speeds switch (when present), on "1" or "2" for the tool rotation speed setting. None movement is started 3. push the beginning button (ON)
	LLKEM 20/30/40/50	1. place the general switch on (I) 2. rotate the speeds switch (when present), on "1" or "2" for the tool rotation speed setting. None movement is started 3. set the timer to determine the working duration time. None movement is begun 4. set, with buttons "+" and "-", the working duration 5. push the beginning button (ON)
	LLKEM 20/30/40/50	1. place the general switch on (I) 2. rotate the speeds switch (when present), on "1" or "2" for the tool rotation speed setting. None movement is started 3. set, with buttons "+" and "-", the working duration 4. push the beginning button (ON)
	LLKEM 20/30/40/50	1. place the general switch on (I) 2. push the buttons for selection and setting between manual work cycle and automatic work cycle 3. push the beginning button (ON)
Start from under voltage machine situation	**LLKEM 20/30/40/50**	For the working restarting, after a work suspension, it is necessary to push the beginning button (ON)
Start from emergency machine situation (after emergency button pressure)		Reactivate the Emergency Button rotating it in clockwise, and so push the beginning button (ON)
Start from emergency machine situation (example thermal protection intervention)		Switch off the Machine and after have provided to cool it, it is necessary: 1. place the general switch on (I); 2. push the beginning button (ON);

STOP

For the stop control push the stop button "OFF".
In case of **momentary or extended stop,** before to get in function the machine, all food products must be removed within the machine: follow the indications about the assembly and disassembly.
In case of **extended stop** sectionate the general plant of the electric energy feeding net, or place the General switch on (0).

SWITCHING OFF

In succession, the switching off operations must perform what here follow showed:
1. before the switching off wait the machine functioning conclusion;
2. stop the machine pushing the stop control device "OFF",
3. empty completely the dough bowl;
4. place the General switch on (0);
5. perform the cleaning interventions

FUNCTIONING SAFETY

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

VOLTAGE LACKING

In case of electric feeding breaking or if the machine is disconnected from the electric net, this last one will be able to be restarted only following the starting function, **after the electric feeding back or the reconnection to the electric net**.

MOVING SHELTER OPENING
Lifting the interblocked moving shelter, the machine stops immediately for the safety micro switch functioning.
The machine can be restarted only after have lowered the shelter up to its lowest position, following successively the function of "STARTING".

TIP-UP HEAD LIFTING
After the knob unblock placed in the machine left side, lifting the tip-up head, the machine stops immediately for the safety micro switch functioning.
The machine can be restarted only after have lowered the head up to its lowest position, following successively the function of "STARTING"".

BOWL REMOVAL
After have lifted the tip-up head, removing the bowl, the machine remains in the stop position also after have lowered the machine head, for the safety micro switch functioning.
The machine can be restarted only after have reintroduced the bowl, lowered the head up to its lowest position, following successively the function of "STARTING".

5.7. FUNCTIONING DESCRIPTION

CONTROLS AND VERIFICATIONS BEFORE THE SET IN FUNCTION

VERIFICATION / CONTROL	MODALITY AND CHECKS
Verify that: ➢ Strange objects **aren't on the machine, within the bowl**	Visual control of the showed parts, to check the absence of objects or strange bodies as for example various tools, clothes, etc.. and that there isn't however the food product. In case of presence provide to their removal.
Verify the cleaning: ➢ **Of the bowl internal parts, the tool, the moving shelter,** ➢ **Of the machine external surface**	All the showed parts surfaces, before the machine use must be checked visually to check their cleaning. For the visual control of the bowl internal parts provide the moving shelter lifting. In case of moulds presence or other type of dirt, provide the cleaning procedure in accordance with the indication of the chapter "CLEANING"
Verify the integrity: ➢ **Of the fixed protections,** ➢ **Of the moving shelter,** ➢ **Of the bowl,** ➢ **Of the machine body**	All the fixed shelters, moving, etc.. must perform the function for which have been foreseen. Visual check of the showed parts to check their integrity in their surface external part. The parts must be however changed to the first erosion signs or breaking.
Verify the functionality: ➢ **Of the control system parts / control about the safety;** ➢ **Of the control devices.**	All devices must perform the function for which have been foreseen. Control directly the devices so that these ones determine the waited function. The actuators and all parts must be however changed to the first erosion signs or breaking.
Verify the absence: ➢ **Of strange noises after the starting**	During the functionality check of the control devices, in the case there are strange noises, due for example to mechanical breaks, stop immediately the machine, and activate the maintenance service.

For any intervention or for the parts change that prove damaged, **activate the maintenance service.** The possible change must happen with original products of the manufacturer or at least of same quality, safety and characteristics. For investigations contact the Authorized Assistance Centre.

SET IN FUNCTION

The operator following controls positive result finalized to check the respect of all safety conditions and of all controls of the previous paragraph, can set in function the machine, following in order the under showed indications.

The food ingredients must be loaded manually in the bowl, with the open moving shelter. During the machine functioning some ingredients can be added also with the closed moving shelter during the bowl functioning, in the versions with not full shelter.

The ingredients and the packaged products must be handled with care, reducing at minimum the height over the bowl base from which are poured out. The packagings must be opened with care in the bowl inferior part to favor the flour dust release in the less possible time.

1. After the interblocked moving shelter closure and the machine starting, the bowl and tool rotation allows amalgamating in uniform way the mixture up to the desired consistency.

2. When the mixture has reached the desired consistency or after the programmed functioning time, the bowl and the tool stop and the operator, opening the interblocked moving shelter or lifting the machine head, performs the drawing of the kneaded product from the bowl. The bowl can be removed to facilitate the unloading operations of the kneaded product.

3. The manual operations of product samples taking can happen with appropriate tools or with the closed moving shelter (if foreseen of the appropriate opening), or with the opened moving shelter.

All machine parts addressed to come in contact with the food products, as bowl, tools, spacca pasta, etc… are in stainless steel materials or plastic material addressed to come in contact with the food.

It is recommended to make not function the vacuum machine, without the food product.

6. MAINTENANCE, DAMAGES RESEARCH AND CLEANING

6.1. MAINTENANCE MAN REQUIREMENTS

With the term "**maintenance"** must not be intended only the periodical control of the machine normal functioning but also the analysis and the consequent remedy of all causes that for any reason put it out of service.
The personnel that perform the operations included in the present chapter, besides to present the characteristics showed in the chapter 4, **must have read and understood** the safety prescriptions showed in the same chapter about the residual risks.

It is absolutely necessary that for the activities of **maintenance, cleaning, parts change and damages research** performed from the user, **this task is entrusted to skilled personnel,** competent and authorized from the employer.
This skilled personnel must be able to evaluate the work and recognize the possible dangers on the basis of his preparation, knowledge and professional experience and his knowledge of the machine, of the equipments and of the relative standards; he must besides have an adequate professional qualification about the machine. He must be **trained** in safety matter and on the residual risks described in the chapter 4.
He must besides be **trained and not warned,** or he must be a qualified or graduated technician with knowledge concerning the machine and the relative equipments and the relative standards and that has a particular technical competence or training.

All operations of **maintenance, cleaning and parts change,** none excluded, must be peremptorily performed with the machine completely stopped and insulated from the external feeding sources.

Before of any intervention of **maintenance, cleaning, parts change and damages research,** pay much attention to the labels placed in the machine. During the activities the warning labels and the safety devices **must not be tampered or disconnected** for none reason, nor create by pass, nor use them for purposes different from those ones foreseen from the manufacturer.
In case of damaging or illegibility verification of the warning labels request immediately to the Authorized Assistance Centre.

The maintenance man has the job to:
1. perform the tooling, calibration and machine setting, also within the machine dangerous zones with the fixed shelters in closet position and blocked, with the dangerous moving elements disconnected and stopped in safety,
2. perform the cleaning of the machine internal parts (eventually performing disassemblies), the maintenance, the assistance interventions, damages research, worn or damaged parts or structural parts change, with the dangerous moving elements disconnected and stopped in safety,
3. perform the interventions of the previous points, removing also the fixed shelters.

6.2. MAINTENANCE PRESCRIPTIONS

SHELTERS REMOVAL AND/OR PROTECTION DEVICES
For any interventions of the present **chapter, it is necessary to remove from their position some fixed shelters.**
The removal can happen only with the maintenance man work.
At the end of the interventions, these shelters must be replaced and blocked in their original position, with the fastening systems that were foreseen before the intervention.
The maintenance responsible must disconnect completely the machine, as among other things here follow showed, before to proceed with the removal of a fixed shelter and/or with the element change.

INSULATION FROM THE EXTERNAL FEEDING SOURCES
Before to perform any operation of **maintenance, cleaning and parts change,** the external feeding sources must be sectioned and insulated.

Position on "ZERO" the protection device placed upstream of the electric equipment feeding line

Disconnect the general sectioning device and provide to protect the plug with appropriate systems

6.3. ORDINARY MAINTENANCE

The personnel that perform the operations included in the present chapter, besides to present characteristics showed in the chapter 4 and **must have read and understood** the safety prescriptions showed in the same chapter 4.

For the selling of the worn and changed materials, make reference to the prescriptions of the chapter 7.

6.3.1. ORDINARY MAINTENANCE ESEGUIBILE FROM THE OPERATOR

FREQUENCY	VERIFICATION / CONTROL	MODALITIES AND CHECKS
Before of every shift	**Work area control:** ➢ Must be cleaned and without dust	The work place and the machine external parts must be cleaned; besides possible parts placed on the machine must be removed that could prevent the correct functioning and that could compromise the safety conditions presented at the beginning in the machine. For any intervention or for the parts change, activate the maintenance service.
At least once a week	**Verify the functionality:** ➢ Of the safety devices of the chapter 4 ➢ Of the stop functions	Perform a visual inspection and a functional test of the safety devices, of the foreseen interblocks and of the stop functions with the aim to check their correct functioning and stopping of the moving elements. For any intervention or for the parts change, activate the maintenance service.
At least once a week	**Integrity visual verification** ➢ All instruction plates, signal and warning	In case of their illegibility, or are requested to the Authorized Assistance Centre or are however changed from the user with others showing the same information, in accordance with what showed in the chapter 4.
At least once a month	**Integrity visual verification** ➢ Tools and bowl	The tools use determines their wear in the time. Following the opening operations of the moving shelter, or lifting the tip-up head, after its cleaning, check visually the absences of splinterings or rulings in the tool, In case of negative result of at least a control, proceed with their change. The possible change must happen with the manufacturer original products or at least of quality, safety and equivalent characteristics. For investigations contact the Authorized Assistance Centre.

6.3.2. ORDINARY MAINTENANCE ESEGUIBILE FROM THE OPERATOR

FREQUENCY	VERIFICATION / CONTROL	MODALITIES AND CHECKS
At least monthly	**Inside the covers – motor openings**	All covers internal parts and the machine openings where the motors are installed must be **cleaned and dry**. Provide with adequate and common means (as for example vacuum cleaner and dry brush for the dust and absorbent clothes for possible water parts), to maintain adequate spaces.
At least monthly	**Efficacy verification:** ➢ Mechanical connections	Perform, with the appropriate tools, a tightening control of clamps, screws, dies, bolts and connections in general.
At least quarterly	**Verify the functionality:** ➢ Motors run contactors, ➢ All control circuit relays	Perform a visual inspection to check the relays contacts condition, the contactors power contacts and the canalizations and internal and external pipes of the covers. if these, included the unipolar and/or multipolar cables, aren't in normal condition, with the aim to guarantee a correct functionality proceed to their change.

FREQUENCY	VERIFICATION / CONTROL	MODALITIES AND CHECKS
At least quarterly	**General verifications** ➢ Electric equipment	Verify the whole electric equipment for requirements of service and functioning continuity. It must be checked that the electric equipment parts subjected to wear, as for example: cables and canalizations, all control actuators worked from the operators, etc…, are integral and functional.
At least half-yearly	**Verify the efficacy:** ➢ Of the equipotential circuit and protection connections	With adequate instrumentation the resistance must be measured and checked towards equipotential plant mass, protection and of every connection, so that the measured values are in the acceptability limits defined from the installation standards and in accordance with the actual disposals of the installation place. In the prescriptions ambit – above indications, the correlative grounding plant must be in conformance with the applicable requirements for the coordination with the associated active devices, in accordance with IEC364_5_54 / HD382_5_54 / CEI 64.8 (5_54) (last issues).
At least half-yearly	**Verify**: ➢ The motor electric insulation	With adequate instrumentation the motors insulation resistance must be measured and checked, so that the measured values are in the acceptability limits defined from the installation standards and in accordance with the actual disposals of the installation place.
At least half-yearly	**Verify**: ➢ the absorption in the single phases of the uses and motors	With adequate instrumentation the absorptions must be measured on every feeding conductors of uses and motors. In the case in which the pointed out values during the normal functioning are not included in a range of 10% of the values showed in the electric diagrams of feeding and control/check, activate the maintenance service with the aim to verify all further use/motor characteristics, because this could in short time damage.
At least yearly	**Verify the efficacy:** ➢ of the connections and electric components within and outside the covers	Verify the absence of possible releases. If present restore the connections in durable way tightening the connections with adequate torque and carried back directly on the electric components. The control must besides regard: ➢ the derivation boxes integrity, of the covers, of the push-button panels and the electric cables protection cases; ➢ the functionality of all control and power actuators.

The possible change must happen with original products of the manufacturer or at least of same quality, safety and characteristics. For information contact the Authorized Assistance Centre.

6.4. EXTRAORDINARY MAINTENANCE

For the interventions of **extraordinary maintenance and parts change**, consequent to breaks or revisions or mechanical or electric damages, it is necessary an intervention request to the Authorized Assistance Centre.
The instructions about the extraordinary maintenance are not present in the actual instructions manual for the use and so must be clearly requested to the Authorized Assistance Centre.

For the selling of worn and changed materials, make reference to the prescriptions of the chapter 7.

It specifies besides to:
1. Not try any change and/or reparation of significant elements.
2. Not perform any welding of parts eventually damaged.
3. Not use ever the machine if it isn't in its full efficiency.

After important reparation interventions or parts change, before of the successive refunctioning, a positive result, the controls, recordings and verifications showed in the chapter 4, 5 and 6 must be performed and checked.
For the worn and changed materials selling, make reference to the prescriptions of the chapter 7.

6.5. DAMAGES OR BREAKDOWNS RESEARCH AND MOVING ELEMENTS UNBLOCK

Before to proceed to any intervention or investigation:

1. Signal, with a sign, that you are performing the maintenance.
2. Before to restart the machine, check always that there aren't personnel that are performing cleaning and/or maintenance operations.
3. For the controls and the little electric repairs make intervene exclusively qualified and regularly skilled professional electricians and/or electro technicians.
4. For the mechanical reparations contact absolutely, always, the Authorized Assistance Centre.
5. Consult always and in every case the Authorized Assistance Centre in the ways showed in the first pages of the present manual.

Here follow the interventions for the **damages or breakdowns research and moving element unblock** are showed that can be **performed from maintenance men,** having professionalism, in accordance with what defined in the paragraph 6.1.

TYPE	POTENTIAL CAUSES	MODALITY AND CHECKS
Net voltage lacking	General black out	Contact the electric energy distributor
	Fuses or magneto thermals placed upstream of the machine feeding line	After having eliminated the causes that have determined the protection device intervention, restore it. In case of problem persistency contact an electrician.
Functioning breaking	Protection device inside the machine	Contact an electrician technician: after having eliminated the causes that have determined the protection device intervention, restore it. **In case of fuses intervention,** change them with types of the same model, calibration and intervention curve.
	Cause/s not identifiable	Contact directly the Authorized Assistance Centre
The machine doesn't function: the bowl and the tool don't rotate	Feeding voltage lacking.	Check and restore the electric energy.
	Sectioning devices placed on "OFF".	Turn the sectioning devices in the position "ON"
	Intervened fuses or not functioning magneto thermals.	Make change the intervened fuses, check the magneto thermal switches condition.
	Lacked running button functioning	Check the START button efficiency and eventually contact directly the Authorized Assistance Centre.
	Thermal intervention due to the overheating	Wait the complete cooling before the machine restarting

6.6. CLEANING

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

All cleaning interventions must be made only and exclusively **after having loaded the machine with the food product in working and having insulated from the electric feeding and external energy sources.**

For the machine, electric equipment and components cleaning **don't use ever fuel, solvents or inflammable and/or corrosive fluids**.
The machine, the electric equipment and the components **must not be ever washed using water, even less in jets form of any nature and quantity; so, without "bucket", "rubber" and "toweling**". Don't put ever directly the machine in the sink or under the tap.

Use not inflammable and not toxic solvents, commercial and approved. **Respect the use modalities and adopt the possible individual protection devices** foreseen from the supplier of these substances.

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

FREQUENCY	PERSONNEL	MODALITY
At the end of every shift and however before the daily use	Operator	All the surfaces and the machine parts destined to come in contact with the food product or with **the food zones** (bowl internal surface, and the moving shelter, the tool, the spacca pasta and the machine front zone) and **the jets zones** (machine external surface), must be cleaned and disinfected with the under showed modalities. For the tools disassembly activities see previous descriptions. ➢ **Scrape the surfaces from the possible food product residuals** (for example with plastic scrapers); ➢ **Suck the flour residuals or the food products** with an extractor fan having pressure between 2 - 3 atm, with the stopped machine in guaranteed safety. ➢ **Clean the entire food zone surfaces and jets zone with a morbid dampened clothes (**not draining). Don't let soak them. ➢ With a towel clean inside the tools. Use specific product for the steel, these must be liquids (not in cream or however abrasive pastes) and above all must not include chlorine. Against the fat substances it is possible to use denatured alcohol. ➢ **The tools reassembly** must happen only following of a working requirement, leave the pieces wrapped in a soft dry clothes that doesn't lose the coats **PERIODS OF LONG INACTIVITY** ➢ During the machine **long inactivity periods** provide to pass vigorously on all steel surfaces (especially if stainless steel) a clothes soaked of Vaseline oil so that to spread a protective veil. **THINGS NOT TO DO BEFORE OR DURING THE CLEANING:** ➢ Enter towards the moving elements without to be previously checked of their stop; ➢ Enter towards the moving elements without have stopped it in guaranteed safety stop (blockage in zero position of the electric feeding sectioning devices) **PRODUCTS NOT TO USE:** ➢ Compressed air with jets towards the zones with flour warehouses and in general towards the machine; ➢ Vapor equipment; ➢ Detergents that contain chlorine (also if diluted) or its compounds as: the beach, the muriatic acid, products to clear the drain, products for the marble cleaning, in general decalcifying, etc … can attack the steel composition, staining and oxidizing it unavoidable. The only above described products fumes can oxidize and in any case corrode the steel; ➢ Steel wool, brushes or abrasive discs produced with other metals or alloys (ex, common steel, aluminum, brass, etc …) or tools that have previously cleaned other metals or alloys, that except to scratch the surfaces. ➢ Detergents in abrasive dust; ➢ Fuel, solvents or inflammable and/or corrosive fluids; ➢ Substances used to clean the silver.

7. DEMOLITION AND SELLING

If it decides to not use more the machine because obsolete and/or irremediably damaged or worn about to bring anti economic the reparation, it is necessary to proceed to its out of service bringing inactive and without potential dangers. The out of service must be entrusted to **specialized and equipped personnel.**

Before beginning the **demolition,** signal that there are interventions in progress.

7.1. DEMOLITION

The main sequential phases for the disassembly and the dismantling include (not exhaustive indicative list):

1. the sectioning device of the feeding external energy must be blocked with a padlock in the zero "0" position. See for this aim the chapter 6;
2. disconnect the conductors from all components presented inside the electric panel and from all components installed on the machine and send them to corporations or waste separation societies in accordance with the actual standard;
3. disassembly all components included inside the electric panel and installed on the machine and send them to corporations or waste separation societies in accordance with the actual standard;
4. all metallic or plastic carcasses, the screws and any other part in steel or plastic must be sent to corporations or waste separation societies in accordance with the actual standard.

All disconnecting operations must be performed using **adequate equipment and tools of adequate sizes** (for example cutting or cross screwdriver, hexagonal wrench, Allen spanner, etc…), in accordance with the screws to slacken.
At the end of the dismantling activities all identification labels and every other machine document must be destroyed.

7.2. SELLING

It is a user obligation **to know of the actual laws about to the management of the electric and electronic equipment refuses (RAEE), in its country and work so as to comply with these legislations.**

The evaluation and the management for the biologic compatibility of the products used in the machine are of user competence and responsibility

The machine **can be sold without need to reduce in tiny pieces;** it is sufficient to disconnect the main groups that made it and place them on the means of transportation used to the scrapping.

The main duties being up to the user are the following:

1. it is obligatory **not to sell the RAEE as urban refuses,** but occur to perform a separated harvest;
2. for the RAEE selling it is **possible to deliver to the distributor** the electric equipment during the new one purchasing;
3. **in alternative for the selling,** work in conformance with the actual standards, enquiring to the waste separation centers prepared from the local administrations and/or to the firms specialized in the industrial machines scrapping and/or in the refuses selling and/or rejob centers, treatment and recycling, in order that there is the separation between plastic material, metallic material and electric components **that must be sent to waste separations**;
4. in the machine **dangerous substances aren't present** that can have a potentially negative effect towards the environment and the human health;
5. **a machine improper use or of its parts** not determine a potentially negative effect towards the environment and the human health;
6. **the symbol that shows the separated harvest need** () is a rubbish crossed container on wheels as showed here under; the symbol is printed in visible way, readable and indelible on the product;
7. **the foreseen penalties,** in case of abusive selling of these refuses, are defined from the actual and applicable legislation where the product is eventually sold abusively: application of the administrative penalties in the article 50 and the next of the D.Lgs. n. 22/1997.

8. MANUFACTURING MATERIALS

In accordance with the functioning and production requirements, the machine can be constituted with different manufacturing materials typology.

GROUP	MATERIALS TYPOLOGY		
	Steel	Stainless steel AISI 304	Treated nylon for foods
Machine body	■		
Machine front structure	■		
Bowl		■	
Moving shelter	■		■
Spiral tool		■	
Spatula tool			■
Dough breaker		■	