

# **MANUAL**

## **for**

# **USE and MAINTENANCE**

### **Machine:**

#### **SPIRAL ELECTRIC MIXER**

Model

**IBM / IBT**

Version

**20**  **30**  **40**  **50**

Serial number

Year of Manufacturing

### **Configuration:**

Tri-phase power supply

**400 V / 50 Hz**  **400 V / 60 Hz**

Mono-phase power supply

**230 / 50 Hz**  **110 V / 60 Hz**

### **Manufacturer:**

### **Offices & Factory:**

*This manual provides all the technical elements necessary for a correct installation and working of the appliances.*


*The user is responsible for following these instructions.*

*The aspects concerning the protection of safety and the environment are also pointed out together with the characteristics, workings, installation and maintenance of the machine.*

*It is important to read this manual carefully before using the product, and whenever the need arises to consult it. Adhere to the technical instructions provided and follow all the indications scrupulously. For the safety of the operator, the devices of the machine should always be kept in good working order.*

*This manual, an integral part of the machine, must be kept in an accessible place known to all operators, and made available to the authorized personnel for any eventual maintenance and repairs.*

## **WARNINGS**

THE SYMBOL  REGARDS WARNINGS FOR THE SAFETY OF THE OPERATORS, USERS AND MAINTENANCE WORKERS OF THE MACHINE.



CONSERVE THIS MANUAL FOR FURTHER CONSULTATION



USE THE MACHINE ACCORDING WITH THE INDICATIONS AND LIMITS OF USE BY MANUFACTURER



THE INSTALLATION MUST BE CARRIED OUT BY SPECIALIST AND AUTHORISED PERSONNEL AND ACCORDING TO THE INSTRUCTIONS OF THE MANUFACTURER



FOR ANY EVENTUAL REPAIRS AND MAINTENANCE, CONTACT EXCLUSIVELY THE MANUFACTURING FACTORY AND ASK FOR THE USE OF ORIGINAL SPARE PARTS



REFUSAL TO RESPECT THE ABOVE CONDITION JEOPARDISES THE SAFETY OF THE OPERATOR

## DECLARATION OF CONFORMITY

IN ACCORDANCE WITH THE 98/37/CE

Manufacturer

Offices & Factory

**DECLARES** that the product is newly manufactured as regards all its optionals described below:

Product

**SPIRAL ELECTRIC MIXER**

Model

Version

Year of Manufacturing

Serial number

**CONFORMS**, as far as it is necessary, to the minimum safety requirements and to the provisions of the Instructions:

EC References	Principal Reference Rules
98/37/CE	EN 292-1 EN 292-2 ISO-EN 11202
73/23/CE 93/68/CE	EN 60204-1
89/336/CE 93/68/CE	EN 61000-6-1 EN 61000-6-3 EN 61000-3-3 EN 61000-3-2
76/893/CE 89/109/CE 90/128/CE 92/39/CE	

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## SPIRAL ELECTRIC MIXER

**Model:**

**IBM / IBT**

**Version:**

**20 — 30 — 40 — 50**



## IDENTIFICATION PLATE

Is positioned on the back of the Appliance.

**PARTICULARS****DECLARATION OF CONFORMITY****VIEW OF THE MACHINE**

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**01.01 Safety principle e cautions for a safety work**

1. Before turning on the machine, and every time a doubt about its workings should arise, every operator is obliged to carefully read the instructions for use. Remember: using a machine you run a risk. Ensure that the people concerned know and adhere to the contents of the manual.
2. Use the Machine indoor only.
3. Be careful, before start every work.
4. Work only with all safety and protective devices expected present and efficient. Avoid to draw the hands near the moving parts.
5. It is absolutely forbidden to neutralise, remove, modify or in any other way render inefficient, any part of the safety devices, protective devices, or controls of the machine, wherever positioned. All the protective and safety devices must be kept in perfect condition and working order.
6. Before turning on the machine, be sure that nobody is in the risk area.
7. During work cycle, operator must stand out the risk area.
8. During work cycle, do not leave the machine unattended.
9. Never work different materials, as quantity, quality and type, from how described at **point 02.01**.
10. It is absolutely forbidden use the machine differently from how described at **point 02.01**.
11. Stop the Machine before cleaning and before removing any safety and protective device for maintenance.
12. During phases of research or removal of any cause of damage or inconvenience concerning the machine, take all necessary measures to prevent any damage to people or things. remove the electric tension (separation of the machine from the electric network) before approaching the protective devices.
13. At the end of any intervention that requires the removal or the neutralisation of any component correlated to safety (barriers, sensors, protections, etc.), carry out the putting back into operation, ensuring the correct position and effectiveness.
14. Do not let unauthorized and unqualified personnel start, set and repair the machine. Refer to this manual for the right operations.
15. The user power-supply main line should be equipped with safety devices by a differential switch, automatically disconnecting, above the Machine, and with an earth installation suitable for accident prevention standard.
16. Control main switches or nearly when the machine is turned off and unplugged. Authorized and qualified personnel only, must execute controls and maintenance activities that need to remove of safety devices.
17. Pay attention to the indication of the identification plates existing on the machine.
18. All the identification plates, present, must be legible.
19. If machine does not work or components are damaged, contact the maintenance-man, without proceed in further repairs.
20. Do not repair the machine hastily or incompletely. This can compromise the good work of the machine.
21. Do not tamper the machine. The manufacturer disclaims all responsibility and make the user liable toward accident prevention competent body.

22. These safety principle complete, non substitute, the safety standards and the local and national laws in force.

**01.02 Chart of Risks**

ACTIVITY/DANGER	RISK	INSTRUCTIONS
1. LOADING, UNLOADING AND MOVEMENT OF MACHINE	<ul style="list-style-type: none"> <li>• Dropping of machine</li> <li>• Dropping of packaging</li> </ul>	<ul style="list-style-type: none"> <li>• Handle the machine, packaged or not, only manually</li> </ul>
2. INCORRECT INSTALLATION OF MACHINE	<ul style="list-style-type: none"> <li>• Electrical run down</li> <li>• Blowing</li> </ul>	<ul style="list-style-type: none"> <li>• the power tension and the frequency should be those stated on the plate</li> <li>• the socket must be connected to earth.</li> <li>• the electric power supply of the machine must have a differential switch safety device, coordinated with the main earth power supply</li> </ul>
3. TENSION PRESENT IN CLOSED CASING	<ul style="list-style-type: none"> <li>• Electrocutation</li> </ul>	<ul style="list-style-type: none"> <li>• Do not open the without having unplugged the machine first</li> </ul>
4. WORKING WITHOUT SAFETY DEVICES	<ul style="list-style-type: none"> <li>• Electrocutation</li> <li>• Entanglement</li> <li>• Crushing of fingers</li> <li>• Abrasion</li> </ul>	<ul style="list-style-type: none"> <li>• do not remove the safety devices when the machine is in use</li> </ul>
5. CLEANING OF THE PARTS IN CONTACT WITH THE DOUGH	<ul style="list-style-type: none"> <li>• Electrocutation</li> <li>• Electrical run downs</li> <li>• Blow outs</li> </ul>	<ul style="list-style-type: none"> <li>• cleaning of the machine must always be carried out when the machine is off and disconnected (unplugged from the main power supply)</li> </ul>

**02.01 Description of the Machine**

The Spiral Electric Mixer, Model “IBT”, versions “20”, “30”, “40”, “50”, has been designed to amalgamate mixtures, both dense and creamy, made up of flour, salts, yeast, fats and liquids (water, eggs,...), for foods use only.

It is a machine equipped with a tri-phase motor, or mono-phase, with fixed head, and with fixed bowl, bar and whisk in stainless steel. The Bowl (or Pot) and Whisk (or Spiral) rotate clockwise.

The machine, designed in accordance with the European regulations, has been manufactured to protect the user from the risks connected to its use; for this reason, the machine is equipped with special protection devices to avoid risks during contact with the moving parts.

**02.02 Technical Characteristics**

LIMITS OF USE		IBM/IBT	IBM/IBT	IBM/IBT	IBM/IBT
		20	30	40	50
Working capacity <sup>(*)</sup>	Kg/h	56	88	112	128

(\*) data refers to a dough, normally about 10/12 minutes

CASING		IBM/IBT	IBM/IBT	IBM/IBT	IBM/IBT
		20	30	40	50
Height	mm	700	780	798	798
Width	mm	400	440	495	495
Depth	mm	630	680	800	800
Net Weight (roughly)	kg	59	90	104	109

BOWL		IBM/IBT	IBM/IBT	IBM/IBT	IBM/IBT
		20	30	40	50
Diameter	mm	360	400	450	450
Height	mm	210	260	260	300
Volume	l	22	33	42	48
Capacity	kg	15	22	28	32
Revolutions	g/min				



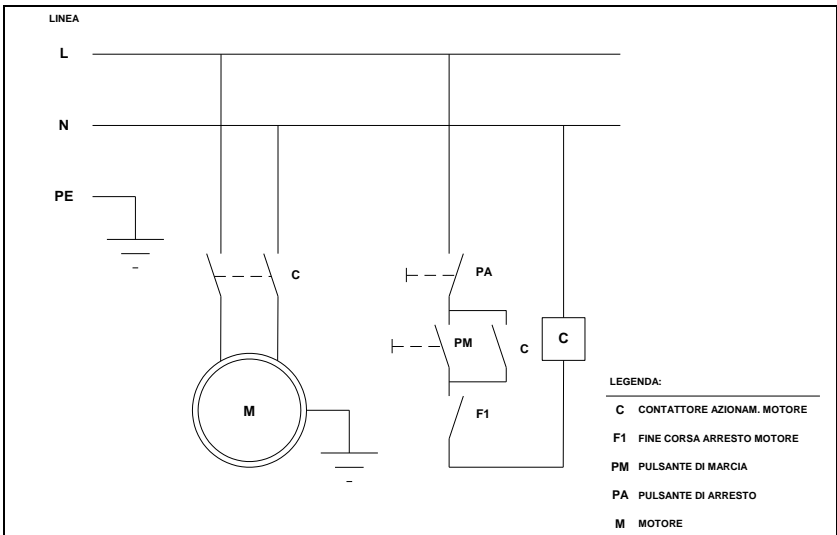
<b>TRI-PHASE MOTOR</b>		<b>IBM/IBT</b>	<b>IBM/IBT</b>	<b>IBM/IBT</b>	<b>IBM/IBT</b>
		<b>20</b>	<b>30</b>	<b>40</b>	<b>50</b>
Tension	V	400	400	400	400
Frequency	Hz	50 / 60	50 / 60	50 / 60	50 / 60
Power	KW	0,75	1,1	1,1	1,5
Revolutions	g/min				

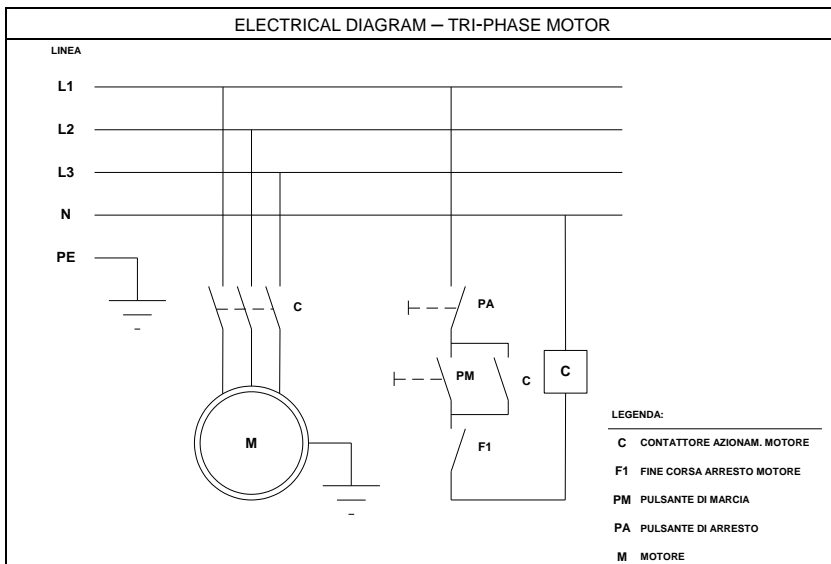
<b>MONO-PHASE MOTOR</b>		<b>IBM/IBT</b>	<b>IBM/IBT</b>	<b>IBM/IBT</b>	<b>IBM/IBT</b>
		<b>20</b>	<b>30</b>	<b>40</b>	<b>50</b>
Tension	V	230 / 110	230 / 110	230 / 110	230 / 110
Frequency	Hz	50 / 60	50 / 60	50 / 60	50 / 60
Power	KW	0,75	1,1	1,1	1,5
Revolutions	g/min				

<b>PACKAGING</b>		<b>IBM/IBT</b>	<b>IBM/IBT</b>	<b>IBM/IBT</b>	<b>IBM/IBT</b>
		<b>20</b>	<b>30</b>	<b>40</b>	<b>50</b>
Type		PALLET CARD			
Height	mm	925	950	990	990
Width	mm	440	500	535	535
Depth	mm	690	800	840	840
Gross Weight (roughly)	kg	60	102	116	121
Volume	mc	0,28	0,38	0,46	0,46

**02.03      *Electrical Diagram***

ELECTRICAL DIAGRAM – MONO-PHASE MOTOR
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## **03 ENVIRONMENTAL NOTES**

### **03.01 Noise**

The Machine presents a  $L_{ep,d}$  value of less than 80 dB(A).

If positioned in areas with a noise value of more than 80 dB(A), the employer must form and inform the operator of the risks from exposure to the noise and must take the necessary precautions according to the authorised doctor.

### **03.02 Packaging**

Do not throw away the packaging, separate it according to the type of material (e.g. cardboard, wood, plastic material, etc.) and dispose of them in conformity with the local and national laws in force.

### **03.03 Disposal**

Operate in accordance with the local and national laws in force.

### **03.04 Out of order**

At the end of the Machine's working life:

- Deactivate the Machine, by disconnecting it from the electric power supply and cutting the supply line cable;
- Disassemble all the electric/electronic part;

- Disassemble the components, separating the various types and send them to the scrapyards or dispose of them according to the local and national laws in force.

## **04      *INSTALLATION***

### **04.01      *Packaging Contents***

On delivery, the Manual for the Use and Maintenance containing the Declaration of Conformity of the product in agreement with the competent EC regulations is included in the packaging and is considered an integral part of the supply.

The Machine arrives in a single cardboard package ready for use.

To lift the Machine it is necessary to use a forklift or a transpallet: insert the forks under the pallet. To lift the Machine by ropes or belts, cross them under the pallet.

Take care to handle the box only manually, always keeping it in an upright position as indicated on the box

On receiving, check the packaging and the machine to verify transport's damages. Indicate all defects on the note.

### **04.02      *Positioning***

Before positioning the Machine, ensure that the bearing surface is a horizontal level.

### **04.03      *Installation***

The Machine doesn't require any further installation operation other than its connections, and is ready for use.

The machine must be connected to the electric system.

### **04.04      *Connections***

Once positioned, connect the machine to the electric power supply, after having:

- ensured that the tension and frequency of the power supply correspond to that written on the plate;
- ensured that that socket is connected to earth;
- taken steps to have the proper plug (16 ÷ 32A) to a 3 pole wire (phase, neutral and earth), for mono-phase versions, or a 5 pole wire (3 phases, neutral and earth), for tri-phases versions, attached by specialised, capable.

The Manufacturer specifies that the main line should be equipped with safety devices by a differential switch, co-ordinated with the general earth installation, in conformity with the local and national laws.

Check that the safety devices of the Machine are present and assembled before activating the machine.

Check also that the Whisk (or Spiral) and Bowl (or Pot) rotate clockwise: if this is not the case, invert the arrangement of the phases.

Using the Machine for the first time, clean it as described in the instructions.



CONNECT THE MACHINE ONLY TO PARTS OF THE ELECTRICAL PLANT WHICH ARE INDIVIDUALLY PROTECTED



REFER TO THE ELECTRICAL REGULATIONS OF THE COUNTRY IN WHICH THE MACHINE IS INSTALLED



DO NOT REMOVE THE SAFETY DEVICES WHEN THE MACHINE IS IN USE

## 05

## **WORKINGS**

### **05.01 Safety characteristics present**

The Machine is equipped with fixed suitable safety devices and a suitable distance between the Bowl and the Machine's Body, designed to avoid contact between parts of the human body (upper limbs) and parts of the machine in movement during processing phases, in order to eliminate risks of dragging, and crushing.

The Machine is equipped with a sensor of opened Bowl's Lid, designed to avoid contact between parts of the human body (upper limbs) and parts of the machine in movement during processing phases, in order to eliminate risks of dragging, crushing and abrasion.



DO NOT REMOVE THE SAFETY DEVICES WHEN THE MACHINE IS IN USE. THE MANUFACTURER DISCLAIMS ALL RESPONSIBILITY IF THE INSTRUCTIONS ARE NOT FOLLOWED

### **05.02 Controls**

COMMAND	ACTION	POSITION
ON Switch	Activates (ON) the movement of rotating parts	Side of Machine
OFF Switch	Deactivates (OFF) the movement of rotating parts	Side of Machine

### **05.03 Starting the Machine**

#### – **STARTING THE MACHINE WHEN OFF**

To start the processing, following a situation of machine unconnected to the main supply, it is necessary:

- turn ON, the differential switch (safety devices), co-ordinated with the general earth installation, situated in the User's power supply, above the Machine;
- push the ON Switch, which activates the movement of rotating parts (Bowl and Whisk).

#### – **STARTING THE MACHINE WHEN LIVE**

To restart the processing, following a period of suspension, it is necessary to push the ON Switch, when the Lid is closed.

#### – **STARTING THE MACHINE IN EMERGENCIES (BLOWING OF THERMIC PROTECTION)**

- turning off the Machine, referring to all the series of instructions at **point 05.04**;
- wait for about 30 min to allow the motor to cool;
- start the Machine, referring to all the series of instructions at **point 05.03** – section “STARTING THE MACHINE WHEN OFF”.

#### **05.04      Turning off the Machine**

The total shut off of the machine, idly for end or interruption of the work, is effected by the:

- push the OFF Switch, which deactivates the movement of rotating parts (Bowl and Whisk);
- turn OFF, the differential switch (safety devices), co-ordinated with the general earth installation, situated in the User’s power supply, above the Machine.



WHEN THE MACHINE IS NOT ACTIVATED, IT IS ADVISABLE TO TURN OFF THE MAIN ELECTRICAL POWER SUPPLY, OR DISCONNECT THE MACHINE FROM THE OUTLET

#### **05.05      Irregularities of the Machine**

PROBLEM	PROBABLE CAUSES	POSSIBLE REMEDIES
1. THE MOTOR STOPS	<input type="checkbox"/> the “thermic” motor protector safety device has discovered overheating of the electric motor	<ul style="list-style-type: none"> <li>• wait for about 30 min to allow the motor to cool; then restart the process</li> </ul>
	<input type="checkbox"/> malfunction and/or breakage of any electric component	<ul style="list-style-type: none"> <li>• contact the Manufacturer</li> </ul>
HOW DO YOU KNOW THAT...	EVIDENCE	
2. ELECTRIC PHASES ARE NOT ALL ACTIVE	<ul style="list-style-type: none"> <li>• if the supply line is triphase, the speed of the rotation drops to 1/3 of its power, each inactive phase implies a loss of power</li> <li>• if the supply line is monophasic, the drop of the phase implies the lack of electrical current.</li> </ul>	

## **05.06      Use of the Machine**

Pour the ingredients that make up the dough into the pot, close the lid and activate the rotation of the Bowl (or Pot) and the Whisk (or Spiral), pushing the ON Switch.

To control the consistency of the dough, or to add further ingredients, open the Lid.

In this condition the machine stops automatically: when the Lid is closed, push the ON Switch again to reactivate the rotation of the Bowl and the Whisk.



DO NOT REMOVE THE SAFETY DEVICES WHEN THE MACHINE IS IN USE. THE MANUFACTURER DISCLAIMS ALL RESPONSIBILITY IF THE INSTRUCTIONS ARE NOT FOLLOWED

## **06            *MAINTENANCE***

### **06.01      Cleaning**

The Machine need to be cleaned, before using it.

- At the end of processing, clean all parts that have been in contact with the dough, Bowl (or Pot), Bar and Whisk (or Spiral).
- Lift the Lid.
- Use only hot or cold water, and common detergent, using a soaked cloth.
- Remove the water using a sponge cloth and dry.

Ensure that the above cleaning operations have been carried out before using the machine.



ALWAYS CLEAN THE PARTS OF THE MACHINE IN CONTACT WITH THE DOUGH WHEN THE MACHINE IS TURNED OFF AND UNPLUGGED

### **06.02      Regular Maintenance**

The Machine don't requires scheduled periodic Maintenance.

### **06.03      Special Maintenance**

In the case of malfunctioning, call only qualified, authorised personnel



THE MANUFACTURER CONSIDERS THE TERMS OF THE GUARANTEE NULL AND VOID FOLLOWING UNAUTHORISED INTERVENTIONS ON THE MACHINE

<b>RICAMBI IMPASTATRICI A SPIRALE TESTA FISSA</b>	
<b>RIF.</b>	<b>DESCRIZIONE</b>
1	TELAIO IMPASTATRICE
2	PANNELLO POSTERIORE
3	COPERCHIO SUPERIORE
4	CUSCINETTI SCHERMI ST.
4	CUSCINETTO SCHERMATO
5	VASCA
6	SUPPORTO VASCA
7	VITE T.E.
8	CHIAVETTA
9	CORONA DENTATA 3/8S
10	MOZZO CORONA
11	RONDELLA PIANA
12	VITE M8
13	CATENA 3/8S
14	SUPPORTO SPIRALE
15	CUSCINETTO SCHERMI ST.
15	CUSCINETTO SCHERMATO
16	RONDELLA PIANA
17	VITE T.E.
18	VITE T.C.B. CROCE
19	CHIAVETTA
20	SPIRALE
21	ASTA SPACCAPASTA
22	CATENA SPIRALE 1/2 S
23	SUPPORTO UCF
24	PIGNONE SUP.ALB. TRASM.
25	ALBERO DI TRASMISSIONE
26	PIGNONE INF.ALB. TRASM.
27	SPINA ELAST.TIPO PESAN.
28	CHIAVETTA
29/30	MOTORIDUTTORE TRIF.
29/30	MOTORIDUTTORE MONOF.
29/30	MOTORIDUTTORE TRIF. 2V
31	INTERRUTTORE
32	TIMER
33	CAVO ALIM. MOTORE
34	CAVO AZION. MICROSWIT.
35	CENTRALINA
36	CAVO ALIM. LINEA
37	COPERCHIO VASCA FILO
38	ASTA COPERCHIO
39	VITE T.E. - DADO CIECO M8
40	RONDELLA DENTELLATA
41	SUPPORTO MICROSWITCH
42	MICRO SWITCH
43	PIGNONE SPIRALE
44	LIMITATORE APERT. COP.
45	VITE T.E.
46	CAMME
47	PROTEZIONE



