



**INSTRUCTION MANUAL  
BMSM160, BMSM200,  
BMSM240, BMSM280,  
BMSM320  
SPIRAL MIXER**

# INDEX

SAFETY PRINCIPLES	Page - 1 -
PRELIMINARY	Page - 2 -
Guarantee	
Shipment	
DESCRIPTION	Page - 3 -
Function	
Feature	
Specifications	
INSTALLATION	Page - 4 -
Delivery	
Connection	
OPERATION	Page - 6 -
Command	
Use	
MAINTENANCE	Page - 7 -
Cleaning	
Belt Adjustment	
Working Irregularities	
Bowl Adjustment	
DIAGRAMS	
Electrical Diagram	Page - 10
Other Components Diagram	Page - 11-

## SAFETY PRINCIPLES

- a. Before operating the machine, or if there is a problem with the machine, be sure to consult this operations manual for help. Ensure that all operators of the equipment know and adhere to the contents of this manual.
- b. The installation must be carried out by authorized personnel and according to the instructions in this manual.
- c. For any eventual repairs, contact a service center authorized by the manufacturer and ask for the original spare parts.
- d. 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.
- e. It is absolutely forbidden to neutralize, 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.
- f. Connecting earth wire with the machine. A terminal for connection of the external earth conductor is provided in the vicinity of the associated phase conductor terminals with marked "PE". It should make sure the "PE" terminal being connection before machine running.
- g. "SHUT OFF" the power before inspection, cleaning, maintenance and when leaving the machine.
- h. At the end of any intervention that requires the removal or the neutralization of any component correlated to safety (barriers, sensors, protections, etc.) carry out the putting back into operation ensuring the correct position and effectiveness.

## PRELIMINARY

With the help of this manual, the manufacturer 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, 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 repairs and maintenance. For extra copies of this manual (physical or electronic), please contact us.

# DESCRIPTION

## a. Description of the Machine

The Spiral Mixer, 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 safety devices to avoid risks during contact with the moving parts. It's designed to amalgamate mixture, both dense and creamy, made up of flour, salts, yeast, fats and liquids (water, eggs...), potatoes and minced meats.

## b. Function

This mixer can mix powder ball, crisp and stuff containing less than 75% water. The machine is equipped with a tri-phase motor, with 2 speeds. The mixing tube moves round left and right, to knead, rub, pinch, mix, twist, and sprain. It can easily mix all kinds of powder balls within the shortest time.

## c. Feature

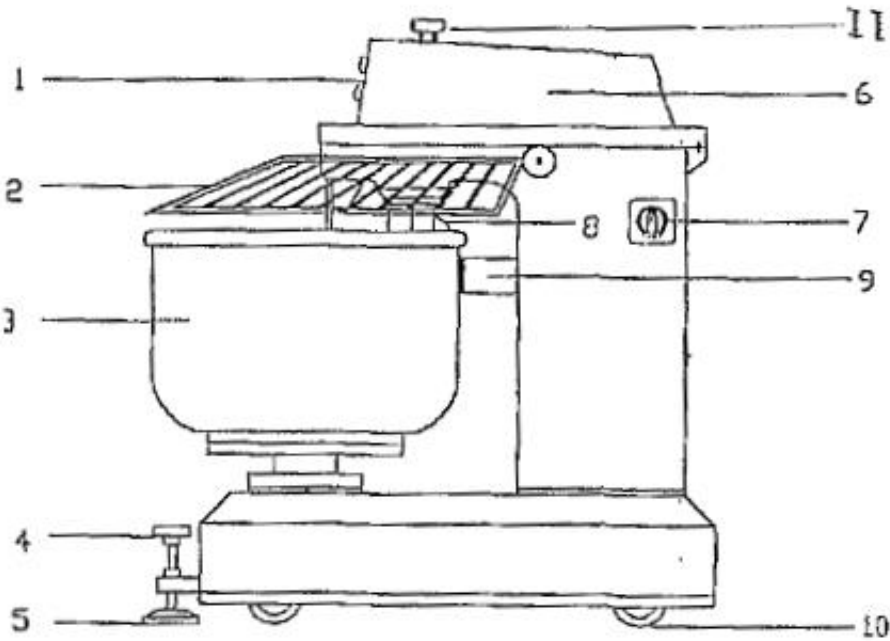
Strong power, large mixing amount, and the powder ball with high elasticity. It's especially good for stuff with simple operation. Stainless steel tube safety cover and mixer conform to hygiene standard, and it is suitable for every bakery.

## d. Specifications

Model	BMSM160	BMSM200	BMSM240	BMSM280	BMSM320
Flour cap.	100 kg	125 kg	150 kg	175 kg	200 kg
Motor	10, 2 hp	12, 3hp	15, 3hp	15, 3 hp	16, 3hp
Bowl size (mm)	850 x 500	900 x 500	950 x 500	1000 x 500	1050 x 500
Belt (up)	1750 - 16 pcs	1800 -16 pcs	1900 - 16 pcs	2000 - 20 pcs	2060 - 20 pcs
Belt (down)	1360 - 4 pcs	1400 - 5 pcs	1450 - 6 pcs	1500 - 8 pcs	1600 - 10 pcs
Weight	850 kg	920 kg	950 kg	1100 kg	1200 kg
Length (mm)	1450	1560	1600	1650	1700
Width (mm)	880	950	1100	1150	1200
Height (mm)	1400	1400	1450	1450	1500

e. Name of the machine

1. Control Panel
2. Safety Guard
3. Stainless Steel Bowl
4. Setting Screws
5. Foot Steady
6. Head Cover
7. Power
8. Mixer
9. Stop Wheel
10. Movement Wheels
11. Stop Emergency



## Installation & Use:

### a. Delivery & setting machine

Delivery should be carried out by qualified person. Pay attention to the balance of machine. Don't make it upset or incline more than 30 degrees. To make sure the lifting strength of wire rope, hoist, or forklift is enough to lift the machine.

Before positioning the machine, make sure that the bearing surface is a horizontal level. And without sunlight directly or near heat source. Please put the machine at a well ventilated place and dust free. The ambient temperature should be from 5 to 45°C, relative humidity from 30% - 90%.

### b. Electrical power connections

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 socket is grounded.
- Take steps to have the proper plug to a 4 pole wire (3 phase neutral: **red**, **white**, black, and earth: **green**) for tri-phases versions, attached by specialized and capable personnel.

The manufacturer specifies that the main line should be equipped with safety devices by a differential switch, coordinated with the grounded installation, in conformity with local and national laws.

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

Check also that the spiral and bowl rotate clockwise; if this is not the case, invert the arrangement of the phases.

The machine *is* equipped with fixed suitable safety devices designed to avoid contact with 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.

c. Electrical Test & Cautions for Operation

The electrical supply shall be tested before starting the machine. Make sure the machine "grounded wire" is properly connected before plugging into the main power.

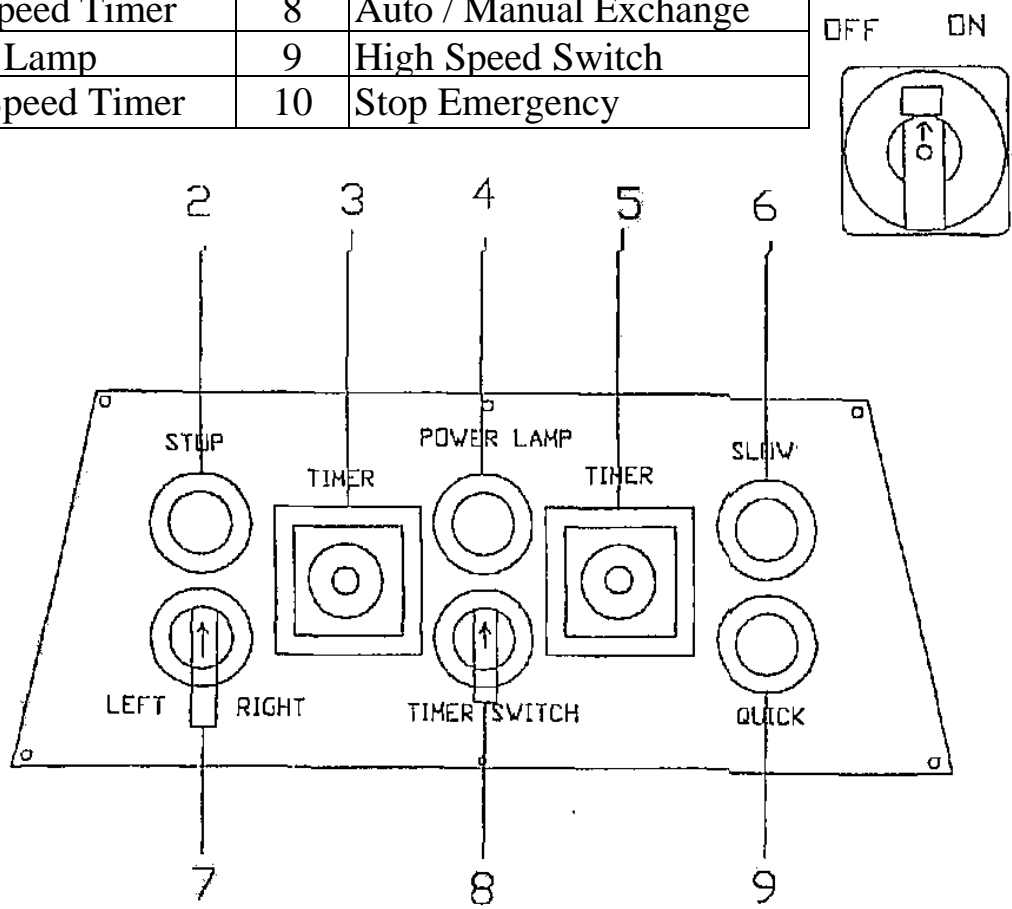
Check the mechanical parts on the position without loosening.

Check safety cover not at down position, emergency stop not switched active, or power jumped off when start switch pressed but unable to operate the mixer.

Operation the machine

a. Command

No.	Name	No.	Name
1	Main Power	6	Low Speed Switch
2	Stop Switch	7	Reverse Switch of Bowl
3	Low Speed Timer	8	Auto / Manual Exchange
4	Power Lamp	9	High Speed Switch
5	High Speed Timer	10	Stop Emergency







b. Use of Machine

Pour the ingredients that make up the dough into the bowl, close the cover and activate the rotation of the bowl and the spiral.

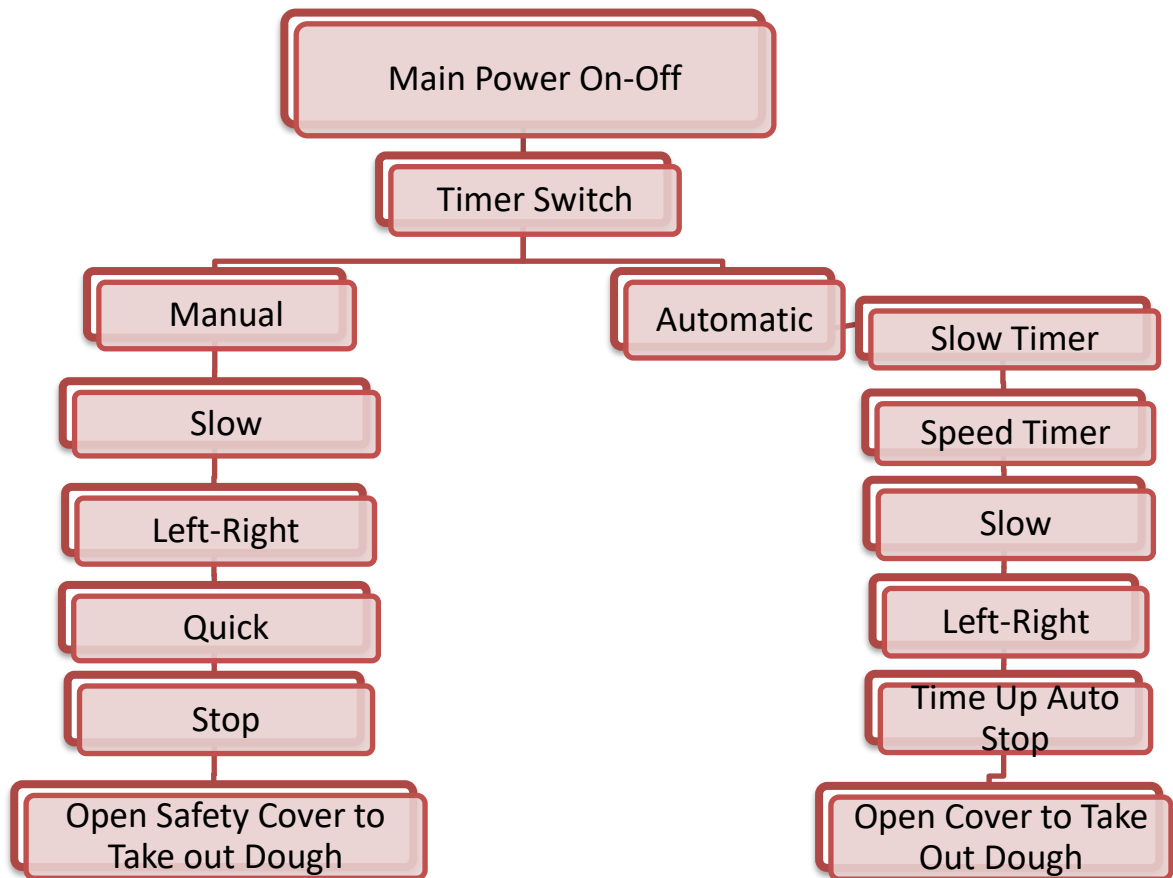
To control the consistency of the dough, or to add further ingredients, open the cover.

In this condition the machine stops automatically; when the cover is closed, push the On Switch again to reactivate to rotation of the bowl.

**BMSM160 / BMSM200 / BMSM240 / BMSM280 / BMSM320**

**Spiral Mixer**

**ORDER OF OPERATION**



## Clean & Maintenance

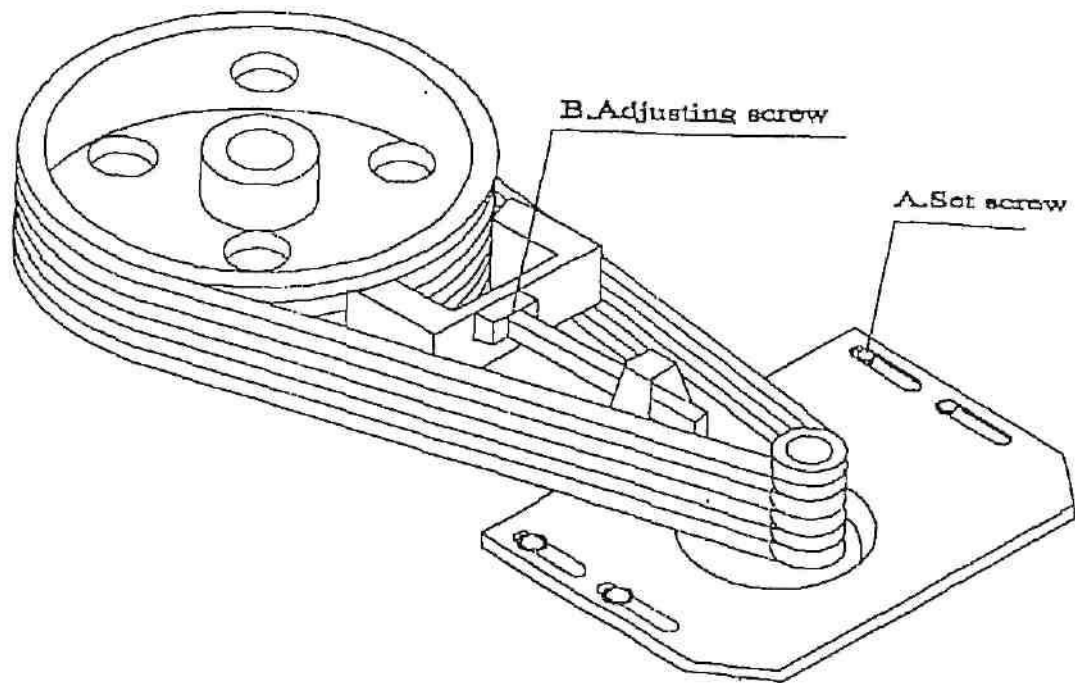
### a. Clearing

1. At the end of processing, clean all parts that have been in contact with the dough, bowl, and spiral bar, using only hot or cold water.
2. Remove the water used to clean the machine with a sponge cloth and dry.

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

### b. Belt adjustment

1. To loosen the four setting screws on the motor plate.
2. Turn the adjusting screw to the appropriate belt tightness.
3. After adjustment, set the screws in firmly.



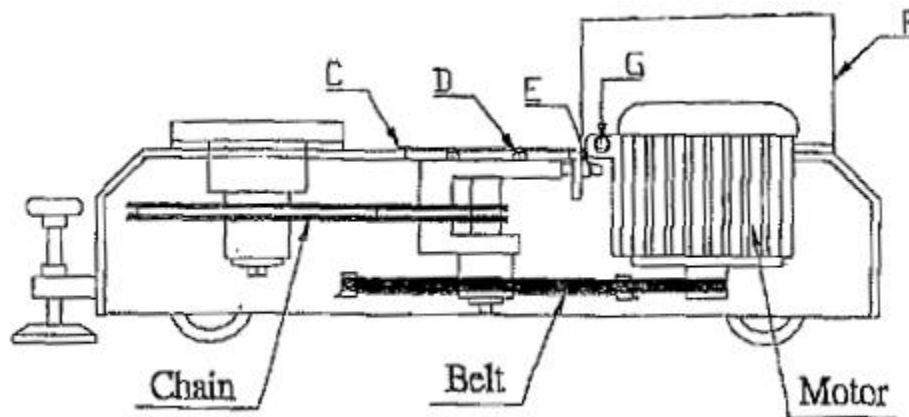
c. Working Irregularities

1. Before adjustment or maintenance, be sure to set all switches to the "OFF" position.
2. The maintenance must be preceded by qualified technician.

No.	Irregularities	Resolve
1	Unable to start	<ol style="list-style-type: none"> <li>a. Check the power was set at "ON" position.</li> <li>b. Lamp indicator was lit.</li> <li>c. Check if the safety guard was down.</li> </ol>
2	Stops while running	<ol style="list-style-type: none"> <li>a. Check if the preset timer was set and timed out.</li> <li>b. Check power (including main power, switch, and indicator).</li> <li>c. Check the fuse of circuit board.</li> <li>d. It might be over loading and the mixer has auto reset function. Let mixer stop for about 3 minutes and then restart it.</li> </ol>
3	Running was reduced.	<ol style="list-style-type: none"> <li>a. Check if the belt is worn out or has loosened.</li> </ol>
4	Mixer bowl shakes during operation	<ol style="list-style-type: none"> <li>a. Adjust belt and chain with appropriate tightness to prevent bowl from shaking.</li> </ol>

d. Mixing Bowl Adjustment

- b. Open the cover plate (C) and loosen screws (D).
- c. Open the rear seal plate (F).
- d. Turning the screw (E) to prevent bowl from shaking. Don't make the chain too tight and be sure to add some grease oil).
- e. Turning the screws (G) to make the motor belts tight properly.
- f. Close the rear seal plate (F), cover plate (C) and tighten the screws (D).



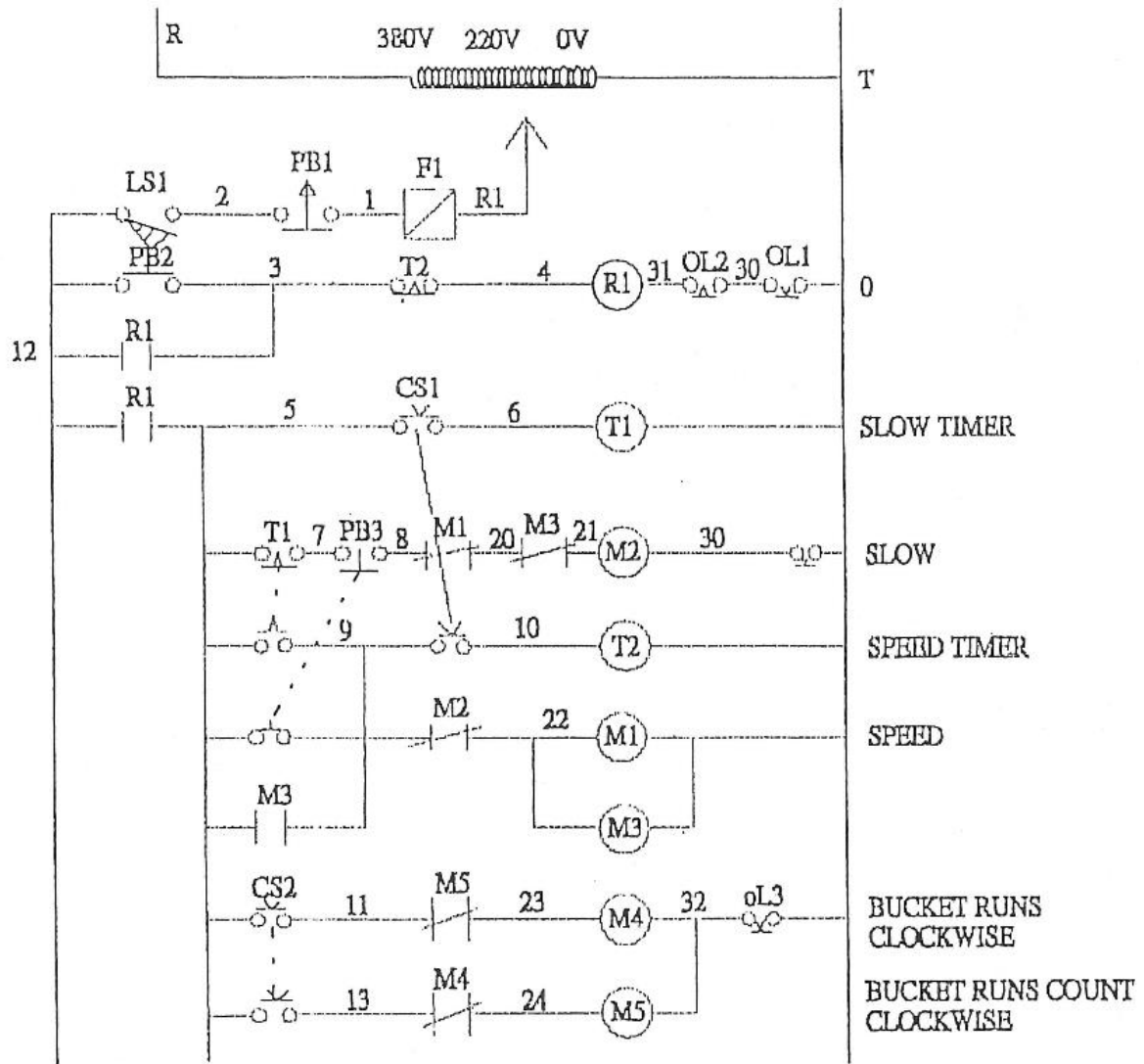
e. Electrical Diagram

Refer to page 10.

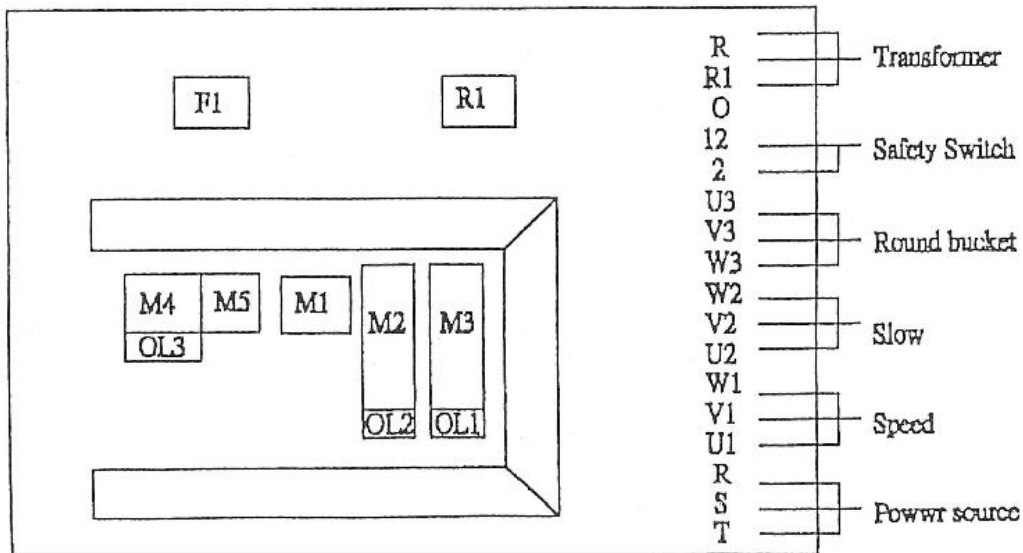
f. Spare Parts

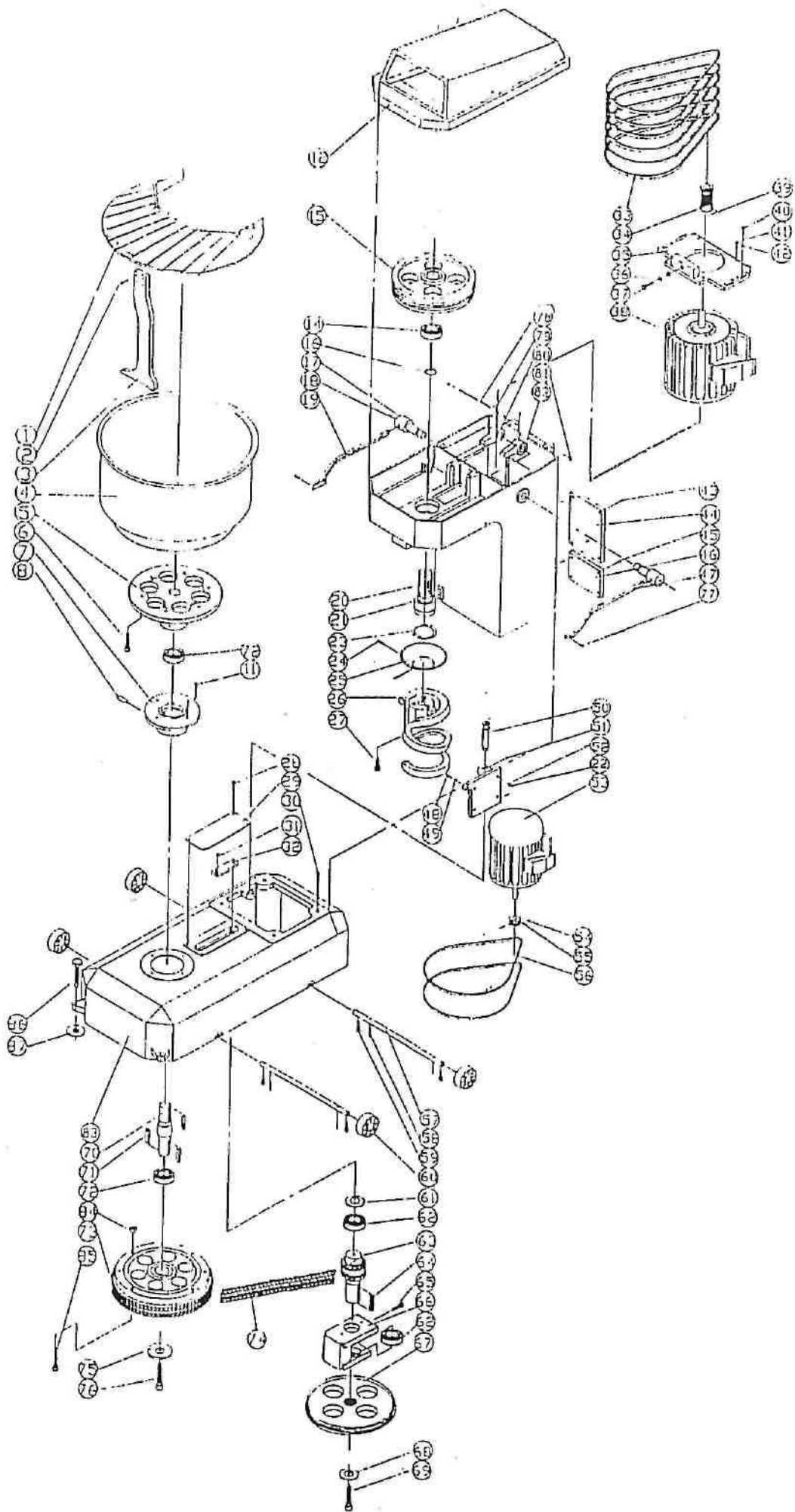
Refer to page 11-12,

# Electrical Diagram



BOTTOM BOARD LOCATION





## The Spiral Mixer Component:

No.	Name of Parts	No.	Name of Parts
1	Safety guard	47	Handle
2	Screw	48	Screw
3	Stainless steel fence	49	Screw nut
4	Stainless steel bowl	50	Fixed shaft
5	Bowl base	51	Screw
6	Screw	52	Motor base plate
7	Bowl bearing base	53	Motor
8	Hollow pin	54	Screw
11	Screw	55	Belt pulley
12	Head cover	56	Belt
15	Belt pulley	57	Wheel axle
16	Retaining ring	58	Hollow pin
17	Safety guard and spindle	59	Screw
18	Screw	60	Movement wheels
19	Handle	61	Foot steady
20	Main shaft	62	Bearing
21	Tank key	63	Connecting gear axle
22	Motor base plate	64	Tank key
23	Retaining ring	65	Screw
24	Screw	66	Bearing base
25	Main shaft cover	67	Belt pulley
26	Spiral hook	68	Washer
27	Screw	69	Screw
28	Screw	70	Bowl shaft
29	Plate cover	71	Tank key
30	Screw	72	Bearing
31	Screw	73	Connecting gear wheel
32	Fixed plate	74	Chain
33	Belt	75	Washer
34	Small pulley	76	Screw
35	Motor base plate	77	Screw
36	Screw nut	78	Screw
37	Screw	79	Screw
38	Motor	80	Shaft
39	Screw	81	Screw nut
40	Screw	82	Mixer body
41	Screw	83	Base
42	Washer	84	Screw
43	Screw	85	Screw
44	Plate cover	86	Adjusting foot screw
45	Screw	87	Foot steady
46	Plate cover		





**Toll Free: 1.800.565.2253**

**Phone: 1.506.858.8990**

**Fax: 1.506.859.6929**

**<http://www.bakemax.com/>**