



# INSTRUCTION MANUAL

Installation | Maintenance | Use | Safety

## Ligth Dough Mixer



Model

BAM.12

Image merely illustrates.

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## **ATTENTION!**

**The characteristics, pictures and figures presented in this manual should be considered for information. BIMG BRASIL reserves the right to make such modifications as may be deemed necessary without prior notice.**

# 1. Safety Information

## 1.1 General Warnings

- Cautions / precautions must be observed when installing, using, maintaining and discontinuing use of this appliance;
- Before carrying out any operation (assembly, utilization (use), maintenance and reuse after prolonged use of the equipment), read the manual carefully;
- The equipment must be used by trained personnel familiar with the use and safety standards described in this manual;

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capacities, or people with lack of experience and knowledge, unless they have received instructions regarding the use of the appliance or are under the supervision of a person responsible for their safety;

- It is recommended that children be supervised to ensure that they are not playing with the equipment;
- In case of change of the personnel that will work with the equipment, the new operator must be educated about the standards and the operation of the same one;
- The operator must use the **Adequate PPE's** (equipment for individual safety). As for example: use touches the hair avoiding that they lock in the moving parts of the machine;
- The operator must always be aware of situations that can cause a risk of accidents and avoid them. For example: avoid working with loose uniform sleeves, where they can lock in moving parts, causing accidents;
- After being held to read and answered all the questions, this manual must be stored carefully in place of easy access, known by all the people who will operate the equipment and made available for the people who carry out maintenance, to any queries. Whenever any questions arise, be sure to check the manual. Do not operate the equipment in any way with doubts;
- In the installation, it is essential to make this manual available to the professionals who will do the same;
- Never place your hands, fingers or objects inside the container when the unit is turned on as this may cause an accident;
- Before starting cleaning and any maintenance, it is essential to disconnect the equipment from the mains;
- Periodically check the condition of the cables and electrical parts;
- Do not leave the equipment switched on unattended.



### **ATTENTION!**

**Do not perform repairs on your own. Refer servicing to qualified service personnel. Use only original parts in your appliance.**

## 2. Technical Features

### 2.1 Main Components

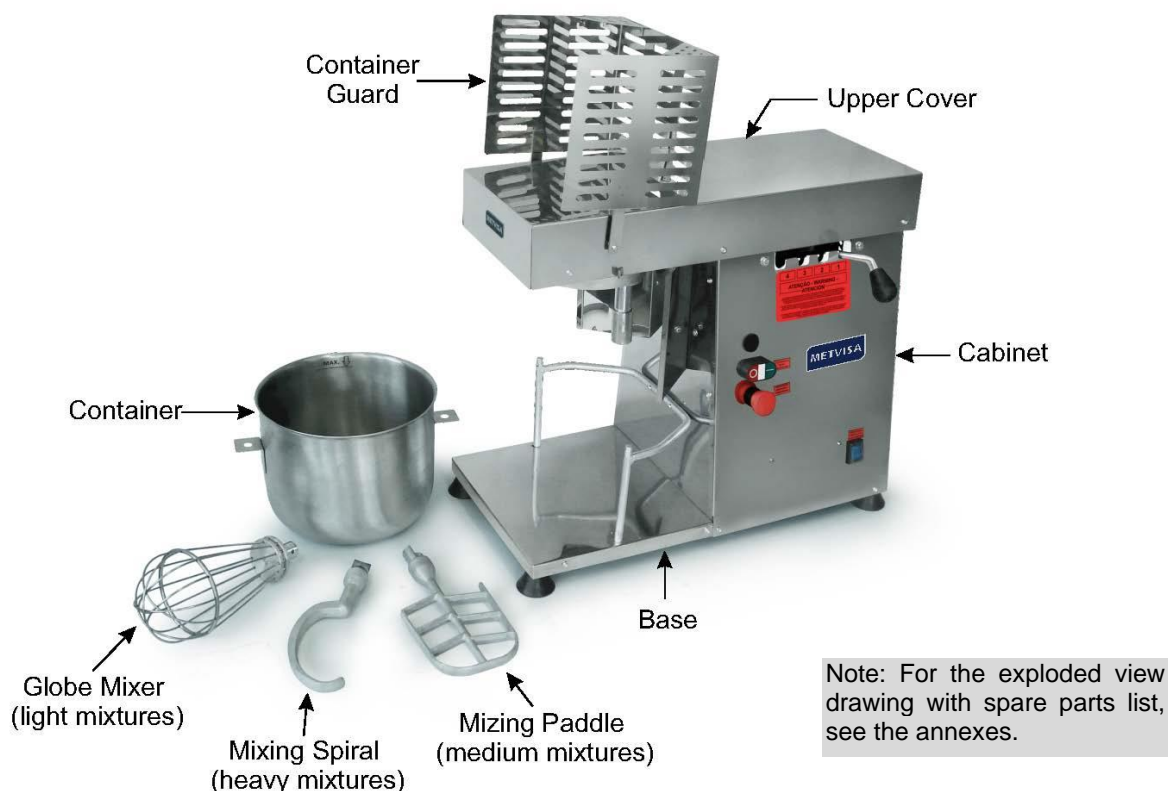
For the equipment described in this manual, safety in use, cleaning, maintenance and maximum hygiene are guaranteed by the design and special project for all parts, as well as by using stainless steel and other materials suitable for contact with food.

The appliance was built with the following features:

- The top cover, cabinet and pot guard are made of stainless steel which has higher corrosion resistance than other steels. It is a material resistant to the attack of several corrosive agents;
- Paddle type mixers (for medium mixtures) and spiral type mixers (for heavy mixtures) use aluminum as a raw material. Globe mixers (for light mixtures) are made of stainless steel.
- The container and base are made of stainless steel, which withstands the attack of various corrosive agents, such as most organic acids, organic substances in general, alkalis, oxysalts etc.

**Note: Stainless steel is attacked by sulfuric acid, and also cannot withstand hydrochloric acid, dilute sulfuric acid, chlorides and halides in general.**

The following are the main components of the equipment:



## 2.2 Technical Data

Model	Voltage (V)	Rated current (A)	Net weight (kg)	Nominal Measurements LengthxHeightxWidth (mm)	Capacity (L)
BAM12110M60S4	110	7.4	43.1	415x825x685*	12
BAM12220M50S1	220	4.5	43.0		
BAM12220M50S2	220	4.5	43.0		
BAM12220M50S4	220	4.5	43.0		
BAM12220M60S4	220	4.1	43.1		

\* Height measurement indicated with the guard of the raised pot.

Noise level: 79 dB.



### ATTENTION!

Characteristics such as: model, serial number and voltage of the equipment are provided on the label (figure below). Before installation, check that the power supply voltage of the appliance corresponds to that of the mains.



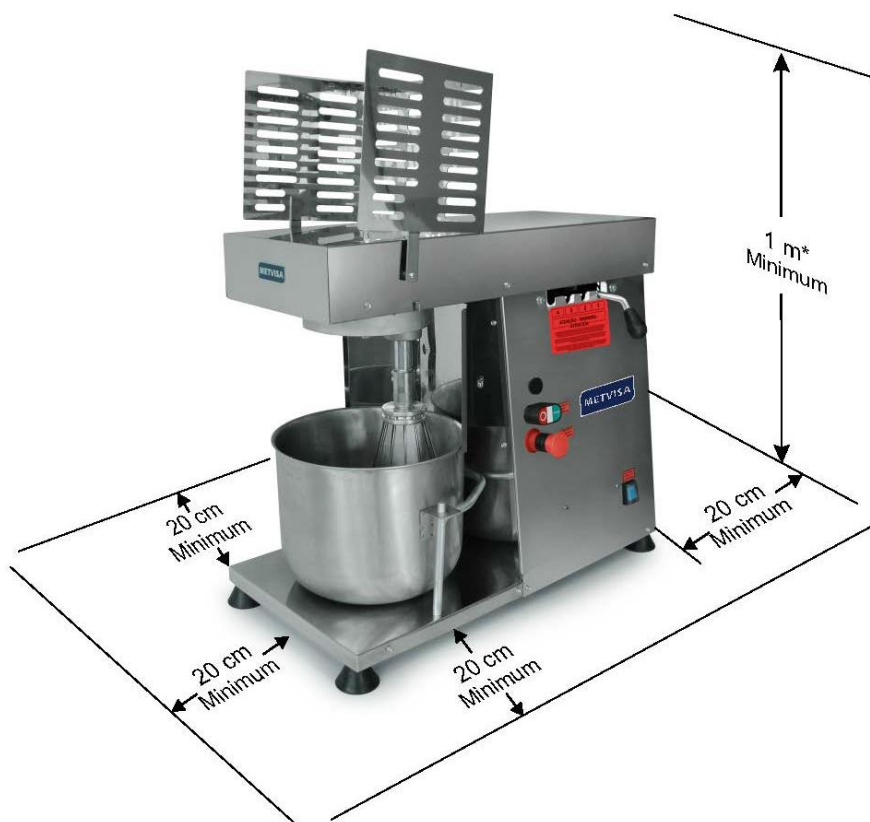
## 3. Installation

### 3.1 Equipment Layout

The connection to the mains and the arrangement for operation must be carried out by a qualified professional. Check that the voltage of the equipment matches the mains voltage.

- It is essential to make this manual available to the professionals who carry out the installation.

To ensure correct operation and safety, the machine must be positioned in a ventilated environment and on a sufficiently wide, level, dry and stable support surface, away from sources of heat and water faucets, and at an average height of 80 cm. Install the appliance leaving a distance of at least 20 cm around it so that it has sufficient space for inspection, maintenance, cleaning and use.



\* The minimum height measurement of 1 m was determined considering the area that the container guard occupies when raised.



### **ATTENTION!**

The installation and the location where the appliance will be arranged must comply with the rules of risk prevention and safety at work (according to the regulations in force in your country).

The manufacturer shall not be liable for any direct or indirect damages caused by non-compliance with these standards and other instructions presented in this manual.

## **3.2. Electrical connection**

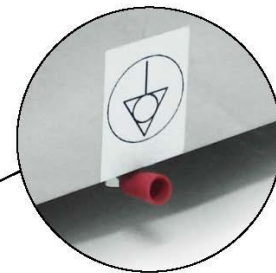
The equipment comes with a power cord to be plugged into an electrical outlet. If the power cord is damaged, it must be replaced with a new one. The exchange must be made by the manufacturer, authorized agent or a qualified person in order to avoid risk.

The type of plug of the power cord varies by country. The installation of the equipment must be carried out by a qualified technician for this role and in accordance with the current regulations of the country, especially with regard to the ground connection (if applicable).

An equipotential grounding terminal, located on the back of the cabinet, is supplied with the appliance (see image below).



The relay identified in the figure below is an additional protection for the grounding that is provided in the mains, and it must be connected to a grounding terminal bar, independent from the connection to the mains. Other products that have accessible metal parts and that are stationary must also be connected to this bus, in addition to the service bench itself, if this is made from metal material. As such, all these products will be under the same electrical potential avoiding undesirable leakage current.



Equipotential Grounding Terminal

All models of the appliances described in this manual are single-phase and have a single voltage, wither 110 V or 220 V. If you need to change the voltage on your appliance, contact the manufacturer or an authorized dealer.



### ATTENTION!

**Before connecting your appliance, always check that the mains voltage is the same as the voltage of the equipment.**

**The supply voltage of the appliances is 110 V (60 Hz) or 220 V (60 or 50 Hz), as can be verified on the voltage label attached to the power cord or as indicated on the data label of the board located on the back of the appliance (view the picture of this label in item 2.2 of this manual).**

**Make sure that the mains voltage where the equipment will be installed is compatible with the voltage indicated on these labels.**

For details of the remainder of the electrics of the equipment, refer to the wiring diagram in the annexes to this manual.

## **IMPORTANT**

The manufacturer shall not be liable for any direct or indirect damages caused by non-compliance with these standards and other instructions presented in this manual.

## **4. Use of the Appliance**

### **4.1 Utility**

This appliance is intended for beating and mixing various light mixtures in confectionery, bakeries and suchlike.

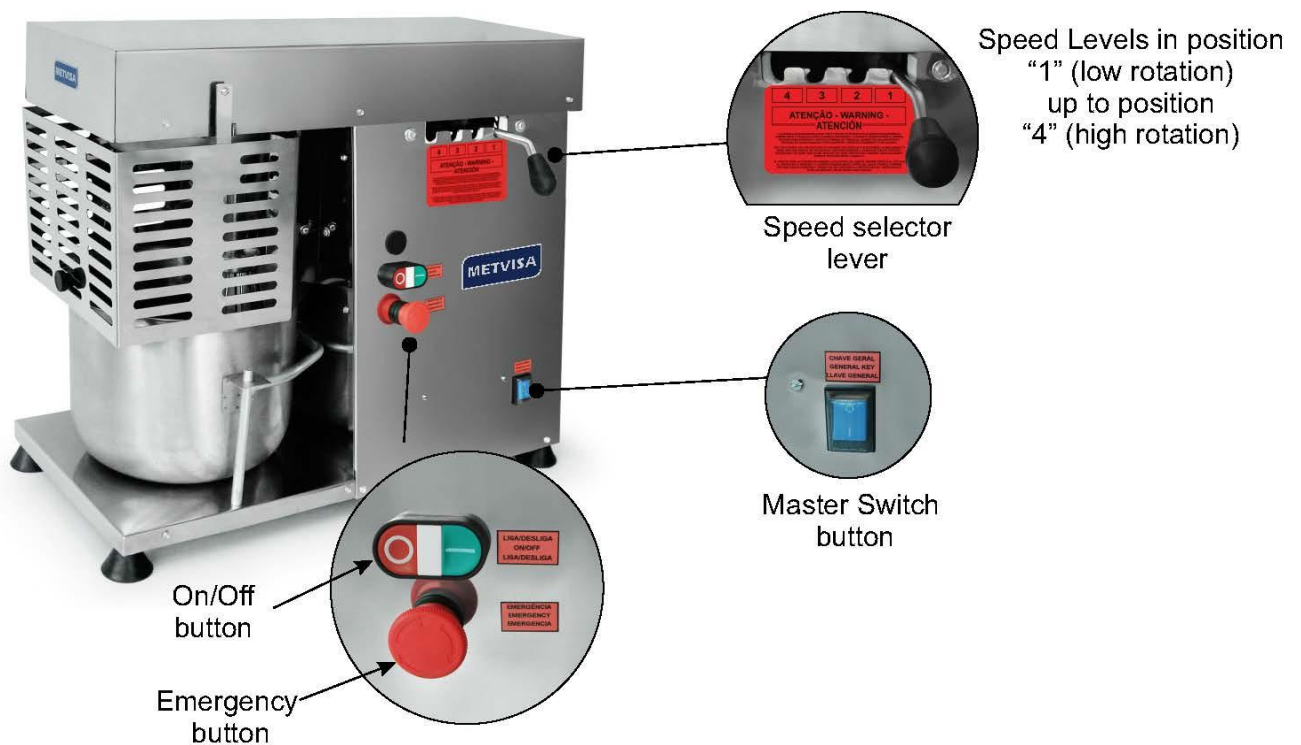


### **ATTENTION!**

This appliance must not be used to beat heavy doughs such as bread or pizza.

### **4.2 Commands**

The device consists of a master switch, an emergency button, an on/off button and a speed selector lever. All controls are positioned on the side of the unit.





View description of each command below:

- **Master switch** - device used to safely activate and deactivate the electric power supply to the machine. In position "1" it activates the power supply, and in position "0" it deactivates the supply.
- **On/Off Button** - used to turn the equipment on and off. In position "1" it turns the device on, and turns it off in position "0".
- **Emergency Button** - this must be activated when necessary to stop the machine due to an emergency. To activate the button simply press it. To disarm, rotate the button clockwise (according to the arrows on the button).
- **Speed Selector Lever** - selects the rotating speed of the mixer. It has four speed levels. In position "1" the speed is low and in position "4" the rotation is high.



### ATTENTION!

**Always turn the lever to position "1" for low rotation before turning the appliance on or off. It is recommended not to change the speed of the selector lever when the appliance is switched off, but preferably with the appliance in motion.**

**Failure to follow these instructions can shorten the life of the appliance and damage the components.**

## 4.3 Operating Procedures

Before operating the appliance, disassemble the components that will come into contact with the mixture (container and mixers), and clean them, ensuring that the appliance is disconnected from the mains. Follow the cleaning instructions in item 5 of this manual.



Check the disassembly and assembly procedures described below.

• **Disassembly:**



• **Assembly:** The assembly procedure is the opposite of the disassembly. When reassembling the mixer, choose which model meets your needs at the time. All parts must be secured perfectly so that no locking or wear occurs, and to ensure operator safety.

If any part has not been properly attached, repeat the operation and if you are unsuccessful, contact technical service.



**ATTENTION!**

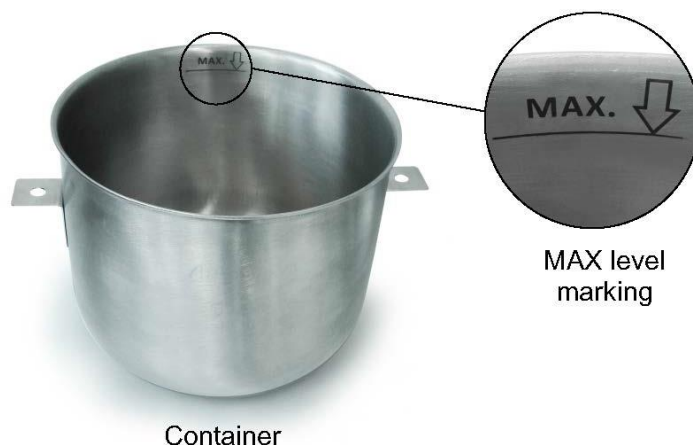
**Never switch on the appliance without the mixer or container in position as this may cause accidents.**

• **Operation:** Before turning on the appliance, make sure that the components (container and mixer) are correctly inserted and that the supply voltage of the appliance is in accordance with the mains voltage.

After verifying these items, follow the operating procedures below:

- Connect the power cord to the mains;
- Check that the emergency button is in the working (disarmed) position;
- Turn the main switch to "1" (on);
- Lift up the container guard;

- First add the lighter ingredients, observing the "max." level indicated on the inside of the container and then lower the container guard;



- Using the speed selector lever, select the position "1" low speed;
- Turn the on/off button to the "1" position (on);
- To add the remaining ingredients to your recipe, position the lever in the "1" speed position and lift the container guard. To restart, confirm that the lever is in the "1" position and press the power button;
- Change the speed gradually and always with the appliance turned on;
- After the process is complete, reduce the speed to "1" and then turn off the appliance by pressing the power button and the main switch, both in the "0" (off) position;
- Lift the container guard and remove the mixture ready.



### **ATTENTION!**

**In an emergency, press the Emergency button to stop the device instantly.**

### **IMPORTANT**

**It is recommended to change the speed of the appliance with it switched on, and to select the position "1" using the selector lever when turning it off. These procedures will increase the working life of the appliance.**



### **ATTENTION!**

**If you notice that the appliance is unable to process the mixture or that it stops processing, decrease the amount of the ingredients before putting them into the container.**

**Add the ingredients of your recipe gradually so it will not impair the motor speed and performance, and the working life of the appliance.**

**Failure to follow these guidelines will be considered an unsafe act and abusive use of the appliance.**



## ATTENTION!

Even if there is a safety system (which does not allow the appliance run when the container guard is raised or the container is out of position), never place hands, fingers or objects (such as spoons and knives) in the pan and other moving parts with the appliance switched, on as this may cause an accident.

In the case of any irregularities please contact your nearest authorized service center.

## IMPORTANT

The operator must wear the appropriate PPE (personal protective equipment). For example: using hair nets to prevent hair become tangled in the moving parts of the equipment and appropriate gloves that protect the operate during processing, as well as maintaining hygiene when handling the mixture.

## 5. Cleaning and Maintenance

### 5.1 Cleaning Procedures and Products Used

Your equipment is built with first-line materials, so use it correctly and you will get great satisfaction. Keep your equipment always clean and well taken care of, as this will make it have a much longer shelf life.

A daily cleaning of the machine must be carried out for good operation and durability.



## ATTENTION!

Before performing maintenance or cleaning, make sure that the main switch (switch) is off and that the plug is disconnected from the mains.



## ATTENTION!

Do not use a water jet to clean the appliance.

## IMPORTANT

This equipment is not intended to be fully immersed in water for cleaning. Follow the instructions below to find out which parts can be immersed and the special care to be taken with the other parts.

Dismountable parts (container and mixers) must be removed from the appliance and washed with water and neutral soap. Clean the corners thoroughly, eliminating food residue.

The remainder of the appliance should be cleaned as many times as possible to prevent food residue from drying out and sticking to parts. For cleaning, dilute soap or neutral detergent in warm water and apply with a damp, soft cloth. With a cloth moistened with water, rinse and then wipe the parts with a dry cloth.

Never use abrasive products or sponges for cleaning as they may scratch or ruin the surface of the parts. Do not spill water on the appliance for cleaning, otherwise, turning it on may cause electric shock or even burn the appliance.

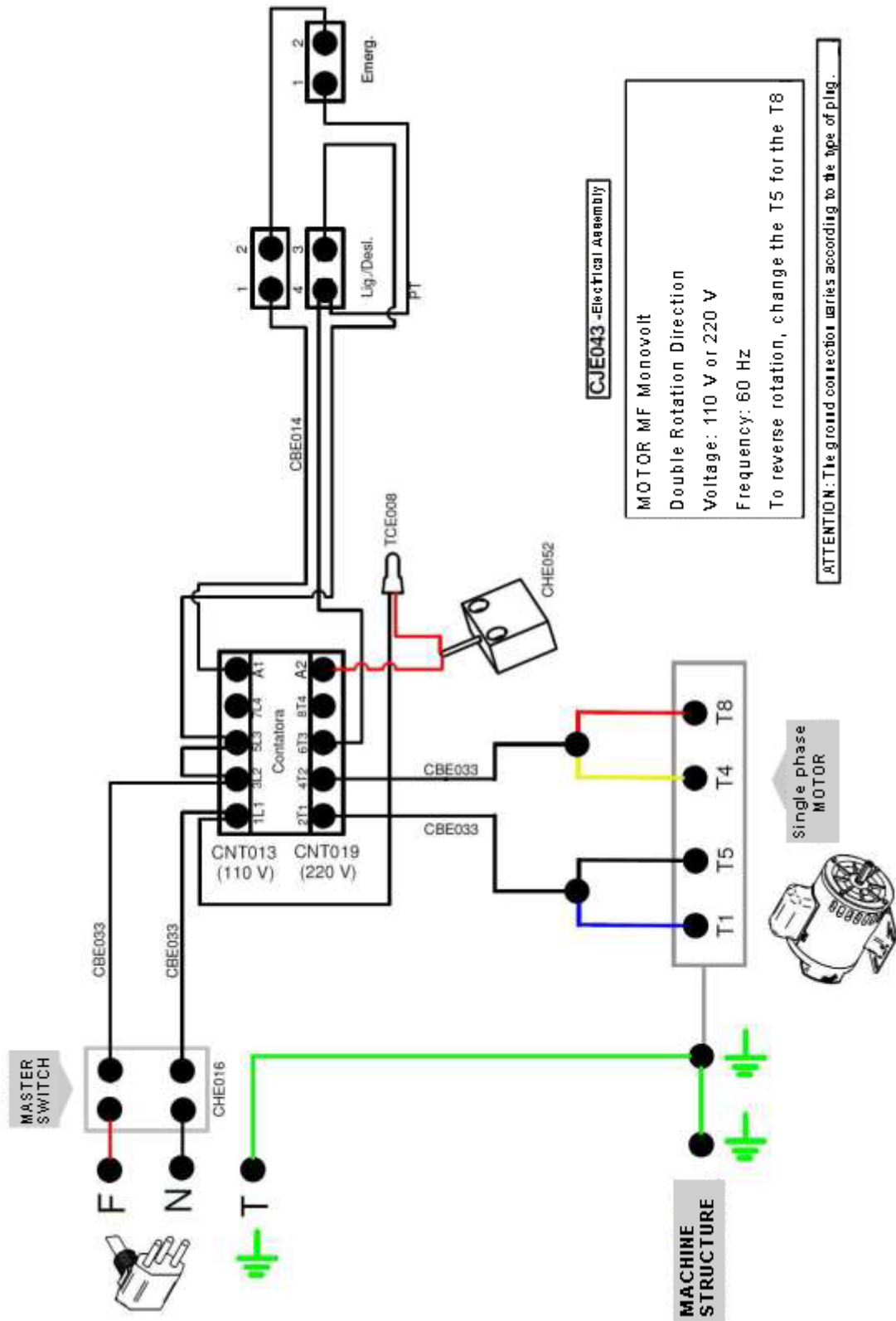


**ATTENTION!**

**It is extremely important that the products used in cleaning ensure maximum cleanliness and are not toxic.**

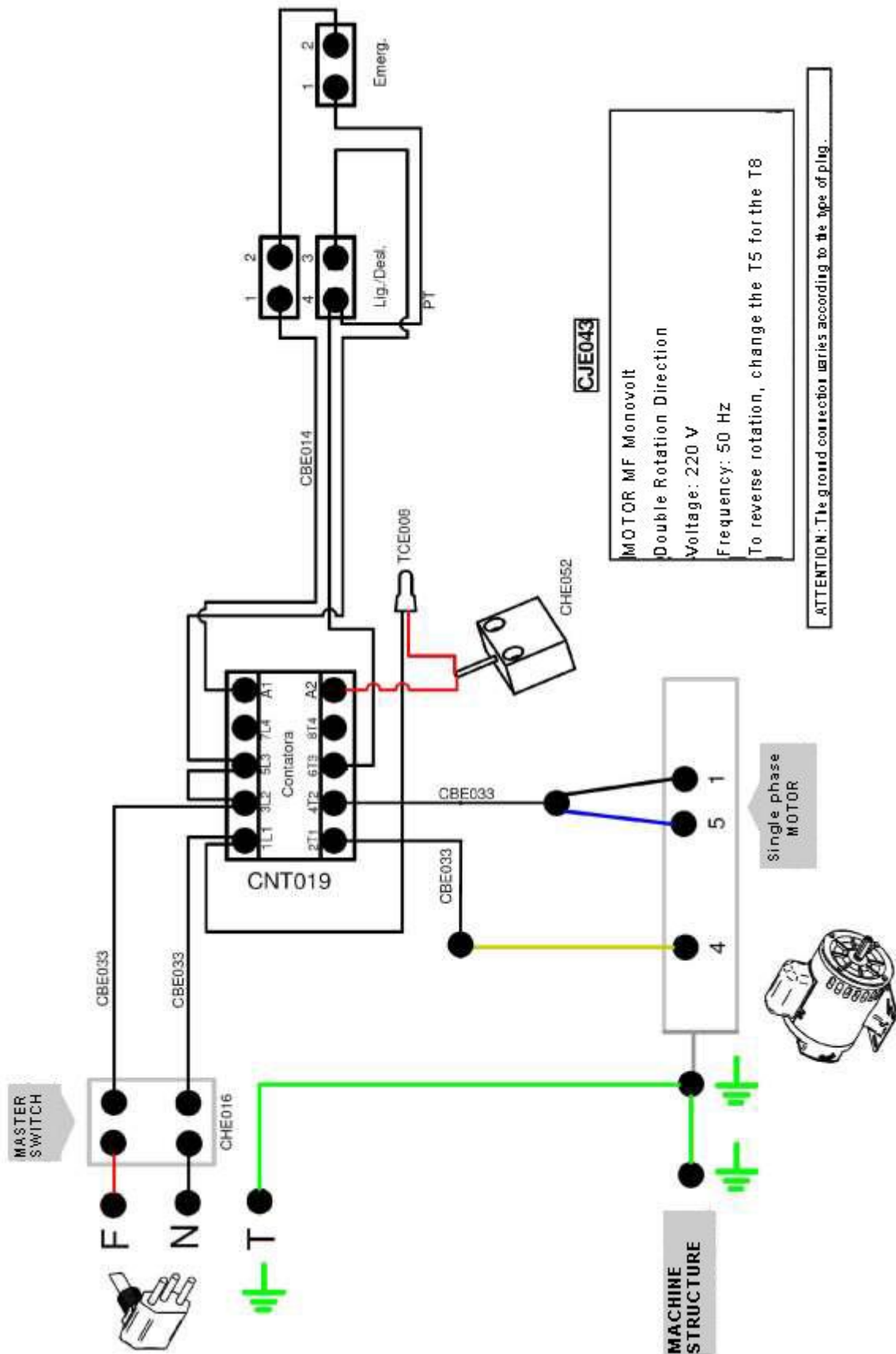
## 6. ANNEXES

### Electrical Schematic - Voltage 110 V or 220 V - 60 Hz



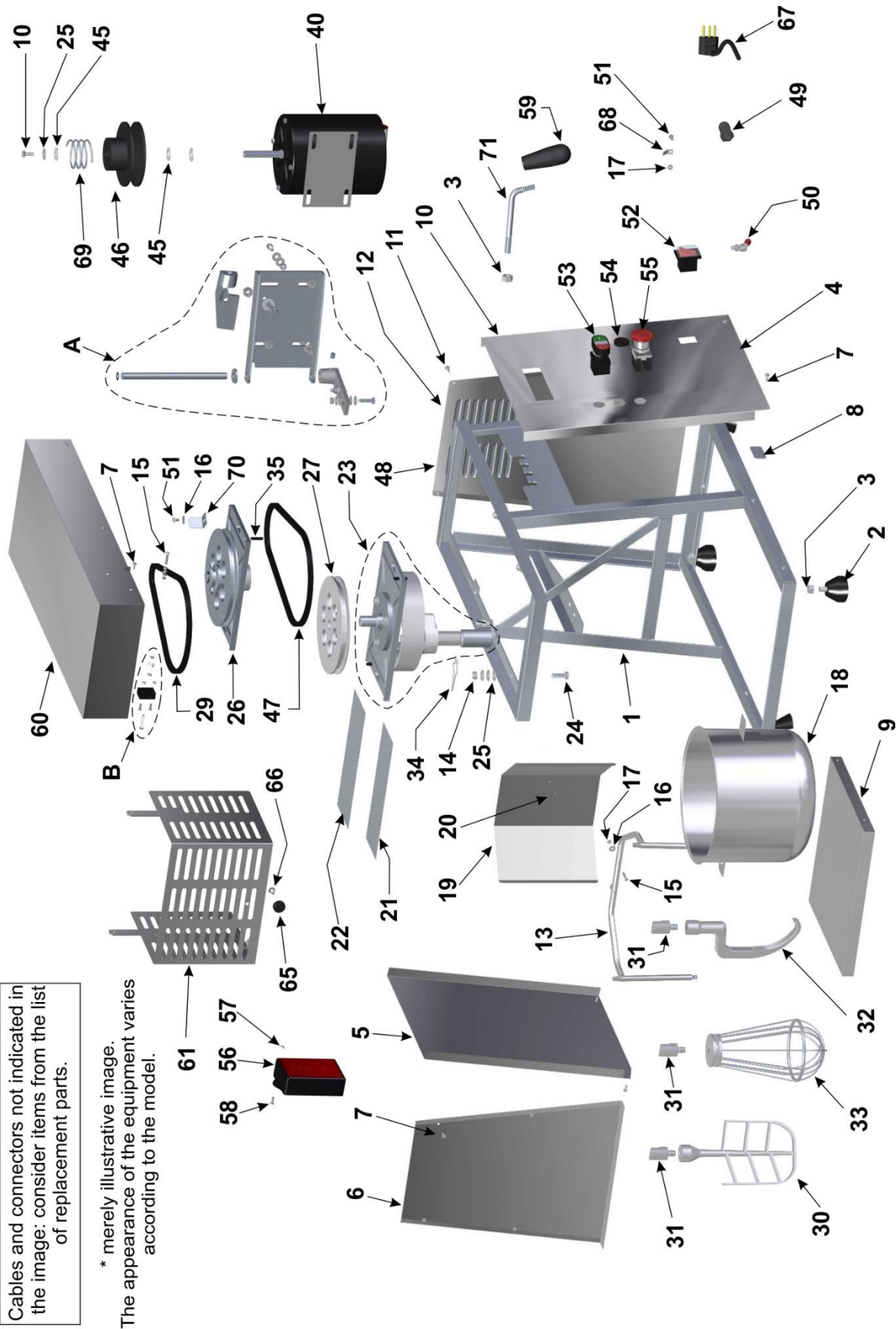
**ATTENTION:** The ground connection varies according to the type of plug. For electrical installation observe the current standards of the country, especially with regard to ground connection (if applicable).

## Electrical Schematic - Voltage 220 V - 50 Hz



**ATTENTION:** The ground connection varies according to the type of plug.  
For electrical installation observe the current standards of the country, especially with regard to ground connection (if applicable).

# Exploded View Drawing



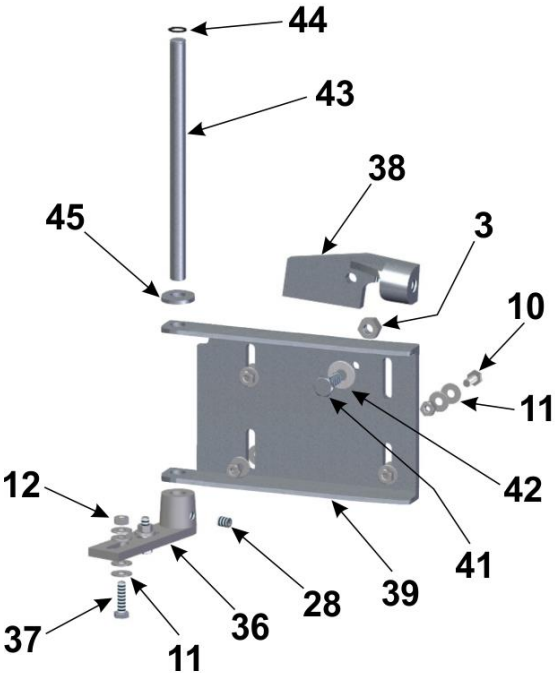
Cables and connectors not indicated in the image: consider items from the list of replacement parts.

\* merely illustrative image.  
The appearance of the equipment varies according to the model.

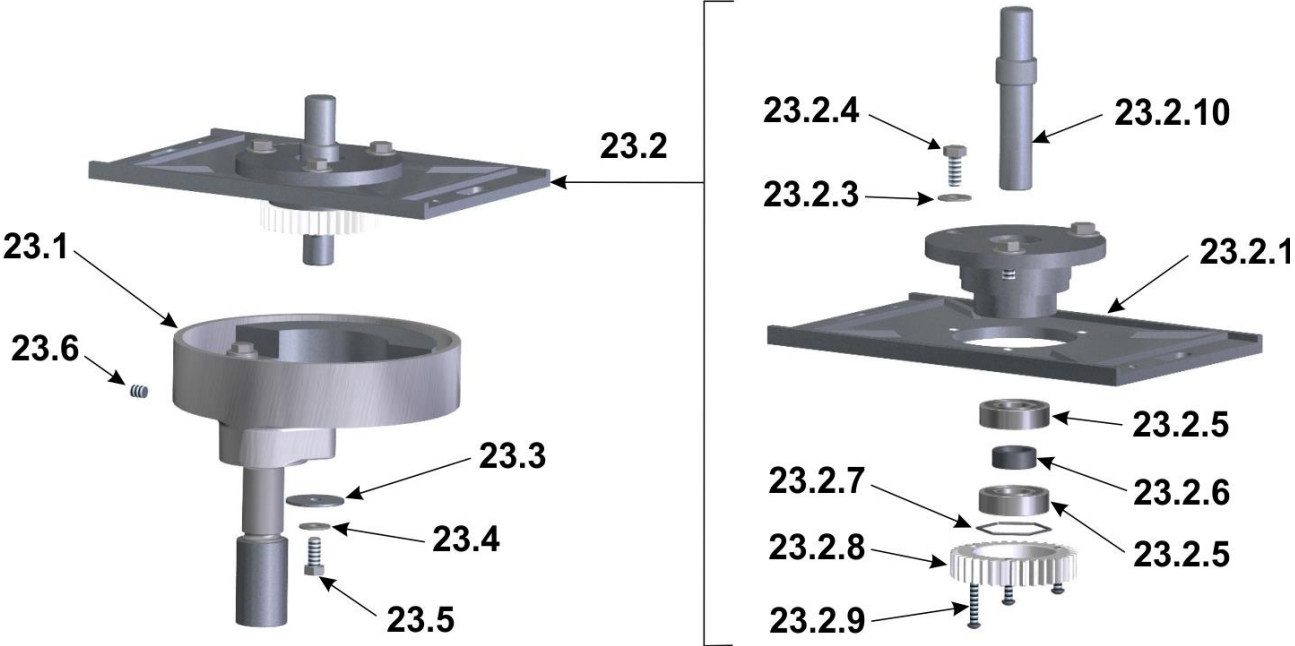
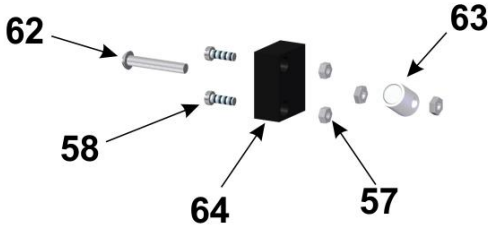


# Explosion Design

**Detail A**



**Detail B**



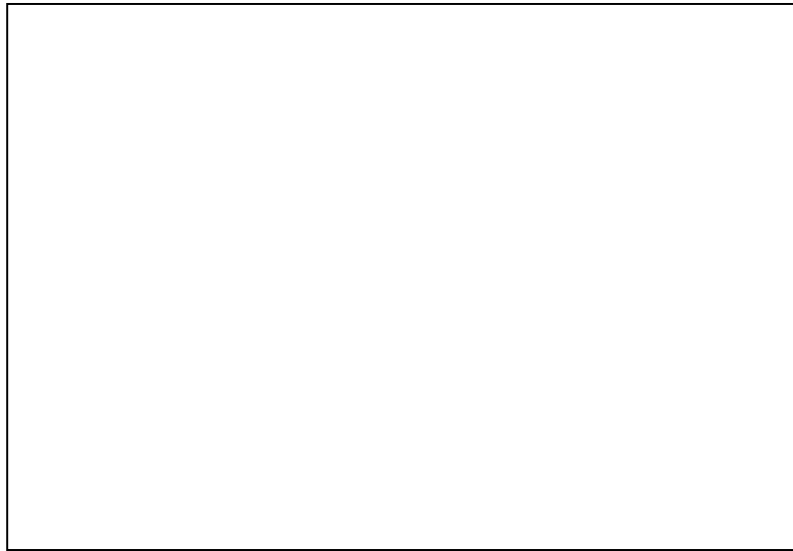
## Replacement Parts

Position	Code	Description	Qty.
1	ETR006	Structure	01
2	PEP019	PVC foot	04
3	POS003	Hexagonal Nut	06
4	CRC760	Right Side Liner 4 Speeds	01
5	CRC781	Left Side	01
6	CRC072	Front Cover	01
7	PRA008	locking screw. Hex. Screw	24
8	CRC483	Opening 23 x 45 mm	02
9	RVB004	Welded Container Base Finish	01
10	PRS010	Hexagonal Screw	05
11	ARL004	Flat washer	16
12	POS005	Hexagonal Nut	07
13	SUJ001	Container Support	01
14	POS004	Hexagonal Nut	06
15	PRR006	Round Machine Screw	03
16	ARL005	Flat washer	04
17	POS006	Hexagonal Nut	10
18	THO002	Stainless Steel Container	01
19	CRC497	Rear Bowl Guard	01
20	RBT002	Rivet	02
21	CRC484	Opening 80 x 250 mm	01
22	CRC485	Opening 90 x 250 mm	01
23	CJT149	Mounted Planetary Gear	01
23.1	CJT368	Lower Planetary Gear	01
23.2	CJT367	Upper Planetary Gear	01
23.2.1	SBT185	Bushing Support	01
23.2.2	MAC009	Gear Bushing	01
23.2.3	ARL003	Flat washer	03
23.2.4	PRS007	Hexagonal Screw	03
23.2.5	ROL006	Bearing	02
23.2.6	SRO006	Bearing Separator	01
23.2.7	PRL004	Bearing Fastener	01
23.2.8	EGG011	Fixed Gear	01
23.2.9	PRR006	Round Machine Screw	03
23.2.10	EIX004	Planetary Gear Shaft	01
23.3	ARE001	Flat washer	01
23.4	ARL003	Flat washer	01
23.5	PRS007	Hexagonal Screw	01
23.6	PRN002	Allen Screw S/C	01
24	PRS007	Hexagonal Screw	04
25	ARL003	Flat washer	05
26	CJT398	Complete Intermediate Bushing	01
27	PMT020	Movement Pulley	01
28	PRN002	Allen Screw	03
29	COR015	Belt	01
30	MTR006	Paddle Mixer	01
31	EIX108	Semi Planetary Gear Shaft	03
32	MTR005	Spiral Mixer	01
33	MTR001	Globe Mixer	01
34	PRL006	Fastener	01
35	PNL009	Elastic Pin	04
36	MAC021	Bushing Articulator	01
37	PRS004	Hexagonal Screw	02
38	ART011	Lever Articulator	01
39	SBT263	Speed Motor Support	01
40	MTE188	Electric Motor Voltage 110 V - 60 Hz	01
	MTE189	Electric Motor Voltage 220 V - 60 Hz	
	MTE090	Electric Motor Voltage 220 V - 50 Hz	

## Replacement Parts

Position	Code	Description	Qty.
41	PRS003	Hexagonal Screw	01
42	ARL002	Flat washer	01
43	EIX193	Motor Articulator Shaft	01
44	APE005	Retaining Ring	01
45	ARL001	Variator Pulley Washer	04
46	PMT010	Variator Pulley	01
47	COR012	Belt	01
48	TAP111	Rear Welded Cover	01
49	TCE073	Print cable	01
50	CJT386	Mounted Equipotential Terminal	01
51	PRR005	Mac. Screw Round	02
52	CHE016	Main switch	01
53	BOT002	On/Off button	01
54	BCH036	Reset Cover	01
55	BOT003	Emergency button	01
56	CJE043	Electrical Assembly Voltage 220 V	01
	CJE044	Electrical Assembly Voltage 110 V	
57	POS016	Stainless steel Hexagonal Nut	02
58	PRR017	Screw Cab. Stainless steel cylinder	02
59	MNL017	Pusher Handle	01
60	TAP010	Upper Cover	01
61	PTC005	Container Guard	01
62	PRR016	Mac. Screw Round	01
63	CJT500	Support with Actuator	01
64	CHE052	Safety Sensor	01
65	MNL011	Internal Thread Handle	01
66	PRR009	Mac. Screw Round	01
67	CBE023	Electrical Cable Type 1 - Model BAM12220M50S1	01
	CBE029	Electrical Cable Type 2 - Model BAM12220M50S2	
	CBE001	Electrical Cable Type 4 - Model BAM12220M50S4	
		Electric Cable Type 4 - Model BAM12110M60S4	
		Electric Cable Type 4 - Model BAM12220M60S4	
68	TCE007	Terminal Grounding	01
69	MOL023	Variator Pulley Spring	01
70	PTC065	Belt Protection	02
71	TRT049	Strap	01
72	TCE004	FIT Terminal	05
73	TCE033	Splicing Terminal	02
75	TCE013	Terminal	01

**IMG BRASIL PRODUCT MANUFACTURER**



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