



# **INDEX**

1. Safety Information 1.1 General Warnings	<b>3</b>
2. Technical Characteristics	4
2.1 Main Components	
2.2 Technical Data	5
3. Installation	5
3.1 Machine Layout	5
3.2 Electrical Connection	
4. Machine Use	9
4.1 Utility	
4.2 Commands	
4.3 Operating Procedures	10
5. Cleaning and Maintenance	
5.1 Cleaning Procedures and Products Used	
5.2 Breakdown Maintenance and Procedures	13
6. ANNEXES	
Electrical Schematic - Voltage 110 V or 220 V / Frequency: 60 Hz	
Electrical Schematic - Voltage: 220 V / Frequency: 50 Hz	
Exploded View Drawing	
Spare Parts	21
-r - · · - · · - · · · · · · · · · · · ·	



The characteristics, pictures and figures presented in this manual should be considered for information. IMG 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 equipment;

• Before carrying out any operation (assembly, use (use), maintenance and reuse after prolonged use of the equipment), read the manual carefully;

• The machine must be used by trained personnel familiar with the use and safety regulations 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 rotation 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** (equipment for individual safety). As for example: use cap to 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 sleeves of loose uniforms, where they can lock in moving parts, causing accidents;

• After reading and clarifying all doubts, this manual should be carefully stored in an easily accessible location, known to all persons who will operate the machine and make it available to those who will carry out maintenance for any inquiries. Whenever any questions arise, be sure to check the manual. Do not operate the machine in any way with doubts;

• In the installation, it is essential to make this manual available to the professionals who will do the same;

• Even if there is a security system in the machine, never place your hands, fingers or objects (such as spoons and knives) in the protection of the belt and in the moving parts or close to them with the machine turned on;

• Before starting any cleaning and maintenance, it is essential to disconnect the equipment from the electrical mains;

• Periodically check the condition of the cables and electrical parts;

• Do not leave the machine switched on unattended.



# ATTENTION!

Do not perform repairs on your own. Refer servicing to qualified service personnel. Only use original parts in your machine.

## **2. Technical Characteristics**

#### **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 design of all parts and also by using stainless steel and other materials suitable for contact with the dough.

The equipment was built with the following characteristics:

• Belt protection, side protections, front cover, belt stretcher and dough driver, made of stainless steel 430, which has superior corrosion resistance to other steels. It is a material resistant to the attack of several corrosive agents;

• Dough scraper made of non-toxic, odorless PE (polyethylene) plastic, resistant to impact and corrosion.

• The rest of the parts that make up the machine are made of carbon steel SAE 1010 / 1020. The parts on the outside of the machine are also coated with epoxy electrostatic paint, an excellent anticorrosion protection and that facilitates hygiene.

Below are the main components of the machine:



#### 2.2 Technical Data

Model	Nominal Measures Width x Height x Depth (mm)	Net Weight (approx.) (kg)	Voltage (V)	Rated Current (A)	Useful Width (mm)
MPC110M60S4	610x1170x1140	88,5	110	8,3	410
MPC220M50S1	610x1170x1140	88,5	220	4,2	410
MPC220M50S2	610x1170x1140	88,5	220	4,2	410
MPC220M50S3	610x1170x1140	88,5	220	4,2	410
MPC220M50S4	610x1170x1140	88,5	220	4,2	410
MPC220M50S7	610x1170x1140	88,5	220	4,2	410
MPC220M50S8	610x1170x1140	88,5	220	4,2	410
MPC220M60S4	610x1170x1140	88,5	220	4,8	410

\* Measures of use with depth (bottom) with the trays raised.



# ATTENTION!

Features like: model, serial number and voltage of the equipment are provided on the label (figure below). Before installation, check if the powers supply voltage of the machine corresponds to that of the mains.



# **3. Installation**

#### **3.1 Machine Layout**

The connection to the electrical mains and the arrangement for operation must be carried out by a qualified professional. Check if the machine voltage matches to the electrical mains voltage.

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

For ease of transportation, the machine is packed with the rear tray support and the lower foot disassembled.

First mount the foot. Fixing the parts must be done with washers, screws and nuts that come with the machine.

Following are the mounting positions and the parts list:



**Foot Parts List** 

Position	Code	Description	Quant.
1	LTR031	Structure Left Side	01
2	ARL004	Flat Washer 1/4"	28
3	PRS010	Hexagon Screw 1/4" x 5/8"	08
4	POS005	Hexagon Nut 1/4"	14
5	CAN119	Lower Cross Angle	02
6	LTR030	Structure Right Side	01
7	PRS016	Hexagon Screw 1/4" x 2"	06
8	ROD007	Fixed Wheel	02
9	PEP019	Non Slip Feet	02

After to assembly the feet, fix the machine on the feet through the screws (PRS016 - Hexagon Screw 1/4"), washers (ARL004 - Flat Washer 1/4") and nuts (POS005 - Hexagon Nut 1/4"). Then, fix the rear tray support (image below).



To guarantee the correct functioning and safety, the machine must be positioned in a sufficiently wide area, with a well leveled, dry and stable floor, away from heat sources, water faucets and areas with high circulation of people. Install the machine leaving a free area on the front with a minimum distance of 80 cm on the sides and 1 meter on the trays, so there is enough space for inspection, maintenance, cleaning and use.



To move the machine, keep the front and rear trays down. Position in front of the machine and put your hands on the upper feet frame. Lift the machine by raising the fixed feet and releasing the wheels for movement.



Once the machine is positioned in the proper work place, lower the machine by placing your feet firmly on the floor, making it impossible to move the wheels.



The installation and the place where the machine will be disposed must comply with the norms of risk prevention and safety at work (regulatory norm in force in your country).

The manufacturer does not take responsibility for possible damage direct or indirect caused by the non-compliance of the norms and instructions present in this manual.

#### **3.2 Electrical Connection**

The equipment is supplied with a plug-in power cable to be connected directly to the electrical mains. If the power cable is damaged, must be replaced for a new one. The exchange must be carried out by the manufacturer, authorized agent or qualified person, in order to avoid risks.

The type of power cord plug varies according to each country. The installation of the machine must be done by a qualified technician for this function and observing the current regulations of the country, mainly with regard to the earth connection (if applicable).

All machine models described in this manual are single-phase and have a single voltage, that is, 110 V or 220 V. If it is necessary to change the voltage on your machine, contact the manufacturer or an authorized distributor.



Before turn on your machine, always check if the mains supply voltage is the same as the machine voltage.

The supply voltage of the machines is 110 V (60 Hz) or 220 V (60 Hz or 50 Hz), as can be seen on the voltage label attached to the power cable or as indicated on the plate data label, which is located on the back of the machine (see the figure on this label in item 2.2 of this manual).

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

For more details about the rest of the electrical part of the equipment, check the Electrical Schematic in the annexes of the manual.

#### **IMPORTANT**

The manufacturer does not take responsibility for possible damage direct or indirect caused by the non-compliance of the norms and instructions present in this manual.

# 4. Machine Use

#### 4.1 Utility

This machine is exclusively intended to mold bread dough in specific shape of French Bread or Baguette.

#### 4.2 Commands

The machine is composed of the general switch, emergency button, on/off button, cylinder regulator and cursor with scale.

The general switch and the cursor are in the front of the machine, near of the power cord. The emergency, on / off buttons and the cylinder regulator are positioned on the top of the right side protection.

View the description of each command below:



• General Switch (Interrupter) – switch used to in a safety way turn on and turn off the energy from the electrical mains to the equipment. In the position "1" turns on, "0" turns off the energy to the equipment.

• **On/Off Button**- Used to turn the machine on and off. In position "1" it turns the device on, and turns it off in position "0".

• Emergency Button – must be used in case of necessity to stop the machine due to some emergency. To arm the button you just need to push and to disarm, turn the button on clockwise (as indicated by the arrows on the button)

• Cylinder Regulator - This has the function of regulating the distance between the cylinders. It should be rotated clockwise to open the cylinders and counterclockwise to close them. As the handle is rotated, the cursor will move.

• Cursor with Scale - Operated using the cylinder regulator. It indicates the thickness of the dough by means of a marking on the ruler and the scale label at the right side of the machine.

#### 4.3 Operating Procedures

Before operating the machine, clean it well, especially of the components that will come into contact with the mixture. Carry out cleaning with the machine disconnected from the mains. Follow the cleaning instructions in item 5 of this manual (below).

After this initial care, confirm that the supply voltage of the electrical mains is the same as that of the machine.

• **Operation:** The machine can only be operated after verifying if the voltage is the same of the main, if the machine is ideal positioning and if the wheels are locked, according to the instructions in item 3.1 of this manual (Machine Layout).

Check the operating processes described below:

- 1. Positioning trays and dough director:
  - If the machine is used by <u>one person</u>, only the front tray must be lifted until it locks into the tray support, keeping the rear tray lowered. Then lift the dough director. Thus the modeled mass will be routed to the front tray;



• If <u>two people</u> are required to perform the operation, only the rear tray must be lifted until it locks into the tray support, keeping the front tray lowered. Then lower the dough director, causing the dough to be routed to the rear tray.



- 2. Turn on and operate the machine:
  - Connect the power cord to the mains;
  - Activate the general switch button (switch) in position "1" (on); turn the on / off button to position "1";
  - Adjust the distance of the cylinders through the cylinder regulator;
  - Position yourself in front of the machine, with the dough already divided in a IMG / METVISA bread divider, insert it on the belt that will routed the dough to the cylinders;



Even though there is a safety system in the belt guard (which does not let the machine start if the guard is raised), never place your hands, fingers or objects (such as spoons and knives) inside the belt guard and in the moving parts or close to them with the machine on, as this may cause accidents.

- Remove the dough from the tray. If necessary, repeat the operating procedure until you obtain the ideal modeling of the dough;
- After finishing the process, turn the machine off by pressing the on / off button in the "0" (off) position.



# ATTENTION!

So that there is no risk of accidents, after the dough is placed on the belt, do not try to retrieve it, wait for the machine to model the dough, only then to rework it.

#### **IMPORTANT**

Never put flour, vegetable oil or similar on the felt (belt), as the accumulation of residues can result in the malfunction of the machine. In addition, the residues allow the proliferation of bacteria that pass into the mass contaminating it, thus compromising the quality of the final product and the hygiene of the establishment.



If the dough sticks to the conveyor or some other moving part, turn off the machine and remove the dough safely. Perform the dough shaping operation again, as instructed previously.



If you notice that the machine is unable to process the dough or that it is stopping processing, decrease the quantity so as not to impair the speed and performance of the engine and the life of the machine.

Any irregularity, contact the nearest authorized service center.

# **5. Cleaning and Maintenance**

#### 5.1 Cleaning Procedures and Products Used

Your machine was built with first-line materials, so use it properly and you will obtain great satisfaction. Always keep your machine clean and well-cared for, which will make it much more durable.

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



# ATTENTION!

Before performing maintenance or cleaning, make sure that the appliance is switched off and that the plug is disconnected from the mains.



**ATTENTION!** 

Do not use water jet to clean the machine.

#### **IMPORTANT**

This machine is <u>not intended</u> to be immersed in water for cleaning.

Cleaning of the laminating cylinder is done using the dough scraper. Turn the machine on, with the rolling cylinder rotating, press the scraper against the cylinder to remove the dough that may have stuck during the modeling process.

To clean the felts (belt) use a clean, rough sponge. The rest of the machine must be cleaned as many times as possible, to prevent the mass residues from drying out and sticking to the parts. Dilute soap or neutral detergent in warm water and apply with a soft cloth. With a cloth moistened with water, rinse and then dry the parts with a dry, soft cloth.

Never use abrasive products or sponges and substances that contain acids or chlorine to clean the metal parts, as they can scratch or damage the surface of the parts causing corrosion spots. Do not spill water on the engine and electrical parts for cleaning, otherwise, starting it may cause electric shock or even burn the machine.



# ATTENTION!

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

#### 5.2 Breakdown Maintenance and Procedures

The operator must be instructed to carry out routine inspections, making small adjustments, cleaning and observing signs of breakdowns that may occur. Examples include: checking for strange noises; loss of machine power; the non-execution by the machine to the proposed service; among others. Actions like these are indispensable to guarantee a longer machine life.



# When maintenance occurs (even small adjusts) disconnect the equipment from the electrical mains.

It is recommended that each 6 months be made preventive maintenance, checking and adjusting the loose, cleaning the internal parts, and others. Detecting broke parts or without the correct functionality the worker needs to exchange the parts, always using original parts only.

By carrying out preventive maintenance, the inconvenience of having the machine stopped when it is most needed is eliminated, the cost of maintenance is reduced and the risk of accidents is reduced.

#### • Procedure for adjusting the felt (belt):

Before adjusting the felts, check that the machine is disconnected from the mains and always use appropriate tools for disassembly and assembly of the parts mentioned below.

1. <u>Conveyor Belt:</u> Adjust the proper tension of the felt, threading or unscrewing the screw located on the belt tensioner (front of the machine);



2. <u>Upper Felt</u>: Remove the screws that secure the side guards. Loosen the upper nuts located on both sides of the machine (as shown in the image below), and adjust the felt tension by pushing the cylinder axis up or down. After adjustment, tighten the nut to fix the axis, ensuring its adjustment with the machine on;



3. <u>Lower Felt</u>: Repeat the operation of adjusting the upper felt (as instructed above), but adjusting through the lower nuts.



Lower Nut

After completing all adjustments, the side guards must be fixed again with the screws, ensuring the safety of the operator when using the machine

# ATTENTION!

The preventive maintenance must be made by a capacity person.

Make sure that the equipment be disconnected from the electrical mains.

Always that some item referred to safety be removed from the equipment (for example, for cleaning or maintenance), replace it in place and confirm that it is performing its function correctly.

Detecting broke parts or without the correct functionality, please contact the nearest authorized service center.

## **6. ANNEXES**



Electrical Schematic - Voltage 110 V or 220 V / Frequency: 60 Hz

<u>ATTENTION:</u> The ground connection varies depending on the type of plug. For the electrical installation, observe the current regulations in the country, especially with regard to the earth connection (if applicable).



#### NOTE: In the above Electrical Schematic, white wires are represented by pink.

**<u>ATTENTION</u>**: The ground connection varies depending on the type of plug. For the electrical installation, observe the current regulations in the country, especially with regard to the earth connection (if applicable).



## **Exploded View Drawing**









## **Spare Parts**

Position	Code	Description	Quant.
1	CVT039	Upper Feet	01
2	CJT916	Left Side Assembled	01
3	ARL004	Flat Washer	58
4	EIX147	Side Spacer Axis	03
5	CJT915	Right Side Assembled	01
6	ESC021	Right Belt Stretcher	01
7	ESC022	Left Belt Stretcher	01
8	ROL050	Bearing	01
9	ROL022	Bearing	01
10	CIL022	Lower Laminating Cylinder	01
11	CIL018	Upper Laminating Cylinder	01
12	CIL019	Felt Conductor Cylinder	02
13	CIL020	Felt Stretcher Cylinder	02
14	CIL021	Belt Stretcher Cylinder	01
15	PRS341	Hexagon Screw	02
16	ARL005	Flat Washer	04
17	PRS010	Hexagon Screw	14
18	POS005	Hexagon Nut	26
19	EIX153	Central Axis	01
20	APE004	Retention Ring	13
21	EIX154	Belt Conductor Axis	01
22	APE009	Retention Ring	05
23	EIX157	Articulator Axis	01
24	EIX158	Protection and Guiding Axis	01
25	EIX156	Moved Upper Felt Axis	01
26	EIX155	Moved Lower Felt Axis	01
27	POL041	Machine Pulley	01
28	TRV030	Lock	01
29	CJT921	Left Bearing Set Upper Cylinder Laminator	01
30	BIL001	Connecting Rod	02
31	ART005	Left Articulator	01
32	CJT1079	Chain Tensioner Set	02
33	APE005	Retention Ring	02
34	ARL001	Flat Washer	02
35	ARL003	Flat Washer	03
36	MOL029	Stretcher Rigid Spring	02
37	CJT919	Mounted Gears Set	01
38	EGG040	Gear	01
39	ART004	Right Articulator	01
40	CJT920	Right Bearing Set Upper Cylinder Laminator	01
41	SBT326	Motor Support	01
42	PRS328	Stainless Steel Hexagon Screw	02
43	PMT015	Motor Pulley	01
44	CRC700	Front Cover	01

## **Spare Parts**

Position	Code	Description	Quant.
45	COR015	Belt	01
46	PRS019	Hexagon Screw	01
47	POS004	Hexagon Nut	02
48	PRR015	Round Machine Screw	02
49	PRR005	Round Machine Screw	03
50	EGG039	Cube Welded Gear	02
51	CJT454	Dough Scraper	01
52	BDJ019	Tray	02
53	TCE073	Cable gland	01
54	MTE206	Electric Motor 0,5 HP 60 Hz 110 V	01
54	MTE207	Electric Motor 0,5 HP 60 Hz 220 V	01
54	MTE003	Electric Motor 0,5 HP 50 Hz 220 V	01
55	EIX160	Stretcher Spacer Axis	01
56	PTC053	Belt Protection	01
57	CHE016	General Switch	01
58	CNT024	Contactor 110 V 50/60 Hz	01
58	CNT019	Contactor 220 V 50/60 Hz	01
59	PRR017	Stainless Steel Round Machine Screw	02
60	EGG038	Gear	01
61	PRA008	Hexagonal Drill Screw	23
62	CRT006	Belt	01
63	CRT007	Belt	01
64	CRT005	Belt	01
65	CBE001	Electric Cable Type 4 - MPC110M60S4	01
65	CBE058	Electric Cable Type 1 – MPC220M50S1	01
65	CBE029	Electric Cable Type 2 – MPC220M50S2	01
65	CBE272	Electric Cable Type 3 – MPC220M50S3	01
65	CBE030	Electric Cable Type 4 – MPC220M50S4 MPC220M60S4	01
65	CBE179	Electric Cable Type 7 – MPC220M50S7	01
65	CBE282	Electric Cable Type 8 – MPC220M50S8	01
66	PRN001	Screw Allen S/C	07
67	PRN003	Screw Allen S/C	10
68	ARL002	Flat Washer	02
69	PRS002	Hexagon Screw	02
70	POS003	Hexagon Nut	04
71	CJT464	Cylinder Regulating Rod	01
72	PRS014	Hexagon Screw	01
73	CRC727	Level Cursor	01
74	CJT466	Right Side Protection	01
75	PRR021	Round Machine Screw	01
76	PRR019	Round Machine Screw	01
77	CRC600	Button Fixing Plate	01
78	BOT002	On / Off Button	01
79	BOT003	Emergency Button	01

## **Spare Parts**

Position	Code	Description	Quant.
80	BCH036	Round Cover	01
81	CRC098	Left Side Protection	01
82	PRS004	Hexagon Screw	08
83	GIA093	Mass Director	01
84	EST006	Modeling Felt 285x400 mm	01
85	EST005	Modeling Felt 285x410 mm	02
86	SUD022	Dotted Sensor Support	1
87	POS006	Hexagon Nut	2
88	CRC728	Sensor Wire Clamp	1
89	PCC002	Cylindrical Head Screw	2
90	POS008	Hexagon Nut	4
91	CHE094	Cylindrical Sensor	1
92	MOL026	Scraper Left Spring	1
93	SBT132	Actuator Support	1
94	CHE059	Actuator	1
95	PCC006	Stainless Steel Cylindrical Head Screw	2
96	MOL009	Stretcher Spring	3
97	PNL006	Elastic Pin	5
98	CVT038	Lower Easel	01
98.1	LTR031	Left Side Structure	01
98.2	ARL004	Flat Washer 1/4"	16
98.3	PRS010	Hexagon Screw 1/4" x 5/8"	08
98.4	POS005	Hexagon Nut ¼"	08
98.5	CAN119	Lower Cross Angle	02
98.6	LTR030	Right Side Structure	01
98.7	PRS016	Hexagon Screw	06
98.8	ROD007	Fixed Wheel	02
98.9	PEP019	Non-slip Foot	02
99	PRS343	Hexagon Screw	04
100	PRS026	Hexagon Screw	06
101	AMP005	Tray Lock	02
102	BGT012	Connecting Rod Bushing	02
103	CJT918	Gear Mounted Set	01
104	CJT917	Gear Mounted Set	01
105	BGT090	Connecting Rod Bushing	04
106	TRS050	Flat Rail	0,06 m
107	RBT016	Rivet	02
108	CBE033	Flexible Cable	0,5m
109	CBE130	PP Electric Cable Without Plug	1m
110	CBE148	Interrupt Extender	1
111	TCE004	Terminal FIT	05
112	TCE033	Splice Terminal	02
113	TCE013	Female Terminal	01

# IMG BRASIL PRODUCT MANUFACTURER





## IMG-BRASIL Gastronomy Machinery Industry Ltda.

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