



HOPPER MLDP

OPERATION'S MANUAL



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GENERAL SAFETY INSTRUCTIONS

WARNING: To reduce the risk of injury, read all instructions properly. Failure to follow the instructions listed below can cause electric shock, fire, serious injuries, mutilation and/or damage to the equipment.

A. SAFETY IN THE WORK AREA.

- * Keep the work area clean and lit. Crowded or dark areas lead to accidents.
- * Do not operate the equipment without first checking all gas connections with soapy water, to ensure that there are no leaks that could cause an explosion.
- * Keep children, customers and non-company personnel away from the electrical and mechanical operation area of the equipment.
- * It is recommended to have a minimum space of one meter or three feet around the machine for safety measure and to optimize work.

B. ELECTRICAL SAFETY.

- * Machinery connections must be adapted to the power outlets.
- * Do not use adapters for switches as there is a risk of receiving an electric shock.
- * Do not expose the switches and / or electrical connections to rain or humidity. If water enters these elements, there is a risk that they will break down or suffer an electric shock.
- * Use cable in a single piece, if there are joints in the connections these can produce a short circuit.
- * Do not expose cables or electrical connections to heat, oil, sharp edges, or moving parts, as damaged cables can cause electric shock or short circuit.

C. PERSONAL SAFETY

- * Do not operate the equipment if you are tired, under the influence of alcohol or drugs.
- * Wear appropriate clothing, do not wear loose clothing, or necklaces, earrings, watches, if you have long hair wear a tie to keep it up.
- * Do not climb on the structure of the machine for any reason, falls or injuries may occur.
- * Avoid using headphones, cell phones or any other equipment that works as a distraction to the operator.
- * Make correct use of personal protective equipment if any maintenance is to be carried out on the machine.
- * If any change is made to the model or component of the equipment, be it electrical, mechanical or gas related, it must be de-energized, cut off the gas supply and stop the machine completely to avoid accidents.
- * Keep limbs away from all moving parts.

CAUTION

The following symbols indicate the safety measures that must be taken before and after starting up the equipment.



HOT HAZARD Some parts of the machine are hot while in operation.



TAKE CARE OF YOUR HANDS Hands should not be inserted while the machine is working.



ELECTRICAL RISK In which you can suffer electric shocks if you do not comply with the electrical safety provisions.



GEAR RISK Keep your hands away from the chains and gears of the machine.



DO NOT COVER THE BARREL'S AIR INTAKE. Keep your hands away from the air inlet of the barrel.



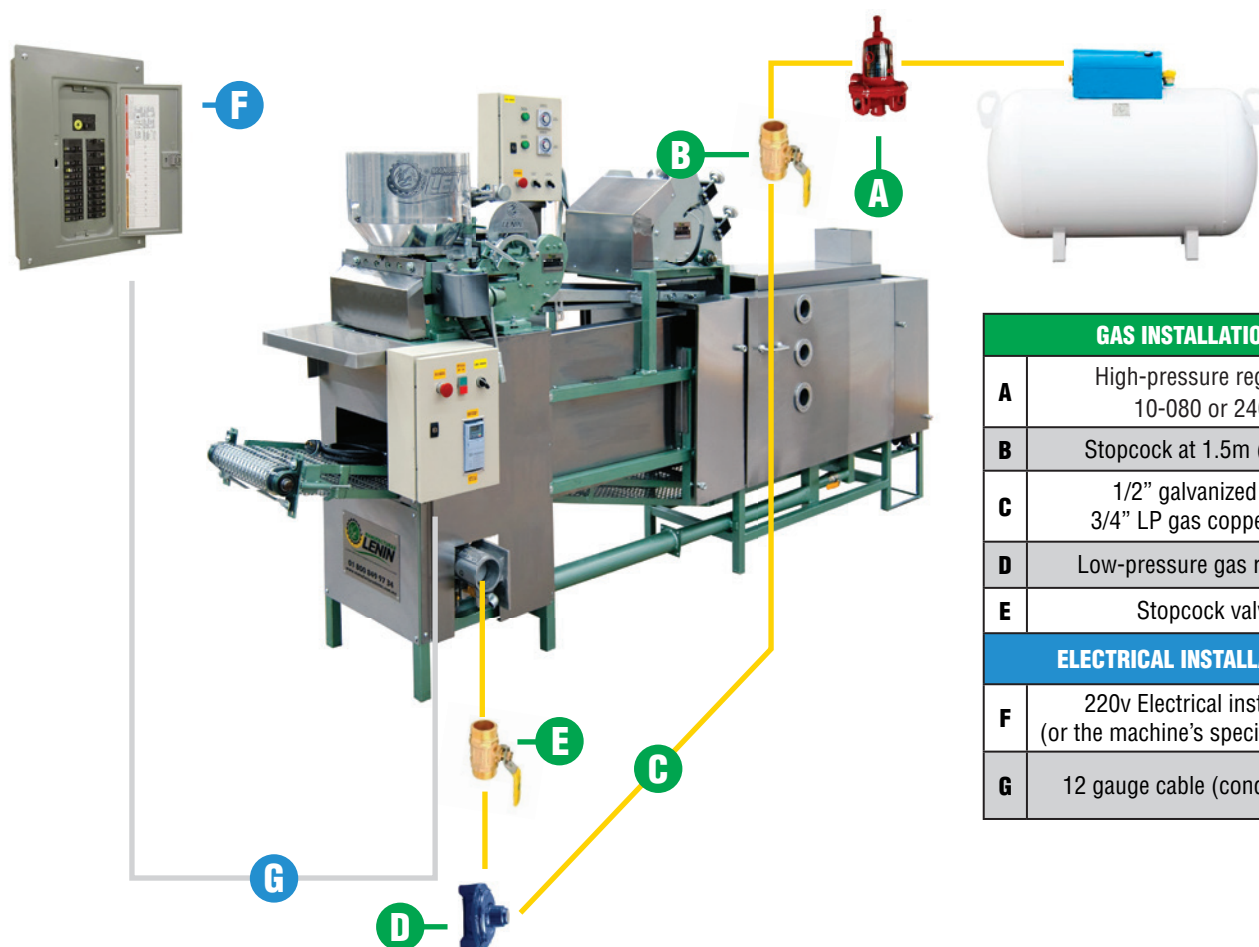
CRUSHING HAZARD Keep hands away from the cam press when be in operation.

GAS AND ELECTRICAL INSTALLATION

At the outlet of the gas tank, a high-pressure regulator must be installed, with a manometer, to verify the correct supply pressure. The pipe used for the connection is $\frac{1}{2}$ " in diameter, either L-type copper or tube. 40 caliber black. The length of the pipe should not exceed 10 meters, from the outlet of the gas tank.

A union nut must be installed between the stopcock and the low-pressure regulator.

Check that the electrical connection is 220v. No short circuits, no loose or bare wires.

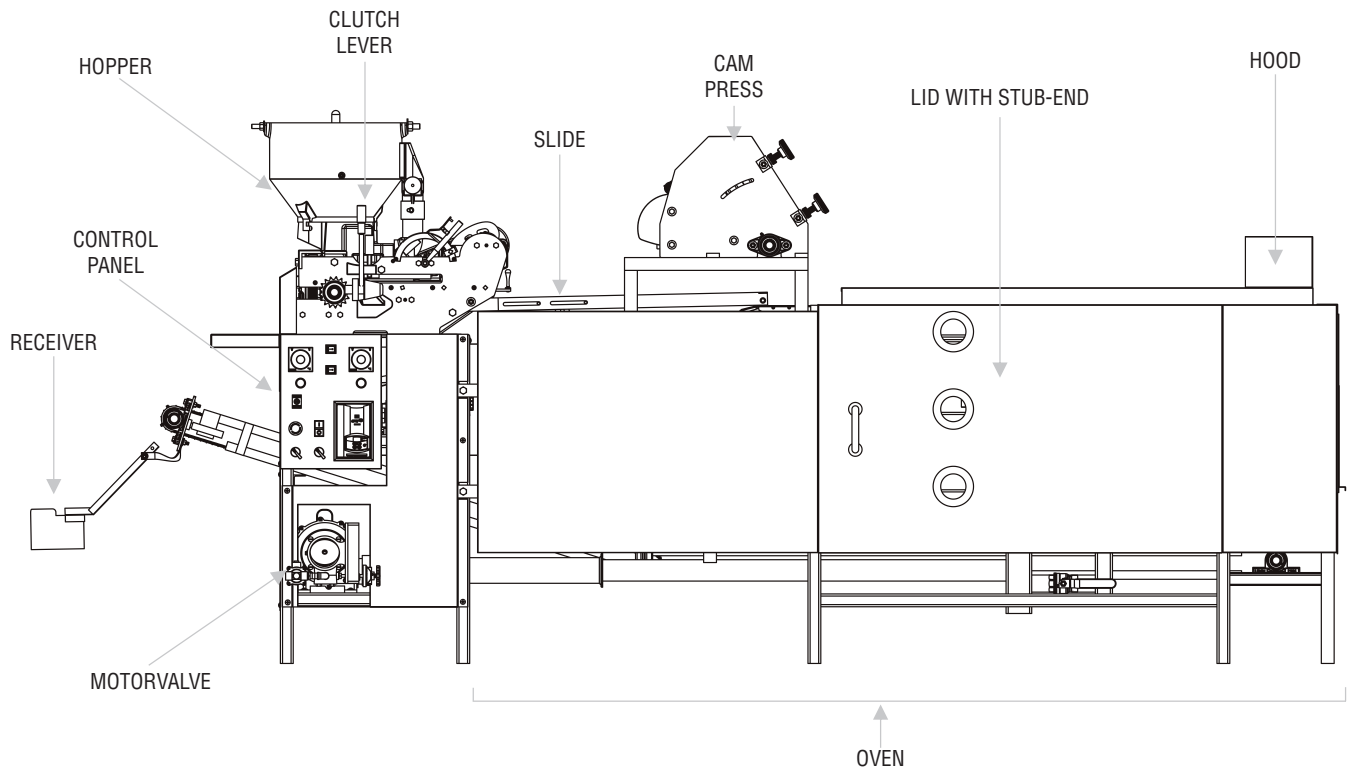


GAS INSTALLATION	
A	High-pressure regulator 10-080 or 2403
B	Stopcock at 1.5m (height)
C	$\frac{1}{2}$ " galvanized pipe $\frac{3}{4}$ " LP gas copper pipe.
D	Low-pressure gas regulator
E	Stopcock valve
ELECTRICAL INSTALLATION	
F	220v Electrical installation (or the machine's specified voltage)
G	12 gauge cable (conduit cable)

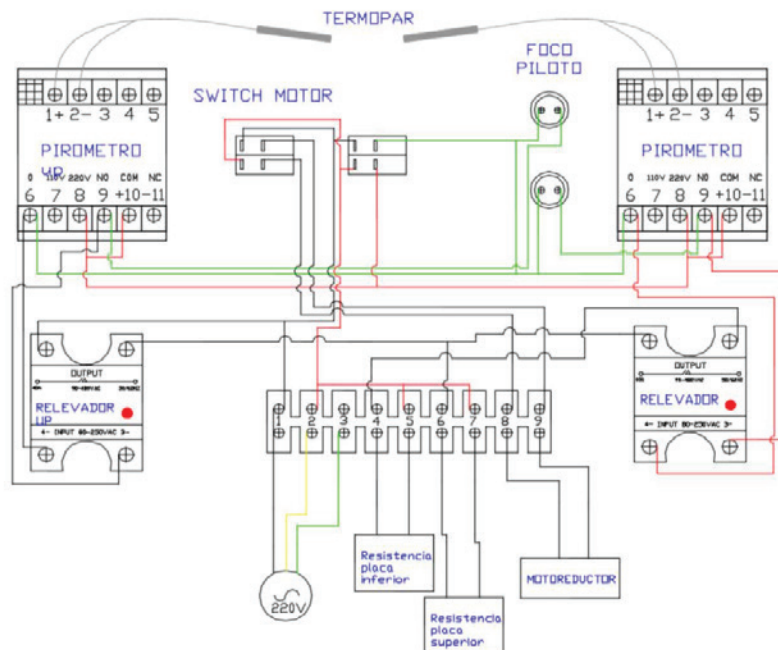
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COMPONENTS



WIRING DIAGRAM CAM PRESS



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1

Connect to electrical outlet.



2

Connect stopcock to carburettor valve inlet.



3

Connect gas hose to stopcock.



4

Turn knob to energize electrical components.



5

Press the ON (green) button of the speed drive.



6

Modify the working speed of the metal bands by pressing the speed drive buttons.

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WHEAT FLOUR TORTILLA



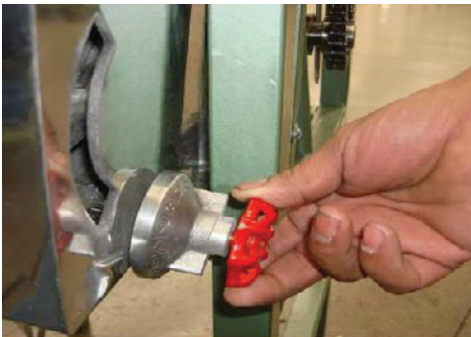
7

Close the third level stopcock of the oven.



8

Press the ON button (green) to activate the valve motor.



9

Check that the carburettor tap is in the 0 position.



10

Open stopcock to dispense gas to the oven.



11

Turn on the nozzles and start carburetion.



12

Let the griddle heat up.

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13

Rotate temperature control knob.



14

Verify that the pyrometers are in the 0°C position.



15

Turn upper pyrometer to 140°C and lower to 160°C.



16

Start press motor by pressing ON button (green).



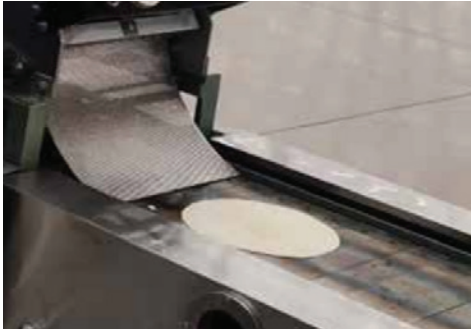
17

Take wheat dough.



18

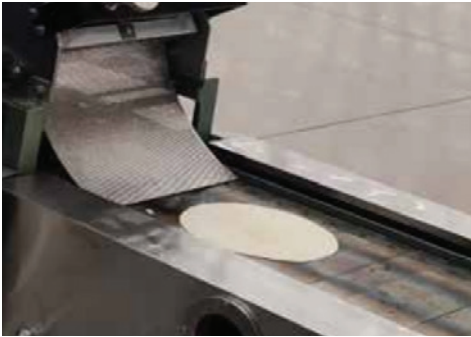
Place dough in cam press.



19 Check the shape and thickness of the tortilla.



20 Check heating, shape, and roundness of the tortilla at the exit of the oven.



21 Begin production of tortillas.



22 Tortilla thickness adjustment by turning the knobs:

Rotate counterclockwise
to get thinner tortillas

Turn clockwise for thicker tortillas

CORN TORTILLA



23

Open oven's third level gas duct.



24

Introduce cutter in the head.



25

Feed the hopper with dough.



26

Raise clutch lever.



27

Adjust the thickness of the tortilla with the ratchet.

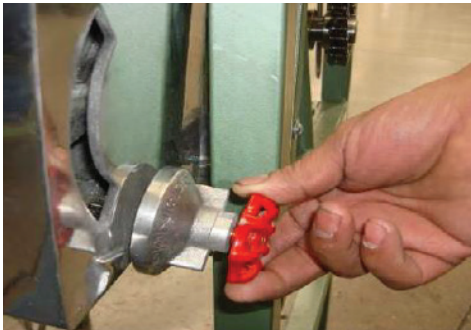


28

Adjust the roundness of the tortilla with the tab.

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29

Check that the carburettor tap is in the 0 position.



30

Open stopcock to supply gas to the oven.



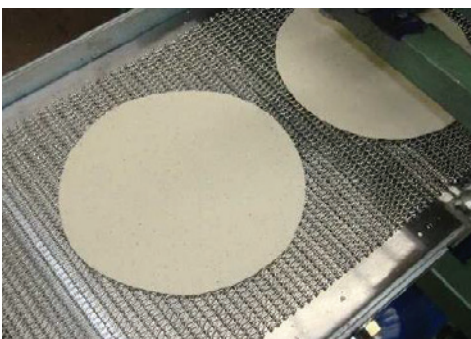
31

Turn on the nozzles and start carburetion.



32

Let the griddle heat up.



33

Check the shape and thickness of the tortilla.



34

Verify uniform heating, shape, and roundness of the tortilla at the exit of the oven.

HOPPER DISASSEMBLY



35

Rotate assembled auger counterclockwise to release bolts and remove auger from hopper.



36

Lower the recirculation tube coupling and remove the pressure chamber.



37

Turn the bolts counterclockwise and remove the hopper.



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38

Remove machine ends (listed and identified on the base) and remove the cutter.



39

MLDP head components:
Hopper, 4 augers, pressure chamber, coupling,
profiler, hopper auger, and tab.

CLEANING PROCEDURE

WARNING: The cleaning of the base and the hopper must be carried out with the machine completely stopped to avoid accidents.

CLEANING OF THE PRESS

1. Remove excess dough on both aluminum plates.
2. Clean the plates with water, moistening a cloth and gently wiping the aluminum plates.
3. Carry out this action until the plates are free of any residue of flour or dough.
4. Clean control panel, sides, sheets, motor and keypads.

HOPPER CLEANING

- 1) Remove the dough residue in the hopper by hand.
- 2) Disassemble hopper (step 37-41).
- 3) Remove the auger mass, pressure chamber, base and cutter.
- 4) Wash components removing all the mass.
- 5) Dry components and reinstall them to the head.

MAINTENANCE

Clean the machine before and after using it.

The duration of the spare parts will depend on the preventive maintenance and care taken to the machine.

The more frequently this maintenance is done, the parts will have a longer life.

LUBRICATION

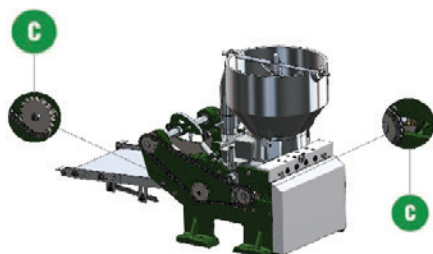
The following table shows the parts, the type of lubricant and the frequency with which the machines and their parts must be lubricated.

PART	LUBRICANT	PERIOD
Chain	SAE 40 Oil	3 times per week
Reducer	SAE 80/90 Oil	Every 3 months or 1,000 working hours
Bearings	BAT3 Grease	Every 3 days
Griddle hinges	Graphite	When the machine grinds
Gears	BAT3 Grease	Every week

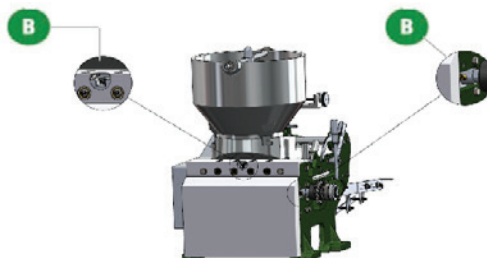
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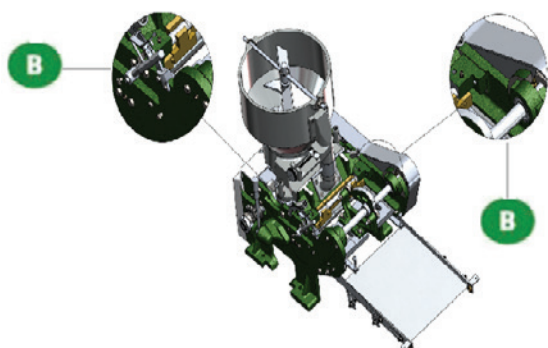
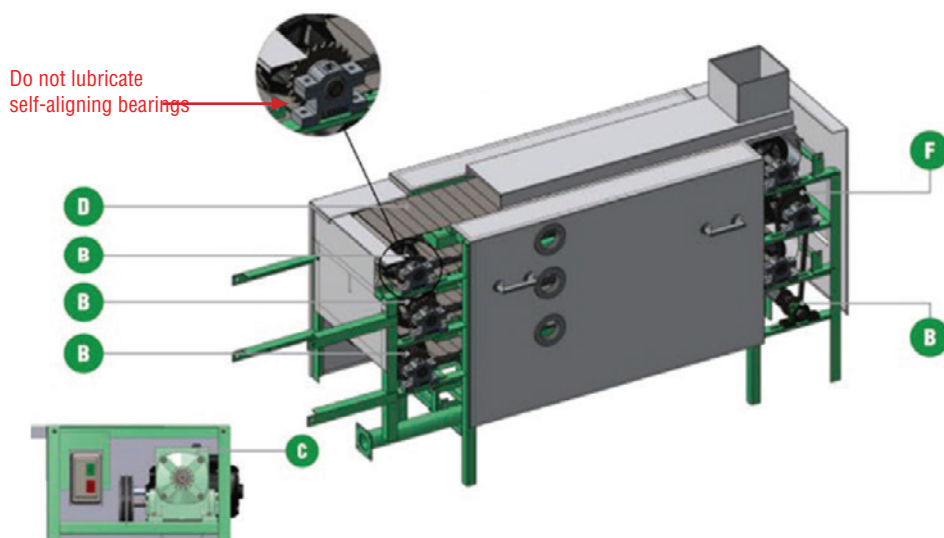
The following figures show the schematic location of the parts that require lubrication.



Lubricate gears with BAT3 grease (B) and chain with SAE 40 Oil (F)



Inject lubricant into these holes



The following table shows the type of lubricant to put in all parts of the machine.



(A) Edible oil
(B) BAT3 Grease
(C) SAE 80/90 Oil
(D) Graphite
(F) SAE 40 Oil

It is recommended to change oil according to its use:
 0-4 hours daily - change every 3 months
 4-8 hours daily - change every 2 months

The used oil must be drained and 400 ml of new SAE 80/90 mineral oil must be added.



HEADQUARTERS

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