

# Champion<sup>®</sup>

## *Installation, Operation and Cleaning Manual*

### FWDD Food Waste Dry Disposal System

Model:  
100-ML Dehydrator



Issue Date: 11.7.14

**Manual P/N 115521 rev. \_\_**

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For future reference, record your service information in the box below.

Service Agent _____	Tel: _____
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**ATTENTION:**

The model no., serial no., voltage, Hz and phase are needed to identify your machine and to answer questions.

The machine data plate is located on the left side of the machine.

Please have this information ready if you call for service assistance.



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## **REGISTER YOUR PRODUCT ONLINE**

*Make sure you are connected to the internet then enter an address below:*

**In the U.S.A.**

**<http://www.championindustries.com/register>**

**In Canada**

**<http://www.championindustries.com/canada/register>**

# Champion®

The Dishwashing Machine Specialists

## PRODUCT REGISTRATION BY FAX

**COMPLETE THIS FORM AND FAX TO:**

**(336) 661-1660 in the USA**

**1-(800) 204-0109 in Canada**

Cut along this line

### PRODUCT REGISTRATION CARD

Model	Serial #
-------	----------

Date of Installation: \_\_\_/\_\_\_/\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_ (Street) \_\_\_\_\_ Province \_\_\_\_\_ Postal Code

Telephone #: ( ) \_\_\_\_\_ --- \_\_\_\_\_

Contact: \_\_\_\_\_

Installation Company: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone #: \_\_\_\_\_

Contact: \_\_\_\_\_

**FAILURE TO REGISTER YOUR PRODUCT MAY VOID YOUR WARRANTY**

**IMPORTANT IMPORTANT**

## Revision History

A revision might be a part number change, a new instruction, or other information that was not available at print time. We reserve the right to make changes to these instructions without notice and without incurring any liability by making the changes. Equipment owners may request a revised manual, at no charge, by calling 1 (800) 858-4477 in the USA or by calling 1 (800) 263-5798 in Canada.

<b>Revision Date</b>	<b>Revised Pages</b>	<b>Serial Number Effectivity</b>	<b>Revision Description</b>
11.7.14	All	Engineered Systems	Released First Edition

**LIMITED WARRANTY**

Champion Industries Inc. (herein referred to as Champion), 3765 Champion Blvd., Winston-Salem, North Carolina 27105, and P.O. Box 301, 2674 N. Service Road, Jordan Station, Canada, L0R 1S0, warrants machines, and parts, as set out below.

**Warranty of Machines:** Champion warrants all new machines of its manufacture bearing the name "Champion" and installed within the United States and Canada to be free from defects in material and workmanship for a period of one (1) year after the date of installation or fifteen (15) months after the date of shipment by Champion, whichever occurs first. [See below for special provisions relating to glasswashers.] Warranty registration must be submitted to Champion within ten (10) days after installation either online on the Champion Industries website (<http://www.championindustries.com/register>) in the USA or

<http://www.championindustries.com/canada/register> in Canada or by fax on the form provided at the front of this manual. If warranty registration is not returned to Champion within such period, the warranty will expire after one year from the date of shipment. Champion will not assume any responsibility for extra costs for installation in any area where there are jurisdictional problems with local trades or unions. If a defect in workmanship or material is found to exist within the warranty period, Champion, at its election, will either repair or replace the defective machine or accept return of the machine for full credit; provided; however, as to glasswashers, Champion's obligation with respect to labor associated with any repairs shall end (a) 120 days after shipment, or (b) 90 days after installation, whichever occurs first. In the event that Champion elects to repair, the labor and work to be performed in connection with the warranty shall be done during regular working hours by a Champion authorized service technician. Defective parts become the property of Champion. Use of replacement parts not authorized by Champion will relieve Champion of all further liability in connection with its warranty. In no event will Champion's warranty obligation exceed Champion's charge for the machine. The following are not covered by Champion's warranty:

- a. Lighting of gas pilots or burners.
- b. Cleaning of gas lines.
- c. Replacement of fuses or resetting of overload breakers.
- d. Adjustment of thermostats.
- e. Adjustment of clutches.
- f. Opening or closing of utility supply valves or switching of electrical supply current.
- g. Cleaning of valves, strainers, screens, nozzles, or spray pipes.
- h. Performance of regular maintenance and cleaning as outlined in operator's guide.
- i. Damages resulting from water conditions, accidents, alterations, improper use, abuse, tampering, improper installation, or failure to follow maintenance and operation procedures.
- j. Wear on Pulper cutter blocks, pulse vanes, and auger brush.

Examples of the defects not covered by warranty include, but are not limited to: (1) Damage to the exterior or interior finish as a result of the above, (2) Use with utility service other than that designated on the rating plate, (3) Improper connection to utility service, (4) Inadequate or excessive water pressure, (5) Corrosion from chemicals dispensed in excess of recommended concentrations, (6) Failure of electrical components due to connection of chemical dispensing equipment installed by others, (7) Leaks or damage resulting from such leaks caused by the installer, including those at machine table connections or by connection of chemical dispensing equipment installed by others, (8) Failure to comply with local building codes, (9) Damage caused by labor dispute.

**Warranty of Parts:** Champion warrants all new machine parts produced or authorized by Champion to be free from defects in material and workmanship for a period of 90 days from date of invoice. If any defect in material and workmanship is found to exist within the warranty period Champion will replace the defective part without charge.

**DISCLAIMER OF WARRANTIES AND LIMITATIONS OF LIABILITY. CHAMPION'S WARRANTY IS ONLY TO THE EXTENT REFLECTED ABOVE. CHAMPION MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED, TO ANY WARRANTY OF MERCHANTABILITY, OR FITNESS OF PURPOSE. CHAMPION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE REMEDIES SET OUT ABOVE ARE THE EXCLUSIVE REMEDIES FOR ANY DEFECTS FOUND TO EXIST IN CHAMPION DISHWASHING MACHINES AND CHAMPION PARTS, AND ALL OTHER REMEDIES ARE EXCLUDED, INCLUDING ANY LIABILITY FOR INCIDENTALS OR CONSEQUENTIAL DAMAGES.**

Champion does not authorize any other person, including persons who deal in Champion dishwashing machines to change this warranty or create any other obligation in connection with Champion Dishwashing Machines.

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## ***Safety Statement***

This manual contains detailed safety information for the operation of the Model 100-ML food waste dehydrator. All users of this machine must read and understand the instructions contained in this manual before operating the machine.

Under no circumstances is the electrical wiring or any electrical control circuit to be altered or modified on the machine. Only a Champion authorized service company is granted permission to service the machine.

DO NOT remove any covers, guards, or panels attached to the machine without the expressed consent from Champion Industries or its authorized representative. DO NOT operate the machine or touch any part of the machine, including the power cord or other electrical component when the hands are wet.

Only connect the power cord from the machine to a grounded electrical outlet of the correct voltage for the machine. DO NOT use multiple outlet adapters to connect additional equipment to the machine power supply. DO NOT use extension cords to plug the machine power cord to the electrical supply. DO NOT scratch, rub, heat, twist, bend, pull or damage the machine power cord. DO NOT place heavy or sharp objects on the power cord. DO NOT use the machine if any damage to the power cord is found, including exposed or damaged conductors. Should any of the above conditions be found to exist, immediately disconnect power to the machine at the main circuit breaker or service disconnect switch.

DO NOT use the machine if it becomes excessively hot, emits unusual odors or smoke, or makes any strange noise. Immediately disconnect power to the machine at the main circuit breaker or service disconnect switch if any of these conditions exist.

Failure to comply with any of the information above could result in electrical shock, serious personal injury, death, damage to the equipment and the installation site.

Immediately contact a supervisor whenever a trouble situation is suspected.

### **! VERY IMPORTANT !**

The installation of this equipment must be performed by qualified service personnel familiar with foodservice equipment. Problems due to improper installation are not covered by the Limited Warranty.

The installation must comply with all local electrical, plumbing, health and safety codes or in the absence of local codes, installed in accordance with the applicable requirements in the National Electrical Code, NFPA 70, Canadian Electrical Code (CEC), Part 1, CSA C22.1; and the Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, NFPA 96.



## Safety and Information Symbols

The following symbols appear throughout this manual to alert the reader to potential hazards, and important information for the operation and maintenance of the equipment.



**WARNING:**

Warning statements indicate any condition or practice that could result in serious personal injury or death.



**CAUTION:**

Caution statements indicate any condition or practice that could result in damage to the equipment.



**NOTE:**

Note statements provide tips and/or highlight important facts to assist in the performance of a procedure.



This symbol highlights an important procedure that must be followed exactly.



This symbol highlights a procedure that must not be performed.

## ***Food Waste Dry Disposal (FWDD) System Description***

The FWDD Model 100-ML processes all organic waste including fruits, vegetables, pineapples, beans, rice, meats, fish and poultry with small bones. It will process unwaxed cardboard, paper, paper products or napkins up to 25-30% of the total batch load. It will process rice, bread, pasta and unbaked dough up to 30% of a batch load; but, these foods will create a residue build-up that requires a special cleaning procedure by the operator.

The following items are prohibited: Large beef nor pork bones, seashells nor invertebrates, whole coconuts, metal cans, knives, forks, or spoons, plastic bottles, bottle caps, rags, used oil from fryers, grease from grease traps. Oil and grease will not dehydrate and will remain in the machine after processing.

The Model 100-ML is a batch processor which means that the machine must not be opened during a cycle. Processing times will vary because some food wastes that consist primarily of water such as watermelons or tomatoes will take longer to dehydrate than drier loads consisting of paper or cooked food scraps.

The maximum load for the Model 100-ML is 121lbs./55Kg per batch. The average cycle time is between 9-12 hours. Average weight/volume reductions are 80-90% which may produce up to 11-12 US gallons of condensate water per 100 lbs./45 Kg. of waste. This will vary depending on the type of waste.

Food and organic waste is placed in the dehydrator through an easy access top loading door. A push button switch starts the processing; the waste is macerated by a rotating arm to reduce volume as a reverse cycle heating system dries and dewateres it. The processing is automatic with the machine turning itself off at the end of a cycle. The operator removes the dried organic material from the machine via a dispensing chute on the lower front of the machine.



*FWDD System  
Model 100-ML*

## Receiving

1. Upon receipt, check for signs of shipping damage to the shipping pallet, outer packaging and the machine. If the machine is damaged, save the packaging material and contact the carrier and the equipment dealer immediately.
2. Check the installation site electrical service and the machine electrical requirements immediately upon receipt of the machine. Report any discrepancy.
3. Check the shipping container for any accessories that may have shipped separately.



**TURN TO THE FRONT OF THIS MANUAL AND FOLLOW THE INSTRUCTIONS TO REGISTER YOUR PRODUCT ONLINE OR BY FAX.**



**CAUTION:**

Be careful when lifting and moving the dishwasher to prevent damage to the machine. The base of the machine is marked to indicate the fork lifting points.



## Placement



**CAUTION:**

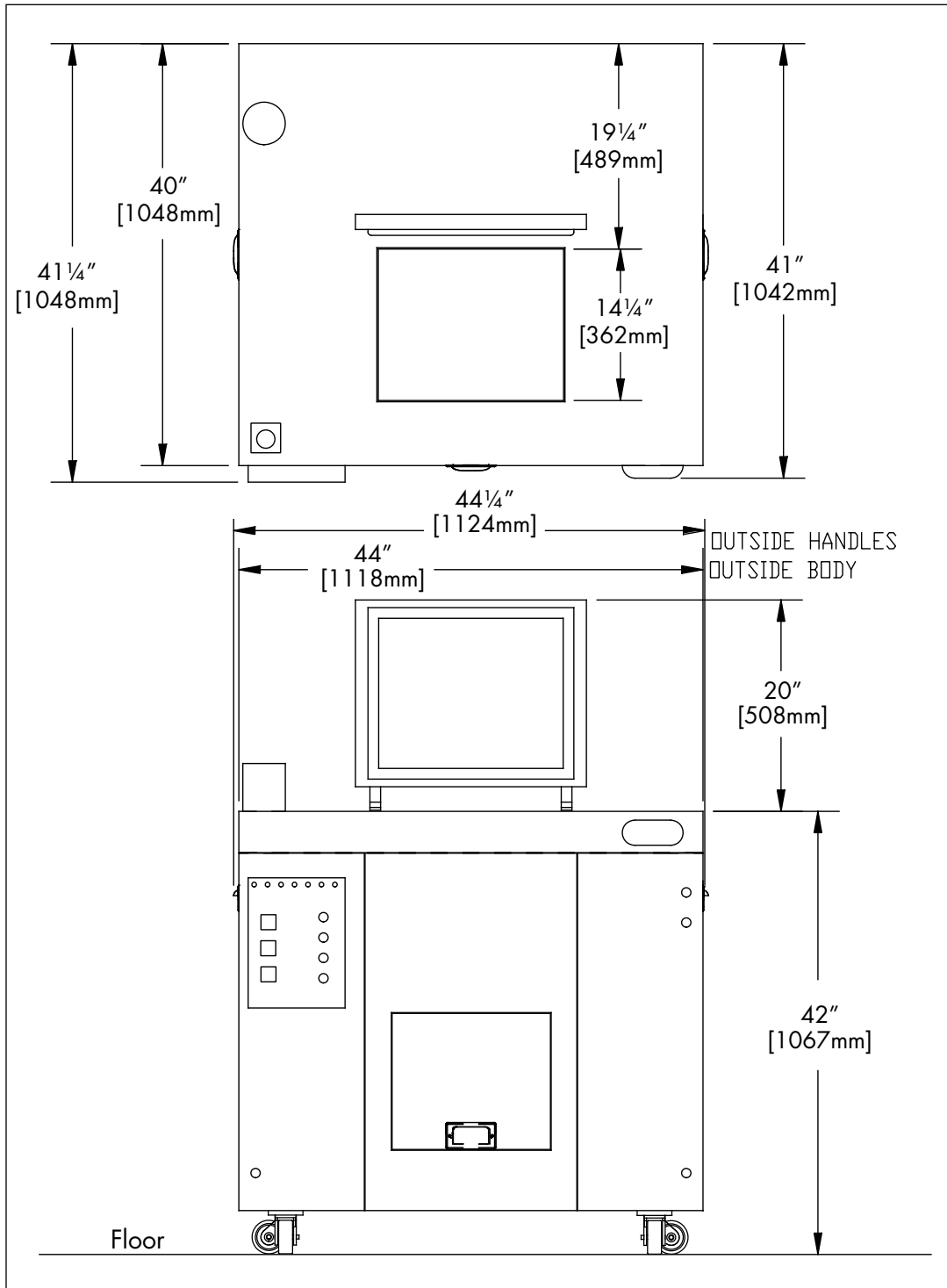
Plan the route the machine will travel to its final location. The machine may not pass through all passages or doors (see page 2 for machine dimensions).

1. Make sure the installation site is clean and free of debris.
2. The dehydrator will roll on its caster legs. The rollers retract into the legs when the legs are rotated to permanently set the machine.
3. Turn the legs to level the machine front-to-back and side-to-side.
4. Connect the utilities in accordance with all local electrical, plumbing, safety and sanitary codes and regulations.

*(continued on next page)*

**Placement** (continued)

Refer to the illustration below for the Model 100-ML Dehydrator dimensions.



*Model 100-ML Dehydrator Dimensions*

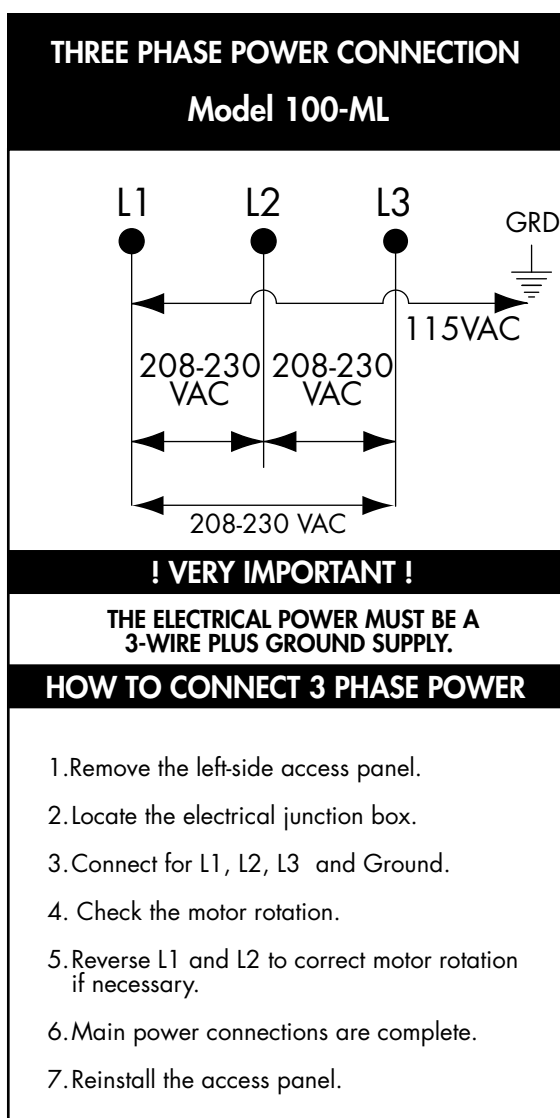
## Electrical Connection - 3PH Wiring Diagram



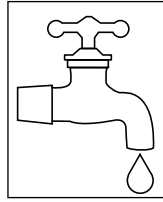
### WARNING:

Electrocution or serious injury may result when working on an energized circuit. Disconnect power at the main breaker or service disconnect switch before working on the circuit. Lock-out and tag the breaker or service disconnect switch to indicate that work is being performed on the circuit.

Refer to the connection diagram below to connect main incoming power to the machine.



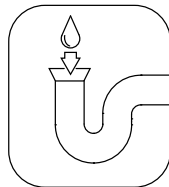
## Water Connection

**NOTE:**

All plumbing connections must comply with national, provincial and/or local plumbing and sanitary codes.

1. Connect a 5/8" NPT cold water supply to the machine. The connection point is located on the left rear corner of the machine.
2. It is recommended that a 3/4" or larger shut-off valve be installed in the main water supply, as close to the machine as possible for servicing.
3. A water hardness of 3 grains/gal (US) [51.3 mg/L] or less is recommended.

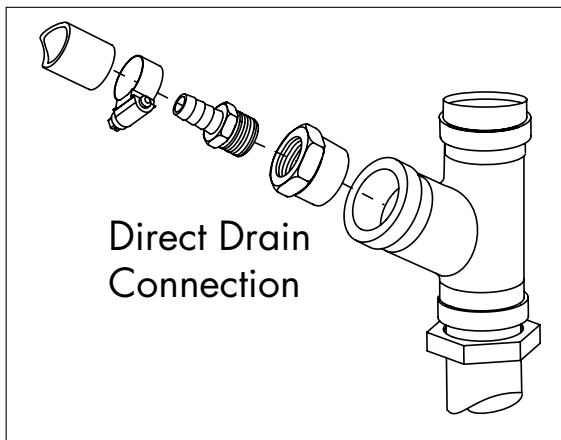
## Drain Connection



1. Connect a 1" NPT drain line to the machine. The connection point is located on the bottom left rear corner of the machine. The connection can be a direct or indirect drain.

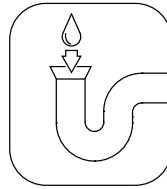
### For a Direct Drain Connection:

1. Connect the drain line to a 1-1/2" or larger vented "WYE" drain fitting.



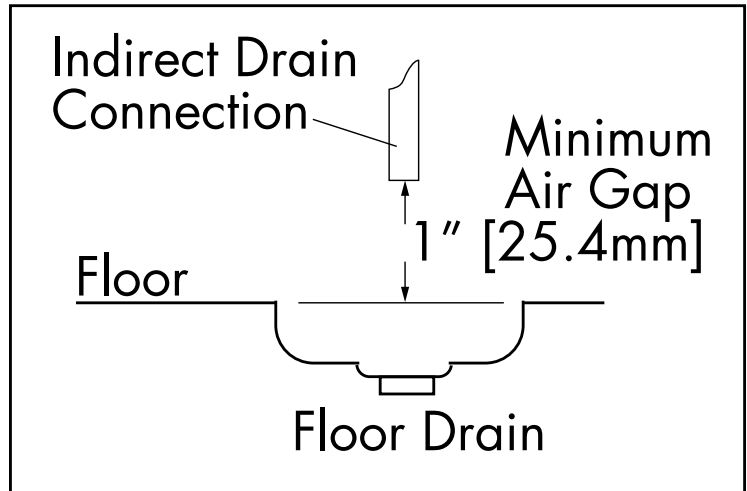
*(continued on next page)*

## Drain Connection *(continued)*

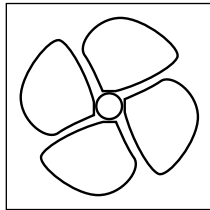


### For an Indirect Drain Connection:

1. A 1" [25.4 mm] minimum air gap must be provided between the outlet of the drain line and the flood-level rim of the floor drain, floor sink or any other locally approved drain receptacle.



## Ventilation



### NOTE:

There are no NO, NO<sub>2</sub>, CO<sub>2</sub> nor other fumes emitted from the machine. However, there may be a slight cooking odor, somewhat like baking bread or brewing coffee emanating around the machine. These odors are not toxic.



### NOTE:

All ventilation connections must comply with national, provincial, and/or local HVAC codes.

1. Provide sufficient ventilation in the room to remove any odors emanating for the machine.
2. DO NOT install the machine in an unventilated room.

## **Operation - Exterior Features**

Refer to Fig. 1 below which shows the machine exterior features.

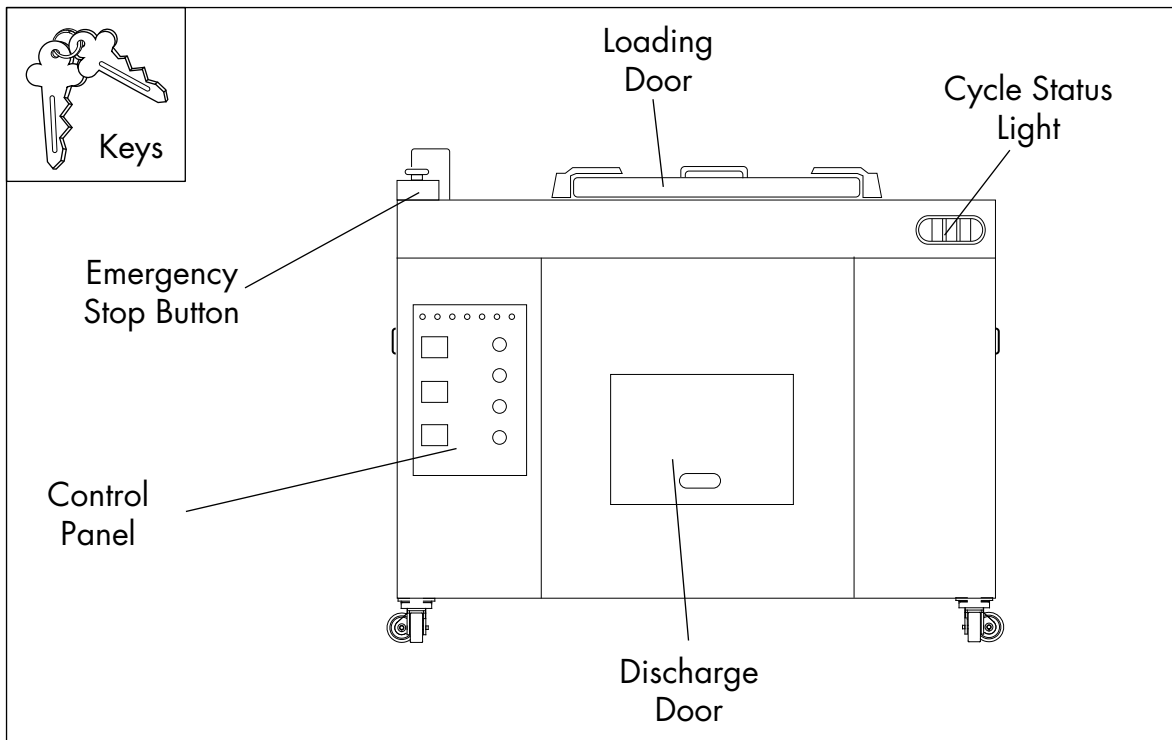
**Keys:** The control panel, emergency stop button and the loading door latch handles are equipped with security locks. The emergency stop button locks automatically when pushed and can only be unlocked with the operator key.

**Emergency Stop Button:** Pressing the emergency stop button immediately stops the machine and activates the red indicator on the cycle status light. The button must be unlocked before the machine will operate again.

**Loading Door:** The loading door provides access to load waste into the processing chamber. The door is secured by two locking latches. The door is equipped with gas-operated struts for easy opening and closing.

**Cycle Status Light:** The cycle status light provides a visual indication of the machine cycle whenever the machine power is on. A green light means the machine is in cycle, yellow means the cycle has ended, and red means the machine has stopped due to an operator function, an emergency or a system error.

**Discharge Door:** The discharge door provides access to the processing chamber to unload the dehydrated waste material at the end of a machine cycle.



*Figure 1 - Model 100-ML Exterior Components*



## Operation - Interior Features

Refer to Fig. 2 below which shows the machine interior features.

**Processing Chamber:** The chamber holds the waste product as it is macerated, dewatered and dehydrated.

**Rotating Mixing Arm:** The mixing arm macerates the waste and reduces waste volume during processing.

**Maximum Liquid Only Level:** The dashed line indicates axis of the mixing arm shaft and the highest level permitted when only liquids are loaded into the processing chamber. Examples of liquid only loads are yogurts, milk and water.

**Maximum Mixed Waste Level:** The dashed line indicates the point just under the mixing arm paddles when they are at the top of the shaft axis. Examples of mixed waste are a combination of paper, vegetables, meat, and liquid. Loading to the maximum mixed waste level is appropriate if scales are not available to weigh waste to the maximum permitted load of 121 lbs./55 Kg..

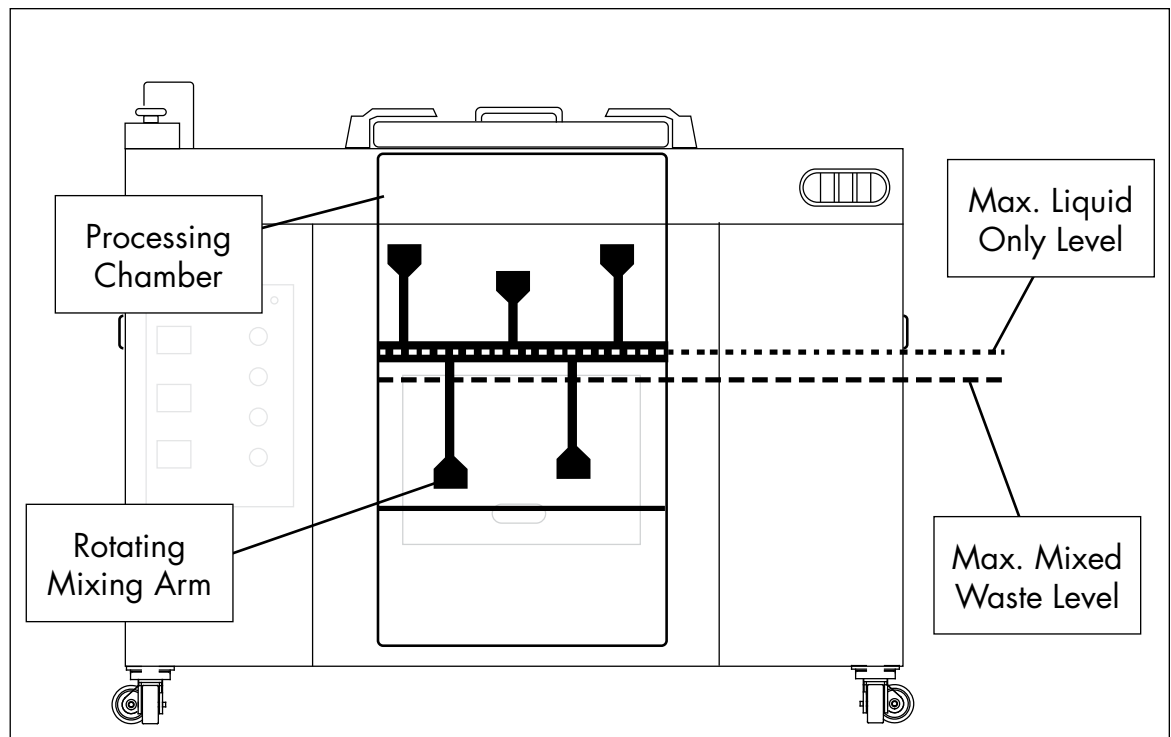


Figure 2 - Model 100-ML Interior Features

# Operation - Control Panel Description

Refer to Fig. 3 below and the list on the next page for the control panel description.

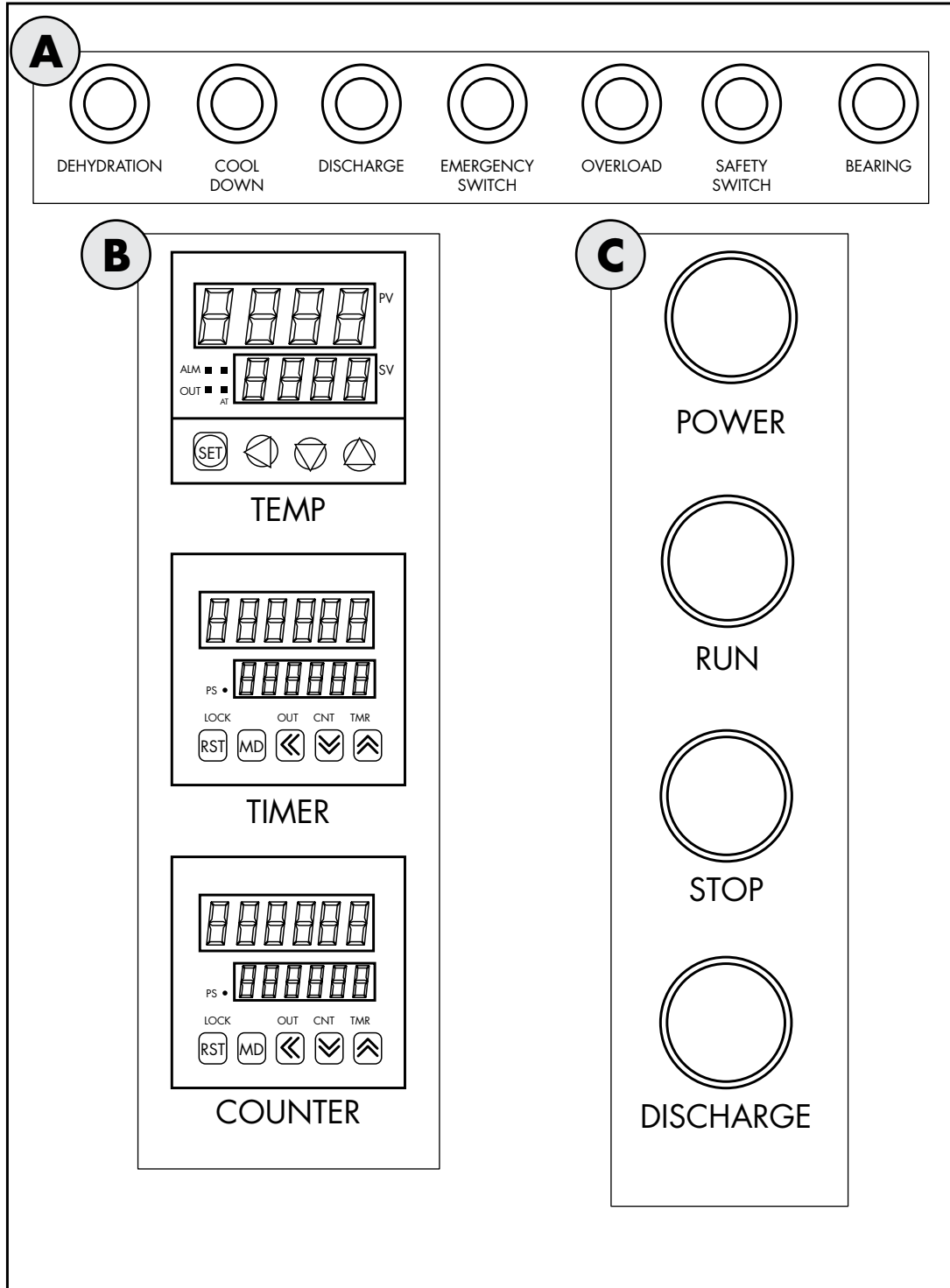


Figure 3 - Model 100-ML Control Panel

## **Operation - Control Panel Description** *(continued)*

The list below describes the controls shown on the previous page.

### **SECTION A: Indicator Lights**

**Dehydration** - On when the machine is in the dehydration mode.

**Cool Down** - On when the dehydration mode is complete and the machine is cooling down.

**Discharge** - On when the discharge door is open.

**Emergency Switch** - On when the emergency switch is pressed and locked.

**Overload** - On when the machine detects the waste load exceeds the 121 lb./55 Kg limit.

**Safety Switch** - On when the top loading door is open.

**Bearing** - On when the machine has shutdown due to a bearing failure.

### **SECTION B: Digital Displays**

**Temp** - Displays the temperature inside the processing chamber.

**Timer** - Displays the total accumulated time the machine has been on since power up.  
For, example if two processing cycles have elapsed, each cycle lasting five hours, then the display would indicate ten hours.

**Counter** - Displays the total number of loads processed since power up.

### **SECTION C: Push button Switches**

**Blue Power** - Turns power to the machine ON. The light illuminates when pressed.

**Green Run** - Starts a processing cycle.

**Red Stop** - Interrupts a processing cycle; pressing Run restarts the cycle.

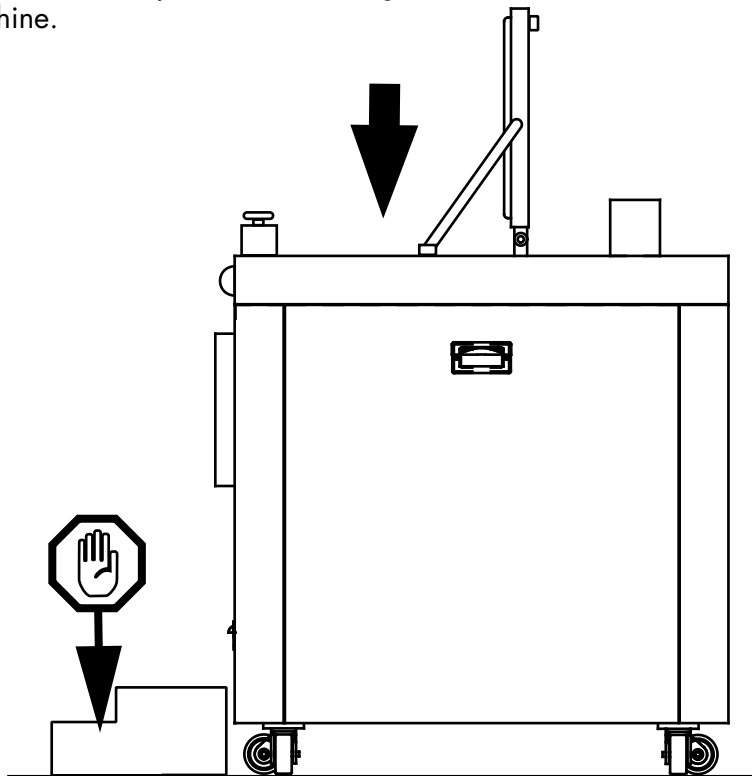
**Green Discharge** - Starts the discharge cycle if the cycle is complete and the discharge door is open. The light illuminates when the discharge cycle begins.

## Operation - Loading Organic Waste



**WARNING:**

Never use a step stool, crate or other device to load the machine. Serious injury can result. Always remain standing with both feet on the floor when loading the machine.



*Figure 4 - Never use a step stool, or crate to load the machine.*



**NEVER LOAD THE FOLLOWING ITEMS IN THE MACHINE:**

Non-organic waste including: Large beef nor pork bones, seashells nor invertebrates, whole coconuts, metal cans, knives, forks, nor spoons, plastic bottles, bottle caps, rags, used oil from fryers, grease from grease traps. Oil and grease will not dehydrate and will remain in the machine after processing.



**THE LOADING OF THESE ITEMS ARE PERMITTED:**

Fruits, vegetables, pineapples, beans, rice, meats, fish and poultry with small bones. It will process unwaxed cardboard, paper products or napkins up to 25-30% of the total batch load. It will process rice, bread, pasta and unbaked dough up to 30% of a batch load; however, starchy foods will create a residue build-up that requires a special cleaning procedure by the operator.

## Operation - Loading Organic Waste

There are two locking latches on the top of the processing chamber door. Unlock the latches using the keys supplied with the machine and raise the door. The loading door is held open by a gas-operated strut on each side of the door.

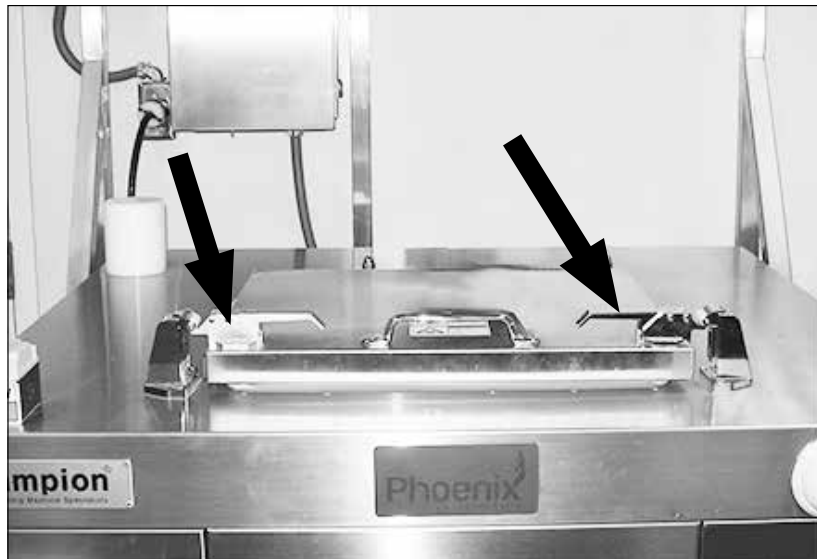


Figure 5 - Open the door latches and raise the door.

**Maximum Liquid Only Level:** The maximum level for liquid only loads must remain below the center axis of the mixing arm shaft as shown in Fig. 6 below. Examples of liquid only loads are yogurts, milk or water.

**Maximum Mixed:** The maximum level that mixed waste can be loaded is indicated by the dashed line as shown in Fig. 6 below. Alternatively, waste can be weighed on a scale. The maximum load weight must not exceed 121 lbs./55 Kg.

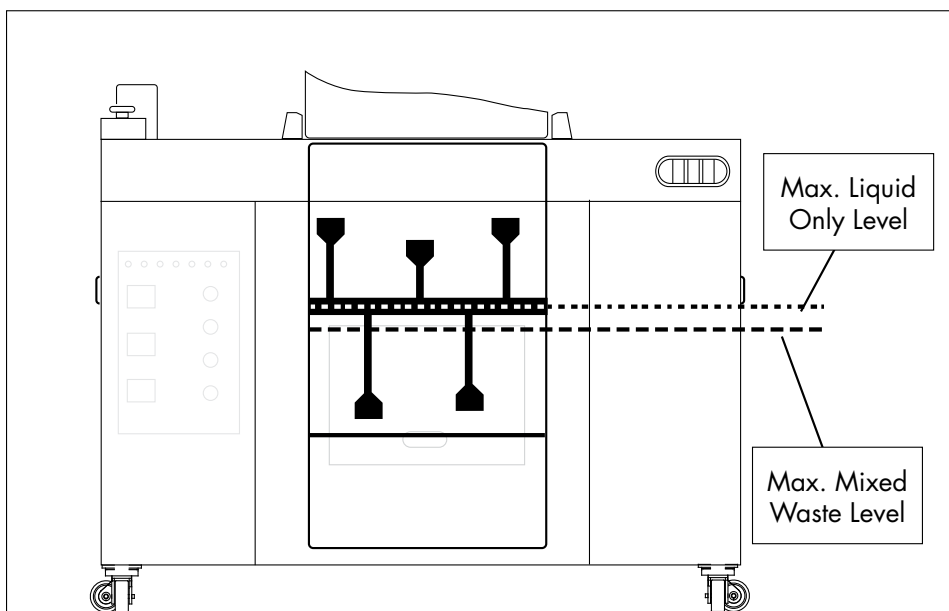
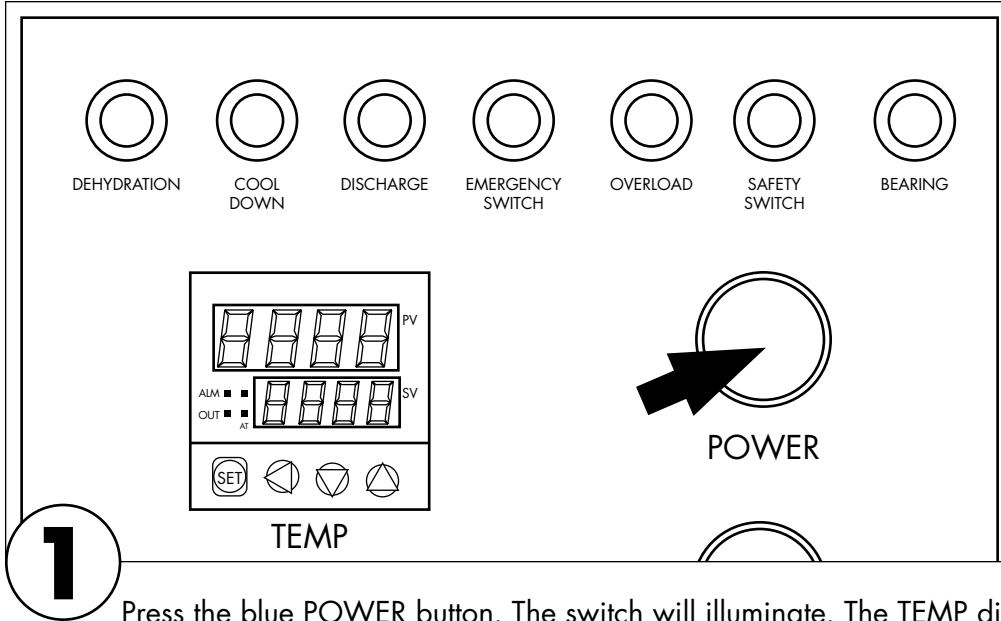


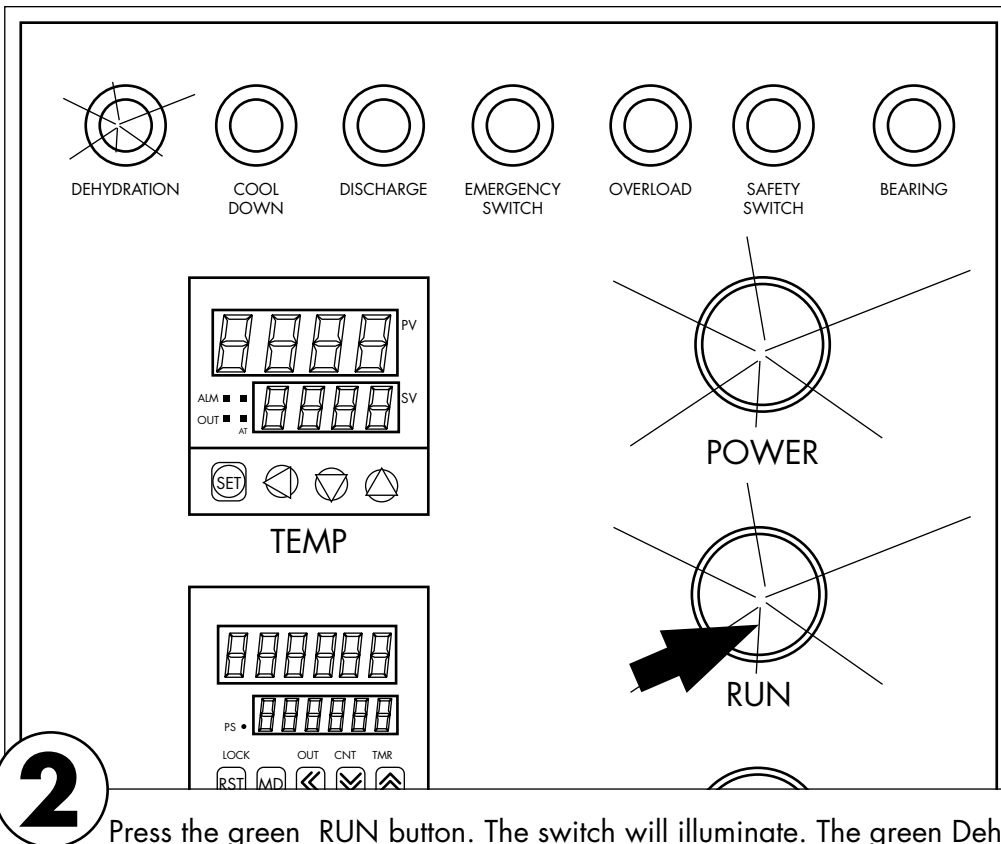
Figure 6 - Loading Levels for Liquid and Mixed Waste

## Operation Sequence - Dehydrating Waste

Follow the steps below after loading the waste into the machine and closing the top-mounted door.

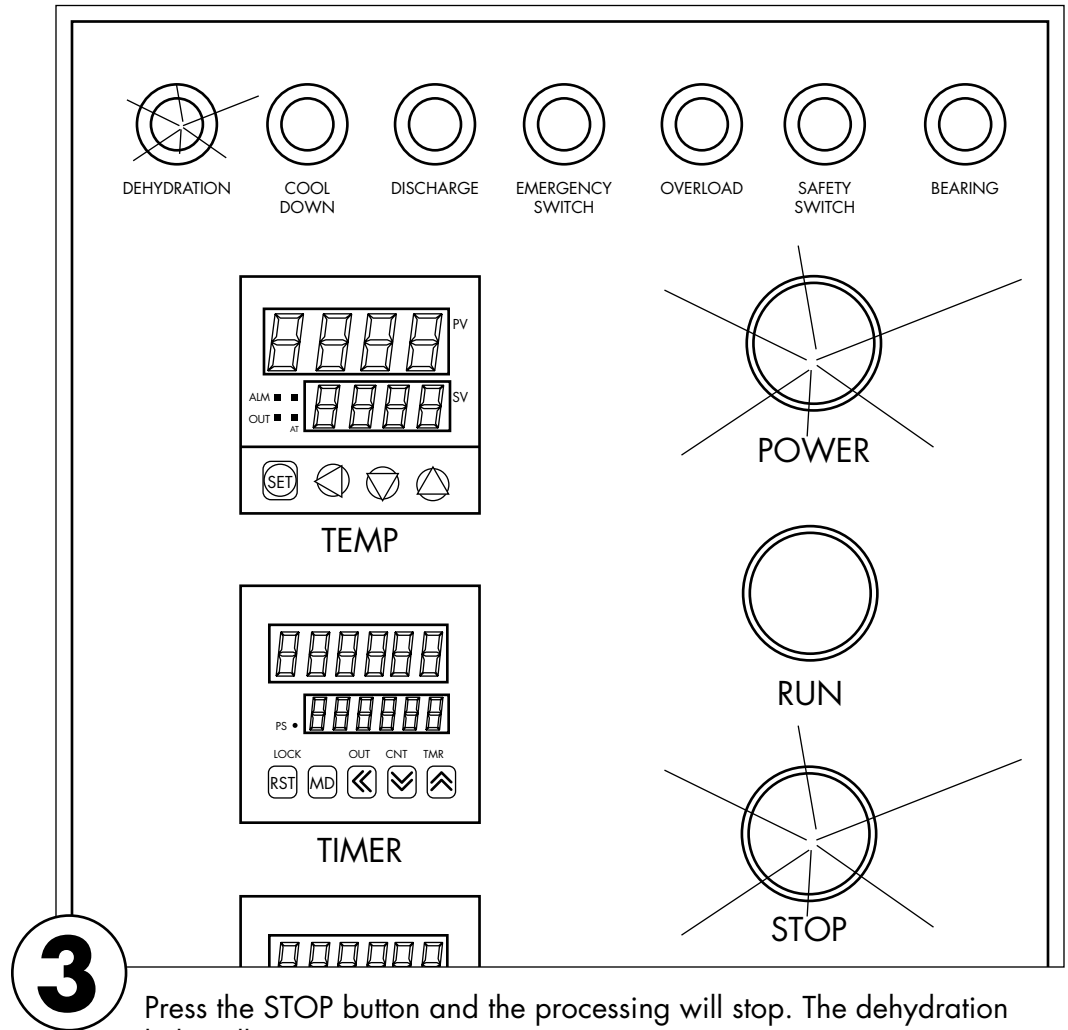


Press the blue POWER button. The switch will illuminate. The TEMP display will indicate chamber temperature.



Press the green RUN button. The switch will illuminate. The green Dehydration light will come on and the process cycle will begin. The TEMP and TIME displays will operate.

## Operation Sequence - Dehydrating Waste



Press the STOP button and the processing will stop. The dehydration light will go out.

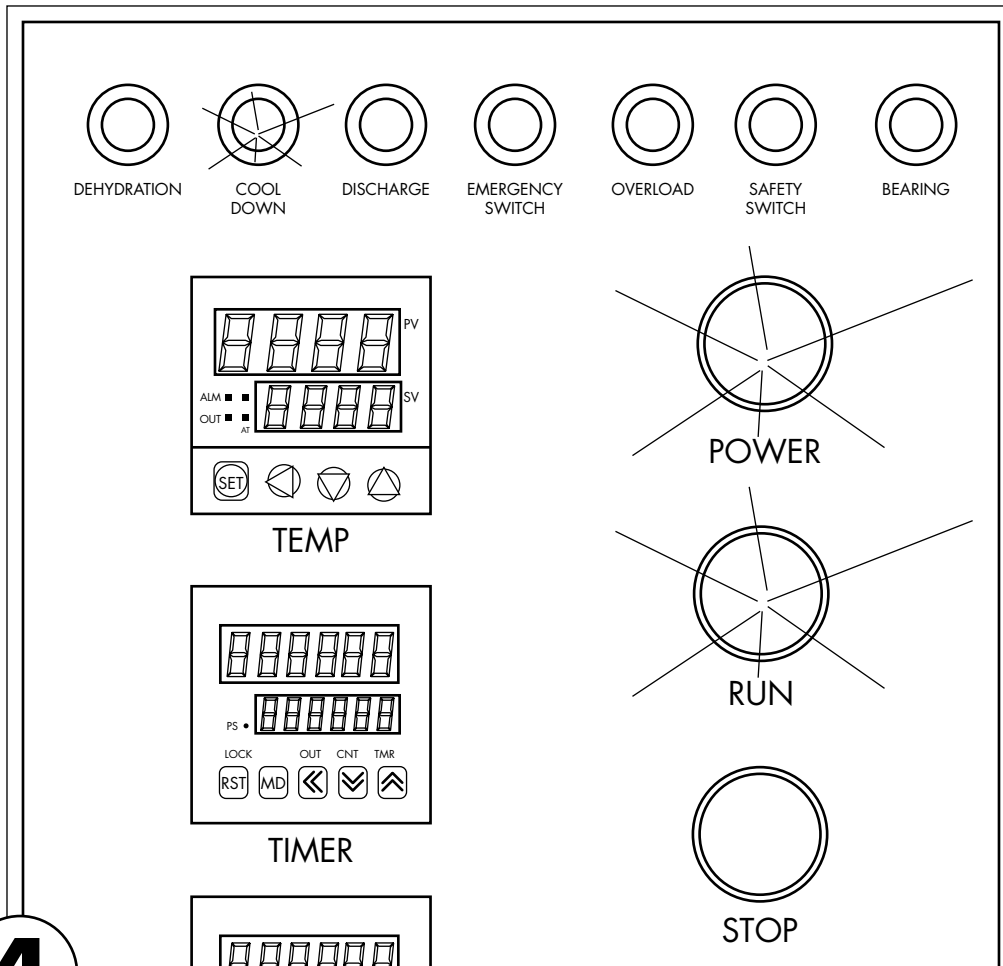
Press the RUN button and the processing cycle will resume.



**NOTE:**

Total processing time depends on the type of organic waste and how much water comprises the batch. Processing time will range between 9-12 hours.

# Operation Sequence - Dehydrating Waste



**4**

At the end of the dehydration cycle, the green cool down light will come on and the dehydration light will go out.

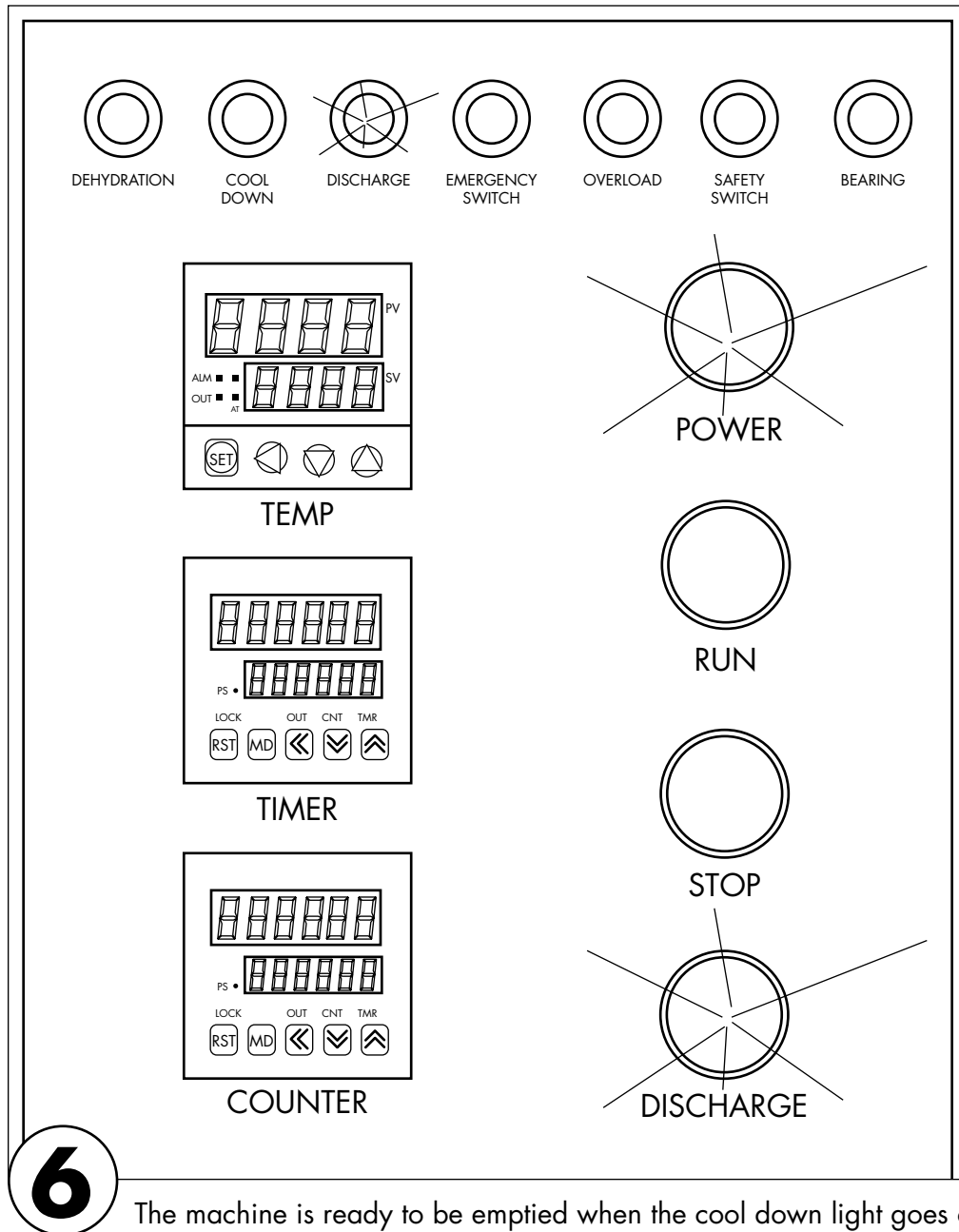


**CAUTION:**

Processed waste can be hot. Be careful when touching machine surfaces and during discharge operations.



## Operation Sequence - Dehydrating Waste



The machine is ready to be emptied when the cool down light goes out.

Refer to the next page for instructions about opening the discharge door.

When the discharge door is opened and a bin is positioned under the discharge door, press the discharge button. The discharge switch will illuminate, and the discharge indicator light will come on.

## **Operation Sequence - Discharging Waste**

Refer to Fig. 7 below and note the discharge door and the discharge bin in the photo.

1. Processed waste is discharged from the machine when the discharge door has been opened and the discharge button on the control panel has been pressed.



**CAUTION:**

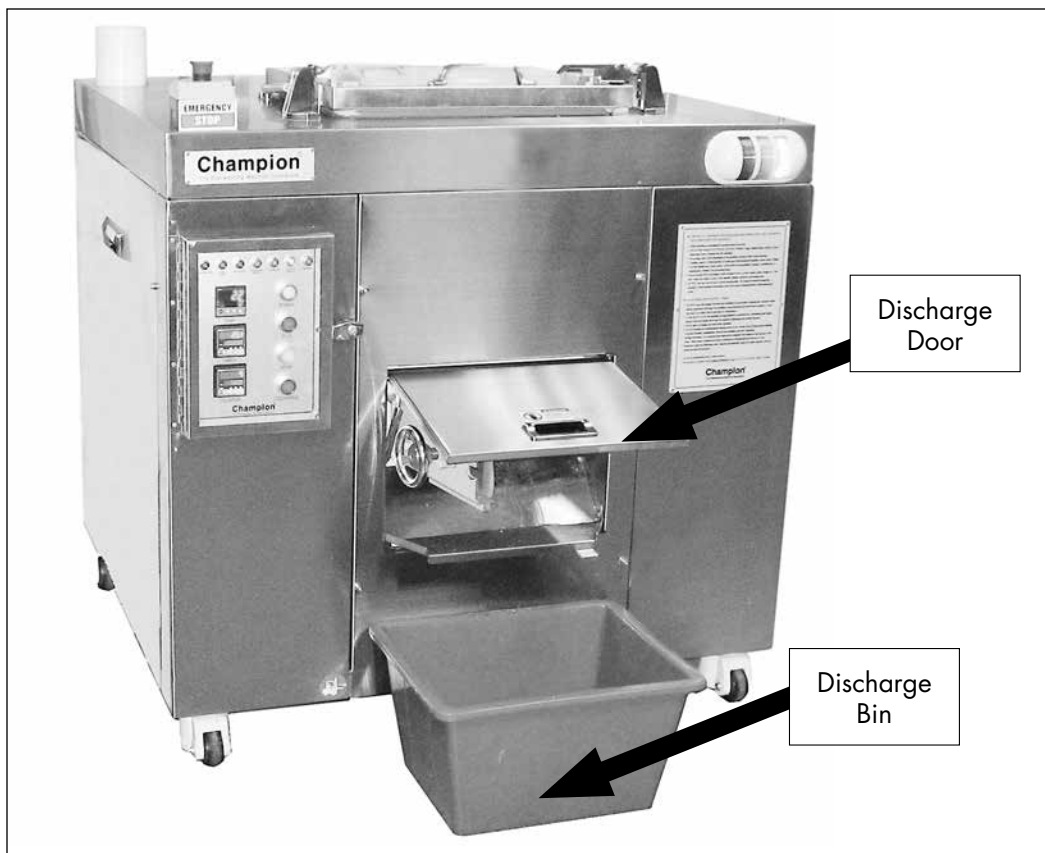
Processed waste can be hot. Be careful when touching machine surfaces and during discharge operations.

2. Carefully scrape waste as it exits the discharge. When all waste is emptied, the discharge door should be closed.



**NOTE:**

The processing chamber does not empty completely. This is a normal condition. If the machine is left idle several days then filling the machine with 11-12 US gallons of water and running an additional cycle is recommended.



*Figure 7 - Processed waste is removed via the discharge door using the waste bin supplied with the machine.*

## Operation Sequence - Discharging Waste

Refer to Fig. 7 on the previous page and the photos below. Follow the steps to open the discharge door after the main outer panel is opened.

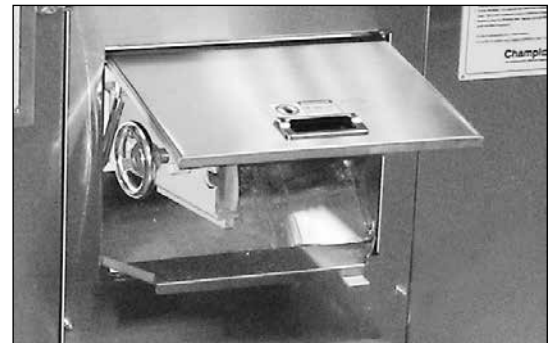
Step 1: Open the outer panel and raise the inner access door. Turn the locking wheel counter-clockwise as shown at right.



Step 2: Unscrew the locking wing-nut on the right side of the access door and swing the door open.



Step 3: Lower the bottom discharge chute plate.



Step 4: Press the DISCHARGE button to start the discharge cycle. Press the STOP button to stop the cycle.

Step 5: Reassemble the discharge doors in reverse order when the processed waste has been discharged.

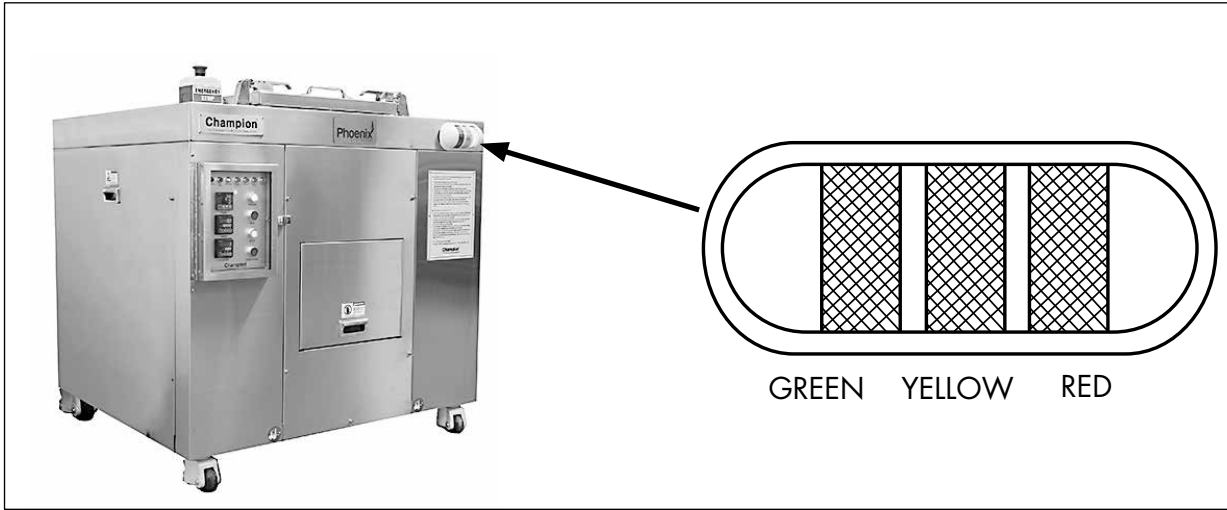
## **Operation Sequence - Cycle Status Indicator**

The machine is equipped with a Cycle Status Indicator on the top right corner of the machine to show the condition of the machine whenever the power is on.

Green = Machine ready

Yellow = Machine stopped or in an error condition

Red = Machine is processing.



## **Operation Sequence - Error Indicator Lights**

The main control panel is equipped with yellow error indicator lights which are located along the top of the panel adjacent to the green Discharge indicator light.

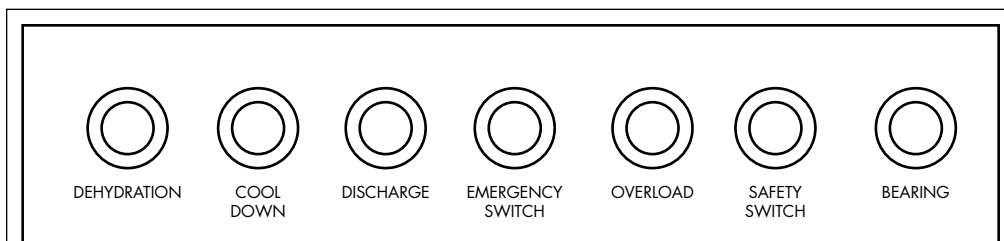
THE MACHINE WILL STOP AUTOMATICALLY WHENEVER ONE OF THESE LIGHTS ARE ON.

Emergency Switch = Emergency switch has been pressed.

Overload = There is an overload condition on the main motor.

Safety Switch = A safety switch is triggered.

Bearing = A bearing has overheated.



## Operation Sequence - Emergency Stop Switch

The machine is equipped with an emergency stop switch located on the top left corner of the machine.

Pressing this switch automatically disables the machine. The switch locks itself when pressed preventing the restarting of the machine until the switch is unlocked.



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