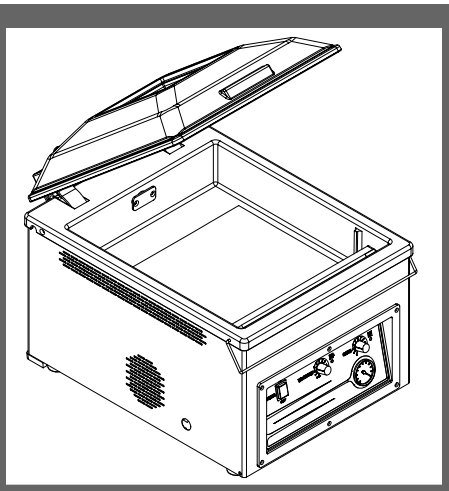


# Vacuum Packaging Machines

## Instruction Manual

| Model | |
|---|---|
| HT120A-1 | ML-44199-BJ |
| HT120DG-1 | ML-44200-BJ |


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# HT120A-1 & HT120DG-1

SAVE THESE INSTRUCTIONS

## Introduction

Please read this manual carefully to learn how to correctly operate and maintain your Vac Pak Single Chamber Packaging Machine. Failure to do so could result in equipment or product damage**.** Consider this manual a permanent part of your machine. Keep it in a safe, protected area of your facility.

## Manual Overview

The following special instructions are used in the manual:



### Note

A note is information that you need to know, but it is not an actual step in the procedures.



### Tip

A tip is additional information that may be useful when you are using the system.




### Look At This

Look At This is information to alert you that you may be doing something that will permanently alter your system.

## Gas Flush Option (HT120DG Only)

Gas flushing is the introduction of an inert gas into the chamber after the vacuum stage is finished. Gas can be used as a filler to prevent crushing of the product after sealing, as a means to prolong shelf life, or as a means to maintain desirable product appearance. Commonly used gases include nitrogen, carbon dioxide, or a mixture of both. Consult your local gas supplier to select the proper gas for your product.

As gas is introduced into the chamber, vacuum pressure is reduced by a corresponding amount. Since the seal bar mechanism depends upon vacuum pressure inside the chamber to raise the seal bar during the sealing process, reduced vacuum pressure inside the chamber would also reduce the sealing force of the seal bar. For this reason, all machines with the gas flush option are equipped with a valve that allows the same gas, which is used to flush the chamber to raise the seal bar. As a result, there is no loss of sealing force when the gas option is used




### Look At This

DO NOT use an oxygen-enriched gas (greater than 22%) in the gas flush option. Be aware that when using the optional gas flush feature the gas fills the entire chamber. Once the package is sealed and the lid opens the residual gas is released into the room. Some gases can be dangerous for human inhalation and even cause death.



### Note

When NOT using the gas flush option, turn the gas tank OFF and remove the hose. If hose remains attached, the seal bladder will not operate properly.

## Gas Flush Connection

For machines equipped with the gas flush option, the customer must supply a suitable regulator with a range of 0 to 60 p.s.i. We recommend using a ¼ inch I.D. food-grade flexible hose with a maximum hose length of 15 feet. We also recommend a maximum regulator pressure of 15 p.s.i. for use with the machine.



### Note

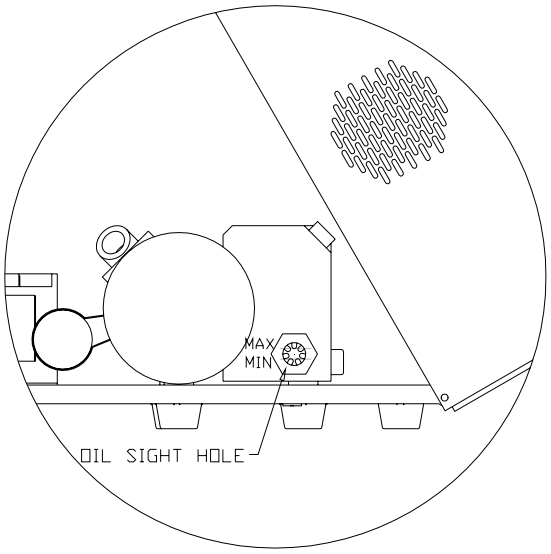
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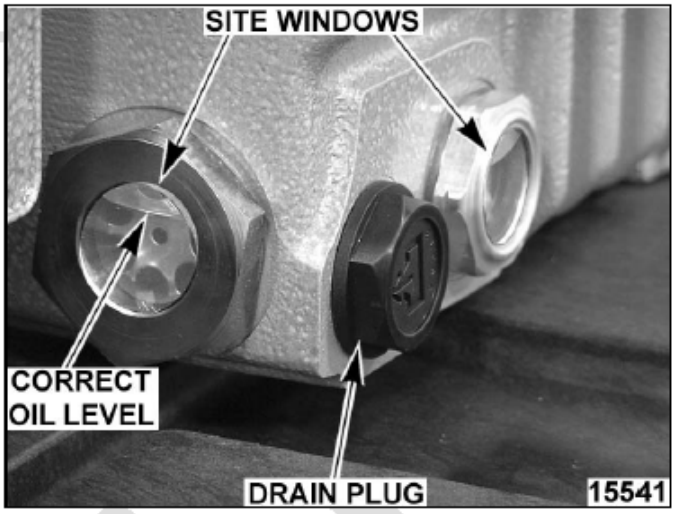
## Supplying Power

The HT120 machines are rated at 110VAC, 60 Hz, 15 amps. Do not use an extension cord to connect the HT120 machine to the wall outlet.

## Changing the Oil

It is essential to check the oil level daily and to change the oil after every 500 hours of operation. Read the oil level with the machine turned off. Oil may be added until the level reaches a level between ½ to 2/3 on the sight glass.



## Understanding Proper Sealing (Tips for Best Results)

For best sealing results:

- Check the pump oil level **daily**.
- Select a pouch that fits the product.
- Keep the product and the product residue away from the seal area of the pouch.
- Place the product as far into the pouch as possible.
- Maintain an equal amount of the product above and below the seal bar (see Figure 2-2 on use of filler plates).
- Lay the pouch flat on the seal area, keeping the pouch free of wrinkles.
- Place the pouch so that the open end is inside the chamber when the lid is closed.

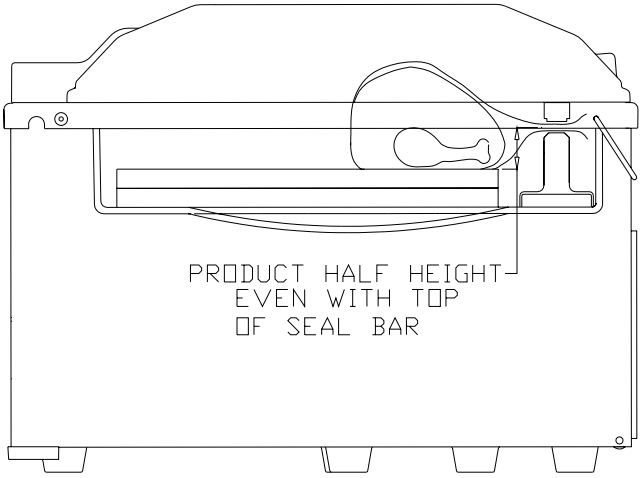



**figure 2-2**

## Using the HT120A

The HT120A uses an analog control panel. The range for timed vacuum is 0 to 55 seconds and is controlled by the Vacuum Potentiometer. We suggest an initial setting of 3 on the dial. Experiment with these setting to achieve the best results.

Seal impulse is the length of time the seal bar is turned on and can range from 0 to 2 seconds. The Seal Potentiometer controls the impulse time. We recommend an initial setting of 6 on the potentiometer. This setting will vary according to the thickness of the pouch. Thinner pouches will require a lower setting while thicker pouches will require a higher setting

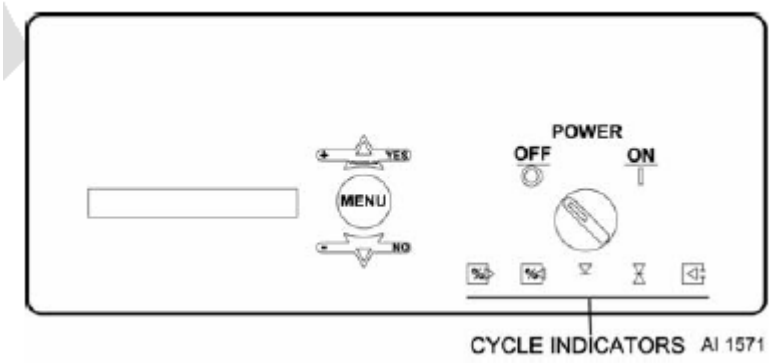
## Using the HT120DG

The HT120DG comes standard with a digital control panel. The embedded microprocessor controls each sequence of the packaging operation. Settings for the vacuum, gas, and sealing are entered as parameters through the keypad. This allows the user to custom program every step of the packaging process. A pressure-based sensor controls the precise vacuum and gas pressure. The vacuum pressure, gas pressure, and seal time are displayed on a large 16-character LCD backlit readout, which is easily readable in all lighting conditions. As each sequence is performed, the real-time pressure level or cycle time is displayed.

The digital front panel can store up to ten pre-programmed routines in memory, which can be retrieved at any time for specific packaging applications. With the supervisor security feature turned on, these programs cannot be inadvertently changed.

The Vacplus option allows the operator to run the pump from 0 to 20 seconds after the set vacuum level is achieved.

The Gas Flush option allows the operator to introduce an inert gas into the chamber after the vacuum stage. This option can be used as a filler to prevent crushing of the product after sealing, as a means to prolong shelf life, or as a means to maintain desirable product appearance.



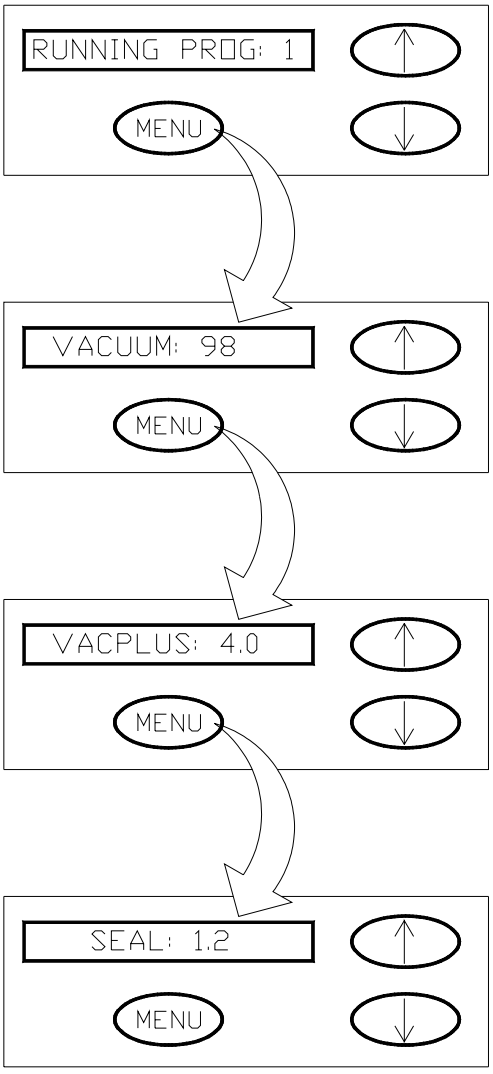

The digital front panel has an auto stop, which will automatically seal if the preset vacuum is not reached. The feature decreases the cycle time and optimizes the vacuum level of each product. Auto Stop is performed by pressing the MENU key.

The digital front panel and microprocessor use sealed components and is coated in a moisture proof coating. The digital front panel meets or exceeds the requirements of NEMA 4. The front of the digital display is sealed and flush for easy cleaning.

The digital control has both pulsed vacuum and pulsed venting options for fragile product.

# Setting Operator Menu on the HT120DG

NOTE: IF THE SUPERVISOR HAS SET SECURITY ON,
THESE SETTINGS CANNOT BE CHANGED

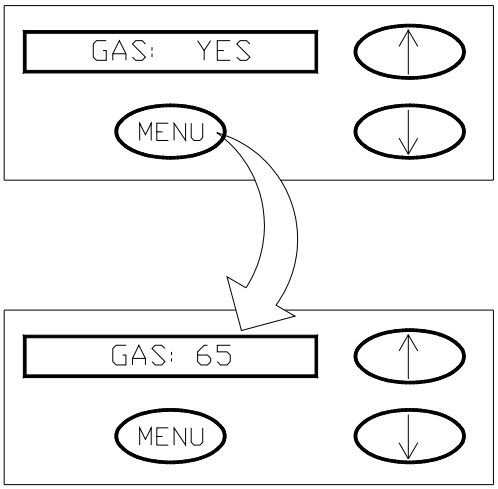



THIS IS THE MAIN MENU SCREEN. WHEN THE MACHINE STARTS UP, THE LAST PROGRAM THAT WAS RUN WILL BE THE CURRENT PROGRAM SHOWN IN THE WINDOW. TO SET THE OPERATING PARAMETERS FOR THE PROGRAM SHOWN, PRESS THE MENU KEY.

VACUUM IS SET TO % VACUUM USING THE UP AND DOWN ARROW KEYS.
THE RANGE IS 30% TO 99%.
PRESS THE MENU KEY.

VACPLUS MAY BE SET FROM 0 TO 20 SECONDS.
A SETTING GREATER THAN ZERO ALLOWS THE PUMP TO CONTINUE EVACUATING THE CHAMBER (FOR THE SPECIFIED NUMBER OF SECONDS) AFTER THE PRESSURE IN THE CHAMBER HAS REACHED THE % VACUUM SET IN THE VACUUM MENU.
THE RANGE IS 0 TO 20 SECONDS.
PRESS THE MENU KEY.

THE SEAL SETTING IS IN SECONDS.
USE THE UP AND DOWN ARROW KEYS TO CHANGE THE SEAL TIME.
THE RANGE IS 0 TO 2 SECONDS.
PRESS THE MENU KEY.



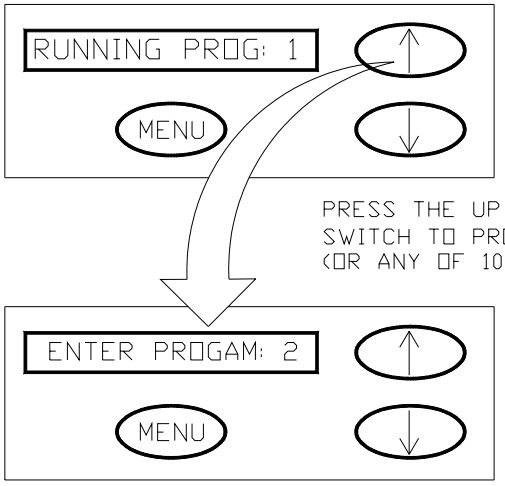

IF YOUR MACHINE IS EQUIPPED WITH THE GAS OPTION, IT CAN BE TURNED ON OR OFF BY PRESSING THE UP OR DOWN ARROW KEYS. PRESS THE MENU KEY.

GAS IS SET TO % GAS USING THE UP AND DOWN ARROW KEYS. THIS VALUE ALSO CORRESPONDS TO THE VACUUM READING INSIDE THE CHAMBER. IT IS RECOMMENDED TO USE PULSE VENT WHEN GAS FLUSHING TO A LOW % VACUUM. THE RANGE IS 98% TO 30%. PRESS THE MENU KEY.

**WARNING**

Do Not use an oxygen-enriched gas (greater than 22%) in the gas flush option.

## Selecting a New Program




FROM THE MAIN MENU KEY YOU MAY USE THE UP AND DOWN ARROW KEYS TO SELECT A NEW PROGRAM.

PRESS THE UP ARROW TO SWITCH TO PROGRAM 2 (OR ANY OF 10 PROGRAMS)

NOW YOU MAY SET NEW PARAMETERS FOR VACUUM, SEAL TIME, AND GAS FOR PROGRAM 2 (FOLLOWING THE PROCEDURE DESCRIBED IN THE PREVIOUS EXAMPLE) OR SIMPLY CLOSE THE LID ON THE MACHINE AND RUN PROGRAM 2.

## Cleaning & Maintenance

Before cleaning the machine, turn power off; disconnect the main power, and lockout the connection.

The cleaning and sanitizing process takes only about 10 minutes, and must be completed after every 4 hours of operation.




### Look At This

Every environment and application is different; therefore we cannot provide cleaning instructions to guarantee microbiological sanitation. We request that the purchaser of these machines consult with sanitation experts to review the machine working in your particular environment to develop a robust cleaning schedule and methodology, followed by bacterial testing to ensure satisfactory cleaning processes are followed.

**Never hose down the machine. Damage caused by hosing or high-pressure washing is not covered under warranty.**

1. **Filler Plates -** Remove the filler plates. The filler plates are made from polyethylene. Clean, sanitize, and dry. High-pressure water spray CAN be used on the filler plates.
2. **Lid and Chamber -** The lid is constructed of acrylic and composite resins. The chamber is constructed of composite resins. Clean, sanitize, and dry.
3. **Back up STRIP** The back up strip is made of silicone. Clean, sanitize, and dry.
4. **Seal Bars -** Remove the seal bar by first lifting it up off of the guide rods. Remove the wire connectors from the adapter clips on the seal bar and remove the seal bar from the machine. The seal bar bladder can be removed by grasping the bladder barb in the center of the bladder and pulling gently straight up. The seal bars are made of aluminum and phenolic. Clean, sanitize, and dry.
5. **Base** - The base is made of 304 stainless steel. Clean, sanitize, and dry.
6. Clean under the machine.
7. Reinstall the seal bar.

Use bacteriological testing to insure cleaning process.

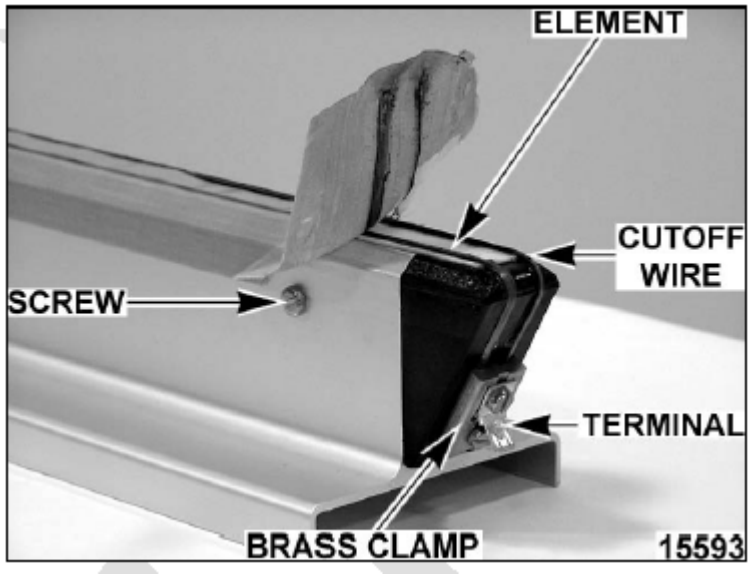
# Seal Bar Maintenance

## Look At This

DISCONNECT THE ELECTRICAL POWER TO THE MACHINE AND FOLLOW LOCKOUT /TAGOUT PROCEDURES.

SHUT OFF AND DISCONNECT GAS FLUSH OR AIR ASSIST HOSE FROM REAR OFMACHINE.

1. Remove SEAL BAR ASSEMBLY and peel off Teflon Strip.
2. Clean off all remaining adhesive.
3. Loosen brass clamp mounting screws to remove wire and element.




4. Insert new wire and element under brass clamp at one end of seal bar and tighten screws.

**NOTE:** On reassembly, be sure cutoff wire is installed on side away from screws and terminal is pointing down.

5. At other end, insert wire and element under brass clamp.
6. Use needle nose pliers as a lever against frame to stretch cutoff wire tight. Snug one screw to hold wire tight.
7. Use needle nose pliers as a lever against frame to stretch element tight. Tighten screws to hold wire and element tight.
8. Trim ends and install new teflon strip.
9. Trim teflon strip to fit around screws.
10. Reassemble in reverse order.
11. Check for proper operation.

## Troubleshooting

In the following pages, possible problems and likely remedies are identified.

| Problem | Indications | Remedy |
|---|---|---|
| Machine will not start. | Green switch light is not lit when switch is turned on. | Make sure that the power requirements match those given on the nameplate. |
| | Vacuum pump does not run. | Make sure that the power requirements match those given on the nameplate. |
| Improper or no sealing.<br><br>*Note: For proper sealing, three things must occur:*<br><br>*1. The seal bar must go up and place adequate pressure between the seal bar and the back-up strip.*<br><br>*2. The seal element must heat up sufficiently to fuse the pouch.*<br><br>*3. The pouch must be allowed to cool for a time to ensure a good "set"* | The seal bar does not go up.<br><br>The seal bar is not heating up even though the red seal light on the front panel comes on.<br><br>The red seal light on the front either does not light for the proper length of time (1/2 to 3 seconds) or does not light at all. | Check if gas is turned on, or if not using gas, has hose been removed to allow air to enter the seal bladder.<br><br>Check seal bar connection points and clips for corrosion or proper tension.<br><br>Check for broken seal element.<br><br>Make sure the seal impulse potentiometer POT-2 is set high enough or check connections to the seal bar. |
| No vacuum. | Vacuum not pulling lid down.<br><br>Longer vacuum cycle times. | Check intake screen in chamber for blockage, pieces of bags, labels, bone, etc.<br><br>Check lid gasket for wear or gaps.<br><br>Check intake screen in chamber for blockage. |