

AyrKing Model VM-101 Vacuum Marinator

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Vacuum Marinator Operating Instructions

1. Plug in unit.
2. The marinator comes pre-set from the factory for the vacuum and tumble cycle times. If these times need to be adjusted, the access panels in front of the timers need to be removed. The top timer by the gear motor controls the rotation time of the drum. The bottom timer by the vacuum pump controls the vacuum time.
3. The timer for the vacuum cycle should be set for 1 minute 45 seconds. This is the time needed for the vacuum pressure of the marinator to reach 8 psi or 16.2 in Hg. Looking at the timer relay it should read "0", "1", "4", "5". The 0 1 4 5 setting lets the vacuum pump run for 1 minute 45 seconds. The two numbers to the left of the center letter represent minutes. The two numbers to the right represent seconds. The white buttons on the top and bottom of each digit in the timer relay will change each individual setting.
4. The timer for marinating cycle relay should read "2", "0", "0", "0". The 2 0 0 0 setting will rotate the marinator drum for 20 minutes.
5. Attach the stainless steel access panels after timer adjustment.
6. Open the lid of the drum. Put the raw protein pieces and marinating solution into the drum.
7. Make sure the drum lid gasket is in place. Close the lid of the drum. Rotate the handle so the inside latch keeps the lid from coming off. Lock the lid in place by rotating the cam handle down toward the drum cap. Make sure a portion of the top gasket is visible to ensure a good seal with the lid.
8. Attach the quick coupling of the vacuum hose to the drum. Press the vacuum button on the control panel next to the pressure gauge to start the vacuum pump. A green indicator light next to the pressure gage should light to show it is working.
9. The vacuum timer shuts off the vacuum pump automatically after the designated time. The pressure gauge will show the vacuum increasing during the vacuum cycle. After the cycle has finished, the dial should read at least 16 inches HG.
10. Unplug the quick coupling of the vacuum hose from the drum and connect to the safety switch on the housing beneath the drum.
11. Press the marinating button to start the rotation of the drum. If anything seems unusual during the process, press the stop-button to terminate the rotation of the drum.

Attention: Before pressing the button to begin rotating the drum, the vacuum quick coupling must be attached to its connection on the base, NOT on the drum.

12. After 20 minutes, the drum stops rotating and the marinating finishes.

13. Place the unloading pan onto the shelf and take the lid off the drum. Manually rotate drum so that marinated food pours out slowly.

The vacuum cycle must be run before the tumble cycle. This is to prevent the vacuum cycle from being bypassed.

Maintenance

1. At the end of the day, remove the drum for cleaning. Wash thoroughly in a sink with soap and water. Make sure the filter fitting and gaskets are cleaned. The filter fitting on the inside of the drum can be removed with the Allen wrench provided. After the parts have dried, put the machine back together.

2. Check the filter screen and gasket each month, replace if damaged.

3. Oil the vacuum pump once every three months. It is located behind the access panel with the pressure gauge. If the pump runs out of oil it WILL BURN UP.

4. Once a year the machine should be thoroughly inspected. Replace any damaged components.

Troubleshooting

Problem #1: Vacuum does not work. The lid is in place, vacuum hose is attached to the drum, and needle on pressure gauge is vibrating, but not increasing.

Solution:

- A. Check if the lid and gasket are in place; make sure the gasket is not damaged.
- B. Check if the filter screen on the inside of drum is clogged. If so, remove the residue. Remove the filter fitting with the Allen key and install the fitting again after the residue has been removed.
- C. Check if the quick coupling is damaged, replace if damaged.
- D. Check if there is any leak in the vacuum hose. Replace if damaged.
- E. Check if the airline filter on the vacuum line is clogged. Replace if necessary.
- F. Make sure the gasket on the inside of the drum for the quick connect is not missing or damaged. Replace if missing or damaged.

Problem #2: Marinator will not operate. No response if start button for either cycle is pressed.

Solution:

- A. Make sure unit is plugged into power source. Make sure power source is supplying power. Check if the stop-button is locked in place. If yes, turn the button clockwise to unlock.
- B. Check if the fuse is blown, replace if needed.
- C. Check if the relay is damaged. If yes, contact a repair technician.
- D. Note: Vacuum cycle must be run before the tumble cycle.

Problem #3: The Marinator is too noisy.

Solution:

Oil the gear and bearing.

Problem #4. Inspection procedure for vacuum pressure. Once a week the unit should be thoroughly cleaned and inspected to make sure the correct vacuum pressure is being achieved. If the correct pressure is not achieved, refer to the trouble shooting section below.

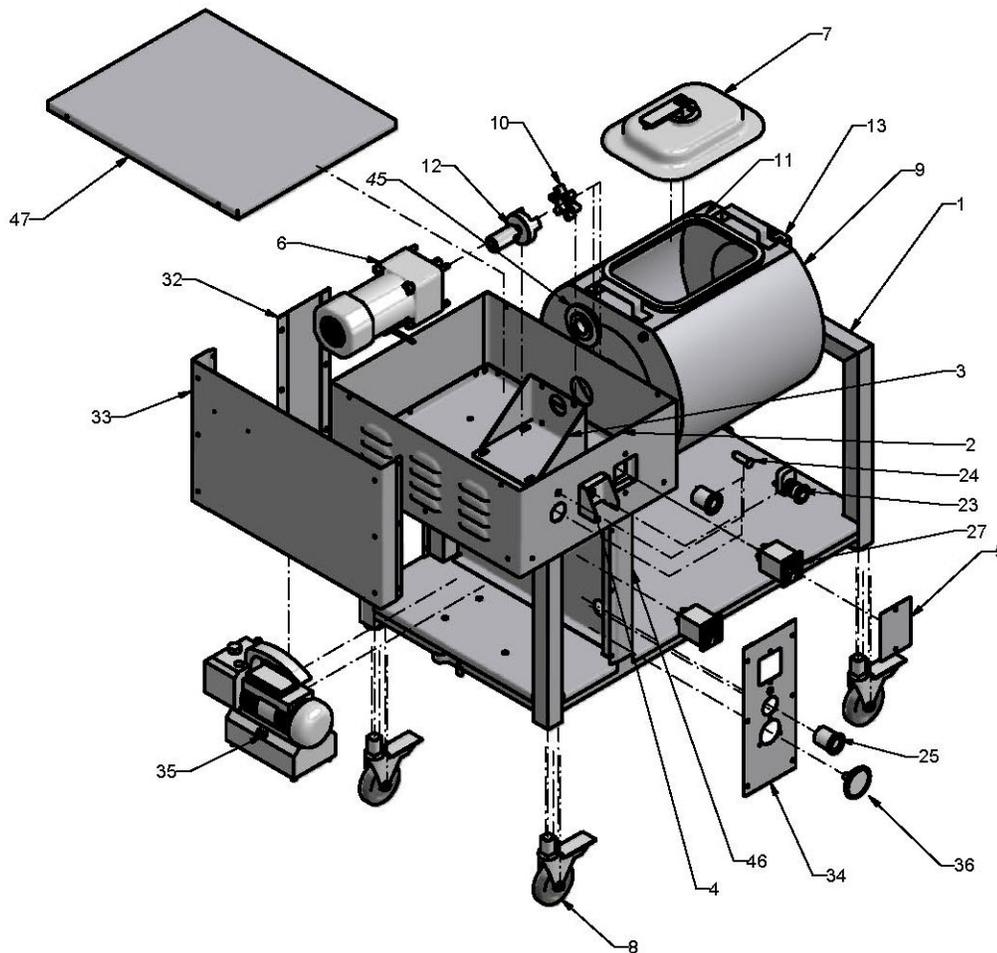
Troubleshooting

- 1) If the vacuum needle quickly rotates to 30 inches HG, it indicates that there is a blockage somewhere at the filter screen, quick coupling or vacuum tube. Press the red button to stop the vacuum operation and disconnect the quick coupling. Locate the blockage and remove. Restart the vacuum process. The needle should slowly rotate to the desired vacuum pressure.
- 2) If the vacuum needle does not rotate after a few minutes, it shows there is a leak in the system. The following should be inspected:
 - a) Check to make sure the drum gasket is in place and in good condition
 - b) Make sure the washer on top of the drum lid is in place and not damaged
 - c) Make sure the vacuum hose is connected to the drum correctly
 - d) Make sure there are not any cuts or holes in the vacuum hose
 - e) Examine the vacuum pump to make sure it is operating and sounds normal
 - f) Make sure interior gasket for quick connect assembly is in place and not damaged.

If any accessories are damaged, contact the service agent immediately for repairs.

- 3) If the vacuum operation stops automatically after 1 minute 45 seconds and the vacuum needle has not reached 16 inches Hg, it indicates a leak. Inspect accordingly and follow step two.
- 4) If it seems the unit is losing pressure during the marinating cycle, check the pressure again after the rotation is finished. Connect the vacuum hose again, and the gauge will register the current pressure in the drum. The reading should be close to 16 inches HG. If the reading is much less, it indicates a leak. Check the all gaskets on the drum and lid for damage.

4. Parts List and Diagram



| Item | Quantity | Part Number | Description |
|------|----------|--------------|----------------------------------|
| 7 | 4 | 3600071 | 3.5" Caster with brake |
| 9 | 1 | 5001996-009B | Motor compartment floor pan |
| 10 | 1 | 5001996-083 | Motor bracket |
| 11 | 1 | 5001996-084 | Silicon sheet for front of motor |
| 12 | 1 | 5001996-085 | Silicon sheet under motor |
| 13 | 1 | 5001996-027 | Motor 110V, 140W |
| | 1 | 5001996-080 | Motor 220V, 140W |
| 14 | 1 | 5001996-041 | Reset switch mounting bracket |
| 15 | 1 | 3550436 | Reset switch |
| 16 | 1 | B145 | AC line filter/receptacle |
| 17 | 1 | 3550412 | 8 pin relay base |
| 18 | 1 | 3550411 | 8 pin relay 115V |
| | 1 | 3550418 | 8 pin relay 230V |
| 19 | 1 | 3550416 | 11 pin relay base |

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|----|---|-------------|---|
| 20 | 1 | 3550410 | 11 pin relay 115V |
| | 1 | 3550415 | 11 pin relay 230V |
| 22 | 1 | 5001996-016 | Guard for emergency stop switch |
| 23 | 1 | 3700014 | Red emergency stop switch |
| 24 | 1 | 5002364-030 | S/S timer mounting bracket |
| 25 | 2 | 3700016 | Digital display timer |
| 26 | 2 | 3550413 | Timer mounting base |
| 27 | 1 | 5001996-038 | Motor Timer cover plate |
| 28 | 2 | B137 | Start switch |
| 29 | 2 | 5000375 | Green light |
| 30 | 1 | 5001996-081 | Motor compartment seal |
| 31 | 1 | 5001996-020 | Drive assembly |
| 33 | 1 | 5002364-018 | S/S compressor receptacle box |
| 34 | 1 | 5002364-019 | Bracket for safety switch |
| 35 | 1 | 3500200 | Safety switch for vacuum hose |
| 36 | 1 | 5002571-421 | Receptacle for compressor plug |
| 37 | 1 | 5002364-010 | Front vacuum compartment plate |
| 38 | 1 | 5002364-015 | Timer cover plate for vacuum |
| 39 | 1 | 5002364-036 | Barometer |
| 40 | 1 | 3550041 | Vacuum pump, 110V |
| | 1 | 3550041-1 | Vacuum pump, 220V |
| 41 | 1 | 5002364-012 | Back panel vacuum enclosure |
| 42 | 1 | 5002364-011 | Left panel vacuum enclosure |
| 43 | 1 | 5000989B | White support bracket for drum (pillow block) |
| 44 | 1 | 5002364-040 | Vacuum drum |
| 45 | 1 | B319 | Power cord 115V |
| 46 | 1 | 5002364-031 | Support bracket for vacuum hose |
| 47 | 1 | 5002364-056 | Mounting bracket for vacuum line dryer |
| 48 | 1 | 5002364-034 | Vacuum line dryer |
| 49 | 1 | 5002364-100 | Vacuum line quick connect storage bracket |
| | 1 | 3550422 | solenoid valve for vacuum pump 220V |
| 51 | 1 | 5001996-010 | Top for motor compartment |
| 53 | 1 | 5001996-059 | Power cord bracket |
| | 1 | 3550420 | Vacuum quick connect, female |
| | 1 | 3550421 | Vacuum quick connect, male |
| | 1 | 3550427 | Vacuum line to barometer |
| | 1 | 3550428 | Vacuum line to drum |
| | 1 | 3700209 | Solenoid valve for vacuum pump, 115V |
| | 1 | 3550422 | Solenoid valve for vacuum pump, 230V |
| | 1 | 5001108 | s/s mesh filter inside vacuum drum |