

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.

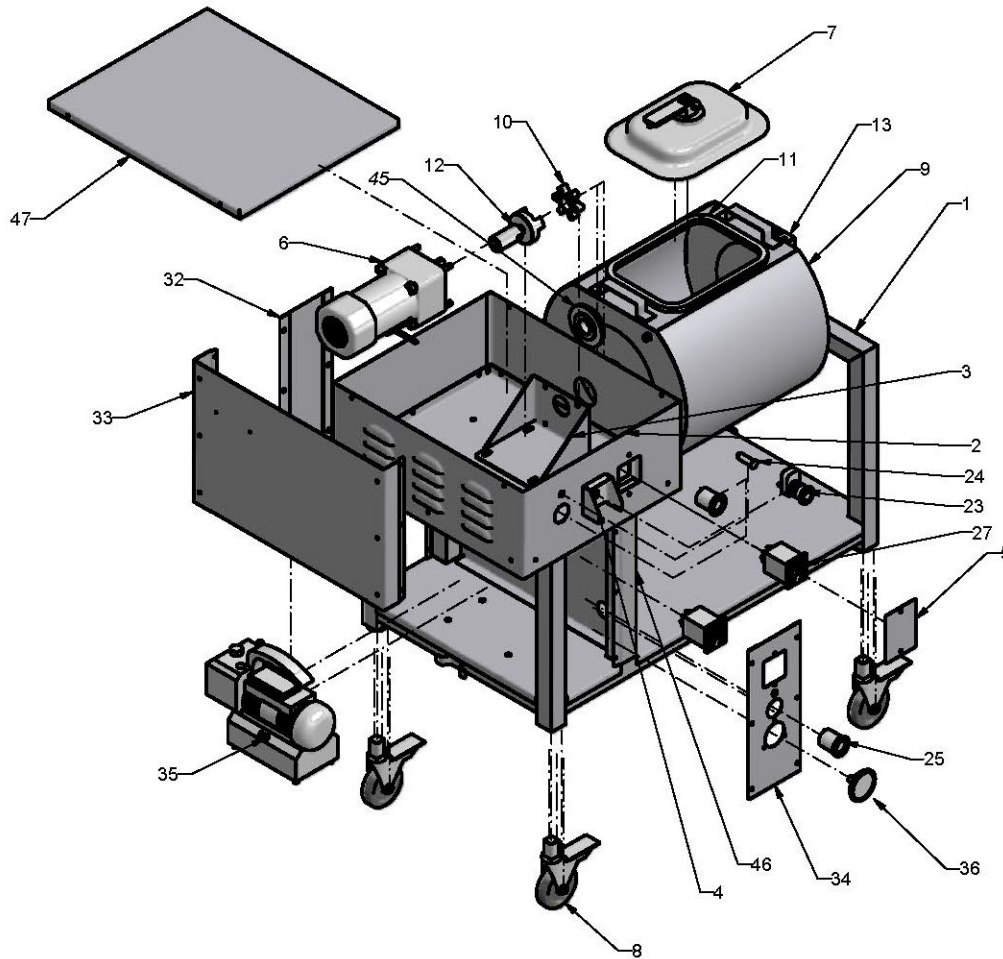
Troubleshooting

- 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

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