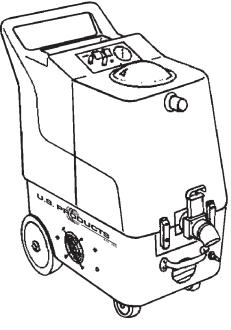


HHP-300-240 EXTRACTOR 240V



INFORMATION & OPERATING INSTRUCTIONS



CAUTION: DO NOT OPERATE MACHINE UNTIL YOU HAVE READ ALL SECTIONS OF THIS INSTRUCTION MANUAL



IMPROPER USE OF THE MACHINE WILL VOID THE WARRANTY

- 1. Always use a defoamer when foaming occurs to prevent vacuum motor damage.
- 2. Before each use, remove the spray tool from the hose, and check to make sure the spray nozzles are securely tightened to the spray tool. A loose nozzle could fly off during use.
- 3. Keep machine from rain and snow, extremes in temperatures, and store in a heated location. Use the machine indoors. Do not use outdoors.
- **4**. Never allow the spray to remain fixed in one spot.
- **5**. Use approved chemicals only. NO SOLVENTS.
- **6**. Wear gloves or use rags when removing quick disconnects to prevent burns.
- 7. Never use water above 54° C in the solution tank.
- **8**. Never use the machine without the pre-filter bag installed.

IMPORTANT SAFETY INSTRUCTIONS

This machine is only suitable for commercial use, for example in hotels, schools, hospitals, factories, shops and offices other than normal residential housekeeping purposes.

When using any electrical appliance, basic precautions should always be followed, including the following:

NOTE: Read all instructions before using this machine.



To reduce the risk of fire, electric shock, or injury:

- Do not leave the machine unattended when it is plugged in. Unplug the unit from the outlet when not in use and before servicing.
- To avoid electric shock, do not expose to rain or snow. Store, and use, indoors.
- Do not allow to be used as a toy. Close attention is necessary when used near children.
- Use only as described in this manual. Use only the manufacturer's recommended attachments.
- Never add water over 54° C to the solution tank.
- Do not use with damaged cord or plug. If the machine is not working as it should, has been dropped, damaged, left outdoors or dropped into water, return it to a service center.
- Do not pull by the cord, use the cord as a handle, close a door on the cord, or pull the cord around sharp edges or corners. Do not run the machine over the cord. Keep the cord away from heated surfaces. To unplug, grasp the plug, not the cord.
- Do not handle the plug, the cord or the machine with wet hands.
- Extension cords must be 12/3 and no longer than 50 feet. Replace the cord or unplug immediately if the ground prong becomes damaged.
- Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
- Keep loose clothing, hair, fingers, and all parts of body away from openings and moving parts.
- Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes, or any health endangering dusts. Do not use to pick up flammable or combustible liquids such as gasoline or use in areas where they may be present.
- Turn off all controls before unplugging.
- Use extra care when cleaning on stairs.
- Connect to a properly grounded outlet only.
- Liquid ejected at the spray nozzle could be dangerous as a result of its temperature, pressure, or chemical content.

INSPECTION:

Carefully unpack and inspect your HHP-300-240 for shipping damage. Each machine is tested and inspected before shipping. Any shipping damage incurred is the responsibility of the carrier. You should notify the carrier immediately if you notice damage to the box or to the machine or parts.

CLEANING SOLUTIONS:

We recommend liquid cleaning chemicals. Powder chemicals may be used, but unless mixed very thoroughly they could cause a build-up in the pump, lines, heat exchanger and/or quick disconnects. Any problem caused by a chemical build-up is not covered by warranty. Use a neutral cleaner with a pH between 5 and 10 to avoid premature wear of the pump, seals, and/or other components. Damage caused by the use of strong chemicals is not covered by the warranty.

MAINTENANCE:

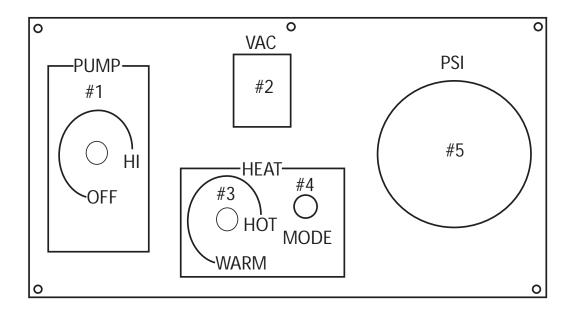
For optimum performance flush the machine with clear water at the end of each working day. Once a month, minimum, run a flushing compound through the machine to break up any mineral or chemical build-up that may have formed. The vacuum motor, pump motor, and the pump do not require any scheduled maintenance; however, the motors may require replacement brushes after 1000 - 1500 hours, and the pump and bypass valve may require rebuild kits after 1000 - 1500 hours, typically (refer to machine part list for numbers). Clean the body with an all-purpose detergent, and protect it with an automobile interior polish. Lubricate the wheels, castors, and quick disconnects with an all purpose silicone spray.

PARTS AND SERVICE:

Repairs, when required, should be performed by your authorized distributor who maintains an inventory of original replacement parts and accessories. Call the distributor from whom you purchased this machine if you need parts and service. Be sure to specify the machine model. Have your serial number handy.

Serial Number:
Model: <u>HHP-300-240</u>
Purchase Date:
Write the name and phone number of your distributor:
(and be sure to register your purchase to activate your warranty)

SWITCH PLATE



PUMP DIAL (1):

This dial controls motor speed and pump pressure. Adjust the dial clockwise to increase pressure and counterclockwise to decrease pressure or turn off pump. The pump runs off of cord #1.

VACUUM SWITCH (2):

This switch will illuminate when the vacuum motor is on. The vacuum motor runs off of cord #1.

HEAT CONTROL (3):

This dial controls the water temperature. Turn it clockwise to increase water temperature and counterclockwise to decrease temperature.

HEAT MODE LIGHT (4):

This light will only illuminate when the heater is heating and will turn off when it reaches operating temperature. During normal operation, the "MODE" light will be on most of the time.

PRESSURE GAUGE (6):

Indicates pump spraying pressure (the air bubble inside the gauge is normal). Do not operate the machine if the with the needle goes above 325 psi.

SET-UP and OPERATION:

Fill the holding tank with clear water and the detergent of your choice. Mix well. Although this machine is designed to supply instant hot water, the addition of warm water to the holding tank would increase heater efficiency. Never use water above 54° C in the solution tank.

- **1.** Plug in cord #1 (this cord runs the pump and vacuum). Attach the priming hose to the machine and place the open end into the tank (see Figure #1).
- 2. Turn on the pump (turn pump pressure dial all the way clockwise) and let it run until the pump is fully primed (approximately 30 seconds to 1 minute older pumps may take longer). Turn off the pump and disconnect the priming hose. Attach the cleaning hose and tool.
- **3.** Turn on the pump and spray through the cleaning tool for a few seconds to fill the lines with solution.
- **4.** Plug in cord #2 (indicated by the red "H" on the back of the machine). Wait until the red mode light goes out (approximatley 2 minutes) for the heat exchanger to reach operating temperature. You may now begin cleaning. **NOTE**: During normal operation, the red light will be on most of the time.

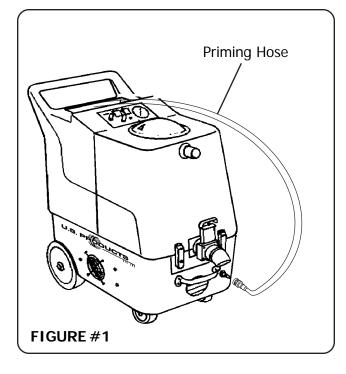
AUTO VACUUM SHUTOFF:

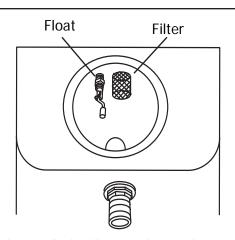
When the recovery tank is full, the float system will shut off the vacuum motor and prevent the machine from overflowing. The float will not work in foam. Always use a defoamer to prevent overflow. Once the vacuum motor shuts off, the vac switch (#2) must be turned off, the recovery tank emptied, and then the vacuum swtich turned back on (up position) to get the vacuum motor started again.

CAUTION: Always make sure the float is clean and travels freely before turning on the machine. A float that is stuck will cause the vacuum motor to suck in water, resulting in vac motor damage.

PUMP PRESSURE:

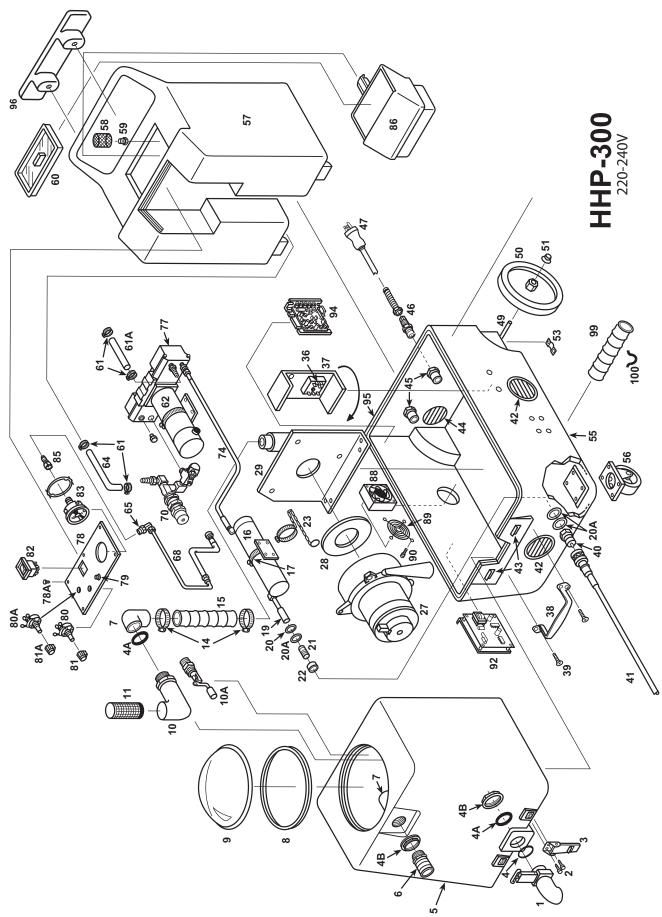
Make sure the cleaning tool is spraying when adjusting the pressure, otherwise the pressure reading will be inaccurate.





The float and inlet filter. Each time the recovery tank is emptied, the float should be checked for hair and dirt that may effect float operation (float must travel freely). The filter is removable and must be kept clean.

FIGURE #2:



HHP-300 240V PART LIST

<u>ITEM</u>	PART#	DESCRIPTION	<u>ITEM</u>	PART#	DESCRIPTION
1	FP231	Drain Gate Assembly	60	901	Lid, Holding Tank
2	21	Screw, Button Head 10/32-5/8"	61	166	Hose Clamp
3	908	Latch	61A	FP170	Hose, 1/2" x 18", Pump Inlet
4	187	O-Ring, Small	62	949B	Motor, 300 PSI Pump
4A	187B	Washer, rubber	64	FP169	Hose, 3/8" x 15", Pump, Bypass
4B	185	Nut, 1-1/2"	65	220	Quick Disconnect, Open, 1/4 p.t.
5	V-1	Vacuum Tank, HHP			
6	907	Hose Barb, 1-1/2"	68	FP168	Hose, Pump to Gauge, Complete
7	922	PVC Elbow, 1-1/2"	70	945	Bypass Valve, Complete
8	2009	Gasket, Vacuum Dome	77	FP167	Pump, complete, no motor
9	FP201	Vacuum Dome	78	920	Switch Plate (240V)
10	FP216	PVC Elbow Assembly	78A	28	Screw, #4 x 3/8"
10A	2026	Float, Vacuum Shut-Off, Electronic	79	228	Light, Red, Small
11	929	Filter, Vacuum, Inlet	80	255	Potentiometer, Heat Control
14	156	Hose Clamp, (size 28)	80A	FP200C	Potentiometer, w/Cable, Pump Control
15	430B	Hose, Vacuum, Rubber, 2" x 20"	81	248	Knob, Red, Heat
16	FP159B	Heat Exchanger, Complete	81A	249	Knob, Blue, Pump
17	76A	Hose Clamp, (size 36)	82	48G	Switch, Rocker, Vacuum
19	FP164	Hose Assy, Braided, Heater Outlet	83	951A	Gauge, PSI pressure, 2-1/2"
20	31	Washer, Brass	85	219	Quick Disconnect, Male, 1/4 p.t.
20A	115	Washer, Fiber	86	F-1	Funnel, Black
21	92A	Nipple, S/S, 1/4 p.t.	88	2018	Fan, Cooling
22	116A	Bushing, Fiber	89	2015	Guard, Fan
23	934	Chain, 9.5"	90	2B1	Screw, 6/32 x 2"-1/4"
27	FP385	Vacuum Motor, 3-Stage w/Connectors	92	FP225A	Vacuum Board, Complete
28	959	Gasket, Vacuum Motor	94	FP316	Motor Speed Board, w/Resistor (Pump)
29	926	Vacuum Manifold	95	FP228A	Gasket, Base
36	see Misc.	Thermistor Control with Potentiometer**	96	CWBLK	Cord Wrap, Black
37	918	Heat Sink Plate	99	430	Hose, Exhaust, 2" x 12 "
38	2010A	Handle, Chrome	100	928A	Bracket, Exhaust Hose
39	193	Screw, flathead, 1/4			
40	45	Quick Disconnect, 1/4 p.t.			
41	SYP1	Priming Hose			
42	928	Louver, 3"		MISCEL	LANEOUS ASSEMBLIES/PARTS
43	909A	Latch Strike for Latch, S/S	291	Pyro	ass Valve Rebuild Kit
44	459	Louver, 2-1/2" (includes screws)	229		e/O-Ring Kit, Pump
45	937	Reducer, PVC	250		on Seal Kit, Pump
46	184	Cord Retainer	FP212		ip & Motor Complete (240V)
47	2019	Power Cord, Yellow, 25'	242		sh for Pump Motor (Order 2)
49	910-15.56	Axle, 1/2" x 17-1/2"	950A		i/Bearing Assembly (Pump)
50	2003	Wheel, 8"	**FP		rmistor Control Kit with Potentiometer
51	27A	Axle Cap, Black	1.5		obe (240V)
53	180	Axle Bracket	FP200		entiometer with Cable (pump speed)
55	BBKL-1	Base, HHP	FP200		uum Dome w/Gasket
56	905	Castor, 4"	11200	oo vact	Jan Done W/ Odsket
57	T-1	Holding Tank, HHP			
58	207A	Filter, Pump, Inlet		(NOTE:	Items in kits not sold separately.)
59	92B	Nipple, PVC, 1/2 n.p.t.			

TROUBLE SHOOTING:

IF THIS OCCURS

NO SPRAY	Solution tank is empty.
	Clogged spray tip.
	Pump not running or not primed.
	Valve on wand not apprating

CHECK THIS

NO SPRAY	Solution tank is empty. Clogged spray tip. Pump not running or not primed. Valve on wand not operating.			
PUMP DOES NOT RUN	Check the brushes in the pump motor. Replace if necessary. No power to motor. Test the Motor Speed Control Circuit Board and potentiometer.			
LOW SUCTION	Debris is plugging cleaning tool or vacuum hose. Drain gate is not completely closed, or seals are damaged. Vacuum dome is not seated or is damaged.			
NO SUCTION	No power to vac motor. Test the Electronic Float. Test the switch. Test the vacuum motor. Test the Vacuum Circuit Board.			
LOW HEAT	Spraying too long. Try spraying for 12-15 seconds per cycle. Heat exchanger needs to be flushed. Wrong tool being used. Too much water passing through. Longer hose or larger diameter hose, than standard			
NO HEAT	Heat is not turned on. No power in the wall outlet - check to see if the breaker has tripped. Call your distributor for additional help.			

SPECIFICATIONS:

Rotomolded Body: Lifetime Warranty

> 7.2", 3-stage Vacuum:

VAC Shutoff: Electronic

> Pump: Positive displacement, fully adjustable 0-300 psi

Waterlift: 140"

> Heat: Adjustable to 212° F

Heater: 2000 Watts

Wand: Stainless steel, double bend, twin tip

Weight: 92 lbs.

Dimensions: 26.5H x 18W x 28.75L (inches)



208-772-0573 · 800-257-7982 · FAX: 208-772-0577 VISIT US AT: http://www.usproducts.com