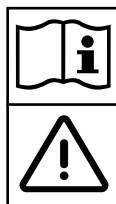
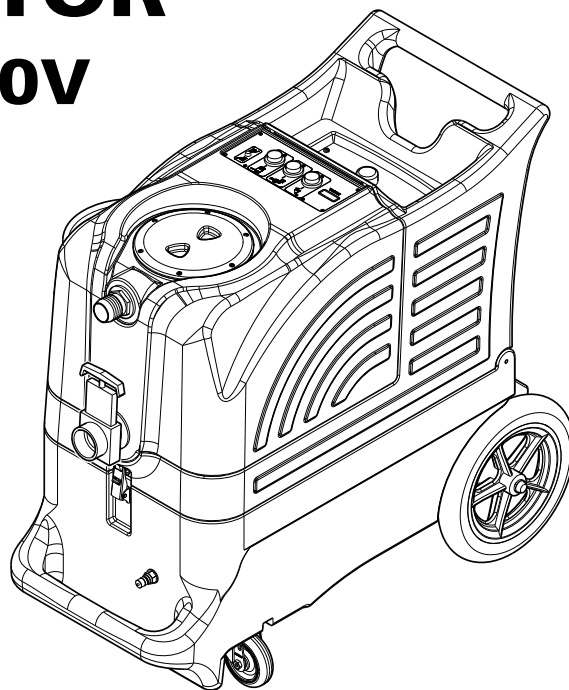




# ADVANTAGE-400H-CE EXTRACTOR 220 - 240V

## 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. Connect the machine to a properly grounded outlet, only.
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. Use approved chemicals only. NO SOLVENTS.
5. Wear gloves or use rags when removing quick disconnects to prevent burns.
6. Never use water above 54° C /130° F in the solution tank.

## 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:

### **WARNING!**

#### **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 power outlet when not in use.
- Always use a defoamer when foaming occurs to prevent damage to vacuum motor(s).
- Unplug the machine from the power outlet before cleaning or servicing.
- To avoid electric shock, do not expose to rain or snow. Store, and use, indoors.
- Wear hearing protection if desired. The measured sound level of the Advantage is 79dB(A).
- Do not allow to be used as a toy. Close attention is necessary when used near children.
- Use only the manufacturer's recommended attachments.
- Inspect the power cord regularly for damage, such as cracking, ageing, or damaged insulation. Replace the power cord with the same type as original if any damage is found. Do not use with damaged cord or plug.
- Use approved chemicals only. Never use solvents.
- Do not let the pump run dry.
- If the machine is not working as it should, has been dropped, damaged, left outdoors or flooded with water, return it to a service center.
- Do not pull the machine by the cord, do not 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.
- Extension cords must be 12 gauge and no longer than 15 m. Replace the cord or unplug immediately if the ground prong becomes damaged.
- Never fill the tank with water above 54° C.
- 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.
- 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 ADVANTAGE-400H-CE 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 6 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 motors and the pump do not require any scheduled maintenance; however, the vacuum motors may require replacement brushes after 1000 - 1500 hours. 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.

**Serial Number:** \_\_\_\_\_

**Model:** ADVANTAGE 400H-CE

**Purchase Date:**\_\_\_\_\_

**Write the name and phone number of your distributor:** \_\_\_\_\_  
\_\_\_\_\_

**(and be sure to register your purchase to activate your warranty)**

## SWITCH PLATE

### MODEL (1):

This identifies the model of your machine.

### VACUUM SWITCH (2):

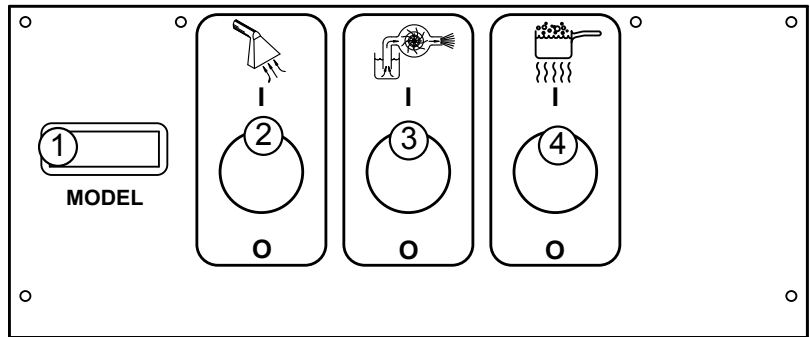
This push-button switch turns on the vacuum. The switch will illuminate when it is on.

### PUMP SWITCH (3):

The pump switch turn the pump on and off, and it will illuminate when it is activated.

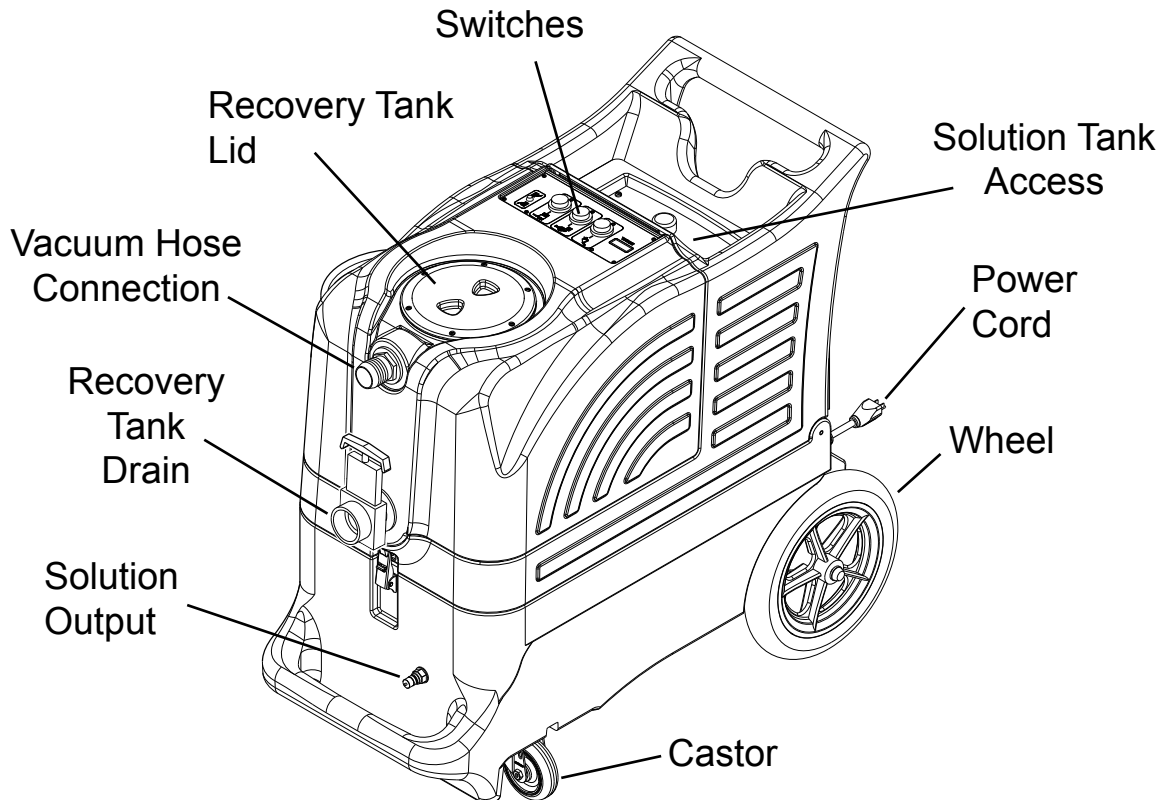
### HEAT SWITCH (4):

The heat switch will turn on the heat, and it will illuminate when it is activated.



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## YOUR MACHINE



## SET-UP & OPERATION:

1. Inspect the machine, hoses, and cleaning tools for cleanliness and completeness.
2. Screw the lid on the recovery tank. Close the drain gate.
3. Fill the holding tank with clear water.

**NOTE:** although this machine is designed to supply instant hot water, the addition of warm water to the solution tank would increase heater efficiency. Never use water above 54° C in the solution tank.

4. Turn off all the switches. Plug the power cord into a properly grounded outlet.
5. Connect the priming hose to the machine, and position the open end of the hose over the solution tank. Turn the pump ON (3) to prime the air out of the pump. When the water is clear (no air in it) turn off the pump. **NOTE:** if priming is difficult, place the open end of the priming hose into the vacuum inlet hose barb, and turn the vacuum on. Use your hand to block the open area in the hose barb. This will allow the pump and the vacuum to work together to get the water moving. Priming may take 20 - 60 seconds, and the solution tank should be full. Once the pump has been primed, turn off the motor(s) off. Remove priming hose.

**NOTE:** never disconnect your hoses before the pump has stopped running. Always release the pressure in the lines and in the system before removing the solution hose.

6. Turn on the Heat switch (4), and wait two minutes for the heat exchanger to reach temperature.
7. Pre-spray with the detergent of your choice. If you choose to add a detergent to the solution tank, be sure to mix well, and always follow the use & dilution instructions on the chemical label.
8. Attach the spray hose to the solution quick disconnect and the vacuum hose to the hose barb on the recovery tank. Attach the other ends of the hoses to the cleaning tool.
9. Turn ON the vacuum (2).
10. Turn ON the pump and begin cleaning.
11. Use defoamer any time foaming occurs to prevent damage to the motor or other components.  
**NOTE:** foam will not lift the ball float.
12. Monitor the water level in the solution tank. Do not let the pump run dry.
13. When the solution tank gets low, turn off the pump and the vacuum, fill the solution tank, and empty and clean the recovery tank.
14. When finished with the job, remove any unused solution from the solution tank, and run a few gallons of clean water through the system. Drain the recovery tank by opening the drain gate over a drain or a bucket. Disconnect the hoses from the cleaning tool.

## AUTO VACUUM SHUTOFF:

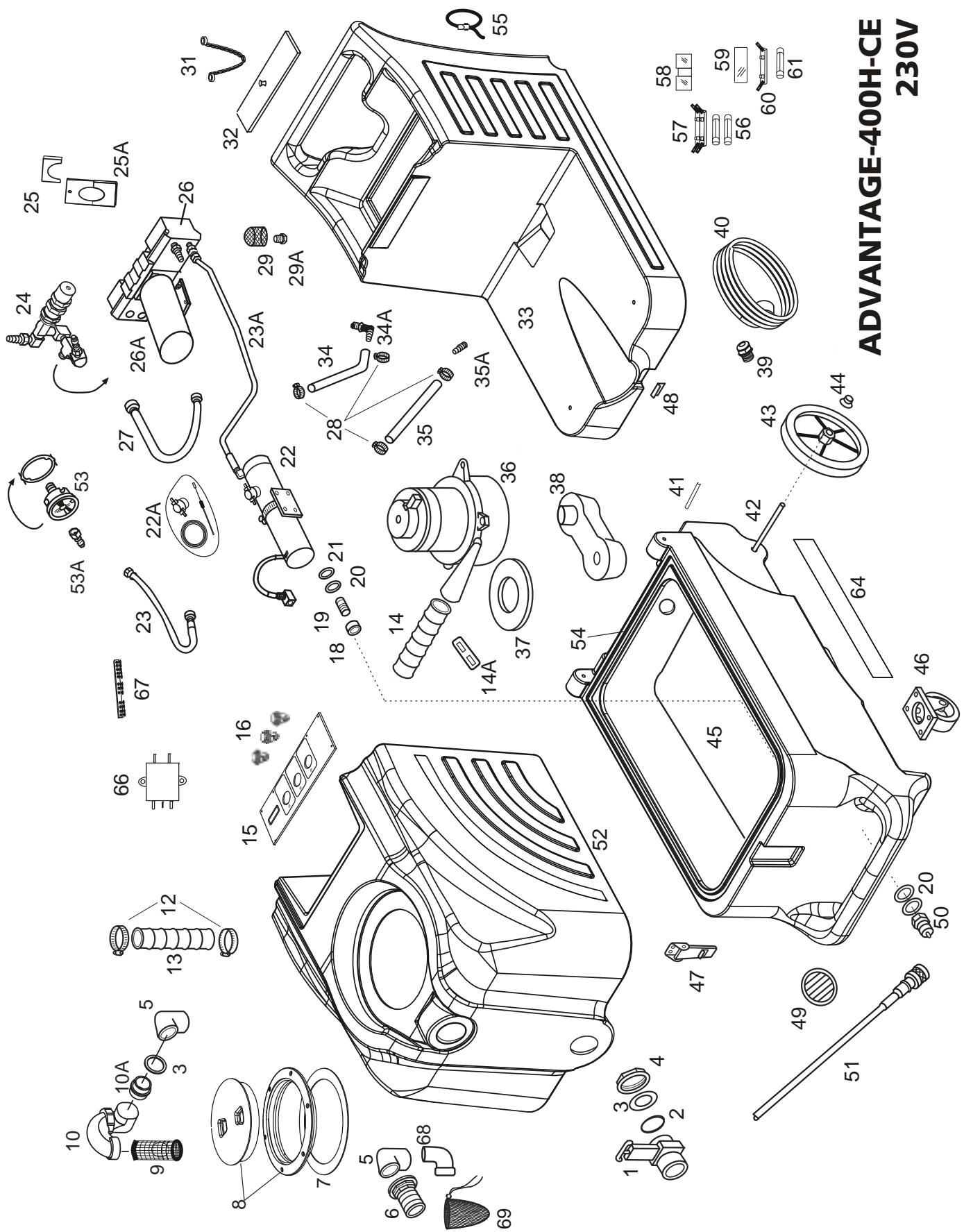
When the recovery tank is full, the ball float will shut-off the suction to prevent the machine from overflowing. **NOTE:** the float may not work if there is foam in the tank. Always use defoamer to prevent overflow.



**CAUTION!** If water or foam comes out of the vacuum exhaust, turn the machine off immediately



**CAUTION:** Always make sure the float cage is clean and the ball can travel freely before turning on the machine.



**ADVANTAGE-400H-CE  
230V**

## ADVANTAGE 400H-CE 230V

Item	Ref. No.	Qty	Description	Item	Ref. No.	Qty	Description
1#	903USP	1	Drain Gate	33	TKC-6	1	Solution tank, white
2#	187USP	1	O-ring	34	946	17"	Hose, pump inlet, 1/2" ID X 17"
3	187B	2	Gasket	34A	1113	1	Hose barb/elbow
4#	185USP	1	Nut, 1-1/2"	35	925	18"	Hose, pump bypass, 3/8" ID X 18"
5#	922USP	1	Elbow, 90°, PVC	35A	1115	1	Hose barb
6	907	1	Hose Barb, vacuum inlet	36	2189	1	Vacuum, 3-stage
7	1074	1	Gasket	37	2013	1	Gasket, vacuum
8	2086A	1	Lid with Ring, 6"	38	MA-6	1	Manifold, vacuum
9	929B	1	Ball Float, vac shut-off	39#	230USP	2	Retainer, cord pigtail
10	1154A	1	Adapter, ABS trap	40	FP654	2	Power cord & plug, 7.5 m
10A	1154	1	Adapter, ABS	41	801	2	Hinge pin
12#	156USP	2	Hose Clamp	42	910-1863	1	Axle Rod (18.63" long)
13	430	27"	Hose, vacuum, 2"ID X 27"	43	2092	2	Wheel, 12 inch
14	430A	1	Hose, vacuum, 2"ID X 14.5"	44#	27AUSP	2	Axle cap
14A	4404C	1	Bar, vacuum hose hold-down	45	BMPE-1	1	Base-Black
15	2167	1	Switch Plate	46#	905USP	2	Castor
[ ]	2167-1C	1	Overlay	47#	56471194	1	Latch
16#	1650	3	Switch, push-button, ON/OFF	48	909A	1	Catch, for latch
18	116A	1	Bushing, fiber, heat resistant	49#	459USP	1	Louver, 2-1/2"
19#	92AUSP	1	Nipple, 1/4 mpt, S/S	50#	45USP	1	Quick disconnect
20#	115USP	3	Washer, fiber, heat resistant	51	SYP1	1	Priming hose
21	31	1	Washer, brass	52	VT-29	1	Recovery tank, white
22#	FP664	1	Heat Exchanger, Complete	53	2165	1	Pressure gauge
22A	FP256	1	Heat Repair kit	53A#	219USP	1	Quick disconnect
23	944	1	Hose, pulsation dampening	54	FP228A	84"	Gasket
23A	1581A	1	Hose, pump to heater	55	1603	2	Strap, cord wrap
24	945D	1	Pressure regulator valve, unloader	56	1339	2	Fuse 12, Amp
25	1555	1	Clamp, pressure regulator to mount	57	1342	1	Holder, fuse, double
25A	1554	1	Mount, pressure reg.	58	2140	1	Cover, fuse, double
26	FP613	1	Pump, complete, 400 psi	59	2139	1	Cover, fuse, single
26A	2064-CE	1	Motor, pump drive	60	1341	1	Holder, fuse, single
27	1506	1	Hose assembly, 21"	61	1338	1	Fuse, 10 amp
28#	166USP	4	Hose clamp	64	2162	2	Label Advantage Series
29	207A	1	Filter, pump inlet	66	2020C	1	Filter, electrical noise
29A#	92BUSP	1	Nipple	67	2111	1	Terminal block, grounding
31#	805USP	1	Chain, 8"	68	1140	1	Elbow
32	2175	1	Lid, Solution tank	69	FP619	1	Pre-filter bag with cord lock

### MISCELLANEOUS PARTS

[ ]	950CP	1	Pump rebuild kit, valves & o-rings
[ ]#	250USP	1	Pump rebuild kit, plunger and seals
[ ]	950D	1	Cam/bearing

[ ] = Not Shown

# = Revised or new since last update

# ADVANTAGE 400H-CE

## TROUBLE SHOOTING:

<u>IF THIS OCCURS</u>	<u>CHECK THIS</u>
NO SPRAY	Solution tank is empty, or filter is plugged up. Clogged spray tip. Pump not running. Valve on wand not operating. Solution hose not completely connected to hose or to machine.
PUMP DOES NOT RUN	This pump motor runs on AC voltage, so it should start running as soon as you turn on the switch. If the pump motor does not start running, check the wiring to the switch and to the motor. Check the switch to see if it is 'open.'
LOW SUCTION	Debris is plugging cleaning tool or vacuum hose. Drain gate is not completely closed, or seals are damaged. Vacuum lid is not closed completely or is damaged.
NO SUCTION	Ball in the float is blocking air flow. Turn off the vacuum so the ball will drop down. No power to motor. Does the switch light up? If not, the switch may be bad or there may be no power getting to the switch. Check wiring connections. Test the switch. Test the vacuum motor.
LOW HEAT	Spraying for too long will significantly drop the heat. Try spraying for 8 - 10 seconds, or about three strokes. 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. No power to the heat switch - check wiring for 'opens.' No power out of heat switch. Replace switch. Call your distributor for additional help.

## SPECIFICATIONS:

<b>Rotomolded Body:</b>	<b>Lifetime Warranty</b>
<b>Vacuum:</b>	<b>One, 3-stage</b>
<b>VAC Shutoff:</b>	<b>Ball Float</b>
<b>Waterlift:</b>	<b>28 KPa</b>
<b>Pump:</b>	<b>27 Bar positive displacement, adjustable</b>
<b>Heater:</b>	<b>2000 W</b>
<b>Wand:</b>	<b>Stainless steel, single bend, two tip</b>
<b>Weight:</b>	<b>20 kg</b>
<b>Dimensions:</b>	<b>45.7 x 96.5 x 87.6 cm</b>