U.S. PRODUCTS

QUALITY MADE IN THE USA

# Neptune 500H
# 120V

*INFORMATION*
*&*
*OPERATING*
*INSTRUCTIONS*

READ AND UNDERSTAND THESE INSTRUCTIONS
BEFORE OPERATING THE MACHINE

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# Machine Specifications:

| | **Neptune 500H 120V** |
|---|---|
| Pump | 50 -500 psi, piston pump with pressure unloader |
| Vacuum | **Dual 3 stage 185" lift 107 CFM** |
| Heater | 1750 watt |
| Solution Tank Capacity | 15 Gal |
| Recovery Tank Capacity | 15 Gal |
| Vacuum Shut-off | Ball Float |
| Dimensions | 33" H<br>25" W<br>44" L |
| Weight | 132 lbs |
| Warranty | See Below |

# Machine and Purchase Specifications:

**RECORD AND RETAIN THIS IMPORTANT INFORMATION**

Neptune 500 120V
Serial Number:_____

Purchase Date: _____
Write purchase location and phone number below
_____

_____

***And don't forget to register your purchase to activate your warranty***

## CRITICAL SAFETY INFORMATION & CAUTIONS

The acceptable use of this machine is for commercial/professional cleaning, for example, in hotels, schools, hospitals, and offices, rather than for personal housekeeping.

NOTE: Read all instructions before using this machine. Improper use or misuse of the machine can result in personal injury or property damage.

To reduce the risk of personal injury or property damage, follow these procedures:

- Connect to a properly grounded outlet only.
- Do not operate the machine in an explosive environment.
- Do NOT use Solvents.
- Never add water over 120°F/ 49°C to the solution tank.
- Do not pick up anything that is burning or smoking, such as cigarette, 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.
- To avoid electric shock, do not expose to rain or snow and keep from extremes in temperature. Store in a heated location. Use the machine indoors. Do not use outdoors.
- Do not use this machine to dry vacuum before wet cleaning.
- Do not use with damaged cord or plug. 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 leave the machine unattended when it is plugged in. Unplug the unit from the outlet when not in use and before servicing.
- Use only as described in this manual. Use only the manufacturers recommended attachments.
- 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 plug immediately if the ground prong becomes damaged.
- Do not put any object into opening. Do no 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.
- Liquid ejected at the spray nozzle could be dangerous as a result of its temperature, pressure, or chemical content.

**READ AND SAVE THESE INSTRUCTIONS**

## YOUR NEW MACHINE:

When you receive your new machine, examine the packaging for signs of shipping damage. Carefully unpack the machine and inspect it. If you see evidence of damage to the container or the contents, contact the freight carrier immediately.

Additionally, ensure all parts and accessories are present; if you notice anything missing, contact your distributor without delay.

## SYSTEM FEATURES:

HEAT: The Neptune 500 has a built-in heater for the solution. An ON/Off switch activates the heater. If you prefer to clean without the added effectiveness of heat, simply do not turn on the heat switch.

VACUUM: The vacuum motors provides an excellent ratio of water lift to air movement (see specs, page2). Carpets should dry quickly if not over-wetting while cleaning.

PUMP: The pump is a piston style, positive displacement pump. It runs continuously when turned on, but the use of the unloader valve enables the operator to set the pressure to the desired PSI, between 50 and 500.

## CHEMICALS:

The use of clear water in the machine is recommended, within the application of properly diluted cleaner as a pre-spray on the area to be cleaned; however, you may mix water and cleaning chemicals in a bucket -- according to directions on the chemical label -- and then pour into the solution tank. If you chose to use chemicals in the machine, always use a cleaner with a pH as close to neutral as possible 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.

The use of powder chemicals is discouraged; unless they are mixed very thoroughly and rinsed out completely at the end of the job, powdered cleaners could cause a build-up in the pump, lines, heater and/or quick disconnect. Any problem caused by a chemical build-up is not covered by warranty.

If foaming occurs as you clean, use a defoamer, either in the recovery tank or on the area being cleaned, to prevent overflow which can cause water damage to machine components.

## TOOLS & ACCESSORIES:

Use only manufacturer's recommended tools and accessories. If the spray valve on your cleaning tool begins to leak or if the spray tips get worn and are no longer providing a nice even spray pattern, order replacements from your distributor.

## CARE AND MAINTENANCE:

For continual peak operation, clean the internal plumbing by rinsing with clear water at the end of each job. About once a month, rinse the machine with a commercial flushing compound to break-up any mineral or chemical accumulation that may have formed from the use of hard water or chemicals.

The vacuum motors and the pump do not require any scheduled maintenance; however, the vacuum motor may require replacement brushes after 750-1000 hours.

To help maintain a professional image; clean the exterior of the machine with an all purpose detergent, and protect it with automobile interior polish. Lubricate the wheels, castors, and quick disconnects with an all purpose, silicone spray.

## VIEWS OF THE MACHINE:

### FRONT VIEW

### REAR VIEW

## SET-UP AND OPERATION:

1. Before each use, inspect the machine, hoses, and cleaning tool for cleanliness and completeness, Ensure the spray nozzles on the cleaning tool are tight and that the ball float in the recovery tank is clean and operational.

2. Close the clear, screw-on lid on the recovery tank, and screw the cap onto the drain hose.

3. Fill the holding tank with clear water.

NOTE: the heater on this machine is designed to provide nearly instant hot water for cleaning; if you use warm water in the solution tank it would increase heater proficiency. Never use water above 120°F or 49°C in the solution tank.

4. Turn off all the switches. Plug the power cords into properly grounded outlets. Do not connect both cords to the same outlet.

5. Connect priming hose (included) to outlet QD

6. Turn the pump ON and let water flow through priming hose until it is a clear flow, no air bubbles visible.

7. Turn off pump switch, disconnect priming hose. Connect solution and vacuum hose to machine and tool

8. Turn the heat switch ON and wait two minutes for the heater to reach operating temperature.

NOTE: 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. Use a chemical with a pH between 5 and 10 to reduce the likelihood of premature wear to the pump and other seals.

9. Spray through your cleaning tool as you adjust the pressure regulator knob, on the front of the machine, to achieve the desired spraying pressure.

9. Turn on the vacuum.

10. Begin cleaning, following industry accepted practices.

NOTE: Use defoamer any time foaming occurs in the recovery tank 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 vacuum, fill the solution tank, 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 hose over a drain or a bucket. Release any residual pressure from the cleaning tool before disconnecting the hoses from the cleaning tool.

## AUTO VACUUM SHUT OFF:

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 too much foam in the tank. Always use defoamer to prevent overflow.

## HEAT SYSTEM:

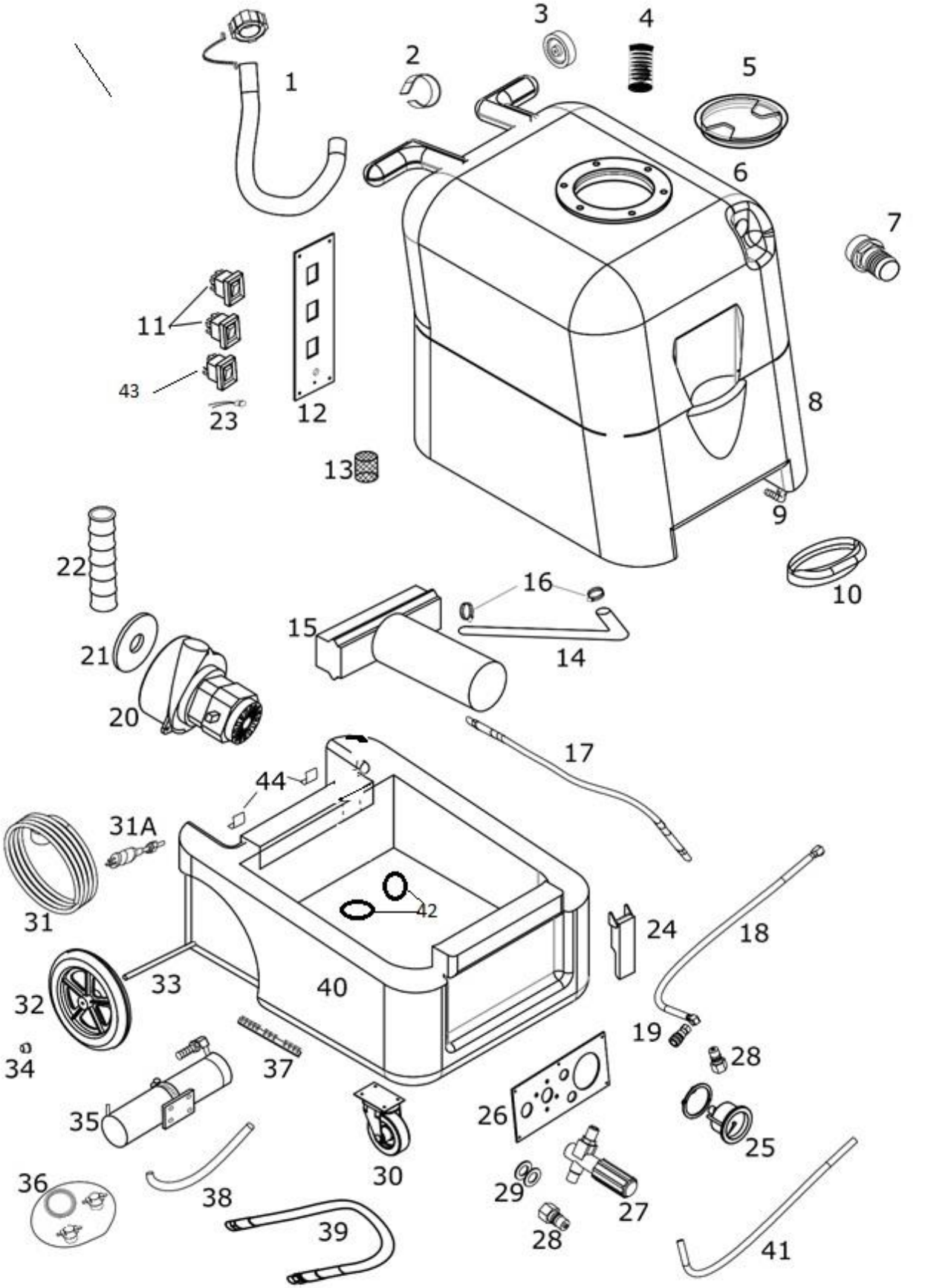
The heater holds a small amount of water, so to maintain hot water for the entire cleaning job, spray for short periods and then stop spraying during a recovery stroke. Continuous spraying will prevent the water from pausing long enough in the heater to get hot.

TROUBLESHOOTING

ALWAYS UNPLUG THE MACHINE BEFORE DISCONNECTING OR CONNECTING ANY WIRES OR COMPONENTS

| SYMPTOM | POSSIBLE CAUSE |
|---|---|
| Low pressure | Plugged or dirty inlet filter;<br>Pump is leaking<br>Pump valve(s) damaged;<br>Pressure regulator valve is worn and leaking water back into the holding tank even while spraying from the tool; |
| No spray | Solution tank is empty;<br>Quick couplings on solution line are not completely connected to machine or tool;<br>Spray tip(s) plugged;<br>Pump motor is not running<br>Plugged/dirty pump inlet filter;<br>Plugged or damaged solution hose or quick disconnect |
| Pump not running | No power to pump -- no power to cord<br>AC to DC bridge rectifier is damaged;<br>On/off switch is bad;<br>Pump motor is getting power but won't run – check motor brushes; |
| Low suction | Recovery tank lid not sealed;<br>Dirty vacuum inlet screen;<br>Vac hose loose or cracked;<br>Vacuum gasket is damaged or compressed |
| No suction | Recovery tank is full;<br>Vacuum is not running – bad switch or bad vacuum |
| Low heat | Spraying too long; |
| No heat | No power to heating element – thermal fuse is blown; the bimetallic switch is not closing or heat on/off switch is bad; |

Always use original equipment replacement parts.
Contact your distributor for additional information or to arrange for service.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Rev 022218

# Neptune 500
# Part List
## 120V

| Item No. | Part No. | QTY | Description | Item No. | Part No. | QTY | Description |
|---|---|---|---|---|---|---|---|
| 1 | 41-00536 | 1 | Hose, Drain, With Cap and Chain | 24 | 39-00004 | 2 | Latch |
| 2 | 41-00017 | 1 | Hook & Loop Strap, Wand Holder | 25 | 41-00001 | 1 | Pressure Gauge for 500 PSI |
| 3 | 39-00017 | 2 | Wheel, 3” | 26 | 41-09511 | 1 | Plate, Gauge Mount |
| 4 | 41-09507 | 1 | Ball Float | 27 | 50-00002 | 1 | Pressure Regulator/Unloader |
| 5 | 41-00004 | 1 | Clear Lid w/Mounting Plate | 28 | 41-00007 | 1 | Quick Disconnect, Male |
| 6 | 01-10595-004 | 1 | Vacuum Tank, Neptune 500 | 29 | 31-00002 | 2 | Washer, High Temperature |
| 7 | 41-00050 | 1 | Hose Barb, for 1-½” Hose | 30 | 39-00019 | 2 | Caster |
| 8 | 01-10597-004 | 1 | Solution Tank, Neptune 500 | 31 | 40-00007 | 2 | Power Cord, 25 ft |
| 9 | 41-00011 | 1 | Hose Barb/Elbow, 90° | 31A | 40-00008 | 2 | Power Cord, Pigtail |
| 10 | 52-00004 | 1 | Lid, Solution Tank | 32 | 52-00006 | 2 | Wheel, 12” |
| 11 | 40-00400 | 2 | Switch, Vacuum Selector | 33 | 41-00060 | 1 | Axle |
| 12 | 05-20002-FP0200 | 1 | Switch Plate | 34 | 32-00002 | 2 | Axle Cap |
| 13 | 41-00069 | 1 | Filter, Pump Inlet | 35 | 42-00031 | 1 | Heater, Complete |
| 14 | 41-00512 | 1 | Hose, ½” ID X 23.5”,Pump Inlet Hose | 36 | 05-30004 | 1 | Repair Kit, Heater |
| 15 | 50-00003 | 1 | Pump & Motor, 500 PSI, w/bearing | 37 | 40-00800 | 2 | Terminal Block |
| 16 | 41-00700 | 1 | Hose Clamp | 38 | 41-00521 | 1 | Hose, Heater to Outlet QD |
| 17 | 41-00524 | 1 | Hose, Pump to Unloader | 39 | 41-00523 | 1 | Hose, Unloader to Heater |
| 18 | 41-00524 | 1 | Hose, Pump to Pressure Gauge, 17” | 40 | 01-10737-001 | 1 | Base Compartment, Neptune 500 |
| 19 | 41-00022 | 1 | Quick Disconnect, Female | 41 | 41-00512 | 1 | Hose, ½” X 25”, From Unloader to Tank |
| 20 | 52-00010 | 2 | Vacuum Motor, 3-stage | 42 | 01-10697-001 | 2 | Manifold, Vacuum |
| 21 | 41-01303 | 1 | Gasket, Vacuum, 5” OD | 43 | 40-00401 | 1 | Switch Pump & Heater |
| 22 | 41-00538 | 1 | Hose, Gray Wire Reinforced, 2” X 18” | 44 | 39-00003 | 2 | Strike, For Latch |
| 23 | 50-00153 | 1 | Dual Cord Indicator | | | | |

# Neptune 500 WARANTY

**This limited warranty begins on the date of the customers purchase and is valid and available to the original purchaser only.**

## 10-YEAR LIMITED HOUSING WARRANTY

Manufacture warrants that all rotationally molded housing and tanks will be free from manufacturing defects, defects in workmanship, and defects in material for Ten (10) years from the date of original purchase, for the original purchaser only. This warranty does not apply and is void if there is evidence of improper use, altered, abuse or neglect. **Replacement cost does not include the cost of parts, shipping or labor**.

## 2-YEAR MAJOR COMPONENTS WARRANTY

Manufacturer warrants that, pumps, heaters and vacuum motors, are covered under a two (2) year limited warranty from the date of original purchase. This warranty does not apply and is void if the pump, vacuum motor, or heater has worn motor brushes, water damage, freezing, chemical build-up, chemical damage, or evidence of abuse, neglect or tampering. **This warranty covers the cost of the replacement parts, shipping of the new part and labor.** Manufacturer will ship parts via normal ground delivery prior to the return of the defective parts at normal charge to the Distributor. Extra charges for expedited or air shipments will be bill to the Distributor. Manufacturer will credit the Distributor for the replacement parts, if the defective parts are returned within 30 days and are determined to be covered under warranty. **This warranty does NOT cover the cost of shipping the damaged parts back to Manufacturer for evaluation.** If a component is replaced, Manufacturer will offer a new 90-day limited warranty on the new component.

## 90-DAY WEAR PARTS LIMITED WARRANTY

Manufacturer will replace all wear parts for 90 days from the date of original purchase of new equipment. Wear parts are items which wear out as a result of usage or the passage of time and are consumed despite attempts to maintain them, such as gaskets, wheels, brass, cords, wires, electrical terminals, hoses, switches, thermostats, plastisol parts, filters, bearings, brushes, solenoids, O-rings, bulbs, castors, or other parts deemed wear items is manufactures sole discretion. **This warranty covers the cost of replacement parts, Labor and shipping**

## Proof of purchase required