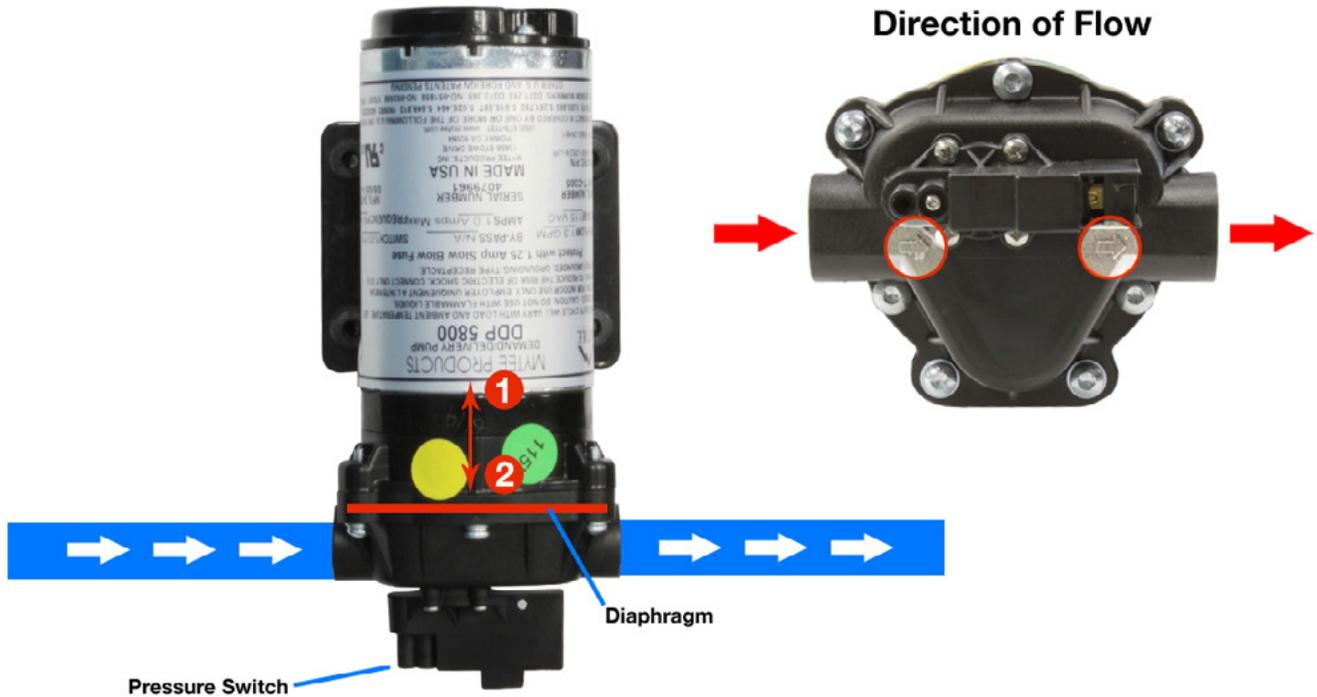


TECHNICAL SUPPORT

DIAPHRAGM PUMPS

Basic Operation



A diaphragm pump moves water by the use of an oscillating diaphragm. Its operation is fairly simple and involves two basic steps.

Step 1: The diaphragm moves up, drawing liquid into the chamber.

Step 2: The diaphragm then moves down, which forces the liquid through the other end and towards your cleaning tool.

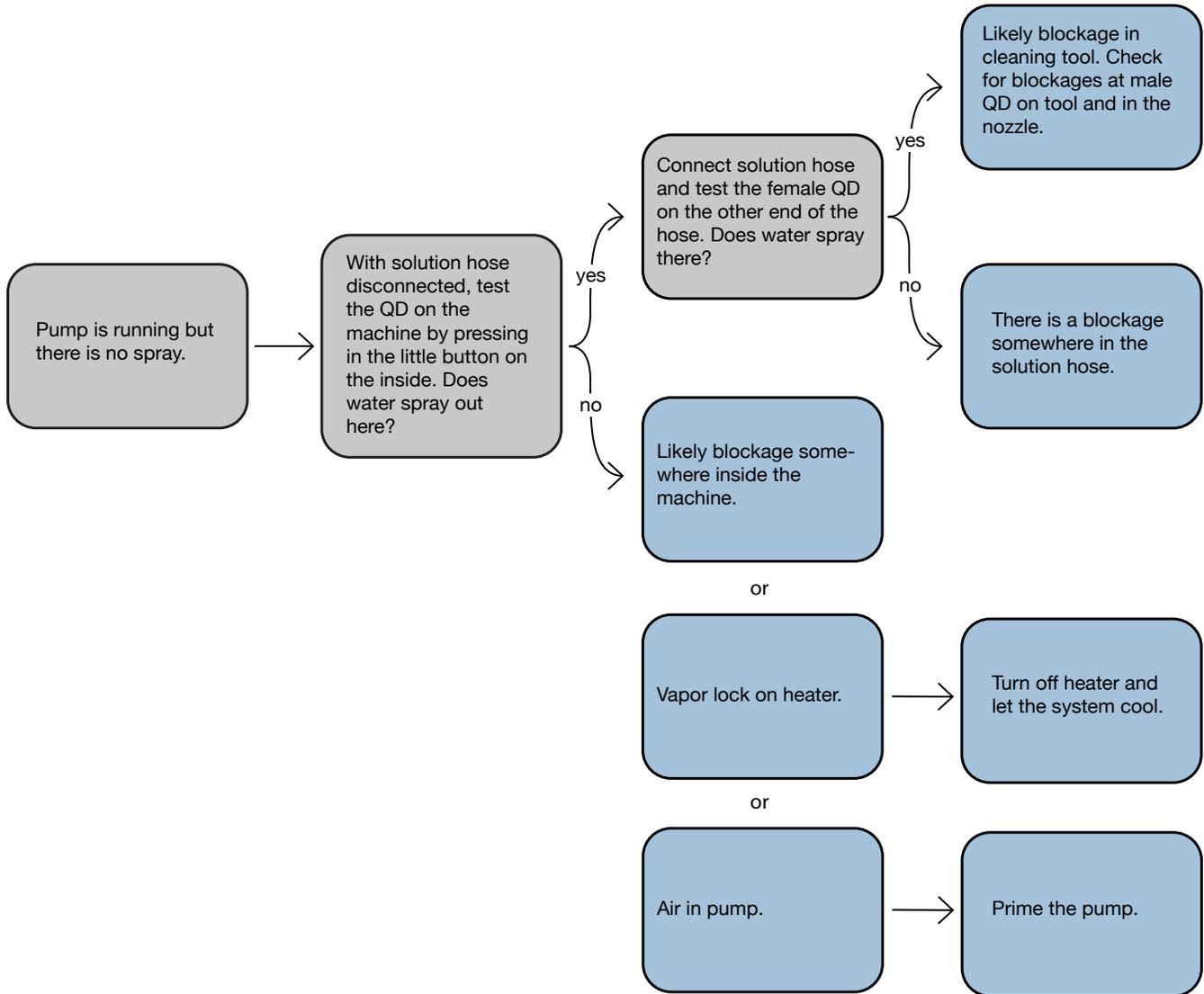
Troubleshooting

Problem:	Possible Causes:	Solutions:
Pump doesn't turn on.	Bad switch at control panel.	Unbolt the switch plate. We recommend taking a picture of the layout of the wires or tagging the wires for future reference. Switch the wires from the pump switch with the wires from either the vacuum or heater switch. Turn on the vacuum or heater switch (whichever one you exchanged wires with). If the pump turns on, the pump switch is bad.
	Loose or disconnected wire.	Disconnect the power cord from the electrical outlet. Open up the machine and look for any loose or disconnected wires. Re-attach or replace wires.
Pump runs but there is no spray.	Blockage or kink somewhere in the line.	See chart here to diagnose the location of the blockage.
	Air is in the pump.	Prime the pump.
		Remove QD off the machine and solution hose. Make sure that the three-prong clip on the inside of the threaded end is evenly aligned below the thread of the QD.
Pump runs but there is no spray (new units equipped with internal heaters only).	On a new unit equipped with a heater, the check valve between the pump and heater may hang up, causing the flow of water to be impeded or stop entirely.	<p>Remove the check valve temporarily and check to see if the pump will flow water out of the pump outlet hose when the pump is turned on for a brief instant in order to verify cause. The remedy is to install a new check valve. Observe the proper orientation (flow direction) of the check valve.</p> <p>Tip: the check valve may be able to be temporarily returned to service by un-sticking the check valve poppet with manipulation of the poppet ball with a thin tool, like a straightened paperclip. Replace the check valve in unit assembly.</p> <p>NEVER OPERATE A UNIT WITHOUT A CHECK VALVE IN PLACE.</p>
Pump runs for a second then shuts down.	QD is pressure locked.	Relieve pressure from behind the QD by pressing in the button inside the QD.
	Check valve is clogged.	Remove check valve and see if the ball inside the valve is moving freely. If not apply a couple drops of lubricant.
	Solution lines and/or jets are clogged.	Check and clean the jets and the solution line.

Problem:	Possible Causes:	Solutions:
Low PSI.	The jet nozzle could be too large.	Replace the jet with one that has a smaller opening.
Pump doesn't stop running.	Leak somewhere in the line.	Disconnect the solution hose from the machine. If this causes the pump to stop running then the problem is outside the machine, either in the solution hose or tool. If it continues running on, open the machine and check for leaks. Repair the leak. If there are no leaks, run Mytee's System Maintainer™ through the machine to clear blockages.
	Cracks or vacuum leaks on inlet side of pump.	Make sure hoses are secured tightly. If the inlet side of the pump is cracked or damaged, replace the pump. Click here for important information regarding the use of brass fittings on the plastic pump head.
	Seals have been degraded by chemical.	Install seal repair kit.
	Debris blocking inlet filter or pump head.	Clean filter and/or pump head.
Pump trips circuit breaker when turned on.	Short in power switch.	Test by swapping vacuum and pump switch. If problem resolves, but vacuum begins tripping breaker, replace switch (Part #E515).
	Short in electrical harness.	 <p>Risk of electric shock. Do this at your own risk.</p> Remove pump from circuit by attaching power leads together. If breaker still pops when switch is toggled, then there is a short to the ground in the circuit. Replace wires as needed.
	Short in pump motor.	If switch and harness check is OK, the short may be in the pump motor. Replace pump.

Troubleshooting Chart

If there is no spray, consult this troubleshooting chart to find a solution.



Technical Information

C305



C305A



C322D



<p>120 PSI 115V Draws 0.95 amps</p> <p>Used in: HP100, HP60, 8070, 2002CS, 20-110, and SC-9</p>	<p>100 PSI 115V Draws 1.25 amps</p> <p>Used In: 6001, EC-17, and ECO-17</p>	<p>220 PSI w/ 190PSI switch 115V Draws 1.45 amps</p> <p>Used In: 1000DX-200 and 1001DX- 200</p>
<p>230V machines use C306. C306 draws 0.48 amps.</p>		<p>230V machines use C323-D. C323-D draws 0.73 amps.</p>

C361



C381



C391



<p>C361 45 PSI, 4.2 GPM 12 VDC Draws 13.5 amps</p> <p>Used as: Truckmount Transfer Pump</p>	<p>60 PSI, 3.3 GPM 115V Draws 0.7 amps</p> <p>Used as pump-out in: LTD3, LTD5, LTD12, 7303, and 7300-SLA</p>	<p>60 PSI, 1.2 GPM 12 VDC Draws 5.5 amps</p> <p>Used in: 6002</p>
	<p>230V machines use C381A. C381A draws 0.35 amps.</p>	