Pneumatic Hash Pump

Pure Pressure

Quick Start Guide

Thank you for purchasing the PurePressure Pneumatic Hash Pump. Please follow this Quick Start Guide to ensure you setup the pump properly and understand its normal operating procedures. If these steps are followed, you can be sure to enjoy many months or years of maintenance-free operation. This pump operates with low shear forces on the fluid. This means that instead of shearing or cutting through the fluid to create movement (like an impeller) there are alternating suction and pressure forces moving the fluid. The result is a trichome particle that can move through the liquid management system at decent flow rates without damage.

System Requirements

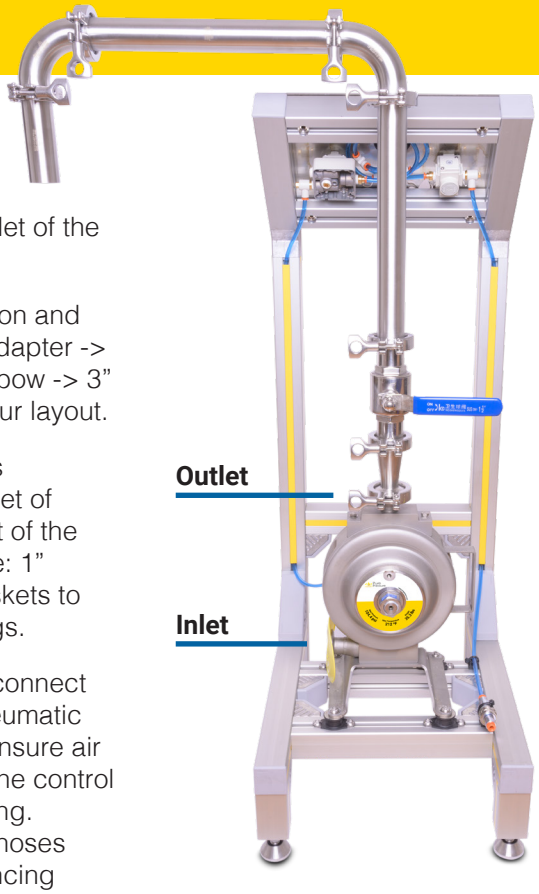
Air Compressor

- **Max inlet pressure to pump:** 104 psi
- **Max inlet pressure to included regulator:** 150 psi
- Compressor should produce 5 cfm at 40 psi minimum
- Air consumption could be as low as 5 cfm at 20psi
- Air consumption could be as high as 20cfm at 104 psi

3/8" air supply hose no more than 25' long

Bruteless wash vessel (any size)

Bruteless Complete 2 Hose Kit



Pump Setup

1. The pump comes nearly ready for plug-and-play operation. The outlet of the pump is on top and the inlet on the side.
2. The spout fittings should be cleaned with 70% iso, 30% water solution and attached as shown in the picture below (pump outlet -> 1" to 1.5" adapter -> ball valve -> 12" ferrule -> 90 deg elbow -> 12" ferrule -> 90 deg elbow -> 3" spout). The spout may be angled in any direction depending on your layout.
3. Place a ball valve on the outlet of your wash vessel. Use a Bruteless Complete 2 Hose Kit to connect the wash vessel ball valve to the inlet of the pump. Be sure to use a 1" sanitary gasket on the inlet and outlet of the pump. All other connections should use a 1.5" sanitary gasket. Note: 1" and 1.5" sanitary connections use the same clamp but different gaskets to ensure particulate does not become trapped between the two fittings.
4. Now that the water management side of things is tidied up we can connect our air supply. Close the ball valve on the spout and ensure the pneumatic valve on the control panel (right side) is in the down (off) position. Ensure air supply is less than 150 psi going into the included air regulator on the control panel. Connect the air supply to the ¼" industrial quick connect fitting. Ensure you use a 3/8" air hose that is no longer than 25'. Note: coil hoses tend to drop pressure more than a straight hose. If you are experiencing issues with your air supply, try sizing up the supply hose.

Pump Controls

1. The hash pump comes complete with integrated controls. Use the following diagram for reference:
2. The air pressure can be adjusted with the pressure regulator and viewed on the pressure gauge. It is best to adjust the pressure with the pump off and not running.
3. The included pressure regulator controls the amount of suction and pressure that is exerted on the fluid. The exact pressure you set the regulator to is the MAXIMUM pressure that the hash will experience while moving through the pump. If you were to close the ball valve on the outlet of the pump but keep air pressure applied the pump would stall and the fluid pressure would be equal to the air pressure. What this means is that YOU, the end user has direct control over the forces exerted on your hash. You may run as low as 20 psi or speed up the system and run all the way up to 104 psi. We have not seen any adverse effects from running at full pressure but the air consumption is increased dramatically at higher pressures. We believe the sweet spot is to operate around 20-60 psi and then using the speed controller to dial in the speed.
4. The speed controller will adjust the flow rate, not the pressure of the air supplied to the pump. This gives you full control over the speed across a range of pressures. If you close the speed controller too much the pump may stall. This will not cause damage but is something to be aware of. It is useful to control the speed of the pump to match the rate at which water is draining through your filter bags.
5. The on/off valve will block the flow of air to the pump. Once your control settings are dialed in, often times all you need is the on/off valve for quick and simple operation. During cleanup and maintenance, it is important to disconnect the air supply completely before performing and work.

Basic Operation

1. Ensure the pneumatic on/off lever is in the off position (pictured above).
2. Connect the air supply.
3. Ensure the pump is properly secured to the inlet hose coming from the wash vessel. Open the ball valve at the vessel to allow fluid flow.
4. Align the drain vessel under the spout and open the ball valve on the spout.
5. Check air pressure on the gauge, you should be between 20-104 psi. Try starting at 40 psi and adjust from there to find the right speed and pressure.
6. You are now ready to pump. Open the pneumatic on/off lever to start the pump. This is a self-priming pump and is capable of pulling through up to 12 feet vertically of dry hose.
7. Once pumping has started you may use the speed controller to adjust the speed of the pump. If you close it all the way it will be very slow and if you open it up, it will run much faster.
8. Monitor the draining rate through the filter bags and adjust flow as necessary.

9. Flush a small amount of clean RO water through the pump to ensure all trichome heads are flushed through the pump system after each run.
10. Close the pneumatic ball valve when you are finished pumping.
11. At the end of the day flush clean water through the system.
12. During cleanup and maintenance, it is important to disconnect the air supply completely before performing any work.
13. Using a wrench loosen the single nut holding the pump together. Clean the PTFE diaphragm and PTFE ball seats with alcohol solution and wipe down the pump. Inspect the diaphragms for wear or signs of cracking. Any visual damage requires a diaphragm replacement; please contact your PurePressure sales representative.
14. Re-install components and tighten the single nut to 100 ft-lbs.

Troubleshooting / Tips

- If the pump stalls out and stops, check that all fluid ball valves are fully open. Closing the spout valve will immediately stop the pump even though air pressure is still applied.
- If the pump is still stalled out, increase the air pressure using the pump regulator. The bare minimum pressure is roughly 20 psi to operate the pump, but this can vary slightly depending on hose lengths and the particular setup.
- If the pump is still stalled out, ensure the speed controller is not fully closed. This will prevent air from being able to reach the pump. This feature can be used to control speed but throttling too much will prevent the pump from operating.
- Tip: Run cold water through the system first to cool everything down and help prevent hash from sticking to the system components.
- Tip: Use at least a 3/8” ID air hose to supply the pump and limit the hose length to 25 feet to ensure proper airflow.

Have questions?

Call us at **720-446-9565** or send us an email at **sales@gopurepressure.com. We’re here to help.**