Klingstone Paths Pump Operation

• We provide:

- -A lightweight, air operated, double diaphragm pump
- -A PVC constructed intake line

The intake line comes in two sections with threaded ends for easy assembly. Only one section is necessary for use with a pail. Two sections can be screwed together for use with a drum.

-A PVC constructed application wand

The application wand comes in multiple sections, with threaded ends, that are color coded for easy assembly.



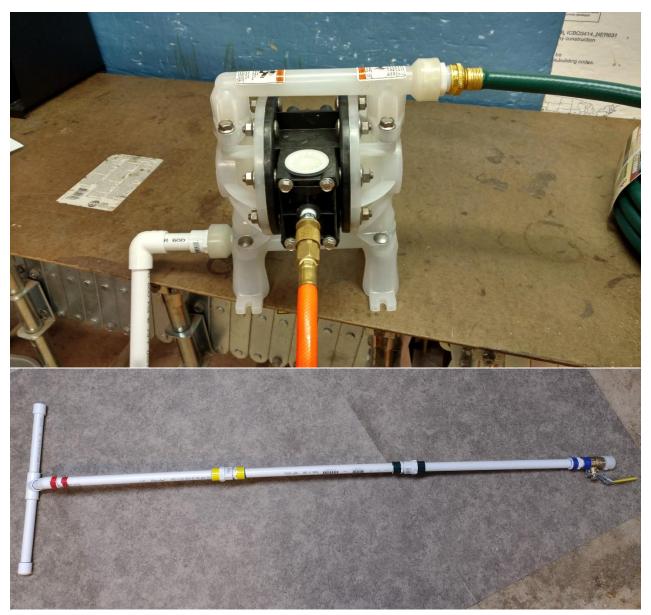
You will need to acquire:

- -An air compressor with a minimum 18 gallon capacity and 8+ cfm rating
- -A 25'-50', 5/8", standard garden hose that is unused and completely dry



Assembly:

- -The intake line is attached to the base of the pump via a slip connection
- -The hose from the air compressor is attached to the pump via a ¼" quick connect
- -The garden hose is screwed onto a threaded connection at the top of the pump
- -The other end of the hose screws onto the end of the application wand



Operation:

-Only operate the pump when the intake is submerged in liquid

Before starting the air compressor, make sure the intake line is securely attached to the pump. The open end of the intake line should be fully submerged in the liquid before operation. Avoid drawing air into the pump! Air contains humidity that can cause the resin to be prematurely activated inside the pump.

- -Start the air compressor at a low pressure (~50 psi) and gradually increase it (avoid pressure higher than 90 psi)

 The goal is to have thin streams of resin coming out of all of the holes of the wand head at the same time. Since the resin is quite thick, the flow will be a slow drizzle.
- -Stop the air compressor before the container is totally empty

The pump should not be operated while switching from one container to the next.

Application:

Begin applying resin to the aggregate

Once you have small streams of resin coming from every hole on the wand head, start coating your aggregate.

Apply a consistent coating

The goal is to coat the stones completely without applying too much Klingstone Paths resin. You do not want to fill in the void spaces between your stones.

Application rate

For foot traffic, we recommend an application rate of one gallon per twelve square feet of area. Using string to mark off twelve square foot areas can be really helpful in getting the rate correct. This rate of application should be applied to at least a three inch depth of aggregate, on top of some kind of solid base material.

For vehicular traffic, the process is the same but an application rate of one gallon per ten square feet of area should be applied to at least a six inch depth of aggregate, on top of a very solid base.

Wand movement

In order to hit all of the exposed faces of the stone, the wand needs to be moved around in small circular motions all over the surface. If done correctly, the full surface of the aggregate should appear wet with resin. If you spot a dry area, that area needs more resin for a thorough bonding.

• Finishing up or taking a break:

- -Every time you stop pumping, even for a 15 minute break, the resin needs to be flushed from the pump Pump Flush should be used immediately to lessen the chance of the resin prematurely curing inside the pump. Be extra thorough when finishing for the day.
- -The intake line should be submerged in Pump Flush and the pump operated thoroughly

 The flushing process should be followed carefully until the resin is fully displaced by Pump Flush. Once
 it's obvious that the flow has changed from resin to Pump Flush, continue flushing another gallon or
 two.
- -Make sure to dispense the Pump Flush into a waste container

The excess resin and Pump Flush should not be emptied onto the ground and/or into waterways. Pump Flush must be disposed of in an environmentally safe manner. Check your local regulations about proper disposal.

If you have any questions about the best practices, please call or email the Klingstone Paths, LLC office. 828-456-9970 or chris@klingstonepaths.com

