

GroPockets Pump Harness

Overview

If you are supplying your own pump and fittings, the following instructions won't necessarily apply. They do outline one good way to plumb from your pump to the 1" inlet on the stand.

We offer a "pump harness" which includes the fittings which make it convenient to route the water from a submersible pump into a 1" pipe. There are 2 different versions depending on whether the pump has an output in line with the intake or at 90° to it. Our Class B is an example of the former and Class C and D are examples of the latter:



Figure 1 - Contrast between Outlet configurations on Submersible Pumps

For Class B, a 90° elbow makes it easier to route the water vertically as shown in this image:

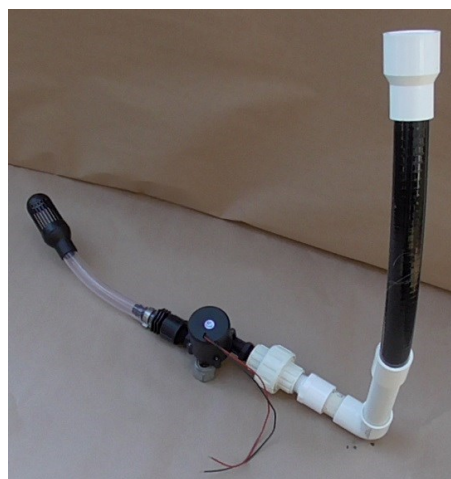


Figure 2 - Pump Harness – Type with Elbow

A pump which has its outlet at right angle to the intake works without the elbow.



Figure 3 - Pump Harness – Type without Elbow

The black pipe in both harnesses is flexible PVC. It is glued in place just like the white stiff pipe. We include it in case getting out of your reservoir to the supply on the stand is not a straight line. It has a bend in it from being rolled up; use a heat gun to re-form the tubing to a limited extent.

Both Pump Harnesses include a union connected directly to the pump, enabling you to easily disconnect and troubleshoot the pump. Connect this piece of the union to the pump:



Figure 4 - Union Attached to Pump

Once you have assembled the pump harness connect it to the intake on your irrigation system. If you are building the wood stand shown on our website, the connection point is shown below:

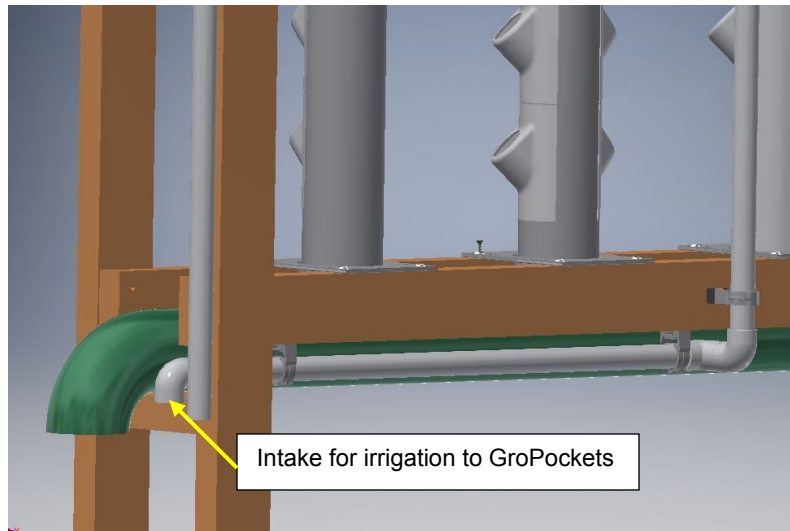


Figure 5 -- Connection Point to Irrigation Plumbing on Stand

Assembly Notes For Pump Harness

Pump Harness with Elbow

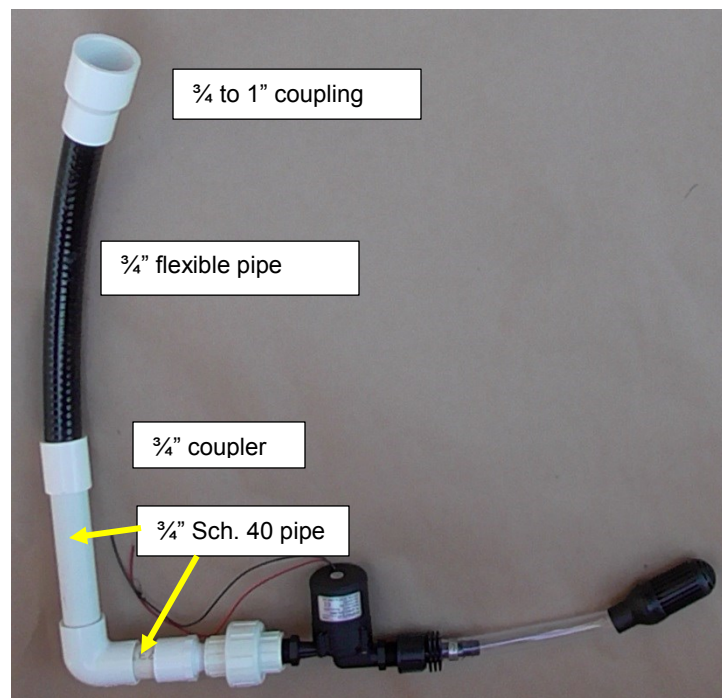


Figure 6 -- Labeled Parts Pump Harness with Elbow

Start by connecting the inlet strainer to the intake side of the pump. Then, attach the union to the output side of the pump as shown in Figure 4. Then, add the rest of the union. Tighten the union completely.

On the other side of the union, attach the $\frac{1}{2}$ " threaded to $\frac{3}{4}$ " slip male adapter. Line up the $\frac{3}{4}$ " elbow so that it points up from the bottom of the reservoir. Glue the short piece of $\frac{3}{4}$ " pipe which is attached to the elbow to the male adapter.

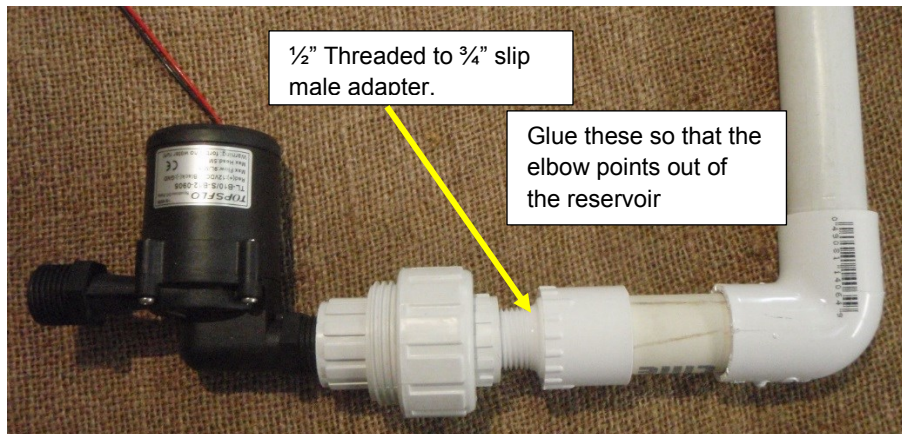


Figure 7 -- Detail near Pump

Check the length of the $\frac{3}{4}$ " pipe compared to the depth of your reservoir. It may fit better if one or both of the $\frac{3}{4}$ " pipe pieces are shorter.

On the upright side of the elbow, glue the piece of $\frac{3}{4}$ " white pipe. Then, the $\frac{3}{4}$ " coupler, $\frac{3}{4}$ " black pipe, and $\frac{3}{4}$ " to 1" adapter. Use 1" pipe to connect to the irrigation system for your GroPockets.

Pump Harness without Elbow

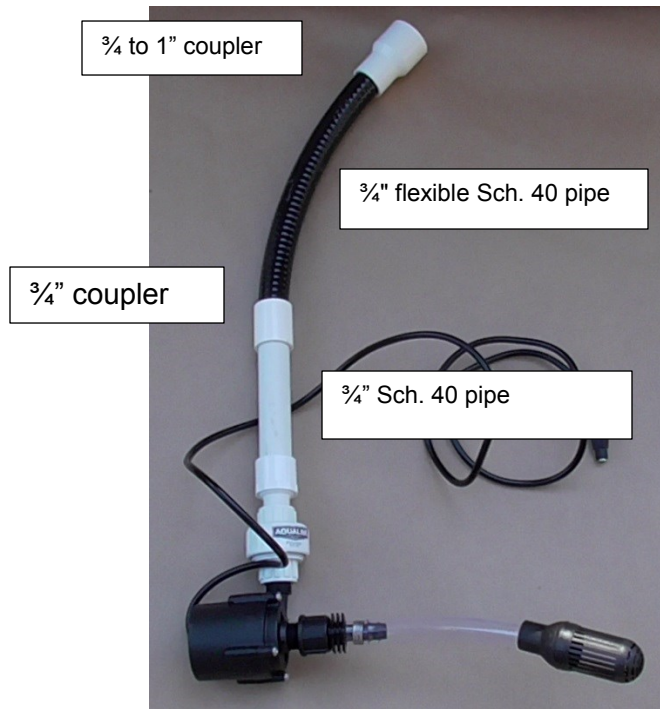


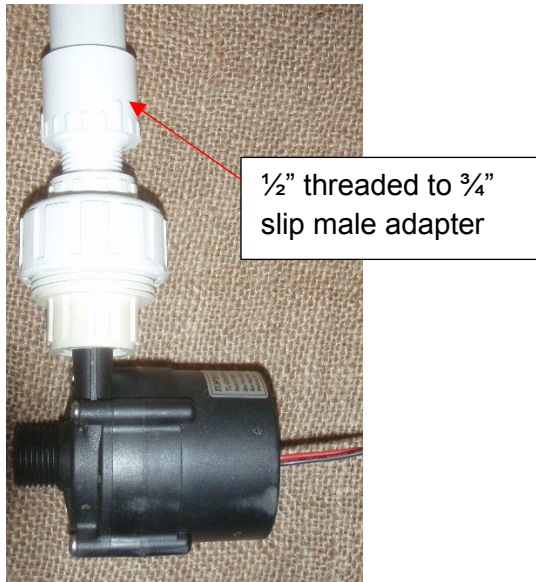
Figure 8 -- Labeled Parts for Pump Harness without Elbow

Start by connecting inlet strainer to the intake side of the pump. Then, attach the union to the output side of the pump as shown in Figure 9. Then, add the rest of the union. Tighten the union completely.



Figure 9 -- Union Piece

The $\frac{3}{4}$ " pipe is fitted to the other side of the union, using the $\frac{1}{2}$ " threaded to $\frac{3}{4}$ " slip male adapter shown below.



Check the length of the $\frac{3}{4}$ " pipe compared to the depth of your reservoir. It may fit better if one or both of the $\frac{3}{4}$ " pipe pieces are shorter.

Once you have verified the lengths, glue the piece of $\frac{3}{4}$ " white pipe to the male adapter. Then, the $\frac{3}{4}$ " coupler, $\frac{3}{4}$ " black pipe, and $\frac{3}{4}$ " to 1" adapter. Use 1" pipe to connect to the irrigation system for your GroPockets.

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