

Connecting a Pump to a Water Tank

Check out the Product Guide to learn all you need to know about connecting a Pump to your Water Tank. Now you won't just be able to catch rainwater you'll be able to use it as well!

Product Guides by [SunshowerOnline](#)



Pressure Pumps

Connecting your Pump to a Water Tank

You've done the right thing and bought a Water Tank to catch rain water, it's rained and now your tank's full. The only problem is you haven't connected a pump so you can't use the water to make your garden green again. Don't worry, all the help you need to connect your pump is here, from choosing your pump to turning it on.

Choosing the Right Pump

With so many different pumps on the market it's hard to know which pump to buy. When deciding on a pump to buy, it's important to know the answer to a couple of questions: What are you using the water for? How far does the water need to be pumped? These questions are important because that determines what flow rate and operating pressure you require from your pump.



Sunshower offers the trusted Onga & Davey pump ranges, but we also sell Universal Pumps for those on a budget. The various pumps on the market come with a variety of flow rates & each is good for different purposes:

40 Lpm (litres per minute): Garden tap for a hose

60 Lpm: Small to medium sized drip irrigation system

80 Lpm: Medium sized irrigation system with gear drive sprinklers

Important Additional Components

Now you have your tank and you've chosen a pump it's not just a case of connecting a hose in and out and letting it run. There are some other important parts that must accompany your pump to make sure it lasts longer than a couple of weeks.

Screen Filter & 'Y' Strainer:

Too often Sunshower Technicians arrive at repair jobs where pumps have been connected without a filter or strainer. This can be damaging to the pump and irrigation system. Tank water can be quite dirty so filtration is absolutely necessary to extend the life of your pump system, SunshowerOnline suggests using a [25mm Tavlit 120 Mesh Screen Filter](#) after the pump and a [25mm Brass 'Y' Strainer](#) before it.

Pressure Control Unit:

A Pressure Control Unit comes with most pump systems and is the most important attachment for your pump and most people don't know what it does. With this unit your pump automatically switches off and on when it needs to be used. Eg: When a tap is turned on it notices a drop in pressure on the outlet side, it automatically switches on at and maintains a constant pressure. When the tap is turned off the pressure builds up and the pumps automatically turns off.

Ball Valves

To save a very wet situation in the future, always install a [Ball Valve](#) before and after your pump. Water Tanks usually come with a ball valve so the inlet is covered, if a ball valve wasn't there though, your tank will drain very quickly if you have to remove your pump for a service or repair.

On the outlet side, be sure to install a ball valve so the pump doesn't automatically come on when you open your filter to clean it or if you need to repair any leaks. SunshowerOnline suggests a [25mm Lever Handle Brass Ball Valve](#).

Flexible Suction Hose

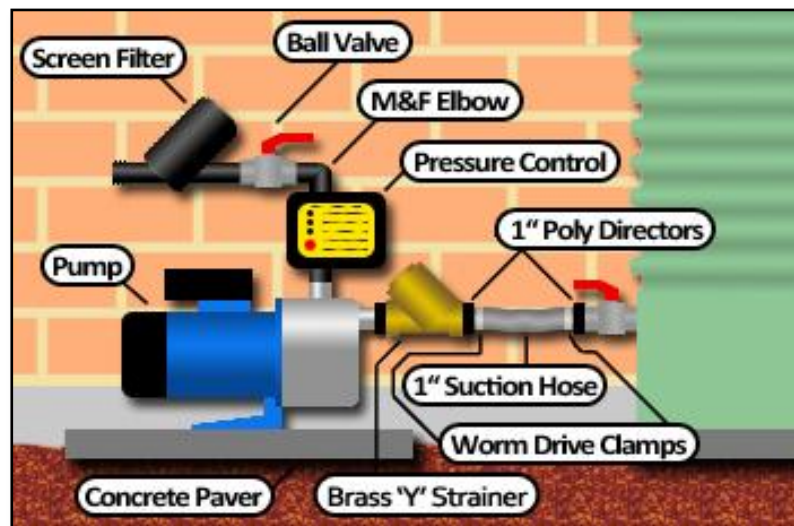
Although a lot of professionals install tank with [PVC Pipe and Fittings](#), Sunshower prefers to use [Flexible Suction Hose](#). No matter how minimal, over time poly water tanks can sag or bulge from the weight of the water, this can put unnecessary duress on PVC Pipe cause leaks or even cracks in fittings. So being flexible, Suction Hose connected with [Poly Fittings](#) and [Worm Drive Clamps](#) is the perfect solution.

Barrel Unions

If you do decide to install your pump with PVC, a [Barrel Union](#) is a vital Component. If you ever need to move your pump for maintenance or repair a Barrel Union allows you to do it with having to cut and re-join the surrounding pipes.

Installing Your Pump

Now we know all of the important information, it's just a matter of putting all of the pieces together. Check out the diagram, it is a good diagram of a typical pump installation.



Notice it has all of the key components mentioned in the previous section, but it doesn't tell the whole story, there are a few important bits of information you still need to know. To install your pump system, follow the simple steps the next page:

1. Create a Level Base for your Pump

At the outlet of your tank, check that the surface is level & won't erode or become uneven over time, an appropriate base would be a level concrete surface or paved area, unlike a tank, a compressed sand base isn't enough. If your surface isn't level, we suggest installing a concrete paver or laying your own concrete surface. Once you have a level base, place your pump in position.

2. Connect Your Pump to Your Tank

To connect between the Tank and Pump, we need to join the 25mm female inlet of the Pump to Brass 'Y' Strainer and then to the 25mm outlet on the Ball Valve coming out of the Tank. To do this we need:



- 1" x 25mm Poly Director x2
- 21mm – 38mm Worm Drive Clamps x2
- 1" Poly Nipple
- 1" Brass 'Y' Strainer
- 1" Flexible Suction Hose
- Teflon Tape

Firstly, apply Teflon tape to the Male threads on your Poly Directors & Nipple, it is vitally important as it seals all threaded joins in your pipe work and also makes it easier to screw on the fittings. Once Teflon is applied, screw the Poly Nipple into the Pump inlet, then the 'Y' Strainer onto that. Then screw 1 Poly Director into the Ball Valve on the Tank and the other into the other end of the 'Y' Strainer and tighten with Multigrips or a Shifter.

Secondly, push one end of your Suction Hose onto the Poly Director on the Tank, not forgetting to slide a Worm Drive Clamp on the pipe first. This can be difficult, to make it easier to push on the pipe can be heated with hot water and/or lubricated with Vaseline. Then cut your Suction Hose to length, slide on the other Worm Drive Clamp and push the Pump & other Director into it. Tighten the Worm Drive Clamps with a screwdriver.

3. Connect Pressure Control, Ball Valve & Filter

Now the pump is connected it's just a matter of screwing the remaining components together on the outlet. The remaining components are:



- Pressure Control Unit
- [25mm F&F Brass Ball Valve](#)
- [25mm Manifold Nipple](#)
- [25mm M&F Elbow](#)
- [25mm Tavit Screen Filter](#)

Firstly, remember to Teflon all threads without O-rings on the Press Control, Elbow and Nipple.

Next, screw on the press control tightly remembering to face the front panel in a direction that is easily accessible. Then tightly screw on the Elbow, pointing it in the direction your pipe work will be heading and finish by tightly screwing on your Ball Valve, the Nipple in to that and then the Filter, make sure your filter is pointing in the right direction, an arrow marking the flow direction can be found on the unit.

WARNING: Remember Read Your Instructions

Although this Product Guide does outline a number of things regarding installing a pump, it is just a guide. If you have purchased a pump, remember to read the instructions and warranty conditions. Even though different pumps may look similar, each Pump manufacturer has different guidelines and suggested installation methods, follow those instructions and use this document as a guide.

SunshowerOnline sells only the highest quality Drip Irrigation components we use all of the trusted brands to make sure your system works first time everytime!