

# Cocky Valve Tank Install Data Sheet.

Many customers call us asking if our valves are suitable for tank installs. They are usually frustrated with the flow rate of their current valve or they can't find a valve that will handle the inlet pressure or both! Our Valves provide full flow inlet rates at virtually any pressure. So, let's look firstly at the infill configuration and then I will describe some possible outlet configurations.

## **INFILL CONFIGURATION**

While I understand the use of double acting arms we have sold many 1000's of valves for tanks with a single action.

We find that our valves seal VERY quickly and we get very little stop / start of the pump at closing and virtually no water hammer.

If, however the customer needs to have a larger / longer fill cycle then a double acting arm will allow for this. We are developing a double acting arm and as soon as its ready for launch we will send you a separate data sheet

### **Our standard INFILL CONFIGURATION is as follows:**

50mm (2") Valve body (**0380**),

600mm Bent Arm (**0724**),

a Short Kit (**0298**)

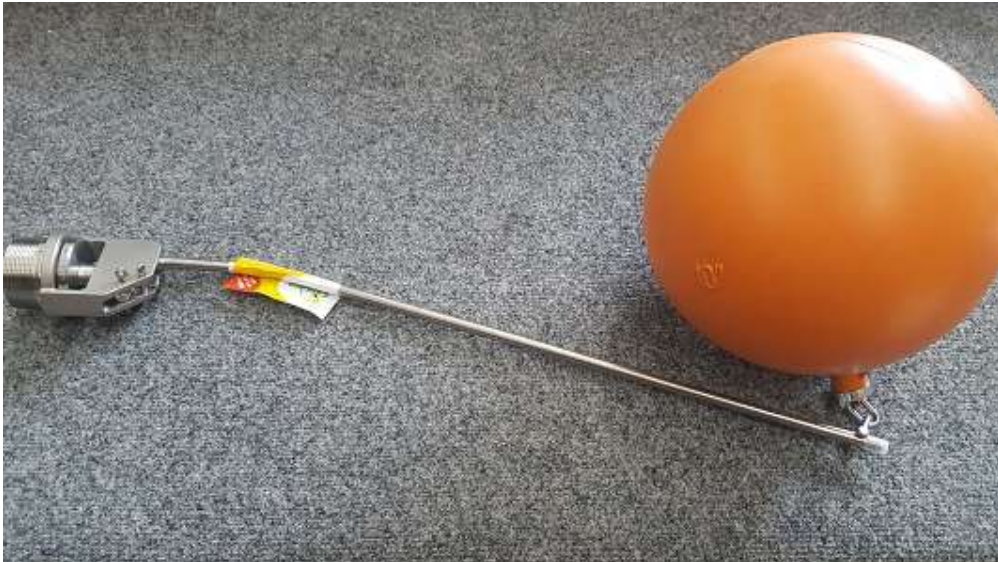
and finally, a 250mm (10") Float (**0366**).

We recommend that you install the arm in the LOW-PRESSURE PIVOT as this ensures maximum Flow. Only use the HIGH-PRESSURE PIVOT if the valve fails to shut off.

This is what we regard as our standard tank fill install and this has proven to be VERY reliable over many years with 1000's in place nationally.

If you decide to use a 32mm (1 ¼") (**0021**) or 38mm (1 ½") (**0038**) valves we still recommend you use the 600mm bent arm with a short kit and 250mm (10") Float. Tank infills are generally at relatively high pressure and the longer arm and larger float just works so well.

**NOTE! The short kit is a critical addition and just allows the float to act in its strongest configuration. I do not like the float DIRECTLY onto the arm as the constant movement of the water could ultimately lead to the float leaking. Whereby with the float on a short kit and sitting vertically we have virtually nil failures. The water can be quite turbulent with no impact to the float.**



It may also be necessary to fit our deflector (**0151**) if the tank does not have a lid as our valves spray quite a bit during filling when they are above the water line.

## **OUTLET CONFIGURATION**

In this data sheet I will describe the various OUTLET CONFIGURATION when the trough is directly adjacent the tank as in **Cup and Saucer tanks, TURKEY NEST** systems and similar installs. In all of these installs the inlet pressure is limited to the height of the water contained in the tank and therefore is generally limited to approx. 3 meters.

### **CUP & SAUCER TANKS.**

These are becoming a VERY popular install for locations where regular checking of the watering system is not possible and where LARGE numbers of stock require watering in a short timeframe. Because you will generally only have the 300mm effective difference in the two diameters there is not much room for a “conventional” install.



Therefore, as the customer will want (need) maximum inflow at a minimal head pressure, in these installs I recommend a 2" Valve as your outlet valve size. Please note that in many instances the Tank will not have an outlet fitted so a conventional Tank Kit will be required.



We have a TEE Piece we have recently developed that allows us to fit two floats onto a single arm. I will be sending out a separate Data Sheet covering these TEE PIECES shortly.

The total width to the outside of the two floats is only 350mm and the total length of the whole valve assembly is approx. 290mm so usually it will just fit into the 300mm available.

**Our recommended OUTLET CONFIGURATION is as follows:**

50mm (2") Valve body (**0380**), 300 Arm 100mm Thread (**0694**) (cut back to 200mm long), Tee Piece (**0168**), 2 x 150mm (6") floats (**0342**).

This will give you the required cut off pressure while not requiring very much room while providing a full flow 50mm (2") inlet into the saucer part of the trough.



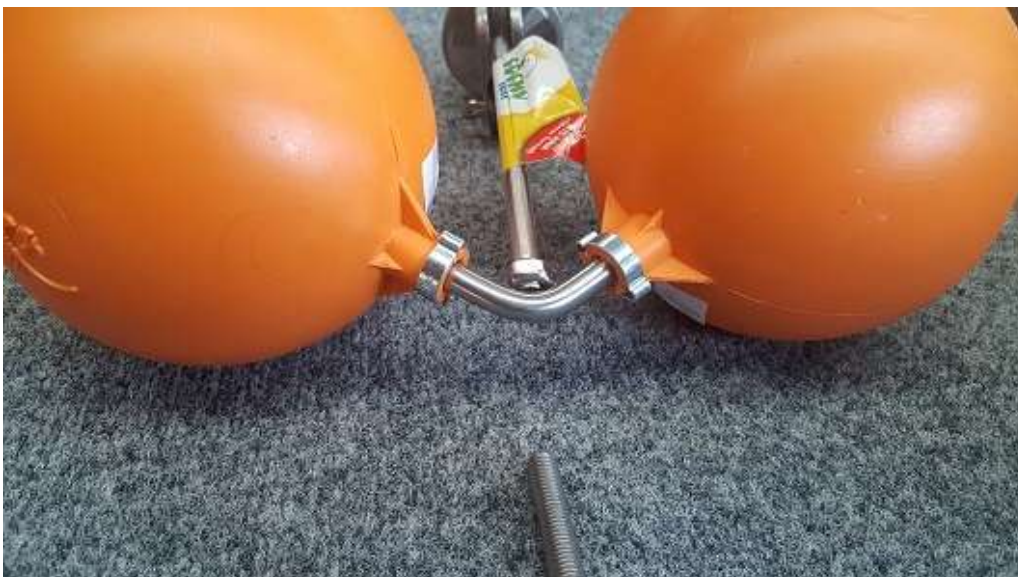
You could possibly use a 150 arm (**0687**) and fit the Tee Piece (**0168**) to that if you are caught for room, but I would prefer the longer arm **if it will fit in**. You can see the amount of thread we have removed from the 300mm Arm 100mm Thread (**0694**).

The tee piece is designed to be able to adjust the water level by simply one rotation of the tee.



The nut is welded onto the VEE at an angle so depending on the rotation the floats change height which easily adjusts the water level by approx. 40mm depending on pressure.

It's a bit hard to see in these photos but when you see it in your hand you will immediately understand how it works.



## TURKEY NEST

Turkey Nest's commonly refer to systems whereby a bore (windmill or similar) fills a tank which then distributes the water to any number of troughs running out radially from the tank. Sometimes the troughs are quite long, sometimes with covers, sometimes not. Sometimes the tanks are placed up on a small mound to increase the flow pressure, but these are generally only a few meters in height. Hence its name, because it literally looks like a BUSH TURKEY's NEST!

The one thing these systems all seem to have in common is the fact that the outlet pressure is quite low and maximum inflow to the trough is required. Once again, in these low pressure installs we recommend the larger 50mm (2") Valve.

We do however have a little more flexibility with regards to arms and floats.

**If the outlet is going into a trough with a small cover at one end and the inlet is above the finished water level then I recommend the following:**

50mm (2") Valve body (**0380**), 300mm BENT Arm (**0663**) and one 200mm (8") Float (**0359**).

It will be necessary to fit our deflector (**0151**) even if the trough has a cover as our valves spray quite a bit during filling when they are above the water line.



**If the outlet is going into a trough with a cavity at one end (or in the centre) and the inlet is below the finished water level then I recommend the following:**

50mm (2") Valve body (**0380**), 300mm BENT Arm (**0663**) a short kit (**0298**) and one 200mm (8") Float (**0359**).

*[The 300mm bent arm (**0663**) can be changed to a 300mm arm (**0625**) if the inlet height in the trough is too low and the bent arms hits the floor of the trough. The short Kit can also be substituted for a 300mm M10 chain (**0229**) but usually a chain is not required.]*

This will give you the required cut off pressure while not requiring a long arm while providing a full flow 50mm (2") inlet into the trough.

If you decide to use a 32mm (1 ¼") **0021** or 38mm (1 ½") **0038** valves we still recommend you use the 300mm bent arm with a short kit and 200mm (8") Float.

**NOTE! This outlet configuration is only for VERY Low-Pressure INSTALLS.**