

## **Ledwell Water Tank FAQ**

### **What should the output of my water truck be?**

The pump on a Ledwell water tanker is setup to pump around 400GPM at 2000RPM engine speed with about 55PSI at the spray heads. This should give you a spray pattern of 55' wide by 30' deep and a side spray 65' to 75' out. Most PTOs are in the 111% to 126% range. The pump will peak at 2400-2500RPM (pump speed).

### **Why won't one of my corner spray heads on my 4000g truck shut off?**

The air valves on the 4000g trucks require air to close, so if the air supply going to the valve is obstructed or leaking, the valve may not close. On older trucks, the diaphragm can crack and not hold air pressure. There could also be debris stuck holding the valve open.

### **Why won't the PTO on my Automatic transmission truck come on when I flip the switch?**

On automatic transmission PTOs, the PTO clutch-pack is supplied oil under pressure from the transmission when 12 volts is applied to a solenoid valve mounted at the PTO. On 2000g trucks, this power comes from the switch through an inline fuse between the switch and the battery. On 4000g trucks with air controls in the cab, the 12v comes from an air contact switch at the battery with an inline fuse also. The air control in the cab closes the contact switch supplying 12v to the PTO. In both cases, the solenoid has a ground wire that must be properly grounded. The contact that turns on the PTO light is a grounding switch that closes when oil pressure is present, turning on the light. If the light is on, the solenoid is working.

### **My pump turns when my truck is in neutral idling but it stops pumping when I put the transmission in drive, why is that?**

On trucks equipped with automatic transmissions such as Allison 2500RDS, the PTO gear drives from the torque converter side of the transmission and it stops when placed in drive at idle. You must add RPM's to lock the torque converter usually 1000 to 1100 RPM engine speed and the PTO will turn the pump again.

### **My valves are open, water is flowing, and my pump is turning... Why am I not getting any pressure?**

The Berkeley B3ZRM centrifugal pumps used on your water truck are tough and reliable industry standard pumps, but like any pump, they can be broken. Impacting derbies in the intake can jam or brake the impeller. Also, sudden start-ups under load, such as with a manual clutch transmission PTO, can shear the impeller shaft key and retaining nut allowing the impeller to spin free on the shaft. To check for this condition, close the main intake valve, open the cap on the suction intake and visually inspect the impeller. Look for signs of damage or broken retaining bolts.

### **Can I haul and spray other liquids with my water truck?**

Our tanks are lined with Polibrid 705 coating to protect the tank from corrosion. This coating is tolerant of most chemicals with the exception of strong acids, aromatic hydrocarbons, ketones and chlorinated solvents. Always check the content before loading your tank with water mixed products.

### **My pump will not pump from a water source for self loading...**

The most common problem is the foot valve on the end of the suction hose. If this valve is not holding and all the priming water runs out of the pump, the pump will not prime. When priming the pump from the primer tank you must fill the suction hose and pump and bleed the air from the pump with the air valve at the top of the pump before you start up.

### **The air control console in my 4000g is leaking air around the knobs that control my spray heads...**

These slide valve knobs are aluminum in construction with ball detents released by the button on top and over time they can be damaged by dirt and rough handling. Slapping the spools down to close them will cause the ball detents to bend the spools causing a leak. Dirt and contaminants can enter the valve from the top and scratch the spools also if not keep clean.

### **My pump leaks around the input shaft...**

The pump is designed to leak in order to wet the packing and keep it cool. It should leak 40-60 drops a minute and is adjustable with the packing gland ring and the two threaded studs holding it. When all the adjustment is taken up, then it is time to replace the packing.

### **Why does my pump spray good for a short time then just die down to nearly nothing?**

The most common cause is debris in the tank obstructing the pump intake. The pump will pump all the water in the lines then the intake flow slows or stops. There is a screen in the bottom of the tank at the outlet and when filling from a pond or canal, it can become obstructed with debris. Clean this screen and proper pump flow should return.