

Shallow Well Jet Pump Troubleshooting Chart	
Problem	Checking Procedure
Pump will not prime	<p>Make sure suction line has no leaks and that it slopes gradually from pump to well with no high or low spots</p> <p>Make sure section line has no leaks and that it slopes gradually from pump to well with no high or low spots</p> <p>Check for plugged venturi or nozzle.</p> <p>Make sure the foot valve is not sitting in sand or mud and that it is not stuck</p>
Pump delivers water for a period of time, then stops pumping.	<p>Make sure well water is not drawing below the foot valve. Use a water level tester while pump is operating</p> <p>Check for plugged or worn nozzle or venturi tube</p> <p>Check for plugged impeller parts.</p>
Pump does not deliver rated capacity.	<p>Check nozzle and venturi for wear or partial plugging.</p> <p>Check pressure gauge. It may be defective, resulting in false readings</p>
Motor overheats and shuts off (overload)	<p>Check the line voltage terminals. Voltage must be within 10% of rated voltage.</p> <p>Make sure motor is properly wired and sized for the supplied voltage.</p> <p>Make sure the impeller is not rubbing against the pump case.</p>
Pump will not start or run	<p>Check power supply breaker or fuse.</p> <p>Check wiring and connections</p> <p>Check that pump impeller will turn</p> <p>Check start capacitor with ohmmeter and replace if defective</p> <p>Check pressure contacts and sensing tubing for blockage</p>
Pump starts and stops too often	<p>Check for leaks in the system</p> <p>Check pressure switch operation</p> <p>Bleed system pressure and check pressure tank precharge. If air must be added verify there is not a leak in the bladder or diaphragm before recharging with system pressure.</p> <p>Is the pressure tank large enough for the system?</p> <p>Damaged or defective check valve will not hold pressure. Replace if defective.</p>
Pump will not shut off	<p>Check system for leaks</p> <p>Check pressure switch and settings</p> <p>Clean or replace plugged ejector</p>

Table 1

Deep Well Jet Pump Troubleshooting Chart

Problem	Checking Procedure
Pump will not prime	<p>If pump is offset, check horizontal piping for dips or high spots. Pipe must have a gradual slope from pump downward to well.</p> <p>Check well water level to be sure ejector is in water</p> <p>Check piping and pump for air leaks</p> <p>Pull well piping and check ejector for plugged nozzle or venturi</p> <p>Make sure the foot valve is not sitting in sand or mud</p>
Pump delivers water for a period of time, then stops pumping.	<p>Make sure well water is not drawing below the foot valve. Use a water level tester while pump is operating</p> <p>Make sure the regulator is set properly, especially as well draws down. Regulator must be set to provide minimum operating pressure at the maximum drawdown.</p> <p>Pull well piping and check ejector for plugged nozzle or venturi</p>
Pump does not deliver rated capacity.	<p>Check well lift. Use water-level tester while pump is running.</p> <p>Check submergence depth of ejector. If the ejector is installed more than 10 feet below the pumping level, capacity will be reduced due to increased friction in piping.</p> <p>Pull well piping and check the ejector for proper size and depth setting.</p>
Motor overheats and shuts off (overload)	<p>Check the line voltage terminals. Voltage must be within 10% of rated voltage.</p> <p>Make sure motor is properly wired and sized for the supplied voltage.</p> <p>Make sure the impeller is not rubbing against the pump case.</p>
Pump will not start or run	<p>Check power supply breaker or fuse.</p> <p>Check wiring and connections</p> <p>Check that pump impeller will turn</p> <p>Check start capacitor with ohmmeter and replace if defective</p> <p>Check pressure contacts and sensing tubing for blockage</p>
Pump starts and stops too often	<p>Check for leaks in the system</p> <p>Check pressure switch operation</p> <p>Bleed system pressure and check pressure tank precharge. If air must be added verify there is not a leak in the diaphragm before recharging with system pressure.</p> <p>Is the pressure tank large enough for the system?</p> <p>Damaged or defective check valve will not hold pressure. Replace if defective.</p>
Pump will not shut off	<p>Check system for leaks</p> <p>Check pressure switch and settings</p> <p>Clean or replace plugged ejector</p>

Table 2

Submersible Pump Troubleshooting Chart	
Problem	Checking Procedure
Pump motor does not start	<p>Check for tripped circuit breaker</p> <p>Using voltmeter check the line terminals. Voltage must be + 10% of rated voltage.</p> <p>Check wiring and connections</p> <p>Check pressure switch contacts, settings and sensing tube</p> <p>Check control box as per manufactures instructions</p> <p>Check for locked rotor. High amperage reading will be indicated</p>
Pump will not shut off	<p>Check system for leaks</p> <p>Check pressure switch contacts, settings and sensing tube</p> <p>Pump may exceed well capacity. Shut off pump, wait for well to recover. Check static and drawdown level. Throttle pump output or reset pump to lower level. Do not lower if sand may clog pump.</p> <p>Possible worn pump. Symptoms of worn pump are similar to those of drop pipe leak or low water level in well. Reduce pressure switch setting, if pump shuts off worn parts may be at fault. Sand is usually present in tank.</p> <p>No or little water will be delivered if coupling between motor and pump shaft is loose or if a jammed pump has caused the motor shaft to shear off.</p> <p>Restricted flow may indicate a clogged intake screen on pump. Pump may be installed in mud or sand. Clean screen and reset at less depth. It may be nessary to clean the well.</p> <p>No water will be delivered if check valve is in closed position. Replace if defective.</p>
Pump starts and stops too often	<p>Check for leaks in the system</p> <p>Check pressure switch operation</p> <p>Bleed system pressure and check pressure tank precharge. If air must be added verify there is not a leak in the bladder or diaphragm before recharging with system pressure.</p> <p>Is the pressure tank large enough for the system</p> <p>Damaged or defective check valve will not hold pressure. Replace if defective.</p>
Motor runs but overload protector trips	<p>Check the line voltage terminals. Voltage must be within 10% of rated voltage.</p> <p>Direct sunlight or other heat source can make control box hot causing protectors to trip. The box must not be hot to touch</p> <p>Make sure motor is properly wired and sized for the supplied voltage.</p> <p>Perform motor resistance test to check of defective motor</p> <p>Perform cable leak tests check for defective cables</p> <p>Defective control box see manufacture instructions</p> <p>Replace worn pump</p>

Table 3