

TROUBLESHOOTING

Problem	Possible Cause	Remedy
Pumps do not produce enough pressure (PSI).	Pressure gauge defective Pump operating at end of the operating curve Backwards pump rotation	Replace Throttle back the discharge valve until gauge reads design pressure. Check rotation and change any two wires to reverse rotation.
Problem	Possible Cause	Remedy
Pump runs rough and makes pinging sound indicating cavitation	Water level too low in the reservoir Debris in suction line Suction valve partially closed	Fill to proper level. Clean suction line of any trapped debris. Make sure suction valve is fully open.
Problem	Possible Cause	Remedy
Motor runs excessively hot	Overloaded Blocked ventilation TEFC motor ODP motor Ambient temperature over 105°F Unbalanced current draw Single phasing	Reduce number of starts per hour or increase motor size. Clean external ventilation system. Check fan. Blow out internal ventilation passages. Eliminate external interference to motor ventilation. Reduce ambient temperature or provide outside source of cooler air. Balance supply voltage. Check motor leads for tightness. Eliminate

Problem	Possible Cause	Remedy
<p>Unbalanced current draw (individual power lead measures 5% or more of the average current draw).</p>	<p>Unbalanced line voltage due to:</p> <ul style="list-style-type: none"> Power supply Unbalanced system loading High resistance connection Undersized supply lines Defective motor <p>Low voltage at motor terminals</p> <p>Single phasing</p> <p>Too frequent starting</p> <p>High ambient temperatures</p> <p>Wrong size relays</p>	<p>Carefully check voltage across each phase at the motor terminals with a calibrated voltmeter.</p> <p>If the voltage per phase is more than 1% out of balance the current will be out of balance by an even greater percentage.</p> <p>If there is doubt as to whether the trouble lies with the power supply or the motor, check per the following:</p> <ul style="list-style-type: none"> Rotate all three input power lines to the motor by one position - i.e., move line #1 to #2 motor lead, line #2 to #3 motor lead and line #3 to #1 motor lead. If the unbalanced current draw pattern follows the input power lines, the problem is in the power supply. If the unbalanced current draw pattern follows the motor leads, the problem is in the motor. Correct the voltage balance of the power supply or replace the motor, depending on answer to above. <p>Improve power supply and/or increase line size.</p> <p>Eliminate.</p> <p>Reduce frequency of starts or increase motor size</p> <p>Reduce ambient temperature or provide outside source of cooler air.</p> <p>Correct size per nameplate amps of motor.</p> <p>Relays have built in allowance for amp draw.</p>

