



Jet Pump Troubleshooting Guide

Pump Series: J

Symptoms	Causes	Corrections
Pump fails to prime – low vacuum	Insufficient product at inlet Pump drain valve left open Hand primer gate valve left closed Air leak on suction side Discharge priming valve not seating Hand primer leaking Footvalve leaking Mechanical seal leaking	Reposition inlet/piping Close drain valve Open valve Fix leaks Clear obstruction/check for wear Fix leaks Fix leaks Check and repair/replace as required
Pump fails to prime – high vacuum	Footvalve clogged Excessive suction lift Collapsed or obstructed suction line.	Clean footvalve Lower if possible or select larger piping Clear or replace.
Pump takes a long time to prime	High suction lift and/or long hose length Air leak on suction side Discharge priming valve obstructed or worn Worn diaphragm primer	Reduce if possible Fix leaks Clear obstruction/check for wear Repair/replace
Pump fails to hold prime when turned off	End of hose/strainer out of fluid Discharge check valve obstructed or worn Air leak on suction side of pump Footvalve leaking	Check pipe/strainer submergence Clear obstruction/check for wear Fix leaks Fix leaks

Reduced performance	Vortexing/improper submergence Air leaks on suction side Footvalve or impeller partially clogged Excessive suction lift Speed too low Discharge head too high Pump internals worn	Lower footvalve deeper in sump Fix leaks Clear any obstructions Lower if possible or select larger piping Increase within recommended limits Reduce or select larger piping Replace as necessary
Pump overheating	Footvalve clogged Cavitation (improper suction design) Discharge head too high Pump internals worn Air lock	Clear any obstructions Correct suction problems Reduce or select larger piping Repair Vent air/install air release valve
Excessive pump vibration or noise	Material lodged in impeller (out of balance) Discharge head too high Cavitation (improper suction design) Misalignment Worn bearings	Clear any obstructions Lower if possible or select large piping Correct suction conditions Align all rotating parts Check and replace bearings
Premature mechanical seal failure	Inadequate lubrication Loss of lubrication Piping not properly supported Cavitation (improper suction design) Misalignment Discharge head too high Incompatibility with fluid being pumped	Regrease or refill with oil Check/replace lip seal Provide suitable bracing and supports Correct suction problems Align all rotating parts Reduce or select larger piping Check pumping fluid properties

<p>Premature bearing failure</p>	<p>Inadequate lubrication</p> <p>Piping not properly supported</p> <p>Cavitation (improper suction design)</p> <p>Misalignment</p> <p>Water or contaminants entering bearings</p>	<p>Regrease with proper grease or add oil</p> <p>Provide suitable bracing and supports</p> <p>Correct suction problems</p> <p>Align all rotating parts</p> <p>Check/replace lip seals as required</p>
<p>Premature drive coupling failure</p>	<p>Piping not properly supported</p> <p>Misalignment</p>	<p>Provide suitable bracing and supports</p> <p>Align all rotating parts</p>