



## Compressor Priming Compact Series Centrifugal Pump Troubleshooting Guide

### Pump Series: JSCN

Symptoms	Causes	Corrections
<b>Pump fails to prime – low vacuum</b>	Insufficient product at inlet (submergence) Pump drain valve left open Priming chamber valve closed Speed too low Air leak on suction side Air lock Discharge non return valve not seating Venturi or priming chamber bumper plugged Mechanical seal leaking	Lower strainer deeper in sump Close drain valve Open priming chamber valve Increase within recommended limits Fix leaks Vent air/install air release valve Clear obstruction/check for wear Clear any obstructions Check and repair/replace as required
<b>Pump fails to prime – high vacuum</b>	Strainer clogged Excessive suction lift	Clean strainer Lower if possible or select larger piping
<b>Pump takes a long time to prime</b>	Speed too low High suction lift and/or long hose length Air leak on suction side Discharge check valve obstructed or worn Worn air compressor or venturi	Increase within recommended limits Reduce if possible Fix leaks Clear obstruction/check for wear Repair/replace

<b>Pump fails to hold prime when turned off</b>	<p>End of hose/strainer out of fluid</p> <p>Discharge check valve obstructed or worn</p> <p>Air leak on suction side of pump</p> <p>Priming chamber non return valve obstructed</p>	<p>Check pipe/strainer submergence</p> <p>Clear obstruction/check for wear</p> <p>Fix leaks</p> <p>Clear obstruction/check for wear</p>
<b>Reduced performance</b>	<p>Vortexing/improper submergence</p> <p>Air leaks on suction side</p> <p>Strainer or impeller partially clogged</p> <p>Excessive suction lift</p> <p>Speed too low</p> <p>Discharge head too high</p> <p>Pump internals worn</p>	<p>Lower strainer deeper in sump</p> <p>Clear any obstructions</p> <p>Lower if possible or select larger piping</p> <p>Increase within recommended limits</p> <p>Lower if possible or select larger piping</p> <p>Check and adjust/repair as required</p> <p>Adjust/replace as necessary</p>
<b>Pump overheating</b>	<p>Strainer clogged</p> <p>Cavitation (improper suction design)</p> <p>Discharge head too high</p> <p>Pump internals worn</p> <p>Air lock</p>	<p>Clear any obstructions</p> <p>Correct suction problems</p> <p>Lower if possible or select large piping</p> <p>Check and adjust/repair</p> <p>Vent air/install air release valve</p>
<b>Excessive pump vibration or noise</b>	<p>Material lodged in impeller (out of balance)</p> <p>Discharge head too high</p> <p>Cavitation (improper suction design)</p> <p>Misalignment</p>	<p>Clear any obstructions</p> <p>Lower if possible or select large piping</p> <p>Correct suction conditions</p> <p>Align all rotating parts</p>

<p><b>Premature mechanical seal failure</b></p>	<p>Inadequate lubrication  Loss of lubrication  Piping not properly supported  Cavitation (improper suction design)  Misalignment  Discharge head too high  Incompatibility with fluid being pumped</p>	<p>Regrease or refill with oil  Check/replace lip seal  Provide suitable bracing and supports  Correct suction problems  Align all rotating parts  Lower if possible or select large piping  Check pumping fluid properties</p>
<p><b>Fluid Discharging from Venturi</b></p>	<p>Float obstructed or damaged.  Priming chamber bumper obstructed or worn</p>	<p>Clean or replace.  Clean or replace.</p>