



## Wet Priming Centrifugal Pump Troubleshooting Guide

Series: HT, TS, ST, T

Symptoms	Causes	Corrections
<b>Pump fails to prime – low vacuum</b>	Insufficient product at inlet No priming water Speed too low Air leak on suction side Impeller or reprime port clogged with debris Excessive impeller-to-wearplate clearance Air lock Mechanical seal leaking	Reposition inlet/piping Fill pump with water Increase within recommended limits Fix leaks Clear any obstructions Check and adjust/repair Vent air/install air release valve Check and repair/replace as required
<b>Pump fails to prime – high vacuum</b>	Strainer clogged Excessive suction lift Collapsed or obstructed suction hose	Clean strainer Lower if possible or select larger piping Clear or replace
<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 Excessive impeller-to-wearplate clearance High discharge head	Increase within recommended limits Reduce if possible Fix leaks Check and adjust/repair Provide air vent/air release valve
<b>Reduced performance</b>	Air leaks Strainer or impeller partially clogged Excessive suction lift Speed too low Discharge head too high Pump internals worn	Fix leaks Clear any obstructions Lower if possible or select larger piping Increase within recommended limits Reduce or select larger piping Check and adjust/repair as required

<p><b>Pump overheating</b></p>	<p>Strainer or reprime port 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>
<p><b>Excessive pump vibration or noise</b></p>	<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>Worn bearings</p>	<p>Clear any obstructions</p> <p>Reduce or select larger piping</p> <p>Correct suction conditions</p> <p>Align all rotating parts</p> <p>Check and replace bearings</p>
<p><b>Premature mechanical seal failure</b></p>	<p>Inadequate lubrication</p> <p>Loss of lubrication</p> <p>Piping not properly supported</p> <p>Cavitation (improper suction design)</p> <p>Misalignment</p> <p>Discharge head too high</p> <p>Incompatibility with fluid being pumped</p>	<p>Regrease or refill with oil</p> <p>Check/replace lip seal</p> <p>Provide suitable bracing and supports</p> <p>Correct suction problems</p> <p>Align all rotating parts</p> <p>Reduce or select larger piping</p> <p>Check pumping fluid properties</p>
<p><b>Premature bearing failure</b></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</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><b>Premature drive coupling failure</b></p>	<p>Piping not properly supported</p> <p>Misalignment</p>	<p>Provide suitable bracing and supports</p> <p>Align all rotating parts</p>