



Wet Priming Centrifugal Pump Troubleshooting Guide

Series: HT, TS, ST, T

Symptoms	Causes	Corrections
Pump fails to prime – low vacuum	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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
Pump fails to prime – high vacuum	<ul style="list-style-type: none"> Strainer clogged Excessive suction lift Collapsed or obstructed suction hose 	<ul style="list-style-type: none"> Clean strainer Lower if possible or select larger piping Clear or replace
Pump takes a long time to prime	<ul style="list-style-type: none"> Speed too low High suction lift and/or long hose length Air leak on suction side Excessive impeller-to-wearplate clearance High discharge head 	<ul style="list-style-type: none"> Increase within recommended limits Reduce if possible Fix leaks Check and adjust/repair Provide air vent/air release valve
Reduced performance	<ul style="list-style-type: none"> Air leaks Strainer or impeller partially clogged Excessive suction lift Speed too low Discharge head too high Pump internals worn 	<ul style="list-style-type: none"> 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>Pump overheating</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>Excessive pump vibration or noise</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>Premature mechanical seal failure</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>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</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>