



Diaphragm Pump Troubleshooting Guide

Pump Series: D, DL, DS

Symptoms	Causes	Corrections
Pump fails to prime – low vacuum	Drain valve on lower casing left open Air leak on suction side Diaphragm or clappets leaking or worn Speed too low Air lock on discharge side	Close drain valve Fix leaks Clear any obstructions/replace Increase within recommended limits Vent air/install air release valve
Pump fails to prime – high vacuum	Strainer clogged Excessive suction lift	Clean strainer Lower if possible or select larger piping
Pump takes a long time to prime	Speed too low High suction lift and/or long hose length Air leak on suction side Diaphragm or clappets leaking or worn High discharge head	Increase within recommended limits Reduce if possible Fix leaks Clear any obstructions/replace Provide air vent/air release valve
Unit shuts down unexpectedly	Engine ran out of fuel Clogged fuel filter Low engine oil pressure or high temperature	Refill with fuel Change filter Check engine

Reduced performance	Air leaks Strainer partially clogged Excessive suction lift Speed too low Discharge head too high Diaphragm or clappets leaking or worn	Fix leaks Clear any obstructions Lower if possible or select larger piping Increase within recommended limits Lower if possible or select larger piping Clear any obstructions/replace
Premature diaphragm or clappet failure	Discharge head too high Air trapped in discharge Incompatibility with fluid being pumped Pumping excessive amount of sand Rocks trapped in lower housing	Reduce head/provide larger discharge Provide vent/air release valve Check pumping fluid Check strainer and inlet conditions Clean lower housing
Excessive vibration	Air in fuel line or clogged fuel filter Suction or discharge hose not supported Strainer buried in mud	Purge air and replace filter Correct supports Clean strainer