

EnergyLogic Pump not pumping

EL140H, EL200H, EL340H, EL350H
EL200B, EL375B, EL500B



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Condition: Not Pumping/Air Locked

Scenario: The pump has become “air-locked” or “air-bound”. This typically occurs when the customer has let the tank run out of fuel or not pre-filled the filter or on top suction where pickup tube with no foot valve is losing prime - oil falls back to level of oil in the tank leaving air in tube, pump pulls air through the pump. Because the metering pumps are spinning at such a slow rate of speed it makes it difficult to displace the air trapped in the pump.

Priming the Pump

Note: this method not as successful with top suction works great with side suction

- Insure oil in tank above level of pickup/float switch
- Insure filter is filled with oil/non-synthetic transmission fluid, or diesel fuel
- Insure pump gauges are functional - not damaged or broken
- Remove pump housing cover
- Inspect pump shaft seal to insure not leaking/weeping oil – if leaking replace pump head
- Advised to remove outlet line (line to preheater) at the pump outlet
- Put a container under the pump to catch oil.
- Close suction side valve (side suction: fire-o-matic /top suction: ball valve)
- Disconnect preheater power from burner (no oil is not superheating during process)
- Jump burner at TT & FF for continuous run (priming method)
- Allow pump to run for a few minutes with suction valve (side suction: fire-o-matic /top suction: ball valve) Closed
- Open valve & watch for air bubbles to be released & some oil flow.
- Close suction valve again & watch for vacuum - typically it will begin to pull a little more vacuum each time 5-10-15"
- Repeat this process until you can achieve 18-20" of vacuum – the pump is now primed & ready to bleed at the preheater.

Top Suction pumps

Priming through inlet plug –

- Insure the stand pipe (back fill before connecting to filter head) and filter are full of oil prior to starting the pump
- Remove the outlet line from the pump in order to verify oil flow
- Remove the hex head **Pressure plug** (marked **P**) from the front of the pump this should allow air to escape while the pump is operating (careful there is an O-ring on this plug do not damage or lose it)
- Once the pump starts pumping oil with no more air bubbles insert the hex head plug back into the pump using a small amount of thread sealing (black) Loctite.

Angle Drill Method - If this method is not as successful or with top suction

- Insure oil in tank above level of pickup/float switch
- Insure filter is filled with oil/non-synthetic transmission fluid, or diesel fuel
- Insure pump gauges are functional - not damaged or broken
- Advised to remove outlet line (line to preheater) at the pump outlet
- Put a container under the pump to catch oil
- Remove pump housing cover
- Loose both set screws in pump coupling & remove coupling
- Inspect pump shaft seal to insure not leaking/weeping oil – if leaking replace pump head
- Attach angle drill to pump shaft spin pump shaft and watch for air bubbles & oil flow
- Close suction side valve (side suction: fire-o-matic /top suction: ball valve)
- Watch for vacuum gauge to pull 18-20" of vacuum – the pump is now primed & ready to bleed at the preheater.

Note: A vacuum pump may also be used to “pull the oil through the pump - verify flow of oil from pump & bleed at preheater.