

Troubleshooting Guide - Pool Pumps

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The following article is published as a quick reference troubleshooting guide for pool pumps to be used when the pump runs but pumps little or no water, and low with little or no vacuum

PUMP RUNS - PUMPS LITTLE OR NO WATER - PUMPS LITTLE OR NO VACUUM

CAUSE OF TROUBLE	HOW TO CHECK	HOW TO CORRECT	CAUSE OF TROUBLE	HOW TO CHECK	HOW TO CORRECT
1. Pump not primed.	Check water level in hair & lint trap.	Reprime by filling trap with water.	6. Clogged impeller	Disassemble pump and inspect impeller.	Remove debris from impeller vanes or replace impeller.
2. Leak in suction pipe & fittings.	Disconnect pipe from pump: Apply a low pressure test (approx. 15 psi) to pipe line.	Repair pipe or tighten loose connections.	7. Pump may be worn. (Impeller, wear ring, etc.)	Close valve between pump and filter. Compare shut-off head with performance chart.	Replace worn parts.
3. Leaking gaskets in pump.	Close valves in suction and discharge lines. Apply a low pressure air test to pump. Note: Check manufacturers service manual for maximum test pressure.	Replace faulty gaskets or tighten loose bolts.	8. Pump may be running backwards.	Check amperage draw; close valve on discharge line and compare shut-off head with performance curve.	Switch any two of the three motor feeder lines. This will change the rotation of the motor. Note: This applies to some 1 phase and all 3 phase motors.
4. Water level lower than mouth of skimmer.	Observe water level in pool or spa.	Refill pool or spa, or isolate skimmer from suction line by closing valve.	9. Clogged filter.	Compare filter pressure gauge reading with pump shut-off head.	Backwash or clean the filter.
5. "Air lock" in suction line.	Pipe between pump and pool may be elevated higher than suction port of pump.	Re-pump suction line; provide a downward slope from pump to pool.			

PUMP RUNS - PUMPS LITTLE OR NO WATER - PULLS HIGH VACUUM

CAUSE OF TROUBLE	HOW TO CHECK	HOW TO CORRECT	CAUSE OF TROUBLE	HOW TO CHECK	HOW TO CORRECT
1. Suction line obstructed.	Disconnect pipe from pump. Apply a low pressure air test (approx. 15 psi) to pipe line.	Remove debris from pipe.	4. Check valve in suction line installed backwards.	Check flow directional arrow on valve body.	Remove and properly install valve.
2. Skimmer may be clogged.	Inspect skimmer Basket.	Clean the basket.	5. Check valve in suction line "double check" against plastic fitting.	Loosen plastic fitting on discharge side of valve. If water begins to flow, this is the problem.	Remove valve and properly install.
3. Clogged hair and lint trap.	Stop pump. Remove trap lid and inspect hair & lint basket.	Clean the basket.	6. Clogged filter (filter on suction side of pump).	Inspect filter media.	Clean the filter.