

Trouble Shooting Operating Symptoms

INSUFFICIENT PRESSURE

1. Speed too slow (check voltage).
2. Impeller trimmed incorrectly.
3. Impeller loose.
4. Impeller plugged.
5. Wear rings worn.
6. Entrained air in pump.
7. Leaking joints or bowl casing.
8. Wrong rotation.
9. Incorrect impeller adjustment.

NO LIQUID DELIVERED

1. Pump section broken (water level below inlet).
2. Suction valve closed.
3. Impeller plugged.
4. Strainer clogged.
5. Wrong rotation.
6. Shaft broken or unscrewed.
7. Impeller loose.
8. Barrel or discharge not vented.
9. Driver inoperative.

VIBRATION

1. Motor imbalance-electrical.
2. Motor bearing not properly seated or worn.
3. Motor drive coupling out of balance or alignment.
4. Misalignment of pump, casings, discharge head column or bowls.
5. Discharge head misaligned by improper mounting or pipe strain.
6. Bent shafting.
7. Worn pump bearings.
8. Clogged impeller or foreign material in pump.
9. Improper impeller adjustment.
10. Vortex problems in sump.
11. Resonance-system frequency at or near pump speed.
12. Cavitation.
13. Impeller out of balance.

INSUFFICIENT CAPACITY

1. Speed too slow.
2. Impeller trimmed incorrectly.
3. Impeller loose.
4. Impeller or bowl partially plugged.
5. Leaking joints.
6. Strainer or suction pipe clogged.
7. Suction valve throttled.
8. Low water level.
9. Reverse rotation.
10. Insufficient submergence.
11. Insufficient N.P.S.H.A.
12. Incorrect impeller adjustment.
13. Worn pump.
14. System pressure higher than design.

USING TOO MUCH POWER

1. Speed too high.
2. Improper impeller adjustment.
3. Improper impeller trim.
4. Pump out of alignment.
5. Coupling out of alignment.
6. Pumping sand, silt or other foreign material
7. Lubricating oil too heavy.
8. Bent shaft.
9. Tight bearing or packing.
10. Specific gravity or viscosity of fluid higher than design.
11. Worn pump.
12. Damaged pump.
13. Partial freezing of pump liquid.

ABNORMAL NOISE

1. Motor noise.
2. Dry pump bearing.
3. Broken column bearing retainers.
4. Broken shaft or shaft enclosing tube.
5. Impellers dragging on bowl case.
6. Cavitation due to insufficient N.P.S.H.A. and/or submergence.
7. Foreign material in pump.
8. Excessive fluid velocity in pipe system.