



Reciprocating Compressor Troubleshooting:

Shut Off & Lock Out Power Before Working On Any Part Of Compressor

Problem:	Possible Cause:	Solutions:
Breaker Trips	<ol style="list-style-type: none"> 1. Low Voltage Supply 2. Motor Overload Tripped 3. Restricted Air Passages 4. Loose Wires at Contact Point 5. Locked Up Pump 	<ol style="list-style-type: none"> 1. Check incoming power wire size is correct for compressor. 2. Check that compressor is on a dedicated circuit. 3. Check that all wire connections are secure. 4. Inspect transfer tubes and check valves. 5. Adjust belt tension.
Compressor Stalls	<ol style="list-style-type: none"> 1. Low Voltage Supply To Compressor 2. Loose Compressor V-Belts 3. Check Valve Malfunction 4. Seized Compressor Pump 	<ol style="list-style-type: none"> 1. Check compressor power supply for adequate breaker and wire size. 2. Tighten V-Belts. 3. Inspect Check Valve for proper operation. 4. Check Compressor Oil Level.
Low Discharge Pressure	<ol style="list-style-type: none"> 1. Air Leaks in Lines 2. Leaking Valves 3. Restricted Air Intake 4. Blown Gaskets or Seals 5. Worn Cylinder or Piston Rings 	<ol style="list-style-type: none"> 1. Tighten or Replace Leaking Fittings. 2. Inspect Air Lines or Pipe In Shop. 3. Clean and/or Replace Air Filter Element. 4. Inspect/ Replace Compressor Gaskets/ Seals. 5. Inspect/ Replace Piston Rings.
Compressor Pump Knocking	<ol style="list-style-type: none"> 1. Loose Motor Pulley or Flywheel 2. Low Oil Level in Pump 3. Carbon Build Up on Valve and/or Piston 	<ol style="list-style-type: none"> 1. Inspect/ Tighten Pulley & Flywheel. 2. Check Compressor Pump Oil Level, fill if necessary. 3. Inspect Valves & Pistons for Carbon Build Up, Clean
Excessive Oil Discharge In Air	<ol style="list-style-type: none"> 1. Restricted Air Intake 2. Oil Level in Pump Too High 3. Excessive Duty Cycle of Pump 4. Worn Cylinder or Piston Rings 	<ol style="list-style-type: none"> 1. Clean and/or Replace Air Filter Element. 2. Reduce Oil Level To Recommended Amount. 3. Reduce Compressor Duty Cycle. 4. Replace Piston Rings.
Compressor Overheating	<ol style="list-style-type: none"> 1. Poor Ventilation 2. Dirty Cooling Surfaces on Pump 3. Excessive Duty Cycle of Pump 	<ol style="list-style-type: none"> 1. Relocate Compressor to an area with better ventilation, not closer than 18" from nearest wall. 2. Clean all surface cooling areas of pump. 3. Reduce Compressor Duty Cycle.
Excessive Belt Wear	<ol style="list-style-type: none"> 1. Pulley Out Of Alignment 2. Improper Belt Tension 3. Pulley Damaged or Loose 	<ol style="list-style-type: none"> 1. Realign Pulley with Flywheel. 2. Adjust Belt Tension. 3. Inspect/ Replace Pulley.
Compressor Motor Hums, Will Not Start	<ol style="list-style-type: none"> 1. Fuse or Breaker Blown in Main Panel 2. Low Voltage to Compressor 3. Pump Starting with Head Pressure 4. Power Leads in Motor or Starter Loose 5. Starter or Pressure Switch Contacts Corroded or Broken. 	<ol style="list-style-type: none"> 1. Re-Set Breaker or Replace Blown Fuse. 2. Check Voltage to Compressor. 3. Inspect Check Valves & Unloaders for proper operation. 4. Check all power leads for a solid connection. 5. Repair/ Replace Starter and/ or Pressure Switch.
Compressor Has Power, Will Not Start	<ol style="list-style-type: none"> 1. Starter Tripped 2. Starter Coil Gone Out 3. Pressure Switch Closed 4. Motor or Pump Locked Up 	<ol style="list-style-type: none"> 1. Re-Set Starter. 2. Inspect/ Replace Starter 3. Inspect/ Replace Pressure Switch 4. Repair/ Replace Motor or Pump

NOTE: Low Voltage can cause a multitude of problems, the most common of which is when the wire size supplying the power to the compressor is too small. The farther from the panel the larger the wire diameter must be to account for loss caused by wire resistance. The voltage supply from the main panel could also be too low as supplied by the power company or too much equipment being run off the panel. A Certified Electrician should be contacted to evaluate and correct any electrical problems according to National Electric Code and any applicable city and state codes.