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Liquid Ring Pump Troubleshooting Guide

| PROBLEM | PROBABLE CAUSE | SOLUTIONS |
|-----------------------------------|--|---|
| Seals leaking | Seal incorrectly installed. | Re-install seal. |
| | Seal worn or damaged. | Replace seal. |
| Reduced capacity | Rotational speed too low. | Check supply voltage. |
| | Vacuum leak. | Locate and repair. |
| | High sealant temperature. | Check coolant flow and temperature. |
| | | Check heat exchanger cleanliness. |
| Incorrect sealant flow rate. | Verify required sealant flow rate for liquid ring model. | |
| Excessive noise | Defective bearing. | Replace bearing. |
| | Too much sealant liquid. | Decrease flow rate. |
| | Coupling misaligned. | Re-align coupling. |
| | Cavitation. | Open attenuating valve or reset vacuum relief valve to increase flow. |
| Overheating | Defective bearing. | Replace bearing. |
| | High sealant temperature. | Check coolant flow and temperature. |
| | Suction open to atmosphere. | Adjust isolation valve. |
| Excessive vibration | Coupling misaligned. | Realign coupling. |
| | Liquid Ring not properly anchored. | Anchor liquid ring. |
| | See excessive noise. | Check inlet pressure and gas flow. |
| Motor overloaded | Excessive back pressure. | Reduce height of liquid ring discharge. |
| | Too much sealant liquid. | Verify required sealant flow rate for liquid ring model. |
| | Misalignment. | Realign motor and liquid ring. |
| | Defective bearing. | Replace bearing. |
| Abnormal bearing wear | Misaligned pump assembly. | Realign pump assembly. |
| Impeller binding or will not turn | Accumulation of rust or scale. | Remove the scale or rust by circulating an inhibitor selected according to the nature of the buildup. |
| | Foreign object in pump. | Dismantle liquid ring and remove foreign object. |
| Mechanical seals squeal | Insufficient cooling liquid. | Increase coolant flow to seal. |
| | | Check compatibility of sealant with seal material. |