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**General Pump Troubleshooting Guide**

| VACUUM GAUGE - INSTALLED IN PUMP SUCTION PORT     | PROBABLE CAUSE & SOURCE LOCATION   |
|---|--|
| High Reading                                      | Suction line blocked by stuck foot valve, suction valve, clogged strainer. |
|   | Liquid is too viscous to flow through suction line.                        |
|   | Suction lift too high.   |
|   | Suction line undersized.   |
| Low Reading                                       | Air leak in suction line.  |
|   | End of suction line not submerged.   |
|   | Pump parts worn or defective.  |
|   | No liquid in pump housing - Need to prime pump.                            |
| Erratic Reading                                   | End clearance too great.   |
|   | Liquid is vaporizing.  |
|   | Vibration from cavitation, misalignment or damaged parts.                  |
|   | Liquid entering pump intermittently or in slugs.                           |
|   | Air leak in suction line.  |
| Insufficient liquid level above end suction pipe. |  |

| PRESSURE GAUGE - INSTALLED IN PUMP DISCHARGE PORT | PROBABLE CAUSE & SOURCE LOCATION  |
|---|---|
| High Reading                                      | Liquid viscosity high, discharge pipe line diameter too small or discharge line too long. |
|   | Discharge valve partially closed.   |
|   | Strainer is clogged.  |
|   | Relief valve pressure set too high.   |
|   | Discharge line partially blocked.   |
|   | Liquid has solidified in discharge line caused by chemical reaction.                      |
| Low Reading                                       | Pump parts worn or defective.   |
|   | Pump end clearance too high.  |
|   | Relief valve setting too low.   |
|   | Pump bypass partially open.   |
| Erratic Reading                                   | Cavitation.   |
|   | Liquid entering pump intermittently or in slugs.  |
|   | Vibration caused by driver misalignment.  |
|   | Air leak in suction line.   |
|   | Insufficient liquid level above end suction pipe.   |