



## TROUBLESHOOTING PRIMING ISSUES

- Ensure the pump casing is filled with water. The pump will take longer to prime or not prime at all, if the water level is low.
- Use a vacuum test gauge to measure the suction lift of the pump. A rule of thumb 1-inch (Hg) is approximately equal to 1-foot of suction lift at sea level. At sea level, a new pump should register between 25~30 inches mercury (Hg) on the gauge indicator.
- As the pump ages and its impeller vanes wear and decrease in size suction lift readings will decrease. Suction lift readings of 21~24 inches are considered acceptable but may indicate that service may soon be required.
- If vacuum is at -21 in. Hg or less, check the following:
  - Make sure the engine high rpms are set at 3600 on all gas powered pumps, refer to pump owner's manual for diesel units.
  - Make sure the clearance between the impeller and volute is within .005" ~ .010"
  - Make sure that the impeller and volute are not excessively worn. Shim the impeller or replace as necessary.
  - Make sure the drain cover or casing cover is tightened completely or it will affect clearance between the volute and impeller.
  - In rare cases, the problem is an undetected pin hole in the inner portion of the pump suction chamber. This may be caused by the casing walls thinning out.
  - If the pump produces good vacuum, the problem may be air leaks at suction hose and or fittings.
  - For application problems make sure all fittings are tight and there are no holes or leaks on the suction hose. The suction hose should be at least 1 ft. submerged for every inch of suction hose diameter.
  - Make sure the proper strainer is being used and it has not become clogged or buried in the soil.
  - Make sure your pump is sized up for your application. Contact the Multiquip product department for pump sizing assistance.