

## VACUUM LEVEL - SYSTEM DOES NOT ACHIEVE DESIRED VACUUM

### Vacuum Issue: Vacuum system does not achieve desired vacuum level

Each AquaSeal water-sealed liquid ring vacuum pump system is tested and checked at the factory prior to shipment to ensure trouble free operation. In the unlikely event you encounter a problem, we recommend that you consult with your local distributor for parts/service. Remember, when calling for service, parts or system information, always have the pump or system model number and serial number ready.

[Click here to find your local authorized distributor.](#)

**WARNING!** Before attempting any repairs, disconnect all power from the system by switching off power at the main breaker or disconnect switch. Always use appropriate Lock Out – Tag Out procedures.

If the AquaSeal water sealed liquid ring vacuum pump system operates but does not achieve desired vacuum level, check the following items:

- Check if the inlet valve is open and inlet filter clean.
- Ensure that no lines are open to the atmosphere, causing loss of vacuum. Look for valves that may be open, clean out fittings on tanks that have not been replaced, or other places that may be open to atmosphere.
- Check for leaks in piping systems using conventional leak detection methods.
- Ensure that the oil level is correct and that the pump is primed. A primed pump should only be filled to the shaft centerline.
- Check that the oil isolation valve is open. If this valve is closed, oil will not flow to the pump. Running with this valve closed will also cause the system to overheat.
- If the system is equipped with a solenoid valve on the seal-water line, check to see that it is opening correctly. When power is sent to the pump motor, it should open the solenoid valve to allow oil to flow to the pump. Running with this valve closed will also cause the system to overheat.
- Check the settings on the optional vacuum switch (if installed).
- Check the vacuum settings on the optional PLC (if installed).
- Check the vacuum relief valve (if installed) to make sure it is not opening early. The vacuum relief valve is easily adjusted. Adjust as necessary.
- Check if the motor rotation is correct. Rotation should be clockwise (when facing the pump from the motor side) and marked by an arrow on the motor and/or the pump housing. If it is incorrect, switch any two of the three main power leads on the contactor inside the 3phase control panel.
- Check the temperature of the seal water. See related article on impact of seal fluid temperature on vacuum level.

