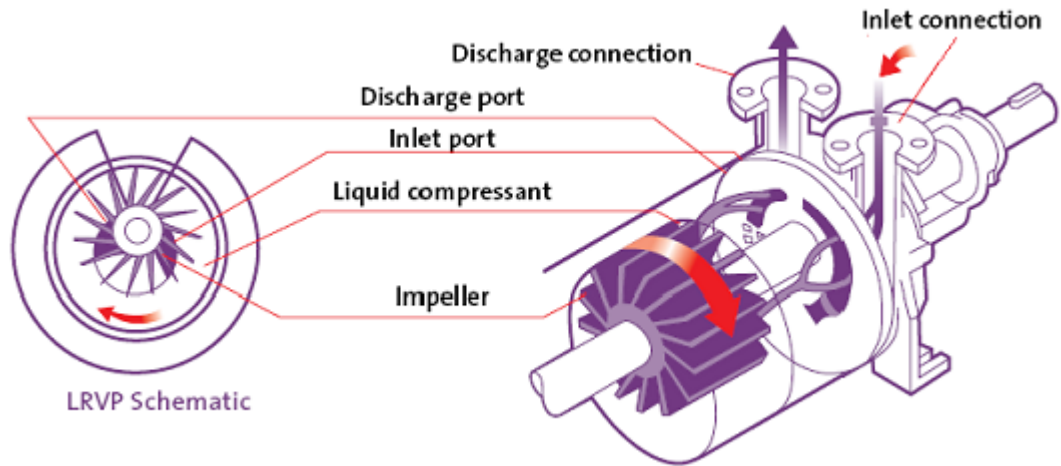


# LIQUID RING VACUUM PUMP

## APPLICATION SHEET

### APPLICATION OVERVIEW

A liquid Ring Vacuum Pump is a rotating piece of equipment comprised of a multi-bladed assembly located eccentrically inside a cylindrical housing. The assembly is driven by an outside source, usually an electric motor. Service water (or another liquid) enters the pump. When the impeller rotates, the centrifugal forces create a liquid ring around the casing. The impeller blades increase in size at the inlet in order to draw in gas. The impeller blades increase in size, compressing the gas, which is further discharged through the outlet. Varying flow for the inlet service liquid can cause unwanted heat due to compression, condensation, and friction. A steady flow rate is necessary in order to maximize the capacity of the pump and maximize the amount of vacuum achievable.



### KATES SOLUTION

Kates Automatic Flow Controllers are mechanical units that respond to pressure changes up and downstream to maintain a set flow rate. They are accurate to +/-1.5% of their setpoint, making them very precise. By installing a Kates on the service water inlet to the pump, you can optimize the vacuum draw and heat dissipation of the pump. Kates will ensure optimization and reliability to your liquid ring vacuum pump. For those pumps with mechanical seals, Kates will also increase the life of the seal.

