

HOW IT WORKS:

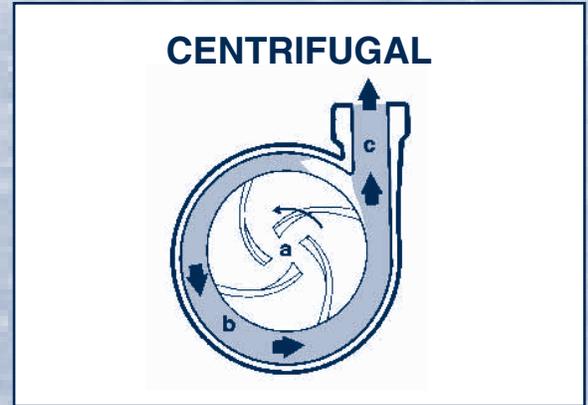
- a.) Liquid enters the inlet port of the pump through gravity or priming and is directed towards the center of the impeller.
- b.) The rotating impeller uses centrifugal force to add velocity to the liquid as it is slung off the edges of the blades into the volute casing.
- c.) The volute configuration converts the velocity energy into static pressure or available pump head as the liquid leaves the discharge port.

FEATURES:

High Volume Flow: centrifugal pumps deliver a high volume of flow with smooth, non-pulsating delivery

Low Maintenance: wear due to operation is minimal, they are easily disassembled and have few moving parts

Low Power Consumption: most efficient pump for moving large volumes of liquid



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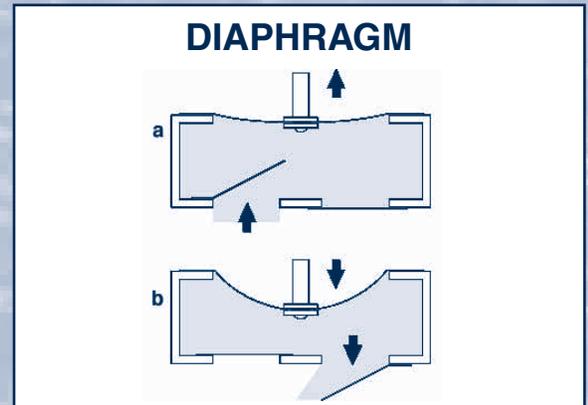
- a.) As the piston diaphragm is pulled away from the housing, the cavity increases in size. This creates a vacuum that draws in the liquid through the one way inlet valve.
- b.) As the diaphragm is pushed toward the housing, the cavity decreases in size which forces the liquid out through the one way outlet valve.

FEATURES:

Dry Running: can run dry indefinitely without damage

Self-priming: can lift up to 15 feet under ideal conditions

Self-adjusting: "air operated" diaphragm pumps automatically adjust their speed as viscosity fluctuates



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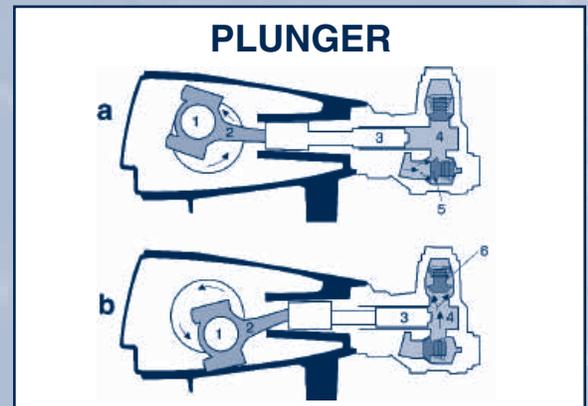
- a.) As the crankshaft (1) rotates the connecting rod (2) pulls back the plunger (3) from the liquid chamber (4) within the manifold which increases the chamber's size. This creates a vacuum that draws in liquid through the inlet valve (5).
- b.) As the crankshaft's rotation continues, the connecting rod (2) pushes the plunger (3) toward the liquid chamber (4) reducing the chamber's size. This forces the liquid out the discharge valve (6).

FEATURES:

High Pressure: pressures of up to 15,000 PSI can be achieved

Clean Liquids: close fitting components require clean non-abrasive liquids

Durable: ceramic plungers and an oil filled crankcase ensures a long operating life



HOW IT WORKS:

- a.) As the liquid is removed by the impeller (1) from the inlet raceway (2), additional liquid is drawn in.
- b.) The blades of the impeller (1) capture liquid from the inlet raceway (2) adding energy to the liquid (3) as the liquid is propelled toward the outlet.
- c.) Liquid is pushed through the outlet port as the impeller forces additional liquid into the discharge cavity.

FEATURES:

High Pressure: turbine pumps will deliver non-abrasive, low viscosity liquids in applications requiring high pressure and low flow

Low Maintenance: with its seal being the only contacting part, little maintenance is required, even in continuous duty applications

Self-priming Option: configurations are available that include a liquid chamber that enables self-priming

