

**HOW IT WORKS:**

- Liquid enters inlet port of pump through gravity or priming and is directed toward center of impeller.
- 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.
- 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. Easily disassembled and few moving parts

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

**HOW IT WORKS:**

- As the flexible impeller blades leave the cam the cavities between them increase in size and create a vacuum which draws in the liquid.
- Once the blades clear the inlet port the liquid is captured in the cavity between the blades and the housing.
- As the blades contact the cam and bend, the cavity between them is reduced in size and the liquid is forced out the discharge.

**FEATURES:**

**Self-priming:** primes quickly from a dry or wet start. Will lift up to 15 feet when wet

**Low Shear:** smooth gentle pumping action for liquids of low to high viscosity

**Batching:** smooth repeatable flow of low to high viscosity liquids

**HOW IT WORKS:**

- Liquid is drawn into the suction of the pump as the corkscrew shaped rotor revolves within the rubber stator.
- Liquid is captured in the cavity between the rotor and stator. This cavity travels toward the discharge during rotation.
- The cavity opens into the discharge chamber and delivers its contents as it reduces in size. Liquid is forced out the discharge as more liquid is delivered by continued rotation.

**FEATURES:**

**Abrasive Handling:** the rotor/stator design allows the handling of abrasive and/or viscous liquids

**Low Shear:** smooth gentle pumping action enables the pumping of shear sensitive and solid entrained liquids

**High Pressure:** up to 150 psi can be achieved with low to high viscosity liquids

**HOW IT WORKS:**

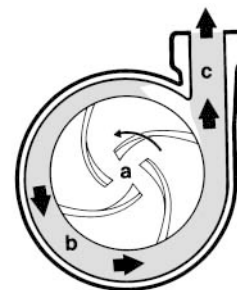
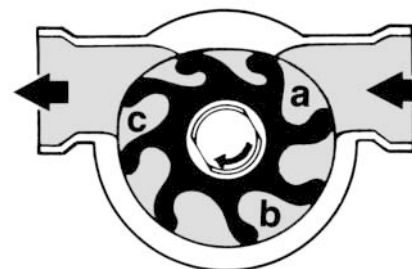
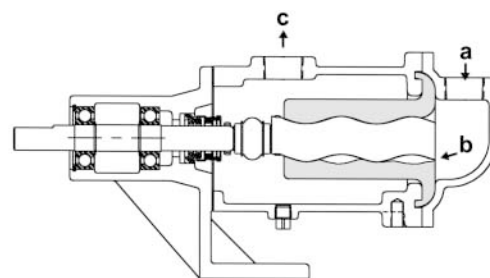
- As the piston diaphragm is pulled away from the housing the cavity increases in size, this creates a vacuum that draws in the liquid through the one way inlet valve.
- As the diaphragm is pushed toward the housing, the cavity decreases in size which forces the liquid out through the one way outlet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

**FEATURES:**

**Dry Running:** can run dry indefinitely without damage

**Solids Priming:** can lift up to 15 feet under ideal conditions

**Self-adjusting:** "Air Operated" diaphragm pumps automatically adjust their speed as viscosity fluctuates

**CENTRIFUGAL****FLEXIBLE IMPELLER****PROGRESSIVE CAVITY****DIAPHRAGM**