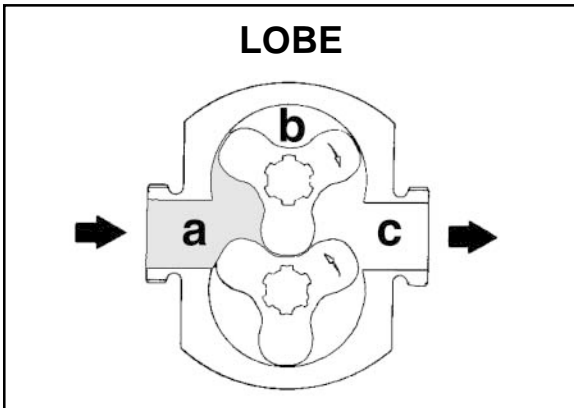


**HOW IT WORKS:**

- a.) As the gears separate on the inlet side of the pump, cavities are created between the gear teeth which create a vacuum that draws in the liquid.
- b.) Once the teeth clear the inlet port, the liquid is captured between the gear teeth and the housing.
- c.) As the teeth mesh, the liquid is squeezed out of the cavity and forced out the discharge port.

**FEATURES:**

- Metering:** thin to viscous liquids can be dispensed in a smooth repeatable flow
- High Pressure:** up to 500 psi can be achieved with low to high viscosity liquids
- Clean Liquids:** close fitting gears require clean non-abrasive liquids

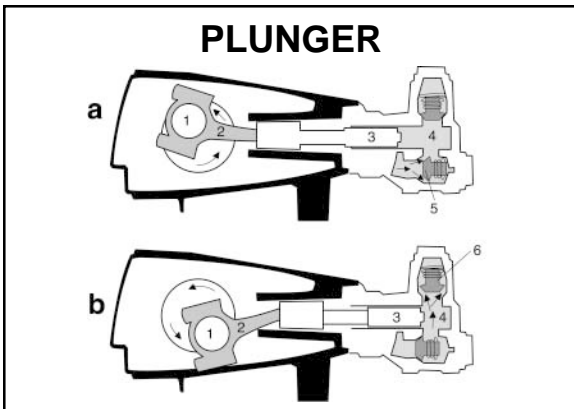


**HOW IT WORKS:**

- a.) The motion of the counter rotating lobe elements creates a partial vacuum which draws the liquid smoothly into the pump chamber.
- b.) As the lobes revolve, liquid is captured between the lobe cavities and the outer housing.
- c.) The liquid is forced out the discharge as the lobes mesh and eliminate the cavities the liquid occupies.

**FEATURES:**

- Versatile:** many rotor options are available to enable the handling of most viscosities, temperatures, and solids
- Solids Handling:** gentle low shear solids and abrasive handling
- Wide Viscosity Range:** from 1 to 1,000,000 centipoise

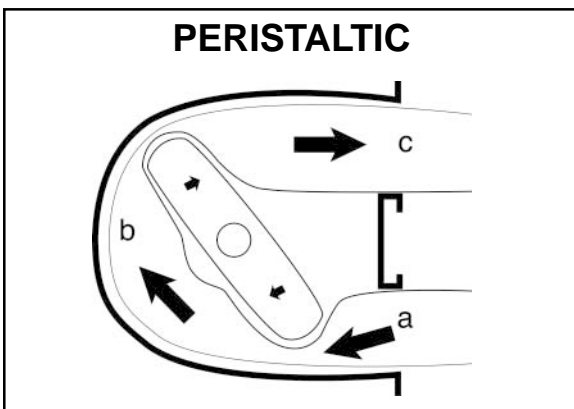


**HOW IT WORKS:**

- 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:** closed 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 rollers compress the hose and move away from the inlet a vacuum is created drawing in liquid.
- b.) The rollers work together to capture liquid between the pinched areas of the tube and move the liquid toward the discharge.
- c.) The front roller leaves the hose, opening the captured area while the back roller pushes the liquid out the discharge.

**FEATURES:**

- No Liquid Contact:** liquid comes in contact only with the hose utilized within the pump
- Self-priming:** can lift up to 25 feet
- Viscous and Abrasive Liquids:** designed to handle viscous, corrosive, abrasive and high purity solutions