

## 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

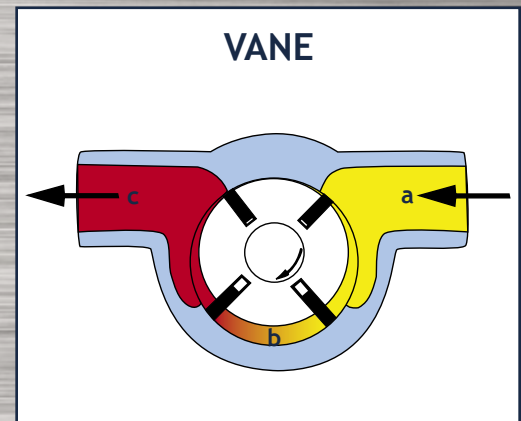


## HOW IT WORKS:

- Centrifugal force (and/or springs) keeps the blades in contact with the housing as each blade leaves the upper eccentric area. Liquid is drawn in as the size of the cavity between the blades and housing increases during this rotary motion.
- 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 eccentric portion of the housing and are pushed back into their slot, the cavity between the blades is reduced in size which forces the liquid out the discharge.

## FEATURES:

**Self-Priming:** lift liquids up to 3 feet / higher lifts are possible with some models  
**Low to Medium Viscosity:** thin to medium viscosities are easily handled  
**Simplicity:** few moving parts to fail or replace

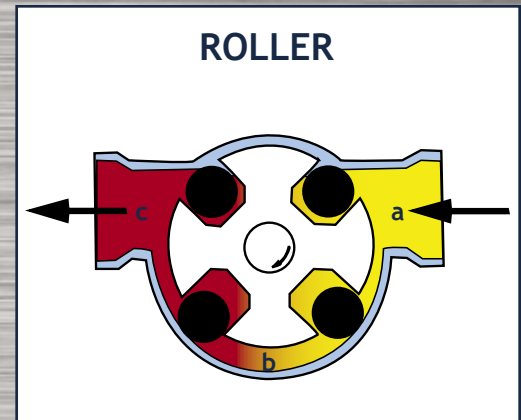


## HOW IT WORKS:

- Centrifugal force slings each roller out against the housing as each roller leaves the upper eccentric area. Liquid is drawn in as the size of the cavity between the rollers and housing increases during this rotary motion.
- Once the rollers clear the inlet port the liquid is captured in the cavity between the rollers.
- As the rollers contact the eccentric portion of the housing and are pushed back into their slot, the cavity between the rollers is reduced in size which forces the liquid out the discharge.

## FEATURES:

**Abrasive Handling:** the roller design allows the handling of powders in suspension  
**High Pressure:** up to 300 psi can be achieved  
**Simplicity:** few moving parts to fail or replace



## HOW IT WORKS:

- 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).
- 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

