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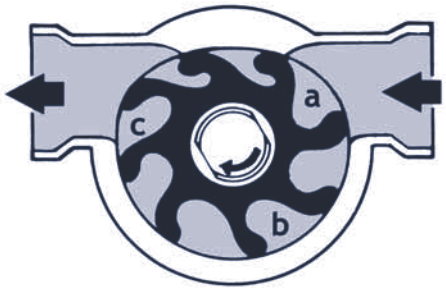
HOW IT WORKS:

a.) As the flexible impeller blades leave the cam, the cavities between them increase in size and create a vacuum which draws in the liquid.
b.) Once the blades clear the inlet port, the liquid is captured in the cavity between the blades and the housing.
c.) 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

FLEXIBLE IMPELLER



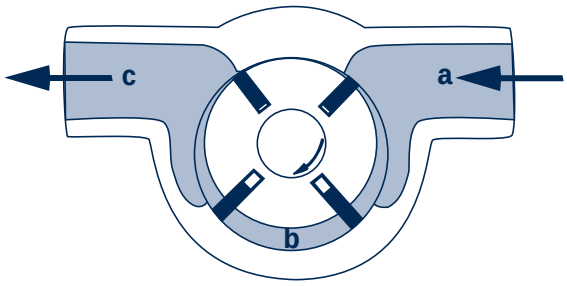
HOW IT WORKS:

a.) 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.
b.) Once the blades clear the inlet port, the liquid is captured in the cavity between the blades and the housing.
c.) 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

VANE



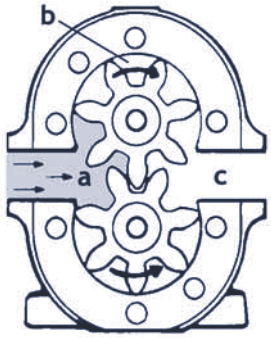
HOW IT WORKS:

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

EXTERNAL GEAR



HOW IT WORKS:

a.) The inner gear (a) rotates in unison with the outer gear (b) opening gaps between their teeth on the suction side drawing in liquid.
b.) Liquid is trapped in the gaps (c) between the teeth and the stationary crescent (d) as the gears travel toward the discharge side.
c.) As the inner (a) and outer (b) gears mesh together liquid is forced out the discharge side.

FEATURES:

High Viscosities at Standard Motor Speeds: internal gear pump models that drive the inner gear are capable of pumping viscosities of up to 10,000 ssu at the standard motor speed of 1800 rpm's
High Pressure: up to 650 psi can be achieved with low to high viscosity liquids
Clean Liquids: close fitting gears require clean non-abrasive liquids

INTERNAL GEAR