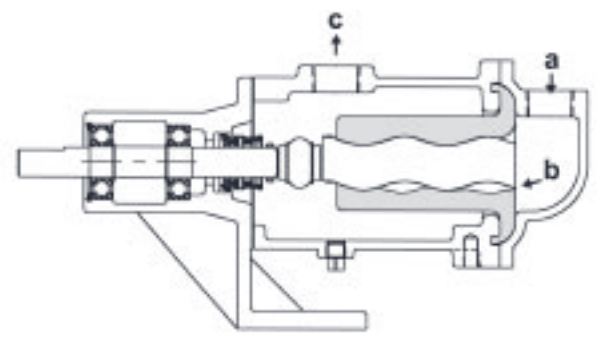


FLEXIBLE IMPELLER vs. PROGRESSING CAVITY



VS.



Advantages: Flexible Impeller

- Dimensions: Compact size vs PC pumps - PC pumps can be up to 12' + in length.
- Cost: Lower initial pump cost vs like materials of construction PC
Lower service parts cost
- Simplicity: Fewer parts than PC. FIP does not have an internal coupling shaft. The only moving parts are the impeller, shaft, and seal.
- Repair: Significantly easier to repair than a PC.
Significantly faster to repair than a PC (less down time).
Not necessary to remove an FIP from piping when replacing impeller. The PC pump must be removed from the plumbing to replace the stator.

Advantages: Progressing Cavity

- PSI: Maximum pressure of the FIP is 60psi in currently available models. PC pumps are available in multistage models that will deliver up to 1000psi.
- Flow: Maximum flow of the FIP is 100gpm in currently available models. PC pumps are available in models that will deliver up to and exceed 1000gpm.
- Solids: PC pumps are more tolerant of large highly abrasive solids.
- Viscosities: PC pumps can handle very high viscosities, pastes, and fibrous materials.
- Flow Curve: PC pumps have a much steeper flow curve. The FIP flow drops more rapidly as discharge pressure increases.

Shared Benefits:

- Self-priming: Pumps can be mounted above the source fluid level, eliminating the need for a bottom outlet in the supply tank.
When pump is mounted above the liquid source it is easier to service (does not flood when opened).
Pumps will "scavenge" (completely empty drums and tank).
Pumps will not airlock when scavenging or pumping liquids containing air or gas bubbles.
When priming the discharge air pressure will open a non-return valve (check valve) on the discharge line.
- Viscosity: Handles viscous liquids.
- Smooth Flow: Delivers smooth flow, even at low rpms.

- Gentle Action: Minimal if any damage to structure of shear-sensitive liquids.
Minimal if any damage to suspended soft solids.
Will not emulsify mixed liquids.
Will not entrain gases or create foam.
- Hard Solids: Hard solids contained in the pumped liquid will only minimally wear pump components.
- Pulsation Free: Will deliver smooth, steady flow without pulsation even at low rpms.

General Markets

- Sanitary: Most food, dairy, beverage, pharmaceutical
- Industrial/Commercial: ... Chemical transfer, polymer transfer, automotive fluids, oil/water (mixed) handling, remediation, filtration feed, paint transfer, mining
- Agricultural: Animal food preparations, molasses, insecticides, fertilizers
Water/Waste Water: sludge thickening chemicals, lime slurry, fluidized bed effluent systems