Progressing Cavity Pumps

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Positive Displacement Pump

*Displaces a defined volume per stroke, cycle, or revolution*

General types of positive displacement pumps

- Rotary
  - *Progressing Cavity*
  - *Gear (Internal/External)*
  - *Lobe*
  - *Screw*
  - *Peristaltic*

- Reciprocating
  - *Piston*
  - *Diaphragm*
Design

Origin

• Invented, patented and licensed by French engineer René Moineau in the 1930s

• Cavities

• Rotor and stator
BN Movie
Design

Configurations

• Standard flanged

• Open Hopper

• Wobble
Drive Connections

Piggy Back

Inline

Close Coupled
Uses for Progressing Cavity Pumps

General Uses

- Metering
- Viscous Products
- Abrasive Products
- Shear Sensitive Products
General Uses in Water/Wastewater Treatment Plants

- Thin Sludge
- Thickened Sludge
- Dewatered Sludge
- Polymer
- Chemical Feed
Primary Sludge Transfer
Uses for Progressing Cavity Pumps > Thin Sludge

Sludge Feed to Dewatering Device
Sludge from GBT
Sludge from RDT
Sludge from BFP
Sludge from Centrifuge
Polymer to Dewatering Device
Ferric Chloride
Sodium Hypochlorite
Dry Run Protection

- protects pump and stator against damages caused by frictional heat due to lack of liquid pumped

Controller for panel mounting
Conventional stator and rotor change
SCT stator and rotor change
Speed Up – Smart Conveying Technology

Components

Adjusting Segment
for adjusting of the stator clamping and retensioning of the stator

Smart Stator
consisting of 2 stator halves for quick assembly/dismantling

Smart Rotor
with detachable connection for quick assembly/dismantling

Segment Retainer
for positioning the stator halves and the adjusting segments
seeplex.com
all things flow