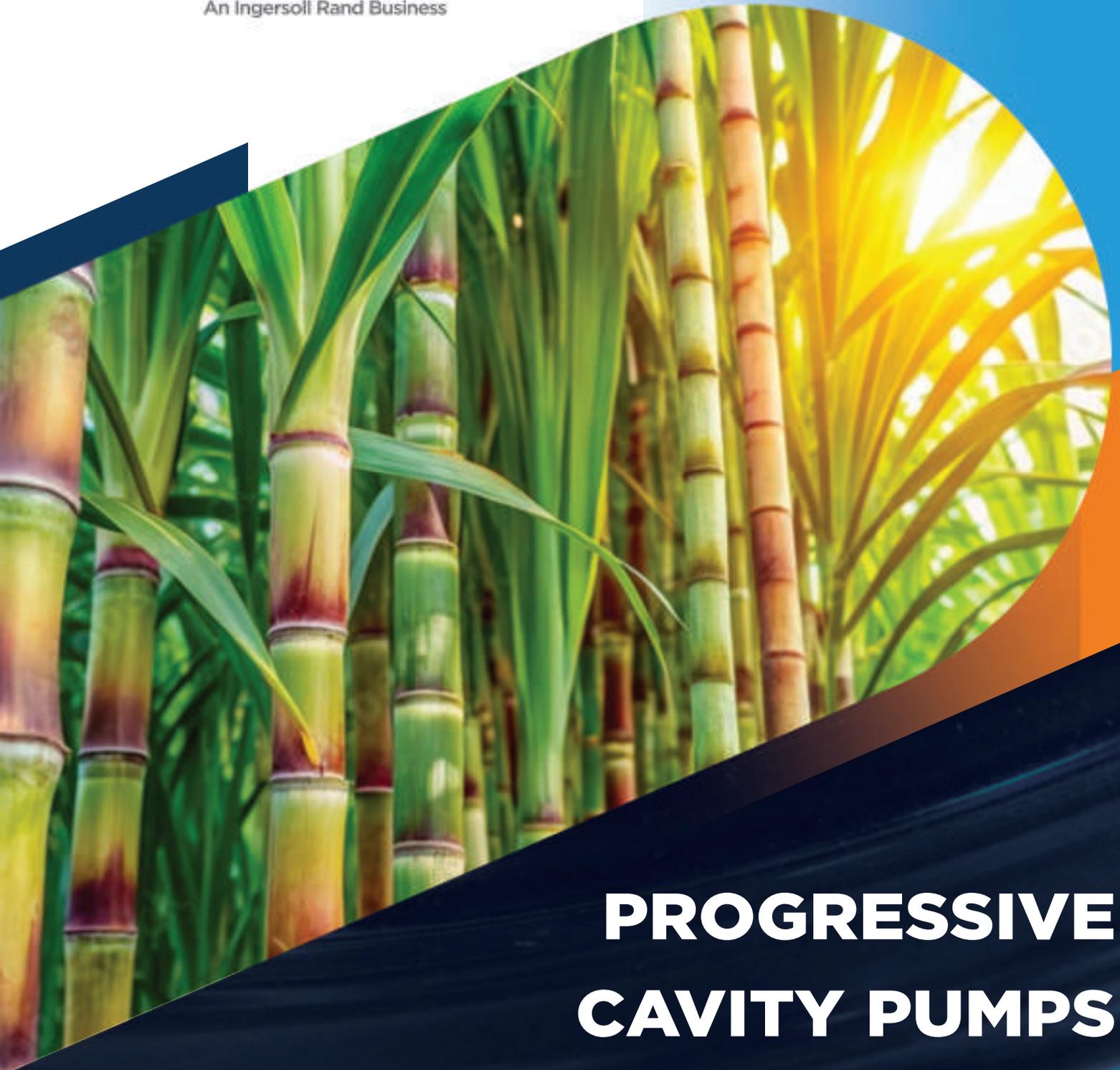




**HYDRO
PROKAV**

An Ingersoll Rand Business



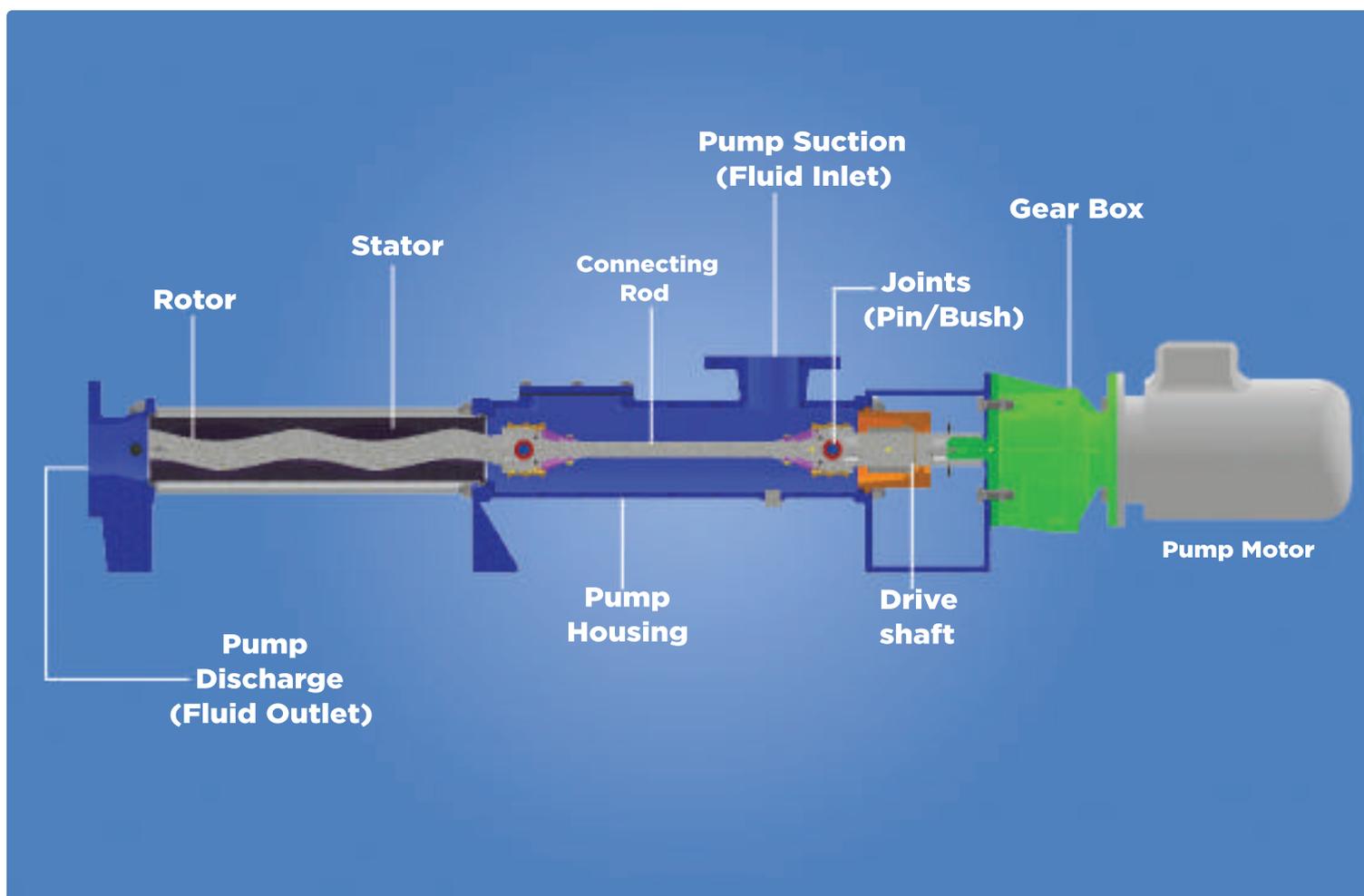
PROGRESSIVE CAVITY PUMPS For Sugar Industry



Why Progressive Cavity Pumps for Sugar Processing?

The sugar industry is characterized by the handling of a wide range of highly viscous byproducts, including sludge from clarifiers, press mud slurry, sulphited syrup, massecuite, magma, and molasses. These materials are shear sensitive and highly consistent with solids suspended in them. Impact on these fluid properties poses significant challenges to sugar processing. Hydro Prokav's Progressive Cavity Pumps are engineered to meet these challenges head-on.

Progressive cavity pumps are a specialized type of positive displacement pump that generates a smooth, low-pulsation flow by rotating a double-helical, eccentrically mounted rotor within a resilient elastomer stator.



They are trusted across industries for their ability to handle challenging fluids with precision and reliability. Their unique design makes them ideal for applications where consistency and control matter.

- Max Viscosity: 1,000,000 cP
- Max Flow: 375 m³/h
- Max Pressure: 48 bar
- Max Temperature: 200°C

Hygiene & Compliance: Ensuring food-grade standards and avoid contamination.

Pump Component Materials Overview

Components	Standard	On-Request
Pump Housing	<ul style="list-style-type: none">• Cast Iron• SS 316• CF8M	<ul style="list-style-type: none">• Hastelloy• Duplex• Super Duplex• CN7M
Internals, including rotors	<ul style="list-style-type: none">• SS 304/316/410/420• Alloy steel• Tool steel	<ul style="list-style-type: none">• Hastelloy• Alloy 30• Other SS 400 Series
Stators	<ul style="list-style-type: none">• EPDM• NBR• FKM (Viton)• Natural Rubber	<ul style="list-style-type: none">• Hypalon• White Nitrile• Urethane

HANDLES SOLIDS WITH EASE

Handles hard solids (≤ 1 inch) and soft solids (≤ 4 inches) without clogging or wear.



KEY BENEFITS



Gentle, non-pulsating flow ideal for shear-sensitive materials



High suction capabilities, perfect for thick, sticky fluids



Can handle shear sensitive fluid without pulsation flow



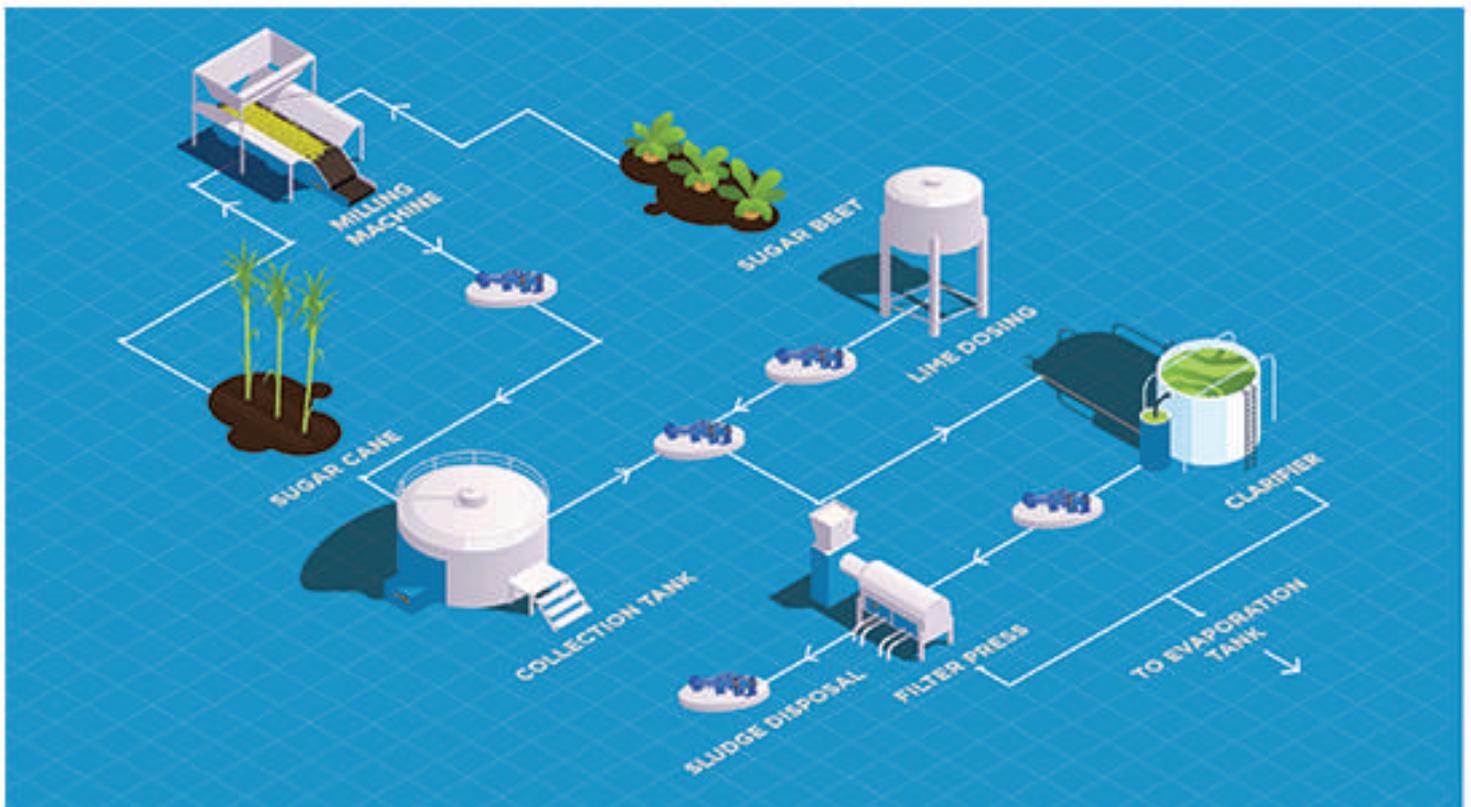
Consistent volumetric efficiency across varying viscosities



Low maintenance and long service life, even in abrasive conditions

Points of High Viscous Fluid Transfer Demands in Sugar Processing

Juice Extraction Stage



• Cane Juice Extraction & Transfer

Hydro Prokav pumps ensure gentle, non-pulsating transfer, preventing clogging and maintaining juice integrity.

- **Lime slurry transfer**

Hydro Prokav pumps offer accurate metering and abrasion resistance, ideal for continuous lime slurry transfer.

- **Removal of Sludge from Clarifier**

Hydro Prokav sludge pumps handle high solid content with ease, ensuring uninterrupted sludge removal.

- **Transfer of Press Mud Slurry**

Hydro Prokav sludge transfer pumps can enable smooth transfer of this highly viscous and fibrous material.

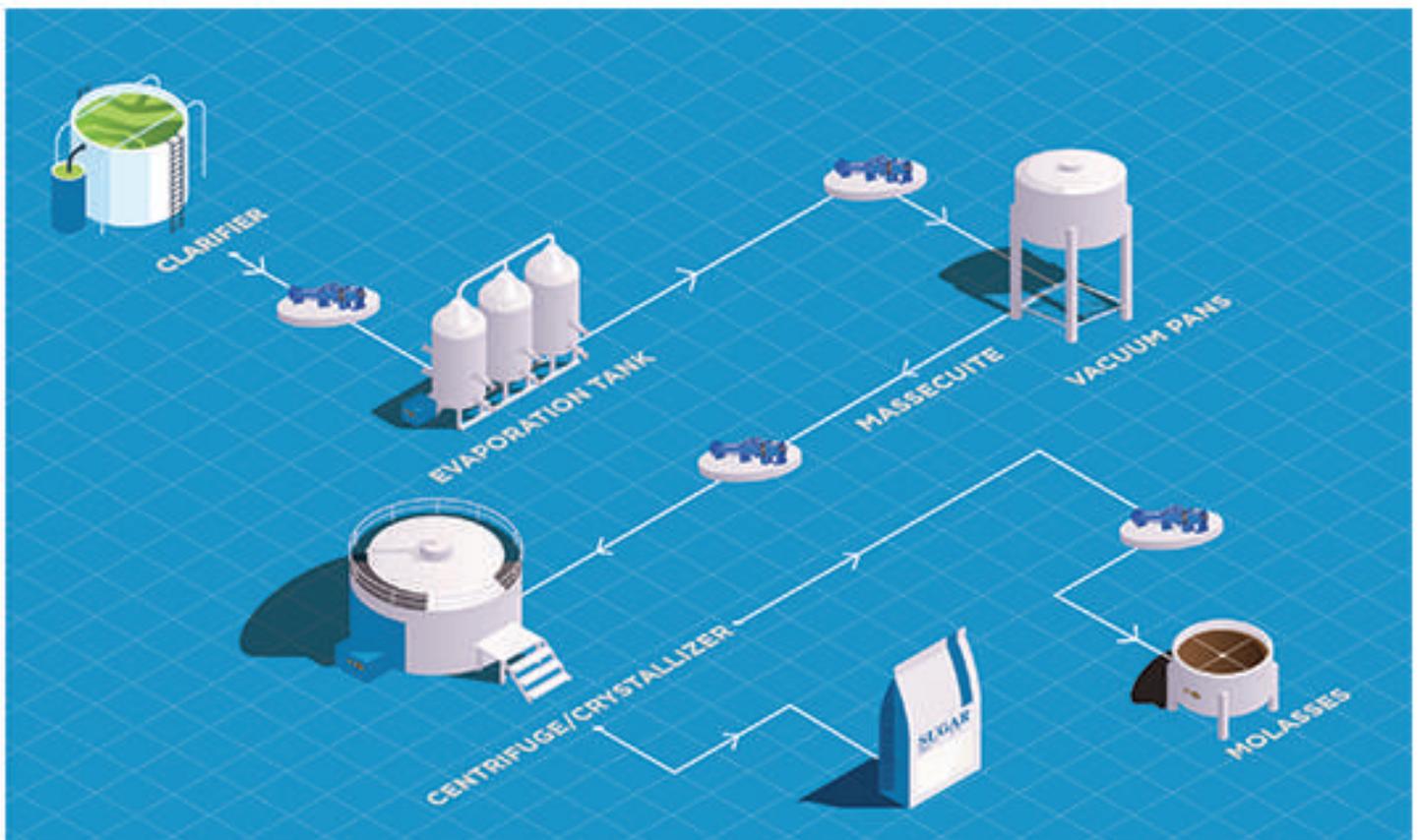
- **Disposal of Filter Cake**

Hydro Prokav intelte Sludge Transfer System (iST) can be customized for high-viscosity cake transfer, reducing manual handling.

Juice Evaporation Stage

- **Transfer of Sulphited Syrup**

Hydro Prokav pumps maintain consistent flow without shearing the syrup, preserving product quality.



Crystallization Stage

• Transfer of Masecuite to the Crystallizer

Hydro Prokav progressive cavity pumps are ideal for low-speed, high-torque transfer, protecting sugar crystals.

• Transfer of Magma

Hydro Prokav pumps ensure smooth, controlled flow without damaging the crystal structure.

• Recycling Mother Liquor

Hydro Prokav pumps offer continuous, energy-efficient operation for liquor recirculation.

• Separation and Transfer of Molasses

Hydro Prokav pumps are built with materials compatible with molasses, ensuring long service life and minimal maintenance.

Effluent Treatment Stage

• Sludge Management in Effluent Treatment Plant (ETP)

Hydro Prokav pumps excel in sludge transfer and are engineered for clog-free operation and easy maintenance.

Hydro Prokav Pumps for Sugar & Distilleries Industry

KX-F SERIES

The KX-F Series is built for sanitary use in food, pharma, and cosmetics. With smooth stainless surfaces, hygienic seals, and CIP/SIP compatibility, it ensures safe, contamination-free fluid handling.



IDEAL FOR TRANSFERRING

- Fruit pulp & juice
- Condensed milk
- Butter & Cream
- Curd
- Honey
- Glucose
- Syrup & malt extract
- Pharmaceutical formulations
- Yeast



Flow Up to
120 m³/h



Temperature Up to
200 °C



Viscosity Up to
1,000,000 cP



Pressure Up to
36 bar

KX-W SERIES



Flow Up to
275 m³/h



Temperature Up to
200 °C



Viscosity Up to
1,000,000 cP



Pressure Up to
36 bar

KX-W pumps feature a wide-hopper inlet and screw conveyor for thick, pasty, or non-Newtonian fluids. Built for hygiene and durability, they perform reliably in the toughest industrial settings.



IDEAL FOR TRANSFERRING

- Cake & Jam mix
- Paddy slurry
- Yogurt
- Cream
- Non-Newtonian fluids/ jellies
- Grease
- Printer's ink paste
- Grout mix
- Water asbestos slurries
- Explosive slurries
- High consistency paper pulp
- Pulp concentrates
- Cow dung

KYM SERIES



Flow Up to
125 m³/h



Temperature Up to
200 °C

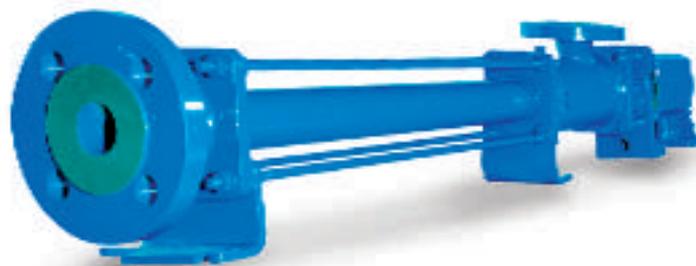


Viscosity Up to
1,00,000 cP



Pressure Up to
12 bar

KYM pumps offer customizable sealing and joint options for extended service life. With torsion-free stators and rugged construction, they ensure reliable, leak-free performance in tough industrial environments.



IDEAL FOR TRANSFERRING

- Ceramic slurry
- Abrasive & corrosive slurries
- Massecuite
- Molasses
- Effluents
- Mineral oils

KX-W SERIES



Flow Up to
275 m³/h



Temperature Up to
200 °C



Viscosity Up to
1,000,000 cP



Pressure Up to
36 bar

KX-W pumps feature a wide-hopper inlet and screw conveyor for thick, pasty, or non-Newtonian fluids. Built for hygiene and durability, they perform reliably in the toughest industrial settings.



IDEAL FOR TRANSFERRING

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KYM SERIES



Flow Up to
125 m³/h



Temperature Up to
200 °C



Viscosity Up to
1,00,000 cP



Pressure Up to
12 bar

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IDEAL FOR TRANSFERRING

- Ceramic slurry
- Abrasive & corrosive slurries
- Massequite
- Molasses
- Effluents
- Mineral oils

KX-V SERIES

KX-V pumps offer vertical, semi-submersible design with explosion-proof options. Ideal for drums and wells, they handle viscous, abrasive fluids with gentle, low-maintenance performance across industries.



Flow Up to
135 m³/h



Temperature Up to
200 °C



Viscosity Up to
1,000,000 cP



Pressure Up to
12 bar



IDEAL FOR TRANSFERRING

- Acids
- Beer
- Fuel, Lube & Furnace oils
- Drug formulations
- Varnish
- Grease
- Cream
- Ink paste
- Glucose
- Malt extract

Universal Parts for Progressive Cavity Pumps — Any Brand, Any Need

Hydro Prokav doesn't just manufacture progressive cavity pumps—we also supply precision-engineered spare parts compatible with most global brands. Whether you're maintaining Hydro Prokav pumps or competitor models, our parts ensure seamless fit, reliable performance, and extended service life.

We offer:

- Rotors & Stators** – Built for durability and volumetric efficiency
- Joints** – Pin & bush, gear, and cardan joints
- Sealing Systems** – Soft gland packing, mechanical seals, and more
- Drive Components** – Shaft, coupling rod, and bearing housing



Hydro Prokav is a leading manufacturer and exporter of progressive cavity pumps (PCPs), headquartered in Coimbatore, India. With over two decades of experience and a presence in 47 countries, we deliver efficient, reliable, and customized progressive cavity pumps and solutions across industries.

Our modern 25,000 sq. meter facility houses advanced machinery and testing systems, enabling precision manufacturing and strict quality control. We also operate a state-of-the-art rubber manufacturing unit and a dedicated R&D facility, driving innovation and material excellence. Our expertise lies in handling tough, viscous, abrasive, and high-consistency fluids, with a wide range of Progressive Cavity Pump (PCP) models tailored to diverse industrial applications.

WHY CHOOSE HYDRO PROKAV?

- **In-House PCP Technology** for complete control and faster delivery
- **ISO 9001, 14001, 45001, CE, ATEX, & FDA Certified** for global quality assurance
- **State-of-the-art rubber and stator manufacturing unit**, equipped with precision molding technology
- **Highly Durable Stators** for lower total cost of ownership
- **Custom Pump Solutions** to meet specific fluid handling needs
- **Global Support Network** with offices in India, USA, China & worldwide distributors



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