



**HYDRO
PROKAV**

An Ingersoll Rand Business

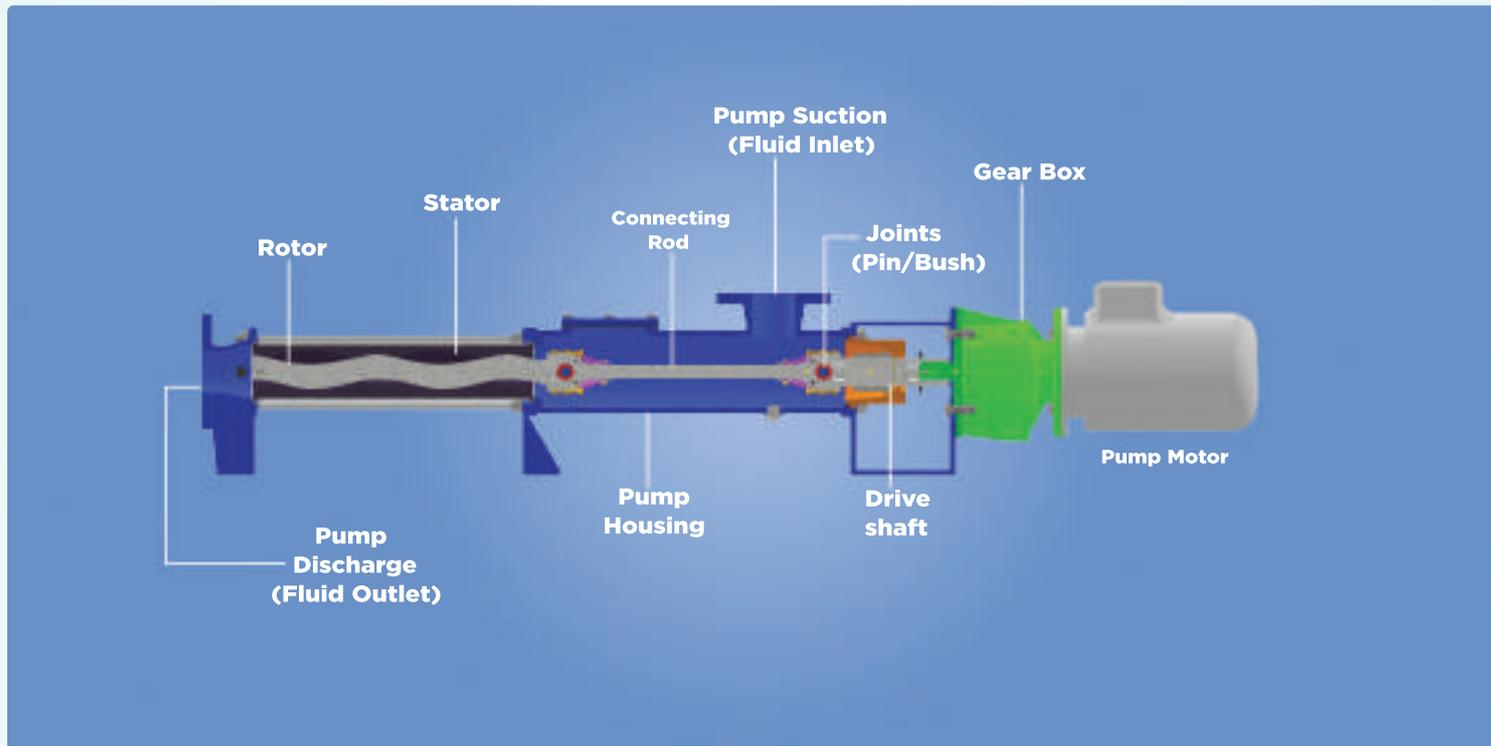


PROGRESSIVE CAVITY PUMPS for Edible Oil



Why Progressive Cavity Pumps for Edible Oil Production?

Progressive cavity pumps are positive displacement pumps that use a helical rotor rotating inside an elastomer stator to form continuous cavities. This design delivers a smooth, non-pulsating flow, making them ideal for transferring highly viscous fluids with precision and consistency.



From crude oil transfer to refining, the edible oil production process involves handling a variety of high-viscosity fluids that demand precision, hygiene, and low-shear pumping. Hydro Prokav's progressive cavity pumps are engineered to meet these challenges, ensuring smooth, consistent flow while preserving product integrity. Our pumps deliver reliable performance across the entire edible oil value chain and are suitable for all types of oil production—seed oils, fruit oils, and nut oils.



Handles Low to High Viscous Fluids - Up to 1,000,000 cP (from raw oil to and oil cakes).



Durable & Hygienic - Food-grade SS with Clean-In-Place (CIP)/Sterilize-In-Place (SIP) design.



Low Shear Design - Maintains oil quality and prevents molecular breakdown.



Precise Flow Control - Supports continuous and batch processes.



Customizable Solutions - Material combinations tailored to each application.



Temperature Sensitivity - Work in varied temperature range.

Pump Component Materials Overview

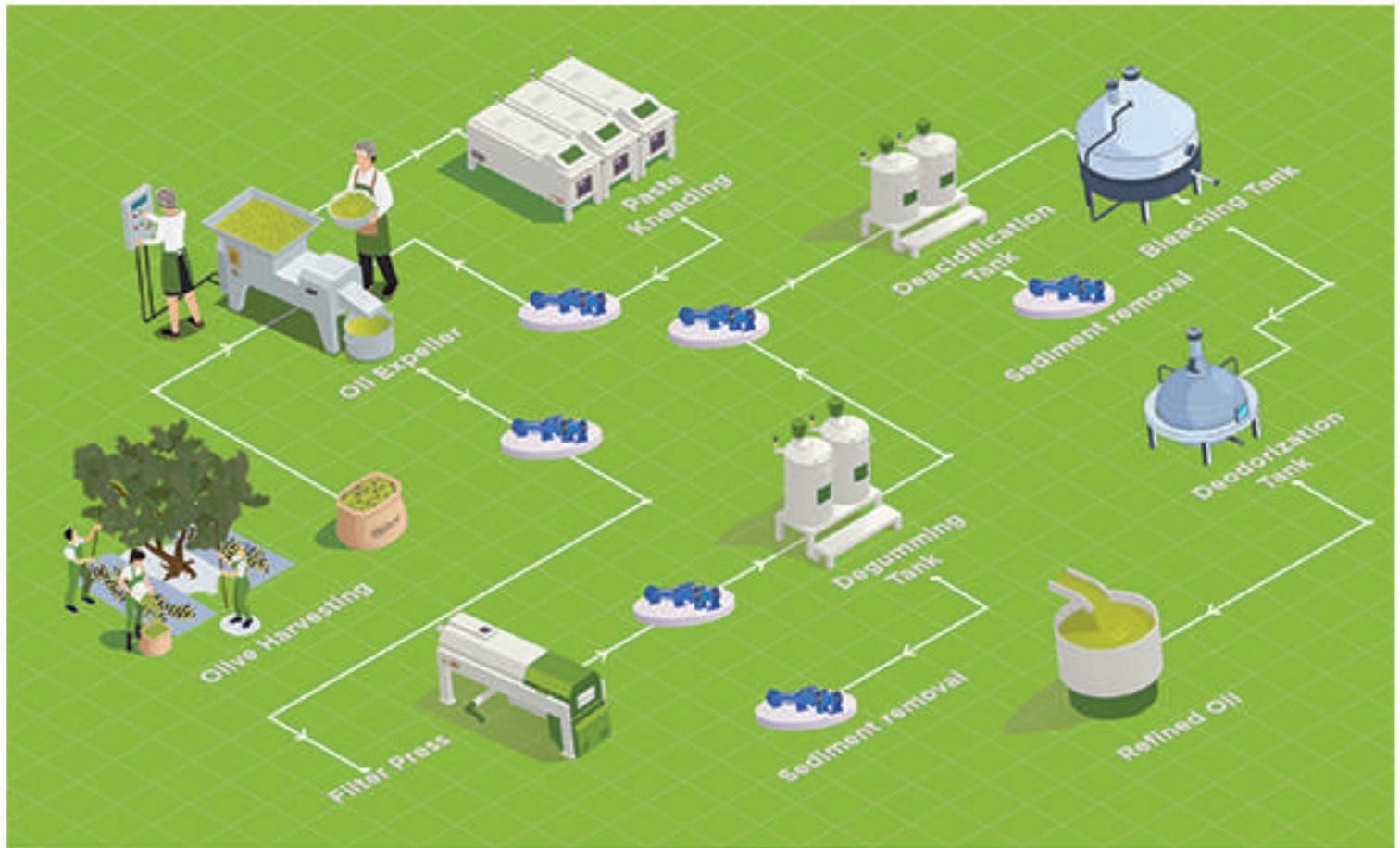
Components	Standard	On-Request
Pump Housing	<ul style="list-style-type: none">• Cast Iron• SS 316• CF8M	<ul style="list-style-type: none">• Hastelloy• Duplex• Super Duplex• CN7M
Internals, including rotors	<ul style="list-style-type: none">• SS 304/316/410/420• Alloy steel• Tool steel	<ul style="list-style-type: 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.



Progressive Cavity Pump Applications in Edible Oil Processing



- **Raw Oil Transfer:** Efficiently transfers raw oil from extraction units to storage tanks or refining sections
- **Degumming:** Handles oil during the removal of phospholipids and gums, ensuring gentle flow of viscous media
- **Neutralization:** Transfers oils during alkali treatment to remove free fatty acids with minimal shear
- **Washing:** Pumps water or acid solutions used to wash neutralized oils, maintaining process hygiene
- **Bleaching:** Transfers oil mixed with bleaching earth or activated carbon, ensuring uniform dispersion
- **Deodorization:** Handles oils under vacuum and heat conditions during odor removal, preventing contamination
- **Winterization/Dewaxing:** Moves oils through chilling and filtration stages to separate waxes and improve clarity

- **Final Product Transfer:** Delivers refined oil to storage tanks or packaging lines with precision and cleanlines.
- **Byproduct Handling:** Safely transfers soap stock, spent bleaching earth, fatty acids, and sludge from refining.
- **Palm Oil Fractionation:** Handles both liquid and solid fractions during palm oil separation processes.
- **Palm Oil Sludge Transfer:** Pumps high-viscosity sludge generated during palm oil processing.
- **Wastewater & Effluent Transfer:** Transfers oily wastewater from refining and washing processes for treatment or disposal.

Hydro Prokav Pumps for Edible Oil 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.



Flow Up to
120 m³/h



Temperature Up to
200 °C



Viscosity Up to
1,000,000 cP



Pressure Up to
36 bar



IDEAL FOR TRANSFERRING

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

KX-A SERIES



Flow Up to
175 m³/h



Temperature Up to
200 °C



Viscosity Up to
100,000 cP



Pressure Up to
48 bar

KX-A pumps deliver high pressure at low flow rates using short-pitch rotors. With advanced sealing and robust joints, they're ideal for precise, leak-free fluid transfer in demanding applications.



IDEAL FOR TRANSFERRING

- Abrasive & corrosive slurries
- Ceramic slurries
- Masecuite
- Effluents
- Mineral oils
- Maize starch slurry
- Vegetable oils
- Paints

KX-B SERIES



Flow Up to
375 m³/h



Temperature Up to
200 °C



Viscosity Up to
100,000 cP



Pressure Up to
6 bar

Designed for bulk transfer, the KX-B Series uses long-pitch rotors for high flow at low pressure. Durable materials and flexible sealing options ensure reliable, leak-free operation across industries.



IDEAL FOR TRANSFERRING

- Abrasive & corrosive slurries
- Ceramic slurries
- Masecuite
- Effluents
- Mineral oils
- Maize starch slurry
- Vegetable oils
- Paints

KX-W SERIES

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.



Flow Up to
275 m³/h



Temperature Up to
200 °C



Viscosity Up to
1,000,000 cP



Pressure Up to
36 bar



IDEAL FOR TRANSFERRING

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

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

Suitable for All Edible Oils

Hydro Prokav progressive cavity pumps are designed to handle the entire spectrum of edible oil production. Our pumps ensure gentle, low-shear transfer that preserves quality and consistency throughout refining and packaging.



Olive oil



Palm oil



Sunflower oil



Canola oil



Groundnut oil



Sesame oil



Rice bran oil



Soybean Oil



Mustard Oil



Coconut Oil



Almond Oil



Corn Oil

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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