Roto pumps
since 1968

WE COMPETE WITH ONLY ONE PUMP

# ‘P’RANGE PUMPS

## Compact & Robust Design

Engineered with Unique Thrust Bush Joint Design

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## PUMPING MILLIONS OF GALLONS

### THOUSANDS OF APPLICATIONS | ONE PROVEN BRAND

With over five decades of legacy, Roto Pumps has been a pioneer in progressive cavity pump technology. Backed by a global presence and a passion for precision engineering, we deliver reliable, high-performance, and cost-effective pumping solutions that are trusted across industries and continents.

At Roto, we believe in complete in-house development of products and manufacturing technologies. Our ongoing investments in R&D ensure we continue to meet the evolving needs of our customers while delivering products that conform to the highest international standards.

## OUR PRIORITY – CUSTOMER FIRST

### GETTING CLOSER | RESPONDING FASTER | SERVING BETTER

We are committed to being where our customers need us most. With 7 overseas strategic establishments featuring robust warehouse and assembly infrastructure, we ensure quicker deliveries, reduced lead times, and customized product offerings.

In India, our network includes 5 regional branches and 8 resident sales offices, strategically positioned to serve customers with agility.

Our localized sales and service support ensures prompt assistance and expert guidance—before, during, and after pump installation—regardless of your location.

This proximity helps us respond faster, reduce downtime, and deliver trusted pumping solutions with deep application knowledge.

## WHY CHOOSE ROTO® PROGRESSIVE CAVITY PUMPS?

- Globally Proven Pumps with Over 325,000+ installations worldwide.
- Comprehensive Range of Positive Displacement Pumps – You Need It, We Have It.
- Extensive Experience of Solving 5000+ Fluid Pumping Challenges Across 25+ Industries.
- 5 State-of-the-Art Manufacturing Facilities - Spanning 40,000 sq. meters, equipped with advanced and automated machinery.
- Leading Stator Manufacturer with In-house elastomer compound formulation, preparation, mould design, and manufacturing.
- SCADA Based Real Time Test Bed Facility .
- Advanced Surface Treatment Capabilities - In-house hard chrome plating and tungsten carbide coating for enhanced durability.
- Dedicated R&D and Innovation Team - Solving New & Complex Fluid Engineering Challenges.

## FROM MILD TO AGGRESSIVE APPLICATIONS, WE'VE GOT YOU COVERED

Our pumps are engineered to handle an extensive range of media, making them ideal for complex and demanding applications. Our pumps efficiently transfer fluids with the following characteristics:

- From low viscous liquids to highly viscous liquids containing solids up to 150 mm (6")
- Wide viscosity range: 1 cSt to 3 million cSt
- Thixotropic and dilatant liquids
- Shear-sensitive and shear-stable materials
- Abrasive and solid-laden slurries
- Non-lubricating as well as lubricating fluids
- Aggressive chemicals
- Sticky adhesive media
- Toxic and hazardous fluids

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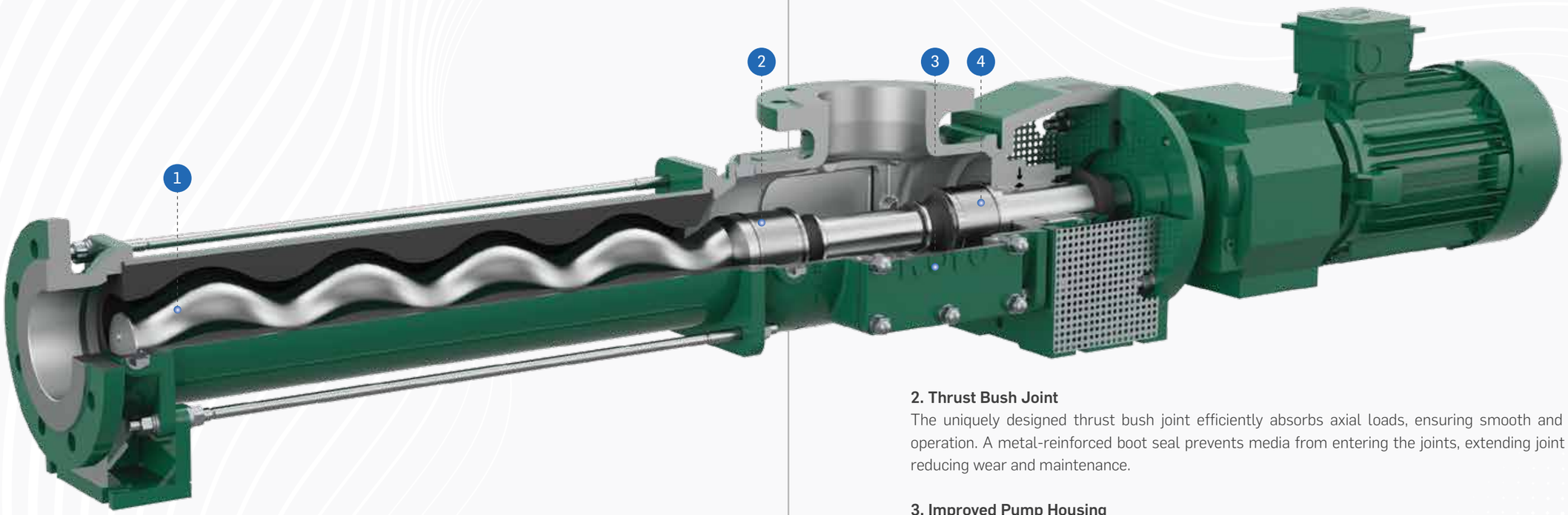
# ‘P’ RANGE PUMPS

Introducing the new ‘P’ Range Progressive Cavity Pumps, engineered for superior efficiency and reliability in fluid handling. Featuring a unique thrust bush joint, these pumps deliver robust performance, a compact design, and exceptional adaptability across diverse industrial applications.

**Flow Rate** - Up to 360 $m^3$/hr / 1585 GPM
**Pressure** - Up to 24 Bar / 350 PSI

# DISTINCTIVE FEATURES & BENEFITS:

- Delivers uniform, metered, and non-pulsating flow.
- Efficiently handle shear-sensitive, abrasive, highly viscous and solid laden media.
- Head remains independent of speed, while capacity varies with speed.
- Inherently self-priming & Low NPSH(R) Requirement.
- High suction lift capabilities of up to 9 mwc / 30 ftwc.
- These Pumps have reversible rotation capabilities. They can perform in equal efficiency in either direction.




**1. Optimized Rotor & Stator Geometry**

Available in both standard and 6L geometry options

- The Elastomer seal ring at both ends of the stator is an integral part of the stator preventing corrosion of stator tube as the pumped media doesn’t come in contact with the stator sleeve or the adhesive.
- Improved rotor stator geometry minimizes wear due to lower rubbing velocities.
- Stators are designed with tapered entry to facilitate easier entry of media and improve the suction capability.

**2. Thrust Bush Joint**

The uniquely designed thrust bush joint efficiently absorbs axial loads, ensuring smooth and reliable operation. A metal-reinforced boot seal prevents media from entering the joints, extending joint life and reducing wear and maintenance.

**3. Improved Pump Housing**

Two large inspection ports enable easy & quick inspection of the joints and removal of any blockage during pumping.

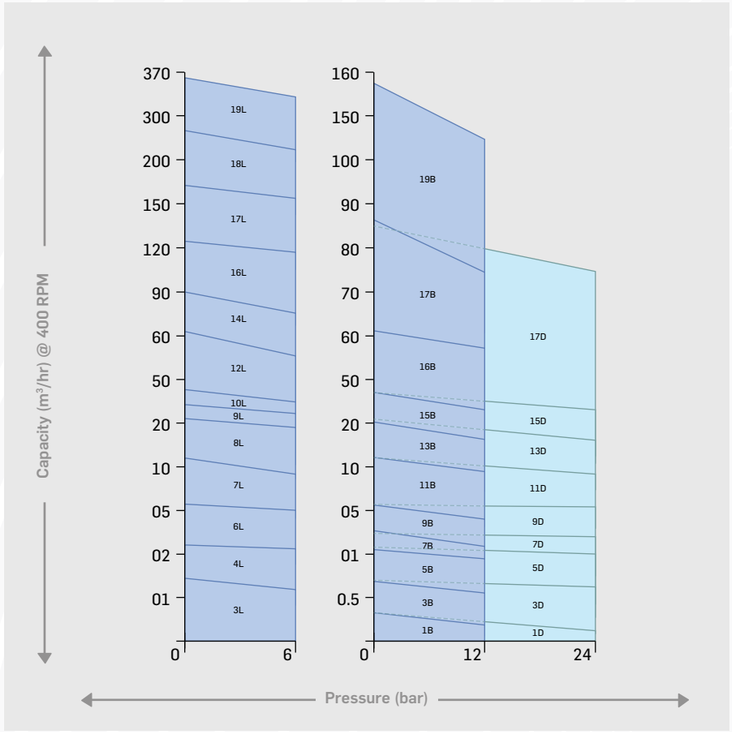
**4. Advanced Shaft Seal Design**

The open seal housing design prevents media accumulation, enhancing seal life and eliminating the need for seal flushing plans.

**5. Bearing Housing**

Heavy-Duty Bearing Housing designed with a two-piece shaft. It supports all types of geared motors and simplifies surfacing of rotating parts.

# PERFORMANCE CURVES




# MATERIAL OF CONSTRUCTION

**Rotor -** Alloy Steel, Tool Steel (Unplated), SS316 / SS 304 (Hard Chrome Plated / Unplated).

**Stator -** Natural, Nitrile, High Nitrile, Chloro-sulphonated Rubber, Ethylene Propylene Diene Monomer & various advanced Fluoroelastomer grades.

**Shaft -** Alloy Steel, SS 316 / SS304 (Hard Chrome Plated / Unplated).

**Coupling Rod -** Alloy Steel, SS 316, SS 304.

**Pump Housing -** Cast Iron, Stainless Steel.

**Shaft Sealing -** Soft Gland Packing with Gland flush, Single/Double Mechanical Seal with various Flushing and Quenching planes.

**Special Materials -** Options available for exotic materials including Duplex, Super Duplex, Alloy 20, Hastelloy, etc.

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# DESIGN VARIANTS

## ROTO KWIK PUMPS

**Flow Rate** - Up to 360 $m^3$/hr / 1585 GPM
**Pressure** - Up to 24 Bar / 350 PSI

Designed on the "Maintenance in Place Platform", Roto Kwik Pumps offers easy & quick maintenance of internal rotating components without dismantling suction and delivery pipelines.

Distinctive Advantages

- Standard Pumps can be easily converted to Roto Kwik Pumps by changing the end cover and coupling rod.
- One piece construction of stator eliminates any risk of media leakage unlike split stator design.
- Equipped with split-coupling rod, clamps and double inspection windows.
- No need of extra dismantling space.

## WEAR COMPENSATION STATOR

Specially designed Wear Compensation Stator design allows to control and regulate the efficiency of Progressive Cavity Pumps for an extended period. It uses spacers of engineered lengths to maintain even interference throughout the length of rotor and stator.

This prevents premature wear of pumping elements (stator and rotor), pump seizure, and excessive power consumption caused by unregulated adjustments. As a result, volumetric efficiency is significantly improved through precise and regulated adjustments.

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## STANDARD WIDE THROAT PUMPS

Standard Wide Throat Pumps are engineered with a large adaptable rectangular feed hopper with compression zone, and an auger feed screw. These pumps are designed for handling highly viscous and solid-laden media with low flowability, ensuring optimal efficiency in demanding conditions.

**Flow Rate** - Up to 220 $m^3$/hr / 970 GPM
**Pressure** - Up to 24 Bar / 350 PSI

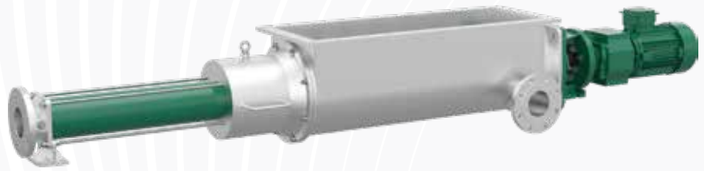
## SMALL WIDE THROAT PUMPS

Small Wide Throat Pumps are designed with an enlarged suction opening and a short auger. They are compatible with standard suction casings, allowing for easy interchangeability. These pumps are ideal for handling medium viscous media, especially in applications requiring larger inlets due to challenging suction conditions.

**Flow Rate** - Up to 280 $m^3$/hr / 1230 GPM
**Pressure** - Up to 24 Bar / 350 PSI

## CAKE PUMP

Cake Pumps are designed to handle highly viscous, non-flowable sludge cake with up to 45% dry solids. Featuring a spacious feed hopper (up to 2000 mm), a separate compression zone, and an enlarged auger feed screw, they ensure efficient and reliable conveying. These pumps are ideal for applications involving highly viscous to airtight products that are prone to bridging.



**Flow Rate** - Up to 50 $m^3$/hr / 220 GPM
**Pressure** - Up to 24 Bar / 350 PSI

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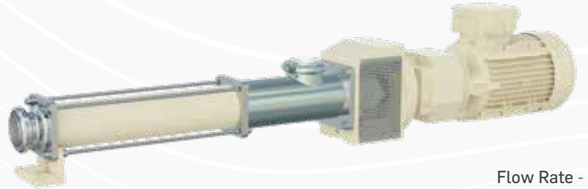
## FOOD PUMP

Heavy Duty Food Pumps are designed to handle viscous and shear-sensitive media in food processing applications. They are equipped with closed thrust bush joints, filled with special food-grade grease.

All metallic parts in contact with the pumped media are made from smooth-surface stainless steel, and these pumps are assembled with FDA certified food-grade stators. They are available in single/double CIP port configurations, and standard connection options include IDF, SMS, and RJT.



**Flow Rate** - Up to 65 $m^3$/hr / 286 GPM
**Pressure** - Up to 24 Bar / 350 PSI

## SMALL WIDE THROAT FOOD PUMPS

Small wide throat food pumps are compatible with standard suction casings, allowing for easy interchangeability. They feature a coupling rod with a short auger in a square-shaped hopper, enabling smoother and more efficient product feeding for uninterrupted operation.

**Flow Rate** - Up to 50 $m^3$/hr / 220 GPM
**Pressure** - Up to 24 Bar / 350 PSI

## STD. WIDE THROAT FOOD PUMPS

Standard Wide Throat Food Pumps are designed for efficient handling of highly viscous and non-flowable food products. Built with smooth-surface stainless steel and food-grade elastomers, these pumps include a large rectangular hopper, an auger, and an extended compression zone to ensure high volumetric efficiency. These pumps can be supplied with single/double CIP port configurations.

**Flow Rate** - Up to 40 $m^3$/hr / 175 GPM
**Pressure** - Up to 24 Bar / 350 PSI

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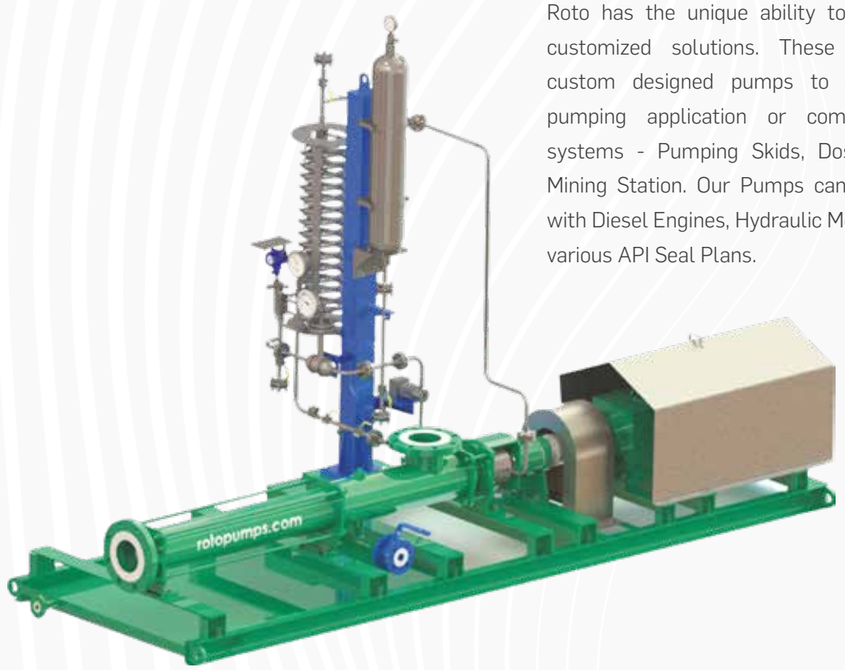
## SEMI-SUBMERSIBLE PUMP

Roto semi - submersible pumps are self-priming and are capable of handling solids, liquids and gases all put together. These pumps are designed for applications where space is a constraint and are available in multiple barrel lengths to suit diverse sump depths. We offer best-in-class design when it comes to customized pumps for closed /open drain oil & KO drum applications.

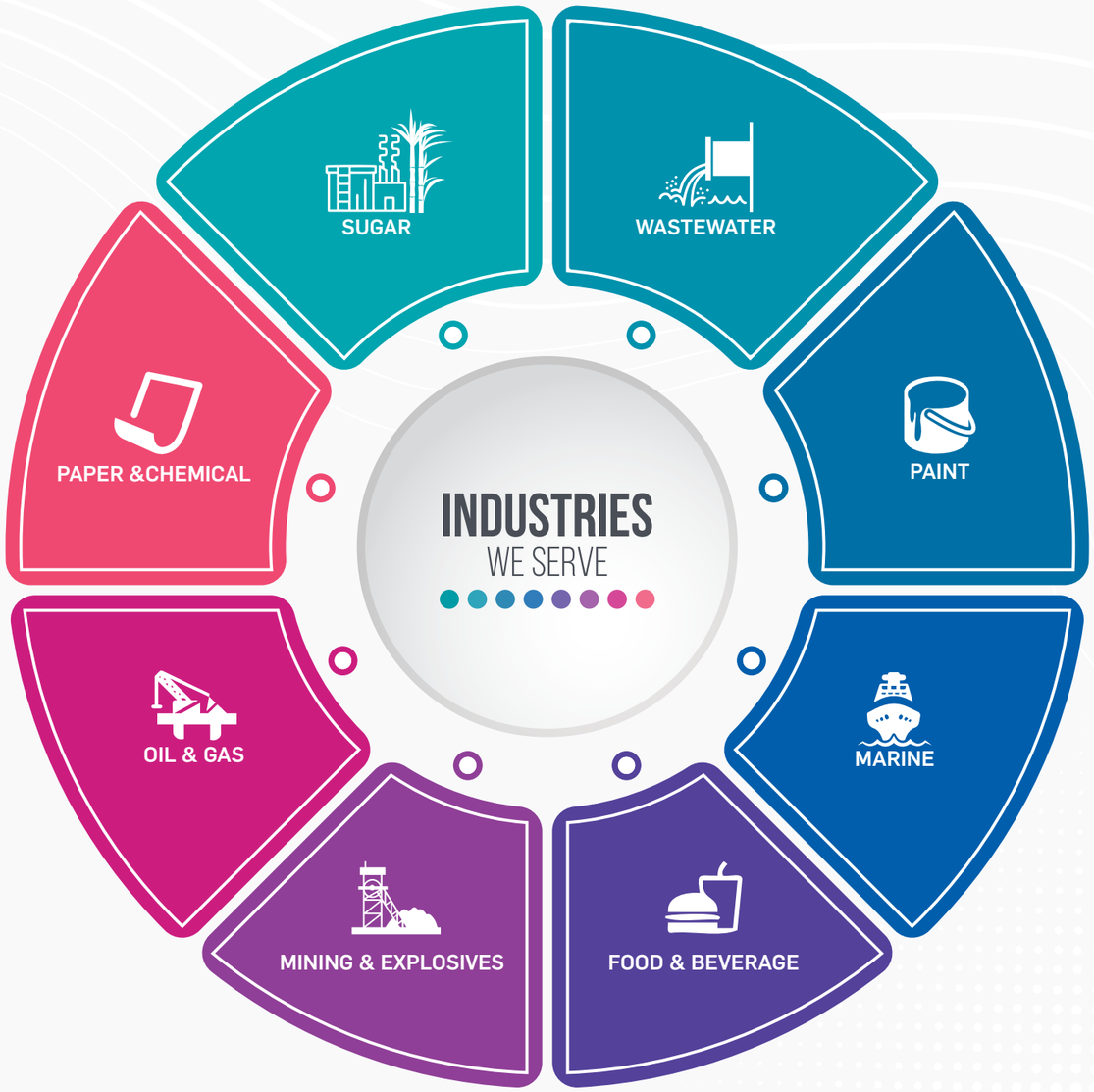
**Flow Rate** - Up to 200 $m^3$/hr / 880 GPM
**Pressure** - Up to 24 Bar / 350 PSI

## CUSTOMIZED FLUID ENGINEERING SOLUTIONS

Roto has the unique ability to offer high-end customized solutions. These include either custom designed pumps to suit a specific pumping application or complete pumping systems - Pumping Skids, Dosing Skids, and Mining Station. Our Pumps can be customized with Diesel Engines, Hydraulic Motors, VFD's and various API Seal Plans.




## YOUR INDUSTRY'S NEEDS, OUR ENGINEERING SOLUTIONS

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