

# HEAVY DUTY PROGRESSIVE CAVITY PUMPS

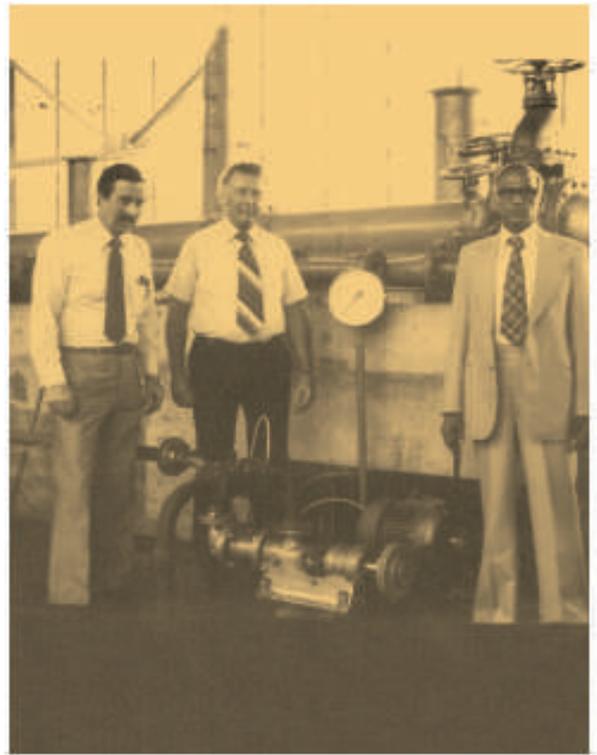
For Mining &  
Explosive Industry

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## 50+ Years of Legacy in Mining Industry

Our founder Mr, Ram Ratan Gupta used imported pumps in his coal mines and faced acute problems in not only acquiring pumps but also in operating them. This was a problem that the Indian coal mining industry faced at that time. This frustrated him to no end, but his frustration got channelized into a challenge. He held no formal engineering degree nor did he have the manufacturing infrastructure the giants had. But his ingenuity more than compensated for it. He ended up pioneering manufacture of Progressive Cavity Pumps in India in 1968, thus breaking the stranglehold of the international giant.



**Mr. R.R. Gupta**

with Roto's first mining pump in Australia



**Roto original MR series pump in use**

## Roto Advantage in Mining Industry

Roto's journey started from supplying its very first pumps to the mining industry. We have a very long association of 50+ Years with the leading mining & explosive companies which led us to understand the major pumping challenges faced by the industry. With its sheer passion & commitment, Roto Team has designed and developed Positive Displacement Pumps & Pumping Systems for successfully handling all the mining & explosive applications.

Roto's High-Pressure Flexible Shaft Pumps are designed to reduce the mine dewatering cost. Rotors with Double Hard Chrome Plating / Tungsten Carbide Coating significantly cut the operation costs & increase the pump life cycle.

### Applications

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- Face Dewatering
- Gland Water Supply
- Mortar with Fine Oily Water
- Stage Dewatering
- High Pressure Wash
- Water Spray for Dust Suppression
- High Head Dewatering
- Mineral Processing
- Transfer of Mineral Slurries
- Oil Water Separation
- Oil Transfer in Maintenance Bay
- Void Back-filling Applications
- Dosing of Explosives
- Thickener Underflow Applications
- Centrifuge Filling
- Chemical Dosing
- Water Treatment
- Cake Transfer
- Sludge Feed to Dewatering Machines
- Flocculants & Polymer Dosing
- Surface Dewatering
- Anti - Sailing Duties

# Get Rid of Stage Dewatering Challenges with High Pressure Pumps

Proven Pump Performance in pumping media at very high pressure from several meters beneath the surface.

## Rotor

Double hard chrome plated rotors to minimize wear & lower operational costs. Option for tungsten carbide rotor for longer life cycle.

## Stator

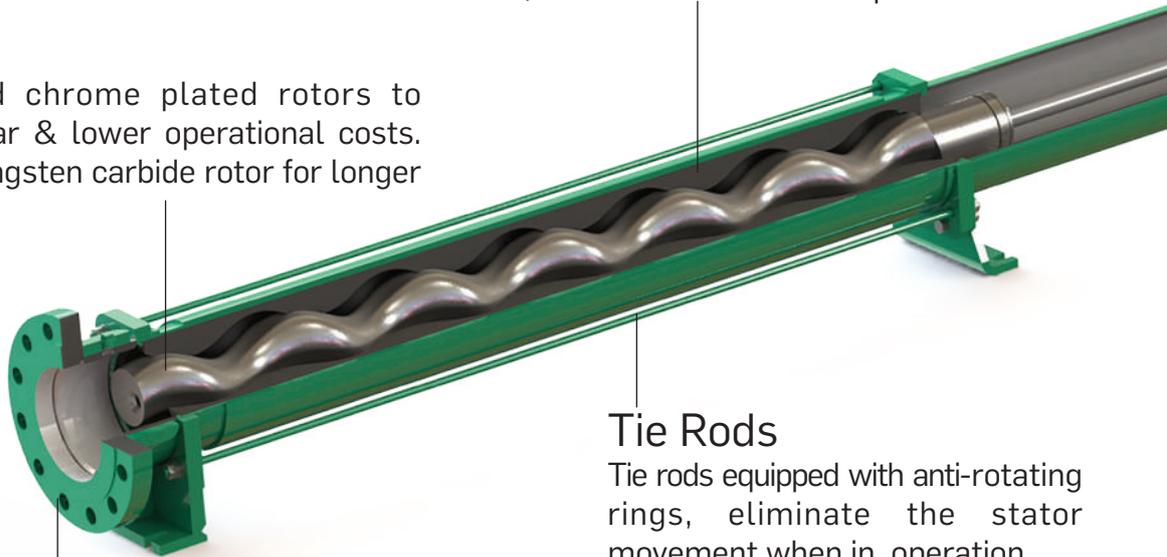
Abrasion resistant stators are available in natural / nitrile elastomer options.

## Tie Rods

Tie rods equipped with anti-rotating rings, eliminate the stator movement when in operation.

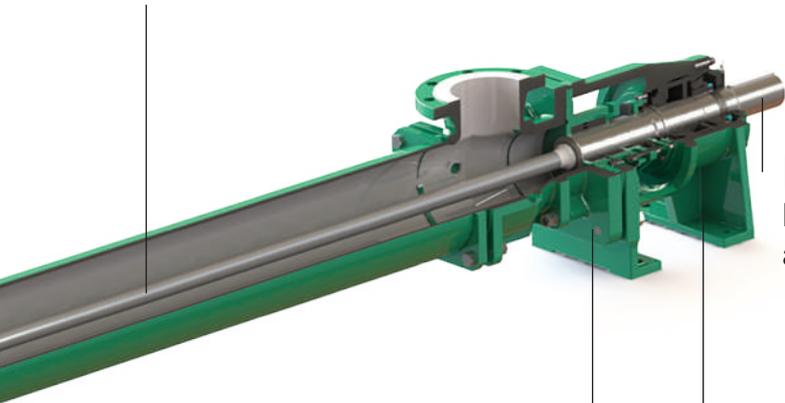
## End Cover

End cover with stainless steel internal sleeves significantly minimizes the effects of erosion, corrosion, & leakage.



## Flexible Shaft

Halar coated flexible shaft eliminates the requirement of universal joints & provides a maintenance-free & reliable drive train.



## Drive Shaft

Extended shaft extension for mounting of anti-reversing disc to prevent anti-rotation.

## Bearing Housing

Heavy-duty bearing housing assembled with taper roller bearings and bearing isolators fitted at both ends.

## Gland

Graphite impregnated glass yarn packing with lantern rings as standard.

**Capacity** : Up to 28 LPS/450 GPM

**Pressure** : Up to 48 bar

# Roto Mining Station

## A Complete Turnkey Solution for all your Mine Dewatering Needs

- Efficiently Pump Media at High Pressure; thus eliminating the requirement of using Multiple Centrifugal Pumps to achieve the same duty parameters.
- Provide Better Resistance against Hypersaline Water & Abrasive Media.
- High Pump Efficiency ensuring Low Cost of Operation.
- The Pump can be used under Varying Pressure Conditions & still deliver close to the same Flow Rate which means the Pumpset can 'Travel' Down a Mine as the Depth Increases.
- Solid Separation Tank to filter out Large Solids from entering Pump Suction.
- Belt Drive & Pulley Design with Removable Pump Inspection Ladder.
- Options available for Anti-Reversing Device & Float Level Transmitter.
- 80% Reduced Maintenance Time in replacing Rotor & Stator.
- Increased Manpower Safety.



## Pump Performance Range

Pump Model	Max. Flow	Max. Pressure
08	16 LPS	48 bar
10	28 LPS	36 bar

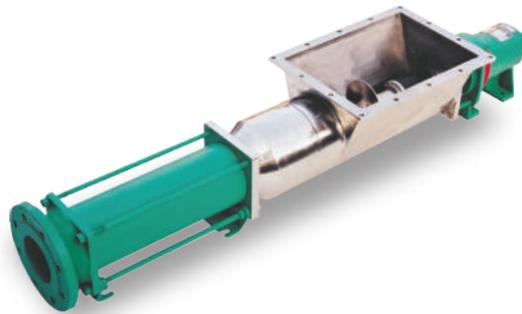
## Wide Throat Explosive Emulsion Slurry Pump

Highly Volatile Explosive Emulsion Slurry is mostly used in major mining & explosive projects demanding high usage of explosions in their operation. Roto's specially designed Wide Throat Pumps coupled with electrical/hydraulic motors are running successfully at various mining & explosive sites. These pumps easily handle highly viscous & solid-laden explosive slurries with varying pressures and perform efficiently even in high consistency conditions.

### WM Series Wide Throat Pump

**Capacity:** Up to 200 m<sup>3</sup>/hr

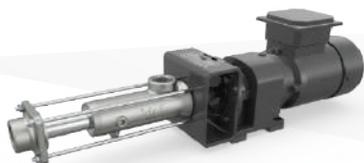
**Pressure:** Up to 36 bar



**Roto Wide Throat Pump Mounted on SMS Truck**

## Other Mining Pumps

### RJ Series Dosing Pumps



**Capacity:** Up to 500 LPS

**Pressure:** Up to 24 bar

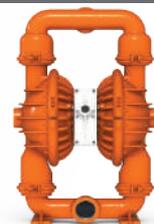
### General Purpose DC Series Pumps



**Capacity:** Up to 8 m<sup>3</sup>/hr

**Pressure:** Up to 6 bar

### Air Operated Double Diaphragm Pumps



**Capacity:** Up to 60 m<sup>3</sup>/hr

**Pressure:** Up to 10 bar



## ROTO PUMPS LTD.

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