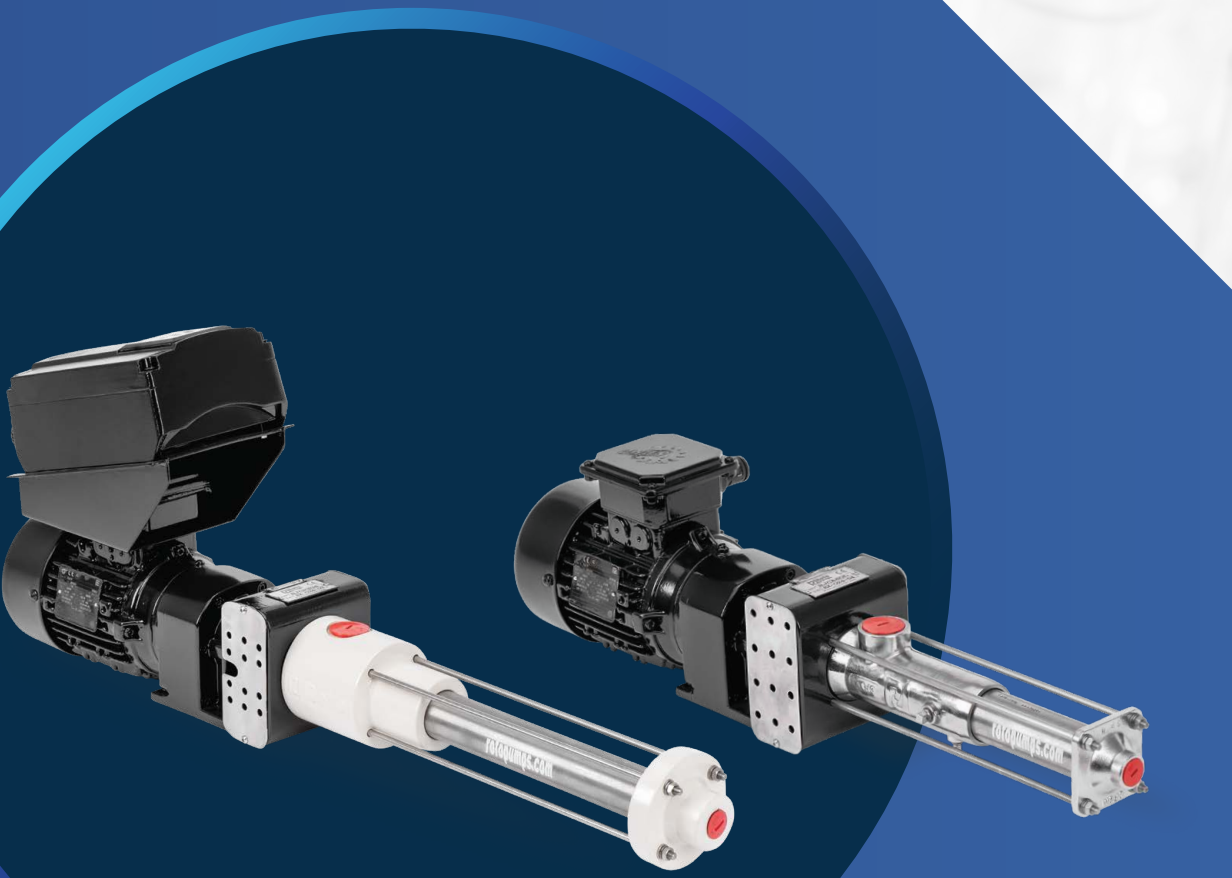
Roto pumps
since 1968

WE COMPETE WITH ONLY ONE PUMP



ACCURATE DOSING
WITH REPEATABLE PERFORMANCE

CHEMICAL DOSING PUMP RANGE

INTRODUCING ROTO AGGRESSIVE CHEMICAL DOSING PUMP

The Roto Aggressive Chemical (AC) Dosing Pump is our product designed for use with aggressive chemicals. Suitability is achieved by using materials of construction that are resistant to the array of aggressive chemicals found across Industries. Progressive Cavity Pumps of the dosing type have distinct advantages over other pump types commonly used for dosing. The main advantages are a steady flow without pulsation, a high degree of accuracy, the ability to handle entrained solids, suction lift and handling of pressure of up to 24 bar.



Flow - 0.17 to 132 GPH / 0.68-500 LPH
Pressure - Up to 350 PSI / 24 bar

DISTINCTIVE FEATURES & BENEFITS

- Ability to handle very high pressure of 24 bar/ 350 PSI, greater than other types of dosing pumps.
- High dosing accuracy of +/-1%.
- Negligible impact in pumps flow due to variation in pressure.
- No need to use Pulsation Dampeners or additional valves.
- Low NPSH required & Inherently Self-Priming.
- Smooth, Laminar & Non-Pulsating Flow.
- No vapour lock & non-clogging.
- Capacity is directly proportional to speed.
- Easily handles clean and clear liquids to abrasive, corrosive, shear sensitive, viscous and solid laden.
- Easily interchangeability with other models by changing few components.

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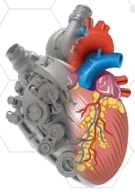


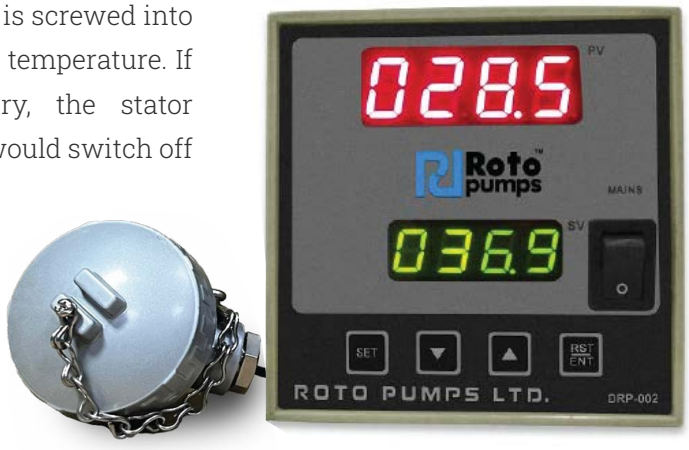
INTEGRATED VARIABLE FREQUENCY DRIVE



Roto Pumps offer the option of integrating single-phase motors with Variable Frequency Drives (VFDs). These VFDs employ a revolutionary motor control strategy to achieve reliable, intelligent starting of single-phase motors, enabling complete process control. The VFDs feature a programmable logic controller (PLC) with input/output capabilities for configuring parameters to optimize the flow of dosing pumps by changing frequency. The VFDs can receive input signals of 4-20 mA.

DRY RUNNING PROTECTION DEVICE

To prevent the stator damage due to dry running, specially developed temperature sensor is screwed into the stator wall to monitor the operating temperature. If by any chance the pump runs dry, the stator temperature would increase. Roto DRP would switch off the pump at pre set temperature.



ROTO ADVANTAGES

1. ROTOR

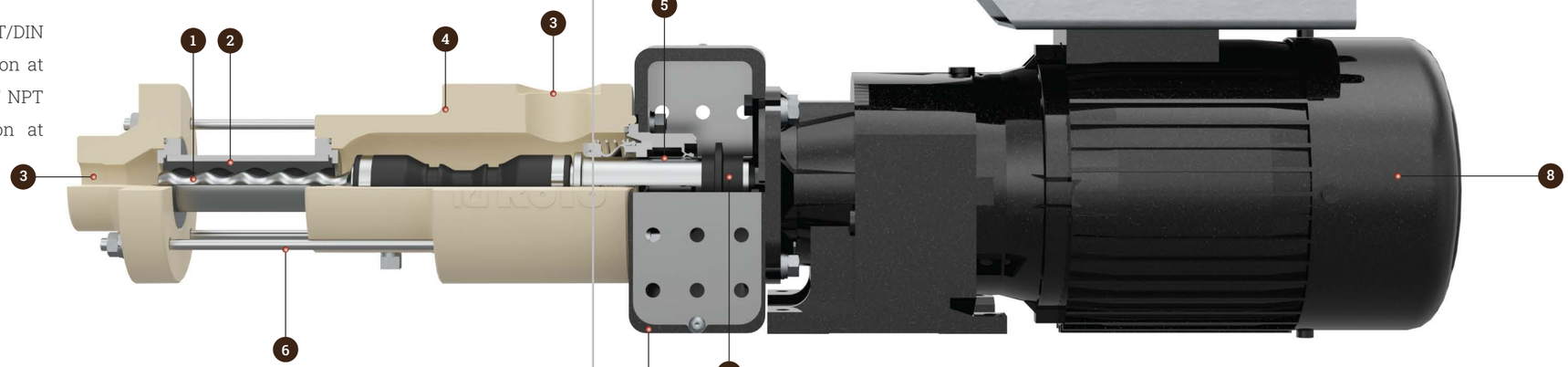
RJ series rotors are available in stainless steel, AC series rotors are available in Titanium or Hastelloy material options.

2. STATOR

The elatstomeric stator is moulded with integral sealing gasket on both ends effectively prevents corrosion of the stator tube. This design ensures that the pumped media remains isolated, not coming into contact with the stainless steel metal tube or bonding adhesive. The stator elastomers include; Natural, Nitrile, EPDM, Chloro-sulphonated rubber, HNBR, Floroelastomer, and Terfloroelastomer.

3. CONNECTIONS

RJ series is available in Stainless Steel 1" NPT/DIN Connection at Suction and 1/2" NPT/DIN Connection at Discharge. AC Dosing pump range is availalbe in 1" NPT Connection at Suction and 1/2" NPT Connection at Discharge in CPVC or Glass Filled PTFE materials.



4. PUMP HOUSING

Designed for 90^0 interval rotation for ease in installation. Options available in Stainless Steel / CPVC / Glass Filled PTFE materials.

5. SHAFT SEALING

Standard RJ Dosing pumps are available with Single / Double Mechanical Seal and Gland Packing options. These pumps have seal housing in Stainless Steel. AC Dosing pumps have provision for Plan 62 as standard. These pumps have Seal Housing in Hastelloy as standard .

6. TIE RODS

Four SS316 Tie Rods provides torsional stability & greater resistance to corrosion.

7. PUMP LANTERN

Can accommodate various drives including IEC, NEMA C / Gear Motors. These can be directly flanged to the pump without additional couplings or guards.

8. DRIVE OPTIONS

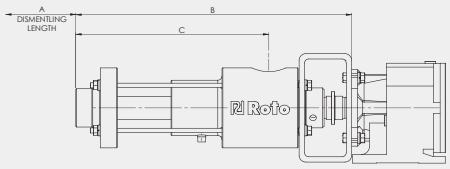
1. 90V DC Motor – 600 RPM Direct Online.
2. 0.37 kW/0.5 HP Geared Motor.
3. Gearbox and Motor as per NEMA/IEC standard.
4. 0.37 kW/0.5 HP Geared Motor with Integrated VFD to optimize and control the dosing process.
5. Servo Motor.
6. Tophat version in bareshaft option.

9. PLUG IN SHAFT

The pump and drive are designed for effortless disassembly, allowing for rapid replacement of rotating parts and the shaft seal. Dovel pin ensures a secure shaft-to-drive connection, while the retaining ring safeguards the bearing against contamination or shaft leakages.

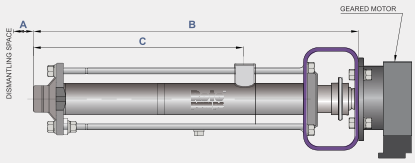
DIMENSIONS

Engineered Plastic Range



PUMP SIZE	A	B	C
014	140	324	227
034	140	324	227
072	140	324	227
074	150	402	305
142	140	358	261
144	220	466	369
302	140	376	279
304	260	506	409
80L	140	376	279

Mettalic Range



PUMP SIZE	A	B	C
014	120	306	210
034	120	306	210
072	120	306	210
074	130	384	288
142	120	340	244
144	200	448	352
302	120	358	262
304	240	488	392
80L	120	358	262

• All dimensions are in mm.

SELECTION TABLE

PUMP SIZE		014	034	072	074	142	144	302	304	80L
PRESSURE (BAR)	0	7.50	18.90	45.90	45.90	91.40	91.40	180.00	180.00	500.00
	6	7.20	18.20	44.10	44.10	87.90	87.90	173.00	173.00	460.00
	12	7.20	18.10	44.00	44.00	87.60	87.60	172.30	172.30	--
	24	6.90	17.30	--	42.10	--	84.30	--	166.30	--

• Flow values are calculated at 500 RPM.
• All valueas are in LPH

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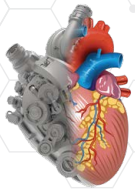

APPLICATIONS

Strong Acids

- Hydrochloric Acid (HCl)
- Sulfuric Acid (H_2SO_4)
- Nitric Acid (HNO_3)

Oxidizing Agents

- Sodium Hypochlorite (NaClO)
- Potassium Permanganate ($KMnO_4$)
- Hydrogen Peroxide (H_2O_2)

Disinfectants

- Sodium Hypochlorite (NaOCl)
- Chlorine Dioxide (ClO_2)
- Ozone (O_3)

Waste Water Applications

- Milk of Lime
- Polymer Solutions
- Metallic Salts
- Polyelectrolyte
- Poly-aluminium Chloride Solution
- Polyacrylamide Solution
- Alum/Polyacrylamide/Concentrated
- Flocculants

Strong Bases

- Sodium Hydroxide (NaOH)
- Calcium Hydroxide ($Ca(OH)_2$)
- Ammonium Hydroxide (NH_4OH)

Coagulants and Flocculants

- Aluminium Sulfate ($Al_2(SO_4)_3$)
- Ferric Chloride ($FeCl_3$)
- Polyaluminum Chloride (PAC)
- Polyelectrolytes

Other Applications

- pH Control
- Boiler Water Treatment
- Flocculants
- Disinfection
- Corrosion Inhibitors
- Coagulation (organic and inorganic)
- Cleaning Chemicals
- Oxygen Scavengers
- Organic or Inorganic Contaminate Removal
- Boundary Layer Injection

INDUSTRIES



Paper



Sugar



Wastewater



Chemicals



Oil & Gas



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