





Robust Pumping Solutions for Biogas Industry



Biogas is the ideal energy solution for today's world. It provides clean fuel to generate the electricity & thus meets the power demand and reduces the load on the local power grid. It produces organic manure for farming as a by-product. It also significantly reduces water and land waste.

Roto Pumps has developed a new range of Progressive Cavity Pumps specially designed to meet the growing needs of the Biogas Industry. In biogas production, the pumping application requires efficient transfer of varied highly viscous & solid laden biowaste media.



- Digestate
- Grass & Corn silage
- Food waste
- > Whole plant silage
- Liquid & Solid manure
- Municipal waste (Biological portion)
- Waste fodder
- Fish & Slaughterhouse waste

Faecal sludge

- Cereal shreds
- Pomace
- Sugar beet



ROTO PUMPS IN BIOGAS INDUSTRY



DIGESTATE TRANSFER PUMP Flow - 75 m³/hr, Pressure - 10 bar



BIOMASS RECIRCULATION PUMP Flow – 80 m³/hr, Pressure – 4 bar



LIQUID MANURE PUMP Flow – 130 m³/hr, Pressure – 4.5 bar



BIOMASS TRANSFER PUMP Flow – 40 m³/hr, Pressure – 3 bar

BIOMASS PUMP RANGE

QUICK MAINTENANCE IN PLACE ROTO KWIK PLATFORM

Roto Biomass pump developed on **'Maintenance in place'** platform is used for recirculation of fermentation tank slurry and feeding to digestate storage tanks. This pump range is also available in vertical configuration and it is used in open lagoons to transfer organic manure.



Model	582	602	621	632/641	652	661/662	681	692	701
Capacity m ³ /hr at 100 RPM	4	6	11	17	23	24	36	44	47

Higher capacity & higher pressure pumps are also available on request. Different orientation & multiple opening pump housing options are also available.

Distinctive Features & Benefits

- Quick Maintenance in Place Pump
- Rotor, Stator & Joint parts can be easily replaced without dismantling suction and delivery pipelines
- Heavy-duty Bearing Housing Directly Coupled with geared motor
- Specially Designed Double Cartridge Mechanical Seal
- Heavy duty Cardan Universal Joint with Reinforced Boot Seal and Protector Rings
- Antiblock Arrangement at the Entry of Stator

Applications

- Biomix Feed
- Press Separator
- Pasteurized Biomass
- Condensed Substrate
- Transfer of Digestate to Biomix Unit & Open Lagoon or Storage Tank



Antiblock Arrangement



6 Opening Pump Housing

BIOMIX PUMP RANGE

Roto Biomix pumps have been integrated into the process of renewable energy generation and are constantly upgraded and optimized to meet the customer's demand. These pumps are used to mix and transfer solid bio waste and digestate liquid into the fermentation tank.

MODEL	701	720	730	740
Capacity in m³/hr at Zero to 1 bar at 100 rpm.	47	66	98	133

Higher capacity & higher pressure pumps are also available on request



Large Auger (Feed Screw)

Designed for crushing, dry to wet mixing of media and feeding of substrate. Option available in Plasma Nitrided coating.

Square Hopper

Hopper option available with large suction inlet.

Round Hopper

Designed to handle a high degree of dry solid content. Customized hopper available in round & square shape up to 3 meter length.

Inspection Flap

For easy access, quick inspection and maintenance.

Stone Catcher

Designed to trap large solid particles inside the hopper.

Heavy Duty Bearing Housing

Capable of taking high axial thrust and can be directly coupled with geared motor.

Inbuilt Feed Flange

Left handed & right handed port included as standard for feeding of digestate to ensure optimum homogenization.

Cardan Universal Joint

Universal joint with sleeve protector & flight wing to avoid any solid build up.

Smarter Shaft Sealing

Cartridge dual mechanical seal with oil lubrication plan for longer life.



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