

Roto[®]
Ultra



45+ 
years of
...moving fluids positively



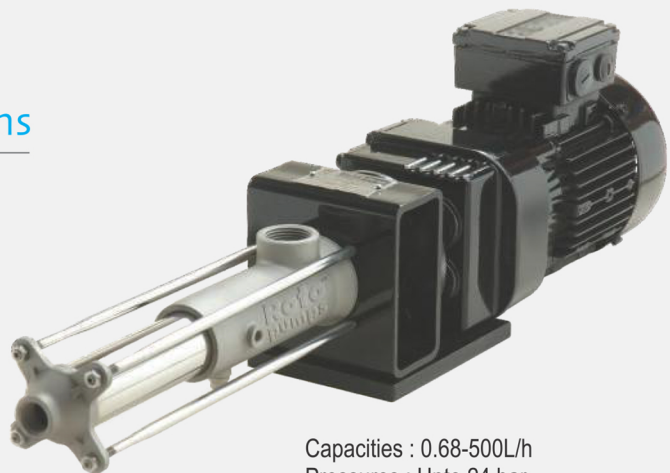
Efficient pumping solutions
for paper industry

Roto Pumps in Pulp & Paper Industry

Roto Pumps has a vintage of over 45 years in providing fluid handling solution to a spectrum of Industries. These pumps can handle wide variety of fluids ranging from clean and clear liquids to abrasive, corrosive, viscous and solid laden media. In paper industry these pumps are used in all major stages including Pulp Making, Pulp preparation and Kitchen Coating. Some of the few design features include:

- Flow proportionate to Speed - Can be used for Dosing and metering applications
- Self Priming - Excellent Suction Lift Capability and can operate under vacuum
- Non-Clogging - Can handle solids in suspension
- Low Internal Velocity - Can handle shear sensitive media
- Positive Displacement - Flow independent of Head
- Will not Vapor Lock - Can handle air, liquid and combination together

RJ series pump for precise metering applications



Capacities : 0.68-500L/h
Pressures : Upto 24 bar

RJ series of dosing pumps

Roto RJ series pumps are developed for low flow applications that demand high accuracies and repeatability. These pumps can handle wide variety of fluids ranging from clean and clear liquids to abrasive, corrosive, viscous and solid laden media.

Advantages

- High dosing accuracies - fluctuation $\pm 1\%$.
- Smooth and non - pulsating flow - no need of pulsation dampners.
- Low sheer and linear flow - can handle sheer sensitive media.
- Single rotating element - no valves or gears required.

FLOW DIAGRAM OF A TYPICAL PULP MILL

The flow diagram illustrates the typical pulp mill process, starting with two main raw material inputs: **WOOD/ STRAW** and **WASTE PAPER**.

WOOD/ STRAW Path:

- WOOD/ STRAW → **CHIPPER** → **DIGESTOR**
- DIGESTOR** receives **CHEMICALS FOR DOSING** and **BLACK LIQUOR** (recycled from the evaporators).
- DIGESTOR** output → **EVAPORATORS** → **BLACK LIQUOR** (recycled back to the digester).
- EVAPORATORS** output → **WHITE LIQUOR TO PROCESS** → **DIGESTOR**

WASTE PAPER Path:

- WASTE PAPER → **HYDRA-PULPER** → **DE-INKING** → **PULP**

PULP Processing:

- PULP** → **DIGESTOR** (for wood/straw) or **HYDRA-PULPER** (for waste paper)
- PULP** → **BLEACHING** (if required) → **BLEACHED PULP TO HYDRAPULPER** → **HYDRA-PULPER**

Chemical Additions:

- SIZING CHEMICALS** and **MINERALS** → **PULP SIZING**
- DYES** and **DEFOAMING AGENTS** → **REFINER**

Final Processing:

- PULP SIZING** → **C** (Cylinder) → **MACHINE CHEST**
- REFINER** → **MACHINE CHEST**
- MACHINE CHEST** → **HEAD BOX OR BREAST** → **FOURDRINIER MACHINE**
- FOURDRINIER MACHINE** → **VACCUM** → **PAPER**

APPLICATIONS:

Pulp Making Process

- Black Liquor
- Green Liquor
- Sodium Hydroxide
- Sodium Sulphide
- Sodium Carbonate
- Decolouring Agent
- High Density Pulp

- ## Pulp Making Process
- Black Liquor
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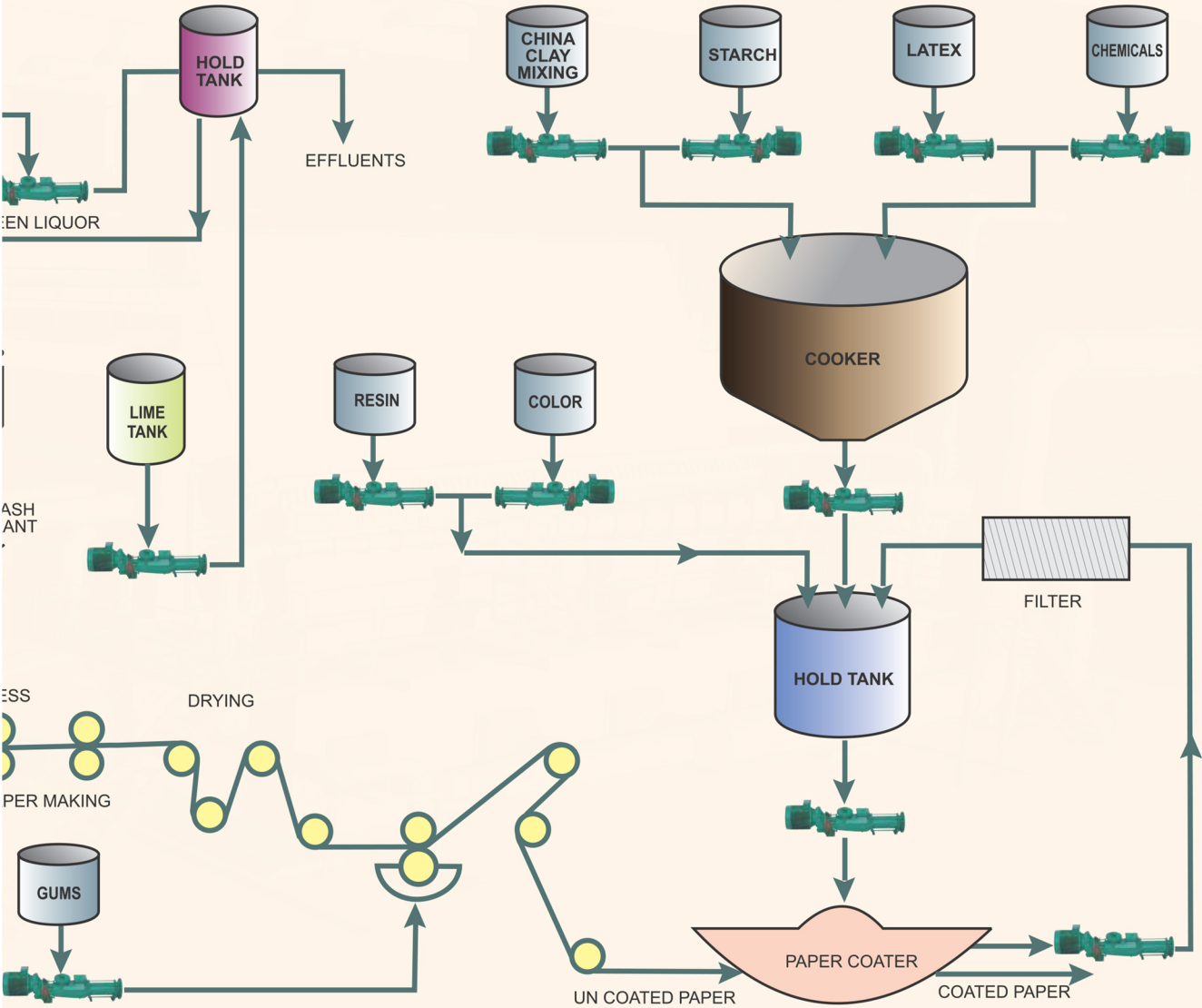
Pulp Preparation Process

- Sizing Chemicals
- Rosin
- Neutral Sizing
- Calcium Carbonate
- Alkyl Ketens Dimmer(AKD)
- Alkenyl Succinic Anhydride (ASA)
- Mineral Filler
- Talcum
- Kaolin
- Calcium Carbonate
- Carbon Dioxide
- Low Density Pulp
- Pigment
- Colour
- Optics
- Defoamers
- Retainers
- Paper
- Fiber

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CAL PULP AND PAPER INDUSTRY



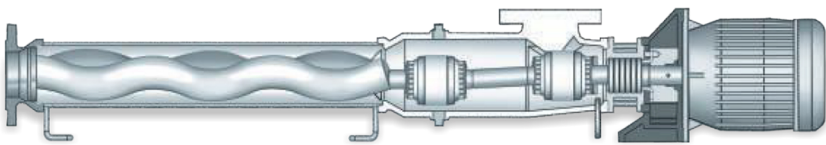
ents
rs
al Brightener
aming Agents
ning Aids
r Softener
Dispenser

- Paper Making Process
- Starch
 - Polyvinyl Alcohol
 - Wax
 - Latex

- Paper Coating Process
- Starch
 - China Clay
 - Resin
 - Latex
 - Chemicals
 - Colour
 - Kitchen Coating Slurry



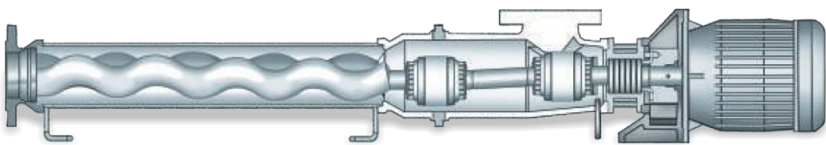
Extended Pitch Geometry



Capacities 420 M³/hr

Pressures 6 Bar

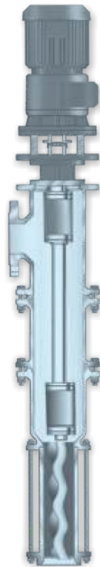
Standard Pitch Geometry



Capacities 250 M³/hr

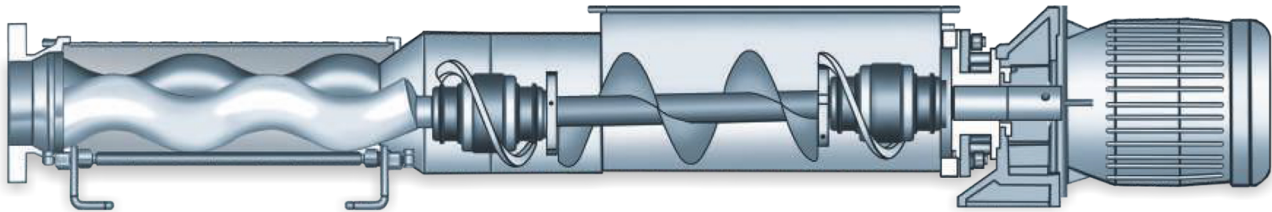
Pressures 48 Bar

Submerged Vertical



Capacities 420 M³/hr
Pressures 12 Bar

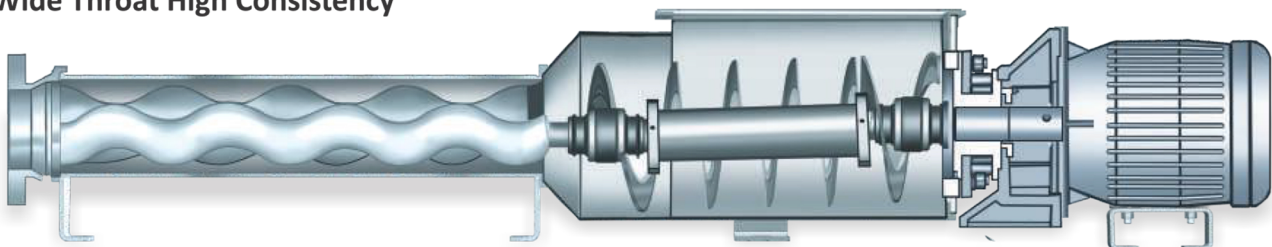
Wide Throat Medium Consistency



Capacities 150 M³/hr

Pressures 36 Bar

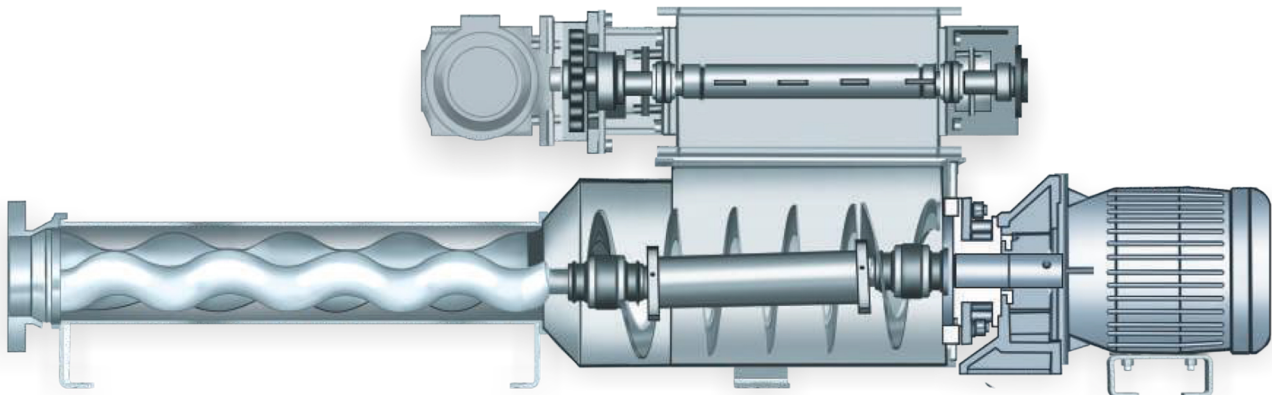
Wide Throat High Consistency



Capacities 100 M³/hr

Pressures 36 Bar

Wide Throat High Consistency with Bridge Breaker



Capacities 100 M³/hr

Pressures 36 Bar

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