

PROVEN PUMP PERFORMANCE IN HANDLING DIFFICULT MEDIUM CONSISTENCY PULP (UP TO 18%)



Specially Designed Wide Throat Pump

ROTO'S COMMITMENT TOWARDS ENGINEERING EXCELLENCE

We have the ultimate ambition to become a global leader in fluid engineering solutions. To achieve this, we have successfully transferred over 5000+ fluids across 25+ industries. We are constantly striving to innovate & upgrade more advanced PD pumps, solve complex fluid pumping challenges & explore new industrial pumping applications.

THE CHALLENGE

A paper mill was struggling with maintaining 12% consistency while handling the paper pulp. The pump that was being used kept on breaking down repeatedly. Moreover, the pump was not able to ensure the required flow owing to the variation in the discharge pressure.

All these factors critically hampered the entire production process.

EXISTING PROCESS

The paper mill was facing high electricity costs due to multiple centrifugal pumps transferring the medium consistency pulp. The Centrifugal Pumps consist of an inducer at the suction end. These pumps use vacuum as the medium to transfer pulp containing a large volume of air.

A pump with this kind of working is incapable of dealing with the varying consistencies of the pulp, which ranges from 9%-12% bulk density.

This in fact resulted in the variation of pressure drop in the pipeline and low efficiency of the pump.



ROTO'S SOLUTION

To resolve these problems, Roto Technical Team developed a Progressive Cavity Pump with a customized hopper and a special augur arrangement – **Roto's 'Wide Throat' Progressive Cavity Pump**.

This pump was specially designed and built to handle the complicated task of handling medium consistency pulp – even to suspensions of 18% bulk density compared to 9%-12%. This pump is also capable of easily handling the entrapped air in the medium while eliminating the need to have an auxiliary vacuum system.

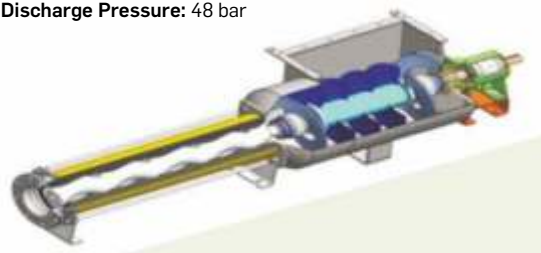
The exceptional feature of this pump, the variable-speed drive, facilitated the optimization of the flow rate. This pump is provided with customized bridge beaker systems that can easily handle highly viscous and non-flowable media with entrapped gases.

Wide Throat Pump

Flow Rate: up to 120 m³/hr

Viscosities: up to 30,00,000 cSt

Discharge Pressure: 48 bar



DISTINCTIVE FEATURES & BENEFITS

- High efficiency & ease of operation
- Capability of handling variable consistencies - 6% to 18% bulk density during the process
- Variable pressure handling capability
- Customized hopper designs to suit the requirement of the application
- No auxiliary vacuum system required
- Capable of handling air present in the pulp
- Low maintenance cost and easy to maintain
- Available in wide range of materials