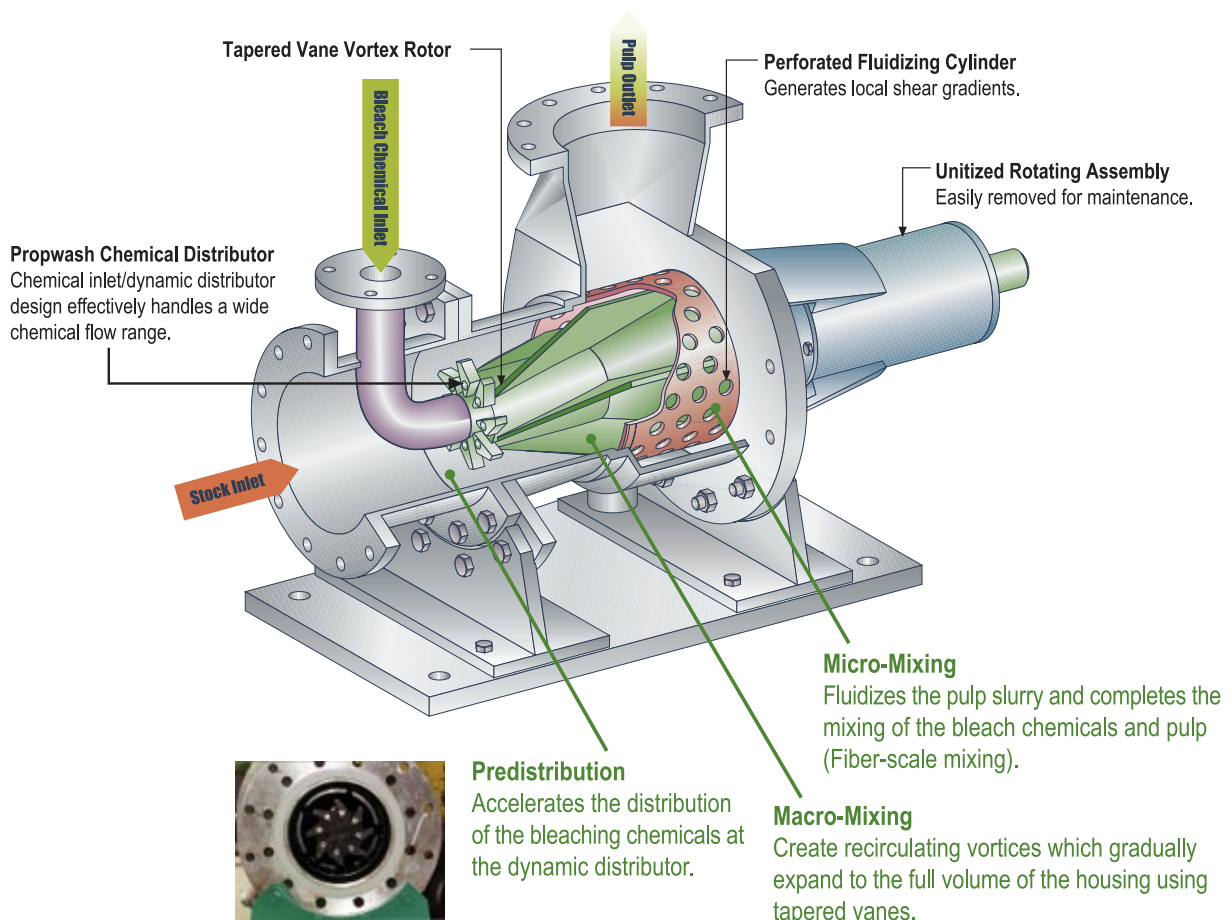
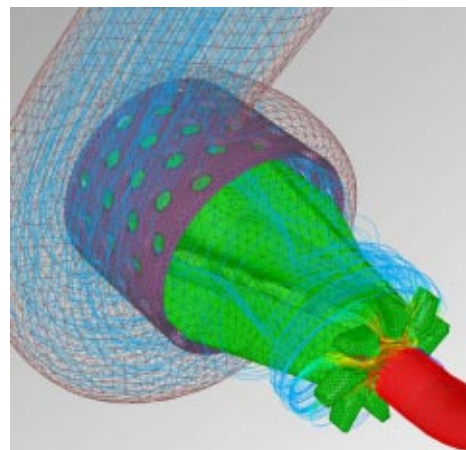


IMPCO® TRI-Phase™ Mixer



The TRI-Phase™ Mixer is an efficient and compact design for mixing liquid bleaching chemicals primarily chlorine dioxide (ClO₂) and hydrogen peroxide (H₂O₂). The mixer design is for medium consistency applications, and with larger sizing allows for low consistency applications. The mixer was designed using state-of-the-art computer aided design equipment including Computation Fluid Dynamics (CFD) and Finite Element Analysis (FEA). This process produced an efficient, well conceived design.

From initial purchase and installation to operation and maintenance, the TRI-Phase Mixer provides a cost effective means of efficient bleach chemical application.



The mixer was designed using computer aided design equipment including Computation Fluid Dynamics (CFD) and Finite Element Analysis (FEA).

GL&V Pulp and Paper Group

Albia • Bagley & Sewall • Beloit-Jones • Beloit-Lenox • Black Clawson-Kennedy • Canron • Celleco •
Dorr-Oliver • Downingtown • Hedemora • Impco • LaValley • National Refiner Plate • Sandy Hill

Three Mixing Zones in One Mixer

The design of the compact TRI-Phase Mixer accomplishes all three critical steps necessary for efficient mixing with minimal drive horsepower, pressure drop and additional equipment costs.

These steps occur in three mixing zones:

- **Predistribution** of chemical at the dynamic distributor.
- **Macro-Mixing** along the rotor vanes.
- **Micro-Mixing** across the perforated housing.

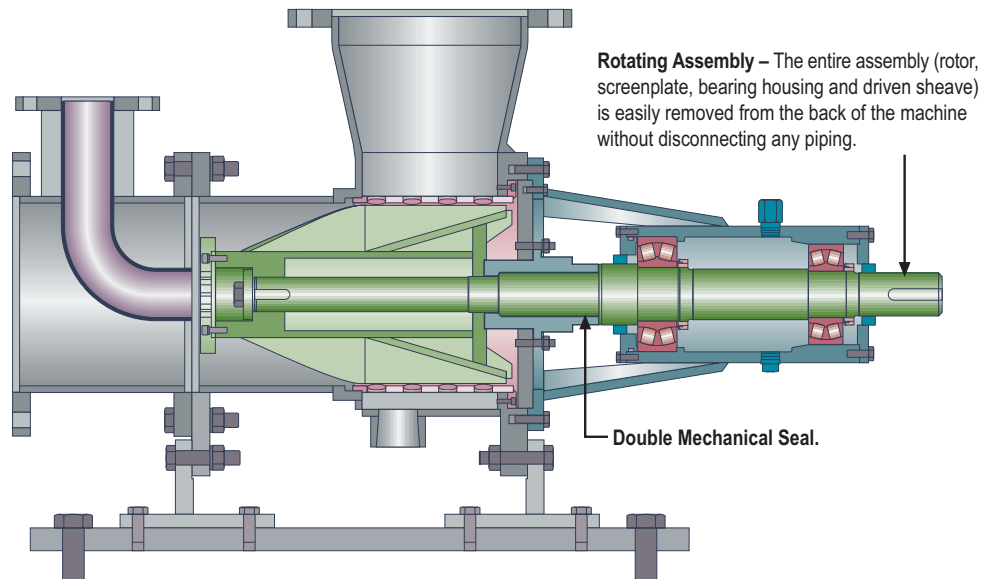
Design Features

- Compact installation
- Low maintenance
- Simple, single point, full diameter chemical inlet minimizes pluggage
- Angular orientation can be changed to fit piping arrangements
- All inclusive stand alone unit, no additional valves, controls etc. required

- Designed for new installation or retrofit
- V-belt drive
- Available in three sizes, covering production ranges up to 2500 adtpd

Process Advantages

- Low power requirements (<1.5 kWh/adst)
- Low pressure drop system (<5 psi)
- Efficient and even chemical distribution in a stand alone unit
- Consistency range of 4.0 - 18% (od)



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