

# HiFlo™

High-Rate Thickener



**WestTech®**

 **SWIRE WATER**

# HiFlo™ High-Rate Thickener



The WesTech HiFlo™ thickener achieves significantly more throughput than a conventional thickener of similar size while significantly reducing water consumption and substantially saving on flocculant costs.

## Adjustable Dilution Ports

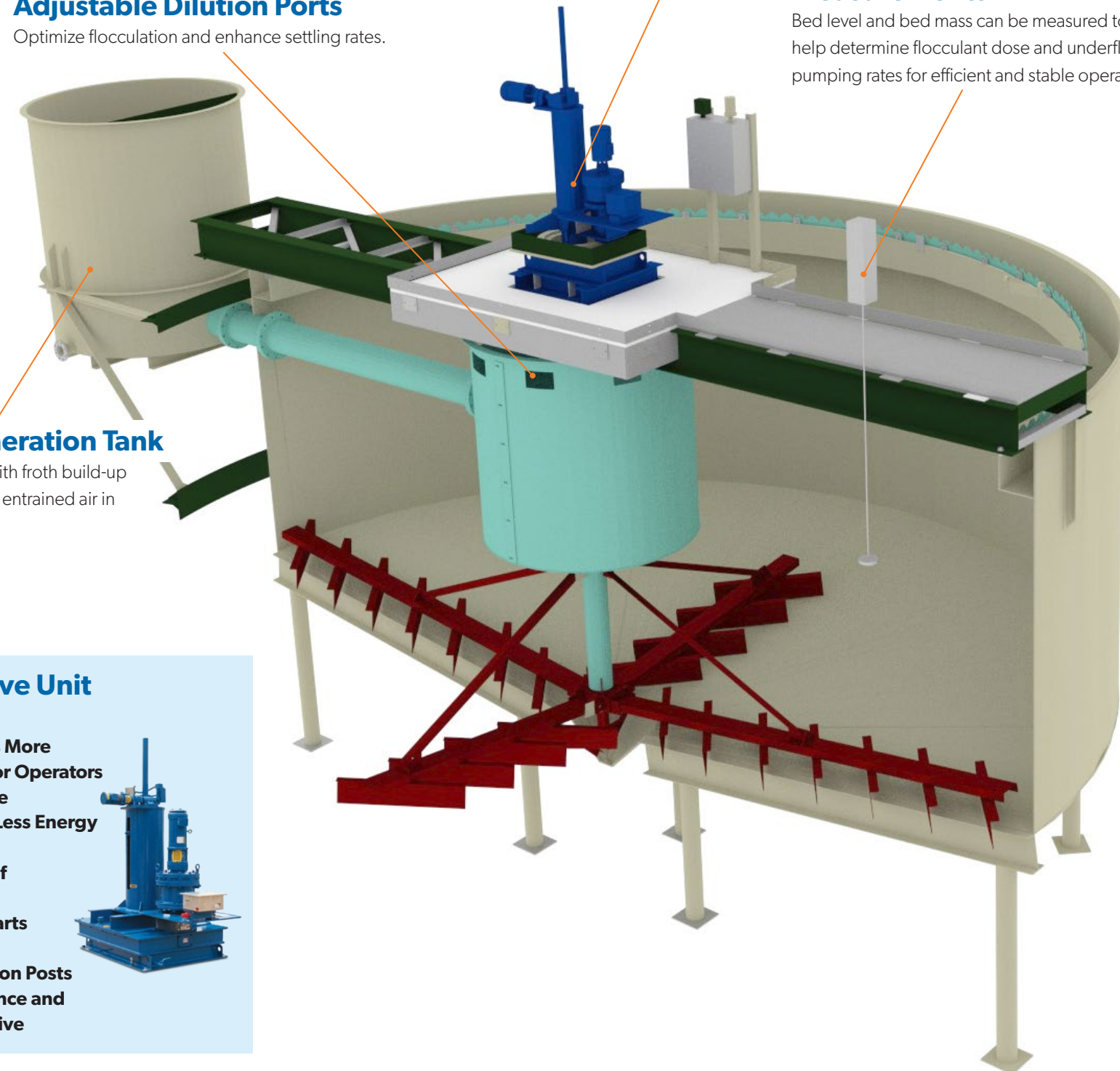
Optimize flocculation and enhance settling rates.

## Heavy-duty Drive with Lift

Ensures reliable, continued operation during high-torque conditions.

## Measurements

Bed level and bed mass can be measured to help determine flocculant dose and underflow pumping rates for efficient and stable operation.



## Optional Deaeration Tank

Minimizes problems with froth build-up by removing excessive entrained air in the thickener feed.

## Why Choose a HiFlo™ Thickener?

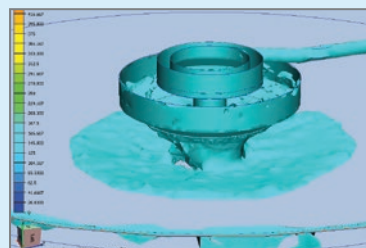
The WesTech HiFlo™ high-rate thickener is used in many types of process circuits to separate liquids and solids at very high rates. It is highly effective in coal refuse thickening, gold recovery, CCD circuits, copper leaching, molybdenum processing, and other mining and chemical flowsheets. Separation is effected rapidly because of the system hydraulics, which can be significantly greater than the hydraulics of conventional thickeners.

As a result of its innovative design and associated hydraulic efficiency, the plant area for the HiFlo™ high-rate thickener is greatly reduced, even making indoor installations practical. The smaller equipment size substantially reduces capital, installation costs, and plant space when compared with a conventional thickening unit sized for the same production rates.

## EvenFlo™ Feedwell

### Optional Feedwell to Maximize Performance

A properly designed feedwell should provide energy dissipation as well as even distribution of the feed into the thickener. WesTech's EvenFlo™ design consists of a two-part feedwell system. An inner chamber converts the feed energy into a concentric radial flow for optimal mixing of flocculent and solids in all areas of the main chamber. The main feedwell chamber then evenly distributes the feed into the sedimentation zone of the thickener.



*WesTech's EvenFlo™ feedwell provides optimal flocculation conditions and even distribution of solids in the thickener.*

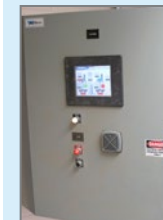
## WesTech Drive Unit

- All Electric
- 24" Lift Provides More Response Time for Operators
- Low Maintenance
- Consumes 50% Less Energy
- No Hydraulic Oil Contamination of Environment
- Fewer Moving Parts
- Less Downtime
- Optional Blades on Posts to Lower Resistance and Extend Life of Drive



## CFD Analysis

WesTech uses CFD analysis to model feed flows to optimize even distribution, detention times, and flocculation.



## Electric Controls

WesTech can provide all controls necessary for operation of the thickener, from a simple start/stop alarm station to an advanced graphical display with PLC.

## Applications

- Grind Thickening
- Concentrate
- Tailings
- Leach Thickening
- CCD Circuits
- Acid Mine Drainage
- Mine Backfill

## Features

- Robust Construction
- Self-Diluting Feedwell
- Optional Enhanced Polymer Injection Systems
- Cage and Shaft Lifting
- Broadly Adaptable to Process Fluctuations

## Benefits

- Optimum Flocculation
- Long Service Life
- Higher Settling Rate
- Prevents Mechanism Damage
- High Solids Transport Efficiency
- Small Space Required
- Rapid Separation of High Flow Rates





**WESTECH**<sup>®</sup>

 **SWIRE WATER**

Tel: 801.265.1000  
westech-inc.com  
info@westech-inc.com  
Salt Lake City, Utah, USA

© WesTech Engineering, LLC 2023