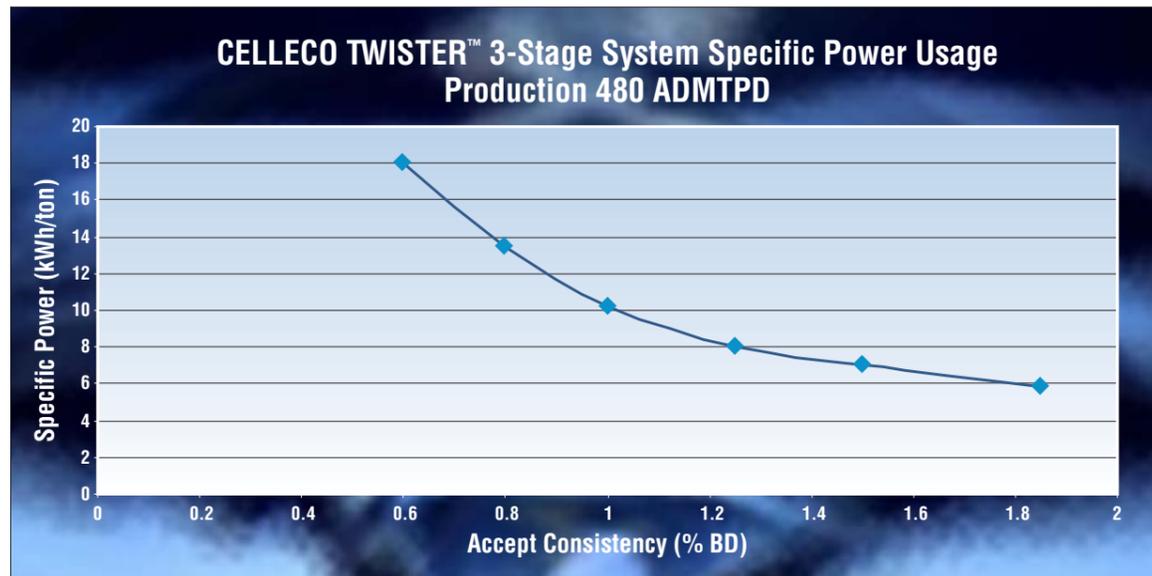
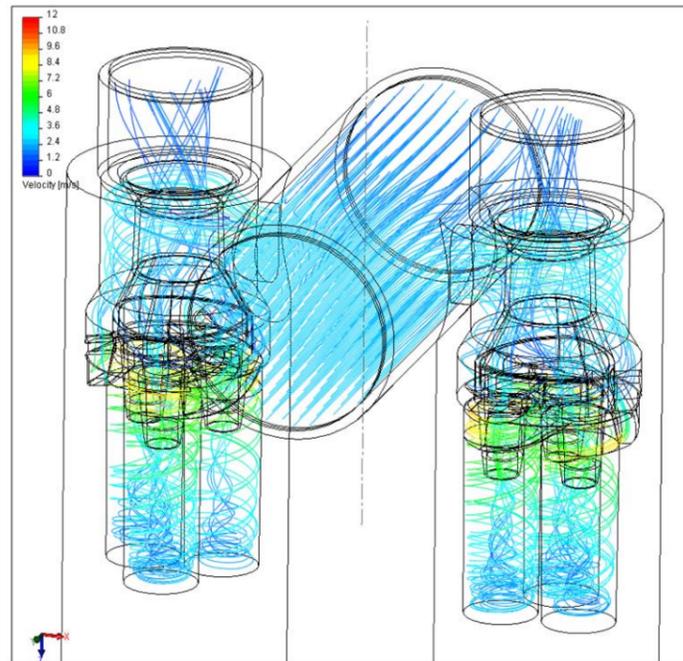


Raising cleaning performance to a new level while utilizing less energy...



CFD Simulation

In designing of the CELLECO TWISTER hydrocyclone, GL&V used Computational Fluid Dynamic (CFD) simulations to optimize the internal design of the hydrocyclone that was also confirmed in actual trials. CFD is what aided GL&V to raise the bar in hydrocyclone performance with the new CELLECO TWISTER.



CELLECO TWISTER™ Hydrocyclone



A true 2% fiber consistency hydrocyclone

Welcome to the world of advanced hydrocyclone technology...

The CELLECO TWISTER™ hydrocyclone is the latest development in separation technology. GL&V's innovative thinking, over 60 years of hydrocyclone knowledge, and advanced computer technology were key elements in the development of this new high-performance, high-consistency hydrocyclone. The innovative design and state-of-the-art technology found only in the CELLECO TWISTER hydrocyclone is raising cleaning performance to a new level while utilizing less energy.

CELLECO TWISTER™ Hydrocyclone Features

- Up to 2% feed consistency operation with comparable cleaning performance in conventional hydrocyclones at 1%
- Superior cleaning performance over the entire operating consistency range
- Up to 50% lower applied energy
- Considerably lower reject rates than conventional hydrocyclones
- Cellico Twin Wall design

The CELLECO TWISTER™ Cone

The CELLECO TWISTER is a radical new concept in hydrocyclone technology. The concept houses three forward cleaners in a single unit and each unit is equipped with the patented two-stage

CELLECO TWISTER cone working together with the patented Mid-cone Dilution Technology.

Mid-cone Dilution Technology

The patented Mid-cone Dilution Technology re-energizes the stock while providing accurate dilution minimizing fiber thickening. The Mid-cone Dilution is located at the base of the first stage CELLECO TWISTER cone, just before the stock enters the unit's 2nd stage.



This Mid-cone Dilution Technology enables the CELLECO TWISTER hydrocyclone to have an elongated cone section for higher separation efficiencies without the need to operate the hydrocyclones at an elevated pressure drop.

Reject Dilution Technology

The Mid-cone Dilution Technology takes Bottom Vortex Dilution technology one step further by diluting the stock and utilizing the added energy in the dilution water to re-energize the stock. Bottom Vortex Dilution devices do not fully utilize dilution water energy as does the Mid-cone Dilution Technology.

Reduced Energy Consumption

The CELLECO TWISTER cone and the Mid-cone Dilution Technologies enable the new hydrocyclone to operate at a pressure drop that is equal to our Cleanpac 700 cleaner, and the energy reduction is up to 50% compared to conventional cleaners at the same pressure drop. This energy saving is based on the fact that the CELLECO TWISTER hydrocyclone can truly operate at feed consistencies of up to 2%.

The energy saving operating at an elevated consistency is due to the significantly lower hydraulic flow requirements. Under certain conditions a CELLECO TWISTER hydrocyclone plant can even operate at a lower energy level than a comparable barrier screening plant.

Satellite System

The CELLECO TWISTER hydrocyclone utilizes the extremely flexible Satellite Bank System that was introduced with our Cleanpac 700 hydrocyclone in 1990.

A Well Proven Design

The CELLECO TWISTER hydrocyclone incorporates well-proven technology from the Cleanpac 700, Cleanpac 270/Tripac 90 families of hydrocyclones that have proven themselves over and over again, with over 2000 hydrocyclone plants sold worldwide.

Retrofits

With the CELLECO TWISTER hydrocyclones, it is possible to retrofit existing Cleanpac 700, Cleanpac 270 and Tripac 90 bank installations. Please contact GL&V for further details on these retrofits.

