



CLEANPROTECH
CLEAN | PROCESS | TECHNOLOGIES

JAMESON CELL IMPROVEMENT AND OPTIMISATION



Innovative technologies for efficient
resource processing solutions



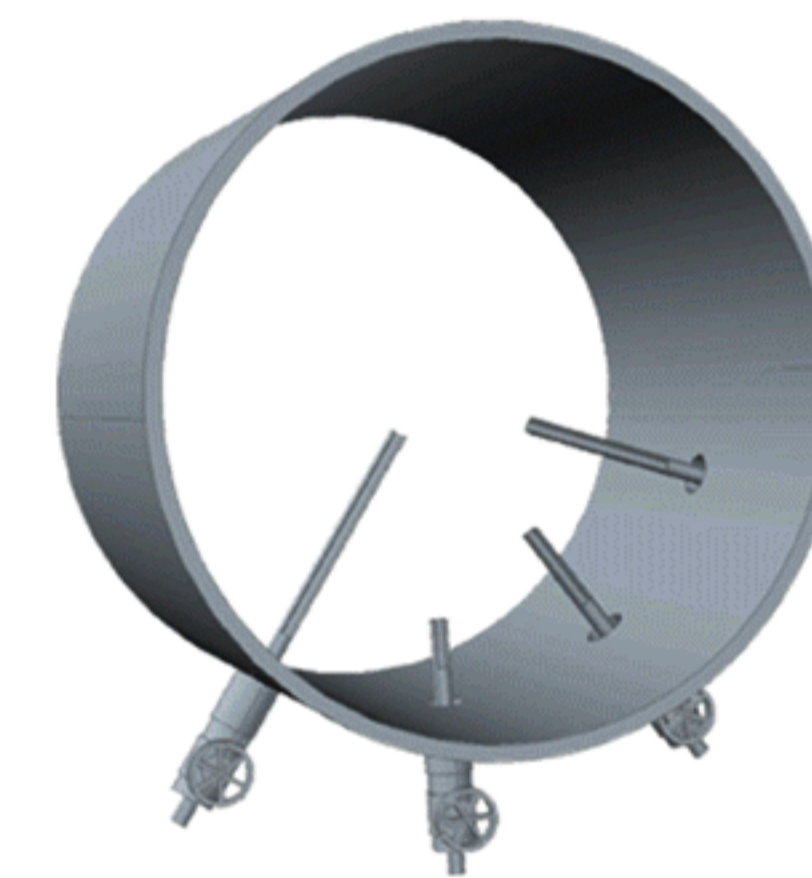
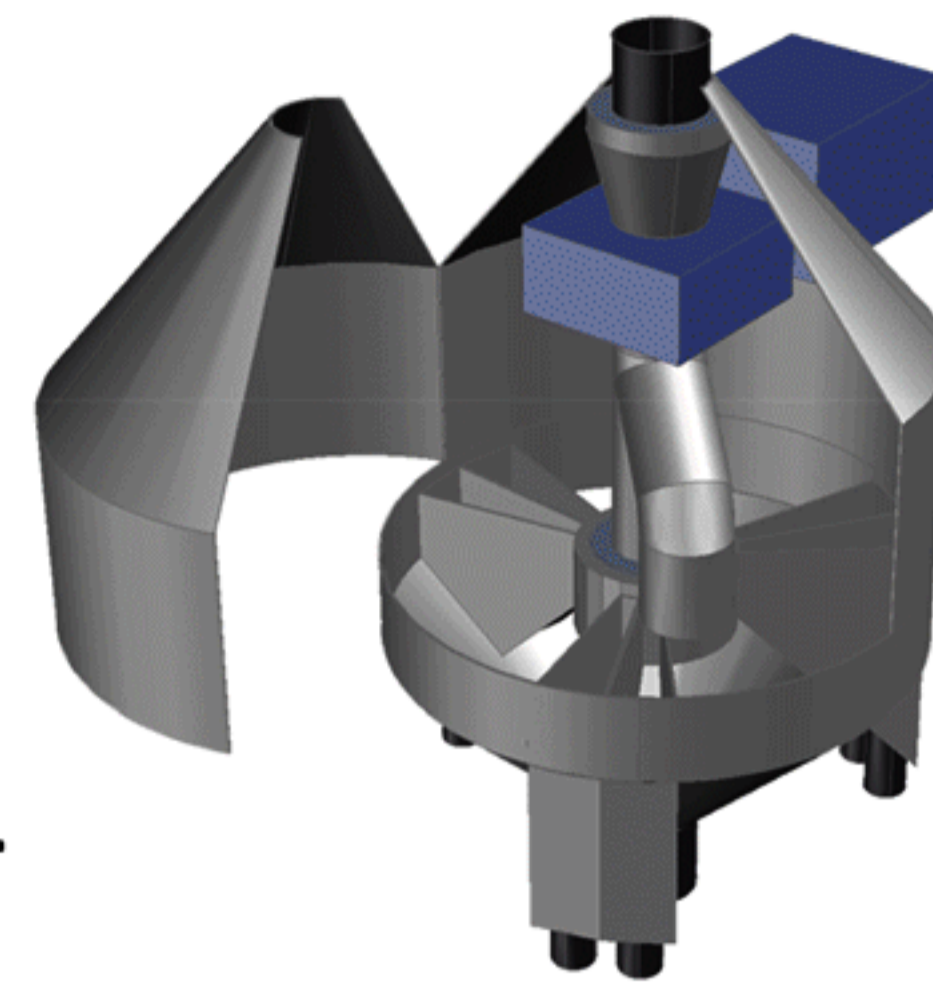
Clean Process Technologies provide a range of equipment and services to analyse, optimise and control important parameters around your existing Jameson Cell flotation circuit. As supplied, the Jameson cell performs poorly (although it is very hard to accurately measure the actual performance), but there are a number of products and services available to allow your Jameson Cell to perform closer to it's maximum potential, increasing product yield, product quality and circuit stability.

Sampling

What is your current cell performance?
How do you sample around the circuit?

As supplied, Jameson Cells are difficult to sample. CleanProTech can provide sampling equipment and services to best analyse your cell's performance.

This is required before ANY other optimisation takes place.



Transparent Downcomers

Clear downcomers can be provided to give a visual indication of the most important part of the Jameson Cell design.

Patented, Multi-Stage Cell Configurations

CleanProTech can provide consulting and design for the use of Jameson Cells in our patented multi-stage configuration to help maximise circuit performance and product recovery.

Level Measurement & Control

As supplied, Jameson cells cannot accurately measure froth level. The differential pressure transmitter used suffers from errors when the pulp density varies due to changing operating conditions.

CleanProTech's 'FrothTec' can accurately measure froth level while being reliable due to it's robust design.

This allows an accurate signal to be supplied to the level control system, resulting in a more stable and better controlled product.

Online Quality Measurement

CleanProTech's OSPDM allows users to monitor fines streams online.

The unit has the ability to provide outputs for particle density, solids concentration, slurry density plus much more.

If installed on a tailings stream it can be used to monitor coal losses or track changes when performing circuit optimisation.

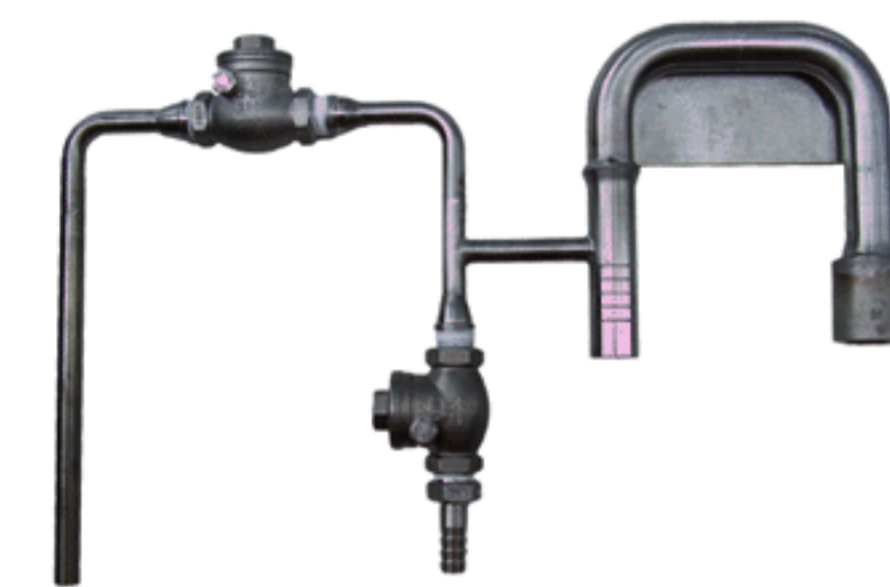
If an OSPDM is installed on all streams around a unit operation, you are able to calculate mass yield and equipment efficiencies online.

Reagent Dosing

Monitoring and control of reagents is one of the most important aspects of a flotation circuit.

Some reagents can cause issues with measurement due to the high viscosities which vary with temperature.

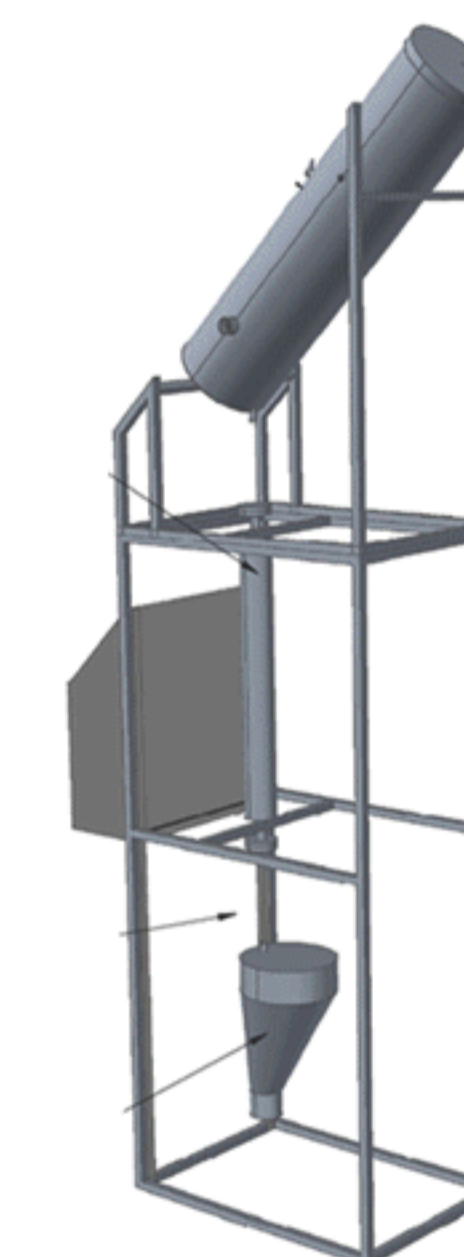
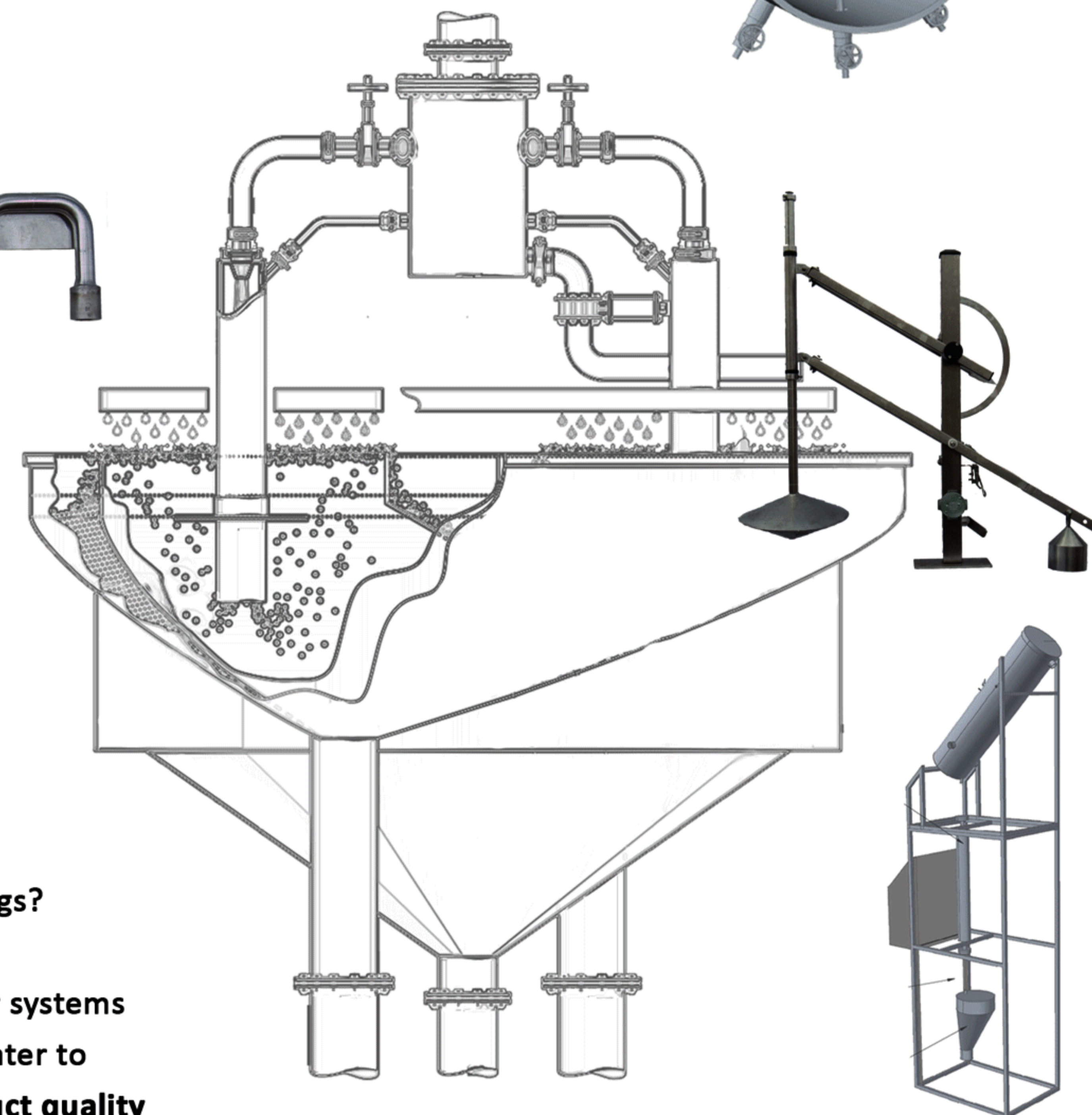
We can provide a system which accurately measures reagent flow rates, emulsifies the reagents and ensures that the reagents are introduced into the correct circuit locations.



Froth Washing

Do you have blocked wash water rings?
Poor wash water distribution?

CleanProTech have developed wash water systems which provide well distributed wash water to enhance froth mobility and increase product quality while reducing blockages and being easy to clean!



Laboratory Analysis

CleanProTech can provide a range of laboratory services to help maximise your Jameson Cell performance.

Ultimate Flotation Testing (UFT) can give you the closest indication to the maximum theoretical yield.

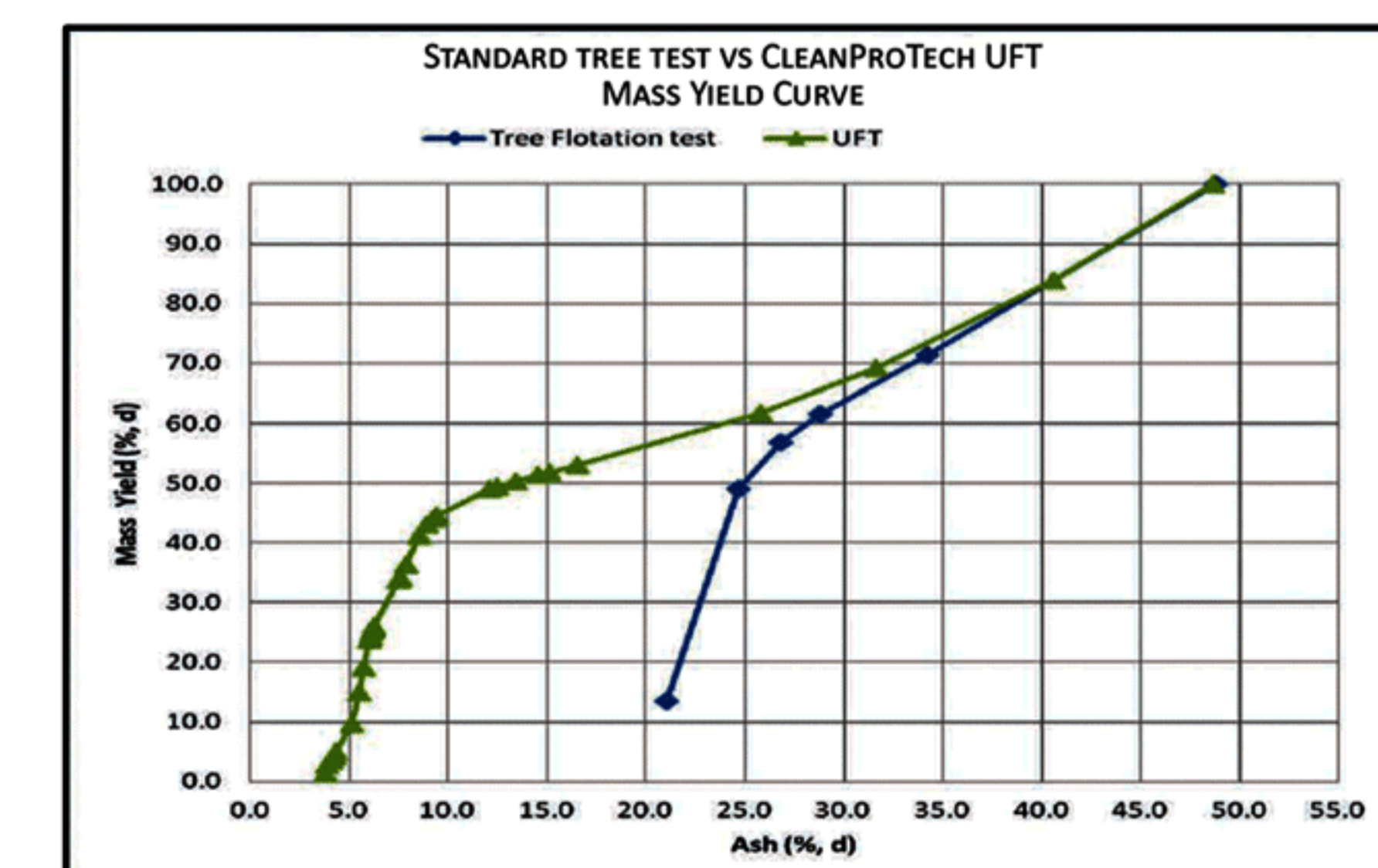
The standard tree flotation test can greatly underestimate flotation recovery, especially when clays are present.

Other work includes size analysis and reagent testing.

Reagents

CleanProTech have developed a range of flotation reagents to optimise yield from your Jameson Cell installation.

Reagents are tailored specifically to your coal type and plant configuration. This is achieved by using pilot scale laboratory testing combined with on-site trials, which ensure that the correct reagents are selected for your application.





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