

Customer Case Study

Filtration Optimization

16 Times Cleaner Filtrate Through Rapid Analysis and Real-Time Feed Monitoring

Particle Size & Shape

Total Suspended Solids (TTS)

Feed & Filtrate

Residual Particle Analysis

The Challenge

A bioprocess producer needed to recover a valuable product from a liquid waste stream. Filtration was key to removing impurities while maintaining high throughput, yield, and product quality. The choice and amount of filtration aid strongly affected results, but traditional testing methods were slow and costly, limiting the company's ability to maximize recovery & reduce waste.

The Approach

Using the ParticleTech Analyzer, the team quickly analyzed the particle size, shape, and concentration of both the feed and filtrate to identify the best filtration strategy. This enabled multiple filtration aids and dosages to be tested in hours, replacing slow, costly trials with fast, data-driven decisions that maximized recovery and minimized waste.

The Implementation

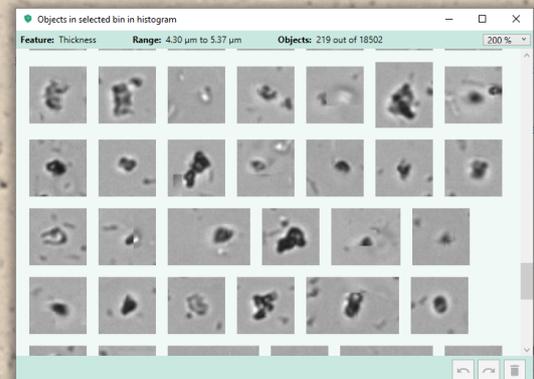
After the initial optimization, the ParticleTech Analyzer was fully integrated into daily production. Operators now continuously monitor feed composition and use feed-forward control to maintain stable filtration, ensuring consistent product quality and maximizing recovery.

The Result

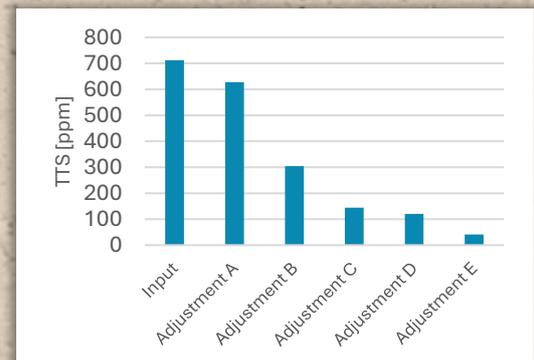
With real-time feed monitoring and adaptive control, the filtration process is now much more stable, downtime has been minimized, yield has increased, and, above all, filtrate quality is significantly more consistent.



ParticleTech Analyzer



Particle Documentation



Total Suspended Solids (TTS)