

How do You Sustain Progress When the Only Constant is Change?



The Challenge: Turning Short-Term Gains into Continuous Improvements

While pulping has remained nearly the same for decades, the individual components that comprise your mill processes —people, equipment, materials—are constantly changing. So just because one of your mills solved a problem today doesn't mean new ones won't pop up in the future.

What's more, you'll continue to have limited resources to commit to these unpredictable challenges. The need to drive out costs means you can't rely on pushing additional chemistry or investing in new equipment. And you're feeling the talent squeeze as experts age and younger replacements remain in short supply. To make sustained, continuous improvements across your mills, you have to put your resources exactly where and when they're going to make the biggest difference on KPMs like product quality, throughput and total cost of operations. Key to achieving this is narrowing the gap between problem identification and solution response. If that gap is 30 minutes, your operators and engineers may only need to investigate a couple dozen variables. If it's days, then they're sifting through hundreds. And when entrained air creates "noise" within your process, it can increase the chances that those critical KPMs fall below acceptable levels.

But when you partner with Buckman, you'll break through to new levels of washing performance across your organization.

Here's how you'll make it possible.

Despite the fact that operating costs receive continual focus from management, there is still **significant potential for cost reduction** by using **conventional approaches** to **work smarter and reduce waste** in the production chain.¹



Isolate Entrained Air Noise in Your Process

Entrained air is a hidden variable that mills simply accept as an unavoidable aspect of their operations. Most don't even measure it. Those that do are forced to use unreliable sensors or inconsistent manual tools that offer a sample measurement only.

Because Buckman's ECHOWISE[®] takes continuous, accurate measurements in less than two-second increments, you can design a closed-loop control program that addresses entrained air variations in real time—without operator intervention. You'll also be able to correlate the defoamer dosing trends to other continuous measurements in your process—such as drum speed, dilution and liquor temperature—leading to a more comprehensive view of all variables impacting washer performance.

As a result, you'll know exactly what's driving washer performance across all of your mills. When you do, you'll be able to take the exact actions needed to balance variables outside of entrained air—and ultimately optimize and maintain process efficiency over time.

ECHOWISE executes continuous, **accurate measurements of entrained air** in less than **two-second increments**.





Solve the Root Causes of Variability

When operators don't know what's hurting washing efficiency, assumptions are all they have left. And if they chase the wrong solutions, the throughput, quality and cost of your product takes a hit.

With help from Buckman's experts, you'll use accurate, real-time data to create process control schemes that minimize the impact of entrained air variability. This will set you up well for the next step in the ECHOWISE[®] process: collecting data over time, identifying trends and developing hypotheses about the sources of entrained air. By eliminating the root causes, you'll tighten control and make it easier to expose the other variables that have been impacting washing efficiency.

This way, you'll have hard data on additional disruptors, helping you justify capital expenditures that will solve these issues or implement fixes that will further improve product quality, productivity and reduce overall cost. And of course, this value grows exponentially as you scale this approach across all of your mills.

> ECHOWISE takes a scientific approach to problem solving—one that's built on collecting data and testing hypotheses in partnership with entrained air experts.

Break Through to New Levels of Washing Performance

Stem variability today—and keep it under control tomorrow—so you can build on the gains you've achieved to date. With Buckman's ECHOWISE[®], you'll break through to new levels of washing performance by:



That's how you'll make continuous improvements to your mills—while setting new KPM benchmarks, improving overall quartile performance and creating real separation between your mills and the competition.

To see how this could look in your organization, <u>please visit us online</u> to get started.



1. Pulp, paper, and packaging in the next decade: Transformational change, Peter Berg and Oskar Lingqvist, McKinsey & Company, August 2019. © 2020 Buckman Laboratories International, Inc. All rights reserved.