

How Can You Optimize Your Process Facing Today's Pressures?

Your Challenge:

Operational changes cause performance drift over time

Many mills view their defoamer program with a kind of "set it and forget it" mindset.

They picked a product long ago, set it up to dose in a certain location, and trusted operators to keep an eye on foam levels.

But every mill and operator are unique, and things change constantly: from your stock quality and equipment performance to the different grades you're pursuing and everything that makes up your chemical matrix. What's more, you're constantly running above capacity, adding pressure to existing Standard Operating Procedures—often creating new problems in the process. But you don't have excess capital to throw at mechanical solutions.

As mills experience resultant performance drift, they're forced to experiment with quick fixes. They might slow processes down, add drainage or strength aids, or overfeed defoamer. But these are temporary fixes—which means they're likely to recur.

Meanwhile, the negative impact of excess foam carries out valuable fiber, degrades your paper quality and effluent, and exposes your team to potential safety hazards.

A "set-and-forget" defoamer program can't keep up with the fast-changing nature of your mill's stock quality, equipment performance, chemical matrix, and other critical variables.

Your Solution:

Continually optimize your process

When operational changes cause drift in your papermaking performance, your tried-and-true defoamer strategy can create more problems than it solves.

When you partner with Buckman, you'll follow a scientific approach to uncover previously hidden correlations, using them to predict and respond to system upsets. And with regular on-site reviews, dosing best practices, and operator training, you'll proactively adjust your defoamer program for continuous improvement. That way, you'll be able to benchmark chemical applications that keep your processes humming along centerlines for every grade, so you can consistently hit your most critical quality, production, and safety goals—even as conditions change over time.

Here's how you'll accomplish that.

Use hidden correlations to predict system upsets

Because your process is a complex ecosystem of inputs, equipment, and human interventions, it can be difficult to root out problems when variations occur.

When you partner with Buckman, you can uncover previously hidden correlations and use them to predict (and respond to) system upsets. With deep knowledge of your unique operating conditions, Buckman entrained air experts employ a scientific approach to document the impacts individual variables—such as hard cooks, Kappa changes, chemical and air levels—have on your outcomes. As a result, you won't just solve issues at the source; you'll also benchmark and optimize chemical dosages (defoamer and other additives) for every grade you produce. And as you work to maintain these centerlines, you'll remove air's impact on drainage and minimize the negative impacts of chemical interactions so you can more consistently hit your quality and production targets.

Using **Buckman's scientific approach**, you can uncover previously hidden correlations and use them to predict (and respond to) system upsets. With **application support from Buckman**, you can proactively adjust your defoamer program for continuous improvement over time.

Proactively adjust your program for continuous improvement

If change is constant in papermaking, why do so many mills set up static defoamer programs that follow the same dosing points and schedules?

When you partner with Buckman, you will proactively adjust your defoamer application for continuous improvement over time. Working with Buckman experts to regularly evaluate drift in your program, you'll use a combination of preventative maintenance, chemistry adjustments, and application best practices, enabling you to keep your process humming along established centerlines.

And because your operators will be trained on how to identify air-related issues—both surface foam and entrained air—they'll be able to modify dosing points to eliminate foam in critical areas. This means you'll be able to improve your process from both efficiency and environmental perspectives, reducing fiber loss, limiting deposits, and stabilizing effluent. And most importantly, with less foam and a higher standard of housekeeping, you'll ensure safety for your entire team.

Continually optimize your process

By working with Buckman to continually optimize your application, you can meet target production at the right cost and quality level, reduce your costs and environmental footprint, and incorporate standard processes and digitization that enable your mill of the future.

Specifically, you'll be able to:



Take advantage of hidden correlations to predict system upsets



Proactively adjust your program for continuous improvement

Join other leading mills in optimizing your paper machine defoamer process to meet tomorrow's standards, needs, and customers.

For more information, visit our <u>website</u>.

