

How do you fine-tune your program for evolved needs?

Your Challenge:

Production demands exceed current defoamer's capabilities

Choosing a defoamer used to be easy.

But driven by factors like lightweighting, increasing demand, and new regulatory and environmental requirements, mills are increasingly pushing their processes beyond original operating capacities—and excess foam is a common byproduct.

But overfeeding your defoamer in response isn't sustainable. It forces you to add even more chemistries, like sizing and dry strength resin, in response and that can turn into a never-ending cycle that costs you more than your initial defoamer savings. Despite this, some mills stick with their current defoamer, because it's convenient or they're focused on other process challenges.

But whether it's the devil they know or the defoamer they don't, such mills are often accepting performance that's "good enough." And that means they need to find other ways to account for process upsets, like reduced drainage, slowing machine speeds, and deposits—all of which can lead to inconsistent product quality.

Many mills are pushing their processes past traditional operating parameters to meet demand—but last-generation defoamers haven't been designed for these conditions.



Your Solution:

Tune your program for evolved needs

When production realities have outstripped your current defoamer's capabilities, continuing to overfeed chemistries will only generate more problems downstream.

When you partner with Buckman, you can see exactly how different defoamers perform in your unique operating conditions, so you can make a choice supported by exact digital measurements. And you can upgrade your air control to respond to new dynamics with next-generation chemistries that bring attributes like higher concentrations, biodegradability, and regionally optimized formulations. As a result, you can reduce both surface foam and entrained air and get more out of your existing process and equipment without having to overfeed or compromise on efficacy, compliance, or environmental impact.

Here's how you can achieve all this.

With **Buckman's lab evaluations**, you can see how different products perform in your unique operating conditions.

See how products perform in your unique conditions

As you push your process to keep up with demand, how can you be sure your defoamer will keep up?

When you partner with Buckman, you can see exactly how different products perform in your unique operating conditions. Buckman experts study everything about your process—from furnish and equipment to variations in whitewater properties—and use this data to conduct lab evaluations of various products in a simulated environment. Supported by technologies like a foam generator and sonar-based entrained air measurement, Buckman's testing protocol provides you with repeatable online graphs that compare precise performance characteristics, such as surface foam control and deaeration.

With these insights in hand, you can select a product that will deliver the exact performance you need—without having to compromise on efficacy. And as you optimize your defoamer program with the right product, you'll reduce overfeeding, eliminate wasted chemicals and spend, and meet your regulatory and environmental requirements.

Using **next generation defoamers from Buckman**, you can upgrade your air control to respond to dynamic changes and new requirements.

Upgrade your air control for new dynamics

Because yesterday's defoamers can't keep up with today's intense operating conditions, you use more than you should—which can throw your entire process out of balance.

When you partner with Buckman, you can upgrade your air control to respond to dynamic changes and new requirements. Buckman is constantly developing the next generation of high-performance defoamers with attributes like higher concentrations, biodegradable components, and formulations optimized for regional conditions (e.g., furnish and water types, local regulations, etc.)

So, as you adjust your process in support of specific quality or production goals—maybe running equipment faster or targeting improved sizing and strength—you'll be able to reduce both surface foam and entrained air to improve runnability and efficiency. This means you'll get more out of existing equipment and chemical applications, while avoiding the unintended side effects that can lead to cycles of overfeeding and waste.

Tune Your Program for Evolved Needs

When you partner with Buckman and tune your program for evolved needs, 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:



Benefit from better defoamer performance in your unique conditions



Continually tune air control for new dynamics

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>.

