Buckman Ackumen™ MCA-i™
The monochloramine solution informed by artificial intelligence with automated insights

As a manufacturer of quality packaging, you face some daunting challenges these days: the pressure to use less water, rising contamination in recycled OCC, and greater reliance on anaerobic digesters for effluent treatment, just to name a few. Unfortunately, adapting to these realities can mean adding more chemistries which, in turn, can increase process variability. And that can mean unscheduled shutdowns, not to mention additional costs.

That’s why Buckman has introduced an all-new monochloramine program called Buckman Ackumen MCA-i, a breakthrough, chemical/digital solution that uses artificial intelligence with automated insights to stabilize the wet-end process, dramatically improve performance, and reduce overall chemical costs.

A superior microbicide. The ultimate way to manage it.

Buckman Ackumen MCA-i combines our best-in-class monochloramine chemistries with state-of-the-art sensing technology, cloud based data analytics, 24/7 expert monitoring and analysis, and accurate predictive modeling to take the work—and the guesswork—out of managing your effluent and paper machine systems.
It’s not about data. It’s about actionable insights.

With conventional sensors and digital applications, you can get too much data and not enough meaningful insight. But what if you had the power to see all and the acumen to make every decision easy?

Buckman Ackumen™ MCA-i™ collects data and lots of it. Its state-of-the-art IoT hardware and software includes an advanced system of wireless sensors along with cloud-based data you can trust. But it doesn’t stop there. It takes system monitoring and management beyond the data dump to the insights you care about most and delivers them to you in simple, easy-to-read, actionable system visualization graphics, alarms and notifications via the Buckman Ackumen Platform’s remote process monitoring system.

What’s an insight?

An insight is the detection of a pattern of anomalous behavior; the analysis of its root cause in measurable, rational terms; and finally, a recommended course of action to resolve the issue. Buckman Ackumen MCA-i gives you the power to see fouling patterns and corrosion, identify changes in product or water usage, detect process changes, and much more.

Whether at your desktop or on your mobile device, you’ll know in real time the status of your system. You’ll clearly see how your KPIs are tracking. You’ll know at a glance whether an action is needed now or in five days.

Dosing has never been so precise.

With MCA-i, accurate sensor-controlled dosing is tied to production rates, grade changes, pH, ORP, chlorine residual, freshwater usage and more. Plus, MCA-i enables you to maintain broke health via a consistent dosage as well as modulated treatment based on different types of output. So you can increase process stability, efficiency, and cleanliness.
Expert monitoring, benchmarking, and predictive modeling mean you don’t have to go it alone.

MCA-i is backed by 24/7 monitoring and analysis performed by data scientists and engineers in our Insights Lab. The Lab deals with events as they happen, assessing every alarm and eliminating false ones.

Chemical engineers working closely with data science experts enable us to see around the bend and analyze patterns that are not visible to the naked eye.

Smart maintenance keeps MCA doing its job.

MCA-i probes and sensors are equipped to indicate hours in service. This enables the Lab to track calibrations and overall health and create a service calendar for components to be cleaned, calibrated or replaced. These parts are delivered to you automatically. So you have no unnecessary downtime due to equipment breakdown or extended maintenance.

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<th>Monitor</th>
<th>Predict</th>
<th>Optimize</th>
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<td>Extrasensory perception gives you the power to see all.</td>
<td>Accurately predict performance and maintenance so you can stay proactive and avoid downtime.</td>
<td>Time, water, chemicals and money.</td>
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Safety features eliminate worry.

The MCA-i system comes with feed equipment designed for consistent, accurate delivery with a wide application range and flexible dosing options. Even more important, it offers industry-leading safety. All unit alarms come to your phone. And our feed equipment is the only technology on the market with all these advanced safety features:

- Leak detection
- A built-in separator to keep neat chemicals apart in the case of a line break or other issue
- Automatic flushing of all application lines in case power is lost
- Regular inspection by Buckman personnel to ensure efficient, safe operation

With MCA-i, the potential for human-chemical contact is greatly reduced. And, Buckman’s MCA chemistry is environmentally friendly, reducing the potential toxicity of your mill’s effluent and producing far fewer potential carcinogens than other treatments. Chemical discharge to lakes and rivers can be significantly reduced.
See. Understand. Solve.

Globally, more than 300 customers have switched to Buckman MCA. Now, with Buckman Ackumen™ MCA-i™, mills can use the power of artificial intelligence with automated insights to enhance performance even more. MCA-i can help you stabilize your overall papermaking process and improve the quality and consistency of your effluent. You can boost performance from your functional chemistries and lower your total cost of operation while improving uptime and protecting your equipment. And you can improve the overall quality of your paper, increasing your yields and margin.

Gain the acumen you need to manage MCA better. Connect with your Buckman representative or visit buckman.com to learn more about Buckman Ackumen MCA-i.