anufacturers of process equipment for washing and priming aluminium D&I cans are responding to both growing demands for more metal packaging and the transition of the canmaking industry towards a decarbonised future.

And as the global economy comes under growing inflationary pressure, they're also helping canmakers retool to offer consumers the best value as prices rise at the fastest rate in more than a decade.

Washers and associated dryers are key components of a beverage can line, removing oils and other residue that results from the body-forming process, and then chemically priming the surfaces ready for decoration. Manufacturers strive to ensure that their link in the production chain keeps up with innovations in other parts so that canmaking lines run with the fewest and shortest downtime periods possible.

But economics and sustainability are also considerations that need to be taken into account. The growing washer rebuild market is playing a role in that, HeatTek sales engineer for metal packaging Justin McFarland tells *The Canmaker*. The manufacturer of industrial heaters, including washer dry-off ovens, also retrofits washers for canmakers. The service saves the client the cost of building a new washer from scratch and also reduces the amount of material waste from replacements.

"Rebuilds can extend the life of an old washer by up to 10 years at a fraction of the cost and offer an attractive alternative to investing in expensive, new equipment," explains McFarland, who is based at the company's headquarters in Ixona, Wisconsin.

"Additionally, most canmakers can't afford one-to-two month outages while an old washer is decommissioned, demolished and replaced. Depending on scale, rebuilding an existing washer can take as few as five days."

Scary word

For canmakers, who are struggling to catch up with a surging market for drinks cans, downtime has never "been a scarier word", says McFarland. His comments refer to the growing demand for cans in North America, where a shortage of capacity forced canmakers to import 11 billion cans in the year to March, according to recent comments by Ball chief financial officer Scott Morrison.

"Equipment is being run harder, and maintenance cycles have been extended to keep up with the increased demand," McFarland said. "Canmakers are under

Cleaning up in a changing market

As providers of key process equipment for two-piece beverage can lines, manufacturers of washers and drying ovens are striving to keep up in a fast-growing sector. Mark McCord reports



even more pressure to ensure that scheduled projects are completed on time."

Can washer manufacturer Cincinnati Industrial Machinery (CIM) is also mindful of the impact of downtime on hard-pushed canmakers.

The Ohio-based behemoth in the washer sector has begun marketing an Automatic Quick Adjustment product that enables the speedy switch for its can washers to accommodate different container sizes. A year in development, the product will accurately adjust washing equipment to manage all trim heights.

The first-of-its-kind push-button mechanism requires no manual input and cuts the changeover downtime from an hour-and-a-half to "the time it takes for the engineer to get a coffee", says CIM president David Williams.

The mechanism can be built into new washers or retro-fitted to older machines.

It was designed to meet canmaker and brand demands for a wider range of packaging formats as beverage markets fragment. Consumers of alternative alcoholic beverages (AABs) such as seltzers, low-and-no alcohol beers and ready-to-drink (RTD) cocktails, prefer their products packaged in slimmer cans, according to data from researcher IRI. In response, canmakers have increased production of slim, sleek and smaller cans.

The increased number of product types has also meant production runs have become smaller, meaning canmakers must fit more factory lines to accommodate them or change lines over more often.

"We're finding that a lot of canmakers are running different cans – slim cans, standard cans and so on – and they do smaller batches and every batch size needs a new trim height so there's a big changeover needed at the plant," explains CIM vice-president for technology and veteran can washing expert Joe Bohlen.

"Our product means the machine takes care of itself on height adjustments. It

automatically turns the cranks and resolvers, gets the accuracy set and it cranks away for just a few minutes."

Williams adds that in many cases the time saved is greater. "One-and-a-half hours for a manual changeover is a best case scenario – if you're doing it manually and you are off somewhere then you have to thoroughly check and that creates some downtime and product rejects," Williams says.

More capacity

Canmakers are building new plants and lines, and analysts estimate that this investment will this year see capacity of about five billion cans added to annual output in North America. And more are on the way.

Even so, analysts and canmakers, including Ball, expect supply to lag behind demand for another few years meaning that capacity already online will need to run at the highest efficiencies, and that means the least downtime.

"Shutting a line down is painful – you want to do it as little as possible," says Bohlen.

CIM believes its new product will also help canmakers adjust to the impact of rising inflation. US consumer prices rose



A washer unit before and after refurbishment by HeatTek

by five per cent in May, the most since 2008. While that's attributable to the US economy's rapid recovery from the Covid pandemic downturn, it's also partly the result of surging global commodity prices amid shortages of raw materials, including aluminium.

Brand owners have two main responses – pass on the increased costs of materials to consumers or reduce packaging sizes to maintain product prices. Williams argues that the ability to quickly switch production to smaller can sizes will play a part in canmakers' strategies.

"This will become more and more valuable as we see inflation rise," he says. "Companies are reducing package sizes to adjust for inflation."



Greener canmaking

UK-based Greenbank Technology offers a range of Torrent washers which are complemented by the Tornado dryer. To accommodate cans of different sizes the dryer features automated height adjustments.

The equipment handles as many as 8,000 cans per minute and can be fitted with a variety of conveying belt materials.

With such downtime-reducing devices, Greenbank believes canmakers have ironed out most of their streamlining priorities and are now gearing to making their operations greener.

"Where quick-automatic changeovers and easy maintenance used to drive a significant proportion of research and development, the customer focus is shifting from this to developments centred around their sustainability and environmental goals," explains sales and marketing manager Victoria Barrett.

"Canmakers are confidently and sometimes aggressively expanding, the pandemic, market trends – the popularity of wine and coffee in cans – combined with a focus on sustainable packaging and being environmentally conscious is driving this," Barrett says.

The Tornado uses fewer fans and highly-efficient burners, which reduce the equipment's energy needs. The dryer is built to accompany Greenbank's Torrent washers which are also built to reduce water usage through the use of a novel counterflow system.

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