

Unic General Manager Tommaso Fontana Rava and Marketing and Customer Experience Director Lisa Levi reveal how the espresso machine manufacturer has used automation to aid baristas since it was established more than a century ago.

TCAN BE EASY to think of automation as a futuristic field of technology: robots serving coffee based on AI algorithms to extract the best flavour, and so on. In reality, however, automation has played a part in the equipment side of the coffee industry since its early days in 20th century Europe.

For French espresso machine manufacturer Unic, which was established in 1919, automation has been at the heart of the brand since the very beginning. Founder Mario Levi's first machine, Idrotermica, also known as the Express Automatic, automatically roasted, ground, and brewed coffee beans in one of the earliest versions of the bean-to-cup machine.

"In a way, the Idrotermica was our first automatic machine," says Unic General Manager Tommaso Fontana Rava.

"It's always been in our DNA. In 1968, we built our first super automatic machine and at the time there wasn't really anything else like it on the market. Unic has always been a company that works closely with the coffee community to provide automatic solutions that make the job of the barista as streamlined as possible."

While the company has since released both traditional and super automatic espresso machines to best serve the needs of baristas at the time, it has also developed a series of key patents to ensure traditional machines can benefit from automatic technology.

"We understand that baristas have to use their machine every day, therefore we put ourselves in their shoes so we can figure out ways to make their workflow more efficient and the quality of their coffee consistent," says Unic Marketing and Customer Experience Director Lisa Levi.

"Alongside our fully automatic machines, we've created patented technology that supports traditional machines with automation. In the 1980s, for example, we produced automatic dosing system Dosamat, which enables the machine to recognise the portafilter and start the extraction automatically, without the barista having to select the shot size or push any additional buttons."

Ánother of these innovations is its Easylock hydraulically sealed portafilter technology, which was developed to minimise wrist fatigue. It is also designed to produce greater consistency between shots and extend the life of group gaskets.

"Repetitively tightening the portafilter by hand strains two things: the joints between the portafilter and the machine, and the hand of the barista over a long period of time," she says. "We designed a mechanism that automatically locks the portafilter in place. This means the barista can put the portafilter inside the machine without using much force, with the portafilter being automatically stopped by a dead end."

The workflow of the barista is considered in every project the Unic team undertakes. When exploring processes that could slow down the user or cause strain, they also identified the steam wand as an area for improvement.

"Many espresso machines include a knob to control the steam wand, which needs to be turned and can cause repetitive strain. We therefore developed the Steamglide lever, a ceramic valve that allows the user to control the steam with a very simple movement," she says.

"Instead of turning, micro adjustments left to right only require very small hand movements. We are always thinking about movement and how the barista is working with the machine."

These examples demonstrate how Unic's automatic innovations are not only developed to streamline the work of the barista but also to control key variables and, as a result, ensure the quality of the coffee is as high as possible.

"Automation not only serves the baristas but also the coffee itself. People take a lot of time selecting the ideal beans, but if the variables are off on the machine that can result in poor quality," says Fontana Rava.

"You will always need baristas to calibrate the machine at the start of the day, but then it can take care of factors such as grinding parameters and pre-infusion to ensure the espresso is consistent no matter how busy the venue is."

This focus on creating high-quality espresso shots is demonstrated in Unic's Stella Epic traditional multi-boiler machine. Integrated technology gives users the ability to control pre- and post-infusion to ensure consistent flavour. It also enables them to store up to five infusion profiles on each grouphead so recipes can be recreated at the touch of a button.

"The machine's ability to perform mechanical pre-infusion means the barista doesn't have to think about this step – instead the machine does it for them. If they are very busy and pushing one shot after another, the machine will take care not to be too aggressive with the coffee and will create a very sweet cup," he says.

Another machine that utilises automation to create quality espresso is the Tango XP. The super automatic machine was designed with specialty coffee in mind, with the Unic team spending a lot of time with high-end roasters and cafés during its development. According to their research, creating a machine that improved workflow, efficiency, and quality was essential.

"We wanted to create a fully automatic that can deliver the same quality cup of coffee produced by a traditional machine. To achieve this, we installed 83-millimetre flat burrs – the kind you'd find in a top of the range standalone grinder," Fontana Rava says.

"Speed and consistency of grinding is essential to maintain high cup quality and we wanted to deliver this in a super automatic. We also introduced a programming screen so the barista can find all the parameters and characteristics needed to calibrate a machine."

Levi highlights that thermal stability is another key factor in the consistency of espresso shots.

⁶Our machines are known in the market for having thermal stability. Our traditional machines are derived from the original lever machines and feature a lot of metal between the boiler and the coffee group. This metal has a very good thermal inertia, so once it heats up the temperature remains consistent," she says.

"In the creation of our automatic

machines, we've taken inspiration from our traditional machines to mimic this excellent thermal stability. Every element of the machine is carefully considered to deliver repeatability of the shots from the very first that's dialled in."

One of the ultimate goals for Unic's automated technology is to free up the barista's time to interact with customers.

"We want baristas to be able to speak with the customers and build good relationships, not have all their attention taken up by the machine. Our products are all designed to support this and ultimately create a tool that's very easy to use," says Levi.

Both Fontana Rava and Levi have noticed a shift in the market towards automatic machines and put this down to a heightened focus on quality.

"Twenty to 30 years ago, coffee was just coffee. Now, people demand good coffee and have an opinion about it," says Fontana Rava.

"People expect high-quality coffee everywhere they go and this means a variety of locations need to be able to deliver to this demand. Traditional machines will always play a central role in certain settings, yet the advancement of fully automatic machines is making quality coffee a reality just about anywhere." GCR

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