

Arcobräu, Moos, invests in new Krones bottling kit

Maximised taste-stability thanks to low-oxygen-pickup filling.

The Arcobräu Gräfliches Brauhaus GmbH & Co. KG brewery, headquartered in the Lower Bavarian village of Moos, has brought its bottling kit up to the very latest state of the art. The mid-tier family-owned brewery has installed a new filler from Krones AG, Neutraubling, Germany, plus a Checkmat bottle inspector and the requisite conveyors. Brewery Director Holger Fichtel and Brewmaster Günther Breitenfellner attached particular importance to the quality of the beer bottling process, based on exceptionally low oxygen pickup and maximised hygiene.

Lower Bavarian brewing traditions

What was then the Schlossbrauerei Brewery in Moos is first mentioned in the archives when in 1567 it was taken over by Johann Albrecht von Preysing, the son-in-law of Stephan Trainer. The amalgamation of various breweries owned by the Arco-Zinneberg family created in 1960 the present-day company Arcobräu, headquartered in Moos. In the early 1990s, Arcobräu then took over some more small breweries in the east of Bavaria.



(from left to right) When deciding on the new investment project, Brewery Director Holger Fichtel and Brewmaster Günther Breitenfellner from Arcobräu in Moos attached particular importance to the quality of the beer bottling operation, based on exceptionally low oxygen pickup and maximised hygiene.

Today, more than 70 employees are producing around 160,000 hectolitres of beer per annum. Arcobräu thus ranks among the larger breweries in Lower Bavaria. Besides the main sales territory of

Lower Bavaria itself, Arcobräu's products are also being exported. The specialty beers can be purchased on all continents.

Arcobräu's products are relished by revellers at Lower Bavaria's seven biggest festivals, including (since 1922) Bavaria's second-biggest festival, the "Gäubodenvolksfest" in Straubing, and at the Whitsun Festival in Moos, which Arcobräu has been organising as its own annual event since 1974, and which with 60,000 visitors is famed throughout the surrounding region.

Successive modernisation of the entire brewery

The Arcobräu Brewery has for years now been successively modernising its entire facility, from the brewhouse, the fermentation and storage cellars all the way through to the bottling kit. Here, Arcobräu has repeatedly put its trust in the technology provided by Krones AG. In 1998, the brewery installed a Linatronic 712 empty-bottle inspector,



Brewmaster Günther Breitenfellner (left) and Brewery Director Holger Fichtel (right) seen with some of Arcobräu's staff enthusing over the new Krones filler. Arcobräu in Moos has for years now been putting its trust in technology from Krones.

followed in 2006 by a KES bottle washer, and now the Modulfill HES filler with crowner, plus a Checkmat FM-HF fill level inspector with logo detection, together with the requisite bottle conveyors.

The Modulfill HES filler is an energy-efficient, intelligent, probe-controlled filling system, without a vent tube, featuring a tubular ring bowl with 96 filling valves and an 18-head crowner, and prepared for subsequent retrofitting of a capper. With its rated output of 33,000 0.5-litre NRW bottles per hour, it is designed to handle both top- and bottom-fermented beers, and alcohol-free types as well. Thus capacity upsizing was not the aim of this investment. Double pre-evacuation with interpolated CO₂ flushing ensures minimised oxygen values: "With this technology, we can enhance the stability of the beer's taste," comments Brewery Director Holger Fichtel. Warm filling at temperatures greater than 15 degrees Celsius is also possible without any reduction in output.

Particularly stringent hygiene stipulations

The product-friendly filling system of the Modulfill HES provides enhanced levels of hygiene and filling stability, minimises fobbing, and ensures accurate fill quantities. The bottles are pressurised and vented via two separate gas paths, which prevents liquid passing from the filled bottle into the pressurisation channel, thus providing considerable advantages in terms of filling stability and hygiene. During pressurisation, no residual liquid can penetrate into the empty bottles. Unwanted fobbing and hygiene risks during filling are thus precluded. Hygiene safety is rounded off by an automatic cold gush-type jetting of all microbiologically relevant machine components. For Brewmaster Günther Breitenfellner, the line is "the best in the world", in particular by meeting the stringent hygiene stipulations involved.

Severe space constraints and a tight deadline

The Checkmat FM-HF installed downstream of the filler inspects the filled bottles for over- and underfills, with filling valve and crowner head assignments, and also incorporates a closure monitoring feature and logo detection for the crown.

An entirely new Siemens S7 control system regulates all the bottle conveyors between the unpacker and the packer, including integration of the existing machines and conveyor systems. The empty-bottle inspector and the filler are monobloc-synchronised electronically, which enables the buffering times between the machines to be optimised. In the new bottle conveyors, only efficient, energy-economical drives are used.

Filler, bottle inspector and conveyors had to be installed at the Arcobräu Brewery under severe space constraints. An extremely tight timeframe was scheduled for delivery, erection and commissioning. Now, Arcobräu can bottle its wide range of beers in optimum quality using state-of-the-art technology while ensuring long-lived taste-stability. ♦



Majestically, the Kronen Modulfill waits to be ingressed at the tradition-steeped Arcobräu Brewery in Moos. Thanks to its low-oxygen-pickup filling process, it will in future ensure maximised taste-stability for Arcobräu's specialty beers.