

In-person at Anuga FoodTec and and Ipack Ima

Drinks technology innovation under the spotlight

Deprived of fairs and exhibitions in the last two years, the European drinks equipment producers were noticeably impatient. Lots of innovation to show to visitors and customers. Dominique Huret from Cape Decision in Brussels was at Anuga FoodTec, then at Ipack Ima, where she met some of the important players in the drink market. Here are some of their latest innovations.

Dominique Huret

Global packaging solutions provider Sidel

Sidel was keen to talk about its Combi solutions for light-weighted rPET edible oil bottles. This project is a combination of two forms of technological expertise with Sidel and Serac working together to integrate their renowned equipment and engineering expertise. Working in partnership, Sidel provided blowing and Serac filling and capping capabilities. The new Combis are high-speed blow-fill-cap machines, where the heating and blowing technologies ensure consistency in bottle integrity.

This technological change has improved not only quality but also ergonomics, using very little floor space with the removal of conveyors and walkways. In addition, for filling – the grip of the bottleneck is adjustable, making format changeovers easier. The weight filling technology is most accurate for edible oil as it is insensitive to production aeration and temperature variation. For a 1000 g bottle, a maximum 0.5g deviation is delivered thanks to permanent weight control, detecting abnormalities of filling.

Supported by Sidel and Serac's on-site technicians, the multi-million-euro modernization of Lesieur's Coudekerque (Northern France) bottling facility centered on the installation of three Combis with blowing, filling, and capping functions for edible oils. Lesieur can now produce light-weighted bottles with up to 100% recycled PET (rPET), enhancing both its customer proposition and sustainability credentials. This was achieved by reducing the weight of its preforms, producing bottles between 16-18 grams. This solution can produce 0.5 or 1-liter formats up to 2 and 3 liters at speeds ranging from 15,000 bottles per hour (BPH) up to 30,000 BPH.

Plant-based beverages

Plant-based drinks are currently one of the most promising beverage categories in the European and North American markets. Germany's Krones, a process technology solutions provider has worked on three line concepts for producing oat-based drinks with its two subsidiaries Milkron and Steinecker. This effective trio has worked together to offer three process variants of plant-based beverages.



*New drinks displayed on the Krones stand at Anuga Foodtec
Photo Dominique Huret*



*Sidel shows new products produced on its Combi line.
Photo Dominique Huret*



FILLING AND SEALING

The new Sidel Combi high-speed blow-fill-cap machines, where the heating and blowing technologies ensure consistency in bottle integrity. Photo Sidel

Image Kronos

Variant one is suitable for beverage manufacturers who already own a syrup room and would initially like to test the production of grain-based drinks for themselves and their brand. The raw material used in this process is a ready-to-use oat base. During production it gets mixed with water, the blending takes place and some additives have to be added.

When it comes to producing medium-sized quantities of oat drinks quickly and reliably, ready-to-use oatmeal, which has to be mixed with water and enzymes, is the best basis. The enzymes have a big advantage, as it is possible to directly control the sweetness of the oat drink – and this without adding any artificial sugars. In the next steps, the hydrolysis and the solid-liquid separation take place before adding additives. Variant three has whole oat grains or flakes as the raw material. The difference between variant two is, that beverage producers have to mill the grains or flakes before processing them further.

KHS InnoPET BloFill ACF-L stretch blow molder and filler

KHS is also working on equipment for the filling of sensitive beverages in a hygienic environment with its InnoPET BloFill ACF-L stretch blow molder and filler. But its extensive portfolio of environmentally-friendly systems for various container designs and materials has attracted industry attention.

The German company is also consistently working to save on resources and use a higher percentage of recycled materials in place of new ones. A film made of up to 100% recyclate can now be used to wrap containers, as can paper or cardboard. The newly developed Innopack CNP or Carton Nature Packer turns beverage cans into stable packs using toppers or clips made of corrugated cardboard or solid board. Packs of four, six, or eight standard and sleek can formats holding between 250 and 580 milliliters can be produced at an output of up to 108,000 containers per hour.

Another packaging alternative is Nature MultiPack. This system joins beverage containers together with dots of adhesive to form a stable pack and saves up to 90% in materials by doing away with the secondary packaging. Nature MultiPack is now also available for the high-performance range, with throughputs of up to 108,000 containers per hour possible when running at overcapacity. Depending on the format, the machine manufactures up to 450 packs of four a minute.

More sustainable options

Outside PET bottles, other drinks packaging manufacturers are also searching hard for sustainable options. Carlsberg/Paboco just announced the consumer testing of its fiber bottle 3.0 in eight countries. Following the successful completion of a 15-month commercial technology validation of a polymer-based barrier replacing the aluminum layer, Tetra Pak is now moving to the next level of development – testing a fiber-based barrier that is a first within food carton packages distributed under ambient conditions. Coming up in September is the major Drinktec fair. The big industry players are reserving more surprises for the Munich show. We will keep you posted! ■



Innopack's CNP turns cans into stable pack Photo Dominique Huret



Sample results of the Nature MultiPack joint project with Martens Brewery. Photo KHS