



Packed hall at Anuga FoodTec.
Image credit: Koelnmesse



PET bottle.
Image credit: KHS Group



Partbox 3D printer.
Image credit: Schubert



Conrad Zanzinger, CTO, Schubert
with the Partbox 3D printer.
Image credit: Schubert



Anuga FoodTec 2022: a drink to a bright re-launch

Dominique Huret from Cape Decision reports on some breakthrough in packaging and equipment specific to drinks

The Food & Beverage Technology Industry met in Cologne, Germany at the end of April, after more than two years. Over 1,000 exhibitors, around 25,000 trade visitors from 120 countries attended the trade show. Compact, innovative formats, intelligent automation of production processes in the food and beverage industry as well as new technologies and concepts were presented that push the sustainable use of natural resources and offer solutions to meet the challenges facing food and beverage producers worldwide.

The manufacturers of filling and packaging systems for the beverage and liquid food industries have not remained inactive for the past years, taking into account the actual imperious requirements of resource savings, smaller units and sensitive products. The trade fair was a great opportunity to showcase innovation and improvements in their equipment.

KHS Group on continuous improvements

One of the world's leaders, the Dortmund based company shared its achievements with the InnoPET BloFill ACF-L stretch blow moulder/filler block. The Dortmund engineering company presents further development for sensitive beverages in PET bottles that are especially low on space. The new system scores with innovations, one

being its new switching valve. This controls the volume of the inflow to the actual filling valve and thus permits a total of four different filling speeds. Bottle volumes both large and small with varying viscosities can be perfectly processed on this machinery – with extremely low foaming an added bonus. The filling process is stored in the product recipes; there is no need for manual conversion. Newly developed also is Innopack CNP (or Carton Nature Packer). This equipment 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 milliliter can be produced at an output of up to 108,000 containers per hour. Not new but still quite interesting remains Nature MultiPack. This resource-saving system joins beverage containers together with dots of adhesive to form a stable pack. It 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. KHS is offering simple retrofits on existing packaging machines, staying in tune with the times.

Krones goes into equipment's for today's new beverages

Another German equipment maker that could not go unnoticed is Krones – winner of a DLG award for its equipment for aseptic dosing for small quantities. In production, hop oils, aromas or enzymes, are usually delivered in special bags



Almond milk.
Image credit: Krones



Plant-based PET.
Image credit: Suntory



Edible capsule.
Image credit: Suntory



Paper bottle.
Image credit: Paboco

that are individually adapted to the relevant emptying system. The bags are connected to the dosing device using hoses, dosing needles or similar injection systems. Manual interventions are often necessary in order to connect the injection systems to the dosing device. This could cause germs to contaminate and spoil the beverage in preparation.

In contrast to systems already on the market, the dosing station from Krones does not require any special injection systems, thus enabling the bags to be used and processed safely. In addition to microbiological safety, the Krones system also enables a high degree of flexibility, since you are not dependent on manufacturer-specific injection systems when purchasing the packaging form of the medium to be dosed. And the high degree of automation rules out incorrect operation by an operator.

GEA: also a pioneer in dual fill technology as part of an aseptic cold fill

GEA is targeting sensitive beverages. With ABF technology, low and high acid aseptic beverages with different shelf lives can be bottled on one system. When it comes to product safety assurance, the GEA Aseptic Blow Fill System ABF 2.0 represents the state of the art in the aseptic technology and especially targets the production of such products with enhanced sensitivity, all that with a reliable and consistent aseptic process fully automated. The GEA Test Center allows live experience of the exclusive Dual Fill technology. The Fillstar PX aseptic piston filler is part of the Dual Filling aseptic system, which is suitable for sensitive drinks containing large pieces of fruit or cereals.

Digital process saves processing, shipping and warehousing costs

Finally a crush for the PARTBOX 3D printer by Schubert Additive Solutions. Schubert had already created a digital platform from which customers could call up certified print jobs in their own production and produce 3D parts themselves using a standard filament printer. Now the company has developed an entirely

new 3D printer for its customers. “We believe that components should be produced when and where they are needed,” explains Conrad Zanzinger, CTO at Schubert Additive Solutions. The broken parts do not need to come from Schubert equipment and the printing box works on a rental scheme and is available now.

And the search for perfect sustainable packaging for beverages goes on...

Paboco announced recently the next-generation prototype of its paper bottle featuring a paper closure from Blue Ocean Closures, with the rollout for brand applications including cosmetics, home care, and still drinks expected in 2023. Paboco wants to include a recyclable paper closure that fits the paper threaded neck of its bottle prototype. Paboco would then be a step closer to achieving a 100 per cent paper-based bottle. Carlsberg and Absolut Vodka are among the brand owners who are the most involved in the project. Frugalpac is also getting recognition for its Frugal Bottles, mainly used in the wine sector but also liquor and even sake in Japan. It should be launched in the US with an American wine brand shortly. A fibre case with a polymer pouch and twist cap. The packaging is not easy to separate for recycling, hence not convincing most experts. Suntory Group has announced a prototype PET bottle made from 100 per cent plant-based materials, which will be used for the company’s Orangina brand in Europe and Suntory Tennensui mineral water brand in Japan. Done with Annelotech, a US-based sustainable technology company, for almost a decade to create the prototype. Annelotech uses plant-based paraxylene derived from woodchip to be converted into plant-based terephthalic acid (PTA), a raw material typically making up 70 per cent of PET’s material composition. Suntory says it has been using plant-based MEG in its Suntory Tennensui brand in Japan since 2013. Marine PET bottle, label less, ever thinner PET, refPET... the search goes on. A trade fair dedicated to the drink industry will take place after the summer. Until then, the big players are holding their breath. 

Frugal bottle.
Image credit: Frugalpac

