

Optimising the impact of Drinktec: right equipment for the right products

In 2020, due to the Covid-19 pandemic, the volume of trade in food processing and packaging machines fell around five per cent, to \$47 billion. In contrast, in 2021 the industry expected significant growth again, and the volume of global trade climbed eight per cent to \$51 billion. As a consequence, global demand for packaging machines in the beverage and liquid food industry is once again increasing. Despite difficult conditions, there are good global prospects for machines and facilities that manufacture, bottle, and package beverages and liquid foods, according to analysis by the German Mechanical Engineering Industry Association (VDMA) on Drinktec, the world's biggest fair for beverages and liquid food. Dominique Huret from Cape Decision reports for *Food & Drink Technology*.

This expected growth is the result of suppliers consistently confronting the challenges of our time: the ecological footprint through water and energy management, the overall sustainable production and the anticipation of consumers' demands.

Alcohol free and No Low drinks here to stay

The wording "No Low drinks" refers to non-alcoholic aperitifs, often called "alcohol-free alternatives" on drink menus. By definition, No Low drinks refer to all alternatives to alcoholic beverages with "no" and "low" alcohol. This recent category of drinks is

conquering the market and challenging alcoholic beverage choices. The first example comes from GEA. Its AromaPlus Pro is dedicated to alcohol-free beer and virtually eliminates freshwater from the dealcoholisation process by using membrane-based filtration. In addition, beverage producers can use the byproduct, the alcoholic base, to produce alcoholic beverages such as hard seltzers.

The new generation of No Low beverages not only includes alcohol-free beer. Wine and an ever-growing number of spirit alternatives are reaching the supermarket shelves. No Low producers have discovered innovative techniques for production, bottling, and sealing processes. Experts from Rotkaeppchen, for instance, have been producing alcohol-free sparkling and still wine, for years. The "spinning cone technology" evaporates alcohol at 35°C. Kolonne null also offers alcohol-free and low-calorie varieties of wine. Laori focuses on gin and rum alternatives, with high-quality aesthetics and natural flavours.

Sugar-free drinks and sugar reduced juice

Thanks to a patented enzymatic process, GEA's Better Juice Sugar Converter Skid is the world's first solution that naturally reduces the sugar content of fruit drinks by up to 80 per cent. This is done without affecting its nutritional value or authentic taste. The juice flows continuously through a bioreactor containing GMO-free, immobilised microorganisms which convert simple sugars into prebiotic, non-digestible molecules that benefit the intestinal flora. As a result, the GEA Better Juice Sugar Converter Skid succeeds in removing up to 80 per cent of the sugar in natural fruit juices, concentrates as well as fruit-based mixtures, such as purees. Nutritional value and authentic taste are not impacted. By the end of 2021, the partners won their first commercial order from a company in the US where the system creates juices with much less sugar.

Oats drinks production - similar to brewing

Krones' main focus in plant-based drinks is on the production of oat-based beverages. Just ten years ago, plant-based drinks were still a niche product. Today they're filling the shelves with a colourful array of products. This sheer diversity is also

From left: Oat drinks, GEA dealcoholisation unit, low-no samples, and Austria Juice
Image credit: Krones/D. Huret



reflected in the processing methods for the various raw materials used because each one possesses certain properties that must be taken into account.

“Krones offer three different process variants, with a ready-made oat base, using oatmeal and whole oats kernels or flakes. The beer brewing has many similarities to plant-based drinks, both processes have a lot in common. Like barley or wheat, oats are grains that are milled and then vigorously blended with water and, later, with enzymes and other ingredients, in a special enzyme tank to create a homogeneous liquid. The choice of the adequate equipment depends among other things of the existing ones and of course of the scale and type of production planned,” says Roland Feiner head of processing units Krones.

Customers' needs always evolving

On the Sidel booth, Guillaume Rolland, VP PET & Sensitive Portfolio explains: “Customers were very interested in solutions for sensitive products (liquid dairy products, juices, nectars, teas etc...) with many of them interested in investing in aseptic technology. Our new Aseptic Predis X4 solution, is an integrated blow-fill-cap solution that incorporates consolidated Predis dry preform sterilisation. As always, these customers are focused on food safety and quality, alongside easy-to-use solutions that allow them to be extremely flexible, giving them the ability to produce many different types of bottled products on their line.”

Cold brew and responsible sourcing on the coffee side

One of the largest instant coffee manufacturers in the world is Deutsche EXT Kaffee (DEK), a core Cafea Group company. Based in Hamburg, it manages the production and distribution of instant coffees and coffee drinks with milk, grain coffees, drinking chocolates and capsules.

“Cold brew is our main focus and in terms of sales, Europe is lagging behind the US and Asia,” explains Cremer from DEK sales director B2B. “This summer's hot weather in Europe was favourable to coffee cold brews, especially with younger generations. Cold brew has a market potential for them, because it goes very well with vegan milk. But older consumers are reluctant to change their beloved coffee. This remains a conservative drink for many Germans, Italians, and French. The millennial audience and today's Gen Z are highly savvy and technically engaged. To meet their desires and aspirations remains a challenge”.

Drinks with botanicals reflects search for holistic well-being

German Bavarian company MartinBauer specialises




in Botanical products.

“Our core market is tea leaf (70 per cent) where we are sourcing major beverages companies in B2B. But 30 per cent of our business is tea extracts with added flavours. We noticed recently a higher demand for botanicals for energy drinks. One of our last products is a botanical energy drink with only botanical extracts and no taurine, theine or caffeine,” says Sarah Wolf-Juergens, marketing manager at MartinBauer. In the last two years, MartinBauer invested in Power Brands, a Californian beverage developer, strong in formulation and Core Botanica, a leading manufacturer of customised mint leaf products in North America.

And green tea extracts key for functional and active nutrition

High quality Japanese Green tea extract is German SME Taiyo's core business. The company offers clinically proven nutritional benefits of green tea antioxidants and natural-based functional ingredients for the food and beverage industries but also the medical and pharmaceutical industries.

“We are catering for today's beverage trends such as probiotic and functional drinks. One of our last innovative beverage concepts is a so-called Sleepwater, which is specially designed for consumers who have difficulty falling asleep or sleeping through the night: L-theanine promotes relaxation and helps reduce stress. This supports the body's regeneration, the immune system and energy levels. With Sunphenon® TH30, Taiyo offers a high-quality green tea extract that contains 30 per cent pure L-theanine, the amino acid found in the leaves of the green tea plant *Camellia Sinensis*,” explains Taiyo's product manager, Kai Schmidt. 

Top: Krones, Better Juice team, GEA Dealcoholisation unit
Image credit: D. Huret