

Golden needles among haystacks

Known as the world's biggest show on packaging in the world, Interpack took place in early May in Düsseldorf, Germany. With 18 halls, 2,800 exhibitors, 140,000 visitors including one third of foreigners, all to remind every visitor the importance of the sector. In the six year gap since the last edition, packaging has become a central topic while equipment manufacturers have made significant progress thanks to intense R&D, multiple cross-sectoral collaboration and robust automation. Cherry-picking for innovation at such a huge show is a challenging task. But journalist Dominique Huret from Cape Decision made a selection of equipment for the snacks, food and drinks sectors.

It always starts with savoury

Headquartered in Australia with 40 years of experience, the global actor in food processing and packaging solutions **TNA solutions** has installed more than 14,000 systems in over 120 countries. For the first time in Europe, TNA has exhibited its last version of its flagship vertical form fill and seal (VFFS) packaging system, the TNA Robag 3e. Complemented by the TNA auto-splice 3, production uptime can be up by five per cent with only a 200mm increase in overall floor space. The integrated software relays information from the TNA checkweigher or from the product in-seal inspection to inform operators on the optimal weighing bucket configuration for prompt troubleshooting, significantly reducing rejects, product and material waste. As a result, snack manufacturers can now produce up to 2,800 more bags per line per day with minimal downtime.

German Theegarten-Pactec showcased its modular high speed wrapping machine for preformed products in



Arol Closure expert lab
Image credit: D Huret

flow packs. Claiming to pack 4,000 chiclets flow packs per minute, the FPH5 packaging machine achieves this output by packaging multiple pieces in one pack and also enables the production of product chains. This modular high speed wrapping machine is designed for preformed products in flow packs. These can be done with cold or heat sealable foil while the wrapping material speed is up to 140 m per minute. The flexible designs allow different assembly

groups, while the machine can be tailor-made to the customer needs. Thanks to high automatic operation, several machines can be handled by one operator. The FPH5 packaging machine can handle products suitable for plate feeding, hard candy, éclair and jelly, up to 2,000 products per minute.

Designer and manufacturer of machines and complete plants, Italian Sacmi presented the **Sacmi HTB**, equipment to wrap chocolate tablets and bars. Called a new "electronic r-evolution", it was presented at the end of 2022 and aims at revolutionising wrapping technology by taking an all-electronic approach that, for the very first time, replaces a purely mechanical design. With the highest speed on the market, manufacturers can make 250 tablets per minute, without any damage to the wrapping and/or processed product. The machine design lets producers handle even the most delicate products in high-speed sequences. HTB-made tablets feature a double wrap: an inner one sealed on three sides and an outer one, either in pre-cut cardboard or in envelope style, made of pre-cut paper >



Ima Synkro
Image credit: D Huret

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or detached directly from reels. As for sustainability and energy recovery, the equipment lets users retrieve energy in a circular manner.

The Italian **Coesia** gathers a group of companies specialised in innovative industrial and packaging solutions. Greenmatom is its response to the current trend prompted by consumer demands towards reusable and recyclable packaging solutions. One of Coesia's answers is SM+ created by **Volpak**, one of their companies specialised in the production of packaging lines for horizontal form-fill-seal pouches, especially dedicated to customers with very tight time-to-market needs and highly variable productions in both product and format. Equipped with cutting-edge magnet-based conveyor technology, the SM+ is designed to be a modular solution, enabling a flexible configuration of its fully independent stations that aligns the overall performance. Versatility is achieved through fully automatic changeover and quick format adjustments which can manage the production of small batches of different products. The SM+ being displayed at Interpack was a pre-made pouch solution, where ready-made pouches could be seen filled and sealed. The main assets are quick and automatic changeover, easy switch to different pouch styles and products including customised smaller batches, minimum waste and the SM+'s modular design which ensures that each machine station can

be turned on and off in accordance with production needs.

Leading in global manufacturing, **Karville** provides converting & packaging machinery solutions for shrink sleeves, pouches, and flexible Packaging. Through a combination of Karville-owned manufacturing facilities and strategic manufacturing ventures, they offer a wide range of machinery solutions for lamination, slitting, pouch filling and sealing, shrink sleeves converting, application and tunnels. In partnership with HP Indigo, they operate the Digital Pouch Factories inside HP Atlanta and Barcelona GECS. Karville Packaging focuses on brands and copackers and supports Karville Converting customers with shrink sleeves and pouch packaging projects. At Interpack, Karville Packaging showcased two fillers: a fill & seal zipper pouch filler as well as fill through the spout liquid pouch filler. On display for shrink sleeves was an application machine to be configured for either Steam or Tornado Heat Technology Tunnel. As part of growth and commitment to the business, Karville will soon re-open its new state-of-the-art Technology Center in Miami, Florida.

Bubbles, soft drinks and coffee – the drinks are not forgotten

Definitely a must see from the show was **Ima Synkro**, the high-speed



Sacmi HTB line

Image credit: Messe Düsseldorf

capsule filling and sealing machine. Italian Ima Coffee develops solutions to enhance the performance of their customers and push back the boundaries of capsule filling and sealing. The equipment boasts high-speed performance, space-efficient design, and wide flexibility in handling diverse types of capsules in various materials. The machine's footprint is relatively small for the high processing speeds, ranging from 800 to 1200 ppm.

Thanks to magnetic shuttles operating independently of one another, Synkro will adapt to different needs: bulk-fed, trays or stacks with capsules in various materials or sizes. The customer sets parameters according to the production scenario, adjusting each single operation and optimising the final product quality. This can be sealing system parameters which are time and pressure. These can be changed according to the material to be sealed, allowing customers to select the most appropriate solution based on materials used and the product they are processing.

A sparkling wine bottle in PET, designed and produced by processing technology and container design company **Sipa** was another highlight. Not only an innovative concept, breaking down barriers in the market for PET, but also a solution to diverse recent supply chain problems, including spiralling costs for energy, raw materials and glass bottles, which are harder to find and sometimes 30 per cent more expensive for wine makers. On the Sipa stand was the 48-cavity mould for



Sidel RoboAccess

Image credit: D Huret

wine bottle preforms, as well as a wine bottle blow mould. A key part of innovation is the bottleneck, which looks just like the glass version, meaning that it accepts the classical mushroom-shaped cork with its metal cage. The base also looks the same as the original. The design provides a top-load resistance of 350kg. Consumers will experience the same sensual experience with the new PET bottles, from uncorking to pouring. But the PET versions are much lighter, at just 90g, and virtually unbreakable. That is also great for operators along the changing supply chain, as sales via e-commerce and home delivery continue to rise. A French bottle maker recently began commercial production of PET bottles for a major Italian wine maker, using moulds and stretch-blow moulding equipment from Sipa.

French company **Sidel**, revealed its **Cermex ProSelex** case packing infeed module for shaped containers. This is the new generation of its flexible collating system for complex unstable bottles. This gentle, streamlined grouping device is designed to associate with any type of case packer and will deliver



tna Robag
Image credit: Messe Düsseldorf



Sipa Roberta Gualtieri, marketing manager with PET bottle
Image credit: D Huret

efficiency, availability and operability. Acting as an integrated module of a case packer that is receiving products upstream from one lane, the Cermex ProSelex continuously pitches, collates and prepares the container batches before they are transferred and case packed. Based on a kinematic process, it improves the performance of the previous module with an increased speed capability of up to 300 products per minute, in addition to a more compact footprint. Better productivity as well, as an average changeover lasts between one minute for a new collation, 2 minutes 30 seconds for a complete bottle change. Also presented was the palletising unit **RoboAcces Pal S**, which combines cobotic and robotic. It delivers speeds of up to 12 cycles per minute and enables a case payload of up to 25kg. The palletising solution offers a new level of compactness with a footprint of less than 12m² for two stations with a significant pallet height of 1.700mm. And finally, among other innovations, **Arol** presented its **ClosureXpertLab**, an automatic capping test unit for pre-threaded caps and preforms. The objective is to understand the important relationships between caps, preforms, environmental

and process parameters and their effects on the capping process as well as the removal torque. Indeed, cap dimensions, materials type being virgin or recycled, colours, temperature, etc., can alternate the capping process. Feedback from inspection is sent back to the equipment for optimal operations. [enr](#)



Vopak F Testarella CEO Volpak Coesia consumer market solution.
Image credit: D Huret