



AHEAD

OF THE PACK

The global quest for Covid solutions is a continuing challenge, not only for the pharmaceutical companies but also for their packaging suppliers, with high-tech Swiss-based Fischer Söhne among the fore runners. “We are an all-in-one solution provider,” said CEO, Iwan Tresch. Colin Chinery reports.



Part-driven by the surge in Covid-19 vaccination campaigns, the global pharmaceutical packaging equipment market is forecast to reach \$10.4 billion by 2025 – a remarkable annual compound growth rate of 7.4%.

Companies engaged in vaccines development are signing agreements for syringes and vials to package Covid-19 vaccines, with the packaging equipment industry accelerating output to meet order books.

“Demand for Covid vaccines has certainly increased the need for packaging solutions,” remarked Iwan Tresch, CEO of Swiss-based Fischer Söhne.

Fischer Söhne develops standard or customised plastic containers for food as well as pharmaceutical and chemical products, with the pharma and medical segment now accounting for 40% of company turnover and rising.

Safe and secure

The pharmaceutical industry demands safe and secure packaging to maintain identification and stability of drugs. The packaging must provide proper protection and reduce the risk of contamination.

Within just a few months, certain pharmaceutical companies – now household names as a result – have produced hundreds of millions of doses of Covid-19 vaccine. But the world needs billions – and as fast as possible. After all, the vaccines require quality-exact packaging.

And in a recent move at Fischer Söhne, this 98-year-old family business is now supplying the North American vaccine market with plastic nest and tub packaging solutions for injection vials,





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Iwan Tresch, CEO



manufactured using cleanroom technology, following an agreement with SiO2 Medical Products of Alabama.

It is a partnership secured by quality, reputation and agility. In a quickly shifting pandemic scene, pharma companies are looking for packaging operators able to meet their needs rapidly and flexibly, despite coronavirus-related restrictions such as lockdowns.

Fischer Söhne is a clear choice, deploying fully automatic packaging, unmanned production stages, high closing forces and individual end-product packaging solutions. It is currently doing so in an around the clock, continuous four-shift operation.

Rapid adaptation

"As a flexible SME, we were able to quickly adapt our production, and SiO2 appreciates our technological know-how and short delivery times," said Mr Tresch.

"The nest and tub packaging we are sending to SiO2 is manufactured using cleanroom technology. And our cleanroom production runs around the clock, which is why we are always ready to deliver, for smaller, and also for very large quantities."

Based in the greater area of Zürich, Fischer Söhne is a leading provider of extrusion blow moulding and injection moulding solutions for the European market, producing packaging from one to 60 litres in any size, shape and colour.

Pharmaceutical packaging, used for the protection and storage of drugs and identification of and marketing of brands, is classified as primary, secondary and tertiary. The material surrounding the product is primary, and the secondary and tertiary packaging provide additional external protection and labelling.

With an emphasis on secondary packaging systems, using polypropylene, polystyrene, and polysulfone, Fischer Söhne has

been delivering ready-to-use solutions in accordance with cleanroom class GMP C (ISO 7) for more than 20 years, producing piston rods for syringes and secretion containers, as well as tubs and nests.

Tubs and nests – cleanroom certified GMP C (ISO7) – are produced on single or double moulds. Once removed fully automatically from the injection moulding machines, they are then stacked, packaged and labelled while still under cleanroom conditions.

"In this way, they arrive safely at the customer's automatic placement machines, which can in turn fill vials or syringes aseptically, and package medications sterilely," detailed Mr Tresch.

Pure and compliant

He added: "We ensure absolute purity of the product and contamination-free injection into the filling lines of our customers, with reliable validation processes and compliance with the latest regulations."

Throughout this entire process, the tubs and nests prevent scratch marks, broken glass, and particle contamination, which means manufacturers can reduce the number of filling lines needed to produce various drugs, and so reducing total-cost-of-ownership.

And because of high precision and dimensional stability, Fischer Söhne customers can increase the processing speed and output of their systems.

To keep up with constant growth, the company last year expanded its cleanroom capability with two additional injection moulding machines, a €2.25 million investment involving Swiss-based Sepro Robotique.

"Sepro is a specialist in robots and automation for the injection moulding industry, and an important partner for us." ❧



This brings the number of cleanroom injection moulding machines to 10, some with 500 tonnes of available locking power, enabling Fischer Söhne to develop, design and ultimately manufacture larger packaging solutions.

Heavyweight USP

"Usually, you can find forces of up to 100 and 150 tonnes, but having 500 tonnes in the cleanroom area is very much a USP for us," said Mr Tresch.

As an integral solution provider for every stage of the development process, including industrialisation and production, Fischer Söhne's specific technical and regulatory knowledge enables it to develop tailor-made products.

"Starting from the initial concept phase up to the final product, we provide a competent and integral service at every stage of the product lifecycle," asserted Mr Tresch. "We have the full solutions provider mindset, from development, production and finishing, with our logistics partner sending our products directly to the customer.

"In carrying out a project, we ensure the products entirely fulfil the customer's requirements, and that time to market is as short as possible. In the development phase, we make sure we identify each product's most secure, efficient and effective manufacturing process."

As well as advanced production techniques, the company is also known for its sustainable plastic solutions, and here the importance of eco-conscious pharmaceutical packaging must strike the right balance between compliance with regulations, costs and quality.

Packaging challenges

As the dynamics of the pharmaceutical industry are disrupted by the pandemic scenario, packaging will undergo major shifts. Increasing use of robotics is one certain route.

Robots work efficiently, without wasting movement or time. And with no breaks or hesitation, they are able to alter productivity by increasing throughput. Robots also have high flexibility, being easily reprogrammed for the packaging applications.

As would be expected, Fischer Söhne is well advanced down the robotic channel.

"We try to avoid manual touching of parts especially in the cleanroom area," said Mr Tresch. "Each machine has a handling or robotics system which takes the parts out and places them in bags to reduce contamination.

"We also plan to increase our provision in the life science market, high-end products in cleanroom areas, with a high degree of automation," he revealed.

The company's geographical market is largely localised, with Switzerland dominant, followed by the European Union, notably Germany and Italy. "We now have a customer in the United States, and after that, let's see what comes," commented the CEO.

In the meantime, Covid continues to keep the world in suspense, with people across the globe anxious for rapid solutions. It is a challenge not only for the pharmaceutical industry, but also for its suppliers.

With its century-long pedigree and certified high-tech 24/7 operation, Fischer Söhne will continue to grow as a key player.

All in one solution solver

Mr Tresch summarised: "We are an all-in-one solution provider, with our in-house development department, production, finishing and logistics services. And as well as our own developed products, we also offer comprehensive engineering, logistics and production services.

"If you would like to have a guaranteed, Swiss quality, certified solution provider from start to finish, you have to knock on the door of Fischer Söhne," he concluded. ■