

Definitely sustainable

Packaging vials without plastic – with this requirement Recipharm approached Harro Höfliger. The result was a flexible side-loading system that safely places the sensitive injection vials into folding cartons. Packaged into top-opening cartons, they offer a well-arranged presentation to the user.

Flexible
The technology enables the implementation of diverse product configurations

Saving resources
The use of inlays makes it possible to dispense with plastic

Safe
Inlays prevent sensitive products from touching each other



Environmental protection and sustainability play an increasingly important role in public perception. This topic is also highly relevant for the packaging industry. Although plastics are still necessary in some areas – for example as a barrier in certain medical applications – wherever possible, many manufacturers now rely on materials from renewable resources.

Many different requirements

The idea of sustainability also motivated the contract manufacturer Recipharm when they decided to package their customers' vials without plastic in the future. In the past, plastic blisters were often used for packaging the vials, into which they were inserted before cartoning. Meanwhile, however, many customers intend to focus on mono cardboard packaging and thus a renewable resource.



With mono cardboard packaging, Recipharm focuses on a renewable resource for the packaging of vials.

At the same time it was important for Recipharm to continue to present the vials in top-opening cartons; this type of packaging can be opened conveniently from above.

However, dispensing with plastics and this type of packaging were not Recipharm's only requirements when Harro Höfliger was commissioned to design the new machine: Flexibility also plays a crucial role, because contract manufacturers must be able to adapt quickly to changing requirements. This is why flexible systems are needed that are easy to retrofit – every customer wants a different configuration of the vials in the box. And of course product protection is extremely important for the sensitive vials.

Lateral packaging via side-loading

For Harro Höfliger's packaging experts it quickly became clear that a side-loading machine for the flexible loading of folding

cartons would be ideally suited to Recipharm's requirements. "The use of cardboard inlays makes it possible to dispense with plastic blisters or trays: Inlays are inserts that are loaded with the products and then placed laterally into the folding carton," explains Markus Pfisterer, Division Leader Packaging Technologies at Harro Höfliger. "These inlays prevent the products from touching each other, thus contributing to safe downstream processing – a particular advantage for high-priced and sensitive products such as pens, autoinjectors and vials."

Flexible and resource-saving

A robot feeder ensures the desired flexibility: In the system designed for Recipharm, a pick & place unit picks up the required number of vials and provides for precise insertion into the inlay in the desired configuration. To ensure that the process steps work equally reliably with all the different packaging sizes, Harro Höfliger's experts carried out numerous test loops and optimized them time and again. That way, the processability of all formats could be achieved. In addition to designing the machine, Harro Höfliger's specialists also provided support in the development of the packaging solution. This made it possible to optimally coordinate processes and top-opening folding cartons.

At the beginning of 2020, the system went into operation in Monts, France. It is used for the flexible packaging of vials into various packages of completely different sizes. For Markus Pfisterer, side-loading saves resources in several ways: "On the one hand, we can dispense with plastics during packaging as desired, and on the other hand we also prevent waste thanks to the high level of product protection. Furthermore, because of the simple changeovers, the machine can be used for very different requirements. And last but not least, side-loaders are significantly more cost-effective and space-saving than many comparable packaging machines."

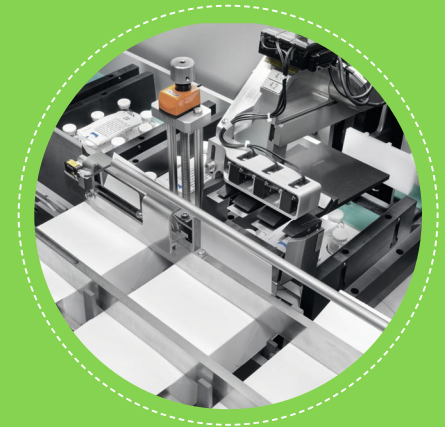
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1
Feeding and erecting pre-glued inlays.



2
Insertion of vials by pick & place.



3
The filled inlay is inserted horizontally into the carton.

About Recipharm



Recipharm is a leading contract development and manufacturing organisation headquartered in Stockholm, Sweden. The CDMO operates development and manufacturing facilities in France, Germany, India, Israel, Italy, Portugal, Spain, Sweden, the UK and the US. Employing around 6,000 people, Recipharm is focused on supporting pharmaceutical companies with a full service offering, taking products from early development through to commercial production.