SPOTLIGHT

Innovating Bulk Pharma Supply to Reduce Environmental Impact

Topa Thermal's Jacques le Comte investigates developments in bulk thermal packaging that reduce CO_2 impact for a more sustainable pharmaceutical cold chain

The drive to reduce the environmental impact of temperature-controlled shipping is undeniable, with companies across the healthcare industry looking to establish environmentally sustainable practices throughout the pharmaceutical cold chain.

Organisations across the pharmaceutical industry are reassessing their processes in order to ensure a greener supply chain that is both reliable and cost-efficient.

Recent green innovations by the thermal packaging industry offer significant opportunities to reduce excess miles in the pharma cold chain, with optimising volumetric efficiency a key sustainable packaging strategy.

New bulk thermal containers and shippers, such as °Connex Overwrap, developed by Topa Thermal, improve space efficiency twofold; first, in terms of increased product capacity inside the container, and second, by increasing the number of shippers that can fit on a single unit load device (ULD).

However, to be a truly practical, sustainable solution, in addition to reducing excess miles overall – and CO_2 impact – sustainable bulk thermal packaging solutions must bring other efficiencies too.

For example, companies using °Connex Overwrap have managed to cut the CO_2 impact of their distribution by a third, and lowered freight costs by as much as 40%. They found it brought many other benefits to their logistics operations as well.

Sustainability Supply Chain Award Finalist 2022 (BSMA), 'Smart Thermal Packaging Solution for Improved Impact on CO_2 Emissions in Bulk Pharma Distribution'

Cut CO_2 Emissions by 31%

Consider the case of a top pharmaceutical manufacturer that wanted to lower the CO_2 impact of its logistics, but, at the same time, maintain the performance and thermal protection that was provided by its current bulkier, heavier container.

Therefore, Topa Thermal applied a total-cost-of-ownership approach to the company's distribution, using the °Connex Overwrap flat-pack pallet shipper. The space and CO_2-saving attributes of the Overwrap's design reduced the CO_2 impact of its logistics, and cut freight costs significantly, as a result of the lower volumetric weight per shipment.

In a year, it cut its CO_2 emissions by 31% and saved around €600,000 in freight costs. As a result, its entire logistics operation is faster, lighter and more efficient.

Reusable Materials, Reduced Weight, Fewer Shipments Needed

In another example, a wholesaler shipping temperature-sensitive

°Connex Overwrap: In Brief

A more efficient, cheaper and sustainable supply chain

°Connex Overwrap is designed and manufactured by Topa Thermal, the Netherlands-based thermal packaging innovator. It offers a more sustainable, logistically efficient and economic solution for shipping temperature-sensitive healthcare products in bulk.

Compared to traditional thermal pallet packaging systems, the slimline, special coolant-wall design of the Overwrap creates additional payload capacity, but from a much smaller, lighter container. With a 55% loadable shipping ratio, it has the highest payload-versus-outside-dimensions ratio of all passive and active shippers on the market.

It is also design- and shape-optimised for easier and better freight handling and loading.

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pharmaceuticals from Europe to Canada needed a cost-effective thermal shipper that performed at 15°C-25°C for +120 hours, meeting the demands of international shipping, but at the right price.

By using °Connex Overwrap, the company reduced the overall CO_2 impact of its distribution thanks to the Overwrap shipper's lightweight, high-capacity design, made from sustainable and reusable materials.

In addition to achieving sustainability goals, the wholesaler was able to cut overall shipping costs by 40% and nearly doubled shipping duration from four to seven days. Plus, packing time was halved because the Overwrap is very light, has fewer components and can be assembled by one person.

Across the Pharma Supply Chain, CO_2 Impact and Logistics Costs Down

There are environmental achievements for the logistics side of the life sciences cold chain, too. One 3PL provider needed an alternative, more sustainable, thermal packaging solution to deliver temperature-sensitive pharmaceuticals safely and cost-effectively from the UK to the US.

°Connex Overwrap cut the billable weight of each shipment by a third. This is because it is 35% smaller and much lighter than conventional quarter-PMC solutions, but has the same payload capacity. In terms of freight costs, in addition to lower billable weight, freight costs are cut even further by shipping more product per load.

Furthermore, °Connex Overwrap means added handling efficiencies for the 3PL, being quicker to pack and size-optimised for direct-to-rollerbed loading.

Clearly, reducing environmental impact in the medical cold chain is achievable and °Connex Overwrap has confirmed sustainability, as well as economic benefits, for pharmaceutical distribution.

It is unsurprising, therefore, that innovations in sustainable thermal packaging solutions that combine both cost and environmental benefits are rapidly gaining a foothold within the pharma cold chain market.

Ultimately, in the case of °Connex Overwrap, its superior load efficiency means more life-saving treatments can reach more patients more efficiently.

Jacques le Comte is business development manager at **Topa Thermal**.

A specialist in logistics and operational management, Jacques has employed his expertise to a variety of business sectors. In his role he listens to, and works closely with, customers and stakeholders across the pharmaceutical cold chain to find them the right thermal packaging solution.

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