

# SPOT-ON!

At first glance, Uhlmann project no. 999108540 for secondary packing of parenteral products appears nothing out of the ordinary: Vials are inserted into blisters using a LiPro feeder and the blisters are then packed into folding cartons. But look closely and you'll see what makes it special: The feeder is integrated into the cartoner itself – opening up new, universal possibilities. For example, for packing parenteral products directly into folding cartons in an environmentally friendly way. Or, as seen in the custom project for Octapharma Dessau GmbH, for the productive processing of single doses of a medication in combination blisters. »



**An Uhlmann C 2155 cartoner, the innovative solution for Octapharma, “is something truly special” in the words of Project Manager Manfred Groß.**

And he’s not wrong: The line created for Octapharma’s international packing and logistics center incorporates many new, innovative features: A robotic cell with automatically changing grippers for every blister format. A rotating chute for safely turning blisters through 180°. A pick-and-place robot, which uses VisioRead camera technology to identify the exact position of each blister on the conveyor belt, enabling it to pick up with precision. Vials are fed directly into the cartoner. Those are just some of the features that make this solution so special. And that’s exactly what makes it so interesting for other applications.

For Sales Manager Christian Rotter, the initial contact with Octapharma was “simply a friendly chat at a trade fair stand”. But for Hermann Krenn, Head of PMO VI&P at Octapharma’s headquarters in Austria, it soon became clear that “They can do it!” It wasn’t until his first meeting in the Bauhaus city of Dessau that Christian Rotter would learn what exactly “it” was: Octapharma needed a new packaging line at its center for international packing and global distribution. The line needed to be able to fill blisters with vials and pack them into folding cartons together with other components. However, this was not to be in the standard combination of blister machine and cartoner, but rather in one single packing solution with just one cartoner.

This is because the blisters are already filled and sealed with butterfly canulas for supply, transfer system and injection. On the line, a vial with WFI (Water for Injection) is inserted outside in a trough in the blister and fixed in place there. Then, an alcohol pad set is added to each combination blister.

“ From the very first meeting, we simply knew we’d found the right partner in Uhlmann. And over the course of the project, and above all now with production in full swing, our instinct has been proven correct.

Hermann Krenn, Head of PMO VI&P Octapharma



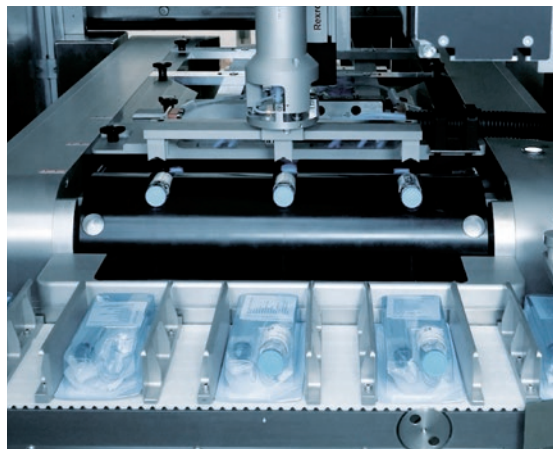
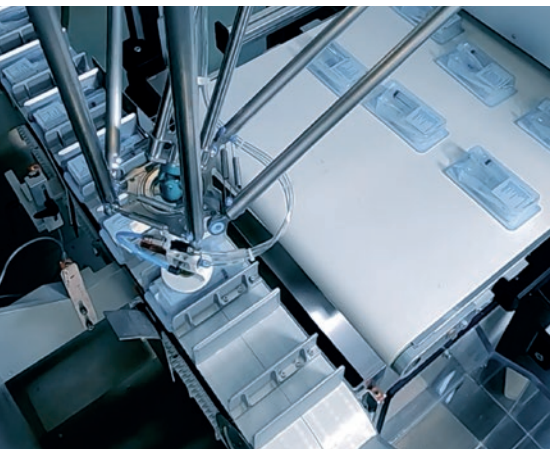
**Reliable, gentle, automated – the packing process for the combination blister:**

Blisters are lifted from conveyor belt and accurately inserted in the product chain by pick-and-place robots

LiPro system for feeding vials handles product gently

Compact rotating unit for turning the blisters through 180°

A sensor checks customer’s internal codes are present



Video of the line >>

## “ It all began with a basic sketch...

Uhlmann Sales Manager Christian Rotter tells us about a complex yet uncomplicated project and the benefits this solution presents to other pharmaceutical companies

### Mr Rotter, how did the first Octapharma contract come about?

Our initial contact at the trade fair was soon followed up with a first meeting in Dessau, where we brought little more than a line drawing with us. Then after that we had a reference visit to one of our customers. As soon as Hermann Krenn, Head of PMO VI&P at Octapharma, and Thomas Braun, Head of Tool Setter had seen one of our lines in action, any initial skepticism that they couldn't afford an „Uhlmann“ was quickly dismissed. Because each individual line incorporates so much technical expertise, so much experience, which pays off in daily packing tasks: The customer is provided with a turnkey solution that suits their requirements to the smallest detail, in which all the components work in perfect harmony.

### How did the project progress from there?

It was all blissfully uncomplicated. Manfred Groß and his team did a fantastic job. During the construction phase, in particular, our experts demonstrated the true extent of their skills, their innovative prowess and also that they can implement it all exactly as planned. Before we had even delivered the line, we were commissioned for another job for Octapharma's packaging and logistics center – which, I think, speaks volumes.

### How might this line with the LiPro feeding system in the cartoner appeal to other customers?

Firstly, it allows complex pack shapes such as combination blisters made from prefabricated and additional elements to be realized inside the cartoner itself. And secondly, it enables us to respond to the ever growing demand for environmentally-friendly, plastic-free packing of parenteral products directly into folding cartons.

Christian Rotter  
Sales Manager  
Phone +49 7392 702-6237  
Mobile +49 151 4224 1941  
rotter.c@uhlmann.de



Finally, all components are pushed into the folding carton at once. The team, led by Project Manager Manfred Groß, rose to the challenge of this complex brief with a highly automated, non-stop packing process, including inspection systems at all relevant positions.

## Reliable, gentle and automated

### Automated: Separation of blister sheets.


Shipping cartons with prefabricated, pre-filled and sealed blisters are brought to the robotic cell by conveyor belt. On the shaped side of the blisters is an indentation for the vial to be inserted. The Stäubli TX90 takes one sheet per pick and places the blisters upside down on a conveyor belt. Added productivity: The robot has a dedicated gripper for each of the two blister formats and switches between them independently. In the downstream rotating chute, the blisters are rotated through 180° and transferred to the C 2155 cartoner.

### Fast and precise: Placement of blisters.

If the blisters are lying in uneven rows on the conveyor belt, a VisioRead camera identifies the exact position of each blister







“ Whether we are integrating the LiPro feeding system into the blister machine or into the cartoner, it makes no difference to us. What does matter to us is that it functions perfectly ... and it achieves just that.

Manfred Groß, Project Manager

and sends this information to the pick-and-place robot. The Elau P2 lifts the blisters up one by one and places them precisely in the cartoner's product chain – achieving up to 80 picks per minute.

**Gentle and reliable: Feed of vials.** The vials with WFI (Water for Injection) reach the product chain sporadically in groups of three. They are picked up and carefully inserted in the indentations in the top side of the blister “from outside” by a tried-and-tested LiPro feeder. The insertion unit then fixes the vials in place. For further processing, the blisters are turned through 180° again in a rotating unit within a small space.

**Always productive: Feed of additional components and product insertion.** A sensor checks a blister is present. If a blister is found, an alcohol pad is applied; if the cell is empty, the cycle is skipped. If required, a pack information leaflet is added, then all components are inserted into the folding carton. All in a single process step, turning out up to 80 folding cartons per minute.

## octapharma® For the safe and optimal use of human proteins

Octapharma AG, headquartered in Lachen on the Upper Lake Zürich, specializes in developing and manufacturing proteins from human plasma and human cell lines. Their main area of expertise lies in high-purity, virus-inactivating medicines for use in three areas:

- Immunology: Antibody deficiencies, auto-immune diseases, Rhesus prophylaxis
- Bleeding disorders: e.g. hemophilia
- Intensive care medicine: Complex coagulation disorders

Octapharma employs more than 9,000 employees around the world, and their products are used in 118 countries. Besides its seven R&D facilities, the group of companies also operates six ultra-modern production sites across Europe and Mexico. Octapharma Dessau GmbH packs and distributes life-saving drugs on a global scale.

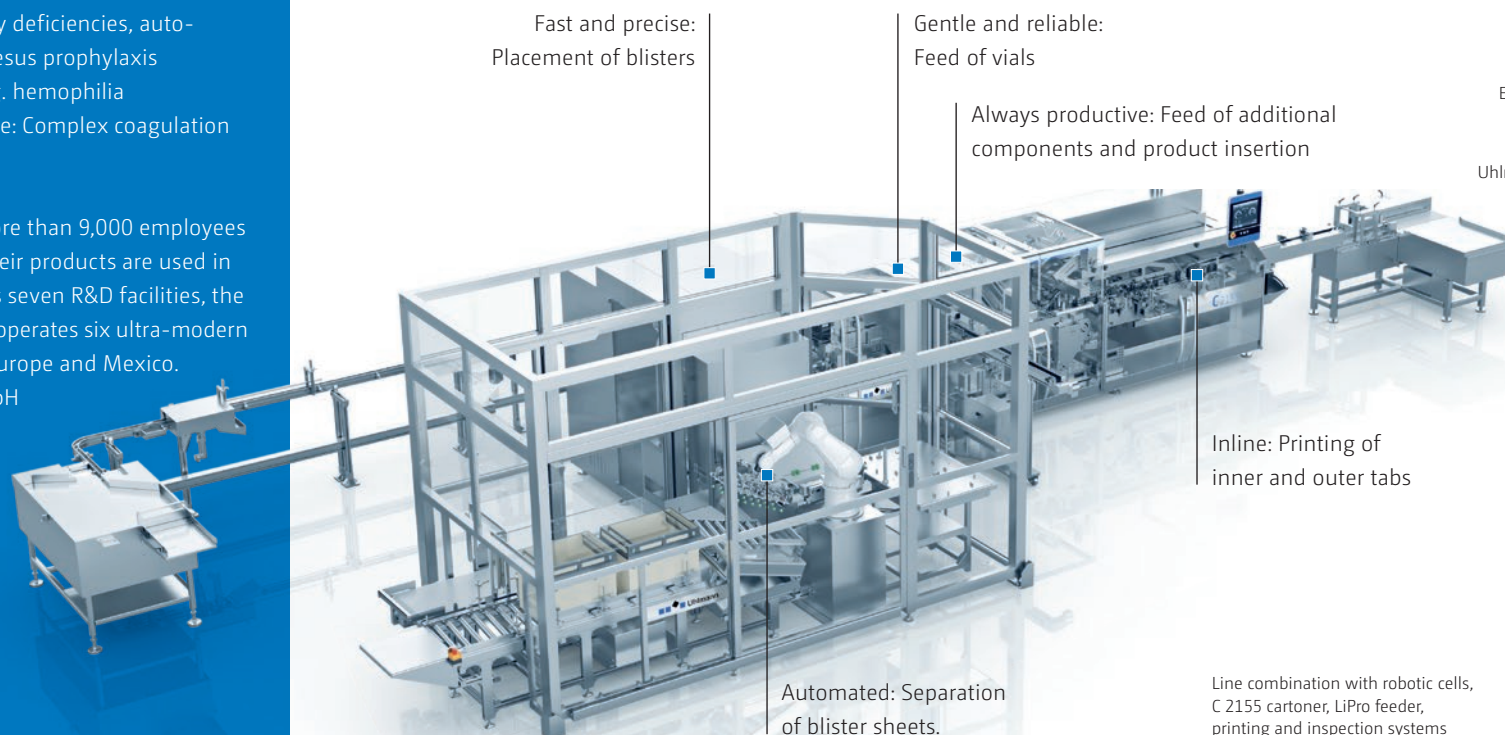
### Inline: Printing of inner and outer tabs.

Two printing systems are integrated in the cartoner's closing station. The first marks the folding carton's inner tab with a customer-specific in-house code, the second marks the outer tab with consumer-relevant information. A VisioRead camera checks this printing.

Finally the folding cartons are discharged from the process in rows and manually packed into transit cases.

### SAT and validation complete, line keeps running.

The combination of the C 2155 cartoner, LiPro feeder and that "something truly special" has been in operation since July 2020. The line packs two different blisters in two sheets in five different packaging configurations. And the Laupheim-based specialists in customer-tailored projects are already working on the next line for Octapharma – a combination of an end-of-line packaging machine and Uhlmann Serialization Platform.



Fast and precise:  
Placement of blisters

Gentle and reliable:  
Feed of vials

Always productive: Feed of additional  
components and product insertion

Inline: Printing of  
inner and outer tabs

Automated: Separation  
of blister sheets.

Line combination with robotic cells,  
C 2155 cartoner, LiPro feeder,  
printing and inspection systems

#### close-up online

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Marion Neubrand  
Phone: +49 (0) 7392 702 8648  
neubrand.m@uhlmann.de

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Marisa Arzt, Stuttgart, Germany

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