

This is how MVC is boosting its vaccine package

The packaging of new vaccines and biosimilars presents pharmaceutical producers with special challenges, for example in terms of refrigeration.

What's more, with COVID-19 there are high time pressures and large production volumes to deal with.

To be able to cope with these requirements, Medigen Vaccine Biologics Corporation (MVC) teamed up with Uhlmann.



Like a booster for pharma packaging: with the Site Acceptance Test (SAT) in December 2021, MVC set the stage for packaging a large number of pre-filled syringes with COVID-19 vaccine using the BLU 200 blister line and C 200 cartoner.

Medigen Vaccine Biologics Corporation – MVC for short – is the rising star in Taiwan’s pharmaceutical industry. Founded in 2009, the company only recently hired its 100th employee. But the plan to become one of the

leading vaccine and biosimilar producers is quite realistic: MVC’s COVID-19 vaccine was selected by WHO as one of two vaccines for a global Phase III trial and will be approved in the second quarter 2022.

How has Tab Kao, Facility Manager & Director at MVC found the past few months? “We have pulled out all the stops to develop novel vaccines and hope to help fight the pandemic – both in Taiwan and around the world,” he reports. To this end, MVC has a high-speed line in operation for peak filling. MVC now needed the right pharmaceutical packaging machine to quickly and safely package the large volume of prefilled disposable syringes.

Maximum speed and product safety in Pharma Packaging

Besides high speed, safety and production capacity, MVC had other requirements for the new line. “We wanted not only to protect the product, but also to emphasize its value through appropriate packaging,” says Kao. For MVC, therefore, the only option was a combination of plastic clamp blister and folding box.



In addition, MVC had other criteria it needed the new pharmaceutical packaging line to meet:

- quick, stable packing,
- high efficiency,
- low production costs
- and above all the protection of sensitive products from heat, especially during sealing.

Following a closely timed selection process, MVC opted for the BLU 200 blister line, the C 200 cartoner and a partnership with Uhlmann. What tipped the scales? “First, the design of the entire line is top-end. And it is much more compact than comparable lines, so we have more space available in our packaging area. Equally important for us were the experience and service. For example, Uhlmann is already familiar with the assembly of the plungers

used and the labeling of the syringes,” explains Kao.

The line has been in operation at the MVC site in Hsinchu Biomedical Science Park since March 2022. The company’s employees are full of praise: the blister line is well thought out and all points have been taken into account from the operator’s point of view. The fast format changes and time-saving functionalities, for example those for changing the film rolls all serve to make work easier. The cooling of the products during and after sealing and the automatic inspection via camera systems are also seen as positive factors – allowing MVC to achieve the desired quality.

Currently, in January 2022, vaccine production and packaging is not yet at full capacity.

This will change quickly once the vaccine is approved. In the meantime, MVC is preparing the integration of a Track & Trace system – together with its new partner, Uhlmann. “We are sure that this will not be the last joint project,” Tab Kao emphasizes. “For us, Uhlmann will be the first choice for our future pharma packaging needs.”

“ The design of the BLU 200 line is first class. Equally important are experience and service. That’s why Uhlmann is our first choice for pharma packaging.

**Tab Kao. Facility Manager & Director
Medigen Vaccine Biologics Corporation**

Support all along the line: MVC benefits from Uhlmann’s service and experience both during conception and during installation, site acceptance testing, commissioning and maintenance.



Tab Kao,
Facility Manager &
Director Medigen Vaccine
Biologics Corporation



MVC is a biopharmaceutical company that uses cell-based technologies to develop new vaccines and biosimilars. With the goal of national self-sufficiency, MVC also aims to provide vaccines and biopharmaceuticals to meet regional needs and to help curb the threat of infectious diseases worldwide. MVC's pipe-line includes an enterovirus EV71 vaccine, a dengue vaccine and a quadrivalent influenza vaccine, all of which are in late-stage clinical trials. MVC's large-scale production facility is state of the art. For more information please visit www.medigenvac.com



“ Our confidence in the Uhlmann service is high

It wasn't just the blister line, but also Uhlmann's service that left a positive impression on Tab Kao, Facility Manager & Director at Medigen Vaccine Biologics Corporation (MVC). In this interview, he reports how MVC, together with experts from Uhlmann and Booster Autotech, has increased its capacity for vaccine packaging.

In your view, what was exceptional about the service provided by Uhlmann?

The commitment and the operational readiness. For example, the Uhlmann engineers who were prepared to come to Taiwan for the site acceptance test, although they had to spend 14 days in quarantine to be allowed to enter. This attitude has convinced us that Uhlmann will continue to provide great service in the future. We have great faith in Uhlmann's service!

Were there further requirements for which the Uhlmann experts provided support?

Uhlmann has developed a blister concept in which the syringes are arranged in different directions. As a result, more syringes can fit into a small blister, which not only reduces the use of plastics but also lowers material costs. In addition, the lower packaging volume of the product results in lower logistics costs. The partnership between Uhlmann and the Taiwanese engineers from Booster Autotech was also helpful.

What advantages did this local partnership bring?

Booster Autotech supported the entire process from a Taiwanese perspective and worked hand in hand with Uhlmann. For example, Booster Autotech engineers supported the site acceptance test and helped translate the user manual into Mandarin. This has made it easier for our operators to learn and work with the equipment.

Customers benefit from local partnership

Since 2018, Uhlmann has maintained a collaboration with its Taiwanese partner, **Booster Autotech**. Under pandemic conditions, the benefits of close cooperation were made demonstrably clear for customers like **MVC**.

More than a sales agent

Many countries have local intermediaries who advise pharmaceutical companies on the purchase of packaging equipment, before pulling out. Booster Autotech goes a decisive step further here: qualified experts familiar with Uhlmann lines accompany the entire installation and then go on to provide maintenance and service on-site.

Support in local language

Booster Autotech's engineering team therefore played an important role in the MVC project – including overcoming organizational challenges. For example, it took care of the entry visas for the Uhlmann engineers, for which numerous documents were required. With their technical expertise, the Booster engineers

took on the role of translator during the installation of the machine as well as the Site Acceptance Test (SAT) and translated the operating manual into Mandarin. MVC will continue to be supported by Booster Autotech in the local language – with support from Uhlmann Singapore.

BOOSTER
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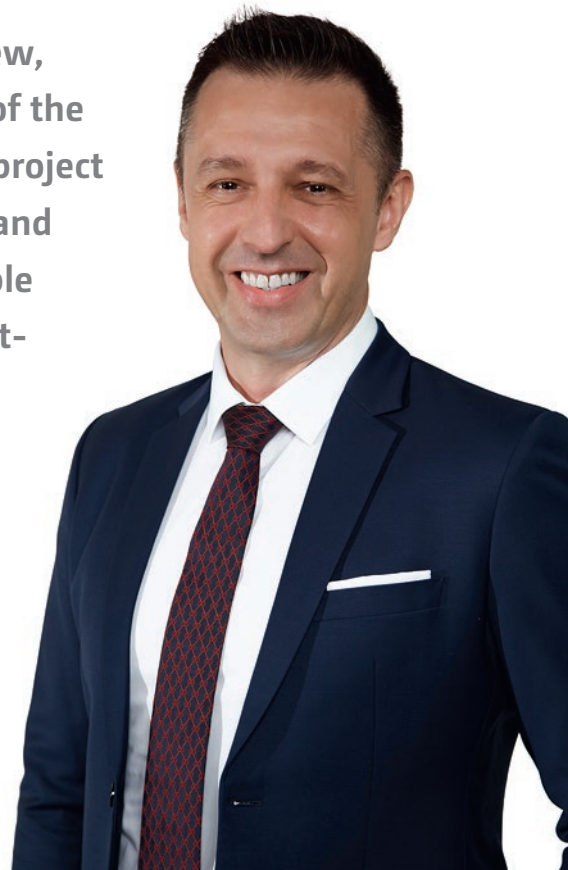
Booster Autotech is based in Taiwan and was founded in 2017. The company, which consists of three technical consultants with more than 30 years' experience and an after-sales team, offers its customers a unique solution: the implementation of high-quality European packaging machines alongside local service.

More about Booster Autotech at www.boosterautotech.com.tw

“ From my point of view, important success factors of the Covid-19 vaccine BLU 200 project were the high motivation and professionalism of all people involved as well as the first-class teamwork between MVC, Booster Autotech and Uhlmann.

Giacomo Rinaldi, Managing Director, Uhlmann Singapore

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Uhlmann Singapore

- **Founded in:** 2001
- **Employees:** 40
- **Services:** Sales consulting, project management, maintenance and services
- **Active territories:** Singapore, Afghanistan, Korea, Indonesia, Laos, Malaysia, Myanmar, Nepal, Pakistan, Sri Lanka, Taiwan, Philippines, Vietnam, Thailand, Bangladesh, New Zealand, Australia

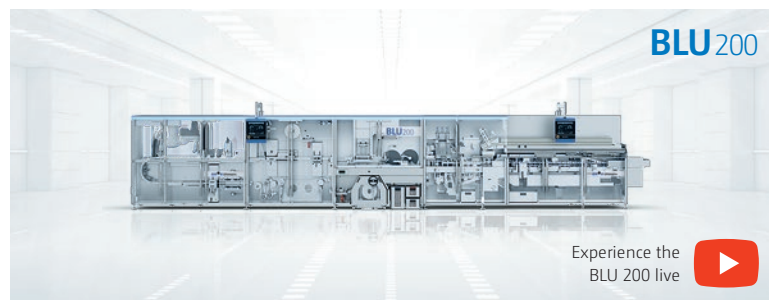
More on Uhlmann Singapore at <https://www.linkedin.com/company/uhlmann-singapore-llp/>



Gentle product handling for maximum productivity

The compact combination of a blister machine and cartoner meets all the important requirements of the pharmaceutical market for the packaging of parenteral products such as vials, ampoules and syringes.

- The powerful complete system packs parenteral products with a high degree of quality and safety.
- Whether syringes, ampoules or vials: the BLU 200 and BLU 400 offer gentle handling for sensitive primary glass packaging.
- The fully automated packaging system allows syringes, application aids, Alko pads and even patient information to be enclosed.
- The Track & Trace integration enables the medical device tracking of individual products all the way from folding boxes, bundles and shipping cartons to the pallet.



Blister module BLU 200	
Sealing principle:	Plate sealing
Mode of operation:	1 to 5 lanes/1 to 2 rows
Performance:	max. 200 blisters/min.
Draw depth:	max. 33 mm
Format range [feed x width]:	max. 173 x 206 mm
Cartoner module C 200	
Performance:	max. 120 or 200* folding boxes/min.
Folding box size [A x W x H]:	max. 180 x 105 x 250 mm and max. 85 x 105 x 205 mm*
Blister stack height:	max. 100 mm
Closure types:	Insert and hot glue closure

Blister module BLU 400	
Sealing principle:	Plate sealing
Mode of operation:	1 to 8 lanes
Performance:	max. 400 blisters/min.
Draw depth:	max. 42 mm
Format range [feed x width]:	max. 195 x 284 mm
Cartoner module C 2305	
Performance:	max. 300 folding boxes/min.
Folding box size [A x W x H]:	105 x 105 x 155 mm
Blister stack height:	max. 100 mm
Closure types:	Insert and hot glue closure

*optional performance extension

close-up online
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