

Supporting the Future Readiness of Yamato's Cold Chain Service

How a supply challenge in cool containers led to a fruitful collaboration with VRR

Every year, Japan's No. 1 delivery service provider ships 1.8 billion parcels by air, land and sea. Millions of individuals and businesses rely on its same-day and next-day delivery services, made possible by its network of advanced logistic facilities in each of Japan's regions.

The coolest service that Yamato Transport offers is undoubtedly Cool TA-Q-BIN, the first refrigerated delivery service ever to transport chilled and frozen cargo safely, speedily and affordably to all corners of Japan. It enables the procurement of hard-to-find and highly valuable perishables from local producers. As such, it relies heavily on air-cargo cool containers.

So, when Japan's only manufacturer of uncertified MKN cool containers ceased production in 2018, Yamato knew that it was only a matter of time before the Cool TA-Q-BIN service would be badly disrupted or even discontinued.

"We were already worried about the MKN's durability and thinking that we would need to find an alternative container," says Yamato's Asset Manager. "But when our local supplier shut down, we were left with a real predicament. Without a reliable source of cool containers, suspending our cold chain service was a real possibility."

For Yamato, which prides itself on meeting its customers' needs precisely (its motto is 'all for the customer'), this situation was untenable. It needed a new supplier of air-cargo cool containers that could meet its standards of quality and adapt to its specific requirements. That meant finding a company that could not only manufacture but also customise the MKN's certified successor: the RKN.

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Challenges

- Current ULD supplier suddenly ceased manufacturing.
- Durability of existing cool containers was diminishing rapidly.
- Cold insulation quality of containers required improvement.
- Company's cold chain service had to be made future ready.

A positive and collaborative approach to customisation requests

Yamato quickly reached out to VRR, who they had already worked with on another ULD-related project. Once they had established that the Rotterdam manufacturer was the only seller of certified RKN containers, thoughts turned to the transporter's explicit requirements: improving insulation and making its cold chain service future ready.

The RKN is a popular and well-designed product which can be controlled by a Temperature Controlled Unit (TCU) if desired, making it a significant improvement on the older uncertified MKN containers. Even so, Yamato had in mind a development for its new cool containers: a rechargeable, removable battery pack.

VRR was open to the idea and so happy to work alongside Yamato's own technical people in developing the innovation. "It was a reliable and organised process," confirms the transporter's Asset Manager, who is also the buyer for its ULDs. "Our requests were tackled positively by VRR's engineers, and they collaborated actively with us to ensure we got what we wanted."

In addition to the new battery, the transporter had other ideas for improving the RKN's overall performance. VRR listened carefully to each request and—often in conjunction with Yamato itself—found and developed creative solutions.

Nationwide operations call for a large first order – and a large dose of trust

The first order that Yamato placed with VRR was unusually large, at least for a first order: 50 RKN cool containers to ship deep frozen (-18°C / -0.4°F) and chilled cargo (8°C / 46.4°F). The Asset Manager explains why so many were ordered right off the bat:

"We have around 600 cool containers in our fleet, with around 200 in operation on any one day. To maintain operational levels at each of our logistic centres, all of which have diverse needs, it's not unusual for us to introduce new products at this volume."

Commissioning a sizeable quantity of new ULDs obviously requires significant trust, which is why Yamato had made sure that VRR could respond to its very specific requirements. But development capabilities weren't the only criteria. The delivery service provider also wanted a ULD manufacturer that wasn't afraid to suggest better alternatives to its own customisation requests.

"VRR is certified to design and manufacture under EASA Parts 21 and 145, and it has an internationally recognised track record in customising standard ULDs," adds Yamato's Asset Manager. "That and the fact that they clearly understood our needs and were willing to work with us to find fresh solutions gave us the confidence to move forward with such a large first order."

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Value Created

- Increased cool container capacity by replacing dedicated battery packs with removeable, rechargeable packs.
- Faster loading of dry ice, increasing turnaround times.
- Improved insulation, providing opportunities for chilled and frozen shipments to more remote destinations.
- Ability to provide a temperature-controlled service when the time is right.
- A long-term relationship with a reliable and responsive supplier.

Future-proofing the cold chain delivery service

Three years on and Yamato is still happy with its customised version of the certified RKN. The rechargeable battery pack, which can be removed and replaced in seconds, has increased operational speed and reduced operational expenditure for its logistic hubs significantly. It's even reduced the cold chain service's environmental impact. Most importantly, the RKN has ensured that the Cool TA-Q-BIN service can continue guaranteeing an unbroken cold chain to Yamato's customers.

"We're also ready for when enough customers start demanding temperature-controlled shipments," concludes the Asset Manager. "Knowing we can use the TCU in our cool containers at a moment's notice means we won't have to replace the RKN with something newer. In the meantime, we've ordered another 150 RKN containers. And if we see any opportunities for improvements to the RKN, we know we can count on VRR to make them."

About Yamato Transport

Yamato Transport is the premier delivery service provider in Japan. With locations across Japan, it delivers parcels to 23 countries/regions in the world. It also provides comprehensive packing solutions, an international refrigerated service, high value-added logistic infrastructures, and customised shipping solutions to corporate clients. For more info, please visit www.global-yamato.com.

About VRR

VRR is a world leader in designing, engineering and manufacturing air cargo containers. Based in Rotterdam, Netherlands, it has a reputation for collaborating with global partners and customers. It offers a wide range of certified solutions, from horse stalls and collapsible ULDs to fire-proof and temperature-controlled containers. For more info, please visit vrr.aero.

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Yamato Transport