



CASE STUDY:

Kiwi team develops the world's first twin container lifting system from the decks of ships with mid-lock fittings

CLIENT: Ports of Auckland
Industry: Logistics
Type: Machine user
Project: Maximising container lifting and unloading operations

CASE STUDY

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The company

Covering two seaports, an inland port as well as road and rail links, Ports of Auckland is New Zealand's largest container port. The container terminal houses the country's biggest crane and straddle carrier fleet, which operates 24 hours a day, seven days a week. Approximately 720,000 containers are handled here each year - equating to nearly 2,000 containers per day. Most of these are 20-foot containers (60%) with the rest made up of 40-foot containers.



The challenge

With such a mass of containers coming through, Operations Engineer John Miller turned to CNC to find a solution that would allow the Ports of Auckland to unload two 20-foot containers end-on-end from the decks of ships with mid-lock fittings at the same time. "This has been tried in other parts of the world - but it has never actually been achieved," he says. "We wanted to make it work with our existing equipment, despite the fact that the container fittings didn't seem to allow twin lifting."

Why CNC?

Expert knowledge

The development process involved rigorous testing, data collection and data analysis. "These are the skills that CNC brings to the table. They apply a structured methodology to refine and optimise production processes," says John. "Their ability to take production type technologies and apply them to another industry is a real strength that sets them apart from other companies."

Enabling technology

CNC enabled the Ports of Auckland to optimise their existing equipment. As John puts it: "CNC provided the technical expertise and software to customise our hardware. They've successfully completed the project and we can now utilise their technology. Our workers fully buy into it as the twin lifting and its automated container unlocking system makes their work easier and safer."

The result

"The Twin Deck 40 is a significant breakthrough," says John. "We can now twin out a large proportion of the containers, which increases our productivity. We're also able to use more cranes on a ship, as the cranes' movements don't restrict each other."

John concludes: "CNC helped us unlock our equipment's potential, giving us a true competitive advantage in the marketplace. Shipping companies like to use our ports as we can service and turn their ships around quicker than other ports."