

PATRICK TERMINALS

FREMANTLE PORTS

Fabricator
OEM Group

Capral Products
Custom Aluminium Extrusions

CAPRAL
ALUMINIUM





ENGINEERED FOR THE ELEMENTS: OEM GROUP DELIVERS A SMARTER SOLUTION FOR PATRICK TERMINALS

Operating in the harsh conditions of Fremantle's port precinct, Patrick Terminals required an access solution that could withstand the elements while providing safe and reliable access to refrigerated shipping containers.

At Fremantle's busy port precinct, where salt air, wind and constant movement place enormous demands on infrastructure, a new series of aluminium access platforms is quietly improving safety and efficiency for one of Australia's largest container terminal operators.

Designed and fabricated by OEM Group for Patrick Terminals, the specialised access structures provide safe access to refrigerated shipping containers, known as reefers, stacked up to three containers high and spanning nine containers wide. The project required access from both sides of the container rows while maintaining structural performance in harsh coastal conditions. It was a challenge that called for more than an off-the-shelf solution.

OEM Group worked closely with Capral Aluminium to engineer and fabricate nine custom aluminium platforms tailored specifically to the operational requirements of the Fremantle terminal. The result is a durable, corrosion-resistant structure designed for long-term performance in one of Australia's harshest industrial environments.

Unlike traditional access systems that rely on external wind bracing, the OEM Group engineering team integrated the

wind bracing directly into the stair structures themselves. This innovative approach allowed the platforms to maintain full side access to the containers without compromising structural integrity or safety.

Peter Fleay, Manager of Estimation, Design and Fabrication at OEM Group, says understanding how the structures would be used onsite was critical to the project's success.

"We place strong importance on understanding the real needs and challenges of our clients," Fleay says. "Our team takes pride in developing solutions that are practical, safe and engineered for long-term performance. This project is a strong example of how collaboration and thoughtful design can create real operational value." The decision to use aluminium was central to achieving that outcome.

Operating in a marine environment meant corrosion resistance was a major consideration from the outset. Aluminium provided a long-term solution capable of withstanding exposure to coastal conditions while also delivering advantages in fabrication efficiency and lifecycle durability.

Custom-designed, locally manufactured aluminium extrusions supplied by

Capral are used throughout the project, allowing OEM Group to optimise the design and significantly reduce manufacturing waste. The use of Australian-made aluminium extrusions also supported reliable local supply and close technical collaboration throughout the fabrication process. Nigel Williamson, State Manager for Capral Industrial Solutions WA, says the project highlights the value of collaboration between Australian manufacturers.

"This project demonstrates what can be achieved when local engineering expertise is supported by Australian-made aluminium extrusions and a strong technical partnership," says Nigel. "OEM Group brought an innovative approach to a complex access challenge, and we were proud to work closely with their team to supply extruded aluminium solutions tailored to the project requirements."

For Capral, the project also reflects the growing role aluminium continues to play in industrial infrastructure applications where durability, low maintenance and long service life are critical.

"Aluminium performs exceptionally well in harsh coastal and industrial environments," Adds Nigel. "When you combine corrosion resistance with

lightweight fabrication benefits and the ability to create highly customised solutions, it becomes a very compelling material choice for projects like this.”

The platforms were engineered and fabricated entirely in-house by OEM Group’s Custom Solutions Engineering and Design team, reinforcing the company’s capability in delivering specialised access and safety solutions for transport, logistics and freight industries.

For Patrick Terminals, the completed structures are already improving operational workflow while providing safer and more stable access for maintenance and servicing of reefer containers.

The project also demonstrates how aluminium can provide a cost-competitive alternative to traditional galvanised steel in the right application. By tailoring the aluminium profiles to the exact requirements of the build, OEM Group was able to reduce material waste and deliver a highly efficient fabrication outcome alongside the long-term durability benefits.

As Australian industry continues to invest in infrastructure designed for longevity, projects like the Patrick Terminals installation highlight the value of local manufacturing partnerships and custom designed aluminium solutions.

The completed platforms are more than just an access solution. They demonstrate how thoughtful engineering, local fabrication and Australian-made aluminium can come together to solve complex operational challenges in demanding environments

