

Queenscliff Ferry Terminal

History of the project

At the ingress of Victoria's Port Philip Bay stands the Queenscliff Ferry Terminal – a beacon of architectural prowess and stainless steel ingenuity. Opened in April 2023 after a decade-long collaboration between visionary architects and dedicated clients, this world-class structure epitomises the marriage of functionality and aesthetic allure.

Linking Queenscliff to Sorrento and beyond, the terminal serves as a gateway to the scenic wonders of Geelong, the Bellarine Peninsula, and the iconic Great Ocean Road. As the bustling hub for Searoad Ferries' car and passenger services, it orchestrates over 8,200 crossings annually, welcoming more than 960,000 passengers.

Designed by F2 Architecture and built

Category: Mobility and Infrastructure

Location: Queenscliff, Australia

Environment: marine

Use: roof and façade cladding

Material: 445M2TM ferritic stainless steel, 2DR finish

Material thickness: 0.7 mm

Architect: F2 Architecture

Fabricator: mackbros.com.au

Photographs: ©Tim Griffith. All rights reserved.

More information: assda.asn.au

by Kane Constructions, the terminal transcends mere functionality,



| Queenscliff Ferry Terminal. ©Tim Griffith. All rights reserved.



drawing inspiration from its surroundings and historical context. Its roof, a masterpiece of engineering, stretches gracefully with a nod to the curved profile of this unique stretch of coastline.

At the core of this architectural marvel lies stainless steel, a material renowned for its durability and timeless elegance that will withstand the test of time.

ASSDA Member Austral Wright Metals supplied 445M2TM ferritic stainless steel sheet with a 0.7mm thickness and 2DR finish for the project. Ferritic stainless steel offers a lower expansion coefficient than 316L

austenitic stainless steel, a similar thermal expansion to carbon steels, and it can be readily bent, roll-formed, pressed to shape, or spun. Offering superior corrosion resistance, it is a desirable and aesthetically pleasing material choice for mechanically fastened roofing and cladding applications in marine environments.

ASSDA Member Mack Bros Roofing Products took up the mantle of transforming the stainless steel into a symphony of form and function.

“Employing cutting-edge techniques and a newly developed curving machine, the stainless steel panels were meticulously shaped ensuring both precision and consistency.”

The panels were manufactured in batches where matching profiles were critical to delivering the architectural vision and

Why was stainless steel chosen?

Stainless steel was chosen because it is a material renowned for its durability and timeless elegance. The material will ensure the terminal withstands the test of time.

installation requirements.

Mack Bros also designed and built a testing rig to ensure the structural integrity of the roof sheet installation and compliance with AS/NZS 1170.2:2011 Structural design actions, Part 2: Wind actions. Various installation methods were modelled to overcome challenges with curved reveal soffit panels and intricate sub-structure alignments. All panels were mechanically fastened on site.

Transporting the stainless steel panels posed its own set of challenges,

| Queenscliff Ferry Terminal. ©Tim Griffith. All rights reserved.

necessitating specialised racks to safeguard against damage during delivery.

ASSDA Member Fabmetal Specialists delivered the curved stainless steel fascia and supports using 600 mm wide, 10 mm thick, 316L stainless steel plates supplied by ASSDA Member Midway Metals. The fascia panels were electropolished by ASSDA Member MME Surface Finishing to achieve a 0.5 Ra finish.

The installation proved challenging, with the structure design beyond the allowances specified in Australian standards. Fabmetal Specialists leveraged their expertise in 3D modelling and drafting to deliver custom bracketry tailored to the installation requirements. Collaboration with Mack Bros Roofing Products ensured the delivery of a high-quality, world-class finish for the terminal's stainless steel cladding and roof structure in line with the architects' vision.



| Queenscliff Ferry Terminal. ©Tim Griffith. All rights reserved.

The impact of the Queenscliff Ferry Terminal extends far beyond its functional role. It's a testament to the power of stainless steel to transform landscapes and elevate experiences, boosting local tourism and business while garnering global recognition.

Recipient of ASSDA's prestigious 2023 Stainless Steel Industry Fabricator Award in the Architecture, Building, and Construction category, the terminal continues to shine on a global scale. Honoured at the 2023 Victorian Architecture Awards and recently celebrated with the international Architectural Masterprize "Best of the Best" in the Transportation category, it stands as a symbol of innovation, excellence, and the enduring allure of stainless steel.

This article was featured in Australian Stainless Magazine 80 (2024).