

Seamless FRP Access Solutions Boost Safety at Industrial Chemicals Plant

Custom-designed staircases, walkways, and handrails installed offsite for precise fit and zero downtime.

THE PROJECT

Project Category:	Chemical Plant
Scope of Work:	Design, fabrication, and installation of staircases, walkways, and handrails
Solution:	Offsite fabrication of custom FRP components based on precise site surveys, enabling fast, safe weekend installations with zero downtime.
Project Challenges:	Designing and installing FRP access systems that seamlessly integrate with existing structures without disrupting plant operations.

THE SOLUTION:

FRP Engineering delivered precision-engineered custom FRP components fabricated offsite, based on detailed site surveys. This approach enabled fast, safe weekend installations with zero downtime, ensuring minimal disruption to ongoing operations.

The client tasked FRP Engineering with designing, fabricating, and installing multiple FRP access components—including staircases, work platforms, and P Clamp handrails—for a new loading facility. The key challenge was achieving flawless integration with existing structures. Through meticulous design and exact fabrication, the team eliminated installation delays. Having partnered successfully before, the client trusted FRP Engineering to provide a seamless, efficient installation experience.

BEFORE FRP:



Existing access points posed safety risks, highlighting the need for a reliable

AFTER FRP:



Precision-engineered FRP components seamlessly installed, enhancing safety and functionality



Offsite fabrication and weekend installation ensured zero downtime and flawless

THE FRP APPROACH:

FRP Engineering began with a detailed site survey and precise measurements to create accurate design drawings, ensuring every component fit perfectly. All grating, platforms, and handrails were prefabricated offsite to reduce onsite cutting and sealing, minimising installation time and potential disruptions. Critical connection points were carefully rechecked after finalising the designs to guarantee a smooth installation process. The complete design and drawings were finalised within two weeks and reviewed for compliance with Australian Standard 1657-2019. Installation was efficiently completed over two consecutive weekends, allowing the plant to maintain full operation during regular weekday hours without any downtime.

"FRP Engineering delivered exactly what was promised — the precision and professionalism of the team ensured a smooth project with no operational disruptions. We look forward to working with them on future safety upgrades."

THE FRP RESULT

Reduced Onsite Work and Costs

By prefabricating all components offsite, the project significantly shortened the time required for onsite installation, leading to lower labour costs and minimised disruption.

Enhanced Safety and Efficiency

The client now benefits from a durable, custom-fit access system that seamlessly integrates with existing structures, improving overall facility safety.

Improved Operator Confidence

Operators report feeling safer and more confident when using the new staircases, walkways, and handrails throughout the loading facility.

Future Steps

The upgraded access system has enhanced operational safety and efficiency at the plant. FRP Engineering is currently discussing similar upcoming projects with the client to continue improving safety and durability across the facility.



FRP PRODUCTS USED:

- AutoCAD for design and detailed drawings
- 38mm VEFR FRP Grating
- FRP P Clamp Handrail system
- FRP Channel and Angle sections made from VEFR resin

CONTACT US

For more information on our range, email us on enquiries@frpengineering.net or call us at (08) 9455 4343 to discover our range of safety work access platforms today!