



Fact File

ARTC Port Augusta Flashbutt Welding Depot Custom Walkway

Facts

- Design & Construct
- Project status: Complete
- Project value: ~\$500k

Project Scope:

Port Augusta Flashbutt Welding depot identified they require safe access to rail wagons at the loading and unloading gantries. The works comprise of the design, manufacture, supply and installation of a combined 215m custom fixed access walkway that suits the height and reach of the wagons.

Engineering and Design

The project commenced with a concept phase to knot out some of the limitations and restrictions of this customised walkway. The brief stipulated height and reach as well as it required the walkway adhere to AS 1657. It was clear from early stages the walkway will be as close as possible to the standard but will not 'adhere' to it as such.

The Flashbutt Welding Depot was surveyed and information transferred to the drawings that was used to compile the concept design. After a few site measurements the concept was developed and a concept review was held with the client. The client requested only a few minor adjustments, and we got Approval to Continue with Detail Design. The Concept design & layout, as well as the Structural Design and Drafting was all done inhouse.

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The walkway consists of "2 sections". The Unloading Area walkway is 50m long and the Loading Area walkway is 165m long, each with 4 sets of stairs & swing gates. The client required that a 11m section on the Unloading Area to be removable which provided them with access to load rails manually from trucks.

Fabrication

Fabrication work was completed off-site and included the fabrication and welding of the walkway stringers & columns. The walkway sections were then sent to galvanisers in Adelaide and freighted directly to site to reduce double handling.

The client has requested the walkways to be removable due to the potential for locomotives that may have to use the track in future. The design incorporated bolted connections which resulted in easy installation and lining up of components due to flexibility of having holes and not being rigidly welded. The walkways have only got handrails on the non-track side, and they together with the swing gates were grit blasted and painted before being sent to site.

Site Installation

Construction commenced with the installation of the 46 column footings and 8 stair pads, followed by the installation of the columns on the concrete once cured. The walkway sections, floor grating, handrailing & swing gates were then installed.

The removable section in the Unloading walkway were installed and removed without any issues.

Safety

The execution took place in a live & working rail yard with all the associated dangers. TEC Contracting worked closely with ARTC in regards to people working near or next to the rail wagons and executed the job without any incidents or injuries.