WALK WAY SC-R™

Tailor made FRP solutions for an array of industries **since 2004**

STAIRCAREFRP
COMPOSITE DESIGN & FABRICATION

SC-R WALKWAY

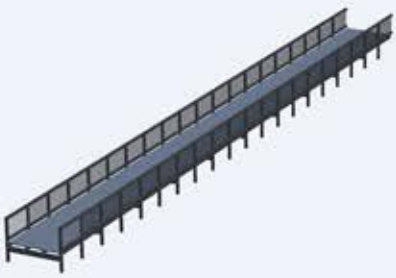
Experience the unparalleled safety and durability of SC-R's FRP Platform Walkways. Boasting effortless installation, these walkways are 50% lighter than steel yet robust enough to withstand heavy loads, providing a secure footing in any weather condition. Ideal for urban or natural environments, SC-R walkways are meticulously designed for accessibility systems. Compliant with rigorous Australian standards such as AS1170.0,1,2,4, AS4685, and AS1428, they can also be customized to meet AS5100 requirements. Crafted from materials resistant to fire and UV, SC-R walkways guarantee longevity and reliability. Tailoring the floor and handrail to specific client preferences ensures a personalized and top-tier solution for any project.

Unmatched Benefits for Construction:

- **Lightweight:** Effortless installation and reduced construction costs. Up to 50% lighter than steel for a lighter design and easier handling.
- **High Strength:** Handles heavy loads with the same strength as steel, ensuring structural integrity and safety.
- **Corrosion Resistant:** Withstands harsh environments, eliminating costly replacements due to rust or deterioration.
- **Minimal Maintenance:** Requires minimal upkeep, reducing lifetime costs and maximizing return on investment.
- **Easy to Work With:** No special equipment or tools needed, streamlining installation and saving time.
- **Non-Slip Surface:** Ensures safe footing in any weather condition, promoting safety and reducing accidents.
- **Thermally Insulating:** Improves energy efficiency and reduces heating/cooling costs.
  Sustainable Material: Non-organic and environmentally friendly, contributing to green building practices.

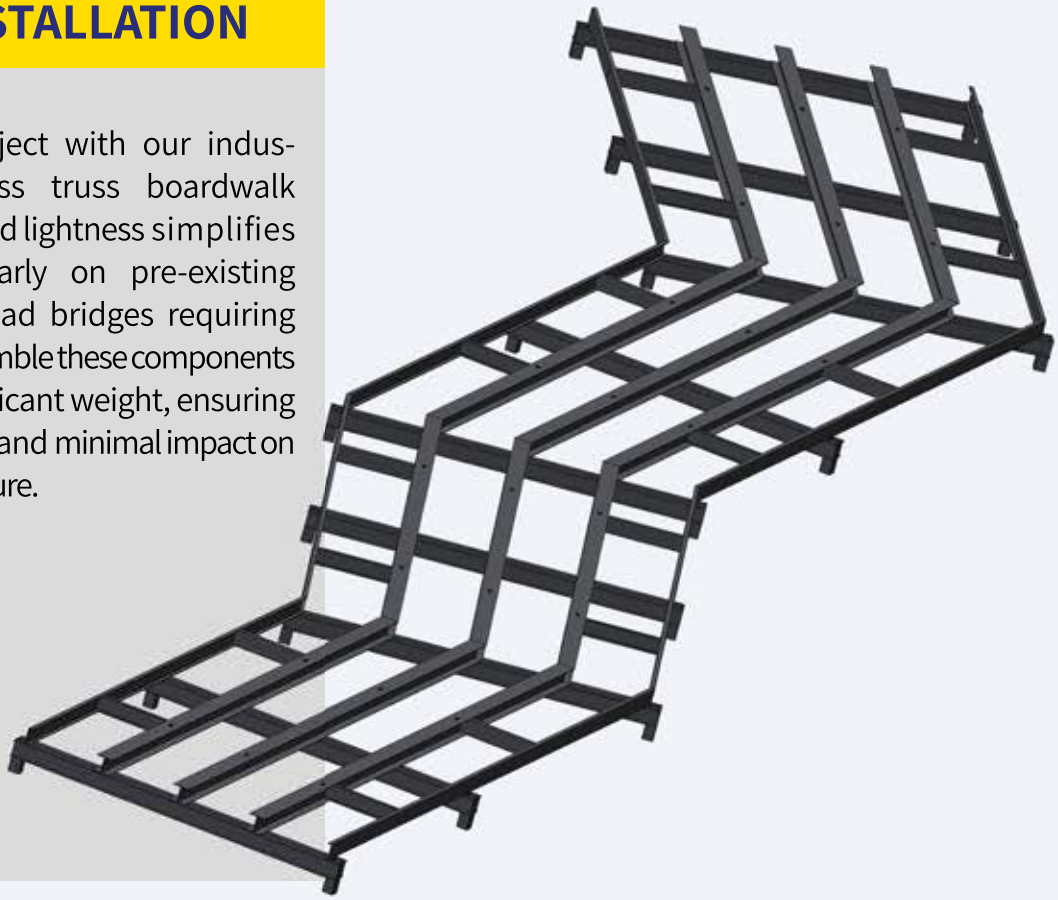
EXPLORE SC-R'S FRP PLATFORM WALKWAYS:

- **Wide Range of Standard Geometries:** U-profiles, I-profiles, square tubes, and more for diverse applications.
- **Competitive Standard Solutions:** Pedestrian bridges, stair towers, and platforms for quick and efficient implementation.
- **Customizable Options:** Tailor designs to meet specific project requirements and unique needs.



WALKWAY INSTALLATION

Unburden your project with our industry-leading fiberglass truss boardwalk system. Its unmatched lightness simplifies installation, particularly on pre-existing structures like railroad bridges requiring handrails. Easily assemble these components without adding significant weight, ensuring seamless integration and minimal impact on the existing infrastructure.



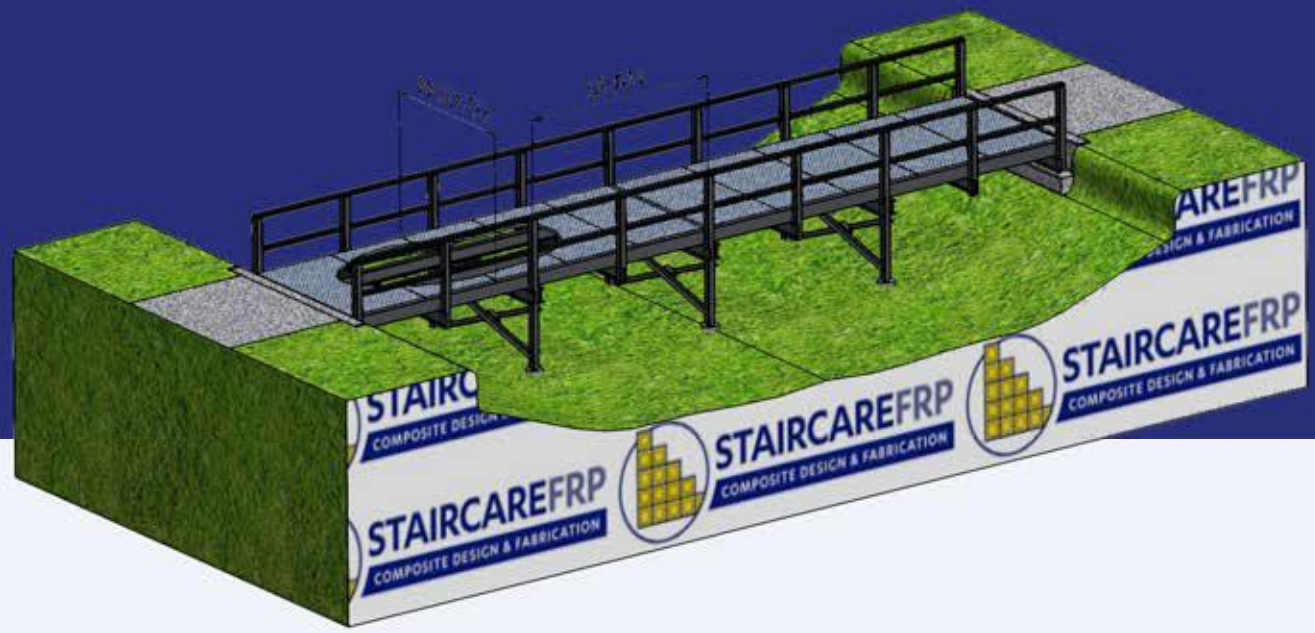
WALKWAY DESIGN TABLES

Quick Joist Selection Table:

Choose the ideal SC-R member for your project based on desired deflection (Span/250) required load capacity, and preferred joist spacing. See the table below for details.

For this project, a floor dead load of 50 kg/m2 was assumed based on standard residential construction practices. The maximum joist spacing is set at 750mm to comply with design requirements for deflection and load capacity. Joist design tables cover live loads of 2.5, 4, and 5 kPa for spans of 2, 2.5, 3, and 3.5 meters. Please note that the lateral bridge bracing may be required too.

WALKWAY DESIGN TABLES



Live L	2.5 (KPa)	joist spacing	0.7 (m)
Span	2 (m)	cover load	50 (Kg/m2)

CS	I	WFB	ELA	RHS	SHS
CS(140/38/6.4)	IS(140/64/6.4)	WFB(102/6.4)	ELA(102/12.7)	RHS(140/90/6.4)	SHS(89/89/6.4)
CS(152/41/6.4)	IS(152/76/6.4)	WFB(152/6.4)	ELA(152/9.5)	RHS(152/102/6.4)	SHS(102/102/6.4)
CS(152/43/9.5)	IS(152/76/9.5)	WFB(152/9.5)	UELA(152/102/12.7)	RHS(100/75/5/5)	SHS(102/102/8)

Live L	2.5 (KPa)	joist spacing	0.75 (m)
Span	2.5 (m)	cover load	50 (Kg/m2)

CS	I	WFB	ELA	RHS	SHS
CS(152/43/9.5)	IS(140/64/6.4)	WFB(152/6.4)	ELA(152/9.5)	RHS(140/90/6.4)	SHS(102/102/9.5)
CS(203/56/9.5)	IS(152/76/6.4)	WFB(152/9.5)	ELA(152/102/12.7)	RHS(152/102/6.4)	SHS(127/127/8)
CS(254/70/12.7)	IS(152/76/9.5)	WFB(203/9.5)		RHS200X50X5X7	SHS(152/152/9.5)

Live L	2.5 (KPa)	joist spacing	0.75 (m)
Span	3 (m)	cover load	50 (Kg/m2)

CS	I	WFB	ELA	RHS	SHS
CS(203/56/9.5)	IS(152/76/9.5)	WFB(152/6.4)	ELA(152/102/12.7)	RHS(152/102/12.7)	SHS(127/127/8)
CS(254/70/12.7)	IS(203/102/9.5)	WFB(152/9.5)		RHS200X50X5X7	SHS(152/152/9.5)
CS(292/70/12.7)	IS(203/102/12.7)	WFB(203/9.5)		2XRHS200X50X5X8	

Live L	2.5 (KPa)	joist spacing	0.75 (m)
Span	3.5 (m)	cover load	50 (Kg/m2)

CS	I	WFB	ELA	RHS	SHS
CS(203/56/9.5)	IS(203/102/9.5)	WFB(152/9.5)		2XRHS200X50X5X8	SHS(152/152/9.5)
CS(254/70/12.7)	IS(203/102/12.7)	WFB(203/9.5)			
CS(292/70/12.7)	IS(254/127/9.5)	WFB(203/12.7)			

Live L	4 (KPa)	joist spacing	0.75 (m)
Span	2 (m)	cover load	50 (Kg/m2)

CS	I	WFB	ELA	RHS	SHS
CS(152/41/6.4)	IS(140/64/6.4)	WFB(152/6.4)	ELA(152/9.5)	RHS(140/90/6.4)	SHS(102/102/6.4)
CS(152/43/9.5)	IS(152/76/6.4)	WFB(152/9.5)	ELA(152/102/12.7)	RHS(152/102/6.4)	SHS(102/102/8)
CS(203/56/9.5)	IS(152/76/9.5)	WFB(203/9.5)		RHS140X45X4X6	SHS(102/102/9.5)

Live L	4 (KPa)	joist spacing	0.75 (m)
Span	2.5 (m)	cover load	50 (Kg/m2)

CS	I	WFB	ELA	RHS	SHS
CS(203/56/9.5)	IS(152/76/9.5)	WFB(152/6.4)	UELA(152/102/12.7)	RHS(140/90/6.4)	SHS(127/127/8)
CS(254/70/12.7)	IS(203/102/9.5)	WFB(152/9.5)		RHS(152/102/6.4)	SHS(152/152/9.5)
CS(292/70/12.7)	IS(203/102/12.7)	WFB(203/9.5)		RHS200X50X5X7	

Live L	4 (KPa)	joist spacing	0.75 (m)
Span	3 (m)	cover load	50 (Kg/m2)

CS	I	WFB	ELA	RHS	SHS
CS(203/56/9.5)	IS(203/102/9.5)	WFB(152/6.4)		RHS200X50X5X7	SHS(152/152/9.5)
CS(254/70/12.7)	IS(203/102/12.7)	WFB(152/9.5)		2XRHS200X505X8	
CS(292/70/12.7)	IS(254/127/9.5)	WFB(203/9.5)			

Live L	4 (KPa)	joist spacing	0.75 (m)
Span	3.5 (m)	cover load	50 (Kg/m2)

CS	I	WFB	ELA	RHS	SHS
CS(250/70/12.7)	IS(203/102/9.5)	WFB(203/9.5)		2XRHS200X50X5X8	SHS(152/152/9.5)
CS(292/70/12.7)	IS(203/102/12.7)	WFB(203/12.7)			
CS(305/76/12.7)	IS(254/127/9.5)	WFB(254/9.5)			

Live L	5 (KPa)	joist spacing	0.75 (m)
Span	2 (m)	cover load	50 (Kg/m2)

CS	I	WFB	ELA	RHS	SHS
CS(152/41/6.4)	IS(140/64/6.4)	WFB(152/6.4)	ELA(152/9.5)	RHS(140/90/6.4)	SHS(102/102/8)
CS(152/43/9.5)	IS(152/76/6.4)	WFB(152/9.5)	ELA(152/102/12.7)	RHS(152/102/6.4)	SHS(102/102/9.5)
CS(203/56/9.5)	IS(152/76/9.5)	WFB(203/9.5)		RHS200X50X5X7	SHS(127/127/8)

Live L	5 (KPa)	joist spacing	0.75 (m)
Span	2.5 (m)	cover load	50 (Kg/m2)

CS	I	WFB	ELA	RHS	SHS
CS(203/56/9.5)	IS(152/76/9.5)	WFB(152/6.4)	UELA(152/102/12.7)	RHS(152/102/6.4)	SHS(127/127/8)
CS(254/70/12.7)	IS(203/102/9.5)	WFB(152/9.5)		RHS200X50X5X7	SHS(152/152/9.5)
CS(292/70/12.7)	IS(203/102/12.7)	WFB(203/9.5)		2XRHS200X50X5X8	

Live L	5 (KPa)	joist spacing	0.75 (m)
Span	3 (m)	cover load	50 (Kg/m2)

CS	I	WFB	ELA	RHS	SHS
CS(203/56/9.5)	IS(203/102/9.5)	WFB(152/9.5)		2XRHS200X50X5X8	SHS(152/152/9.5)
CS(254/70/12.7)	IS(203/102/12.7)	WFB(203/9.5)			
CS(292/70/12.7)	IS(254/127/9.5)	WFB(203/12.7)			

Live L	5 (KPa)	joist spacing	0.75 (m)
Span	3.5 (m)	cover load	50 (Kg/m2)

CS	I	WFB	ELA	RHS	SHS
CS(254/70/12.7)	IS(203/102/9.5)	WFB(203/9.5)		2XRHS200X50X5X8	
CS(292/70/12.7)	IS(203/102/12.7)	WFB(203/12.7)			
CS(305/76/12.7)	IS(254/127/9.5)	WFB(254/9.5)			

QUICK BEARER SELECTION TABLE:

This table aligns with AS 1720.1 and recommends double back-to-back SC-R C channel sizes for live loads (2.5, 4, and 5 kPa) and post spacings (2, 2.5, 3, and 3.5 meters).
Channel selections guarantee deflection within the Span/300 criteria as per the code, supporting informed design decisions.
Double back-to-back bearers should be connected by a dummy square hollow section (shs) for increased stability

Live L	2.5 (KPa)	joist spacing	2 (m)	2X CS
Span	2 (m)	cover load	50 (Kg/m2)	CS(203/56/9.5)
				CS(254/70/12.7)
Live L	2.5 (KPa)	joist spacing	2 (m)	2X CS
Span	2.5 (m)	cover load	50 (Kg/m2)	CS(203/56/9.5)
				CS(254/70/12.7)
Live L	2.5 (KPa)	joist spacing	2 (m)	2X CS
Span	3 (m)	cover load	50 (Kg/m2)	CS(203/56/9.5)
				CS(254/70/12.7)
Live L	2.5 (KPa)	joist spacing	2 (m)	2X CS
Span	3.5 (m)	cover load	50 (Kg/m2)	CS(254/70/12.7)
				CS(292/70/12.7)
Live L	4 (KPa)	joist spacing	2 (m)	2X CS
Span	2 (m)	cover load	50 (Kg/m2)	CS(152/43/9.5)
				CS(203/56/9.5)
Live L	4 (KPa)	joist spacing	2 (m)	2X CS
Span	2.5 (m)	cover load	50 (Kg/m2)	CS(203/56/9.5)
				CS(254/70/12.7)

				2X CS
Live L	4 (KPa)	joist spacing	2 (m)	CS(254/70/12.7)
Span	3 (m)	cover load	50 (Kg/m2)	CS(292/70/12.7)
				CS(305/76/12.7)

				2X CS
Live L	4 (KPa)	joist spacing	2 (m)	CS(254/70/12.7)
Span	3.5 (m)	cover load	50 (Kg/m2)	CS(292/70/12.7)
				CS(305/76/12.7)

				2X CS
Live L	5 (KPa)	joist spacing	2 (m)	CS(203/56/9.5)
Span	2 (m)	cover load	50 (Kg/m2)	CS(254/70/12.7)

				2X CS
Live L	5 (KPa)	joist spacing	2 (m)	CS(203/56/9.5)
Span	2.5 (m)	cover load	50 (Kg/m2)	CS(254/70/12.7)

				2X CS
Live L	5 (KPa)	joist spacing	2 (m)	CS(254/70/12.7)
Span	3 (m)	cover load	50 (Kg/m2)	CS(292/70/12.7)
				CS(305/76/12.7)

				2X CS
Live L	5 (KPa)	joist spacing	2 (m)	CS(254/70/12.7)
Span	3.5 (m)	cover load	50 (Kg/m2)	CS(292/70/12.7)
				CS(305/76/12.7)

POST SIZE

The post size can be SC-R SHS(76/76/6.4) or bigger SHS sizes depending on the post height. The posts X type bracings is recommended cross wised of the walkway. longitudinal X bracing is 1 for each 5 span in the straight walkway is recommended. For curved walkway, each span to be secured with X type bracing longitudinally and crosswise.

IMPORTANT NOTE:

This document contains information regarding the engineering and design.

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