FRP SAFETY LADDER

PRODUCT GUIDE

GRP AUSTRALIA | 2026

CONTENTS

1.0 WHY FRP LADDERS

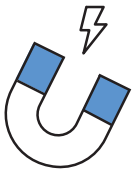
GRP Australia Ladders are manufactured from Vinyl Ester resin, providing premium corrosion resistance. GRP Ladders boast higher corrosion resistance than conventional materials such as steel, aluminium and timber & are the preferred choice in the following applications:

- High corrosive environments such as chemical plants or marine applications
- Applications where the ladders are submersed such as water reservoirs
- Applications where non-conductive ladders are required

The standard colour for our ladders is signal yellow RAL1003. GRP Australia rung ladders & step ladders have been designed & tested for compliance to AS 1657:2018. GRP Australia will typically include a design drawing for every ladder provided to suit any commercial, industrial or residential application.

2.0 BENEFITS

If you're seeking a ladder solution that offers superior performance and adaptability for any environment, consider the following key advantages of FRP ladders:

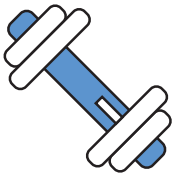


Non - Conductive

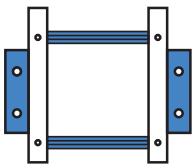
Non - Corrosive

UV Resistant

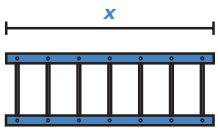
Low Maintenance



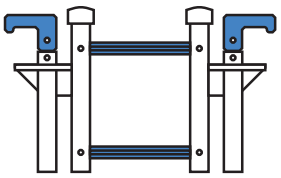
Strength-To-Weight Ratio



Pre-assembled for ease of installation



Customisable Lengths



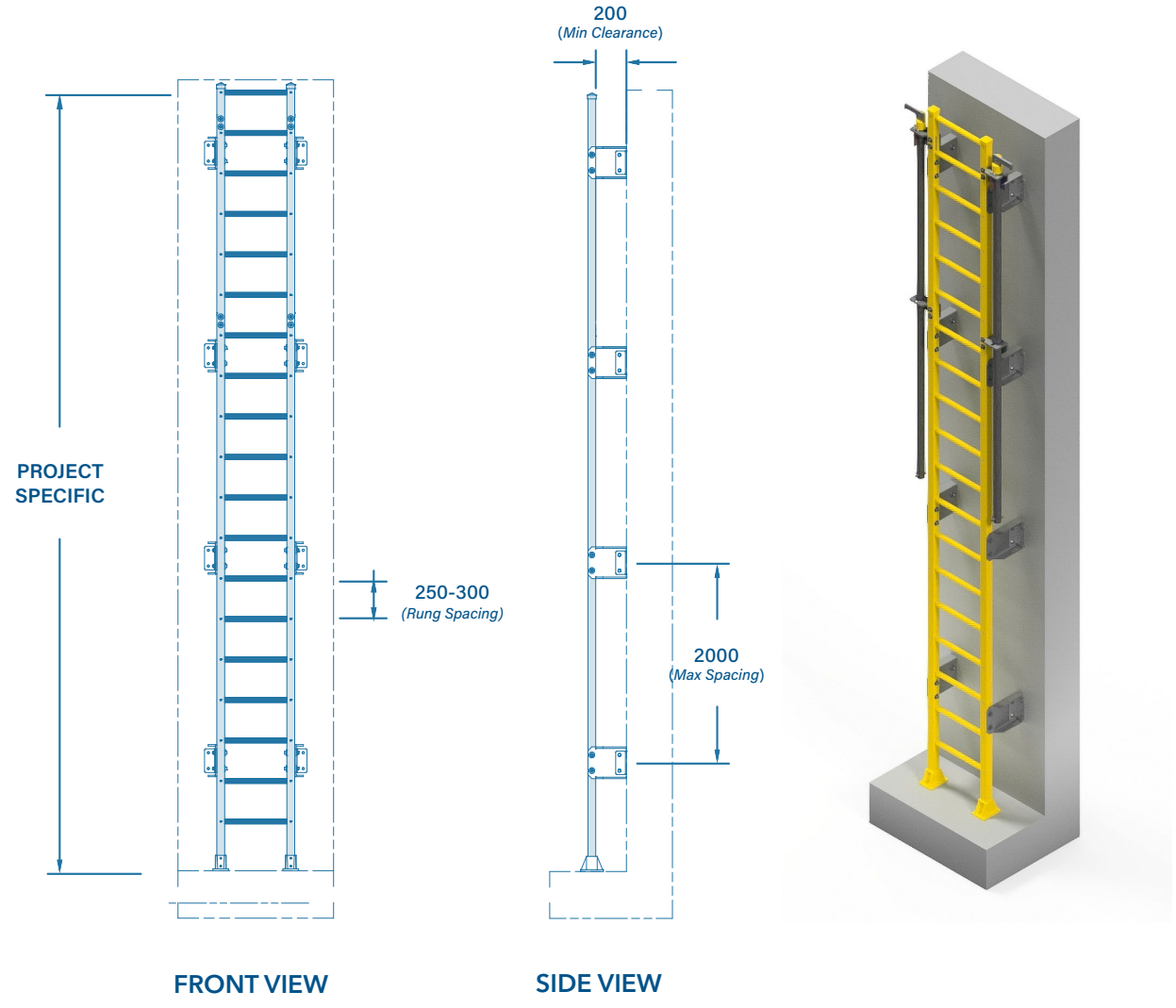
Various design styles

3.0 TYPICAL FRP LADDER DESIGNS

3.1 VERTICAL WALL MOUNTED RUNG LADDER

Vertical wall mounted rung ladder are typically used in water reservoirs without cages. Typical construction applications for rung ladders are pultruded side rails, securely bonded rungs, and stainless steel hardware for durability and safety in demanding environments. Additional options such as lower platform, retractable styles and base mounts can be specified to the ladders design to meet specific project needs.

TYPICAL LAYOUT
Vertical Wall Mounted Rung Ladder

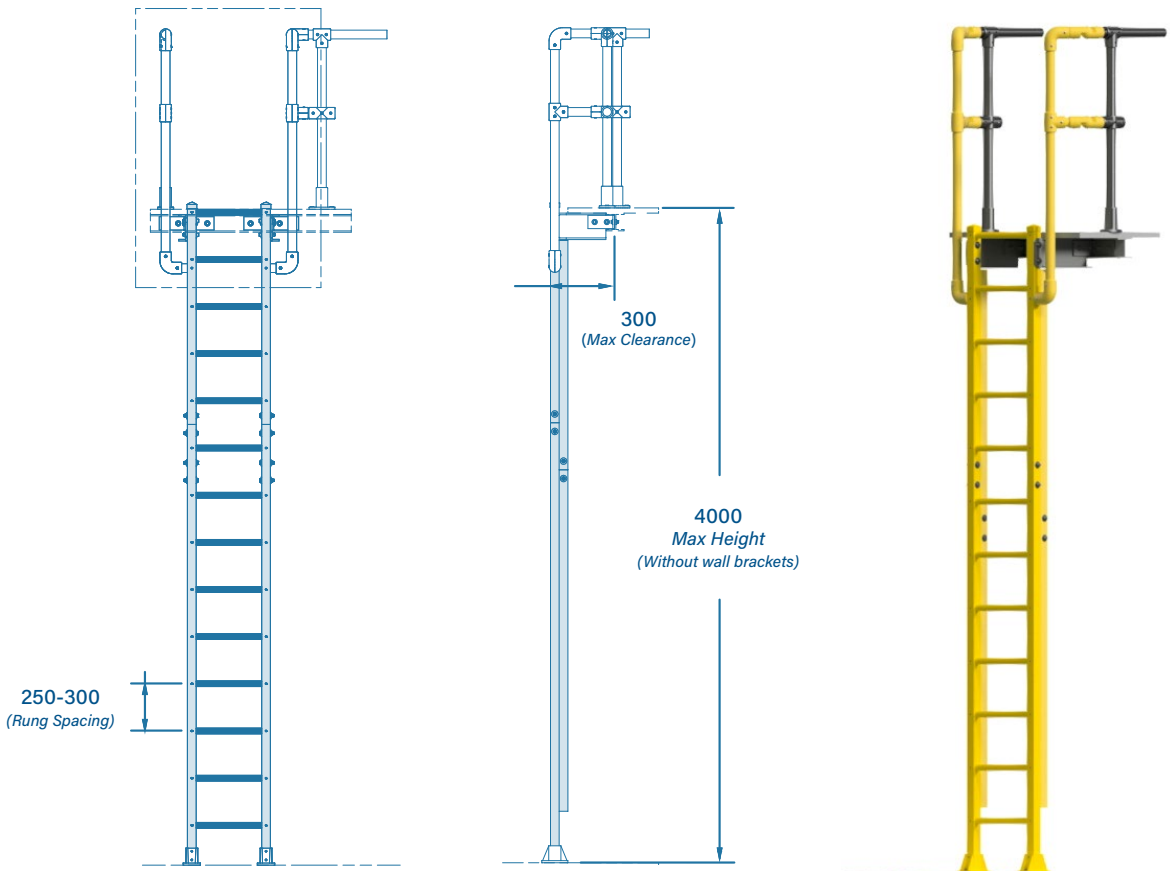


Customer Project Criteria		
Required Ladder Height	AS 1657:2018 Compliant	Site Conditions
Lower Platform required	Base Mount Required	

3.2 FREE STANDING RUNG LADDER

This type of rung ladder is used where intermittent wall supports are not possible between the ground & the platform. The design of the rung ladder is similar to the typical application however an additional structural member is added to the back of the rung. Rung ladder's have the capabilities to be installed vertically or on a angle up to 70°. Maximum ladder height is 4000mm, ladders that exceed require intermediate supports.

TYPICAL LAYOUT
Free Standing Rung Ladder



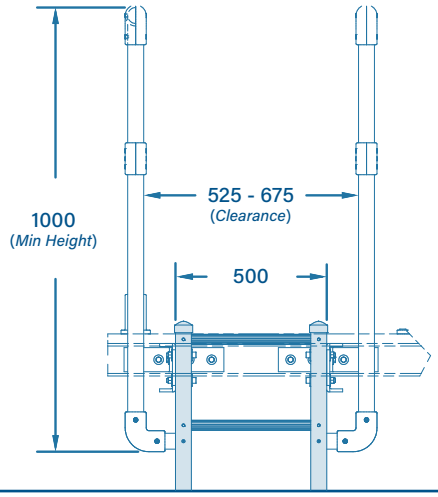
FRONT VIEW SIDE VIEW

Customer Project Criteria		
Required Ladder Height	AS 1657:2018 Compliant	Site Conditions
Handrail Required	Cage Required	Base Mount Required

4.0 FRP LADDER FEATURES

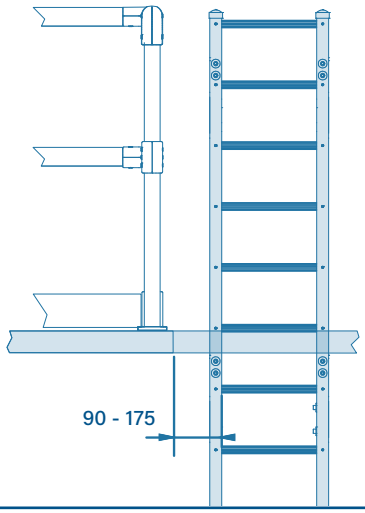
4.1 FIXED WALKTHROUGH

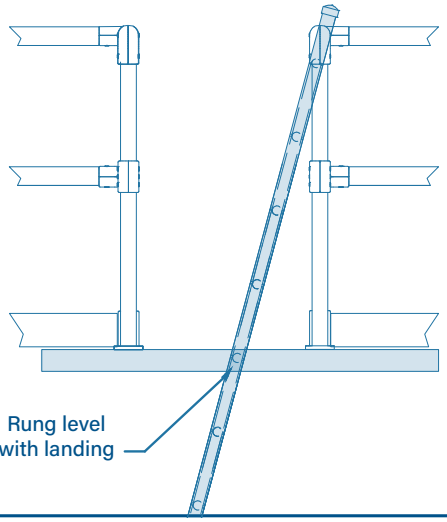
STEP THROUGH LADDER
WT01



A step through ladder is a fixed ladder that allows users to move safely through extended side rails at the top landing onto a platform or upper level, often featuring handrails for added stability.

SIDE ACCESS LADDER
WT02

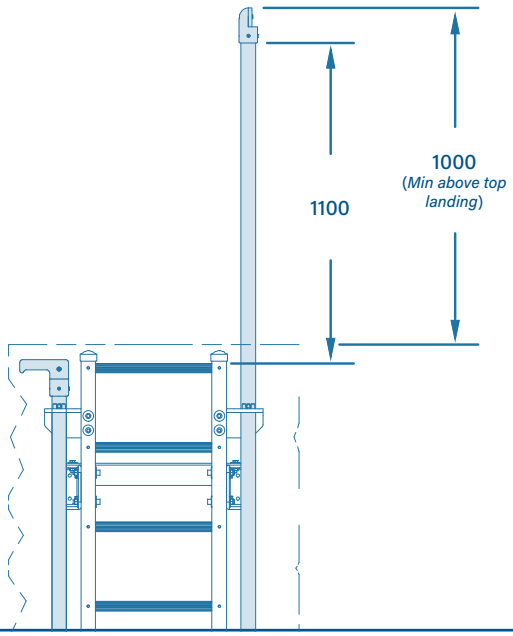


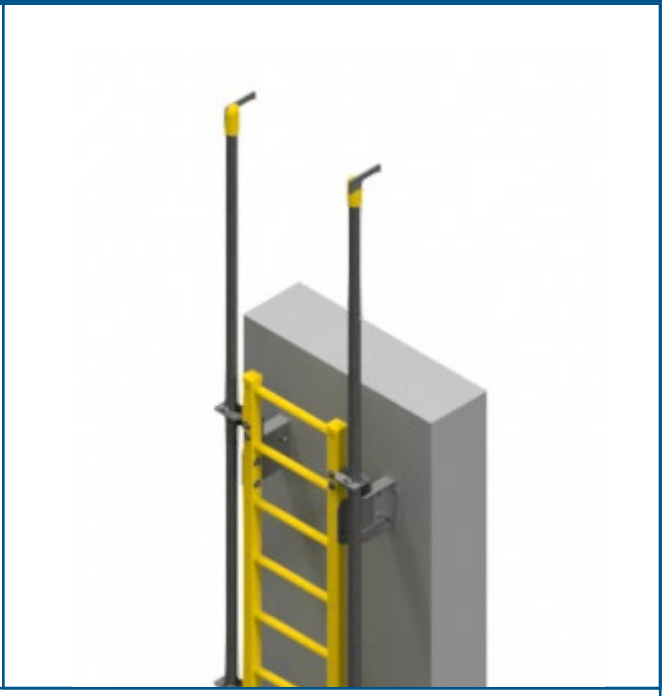


Side access ladders are designed to provide secure entry and exit from the side of a structure or platform, allowing users to safely transition between levels where top or walkthrough access is not feasible.

4.2 RETRACTABLE STILES

RETRACTABLE STILE LADDER
Typical Design

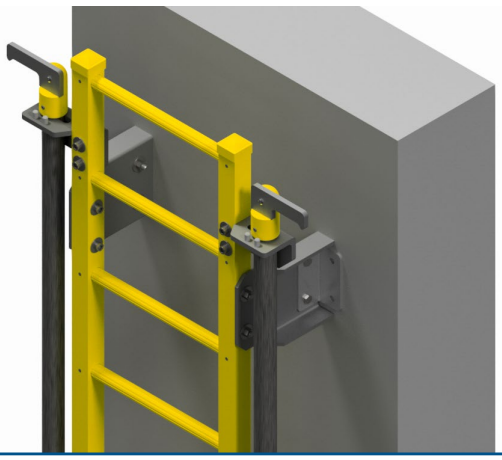




Retractable Stile ladders are engineered for compact storage and efficient deployment in restricted spaces. Designed with a telescoping mechanism, these ladders allow users to extend or retract the ladder as needed, making them ideal for areas where permanent fixtures are impractical or where access is required only intermittently.

FRP RETRACTABLE STYLE
RS01

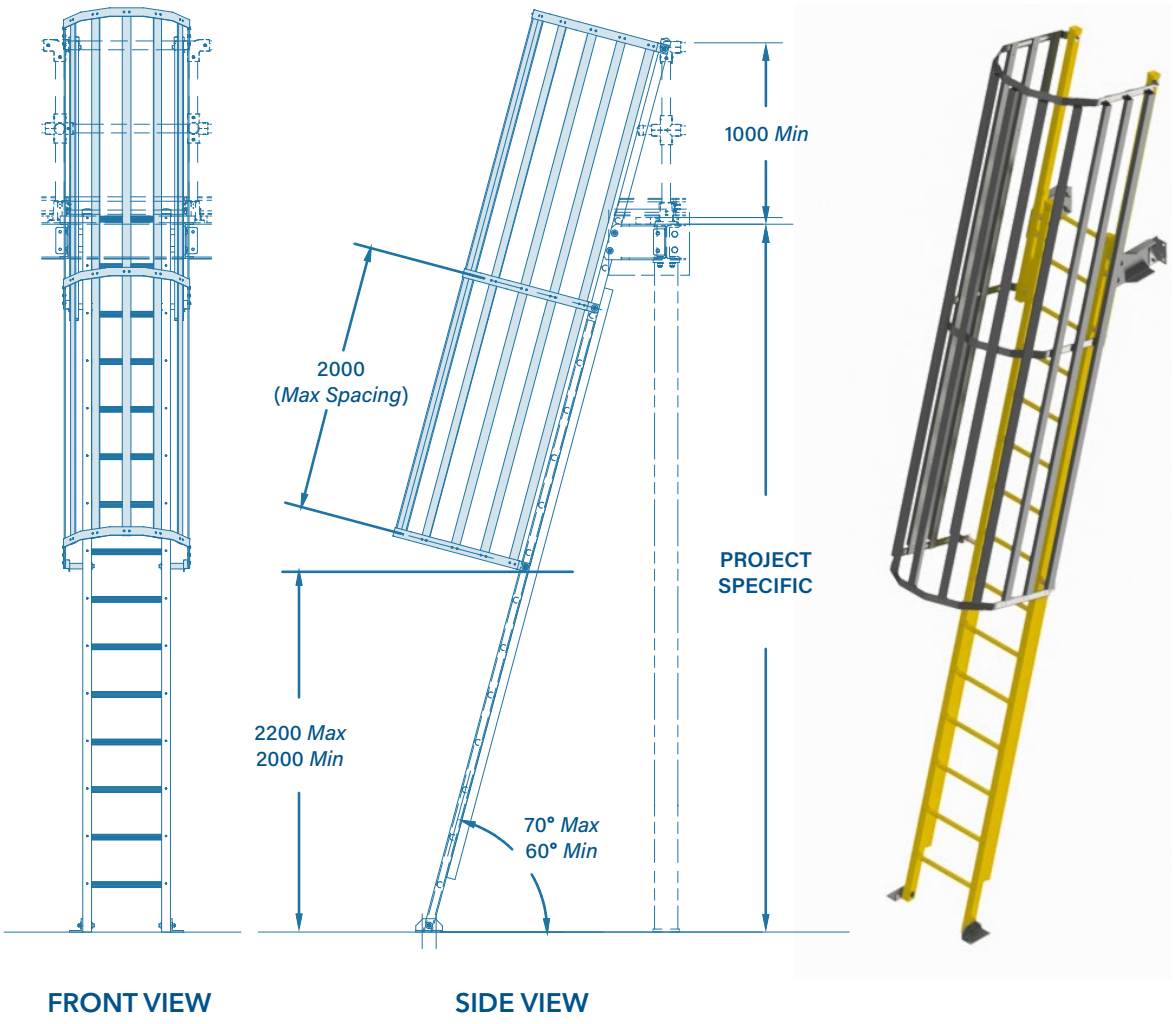
316 STAINLESS STEEL RETRACTABLE STYLE
RS02



Two types of retractable stiles are available, fully FRP stiles or 316 ss Retractable Stiles. The FRP Stiles are more corrosion resistant & meet the strength requirements of AS1657 but not deflection requirements while the 316ss stiles are fully compliant.

4.3 CAGES

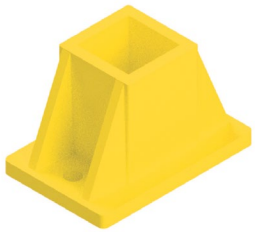
CAGED LADDER
Typical Design

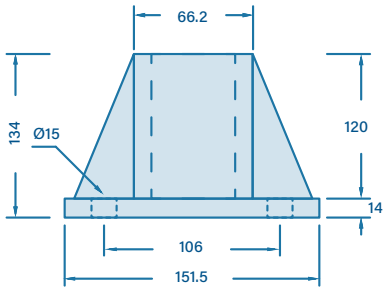


Ladder cages are designed to requirements of AS 1657. Standard cage hoops are made from 316ss however GRP cage hoops can also be provided. Cage vertical bars are manufactured from Rectangular Hollow Section (RHS).

5.0 FRP LADDER COMPONENTS

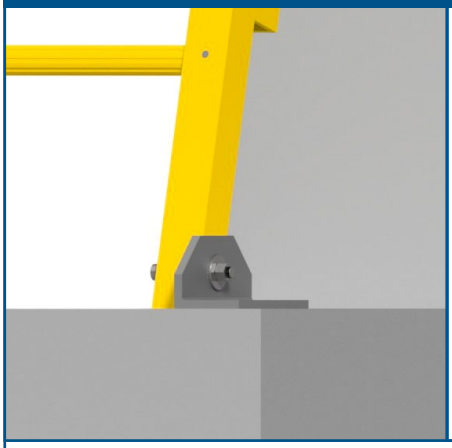
LADDER BASE MOUNT (VERTICAL LADDERS ONLY)
LD-FB

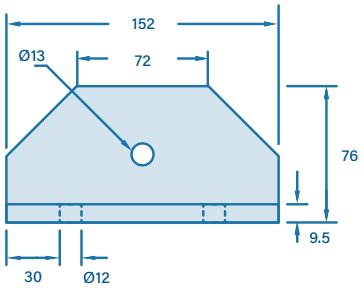




Base mount specifically designed to suit FRP SHS50x50 stiles. Base mount typically connected to stiles with 2 x 10Gx22 G550 wafer screws and/or 2-part epoxy construction adhesive.

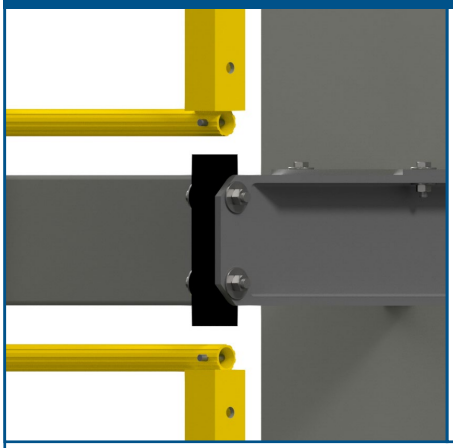
LADDER BASE MOUNT (ANGLED LADDERS ONLY)
LD-AB

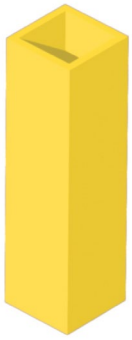


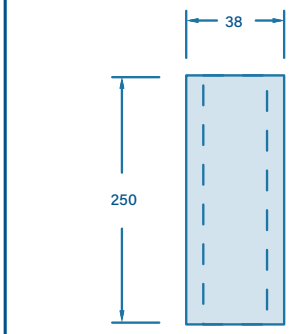


Base mount specifically designed to suit FRP SHS50x50 stiles when ladder is on an angle. Base mount typically connected to stiles with M12 bolt.

LADDER RUNG SPLICE CONNECTOR
LD-SC

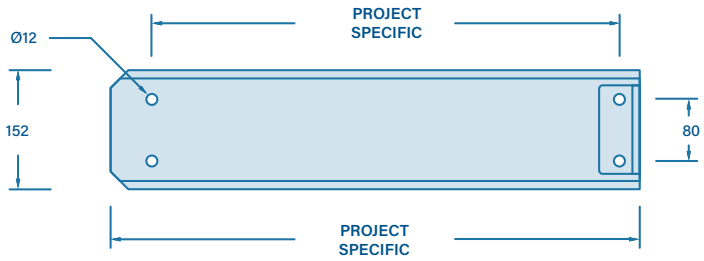






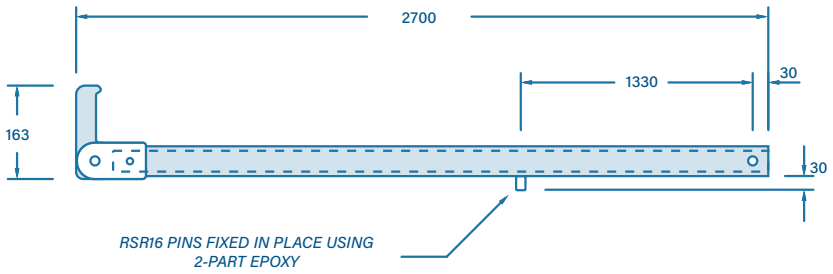
GRP splice connectors are used when joining ladder sections together. The splice connectors are comprised of two sections of FRP SHS38x38x5 inserted inside the stiles and located using 316 SS fixings.

LADDER WALL BRACKET
LD-WB-SS



Standard wall brackets are designed with a 250mm offset but can be designed to suit any offset. Bracket typically fabricated from FRP Channel & attached to a 316 SS angle bracket with 316 SS fixings.

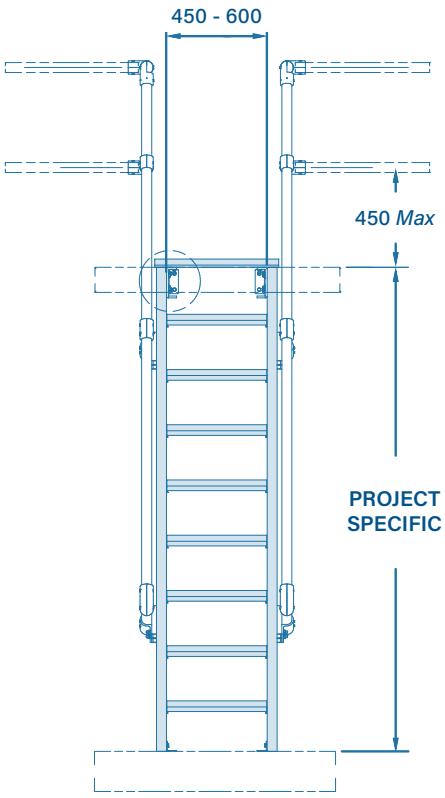
RETRACTABLE STILES
LD-RS-RT-GRP



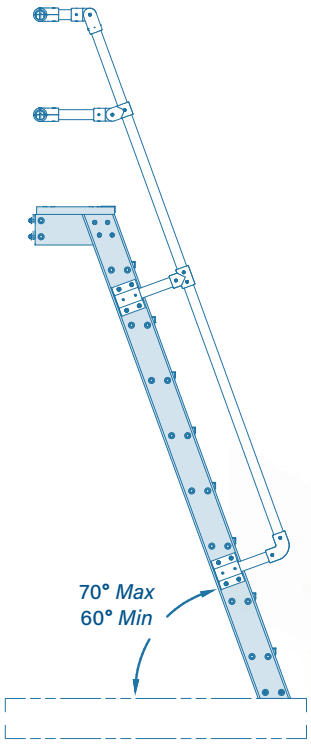
Retractable ladder stiles offer robust and adaptable access solutions for industrial environments, allowing safe and efficient ladder deployment or retraction as operational demands require.

6.0 STEP LADDER

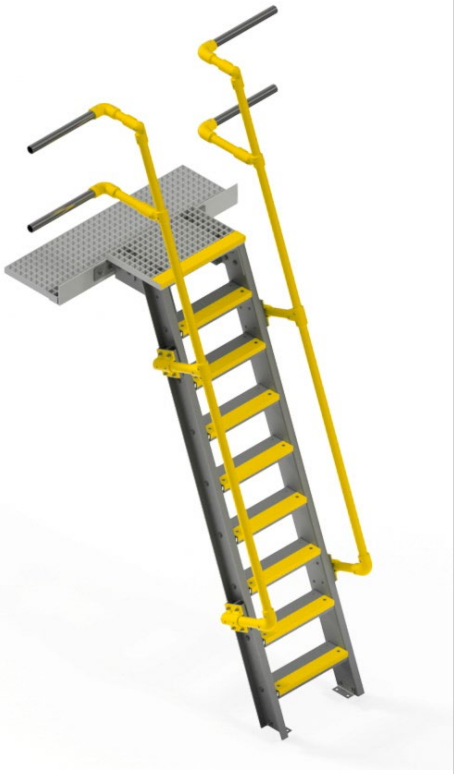
STEP LADDER
Typical Design



FRONT VIEW

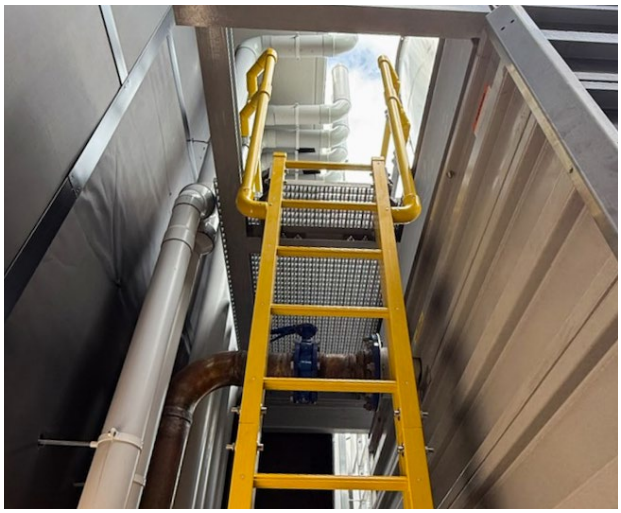


SIDE VIEW



When supplying FRP step-type ladders, it is essential to specify a minimum tread width, an angle between 60° and 70° relative to the horizontal, anti-slip nosing on all treads, appropriate enclosures, handrails as required, and sufficient clearances to ensure safe and ergonomic access for industrial and commercial applications.

7.0 GALLERY



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