

# FRP Ladders and Cages



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# ADVANTAGES



Lightweight



Corrosion Resistant



Fire Retardant



Low Maintenance



Impact Resistance



Cost Effective



Easy Fabrication



Low Conductivity



Easy Installation

# General Information

## What is SAFRAIL?

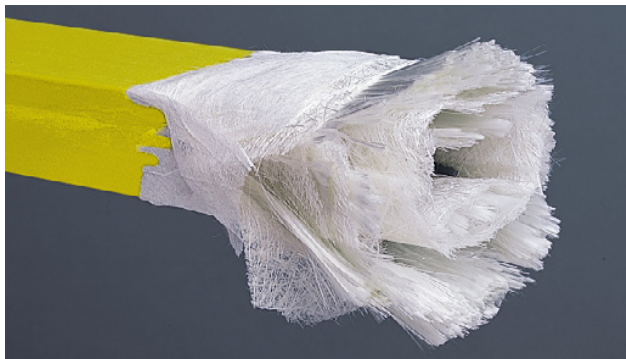
SAFRAIL™ fiberglass ladders and ladder cage systems are widely installed on tanks, structures, and buildings across various industries. These systems have been used for decades, particularly in chemical and other highly corrosive environments, demonstrating long-term reliability. Fiberglass ladder solutions have been in service since the 1950s and are well proven for applications where corrosion resistance is critical. Even in fully immersed conditions, fiberglass has shown superior durability compared to traditional materials such as aluminum and carbon steel, while requiring minimal maintenance over time.

## Sizes & Availability

SAFRAIL™ ladders shall be manufactured with a standard rung width of 457 mm (18 in.) and a uniform rung spacing of 305 mm (12 in.). Ladder lengths shall be supplied in accordance with project requirements within practical manufacturing limits. All standard ladder and ladder cage systems shall be designed and fabricated in compliance with OSHA 29 CFR 1910.23 and 1926.1053. Ladders may be delivered pre-assembled, ready for installation at site. Custom colours shall be available upon request. Non-standard ladder geometries and access cage configurations may be provided subject to project-specific design requirements.

## Materials of Construction

Fiberglass ladder and ladder cage systems are manufactured using a high-quality polyester resin matrix incorporating flame-retardant properties and ultraviolet (UV) stabilizers to ensure long-term durability in outdoor and industrial environments. Where enhanced corrosion resistance is required, a vinyl ester resin system shall be provided as an alternative upon request. All standard structural components, including side rails and safety cages, shall be integrally pigmented in OSHA-compliant safety yellow for visibility and safety compliance. Ladder rungs shall consist of pultruded fiberglass-reinforced polyester tubes featuring a fluted, anti-slip surface profile to provide secure footing under all service conditions.



SAFRAIL is an engineered composite handrail system consisting of:

- Continuous glass fibers
- Two continuous strand glass mats
- A synthetic surfacing veil
- Fire-retardant polyester resin

This unique combination provides the ultimate in strength, stiffness and long-term corrosion and UV protection.

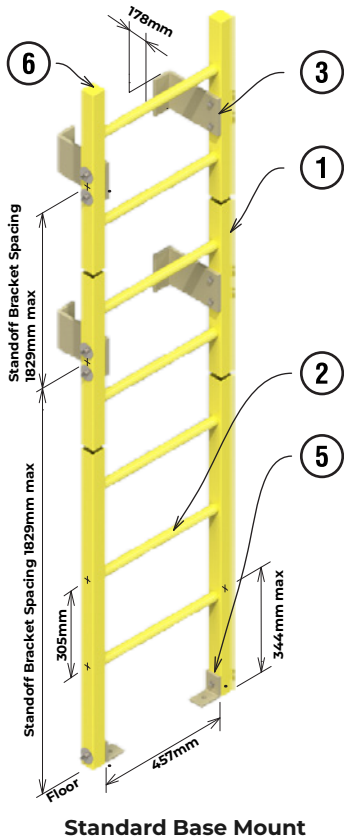


## FEATURES

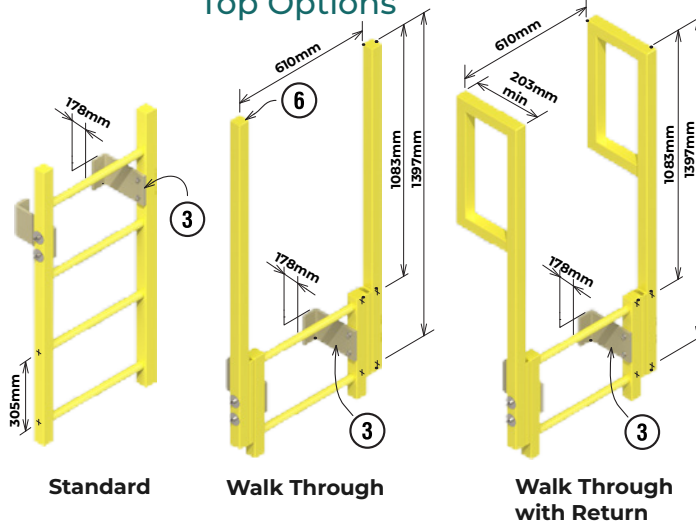
- Corrosion Resistant
- High Structural Capacity
- Impact Resistant
- Lightweight
- Easy assemble at site
- Low Electrical Conductivity
- Low CO2 Footprint

# Standard Ladder Systems

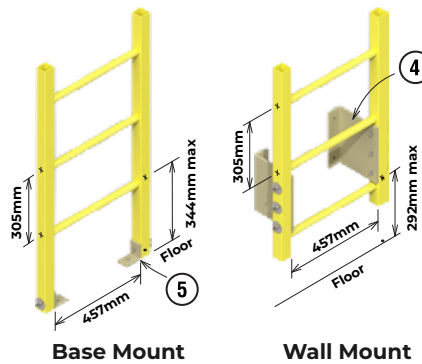
## Standard Ladder



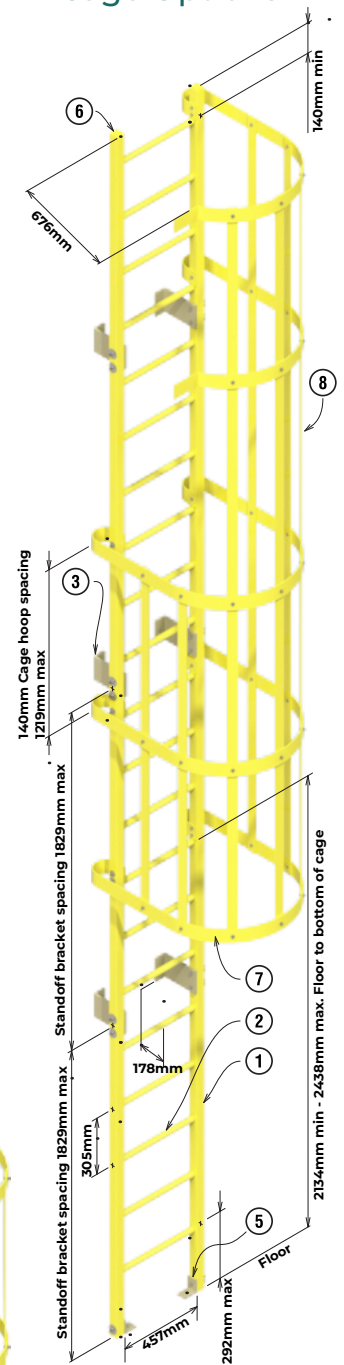
## Top Options



## Bottom Options



## Cage Options



## Part Identification

Name	Description
1	Side Rail
2	Rung
3	Intermediate Standoff Bracket
4	Wall Standoff Bracket
5	Bottom Bracket
6	End Plug
7	Cage Hoop
8	Cage Straps

Note: All fasteners must be in material grade A4/A4-80

# Safety Gate

## Modular Fiberglass Safety Gates

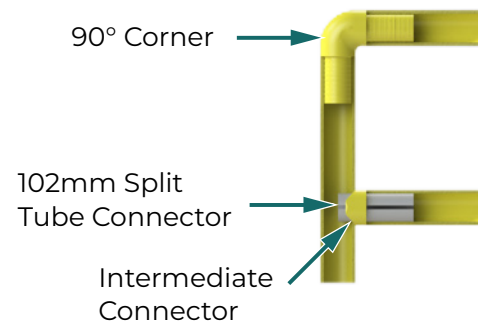
Our fiberglass safety gate system is designed for maximum flexibility, durability, and ease of installation in demanding industrial and marine environments.

Using a range of standardized fiberglass tubes, fittings, and components, the gate can be custom built to virtually any size or configuration. The modular design allows you to adapt the solution to your project requirements while maintaining a clean and professional appearance.

The system is manufactured from high-quality glass fiber, providing excellent corrosion resistance and long service life in harsh environments exposed to moisture, chemicals, and salt air.

Each gate is equipped with robust self-closing hinges that automatically return the gate to the closed position, improving safety and ensuring controlled access to restricted areas, platforms, walkways, and stairways.

### Standard components



### Self Closing Hinge

