



## RAPIDECK® COMPOSITE EQUIPMENT PLATFORMS

### WHAT IS RAPIDECK?

Whether a rooftop or tower-based site, Fibergrate Composite Structures' RapiDeck\* composite equipment platforms are the perfect solution for supporting site-based telecom equipment. Five standard platforms with adjustable supports are in stock for *rapid* delivery to your site. In addition to the stock sizes, an almost infinite number of RapiDeck\* platform configurations can be designed and fabricated to fit your unique application. Optional accessories such as railings and stairs can also be easily added.



### BENEFITS



Lightweight: Fibergrate FRP products lessen impact on rooftop installations, reduce installation time, can eliminate the need for heavy lifting equipment, and reduce shipping costs.



Adjustable: Fully adjustable support legs for decking accommodate sloping roofs and uneven foundations.



Slip Resistant: The concave meniscus surface of Fibergrate molded grating products have unmatched slip resistance for improved worker safety.



Electrically & Thermally Non-Conductive: Fiberglass is electrically non-conductive for safety and has low thermal conductivity which results in a more comfortable product when physical contact occurs.



Low

Install

Cost

Corrosion Resistant: Fibergrate\* fiberglass products are known for their ability to provide corrosion resistance in the harshest environments.

Low Install Cost: Due to ease of fabrication and

lightweight, FRP molded grating eliminates the

need for heavy lifting equipment.



High Strength to Weight Ratio: Fibergrate FRP is one third of the weight of steel. Panels are easily carried by two workers.



Long Service Life: Fiberglass products provide outstanding durability and corrosion resistance in demanding applications, therefore providing improved product life over traditional materials.



Low Maintenance: The corrosion resistant properties of FRP grating and other products reduce or eliminate the need for sandblasting, scraping and painting. Products are also easily cleaned with a high pressure washer.

## STANDARD PLATFORM SIZES

SIZE	NUMBER OF LEGS	WEIGHT
8'x 12'	28	538 lbs
10'x 16'	43	874 lbs
10'x 20'	45	1,070 lbs
12'x 16'	63	1,117 lbs
16'x 24'	96	2,054 lbs



Note: More than 40 other standard non-stocked sizes available custom sizes and layouts also available. Call 800-527-4043 for more details.



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# RAPIDECK PLATFORM COMPONENTS

### RAPIDECK DECKING

RapiDeck<sup>®</sup> decking panels are made of Fibergrate<sup>®</sup> FRP molded grating panels, 1-1/2" deep with 1-1/2" square mesh, dark gray in color with the Corvex<sup>®</sup> resin system, a resin system that was specially formulated to provide a superior service life in an outdoor environment.

#### SURFACE DESCRIPTION

Meniscus

The concave surface of Fibergrate<sup>\*</sup> meniscus top grating provides superior slip resistant footing in most environments including wet/ oily conditions. It is the standard surface for most Fibergrate molded gratings.

Corvex<sup>®</sup> Resin System: This newly improved isophthalic polyester resin system outperforms a number of competitive fiberglass and metal products and meets the requirements for corrosion resistance found in industrial, chemical processing and water/wastewater applications.



Section Properties per Ft of Width: A = 2.85 IN<sup>2</sup> I = 0.51 IN<sup>4</sup> S= 0.65 IN<sup>3</sup>

Flame Spread: ASTM E84 rating of 25 or less.

Certifications: DNV Type Approval No. F-16856; meets the USCG requirements for general fire rating\*. \*For specific requirements and questions, please contact technical services.

### RAPIDECK SUPPORT SYSTEM

Fibergrate's lightweight, high-capacity support legs with cross bracing will ensure a "rock steady" platform. Most systems are easily assembled by two workers in an hour or less!

Support system features and benefits include:

- Fully adjustable legs giving a platform height of 14-1/2" to 19-1/2" to accommodate sloping roofs and uneven gravel bed foundations (leg rods are stainless steel)
- Large 18" diameter bases, made of compression molded FRP, which ensure excellent load distribution and platform stability
- Corrosion resistant materials (composites and stainless steel) used throughout
- · Fully fabricated legs for rapid installation
- Taller legs or seismic bracing are available. A custom RapiDeck\* platform can be engineered to meet your needs. Please contact your Fibergrate sales person to assist with your request.

Rapid Field

Customization



 Rapid Setup (Less than an hour!)





Quad Head

Support Leg

Single Head Support Leg



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# Composite Crossover Ladders



## FRP Crossover Ladder Platforms

Pre-Engineered composite crossover ladders by Fibergrate Composite Structures were developed as a more cost-effective, standard solution to meet customer's special requirements that would normally necessitate a custom solution. Fibergrate's crossovers are versatile enough to solve many of the day-to-day needs of most facilities. Whether you need a crossover ladder for a retaining wall or a walkover for a tank, Fibergrate's pre-engineered solution is available in a variety of heights that address most standard clearances below the walkover, and will save you time and money. Traditional material options such as heavy, expensive steel or stainless steel crossovers are often unsafe, costly to ship and install, and difficult to clean. Fibergrate's composite crossovers offer a better solution!





Fibergrate's pre-engineered crossover ladders are constructed utilizing fiberglass reinforced plastic (FRP) Fibergrate® molded grating and Fibertred® stair treads, both with a meniscus surface which provides superior slip resistance in most environments, including oily or wet conditions. Dynaform® ISOFR structural components are used for the structure of the platform and Dynarail® ISOFR guardrail with UV coating is also used, creating a durable, safe crossover. The standard colors for the system are dark gray for the grating, treads and structure; and yellow for the guardrail. The grating and stair treads are manufactured in Fibergrate's Corvex® resin system, which is an isophthalic polyester resin system that meets the requirements for corrosion resistance found in industrial, chemical processing, and water/ wastewater applications. The corrosion resistant properties of all of Fibergrate's FRP products will ensure your crossover will be in service for many years to come and will require very little maintenance, which means no costly downtime for repairs. With available clearance options of 12", 18", 24", 36", 48" and 60" beneath the crossovers, Fibergrate has the capability to meet your requirements (detailed drawings on page 2).





# Pre-Engineered Crossover Stairs

# **Detailed Drawings**

ITEM DESCRIPTION	PART NUMBER
FRP Crossover Stairs - 12" Clearance	865312.01
FRP Crossover Stairs - 18" Clearance	865318.01
FRP Crossover Stairs - 24" Clearance	865324.01
FRP Crossover Stairs - 36" Clearance	865336.01
FRP Crossover Stairs - 48" Clearance	865348.01
FRP Crossover Stairs - 60" Clearance	865360.01

All crossovers are constructed of Fibergrate® molded grating with Corvex® resin system in dark gray with meniscus surface, dark gray molded Fibertred® stair treads with Corvex resin and meniscus surface with grit nosing, ISOFR dark gray Dynaform® structural shapes, and ISOFR yellow UV coated Dynarail® guardrail.

> M-5 HOLD DOWN CLIP ASSY

12" CLEARANCE - GRATING PLAN



# Composite Crossover Stairs



## Pre-Engineered FRP Crossover Stair Platforms

Are you tired of paying more money and having longer lead times when having to order custom crossover stairs? Now you don't have to Fibergrate now offers a new pre-engineered, standard solution!

Fibergrate's crossover stairs are versatile enough to solve many of the day-to-day needs of most facilities. Whether you need a crossover for a retaining wall or a walkover over tanks, pipes, conveyors or other obstructions, Fibergrate's crossover stairs are offered in a variety of heights that address most standard clearances and will save you time and money. Fibergrate's crossover stairs provide a safer working environment. All standard systems are designed with stairs and guardrail that are full OSHA compliant. The 45° angle of climb is easy for workers to manage when carrying loads, and the surface of the stairs and platform provide slip resistant footing. A ballasted system is also available for rooftop applications. Traditional material options such as heavy, expensive steel or stainless steel crossovers are often unsafe, costly to ship and install, and difficult to clean. Fibergrate's composite crossovers offer a better solution!



- Pre-Engineered
- Easy to Order Part Numbers
- Available Clearance Heights: 12", 18", 24", 36", 48", 60"
- 45° Angle of Climb

Ballasted System Available for Rooftops\*

\*See page 3 for detailed drawing



Slip

Resistance

The surfaces of Fibergrate's grating

and stair treads provide slip resistance

even in wet and oily environments. This

#### Fasy Installation

FRP materials are lightweight, eliminating the need for heavy lifting equipment. Fibergrate crossovers are easy to assemble on-site, reducing the cost of added labor.



### Why use Fibergrate's Crossover Stairs?



Corrosion Resistance

Fibergrate composite products are known for their ability to provide corrosion resistance in the harshest environments and chemical exposures. Our products remain durable and will not rust or rot.

### Materials

Fiberglass Reinforced Plastics (FRP)

- Fibergrate® Grating and Fibertred® Stair Treads with Slip Resistant, Meniscus Surface; Corvex® Resin System; Dark Gray
- Dynaform<sup>®</sup> Structural Shapes; ISOFR Resin; Dark Gray
- Dynarail® Railing System; ISOFR Resin; Yellow; with UV Coating

### Other Benefits

- Low Maintenance
- Long Service Life
- Non Conductive
- Easy Assembly

High Strength to Weight Ratio

and falls.

- Order by Part Number

# Dynarail<sup>®</sup> FRP Safety Ladders

## [OSHA Requirements for Ladders & Ladder Systems]

From the Code of Federal Regulations, Title 29, Labor, 1910.27 Installer is responsible for referring to most current OSHA Code for complete information.

- 1. (a)(1)(i) 200 lb concentrated load (minimum at center of rung)
- 2. (b)(1)(ii&iii) Distance between rungs maximum 12", minimum clear width between siderails of 16"
- 3. (c)(4) Distance from the centerline of rungs to wall in back of ladder shall be not less than 7"
- 4. (d)(1)(ii) Cage required on ladders of more than 20' to a maximum unbroken length of 30'
- 5. (d)(1)(iii) Cage to extend minimum of 42" above top of landing
- 6. (d)(1)(iv) Cage shall begin minimum 7' to maximum 8' above base of ladder (floor)
- 7. (d)(1)(v) Cage shall not be less than 27" in width
- (d)(1)(v) Cage hoop vertical bars shall be located at a maximum spacing of 40° around the circumference of the cage

## [Assembly & Mounting Details]



# Dynarail<sup>®</sup> FRP Safety Ladders

The innovative Dynarail® fiberglass reinforced plastic (FRP) safety ladder and cage system meets or exceeds OSHA requirements. Dynarail cage components are shipped in compact kit form - not large, bulky units prone to damage. The safety cage is ready for field assembly with predrilled hoops for fast and easy attachment to the ladder and vertical safety bars.

Ladders are stocked in standard heights of 8', 10', 12', 14', 16', 18', 20' and 24' and are available in taller heights using splice kits. Ladders may be ordered with or without safety cage kits.



Safety features are built in from the ground up. Special clip angles have been developed to securely anchor the ladder. Intermediate stand-off brackets laterally stabilize the ladder to the supporting structure on 6' centers. Ladder rungs include heavily serrated flutes for slip resistant footholds.

### [Technical Data] (Except where noted, all materials are yellow vinyl ester, fire retardant - VEFR)

#### LADDER:

Maximum length without splice	24'-0"	Outside Diameter of rung	1-1/4"
Maximum ladder length with cage	33'-6"	Inside Diameter of rung	7/8"
Clear inside width (inside rail to rail)	18″	Rail - outside width	1-3/4"
Outside width (outside rail to rail)	21-1/2"	Rail - wall thickness	1/4"
Rung Spacing (center to center)	12"	Weight per foot (approximately)	2.7 lbs.

### CAGE:

Product	Description
	27" from center line of ladder rung to inside of hoop
Standard Hoop Kit	3" wide x 1/4" thick hand layup
	Predrilled holes (with necessary bolt assemblies)
Bottom Hoop Kit	31" from center line of ladder rung to inside of hoop
	3" wide x 1/4" thick hand layup
	Predrilled holes (with necessary bolt assemblies)
Hoop Brackets	1/4" thick, "U" shaped hand layup
(Included with hoop kits)	Predrilled holes (with necessary bolt assemblies)
Vertical I-Bars	I-Bar, 1-1/2" deep x 5/8" flange x 1/8" thick
Bottom Wall Mount Bracket Kit* Required when ladder cannot be floor mounted	2-3/16"" x 8" x 3/8" angle, 18" long Two per set (with necessary bolt assemblies)
Wall Mount Bracket Kit*	2-3/16" x 8" x 3/8" angle, 6" long
	7" from wall to center of rung
	Two per set (with necessary bolt assemblies)
Floor Mount Clip Kit	4" x 4" x 3/8" angle, 2-3/4" long
	Two per set (with necessary bolt assemblies)

\*NOTE: Wall mount brackets and floar mount clips are predrilled with 9/16" diameter holes for 1/2" diameter anchor bolts only. Anchor bolts not included.

# Dynarail<sup>®</sup> Benefits



#### Corrosion Resistant:

Dynarail\* fiberglass ladder products are known for their ability to provide corrosion resistance in the harshest environments and chemical exposures.



#### Slip Resistant:

Ladder rungs include heavily serrated flutes for positive, slip resistant footholds; also ungritted rungs are easy on the hands, while still ensuring safety.



#### Low Maintenance:

The corrosion resistant properties of Fibergrate's FRP products reduce or eliminate the need for sandblasting, scraping and painting. Products are also easily cleaned with a high pressure washer.



#### Fire Retardant:

Flame spread rating of 25 or less, as tested in accordance with ASTM E-84, and meets the selfextinguishing requirements of ASTM D-635.

### Electrically & Thermally Non Conductive:

Fiberglass is electrically non conductive for safety and has low thermal conductivity which results in a more comfortable product when physical contact occurs.



Low

Install

Cost

#### Long Service Life:

Fiberglass products provide outstanding durability and corrosion resistance in demanding applications, therefore providing improved product life over traditional materials.

### Low Install Cost:

Due to ease of fabrication and light weight, FRP ladders eliminate the need for heavy lifting equipment. Components are also labeled with tags that correspond to engineering drawings to ensure time-efficient and accurate installation.



#### UV Protection:

UV inhibitors in the resin matrix, along with a synthetic surfacing veil, provide optimum protection from the effects of UV weathering. (An optional UV coating is required for installations with intense UV exposure.)



#### Heavy Metal Safe:

The EPA, OSHA and other regulatory agencies created to protect our lives and our natural resources have increased legislation to control heavy metals such as lead, chrome, cadmium and other metals in all products where exposure is a health threat. Fibergrate Composite Structures Inc. supports this strengthened legislation and has, for more than 20 years, voluntarily tested for heavy metals in our products and minimized or eliminated heavy metals from our products.

## [ Dynarail Resin Systems ]

#### ISOFR (Ladders):

Isophthalic polyester resin formulation with a low flame spread rating of 25 or less designed for applications where there is moderate exposure to corrosive elements.

#### • VEFR (Ladders):

Vinyl ester resin system with a flame spread of 25 or less for dependable resistance to both acidic and alkaline environments.

# Dynarail<sup>®</sup> Ladders

Combining corrosion resistance, long life and a low maintenance design, Dynarail<sup>®</sup> ladder systems are superior to conventional metallic systems. These advanced systems are designed and manufactured to be easily installed with no guesswork involved. Components are lightweight and easy to fabricate. Savings on labor and equipment often make the total installed cost of Dynarail comparable to that of steel. Combining its low cost of installation with low maintenance and long life, Dynarail offers a life cycle cost that is significantly lower than that of its counterparts.





The Dynarail ladder line includes ladders, standard walk-thrus and safety cages. Fibergrate's complete line of Dynarail products offer a variety of solutions for most applications.

Dynarail components are manufactured using the proven Fibergrate pultrusion process. In this process, continuous fiber rovings and mat as well as a synthetic veil are mechanically drawn through a resin bath and shaped through a series of forming guides, then pulled through a heated die.



## [Fibergrate Markets]

Architectural

Commercial

- Bridge & Highway
- Chemical
- Food & Beverage
  Manufacturing
- Metals & Mining
- Microelectronics
- Oil & Gas
  - Pharmaceutical
    - narmaceuticar
  - Power
  - Pulp & Paper
- Recreation
- Telecommunications
- Transportation
- Water & Wastewater







## DYNAROUND RG™ (ROOF GUARD)

Fibergrate's ballasted rooftop guardrail system, DynaRound RG™, is designed for safety and fall protection on roof top applications. Each system is made of durable, weather-resistant fiberglass reinforced plastic (FRP) composite uprights and non-FRP counterbalance weights and connector components. This system meets applicable safety standards in the U.S. and Canada to protect people working at heights.

DynaRound RG provides the utmost in safety by protecting against injuries or death from accidental falls from the roof while helping you meet OSHA regulations 1910.29(b)(1) through (b)(7) for unprotected sides and edges. This system also meets Section 4.1.5.14(1)(b) of the 2015 National Building Code of Canada. It offers superior protection around rooftop mechanical equipment that is within 10 feet of a roof edge, enabling your roof to comply with provision 1013.6 of the International Building Code. The counterweight system means there is no drilling into the roof to attach the system. This eliminates any damage to the roof that could result from the drilling, including potential sources of leaks.

## BENEFITS



Lightweight: Fibergrate FRP products lessen impact on rooftop installations, reduce installation time, can eliminate the need for heavy lifting equipment, and reduce shipping costs.



Long Service Life: Fiberglass products provide outstanding durability and corrosion resistance in demanding applications, providing improved product life over traditional materials.

UV Resistant: UV Inhibitors in the resin matrix, along with a synthetic surfacing veil, provide optimum protection from the effect of UV

along with a synthetic surfacing veil, provide optimum protection from the effect of UV weathering. In addition, the FRP rails, posts, and outriggers have an additional UV coating suitable for intense IV exposure



Low Install Cost: Prefabricated FRP components and connectors using set screws for assembly eliminate drilling and almost all field cutting for a rapid, clean installation.



Corrosion Resistant: Fibergrate<sup>®</sup> fiberglass products are known for their ability to provide corrosion resistance in the harshest environments.



Low Maintenance: The corrosion resistant properties of FRP reduce or eliminate the need for sandblasting, scraping and painting. Products are easily cleaned with a high pressure washer.



