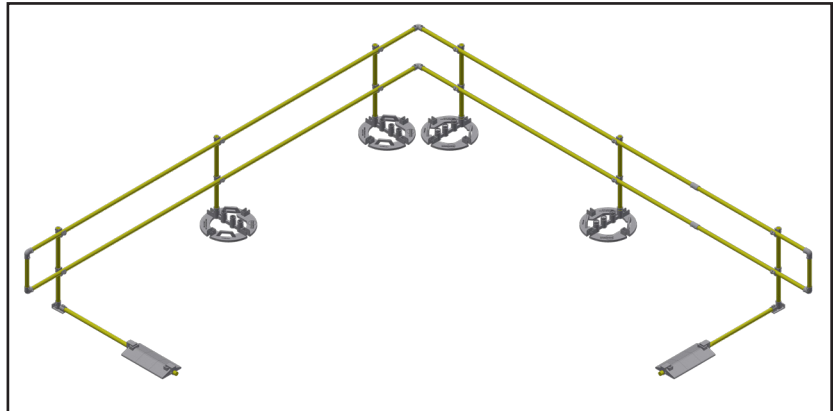


DynaRound RG Slimline™ System Installation Guide

Estimated Installation Time: 2 Man Crew, 40LF Per Hour

Fibergrate's new ballasted rooftop guardrail system, DynaRound RG Slimline™, provides safety and fall protection on rooftop applications. The Slimline system uses both counterbalance bases in addition to circular galvanized bases with less interference. Each Slimline system is made of durable, weather-resistant fiberglass reinforced plastic (FRP) composite uprights and rails, galvanized steel base weights, and galvanized connector components. This system meets applicable safety standards in the U.S. and Canada to protect people working at heights.



TOOLS REQUIRED

- Circular Saw with carbide or masonry blade for cutting rail tubes to length**
- 25' Tape measure and marking tools or scribe**
- Torque wrench of up to 20 lb-ft or 240 lb-in capacity with 5/16" Allen Key Socket**
- Removable thread locking compound (such as Blue Loctite)**
- The installer is responsible for job site safety and lifting equipment required**

NOTE: Cuts and drilled holes must be sealed to maintain corrosion protection.

IMPORTANT

Read these instructions completely before attempting to install the DynaRound RG™ System. It is important to understand the installation procedure thoroughly prior to beginning work. It is the installer's responsibility to carefully follow fabrication and installation plans and instructions to ensure design performance characteristics of the DynaRound RG™ System. The installer could be liable for claims that result from improper installation.

ASSEMBLY INSTRUCTIONS

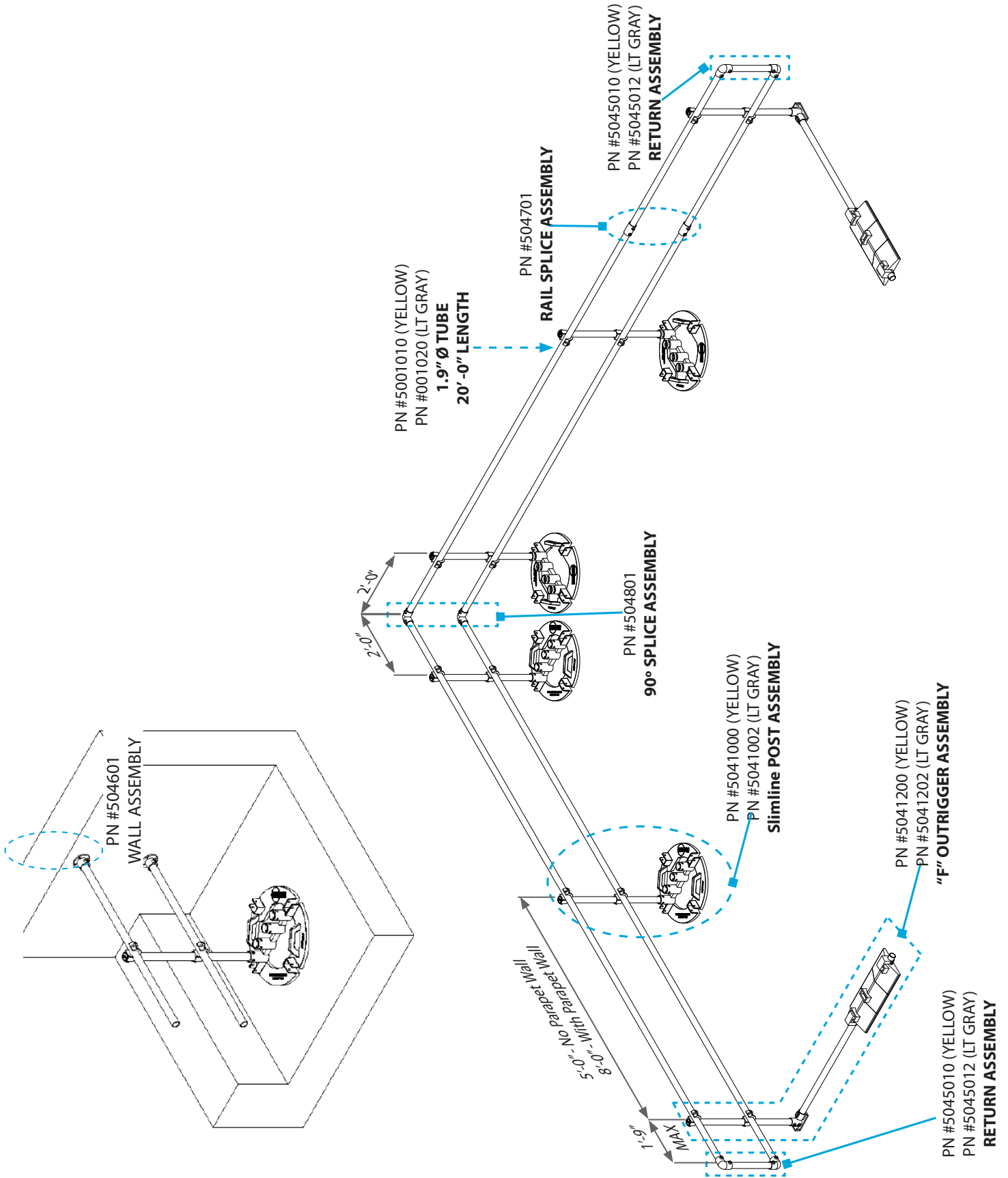
1. Inspect and inventory all DynaRound RG Slimline components and compare to the packing list or bill of materials to verify that all materials are available for installation. Contact Fibergrate at 1-800-427-4043 to report any missing or damaged material.
2. Inspect the roof to verify that the area where the DynaRound RG Slimline is to be installed is prepared for installation. Remove any debris/obstructions in the installation area and verify all field dimensions prior to assembling the DynaRound RG Slimline System.
3. Verify that the locations where the posts will be placed are free of debris and that the roof surface has been protected as directed by the roofing manufacturer. Most roofing manufacturers recommend placing a loose patch of the roofing material between the building roof and any object which contacts it.
4. Prior to beginning installation, it will save time to pre-assemble the Open Cross Over fittings to the Posts in the positions indicated on the drawing. The upper Open Cross over should be flush with the top of the post (the capped end) and the second one 21 inches (533 mm) below the top of the post. Ensure that they are oriented so that the Open Cross Over saddle is parallel to the hole for the Steel Lock Pin. Check that the Open Crossovers not rotated relative to each other on the post. Only snug the set screws as required to hold the fittings in place. Note that the post for the 'F' Outrigger assemblies are 1 inch (25.4mm) longer and have a reinforcement at the uncapped bottom end, but are assembled in the same way.
5. If starting the layout with 'F' Outrigger Assembly (PN 5041200), locate it a maximum of 1'-9" (533 mm) from the beginning of the guardrail run. Install the 'F' Post/Open Cross Over assembly and the Outrigger to the Slipper and temporarily torque the set screws to hold them in place. Install the Rails and Special Hooks on

Installation Instructions

the outrigger and temporarily torque the set screws.

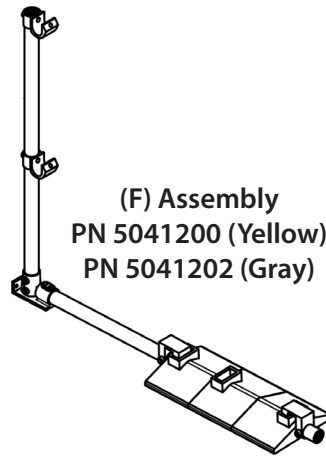
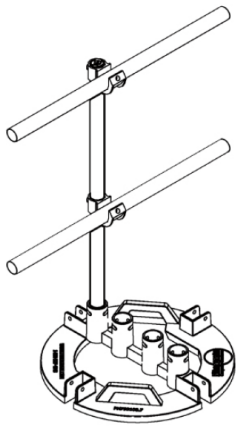
6. If starting the layout with a Dynaround Slimline Kicker Assembly (PN 5041102), begin by laying out the Dynaround RG Slimline guardrail system starting with step (7) and setting the first Dynaround RG Slimline Base a maximum of 1'-9" (533mm) from the beginning of the guardrail run. After the guardrail system is installed, go back and install the Dynaround SL Kicker Assembly following the same procedures as the rest of the DynaRound RG Slimline System.
7. Locate the first Dynaround RG Slimline Base following the desired layout. Orient the base as shown in the attached drawings. It is recommended to snap chalk lines or follow a string line to ensure that the bases are laid out in a straight line. If there is no parapet present, the bases should be set back a minimum of 12 inches (305 mm) from the roof edge and spaced at a maximum of 5 ft (1524 mm) on center. If a parapet is present, the bases may be spaced at a maximum of 8 ft (2438 mm) on center and the bases placed as close to the parapet as possible.
8. Repeat step (7) until all bases have been located.
9. Install the Post/Open Cross Over assemblies from step (4) into the opening in the Slimline base closest to the roof edge and secure in place using the Steel Lock Pin. Be sure that the wire retainer of the Lock Pin is engaged. Partially insert set screws (bagged separately) into the base post hole that contains the previously placed Steel Lock Pin. The Open Cross Overs should be oriented so that the horizontal rails are on the roof side of the guardrail.
10. Install 20 ft (6.1 m) sections of 1.9" OD FRP tube top and mid-rails through the Open Cross Over fittings on the posts. Temporarily torque the set screws only as required to hold the rails in place to allow for adjustment later. Splice the rails together using PN 504701 Rail Splice Assembly which consists of two PN 793149 Sleeve Joints. Cut the 1.9" OD FRP tube rails to length as required.
11. At Returns (unsupported terminations of the guardrail), connect the two ends of the 1.9" OD FRP tube using PN 5045010 Return Assembly, which consists of a length of 1.9" OD FRP tube and two PN 793125 Two Way Elbows. Temporarily torque the set screws only as needed to hold the fittings in place to allow for adjustment later.
12. Returns are supported with a F Post Assembly at a maximum of 1'-9" (533 mm) from the unsupported end of the rail as described in Step (5).
13. At 90° corners, connect the 1.9" OD FRP rails using PN 504801 - 90 Degree Splice Assembly which consists of two PN 793125 Two Way Elbows. Temporarily torque the set screws only as needed to hold the fittings in place to allow for adjustment later. A Dynaround RG Slimline Post Assembly must be located a maximum of 2'-0" from the corner on each side.
14. At non-90° corners, connect the 1.9" OD FRP rails using PN 504802 – Swivel Elbow Assembly which consists of two PN 793123 Swivel Elbows. Install per the directions given in (10) for the 90 Degree Splice Assembly.
15. At rail terminations to walls, the rails are attached to the wall using PN 504601 Wall Assembly which consists of two PN 793131 Base Flanges. The maximum distance from the last post/outrigger assembly to the wall is 5 ft (1524 mm) for non-parapet roofs and 8 ft (2438 mm) for roofs with parapets. The Base Flanges are connected to the wall or fixed structure using 4 each ¼" diameter countersunk head fasteners. Verify that the wall or other fixed structure can sustain the required loads. Unless noted otherwise, the ¼" dia. countersunk head fasteners are to be supplied by the customer and suitable for installation based on the field conditions.
16. After completing the layout, go back and verify that all posts are vertical, correctly spaced, and that the system is assembled per the attached drawings. To complete the installation, go back and apply thread locking compound to all set screws at the Slimline Bases, Open Cross Overs, 90 Degree/Swivel Elbow Connectors, and Wall Assemblies and torque the set screws to 7.5 lb-ft (10.1 N-m). At the 'F' Outrigger Assemblies, apply thread locking compound and torque the set screws at the Slipper to 15 lb-ft (20.3 N-m), and at the Roofs/Special Hooks to 7.5 lb-ft (10.1 N-m).
17. After installation, the system can be inspected by the owner or the owner's engineer and accepted. A written log of the final inspection and acceptance should be kept by the owner.
18. The installed system should be inspected annually by a qualified inspector or Fibergrate representative. This inspection should include checking the fittings for looseness, checking for corrosion of the fittings, checking that the minimum setback from the roof edge is maintained, and inspecting the 1.9" OD FRP tubes for any signs of damage. Any corrective actions required by this inspector must be immediately implemented or the DynaRound RG Slimline system should be clearly tagged as unsafe for use until repairs are implemented. Written logs should be kept of every inspection and any corrective actions documented.

DynaRound RG Slimline™ System Example Layout

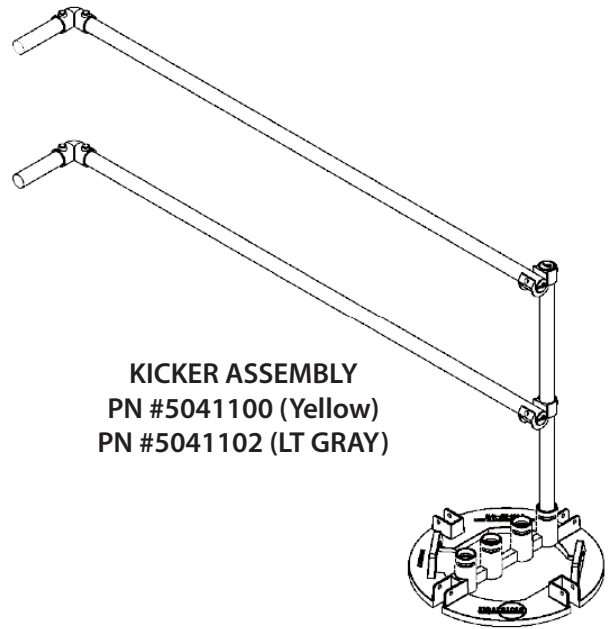


DynaRound RG: Post Assemblies

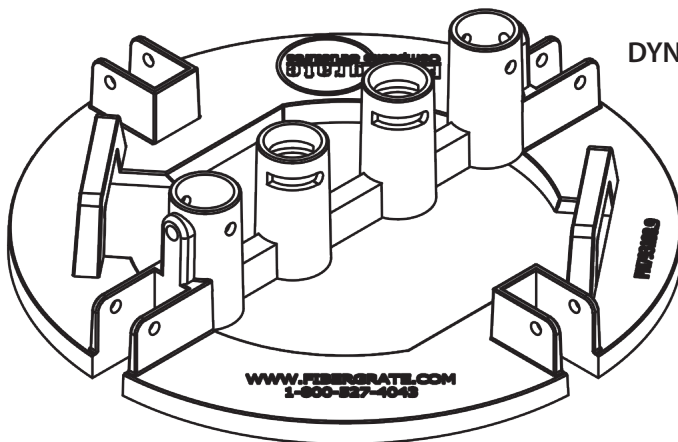
POST ASSEMBLY
 PN #5041000 (Yellow)
 PN #5041002 (LT GRAY)



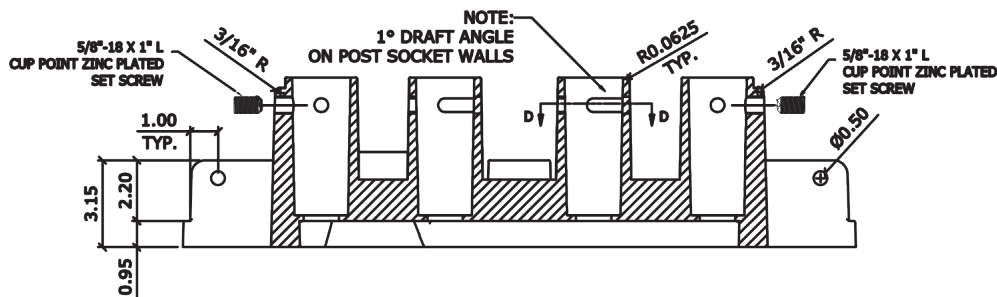
(F) Assembly
 PN 5041200 (Yellow)
 PN 5041202 (Gray)



KICKER ASSEMBLY
 PN #5041100 (Yellow)
 PN #5041102 (LT GRAY)



DYNAROUND SLIMLINE BASE
 PN 793108.9



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