



User Instruction Guide for RoofGuard Classic

 RGC-UM

 RGC-TB

Liftsafe Fall Protection Inc.
RoofGuard Classic Instruction Manual

 RGC-UM-3.3

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WARNINGS AND CONDITIONS

This system is part of a personal fall protection system. The user must read and follow all guidelines in this manual. These instructions must be provided to the user of this system. The user must read and understand these instructions or have them explained to them prior to using the system.

Alterations or misuses of this system or failure to follow instructions may result in serious injury or death. If you have any questions on the use or care of this system please contact Liftsafe Fall Protection Inc. at 1-800-977-2005.





1.0 APPLICATION

1.1 The RoofGuard Classic system is designed to be installed on flat rooftops anywhere workers may be at risk of fall from an elevated surface while working; rooftops, mezzanines, and around openings, when workers should be protected by a physical barrier from the hazard.



2.0 SYSTEM REQUIREMENTS

2.1 The RoofGuard Classic system is designed to be used on flat roofs (up to 5% grade) where the baseplate can sit flat on the roof surface. Depending on the roof surface, a rubber pad or ultra-light paving stone may be used under the baseplates to facilitate safe/stable contact with the roof surface, as freestanding systems rely on friction between the baseplates and the roofing materials. Baseplates **MUST NOT** be set on ice or snow or other substances which may permit excessive sliding. Users **MUST** clear the area prior to placing the RoofGuard baseplates. If no parapet or curb is present at the roof edge, contact LFP for a review of the application.

2.2 The RoofGuard Classic railing system is designed to protect workers on rooftop areas near a leading edge or near an opening into which they may fall. It is not intended to protect members of the public or large gatherings of people from a rooftop edge.



3.0 COMPONENTS

3.1 Baseplates are cast steel and hot dip galvanized for long-term outdoor use. These baseplates only weigh 40 lbs and are designed to stack together, making them easy to move and ship. Cone point stainless steel set screws secure the guardrail into the baseplates.

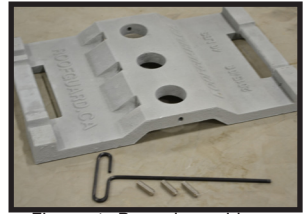






Figure 1: Baseplate with set screws and assembly tool


3.2 Vertical posts are supplied with fittings and caps for a variety of configurations: by placing the fittings on a vertical post, the 5 common “post” assemblies are created.

 **RGC-POST-END:** Used at the end of a counter weighted tieback (return).

 **RGC-POST-90D:** Used wherever the system makes a 90 degree corner.

 **RGC-POST-INT:** Used where 9-ft sections join together along leading edge between tiebacks.

 **RGC-POST-TB:** Used where a counter weighted tieback is required for system support.

 **RGC-POST-VAR:** Used for applications where system “angles” off in a direction that is not straight, nor is it 90 degrees.

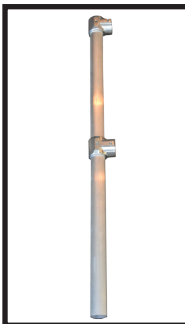


Figure 2:
RGC-POST-END

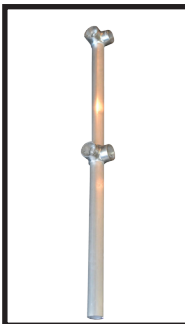


Figure 3:
RGC-POST-90D

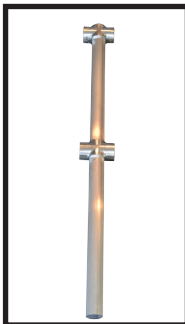


Figure 4:
RGC-POST-INT

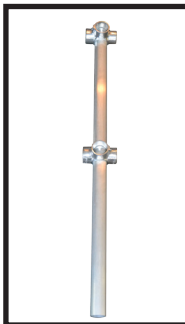


Figure 5:
RGC-POST-TB

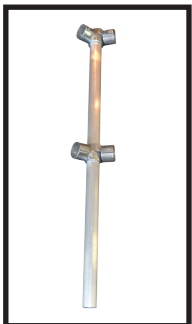


Figure 6:
RGC-POST-VAR

3.3 Horizontal rails are available in two standard sizes, 9-ft leading edge, and 6-foot return sections. For other sizes, the aluminum pipe is easily cut-to-fit on-site. The 6-ft sections of rail are used for the tie-backs to provide the counter weight for the system. This may also be used along the leading edge where a 9-ft section is too long. The 9-ft sections of rail used for the leading edge use a stiffener to connect the top/mid rail. On rail sections shorter than 6'6", the stiffener is not required.

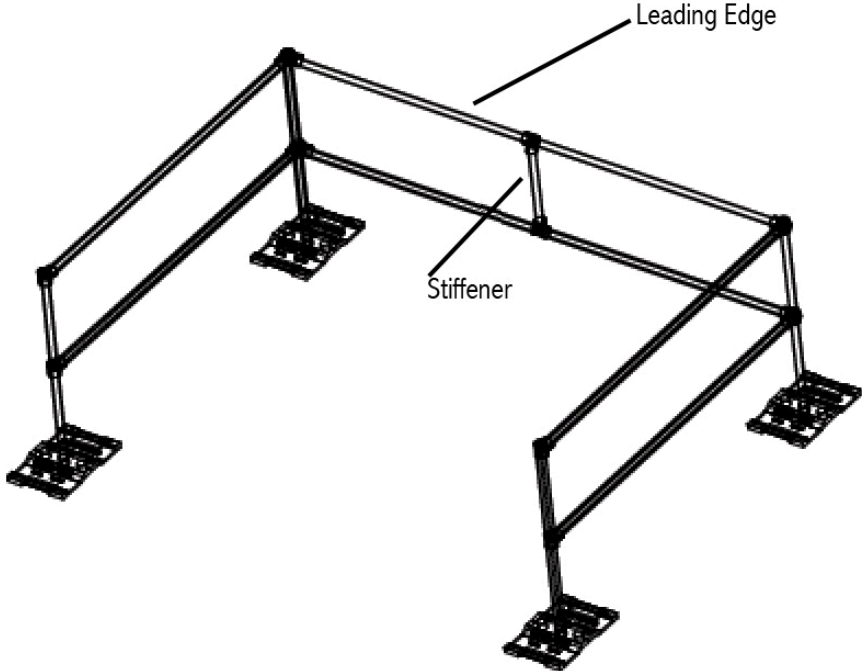


Figure 7: Diagram Showing 6-ft Returns, 9-ft Leading Edge and Stiffeners

4.0 SYSTEM LAYOUT

4.1 Install baseplates and rails on a flat, clean and dry surface. Clean the area where baseplates will be installed, to ensure good contact with the roof surface.

4.2 If curb or parapet is 4" or more above the top of the baseplate, then bases can be positioned against the parapet. If curb or parapet is lower, contact LFP for a review of the application.

4.3 The vertical posts of the RoofGuard System are supported by one baseplate, with the exception of the RGC-POST-END, which are used for counterweight. End posts are typically supported by 3 RoofGuard baseplates stacked together to provide the necessary weight to meet industry standards for vertical and lateral loading. If the system was custom designed, please refer to the layout drawing provided with the system, as more weight may be required for custom applications (i.e. modified tieback length).

4.4 Each end of the system shall have a RGC-POST-TB perpendicular to the hazard (roof edge) extending 6-feet with 3 baseplates at the RGC-POST-END. The tie-back shall NOT be along a leading edge itself; ie: the RGC-POST-END shall not be within 6-feet of the roof edge unless part of a custom designed system – please refer to the custom layout drawing for guidance.

4.5 Intermediate tie-backs shall be placed wherever indicated by manufacturer, but no further than 27-feet apart. At this point, the RGC-POST-TB will be used at the hazard edge. The tie backs are at this point connected to the two horizontal rails, the RGC-POST-END and 3 baseplates.

4.6 In case where the tie-backs must be shorter, the weights can be increased to accommodate the resistance required. **You must consult LFP and obtain an engineered layout drawing to indicate the weight plate distribution for irregular installations.**

4.7 Where required, use of the toe-board adapter will allow the use of 2x4" lumber toe-boards to be placed between the baseplates. This will help prevent tools or materials from falling to a lower level.

5.0 INSTALLATION

5.1 When working near the roof edge, workers should be tied-off to an alternate fall protection system. Ideally workers should use a fall-restraint system utilizing a lifeline that will allow them to reach the edge, but not be long enough to be able to fall over the edge.

5.2 If toe-boards will be required, place the toe-board adapter on the top of the baseplate before placing the vertical posts into the desired holes. The lip of the toe board adapter shall be on the outside edge of the rail towards the hazard.

5.3 The RoofGuard baseplate has 3 holes, and for RoofGuard Classic, any of the 3 holes is acceptable. Use of the center hole is typical, but for tight areas, or for convenience, an outside hole may be useful.

5.4 Once the bases are positioned as desired, insert the vertical posts. Secure the vertical post to the baseplate with the cone-point stainless steel set-screw.



Figure 8 & 9: Installation of Baseplates

NOTE: Only one set screw is used per post. The two outside holes of the baseplate have 2 possible set screw positions, both may be used but only one is required, perpendicular to the post it is holding.

5.5 Use a 3/16” hex drive bit or Allen wrench (provided), and torque baseplate screws to 25ft-lbs. All set screws for stacked plates must be secured against the wall of the vertical posts.

5.6 Once torqued, the set screw can be ‘marked’ with the blue crayon (provided) to provide a visual indicator that the screw has been secured and warn of tampering. (If the blue wax is removed, it may indicate a tool was re-inserted in the set-screw.)

5.7 If toe-boards are to be used, the lumber can be cut and placed under the toe-board adapter (from 5.2). The toe-board adapter can be lifted (sliding up the rails) to place the lumber, and then lowered back onto the top of the lumber. Using the three holes provided, secure the toe-board to the toe-board adapter with three #10 or #12 screws 1.5” or longer. Longer screws should not protrude from the lumber where they may introduce a hazard to workers.

5.8 Once all vertical posts are set, the horizontal rails can be placed into the fittings and secured with the Allen wrench (provided). To provide a visual indicator that the screw has been secured and warn of tampering, mark set screw with crayon. (If the blue wax is removed, it may indicate a tool was re-inserted in the set-screw.)

5.9 Working from one end to the other, complete the assembly of the rails as per the layout drawing. Once complete, the system should be reviewed to ensure the design is as per the layout drawing and each set screw has been torqued and marked. The warning sticker should be placed in a visible location on the top rail with the install date and reference number to assist with annual inspections. At this point the system is safe and ready for use.

IMAGES OF A COMPLETE CLASSIC ROOFGUARD SYSTEM



Figure 10: Complete RoofGuard System

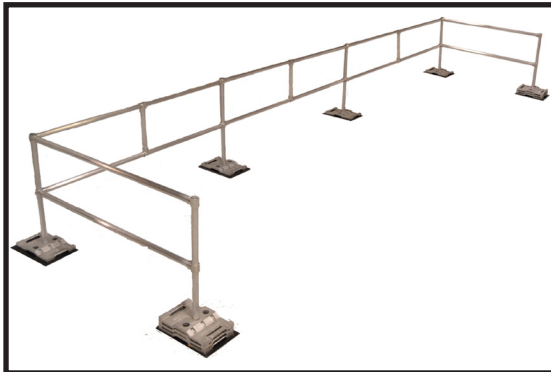


Figure 11: Complete RoofGuard System

6.0 ADD-ON ROOFGUARD TOE-BOARD KIT

6.1 APPLICATION

6.1-A The RoofGuard Toe-Board Kit can be added to almost any RoofGuard Classic System whenever there is a concern of falling tools/materials. When workers or other persons are present below the area protected by the RoofGuard Classic Railing System, precautions must be taken to prevent tools/materials from being able to fall (primarily construction applications).

6.1-B If the RoofGuard Classic system is placed near the parapet of a rooftop area, and the existing parapet wall is 152mm (6”) or higher, the toe-board kit may not be required- consult LFP to verify local requirements.

6.2 SYSTEM REQUIREMENTS

6.2 The RoofGuard Classic Toe-Board Kit requires a RoofGuard Classic Rail System for attachment. The Toe-Board Kit can be added to a new system during installation, or added to an existing system that utilizes the 1.5” Sch 40 aluminum pipe with 1.9” outside diameter.

Baseplates may need to be rotated 90-degrees with the Post on the ‘inside’ hole, to allow the toe-board to run along the inside edge of the system as shown below.

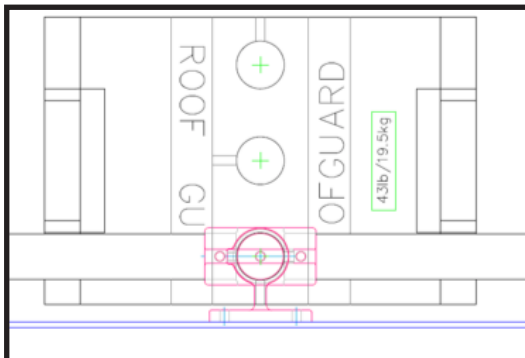


Figure 12: Toe-Board Diagram 1



6.3 COMPONENTS

6.3-A To install the RoofGuard Toe-Board Kit you will need the following tools:

- 🔧 Cordless Bandsaw / hacksaw or means of cutting 5" aluminum plate
- 🔧 Drill with 1/4" bit
- 🔧 Two 7/16" wrenches or one wrench and one driver with 7/16" socket marking tool & tape measure
- 🔧 RoofGuard fitting tool (3/16" hex drive key or driver)

6.3-B The RoofGuard Classic Toe-Board Kit consists of the following items:

- 🔧 RGF-155 – Toe-Board Bracket (w two SS 1/4" bolts/nuts/washers)
- 🔧 5"x 1/8" Aluminum Toe-Board plate in 10-foot sections.
- 🔧 Toe-Board Straight Splice Plate (w two SS 1/4" bolts/nuts/washers)
- 🔧 Toe-Board Corner Splice Plate (w two SS 1/4" bolts/nuts/washers)

6.3-C Inspect all pieces before using, to ensure they are in good condition with no signs of wear or abuse.

6.4 INSTALLATION

6.4-A With the RoofGuard baseplate as shown in Figure 1, slide the RGF-155 fitting down the post to almost touching the baseplate. (For existing systems the post may be temporarily removed from the baseplate and the fitting slid up from the bottom).

6.4-B Start the toe-board from one end of the system and ensure the toe-board covers the exposed edge. Drill holes to match the holes in the RGF-155 and secure to the first post.

6.4-C When the length of toe-board material ends, it can be spliced to the next section with the straight-splice plate. Drill holes to match the splice plate, and bolt the two lengths together. Where the two lengths join over a baseplate, the RGF-155 can be used to splice the toe-board together provided the holes drilled in the toe-board remain a minimum $\frac{3}{4}$ " from the edge of the toe-board plate.

6.4-D When coming to an “outside” corner — (the toe-board goes around the outside of the vertical post) the fitting at the corner will match one side of the railing. A corner splice plate may need to be added over the RGF-155 per Figure 13. Further the toe-board on the outside corner will likely need to be notched to pass over the baseplate.

6.4-E When coming to an “inside” corner — (the toe-board goes on the inside of the vertical post) the fitting at the corner will be past the intersection of the next piece of toe-board. See Figure 14. The end of the next toe-board makes a “T” with the secured piece of toe-board, and is secured with a corner splice plate to line up with the next RoofGuard Post.

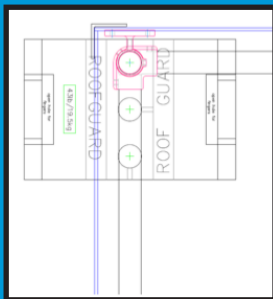


Figure 13: Toe-Board Outside Corner

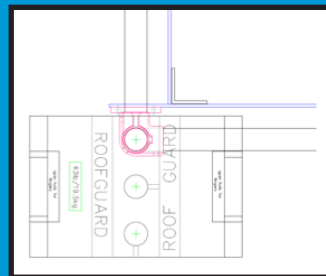


Figure 14: Toe-Board Inside Corner



WARNING

**Warning – Do NOT lean on, or climb on guardrails.
Guardrails MUST NOT be used as an anchor for fall restraint or fall
arrest, and shall not be used for hoisting or tie-off.
Attachment of banners / signs / equipment is not permitted.
Excess force applied to the top rail could cause tipping, resulting in
injury or death.**

OSHA Reference 29 CFR 1910.23 Guarding of floor and wall openings and holes
(a)(2) Every ladder-way floor opening or platform shall be guarded by a
standard railing with standard toe-board on all exposed sides (except at
entrance to opening), with passage through the railing either provided with a
swing gate or offset so that a person cannot walk directly into the opening.





8.0 LIFTSAFE FALL PROTECTION WARRANTY

Equipment offered by Liftsafe Fall Protection (LFP) is warranted against factory defects in workmanship and materials for a period of one year from date of installation or use by the owner, provided that this period shall not exceed 18 months from date of shipment. Upon notice in writing, LFP will promptly repair or replace all defective items. LFP reserves the right to elect to have any defective item returned to its plant for inspection before making a repair or replacement. This warranty does not cover equipment damages resulting from abuse, damage in transit, or other damage beyond the control of LFP. This warranty applies only to the original purchaser, and is the only one applicable to our products, and is in lieu of all other warranties, expressed or implied.



Liftsafe Fall Protection Inc.

409 Harmony Road
Ayr, Ontario N0B 1E0

TF: 1(800) 977-2005
T.: (519) 896-2430
F.: (519) 896-2085

E.: info@liftsafeinspections.com
W.: www.fallsafetysolutions.com