RapidFoot™ Installation Manual

UniRac offers attachment options for the RapidRac™ G10. These can be used for seismic restraint and for ballast trade off, allowing for a reduction in roof dead load. UniRac recommends using the UniRac RapidFoot™, which features Eco-Fasten technology by the Alpine Snow Guard Company.

Any attachment used for roof top equipment must consider the roof construction because an attachment may be strong enough to resist far more loading than the roof deck itself can resist (and this is usually the case). Some of the major considerations regarding roof deck construction are as follows:

- For metal roofs; what gauge and support spacing;
- For concrete is it architectural or structural concrete;
- For wood decks, attachment must be to purlins or rafters.

All of these factors play a role in determining the allowable roof point load values. Upon review of the IBC 2006, Section 1607.3, dealing with building live loads; UniRac has limited our attachment allowance to 1200 lb. uplift per attachment. Table 1607.1 from the same reference gives a range of minimal design point loading from 300 to 3000 lb. The attachment trade-off tables located on the back of this document are built using this value.

Installing the RapidFoot™ is very quick and simple as illustrated in Figure 1. The RapidFoot™ must be installed inside a ballast bay with the clamping bar engaging the ballast bay North and South rails. For installation on wood deck roofs, two of the fasteners must be fully embedded in a structural sub-member (purlin). The design of the RapidFoot™ allows for 360 degrees of rotation of the base plate to align with rafters or purlins or corrugations.

UniRac Installation Manual

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UNIRAC® THE STANDARD IN PV MOUNTING STRUCTURES™

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RapidFoot™ Attachment Trade-off

Modules per attachment	Ballast Reduction
1 attachment out of 3 modules	17.39 lb/ft²
1 attachment out of 6 modules	8.70 lb/ft²
1 attachment out of 9 modules	5.80 lb/ft²
1 attachment out of 12 modules	4.35 lb/ft²
1 attachment out of 15 modules	3.48 lb/ft²
None	0.00 lb/ft²

For roofs with built up insulation, the insulation must be cored out to allow the ferrules to penetrate the actual deck materials. Ferrules are sold separately and can be field cut to length and angle to accommodate the insulation gap as well as the possibility of angles for metal decking as shown in Figure 2.

The base plate must be attached to the roof structure using the appropriate length #14 low profile Concealor type fasteners manufactured by the Triangle Fastener Company. These fasteners are included with your RapidFoot™ order. For concrete roofs, anchors must be installed into the concrete. UniRac recommends and supplies the "Scru-lead" type anchors for use with the Concealor fasteners.

Once the base plate is securely in place a flashing called a "target patch" must be applied over the base plate. The target patch has two holes that correspond to the two threaded studs extending upwards from the base plate. The target patches are peel and stick for membrane roofs. For built up roofs, a Galvalume® flashing is supplied and requires appropriate sealant material. The target patch must be placed over the two studs and then secured with RapidFoot™ foot plate. Once the RapidFoot™ foot plate is in place the target patch can be secured to the roof according to the roofing manufacturer's recommendations.

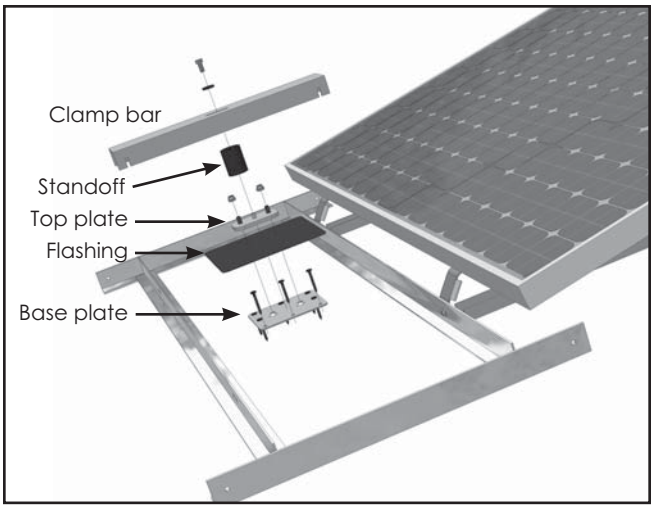

Figure 1. Installing the RapidFoot™

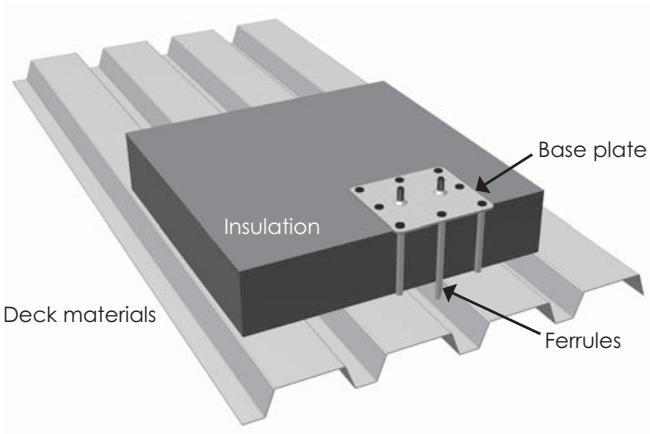

Figure 2. Insulation must be cut out to allow the fasteners to penetrate the actual deck materials

10 year limited Product Warranty, 5 year limited Finish Warranty

UniRac, Inc., warrants to the original purchaser ("Purchaser") of product(s) that it manufactures ("Product") at the original installation site that the Product shall be free from defects in material and workmanship for a period of ten (10) years, except for the anodized finish, which finish shall be free from visible peeling, or cracking or chalking under normal atmospheric conditions for a period of five (5) years, from the earlier of 1) the date the installation of the Product is completed, or 2) 30 days after the purchase of the Product by the original Purchaser ("Finish Warranty"). The Finish Warranty does not apply to any foreign residue deposited on the finish. All installations in corrosive atmospheric conditions are excluded. The Finish Warranty is VOID if the practices specified by AAMA 609 & 610-02 – "Cleaning and Maintenance for Architecturally Finished Aluminum" (www.aamanet.org) are not followed by Purchaser. This Warranty does not cover damage to the Product that occurs during its shipment, storage, or installation. This Warranty shall be VOID if installation of the Product is not performed in accordance with UniRac's written installation instructions, or if the Product has been modified, repaired, or reworked in a manner not previously authorized by UniRac IN WRITING, or if the Product is installed in an environment for which it was not designed. UniRac shall not be liable for consequential, contingent or incidental damages arising out of the use of the Product by Purchaser under any circumstances. If within the specified Warranty periods the Product shall be reasonably proven to be defective, then UniRac shall repair or replace the defective Product, or any part thereof, in UniRac's sole discretion. Such repair or replacement shall completely satisfy and discharge all of UniRac's liability with respect to this limited Warranty. Under no circumstances shall UniRac be liable for special, indirect or consequential damages arising out of or related to use by Purchaser of the Product. Manufacturers of related items, such as PV modules and flashings, may provide written warranties of their own. UniRac's limited Warranty covers only its Product, and not any related items.