

Ballasted Systems and Commercial/Industrial Flat Roofs

The basic reason given by Solar Integrators for using Ballasted Racking Systems is to avoid penetrations that may be necessary for the Solar Electrical installation. This can sometimes be an improper evaluation of the system when it comes to the warranty that roofing manufacturers offer. The myth of ballasted systems is that they will automatically secure the existing warranty when in fact they can void a warranty even when there are fewer penetrations. Each Roofing Manufacturer has specific requirements and information that is to be met in order to maintain the warranty. Anchor Products has made sure that its products (the U-Anchor) meet the specificity required for a Solar Racking that may be placed on the roof.

The Anchor Products U-Anchor is custom made using the exact roofing material that the roof is made from and is normally placed by a qualified roofing contractor that is acceptable to the Roofing Manufacturer. Ballasted Systems although lacking in penetrations, use ballast block that is susceptible to water, freezing and expansion, that over time, disintegrates the ballast, the ballast crumbles and becomes sand a rock that will eventually wash under the slip sheet required by the manufacturer and become a place that is ready to cause holes to the roof if there is excessive wear, movement, vibration or pressure placed in that area.

Our company has teamed with several Racking Manufacturers such as Sollega, UniRac and Panel Claw with installations like Turtle Bay () in HI, Honolulu Airport () and the Westin Dawn (900KW) in St. Martin, Mandalay Bay in Las Vegas NV (6.4MW) and the HP Warehouse (2.257 MW) in Andover MA, Sandals resort in Bahamas to provide a Hybrid solution to ballasted systems that reduce the weight and provide anchor points to reduce the Glacier or Float effect that accompanies a ballasted system when these attachments are not attached.

The fact of the matter is that Anchor Products has effectively eliminated the need for ballasted systems and in doing so has opened up the Solar Market Place 70% more commercial/industrial roofs that cannot accept ballast as an alternative. Installers can avoid the problems that accompany large flat rooftop systems by changing the way they look at, think about and design their systems. The first question an integrator usually asks is how much solar can I get on this roof to reduce consumption when the first question they should have is, "is there a warranty on this roof and how do I protect and maintain it?" A common comment is that, "I am placing a million dollars of solar on this roof and the roof is only worth \$150K!

It is truly the roof that matters because it is what is inside the building that has value and if what is inside the building is damaged due to leaks it can be a very expensive proposition for an Integrator as the roofing manufacturer has liability for the contents of the building. The U-Anchor has been designed, tested and is now approved by every major roofing manufacturer and has been used World Wide to protect Roof Warranties and meet the strict guidelines that Roofing Manufacturers have regarding their products and services.

The disadvantage of a Hybrid System is the true cost of ballast. When you ask an Integrator how much does ballast cost? The typical answer is \$2 a block at Home depot. The true cost is that this ballast block has to be transported to site, a crane must be used to lift it to the roof, additional protection to the roof must take place for transporting the block and staging it across the roof, the block must then be placed and the roof protection moved during each stage of the placement, slip sheets are needed under each tray that in some cases are required to be welded and some that are not welded to the roof allowing debris to float and land underneath as well as creating water ponding that will allow mold to grow under the slip sheet if not welded to the roof itself. In this case of the non-welded slip sheet, the planned protection is eliminated over time due to the accumulation of debris under the slip sheet.

The U-Anchor eliminates all of this damage or possible damage and each anchor has a placement time of less than 5 minutes compared to the numerous employees needed to transport and place ballast over the installation period of a large roof install. In a pound for pound exchange the U-Anchor eliminates all the extra weight and stress to a roof that takes place when a ballasted or Hybrid ballasted System is placed on a roof.

Racking manufacturers have now spent ten years developing ballasted racking that is no longer needed due to the advent of the U-Anchor. The U-Anchor is the Digital compared to the Analog of the past. It is difficult for Racking Manufacturers to let go of old technology as the new appears because a lot of money , time and science has gone into developing a lighter weight system that has no penetrations but needs penetrations to safely secure it to the roof. The U-Anchor can take the place of ballast under every ballast basket and increase the staying power of the system.

Anchor Products offers four choices of Roof Anchors made with a myriad of roofing products approved by the Roofing Manufacturers. Our new website offers easy identification of roofs in order to choose the appropriate roof anchor for each job and if this becomes a challenge we have representatives that will inspect your roof for identification and will even provide a Core Test if necessary at a nominal cost. Installation videos are on the site and all data sheets and third party engineering tests can be downloaded as well. The site can be located at www.anchorcorp.com

David Rose, Director, Solar Engineering
09/01/15