

# KnuckleHead

## Solar Support System

KnuckleHead Solar Supports are designed to accommodate standard strut framing to create a 15-degree angled structured for solar energy collection

Height is adjustable by rotating head—total height ranges from 2" to 3" depending on strut size

Solar wedge is available for transforming angle from 15° to 10° or 20°

Each KnuckleHead can support up to 600 lbs.

Matte-finish nylon allows bonding with adhesive

Strong, tough weatherproof, UV-stable, impervious to freeze-thaw cycles

KnuckleHead Bases can be loose laid, mechanically attached and/or bonded with GreenLink Adhesive/Sealant

Molded from Green Link military-grade glass-reinforced nylon resin, which has metal-like properties

Bases feature four holes for mechanical attachment

**GREEN LINK**  
ENGINEERING SUSTAINABILITY



Made in U.S.A.

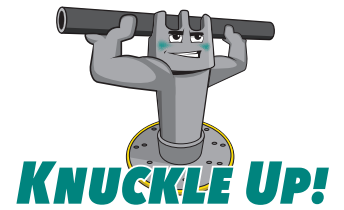
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5519 East Cork Street, Kalamazoo, MI 49048 USA

Original design, engineered from the ground up with the contractor in mind, featuring innovative Green Link technology. All made in the U.S.A.

**Contractor Driven!**

# KnuckleHead

## Rooftop Strut Support System



KnuckleHead Solar Supports prevent damage to PV arrays resulting from wind uplift, while also protecting the roof from damage due to movement and excessive dead loads. Molded from Green Link glass-reinforced nylon resin, they are lightweight, UV-stable, non-corrosive, non-conductive and highly durable. Front and rear supports are designed to create 15-degree angled structures for solar energy collection. Each head also functions as an elbow connector which permanently fixtures perpendicular strut members along the same 15-degree plane.

### KIT CONTENTS

#### Bases

KnuckleHead Bases are composed of military-grade reinforced nylon, which is strong, durable and weatherproof. Each base can support 600 pounds and features a vertical steel bolt for mounting the head, and four holes in the center for accepting mechanical fasteners for attachment.

Two base designs are available. The standard Universal Base features a 7-inch diameter and 38 square inches of surface area. The Big Base features the standard Universal Base over-molded in the center of a larger urethane component with a 12-inch diameter and 113.1 square inches of surface area. The Big Base provides more stability at heights over 12 inches, for example, when using extensions. It also provides greater load distribution, reducing point loading on the roof resulting from heavier equipment. The Big Base includes a tough, weatherproof, slip-resistant KnucklePad, which is molded onto the base. Compatible with all roof membranes including PVC, and tinted "safety yellow," this custom-engineered polymer pad protects the roof membrane, eliminating the need for slip sheets.



### INSTALLATION

The bases can be installed free-standing or attached. The Universal Base can be attached by driving screws through the four holes in its center directly into the roof deck. This secures the installation. Applying Green Link Adhesive/Sealant to the KnuckleHead Base further strengthens the installation. When adhesive is used, it should be applied across the bottom of the base and on each screw head to prevent roof leaks caused by penetrations. The base features 16 holes, allowing adhesive to squeeze out as the base is pressed onto the roof surface. This creates "adhesive rivets" which strengthen the bond.

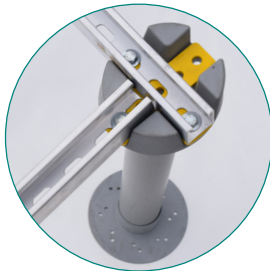
The Big Base can also be attached, but in most cases, attachment is unnecessary because the larger surface area provides sufficient stability.

When the Universal Base is free-standing, KnucklePads can be placed on the bases to protect the roof membrane and reduce movement resulting from equipment vibration and wind. Typically, ground installations are free standing on a concrete slab. Applying Green Link Adhesive/Sealant is optional for securing ground installations.

### FEATURES

#### Protection

KnuckleHeads prevent damage to the membrane caused by ponding water, wind, ice, flying debris or seismic events and protect the integrity of roof-mounted structures and equipment.



#### Leveling

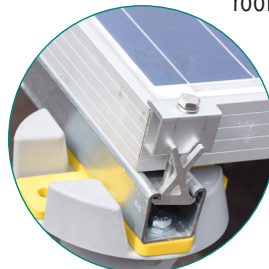
Because installations must be perfectly level to perform optimally, Solar KnuckleHeads can be rotated to adjust height within a 1-inch range.

#### Durability

KnuckleHead installations have been performing in the field for more than 20 years with continual exposure to high temperatures, moisture, freeze-thaw cycles, UV exposure and stress, and they have shown no signs of deterioration.

#### Adhesive/Sealant

Green Link Adhesive/Sealant is an environmentally safe, proprietary formulation designed to adhere to the KnuckleHead base as well as to most roof membranes including PVC, EPDM, acrylic and primed TPO. The adhesive can be used



to strengthen attached systems, or by itself without mechanical fasteners where penetrating the roof membrane is not desired. Green Link Adhesive/Sealant creates a strong bond delivering more than 275 psi shear strength.

#### Extensions

KnuckleHead Extensions increase elevations of pipes, struts, solar arrays or walkways. Kits include an 8-, 12-, or 18-inch extension cylinder that fits into the Universal Base, a threaded rod and coupling and Green Link Adhesive/Sealant.

#### Warranty

A 10-year warranty is available. Please contact Green Link for details.