

KnuckleHead

Stanchion Supports for
Elevating Mechanical
Equipment, Large Pipes
and Ductwork

Green Link KnuckleHead Stanchions are composed of standard steel strut with an over-molded polyurethane element, KnuckleHead Base and end cap. Made in the U.S.A.

Channel slots allow for height adjustment

Moment (side load) - 250 lbs. @ 12"*

Tensile strength - 1000 - 1200 lbs.

TWO BASE TYPES

7" Universal Base, 12" Big Base



* Moment does not account for frame attachment. It is for the secured base/stanchion alone

6" to 24" elevation

Compression (load) - 2,250 lbs.

Features channel with over-molded urethane base element



Base element features female receptacle for mating to KnuckleHead base bolt

Maximum slip load of channel nut - 1,000 lbs.

GREEN LINK
ENGINEERING



Made in U.S.A.

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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

KnuckleHead Stanchion Supports for Elevating Mechanical Equipment, Large Pipes and Ductwork



KnuckleHead Stanchion supports are designed to create a frame assembly for elevating mechanical equipment, large pipes, and ductwork. Stanchions allow for height adjustment from 6 to 24 inches off the roof surface (taller stanchions are available upon request.) KnuckleHead Stanchion supports are versatile because they allow both height and width adjustability to accommodate a wide range of mounting applications.

BASES

Stanchions are available with two types of KnuckleHead bases. Bases are composed of military-grade reinforced nylon which is strong, durable and weatherproof. Each base is capable of supporting up to 600 pounds and features a vertical steel bolt for mounting stanchions and four holes in the center for accepting mechanical fasteners.

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 polyurethane component featuring a 12-inch diameter and 113.1 square inches of surface area. The big base provides more stability at heights over 12 inches and greater load distribution, reducing point loading on the roof caused by heavier equipment. To create a more secure installation, Green Link Adhesive/Sealant can be used to bond and seal the bases directly to the roof membrane.



INSTALLATION

The urethane footing on the stanchion features a female receptacle so that it rotates onto the center bolt of the KnuckleHead base. Once the stanchion is hand-tight into the base, it can be installed on the roof surface, 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 and protects the installation. Follow recommendations of the roofing manufacturer for sealing the penetration.

The big base can be attached in the same way, but in most cases, attachment is unnecessary because the larger surface area provides sufficient stability.

If a free-standing installation, KnucklePads, or other types of slip sheet, should be placed on the base to protect the roof membrane. Typically, ground installations are free standing on a concrete slab. Applying Green Link Adhesive/Sealant is optional for securing the installation..



FEATURES

Stanchion Application

Once the channel is secured into the base, the stanchions are then arranged on the roof surface according to the specified configuration. Then support rails in the form of standard strut cut to length slide into the stanchion slots at the desired height and are secured with brackets and steel bolts. Equipment rails are then positioned along the support rails, adjust to the appropriate width, and are secured with brackets and steel bolts. This creates a secure, unified frame. Because of the support assembly's stability, an electrical box mount using sections of strut can be attached directly to the assembled frame.



H-Frames for heavy pipes or duct supports can also be assembled with stanchion supports by attaching a cross-member to two stanchions. This will provide an adjustable support rail for duct or pipes. Pipes can also be suspended with a clevis hanger.

Telescoping stanchions are also available upon request for taller assemblies.

OPTIONAL ITEMS

Green Link Adhesive/Sealant

Green Link Adhesive/Sealant is an environmentally proprietary formulation designed to adhere to Green Link KnuckleHead bases as well as to most roof membranes including PVC, EPDM, acrylic and primed TPO. The adhesive can be applied to strengthen attached assemblies, or in some applications, it can be used by itself without mechanical fasteners.

KnucklePads

Molded from tough, weatherproof urethane and tinted "safety yellow," slip-resistant KnucklePads can be placed under the KnuckleHead base to protect the roof membrane.

Kits

Green Link offers complete kits which include stanchions, bases, channel cut to designated length and all hardware necessary for assembly out of the box.

Stanchion Base Physical Data

24" STANCHION	7" BASE	12" BASE
Compression (lbs)	4,000	5,500
Tensile (lbs)	1,000	1,200
Moment (lbs-ft)	7" BASE	12" BASE
	286	392

MAX ALLOWABLE SIDELOAD

125 LBS @ 24"

250 LBS @ 12"

500 LBS @ 6"

24.0"

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MAXIMUM SLIP LOAD OF CHANNEL NUT 1,000 LBS.

MIN SHEAR LOAD 7,000 LBS

BOLT

ASSEMBLY TORQUE RANGE OF NUTS AND BOLTS: 60-80 FOOT-POUNDS

Height adjustment

The standard vertical range for assembly is 8 1/2"-24" from the roof surface, but lower profiles down to 6" can be achieved by repositioning support rails. Because HVAC equipment must be perfectly level to perform optimally, support rails can be adjusted within the slots as necessary and bolted into place.