

# DRYSTAND™ INSTALLATION MANUAL



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## INTRODUCTION

### THIS MANUAL

This manual is designed to illustrate the very simple process of installing DryStand™ supports and platforms. Every job is different and may require variations from the procedures and materials shown in this manual. However, this will give you the concept of how the system is used, and will illustrate the versatility and flexibility of the design.

### APPLICATION

DryStand™ is a universal, structural platform system designed for use on commercial rooftops. It attaches to the roof structure with easy-to-flash round posts, and allows unlimited adjustment for length, width and height.

The DryStand™ system was developed specifically for commercial roofs, but can be used on any flat or low-sloped surface, such as a patio, deck, parking lot, warehouse floor, etc. The round posts include telescoping sleeves to allow height adjustment, making it easy to level the platform on sloped substrates. When used on a roof, the posts may be flashed and roofed with standard round roof flashings. DryStand™ can support many types of equipment including HVAC units & ductwork, satellite dishes, electrical equipment, solar inverters, telecom equipment, rooftop garden boxes and more.

If equipment mounted to the DryStand™ System is large enough to be subject to wind or seismic loading, we recommend having the configuration reviewed by RoofScreen's Engineering Department, or any licensed professional engineer to ensure its adequacy for the specific conditions that apply.

## SYSTEM OVERVIEW

### COMPONENTS

#### ROUND POST SUPPORTS (BS50)

These are steel stanchions that mount the DryStand system to the roof structure. Round Posts are typically 12" tall and may be used with telescoping sleeves when adjustable height is required.



#### TELESCOPING SLEEVE (T11)

The Telescoping Tubing Sleeve is used to adjust the height of the Round Post Supports to enable leveling of the DryStand.

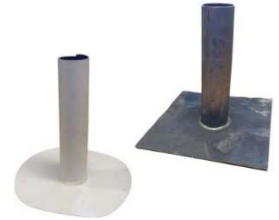


[SLIP-ON POST CAP \(C33\)](#)

Slip-on Post Caps are installed on top of the Round Post Support, or Tubing Sleeves when applicable, to provide a watertight anchor point for the T-Saddles and C-Channels.

[ROOF FLASHING](#)

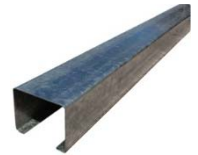
Flashings, available in PVC, TPO and Lead, are optional components from RoofScreen. Check your order and shop drawings to determine if they were included.

[EPDM PIPE COLLAR & SS DRAW BAND](#)

Used to seal flashings to tubing sleeves on the Round Post Supports when applicable.

[C-CHANNEL \(DS40\)](#)

4" Channels formed from galvanized steel are used as the horizontal supports. C-Channels may be ordered cut to length or in full lengths up to 20'. Some field trimming is typically required.

[T-SADDLE \(DS20\)](#)

T-Saddles bolt to the top fins on the Post Caps and become the mounting brackets for the C-Channels.

[C-SADDLE \(DS30\)](#)

C-Saddles are the brackets that connect two C-Channels perpendicular to each other.

[TEK 3 SCREWS \(S10\)](#)

Tek 3 Self-Drilling Screws are used to fasten the Channels to the T-Saddles and C-Saddles.

[PAN HEAD TEK 5 SCREWS \(S39\)](#)

Tek 5 Self-Drilling Pan Head Screws are used to fasten the Tube Sleeves to the Round Post Supports after adjusting to the desired height.

[HEX HEAD WITH SEALING WASHER TEK 3 SCREWS \(S37\)](#)

Tek 3 Self-Drilling Screws with sealing washers are used to fasten the C33 Slip-on Post Caps to the tubing.



## PREPARATION

### MATERIAL HANDLING

When receiving material, check to see that the shipping documents match the shipment. Count the number of packages and quantities within each package to the extent possible. Check for damage at the same time. If damage or other discrepancies are found, write a note to that effect on the bill of lading, and have it signed by the driver.

Depending on the size and length of the DryStands, they may be delivered in wood crates or heavy cardboard pallet boxes. Some larger orders may be very heavy requiring a fork lift or crane to unload.

- ! Do not lift wood crates by the slats or cross members. Either use a fork lift from underneath, or use straps around the entire crate.
- ! When using a fork lift, spread the forks as far as possible to balance the load. Drive slowly when moving long crates over uneven surfaces to avoid tipping the load.
- ! When using a crane or any other type of hoist, position the sling straps so that the space between the straps is at least 1/3 the length of the crate. Use sling straps with looped ends, running one end of the strap through the loop at the other end to cinch the crate when lifted.
- ! When setting the load on the roof, put wood blocks under it to protect the roof and allow space to remove the sling straps.
- ! Heavy boxes and crates should be spread out on the roof to avoid overloading the roof structure. Place the material directly over major supports such as beams or trusses.

### MATERIAL STORAGE

If the material is going to be stored outdoors for any period, we recommend covering it with plastic or tarps.

### TOOLS

The following is a list of recommended tools to perform the installation:

1. 6" "Torpedo" level
2. String line and line level
3. Ear plugs
4. Safety glasses
5. Heavy duty extension cords
6. Large Vise Grip Clamps
7. Open end and socket wrench set
8. Power drill
9. ½" drive power impact driver
10. Cordless drill/driver gun
11. Chop saw or reciprocating saw with metal cutting blades

## INSTALLATION

This manual covers the basic techniques for installing DryStand™ platforms. There are numerous sizes and configurations of DryStand along with other variables that may make your project unique, so please consider this manual as a general guideline. If you have a specific question that is not covered in this manual, or you would like some help with your installation, please feel free to contact us at 866-766-3727.

### DATA SHEETS, ENGINEERING & SHOP DRAWINGS

We offer 3 pre-configured DryStand systems as illustrated in Figure 1. The capacities and dimensional limits of these pre-configured systems are detailed in the DryStand Product Data Sheet available on our website.

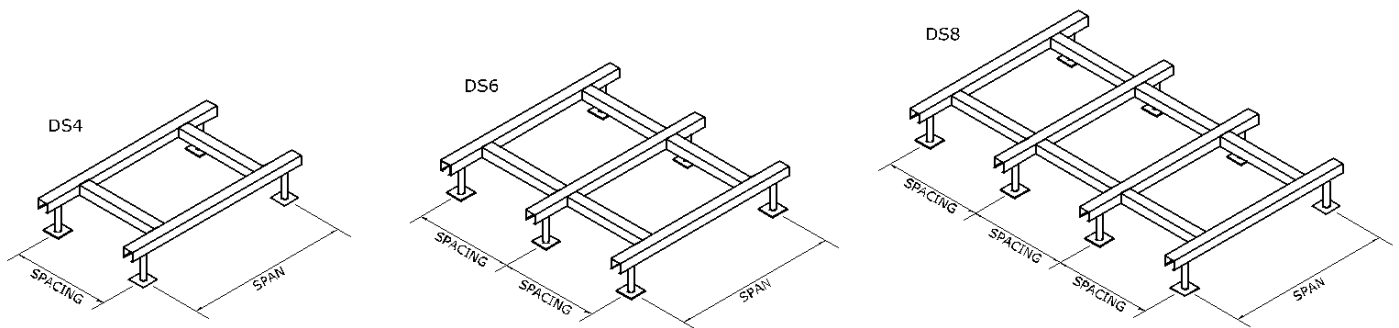


FIGURE 1

If large equipment such as air conditioners or roof screens are being attached to the DryStand, engineering calculations and shop drawings may have been prepared. The shop drawings are very detailed and contain specific information about how to properly install the DryStand that may not be covered in this manual or Product Data Sheets. We highly recommend obtaining a full-size print of the drawings so all the details and dimensions are readable. At this point, it is a good idea to read this entire installation manual in conjunction with reviewing the shop drawings (if applicable).

### INSTALL ROUND POST SUPPORTS

#### STEP 1: LAYOUT AND MARK ROOF

If your project includes shop drawings provided by RoofScreen, locate and mark the Round Post Support locations as shown on the drawings. If no shop drawings are included, locate and mark the desired locations. Round Post Supports must be mounted to solid structural members below the roof decking, so make sure to place the posts directly over those locations. Using a framing square or other means, ensure the Post Supports are square to each other as shown in Figure 2.

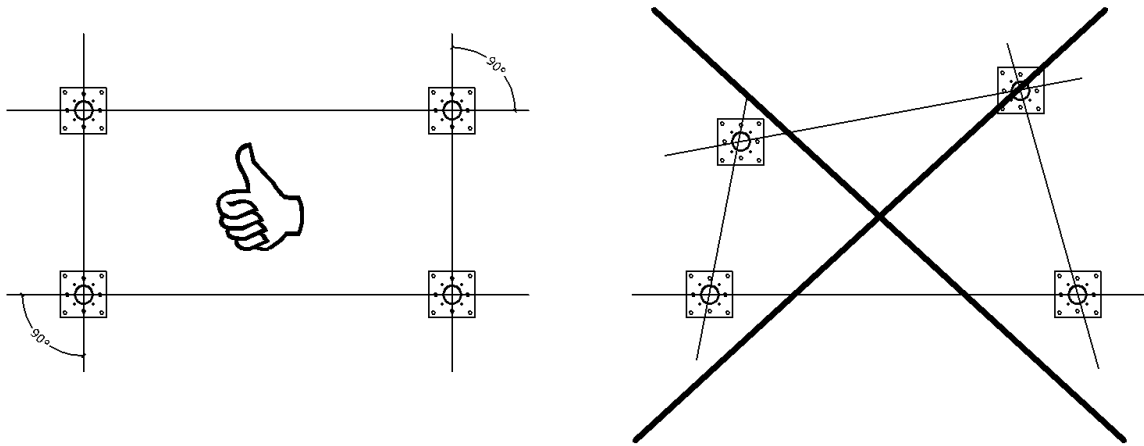


FIGURE 2

**STEP 2: INSTALL ROUND POST SUPPORTS**

Fasten the Round Post Supports to the structure using appropriate fasteners for the substrate (i.e. wood, concrete, steel). If shop drawings were included in your order, the type and quantity of fasteners will be specified.

Post Supports may be fixed height or two-piece adjustable height configurations depending on roof slope and how the project is designed. Here is a description of each method:

**Fixed Height Post:** If your project is designed with fixed height posts, the roof deck must be completely flat, or all the posts must be on a single slope plane. After the Round Posts are fastened to the structure, the roof flashings will be installed (see next step), and each Post Support will receive a Slip-on Round Post Cap.

The Slip-on caps are secured to the tube with self-sealing Tek Screws, P/N S37 (see Figure 3). Do not install the Post Caps at this time as they will interfere with flashing installation in the next step.

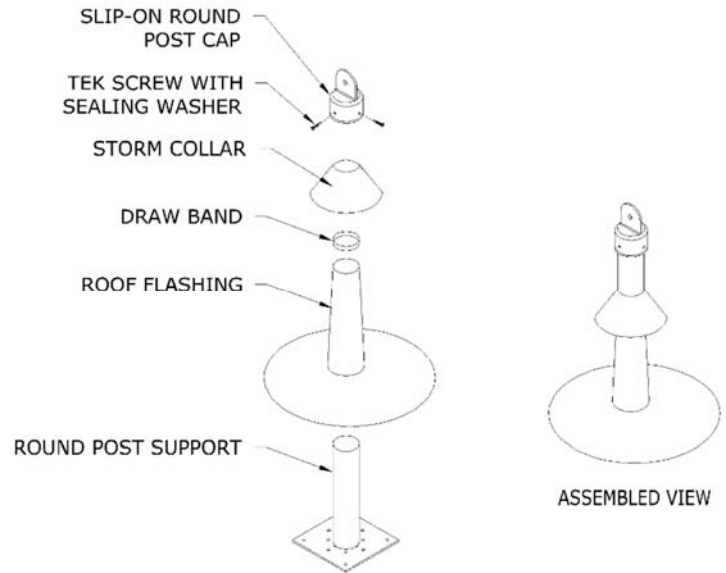


FIGURE 3

**Adjustable Height Post:** If your project has variable and/or multiple roof slopes, adjustable height posts are used. Adjustable post configurations include a Sleeve Tube that telescopes on the Round Post Support to allow height adjustment (see Figure 4).

To install adjustable posts, first mount the Round Post Support to the roof structure. Next, slip the Sleeve Tube over the post and adjust the desired height. Holding the Sleeve Tube at the proper height, fasten it to the post with Pan Head Tek Screws, P/N S39. Typically, (4) S39 screws are used for this connection, unless otherwise specified in your shop drawings (if applicable). The Sleeve Tube must overlap the Post Support by at least 4" (see Figure 5).

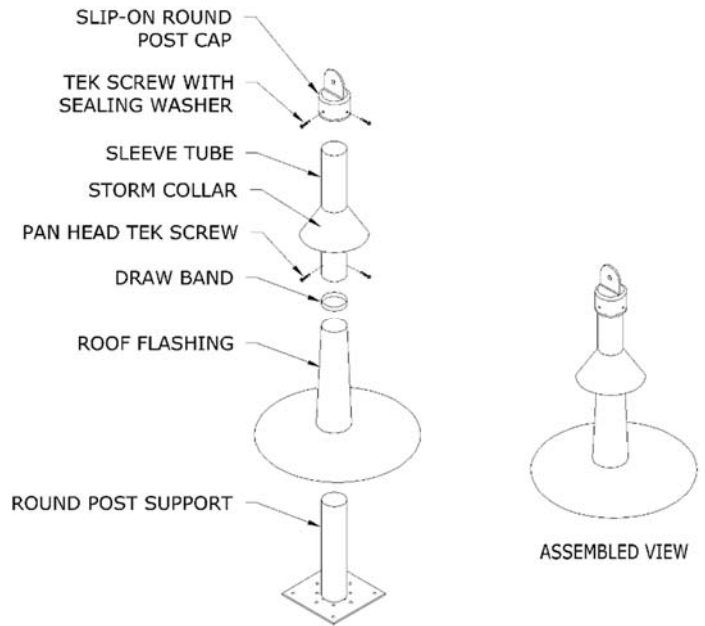


FIGURE 4

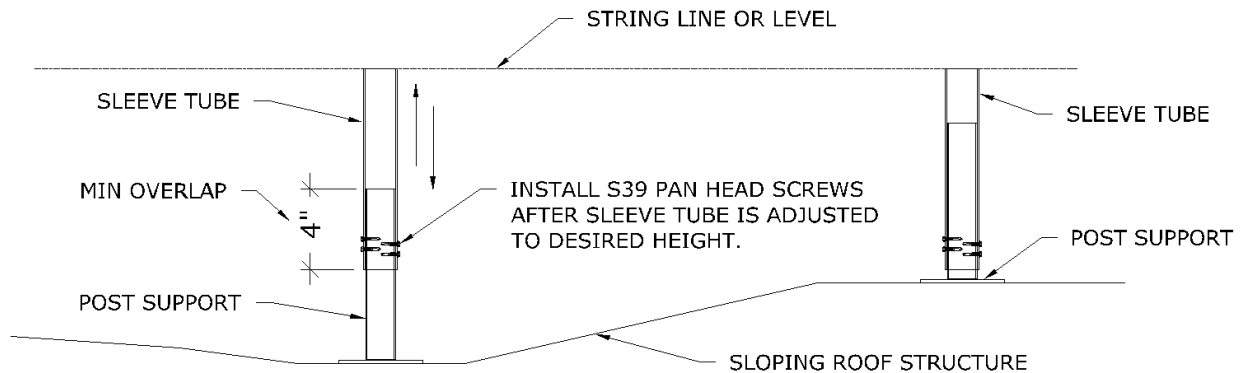


FIGURE 5

After roof flashings are installed (see next step) each Post Support will receive a Slip-on Round Post Cap. The Slip-on caps are secured to the tube with self-sealing Tek Screws. Do not install the Post Caps at this time as they will interfere with flashing installation in the next step.

**STEP 3: INSTALL FLASHINGS**

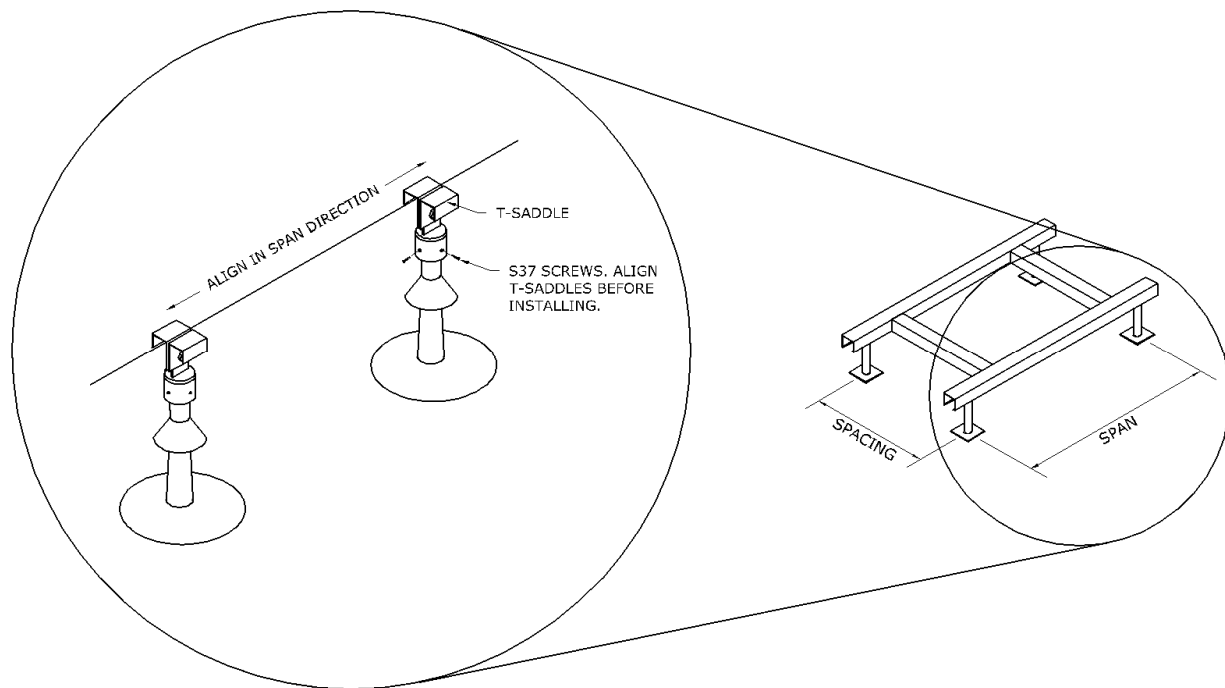
Flashing type varies depending on the project and type of roofing system. A qualified professional roofing contractor should install the flashings and roof them in with appropriate methods for the type of roofing system being used.

Slip the flashing over the Round Post Support (and Sleeve Tube, if applicable). If the adjustable height Post is being used, make sure the flashing is tall enough to cover the Pan Head Tek Screws that fastened the Sleeve Tube to the Round Post Support. Use the Draw Band to clamp the flashing to the tube, including sealant or tape as required by the manufacturer of the roofing system being used. Stretch the Storm Collar over the tube and slide it down to the top of the flashing.

#### STEP 4: INSTALL SLIP-ON POST CAPS AND T-SADDLES

Install the Slip-on Post Caps, ensuring the fins are properly aligned for the T-Saddles as illustrated in Figure 6.

Typically, T-Saddles should be aligned in the “SPAN” direction of the DryStand platform. After aligned, fasten the Post Caps with (4) Tek Screws with Sealing Washers, P/N S37.

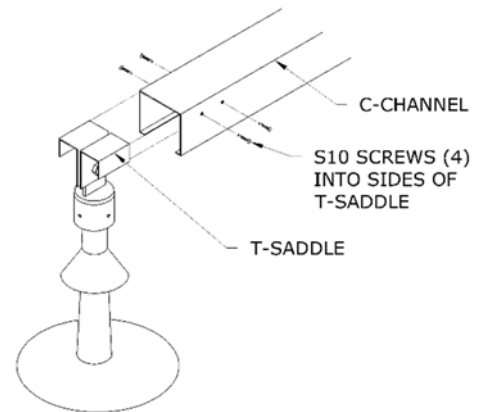


**FIGURE 6**

#### STEP 5: INSTALL C-CHANNELS

First install the C-Channels in the “SPAN” direction. As shown in Figure 7, the C-Channels fasten to the T-Saddles with (4) Tek Screws, P/N S10. The C-Channels should cantilever past each post at least two inches, or as specified in the shop drawings (if applicable).

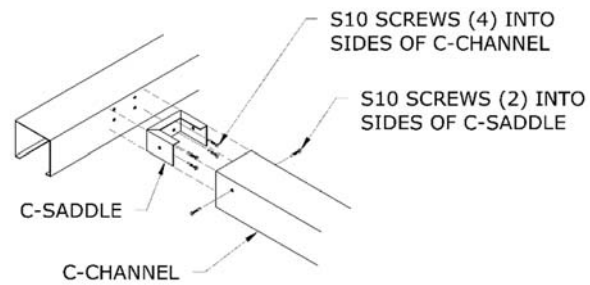
Next, install the C-Saddles in the locations where the C-Channels in the “SPACING” direction will be mounted. See Figure 8. The C-Saddles are fastened with (4) Tek Screws, P/N S10, into the sides of the C-Channels installed in the previous step. The C-Channels in “SPACING” direction will need to be measured and cut to the exact distance between the



**FIGURE 7**



perpendicular C-Channels installed in the previous step. Once, cut to length, they can be attached with (2) Tek Screws, P/N S10, through the sides of the C-Channel into the C-Saddles.



**FIGURE 8**

#### STEP 6: FINAL QUALITY CHECK

Perform a final quality control inspection. Check that all the screws have been installed in the C-Channels and Round Post Caps. Remove shavings left over from drilling holes. Pick up any screws and other miscellaneous items that may have been dropped to prevent damaging the roof membrane should someone step on them.