

DRYCAP™ INSTALLATION MANUAL



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Toll Free 866-766-3727

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INTRODUCTION

THIS MANUAL

This manual is designed to illustrate the very simple process of installing DryCap™ sleeper covers. 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

DryCap™ covers are useful on commercial rooftops where wood or steel sleepers, also referred to as curb rails, are used to support equipment. The DryCap™ is designed to fit 4x lumber with room on each side for roofing materials. Sleepers should be designed so they are tall enough to allow the DryCap legs to extend 2" over the sleeper without touching any roofing material. Any type of equipment, such as HVAC units and roof screens can be mounted to the DryCap™ System using bolts, washers and brackets in the upper T-slots without penetrating the watertight barrier. If equipment mounted to the DryCap™ System is large enough to be subject to wind or seismic loading, we recommend having the configuration reviewed by a licensed professional engineer to ensure its adequacy for the specific conditions that apply.

SYSTEM OVERVIEW

COMPONENTS

DRYCAP

The DryCap cover is extruded aluminum. The inside width is 5" to fit on 4x lumber sleepers with room on each side for the roofing material. T-slots in the top allow equipment to be attached without penetrating the top of the cap and exposing the system to leaks.



END CAPS

End caps are used to seal off the ends of DryCap sleeper covers. Each end cap has pre-installed drive screws included making installation fast and easy.



CLEATS

Concealed cleats are the anchors that secure the DryCaps in place.



THREAD CUTTING SCREWS

Thread cutting screws are used for fastening through the side legs of the DryCap covers into the internal cleats.



WOOD SCREWS

Wood screws are used to fasten the cleats to wood sleepers.



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 length of the DryCaps, 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 of time, we recommend covering it with plastic or tarps. Aluminum has high recycle value so we recommend storing these materials in a secure area to prevent theft.

TOOLS

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

1. Standard tape measure
2. Ear plugs
3. Safety glasses
4. Heavy duty extension cords
5. Cordless drill/driver gun or power drill
6. 12" chop saw metal cutting blade (not abrasive)

INSTALLATION

This manual covers the basic techniques for installing DryCap™ covers. There may be variables that 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.

REVIEW SHOP DRAWINGS (IF APPLICABLE)

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

INSTALL DRYCAPS

STEP 1: INSTALL THE FIRST CLEAT

Cleats can be installed after the sleepers have been completely roofed in. They may be installed on top of the roofing material when the roofing wraps up and over the sleepers. They may also be installed directly on the wood surface of the sleeper in cases where the roofing stops at the top and does not wrap over. For engineered projects, the quantity, spacing and number of fasteners for the cleats will be specified and should be followed exactly. If the project is not engineered you should use your own best judgment, but at least these minimum standards should be followed.

Install the first cleat a few inches from one end, making sure it is square and centered on the sleeper with an even gap on each side (see Figure 1). The cleat will be fastened with at least two wood screws, but only use one for this step. The ¼" x 3" SDS wood screws supplied by RoofScreen are the recommended fasteners because they do not need pre-drilled pilot holes for proper installation.

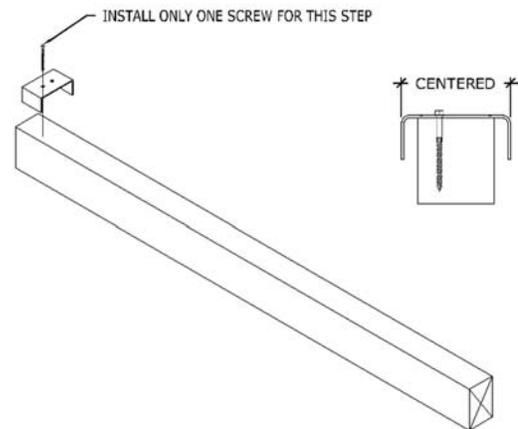


FIGURE 1

STEP 2: INSTALL THE LAST CLEAT

In a similar manner, install the last cleat a few inches from the other end of the sleeper. Again, only install one screw for now.

STEP 3: INSTALL THE REMAINING CLEATS

Cleats should be placed at the spacing specified in the engineered drawings (if applicable). If drawings were not included, the maximum recommended spacing is about 3' between cleats. If the sleeper is 3' long or less, you may not need additional cleats.

Use a straight edge to line up the first and last cleats. Since there is only one screw in each, they can be twisted to make square to the straight edge. Once they are square, install the remaining screws to secure them in place. Remaining cleats can be squared to the straight edge and installed with all necessary screws (see Figure 2).

Cleats should be square and straight along the outside edge to allow the cap to be installed easily. However, the vertical alignment is not as critical. In other words, if one cleat is higher than another due to a lumpy upper surface of the sleeper, the cap will still fit over and fasten properly.

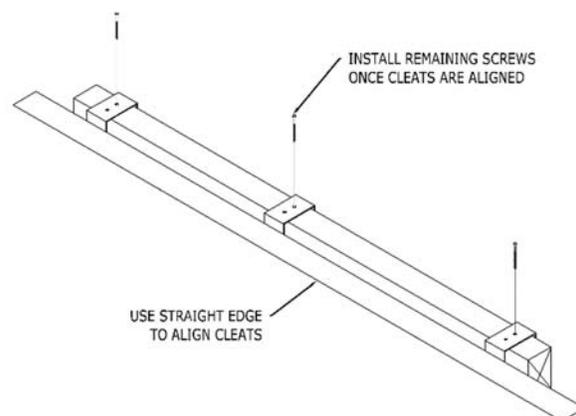


FIGURE 2

STEP 4: MEASURE AND CUT DRYCAPS TO LENGTH

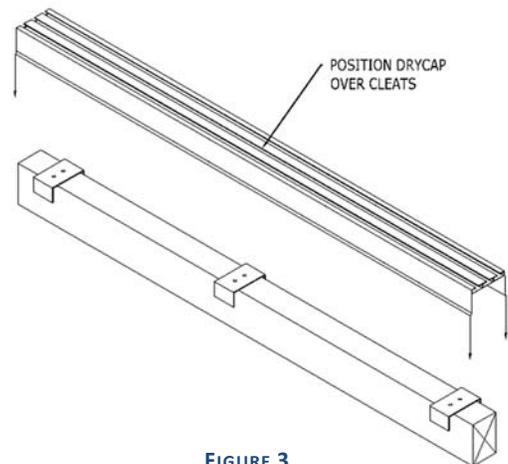
The DryCap system is easy to cut to the proper length in the field if necessary. The caps should be slightly longer than the sleeper, allowing enough room at each end so the end caps will not touch the roofing material. A good rule of thumb is to measure the length from outside of roofing on each end of the sleeper and add two inches.

The preferable method for cutting the DryCap is to use a 12" chop saw with a metal cutting blade. Do not use an abrasive blade for this operation. When cutting the cap, make sure it is supported level and is set square in the saw to get a clean, square cut. This will allow the end caps to be properly installed and sealed.

A skill saw with metal cutting blade or a Sawzall could also be used, but it is more difficult as the cut needs to be as clean and square as possible.

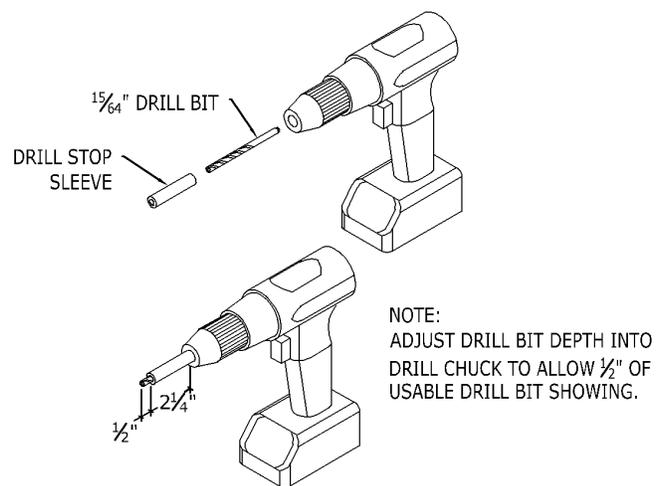
STEP 5: POSITION DRYCAP

Install the DryCap directly over the cleats as shown in Figure 3 and slide into position so that the ends extend the same distance past each end of the sleeper. Push down on the cap to ensure it is seated against the tops of the cleats.

**FIGURE 3****STEP 6: FASTEN THE DRYCAP TO INTERNAL CLEATS**

The DryCap System is designed for installation flexibility. For this reason, there are no pre-drilled holes for fastening the caps to the internal cleats, which would limit the cleat locations to pre-set dimensions. Instead, pilot holes need to be drilled, and thread-cutting screws installed at each cleat location. We do not recommend using self-drilling tek screws for this because the drilling point may extend through to the inside of the cleat and pierce the roofing material.

To drill the holes, use the 15/64" drill bit with plastic drill stop sleeve included in your shipment (see Figure 4). The drill stop sleeve will prevent the bit from pushing through and piercing the roofing.

**FIGURE 4**

The sides of the DryCaps have small alignment grooves to show where the holes should be drilled so they go into the cleats at the proper height (see Figure 5). Drill one hole on each side of the DryCap, at each cleat location. Use a driver drill to install a thread-cutting screw into each hole (see Figures 6 and 7).

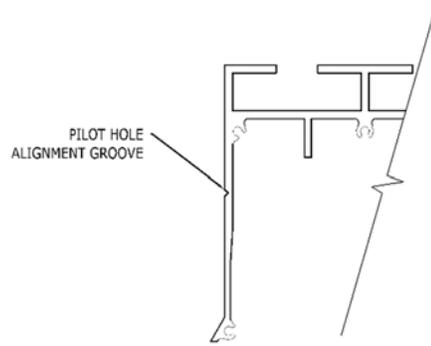


FIGURE 5

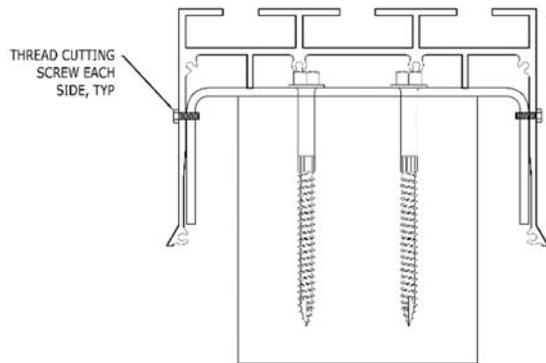


FIGURE 6

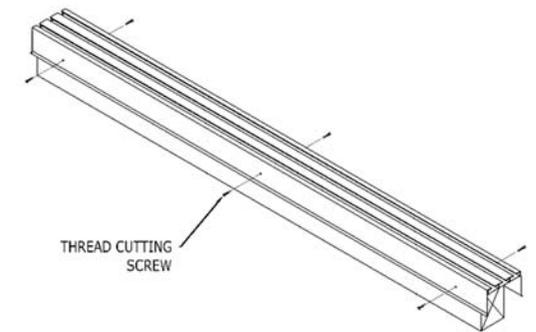


FIGURE 7

STEP 7: INSTALL END CAPS

As shown in Figure 8, end caps are used to seal off the ends of DryCaps. Each end cap has pre-installed drive screws included to make the installation fast and easy. The drive screws line up with extruded screw bosses in the DryCap. Simply add a small bead of the silicone sealant included in your order to the end cap and snap into place by gently tapping directly on the heads of the drive screws with a small hammer. Wipe off excess sealant.

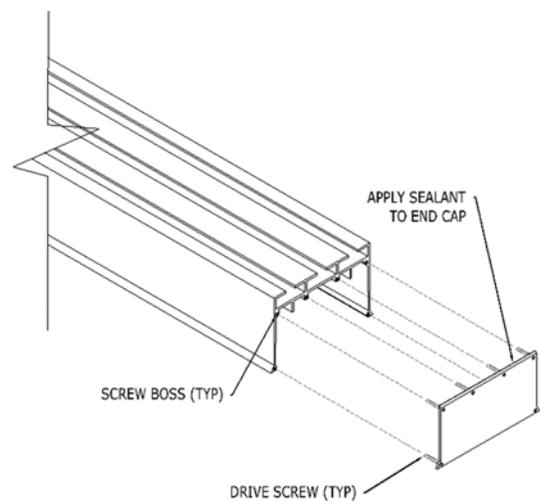
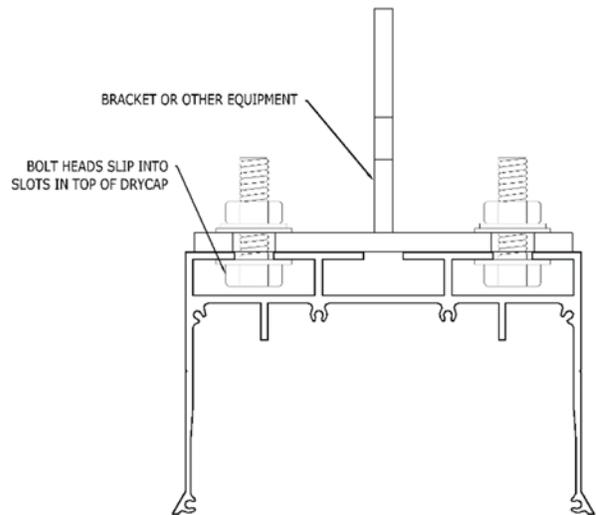
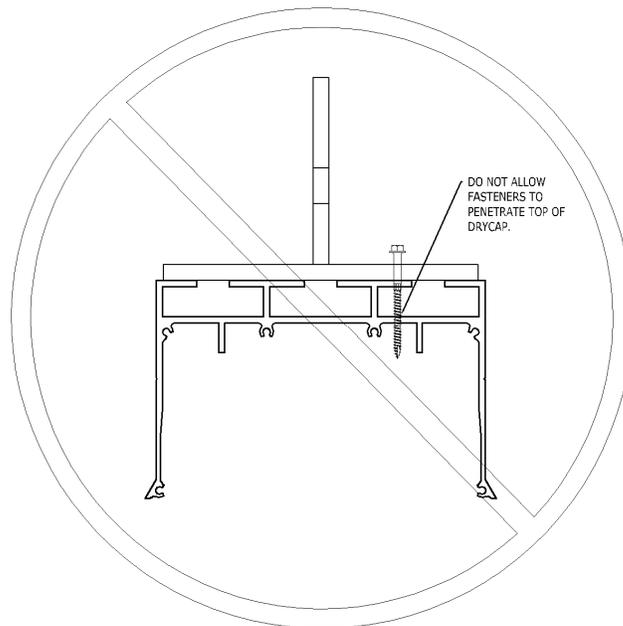


FIGURE 8

STEP 8: MOUNTING EQUIPMENT

Use the T-slots on top of the DryCap to mount any type of bracket desired. A ½" hex bolt with a fender washer works perfectly in the slots when inserted with the head inside the slot and the nut on top of the bracket. See Figure 9.

Do not drill screws or bolts through the top of the DryCap into the sleeper below. This will penetrate the water tight barrier and allow a path for water intrusion. See Figure 10.

**FIGURE 9****FIGURE 10****STEP 9: FINAL QUALITY CHECK**

Perform a final quality control inspection. Check that all the screws have been installed in the DryCaps and that all end caps have been installed. 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.