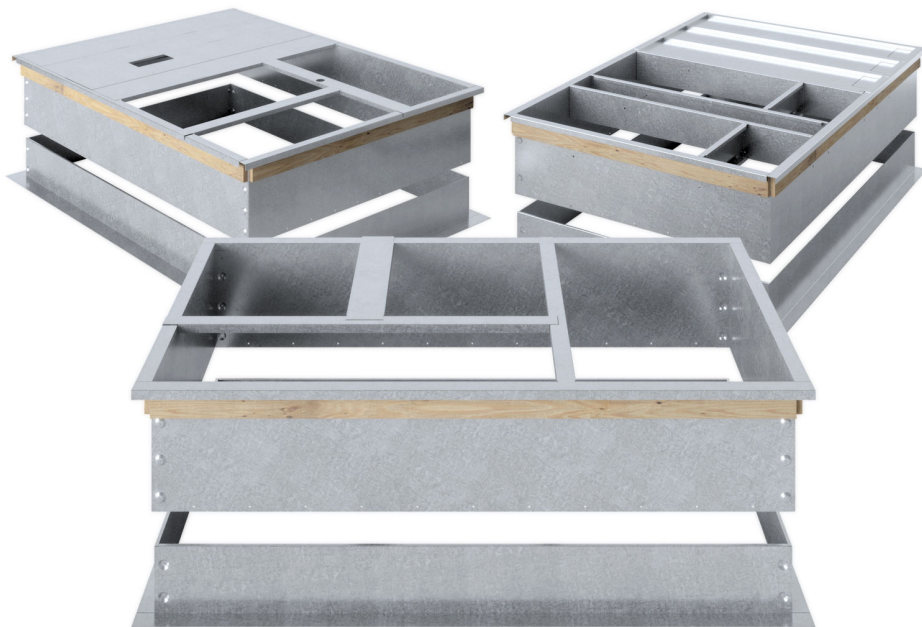




MicroMetl

Adjustable Pitched Curb Install Guide



Foremost HVAC Accessory Manufacturer



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IMPORTANT: Please read all installation instructions and safety precautions before beginning. These installation instructions are to be used as a general guideline only!

GENERAL

The MicroMetl Knockdown Curb ships unassembled, can be easily stored in your inventory, and is your least expensive option when it comes to rooftop curbs. With the use of some basic tools, it is easily field assembled.

The most common curb height is fourteen inches. MicroMetl offers other standard heights, as well as your choice of any pitch, or custom height variation, to best fit your rooftop requirements. Please contact Customer Service with your special requests and requirements.

SAFETY PRECAUTIONS

Improper installation, adjustment(s), alteration(s), service or maintenance can cause property damage, injury or death. Installation and servicing of air-conditioning equipment can be hazardous due to system pressure and electrical components. Only trained and qualified service personnel should install, repair, or service air-conditioning equipment.

Untrained personnel can perform basic maintenance functions such as replacing filters. All other operations should be performed by trained service personnel. When working on air-conditioning equipment, always observe precautions in the literature, tags and labels attached to the unit, and other safety precautions which may apply!

To avoid any property damage or personal injury, it is the installer's responsibility to be certain that the installation will not impair the function of this curb, or the unit to be installed.

Check and disconnect all gas and electrical connections before installing your new curb and rooftop unit.

WARNING

To prevent injuries and rain damage, do not leave roof opening uncovered. If installation is not completed immediately after roof opening is cut and framed, provide an adequate temporary cover for the roof opening.

TOOLS NEEDED



Rubber Mallet



Level



5/16" Hex Head Driver or Socket



Tape Measure



7/16" Socket



7/16" Combination Wrench

UNPACK & INSPECT

Reference the Product Submittal for your specific part number and an illustration of all necessary parts. Unpack, locate all parts, and inspect curb for missing parts or damages. Contact MicroMetl's Customer Service Department immediately with any questions or concerns.

All hardware used for these assembly procedures is included with your curb. Do not tighten any hardware until the curb is completely level, square, and installed in a suitable position on the roof with proper alignment to the roof/unit opening(s).

OBSERVE PROPER CLEARANCES AND OBSTRUCTIONS

Before installing your roof curb, check unit nameplate or RTU manufacturer's weight, and observe their requirement(s) for correct and proper clearances. Additionally, check the clearances of the new unit to other items on the roof, exhaust fans, walls, and other roof top units.

Secure any wiring or pipes arising through the curb to be connected to the new rooftop unit. Be certain to identify any possible obstructions which could interfere with a crane's path if required.



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IMPORTANT: This MicroMetl Adjustable Pitch Curb is for roofs with pitches up to 1" in 12".

Adjustable Pitch Curb Instructions

1. Unpackage roofcurb. Separate parts for top section, bottom section and decks / supports.
2. **Bottom section:** Assemble the sides and ends. The attachment flanges on the ends go to the inside of the sides. For long curbs with frame support bracket, attach 2 sides together with the lower frame support bracket.

Use the provided screws to assemble. The screws are inserted from outside the curb inwards. See Illustration - Side & End Assembly.

3. **Top section:** Assemble the sides and ends. The attachment flanges on the ends go to the inside of the sides. For long curbs with frame support bracket, attach 2 sides together with the upper frame support bracket.

Use the provided screws to assemble. The top screw will go into the wood nailer. The screws are inserted from inside the curb outward. See Illustration - Side & End Assembly.

4. Install the deck pans (if applicable) and duct supports to the top of the top section. See submittal. Gasket the top 1 3/4" perimeter and around the duct openings.

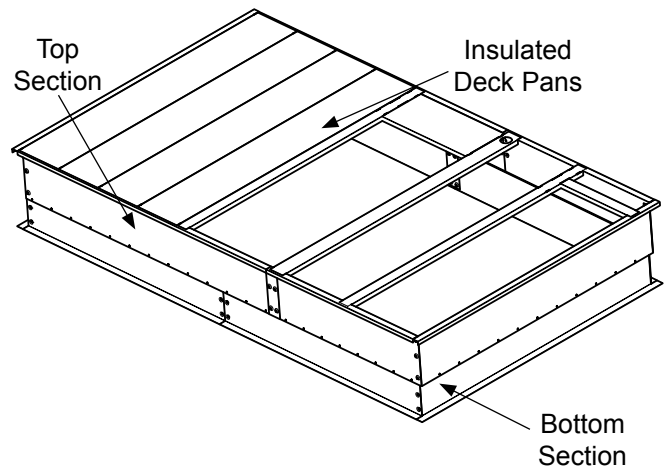


Illustration - Deck Pans & Duct Supports (Generic Curb)

5. Locate the bottom section assembly over the roof openings. The roof opening sizes listed in the HVAC unit specifications are appropriate (unless using a hard duct type concentric diffuser package). Secure the bottom section to the roof.
6. Slide the top section over the bottom section. Level the top section and prop-up in place. See Illustration - Level Top Section.

NOTE:

This curb can be used on roofs with a pitch up to 1" in 12". If curb is pitched on the short side, the roof pitch can be even greater.

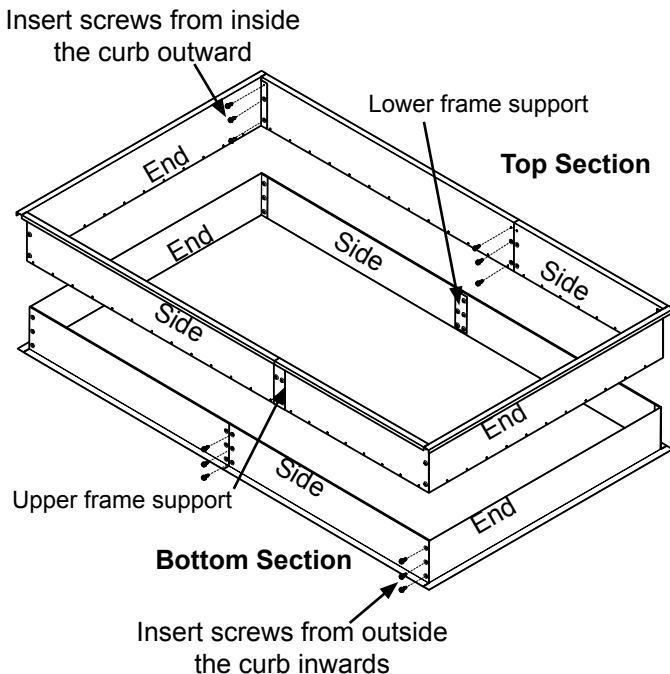


Illustration - Side & End Assembly (Generic Curb)

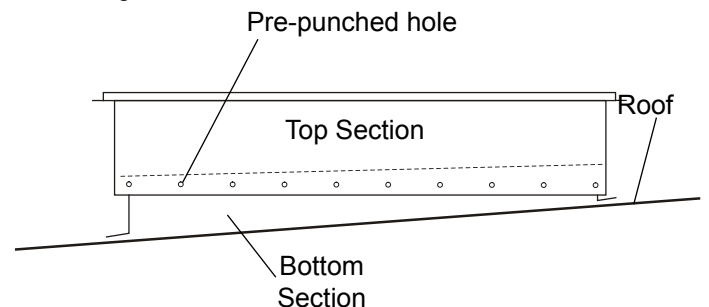


Illustration - Level Top Section



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Adjustable Pitch Curb Instructions (Cont.)

7. Through the pre-punched holes along the bottom base of the top section, insert 3/4" tek screws. This will secure the top section to the bottom section. See Illustration - Securing Top & Bottom Sections.

The pre-punched holes are 6" apart. **It is important that you install the screws through every hole.**

8. Roof in the curb according to the local or other appropriate codes.
9. Manufacture the supply and return ductwork 3/4 inch smaller than duct openings. See submittal for supply and return dimensions.

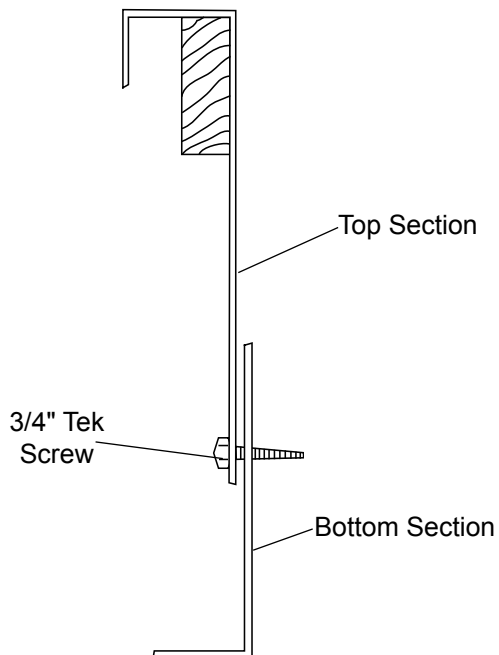


Illustration - Securing Top & Bottom Sections



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CUTTING AN OPENING

For standard roof curbs, you have several options and methods available to you concerning the roof opening for your ductwork.

It is not necessary to cut out the entire area of the roof curb. When cutting the openings for your new curb, first consider whether you are installing a concentric duct package to the curb, or just individual supply & return ducts connected directly to the curb.

When using a concentric duct package, refer to the installation guide provided for your specific package.

EXAMPLE ONE

Create two roof opening cuts in the roof to the approximate size of the return and supply openings on your curb, as per the dimensions displayed on your submittal.

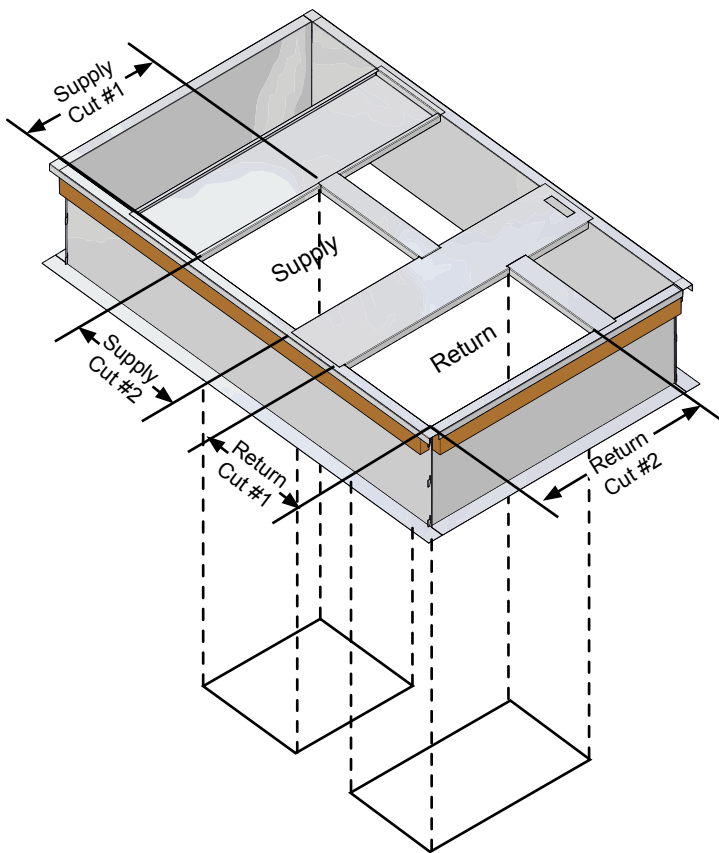


Illustration - Cutting An Opening - Example 1

EXAMPLE TWO

Measure from the furthest distance of each opening. Your first cut should be "Cut #1" as shown in illustration - Cutting An Opening - Example 2, and is the distance from the far edges of the supply and return opening.

Because in the example the return air opening is the longest, most far reaching dimension perpendicular to Cut #1, Cut #2 will equal the dimension of the return air opening. See illustration - Cutting An Opening - Example 2.

If utility connections are to be made through the curb, cut out the access space near the location of the utility plate connector.

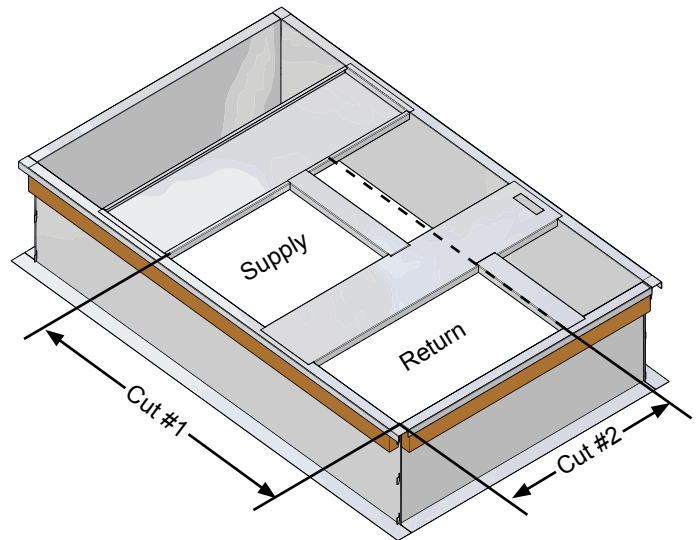


Illustration - Cutting An Opening - Example 2

EXAMPLE THREE

Similar to Example #1, measure from the furthest distance of each opening. Create your first cut noted as "Cut #1", the distance from the far edges of the supply and return opening. See Illustration - Cutting An Opening - Example 3.

Due to the supply and return being unevenly spaced, you will again measure from the furthest distance of each opening and perform your second cut noted here as "Cut #2." See Illustration - Cutting An Opening - Example 3.

If utility connections are to be made through the curb, cut out the access space near the location of the utility plate connector.



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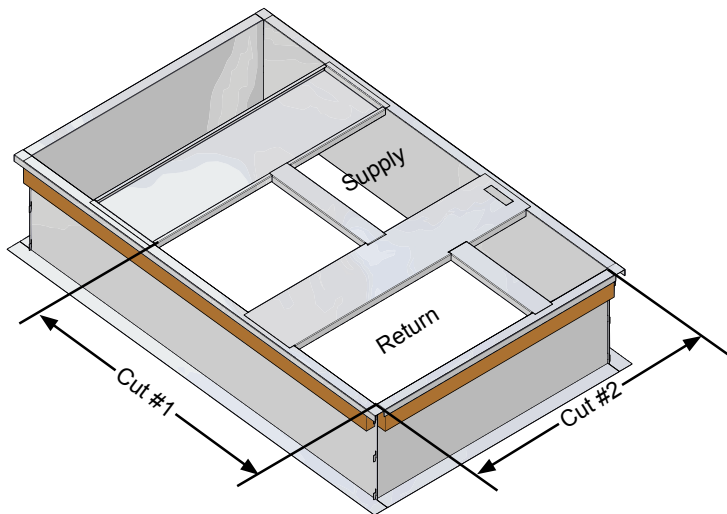


Illustration - Cutting An Opening - Example 3

Position and install the curb around the roof opening location(s), and square your new curb. You can assure the curb is square by matching the measurements from corner to corner. Match both measurements as shown in Illustration - Corner to Corner Measurement. They must be identical.

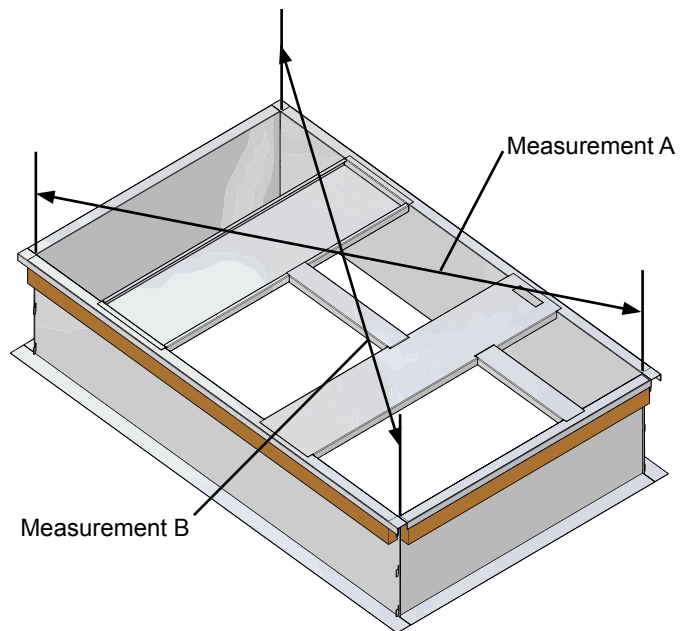


Illustration - Corner to Corner Measurement



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FLASHING THE CURB

The roof curb and unit must be sealed completely to prevent any water or air leakages.

Definitions:

MicroMetl Gasket – The gasket material is factory provided to seal the area between the top flange of your new roof curb and the rooftop unit or the like. See “Apply the Gasket Material” for more detailed instruction.

Rigid Insulation – This can be factory or field provided, and offers thermal protection preventing moisture from forming on the inside of the curb, and sound attenuation.

Cant Strip – Must be field provided. The Cant Strip prevents the roofing material from being forced into a ninety degree angle where the roof surface joins the perpendicular wall of the knockdown curb, avoiding a sharp bend in the roofing material. It additionally aids in roof drainage by providing a slope to prevent ponding water.

Counterflashing - The formed metal secured to the top of the curb is field provided and used to cover and protect the upper edge of a base flashing, fasteners, and to prevent moisture entry.

All Knockdown curbs are furnished with a full perimeter wood nailer. This wood strip allows the roofer to nail the roofing material up to the top of the curb when sealing the roof. Insulate the outside of the curb using rigid insulation between the roof material and the roof curb.

Insert the top edge of roofing and flashing material between wood nailer strip and roof curb flange. Nail material to wood nailer on roof curb as required. See illustration - Detail and illustration - Curb Unit.

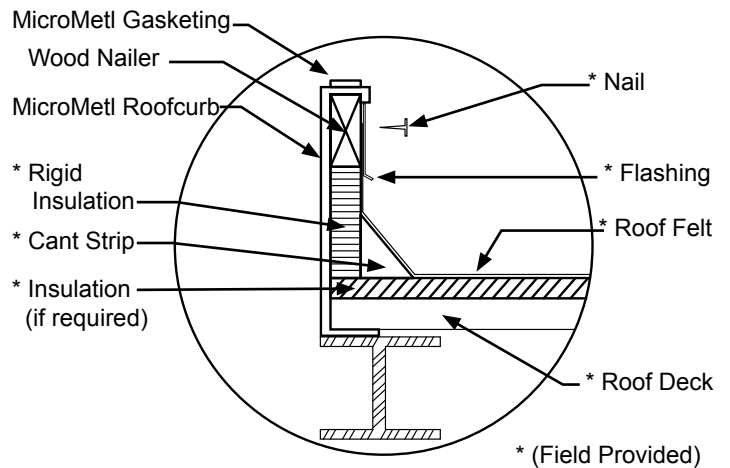


Illustration - Detail

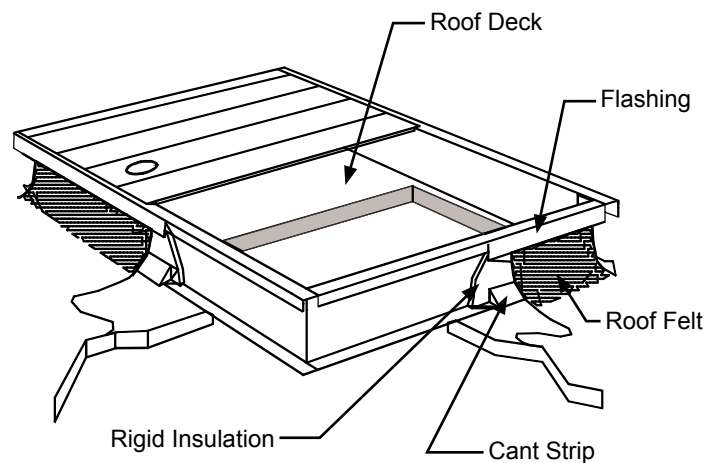


Illustration - Curb Unit



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SECURE THE CURB

Frame the roof opening to provide proper and adequate structural support. The roof must be suitable to support the weight of both the curb and the unit to be mounted.

Level the curb by placing shims (thin pieces of wood or metal) under the bottom flange of the curb. Secure curb in place by welding or screwing the curb to the roof.

The curb must be leveled to ensure the proper flow of condensate from the unit.

ASSEMBLE DECK PANS & SUPPORTS

Not all curbs contain deck pans as displayed in Illustration - Deck Pans & Supports Assembled. However, if they are included in your curb design, install them on the compressor end of curb. All deck pans and duct support must be installed as defined by the proper submittal.

Some roofcurbs require duct angles and recessed deck pans to meet design requirements of specific RTU's. If roofcurb shipped with duct angles, please refer to Section - Duct Angle Assembly for further instructions.

Most deck pans and supports do not require tools to install. The deck pans are designed to simply lay on top of the edge flanges, and are easily positioned into place.

Supports will either lie over the edge flanges or secure into other supports and deck pans with the use of mated slots.

If your curb contains sloped deck pans please refer to Section - Sloped Deck Pans.

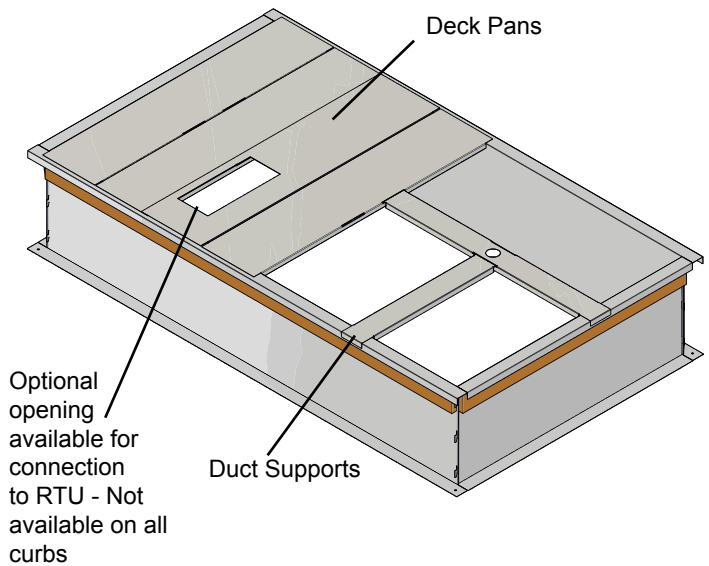


Illustration - Deck Pans & Supports Assembled

ATTACHING DUCTWORK

Ductwork **MUST** be installed before RTU is placed on roof curb. Ensure the curb's position on the roof support does not interfere with the clearance required for the supply/return ductwork.

The ductwork for your supply and return should attach to the existing roof curb. Use caution if connecting the ductwork directly to the Rooftop Unit (RTU). Serious damage may occur in the future when the RTU is removed or replaced with the ductwork connected.



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Duct Angle Assembly

Some roofcurbs require duct angles and recessed deck pans to meet design requirements of specific RTU's. Please read instructions before assembly.

Install (4) duct angles on the interior perimeter of curb. Align holes on the duct angles with the holes on curb sides and ends. Secure in place with screws provided. See Illustration - Duct Angle Assembly and Illustration - Duct Angle Detail.

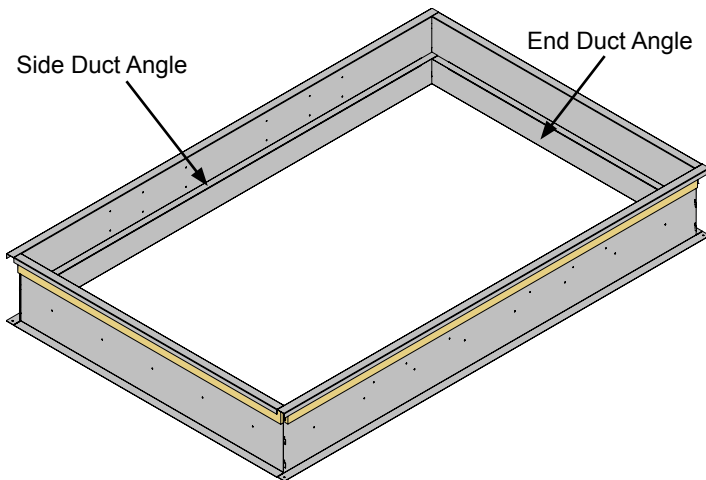


Illustration - Duct Angle Assembly

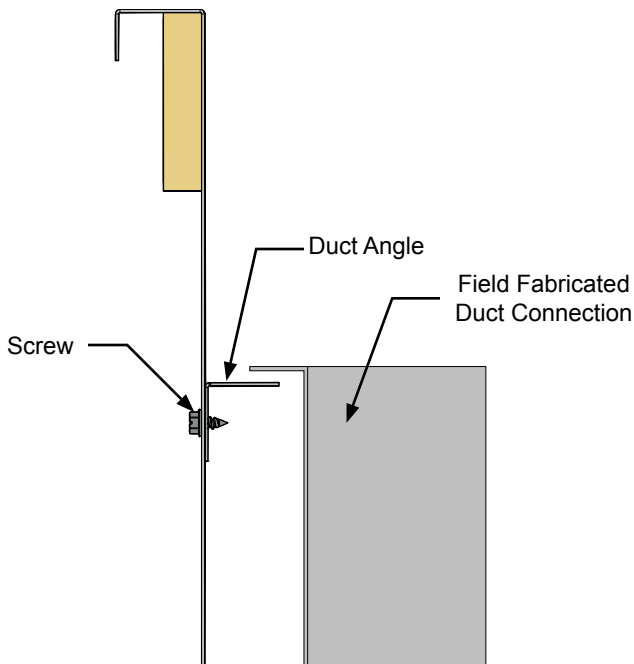


Illustration - Duct Angle Detail

Divider Assembly

Install (4) dividers on duct end of curb. Reference submittal for dimensions. Align holes on divider ends with holes on curb sides. Secure in place with screws provided. See Illustration - Divider Assembly.

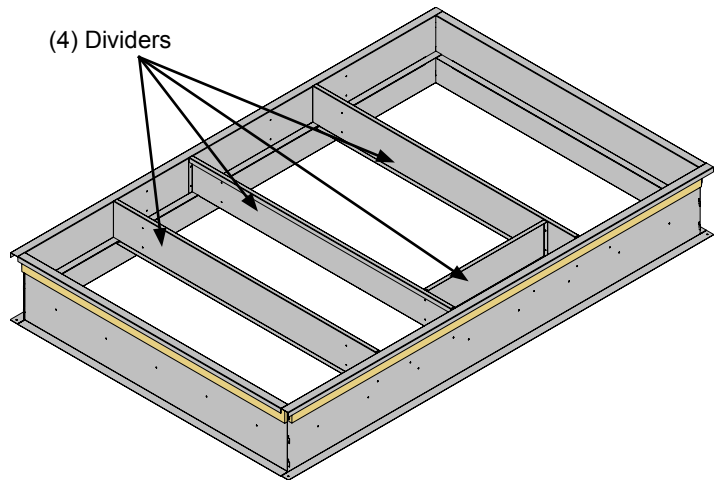


Illustration - Divider Assembly

Recessed Deck Pan Assembly

Install (3) deck pans on compressor end of curb. Deck pans are recessed into curb and lay on duct angles. See Illustration - Deck Pan Assembly.

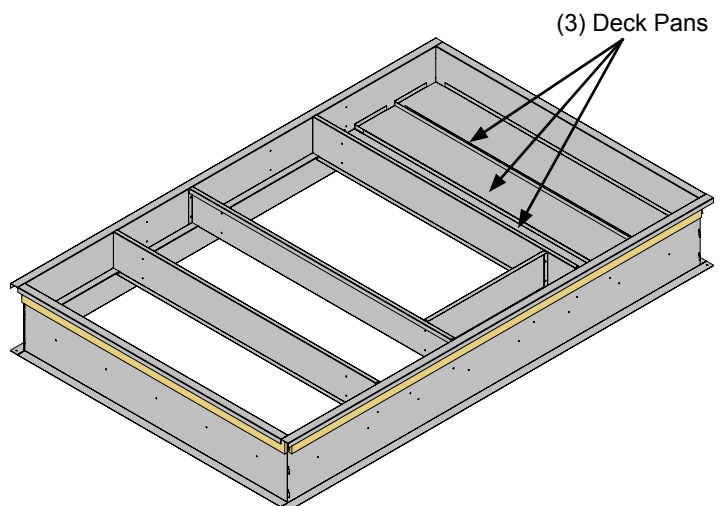


Illustration - Deck Pan Assembly



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APPLY THE GASKET MATERIAL

To avoid property damage or personal injury, it is the installer's responsibility that the roof curb and unit are to be completely sealed, preventing any water or air leakage/damage.

IT IS CRITICAL TO MAINTAIN A WATER AND AIR TIGHT SEAL. IMPROPERLY INSTALLED GASKET CAN RESULT IN AIR LEAKS, WATER PENETRATION, AND POOR UNIT PERFORMANCE.

Install sealing gasket on top of the curb perimeter flanges and duct supports. See Illustration - Apply Gasket. Properly clean the top surface to remove dirt or contaminants which could affect the placement of the new gasket.

Use caution when applying the gasket. Under extreme hot and cold conditions, the gasket cannot be lifted or repositioned without tearing.

Layout the gasket, measure, and cut. Remove adhesive paper on back of gasket and apply to the curb.

The gasket should be butted together at the corners. Gasket strips must fit tightly together to leave no gaps for leakage. The weight of the unit will compress the gasket to seal the joint between the unit and the roof curb. Do not slide unit into position when it is sitting on the curb. The curb gasket material may be damaged and leaks may result.

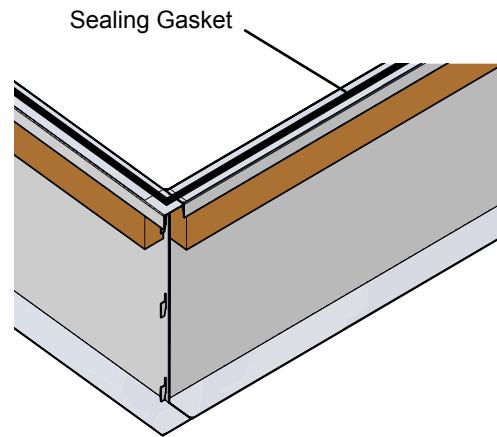
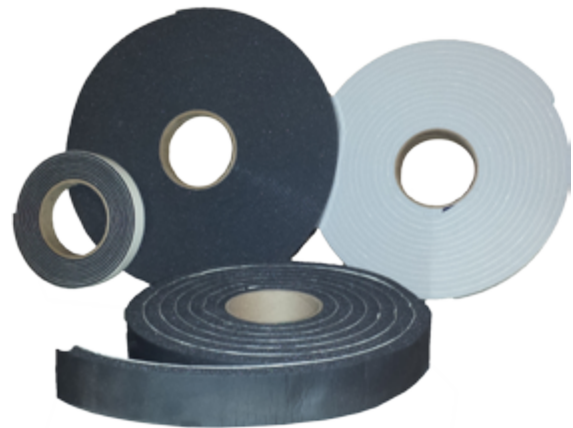


Illustration - Apply Gasket



Note: Visit our website at www.MicroMetl.com or contact customer service for offered sizes

Illustration - Gaskets