

This publication contains the installation, operation and maintenance instructions for galvanized and aluminum roof curbs. Roof curbs for lab exhauster and fans with hurricane certification have special instructions.

Cook roof curbs are designed for use with Cook units. For uses other than the intended design, it is responsibility of the engineer of record to determine suitability of the roof curb.



Carefully read this publication and any supplemental documents prior to any installation or maintenance procedure.

For additional safety information, refer to AMCA Publication 410-96, *Safety Practices for Users and Installers of Industrial and Commercial Fans*.

All of the publications listed above can be obtained from:

- lorencook.com
- info@lorencook.com
- 417-869-6474 ext. 166

For information and instructions on special equipment, contact Loren Cook Company at 417-869-6474.

Receiving and Inspection

Carefully inspect the curb and accessories for any damage and shortage immediately upon receipt of the fan.

- Check dampers (if included) for free operation of all moving parts
- Record on the *Delivery Receipt* any visible sign of damage

Handling

Lift the roof curb by strap through the center.

Storage

If the roof curb is stored for any length of time prior to installation, cover the curb to protect it from the elements. This includes covering the insulation, attenuators if applicable, and dampers. Curbs with liners need to be covered, as the liner is not weatherproof.

Moisture can get trapped in the insulation and cause mold.

Installation

⚠ WARNING

The attachment of roof mounted fans to the roof curb as well as the attachment of roof curbs to the building structure must exceed the structural requirements based on the environmental loading derived from the applicable building code for the site. The local code official may require variations from the recognized code based on local data. The licensed engineer of record will be responsible for prescribing the correct attachment based on construction materials, code requirements and environmental effects specific to the installation.

Attachment methods vary depending on the job requirements and should be made per local code & / or local conditions, per the engineer of record. See page 2 for recommendations to be considered.

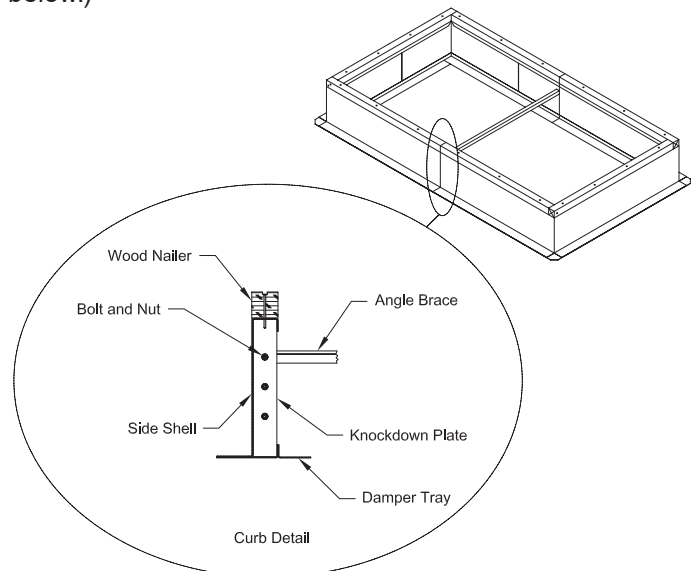
Roof Curbs provide a flat and level attachment for the installation of fans or gravity hoods. For sloped roofs or roof peaks, curb specifically designed for these installations should be used.

When installing the roof curb, if the fan or gravity hood is to be installed at a later time, cover the curb to protect it from the elements. This includes covering the insulation, attenuators if applicable, and dampers. Curbs with liners need to be covered, as the liner is not weatherproof.

Moisture can get trapped in the insulation and cause mold.

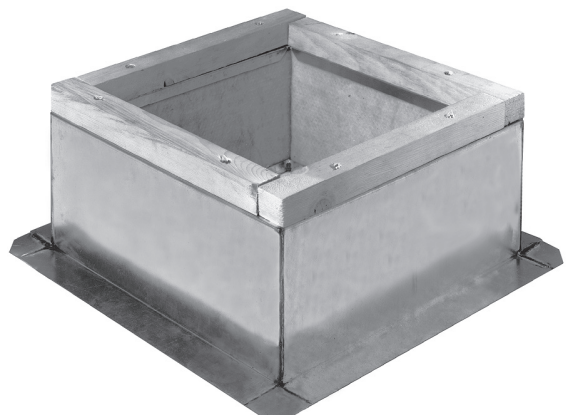
Knockdown Curb Assembly Instructions:

1. Place knockdown curb pieces on a flat surface with knockdown plates facing each other. Units with multiple splits will be identified near knockdown plates. Be sure to match identification marks.
2. Secure knockdown plates together at each split location with bolts and nuts in all holes provided in knockdown plates. If curb comes with an angle brace, install the brace with the uppermost bolt and nut on the knockdown plates.
3. Caulk seams at all knockdown split locations. (See drawing below.)



Maintenance

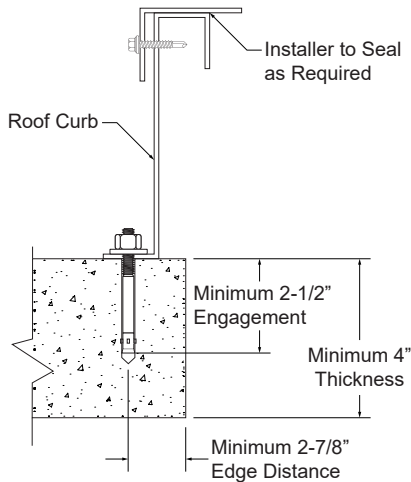
This roof curb does not require maintenance under normal use. However, the roof curb should be inspected periodically during routine roofing inspections.



Typical Attachment Details

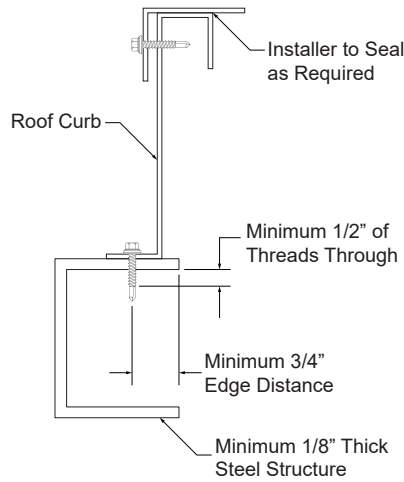
The information below are recommendations to be consider by the engineer of record.

1. Unit is to include a curb cap base to facilitate mounting of a unit to a roof curb. The curb will be adequately attached to the building structure to sustain all forces which may be produced by the prescribed environmental forces exerted on the fan and curb. The curb must be attached to a structural member of the building.
 - a. Concrete Deck: Curb is to be attached with wedge type concrete anchor. Minimum 3/8" Diameter Carbon Steel- Hilti Kwik bolt 3 or equal - Minimum 2-1/2" of engagement in 2000 PSI minimum concrete- Minimum deck size is 4" nominal thickness. Installation must meet the fastener manufactures required thickness.
 - b. Steel Roof Structure: Curb is to be attached with self-drilling steel screws of minimum nominal size of 1/4" diameter and screws shall pass through steel at least 1/2".
 - c. Wood Roof Structure: Curb to be attached with steel lag bolts nominal size of 3/8" diameter. Wood is to be 4' nominal size or greater.
2. The unit shall be attached to the curb with one of the following methods installed on all four sides of the curb cap.
 - a. #12 x 2" hex washer head self-drilling screw.
 - b. Alternate Fastener - 1/4" diameter hex head bolt and washer with companion nut installed on the interior of the curb.
3. All fasteners are to be high quality corrosion resistant steel or stainless steel.
4. All aluminum shall be protected from contact with dissimilar metals per ADM1-2015.
5. Any gap between the curb and curb cap shall be filled by the installing contractor with a suitable corrosion resistant material that allows the fasteners to be installed without causing excessive distortion of the flanges.
6. The installer is responsible for checking that all fasteners are properly installed.
7. After attachment to the building structure, the curb is to be counter flashed per the roofing material manufacturer's instruction.



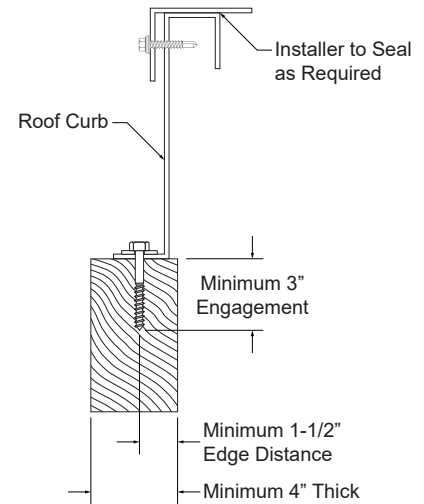
Concrete Roof Deck

Minimum 2000PSI Concrete



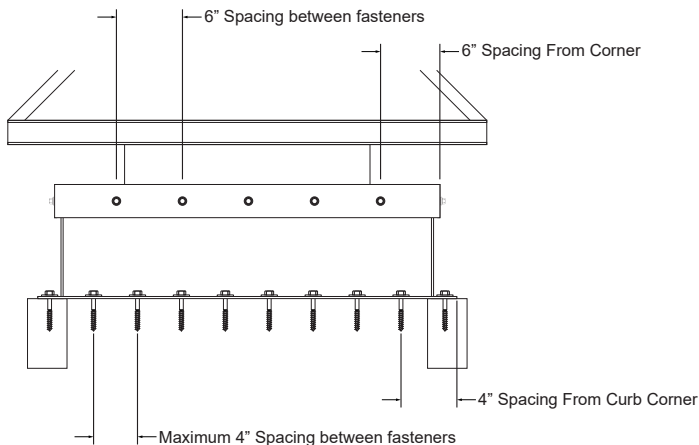
Steel Roof Structure

A36 Steel Structure (Minimum Fy=36KSI)



Wood Roof Structure

Minimum 4" Nominal Thick Wood (SG=.42)



Fastener Spacing

Curb and Unit Restraint

Limited Warranty

Loren Cook Company warrants that your Loren Cook fan was manufactured free of defects in materials and workmanship, to the extent stated herein. For a period of one (1) year after date of shipment, we will replace any parts found to be defective without charge, except for shipping costs which will be paid by you. This warranty is granted only to the original purchaser placing the fan in service. This warranty is void if the fan or any part thereof has been altered or modified from its original design or has been abused, misused, damaged or is in worn condition or if the fan has been used other than for the uses described in the company manual. This warranty does not cover defects resulting from normal wear and tear. To make a warranty claim, notify Loren Cook Company, General Offices, 2015 East Dale Street, Springfield, Missouri 65803-4637, explaining in writing, in detail, your complaint and referring to the specific model and serial numbers of your fan. Upon receipt by Loren Cook Company of your written complaint, you will be notified, within thirty (30) days of our receipt of your complaint, in writing, as to the manner in which your claim will be handled. If you are entitled to warranty relief, a warranty adjustment will be completed within sixty (60) business days of the receipt of your written complaint by Loren Cook Company. This warranty gives only the original purchaser placing the fan in service specifically the right. You may have other legal rights which vary from state to state.



LOREN COOK COMPANY

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