## Cobra® Ridge Vents Application Instructions

Information Sheet

Updated: 7/07



*Quality You Can Trust Since 1886… From North America's Largest Roofing Manufacturer*™









# **APPLICATION INSTRUCTIONS**

**Roof Deck:** Use only over a well-seasoned, supported wood deck, tightly constructed with maximum 6" wide lumber, having adequate nail-holding capacity. Plywood decking as recommended by The Engineered Wood Association is acceptable.

For ridge vent to function properly, it must be the only exhaust vent for the vented attic space. Do not use with gable-end louvers, turbines, roof vents, or power vents.

Slope Restrictions: Use only on slopes between 3/12 and 16/12.

## **STEP 1** Calculations for a Balanced Ventilation System

To achieve a "balanced system" with Cobra<sup>®</sup> 4' rigid vents, there must be an air intake system (i.e., soffits or undereave vents). For proper ventilation, the amount of undereave ventilation must equal the amount of ventilation at the ridge.

**NOTE:** Consult local building codes for other ventilation requirements. **NOTE:** In no case should the amount of exhaust ventilation exceed the amount of intake ventilation.

To determine the minimum square feet of net free ventilating area (NFVA) needed for a balanced ventilation system, use the following formula:

 $\frac{\text{Sq. ft. of attic floor space}}{300} = \text{Min. Sq. ft. of NFVA needed}$ 

Cobra<sup>®</sup> 4' rigid vents have 18.0 square inches of NFVA per lineal foot. To determine how many feet of Cobra<sup>®</sup> 4' rigid vent is needed, use the following formula:

1/2 x (Min. sq. ft. of NFVA needed) x 144 / 18.0 = Min. lineal feet of ridge vent needed

#### To determine the amount of undereave vent required, use the following formula:

X = NFVA (Sq. in. per. lin. ft.) of the undereave vent or intake vent system selected 1/2 x (Min. sq. ft. of NFVA needed) x 144/X = Min. lineal feet of undereave vent needed

### STEP 2 Instruction For Slots

After calculating the total length of Cobra® 4' rigid vent needed, determine the necessary slot opening required.

*Note:* If installing on an existing roof, remove the cap shingles from the ridge.

**Roofs without a ridge board:** cut a 1/8" opening along the ridge on each side (Figure A). **Roofs with a ridge board:** cut a 1/8" opening along the ridge on each side (Figure B).

Note: Maximum slot opening is 3<sup>1</sup>/<sub>4</sub>" wide.

Mark off and cut the slot opening, making sure that the ends of the opening stop at least 6" from any end walls and at least 12" from hip and ridge intersections or chimneys. (Figure C).

Where short ridges (dormers, ridge intersections) are used, mark and cut the slot and make sure that the end of the opening stops at least 12" from the ridge intersection (Figure D).



## STEP 3 Ridge Vent Installation

Place, center and conform the Cobra<sup>®</sup> 4' rigid vent over the slot with the vent resting firmly against the roof surface. For Cobra<sup>®</sup> Snow Country Advanced<sup>™</sup> and Cobra<sup>®</sup> Rigid Vent 3<sup>™</sup> only, use the E-Z Nail<sup>™</sup> system. Grasp attached nails by the head and peel back. Rotate nail to vertical position for easy removal (Figure E). For Cobra<sup>®</sup> Snow Country<sup>™</sup> and Cobra<sup>®</sup> Rigid Vent 2<sup>™</sup>, use nails at least 1<sup>3</sup>/<sub>4</sub>" or longer. Attach the vent section using the previously mentioned nails through the pre-molded nailing holes (Figure F). Nails must always penetrate through plywood decks or at least 3<sup>/</sup><sub>4</sub>" into wood planks.

**NOTE:** 3" ring shank nails are recommended for increased uplift resistance.

Apply the subsequent Cobra<sup>®</sup> 4' rigid vent sections over the length of the ridge using the overlap/underlap tabs (Figure G).

For installations in cold weather, leave 1/8" gap between overlap and underlap of each vent section to allow for expansion.

At the end, it may be possible to use the EasyTear<sup>™</sup> custom length system to create a specific length part to fit.

- 1. With the underlap end of the part near the final end position desired, select the support rib nearest your desired length (Figure H).
- 2. Grasp the baffle with both hands close to the baffle cut notch and snap the baffle at this location (Figure I).
- 3. Flip the vent section over, then tear the bottom of the baffle apart (Figure J). Repeat steps 2 & 3 on the opposite baffle.
- After the baffles have been torn, fold the vent back flat along the tear seam until it snaps. After folding back flat, the filter on Snow Country<sup>™</sup> and Snow Country Advanced<sup>™</sup> can be cut with a utility knife (Figure K).
- 5. Tear the two parts to get your desired custom length part. Discard the leftover portion (Figure L).

Place the newly cut overlap edge over the end of the last full vent installed and nail in place as shown above. If final vent section can not be completed using the EasyTear<sup>™</sup> system, cut the section to desired length. Butt the cut end to the last section installed and caulk the joint. Be sure the finished end is installed to the outside to prevent weather infiltration.

#### Please Note The Following:

#### 1. Do not install on hips.

- 2. For a uniform appearance, install Cobra<sup>®</sup> 4" rigid vent over the entire length of the ridge, making sure that the vent extends past the slot opening by at least 6".
- 3. For applications with hip and ridge intersections, to prevent potential weather or insect infiltration, terminate the Cobra<sup>®</sup> ridge vent at least 6" short of the intersection.
- **4.** For applications over laminated shingles, apply a bead of silicone caulking or roof cement to the underside of the outer baffle along the entire ridge and at exposed edges so that the gaps are completely filled. Do not use excess roof cement as it may cause blistering of the shingles.
- 5. When venting vaulted and cathedral ceilings, each joist/rafter cavity must be vented at both ends and have at least 1<sup>3</sup>/<sub>4</sub>" clearance.

### **STEP 4** Cap Shingle Installation

Install the cap shingles directly to the vent, using included 3" ring shank nails provided only with Cobra<sup>®</sup> Snow Country Advanced<sup>™</sup> and Cobra<sup>®</sup> Rigid Vent 3<sup>™</sup>. For Cobra<sup>®</sup> Snow Country<sup>™</sup> and Cobra<sup>®</sup> Rigid Vent 2<sup>™</sup>, nails must be of sufficient length to penetrate through plywood decks or at least <sup>3</sup>/<sub>4</sub>" into wood planks. A nail line is inscribed on the top of the vent to serve as a guide (Figure M).

**NOTE:** 3" ring shank nails are recommended for increased uplift resistance.

#### "Your Best And Safest Choice... Quality You Can Trust Since 1886!"



