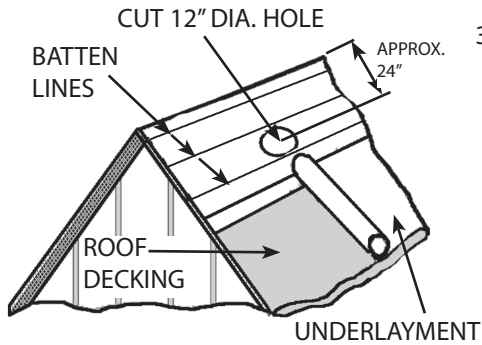
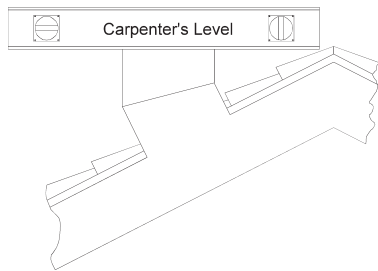


Model BIB & BEB Tile Roof Installation

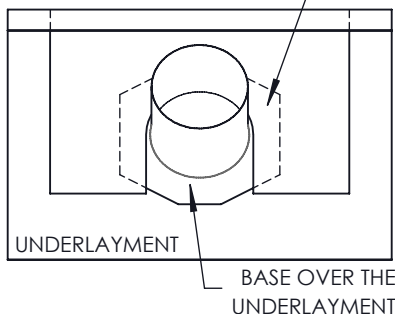


1. After placement of underlayment and layout of battens, use the opposite side of this page to determine the proper spacing of the turbines. Locate base opening between rafters and between the second and third batten or approximately 24" from the ridge and mark hole to be cut in decking. The hole should be 12" in diameter. When placing hole remember to allow for batten width at marked line. Place close to the upper batten. Cut each hole as marked.

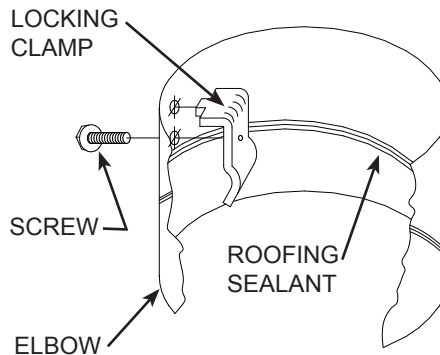


2. Level the upper section of the elbow by placing the base flat on the roof and rotating the upper half of the elbow clockwise. Then, rotate the base on the roof to level the elbow.

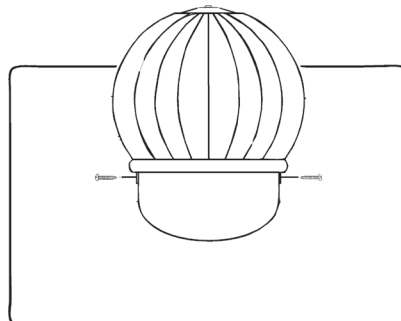
UNDERLAYMENT OVER TURBINE BASE AND OVER RIDGE OR BENEATH THE NEXT UP-SLOPE LAYER



3. Apply approved roofing sealant to the underside of the turbine base. Place the base directly on top of the underlayment and center over the cut hole. Ensure that the top of the elbow is level per the previous step before fastening in place. Nail the base flange to the roof every 4" to 6" along the perimeter of the eight-sided base. Install another layer of underlayment over the base flange ensuring the upper edge extends over the ridge or is placed beneath the next up-slope layer, underlayment must extend approximately 2" past lowest point of elbow. Install the battens on the roof according to the previous layout lines. Cut tile around the turbines leaving approximately a 1" gap around the perimeter of the elbow to allow for mortar placement.

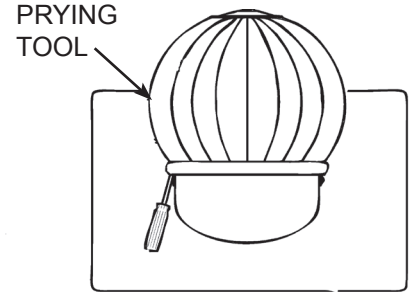


4. Place locking clamp across seam and tighten as shown with screw provided. Seal all inside seams with approved roofing sealant.



5. Position Whirlybird® on elbow. Line

up predrilled holes in the brackets and base and fasten with sheet metal screws provided.



6. After installation, check to see that the Whirlybird® turns freely. During transportation it may have been shifted slightly. If necessary, minor adjustments may be made by gently prying lowest point of the turbine upward to remove any wobble.
7. Mix enough mortar to fill in the 1" gap between the turbine elbow and roofing tile. Place mortar between the tile and elbow to create a water resistant barrier. Make sure mortar does not create a pool of water on the upper side or sides of the turbine elbow. After mortar is dry, turbine and mortar can be painted to match tile if so desired.

Tools Needed:

- Putty Knife
- Screwdriver
- Carpenter's Level
- Key Hole or Saber Saw
- Utility Knife
- Drill
- Hammer
- Ruler

GUARANTEE

Lomanco, Inc., guarantees this product against defects due to workmanship, parts, or mechanical failure forever. For replacement of the defective product send it, freight prepaid to Lomanco, Inc., 2101 West Main Street, Jacksonville, AR 72076. If the unit is defective, it will be replaced with a new unit at no charge and returned, freight prepaid. Guarantee does not include replacement due to destructive storms. Guarantee is transferable from the original owner to subsequent owners.

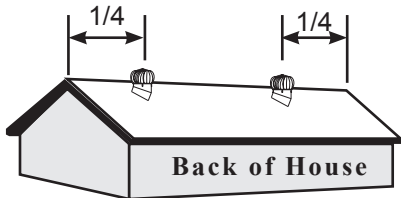
GUARANTEE APPLIES TO RESIDENTIAL ATTIC USE ONLY AS AN EXHAUST VENT IN A BALANCED VENTILATION SYSTEM.

GUARANTEE IS VOID IF USED ON FIREPLACE, CHIMNEY, STOVEPIPE OR ANY APPLICATION OTHER THAN AS INTENDED BY LOMANCO.



The Original!

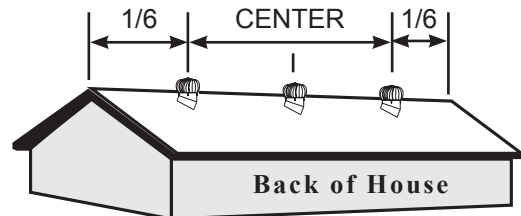
How To Locate and Space Whirlybird® Turbine Vent



Proper Spacing With Two Whirlybird® Turbine Vents Installed

Whirlybird® turbine vents should be located near the peak of the roof on the rear slope, exposed to the wind from all directions. When installing two, place each one $\frac{1}{4}$ of the total length of the roof peak from each end of the house.

Example: On a 40' roof, each Whirlybird® turbine vent should be 10' from each end of the house.



Proper Spacing With Three Whirlybird® Turbine Vents Installed

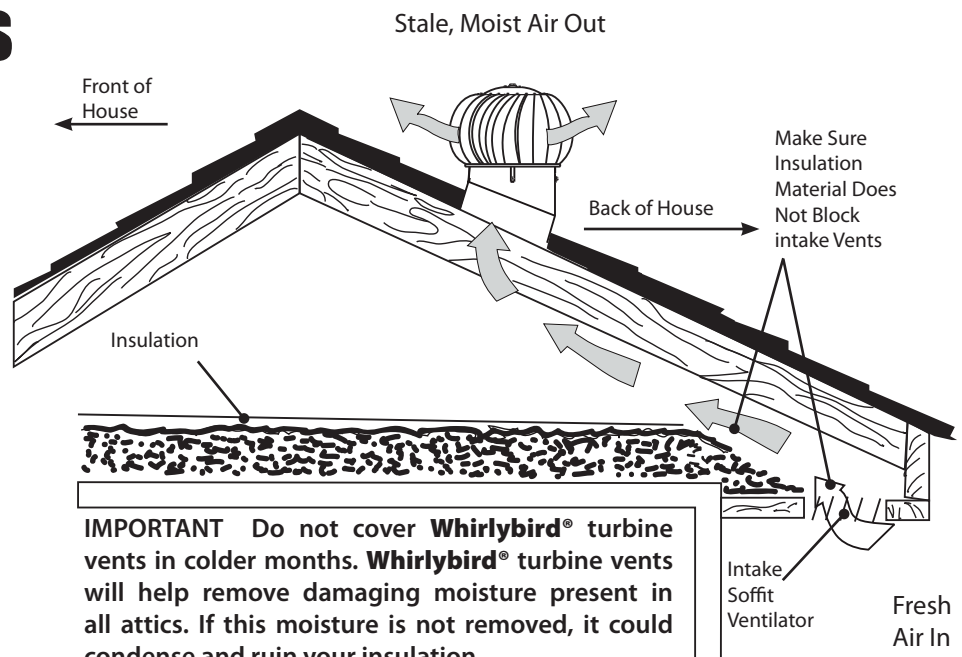
Whirlybird® turbine vents should be located near the peak of the roof on the rear slope, exposed to the wind from all directions. When installing three, one should be installed $\frac{1}{6}$ of the total length of the roof peak from each end of the house and one should be installed in the center.

Example: On a 60' roof, the two outside Whirlybird® turbine vents should be 10' from each end of the house – and the center one should be 30' from either end of the house.

A Properly Ventilated Attic Must Have Intake and Exhaust Vents

THREE MUST DO Steps to attic ventilation

- 1 Install all Exhaust Ventilation at the SAME HEIGHT within a common attic area.**
 Installation of exhaust vents at more than one level on a roof allows the upper exhaust vent to pull air in from lower exhaust vents rather than from the intake vents. Intake air must come from intake vents located near the lower part of the attic space to properly ventilate the total attic area and eliminate weather infiltration.
- 2 Install ONLY ONE TYPE of Exhaust Ventilation within a common attic area.**
 Exhaust Vents pull air from the easiest intake source. Vent types cannot be mixed. The use of different types of exhaust vents could make one of the vents act as intake for the other. Intake air must come from intake vents located near the lower part of the attic space to properly ventilate the total attic area and eliminate weather infiltration.
- 3 Install a BALANCED SYSTEM of Intake and Exhaust Ventilation.**
50% Intake Ventilation - Intake vents located near the lower part of the attic area are required to balance out your ventilation system.
50% Exhaust Ventilation - Use a Lomanco Ventilation Selector Guide, or the calculators at lomanco.com to determine the number of vents needed to properly ventilate an attic to meet the Ventilation Minimum Property Standard.



IMPORTANT Do not cover Whirlybird® turbine vents in colder months. Whirlybird® turbine vents will help remove damaging moisture present in all attics. If this moisture is not removed, it could condense and ruin your insulation.

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