



# Master Flow® Attic Exhaust Vent 10' Aluminum Ridge Vent

## Installation Instructions

### Tools Required:

Pencil	Tin Snip or Hack Saw
Tape Measure	Work Gloves
Chalk Line	Safety Glasses
Utility Knife	Fall-Restraint and Other Safety Equipment
Hammer	12 gauge 1 ¼" Aluminum or Galvanized
Circular Saw	Corrosion-Resistant Ring Shank Nails
Extension Cord	ASTM C920 Polyurethane Sealant

For technical questions, contact **Master Flow® Technical Services at 1-800-211-9612**

### Ensuring Proper Attic Ventilation:

Always ensure there is a properly balanced attic ventilation system. To achieve a "balanced attic ventilation system", there must be an air intake system (i.e., soffits, undereave or fascia vents) and an air exhaust system (i.e. ridge vents or other exhaust vents near the ridge). The amount of intake ventilation must equal the amount of ventilation at the ridge.

**NOTE:** Always 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:**

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

**Master Flow® 10' Aluminum Ridge Vents have 21.5 square inches of NFVA per lineal foot. To determine how many feet of Master Flow® 10' Aluminum Ridge Vent is needed, use the following formula:**

$$\frac{1}{2} \times (\text{Min. sq. ft. of NFVA needed}) \times 144 / 21.5 = \text{Min. lineal feet of ridge vent needed}$$

**To determine the amount of intake vent required, use the following formula:**

$$X = \text{NFVA (Sq. in. per. lin. ft.) of the intake vent system selected}$$

$$\frac{1}{2} \times (\text{Min. sq. ft. of NFVA needed}) \times 144 / X = \text{Min. lineal feet of intake vent needed}$$

### Roof Coverings & Construction Types:

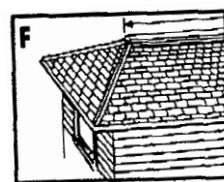
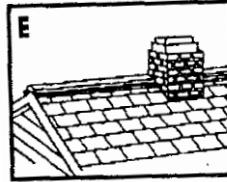
- **Asphalt Shingles, Truss Construction** – Follow included instructions.
- **Asphalt Shingles, Ridge Pole Construction** - Follow included instructions.
- **Cedar Shingles** – Ridge vent should be fastened to finishing shingles.
- **Low or Steep Roof Slopes**– For use on roof slopes **3:12 – 12:12**. For steep slopes, always ensure the louvers are horizontal.

### Where to Install the Ridge Vent:

**Chimney Roofs** – For roofs where a chimney intersects the ridge line, the ridge vent should be installed the entire length of the ridge, terminating as close to the chimney as possible. The ridge air slot must be kept at least 12" away from the chimney. **(Image E)**

**Hip Roofs** – Install the ridge vent **only** on the horizontal ridge portions of the roof. Do **NOT** install on hip sections of the roof. For best aesthetics, the vent should be installed as close to the hip/ridge junction as possible. The ridge air slot must be kept at least 12" away from hip/ridge intersections for maximum weather resistance and to provide a base for the end plugs. **(Image F)**

**"T" and "L" Roofs** – Install the ridge vent in a continuous run along the long and short ridge sections of the roof. The ridge air slot should must be kept 12" away from all ridge intersections and other ridge air slots. For best appearance, butt the adjacent ridge vent sections as close together and seal all joints, end plugs, fasteners and straps with an ASTM C920 Polyurethane Sealant. **(Image G)**

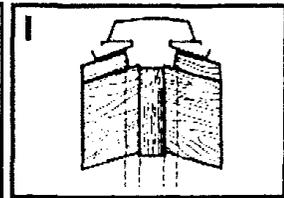
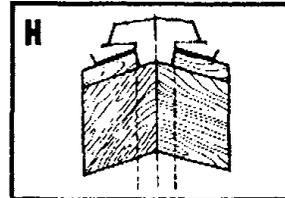


### Cutting the Ridge Air Slot:

The width of the ridge air slot will depend on the type of roof construction. To properly ventilate the attic, the ridge vent should completely enclose the air slot. The length of the ridge air slot will depend on where the ridge vent will be installed and the number of ridge vent sections needed to provide proper attic ventilation.

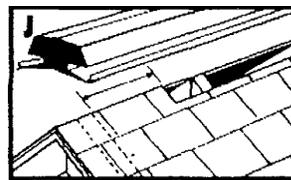
**For Truss Construction**– Cut a 1" wide air slot on each side of the roof peak, resulting in a total 2" wide air slot. **(Image H)**

**For Ridge Pole Construction** – Cut a 1" wide air slot on each side of the ridge pole. **(Image I)**



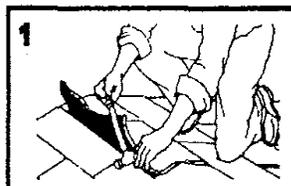
### Rake/Gable, Chimney, Hip and Ridge & End Wall

**Intersections:** Always terminate the ridge air slot a minimum of 12" away from any rake/gable ends, chimneys, hip and ridge or wall intersections. For best appearance, run the ridge vent the entire length of the ridge. **(Image J)**



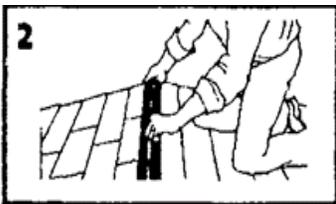
### Installation on Existing Roofs:

After determining the location(s) and length of ridge vent to be installed, remove the ridge cap shingles along peak of the roof. **(Image 1)**



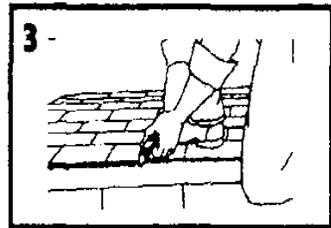
Snap a chalk line along the peak of the roof and then snap parallel chalk lines on either side of the first chalk line to mark the width of the ridge slot. See previous "Cutting the Ridge Air Slot" section for details on where to snap the parallel chalk lines. This will depend on ridge a lot slot width. **(Image 2)**

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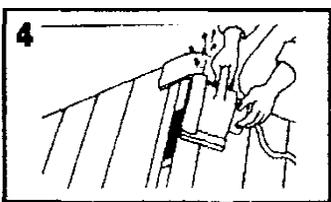
Using a utility knife, cut away portions of shingles and underlayment covering the roof sheathing in the area between the parallel chalk lines. Remove any nails that lie along the parallel chalk lines.

(Image 3)

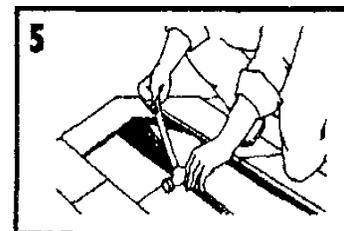


Using a circular saw, cut through the roof sheathing between the parallel chalk lines. Always set the blade depth to cut no deeper than the roof sheathing (approximately 3/4").

**NOTE:** Do **NOT** cut roof trusses.



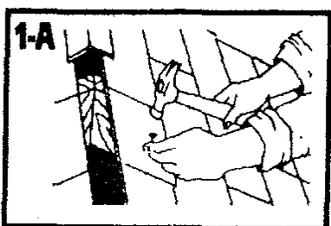
Remove any cut portions of the roof sheathing and continue following the preceding installation steps for installing on new roofs below in the next section.



### Installation on New Roofs:

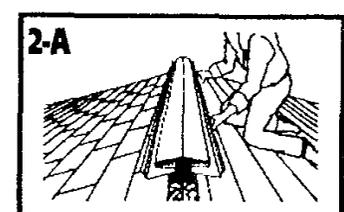
Determine the location, length and width of the ridge air slot prior to applying roof sheathing. The sheathing can be set back to accommodate the air slot. Shingle up to the edge of the slot.

(Image 1-A)



**NOTE:** Use a 1/4" wide bead of ASTM C920 Polyurethane Sealant to seal the shingle courses nearest the ridge together, as well as to the underlayment below. The sealant should be placed at least 1-1/4" away from the ridge slot.

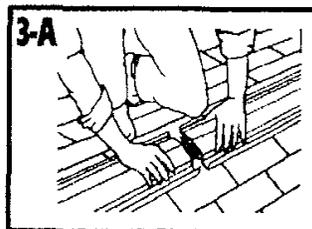
Position the ridge vent sections along the entire ridge. Do **NOT** fasten at this point. Cut the final desired length using a tin snip or hack saw.



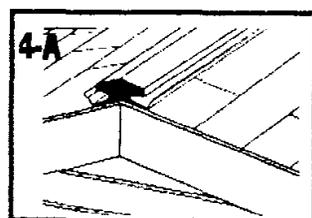
**NOTE:** Apply a minimum 3/8" wide bead of ASTM C920 Polyurethane Sealant on the top of roof shingles around the ridge air slot to seal the underside of each flange of the ridge vent. The sealant bead should run entire length of the vent as well as at the ends.

To terminate the end of a ridge vent run, use a combination end plug/connector as an end plug. Before installing the end plug, apply a 3/8" wide bead of ASTM C920 Polyurethane Sealant to the end plug and the shingles below and press the end plug all the way into the vent.

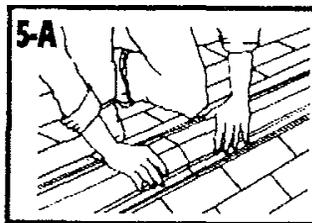
Where any ridge vent sections meet, connect the two adjacent sections using a combination end plug/connector. Apply a 3/8" wide bead of ASTM C920 Polyurethane Sealant to both sides of the end plug/connector and push it half way into both adjacent ridge vent sections.



Align and center the first ridge vent section of the ridge air slot. The ridge vent must always extend past the ridge air slot by at least 12".



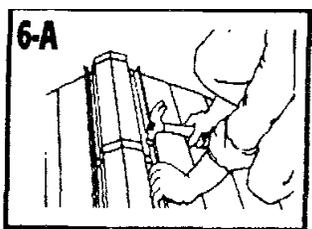
Butt the next ridge vent tightly against the previous section, being careful to center the ridge vent of the air slot. Utilize the combination end plug/connector, as previously instructed, at the joint between ridge vent sections.



Continue installing the ridge vents until the entire ridge is covered. Always center a joint connector strap over each end plug/connector (where two pieces of vent joint and at the ends of the ridge). Fasten the joint connector straps with (4) 12 gauge, 1 1/4" aluminum or galvanized corrosion-resistant ring shank nails, (2) nails per flange.

**NOTE:** For maximum wind-resistance, a connector strap can be added to the mid-point of each ridge vent section

Fasten the ridge vent into place using 12 gauge, 1 1/4" aluminum or galvanized corrosion-resistant ring shank nails every 6" on-center along both flanges using the pre-punched nail holes. The fasteners should not be placed within 2" from the end of the ridge vent sections. Seal the corner between the vent and the roof shingles, as well as any exposed nail heads.



**NOTE:** Ensure the sealant does not clog any water drain holes.