

The exact savings obtained depends on several factors like: the color of your roof, if the home is shaded, the amount of insulation you have, and the efficiency of your cooling system. Ideally, an attic fan installation will pay for itself within 3 years. A high quality attic fan is recommended.

But the benefits don't stop there, in winter the fan continues to help the homeowner, as many of today's houses have insufficient ventilation and attic air exchange. This causes high humidity levels from everyday activities. This moisture migrates through the ceiling towards the roof where it comes in contact with the cold structure. Here, ice and frost form, causing damage to your roof structure. Additionally, moisture can saturate insulation, promote fungal decay and plywood delamination.

INSTALLATION

Tools Required: Razor Knife, Flat Bar, Caulking Gun, Screw Gun, Reciprocating Saw, Ladders.

Steps

- 1) In attic, mark location of solar-powered vent between two roof rafters.
- 2) Drive nail through center of vent location.
- 3) Install roof brackets and fall-arrest system to roof.
- 4) Scribe outline of vent's flashing on roof using homemade dowel compass.
- 5) Cut shingles along circular outline with a utility knife, cut a 4-inch slit through the shingles and the tarpaper at the 3 and 9 o'clock position of the flashing. This allows for the sides of the flashing to be inserted under the shingles.
- 6) Pull nails and remove shingles from within the circle. Insert the reciprocating saw blade sideways at the 3 o'clock position and commence cutting roofing nails up and around to the 9 o'clock position. This process removes the nails that will prevent the flashing from sliding up underneath the shingles.
- 7) Use compass to scribe hole for vent onto roof sheathing.
- 8) Cut hole in roof with a reciprocating saw.
- 9) Remove shingles from around the vent opening.
- 10) Apply continuous bead of tri-polymer roofing cement around hole.
- 11) Set roof vent over hole, then screw the fan's flashing to roof. Caulk underside of flashing with the provided caulking material. Two concentric rings of caulking material are sufficient.
- 12) Taking care not to smear caulk on the exposed shingles, slide flashing under tar paper and shingles and force flashing up until the shingles come in contact with the raised portion of the flashing. The bottom side of the flashing will be on the top of the shingles. Secure flashing with 4 hex head screws at the 3:00, 6:00, 9:00, and 12:00 positions, making sure that at the 3:00, 9:00 and 12:00 positions, the screws are placed under the shingles. At the 6:00 position, caulk over the screw head since it will be exposed to the weather. Use remaining caulk to seal the areas where the 4" slits were made and around the area where the shingles meet with the raised area of the flashing.

video

<http://www.thisoldhouse.com/toh/video/0,,20047003,00.html>