



**BLACKHAWK
DIVERSIFIED**

GUTTER DEFENSE

BlackHawk Gutter Defense, Inc.
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INSTALLATION INSTRUCTIONS

Installing our Blackhawk gutter defense system is not rocket science. However, if you have never installed this product, you definitely need to read these instructions. We will save you some grief, time, expense, and possible injury. Properly installed, Blackhawk is the best value on the market. Take advantage of this writer's experience. We do not charge extra for it.

Even properly installed, it is not perfect. (**We try to tell the whole truth - many in this industry do not.**) We know of only one other product on the market that is comparable, but you will pay **two to three** times as much money for it **-and the manufacturer will still tell you (because they are honest) it's not perfect and that it needs occasional maintenance.** There is **no such thing** as a maintenance-free gutter protection product-and probably never will be, unless you have no trees anywhere near your house.

Also, there are a number of cheaper products still available at some building supply stores. If you want a cheap initial price, go ahead and install one of them. Some stores have stopped selling these low-end products because of the problems and complaints.

In two years or less, it will be caving in, blown away, warped by the sun, crushed by falling lambs, clogged up, or **something a lot worse** like making your fascia or soffit **rot** because it's not doing the job. Out of sight, out of mind. Been there - done that.

TOOLS AND SUPPLIES NEEDED

- 1) A pair of metal shears with a straight blade readily available at Lowe's or Home Depot.
- 2) A flat faced bending tool (see picture)
- 3) A pair of standard pliers

- 4) A tube or two of clear RTV (**R**oom **T**emperature **V**ulcanizing) sealant. This product is available at most hardware or automobile parts stores or we can add it to your order.
- 5) One additional tool you may want to consider, especially if you take measurements alone, is a measuring wheel for about \$75. With it you can measure the job alone from the ground in a fraction of the time. Just remember to allow some margin of error, plus an extra inch for overlap every four feet.
- 6) A handful of plastic paperclips.

BEFORE ORDERING

Blackhawk gutter defense is for K style gutters only. This style of gutter accounts for nearly all gutters on low-to-upper middle priced homes, as well as most high-end priced homes. If your gutters are half-round or some other type, we do not make a product for them

Most K style gutters are 5 inches wide at the top. Some are 6 inches. Make sure you order the right width. Rarely, we have seen both widths on the same house.



K Style Gutter

If you are adding or replacing gutters on your home **and** have a very high pitched roof, we recommend six-inch gutters. Otherwise the 5 inch are adequate. Remember, our Blackhawk product comes in 4 foot sections.

If your Gutters have been properly installed, they will have a slight downhill slope toward the downspouts. If they do not, we strongly recommend removing and resetting them before installing our product so the water will properly drain.

(Important Definition: A run is defined as a continuous gutter section including inside and outside corners from one end cap to the next.) Our product is made in four foot lengths. Runs are never an even multiple of straight uncut four foot lengths. That means that you will inevitably create some unusable waste by having to cut at least one piece on every run. When measuring your gutters, allow an extra piece or two for cuts, end caps, corners, etc. if you have only two or three runs. With four or more runs, allow even more. Remember, measuring or estimating the job is not an exact science.

WORKING FROM THE ROOF OR FROM A LADDER

If your roof pitch is not uncomfortably or dangerously steep, our product is easier to install from the roof. Some jobs, depending on the house, can be installed partially from the roof and the balance installed from the ladder. The time-consuming element that makes the job take longer is that ladders have to be moved frequently. If you have a low pitch roof, it's easier to move your body when installing the product than to move a 32 or 40 foot ladder every 4 feet or so.

When working from the ladder, start on the right end of each run. If working from the roof, it's the opposite of course, and you need to start from the left of each run. (**Important Definition Again: A run is defined as a continuous gutter section including inside and outside corners from one end cap to the next.**) A run can include 90° inside and/or outside corners or in some instances (in the case of bow or bay windows) can be at some other angle.

Our product is made in four foot lengths with a mating end that overlaps the adjacent piece. **The ends will not mate properly if not installed in the correct order as described above.**

INSTALLATION STEPS

- 1) Using the shears, cut off the Blackhawk lip 1-1/2 to 2 inches from the end that fits against the gutter end cap.
- 2) With the lip section gone, now use the **flat faced bending tool** to bend the top downward 90° at the point where you cut and removed the Blackhawk lip.
- 3) You are now ready to place this *slightly less than 4 foot piece of Blackhawk product* against the inside of the first end cap.
- 4) For best results, move 2-4 inches away from the end cap and place the flat side (the side with the lip should fit over the gutter lip) of this first piece well under the bottom roofing shingles and against the decking (wood). Be certain that all shingles are on top of the Blackhawk product, then slide the Blackhawk down to where its lip fits over the back of the gutter's front lip. Once in place, slide it laterally to butt against the inside of the gutter end cap. Some trimming or modification may be required if the "bent down" area gets against the back of the gutter or if the gutter extends beyond the roofing shingles. The important thing is that any holes large enough for bugs, insects, or critters, be filled or covered with mesh. When this length is properly in place, the end cap can be sealed with the RTV caulking.

- 5) At some point (before a corner or at the other end cap, you will need to cut a length of Blackhawk to fit.
- 6) Outside and inside corners are handled similarly.
- 7) If an outside corner, 90° for example, each piece can each be cut at 45° and sealed. Some trimming may be required on the back side under the shingles. Another method would be to do no cutting and butt the end of one piece against the back side of the other. Again some trimming may be required.
- 8) For inside corners, simply cut the frame (with the diamond holes) and butt at 90° after pulling back or getting the mesh out of the way on one piece. Then allow the mesh to overlap, cover any holes, and caulk as needed.

INSTALLATION TIPS

These will help to make your installation better and easier.

- 1) Be sure to caulk or cover any holes large enough for bugs, critters, or varmints to get inside.
- 2) Anytime your gutter extends beyond your roof shingles, there will probably be a hole to cover and caulk at the back of and above the gutter, and beyond the shingles. See picture.
- 3) Before starting each run, cut a piece of frame without the mesh and cover the top of each downspout hole inside the gutter. Then caulk around it. This is to keep critters or even snakes from climbing up the downspout to get inside your gutter.
- 4) Try not to have a joint or seam directly over an entry door, porch, walkway or steps in the event your seam is not adequate. This will perhaps help keep someone from getting their head wet.
- 5) Place a continuous caulk seam between each end cap and the Blackhawk product abutting it.
- 6) **All other seams** should be **spot caulked without a continuous run of caulking**. This will help reduce possible overdrinking at the seams.
- 7) Occasionally the mesh at a seam will tend to “roll up” and the caulking will not hold until it has cured thus leaving a gap. To resolve this situation have some plastic office paperclips and simply paperclip the mesh to the frame. Once the caulking cures, the paperclips can be removed if someone wants to make the effort. Metal paperclips will eventually rust. Plastic will not in case they do not get removed.