



Signature Roofing Gutter Systems

Why is my gutter system important?

Gutters are an important aspect of exterior water management for residential homes. A properly designed and installed gutter system helps to direct water away from the foundation of the home - reducing the risk of wet basements and foundation walls, protects against landscape erosion and can improve safety by directing water away from sidewalks and driveways

Are there different styles of gutter systems available?

In general, residential gutters come in two sizes and are made of either galvanized, copper or aluminum metal in a standard "K" style. Other possibilities that might be found on an existing home would include plastic 4 inch sectional gutters or a half-round style gutter with round downspouts found on many turn-of-the-century-era homes. The typical gutter system found on most Northern Virginia homes consists of 5 inch K-style gutters with 2 inch x 3 inch downspouts. An oversized gutter system would consist of larger 6 inch K-style gutters using 3 inch x 4 inch downspouts.

Most gutters look alike - is there a difference?

The most popular residential gutter type is seamless aluminum. Seamless aluminum gutter coil is available from manufacturers in three thicknesses: A light weight .025 gauge coil used only by the most budget-minded of installers and can be found on some new construction projects. Medium weight .027 gauge coil would be considered standard builder-grade gutter, and heavy weight .032 gauge aluminum coil used when maximum strength and durability are desired.

Light weight gutters often wrinkle and bow between anchors, allowing water coming off the shingle to drip behind the gutter at various points - most common on longer gutter runs. Light and medium weight gutters are also often easily damaged by ladders, tree branches and basketballs and are more susceptible to tearing at the anchor if the gutter becomes filled with leaves, snow or ice.

Why do the gutter nails come out over and over again?

Gutters attached to the home either use a spike (long nail) and ferrule method or a hidden hanger with screw anchoring method. Some of the plastic gutters and half-round gutters may use a bracket attached to the fascia board.

For the spike to hold the gutter securely, the spike must be driven into solid wood. In normal modern construction the roof system consists of a 2x4 truss system, which creates the pitch of the roof and supports the roof decking. These trusses are generally spaced every 24 inches. The fascia board is the trim board the gutter sits on and is attached to the tail ends of the trusses. Using the spike and ferrule method of gutter attachment, the spike is driven through the gutter, through the fascia trim board and into the solid 2x4 wood truss. If the installer missed the 2x4 when driving the gutter spike, the spike is simply floating in air once it passes through the fascia board and has nothing to grip to. No matter how many times the spike is hammered back in, with only air to grip - it will soon pull out again. In other cases, the spike has hit the truss tail, but over the course of the years, the wood has expanded and again, the spike has nothing to grip to. In these cases, the spike can be redirected a half inch or so and re-nailed into solid wood.

While the spike and ferrule method was the standard for years, many gutter installation companies have changed to some form of the hidden hanger with screw anchoring method.



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How can I optimize the performance of my gutter system?

Many homes in the Northern Virginia area have a standard builder-grade gutter system installed on their home. In general, most new home builders reduce costs by installing either light-weight or medium-weight 5 inch seamless aluminum gutters with the minimum number of downspouts necessary to drain water in an average rainfall. To further reduce costs, many of these systems were installed with gutter spikes spaced widely apart skipping every other truss to save on both labor and material.

While these gutter systems are functional during an average rainfall when new, they can be quickly overwhelmed during thunderstorms and as they age, the combination of thin material and poor attachment can lead to the gutters pulling away from the home, further reducing the function and appearance of the system.

When shopping for replacement gutters for your home, consider meeting with a knowledgeable gutter installer that can assess your current gutter configuration and make suggestions for improvements such as revised downspout placement, the use of additional downspouts, an increase in gutter size and/or downspout size, screening options and, while not an aspect of function - color options to blend with or enhance your home's trim color. When comparing prices, first determine the quality of the product based on thickness of the aluminum coil, the use of hidden-hangers and the correct spacing of the hanger system.

For maximum durability and appearance with our seamless aluminum systems, Signature Roofing uses only heavy-weight .032 gauge aluminum coil and premium hidden-hanger with screw anchoring method.

For maximum performance we recommend our *Signature Performance Gutter System* which are designed using 6 inch gutters and 3x4 downspout configurations. Standard 5 inch gutters have a collection opening of 4.25 inches and are capable of holding 2 1/2 quarts of water per foot. *Performance* 6 inch gutters have a collection opening of 5.25 inches and a holding capacity of 4 quarts of water per foot - a 63% improvement over the standard system. This holding capacity combined with the increased dispersal rate of the 3x4 downspout will ensure performance in all but the heaviest of rainfall rates.



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How can I keep leaves and seed-pods from clogging my gutters?

Everyone who lives in a neighborhood with trees is searching for THE perfect gutter screening system. As the pundits say - build a better mouse trap and the world will beat a path to your door. Well, to date, no one has built that perfect system. Gutter screening systems include plastic screens, metal screens, rolled screens, flip screens, louver systems, helmet systems, staircase systems and combination systems. Every gutter screening system on the market compromises either its ability to keep leaves and seed-pods out of the gutter or its ability to collect water during heavy rains.

To maximize the gutters ability to collect water in heavy rains, traditional screening products have an open mesh that easily allows water to flow into the gutters. These open-mesh screens also often work well in the Fall with dry leaves. However, in the Spring season - these open-mesh screens become a magnet for the various systems designed by Mother Nature to deliver seed-pods. Maple 'helicopter' seeds and Oak 'spaghetti' pollen stick to open-mesh screens like Velcro. We have found cleaning the screening system is often more difficult than simply keeping the gutters clean. Traditional screening systems can also be packed down into the gutter by a heavy layer of wet leaves or snow and many of the less expensive products simply won't stay in the gutter at all and are prone to blow away.

To counter the weaknesses of the open-mesh screening systems, many companies offer some type of "closed" gutter protector. Using a helmet, louver or staircase system as a cap - the bulk of the gutter itself is blocked off, preventing leaves and seed-pods from getting into the gutter. The downside of these systems is that by blocking off up to 90% of the gutter opening, you also reduce the amount of water the gutter is able to collect. This problem is more prevalent on homes that have steep-pitched roofs or roofs with valley areas that collect water on the roof level and channel it to one small gutter area. Many of these systems continue to let small debris enter the gutter and this debris may clog the downspouts over time.

Many of the traditional screening products and "closed" products are also simply unsightly from the street.

While we continue to believe there is no perfect gutter screening system, we have found one product we feel provides the best compromise on the market. **GutterStuff®** Foam Filter Insert is a patent-pending material that completely fills the gutter. The full gutter surface remains open to allow for proper water collection and leaves and seed-pods simply lay on top where they are blown away or wash away in the rain. As the product is placed inside the gutter under the spike and ferrule or hidden-hanger, it cannot blow out or become dislodged. When cleaning becomes necessary a stiff-bristled broom is all that is needed to clean the surface.

As always - there is a compromise. Because the water must drain through the Foam Filter Insert the collection rate of water is somewhat reduced. Our experience has shown this product works well in moderate to heavy rains - but like other systems it too can become overwhelmed during extreme rainfall conditions.

We do not offer GutterStuff Foam Filter Insert as a maintenance-free system and recommend occasional sweeping of the surface debris as water flow is reduced to maintain performance. We feel GutterStuff offers the best compromise of an open gutter system while providing a reduced maintenance schedule for homeowners. For maximum performance we recommend GutterStuff be used in conjunction with our *Signature Performance Gutter System* only.