Learn About: Kickout Flashing FAQ for Home Inspectors, Installers and Homeowners

If you have reached this page it's likely either because your home inspector or your home inspection report has mentioned problems with kickout flashings, or because you have water damage and someone has mentioned a "kickout flashing" (or lack of one) as contributing to your problem. This short FAQ is intended to help you understand kickout flashings and their function.

Kickout Flashing FAQ

• What is the function of a kickout flashing?
• How does a kickout flashing work?
• Kickout flashings at dormer and bay side walls
• Kickout flashings at chimneys
• Kickout flashings at other locations

Kickout Flashings for Specific Materials

• Kickout flashings for tile roofs
• Kickout flashings for stucco
• Kickout flashings for fiber cement siding
• Preformed ("factory made") kickout flashings
• Shop made kickout flashings

What is the function of a kickout flashing?

The function of a kickout flashing is to prevent what you see at the left: a type of "roof" leak which occurs in a location where it has the potential to create extensive damage. This type of damage is one of the most frequent types of flashing problems we see at home inspections here in Chicago.

To understand what happened to this house, visualize the path of water flowing down the roof alongside the vertical wall above it.

When it reached the bottom of the roof, water was able to penetrate behind the siding and/or overshoot down past the gutter and onto the wall below - the wall/roof junction acted as a funnel to concentrate water runoff down the roof into a stream being directed against the siding at the roof's edge and beyond.

As you can see, over time that water can do a lot of damage.

This page is about the role of kickout flashings in preventing or at least minimizing such problems... too

How does a kickout flashing work?

"Kickout" flashings are intended to prevent water from flowing behind a wall or down a vertical surface such as the fascia below a roof's edge by redirecting it a short distance sideways and onto a roof surface or into a gutter.

In Paragon's Chicago climate a location such as this and without correct flashing is almost certain to be subjected to eventual damage, especially if there is also "ice-damming" in the same area.

This "small" leak were the roof met the bay wall - which created extensive damage - could have been avoided by the use of a kickout flashing.

In theory this is simple to do: an "L" shaped piece of sheet metal or plastic is installed near the edge of the roof in such a way the water cannot run behind the kickout and instead is channeled off to one side, where it falls off the edge of the roof to the ground or a gutter or other water collector (see the diagram at left).

In practice there are many possible defects in kickout design and construction. For example as illustrated in the diagram at right the kickout must be placed behind the step or other flashing "uphill" of the kickout, and should be overlapped by any weather resistant barrier (such as "housewrap") above it.

It can also be expected that occasionally conditions such as heavy rains or damming by ice and snow will cause water to overflow the kickout, and provision should be made to protect wall at the kickout-wall junction - in this example that's the function of the vertical piece of "self-adhering membrane" at the left end of the kickout.

If any of these installation details are incorrect the kickout may actually make matters worse by conducting water into the wall behind the flashing or under the edge of the roof covering, or by directing water against a surface which was not intended to resist high moisture levels.

Kickout flashings at dormers and bays

The low point of the junction of a dormer or bay with a roof is the "classic" location for water damage caused by a missing kickout flashing. The roof to wall junctions below are typical examples - it was possible to predict that significant damage would likely be present based on absence of correct flashings, but the extent of the damage was not apparent until siding had been removed.
The reason such flashing defects are common at both new construction and remodeling projects (especially the installation of vinyl or aluminum siding or fascia and/or soffits or the repair or replacement of existing roofing) is that many otherwise skillful installers do not understand the importance of such flashing or how to install them correctly. As a result they may damage or remove existing flashings, or fail to correctly install new ones where required. For this reason all roofs should be carefully inspected for potential flashing problems irrespective of condition or the quality of other aspects of their installation.

Kickout flashings at chimneys

After dormers and bays the next most common location of damage caused by missing or incorrect kickouts is at chimneys, for example when a chimney runs up the side of a structure we frequently observe interior and exterior water problems resulting from improper water control at the junction of chimney with the roof and gutter:

Damage from a missing kickout at this location can be particularly severe as water flowing down the side of the chimney can enter at any defects in the junction between the chimney and the siding. As a result water damage can extend to areas well below roof level as water flows down the chimney and/or behind the siding.

Kickout flashings at other locations

Dormers, bays and chimneys are the most common locations at which we observe damage due to missing or incorrect kickout flashings, but the same general principles can apply in many locations where a vertical surface is terminated above a roof.

Kickout flashings for specific materials

Kickout flashings for tile roofs
Kickout flashings for stucco

Adapted from Ste Corp. Roof/Wall Diverter Flashing Detail No.: 5.02.

Adapted from the ICC-ES Concrete and Clay Tile Roof Installation Manual for Moderate Climates.

Kickout flashings for fiber

While fiber cement siding products are generally more water resistant than their wood and 'hardboard' counterparts they are still subject to water damage and it's important that they be installed in accordance with the manufacturer's instructions.

Typical details for a kickout flashing at a stucco wall to roof junction.

Note that the weather resistant barrier (WRB) and the metal lath overlap the water resistant barrier and the wall cladding (such as stucco) above it.

This diagram is an example only, the exact detailing required will depend on the type of stucco system, the manufacturer's installation instructions, the other roof and wall flashing details and local practice and local codes.

Because they are often field-fabricated, kickout flashings at the junctions between stucco walls and roof surfaces are particularly prone to incorrect design or installation.

In this case the kickout has a 90 degree bend and is installed parallel to the eave.

As evidenced by the derbies collecting at the bend the result is a water back-up at this location when water hits the kickout.

In addition, the crimp toward the roof at the end of the kickouts arm captures additional debris and channels water done the inside face of the kickout at this point.

For example the instructions for James Hardi’s “Hardiplank” siding material (above) specifically address the requirement for kickout flashings when their fiber cement siding meets a roof at a roof wall interface such as a dormer or bay.

**Fiber cement siding at a roof/wall intersection is especially prone to water damage if it has been damaged during installation, is improperly sealed, and/or is subject to freeze-thaw cycles.**

The siding installation at left is incorrect in several respects: in addition to the missing kickout flashing there is insufficient separation (“holdback”) between the siding and the roof surface and a downspout depositing substantial additional water on the roof adjacent to the roof-wall junction. Additional contributing factors may have included incorrect or insufficient flashings at the corner and failure to properly seal the field-cut edge.

Such installation details are critical to long term performance, and even a material as water resistant as fiber cement siding is prone to water damage under such conditions. 

**Preformed (“factory made”) kickout flashings**

In many applications it is possible to use preformed kickout flashings, which avoid the need to shop or field fabricate watertight seams:

**Preformed kickout flashings can be designed to direct water onto a flat surface (left) or with a “scoop” profile to direct water into a gutter (right).**

**Step made kickout flashings**

Kickout flashing can also be shop or field fabricated, usually from sheet metal.

Where possible it is usually considered desirable to create the bend by folding a continuous piece of metal rather than by attempting to create a watertight junction between two pieces of metal with sealant.

The ideal angel of the arm is determined by the pitch of the roof.

This diagram is an example only, the exact detailing required will depend on the type of wall cladding, the manufacturer’s installation instructions, the other roof and wall flashing details and local practice and local codes.
Preformed kickout flashings can be designed to direct water onto a flat surface or with a "scoop" profile to direct water away from the building. For example, the instructions for James Hardi's "Hardiplank" siding material specifically address the requirement for kickout flashings. Even if the instructions say that they are not necessary, they are still subject to water damage and it's important that they be installed in accordance with the manufacturer's instructions.

Kickout flashings are commonly used at chimneys, dormers, and bays to prevent water from seeping into the building. For instance, if a chimney is not sealed properly, water can penetrate through the wall behind the flashing or under the edge of the roof covering, or by directing water down a vertical surface such as a gutter. This can result in extensive damage to the interior of the building, including rotting wood, mold growth, and water damage to insulation. Water can also cause damage to stucco or wall cladding, particularly at the intersection of two different materials. If the WRB (water resistant barrier) is not placed correctly, water can penetrate behind the stucco and cause damage.

Kickout flashings at dormers and bays are particularly important because they help to direct water away from the building. If a kickout is missing or incorrect, water can flow into the wall behind the flashing or under the edge of the roof covering, which can lead to extensive damage. Damage from a missing kickout at this location can be particularly severe as water flowing down the side of the wall behind the flashing can cause significant structural damage.

Sidewall kickout flashing retrofits are also important because they help to protect the building from water damage. If a kickout is missing or incorrect, water can seep into the building and cause significant damage. Kickout flashings at other locations, such as at the top of an EIFS (Exterior Insulation and Finish System) or at the wall to roof junction, are also critical to minimizing water damage.

Kickout flashings for tile roofs are particularly important because they help to prevent water from seeping into the building. If a kickout is missing or incorrect, water can flow down the side of the roof and cause extensive damage. In the real world, flashings do not always work as intended and water can penetrate behind the building through any defects in the junction between the chimney and the siding. As a result, water damage can occur even when kickout flashings are present.

In theory, it is simple to fit a flashing to correct an installation problem. However, this is easier said than done. Kickout flashings must be properly installed to be effective. This means that the flashing must be properly overlapped by any weather stripping and channel flashing underneath it. In some cases, a continuous piece of metal may be used to create a horizontal fall line.