



Technical Bulletin #18

CRICKETS

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Controlling and directing water away from the upslope side of a chimney, skylight or other large roof protrusion requires some type of mechanism to break the velocity and divert the flow of water away from the back of the protrusion. If this is not done, the force of the flow could splash up and over the back saddle and result in a water leak.

In concert with the Western States Roofing Contractors Association (WSRCA), tile manufacturers agreed to the requirement that a cricket or specially formed diverter be installed behind chimneys or skylights exceeding two feet in width. It was with some consternation that we decided to endorse this proposal since we felt that it did not take into account the number of variables that would likely affect the need for such a diverter.

Of primary importance in determining the need for water diversion, is understanding the relation of the location of the chimney to the roof slope and area of roof behind the chimney. The basic issue is how much water and velocity will be hitting the backside of the chimney. A chimney located close to the ridge will see very little accumulated water flow and would logically not require a diverter in most cases. Conversely a chimney positioned nearer to the down slope eave of the roof will normally require some sort of diversion to break the velocity and prevent possible leakage from turbulence or splashing.

The critical factor in determining proper flashing design is the identification of the tributary area that the flashing is intended to handle. The tributary area is very simply the sum of all the parts of the roof area that channels water to any given point. In the case of a chimney or skylight, this would be the area from directly above the chimney up to the ridge of the roof. Calculations can be performed by qualified engineers to determine the proper diverter design based on expected rainfall, roof slope and tributary area.

In summary, while we chose to err on the side of conservatism by recommending the diverter behind chimneys and skylights exceeding two feet wide, there are many cases where such a diverter may not be necessary. Common sense should be applied when addressing this issue, but when doubt exists, please consult an engineer for proper design.