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SBC Roof Series: Wood Shake & Wood Shingle Roof Systems

A **wood shake roof** is made of wooden shingles that are typically split from logs. These shingles are thicker at the butt end and taper to a thinner edge. Wood shake roofs are prized for their natural look and can provide a rustic or traditional appearance to a home. They are often chosen for their durability and ability to withstand various weather conditions. However, it's important to note that regular maintenance is necessary to keep a wood shake roof in good condition.

A **wood shingle roof** is made of small, thin pieces of wood that are typically sawn or split from larger, straight-grained trees such as cedar, pine, or redwood. These shingles are laid in overlapping rows, creating a durable and weather-resistant covering for a building. Wood shingle roofs have a rustic and natural appearance, and over time, the wood weathers to a beautiful silvery-gray color. This type of roofing is often chosen for its aesthetic appeal and its ability to blend in with natural surroundings.

The components of a wood shake roof typically include:

1. **Wood shakes:** These are the primary building blocks of the roof, usually made from cedar, redwood, or other durable wood.

   Wood shakes for a roof come in various sizes, typically ranging from 18 inches to 24 inches in length, with widths varying from 4 inches to 14 inches. The exact dimensions can depend on the manufacturer, the specific type of wood shake, and regional building codes. The size and pattern of the wood shakes can also affect the overall appearance of the roof.

   Wood shingles come in various sizes, and the most common dimensions are:

   1. Length: Typically ranges from 16 inches to 24 inches (40 cm to 60 cm).
   2. Width: Usually between 4 inches to 12 inches (10 cm to 30 cm).

   The exact sizes can vary based on the manufacturer and the specific style of shingles being used. Some types of wood shingles may have tapered or irregular shapes for a more rustic or unique appearance. It's important to note that the sizes and dimensions of wood shingles can vary, so it's best to check with the supplier or manufacturer for the specific measurements of the shingles you are considering for your roofing project.

2. **Underlayment:** A water-resistant or waterproof barrier that is installed beneath the wood shakes to provide additional protection against moisture.

   The underlayment for a wood shake roof is a crucial component that provides an additional layer of protection against moisture. Typically, a high-quality waterproof or water-resistant membrane is used as the underlayment. This membrane is installed directly onto the roof deck before the wood shakes are applied.

The underlayment acts as a barrier, helping to prevent water infiltration and providing secondary protection in case of any water that may penetrate through the wood shakes. It also helps to guard against wind-driven rain and ice damming.

Proper installation of the underlayment is essential for the overall performance and longevity of the wood shake roof, helping to ensure that the underlying structure remains protected from water damage.

The primary types of underlayment include:

1. Asphalt-saturated felt: Often referred to as tar paper or felt paper, this traditional underlayment is made of cellulose, fiberglass, or polyester material saturated with asphalt. It serves as a moisture barrier and provides some degree of protection against leaks.

2. Synthetic underlayment: These underlayments are made from polyethylene or polypropylene materials and are designed to be more resistant to tearing, provide better traction for roofers during installation, and offer superior water resistance compared to traditional felt underlayment.

Both types of underlayment are installed directly onto the roof deck before the shingles are applied, and they play a crucial role in safeguarding the roof structure from water infiltration and other potential damage. The specific choice of underlayment depends on factors such as the roofing material used, local building codes, and the desired level of performance.

3. **Flashing:** Metal pieces installed at roof intersections and valleys to prevent water seepage.

Flashings are an important component of wood shake roofs, serving as protective barriers to prevent water from seeping into vulnerable areas. Here are some common types of flashings used in wood shake roofs:

1. Drip edge flashing: Installed along the edges of the roof, the drip edge helps direct water away from the roof deck and fascia, preventing water damage.

2. Valley flashing: Placed in roof valleys where two planes meet, valley flashings help channel water away from this critical area, reducing the risk of leaks.

3. Chimney and skylight flashings: These custom flashings are designed to fit around chimneys, skylights, and other roof penetrations, effectively sealing these areas and preventing water intrusion.

4. Vent pipe flashings: Used around vent pipes and other roof penetrations, these flashings help maintain a watertight seal and protect against leaks.

5. Counter flashing is a crucial element of a wood roof installation. It is typically used in conjunction with wall construction that intersects the roofline. The counter flashing is designed to cover and protect the top edge of the base flashing, providing an additional barrier against water infiltration.

In the context of a wood roof, counter flashing is often made of metal, such as aluminum or copper, and is custom-fabricated to fit the specific areas where the roof meets the vertical walls of the structure. Proper installation of counter flashing is essential to ensure that the joint between the roof and the wall is completely sealed, preventing water from penetrating and causing damage to the underlying structure.

Overall, counter flashing serves as a vital component in the overall waterproofing system of a wood shake roof, contributing to its long-term durability and performance.

Flashings are typically made of metal, such as aluminum, copper, or galvanized steel, and are custom-fabricated to fit specific areas of the roof. Proper installation and maintenance of flashings are essential for the long-term performance and integrity of a wood roof.

4. **Ridge caps:** Specialized shingles or caps used to cover the ridges of the roof for added protection.

Ridge caps for wood roofs are specially designed shingles or caps that are placed along the ridge of the roof. These caps provide a protective covering for the highest point of the roofline, where two opposing roof slopes meet. The ridge caps not only enhance the aesthetic appeal of the roof but also serve important functional purposes.

When it comes to wood roofs, ridge caps are typically made from the same material as the wood shakes themselves, providing a cohesive and uniform appearance. They are wider and thicker than regular wood shakes and are designed to withstand the elements at the peak of the roof.

The primary function of ridge caps is to seal the ridge against water infiltration, preventing leaks and protecting the underlying structure from potential damage. Properly installed ridge caps contribute to the overall weatherproofing and longevity of the wood shake roof.

5. **Ventilation:** Intake and exhaust vents are important components to ensure proper airflow and ventilation in the attic space, preventing moisture buildup and extending the lifespan of the wood shakes.
Ventilation is a crucial aspect of maintaining a healthy and functional wood shake roof. Proper ventilation helps to regulate temperature and moisture levels in the attic space, prolonging the lifespan of the wood shakes and preventing issues such as mold and rot.

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Both Sides of the Storm

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For wood roofs, ventilation systems typically include both intake and exhaust vents. Intake vents are usually located at the eaves of the roof, while exhaust vents are typically situated near the ridge. This setup allows for air circulation, with cool, dry air entering through the intake vents and warm, moist air exiting through the exhaust vents.

In addition to eave and ridge vents, other types of ventilation components might include soffit vents, gable vents, and powered or solar vents. The specific configuration and design of the ventilation system will depend on factors such as the size of the roof, the local climate, and the architecture of the building.

Proper ventilation not only helps to protect the wood shakes from moisture-related issues but also contributes to energy efficiency by reducing the build-up of heat in the attic space. It's important to consult with a roofing professional to determine the most effective ventilation solution for a wood shake roof.

Proper installation and maintenance of these components are crucial for the longevity and performance of a wood roof.

* Check with a licensed roofing contractor for additional information.