



WGD

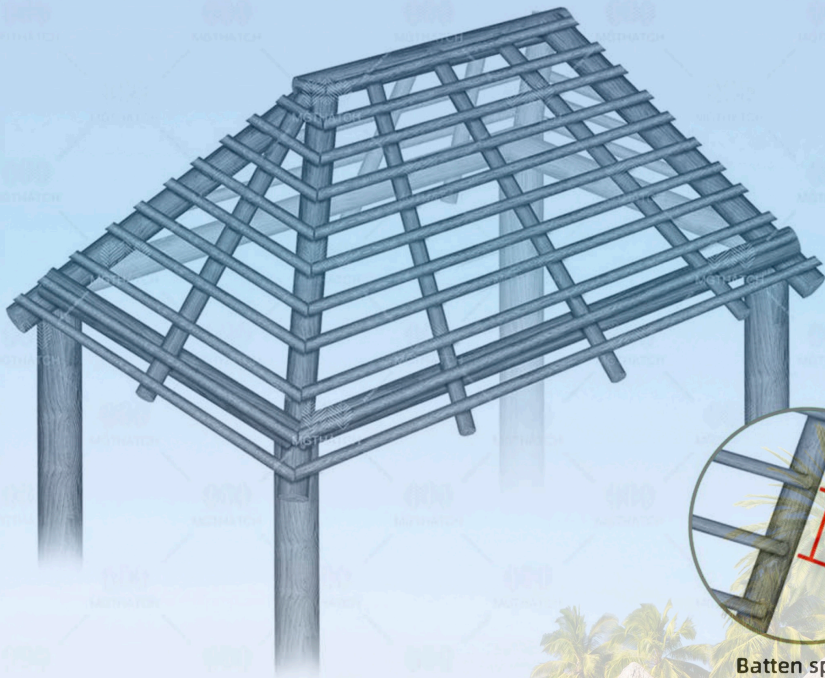
Installation Manual

INSTALLATION TUTORIAL



Structure Layout & Spacing

The frame of the structure should be constructed with wood that are able to endure major weather conditions. Our recommended choices are eucalyptus, cypress, and pressure treated woods or just metal frames.



Batten spacing
center to center:
8.7" (220mm)

Rafter spacing: 18" (460mm) to 36" (920mm)
Batten spacing: 8.7" (220mm)

Batten size: Min.1.25" (300mm), max.2.25" (600mm)
Slope: Min 4/12(18.4°) Recommend 6/12(26.5°) or greater



Palm Components



Field



Hip



Ridge



Cone Top



Specifications

Field	1000x680mm / 35.5"x 27"
Hip	850x650mm / 33.46"x25.6"
Ridge	1000x490mm /39.4"x19.3"
Cone Top	D=600mm;H=200mm / D=23.6" : H=7.9"

Tools

- Nail Gun/Drill Driver
- Hammer
- Utility Knife
- Ladder/Scaffold
- Tape Measure



Nails/Screws:
Stainless roofing nails
1.25-1.5" (30-40mm)



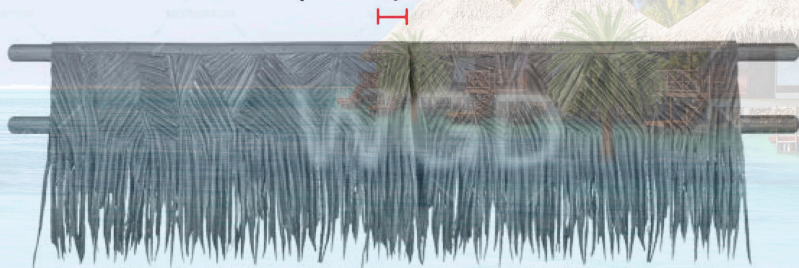
Nail Position



● Nail Location



2" (50mm) overlap



Installation : Eave

Install the 1st row of shingles on the 2nd purlin, leaving the right corner unfastened on all shingle installations, which will be overlapped and fastened by the following shingle installation.



Install the 2nd row of shingles on the 1st purlin. Make sure to leave a minimum 2" (50mm) on the side unfastened.



The 3rd row will attach to the same purlin as the first row. Make sure to install the shingles on the last row's overlap line



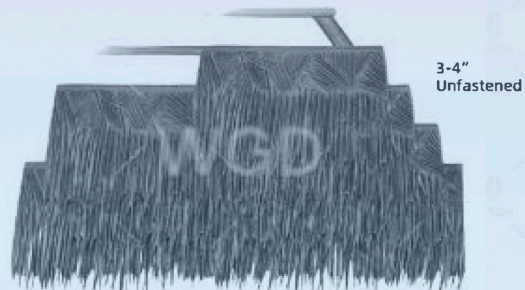
The 4th row will install on the 3rd purlin, make sure there is minimum 2" (50mm) overlap between two shingles, and install the shingles on the last row's overlap line to make the better waterproof effect. the 5th row, 6th row, 7th row.....ect, same install way as the 4th row



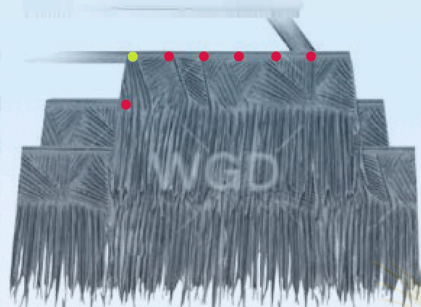


Installation Field 1

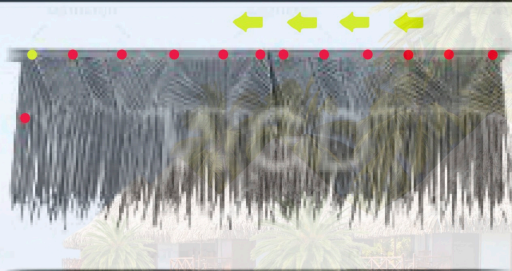
Begin field shingle installation, at the hip Fasten field shingle to the purlin, leaving 3-4" from the hip unfastened.



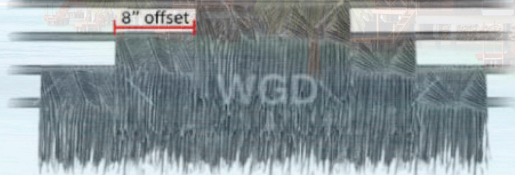
Continue fastening from right to left, leaving the top corner unfastened, see (yellow mark).



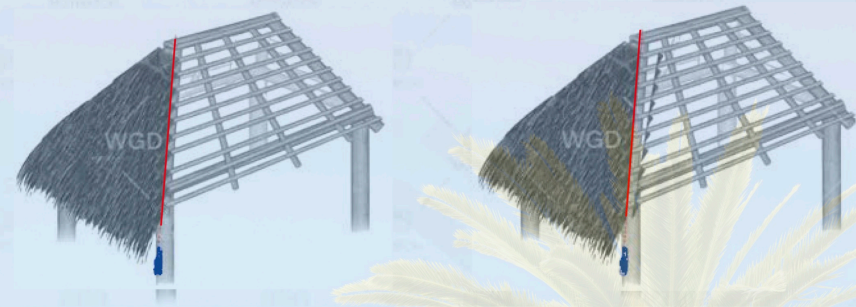
Overlap the next field shingle over the first by min. 2" (50mm). Fasten through both shingles on the overlap at the corner.



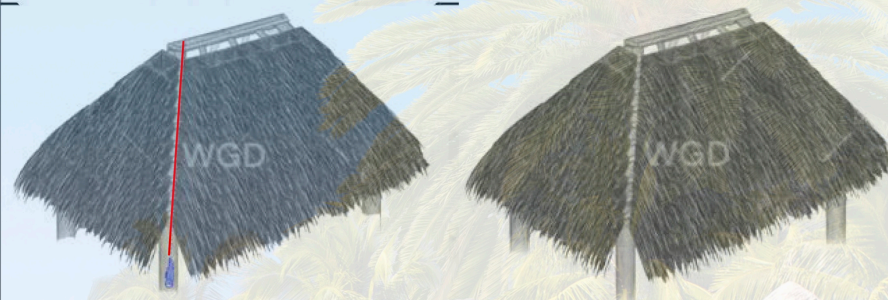
As you install the field shingles, be sure to off-set each row from the previous row at a minimum of 8" (200mm)



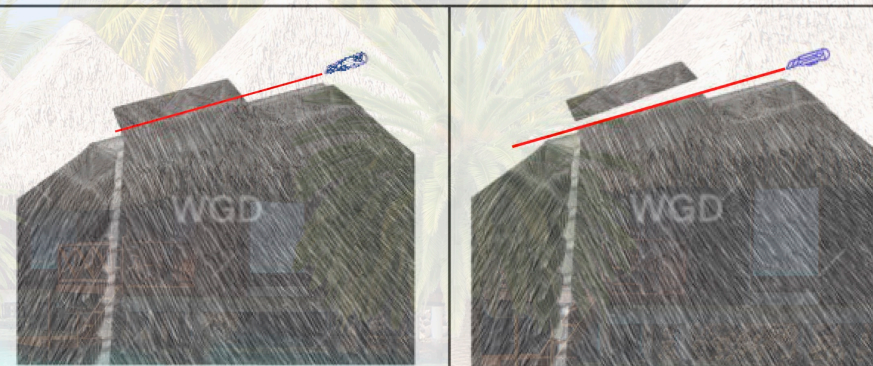
Installation Field 2



Trim the extended portion with a cutting knife along the center line of the hip.



After cutting the field shingles on the left side, continue to cut the field shingles that intersects on the other side along the center line of the hip.

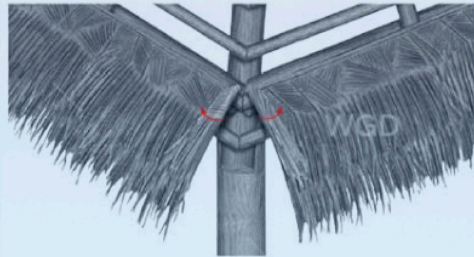


Install another field shingle to cover the exposed leaf pattern. Trim the upper part of the field shingle neatly along the center of the ridge line.

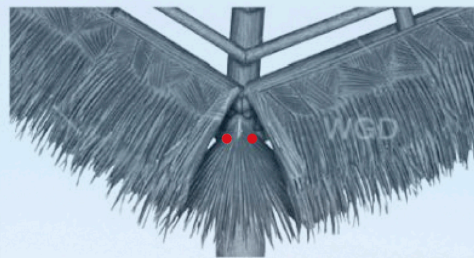


Installation : Hip

Start the hip corner by stacking hip shingles and inserting under the field shingle corners.



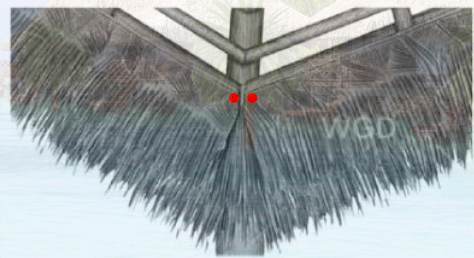
Start from the 1st purlin, nail location see (red mark).



Continue installing the hip on the 2nd purlin

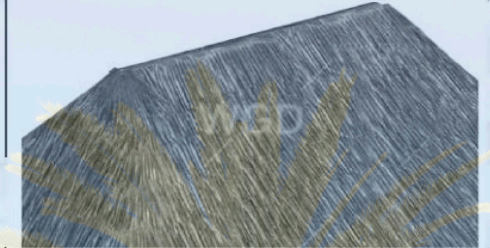


Fasten the corners of the field shingles over the top of the hip shingle, see (red mark). Then same way continue installing hip shingles 1 piece per row to reach the entire hip.



Installation Ridge

Start the ridge top installation.



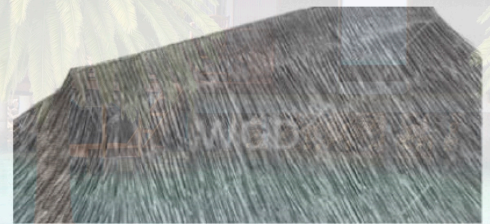
Install ridge shingles to cover the entire ridge, placing a minimum of 4 nails on each side of the ridge shingle and cover them with sealant



Make sure the top rows of the ridge shingle are overlapping the top of the ridge, this ensures the waterproofing for the ridge.



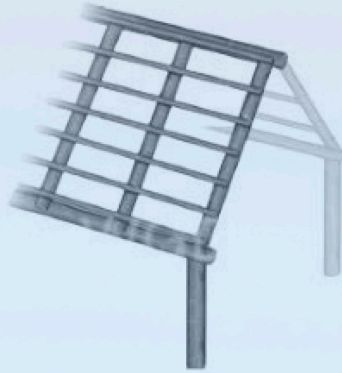
Install ridge shingles to cover the entire ridge





Installation : Gable End

Typical Gable End Framing Detail.



Always let the field rows extend past the gable with sufficient length to completely cover the fascia. This will enable the wrapping of the shingles around the fascia, to achieve the appropriate gable thickness.



Begin by wrapping the shingles around the fascia, and trim the length if necessary. Cut and fold the fond portion as needed, or use as aesthetic pieces.

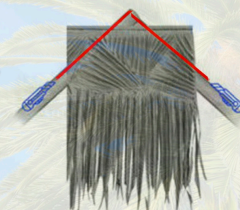
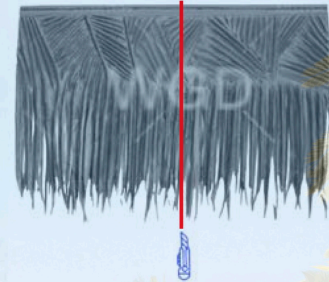
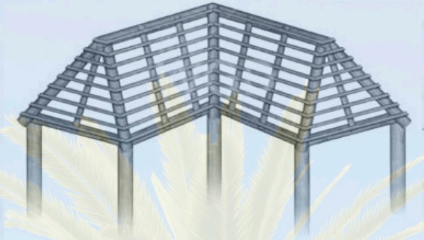


Fasten underneath



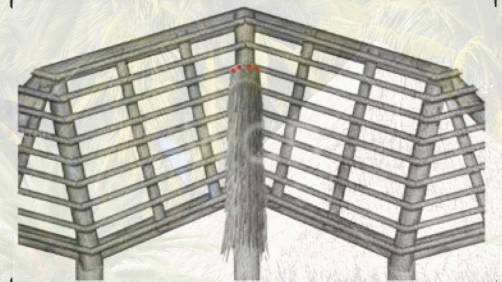
Installation : Valley

Typical Valley Framing Detail.

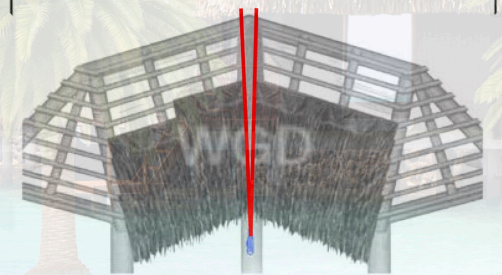


Trim the extended portion field shingle above on purlin line with a cutting knife.

Begin Valley installation by cutting a field shingle in half. Install half shingles from the eave up, one shingle per course.

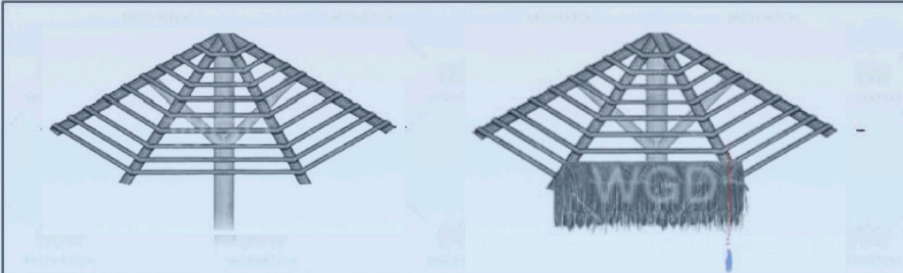


Field shingles will be installed over the Valley, trimmed 2" (50mm) - 3" (70mm) off the center line of the Valley.

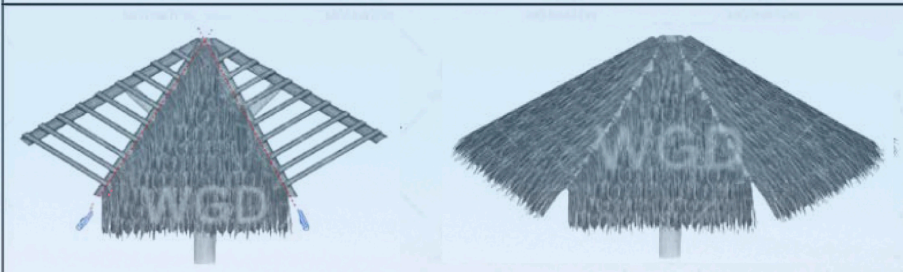




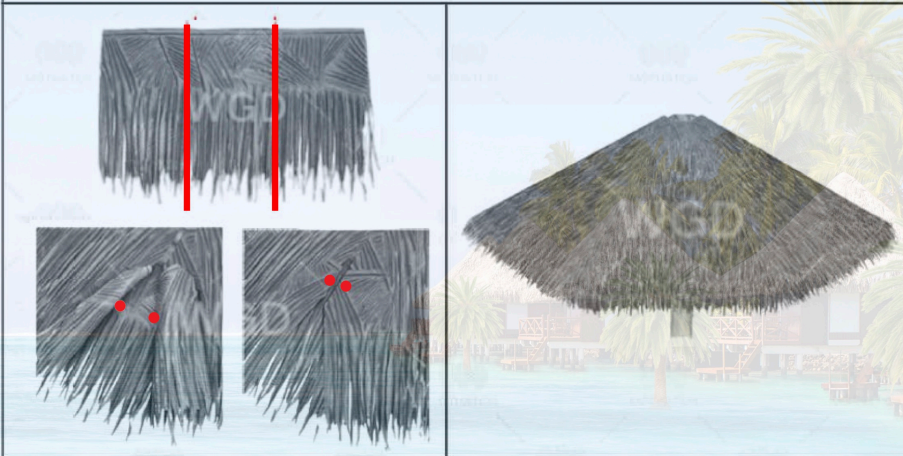
Installation : Round / Octagonal Structures



Typical Round/Umbrella framing. (Most "Round Structures" are typically a segmented frame.)



Begin with the eave installation, followed by the field. Trim the Field shingles to the center line of the roof segment. (See Eave and Field Installation on page 4 and 6.)

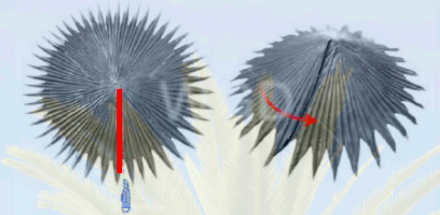


Cut Field shingles into 3 pieces and install them over the center line of the roof segment. (See Hip installation on page 7.)

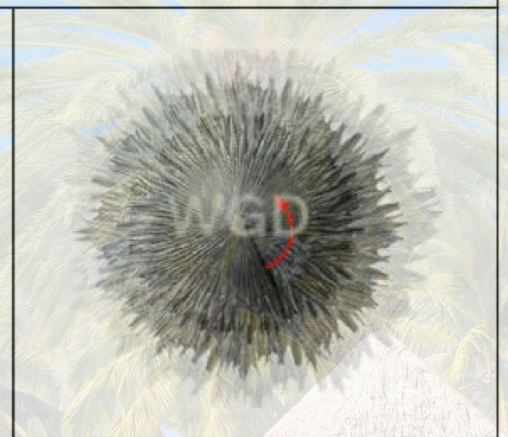


Installatrion : Round / Octagonal Structures

Cut the cone piece starting at the edge of the shingle until you've reached the center point. Proceed to fold the piece over into a cone shape.



Place the cone piece at the center of the structure, nailing down the first cut edge. Cover the nails by using the second cut edge to wrap around the first cut edge.



Secure the second cut edge with two nails and cover them with sealant.

