

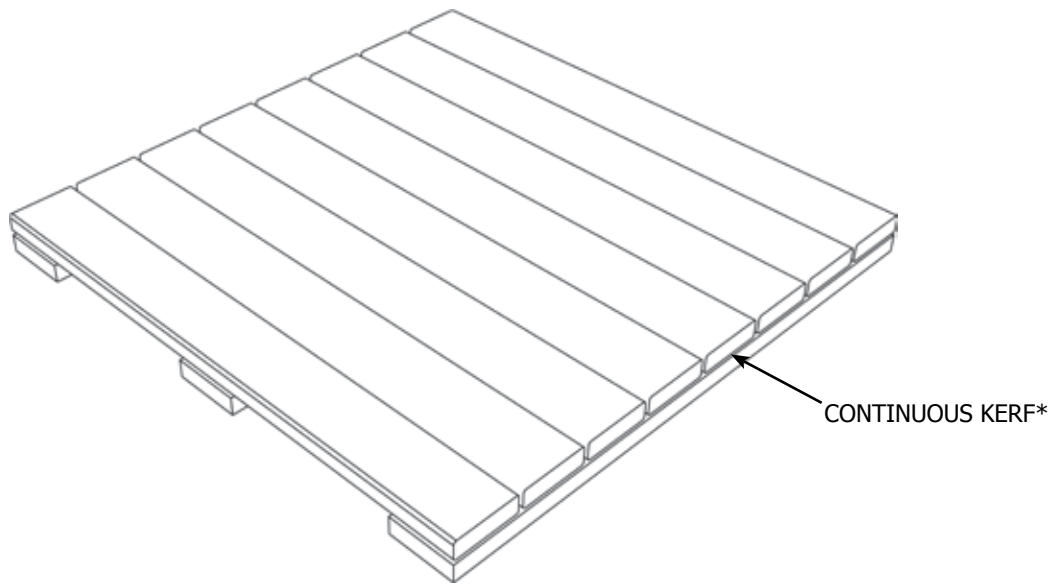


Bison Wood Tile Installation Details

Bison products offer the design flexibility to create versatile, unique outdoor spaces. Since 1994, Bison has led the industry in the design and manufacture of deck supports and hardwood deck tiles that create beautiful rooftop environments. This independently tested, modular pedestal deck system allows rooftop decks to be installed quickly and easily. Bison Wood Tiles are commercial grade, responsibly harvested, weather resistant, and available in standard and FSC® Certified species. Wood species include Ipê, Cumaru, Massaranduba, Garapa, Mahogany, and Fused Bamboo.

WOOD TILE
Installation Details

April 2019

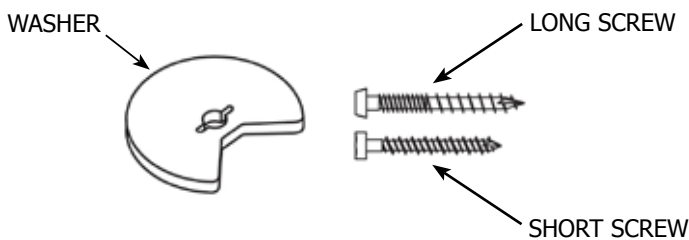
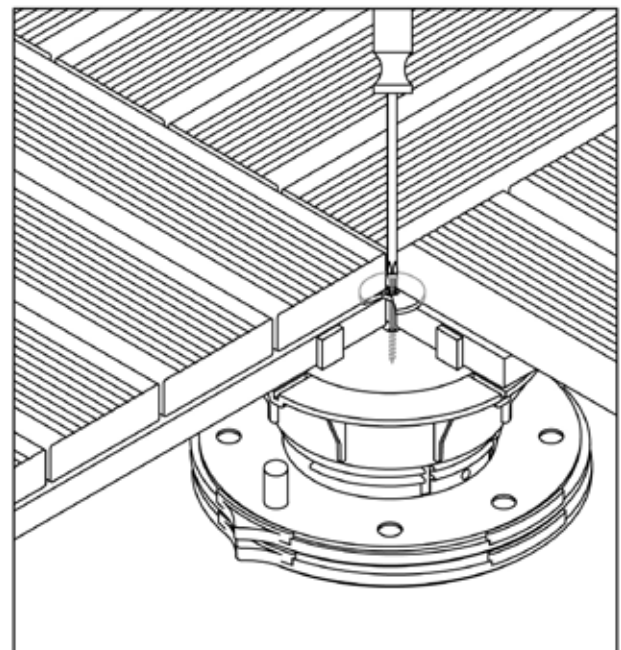


Fastening

FS-1 Wood Tile Fastening Kit*

The FS-1 fastening kit secures Bison Wood Tiles to Bison Pedestals and can be rotated to remove individual pavers after installation.

When installing an FS-1, use the long screw for adjustable pedestals or the short screw for HD50 and HD75 fixed height pedestals. Using the wrong screw could cause damage to the roofing membrane. Insert the FS-1 washer into the continuous kerf in the corner of three wood tiles. Leave the notch in the washer facing outwards in order to leave room to place the 4th wood tile. Insert the 4th paver and turn the washer to secure all four corners. Drive the screw through the center of the washer and into the center of the pedestal top. Tighten until all four wood tiles are securely fastened to the pedestal. **DO NOT OVERTIGHTEN.**



*US #8,302,356 Patent and Patents Pending.

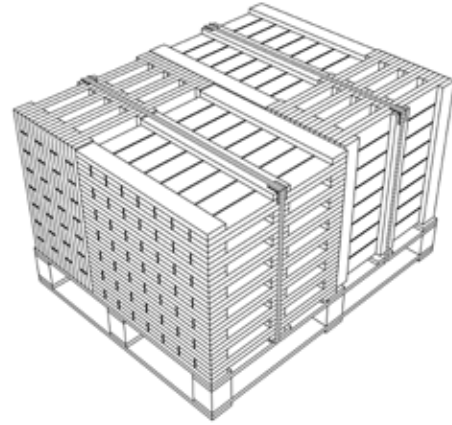
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General Safety Precautions

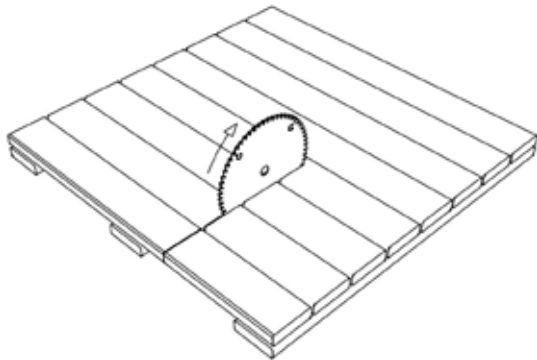
Bison recommends wearing puncture resistant safety gloves and safety glasses with side shields when handling, cutting, or sanding Bison Wood Tiles. Use a full-face shield outdoors or in a well-ventilated area for processes which may generate excessive dusts and splinters. Respirators **MUST** be worn if the ambient concentration of airborne contaminants exceeds Prescribed Exposure Limits (PEL). Dust masks may be worn to avoid the inhalation of nuisance hardwood dust, which according to the State of California, can lead to long-term health effects. Dust masks are not adequate protection in environments above the Occupational Safety & Health Administration's (OSHA) exposure limits. Refer to product SDS Section 8 for more information.

Storage

- Inspect all delivered materials to ensure they are undamaged and in good condition.
- Remove original shrink wrap and plastic packaging from Bison Wood Tiles.
- Store Bison Wood Tiles out of direct sunlight in a dry area and/or cover with a tarp until they are ready to be installed.
- Exposure to water while stored on pallets can result in watermarks which can be cleaned and will fade over time but are not covered under warranty.
- Bison Wood Tiles will adjust to the climate where they are installed and may already have, or develop, some slight cracking or checking.
- Limit exposure to metal (especially iron and iron-based products) as it can cause wood tile discoloration.



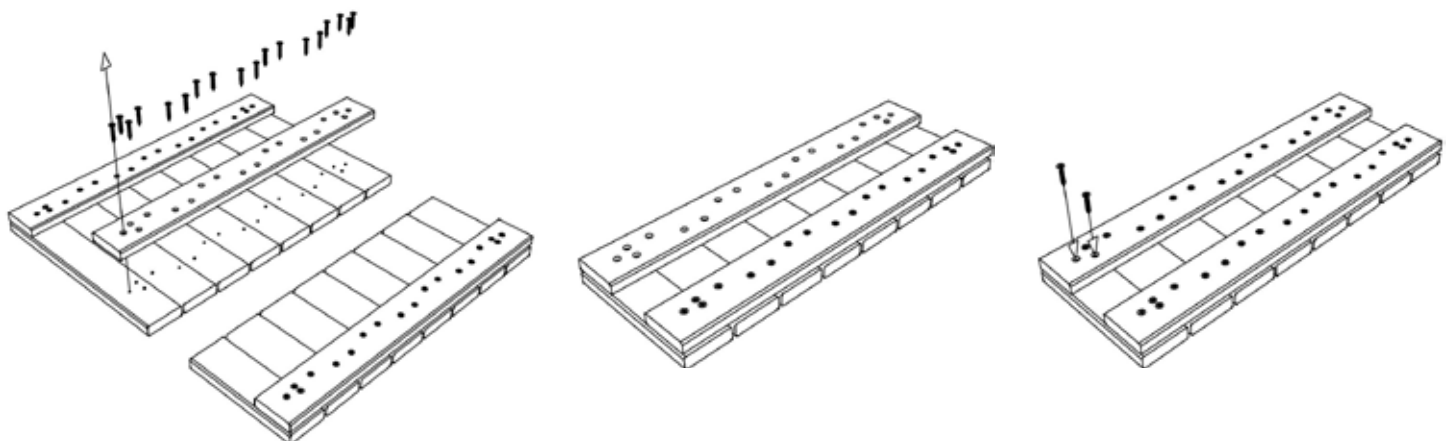
Cutting



Bison Wood Tiles have a very high density, and a slower feed rate is recommended when cutting; carbide saw blades are highly recommended. Remove any screws that fall in the path of the cut. To minimize checking or small cracks, the installer should consider sealing any cut ends with an appropriate glue or end sealer specifically designed for use on exterior wood such as PVA Wood Glue by Elmer's or Gorilla. Apply sealer with a foam brush to the cut ends only. **CAUTION:** Be very careful to not get any on the top surface of the wood, as a glossy discoloration will appear.

Reassembly

To reassemble Bison Wood Tiles after cutting, remove a bottom runner from the portion to be discarded, being careful to not strip the screw heads. Using the removed bottom runner to align the holes, pre-drill holes accordingly with a carbide drill bit on the portion to be installed. Exercise caution to not drill through the top surface. Bison recommends wrapping some tape around the bit as a depth gauge. Be sure to maintain a consistent spacing between the planks. After pre-drilling, screw the runner into place on the portion to be installed, re-using the screws whenever possible. Bison Wood Tiles use 1.20" (30 mm) long #11 stainless steel screws. Do not use iron based screws as they will cause discoloration as the wood weathers. Galvanized fasteners are also not recommended.



Maintenance Recommendations

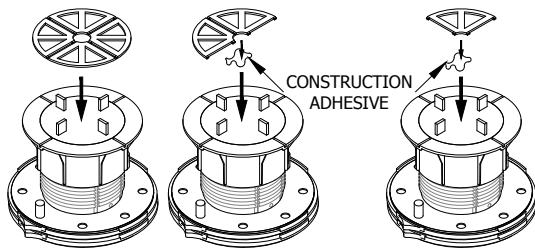
Routine maintenance of your wood tile deck system will enhance the beauty, reduce major repairs, and prolong the life of your deck. Below is a list of maintenance guidelines that should be performed on a regular basis:

- Check for wood tiles that rock. If you notice wood tiles rocking back and forth while walking on the deck, simply lift the wood tile and shim one or more corners until the paver is level on all four corners. Failure to do so can cause a tripping hazard.
- To remove a wood tile, use a screwdriver to loosen the screw, and rotate the washer to release the wood tile.
- Depending on substrate materials, some settling and/or deflection can occur. Remove the wood tile, and adjust the pedestal until a level height is achieved. You may need to do this to more than one pedestal to level out an area.
- Clean drains and scuppers on a regular basis. Water should completely drain off the roof deck within 48 hours after rainfall, under ambient drying conditions. Standing or pooling water can be detrimental to some waterproofing systems.
- Periodically check the spacer tabs between wood tiles, and immediately replace broken spacer tabs to limit unsafe deck movement.
- Make sure the edge restraint remains intact and structurally sound. There should not be room around the perimeter of the deck in excess of 3/16" (4.5 mm) width, which would allow for lateral movement of the wood tiles and create an unsafe condition.
- It is highly recommended to retain extra wood tiles from the original installation in a convenient location for future repairs or replacements.

Working with Shims

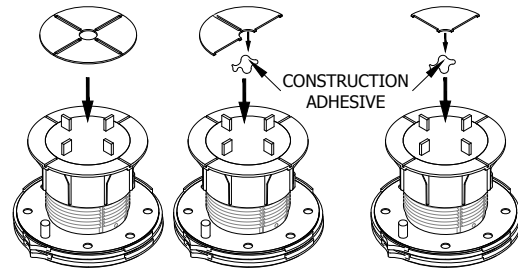
PS1 1/8" (3.175 mm) Shims - Plastic

PS1s may be placed on top of pedestals to accommodate for minor leveling of pavers with thickness variations. Use no more than 2 shims. If using only a partial segment, adhere it to the pedestal with construction adhesive.



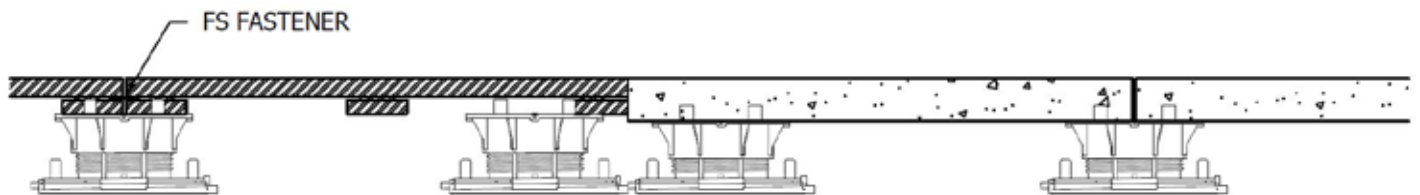
B11 1/16" (1.588 mm) Shims - Rubber

B11s may be placed on top of pedestals to accommodate for minor leveling of pavers with thickness variations. Use no more than 2 shims. If using only a partial segment, adhere it to the pedestal with construction adhesive.

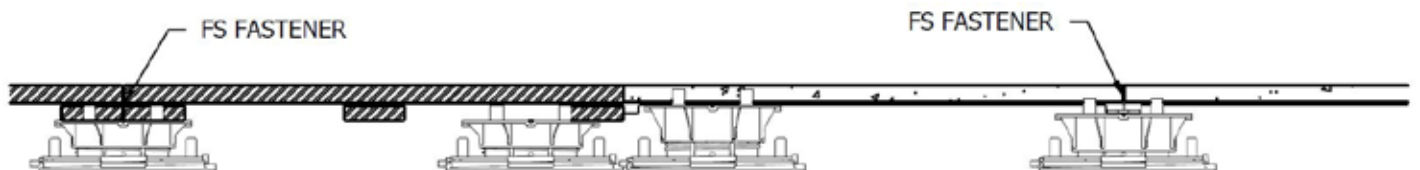


Wood Tile Transitions

Bison pedestals can support a variety of surface materials, including 2cm porcelain, concrete pavers, wood tiles, composite materials, fiberglass grating, or conventional wood plank systems to create unique custom looks. Transitions between surface materials must be properly supported. Be sure to maintain a tight installation and limit space between surfaces.



AS SHOWN: BISON WOOD PAVER WITH 2" CONCRETE PAVER



AS SHOWN: BISON WOOD PAVER WITH 2CM PAVER AND BISON PAVER TRAY

Wood Characteristics

Bison Wood Tiles are made of South American (Cumaru, Ipê, Garapa, and Massaranduba), Fijian (Mahogany), and Chinese (Fused Bamboo) hardwoods which contain a rich variety of graining and coloration, are exceptionally dense, and resistant to insects. Bison Wood Tiles are a natural material and can absorb or lose moisture in different climates. The natural shading, coloration, and graining variations add to the architectural character and overall visual appeal of the finished product.

Being a natural product, Bison Wood Tiles will react to the surrounding environmental conditions. Surfaces may spot or stain when exposed to various materials including: metal, steel, iron, or aluminum filings, pieces, equipment, tools, or fasteners; iron enriched fertilizers; plant debris; animal urine; beverage, food, or grease spills; or mildew that naturally occurs in humid or moist locations. Protect installed Wood Tiles from damage which may occur as a result of continued construction.

Cleaning, Sealing, & Staining

Bison Wood Tiles are made of hardwoods that will weather over time, developing a silvery-gray patina. In order to maintain the original coloring, Bison Wood Tiles can be periodically cleaned and sealed. Use deck products designed for hardwoods. Spot cleaning can be done, but for a consistent appearance, Bison recommends cleaning the entire deck. Most decks need to be cleaned after installation is complete.

Test any cleaners, brighteners, or sealants in an inconspicuous area first before applying them to the installed deck. In addition, always check with the manufacturer of your roof membrane to ensure that any cleaning solution, stain, oil, deck brightener, or bleach will not compromise or damage the waterproofing membrane. Remember to use safety glasses, respirators, and gloves in handling any materials that contain chemicals. Refer to product manufacturers' SDS for more information on chemical components and safe handling practices. CAUTION: Do not scrub tiles with wire, iron, or steel brushes.

The following manufacturers offer products specifically designed for use with exotic hardwoods: Messmer's, Penofin, Defy, and TimberPro. Follow the manufacturers' instructions and repeat as needed to clean stubborn stains. Rinse the deck, adjacent walls, and surrounding areas thoroughly with water prior to and after using wood cleaners or brighteners. Once cleaned and dry, you may apply a UV finish or sealant to the wood if desired.

NOTE: Additional Bison Wood Tile Care & Maintenance Considerations and Wood Tile Cleaning Recommendations are available online at www.bisonip.com.