



# dassoXTR Fused Bamboo Decking Installation Guidelines

*check [dassoXTR.com](http://dassoXTR.com) for the most current version*

## dassoXTR Fused Bamboo Decking Storage and Handling

For best results, dassoXTR should be kept out of direct sunlight and should not be exposed to inclement weather before installation. dassoXTR can be installed right away; there is no need to wait for the material to acclimate to its surroundings.

When the dassoXTR material arrives on the jobsite, keep it off the ground by placing a few pieces of lumber underneath the packaging. Cover material with a tarp to protect it from weather and sunlight before installation. Like hardwood, Fused Bamboo is photosensitive and tarping the material will protect the material from pre-installation UV light color change caused by the sun. When exposed, the unexposed areas, like under banding straps, will darken to match the already exposed areas, but by tarping you prevent having to explain this temporary appearance.

## Product Performance

dassoXTR is manufactured and inspected to ensure the highest-quality. However, fused bamboo strand is a natural product and is subject to normal variations inherent in natural wood products. Bamboo, also like wood, is subject to dimensional changes with the environment's changes; relative humidity changes, rain/snow then sun—known as "weather". Swelling, shrinking, checking, and other movement are normal occurrences in bamboo and wood decking. With the proper application of sealers and finishes, the effects of weather and time can be limited on bamboo and wood.

## Safety

Drilling, sawing, sanding, and machining wood generates wood dust. Avoid inhaling wood dust by wearing a dust mask. [Visit dassoXTR.com](http://dassoXTR.com) for TDS MSDS information.

## Recommended Installation

dassoXTR is installed similarly to standard hardwood decking. To maximize the features and benefits of dassoXTR decking, we recommend using the Eisen® Decking Wing Clip System or equivalent in combination with the Eisen® D-Plug System for use with dassoXTR and proper grade stainless steel fasteners/screws. [Visit dassoXTR.com](http://dassoXTR.com) for installation accessories.

The following items are recommended for installation:

- Plastic mallet
- Corded drill
- Drill bits
- Safety glasses
- Power screw gun with ratcheting torque setting
- Chop saw
  - dassoXTR can be crosscut with a quality chop saw, using a carbide-tipped blade. Ripping can be done on a standard table saw, using a properly aligned quality guide with a carbide-tipped blade. Anchorseal-2 Wood Sealer or equivalent is strongly recommended on crosscut ends to minimize the effects of weather on these exposed ends.
- When drilling dassoXTR, always use high-quality drill bits. When you are drilling into the face, we recommend using a countersink bit with a positive stop. This will ensure a consistent depth for all the screws.
- dassoXTR can be routed or planed with highspeed steel or carbide cutters. When required, only sand in the direction of the grain—i.e. belt sander. Never use an orbital sander.

**NOTE:** Local building codes must always be consulted when building an exterior deck. Most counties require building permits.

## Material Application

### Spacing

A space between each row of boards is recommended; whether that spacing is achieved using a hidden fastening clip system which automatically provides the 1/8", 3/16", 1/4" or 5/16" space between boards or inserting temporary spacers while face screwing the boards to the joists.

This spacing requirement is a standard decking installation practice to allow for air circulation and room for expansion and contraction caused by the weather.

*NOTE: Refer to fastener for build in spacer. Different fastener provides different spacing gaps.*

### Joist Span

Residential and Light Commercial — If you install all joints atop joists (the traditional installation practice) XTR decking can be installed 24" on center. Otherwise, the recommended maximum span for 20mm (1x6) dassoXTR is 16" on center— but your local building codes may be less. Because dassoXTR is end matched there is no need to have all joints join atop joists. XTR end joints can meet or “fall between” the joists, and independent testing proves this installation practice equals or outperforms other type decking that requires all end joints to end atop a joist (per test ASTM D7032).

When decking installation is on an angle, the joist spacing should be 12" centers. Determine the final joist spacing only after talking with local building code officials.

*Heavy Commercial* — the recommended span for heavy commercial grade 40mm (2x6) dassoXTR is 12", 16", 18", 24" or 36" center to center for non-vehicle traffic if the area's length or width is wider than 6 feet for applications such as Marinas, Boardwalks or Piers.

*NOTE: Your local building codes may span less.*

*NOTE: In Heavy Commercial applications with utility carts less than 1,200 lbs running on decks, a max span of 24" is recommended. Joint must land on joist. In addition, deck frame must be designed to support the expected load (such as vehicles)—XTR will not compensate for insufficient load bearing structural design.*

### Ventilation

The deck should be built to meet or exceed your local building code—and joist bottoms hang at least 6" above the ground—less than that will void the warranty. There must be adequate air circulation underneath the deck to prevent cupping and warping of the boards.

In applications where the deck is being built closer to the ground, a vapor barrier is recommended to prevent

water from absorbing into the underside of the material.

*NOTE: For roof decks and applications above concrete, extra spacing requirements to address ground-generated moisture does not apply.*

### Hidden Fasteners

Side grooved dassoXTR is built for a hidden fastener application; the boards are run with a continuous side groove designed for easy installation. Although the groove is cut in accordance with most manufactured fasteners, we recommend using the Tiger Claw® clip system and following their instructions.

### Recommended Products for Use with dassoXTR

Hidden Fasteners are used in combination with face screws or counter sinking plug systems. They are used for the starter row and ending row, as well as the stair steps, when ensuring tight hold is crucial. They are also used on every row at the starting position and ending position, with minimum 2" (50mm) away from the butt end.

### Face Screwing and Counter Sinking

Top-down screwing is a widely accepted and common method to install decking. XTR decking can be installed with:

1. Use a minimum of 2 ¼" length screws on ¾" thick (1x6) decking and at least 2 ½" screws on 1-1/2" thick (2x6) decking. Screws should be 305 grade stainless steel, and preferably 316 grade stainless steel (316 grade is required near water).
2. If you are counter sinking the screw heads, use the EISEN® D-PLUG SYSTEM, a complete system for plugging dassoXTR planks. It includes D-Plugs for use with dassoXTR, stainless steel screws, and a driver bit. The counter sink drill bit and glue can be purchased separately.

### Number of Screws or Fasteners Needed

Assuming joists are 16" on center approximately 350 screws are needed for each 100 square feet (9 square meters) of decking. Each joist should have a minimum of two screws through EACH board—do not face screw or countersink when joints meet atop joists. Distance screw holes 2" (50mm) from any butt ends to avoid end cracks and checks due to expansion and contraction. Using the Panda Claw fastener system, 100 piece kit covers 60 Square feet of 5.4" wide decking.

### Screw Material and Type

Always use stainless steel screws for hardwoods. Standard head-coated in Grade 305 stainless steel provide corrosion resistance. For locations close to or on

the water, especially saltwater, Grade 316 stainless steel will provide even greater corrosion resistance and should be used.

### End Sealer

Use cross cut end sealer as part of the normal installation production to help prevent splitting and checking at the ends of the boards. We recommend that all boards be end sealed as soon as reasonably possible after cutting, using a clear, water-resistant wax. Anchorseal from UC Coatings is one of the most well-known end sealer products, although there are others available.

*NOTE: Failure to end seal the boards at the time of installation will void any claims made against the warranty.*

### Finishing

Although dassoXTR is a manufactured product, its primary component is bamboo. dassoXTR will behave like a natural building material, and therefore, in order to maintain its original color you must either coat dassoXTR shortly after installation with a penetrating oil finish, or, if using a synthetic oil after an initial period of allowing it exposure to weather because dassoXTR fused bamboo's factory coat of Pre-Primed penetrating oil wears off shortly after installation. The timeframe of this initial period varies with the amount of weather and foot traffic. [See dassoXTR.com](http://dassoXTR.com) for guidance on when to finish [dassoXTR Fused Bamboo](http://dassoXTR.com).

## The EISEN® D-PLUG SYSTEM for dassoXTR Installation Instructions

### Included in the EISEN® D-PLUG SYSTEM Kit

1. Fused Bamboo D-Plugs – 100 units
2. Stainless Steel Face Screw #8, Grade 316, 2-1/2" (62mm) – 100 units
3. Hexagon Driver Bits with Star Head Driver #8

### Items Needed for Installation:

1. Counter Sink Drill Bits matching D-Plug diameter. Depending on the number of holes and your woodworking skill, extra replacement bits may be necessary (dassoXTR offers matching counter sink drill bits).
2. Waterproof Exterior Glue for Wood/Bamboo. Recommended options:
  - Titebond® III
  - Elmer's Waterproof Wood Glue
3. Power Drill — corded drill recommended.
4. Belt Sander and Sand Paper — P60 (#60 grit). Avoid

using a rotary sander.

5. Compressed Air Unit — For cleaning drill holes.
6. Rubber Mallet
7. Rags for Cleaning

### Safety

Follow recommended instruction and guideline from power tools manufacturer. Use safety glasses, ear plugs and safety mask as recommended.

### How To Use The EISEN® D-PLUG SYSTEM

*Read your FUSED BAMBOO® decking, siding and porch flooring installation instructions (see [dassoXTR.com](http://dassoXTR.com)).*

1. Determine the locations where screws are needed.
2. Pre-drill holes with the Counter Sink Drill Bits. The hole is complete when the stop collar stops spinning. Blow out sawdust from the holes with compressed air.
3. Drive EISEN® Stainless Steel Face Screw with Driver Bit so that they are flush with the countersink holes at the bottom of each hole. (Note: FUSED BAMBOO® should be kept dry and holes free of debris before gluing and inserting plugs.)
4. Follow the glue manufacturer's usage recommendations, including working temperature and set time.
5. Gently squeeze glue onto the side of counter sink holes. Turn the bottle a 1/4 turn to ensure full coverage of the side wall. Pull the nozzle out of the hole. The objective is to coat the inside walls of the hole while leaving as little glue at the bottom of the hole as possible.
6. You can glue several holes at a time and then go back to insert the plugs, so long as you do so before the glue begins to set. Use a rag to wipe off any excess glue that builds up on the nozzle tip.
7. Insert a EISEN® D-PLUG SYSTEM Plug in each hole, chamfered end first, with the wood grain aligned with the workpiece. (Note: All plugs are face grained.) Using moderate force, pound plugs in with a rubber mallet until flush or nearly flush with the work surface. Wipe any excess glue clean with a damp rag.
8. Sand the work surface. We recommend delaying sanding until the glue has set, following the glue manufacturer's directions.