

MOSO® Bamboo X-treme® Outdoor Decking

installation instructions

before installation

- Local building codes must always be consulted when building an exterior deck. Most counties require building permits.
- Water logging under the decking must be avoided by preparing a water permeable ground structure. This can be achieved by sand layers and gravel dispersion above.
- Install the decking boards with a slope of 1-2% to enable water to run off the surface. Alternatively, the decking can be installed without a slope, but due to the fact that water stays on the surface longer, it is possible more superficial cracks will develop. If the installation is done without slope more cleaning will be required.
- There must be adequate air circulation underneath the deck to prevent cupping and warping of the boards.
- When working in low clearance situations it is very important that adequate airflow is factored into the installation. Lack of airflow can cause heat to collect and will have an aesthetic affect on the decking.
- When the surface underneath the decking is not fast drying, there should be at least 4" distance between the decking and the surface underneath the floor.
- In applications where the deck is being built closer to wet ground, a vapor barrier is recommended to prevent water from absorbing into the underside of the material.
- In order to create a stable deck frame, the outsides of the frame have to be connected at regular intervals to the ground/ structure below. Alternatively cross bracing can be applied.

safety

Drilling, sawing, sanding, and machining MOSO® Bamboo X-treme® generates dust. Avoid inhaling dust by wearing a dust mask. Contact MOSO® for MSDS information.

required tools

- Drill
- Drill bits
- Safety glasses
- Power screw gun with ratcheting torque setting
- Chop saw
- MOSO® Bamboo X-treme® 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 fence with a carbide-tipped blade.
- MOSO® Bamboo X-treme® can be routed or planed with high-speed steel or carbide cutters. When required, only sand in the direction of the grain - i.e. belt sander. Never use an orbital sander.

the installation

spacing

- Keep at least 3/16" expansion gap between the boards (in width direction). With MOSO® Bamboo X-treme® Fasteners installation this is automatically the case.
- Because of the stability of the boards and the shape of the end-match system no expansion gap is needed on the ends of the boards.

joist span

- The recommended joist span is 18" or 24" on center. If recovering an existing deck on 16" centers, MOSO® Bamboo X-treme® can be used with its structural end-match system.
- Because MOSO® Bamboo X-treme® is endmatched there is no need to have all joints join atop joists. End joints can meet or "fall between" the joists with 8" - 8" distance. If you wish a random pattern, the span should be reduced to 12".
- You should stagger your end joints so they do not line up from one row to the next.
- When decking installation is on an angle, or a random pattern is desired, the joist spacing should be 12" centers. Determine the final joist spacing only after talking with local building code officials.

installation with fasteners

- Determine the surface side of the boards (grooved or smooth surface).
- Use the MOSO® Asymmetric Fasteners in the following sequence:
 - Press fastener with hooked side in the groove of one board.
 - Pre-drill the joist screw holes 30 mm deep. On bamboo joists: use a 3.5 mm wide drill bit 110 mm long.
 - Fully tighten the screw. Always screw vertically to the joist. Apply low torque with slow screwing speed on the screwing machine. Perform some tests for correct torque and speed adjustment before full installation.
- Install every following board by sliding it under the waved side of the fasteners.
- When floating the joint between joists, putting a loose fastener on both sides of joint can help provide increased stability in the event that the joist move.
- Only use the included stainless steel decking screws (4.5 x 30 mm).
- Don't forget to make sure you float a fastener at the end-match when floating the joint. The fastener will provide added support and maintain proper spacing between the boards.
- Please watch the installation video ► www.moso-bamboo.com/youtube/x-treme

number of fasteners needed per sqft

X-treme® width	on center		
	16"	18"	24"
96 mm	2.65	2.12	1.8
137 mm	1.85	1.48	1.11
178 mm	1.43	1.14	0.86

screw down installation

- Determine the surface side of the boards (grooved or smooth surface).
- Pre-drill the screw holes 3/4" from the side of the board. Be sure to predrill with a large enough drill (80% of screw diameter) to avoid cracking of the decking.
- We recommend using a countersink bit with a positive stop.
- Screws should be 305 grade stainless steel. Salt water contact may require 316 grade stainless steel, please consult local building codes.
- Always screw both sides (left and right in the width direction) of the board.
- Use at least a stainless steel quality decking screw with a minimum length of 1.5/8" for 1x6 decking.

best practices

- Don't forget to make sure that there is adequate airflow below the deck especially when installing in a low rise atmosphere. Even though the MOSO® Bamboo X-treme® can be installed closer to the ground than any other natural material, proper air flow is a separate issue and can have an adverse effect on the deck if not properly done.
- Don't forget to make sure you float a fastener at the end-match when floating the joint. The fastener will provide added support and maintain proper spacing between the boards. This applies to the decking as well as the siding.
- Don't forget to make sure that when installing the Bamboo X-treme® Siding vertically you put a mechanical fastener through the bottom of the board for extra support.
- If you want to maintain the unfinished look MOSO recommends cleaning the deck with the Messmer Deck cleaner and Brightener and apply a clear finish. This will keep the MOSO® Bamboo X-treme® in the best condition for its longest best life.
- When replacing the joists or building a new MOSO® Bamboo X-treme® Deck, it is best to use the joist material on 18" joist spacing.
- Carpenter Pencil makes the clearest most readable mark on MOSO® Bamboo X-treme®.

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cleaning and maintenance

- The MOSO® Bamboo X-treme® Outdoor Decking Board is a natural product, some variation in color, grain and appearance is normal. Color can change fast from dark brown to brown or grey, depending on the climatic conditions and maintenance schedule.
- Annual cleaning of your MOSO® Bamboo X-treme® Decking is recommended. Clean the deck using warm water, mild deck cleaner (Messmer Deck Cleaner and Messmer Brightener) and stiff bristle brush.
- After cleaning and drying, apply a coat of exterior finish (Messmer's MOSO® Bamboo Finish Oil).
- We recommend to repeat this (cleaning + applying a coat of exterior finish) at least once per year.
- See additional maintenance instructions at www.moso-bamboo.com/youtube/minutes (episode 22).

storage and handling

MOSO® Bamboo X-treme® should be kept out of direct sunlight and should not be exposed to inclement weather before installation.

additional note

While all due care is taken to ensure the accuracy of the installation instructions, individual circumstances (location, sub floor and installation procedures) may vary and are beyond the manufacturer's control. In case of doubt, please consult your local dealer/distributor. Always follow the local building code.

MOSO warrants the bamboo material and the mounting materials (fastener/screw) it supplies but does not warrant the connection with other materials (such as sub frame joist/battens). It is the responsibility of the installer to make sure the used screw matches such materials during the full lifetime of the product.

These instructions are subject to change. For the latest version visit www.moso-bamboo.com/x-treme/decking

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