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## DECKING INSTALLATION GUIDELINES

Updated: November 23, 2021

### **Important facts:**

These products are kiln-dried hardwoods. They are different, in many respects, from cedar, fir, pressure treated lumber, or synthetic decking products.

This timber will not shrink appreciably after installation. It will expand slightly, side to side, when it becomes wet.

**Your deck needs to breathe.** Design your project to provide for **adequate ventilation** and **abundant air flow beneath** your deck, and out the top, to avoid problems that can occur when wood naturally expands and contracts as it assumes and expels moisture.

### **Job site preparation:**

Blue Star products will be delivered to you clean and dry, with well-trimmed ends. Keep the lumber clean and dry prior to use. Stack lumber flat, and off the ground, until ready for use. Do not leave individual boards lying loose, exposed to the weather.

### **Site selection and preparation; Ventilation:**

Deck structures should be elevated a **minimum of 18” above grade** to provide free-flowing ventilation.

Your design should allow abundant air to flow under the deck, and out the top. If you install skirting, use lattice, or other “open” skirting that permits air to flow freely beneath the structure and cross ventilate.

Do not “box in” the sides, or front of your deck. If your deck has stairs, ventilate the stair risers adequately, to allow air flow.

Provide sufficient drainage beneath your deck. Moisture trapped beneath your deck can be absorbed into the bottoms of your deck boards. To minimize moisture absorption, soil should be graded toward the outer perimeter, and should drain well.

### **Framing and joist spacing:**

Framing 12” on center will increase the strength of your deck, and **reduce any waste** you may have. Always frame 12” on center when installing boards at an angle.

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The recognized industry best practice is to frame a maximum of 16” on center – whether using 1x4, 5/4x4, or 5/4x6” deck boards.

Always frame to specifications that meet your local building code.

### **Gapping deck boards:**

Kiln dried lumber will swell slightly, from side to side, when it becomes wet.

For proper gapping:

\* Space 5/4x6 deck boards 1/4” apart, from side to side.

\* Space 5/4x4 and 1x4 boards 3/16” apart, from side to side.

**Butt boards tightly, end to end.**

### **Workability:**

Blue Star products saw and work easily. You will not need carbide, or other special saw blades or drill bits.

### **Fastening (screwing) deck boards:**

The traditional **best practice** for installing hardwood decking is to **face screw boards** with 316-grade stainless steel screws, made specifically for decking.

(Continue reading for comments on “grooved” decking and “hidden” (mechanical) fasteners.)

Screws should pass through the boards and penetrate about 1-1/2” into the substructure (joists or framing).

Drive screws roughly 3/4” from the edges and ends of boards, at a slight angle. Standard best practice is to pre-drill a pilot hole before sinking screws. Pre-drill at the ends of boards, to minimize the potential for small splits.

Use two screws across the face of each board. You may wish to use three screws at the ends of 6” deck boards.

Use trim head or flat head screws, based on the final appearance you prefer. You may also consider using the **Pro Plug system from Starborn Industries**, if you wish to dress screw holes with wood plugs. This product has proven to work well, and looks great.

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Be sure to examine both faces of each board before installing. Select the face most pleasing to you as the top face.

### **Mechanical or “hidden” fasteners; Grooved decking**

Recent innovations in the design of mechanical (hidden) fasteners have produced some notable products worthy of consideration.

Industry best practice is to use a fastener that anchors to the deck joists, and screws at an angle directly through the edges of the deck boards into the joists (often through grooves that are milled into the edges of the deck boards).

We have seen good results produced by the “Ipe Clip” product, or other products of comparable design.

FOR MORE COMMENTS, please download our comments on **Grooved Decking; Hidden Fasteners**, on the homepage of our website.

### **Finishing your deck:**

All decks should be treated with an **initial application** of top-quality, penetrating-oil deck finish. **Coat all surfaces**—faces, sides, and ends. A proper coating will help your deck acclimatize with minimal disturbance. Your deck will look, wear, and perform better over its lifetime.

Deck finishes do not “seal” lumber. Rather, they penetrate the wood fibers, and help slow and balance the absorption and expulsion of moisture. Most finishes also contain UV inhibitors. Together, these qualities diminish the shock that wood fiber may initially experience when used outside.

**Deck finishes are not permanent, one-time coatings.** They will dissipate over time. Longevity of the finish will depend on any number of factors. Your choice of finish, the direction your deck faces, the local climate, and your building site all play a roll. To retain a “finished” look, you will need to maintain the deck, and recoat as needed. **You will not need to recoat the sides, bottoms or non-exposed ends. Only the tops of the boards and exposed ends will need recoating.**

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For information about cleaning and refinishing your deck, visit [www.messmers.com](http://www.messmers.com), or contact us by email via our website.

If you want your deck to weather to its natural silver color, we still recommend an initial coating. The finish will dissipate over time. The desired silver look will begin to return in a little more than a year, depending on your location and climate.

You will find several penetrating-oil finishes available at your local lumber yard or paint store. Always follow the manufacturer's directions when using these products.

To save time, effort and money, ask your lumber dealer to provide you with **Blue Star PLUS** – deck boards that are factory-coated with **Messmer's UV PLUS for Hardwoods**. Our custom-engineered finishing line covers 100% of each board with a consistent finish, to Messmer's exact specifications.

**Blue Star PLUS** is convenient, cost effective, and **ready to install**.

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