The Iron Woods® Family of Hardwood Decking are naturally durable and truly Green By Nature each having their own unique appearance and time tested performance values. Whichever Iron Woods® product you choose this guide is designed to outline current best practices and installation options.

Best Practices

To the best of our knowledge this information is accurate; however due to the variance of products grown in nature, it is the sole responsibility of the installer to select the appropriate product for any given installation and site condition, check and follow local building codes and apply Best Practices in handling and installing Iron Woods® brand products. Installers should follow manufacturers recommended application and maintenance instructions when using proprietary finish and fastening products. To maximize the performance and beauty of Iron Woods® products please read this Installation Guide before you begin.

Handling and Storage

Iron Woods® are supplied as either Air Dried or Kiln Dried lumber depending on the species and dimension and are for the sake of decking application typically for outdoor use. Iron Woods® should be stored out of direct sunlight, kept clean, dry and off the ground prior to installation. Allow Iron Woods® decking to acclimate and stabilize to equilibrium humidity levels prior to installation to reduce post installation movement.

Cutting, Drilling and End Sealing

Use Carbide tipped finish cut saw blades and bits. Seal all ends immediately after cutting with clear aqueous wax based end sealer in order to reduce end checking. Holes should be drilled as far from the board ends as allowable to reduce end splits from over torque of screw heads.

Finishing

For best performance coat Iron Woods® decking on all faces prior to installation to slow moisture absorption and release during seasonal and moisture transitions to reduce surface checking and cupping. To maintain color; use a high quality oil or water based outdoor finish with UV inhibitor, fungicide and pigmented tint. Test finishes on decking to determine their compatibility and appearance. Before application brush and clean decking surfaces to remove dirt, dust and other airborne contaminants. Iron Woods® are dense so apply thin coats and allow to dry or a sticky surface may result. Periodic cleaning and reapplication of finish as needed will enhance the appearance of your deck. Left unfinished Iron Woods® will weather naturally. To prepare a weathered deck for refinishing, use a “wood brightener”, careful washing or light sanding as necessary.

Deck Spans

For residential applications the live load requirement by most building codes is between 50 and 100 pounds per square ft. Based on this criteria Iron Woods® decking achieves minimal deflection at 16 inch stringer centers for nominal 1 inch (net .75 inch) thick decking, 24 inch stringer centers for nominal 5/4 inch (net 1 inch) thick decking and 36” stringer centers for nominal 2 inch (net 1.5 inch) thick decking.

Fastening

There are many fastening options and systems available in the market today. Whatever system you chose it is important to remember that once selected liability for fastening performance shifts to the fastening company so consider your options carefully and follow the manufacturers instructions.
### Ledger Joist and Stringer Flashing

Apply ledger joist and stringer flashing/membrane to eliminate the harboring of moisture at wood contact points. Follow manufacturer’s instructions for product selection and application techniques.

### Deck Ventilation

Adequate ventilation of the deck is essential for long term stability, durability and to minimize cupping. Air should always be allowed to flow freely from outside and under the deck. Assuming decking has been allowed to stabilize, allow gaps of between 1/8 and 1/4 inch to allow for drainage, airflow and expansion/contraction. Kiln Dried decking is typically more prone to expansion and Air dried decking more prone to contraction immediately after installation if equalization has not been fully achieved. These gaps are typically set automatically with hidden fastener systems. Face fastening systems usually provide an appropriate gapping tool. Follow manufacturer’s instructions for fastener selection and applications. When decking less well vented areas like roof decks, it is important to consider that the greater the thickness to width ratio of the decking the better performance outcome. 5/4" x 4" boards will perform better than 5/4" x 6". You may also wish to consider products such as Iron Woods® Deck Tiles and Iron Woods® Elevations Roof Deck Tile, Decking and Pedestal Systems, which are specifically designed for less well vented applications.

### Self-drilling Screw or Nail Method

Iron Woods are very hard. The use of screws or nails without pre drilling creates incredible tension or pressure on the wood fibers and greatly increases the likelihood of splitting. This doesn’t mean that you can’t get a good mechanical connection without predrilling, it just means that you will likely split some boards. The same can happen if you over torque your screws when you do pre drill.

### Drill and Screw Method

Pre drill and countersink two holes per deck stringer intersection. Use high quality stainless steel trim head screws and remember that screw penetration to joist should be a minimum of 1-1/2 times the thickness of the deck board. Drilling and screwing through the face of the deck boards provides the strongest mechanical connection. Typically all commercial decks are constructed using this method.

### Drill, Screw and Plug Method

This method has all the mechanical benefits of the drill and screw method however the countersinks are deeper to allow the application of a wood plug and adhesive to cover the screw head. Typically used in wood boat construction this method offers a unique appearance. Drill Screw and Plug systems like Starborn Pro Plug provide the drill bits, adhesive and plugs in a system that facilitates quick installation.

### Deck Clips

Typically referred to as hidden fasteners though the clip can still be seen between the boards, this method requires either grooving or biscuit cutting the decking down the side of the board. This method typically creates a mechanical connection between the deck and stringer on one side of the board only. Ipe clip and Eby are the most commonly used brands of deck clips though other systems are available. Avoid systems that do not require some kind of mechanical connection between decking and stringer.
Alternative Methods

There are new systems entering the market each year. Some work like floor nail guns, some screw at angles through the board sides. We leave it up to the installers to determine the methods they will stake their reputations on.

For a truly hidden system where you don’t see the fastener or the stringer between boards you may want to consider the Iron Woods Vanish Decking profile which allows for water flow and ventilation while making the clip and stringer Vanish from view.

Don’t Forget to Check Out the Entire Iron Woods® Family

Ipe Decking - Garapa Decking
Cambara Decking - Vanish Decking
Vanish Rain Screen - Siding and Cladding
Porch Flooring - Ipe Deck Tiles
Elevations Roof Deck System - Handrail
Bridge Decking - Posts - Heavy Timbers

For more information and photos on these items and the full range of Woods® products, please visit us at www.ironwoods.com

The use of Best Practices are an installers guide to superior results and satisfied customers.

Timber Holdings USA does not assume any liability other than those liabilities outlined in Iron Woods® product warranties. Finishing, cutting, drilling or Installation of the product always confirms acceptability of material quality on the part of the installer at time of installation.