

Composite Decking Installation

Getting Started

Careful planning of the finished deck layout will result in better looking finished projects.

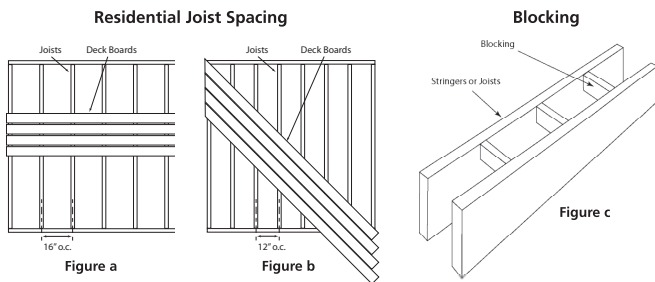
1. Joist location plays an important role in the safety of the deck itself but may also affect the ease, method and price of your railing system.
2. Before starting, read the instructions of both the decking and railing systems planned for the project.
3. Remember that prefabricated rail systems often assemble faster than wood railing but they are less flexible and do not assemble in the same way as wood rail systems. To enjoy the maximum benefit of prefabricated rail systems, it is important to construct the deck framing with the specific rail system in mind.
4. Thoroughly reading all instructions first will make for more profitable projects. Failure to do so may result in more difficult installations.

Joists

Joists used in deck frame construction should be 2"x 8" or larger. When using Fiberon Horizon joist mount brackets, a minimum 2"x 8" joist is required.

When installing deck boards perpendicular to the joists in residential applications, spacing is 16" on-center (figure a). Commercial applications should be no more than 12" on-center. When the decking is to be laid diagonally, reduce the on-center joist spacing by 4" (figure b). For special situations, or when in doubt, consult your local building inspection department.

When installing heavy loads atop your decking project, a hot tub, for example, it is important to also understand the requirements of the manufacturer as they may have specific framing and support requirements for their warranty coverage.



When installing blocking for more intricate decking patterns, remember that solid blocking (blocking laid on the flat) will inhibit water flow and result in buildup of organic materials over time, which will make cleaning more difficult. For best results when blocking is required, it should be installed ladder style (figure c).

Board Spacing

All decking materials, whether wood, composite or metal, undergo some degree of linear expansion with the changes of weather and the season. To compensate for the effects of contraction and expansion, the following installation standards must be maintained:

- 3/16" side to side spacing between the boards (figure d)
- 1/4" gap between the deck board and any solid structure such as a wall or post (figure d)
- 1/8" gap between board ends (figure e)

Adhering to these spacing parameters will:

- Promote proper drainage and ventilation
- Aid in the removal of organic debris
- Meet board spacing requirements for Fiberon warranty coverage

Fasteners

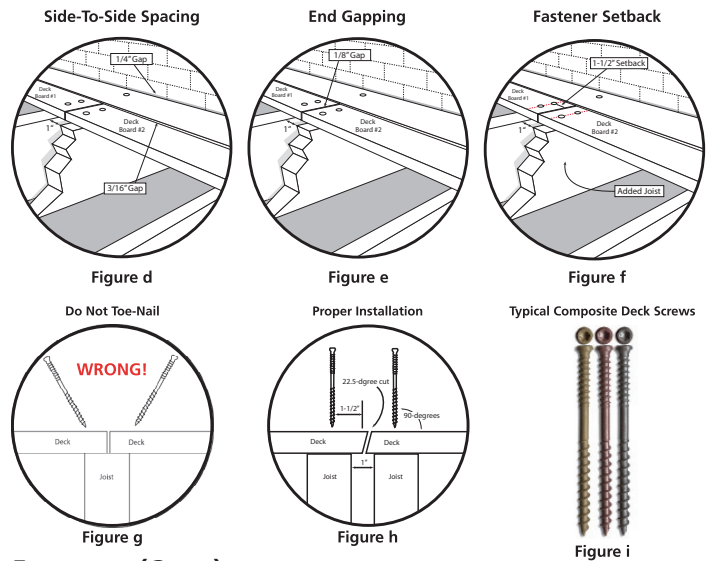
The use of stainless steel fasteners is strongly recommended. Approved coated fasteners may also be used, but their performance may not be as good as stainless steel. Plain, galvanized surface fasteners are not recommended.

FASTENERS RECOMMENDED FOR USE WITH FIBERON HORIZON DECKING include SplitStop Titan III and TrapEase wood composite deck screws. Fiber Composites does not endorse or represent specific third party products. Other fasteners specifically designed for wood composite decking should be tested in an inconspicuous area first as they may result in an unacceptable appearance. If hidden fasteners are desired, Phantom Hidden Deck Fasteners available from Fiber Composites were designed to fit the Horizon grooved deck board for quick and easy installation while providing a smooth, unmarred look.

The use of traditional flat or bugle head deck screws is not recommended for Horizon decking and will likely result in mushrooming. Other fasteners not specifically designed for wood composite decking are not recommended. Hidden fastener systems other than Phantom Hidden Fasteners are not recommended, and their use will void the product warranty.

Requirements

Do not fasten within 1-1/2" of the end of a board or 1" from the side of the board. It is necessary to pre-drill end of board screw holes to prevent immediate or eventual end splitting (figure f). Pre-drilling all holes, which will add time to the project, is not necessary, but it will result in better looking finished projects. DO NOT over tighten fasteners. Over tightening will induce cracking at board ends.



Fasteners (Cont.)

Fasteners should always be driven in at a 90 degree angle to the decking surface. Toe nailing/screwing is not recommended (figure g). Instead, the placement of an additional joist, when needed, is recommended to allow perpendicular installation of fasteners (figure h). Pre-drilling is required in cold temperatures.

Clean, perfectly straight lines of fasteners look better than wobbly lines. Use white chalk, straight boards or string lines as templates for straight lines. DO NOT USE COLORED CHALK. Colored chalk is designed to be permanent and will stain the decking surface. There is no known way to remove colored chalk from decking. All brands of Fiberon decking may be face fastened. Any thread, ring shank and spiral shank nails, of sufficient length, have excellent holding power and produce good results. Gun nails may be used but, depending on the gun, the temperature of the decking and other factors such as head type, head size and shank nail geometry may not produce optimal results. Stainless steel fasteners are recommended.

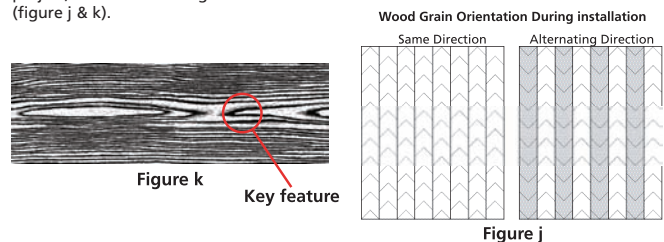
Screws have superior holding power. Conventional bugle head decking screws produce solid connections but have a tendency to cause mushrooming. The mushrooming may be left as is, flattened or removed (pat down with a rubber mallet) as desired.

For a cleaner look, stainless steel screws with small casing or finish style heads can produce nearly invisible results. Achieving this look is possible with screws designed specifically for composite decks. Available commercially, in home centers and hardware stores, these screws are engineered specifically to work with composite decking and prevent mushrooming, resulting in better looking finished projects (figure i).

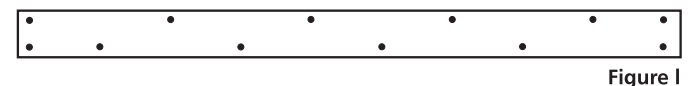
Wood Grain Patterns

Note that the graining on Fiberon Professional decking is directional. Different looks can be achieved by laying the decking in the same or alternating directions (figure j).

The graining pattern repeats along the board length. To ensure you orient the boards to achieve the desired effect, a directional label is affixed to each board showing the direction of the graining. Should this label be misplaced or discarded, you can use a key feature of the graining pattern as a reference. During the planning phase of any deck project, notations about grain direction should be made to achieve the desired effect (figure j & k).



Fiberon Professional decking requires two fasteners at each end but only one fastener per joist (figure l). Designed for the professional deck builder, this installation efficiency results in a 40% reduction in fasteners and a 30% reduction in labor. Since Fiberon Professional decking is grained identically on both sides, two usable faces are available. This reversibility may reduce waste by 15%. While face fastening is allowed on all Fiberon decking products, the use of hidden fasteners is highly recommended with Fiberon grooved decking to create a smooth, unblemished, decking surface.



Scarf Cuts

Scarf cuts (figure h) make the end gapping less visible. An angle of 22.5 degrees is recommended. Sharper angles leave a "feather edge" that may round off over time. Remember to maintain proper end gapping.

Ventilation

To prevent excessive water absorption, an unobstructed air flow is required below deck. Flat areas where standing water may gather should be addressed by grading or improved drainage. For decks with limited ventilation, add flow-through vents at various locations around rim joist.