

## 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 installation and may void warranty.

## Joists

Joists used in deck frame construction should be 2"x 8" or larger. When surface fastening, double joisting is required (Figure d). When installing deck boards perpendicular to the joists in residential applications, spacing is 16" on center (Figure a). For Professional Docking use 24" on center joist spacing. When the decking is to be laid diagonally (do not exceed 45°), reduce the on-center joist spacing by 4" (Figure b). For stair treads, follow local approved building codes. Stair stringers/joists spacing should be 12" on center. Allow 1/8" space between stair treads and risers. Leave 3/16" space between stair treads. 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.

### Residential Joist Spacing

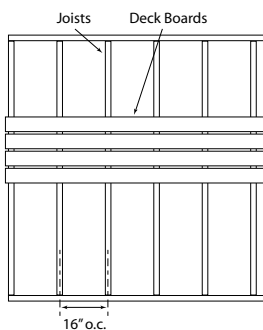


Figure a

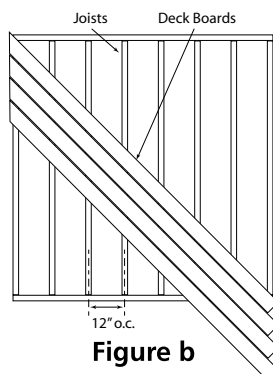


Figure b

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).

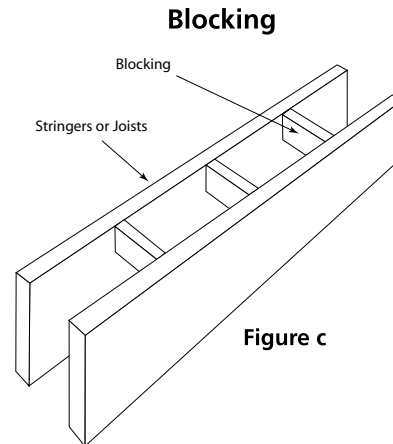


Figure c

## 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)
- Between board ends: 3/16" below 45° F, 1/8" 45° - 85° F, lightly butt (1/16") over 85° F (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 Professional decking warranty coverage

### Side-To-Side Spacing

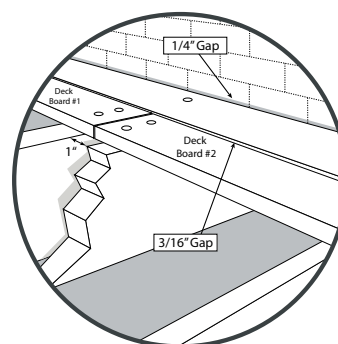


Figure d

### End Gapping

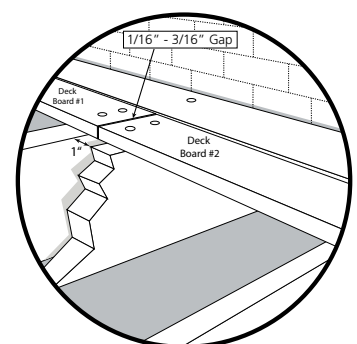


Figure e

## Fastener Setback

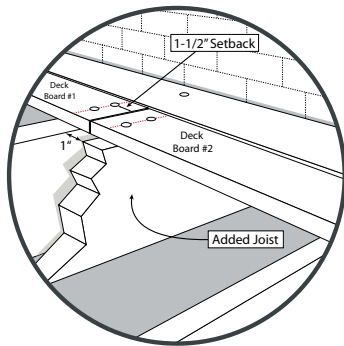


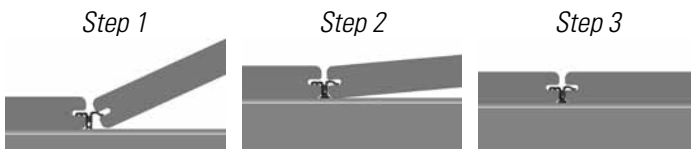
Figure f

## Surface Fasteners

The use of stainless steel composite fasteners is strongly recommended. Approved coated composite fasteners may also be used. Plain, galvanized surface fasteners are not recommended.

FASTENERS RECOMMENDED FOR USE WITH PROFESSIONAL GV DECKING include Phantom™ Hidden Fasteners, End Clip Hidden Fasteners and Stainless Steel Composite Fasteners. Fiberon® 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.

## 3 Easy Steps



The use of traditional flat or bugle head deck screws is not recommended for Professional 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 could void the product warranty.

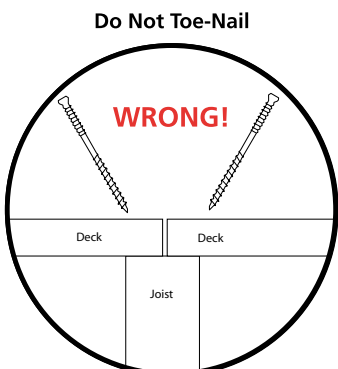


Figure g

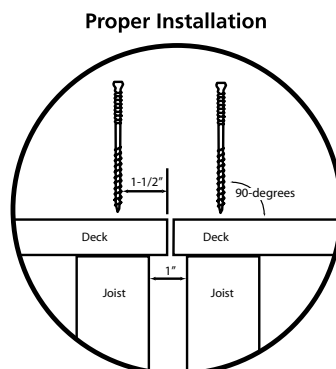


Figure h

## Requirements

Do not surface 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.

Surface 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 surface fasteners at end-to-end seams (Figure h). Pre-drilling is required in cold temperatures.



**WRONG!**

Clean, perfectly straight lines of fasteners look better than wobbly lines. Use white chalk, straight boards or string lines as templates for straight lines. 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. Annual 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, guns may not produce optimal results. Test first.

Screws have superior holding power. Conventional bugle head decking screws produce solid connections but have a tendency to cause mushrooming.

For a cleaner look, stainless steel composite screws are recommended. These screws are engineered specifically to work with composite decking and prevent mushrooming, resulting in better looking finished projects (Figure i).

For the most attractive installations, approved hidden fastener systems may be used for Professional grooved (GV) decking only. Always read the usage instructions of the specific fastener manufacturer thoroughly before beginning installation. It is always prudent to test the particular fastener, ensuring the appearance is acceptable to the owner, as different fasteners produce different looks. Most require pre-drilling to eliminate bubbling of the surface of the dense decking material.

## Fastening Boards

Professional decking requires two fasteners at every joist location (Figure i). While face fastening is allowed on all Fiberon decking products, the use of hidden fasteners is highly recommended with Professional grooved decking to create a smooth, unblemished, decking surface. Professional GV boards cannot be used as stair treads.

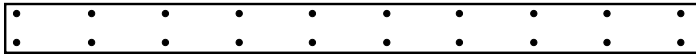


Figure i

## Wood Grain Patterns

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

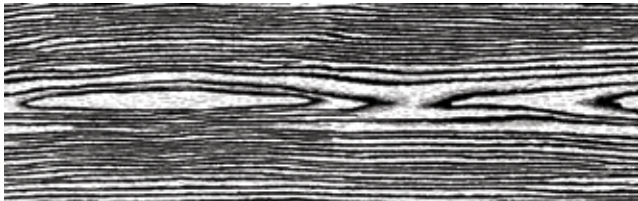
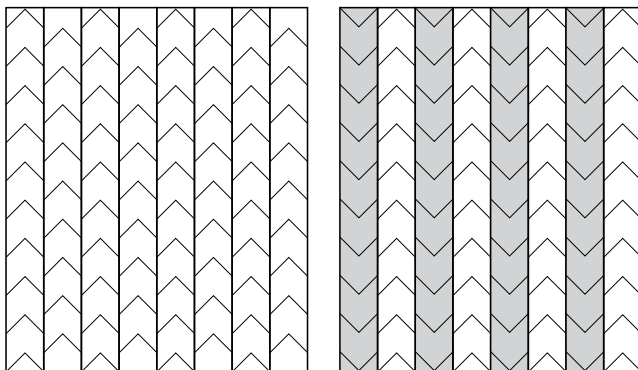


Figure j

The Graining Pattern repeats approximately every three feet 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. During the planning phase of any deck project, notations about grain direction should be made to achieve the desired effect (Figure k).

### Wood Grain Orientation During installation



Same Direction

Alternating Direction

Figure k

## Fascia Installation

Fascia is intended as a non-structural covering for rim joists, risers and stringers. Screws should be installed at a maximum 16" interval, with three screws across the face at each interval (Figure l). Do not overtighten screws as buckling may result. Install with 1/8" spacing between the edges and ends.

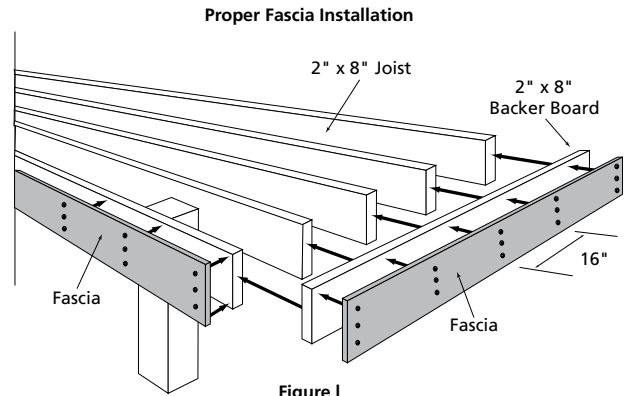


Figure l

## Static

Dry and windy environments may create a temporary condition of static electricity, which will vary depending on climate and age of deck.

## Ventilation

Do not install decking directly to a solid surface. Make sure there is adequate and unobstructed air flow under the deck to prevent excessive water absorption. Improve drainage or grade flat areas where standing water may gather. A minimum of six inches of continuous net free area under the deck surface is required for adequate ventilation on all decking applications. Install porch and deck material so air can circulate between adjacent members to promote drainage and drying. Failure to follow these requirements voids warranty.