



Capped Composite Decking

Installation Instructions

READ INSTRUCTIONS PRIOR TO INSTALLATION

TOOLS/MATERIALS NEEDED:

Circular Saw	Non-marring dead blow hammer or mallet
15 degree pneumatic coil roofing nailer or hammer	BoWrench® or Pry bar
Cordless screw gun	Safety glasses

Planning the design of the deck is the beginning of a successful project.

1. Read the application instructions carefully before starting the installation of the deck. See "Reference" section of this document (Page 4) for deck board profile and hidden fastener system applicability.
2. Properly unload and store decking.
 - a. Do not dump or drop decking from the back of a truck or trailer.
 - b. Decking should be off-loaded by forklift or by hand.
 - c. Store decking on a level area on wood supports placed every 3 ft. (914 mm).
3. Protect decking from the elements during storage with a lumber cover or tarp.
4. Remove factory applied protective film on deck boards within 30 days after installation.
5. Use proper lifting techniques when lifting decking; it is heavier than standard wood materials.
6. Use proper joist placement to realize savings in both time of installation and from cost of materials. Make sure joist direction maximizes the desired lay-out of the deck.
7. If a railing is to be installed consult the railing manufacturer for the required spacing and structural support for the railing posts.
8. Follow all local and state building codes when planning and installing your deck.
9. Use normal wood working tools to cut, router, or fasten decking.
10. For cutting, use carbide-tip saw blades with approximately 2 teeth per inch.

Ventilation and Drainage

1. To perform properly, decking must be installed with proper drainage and ventilation.

Ensure that:

 - a. The joists are level across each span and that there is a slight slant of the deck [1/8 inch (3 mm) for every 8 feet (2.4 m)] away from your home for drainage.
 - b. The substructure has at least 2" (51 mm) clearance from grade.
 - c. Skirting or fascia does not impede airflow under the deck.
2. Where ventilation is minimal or obstructed, flow through or soffit venting must be added around the perimeter of the deck to create cross ventilation under the entire substructure to avoid accumulation of moisture and humidity.
3. Never attach decking to any solid surface, watertight membrane, concrete, or existing decking.

Framing Your Deck

1. Use minimum nominal 2"x 8" (51mm x 203 mm) sized joists for deck frame constructions. KDAT (kiln dried after treatment) stamped framing lumber is recommended as it is typically straighter, lighter, easier to handle, and will not shrink and expand as much after installation as non-KDAT lumber.
2. Install deck framing vertically with 2" (51 mm) side in contact with the decking. Do not install decking on framing that has been installed flat with the widest dimension in contact with the decking as this may cause debris and moisture to be trapped between the framing and decking.
3. Never use decking as structural members when constructing the support structure of your deck.
4. Use 16" (406 mm) on center joist spacing if the decking is to be installed perpendicular to the joist.
5. Use 16" (406 mm) on center joist spacing for Solid profile boards if the decking is to be installed at an angle (maximum 45° angle). For Scalloped profile decking, use 12" (305 mm) spacing for angled installation.
6. Confirm required joist spacing with local and state building code agencies.
7. If heavy equipment is going to be installed on the deck such as a hot tub, consult the equipment manufacturer for specific requirements for framing and support.
8. If a "breaker / divider board" or "picture frame" deck installation technique is utilized, the board(s) that will be installed parallel to the deck joists will require additional framing and should also be shimmed approximately 1/16" (1.6mm) depending upon framing conditions to match the crown height of the adjacent decking running perpendicular to these boards.

Using Decking as Stair Treads

1. Do not space stringers wider than 12" (305 mm) on center for Starter and Solid profile decking on stair treads. For Scalloped profile decking, do not space stringers wider than 8" (203 mm) on center.
2. Overhang for stair treads must not exceed 2" (51 mm).

Blocking Is REQUIRED Where the End of Two Deck Boards Meet

When the design of the deck requires a run that is longer than the board length or it is a unique design, blocking ("sistering") or additional framing is required. (Fig. 1)

1. Sharing hidden fastening clips between two boards at butt joints is allowed, but the ends of each deck board must be individually supported.
2. Sharing of hidden fastening strips between two boards is NOT allowed. Sister additional framing where butt joint occurs then trim a hidden fastening strip to accommodate each board and attach separately to the additional framing.
3. Transition/divider boards or other intricate designs require additional blocking or framing. See "Framing Your Deck" section above.

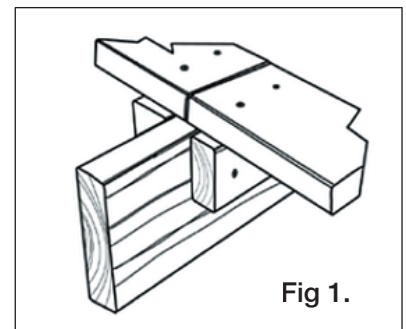


Fig 1.

Board Spacing or Gapping

All decking expands and contracts slightly as a result of temperature change.

1. When installing Solid or Scalloped profile deck boards using any of the fastening methods outlined below...

Always space boards to provide the following minimum gaps to allow for these changes:

- a. Side to Side... 3/16" (4.8 mm). (Hidden fastening clips and hidden fastening strips will automatically set this spacing)
- b. End to End... typically 3/16" (4.8mm depending on board length and temperature (see Chart 1 - "Deck Spacing").
- c. Structure... typically 1/4" (6.4mm) from all decking and any structure or post (see Chart 1 - "Deck Spacing").

NOTE:

If the deck is located near or around a tree, be sure to allow for future growth of the tree.

Deck Spacing (Chart #1)

Capped composite decking will expand and contract slightly due to temperature change. Use the chart below to determine the spacing between board ends. A gap of at least 1/4" (6.4mm) is recommended between deck boards and fixed elements like foundations, walls, pool edges, etc. If the deck is located near or around a tree, be sure to allow for future growth of the tree.

Temperature at Install (°F)				
40-55	56-70	71-95	96-110	Over 110
1/4"	3/16"	1/8"	1/16"	1/32"
Temperature at Install (°C)				
4-13	14-21	22-35	36-43	Over 43
6.4mm	4.8mm	3.2mm	1.6mm	0.8mm

Color and Orientation of Deck Boards

We recommend that you lay out the deck boards before final installation to ensure an acceptable color mix. Hardwood colors feature a variegated appearance with contrasting light and dark shades of color. Laying out a preferred pattern of deck boards before installation will help to achieve a desired appearance.

NOTE:

The semi-gloss surface of the decking will weather to a natural matte finish over time.

Deck Board Fastening Methods

There are three methods that can be used to fasten Solid and Scalloped profile decking.

1. Hidden Fastening Strip System.

- a. **NOTE:** Outer edge (Starter) and divider boards that run perpendicular to the main rows of deck boards will require additional framing and should be shimmed approximately 1/8" (3.2 mm) to match the crown of the adjoining boards and the thickness of the hidden fastening strips. These boards should be fastened every 16" (404mm) using two #10 x 2-3/4" color-matched capped composite deck screws or the Cortex® color-matched plug system (Solid and Starter profiles only).
- b. Locate the first deck board at outer rim joist away from the house or structure and work towards the house. For outer edge board installation (Starter, Solid, or Scalloped profile), do not overhang the board more than 1" (25 mm) widthwise or 2" (51 mm) lengthwise. For a standard 1" (25 mm) overhang, measure and mark a location 22" (559 mm)* from the outer rim joist on the outermost joists that run perpendicular to that joist and snap a chalk line across the entire length of the deck. Position the hidden fastening strips with one edge along chalk line and fasten the first row of strips to each joist with a 1-1/4" (32 mm) stainless steel ring shank roofing nail using 2 nails between each set of clips. (locate nails approximately 3/4" (19 mm) from each clip with a total of 8 nails per each four board strip). **NOTE:** the side tabs on all of the strips should be orientated on the same side of the joists and flush against the joist to allow for linking subsequent strips together along each row of clips. Trim the overhang of the first row of hidden fastening strips flush with the outer rim joist. Slide the outer deck board securely into the first clip (ensure it is properly engaged in the groove of the board) and screw down the opposite, outer edge of the board at each joist location using color-matched, capped composite deck screws or the Cortex® color-matched plug system (Solid and Starter profiles only).

- c. Once the first 4 boards have been installed into the outer hidden fastening strip and proper alignment has been confirmed (measured for "square" on joists), position the remaining strips and fasten until all of the joists have been covered. For elevated decks, install hidden fastening strips in 4 board increments as an added safety precaution. An interlocking tab is located at the end of each strip to allow for proper spacing along the length of each joist. The strip closest to house or structure will likely need to be trimmed and the final board fastened in a similar manner as the first board.
- d. Measure and trim each deck board to your desired length and place one edge of the board into the side of the hidden fastening strip adjacent to a previously installed board. Step down (or tap with a non-marring rubber mallet) on the opposite elevated edge of the board to secure it in place. You should hear an audible "click" sound as the clip engages with the groove on the edge of board. If a board does not properly engage the clip while stepping down on the elevated edge, strike the board adjacent at a 45 degree angle to the clip with a non-marring dead blow rubber mallet to secure it in place. Repeat this process until all deck boards have been installed.

Helpful hints:

- Store strips indoors before use. The strips install best between 40°F and 80°F (4°C and 27°C).
- Use a non-marring dead blow or rubber mallet to set the leading edge of the deck boards into the clips prior to stepping down on the opposite edge of the board. Tapping the boards at a 45 degree angle on the high edge works best.
- If "re-skinning" a deck, ensure that all joists are level to each other before installing the hidden fastening strip system. If not level, shim or shave joists as needed to get them within 1/8" (3.2 mm).
- Walking along joists and non-secured deck boards can be dangerous and is therefore not recommended.
- * When using a thicker fascia board (greater than our standard 1/2" fascia), adjust the alignment chalk line for the first course of strips accordingly.

Deck Board Fastening Methods (Continued)

2. The Hidden Fastening Clip System.

- Install a Starter profile board using capped composite deck screws 5/8" (16 mm) from the outer board edge. Screw down the outer edge of the Starter profile board at every joist location. Using #10 x 2-3/4" color matched, capped composite deck screws (similar to Starborn® Deckfast Cap-tor xd or FastenMaster® TrapEase 3) or the Cortex® color-matched plug system in a grooved profile decking installation.
- Do not overhang Starter profile boards over joists by more than 1" (25 mm) widthwise and 2" (51 mm) lengthwise.
- Always place one hidden fastening clip in the slot in the board edge at every joist, between deck boards, regardless of the joist spacing. (Side to side spacing is maintained by the hidden fastening clips.)
- Use a #7 x 2-1/4" stainless steel screw through the center of the hidden fastening clip at a 90° angle (or use a hidden fastening clip with a pre-installed #7 x 2 1/4" star drive trim head screw).
- Starting at one end... slide the next Solid or Scalloped profile board onto the exposed hidden fastening clip® Clips of the first board and install a single hidden fastening clip at one end of the out-board edge to hold the board in place.
- While standing on the new board and straddling each joist, pound it tight into the clip with a non-marring dead blow hammer. Repeat steps "c" through "f" for the remaining boards, installing hidden fastening clip at each joist.
- Always face-fasten the outer most edge of the first and last board with capped composite deck screws or the Cortex® plug system (Solid and Starter profiles only).

Helpful Hints:

- Store hidden fastening clip indoors before use. Hidden fastening clip install best between 40°F and 80°F (4°C and 27°C).
- Use a non-marring dead blow hammer as necessary to tap the hidden fastening clip into the slot.
- A non-marring dead blow hammer or BoWrench® tool can also be used to help secure the next Solid or Scalloped profile board into place.
- If the joists are uneven, apply pressure to the deck board where it does not touch the joist. As pressure is being applied, tap the board into the hidden fastening clip using the non-marring dead blow hammer.
- In the case of a low joist, shim the hidden fastening clip as necessary to seat in the slot in the edge of the deck board.
- Take a measurement of the total width of the installed boards to make sure they are parallel every 3-4 courses
- Walking along joists and non-secured deck boards can be dangerous and is therefore not recommended.

3. Installing Solid, Scalloped, and Starter profile decking via surface screws method using capped composite decking screw fasteners or the Cortex Hidden Fastener System:

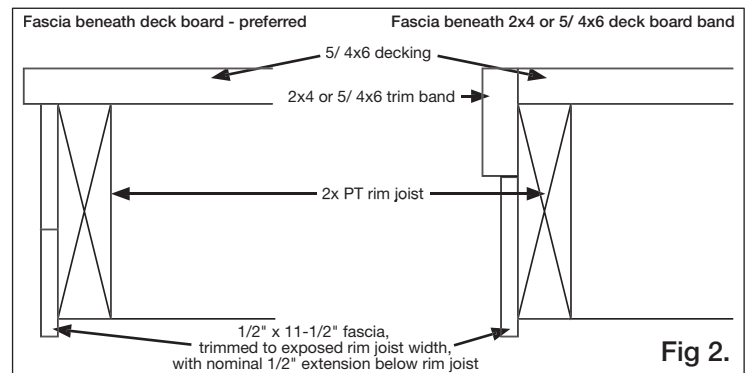
- Use #10 x 2-3/4" capped composite deck screws when installing Solid or Scalloped profile decking. (Similar to Starborn® Deckfast Cap-Tor xd or FastenMaster® TrapEase 3 color matched capped composite deck screws. Both are available at local building product retailers.)
- When using non-capped composite decking fasteners (as outlined above), pre-drill and countersink for the screw size (#8 x 2-1/2" typical.)
- Two fasteners are required at each joist, one on each side of the board, regardless of the joist spacing.
- Drive fasteners straight and directly through the deck boards at a 90° angle to the decking surface. Do not "toe nail" or drill at an angle.
- Never place fasteners closer than 5/8" (16 mm) from the edge or ends of the board.
- For the best appearance, use a white chalk line to ensure straight fastener lines. Colored chalk can stain the decking and can be very difficult to remove.
- When using the Cortex® Hidden Fastening System (for Solid & Starter profiles only) with surface screws and plugs, please refer to the instructions inside the box to ensure the most up-to-date installation method.

Helpful Hints:

- In the case of a low joist, shim the deck board as necessary before securing the deck board.
- Take a measurement of the total width of the installed boards to make sure they are parallel every 3-4 courses
- Walking along joists and non-secured deck boards can be dangerous and is therefore not recommended.

Fascia and Riser Board Installation

- Fasten fascia and riser boards using #8 x 2" stainless steel capped composite deck screws or #9 x 1-7/8" fascia screws (similar to the Starborn Deckfast Fascia System). Use three fasteners equally spaced across the width of the fascia board at the top, middle and bottom locations of the board (2 fasteners for riser board) and spaced approximately every 12" (305mm) along the length of the board. Never place fasteners closer than 5/8" (16 mm) from the edge or ends of the board.
- When decking boards are installed picture framing the deck, fasten the fascia board to the rim joist, leaving a 1/8" (3.2 mm) gap between the top of the fascia and the bottom of the deck boards. Decking boards should not overhang the outer rim joists by more than 2" (51 mm).
- When decking boards are installed without picture framing the deck, trim the deck boards so they run past the outer rim joists by less than 2" (51 mm). Fasten the fascia board to the rim joist, leaving a 1/8" (3.2 mm) gap between the top of the fascia and the bottom of the deck boards.
Do not extend fascia to cover deck board ends.



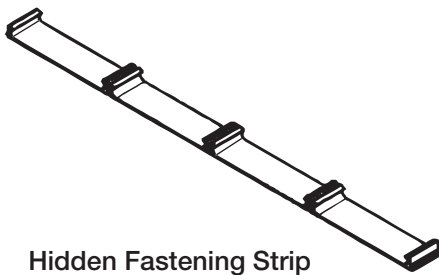
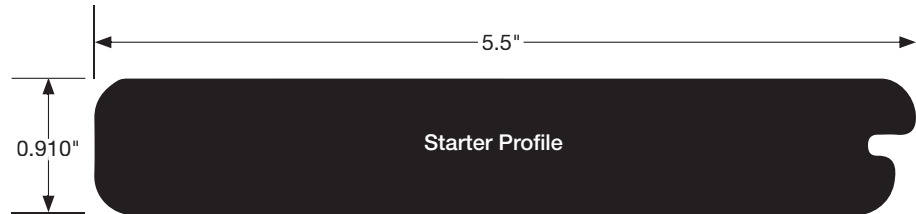
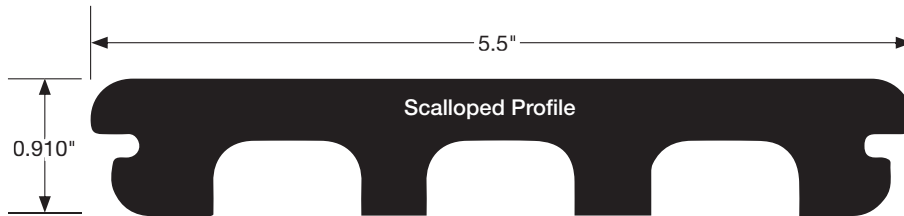
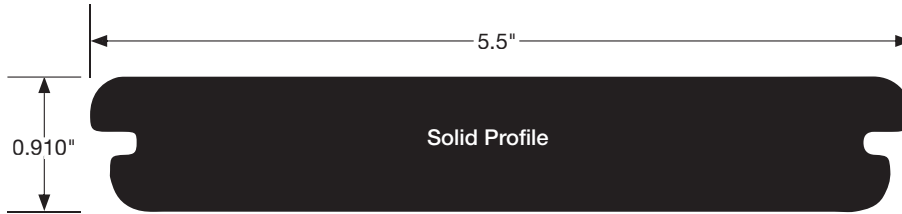
NOTE:

When using fascia to cover joists wider than 11-1/2" (292 mm), either stack multiple layers of fascia or use a combination of fascia boards, deck boards and 2x4s as accents to create a unique look. (Fig. 2)

Care & Maintenance

1. To maintain the appearance of your decking, sweep periodically and clean spills with soap and water.
2. The use of pressure washers is not recommended unless using for low pressure (1500 psi or less with fan tip) wetting and rinsing. High pressure washing may damage the surface of the decking. Always test all cleaning products on an inconspicuous area before using on the entire deck surface.
3. The appearance of minor surface scratches or scuffs should diminish after a few months of exposure to the weather and elements. For larger scratches or scuffs, a heat gun (available at most building product or hardware stores) may be used to carefully heat and blend the blemished portion of the polypropylene cap material into the adjacent deck surface area. **NOTE:** The tip of the heat gun should never be placed closer than 2" (51 mm) from the deck surface and should be in continuous motion so as not to permanently damage the surface of the deck board. Do not lay the heat gun on the decking after use.

Reference:



To register your product, please visit:

BarretteOutdoorLiving.com

To obtain and review a copy of the warranty please go to: BarretteOutdoorLiving.com/warranty. You can also contact 1-800-336-2383 or write to Barrette Outdoor Living, 7830 Freeway Circle, Middleburg Heights, Ohio 44130 to obtain a copy of the warranty.

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