

# WOLF PERSPECTIVE™ DECKING

## INSTALLATION GUIDE

### SAFETY INFORMATION

Read and understand this entire manual before you begin the installation of your decking.

### STATIC ELECTRICITY NOTICE

Dry or windy environments may create a temporary condition of static electricity, which will vary depending on climate and site conditions. In the case of excessive static buildup on an installed deck, Wolf recommends the following procedure:

1. Remove loose debris from the deck surface.
2. Dilute ACL Staticide® Concentrate as directed on the bottle.
3. Spray or mop the entire surface of the deck. Allow to air dry. Do not attempt to wipe the surface dry as wiping will reduce the effectiveness of the anti-static coating.



**CAUTION:** Although very safe in diluted form, ACL Staticide® Concentrate is considered a hazardous chemical non-diluted. DO NOT use ACL Staticide® Concentrate non-diluted.



**WARNING:** Use extreme caution when using power tools.



**WARNING:** This decking is for deck surfaces only, and not structural applications.



**CAUTION:** When using a ladder on composite decking, it is mandatory to lay down a sheet of plywood over the deck surface to disperse the load of the ladder's feet to nearby underlying joists. Drill fasteners downward through the top of the plywood sheet to keep it from slipping. Position fasteners so they adequately protrude and rest firmly in the gaps between the deck boards and into the joists. This will avoid leaving holes in your decking once the plywood sheet is removed. Always follow the ladder manufacturer's instructions and safety tips.



**CAUTION:** Unusual sources of heat and heat buildup can potentially damage decking surfaces. Examples include fire pits, reflected light from nearby windows and doors, and under-deck waterproofing installations that do not provide adequate ventilation. Exercise caution if walking barefoot on the deck while it is in full sun.



**CAUTION:** Fasteners have sharp edges. Use proper care when handling.

### WARRANTY:

DECKING WARRANTIES	WOLF PERSPECTIVE DECKING
Lifetime Performance Warranty	25 Year
Stain and Fade Warranty	25 Year
Commercial Warranty	10 Year

For more information, visit [wolfhomeproducts.com](http://wolfhomeproducts.com)



**NOTE:** Wolf recommends the use of a quality joist flashing to ensure optimal installation and reduce potential noise caused by the boards moving against the joist. Products such as Grace Vycor Deck Protector, Tite Seal or other comparable self-adhesive flashing products enable a smooth and consistent contact surface between joists and Wolf Perspective Decking. All Wolf Perspective Decking offers long-term warranty coverage, as noted above. To extend the life of the joists beneath the decking, we recommend using joist tape. Properly applied, joist tape has proven effective in protecting joists against premature decay.



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## PRE-INSTALLATION



**IMPORTANT:** Follow local applicable building codes. Careful planning of the finished deck layout will result in more pleasing finished projects. Failure to follow installation guidelines could void the warranty.



**IMPORTANT:** Thoroughly read all instructions for both decking and railing systems planned for the project prior to installations. Failure to do so may result in more difficult installations and may void the warranty.

## BEFORE YOU BEGIN INSTALLATION

### ACCLIMATION AND STORAGE

Before installation, material should be stored on a flat surface, supported every 24 in. (609.6 mm), and in the shade or covered if original packaging is removed.

### AIRFLOW AND DRAINAGE

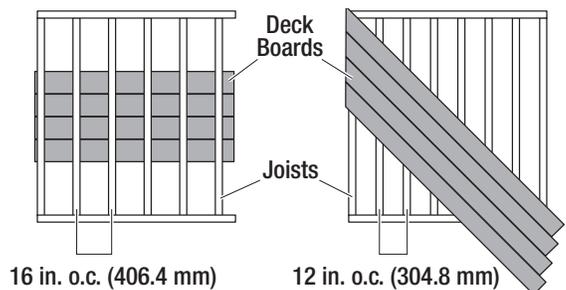
Make sure there is adequate and unobstructed air flow under 50 percent of the deck perimeter to allow for cross-ventilation. This is not only to promote dryness, but also to negate heat buildup beneath the deck. Allow a minimum of 1.5 in. (38.1 mm) between the bottom of the joists and the ground or existing surface. Water must be able to flow away from under the deck. Improve drainage or grade flat areas where standing water may gather. Do not install decking directly to an existing or solid surface.

Sleeper installation: Minimum joist height is 1.5 in. (38.1 mm), installed level, in the direction of water runoff and directly to a solid sub-structure. Create adequate cross-ventilation for the deck by widening side-to-side spacing between boards to 1/4 in. (6.4 mm) with a maximum of 3/8 in. (9.5 mm) gap. The deck design must allow for a minimum of 1.5 in. (38.1 mm) of unrestricted air flow under the deck at the open joist ends for cross-ventilation and drainage.

Under-deck waterproofing systems, properly installed, can provide additional living or storage space. Improper installations are those that restrict air flow and result in buildup of heat and/or humidity, which can result in unwanted consequences. Follow all previous airflow and drainage requirements.

### DETERMINING JOIST LOCATION

Joist location is important for the safety of the deck and will affect the layout, cost, and ease of installation for the railing system. If railing will be installed, determine rail post placement prior to joist construction. Joists used in deck frame construction should be 2 in. x 8 in. (50.8 mm x 203.2 mm) or larger.



**NOTE:** For decks using metal joists, specialized surface fasteners are required. Do not use Phantom® hidden fasteners. Fasteners for metal that install at a 90 degree angle are required.

## JOIST/STRINGER SPACING

	RESIDENTIAL			COMMERCIAL		
	PERPENDICULAR	DIAGONAL (UP TO 45 DEGREE ANGLE)	STAIRS	PERPENDICULAR	DIAGONAL (UP TO 45 DEGREE ANGLE)	STAIRS
WOLF PERSPECTIVE DECKING	16 in. (406.4 mm)	12 in. (304.8 mm)	12 in. (304.8 mm)	12 in. (304.8 mm)	8 in. (203.2 mm)	9 in. (228.6 mm)



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## PRE-INSTALLATION (CONTINUED)

### EXPANSION AND SPACING CONSIDERATIONS

All decking materials, whether wood, composite or metal, undergo some degree of linear expansion with the change of weather and the seasons. For best spacing results, keep boards out of direct sun during storage and cutting processes and throughout installation, if possible. To compensate for the effects of contraction and expansion, use short boards (where possible) with splitter/divider boards between each continuous run of boards.

Adequate board spacing of a minimum 3/16 in. (4.8 mm) between board sides will provide proper drainage and ventilation and assist with the removal of small organic debris. Allow a minimum of 1/4 in. (6.4 mm) spacing between boards and any permanent structure.

Spacing requirements must be met for full Wolf Perspective Decking warranty coverage. End-to-side spacing recommendations are determined by the temperature at 1/8 in. for temperatures below 70 degrees Fahrenheit, or 1/16 in. for temperatures above 70 degrees Fahrenheit.



**NOTE:** Special consideration should be taken when working with dark colors, as they will experience larger temperature swings during normal use. To help control end-to-end spacing, darker colored decking should be kept at ambient temperature and shaded from direct sun prior to cutting and immediate securing. To create less visible gapping, use lighter colored boards in the field of the deck with darker colored boards as design borders.

### END-TO-END-SPACING BY INSTALLATION TEMPERATURE

	35 degrees and below	36 - 69 degrees	70 - 89 degrees	90 - 109 degrees	110 degrees and above
WOLF PERSPECTIVE DECKING	1/4 in. (6.4 mm)	3/16 in. (4.8 mm)	1/8 in. (3.2 mm)	1/16 in. (1.6 mm)	1/32 in. (0.8 mm)

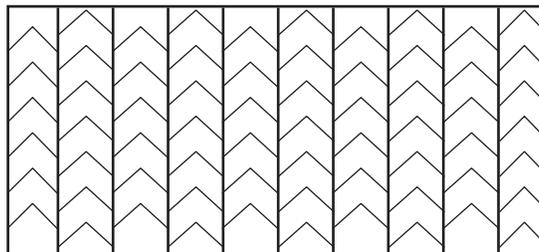


**NOTE:** In areas where extreme temperature swings are prevalent, adding 2x blocking at butt joints is recommended. When using hidden fasteners, add two surface fasteners into the deck at the joist location closest to the mid-point of each deck board to "pin" the board in place and make thermal expansion and contraction go equally in both directions.

### AVOIDING UNFAVORABLE COLORING

When installing Wolf Perspective Decking, to ensure overall color consistency, all boards must be installed with the grain facing the same direction. Failure to do so will lead to unfavorable color variations.

#### Grain Orientation During Installation



Same direction



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## PRE-INSTALLATION (CONTINUED)

### SPECIAL NOTE ON BLOCKING PATTERNS

When installing additional blocking, remember that solid blocking (blocking laid flat) will inhibit water flow and result in buildup of organic materials over time, which will make cleaning more difficult and can cause eventual damage to the material. When blocking is required, install ladder style for best results.

### HEAVY LOADS

When installing heavy loads, such as a hot tub, on your decking project, ensure that you understand and follow all of the manufacturer's requirements related to framing and support. These may affect decking warranty coverage.

## TOOLS REQUIRED



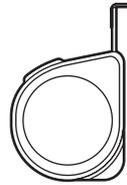
Power drill



1/8 in. (3.2 mm) countersinking drill bit



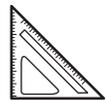
Safety goggles



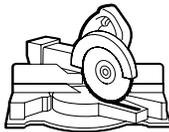
Tape measure



Torpedo level



Speed square



Miter saw



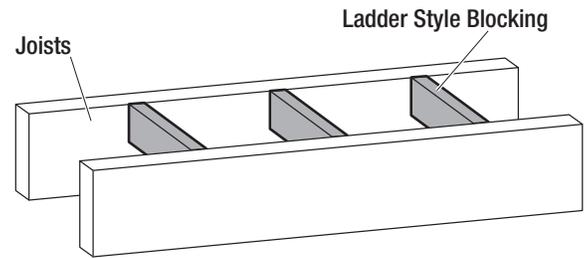
Pencil



Adjustable square



Minimum 4 ft. (122 mm) level



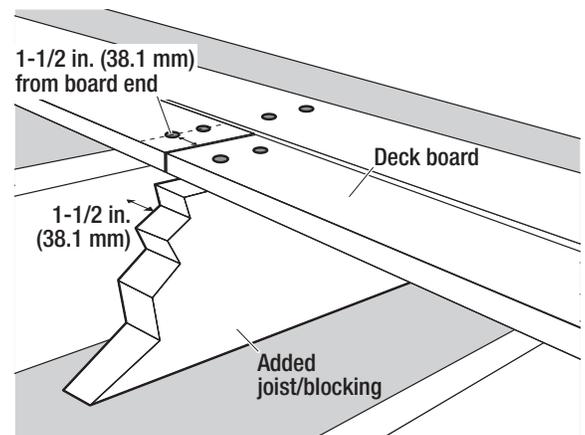
## SURFACE FASTENING AND FASCIA INSTALLATION

### DECK FASTENING REQUIREMENTS

All Wolf Perspective decking may be surface fastened. Use only screws designed for composite decking. Avoid using plain, galvanized surface fasteners. Do not use traditional bugle-head screws. For best results, use either minimum #8 x 2.5 in. stainless steel or composite deck screws or the Cortex® hidden fastener system. These screws are engineered specifically to work with composite decking and prevent mushrooming, resulting in more pleasing finished projects. Sufficiently long annular thread, ring shank, and spiral shank nails all have excellent holding power. However, screws have superior holding power.

### FOR BEST RESULTS

1. Screw heads must be flush with board surface or countersunk if using Cortex fasteners with color-matched Cortex plugs.
2. Pre-drilling is recommended for surface screw fasteners. It is also necessary for end-of-board screw holes in cold climates to prevent immediate or eventual end splitting. Pre-drilling all holes will result in more pleasing finished projects.
3. Use caution to avoid overtightening fasteners, or it may induce cracking at board ends and could lead to eventual cracking around other fasteners.
4. Do not surface fasten within 1-1/2 in. (38.1 mm) of the end of a board or within 1 in. (25.4 mm) from the side of the board.

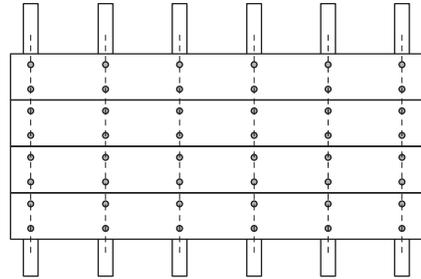


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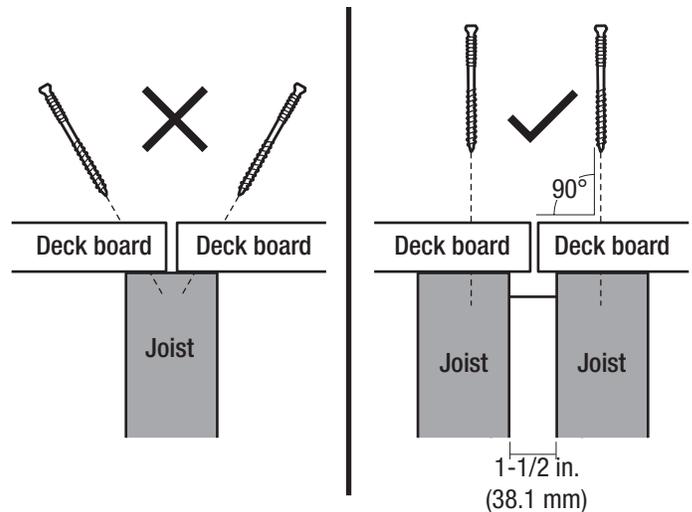
## SURFACE FASTENING AND FASCIA INSTALLATION (CONTINUED)

5. Straight rows of fasteners look cleaner and less noticeable than uneven rows. White chalk, straight boards and string lines can be used as guides for installing fasteners. Never use colored chalk



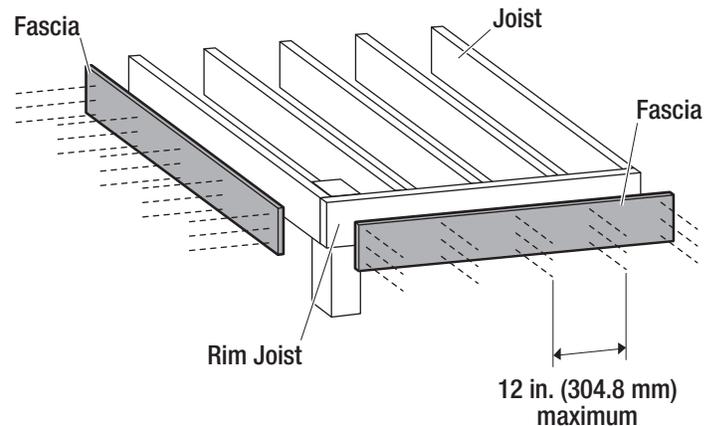
### FASTENER INSTALLATION

Always drive in surface fasteners at a 90 degree angle to the decking surface with two fasteners at every joist location. Do not angle screws into the joist. Instead, place additional joists to allow perpendicular installation of surface fasteners at board ends.



### FASCIA INSTALLATION

Fascia is intended as a non-structural covering for rim joists, risers, and stringers. For fascia installation, install screws at a maximum 12 in. (304.8 mm) interval, with three screws across the face at each interval. Do not use Cortex® hidden fasteners for fascia or riser installation. For risers, install screws at a maximum 12 in. (304.8 mm) interval with two screws across the face at each interval. Install fasteners flush with board surface. Do not overtighten screws as buckling and cracking may result. In temperatures below 50 degrees Fahrenheit (10 degrees Celsius), leave 3/16 in. (4.8 mm) space between edges and ends. Side-gapping should always be 3/16 in. (4.8 mm) unless specified otherwise. In temperatures above 50 degrees Fahrenheit (10 degrees Celsius), install with 1/8 in. (3.2 mm) spacing between the sides.



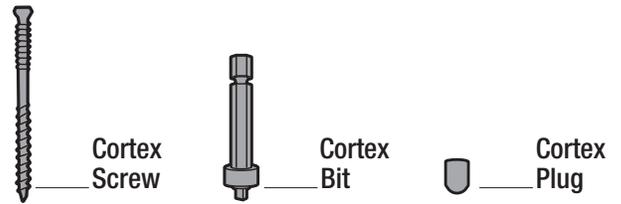
WOLF HOME PRODUCTS®

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## CORTEX® HIDDEN SURFACE-FASTENER INSTALLATION

### FASTENING REQUIREMENTS

The Wolf Cortex hidden surface fastening system is the fastest, easiest way to hide deck screw heads on stairs, perimeter boards, and square-edge deck surface boards. It is also the ideal fastener to use when replacing a deck board. The Cortex plugs are available in a variety of colors to match Wolf Perspective Deck boards.



**IMPORTANT:** For a full written warranty, additional information, or technical assistance, please visit [wolfhomeproducts.com](http://wolfhomeproducts.com)

The Wolf Cortex hidden surface fastening system is designed for traditional elevated deck surfaces. The following applications require a different fastening method or further instructions and will nullify the Cortex fastener warranty:

- Sleeper systems: Framing rests directly on the ground or roof deck.
- Over solid wood surfaces.
- Docks or decks with framing members in constant contact with water.
- Restricted airspace where there is less than 1-1/2 in. (38.1 mm) of clearance on two sides of the deck.
- "Tear-offs" that utilize old framing as support for new decking.
- Deck materials other than 15/16 in. (24 mm) standard thickness with flat-profile bottom.

## INSTALLATION

### 1. PRE-DRILLING FASTENER HOLES



**NOTE:** Pre-drilling is required at board ends and where temperatures are below 40 degrees Fahrenheit.

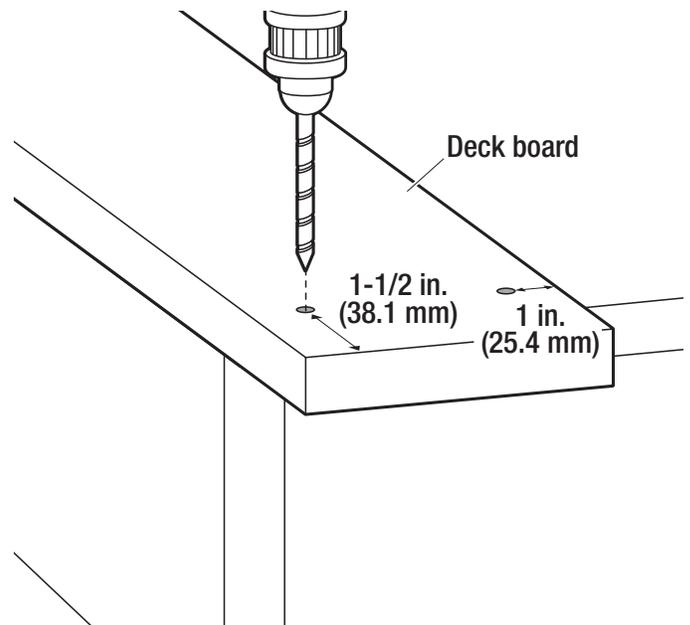


**NOTE:** Double joists are required at end-to-end seams.

Locate all fastener holes at least 1-1/2 in. (38.1 mm) from board ends and 1 in. (25.4 mm) from board sides. To prevent cracking at fastener locations, pre-drill all holes with a 1/8 in. (3.2 mm) or 5/32 in. (4 mm) drill bit. Keep the drill perpendicular to the deck surface in order to create the proper pilot hole and remove excess material.



**NOTE:** For best results, use a corded or battery power, variable speed, high-torque drill or impact driver. Starting screws slowly will help initial engagement. Always keep continuous pressure downward while driving screws.



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## CORTEX® HIDDEN SURFACE-FASTENER INSTALLATION (CONTINUED)

### 2. INSTALLING THE FASTENERS

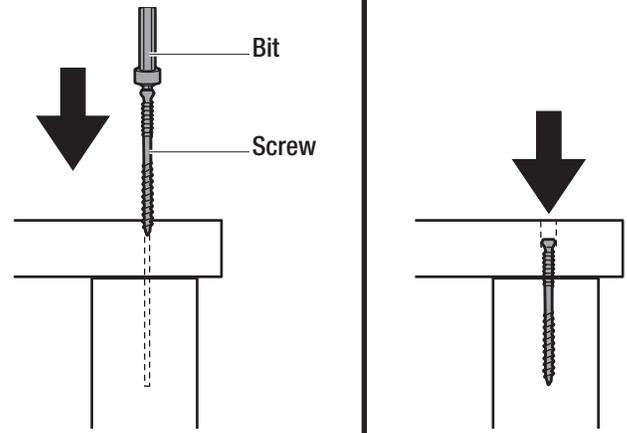
Using the Cortex setting tool (bit), drive the fastener (screw) to the preset level below the deck surface, ensuring the fastener remains perpendicular to the deck surface. Install two fasteners at every joist and/or stair stringer.



**NOTE:** Replace a worn driver bit with a fresh bit periodically. We recommend replacement every 125 screws.



**NOTE:** If damage occurs to the screw while it is being driven in, do not continue. Follow the instructions in the "Removing Damaged Cortex Plugs or Screws" section of this manual.

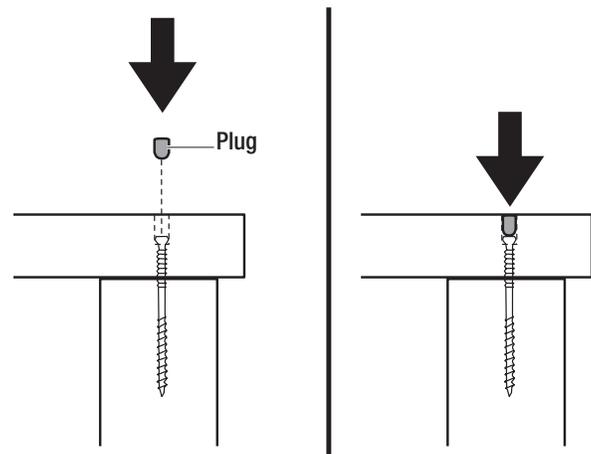


### 3. INSERTING THE CORTEX PLUGS

Ensure the cored hole is free of debris or moisture. Place the Cortex plug into the cored hole and gently tap with a smooth hammer head until it is flush with the deck surface.



**NOTE:** Each box of Cortex fasteners comes with additional plugs. It is recommended you keep these plugs in case any boards need to be removed and replaced in the future, as the plugs are destroyed when they are removed and are not available separately.



## REMOVING DAMAGED CORTEX PLUS OR SCREWS

- To prevent damage to the decking surface, mask off around the screw or plug being removed. Immediately clean off any debris left behind after the work is completed.
- Existing plugs can be removed by tapping into the plug center with a trim screw (#7 or smaller) until it reaches the screw head below the plug. Remove the plug. Using a standard #1 driver bit (not the Cortex setting tool), engage the driver bit into the screw recess prior to backing out. On slow speed, reverse the screw out of the deck. When removing a fastener, an impact drill offers best results.
- If the head of a damaged screw is above the deck surface, remove the driver bit from your drill and open the chuck wide enough to capture the head of the screw. Tighten the chuck firmly around the head and set the drill in reverse. Then, on low speed, slowly draw the fastener out of the deck.



**NOTE:** If you prefer to use Vise-Grips, grasp the screw head, but be sure to protect the deck surface from tool marks by providing enough clearance between the tool and the deck surface.

- If the head of the damaged screw is at or slightly below the deck surface, use these options in this order: (1) use an impact driver with a new standard #1 square drive; set the tool on reverse, centering weight over the drill, and slowly remove the screw; (2) use a #2 square drive bit and drive the bit into the head of the screw with a few firm hits of a hammer; using a sleeve or extension preinstalled on the drill, carefully slide the open end onto the #2 bit; then, on low speed, reverse out the screw around the head and set the drill in reverse. Then, on low speed, slowly draw the fastener out of the deck.



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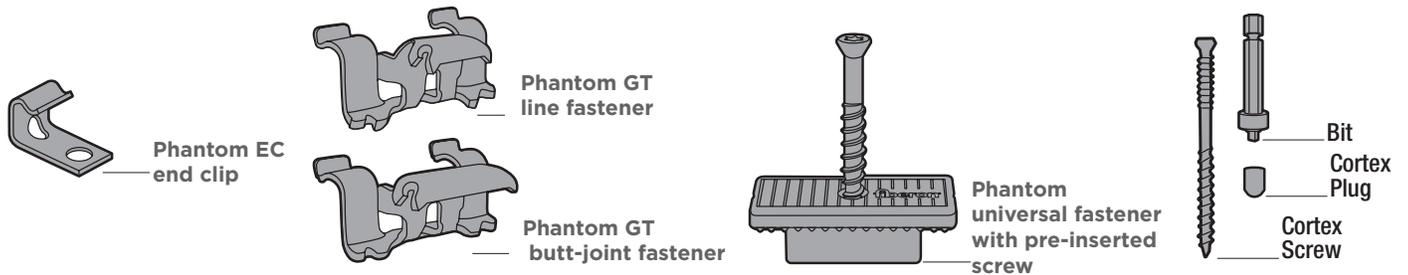
## PHANTOM® HIDDEN FASTENER INSTALLATION - GROOVED-EDGE DECKING



**NOTE:** To reduce appearance of gapping at end-to-end seams and to limit the movement of the deck board along the joists, we recommend using two Cortex® screws or stainless steel composite deck screws placed into the deck at the joist location closest to the mid-point of each deck board. This helps ensure that the deck boards stay positioned and maintain proper gapping as the boards expand and contract with temperature changes.



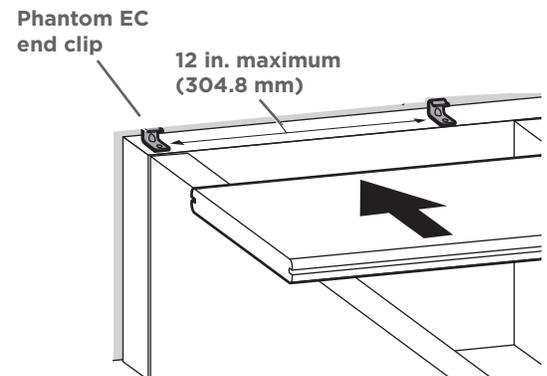
**NOTE:** The use of hidden fasteners is not recommended for installations at elevations above 6,500 feet.



## PHANTOM EC INSTALLATION

### 1. INSTALLING THE FIRST END BOARD

- Wolf recommends starting on the outside of the deck and working toward the house/wall. This way, if any boards need cut down to fit, the cut side will be against the house/wall. However, if starting at the house/wall, secure Phantom EC (24 mm) end clips a minimum of 1/4 in. (6.4 mm) from the wall with a single screw into the joist.
- Space clips no greater than 12 in. (304.8 mm) apart.
- Position the deck board into the end clip fasteners. It may be helpful to angle the board slightly to fully seat it into the clips.
- Check to ensure that the board is fully inserted into the clips.



**NOTE:** Follow instructions for Phantom GT (pg. 9) or Phantom universal fasteners (pg. 10) to install the mid-deck area before the end boards.

### 2. INSTALLING THE FINAL END BOARD



**NOTE:** Prior to positioning the last deck board, place the end clips on the inside of the rim joist, securing them with a single screw inserted perpendicular through each clip into the joist.

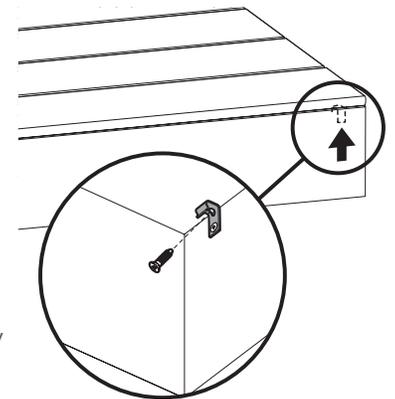


**NOTE:** Use a square-edge board to create a smooth, finished look along the perimeter of the deck.

After positioning the last deck board in place, secure the deck board by angling a screw through the clip and into the board at a 30-45 degree angle. Ensure the screw inserts fully and pulls the board down. Space no more than 12 in. (304.8 mm) apart. The last board can also be surface fastened into place with composite screws installed flush with the deck surface or with Cortex hidden fasteners.



**NOTE:** When thickness of rim joist exceeds 1-1/2 in. (38.1 mm), end clips should be secured to the outer edge of the joist.



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# WOLF PERSPECTIVE™ DECKING

## PHANTOM® HIDDEN FASTENER INSTALLATION - GROOVED-EDGE DECKING (CONTINUED)

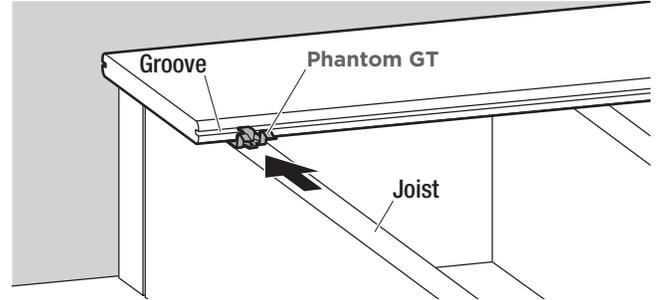
### PHANTOM GT INSTALLATION

#### 1. PREPARING THE GROOVED BOARD EDGES

After installing the first end boards (pg 8), insert a Phantom GT (24 mm) fastener into the groove of the board, centering on joists.

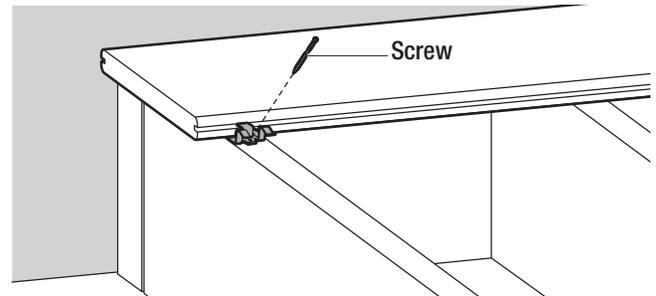


**NOTE:** Grooved boards are not intended to be used as perimeter boards unless you are also installing fascia boards appropriately to cover the exposed grooves, or when the groove is against a wall or other hard structure.



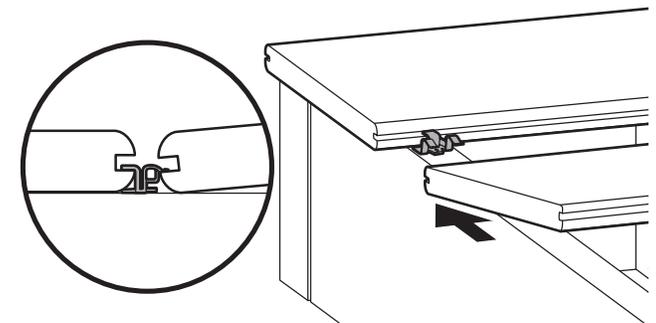
#### 2. SECURING THE FASTENERS

Secure fasteners by driving the screw fully into the joist. Continue installing and securing the fasteners in the center of each joist along the remainder of the deck board.



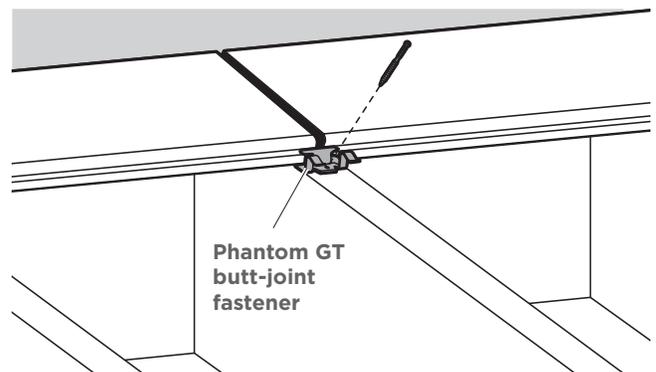
#### 3. INSTALLING THE REMAINING BOARDS/ROWS

- Position the next deck board into the fasteners. It may be helpful to angle the board slightly to fully seat it into the fasteners.
- Repeat installing fasteners and positioning boards to cover the deck surface. See "Installing the final end board" (pg 8) for completing the deck.



#### 2. INSTALLING BUTT JOINTS

Where two boards butt together, allow for adequate end-to-end board spacing and use a single Phantom GT (24 mm) butt-joint hidden fastener to secure board ends.



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# WOLF PERSPECTIVE™ DECKING

## PHANTOM® UNIVERSAL INSTALLATION - GROOVED-EDGE DECKING (CONTINUED)

### PHANTOM UNIVERSAL INSTALLATION

#### 1. PREPARING THE GROOVED BOARD EDGES

After installing the first end board (pg 8), insert the Phantom universal clip into the grooved edge of the deck board in alignment with the center of each joist. The screws are pre-inserted for your convenience.



**NOTE:** Grooved boards are not intended to be used as perimeter boards unless you are also installing fascia boards appropriately to cover the exposed grooves, or when the groove is against a wall or other hard structure.

#### 2. SECURING THE FASTENERS

Using the included T-15 Star drive bit, drive the screw vertically down, not angled, until it is flush in the countersunk hole. With some deck boards it may be necessary to leave the screw loose until the next course of decking is laid; then, tighten the screw completely. Be careful not to overtighten the screw to prevent breakage or bowing of the clip. A screw gun with a clutch setting is very effective for this application.



**NOTE:** The Phantom universal fastener provides a 3/16 in. side-to-side gap between each deck board and is designed to be 1-1/2 in. wide to completely cover the joist and further enhance the hidden fastener aesthetics.

#### 3. INSTALLING THE REMAINING BOARDS/ROWS

- Slide the second deck board into place and push or tap forward to ensure the board is flush against the Phantom universal deck clip. If left loose, finish driving the screw vertically down, not angled, until it is flush in the countersunk hole. Install the remaining Phantom universal clips where each joist intersects with the deck board.
- Repeat installing fasteners and positioning boards to cover the deck surface. See "Installing the final end board" (pg 8) for completing the deck.

#### 2. INSTALLING BUTT JOINTS

Where two boards butt together, allow for adequate end-to-end board spacing and use a single Phantom universal hidden fastener to secure board ends.

