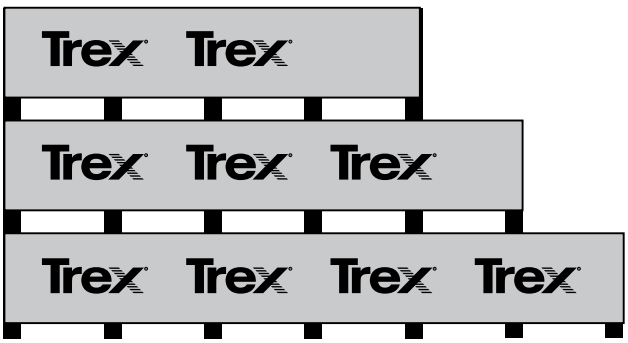
INSTALLATION

JOB SITE STORAGE & SAFETY

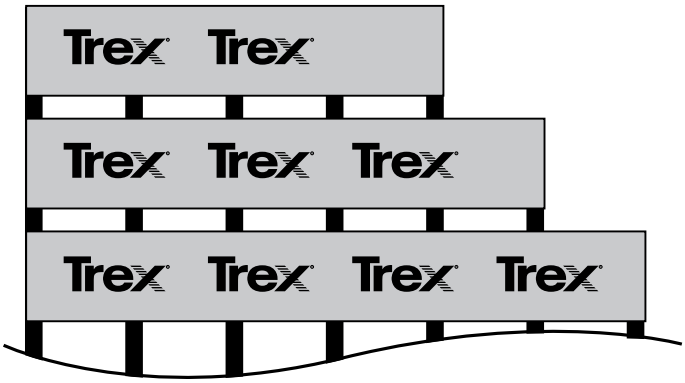
JOB SITE STORAGE

Remember when storing Trex® decking, railing and trim:

- You must store Trex outdoor-living products on a flat and level surface. Adjust support blocks accordingly.
- You must support Trex products with dunnage when placing bundles.
- When stacking Trex products, supports should start at each end and be spaced 50.8 mm on center. Supports should line up vertically.
- **DO NOT** stack Trex higher than six bundles (units) or 304.8 mm high.
- **Cover material on site until you are ready to install it.**



Bundles of Trex profiles on level ground.



Bundles of Trex profiles on uneven ground.

SAFETY

When working on any construction project, you should wear protective clothing and safety equipment. Wear safety glasses, gloves, a dust mask and long sleeves, particularly when cutting in confined spaces.

Trex decking and railing are heavier and more flexible than wood. **DO NOT** try to lift the same quantity of Trex boards as you would traditional lumber.

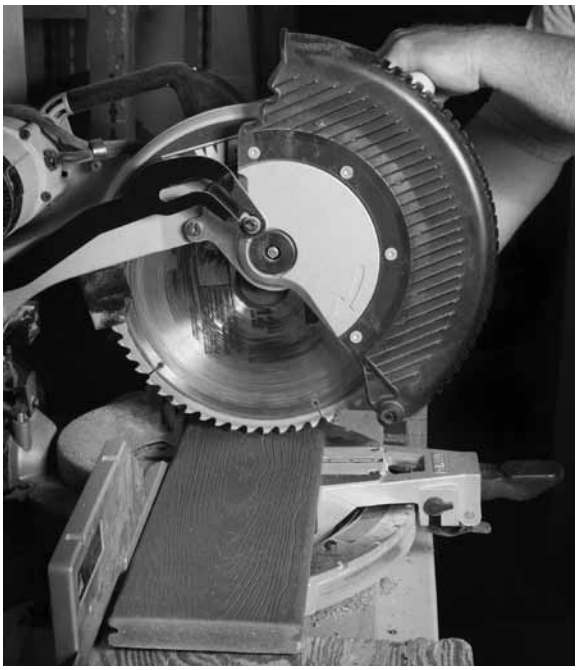
GENERAL TIPS

- We **DO NOT** recommend sanding. Sanding will change the appearance of the surface of Trex material and **will void the warranty with respect to any condition caused by such sanding.**
- When drilling large or deep holes, periodically lift the bit out of the hole to remove the shavings.

- If you want to minimize the appearance of joists through the spaces between boards, paint the top of your joists black.
- Trex decking and railing is suitable for a wide range of applications. It is not intended for primary structural members such as load bearing columns, joists, stringers, and beams.
- Construction methods are always improving. Please make sure you have the most up-to-date installation instructions by visiting *trex.com.*

TOOLS

You can create intricate shapes, profiles, and patterns with Trex®. Most installments require no special tools. For best results, use carbide-tipped blades and router bits. When using a miter saw, we recommend a 254 mm - 305 mm saw blade with 40 teeth or less.



Install Trex recommended fasteners with standard power drills.

Screw and nail guns provide a quick and easy way to fasten Trex.

Trex CustomCurve®
HEATING & BENDING SOLUTION

Trex is the first brand to have a bending solution exclusively for contractors, giving you the ability to create those unique, showpiece decks that are unmistakably Trex.* For more information, visit *trexpartners.com*.

**Trex Custom Curve® is manufactured and distributed by CurveIt, LLC. Trex® and CustomCurve® are trademarks of, and are used by CurveIt, LLC under a license with Trex Company, Inc.*

FASTENERS

RECOMMENDED FASTENERS TO USE WITH TREX®							
	Trex Hideaway® Hidden Fastener	FastenMaster®* TrapEase II Composite Screw	Dexxter®** Composite Screw -6 Lobe Drive Only	DeckFast®*** Cap-Tor® xd / HeadCote® Cap-Tor® xd	C-Deck**** Exterior Star Drive Composite Deck Screw	Phillips II Plus®***** Pozisquare	Cortex®* Concealed Fasteners
Transcend®	X	X	X	X	X	X	X
Enhance®	X	X	X	X	X	X	X

For best results, we recommend the above fasteners, which work well and provide an attractive appearance. Unless you are toe screwing, you will not have to pre-drill when you use these screws. *See Framing and Fastening Tips, page 37.*

MINIMUM FASTENER SIZE		
	SCREWS	
Profile	Length	No.
25.4mm x 139.7mm	64 mm or 70 mm	#8, #10
50.8mm x 139.7mm	76 mm	#8, #10

If any condition occurs which is attributable to the use of non-recommended fasteners, such condition shall not be covered under Trex's Limited Warranty.

**FastenMaster® TrapEase® II and Cortex® are registered trademarks of OMG, Inc.*

*** Dexxter® is a registered trademark of Simpson Strong-Tie Company, Inc.*

**** DeckFast® Cap-Tor® xd and HeadCote® CapTor® xd are registered trademarks of Starborn Industries Inc.*

*****C-Deck Exterior Star Drive Composite Deck Screw is a product of Screw Products Inc.*

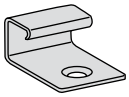
******Phillips II Plus® is a registered trademark of Phillips Fasteners LLC.*

FASTENING TIP FOR TREX TRANSCEND AND TREX ENHANCE

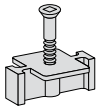
NOTE: *When using pneumatic or battery-operated nailers, adjust the pressure so that you only shoot the head of the nail to be flush with the board's cap.* ***DO NOT*** *shoot the nail head completely through the cap.*

HOW TO INSTALL UNIVERSAL HIDDEN FASTENERS

PARTS

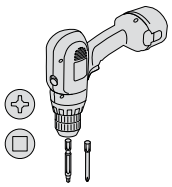


Start clip



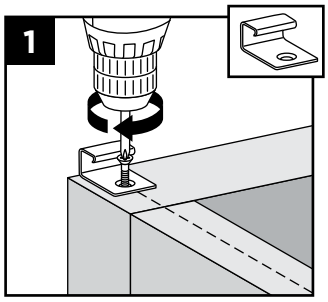
Universal fastener

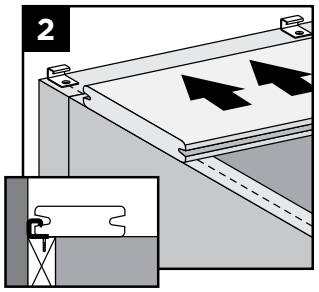
TOOLS NEEDED



NOTE: *Maximum spacing of deck boards using Hideaway system is 406 mm on center. Fasteners provide 6 mm gap when installed correctly.*

INSTALLING START CLIPS AND FIRST BOARD

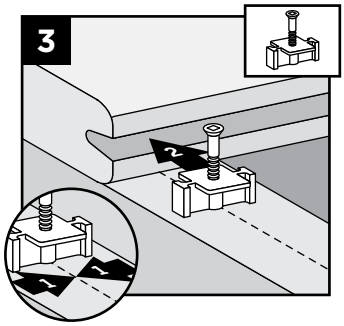


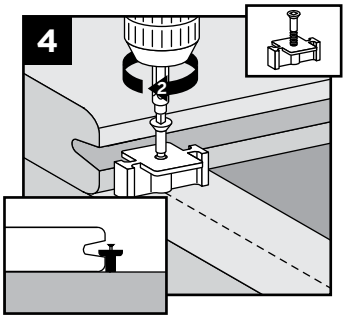


1. Install start clips on edge of ledger board, centered on each joist. Secure clips with screws.
2. Push grooved edge of deck board into start clips.

Important: First board **MUST** be straight and well secured.

INSTALL UNIVERSAL FASTENERS



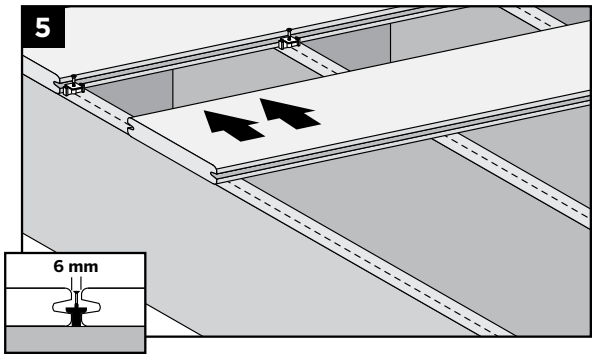


3. Insert fastener into grooved edge of deck board.
4. Align screw hole in fastener with center of joist.

Continue along the length of the board at every joist.

NOTE: *Screw only half way down.* ***DO NOT*** *fully tighten.*

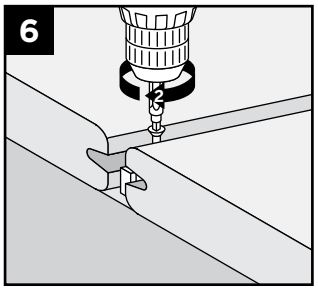
INSTALLING SECOND BOARD



5. Slide second board into place, making sure fasteners fit into groove. Install the next universal fastener on the other side of the second board in the same manner as Steps 3 and 4. ***DO NOT*** *fully tighten the screw.*

COMPLETE INSTALLATION

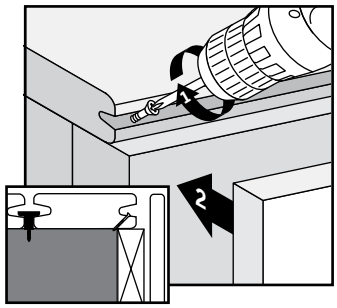
6. Tighten screws on fasteners in first row. Proceed with Steps 3 through 5, tightening down each row after board that follows is in place. Be sure to use a long #1 square bit.



INSTALLING LAST BOARD

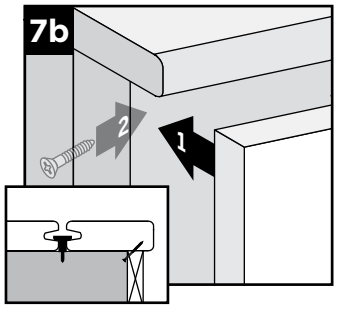
OPTION 1: USING FASCIA BOARD

7a. Pre-drill pilot holes at an angle through grooved edge of deck board into ledger board. Install 64 mm screws through pilot holes to secure. Attach a fascia board flush with deck surface.



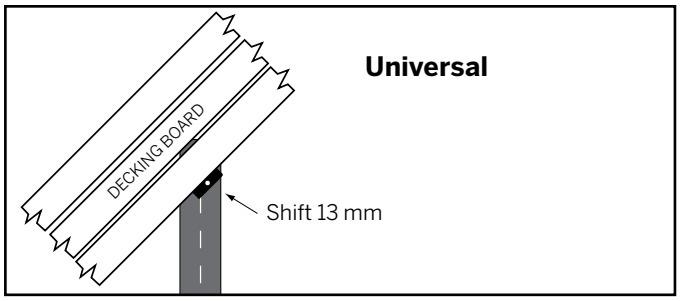
OPTION 2: WITH DECK BOARD OVERHANG

7b. Pre-drill pilot holes at 45° angle from below deck surface through rim joist. Seat last board into fasteners overhanging rim joist. Secure board with 64 mm screws using pilot holes. Position fascia board below overhanging deck board.



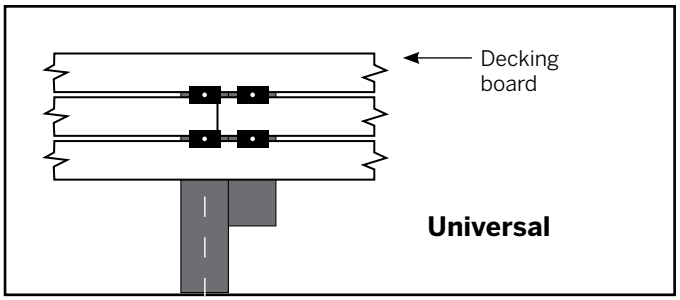
TIPS FOR INSTALLING A TREX HIDEAWAY® HIDDEN FASTENING SYSTEM

INSTALLING ANGLED DECK BOARDS IN CORNERS



ALWAYS start in corner with a small triangular piece of decking at 45° and work outwards. Install Trex Hideaway fasteners 13 mm off center to keep fastener screws in middle of joists.

HOW TO BUTT SEAMS

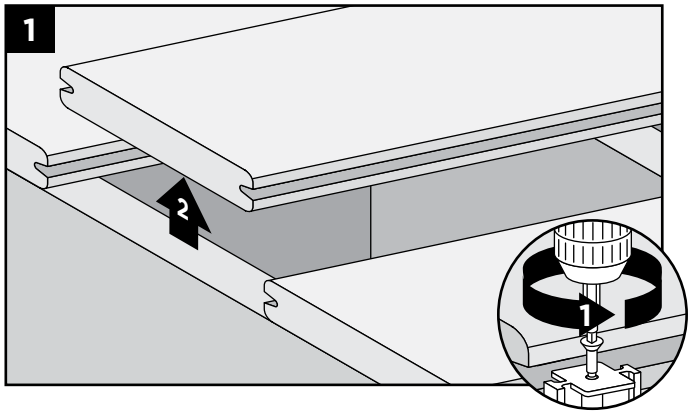


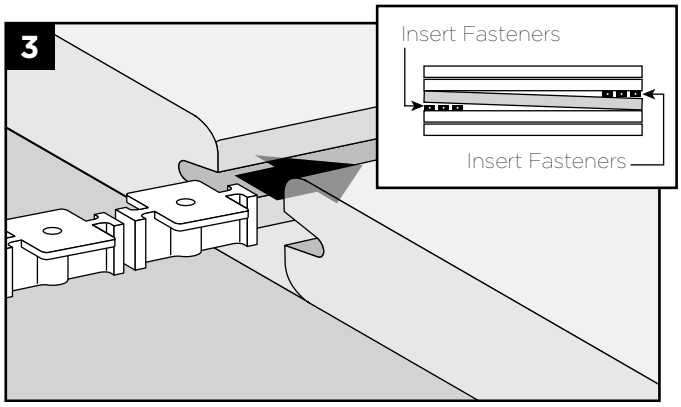
1. Install 254 mm - 305 mm framing boards along joists where seams will butt.
2. Place additional fasteners on the adjacent board over the joist and framing boards where the seam will be.
3. Put the first board of the seam in place and secure with fastener.
4. Butt end of second board to first and secure with fastener.

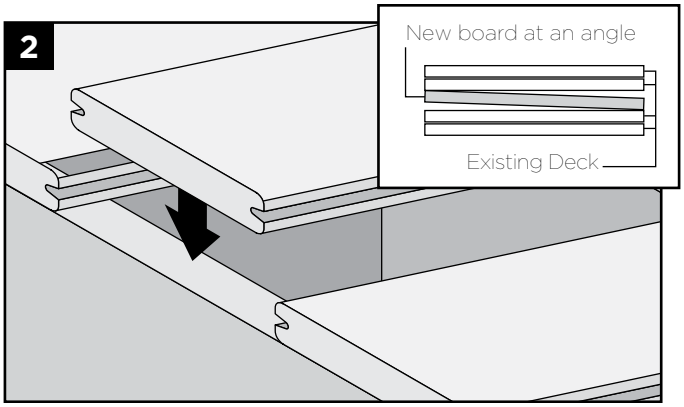
NOTE: *Follow end-to-end gapping specifications on page 39.*

5. Place second set of fasteners on each side of butt seam for next board.

HOW TO REPLACE TREX® BOARDS INSTALLED WITH UNIVERSAL FASTENERS







1. Remove screws from fasteners on both sides of board to be replaced and remove board.
2. Angle new board to place. See inset box (above).
3. Slide a fastener for each joist into board grooves from both ends of the board.

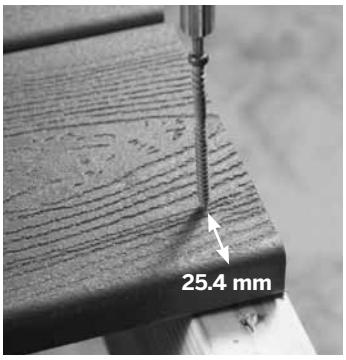
NOTE: *You may have to loosen adjacent boards to slide fasteners into position.*

4. Position replacement board and secure fasteners on center of each joist.

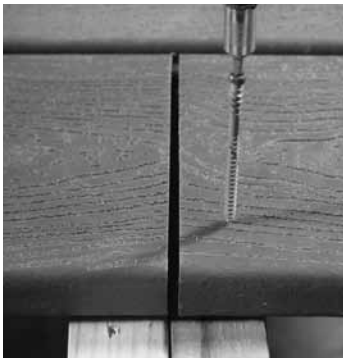
FRAMING & FASTENING TIPS AND SPECIAL PATTERNS

Composite decking is a great alternative to traditional wood decking. When building your deck and railing, it is recommended that code-approved structural material be used as the framing and joists. Trex® cannot be used for structural applications. **DO NOT** attach Trex decking directly to any solid surface or watertight system. See Sleeper Systems on page 42. In most cases, install fasteners at a 90° angle (perpendicular to the board).

At board ends on the deck's edge, you can install screws placed perpendicularly at the recommended distance—at least 25.4 mm and not more than 101.6 mm from the board edge and side—without splitting the board.



For butt joints, where boards meet over a single joist, is to add a 50.8 mm x 101.6 mm "nailer" board at the butt joint. This allows you to install a screw at a 90° angle.

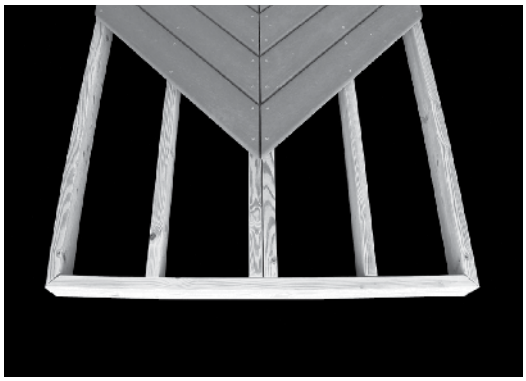


FASCIA FASTENING TIPS

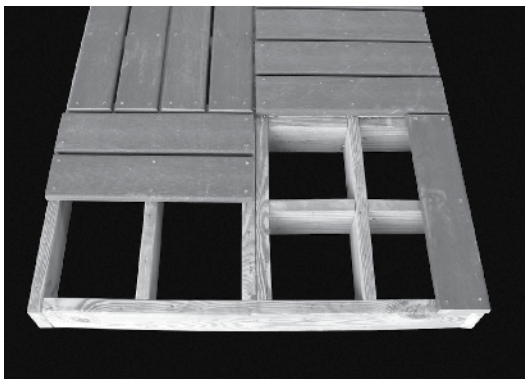
- Trex fascia around the base of a deck must be gapped the same as the decking to allow for air flow.
- Attach the fascia every 101.6 mm with three Trex approved screws. Place the top screw 25.4 mm from the top of the rim joist, the second screw at the rim joist's center, and the third screw 25.4 mm from the bottom of the rim joist.
- A construction grade weather resistant adhesive is also recommended to be used as a **SECONDARY** fastener when attaching fascia.

SPECIAL PATTERNS

When planning a unique pattern, you will need to adjust the framing to support the surface pattern. Refer to the span and gapping charts on page 39. Many decks are designed to take advantage of angles, as shown below.



Herringbone Pattern



Tile Pattern

Picture Frame Pattern

GAPPING

You must gap Trex® decking, both end-to-end and width-to-width. Gapping is necessary for drainage and the slight thermal expansion and contraction of Trex decking boards. Gapping also allows for the shrinkage of the wood joist system.

» **ALWAYS** follow Trex-recommended gapping guidelines.

» Maximum allowable perpendicular overhang for Trex is 102 mm.

» All decks require air circulation to keep them dry and looking good. To improve air flow, leave openings under the decking or increase gapping to 10 mm.

WIDTH-TO-WIDTH GAP	
Above 4.5°C*	6 mm
Below 4.5°C*	10 mm

**Temperature at installation.*

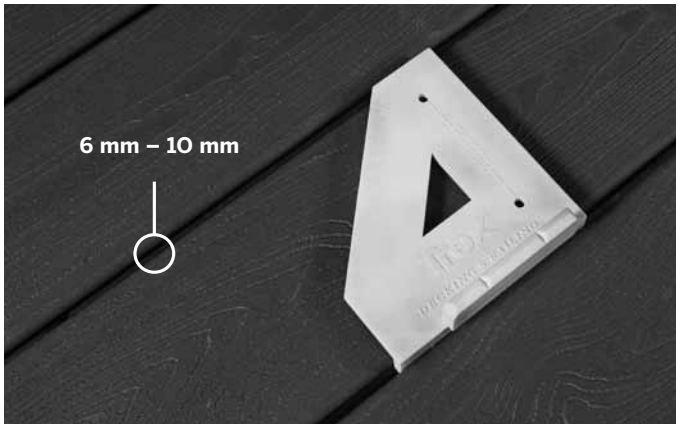
END-TO-END/END-TO-WIDTH AND ABUTTING GAP		
	End-to-End/ End-to-Width	**Abutting Gap**
Above 4.5 C*	3 mm	6 mm
Below 4.5 C*	5 mm	13 mm

**Temperature at installation.*

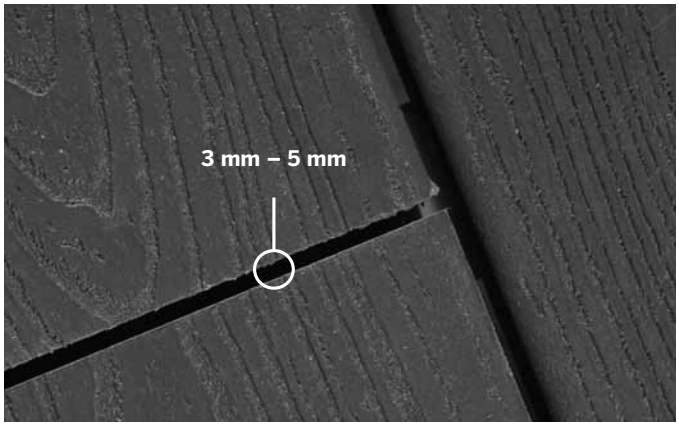
When you use the recommended hidden fasteners, the placement of the hidden fastener establishes the designated gap size.

When installing fascia, gapping rules must apply.

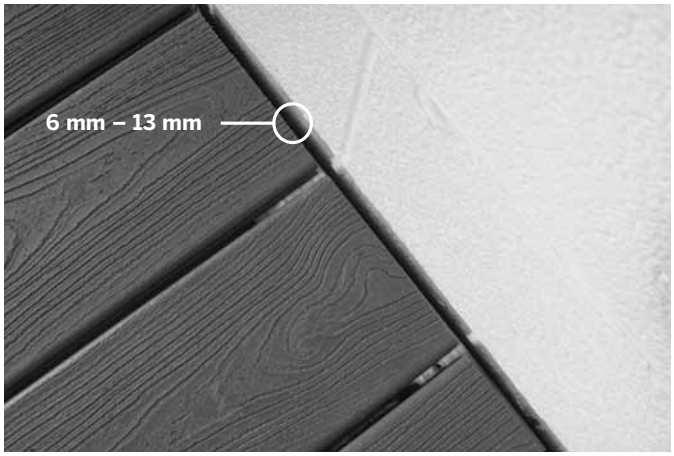
Abutting Solid Objects
When decking is abutting a wall, you must also gap it 6 - 13 mm depending on the temperature at installation. *See chart above.*



Width-to-Width
The minimum required width-to-width gapping is 6 mm. When installing in temperatures below 4.5°C, Trex recommends 10 mm gapping. For docks and heavily wooded areas, Trex recommends a 10 mm gap as well. No gapping should ever exceed 13 mm.



End-to-End/End-to-Width
Gap Trex decking end-to-end, based upon the temperature at installation. *See chart at left.*

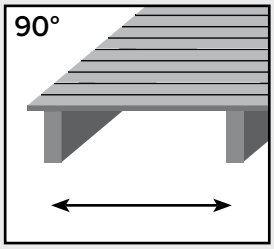


SPAN GUIDELINES

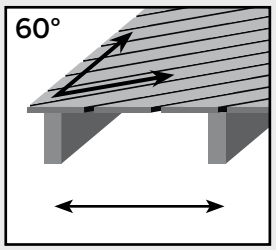
JOIST SPANNING FOR DECKING

The joists must be spaced on center according to the chart below. Be sure that joists are level and plumb. Trex® decking must span at least three joists. For heavy items such as hot tubs, planters, etc., consult a local building engineer or inspector for span recommendations. If you want to minimize the appearance of joists through the spaces between boards, paint the top of your joists black.

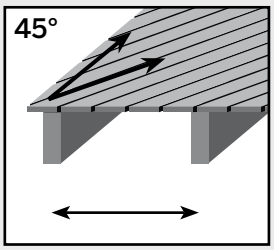
ADJUST JOIST SPANNING TO ACCOMMODATE ANGLED DECKING PATTERNS



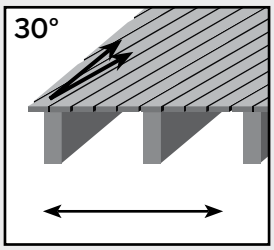
Perpendicular to joists. *See chart below.*



At a 60° angle, maximum joist spanning is 51 mm less than listed in the chart below.



At a 45° angle, maximum joist spanning is 102 mm less than listed in the chart below.



At a 30° angle, maximum joist spanning is 1/2 of the distance listed in the chart below.

TREX TRANSCEND DECKING SPAN CHART (On Center)

	Residential Decks, Light Duty Docks, Residential/Day Care Playground		Commercial Decks, Boardwalks and Marinas	
ASTM Load Value*	4560 N/m²	4788 N/m²	4788 N/m²	9576 N/m²
25.4 mm Boards	450 mm	406 mm (16 in.)	406 mm	305 mm

* ASTM D4761 three point bend test

TREX RAILING SPAN CHART

	Maximum Railing Span for all Applications (on center of posts)
Transcend Railing	2438.4 mm on center

STAIRWAY ASSEMBLY

STAIRWAY DETAIL

» Fasten stair treads continuously across at least four stringers.

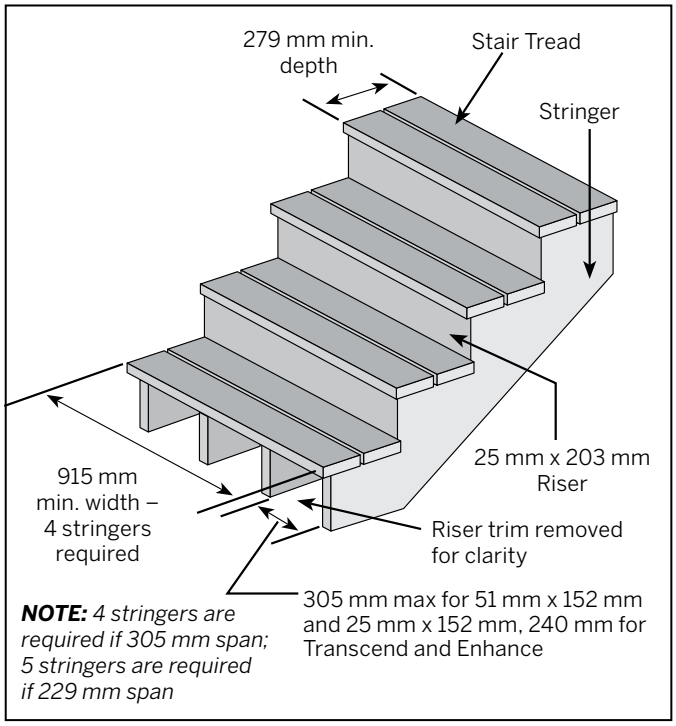
» See chart (*at right*) for center-to-center spacing of profiles.

» Dress the sides of the stringers and risers with Trex® fascia or trim for a finished look.

» Gapping between Trex boards on stair treads must be 6 mm - 10 mm.

» The overhang of the stair tread is not to exceed 13 mm.

MAXIMUM SPACING ON CENTER OF JOIST	
51 x 152 mm, 25 x 152 mm Boards	305 mm



HOW TO INSTALL STAIR TREADS

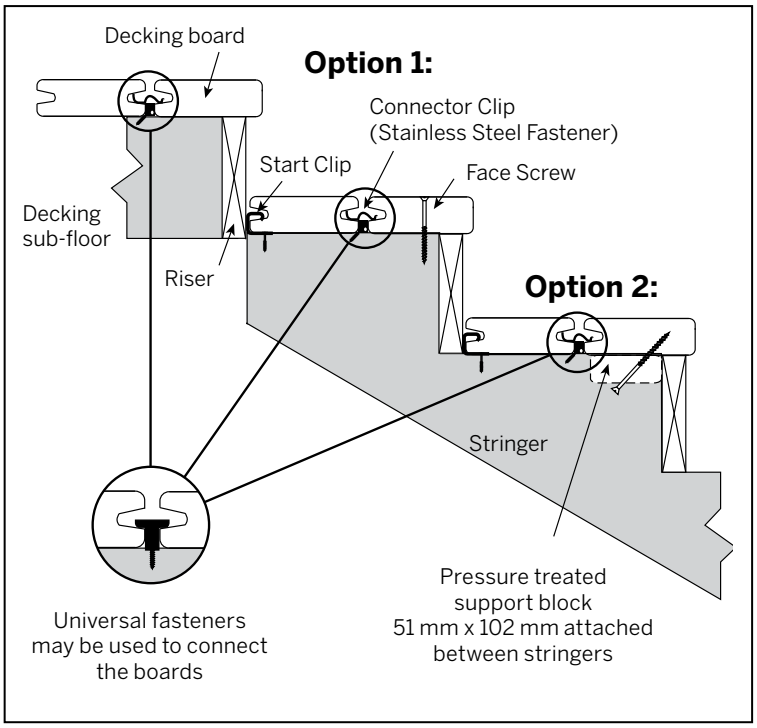
Installation Options:

Option 1:
Using Hidden Fastener System

1. Install start clips against riser on each step.
2. Install first board.
3. Install second board.
4. Secure with screws from top of second board into stringer boards.

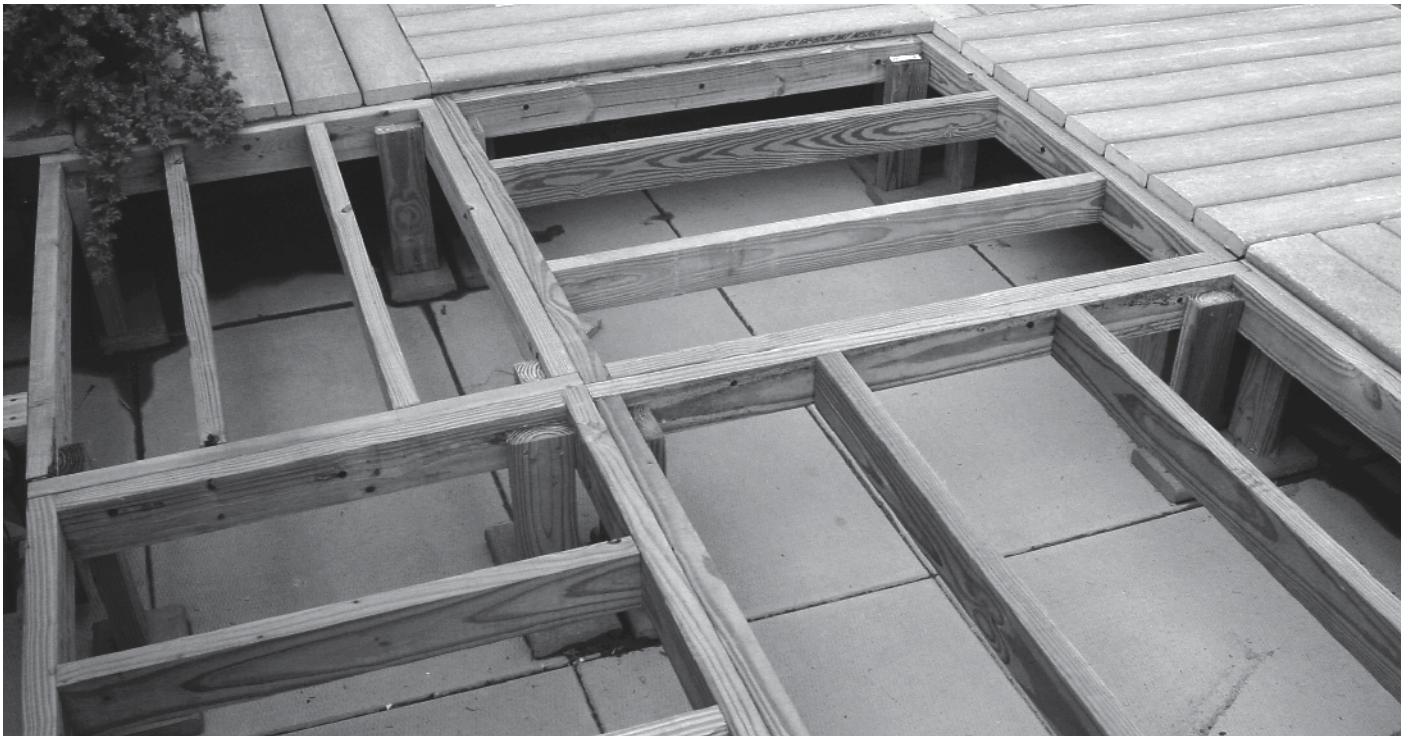
Option 2:
Using 51 mm x 102 mm Wood Support Blocks

1. Install start clips against riser on each stair tread.
2. Install first board.
3. Attach 51 mm x 102 mm long wood support blocks between stringers.
4. Pre-drill holes up through blocks.
5. Install second board.
6. Secure with screws from bottom through blocks and into stair treads.



Refer to **trex.com** for the latest installation instructions.

ROOFTOP & SLEEPER DECK SYSTEMS



SLEEPER DECK SYSTEMS

A sleeper system is a buffer between a solid surface and Trex® decking. Drainage, access, and airflow are critical. Water must be able to flow through and away from the deck. For repairs and removal of debris, joist system access is necessary. Good airflow will keep the decking dry and in good condition.

Trex, when used with a sleeper system, must be supported below its entire length and if used in a roofing application, the supports must run the direction of the pitch of the roof to facilitate proper drainage. In addition, sleeper joists must be attached to the roof structure in a manner that stabilizes the deck frame. Failure to do so may result in a poor structure which will compromise deck performance.

In areas of application where a sleeper system is required that would not be susceptible to excessive debris build up (examples would include covered areas such as balconies, porches, etc.), a minimum height of 38 mm for pressure-treated joists as well as a minimum 6 mm gap between Trex decking would be acceptable. These areas would still have to be designed to allow for proper drainage and hidden fasteners would be acceptable. However, if access to the structure under the decking is required, it would be recommended to use either the Universal Fastener (plastic) or 51 mm composite decking screws. A 6 mm to 13 mm gap is still required when abutting walls or other fixed objects.

In all other areas where there could be excessive water buildup along with debris buildup, Trex would still recommend a minimum height of 89 mm for pressure-treated joists, as well as a gap of 10 mm. For this application, hidden fasteners would not be recommended and standard 76 mm composite screws would be used.

ALWAYS consult your local building code authority for proper details on roof and railing installation to the roof structure if required.

ROOFTOP DECK TIPS

- If you want to access the roof, you must build the Trex deck in removable sections or with removable fasteners.
- You must attach the sleeper joists to the roof structure so that they stabilize the deck frame. Failure to do so may result in a poor structure which will compromise deck performance.