

INSTALLATION INSTRUCTIONS

MILLENNIUM DECKING

Before Installing Millennium Decking, **please read these instructions in their entirety.**

PRE-INSTALLATION

Safety

Compliance with all applicable local, state (provincial) and federal law remains the responsibility of the user. Please check with your local regulatory agency for any special code requirements, and follow any building codes for your area.

Safety parameters should always be established when working with tools and other machines or equipment. As with other construction materials, safety glasses, gloves, dust mask and ear protection are recommended when working with Millennium Decking products.

Handling and Storage

Millennium Decking products should be handled and stored like other premium wood or lumber products. Store Millennium Decking products on a flat surface with proper supports spaced every 4 feet along its length. The product should be protected from the sun and inclement weather prior to use. Product scrap can be discarded with normal construction debris.

Tools

Millennium Decking is easy to work with and can be cut, routed, drilled or fastened with normal woodworking tools. Screws installed within 1" from the end of a plank will require a 1/8" pilot hole, in order to prevent splitting. Sharp 40-tooth carbide-tip saw blades are recommended for clean cuts.

Sub-Structure

(Note our product must be applied directly to the joist and not over existing decking material or plywood)

The substructure must be square with all joists level to one another to ensure the end trim fits properly and the deck is free of undulations. The deck joists should have a slight slope, 1/4" per 8', to ensure water runs away from the home.

Installation of Millennium Decking for perpendicular applications (decking boards installed at right angles to the joists) should be installed on structural supporting members (joists) that are spaced at a maximum span of 16 inches on center. Installation for 45-degree applications (decking boards installed at a 45 degree angle to the joists) should be installed on joists spaced at a maximum of 12 inches on center. Adjoining boards are to be butt ended over a joist, and be gapped according to Table 1.

Installation Temperature	Gapping/Plank Length		
	3.66 m (12')	4.88 m (16')	6.10 m (20')
Greater than 15°C/59°F	2 mm (3/32 inch)	3 mm (1/8 inch)	4 mm (5/32 inch)
Greater than 5°C/41°F but less than 15°C/59°F	3 mm (1/8 inch)	4 mm (5/32 inch)	5 mm (3/16 inch)
Less than 5°C/41°F	4 mm (5/32 inch)	5 mm (3/16 inch)	6 mm (7/32 inch)

Table 1: Longitudinal Gapping Recommendations

Millennium Decking products do not require side gaps between boards.

Fasteners & Glues

For ease of installation of the decking surface, we suggest using #8, 2 or 2½” ceramic coated wood deck screws, although the decking can be installed using #8, 2 or 2½” stainless steel or other corrosion resistant coarse thread deck screws. The decking surface is to be fastened to the supporting structure at each joist, as described in the instructions below. We recommend using #8, 3” screws where two boards are butt ended (Note an extra ½” of material is supplied so ends can be finish squared in the field.) (meet end-to-end) over a joist, as well as along the final board. Pre-drill all deck screws (regardless of type) that are within 1” of the end of the deck board to avoid splitting.

Use good quality (premium) construction adhesive such as PL Premium, Franklin Titebond, or equivalent, for gluing trims, fascia or deck boards. Follow the directions of adhesive manufacturer including application temperatures and size of glue bead.

INSTALLATION INSTRUCTIONS

Step 1: Plan Your Project

Shape and Decking Pattern: A deck can be any shape you want (see Figure 1), and in fact, simple changes like an angled corner or a 45-degree decking pattern can dress up a house with a long, plain wall. However, the more complicated a decking pattern, the more difficult it is to build, and often requires more materials.

The pattern you choose will determine the configuration of the supporting joists and beams. Always check with your supplier for the proper configuration of your sub-structure.

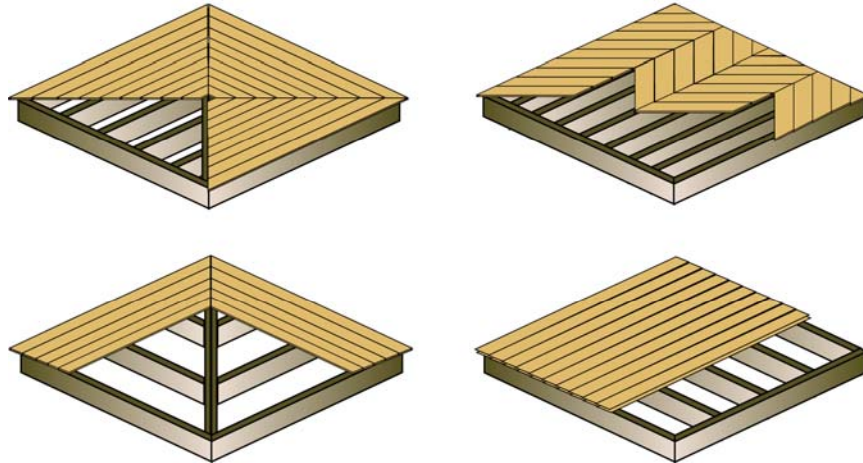


Figure 1: Sample Deck Layouts

Railings and Stairs: Millennium Decking should not be used for structural support of the railing or stairs system. Railing and stair systems are always to be secured to the underlying supporting substructure. Always follow the manufacturers installation instructions for the railing and guardrail system.

Depending on whether a railing or stair system is chosen, it may be advantageous to install the railing posts before installing the decking surface, and cut the decking surface around the posts.

Cutouts: A spa or hot tub can be set on the deck if the underlying structure is reinforced to carry the weight of the water, or it can be set directly on a concrete slab on the ground, with the deck built around it. Existing trees and rocks can also be integrated into the deck by framing around them. If you work around a tree, leave sufficient space on all sides to allow for growth. Around a stationary object such as a boulder, leave about 6.5mm/1/4" so the decking can expand and contract with temperature and moisture changes. Millennium Decking should not be used for structural support of any structure on or around the deck.

Step 2: Install the Starter Board

Millennium Decking is installed from the “Wall Side” to the Deck Edge Skirt.

If you are using the “Edge Trim” to finish the edge of the deck:

1. Measure the width of the deck surface (Figure 2). This measurement will be used to determine the amount of material to be removed from the starter board.

If you are using the “U Trim” or “L Trim” to finish the edge of the deck:

1. Proceed to Step 2.

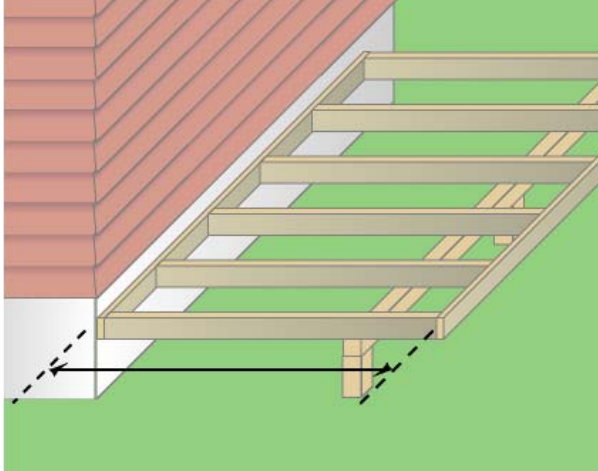


Figure 2: Deck Width Measurement

2. Subtract 6 1/8" from this measurement. Continue to subtract an additional 6" from the total until the result is less than 6". The result is the width you must remove from the **tongue side** of the starter board, (including the width of the tongue). See Figure 3a.
2. Rip the tongue from the starter board. The starter board can be installed with the tongue, if so desired, however by doing so, the contact area with the ledger board is lessened.

This assumes a 1" nosing overhang. For less of an overhang, increase the amount removed. For more of an overhang, decrease the amount removed. The "Edge Trim" requires a minimum of 1/2" overhang.

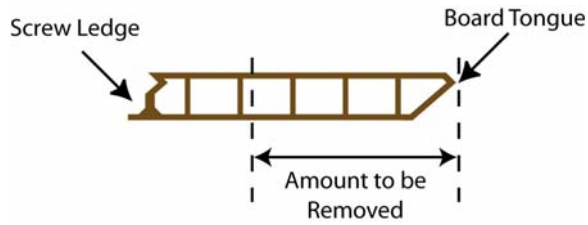


Figure 3a: Starter Board

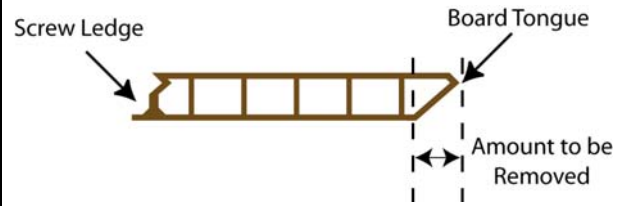


Figure 3b: Starter Board

3. Install the starter board by running a bead of construction glue along the ledger board (Figure 4). Using #8, 2 to 2 ½” screws, fasten the starter board at each joist along the screw ledge. To avoid splitting, drill pilot holes within 1” of board ends before driving the screws.

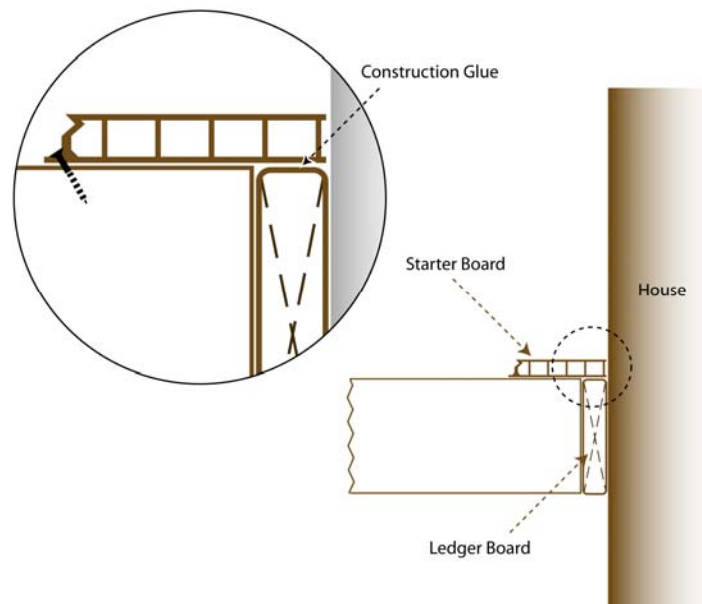


Figure 4: Starter Board Installation

Step 3: Install The Second Row of Boards

Fit the “tongue” into the “groove” of the starter board (Figure 5). Using #8, 2 to 2 ½” screws, fasten the second row of boards at each joist along the screw ledge. To avoid splitting, drill pilot holes within 1” of board ends.

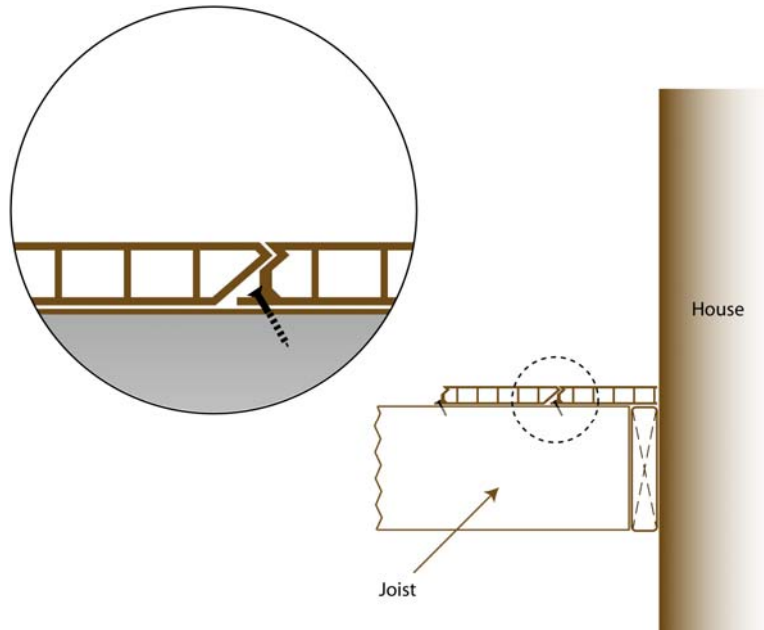


Figure 5: Second Row of Decking Boards

If you need to butt end planks together, butt ends should always meet at a joist. Always stagger the butt ends from row to row and space according to Table 1.

Step 4: Complete Installing the Remainder of the Deck

Repeat Step 3 for the remainder of the deck boards.

If you are using the “Edge Trim” to finish the edge of the deck:

If you have measured correctly, the final deck board should overhang the deck skirt structural board by at least ½ inch. Apply construction glue along the top of the deck skirt structural board, pre-drill and use a #8, 3” screw to fasten the last Millennium decking board. (Figure 6a).

Because the “Edge Trim” fits snugly to the deck board, you will need to **countersink screw heads with countersink drill bit**. To avoid cracking, do not force the screw head into the groove of the screw ledge. Drill pilot holes if necessary.

If you are using the “U Trim” or “L Trim” to finish the edge of the deck:

The “groove” from the final board needs to be ripped in order to accommodate the “U or L Trim”. The “U Trim requires a **minimum of a ½” overhang**, in order to wrap snugly around the final board. The “L Trim” can be flush with the deck skirt structural board, however, we recommend at least a 1/8” overhang to accommodate Millennium fascia.

Apply construction glue along the deck skirt structural board, and secure the board in place. Pre-drill and install a screw through the lower web, if possible. (Figure 6b)

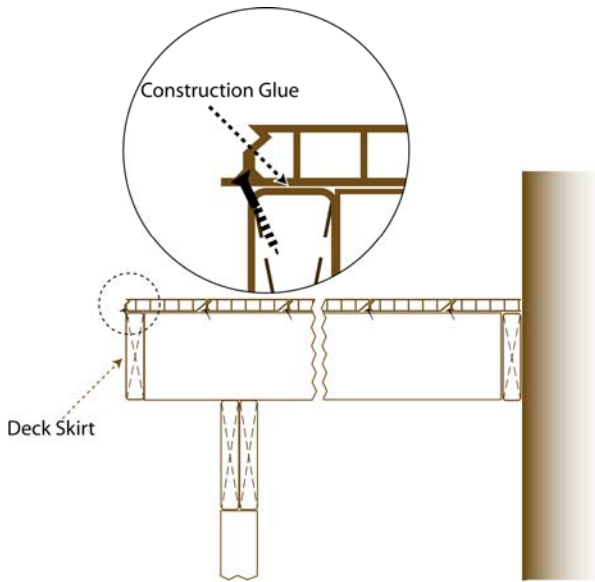


Figure 6a: Final Deck Board Installation

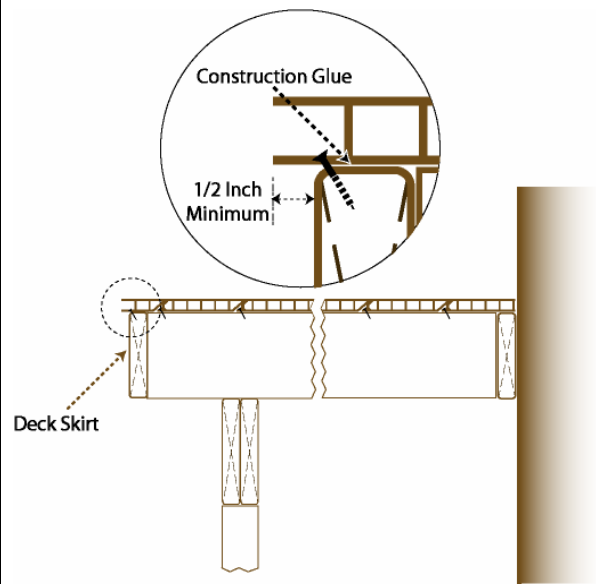


Figure 6b: Final Deck Board Installation

Step 5: Trim the Edges

If you are using the “Edge Trim” to finish the edge of the deck:

Cut the “Edge Trim” pieces to length. Run a glue bead along the screw ledge, to help secure the “Edge Trim” in place. Snap the Edge Trim into place using a rubber mallet, starting from one end and working toward the opposite end (Figure 7a).

If you are using the “U Trim” or “L Trim” to finish the edge of the deck:

Cut the “U” or “L Trim” pieces to length, making note of the **corner mitre** (Figure 8). Run a glue bead along the upper and lower contact surfaces, to secure the “U” or “L Trim” in place. Using a rubber mallet, or the heel of your hand, tap the trim into place, starting at one end and working toward the opposite end (Figure 7b).

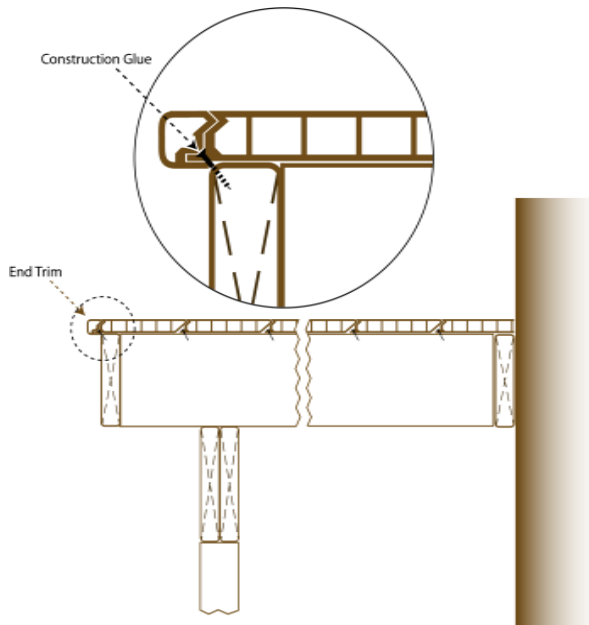


Figure 7a: Edge Trim

The “Edge Trim” should be cut to be flush with the board ends. After the Edge Trim is installed, “L Trim” can be used to cover the exposed board ends (Figure 8a). The “L Trim” can be mitred (as shown in the figure), or can be brought square to the corner of the “Edge Trim”.

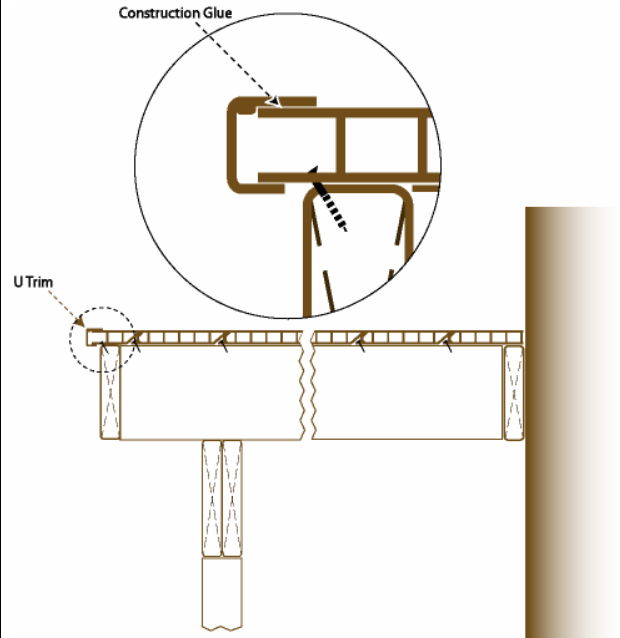


Figure 7b: U Trim

If you choose to use “U” or “L Trim” as deck edging, they need to be mitred at the deck corners (Figure 8b). Take this into consideration when measuring the proper length of the trim piece.

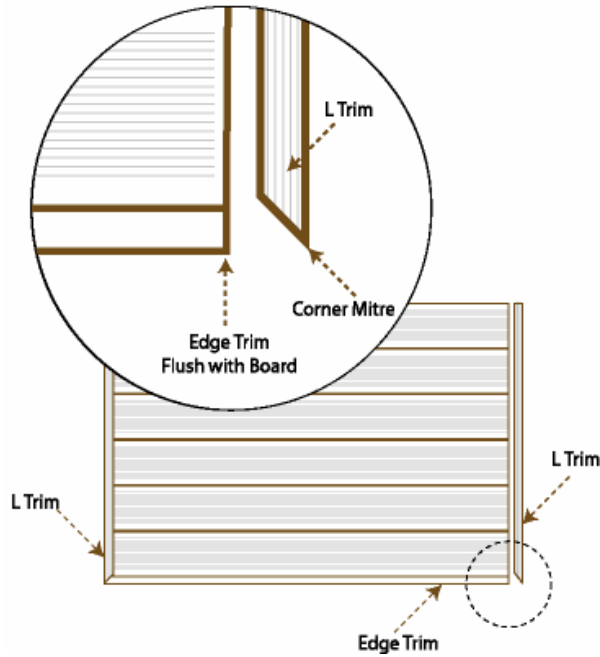


Figure 8a: Trimming the Exposed Board Ends with “L Trim”

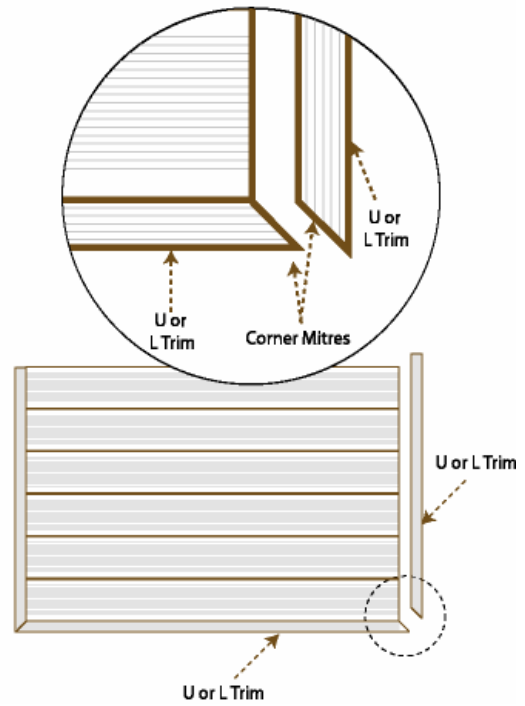


Figure 8b: Trimming the Exposed Board Ends with “U Trim”

Step 6: Install Fascia

Millennium fascia is manufactured for 2X10's, however there are manufactured guidelines on the reverse side of the fascia for cutting down to cover 2X8's or 2X6's. Install cut fascia ripped side up.

Install the fascia with premium construction adhesive, clamping until the glue has set. If clamping is not possible, drill small pilot holes and use 1 ¼ to 1 ½” corrosion resistant finishing nails or brad nails to secure the fascia into place.

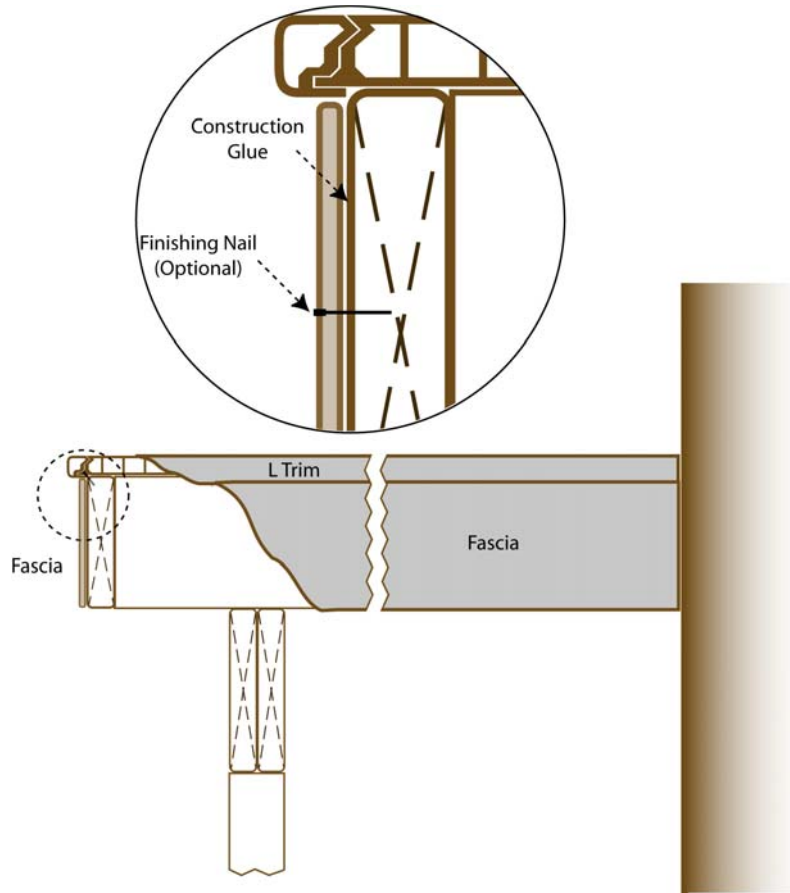


Figure 9: Millennium Fascia

Step 7: Care and Cleaning

Pressure washers and mild detergents can be used for cleaning. For general cleaning, soap and water can be used, however for stains such as oil or grease, deck wash or a solution of TSP (trisodium phosphate) can be used. A **light** sanding with a synthetic steel wool pad or brushing with a fine wire brush will remove light surface burns.

Although the deck boards are water resistant, and although the majority of water will run off the surface of the deck, the system should not be considered a waterproof membrane, even when the joints are caulked to improve water tightness.