

Mataverde® EUROTEC™ Deck System

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With most patio, rooftop or balcony deck installations you are limited to using either deck tiles or else you can build a wood frame deck on top of pedestals to use full size deck boards. With the Mataverde® EUROTEC® Deck System, you can now choose full length decking boards in any of your favorite decking species, *without building a wood deck frame.*

The Mataverde® EUROTEC™ Aluminum System Profile is an innovative design and construction alternative to wood framed deck substructures. Unlike wood frame deck construction, the Aluminum System Profile is always dimensionally stable, straight and true. This eliminates weather and climate related warping, checking, twisting and cracking that can naturally occur with wood joists in conventional wood frame deck construction.



Additionally, the Mataverde EUROTEC Aluminum System Profile is lighter in weight and offers a lower clearance for rooftop decking design and construction than conventional wood framing. The Mataverde EUROTEC Deck system combines the finest quality European engineering with long lasting hardwood decking to create a durable system design that will stand the test of time... beautifully.

How does The Eurotec Deck System Work?

First - Select the Right Sized Eurotec Pedestal

The first step is to choose the properly sized pedestal for your project. Depending on the height you would like your deck to be above the surface of your rooftop or patio area, choose the appropriate sized pedestal to meet your project needs. Each Eurotec pedestal is manufactured to carry an appropriate design load. (A ClickFoot top is added for use with the aluminum system profile frame.)

<u>Profi-Line Pedestal S</u>	<u>Profi-Line Pedestal M</u>	<u>Profi-Line Pedestal XL</u>	<u>2 Extender options</u>
			
Adjusts from <u>1-3/16" to 2-1/16" Height</u> 1,798 lb. Design Load	Adjusts from <u>2-1/16" to 3-5/16" Height</u> 1,798 lb. Design Load	Adjusts from <u>2-15/16" to 6-9/16" Height</u> 1,798 lb. Design Load	Adds to Pedestal Height <u>Adds 1-1/2" to 4" approx. ht.</u> 1,798 lb. Design Load

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Next – Assemble the Mataverde® EUROTEC™ Aluminum System Profile framework

The Mataverde EUROTEC Deck System is designed for use with standard deck spans and spacing. The Aluminum System Profile is designed to click directly into the Clickfoot pedestals for quick and easy installation; no additional fastening is required. Consult the span chart to determine the right spacing for your project design.



The Aluminum System Profile tracks are 13'-1-1/2" (4 meters) long. Connectors are provided for longer runs as needed. Always place a pedestal directly beneath each connection for proper support.

Aluminum System Profile Track	Aluminum System Connector	Track / Connector Assembly	Bighty Screw	Section Detail

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Lateral Bracing, Connectors and Additional Stability

Deck structures sometimes require additional lateral bracing for support against potential racking of the substructure. If desired, lateral bracing can be accomplished by cutting pieces of the Aluminum System Profile to the appropriate length (for cross bracing) and fastening them to the main track using Corner Connectors and Bighty screws.



Corner Connector

Aluminum System Profile



The Aluminum System Profile that is used for cross bracing attaches to the Aluminum System profile (main track) using Corner Connectors and Bighty screws for secure lateral bracing as shown in the picture on the left.



Additional Stability and Bracing Options

If desired, for additional stability and strength, concrete pavers can be added below the decking. These can be added to the deck frame structure as shown below. Adding the weight of the concrete pavers helps improve the wind uplift loading for the entire deck structure. By using the lateral bracing and Corner Connectors to create a shelf for the concrete slabs it also provides significant stiffness and stability to the deck structure and helps minimize any potential “racking” caused by transverse loads.



Attach Corner Connectors to cross bracing at the proper level to accommodate the height of the concrete paver.



Place the cross bracing tightly to the concrete paver or slab to help minimize any potential “racking” of the system.



Using three concrete pavers at each corner provides exceptional additional stability.

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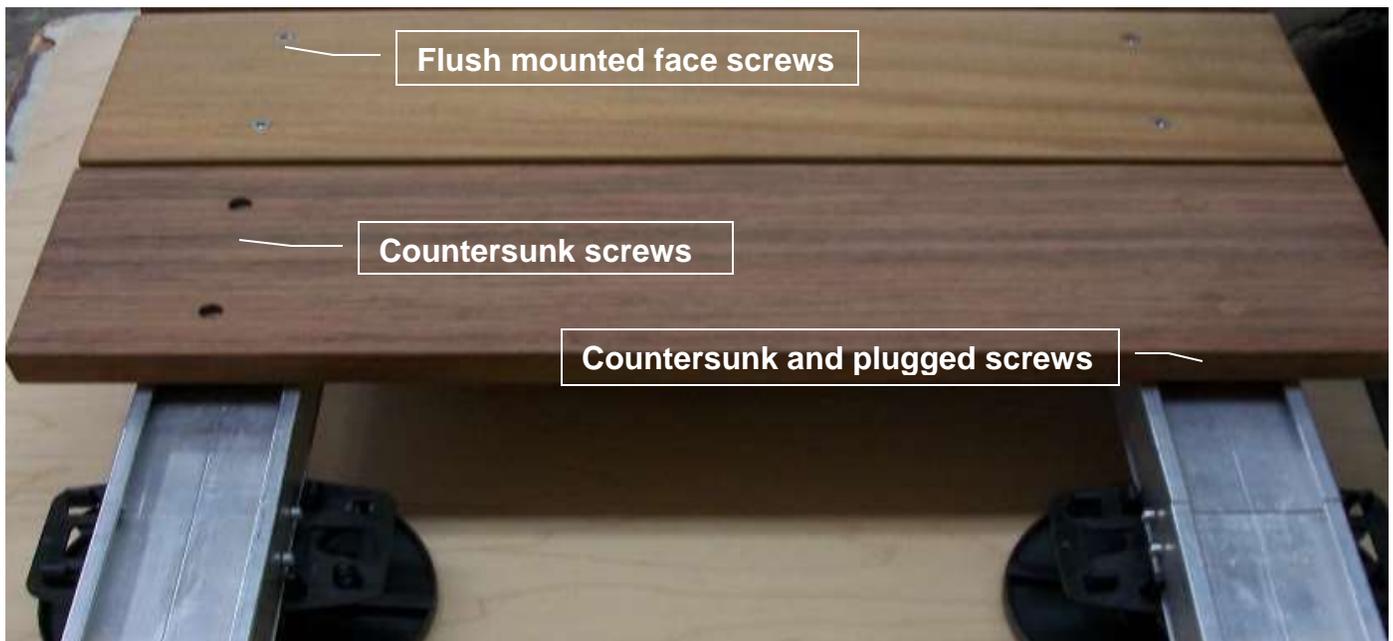
Mataverde EUROTEC Deck Fastening Options

The two fastening options for the Mataverde® EUROTEC™ Rooftop Deck system are; A.) Using a special Profile face screw or B.) Using a hidden fastener system.

Mataverde® EUROTEC™ Profile Face Screw Fastening Method

Installing decking screws perpendicularly into a framing member is unquestionably the strongest fastening method for installing decking. The Mataverde EUROTEC Profile Screw is designed and engineered to provide the strongest fastening method available, using high quality stainless steel screws with a self-tapping tip to drill through the Aluminum System Profile. The Mataverde EUROTEC Profile Screw is composed of #316 stainless steel for long lasting strength and durability in harsh climates and usage with high density hardwood decking materials.

For high density hardwood decking species such as Ipe, Cumaru, Machiche and Garapa, it is necessary to predrill the wood itself. Then the self-tapping screw point of the Mataverde EUROTEC Profile Screw will penetrate the Aluminum System Profile for secure attachment to the aluminum track. If you prefer to hide the heads of the screws, a countersink drill bit may be used on the wood and a plug may be glued and sanded after the decking is installed.



The photo above shows both of the face screwing options for the Mataverde EUROTEC Profile Screw attaching deck boards to the Aluminum System Profile.

The Mataverde® Garapa hardwood deck boards (lighter colored boards on the top) show a typical pre-drill and screw flush with the decking.

The Mataverde® FSC Machiche hardwood deck board below shows the 'predrill with countersink and screw' option, with and without wood plugs.

[For additional decking installation information, please click here.](#)

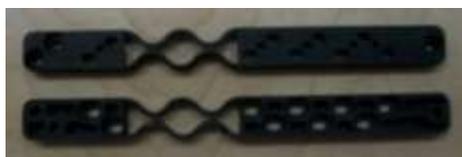
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Mataverde Eurotec Hidden Fastener Options

Eurotec Deck Glider Hidden Fastener System

For a clean and unencumbered deck surface many find the pristine look of a hidden fastener to meet their design needs best. The Mataverde EUROTEC Decking System offers the Deck Glider hidden fastener to achieve this fit and finish. The Deck Gliders are screwed to the bottom of each board at the appropriate spacing and then attached to the Aluminum System Profile track for secure fastening.

Deck Glider Fastener



The unique design of the Deck Glider works exceptionally well with natural wood decking material because it allows for seasonal expansion of the wood without sacrificing the quality of the design or the installation.

Deck Glider (shown attached to bottom of deck boards)



The Deck Glider attaches to the bottom of each deck board with screws at appropriate distances to fit into the spacing of each Aluminum System Profile track.

Deck Glider (attached to the Aluminum System Profile)



After attaching the Deck Gliders to the deck boards, each deck board is then fastened to the Aluminum System Profile track, locking it in place.



Photo above shows Mataverde® Eurotec™ “Deck Glider” hidden fastener installation

Although the Deck Glider hidden fastener method is more labor intensive than other methods, the boards can expand and contract normally during seasonal weather changes. This helps ensure that the screws are firmly fastened over time.

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The Mataverde Eurotec Twin System Holder Hidden Fastening Method

An alternative hidden fastener method is also available - the Eurotec Twin System Holder. The big benefit of this option is that it saves significant labor time and labor cost. This method uses pre-grooved decking boards and the Twin System Holder fasteners are screwed directly into the Aluminum System Profile. Because wood moves as it acclimates, and then seasonally afterwards, we recommend using 5/4x4 pre-grooved decking for best performance.



From a labor standpoint, the fastening for this method of installation is faster, easier and more efficient than any other hardwood deck fasteners we have seen.

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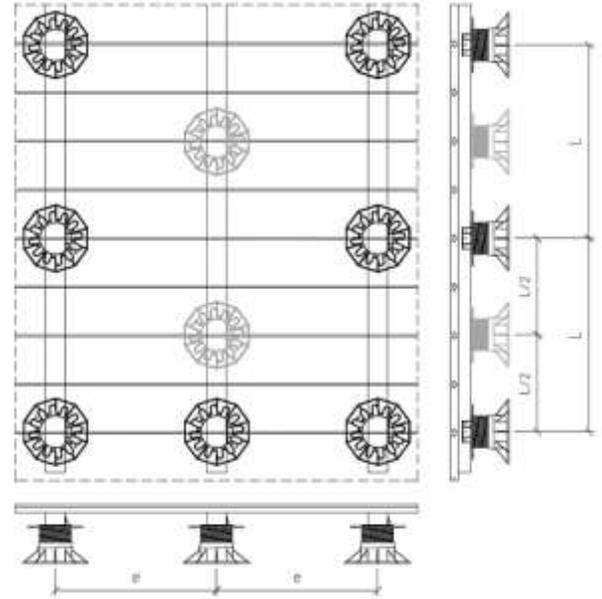
Technical Information for Proper Spans for Residential and Commercial Design

When designing the Eurotec Deck System for rooftop decks, **it is imperative that the existing roof system must be of sufficient strength and structural integrity to perform properly. Always have a Professional Engineer evaluate the existing roof structure prior to construction of a rooftop deck system of any type¹.**

In the picture on the right and the Load Calculation Table below, “e” refers to the “on center” spacing between parallel rows of the Aluminum System Profile.

“L” denotes the on center spacing between the pedestals in a particular row.

The following information should be helpful for planning your deck system.



Dead Load + Live Load Calculation Table

		Maximum Spans for Aluminum System Profile in Inches			
Aluminum System Profile - On Center Spacing >>		12" OC ("e")	16" OC ("e")	19.2" OC ("e")	24" OC ("e")
Combined Load Totals (Includes total of live load, dead load, snow load*). Pounds/ Square Foot ↓					
Pedestal Spacing at various loads and aluminum system profile spacing conditions*	40 lbs./sf	37.2" ("L")	33.5" ("L")	32.3" ("L")	29.8" ("L")
	50 lbs./sf (Typical requirement for residential decks in continental US.) Please see note below*	33.7" ("L")	30.4" ("L")	29.3" ("L")	27.0" ("L")
	60 lbs./sf	31.1" ("L")	28.0" ("L")	27.0" ("L")	24.9" ("L")
	70 lbs./sf	29.0" ("L")	26.1" ("L")	25.1" ("L")	23.2" ("L")
	80 lbs./sf	27.2" ("L")	24.5" ("L")	23.6" ("L")	21.8" ("L")
	90 lbs./sf	25.8" ("L")	23.2" ("L")	22.4" ("L")	20.6" ("L")
	100 lbs./sf	24.5" ("L")	22.1" ("L")	21.3" ("L")	19.6" ("L")

a.) Spans calculated to the maximum value not to exceed L/600 deflection

b.) Example: If span of Aluminum System Profile is 16" On Center, then the maximum span of the profile (between pedestals) = 30.4" at a 50 lbs. /sf Combined Load total

***Always confirm local code requirements with local building official or Professional Engineer**

¹ Mataverde, Eurotec and General Woodcraft will not be responsible for determining the suitability and structural requirements necessary for the proper evaluation of an existing roof system or other structure. A licensed architect or professional engineer must evaluate the existing structure PRIOR to construction of any deck system.