

THE NEXT EVOLUTION IN DECKS

PRODUCT CATALOG



PROJECT PLANNING SHEET



STEEL DECK FRAMING

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THE BIRTH OF EVOLUTION STEEL FRAMING

A few years ago, a Colorado deck builder approached Fortress Building Products and, knowing our capabilities for steel building materials, recommended we create a metal deck framing system to fill a void in the North American market. We investigated and found that places like Australia and South Africa had already moved to metal framing systems, while most North American builders still relied on wood products. Fortress met with deck builders, and it quickly became clear the market needs a steel system that is affordable, looks and assembles like wood, and is easy to install. To answer these requests, we introduced Evolution by Fortress Framing, a steel system designed by deck builders, for deck builders.



TRUST IN FORTRESS

In 2002, Fortress opened its doors and quickly became a market leader in alternative fence and railing solutions that are durable, low maintenance, high strength, and easy to install. Through the years, Fortress has expanded its line-up and now specializes in alternative outdoor building products, including railings, fence, pergola, and bamboo-based composite decking.



BUILDING MATERIALS, THEN AND NOW

We've relied on wood construction for centuries – for bridges, oil derricks, and even warships. Once we learned to work with steel, however, builders abandoned many wood structures in favor of durable steel. Today, leading deck builders around the world are choosing sustainable steel framing over old-fashioned wood framing.





WOOD VS STEEL COMPARISON

	WOOD FRAMING	EVOLUTION STEEL DECK FRAMING
EASY TO INSTALL	✓	✓
STRAIGHT, UNIFORM PIECES	Ø	✓
BUILD BEYOND LIMITATIONS	Ø	✓
COMPATIBILITY	✓	✓
LONG-LIFE WARRANTY	Ø	✓
A SMART INVESTMENT	Ø	✓
AESTHETHICALLY BEAUTIFUL	Ø	✓
FIRE- AND INSECT-RESISANT	Ø	✓
SUSTAINABLE	\bigcirc	✓





Designed and engineered to look and install like wood. If you know how to frame with wood, you can frame with Evolution.



STRAIGHT, UNIFORM PIECES

Light-gauge steel provides a perfectly flat surface without crowning, warping, or cracking over the life of your deck. Builds flat, stays flat!



BUILD BEYOND LIMITATIONS

Our steel deck framing has been engineered to provide greater spans between supports, resulting in fewer columns for less obstructed views.

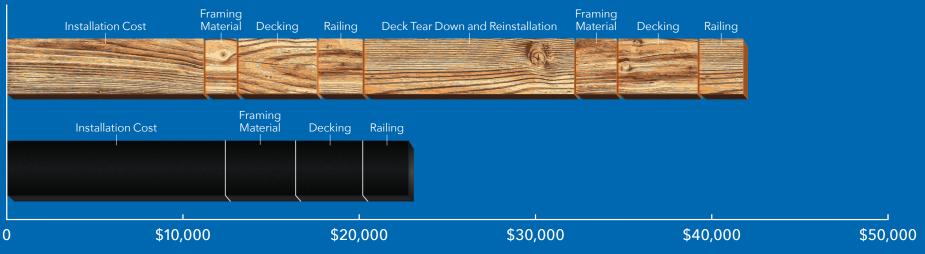


Evolution steel deck framing is compatible with any type or brand of decking, including composite, PVC, aluminum, tile, wood, and tropical hardwoods.



LIFETIME COST OF YOUR DECK

Half the cost, none of the worry.



Estimated professionally installed cost for a 20'x 20' deck. Based on company market research. Cost for decking and railing are based on wood alternative products



We believe your framing should last at least as long as the decking it supports. Evolution carries a 25-year limited manufacturer warranty.



Like all Fortress products, Evolution by Fortress Framing is designed on our core concepts of low-maintenance, durability, ease of installation, and safety.



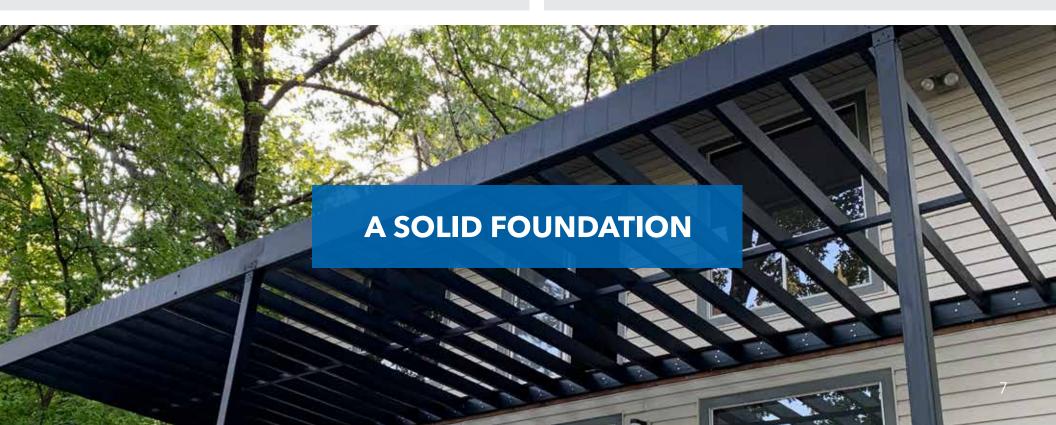
AESTHETICALLY BEAUTIFUL

The premium Black Sand powder coat provides an aesthetically pleasing look that virtually disappears when you're above or below your deck. Now you can build with or without fascia.



FIRE- AND INSECT-RESISTANT

Evolution steel deck framing is noncombustible material, resistant to fire and invulnerable to rotting, warping, splitting, and pesky insect damage.







INSECTICIDE-FREE

Wood boards are often soaked with insecticide and fungicide. Because steel doesn't attract bugs and microorganisms, it doesn't require this type of treatment.



SUSTAINABLE

Steel is recycled and recyclable, making it more sustainable than wood. Learn more on page 9.

GREAT FOR THE PLANET...

The environment will thank you for choosing steel. While wood is renewable, steel is sustainable. We'll tell you why.



Of all steel is recycled, while 70% of wood is single use.



Recycling steel requires less energy than it originally took to make it.



Recycling steel does not degrade its quality, so it can be recycled over and over.



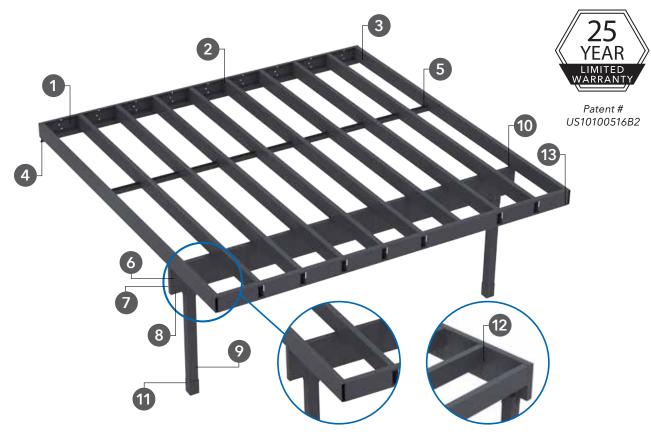
Old growth lumber provided a stronger, denser product that is not sustained in the fast growth lumber of today.

GREAT FOR BUILDERS...

Evolution was designed to be installed like wood, without the difficulty and confusion of typical steel profiles. Evolution consists of a Ledger, Joists, Beams, Posts, and Blocking, making installation quick and easy!

PARTS SHOWN

- 1. S-Ledger (pre-spaced 12" & 16" O.C.)
- 2. Ledger Bracket
- 3. Joist (2"x6")
- 4. F50 Bracket
- 5. Strap (mid-span blocking)
- 6. Beam (2"x11")
- 7. Beam Cap
- 8. Post to Beam Bracket
- 9. Post (3½"x3½"x10')
- 10. Blocking (12" & 16" O.C.)
- 11. Post to Pier Bracket
- 12. Single Hanger Brackets
- 13. Rim Joist (pre-spaced 12" & 16" O.C.)



Example of flush beam application

PARTS NOT SHOWN... but available to cover virtually all needs/applications.

14. Double Beam Track15. Double Hanger Bracket17. Joist Cap18. Curved Rim Joist

16. Double Beam to Post Bracket 19. Rim Joist Bracket

20. 45° Bracket

21. F10 Bracket

22. Self Drilling Screw





JOIST

16 Gauge

Galvanized and powder coated with Black Sand. Lengths available: 12' | 14' | 16' | 18' | 20'

Joist Cap

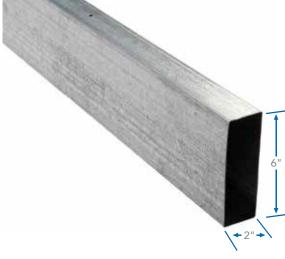
Galvanized and powder coated with Black Sand.

18 GaugeGalvanized.
Lengths available:
12' | 14' | 16' | 18' | 20'

Evolution's Joists are a familiar shape that install quickly and easily with minimal fasteners. The steel joists will hold their shape, providing a perfectly flat deck surface that will not sag or warp over the life of your deck.

16 Gauge Joist





Joist Cap

Covers open joist to provide clean, finished look and deter pests and animals





S-LEDGER

12" O.C.

Galvanized and powder coated with Black Sand. Lengths available: 12' | 20'

16" O.C.

Galvanized and powder coated with Black Sand. Lengths available: 12' | 20'

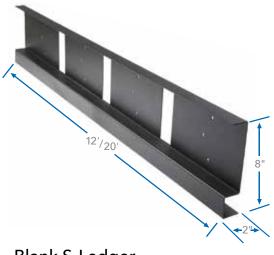
Blank

Galvanized and powder coated with Black Sand. Lengths available: 12' | 20'

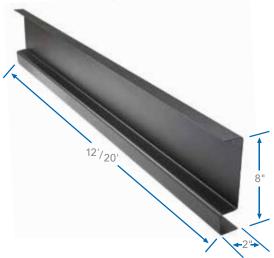
Ledger Bracket Galvanized and powder coated with Black Sand.

Evolution's S-Ledger is an engineered interlocking design with the Ledger Bracket that eliminates the need for excessive fasteners and drastically speeds up installation. The "S" shape provides a sturdy, safe deck connection that will offer peace of mind for decades. The S-Ledger is available with pre-punched, standard spacing options that simplify deck construction.

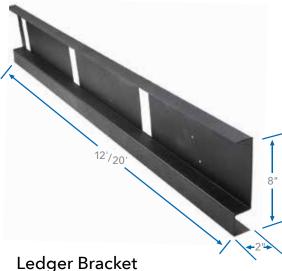
12" O.C. S-Ledger



Blank S-Ledger



16" O.C. S-Ledger



Used with the S-Ledger and joist or fastened to a flush beam





BEAM + DOUBLE BEAM TRACK

Beam

Galvanized and powder coated with Black Sand. Lengths available: 8' | 12' | 16' | 20'

Beam Cap

Galvanized and powder coated with Black Sand.

Double Beam Track

Galvanized and powder coated with Black Sand. Lengths available: 4' Sold in pairs Evolution's Beam has been engineered to achieve longer spans between supports, eliminating excessive posts and obstructed views.

Beam



Double Beam Track

Used to connect two beams to create a double beam (attaches to top and bottom of double beam)



Beam Cap

Covers open beams to provide clean, finished look and deter pests and animals





RIM JOIST

12" O.C.

Galvanized and powder coated with Black Sand. Lengths available: 8'

16" O.C.

Galvanized and powder coated with Black Sand. Lengths available: 8'

Blank

Galvanized and powder coated with Black Sand. Lengths available: 8'

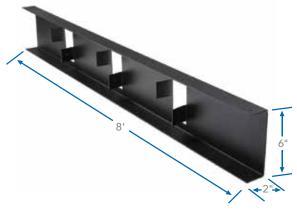
Curved

Galvanized and powder coated with Black Sand. Lengths available: 8'

Evolution's Rim Joist incorporates the same pre-punched and non-punched system as the S-Ledger for consistent, quicker installation without the hassle. Evolution's Rim Joists provide a solution for any installation application, including an option for curved decks. The Rim Joist attaches to the Joist with minimal fasteners and provides a perfectly flat surface to attach trim or fascia.

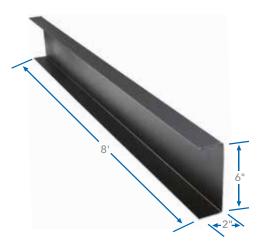
12" O.C. Rim Joist

For use with fascia only



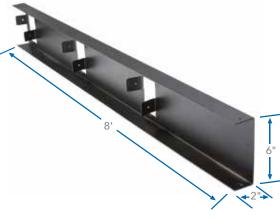
Blank Rim Joist

For use with or without fascia



16" O.C. Rim Joist

For use with fascia only



Curved Rim Joist





POST + POST BRACKETS

Post

Galvanized and powder coated with Black Sand. 3½" x 3½" x 10'

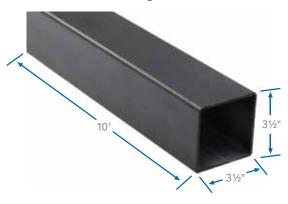
Post/Pier Bracket
Galvanized and powder
coated with Black Sand.

Single Beam/Post Bracket
Galvanized and powder
coated with Black Sand.

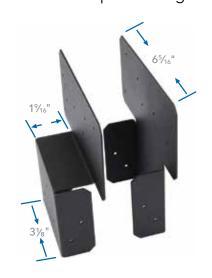
Double Beam/Post Bracket Galvanized and powder coated with Black Sand. Evolution's steel post and brackets provide the perfect solution to support your deck. The black powder coated posts look great on their own or can be customized with the trim of your choice.

Post

Used to support deck framing to concrete footings

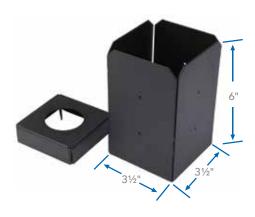


Single Beam/Post Bracket
Used to secure post to single beam

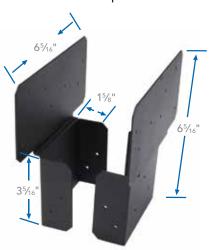


Post/Pier Bracket

Secures post to concrete landing or pier



Double Beam/Post Bracket
Used to secure post to double beam





BRACKETS

F-10 Bracket

Galvanized and powder coated with Black Sand.

F-50 Bracket Galvanized and powder coated with Black Sand.

Single Hanger Bracket Galvanized and powder coated with Black Sand.

Double Hanger Bracket Galvanized and powder coated with Black Sand.

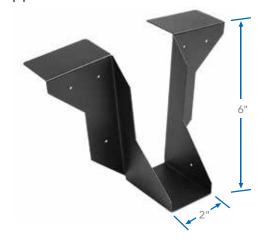
F-10 Bracket

Used to secure joist to a drop beam when non-standard spacing is required and as a cap on the bottom of the S-Ledger



Single Hanger BracketUsed to secure joist to flush beam

applications



F-50 Bracket

Used with S-Ledger, joist, and blocking as well as many other applications



Double Hanger Bracket

Used to secure double joist or create a double (2"x6") carry beam





BRACKETS (CONTINUED)

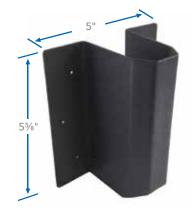
Ledger Bracket
Galvanized and powder
coated with Black Sand.

45° BracketGalvanized and powder coated with Black Sand.

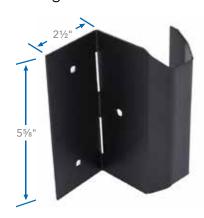
Rim Joist Bracket Galvanized and powder coated with Black Sand.

Ledger Bracket

Used with the S-Ledger and joist or fastened to a flush beam



Rim Joist Bracket
Inserts into joist at the end of the deck for attaching the Curved Rim Joist



45° Bracket

Used with the Blank S-Ledger when joist extends at an angle to keep standard spacing





BLOCKING + ACCESSORIES

Blocking

Galvanized and powder coated with Black Sand. 12" O.C. + 16" O.C.

Screw Self-drilling metal screw Head coated in black.

Blocking

Manufactured to match the same spacing as the S-Ledger for easy blocking of joist on a dropped beam

dropped beam 12" O.C. Blocking 16" O.C. Blocking

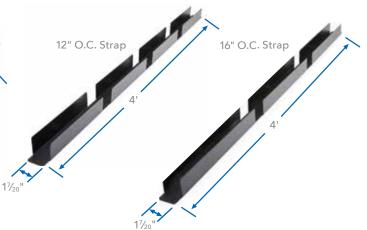
Screw

¾" Black self-drilling metal screw



Strap

Manufactured to match the same spacing as the S-Ledger for easy mid-span blocking applications



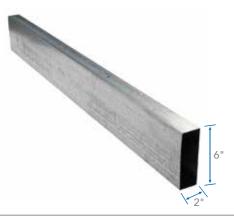






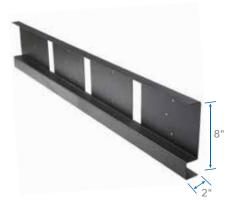
JOIST - 16 GAUGE

ITEM #	DESCRIPTION	UPC#
181112161	FF-EVOLUTION-2X6 JOIST-12'-16GA-PC	811397030170
181114161	FF-EVOLUTION-2X6 JOIST-14'-16GA-PC	811397030163
181116161	FF-EVOLUTION-2X6 JOIST-16'-16GA-PC	811397030156
181118161	FF-EVOLUTION-2X6 JOIST-18'-16GA-PC	811397030149
181120161	FF-EVOLUTION-2X6 JOIST-20'-16GA-PC	811397030132



JOIST - 18 GAUGE

ITEM#	DESCRIPTION	UPC#
181112180	FF-EVOLUTION-2X6 JOIST-12'-18GA	811397030224
181114180	FF-EVOLUTION-2X6 JOIST-14'-18GA	811397030217
181116180	FF-EVOLUTION-2X6 JOIST-16'-18GA	811397030200
181118180	FF-EVOLUTION-2X6 JOIST-18'-18GA	811397030194
181120180	FF-EVOLUTION-2X6 JOIST-20'-18GA	811397030187



S-LEDGER

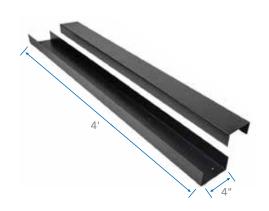
ITEM #	DESCRIPTION	UPC#
182012141	FF-EVOLUTION-S-LEDGER-12'	811397030293
182020141	FF-EVOLUTION-S-LEDGER-20'	811397030309
182112141	FF-EVOLUTION-12OC-S-LEDGER-12'	811397030316
182120141	FF-EVOLUTION-12OC-S-LEDGER-20'	811397030354
182212141	FF-EVOLUTION-16OC-S-LEDGER-12'	811397030330
182220141	FF-EVOLUTION-16OC-S-LEDGER-20'	811397030347





BEAM

ITEM #	DESCRIPTION	UPC#
184108161	FF-EVOLUTION-BEAM 2X11-8'	811397030361
184112161	FF-EVOLUTION-BEAM 2X11-12'	811397030378
184116161	FF-EVOLUTION-BEAM 2X11-16'	811397030385
184120161	FF-EVOLUTION-BEAM 2X11-20'	811397030392



DOUBLE BEAM TRACK

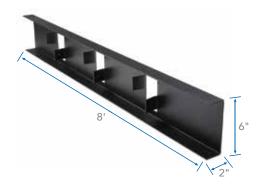
ITEM #	DESCRIPTION	UPC #
184204161	FF-EVOLUTION-DBL BEAM TRACK-4' (2 PACK)	811397030408



CAPS

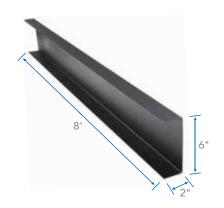
ITEM #	DESCRIPTION	UPC#
183062001	FF-EVOLUTION-JOIST CAP	811397030262
183112001	FF-EVOLUTION-BEAM CAP	811397030279





RIM JOIST

ITEM #	DESCRIPTION	UPC #
185108141	FF-EVOLUTION-12OC U-RIM JOIST-2X6-8'	811397030422
185208141	FF-EVOLUTION-16OC U-RIM JOIST-2X6-8'	811397030439



RIM JOIST - BLANK

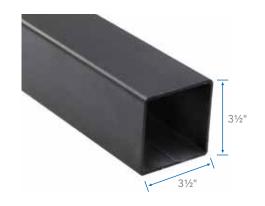
ITEM #	DESCRIPTION	UPC #
185008141	FF-EVOLUTION-U-RIM JOIST-2X6-8'	811397030415



RIM JOIST - CURVED

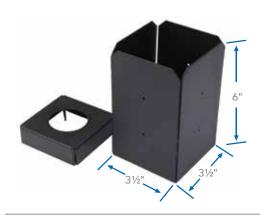
ITEM #	DESCRIPTION	UPC #
185308161	FF-EVOLUTION-CURVE-RIM JOIST-2X6-8'	811397030446





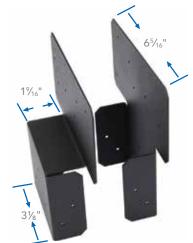
POST

ITEM #	DESCRIPTION	UPC #
186110111	FF-EVOLUTION-POST 3.5X3.5-10'	811397030248



POST TO PIER BRACKET

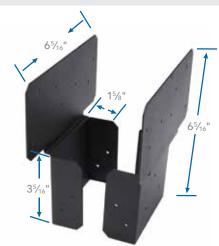
ITEM #	DESCRIPTION	UPC#
183351601	FF-EVOLUTION-3.5" POST/PIER BRACKET	811397030286



SINGLE BEAM TO POST BRACKET

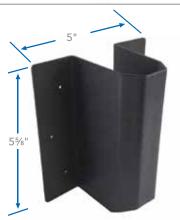
ITEM #	DESCRIPTION	UPC#
183161601	FF-EVOLUTION-SNGL BEAM/POST BRACKET	811397030057





DOUBLE BEAM TO POST BRACKET

ITEM #	DESCRIPTION	UPC #
183261601	FF-EVOLUTION-DBL BEAM/POST BRACKET	811397030040



LEDGER BRACKET

ITEM #	DESCRIPTION	UPC#
183011401	FF-EVOLUTION-LEDGER BRACKET	811397030125



F10 BRACKET

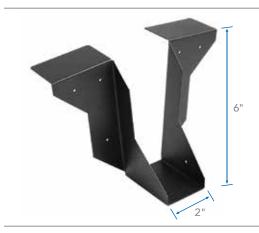
ITEM #	DESCRIPTION	UPC #
183041601	FF-EVOLUTION-F10 BRACKET (BOX 10)	811397030453





F50 BRACKET

ITEM #	DESCRIPTION	UPC #
183021601	FF-EVOLUTION-F50 BRACKET	811397030118



SINGLE HANGER BRACKET

ITEM #	DESCRIPTION	UPC #
183102001	FF-EVOLUTION-SNGL HANGER BRACKET	811397030071



DOUBLE HANGER BRACKET

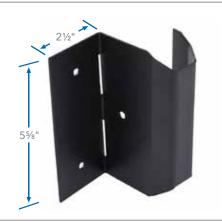
ITEM #	DESCRIPTION	UPC #
183202001	FF-EVOLUTION-DBL HANGER BRACKET	811397030064





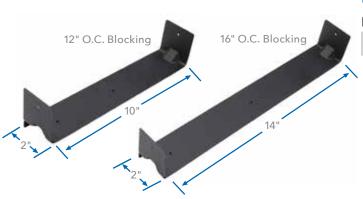
45° BRACKET

ITEM #	DESCRIPTION	UPC #
183451401	FF-EVOLUTION-45 DEG BRACKET	811397030101



RIM JOIST BRACKET

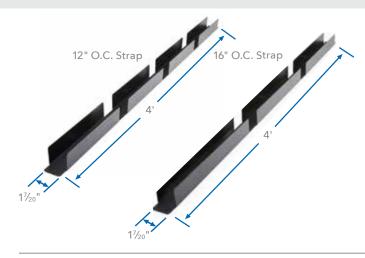
ITEM #	DESCRIPTION	UPC #
183031801	FF-EVOLUTION-RIM JOIST BRACKET	811397030095



BLOCKING

ITEM #	DESCRIPTION	UPC #
188122001	FF-EVOLUTION-12OC BLOCKING	811397030033
188162001	FF-EVOLUTION-16OC BLOCKING	811397030026





STRAP

ITEM #	DESCRIPTION	UPC #
187104201	FF-EVOLUTION-12OC STRAP	811397030002
187204201	FF-EVOLUTION-16OC STRAP	811397030019



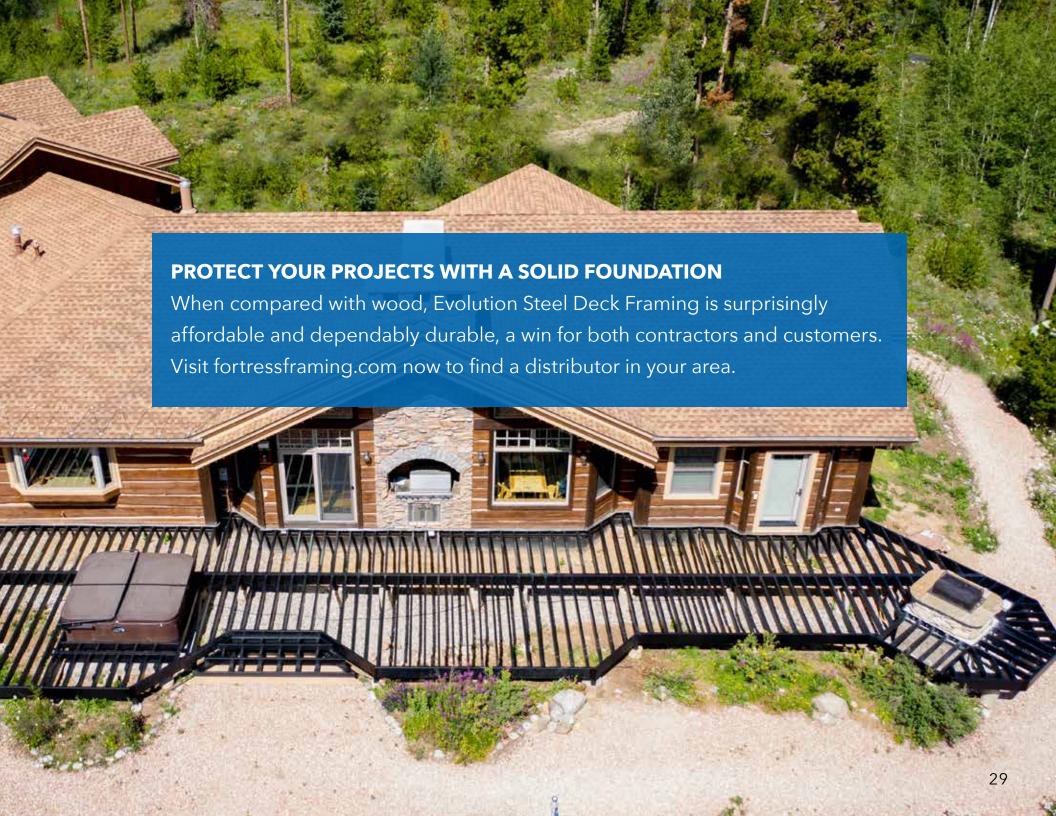
SELF-DRILLING SCREW

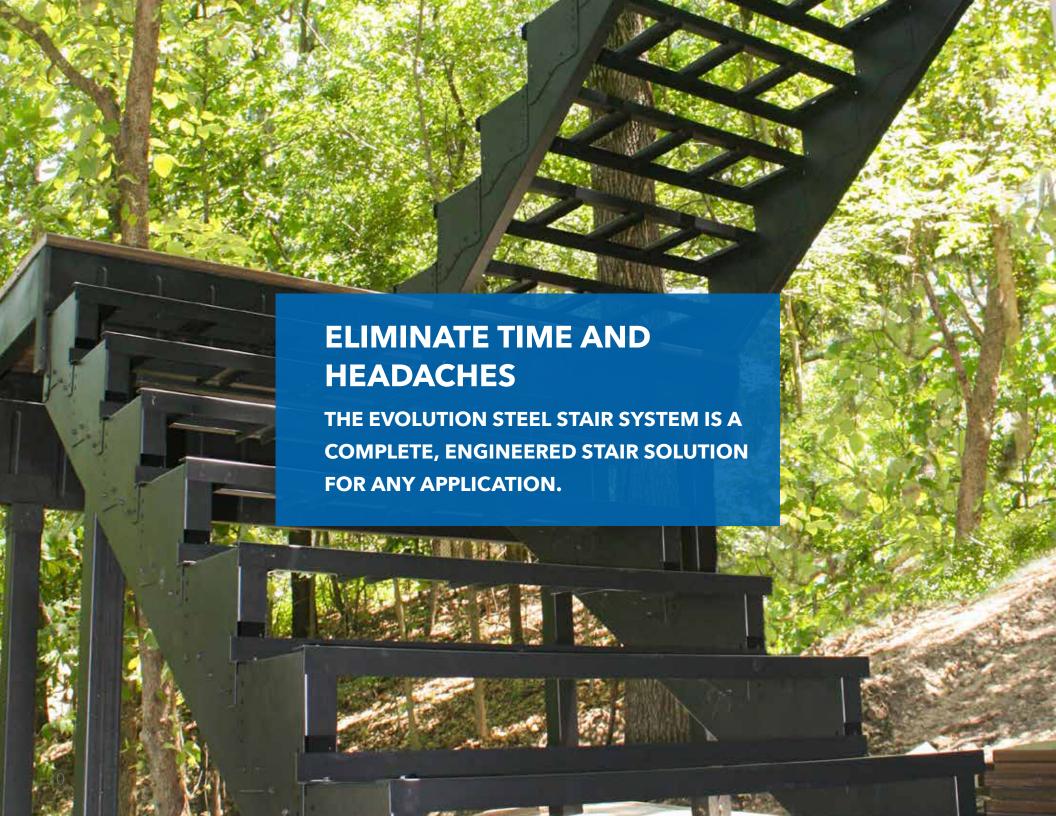
ITEM #	DESCRIPTION	UPC #
183990341	FF-EVOLUTION 3/4" BLACK SELF-DRILLING	811397030255
	SCREW (BAG 250)	



BLACK SAND TOUCH UP PAINT

ITEM #	DESCRIPTION	UPC #
183280601	FF-BLACK SAND (BKSND) AEROSOL TOUCH UP	811397030736
	PAINT	





EVOLUTION STEEL STAIR SYSTEM

The stair components and brackets work with the Evolution Joist and Beams to provide a quick, easy assembly, dramatically decreasing installation time! The Black Sand powder coat delivers an aesthetically pleasing modern look on its own or use with fascia/trim for a more traditional look.

PARTS SHOWN

- 1. Beam (or deck/structure)
- 2. Stair Strap
- 3. Stringer Evolution 2"x6" Joist or 2"x11" Beam
- 4. Stair Stringer Anchor Bracket
- 5. Preset 7"/11" Stair Bracket
- 6. 48" Stair Tray





Patent Pending

PARTS NOT SHOWN... but available to cover virtually all needs/applications.

• Preset 7¾"/11" Stair Bracket

• Adjustable Stair Bracket



COMPONENTS

48" Stair Tray

The Evolution Stair Tray allows quick and easy installation without all the stringers and hassle. The lateral supports are spaced to work with any kind of deck board and provides blocking for surface mounted posts.

Stair Stringer Anchor Bracket

The Evolution Stair Stringer Anchor Bracket is reversible, allowing a secure, connection from the stringer to the footing, slab or pier under the last tread. Providing an aesthetically seamless transition from the stairs.

Stair Strap

The Evolution Stair Strap allows flexibility when connecing the stairs to the deck, landing or structure, while securely holding the stringers in place.

The Evolution Stair Components have been designed and engineered to eliminate the need for excessive stringers and work with any composite, PVC and tropical hardwood deck boards.

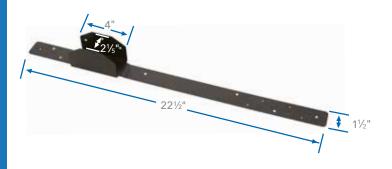
48" Stair Tray

Stair Stringer Anchor Bracket





Stair Strap





BRACKETS

Preset 7"/11" Stair Bracket

The Evolution Preset 7"/11" Stair Bracket is engineered to slide over the top of an Evolution Joist and provide a perfect 7" rise and 11" run for the stringer. These brackets align directly with one another resulting in a rapid, worry-free stringer installation.

Preset 7¾"/11" Stair Bracket

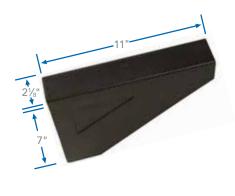
The Evolution Preset 7¾"/11" Stair Bracket is engineered to slide over the top of an Evolution Joist and provide a perfect 7¾" rise and 11" run for the stringer. These brackets align directly with one another resulting in a rapid, worry-free stringer installation.

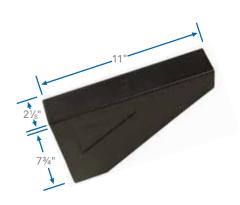
Adjustable Stair Bracket

The Evolution Adjustable Stair Bracket allows you to quickly and easily customize the stair's rise and run using the two provided set pins. Simply place the set pins in the desired holes and slide the stair brackets over an Evolution Joist to complete the stinger installation.

Evolution Stair Brackets have been designed to accommodate virtually any rise/run options. The stair brackets attach directly to the top of the Evolution Joist or Beams for quick and easy installation without the irritation of traditional stair applications.

Preset 7"/11" Stair Bracket Preset 7¾"/11" Stair Bracket





Adjustable Stair Bracket









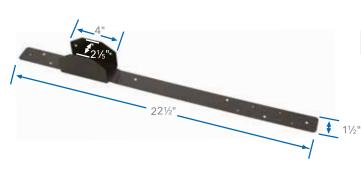
48" STAIR TRAY

ITEM #	DESCRIPTION	UPC #
189348161	FF-EVOLUTION-48" STAIR TRAY	811397030712



STAIR STRINGER ANCHOR BRACKET

ITEM #	DESCRIPTION	UPC#
189100161	FF-EVOLUTION-STAIR ANCHOR BRACKET	811397030682



STAIR STRAP

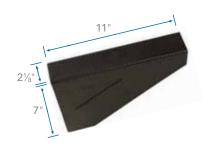
ITEM #	DESCRIPTION	UPC #
189223181	FF-EVOLUTION-STAIR STRAP	811397030675





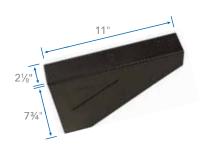
ADJUSTABLE STAIR BRACKET

ITEM #	DESCRIPTION	UPC #
189199141	FF-EVOLUTION-ADJUSTABLE STAIR BRACKET	811397030705



7"/11" STAIR BRACKET

ITEM #	DESCRIPTION	UPC#
189107161	FF-EVOLUTION-7"/11" STAIR BRACKET	811397030651



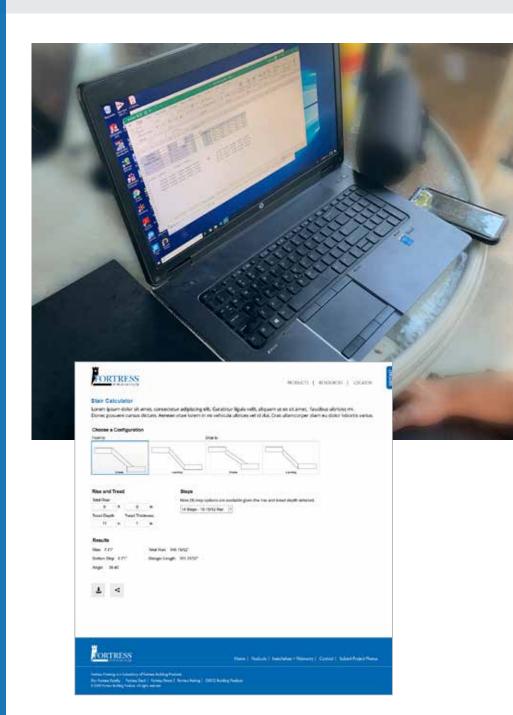
7¾"/11" STAIR BRACKET

ITEM #	DESCRIPTION	UPC #
189134161	FF-EVOLUTION-7¾"/11" STAIR BRACKET	811397030668



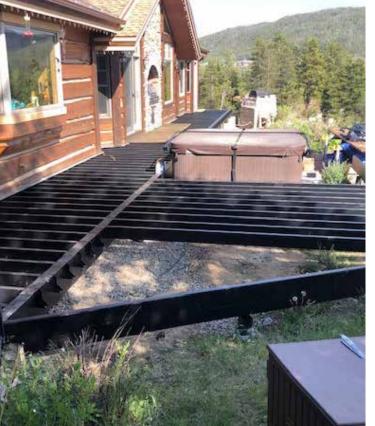
STAIR CALCULATOR

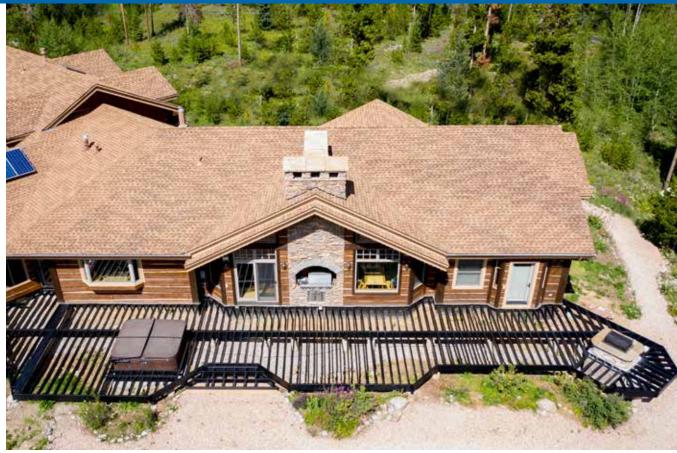
Building with the Adjustable Stair Bracket is easy when you use the online custom stair calculator. Simply choose your stair configuration, enter a few parameters, and the calculator will show you how to build your stringer!



THE TOTAL SOLUTION



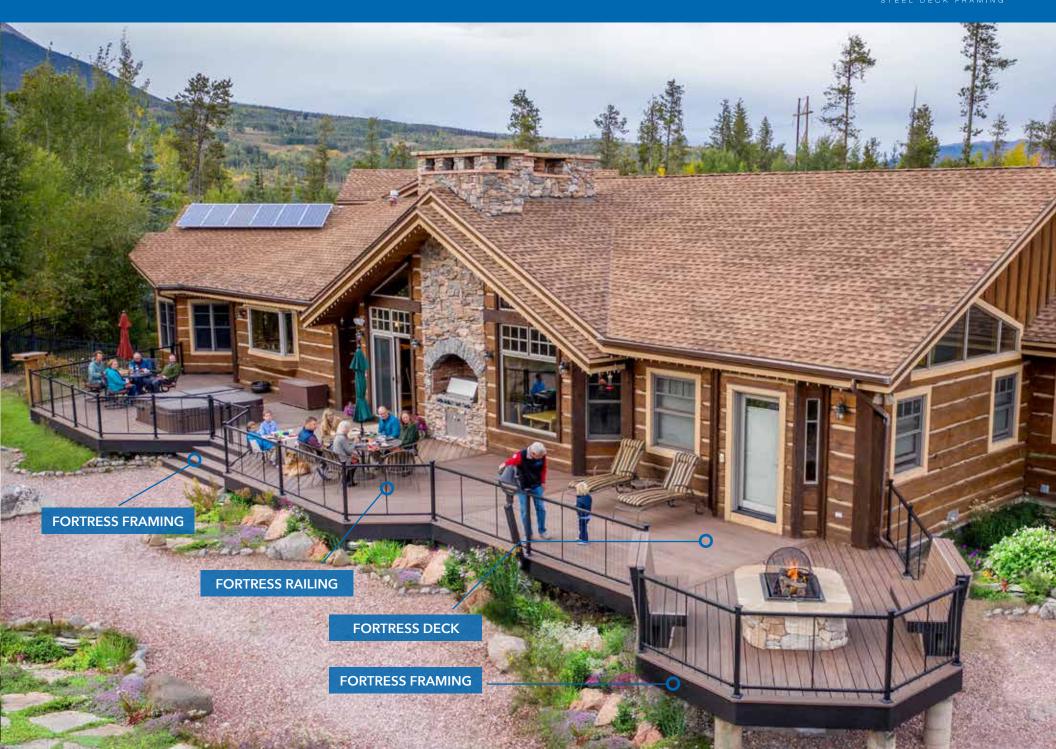








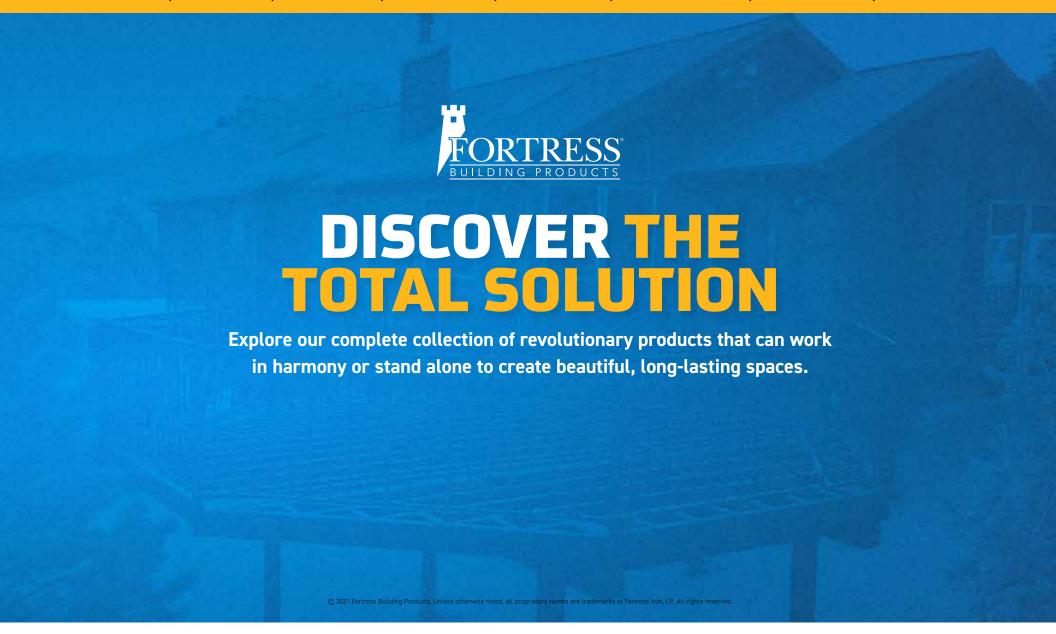




PROJECT PLANNING SHEET

PROJECT PLANNING SH	EET	

													E'	VC s	OLUTION STEEL DECK FRAMING						



JOIN THE REVOLUTION.

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