



THE NEXT EVOLUTION IN DECKS

STEEL FRAMING PRODUCT CATALOG

EVOLUTION™

#1 BRAND IN STEEL DECK FRAMING

CONTENTS



- 3 Our Story
- 5 Benefits of Steel
- 7 Why Evolution?
- 9 Peace of Mind & Sustainability
- 12 System Components
 - 14 Joist
 - 15 S-Ledger
 - 16 Beam & Double Beam Track
 - 17 Rim Joist
 - 18 Post & Post Brackets
 - 19 Brackets
- 22 Blocking & Accessories
- 26 Steel Stair System
- 28 Steel Stair System Components
- 30 Steel Pergolas

An aerial photograph of a residential property, showing a house with a grey roof, a driveway, and a lawn. The image is overlaid with a semi-transparent blue layer. In the foreground, there is a blue-tinted image of a person sitting on a wooden deck, looking down at a smartphone. The person is wearing a blue shirt and a hat. The overall composition suggests a modern, tech-savvy approach to home building or maintenance.

#1 BRAND IN STEEL DECK FRAMING

At Fortress, we break through barriers and push the building industry forward through innovation and a commitment to excellence. That's why we created Evolution steel deck framing, a complete system.

Steel is stronger, straighter and lasts longer than wood. Steel opens up new possibilities, with greater spans and the versatility to work with any type or brand of decking.

Choose the trusted strength of our steel. Build confidence with Evolution, the only complete steel deck framing system on the market. Experience unequalled support as you forge ahead and leave others in the sawdust.

PROVEN PERFORMANCE. SMARTER SOLUTIONS.™

Since 2002, Fortress Building Products has been a trusted solutions provider, forging durable, steel and aluminium products with a drive for constant innovation. Its line-up of steel deck framing, railing, fencing, lighting and pergolas is durable, low maintenance, high strength and easy to install.

The image is a composite. The left side features a blue-tinted background with a man in a dark shirt working on a steel frame. Overlaid on this is the text 'SMARTER STEEL FRAMING SYSTEM DESIGNED BY DECK BUILDERS, FOR DECK BUILDERS.' in white and yellow. The right side is a full-color photograph of two men installing a steel framing system. One man, wearing a black shirt and a green visor, is leaning over the frame. The other man, wearing a green shirt and a black visor, is kneeling and working on the frame. The frame consists of black steel beams supported by gravel. A yellow hose is visible in the background.

SMARTER STEEL FRAMING SYSTEM DESIGNED BY DECK BUILDERS, FOR DECK BUILDERS.



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

	Pressure Treated Wood Framing	EVOLUTION [™] #1 BRAND IN STEEL DECK FRAMING
EASY TO INSTALL	✓	✓
STRAIGHT, UNIFORM PIECES	✗	✓
BUILD BEYOND LIMITATIONS	✗	✓
COMPATIBILITY	✓	✓
LONG-LIFE WARRANTY	✗	✓
A SMART INVESTMENT	✗	✓
AESTHETICALLY BEAUTIFUL	✗	✓
INSECT-RESISTANT	✗	✓
SUSTAINABLE	✗	✓
CLASS-A FIRE RATING	✗	✓



WHY EVOLUTION STEEL DECK FRAMING?



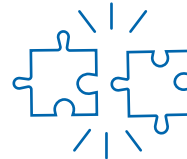
EASY TO INSTALL

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



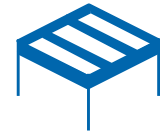
STRAIGHT, UNIFORM PIECES

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



COMPATIBILITY

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



BUILD BEYOND LIMITATIONS

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

IT'S WHAT YOU DON'T SEE THAT COUNTS



Credit: Minnesota Decks





A WELL-ROUNDED SOLUTION



BEST-IN-CLASS WARRANTY

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



SMART INVESTMENT

Like all Fortress® products, Evolution by Fortress 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.



COMMERCIAL-GRADE STRENGTH

Commercial builders have relied on it for decades. Now you can bring the strength of steel into your home's outdoor living space.

ENVIRONMENTALLY SOUND



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.



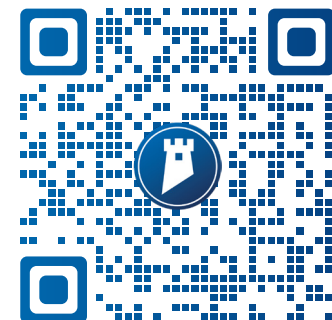
CLASS-A FIRE RATING

Class-A Fire Rating indicates superior fire protection. Know that your deck frame is the safest it can be and won't spread fire or put off nasty smoke fumes.



CALIFORNIA
FireSafe
COUNCIL

Meets the requirements of the CA SFM 12-7A-4A for use in all Wildland Urban Interface (WUI) zones. California Fire Safe Council Vendor.



Scan the QR to explore Evolution deck framing and steel stair framing.



90%

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...

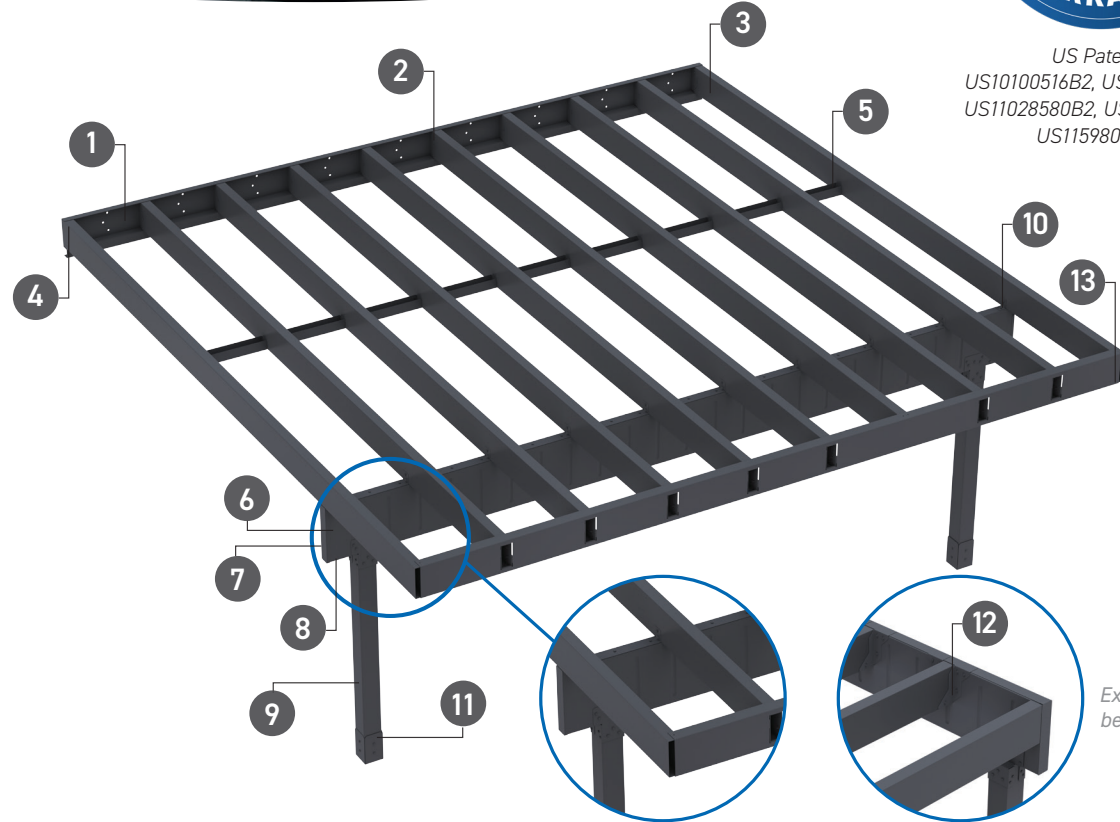
Evolution was designed to be installed like wood, without the difficulty and confusion of typical steel profiles. Evolution consists of a ledger, joists, beams, posts and blocking, making installation quick and easy!



US Patents
US10100516B2, US10550570B2,
US11028580B2, US11066830B2,
US11598090B2

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. Beam 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 Track
15. Double Hanger Bracket
16. Double Beam to Post Bracket
17. Joist Cap
18. Curved Rim Joist

19. Rim Joist Bracket
20. 45° Bracket
21. F10 Bracket
22. Self Drilling Screw
23. Black Sand Touch Up Paint

CODE
COMPLIANCE



Intertek

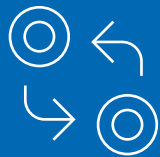
CCRR-0313
CN: 5012566

Our steel framing and stair system is tested and approved in accordance with the CCRR 0313 to provide reassurance that our system meets or exceeds the quality, safety, sustainability, and performance standards you demand for your deck structure.

Build a 25-year warranty deck on a 25-year frame. Our Evolution steel deck framing and stair system is the next evolution in decking. If you know how to frame with wood, you can frame with steel, even on curves. The interlocking joist and ledger system lets you build sturdy, safe decks with less effort. Our powder-coated finish provides increased corrosion resistance and a more finished look. Discover a smarter steel framing system designed by deck builders, for deck builders.



BUILDS FLAT
STAYS FLAT



WORKS WITH
ANY DECKING



GREATER SPANS



JOIST

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 2"x6" Joist
(G60 Galvanized & Black
Sand Powder Coated)

Lengths:

12' - 144" (3658mm)
14' - 168" (4267mm)
16' - 192" (4877mm)
18' - 216" (5486mm)
20' - 240" (6096mm)

Harnessing the strength of steel to span greater distances between supports, this beam reduces the number of needed posts to open up sight lines and reduce install time.

Galvanized and powder-coated with Black Sand.



Joist Cap

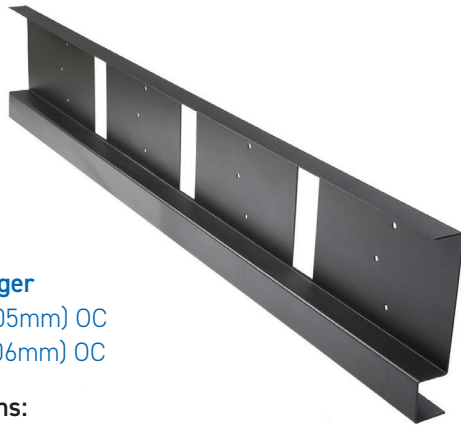
Covers open joist to provide clean, finished look and deter pests and animals.



Galvanized and powder-coated with Black Sand.

S-LEDGER

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.



S-Ledger

12" (305mm) OC
16" (406mm) OC

Lengths:

12' - 144" (3658mm)
20' - 240" (6096mm)

Used with the ledger bracket to significantly reduce installation time and eliminate the need for excessive fasteners. Available in pre-punched, standard spacing options, its "S" shape strengthens deck connections for sturdiness and safety.

Galvanized and powder-coated with Black Sand.



Blank S-Ledger

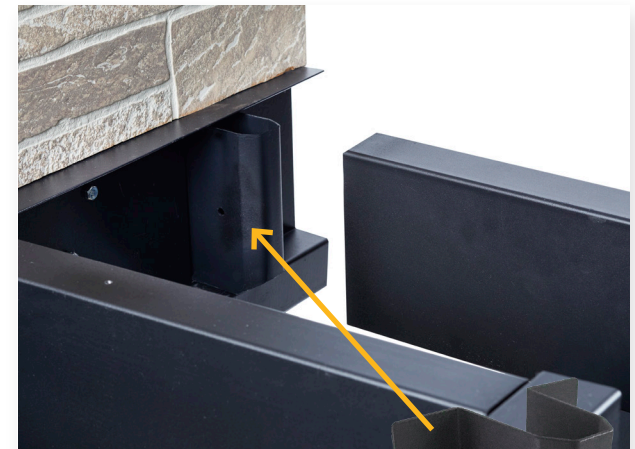
12" (305mm) OC
16" (406mm) OC

Lengths:

12' - 144" (3658mm)
20' - 240" (6096mm)

Evolution's blank s-ledger is designed to work with custom, non-standard joist spacing. The blank s-ledger can also be used around bay windows and other angled ledger attachments.

Galvanized and powder-coated with Black Sand.



Ledger Bracket

Used with the s-ledger and joist or fastened to a flush beam.



Galvanized and powder-coated with Black Sand.

BEAM & DOUBLE BEAM TRACK

Evolution's beam has been engineered to achieve longer spans between supports, eliminating excessive posts and obstructed views.



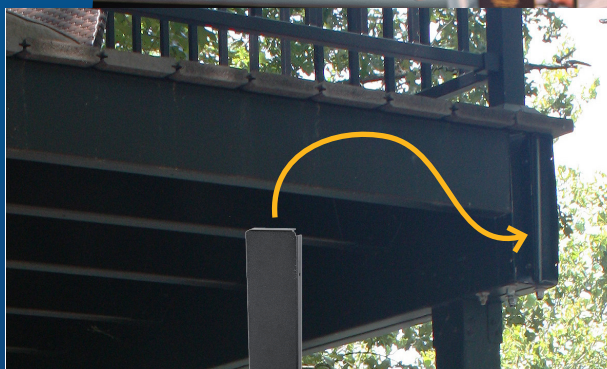
Beam

Lengths:

8' - 96" (2438mm)
12' - 144" (3658mm)
16' - 192" (4877mm)
20' - 240" (6096mm)

Harnessing the strength of steel to span greater distances between supports, this beam reduces the number of needed posts to open up sight lines and reduce install time.

Galvanized and powder-coated with Black Sand.



Beam Cap

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

Galvanized and powder-coated with Black Sand.



Double Beam Track

Lengths:

4' - 48" (1219mm)

Galvanized and powder-coated with Black Sand.

RIM JOIST

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.



Rim Joist
12" (305mm) OC
16" (406mm) OC
(for use with fascia only)

Lengths:
8' - 96" (2438mm)

To reduce time and effort needed for installation, this rim joist utilizes the same pre-punched and non-punched system as the s-ledger. With the versatility to create curved or straight decks, the rim joist creates a flat surface for fascia or trim to be attached to.

Galvanized and powder-coated with Black Sand.



Blank Rim Joist
(for use with fascia only)

Lengths:
8' - 96" (2438mm)

Galvanized and powder-coated with Black Sand.



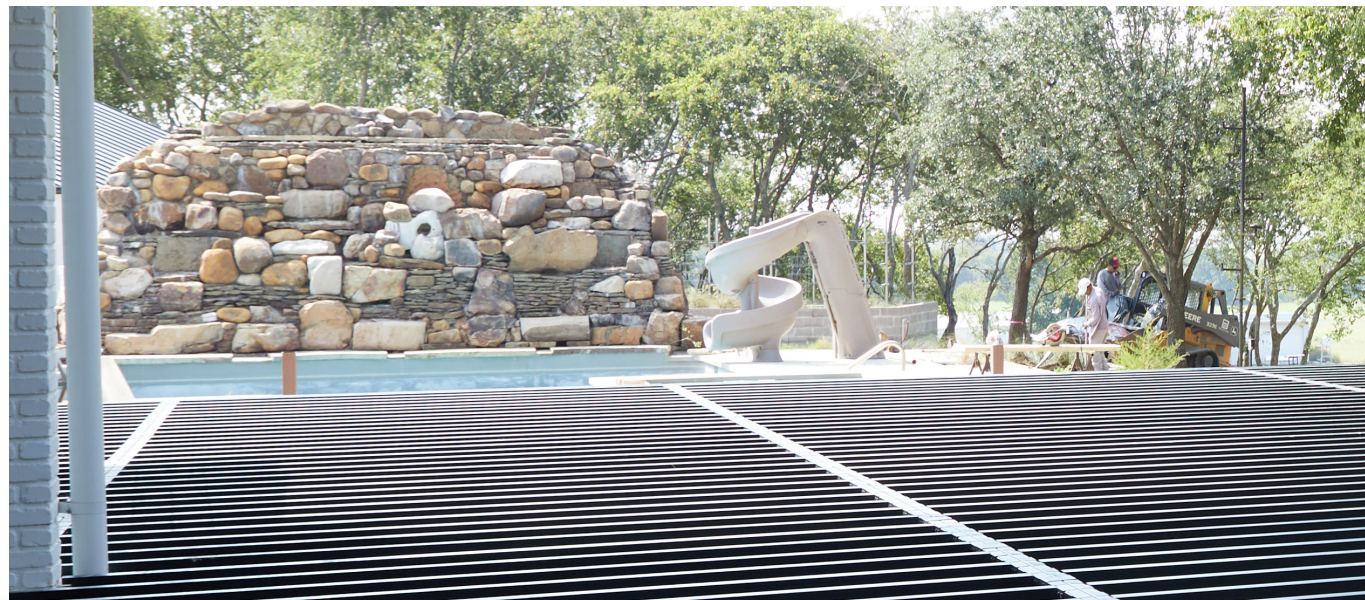
Curved Rim Joist

Lengths:
8' - 96" (2438mm)

Galvanized and powder-coated with Black Sand.

POST & POST BRACKETS

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

3.5" x 3.5"

8' - 96" (2438mm)

10' - 120" (3048mm)

5.5" x 5.5"

8' - 96" (2438mm)

20' - 240" (6096mm)

Used to support deck framing to concrete footings.

Galvanized and powder-coated with Black Sand.



Post / Pier Bracket

Lengths:

3.5" (89mm)

5.5" (140mm)

Galvanized and powder-coated with Black Sand.



Single Beam / Post Bracket

Lengths:

3.5" (89mm)

5.5" (140mm)

Used to secure post to single beam.

Galvanized and powder-coated with Black Sand.



Double Beam / Post Bracket

Lengths:

3.5" (89mm)

5.5" (140mm)

Used to secure post to double beam.

Galvanized and powder-coated with Black Sand.



BRACKETS



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.

Galvanized and powder-coated with Black Sand.



F-30 Bracket

Large 5"x2" angle bracket for general use.

Galvanized and powder-coated with Black Sand.



F-50 Bracket

Used with s-ledger, joist, and blocking as well as many other applications.

Galvanized and powder-coated with Black Sand.



Single Hanger Bracket

Used to secure joist to flush beam applications.

Galvanized and powder-coated with Black Sand.



Double Hanger Bracket

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

Galvanized and powder-coated with Black Sand.



BRACKETS (CONTINUED)

Evolution's brackets provide steadfast connections and a streamlined installation process by matching up perfectly with other framing components.

Ledger Bracket

Used with the s-ledger and joist or fastened to a flush beam.



Galvanized and powder-coated with Black Sand.

45° Bracket

Used with the blank s-ledger when joist extends at an angle to keep standard spacing.



Galvanized and powder-coated with Black Sand.

Rim Joist Bracket

Inserts into joist at the end of the deck for attaching the curved rim joist.



Galvanized and powder-coated with Black Sand.

Post

20' Galvanized and powder coated post, with the added benefit of being a nominal 5.5"x5.5" size. Longer length and footprint make it even more versatile than our standard 3.5" post.



Galvanized and powder-coated with Black Sand.

Post / Anchor Bracket

Lengths:

3.5" (89mm)

5.5" (140mm)

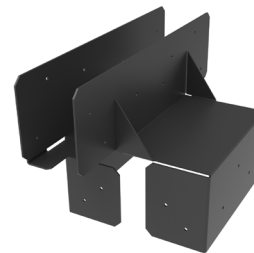
Secures post to concrete landing or pier.



Galvanized and powder-coated with Black Sand.

Single Beam to Post Bracket

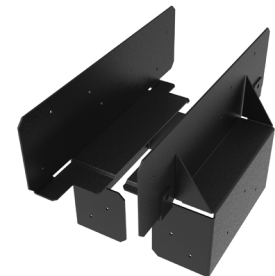
Used to attached a single Evolution beam or joist to the 5.5" post.



Galvanized and powder-coated with Black Sand.

Double Beam to Post Bracket

Used to attached a double Evolution beam or joist to the 5.5" post.



Galvanized and powder-coated with Black Sand.

BLOCKING & ACCESSORIES



Tile Deck Tray

12" (305mm) OC

16" (406mm) OC

Tray that fits over the joists to make installation of tiles quick and easy.



Beam Blocking

12" (305mm) OC

16" (406mm) OC

Manufactured to match the same spacing as the s-ledger for easy blocking of joist on a dropped beam.

Galvanized and powder-coated with Black Sand.



Mid-Span Strap

12" (305mm) OC

16" (406mm) OC

Manufactured to match the same spacing as the s-ledger for easy mid-span blocking applications.

Galvanized and powder-coated with Black Sand.

Self-Drilling Screw 3/4" (19mm)

Black self-drilling metal screw.



Black Sand Touch Up Paint

Color matching paint for powder-coated Evolution parts. Use to touch up any imperfections as well as covering and protecting cut ends.



RAILING POST TO FRAME CONNECTIONS



Spacer/Squash Bolt 2" (51mm)

Insert used when thru-bolting into joists and beams. This part prevents joists and beams from warping or collapsing when tightened down the bolts.

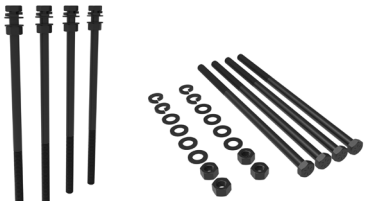
Galvanized and powder-coated with Black Sand.



Bolt Kit 3" (76mm)

All-thread hex bolt with coating to provide long-life, outdoor protection. Used most often in railing post mounting to stairs. Kit includes the bolts, nuts, and washers you'll need to mount 1 post.

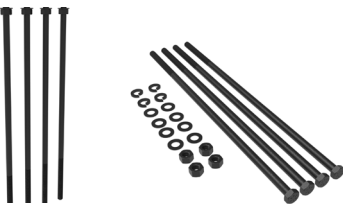
Galvanized and powder-coated with Black Sand.



Bolt Kit 9" (229mm)

Hex bolt kit with coating to provide long-life, outdoor protection. Most often used to thru-bolt posts to 2x6 joists. Kit includes the bolts, nuts, and washers you'll need to mount 1 post.

Galvanized and powder-coated with Black Sand.



Bolt Kit 14" (356mm)

Hex bolt kit with coating to provide long-life, outdoor protection. Most often used to thru-bolt posts to 2x11 beams. Kit includes the bolts, nuts, and washers you'll need to mount 1 post.

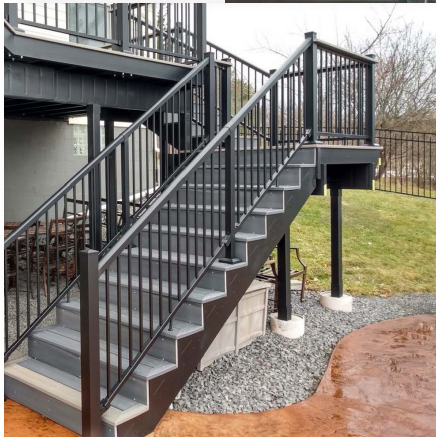
Galvanized and powder-coated with Black Sand.



PROTECT YOUR PROJECTS WITH A SOLID FOUNDATION

When compared with wood, Evolution steel deck framing is surprisingly affordable and dependably durable, a win for both contractors and customers. Visit fortressbp.com now to find a dealer in your area.





ELIMINATE TIME AND HEADACHES

The Evolution steel stair system is a complete, engineered stair solution for any application.



EVOLUTION STEEL STAIR SYSTEM

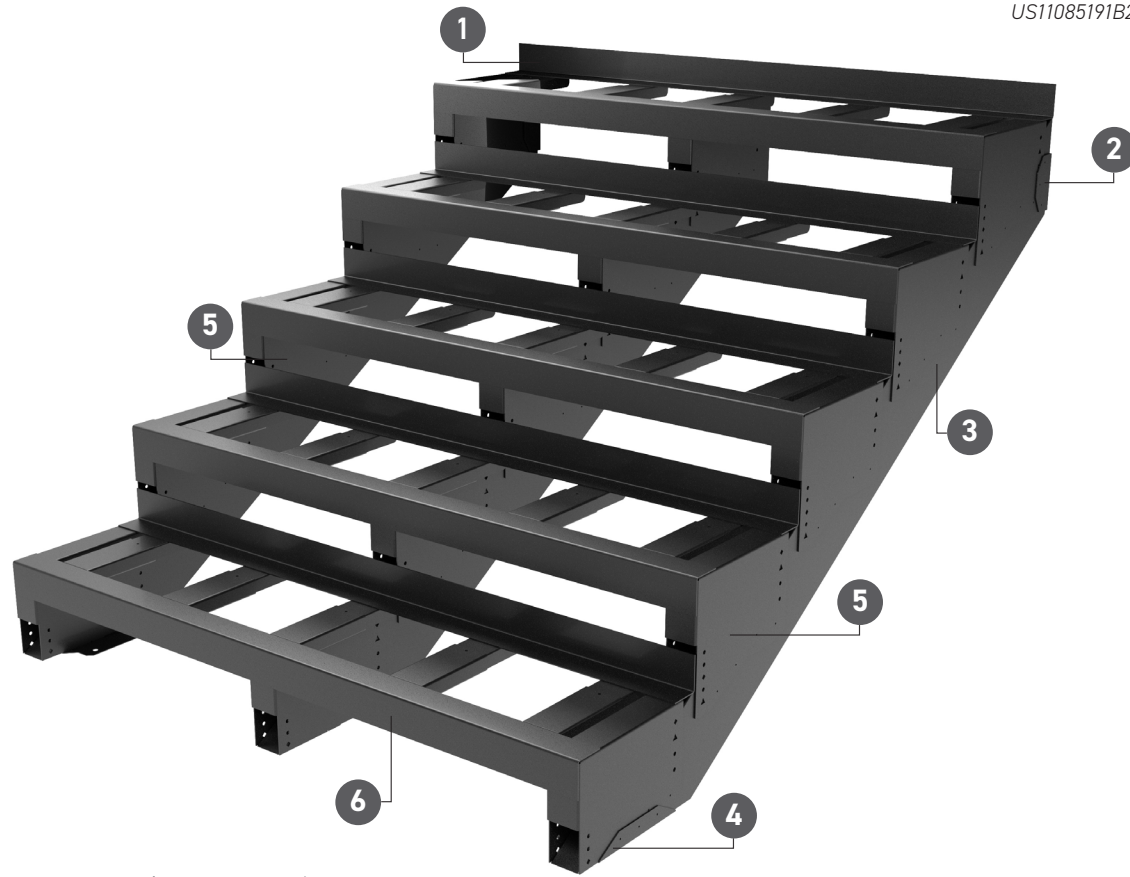
The stair components and brackets work with the Evolution joists and beams to provide a quick, easy assembly, dramatically decreasing installation time! The Black Sand powder-coat delivers an aesthetically pleasing modern look on its own or use with fascia/trim for a more traditional look.



US Patents
US11085191B2, US11885134

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



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

Preset 178mm/279mm Stair Bracket | 1219mm Stair Tray

STAIR COMPONENTS

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.



Fixed Stair Tray 48" (1219mm)

The 48" fixed stair tray allows for quick and easy installation when using either of the preset stair brackets. The lateral supports are spaced to work with any kind of deck board and provide blocking for surface mounted posts.

Galvanized and powder-coated with Black Sand.



Fixed Stair Bracket

7" (178mm)

11" (279mm)

The Evolution fixed 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.

Galvanized and powder-coated with Black Sand.



Fixed Stair Bracket

7-3/4" (197mm)

11" (279mm)

The Evolution preset 7 3/4"/11" stair bracket is engineered to slide over the top of an Evolution joist and provide a perfect 7 3/4" rise and 11" run for the stringer. These brackets align directly with one another resulting in a rapid, worry-free stringer installation.

Galvanized and powder-coated with Black Sand.



Adjustable Stair Tray 48" (1219mm)

The 48" adjustable stair tray allows for quick and easy installation when using the adjustable stair bracket. This tray has an adjustable run that can be set anywhere between 10" and 11". The lateral supports are spaced to work with any kind of deck board and provide blocking for surface mounted posts.

Galvanized and powder-coated with Black Sand.



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.

Galvanized and powder-coated with Black Sand.



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.

Galvanized and powder-coated with Black Sand.



Strap 8" (203mm)

General use 8" strap that can be used in multiple applications. Most frequently used to tie framing members together when building stairs.

Galvanized and powder-coated with Black Sand.



Stair Strap

The Evolution stair strap allows flexibility when connecting the stairs to the deck, landing or structure while securely holding the stringers in place.

Galvanized and powder-coated with Black Sand.

EVOLUTIONTM
STEEL PERGOLAS

THE STRENGTH OF S-T-E-E-L

SAFE - TOUGH - EFFICIENT - EASY - LASTING

Built from the same materials as our steel deck framing, our game-changing steel pergolas add style, character and peace of mind to any space. Relax knowing you can build or enjoy a pergola that's built to last. Our structural steel is dual layer protected against fire, corrosion, twisting, insects and rot. Plus, the powder coated finish provides a modern, contemporary look and a unique design aesthetic that makes a statement. Don't feel up to the challenge of a fully custom pergola, don't worry we have you covered with our out-of-the-box, pre-cut and pre-drilled pergola kit systems. Create higher ambience and lower maintenance with the strength of steel that's backed by our 25-year limited warranty.

Fortress Pergolas: Builds like wood, lasts for good.



FORTRESS® PERGOLAS

Pergola Parts

Choose from a variety of rafters, beams, bracing, posts, brackets and accessories to make your steel pergola your own.

- FF - Evolution - 2"x2" Lat Brace/Purlin-10'-18ga-Pc
- FF - Evolution - 2"x2" Lat Brace/Purlin-14'-18ga-Pc
- FF - Evolution - 2"x2" Lat Bracing Bracket- 2 Pk
- FF - Evolution - Purlin Cap
- FF - Evolution - 3.5" Post Cap
- FF - Evolution - 5.5" Post Cap
- FF - Evolution - 7" Post Cap
- FF - Evolution - CS Bracket (Bag 2)
- FF - Evolution - Rafter Hanger Bracket
- FF - Evolution - Arched Rafter Tail
- FF - Evolution - 45 Degree Rafter Tail



BEAUTY & DURABILITY. COVERED.

MODERN, CONTEMPORARY LOOK

LIMITLESS DESIGNS

MAKES A STATEMENT

ALL-INCLUSIVE SOLUTION

STEEL IS RECYCLED AND RECYCLABLE

EXPLORE

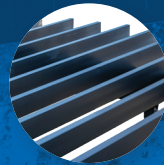


PERGOLAS



PROVEN PERFORMANCE. SMARTER SOLUTIONS.™

Trust our durable, reliable, steel and aluminum products built on a spirit of innovation and tailored to meet your unique needs.



© 2025 Fortress Building Products. Unless otherwise noted, all proprietary names are trademarks of Fortress Iron, LP. All rights reserved.



FORTIFY THE FUTURE.
FortressBP.com | 866.323.4766