



ITI Australia

innovative Timber Ideas

itiaustralia.com.au

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

17 Rim Joist

18 Post & Post Brackets

19 Brackets

22 Blocking

26 Steel Stair System

27 Steel Stair System Components

28 Steel Stair Product Guide



#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.

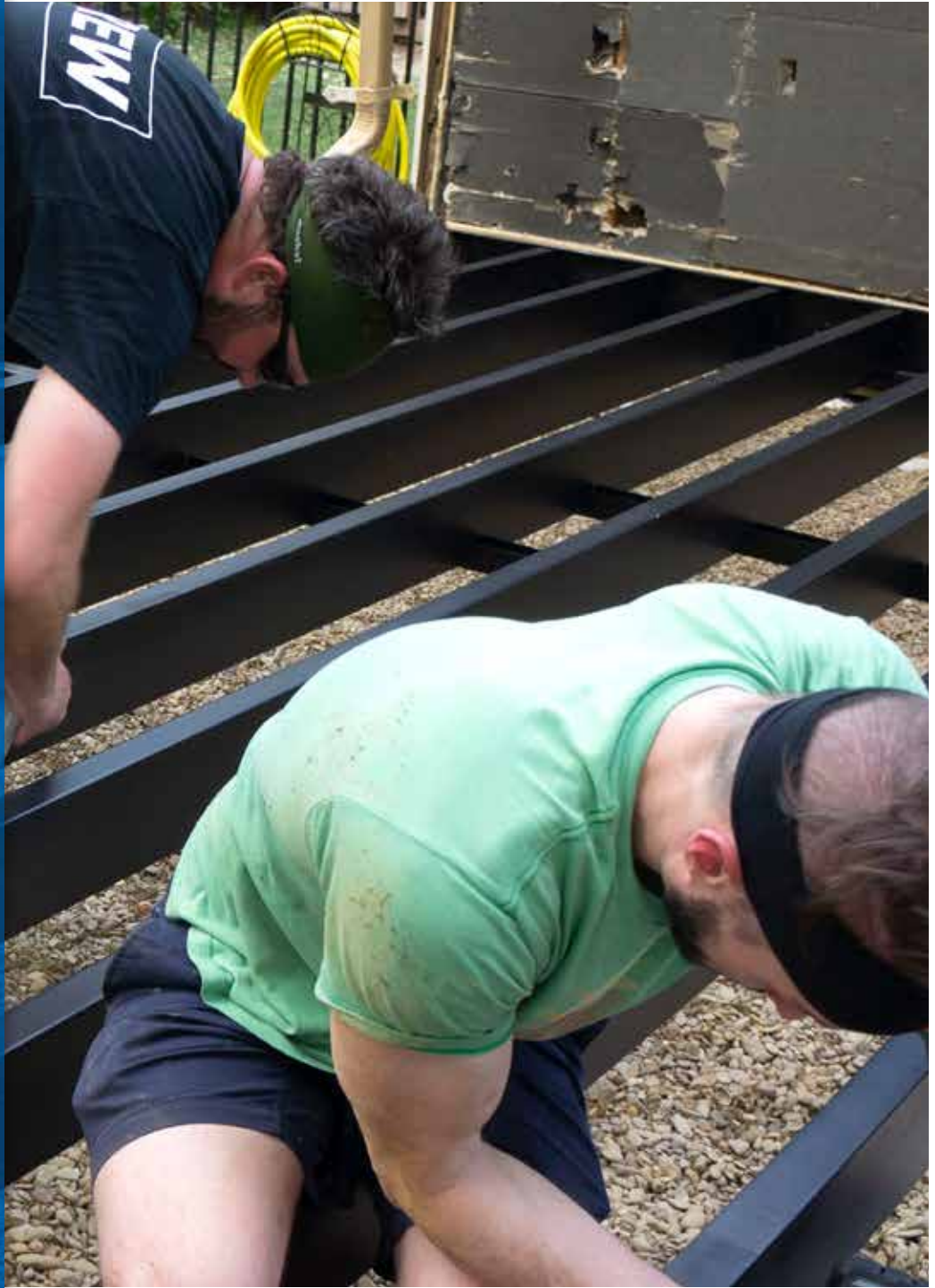
Choose the trusted strength of our steel. Build confidence with Evolution, the only complete steel deck framing system on the market. Experience unequalled support as you forge ahead and leave others in the sawdust.

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 steel deck framing, railing, fence, pergola and bamboo-based composite decking.



**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.



BENEFITS OF STEEL

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 (WUI)	✓



WHY EVOLUTION STEEL DECK FRAMING?



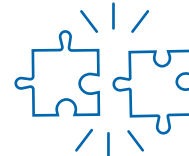
EASY TO INSTALL

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.



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



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...

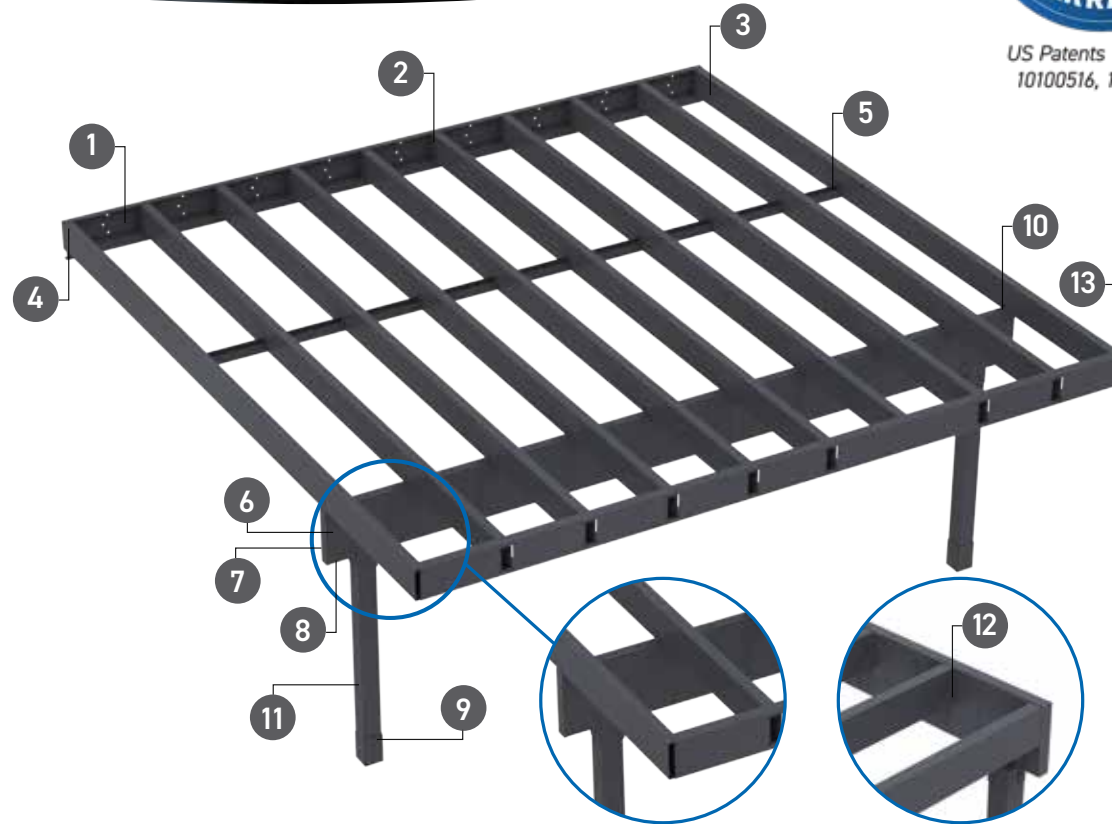
Evolution was designed to be installed like wood, without the difficulty and confusion of typical steel profiles. Evolution consists of a ledger, joists, beams, posts and blocking, making installation quick and easy!



US Patents 11066830,
10100516, 10550570

PARTS SHOWN

1. S-Ledger (pre-spaced 406mm)
2. Ledger Bracket
3. Joist (60mm x 152mm)
4. F50 Bracket
5. Strap (mid-span blocking)
6. Beam (60mm x 279mm)
7. Beam Cap
8. Post to Beam Bracket
9. Post (89mm x 89mm x 254mm)
10. Beam Blocking (305mm & 406mm O.C.)
11. Post to Pier Bracket
12. Single Hanger Brackets
13. Rim Joist (305mm & 406mm O.C.)



Example of flush beam application

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

- | | |
|--|---|
| <ol style="list-style-type: none"> 14. Double Beam Track 15. Double Hanger Bracket 16. Double Beam to Post Bracket 17. Joist Cap 18. Curved Rim Joist | <ol style="list-style-type: none"> 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.

Why build a 25-year deck on a wood frame that rots? 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 51mm x 152mm Joist
(G60 Galvanised & Black Sand Powder Coated)

Lengths:
3658mm
4267mm
4877mm
5486mm
6096mm

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.

Galvanised and powder-coated with Black Sand.

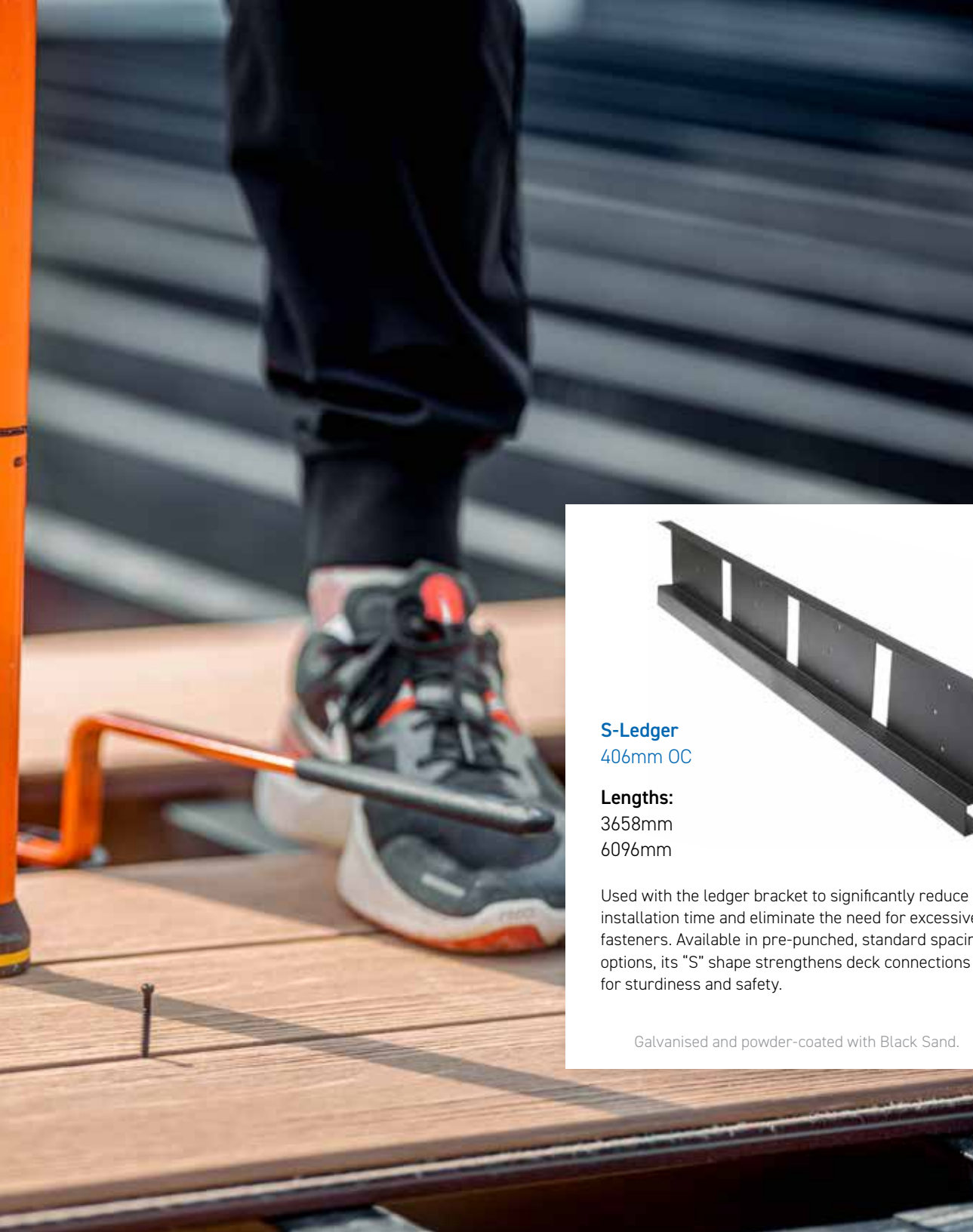


Joist Cap

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



Galvanised 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
406mm OC

Lengths:
3658mm
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.

Galvanised and powder-coated with Black Sand.



Ledger Bracket

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



Galvanised 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:

- 3658mm
- 4877mm
- 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.

Galvanised and powder-coated with Black Sand.



Beam Cap

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

Galvanised and powder-coated with Black Sand.



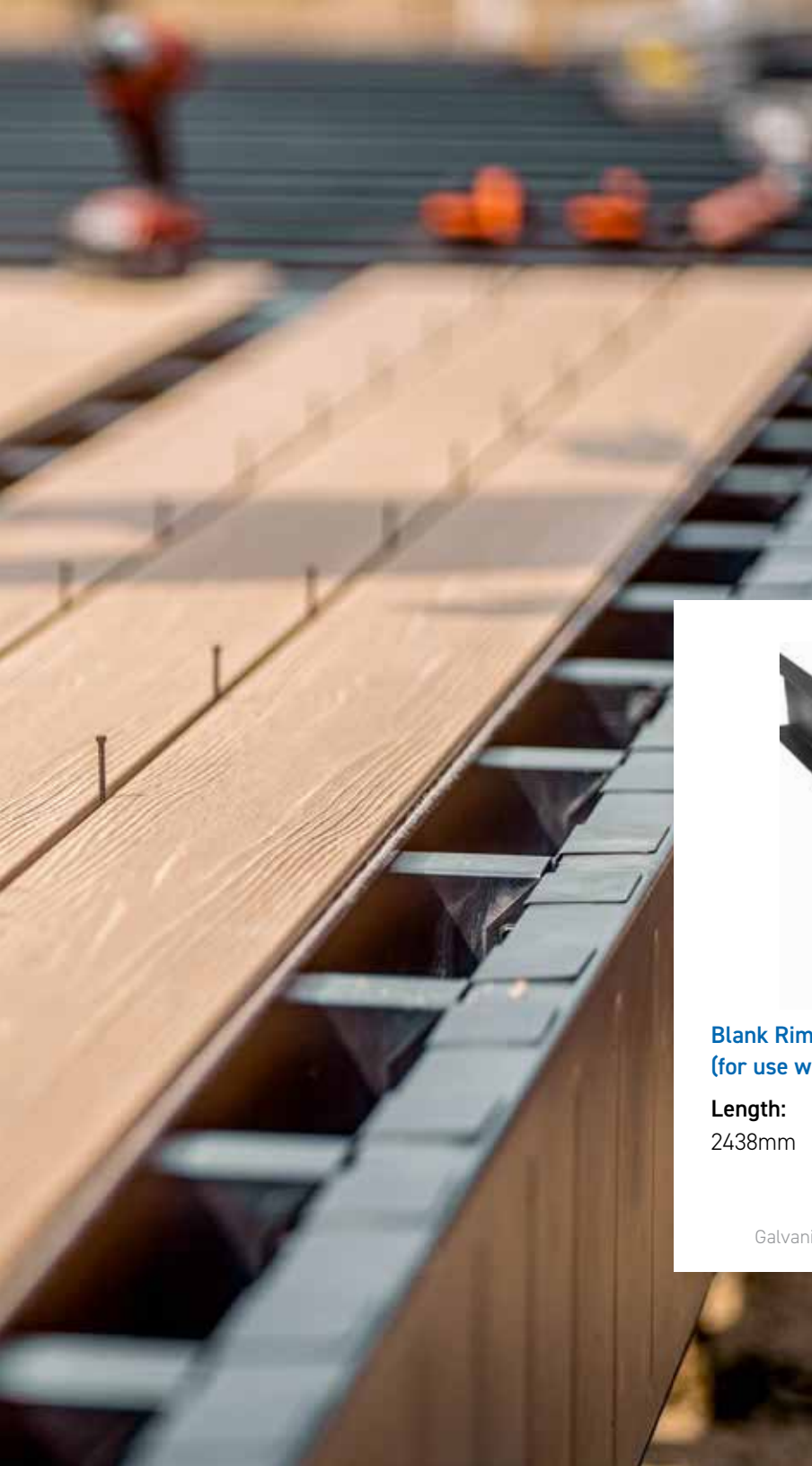
Double Beam Track

Lengths:

- 1219mm

Packaged in bags of two and used to cap the top and bottom of two beams to quickly and easily make a double beam.

Galvanised 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.



Blank Rim Joist
(for use with or without fascia)

Length:
2438mm

Galvanised and powder-coated with Black Sand.



Curved Rim Joist
(Special Order)

Length:
2438mm

Galvanised 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 customised with the trim of your choice.



Post

Length:

89mm x 89mm - 3048mm

Used to support deck framing.

Galvanised and powder-coated with Black Sand.



Post / Pier Bracket

Lengths:

89mm
140mm

Galvanised and powder-coated with Black Sand.



Single Beam / Post Bracket

Lengths:

89mm
140mm

Used to secure post to single beam.

Galvanised and powder-coated with Black Sand.



Double Beam / Post Bracket

Lengths:

89mm
140mm

Used to secure post to double beam.

Galvanised 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.

Galvanised and powder-coated with Black Sand.



F-30 Bracket

Large 127mm x 51mm angle bracket for general use.

Galvanised and powder-coated with Black Sand.



F-50 Bracket

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

Galvanised and powder-coated with Black Sand.



Single Hanger Bracket

Used to secure joist to flush beam applications.

Galvanised and powder-coated with Black Sand.



Double Hanger Bracket

Used to secure double joist or create a double (51mm x 152mm) carry beam.

Galvanised 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.

Galvanised and powder-coated with Black Sand.



45° Bracket

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

Galvanised and powder-coated with Black Sand.

BLOCKING & ACCESSORIES



Beam Blocking
406mm OC

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

Galvanised and powder-coated with Black Sand.



Mid-Span Strap
406mm OC

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

Galvanised and powder-coated with Black Sand.

Self-Drilling Screw 19mm

Black self-drilling metal screw.



RAILING POST TO FRAME CONNECTIONS

Toggle Bolt

Innovative Nut and Bolt system that provides a quick and easy solution for fastening surface mount posts to steel framing with code-approved strength.



Premium Dual layer, Anti-Corrosion Finish.

SPECIAL ORDER PRODUCTS

Spacer/Squash Bolt 2" (51mm)

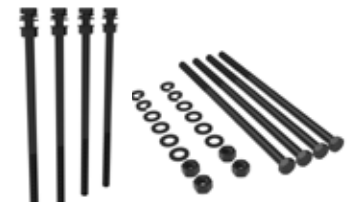
Insert used when thru-bolting into joists and beams. This part prevents joists and beams from warping or collapsing when tightened down the bolts.



Galvanised and powder-coated with Black Sand.

Bolt Kit 9" (229mm) Bolt Kit 14" (356mm)

Hex bolt kit with coating to provide long-life, outdoor protection. Most often used to thru-bolt posts to 2x6 joists and 2x11 beams. Kit includes the bolts, nuts, and washers you'll need to mount 1 post.



Premium Dual layer, Anti-Corrosion Finish.



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.au 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

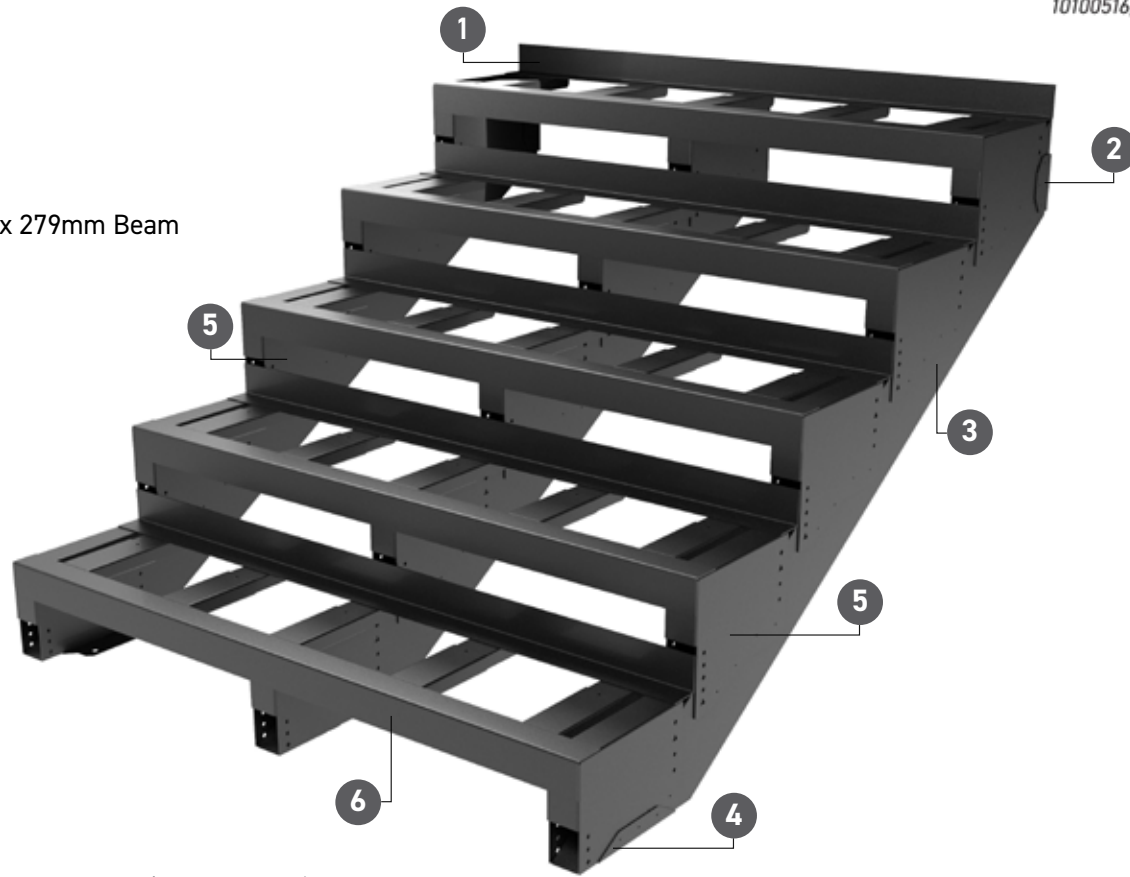
The stair components and brackets work with the Evolution joists and beams to provide a quick, easy assembly, dramatically decreasing installation time! The Black Sand powder-coat delivers an aesthetically pleasing modern look on its own or use with fascia/trim for a more traditional look.



US Patents 11066830,
10100516, 10550570

PARTS SHOWN

1. Deck Structure
2. Stair Strap
3. Stringer Evolution 51mm x 152mm Joist or 51mm x 279mm Beam
4. Stair Stringer Anchor Bracket
5. Adjustable Stair Bracket
6. 1219mm Adjustable Stair Tray



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

Preset 197mm/279mm Stair Bracket | 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.



1219mm Fixed Stair Tray

The 1219mm fixed stair tray allows for quick and easy installation when using the 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.

Galvanised and powder-coated with Black Sand.



Fixed Stair Bracket 178mm 279mm

The Evolution fixed 178mm & 279mm stair bracket is engineered to slide over the top of an Evolution joist and provide a perfect 178mm rise and 279mm run for the stringer. These brackets align directly with one another resulting in a rapid, worry-free stringer installation.

Galvanised and powder-coated with Black Sand.



1219mm Adjustable Stair Tray

The 1219mm 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 254mm and 279mm. The lateral supports are spaced to work with any kind of deck board and provide blocking for surface mounted posts.

Galvanised 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.

Galvanised and powder-coated with Black Sand.



Stair Stringer Anchor Bracket

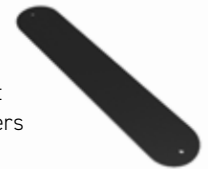
The Evolution stair stringer anchor bracket is reversible, allowing a secure, connection from the stringer to the footing, slab or pier under the last tread. Providing an aesthetically seamless transition from the stairs.

Galvanised and powder-coated with Black Sand.

203mm Strap

General use 203mm strap that can be used in multiple applications. Most frequently used to tie framing members together when building stairs.

Galvanised 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.

Galvanised and powder-coated with Black Sand.

EVOLUTION™
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



EXPLORE



PERGOLAS

BEAUTY & DURABILITY. COVERED.

MODERN, CONTEMPORARY LOOK

LIMITLESS DESIGNS

MAKES A STATEMENT

ALL-INCLUSIVE SOLUTION

STEEL IS RECYCLED AND RECYCLABLE



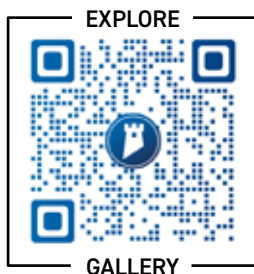
THE TOTAL SOLUTION

— PRODUCTS, PROGRAMS & POSSIBILITIES THAT DEFY EXPECTATIONS —

Explore our complete collection of revolutionary products that can work in harmony or stand alone to create beautiful, long-lasting spaces.



© 2023 Fortress Building Products. Unless otherwise noted, all proprietary names are trademarks of Fortress Iron, LP. All rights reserved.



John Cook & Sons
John Cook: 02 9833 0355

FORTIFY THE FUTURE.

FortressBP.com.AU

Sydney 02 8805 5000
Newcastle 02 4953 7666