

IT'S THE BEAM RAISING THE BAR

HERE'S HOW

65%

Lighter

3X

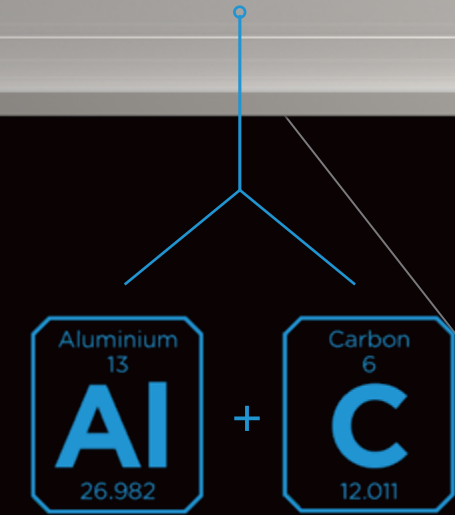
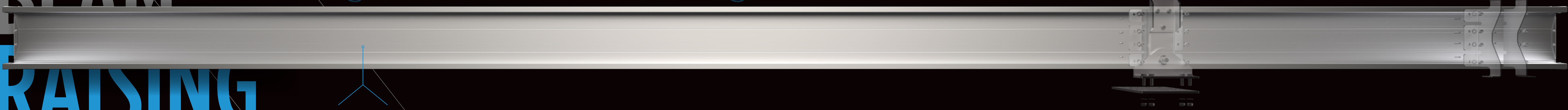
Stronger

2X

Faster

10m

Or Greater



Greater than the sum of it's parts.

XBeam is made from the combination of 2 technologies, carbon fibre-reinforced polymers and High Tensile T6 Aluminium. Carbon fibre's strength as a material comes down to the nature of the composite. The ability to tailor the direction of the carbon fibres means it can yield stiffness 20 times greater than a metal baseline. That means carbon fibre structures can span further distances and support greater weights while also weighing less - opening doors for greater designs.

Why is the Monkeytoe XBeam so special?

The Monkeytoe **X Beam** is key to a revolutionary lightweight configurable Beam system that is part of our Modular **X Beam** platform system.

This is also suitable for other external long span high load applications where Steel "I Beams" are used.

Typical Uses Applications

Rooftop mounting of large Air conditioning, refrigeration and ventilation plants over portal frames.

Other applications where high performance structures are required.

Key features

Lightweight - Up to 65% Lighter than steel equivalent, Less loading on supporting structure. No surface coating requirements for corrosion protection.

Low deflection for superior Acoustic performance.

Compatible with all Monkeytoe handrails, louvres and Hushmonkey acoustic screening systems. Configured to specific site requirements.

Fully modular Pre-engineered beam system. Can be assembled on ground and lifted into place

Fast install Fast install using more off site, pre assembled packages due to the light weight, high strength beam No hot work/Welding required.

Manufactured under a ISO quality management system.

Fully isolated and pre-engineered connections to Portal frames.

Fully sealed construction.

Technical Data / Materials

High tensile T6 Aluminium.

Carbon fibre pultrusion's manufactured in New Zealand.

Fixings: Dacromet, Zinc based coated fixings - Coating exceeds durability of hot dip galvanizing and designed for Aluminium connections.

Tests

Fully documented third party testing to ensure compliance to the building code. These included deflection, horizontal, load and temperature and durability.

Warranty

Covered for 25 years (*conditions apply*)

Maintenance

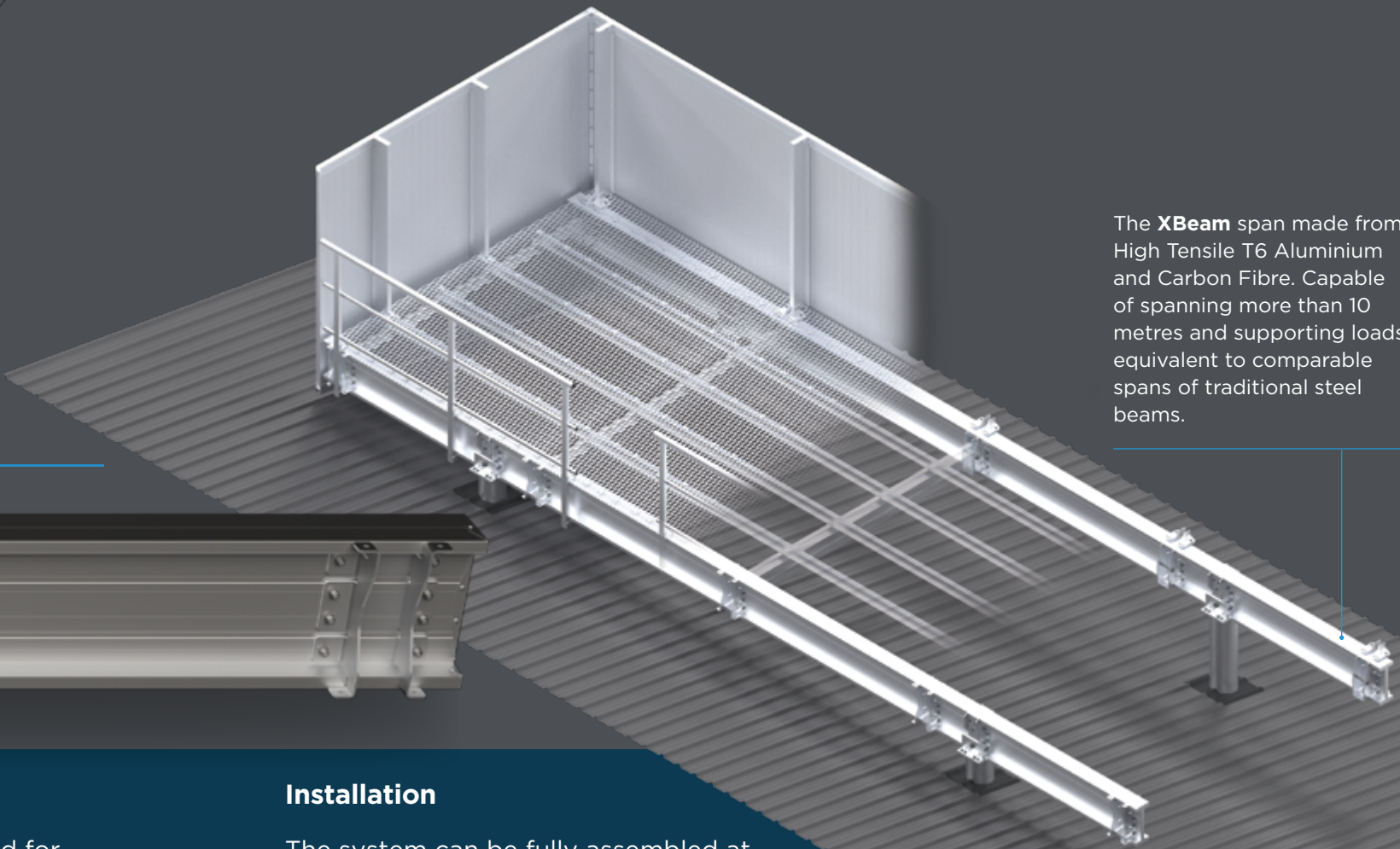
It is recommended that all plant platforms and access systems are included in the standard warrant of fitness.

All damage of loose fixings are to be reported to the building manager.

GO TO NEXT PAGE FOR COMPARISON CHART

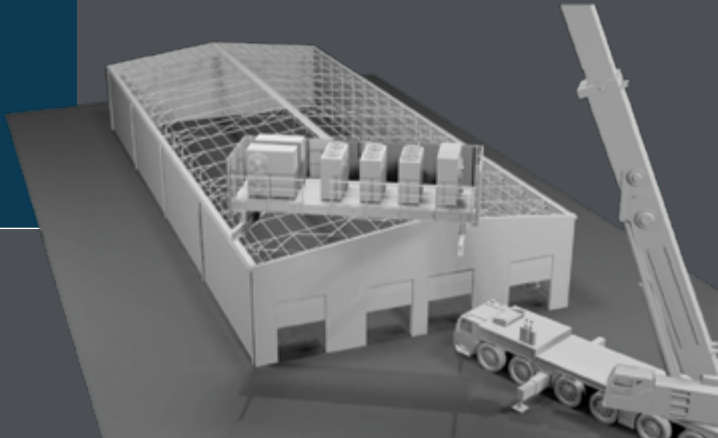
MONKEYTOE VERSUS TRADITION

A direct comparison. THE BENEFITS OF USING AN OUR XBEAM PLATFORM SYSTEM COMPARED WITH TRADITIONAL STEEL STRUCTURES



The **XBeam** span made from High Tensile T6 Aluminium and Carbon Fibre. Capable of spanning more than 10 metres and supporting loads equivalent to comparable spans of traditional steel beams.

Skeletal diagram of a Monkeytoe XBeam platform system.



Complete **Monkeytoe XBeam** platform assembled on ground and one easy lift onto roof.

Building structure

The Xbeam can enable the building structure to be lighter given that the weight reduction is substantial. Where the Traditional 10m x 10m platform might weigh up to 10,000kg, the Xbeam is 3500kg.

Risk to roofing material

The drastic reduction of the number of sub trades working above the roof reduces the risk of damage to the roof.

Risk from working at height

There is no requirement for the platform deck to be assembled above the roof and by assembling the screening at ground level the requirement to use mobile scaffold or ladders is eliminated.

Weather proofing

The Monkeytoe Xbeam allows the roofer to complete his back flashings without the frustration of working around the completed platform which simplifies the flashing installation role

Project timeline

By enabling assembly of the platform at ground level, you open up the opportunity to have the HVAC installer to begin his work before the roof is finished, thus removing one more critical path item from your timeline.

Warranty

Galvanizing generally does not come with a warranty. When it does it's between 2-5 years. Xbeam warrants up to 25 years.

Roofing installer

The Xbeam means the roofer can install his roof without the obstruction of the platform. They're simply flashing around the verticals and can complete their project prior to the platform actually being delivered to site.

This means the roofer can be more effective, and it enables a cleaner sign off by the roofer prior to other trades accessing the roof.

Reduction in the number of sub trades working above the roof

A traditional platform with decking, handrails, acoustic treatment and screening can involve up to 4 sub trades to complete. The Monkeytoe package covers the entire process and enables ground level or off site assembly.

Design timeline

Monkeytoe has completed the design for the Xbeam, the screening systems and the Acoustic material. These have all undergone theoretical and practical testing to ensure the results are relevant when installed at roof level.

Using Monkeytoe Xbeam ensures more consistency, greater flexibility and less design time

Monkeytoe | XBEAM

LIGHTER / STRONGER / FASTER

MONKEYTOE

TRADITIONAL

Weight per m²

30-40kg



UP TO
65%
LIGHTER
THAN STEEL
STRUCTURES

Screens/handrails/ acoustics

Single Monkeytoe package.



Crane lifts to complete platform with equipment

1-2 lifts the completed platform and units.



Load Capacity

2.5kpa and 5kpa

Average number of man hours to install above the roof per square meter of platform

3-7 mins



Concept design

Monkeytoe have a quality online configurator which can be used to generate a roughly correct platform with screening, handrails and decking included.

Detailed design

Monkeytoe can generate these quickly using our online configurator which is integrated directly with the engineering package. The co-ordination with HVAC, the Architect and Monkeytoe is simple and semi automated which enables quick and accurate design changes to suit.

This requires a simple sign off from our engineer post configuration and the process enables a same day response time.

Design changes

As the entire system is designed for flexibility, changes to the structural support members can be quickly and efficiently integrated into the manufacture drawings. These last minute changes are often what causes unnecessary and costly manufacture delays

Installation

The system can be fully assembled at ground level and lifted into place with screens, handrails and decking completed. Because the system is light weight and rigid the risk of screen damage is minimal.

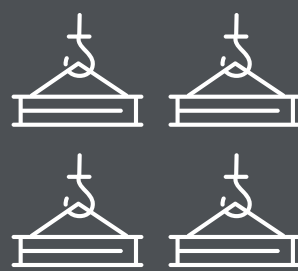
Weight per m²

80-90kg



Screens/handrails/ acoustics

Up to 4 subbie packages.



Crane lifts to complete platform with equipment

3-6 lifts including platform structure, platform decking, screening material, units.

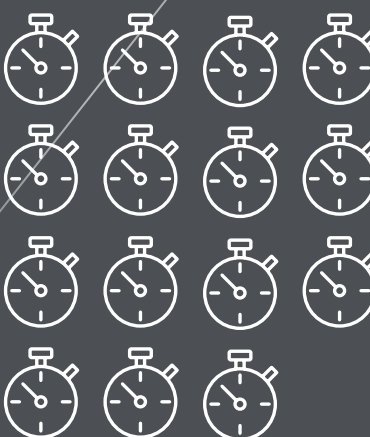


Load Capacity

2.5kpa and 5kpa

Average number of man hours to install above the roof per square meter of platform

15-25 mins



Concept design

The initial concepts can be to high level and enable core considerations to be missed.

Detailed design

This requires the manual co-ordination of HVAC, Structural engineering, Architectural and the fabricators to deliver a quality plan which in some cases can result in up to 6 iterations of the design and chew up unplanned resource at a critical time on the project.

Design changes

Workshop drawings require sign off weeks in advance of manufacture and often the HVAC layouts are changing right up till the last moment. The lack of flexibility in last minute design is often a source of project frustration.

Installation

Whilst these can be configured at ground level, generally it's not practical to install screening prior to the lift due to the weight involved and the potential to twist and damage the screening during the lift.