



FIRE RATED RAIL SUBSTRUCTURE



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CLASS A SUBSTRUCTURE

New Building Safety Legislation means balconies on all buildings over 18 metres (soon to be 11 metres) must be constructed completely from non-combustible material. DCLG Regulation, Approved Document Part B and BS 8579 state the fire safety rules regarding anything deemed “attached to a building” and this includes balconies and some terraces.

This heavy-duty, versatile substructure system is ideal for both paving and decking projects. Specifically designed to meet Class A fire safety regulations in the UK, our system includes a wide range of adjustable pedestals, joists/bearers of varying heights, and all necessary fixings & connectors.

See more product details - [Click Here](#)

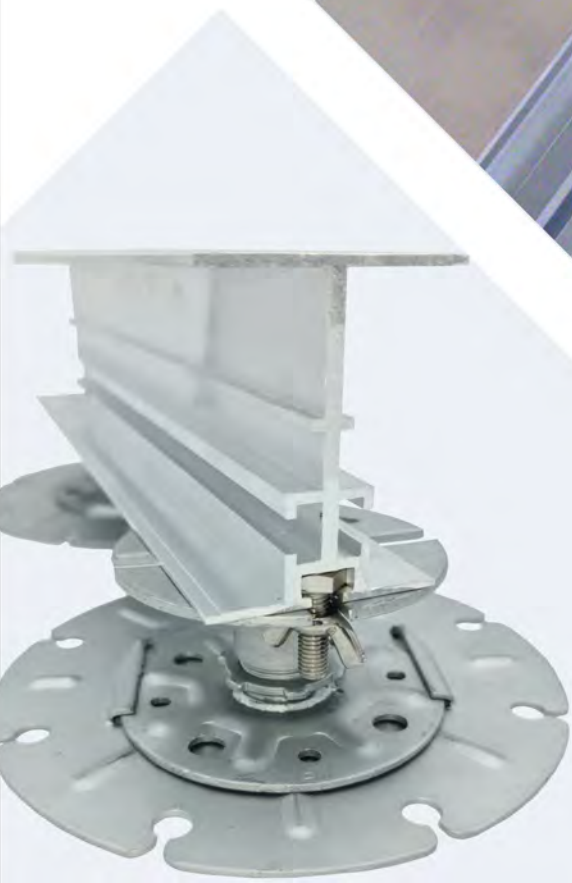


RAIL SUBSTRUCTURE KEY BENEFITS

A commercial grade, Class A fire rated substructure system to meet latest rules and regulations.

- Class A rated (to EN1305-01) for non-combustible paving and decking applications
- Specially designed profiled aluminium rails with large upper surface area
- Joists "tie together" pedestals, giving more lateral strength to the frame
- Large height options and flexible placement - ideal for awkward areas
- A range of special fixings and connectors provided
- Large spans between pedestals possible
- Weight-bearing and extremely stable
- Helps distribute weight evenly
- Fast, simple and safe to install
- No rotting, warping, or rusting

See more product details - [Click Here](#)



WALLBARN ALUMINIUM RAILS/JOISTS

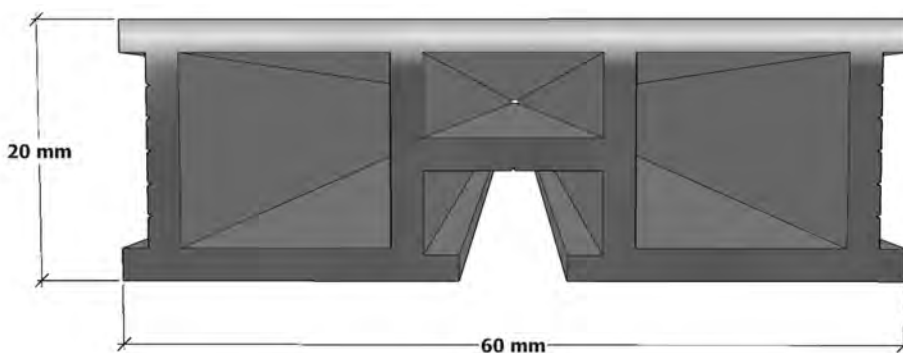
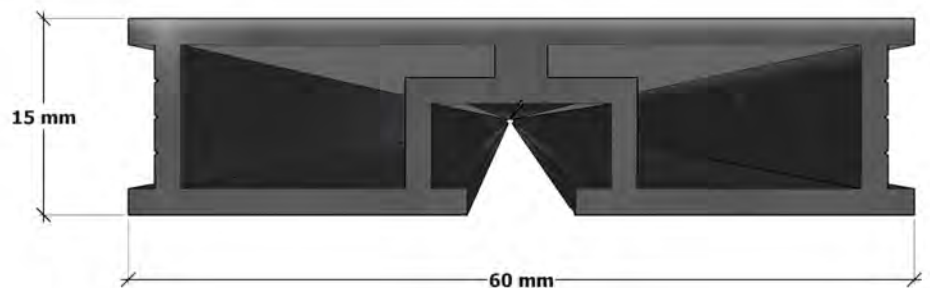
Wallbarn Box Rails/Joists

Wallbarn's Box Rail, extruded in 6063 T6 premium-grade aluminium, is designed by Wallbarn and proudly manufactured in the UK. These rails work seamlessly for paving and decking projects. The outer profiles clip into both our plastic and non-combustible range of pedestals, thus eliminating the requirement for mechanical fixing.

Years of proven performance in extensive commercial and residential projects across the UK underscore the Box Rail's reliability. Initially developed as a low-height substitute for timber and composite joists/rails, it has become the standard choice for Class A standard schemes due to its lightweight construction and straightforward installation.

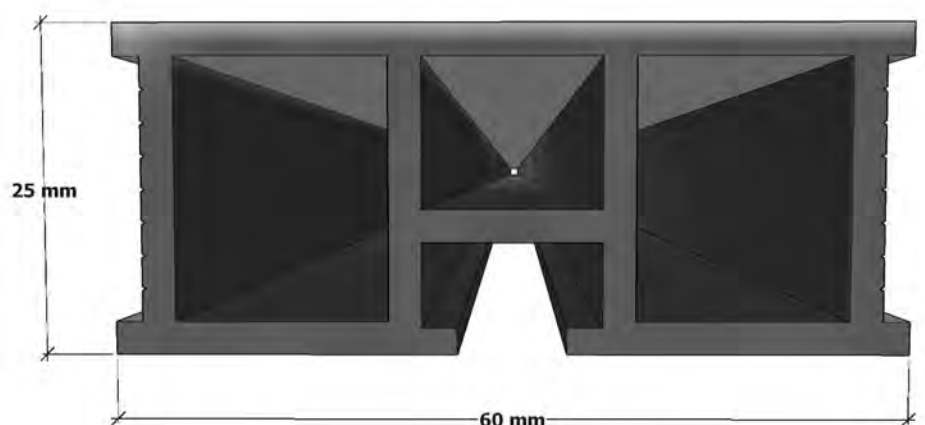
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15mm



20mm

25mm



Different heights to
suit your project

WALLBARN ALUMINIUM RAILS/JOISTS (cont'd)

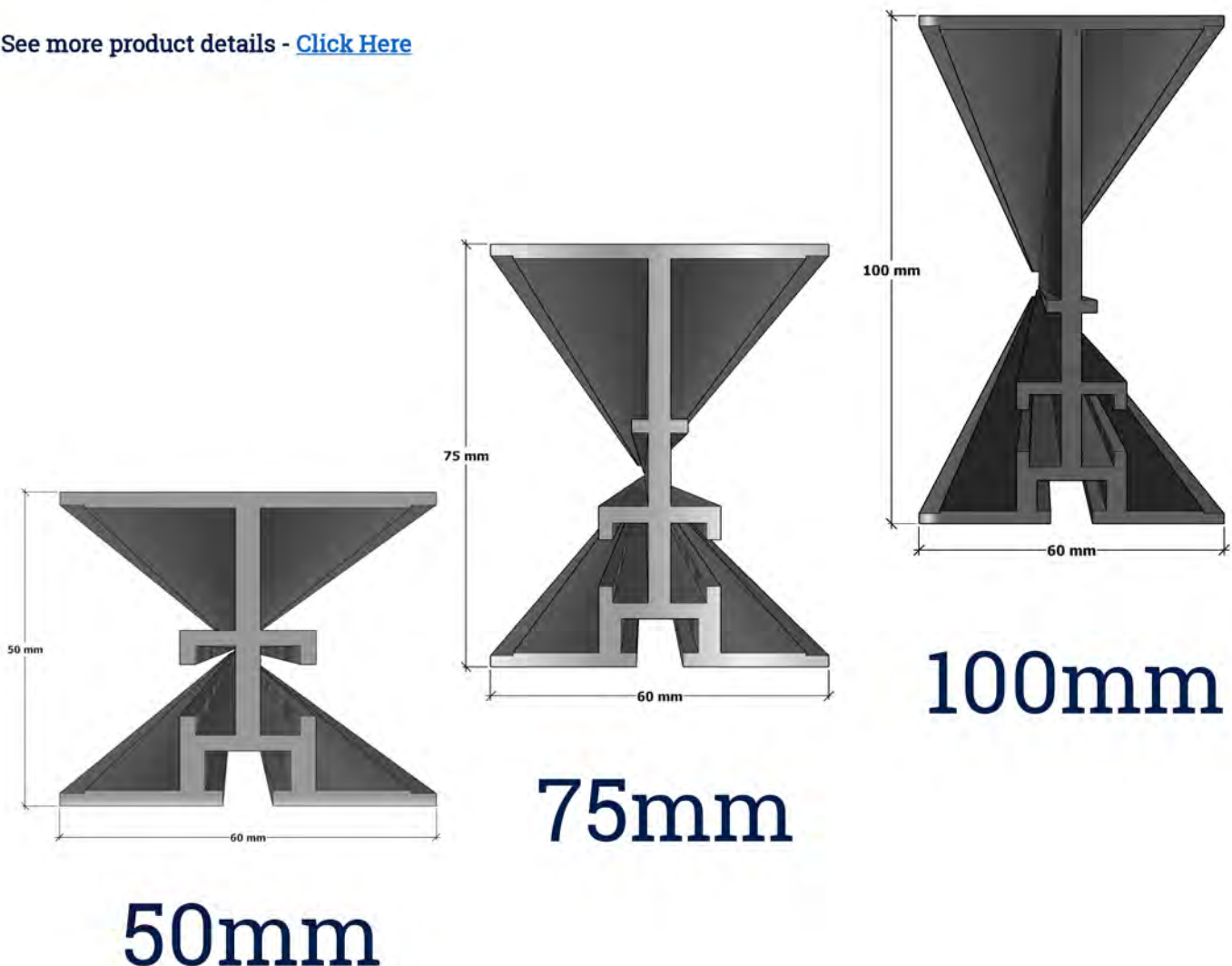
Wallbarn I-Plus Rails/Joists

The I-Plus Beam, made from 6063 T6 premium-grade extruded aluminium, was designed and developed by Wallbarn from scratch to form a key component in Wallbarn's full comprehensive substructure system. The I-Plus Beams are also manufactured in the UK and are ideal for both paving and decking projects.

All our aluminium joists/rails either sit directly on our range of pedestals or are fitted via the box junction profile on the underside of the rail/joist. This eliminates the need for mechanical fixing and improves flexibility and speed of installation.

The I-Plus Beam Range is ideal for projects requiring larger height thresholds and can be stacked perpendicular to each other to meet significantly large height thresholds. This versatility is facilitated by our Rail-to-Rail headpiece.

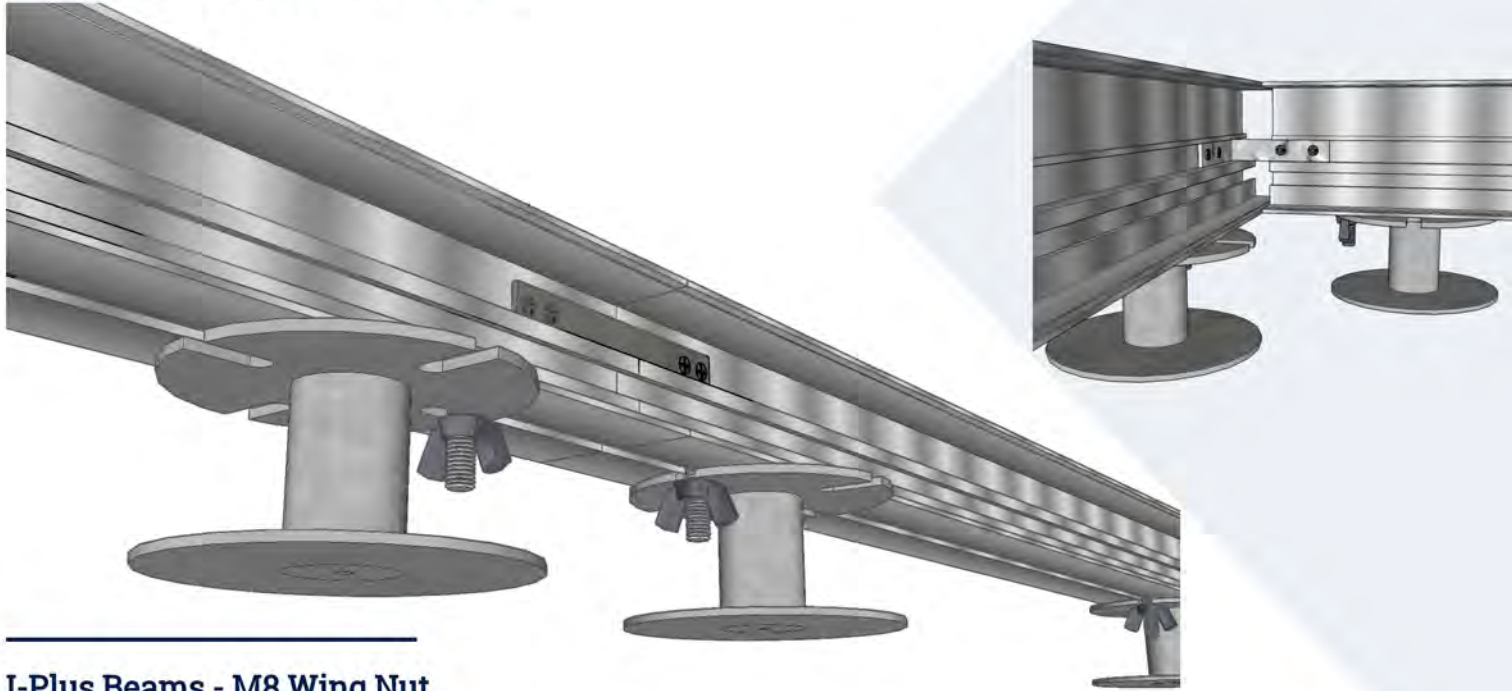
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CONNECTING BRACKETS

I-Plus Beams - Screw Fix

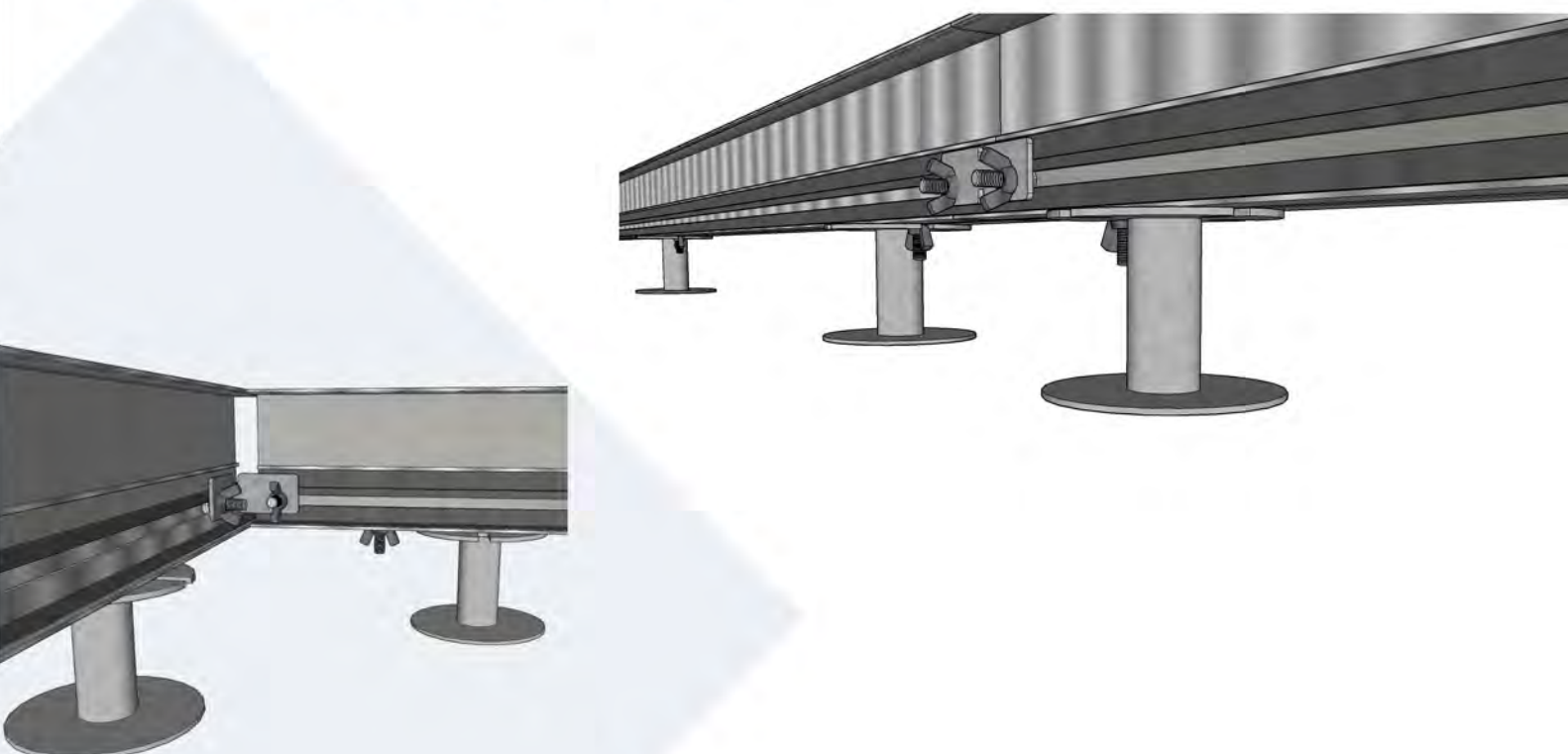
Wallbarn provides two convenient options for connecting I-Plus beams, streamlining installation. The first method uses self-tapping screws for a robust mechanical fixation. Both straight and right-angle fixing brackets are designed with two countersunk holes, making attachment with self-tapping screws straightforward.



I-Plus Beams - M8 Wing Nut

Alternatively, the wing nut and M8 bolt method provides a manual securing approach. By inserting the bolt head into the I-Plus beam's side or bottom profile and manually positioning the wing nut around the bracket, this method initially provides a flexible framework.

Installers can adjust and position the system as needed. Once the exact alignment is achieved, tightening the wing nuts ensures a sturdy and precisely aligned structure.



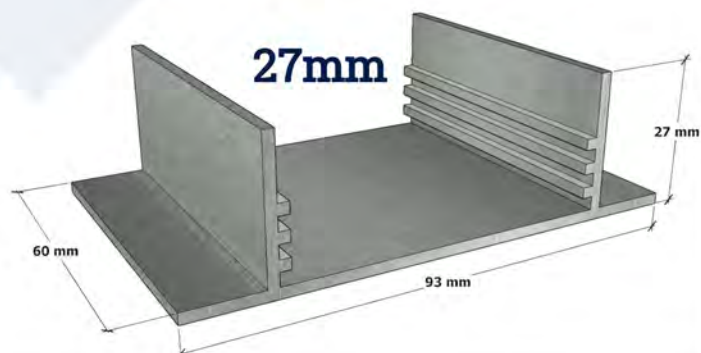
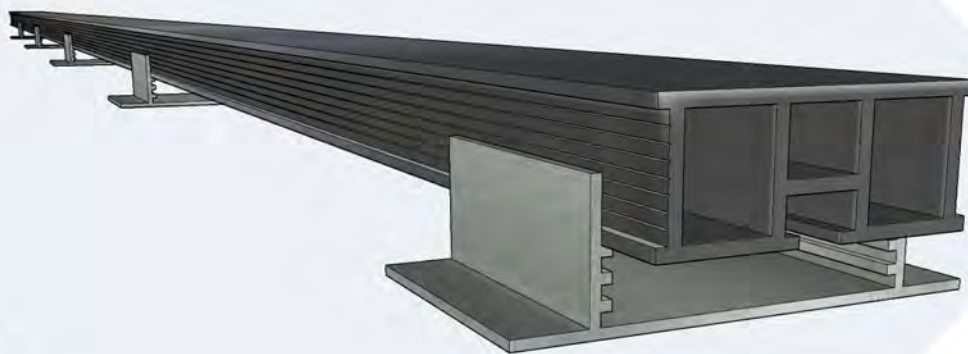
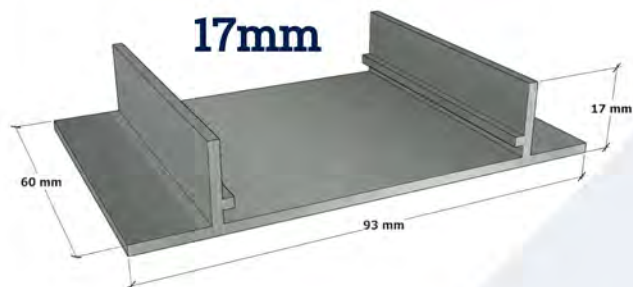
ULTRA LOW RAIL/JOIST HOLDERS

The Class A 'Ultra Low' Rail Holders, were designed to work with all Wallbarn Aluminium Rails/Joists. They are exceptionally ideal for low height thresholds on fire-rated paving or decking systems, making them perfect for refurb or retrofit projects.

These holders, measuring 93mm x 60mm, can also be used with our optional spreader plate, to help with point loading on vulnerable subfloors. The spread plates have a diameter of 185mm.

Adjustable step levels on the inside of the Rail Holders allow for various heights. Made from high-grade 6063 T6 aluminium, they are therefore rated Class A 1, and are durable and corrosion-resistant. They will support non-combustible substructures starting as low as 17mm.

See more product details - [Click Here](#)

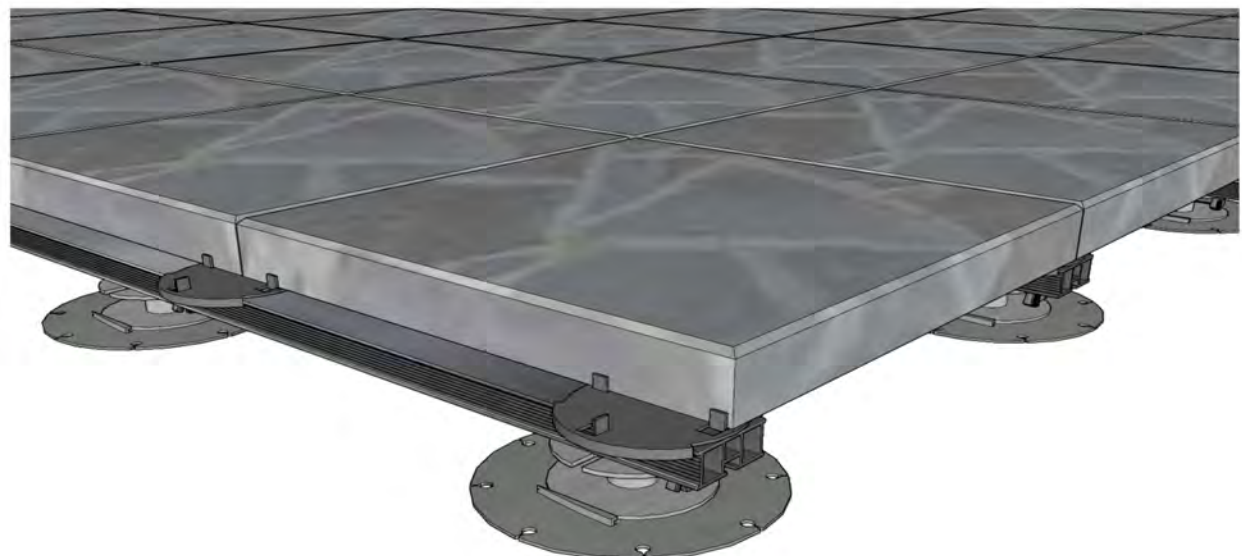
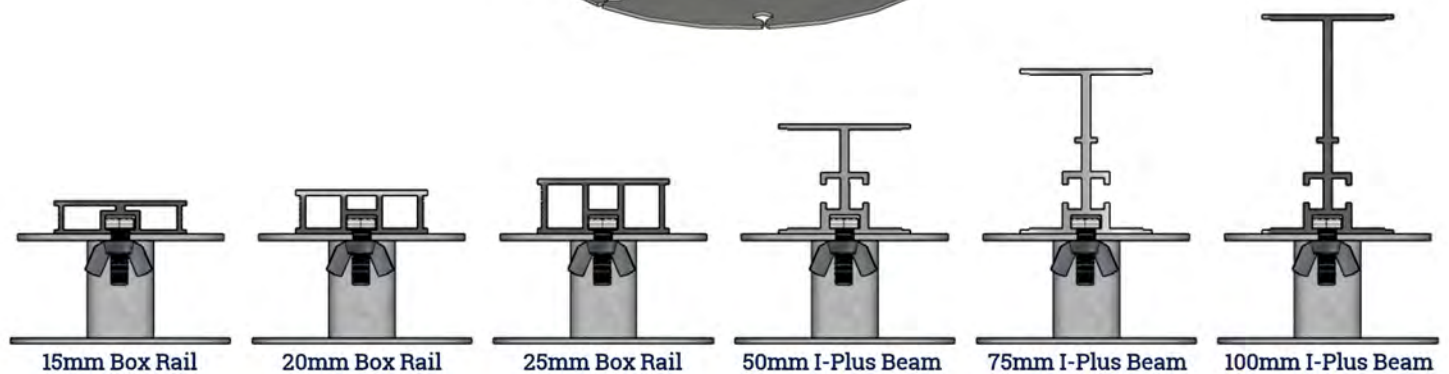


METALPAD EX SUBSTRUCTURE

The MetalPad Ex offers a versatile height range from 26mm to 375mm, complemented by aluminium connecting joists/bearers ranging from 15mm to 100mm. This variety provides installers with exceptional flexibility for constructing fire-rated paving or decking schemes.

All MetalPad Ex pedestals have a weight capacity exceeding 2 tonnes. The rails have been developed to give minimum deflection, even across large spans. Wallbarn has designed all connections and fixings to integrate seamlessly with the pedestals and rails/joists, establishing a durable and stable substructure system.

See more product details - [Click Here](#)

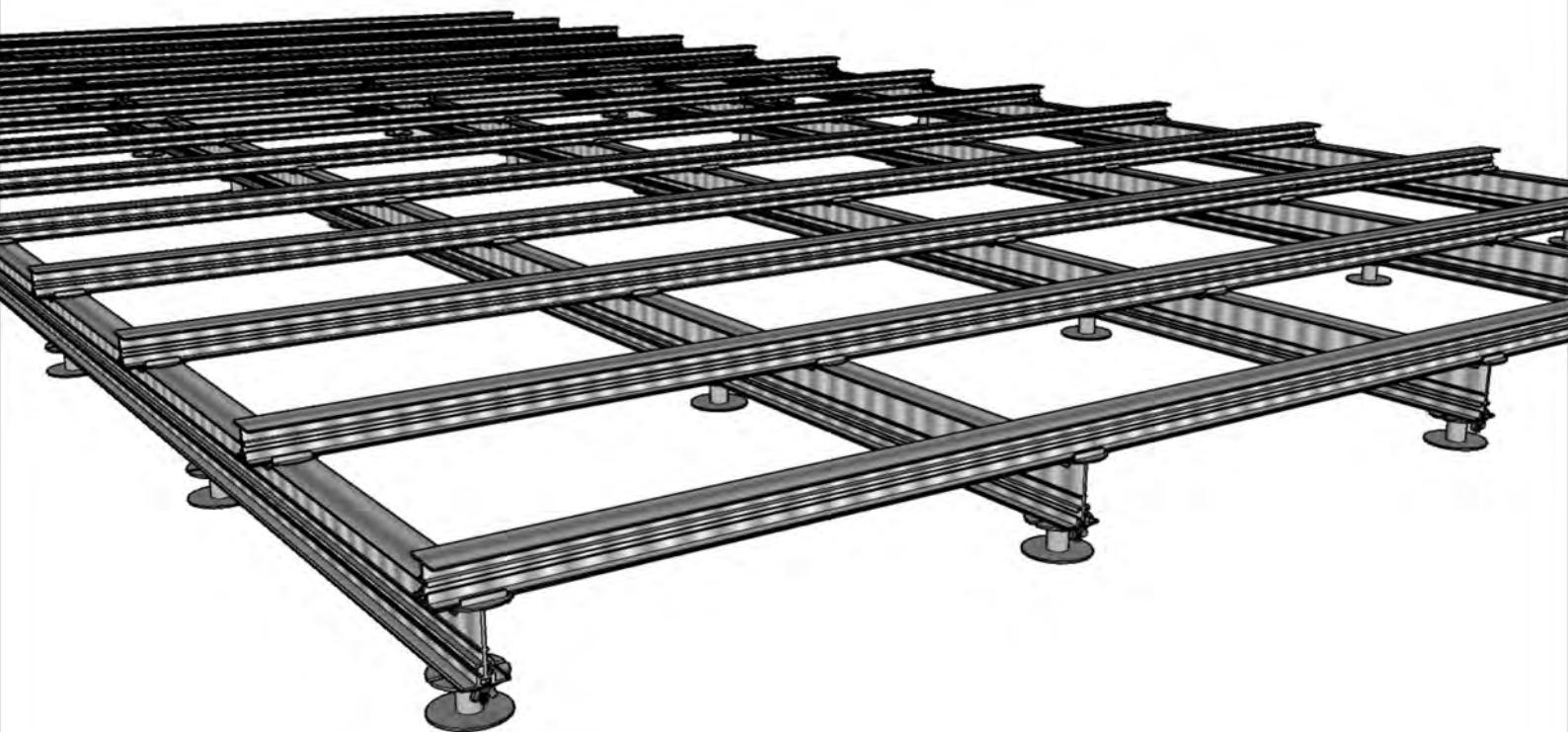
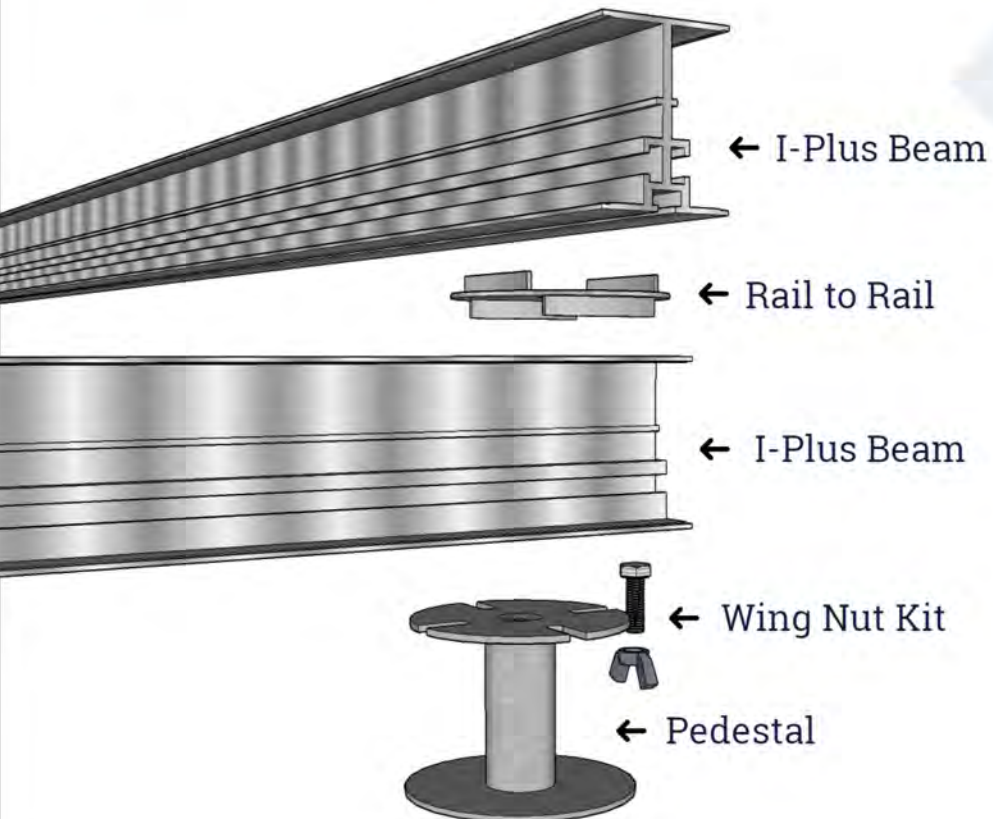


RAIL TO RAIL BUILDUP

The Rail to Rail Headpiece is made from high-grade cast aluminium and allows the aluminium rails to be stacked on top of each other.

This is ideal for large height thresholds where multiple rails are laid in a perpendicular pattern to create the required height threshold.

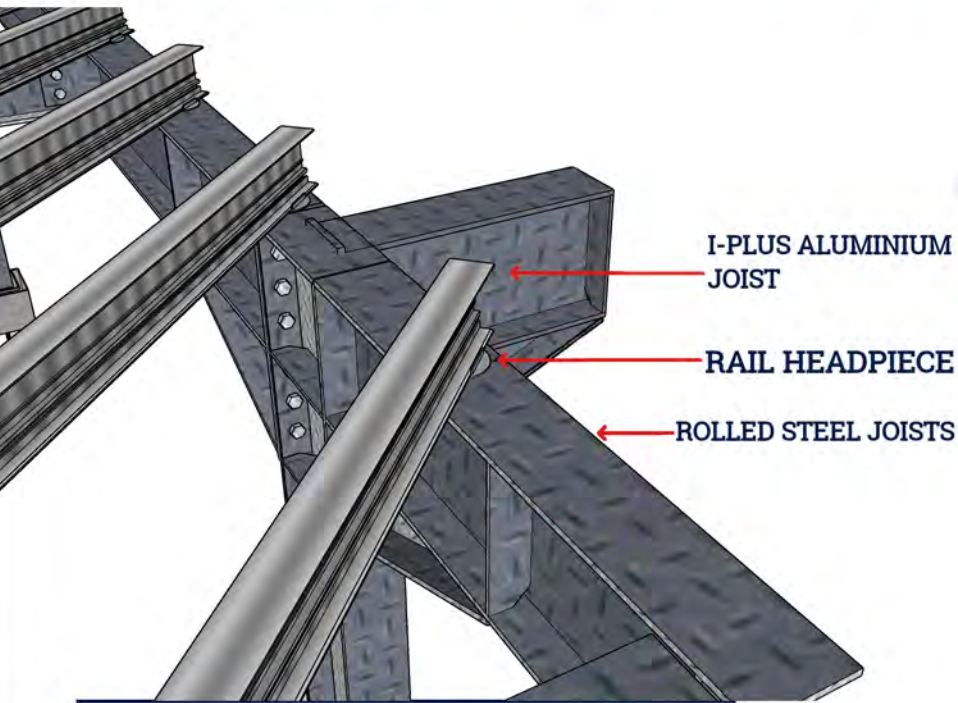
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RAIL HEADPIECE

This cast aluminium Rail Headpiece was designed to fix to the MetalPad Ex pedestal to hold aluminium joists/bearers. However, This headpiece can be fixed directly to steel joists without using a pedestal. The aluminium joist/bearer is therefore fitted to the rail headpiece.

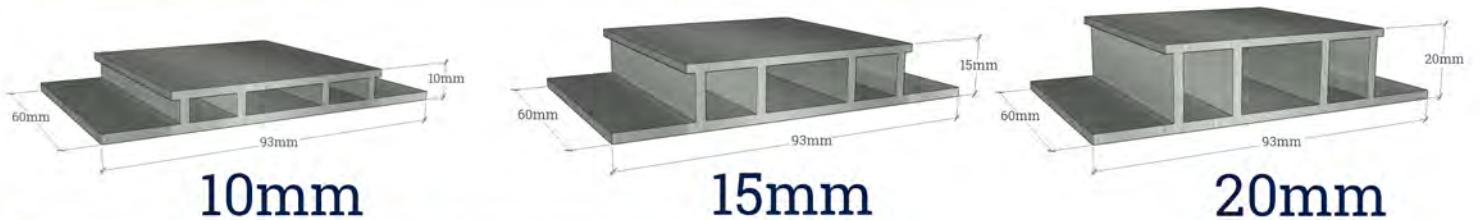
This buildup design is common to many non-combustible refurb and retro-fit projects.



CLASS A FIXED HEIGHT

Building on the success of our highly popular plastic fixed-height pedestals, we now provide Class A options in 10mm, 15mm, and 20mm heights. These are used to elevate joists, bearers, slabs, or tiles above the subfloor, to allow for better drainage. We offer compatible headpieces for both paving and decking applications.

Additionally, a spreader plate is available for installations on vulnerable subfloors, such as insulation. Crafted from high-grade aluminium, this range is remarkably lightweight and user-friendly.



COMPATIBLE HEADPIECES & SPREADER PLATE





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