



# Mon Timber

A branch of Premier Forest Products 

**ENGINEERING DIVISION**

## ENGINEERED ROOF TRUSS, POSI-JOIST & I-BEAM SOLUTIONS

Using market-leading mitek modelling software and manufacturing technology, our experts can transform architectural vision into value-engineered reality.

# ROOF TRUSS DESIGN & MANUFACTURE

As an individually designed component, a trussed rafter is engineered to provide a structural frame for the support of roof structures.

Roof trusses are prefabricated from high quality, stress-graded timbers and joined with steel nail plate fasteners. They are an incredibly versatile roofing solution which can be designed in a variety of shapes and profiles to suit all applications – from the smallest residential extension to large-scale commercial buildings.



## WHAT ARE THE BENEFITS OF CHOOSING A TRUSS RAFTER?

- Roof trusses are a versatile, practical and fully engineered roofing solution suitable for a wide range of roof structures and building types
- Materials savings vs a traditionally built roof: trussed rafters can use up to 40% less timber than a traditional roof
- Significant installation time savings vs traditional methods of construction
- Quick erection of the roof structure enables other trades to start work quickly
- Trusses are prefabricated which releases joiners for other work, thereby reducing overall labour costs
- Speed of on-site construction allows just-in-time delivery to site
- Limited on-site storage space is needed
- Reduced risk of damage or loss on-site
- Large and complex roofscapes can be designed
- Spans of up to 18m can be achieved
- Attic trusses or 'room in the roof' trusses can maximise useable living space in the property
- Potentially eliminate steel beams from the roof structure
- Our trusses are made from TR26, a grade specifically produced for trusses and sustainably sourced
- UKCA accredited





# POSI-JOIST DESIGN & MANUFACTURE

Posi-Joists, also known as metal web joists or open web joists, are an innovative structural solution used in a wide variety of construction projects.

Custom-made, they offer a versatile alternative to traditional solid timber or engineered wood joists, combining the benefits of both timber and steel in their construction.

Posi-Joists consist of a metal web system sandwiched between timber flanges, creating a lightweight, strong and dimensionally stable engineered floor or roof solution.

Our experts have the ability and know-how to design and build your Posi-Joist flooring system, whether it is a small residential renovation or a large commercial new build.





## WHAT ARE THE BENEFITS OF CHOOSING POSI-JOISTS?

- Combination of timber and steel allows greater distances to be spanned vs traditional solutions
  - This means design freedom across a wide range of applications for both floors and roofs in domestic, industrial and commercial builds
  - Design flexibility: the depth, length and width can all be adjusted to produce an enormous number of different specifications, each with clearly defined performance criteria
  - Open-web system allows easy access for the installation and maintenance of services in the floor zone e.g. MVHR (Mechanical Ventilation and Heat Recovery) systems
- Cost saving advantages:
    - The span capabilities mean that posi-joists can allow for increased joist centres vs alternative systems, reducing material content
    - The installation of services and utilities is far simpler and quicker with Posi-Joists, reducing both labour costs and build-up time on site
    - Joists are manufactured in a controlled off-site environment ensuring a quality, precision engineered product; they are delivered 'made to measure' for speedy installation
    - Posi-Joists often eliminate the need for load-bearing intermediate walls, which can dramatically cut overall building costs
    - Exceptional floor performance from a wide fixing surface makes flooring easy, controls shrinkage and with precision engineering, reduces costly and time-consuming return visits and remedial work
    - The job's done much more quickly for worthwhile savings



# I-BEAM JOIST DESIGN & MANUFACTURE

Primarily used in residential and commercial flooring and roof framing, an I-Beam Joist is a structural component used to reduce thermal bridging.

The I-sections are inherently strong due to their cross-sectional shape and being lightweight allows for easy handling and installation. I-Joists are manufactured from sustainably sourced materials to the highest specifications and tolerances, contributing to enhancing environmental requirements necessary for modern construction methods.



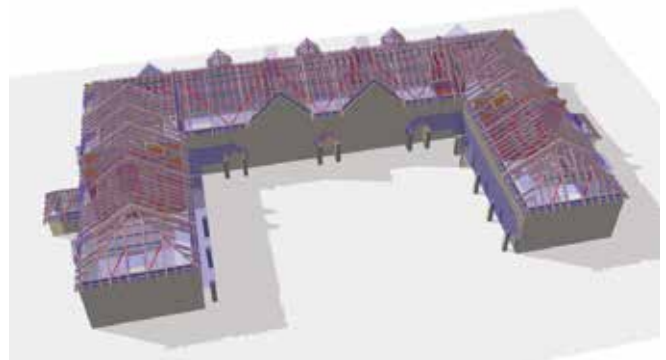
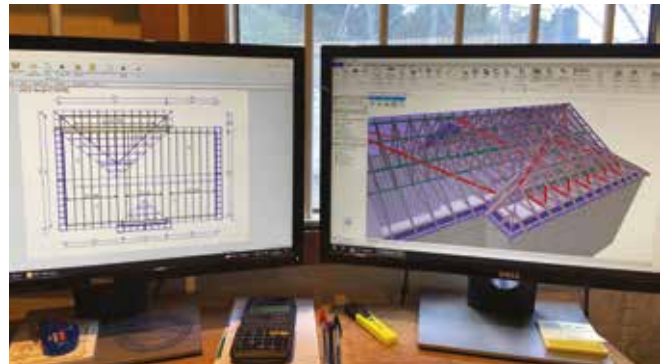
## WHAT ARE THE BENEFITS OF CHOOSING I-BEAM JOISTS?

- Reduction of thermal bridging
- Lightweight, easy to handle and install; they are 30% lighter than solid timber
- Improved installation times saves money
- Utilise proprietary standard connectors
- High dimensional stability through controlled moisture content
- High load bearing capacity
- Manufactured off-site in factory-controlled conditions for accuracy
- Made from a renewable resource; PEFC certified option available upon request
- ETA – European Technical Assessment
- CE certified



# HOW IT WORKS

1. Send us your drawings.
2. Our specialist team will design your solution using advanced interactive modelling software.
3. You will receive a 2D and 3D model for inspection, fine-tuning (if needed) and approval.
4. We will provide you with a quotation which will include all design details and delivery to site.
5. Once the design is agreed and approved, your roof trusses, Posi-Joists and/or I-Beams go into production and we will provide a delivery estimate.
6. Your materials will be delivered direct-to-site on an agreed date. For roof trusses, we use specialist vehicles to preserve the integrity of your trusses, and for safe and reliable delivery. **Please note that mechanical off-loading must be arranged by the site.**



Contact us to find out more or email your drawings.

## Mon Timber Engineering Division

Usk Way, Newport, NP20 2DS

Phone: **01633 414414**

Email: **engineering@montimber.co.uk**

FSC® certified products available upon request.



CE 2+

Delivering your vision in timber