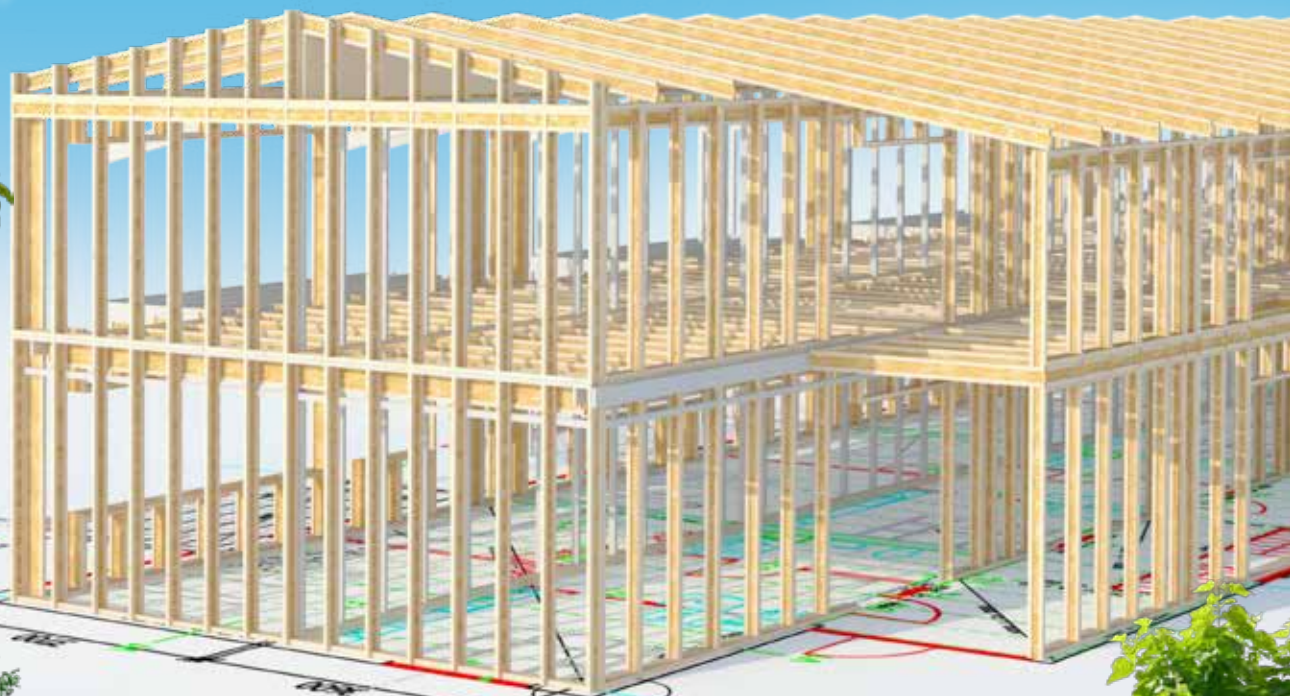




*The light & easy choice*

# SMART I-BEAM SYSTEMS FOR ROOFS, WALLS AND FLOORS

Light • Strong • Straight • Long



member of

**BYGGMA**  
group

[masonitebeams.se](http://masonitebeams.se)

THE LIGHT & EASY CHOICE

# *The light & easy choice* **INNOVATION IS OUR GUIDING STAR**



## **FROM STEAM SAW...**

Masonite Beams manufactures and sells modern, customised and efficient wood-based I-beam systems and technical solutions. All our production is done in Rundvik, between Umeå and Örnsköldsvik, in northern Sweden.

Our I-beams possess clear environmental and energy advantages and are best known to be light, strong, straight and long.

More than half our production is exported to countries such as Norway, Estonia, England and France, and a large proportion of the beams sold here in Sweden go to house-builders and builders using factory-based housing production.

Our 150-year history starts at the Nordmaling steam sawmill (NÅAB), which in its time was one of the very first private saw companies in Sweden. The Masonite Beams spin-off started in 1974 as the first factory producer of I-beams in the world.

Product development and innovation are things that characterise our history and today, Masonite Beams is one of the leading producers of I-beams with Europe's most modern beam factory.

## **...TO WOODEN HIGH-RISE**

We have a long history of development and close collaboration with our customers. We are proud to be part of a tradition where development has passed from steam saw to today's deliveries of wood-based I-beams for many types of building - from houses to high-rises in wood.





**Masonite Beams are today one of the leading producers of wood-based I-beams in Europe for everything from houses to high-rises in wood. The products are custom made to customer requirements and are very easy to handle, even manually.**



Travel Centre, Örnsköldsvik



Villa Circuitus



Hjältevad House



Hedlunda Preschool, Umeå

Photography: Niklas Ståhl, IG Passivhus via Anders Bergström, Sweo, Hjälpvårdhus

## UNIQUE BENEFITS

Masonite Beams products have unique benefits that can reduce costs for users on several different points. The low weight of components makes them easy to handle, enabling a project to be carried out quickly and efficiently. For example, a construction worker can carry our products without the help of a crane. In other words, several tasks can be completed before a crane needs to be used.

Masonite Beams products can be customised to meet customer demands on length, mitres, insulation, holes, etc. The customers can obtain products customised for a specific project and prefabricated as much as possible. This procedure saves time on the construction site.

## VARIOUS TYPES OF BUILDING

It is possible with our products to erect most types of building such as houses, extensions, blocks of flats and multi-storey buildings.

## VARIOUS METHODS OF CONSTRUCTION

It also works with the many different methods of construction, such as site construction, element and prefabrication, and supplementary construction in steel-frame buildings with column-beam systems.

# *The light & easy choice* **FROM TREE TO HOUSE WITH ECOLOGY IN FOCUS**

## **RAW MATERIALS**

We care about a sustainable and durable forestry where biological diversity, cultural environment and social and aesthetic values are conserved. We therefore offer PEFC certified products.

Most of the raw material in I-beams is taken from local, northern Swedish sawmills that sort out specific timber qualities that correspond to demands on high quality. Around 65% less wood is used in our I-beams compared with solid structural timber.

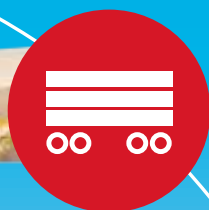
## **PRODUCTION**

We have one of Europe's most modern production facilities, which, among other things, enables a much more energy efficient manufacturing process. We are also world-leaders in proportions of waste, while the waste that does arise is reused in the heating of the process.

Our ISO 14001 certification ensures we are actively working with environmental issues and reducing our environmental footprint.



*"We work actively towards a sustainable society.  
Environment and energy efficiency are central  
core values in our processes from tree to house"*



## LOGISTICS

Our aim is to use environmentally friendly and efficient transport. With our new and efficient packaging procedure, we supply a larger volume and a lower weight compared to solid alternatives.



## CONSTRUCTION

We hold an EPD (Environmental Product Declaration) which means we maintain a low carbon footprint. The low weight of an I-beam also enables the use of smaller cranes on the construction site, while our building system solutions provide a fast and cost-efficient construction process that reduces waste at all stages.



## ACCOMMODATION

A frame made with our I-beams gives extremely low emissions. Further benefits are a 75% reduction in thermal bridges, 15% lower U-value and a 7-12% drop in total energy consumption.



# *The light & easy choice* **SMART PRODUCTS FOR EFFICIENT PROCESSES**



## **DESIGN**

We possess knowledge and experience in many of the most important areas of construction, for example:

- Energy
- Fire prevention
- Noise and acoustics
- 40 years' of experience in building systems of various building types and building systems.



## **CUSTOMER NEEDS IN FOCUS**

We adapt and optimise a complete solution of services and products based on your needs and our knowledge of building technology and costs in the construction process.

Our aim is to provide the best solution. This means in many cases that we recommend other products to complete our system.



## **PRODUCE**

### **CUSTOMISED**

The product is customised to meet customer demands on length, mitres, insulation, holes, etc. We prefabricate as much as possible, which saves time on the construction site.

### **EASY TO INSTALL**

Easy installation thanks to fast and simple hole-cutting in the web. Beams can also be supplied ready-drilled, which saves time and money on the construction site.

*"We possess a knowledge of the entire construction process, from design to production and management, and can therefore assist you in establishing the most comprehensive financial solution"*



## OWN AND MANAGE

A building in which the whole – for example regarding energy and dimensional stability – is taken into account early in the design phase, results in a building that is economical to own and manage, while the value of the building itself rises.

The advantages of using I-beam in a framework from a management perspective are:

- Energy saving – fewer thermal bridges and well-insulated.
- Dimensional stability – no cracks, creaking floors or follow-up work.
- Good acoustics.

### STRAIGHT

Glued components give minimum skewness and shrinkage despite greater lengths and moisture impact.

### STRONG

Carefully selected structural timber and special board materials in collaboration.

### LONG

Standard lengths up to 13.3 metres.

### LIGHT

Lightweight for products easy to handle.

# *The light & easy choice* **FLEXIBLE SOLUTIONS FOR FLOORS, WALLS AND ROOFS**

## **FLOORS**

Traditionally constructed floors with chipboard at top edge. Masonite Beams I-beam, impact sound insulation and board at the bottom. I-beams in floor structures result in a low risk of creaking and simple hole-cutting for installation. We have a range of products that enables freedom of planning and system solutions that provide very good acoustic properties.



### **FLOORS WITH HIGH ACOUSTIC DEMANDS**

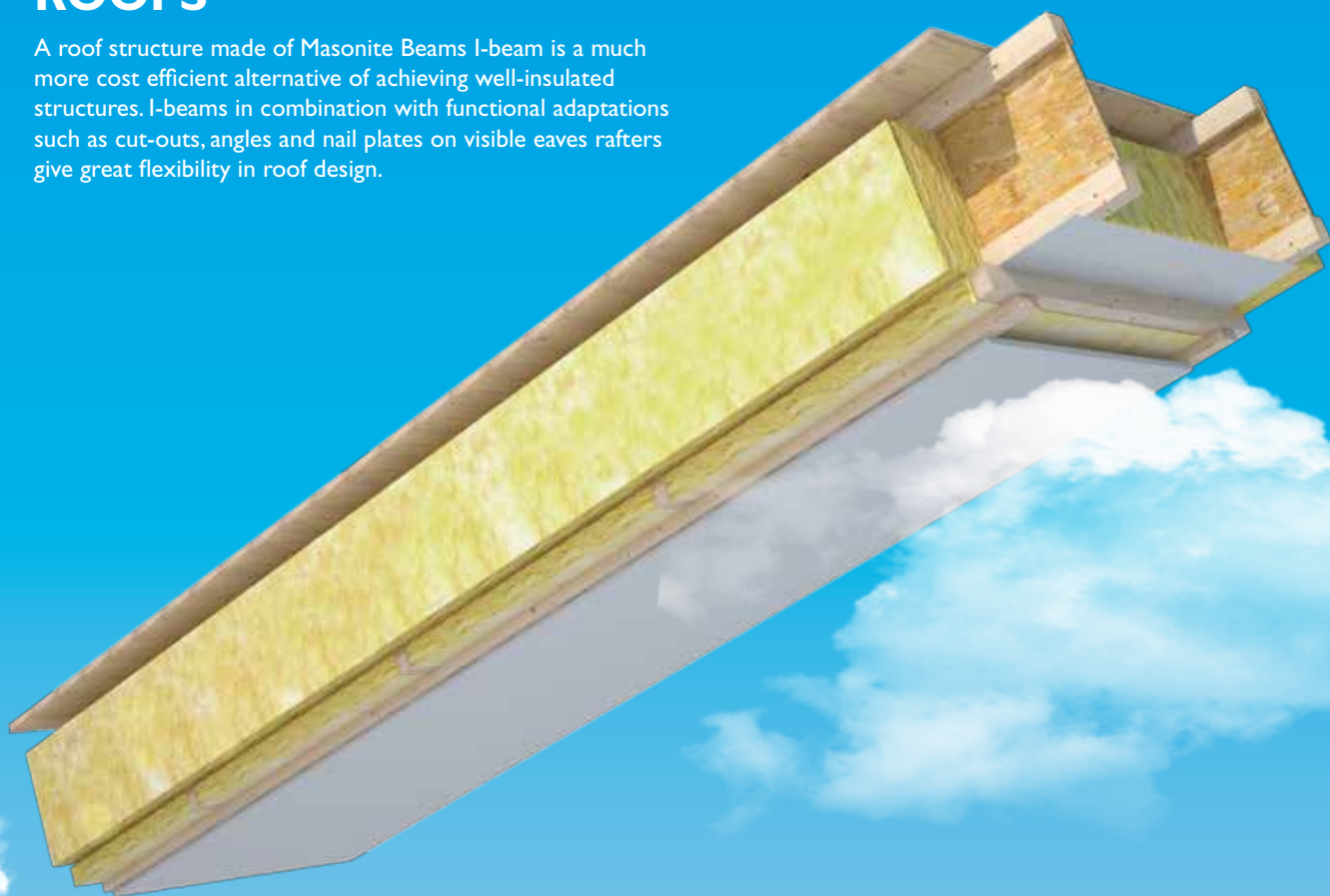
Blocks of flats and buildings with floor structures separating apartments have greater acoustic requirements to achieve good acoustic comfort between apartments, for example with respect to impact sound and airborne noise. Masonite Beams has been working with research and development of acoustic solutions for floor structures for more than 30 years and is still at the forefront within this area.

We offer solutions with I-beams where tests have shown that our floor structures - despite relatively simple design - have really good acoustic properties. Our acoustic floor structures can be combined with patented MFB joist hangers and Sylomer® cushions that dampen vibrations and allow simple assembly.



## ROOFS

A roof structure made of Masonite Beams I-beam is a much more cost efficient alternative of achieving well-insulated structures. I-beams in combination with functional adaptations such as cut-outs, angles and nail plates on visible eaves rafters give great flexibility in roof design.



## WALLS

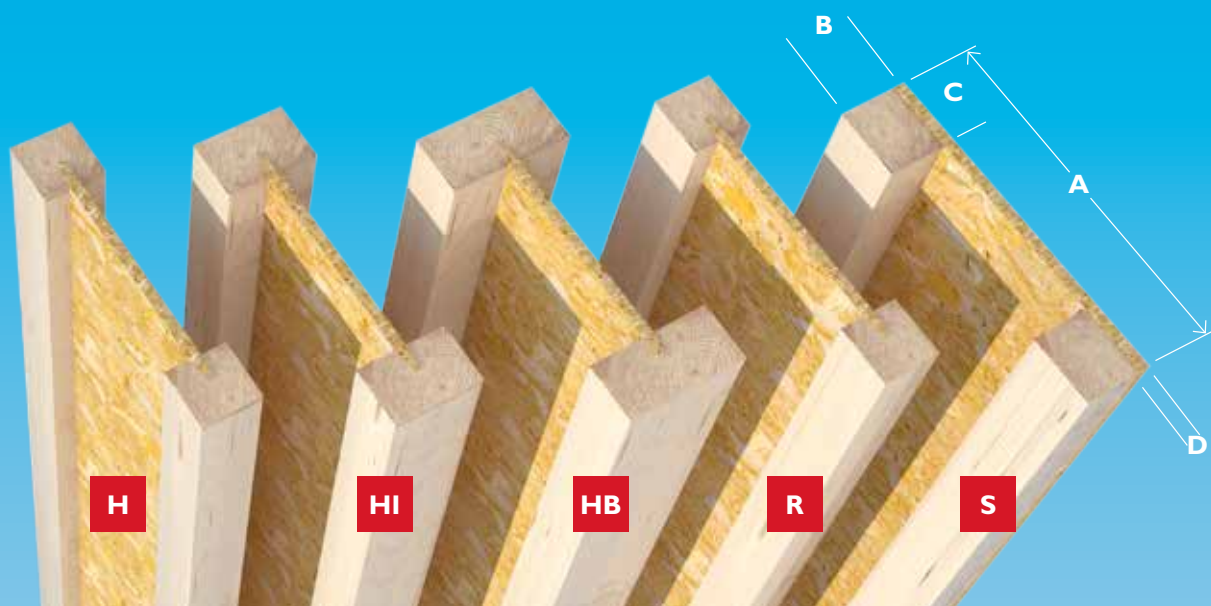
A load-bearing external wall built with Masonite Beams studs gives good construction economy and is excellent from an energy point of view since our studs have very small thermal bridges thanks to their thin OSB web. Good energy values can therefore be obtained for relatively thin walls. The work needed for construction is simplified thanks to our wall studs being made in widths up to 400 mm. In this way, it is possible to avoid a structure with several stud and insulation layers in order to obtain a thick and well-insulated wall.



# The light & easy choice

## STANDARD RANGE

The standard range of Masonite Beams I-beams consists of structural glued beams, studs and joists. Beam and stud flanges consist of machine graded structural timber and the web is made of 10 mm OSB. Special lengths are available on request to achieve length optimisation. Special dimensions can be manufactured for larger projects and long series.



DIMENSION – WEIGHT					
	TYPE H	TYPE HI	TYPE HB	TYPE R	TYPE S
<b>A</b> Height (mm)	200–500	200–500	200–500	200–400	200–400
<b>B</b> Flange width (mm)	47	70	97	47	55
<b>C</b> Flange thickness (mm)	47	47	47	47	45 or 70
<b>D</b> Thickness OSB web (mm)	10	10	10	10	10
Standard length (m)	6/8/9/12/13.3	9/13.3	8/13.3	7.5	5
Weight (kg/m)	3.1–5.7	4.0–5.7	4.0–6.4	4.0–6.4	2.3–4.6

Our products are CE marked and approved according to the European Technical Approval (ETA), which means products can be sold throughout Europe and that design can be done in accordance with Eurocode 5.



## CHECKS AND CERTIFICATES

Internal checks of the strength of finger joints and glued joints are carried out daily in our own laboratory. The strength and stiffness of entire beams are tested each week in our own beam test rig. Our own checks are implemented under the supervision of SP in accordance with control instructions. In addition to this, SP carries out supervisory checks twice a year.



# FUNCTIONAL ADAPTATIONS

Masonite Beams offers functionally adapted beams that simplify construction, reduce waste and give a high quality for industrial housing production. The beams are machined to an accuracy of 0.2 mm in our CNC machines. When requested, we can perform, for example, hole cutting, precise and mitred cutting, reinforcement, eaves rafters, web insulation and filling plus tie plates. We package functionally adapted beams according to measurements and type as well as supply different types of fittings suitable for the delivered beams.



## HOLE CUTTING/MITRED CUTTING

Holes in various sizes and shapes. Round, oval or elongated. Studs and beams can be supplied mitred or bevelled in one or more cuts.



## WEB FILLINGS/END BLOCKS

Web fillings/end blocks in wood or chipboard.



## TIE PLATES

Tie plates in desired dimensions.



## WEB INSULATION

Web insulated beams and studs.



## FITTINGS

Various types of fittings suitable for I-beams.



## EAVES RAFTERS

Solid wood eaves rafters in various shapes and designs.



## PLANNING AND TECHNICAL SUPPORT

The Masonite Beams Customer Centre and our designers will help you with project planning and design. We offer advice on building technology and design, as well as support for machining, hole cutting and reinforcement. Design software, planning instructions and other aids are available for your support in your own planning. Ask us when it comes to your next project. Then we can help you to plan a sustainable and efficient project with low demands on resources.



## Byggma – for better living

### Customer Centre

We can help with your orders, delivery times, prices and more.

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Fax +46 (0)930-308 92  
E-mail [order@byggmagroup.se](mailto:order@byggmagroup.se)

Visit our website [masonitebeams.se](http://masonitebeams.se)

### Technical support

We can help with design solutions, dimensioning, quotes and other things of a technical nature.

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