

Ein Haus wie ein Baum.

Press Article

(Stommel Haus)

6 good Reasons to Build a Contemporary Timber House

Building in wood provides great benefits when combined with clever planning, high precision and well monitored construction and high quality implementation

How Times Have Changed!

Houses built of timber were considered a temporary solution in the mid 20th century

when quick housing was required after WWII. Cheaply and quickly built, they spoilt the reputation of timber buildings.

However, over hundreds of years timber has been used to build quality homes and buildings which are still standing strong centuries later, shown by the many examples of very old timber buildings in Switzerland, Germany, Scandinavia, Turkey and Japan, some of which were built hundreds of years ago (the most well known example of an ancient timber structure is the 1300 year old temple complex of Nara.)



Since their foundation 75 years ago, the

Stommel family embraced this wonderful material, building timber houses for 40 years with an emphasis on ecological and energy efficient building not only enforced by German building regulations but by the enthusiasm for the natural and healthy material wood used for the benefit of the wellbeing of home owners.

There are 6 very good reasons for building a contemporary timber house today:

• Ecology and Sustainability

Timber is ecological and sustainable and a truly renewable building material. Its sustainability is unsurpassed:

- Timber is grown quicker than it is used by most of the main timber supplying countries which have longstanding policies to re-grow more timber than is felled. (For instance Germany has an annual timber growth of 80 million cubic metres with an annual use of 50 million cubic metres.)
- The 1992 environment symposium in Rio de Janeiro declared the concept of "sustainable development" as an international standard. Since then certifications for forestry and timber trading such as PEFC and FCS have been introduced and are adhered to by the suppliers delivering to the premium manufacturers.
- Good quality timber homes use constructive wood protection and apply timber devoid of any chemical treatment adhering to the extensive standards and guidelines for non-toxic wood protection.



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Energy Efficiency

When it comes to energy efficient and ecological friendly building, Germany is well advanced with its legal energy efficiency requirements which have been imposed for many years. Stommel Haus has embraced the goal of building energy efficient houses by design using solid timber as the main material.

Wood helps to minimise energy consumption in several ways. In terms of embodied energy, which includes the energy required to extract, process, manufacture, transport, construct and maintain a material or product. Life cycle assessment studies show that wood significantly outperforms steel and concrete.

Wood also has better insulating properties – 400 times better than steel and 15 times better than concrete. Wood's cellular structure contains air pockets, which limit its ability to conduct heat and help to minimise the energy needed for heating and cooling. Concrete and steel are solid throughout and, as a result, facilitate heat loss in many climates and increase energy consumption.





6 CO₂ Reduction

Timber homes reduce CO₂ in several ways:

- Good quality timber homes achieve top energy efficiency levels in the Code for Sustainable Homes. This is due to the outstanding insulation quality and heat retention of a timber building. Furthermore, to achieve human wellbeing the
 - high surface temperature of wood allows for 2°C less air temperature in a timber house compared to a traditional house.
- Wood is a building material with a positive CO₂ balance and requires less primary energy during the build. Wood uses solar energy to grow and stores vast amounts of carbon dioxide during photosynthesis. A cubic meter of timber thus locks away around one ton of the harmful greenhouse gas. At least another ton is saved when using wood instead of other building material which require a lot of fossil energy and release CO₂ during its production. The wood used in a good quality timber thus saves around 100 tons of CO₂.

Unrivalled Properties of Timber for the Wellbeing of People



Living and working in a timber building means being in a pleasant and healthy environment. Besides its sustainability, timber has unique properties and no other building material can rival these benefits:

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- Timber is diffusible and hygroscopic.
- It filters the air and thus provides a fresh and healthy climate in a building.
- It has humidity regulating properties which have positive effects on the atmospheric conditions of a room.
- Timber is more hygienic than other materials, scientist prove that bacteria survives longer on artificial materials than on timber.
- Timber has exceptional insulation qualities with a high surface temperature.
- Timber absorbs sound and reduces electrostatic charge thus improving the atmosphere in a modern house. Timber is a good protection against electromagnetic radiation which can have negative effects on the human health.



- Timber smells good, looks good and feels good and thus has a positive effect on our wellbeing. Timber positively affects all human senses.
- Timber buildings provided by good quality and certified manufacturers such as Stommel Haus have a longevity which can compete with any brick or stone building
- Timber is safe. Not only does it guarantee a better stability in earthquakes but it also offers good protection in the case of fire. Its fire resistance is comparable to conventional materials, a fact proven by independent assessors. The larger the cross section, the longer timber takes to burn through as the carbon layer created by the fire protects the core of the timber.

So Limits on Design and Size



Considering the relationship between people, material and the environment is of utmost importance when building a home. Using timber as the main building material is the right choice with its endless design possibilities, as well as unrivalled physical and technical properties.

Stommel Haus allows you to choose your dream house designed for your own specific needs and tailored to the location where it will be erected. The house will be pre-



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fabricated in the sheltered environment of our factory where it can be produced to the highest accuracy.

O Quick Build Time – On Time and In Budget Completion



We pride ourselves today in applying state-of-the-art production methods to manufacture houses in the sheltered and secure environment of a factory using top quality timber harvested in certified and sustainable forests. Modern technology, certified and monitored manufacturing and construction methods permits very quick assembly within a handful of working days with great benefits including independence of the weather, less disturbance of the neighbours, no waste material on site and – the greatest benefit of all – on-time completion of the house.

See us at Grand Designs Live, NEC, Birmingham on 8-10 October 2010 at Grand Build Stand no B389



About Stommel Haus

Stommel Haus GmbH is a premium manufacturer of energy efficient, solid timber houses. With 40 years of experience, the family business has proven that building with solid timber, energy efficiency, contemporary design and the attention to quality are no contradiction but lead to providing a

attention to quality are no contradiction but lead to providing a modern, ecological and high quality product.

Nestled in the small town of Neunkirchen-Seelscheid near Cologne, Stommel Haus develops and produces their certified timber houses with high precision CNC machines. The houses are transported on site where they are erected by qualified teams and made wind and water tight typically within 5-7 days. The under-floor heating, heat pumps and the interior are then fitted by German craftsmen with only high quality branded products.

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