

UTILIZING LOFT SPACE

One aspect of house building that has always puzzled me is: Why for so many years, have architects ignored roof space that can provide valuable living accommodation? I suppose we are just as guilty as the designers because we just accept that 'the loft' is somewhere to store all our junk that we believe may come in useful one day in the future, but rarely sees the light of day again. Why provide a rent free home to a load of old junk and outdated furniture when you could be living in the same space? Few people realize that by storing old timbers or wood furniture in the roof space, there is a very good chance that they may be introducing wood-boring insects to their home and providing a varied gourmet menu for the unwanted guests who will quickly multiply and attack any untreated structural timbers in the home.

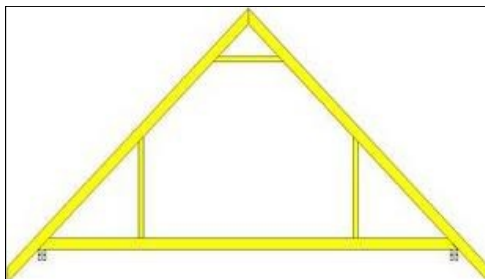
Roof construction really hasn't changed very much in the last 50 years, with trussed rafters being the favoured solution for simple to medium design complexity and a 'cut' roof for more complicated or traditional designs. Neither of these solutions are really suitable due to their designs but can, at a cost be 'converted' to provide open spaces. The main problems are the floor to ridge height that existing roof superstructures provide, due to a shallow roof pitch and the limitation of available space due to the location of the purlins used in a cut roof. In most cases the floor will have to be 'beefed up' to support the new loads it will have to carry which is not a cheap option.



None of the roof types shown above could be converted economically (if at all) to provide room-in-roof living space, due to shallow pitch and/or complicated structure of the timbers

Attic Trusses or Room in Roof

Now—if you are considering a new home or are about to undertake a restoration involving a replacement roof, then help is at hand in the form of Attic Trusses. These are trussed rafters that are designed and manufactured for each individual project and can provide between 50 & 60% extra living space of the buildings footprint. As each truss has been individually engineered to take into account historic weather patterns and roof/floor loadings, there are no problems with installation, which in many cases can be done in one day.



A room-in-roof trussed rafter is a simple arrangement of timbers designed on stand alone software for each individual project



The cost of a room in the roof is very low compared to the value added to the building on completion

The cost and scarcity of land and constantly rising house prices in many areas have forced us to think about extending our homes if we need more space. The traditional method of adding a ground floor box to the house was the only option before Room in Roof trusses became available. Now it makes much more sense to go up, using wasted space to live in instead of extending out which takes up your valuable land.

Roofing a house, using Attic Trusses can be up to 5 times faster than using the traditional "Cut Roof" method which is only as good as the site Joiner's individual skill & experience. Using factory assembled Attic Trusses assures you of a consistent quality at all times. No specialised labour is required to 'set' roof trusses so huge saving in skilled labour costs are made. An average span of 8m (wall to wall) is possible without the need for any support walls and up to 16m is not unusual with some supporting walls.

A complicated roofscape may consist of a combination of different truss shapes and may even have an area of cut roof incorporated with the trussed rafters but don't worry, whatever your designer has decided we can produce the best solution for you using specialized software.

The bottom chord of the attic truss is a ready made joists system to carry the floor deck and the wall/roof members are insulated with a vapour barrier over with a plasterboard finish
It is quite easy to create a dormer window or install roof lights in attic trusses, so light is not a problem.

Bear in mind that you will need access to the newly created floor, and a traditional staircase may take up more room than you are creating in a small house. If this is the case you may wish to consider a spiral staircase or a loft ladder.

All timber is kiln dried and stress graded to BS519 and meets the highest British and European quality standards. European whitewood is the favoured material and composite trusses are available for special purposes and applications. In compliance with Timber Engineering Europe environmental policy all timber is cut from managed forests and sustainable sources accompanied by PEFC certification. Timbers can be supplied pressure treated, to BS 5268 Part 5, with a variety of preservatives to guard against fungal and insect attack. Waterborne preservatives are standard although chemical and special fire resistant finishes are all available on request.

Roofing packages supplied by Timber Engineering Europe include all necessary metal connectors including joist hangers, truss clips, straps and ties. Construction grade galvanised nailplates, made to BS EN 10147, with a 60 year warranty are used throughout. Special and heavy duty nailplates are available for special applications. Bespoke and special metal fixings as specified by our design engineers are all made to order.

Attic Trusses are designed in compliance of the EU Eurocodes and all the materials used are EC approved so there is no problem using this system in anywhere in Europe.

The cost of Attic Trusses compared to standard Fink Trusses is about three times more as the timber sections are very much larger but in the big picture that does not represent a significant cost contribution to the overall project costs. Consider the labour charges for craftsmen to install a traditional cut roof against a single days labour by unskilled workers to install the 'attics'.

It is possible to create a room in the roof of between 50% and 60% of the building footprint, on a simple design, but may be considerably less on a complicated roofscape design.

Contact Timber Engineering Europe for free advice and a no obligation quote:

<http://www.timberengineeringeurope.com/cont.html>



NOTE: Trussed rafters members should NEVER be removed or modified in any way without first reinforcing the roof and this will need overseeing by a qualified, professional engineer or architect"