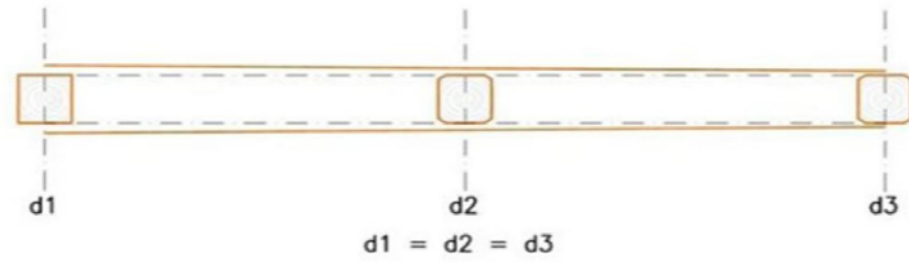
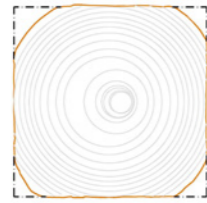
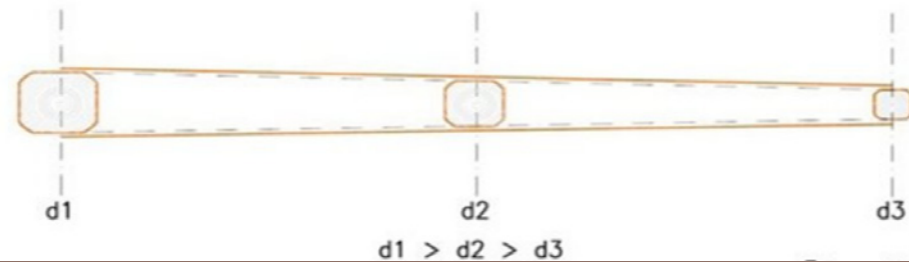


### Uso Fiume



### Uso Trieste



The product's peculiarity is given by the processing of the timber, which is mechanically squared on all four sides so as to form a square section with more or less rounded corners, called wane. USO FIUME and USO TRIESTE beams therefore have no sharp edges.

Beams of this type are still used as construction elements for floors and roofs. The Italian names for the cutting processes, "Uso Fiume" and "Uso Trieste", are derived from the port towns of Fiume (now Rijeka, in Croatia) and Trieste.

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 39100 Bolzano - Italy  
 T +39 0471 068 150  
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 info@traviuf.it | www.traviuf.it



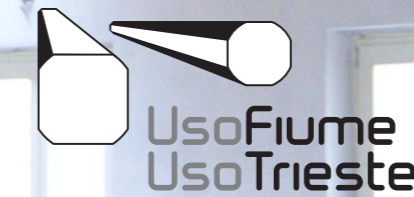
### Solid timber beams with wane Uso Fiume:

Timber beams with a constant thickness and a square or rectangular cross-section containing the pith, obtained through the mechanical squaring of a log, continuous and parallel from the base to the tip on four sides.

### Solid timber beams with wane Uso Trieste:

Timber beams with a constant thickness and a square or rectangular cross-section containing the pith, obtained through the mechanical squaring of a log, continuous from the base to the tip on four sides, following the tapering of the log itself.

*Note: The wane must be within the tolerances indicated below. Examining the beam on all four sides along its entire length, where the 4 wanes are at their largest, these must have a minimum width equal to 1/3 of the cross-section, up to a maximum of 9/10 of the same along the entire length of the beam. Elements where the wanes are less than 1/3 of the cross-section (as described above) must meet the requirements set forth by harmonized Standard UNI EN 14081-1.*





### Five points in favour of timber

#### Sustainability of wood raw materials

Forest management is based on the principle of sustainability: the idea is to use less, or at most the entire amount of wood material that grows in one year, without compromising the growing stock of the forest itself.

#### Ecology

During growth the tree absorbs the equivalent of 0.9t of CO<sub>2</sub> per m<sup>3</sup> wood. At the same time it produces 0.7 t of O<sub>2</sub>.

#### Mechanical strength

In proportion to its own weight, wood is capable of withstanding loads up to 14 times greater than steel.

#### Insulating material

Thanks to its extraordinary cellular structure, wood has an insulating capacity 15 times greater than concrete, 400 times greater than steel and 1,770 times greater than aluminium. A wood board with a thickness of 2.5cm has a greater thermal resistivity than a brick wall 11.4cm thick.

#### Recycling

Wood can be reused as construction material or as an energy source.

### The advantage of solid timber

#### Uso Fiume and Uso Trieste

Due to the processing a limited annual rings are cut and broken wood fibers. The result is a higher strength of these ranges compared to square timber with the same section.

Also the shrinkage and deformation of the wood elements remains within limits.

### CE- marking

Laboratory tests showed characteristic strength values, which are included in the UNI 11035-3 and the European Technical Approval ETA 11/0219 (EU document as an alternative to a harmonized European standard EN for specific products).

The product quality is guaranteed by the CE marking and declaration of conformity of certified production sites.

Only ranges which are CE marked to guarantee the characteristic strength values!

### Mechanical properties of strength classes

The European Technical Approval ETA 11/0219 defines two strength classes:

**UFS/A** for solid wood beams USO FIUME - spruce

The range UFS/A CE-marked corresponds to strength class **C24** according to EN338.

**UTS/A** A for solid wood beams USO TRIESTE - Spruce

The range UTS/A CE marked complies strength class **C18** according to EN338.



### Wood species

spruce, fir  
larch (new results from laboratory studies classify this species as C30 according to EN338).

### Processing quality

The wooden beams with wane are traded rough (wane with bark) or peeled (wane without bark).

### Moisture content

The wooden beams are freshly sorted (> 20%), on demand can also be supplied dry timber graded.

### Special requests

It can be arranged as desired surfaces (restoration): painted wood beams, paint, varnish, etc.

### Product overview

The beams are available in various cross-sections and lengths; custom sizing available upon request.

### Uso Fiume

section: 10x10cm bis 55x55cm  
length: 3m bis 16m

### Uso Trieste

section: 8x8cm to 55x55cm  
length: 3m to 16m  
see:  
<http://www.traviuf.it/en/home/1-0.html>

### Dimensioning

Wood construction engineers/ partners can perform the required structural analysis of wood structures.

