

HO7

Timber Beam

The HO7 application allows you to calculate continuous beams with up to 12 spans under uniform linear loads, concentrated loads and trapezoidal loads and design them as rectangular beams with a continuous cross section over the entire length.

In addition to rectangular cross sections, also web beams make STEICO can be calculated in accordance with European approval ETA-06/2038 and the load assumptions can optionally be based on the Code of Practice of the British Engineered Wood Product Committee.

You can define holes on STEICO beams.

Multipart cross sections can be defined as well.

Standards

- EN 1995
- DIN EN 1995
- BS EN 1995
- ÖNORM EN 1995

- UNI EN 1995/NTC
- Code of practice UK
- DIN 1052: 2008

Multiplying factors are assigned to the loads. In addition, you can link each load component to the load influence width of a joist ceiling.

You can take biaxial loading into account.

The inclusion of creep deformation in the cross breaking strength verification is possible. It is calculated by multiplying the elastic deflections with a factor that is determined by the relations of the loads per span.

In the verifications, the equilibrium moisture is taken into account via the usage class, which has an influence on the resisting forces via the modification factor k_{mod} . The serviceability is automatically verified in the infrequent and the quasi-permanent situation. The stress verifications are based on the formulas specified by the standard. You may increase the

permissible shear stress, if the distance to the beam end is more than 1.50 m (due to the reduced cracking risk).

The creep behaviour of the timber is taken into account in the calculation of the deflections via the deformation coefficient k_{def} .

You can optionally verify the vibration resistance as per EN 1995-1-1 7.3.

Output

The user can optionally select an abbreviated or extensive output scope (default: system, loading, design results, bearing forces).

Load transfer

Direct launch out of HO7:

- HO1 - Timber Column
- ST1 - Steel Column
- B5 - Reinforced Concrete Column

The maximum bearing forces are automatically transferred to the column application.

