

Module "Ribbed slab"



Input data

The input is divided into:

- general information about the project and the considered structural element
- definitions of the structural system
- definitions of the cross section
- input of the loads
- informations about vibration parameters
- calculation options

General

Structural system

In this release, only single span girder can be calculated. The supporting width and span (via x-value in the table) can be defined within this input field.



Cross section

The input of the CLT cross section is the same as for the [Module "CLT-Plate 1D - Continuous beam"](#).

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Die Definition des Rippenquerschnittes (Rechteckquerschnitt aus BSH oder Vollholz) erfolgt über die Eingabe der Höhe und Breite der Rippe sowie Auswahl des Materials.



Loads

The input is the same as for the [Module "CLT-Plate 1D - Continuous beam"](#), but limited to distributed loads.

[Show description](#)

Fire

In this module, currently no structural fire design is possible.

Vibrations

The input is the same as for the [Module "CLT-Plate 1D - Continuous beam"](#).

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Results and Output

Cross section values

The stiffness values of the CLT-plate and the GLT-beam as well as the shear spring, which are shown in the upper section of the tab "cross-section values" are parameters for the determination of the effective width.



Underneath, the effective width, the center of gravity as well as the bending and shear stiffness of the T-beam at the supports and in between are shown.



Summary of the results

The summary of the results is analogous to the [Module "CLT-Plate 1D - Continuous beam"](#).

[Show description](#)

However, there are differences for ULS - shear, since for the CLT-flange also the in-plane shear has to be considered.



Implemented calculation methods

[Effective width of T-beams made of CLT and GLT](#)

[clt:design:tbeam:bef](#)
[brettsperholz](#), [rippendecke](#), [effektive breite](#)

Calculation example concerning the effective width of T-beams made of CLT and GLT

clt:design:tbeam:example

brettsper Holz, berechnungsbeispiel, rippendecke, effektive breite

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