

BEB+

Elastic Bedded Beam

BEB+ is suitable for the calculation of elastically supported beams and one-way slabs in accordance with the subgrade reaction modulus method.

You can optionally select whether foundations and stiffness should be constant, linear or erratic.

You can set the foundation to zero, either completely or in individual sections. If you set the foundation to zero over the total beam, at least two supports are required. You can add further rigid or elastic supports.

Loads

- Uniformly distributed loads
- Concentrated loads
- Concentrated moments
- Trapezoidal loads

In addition to this, you can calculate moving loads based on concentrated loads.

Joints

Bending joints can be defined at freely selectable points.

Cross-sections / sectional Jumps

- Rectangular cross-section
- T-beam with a slab on top and/or on bottom

You can divide the beam into individual segments with a cross-section at the beginning and one at the end of each beam segment.

Results / Design

- Internal forces
- Displacements
- Design
- Concrete stresses
- Reinforcing steel stress
- Crack width

Optional: Shear design for a slab

The 'Shear design of slab' option is available to ensure a correct slab shear design for strips cut out of a slab even if the cross-section to be designed is that of a beam.

Available standards

- DIN EN 1992
- BS EN 1992
- ÖNORM EN 1992
- EN 1992

In addition, still DIN 1045 07-88 / DIN 1045-1 / DIN 1045-1/2008/ ÖNorm B4700

Basis of calculation

The calculation is based on the subgrade reaction modulus method and the displacement method. Optionally with tension spring deactivation.

