

B9+

Reinforced Concrete Corbel

Application options

The B9+ application is suitable for the design of corbels with loads applying directly from above (“corbel with direct load introduction”).

The following direct loads are available:

- Vertical load
- Additional horizontal load

Standards

- DIN EN 1992-1-1: 2012 + 2013 + 2015
- ÖNORM EN 1992-1-1:2011 + 2018
- BS EN 1992-1-1: 2015
- EN 1992-1-1:2014

The calculation includes the following:

- Safety against compressive web fracture
- Compressive strain under load
- Required As of the tensile and web reinforcement
- Anchorage and lap lengths of the reinforcement
- Internal forces in the corbel section
- Reinforcement dimensions in form of tables

Prerequisite is compliance with the console condition

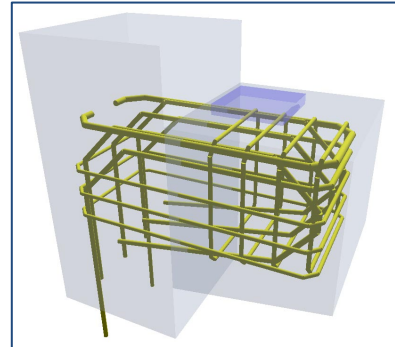
$$\frac{a_c}{z_0} \leq 1,0$$

a_c = Distance of the upper nodes from the column

z_0 = lever arm

Basis of calculation

The calculation is based on a strut-and-tie model. The National Annexes are taken into account.



Design Code: DIN EN 1992:2015
Concrete: C25/30, Steel: B500A

Utilization	Value
Tensile reinforcement	46%
Splitting tension reinforcement horz. (stirrup)	51%
Pressure at support	42%
Stress in compressor: strut at the upper node	51%
Anchoring length link in the column	80%
Anchoring length link in the corbel	80%