

FD+

Isolated Foundation

The FD+ application allows you to verify squared and rectangular foundations cast with or without pocket.

External loads can optionally apply centrally or with a uniaxial or biaxial eccentricity.

FD+ calculates the soil pressure underneath the four corner points and the position of the zero-line in case of a gaping joint.

The required flexural reinforcement is calculated for the foundation and the punching shear resistance verification is performed.

You can optionally calculate the required connection reinforcement

The system consists of the foundation slab and an optional

- column
 - pocket
- with optional eccentricity.

The flexural design is performed at the centre of the column (axis) – the graph of the moment will be rounded. Optional it is performed at the column edge.

The user can include the following load types in the calculation:

- Single vertical load V at the column location
- Horizontal loads Hx und Hy. The horizontal loads are acting
 - at the top edge of footing or
 - if a column was defined, at the top edge of the column and
 - if a pocket was defined, at the top of the pocket.

Horizontal loads are generating a moment (effects in the sole)

- as an option the horizontal loads can act directly at the sole without generating a moment.
- Outer moments Mx and My

- Earth top load and additional uniformly distributed load applying to the foundation surface without column and additional vertical single loads applying at freely selectable points.

Standards

- DIN EN 1992
- DIN EN 1997
- ÖNORM EN 1992
- ÖNORM EN 1997
- BS EN 1992
- BS EN 1997
- EN 1992
- DIN 1045 / DIN 1045-1
- DIN 1054
- ÖNORM B4700

Soil failure analysis

The soil failure analysis ist implemented.

