

ST5

Weld Design

The ST5 application allows the verification of welding seams (corbel connection) for standard rolled sections of any shape (except Z sections).

The loading comprises axial force N_d , bending moments $M_{y,d}$, $M_{z,d}$ and shear forces $V_{z,d}$ and $V_{y,d}$ (in kN, kNm).

The user can either select a profile from the Frilo-file for standard rolled sections or define it by entering the cross sectional dimensions.

Standards

- DIN EN 1993
- ÖNORM EN 1993
- EN 1993 (simplified method)
- DIN 18800

Input

Depending on the selected profile type, the application proposes the optimum welding pattern. The length and the thickness of the welding seam are customizable.

A welding seam length below 3 cm is set to zero in the automatic pre-setting process. The value proposed for the thickness of the welding seam is the lowest possible with regard to construction. It is calculated from the thickness of the profile section to be connected (e.g. web or flange thickness) and the sheet thickness of the component to be connected. A dialog is displayed for the input of these values.

The thickness is checked in regard to the constructive border conditions. The user can freely specify a value, however.

