

ST6

Pocketed Steel Column Base

The ST6 application is suitable for base point verifications of steel columns clamped in pocketed foundations and exposed to biaxial loading. The permissible column cross sections are I-shaped steel profile sections.

The column base is designed as a welded on base plate.

Standards

- DIN EN 1993
- ÖNORM EN 1993
- BS EN 1993
- EN 1993
- DIN 18800

Calculation/verifications

- Calculation of the depth of restraint depending on the permissible concrete compression and the maximum shear force borne by the web of the column profile

- Verification of the concrete compression between the column profile and the foundation
- Verification of the column profile: The column profile is verified in the restraining area (maximum shear and axial stress, comparative stress at the end of the web where the rounding begins)
- Verification of the base plate below the column under the assumption of a uniformly distributed base pressure
- The user can select whether the verification of the plate thickness should be based on
 - the elastic-elastic or
 - the plastic-elastic method

Interfaces

The program can be accessed via interfaces from the programs STS Single-span Steel Column and S7 + Portal Frame.

Data: geometry and internal forces from the decisive design load cases for further calculation with ST6.

Basis of calculation

EN 1993:

See: [1] Bauforumstahl e.V
 "Beispiele zur Bemessung von Stahltragwerken".

[2] Kindmann, R., Laumann, J.:
 Erforderliche Einspanntiefe von Stahlstützen in Betonfundamente;
 Stahlbau 74(2005),H.8,S.564-579

