

Pressure only support or soil



Analysis of the structure with the possibility to define unidirectional supports on nodes, lines or surfaces. This calculation type can be applied to beams or plates on subsoil.

One-sided supports - that act only if the structure undergoes pressure - can solve any contact problems.

Highlights

Nodal, linear or surface support type can be defined as acting in one direction

The use of local node and beam coordinate systems can create one-sided supports according to any direction

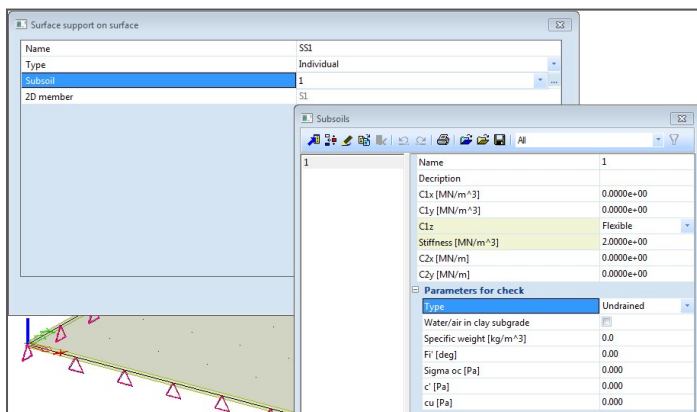
Supports with tension can be automatically eliminated. This is mostly used for slabs on subsoil, column bases or for example scaffoldings, struts, ...

The following types of supports can be eliminated if tension occurs:

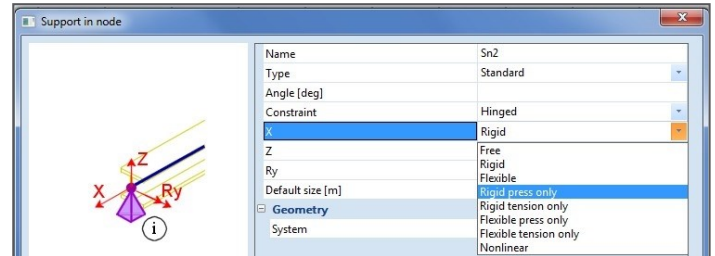
- Nodal Support
- Line Support
- Subsoil

For Nodal Supports or Line Supports it is possible to specify a translation degree of freedom as 'Rigid pressure only' or 'Flexible Pressure only'. To eliminate supports in pressure (and obtain a Tension-only support), the nodal support can be rotated 180°.

Subsoils are always regarded as Pressure-only for a non-linear calculation. No specific input has to be made.

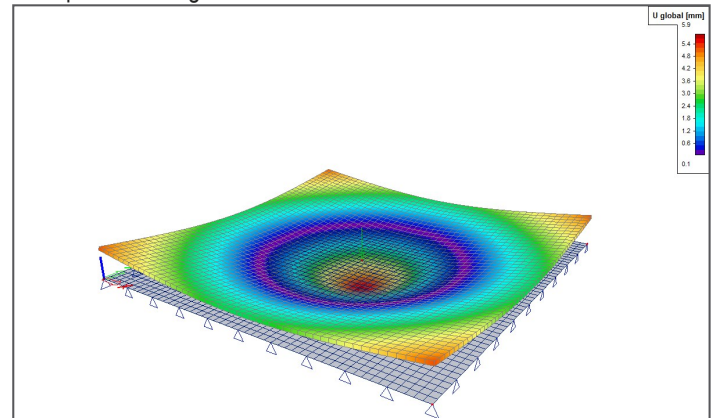


Soil support data

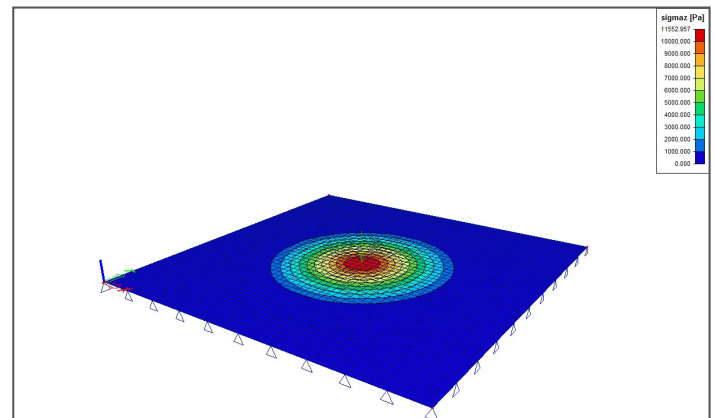


Pressure support data

Example of the usage - Slab on subsoil



3D displacements of Slab on subsoil



Contact stress of Slab on subsoil

Required modules

esas.00