

**RUVOLUM®** quickly dimensions our **TECCO®** and **SPIDER®** slope stabilization systems. This tool determines which forces and loads are acting on the mesh and at anchor points. Geotechnical parameters are easily input and define the **RUVOLUM®** results. Verification of the overall solution can give the designer confidence proven by full-scale testing used to calibrate **RUVOLUM®**.



**RUVOLUM® dimensioning tool**

**FOR TECCO® AND SPIDER®  
SYSTEM**

# RUVOLUM® DIMENSIONING CONCEPT: SIMPLE PLANNING FOR INCREASED SAFETY.

For determining the forces acting within a stabilization system, Geobrugg developed the RUVOLUM® online tool to assist engineers and planners.

RUVOLUM® provides the static verification of the system:

- ▶ Puncturing of the mesh
- ▶ Combined loads on the nails and anchors
- ▶ Shearing of the mesh on the upper edge of the spike plate
- ▶ Forces parallel to the slope which can be transmitted from the mesh onto a nail

If necessary RUVOLUM® considers the following load cases:

- ▶ Earthquake
- ▶ Streaming ground water pressure

## The dimensioning base of the RUVOLUM® model

### 1a Local instabilities between the nails

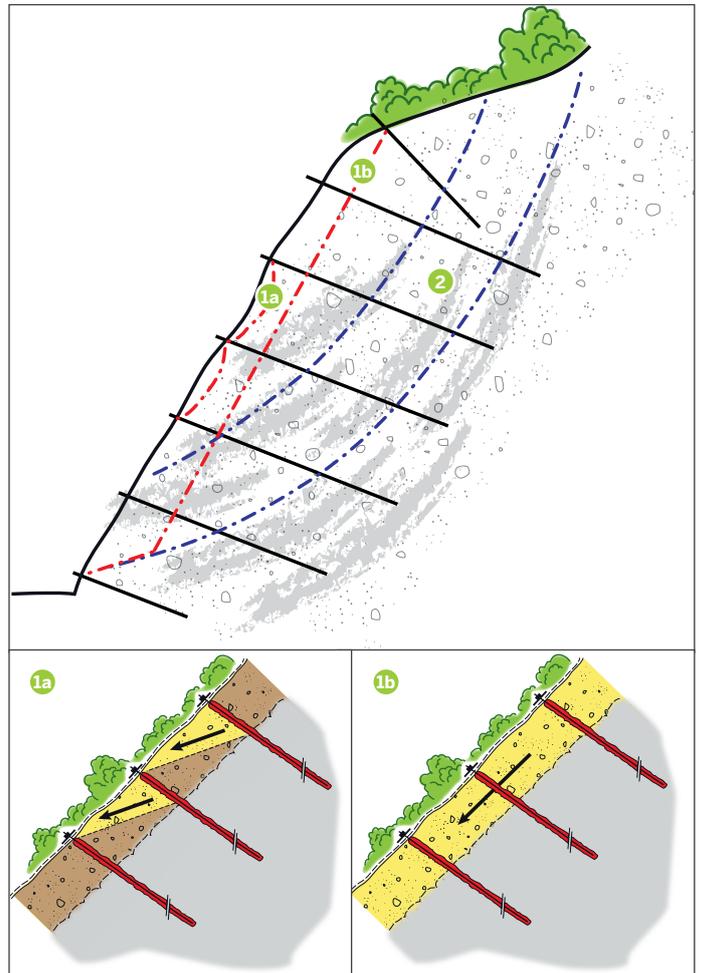
Where local slope instabilities occur between the soil nails, RUVOLUM® calculates the ability of the high-tensile steel mesh to resist shearing-off at the spike plate interface.

### 1b Instabilities near the surface and parallel to the slope

The nails must detain the material from mobilizing. The number and layout of the nails can be dimensioned according to the forces calculated based on soil properties, slope angle, seismic loading and streaming pressure.

### 2 Global instability

Soil nailing for deep seated slope failures is additionally dimensioned with slope stability methods and compared with the RUVOLUM® results.

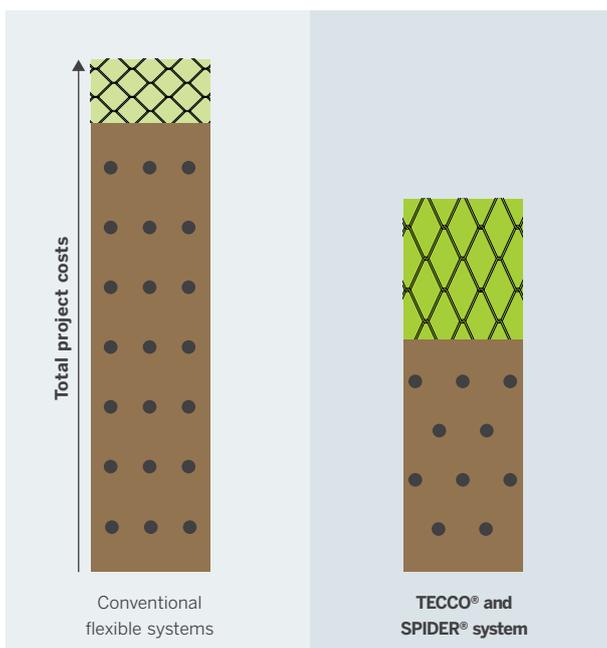


## Cost-optimized solution

The TECCO® and the SPIDER® system provide a **higher level of protection** as conventional protective covering, at the same time requiring significantly reduced numbers of nails. This lowers the total project costs and shortens the installation time.

We provide you RUVOLUM® free of charge on:

[www.mygeobrugg.com](http://www.mygeobrugg.com)



Geobrugg AG

Aachstrasse 11 | 8590 Romanshorn | Switzerland  
[www.geobrugg.com](http://www.geobrugg.com)

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