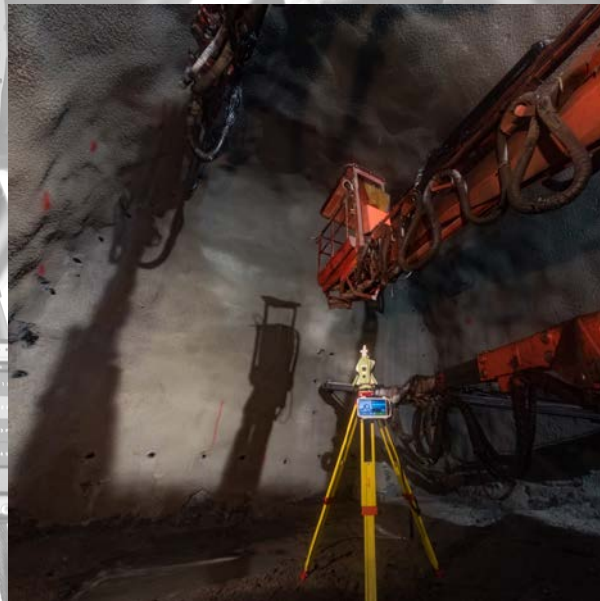


CENERI BASE TUNNEL

Bellinzona-Lugano, Switzerland

The Ceneri Base Tunnel passes beneath Mount Ceneri following the Gotthard axis. The two parallel single-track tunnel tubes (profile of 65 m²) are 16 km long each and are interconnected by means of cross-passages at a regular interval of 325 m.



Object

Flat, two parallel, single-track railway tunnels.
Construction costs: approx. 2. Billion CHF

Our Service

- Geotechnical Survey and Instrumentation
- Surveying Services on Site
- TMS Applications On-board licenses for the foremen
- Amberg Geotechnics for geotechnical analysis
- TMS Tunnelscan for documentation of the excavation and for smoothing processing

Construction of New Railway Tunnel

Place

Bellinzona-Lugano, Switzerland

Construction Costs

Total costs:	2.3 billion CHF
Structural works:	1.5 billion CHF

Project Stages

Schematic design:	until 2005
Tendering:	from 2005
Start of construction:	2006
Completion of structural works:	2017
Commissioning:	2018

Excavation Method

Access gallery:	open TBM \varnothing 9.7 m, 2'700 m
Northbound advances:	2 x 7'800 m by drill & blast
Southbound advances:	2 x 1'500 m by drill & blast 2 x 4'300 m by shield TBM and segmental lining
Cross-passages:	drill & blast

Geology

Various gneiss zones with several mostly short fault zones of structural relevance. Alternating layers of faulted gneiss formations and partially several meters high cataclasites and kakirites over a distance of approx. 600 m.

Client and Contact Person

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