

## Project

The Ceneri Base Tunnel is a railway tunnel under construction in Switzerland's Canton Ticino. It will pass under Monte Ceneri between Camorino near Bellinzona and Vezia near Lugano, and will bypass the current high-level rail route through the Monte Ceneri Tunnel.

It is a very important part of the Swiss AlpTransit NRLA and it creates, together with the Gotthard Base Tunnel, a continuous flat route.

The tunnel system consists of two single-track tubes 40 meters apart. The tubes are joined by cross passages every 325 meters.

Excavation of both tubes is taking place exclusively by conventional drilling and blasting.

The excavation works began in 2007 and will complete in 2015. Opening of the Ceneri Base Tunnel is scheduled for December 2019.

Euroform has been awarded the supply of the formworks and the relevant accessories listed below:

- 4 Invert formworks.
- 2 Portal type kerb formworks.
- 4 Flat type kerb formworks.
- 7 Main Tunnel lining formworks.
- 28 Curing gantries for Main Tunnel.
- 4 Cross Passage formworks.
- 2 Platform formworks.
- 3 Collar formworks.
- 2 Niches formworks.

Invert formworks are self-launching type and equipped with vibratory screeds for the finishing of the concrete floor, and with a system for the laying of drainage pipeline collecting and discharging the drained water outside the tunnel.

Kerb formworks are motorized and, depending on the presence of a conveyor belt on the sidewalls of the tunnel, these are portal type or flat type equipped with carriageable floor.

Lining formworks equipment is hydraulic self-reacting type, it runs on the rail track previously installed and is equipped with a concrete distribution apparatus made of a trolley and a tubes' system.

Curing gantries are towed by the lining formwork carrier and make faster and control the curing of the concrete lining as soon as poured by put water in a suitable isolated area so as to reach the needed temperature and humidity values; temperature and humidity are non-stop measured and registered by a digital recorder so to control the water pouring.

Cross Passage and Collar formworks are self-reacting type and they are fully mechanized, motorized and equipped with with 4 solid resilient tyres in spite of its small overall dimensions.

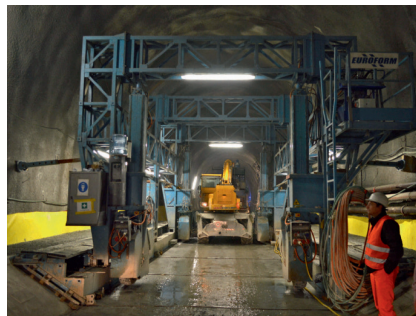
## CLIENT

Condotte Cossi Consortium

Invert formwork



Kerb formwork



Main tunnel Lining formwork



Curing gantries



Cross passage formwork



Collar formwork

