



RAILONE SAFETY SYSTEM ROSS

Accidents in tunnels are serious, safety-endangering events that must be avoided at all times. RAILONE makes an important contribution here with its rail tracks and components that have been tried and tested over many years and are therefore demonstrably safe and reliable. In addition, RAILONE now offers an equally safe and economical system that makes the rail track accessible to conventional rescue concepts and associated vehicles in case of emergency.

Tunnel safety for emergencies

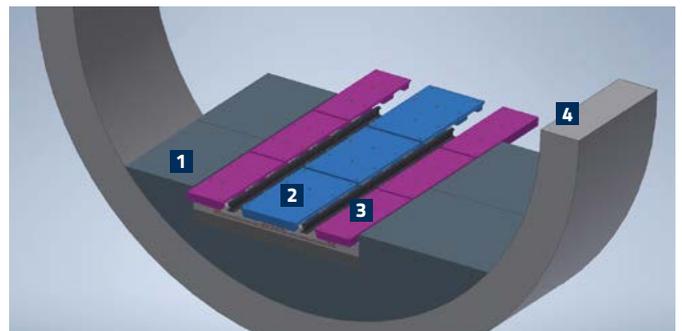
The system consists of precast concrete slabs that allow the guideway to be closed off with a level surface at the level of the top of the rail, similar to an at-grade rail crossing. In an emergency, this allows rubber-tired vehicles to drive over the rail track even at high speeds. In contrast to level crossings, however, the system is much more economical and allows all standard rail and track maintenance processes to be carried out without dismantling.

ADVANTAGES

- Maximum safety due to the use of industrially produced precast elements in compliance with the highest quality standards
- High economic efficiency due to fast installation (also in existing tunnels) by means of ordinary track-laying equipment such as road-rail excavators
- Positionally safe even for high-speed train traffic without additional vertical locking; can therefore be lifted off at any time, e.g. for track inspection and maintenance work
- Inspection and maintenance work on rail and rail fastening possible without removing the system by providing appropriate clearances

Figure 1: System construction of ROSS

- 1 Edge way
- 2 ROSS center drive panel
- 3 ROSS outer element
- 4 Tunnel shell



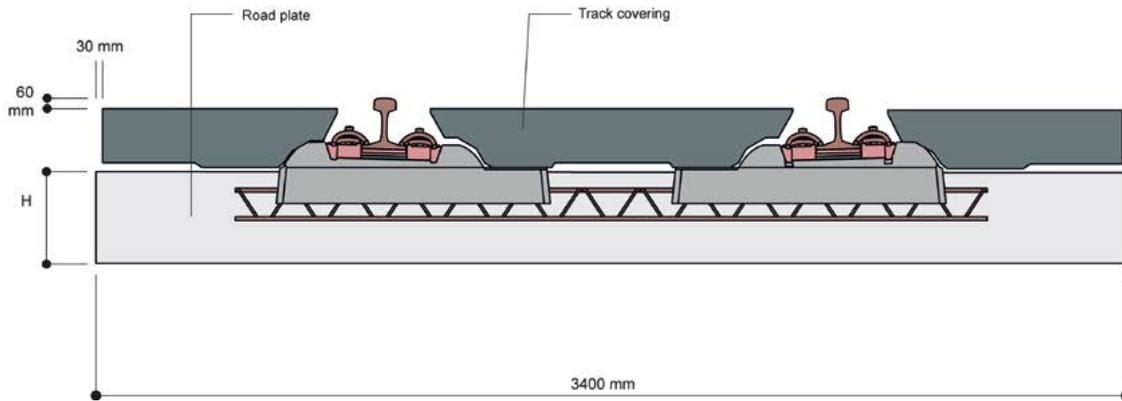


Figure 2: Tunnel transverse profile with rescue system ROSS on RHEDA 2000®

The precast track elements are designed in such a unique way that one element each fills the free space between the two rails and between the rail and the edge track. Positional stability is ensured without additional fixation solely by their own weight and the aerodynamic design of the underside. Since the track system is not laid directly on the carriageway, it is precisely fitted on site at the required height by means of cement mortar cusps. This makes the RAILONE rescue route system suitable for all types of roadway systems.

FEATURES

- Suitable for evacuation concepts with local rescue forces such as fire department etc. with road-bound safety equipment.
- Designed for new tunnels in High Speed Operation as well as for refurbishment of existing tunnels with conventional mixed rail operation
- No influence on (existing) tunnel drainage system
- No integration into tunnel grounding concept required

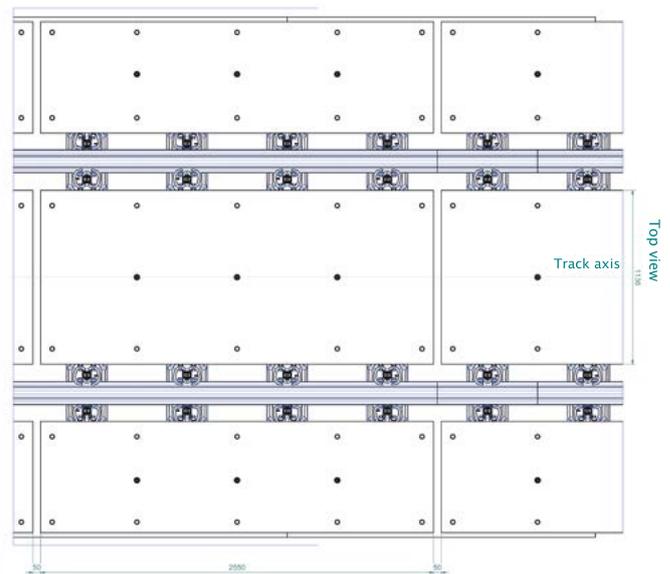


Figure 3: Track coverage with ROSS rescue system

