Extensive Infrastructure Works
Koralm tunnel expansion with Slab Track Austria technology

Data and facts

Company	ARGE PORR Bau GmbH und Rhomberg Bahntechnik GmbH
Type	Tunneling, Railway construction, Track construction, Project construction, Slab Track Austria
Runtime	08.2020 - 12.2025
Principal	Österreichischen Bundesbahnen (ÖBB)

Project report online

www.porr-group.com

PORR

Koralmtunnel – A Technological Milestone for Europe's Railway Infrastructure

As part of project BTA KAT (B15850), the joint venture Slab Track Austria Koralm – comprising PORR Bau GmbH and Rhomberg Bahntechnik GmbH – was awarded the contract for the railway equipment of the 33-kilometre twin-tube tunnel. A total of 66 kilometres of Slab Track Austria have been installed in both tunnel tubes. To minimise vibrations and sustainably reduce noise emissions, specially developed mass-spring systems have been implemented. These systems not only enhance ride comfort but also protect the sensitive tunnel environment. The railway installation is further supported by the construction of service walkways with integrated cable ducts, ensuring high operational efficiency and structural safety.

Extensive Infrastructure Works and Efficient Planning with BIM

In addition to the tunnel equipment, the project includes numerous supporting structures, such as two ventilation structures and two technical buildings, as well as water protection facilities, noise barriers and civil engineering works at both tunnel portals. Two large construction site installations were also set up to ensure seamless progress throughout the execution phase. These measures guarantee that the Koralmtunnel meets the highest technical and environmental standards.

A key feature of the project is the consistent use of digital methods. pde Integrale Planung GmbH, a PORR Group company, is responsible for all BIM services – from digital modelling and specialist coordination to integrated planning management. Building Information Modelling (BIM) serves as a central tool in the implementation of the Koralmtunnel, supporting efficient planning processes, early detection of potential issues and optimal coordination among all project stakeholders.

State-of-the-Art Operating Systems and Maximum Safety Standards

In parallel with the railway infrastructure, the tunnel has been equipped with cutting-edge safety and operational technology. This includes powerful tunnel ventilation and lighting systems, a redundant power supply, and a highly available communication and radio infrastructure. Systems for personnel tracking, emergency control centres and two specially equipped rescue trains provide additional safety and operational reliability in the event of an emergency.

Construction began in August 2020. After more than 280 successful test runs between Graz and Klagenfurt, the technical feasibility of the project has been impressively demonstrated. The Koralmtunnel is scheduled to go into operation in December 2025. With a net contract volume exceeding EUR 159 million, this project underscores not only its economic significance but also the prominent role of modern railway technology in advancing European infrastructure.

Impressions

Image notes

1 A milestone in European rail infrastructure

The Koralm Tunnel project is one of the most ambitious and technically advanced railway infrastructure projects in Europe.

2 Engineering and innovation

The Koralm Tunnel is a prime example of technical precision and innovative strength.

3 Bessere Anbindung im Süden Österreichs

Als zentrales Element der Ausbaupläne der Österreichischen Bundesbahnen (ÖBB) bildet der Tunnel das Herzstück der neuen Hochgeschwindigkeitsverbindung zwischen Graz und Klagenfurt.

Do you have questions about the project or would you like to learn more? Feel free to contact us for further information.

PORR AG Group Communications

Absberggasse 47

1100 Wien

T +43 50 626-0

E-Mail: comms@porr-group.com