

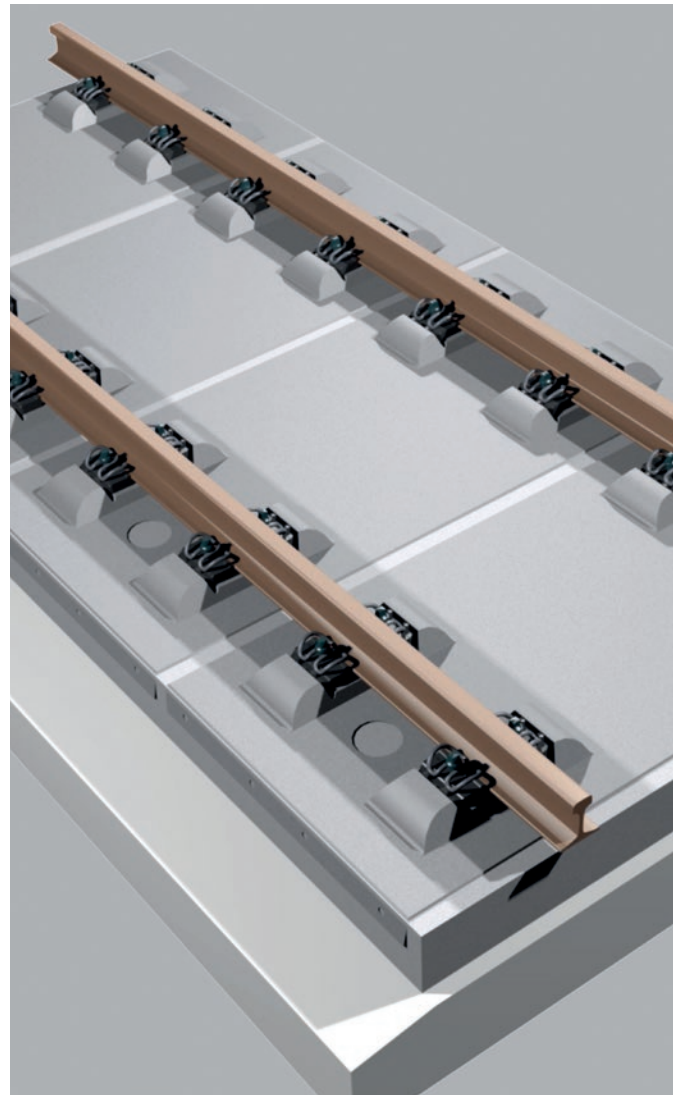
# SLAB TRACK ROCS

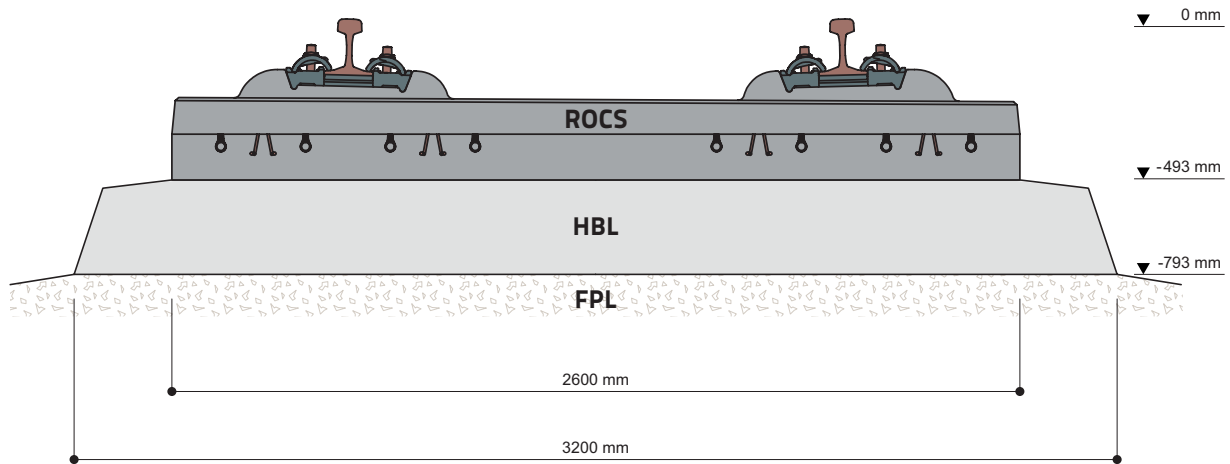
**ROCS (RAILONE preCast Slab) extends the proven RHEDA 2000® system to include a solution with a prefabricated concrete slab for special applications and customer requirements.**

The system ROCS has been developed to extend the basic RHEDA 2000® principle - a bi-block precast element monolithically integrated in an in-situ concrete layer - to a system with a higher precast proportion. The monolithic bond between the precast element and the in-situ concrete layer is equally done by means of steel lattice girders half embedded in the precast element and half inside of the in-situ concrete layer for both systems RHEDA 2000® and ROCS. Insofar ROCS follows the philosophy of RHEDA 2000® system in terms of creating a monolithic track slab.

## ADVANTAGES

- Top-down installation method as used in the well-known RHEDA 2000® system
- Easy handling of the slabs on site thanks to small dimensions and low weight; No special machinery required for installation
- No additional longitudinal or transverse reinforcement required; Concept of controlled crack formation in the slab joints combined with shear dowels
- Reduced working and concreting effort on the construction site due to the higher degree of prefabrication
- Use of proven spindle brackets for the installation of the system





The system ROCS is a precast concrete slab that carries two pairs of rail support points. Thanks to its compact design, the panel weighs only around one ton, which means that no special machinery is required to transport, lift and install the system on site. ROCS is designed like a concrete highway slab with just shear dowels under the slab joints, which acts at the same time as dummy joints. No other crack width limiting measures are required for the entire system. The ROCS slabs are transversally prestressed to provide the slabs with more stability and safety during production, transport, and installation on site. The regular RAILONE spindle brackets apply to the new system in same manner.

The system ROCS combines high-quality precast manufacturing with the monolithic bond concept of the RHEDA 2000® system, while avoiding the disadvantages of long precast slabs, such as heavy weight, need for specific slab type, etc. It also simplifies logistics and installation compared to long precast slabs.

## FEATURES

- Compatible with the requirements of conventional and high-speed rail operations
- System consists of short, prefabricated slabs, underpoured with in-situ concrete
- Slabs can be adapted for all common elastic fastening systems and for the installation of derailment protection, auxiliary rails, etc.
- Slabs are transversely prestressed and connected to the bottom concrete via lattice girders (same concept as RHEDA 2000®)
- Transfer of loads in the joint area is ensured by using of the shear dowels; The position of the dowels is defined by special fixings under the slab

