

# PERFORMANCE ON TRACK®

Elastically Embedded Track Systems  
of voestalpine Turnout Technology:  
The Rheinfeder (RF) system

# THE RHEINFEDER (RF) SYSTEM

voestalpine Turnout Technology Germany GmbH is a part of the global leader for railway infrastructure system solutions, voestalpine Railway Systems and is offering the elastically embedded track system (EGG) plus the associated service from a single source.

## **Product features of the ERL rail insulation up to 1.5 mm deflection:**

- » Conventional and simple installation, including gauge and track alignment
- » Rail replacement without destroying the entire system
- » Minimizes rail traffic interruptions
- » No tie rods (no shearing) in the road surface
- » Cost savings compared to similar systems
- » Environmentally friendly full insulation for grooved rails for the minimization of stray current and structure-borne noise
- » Operative range for all known surface types as well as for green track systems
- » Economical and easy installation by the use of adapted profile geometries

## **Legislative authorities require a continuous improvement of track systems in order to protect both human beings and buildings.**

### **Reasons for the continuous usage of elastically embedded track systems:**

The noise insulation provided by the Rheinfeder system permits compliance with the noise regulations and requirements of

- » the legislative authorities (German Federal Emissions Act / 16 BImSchV)
- » political administration and the EU
- » environmental authorities
- » local residents who are, after all, customers of the public transportation companies
- » operators (reg. stray current DIN EN 50122-2/VDE0115-4)

In addition, the system helps to protect

- » historical buildings
- » hospitals
- » schools & nurseries
- » convalescent and retirement homes

by reducing vibrations according to DIN 4150-2 (vibrations in building structures).



### **Benefits of the Rheinfeder (RF) system:**

- » Vertical deflection from 0.5 to 0.8 mm or 1.2 to 1.5 mm is regulated by the static stiffness of the foot profile.
- » According to VDV, the horizontal rail head deflection is  $< 2$  mm.
- » The creep resistance of the ER is  $> 5$  KN.
- » The insulation material is resistant to ageing as well as the effects of weathering, ozone, oil, gasoline and de-icing salt.
- » In terms of stray current, the system has a resistant encapsulation of  $G < 2.5$  S/km according to DIN EN 50122-2 (VDE 0115-4) and DIN IEC 60093 (VDE 0303-30).
- » Low resonance coupling – low spring rigidity.
- » The serviceability of the system has scientifically been proved at the Technical University Berlin in compliance with DIN 45673-1,8, DIN EN 13146-4, 9, as well as in compliance with further examinations at Technical University Dresden in accordance with DIN EN 45673-8: 2010-8.
- » The RCS profiles of the system will not be destroyed during the UP welding (certificate RWTH/ISF Aachen).
- » By delivering the pre-assembled system, quality assurance is provided according to DIN/ISO 9001.
- » After final detachment, all used parts can be recycled and partly be re-used.



## Contact

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