

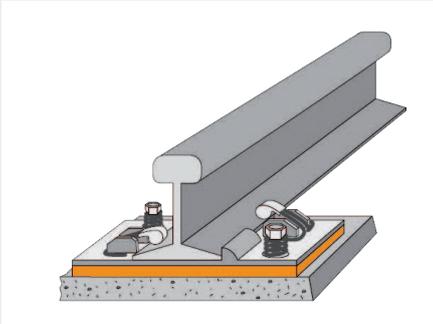
# Elastic Bedded Turnouts with **Baseplate Pads** using Sylomer® and Sylodyn®

## Advantages:

- Smoother passage
- Increased safety and comfort
- Minimization of loads on rail seats and mountings
- Reduction of vibrations
- Reduction of Life Cycle Costs (LCC)



Differences in track stiffness caused by components such as the crossing frog in turnouts lead to dynamic shocks during the passage of trains. This results in additional stresses on the entire track superstructure. Grooved baseplates of various sizes require special attention in elastic mounting systems using baseplate pads.



**G**etzner Werkstoffe has carried out a wide range of projects with these products in over 30 cities worldwide and on various high-speed lines around the world. With its extensive expertise, Getzner is able to provide customers with tailor-made solutions using elastic rail seats in turnouts, both for ballasted track and for slab track. By using carefully graded material stiffness and flexible production techniques, Getzner is able to offer its customers both standardized and customized solutions for a wide range of rail seat applications.

We will be more than happy to assist you personally with any questions you may have.

Problem	Getzner solution
Grooved baseplates of various sizes result in sudden changes in stiffness if identical material is used for the baseplate pads. The rail seats have different spring rates.	The differences in the load bearing surfaces of the grooved baseplates with elastic pads are smoothed out using Sylomer® and Sylodyn® with varying degrees of stiffness. This allows all of the rail seats to have roughly identical elasticities.
Different elasticities result in varying degrees of subsidence and dynamic loads in the points due to impacts when trains pass.	By adjusting the elasticities of the rail seats it is possible to achieve homogeneous track subsidence as trains pass through the turnout. This helps to minimize the dynamic loads and lengthen the maintenance intervals. Wear and tear on the rail seats is reduced and LCC are lowered.
Varying degrees of stiffness stemming from the design of the turnouts, such as the crossing frogs, also result in additional dynamic loads on the superstructure and lower the maximum possible speed.	These differences can be mitigated using elastic baseplate pads, resulting in increased comfort, safety and traffic speeds.
The dynamic forces result in vibrations which are transmitted into the subgrade and into neighbouring structures.	Rail seat bearings using highly elastic baseplate pads made of Sylomer® and Sylodyn® help to insulate the rail from the subgrade. This results in a reduction of vibration transmission.

