



### DESCRIPTION OF NEEDS

- The sleepers have a conventional length of between 2,6 and 2,8 m. However, the sleepers of the railway track appliance (e.g., turnouts) reach lengths of over 4 m in the central area.
- Problems caused by excessive sleeper lengths:
  - Sleeper manufacturing inconvenience: inadequate characteristics (straightness, flatness, etc.)
  - Transport and handling difficulties due to excessive length of the sleepers and the heavy weight.
  - Assembly problems caused by incorrect settlement of the sleepers on the ballast.
  - High maintenance costs.

### ADVANTAGES OF ELASTIC BONDED PADS FOR SLEEPER CONNECTION

- ✓ Conventional sleeper lengths can be used, which results in ease of manufacture, handling, and transport of the railway track.
- ✓ Increased turnout durability due to better levelling of the sleepers during installation.
- ✓ Simplicity of turnout maintenance with lower track operating costs.
- ✓ Improved load distribution for the passing of rail vehicles ensuring homogeneous pressure distribution and avoiding one-sided loading of the sleepers.
- ✓ Effective noise and vibration reduction of track equipment, enhancing operational safety and passenger comfort.

## FLEXIX

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# ELASTIC BONDED PADS FOR SLEEPER CONNECTION

FX.PU1 FX.PU2 FX.PU3

## WHY CHOOSE THE FLEXIX SOLUTION?

- Optimized design that minimizes the risk of part failure due to breakage or deformation of the metal components integrated in the part, guaranteeing its functionality in a wide range of working conditions.
- Completely symmetrical parts, which avoid differences in their installation position.
- All integrated components to facilitate handling and assembly.
- Parts with high stiffness under axial tensile and compressive stresses in the longitudinal direction of the sleeper axis. Certain rotation in the vertical plane is permitted, which enables a flex up to 10 degrees.
- Particularly suitable for high-speed tracks, avoiding unwanted sleeper oscillations.
- Designed for optimal dynamic behavior, reducing system noise and vibrations, improving comfort and safety for passengers.

