Tread Brake Units are air-powered brakes for rail vehicles comprising of brake cylinder, transmission mechanism and automatic slack adjuster. Being compact and space-saving they are especially suitable for installation in the limited space of a bogie. Depending on the application Knorr-Bremse offers rigid or flexible tread brake units. Both types are highly modularized to match any application, mounting space and operational conditions. This equipment incorporates a proven robust design delivering highest availability and low life-cycle costs.

**CUSTOMER BENEFITS**
- Compact and modular design
- Preassembled and ready to install
- Low air consumption
- High efficiency
- Low weight
- Low noise
- Low LCC
- Low maintenance

**APPLICATIONS**
- Locomotives
- Metros
- Regional & Commuter Trains
**PEC7 IN RIGID DESIGN**
*FOR STANDARD BOGIES*

**PEC7 IN FLEXIBLE DESIGN**
*FOR HIGH LATERAL AXLE MOVEMENTS*

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**TECHNICAL DATA**
- High variation of internal ratio from 2.0 to 5.5
- Block force service brake up to 60 kN
- Block force of parking brake up to 45 kN
- Service unit can be added with spring applied or manual parking brake

**KEY FEATURES**
- Simple standard interface to bogie for lighter and less cost-intensive bogie-side mounting brackets and easy mounting of tread brake units
- Installation space independent of brake force
- Robust design for very harsh environmental conditions in Russia (−60 °C)
- Sealed bearings for less wear, less noise and low maintenance

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**Version with integrated spring-operated parking brake with mechanical quick-release device and automatic reset**

**Version with integrated mechanical parking brake for flexible cable operation (hand brake)**

**Versions with integrated electrical indication of brake status**

**Versions with different pneumatic valves**