Brake Caliper Units

APPLICATIONS
Freight Cars | High-Speed Trains | Light Rail Vehicles | Locomotives | Metros | Passenger Coaches | Regional and Commuter Trains
RAIL VEHICLE SYSTEMS

BRAKE CALIPER UNITS

COMPACT CALIPER UNITS – THE COMPACT FAMILY
Cost-effective single-point interface models for fast and easy bogie assembly. Highly compact design offering many advantages in weight, space, noise emissions and 33% reduced LCC because of increased overhaul period. Suitable for use in combination with either a hand brake or a spring-operated parking brake.

<table>
<thead>
<tr>
<th>WZT</th>
<th>RZKT</th>
<th>RZT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axle-mounted</td>
<td>Low forces – wheel-mounted</td>
<td>High forces – wheel-mounted</td>
</tr>
</tbody>
</table>

RZT and WZT are further developments of the service-proven Knorr-Bremse standard products RZS and WZK, with optimized robustness and overhaul period.

TECHNICAL DATA

<table>
<thead>
<tr>
<th></th>
<th>WZT</th>
<th>RZKT</th>
<th>RZT (XS, S, M, L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total pad force</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>service brake</td>
<td>110 kN</td>
<td>90 kN</td>
<td>90 kN</td>
</tr>
<tr>
<td>spring-operated</td>
<td>60 kN (4.8 bar)</td>
<td>45 kN (4.8 bar)</td>
<td>60 kN (4.5 bar)</td>
</tr>
<tr>
<td>hand brake</td>
<td>110 kN</td>
<td>90 kN</td>
<td>90 kN</td>
</tr>
<tr>
<td>Lateral axle movement</td>
<td>+/- 25 mm</td>
<td>+/- 25 mm</td>
<td>+/- 25 mm</td>
</tr>
<tr>
<td>width</td>
<td>305 mm</td>
<td>305 mm</td>
<td>348 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>60 kg</td>
<td>68 kg</td>
<td>84 kg</td>
</tr>
</tbody>
</table>

ADVANTAGES
- Allows maximum lateral movement and tilting of the wheelset without usage constraints
- Standard interface to bogie
- Maximum brake force of service brake adjustable by changing the diaphragm cylinder
- Installation space independent of brake force
- Superposition of brake forces in failure cases admissible
- Robust design for very harsh environmental conditions (ice, sand, low temperature -60 °C)
- Sealed bearings for less wear, less noise and low maintenance
- Modular design with optional features
  - spring-operated, pneumatic released parking brake
  - hand-operated parking brake (hand wheel)
  - SafePark function available
  - electrical indication of brake status
  - pneumatic valves for various functions

CONVENTIONAL BRAKE CALIPER UNITS WITH HANGERS
- For axle- and wheel-mounted brake discs
- Service proven for many decades
- Wide variety of cylinder variants

COMPACT CYLINDER
- Combines advantages of proven Knorr-Bremse U-Cylinder and D-Cylinder
- Weight saving of 10 kg (spring parking brake) and 6 kg (service brake) compared to U-Cylinder
- High spring parking brake force of 25 kN (at 4.5 bar) due to internal lever mechanism
- Less installation space
- Enlarged overhaul period
- Modular design with optional features
  - spring-operated, pneumatic released parking brake
  - hand-operated parking brake (hand wheel)
  - SafePark function available
  - electrical indication of brake status
  - pneumatic valves for various functions

RAIL VEHICLE SYSTEMS

BRAKE CALIPER UNITS FOR AXLE- AND WHEEL-MOUNTED BRAKE DISCS.
Depending on the application, Knorr-Bremse conventional or compact brake calipers can be used. 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.