



Brake Caliper Units



APPLICATIONS

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

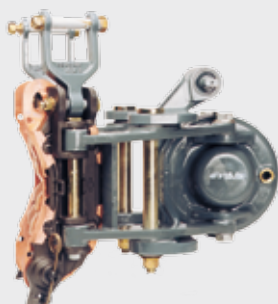
BRAKE CALIPER UNITS



BRAKE CALIPER UNITS SUITABLE FOR BOTH 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.

CONVENTIONAL BRAKE CALIPER UNITS WITH HANGERS

- Axle-mounted brake discs
- Wheel-mounted brake discs
- Wide variety of cylinder variants also with spring-operated parking brake and hand brake



Conventional brake caliper unit

COMPACT BRAKE CALIPER UNITS

Cost-effective single-point interface models for fast and easy bogie assembly. Highly compact design offering many advantages in weight, space, noise emissions and life-cycle cost.

- WZK for axle-mounted brake discs
- RZS and RZKK for wheel-mounted brake discs
- Both suitable for use in combination with a hand brake or spring-operated parking brake



Compact brake caliper unit

COMPACT CALIPER UNITS – THE COMPACT FAMILY

WZK



Axle-mounted

RZKK



Low forces – wheel-mounted

RZS



High forces – wheel-mounted

TECHNICAL DATA

	WZK	RZKK	RZS
Total pad force			
- of service brake	max. 110 kN	max. 50 kN	max. 90 kN
- of spring-operated parking brake	max. 60 kN (4.8 bar)	max. 45 kN (4.8 bar)	max. 57 kN (4.3 bar)
- of hand brake	max. 110 kN	max. 50 kN	max. 60 kN
Lateral axle movement	max. +/- 25 mm	max. +/- 25 mm	max. +/- 25 mm
Axle tilting	max. +/- 2°	max. +/- 2°	max. +/- 2°
Maximum width	338 mm	338 mm	395 mm

ADVANTAGES

- Suspension arrangement with single central pin and no hangers allow maximum lateral movement and tilting of the wheelset without usage constraints
- Simple standard interface to bogie for lighter and less cost-intensive bogie-side mounting brackets and easy mounting of brake caliper units
- Maximum brake force of service brake adjustable by changing the diaphragm cylinder
- Installation space independent of brake force
- Robust design for very harsh environmental conditions (-60 °C)
- Fewer and sealed needle and slide bearings for less wear, less noise and low maintenance
- 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

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