KNORR-BREMSE – NO. 1 IN ADHESION MANAGEMENT
BEST VALUE – SAFE – GLOBAL

SANDING SYSTEMS

KNORR-BREMSE Systeme für Schienenfahrzeuge GmbH
Maximilianstraße 46
80686 Munich
Germany
Phone: +49 89 3547-0
Fax: +49 89 3547-2767
WWW.KNORR-BREMSE.COM

Knorr-Bremse GmbH
Beethovenstrasse 45-45
2340 Mödling
Austria
Phone: +43 2236 409-0
Fax: +43 2236 409-2561
WWW.KNORR-BREMSE.AT

Sanding Systems
for Mainline

APPLICATIONS
High-Speed Trains | Locomotives | Metros | Regional and Commuter Trains | Special Vehicles

Knorr-Bremse – No. 1 in Adhesion Management
Best Value – Safe – Global

Sanding Systems
for Mainline

APPLICATIONS
High-Speed Trains | Locomotives | Metros | Regional and Commuter Trains | Special Vehicles
CUSTOMER BENEFITS
- Tailor-made system solutions for each and every project
- Comprehensive system integration expertise covering all needs along the life cycle
- Optimized total cost of ownership
- Full compliance with railway standards
- Global service network for localization, after-sales service, etc.
- Extensive range of optional features, e.g. sand flow sensor

Since timetables are getting increasingly dense, the traction and braking performance of state-of-the-art railway vehicles and their reliability are becoming more and more important. Especially under low and very low adhesion conditions, sanding systems have successfully proven to increase friction between wheel and rail. As a result the required brake performance can be achieved with a reduction of SPAD frequency of up to 98% (based on current studies of public bodies).

Sand does not behave like a liquid. This characteristic has a tremendous impact on the whole design from sandbox to sand hose as well as the filling situation. Strong expertise is needed to optimize the sanding system for a given installation situation and to ensure a robust and reliable system in the long run. Therefore we offer the entire integration of a sanding system into the vehicle as well as qualified total life cycle support. The broad portfolio of pneumatic and mechanical sanding units allows customer-specific system configurations for every vehicle project.

SANDING UNITS
- MECHANICAL
  - SAND BOXES
  - FILLER FLAPS
- PNEUMATIC
  - SAND PNEUMATICS
  - HEATERS
  - AND SENSORS

ALL IN ONE LOCATION
At its site in Mödling, Austria, Knorr-Bremse has built up decades of experience and know-how in sanding systems for mainline applications. The result is thousands of successfully installed systems, which are in operation all over the world. They represent the unique capabilities of Knorr-Bremse from OE system layout design to modernization of existing systems.

CUSTOMER BENEFITS
- Tailor-made system solutions for each and every project
- Comprehensive system integration expertise covering all needs along the life cycle
- Optimized total cost of ownership
- Full compliance with railway standards
- Global service network for localization, after-sales service, etc.
- Extensive range of optional features, e.g. sand flow sensor

SUPERIOR ACCELERATION AND BRAKING UNDER ALL CONDITIONS
Since timetables are getting increasingly dense, the traction and braking performance of state-of-the-art railway vehicles and their reliability are becoming more and more important. Especially under low and very low adhesion conditions, sanding systems have successfully proven to increase friction between wheel and rail. As a result the required brake performance can be achieved with a reduction of SPAD frequency of up to 98% (based on current studies of public bodies).

Sand does not behave like a liquid. This characteristic has a tremendous impact on the whole design from sandbox to sand hose as well as the filling situation. Strong expertise is needed to optimize the sanding system for a given installation situation and to ensure a robust and reliable system in the long run. Therefore we offer the entire integration of a sanding system into the vehicle as well as qualified total life cycle support. The broad portfolio of pneumatic and mechanical sanding units allows customer-specific system configurations for every vehicle project.

Since timetables are getting increasingly dense, the traction and braking performance of state-of-the-art railway vehicles and their reliability are becoming more and more important. Especially under low and very low adhesion conditions, sanding systems have successfully proven to increase friction between wheel and rail. As a result the required brake performance can be achieved with a reduction of SPAD frequency of up to 98% (based on current studies of public bodies).

Sand does not behave like a liquid. This characteristic has a tremendous impact on the whole design from sandbox to sand hose as well as the filling situation. Strong expertise is needed to optimize the sanding system for a given installation situation and to ensure a robust and reliable system in the long run. Therefore we offer the entire integration of a sanding system into the vehicle as well as qualified total life cycle support. The broad portfolio of pneumatic and mechanical sanding units allows customer-specific system configurations for every vehicle project.