

Key Benefits

- **ATEX Certified:** World's first intrinsically safe dynamic brake tester
- **Comprehensive Testing:** Service, emergency & park brake analysis
- **Real-time Results:** Instant A4 reports with 3-axis graphs
- **Rugged Design:** IP68 protection for harsh mining environments
- **Legislative Compliance:** SANS3450, SANS1589, ISO 3450 aligned
- **Advanced Analytics:** AI-powered insights and predictive maintenance
- **Cloud Integration:** Remote data access and backup

Applications

- Underground locomotive brake performance testing
- Mining railway brake efficiency validation
- Trackless mobile machinery brake assessment
- Heavy industrial vehicle brake testing
- Fleet maintenance and compliance testing
- Regulatory audit and certification support
- Preventive maintenance scheduling

Hardware Kit

Core Components:

- IP67 Intrinsically Safe Decelerometer Tablet
- 9-axis Accelerometer with precision sensors
- Bluetooth Thermal Printer (A4 & slip printing)
- IP68 Trolley Hard Case
- Suction Cup and Bracket Mount System
- Charging cables and power adapters
- Calibration and MOT certificates

Test Workflow & Metadata

Testing Procedure:

- Mount decelerometer securely on locomotive
- Configure test parameters (load, surface type)
- Execute dynamic brake test sequence
- Real-time monitoring with invalid test alerts
- Automatic data capture and analysis
- Generate compliance reports instantly

Captured Metadata:

- GPS location, date/time stamp, operator ID
- Vehicle details, load configuration, weather
- Test surface conditions and incline data

Test Outputs & Measurements

Primary Outputs:

- Brake Efficiency (%)
- Stopping Distance (m)
- Stopping Time (s)
- Maximum Deceleration (m/s²)
- Average Deceleration (m/s²)
- Vehicle Pull Left/Right (°)
- Test Speed Analysis

Advanced Analytics:

- Peak Acceleration Values
- Thermal Performance Data
- Brake Force Distribution
- Performance Trend Analysis
- Predictive Maintenance Alerts
- Compliance Status Indicators
- Safety Recommendations

Report Contents

- **Executive Summary:** Pass/fail status with key metrics

- **Test Parameters:** Vehicle specs, conditions, standards
- **Performance Graphs:** 3-axis deceleration curves
- **Compliance Analysis:** Regulatory requirement validation
- **Recommendations:** Maintenance and safety actions
- **Certification:** Digital signatures and timestamps
- **Appendices:** Raw data and calibration certificates

Technical Specifications

Parameter	Specification
Measurement Range	±50 m/s ² (±5g)
Accuracy	±0.02 m/s ²
Sample Rate	1000 Hz
Operating Temperature	-20°C to +70°C
Protection Rating	IP68 (dust/water)
Battery Life	800+ tests per charge
Data Storage	800,000 tests on device
Connectivity	Bluetooth, Wi-Fi, Cellular
Vehicle Capacity	Up to 50 tonnes

ATEX Certified SANS3450 SANS1589 ISO 3450 SIMRAC

What's Included

Complete Testing Solution:

- NetBrake LOCO hardware kit with all components
- 15 integrated software applications
- Virtual assistant chatbot with legislative training
- Cloud storage and data backup services
- Bluetooth thermal printer with supplies
- Calibration certificates and documentation
- 24/7 technical support and training
- Free software updates for life
- Local service center support

Why NetBrake

Proven Track Record: 200+ units sold across Southern Africa since 2017

- **Industry Leadership:** World's first ATEX-certified brake tester
- **Local Expertise:** South African company with local support
- **Comprehensive Solution:** Only system with 15 integrated apps
- **Safety Focus:** MIAFCR member committed to mining safety
- **Continuous Innovation:** Regular software updates and new features
- **Cost Effective:** Reduces downtime and compliance costs
- **Training Included:** Legislative training and operator certification

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 Engineering Excellence in Motion