



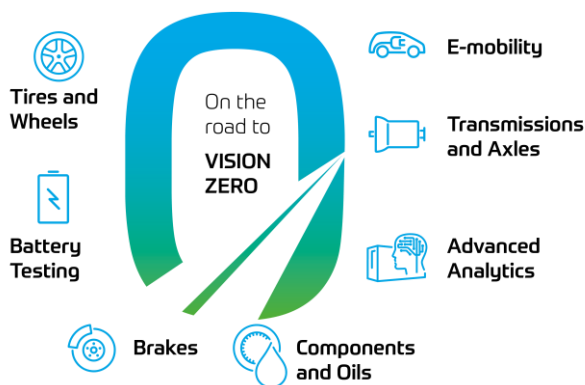
# ZF Test Systems

ZF Test Systems develops, produces and retrofits test systems for on- and off-road mobility. As specialists for validation and development test equipment, we improve the quality of driveline, active chassis, tires and wheels as well as brakes – which contribute to enhanced safety and comfort for the driver. Additionally, we offer a broad portfolio to allow service providers and OEMs worldwide to certify their batteries for electric vehicles.

We are a complete system supplier and solution provider; with the experience to understand our customer's needs and requirements to find the ideal solution together. Offering reliable, customized test bench technology, tailored to customer specific requirements is our specialty.

Driven by the power and expertise of a leading global technology company, we are developing testing solutions for future mobility. With a product range from custom test stands to full production lines – and from electric vehicle and battery testing, to tires and wheels, ZF Test Systems has you covered!

## Test Systems for

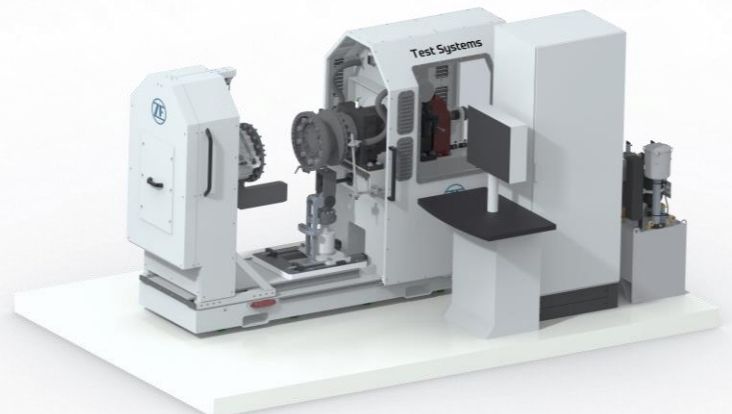


# The new ZF TS bearIN



To achieve significant CO<sup>2</sup> reduction in On-Road Trucks, the EU-Regulation 2025/258 was issued. Years after certifying drive-axle efficiency, the roll-resistance of non-driven wheel-bearing units must now be measured with high accuracy under various wheel load and driving speed conditions. A simulation approach using the VECTO tool was chosen, as individual type-testing on test benches used for passenger cars is impractical for commercial vehicles due to the variety of applications. High-accuracy standardized mapping of roll resistance is needed for VECTO simulation.

ZF Test Systems developed a new specialized test bench solution since no existing test bench met the required accuracy. This solution not only meets technical measurement regulations with higher accuracy; it also supports fully automated test runs with changes in wheel load up to 70kN, driving speed, and direction. Our automation system "ZF TS tescon" and the equipment architecture enable the user to program test sequences for norm specific testing of 26 hours and much longer tests as configured by the customer. Upon meeting signal and temperature stability conditions, the system generates the certification protocol. Additionally, the test bench is user-friendly and requires minimal test area and media supply.



## Highlights

- Fully automated certification measurements in accordance with the latest EU Regulation 2025/258 and VECTO Simulation
- Measurement failure of the roll resistance including all parasitic effects better than requested by the EU-Regulation, DAkKS-Calibrated measurement system
- Test procedure with fully automated adaptation of speed, wheel load and driving direction
- Automated generation of test certification protocol
- Possibility to integrate original OEM Wheel end parts
- Movable system with optimized requirements to the test area and media supply

## Technical Data

### Roll-Resistance Measurement Unit

Measurement range: 0-50 Nm  
Measurement failure: <0.2Nm  
(including all parasitic effects)

### Loading Unit

Max. Wheel-Load: 70 kN

### Drive Unit

Speed: 0-1500 rpm  
(max.500rpm required by Regulation)

### Automation

Fully automated Test Sequence  
including report generation