

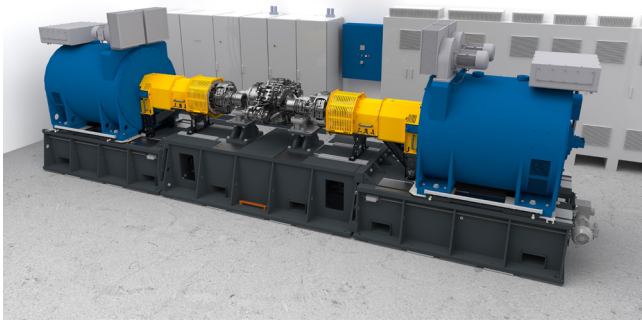
AVL E-Axle TS™ Performance - Heavy-Duty

A smarter way of testing e-axles for commercial vehicles.

E-axles for commercial vehicles feature integrated subsystems like e-motors, inverters, transmission, and differential for optimal efficiency and minimal size. Traditional isolated testing of these subsystems is no longer feasible due to their interconnectivity. Hence, modern e-axle test systems must meet testing standards for all electrical and mechanical subsystems, enabling cross-functional testing regarding performance, reliability, and thermal endurance to save time and costs during service life-time analysis of e-axles.

THE AVL SOLUTION

AVL's E-Axle TS™ Performance – Heavy-Duty was developed upon these criteria and represents a comprehensive solution, broadly positioned in terms of testing capabilities, with a seamlessly integrated automation system for efficiently executing various testing tasks. It is standardized and easy to install, ensuring productivity without significant cost impact, making it an intelligent choice for cost-effective testing strategies.



Our test system can be placed on common industrial floors and features two powerful torque motors as a load system, facilitating cross-functional testing capabilities under vehicle-like conditions for efficient development and validation of e-axle portfolios.

OUR SOLUTION

Our e-axle test system offers specialized testing under vehicle-like conditions, featuring a reliable load system with two compact torque motors, specifically developed for this application. These meet common torque, speed and power requirements for commercial vehicles without the need for damage-prone and maintenance-intensive reduction gearboxes. The specific test system frame minimizes the footprint to an optimum and eliminates the need for complex facility structures, through which the test system is cost-effective and versatile for common industrial floors. Furthermore, a modular e-axle rigging system ensures easy assembly of the respective test objects. Optional features include a climatic chamber for thermal conditioning of e-axles.

The technological features described make our test system to a powerful instrument for testing e-axles, streamlining efficient as well as realistic analysis regarding performance, reliability and thermal endurance, consistently ensuring high productivity during all testing tasks.



From customer project insights, we developed a test system unlocking the full potential of e-axle testing. This empowers our customers to efficiently execute their testing strategies, and successfully bring their e-axle developments to life."

Christian Wooning
System Line Manager
AVL Deutschland GmbH

Load System	per Wheel
Max. Power	625 kW
Max. Speed	1,250 rpm
Max. Torque	40,000 Nm
DC Source	
Max. Power	550 - 1,100 kW
DC Output Voltage	20 - 1,200 V
Max. Current	2,000 A
General	
E-Axle Types	Rigid e-axles
Max. E-Axle Width	2,600 mm
Dimensions (W x D x H)	8,000 x 1,700 x 2,450 mm

YOUR ADDED VALUE

- **Ready for Testing:** Short delivery time of only 8 months after order (EXW).
- **Versatile Solution:** Designed for common industrial floors without requiring a specific test system foundation.
- **Small Footprint:** Compact test system design of only 8,000 x 1,700 mm.
- **Reliable Load System:** Powerful torque motors without requiring damage-prone reduction gearboxes.

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