

eMotor & eAxle Test Stands

Simulate Real World Conditions to Test eMotor Capabilities

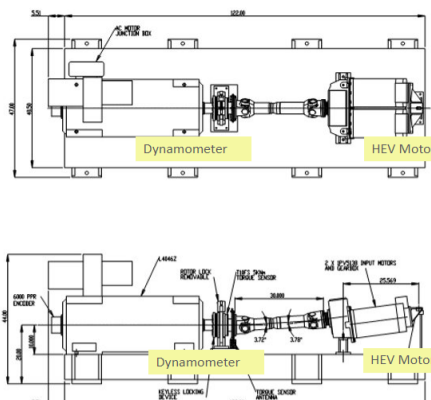
eMotor Testing

Before motors get installed in vehicles they require rigorous testing to make sure they will be safe to use in real driving conditions. Dyno testing plays a crucial role in evaluating the performance and efficiency of an electric motor (emotor). This advanced testing method involves subjecting the emotor to various load conditions and measuring its output and behavior. By coupling the emotor to a dynamometer, engineers can simulate real-world scenarios and monitor crucial parameters like torque, power, speed, and efficiency.

Dyno testing enables a comprehensive analysis of the emotor's performance across different operating conditions, allowing for fine-tuning and optimization. It helps identify any potential issues, such as overheating or excessive vibrations, enabling engineers to make necessary adjustments for enhanced reliability and longevity. Moreover, dyno testing provides valuable insights into the emotor's efficiency, aiding in the development of more sustainable and energy-efficient solutions for a greener future.

Benefits:

- Simulate real-world scenarios conveniently from a test lab.
- Monitor crucial parameters like torque, power, speed, and efficiency.
- Identify potential issues and adjust accordingly to increase motor safety, efficiency, and longevity.
- Test stands are custom designed to meet requirements
- Solutions can integrate with existing equipment
- High-speed measurement
- Standard or custom test cycles
- Many reports available including ones that meet IEEE Standards



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eAxle Testing

Evaluation & Analysis of an Electric Axle System



eAxle Test Stand

eAxle testing refers to the comprehensive evaluation and analysis of an electric axle (eAxle) system. An eAxle typically combines an electric motor, power electronics, and a transmission into a single integrated unit, providing propulsion for electric or hybrid vehicles. During eAxle testing, the system is subjected to rigorous assessments to ensure its performance, efficiency, durability, and reliability under various operating conditions. This testing involves measuring and analyzing key parameters such as torque output, power delivery, thermal management, regenerative braking performance, and overall system efficiency. Additionally, eAxle testing may include assessments of noise and vibration levels, mechanical integrity, and compatibility with other vehicle components. The results of eAxle testing guide engineers in optimizing the system's design, enhancing its efficiency, and validating its performance before it is implemented in production vehicles.



A&D Provides Custom Test Stand Solutions

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- Inverters
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