

# TEST SYSTEMS



**ATS TurboCharger and  
SuperCharger Testing**



# ATS TurboCharger and SuperCharger Testing

## Description

Modern turbochargers and superchargers are made up of numerous components each employing a number of different technologies. ATS Test offers a full range of equipment to test these components both individually and as a complete system.

Leak testing confirms seal and housing integrity whereas bearings are checked through highly accurate measurements of lash and vibration.

Turbo actuators are used in vehicle to control air flow by changing vane positions. Position control validation, measurement of torque and current, self-diagnostics through automotive protocols such as CAN, and confirmation of mechanical function of the assembly is very important.

Wastegates are either pneumatic or electric controlled systems that allow some engine exhaust to bypass the turbine. Extremely accurate calibration of these systems is crucial to the overall function and efficiency of the turbo.

Dynamic testing of the turbo is critical to determine many parameters. Air and oil pressures, temperatures, and flows, vane position, pulsating gas forces, rotor speed and vibration are a few of the many attributes either controlled or measured during dynamic testing.

## Specifications

- Single-source 100% custom test solutions from standard designs
- Full functional EOL or in-process verification/calibration/durability
- Integrated birth history/traceability/configuration/SPC archiving capabilities
- Optimize test cycle time with minimum fixtures to maximize ROI

Contact ATS directly for custom or product specific applications beyond the scope of this document.



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## Features

- **Dynamic Measurement of devices in excess of 200,000 RPM**
- **Air temperature control to +/- 2 deg Celsius**
- **Force measurements of up to 250G**
- **Static position accuracy of 5 microns**
- **Unsurpassed pressure and flow measurement capabilities custom sized for applications**
- **In-house or third party integration of NVH systems as desired**
- **Easily customized Test Executive software**
- **Built in Automotive bus communication capabilities such as CAN, LIN, etc.**

