

# TEST SYSTEMS



## ATS Balance Testing and Correction



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## Balance Testing

Balance testing measures the imbalance location of the part while spinning the part at speeds up to 220 KRPM while measuring G-levels at both ends of a shaft. Sensing of the imbalance location is done through analysis using NVH software integrated into the balance machine.

Software is capable of doing 1st,2nd & 3rd order analysis of imbalance and additional orders if required.

System is capable of monitoring and stopping the test under potentially destructive fail conditions such as excessive g-level, over temperature, over speed, etc.

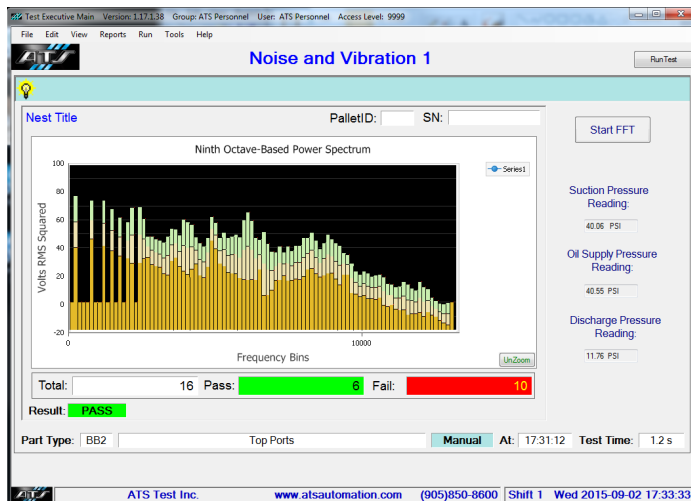
## Correction System

Correction systems work in conjunction with balance testing to automatically remove material from a location identified by an imbalance tester. The Imbalance location is automatically provided by the balance tester. A touch less sensor system identifies location for material removal.

Software shall monitor and detect a successful material removal process by monitoring force applied while removing material through use of a 0-100 N load cell.

## Products Tested Include

- Rotating motor components



## Balance Tester

### Capabilities

- Speed ranging up to 220 KRPM
- Force measurements up to 250 G

### Tests Performed

- Measure G-levels of imbalance
- NVH (Noise, Vibration, harshness) Testing

## Correction System

### Capabilities

- Axial material removal within +/- 15 degrees of imbalance location
- Programmable material removal control, 0.1 to 1.5 mm in depth based on magnitude of material removal required to achieve a balanced system

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



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