



## Spindle Analysis System

The Spindle Dynamic Analyzer is an advanced system for measuring spindle axis rotational errors. The Spindle Thermal Analyzer is the ultimate tool for measuring and controlling short and long term thermal growth in 5 degrees of freedom (X,Y,Z axis plus pitch and yaw).

### Spindle Dynamic Analyzer (SPN 300)

- 3-sensor array, choose wet or dry system
- Sensor nest fixture with magnetic base
- Wobble plate with precision sphere
- Software and carrying case
- RS-232 control and interface module

### Applications:

- Check condition of spindle bearings
- Measure for spindle rotational error
- Measure spindle axial errors
- Machine repeatability measurement

### Thermal Spindle Analyzer (THERM 500)

- 5-sensor array, choose wet or dry system
- 5 magnetic-base thermal sensors
- Sensor nest fixture & test mandrel
- Sensor calibration fixture
- RS-232 control and interface module
- Software and carrying case

### Combination Spindle Dynamic and Thermal Analyzer (SAS 500)

- Provides all of the system features above with the economy of one sensor set

### Thermal Modeling and Optimization System (TMAC 500)

- All the components of the SAS 500 combination package
- 15 additional thermal sensors
- RS-232 control and interface module
- Machine modeling and sensor optimization software

<p><b>SPN 300 Specifications:</b></p> <p>Dynamic Response: 25 kHz</p> <p>Resolution: 0.1 μm (4μinch)</p> <p>Measuring Range: 0.1 mm-0.8 mm (0.004"-0.032")</p> <p>Linearity: less than 0.1%</p> <p>Maximum spindle speed: 12,000 rpm</p>	<p><b>THERM 500 Specifications:</b></p> <p>Resolution: 0.1 μm (4μinch)</p> <p>Measuring Range: 0.1 mm-0.8 mm (0.004"-0.032")</p> <p>Linearity: less than 0.1%</p> <p>Thermal drift: less than 1% per degree</p>

### Applications:

- Machine thermal drift measurement
- Machine thermal error mapping
- Verify thermal compensation