



Our Products Include:

- Load Cells
 - Custom
 - High Capacity
 - Multiaxes
 - Underwater

- Torque Sensors
 - Custom Torque
 - OEM
 - High Capacity
 - Underwater

Calibration Kits

Our In-House and Field Services Include:

- In-House Services
- Sensor Design
 - Calibration and Gaging Services

- Field Services
- Measurement of torque and horsepower in rotating equipment
 - Stress/Strain Measurements of Plant Components
 - Measurements in Harsh Environments
 - MOV and AOV Strain Gage Instrumentation
 - Measurement of Thrust and Torque on Valves and Rotating Equipment
 - Structural Integrity Tests (SITs)
 - Permanent and Temporary Monitoring Systems
 - Design and Manufacture of Custom Sensors

Our measurement services are used to quantify operating parameters, aid with diagnostics and preventive maintenance, and troubleshoot causes for equipment failure.

Sensing Systems specializes in conducting measurements and manufacturing sensors to operate in harsh environments such as:

- High Temperature
- Low / Cryogenic Temperature
- Underwater / High Humidity
- High Magnetic Fields
- Chemical / Corrosive

We specialize in acquiring measurements used to determine operating conditions of equipment and structures. These measurements are used to diagnose problems, establish operating performance, determine compliance and recommend improvements. Our measurements include:

- Strain
- Temperature
- Displacement
- Power
- Voltage, Current, Resistance
- Stress
- Pressure
- Torque
- Force
- Soil Pressure

All sensors are installed in the field and connected to state of the art data acquisition systems. Our systems can acquire data at extremely high sampling rates using high quality signal conditioning and with filtering and analysis capabilities. The quantity of measurements may start at 1 or all the way up to 500+ channels using all types of sensors.

Special Sensors

Sensing Systems has developed special sensors to be used in field testing projects where no existing device is commercially available. Examples include soil pressure sensors to measure the pressure applied by settling or moving soil over time. We have instrumented sections of reinforcing bars used in construction to measure strain/stress in concrete structures over time. We refer to these sensors as "Sister Bars". In several projects we have removed and instrumented existing components, calibrated them in the laboratory and re-installed them prior to field testing.

Portability

Many applications require that testing be performed on a moving platform such as automobiles, bicycles, park rides, etc. Sensing Systems' equipment and procedures support such testing. The test planning and execution phases must pay special attention to power requirements, acceleration levels and test duration to ensure a successful outcome.

Accuracy

The accuracy of field measurements varies according to the sensors being used. For most sensors that have been calibrated in the laboratory and installed in the field, accuracies in the range of 0.1 % to 1 % of full scale are typical. Strain and stress measurements require sensors such as strain gages which depend on the installation material for their accuracy. Field accuracies range from 3% to 5% of full scale.

Sensing Systems has pioneered the use of in-situ calibrations for strain gage measurements. We design and manufacture the required fixtures and apparatus to apply a known load to the structure and measure the corresponding output. Using this approach the accuracy may be improved to 0.5% to 1% of full scale.

CONTACT US FOR YOUR CUSTOM APPLICATIONS

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