

# POWER GENERATION



Pressure, Load/Force/Torque, Displacement, and Temperature Sensors

[stellartech.com](http://stellartech.com)



## Pressure Sensors

- Pressure Ranges from 1 to 100,000 PSI
- Absolute, Gage, True Gage, Differential, Vacuum, Barometric
- Accuracies to 0.05% FSO.
- High Frequency Response
- All Welded Stainless Steel (17-4, 15-5, Inconel, Monel, Hastelloy)
- mV/V, Analog or Digital Outputs (including RS232, RS485, CANbus)
- Internal Data Logger Versions
- ATEX, CSA Intrinsically Safe and Explosion Proof Certifications
- Comprehensive Calibration Records are Standard
- Engineered-to-Order Custom Designs

## Load Cells, Force Sensors, Reaction Torque Sensors

- Load Ranges from Grams to 2 Million lbf
- Tension, Compression, and Tension & Compression
- Complete Selection of Standard and Special Configurations
- Constructed of Stainless Steel, Carbon Steel, or Aluminum
- Miniature and Subminiature Versions
- mV/V, Analog or Digital Outputs (including RS232, RS485, CANbus)
- Multiple Bridge Configurations
- Internal Data Logger Versions
- ATEX, CSA Intrinsically Safe and Explosion Proof Certifications
- Comprehensive Calibration Records are Standard
- Engineered-to-Order Custom Designs



Our Specialty...  
**CUSTOM ENGINEERING**



## Sensors for Power Generation

Engineers continue to search for methods to improve the efficiency of existing power generation systems (fossil fuel, nuclear, hydro) and explore improved techniques to meet the ever increasing world wide demands for clean and sustainable energy. In each case, the use of sensors is an important component in these power and energy improvement challenges. Stellar Technology's complete selection of pressure transducers and pressure transmitters, load cells, force sensors, reaction torque transducers, temperature sensors, and LVDT displacement sensors provides test, measurement, and control solutions across this broad range of existing and new power generation applications. STI's engineering expertise, proven sensor technology, field experience, and manufacturing capabilities provide customers with high reliability sensors for this broad range of applications. Our engineering and manufacturing center in Amherst, New York, is uniquely designed to deliver both standard products and custom-engineered special products. Rely on STI to add value to your improved power generation solution.



## LVDT Displacement Sensors

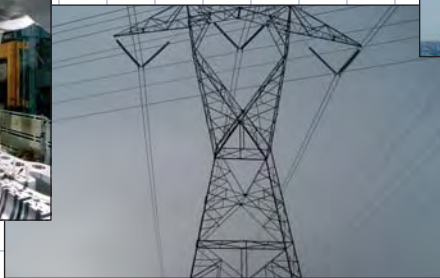
- Stroke Ranges from  $\pm 0.01$  in. to  $\pm 18.5$  in.
- Linearities from 1% to 0.1%
- Spring Guided, Captive Guided, Free Unguided Armatures
- AC and DC Versions
- All Welded Stainless Steel
- Precision Gaging Units with Air Push Armatures
- Submersible Designs

## Temperature Transducers and Transmitters

- Temperature Ranges from  $-320^{\circ}\text{F}$  to  $+750^{\circ}\text{F}$
- No Thermal Well Required
- Customer Specified Probe Lengths
- All Welded Stainless Steel Construction
- Hermetically Sealed
- Dual Temperature and Pressure Configurations
- Analog and Digital Outputs (Including RS232, RS485, CANbus)
- Customer Specified Process Connections
- ATEX, CSA Intrinsically Safe Certifications



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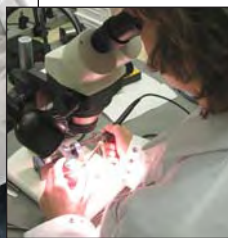
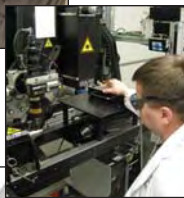
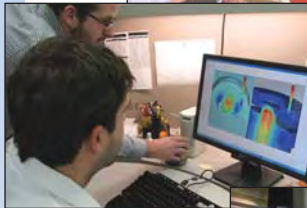
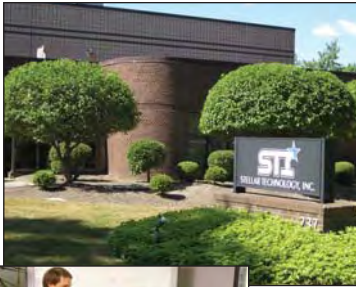
## Power Generation Sensors For:

- Steam Turbine Monitoring
- Conveyor Systems
- Generator Dynamometer Testing
- Cogeneration Power Systems
- Tension Force on Transmission Lines
- Lubrication Systems
- Nuclear Fuel Rod Handling Systems
- Pressure and Temperature Monitoring
- Valve Positioning
- Wind Turbine Monitoring
- Structural Testing
- Crane Load Monitoring
- Endurance and Fatigue Testing
- Lift Stations
- Pond/Tank Pressures and Levels
- Stator Cooling Water Systems
- Air Quality Control Systems
- Boiler Feed Pumps
- Reactor Feed Pumps
- Filtration Systems for Fuel and Hydraulics
- Coal Silo Weighing Systems

Call: **716.250.1900**

# Capabilities

*Stellar Technology designs and manufactures a comprehensive offering of pressure transducers/transmitters, load cells, force sensors, torque transducers, temperature transmitters, and displacement sensors used in test and measurement applications across a wide range of industry sectors including aerospace, oil and gas, marine/oceanographic, automotive, medical, industrial automation, geophysical, power generation and many more.*



**Why Stellar Technology?** Whether performing a dynamometer test on a diesel powered generator, designing a large municipal power plant, or monitoring the performance of a gas turbine, what causes power generation engineers and technical specialists to select Stellar Technology's sensors for their application solutions?

## **One word: Capabilities.**

*Stellar Technology combines sales capabilities, engineering capabilities, manufacturing capabilities, and service/support capabilities into one focused business objective:*

**Provide the customer with the optimum sensor solution.**

### **Sales Capabilities:**

- Experienced technical sales professional located in your area
- Direct link to STI design engineers
- Knowledgeable inside sales engineers
- Complete pre-sales application review process
- Facilitate technical Lunch & Learns at customer's site

### **Engineering Capabilities:**

- Design engineers with years of practical sensor application experience
- Specialists in mechanical, electronic, and software design
- Innovative design and simulation tools
- ISO9001 registered documentation and control
- Work directly with customer's engineers
- Creative solution providers

### **Manufacturing Capabilities:**

- Complete vertical integration (raw material through final calibration)
- 18 CNC machines (up to 8-axis)
- Wire and probe EDM machining
- Laser and TIG welding
- Ultrasonic cleaning
- Micro assembly
- Automated pressure compensation and calibration
- 5 load cell calibration systems (to 600,000 lbf)
- 1,000,000 inch-lbf reaction torque calibrator
- High-reliability/traceability assembly and test area
- Comprehensive inventory of raw materials
- Finished goods inventory programs (standard and customer-specific)

### **Service/Support Capabilities:**

- Complete repair and recalibration (including non-STI manufacturers)
- Rapid-response on-site technical field support
- Ready access to regional sales offices
- Order status and expediting
- Direct access to STI's design engineers
- 24 hour web access to technical manuals

**Your Application-Solution Source<sup>SM</sup>**

ISO 9001



Find More Information at:  
[stellartech.com](http://stellartech.com)

Due to the nature of technology, changes are inevitable. For latest technical specifications, see our website.

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