

About Us

Since 1911, PowerLabs has continually provided customers quality calibrations and testing. First established under the Philadelphia Electric Company's testing section, we have since grown and expanded our laboratory capabilities not only in metrology but in testing and analysis over the last half century.

Today, PowerLabs is the primary calibration and testing laboratory for Constellation. We have labs strategically located from the upper-Midwest to the Northeast to better support the urgent demands of quality driven industries.

Quality and Accreditations

We maintain both A2LA Accreditations for ISO 17025 calibrations and Appendix B calibrations, assuring our technical competence as a laboratory. Many of the listed parameters and ranges here are accredited. Please see our Scope of Accreditation for each of our sites on our website.

As an Approved Nuclear Supplier, we adhere to strict code requirements including 10 CFR 50, Appendix B, NQA-1 and ANSI N45.2. These guidelines are the basis for which we have built our Quality Program.



Service Offerings

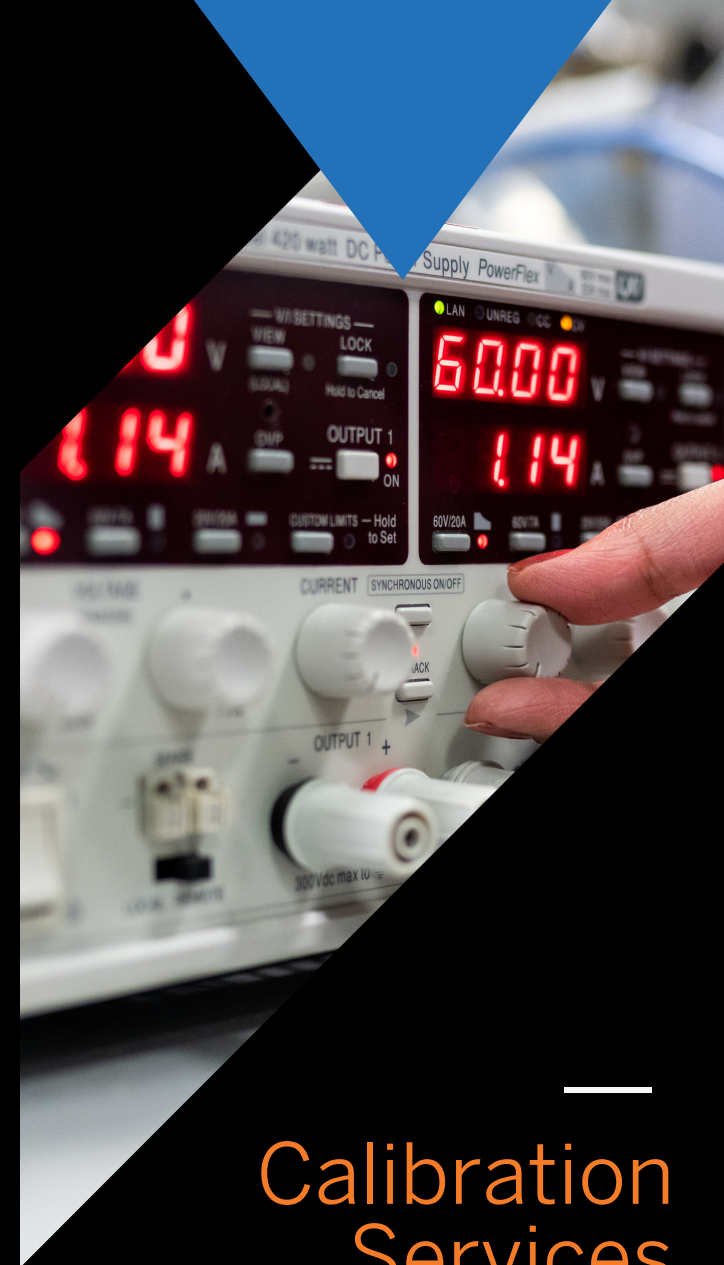
Our diverse array of capabilities and extensive list of qualified vendors, allow us to be your true one stop shop and single source provider.

Many of the measurements performed can also be completed on radiologically controlled devices in our NRC approved locations.

PowerLabs is always expanding our calibration capabilities. View our service offerings to see what areas we can best support your needs. If you don't see the parameters you need, contact powerlabs@constellation.com.

Contact Us

- ☎ (610) 380 - 2351
- ✉ powerlabs@constellation.com
- 🌐 www.constellationpowerlabs.com



Calibration Services

Accredited Calibrations



Constellation.

PowerLabs

Our Services:

Dimensional Calibration

- Linear measurements from 0.000002 to 120 inches
- Angular measurements from 0 to 360 °
- Flatness to within 11 μ inches
- Linear Displacement up to 50 inches
- Gage Block standards up to 4 inches

Electrical Calibration

- Resistance: 0 Ω to 200 TΩ
- AC Resistance: 0.1 Ω to 1 MΩ, 12 Hz to 100 kHz
- DC Voltage: 0 to 1000 V
- DC Current: 0 to 1000 A
- AC Voltage: up to 1000 V, 1 Hz to 1 MHz
- AC Current: up to 100 A and 10 Hz to 30 kHz
- Frequency: up to 50 GHz
- Phase: Voltage & Current, 1 Hz to 100 kHz
- Capacitance: 10 pF to 110 mF
- Inductance: 200 μH to 10 H

Flow Rate Calibration

- Air Flow up to 1000 liters per minute
- Air Velocity up to 9000 ft/sec
- Liquid Flow up to 2000 gallons per minute

Force & Load Cell Calibration

- Tension & Compression up to 500,000 lbf

Humidity Calibration

- Humidity Generation: 10 to 95% RH, non-condensing
- Low Humidity: -95 degrees Celsius Frost Point to +10 degrees Celsius Dew Point
- Low Humidity Measurement: -80 degrees Celsius Frost Point to +20 degrees Celsius Dew Point

Hydrometer Calibration

- Displacement from 0.8 to 1.4 Specific Gravity
- Electrical from 0.8 to 1.7 Specific Gravity

Light Calibrations (VIS/UV)

- White, Visible up to 2,000 foot Candles
- UV, Black up to 1,000 μw/cm²

Mass Calibration

- Scales – 0 to 5,000 lbs
- Precision Balances – 0 to 70 kg
- Mass Comparators – 0 to 10 kg
- Standard Masses – up to 30 kg
- Weights – up to 2 kilograms 17025 & up to 30 kilograms non accredited
- Weight Classes – ASTM E617 Class 1, 2, 3, 4, 5, 6, 7 (Old) NBS 547 Class M, S, S-1, P, Q & T and NIST 105-1 Class

Optical Calibration

- Line of Sight up to 100 feet
- Optical Micrometer up to ffl 0.5 inches
- Horizontal Circle up to 360 °

Pressure & Vacuum Calibrations

- 1 mTorr to 40,000 PSI

Radiation Protection Calibration

- Count rate up to 8,000,000 cpm
- Dose rate up to 40 R/hr
- Alpha Counting Efficiency using Pu-239

Radio Frequency & Microwave Calibration

- Power and Frequency up 26.5 GHz
- High Power up to 1300 Watts

Sound Calibration

- Basic Accuracy is ffl 0.25 dB
- Power Range 74 dB to 114 dB
- Frequency Rang 125 Hz to 8k Hz

Vibration Calibration

- Frequency 1 Hz to 20 kHz
- Displacement up to 4 inches
- Gravity up to 6 G

Temperature Calibrations

- Infrared -15 to 500 °C
- Fixed Point (SPRT and Secondary RTD) -38 to 660 °C (LN2 comparison at -196°C)
- Electrical Calibration of Thermocouple Reference Junction 21 to 25 °C
- Electrical Calibration Thermocouple Devices (All Types) -250 to 2400 °C
- Thermocouple Calibration (J,K,E,T and N Types) -200 to 1450 °C
- Basic Temperature -200 to 1450 °C



Torque Calibrations

- Basic Torque up to 20,000 lbf
- Hydraulic Torque up to 20,000 lbf
- Electronic Torque up to 6,500 lbf

High Voltage / Energy Calibration

We meet requirements that satisfy national and international standards: ISO 17025, IEEE Standard 4, IEC, 60270, IEC 60060-2, ANSI Z540, 10 CFR 50 / Appendix B.

AC & DC Voltage Testing

AC Voltage Testing capabilities include 50/60 Hz, 1,000 kV RMS & Pk/V₂. ISO 17025 accredited up to 800 kV. DC voltage testing 700 kV and ISO 17025 accredited to 450 kV.

Tan Delta / High Voltage Capacitance Testing

Supporting Tan Delta Bridge Measurements, HV Capacitors to 200 kV, Tan Delta Measurements to Dissipation Factor (DF) 0.0000025. 50/60 Hz testing capable.

High Current 60 Hz and DC Testing

We provide ISO 17025 high current testing up to 5,000 Amps and up to 17,500 amps traceable to national measurement institute standards via 17,500 amps direct measurement to current transformer. DC Current Testing up to 10,000 amps.

Motor / Generator System

Fully calibrate and test your 60 Hz motor / generator test system. Calibration capabilities include Variable Frequency Drive (VFD).

Impulse Voltage Testing

- Lightning Impulse Voltage up to 2500 kv
- Switching Impulse Voltage up to 1000 kv
- Exponential Current up to 100 kA