

Metrology Labs



Precision Environments

Metrology Lab Division

METROLOGY LABS

One-Stop Source for World-Class Metrology Labs

**SINCE
1989**

DELIVERING TOP QUALITY METROLOGY LABORATORIES

Precision Environments delivers high performing metrology laboratory environments that enhance your technology, research, and production processes. We custom design and build a wide variety of metrology laboratory applications including:

Coordinate Measuring Machine (CMM) Rooms

We have delivered industry leading CMM environments across the globe that are utilized to conduct dimensional measurements in manufacturing inspection, gauge calibration, and other applications. Typical CMM room environmental conditions include:

- Temperature Set Point: $\pm 0.01^{\circ}\text{C}$ to 1.0°C
- Cleanroom: ISO Class 1 thru Class 8
- Air Velocity: 3 FPM to 20 FPM
- Humidity Set Point: $\pm 1\%$ RH to 5% RH
- Pressure: Positive
- Lighting: 50 FC to 100 FC

Electrical Metrology Laboratories

Our electrical metrology laboratories can be designed for any size requirement with standard features such as shielded doors, power line filters, control line filters, data line filters, and wave guides. Typical design considerations include:

- Temperature Stability
- ESD Control
- Static Electricity
- Temperature Gradients
- EMI/RFI Attenuation
- Grounding
- Cleanroom Cleanliness

Filter Weighing Laboratories

Micro balances are very sensitive to changes in the environment as well as ground induced vibration. Our designs mitigate the factors that prevent accurate measurements including:

- Temperature Stability
- Static Electricity
- Barometric Pressure
- Temperature Gradients
- Grounding
- Buoyancy Compensation
- Cleanroom Cleanliness
- Dew Point Control
- Inertia Blocks

Mass Metrology (MM) Enclosures

Mass Metrology micro balances are very sensitive to changes in the environment including temperature stability, temperature gradients, convective air currents, humidity, barometric pressure, electrostatic discharge, particulate contamination, as well as ground induced vibration. We understand that these environmental effects contribute to measurement uncertainty, and our designs mitigate the factors that prevent accurate measurements.



END-TO-END METROLOGY LAB SERVICES

Using a client-focused approach, Precision Environments' experts deliver metrology services to diverse industries including auto manufacturing, government, higher education, aviation, aerospace, and other markets. Our end-to-end metrology lab services cover the entire implementation process, from concept to certification, followed by ongoing maintenance to ensure safety and performance.

Lab Concept & Planning

Our team conducts engineering site visits to identify requirements and environmental issues, and review site locations for space utilization.

Maintenance & Service

Our specialists have been trained in servicing complex mechanical and control systems and understand the science conducted in the laboratory environment.

Lab Testing & Certification

We are committed to compliance and offer a broad spectrum of laboratory certification testing that meet industry, regulatory, and certification requirements.

Construction Management

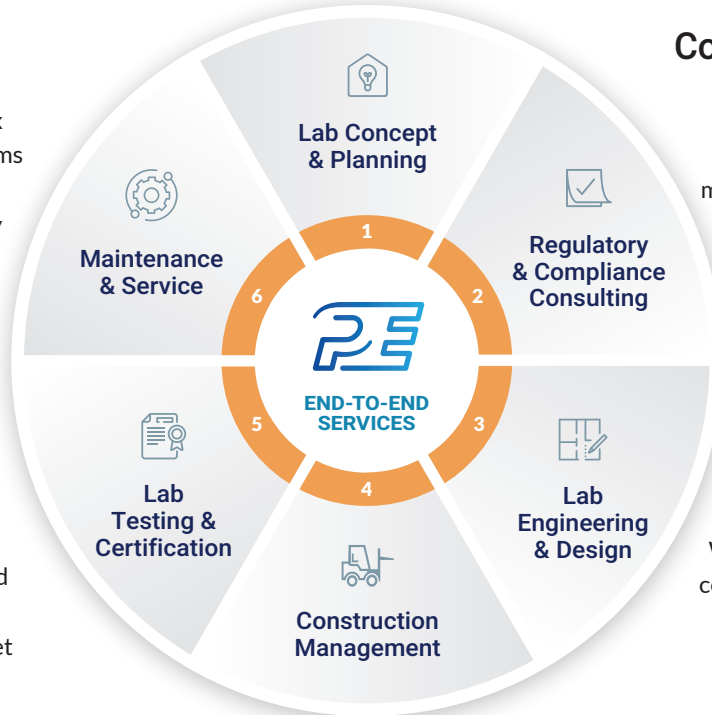
We assign a highly skilled laboratory construction management team to manage all aspects of the construction and installation with a priority on schedule, quality, and safety.

Regulatory & Compliance Consulting

Our team ensures that your laboratory is built to your industry's specifications and meets regulatory requirements.

Lab Engineering & Design

We employ an interactive and collaborative design philosophy with a focus on efficiency, compliance, and scalability.



Metrology Laboratory Design Features

- Environmental Analysis
- Architectural Design
- Structural Design and Components
- Laboratory Controls
- HVAC and Airflow Design
- Process and Cleanliness Criteria
- Mechanical System Design
- Electrical System Design





Contact us to learn more about how our team of professionals can help you and your company design and build a world-class metrology lab. To get instant access to our request form, scan the QR code with the camera on your mobile device, then click on the URL.

METROLOGY LAB DIVISION

As a nationally recognized leader in laboratory innovation, Precision Environments is a one-stop source for world-class metrology laboratory environments. With over 30 years' experience and extensive industry knowledge, Precision Environments delivers high performing laboratory environments that enhance your business results.

BUILT FOR COMPLIANCE

All controlled environments designed, built, and warrantied by Precision Environments are compliant with ISO 14644-1 standards, cGMP standards, GMP European Standards for Sterile Injectables, and FDA CFR 21 Part II.

PERFORMANCE GUARANTEE

We guarantee that our metrology labs meet your project requirements and exceed your expectations for quality and service.



Precision Environments is a A2LA 17025 Accredited Controlled Environment Design/Build Company



We design, build, and certify controlled environments according to ISO standards.

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