PROJECT REFERENCES

Your paragraph text

Demonstrated expertise in action.

Precision Environments®

BIOTECHNOLOGY OPTIONS

BIOTECHNOLOGY

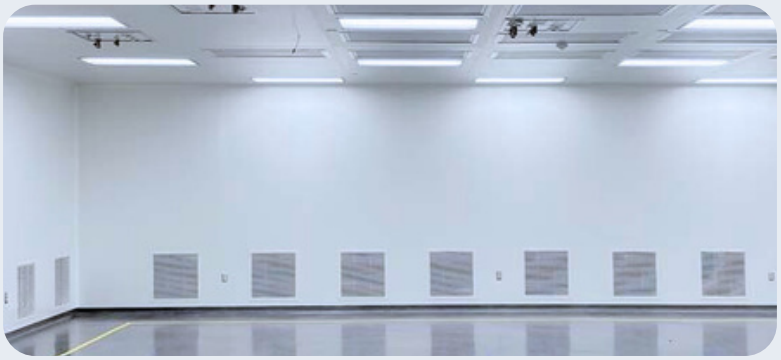
Cytiva Life Sciences Westborough, MA

Precision Environments®

Project Delivery

Cytiva is a global life sciences leader dedicated to advancing and accelerating therapeutics. Cytiva is a trusted partner to customers that undertake life-saving activities ranging from biological research to developing innovative vaccines, biologic drugs, and novel cell and gene therapies. Precision Cleanrooms designed and built a cGMP cleanroom suite for Cytiva Life Sciences. This project was an Operation Warp Speed project, expedited by the federal government. This cleanroom is used for the production of sterile single-use technologies, achieving ISO 7 (Class 10,000) operational standards.

Project Size:
10,500 sq. ft.



ISO 7
(Class 10,000)

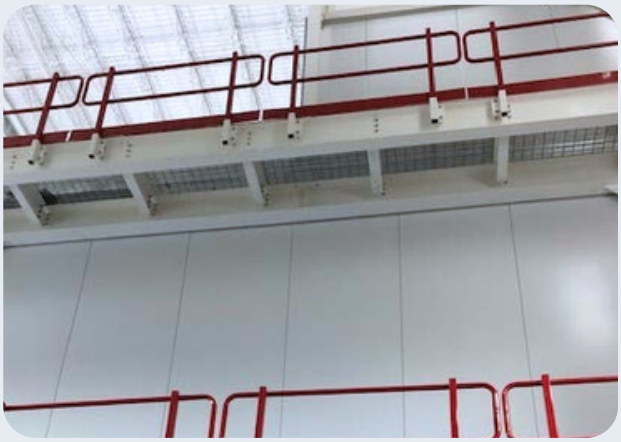
BIOTECHNOLOGY

Berry Global, Inc.
Dalton, GA

Precision Environments®

Project Delivery

Berry Global, Inc. is a Fortune 500 global manufacturer and marketer of plastic packaging products. Precision Cleanrooms designed and built the first ever 5-level blown sterile film cleanroom in the USA. This cleanroom suite was installed to ISO 7 (Class 10,000) operational standards.



Project Size:
5,500 sq. ft.
(5 Floors)

ISO 7
(Class 10,000)

MEDICAL DEVICE OPTIONS

MEDICAL DEVICE

Micropulse, Inc.
Columbia City, IN

Precision Environments®

Project Delivery

Micropulse is a manufacturer of implantable medical device products. Precision Cleanrooms designed and built this cleanroom for the production and packaging of sterile implantable medical devices exclusively for the orthopedic industry. This cleanroom suite was installed to ISO 7 (Class 10,000) standards in operations.

Project Size:
5,500 sq. ft.

ISO

ISO 7
(Class 10,000)

MEDICAL DEVICE

Micropulse, Inc.
Columbia City, IN

Precision Environments®

Project Delivery

Micropulse is a manufacturer of implantable medical device products. Precision Environments designed and built this cleanroom for the production and packaging of sterile implantable medical devices exclusively for the orthopedic industry. This cleanroom suite was installed to ISO 7 (Class 10,000) standards in operations.

Project Size:
5,500 sq. ft.

ISO

ISO 7
(Class 10,000)

MEDICAL DEVICE

Project Zircon
Corning Life Sciences

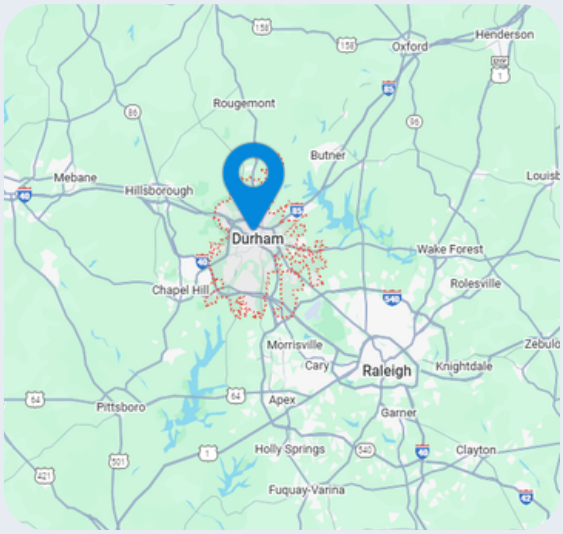
Precision Environments®

Project Overview

Corning Life Sciences provides high quality, innovative life science products enabling people around the world to make and deliver life changing discoveries. Precision Environments, Inc. designed and built a modular cleanroom suite designed to ISO 6 (Class 1,000) operational standards. This project was delivered as a lump-sum project for Shelco (Owner GC). Precision Environments collaborated with Shelco as they delivered other areas of the facility for Corning. The cGMP cleanroom system was built for the production and packaging of a sterile medical HYPERStack cell culture vessels with intended usage in cancer research.

Scope

Design/Build/Construction Management of the cGMP Cleanroom Suite, uPVC modular wall system with walkable ceiling system. Ducted HEPA filtration, walkable LED light fixtures, (5 Qty.) custom automated pass throughs for conveyor system.



Temp/humidity requirements

68F (+/-) 2F | **50% rH max**

Durham
North Carolina

7,500
Square Feet

ISO 6
(Class 1,000)

MEDICAL DEVICE

Micropulse, Inc.
Columbia City, IN

Precision Environments®

Project Delivery

Micropulse is a manufacturer of implantable medical device products. Precision Cleanrooms designed and built this cleanroom for the production and packaging of sterile implantable medical devices exclusively for the orthopedic industry. This cleanroom suite was installed to ISO 7 (Class 10,000) standards in operations.

Project Size:
5,500 sq. ft.

ISO

ISO 7
(Class 10,000)

MEDICAL DEVICE

Cadence Device
Staunton, VA

Precision Environments®

Project Delivery

Cadence is a full-service contract manufacturer and leading supplier of advanced products, technologies, and services to medical, aerospace, automotive, and industrial companies worldwide. This cleanroom suite was designed to ISO 7 (Class 10,000) in operations. The cleanroom was built for high-performance, single-use products in the medical industry. This project was delivered as a lump-sum project

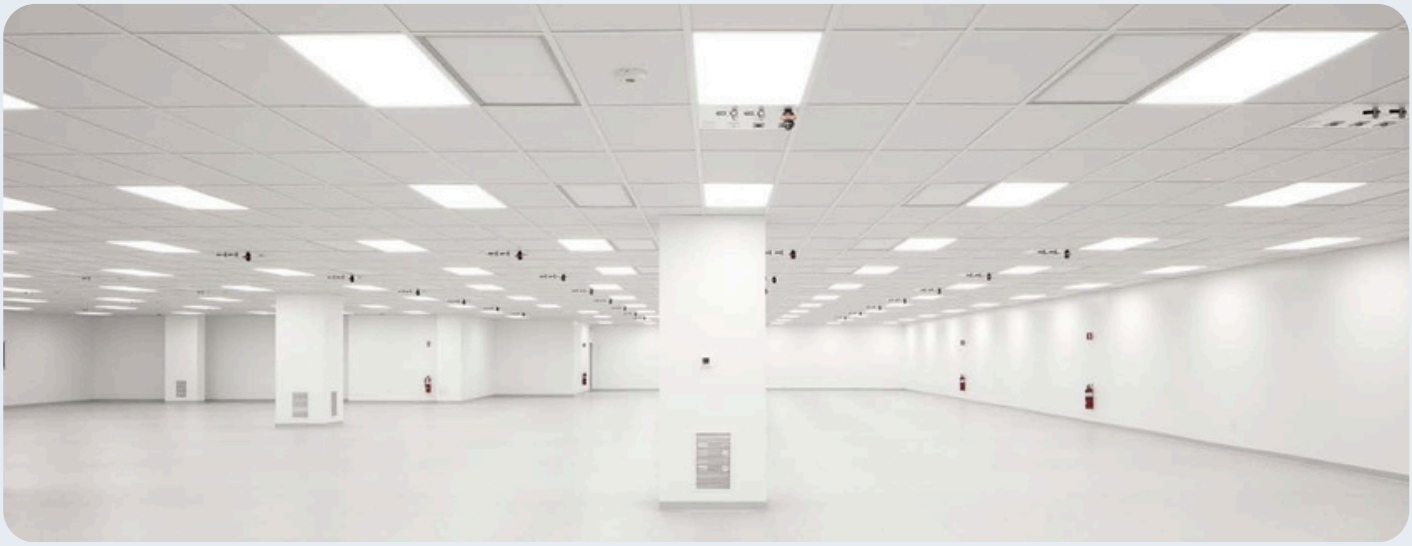
Project Size:
4,000 sq. ft.

ISO 7
(Class 10,000)

MEDICAL DEVICE

Vesta Inc./ Lubrizol
Franklin, WI

Precision Environments®



Project Delivery

Vesta, Inc. is a technology-based medical device contract manufacturing company that specializes in silicone molding, precision medical extrusion of thermoplastics and silicone. This cleanroom suite was built for medical device assembly and packaging, achieving ISO 7 classification (Class 10,000) in operations.

Project Size:
3,000 sq. ft.

ISO 7
(Class 10,000)

AEROSPACE OPTIONS

AEROSPACE

Classified
Location Classified

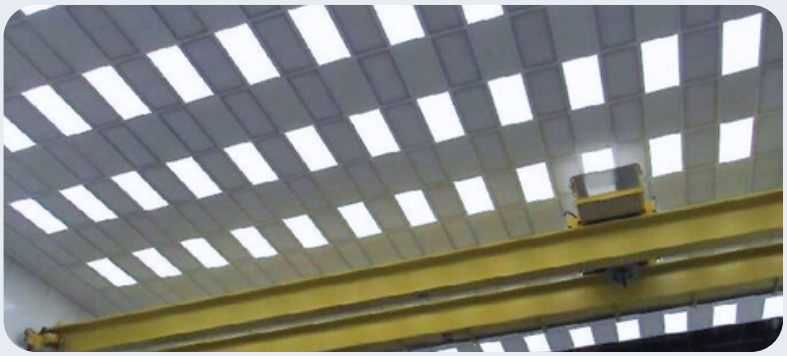
Precision Environments®

Project Delivery

Precision Cleanrooms designed and built a modular cleanroom suite for a classified client. This project was delivered as a lump-sum design/build project. This project was an Operation Warp Speed project, expedited by the federal government.

The cleanrooms were designed to ISO 6 (Class 1,000) in operations, housing aerospace development processes.

Project Size:
10,000 sq. ft.



ISO 6
(Class 1,000)

AUTOMOTIVE OPTIONS

AUTOMOTIVE

Fuyao Glass America
Moraine, OH

Precision Environments®

Project Delivery

Fuyao Glass America is the world's leading supplier of automotive glass. Precision Cleanrooms, Inc. designed and built a modular cleanroom suite for Fuyao Glass America. This project was delivered as a lump-sum with multiple phases, mobilizations, and areas. These cleanrooms were designed to ISO 7 (Class 10,000) and ISO 8 (Class 100,000).

Project Size:
135,000 sq. ft.

ISO

ISO 7
(Class 10,000)

ISO 8
(Class 100,000)

MICROELECTRONICS OPTIONS

MICROELECTRONICS

Photronics, Inc.
Brookfield, CT

Precision Environments®

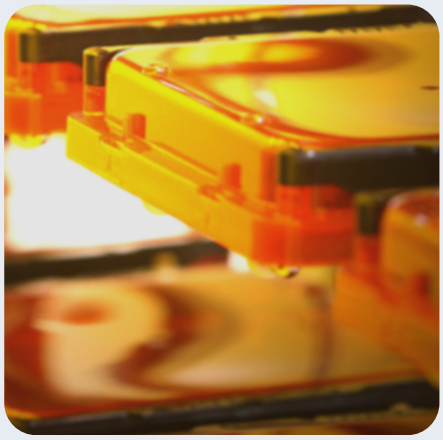
Project Delivery

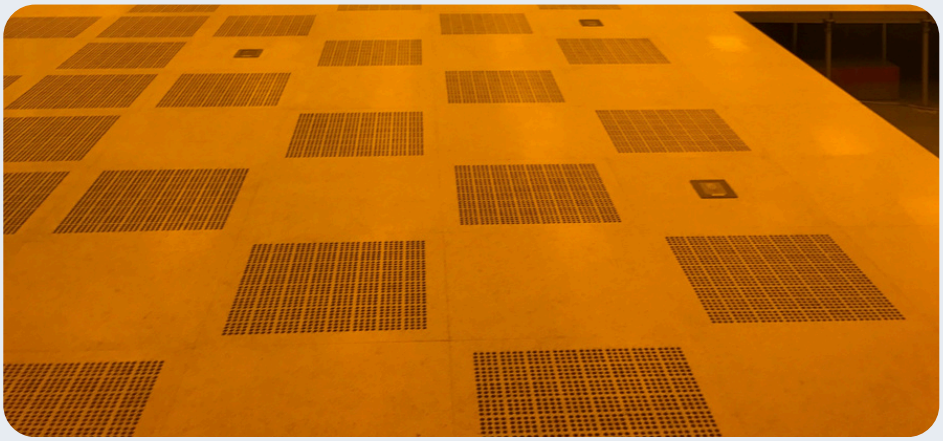
Photronics, Inc. is an American semiconductor photo mask manufacturer. They are the third largest photomask supplier globally. Precision Cleanrooms designed and built a modular cleanroom suite for semiconductor manufacturing applications. This project was delivered as a lump-sum design/build project.

Project Size:
5,000 sq. ft.

ISO

ISO 5
(Class 100)





MICROELECTRONICS

Photronics, Inc.
Brookfield, CT

Precision Environments®

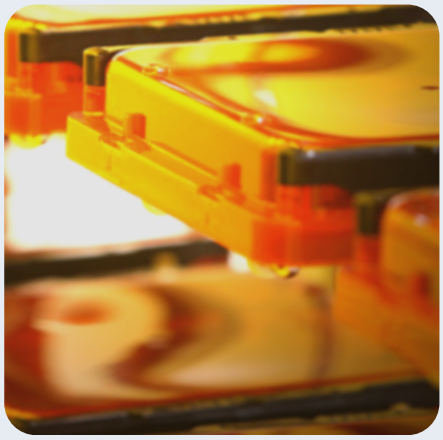
Project Delivery

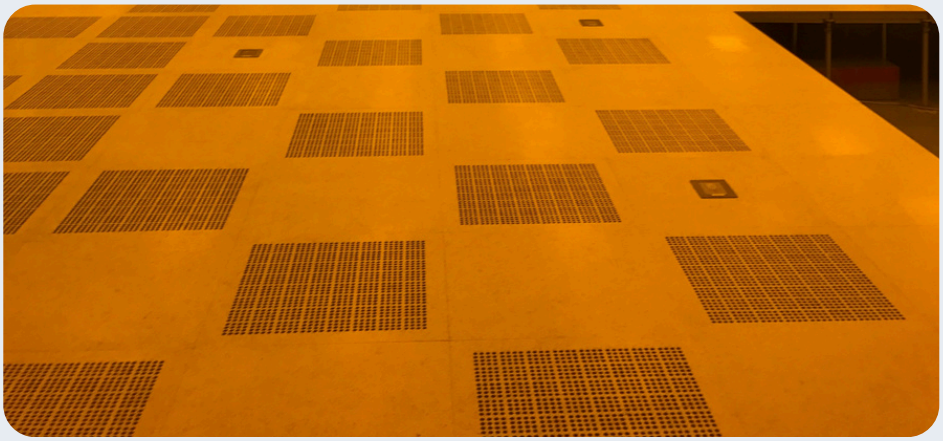
Photronics, Inc. is an American semiconductor photo mask manufacturer. They are the third largest photomask supplier globally. Precision Cleanrooms designed and built a modular cleanroom suite for semiconductor manufacturing applications. This project was delivered as a lump-sum design/build project.

Project Size:
5,000 sq. ft.

ISO

ISO 5
(Class 100)





MICROELECTRONICS

Fermi Labs
Batavia, IL

Precision Environments®

Project Delivery

Fermi National Accelerator Laboratory, located just outside Batavia, Illinois, near Chicago, is a United States Department of Energy national laboratory, specializing in high-energy particle physics.

Project Size:
4,000 sq. ft.

ISO 5
(Class 100)

PHARMACEUTICAL OPTIONS

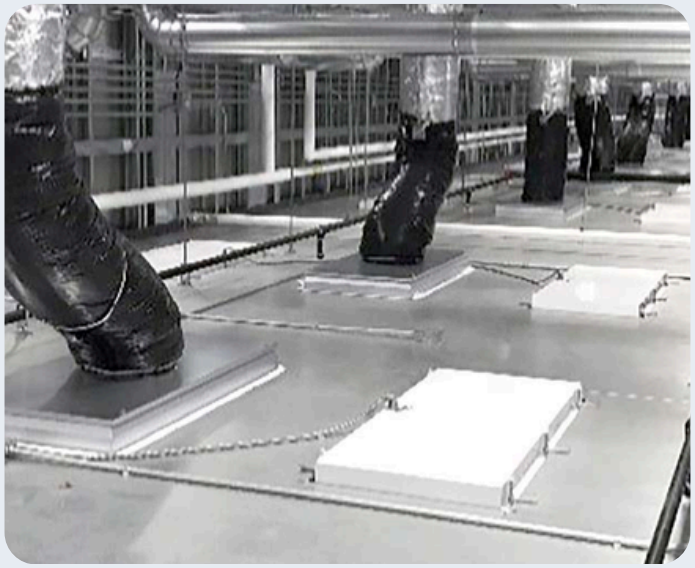
PHARMACEUTICAL

Agnitio, Inc.
Appleton, WI

Precision Environments®

Project Delivery

Agnitio is a US-based pharmaceutical company located in Appleton, Wisconsin. This cleanroom suite was built for the manufacturing of affordable generic drugs.



Project Size:
8,000 sq. ft.

ISO 7
(Class 10,000)

PHARMACEUTICAL

HIMS - PTSI - Design Build
Los Alamitos, California

Project Overview

HIMS California required a properly regulated and adequately sized environment for GLP-1 production. To meet compliance standards and increase capacity, they needed to upgrade and modernize their existing compounding space. Precision Environments evaluated the cleanroom, clarified the project scope, and delivered a custom solution tailored to HIMS' operational requirements.

Project Delivery

Precision Environments is supporting HIMS in developing their GLP-1 manufacturing facility in Los Alamitos, CA. Leveraging deep knowledge of the site and extensive design-phase experience, the team is delivering a custom cleanroom solution aligned with HIMS' technical and operational requirements. This strong partnership will continue through execution to ensure a high-quality, compliant environment that safely and effectively supports HIMS' GLP-1 production goals.

Long-Term Partnership

HIMS has decided to utilize Precision Environments service contract for long term efficiency and operational steadiness.

Ongoing services include:

- Ensured timely delivery in accordance with client specifications
- Reconfigured architectural layout for unidirectional flow and regulatory adherence.
- Upgraded syystem to comply with standard FDA regulations

Results

Precision delivered a clear, organized project plan that gave HIMS a guided approach. The team established a defined scope, realistic timeline, and ROM budget, allowing HIMS to move forward confidently with their fast-track design-build approach. Missing information was clarified, system needs were identified, and HIMS was able to finalize and issue their RFP with a structured path for Phase 1 remediation and Phase 2 upgrades.

Conclusion

Precision Environments and PTSI are partnering with HIMS California to deliver a compliant, efficient cleanroom tailored to their GLP-1 production needs. With deep site knowledge and strong design expertise, the team is ensuring a high-quality solution that will support HIMS' current and future manufacturing goals.

INDUSTRAL MANUFACTURING OPTIONS

INDUSTRIAL MANUFACTURING

SIEMENS
Blythewood, SC

Precision Environments®

Project Delivery

Siemens is a leading manufacturer of diesel systems technologies used for automotive applications. Precision Cleanrooms designed and built a cleanroom facility for industrial manufacturing.

Project Size:
10,000 sq. ft.

ISO 8
(Class 100,000)

PARTNER FOCUSED OPTIONS

BIOTECHNOLOGY

Cytiva Life Sciences
Westborough, MA

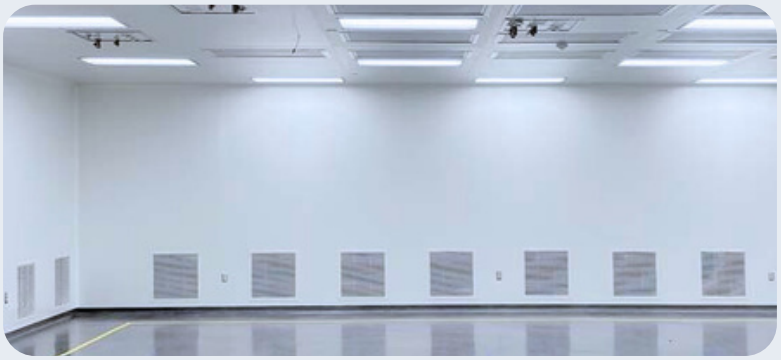
Precision Environments®

JACOBS WYPER ARCHITECTS

Project Delivery

Cytiva is a global life sciences leader dedicated to advancing and accelerating therapeutics. Precision Environments and Jacobs Wyper partnered to design and build a cGMP cleanroom suite for Cytiva Life Sciences manufacturing. This was an Operation Warp Speed project, expedited by the federal government. This cleanroom is used for the production of sterile single-use technologies, achieving ISO 7 (Class 10,000) operational standards. Upon the successful completion of the first 10,500 Sq FT project Cytiva reengaged Precision Environments and Jacobs Wyper to design build an additional 2,000 sq. ft cleanroom.

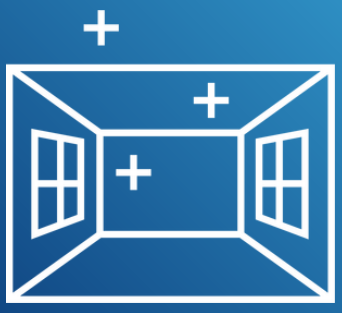
Project 1:
10,500 sq. ft.
Project 2:
2,000 sq. ft.



ISO 7
(Class 10,000)

Project Jade

Precision Environments®

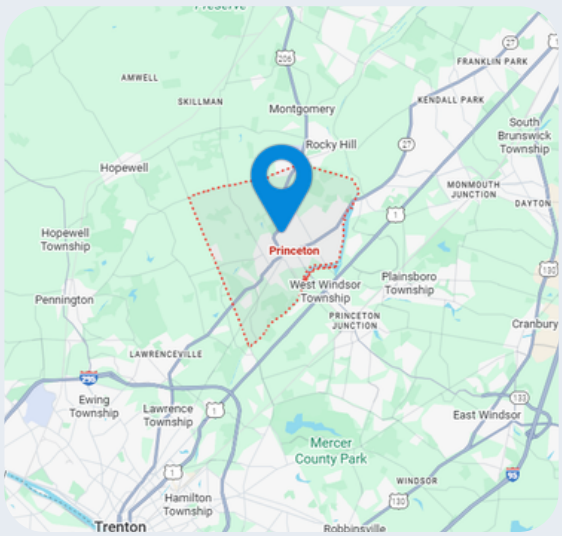


Project Overview

Largest project we worked on with Jacobs Wyper. Project Jade was an insulin manufacturing campus which included 4 production buildings, a central utilities plant, administration building, and warehouse.

Scope

The project never was funded but went through multiple renderings for schematic design for over a year.



Temp/humidity requirements

68F (+/-) 2F | **50% rH max**

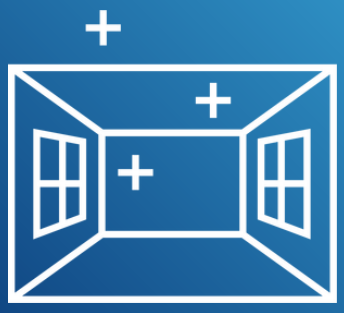
Princeton
New Jersey

200,000
Square Feet

ISO 7
Sterile injectable production space.

Cytiva
Fast-Track Project

Precision Environments®

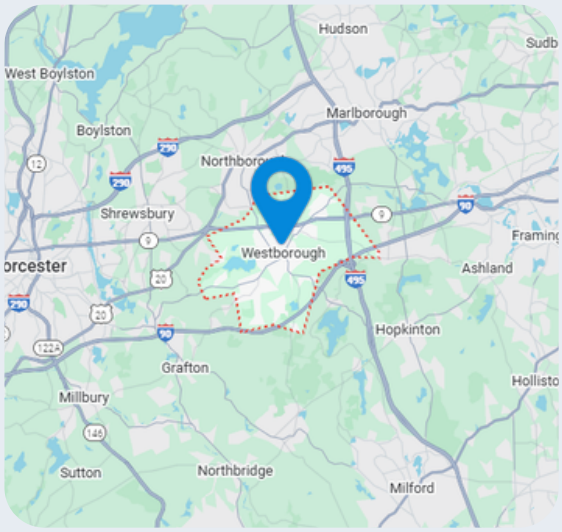


Project Overview

Partnered with Jacobs Wyper on a critical project through Cytiva, delivering cleanroom construction accurately and on schedule to support ongoing COVID vaccine manufacturing operations.

Scope

Our scope was design/build of the cleanroom and all utilities, including redundant chillers.



Temp/humidity requirements

66F (+/-) 2F | **45% (+/-) 5% rH**

Westborough
Massachusetts

11,000
Square Feet

max

ISO 7
Sterile injectable production space.

SMC Corporation of America

Precision Environments®

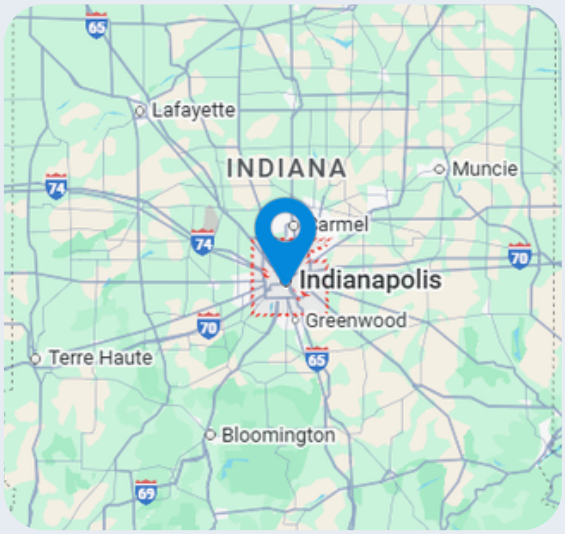
Project Overview

PE scope was to design, furnish, and install the Plascore wall and ceiling system, including the control system and over 1100 FFUs. We've completed many additional projects with Plascore.

We've completed many additional projects with Plascore.

Scope

PE scope was to design, furnish, and install the Plascore wall and ceiling system, including the control system and over 1100 FFUs. We've completed many additional projects with Plascore.



Temp/humidity requirements

68F (+/-) 2F | **50% rH max**

Indianapolis
Indiana

23,000
Square Feet

ISO 5
(Class 1,000)

GIGAFACTORY OPTIONS

GIGAFACTORY

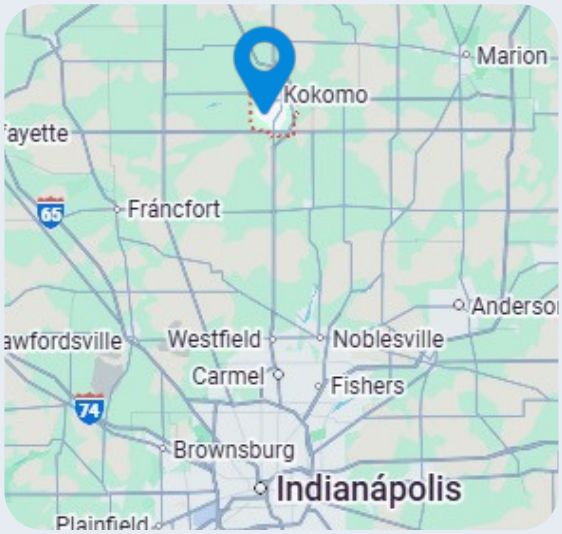
Stellantis/Samsung
Kokomo, Indiana

Project Overview

This architectural CRDR project included more than 500,000 sq ft of installed IMP, delivering a high level of fit and finish throughout the controlled environment. PE's construction management team applied a constructability-driven approach to streamline sequencing and coordination across trades. Through proactive planning and disciplined execution, the team compressed the project schedule from nine months to just four months with a savings of approximately $20–25 million for the client. The result was an accelerated delivery that met performance requirements while maintaining quality at scale.

Scope

Cleanroom/Dryroom (CRDR) interior architectural envelope (walls, & ceilings), CRDR Doors, clean corridors, procurement and professional installation, supplemental steel, preconstruction, BIM coordination/Design Assist, quality control, clean protocol adherence, CRDR penetrations, finish work.



CRDR Requirements

68F (+/-) 2F | **10-30% rH**

Kokomo
Indiana

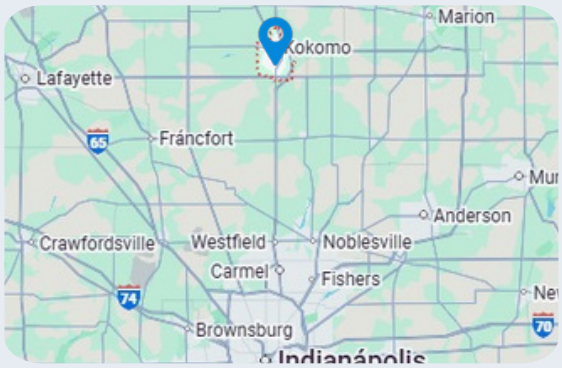
500,000
Square Feet

ISO 7
CRDR rated spaces

Stellantis/Samsung

Turning Complexity into Controlled Execution

Precision Environments was chosen as a ISO 7 cleanroom delivery partner on a large-scale, first-of-its-kind advanced manufacturing facility in the Midwest for Stellantis/ Samsung. From the outset, the project faced significant challenges, including a master construction schedule that did not align with physical construction realities, phased and incomplete design documentation under a GMP contract, extreme skilled labor shortages, and the added complexity of winter construction in an unenclosed facility. Despite repeated attempts to accelerate upstream concrete and structural work, site constraints, crane limitations, and sequencing conflicts made the original schedule unachievable, creating downstream impacts that threatened both quality and delivery. Rather than operating as a scope-limited trade contractor, Precision Environments stepped into a problem-solving role, working closely with ownership, the general contractor, designers, and manufacturers to reframe the project around what could realistically be built. The team translated thousands of CPM schedule activities into visual, area-based sequencing plans that aligned construction logic with real world conditions. This approach brought clarity to all stakeholders, exposed constructability conflicts early and allowed the project team to make informed decisions that stabilized execution and restored confidence in the plan.



Kokomo
Indiana

500,000
Square Feet

ISO 7
CRDR rated spaces

As design packages continued to evolve, Precision Environments led extensive design-assist efforts to resolve coordination gaps and improve constructability across disciplines. Drawing on deep process knowledge, the team identified opportunities to optimize the cleanroom scope without compromising manufacturing performance. Through close collaboration with stakeholders, large portions of the facility originally designed as high-classification cleanrooms were re-evaluated, resulting in the elimination or reclassification of approximately 150,000 square feet of panelized cleanroom and over 100,000 square feet of classified space. These changes removed substantial mechanical, electrical, and controls scope, delivering validated project savings of approximately $20–25 million while improving overall efficiency. When schedule delays disrupted material sequencing and eliminated the feasibility of traditional just-in-time delivery, Precision Environments adapted quickly by securing off-site warehouse space to store and manage over 500,000 square feet of cleanroom panels. The team implemented a custom inventory and resequencing strategy that preserved material integrity and allowed installation to proceed in alignment with the evolving schedule. As winter conditions set in and threatened to halt progress entirely, Precision Environments again stepped beyond contractual boundaries, mobilizing more than 100 personnel across multiple shifts to temporarily enclose large portions of the facility and install industrial heating systems. This effort allowed concrete placement and interior work to continue through harsh weather conditions, preventing further schedule delays.

Recognizing that labor availability was a critical risk, Precision Environments also developed and deployed a site-specific cleanroom training and quality program to rapidly onboard and upskill workers unfamiliar with cleanroom construction. The program emphasized clear work instructions, field-level quality controls, and accountability, enabling consistent installation quality at scale. The success of this approach led to its adoption by regional carpenters' unions and eventual expansion into a nationally recognized training framework. Despite operating alongside a nationally recognized cleanroom contractor on the same campus, Precision Environments consistently outperformed in schedule adherence, quality, and execution efficiency. The project ultimately achieved strong financial performance, zero major warranty issues, and long-term operational success for the owner. More importantly, it reinforced Precision Environments' role as a trusted strategic partner, one capable of navigating extreme complexity, mitigating risk, and transforming challenging conditions into successful outcomes through expertise, adaptability, and a project-first mindset.

MAINTENANCE OPTIONS

CAT Plant Filter Weigh Lab
Lafayette, Indiana

Precision Environments®

Project Overview

At Caterpillar's (CAT) Lafayette, Indiana, plant, precise measurement is essential for maintaining product quality and complying with regulatory standards. CAT needed to build a highly controlled Filter Weigh Lab to support its operations. This specialized environment must meet strict requirements for stability, accuracy, and compliance. Precision Environments was chosen to both construct and provide ongoing service for this facility.

Project Delivery

Precision Environments successfully completed the 273 sq. ft. Filter Weigh Lab on an accelerated two-month schedule in 2010. The project required complex environmental design to ensure precise control of temperature and humidity for accurate weighing operations.
The lab was constructed with robust infrastructure, advanced filtration, and stable airflow systems, establishing an environment capable of supporting high-accuracy processes central to CAT's work.

Long-Term Partnership

Since its completion, Precision Environments has continued to service the Filter Weigh Lab through a long-standing maintenance partnership.

Ongoing services include:

- Quarterly Preventive Maintenance, ensuring consistent lab performance and reliability.
- Annual ISO/IEC 17025 Certification Support, maintaining compliance with international standards for testing and calibration accuracy.
- Controls Upgrades, transitioning the lab's systems from i-Net to the advanced EcoStruxure platform, enhancing monitoring, efficiency, and reliability of environmental conditions.

Results

Over more than a decade of operation, the Filter Weigh Lab has remained a reliable, compliant, and efficient resource for CAT thanks to Precision Environments' construction expertise and proactive service model.

Key outcomes include:

- Over 14 years of reliable performance with proactive maintenance and certification support.
- Improved system control and monitoring with the EcoStruxure upgrade.
- Continued compliance and accuracy, ensuring the lab consistently meets CAT's operational standards.

Conclusion

The CAT Lafayette Filter Weigh Lab demonstrates Precision Environments' ability to provide not only fast-track, high-quality construction but also long-term service partnerships. Through proactive maintenance and technology upgrades, this lab continues to operate at peak performance, supporting CAT's commitment to precision and quality.

CAT Plant Metrology Labs
Decatur, Illinois

Precision Environments®

Project Overview

At Caterpillar's (CAT) plant in Decatur, Illinois, precision and reliability are crucial. To uphold the highest manufacturing quality standards, CAT needed advanced metrology labs equipped with Coordinate Measuring Machines (CMMs). These labs had to be constructed to strict standards and maintained to operate at optimal efficiency over time. Precision Environments was chosen to handle both the construction and ongoing maintenance of these vital facilities.

Project Delivery

Precision Environments completed the construction of three metrology labs:

2,940 sq. ft. | 905 sq. ft. | 600 sq. ft.

Each project was completed on a four-month schedule, demonstrating the company's ability to meet aggressive timelines without sacrificing quality or compliance. The labs were designed with strict environmental controls to maintain stable temperature and humidity, which are crucial for the accuracy of CMM equipment. This level of precision enables CAT to achieve consistent, repeatable measurement results.

Long-Term Partnership

Precision Environments' role at the Decatur plant did not end with construction. A long-term service partnership was established to ensure the labs remained reliable and compliant throughout their lifecycle.

Ongoing services include:

- Preventive HVAC Maintenance to maintain environmental consistency.
- **Quarterly Inspections** to catch and resolve potential issues before they impact performance.
- HVAC Equipment Replacement, upgrading older units to improve reliability and energy efficiency.
- Controls Upgrades, transitioning from i-Net to the advanced EcoStruxure platform, providing smarter, more efficient monitoring and control of lab conditions.
- Annual ISO/IEC 17025 Certification Support, ensuring the labs meet international standards for calibration and testing accuracy.

Results

Through its partnership with Precision Environments, the CAT Decatur plant has achieved:

- Reliable Lab Performance: Environmental controls consistently meet the requirements for CMM operations.
- Regulatory Compliance: Annual certifications are supported seamlessly, avoiding costly disruptions.
- Operational Efficiency: Newer HVAC systems and upgraded controls reduce downtime and extend system lifespan.
- Future-Ready Infrastructure: With EcoStruxure controls, CAT has greater insight and flexibility in managing lab environments.

Conclusion

This project shows how a strategic partnership with Precision Environments extends beyond construction. By combining fast-track project delivery with full lifecycle services, CAT's metrology labs in Decatur continue supporting the company's global reputation for quality and precision.

Progress Rail
Filter Weigh Lab

Precision Environments®

Project Overview

Progress Rail, a subsidiary of Caterpillar (CAT), needed a specialized Filter Weigh Lab to ensure precise operations and full compliance. Due to the sensitivity of weighing procedures and the importance of strict environmental standards, Precision Environments was hired to design, build, and provide ongoing support for this vital facility.

Project Delivery

Precision Environments completed the 360 sq. ft. Filter Weigh Lab in three months.
The project included precise control of temperature, humidity, and airflow to ensure the lab environment met the demanding requirements for filter weighing and measurement accuracy.

Long-Term Support

Since the lab's completion in 2012, Precision Environments has remained a trusted partner for Progress Rail, providing:

- Quarterly preventive HVAC maintenance to ensure reliable performance.
- Annual ISO/IEC 17025 certifications, maintaining international standards for laboratory competence and accuracy.
- Replacement of aging HVAC equipment, addressing reliability concerns with upgraded systems.
- Controls upgrades from i-Net to EcoStruxure, improving energy efficiency, monitoring, and automation.

Key outcomes include:

- 360 sq. ft. facility, built in three months.
- 12+ years of continuous compliance, with annual ISO/IEC 17025 certifications.
- System modernization, including HVAC replacements and controls upgrades.
- Long-term partnership, ensuring consistent lab performance.

Results

Through its partnership with Precision Environments, the CAT Decatur plant has achieved:

- Reliable Lab Performance: Environmental controls consistently meet the requirements for CMM operations.
- Regulatory Compliance: Annual certifications are supported seamlessly, avoiding costly disruptions.
- Operational Efficiency: Newer HVAC systems and upgraded controls reduce downtime and extend system lifespan.
- Future-Ready Infrastructure: With EcoStruxure controls, CAT has greater insight and flexibility in managing lab environments.

Conclusion

Over more than a decade, the Progress Rail Filter Weigh Lab has maintained consistent, compliant performance with the support of Precision Environments. Through proactive maintenance, controls modernization, and certification support, the facility continues to deliver dependable results and operational efficiency.

National Labs

Metrology and Specialized Laboratory Environments

Precision Environments®

Project Overview

National Labs, with multiple facilities across the United States, required highly controlled laboratory environments to support advanced research and precise measurement. To meet these needs, Precision Environments designed and delivered Coordinate Measuring Machines (CMM) Labs, Electronics Labs, and Dimensional Labs, each with strict requirements for accuracy, compliance, and reliability.

Project Delivery

The labs were built to exact specifications, with each project completed in approximately four months. While sizes varied by location, all facilities were engineered to provide precise environmental control, ensuring measurement reliability and compliance with international laboratory standards.

Long-Term Support

Following construction, Precision Environments established a comprehensive service program across all National Lab locations, including:

- Quarterly preventive maintenance, ensuring HVAC and control systems perform consistently.
- Annual ISO/IEC 17025 certifications, maintaining strict compliance and international credibility for measurement accuracy.
- Replacement of aging HVAC equipment, upgrading older systems to improve reliability and energy efficiency.
- Controls modernization, transitioning from i-Net to EcoStruxure platforms, providing advanced monitoring, energy management, and automation capabilities.

Key outcomes include:

Multiple specialized labs delivered, including CMM, electronics, and dimensional laboratories.

- Consistent 4-month delivery timeline for build projects.
- Ongoing compliance with annual ISO/IEC 17025 certifications.
- Modernized systems through equipment replacements and controls upgrades.
- Trusted partnership across multiple locations, ensuring standardization and reliability.

Results

National Labs continue to rely on Precision Environments for both facility performance and compliance assurance. Through proactive maintenance, timely upgrades, and certification support, the labs consistently meet the rigorous requirements of precision measurement environments.

Conclusion

Precision Environments' work with National Labs shows its ability to deliver complex laboratory environments across multiple sites while maintaining long-term operational performance. By combining design-build expertise with ongoing service, certification support, and modernization, Precision Environments ensures that National Labs sustain precision, compliance, and reliability in every facility.

EMERGENCY SERVICE OPTIONS

ImmunityBio Emergency Cleanroom Restoration
El Segundo, California

When a potential contamination issue threatened operations at ImmunityBio's cleanroom facility in El Segundo, California, rapid response was critical. Precision Environments was engaged to perform an emergency shutdown, assess conditions behind existing cabinetry, and restore the room to complete operational integrity. The project demanded swift containment, remediation, and architectural restoration, all while avoiding disruption to other facility operations.

Project Delivery:

Precision Environments quickly assembled a dedicated team to carry out the emergency response.

Scope of work included (2,000 sqft):

- Containment setup and removal of gowning supply cabinets to investigate suspected mold growth.
- Surface remediation and wall repair, addressing areas where the original epoxy coating had failed to bond correctly.
- Reapplication of epoxy wall coating with complete primer and bonding agent preparation.
- Cabinet reinstallation and caulking to ensure clean, sealed finishes.
- Coordination with other contractors handling separate flooring assessments to maintain safety and schedule alignment.

The project was completed over five consecutive days, including daily progress inspections and photographic documentation. All work was performed under controlled environmental conditions, ensuring compliance with cleanroom standards and site safety protocols.

Long-Term Partnership:

Following the successful completion of the emergency restoration, ImmunityBio recognized Precision Environments as a reliable partner for high-sensitivity cleanroom service and repair.

Ongoing and follow-up support includes:

Preventive maintenance consultation to monitor epoxy coatings and environmental surfaces.

Rapid-response readiness for future containment or remediation needs.

Architectural service continuity, leveraging PE's in-house expertise for controlled environments across biopharma and research facilities.

Results

Through its collaboration with Precision Environments, ImmunityBio achieved:

- Rapid Recovery: Full wall restoration completed within five days, minimizing downtime.
- Improved Environmental Integrity: Recoated and resealed walls provide enhanced resistance to contamination and moisture.
- Documented Quality Assurance: Daily logs, photos, and material receipts verified compliance and transparency.
- Operational Continuity: Facility operations resumed immediately upon completion, with no regulatory interruptions.

Conclusion

The ImmunityBio emergency cleanroom restoration highlights Precision Environments' ability to respond swiftly and deliver high-quality results under pressure. By combining architectural expertise, cleanroom discipline, and quick mobilization, PE restored environmental performance and strengthened trust with a leading biotechnology client, proving that when precision and urgency are most important, Precision Environments delivers.

Panasonic Cleanroom Restoration
Sparks, Nevada

Precision Environments®

At Panasonic's advanced manufacturing plant in Sparks, Nevada, precision cleanroom environments are crucial for assuring product quality and safety. When nearly half of the site's 39 air showers stopped working, the overall cleanroom performance and ISO compliance were at risk. Panasonic turned to Precision Environments to identify the root causes, restore system performance, and establish a sustainable preventive maintenance plan to protect future operations.

Project Delivery:

Precision Environments mobilized rapidly with two on-site teams conducting intensive 11-day diagnostic and repair visits.

Key actions included (187,630 sq ft):

- Comprehensive inspection and repair of 39 air showers across multiple cleanroom zones.
- PLC controls, magnetic locks, and HMI systems were fully tested, rewired, and reprogrammed for proper sequence operation.
- Integration of new pre-filters, nozzles, and door interlocks, restoring complete system functionality.
- Delivered all corrective work within the original scope and budget, with no additional cost to Panasonic.

Each repaired unit was validated through complete environmental testing,including particle count, temperature, humidity, pressure, and lighting, culminating in ISO Class 8 certification across both winding phases.

Long-Term Partnership:

Following the successful restoration, Panasonic engaged Precision Environments for ongoing service and facility support to ensure sustained cleanroom reliability.

Ongoing services include:

- Preventive Maintenance Program to ensure air shower consistency and performance.
- Quarterly Functional Inspections for filters, blower motors, and control panels.
- Spare Parts Management and stocked inventory to minimize repair lead times.
- Staff Training and Documentation, including the creation of manuals previously unavailable from the manufacturer.
- Expanded Diagnostic Assessments across architectural, mechanical, and electrical systems at additional Panasonic sites.

Results

Through its collaboration with Precision Environments, the Panasonic Sparks facility achieved:

- Full System Recovery: All 39 air showers restored to whole operation and validated under ISO Class 8 standards.
- Regulatory Compliance: Environmental testing and documentation aligned with internal and external certification requirements.
- Improved Operational Continuity: Preventive systems and on-site training reduced downtime risk and dependency on third-party vendors.
- Extended Partnership: PE is now positioned to provide similar service solutions across additional Panasonic facilities.

Conclusion

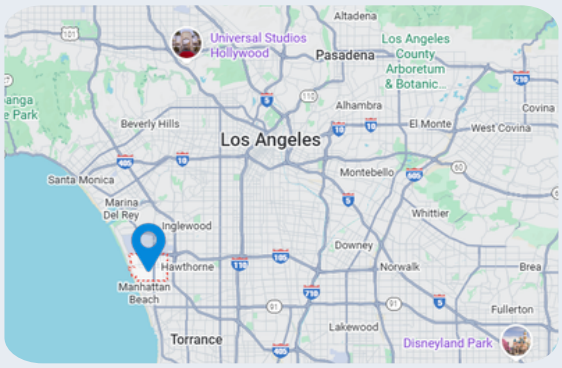
The Panasonic Sparks cleanroom restoration demonstrates how Precision Environments combines engineering depth with responsive service delivery. By diagnosing complex system failures and implementing sustainable performance strategies, PE turned a facility-wide setback into a long-term partnership—proving once again that precision isn't just what we deliver; it's how we operate.

ImmunityBio

Emergency Cleanroom Restoration

Precision Environments®

ImmunityBio is a biotechnology company operating within highly controlled cleanroom environments, where contamination control is critical to research continuity, manufacturing integrity, and regulatory compliance. Even minor degradation to cleanroom finishes or controls can introduce significant operational and business risk. When ImmunityBio identified a potential contamination concern within its El Segundo, California facility, immediate intervention was required to protect ongoing operations and prevent escalation.



El Segundo
California

2,000
Square Feet

$100
Thousand

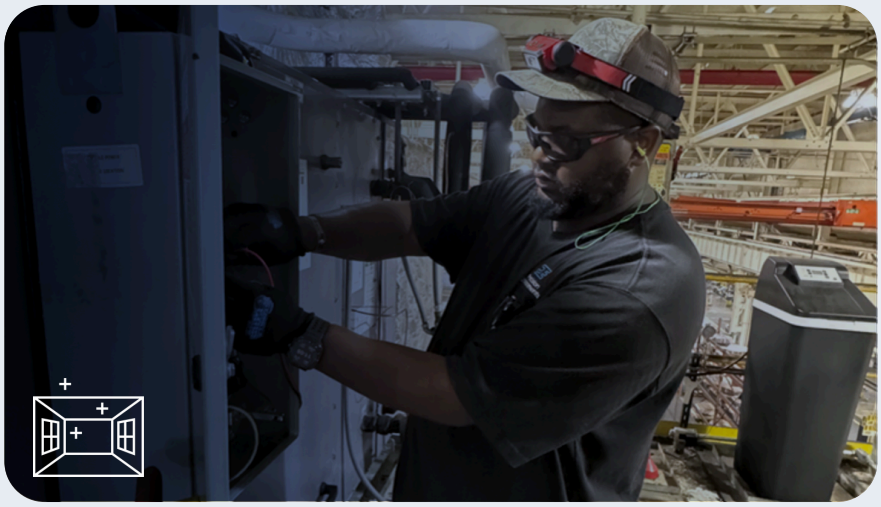
Precision Environments mobilized quickly, prioritizing containment and environmental control from the outset. The project team established site-specific containment measures, sourcing specialized materials locally to ensure proper isolation of work areas without delay. Existing cabinetry was methodically removed, relocated, and protected, allowing crews to access affected wall and floor surfaces while maintaining strict separation from adjacent operational spaces. Once containment was secured, wall surfaces were thoroughly cleaned using Spor-Klenz and prepared for refinishing, with continuous vacuuming and cleaning to prevent particulate migration.

During remediation, the team uncovered previously unknown conditions that significantly increased project complexity. Investigation revealed that original epoxy wall and floor coatings may not have been properly applied over primer or bonding agents, compromising adhesion and long-term performance. Rust was also discovered beneath floor coatings in one room, indicating deeper substrate concerns. Precision Environments immediately convened coordination meetings with the owner, clearly communicating risks, options, and recommended paths forward. While wall repairs proceeded without delay, the floor condition was isolated and scheduled for independent assessment allowing progress to continue without jeopardizing the broader schedule.
The team executed a disciplined restoration sequence, including masking, priming, epoxy wall coating application, and rough cleaning, followed by detailed finish work. Instrument penetrations were carefully caulked, door sweeps installed to restore pressure integrity, and a final clean completed to return spaces to operational readiness. Throughout the process, work was sequenced to minimize downtime, preserve adjacent cleanroom performance, and maintain compliance expectations.

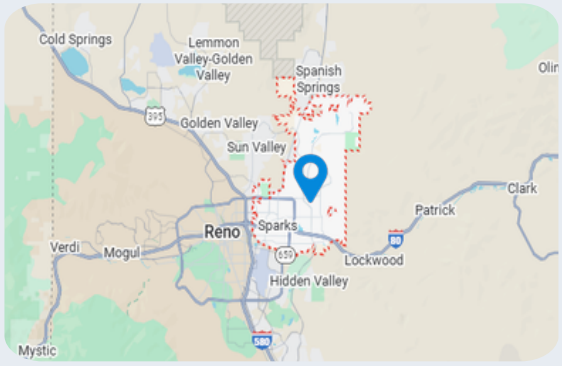
Despite evolving conditions and discoveries that could have stalled progress, Precision Environments maintained momentum through proactive field leadership, clear communication, and cleanroom-specific expertise. The project was completed without incident, restoring the facility's environmental integrity and enabling ImmunityBio to continue operations with confidence. The outcome reinforced the importance of specialized cleanroom knowledge not only to resolve visible issues, but to identify and mitigate hidden risks before they impact production, compliance, or long-term facility performance.

Panasonic

Cleanroom Restoration



At Panasonic's advanced manufacturing facility in Sparks, Nevada, precision cleanrooms play a critical role in ensuring product quality, worker safety, and regulatory compliance. When nearly half of the site's 39 air showers stopped functioning properly, the overall performance of the cleanroom and its ISO compliance were placed at serious risk. Recognizing the urgency of the situation and the potential impact on operations, Panasonic engaged Precision Environments to identify the root causes of the failures, restore system performance, and implement a sustainable solution to protect future operations.



Sparks
Nevada

187,630
Square Feet

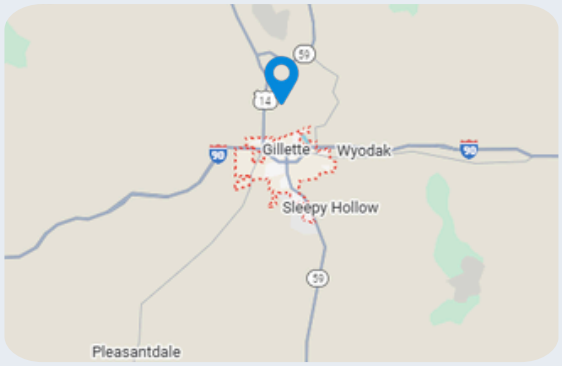
$61
Thousand

Precision Environments responded by rapidly mobilizing two on-site teams who conducted intensive diagnostic and repair efforts over the course of eleven days. The scope of work included comprehensive inspection and repair of all 39 air showers across multiple cleanroom zones, with a focus on restoring full system functionality. Critical components such as PLC controls, magnetic locks, and HMI systems were fully tested, rewired, and reprogrammed to ensure proper sequencing and reliable operation. In addition, new pre-filters, nozzles, and door interlocks were integrated to complete the system restoration. All corrective work was delivered within the original scope and budget, with no additional cost to Panasonic. Each repaired unit was then validated through complete environmental testing, including particle count, temperature, humidity, pressure, and lighting measurements, ultimately achieving ISO Class 8 certification across both winding phases. Following the successful restoration, Panasonic entered into a long-term partnership with Precision Environments for ongoing service and facility support. This included a preventive maintenance program to ensure consistent air shower performance, quarterly functional inspections of filters, blower motors, and control panels, spare parts management to reduce repair lead times, staff training and documentation development, and expanded diagnostic assessments across architectural, mechanical, and electrical systems at additional Panasonic sites. As a result of this collaboration, the Sparks facility achieved full system recovery, strengthened regulatory compliance, improved operational continuity, and reduced reliance on third-party vendors. The project not only restored critical cleanroom infrastructure but also transformed a facility-wide setback into a long-term partnership, reinforcing Precision Environments' reputation for combining engineering depth with responsive service delivery and demonstrating that precision is not just what they deliver, but how they operate.

HOSKINSON HEALTH

Cleanroom Remediation

Hoskinson Health, a sterile compounding pharmacy, contacted Precision Environments in November 2025 after growing concerns about a newly constructed cleanroom within their facility. The inquiry came through a paid search submission on our website, driven by internal alarm from an experienced staff member who recognized early signs that the space did not meet cleanroom standards. With an upcoming Board of Pharmacy inspection scheduled, Hoskinson Health sought a second opinion from a firm specializing exclusively in cleanroom environments.



Gillette
Wyoming

421
Sq Feet

350-$650
Thousand

7 & 8
Level

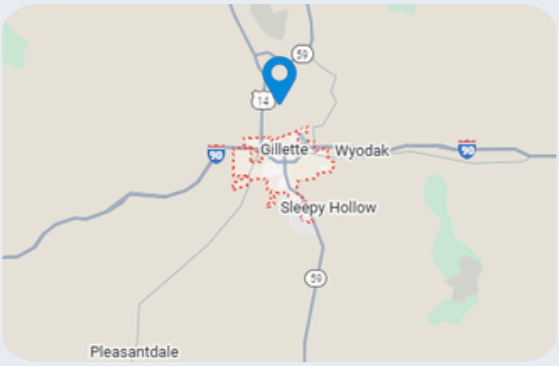
Initial photo reviews revealed multiple red flags: non-cleanable materials, improper pass-through design, missing door sweeps, failing caulking seams, and construction details inconsistent with ISO requirements. Although the cleanroom had been recently completed by a contractor claiming cleanroom experience, it became clear the space was not compliant. Shortly thereafter, the Board of Pharmacy approved the retail pharmacy area but refused to enter the cleanroom, effectively failing the space before formal inspection due to obvious deficiencies. Precision Environments proposed an on-site inspection to fully assess the conditions and risks. In December 2025, a comprehensive evaluation was performed, documenting deficiencies across three sterile compounding rooms two ISO 7 rooms (hazardous and non-hazardous) and an ISO 8 anteroom. The resulting remediation report outlined significant construction and design failures and provided a budgetary estimate of $350,000–$650,000 to fully remediate and bring the cleanroom into compliance. With production halted and regulatory approval unattainable in its current state, Hoskinson Health faced urgent operational and financial pressure. Precision Environments worked closely with ownership, leadership, and project stakeholders to outline a clear remediation path, balancing speed, compliance, and long-term performance.

Follow-up meetings were scheduled to align on scope, recovery strategy, and accelerated timelines, with the shared goal of restoring sterile compounding operations as quickly and correctly as possible. This project underscores the importance of engaging specialized cleanroom expertise early and demonstrates Precision Environments' role as a trusted partner in diagnosing failures, mitigating risk, and delivering compliant, functional cleanroom solutions when it matters most.

CONFIDENTIAL CLIENT

Cleanroom Remediation

A sterile compounding pharmacy, contacted Precision Environments in November 2025 after growing concerns about a newly constructed cleanroom within their facility driven by internal alarm from an experienced staff member who recognized early signs that the space did not meet cleanroom standards. With an upcoming Board of Pharmacy inspection scheduled, CONFIDENTIAL CLIENT sought a second opinion from a firm specializing exclusively in cleanroom environments.



Gillette

Wyoming

421

Sq Feet

350-$650

Thousand

7 & 8

Level

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STILL NEEDS WORK, DO NOT USE

MEDICAL DEVICE

Waters Medical Systems
Rochester, MN (NAME CHANGED)

Precision Environments®

Project Delivery

Waters Medical Systems is a medical device company that provides technologies for the preservation of donor organs intended for transplantation. Precision Cleanrooms designed and built a cGMP modular cleanroom suite for the manufacturing of products intended for the diagnosis and the treatment of patients with chronic organ diseases.

Project Size:
2,000 sq. ft.

ISO 6
(Class 1,000)

ISO 7
(Class 10,000)

BIOTECHNOLOGY

Hygeniks, Inc.
Dalton, GA WAS IN DIFFERENT LOCATION

Precision Environments®

Project Delivery

Hygeniks, Inc. is a leading supplier of process components and systems for hygienic processes. Precision Cleanrooms, Inc. designed and built a modular cleanroom suite for the assembly of sterile-single use technologies.

Project Size:
2,000 sq. ft.

ISO 7
(Class 10,000)

BIOTECHNOLOGY

Haemonetics Corp.
Draper, UT don't use... bad job

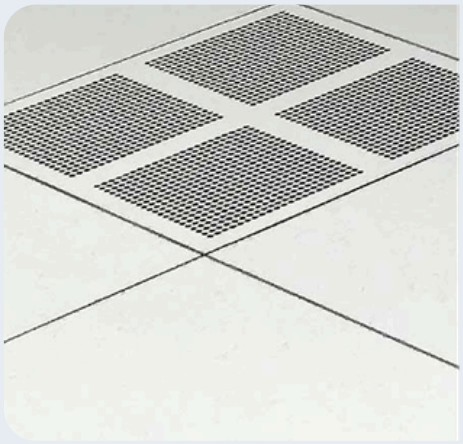
Precision Environments®

Project Delivery

Haemonetics Corporation is a global provider of blood and plasma supplies and services. This project was delivered as a lump-sum project. This cleanroom suite was built for a medical device molding/bottling manufacturing application, achieving ISO 7 (Class 10,000) in operations.

Project Size:
10,500 sq. ft.

ISO 7
(Class 10,000)



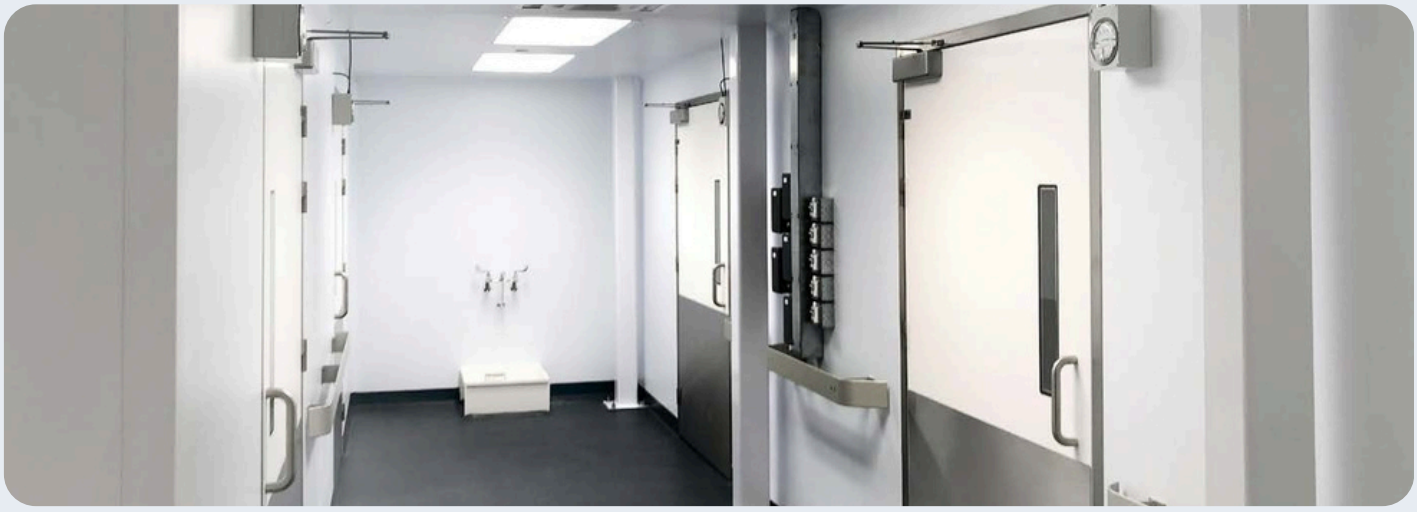
BIOPHARMACEUTICAL

Charles River Labs
Horsham, PA look at website

Precision Environments®

Project Delivery

Charles River Laboratories is a American pharmaceutical company specializing in a variety of preclinical and clinical laboratory, gene therapy and cell therapy services for the Pharmaceutical, Medical device and Biotechnology industries. Precision Cleanrooms, Inc. designed and built multiple modular cleanrooms for Charles River Labs. These cleanrooms were built for a biopharmaceutical manufacturing.



Project Size:
2,000 sq. ft.

ISO

ISO 7
(Class 10,000)

BIOTECHNOLOGY

NxEDGE, Inc.
Boise, ID ask Hish

Precision Environments®

Project Delivery

NxEdge, Inc. is a leading supplier of advanced foundry solutions to semiconductor OEMs and IDMs. NxEdge offers machining, surface modifications, coatings, cleanings, and analytics services. Precision Cleanrooms delivered this project as a lump sum, design/build project.

Project Size:
4,000 sq. ft.

ISO 7
(Class 10,000)

BIOPHARMACEUTICAL

Cancer Treatment Centers Tulsa, NM check if in OK

Precision Environments®

Project Delivery

Cancer Treatment Centers of America is a national, for-profit network of five comprehensive cancer care and research centers and three outpatient care centers, serving cancer patients throughout the United States.

Project Size:
1,500 sq. ft.

ISO 8
(Class 100,000)

MACOM Technology Solutions
Nashua, NH check INDUSTRY

Precision Environments®

Project Delivery

MACOM Technology Solutions is a developer and producer of radio, microwave, and millimeter wave semiconductor devices and components. Precision Cleanrooms designed and built this cleanroom suite to ISO 8 classification (Class 100,000) in operations. This fast-tracked project featured custom ceiling utility panels and the utilization of existing mechanical equipment.

Project Size:
12,000 sq. ft.

ISO

ISO 8
(Class 100,000)

PROFESSIONAL AFFILIATIONS

Professional Affiliations

ISPE

CEBA
Controlled Environment Building Association

IEST

CETA
Controlled Environment Testing Association

CNBT
CETA National Board of Testing

USP
U.S. Pharmacopeial Convention

PDA
Parenteral Drug Association

A2LA
ACCREDITED

NSF

International Organization for Standardization
ISO 17025
ACCREDITED LABORATORY

IEC

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