



Ortho-Island® System

- Terminal HEPA Filtration
- Pre-Filtered Recirc
- Fan System to Boost ACH
- Variable Frequency Drives
- OR Touch Screen Interface
- UL Control Cabinet

Cardio-Island® System

- Added Precision Temp Control
- Rapid Cooling & Heating

Engineering Assistance

- Customized to Application
- Concept to Implementation

Installation Supervision

the PROBLEM

Designing functional, code-compliant ultraclean ventilation systems that meet the need for rapid, yet stable temperature control within space constraints typical of most orthopedic, cardiovascular, and other high-level operating suites.

focusing on PATIENT OUTCOMES

Precision Air Products Co., founded in 1974, has the experience, the technology, and the reputation for providing operating room ventilation systems that work... no matter how complicated the ceiling or how tight the interstitial space! Our products and systems, acclaimed as best-in-class by major hospitals, architects, and engineering firms across the country, are installed in thousands of applications worldwide... many of them customized to meet unique demands required for orthopedic and cardiovascular surgeries.

precision RESULTS

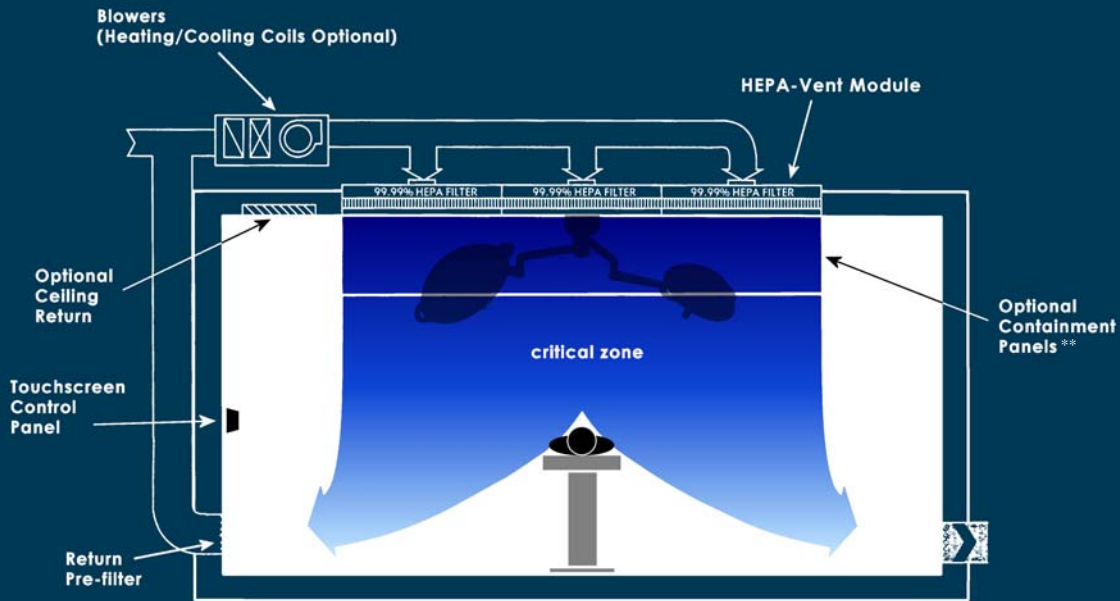
In the end, you have a functional, compliant, economical, and efficient ceiling system that looks as good in person as it did on paper... like it was meant to be there.



Contact Precision Air Products for professional design support...

With all the other things to worry about when considering ways of reducing surgical site infections, delivering clean and ultraclean air shouldn't be one of them. Before designing your next OR ventilation system, contact Precision Air Products for professional design support.

Ortho-Island® and Cardio-Island® SYSTEMS



precision AIRFLOW

The **Ortho-Island®** and **Cardio-Island®** Systems deliver ultraclean air to individual OR's by combining point-of-delivery HEPA filtration with increased dilution rates. With dedicated plenum booster fans, supply air is mixed with pre-filtered recirculated air before delivering laminar flow to the OR at 40-70 air changes per hour (ACH). With 99.99% HEPA filtration and precision laminar flow performance, potentially harmful particles are "washed" away from critical areas, then captured by system filters.

Each system is customized for ASHRAE Standard 170 compliance while accommodating the locations of light booms, med-gas columns, and other ceiling mounted apparatus. Applications for these systems include: Orthopedic, Cardiovascular, and other high-risk surgical procedures where harmful airborne particulate is especially dangerous.

precision TEMPERATURE CONTROL

The **Cardio-Island®** System expands on the capabilities of the **Ortho-Island®** System by allowing the user to not only monitor and control room temperature for comfort, but to rapidly alter room temperature in support of the unique needs of a surgical procedure. Applications include open-heart, neurological, and other OR's where high risk SSI procedures are conducted in an environment requiring fast, yet stable temperature changes.

The surgical suite is not only about the safety of the patient and the medical staff, it is also about the comfort of those performing delicate procedures. When you need accurate temperature control that is FAST, Precision Air's **Cardio-Island®** can deliver. Dedicated coils and corresponding temperature control valves are sized to cool the space 10° F in 10 minutes or heat the space 10° F in 5 minutes*. This system heats & cools independently of the main Air Handling Unit without placing challenging temperature control demands on air handlers serving multiple spaces.

* Heating & Cooling capabilities are dependent on room size.

** Optional containment panels used to prevent "short-circuiting" of supply air in unique applications.



an integrated SOLUTION

The complete Ortho-Island® System includes:

- Special laminar flow plenums with integral knife-edge
- Room-side accessible terminal HEPA filtration with gel-seal
- Re-circulating fans with variable frequency drives
- Fan cabinets
- MERV 8 pre-filters on recirc
- A pre-welded, heavy duty ceiling framing matrix
- Fill-in panels for trimming ceiling penetrations
- An intuitive OR touch-screen user interface
- A UL control cabinet (mounted remotely)

The complete Cardio-Island® System adds:

- Heating and cooling coils, coil cabinets, and drain pans
- Temperature sensors and control valves
- Temperature controls with automatic tuning algorithms

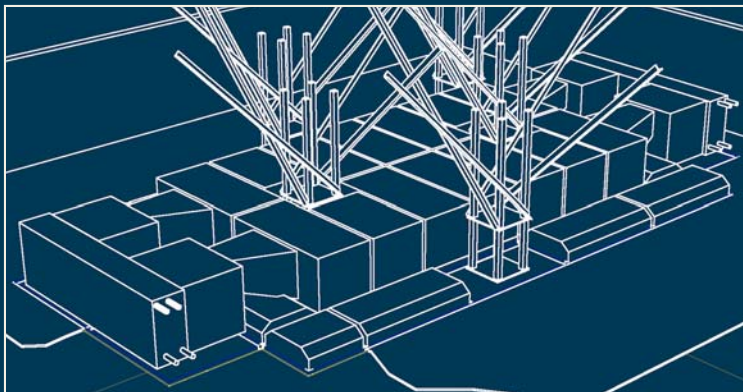
Each system includes no-fee engineering assistance, factory site support including installation supervision, start-up, check-out, and in-service training for facilities and surgical personnel.



compliant designs—ASHRAE STANDARD 170

OR's present unique challenges meeting the ASHRAE Standard 170 directive requiring a non-aspirating, unidirectional diffuser array covering at least 70% of a critical zone equal to the footprint of the operating table plus a 12" perimeter around the table.

The following illustration shows a Cardio-Island® System installed at a university in Southern California. The design met the ASHRAE 170 directive despite ceiling mounted equipment and accommodated a light ring.



Please visit our website at www.precisionairproducts.com for additional information, sample drawings, schematics, guide specifications for the Ortho-Island® and Cardio-Island® Systems.



point-of-delivery HEPA UNITS

Precision Air Products' systems include room-side assessable terminal HEPA filter assemblies with integral gel-seals rated at 99.99% effective against 0.3 μm particles. Our proven design produces unidirectional, non-aspirating flow profiles with unprecedented laminar airflow performance.

Robust construction minimizes the potential for flow bypassing the filter.

You get the flexibility of standard or custom diffuser sizes and design points to fit almost any healthcare application, economically.



a family of INTEGRATED SYSTEMS

Precision Air Products manufactures a comprehensive family of ceiling ventilation systems for operating rooms. For more information about our Lami-Air™, Lami-Air™ EQ, Lami-Air™ IP, Ortho-Island® and Cardio-Island®, please contact sales@precisionairproducts.com.



Meeting ASHRAE Standard 170 directives with booms, med-gas columns, equipment rails, and other ceiling mounted apparatus complicate OR ceiling ventilation system design. That's where we can lend a hand. With 1,000's of systems installed worldwide over the past 25 years, Precision Air Products has the experience and the expertise to help. No matter how complicated the ceiling!

Our engineering team can assist you in developing an economical solution that works within given space limitations while meeting ASHRAE Standard 170 directives. Even if space constraints leave no room for baseboard returns like that shown in the photo above. Contact us to learn how we can help with the heavy lifting.

- Concept drawings
- Reflected ceiling plan recommendations
- Schematics
- Mechanical calculations
- Component sizing
- Regulatory compliance review
- Guide specifications
- Custom applications
- Project management
- Installation supervision, certification, in-service training

**NO FEE
ENGINEERING
SUPPORT
PROVIDED**

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