Lami-Air™ EQ Integrated Ceiling SYSTEM

the PROBLEM
It isn’t easy designing effective, code-compliant operating room ventilation systems within the constraints presented by limited interstitial space, imaging equipment rails, light booms, med-gas columns, and other ceiling interferences.

focusing on PATIENT OUTCOMES
Precision Air Products, 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 the unique demands of even the most complex operating rooms. Our team of specialists work closely with you to help design ceiling systems in compliance with FGI Guidelines and ASHRAE operating room ventilation directives.

precision RESULTS
In the end, you have a compliant, economical, and functional 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 us at www.precisionairproducts.com for professional design support.
Superstructure

The superstructure, typically provided by others and shown here in green, is designed by the structural engineer based on load data provided by the imaging equipment manufacturer. It attaches to building steel and is provided by the structural contractor.

Ceiling-Level Unistrut®

Precision Air Products includes the ceiling-level Unistrut (shown in brown) color- and finish-matched to the diffusers, fill-in panels, and framing. Following spacing requirements detailed by the structural engineer, our ceiling-level strut attaches to the superstructure using standard Unistrut mounting hardware and provides the structural link between the equipment rails and superstructure.

Framing

Framing, shown here in blue, is shipped in pre-welded, tabbed subsections that are precisely designed to fit between the ceiling-level strut and equipment rails. The welded tabs, shown in the picture to the right, allow the framing to hang from the strut using standard Unistrut mounting hardware. Due to tight tolerances required of the superstructure, Precision Air Products’ Lami-Air EQ is self-leveling.

Equipment Rails

Equipment rails, provided by the imaging equipment manufacturer, are fastened to Precision Air Products’ ceiling level Unistrut. Our framing system is drawn tight against the surrounding monolithic ceiling.

Putting it all Together

With the addition of Precision Air Products’ diffusers, fill-in panels, light fixtures (by others), and Unistrut closure strips, the final Lami-Air EQ system is complete. Overall, an economical ceiling system custom designed to accommodate light booms, med gas columns, imaging equipment rails, and other ceiling mounted apparatus. All with ASHRAE Standard 170 compliance in mind!
an integrated SOLUTION

No matter how complicated the ceiling, Precision Air Products delivers integrated ceiling ventilation systems that meet or exceed ASHRAE Standard 170 performance standards while and look as good in person as they do on paper.

compliant designs — ASHRAE STANDARD 170

Meeting ASHRAE Standard 170 can be difficult, especially in imaging ORs. The Standard requires 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. It is almost impossible to meet the directive in these limited space applications using standard size diffusers!

The following example illustrates the challenge. The design on the left failed to meet two important ASHRAE 170 requirements: (1) it included less than 70% active diffuser coverage by the primary array, and (2) three diffusers were not room-side accessible for cleaning. Utilizing economical custom size diffusers, the design on the right meets the ASHRAE 170 directive while eliminating the conflict with the equipment rails to the right of the table. This design also eliminated a conflict with a boom at the bottom right of the room.
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 thousands of systems installed worldwide over the past 30 years, Precision Air Products has the experience and the expertise to help, no matter how complicated the ceiling.

Put our expertise to work for you. We can help you develop an economical solution that works within given space limitations while meeting ASHRAE Standard 170 directives. Ask about our Lami-Air EQ Integrated Ceiling Systems for Interventional Radiology, Cardio-catheterization Labs, Hybrid rooms, or any surgical space where ceiling mounted imaging equipment may be used.

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NO FEE ENGINEERING SUPPORT PROVIDED

- Concept drawings
- Reflected ceiling plan recommendations
- Schematics
- Mechanical calculations
- Component sizing
- Regulatory compliance review
- Guide specifications
- Custom applications
- Project management

clean & ultraclean air DELIVERED RIGHT

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Form # SLS003