price

ULTRASUITE®

Operating Room Diffuser System with Integrated LED Lighting

ULTRASUITE

Price Ultrasuite is a customizable air distribution and lighting solution specifically engineered for hospital operating rooms. High-output LED lighting combined with precision equalized laminar airflow eliminates the traditional “light ring”, opening valuable ceiling space for surgical equipment while optimizing contaminant removal from the surgical zone. Conforming to all ASHRAE 170 requirements, the patented (pat. 10,401,049) Ultrasuite is the perfect combination of performance, aesthetics and efficiency.

ETL Listed

PERFORMANCE.
AESTHETICS.
EFFICIENCY.

REDUCE CEILING CONGESTION

MAXIMIZE USABLE CEILING SPACE

As technologies advance, the amount of surgical equipment in operating rooms has rapidly increased. In an effort to conserve floor space, ceiling mounted equipment has become an essential design element of modern operating rooms. The Ultrasuite dramatically reduces the HVAC footprint in the ceiling by incorporating high-performance LED lighting directly within the laminar flow diffusers.

Ultrasuite integrated light and diffuser system (80 sq. ft.)

Traditional perimeter lighting and laminar diffuser system (168 sq. ft.)

IMPROVE VISIBILITY

As minimally invasive surgery becomes more prevalent, the need for high quality, flexible O.R. lighting solutions is more important than ever. Various lighting color temperatures, flexible dimming control and integrated green lighting allow the Ultrasuite to meet the unique requirements of modern healthcare facilities. Optional green lighting facilitates improved visibility of flat panel displays for the surgeon by enhancing images while also eliminating the glare that traditional overhead white lights cast on monitors.

High Efficiency
100+ lm/W LED

Dimmable with
up to 300 fc

90+ CRI

Integrated green lighting

ELEVATE LIGHTING QUALITY

REDUCE SHADOWS & GLARE

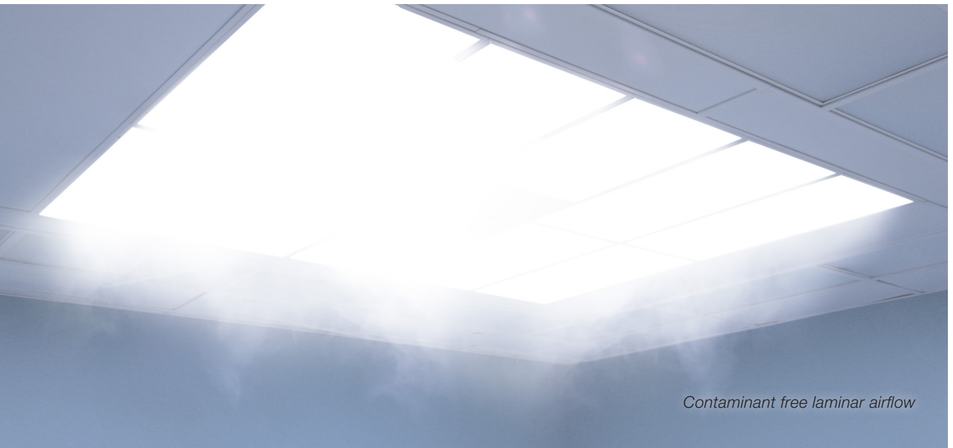
IMPROVE VISIBILITY

Lighting at the surgical table is optimized with the Ultrasuite positioned directly above the patient, reducing shadows within the surgical zone. Optimized baffle geometry eliminates the inconsistency in brightness typical of conventional light troffers for improved aesthetics and architectural appeal. Alternative systems utilize light grid channels between diffusers or light troffers surrounding the diffuser array that require high luminous intensity to achieve adequate lighting at the surgical table. The large light-emitting surface of the Ultrasuite provides even lighting with a low luminous intensity to improve ocular comfort and reduce glare on monitors and other reflective surfaces.

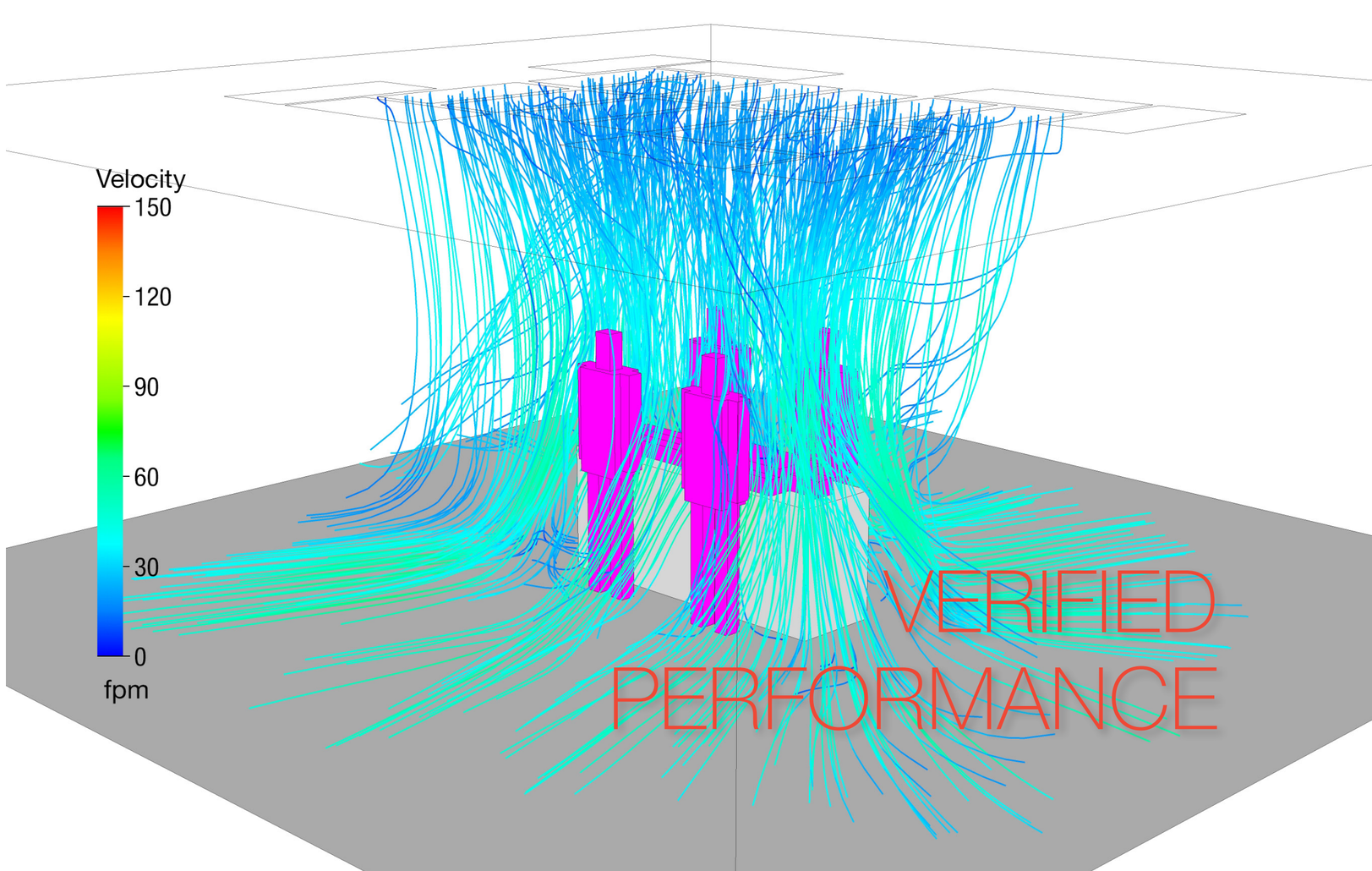
Reduced glare on operating room monitors

CFD OPTIMIZED DESIGN

A highly engineered dispersion baffle and translucent polymer perforated face ensure even distribution of airflow within each diffuser module, regardless of system layout or inlet location. Consistent with the requirements of ASHRAE 170, standard for the Ventilation of Health Care Facilities, the Ultrasuite provides uniform, unidirectional laminar airflow across the face of the diffuser, preventing entrainment of room air to ensure a contaminant free surgical zone.



Contaminant free laminar airflow



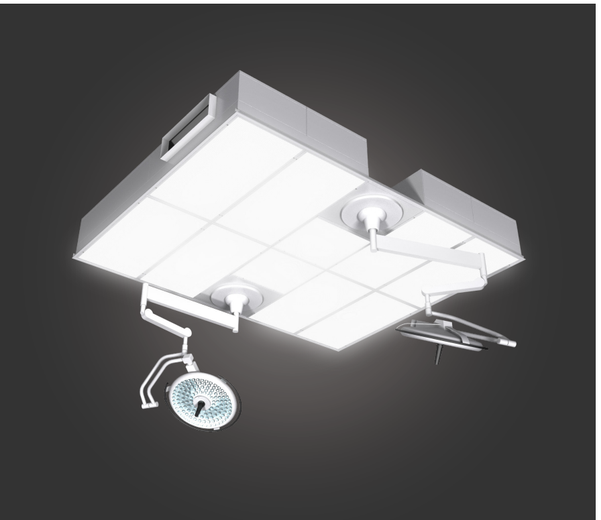
CUSTOMIZE EQUIPMENT LAYOUT

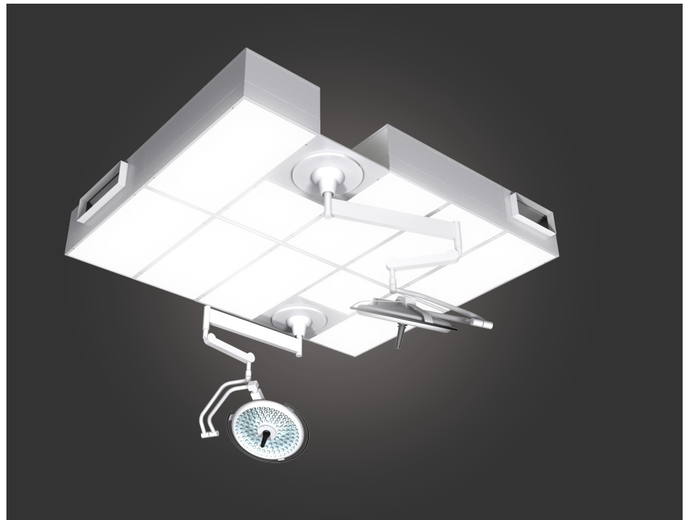
LEVERAGE SYSTEM FLEXIBILITY

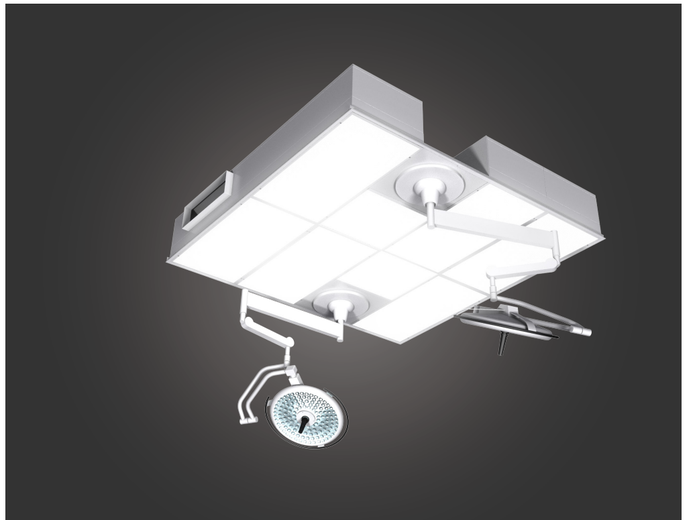
The Ultrasuite makes use of a single large diffuser design, consisting of a number of laminar flow diffusers, with a 12 in. low profile common plenum.

System layout is customizable with module sizes and configurations to suit any equipment layout. Inlets can be positioned on the side or top of the plenum to suit existing ductwork configurations or to optimize new construction.

Flexible layouts allow for coordination around boom layouts, and Unistrut integration for hybrid or imaging rooms.







Ultrasuite with Unistrut Integration

INTEGRATE SEAMLESSLY

INCORPORATE IMAGING EQUIPMENT

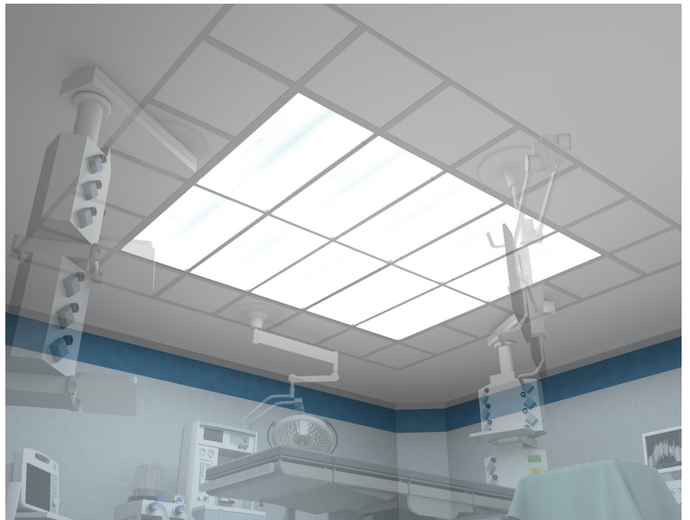
Seamless integration with ceiling level Unistrut® channels, used for mounting imaging equipment in hybrid operating rooms and catheterization labs, provides a hassle free connection and a clean aesthetic. A number of standard Ultrasuite system layouts for common brands and models of imaging equipment are readily available. However, the modular design of the Ultrasuite combined with customizable module size and configuration makes integration with any ceiling mounted equipment easy. Customized Ultrasuite layouts can be created to maximize active diffuser face area to meet ASHRAE 170 table coverage requirements while coordinating around imaging equipment and other ceiling mounted devices. Unistrut® channels and closure strips are available with matching powder coat finish for a fully integrated solution.

Custom layouts and sizing maximize active diffuser face area

SIMPLIFY INSTALLATION

With a low profile design, the Ultrasuite is easy to install in crowded ceiling spaces, making it easy to incorporate in both new construction and retrofit projects. The Ultrasuite ships in large, factory-assembled sections to minimize installation time, and the closed-cell gasketed joints ensure an effective seal between modules. Integrated balancing dampers and optional room-side replaceable HEPA filters at each module as well as factory installed and wired lighting with quick connect cables make set-up and commissioning simple and efficient. The flexible LED driver wiring allows for job specific wiring of normal and critical electrical circuits, as well as customized dimming and control solutions.

REDUCE INSTALLATION TIME



IMPROVE ACCESSIBILITY

STREAMLINE MAINTENANCE

The Ultrasuite meets all ASHRAE 170 requirements for cleanability with flush mounted, stainless steel hardware to secure the removable diffuser face. The integrated LED lighting is IP67 rated to effectively seal out dust and liquid disinfectants and the inside of the plenum is designed for ease of cleaning.

A control enclosure, located in a nearby mechanical room, houses the LED drivers to provide easy access for maintenance and replacement. This streamlines maintenance compared to traditional systems where drivers are located on top of each light fixture, and require access to the ceiling for maintenance. High quality LED lights have a long lifespan, rated at 80% original brightness for 60,000 hours. If required, individual LED strips are easy to replace with tool-free replacement and quick-connect wiring.

IP67 Sealed LED IP67

L80 > 60,000 hours L80

Lighting driver cabinet

CODE COMPLIANCE

NFPA 90A-2018 Installation of Air Conditioning and Ventilating Systems

ASHRAE 170-2017 Ventilation of Health Care Facilities

LISTINGS

UL1598 Air-Handling Luminaires

UL 2043 Fire Test for Heat and Visible Smoke Release for Discrete Products and Their Accessories Installed in Air-Handling Spaces

UL2108 Low Voltage Lighting System

UL8750 Light Emitting Diode (LED) Equipment for Use in Lighting Products

UL1310 Class 2 Power Units

UL94 Flammability of Plastic Materials for Parts in Devices and Appliances

IP67 rated Ingress Protection Against Dust and Liquids

OSP-0627-10 OSHPD Special Seismic Certification Preapproval (Optional)

NFPA INTERNATIONAL ASHRAE UL IP OSHPD

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ULTRASUITE®

Case Study Library

EAGLE ROCK AMBULATORY SURGICAL CENTER

Location: **Idaho Falls, ID**

Architect/Engineer: **Christopher Kidd and Associates, LLC**

Contractor: **Lewis Corporation**

Price Representative: **Midgley-Huber, Inc. & Air Flow, Inc.**

Photography by Brown Photography

WEST PENN HOSPITAL, ALLEGHENY HEALTH NETWORK

Location: **Pittsburgh, PA**

Engineer: **H.F. Lenz Company, Pittsburgh**

Architect: **DesignGroup, Pittsburgh**

Contractor: **Ruthrauff | Sauer, LLC**

Price Representative: **Pittsburgh Air Systems / Air Industrial Inc.**

Photography by Jesse Riesmeyer Photography

MISSION HEALTH SYSTEM, MEMORIAL CAMPUS

Location: **Asheville, NC**

Architect: **EwingCole, Inc. | Raleigh, NC**

Engineer: **RMF Engineering, Inc. | Charolette, NC**

Contractor: **ShoffnerKalthoff MES, Inc.**

Price Representative: **Hoffman & Hoffman, Inc.**

Photography by Steven Freedman Photography

LAKEWOOD RANCH MEDICAL CENTER

Location: **Lakewood Ranch, FL**

Architect: **Stephen Boruff, AIA Architects + Planners, Inc.**

Engineer: **Johnson, Levinson, Ragan, Davila, Inc.**

Contractor: **United Mechanical, Inc.**

Price Representative: **Tom Barrow Co.**

Photography by Caronchi Photography

NCH HEALTHCARE BONITA

Location: **Bonita Springs, FL**

Architect: **Studio Plus, LLC**

Engineer: **Affiliated Engineers SE, Inc.**

Contractor: **B&I Contractors, Inc.**

Price Representative: **Tom Barrow Co.**

Photography by Caronchi Photography

OVERLAKE MEDICAL CENTER

Location: **Bellevue, WA**

Architect: **TGB Architects**

Engineer: **Sider & Byers Associates, Inc.**

Contractor: **Ferris-Turney General Contractors**

Price Representative: **ACI Mechanical & HVAC Sales**

Photography by Barta Pictures

MAINE MEDICAL CENTER

Location: **Portland, ME**

Architect: **Perkins & Will, Inc.**

Engineer: **AKF Group LLC**

Contractor: **Johnson & Jordan, Inc.**

Price Representative: **Buckley Associates, Inc.**

Photography by Elegance of Maine Photography

ST. MICHAEL'S HOSPITAL

Location: **Toronto, ON**

Architect: **Parkin Architects Ltd.**

Engineer: **H.H. Angus & Associates Ltd.**

Contractor: **Modern Niagara | Toronto, ON**

Price Representative: **E.H. Price - Toronto**

Photography by NAV Photography

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Pat. 10,401,049.