

ULTRASUITE®

Cleveland Clinic – Lutheran Hospital

Location: Cleveland, OH

Engineer: Karpinski Engineering Inc.

Architect: Bostwick Design Partnership

Mechanical Contractor: Imperial Heating & Cooling Inc.

Price Representative: Air Control Products, Inc.

Lutheran Hospital in Cleveland, Ohio is a 203-bed acute-care facility with many specialties including orthopedics, behavioral health, and chronic wound care. Subsumed by the Cleveland Clinic in 1997, Lutheran Hospital has been an integral part of their health system since.

Late in 2019, Lutheran Hospital began the process of renovating existing operating rooms within the facility. A diverse project team including architects, engineers, contractors, and an array of hospital staff as well as the surgical team developed a design for a new, state-of-the-art surgical space.

"I think because we could be hands-on with the design process, it is probably the best operating room we have here in terms of functionality and usability."

– Surgery Team Member, Cleveland Clinic

One of the biggest challenges facing this project was downtime, as all OR spaces must be utilized to limit disruption and maintain operational efficiency. The congested ceiling plenum made it difficult to meet ventilation requirements, and as in all surgical projects, ceiling space is limited with lighting, diffusers, and medical equipment vying for space above the patient. The project team was looking for a solution that could alleviate both space complications and reduce downtime without having to make design concessions.

In October of 2019, Air Control Products hosted the Price Industries' UltraTour, a mobile showroom featuring the Price Ultrasuite - a customizable air distribution, and lighting system 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 and conforming to ASHRAE 170 code requirements.

"This is a thousand times better than the other systems. The typical design has light dead zones in the middle, but not this Ultrasuite."

– Surgery Team Member, Cleveland Clinic

Members of the design team saw Ultrasuite firsthand during UltraTour and realized how this innovative product would solve many of their design problems through the use of a common plenum, room-side replaceable HEPA filtration, and integrated LED lighting. The team embraced this new technology and ultimately selected Ultrasuite for their project because of the reduced coordination efforts, short installation time, and reduced equipment footprint.

Prior to installation Air Control Products hosted a pre-work webinar with Imperial Heating and Cooling to provide an overview of the installation procedure to streamline the process and minimize OR downtime. The Ultrasuite shipped in large, factory assembled and pre-wired sections, and was installed in just two days.

After experiencing the Ultrasuite for the first time, surgical team members had overwhelmingly positive feedback and were highly satisfied with their new, state-of-the-art operating room.

"Everyone loves the operating room, and it gives us the best utilization and functionality that it could. The lighting in the room is phenomenal and is probably one of the most visualized ORs we have. The ability to control the brightness, the amount of lights, and the fact that they are LEDs gives us a superior vision and operating field to work with."

– Surgery Team Member, Cleveland Clinic

