

OPERATING THEATRES

Post-operative infection is strongly influenced by the suitability and quality of air within an operating theatre. HTM 03-01 provides guidance on the design and management of heating and specialised ventilation systems in health sector buildings - it states that if specialised ventilation systems in healthcare premises do not achieve and maintain the required standards, there is an increased risk to patient health.

All specialised ventilation systems serving critical areas should be inspected quarterly, with a verification of performance measured annually to ensure the system is fit for purpose.



Operating Theatre Service

For your annual verification we recommend the following performance and preventative maintenance programmes:

Ultra-Clean Ventilated Canopy (UCV) Theatres

- ▶ Visual theatre and Air Handling Unit (AHU) inspection
- ▶ Measure supply and extract airflow rates
- ▶ Measure dimensions and calculate air change rates
- ▶ Particle counting for air quality checks
- ▶ In situ HEPA filter integrity testing
- ▶ Measure airflow velocities under UCV canopy
- ▶ Measure room pressure differentials
- ▶ Record room temperature and humidity
- ▶ Measure room noise and light levels
- ▶ Check mechanical, electrical and control functions
- ▶ Microbiological air sampling (optional)
- ▶ Re-entrainment test (optional)



Conventional Theatres

- ▶ Visual theatre and AHU inspection
- ▶ Measure supply and extract airflow rates
- ▶ Measure dimensions and calculate air change rates
- ▶ Particle counting for air quality checks
- ▶ Measure room pressure differentials
- ▶ Record room temperature and humidity
- ▶ Measure room noise and light levels
- ▶ Check control functions
- ▶ Microbiological air sampling (optional)

For UCV theatres we recommend a bi-annual service to ensure the canopy is operating efficiently, including the following performance tests:

- ▶ Visual Theatre and Air Handling Unit (AHU) inspection
- ▶ Check mechanical, electrical and control functions
- ▶ Record room temperature and humidity
- ▶ Measure room noise and light levels
- ▶ Replace pre-filters
- ▶ Measure airflow velocities under UCV canopy (grid velocity profiles at 1m & 2m from FFL)

In addition to operating theatres, Crowthorne can provide an annual verification for other critical areas, such as:

- ▶ Mortuaries
- ▶ Pharmacies
- ▶ Sterile services
- ▶ Isolation rooms

All inspection and performance testing of operating theatres should be undertaken by trained, experienced and qualified engineers. Crowthorne have been working in operating theatres and cleanroom environments for many years and understand the importance of accuracy and consistency when providing these services within such critical environments.

Contact your
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