

Clean, fresh air in hospitals is the key to a safe and healthy environment for staff and patients. It is therefore critical to ensure hospital ventilation systems are properly maintained and in efficient working order to guarantee the well-being of building occupants and to meet the legal requirements of the Workplace (Health, Safety and Welfare) Regulations 1992.

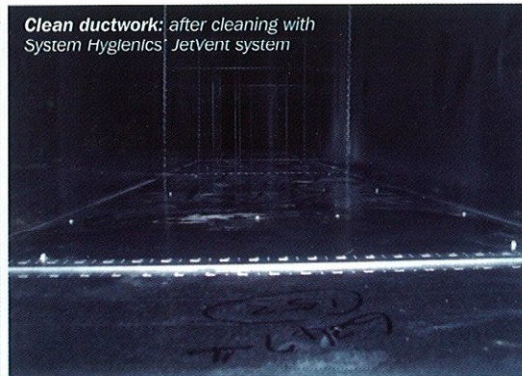
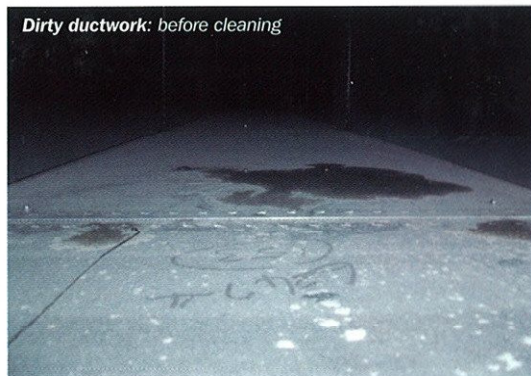
Although hidden, ductwork surfaces must be cleaned regularly to prevent the build-up of dust and dirt - composed of a mixture of organic compounds, including a high proportion of skin and hair. If left, this mix becomes a valuable nutrient for harmful microorganisms such as MRSA and *Clostridium difficile*, which can become airborne and infect patients.

In a recent survey at a major hospital in the East of England, System Hygienics undertook pre and post cleaning analysis of samples taken from the ventilation system throughout the building, including open wards and

isolation rooms. Of the 14 samples, evidence of MRSA microorganism contamination was found in nine areas of the ventilation system. System Hygienics then cleaned the ventilation ductwork using its JetVent system. Subsequent analysis of samples taken from the same locations within the hospital proved negative for MRSA bacteria.

Harmful deposits can accumulate in a number of areas within an air supply system including the air-handling unit (AHU), volume control dampers and turning vanes. In addition to the threat posed to hospital staff and patients, these deposits can impair the systems' performance, leading to uncomfortable humidity levels and driving up running costs.

Although it is tempting to cut back on maintenance budgets in a recession, hospitals must focus on the long-term benefits of maintaining clean ductwork. Increasing maintenance spend in the short-term will extend the working-life of equipment, vastly improve indoor air quality, and prevent the build-up of airborne contaminants, which could otherwise call for far greater expenditure when



Something in the air?

According to assessments carried out in April by the Care Quality Commission, 21 NHS trusts are potentially putting hospital staff and patients at risk because they are not meeting the required standards for infection control. If they fail to address this issue, these trusts face tough measures such as fines and closure of services.

Darren Ling, sales director of System Hygienics, one of the UK's leading air hygiene specialists, explains how regular cleaning of hospital ventilation systems can help control airborne contamination and combat the spread of MRSA and other harmful HCAIs

emergency measures are required.

Regular safety inspections

The Department of Health's guidelines on the operational management and performance verification of specialised ventilation systems (Health Technical Memorandum 03-01: Specialised Ventilation for Healthcare Premises, published December 2007) offers dedicated advice and guidance on the legal requirements, installation and maintenance of ventilation systems for all types of healthcare premises.

The guidelines advise of the increased health risks to patients should healthcare premises fail to properly maintain their ventilation systems and recommend that all systems should be subject to, at least, a simple visual inspection annually. For systems serving critical care, even tighter safety measures are recommended, including quarterly inspections and an annual performance analysis.

To conform with the minimum requirements, it is a healthcare premise's duty to demand an annual visual inspection of all ventilation systems. The inspection will establish that the system is still required; the AHU conforms to necessary safety standards; the fire containment has not been breached; the general condition of the system is adequate for purpose, and the system is operating in a satisfactory manner.

Without regular inspections, healthcare premises are opening themselves up to the threat of infections and potentially putting building occupants at risk.

Eradicating MRSA bacteria in ventilation systems

System Hygienics can help healthcare professionals identify and eradicate MRSA bacteria in hospital ventilation systems and help minimise the risk of HCAI.

Following System Hygienics' most recent finding of MRSA microorganism contamination in the ventilation system of an East of England hospital, a spokesperson for the hospital commented: "The staff were very impressed with the professionalism and efficiency of the System Hygienics team. All works were completed on time and without

any unplanned inconvenience to our patients. I would have no hesitation in recommending System Hygienics to any other hospital."

System Hygienics JetVent system cleans the ductwork with negligible disruption to the day-to-day running of the building. Minimal access to ductwork is required, as up to 50 metres can be reached from one point, unlike brush systems that require many access doors and increase the likelihood of hospital disturbance. There is no leakage of contaminants, and cleaning is achieved quickly and efficiently. The cleaning process ensures hospitals meet the guidelines specified in the HTM 03-01. Additionally, a photographic report incorporating before and after photos and a certificate of cleanliness is provided to offer hospitals peace of mind.

With over 15 years of working with NHS and private hospitals, System Hygienics has established a reputation for reliability and professionalism. The company is a member of the Hotchkiss Group, which provides specialist services in ductwork contracting, fire-resistant duct systems, ventilation products and accessories and fire-resistant and acoustic ductwork coating.

For further information, call System Hygienics on 01323 481170, e-mail info@systemhygienics.co.uk or visit www.systemhygienics.co.uk

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