

Clean, inside and out

ACR Today talks to Gary Nicholls (GN) managing director of Swiftclean about the commercial imperatives of keeping air conditioning systems clean.

ACR Today: Given that ductwork is largely hidden from view, why is cleanliness important?

GN: The fact that ductwork is hidden from view is a big part of the problem – out of sight out of mind! Ductwork is the main artery of a building's ventilation system and, as such, has the potential to spread any airborne bacteria from one area to another if it is not properly maintained. Office floors are often cleaned on a daily basis, but the ductwork sometimes waits for years or even decades – you can imagine how the occupants would feel about it if their floor was not cleaned for years and how the dirt would accumulate.

A big part of the problem is lack of access to the ductwork for cleaning. Only about five per cent of both the supply and extract systems fitted in the past 10 years have adequate access doors, this limits both inspection and cleaning. It is a safe bet that if access is difficult, or in many cases impossible, the system has never been properly cleaned. Retro-fitting of access doors is the solution

ACR Today: What are the health implications?

GN: Micro-organisms responsible for infections will thrive in dirty ductwork. The dust in ventilation systems is often the main cause of Sick Building Syndrome and will exacerbate the suffering of the growing numbers of people with asthma and other respiratory complaints.

For example, the accumulation of deposits in bathroom and toilet extract ducting, including paper dust from toilet paper, talcum powder, human skin flakes and fibres/lint from towels and freshly washed clothing, all create an unhealthy cocktail.

Our maintenance engineers will thoroughly clean the system and make sure the airflow is more evenly spread throughout the building. This reduces the chance of condensation building up leading to smells and toxic mould along with many of the respiratory health problems associated with poor air quality.

ACR Today: How effective are air filters?

GN: Air filters can be very effective, but only if they are not regularly replaced, they will quickly become ineffective and may block up with dust. This could lead to them eventually blowing out as the pressure builds up. Grease extract filters will become a serious fire hazard if not cleaned at least weekly.

ACR Today: Given the latest standards for air tight buildings, is mechanical ventilation on the increase?

GN: More buildings are being sealed and pressure tested to comply with Part L of the Building Regulations, but this creates a potential conflict with Part F of the regulations calling for improved indoor air quality for occupants. Designers should consider heat recovery with each mechanical ventilation system to satisfy both energy efficiency and fresh air demands.

ACR Today: Is legionella still a problem in the UK?

GN: Yes, very much so. The recent prosecutions concerning outbreaks at the Bulmers cider plant in Hereford and at a leisure centre in Cumbria showed how seriously this issue is being treated. The new Corporate Manslaughter Act will also make it easier for prosecutors to secure convictions.

According to the Health Protection Agency, cooling towers and evaporators are the most common source of Legionnaires' outbreaks in the UK with 31 outbreaks leading to 57 deaths between 1980 and 2003. Hot water systems accounted for 24 outbreaks and 19 deaths in the same period, but tellingly 57 outbreaks leading to 25 deaths were from unknown sources.

ACR Today: Doesn't chemical dosing remove any risk of legionella developing?

GN: If carried out in a controlled way chemical dosing can be very effective, but it will not totally eliminate the risk. You must continue to check the levels by taking water samples and looking around the system for potential hazardous areas such as dead legs, etc.

We sometimes use an automatic pump system that will continue to top up chemical levels when required if there is a persistent legionella problem as can often be the case in older buildings.

ACR Today: So how is business for a specialised contractor like Swiftclean?

GN: Good! We have just revised our growth targets upwards despite the growing recession in the general economy. We have experienced a 25% increase in turnover so far during 2008, which is in line with our five-year growth strategy.



There is generally better awareness among building owners and operators of fire and health risks from building services, which means more organisations are planning their air and water hygiene programmes. Insurance companies are also withholding cover in some cases where buildings do not meet statutory health and safety levels or have not carried out fire risk assessments in line with the new Regulatory Reform (Fire safety) Order that came into force two years ago.

We are heavily involved in carrying out risk assessments, putting planned maintenance strategies in place and carrying out necessary remedial works to help end users comply with their statutory obligations.

ACR Today: When do you see the UK construction industry coming out of this recession?

GN: I don't think it is all doom and gloom. Things will certainly be tough for the next two years and enquiries from commercial construction sites are definitely falling, but there is a big opportunity in refurbishment and there are other aspects like hygiene maintenance and upgrading where business will continue to grow.

We must not fall into the trap of downsizing our businesses because of a short-term squeeze. The market will recover and if we lose expertise from the industry we will find it very hard to replace.

ACR Today: Thank you, Gary Nicholls.