

Doing the decent thing

Ventilation hygiene specialists boldly go where few others would dare in a bid to get apartment blocks up to a decent standard, says Gary Nicholls, Managing Director of building services hygiene specialist Swiftclean.

Ventilation hygiene remains a resilient market despite the unprecedented difficulties being experienced in other parts of the UK economy. The combination of improved awareness of health issues related to indoor air quality and a long-term programme of public sector funding means the services of specialist hygiene firms are still in great demand.

The Decent Homes initiative, designed to bring UK housing up to an acceptable standard, is still on track and the funding set aside for the necessary remedial work is ring fenced. However, it tends to come in fits and starts and there is still plenty to do if we are to meet government targets.

Blocks of flats are a particular challenge. Swiftclean has been tackling some major ventilation hygiene projects under the Decent Homes programme in blocks containing between 40 and 200 separate apartments. Many people who have lived in these flats for years tell us the ventilation has never worked properly. The problem of poor ventilation is, we find, normally caused by an accumulation of deposits that typically occur in bathroom and toilet extraction ducting, deposits will be a combination of paper dust from toilet paper tearing, talcum powder, human skin flakes and fibres/lint from towels and freshly washed clothing. Such deposits are not an overnight build up they will have formed over a number of years causing the relatively small air passages of the extraction systems to become ever more restricted until in severe cases they will completely block.

Many of the kitchens and bathrooms have no windows so they have no means of natural ventilation at all. This has led to serious problems with condensation and toxic mould build-up. Often only the flats near the top of the block have any kind of airflow at all because they are closest to the roof-mounted intake fans.

Councils often don't know where to begin, as the problems are so involved, so we recommend starting with a survey to investigate the current status. This involves putting CCTV cameras down the risers and through the ductwork to see what is

going on. Many systems are completely blocked – often with things you wouldn't really want to see. We don't find too many dead bodies, but there are plenty of other horrors.

Strangely pirate radio stations have caused us a number of headaches as several of them use the ductwork as a means of broadcasting and if they are in a hurry to hide their tracks they often dump all their equipment down the risers or dismantle parts of the system.

Having established what the problem is, we then set about replacing ventilation fans, cleaning the ductwork, fitting new grilles and providing an element of fire protection. In many cases, we discover that originally there were no dampers fitted and these are very important in preventing the spread of smoke in the event of a fire. We also make sure the system is better balanced so airflow is more evenly spread throughout the building. This ensures there is not the build-up of condensation leading to smells and toxic mould along with many of the respiratory health problems associated with poor air quality.

By the time the team has finished there should be a significant overall improvement on the original system including providing a safety element that was never there before. We then recommend that the local authority puts a planned, preventative maintenance programme in place to keep the ductwork clean and the grilles free of contamination.

The lack of access doors is a widespread problem in old ventilation systems. Once we have used the CCTV inspection, we will put access doors in ourselves to get at the blockages or dirty sections of ductwork. These should be fitted at typical intervals of three metre centres on the horizontal ducting. It doesn't take a genius to work out that a system has probably never been cleaned if there were no access panels in place.

The fire risk caused by grease in kitchen extract systems is something that has to be tackled urgently. That is assuming there are any extracts in the first place! You can easily spot the evidence of grease build-up inside the extract system from deposits on the canopy filters or discharge grilles. If the signs are that obvious, the system already presents a major fire hazard.

Other key components of ventilation in supply systems that are particularly prone to rapid build up of harmful airborne deposits are: Air intake duct/plenums; air handling units/plant; heat transfer coils - particularly wet coils; humidifiers and surrounds; fan coil units; fire dampers; internal insulation; floor/ceiling plenums; induction units; and filters.

A thorough approach is absolutely essential, but some firms will issue cleaning certificates even if they have only carried out a partial clean. This is not good practice. End users should ensure they are using competent hygiene maintenance firms to carry out this vital work.

The Heating and Ventilating Contractors' Association (HVCA) provides a Guide to Good Practice (TR/19) 'Internal Cleanliness of Ventilation Systems'. This gives comprehensive information about how extract systems should be cleaned and how to set up a planned hygiene maintenance programme.

This should be used as the basis for any remedial and on-going hygiene programme to ensure ductwork provides an acceptable level of ventilation and removes both health and fire risks. It is hard to justify describing any residential accommodation as "decent" without this basic service being in place.

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