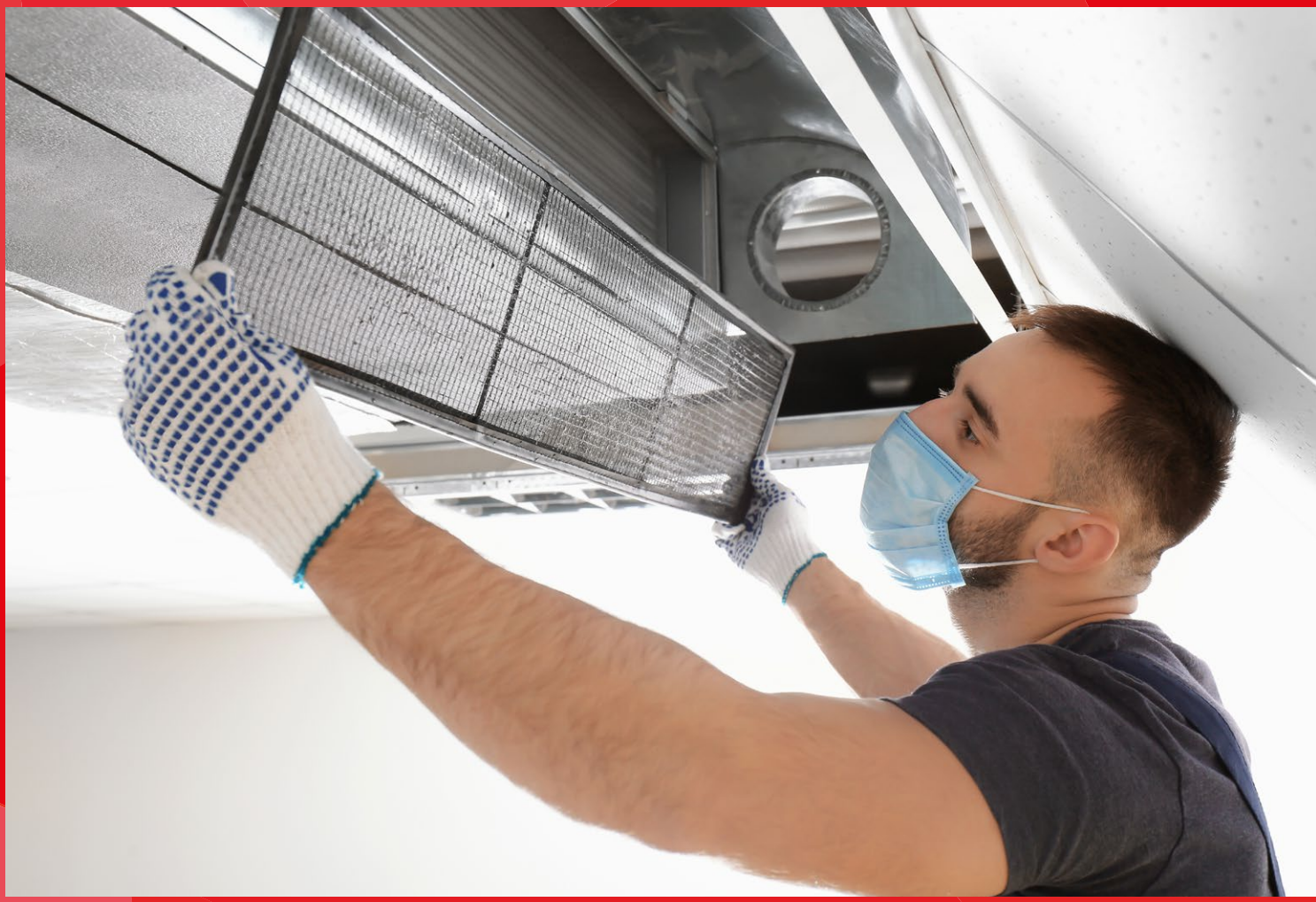
JASUN

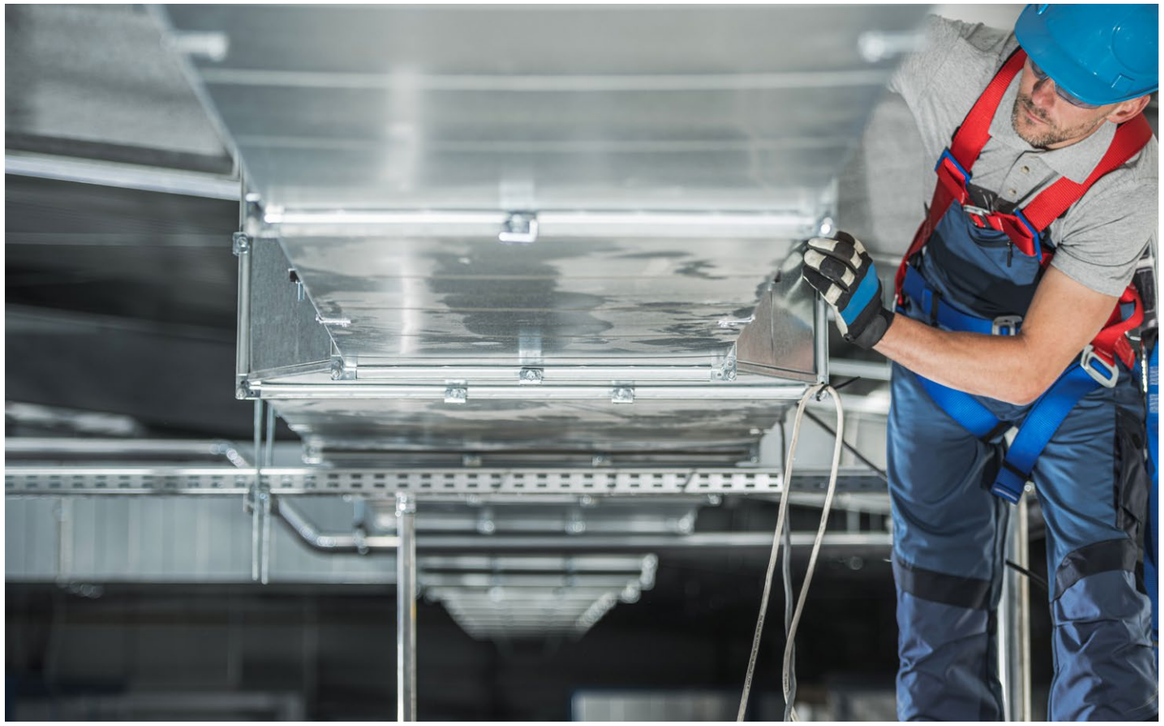
VENTILATION HYGIENE



JASUN

Manufacturing Air Filters in the UK for over 40 Years. As part of our determination to be at the forefront of our industry, we seek confirmation and validation of our working practices and quality standards from all relevant accreditation bodies and agencies.

We aim to provide our customers with the ‘peace of mind’ that they are complying with all statutory regulations in: protecting the environment; caring for the health and safety of employees and the communities in which we live.



What you should know

MONITORING, CLEANING AND DISINFECTION

The Management of Health & Safety at Work Regulations 1999 impose a duty on every employer to make a suitable and sufficient assessment of:

the risks to the health and safety of his employees to which they are exposed whilst they are at work, and the risks to the health and safety of persons not in his employment arising out of or in connection with the conduct by him of his undertaking.

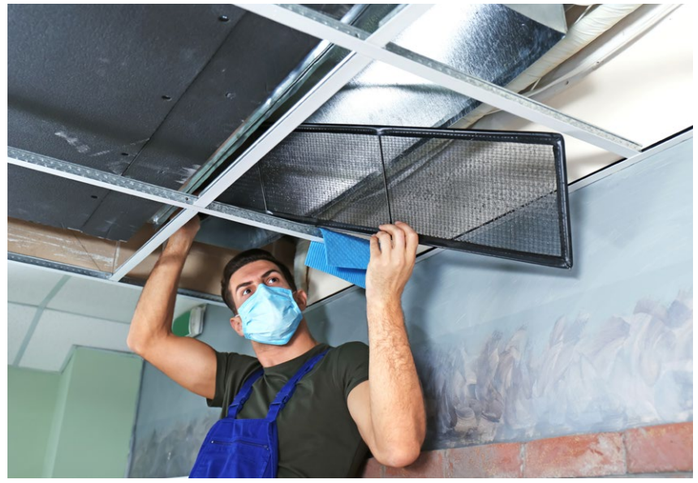
Regulation 5 of the Workplace (Health, Safety and Welfare) Regulations 1992 imposes a duty to clean mechanical ventilation systems “as appropriate”. Regulation 6 states, “effective and suitable provision shall be made to ensure that every enclosed workplace is ventilated by a sufficient quantity of fresh or purified air”.

ACOP6 (52) relating to Regulation 6 of the Workplace (Health, Safety and Welfare) Regulations, 1992 states that “mechanical ventilation systems (including air conditioning systems) should be regularly and properly cleaned, tested and maintained to ensure that they are kept clean and free from anything which may contaminate the air”.
British Standard BS EN 15780 provides benchmarks to define cleanliness and dirtiness.

Monitoring the condition of your ventilation systems

As employers we are all conscious of wellbeing in the workplace, it is imperative to maintain a good quality standard of Indoor Air Quality (IAQ).

Breathing in air that is contaminated has the potential to cause serious risks to health and wellbeing to employees and those people not directly employed by your business.



With Coronavirus (SARS-CoV-2) effects on the home and workplace we are all too aware of the importance of ensuring we have the correct level of Indoor Air Quality. There have been improvements in ductwork disinfection fogging processes in recent times, however in order to have full effect of the disinfection process the ventilation ductwork should be cleaned before applying any disinfectant. This is because the moisture from the fogging process will lay on top of any contamination within the ventilation ductwork and will not penetrate through, also the reaction of moisture of contamination (dust) with start to cause clogging.

It is beneficial not only for the owners of a building but the occupants too, to ensure that the standard of cleanliness of the ventilation systems are maintained to a reasonable and acceptable standard.

Providing adequate monitoring will enable a systematic and methodical approach to maintaining the correct levels of cleanliness in a ventilation system.

We carry out Ventilation Hygiene Risk Assessment of the internal surfaces of the Supply & Extract Ventilation Systems assessing all associated AHU components from the fresh air intake through to a selection of the ductwork & terminal devices from existing access.

This will include Preferred Vacuum Testing in accordance with BESA TR/19 Guidance Section 5 System Risk Assessment Inspection/Monitoring/Testing & BS EN15780:2011.

BESA TR/19 Section 5 Table 6 details the recommended inspection & monitoring intervals relevant to system components in accordance with the system quality cleanliness classification specified in BS EN 15780.

The above also takes into consideration the requirements of HTM 03-01.

Preferred Vacuum Testing

This method requires on site sample collection and subsequent off site laboratory analysis. It determines the mean deposit weight in grams per m² and is suitable for circular, flat oval and rectangular duct types. This method is recommended by BS EN 15780 and applies to three cleanliness quality classes (for ventilation systems).

The PVT test results are compared against TR/19 Table 7 Acceptable Contamination Levels in Existing Ductwork relevant to the stated system quality cleanliness.

BS EN 15780 has a requirement to categorise each system type as low, medium or high class depending on the areas being served. These levels of cleanliness quality class (for ventilation systems) should be generally applied as follows:

SQC	Typical Examples
Low	Rooms with only intermittent occupancy e.g. storage rooms.
Medium	Offices, hotels, restaurants, schools, theatres, residential homes, shopping areas, exhibition buildings, sport buildings, general areas in hospitals, general working areas in industries.
High	Laboratories, treatment areas in hospitals, high quality offices.

Table 6 recommended minimum regular inspection/ monitoring intervals (in months) according to system (cleanliness) quality class ("SQC")

	Inspection and Testing Intervals (months)				
SQC	**AHU**	**Filters**	**Wet Areas**	**Ducts**	**Terminals**
Low	24	12	12	48	48
24	1	12	6	24	24
High	12	6	6	12	12

Notes to table 6
1. Wet areas of the ventilation systems comprise humidification, cooling coils, condensate trays and other ancillary or associated items of plant containing these elements.

2. Filters should be inspected and maintained according to the manufacturer's recommendations, with these intervals as the minimum.

3. For compliance with HTM03, this frequency should be increased to 12-monthly.

4. For compliance with HTM03, this frequency should be increased to 3-monthly.

CLEANING OF VENTILATION DUCTWORK

Many people may be unaware of this but air quality is hugely affected by how clean your air ducts are, whether in commercial buildings or in the office.
Depending on how clean your air ducts are will affect the performance of your heating and cooling systems, and how much energy they consume. It is not uncommon for things like indoor pollutants, mould, mildew, airborne allergens, viruses and bacteria to be harvesting inside air ducts.
There are 5 key benefits of cleaning air ducts on a regular basis. Having a sanitary and healthy indoor environment is important for commercial buildings as well as office environments.
Having air ducts professionally cleaned by our highly trained and experienced engineers on a regular basis helps to improve airflow, increases sanitation, raises the indoor air quality as well as lowers the costs of HVAC systems and makes an interior environment much more comfortable to be in.

We list 5 benefits of air duct cleaning, highlighted below and the reasons why you should consider the air quality of your commercial building or office and the reasons why you should have them cleaned more regularly.

1. Improves Indoor Air Quality
2. Reduces Pollution and Promotes Better Health
3. Maintains Comfortable Temperatures
4. Reduces Running Costs
5. Reduces Repair Costs

Improves Indoor Air Quality
As air is pushed through a ventilation system, it is incredibly common for allergens, mould, mildew, pollutants, and contaminants to settle along the air vents and ductwork.

Almost every ductwork system uses air filters but not all of these contaminants can be effectively caught and collected by filters. This makes it vitally important to regularly clean your air ducts.
This will help to vastly improve indoor air quality and increase airflow, thus reducing contaminants via the ducting from contaminating your indoor environment.

Reduces Pollution and Promotes Better Health
You can easily improve indoor health and make the air you breathe much fresher with fewer contaminants by cleaning your air ducts regularly.

In a commercial building or an office environment, there are many different pollutants such as various different Volatile Organic Compounds (VOC's) including paints, wood preservatives, aerosol sprays, cleansers and disinfectants, air fresheners, dry-cleaned clothing. When you include the threat of dust particles, mould spores and viruses; it can make the air quality in your residence even worse.

By cleaning your air duct system you can get rid of plenty of these contaminants and promote better air quality.

Maintains Comfortable Temperatures
When an HVAC system is clogged up and trying to contend with contaminants, it can affect the air ducts and the actual performance of the heating or air cooling mechanisms.

When air ducts are cleaned, you can effectively remove common debris that blocks and decreases air flow. When the ducts and vents are cleaned out and any pollution is removed, you will get noticeably better results from the HVAC system which will bring you more comfort.
You will get far more efficient heating, as well as air conditioning and overall air flow.

Reduces Running Costs
When air ducts are regularly cleaned and maintained, and blockages are removed, this will make a noticeable reduction to your overall air conditioning and heating costs.

Your heating and cooling system will be consuming less electrical energy because of the improved airflow. Having your ductwork cleaned out can easily increase energy efficiency and it can also improve the performance of HVAC units.

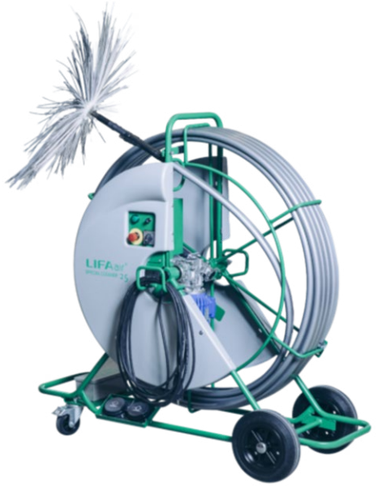
When your unit is functioning properly you will end up spending far less money on maintenance and repair costs that are associated with the lifetime of the unit.

Reduces Repair Costs
As mentioned above, when a heating or cooling system is experiencing problems moving air through the ducting systems, it will end up working much harder than it needs to.

What often occurs is the desired temperatures may not be reached and the functionality and usability of your system becomes limited. When the air ducts are not cleaned, it will undoubtedly put extra stress on the HVAC system which can lead to greater wear and tear and eventually leads to higher maintenance and repair costs as parts fail.

Having your ducts cleaned can improve and restore the airflow through an HVAC system and will lower the stresses on the heating and cooling systems.

METHOD OF CLEANING VENTILATION DUCTWORK

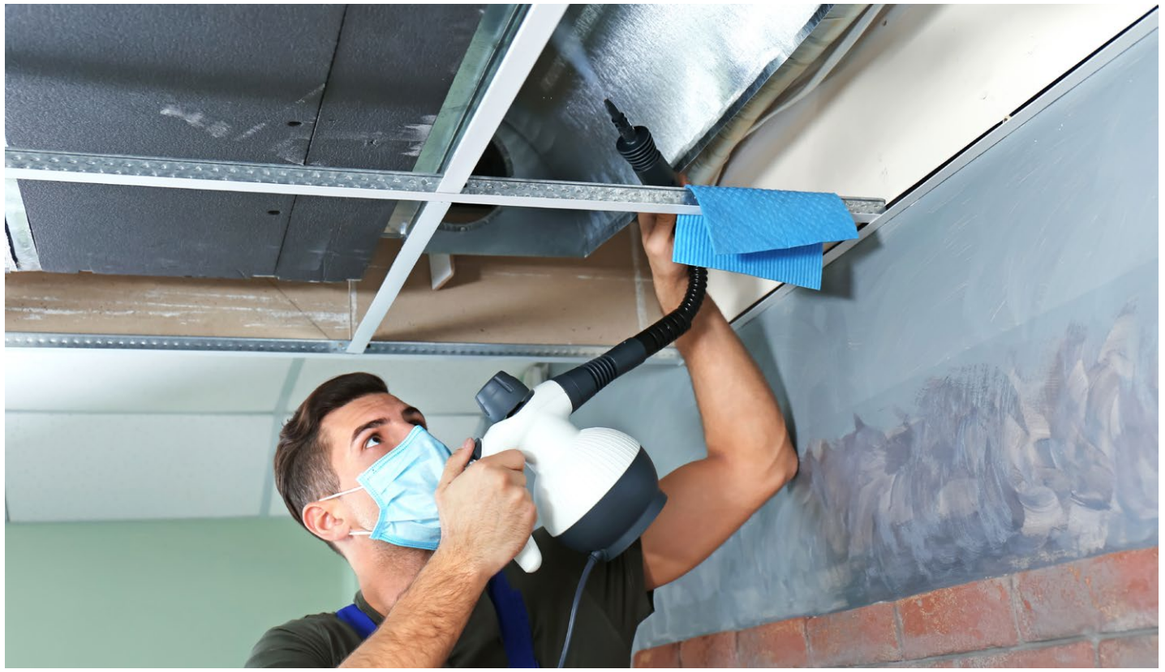


Depending on the size of ventilation ductwork we have many options at our disposal to carry out a full clean including vacuuming and hand wiping, air blasting, handheld cables and brush sets or a full rotary brush system and air mover vacuum unit.

With access door installed, industry standard recommends every 15m centred, before and after fixtures and turning veins and each change of direction. We work to every 10m centred, before and after fixtures and turning veins and each change of direction.

We work to 10m centred to allow improved access which intern gives more opportunity toe ensure we can perform a controlled clean of the ventilation ductwork.

Once cleaned you can be assured that your ventilation system will be in compliance with to the regulations EN-15780, EC852, LPS2084 and current guidance by BESA TR/19 Guide to Good Practice - Internal Cleanliness of Ventilation.



FOGGING/DISINFECTION OF VENTILATION DUCTWORK

What is Fogging?
Fogging, as the term suggests, uses disinfectant sprayed from a Fogging machine to create what looks like fog in the ductwork. It is an effective way to disinfect and sanitise the ventilation ductwork following a successful clean. Using an effective Antiviral disinfectant that is highly effective against effective against controlling harmful micro-organisms.

These works would be carried out when there are no people in the building, although we use a product that is non-allergic and poses no risk to humans or the environment that are harmless to humans and is approved to BS EN 1276 and BS EN 13697 standards

BS EN 1276 standards - this is a European Standard which ensures that the bactericidal activity of chemical disinfectants is effective against controlling harmful micro-organisms. All BS EN 1276 products must kill bacteria such as MRSA, salmonella, E. coli, flu virus (H1N1), listeria and Pseudomonas Aerginosa, while all BS EN 1276 chemicals have been tested to ensure they are killing 99.999% of bacteria within 5 minutes.

On request we also offer disinfection via fogging to work areas, meeting rooms and generally wherever your requirement is, once treated the treatment stays on the surfaces and active for up to 30 days.
Other benefits from the fogging process is the ability to attack those inaccessible areas and confined spaces such as extractor units. It can also be effective at disinfecting vertical surfaces.

Generally, Fogging should be viewed as an additional, belt and braces measure that is used following successful cleaning of ventilation ductwork. It should be noted however the fogging disinfecting technique should be regarded as the top-level measure for disinfection and should not be considered as a replacement for effective ventilation monitoring and cleaning practices.

Risk Assessments and Method Statements
Chemicals used will be used in line with COSHH Regulations 2002. We will provide you with Material Safety Data Sheets (MSDS) with the corresponding Coshh Risk Assessments.

All works are carried out under both generic Risk Assessment and Site Specific Risk Assessment along with the accompanying Method Statements. In addition to this our fully trained engineers will complete an additional Point of Works Risk Assessment (PoW) where required. All Risk Assessments will be produced and provided before the date the works are due to commence.

Reporting

Ventilation Hygiene Risk Assessment Reporting

At the end of the project/works carried out Jasun Envirocare will produce a full report with photographic evidence detailing the condition of all associated AHU components from the fresh air intake through to a selection of the ductwork & terminal devices from existing access. Preferred Vacuum Tests in accordance with BESA TR/19 Guidance – Internal Cleanliness of Ventilation Systems, Section 5 System Risk Assessment Inspection/Monitoring/ Testing & BS EN 15780:2011. Preferred Vacuum Testing (PVT) results will be listed, and priority led recommendation of the action(s) required.

BESA TR/19 Guidance – Internal Cleanliness of Ventilation Systems, Section 5 Table 6 details the recommended inspection & monitoring intervals relevant to system components in accordance with the system quality cleanliness classification specified in BS EN 15780:2011. The above also takes into consideration the requirements of HTM 03-01. The PVT test results are compared against TR/19 Table 7 of Section 5, Acceptable Contamination Levels in Existing Ductwork relevant to the stated system quality cleanliness.

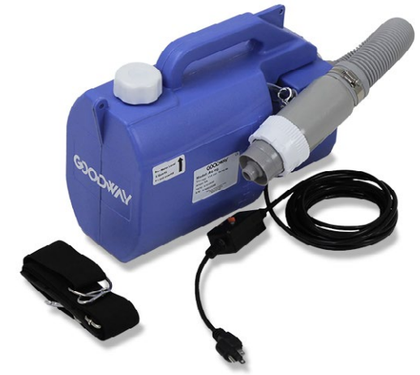
Recommendations

Priority Levels
A – Urgent – To be actioned immediately.
B – Essential for compliance.
C – Good practice.
D – No action required.

All action criteria are in accordance with BESA TR/19 which will ensure compliance with statutory regulations.

Ventilation Ductwork Cleaning and Disinfection via Fogging Reporting

At the end of the project/works carried out Jasun Envirocare will produce a full report detailing pre and post clean photographic evidence, list any faults identified, method of cleaning used along with any chemical used during hand wiping applications. Chemical used for disinfection via fogging process and certification of cleanliness and disinfection of ventilation system. We will also provide recommendations of frequency for further disinfection via fogging should occur.



ITS AS EASY AS 1, 2, 3

We offer a 3-stage solution to ensure you are always conforming to:

- The Management of Health & Safety at Work Regulations 1999
- Regulation 5 and 6 of the Workplace (Health, Safety and Welfare) Regulations 1992
- ACOP6 (52) relating to Regulation 6 of the Workplace (Health, Safety and Welfare) Regulations, 1992

Our 3-stage solution comprises of:

1. Regular monitoring of your ventilation ductwork systems
- Ventilation Hygiene Risk Assessment Reporting
- Preferred Vacuum Testing analysed by a Laboratory

2. Effective cleaning and sanitising of your ventilation ductwork systems
- Cleaning carried out by our extensively trained and experience Hygiene Engineers.

3. Disinfections of your ventilation ductwork systems via Fogging
- Disinfection via fogging is carried out by our extensively trained and experience Hygiene Engineers.
- The chemical we use is BS EN 1276 compliant.
- All BS EN 1276 products must kill bacteria such as MRSA, salmonella, E. coli, flu virus (H1N1), listeria and Pseudomonas Aerginosa, while all BS EN 1276 chemicals have been tested to ensure they are killing 99.999% of bacteria within 5 minutes.
- The chemical we use although highly effective on 99.999% of Bacteria and Viruses is non-allergic and poses no risk to humans or the environment that are harmless to humans and is approved to BS EN 1276 and BS EN 13697 standards

SUMMARY

Responsibility under the Workplace Health, Safety and Welfare Regulations 1992

Ventilation is a key part of employee health and wellbeing at work, covered under Regulation 5 of the Workplace (Health, Safety and Welfare) Regulations 1992 imposes a duty to clean mechanical ventilation systems “as appropriate”.

Regulation 6 states, “effective and suitable provision shall be made to ensure that every enclosed workplace is ventilated by a sufficient quantity of fresh or purified air”.

Assess the risk
Assess the risk your ventilation poses by way of Ventilation Hygiene Risk Assessment (VHRA) and Preferred Vacuum Testing (PVT)

Make Changes
Should the VHRA show failures in the ventilation system, perhaps filters are failing due to incorrect change frequencies, belts are slipping due to excessive wear or worse still the belts have snapped. Ventilation grills are clogged or there is a higher level of contamination throughout.

Monitor
Continue regular VHRA and PVT processes

Review and Adapt
Amend PPM process to suit requirement.

Benefits to cleaning your ventilation systems
The 5 benefits of air duct cleaning have been highlighted below and this article will show you the reasons why you should consider the air quality of your home and office the reasons why you should have them cleaned more regularly.

1. Improves Indoor Air Quality
2. Reduces Pollution and Promotes Better Health
3. Maintains Comfortable Temperatures
4. Reduces Running Costs
5. Reduce Repair Costs

Once cleaned you can be assured that your ventilation system will be in compliance with to the regulations EN-15780, EC852, LPS2084 and current guidance by BESA TR/19 Guide to Good Practice - Internal Cleanliness of Ventilation.

Disinfecting via fogging process
Disinfecting a ventilation system should be carried out after a successful clean, disinfecting via fogging should not under any circumstances be considered as a replacement for effective ventilation cleaning.
we use a product that is non-allergic and poses no risk to humans or the environment that are harmless to humans and is approved to BS EN 1276 and BS EN 13697 standards

Reporting
Full reports and certification following VHRA inc PVT and again following ventilation cleaning and disinfection via fogging.

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Delivered on time

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Online Services - Our Energy Rated products are available online at www.jfilters.com

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