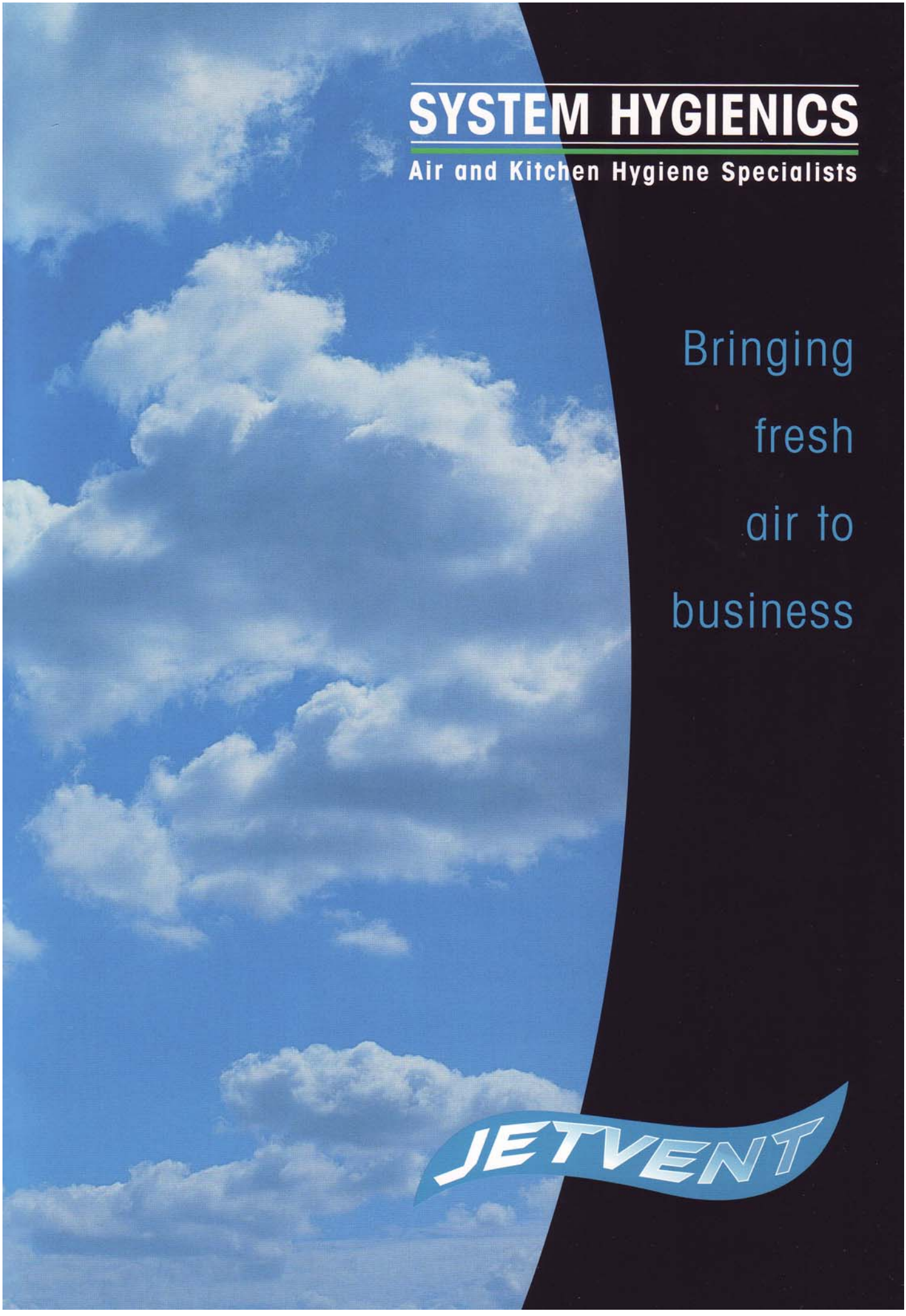

SYSTEM HYGIENICS
Air and Kitchen Hygiene Specialists
Bringing
fresh
air to
business
JETVENT

Air Hygiene Cleaning

by SYSTEM HYGIENICS

Fouling of Air Systems:

The Facts...

Clean, fresh air in buildings is the key to safe, comfortable and efficient working conditions.

An essential factor is that the heating, ventilation and air conditioning (HVAC) ductwork systems must be kept clean.

Inevitably all duct systems become fouled over a period of time. The rate and severity of contamination can be attributed to a number of factors. However it is possible to deal with these issues through a sensible programme of hygiene maintenance.

Before Cleaning

The demand from occupiers for a clean, safe environment, coupled with liability and insurance issues, is reflected in an increasingly coherent body of legislation and authoritative guidance throughout the world.

Enlightened employers and landlords recognise the potential productivity, efficiency and comfort benefits of operating clean, safe systems.

The Workplace (Health, Safety and Welfare) Regulations 1992 require mechanical ventilation systems to be maintained (including cleaning as appropriate) in an efficient working order and in good repair. The accompanying Approved Code of Practice 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'. H&S document HSG 202 provides detailed advice.

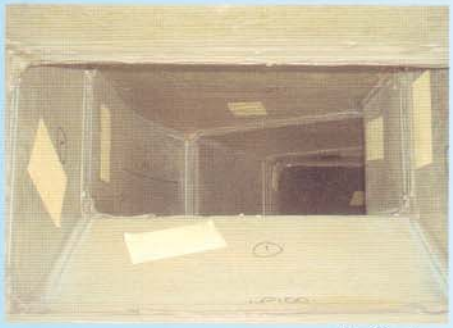
Further specific obligations flow from, amongst others, the Control of Substances Hazardous to Health (COSHH) and Management of Health and Safety at Work Regulations, Food Safety Act and Occupiers Liability Act 1984, Insurance Companies and Fire Officers.

Authoritative technical guidance on how to define system cleanliness and to establish a systematic maintenance regime is provided by the HVCA Guide to Good PracticeTR17: Cleanliness of Ventilation Systems. Further guidance is provided by BSRIA, CIBSE and the Health and Safety Executive.

The Cause...

The quality of filters and their ongoing maintenance is crucial to the rate of fouling in supply air systems. No filter – even a HEPA filter absolute – is truly absolute. The speed of fouling will vary in relationship to the grade of filter being used. All too frequently newly installed ductwork systems are left in a dirty state due to the presence of builders' dust and rubble.

The location of the building and its plantrooms also has a direct bearing on the air quality provided through the HVAC system. Each local environment will be affected by its own peculiarities ... from combustion products, including chemically laden particulate, to allergenic organic matter and high humidity. For buildings in which used air is recirculated, a further range of contaminants will affect air quality, including skin flake, textile fibres, paper dust and pollutants specific to any work process.



After Cleaning

The HVAC system can generate its own range of contaminants ... rust, corrosion, insulation material and filter media, together with micro-organisms associated with moisture sources, moulds and fungi.

Extract or return air systems are generally not filtered. Therefore dust, fibres and other contaminants generated throughout the building will accumulate over time.

The Solution...

System Hygienics provide a high quality, value for money service through a combination of modern technology, highly trained and experienced staff and specialist skills. Our 'Jetvent' system incorporates the ultimate duct cleaning technology which offers reduced access compared to traditional cleaning methods, minimises site disruption and enables fast, efficient cleaning to be carried out. This system, combined with competent staff who hold Industrial Rope Access Technique Certification (IRATA) and Confined Space Training, ensures thorough and full cleaning is achieved, whatever the challenge.

JETVENT

Kitchen Extract System Cleaning

by SYSTEM HYGIENICS

Fouling of Kitchen Systems:

The Facts...

Cleanliness and safety are the essential ingredients of every well-managed kitchen. At the heart of the matter is your kitchen extract system, the perfect landing place for grease, oil and other deposits.

Keeping canopy hoods and filters regularly cleaned is the easy part. But what happens to the ductwork and fans, the part you can't see ?

Failure to deal effectively and comprehensively with this issue is just storing up problems...

A Fire Waiting to Happen

Extraction system filters can never eliminate all vapourised grease which, together with debris, condenses onto the the canopy plenum, duct and fan surfaces. This build-up now only requires heat - readily available in every kitchen - to trigger off a frightening process. A spark or flame is not necessary, as combustion can occur from other sources.

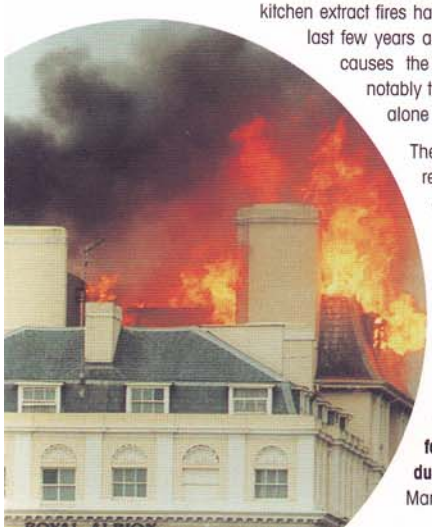
The grease in the duct acts as a fuse, carrying fire through the duct and the building. Fire, smoke and hot gasses may break out at any penetration, hole, joint or discharge point.

Temperatures up to 1200°c transmit heat through the metal to distort, destroy or ignite nearby material... such as duct support hangers, packing materials, electrical systems and litter.

In this way fire can spread rapidly...following the duct route which may be difficult and dangerous for fire fighters to access.
"...if you don't keep up the standards, that's where the problems come in..."
Derek Thorpe, London fire Brigade.

A Risk Too Far

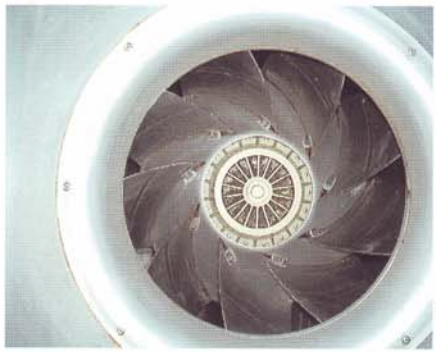
The Insurance Industry is hardening its attitude on the issue. This is hardly surprising since The Association of British Insurers has recorded that losses associated with dirty kitchen extract fires have risen to in excess of £65m over the last few years and are continuing to rise at a rate that causes the insurance industry serious concern, notably the fire at South Mimms Services, which alone resulted in a £10m claim.



The Insurers' Loss Prevention Council recommend that at least annual cleaning of entire systems by specialists is carried out, the exact frequency to be determined by a reasoned risk assessment.

Failure to comply with the terms of a policy could mean invalidation of the entire contract, leaving the insured to carry a total loss.
"...the overwhelmingly important factor is inadequate cleaning of ductwork..."
Mark Newton, Royal and Sun Alliance.

Before Cleaning



After Cleaning

Mechanical Efficiency Compromised

Build-up of grease can seriously compromise your system's efficiency in a number of ways such as affecting the fan impellor and scroll. Clogged ductwork and components affect the removal of hot, grease laden and odorous air... with reductions in airflow of up to 26% recorded. Jammed fans leading to system failure are not uncommon.

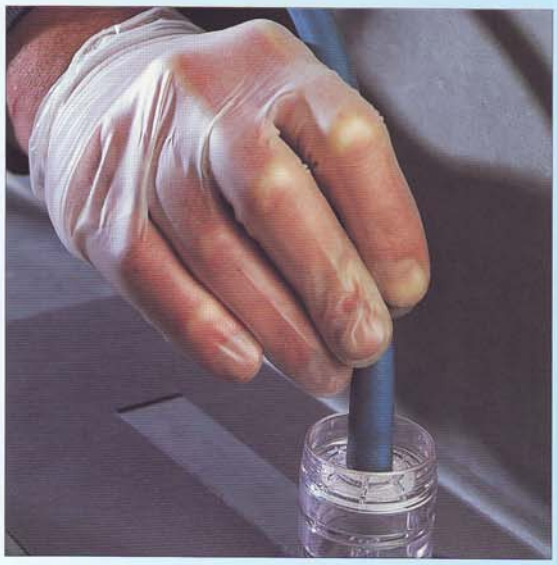
Health & Safety Issues

The health and performance of kitchen staff can be badly affected when heat, moisture, cooking and combustion products such as unburnt gases and carbon monoxide are not effectively removed. In such an atmosphere, the risk of accidents - in an already high risk environment - is significantly increased.

The Benefits of Clean Systems

Benefits...

- Improved Fire Safety
- Improved Mechanical Efficiency
- Reduced Energy Consumption
- Health & Safety of Staff & Visitors
- Compliance with Legislation & Codes of Practice
- Protection against potential litigation
- Insurance Company Compliance
- Better Work Environment



HVCA TR17 Vacuum Test

Wet Film Thickness Test

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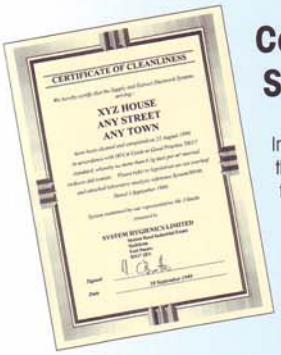
The Cleanest Act in Air Hygiene


CERTIFICATE OF CLEANLINESS

XYZ HOUSE
ANY STREET
ANY TOWN

SYSTEM HYGIENICS LIMITED

Cost-Effective Solutions

In the UK and worldwide, System Hygienics are at the leading edge of the Air Hygiene business through the application of specialist experience, expertise and new technology. We are in the business of providing a comprehensive package of cost-effective solutions.

Quality Assurance

All work either kitchen or air hygiene is to the highest possible standard. HVCA TR17 2nd edition deals emphatically with the standards that should be achieved. The Vacuum Test is a third party analysed test that ensures effective cleaning has been achieved in air distribution ductwork. The Wet Film thickness test gives a credible measure of grease build-up and can be used to verify complete cleaning has taken place. In addition comprehensive before & after photographic reports are produced with certification of cleanliness.

Environmental Hygiene Management Programme

An agreed programme of regular environmental hygiene checks including measurement of airborne, surface and waterborne micro-organisms, dusts and gases. Established techniques ensure close monitoring of indoor air quality.

Hygiene maintenance procedures such as cleaning and disinfecting air handling units, cooling coils, humidifier and duct components are carried out at fixed frequencies through the year or based on condition monitoring.

Regular reports, compiled in a site log, provide a single reference point and assurance that critical tasks are in the hands of specialists.

Air Hygiene Risk Assessment Survey

Investigation into the hygienic state of air conditioning and ventilation ductwork using state of the art enabling techniques...robot video camera, endoscopic photography and instant read-out dust measurement.

Third party laboratory analysis and established inspection and testing protocols provide verifiable and repeatable survey results.

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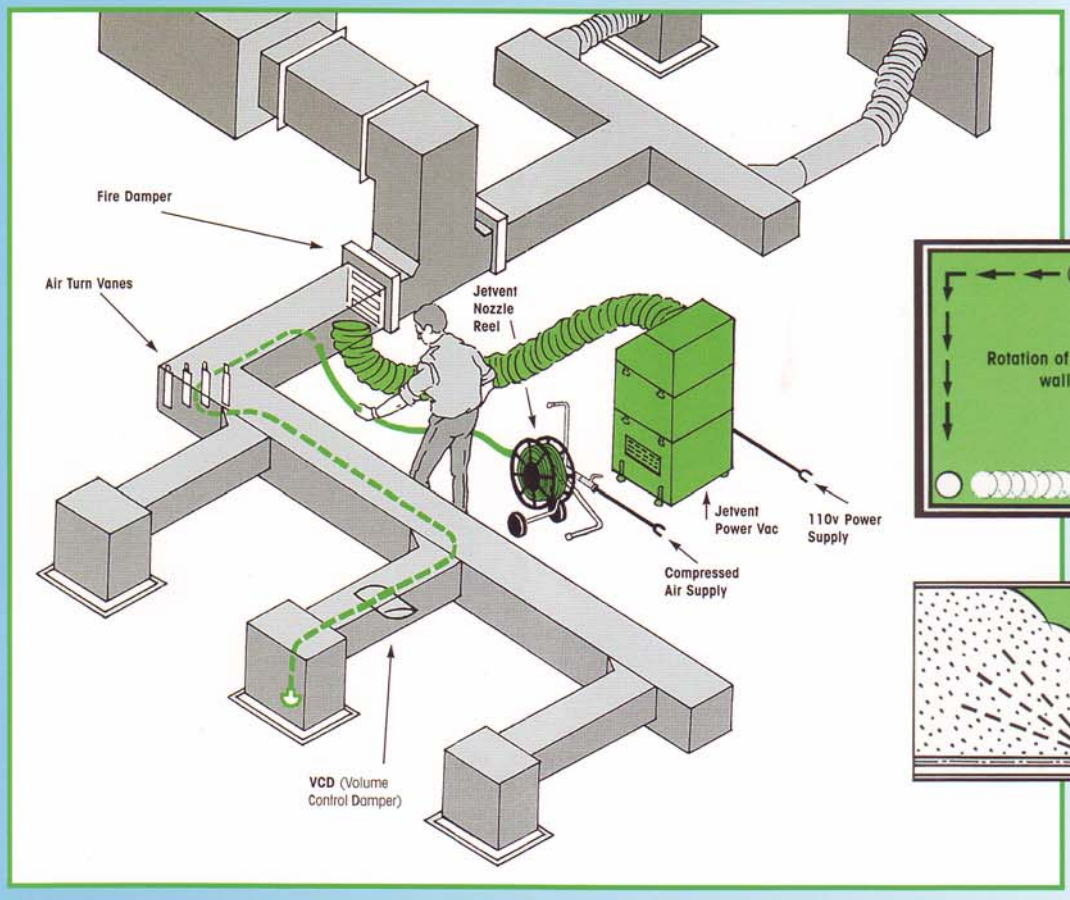
Air Hygiene Division



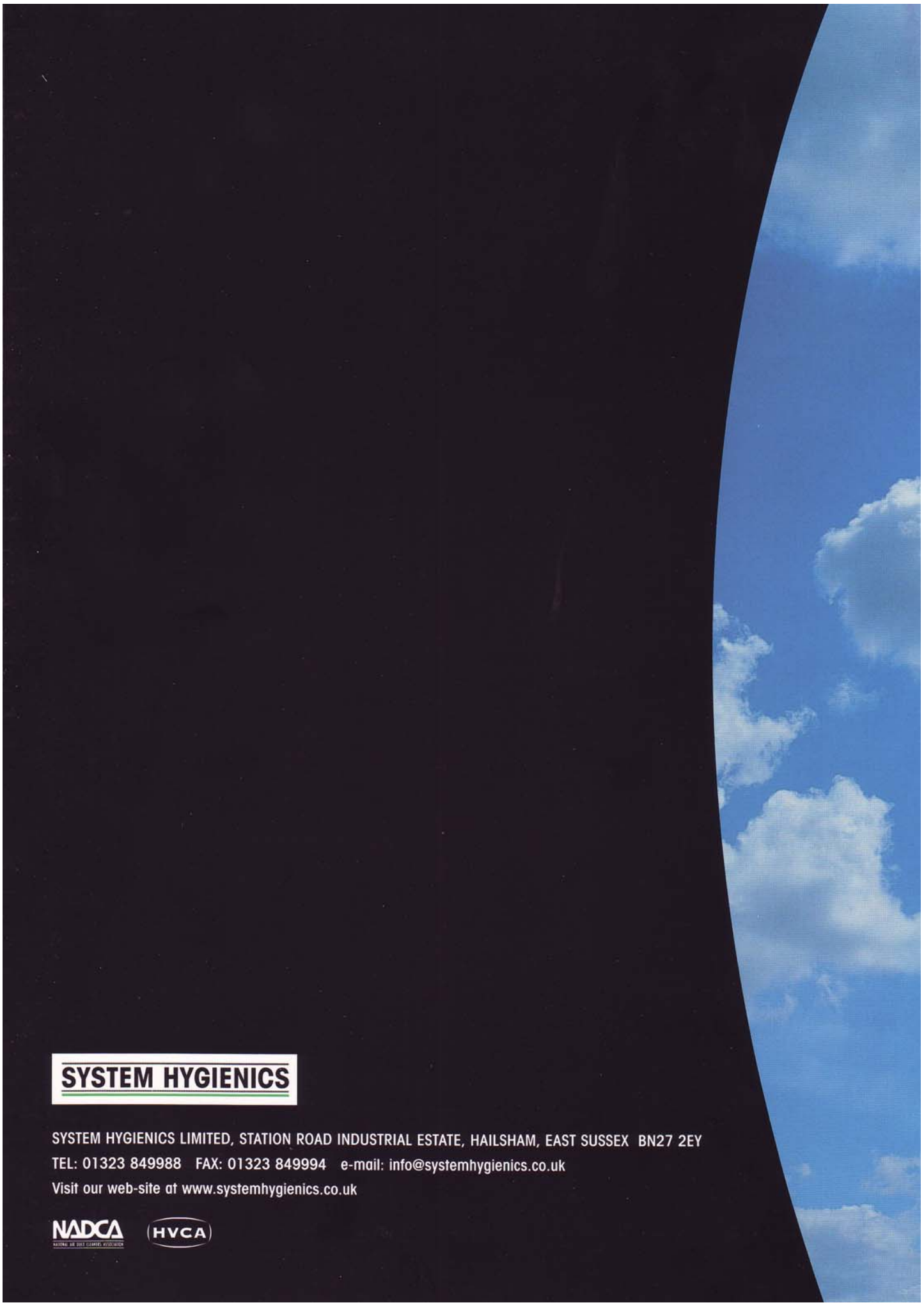
- **Minimal access needed**
- **100 metres reach from one point**
- **Swift operation with negligible disruption**
- **No leakage of contaminants**
- **Cleaning to internationally recognised standards**
- **Ultra-safe spark-free operation**
- **Real-time colour video survey**

System Hygienics are the UK market leaders in ventilation hygiene and now one of the largest specialists in the world. Established in 1993, we are certified members of the US National Air Duct Cleaners Association (NADCA) and founding members of the Ventilation Hygiene Specialists Branch within the Heating and Ventilation Contractors Association (HVCA).

Our services are provided from strategically located depots in the UK and by special arrangement overseas.

System Hygienics are accredited with a gold Award under the Engineering Services Skillcard Scheme which details the training and competence of all our operatives and Engineers.

We are a member of the Hotchkiss Group of Companies which provides specialist services in ductwork contracting, fire resistant duct systems, ventilation products and accessories, fire resistant and acoustic coatings and dry ice technology. For further information please visit our website at www.hotchkiss.co.uk.



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NADCA HVCA