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Please keep this certificate in a safe place as it may be required by the Fire & Rescue Services and/or your insurance company for reference and represents a record of activity on your site.

## **CLEANING CERTIFICATE**

This is to certify that Indepth Hygiene Services Limited have completed a deep clean of the grease extract ventilation system, in accordance with TR/19, within the

Birtley House

Bramley, Guildford, Surrey, GU5 0LB

Clean Date: 25 February 2019

The frequency of cleaning should be in compliance with your Property Insurer's warranties and your own Fire Risk Assessment. For guidance, the industry standard from The Building & Engineering Services Association (BESA), TR19 Guide to Good Practice – Cleanliness of Ventilation Systems, provides the following technical bulletin TB/009: In order to calculate a frequency based on keeping grease levels below 200 microns as a mean and to comply with 7.29 of TR/19 the build-up of grease needs to be assumed to be linear over time and therefore the recommended new frequency can be calculated using the equation below. Answers should be rounded down to the nearest half month.

$$\text{New Interval (Months)} = (200 \times \text{Current Interval (Months)}) / \text{Micron Reading } (\mu)$$

If other factors are known to influence the speed of grease accumulation such as peak periods of trade or historical data then interim inspections should be carried out to check grease thickness and further frequency adjustments made as appropriate.

Under no circumstances should a cleaning frequency be recommended that is lower than the minimum required by the Insurer.

**Based on micron accumulations since the previous clean, the next clean should be completed prior to 25-10-2019**

Please refer to post clean report for detailed information including pre and post clean grease measurements, photos and inaccessible/uncleaned areas.

Signed:

For and on behalf of:



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## Post Clean Verification

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Client      Birtley House

Project      Grease extract ventilation system clean

Site Address      Bramley  
                         Guildford  
                         Surrey  
                         GU5 0LB

Clean Date      25 February 2019



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## Introduction

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We have compiled this Ventilation System(s) Post Clean Report to assist you in managing the hygienic maintenance of your ventilation systems as required under the Workplace (Health, Safety and Welfare) Regulations 1992 and the Regulatory Reform (Fire Safety) Order 2005.

In general any recommendations in this report will be in line with guidance from the Building & Engineering Services Association's (B&ES, formerly HVCA) TR/19 Guide to Good Practice - Internal Cleanliness of Ventilation Systems 2nd Edition and Fire Protection Association (FPA) RC44 Fire risk assessment of extract ventilation for catering industry.

Primary assessment of internal cleanliness achieved during the project is a visual verification made by the on site Supervisor, supported by post clean Wet Film Thickness Testing (WFTT) using a wet film thickness comb (WFTC) capable of measuring down to 50 microns at the locations shown in Table 1 of this report.

## Description of System

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The system:

The ductwork exits the back of the canopy then passes out through the exterior wall of building. At this point the ductwork turns 90 degrees and rises up the outside wall of the building for approximately six metres before venting to atmosphere. The extract fan can be located within the riser section of ductwork.

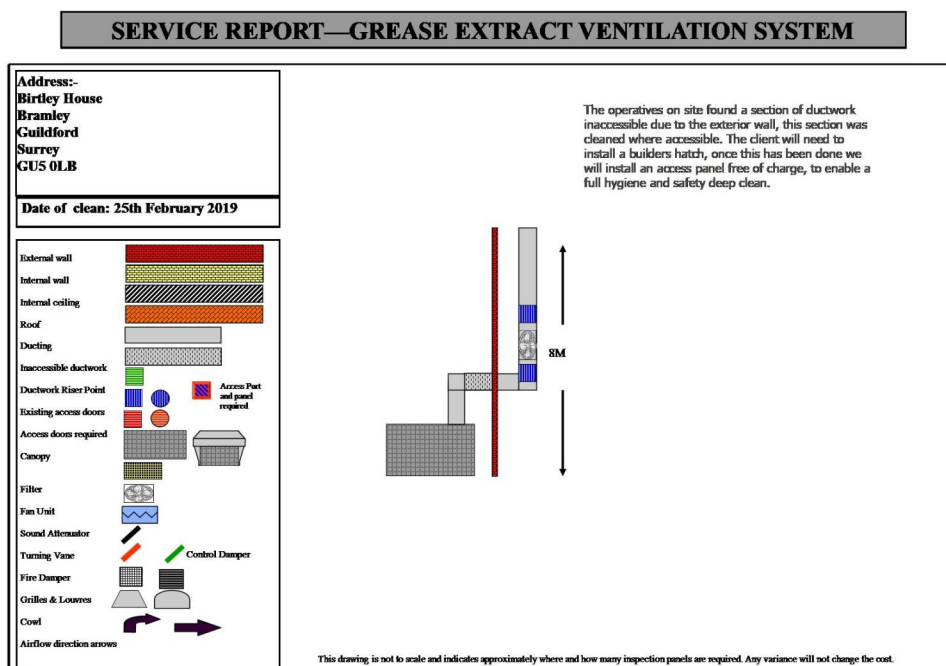


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## System Cleaned

The works comprised the removal of surface soiling from within the internal surfaces of the grease extract ventilation system.

The below schematic is indicative only and not to scale.





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## Details of Any Uncleaned Areas

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The operatives on site found a section of ductwork inaccessible due to the exterior wall, this section was cleaned where accessible. The client will need to install a builders hatch, once this has been done we will install an access panel free of charge, to enable a full hygiene and safety deep clean.

Any fire suppression systems are not included in the cleaning of work.



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## Pre and Post Clean Measurements

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Table 1 below lists the results of the deposit thickness tests and supports the visual assessment of our supervisor as post clean verification of cleanliness.

Table 1

Test Location	DTT - Pre Clean	DTT - Post Clean
Canopy Plenum Behind Filters	> 100	< 50
Duct 1m from Canopy	>	<
Duct 3m from Canopy	> 250	< 50
Duct Between Canopy & Fan	>	<
Duct Upstream of Fan	> 500	< 50
Duct Downstream of Fan	> 150	< 50

Any other area with significant grease accumulations:

1 Laundry Extract	> 500	< 50
2	>	<
3	>	<
4	>	<
5	>	<

**The average Pre Clean DTT measurement across areas tested is 300**

Table 2 on the next page shows the validation limits which would be accepted as a pass.



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Table 2

Surface Grease Deposit Limits	
Wet Film Thickness Test Measurement	Recommended Action
200 microns as a mean average across the system	Complete cleaning required
Any single measurement above 500 microns	Urgent local cleaning required

**Please note:** If the pre-clean mean micron measurements or any single measurement is substantially higher than those shown in Table 2, consideration should be given to the frequency of cleaning. It is the Responsible Person's duty to assess this and undertaking monthly micron measurements may assist this process.

Where pre-clean measurements exceed the prescribed TR/19 limits this may be an indication that the current cleaning frequency needs increasing or that there is a defect in the system such as missing or poorly fitting filters and should be investigated by the responsible person.

For assistance, the Fire Protection Association and BSRIA's recommendations for fire risk assessment of catering extract ventilation (RC44) may assist.



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## Photographic records

Canopy Plenum Behind Filters



Pre Clean

Duct



Pre Clean

Duct 3m from Canopy



Pre Clean



Post Clean



Post Clean



Post Clean

Fan



Pre Clean

Laundry Duct



Pre Clean

Laundry Duct



Pre Clean



Post Clean



Post Clean



Post Clean





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## Additional Works Required

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- No additional remedial works required



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## Working in Accordance with TR19

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Please note: in accordance with TR19, it is the duty of the client's responsible person to highlight any inaccessible/uncleaned areas to their insurer or other relevant third party, such as a landlord.

We undertake all cleaning in accordance with TR19.

As evidenced by the post clean report, every effort has been made to clean the entirety of the ductwork system as per the schedule of work. Verification and ongoing assessment of the system cleanliness is the responsibility of the "responsible person" at site as defined by the Regulatory Reform Fire Safety Order 2005.

Where there are areas of the ductwork system which are not possible to fully access for cleaning, we have endeavoured to identify precisely all inaccessible areas. We will be happy to attend site with your M&E specialist or your responsible person under the Regulatory Reform Fire Safety Order 2005, to clearly explain all inaccessible areas and to provide detail on the system modifications and alterations needed to enable the entire system to be cleaned.

In all circumstances, we strongly recommend independent auditing of the ductwork post clean. The cleaning operatives will always try to report on any uncleaned areas as accurately as possible within the post clean report but it is the responsibility of the "responsible person" to verify cleaning standards.

Panel quantities shown in this report are an approximate number of panels installed within the system(s) and their location and number is approximately shown on the schematic.

The test locations are taken from as close as possible to the locations defined in TR/19 as detailed in Table 1 in Section: Pre and Post Clean Measurements.

TR19 states:

Remote cleaning methods are not generally used for cleaning grease extract ductwork systems. The reason for this is the type of grease that is typically deposited within kitchen extract systems will not normally be released by remote mechanical means as effectively as using manual methods.

Remote chemical brushing, steam cleaning and high pressure water washing are not recommended for ductwork that is situated above false ceilings or in sensitive areas, due to possible leakage of contaminants from the duct, unless specifically designed for wet cleaning.

If your responsible person, insurer or other relevant 3rd party requires the inaccessible/uncleaned area detailed in this report to be accessed and attempted to be cleaned using mechanical brushing/remote techniques, please advise and we will liaise directly to explain all options and the associated risks.



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## Chemicals Used

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### EC MATERIAL SAFETY DATA SHEET

1. Product and Manufacturer Identification:

Trade Name: **Impact**

Manufacturer: Microchem Limited  
Belmont Industrial Estate  
Durham  
DH1 1TN  
Tel: 0191 3869988  
Fax: 0191 3862722  
e-mail: mike@microchem.co.uk

2. Composition and Information on Ingredients

Substance Name	Cas number	EINECS	Risk phrase
Sodium Hydroxide	1310-73-2	215-185-5	R35
2-Butoxyethanol	111-76-2	203-905-0	R20/21/22,36/38
Non-Hazardous Ingredients To 100%			

3. Hazards Identification:

Health Effects - Inhalation:

Harmful.

Health Effects – Ingestion:

Will cause significant systemic effects if swallowed. Signs and symptoms include possible nausea and/or vomiting.

Health Effects – Skin:

Causes severe burns.

Health Effects – Eyes

Causes severe burns and redness to eyes.

Environmental Effects:

Not expected to cause significant environmental impact.

4. First Aid Procedures

Skin Contact: Drench the affected skin with running water to remove all traces of product. Do not use solvents.

Eye Contact: Bathe the eye with running water for 10 minutes. If symptoms persist obtain medical advice.

Ingestion: Do not induce vomiting. If swallowing has occurred drink plenty of water and seek medical advice immediately.  
Never give anything by mouth to an unconscious person.

Inhalation: Remove casualty from exposure and allow to rest.



#### 5. Fire Fighting Measures

Not classed as flammable however if involved in fire may emit noxious and asphyxiating fumes.

Extinguish with Foam, Dry Chemical Powder or Carbon Dioxide (CO<sub>2</sub>).

Keep containers cool by water spray.

Heating may cause pressure rise with risk of container bursting.

In serious fire it is necessary to wear compressed air breathing apparatus and impervious body suit.

#### 6. Accidental Release Measures

Small Spillages:

Hose down with cold water.

Large Spillages:

Construct temporary dikes with any suitable inert material to prevent the product spreading.

Transfer to suitable containers for recovery or disposal.

Absorb remaining material with sand or other inert material.

Personal Precautions:

Wear appropriate protective clothing. See Section 8.

Material may create slippery conditions underfoot.

Environmental Precautions:

Try to prevent the material from entering drains or watercourses.

Advise Authorities if large spillage has entered watercourses or sewer or has contaminated soil or vegetation.

#### 7. Handling and Storage

Handling:

Avoid contact with eyes, skin and clothing.

Keep container tightly closed when not in use.

Storage:

Store away from sources of heat or ignition.

Store in original containers as supplied by manufacturer.

#### 8. Exposure Controls/ Personal Protection

Occupational Exposure Standards:

No occupational exposure limit listed in current editions of EH40 (UK Health and Safety Executive Threshold Limit Values) (American Conference of Governmental Industrial Hygienists.)

The following protection is recommended.

Respiratory Protection: Respiratory equipment should be worn in confined spaces.

Hand Protection: Rubber gloves.

Eye Protection: Suitable safety glasses or goggles

Body Protection: Wear suitable Heavy Duty Overalls and safety Shoes or Boots

Occupational Exposure Limits:

Hazardous Ingredient(s):	LTEL 8hr TWA		STEL (15 Mins)		Type
	PPM	mg/m <sup>3</sup>	PPM	mg/m <sup>3</sup>	
2-Butoxyethanol	25	120	-	-	MEL
Sodium Hydroxide	100	2.0	100		MEL



## 9. Physical and Chemical Properties

Physical State:	Clear liquid.
Colour:	Straw
Odour:	Minimal
pH Value:	13-13.5
Boiling Range/Point:	>100 °C
Melting Point:	Not Applicable.
Flash Point:	>100 °C
Solubility in Water:	Soluble
Density (kg/m <sup>3</sup> )	ca. 1090 at 20 °C
Viscosity:	N/A

## 10. Stability and Reactivity

### Stability:

Stable under normal conditions.

### Conditions to avoid:

Protect from frost. Keep away from oxidising agents and strong acid/alkaline materials to prevent exothermic reactions.

### Hazardous Decomposition Products:

None known.

## 11. Toxicological Information

Acute Toxicity:	Harmful by ingestion.
Irritation Skin:	This material is an irritant to the skin.
Irritation Eyes:	Expected to cause irritation to the eyes.

## 12. Ecological Information

Ecological Overview.	Not expected to cause significant environmental impact.
Mobility:	The product will dissolve in water.
Persistence / Degradability:	The product is readily biodegradable.
Bioaccumulation:	N/A
Ecotoxicity:	The product is toxic to aquatic organism.

## 13. Disposal

### Product Disposal:

When disposing of waste or surplus material      avoid contact with the eyes and skin. See Section 8 for personal protection equipment.

Where practical, surplus material should be recovered and recycled.

Dispose of in accordance with all applicable local and national regulations.

Seek advice from local waste authority or supplier for guidance.

### Container Disposal:

Labels should not be removed from containers unless thoroughly washed and cleaned.

Dispose of empty containers with care.

## 14. Transport Information

IMDG : Class 8 ADR : 111

UK Road:1760



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Risk Phase: R35

15. Regulatory Information

Labelling Information: Corrosive



Risk Phrases:

R22: Harmful if swallowed.

R36/38: Irritating to eyes and skin.

R35: Causes severe burns.

Safety Phrases:

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28: After contact with skin, wash with plenty of water.

S25: Avoid contact with eyes.

S24: Avoid contact with skin.

S2: Keep out reach of children.

S27: Take off immediately all contaminated clothing and do not replace until thoroughly laundered.

S46: If swallowed seek medical attention immediately and show the container or label.

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

Addition Classification Information.

This product is classified on the basis of information compiled by CESIO on the toxicological properties of surfactants.

16. Other Information

MSDS first issued 7<sup>th</sup> March 2005

MSDS Data revised 31st March 2005

Uses and restrictions:

The uses of this product include the following:

Heavy duty solvent/alkali based cleaner

Disclaimer

The information contained in this document is intended to describe the product only in terms of health & safety and environmental requirements for the purpose of its safe handling, use and disposal and is to the best of the supplier's knowledge and belief correct. It is strongly advised the customer should satisfy themselves (by appropriate testing if necessary) that the product is suitable for their purpose and conditions of use and that their facilities and arrangements are suitable for handling or using the product.

This information does not comprise a technical or performance specification for the product.



## Chemicals Used (Cont)

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### ASSESSMENT RECORD

Reference  
IDH/COSHH/ASS

Date  
January 2018

Task Assessed  
Use of RES GREASE & CARBON REMOVER

Task Description  
Cleaning of grease extract ventilation systems by mechanical brushing and foaming only.

Hazardous Substance/s  
Potassium Hydroxide  
Sodium Hydroxide

Risk Phrases  
H302; 1A: H314

Hazardous Effects  
Harmful if swallowed; severe burns and eye damage

Exposure Pathway  
Inhalation/skin exposure/ingestion

Carcinogen?  
Not applicable

Sensitiser?  
Not applicable

Controls to Exposure  
Sufficient ventilation, self-contained breathing apparatus in case of emergency, safety goggles, eye bath impermeable protective clothing, impermeable gloves

Workplace Exposure Limit/s  
Potassium Hydroxide 2mg/m<sup>3</sup> 15mins WEL  
Sodium Hydroxide 52mg/m<sup>3</sup> 15 min WEL

Residual Exposure  
Satisfactory



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## Chemicals Used (Cont)

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### First Aid

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin.

Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

Ingestion: Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary.

If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty

### Workplace Monitoring Required?

No

### Health Surveillance Required?

No

### Spillage Procedures

Massive dilution of spillage by water spray should be carried out wherever possible

### Waste Disposal

Waste and contaminated containers should be disposed of as normal commercial waste

### HSE Guidance Applicable?

Yes

### If Yes, then reference

L5 COSHH General ACop Schedule 2A

HSG262

### Comments

Strict hygiene procedures should be observed when handling product due to possible Inhalation/skin exposure/ingestion