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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: 01 March 2018

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.

New Interval (Months) = (200 x Current Interval (Months) / Micron Reading (µ)

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 in 12 month(s).**

**Your next clean should be completed prior to 01-03-2019**

In the absence of accurate micron measurements over two or more cleans, the following table should be used to determine cleaning frequency:

| **Perceived level of grease production** | **Typical Example** | **Cleaning Intervals (months) Daily Usage** | | | |
|---|---|---|---|---|---|
| | | **Upto 6 hours** | **6-12 hours** | **12-16 hours** | **16+ hours** |
| Low | No significant production of grease laden aerosols during normal daily food production operations | 12 | 12 | 6 | 6 |
| Medium | Moderate production of grease laden aerosols during normal daily food production operations | 12 | 6 | 4 | 3 |
| High | Heavy, significant or continual production of grease laden aerosols during normal daily food production operations | 6 | 3 | 3 | 2 |

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:

Indepth Hygiene Services Limited
Tel: 020 8661 7888 Fax: 020 8661 7506
Indepth House, Wellesley Road, Sutton, Surrey, SM2 5BW
Email: admin@indepthhygiene.co.uk www.indepthhygiene.co.uk

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# Post Clean Verification

| | |
|---|---|
| Client | Birtley House |
| Project | Grease Extract Ventilation Clean return 22/03/2018 |
| Site Address | Bramley<br>Guildford<br>Surrey<br>GU5 0LB |
| Clean Date | 01 March 2018 |

Indepth Hygiene Services Limited
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## Introduction

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 works

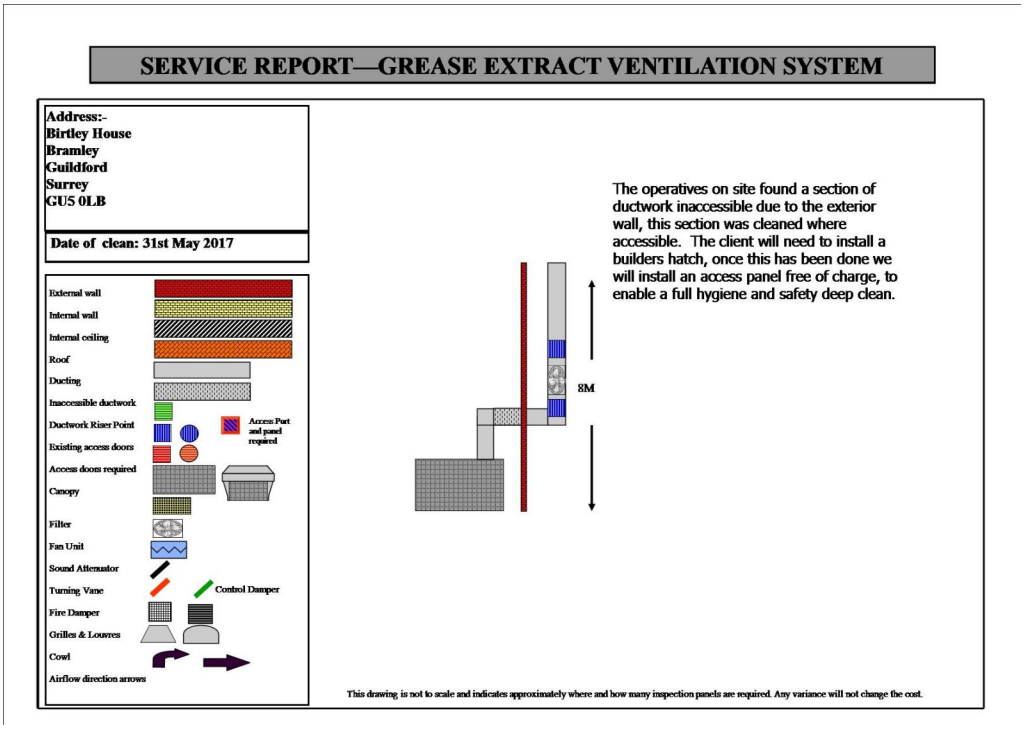
We have undertaken a clean of the grease extract ductwork system as per our quotation and in accordance with TR19 2nd Edition.

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.

# 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.  We have highlighted the location of access panels.



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# Details of Any Uncleaned Areas

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

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 | > 100 | < 50 |
| Duct 3m from Canopy | > | < |
| Duct Between Canopy & Fan | > 100 | < 50 |
| Duct Upstream of Fan | > 200 | < 50 |
| Duct Downstream of Fan | > 100 | < 50 |

Any other area with significant grease accumulations:

| | | |
|---|---|---|
| 1 | > | < |
| 2 | > | < |
| 3 | > | < |
| 4 | > | < |
| 5 | > | < |

The average Pre Clean DTT measurement across areas tested is 120

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

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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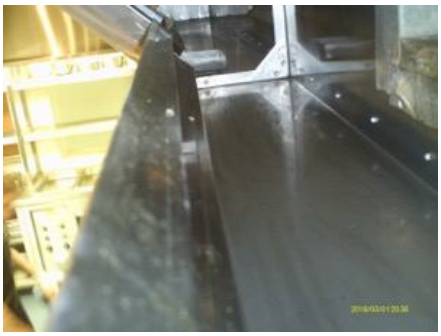
# Photographic records

## Canopy Plenum Behind Filters

Pre Clean



Post Clean

## Duct 1m from Canopy

Pre Clean

Post Clean

## Duct Between Canopy & Fan

Pre Clean

Post Clean

## Duct Upstream of Fan

Pre Clean

Post Clean

## Fan

Pre Clean

Post Clean

## Duct Downstream of Fan

Pre Clean

Post Clean

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# Additional Works Required

- No additional remedial works required

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# Working in Accordance with TR19

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.

Panel quantities shown in this report are a maximum 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/un-cleaned 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.

# Chemicals Used

## 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 ($CO_2$).
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) | | |
|---|---|---|---|---|---|
| | PPM | mg/m3 | PPM | mg/m3 | Type |
| 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$^3$) | ca. 1090 at 20 $^0$ C |
| Viscosity: | N/A |

## 10. Stability and Reactivity

Stability:
Stable under normal conditions.
Conditions to avoid:
Protect form 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

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 7th 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.

# Recommendations For Future Cleaning Requirements

The following extracts from TR19 2nd Edition give a detailed explanation for the responsible person as to the factors to consider and the alternative methodologies to assess on-going cleaning frequencies.

Frequency of cleaning

The following factors have an impact on the frequency of cleaning:

**Type of usage** - The type of cooking and volume of catering clearly impact on the level of grease accumulations within an extract ductwork system.
**Volume of catering** - The number of covers catered for within the size of the catering facility impacts on the volume of grease particulates.
**Type of cooking** - The levels of grease that is produced will depend on the type of cooking carried out for example kitchens that produce high levels of fried of chargrilled food will produce much higher grease levels than those using less intensive cooking methods such as baking and boiling.

Frequency of cleaning - risk assessment

All operational grease extract ductwork systems will require cleaning annually as a minimum unless a fire risk assessment recommends otherwise.

The frequency of cleaning should be sufficiently frequent that grease deposit limits are not exceeded. In the absence of data on measured levels of cleanliness, time-and-usage-based methods are often used to estimate required cleaning frequency (see Table 11). Pre-cleaning micron readings should be taken to enable cleaning frequency to be confirmed as suitable or adjusted accordingly.

Clearly, many installations will need a higher frequency of cleaning based on hours and type of usage. Table 11 on the next page will assist in assessing the required frequency of cleaning, in the absence of precise grease accumulation levels.

The period for which the cleaning certificate remains valid, is based upon the pre-clean WFTT measurements, showing the accumulation of grease deposits since the last previous clean and which when compared to the limits set out in the table below determines the correct frequency of cleaning based on types of cooking and daily usage.

Where in-line attenuators are used, they shall be constructed so that there is no grease impregnation into the acoustic media. A protective membrane shall be specified for this purpose, this will reduce the design performance of the attenuator. This should be taken into account when selection is made.

# Recommendations For Future Cleaning Requirements (continued)

Table 11 Kitchen Grease Extract Systems

| Perceived level of grease production | Typical example | Cleaning intervals (months) Daily usage | | | |
|---|---|---|---|---|---|
| | | Up to 6 hours | 6-12 hours | 12-16 hours | 12-16 hours |
| **Low** | No significant production of grease laden aerosols during normal daily food production operations | 12 | 12 | 6 | 6 |
| **Medium** | Moderate production of grease laden aerosols during normal daily food production operations | 12 | 6 | 4 | 3 |
| **High** | Heavy, significant or continual production of grease laden aerosols during normal daily food production operations | 6 | 3 | 3 | 2 |

**Notes to Table 11**

1. Commercial liability/property insurance policies invariably contain conditions and warranties that stipulate a minimum cleaning frequency for grease extract ductwork systems under the insurance contracts which can be a higher frequency of cleaning that TR/19 recommendations. Failure to comply with such requirements will invalidate the property insurance policy.

2. The canopy/extract plenum is an area of higher fire risk and consideration should be given to more frequent cleaning in accordance with insurers' requirements.

3. Periodic specialist cleaning should be accompanied by daily or weekly cleaning of canopies, filters and associated drains and traps in accordance with manufacturers' recommendations, typically carried out by the kitchen operator, in compliance with the property insurers' requirements.

Any cleaning regime should be justified by a considered risk assessment. (The latest Fire Precautions Workplace, and Management of Healthy & Safety at Work Regulations apply.)