Commercial Kitchen Extraction & Ventilation Systems Specialists
ESTABLISHED 2005

51 Fairfax Road
London
NW6 4EL

KITCHEN EXTRACTION SYSTEM PROPOSAL

Customer Contact: Lee Landau
[redacted]

Date: 2th March 2017

Ref: P76575

Fan rescue Ltd 39[redacted]
Tel:[redacted] www.fanrescue.co.uk
VAT number: 906 9111 32
Company Registered in England & Wales Number 5954579

Fan Rescue were asked to carry out a site survey and put together a proposal for the kitchen extraction at the above address.

Kitchen extraction, supply air and odour control filtration system

The upgrade of the existing kitchen extraction system is proposed to meet the Defra guide DW 172 specifications, by incorporating a high odour control filtration and an attenuation system.

Above the cooking equipment is an existing stainless steel wall mounted extract canopy, 3200x1200mm, manufactured in 304 grade. This system has an external dull polish grain and an internal stainless steel filter housing removable/washable stainless steel baffle type grease filters, which are highly efficient at grease removal.

The existing 450mm diameter Ductwork system, from the canopy hood, rises through the building onto the flat roof and connects to a 450 S&P twin fan. The 450mm diameter ductwork system, from the fan unit, then rises to the top of the building and terminates 1 meter above the eaves level, via a discharge jet cowl.

Prior to the submission of this application, the applicant was in touch with Councils Environment Health team as to the requirements needed to address the planning conditions on site, as a result of the complaints received relating to the ventilation system currently in use on site. As a result of these discussions, the applicant now proposes to remove the existing fan system installed by Fusion Hot, in favour of a new high-end odour filtration system and an attenuation system, whilst retaining the existing ducting and chimney shaft. Please refer to Appendix 10 - Canopy and Ductwork Regulations.

The new replacement filtration system as proposed, will consist of 1 x OC1 ozone odour control unit (please see attached technical specification) which will be installed near the canopy hood & injected into the extract plenum, with 2 x disposable pre-filter G4 (please see attached technical details), 2No. 24"x24"24" 50kg of extra duty carbon filter unit, (totalling 100KG) and a casing (please see attached technical details) to give dwell time of 0.4 sec.

The filtration unit will then be connected to a new Helios 500GBW/4/4 extract fan unit (please see attached technical specifications). This fan unit will be cased inside an acoustic box and connected using flexible connectors and mounted using anti vibration rubber mountings to eliminate any noise and vibration levels.

The fan unit will then be connected to 1no. Bespoke 450x1000mm Attenuator before the fan and 590x1800mm double skinned attenuator after the fan, as per the details stipulated within the Noise Impact Assessment Report, prepared by Clement Acoustic Ref: 12150-NIA-01, dated 10th of March 2017, to achieve the insertion loss. The existing 450mm ductwork from silencer will then rise to the top of the building and terminate 1 meter above the eaves level via a discharge nozzle, as shown on the attached CAD drawing. (Please see attached Appendix 13). The wall brackets supporting the existing ductwork system will be installed with Anti-vibration mounts.

Fresh air kitchen supply system

Fresh air into the kitchen area will be provided via 300x500mm weather louver grill, back of the louver grill 1200mm long double skinned attenuator, to be installed as shown on the attached Rear Elevation Drawing. (Please see attached Appendix 13). The proposed Kitchen extraction system will be manufactured and installed in accordance with DW 172 specifications.

Attenuation

Attenuation has been selected as per the Noise Impact Assessment Report, prepared by Clement Acoustic Ref: 12150-NIA-01, dated 10th of March 2017, and is manufactured by QT Acoustic Ltd. The equipment schedule and a drawing from QT acoustic ltd are attached to the proposal.

Specification of the anti-vibration:

Item 1: Qty 4 of Qt Acoustics QT-SI-25 25mm maximum deflection spring type anti-vibration mounts selected for the extract fan weight of 62KG at 1350rpm maximum operating speed. The spring isolators have been selected to provide not less than 95% isolation efficiency at maximum fan operating speed.

Item 2: Qty 2 of ductwork flexible connections incorporated into the acoustic fan enclosure and so as to allow the fan to freely move on the selected vibration isolators as above.

All electrical work to be carried out to the relevant Building Control standards, with the fan interlocked to the filtration equipment, so that it cannot be operated to function independently.

System Maintenance:

Fan Rescue can confirm that we will be providing a kitchen extraction system cleaning package as per below; (We would recommend the following maintenance be carried out in accordance with DEFRA and HVCA guidelines on cleaning and maintenance). All duct work to be cleaned by a qualified person who will issue a certificate after cleaning.

- 1 x Full kitchen extraction system service cleaning **every 6 months**
- G4 pre filters to be changed **every 2 weeks**
- Carbon filters to be changed **every 6-12 months** depending on the usage
- Cleaning baffle filters – **Twice weekly**
- Automatic reminders when service is due
- Fire Safety Cleaning Certificate
- Full Analysis report with Photographic evidence of work carried out
- Ductwork cleaning will be carried out in accordance with B&ES TR19 and BSEN 15780; 2011 standards

We hope this is of assistance and await your further instruction.

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Yours sincerely

Operations Director