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Ventilation strategy for the below address

Address
595 Cheetham Hill Rd,
Manchester
M8 5EJ

Installation of extraction system proposed at the above address to *EMAQ Guidance Control of Odour and Noise from Commercial Kitchen Exhaust Systems*

All canopy and ductwork to *BESA DW172 DW144*
If required a noise assessment can be undertaken we recommend noiseharvest.com

Canopy dimensions to Dw172 in mm			
Length	**Width**	**Depth Back**	**Depth Front**
3000	**1200**	**500**	**500**

Extraction Filtration
Longar type 3 baffle filters
Supply Air Filtration
Longar G4 Filter

Odour control
1 x Purified air esp 1500 electrostatic precipitation unit **1 x Purified air uvo 500**

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UNIT 5 FIREFLY SQUARE PLANTATION ROAD BURSCOUGH L408JT

Tel: 01704-893945 **Fax:** 0844-4122296

Email: fusionhot1@gmail.com **Web:** www.facebook.com/fusionhot

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Extract Fan Model	Maximum absorbed power (W)	Maximum absorbed current (A)		Maximum air volume (m3/h)	Sound pressure level* (dB(A)3m)	Speed (r.p.m.)	Weight (Kg)
		230v	400v				
450 TCBB	526	1.9	1.1	6650	63	1405	21
Supply Air Fan	**Maximum absorbed power (W)**	**Maximum absorbed current (A)**		**Maximum air volume (m3/h)**	**Sound pressure level* (dB(A)3m)**	**Speed (r.p.m.)**	**Weight (Kg)**
		230V	400V				
400 HCCB	626	2.8		4830	62	1410	9

Attenuation Octave – Band Mid Frequencies (Hz)									
Diameter	**Length**	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**
450 1D	450	2	3	6	12	13	11	10	6
450 1D	450	2	3	6	12	13	11	10	6

Cleaning and maintenance
Cleaning and maintenance schedule to be supplied to client to TR19 guidelines This must be carried out by a competent registered BESA Ductwork cleaner no longer than 12 month intervals or earlier

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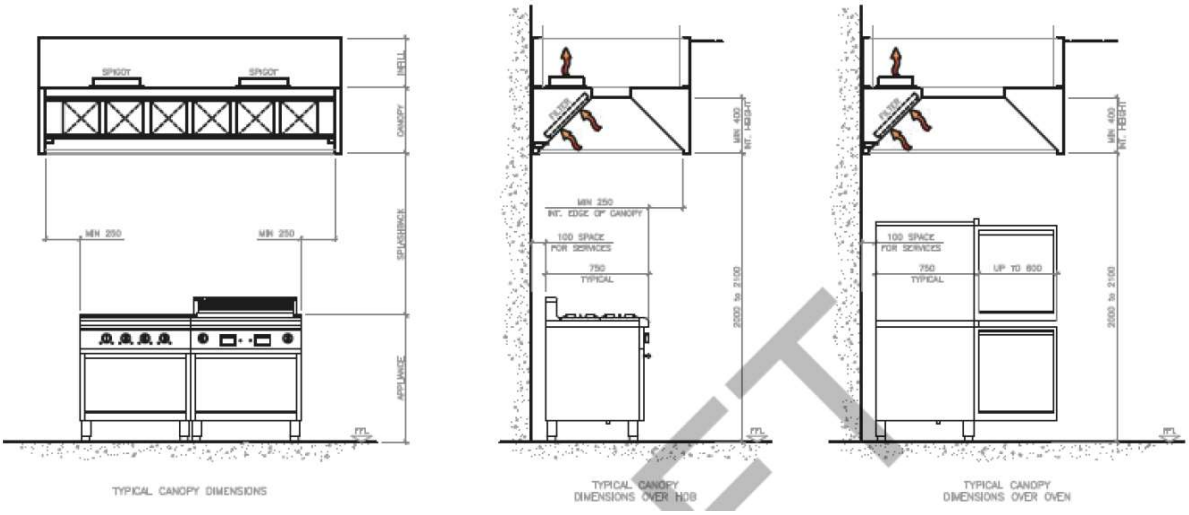
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Typical extraction canopy's below



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Risk Assessment for Odour EMAQ

Odour control must be designed to prevent odour nuisance in a given situation. The following score methodology is suggested as a means of determining odour control requirements using a simple risk assessment approach. The odour control requirements considered here are consistent with the performance requirements listed in this report.

Criteria	Score	Score	Details
Dispersion	Very poor	20	Low level discharge, discharge into courtyard or restriction on stack.
	Poor	15	Not low level but below eaves, or discharge at below 10 m/s.
	Moderate	10	Discharging 1m above eaves at 10 -15 m/s.
	Good	5	Discharging 1m above ridge at 15 m/s.
Proximity of receptors	Close	10	Closest sensitive receptor less than 20m from Kitchen discharge.
	Medium	5	Closest sensitive receptor between 20 and 100m from kitchen discharge.
	Far	1	Closest sensitive receptor more than 100m from kitchen discharge[1].
Size of kitchen	Large	5	More than 100 covers or large sized take away.
	Medium	3	Between 30 and 100 covers or medium sized take away.
	Small	1	Less than 30 covers or small take away[1].
Cooking type (odour and grease loading)	Very high	10	Pub (high level of fried food), fried chicken, burgers or fish & chips. *Turkish, Middle Eastern or any premises cooking with solid fuel*
	High	7	Vietnamese, Thai, Indian, *Japanese, Chinese, steakhouse*
	Medium	4	Cantonese, *Italian, French, Pizza (gas fired),*
	Low	1	Most pubs (*no fried food, mainly reheating and sandwiches etc*), *Tea rooms*[1]

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Premises type	Dispersion	Proximity of receptors	Size of Kitchen	Cooking Type	Total Score
Takeaway	**5**	**10**	**1**	**7**	**23**

Impact Risk	Odour Control Requirement	Significance Score*
Low to Medium	Low level odour control	Less than 20
High	High level odour control	20 to 35
Very High	Very high level odour control	More than 35
* based on the sum of contributions from dispersion, proximity of receptors, size of kitchen and cooking type:		

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Odour Arrestment Plant Performance	
Low to medium level control may include:	1. Fine filtration or ESP followed by carbon filtration (carbon filters rated with a 0.1 second Residence time). 2. Fine filtration followed by counteractant/neutralising system to achieve the same level of Control as 1.
High level odour control may include	1. Fine filtration or ESP followed by carbon filtration (carbon filters rated with a 0.2 - 0.4 second residence time). 2. Fine filtration or ESP followed by UV ozone system to achieve the same level of control as 1.
Very high level of odour control may include:	1. Fine filtration or ESP followed by carbon filtration (carbon filters rated with a 0.4 0.8 Second residence time). 2. Fine filtration or ESP followed by carbon filtration and by counteractant/neutralising system To achieve the same level of control as 1. 3. Fine filtration or ESP followed by UV ozone system to achieve the same level of control As 1.

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