Manchester Appliances

Catering Equipment & Air conditioning

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Location of proposed development :
29-31 OLD CHURCH STREET , NEWTON HEATH , MANCHESTER , M40 2JN
Description of proposed development :
Information for planning application relating to commercial kitchen ventilation system for new take away and resturant .
Interpretation of Requirements :

Following our conversations and a variety of drawings, I am pleased to provide an equipment selection for an extraction canopy, odour, and noise level control situation.

The canopy is made of 430 Grade stainless steel with baffle type grease filters Also, there is steel wall cladding under the canopy system.

The canopy will be for extractions only and the fresh air-in system can be through back wall of the kitchen.

Throug a plate fan or duct fan and will be fitted to the back of the kitchen wall or though round flexi ducting all the way to the kitchen through the ceiling .

System operation :

The kitchen ventilation system are to provide approx
extract airflow of 1.8m3/s
supply air flow of 1.6m3/s.

Both fans connected to the system of duct work using flexible duct work conections. This will insure that any vibration from the fans can not be transmitted to the rest of the system, also fan motors will mounted on anti-vibration acoustic matting.

The matting will isolate the fan from the plant form to insure the vibration is not transmitted through the base of the fan.

For this size kitchen we rcommend the followings :

Extractor fan motor to extract out

Flakt Woods Max Fan Compact.
Part number: EJ463266
Power supply: 230V/50HZ 1 phase.
Noise level: 43dBA when monitored at 3 meters.

Fresh air in fan motor

Flakt Woods Max Fan Compact.
Part number: EJ413656
Power supply: 230V/50HZ 1 phase.
Noise level: 40dBA when monitored at 3 meters.

To achieve a more acceptable noise level, we fitted two **attenuators (silencers)** one before and one after the both fan motors.
The attenuators we used are **2DENP** before the fan and **2DENP** after the fan.

(Please refer to the acoustic assessment for full details of noise level)

Odour control :

1) Stainless steel baffle Grease collecting filters.

2) Pre and bag filters.

3) 1 NO. Electrostatic filter make and model:
Purified air ESP4500E Max Air Volume up to 2.1m3/sec.

4) 1 NO. Ozone Dosing Unit make mand model:
Purified air UV-O 1000 Max Air Volume up to 2.0m3/sec.

Gas inter lock system we recommend :

NCSP Ventilation Gas interlock Panel

The panel is designed to protect Kitchen staff from the dangers of Co2 fumes created when gas is used for cooking. It protects the staff by closing the Gas valve supplying the gas to the kitchen in the event of a lack of ventilation to extract the fumes; this is usually the result of an extract fan mechanical or electrical failure.

The panel is suitable for Pressure sensing (preferred) or current sensing
The Panel is suitable for use with any 1 Phase or 3 Phase Extract or Supply fan
An Emergency Stop Button is mounted on the fascia
The Panel has no fan electrical connections
Different coloured lamps mounted on the fascia indicate

Maintenance :

We would advise that a service maintenance contract should be taken out to enable our engineers to carry out the necessary service.

Intervals depend on how aggressive the cooking is, we would probably advise every 12 weeks to start with, it can be increased or decreased depending on our engineer's recommendation.