



Proposed Front Elevation 1:100

KITCHEN VENTILATION SPECIFICATIONS

1. Stainless steel canopy measuring 3700 mm x 1100 mm o/a built from a high grade stainless steel, this incorporates a full length filter housing which has removable grease filters measuring 500 mm x 500 mm x 50 mm , these are easily removed for cleaning and maintenance purposes . There is also grease trays fitted under the filter housing to catch any excess grease .

All the ducting provided conforms to the DW172 European guidelines

The acoustic Silencer which is fitted just after the fan will reduce the noise level from 55db to 35 dn @ 3 meter to meet the guidelines

The Carbon filter box measures 600 mm x 600 mm x 600 mm and incorporates a pre filter and a bank of carbon filters to remove the cooking odours (maintanenance of this is the responsibility of the client)

Proposed Side Elevation

1:100

MINIMUM VENTILATION RATES

- An internal ambient air temperature of 28 deg C Maximum
- Maximum humidity Levels of 70%
- Internal Noise Level should be bewteen NR40 NR50.
- Dedicated make up air system to be approximately 85% of the extract flow rate
- Minimum air change rate of 40 per hour (bases on Canopy and general room extraction)

All Ductwork should be fitted with anti-vibration caused by air passing through.

FANS TO BE PROVIDED WITH MINIMUM REQUIREMENT BELOW :

- Fan must be capable of dealing with the operating static prssure within the duct work and should be designed with a minimum 10% pressure margin.
- Backward curved centrifugal, mixed flow or axial flow impellers are as they are less prone to imbalance and are more easily maintained/cleaned due to their open construction. Fixed or adjustable metal impellers with a robust and open construction will be used.
- Fan motors should be rated to IP55 with no need to mount the motor outside of the air stream. For Fans that have motors within the air stream and are ventillating cooking equipment that produce high levels oftemperature and humidity the specification for the motor should be upgraded to withsatnd more onerous condotions.

Electrostatic Precipitator:

Electrostatic precipitators are used to clean the airstream of grease and hydrocarbons (smoke).

This equipment works as; greased dirty air is drawn by the motor/blower through a washable metal mesh pre-filter which traps large dust particles. The remaining particles, some as small as 0.01 microns, pass into a strong electrical field (ionizing section) where the particulate receives an electrical charge. The charged particles then pass into a collector plate section made up of a series of equally spaced parallel plates. Each alternate plate is charged with the same polarity as the particles, which repel, while the interleaving plates are grounded, which attract and collect. 1X ESP 4500E Electrostatic Precipitator.

□ Electrostatic Precipitator shall be mounted internally before the extract fan. □ These highly efficient units can remove particles small as 0.01 micron at an

efficiency of 90%.

 \Box Sound Level : 0dB(A).

□ All above mentioned extractor ventilation system equipment shall be installed c/w anti-vibrating mounts as per manufacturer's recommendations.

□ ESP module and other in line abatement should be cleaned every 2-6 months.

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Project number

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Ventilators have to be designed to provide adequate internal noise levels to protect the amenity of residents.

The ventilation system must be designed to provide sufficient sound insulation not to degrade the insulation of the facade. It must be quiet in opertaion- e.g. 35dB(A) at maximum flow.

Sound attenuatting mechanical ventilators are acoustically treated extract/intake fans.

Ductwork should be fitted with anti-vibration caused by air passing

Grease filters, carbon and pre-filters to be provided.

