

Site:- NOMA – Hanover Retail Works

Detail of kitchen extract system:-

Above the cookline there will be a stainless steel extraction canopy. This will have stainless steel baffle filters, which will act as the first line of grease removal from the cooking emissions. The canopy will overhang the cooking equipment by 300mm & be set at a height of 2100mm to the underside to give clear headroom underneath, as per current guidelines. From the canopy will run a galvanised mild steel ductwork to exhaust through a louvred grille in the external wall.

The ductwork system will be supported from the slab above, using antivibration fixings to stop any vibrations from reaching the building fabric.

Incorporated within the ductwork system will be two forms of odour control 1) Electrostatic Precipitator – This will remove Oil, grease & smoke particles & 2) Carbon Filtration – This will neutralise the odours from the exhaust air.

The odour control units will require regular maintenance. The ESP & carbon filter units both have pre filters, which will require to be changed approx. every 2-3 months along with cleaning of the ESP cells. This will prolong the life of carbon filters, which should require changing on an annual basis.

After the odour control will be the extract fan unit. This is a box fan with acoustically lined panels to give a low sound level & motor outside of air stream to avoid airborne heat & grease. The fan will be coupled either side with inline silencers to reduce the emitted sound further.

The extract system will work in conjunction with the main air supply system within the restaurant to maintain a negative pressure within the kitchen area. This should provide a steady airflow towards the kitchen, therefore containing any emissions within the canopy before it is extracted.

System specification

Extract canopy:-

- Extraction canopy manufactured from DP2 304 stainless steel of fully welded construction.
- Longar Airguard Type 3 stainless steel baffle filters.

Ductwork:-

- Galvanised mild steel ductwork manufactured to DW144 and in line with TR19 cleaning guidelines.

Odour Control:-

- Double pass Electrostatic Precipitation Filter Unit (2 x ESP 3000).

- Carbon Filtration to achieve 0.4 second Dwell time.

Fan Unit:-

- Systemair MUB/T 500 D4.

Attenuation:-

- 2Dia inline Melinex lined straight through silencers to give approx. 15dB reduction.