

Kitchen extraction design factor, Ref: 75B London Road, Waterloooville PO7 7EL

To control nuisance grease, smoke and odour discharge in line with DW 172 and the DEFRA standards for nuisance control from kitchen extract systems, please find attached additional supportive information required for the 3 stages filtration, 1st stage Baffle filters at canopy on grease eliminating prior entry to the system, 2nd stage is Prefil on sub-micron particulate, and 3rd stage by carbon activated filter on the cooking odour control.

The proposed system is designed to resolve odour issues. The filter suppliers calculations indicate the 2 stage system produces at an airflow of 1.5m³/s a 0.2 second contact time. This meets the requirements of High Level Odour Control by DEFRA's "Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems" (Jan 2005).

The odour, grease and smoke filters are mounted horizontally within the kitchen, and its filters housing is design for ease access on regular (weekly) maintenance cleaning and filters replacement by occupant to maintain the efficiency. As the kitchen area is a 'theatre kitchen' proposal, e.g. the kitchen equipment is visible to the clients, the scheme has capacity for extra abatement if required in the future. E.g. an additional fume purify unit (4th stage) can be added within the system inside the kitchen area.

System Noise Control

The system extractor fan motor is to be the Helios GBW 500/4 T120, the manufacturer data (Please see separate file) the noise level reference case extract outbreak is 45 dBa @ 4 Metre distance, with an acoustic silencer to be installed post-fan to atmosphere, the predicted noise level could be reduced approximately 5-10 dBa at termination, Please note that the actual fan motor is designed located out of the air stream and will be speed controlled, therefore the noise nuisance would be at minimal.

By Ian Lee, Camfield Co Date: 23/10/2020