

**Kiremko Frying Equipment and Extract System for Purbrook Chase Precinct. Crookhorn Lane.
Crookhorn. PO7 5QH**

The Kiremko Frying Range.

The Kiremko deep fat frying range is recognised for its advanced technology and consistently features in the equipment used by winners of prestigious events such as Fish and Chip Shop of the Year. The computer controlled burner system enables the fryers to achieve a remarkable 94% efficiency on energy usage and with the extremely clean combustion results make this machine more environmentally friendly than any other machine in the market place.

The frying range has an integrated internal extract system that removes odour and cooking emulsions (a combination of oil, fat and water vapour) from above the open pans. The position of the impact filters and the extract rate ensures that cooking vapour does not rise into the shop/kitchen.

The stainless steel impact filters are designed to slow the extracted air as it passes through two 90 degree turns and thus depositing the heaviest of the emulsion particles into a stainless steel plenum used to collect and solidify them. This removes approximately 60% of the emulsion particles and prevents them entering the extract system. It is however inevitable that most of the remaining particles are deposited within the extract system and it is for this reason that grease traps are installed at the base of each primary riser. The grease traps generally have large inspection hatches and collection drawers to facilitate cleaning and disposal of resultant grease.

An integrated oil filtration system allows the cooking medium to be filtered without disrupting the cooking process and therefore ensures that cooked product particles are removed from the cooking medium regularly and reduces the amount of odour passing into the extracted air.

The associated extract system comprises a Novenco York CNA400 fan unit, odour and grease control and site specific terminations.

The Fan Unit. The fan unit to be used is the CNA400 which is powered by a 1.1Kw motor and runs at 1450rpm. Primarily this unit is being used because of the blade type and direct drive which allows easy and regular maintenance in a potentially greasy and difficult environment. The unit is balanced to achieve minimal noise levels and is mounted on anti-vibration mounts to minimise noise transfer. To minimise noise transfer through the ductwork the inlet and outlet to the fan are connected by flexible couplings. The unit is mounted on anti-vibration blocks to eliminate structure borne noise and vibration.

Noise Control. The aim is to prevent an increase in the background noise level at the site boundaries, and to prevent structure borne noise and vibration transmission to adjoining premises.

In general, the adjacent domestic properties will not be affected at sensitive times (late at night and in early mornings).

Odour Control. The aim is to prevent odour nuisances to neighbours, when equipment is operating under normal circumstances.

It is proposed to install an Electrostatic Precipitator to combat the cooking odours and grease from the frying range. In conjunction with the high impact plenum filters, stainless steel mesh filter and high volume ambient air being drawn across the top of the frying pans to dilute the odour laden air, the ozone and ions produced by the Plasma unit assist in neutralising the odours.

The ESP unit will remove any grease not trapped by filters in extract system.

It is also proposed that the termination of the system be a vertical discharge terminal to ensure a unrestricted exit from the riser.

Maintenance of the extract System.

The Kiremko Frying Range is delivered with full cleaning and maintenance instructions. Special attention is indicated to the regular (daily) cleaning routine for all grease filters.

Full extract system cleaning is instructed as being at least every 12 months and is dependent on the volume of product being cooked on a regular basis.

The plasma system and ESP unit should be serviced every 12 months as per the manufacturers instructions.

Rick Higson Project Manager KFE Ltd.