

Kitchen Air Input Systems

Commercial Kitchen Make Up Air

When air is extracted from a kitchen, replacement air will be drawn into it from the outside. In order for a kitchen ventilation system to work correctly, both the extract and fresh air flows must be considered and planned for.

If fresh air is not introduced into the kitchen via a dedicated ventilation system, all the air extracted through the canopy will have to be made up of natural infiltration air coming in through any other room opening, (i.e. doors, windows etc).

The recommendations for natural infiltration air are for 15 to 20% of the total air extracted. This will maintain a negative pressure in the kitchen and help prevent odours escaping into adjacent areas.

Extract and Make up air Canopy variations:

Replacement air can be supplied into the kitchen via the canopy. A full-length integral fully insulated make-up air plenum can be incorporated inside the front face or perimeter of the canopy, parallel to the extract plenum. Or in the case of island canopies a plenum on each of the canopy faces parallel to the extract plenum. The introduction of supply air via the canopy can be made available with the following methods:

Canopy Front Face Discharge:

Is the normal method of introducing the replacement air into the kitchen, the air being discharged into the kitchen from the front face of the canopy. Either stainless steel perforated panels or double deflection grilles can be fitted to the front face of the canopy to diffuse the replacement air.

Induction supply air:

Enables a jet of ambient air to be injected within the canopy via a slot at the lower internal edge of the canopy face, parallel to the extract plenum. This jet of air induces the rising thermal currents toward the extract plenum, simultaneously mixing with the hot air to reduce the temperature of the air as it passes through the filters, thereby increasing the molecular weight of the grease particles.

Perimeter supply air:

Creates an air-curtain effect, providing kitchen staff with cooling air flow to alleviate the effects of radiant heat and forming a barrier to the rising thermal currents.

Or any combination of the above options can be incorporated into the face of any canopy.

CK Direct (Peterborough)Ltd offer a consultative and support approach to a necessary requirement in any kitchen we offer a full site survey and advice prior to installation and manage all projects to the highest specification

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