

## **2. Extract Air rates calculations**

The cooklines comprises:-

The calculations, using Thermal Convection method, produce an extract air volume of  $0.929\text{m}^3/\text{s}$  which is rounded up to  $1.0\text{m}^3/\text{s}$   
As shown on the calculation sheet

### **Ground Floor (restaurant)**

21 Charcoal Grill Tables

- Quantity: 21 units
- Dimensions per unit:  $455 \times 285$  mm

### **Ground floor (kitchen)**

Gas Kitchen Equipment List (Proposed)

1. Commercial Gas Stock Pot Stove

- 2 burners
- Output: 27 kW

2. Commercial Gas Wok Stove

- 1 burner

- Output: 14 kW
- 700 mm deep (open-frame)

### 3. Twin Basket Freestanding Gas Fryer (Adexa GF150)

- 36L single tank
- Output: 44 kW
- Natural gas

### 4. Professional Gas Range (Adexa ADX705B)

- 4 burners
- Output: 30 kW
- 700 mm depth
- With cabinet base

### 5. Falcon Dominator Plus Gas Steam Oven (G3478)

- Output: 12.1 kW
- 6 × 1/1 GN tray capacity

## **Basement (Mini-Market + Bakery)**

### Electric Bakery Equipment

#### 1. Kolb Deck Oven K01-1206D4F0K

- 37 kW
- 380–400V / 3Ph / PE / 50–60Hz

#### 2. Kolb Convection Oven Atoll 900

- 8.1 kW      – 12.5A / 380V

The calculations, using Thermal Convection method, produce extract air volumes as follows:-

|                         |                        |
|-------------------------|------------------------|
| Ground floor restaurant | 2.38m <sup>3</sup> /s  |
| Ground floor kitchen    | 0.95m <sup>3</sup> /s  |
| Basement kitchen        | 1.985m <sup>3</sup> /s |

As shown on the calculation sheet

Fresh air ventilation rates are based on 80% of extract volumes, ie

|                         |                       |
|-------------------------|-----------------------|
| Ground floor restaurant | 2.0m <sup>3</sup> /s  |
| Ground floor kitchen    | 0.76m <sup>3</sup> /s |
| Basement kitchen        | 1.6m <sup>3</sup> /s  |