System specification sheet

Canopy

Canopy dimension are
2700mm length, x 1200mm wide x 500mm back 250mm front deep wall mounted canopy with a 300mm return to left hand side.
The filter banks is mounted on the back side of the unit, all corners are fully welded, with drain taps fitted to the back drain channel for cleaning purposes.

Finish Type

Fine grain satin stainless steel finish

Filters

Stainless steel baffle filters for easy cleaning, filter size 500mm x 500mm x 50mm.
Canopy face velocity 127ft/min

Fans

Extraction fan

The fan specified in the extraction system is S&P contra rotating cased axial fan, TCBBx2/4-450, rpm 1420, sound pressure level 67 dBA@ 3M, air volume 7430 (m3/h), Dol stop/start controller IP rated 65. The fan will be fitted with anti-vibration mountings to the ceiling and DEC flexible connections between the fan and silencers; this will stop any reverberation noise travelling through the ceiling and walls.

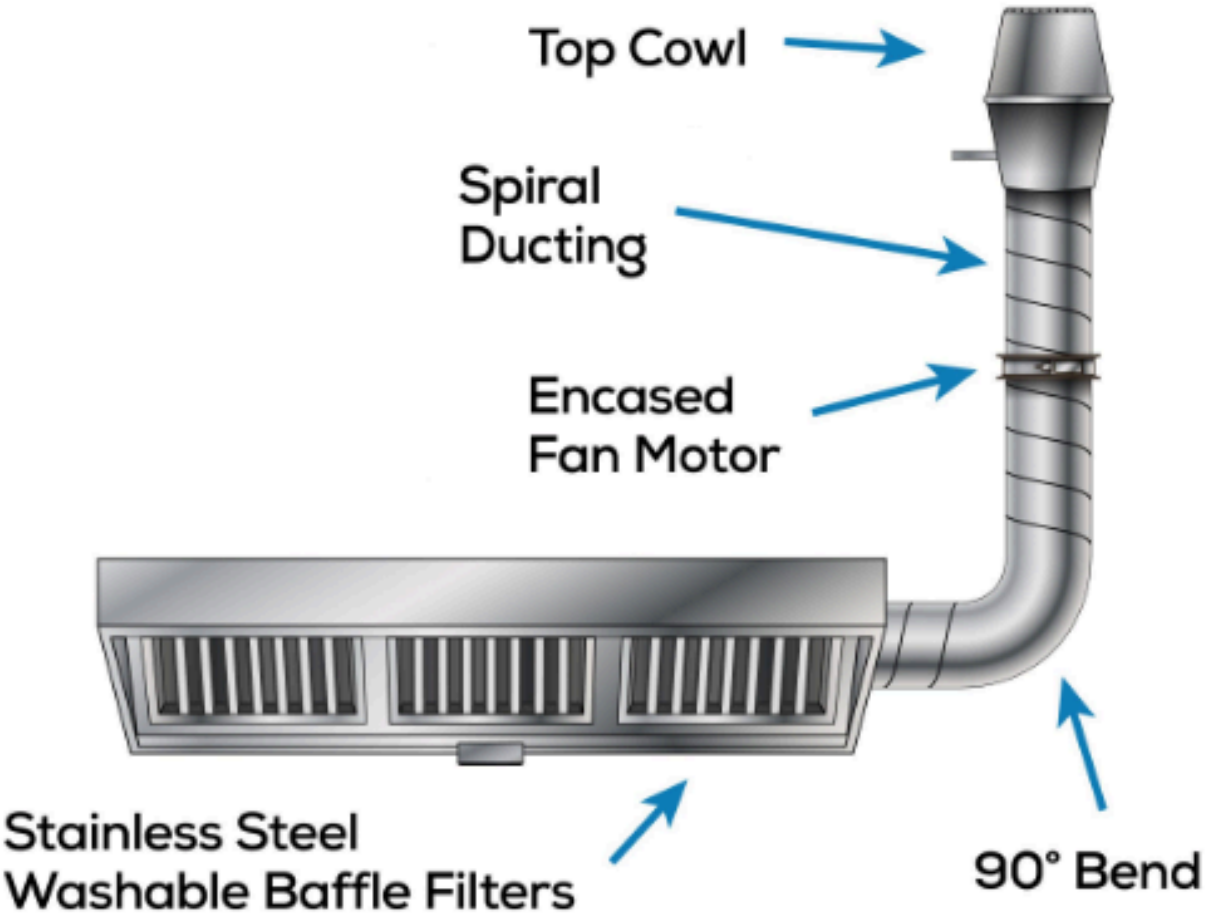
Silencers

This system will be fitted with two 450mm x 600mm long silencers on the out let side and one 600mm long silencer on the in take side, inside wall thickness 60mm.
This will lower the sound level by 30 to 35dBA @mid range frequencies.
The ducting will run along the roof on the outside 1 M, total distance from silencer metres allowing 1.0dBA per 1000mm dissipate giving a further 1dBA.
Giving the total sound level at outlet point to be under 35 to 37dBA @3M
Silencer Ref: Acoustica CPO3-C*-450-2D
The system will be fitted over 15M away from the nearest flat.

Sound Performance

	63	125	250	500	1k	2k	4k	8k	Overall
Inlet (LwA)	62	76	70	74	68	66	65	59	80
Inlet LpA @ 1m	51	65	59	63	57	55	54	48	69
Breakout (LwA)	55	68	60	59	56	54	52	44	70

EXIT TO RIGHT



Extraction application: Exit Right- 1200mm

Breakout LpA @ 1m 44 57 49 48 45 43 41 33 59

Odour control unit
Three sage filter system
The system that will be fitted is a three stage carbon, odour and smoke neutralizing system. This consists of a set of filter units to remove any oil or grease smells and smoke that will come from under the kitchen and restaurant canopies that are created in the cooking process,.
A heavy duty actuated carbon cell will not be used in the system.
First sage, we install into our own purpose built units, two washed mesh filters 495mm x 495mm x 50mm to remove any grease and any other particles that have passed through the canopy filters, this with prolong the life of the fan.
Calculation for filter dwell time is (Area x deep divided by volume.)
1000 x 500 x 500x deep cell =2.5mM2
2.5 xm2 x 0.8 divided by 1.65m3/sec =**0.2 seconds dwell time.**
Stage two after the air has been slowed down there will be one OC2 units that inject ozone into the ductwork to neutralizes the smells. These will be mounted on the side of the first filter housing.
The OC2 unit is a state of the art ozone injection system for commercial kitchen odour control. Ozone is a well-known disinfectant and odour neutralizer. The ozone is injected directly into the kitchen canopy or the associated extraction ductwork.
The unit is simple and quick to install, with low running and maintenance costs. The OC2 provides odour control at an affordable price.
Product Specification
Volume Flow rate Up to 2.0m3/s per unit
Unit Dimensions 290w x 290h x 290L
Unit Housing material Stainless steel powder coated
Unit Colour Black
Duct work connection 100mm circular spigot
Air residence time internally >0.2 seconds
Stage three
1 x ESP Two Cell unit.7500 (as shown on the plans)
This unit will take any smoke out of the air that is passing through the system.
The ESP unit will also take any unused ozone out of the air, this system will give you 90% clean air at the termination point.

Make up air fan
The fan specified in the make up air system is a S&P CBM fan. CBM-10/10 340PW 6PC VR, IP rated 44 class F airflow 4770 m3/h dba 67.
Our air make up systems are made up of a unit that contains the fan G4 panel filter to remove fine particles and dust from outside with open end manifold.
The will be brought back into the kitchen through the roof.
This system will give 80% volume of the extraction system, 80% volume of the extracted air is required to be replaced by mechanical air supply fan and controller discharging through the front of the canopy free area space ie: windows or doors open with fly screens to give air replacement.
Ducting
The ducting systems will exit from the top of the canopy, in 450mm SPT
Are as shown on plans SPT 450mm, 500mm and 250mm x 500mm square for the extraction.
200mm and 500mm flex ducting for the air input system.
Ducting Colour .....galvanised steel
Cowl ..... beak cowl
Discharge velocity on each cowl12-15m3/s
All our systems comply with DW175 regulations and specifications with regards to ducting sizes, heights and fan duties etc.
The Commissioning sheet will be issued after the work has been completed showing air flow rate and inventory of the system fitted.

Gas inter lock

The Ventilation/Gas interlock system for the kitchen area shall be manufactured and supplied by Canopy UK Gas Safety Systems type Merlin CT1250.
The panel dimensions are 254mm high x 178mm wide x 62 mm deep. The box shall be rated to IP65 it shall be an ABS enclosure and be CE Approved. The fascia of the panel should be key operated (on/off) and a shrouded emergency shut off button located in the top right hand corner should be fitted (to meet BS6173.2001).The Ventilation/Gas interlock panel shall have a total of 7 L.E.D'S on the fascia, these should be: Power, Gas On, EM Stop, Supply Fan, Extract Fan, Fan Fault and Service).
1 x Merlin CT1250 Panel
1 x Gas Solenoid Valve (Size to be 1 1/2)
2 x Remote Gas Shut-Off Button (where required) to be fitted to the fire exists
This system work on using current monitoring instead of air flow switches.

Fabfix Ltd