

Contact : Paul Kelly

Project : The Revelator, Brighton

Canopy Type: Wall Type Open One End

Revision: A

These calculations are based upon DW172
the HVCA Standard and relate ONLY to the equipment
under the relevant canopy and do NOT include for
general Kitchen ventilation
Flow rate calculation method one

DW172 Canopy Flow Rate Calculation





Catering Equipment beneath relevant canopy requiring ventilation

ltem	Description	Power	Width	Depth	Coeff	Area ²	Flow rate
5	Chargrill	Electric	400	800	0.52	0.32	0.17
6	Griddle	Electric	400	800	0.25	0.32	0.08
7	4 Ring Burner & Oven	Electric	800	800	0.51	0.64	0.33
8	Twin Fryer	Electric	400	800	0.45	0.32	0.14
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
						0.00	0.00
		Theoretical Extra	act Volum	e Required a	ddition of th	ne above	0.72
anopy Factor Overhead Wall Type Open One End							1.20
Specific Extract Flow Rate Required M3/S taking into account canopy factor							0.86
Safety Margin over and above the requirements of DW172							10%
Total Extract Flow Rate Including Safety Margin for equipment under canopy only							0.95
Supply Flow Rate (85%) M3/S							0.80
If canopy is Induction slot type the Supply Flow Rate inboard through slot (50%) M3/S							0.47
If canopy is Induction slot type the Supply Flow Rate outboard through fascia (35%) M3/S						0.33	
Heater Battery at 85% with 21c rise (KW)						20	
Heater Battery at 35% 21c rise (KW)							8
Duct and Canopy Spigot sizes Number Velocity M/S SQ						SQ	Diameter
Single Extract Duct 1 7 368						368	41
Branch Extract Ducts 2 7 260						29	
Single Supply Duct (85%) 1 5 401						45	
Branch Supply Ducts (85%) 4 5 201						201	22
	Discharge and inlet grilles or louvres Number Velocity M/S SQ Extract Louvres/Grillesetc 1 2.5 61!						
11 /						567	
	Supply Air via perforated supply air panels (54% Free Area) 1 2.5 772						

Client to confirm that cooking equipment is listed correctly