

KITCHAVENT 2000 / 3000 / 4000 Complete Grease, Smoke and Odour Control Solution

Applications

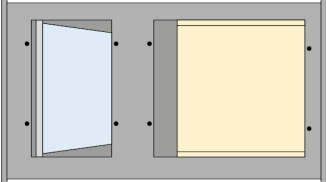
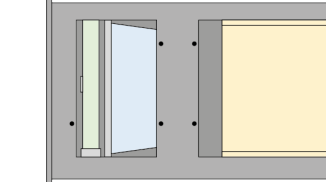
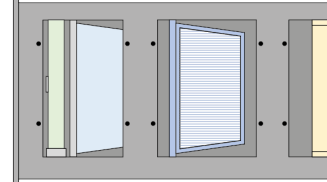
The Airclean Kitchavent System is designed to control nuisance grease, smoke and odour discharge from commercial kitchens in line with DW 172 and the EMAQ+ guidance for nuisance control from kitchen extract systems.


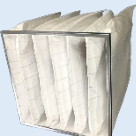


The Kitchavent system can be installed in any convenient position within the kitchen extract duct run from the canopy to the extract fan.

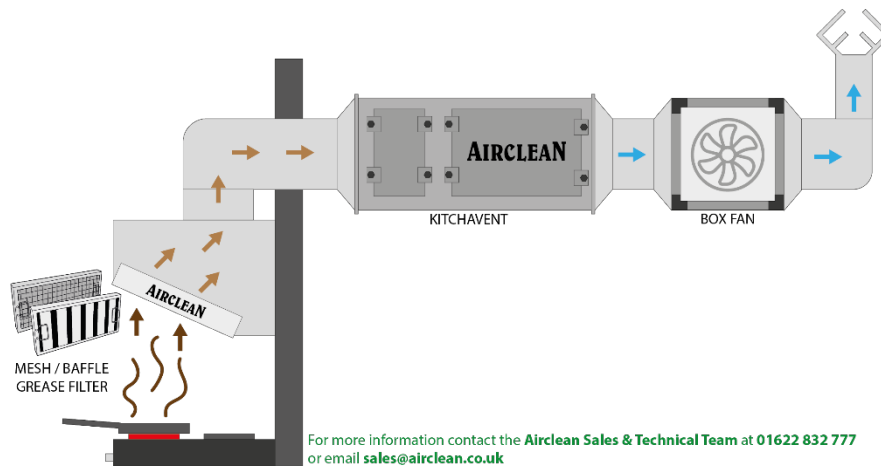
Various versions of the Kitchavent are available offering up to four stages of kitchen extract filtration using Grease, Bag, HEPA, and Activated Carbon to clean the air before being discharged.

Kitchavent 2000, 3000 and 4000 are distinguished between by the following:



2 Stage - Kitchavent 2000	3 Stage - Kitchavent 3000	4 Stage - Kitchavent 4000
		
M5 Bag + Carbon	Grease Filter + M5 Bag + Carbon	Grease Filter + M5 Bag + HEPA + Carbon

 Washable Grease Filter Reduce excess grease	 M5 Bag Filter Reduce fine particulates	 E10 HEPA Filter Reduce smoke	 Activated Carbon Reduce odour
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The unique design of the Kitchavent housing ensures that all air is treated for grease, smoke and odour prior to discharge, ensuring that there is no air leakage past the filters within the unit.

The modular system allows for airflows ranging from 0.2m³/s in the smallest module and up to 2.12m³/s in the largest unit. Multiple units can be utilised to cater for any larger airflows or greater contact times.

The Kitchavent System can be used to design systems that will meet any contact time required for odour control. Typically this is defined by local authority guidance, or advised by a systems designer. (Typically 0.1 seconds to 0.8 seconds depending on cuisine and discharge point.)

The Kitchavent grease, odour and smoke control unit is suitable for internal and external mounting, and is also available in a flat pack version for those tricky to reach situations.

Description

The Kitchavent housing is manufactured from pre-coated steel, having plain external flanges of 40mm, access doors on both sides, and a painted finish. The grease filter is located in a grease trough to facilitate regular cleaning of the unit.

Air filter sealing faces and clips ensure that all air passes through the carbon and HEPA filters capturing 90% of odours, and up to 99% of smoke generated from modern commercial kitchens.

The simple design, along with a painted finish, ensures that the unit is not obtrusive, and is discrete for installations where the unit is on show, or where sensitive planning issues exist.

Technical

Contact Times

To ensure effective odour control, a suitable contact time must be maintained with the activated carbon. Contact times will vary depending upon cuisine styles and the sensitivity of the discharge point. Examples of typical contact times are as follows, or where it is required, the EMAQ+ guidance "Control of Odour and Noise from Commercial Kitchen Exhaust Systems" can be consulted.

Contact Times (Seconds)	Typical Cuisines / Applications	EMAQ+ Guidance
0.1	Café / Tea Rooms / Most Pubs Low Odour Cuisine / High level Discharge	Low to Medium Level Odour Control
0.2 - 0.3	Take Away / Pizza / Burger Bars Medium Odour Cuisine	High Level Odour Control
0.4 - 0.8	Indian / Thai Restaurants / High level of fried food Low Level Discharge / Sensitive Discharge	Very High Level Odour Control

Positioning and Mounting

Where airflows greater than stated in the data sheets are required, multiple modules can be mounted in "parallel".

Units are generally mounted horizontally, although where grease filters are not used (Kitchavent 2000) units can be modified to suit a vertical airflow.

Filter change and maintenance can be carried out from both sides of the unit. Consideration must be made for manual handling and mounting as the weights of the Activated Carbon Filters and the actual units are high. (See Catalogue AC6.2 Section 6).

Where installation access is difficult, **flat pack AHU style Kitchavents** are available for engineers to simply put together on site.



Flat Pack Kitchavent
Available on request

Operating Conditions

Max allowable air on conditions to the unit are 40 degrees centigrade and 80% relative humidity, if these conditions are exceeded then the activated carbon filter will be ineffective.

Kitchavent Selection Tables

The following tables offer selections for Kitchavents of all styles.

0.1 second contact time is suitable for Low to Medium Level Odour Control

0.2 second contact time is suitable for High Level Odour Control

0.4 second contact time is suitable for Very High Level Odour Control

KITCHAVENT 2000 - 2 Stage Odour Control													
Airflow Rating @ 0.1 Second Contact Time			Airflow Rating @ 0.2 Second Contact Time			Airflow Rating @ 0.4 Second Contact Time			Overall Casing Size (mm) *			Cell Qty.	Part Number
m3/s	P.D. (Pa)		m3/s	P.D. (Pa)		m3/s	P.D. (Pa)		Height	Width	Depth		
	Clean	Dirty		Clean	Dirty		Clean	Dirty					
0.27	322	400	0.14	161	380	0.07	81	340	383	383	1182	1	1815211
0.54	322	400	0.27	161	380	0.14	81	340	383	681	1182	2	1815212
0.81	322	400	0.41	161	380	0.20	81	340	383	979	1182	3	1815213
1.08	322	400	0.54	161	380	0.27	81	340	383	1277	1182	4	1815214
0.53	296	367	0.27	296	367	0.13	74	307	688	383	1182	1	1815251
1.06	296	367	0.53	296	367	0.27	74	307	688	681	1182	2	1815252
1.59	296	367	0.80	296	367	0.40	74	307	688	979	1182	3	1815253
2.12	296	367	1.06	296	367	0.53	74	307	688	1277	1182	4	1815254

KITCHAVENT 3000 - 3 Stage Odour Control													
Airflow Rating @ 0.1 Second Contact Time			Airflow Rating @ 0.2 Second Contact Time			Airflow Rating @ 0.4 Second Contact Time			Overall Casing Size (mm) *			Cell Qty.	Part Number
m3/s	P.D. (Pa)		m3/s	P.D. (Pa)		m3/s	P.D. (Pa)		Height	Width	Depth		
	Clean	Dirty		Clean	Dirty		Clean	Dirty					
0.27	354	464	0.14	177	434	0.07	89	374	383	383	1182	1	1815311
0.54	354	464	0.27	177	434	0.14	89	374	383	681	1182	2	1815312
0.81	354	464	0.41	177	434	0.20	89	374	383	979	1182	3	1815313
1.08	354	464	0.54	177	434	0.27	89	374	383	1277	1182	4	1815314
0.53	331	437	0.27	166	407	0.13	83	347	688	383	1182	1	1815351
1.06	331	437	0.53	166	407	0.27	83	347	688	681	1182	2	1815352
1.59	331	437	0.80	166	407	0.40	83	347	688	979	1182	3	1815353
2.12	331	437	1.06	166	407	0.53	83	347	688	1277	1182	4	1815354

KITCHAVENT 4000 - 4 Stage Odour Control													
Airflow Rating @ 0.1 Second Contact Time			Airflow Rating @ 0.2 Second Contact Time			Airflow Rating @ 0.4 Second Contact Time			Overall Casing Size (mm) *			Cell Qty.	Part Number
m3/s	P.D. (Pa)		m3/s	P.D. (Pa)		m3/s	P.D. (Pa)		Height	Width	Depth		
	Clean	Dirty		Clean	Dirty		Clean	Dirty					
0.20	418	651	0.07	138	400	0.03	69	350	383	383	1824	1	1815411
0.40	418	651	0.13	138	400	0.07	69	350	383	681	1824	2	1815412
0.60	418	651	0.20	138	400	0.10	69	350	383	979	1824	3	1815413
0.80	418	651	0.26	138	400	0.13	69	350	383	1277	1824	4	1815414
0.40	401	632	0.20	201	607	0.10	100	557	688	383	1824	1	1815451
0.80	401	632	0.40	201	607	0.20	100	557	688	681	1824	2	1815452
1.20	401	632	0.60	201	607	0.30	100	557	688	979	1824	3	1815453
1.60	401	632	0.80	201	607	0.40	100	557	688	1277	1824	4	1815454

* Duct size is overall less 80mm