

VENTILATION & EXTRACT STATEMENT

1. INTRODUCTION

- i. This statement has been written to support the application for the development of 357 Filton Avenue, Bristol, BS7 0BD.
- ii. The proposed development is to change the use of an existing commercial unit (Use Class E) to a mixed use development consisting of a hot food takeaway (Use Class Sui Generis) and a small (5 bedroom HMO) (Use Class C4). Additionally, permission is sought for a side extension at first floor level to facilitate the addition of a bedroom to an existing first floor flat.
- iii. This statement should be read in conjunction with the application forms and drawings. It is intended to outline the strategy for dealing with cooking fumes from the takeaway kitchen only.

2. CANOPY

- i. The canopy will cover all the cooking hob areas.
- ii. The canopy will be manufactured entirely of Grade 304, 1.2mm grain finish stainless steel. The perimeter will contain a 50mm condense channel. The grease filter retaining frame will contain stainless steel baffle type grease filter.

3. FILTERS

- i. Fine filtration or electrostatic precipitators - fine filtration is very unreliable (filters block easily) and takes up a huge amount of space, I would recommend electrostatic precipitator, for 6000 m³/hour (performance of Helios GBW500) T4002 is necessary.
- ii. Carbon filters and residence time - to achieve 0.4 sec residence time with an airflow of 6000 m³/hour needs 6 number carbon blocks 60x60x60cm each.

4. FANS AND SILENCERS

- i. 45dB(A) is taken from the fan manufacturers catalogue data and refers to the expected noise level 4m from the fan position. This figure is for breakout noise through the fan casing so is not affected by the installation of silencers. The 15 to 20 dB reduction from the silencer refers to the in-duct figures shown in the catalogue. Actual fan selected is KBR 280D2

5. DUCTING

- i. All ducting to dw142 or above

6. FAST CLAMPS

- i. Reduces noise transmission & vibration between fan and ducting accessories
- ii. Used with rigid (spiral) ducting
- iii. Foam backed to ensure a good seal
- iv. Easily released screws (supplied) for quick assembly

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APPENDIX - EXAMPLE PRODUCT DATASHEETS

Grease Hoods — Type I



Greenheck Type I hoods are UL 710 Listed.

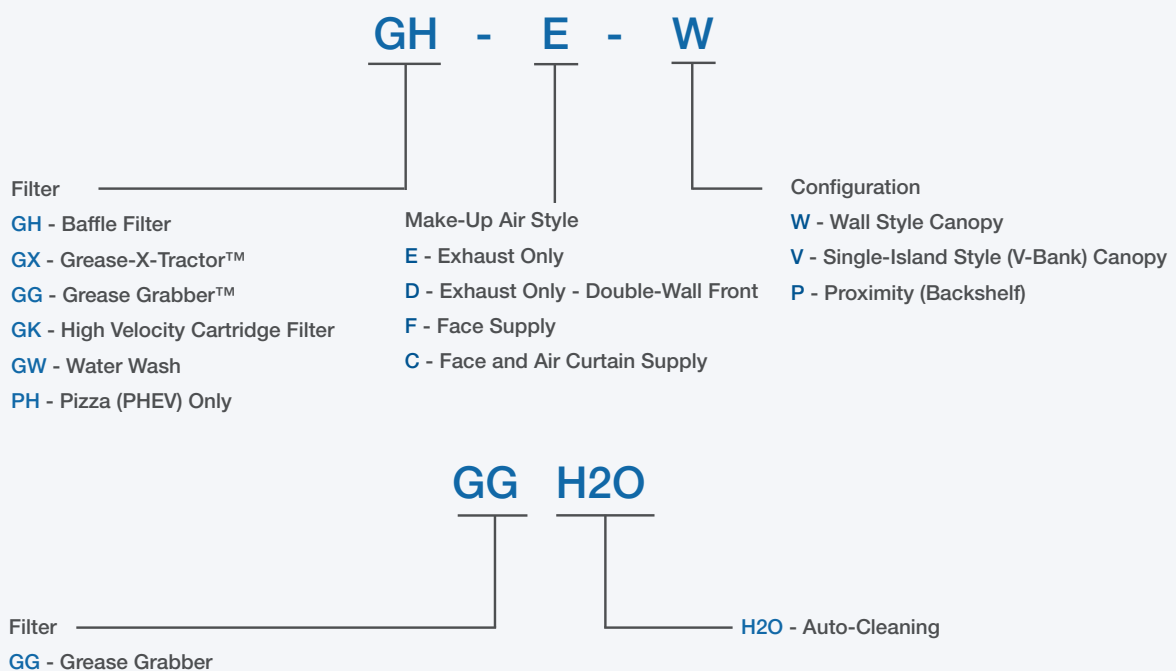
Type I Overview

Type I hoods are designed for use above grease-producing equipment and are available in several styles and configurations.

Greenheck grease hoods offer the following benefits:

- Standard construction is a minimum of 18 gauge 430 stainless steel with an embossed finish
- Hoods can be built in single section lengths from 3-16 feet (914-4,876 mm)
- Flexible lengths, widths and heights
 - Hood lengths:* Available in 1-inch (25 mm) increments
 - Hood widths:* Available in 3-inch (76 mm) increments
 - Hood heights:* Available in 24-inch (609 mm), 30-inch (762 mm) or tapered configurations
- Longer hoods are available in multiple sections and can be made to appear as one hood by utilizing our continuous capture option to improve performance and aesthetics
- Standing seam construction for superior strength
- Excellent dimensional tolerances due to highly tooled manufacturing
- UL 710 Listed and bears the National Sanitation Foundation (NSF) Seal of Approval (Standard 2)
- Rated for 400° F. (76° C.), 600° F. (316° C.), and 700° F. (371° C.) cooking operations
- Performance Enhancing Lip (PEL) is standard and improves capture efficiency by turning air back into the hood

Model Number Code



AIRCLEAN

YOUR AIR FILTER MANUFACTURER

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Metal Cased Discarbs

The metal cased 'Discarb' cells have the highest carbon loading in our range, and have standard or heavy-duty carbon panels permanently sealed into a galvanised sheet steel casing. This construction gives a very strong unit capable of handling large air volumes or where conditions dictate, increased contact time. The advantage of this unit is that with panels sealed in, there is no possibility of air leakage. Also, these units can be manufactured to almost any reasonable size, the limiting factors being the overall weight for handling purposes and the size of individual panels. When the unit has finished its useful life it is discarded and replaced with a complete new cell.



Standard Duty Cells							
Nominal Size	Actual Size mm	Number of	Carb.	Discarb	Airflow		Pressure
W x H x L	W x H x L	Panels	Weight	Weight	m ³ /s	cfm	Pa
12" x 12" x 12"	292 x 292 x 292	6	5 kg	9 kg	0.10	212	75
12" x 12" x 18"	292 x 292 x 445	6	8 kg	14 kg	0.15	318	95
12" x 12" x 24"	292 x 292 x 597	6	10 kg	18 kg	0.22	466	140
18" x 18" x 12"	445 x 445 x 292	8	10 kg	17 kg	0.21	445	55
18" x 18" x 18"	445 x 445 x 445	8	15 kg	25 kg	0.31	657	70
18" x 18" x 24"	445 x 445 x 597	8	21 kg	33 kg	0.41	868	105
24" x 24" x 12"	597 x 597 x 292	12	20 kg	31 kg	0.41	868	70
24" x 24" x 18"	597 x 597 x 445	12	31 kg	45 kg	0.61	1292	90
24" x 24" x 24"	597 x 597 x 597	12	42 kg	59 kg	0.81	1716	130
12" x 24" x 24"	298 x 597 x 597	6	21 kg	35 kg	0.40	847	130

Extra Duty Cells							
Nominal Size	Actual Size	No. of	Carb.	Discarb	Airflow		Pressure
W x H x L	W x H x L	Panels	weight	weight	m ³ /s	cfm	Pa
12" x 12" x 12"	292 x 292 x 292	6	6 kg	10 kg	0.13	275	125
12" x 12" x 18"	292 x 292 x 445	6	9 kg	15 kg	0.20	424	175
12" x 12" x 24"	292 x 292 x 597	6	12 kg	20 kg	0.27	572	250
18" x 18" x 12"	445 x 445 x 292	8	12 kg	19 kg	0.30	635	95
18" x 18" x 18"	445 x 445 x 445	8	19 kg	28 kg	0.41	868	125
18" x 18" x 24"	445 x 445 x 597	8	25 kg	37 kg	0.54	1144	185
24" x 24" x 12"	597 x 597 x 292	12	25 kg	35 kg	0.54	1144	125
24" x 24" x 18"	597 x 597 x 445	12	38 kg	52 kg	0.80	1694	150
24" x 24" x 24"	597 x 597 x 597	12	51 kg	68 kg	1.06	2245	225
12" x 24" x 24"	298 x 597 x 597	6	26 kg	46 kg	0.53	1122	225

The company reserves the right to change the specifications without notice. E & OE.

Code AC6/2a Ref 02/09

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Technical

The capacities shown are based on a dwell time of 0.1 seconds .

For contact times of 0.3 seconds, reduce rated airflow to 1/3rd, pressure drop will also reduce to 1/3rd.

Max Temperature 40 Deg C

Max Humidity 80% RH

Non-standard sizes

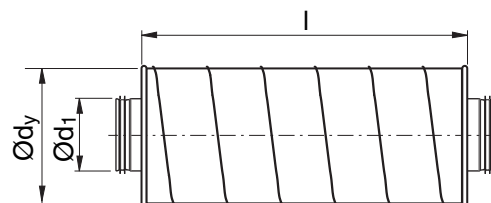
Other sizes are available to suit individual requirements. Our Technical Department will be pleased to

Circular straight silencer

SLGU 100



Dimensions



Description

Fire classes without protective distance: EI 15, E 60

Fire classes with protective distance to:
evacuation person:

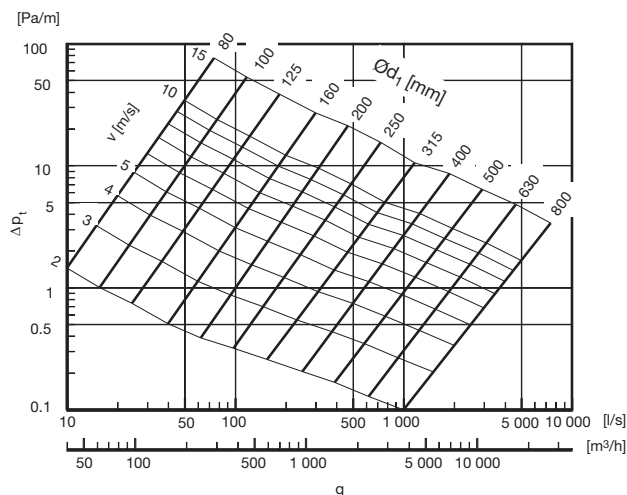
3 kW/m² EI 60 at distance 50 mm (Ø 80–315)
EI 30 at distance 50 mm (Ø 400–800)
EI 60 at distance 500 mm (Ø 400–800)

combustible materials:

10 kW/m² EI 60 at distance 5 mm
30 kW/m² EI 60 at distance 5 mm

Insulation thickness 100 mm.

Technical data



Ordering example

Product	SLGU	250	900	100
Dimension Ød ₁				
Length l				
Insulation thickness				

Ød ₁ nom	l mm	Attenuation [dB] centre frequency [Hz]								Ød _y mm	m kg
		63	125	250	500	1k	2k	4k	8k		
80	300	4	8	11	17	25	30	28	15	295	3,00
80	600	6	15	23	34	50	50	50	25	295	5,30
80	900	9	22	35	50	50	50	50	36	295	7,60
100	300	2	7	10	15	20	25	21	13	310	3,40
100	600	4	13	20	28	40	49	36	20	310	6,10
100	900	7	20	30	41	50	50	50	27	310	8,80
125	300	1	7	9	16	19	19	15	10	325	3,20
125	600	3	11	17	26	38	38	25	15	325	5,90
125	900	4	15	25	36	50	50	35	20	325	8,50
125	1200	6	19	33	46	50	50	45	25	325	11,2
160	300	1	6	9	14	16	14	10	7	365	4,20
160	600	3	8	15	23	29	29	17	11	365	7,50
160	900	4	11	21	32	43	44	25	14	365	10,7
160	1200	5	14	27	41	50	50	32	18	365	14,0
200	600	3	7	14	21	24	21	12	9	410	10,6
200	900	5	10	20	33	38	30	16	11	410	15,3
200	1200	6	12	26	45	50	40	20	13	410	20,0
250	600	3	5	11	17	19	15	8	7	465	12,2
250	900	4	8	17	27	30	21	11	9	465	17,7
250	1200	5	10	23	37	41	26	14	11	465	23,2
315	600	2	5	9	17	16	9	6	6	510	15,7
315	900	3	6	14	23	24	13	8	8	510	23,0
315	1200	4	8	18	29	32	17	10	11	510	30,1
400*	900	4	5	10	11	14	7	6	8	615	27,4
400*	1200	5	6	13	16	17	9	7	9	615	35,9
400*	1500	5	8	15	20	20	11	8	11	615	44,3
500*	900	3	5	10	11	9	5	6	7	735	31,4
500*	1200	3	6	14	16	13	7	7	9	735	41,0
500*	1500	4	7	17	21	17	9	7	11	735	50,6
630*	900	3	4	7	8	5	4	4	5	880	39,9
630*	1200	3	5	11	12	8	5	5	7	880	51,9
630*	1500	3	6	14	16	11	6	6	9	880	64,0
800*	1200	2	3	9	8	5	4	5	5	1030	68,7
800*	1500	2	4	11	12	6	5	6	6	1030	84,7

* Supplied with two loose couplings