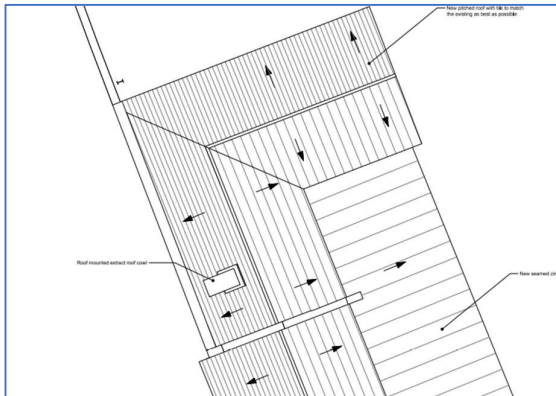


DEFRA Odour Assessment – The Sun Inn Reading

The following is an assessment Please find below our assessment of the potential for nuisance Odour arising from the cooking processed carried out at the above site based on using Annex C: Risk assessment for Odour from DEFRA document – “Guidance on the control of Odour and Noise from Commercial Kitchen Exhaust Systems “- January 2005

Dispersion

The kitchen extract ductwork is housed within a dedicated plantroom within the roof of the kitchen and disperses directly out of the roof above eaves height at a velocity of 12m/s at the outlet. The outlet is positioned on the west elevation of the proposed new roof dispersing away from the site at a height of above 6m above the adjacent roadway giving a good level of dispersion.



Assessment score of 10.

Proximity of Receptors

The location of the discharge gives the nearest sensitive receptor between 20m and 100m away

Assessment score of 5

Size of Kitchen

The Sun Inn will be trading as a traditional public house with a split of dining and drinking covers. The site will have between 30 and 100 dedicated dining covers and therefore falls into the medium category.

Assessment score of 3.

Cooking Type (odour and grease loading)

The proposed cuisine is French brasserie and has a low grease content and odour loading, taking from the figures stated on the DEFRA document and an overall figure of the two combined to an assessment score of 1

Assessment score of 1.

Overall Assessment

Taking into account the above the overall assessment is of a score of 19 which places the need for low level odour control.

Total Assessment Score = 19

THE SUN INN
READING.

Odour Risk Assessment Using DEFRA 2005 Annex C methodology			
Criterion	Level Details		Score
Dispersion	Low level discharge	Very poor	20
	Not low level but below eaves at below 10m/s	Poor	15
	Discharging 1m above eaves at 10-15m/s	Moderate	10
	Discharging 1m above ridge at 15m/s	Good	5
Proximity of receptors	Closest sensitive receptor less than 20m	Close	10
	Between 20 and 100m	Medium	5
	More than 100m from kitchen discharge	Far	1
Size of Kitchen	More than 100 covers	Large	5
	Between 30 & 100 covers	Medium	3
	Less than 30 covers	small	1
Cooking Type	Pub (high level of fried food) Fried chicken	Very High	10
	Burgers or fish & Chips		
	Kebab Vietnamese Thai Indian	High	7
	Chinese Japanese or Cantonese	Medium	4
	Most pubs Italian French Pizza or steakhouse	Low	1
Low Level Odour Control Total Less than 20			Total 19
High Level Odour Control Total 20-35			
Very High Level Odour Control Total more than 35			

Filtration Specification

With low level odour control being required

install a system comprising of the following:

1. Canopy baffle filters used as primary filters within canopy.
2. Pre Filters for dust and fine particles
3. Carbon Filtration

1. Baffle Filters -

AIRGARD TYPE 2 BAFFLE FILTER

LONGAR INDUSTRIES LIMITED



AIRGARD™ FEATURES

- Rolled stainless steel section with safety edge on frame and blades.
- Welded construction.
- Folding handles.
- Drain holes.
- Optional mesh to front and rear.

TYPE 2 COMMERCIAL KITCHEN FILTER

For use in commercial kitchens and ventilation to extract grease laden air and act as a fire barrier. Fire barriers prevent any cooking flames traveling past the extract canopy. The new Type 2 is a development of customers requesting certain attributes for the baffle filter, the main ones being rolled edges on frame and blades. The Type 2 is available in 20mm or 45mm depths only, this is required for the filter to operate at a constant efficiency and to protect the system as a flame barrier as tested to European Standard DIN 18869-5. The Type 2 Baffle design has a higher grease filtration efficiency than other baffle filters on the market due to the blade design and spacing.

Pressure drops and test results please see the enclosed chart below.

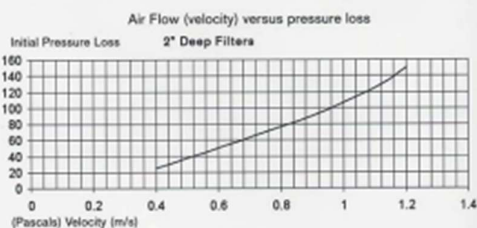
MATERIAL SPECIFICATIONS

As standard, all baffles are Stainless Steel 430 with a polished finish. (Other finishes and material are available)

TECHNICAL SPECIFICATIONS

Longar specifies the Baffle Filter as height x width x thickness. The handles are fixed to the height and drain holes punched on the width. The length of the baffle is the height, please ensure correct orientation is given when ordering.

H x W x D Actual Size (mm)	
243 x 395 x 45	496 x 395 x 45
243 x 496 x 45	496 x 496 x 45
395 x 395 x 45	597 x 597 x 45
395 x 496 x 45	624 x 395 x 45
444 x 444 x 45	Custom sizes are available



PACKAGING

All filters are packed in secure corrugated cardboard cartons, tape sealed for protection against dust and other contaminants.

Longar Industries Limited
Unit 25, Glenmore Business Park, Colebrook Way, Weyhill Road, Andover SP10 3GZ
Tel: 01264 332993 Fax: 01264 332994 www.longar.co.uk

Airgard is a registered trademark
Longar Industries Limited reserves the right to change any of the information
within this literature at any time without prior notice.

2. Pre filters -

Pre-Filtration: G2 to G4

Primary Bag Filters

Hi-Cap



Application: Prefilter for air conditioning and ventilation systems

Type: Filter with synthetic bags and medium efficiency

Frame: Galvanised sheet metal, 25mm

Media: Polyester

Efficiency acc. EN:779:2012: G4

Recommended final pressure drop: 250 Pa

Maximum air flow: 1,25 x air flow

Temperature / Humidity: 70°C / 100% RH

Mounting: Frame Type 4MPS, 4NQS, 4ORS or housings FC-HF

Remarks: Filter with plastic frame available



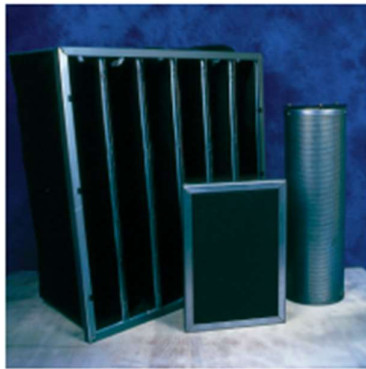
continuous improvement, Camfil reserves the right to change specifications without notice. 2016-02-19

Model Name	Filter class	Width	Height	Depth	Air flow m ³ /h	Pressure drop	Bags	Area m ²	Volume m ³	Weight kg
HC 66	G4	592	592	360	3400	40	6	2,6	0,04	2,2
HC 56	G4	490	592	360	2800	40	5	2,2	0,04	1,9
HC 36	G4	287	592	360	1700	40	3	1,3	0,03	1,3
HC 33	G4	287	287	360	800	40	3	0,7	0,02	0,7
HC 63	G4	592	287	360	1700	40	6	1,3	0,03	1,3
HC 66/580	G4	592	592	580	3400	30	6	4,2	0,04	2,6
HC 56/580	G4	490	592	580	2800	30	5	3,5	0,04	2,2
HC 36/580	G4	287	592	580	1700	30	3	2	0,03	1,5
HC 33/580	G4	287	287	580	850	30	3	1	0,01	0,8
HC 63/580	G4	592	287	580	1700	30	6	2	0,03	1,5

Other dimensions are available on request - All dimensions are nominal.

3 - Carbon Filters.

AIRGARD TYPE 8 THE CARBON FILTER



LONGAR INDUSTRIES LIMITED

FEATURES

- High quality carbon
- Robust modular construction
- High carbon content
- Special sizes available on request
- Available with handles and seals
- Low pressure losses

ACTIVATED CARBON UNITS (ACU)

For a modular approach to fume removal the ACU is the ideal solution. The ACU unit is manufactured from a number of carbon biscuits held in a vee formation within a corrosion proof metal casing. The carbon biscuits inside the units are 25mm thick and are also sealed into the frames using polymer which eliminates the possibility of any air by-pass around the carbon.

PRE-FILTRATION

Carbon filters are designed to remove fumes and odours and are therefore not able to filter fine particles and dust. If left unprotected, the life of the carbon is severely reduced. To protect the filters use pleated and bag filters to the correct grade; this will depend on the environment.

SIDE ACCESS HOUSINGS

These are housings which encompass the Activated Carbon Unit along with the Pre-Filtration (such as Bag/Panel Filters). All housings have a side panel which is removable so that access can be gained easily to replace the filters.

This type of housing is ideal for adding to existing installations such as catering extracts or industrial ventilation systems.

Options are available depending on the application.

APPLICATIONS

Activated Carbon dates back many years. In the first World War gas masks were filled with activated carbon granules to remove chlorine gas. Today Longar produces a wide range of carbon filters to deal with many noxious fumes and gases, whilst maintaining high levels of strength and low pressure loss.

Major uses of carbon are in areas where toxic or offensive odours need eliminating. For example sewage works, hospitals, slaughterhouses, restaurant kitchens, airports, toilets, wash rooms, laboratories, office blocks and many more.

Maintenance

The maintenance of the extraction system will be formed of daily and annual maintenance.

Daily cleaning:

The washable stainless steel baffle filters will be cleaned daily as part of the end of shift cleaning regime.

Annual cleaning:

The extraction ductwork system will be fully cleaned by a commercial cleaning contractor twice a year and certificated as part of an ongoing maintenance contract and the ductwork cleaning will be in accordance with TR19 as published by the HVCA.

Annual maintenance:

Pre Filters to be changed every 3 months

Carbon Filters will be replaced as per manufacturers guidelines every 6 months and the system generally will be included in a formal cleaning regime as well as maintenance to the fan unit which will be as per the manufacturer's recommendations and this should form the basis of a service contract.