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DETAILS TO EXTRACTION SYSTEM

Canopy	Size
All material to comply with the food hygiene requirement is stainless steel High quality 1.0mm thick 430 catering grade stainless steel	Canopy size 1500mm wide x 800mm deep Canopies manufactured to any length if not currently in stock. All of our extract Canopies are designed in accordance with HCVA, DW/172 and HVCA DW/144.
Grease filters to have a minimum performance the same as a baffle filter and to be easy to clean	4 stainless steel Baffle Filters 300 high x 400 Wide x 45mm. The filter bank runs the complete length of the Canopy with drain holes at the bottom to allow excess oil to drain away to the grease collection channels.
Velocity	The design airflow volume for this installation is 0.8m ³ /second. A fan speed controller will be fitted to allow user adjustment of the fan speed to suit prevailing cooking conditions.

Ducting	Size
	All ductwork should be Low Pressure Class 'A' and constructed in accordance

	with HVCA Specification DW/144 Duct will extend from the rear of the canopy. The duct will pass through the internal wall into the room behind. The duct will then turn 90 degrees Horizontal to pass through the wall, then turn 90 degrees to rise up vertically to terminate 1,000mm above the roof line in a high velocity cowl. Duct are in size 600mm, 1 Length 1 Rain cover 1 Top Mesh 1 bend 45 degree x 600 1 bend 90 degree x 600
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Odour and Noise	
Carbon filters are also required and are essential when preparing fried foods and/or foods with strong odours in a food premises close to residential or office properties. Properly maintained carbon filters can eliminate the majority of odours created when food is cooked. Carbon filters should be fitted internally to the ductwork, after the grease filters, and should be positioned so that they can easily be accessed for cleaning.	All ducting fittings included Odour/ Smoke filter Box Axial Fan, 960 rpm, Single Phase, 220/240 V A full ducting system including odour filter box complying with new regulations for food premises Very high level odour control will include: 1. Fine filtration or ESP followed by carbon filtration (carbon filters rated with a 0.4 –0.8 second residence time) 2. Fine filtration or ESP followed by carbon filtration and by counteractant/neutralising system to achieve the same level of control as 1.

Sound attenuator (silencer)	The extraction fan will be an acoustically lined unit measuring approximately 600mm x 600mm x 600mm. The fan unit will be mounted on anti vibration mountings and will be connected to the ducting with flexible duct connectors to minimise the transmission of mechanical fan noise. A high efficiency sound attenuator measuring 600mm long will be fitted to the outlet of the fan unit to further reduce the fan noise.
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Measure taken to ensure maintenance of odour control system include:

System employing fine filtration and carbon filtration:

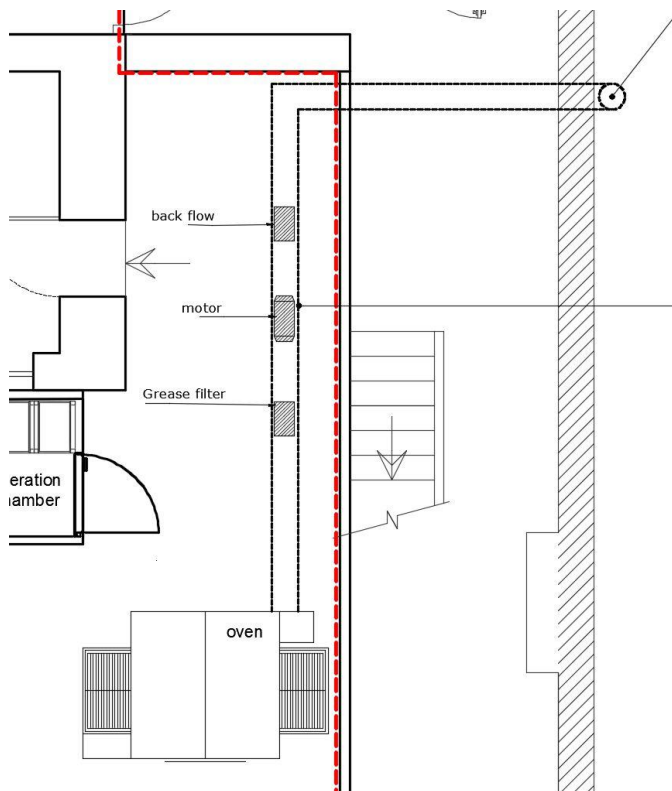
- Change filters every four weeks
- Change carbon filters every 4 to 6 months

Measure taken to ensure Noise control:

Fans should be located within the building wherever possible, in order to minimise the likelihood of fan noise and vibration causing nuisance. If the fan cannot be located internally. Even with fans located inside the building, consideration should be given to making sure that any vibration and noise from the fan will not cause a nuisance to adjacent properties.

Backward curved centrifugal, mixed flow or axial flow impellers are preferred as they are less prone to imbalance and are more easily maintained/cleaned due to their open construction. Fixed or adjustable metal impellers with a robust and open construction should be use.

Please refer to drawing and details



Layout showing setup

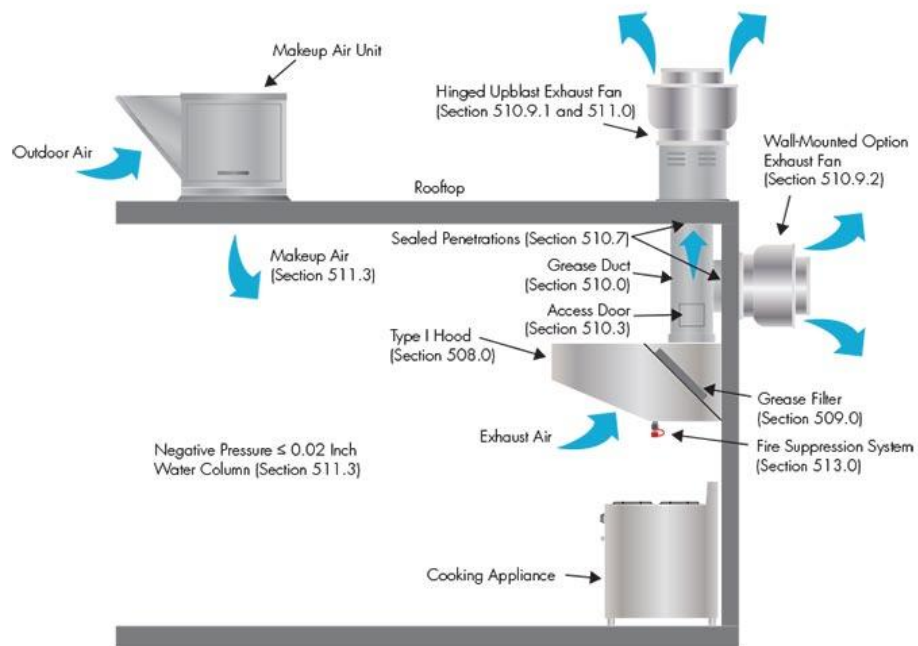
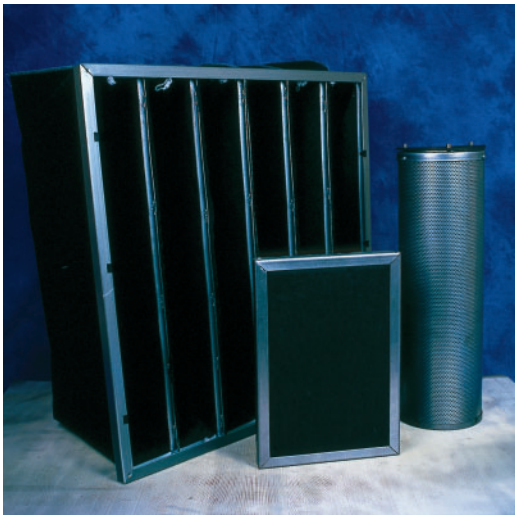


Diagram showing ventilation system



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.

ACTIVATED CARBON

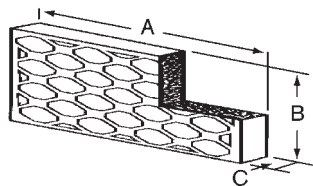
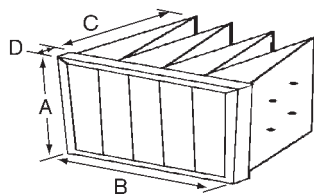
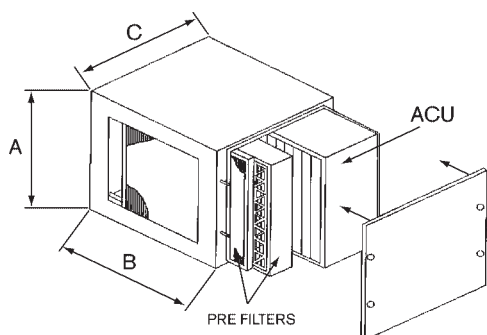
Activated carbon is different from the normal type of loose carbon granule panel in some ways. Firstly, and most importantly, activated carbon granules are fixed and set in position through a thermo-chemical process. With the loose fill granule carbon filters there is a tendency for the granules to rub against each other causing bedding down of the granules and excess dust which would need further filtration.

In addition, bedding down will also allow odours and toxic fumes to by-pass the filter.

The bonding process in our activated carbon filters joins the carbon granules by the points, leaving the pores free to absorb the unwanted contaminants.

This type of construction produces a strong carbon biscuit, which requires no internal structure to support the filter.

Width	Height	Depth	Panels	Flow and pressure loss @ 0.12 secs contact time		Flow and pressure loss @ 0.24 secs contact time	
				M ³ /sec	PA	M ³ /sec	PA
mm	mm	mm					
597	597	147	12	0.230	125	0.115	40
597	597	297	12	0.450	125	0.225	40
597	597	447	12	0.705	125	0.353	40
597	597	597	12	0.940	125	0.470	40
292	597	147	6	0.115	125	0.058	40
292	597	297	6	0.225	125	0.113	40
292	597	447	6	0.353	125	0.176	40
292	597	597	6	0.470	125	0.235	40



CARBON PLEATED PANEL & BAG FILTERS

The Pleated Panels like the Carbon Bag filters are made from non-woven synthetic filter media which is impregnated with activated carbon.

This type of filter is a good solution for less demanding applications, and an inexpensive alternative to the granular carbon filters.

Due to the nature of the product, they can not offer the same life or dwell time associated with ACUs or the Carbon panel filters.

Available in various sizes.

ACTIVATED CARBON PANELS

The carbon biscuits are sealed into steel frames, a scrim is then added to protect the carbon surface from dust contamination. Sealing the carbon blocks in a frame stops any air by-pass, whilst protecting and supporting the carbon block. Please view the price list for stock sizes. Custom sizes are also available.

Longar Industries Limited

Unit 25, Glenmore Business Park, Colebrook Way, Weyhill Road, Andover SP10 3GZ

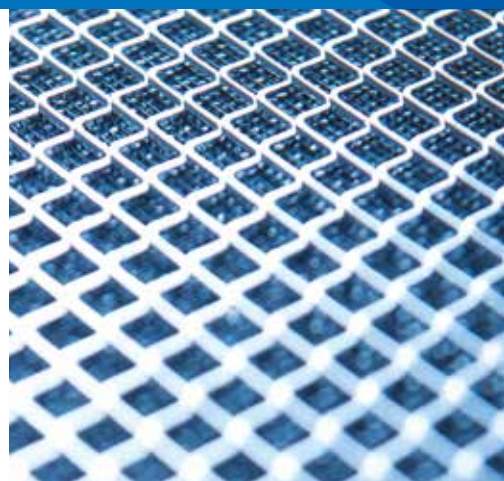
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LONGAR® Type 4

Mesh Filter



LONGAR® TYPE 4 FEATURES:

- The LONGAR® Type 4 Mesh filter is manufactured using a patented expanded mesh, this offers a unique design based on many years of R&D. This results in a mesh that delivers greater air or grease arrestance, integral strength and low pressure loss.
- Comes with a safety edge channel to offer greater strength and safety over conventional products available on the market place.
- Using an Expanded metal multi-layer pad we are able to offer a panel with greater rigidity and importantly the pad cannot migrate particles, which can be found in 'knit mesh' filters, these types of panels can be hazardous where strands can break away from the filter.
- Due to the nature of the material that we use, its integral strength means when it comes to cleaning it will stand up well, and outlast panels of lesser constructions.
- Tested to Eurovent 4/5.
- Handles and drain holes are available.
- Available in Galvanised Steel, Stainless Steel and Aluminium.

APPLICATIONS

- Primary air filtration G2/G3
- Kitchens
- Cooker hoods
- All types of grease extraction
- General heating and ventilation pre-filtration

LONGAR® TYPE 4 MESH FILTER

The LONGAR® Type 4 Mesh filter is the result of years of experience in the manufacture and development of filters for the HEVAC world. With over 40 years of manufacturing experience the products brought to the market place today are clearly world class in price and product.

The LONGAR® Type 4 is a superior grease filter, available in a large selection of sizes and materials options.

Our Mesh filters are of robust construction and are used for a variety of applications, grease and air or dust collection applications, coalescer and spark arrestance, ideal as a prefilter for large particle contaminants and widely used in high air volume applications.

CONSTRUCTION DETAILS / MATERIAL SPECIFICATION

Media: Expanded metal patented design to aid filtration, available in stainless steel, galvanised steel, and aluminium.

Frame: U shaped section supplied with safety edge, available in stainless steel, galvanised steel and aluminium.

Filter thickness: Filter panels are available in actual thicknesses of: 8,10,12,20,25,40,45,50 and 95mm. Other sizes available on request.

Support mesh: Our own Q14 mesh is used in the grease filter as the support mesh.

Handles and drain holes: Folding handles and drain holes can be supplied as an option when required. They are fitted by default to the short dimension, unless otherwise stated by the customer at the time of ordering.

Housings: We can supply front withdrawal housings where required, see separate data sheet.

For technical specifications, part numbers and ordering information, please see overleaf.

LONGAR® Type 4

Mesh Filter

FITTING INSTRUCTIONS

- Fit products, handles in direction of air in.
- Product vertical in air stream.
- Drain holes lower edge to exit into drip tray if installed.

HANDLING

- Handle with care when unpacking.
- Store in dry and frost protected place.

MAINTENANCE

- All maintenance should be carried out in accordance with the planned maintenance set by installation contractor.
- When handling any components suitable PPE should be used - gloves, eye protection and access equipment.
- Filters should be cleaned by a trained operative either daily for heavy use or weekly for light use.
- For more exact guide to cleaning you should contact a cleaning specialist.

PACKAGING

All units are packaged in double wall boxes with separators for standard sizes, glued closed for protection whilst in transit against contamination.

TECHNICAL SPECIFICATIONS

Tested to Eurovent 4/5

Fire rating = UL Class 2

100% relative humidity

Longar specifies the Grease Filter as height x width x thickness. The handles are fixed to the height and drain holes punched on the width. Please ensure correct orientation is given when ordering.

SIZE ORDERING GUIDE (TOLERANCES +/- 2mm)			
Part Number	Actual Size HxWxD	Nominal Size HxWxD	Weight
ALIGLV49524145	241 x 495 x 45mm	254 x 508 x 50mm	1.58kgs
	9.49 x 19.49 x 1.77"	10 x 20 x 2"	3.48lbs
ALIGLV39439445 CANOPY FILTERS	394 x 394 x 45mm	406 x 406 x 50mm	1.90kgs
	15.51 x 15.51 x 1.77"	16 x 16 x 2"	4.18lbs
ALIGLV49539445	394 x 495 x 45mm	406 x 508 x 50mm	2.39kgs
	15.51 x 19.49 x 1.77"	16 x 20 x 2"	5.26lbs
ALIGLV44444445	444 x 444 x 45mm	457 x 457 x 50mm	2.43kgs
	17.48 x 17.48 x 1.77"	18 x 18 x 2"	5.35lbs
ALIGLV49549545	495 x 495 x 45mm	508 x 508 x 50mm	2.92kgs
	19.49 x 19.49 x 1.77"	20 x 20 x 2"	6.42lbs
ALIGLV59759745 Carbon Filter Pre Filters	597 x 597 x 45mm	609 x 609 x 50mm	3.90kgs
	23.50 x 23.50 x 1.77"	24 x 24 x 2"	8.58lbs

Pressure drop and airflow information available on request.



LONGAR INDUSTRIES

FILTERS AND FABRICATIONS FOR A CLEANER ENVIRONMENT

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As part of our program for continuous improvement, Longar Ltd reserves the right to change specifications without notice. 15-01-2016.

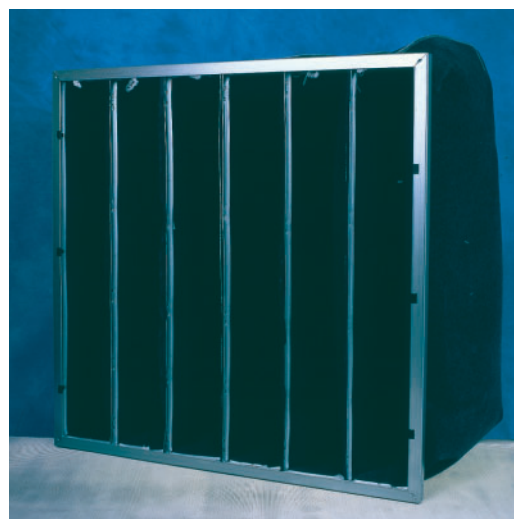


FEATURES

- Very strong metal header frame
- Long life
- Airtight header
- Low Pressure drops
- Stock sizes available for quick delivery

CONSTRUCTION

- The filter media is thermally bonded, non-woven, non-toxic synthetic fibre.
- Strong airtight header frame for trouble free use and ease of maintenance.
- Special bend at pocket inlet to prevent media disintegration.
- Distance ribbon to guarantee space between the pockets.
- All filter pockets have strings of glue to cover the sewing holes.
- Controlled media spacing means long life and low pressure drops.



APPLICATIONS

The Type 14 Bag Filters are medium to high efficiency filters which benefit installations by combining high air-cleaning efficiencies with a long filter life.

There is a range of efficiencies to choose from, designed to:

- Achieve high levels of air cleanliness required in the manufacture of many products.
- Protect equipment in air-conditioning plants, computer suites and gas turbine intake equipment.

The air cleaned by these filters benefits people, processes and equipment.

Rating	Efficiency
F5	>40%<50%
F6	>55%<65%
F7	>80%<85%
F8	>90%<95%

PACKAGING

All panel filters are packed in secure corrugated cardboard cartons, tape sealed for protection against dust and other contaminants. All parcels are marked with international handling symbols. Filters are packed 3 or 4 to the carton depending on header size and pocket depth. Individual filters are protected with wrapper bands.

Size (W × H × D) mm	Filter Grade EN 779	Number of pockets	Media Surface Area m ²	Airflow/Pressure Drop m ³ /hr/Pa	Unit Weight kg
592 × 592 × 600	F5	6	4.7	3400/55	2.4
592 × 592 × 380	F5	6	2.9	2700/70	2.0
287 × 592 × 600	F5	3	2.3	1700/55	1.5
287 × 592 × 380	F5	3	1.5	1350/70	1.3
592 × 592 × 600	F6	6	4.7	3400/70	2.4
592 × 592 × 380	F6	6	2.9	2700/95	2.0
287 × 592 × 600	F6	3	2.3	1700/70	1.5
287 × 592 × 380	F6	3	1.5	1350/95	1.3
592 × 592 × 600	F7	6	4.7	2700/105	2.4
592 × 592 × 380	F7	6	2.9	2150/135	2.0
287 × 592 × 600	F7	3	2.3	1350/115	1.5
287 × 592 × 380	F7	3	1.5	1100/145	1.3
592 × 592 × 600	F8	6	4.7	2700/175	2.4
592 × 592 × 380	F8	6	2.9	2150/220	2.0
287 × 592 × 600	F8	3	2.3	1350/170	1.5
287 × 592 × 380	F8	3	1.5	1100/215	1.3

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