



REF:

6 West Street
Long Sutton
Spalding
PE12 9BW

Date 16th Dec 2021

System specification sheet

Canopy

Canopy dimensions are 3000mm length, x 2000mm wide x 500mm back x 500 front, box style canopy. The filter banks will run on both sides of the hood, all corners are fully welded, with drain taps fitted to the back-drain channel for cleaning purposes.

Finish Type

Fine grain stainless steel finish 304 x 1mm.

Filters

Stainless steel baffle filters for easy cleaning, filter size 395(W)mm x 495(H)mm x 50mm.

Canopy face velocity 127ft/min



Extraction fan

The fan specified in the extraction system is a Soler and Palau TCBTx2/4-450, rpm 1400, sound pressure level 67 outlet dBA, pressure level air volume 6900(m³/h),

This fan will be fitted with an inverter single phase in, three phase out.

The fan will be fitted with anti-vibration mountings to the ceiling and DEC flexible connections between the fan and silencers; this will stop any reverberation noise travelling back through the ceiling or roof.

Fan duty 1.77m³/sec @ 200pa static pressure.

CONTRA-FOIL™ contra-rotating cased axial flow fans (aluminium impellers)



Range of cylindrical cased axial fans fitted with aluminium impellers and manufactured from high grade rolled galvanised steel and protected against **corrosion by cataforesis primer and black polyester paint finish.**
Fitted with **2 contra-rotating complementary impellers** manufactured from die-cast aluminium.
All models are supplied with pre-wired wiring junction box located on the outside of the fan casing for easy wiring access.
Available with single or three phase 4 poles motors.

Motors

All the motors are **IP65**, Class F insulation (1), equipped with **thermal protection.**

Single phase motor Speed controllable up to 560mm*
(*560mm must be three wire controlled and must not exceed 55° ambient temperature) Three phase motors suitable for inverter control.

Electrical supplies:

Single phase 230V-50Hz. (Capacitor located inside the wiring terminal box).

Three phase 400V-50Hz

**Contra-rotating:
High pressure**



Contra-rotating system with two complementary impellers allowing the duplication of the pressure with the same air volume

**Corrosion
resistance**



Rolled steel casings and motor support protected by cataforesis primer and black polyester paint finish.
Stainless steel screws

**Terminal
box**



Wiring terminal box with cable gland PG-11

**Impeller dynamically
balanced**



Impellers are dynamically balanced, according to ISO 1940 standard, giving vibration free operation

■ Technical characteristics

Before installation check that the product electrical characteristics listed on the data plate label (Voltage, power, frequency etc) match those of the intended electrical supply.

Code	Model	Diameter Ø (mm)	Speed (r.p.m.)	Maximum Power (kW)	Max. Current (A)	Maximum Air Volume (m³/h)	Weight (Kg)	Speed Controller
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ContraFoil Contra-Rotating Cased axial flow fans (Aluminium impellers)

Single phase

230V

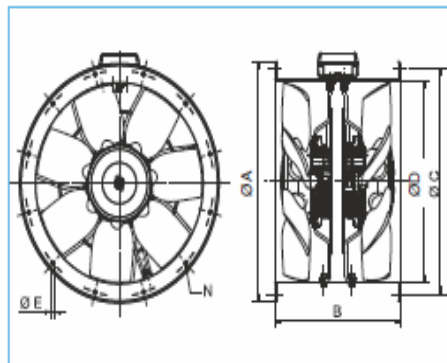
5605384600	TCBBx2/4-450	450	1370	1.24	5.40	6900	42	REB-6
5605385300	TCBBx2/4-500	500	1150	1.40	6.20	8000	50	REB-8
5605751300	TCBBx2/4-500E	500	1375	1.90	8.70	9500	54	REB-10
5605760400	TCBBx2/4-560L	560	1425	2.75	12.30	11800	66	REB-12
5605386100	TCBBx2/4-560	560	1340	3.25	15.50	14300	66	REB-16
5605387900	TCBBx2/4-630	630	1280	3.90	19.00	18200	80	

Three phase

400V

5605380400	TCBTx2/4-450	450	1400	1.25	3.40	6900	42	RMT-5
5605381200	TCBTx2/4-500	500	1340	1.75	3.60	9400	50	RMT-5
5605382000	TCBTx2/4-560	560	1360	3.12	5.80	14300	66	
5605383800	TCBTx2/4-630	630	1370	4.20	8.00	18200	80	

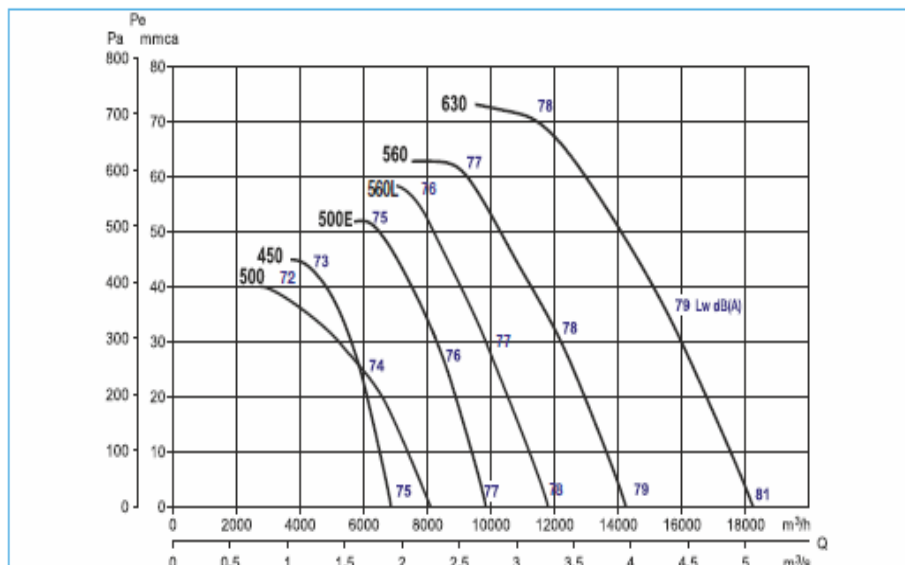
■ Dimensions (mm)



Model	Ø A	B	Ø C	Ø D	Ø E	Number of holes N
450	537	375	500	450	12	8
500	595	375	560	500	12	12
500E	595	520	560	500	12	12
560/560L	655	520	620	560	12	12
630	725	520	690	630	12	12

■ Performance curves

- Q = Air volume in m³/h and m³/s.
- Pe = Static pressure in mmWG and Pa.
- Dry air at 20°C and 760 mmHg.
- Air flow data in accordance with the following standards: UNE 100-212-89, BS 848, Part 1; AMCA 210-85 and ASHRAE 51-1985.



Speed Control Inverter Extraction

Single phase in, three phase out, the inverter works using single phase in 240V and splits it over three 240v phase to the fan.

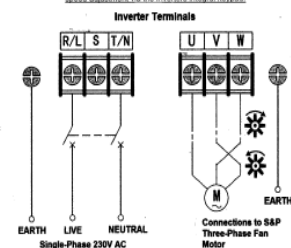
This will also be fitted with a stop/start with cook and prep control.
Air-in control Stop/start.



47. Remove the front panel of the enclosure by removing the panel fixing screws. This provides access to the control circuit board terminals that are inside the enclosure. Replace the panel when the wiring connections have been made, ensuring that the seal is correctly positioned.
48. Check that the unit mountings and electrical connections are secure and in accordance with the applicable wiring diagram on page 6 (and if applicable, page 7 also) of this instruction booklet.
49. For wiring diagrams of other schemes, please contact S&P.
50. IF IN DOUBT, ASK!

WIRING DIAGRAMS (SINGLE PHASE 230V - 50Hz MAINS SUPPLY)
L - Supply Live 230V - 50Hz
N - Supply Neutral
E - Earth

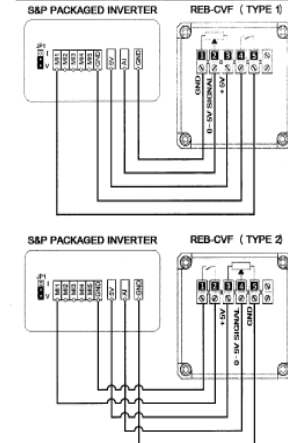
WIRING DIAGRAM No. 1 - ON/OFF to install pre-defined speed and thereafter manual speed adjustment via the Inverter's integral keypad.



IMPORTANT NOTE TO INSTALLERS!
THE PACKAGED 3-PHASE FAN SUPPLIED WITH THIS INVERTER HAS BEEN CONFIGURED TO ACCEPT A 3-PH 230V SUPPLY, NOT A 400V SUPPLY - IT IS ESSENTIAL THAT THE FAN IS NOT RE-CONFIGURED.
IF IN DOUBT, ASK!

WIRING DIAGRAM No. 2 - Operation Mode b, Off/On and speed control by additional accessory S&P REB-CVF 0-10V Speed Controller code S&P5461304100.

NOTE - WIRING DIAGRAM No. 2 is in ADDITION TO WIRING DIAGRAM No. 1



In addition to Wiring Diagram No. 1, Wiring Diagram No. 2 plus the 'Programming the Inverter' sequence on page 9 of this instruction booklet must be followed.

Air input controller REB 5



Make up air fan

The fan specified in make-up air system is Soler and Palau CBM/6-320/240-550W, rpm 900, sound pressure level 67 inlet dBA @ 0 Metres, air volume 4700(m³/h),

This fan will be fitted with a REB 5 speed control.

Pre filter 496mm x 496mm G4. Code PPF49649647

The fan will be fitted with anti-vibration mountings within the roof cowl this will stop any reverberation noise travelling back through the roof.

Fan duty 1.3m³/sec @ 200 pa static pressure.

LOW PRESSURE CENTRIFUGAL FANS

CBM Range



Range of double inlet direct drive low pressure centrifugal fans manufactured from **galvanised sheet steel**.

All the models are fitted with forward curved centrifugal impellers manufactured from galvanized sheet steel.

Available, depending upon the model, with single phase or three phase motors, in 4 or 6 poles.

Motors

All standard motors (1) are IP10, Class B, equipped with thermal protection and ball bearings greased for life.

Electrical supply:

Single phase 230V-50Hz (capacitor fitted on the fan housing).

Three phase 230/400V-50Hz .
(See characteristics chart).

(1) Except CBM-380/380 fitted with an aluminium housing closed motor IP44 class F.

Additional Information

Mounting feet as accessory, allowing 4 different positions.

On request

Aluminium housing closed motors, IP44, class F (T version).

Coupling flange fitted at the fan outlet (B version).

Anti-vibration mounts



All motors are fitted with support including rubber antivibration mounts **reducing the noise** transmitted to the installation

Impeller dynamically balanced



Impeller **dynamically balanced**, according to ISO 1940 standard, providing vibration free operation

A P P L I C A T I O N S

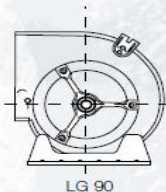


Incorporation in ventilation cabinets

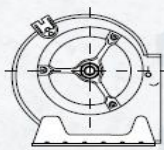


Air conditioning equipment

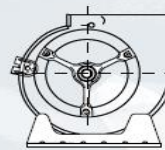
P O S I T I O N S



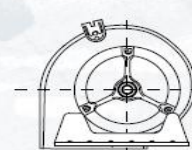
LG 90



LG 270



LG 0



LG 180

Mounting feet (accessory) allow 4 positions of the inlet discharge.

Technical characteristics

Before installation check that the product electrical characteristics listed on the data plate label (Voltage, power, frequency etc) match those of the intended electrical supply.

Model	Motor power		Equiv. in inches	Poles	Speed (r.p.m.)	Capacitor (µF / V)	Maximum current absorbed 230/1/50 (A)	Maximum current absorbed 230-400/3/50 (A)	Airflow (m³/h)	Sound pressure level * (dB(A))	Weight (kg)
	(W)	(PK)									
CBM/6-180/180-72W	72	1/10	7/7	6	960	4/400	1,0	–	1400	56	9
CBM/4-180/180-147W	150	1/5	7/7	4	1350	6/400	1,5	–	1565	59	10
CBM/6-240/180-122W	120	1/6	9/7	6	900	8/500	2,1	–	2430	63	15
CBM/6-240/180-245W	250	1/3	9/7	6	920	10/450	2,45	–	2680	65	16
CBM/6-240/240-122W	120	1/6	9/9	6	850	8/500	2,1	–	2500	61	16
CBM/6-240/240-245W	250	1/3	9/9	6	900	10/450	2,75	–	2900	63	17
CBM/4-240/240-373W	370	1/2	9/9	4	1350	10/400	3,8	–	2650	65	19
CBM/6-270/200-245W	250	1/3	10/8	6	900	10/400	3,0	–	3480	65	18
CBM/6-270/200-373W	370	1/2	10/8	6	970	15/400	4,0	–	4000	68	19
CBM/4-270/200-373W	370	1/2	10/8	4	1300	12/400	5,0	–	3150	66	21
CBM/6-270/270-245W	250	1/3	10/10	6	900	10/400	3,0	–	3550	63	20
CBM/6-270/270-373W	370	1/2	10/10	6	900	15/400	4,0	–	4500	67	21
CBM/4-270/270-550W	550	3/4	10/10	4	1400	15/400	5,9	–	3540	66	23
CBM/6-320/240-550W	550	3/4	12/9	6	900	18/400	5,8	–	4700	67	28
CBM/6-320/240-1100W (trif.)	1100	1,5 (3f)	12/9	6	900	–	–	7,0/4,2	7000	75	28
CBM/6-320/320-550W	550	3/4	12/12	6	900	18/400	5,8	–	5250	66	30
CBM/6-320/320-1100W (trif.)	1100	1,5 (3f)	12/12	6	900	–	–	7,0/4,0	7900	78	30
CBM-RTC/6-380/380-2200W (trif.)	2200	3 (3f)	15/15	6	940	–	–	10,4/6,0	9000	70	45

* Measured at 1,5 meters at the fan inlet side in free field.

Water Heater



VBR 70-40-3 WATER HEATING BATT

Item no. 5476

Document type: Product card
Document date: 2019-03-12
Generated by: Systemair Online Catalogue

Description

Water-heating battery

Water-heating battery for heating air in ventilation systems with rectangular ducts. Hot-zinc-coated casing, heat transmission element with copper tubes and aluminium fins. In cold conditions, a frost protection device with sensor should be fitted to reduce the risk of damage from freezing. The water-heating battery can be installed in a horizontal or vertical duct with an optional direction.



Technical parameters

Max. operating temperature	150 °C
Max. operating pressure, at water temp. 100°C	1600000 (16bar) Pa
Max. operating pressure, at water temp. 150°C	1000000 (10bar) Pa

AIRGARD® Type II Pleated Panel Filters



AIRGARD® TYPE II FEATURES:

- Moisture resistant cardboard frame.
- G4 efficiency to provide a good base level of filtration.
- Fully supported media bonded to expanded mesh grid.
- The filtering media is bonded to the case to eliminate air by-pass.
- Strong, robust construction.
- Extended surface area.
- High dust holding capacity.
- Dimensions of product are part marked into frame for positive ID.

APPLICATIONS

- Hotels
- Offices
- Food production
- Air conditioning
- Hospitals
- Pre-filtration asbestos removal

AIRGARD® TYPE II PLEATED PANEL FILTER

Used in a variety of HEVAC applications where higher level air cleanliness is needed over the standard pre filters. Glass media is unacceptable in food and pharmaceutical industries and in some hospital areas. Especially useful where the installation requires a combination of high arrestance coupled with control over smaller particles. The high capacity version is selected when space is at a premium; filter sizes match the rated capacities of bag filters.

CONSTRUCTION / MATERIAL SPECIFICATIONS

The Airgard® Type II is manufactured with pleated synthetic media, and an expanded diamond grid with 97% open area. The casing is constructed from a heavy duty rigid water resistant card, with support members along the diagonals. The media is bonded to the support grid and the frame in order to avoid the possibility of air bypass. The case is designed for minimum resistance and maximum free area, the case is also crease formed to stop moisture ingress. The product can be manufactured in a variety of depths from 22mm to 97mm deep. Optional metal frame available as shown above.

22mm (1") Filters are 9 Pleats per 300mm (1ft)
47mm (2") Filters are 9 Pleats per 300mm (1ft)
97mm (4") Filters are 9 Pleats per 300mm (1ft)

TYPE II HIGH CAPACITY PLEATED PANEL

We are able to manufacture the Type II with increased filter media over the standard product, for situations where an increase in air volume is required.

22mm (1") Filters are 12 Pleats per 300mm (1ft)
47mm (2") Filters are 12 Pleats per 300mm (1ft)
97mm (4") Filters are 12 Pleats per 300mm (1ft)

TYPE II HIGH EFFICIENCY PLEATED PANEL

Where situations arise we manufacture the Type II with a higher grade of filter media, F6, F7, F8 are available.

AIRGARD® TYPE II IMPREGNATED CARBON PLEATED PANELS

For less demanding situations the use of impregnated media can be considered. They utilise non-woven synthetic media, which is then impregnated with activated carbon. They offer an alternative to our granular carbon systems however they cannot offer either the life span or dwell time that can be found with the rest of the range.

AIRGARD® Type II Pleated Panel Filters

TECHNICAL SPECIFICATIONS

SIZE ORDERING GUIDE (TOLERANCES +/- 2mm)				
Part Number	Actual Size HxWxD	Nominal Size HxWxD	Weight	Available Efficiencies *
PPF49724347	497 x 243 x 47mm	508 x 254 x 50mm	0.21kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.57 x 9.57 x 1.85"	20 x 10 x 2"	0.45lbs	
PPF29329347	293 x 293 x 47mm	304 x 304 x 50mm	0.15kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	11.54 x 11.54 x 1.85"	12 x 12 x 2"	0.33lbs	
PPF59628947	596 x 289 x 47mm	609 x 304 x 50mm	0.28kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 x 11.38 x 1.85"	24 x 12 x 2"	0.61lbs	
PPF37237247	372 x 372 x 47mm	381 x 381 x 50mm	0.22kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	14.65 x 14.65 x 1.85"	15 x 15 x 2"	0.48lbs	
PPF39439447	394 x 394 x 47mm	406 x 406 x 50mm	0.25kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	15.51 x 15.51 x 1.85"	16 x 16 x 2"	0.54lbs	
PPF49637547	496 x 375 x 47mm	508 x 381 x 50mm	0.27kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 14.76 x 1.85"	20 x 15 x 2"	0.60lbs	
PPF49639647	496 x 396 x 47mm	508 x 406 x 50mm	0.29kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 15.59 x 1.85"	20 x 16 x 2"	0.63lbs	
PPF62039647	620 x 396 x 47mm	635 x 406 x 50mm	0.34kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	24.41 x 15.59 x 1.85"	25 x 16 x 2"	0.75lbs	
PPF44644647	446 x 446 x 47mm	457 x 457 x 50mm	0.28kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	17.56 x 17.56 x 1.85"	18 x 18 x 2"	0.61lbs	
PPF49649647	496 x 496 x 47mm	508 x 508 x 50mm	0.34kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 19.53 x 1.85"	20 x 20 x 2"	0.75lbs	
PPF59639647	596 x 396 x 47mm	609 x 406 x 50mm	0.33kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 x 15.59 x 1.85"	24 x 16 x 2"	0.73lbs	
PPF59649647	596 x 496 x 47mm	609 x 508 x 50mm	0.39kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 x 19.53 x 1.85"	24 x 20 x 2"	0.87lbs	
PPF62049647	620 x 496 x 47mm	635 x 508 x 50mm	0.39kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	24.41 x 19.53 x 1.85"	25 x 20 x 2"	0.87lbs	
PPF59659647	596 x 596 x 47mm	609 x 609 x 50mm	0.47kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 x 23.46 x 1.85"	24 x 24 x 2"	1.02lbs	
PPF24824897	248 x 248 x 97mm	254 x 254 x 102mm	0.22kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	9.76 x 9.76 x 3.82"	10 x 10 x 4"	0.49lbs	
PPF49624897	496 x 248 x 97mm	508 x 254 x 102mm	0.38kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 9.76 x 3.82"	20 x 10 x 4"	0.84lbs	
PPF29329397	293 x 293 x 97mm	304 x 304 x 102mm	0.28kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	11.54 x 11.54 x 3.82"	12 x 12 x 4"	0.61lbs	
PPF59728997	597 x 289 x 97mm	609 x 304 x 102mm	0.48kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.50 x 11.38 x 3.82"	24 x 12 x 4"	1.06lbs	

Pressure drop and airflow information available on request.

Silencers

Two silencers will be fitted to the extraction system, inflow side this silencer will be 450mm long, x 450mm 1D (inside measurement) wall thickness of 75mm.
On the outflow side 900mm long 450mm 2D (inside measurement) wall thickness of 75mm.

This will lower the sound level to 49 at 1000Hz, 52 at 2000Hz, 56 at 4000Hz, 56 at 8000Hz.

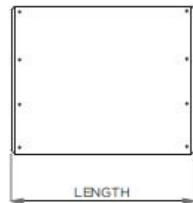
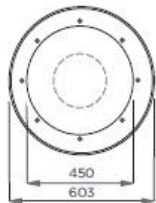
Silencer Ref: Acoustica CPO3-C*P-500-1D & CPO3-C*P-450-2D Positive side

CPO3-C*P-500-1D & CPO3-C*P-450-2D Negative side

The sound level at termination point will be a lowered by a further 4 to 5 dBA due to where the fan will be mounted with in the ductwork.



CP03-CA-0450 SILENCER



PATTERN A - 8 x M10 - 50.0 PCD
PATTERN B - 12 x M8 - 487 PCD

INSERTION LOSS (dB) - CENTRE BAND FREQUENCY

DIMENSIONAL DATA

PRODUCT CODE	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	LENGTH	MASS
CP03-C*-0450-1D	2	3	6	12	13	11	9	7	450mm	15 Kg
CP03-C*-0450-2D	3	4	8	17	18	15	11	10	900mm	27 Kg
CP03-C*P-0450-1D	2	6	8	16	23	23	21	16	450mm	18 Kg
CP03-C*P-0450-2D	3	7	12	22	29	29	25	20	900mm	32 Kg

Replace * in code with A or B for connection pattern. Insertion loss data is derived from continual testing to BS478 and other standards in independent UKAS certified laboratories, which includes where appropriate, regenerated or self noise testing in both forward and reverse flow conditions. If you request system analysis from our technicians all predictions will be assessed using the relevant certified insertion loss data together with relevant dynamic corrections.

450 DIA FAN MOUNTED SILENCER

Available in two standard lengths C Series silencers have excellent attenuation properties, achieved with sound absorbing infill retained in the attenuator casing by a perforated liner. The central pod (code P) is an option to increase the insertion loss, however it will add resistance.

- Fits directly onto 450mm diameter fans
- Standard lengths 450mm (1D) & 900mm (2D)
- Use up to 70°C (standard construction)
- Systems up to 1000 Pascals
- Special lengths on request

Odour control

Unit size 1000mm D x 500mm H x 1000mm W

Made from galvanised steel with access doors to remove and replace the filters

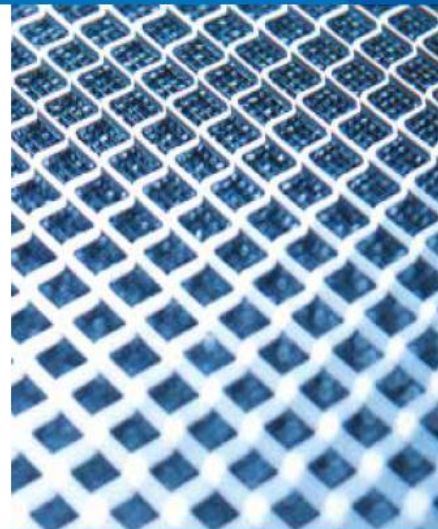
Pre-filter 2 x 495 x 495 mesh filter Cleaning period once a month

Pre- filter 2 x 495 x4595 G4 filter Change once a month

Carbon bag filters 2 x 495 x 495 Change every six months

dwell time 0.2 sec

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.

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.



AIRGARD® Type II

Pleated Panel Filters



AIRGARD® TYPE II FEATURES:

- Moisture resistant cardboard frame.
- G4 efficiency to provide a good base level of filtration.
- Fully supported media bonded to expanded mesh grid.
- The filtering media is bonded to the case to eliminate air by-pass.
- Strong, robust construction.
- Extended surface area.
- High dust holding capacity.
- Dimensions of product are part marked into frame for positive ID.

APPLICATIONS

- Hotels
- Offices
- Food production
- Air conditioning
- Hospitals
- Pre-filtration asbestos removal

AIRGARD® TYPE II PLEATED PANEL FILTER

Used in a variety of HEVAC applications where higher level air cleanliness is needed over the standard pre filters. Glass media is unacceptable in food and pharmaceutical industries and in some hospital areas. Especially useful where the installation requires a combination of high arrestance coupled with control over smaller particles. The high capacity version is selected when space is at a premium; filter sizes match the rated capacities of bag filters.

CONSTRUCTION / MATERIAL SPECIFICATIONS

The Airgard® Type II is manufactured with pleated synthetic media, and an expanded diamond grid with 97% open area. The casing is constructed from a heavy duty rigid water resistant card, with support members along the diagonals. The media is bonded to the support grid and the frame in order to avoid the possibility of air bypass. The case is designed for minimum resistance and maximum free area, the case is also crease formed to stop moisture ingress. The product can be manufactured in a variety of depths from 22mm to 97mm deep. Optional metal frame available as shown above.

22mm (1") Filters are 9 Pleats per 300mm (1ft)
47mm (2") Filters are 9 Pleats per 300mm (1ft)
97mm (4") Filters are 9 Pleats per 300mm (1ft)

TYPE II HIGH CAPACITY PLEATED PANEL

We are able to manufacture the Type II with increased filter media over the standard product, for situations where an increase in air volume is required.

22mm (1") Filters are 12 Pleats per 300mm (1ft)
47mm (2") Filters are 12 Pleats per 300mm (1ft)
97mm (4") Filters are 12 Pleats per 300mm (1ft)

TYPE II HIGH EFFICIENCY PLEATED PANEL

Where situations arise we manufacture the Type II with a higher grade of filter media, F6, F7, F8 are available.

AIRGARD® TYPE II IMPREGNATED CARBON PLEATED PANELS

For less demanding situations the use of impregnated media can be considered. They utilise non-woven synthetic media, which is then impregnated with activated carbon. They offer an alternative to our granular carbon systems however they cannot offer either the life span or dwell time that can be found with the rest of the range.

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

Carbon Impregnated Bag Filters

Applications

The Activated Carbon impregnated bag filter, can be utilised to remove the slight general odours associated with towns and cities.

When a Carbon Bag Filter is used in the extract systems of light duty catering establishments, such as coffee shops, the life of it will be very short, as the odour retention is directly proportional to the weight of activated carbon on the product.

Airclean will not recommend this product for new installations for odour removal.

Description

The fully cured coating of the activated carbon powder on the polyester non-woven bag filter material is formed into pockets which are stitched and tagged to minimise blinding from each other.

The formed pockets are supported by a copper coated rod assembly which, with the media, is sealed into the corrosion resistant galvanised steel header frame.

Technical

Filter Classification:

Maximum Operating Temperature : 40 Degrees Centigrade

Maximum Operating Humidity: 80% RH

STANDARD CARBON IMPREGNATED BAG FILTERS

Dimensions					Flow Rate		Part Numbers
OT Inches		Actual mm			Flow	Pressure Drop	
H x W	D	H	W	D	m ³ /s	Pa	
24 x 12	12	594	289	289	0.38	70	1410801
	20	594	289	492	0.47	70	1410804
24 x 20	12	594	492	289	0.50	70	1410802
	20	594	492	492	0.64	70	1410805
24 x 24	12	594	594	289	0.75	70	1410803
	20	594	594	492	0.94	70	1410806
NON STANDARD							1410899



Front Withdrawal Frame
(1810)



MEZ Flanged Side
Access Housing (1820)



Duct Mounted Filter
Housing (1825)



Fully Welded Side
Withdrawal Filter Housing
(1840)

Extraction duct work

All the ducting systems will be mounted within the loft space as shown on plans.

The fan will be mounted on big feet support system, this will stop any vibration coming through the ceiling.

From the canopy will be 250mm x 600mm rectangular ducting, the ducting will change into 450 SPT running through the loft and out through the back wall.

The air supply will also be mounted above the suspended ceiling, the air will be brought into the store through a roof cowl on the roof. next to the extraction system on the roof. The air will be distributed through 600mm x 600mm four-way ceiling grilles.

This system will give 80% volume of the extraction system, 80% volume of the extracted air is required to be replaced by mechanical air supply fan and controller discharging through surface mounted grilles or sufficient free area space ie: windows or doors open with fly screens to give air replacement.

Ducting Colour galvanised

Cowl Accelerator Cowl

Discharge velocity on the cowl 12-15m³/s

All our systems comply with DW175 regulations and specifications with regards to ducting sizes, heights and fan duties etc.

The Commissioning sheet will be issued after the work has been completed showing air flow rate and inventory of the system fitted.

Big feet support kit

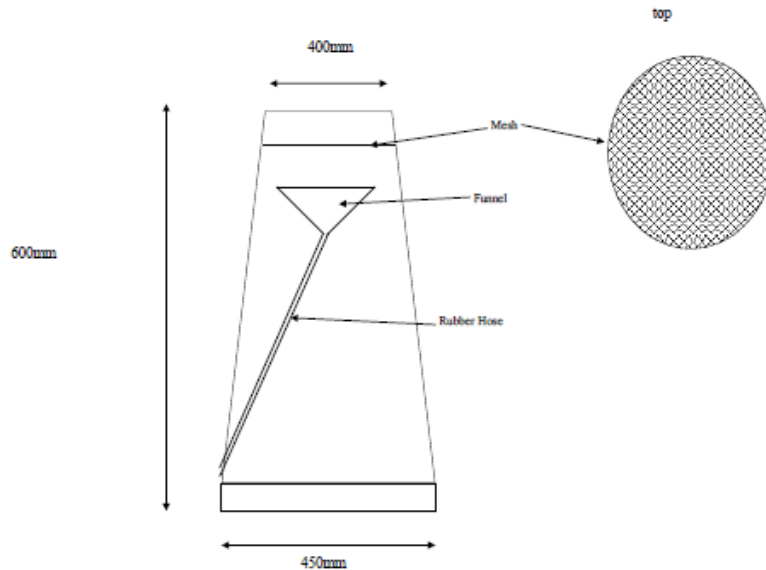


Air in Roof Cowl



Cowl sizes,900mm x 900mm

Extraction cowl



Gas inter-lock

The Ventilation/Gas interlock system for the kitchen area shall be supplied by Canopy UK Direct Ltd Gas Safety Systems type Merlin CT1250.

The panel dimensions are 254mm high x 178mm wide x 62 mm deep. The box shall be rated to IP65 it shall be an ABS enclosure and be CE Approved. The fascia of the panel should be key operated (on/off) and a shrouded emergency shut off button located in the top right hand corner should be fitted (to meet BS6173.2001). The Ventilation/Gas interlock panel shall have a total of 7 L.E.D'S on the fascia, these should be: Power, Gas On, EM Stop, Supply Fan, Extract Fan, Fan Fault and Service).

1 x Merlin CT1250 Pan

1 x Gas Solenoid Valve (Size to be 1 1/4)

2 x Remote Gas Shut-Off Button (where required) to be fitted to the fire exists

This system work on using current monitoring instead of air flow switches.

THE MERLIN RANGE

CT1250 SYSTEM

The Merlin CT1250 ventilation interlock system, with built in current monitoring, is designed specifically for use in commercial kitchens to meet BS6173. This panel is to be used when the kitchen appliances do have flame failure devices, therefore Gas proving is not a requirement.

The Merlin CT1250 acts as an interlock between the ventilation system and the gas solenoid valve.

The system has built in current monitors in order to interlock with up to 2 fans and offers an alternative to using air pressure differential switches.

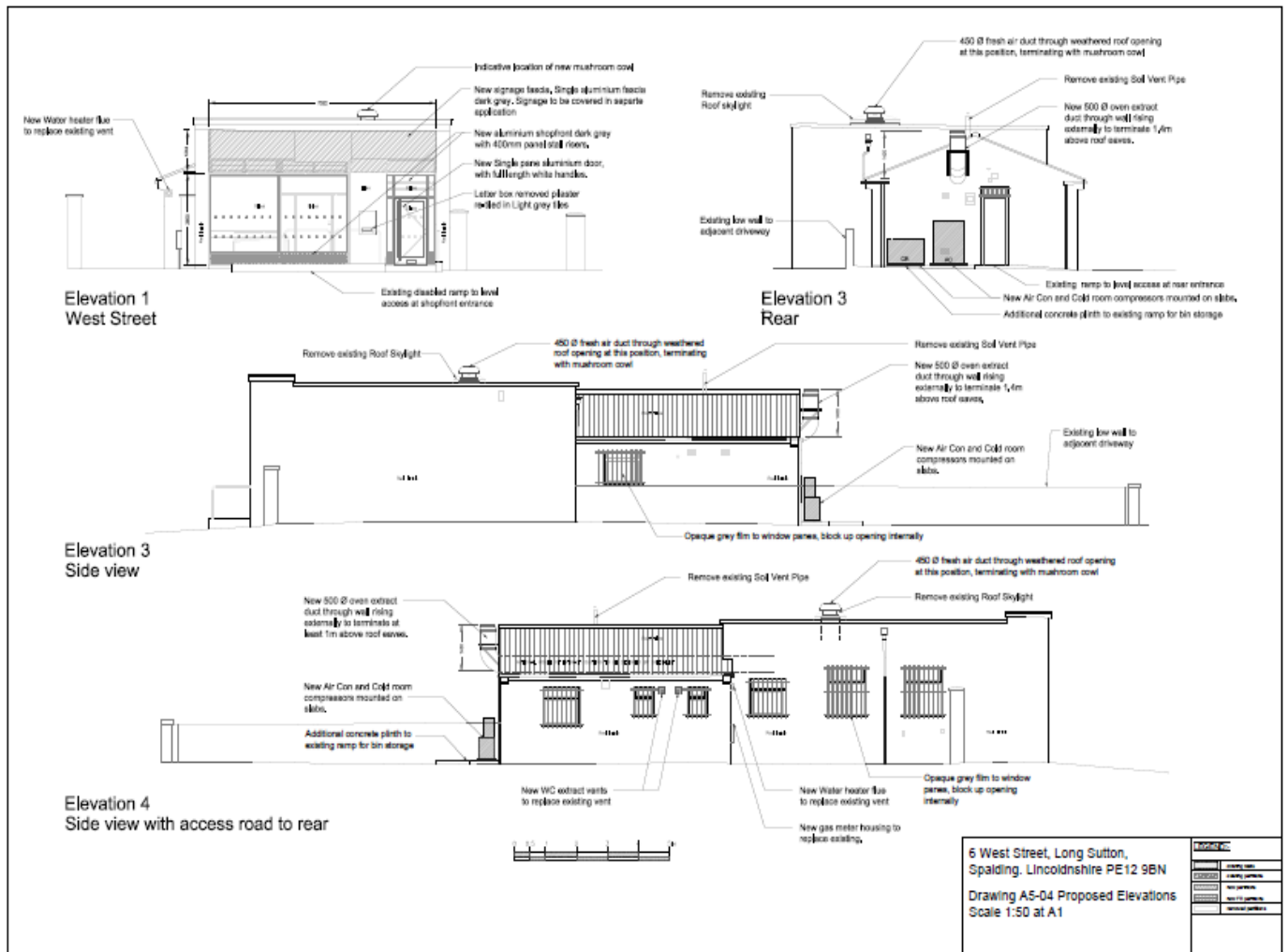


Key Features of the Merlin CT1250 System

- Allows Compliance with BS6173 for commercial kitchens
- To be used when all appliances have flame failure devices
- 2 built in current monitors can be easily adjusted to the user's requirements
- Reliable method of interlock, with no moving parts there's little to go wrong
- BMS Terminals Normally Closed or Normally open and common.
- Will accept remote emergency knock-off buttons.
- Can monitor 2 fans with running currents between 0.1A – 20A.
- Clear LED display for system indications
- Can be used when pressure differential switches cannot be used e.g. wall-mounted fans
- Straightforward to install and calibrate. The CT1250 can be easily adjusted to the user's requirements
- Easy installation
- Covered by S&S Northern Ltd 3 year warranty.



Proposed Elevations



For any more advice or support before placing the order please feel free to contact me
07876 500 438 / 01733 7004

