DETAILS OF THE GEASE FILTER

1	Manufacturer`s Name	Longar Industries LTD
2	Filter name and product code	Longar TYPE2 Baffle Filter
3	Dimensions of the filter	395x395x45mm
4	Nature of the filter media	Filters are manufactured with stainless steel 430 polished finish, MAX operating temp. 400^{o}C
5	Manufacturer`s recommendation of the frequency and type of maintenance of the pre filter	Filters should be cleaned by a trained operative either daily for heavy use or weekly for light use

DETAILS OF THE PRE-FILTER

6	Manufacturer`s name	Purified Air
7	Filter name and product code	ESP 3000E
8	Dimensions of the filter	910x660x630 mm
9	Nature of the filter media	Electrostatic
10	Manufacturer`s recommendation on the frequency and type of maintenance of the pre-filter	Heavy use 12-16 hours per day 3 monthly Moderate use 6-12 hours per day 6 monthly Light use 2-6 hours per day Annually

CARBON FILTER OR OTHER ODOUR ABATEMENT METHOD

11	Dimensions of the filter name	60x60x60 cm
12	Total number of filter panels in the filter bed	48
13	Nature of the activated carbon	Carbon 3xPA240824
14	Total volume of the carbon expressed in cubic meters	1.87 m3
15	Total mass of carbon expressed in kilograms	50x4 kg
16	Total surface area of the panels exposed to the exhausted air	5.76 m2
17	Dwell time of the gases in the filter compartment and the setting of the control at which this is achieved	0.4 sec
18	The air change rate for the setting quoted above, please provide workings or reference where the rate was sourced from	77 air changes/hour
19	Dimensions of the room in metres and calculate the overall volume in m^3 that area required to benefit from air changes.	56 m^2
20	Dimensions of the carbon filter- if applicable	60x60x60cm for one each 120x120x130 cm for 4 carbon blocks
21	Ratio of room volume to carbon filter volume	404
22	How to proposed to access the carbon filter to replace spent filter?	From units access panels

ERAL METAL
ALL KIND OF METAL WORKS

COOKER HOOD

23	The length the cooker hood overhangs the appliances	350cm x 110cm
24	The face velocity at the cooker hood, expressed in metres per second	Canopy face area 3.85m2 Face velocity 0.3 m/s
25	Dimensions of the opening of the cooker hood	Wall Canopy 350cm x 110cmx 30/50cm

MAKE-UP AIR

26	Describe how make-up air is to be introduced into the kitchen and show the plant on a plan if required	9/9 Centrifugal fan
27		

SYSTEM OPERATION

28	The extract rate (expressed as m^3/s) at the proposed rate of extract.	1.155 m^3 / s
29	The volume of the space to be ventilated in m^3	56m^2
30	The efflux speed at the flue terminal	7.65 m/s
31	The type of flue terminal to be fitted	Jet Cowl
32	Name and address of company to install system	Eral Metal LTD E10 6JT 159 Midland Road
33	Cleaning of washable grease filters. Frequency and method please describe.	Daily at least once of 2 day The filters should wash with warm soapy water
34	Frequency of inspection and replacement of the pre-filters please describe	Change filters every two weeks
35	Frequency of deep clean to fan and flue please describe.	Light use 12 months Moderate use 6 months Heavy use 4 months

NOISE

36	Specify the fan type, its sound power level and sound frequency characteristics and provide a manufacturer`s specification sheet showing those values	HELIOS GBW 560/4 1PH GIGABOX FAN Breakout 65 db Intake 76 db Exthaust 82 db Sound press cage break out 38db in 4m
37	Describe how the fan and ducting will be isolated from the building	duct work will be mounted on brackets, which will be fitted onto wall using anti vibartion mounts. this will eliminate any vibration from the duct work to the building. Fan will also be fitted using anti vibarion mounts and also there will be flexible connection between fan and duct work.

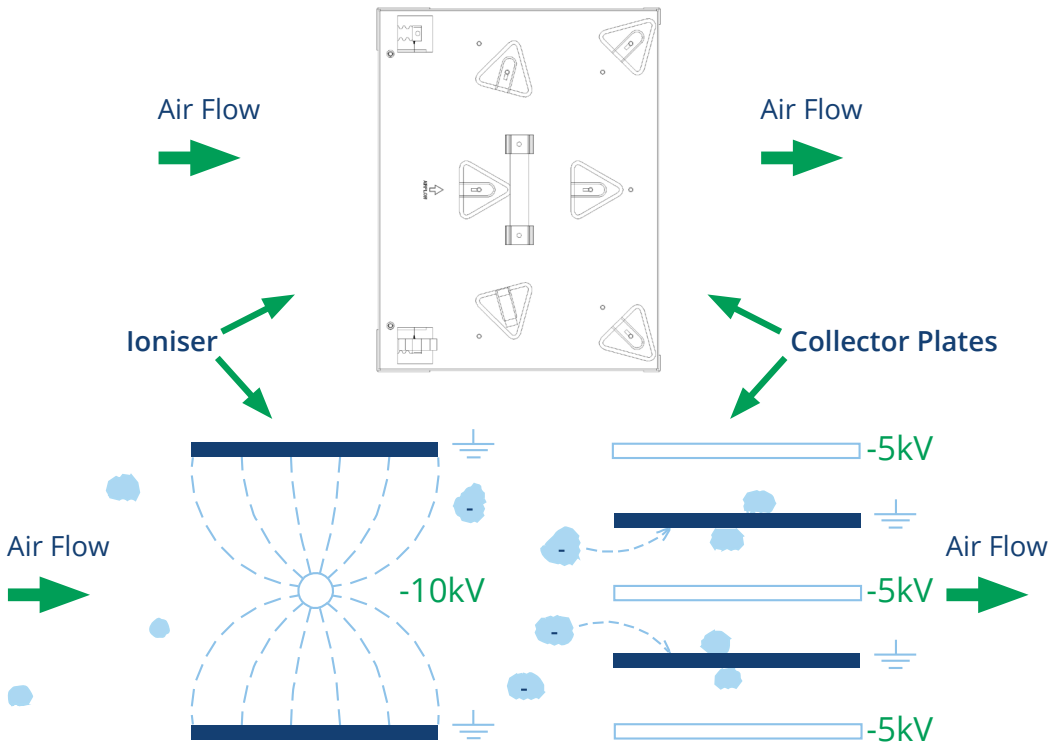
ESP Range

ESP 4500

- ESP 1500E which can handle up to 0.7m³/sec of air flow
- ESP 3000E which can handle up to 1.4m³/sec of air flow
- ESP 4500E which can handle up to 2.1m³/sec of air flow
- ESP 6000E which can handle up to 2.8m³/sec ofair flow

Our ESP's have been specifically designed for kitchen extract systems; they have integral sumps to collect the oil, grease and smoke particles filtered out of the exhaust. This not only simplifies servicing but eradicates potentially dangerous spillage from the bottom of the units and greatly cuts down on build-ups of grease within the ducting.

The ionisation voltage has been designed to run at a negative potential which enhances the ionisation of particles and also produces more ozone which is helpful in reducing cooking odours.



The above diagram shows, in a basic visual, how an electrostatic precipitator works. As air passes into the combined ioniser / collector cell, the particulates in the air stream are polarised to a negative potential. As they continue through the ioniser and between the collector cell plates, the polarised particulates are repelled away from the negatively charged plates and attracted to the earthed plates where they stick and so are filtered out of the air flow.

Our ESP units fit in-line with the kitchen ducting and can be configured modularly to cope with all extract volume requirements.

1. Cooking particulates and odours
2. Canopy Grease Filter
3. ESP - Particulate Control Unit
4. Airflow

KEY FEATURES

- Eliminates up to 98% of oil, grease and smoke particles
- Filters particles down to sub-micron levels
- Produces Ozone to help reduce malodours
- Designed with an integral sump
- Modular in design
- Specifically designed for commercial kitchen application
- Energy efficient: - uses no more than 50W
- Greatly reduces grease build-up within the duct run

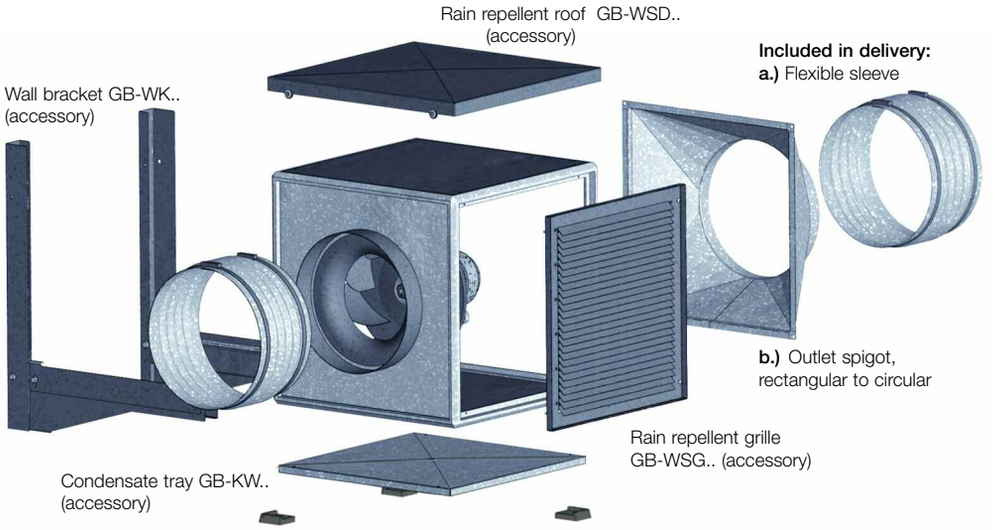
3 ESP Units Stacked in modular formation

4 ESP Units Stacked in modular formation with a double pass

Technical Specification

	ESP 1500E	ESP 3000E	ESP 4500E	ESP 6000E
Electrical Supply	220/240V 50Hz	220/240V 50Hz	220/240V 50Hz	220/240V 50Hz
Power Consumption	20 Watts	30 Watts	40 Watts	50 Watts
Max Air Volume	up to 0.7m³/sec	up to 1.4m³/sec	up to 2.1m³/sec	up to 2.8m³/sec
Dimensions W/H/D	450mm/630mm/ 640mm	900mm/630mm/ 640mm	1350mm/630mm/ 640mm	1800mm/630mm/ 640mm
Weight	55Kg	85Kg	118Kg	153Kg

GigaBox and accessory



Application
Multifunctional fan box, suitable for medium to higher air flow volumes against high resistances in every type of ventilation system. The compact frame construction offers easy conversion of the outlet position. Together with a choice of ideal accessories make these units ideal for all applications.
The GB.. T120 types are suitable for the extraction of dirty, humid and hot air up to max. 120° C, i.e. as extract air fan in commercial kitchens and many applications of process technology.

Casing
Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulating and flame-retardant mineral wool.
Intake cone for ideal airflow, spigot and flexible connector for duct connection. With outlet adapter (from square to circular) on the exhaust side for low-loss discharge and flexible connector to reduce vibration transmission. The flexible connectors are supplied as standard and correspond to the max. permissible air flow temperature of +70 °C and/or +120 °C with the types GB.. T120. Lifting lugs are standard for using crane hooks.
With GB.. T120 the motor is located outside of the air flow. The thermally insulated partition panel is also the support plate for the motor and impeller unit and can be removed completely for inspection without removing the complete fan from the system.

Speed control
All types (except GBD 630/4 T120) are speed controllable by voltage reduction using a 5-step transformer controller or an electronic controller. The 3-phase models can also be 2 speed controlled by star/delta switch (accessories DS 2 or full motor protection unit M 4). The performances of the speeds are given in the performance curve.
3-phase models are controllable with frequency inverters by installation of a sinusoidal filter (accessories) between inverter and motor. Type GBD 630/4 is only controllable by frequency inverter.

Assembly
Assembly of types GB..
Adaptable installation position and flexible assembly using the five possible discharge directions via the discharge adapter. Removable panels allow inspection access on all sides.
Assembly of types GB.. T120
Installation must be carried out with condensation discharge showing downward. Flexible assembly by three possible centrifugal discharge directions via the discharge adapter. Inspection cover with handle, for cleaning and maintenance simply remove. Lifting lugs are standard for using crane hooks. Vibration transmission to the building is minimised by anti vibration mounts (type SDD-U, accessories). Vibration transmission to the ducting is prevented by using the standard flexible connector supplied.

Impeller
Smooth running centrifugal impeller with backward curved polymer blades (size 250 from steel) on a galvanised steel back plate, direct driven. Size 500 and all GB.. T120 types with impellers from aluminium. These energy efficient impellers are low noise. Dynamically balanced assembled with the motor to DIN ISO 1940 Pt.1 – class 6.3 or 2.5.

Motor
IEC-standard motor or maintenance-free external rotor motor protected to IP 54 or 44. Thermal overload protection through built-in thermal contacts. Suitable for continuous operation S1. Insulation class F. Ball bearings are lubricated for life.

Electrical connection
Terminal box protection to IP 54.

Air flow direction
The air flow direction of centrifugal fans is not reversible, but can be set by positioning the fan to the required air flow direction. Furthermore the position can be set individually to constructional conditions through conversion of discharge adapter and panels. The correct motor rotation direction is marked through rotation arrows on the motor and has to be checked at start-up.

Incorrect direction of rotation
If the fan is operated in the incorrect direction of rotation the motor will overheat and the thermal contact will trip. Typical indication for this is a very low air flow combined with high noise levels and vibration.

Ambient temperature
The maximum permitted air flow temperature is given in the individual fan chart.

Surrounding temperature
From – 40° C to + 40° C.

Information	Pages
Design of systems, acoustic	12 on
General techn. information, speed control	17 on

	Sound press. Case breakout	Sound press. Intake	Air flow volume $\dot{V}$ m³/s against static pressure												
Type GB..	L_{PA} dB(A)	L_{PA} dB(A)	($\Delta P_{stat.}$) in Pa												
	at 4 m	at 4 m	**0**	**50**	**100**	**150**	**200**	**250**	**300**	**350**	**400**	**500**	**600**	**700**	**800**
GBW 250/4	27	39	0.389	0.319	0.244	0.147									
GBW 315/4	29	41	0.414	0.361	0.300	0.236	0.153	0.042							
GBW 355/4	34	46	0.817	0.747	0.675	0.594	0.505	0.400	0.258						
GBD 355/4/4	34	46	0.836	0.772	0.711	0.638	0.577	0.492	0.367	0.089					
GBW 400/4	38	50	1.142	1.092	1.036	0.975	0.917	0.85	0.764	0.656	0.511				
GBD 400/4/4	38	50	1.097	1.031	0.961	0.889	0.811	0.725	0.628	0.469	0.114				
GBW 450/4	40	52	1.514	1.433	1.361	1.292	1.217	1.122	1.006	0.867	0.692	0.083			
GBD 450/4/4	40	52	1.514	1.431	1.344	1.256	1.161	1.061	0.947	0.822	0.664	0.083			
GBW 500/4	45	57	2.333	2.236	2.139	2.042	1.947	1.85	1.744	1.628	1.506	1.219	0.778	0.042	
GBD 500/4/4	44	57	2.458	2.367	2.278	2.189	2.097	2.006	1.903	1.789	1.664	1.369	0.947	0.014	
GBW 500/6	35	46	1.600	1.478	1.347	1.189	0.978	0.678	0.144						
GBD 560/4/4	44	57	3.497	3.397	3.300	3.203	3.106	3.011	2.911	2.811	2.706	2.461	2.142	1.731	1.144
GBD 560/6/6	35	48	2.400	2.261	2.114	1.953	1.767	1.539	1.239	0.767					
GBD 630/4/4	48	61	4.153	4.058	3.961	3.869	3.775	3.683	3.592	3.500	3.403	3.194	2.953	2.675	2.333
GBD 630/6/6	43	56	3.192	2.992	2.794	2.597	2.375	2.103	1.767	1.356	0.792				
GBD 710/6/6	46	59	5.194	4.989	4.783	4.564	4.333	4.083	3.811	3.511	3.178	2.333	0.753		
Type GB.. T120	L_{PA} dB(A)	L_{PA} dB(A)	($\Delta P_{stat.}$) in Pa												
	at 4 m	at 4 m	**0**	**50**	**100**	**150**	**200**	**250**	**300**	**350**	**400**	**500**	**600**	**700**	**800**
GBW 355/4 T120	36	49	0.961	0.894	0.831	0.767	0.683	0.567	0.418	0.201					
GBD 355/4/4 T120	36	49	0.964	0.908	0.846	0.778	0.697	0.594	0.469	0.192					
GBW 400/4 T120	40	53	1.369	1.293	1.217	1.136	1.053	0.942	0.806	0.622	0.439				
GBD 400/4/4 T120	40	53	1.353	1.275	1.193	1.106	1.014	0.900	0.761	0.581	0.381				
GBW 450/4 T120	45	57	1.975	1.887	1.800	1.700	1.625	1.525	1.426	1.317	1.208	0.917	0.528		
GBD 450/4/4 T120	45	57	1.994	1.914	1.833	1.750	1.653	1.556	1.450	1.336	1.206	0.897	0.372		
GBW 500/4 T120	45	59	2.318	2.244	2.158	2.075	1.989	1.903	1.800	1.696	1.575	1.300	0.975	0.511	
GBD 500/4/4 T120	45	59	2.319	2.239	2.157	2.081	1.994	0.191	1.833	1.739	1.642	1.381	1.061	0.533	
GBD 560/4/4 T120	48	62	3.417	3.322	3.247	3.164	3.078	2.994	2.910	2.817	2.722	2.533	2.336	2.064	1.671
GBD 630/4 T120	53	67	3.928	3.867	3.803	3.742	3.667	3.594	3.533	3.469	3.397	3.242	3.097	2.908	2.703

Special application for GigaBox T120 – commercial kitchens

For the design of exhaust air systems in commercial kitchens the VDI 2052 (2006) "Ventilation equipment for kitchens – design, layout, approval" is applied. This follows for extract air fan:

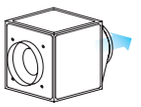
- ☐ Fans of exhaust air systems must be designed and installed in such a way that they are easily accessible, can be easily controlled and cleaned.
  They must be able to be switched off from the kitchen.
  The motors must be located outside of the extract air flow.
  Connected kitchen extraction hoods must separate solid and liquid components, if possible.
  A backdraft into following units is to be prevented.

These specific requirements from the GigaBoxes GB.. T120 are fulfilled in an outstanding manner. Easily accessible casing and double-walled side panels make cleaning simple with grease dissolving agents and steam possible.

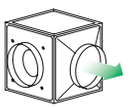
Requirements in excess thereof of kitchen extract air units and the appropriate fire protection can deviate country-specifically; these special requirements of the respective country, in which the unit is to be used, must be considered.

Models GB..

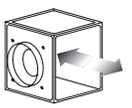
Arbitrary installation position and flexible assembly by five possible discharge directions.



Ⓐ Axial discharge



Ⓡ Centrifugal discharge

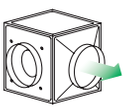


— centrifugal on both sides, free discharge

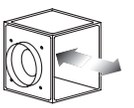
Models GB.. T120

NEW!

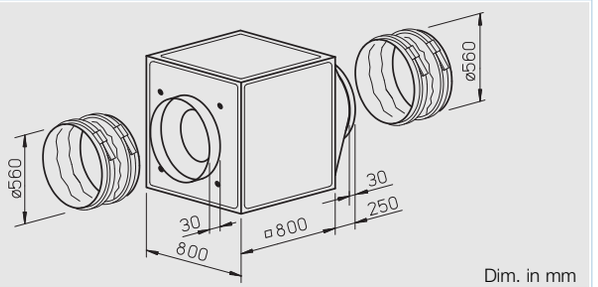
Designed for moving dirty, humid and hot air up to max. 120° C.



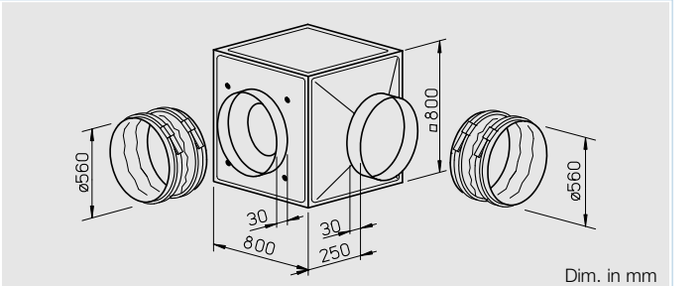
Ⓡ Centrifugal discharge



— centrifugal on both sides, free discharge



Dim. in mm



Dim. in mm

■ Special features of type GB.. T120

- Designed for moving dirty, humid and hot air volumes up to max. 120° C.
- Motor located outside of air flow.
- Temperature insulated partition panel between motor and impeller, lined with 20 mm thick, flame-retardant mineral wool.
- Easily accessible motor and impeller unit, removable without disassembling the system components.
- Inspection cover with handle, simply remove for cleaning and maintenance.
- Condensate collector with condensate spigot included in delivery. Drill hole for rain drainage (accessories) for outdoor installation is prepared.

□ Assembly of types GB.. T120

Installation must be carried out with condensation discharge showing downward. Flexible assembly by three possible centrifugal discharge directions via the discharge adapter. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Feature

□ Assembly of types GB..

Arbitrary installation position and flexible assembly by five possible discharge directions via the discharge adapter. For wall mounting the wall bracket (accessories) has to be used. Outdoor installation is possible using outdoor cover hood and external weather louvers (accessories).

■ Specification of both types

□ Casing

Self-supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel, lined with 20 mm thick temperature insulting and flame-retardant mineral wool.
Intake cone for ideal inflow as well as spigot and flexible sleeve (for the respective max. permissible air flow temperature) for duct connection. With discharge adapter (from square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks.

□ Impeller

Smooth running backward curved aluminium centrifugal impeller highly efficient and direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 – class 6.3.

□ Motor

Maintenance-free external rotor motor or IEC-standard motor protected to IP 44 or 54. With ball bearings and radio suppressed as standard.

□ Electrical connection

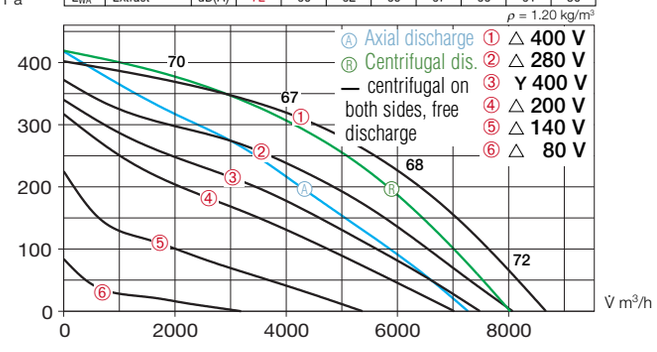
Standard terminal box (IP 54) fitted on the motor; with GB.. T120 fitted on the motor support plate.

Type	Ref. No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor power (nominal)	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load	Maximum air flow temperature controlled	Nominal weight (net)	5 step transformer controller with motor protect. unit Type	Ref. No.	5 step transformer controller without motor protect. unit Type	Ref. No.	Full motor protection unit using the thermal contacts Type	Ref. No.
		V̇ m³/h	min⁻¹	dB(A) at 4 m	kW	A	A	Nr.	+°C	+°C	kg						
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△-wiring, protection to IP 54																	
GBD 560/6/6	5522	7800/8640	690/870	35	0.51/0.80	0.90/1.90	1.90	867	60	60	80	**RDS 4**	1316	**TSD 3.0**	1502	**M4**[1)]	1571
GBD 560/4/4	5521	11500/12590	1110/1350	44	1.70/2.50	2.80/4.80	4.90	867	55	45	90	**RDS 7**	1578	**TSD 7.0**	1504	**M4**[1)]	1571
2 speed motor, 3 Phase motor, 400 V / 3 ph. / 50 Hz, Y/△-wiring, protection to IP 54																	
GBD 560/4/4 T120	5778	11520/12300	1250/1400	48	1.85/2.50	3.20/6.80	6.80	520	120	120	105	**RDS 7**	1578	**TSD 7.0**	1504	**M4**[1)]	1571

[1)] incl. operation and 2 speed switch

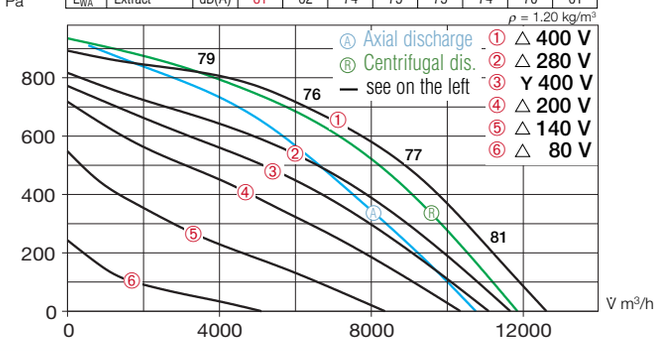
GBD 560/6/6

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	55	52	51	42	40	37	32	25
L_{WA}	Intake	dB(A)	68	51	53	63	64	61	53	43
L_{WA}	Extract	dB(A)	72	60	62	69	67	66	61	50



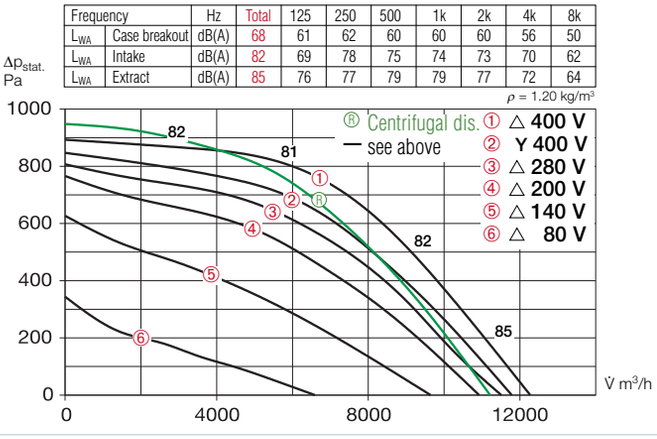
GBD 560/4/4

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	64	64	64	48	50	46	43	37
L_{WA}	Intake	dB(A)	77	57	66	69	74	70	64	55
L_{WA}	Extract	dB(A)	81	62	74	75	75	74	70	61



GBD 560/4/4 T120

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	68	61	62	60	60	60	56	50
L_{WA}	Intake	dB(A)	82	69	78	75	74	73	70	62
L_{WA}	Extract	dB(A)	85	76	77	79	79	77	72	64



☐ Motor protection

Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

☐ Speed control

All types are speed controllable by voltage reduction using a transformer controller.
The 3-phase models can also be 2 speed controlled by star/delta switch (accessories DS 2 or full motor protection unit M 4). The duties at different speeds are given in the performance curve.

■ Sound levels

Total sound power levels and the spectrum figures in dB(A) are given for:
- sound level case breakout
- sound level intake
- sound level extract

in the tables above the performance curve. Beside, the sound power level (on intake) is stated over the rated characteristic curve. In the table below you can also find the
- case breakout level at 4 m (freefield conditions).

■ Accessories of both types

Anti vibration mounts for installation indoors. Set of 4.
SDD-U Ref. No. 5627

Wall bracket for wall mounting.
GB-WK 560 Ref. No. 5626

External weather louvers to cover exhaust opening.
GB-WSG 560 Ref. No. 5640

Outdoor cover hood for outdoor installation.
GB-WSD 560 Ref. No. 5749

On/Off and 2-speed switch for 3-phase star/delta motors.
DS 2 [2] Ref. No. 1351

[2] full motor protection unit recommended: MD Ref. No. 5849

☐ Information	Pages
Design of systems, acoustic	12 on
General techn. information, speed control	17 on

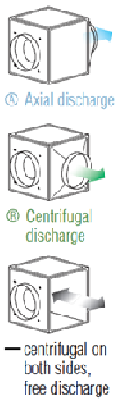
☐ Accessory-Details	Pages
Speed controller and full motor protection unit	397 on

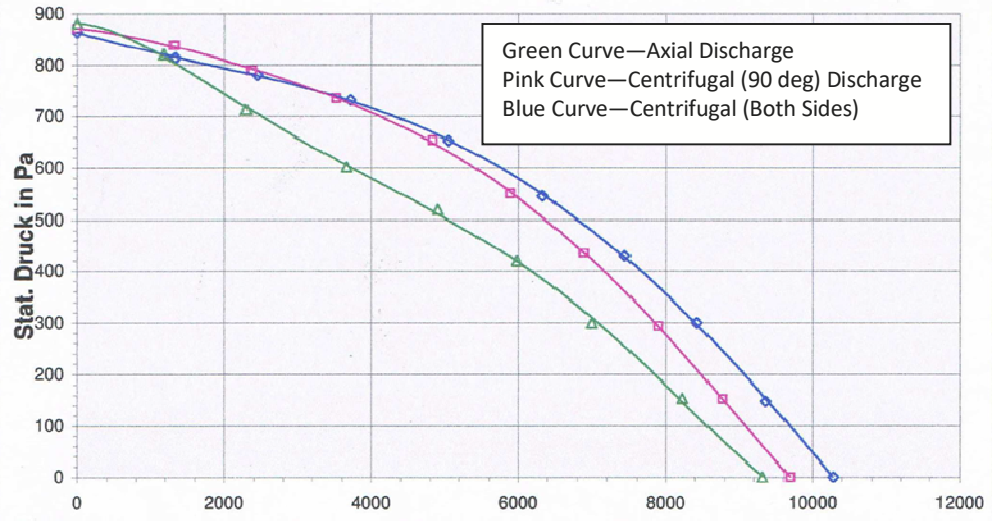
■ Specific accessories

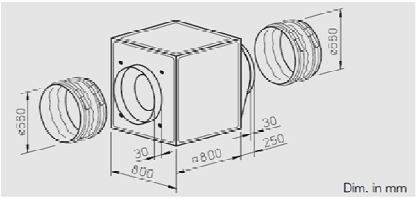
☐ for types GB..
Condensate collector with condensate spigot for pipe connection.
GB-KW 560 Ref. No. 5645
(Condensate collector with condensate spigot included in delivery with GB.. T120).

☐ for types GB.. T120
Rain drainage for outdoor installation (drill holes for rain drainage is already prepared).
GB-RA Ref. No. 9418

GBW 560/4







$\Delta p_{stat.}$ Pa

Frequency		Hz	Total	125	250	500	1k	2k	4k	8k
L_{WA}	Case breakout	dB(A)	64	64	64	48	50	46	43	37
L_{WA}	Intake	dB(A)	77	57	66	69	74	70	64	55
L_{WA}	Extract	dB(A)	81	62	74	75	75	74	70	61

Self supporting frame construction from aluminium hollow profiles. Double-walled side panels from galvanised sheet steel. Intake cone for ideal airflow, spigot and flexible connector for duct connection. With discharge adapter (square to circular) on the pressure side for low-loss discharge and flexible sleeve to reduce vibration transmission. Simple positioning by standard crane hooks. Installation must be carried out with condensation discharge showing downward. Flexible assembly by three possible centrifugal discharge directions via discharge adapter. Outdoor installation is possible using outdoor cover hood and external weather louvres (accessories).

Impeller:
Smooth running backward curved aluminium centrifugal impeller highly efficient and direct driven. Energy efficient with a low noise development. Dynamically balanced together with the motor to DIN ISO 1940 Pt.1 - class 6.3

Motor:
Maintenance free external rotor motor or IEC standard motor protected to IP 44 and 54. With ball bearings and radio suppressed as standard.

Electrical Connection:
Standard terminal box (IP54) fitted on the motor support plate.

Motor Protection:
Motors have thermal contacts wired to the terminal block and must be connected to a motor protection unit.

Speed Control:
Speed controllable by voltage reduction using transformer controller.

Type	Ref. No.	R.P.M.	Sound Level	Motor power (nominal)	Current Full Load	Maximum air flow temp.	Nom. weight (net)	5 step trans. controller	
		min^{-1}	dB(A) at 4 m	kW	Amps	+°C	kg	Type	Ref.
GBW 560/4	5508	1370	44	2.0	8.7	60	90	TSW 10	1498

Volume Flow m3/s against static pressure

0	50	100	150	200	250	300	400	500	600	700	800
2.77	2.72	2.55	2.48	2.41	2.31	2.22	2.0	1.72	1.44	1.00	0.36

Type Ref.

CP03
C Series

CP03 - CA - 0560 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 560mm diameter fans
- Standard lengths 560mm (1D) & 1120mm (2D)
- Use up to 70°C (standard construction)
- Systems up to 1000 Pascals
- Special lengths on request

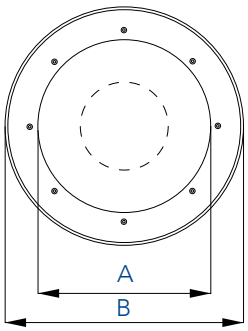
Insertion Loss (dB) - Centre Band Frequency

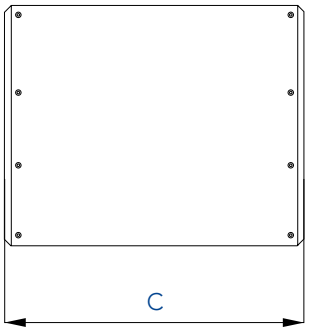
Product Code	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
CP03 - C* - 0560 - 1D	2	4	7	14	14	9	9	7
CP03 - C* - 0560 - 2D	3	6	10	19	20	14	12	10
CP03 - C*P - 0560 - 1D	3	7	9	18	24	24	20	15
CP03 - C*P - 0560 - 2D	4	9	17	27	29	28	23	23

Replace * in code with A or B for connection pattern. Insertion loss data is derived from continual testing to BS4718 and other standards in independent UKAS certified laboratories, which includes where appropriate, re-generated 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.

Dimensional Data

Product Code	A (mm)	B (mm)	C (mm)	Weight (kg)
CP03 - CA - 0560 - 1D	560	712	560	22
CP03 - CA - 0560 - 2D	560	712	1120	48
CP03 - CAP - 0560 - 1D	560	712	560	26
CP03 - CAP - 0560 - 2D	560	712	1120	57





Pattern A
12 x M10 - 620 PCD

Pattern B
16- M8 - 605 PCD

T: 01206 852389 **E:** info@acoustica.co **W: acoustica.co**
2 Condor Way, Whitehall Industrial Estate, Colchester, Essex CO2 8JN

CP03
C Series

Material & Finish

All casings are manufactured from mill finish hot dip galvanised mild steel conforming to EN10327 (BS2989) including the flow formed one piece end fittings. To prevent erosion of absorbing materials the C Series Silencers are fitted with a perforated liner manufactured from galvanised mild steel conforming to EN10327 (BS2989). The C Series Silencers utilise acoustic grade mineral fibre absorbing infill and are manufactured to the HVCA specification DW144 class B and M&E 100 for sheet steel thickness and stiffening.

Pressure Up to 1000 Pascals positive and negative.
Temperature -12° to +70°C.
Location Internally & externally mountable.

Melinex Lining (Optional)

Where moist conditions exist (e.g. process systems) or for critically clean applications (e.g. hospitals) the sound absorbing material may be required to be fully sealed by Melinex lining to prevent fibre migration. This will however, effect the acoustic performance of the silencer. Please contact us to discuss your requirements.

Alternative Specification

The above specification refers to our standard stock range. We can also supply custom made M Series Silencers with alternative dimensions, temperature ratings, construction materials and product finishes. Please contact us for further information and advice.

Example CP03 - CAP - 0315 - 2D. **CP03** Product group code. **CA** Drilling pattern (CA for A, CB for B). **0315** Internal diameter **2D** Length code (1D = 315, 2D - 630)

Cleaning & Maintenance

Should the airways require routine cleaning we recommend low-pressure air blasting, vacuuming or wiping the exposed surfaces with a damp cloth. It is not unusual for "White Zinc Oxide" to develop on galvanised silencers when the zinc in the galvanising reacts electrolytically with moisture. Silencers are of a passive nature and as such require no routine maintenance or lubrication.

Installation

For recommendations for the support of the silencer the principles of Part Six (pages 43-46) of the HVCA DW144 standard should be followed. It is important that the recommendations in the table are adhered to when locating the silencer in relation to other duct-mounted equipment. If the silencers are to be used in conjunction with equipment not listed please enquire for advice.

Equipment	Location
Centrifugal Fans	Direct couple only at the same size; use an inlet cone if open after silencer. PODDED - position 1 duct diameter from fan inlet/outlet.
Axial Fans	Direct couple only at the same size. Use an inlet cone if open after silencer. PODDED - match hub size within 30% of half nominal diameter.
Mixed Flow Fans	Direct couple only at the same size. Use an inlet cone if open after silencer.
Ductwork Bends	Direct couple only at the same size. PODDED - position two duct diameters from bend.
Ductwork Reducers	Direct couple only with reducers of maximum 15o cheek slope.
Finned Coils & Filters	Leave 200mm plenum between silencer and coil or filter, and suitable reducer as specified in HVCA DW/144 1998.

Inspection

For inspection access the recommendations set out in Heating & Ventilating Contractors Association specification DW144 1998, appendix M – Guidance Notes for Inspection, Servicing and Cleaning Access Openings, should be followed. We would suggest Level 2 one 300mm x 200mm-inspection panel down-stream or Level 3 one 300mm x 200mm inspection door each side of the silencer. Refer to table 25 of DW144 or Section 2 of HVCA specification TR17 for further recommendations. It is our recommendation that the silencers are inspected periodically to ensure that the airways are free from obstructions and no dust or foreign matter has collected and blocked the holes in the perforated liner elements.

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ERAL METAL
ALL KIND OF METAL WORKS

Sitesafe Carbon Units

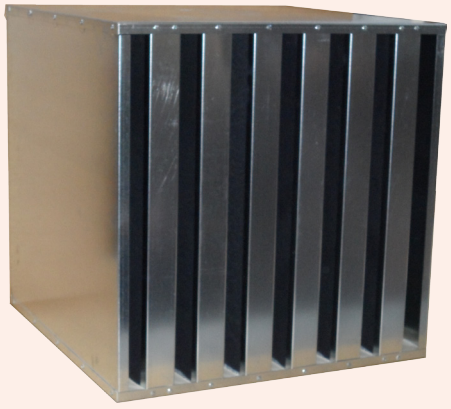
General Description

Standard Carbon multipanel carbon units have been in circulation for many years and there are many tens of thousand of units in service today. These filters are very heavy and nearly always installed in situations with very poor access.

With the new appreciation of risk which we have in the 21st Century it has become apparent that these units represent a real danger to health and potentially offer risk in the work place when a filter change is required.

The new Sitesafe Carbon cells provide exactly the same filter performance with a set of filters which will retrofit exactly for an existing full size cell.

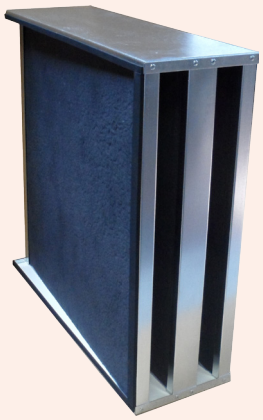
Will require two people plus lifting gear to carry and install



Carbon PA242424

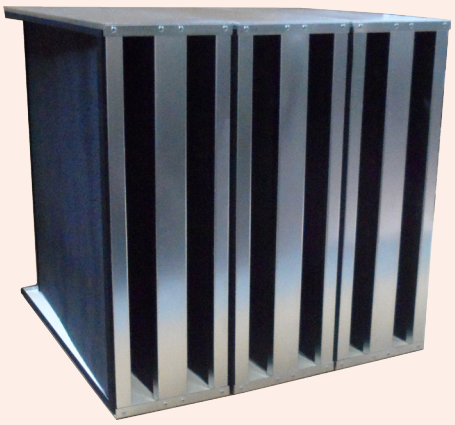
Size 594x594x597
Gross Weight 68.2Kg
Carbon Weight 50kg
Rated Airflow 3600m³/hr*
Pressure Drop 120Pa

Safe for one person to carry, no special lifting gear required.



Sitesafe PA240824

Size 594x196x597
Gross Weight 17.95Kg
Carbon Weight 16.6kg
Rated Airflow 1200m³/hr*
Pressure Drop 120Pa



Sitesafe 3xPA240824

Size 594x594x597
Gross Weight 53.85Kg
Carbon Weight 50kg
Rated Airflow 3600m³/hr*
Pressure Drop 120Pa

*Rated Airflow based on a dwell time of 0.1 seconds.
Available in all sizes to retrofit carbon cells

Bays 2 & 3 Pattenden Lane, Marden, TN12 9QS. T: 01622 832777 F: 01622 832507

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)

LONGAR® Type 11
Pleated Panel Filters

LONGAR® TYPE 11 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

LONGAR® TYPE 11 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 LONGAR® Type 11 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 11 HIGH CAPACITY PLEATED PANEL
We are able to manufacture the Type 11 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 11 HIGH EFFICIENCY PLEATED PANEL
Where situations arise we manufacture the Type 11 with a higher grade of filter media, F6, F7, F8 are available.

LONGAR® TYPE 11 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.

Longar Industries Limited, Unit 25, Glenmore Business Park, Colebrook Way Weyhill Road, Andover, Hampshire SP10 3GZ United Kingdom
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LONGAR® Type 11
Pleated Panel Filters

FITTING INSTRUCTIONS
- Fit products, observe direction of airflow indicator

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

MAINTENANCE
- All maintenance and replacement schedules will be set by the original equipment installer. Please refer to this for more information.
- When handling any components suitable PPE should be used – gloves, eye protection and access equipment should be used where required.
- Filters should not be cleaned but replaced when required in accordance with maintenance schedule set by the installation contractor.

PACKAGING
All units are packaged in double wall boxes, glued closed for protection whilst in transit against contamination.

TECHNICAL SPECIFICATIONS

SIZE ORDERING GUIDE (TOLERANCES +/- 2mm)				
Part Number	Actual Size HxWxD	Nominal Size HxWxD	Weight	Available Efficiencies *
PPF24824822	248 x 248 x 22mm	254 x 254 x 25mm	0.07kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	9.76 x 9.76 x 0.87"	10 x 10 x 1"	0.15lbs	
PPF49624822	496 x 248 x 22mm	508 x 254 x 25mm	0.14kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 9.76 x 0.87"	20 x 10 x 1"	0.31lbs	
PPF29329322	293 x 293 x 22mm	304 x 304 x 25mm	0.09kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	11.54 x 11.54 x 0.87"	12 x 12 x 1"	0.21lbs	
PPF59429422	594 x 294 x 22mm	609 x 304 x 25mm	0.19kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.39 x 11.57 x 0.87"	24 x 12 x 1"	0.41lbs	
PPF37537522	375 x 375 x 22mm	381 x 381 x 25mm	0.15kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	14.76 x 14.76 x 0.87"	15 x 15 x 1"	0.34lbs	
PPF49637522	496 x 375 x 22mm	508 x 381 x 25mm	0.19kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 14.76 x 0.87"	20 x 15 x 1"	0.41lbs	
PPF49639622	496 x 396 x 22mm	508 x 406 x 25mm	0.20kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 15.59 x 0.87"	20 x 16 x 1"	0.43lbs	
PPF62039622	620 x 396 x 22mm	635 x 406 x 25mm	0.24kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	24.41 x 15.59 x 0.87"	25 x 16 x 1"	0.53lbs	
PPF44844822	448 x 448 x 22mm	457 x 457 x 25mm	0.19kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	17.64 x 17.64 x 0.87"	18 x 18 x 1"	0.42lbs	
PPF49649622	496 x 496 x 22mm	508 x 508 x 25mm	0.24kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 19.53 x 0.87"	20 x 20 x 1"	0.52lbs	
PPF59649622	596 x 496 x22mm	609 x 508 25mm	0.27kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 x 19.53 x 0.87"	24 x 20 x 1"	0.60lbs	
PPF62049622	620 x 496 x 22mm	635 x 508 x 25mm	0.28kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	24.41 x 19.53 x 0.87"	25 x 20 x 1"	0.63lbs	
PPF59659622	596 x 596 x 22mm	609 x 609 x 25mm	0.31kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 x 23.46 x 0.87"	24 x 24 x 1"	0.68lbs	
PPF24824847	248 x 248 x 47mm	254 x 254 x 50mm	0.12kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	9.76 x 9.76 x 1.85"	10 x 10 x 2"	0.26lbs	

Pressure drop and airflow information available on request.

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LONGAR® Type 11
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.

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LONGAR® Type 11
Pleated Panel Filters

TECHNICAL SPECIFICATIONS

SIZE ORDERING GUIDE (TOLERANCES +/- 2mm)				
Part Number	Actual Size HxWxD	Nominal Size HxWxD	Weight	Available Efficiencies *
PPF37537597	375 x 375 x 97mm	381 x 381 x 102mm	0.41kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	14.76 x 14.76 x 3.82"	15 x 15 x 4"	0.90lbs	
PPF39639697	396 x 396 x 97mm	406 x 406 x 102mm	0.44kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	15.59 x 15.59 x 3.82"	16 x 16 x 4"	0.97lbs	
PPF49637597	496 x 375 x 97mm	508 x 381 x 102mm	0.49kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 14.76 x 3.82"	20 x 15 x 4"	1.08lbs	
PPF49639697	496 x 396 x 97mm	508 x 406 x 102mm	0.52kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 15.59 x 3.82"	20 x 16 x 4"	1.15lbs	
PPF62039697	620 x 396 x 97mm	635 x 406 x 102mm	0.61kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	24.41 x 15.59 x 3.82"	25 x 16 x 4"	1.33lbs	
PPF44644697	446 x 446 x 97mm	457 x 457 x 102mm	0.52kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	17.56 x 17.56 x 3.82"	18 x 18 x 4"	1.14lbs	
PPF49649697	496 x 496 x 97mm	508 x 508 x 102mm	0.66kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	19.53 x 19.53 x 3.82"	20 x 20 x 4"	1.46lbs	
PPF59639697	596 x 396 x 97mm	609 x 406 x 102mm	0.59kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 x 15.59 x 3.82"	24 x 16 x 4"	1.29lbs	
PPF59649697	596 x 496 x 97mm	609 x 508 x 102mm	0.69kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 x 19.53 x 3.82"	24 x 20 x 4"	1.52lbs	
PPF62049697	620 x 496 x 97mm	635 x 508 x 102mm	0.71kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	24.41 x 19.53 x 3.82"	25 x 20 x 4"	1.56lbs	
PPF59659697	596 x 596 x 97mm	609 x 609 x 102mm	0.79kgs	G4, F6, F7, F8, High Capacity, Carbon Impregnated Pleated Panels
	23.46 x 23.46 x 3.82"	24 x 24 x 4"	1.74lbs	
FINAL RECOMMENDED PRESSURE LOSS: 250 PASCALS				

Pressure drop and airflow information available on request.

- *Efficiency required to be confirmed at a time of ordering.

LONGAR INDUSTRIES

FILTERS AND FABRICATIONS FOR A CLEANER ENVIRONMENT

Longar Industries Limited, Unit 25, Glenmore Business Park, Colebrook Way Weyhill Road, Andover, Hampshire SP10 3GZ United Kingdom
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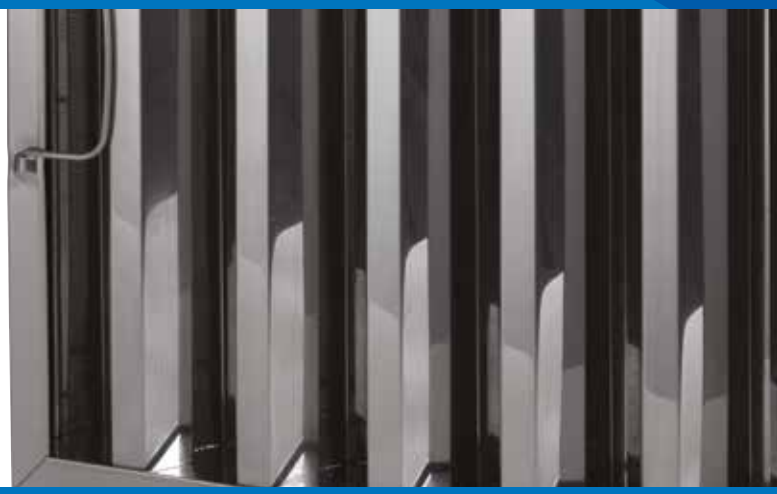
LONGAR® Type 2
High Performance Premium Baffle Filter



LONGAR® TYPE 2 FEATURES:
- 100% Flame barrier protection to DIN 18869-5.
- Cutsafe safety edges.
- Fully welded construction – all stainless steel construction.
- Meets insurance requirements.
- Meets HVCA DW172 requirements.
- Folding handles and drainholes as standard.
- Robust baffle filter construction – built to last.
- Tested & certified to European standard DIN 18869-5.
- Tested & certified to American standard UL1046.
- Tested & certified to ASTM2519.

APPLICATIONS
- Commercial kitchens
- Water mist separation
- Spark arrestors
- Sand filtration
- Grease filtration

LONGAR® TYPE 2 PREMIUM BAFFLE 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 safety edges on frame and blades. LONGAR® Type 2 is available in standard depths of 20mm and 45mm depths, 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 and American Standard UL1046. Custom sizes are available on request.

CONSTRUCTION / MATERIAL SPECIFICATIONS
As standard all baffles are manufactured with Stainless Steel 430 polished finish, (Other finishes and materials are available). Maximum Operating temperature 400C or 750F.

FITTING INSTRUCTIONS
- Fit products, handles in direction of air in.
- Product vertical in air stream.

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.

FILTER CLASSIFICATION:
- Filter Class G2
- UL Class 2

TESTED TO:
- DIN 18869-5
- UL 1046
- ASTM 2519

MANUFACTURED TO:
- DW172
- ISO9001

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

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LONGAR® Type 2
High Performance Premium Baffle Filter

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 blade is the height; please ensure correct orientation is given when ordering.

SIZE ORDERING GUIDE (TOLERANCES +/- 2mm)				
Part Number	Actual Size HxWxD	Nominal Size HxWxD	Weight	Filter Free Area
TYPE2ST10X20X2	243 x 496 x 45mm	254 x 508 x 50mm	1.40kgs	0.08m²
	9.57 x 19.53 x 1.77"	10 x 20 x 2"	3.08lbs	0.86ft²
TYPE2ST12X20X2	295 x 496 x 45mm	304 x 508 x 50mm	1.61kgs	0.09m²
	11.6 1 x 19.53 x 1.77"	12 x 20 x 2"	3.54lbs	1.02ft²
TYPE2ST16X16X2	395 x 395 x 45mm	406 x 406 x 50mm	1.54kgs	0.10m²
	15.55 x 15.55 x 1.77"	16 x 16 x 2"	3.39lbs	1.05ft²
TYPE2ST16X20X2	395 x 496 x 45mm	406 x 508 x 50mm	1.96kgs	0.13m²
	15.55 x 19.53 x 1.77"	16 x 20 x 2"	4.31lbs	1.40ft²
TYPE2ST18X18X2	444 x 444 x 45mm	457 x 457 x 50mm	1.98kgs	0.13m²
	17.48 x 17.48 x 1.77"	18 x 18 x 2"	4.36lbs	1.40ft²
TYPE2ST20X16X2	496 x 395 x 45mm	508 x 406 x 50mm	1.93kgs	0.12m²
	19.53 x 15.55 x 1.77"	20 x 16 x 2"	4.25lbs	1.32ft²
TYPE2ST20X20X2	496 x 496 x 45mm	508 x 508 x 50mm	2.41kgs	0.16m²
	19.53 x 19.53 x 1.77"	20 x 20 x 2"	5.30lbs	1.76ft²
TYPE2ST24X24X2	597 x 597 x 45mm	609 x 609 x 50mm	3.15kgs	0.24m²
	23.50 x 23.50 x 1.77"	24 x 24 x 2"	6.93lbs	2.56ft²
FINAL RECOMMENDED PRESSURE DROP: 400 PASCALS				

Pressure drop and airflow information available on request.

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A.V.MOUNT (ANTI VIBRATION MOUNT)

Anti Vibration Mounts (A.V. Mounts) attach to the bottom of Mounting Feet.A.V. Mounts are used to isolate the fan from the system to prevent vibration transfer through fixings or structures.A.V. Mounts can be used to isolate any products from the main system to prevent vibration transfer. The main uses we supply A.V. Mounts for are, Axial flow fans, Box fans, Centrifugal fans, in fact A.V. Mounts can be used with anything that causes vibration.

Flexible Duct Connector

For damping vibration generated by fans or ventilation equipment and transferred to air ducts. For partial compensation of ductworks distortion resulting from temperature changes. Flexible vibration damping connectors are fixed to air ducts with clamps.

Universal Bracket For Wall Mounting

High Velocity Jet Cowl

High velocity jet cowl. This type of termination provides a higher efflux velocity over standard cowls. In simple terms any residual odours will be "Jetted" high above areas that may be affected by nuisance odours. DEFRA kitchen guidance 2018 actually lists this is a preferred method of extraction. Rainwater is captured in a dish within the cowl and is fed out through a drinage tube.

CERTIFICATE OF COMPLIANCE

Certificate Number	20180131-R39404
Report Reference	R39404-20180130
Issue Date	2018-JANUARY-31

Issued to:	LONGAR INDUSTRIES LTD COLEBROOK WAY, UNIT 4 WEYHILL RD ANDOVER SP10 3BB UNITED KINGDOM
This is to certify that representative samples of	FILTERS, GREASE Baffle-type LONGAR TYPE 2 BAFFLE FILTER
	Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	UL 1046 Standard for Grease Filters for Exhaust Ducts. ULC-S649-06 Standard for Grease Filters for Commercial and Industrial Kitchen Exhaust Systems.
Additional Information:	See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC