

Used for odour abatement.
The Canarm CFS Filter box is designed to improve air quality in a commercial or industrial environment where odour removal is necessary. The replaceable pleated Carbon filters eliminate odours, captures organic and inorganic materials, and removes pathogens from the airstream. They can be used for intake, exhaust, or recirculation.



Electrostatic Precipitator Kitchen Grease and Smoke Particle Removal
- Leading Electrostatic Technology for highly effective grease and smoke filtration from kitchen ventilation extract systems
- Inline filtration system for the removal of grease and smoke as part of the DEFRA Guidance Pollution Control Requirements
- Modular Design for low to high air volumes
- Single Pass Option - Up to 95% Efficient Grease and Smoke Removal
- Double Pass Option - Up to 99% Efficient Grease and Smoke Removal
- Low Resistance / pressure drop
- Includes a grease drain point in the base of the unit
- Requires periodic maintenance to keep system effective and efficient
- Excellent for high volume / high grease catering establishments

ESP



GBW 355/4 - 1PH GigaBox Fan - Helios
Powerful box fans offering for high volumes and high pressure. A fully speed controllable boxed backward curved centrifugal fan range suitable for indoor or outdoor use rated IP55 (weatherproof) able to handle cooking grease and other airborne pollutants.

EXTRACTOR FAN



Five step speed controller with integrated thermal contact tripping unit for 400 V, 3 ph. alternating current fans. To connect thermal contacts wired to the terminal.

EXTRACTOR FAN CONTROLLER

NOTE- SPEED CONTROLLER
DETAIL TO BE CONFIRMED

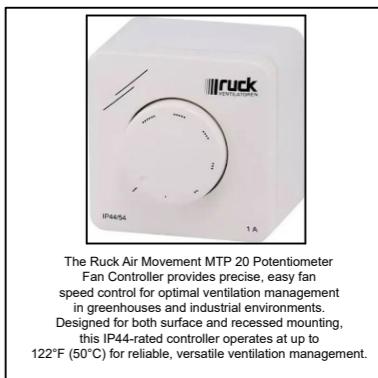
KITCHEN EXTRACT FAN



Ruck Ventilatoren offers high-quality ventilation fans engineered to deliver efficient air movement and superior ventilation for commercial, industrial, and residential applications. With advanced engineering and technology, these fans provide exceptional performance, energy efficiency, and low noise operation, ensuring optimal air quality and comfort. Ruck Ventilatoren fans are the reliable choice for all your ventilation needs, combining durability and efficiency for the best air quality solutions.

FRESH AIR FAN

NOTE- SPEED CONTROLLER
DETAIL TO BE CONFIRMED



The Ruck Air Movement MTP 20 Potentiometer Fan Controller provides precise, easy fan speed control for optimal ventilation management in greenhouses and industrial environments. Designed for both surface and recessed mounting, this IP44-rated controller operates at up to 122°F (50°C) for reliable, versatile ventilation management.

KITCHEN SUPPLY FAN

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Key Plan.

Drawing Title:
Proposed Elevation View

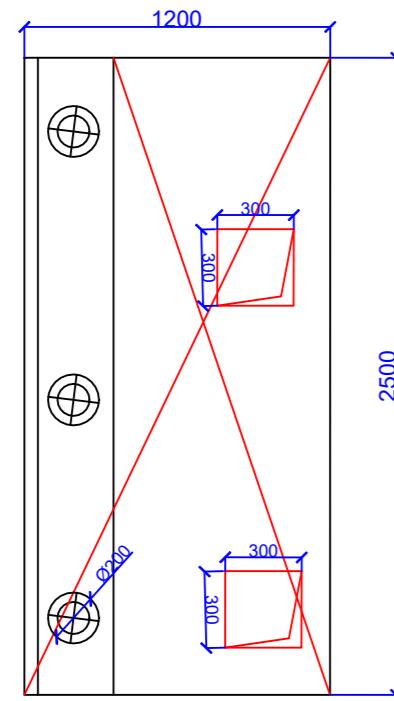


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A3 Sheet

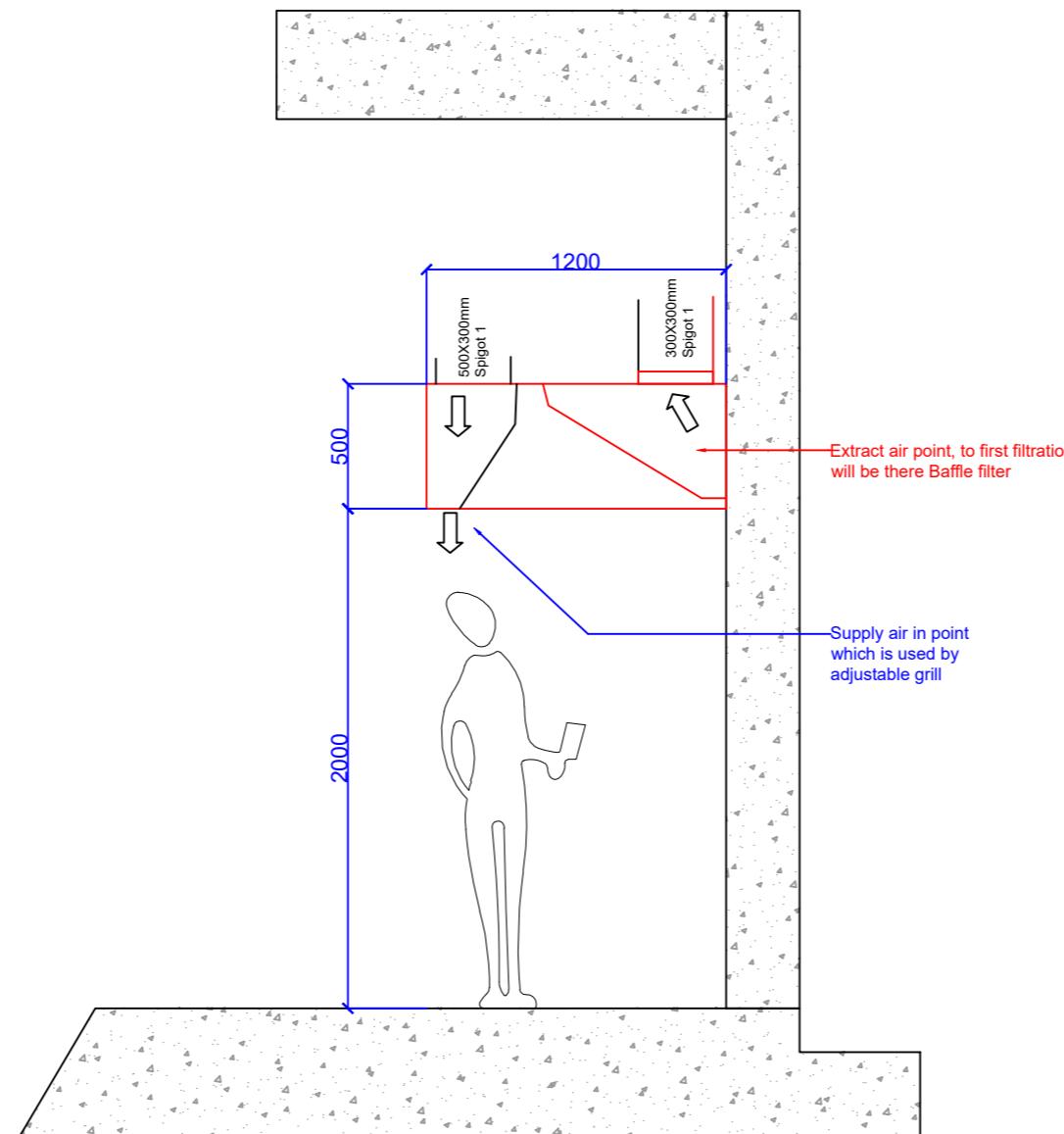
Status: Planning

Client: The chimes unit 102 uxbridge

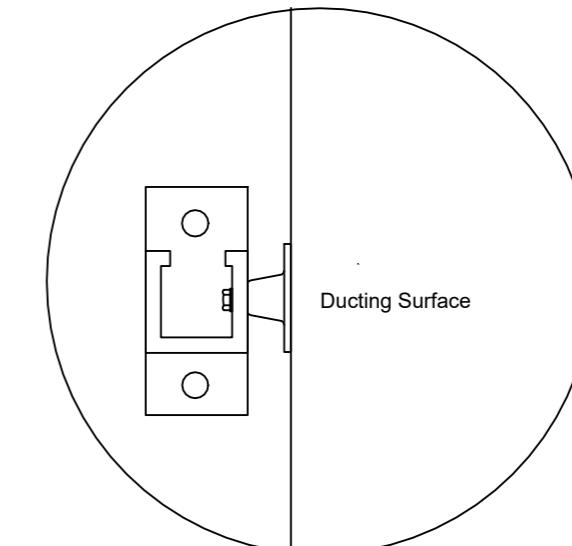
Singh commercial kitchen solution limited
Unit 5 Braintree house
Braintree road
HA4 0EJ



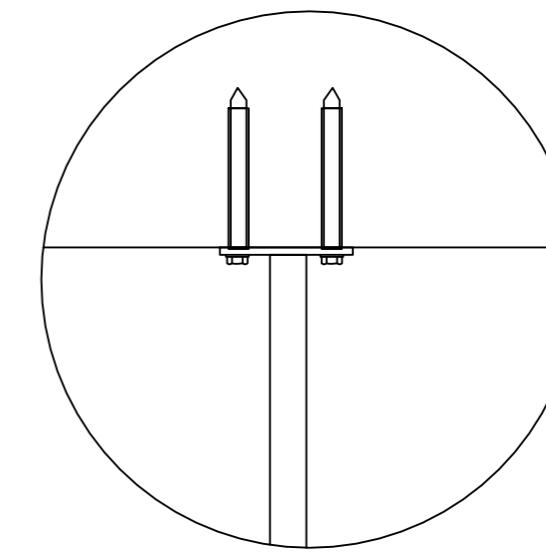
PROPOSED CANOPY TOP VIEW



PROPOSED CANOPY SECTION VIEW



Anti vibration mounts
for blocking all
vibration firce
between extraction
equipment and brackets



M12 Anchor study or
rawl bolt connection
between wall and galv arm

The drawing is copyright.
Only figured dimesions to
be worked to.

Key Plan.

Drawing Title:
Proposed Elevation
View



Client: The chimes
unit 102 uxbridge

Singh commercial
kitchen solution limited
Unit 5 Braintree house
Braintree road
HA4 0EJ

Scale: 1:100
A3 Sheet

Status: Planning

SINGH COMMERCIAL KITCHEN SOLUTION LTD

UNIT 5 , Braintree House , Braintree Road Ruislip HA4 0EJ

E-mail – Singhcks2017@gmail.com VAT - 367242194

Report on Kitchen Extract for Unit 102 The Chimes,High Street Uxbridge UB8 1GA

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	450x450x45mm
4	Nature of the filter media	Filters are manufactured with stainless steel 430 polished finish, MAX operating temp. 400°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

CARBON FILTER OR OTHER ODOUR ABATEMENT METHOD

11	Unit 1 - Dimensions of the filter name	Carbon Filters
12	Total number of filter panels in the filter bed / lambs	4
13	Nature of the filter	Carbon
14	Dwell time of the gases in the filter compartment and the setting of the control at which this is achieved	-
15	Total mass of item expressed in kilograms	72 kg
16	Unit 2 - Dimensions of the filter name	-
17	Total number of filter panels in the filter bed / lambs	-
18	Nature of the filter	-
19	Dwell time of the gases in the filter compartment and the setting of the control at which this is achieved	-
20	Total mass of item expressed in kilograms	-
21	How to proposed to access the filter unit	From units access panels
22	Manufacturer`s name	Purified Air

COOKER HOOD

23	The length the cooker hood overhangs the appliances	2500 mm x 1100mm Stainless Steel
24	The face velocity at the cooker hood, expressed in metres per second	Canopy face area 5.2m ² 0.3 m/s face velocity
25	Dimensions of the opening of the cooker hood	2500L Back H 500, Front H 500, Depth 1100

SYSTEM OPERATION

26	The extract rate (expressed as m ³ /s) at the proposed rate of extract.	2.3m ³ /s
27	The volume of the space to be ventilated in m ³	386m ³
28	The efflux speed at the flue terminal	7m/s
29	The type of flue terminal to be fitted	Louvre
30	Name and address of company to install system	-
31	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
32	Frequency of inspection and replacement of the pre-filters please describe	Change filters every two weeks
33	Frequency of deep clean to fan and flue please describe.	Light use 12 months Moderate use 6 months Heavy use 4 months

NOISE

34	Specify the fan type, its sound power level and sound frequency characteristics and provide a manufacturer's specification sheet showing those values	HELIOS GBW 355/1 PH GIGABOX FAN Breakout 49 db Intake 54 db Exhaust 69 db Sound press cage break out 38db in 4m
35	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 vibration mounts. this will eliminate any vibration from the duct work to the building. Fan will also be fitted using anti vibration mounts and also there will be flexible connection between fan and duct work.

CALCULATION OF THE EXTRACT SYSTEM

Calculations		Thermal Convection Method			
Item	Plan size, mm	Power	M2	Coefficient	Flow rate m3s-1
Char Griddle	2000x800	Electric	1.6	0.450	0.720
Deep fat frier	600*800	Electric	0.48	0.25	0.240
Range Oven	800x800	Electirc	0.64	0.4	0.25
Theoretical extract flow rate required					1.21
Canopy Factor, wall to wall					x 1.1
Specific extract flow rate required					1.3

Dwell time

Dwell time per second $0.1/1.3=0.0771/s$

for 600x600x600mm 3x activated side carbon OR UVC3000 dwell time achieved 0.1 1/s

For 6x activated site carbon, will achieve 0.2 1/s dwell time

Site carbon is each cell of the carbon filter. The reference number is SITE SAFE PA240824 has 6x site safe carbon cells. Its dimensions are 594x196x597mm OR UVC 3000 which is size is 900x630x640.

Flow rate: 1.3m3/s --- 4680 m3/h

The DEFRA Guide Risk Assessment for Odour confirms at Table 1 that the odour and grease level

loading for Indian restaurants is the lowest of four levels. The nature of the food offer and the very limited types of cooking at Mumbai Local, Queensbury, Harrow suggest that the odour and grease loading will be very low.

MAINTENANCE

- All maintenance should be carried out in accordance with the planned maintenance set by the installation contractor as set out below and by the Technical and Operations Manual for the Maintenance and Cleaning.
- All maintenance should be carried out by a trained operative.
- When handling any components suitable PPE should be used - gloves, eye protection and access equipment.

Carbon Units

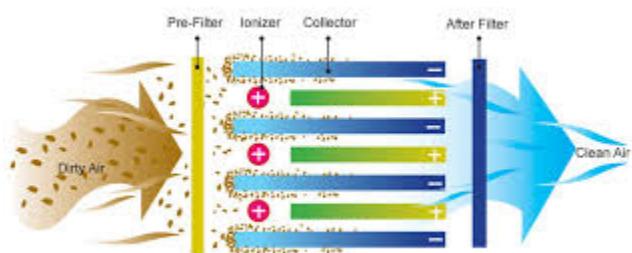
Frequent deep cleaning of the activated side carbon should be replaced with new activated side carbons every 12 months for light use or 6 months for moderate use.

RY-2500B Electrostatic Air Cleaner with UV Ozone

Specifications

Unit: H: 540mm, W: 694mm, L: 620mm Cabinet: 1.4mm/16 Gauge Galvanised Steel Finishing: Weather proof powder coated, Dark blue Weight: 55 kg Air Volume: 700 L/s Air Flow: Left to Right, Right to Left LED Operating Indicators: Green LED (ON) Red LED (OFF) Blue (UV Ozone) on unit's panel Static Pressure Required: 40 Pascal Power & Voltage: 230 Volts 1PH – 3 pin cord plug, 50 Hz, 0.45 Amps without UV, 1.25 Amps with UV Ionising Voltage: High Voltage 12KVdc, Low Voltage 6KVdc Airflow Direction: Right to Left or Left to Right Power Supply: High frequency solid state and self-regulating Particle Size: 0.01 microns – 10 microns Efficiency: Single pass 95%, Double pass 99.9% ASHRAE Calculated MERV Ratings: Meets MERV 15 at velocity of 2.5m/s to 3.8m/s Pre-Filter: Stainless Steel mesh, 1x Washable Electrostatic Cell Size: H: 472mm, W: 550mm, L: 340mm Number of Cells / Weight: 1/16.5 kg per cell Number of Plates: 61 Total Collection Area: 6.07 Sq metres Installation: Ceiling Suspended, Wall or frame mounted, Stacked multiple units No. of Lamps: 1 Lamp Wattage: 65 Watts Ozone Output: 6 grams/hour Lamp Life: 13000 Hours Application: Odour Control Certified To: AS 1668.1 and AS 1668.2 BCA performance requirements, can be utilised for alternative solution

compliance AHRAE 52.2 2017 -- Method of Testing General Ventilation Air-Cleaning Devices for Removal.



GigaBoxes are real multi-functional options that offer almost unlimited flexibility in various applications.

Compact frame construction and assembly-friendly accessories make a variable and thus optimal adaptation possible by simply repositioning the casing panels to the structural conditions. With five or (with series T120) three possible discharge directions this gives design flexibility to suit all site conditions. All types have integrated crane hooks for easier positioning as standard.

They are particularly suitable for medium to higher air flow volumes against high resistances in ventilation systems of every type. Furthermore, the new series GB.. T120 is suited for extraction of dirty, hot air up to 120° C. Altogether, 26 models are available with air flow volumes from 1400 to 19 000 m³/h for duct diameters 250 to 710 mm. GigaBoxes from Heliosare delivered complete with:

- Discharge adapter from square to circular ducted system for low-loss discharge

- Flexible sleeves to reduce vibration transmission and for the connection to ducts in the usual standard diameters.

Backward curved high output centrifugal impeller guarantees an energy-efficient operation at low noise emission.



Outdoor installation with wall bracket (accessories).



Roof installation with outdoor cover hood and external weather louvers (accessories).



Installation in the attic with anti-vibration mounts (accessories).

NEW!

GigaBox for air flow temperatures up to max. 120° C.



GB.. T120: The motor which is located outside of the air flow is separated from the impeller through a temperature insulated partition panel. The motor-impeller-unit is removable without disassembly of the ducting.



Assembly of the discharge adapter for GB.. T120 with centrifugal discharge direction to the top or to the side.

GB.. T120 with simply removable inspection cover.

The double-walled, removable 20 mm thick side panels are noise and temperature insulated with flame-retardant mineral wool.

This allows for a variable installation and simple inspection access. Extensive accessories like wall bracket, condensate collector incl. condensate spigot (for GB.. T120 included in delivery), external weather louvers to cover the exhaust opening, outdoor cover hood for protected outdoor installation ensure for the necessary flexibility on site.

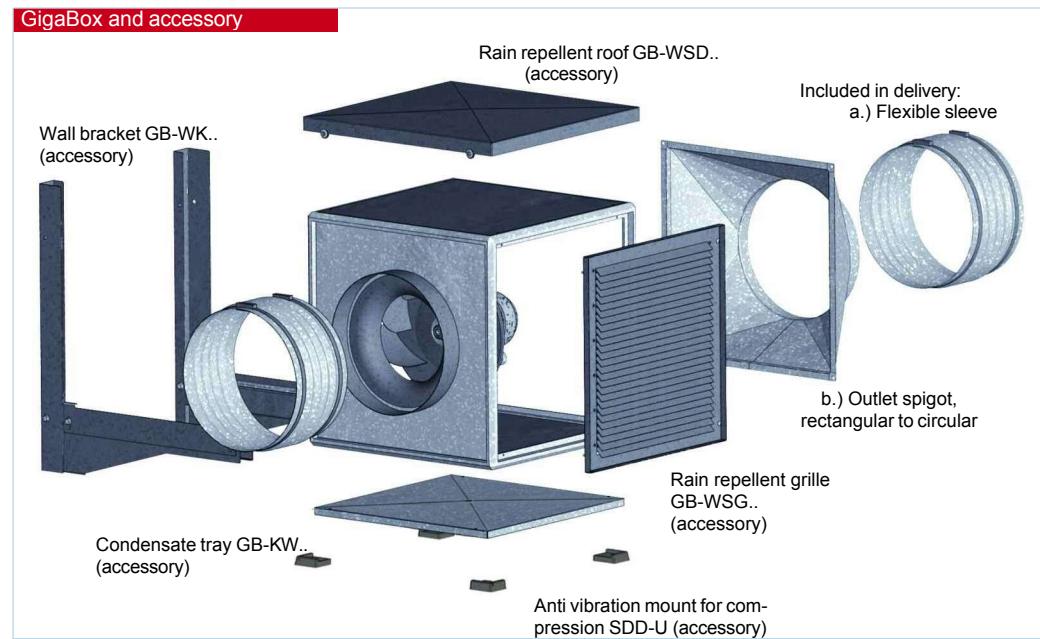
The T120 model impresses with outstanding benefits:

- Air flow temperature 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-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.
- Accessory components suitable for use to max. 120° C.

For applications with high air flow temperatures and/ or steam/ humidity present in the exhaust air, the GigaBox T120 is ideally suitable. Ideal for application in exhaust air systems of process technology or in commercial kitchens.





■ 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.

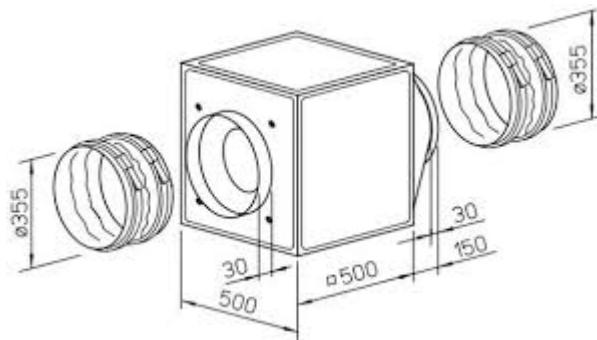
■ Air flow direction
The air flow direction of centrifugal fans is not reversible, but can be set by positioning the fan to the required air flow direction. Furthermore the position can be set individually to constructional conditions through conversion of discharge adapter and panels. The correct motor 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



Prices & Options

Overview

A great multifunctional box fan from German manufacturer Helios Ventilation. This fan is suitable for medium to higher airflow volumes against high resistances in every type of ventilation system. The ..T120 Range is also suitable for the extraction of dirty, humid and hot air up to a maximum of 120Deg C.

Self-supporting frame construction from aluminium hollow profiles

Double walled side panels with 20mm thick temperature insulating and flame retardent mineral wool

Steel bac or straight t kward curved centrifugal impellor

90 Degree hrough air path possible. Except T120 range which is only 90 degree air path

GigaBox centrifugal fan 710 mm

T120 range only has motor out of air stream

Suitable for outdoors with appropriate weather cowl

All sizes except GBD630/4 T120 can be speed controlled

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

Sitesafe Carbon Units

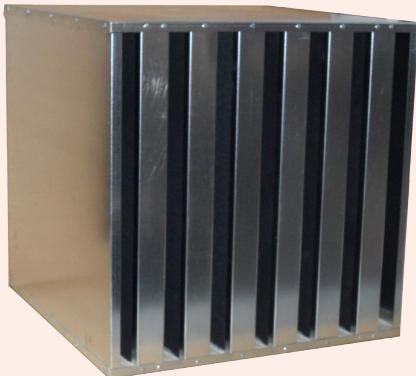
General Description

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



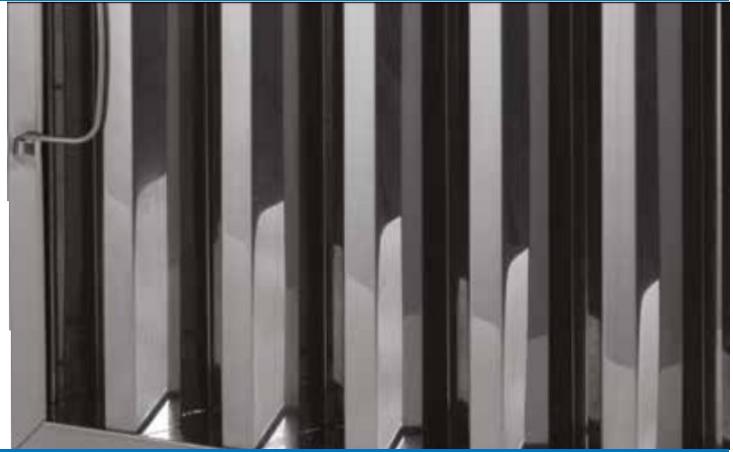
Sitesafe 3xPA240824

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

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 airin.
- 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

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.



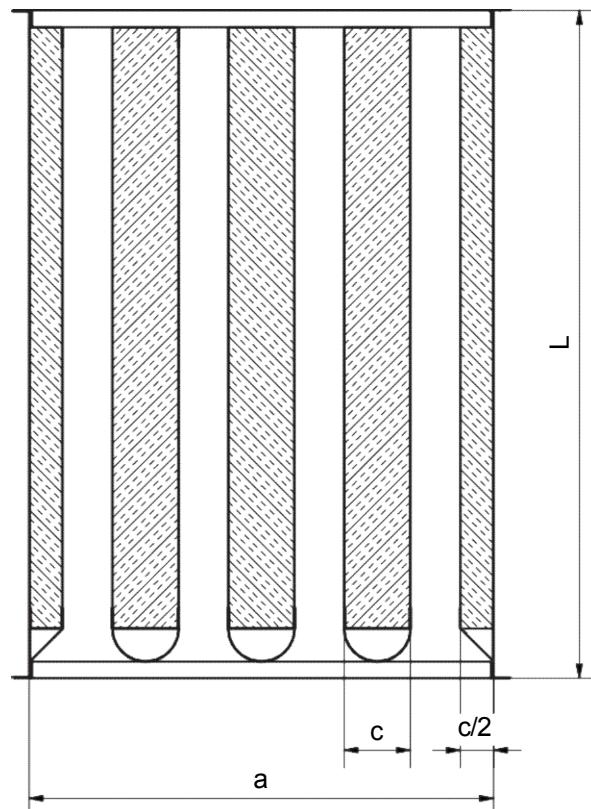
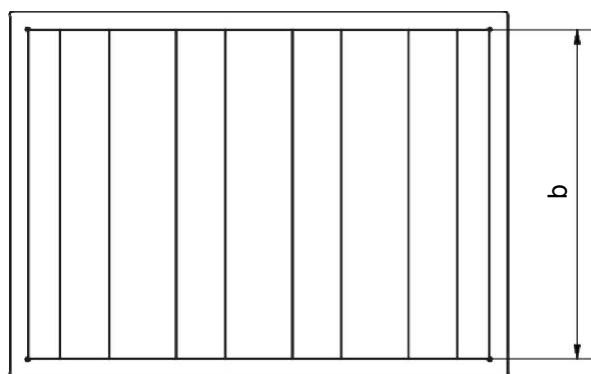
Universal Bracket For Wall Mounting

Rectangular duct silencers

SLC/SRC/SPC



Dimensions



Description

The SLC and SRC rectangular duct silencers reduce the noise level in ventilation and A/C systems. This silencer type is usually installed between a fan and an air supply or exhaust duct, and upstream of air supply vents.

All silencers are made of a housing and inner baffles. The housing is made from galvanized steel sheet and its ends are framed with steel sheet angles.

All baffles inside the silencer have a round breast at one end and comprise a galvanized steel frame with a sound-insulating insert which absorbs the acoustic energy from the air flow.

The sound-insulating insert is a set of non-flammable mineral wool panels. The outer surface of the sound-insulating insert is lined with a special abrasion-resistant textile to protect the mineral wool from wear and tear. The mineral wool panels are finished with a glass fibre lining in black; this lining is suitable for systems with a maximum air flow rate of 20 m/s. The maximum heat medium temperature is 250°C. The product is non-flammable.

The products with larger dimensions *a* and/or *b* feature compound baffles.

There are three baffle design types:

L — sound-absorbing baffles;

R — sound-absorbing resonator baffles;

P — perforated sound-absorbing resonator baffles

The baffle spacing *s* ranges from 40 to 100 mm.

The baffle surfaces should be protected against damage during transport, storage and on-site installation of the silencers.

The SLC, SRC and SPC rectangular duct silencers are installed in the ductwork with the baffles upright.

Rectangular duct silencers

SLC/SRC/SPC

Description

Available materials — Product code examples

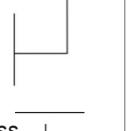
SLC-.....	— Z275 galvanized steelsheet
SLK-.....	— 1.4301/304 stainless steel sheet
SLM-.....-316L	— 1.4404/316L stainless steelsheet
SLA-.....	— 0.8 to 1.0 mm thick aluminium sheet

Other stainless steel sheet grades: please submit a request for quotation to determine manufacturability.

Product code example:

Product code: SLC - 10 - 04 - 0800 - 0400 - 0500

Type L baffle



Type R baffle



Type P baffle



Material

c — 100 baffle thickness



c — 200 baffle thickness



Number of baffles



width a



height b



length L



Product code example:

Silencer with 100 mm thick type L baffle, 4 baffles:

SLC-100-4-0800-0400-0500

Manufacturability

Material:

Z275 galvanized steel sheet

0.8 to 1.0 mm thick aluminium sheet

1.4301 stainless steel sheet

1.4404 stainless steel sheet

Other stainless steel sheet grades: please submit a request for quotation to determine manufacturability.

Number of baffles:

Silencer with 1 baffle: 2 half-baffles at the duct sides

Silencer with 2 baffles: 1 full baffle + 2 half-baffles at the duct sides

Silencer with 3 baffles: 2 full baffles + 2 half-baffles at the duct sides

Silencer with 5 baffles: 4 full baffles + 2 half-baffles at the duct sides

Baffles:

Mineral wool: rock or glass wool; other insulators, e.g. expanded PVC or as supplied by the customer.

Baffle thickness: 40 mm to 300 mm with type N3 lining or type G9 washable lining.

Mineral wool density: 40 to 100 kg/m³.

The baffle front breast is curved to reduce the air flow turbulence and pressure loss.

Dimensions:

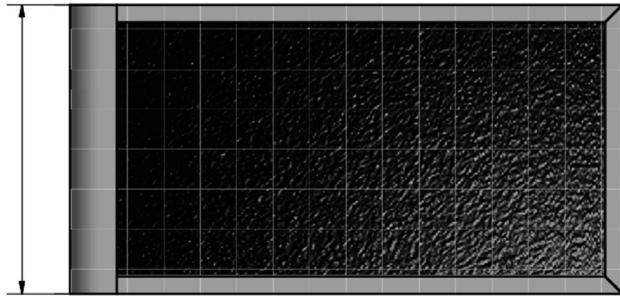
PQ frames: see the standard dimensions of square ducts. Other versions are available on request.

Front-to-back baffles: stops 1 to 3 cm before the PQ angle at the edge.

Silencer baffle types

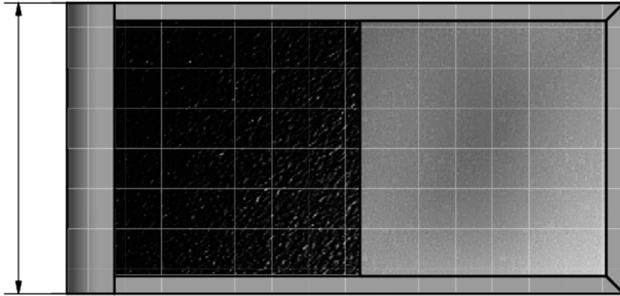
SLC

Silencer with sound-absorbing baffles — steel frame + mineral wool in lining: *This baffle type is generally used for sound insulation at low and medium frequencies.*



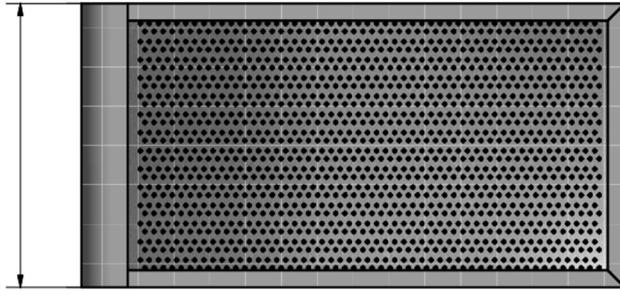
SRC

Silencer with perforated sound-absorbing resonator baffles — steel frame + mineral wool in lining + $\frac{1}{2}$ of baffle length covered with steel sheet: *This baffle type is generally used for sound insulation at medium and high frequencies.*



SPC

Silencer with perforated sound-absorbing resonator baffles — steel frame + mineral wool in lining + baffle covered over its entire length with perforated steel sheet at an open surface area ratio of 36%:



3-baffle rectangular duct silencer

SLC**Sound performance measurement of the SLC-100-3-390-490-500 silencer**

Product code Height	(mm)	Baffle length (mm)	Baffle width (mm)	Flow rate in the duct (m/s)	Baffle gap flow (m/s)	Baffle gap width (mm)
SLC-100-3-390-490-500	390	500	100	2.1	10.0	40

Components:

2 middle baffles + 2 side baffles

Mean sound power level: 53.3 dB**Mean A-weighted sound power level:** 37.7 dB (A)

Mean octave frequency (Hz)	Measured value (dB)	Calculated value (dB)
63	2.7	2.9
125	4.0	4.1
250	12.4	10.9
500	24.2	22.3
1000	34.5	34.9
2000	30.1	29.1
4000	19.3	20.2
8000	18.3	18.4

Table 1. Insertion loss, Test Report no. P-TA 31/2014, ref. DIN EN ISO 7235

No.	Dynamic pressure (Pa)	Volumetric flow rate (m ³ /s)	Air volume in baffle gaps (m/s)	Pressure loss over specimen duct (Pa)	Pressure loss over specimen (Pa)	Resulting pres- sure loss (Pa)	zeta (-)
1	0.4	0.4	10.0	1.3	27.2	25.9	0.45
2	0.5	0.5	12.0	1.7	44.1	42.4	0.51
3	0.8	0.6	15.0	2.9	68.2	65.3	0.50
4	1.5	0.8	20.0	5.5	117.8	112.3	0.48
5	2.3	1.0	25.0	8.3	186.0	177.7	0.49

Arithmetic mean zeta: 0.49

Table 6. Test Report no. P-TA 31/2014, ref. DIN EN ISO 7235

Ambient pressure: 980 hPa**Duct internal temperature:** 21.2°C**Air density:** 1.16 kg/m³

4-baffle rectangular duct silencer

SLC

Sound performance measurements for the SLC-100-4-590-490-1500 silencer

Product code Height	(mm)	Baffle length (mm)	Baffle width (mm)	Flow rate in the duct (m/s)	Baffle gap flow (m/s)	Baffle gap width (mm)
SLC-100-4-590-490-1500	590	1500	100	2.1	10.0	60

Components:

3 middle baffles + 2 side baffles

Mean sound power level: 51.73 dB

Mean A-weighted sound power level: 41.3 dB (A)

Mean octave frequency (Hz)	Measured value (dB)	Calculated value (dB)
63	2.7	2.9
125	4.0	4.1
250	12.4	10.9
500	24.2	22.3
1000	34.5	34.9
2000	30.1	29.1
4000	19.3	20.2
8000	18.3	18.4

Table 1. Insertion loss, Test Report no. P-TA 31/2014, ref. DIN EN ISO 7235

No.	Dynamic pressure (Pa)	Volumetric flow rate (m ³ /s)	Air volume in baffle gaps (m/s)	Pressure loss over substitute duct (Pa)	Pressure loss over specimen (Pa)	Resulting pressure loss (Pa)	zeta** (-)
1	1.8	0.9	10.0	2.9	47.2	44.3	0.78
2	2.7	1.1	12.0	4.1	68.2	64.1	0.78
3	4.2	1.3	15.0	6.4	106.2	99.8	0.78
4	7.4	1.8	20.0	11.6	181.0	169.4	0.74
$\bar{\zeta}$	4.45	1.05	15.0	7.8	204.0	185.0	0.76

Arithmetic mean zeta: 0.49

Table 12. Test Report no. P-TA 31/2014, ref. DIN EN ISO 7235

Ambient pressure: 965 hPa

Duct internal temperature: 21.6°C

Air density: 1.14 kg/m³

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