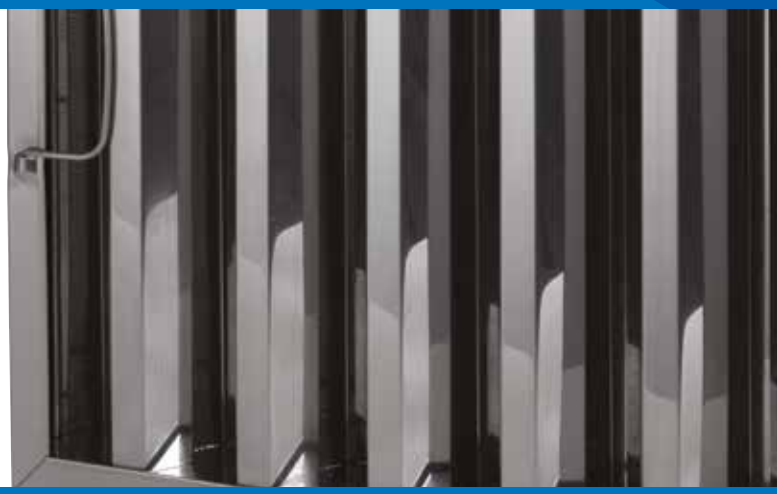
LONGAR® Type 2
Premium Baffle Filter



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
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				

LONGAR INDUSTRIES

FILTERS AND FABRICATIONS FOR A CLEANER ENVIRONMENT

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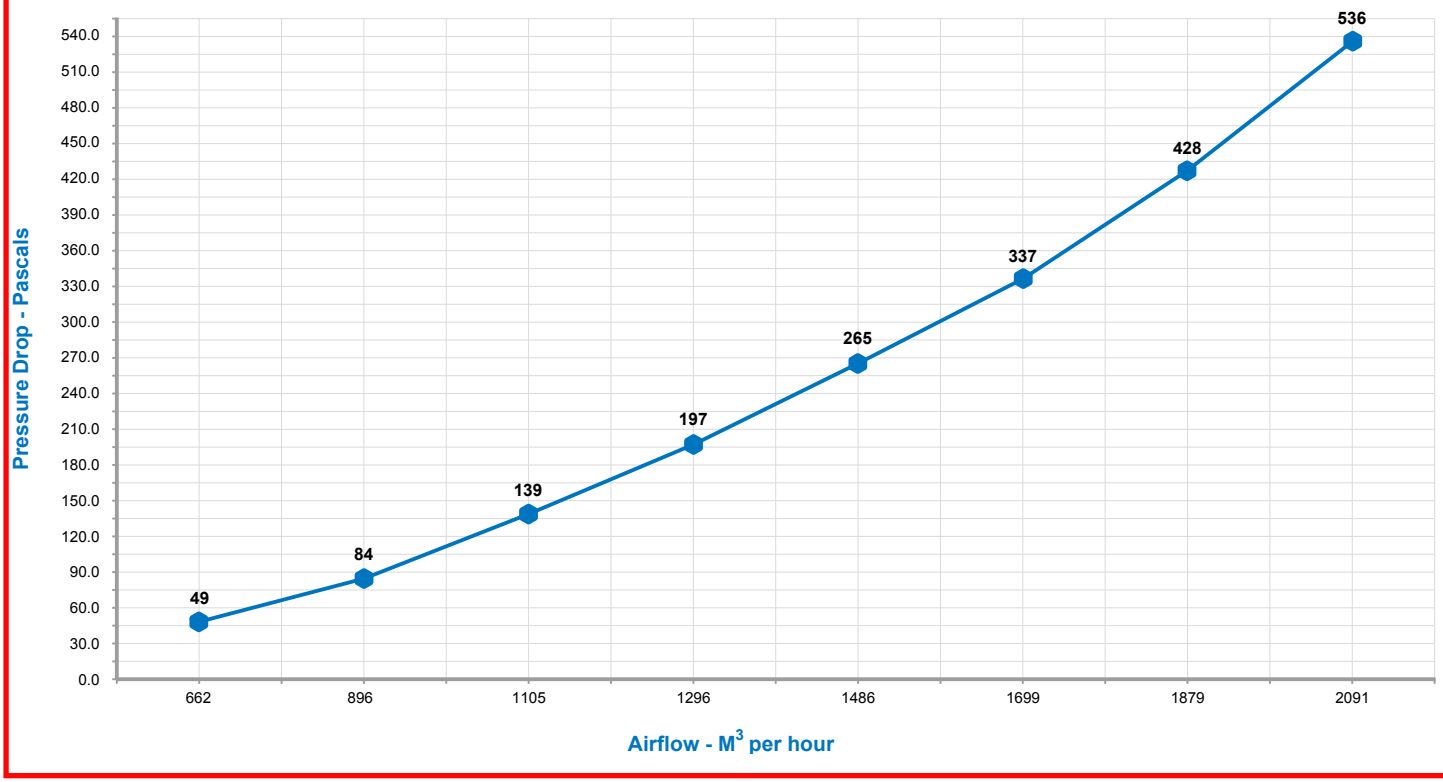
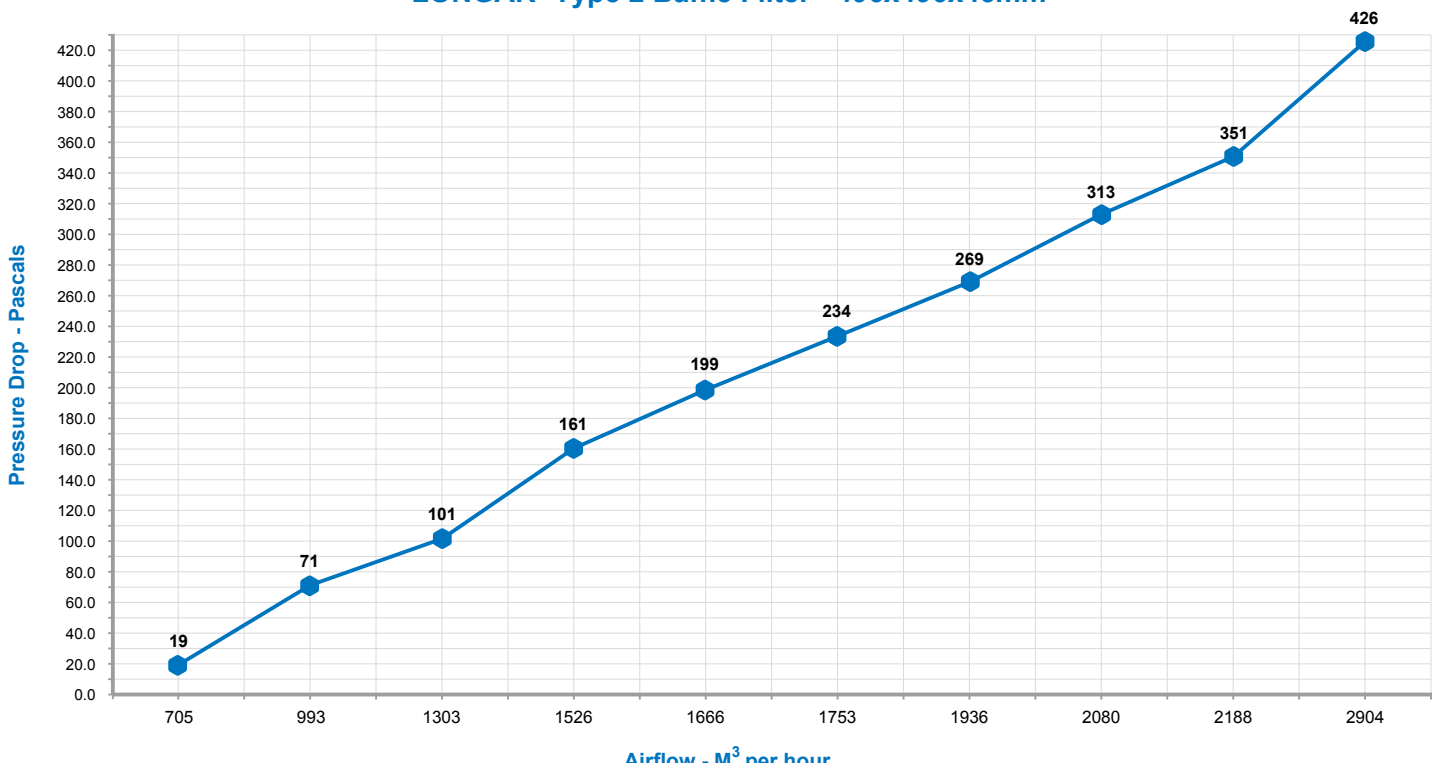
LONGAR® Type 2 Baffle Filter - 444x444x45mm



LONGAR® Type 2 Baffle Filter - 496x496x45mm



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AIRCLEAN

YOUR AIR FILTER MANUFACTURER

P.O. BOX 147,
MAIDSTONE, ME14 2LA.

TEL:01622 832777
FAX:01622 832507

sales@airclean.co.uk www.airclean.co.uk

Pleated Panel Filters

Applications

The Pleated Panel is a medium efficiency disposable filter, suitable for ventilation and air conditioning systems which require a higher efficiency and greater dust holding capacity than can be achieved with glass or synthetic panels.

The Pleated Panel can be used where glass panels are undesirable, such as in the food industry and hospitals.

Construction

Pleated filters consist of a dry non-woven fabric media, pleated to give an extended surface area, producing a low initial resistance for the same air volume.

The pleated assembly is contained within either a rigid all cardboard casing, or a cardboard frame with perforated cap-punch retaining grids.

Technical

Filter Classification:	Grade G4 to EN779.
Pleated Material Flamability :	Fire Resistant to :- Underwriters Laboratories Standard 900 class 2
Maximum operating temperature:	100°C (212°F)
Dust Holding Capacity:	840 g/m^2 (2") and 1260 g/m^2 (4") to EN779

Resistance to Airflow

Face Velocity										
m/s **fpm**	1.25 250		1.50 300		2.0 400		2.5 500		3.0 600	
Pressure Drop	Pa	"wg	Pa	"wg	Pa	"wg	Pa	"wg	Pa	"wg
2" Panel	22	0.09	27	0.11	50	0.20	70	0.28	-	-
1" Panel	25	0.10	30	0.12	55	0.22	75	0.30	87	0.35

Recommended discard resistance is 125 Pa (0.5"wg) in excess of clean resistances shown above for a 2" panel and 150 Pa (0.6"wg) for 4" panel.

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Capacity Chart (2" Pleated Panels)

Data based on Face Velocity of 2.5 m/s (500 fpm)

SIZE	SIZE	Flow Rate
OT Inches	Actual mm	m^3/s
10 x 10	242 x 242	0.14
12 x 12	289 x 289	0.20
15 x 15	369 x 369	0.33
18 x 18	445 x 445	0.48
20 x 10	495 x 242	0.29
20 x 16	495 x 394	0.48
20 x 20	495 x 495	0.60
25 x 16	620 x 394	0.60
25 x 20	620 x 495	0.76
24 x 12	594 x 289	0.43
24 x 20	594 x 495	0.73
24 x 24	594 x 594	0.88

Actual Face Size = Nominal Size less 6mm (0.25")

Capacity Chart (4" Pleated Panels)

Data based on Face Velocity of 3.0 m/s (600 fpm)

SIZE	SIZE	Flow Rate
OT Inches	Actual mm	m^3/s
10 x 10	242 x 242	0.18
12 x 12	289 x 289	0.25
15 x 15	369 x 369	0.41
18 x 18	445 x 445	0.60
20 x 10	495 x 242	0.36
20 x 16	495 x 394	0.58
20 x 20	495 x 495	0.73
25 x 16	620 x 394	0.72
25 x 20	620 x 495	0.91
24 x 12	594 x 289	0.51
24 x 20	594 x 495	0.87
24 x 24	594 x 594	1.05

Holding Frames and Casings

Holding frames and casings for Disposable Pleated Panels are available singularly or in multiples, and can be manufactured to suit non-standard sizes and special applications.
See leaflets (code AC8) for full technical information.

Code AC1/3b Ref 06/11

Will require two people plus lifting equipment to carry and install.

Carbon PA242424

Size	594 x 594 x 597
Gross Weight	68.2Kg
Carbon Weight	50Kg
Rated Airflow	3600m³/hr*
Pressure Drop	120Pa

Safe for one person to carry.

No special lifting equipment required.

Sitesafe PA240824

Size	594 x 196 x 597
Gross Weight	17.95Kg
Carbon Weight	16.6Kg
Rated Airflow	1200m³/hr*
Pressure Drop	120Pa

Sitesafe 3 x PA240824

Size	594 x 594 x 597
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

Carbon Filter Cell Part Number	Nominal Size (inches)	Height (mm)	Width (mm)	Depth (mm)	Weight of Encased Carbon (Kg)	Weight of Entire Cell (Kg)	Capacity @ 0.1 Second Dwell Time M3/h
PA-240824-7C "Site Safe"	24 x 08 x 24	594	196	597	17	18	1266
PA-242412-7C	24 x 24 x 12	594	594	297	25	36	1900
PA-242424-7C	24 x 24 x 24	594	594	597	50	61	3800

Please find our most popular sizes above, we do supply many different sizes and grades of carbon filters so please contact us with your requirements.

R02
Rectangular Silencers

R02 - 3 - Attenuator

Available in seven standard lengths R02 3 Rectangular Duct Mounted Silencers have excellent attenuation properties, achieved with sound absorbing infill splitters, retained in the attenuator casing by a perforated liner. The resistance to airflow is a function of the face velocity and length. It is not recommended to select the R02 3 Silencers with a face velocity above 3.5 metres per second without asking advice regarding re-generated self noise. We can advise on the selections and can perform system analysis to ensure the correct unit is specified.

- High performance rectangular duct silencer
- Seven standard lengths
- Many connection options
- Cross section dimensions in 1mm increments
- System pressure within ducted systems to 1500 Pa
- Special lengths on request

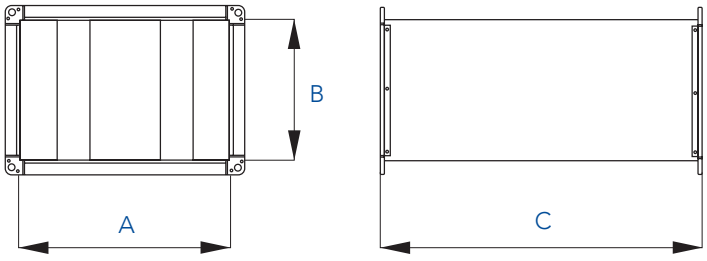
Insertion Loss (dB) - Centre Band Frequency

Product Code	Length (mm)	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
R02 - 3 - 600	600	6	9	13	25	31	32	24	20
R02 - 3 - 900	900	7	12	18	33	42	42	37	28
R02 - 3 - 1200	1200	8	15	25	42	50	50	46	34
R02 - 3 - 1500	1500	9	18	30	47	50	50	50	40
R02 - 3 - 1800	1800	10	20	35	49	50	50	50	52
R02 - 3 - 2100	2100	12	23	40	50	50	50	50	49
R02 - 3 - 2400	2400	13	26	40	50	50	50	50	50

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

Code	A Min	A Max	B Min	B Max	C Min	C Max
R02 - 3	100	1200	100	1200	400	2400



Resitance to Airflow (Pa)

Product Code	1.0m/s	1.5m/s	2.0m/s	2.5m/s	3.0m/s
R02 - 3 - 600	13	24	40	54	78
R02 - 3 - 900	14	26	41	55	81
R02 - 3 - 1200	15	27	42	56	86
R02 - 3 - 1500	15	27	44	56	88
R02 - 3 - 1800	16	28	44	57	90
R02 - 3 - 2100	16	29	45	59	92
R02 - 3 - 2400	16	30	47	62	95

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R02
Rectangular Silencers

Material & Finish

All components are manufactured from mill finish hot dip galvanised mild steel conforming to EN10327 (BS2989). To prevent erosion of absorbing materials, the R Series Silencers are fitted with perforated splitters manufactured from galvanised mild steel conforming to EN10327 (BS2989) R 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 1500 Pascals positive and negative.
Temperature -12° to +100°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 materials such as 304 and 316 grade stainless steels, cold reduced (CR4) mild steel and aluminium.

Dimensional Data

Units smaller than the minimum and larger than the maximum with the same aero-acoustic performances are available, but may have different manufacturing methods and are therefore coded accordingly.

Connection Options	
MEX Flanges	20, 30 & 40mm
Ductmate Flanges	25 & 35mm
Circular Spigot	"SPIRAL FIT" circular spigots, can be offset.
Rectangular Spigot	Rectangular spigots, can be offset
Raw	Plan end for slip jointing etc.

Installation

For recommendations for the support of the fan the principles of Part Six (pages 43-46) of the HVCA DW144 standard should be followed. Always use the correct size bolts as specified in the dimensional data table above. The arcuate holes are sized to allow the metric thread sizes to be utilised, for example, for an M10 fixing, the slot is made 19mm long by 13mm wide. Please contact us to confirm the suitability of any fan manufacturers product.

Equipment	Location
Centrifugal Fans	Position at least one duct width from inlet or outlet.
Axial Fans	Position at least one duct width from inlet or outlet.
Mixed Flow Fans	Position at least one duct width from inlet or outlet.
Ductwork Bends	Position at least three duct widths from inlet or outlet. One duct width will increase resistance by 90%, two by 20%. Ensure splitters are in parallel plane to bend.
Ductwork Reducers	Direct couple only with reducers of maximum 15° cheek slope.
Finned Coils & Filters	Leave 500mm plenum between silencer and coil or filter, and suitable reducer as specified in HVCA DW/144 1998.

Cleaning & Maintenance

Should the product 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.

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Ventorn
Engineered Ventilation Services

Silent box fan unit AMF-500/1
Version: 4-pol; 50 Hz; 90°-180°airflow

Silent box fan unit AMF-500/1

Variable direction discharge, backward curved centrifugal fan.

High efficiency IE2 external rotors motor and IE3 for induction rotor motors. Highest quality Electric motors with thermal protection will guarantee the long life and trouble free operation due to its construction and air cool system.

Free running High density HD backward curved Impeller is made of aluminium and dynamically balanced according to ISO10816 two plane CLASS 1.

The double skin Acoustic panels with 25 mm flame-retardant mineral wool noise and temperature insulated will help to reduce the nose level, they are easily removable which make it easy to install in any direction as well as easy to clean and maintain.

Aluminium frame and corners are highly shock-resistant.

Speed controllable 0 to 100% only by High efficiency variable frequency drive, pre-programmed and fully protecting the fan against any sort of harm.

Low sound level due to the 25mm thick acoustic panels, to absorb the noise to the highest level.

Casing and all corners are made of corrosion resistance aluminium for longer life.

Silent box fans can be used as extract and supply unit.

Technical Data

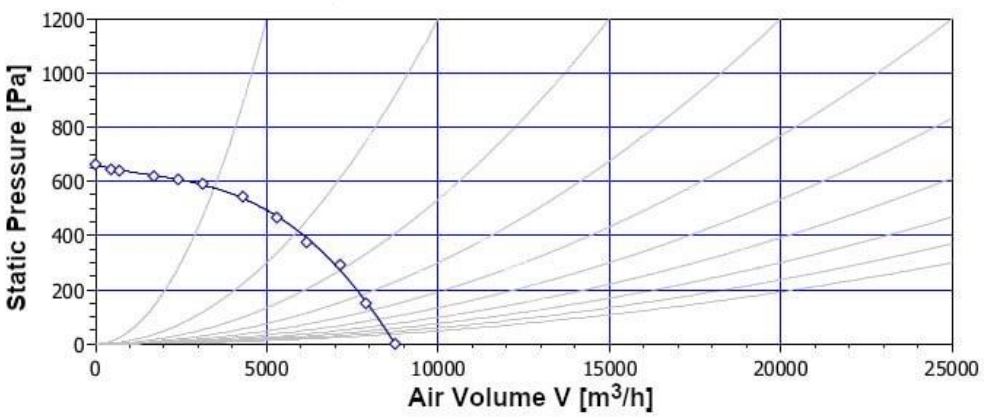
Voltage	230 V
Frequency	50 Hz
Phase(s)	3~
Input power	1450 W
Input current	5.32 A
Impeller speed	1450 r.p.m.
Efficiency	IE 2
Air flow max	8704 m^3/h
Maximum ambient Temperature	max 60 °C
Enclosure class	IP54
Insulation class	F
Motor type	AC
Weights	Weight 64 kg

Speed control Data

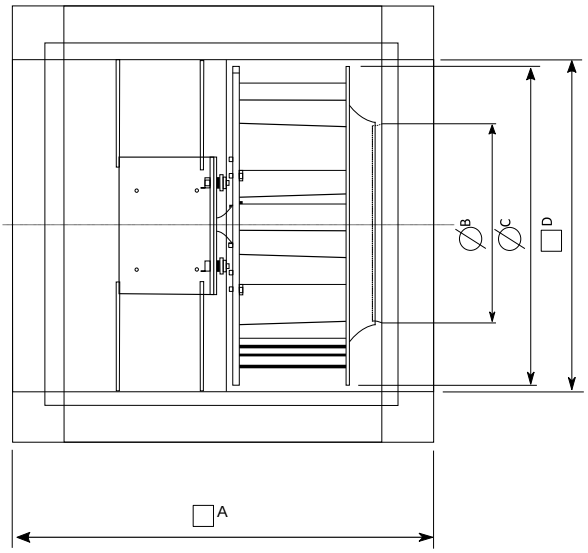
Principe of control	Variable frequency Drive
Input voltage	1~ 200-240V
Input current	15 A
Output current	6.1 A
Output voltage	3~ 0-250V
Frequency	0 – 50 Hz
Enclosure class	IP20

Mechanical characrtistic

Air volume flow rate



Dimensions



□	**A**	=	670 mm
	B	=	330 mm
	C	=	500 mm
□	**D**	=	590 mm

Sound data

Name	V m³/h	Δp sV Pa	Δp tV Pa	Pwe W	η s %	Lp(A) dB(A)	n 1/min	ErP
AMF500/1	8704	7	71	1.45	1,8	80,4	1450	2018

Sound pressure level at 3m 54 dB(A) Mid-frequency band Hz

500/4	Hz	Tot	63	125	250	500	1k	2k	4k	8k
LwA Inlet	dB(A)	76	63	65	69	71	70	67	62	55
LwA Outlet	dB(A)	77	65	67	71	73	72	69	64	57
LwA Surrounding	dB(A)	60	48	50	54	56	55	52	47	40

Measuring point: qv = 1, 19 m3/s, Ps = 564 Pa

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.