

VL4-2424

V Line Panel Filter 24x24x4

Description/Application

V Line - Disposable pleated panel filters

Description

Disposable pleated panel filter made with both a water resistant card frame and retaining face. The V Line panel filters use a flame retardant, 100% thermally bonded polyester filter media backed with an expanded galvanised steel mesh.

Application

General heating and air-conditioning.

As a pre-filter to bag filters.

Specification

EU Grade

G4

Efficiency (>95%)

5 Micron

Capacity

Rated Capacity (CFM): 2018

Rated Capacity (M³/hr): 3430

Resistance

Initial Resistance: 1"/25MM: 40Pa 2"/50MM: 40Pa 4"/95MM: 40Pa

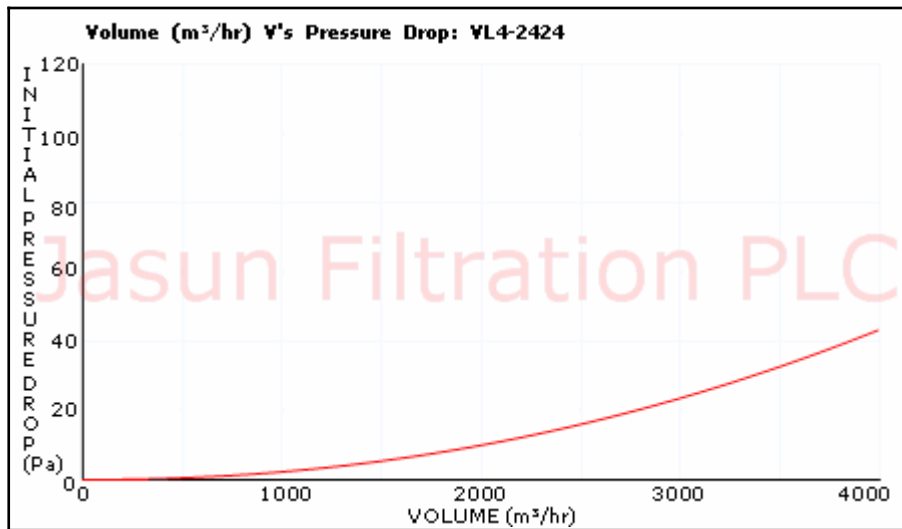
Final Resistance: 1"/25MM: 150Pa 2"/50MM: 150Pa 4"/95MM: 150Pa

Dimensions

Nominal (Inches): 24x24x4

Actual (mm): 594x594x95

Visual



QUALITY STANDARD



BS EN ISO 9001:2000



Riverside House, Parrett Way, Colley Lane, Bridgwater, Somerset TA6 5LB
Tel: +44(0)1278 452277 Fax: +44(0)1278 450873 sales@jfilters.com www.jfilters.com

ENVIRONMENTAL STANDARD



BS EN ISO 14001:1996

Centrifugal Fans and Blowers

Double Inlet



Double Inlet, Double Width Fans

A range of ten standard models designed specifically for applications where low noise levels are critical. Resiliently mounted low speed motors coupled with large fan outlets provide low air velocities – the main contributor to quiet running fans.

For installations where higher resistances to flow need to be overcome some versions are available with higher speed motors to generate more pressure capability.

The fans are normally mounted from their outlet flanges which can be for either vertical or horizontal discharge.

General Installation Conditions

These fans are suitable for handling ambient temperatures up to 40°C. and should be fitted with the motor shaft horizontal. If this temperature is exceeded there is a risk of the motors overheating and triggering the in-built thermal protection devices.

The fans must not be used for handling explosive, inflammable or corrosive gases, nor sighted in such environments.

Typical applications

Widely used in air conditioning units, heat recovery, VAV boxes and smaller air handling units.

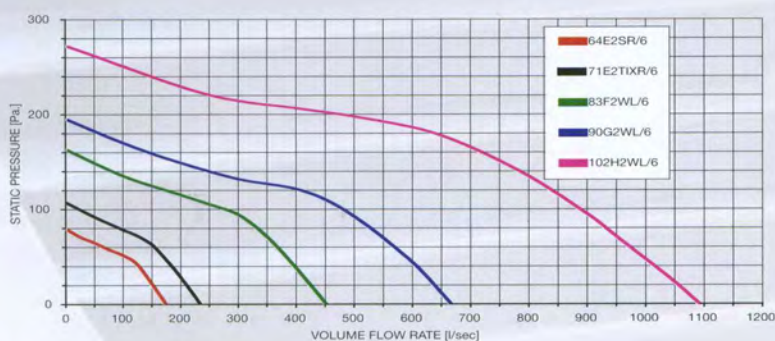
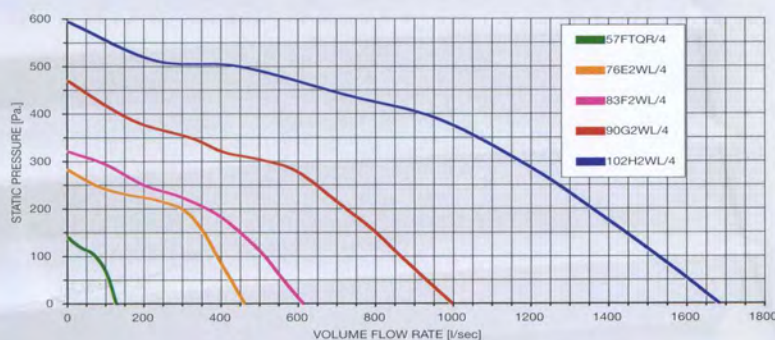
Specifications:

All models feature multivane impellers manufactured from aluminium or mild steel housed in cases fabricated from mild steel. Permanent capacitor motors have been specified for this range (except the 57FTQR) for their comparative efficiency and better speed & noise control.

Outlet flanges with fixing holes for ease of installation are integral on each model.

Whilst the 57FTQR is offered with flying leads for electrical connection the rest of the range have pre-wired capacitors mounted on the fan case side together with a terminal block.

PERFORMANCE DATA



AIRFLOW™

SPECIALISTS IN AIR MOVEMENT
TECHNOLOGY SINCE 1955

Speed Control

All models offer a good range of speed controllability by voltage variation.

Maintenance

Very little servicing is required. The motor bearings are "sealed for life" and no provision is made for re-lubrication. It is recommended that the impeller is carefully cleaned annually, or more frequently where dusty conditions prevail.

Variants for OEM Applications

The fans described here can be supplied in any quantity with some ex-stock capability (please contact Customer Services for availability) However, where Original Equipment Manufacturers require non-standard features for their application, modifications to the standard designs can be offered when production quantities exceed, typically, 100 off. Examples of possible variations are:

- fitting motors for non standard voltages.
- variations to the outlet flange, or no flange.
- opposite hand rotation.
- inlet guards, spigots & spigotted guards.
- use of non standard impeller diameter/width combinations to meet specific performance requirements.

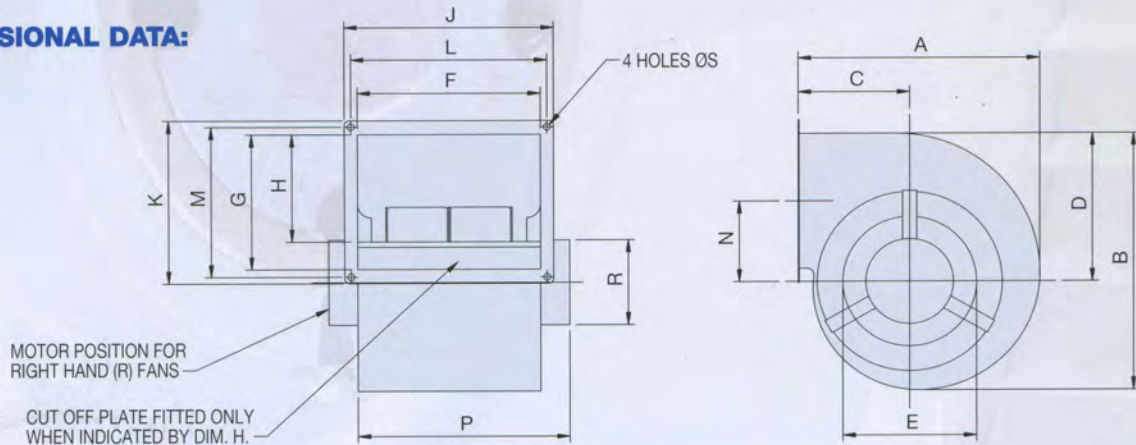
TECHNICAL DATA:

Fan Model	Supply voltage	Frequency	Capacitor value	Max running current	Start current (approx)	Max input watts	Max air flow	Min static pressure	Noise level	Speed at max air flow	Weight	Max ambient temp
	Volts	Hz	µF	Amperes	Amperes	Watts	Litres/s.	Pascal	dBa *	Rev/m	kg	°C.
57FTQR/4	230	50	N/A	0.53	0.75	92	125	0	48.5	1150	3.2	40●
64E2SR/6	230	50	1	0.34	0.48	71	173	0	36.5	770	4.65	40●
71E2TIXR/6	230	50	2	0.5	0.81	105	235	0	45.5	850	6.7	40●
83F2WL/6	230	50	5	0.87	1.25	210	450	0	50	810	8.0	40●
90G2WL/6	230	50	6	1.75	2.95	375	665	0	52	810	10.0	40●
102H2WL/6	230	50	10	3.2	6.0	700	1090	0	57	850	17.9	40●
76E2WL/4	230	50	6	1.5	2.65	345	460	0	63.5	1280	7.0	40●
83F2WL/4	230	50	8	2.4	3.9	505	610	0	65	1120	8.5	40●
90G2WL/4	230	50	14	4.2	8.8	985	995	0	60.5	1270	14.2	40●
102H2WL/4	230	50	25	10.3	24.0	2350	1700	0	65.5	1260	24.5	40●

*at 1 metre

● thermal protection

DIMENSIONAL DATA:



Fan Model	A	B	C	D	ØE	F INSIDE	G INSIDE	H	J	K	L	M	N	P	R	S
57FTQR/4	224	248	102	142	127	127	95	-	166	136	149	119	94	140	-	5.6
64E2SR/6	278	305	129	175	140	210	127	-	250	167	232	149	110	26	99	9.6
71E2TIXR/6	278	305	129	179	140	210	127	-	250	167	232	149	110	255	105	9.6
83F2WL/6	332	365	153	210	183	249	192	-	288	230	270	212	114	296	107	9.6
90G2WL/6	360	392	167	226	197	286	235	180	325	275	308	257	108	322	126	8.0
102H2WL/6	409	444	191	256	235	352	263	143	410	320	384	295	121	433	143	9.6
76E2WL/4	304	334	142	191	183	216	178	121	260	222	238	200	102	262	107	9.0
83F2WL/4	332	365	153	210	183	249	192	-	288	230	270	212	114	296	126	9.6
90G2WL/4	360	392	167	226	197	286	235	180	325	275	308	257	108	356	143	8.0
102H2WL/4	409	444	191	255	235	352	263	143	410	320	384	295	121	489	143	9.6

(i) Dimensions are for guidance only - certified drawings available.

AIRFLOW™

Airflow Developments Limited, Lancaster Road, Cressex Business Park, High Wycombe, Buckinghamshire HP12 3QP
 Telephone: (Int +44) (UK 0) 1494 525252.
 SALES LINE 0845 330 1047, Facsimile: (Int +44) (UK 0) 1494 461073 E-Mail: info@airflow.co.uk Web Site: www.airflow.com



AF DI 09/06

VISIT US AT www.airflow.co.uk
 SALES LINE 0845 3301047

© Airflow Developments Limited. Airflow Developments Limited reserves the right, in the interests of continuous development, to alter specifications without prior notice. All orders are accepted subject to our conditions of sale which are available on request.

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

Metal Cased Discarbs

The metal cased 'Discarb' cells have the highest carbon loading in our range, and have standard or heavy-duty carbon panels permanently sealed into a galvanised sheet steel casing. This construction gives a very strong unit capable of handling large air volumes or where conditions dictate, increased contact time. The advantage of this unit is that with panels sealed in, there is no possibility of air leakage. Also, these units can be manufactured to almost any reasonable size, the limiting factors being the overall weight for handling purposes and the size of individual panels. When the unit has finished its useful life it is discarded and replaced with a complete new cell.



Standard Duty Cells							
Nominal Size W x H x L	Actual Size mm W x H x L	Number of Panels	Carb. Weight	Discarb Weight	Airflow		Pressure Pa
					m ³ /s	cfm	
12" x 12" x 12"	292 x 292 x 292	6	5 kg	9 kg	0.10	212	75
12" x 12" x 18"	292 x 292 x 445	6	8 kg	14 kg	0.15	318	95
12" x 12" x 24"	292 x 292 x 597	6	10 kg	18 kg	0.22	466	140
18" x 18" x 12"	445 x 445 x 292	8	10 kg	17 kg	0.21	445	55
18" x 18" x 18"	445 x 445 x 445	8	15 kg	25 kg	0.31	657	70
18" x 18" x 24"	445 x 445 x 597	8	21 kg	33 kg	0.41	868	105
24" x 24" x 12"	597 x 597 x 292	12	20 kg	31 kg	0.41	868	70
24" x 24" x 18"	597 x 597 x 445	12	31 kg	45 kg	0.61	1292	90
24" x 24" x 24"	597 x 597 x 597	12	42 kg	59 kg	0.81	1716	130
12" x 24" x 24"	298 x 597 x 597	6	21 kg	35 kg	0.40	847	130

Extra Duty Cells							
Nominal Size W x H x L	Actual Size W x H x L	No. of Panels	Carb. weight	Discarb weight	Airflow		Pressure Pa
					m ³ /s	cfm	
12" x 12" x 12"	292 x 292 x 292	6	6 kg	10 kg	0.13	275	125
12" x 12" x 18"	292 x 292 x 445	6	9 kg	15 kg	0.20	424	175
12" x 12" x 24"	292 x 292 x 597	6	12 kg	20 kg	0.27	572	250
18" x 18" x 12"	445 x 445 x 292	8	12 kg	19 kg	0.30	635	95
18" x 18" x 18"	445 x 445 x 445	8	19 kg	28 kg	0.41	868	125
18" x 18" x 24"	445 x 445 x 597	8	25 kg	37 kg	0.54	1144	185
24" x 24" x 12"	597 x 597 x 292	12	25 kg	35 kg	0.54	1144	125
24" x 24" x 18"	597 x 597 x 445	12	38 kg	52 kg	0.80	1694	150
24" x 24" x 24"	597 x 597 x 597	12	51 kg	68 kg	1.06	2245	225
12" x 24" x 24"	298 x 597 x 597	6	26 kg	46 kg	0.53	1122	225

The company reserves the right to change the specifications without notice. E & OE.

Code AC6/2a Ref 02/09

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

Technical

The capacities shown are based on a dwell time of 0.1 seconds .

For contact times of 0.3 seconds, reduce rated airflow to 1/3rd, pressure drop will also reduce to 1/3rd.

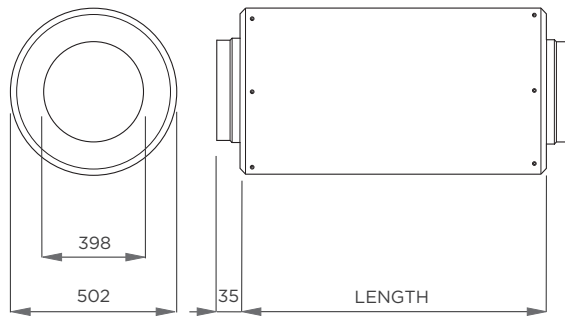
Max Temperature 40 Deg C

Max Humidity 80% RH

Non-standard sizes

Other sizes are available to suit individual requirements. Our Technical Department will be pleased to

CP01-M40 SILENCER



TYPICAL NOISE REDUCTION (dB) - CENTRE BAND FREQUENCY

DIMENSIONAL DATA

PRODUCT CODE	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	LENGTH	WEIGHT
CP01-M40-030	1	2	4	11	15	15	12	8	300mm	7 Kg
CP01-M40-060	2	4	7	14	17	18	14	11	600mm	12 Kg
CP01-M40-090	3	6	9	18	26	23	15	12	900mm	18 Kg
CP01-M40-120	5	8	13	22	30	27	17	12	1200mm	23 Kg

Typical noise reduction 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.

400 DIA DUCT MOUNTED SILENCER

Available in four standard lengths, M-Series Silencers have excellent attenuation properties, achieved with sound absorbing infill retained in the attenuator casing by a perforated galvanised steel liner.

- Fits directly into 400mm diameter ducting
- Standard lengths 300, 600, 900 & 1200mm
- Use up to 70°C (standard construction)
- Systems up to 1000 Pascals
- Special lengths on request



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 M Series Silencers are fitted with a perforated liner manufactured from galvanised mild steel conforming to EN10327 (BS2989). The M 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.

ALTERNATE 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 part code: CP01-M40-030

CP01 Product Group Code
 M40 Diameter Code 40 = 400mm
 030 Length Code 030 = 300mm

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.
Axial Fans	Direct couple only at the same size. Use an inlet cone if open after silencer.
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.
Ductwork Reducers	Direct couple only with reducers of maximum 15° cheek slope.
Finned Coils & Filters	Leave 200mm plenum between silencer and coil or filter, and suitable reducer as specified in HVCA DW/144 1998.

MAINTENANCE

Silencers are of a passive nature and as such require no routine maintenance or lubrication.

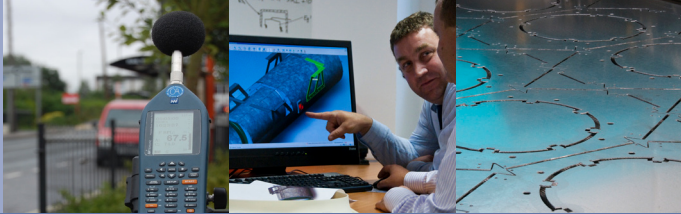
INSPECTION

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.

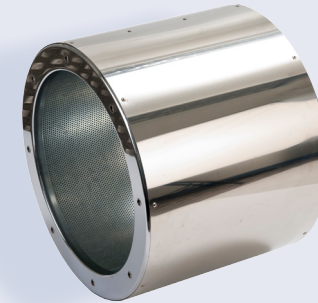
It is our recommendation that the silencers are inspected periodically to ensure that the airways are free from obstructions and no dust or foreign matter has collected and blocked the holes in the perforated liner elements.

CLEANING

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.



CP03-C-0500



500 DIA FAN MOUNTED SILENCER

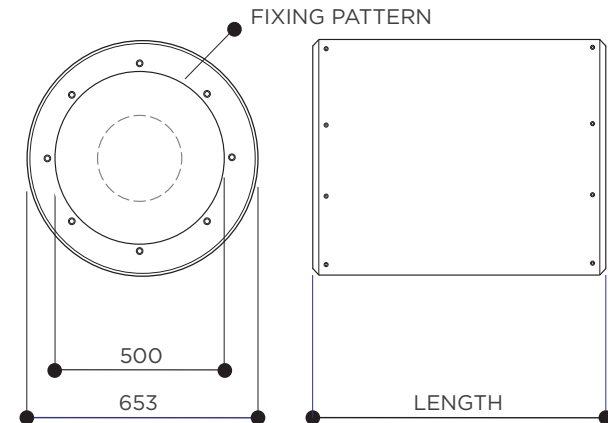
Available in two standard lengths C Series Silencers have excellent attenuation properties, achieved with sound absorbing infill retained in the attenuator casing by a perforated liner. The central pod (code P) is an option to increase the insertion loss, however it will add resistance.

- Fits directly onto 500mm diameter fans
- Standard lengths 500mm (1D) & 1000mm (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*-0500-1D	2	3	6	14	14	12	10	5
CP03-C*-0500-2D	3	7	8	19	20	17	14	11
CP03-C*P-0500-1D	2	7	9	17	24	24	20	16
CP03-C*P-0500-2D	4	10	16	26	29	29	29	20

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	LENGTH	FIXING PATTERN	MASS
CP03-CA-0500-1D	500mm	12 x M10-560 PCD	18 Kg
CP03-CA-0500-2D	1000mm	12 x M10-560 PCD	32 Kg
CP03-CAP-0500-1D	500mm	12 x M10-560 PCD	22 Kg
CP03-CAP-0500-2D	1000mm	12 x M10-560 PCD	37 Kg
CP03-CB-0500-1D	500mm	12 x M8 - 541 PCD	18 Kg
CP03-CB-0500-2D	1000mm	12 x M8 - 541 PCD	32 Kg
CP03-CBP-0500-1D	500mm	12 x M8 - 541 PCD	22 Kg
CP03-CBP-0500-2D	1000mm	12 x M8 - 541 PCD	37 Kg

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.

ALTERNATE SPECIFICATION

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

PRODUCT CODE GUIDE

Example: **CP03-CAP-0500-2D**

CP03 Product Group Code
CA Drilling Pattern CA for A or CB for B
0500 Internal Diameter
2D Length code 1D = 500, 2D = 1000

RESISTANCE TO AIRFLOW (Pa)

AIR VOLUME M ³ /s	0.5	0.6	0.8	1.0	1.3
CP03-C*-0500-1D	-	-	-	-	-
CP03-C*-0500-2D	-	-	-	-	-
CP03-C*P-0500-1D	10	24	40	80	120
CP03-C*P-0500-2D	21	36	61	124	188

- represents a negligible resistance to airflow that can be assumed to be equivalent to a duct section of the same length.

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.

ITEM	LOCATION
Centrifugal Fans	Direct couple only at the same size; use an inlet cone if open after silencer. PODDED - position one 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 15° cheek slope.
Finned Coils & Filters	Leave 200mm plenum between silencer and coil or filter, and suitable reducer as specified in HVCA DW/144 1998.

MAINTENANCE

Silencers are of a passive nature and as such require no routine maintenance or lubrication.

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.

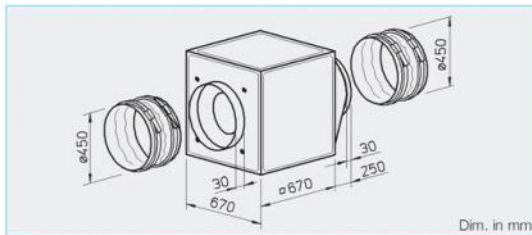
It is our recommendation that the silencers are inspected periodically to ensure that the airways are free from obstructions and no dust or foreign matter has collected and blocked the holes in the perforated liner elements.

CLEANING

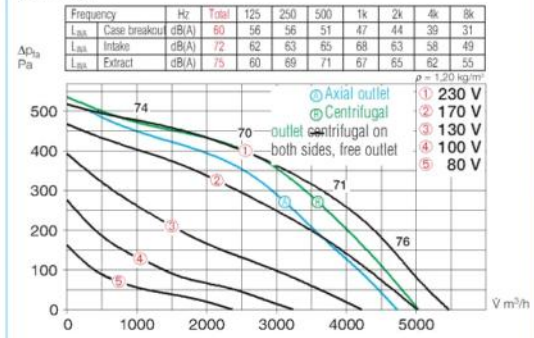
Should airways require routine cleaning we recommend low-pressure air blasting, vacuuming or wiping the exposed surfaces with a damp cloth. It is not unusual for “White Zinc Oxide” to develop on galvanised silencers when the zinc in the galvanising reacts electrolytically with moisture.



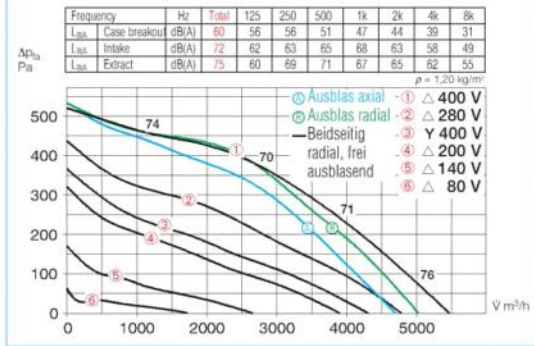
GigaBox centrifugal fan 450 mm ø



GBW 450/4



GBD 450/4/4



■ Specification

■ Casing

Self-supporting frame construction made from aluminium hollow section. Double skinned, 20 mm strong side panel made from galvanised steel plate, soundproof and heat insulated through coating with non flammable mineral wool. Intake with mouth for ideal inlets as well as connectors and flexible sleeve for installation to ducts. Extract with spigot (from rectangular to circular) for low-loss escape and flexible sleeve for prevention of impact sound transfer. Simple positioning through load hooks as standard.

□ Impeller

Free-wheeling centrifugal high performance impeller with backwards curved polymer blades made from galvanised steel plate, direct powering. Energy-efficient at low noise development. It is dynamical together with the motor to DIN ISO 1940 T.1 – quality grade 2.5.

□ Motor

Maintenance-free external rotor motor in protection to IP 54. Thermal overload protection through built-in thermo contacts. Ball bearings and radio interference-free.

□ Electrical connection

Terminal box on the motor as standard, protection to IP 54.

□ Motor protection

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

□ Speed control

All models are speed controllable using voltage reduction with transformer controller. The 3 ph.-models can operated on two speed controllers through Y/Δ wiring (accessories to DS 2 or full motor protection unit M4). The voltage steps are given in the performance curve.

□ Mounting

Mounting position in any position and flexible installation through five possible discharge directions of the spigot.

For wall mounting the wall bracket has to be used (accessory). It is possible to set up an outlet water repellent roof and grille (accessory).

■ Sound levels

Above the performance curves the sound power levels are given in total and spectrum for:

- sound level case breakout
 - sound level intake
 - sound level extract
- Within the performance curve the sound power level (on intake) is given for the transformer speed steps. In the table below there is also to find
- case breakout level at 4 m (free-field conditions).

■ Accessory

Wall bracket for wall mounting.
GB-WK 450 Ref.No. 5626

Water repellent extract grille.
GB-WSG 450 Ref.No. 5639

Water repellent roof outlet.
GB-WSD 450 Ref.No. 5748

Condensate tray with spigot for duct/ hose connection.
GB-KW 450 Ref.No. 5644

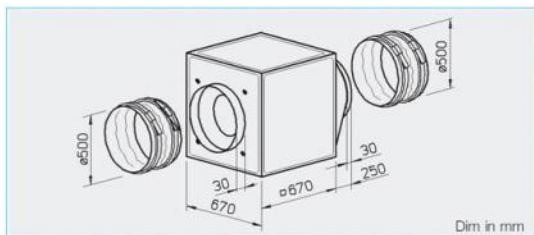
Reversing and on/off switch for double-rotating Y/Δ-switchable 3 Phase fans.
Type DS 2³⁾ Ref.No. 1351

Type	Ref.No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor powering	full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load	Nominal weight (net)	5 step transformer controller with motor protect. unit	without motor protect. unit	Full motor protection unit using the thermal contacts				
		V m ³ /h	min ⁻¹	dB(A) at 4 m	KW	A	A	No.	+°C	+°C	Type	Ref.No.	Type	Ref.No.	Type	Ref.No.	
1 Phase motor, 1-, 230 V, 50 Hz, capacitor motor, protection IP 54																	
GBW 450/4	5515	5450	1270	40	0,76	3,50	3,50	864	45	45	49	MWS 5	1949	TSW 5,0	1497	MW ¹⁾	1579
2 speed motor, 3 Phase motor, 3-, 400 V, 50 Hz, Y/Δ-wiring, protection to IP 54																	
GBD 450/4/4	5516	4350/5450	880/1240	40	0,36/0,67	0,70/1,30	1,30	867	55	55	49	RDS 2	1315	TSD 1,5	1501	M4 ²⁾	1571

¹⁾ incl. operation switch

²⁾ incl. operation and reversing switch

³⁾ required full motor protection unit: model MD, No. 5849



■ Specification
■ Casing

Self-supporting frame construction made from aluminium hollow section. Double skinned, 20 mm strong side panel made from galvanised steel plate, soundproof and heat insulated through coating with non flammable mineral wool. Intake with mouth for ideal inlets as well as connectors and flexible sleeve for installation to ducts. Extract with spigot (from rectangular to circular) for low-loss escape and flexible sound transfer. Simple positioning through load hooks as standard.

□ Impeller

Free-wheeling centrifugal high performance impeller with backwards curved polymer blades made from galvanised steel plate, direct powering. Energy-efficient at low noise development. It is dynamical together with the motor to DIN ISO 1940 T.1 – quality grade 2.5.

□ Motor

Maintenance-free external rotor motor in protection to IP 54. Thermal overload protection through built-in thermo contacts. Ball bearings and radio interference-free.

□ Electrical connection

Terminal box on the motor as standard, protection to IP 54.

□ Motor protection

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

□ Speed control

All models are speed controllable using voltage reduction with transformer controller. The 3 ph.-models can operated on two speed controllers through Y/Δ wiring (accessories to DS 2 or full motor protection unit M4). The voltage steps are given in the performance curve.

□ Mounting

Mounting position in any position and flexible installation through five possible discharge directions of the spigot. For wall mounting the wall bracket has to be used (accessory). It is possible to set up an outlet water

repellent roof and grille (accessory).

■ Sound levels

Above the performance curves the sound power levels are given in total and spectrum for:
– sound level case breakout
– sound level intake
– sound level extract
Within the performance curve the sound power level (on intake) is given for the transformer speed steps. In the table below there is also to find
– case breakout level at 4 m (free-field conditions).

Type	Ref.No.	Air flow volume (FID)	R.P.M.	Sound press. level case breakout	Motor powering	Current full load	Current speed controlled	Wiring diagram	Maximum air flow temperature full load controlled		Nominal weight (net)	5 step transformer controller with motor protect.unit		Full motor protection unit using the thermal contacts			
									+°C	+°C		Type	Ref.No.	Type	Ref.No.	Type	Ref.No.
1 Phase motor, 1-, 230 V, 50 Hz, capacitor motor, protection to IP 54																	
GBW 500/6	5519	5760	880	35	0,52	2,30	2,60	864	45	45	47	MWS 3	1948	TSW 3,0	1496	MW ¹⁾	1579
GBW 500/4	5517	8400	1350	45	1,38	6,40	8,20	865	65	55	61	MWS 10	1946	–	–	–	–
2 speed motor, 3 Phase motor, 3-, 400 V, 50 Hz, Y/Δ-motor, protection to IP 54																	
GBD 500/6/6	5520	4500/5330	545/790	35	0,23/0,42	0,38/0,75	0,78	867	45	45	46	RDS 1	1314	TSD 0,8	1500	M4 ²⁾	1571
GBD 500/4/4	5518	8000/8850	1075/1340	45	0,97/1,45	1,60/2,80	2,90	867	50	50	57	RDS 7	1578	TSD 5,5	1503	M4 ²⁾	1571

¹⁾ incl. operation switch

²⁾ incl. operation and reversing switch

³⁾ required full motor protection unit: model MD, No. 5849