

Carbon Pleated Interfold & PL Vcell

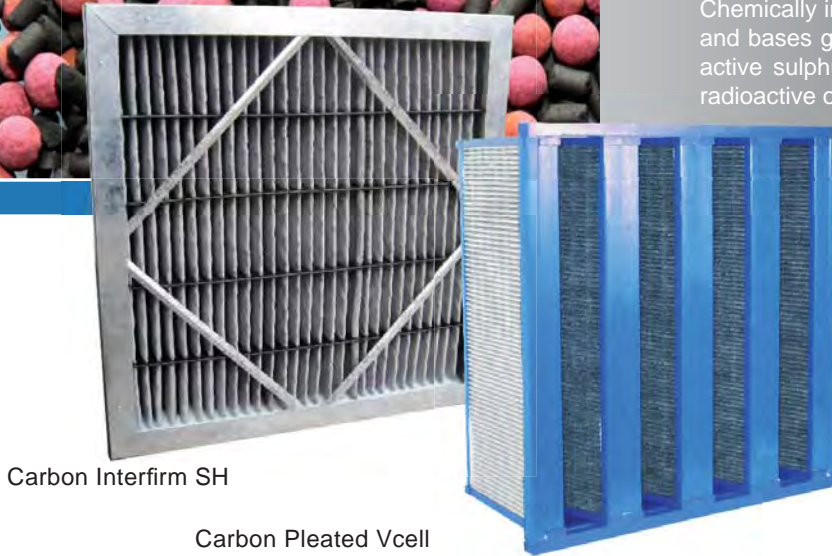
Activated Carbon Media and Pleated Media of CTC>60%

General Organic Vapours, Odours, Acid Gases, Sulphur Compounds



General Characteristics

Activated carbon is a tried and tested gas adsorbent with various applications. Organic compounds are retained on the surface of the carbon by the Van der Waals forces of weak intermolecular forces. Activated carbon is manufactured by the controlled burning of carbon-rich materials such as coal, wood and nut shell, and then collected. Our carbon filters media have a CTC activity of above 70% and up to 90% (CCl₄) measured by ASTM standard test method D3467-88. A CTC activity value of 70% can adsorb 70% of its weight in CCl₄. Chemically impregnated carbons are available to better control both acid and bases gases such as H₂S, SO₂, NO_x, HCl, HF, Methyl Mercaptan, active sulphur composites, ammonia, formaldehyde and highly volatile radioactive organic iodides in Air and CO₂.



Carbon Interfirm SH

Carbon Pleated Vcell
Available with MERV15 particle efficiency

Integrated Dust prefiltration and Vapour Control

- + 70-90% odour control of General Organic Vapours in Supply air with Formulated Bonded Carbon Media
- + Primary Filters MERV 8 >92% Arrestance (>5um Big Dust)
- + Secondary Filters MERV15 >95% (>1um dust spot)
- + Corrosion-Resistant Expanded Mesh Supported increased filter lifespan unlike other manufacturer



Carbon Pleated Interfold

Construction

Filter Media

The filter media is special bonded impregnated carbon with pre-filter media or MERV15 secondary filter media for dust arrestance >90% upstream and downstream which prevents carbon dusting. The carbon filter media is laminated with corrosion resistant expanded galvanised mesh for media rigidity and pleat support. Carbon Vcell pleated media is minipleat design.

Separators

Paperboard or galvanised steel fingers for pleat stabilising or plastic hotmelt

Enclosing Frame

The filter pack is sealed into moisture resistant kraft board or galvanised steel case or plastic frame. Filters are supplied in Box / No Header (NH) shape or

Single Header (SH).

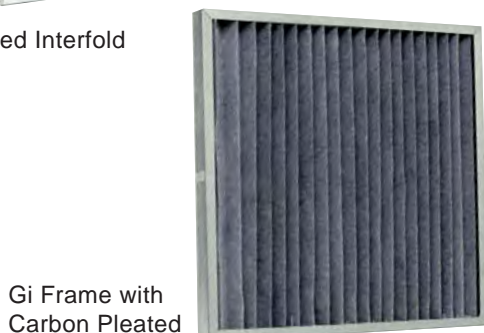
Header are 22mm deep to fit most standard installations.

Expanded mesh faceguard can be installed at downstream for 1 to 4 inches depth and steel braces are installed downstream to add support for media pack in 6 to 12 inches depth galvanised steel frame.

Applications

Fan coil units, Fresh Air Fans, Air Handling Units of commercial malls, buildings, airports, industrial and semi-conductors in general control of gases and odours.

Carbon Pleated Vcell and Carbon HD Interfirm are "chemical" filters used for fine control >90% of VOCs and AMC (airconrme molecular chemicals) for supply air.



GI Frame with
Carbon Pleated

Carbon Pleated Interfold & PL Vcell

Activated Carbon Media and Pleated Media of CTC>60%

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Specifications

2017 Model

Model	Carb IFR	Carb PL Vcell	Carb PLV15	Carb IF			FC ZKG	FC ZKG3
Description	Carbon Interfirm	Carbon Pleated Vcell	Carbon Pleated Vcell MERV15	Carbon Pleated Interfold			ZKG Carbon	ZKG Carbon
Nominal Thickness, Actual in mm	12"	12"	12"	1"	2"	4"	12mm	3mm
Rated Airflow cmh	3400	3400	3400	2000	3400	3400	2000	2000
Initial Pressure Drop Pa	80	90	120	100	100	80	44	30
Recommended Final Pressure Drop Pa	250		250	250	250		100	100
Filter Media Area m ²	5.5	9.0	9.0	0.7	1.5	2.5	0.37	0.37
Efficiency Control of General Organic Vapours %	> 75	> 90	> 90	> 75			> 60	> 60
Filter Class EN779 / Eurovent 4/4	G4		F9	G4			G4	G3
ASHRAE 52.1-1992 Average Synthetic Dust Weight Arrestance	95%		99%	95%			94%	85%
ASHRAE 52.1-1992 Average Atmospheric Dust Spot Efficiency	35-45%		>95%	35-45%			<20%	<20%
ASHRAE 52.2-1999 MERV	MERV 8		MERV15	MERV 8			MERV7	MERV6
Applications	Supply & Exhaust High Efficiency Air Gases & Odour Control 2017 Carbon with Integrated MERV15 Dust Control for Haze Mitigation			PAU,AHU Odour Control			Carbon filter mat for light odour control, easy implementation	

CTC Activity Rate of above 60% (CC14).

Carbon Interfold and ZKG Carbon are suitable for light duty odour and organic vapour control for replacement of pre-filters of FCU or AHU.

Carbon Interfirm is available in Box(NH) or SH

Carbon Pleated Vcell MERV15 has secondary filtration of particle dust efficiency which must be protected by good prefilter and need to be replaced upon dust fully loaded

Carbon Type	Application
Carbon Pleated Media	For general odours and organic vapours, all acidic and bases gases.

Dimensions

Nominal Size L x H inches	Actual Size L x H mm	Pleated Vcell 12" Depth			CARB IF 4" Depth			CARB IF 2" Depth		
		Rated Air Flow cmh	Media Area m ²	Weight kg	Rated Air Flow cmh	Media Area m ²	Weight kg	Rated Air Flow cmh	Media Area m ²	Weight kg
12 x 24	289 x 595	1700	4.5	10.0	1700	0.85	1.5	1020	0.42	0.8
16 x 24	395 x 595	2260	6.0	12.0	2260	1.13	2.0	1360	0.66	1.0
20 x 20	495 x 495	2380	NA	NA	2380	1.18	2.0	1420	0.69	1.0
20 x 24	495 x 595	2830	7.5	15.0	2830	1.41	2.4	1700	0.71	1.2
20 x 25	495 x 622	2970	NA	NA	2970	1.47	2.4	1780	0.73	1.2
24 x 24	595 x 595	3400	9.0	18.0	3400	1.70	3.0	2040	0.85	1.5

Odd sizes can be custom fabricated accordingly. Vcell only available in 24x12,24x20,24x24

Width and height dimensions are interchangeable.

Technical Data

Filter Media

Polyester media with fine granular activated carbon

Enclosing Frame

Moisture Resistant Kraft Board
Option: Galvanised Steel (Gi), Aluminium (Al)

Header Option

22mm Header

Separator

CARB IFR Paperboard & Metal Fingers
CARB PL Vcell Hotmelt Thermoplastic

Sealant

Water based Glue or Polyurethane/Hotmelt
Continuous Operating Temperature 50°C
Relative Humidity 80%
Recommended Final Pressure Drop 250 Pa
Maximum Final Pressure Drop 375 Pa