Filtrowin Industries

Filtro Carb VHC - Cassette

Activated Carbon V-Cell Cassette

Key Features

- Large filtration surface area.
- Long service life
- Low pressure drop
- Easy installation
- Target gases - VOCs, NOX, acid and bases, ozone, sulphur dioxide
- Fully incinerable
- No carbon shedding

- **Frame Type** Plastic
- **Header** 20mm & 25mm
- **Media** Impregnated activated carbon / Chemical blend
- **Sealing component** PU
- **Temperature / Humidity** 70°C / 158°F
- **Humidity** 95%
- **Final Pressure Drop** 400 Pa / 1.6" WG
- **Gasket** Without (Available on request)

Filtro Carb VHC - **Cassette** is a next-generation carbon filter designed for high-odor environments. Featuring a compact 4V design with a plastic frame, it minimizes handling effort while maximizing carbon loading. Carb VHC - cassette is designed in a low weight construction and the weight of carbon dominates in its total weight. A variety of carbon selections are offered depending on the applications.

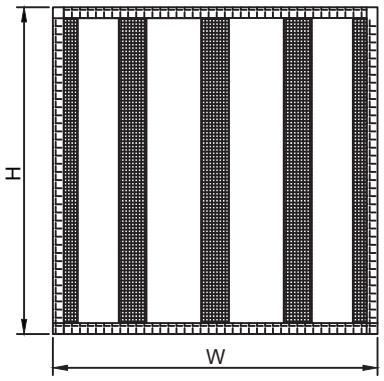
Construction

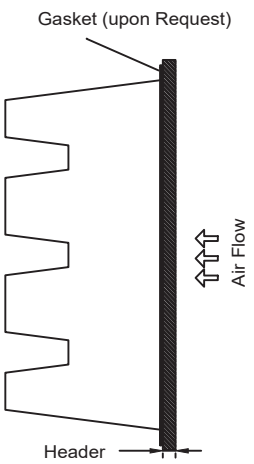
Media options include activated carbon or alumina, loose-filled in a panel and enclosed in a rigid plastic frame. These are available in 292mm, 400mm, and 430mm depths, with standard face sizes of 592×592mm, 287×592mm, and 492×592mm. The filters are non-reusable and must be disposed of in accordance with local environmental regulations.

Filter selection depends on the type of VOCs present and the required residence time—both critical for effective chemisorption. A minimum contact time of 0.10 seconds is recommended to ensure optimal performance.

Activated Carbon is impregnated with alkaline chemicals and designed for broad-spectrum gas removal. It is ideal for industries such as petrochemicals, sewage treatment, and wood processing. It effectively adsorbs acidic gases like H_2S and SO_2, converting them into stable inorganic compounds.

Activated Alumina, impregnated with $KMnO_4$, is commonly used in hospitals, museums, and commercial buildings. Its pelletized form supports dual-action gas control through both adsorption and oxidation, efficiently removing inorganic gases and sulphides.

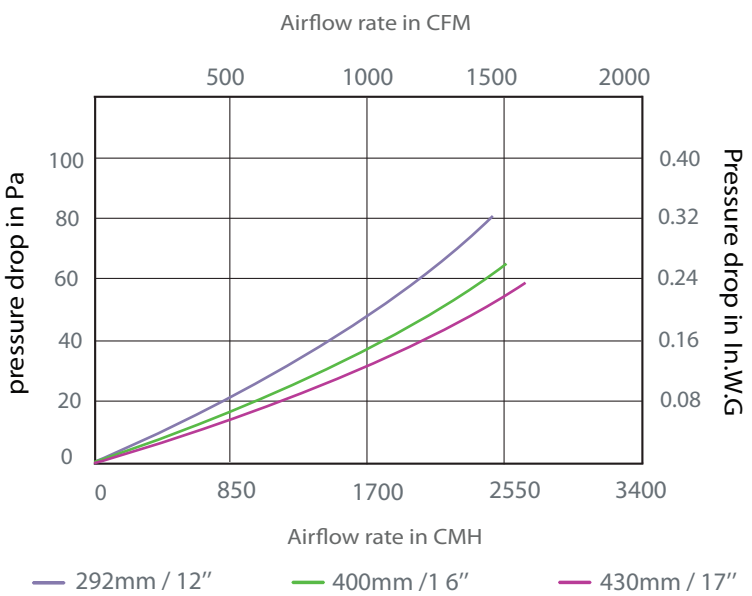




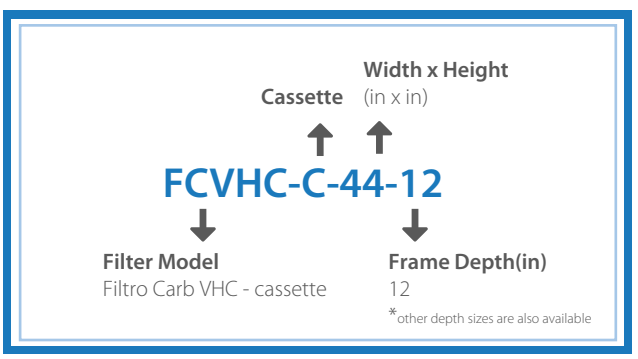
Performance Data

Filter Model	Nominal Size (in)	Actual Size		Residence Time (Sec)	Air Flow (CMH/CFM)	Initial Resistance (Pa / in.W.G)	Carbon Weight
		(mm)	(in)				
FCVHC-C-44-12	24x24x12	592X592X292	23.31x23.31x11.5	0.10	1700/1000	54 / 0.21	15
FCVHC-C-40-12	24x20x12	592X490X292	23.31x19.3x11.5	0.10	1200/700	54 / 0.21	11
FCVHC-C-42-12	24x12x12	592X287X292	23.31x11.51x11.5	0.10	850/500	54 / 0.21	8
FCVHC-C-44-16	24x24x16	592X592X400	23.31x23.31x15.8	0.10	1700/1000	39 / 0.15	19
FCVHC-C-40-16	24x20x16	592X490X400	23.31x19.3x15.8	0.10	1200/700	39 / 0.15	16
FCVHC-C-42-16	24x12x16	592X287X400	23.31x11.51x15.8	0.10	850/500	39 / 0.15	11
FCVHC-C-44-17	24x24x17	592X592X430	23.31x23.31x17	0.10	1700/1000	36 / 0.14	21
FCVHC-C-40-17	24x20x17	592X490X430	23.31x19.3x17	0.10	1200/700	36 / 0.14	18
FCVHC-C-42-17	24x12x17	592X287X430	23.31x11.51x17	0.10	850/500	36 / 0.14	13

Airflow vs Initial Resistance



Model Details Breakdown



Frame	Plastic
Media	Impregnated carbon / Chemical blend
Sealant	Polyurethane
Max. Temperature	70°C / 158°F
Nominal air flow	1700 CMH / 1000 CFM
Final pressure drop	400 Pa / 1.6"WG
Gasket	Upon request

Available upon request	Aero Carb V (Mini pleat compact carbon filter)
	Aero Carb VHC-M - Metal Frame

Our Group Companies and Global Network

Aerofil Filters Manufacturing LLC

CLAIRON Quality Air Filters

Aerofil International GmbH