



**miniClima Schönbauer GmbH**

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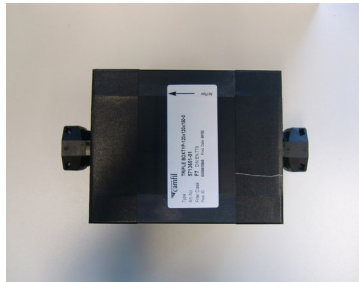
UID | VAT-ID: ATU61994435, EORI: ATEOS100001229, DVR: 4008782

Firmenbuchnummer | Trade Register Number: 267137z (Landesgericht | Regional Court of Wiener Neustadt)

## miniClima *Manual FLT (Camfil Triple Box)*

**Topic:** Supplement to the Manual EBC; instructions for installing/using the optional Triple Box Circulation Filters from Camfil.

**Valid for:** Camfil Triple Box Circulation Filters, types FLT20\_V2, FLT25\_V2, FLT32\_V2 and FLT40\_V2, for use with accordingly adapted miniClima Constant Humidity Devices EBC.



The Camfil Triple Box Circulation Filters FLT are purpose-made filters for our Constant Humidity Devices EBC. They are made for us by Camfil™, a global leader in the air filtration industry.

### 1 GENERAL INFORMATION

Air circulation filters cause a slightly increased resistance within the air circuit and where necessary should therefore only be used alongside accordingly adapted miniClima Constant Humidity Device EBC (the EBC will be equipped with one of the stronger fans, ULV+ or ULV++).

The filter-mediums of the Triple Box Circulation Filter represent a buffer in respect to humidity. Therefore the time required for changing the humidity inside a showcase equipped with this filter may increase considerably.

### 2 ADDITIONALLY DELIVERED ITEMS

(per adapted EBC)

- ✓ 1 fully assembled Camfil Triple Box Circulation Filter of the required type and mounting, includ. 2 mounted hosepipe connectors.

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Applies to Camfil Triple Box Circulation Filters FLT...V2 used along with accordingly adapted miniClima Constant Humidity Devices EBC. As of 10.05.2021. Subject to modification.



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### 3 INSTALLATION

The filter has to be added to the hosepipe installation so that the air that is led back from the showcase to the EBC is going to be filtered. An arrow on the filter housing indicates the required direction for the air-stream.



### 4 MAINTENANCE AND CARE

We recommend to replace soiled filters every year at the latest.

- ✓ Make a request for a new filter at your EBC supplier or directly at us, providing the type of your FLT.
- ✓ Once received, you might want to return the old filter to our hands. Old filters are not reusable and will be disposed.

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## 5 TECHNICAL DATA OF THE TRIPLE FILTER BOX BY CAMFIL<sup>1</sup>

Dimensions without pipe connectors (in mm): 155x121x121 (l,w,h)

The layers of the triple filter box are:

1. Ecopleat F7 - fine particle filter made of wet-laid glass fiber paper
2. Citysorb - molecular filter (ozone filtration efficiency: 70%) made of multilayer carbon media
3. Citycarb - molecular particle filter (ozone filtration efficiency: 90%) made of synthetic fibre and broad spectrum carbon

<sup>1</sup> As provided by our supplier.



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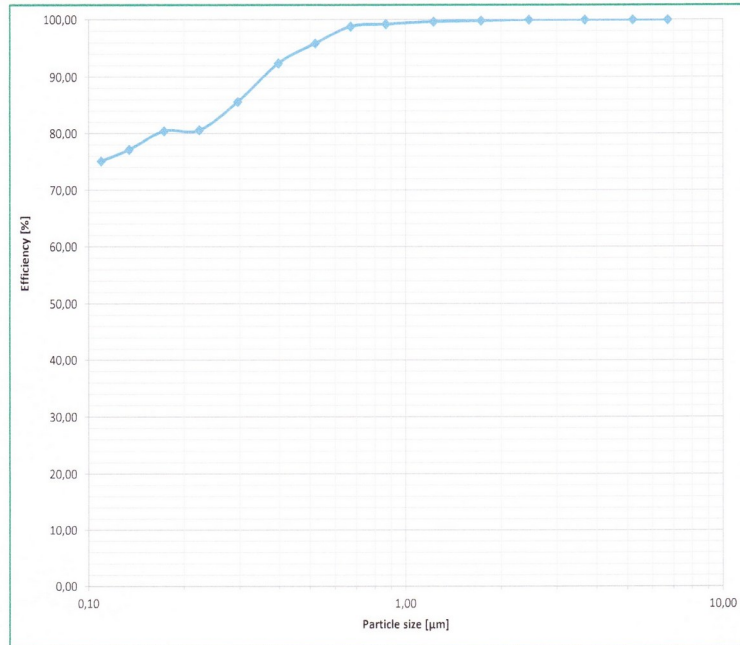
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**camfil** TEST REPORT  
EN 1822-5

Test Nr.

filter description	Citycarb Triple Boxtype H ...F7-0 Miniclima	date	14.10.16
manufacturer	Camfil KG	time	10:26
dimensions	120x120x150	operator	30586
order number	AB 1637999	particle counter	TSI 3340
status	New Filter	particle counter serial number	71327074
article number	5713601	probe flow [l/min]	0,1
production ID	W000610845	test time [s] / cycles	20   3
nominal airflow [m³/h]	5	dilution	1
nominal pressure drop [Pa]	60	test aerosol	DEHS
test airflow [m³/h]	10	atmospheric pressure [hPa]	1015
pressure drop [Pa]	95	temperature [°C] / humidity [%]	23   33
fan S-M-L	5	test channel diameter [mm] / orifice [mm]	60   17
remarks			

Size [µm]	Counts [Particles]		Eff [%]	Stdev [-]	Volume Flow [m³/h]	Pressure Drop [Pa]	Δp1.2
	Before	After					
0,11	3386	842	75,13	0,9	0	0	0
0,13	5572	1272	77,17	0,8	3	53	52
0,17	9526	1862	80,45	0,6	5	60	59
0,22	8276	1603	80,63	0,3	10	95	94
0,30	12635	1813	85,65	0,8	15	135	133
0,40	10743	812	92,44	0,3	0	0	0
0,52	7364	302	95,90	0,5	0	0	0
0,67	3871	46	98,81	0,3	0	0	0
0,87	4166	32	99,23	0,1	0	0	0
1,22	1753	6	99,66	0,1	0	0	0
1,73	3116	5	99,84	0,2	0	0	0
2,45	2151	0	100,00	0,0	0	0	0
3,67	73	0	100,00	0,0	0	0	0
5,20	1	0	100,00	0,0	0	0	0
6,71	0	0	100,00	0,0	0	0	0
Total	72631,5	8595	88,17		0	0	0



www.camfil.com

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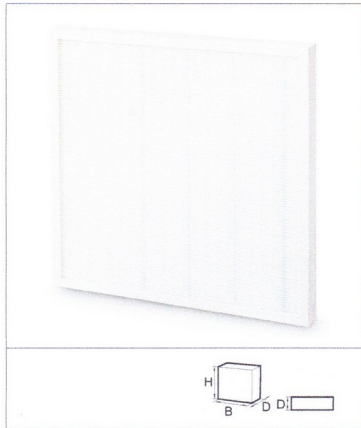
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Comfort filters: M5 to F9

High Efficiency Panels

## Ecopleat Green



### Advantages

- Large surface area
- Long operating life
- Ultra compact and ultra light
- Less frequent changes
- CREO Approved

**Application:** Air conditioning or industrial processing systems and for mini air conditioning systems, individual modules, ventilation equipment.

**Type:** High efficiency compact filter.

**Frame:** Plastic frame.

**Media:** Wet-laid glass fiber paper.

**Separator:** Hot melt glue.

**Sealant:** Polyurethane.

**EN779:2012 filter class:** M5, M6, F7, F8 and F9.

**Recommended final pressure drop:** 350 Pa (suggested economical change point 250 Pa).

**Temperature:** 70°C.

**Relative humidity:** 100% RH.



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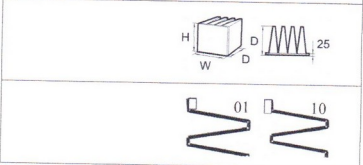
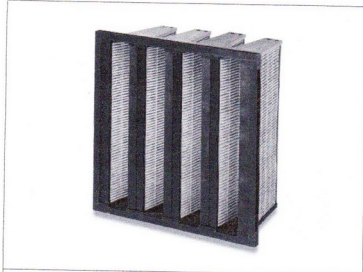
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## Industrial Molecular Filtration

### Compact Filters

## CitySorb



### Advantages

- Ideal for filtering low concentrations of most molecular pollutants from external and internal sources.
- 100% incinerable
- Compact filtration solution
- Range of standard sizes
- High efficiency
- Large air flow capacity

**Application:** Adsorption of odours and gasses in air conditioning applications.

**Type:** Rigid pleated filter.

**Case:** Polystyrene.

**Media:** Multilayer carbon media.

**Sealant:** Polyurethane.

**Separators:** Hot-melt.

**Gasket:** One piece PU gasket.

**Recommended temperature range:** 0-40°C.

**Recommended relative humidity:** < 70% RH.

**Ozone rating:** O<sub>z</sub> 7

**Ozone removal efficiency:** 70% . Value +/- 15%

**Holding frames:** Front and side access housings and frames are available, Type 8, Type L and FC Housings.

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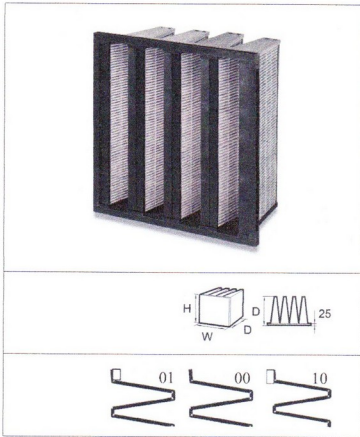
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## Industrial Molecular Filtration

2 in 1 solutions

### CityCarb I



cc. 2017-02-17



#### Advantages

- Compact "2 in 1" filtration solution; particulate and molecular
- Ideal for filtering low concentrations of most external and internal source pollutants
- 100% incinerable
- Can be used to upgrade existing installations
- Range of standard sizes
- Rapid Adsorption Dynamics (RAD)
- Filter class F7 acc. EN 779:2012

**Application:** Particle and odour removal in offices, hospitals, airports etc.

**Type:** Compact particle and molecular filter.

**Frame:** Polystyrene.

**Media:** Synthetic fibre and broad spectrum carbon.

**EN779:2012 efficiency:** F7.

**Maximum flow rate:** 4000m<sup>3</sup>/h.

**Ozone rating:** O<sub>2</sub> 9

**Ozone removal efficiency:** 90% . Value +/- 15%

**Mounting system:** Front and side access holding frames are available: Type 8, Type L and FC housings.

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