

Activated Carbon Filters Metal Cased Discarb Cells

Applications

Activated Carbon Discarb Cells can be used for the reduction of odour or for gas control. Activated Carbon Discarb Cells offer a compact and convenient method to housing bonded carbon panels ready for mounting in a range of filter housings.

Typical applications for Airclean Activated Carbon Cells include Kitchen Extract Odour Control, Commercial Food Manufacture, Laboratory supply and extract systems, Office Air Supply, and VOC control.

Activated Carbon Discarbs offer a practical solution for controlling gases and odours in airflows from 0.1m³/s up to 10m³/s +.

Description

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.

Activated Carbon Discarb Filter 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.

Technical

Carbon Filters must be selected based on system duty airflows, and required contact times (dwell / residence). Contact times must be selected based on concentration and specific gases / odours that need to be removed.

The following tables on the next page offer selections for Activated Carbon Discarbs of all styles based on 0.1 second contact times.

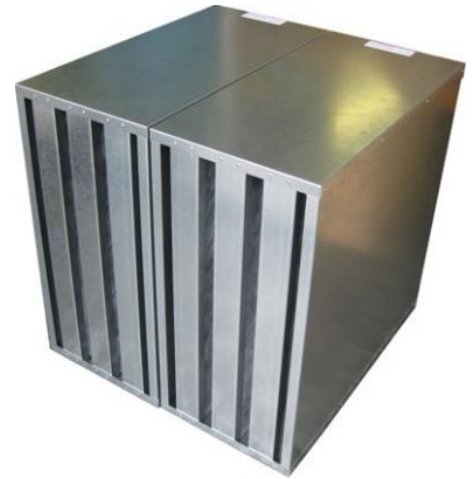
For 0.2 second contact times reduce the airflows in the 0.1 second tables by 50%, pressure drops will reduce to 50%.

For 0.3 second contact times reduce the airflows in the 0.1 second tables to 33.3%, pressure drops will reduce to 33.3%.

For 0.4 second contact times reduce the airflows in the 0.1 second tables to 25%, pressure drops will reduce to 25%.

Pre filtration of grade M5 to EN779 is recommended prior to Activated Carbon Filters to aid effective gas removal.

Max allowable air on conditions to the unit are 40 Degree Centigrade and 80% Relative Humidity, if these conditions are exceeded then the activated carbon filter will be ineffective.



ACTIVATED CARBON DISCARB FILTERS - STANDARD FLOW						
Dimensions (Actual, mm)			m ³ /s	Pa	Grade 20 – Std. Flow	Grade 50 – Std. Flow
H	W	D			Part No.	Part No.
293	293	293	0.10	75	1620101	1620121
293	293	445	0.15	95	1620102	1620122
293	293	597	0.22	140	1620103	1620123
445	445	293	0.21	55	1620104	1620124
445	445	445	0.31	70	1620105	1620125
445	445	597	0.41	105	1620106	1620126
597	597	293	0.41	70	1620107	1620127
597	597	445	0.61	90	1620108	1620128
597	597	597	0.81	130	1620109	1620129
597	293	597	0.40	130	1620110	1620130
597	196	597	0.27	130	1620111	1620131

ACTIVATED CARBON DISCARB FILTERS - EXTRA DUTY						
Dimensions (Actual, mm)			m ³ /s	Pa	Grade 20 – Extra Duty	Grade 50 – Extra Duty
H	W	D			Part No.	Part No.
293	293	293	0.13	125	1620201	1620221
293	293	445	0.20	175	1620202	1620222
293	293	597	0.27	250	1620203	1620223
445	445	293	0.30	95	1620204	1620224
445	445	445	0.41	125	1620205	1620225
445	445	597	0.54	185	1620206	1620226
597	597	293	0.54	125	1620207	1620227
597	597	445	0.80	150	1620208	1620228
597	597	597	1.06	225	1620209	1620229
597	293	597	0.53	225	1620210	1620230
597	196	597	0.35	225	1620211	1620231

Notes

- * Airflow rates are based on a 0.1 second contact time. (Indian & Thai Cuisine require minimum of 0.3s)
- * **Grade 20** 20 - 30% retention CTC. **Grade 50** 50 - 60% retention CTC.

Holding Frames and Cases

Holding frames and casings for Activated Carbon Filters are available singularly or in multiples, and can be manufactured to suit non-standard sizes and special applications.

See Catalogue Section 8 (AC8) and Section 11 (AC11) for full information.



Fully Welded Side Withdrawal Filter Housing (1840)



Kitchavent – Grease, Smoke and Odour Control for Kitchen Extract (1815)