



ProCarb HDB-G is the latest member of Camfil's product family of horizontal deep bed molecular filters which are used to remove high concentrations of corrosive, toxic gases and odours from applications within industries such as wastewater treatment, pulp & paper mills or chemical production.

Compared to the ProCarb HDB made of metal and ProCarb HDB-C made of fiberglass, the HDB-G is constructed from recyclable High Density Polyethylene (HDPE) material which makes the product more sustainable and delivers an attractive price-performance ratio. Additionally the HDPE material comes with lower weight but at the same time offering superior durability and corrosion resistance against molecular contaminants in heavy industrial applications.

The ProCarb HDB-G can be used in either supply air or exhaust air applications where plant reliability, operational security and regulatory compliance is required. Depending on the airflow and the emissions to be handled, the HDB-G can be configured as single or dual bed design, providing the right performance for your application combined with a compact footprint.

Highest filter performance thanks to advanced research:

The airflow design configuration of the single and dual deep beds of media is engineered with Computational Fluid Dynamics (CFD) to balance air velocity for uniform air distribution. This ensures optimal contact time through the entire filter bed, maximises media usage and lifetime while minimising pressure drop.

FEATURES AND BENEFITS

Polyethylene High Density material of construction

Corrosion resistance and recyclable material

Cylindrical design with single and dual bed options

Minimal footprint and reduced pressure drop for lower energy consumption

Accepts all loose-fill molecular media in single or multiple layers

Targets multiple gases

Side-access media sampling ports

Convenient removal of media for remaining life analysis

Deep bed configuration

Long contact time for high filter efficiency and long lifetime

Pivot handle on side media chamber access door(s)

Ergonomically control the removal of media with gravity

Sloped bottom and water drain valves

Prevent the accumulation of condensation from moisture-laden gas streams

Inherently leak-free design

Safe and reliable performance



DESIGN VARIANTS & TECHNICAL INFORMATION

SINGLE BED										
Model	Airflow				Weight*		Diameter		Total height	
	m ³ /h		cfm		kg	lbs	mm	inches	mm	inches
HDB-G 700	500	900	294	529	780	1716	900	35	1800	70
HDB-G 1300	900	1600	529	941	1380	3036	1200	47	1800	70
HDB-G 2100	1600	2600	941	1529	2450	5390	1600	62	1750	68
HDB-G 3100	2600	3600	1529	2117	3130	6886	1800	70	1900	74
HDB-G 4000	3600	4400	2117	2587	3840	8448	2000	78	1900	74
HDB-G 5200	4400	6000	2587	3528	5120	11264	2300	89	2250	88
HDB-G 7500	6000	9000	3528	5292	7530	16566	2800	109	2300	89
HDB-G 11000	9000	13000	5292	7644	11030	24266	3400	132	2300	89

DUAL BED										
Model	Airflow				Weight*		Diameter		Total height	
	m ³ /h		cfm		kg	lbs	mm	inches	mm	inches
HDB-G 8000	7000	9000	4116	5292	8810	19382	2200	86	4000	156
HDB-G 10500	9000	12000	5292	7056	10560	23232	2400	93	4500	175
HDB-G 14000	12000	16000	7056	9408	14720	32384	2800	109	4800	187
HDB-G 20000	16000	24000	9408	14112	21600	47520	3400	132	5150	200
HDB-G 28000	24000	32000	14112	18816	29980	65956	4000	156	5200	202

*estimated maximum weight during use

OPTIONAL ACCESSORIES

- Fan
- Variable Frequency Drive (VFD) speed controller
- Sampling spear for remaining media life sample collection
- Prefilter housing with magnahelic pressure gauges

HIGH PERFORMANCE MOLECULAR FILTRATION

Camfil molecular filters utilise activated carbon or co-formed alumina or hybrid (CamPure™) adsorbent media, which are produced in state of the art facilities that follow strict quality assurance procedures and the latest process control technologies.

All Camfil media undergoes performance testing in accordance with **ISO 10121-1:2014**. The test conditions depicted in the standard closely reflect actual operating conditions.



PROPRIETARY LIFETIME SIMULATION SOFTWARE AND MOLECULAR MEDIA TESTING

Designing molecular filtration solutions with the lowest total cost of ownership (TCO) requires selecting the appropriate media(s) for the contaminant gases. Camfil's proprietary Molecular Contamination Control Lifetime Determination (MCCLD) software simulates the performance of filtration systems under actual process conditions to enable the selection of the most cost-effective solution. Media can be periodically removed from the scrubber and sent to Camfil's lab for remaining life analysis. Results can be plotted and extrapolated to establish media changeout scheduling.

