

HIGH FLOW HF SERIES Odor Control Systems



CALGON CARBON CORPORATION

Description

Calgon Carbon Corporation's HIGH FLOW HF Series odor control systems represent a perfect fit for odor control applications where space is at a premium and simplicity is a must. The HIGH FLOW HF has one of the smallest footprints of any odor control system, considerably smaller than most biofilter and wet scrubbing systems. Within this small footprint, Calgon Carbon Corporation can provide a total package complete with fan, controls, and all of the accessories required. All the owner needs to do is make a few utility connections and flip a switch.

Applications

Due to its relatively small size, the HIGH FLOW HF is ideally suited for municipal wastewater collection system facilities such as pump stations and lift stations, where space is usually at a premium. The HIGH FLOW HF is also well suited to point source applications within the wastewater treatment plant itself. When filled with Calgon Carbon Corporation's patented CENTAUR® HSV water regenerable catalytic activated carbon, the HIGH FLOW HF Series is highly effective against moderate levels of hydrogen sulfide (H₂S) as well as odorous organic compounds such as methyl mercaptan and dimethyl disulfide. For applications that do not involve H₂S, the HIGH FLOW HF can be filled with one of our other activated carbons, such as AP4-60. For applications with higher levels of H₂S, please consider our PHOENIX® odor control system, designed for the control of heavy hydrogen sulfide loadings.

Flexibility

HIGH FLOW HF can be configured in a number of ways in order to solve an odor problem. There are three basic models to choose from and each model is available in four sizes - 400 cfm (680 m³/hr), 600 cfm (1,020 m³/hr), 1,000 cfm (1,700 m³/hr), and 1,500 cfm (2,550 m³/hr) – to treat air flows as low as 200 cfm (340 m³/hr) to as much as 1,500 cfm (2,550 m³/hr). HIGH FLOW HF can be provided as:

- Skid-mounted system complete with fan and controls
- The NEW top-mounted fan system
- A simple, passive, stand-alone canister.

For air flows greater than 1,500 cfm (2,550 m³/hr), we offer the TITAN™ carbon adsorption system.

Skid-Mounted System



Stand Alone Canister



Top-Mounted Fan



Stand Alone Canister

- HIGH FLOW HF canister, PPL/PE construction (with UV inhibitor)
- Initial load of activated carbon
- Combined drain/water regeneration fitting with ball valve
- Water regeneration overflow fitting
- Lockable removable canister top
- Flanged inlet air nozzle (ANSI 150 flange, undrilled)
- Plain-end outlet air nozzle

Skid-Mounted System

- HIGH FLOW HF stand alone canister (with features as described above)
- Initial load of activated carbon
- FRP fan with 3 ph/230-460V/60 Hz TEFC motor
- Combination motor starter, NEMA 4X
- Set of transition duct, flex connector and flow control/water regeneration valve
- Pressure differential indicator
- Rain cap with bird screen
- Skid complete with all items mentioned above

NEW! Top-Mounted Fan System

- HIGH FLOW HF stand alone canister (with features as described above)
- Initial load of activated carbon
- Cast aluminum fan with 3 ph/230-460V/60 Hz TEFC motor
- Pressure differential indicator

Optional Features

Some of the optional features that can easily be added to the HIGH FLOW HF include:

- Explosion-proof electrical package for fan and controls
- Grease filter/mist eliminator
- Sound attenuation

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High Flow Design Data

Model	Air Flow Capacity Range cfm(m ³ /hr)	Carbon Capacity CENTAUR® HSV Pounds (kg)	Carbon Capacity Standard GAC Pounds (kg)	System Dimensions (LxWxH) Feet (meters)	System Weight (Maximum) Pounds (kg)	System Pressure Drop Inches WC (N/m ²)	Fan Horsepower HP
Skid-Mounted Systems							
HF-400 S	200-400 (340-680)	225 (105)	200 (90)	6.0 x 4.0 x 5.7 (1.9 x 1.3 x 1.8)	2,300 (1,040)	10.0 (2,490)	1.5
HF-600 S	400-600 (680-1,020)	675 (315)	600 (270)	7.7 x 4.0 x 7.5 (2.4 x 1.3 x 2.3)	4,100 (1,860)	13.8 (3,440)	3
HF-1000 S	600-1,000 (1,020-1,700)	1,125 (510)	1,000 (460)	10.0 x 6.0 x 7.2 (3.1 x 1.9 x 2.2)	6,800 (3,080)	13 (3,240)	5
HF-1500 S	1,000-1,500 (1,700-2,550)	1,800 (815)	1,600 (725)	10.5 x 6.0 x 7.7 (3.3 x 1.9 x 2.4)	9,500 (4,300)	13 (3,240)	7.5
Top-Mounted Fan Systems							
HF-400 T	200-400 (340-680)	225 (105)	200 (90)	2.3 diameter x 5.75 (0.7 x 1.8)	1,320 (600)	11 (2,740)	1.5
HF-600 T	400-600 (680-1,020)	675 (315)	600 (270)	3.0 diameter x 7.1 (0.9 x 2.2)	2,860 (1,300)	13 (3,240)	3
HF-1000 T	600-1,000 (1,020-1,700)	1,125 (510)	1,000 (460)	4.0 diameter x 7.7 (1.3 x 2.4)	4,860 (2,205)	13 (3,240)	5
HF-1500 T	1,000-1,500 (1,700-2,550)	1,800 (815)	1,600 (725)	5.0 diameter x 7.3 (1.6 x 2.3)	7,600 (3,450)	12.0 (2,990)	5
Stand Alone Canisters							
HF-400 C	200-400 (340-680)	225 (105)	200 (90)	2.3 diameter x 4.25 (0.7 x 1.3)	1,200 (540)	9.0 (2,240)	n/a
HF-600 C	400-600 (680-1,020)	675 (315)	600 (270)	3.0 diameter x 5.5 (0.9 x 1.7)	2,700 (1,220)	12.0 (2,990)	n/a
HF-1000 C	600-1,000 (1,020-1,700)	1,125 (510)	1,000 (460)	4.0 diameter x 5.5 (1.3 x 1.7)	4,700 (2,130)	11.0 (2,740)	n/a
HF-1500 C	1,000-1,500 (1,700-2,550)	1,800 (815)	1,600 (725)	5.0 diameter x 5.5 (1.6 x 1.7)	7,400 (3,350)	10.0 (2,490)	n/a

Notes:

- Maximum weight is canister filled with activated carbon and water during CENTAUR® carbon water washing procedure.
- System pressure drop includes pressure loss through vessel plus 1-2" WC (250-500 N/m²) for customer duct losses with a full load of activated carbon. An additional 1" WC should be added with the use of a grease filter/mist eliminator.



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