

# High Performance Fume Hoods

## BMC/Laboratory Fume Hoods

Finally... a 34" deep, High Performance, Stable Vortex™, Low Airflow, Fume Hood. BMC's High Performance Fume Hood offers proven (ASHRAE 110 tested) containment at face velocities as low as 50 FPM with an unprecedented 34" overall depth. The exclusive Stable Vortex™ design is based on Reynolds Numbers for calculated performance. Not only can you reduce your capitol investment by downsizing the mechanical system, your operating cost are less and there is no need to increase the footprint of your laboratory to accommodate extra deep hood.

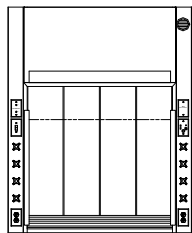
### Design

Every feature of the BMC High Performance Fume Hood was specifically designed to enhance the overall robustness of the hood. The baffle was designed using Reynolds Numbers to distribute energy required to maintain a Stable Vortex™. The bell mouth duct collar is designed and positioned for optimum efficiency. The face opening of the hood has several innovative designs including a specially designed lower airfoil, aerodynamic sash pull, side airfoils and an upper deflector to help control cross drafts.

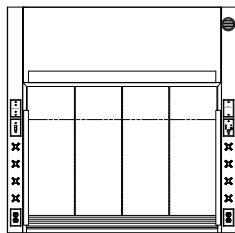
For safety all BMC High Performance Fume Hoods come with a full view combination horizontal / vertical sash. The sash has four top hung laminated safety glass horizontal sliding panels and the sash assembly is counterbalanced for easy up / down movement of the sash. For maximum viewing of the hood interior a fixed viewing panel is located at the top of the sash opening offering the operator a clear view of the hood interior.

Double wall construction of the Hood superstructure allows for installation of service fixtures and routing of interior plumbing and electrical lines. The interior of the BMC High Performance Fume Hood is lined with white "Resin-Chem". The baffle assembly is fabricated from chemical resistant epoxy coated metal. Access to the interior wall is provided through panels on the interior side walls and by removing the exterior side panel.

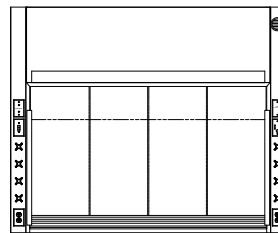
*Fume Hood Superstructures are available in widths of 48", 60", 72" and 96". Note that the 96" hood is 39" deep. Service fixtures shown are optional and must be ordered separately.*



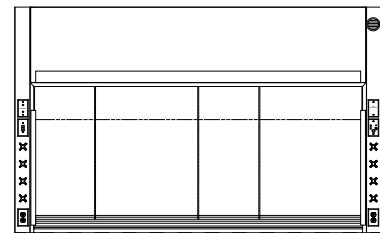
VII-4834BH 48"



VII-6034BH 60"



VII-7234BH 72"



VII-9639BH 96"  
96" HOODS ARE 39" DEEP



### Features

Each High Performance Fume Hood comes with a two tube fluorescent light fixture with tubes and switch, an airflow monitor / alarm, Stable Vortex™ controller and CFM monitor. All electrical components are pre-wired to a junction box on top of the hood and tested to UL standards. BMC High Performance Hoods are UL 1805 classified

### Options

Choose from an array of plumbing and electrical fixtures to tailor the High Performance Fume Hood to your desired application. Contact your BMC representative for assistance in selecting and specifying options.

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### High Performance Fume Hood Assemblies

High Performance Fume Hoods are available as a complete assembly as shown below.

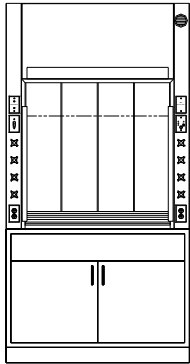
Detailed information on base cabinets, countertops and service fixtures can be found in the BMC Fume Hood catalog.

Assemblies consist of a standard base cabinet, two end

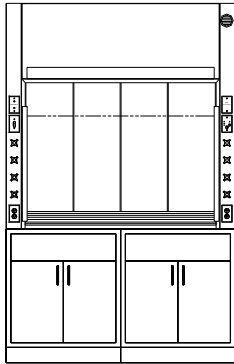
filler panels, dished epoxy resin countertop, one F-400 3" X 6" cupsink, six F-100 service fixtures and one F-110 cold water fixture.

60", 72" and 96" assemblies have two standard base cabinets.

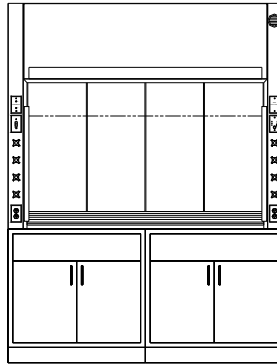
Service fixtures are shipped loose for installation in the field. Mounting and factory plumbing of service fixtures is available when specified.



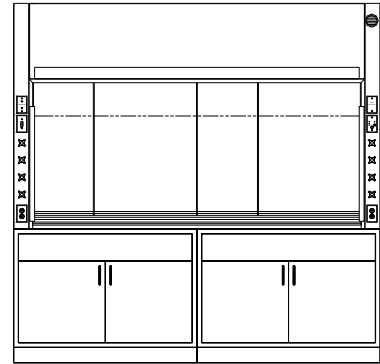
VII-4834BHA 48"



VII-6034BHA 60"

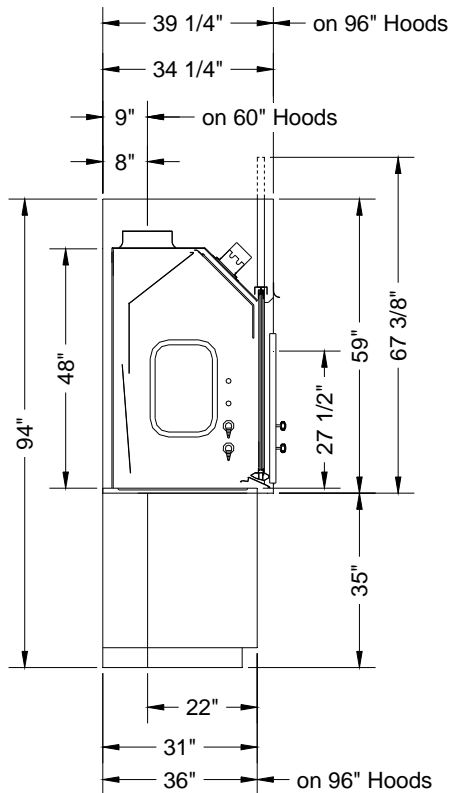


VII-7234BHA 72"



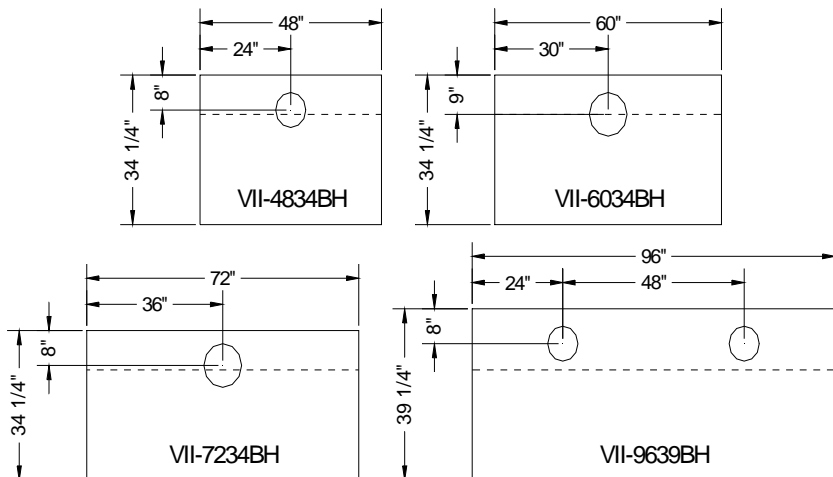
VII-9639BHA 96"  
96" HOODS ARE 39" DEEP

### Rough-in Details



HOOD SIZE	COLLAR SIZE	50 FPM		75 FPM		100 FPM	
		CFM	S.P.	CFM	S.P.	CFM	S.P.
48"	8" DIA	363	.12	544	.26	726	.46
60"	10" DIA	477	.09	716	.20	955	.36
72"	10" DIA	592	.25	888	.57	1184	1.01
96"	(2) 8" DIA	821	.14	1232	.31	1642	.56

The static pressures listed above are for the hoods only. An appropriate amount will have to be added to this figure to compensate for the pressure drop through the duct system. The total pressure drop through the hood and the duct system must be known to select the proper exhaust blower. CFM and static pressures listed above are based on sash full open.



Duct collar locations are as shown above. The area indicated by the dashed line is designated for plumbing and electrical rough-ins. All rough-ins should be kept within the 9" from the back of the hood (14" for 96" hoods) and 18" from the floor.