

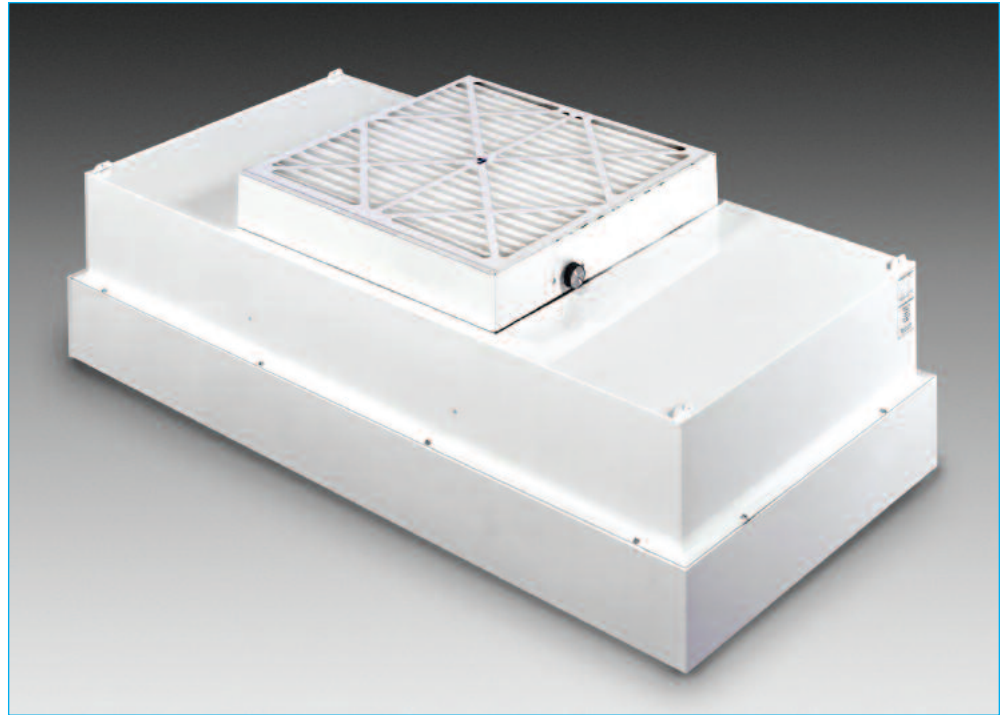


**FILTRATION GROUP®**

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# SENTINEL FAN POWERED TERMINAL MODULE

- *Reduced energy consumption due to low filter pressure drop combined with unique unit design*
- *Low profile design allows for installations with minimal overhead space*
- *Low operating noise levels*
- *UL Listed (120v motor)*
- *Filters tested to meet latest IEST recommended practices*
- *Pre-filter comes standard on all units*
- *Variable speed control*
- *Optimal performing fan unit operates at only 185 watts, 1.6 running amps with a low (54 dBA) noise level*



## DESCRIPTION

The Sentinel Fan Filter Unit is designed for optimum performance and energy savings. The unit operates at only 185 watts, with a low noise level of 54 dBA and a low profile. Available in efficiencies 99.99% at 0.3  $\mu\text{m}$ , 99.9995% at 0.12  $\mu\text{m}$  and sizes 2x4, 2x3 and 2x2.

The Sentinel Fan has many options, including:

- Roomside Replaceable gel seal filter available
- Motor running light indicator allows external monitoring of unit operation
- Ducted inlet collar available for direct connection to air conditioning supply duct work
- Unit available in stainless steel
- Power cord provides plug-in connection for non-permanent applications

- Test port for aerosol measurement when testing the filters.
- Flow through light troffers
- Sheet rock adapters for hard ceilings

## BENEFITS

- Epoxy painted white finish
- White polystyrene eggcrate discharge grille
- Solid State Speed Control standard on all units
- External static capability at 90 ft/min with HEPA filter, 0.56" w.g. (STD) 0.68" w.g. (RSR).

## APPLICATIONS

The Sentinel is designed to optimize performance in filtration applications for the Hospital, Pharmaceutical, Medical, Biotechnology Industry, Bio-safety Cabinets and for Surgical Suites.

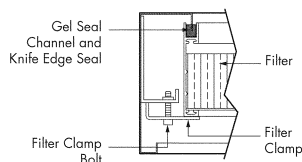
# SENTINEL FAN POWERED TERMINAL MODULE

The Sentinel Fan units are fabricated from steel with a white powdercoat finish and include seismic clip suspension points. Standard units are designed for 1-1/2" Lay In T Bar Ceilings. Optional roomside replaceable filters with gel seal are available for easy filter change out from within the clean space. The energy efficient motor blower is a low watt backward curved impeller, single phase, permanent split capacitor type motor blower assembly with thermal overload protection. Units are available in 115V (60 Hz), 208-230V (50/60 Hz) and 277V (60 Hz). Sentinel Fan units include a 99.99% efficient HEPA filter, 30% ASHRAE pleated type prefilter, seismic clip suspension points, on/off switch which disables the unit while servicing, and solid state variable speed control with RFI suppression, allowing the airflow to be fine tuned.

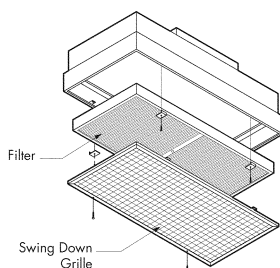
Final filters are protected with a white epoxy diamond pattern grille and are tested according to accepted procedures as described by the Institute of Environmental Sciences (IEST) and/or ISO standards. The standard HEPA filter is 99.99% eff. at 0.3 micron and an ULPA grade 99.9995% eff. at 0.12 micron filter is available as an option.

Roomside replaceable units include a white polystyrene eggcrate grille in an anodized aluminum frame that is hinged to open, permitting removal of the filter without removing the unit from the ceiling. Optional perforated stainless steel or aluminum grilles are available.

## FILTER CLAMP DETAIL



## EXPLODED VIEW



## SENTINEL FAN UNIT—AIR VOLUME

SIZE	STYLE	FILTER SIZE	AIR VELOCITY (fpm)	AIRFLOW (cfm)	INTERNAL STATIC (in. W.G.)	NOTES
2 x 2	STD	23.625 x 23.625	90	290	0.52	Values reflect unit with prefilter and HEPA with no additional static pressure drop. External SP is average and may vary by +/- 5% STD - Standard lay-in unit, non-roomside serviceable HEPA filter. RSR - Roomside serviceable HEPA filter with Gel Seal.
			100	325	0.58	
			11.5	375	0.66	
2 x 2	RSR	20.625 x 20.625	90	240	0.50	
			100	265	0.56	
			11.5	305	0.95	
2 x 4	STD	23.625 x 47.625	90	615	0.52	
			100	685	0.58	
			11.5	800	0.66	
2 x 4	RSR	20.625 x 44.625	90	535	0.50	
			100	595	0.56	
			11.5	685	0.66	

**Access Port:** This port is located in the center of the filter element face and is used for measuring an upstream challenge or measuring static pressure.

**Air Flow:** Airflow ranges from 480 to 685 CFM for a 2 x 4 unit and 225 to 325 CFM for a 2 x 2 unit at 70 to 100 fpm. Airflow for units running at 50 Hz will be about 20% less.

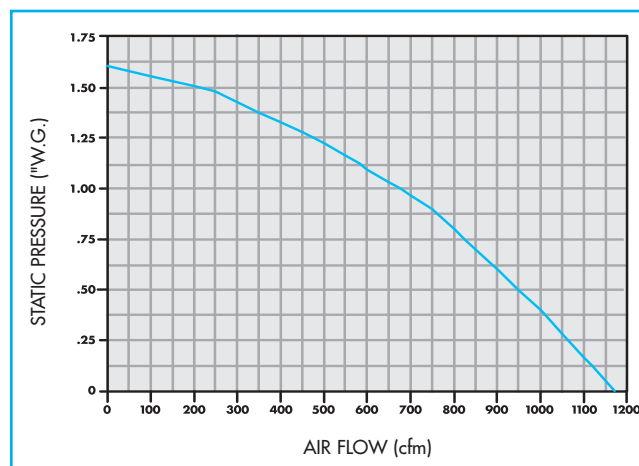
**Sound Level:** At average face velocity of 90 FPM measured 30" from face of filter, sound level is approximately 54 dba with less than 45 dba ambient sound level. Field conditions, voltage and method of testing could produce different results.

## MOTOR DATA

VOLTAGE	HZ	WATTS	RUNNING AMPS	START-UP AMPS
115	60	185	1.6	4.1
208-230	50/60	165	0.8-0.7*	1.5**
277	60	165	.6	1.5

\* Running amps will be less than 50Hz - \*\* Line voltage can affect actual start-up amperage.

## SENTINEL FAN CURVE



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Phone: 877-FGI-TEAM (344-8326) ■ Fax: 800-518-1162  
www.filtrationgroup.com ■ e-mail: aerostar@filtrationgroup.com

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