# FN1AAF Size 005 and 015 OptiClean™ Negative Air Machine and Scrubber



# **Product Data**



Fig. 1 – OptiClean<sup>TM</sup> Negative Air Machine

The OptiClean<sup>™</sup> negative air machine is a portable solution primarily designed to help convert normal hospital rooms into Airborne Infectious Isolation (AII) rooms. Designed to ASHRAE's Standard 170 for Ventilation of Health Care Facilities, the OptiClean<sup>™</sup> uses highly efficient filters and a heavy duty, yet quiet, motor to remove contaminated air from the room. The resulting negative air pressure, or "vacuum effect," helps limit the spread of air-based contaminants into surrounding areas. If negative pressure is not required, such as in an open-air, temporary hospital, the machine can be used as an air "scrubber," pulling air in, removing many contaminants, and discharging cleaner air back into the room.

The unit can be operated either vertically as shown, or horizontally.

The OptiClean<sup>™</sup> negative air machine is currently designed for commercial applications only.

# STANDARD FEATURES

- 99.97% efficient long-life HEPA filter removes particles as small as 0.3 microns
- Standard MERV 7 or higher pre-filter
- Minimum 500 CFM, Maximum 1500 CFM
- Meets or exceeds ASHRAE Standard 170: Ventilation of Health Care Facilities
- Vertical design for smaller footprint compared to many competitors, and can be mounted and operated horizontally when necessary
- Portable and adaptable to nearly any location
- · Heavy duty locking casters for easy and smooth transport
- · HEPA filter rack and sealing design meet air leakage requirement
- Red lighted indicator to alert user when filters are overloaded (generally means pre-filter requires replacement)
- · Green ON/OFF switch illuminates to verify when running
- 3-second motor start delay
- 3-speed selector switch on 015 size model for various air flow ranges
- 10-foot long power cord with strain relief
- 115V
- · Galvanized steel, pre-painted cabinet is fully insulated
- Exhaust transition plate to standard 10-inch round (005 size) or 12-inch oval (015 size) duct included
- UL® Listed

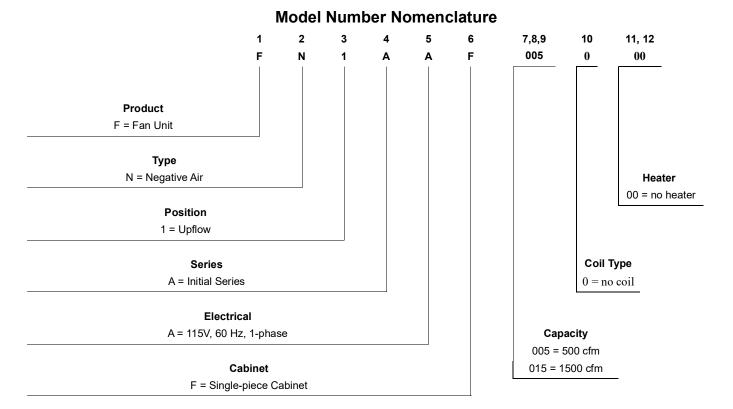
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· One year limited warranty



Fig. 2 – Room Setup Example

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## **FN1AAF Basic Dimensional Data**

Madal Siza		Unit Operating Weight		
Model Size	Height <sup>*</sup>	Width	Depth	lbs (kg)
005	49-5/8 (1260.5)	17-5/8 (447.7)	22-1/16 (560.4)	125 (56.7)
015	53-7/16 (1357.3)	21-1/8 (536.6)	22-1/16 (560.4)	150 (68.0)

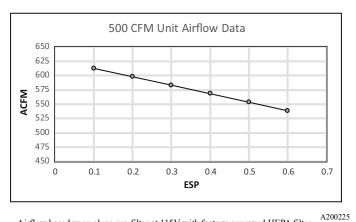
\*. Height without casters. Add 3-5/8" (92.1 mm) when casters installed

# Specifications

	005 Size	015 Size			
Air Discharge	Vertical				
Air Intake Dimension	15-1/2 x 19-13/16	19 x 19-13/16			
(thru bottom) - in. (mm)	(387 x 503)	(483 x 503)			
Blower Type	Direc	t Drive			
CFM (Nominal)	500	500 / 1000 / 1500			
Motor Type	ECM				
Motor HP	3/4	1.0			
Rated RPM	1500				
	FILTERS				
Factory	Pre-Filter - 16 x 20 x 2	Pre-Filter - 20 x 20 x 2			
Installed - in.	HEPA - 16 x 20 x 12	HEPA - 20 x 20 x 12			
	ELECTRICAL DATA				
Voltage	115				
Hertz	60				
Amps	5.0	12.0			

#### Static Pressure - 005 Size

External Static Pressure (ESP)	0.1	0.2	0.3	0.4	0.5	0.6
Actual Flow (CFM)	613	598	583	568	554	539



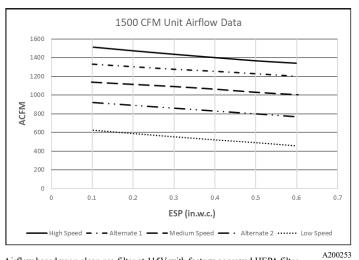
Airflow based upon clean pre-filter at 115V with factory-approved HEPA filter. A20022 Measured with 10 feet of flex duct installed.

#### **High-Altitude Adjustment**

Depending on your location, you may see up to 10% increase of measured airflow at higher altitudes. To compensate, you can change motor taps for alternate airflows. See instructions in the Operation and Maintenance Manual.

## Static Pressure - 015 Size

Unit Airflow Data (CFM)								
Fan Snood	Motor	External Static Pressure (ESP)						
Fan Speed	Tap Number	0.1	0.2	0.3	0.4	0.5	0.6	
High	5	1510	1470	1435	1400	1365	1340	
Alternate 1	4	1325	1300	1275	1255	1225	1200	
Medium	3	1140	1115	1090	1065	1030	1005	
Alternate 2	2	915	885	860	830	800	770	
Low	1	625	585	555	520	490	455	



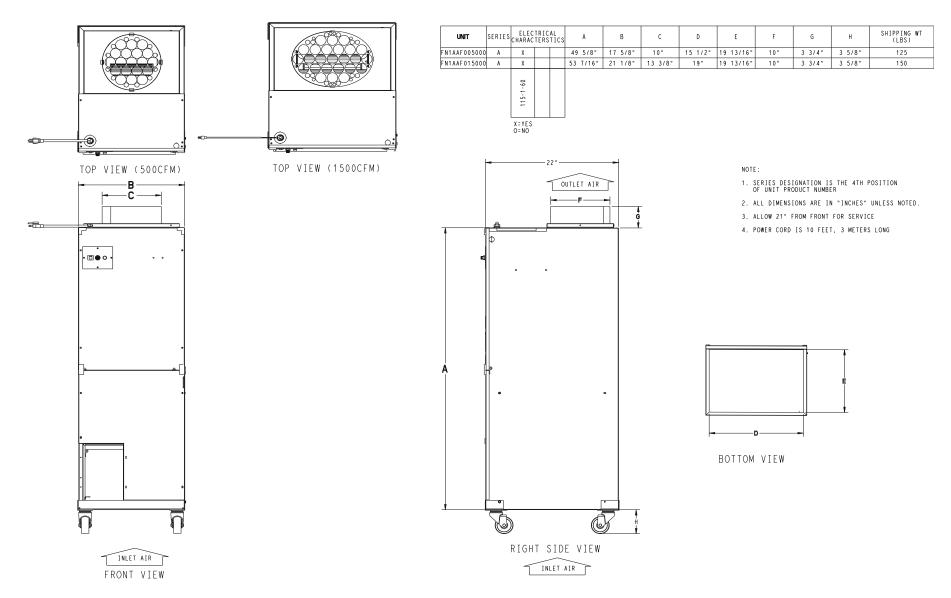
Airflow based upon clean pre-filter at 115V with factory-approved HEPA filter. Measured with 10 feet of flex duct installed.

#### Sound vs Airflow Data

		005 Model		
		Airflow <sup>*</sup>	as NAM (dB)	as Scrubber (dB)
		583	53	61
		015 Model		1
Motor Tap	Switch Position	Airflow	as NAM (dB)	as Scrubber (dB)
1	Low	555	51	53
2		860	56	59
3	Medium	1090	60	63
4		1275	61	65
5	High	1435	61	67

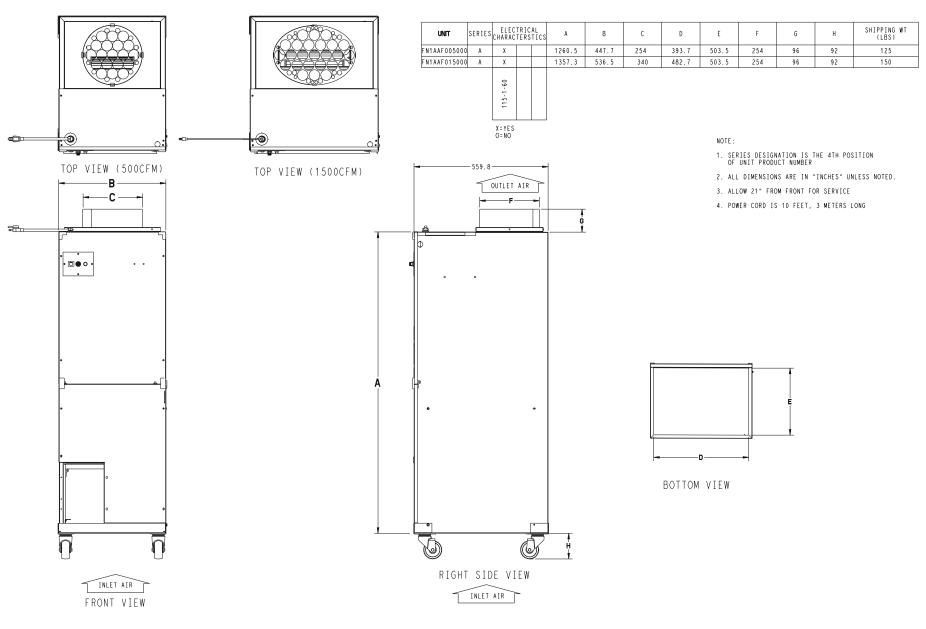
\*. Airflow measured at 0.3 ESP (external static pressure). For other ESP values, see Static Pressure tables above.

# **FN1AAF Detailed Dimensions - English**



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# **FN1AAF Detailed Dimensions - Metric**



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## NOTES PAGE