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

Product Data

015 SIZE

A200220

Fig. 1 – OptiClean™ Negative Air Machine

The OptiClean™ 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™ 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™ 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
- One year limited warranty

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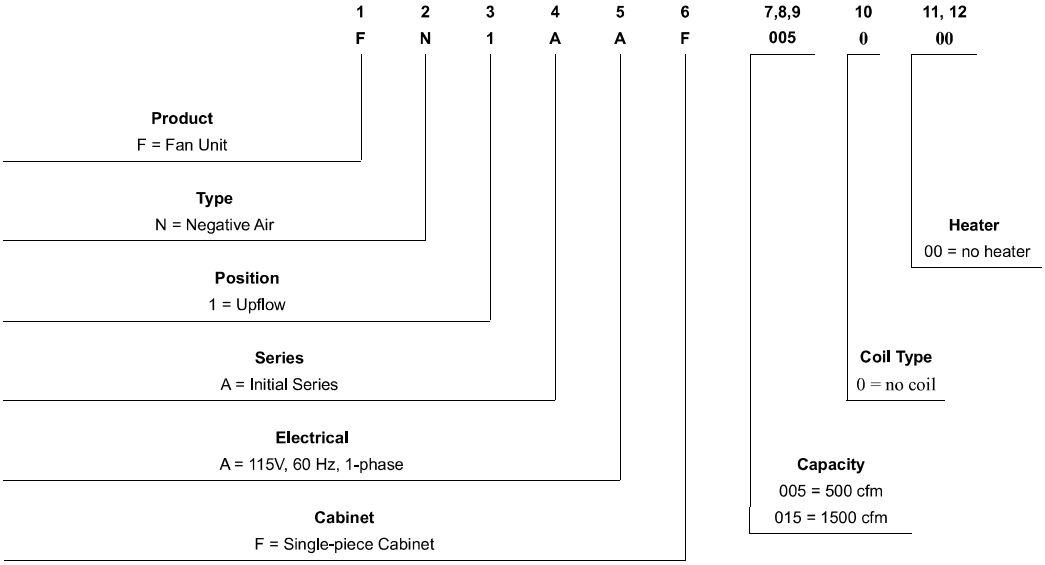
Fig. 2 – Room Setup Example

Model Number Nomenclature



FN1AAF Basic Dimensional Data

Model Size	Dimensions- inches (mm)			Unit Operating Weight lbs (kg)
	Height*	Width	Depth	
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)

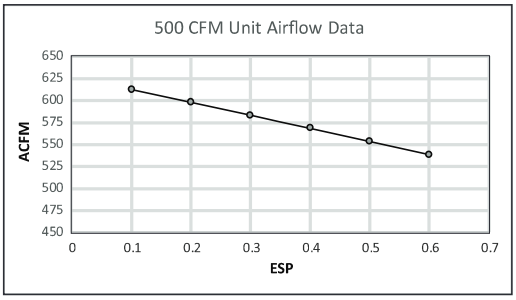
*. Height without casters. Add 3-5/8" (92.1 mm) when casters installed

Specifications

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



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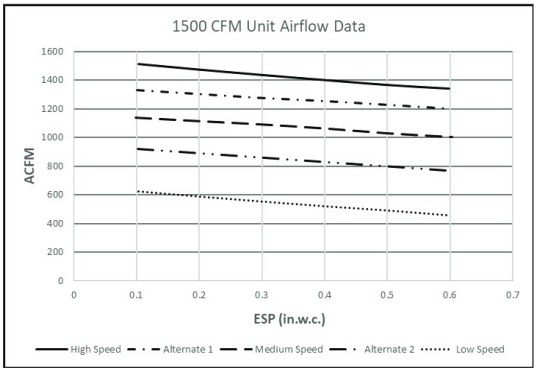
Airflow based upon clean pre-filter at 115V with factory-approved HEPA filter. Measured with 10 feet of flex duct installed.

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 Speed	*Motor Tap Number*	*External Static Pressure (ESP)*					
		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



A200253

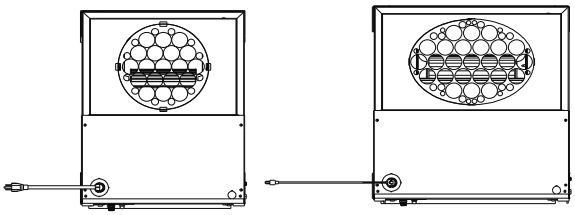
Airflow based upon clean pre-filter at 115V with factory-approved HEPA filter. Measured with 10 feet of flex duct installed.

Sound vs Airflow Data

005 Model				
		Airflow*	**as NAM (dB)**	**as Scrubber (dB)**
		583	53	61
015 Model				
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

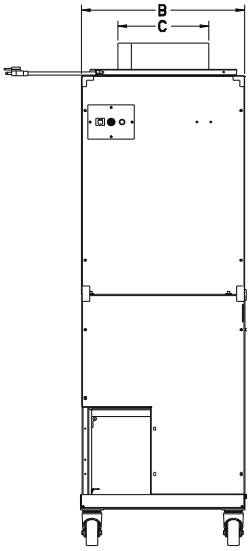


TOP VIEW (500CFM)

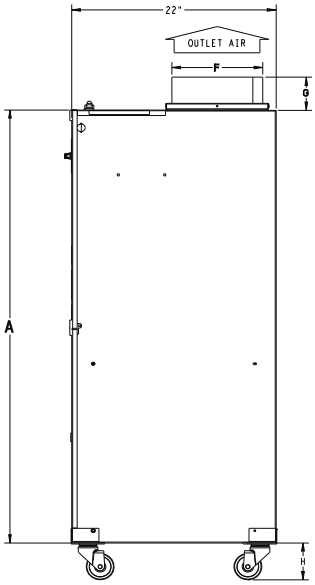
TOP VIEW (1500CFM)

UNIT	SERIES	ELECTRICAL CHARACTERSTICS			A	B	C	D	E	F	G	H	SHIPPING WT (LBS)
FN1AAF005000	A	X			49 5/8"	17 5/8"	10"	15 1/2"	19 13/16"	10"	3 3/4"	3 5/8"	125
FN1AAF015000	A	X			53 7/16"	21 1/8"	13 3/8"	19"	19 13/16"	10"	3 3/4"	3 5/8"	150
		115-1-60											

X=YES
O=NO



FRONT VIEW

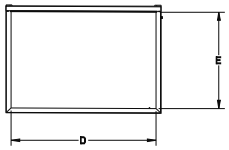


RIGHT SIDE VIEW

INLET AIR

NOTE:

1. SERIES DESIGNATION IS THE 4TH POSITION OF UNIT PRODUCT NUMBER
2. ALL DIMENSIONS ARE IN "INCHES" UNLESS NOTED.
3. ALLOW 21" FROM FRONT FOR SERVICE
4. POWER CORD IS 10 FEET, 3 METERS LONG



BOTTOM VIEW

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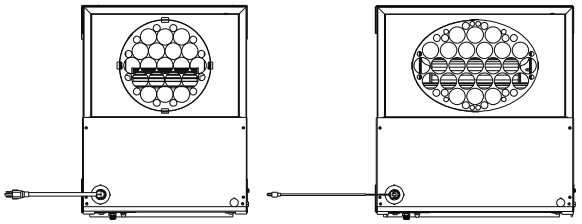
FN1AAF Detailed Dimensions - Metric



TOP VIEW (500CFM)

TOP VIEW (1500CFM)

UNIT	SERIES	ELECTRICAL CHARACTERSTICS			A	B	C	D	E	F	G	H	SHIPPING WT (LBS)
FN1AAF005000	A	X			1260.5	447.7	254	393.7	503.5	254	96	92	125
FN1AAF015000	A	X			1357.3	536.5	340	482.7	503.5	254	96	92	150
		115-1-60											

X=YES
O=NO

NOTE:

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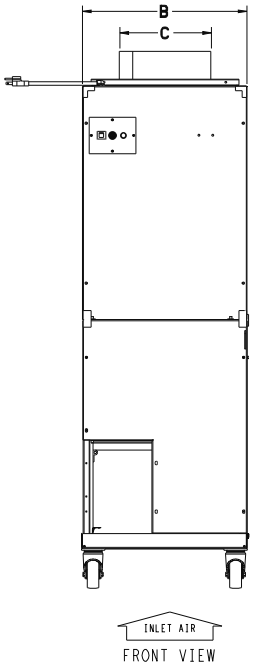
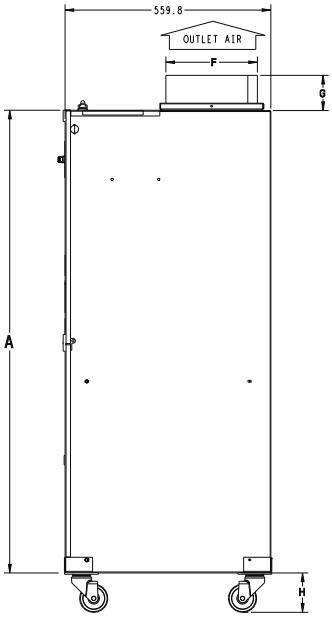
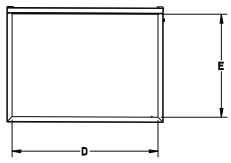


FRONT VIEW



RIGHT SIDE VIEW

INLET AIR



BOTTOM VIEW

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NOTES PAGE

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