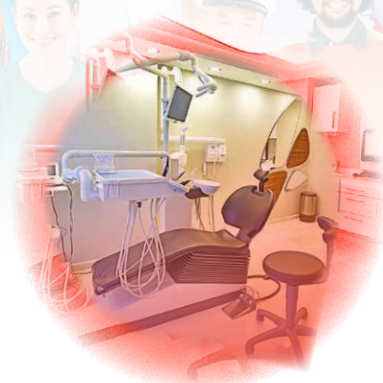




i-biosafe™
breath in safety



NEW

**PORTABLE HEPA
FILTERED AIR
CLEANING DEVICES**

from Metisafe Cleanroom & Biosafety

Compact, Efficient, Economical and Practical Room Pressurization in a Single Portable Air-Cleaner

- Proven Clean Air Delivery Rate (CADR)
- Conformity ACH recommendations of Guidelines
- Hygienic & Efficient Air-borne Particle Removal
- Robust and Compact Design
- Low Energy and Low Noise Technology
- 7/24 Working Capacity Continuously
- Positive Room Pressuring Option
- Negative Room Pressuring Option

Air changes/hour (ACH) and time required for airborne-contaminant removal by efficiency

ACH	Time (mins.) required for removal 99% efficiency	Time (mins.) required for removal 99.9% efficiency
2	138	207
4	69	104
6	46	69
8	35	52
10	28	41
12	23	35

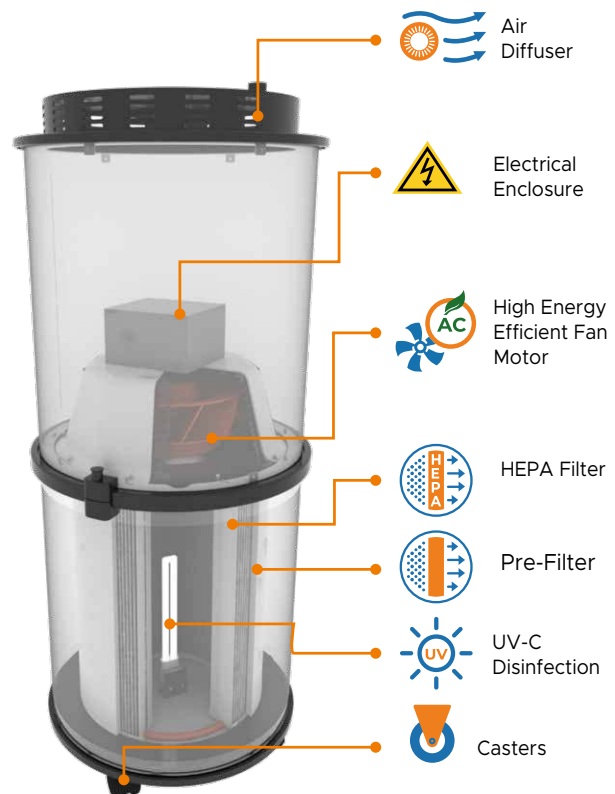
'Room Pressuring integration in a single instrument without the need of a second ventilation device'

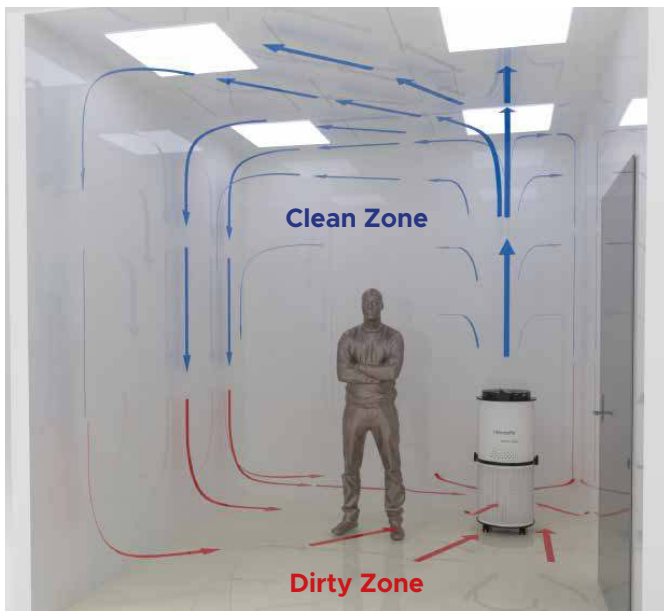
HEPA Filter Efficiencies

EN 1822			Integral value of efficiency in the MPSS in %	Integral value of penetration in the MPSS in %	Local value of efficiency in the MPSS in %	Local value of penetration in the MPSS in %	
Suspended	E	E10	MERV 16	≤ 85	≤ 15	-	-
		E11		≤ 95	≤ 5	-	-
		E12		≤ 99.4	≤ 0.5	-	-
	H	H13		≤ 99.95	≤ 0.05	≤ 99.75	≤ 0.25
		H14	NA	≤ 99.995	≤ 0.005	≤ 99.975	≤ 0.025
	U	U15		≤ 99.9995	≤ 0.0005	≤ 99.9975	≤ 0.0025
		U16		≤ 99.99995	≤ 0.00005	≤ 99.99975	≤ 0.00025
U17			≤ 99.999995	≤ 0.000005	≤ 99.9999	≤ 0.0001	

Air-borne contaminations increase by indoor human traffic or polluted air intakes from the door-window passages and room surroundings. The concentration of infectious and allergic particles will increase if the indoor air will not be filtered by a real HEPA air cleaner. Enough real HEPA filtered air is needed to decrease contaminant concentration and prevent the spread of infectious particles inside the room. The actual airflow rate of HEPA air cleaner will be a very critical parameter and important to prevent air contamination.

Optimal removal of contaminants depends mainly on actual CADR of the device and enough ACH for the indoor room volume. In addition to this principle, optimal air and particle sweeping performance must be obtained by applying advanced engineering methods to the design of the air-flow pattern.

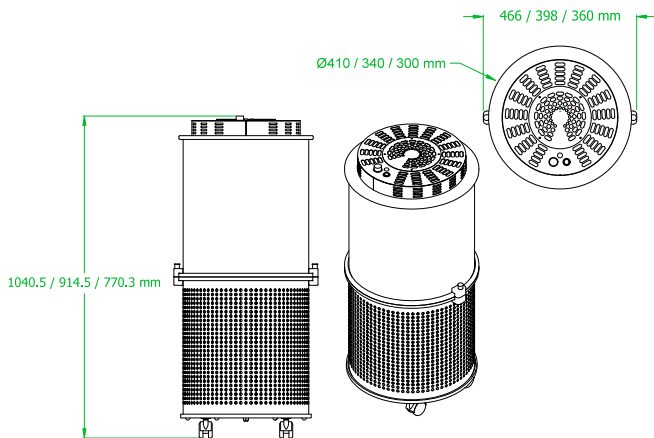




Optimum Airflow Pattern

- Upward air discharge-intake air at bottom
- Complete mixing of air: No air short-circuiting
- Homogenous air distribution
- High Supply-Low Return air-flow pattern
- Efficient particle sweeping by unique design top diffusers

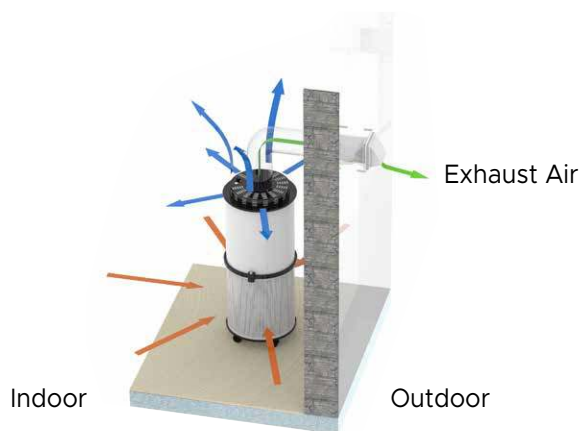
Particle removal efficiency conforms to international guidelines recommendations and cleanroom standards if choosing the right Metisafe portable air cleaners that suit to the room volume (under 280 cm room height)



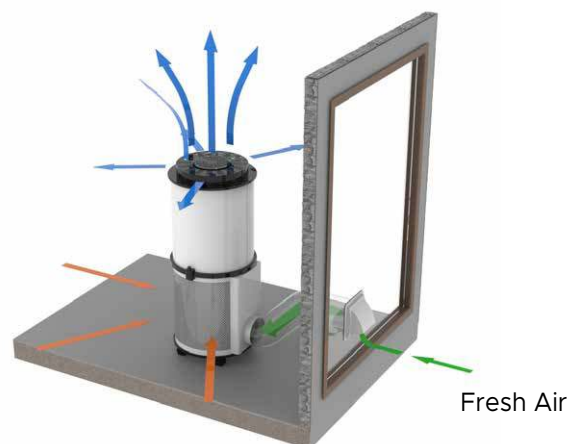
Dimensions of AC-250/500/750 Air Cleaners

- Filter disinfection by UV lamp
- Easy filter replacement
- Easy maintenance and cleaning
- Generic obtainable standard filters
- Odor and gas removing filter option
- Advanced noise level reduction

i-biosafe™ Room Pressuring*



Negative Pressure Mode



Positive Pressure Mode

*Room pressuring kit can be ordered separately from Metisafe Inc.

TECHNICAL SPECIFICATIONS

	AC-250	AC-500	AC-750	
Dimensions (Ø x H) mm	300 x 770,3	340 x 914,5	410 x 1040,5	
Packaging Dimensions (WxLxH) mm	410 x 410 x 910	450 x 450 x 1050	520 x 520 x 1180	
Actual HEPA Filtered Airflow Rate (max.)	250 m ³ /h	500 m ³ /h	750 m ³ /h	
Effective Usage Area (ACH=2) at 2,8 m room height	36 m ²	72 m ²	105 m ²	
Recommended Usage Area (for 6 ACH) at 2,8 m room height	12 m ²	24 m ²	35 m ²	
Room Pressuring Airflow Rate (maximum)	Positive Pressure Mode (Fresh Air)	50 m ³ /h	150 m ³ /h	240 m ³ /h
	Negative Pressure Mode (Exhaust Air)	Not Applicable	150 m ³ /h	240 m ³ /h
Filter Types and Efficiencies	Round HEPA Filter & Surface area (Standard)	E12, ≤99,5 MPPS in % 4,45 m ²	E12, ≤99,5 MPPS in % 6,55 m ²	H13, ≤99,95 MPPS in % 9,50 m ²
	Main Filter Options	H13, ≤99,95 MPPS in % 4,45 m ²	H13, ≤99,95 MPPS in % 6,55 m ² H14, ≤99,995 MPPS in % 6,55 m ²	H14, ≤99,995 MPPS in % 9,50 m ²
	Pre-filter 1 (Standard)	Round Filter G3 (acc. To EN779-2012) Average Arrestance (Am) of sythetic dust (%) 80≤ Am<90		
	Pre-filter 2 (Optional)	Activated Carbon Impregnated Round Filter		
Air Mixing Factor M (ASHRAE Guidelines)	1 : 1			
Germicidal UV-C Lamp Dosage	PLS soft glass Replaceable , 11 Watt - 19,6 µW/cm ²			
UV-C lamp intensity on HEPA filter surfaces (micro-watt per cm ²)	3079	2723	2475	
Noise Level (at 1 m distance)	Full Speed	< 56 dB(A) / 250 m ³ /h	< 57 dB(A) / 500 m ³ /h	< 58 dB(A) / 750 m ³ /h
	Normal Mode	< 50 dB(A) / 200 m ³ /h	< 52 dB(A) / 400 m ³ /h	< 52 dB(A) / 600 m ³ /h
	Eco Mode	< 46 dB(A) / 150 m ³ /h	< 48 dB(A) / 300 m ³ /h	< 50 dB(A) / 400 m ³ /h
Main Supply voltage and frequency	230 VAC/50-60 Hz			
Fan-Motor Power Input	52 W	155 W	212 W	
Energy consumption (W/h)	Fan	52 W / 250 m ³ /h	120 W / 500 m ³ /h	205 W / 750 m ³ /h
		45 W / 200 m ³ /h	105 W / 400 m ³ /h	160 W / 500 m ³ /h
		42 W / 150 m ³ /h	90 W / 300 m ³ /h	140 W / 400 m ³ /h
	UV Lamp	11 W		
App. Electrical Consumption and cost per year (8 hours running per day 25 days per month) 0,1 USD/kWh at normal mode	134 kW/13,4 USD	278 kW/27,8 USD	410 kW/41 USD	
Fan Motor Type	Backward Curved, Single Inlet AC Centrifugal Fan			
Speed controller	Standard	Full variable fan speed controller, on/off button, energy indicator light		
	Optional	Three Step fan speed controller, touch button, shutdown timer, white light, UV lamp button, Remote Control		
Main body material	Epoxy-Polyester coated galvanised steel			
Net / Packed Weight (kg)	18/23	22/27	30/35	

Consumables and Maintenance (7/24 indoor working conditions)

Pre-Filter	Vacuum clean every month, Replace every 3-6 months
Round HEPA Filter	Replace every 2 years
UV-C Lamp	Replace every year