

# AERUS<sup>®</sup> Medical Guardian

Airborne Contaminant Reduction Solution with ActivePure<sup>®</sup> Technology



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2017 Space Technology  
Hall of Fame Inductee

Made in the USA

## Aerus Medical Guardian Overview

The Aerus Medical Guardian is a free-standing, portable device used in professional healthcare environments to reduce airborne contaminants. With the optimal balance of performance, proven quality, user-friendly design and affordability, its ActivePure® Technology gives professional healthcare environments an effective solution to reduce airborne contaminants.

## Technology

An internal fan draws air in from the area where the device is located. Air moves into the device where negative ions, created from ion brushes, charge incoming contaminants so the oppositely charged filter media can be more easily captured/entrained from ambient air. As air exits the filter, it passes the ActivePure® Cell which contains two UVGI (Ultra Violet Germicidal Irradiation) bulbs plus a TiO<sub>2</sub> based photocatalyst. This catalyst, when irradiated with energy from the 254nm UVGI bulbs, creates hydroxyl radicals and super ions which enter ambient air to oxidize, mineralize and reduce organic compounds into non-organic forms.

## Quick Facts

- **The Aerus Medical Guardian is cleared by the FDA as a Class II Medical Device**
- ActivePure® uses a proprietary technology proven to reduce staphylococcus epidermidis and erwinia herbicola bacteria, MS2 and Phi-X174 viruses and aspergillum niger fungal spores and bacillus globigii bacterial spores, with 4 - 6 log reduction in 60 minutes as tested.



## EMC



This device conforms fully to the EMC requirement of IEC 60601-1-2 and is suitable for use in a professional healthcare environment.

- This device is not affected by RFID, wireless networks, 2-ways radios, paging systems, etc., as the device does not transmit or receive RF signals or create EMF beyond the required limits
- Do not use device with an extension cord as unintended EMF may be created
- This device is grounded to prevent electrostatic discharge

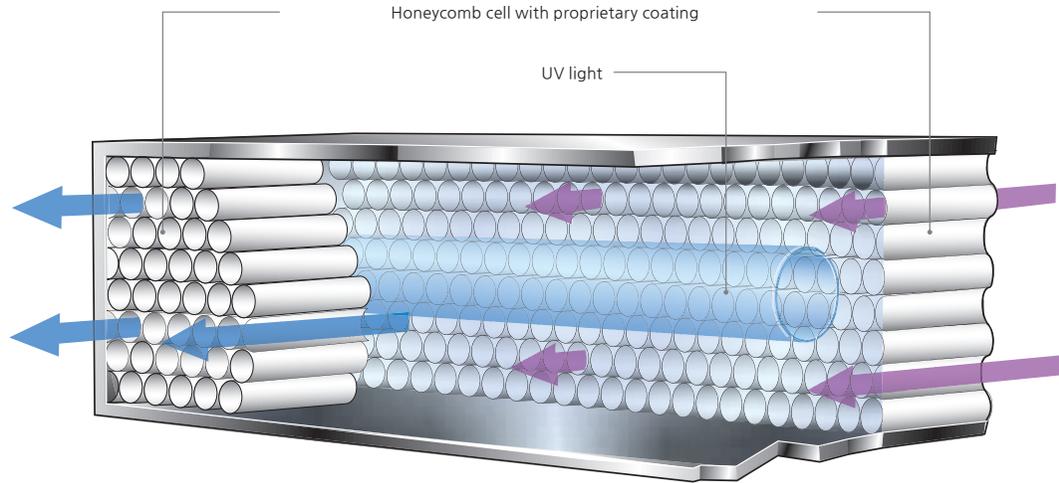
- Do not use RF communication or magnetic field generating equipment within 30 cm of the device
- EMC testing shows no conducted or radiated electromagnetic emissions or immunity issues which would be adverse to the patient or operator

The use of this device in a manner other than described in the user manual or a modification of the device could result in increased electromagnetic emissions or decreased immunity.

If device is operating in an unexpected manner or causing unexpected interference, discontinue using the device, review the user manual or seek service.

## How Does ActivePure® Technology Work?

1. Uses oxygen and humidity from the air
2. Converts into powerful oxidizers of hydroxyl radicals & super ions
3. Destroys captured microorganisms
4. Based on technology originally developed by NASA researchers for use on the International Space Station. It is recognized exclusively, worldwide, as Certified Space Technology.



## Specifications

AERUS MEDICAL GUARDIAN	F170A
Power Consumption	1 to 117 watts
Recommended Treatment Space	<ul style="list-style-type: none"> <li>• 3,000 ft<sup>3</sup> / 8-10 ft ceilings</li> <li>• 84.9 m<sup>3</sup> / 2.4m - 3m ceilings</li> </ul>
Input Voltage	120 VAC, 60 Hz 1.0 Amp
Nominal Airflow Rate	<ul style="list-style-type: none"> <li>• Whisper: 90 CFM, 53 m<sup>3</sup>/hr</li> <li>• Low: 100 CFM, 59 m<sup>3</sup>/hr</li> <li>• Medium: 180 CFM, 305 m<sup>3</sup>/hr</li> <li>• High: 300 CFM, 509 m<sup>3</sup>/hr</li> </ul>
Dimensions:	<ul style="list-style-type: none"> <li>• 26.5"H x 11.5"W x 21.0"D</li> <li>• 673mm H x 292mm W x 533mm D</li> </ul>
Weight	48 lbs / 21.8 kg
Average Noise Level: (@ 1m)	<ul style="list-style-type: none"> <li>• Whisper: 43 dB(A)</li> <li>• Low: 48 dB(A)</li> <li>• Medium: 64 dB(A)</li> <li>• High: 70 dB(A)</li> </ul>
Power Cord	<ul style="list-style-type: none"> <li>• 6 ft</li> <li>• 1.8m</li> </ul>
Warranty / Service Life	1 year limited / 3 years



ActivePure® Technology is designed, engineered and produced in the U.S.A.



# NASA Originated, Hall of Fame Certified Space Technology Designed for Healthcare Facilities

2017 Space Technology Hall of Fame Inductee

## What is Certified Space Technology?

The Space Foundation was created as an adjunct to the NASA Space Program, and recognizes businesses that have made discoveries and improved technologies for life on earth. Certified Space Technology products, honored by the Space Foundation have set standards for innovation, comfort, convenience and dependability.

## What is the Space Hall of Fame?

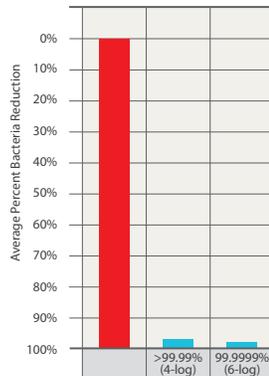
The Space Technology Hall of Fame® recognizes the small number of technologies emerging from global space programs that dramatically improve life on earth; honors the scientists, engineers and innovators responsible; and communicates to the public the importance of these technologies as a return on investment in space exploration.

ActivePure® Technology, one of the modes of action in the Aerus Medical Guardian, was honored to be recognized and inducted into the Space Foundation Technology Hall of Fame in 2017.

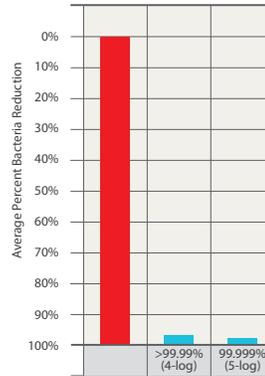
## Intended Use

The Aerus Medical Guardian, model F170A is a device intended for medical purposes that is used for the reduction of staphylococcus epidermidis and erwinia herbicola bacteria, MS2 and Phi-X174 viruses and aspergillum niger fungal spores and bacillus globigii bacterial spores from the air in a temperature-controlled professional healthcare environment of 70 - 71°F, 40 - 45% RH. The Aerus Medical Guardian, model F170A has demonstrated the reduction of staphylococcus epidermidis and erwinia herbicola bacteria, MS2 and Phi-X174 viruses and aspergillum niger fungal spores and bacillus globigii bacterial spores under the following conditions of 72°F, 50% RH.

**Reduction of Airborne Contaminant**  
Staphylococcus epidermidis – Gram-positive Bacteria



**Reduction of Airborne Contaminant**  
Erwinia herbicola – Gram-negative Bacteria



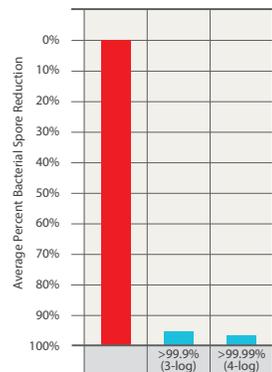
**Reduction of Airborne Contaminant**  
Phi-X174 bacteriophage DNA Virus



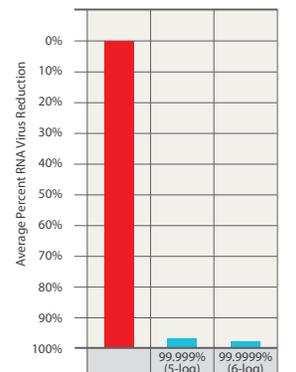
**Reduction of Airborne Contaminant**  
Aspergillus niger (fungal spore)



**Reduction of Airborne Contaminant**  
Bacillus Globigii (bacterial spore)



**Reduction of Airborne Contaminant**  
MS2 bacteriophage RNA Virus



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