

# Youfilter Ag<sup>®</sup>

HMEF RESPIRATORY FILTERS



## Innovation, technology and safety

It filters, humidifies and inactivates pathogenic microorganisms that cause nosocomial infections.



# Youfilter Ag<sup>®</sup>

HMEF RESPIRATORY FILTERS

ScavMedical brings an innovation to the healthcare area with the line of breathing filters using green nanotechnology.

Silver nanoparticles

Transparent body for better viewing

Antimicrobial activity against Gram-positive and negative bacteria, yeasts, fungi and viruses

Reduced dead space

Connections for CO<sup>2</sup> monitoring

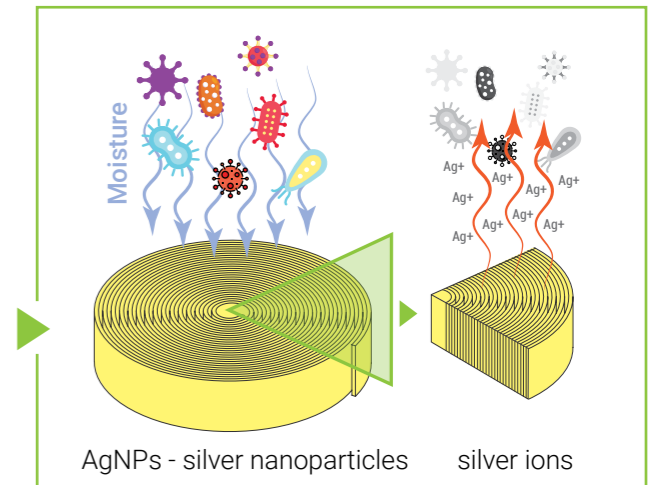
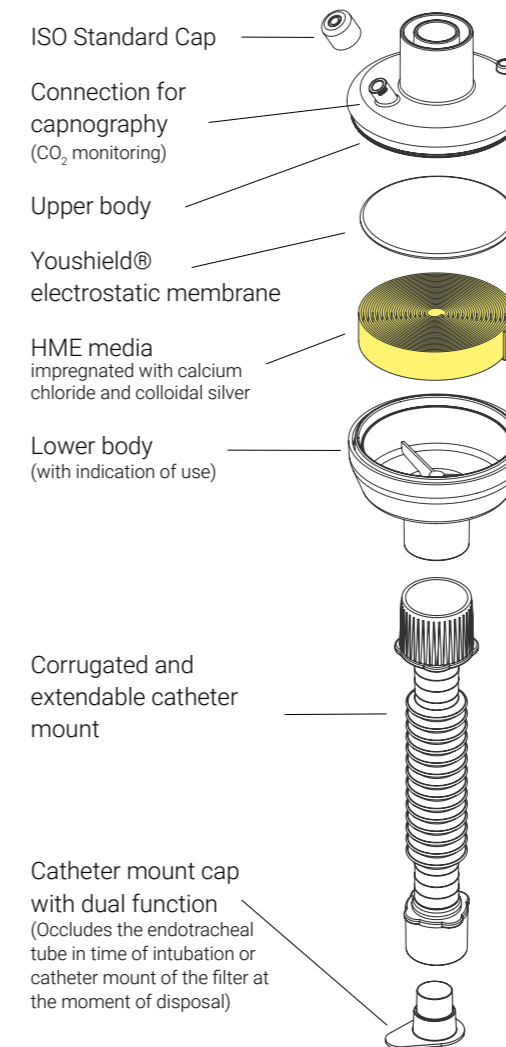


**99.999%**

BACTERIAL & VIRAL  
FILTRATION EFFICIENCY  
(BFE/VFE)

**Efficiency proved by  
laboratory tests**

**YOUFILTER Ag<sup>®</sup>** is a HMEF filter that surpasses its conventional functions. In addition to exchanging heat and humidity, it has an exclusive technology with antimicrobial action that eliminates bacteria, fungi and yeasts, in addition to inactivating the virus through its bioactive action.

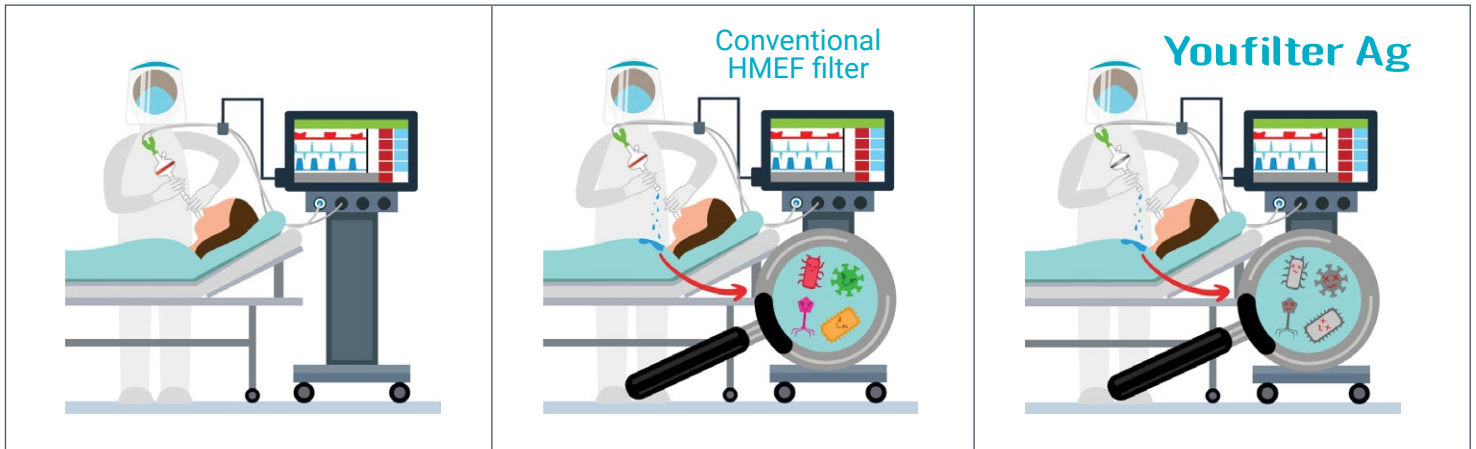


The HMEF filter you already know, now with silver nanoparticles (AgNPs)

The silver nanoparticles developed and manufactured by **ScavMedical** interact with the structures of microorganisms and viruses inducing oxidative stress, resulting in the elimination of bacteria and fungi and virus inactivation.

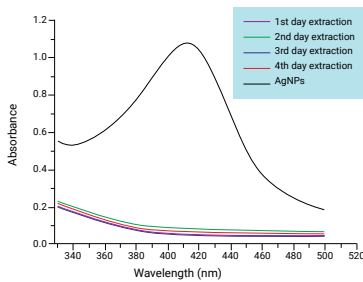
Youfilter Ag <sup>®</sup> advantages	Conventional HMEF	YOUFILTER Ag
Exchange of heat and humidity	OK	OK
Bioactive barrier against viruses	OK	OK
Bioactive barrier against microorganisms	OK	OK
Elimination of gram-positive	-	OK
Yeast elimination	-	OK
Elimination of filamentous fungi	-	OK
Viral inactivation	-	OK
Contributes to reducing the incidence of VAP	-	OK
Reduce cross-contamination risks	-	OK

FILTER HMEF YOUFILTER Ag® minimizes the risk of cross contamination during handling and replacement. A product with technology aimed at prioritizing the safety and health of the patient and the entire multidisciplinary team.



Extensive investigations have been conducted to ensure that both nanoparticles of silver (AgNPs) as well as silver ions (Ag<sup>+</sup>) do not leach out and get inhaled by the patient.

Water vapor extraction test using saturated atmosphere (RH 99%).



SAMPLES	Ag (mg/l)
AgNPs	107.1 ± 0.5
1st day extraction	< 0.1
2nd day extraction	< 0.1
3rd day extraction	< 0.1
4th day extraction	< 0.1

After 4 days of water vapor extraction, the concentration of AgNPs and silver ions (Ag<sup>+</sup>) did not reach the detection limits (<0.1-10 ppm) evaluated using ultraviolet-visible spectroscopy (UV-vis) and inductively coupled plasma atomic emission spectroscopy (ICP-OES).

## Youfilter Ag®

HMEF RESPIRATORY FILTERS

### TYPE OF FILTER / MATERIAL

Electrostatic/Hydrophobic polypropylene

### FILTRATION EFFICIENCY

99.999%

### CURRENT VOLUME (VC)

150 -1000 ml

### FLOW RESISTANCE

1.8 cm H<sub>2</sub>O a 60 l/min

### DEAD SPACE

35 ml

### CONNECTORS

According to ISO 5356-1

### RECOMMENDED USE TIME

48 hours

### PART CODE: YFAG-AT

ANVISA: 81484769004

Product developed in partnership with Institute of Energy and Nuclear Research IPEN, inside SisNano's NuclearNano/CNEN laboratory



361, Antonieta Piva Barranqueiros Ave.  
 Distrito Industrial - Jundiaí - SP - Brazil - Zip Code: 13213-009  
 Phones: +55 11 4586-8868 / +55 11 4581-3737  
 Costumer service: sac@scavmedical.com.br  
 www.scavmedical.com.br

