



# Smoke Evacuator DS-3000E



## Extraoral suction system Aerosol suction system DS-3000E

- Developed an extraoral suction system in 1994
- Released DS-3000E in 2015
- Sales exceeded 10,000 sets in 2019

## DS-3000E

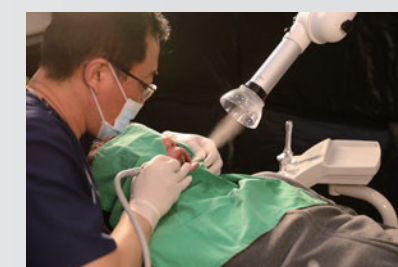
DS-3000E belongs to the extraoral vacuum suction system series.

It is a device that minimizes contamination of indoor air by sucking in aerosol particles or small water drops when using a high speed handpiece or scaling. It also comes with a sterilization function.

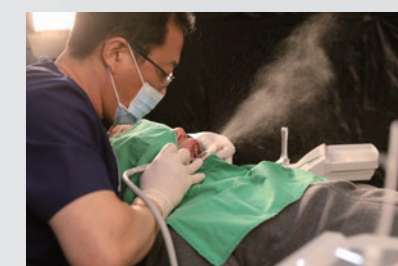
It is equipped with a noise silencer.

- Model no : DS-3000E
- Dimensions : 270mm(W) x 640mm(D) x 275mm(H)
- Box dimensions : 380mm(W) x 425mm(D) x 1010mm(H)
- Power supply : single phase AC 200V~240V / 50~60Hz  
100V~130V / 50~60Hz
- Output power(W) : 1,200W(120V), 1,200W(230V)
- Electrical current(A) : 220V 6A / 110V 15A
- Air flow : 3.9m<sup>3</sup>/min
- Air pressure : 3.0Kpa(Ø40) / 10Kpa(Ø25) / 22.5Kpa(Ø10)
- Filter : 1st filter (Medium dust filter)  
2nd filter (Super bio hepa & ulpa filter) 99.97~99.995%  
3rd filter (Air filter)
- Noise level : approx. 49~65db
- Free arm size : 1,600mm / Free arm box size : 710mm x 235mm x 280mm
- Free arm weight : approx. 1.2kg / Free arm box weight : approx. 2.7kg
- Weight : approx. 27kg / Box Weight : approx. 28kg
- Control mode : Step 1~12, filter cleaning mode(200T)
- Basic components : Main body, 3 joint free arm, power cord, O Type hood, 1st spare filter
- Accessories : Aluminum hood, L Type hood, Hood holder, Remote controller, Plasma ionizer, UV LED lamp
- Remarks

*Please check the product information before using the electricity in your area. Specifications are subject to change without notice.*



Droplets & aerosol splash



Use the Extraoral suction

## [ Extraoral suction ]

When using g high speed handpiece & scaling, a lot of moisture, smog and aerosol particles are generated. Do you know how many aerosol particles contaminate the room?

Aerosol particles adhere to the bodies of dentists or hygienist during treatment. Also, aerosol particles can contaminate the air conditioners of fans, and my affect the respiratory systems of the patients.

Aerosol particles are very dangerous because they contain blood, saliva, viruses and other foreign substances.

It can be dangerous if an extraoral suction is not used.

There is a very big difference between using and not using an extraoral suction. During treatment, microscopic water drops fly away in the form of aerosol particles.

Make the change, for the health of doctors, hygienists and patients.

DS-3000E sucks in moisture, smog and aerosol particles with its powerful suction power to create a clean and pleasant treatment room, and keep it that way.



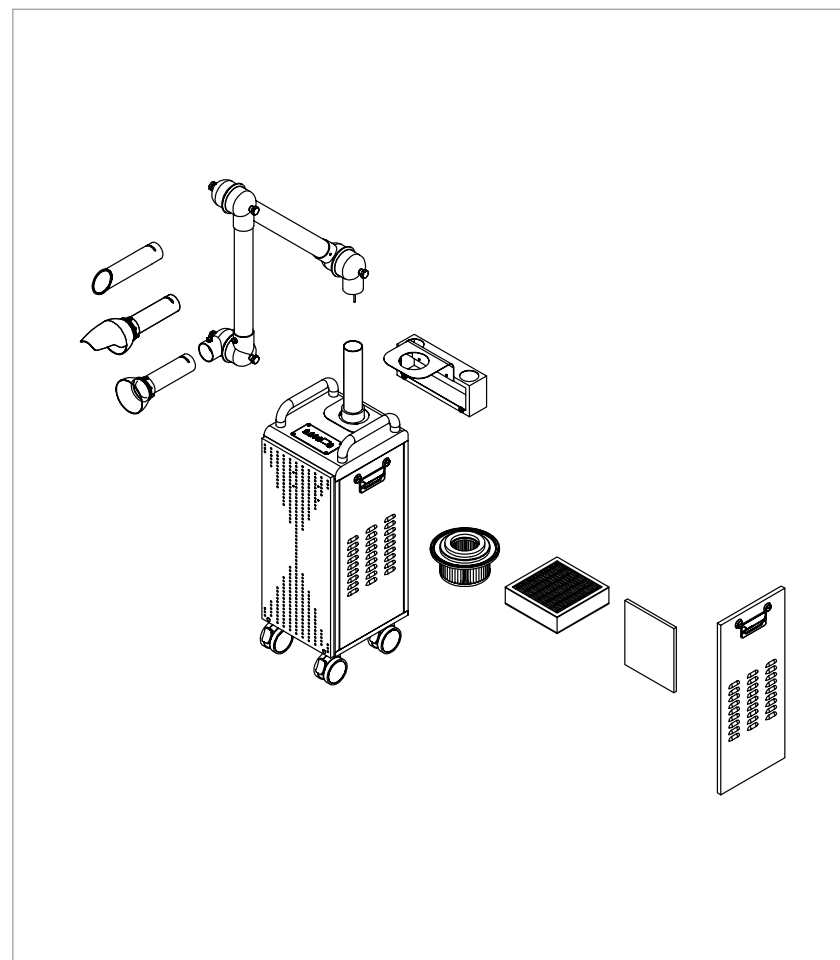
Aerosol particles adhere to the body



When not using an extraoral suction



When using an extraoral suction



## [ Various extraoral suction ]

IDS LTD manufactures a variety of extraoral suction products. We currently manufacture mobile types such as DS-3000E, DS-2000E.

## [ Super filtering system ]

The 1st filter (Medium filter) filters out contaminants and moisture. The 2nd filter, super bio filter (Hepa & Ulpa) catches various viruses or ultra fine dusts. Its filtration efficiency is between 99.97% and 99.995%. The 3rd filter purifies the air before emitting it out into the room.

## [ Plasma ionizer & UVC LED generator ]

Equipped with a safe and certified plasma ionizer to meet customer needs, it kills viruses.

In addition, it is equipped with a durable UVC LED generator for medical use to eliminate viruses and harmful foreign substances.

## [ 3 joint free arm ]

The 3 joint free arm consists of a 3-stage joint for the convenience of the user. It helps enable various positions according to the doctor's treatment pattern.

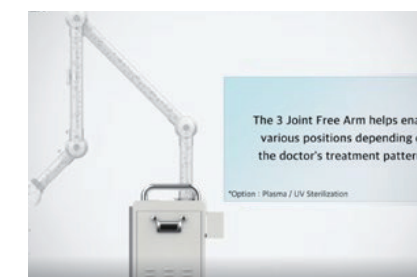
Also, depending on the different types of treatment, it provides the doctor with a convenient place for treatment with various suction hoods.

## [ Noise silencer ]

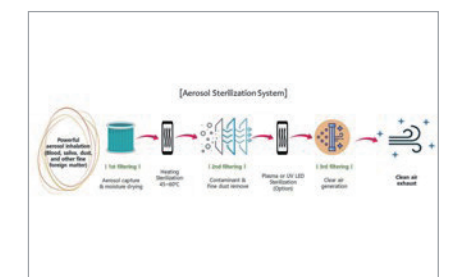
DS-3000E is equipped with a noise silencer inside the suction for a comfortable treatment room.

## [ Medical caster ]

DS-3000E is equipped with an advanced medical casters for the user to move it freely and conveniently.



Aerosol particles contain blood, saliva, viruses, and other foreign substances.



Aerosol sterilization system



# DS-3000E Virus Sterilization Care System



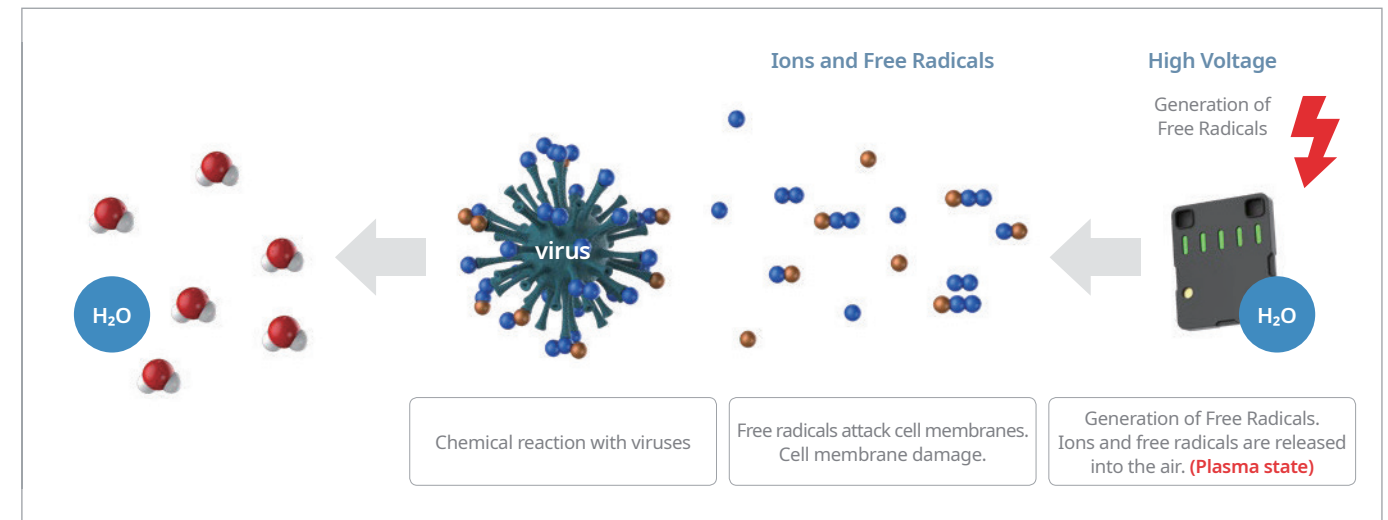
UV LED

Plasma

Hepa Filter  
or  
Ulpa Filter

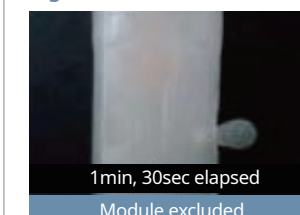
## Plasma Sterilization Principle

### Basic Principle

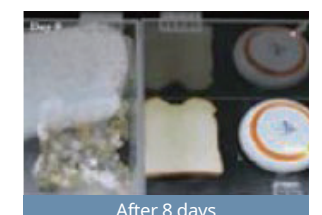
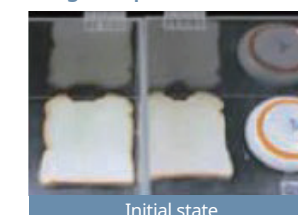


- When the airborne water molecules are decomposed by applying a high low pressure on the positive and negative sides, the water molecules ( $H_2O$ ) are decomposed into  $H^+$  and anion  $O_2^-$ .
- The highly reactive Free Radical ( $O_2^-$ ,  $OH^-$ ,  $HOO$ -etc) is adsorbed in the air by harmful substances such as viruses, germs, and fungi, and the electrons are removed to return to the water molecules to remove harmful substances.

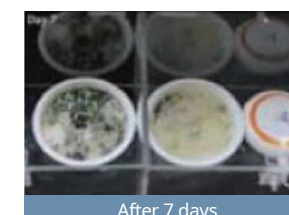
### Cigarette smoke removal test



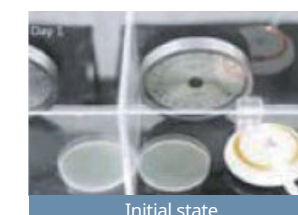
### Fungi comparison test



### Fungi comparison test



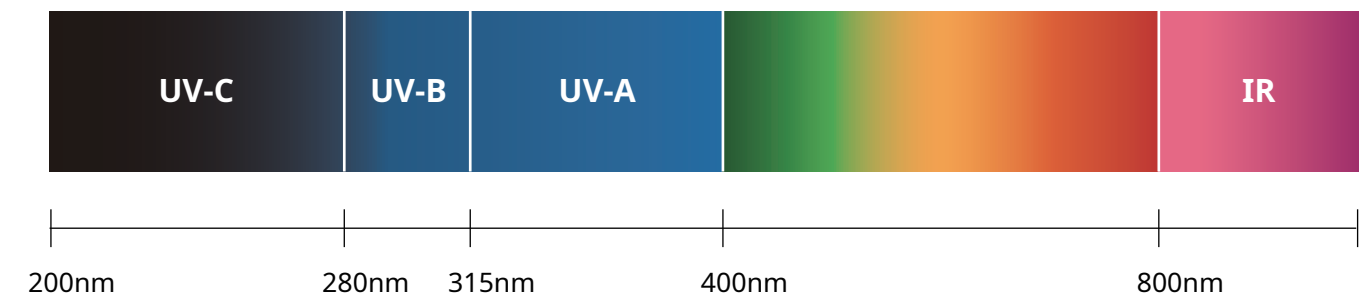
### E-coli culture test



## Plasma Test Report

	Contamination Source	Effect	Verified by
Anti-viral	Influenza A virus (H1N1)	99.2% removal	Kitasato Univ. (Japan)
	Feline calicivirus	97.2% removal	
	H5N1 Influenza A subtype	99.9% removal	Microbiotest (USA)
	H7N9 Avian Influenza	99.9% removal	
	Human coronavirus * Similar to SARS & MERS	99.9% removal	
	Zika virus	99.9% removal	
Anti-bacterial	E-coli	99.8% removal	Korea Conformity Laboratories (KCL)
	Bacillus pyocyaneu	99.8% removal	
	Staphylococcus aureus	99.9% removal	
Anti-odor	Ammonia (NH3)	100% removal	
	Toluene	100% removal	
	Benzine	100% removal	
	Formaldehyde	100% removal	
	Sulfur dioxide	99.5% removal	
	Nitrogen oxide	99.5% removal	
Completeness	Level of ozone generation	Under recommended indoor standards	Korea Institute of Machinery and Materials (KIMM)
	Inhalation toxicity	Safe (Test animals analyzed after inhaling for 4 weeks)	ChemOn Non-Clinical Research Institute

## UV LED Sterile Field



### Industrial

Sterilization	UV curing (Hardening / exposure / adherence)	<div>UV-A</div> <div>UV-C</div>	<div>Curing machine, exposure machine, large printer</div> <div>Industrial water treatment</div>
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### Domestic

Water cleaning, purification	Photocatalytic sterilization	<div>UV-A</div> <div>UV-C</div>	<div>Refrigerators, air-conditioners</div> <div>Water purifiers, humidifiers</div>
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### Medical / sensor

Sensor	Tanning	<div>UV-A</div> <div>UV-B</div> <div>UV-C</div>	<div>Tanning machines</div> <div>Skin disease treatment (vitiligo, psoriasis, atopic dermatitis)</div> <div>Exhaust gas sensor</div>
Analytical equipment			

### Plasma Specification

Sortation	Content
Input voltage	12V
Current consumption	28mA
Power consumption	0.4W
Output power	~5.5KW
Ionic generation	(+) Ion > 1million/cc, (-) Ion > 1million/cc
Ozone generation	0.002ppm (Indoor Recommendation Standards 0.06ppm/cc)
Manufacturing country	Made in Korea

### UV LED Specification

Sortation	Content
Input voltage	12V
Current consumption	40mA
Power consumption	0.48W
Wavelength	280nm
Uminous intensity	400mcd
Manufacturing country	Made in Korea



Front - O Type hood



Front - L Type hood



Front - Aluminum hood



Front - Remote control



Back side - Hood holder



Back side - Excluded hood holder





O Type hood



L Type hood(opt)



Aluminum hood(opt)



Control - power off



Control - power on



Free arm 3 joint



Hood holder

## Smoke Evacuator : DS-3000E

DS-3000E is the mobile remote control series.



- Model no : DS-3000E
- Dimensions(exclude handle) : 270mm(W) x 287mm(D) x 710mm(H)
- Power supply : single phase 110V~120V / 220V~230V / 50/60Hz
- Output power(W) : 1,200W(110V), 1,200W(220V)
- Electrical current(A) : 220V 6A / 110V 15A
- Air flow : 3.9m<sup>3</sup>/min
- Air pressure : 3.0Kpa(Ø40) / 10Kpa(Ø25) / 22.5Kpa(Ø10)
- Filter : 1st filter (Medium dust filter)  
2nd filter (Super bio hepa & ulpa filter) 99.97~99.995%  
3rd filter (Air filter)
- Noise level : approx. 49~65db
- Arm size : 1,600mm
- Arm weight : approx. 1.2kg
- Weight(exclude arm) : approx. 27kg
- Control mode : Step 1~12, Prep mode(1~6), Polishing mode(1~12), filter cleaning mode(250T)
- Basic components : Free - 100 mini body, 3 joint free arm, power cord, O Type hood, 1st spare filter
- Accessories : Aluminum hood, L Type hood, Hood holder, Plasma ionizer, UV LED lamp
- Remarks

*Please check the product information before using the electricity in your area. Specifications are subject to change without notice.*