

OTS-3000⁺ Mobile Station

G6

Electrostatic Disinfection



Features

- *Improve Disinfection Quality*
- *Reduce Coronavirus live on plastic and Stainless steel surfaces*
- *Reduce Cross Infection*
- *High Transfer Efficiency – Saving Disinfectants*
- *High Atomized Nozzles – 4 types (optional)*
- *Easy Handle for Long Term Operation*
- *Adjustable Electrostatic power output (0 ~ 70 KV) (+)(-)*
- *Adjustable droplet size from 6 ~ 120 μ*
- *Long Life Operation*
- *Low Failure Rate and Easy Maintenance*
- *Light Weight Gun – 470g Only (no need load 10 ~30 kg backpack and 2 kg sprayer)*

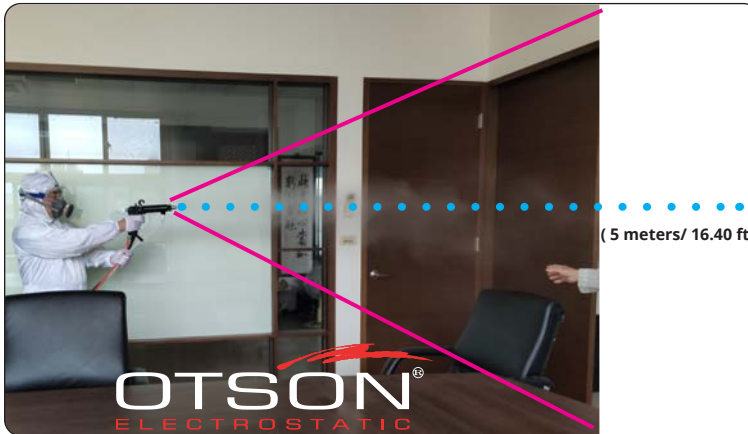


Overview

OTS-3000+ Manual Liquid Electrostatic Sprayer-Disinfection-G6 contains the required standard equipment such as an air regulating valve, electrostatic power supply, electrostatic spray gun and Round (TIN) nozzle, one set each (Round (FRP) and Flat (FRP) nozzle are available for the customer's option). The above-said electrostatic sprayer in conjunction with the disinfectants tank, double diaphragm pump, air dryer and air compressor forms one complete set of manual liquid electrostatic spraying equipment for improving disinfection quality and transfer efficiency.



Disinfection *Electrostatic* Sprayer



Electrostatic Sprayer- Positivity ion /Disinfectant Output

These spiral effect reduces disinfectant-particle velocity. Therefore the disinfectant will be atomized. The technique involves applying a charge, usually positive to the disinfectant material as it is atomized. The positivity charged spray droplets are attracted to any surface; if the object is no earthed, the positivity charged droplets are attracted preferentially to it. Electrostatic spraying exploits the electromagnetic field that arises between two bodies that possess different electrical charges. This field can be demonstrated by field lines (see illustration), where "A" represents the positivity-charged sprayer, and "B" the negativity charged item that is to be sprayed. Disinfectant particles are charged in the sprayer and therefore strive to follow the electromagnetic field lines to the item that is to be covered. The electromagnetic field creates a "wraparound" effect. Consequently, even the sections hidden from the sprayer get coated.

OTSON
ELECTROSTATIC

OTS-3000⁺ G6

Second Stage - Atomization by Electrostatic

First Stage - Atomization by OTSON Nozzle

Adjustable droplet size from 6 ~ 120 μm

Disinfection

Electrostatic Sprayer

+ 0~70KV DC (+)

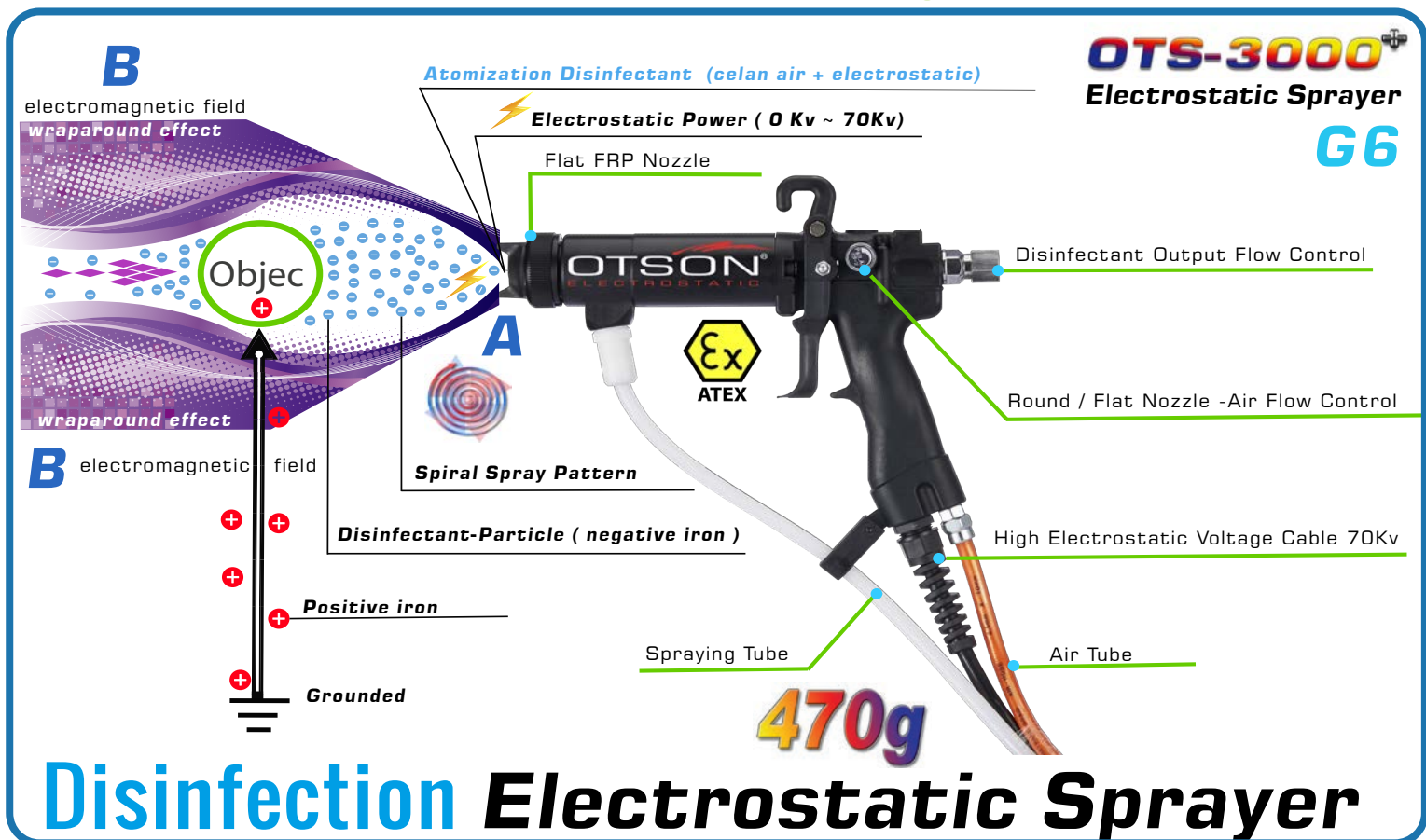
The advertisement features a central photograph of a red cylindrical sprayer unit on a black plastic stool. To the left, a diagram shows numerous red circles with a '+' sign, representing positive charges, with red arrows pointing towards the sprayer. To the right, a detailed view of the black spray nozzle is shown, labeled 'OTSON ELECTROSTATIC'. It includes a yellow 'Ex ATEX' safety symbol and a blue '360°' rotation icon. A small inset image shows blue droplets of varying sizes. The text 'Disinfection' is written in large white letters at the bottom left of the photo, and 'Electrostatic Sprayer' is written in large blue letters at the bottom right. Below the nozzle image, the text '0~70KV DC (+)' is displayed in large black letters with a red '+' symbol to its left.

This "wraparound" effect is so powerful that, with some objects, disinfectant spray can be observed to 'wrap around'. In this way, the purpose of the electrostatic disinfectant is achieved which can offer transfer efficiency up to 95% and minimize the over spraying phenomenon obviously. OTSON is keeping research and developments in electrostatic equipment in last 38 years, the technologies of OTSON electrostatic can now also be used for waterborne / solvent disinfectants .

Electrostatic Sprayer- Negative ion /Disinfectant Output

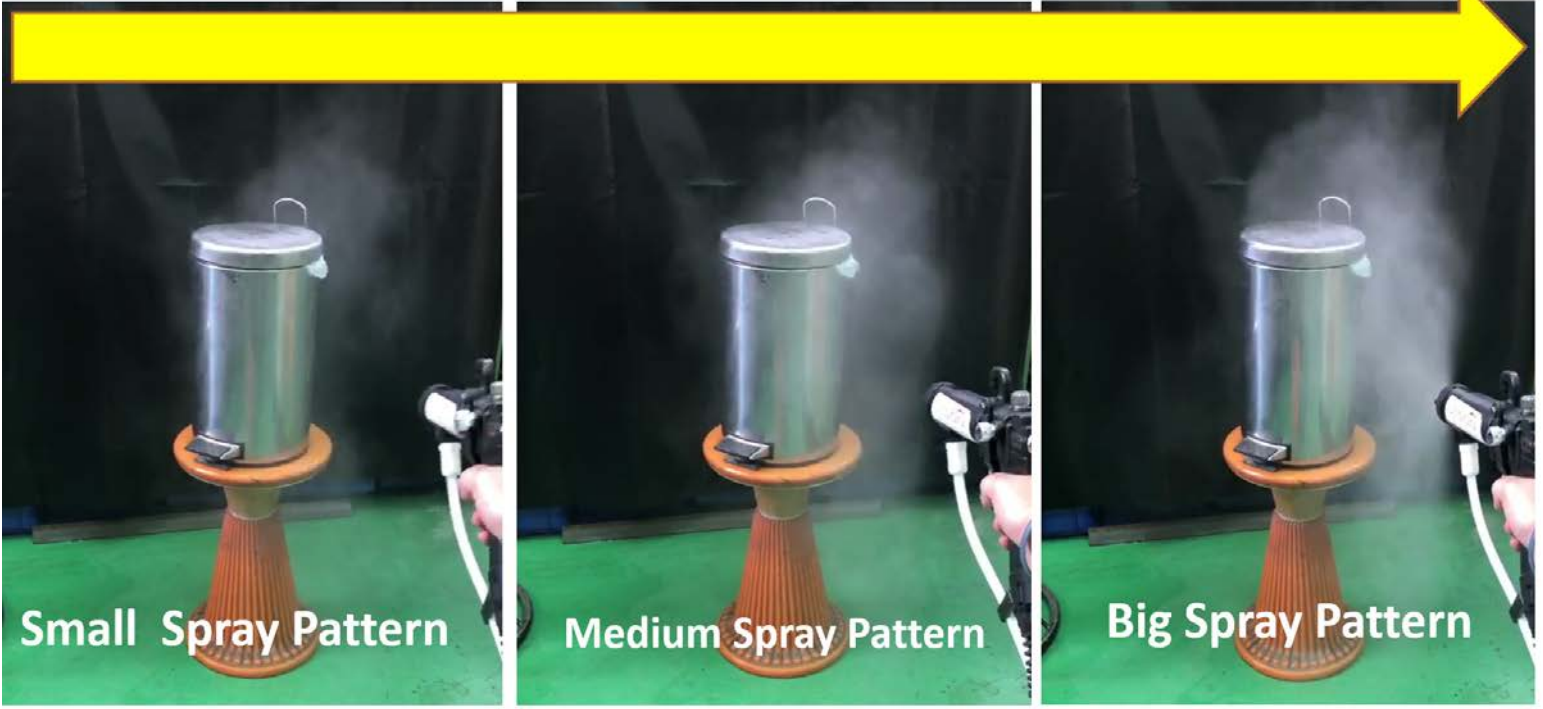
These spiral effect reduces disinfectant-particle velocity. Therefore the disinfectant will be atomized. The technique involves applying a charge, usually negative, to the disinfectant material as it is atomized. The negatively charged spray droplets are attracted to any earthed surface; if the object is earthed, the negatively charged droplets are attracted preferentially to it. Electrostatic spraying exploits the electromagnetic field that arises between two bodies that possess different electrical charges. This field can be demonstrated by field lines (see illustration), where "A" represents the negatively-charged sprayer, and "B" the positively charged item that is to be sprayed. Disinfectant particles are charged in the sprayer and therefore strive to follow the electromagnetic field lines to the item that is to be covered. The electromagnetic field creates a "wraparound" effect. Consequently, even the sections hidden from the sprayer get coated.

0~70KV DC (-)



Disinfection Electrostatic Sprayer

This "wraparound" effect is so powerful that, with some objects, disinfectant spray can be observed to 'wrap around'. In this way, the purpose of the electrostatic disinfectant is achieved which can offer transfer efficiency up to 95% and minimize the over spraying phenomenon obviously. OTSON is keeping research and developments in electrostatic equipment in last 38 years, the technologies of OTSON electrostatic can now also be used for waterborne / solvent disinfectants .



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OTS-3000+ G6
Second Stage Atomization by Electrostatic

First Stage Atomization by OTSON Nozzle

Adjustable droplet size from 6 ~ 120 μ

360°

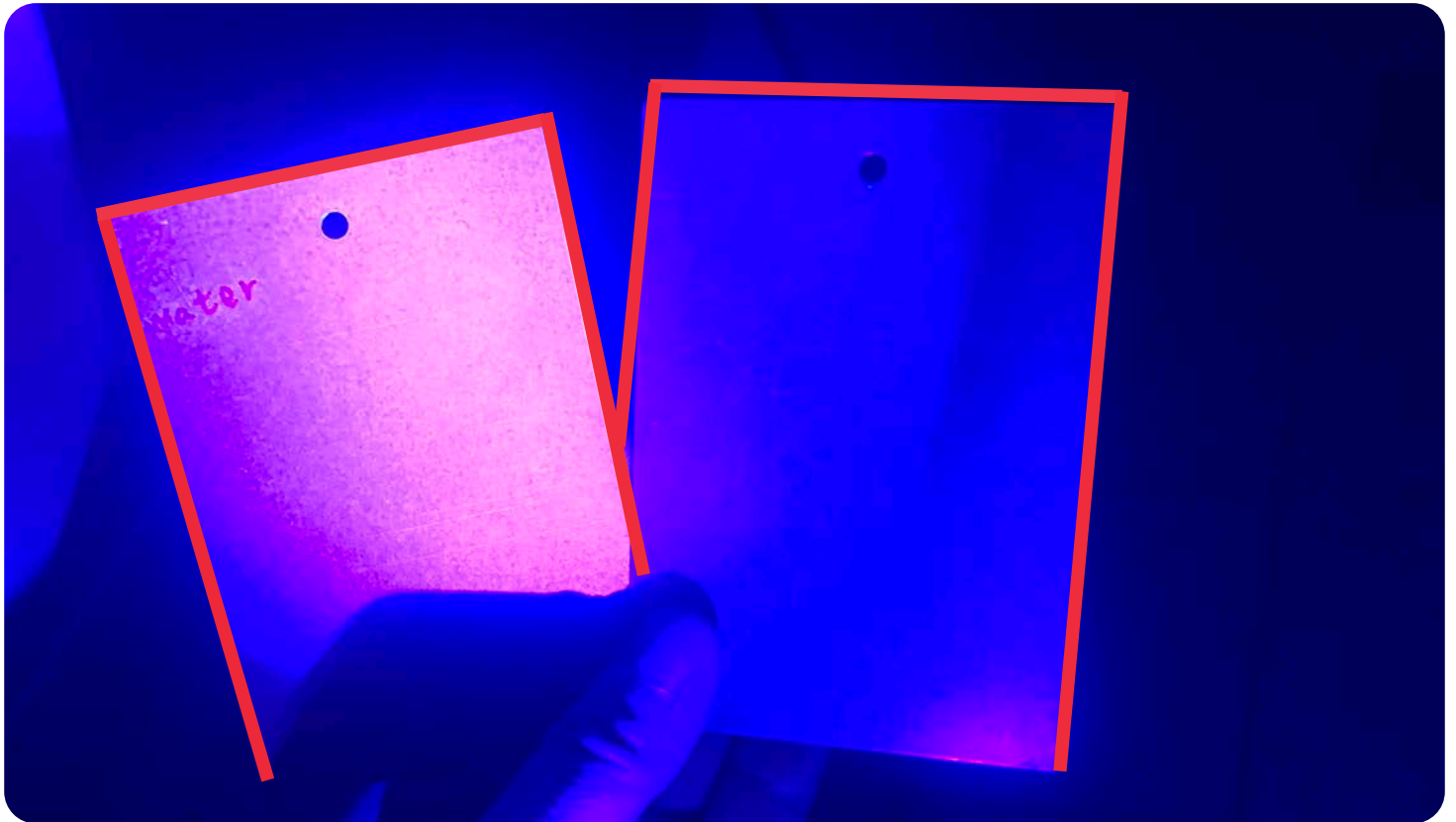
ATEX


Negative Ion

Disinfection

Electrostatic Sprayer

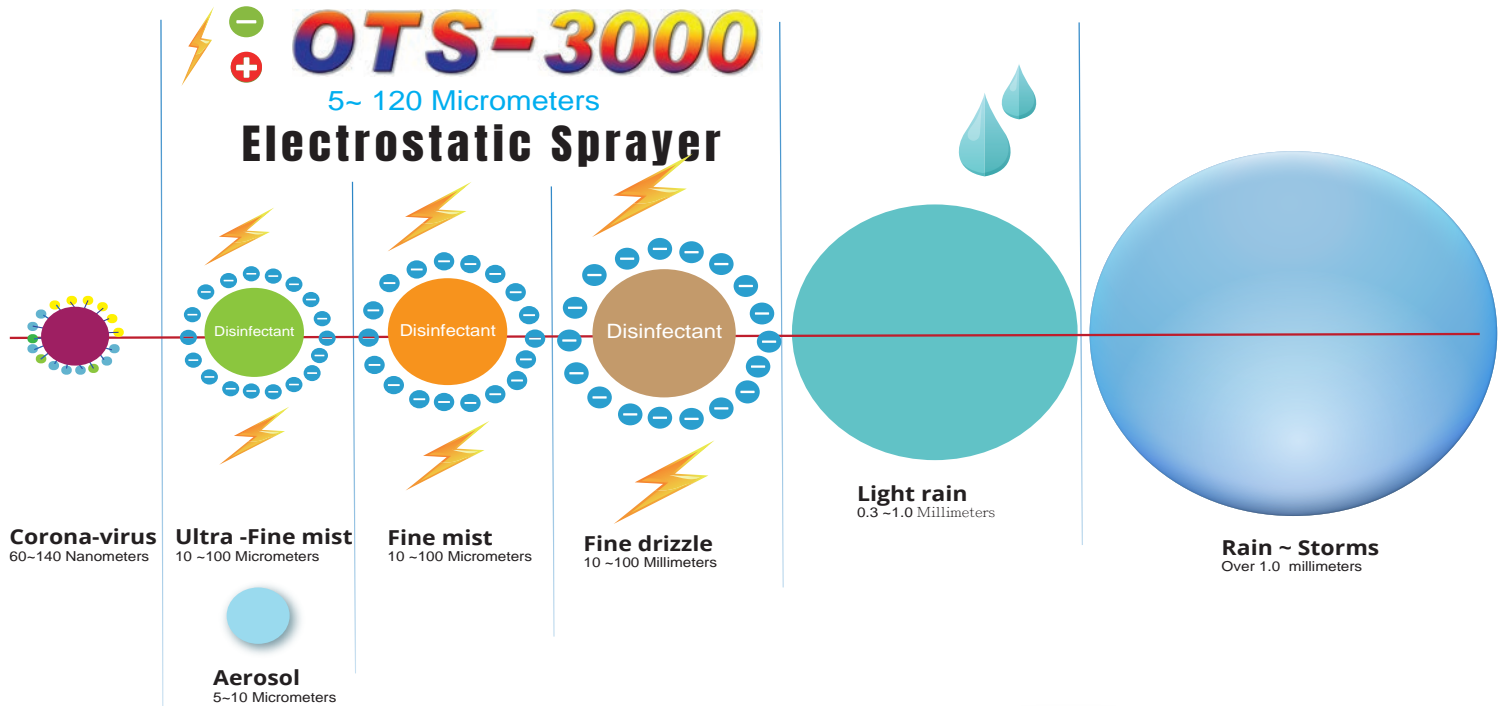
The diagram illustrates the electrostatic spraying process. It shows a hand holding the OTS-3000+ G6 sprayer nozzle, which is emitting a spray of fine droplets. The spray is shown to be attracted to a target surface (a stainless steel container) by electrostatic forces, represented by blue arrows and a red '+' sign. The target surface is also shown to be emitting negative ions, represented by blue '-' signs. The diagram highlights the two-stage atomization process: first stage atomization by the OTSON nozzle and second stage atomization by electrostatic forces. The adjustable droplet size is noted as 6 to 120 micrometers. The sprayer is also shown to have a 360-degree spray pattern and is ATEX certified.



Manual Liquid Electrostatic Sprayer- Disinfection Comparison Table	OTSON OTS-3000+ (G6)	ESxx	Axxx	Cxxx	ENxxx
Dual Spray (Waterbase and Solvent)	Yes	No	No	No	No
High Electrostatic Power (Adjustable)	0 ~ 70 KV DC (-)	0.6 ~ 1.2kv DC (-)	N/A	N/A	N/A
No overheat with air compressor	Yes	No	No	No	No
High-precision air filter	Yes	No	No	No	No
Easy and Low Maintenance	Yes	No	No	No	No
Easy Handle and Light Weight (470 g)	Yes	No	No	No	No
Different Nozzle Type (4 kind of nozzles) optional	Yes	No	No	No	No
ATEX , CE ,FCC certification approve	Yes	No	No	No	No
High Atomization and Transfer Efficiency	Excellent (6 ~ 120 micron)	Normal (40 micron)	Normal (40 micron)	Normal (40 micron)	Normal (40 micron)
Adjustable Spray Pattern	Excellent	Normal	Normal	Normal	Normal
Disinfectant Saving	Excellent	Normal	Normal	Normal	Normal
Large Disinfectant Tank	0 ~ 35 liters	11.3 liters	20 liters	7 liters	10~15 liters
Long HV , Spray tube , Air Cable	(5 ~ 40 Meters)	7.62 meters	5 meters	2.13 meters	5 meters
High Spray Distance and Area	Yes	No	No	No	No
Stock Available	Yes	N/A	N/A	N/A	N/A
Adjustable spray pressure , air pressure and flow rate on sprayer	Yes	Yes	Yes	Yes	Yes
Certification	CE,FCC,ATEX 	CE	NO	NO	NO

Classification of Spray Droplet/Particle Size

5 Micrometers 10 Micrometers 100 Micrometers 300 Micrometers 1000 Micrometers



Key Features



Effective Disinfection



360 Degree Spray



Light Weight Electrostatic
Sprayer



Save Cost and
Disinfectant



Micro Drople Size



Electrostatic Voltage /
Current



Electrostatic Power



Multitype Nozzles

Adjustable Electrostatic (0 ~ 70 KV) (+)(-) DC



Comparison of Disinfection Equipment

The method of Cleaning and Disinfection

Coverage Results of Transfer Efficiency

Car Sprayer



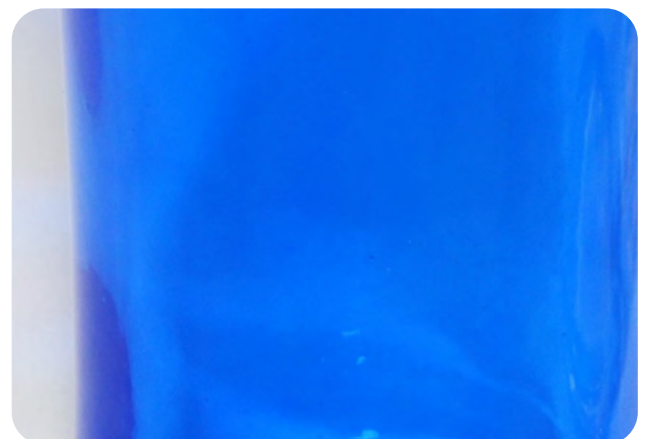
Sprayer



Disinfection Sprayer

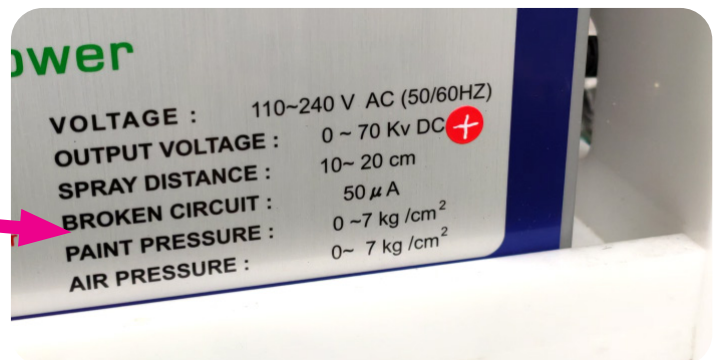


OTS-3000 Liquid Electrostatic Sprayer





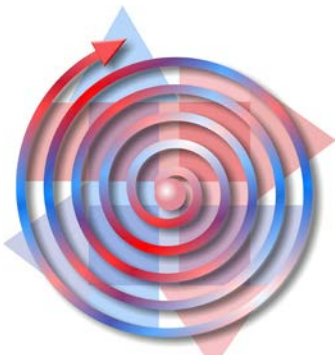
- ⊖ 0~70KV DC (-)
- ⊕ 0~70KV DC (+)



Features

- 0~70KV DC (-)
- + 0~70KV DC (+)

- Improve Disinfection Quality
- Reduce Air and Water Pollutions
- High Transfer Efficiency
- High Atomized Nozzle
- Easy Handle for Long Term Operation
- Long Life Operation
- Low VOC Emissions
- Low Failure Rate and Easy Maintenance
- Light Weight Gun- *470g Only*



The Spray Direction of High Atomized Nozzle



Round Tin Nozzle(A)



Round Tin Nozzle(B)



Round (FRP) Nozzle



Flat (FRP) Nozzle

New Round Nozzles - All in One



- 0~70KV DC (-)
- + 0~70KV DC (+)

1

Small Spray
Round Pattern



2

Medium Spray
Round Pattern



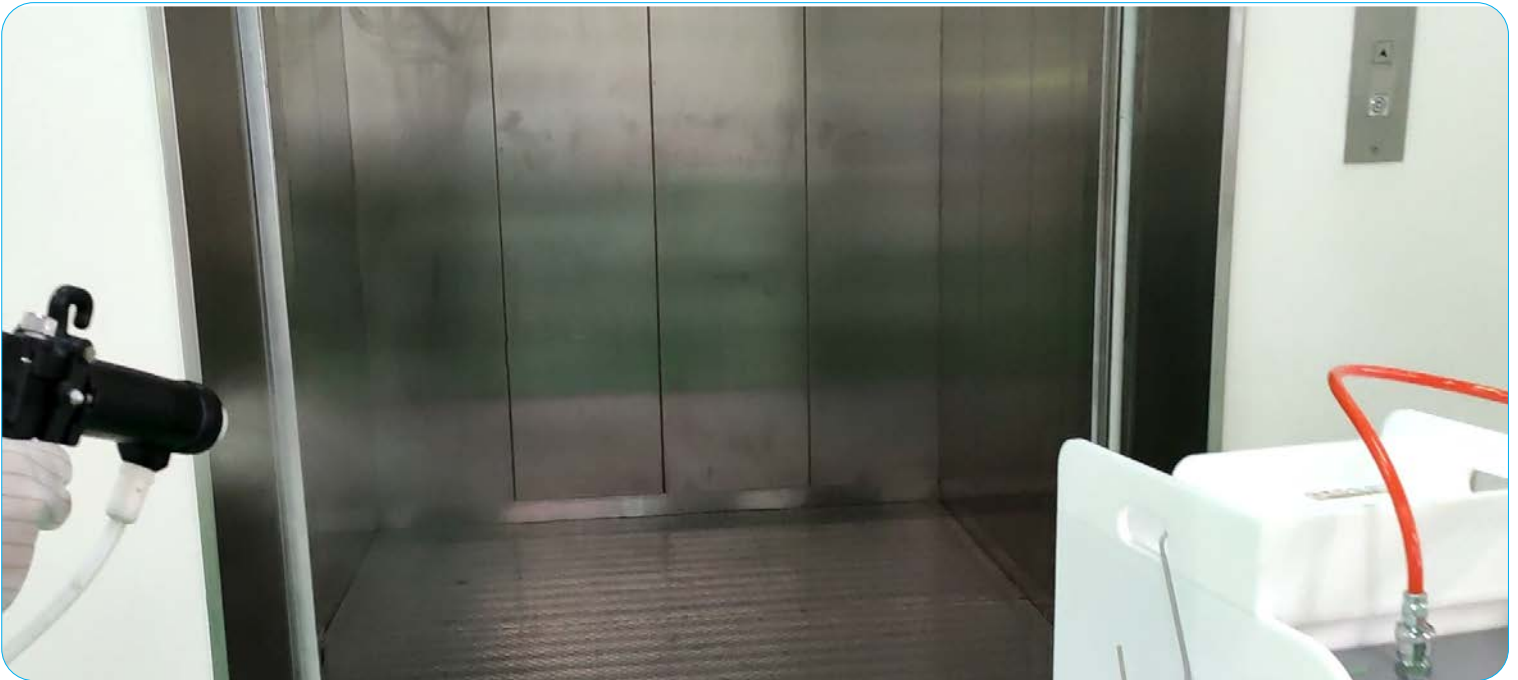
3

Large Spray
Round Pattern

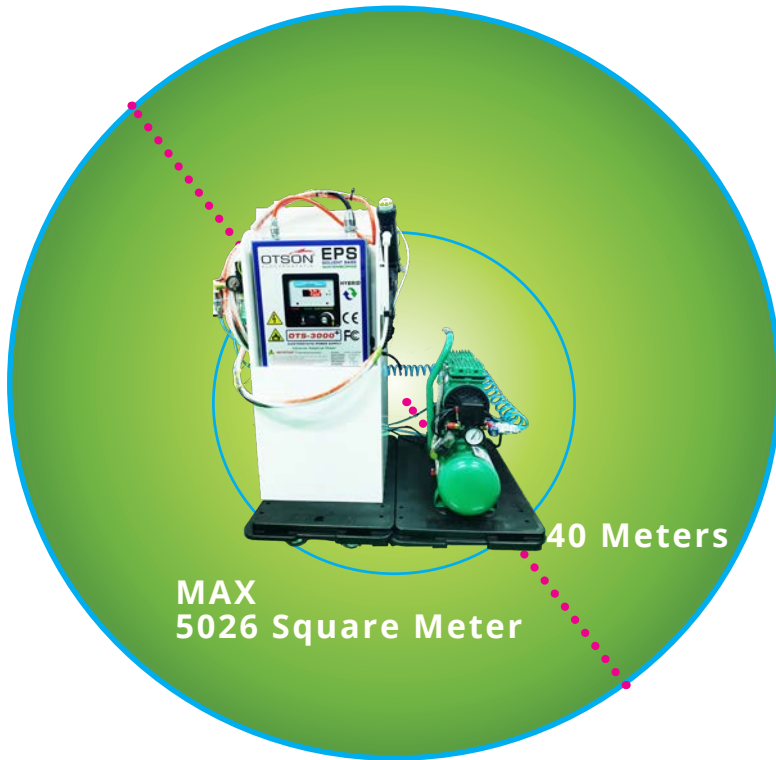


High Atomization Nozzle

- ⊖ 0~70KV DC (-)
- ⊕ 0~70KV DC (+)



Effective Disinfection

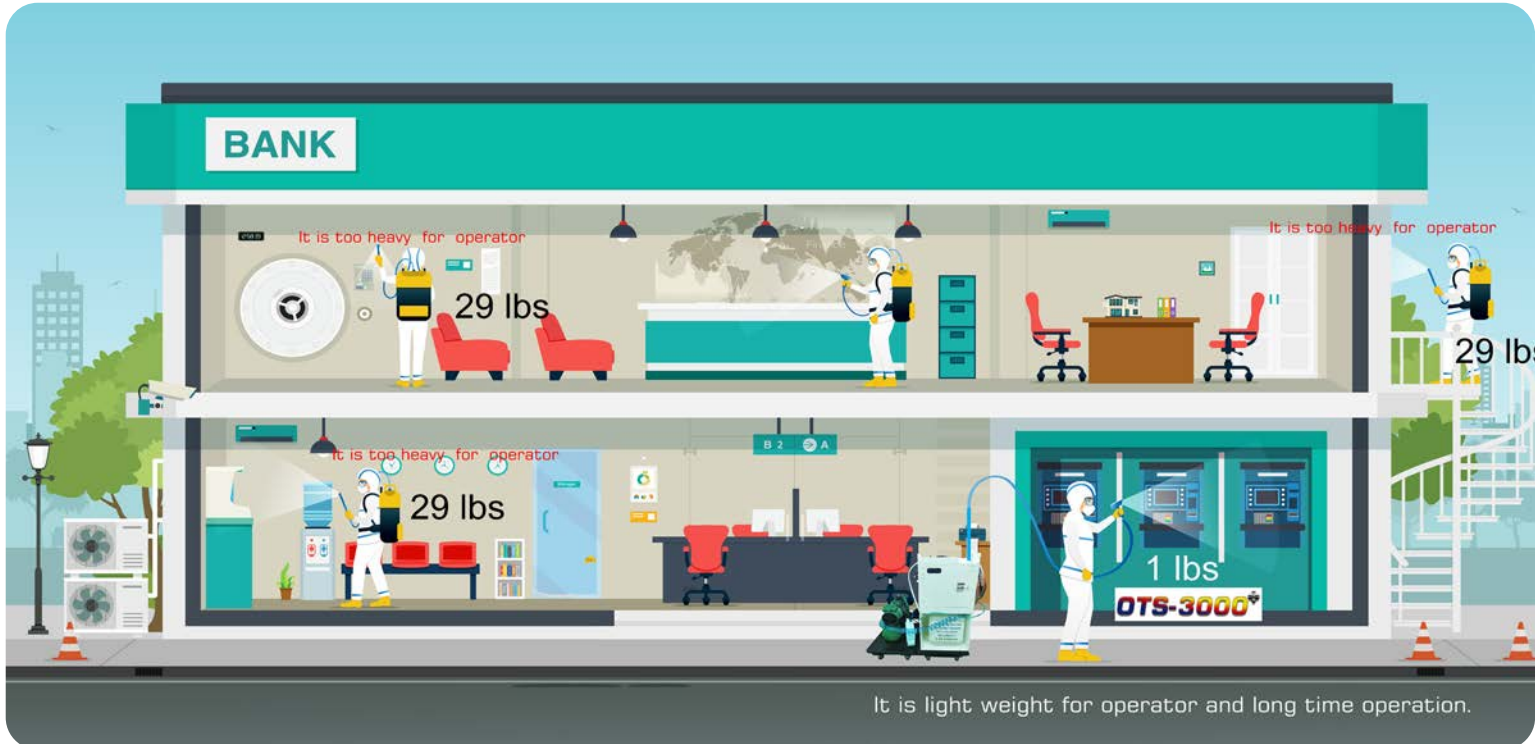


- 0~70KV DC (-)
- + 0~70KV DC (+)

Disinfection Area



- Air compressor and disinfectant can separate
- Reduce backpack Load of operator



Disinfectant Consumption : 1 gallon = 3.78 liters

1 Hour: 796.31 m² (8571.42 ft²)

Flow Rate : 3.78 liters / 60 min= 0.063 liters x 1000 = 63 cc /min (2.13 ounce /min)

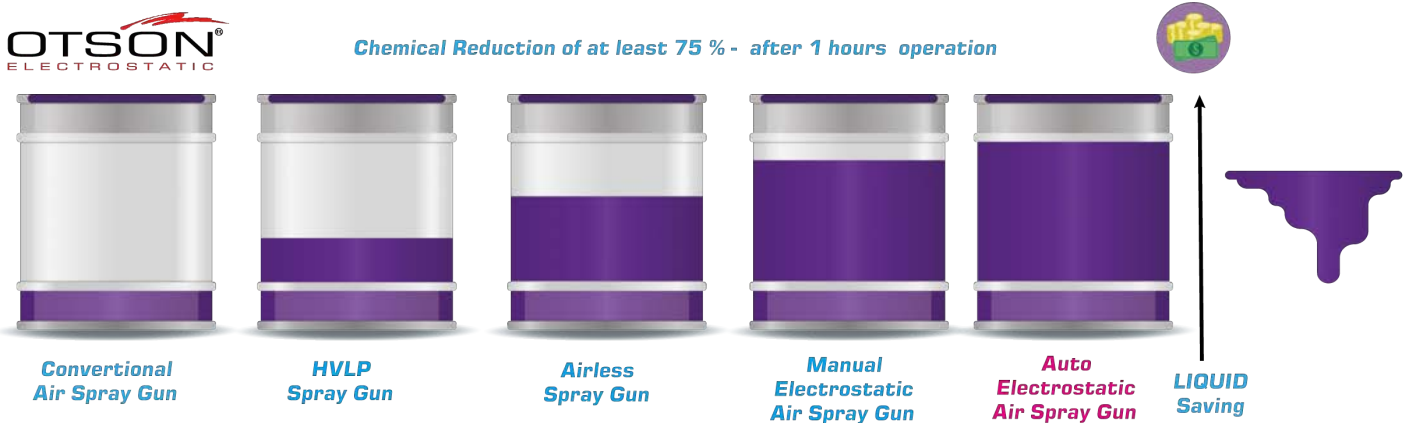
Coverage : 796.31 m² / 60 min = 13.27 m² / min (142.83 ft²/ min)



Benefits of Electrostatic Spray Technology

- Improve Disinfection Quality
- Reduce Manpower
- Time Savings
- Reduce Disinfectant Wastage
- Reduce Infection Rate from Virus

Reduce Disinfectants Costs

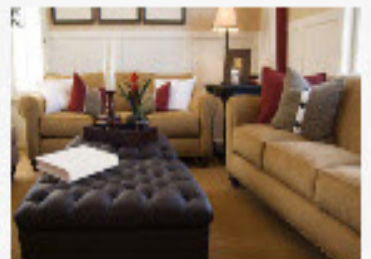
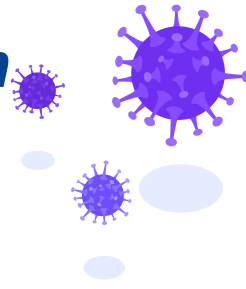


Return-on-Investment (ROI)

By replacing Conventional Air Sprayer with Auto Electrostatic Spray Bell System

	Typical	Calculate Your Own Application
Disinfectant price per litre	USD 10	
	X	X
Litre Used per Day	100 litres	
	X	X
Business Days per Year	220 days	
Electrostatic Transfer Efficiency	95%	
Annual Savings	USD 209,000.00	

Applications- Virus Disinfection




Transformer 1

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OTS-3000⁺ G6

Disinfection -Electrostatic Spray-Manual Liquid Electrostatic Spray System **G6**

H: 835 mm / 32.87 inch  0~70KV DC (-)

Air Filter (Stage 2) for Electrostatic Sprayer  0~70KV DC (+)



Disinfection -Electrostatic Sprayer

Electrostatic Power Supply

Air Powered Double Diaphragm Pump

High-strength Handcart

*Disinfectant tank (20 liters / 5.28 Gallons)

*Air Filter (Stage 1) for Air Compressor

*High quality Air Compressor

1.5 hp ~ 10 hp
3 ~ 30 Gallons / 11 ~ 111 Liters Tank
100 PSI ~ 175 PSI



L: 600 mm / 23.62 inch

Transformer

Polypropylene Dolly- Max 200 kg / 400 lb Capacity x 2 pcs

W: 910 mm / 35.82 inch

8 x Wheels -Easy Move

Note: OTSON does not offer an air compressor, disinfection tank, and stage 1 air filter, the customer can buy from the local distributor or online store. It will help the customer get secure service and spare parts of air compressor and filter.

Transformer 2



OTS-3000⁺ G6

Air Filter (Stage 2) for Electrostatic Sprayer

H: 835 mm / 32.87 inch



*High quality Air Compressor
1.5 hp ~ 10 hp
3 ~ 30 Gallons / 11 ~ 111 Liters Tank
100 PSI ~ 175 PSI

Disinfection -Electrostatic Sprayer

Electrostatic Power Supply

Air Powered Double Diaphragm Pump

High-strength Handcart

*Disinfectant Tank (20 liters / 5.28 Gallons)

*Air Filter (Stage 1) for Air Compressor

L: 1200 mm / 47.24 inch

Transformer

Polypropylene Dolly- Max 200 kg / 400 lb Capacity x 2 pcs

8 x Wheels -Easy Move

W: 405 mm / 15.94 inch

⊖ 0~70KV DC (-)

⊕ 0~70KV DC (+)



**Disinfection -Electrostatic Spray-Manual
Liquid Electrostatic Spray System G6**

Note: OTSON does not offer an air compressor, disinfection tank, and stage 1 air filter, the customer can buy from the local distributor or online store. It will help the customer get secure service and spare parts of air compressor and filter.

Specification

Electrostatic Sprayer

Input Voltage	0~70KV DC(+)(-)
Gun Length	225 mm / 8.85 in
Gun Weight *(no nozzle , hv cable ,spraying tube and air tube)	470 g / 16.57 oz
Fluid and Air Pressure	0 ~ 7 kg/cm ² (6.86 bar) (0~100) psi
Operating Pressure	Air Supply
Disinfectants	Solvent-base & Waterborne Disinfectants



Electrostatic Power Supply

Out Voltage	0~70KV DC(+)(-)
Out Current	50 microamperes
Input Voltage	110 V~240 V AC (50/60 Hz)
Intercepting current	20~150 microamperes
Weight	12 kg/ 26.46 lb
Dimensions	300 (L) x 120 (W) x 350 (H) mm



Round (TIN) Nozzle - Type A

Gauge :	12 mm
Atomization air pressure :	4 ~ 6 Bar
Flow Rate :	20 ~ 300 ml/min
Fan pattern width :	40 ~150 mm
Air :	180 NI / min



Round (TIN) Nozzle - Type B

Gauge :	22 mm
Atomization air pressure :	4 ~ 6 Bar
Flow Rate :	20 ~ 300 ml/min
Fan pattern width :	70 mm
Air :	180 NI / min



Round (FRP) Nozzle

Gauge :	12 mm
Atomization air pressure :	4 ~ 6 Bar
Flow Rate :	50 ~ 300 ml/min
Fan pattern width :	160 mm
Air :	180 NI / min



Flat (FRP) Nozzle

Gauge :	3 mm
Atomization air pressure :	4 ~ 6 Bar
Flow Rate :	100 ~ 400 ml/min
Fan pattern width :	300 mm
Air :	180 NI / min



Specification

Air Powered Double Diaphragm Pump

	Material	Temperature Range
Diaphragm	Teflon	-60° to +180°C
Liquid inlet& outlet	1/2" PT(BSP)	
Air Inlet	1/4" PT(BSP)	
Air Outlet	1/4" PT(BSP)	
Lowest pressure	0.8 Bar (kgf / cm ²); 11.6 psi	
Max Pressure	7.0 Bar (kgf / cm ²); 101.5 psi	
Working pressure Advised	1.5-5 Bar (kgf / cm ²); 21.75 psi ~ 72.5 psi	
Quantity /Cycle	120 ml	
Solid Limit	2 mm	
Air Consumption	360 Liters / Per Min.; 12. 71 Scfm / Per Min	
Inlet Lift (deep)	6 Meters - Wet ; 3.7 Meters -Dry	
Assemble Size	29(L) cm x 20(W) cm x 30(H) cm	
Max Flow rate	11.08 Gallons /Per Min.; 42 Liters /Per Min.	

4 Kg / 8.82lb



High-strength Handcart

Material	FRP
Weight	18 kg / 39.68 lb
Dimensions	(L) 600 mm / 23.62 inch x (W) 360mm / 14.17 inch x (H)850 mm / 33.46 inch



OTS-3000 + Manual Liquid Electrostatic Sprayer- Disinfection Demo Kit



Ordering Information

Model	Manual Sprayer	Electrostatic Power Supply	Round FRP Nozzle (A) (B)	Round TIN Nozzle	Flat FRP Nozzle	High Voltage Cable (5.0 m / 16.40 ft) Teflon Spraying Tube (6.0 m / 19.68 ft) PU Air Tube (5.0 m / 16.40 ft)	High Voltage Cable (6.5 m / 21.325 ft) Teflon Spraying Tube (7.5 m / 24.60 ft) PU Air Tube (6.5 m / 21.325 ft)	High Voltage Cable (10.0 m / 32.80 ft) Teflon Spraying Tube (11.0 m / 36.08 ft) PU Air Tube (10.0 m / 32.80 ft)	Tool BOX
OTS-3000+-SF-G6	⊙	⊙	⊙			⊙			⊙
OTS-3000+-SF-A-G6	⊙	⊙	⊙				⊙		⊙
OTS-3000+-SF-B-G6	⊙	⊙	⊙					⊙	⊙
OTS-3000+-ST-G6	⊙	⊙		⊙		⊙			⊙
OTS-3000+-ST-A-G6	⊙	⊙		⊙			⊙		⊙
OTS-3000+-ST-B-G6	⊙	⊙						⊙	⊙
OTS-3000+-SL-G6	⊙	⊙			⊙	⊙			⊙
OTS-3000+-SL-A-G6	⊙	⊙			⊙		⊙		⊙
OTS-3000+-SL-B-G6	⊙	⊙			⊙			⊙	⊙
OTS-3000+-PTF-G6	⊙	⊙	⊙	⊙		⊙			⊙
OTS-3000+-PTF-A-G6	⊙	⊙	⊙	⊙			⊙		⊙
OTS-3000+-PTF-B-G6	⊙	⊙	⊙	⊙				⊙	⊙
OTS-3000+-PTL-G6	⊙	⊙		⊙	⊙	⊙			⊙
OTS-3000+-PTL-A-G6	⊙	⊙		⊙	⊙		⊙		⊙
OTS-3000+-PTL-B-G6	⊙	⊙		⊙	⊙			⊙	⊙
OTS-3000+-PFL-G6	⊙	⊙	⊙		⊙	⊙			⊙
OTS-3000+-PFL-A-G6	⊙	⊙	⊙		⊙		⊙		⊙
OTS-3000+-PFL-B-G6	⊙	⊙	⊙		⊙			⊙	⊙
OTS-3000+-GTFL-G6	⊙	⊙	⊙	⊙	⊙	⊙			⊙
OTS-3000+-GTFL-A-G6	⊙	⊙	⊙	⊙	⊙		⊙		⊙
OTS-3000+-GTFL-B-G6	⊙	⊙	⊙	⊙	⊙			⊙	⊙

Note:
OTSON does not offer an air compressor, disinfection tank, and stage 1 air filter, the customer can buy from the local distributor or online store. It will help the customer get secure service and spare parts of air compressor and filter.

Options

HV Cable ,Teflon Spraying Tube and Air Tube Lengths : 20M / 65.62ft , 30M / 98.43ft , 40m / 131.2ft



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