David Aqua System

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David Aqua System

K-SPACE MASTER

The best solution for Quarantine

www.davidaquasystem.com

Why do you want to continue the way with

Less than 50%

effectiveness?

What is the breakthrough in high cost and low efficiency?

“ 99.9% ”

effectiveness with unmanned system

Best option for the PUBLIC HEALTH SYSTEM

Spraying ultrafine particles at room temperature	Use of less chemical / maximize pesticide sterilization	Almost no residual drug	Minimize environmental pollutants
Sprayed in the form of ultra-fine particles that are smaller than air at room temperature without changing the fragility (4.3 ㎛ ~ 11 ㎛)	High control effect with 40 ~ 60% of chemical.	No damage to electronic equipment and interior documents (no stains and corrosion)	No soil / water pollution
If the particle size decreases to 1/10, the number of particles increases by 1000 times, and the surface area per volume increases by 100 times.	The smaller the particle size, the faster the air dilution and photolysis by sunlight. Time for the particle to fall 1 m 10 ㎛ / 20 minutes	The smaller the particle size, the greater the number of particles and surface area, which can increase the contact frequency.	Minimizing air pollution

- High Effect: 95~100%
- Saving Labor Cost: Upto 90%
- Very Less Chemical Remaining: 1/22 (Standard 3ppm) Eco friendly
- Chemical & Water Saving: Upto 60% Saving operational cost

Product Features_Details

Configuration	Characteristic	Content
Vaporize at room temperature	Low temperature boiling	· There is no weakening of drug or Chemical - It is not a vaporization method due to heat, so there is no change in fragility.
	Non-combustion method	· No oxidation pollutants and dioxin - SO2 participates in the breathing physiology of plants and breaks chlorophyll by penetrating into the pores and drainage holes of the leaves.
Ultrafine particle injection	Particles lighter than air (4.3 ㎛~11 ㎛)	· Chemical saving (40~60%) - When the particle size decreases to 1/10, the number of particles increases by 1000 times and the surface area increases by 100 times. - Because it floats in the air for a long time (diffusion / permeability), it can control pests and harmful bacteria.
	Very little chemical residue	· No food residues and plant damage (minimization) · No damage to electrical / electronic equipment and interior, documents, copy (cloth), and other objects - Conventional combustion (heating) method generates oxides, especially SO2 and SO3 corrode electronic products and metallic products.
		· No soil or water pollution - Minimizing air pollution
Reference		· Smoke machines (heated fumes) generate oxidizing pollutants and highly toxic dioxins - Smokers (combustion temperature 400-600) particles are 2-40, smokers (heating temperature 200-700) is about 2-6.

K-SPACE MASTER performance comparison

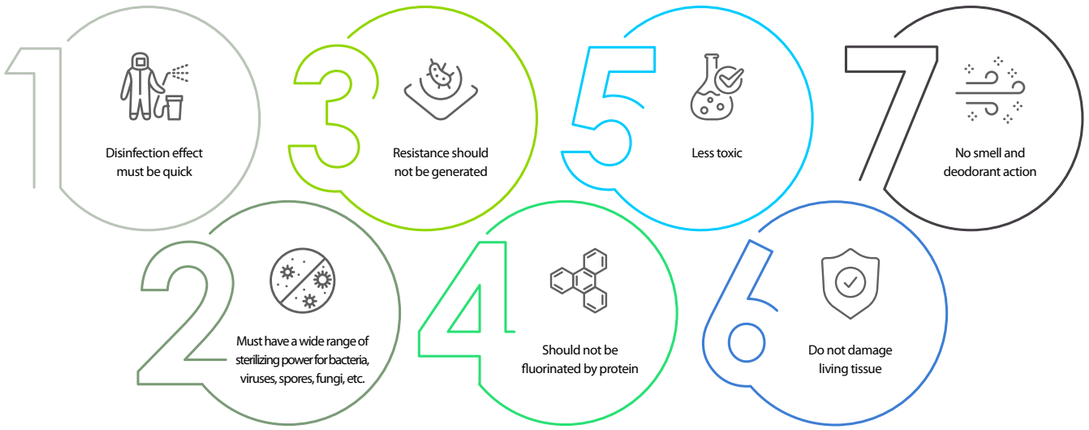
Spray equipment performance comparison		K-SPACE MASTER	Ultrafine atomizer(ULV)	Smoke / smoke
Technology	Spray method	Ultrafine atomization	Ultrafine spray	Heating (combustion) method
	Particle size	4.3 ㎛~11 ㎛	Aerosol 20 ㎛	Oxidizing gas (0.1~40 ㎛)
	Diffusivity & permeability	Light like air	Heavier than air	Heavier than air
Eco-Friendly	Residual	X	Big	small
	Vandalism	X	Slight damage	Slight damage
Effectiveness	Space sterilization power	99% sterilization	Normal	Almost none
	Insecticidal	Excellent (integrated Control)	Normal	Low (less than 20%)
	Time	Fast Control (1~2hrs)		4~12 hrs
Remark				Oxidative pollutants

Action and conditions of field control & quarantine

1. Disinfection	· How to kill pathogens but survive nonpathogenicity (chemicals, pasteurization, etc.)
2. Sterilization	· Pathogenicity, non-pathogenicity, and spore killing all microorganisms (flame, dry heat, high pressure steam, filtration, chemical sterilization, etc.)

1. Physical disinfection	· Heat (incineration, wet heat, dry heat), flame, ultraviolet light, radiation
2. Chemical disinfection	· Disinfectant
3. Physical and chemical disinfection	· Disinfectant and heat mixing

1. density	· Disinfectant is not necessarily effective because it has a high concentration, but the effect may be different depending on the type of disinfectant and the object to be applied.
2. Temperature	· In general, the sterilizing power is doubled when the temperature increases by 10 degrees, but chlorine, etc., decreases when the sterilizing power increases.
3. PH	· Effective for basic, neutral and acidic
4. Organic matter	· When organic substances such as blood are present, the sterilizing power decreases.
5. Antagonism	· Combination of anionic and cationic properties reduces sterilization power



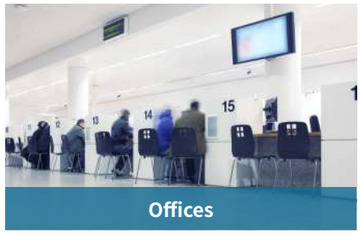
Spatial Quarantine Application Case


Hospital


Multi-use facility


School


Airport


Offices


Religious facilities

Government offices, auditoriums, conference rooms, hospitals, military units, ships, prisons, train stations, schools, wastewater treatment plants, multi-use facilities, indoor markets, warehouses, food processing facilities, large restaurants, etc.

Product line (General buildings, etc.)

	KSM-4	KSM-5
Product Image		
Size (mm)	480*450*720	1000*400*900
weight	40Kg	45Kg
Covering Space	~1200㎥	~2000㎥
Air compressor	Separated Potable 3.5 Hp	Separated Potable 5 Hp
Sprayed Capacity	4L/hr	5L/hr
Micro Particle Size	8 ㎛~11 ㎛	8 ㎛~11 ㎛

Field application examples of agricultural and livestock control systems


Mushroom house


Plastic house


Glass house


Greenhouse


Poultry farm


Food processing factory

Greenhouse and vinyl house, flower-linked house, barn, mushroom house, indoor zoo and botanical garden, nursery plant

Product line (Agriculture, Livestock)

	A-4	A-5	A-10	A-15
Product Image				
Size (mm)	1000*400*900	1000*400*900	1000*400*1200	1000*400*1500
weight	40Kg	45Kg	65Kg	70Kg
Covering Space	~1200㎥	~2000㎥	~13,000㎥	~20,000㎥
Air compressor	Separated Potable 3.5 Hp	Separated Potable 5 Hp	Separated Potable 10 Hp	Separated Potable 15 Hp
Sprayed Capacity	4L/hr	5L/hr	10L/hr	15L/hr
Micro Particle Size	8 ㎛~11 ㎛	8 ㎛~11 ㎛	4.3 ㎛~11 ㎛	4.3 ㎛~11 ㎛