











- Superior Chemical Delivery
- Provides 100% Surface Coverage
- Eliminates Cross Contamination

- Reaches Hidden Surfaces
- Labor Reducing Efficiency
- Guaranteed Return on Investment

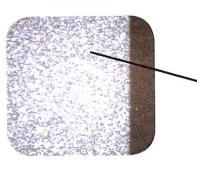
# We've Lot You Covered!

**ELECTROSTATIC SPRAY** 

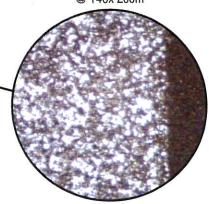
Blacklight reveals 100% coverage of ByoPlanet spray on hazmat suit



ByoPlanet Directional Spray @ 40x Zoom



ByoPlanet Directional Spray @ 140x Zoom



Blacklight reveals inconsistent spray on hazmat suit





Trigger Pump Spray @ 40x Zoom



Trigger Pump Spray

@ 140x Zoom



\*Area on right side of images are not sprayed intentionally as a reference location for the other views.

Side-by-side tile surface showing ByoPlanet's superior directional spray coverage vs. a traditional pump spray.







Strand of hair (40x) demonstrates the symmetrical "wrap-around" affect of electrostatic droplets





After conducting a lot of market research on disinfection and sanitization products - I can testify that ByoPlanet® International is the industry's leading innovator in a physics based science of Induction Charged Technology which is revolutionizing the way businesses and municipalities can now treat their sanitization. Their flagship product is an advanced chemical application sprayer that provide 100% coverage to any surface - including sensitive equipment and those hidden surfaces where pathogens linger to re-infect or morph into something even worse. We are incorporating this technology into almost every aspect of our day to day operation to improve the health and safety of our patients and personnel, reduce costs and improve productivity.

Thomas DiBernardo, Fire Chief Sunrise Fire Rescue, Florida



The superior technology behind ByoPlanet's Induction Charged Delivery Systems - provides a process for us to sanitize very large areas in short periods of time and ensure uniform distribution and application of the sanitizing chemicals reaching every touch point. It also provides a means for deploying a plan we feel is truly effective during regular maintenance, outbreak situations as well as post outbreak - to prevent recurrences.

Arthur L. Diskin, M.D., Vice President and Global Chief Medical Officer, Royal Caribbean Cruise Line

UNIVERSITY OF MIAMI MILLER SCHOOL of MEDICINE



Lt. Colonel Ron Bogue utilized ByoPlanet® electrostatic technology on the ground after the devastating Haiti earthquake of 2010. University of Miami teams treated their make-shift field hospitals with disinfectant and reported zero incidents of outbreak with no cross contamination. ByoPlanet® equipment has also been incorporated into their new Ebola emergency management protocols for total surface protection.



ByoPlanet® showed us a much better application because when you spray, you're not only using less product but it's actually being driven to and adhering to every crack and crevice to treat hidden surfaces. What used to take us hours to disinfect and deodorize, now takes just minutes. We're using ByoPlanet technology to improve our product and ultimately our profits by improving the health of the entire facility.

Ted Brozanski, Owner, Stokes Fish

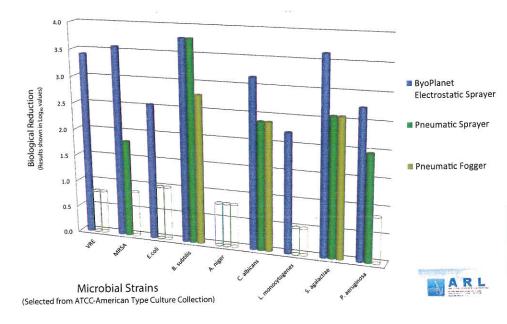


ByoPlanet® Electrostatic disinfection gives us the ability to treat every surface even in huge areas including sensitive equipment, without missing any environmental spots where infective agent can be hidden. The ability to replace mops, spray bottles and rags to increase the level and effectiveness of disinfection procedures and protocols in shipboard and terminal operation, guarantees a much higher level of protection suitable for today's evolving biological threats like Norovirus, Ebola (EVD) but also Influenza and Influenza like diseases. This technology allows ships to complete a full disinfection protocol in a more effective way by minimizing the possibility of human error during rapid turnaround days with zero cross over to the next voyage.

Mr. Mario Hrsak, Fleet Sanitation Officer, Carnival Cruise Line

# Directional Spray Deposition Data

# Soft Surface Biological Reduction Applicator Comparison



#### Target Type: Hospital Cubical Curtain -100% Polyester

Target Distance & Spray Motion: 4ft Away & 6ft Sweep Left/Right

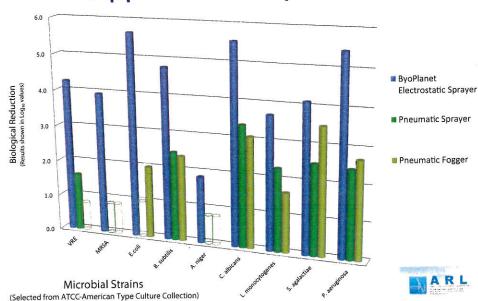
Solution Type: 5th Gen Ammonia Complex EPA Reg. No. 10324-117-58300

#### Summary:

In all studies, the ByoPlanet ES-120 Directional Spray System demonstrated significantly higher performance over both conventional application methods.



# Hard Surface Biological Reduction Applicator Comparison



Target Type:

Smooth Wall - Indoor Latex Painted

Target Distance & Spray Motion: 4ft Away & 6ft Sweep Left/Right

Solution Type:

5th Gen Ammonia Complex EPA Reg. No. 10324-117-58300

Summary:

In all studies, the ByoPlanet
ES-120 Directional Spray System
demonstrated significantly
higher performance over both
conventional application methods.



A hollow data column denotes a reduction level outside scope of interest

2014 - Analytical Resource Laboratories, Spanish Fork, UT 84660

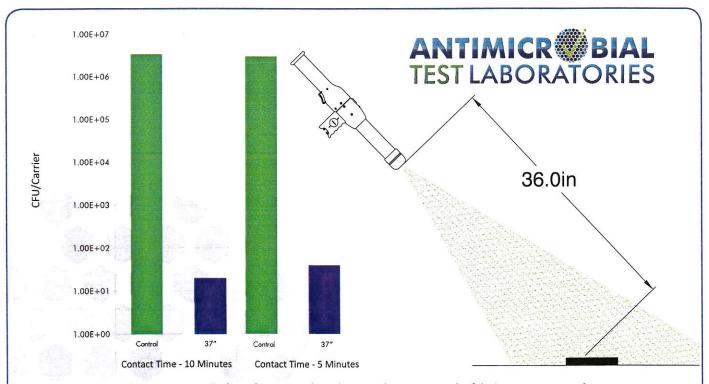
# Directional Spray Efficacy Data

## **Antimicrobial Test Laboratories**

### ByoPlanet's ES 120 Directional Sprayer

#### 4 Second Spray Motion

Test Microorganism	Test Substance	4 Second Spray Motion Volume	Contact Time	Carrier Distance	CFU/Carrier	Percent Reduction vs. Control	Log <sub>10</sub> Reduction vs Control
S. aureus ATCC 6538	Calla1452	~6mL	10 Minute Control		3.45E+06	N/A	
			10 Minutes	37 inches	2.00E+01	99.9994%	5.24
			5 Minute Control		3.05E+06	N/A	
			5 Minutes	37 inches	4.00E+01	99.9987%	4.88



Note: Carriers were indirectly sprayed and passed over a total of 1 time per second.

Test carriers were placed at a distance of 37 inches from sprayer nozzle for a spray time of 4 seconds followed by contact times of 5 and 10 minutes. Each pass was approximately 1 second. Pass is defined as a sweeping motion spanning 55° as shown on the right in the diagram above.

Green light was illuminated during each spray treatment. Spray application was such that no carrier was exposed to full volume of spray, but target carriers were sufficiently covered in test substance at all distances. All carriers were visibly dry ~1 minute after treatment and minimal test substance was observed outside of target area.

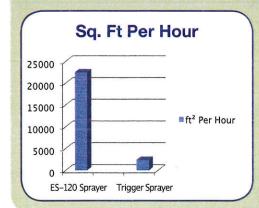
www.AntimicrobialTestLabs.com - Info@AntimicrobialTestLabs.com - (512) 310-8378

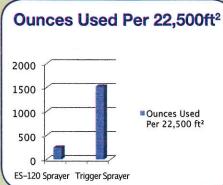




# **ByoPlanet® Directional Spray Delivery Systems**

Covers More Area • Reaches Hidden Spaces • Reduces Labor Chemical Neutral Flexibility • Improves Outcomes • Eliminates Cross Contamination





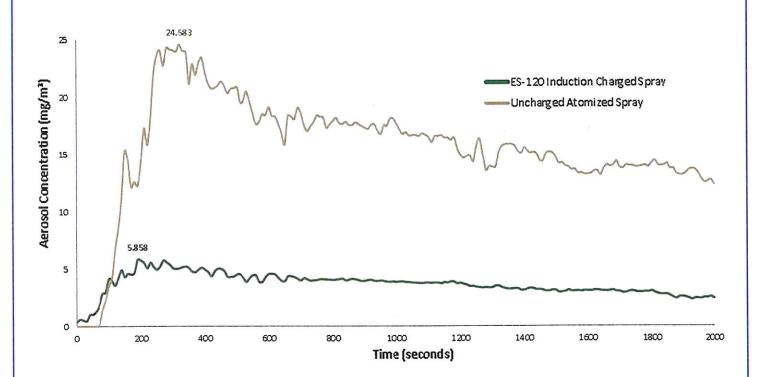




# Lingering Aerosols Comparison

**Induction Charged Spray vs. Uncharged Spray** 

## A View of Lingering Aerosol Dissipation 30 Minutes After Treatment



In this study, a 10' X 10' space was treated with a Chlorine Dioxide based disinfectant by identical treatment approaches. Aerosol samples were recorded every 10 seconds over a 30 minute period and compared above. The results of the ByoPlanet® process are clearly illustrated by an impressive 4 fold advantage from the induction charged forces. This shows spray is depositing on the targets in the environment and not left to linger in the air.







ByoPlanet's revolutionary application process enables you to penetrate 100% of all exposed and hidden surface areas while eliminating the risk of cross contamination. Our patented "Powder Coating" technology charges the liquid – driving it to the surface - literally wrapping around every touch point and is safe to use around sensitive equipment. The innovation and science behind ByoPlanet® provides you the most effective directional spray delivery solution to help reduce your environmental footprint, improve outcomes and positively impact your bottom line.

## ES-120 Directional Sprayer™



Each of our patented units produce electrically charged droplets which wrap around germ infested areas, penetrating deep into cracks and crevices where hidden pathogens linger. At the top of the evolutionary ladder in electrostatics, these directional sprayers are low maintenance. easy to use and highly effective for providing 100% surface coverage. Can be used with a broad range of EPA approved products.

#### **Specifications**

- · Durable-high impact resistant plastic
- · Tamper proof design
- Simple and highly reliable
- Minimal maintenance
- Easily transfers between mobile BP-500 and CS-900 units
- Trigger lock allows for continuous spray
- LED light illuminates during charge assures functionality
- Precision factory tuned spray head
- Moisture sealed battery compartment
- Battery conservation feature using highest mAh lithium battery cells
- · 90 Degree Swivel Head Option

#### **BP-500**™



The BP-500™ Series was engineered for maximum mobility and efficiency. It is lightweight, durable, and easy to operate and maintain. It has been heavily field tested and proves incredibly effective for all varieties of disinfection. This unit is ideal for decontamination, mold remediation and odor removal. Currently used by our affiliates, first responders, professional sports teams, car dealerships and child care facilities. Can be used with a broad range of EPA approved products.

#### Specifications

Hose Length

6 ft

Weight full

28 lbs

Tank holds

2,360ml (.63 Gal)

Flow Rate

118ml/min (3.72 oz/min)

Droplet size

30-50 microns

Spray Range

6 - 10 ft

· Run time/tank

22 minutes (Continuous)

Coverage per min.

395 sq ft

Coverage per tank

11,250 sq ft

**CS-900™** 



The CS-900™ Series was engineered for maximum efficiency and maneuverability. It is durable and perfectly suited for higher volume directional spray delivery. It is used for decontamination, mold remediation and odor removal in medium to large scale facilities and requires a minimum amount of maintenance. It has non marking wheels for easy transport and storage. Currently used by BSC's, professional sports teams, cruise lines, hotels, schools and our affiliates. Can be used with a broad range of EPA approved products.

#### **Specifications**

Hose Length

30 - 50 ft

Weight full

113 lbs

Tank holds

11,356ml (3 Gal)

Flow Rate

118ml/min (3.72 oz/min)

96 minutes (Continuous)

· Droplet size

30-50 microns

Spray Range

 $6 - 10 \, \text{ft}$ 

· Run time/tank

· Coverage per min.

395 sq ft

· Coverage area per tank

48,000 sq ft



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