

A New Tool to Help Prevent the Spread of Contagious Illness and Healthcare Acquired Infections

Illnesses are Costly to Hospitals and Care Facilities:

Hospitals, nursing homes and other care facilities have made great strides in reducing the spread of infectious illnesses and Healthcare Associated Infections (HAI's). In the continued search to further bring down infection rates, electrostatic application of disinfectants can be another infection control tool.

Help slow the spread of contagious illnesses.



Even the best efforts at sanitation can fall short when surfaces that should be disinfected are complex in shape or are hard to reach.

Furthermore, cleaning staffs often have limited time to cover large areas where traditional spray and wiping methods take a substantial amount of time. Enter the electrostatic sprayer, a special type of sprayer that charges disinfectant spray droplets so they are attracted to surfaces similar to opposite poles of a magnet. A battery powered electrostatic sprayer can uniformly cover a lot of surface area rapidly and insure coverage of all critical surfaces.

Electrostatic sprayers can use 65% less disinfectant solution, while achieving more uniform coverage of surfaces¹.

Another tool in the Infection Control Toolbox.

Electrostatic sprayers are not a cure all for stopping the spread of infection. However, they can be a critical component of an overall infection control strategy.

- Establish hand hygiene protocols for staff and patients.
- Locate hand sanitizing stations when water is not available.
- Educate visitors on handwashing protocols.
- Sick visitors should be encouraged to stay home.
- Implement a High Touch Surface Disinfecting Program.
- Regularly clean and disinfect surfaces.
- Add electrostatic application of disinfects in strategic areas.

Electrostatic sprayers are beneficial in healthcare

- ✓ Terminal Room Cleaning
- ✓ Patient Restroom Disinfecting
- ✓ Patient Check in areas
- ✓ Exam Rooms
- ✓ Public area disinfecting, lobbies, waiting rooms, chapels, etc.
- ✓ Surgical Suites
- ✓ Wheel chairs, beds, gurney's and other transport equipment.
- ✓ Rehabilitation equipment.
- ✓ Ambulances and other patient transport vehicles.





Pathogens of Concern:

C-Diff: While there are many pathogens in healthcare, the one often found at the top of the list is Clostridium Difficile. While most pathogenic bacteria are transmitted when the bacteria is actively growing (vegetative), the C-Diff bacteria are spread through a dormant spore form.

C-Diff bacterial spores are much more resistant to conventional disinfectants, so only certain sporicidal disinfectants can be used to kill C-Diff. These are usually stronger and in some cases harsher chemicals. Examples include chlorine bleach, peroxy-acetic acid, and self-dissolving chlorinated tablets.

MRSA, VISA, VRE: Antibiotic resistant pathogens can cause infections that are difficult to treat and cause more severe illness and even death.

Candida Aurus: This fungal diseases is an emerging threat because it is difficult to treat and patients have a high mortality rate. The CDC recommends disinfecting rooms with isolated patients possibly affected by C. Aurus with a disinfectant with a claim for killing C-Diff spores.

About Electrostatic Spraying

While this is new technology to the cleaning industry, electrostatic spraying of liquids is widely used and in other industries.

Example 1: electrostatic paint spray systems charge paint particles so that they are attracted to surfaces to be coated. The benefit is uniformity of coverage, drastically reduced overspray, and complex shapes can be coated even if they are out of the line of sight.

Example 2: Farmers use electrostatic sprayers to protect their crops from insects and disease. Electrostatic spraying of pesticides on crops results in more uniform coverage and allows for less use of pesticide. Most importantly, the undersides of leaves that would be missed with ordinary spray systems get treated with electrostatic systems. Use 40-70% less liquid per square feet of coverage.

What makes electrostatic spraying different from other types of sprayers?

With conventional sprayers, the only surfaces that will be coated are those that are in the line of sight of the spray nozzle. Electrostatically applied liquids have a wrapping effect, so that complex objects and areas hidden from the line of site get coated with the liquid.





The benefits of using electrostatic sprayers in the cleaning industry: The most important benefit of electrostatic sprayers in the cleaning industry is around the application of disinfectants and sanitizers.

POWER SOURCE: The electrostatic sprayers require a power source to charge the liquid particles and propel them toward the target objects. There are electrostatic sprayers that use a cord to plug into 120V outlets, and those that use rechargeable lithium ion batteries.

Validation: Disinfectants and sanitizing products that make public health claims must be EPA registered. Manufacturing of such products must be in EPA licensed facilities that follow specific protocols.

It is important for disinfectants and sanitizers used with electrostatic sprayers are validated for these devices. For users planning on using an electrostatic sprayer to apply a disinfectant/sanitizer that makes public health claims, it is important to be sure that the active ingredient in the product is not compromised.

When an object is sprayed with a conventional sprayer (including the use of a trigger sprayer), a portion of the spray particles reach the target object. The rest of the liquid particles succumb to gravity and fall to the floor or simply float past the object. Further, surfaces of complex objects or hard to reach spots are often missed.

Tips to remember with Electrostatic Sprayers

It is not a substitute for wipe/cleaning high touch surfaces. It is another tool in the arsenal against the spread of contagious illness.



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