



Electrostatically charged droplets are attracted to the target surfaces. These electrical forces are 75 times stronger than gravity. The spray wraps around to cover all parts of the target, including the underside, backside, and crevasses. No other spraying system has this patented air-assisted electrostatic technology.

ESS SMALL ELECTROSTATIC SPRAYERS

Part of the powerful line of sprayers from
Electrostatic Spraying Systems, Inc.

ELECTROSTATIC = BETTER SPRAY COVERAGE

It's That Simple!





BP-2.5 (2.5 gal) BP-4 (4 gal)

For smaller growers, interior-scapes, retail areas

- External air supply required
- MaxCharge™ electrostatic spray gun (single nozzle, standard)
- PVC tank with UV inhibitor
- Padded nylon straps

BP-2.5 shown with alternate 2-headed spray gun.

Technical Specifications

External Air Supply Required	
CFM required	8 CFM/nozzle
Standard Air Hose	100 ft. (30.5 m.)
Maximum Air Hose	300 ft. (91.4 m.)
Weight (Empty)	7 lbs. (3.2 kg.)
Weight (Full)	27 lbs. (12.2 kg.) [BP-2.5] 42 lbs. (19.1 kg.) [BP-4]
Tank Capacity	2.5 gal. (9.5 l.) or 4.0 gal. (15.1 l.)
Air-line Pressure	60 to 70 PSI (4.2 kg./cm ² to 4.9 kg./cm ²)
Flow Rate	4 gal./hr. (15.1 l./hr.)
Drop Size	40 micron VMD
Spray Range	15 to 20 ft. (4.6 to 6.1 m.)
Available Options	2- or 3-headed spray gun

XT

For smaller growers, interior-scapes, retail areas

- Versatile sprayer can be used for sanitization, decontamination, mold-remediation, or restoration
- MaxCharge electrostatic spray gun (single nozzle, standard)
- Compatible with all conventional chemicals and fungicides
- Main tank holds enough mix for one hour of spraying
- One liter auxillary tank ideal for easy spot spraying
- Runs on 110 volt; optional 220 volt available

Technical Specifications

Stand. Twin-line Hose	50 ft. (15.2 m.) on reel
Max. twin-line hose	100 ft. (30.5 m.) on reel
Weight (Empty)	105 lbs. (47.6 kg.)
Weight (Full)	130 lbs. (59 kg.)
Tank Capacity	3 gal. (11.4 l.)
Dimensions	42"H x 18"W x 24"L (107 cm. x 46 cm. x 61 cm.)
Air-line Pressure	30 PSI (2.1 kg./cm ²)
Tank Pressure	12 to 15 PSI (0.8 to 1.05 kg./cm ²)
Flow Rate	2 gal./hr. (7.6 l./hr.)
Drop Size	40 micron VMD
Spray Range	8 to 12 ft. (2.4 to 3.7 m.)
Available Options	220 volt



TRG

For medium-sized greenhouse growers

- External air supply required
- MaxCharge electrostatic spray gun (single nozzle, standard)
- Oversized, semi-pneumatic tires
- Stainless steel tank

Technical Specifications

CFM required	8 CFM/nozzle
Stand. Twin-line Hose	150 ft. (45.7 m.) on reel
Max. Twin-line Hose	250 ft. (76.2 m.) on reel
Standard Air Hose	150 ft. (45.7 m.) on reel
Maximum Air Hose	250 ft. (76.2 m.) on reel
Weight (Empty)	80 lbs. (36.3 kg.)
Weight (Full)	120 lbs. (54.4 kg.)
Tank Capacity	5 gal. (18.9 l.)
Dimensions	31"H x 21"W x 42"L (79 cm. x 53 cm. x 107 cm.)
Air-line Pressure	60 to 70 PSI (4.2 kg./cm ² to 4.9 kg./cm ²)
Tank Pressure	10 PSI (0.7 kg./cm ²)
Air Volume	12 CFM (20.4 m ³ /hr.)
Flow Rate	4 gal./hr. (15.1 l./hr.)
Drop Size	40 micron VMD
Spray Range	15 to 20 ft. (4.6 to 6.1 m.)
Available Options	2- or 3-headed spray gun

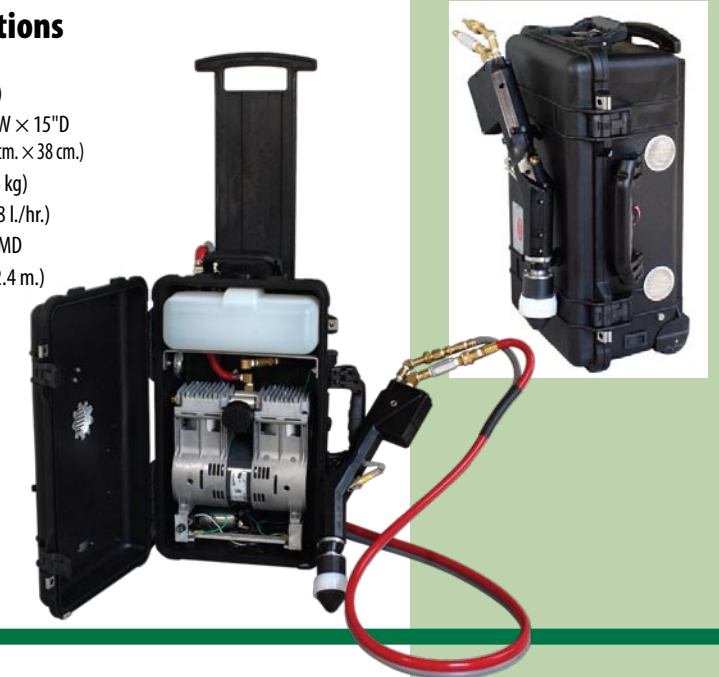
SC-1

For public areas, interior-scapes, retail areas

- Compact, unobtrusive sprayer ideal for sanitizing medical facilities and public transportation
- Wheeled case with extendable handle
- MaxCharge electrostatic spray gun (single nozzle, standard)
- Compatible with all conventional chemicals and fungicides
- Internal tank holds enough mix for 1 hour of spraying
- Runs on 110 volts

Technical Specifications

Twin-line Hose	6 ft. (2 m.)
Tank Capacity	1 gal. (3.8 l.)
Dimensions	22"H x 12"W x 15"D (56 cm. x 30 cm. x 38 cm.)
Weight (Full)	45 lbs. (20.4 kg.)
Flow Rate	1gal./hr. (3.8 l./hr.)
Drop Size	40 micron VMD
Spray Range	Up to 8 ft. (2.4 m.)



GPS-5 (Gasoline) EPS-5 (Electric)

For larger commercial greenhouse growers and small orchard crops

GPS-5: 6.5 hp gasoline engine
EPS-5: 220 volt, 3 hp electric motor

- Handles rough terrain and tight spaces with ease
- MaxCharge™ electrostatic spray gun (single nozzle, standard)
- Spray up to 40,000 ft²/hr.
- Can be pulled by hand or attached to a small vehicle

Pictured: GPS-5

Technical Specifications

Stand. Twin-line Hose	150 ft. (45.7 m.) on reel
Max. Twin-line Hose	250 ft. (76.2 m.) on reel
Weight (Empty)	230 lbs. (104.3 kg.)
Weight (Full)	270 lbs. (122.5 kg.)
Tank Capacity	5 gal. (18.9 l.)
Dimensions	40"H x 22"W x 42"L (102 cm. x 56 cm. x 107 m.)
Air-line Pressure	50 to 60 PSI (3.5 kg./cm ² to 4.2 kg./cm ²)
Tank Pressure	12 PSI (0.8 kg./cm ²)
Air Volume	12 CFM (20.4 m ³ /hr.)
Flow Rate	4 gal./hr. (15.1 l./hr.)
Drop Size	40 micron VMD
Spray Range	15 to 20 ft. (4.6 m. to 6.1 m.)
Available Options	2- headed spray gun

Alternate Sprayer Spray Guns

Optional specialty nozzles available for your ESS Sprayer:

ESS Stock #	Barrel length	Handle type	Number of nozzles
HG-27.5-3RP	27.5" (69.9 cm)	Plastic	3
HG-32.0-3RAS	32.0" (81.3 cm)	Aluminum	3
HG-32.0-2RAS	32.0" (81.3 cm)	Aluminum	2
HG-6.5-2RP	6.5" (16.5 cm)	Plastic	2
HG-14.5-1RP	14.5" (36.8 cm)	Plastic	1
HG-6.5-1RP	6.5" (16.5 cm)	Plastic	1
HG-3.25-1RP	3.25" (8.3 cm)	Plastic	1



Electrostatic Spraying

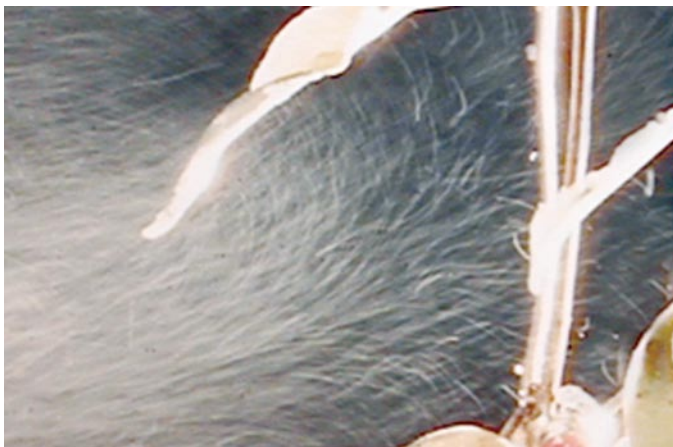


FIGURE 1: Air-assisted electrostatically charged spray defies gravity and wraps around leaves and stems, reaching places that chemicals applied with conventional sprayers will never touch.

Electrostatic Concept

ESS air-assisted electrostatic sprayers provide a much more effective use of chemicals than conventional spray equipment and are proven to work extremely well in combating insects and disease while at the same time reducing waste.

ESS MaxCharge™ sprayers produce a 40-micron droplet size that is known by scientists to improve biological activity. This very fine mist is given a negative electrostatic charge. This means that the charged chemical droplets are attracted to target surfaces, which have an opposite (positive) charge. The ESS system then gently blows the charged mist onto the target so that the spray will reach the hidden areas. The charged droplets cling to the entire target surface, including the undersides, the back side, and the crevasses of the target.

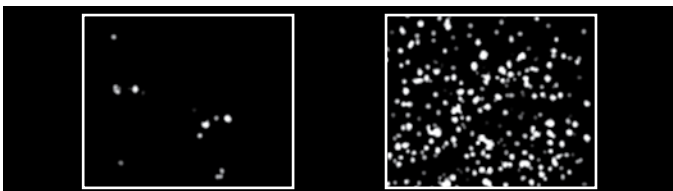


FIGURE 2: (Left) Underside of leaf sprayed with a hydraulic sprayer. Average count in 54 samples is 6.3 deposits in 1/8 square inch. (Right) Charged air-assisted spray on leaf underside. Average count in 54 samples is 425 deposits in 1/8 square inch.

Coverage that Defies Gravity

The ESS MaxCharge system is the most powerful electrostatic spraying system commercially available. The electrical attraction is 75 times stronger than gravity. Sprayed chemical covers all parts of the leaves, including the underside where most insects live and feed. The photograph shown in Figure 1 shows how the electrostatically charged spray can defy gravity and wrap around plant leaves. The coverage is remarkably even. Figure 2 shows a comparison between a conventional hydraulic sprayer and an ESS MaxCharge Sprayer.

Environmentally Friendly; Safer for Workers

Pesticides and other chemicals are a necessity, but some can cause serious environmental hazards as well as worker safety problems. There is increased pressure to reduce worker exposure as well as chemical runoff and overuse. A large part of the negative environmental impact of agricultural and industrial chemicals is from chemicals being wasted from inefficient application. That is to say, the chemicals aren't getting to their target, but are instead being wasted by soaking into the ground, or running off, or blowing away. (See Figure 3.)

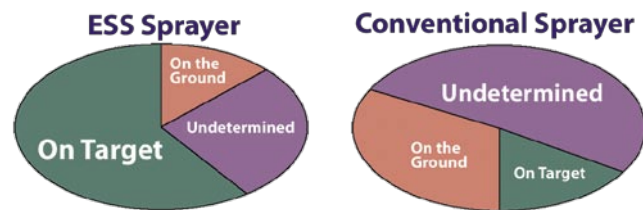


FIGURE 3: Where do you choose to put your chemicals?

Greater Power for Weaker Chemicals

The newer environmentally safe chemical compounds generally available to users are often weaker and are still very expensive. However, users now have a powerful new weapon in their arsenal. Air-assisted electrostatic sprayers, like ESS's line of small multipurpose sprayers, significantly improve the results users are getting with less toxic, more environmentally safe chemicals. By making sure the chemicals get to all sides of the target rather than saturating the ground or running off, air-atomizing electrostatic sprayers make environmentally "soft" chemicals economically feasible. This even distribution increases the effectiveness of the chemicals against pests and disease.

Low Volume – High Yield

ESS electrostatic sprayers use less water to dispense a given amount of chemicals. For example, growers use from 1 to 3 gallons of water per 10,000 sq. feet compared to a traditional sprayer that uses 25 to 75 gallons for the same area. You do not need to spray to the point of creating runoff. After spraying with an ESS sprayer, plants are dry with no visible residue on leaves and no runoff. Due to the biological efficiency of the MaxCharge™ nozzle, growers can achieve excellent results from low-toxicity chemicals while reducing worker exposure to dangerous chemicals.

**For more information on electrostatics,
please request our free report:
*What Growers Should Know
About Electrostatic Spraying***

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