



Microbecide® Electrostatic Sprayer Stk No TC-320 - Product Specification

Product Description:



The Microbecide® TC-320 Electrostatic Sprayer is a powerful, compact and quiet electrostatic sprayer optimized for water-based coatings, designed for continuous operation and engineered specifically for spraying aggressive oxidizing agents such as TiO₂. The TC-320 electrostatic sprayer utilizes patented, induction charging nozzle technology. The patented, induction charging technique incorporates pneumatic atomization, and a low voltage, coupled with air assistance, to atomize and electrostatically charge sprayed coatings.

Operational Requirements:

The TC-320 Electrostatic Sprayer meets the following operational requirements:

- The sprayer will be highly corrosion resistant
- The sprayer will be self-contained
- The sprayer will be easy to move about
- The sprayer will be capable of being operated by a single operator
- The sprayer will be small, easily handled by one person
- The sprayer will weigh no more than one person can easily lift
- The sprayer will be capable of continuous operation in hot, humid conditions
- The spray range of the sprayer will be 3 meters or greater
- The sprayer will be capable of spraying overhead
- The coating liquid rate of flow will be adjustable by the operator
- The coating liquid rate of flow will be visibly indicated to the operator
- Unused coating liquid will be recoverable
- Coating materials will be isolated from the sprayer to prevent contamination
- Dripping of coating material will be minimized
- Clean up and daily maintenance of sprayer will be quick, easy and thorough



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- The spray wand will be small, light and easy to handle
- Maintenance, spare parts and support for the sprayer will be readily available in Asia
- The sprayer will be easily transportable, such as checked baggage
- The sprayer will be unobtrusive and inconspicuous as it may be taken into airports, hotels and hospitals

Operation of the Electrostatic Sprayer:

The TC-320 electrostatic sprayer is simple to operate and easy to move about. With a spray range of three meters, the TC-320 connects directly to a supplier's liquid coating container through an O-ring sealed, thumb-push, quick disconnect connector. The TC-320 incorporates a quiet, smooth operating pump to deliver a consistent flow of coating liquid from the liquid container to the spray wand nozzle. This eliminates transferring the coating liquid to a tank, possibly introducing contaminants, and allows the unused coating material to remain clean and uncontaminated in the supplier's container. Coating liquid is drawn directly from the liquid coating container. Constant pressure is applied by the pump to the spray (liquid) output line, similar to the pressure applied to the water line in your home. The pressurized liquid line insures a constant and consistent liquid flow through the sprayer hose to the spray wand nozzle, even when the spray wand is lifted overhead to spray ceilings, high window tops and the upper portion of walls.

The flow rate of coating liquid is operator adjustable, with the flow rate valve and the large, easy to read flow rate gauge panel-mounted in the case. The TC-320 allows the operator to accurately control the rate of flow of coating liquid delivered to the spray wand nozzle from 20ml per minute up to a stream flowing at a rate of 14.4 litres per hour.

Clean up is thorough, quick and easy. Chrome plated, thumb push, quick connectors allow the operator to easily disconnect from the supplier's coating container and reconnect to a flush container filled with water or liquid cleaner. The operator needs only to apply power to the TC-320, trigger the spray wand and fully open the flow valve to thoroughly flush out the pump, hose, spray wand and nozzle.

Enclosure hardware and integral components of the TC-320 and of the spray wand are constructed of stainless steel. All of the TC-320 liquid and air connectors are chrome plated, O-ring sealed, thumb-push connectors, for greater corrosion resistance. Full grounding straps of the air and liquid lines inside the TC-320 case



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further enhance the electrostatic charge of the liquid spray. A large, high volume exhaust fan in the case ensures continuous operation even in warm, humid environments. The 1HP compressor provides increased air flow volume, extending the spray range and reducing the formation of droplets at the nozzle. The TC-320 power cord plugs into a standard 220VAC electrical power outlet (110VAC optional).

The TC-320 is small, inconspicuous and easy to move about. The case is two-wheeled, with stainless steel bearings and a retractable extension handle. The RoHS compliant case is non-conductive and highly chemical resistant. The circuit breaker protected, on/off switch is mounted at the side of the case, for easy operator access. The TC-320 dimensions are 56cm X 41cm X 25cm, slightly larger than a regulation size airline carry on. The TC-320, weighing only 27 Kg, quickly increases operator productivity and significantly reduces application costs.

Microbicide® TC-320 Electrostatic Sprayer Data Sheet	
Electrostatic Charging Voltage	0.6 – 1.2 KV
Electrostatic Charge Polarity	Negative
Droplet Size	40 microns (VMD)
Tank Capacity	Unlimited
Liquid Line - Pressure	1.0 bar (15 psi)
Air Line – Pressure	2.1 bar (30 psi)
Flow Rate Observable to Operator	Yes
Flow Rate Adjustable By Operator	20 – 240 ml/min
Spray Overhead	Yes
Spray Range	3 meters
Hose Length - Standard	6m (19.5 ft)
Hose Length - Optional	10m (32.5 ft)
Hose Electrically Conductive	Yes
Tank Removable	Not Required
Quick Flush Clean Up	Yes
Spraywand Components	Stainless Steel
Liquid and Air Connectors	Chrome Plated - Thumb Push Operated
Enclosure RoHS Compliant	Yes
Operating Voltage	220VAC/50Hz
Optional Operating Voltage	110VAC/60Hz
Weight	27 Kg
Dimensions	56 cm X 41 cm X 25 cm
Configuration	Two-Wheel Suitcase
Warranty	One (1) Year



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Subassemblies of the TC-320 Electrostatic Sprayer:

[Annex 1 – TC320 Enclosure](#)

[Annex 2 – TC-320 Compressor Assembly](#)

[Annex 3 – TC-320 Panel Flow Valve Assembly](#)

[Annex 4 - TC-320 Spray Wand](#)

[Annex – 5 TC-320 Hose Assembly](#)

This product specification describes the properties and specifications of our product to the best of our knowledge. It replaces all previous versions and is valid without signature. It is the duty of the user to insure that the use of our product complies with local applicable legal requirements.