



Critical Environment In-tool Ionizer

MODEL 5822i

The compact design of the Critical Environment In-tool Ionizing Blower, Model 5822i is designed to meet small-footprint ionizer requirements in automated process tools, offering exceptional performance in hard disk drive manufacturing and back-end semiconductor environments. The ionizer maintains a $\pm 3V$ or better balance standard and exceptional $\pm 1V$ with the optional external feedback system. An internal, automatic balance correction system ensures your target is ionized accurately, presenting significant reduction in calibration and maintenance time resulting in cost savings. A collimator installed over the fan directs precisely balanced ionized air to the target without taking up valuable room in your environment.



Features

- $\pm 3V$ or better balance ($\pm 1V$ with the optional external feedback system)
- Facility Monitoring System (FMS) connection and audible alarm
- Separate control box
- Cleanliness rated at ISO 14644 Class 4 (Fed. Std. 209e Class 10)

Benefits

- Provides the best corona-based ESD critical environment protection available for maximizing yields
- Faster response to ionization failure with notification through tool or FMS
- Allows the blower to be situated close to the target area for fast electrostatic discharge
- Designed for use in an environment with a controlled level of contamination

Specifications

Input Voltage	24VDC @ 1A from external power supply (100-240 VAC 50/60 Hz) or from tool power
Discharge¹	Between 2-2.5 sec @ 1 ft (typ), taken in-line from the center of the fan ($\pm 1000V-100V$)
Balance	$\pm 3V$ or better balance ($\pm 1V$ with the optional external feedback system)
Ion Emission	Steady-state DC
Emitter Points	Tungsten alloy, 8 per blower; Titanium emitter points optional
Airflow	20.5 cfm (typ)
Cleanroom Class	Meets ISO 14644-1 Class 4 (Fed Std. 209E Class 10)
Operating Env.	Temperature 50-95°F (10-35°C); humidity 30-65% RH, non-condensing; ISO Cleanroom Class 7 (Fed Std. Class 10,000) or better
LED Indicators	Control Box: green POWER ON, red ALARM
Audible Noise	<56 dB, typical measurements taken 12" (30.5 cm) from fan
Mounting	2 mounting screw holes on bottom of blower, 1.20 in (3.05 cm) apart
Controls	Balance adjust, sensor gain adjust, fan "slow/off/fast" switch, variable "slow" fan speed
Enclosure	Stainless steel
Dimensions	Blower: 4.5H x 3.3W x 2.4D in. (11.5H x 8.3W x 6.1D cm) Control Box: 1.0H x 5.2W x 2.4D in. (2.5H x 13.2W x 6.0D cm)
Weight	Blower 1.14 lb (.51 kg); Control Box 0.56 lb (.25 kg)
Warranty	Two year limited warranty
Certifications	RoHS 2 Compliant  

1. Tested in accordance with ANSI/ESD STM3.1-20006

Ordering Information

92-5822i-001	Blower Kit with Tungsten Emitter Points (includes fan unit, control box, external power supply and all interface cables)
92-5822iC-001	Blower Kit with Titanium Emitter Points (includes fan unit, control box, external power supply and all interface cables)
Kit Contents (may be ordered separately)	91-5822i Fan Unit with Tungsten Emitter Points
	91-5822iC Fan Unit with Titanium Emitter Points
	91-5822i-CTRL Control Box
	25-20500-8 Fan Unit to Control Box CAT-5 Cable
	14-21108 External Power Supply
	33-1720-8 4-pin Cable, Fan Unit to Control Box
	33-1740-1 6-pin Cable, FMS Out to Novx Feedback System
25-20660	US Plug Power Cord, 8.2 ft (2.5m)
25-20710	UK Plug Power Cord, 8.2 ft (2.5m)
25-20735	German Schuko Plug Power Cord, 8.2 ft (2.5m)
25-20750	China Plug Power Cord, 8.2 ft (2.5m)
33-25822i-10	Ionizing Blower Mounting Stand
33-25822i	Tungsten Emitter Point Replacement Kit
33-25822iC	Titanium Emitter Point Replacement Kit

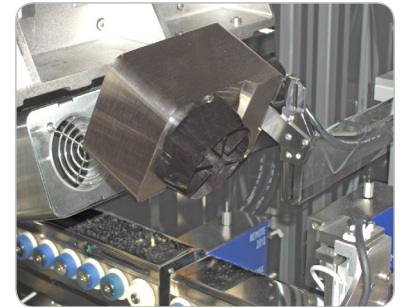
Optional Feedback

The Model 5822i ionizer's optional external feedback sensor operates with the Novx Process Monitor Series 7000 and Novx Passive/Active Field Voltage Detection System Series 3350/Series 3360 to detect and automatically correct the balance. With the antenna placed at the target area, feedback is sent to the Model 5822i blower's internal control system. This ensures that your target maintains a $\pm 1V$ or better balance at all times, no matter what environmental variables exist.



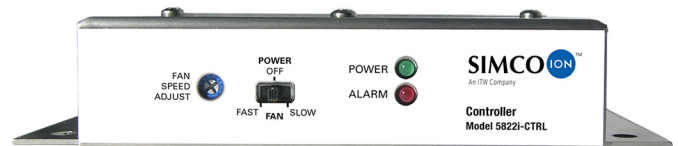
Directed Airflow

The collimator fits over the air outlet of the blower and directs ionized air straight to the target. This means that the blower can be placed further away from the target with continued excellent discharge times and good performance at extended distances. This faster, directed airflow method improves ion and static elimination, significantly minimizing ion recombination.



Control Box

The modular remote Control Box was developed to accommodate limited tool footprints. The Control Box connects to the optional Novx Process Monitor Series 7000 and Novx Passive/Active Field Voltage Detection System Series 3350/Series 3360 and common FMS (facility monitoring system) interfaces. This allows the ionizer to be installed into tight, hard-to-reach spaces without fitting additional connections or wiring into the area.



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www.bondline.com.au
Tel: (02) 9757 3590

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Simco-Ion

Technology Group
1750 North Loop Rd., Ste 100
Alameda, CA 94502

Tel: 800.367.2452 (in USA)

Tel: 510.217.0600

ioninfo@simco-ion.com
www.simco-ion.com