



# Critical Environment In-tool Blower

## MODEL 5822i

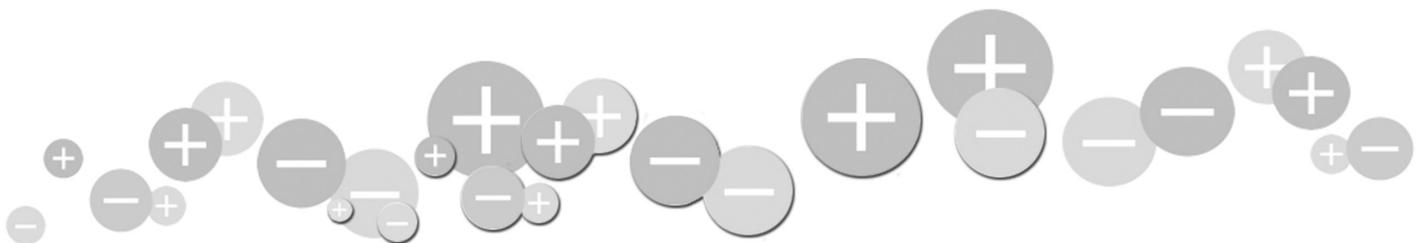
The compact design of the Critical Environment In-tool Ionizing Blower, Model 5822i, is designed to meet small-footprint ionizer requirements in automated process tools, offering exceptional performance in hard disk drive manufacturing and back-end semiconductor environments. The ionizer maintains a  $\pm 3V$  or better balance standard and exceptional  $\pm 1V$  Novx System by external feedback. An internal, automatic balance correction system ensures your target is ionized accurately, significantly reducing calibration and maintenance time and 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 Novx System)
- Facility Monitoring System (FMS) connection and audible alarm
- Separate control box
- Cleanliness rated at ISO 14644-1 Class 4

### 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



Model 5822i	
<b>Input Voltage</b>	24 VDC @ 1A from external power supply (100-240 VAC 50/60 Hz) or from tool power
<b>Discharge<sup>1</sup></b>	Between 2-2.5 sec @ 12" (30.5 cm) (typ) Measured in-line from the center of the fan ( $\pm 1000V-100V$ )
<b>Balance</b>	$\pm 3V$ or better; $\pm 1V$ with the Novx System
<b>Ion Emission</b>	Steady-state DC Technology
<b>Emitter</b>	Tungsten, 8 per blower; Titanium optional
<b>Cleanroom Class</b>	ISO 14644-1 Class 4
<b>LED Indicator</b>	Control Box: green POWER ON, red ALARM
<b>Control</b>	Balance adjust, sensor gain adjust, fan "slow/off/fast" switch, variable "slow" fan speed
<b>Airflow</b>	20.5 cfm (typ)
<b>Audible Noise</b>	<56 dB, typical measurements taken 12" (30.5 cm) from fan
<b>Operating Env</b>	50-95°F (10-35°C); 30-65% RH, non-condensing
<b>Mounting</b>	2 mounting screw holes on bottom of blower, 1.20" (3.05 cm) apart
<b>Enclosure</b>	Stainless Steel
<b>Dimension</b>	Fan Unit: 4.57"H x 3.27"W x 3.47"D (11.6 x 8.31 x 8.81 cm) Control Box: 1.0"H x 5.2"W x 2.35"D (2.54 x 13.2 x 5.97 cm)
<b>Weight</b>	Blower 1.14 lb (0.52 kg); Control Box 0.56 lb (0.25 kg)
<b>Warranty</b>	Two year limited warranty
<b>Certification</b>	

1. Tested in accordance with ANSI/ESD STM3.1-2015.

## Ordering Information

<b>92-5822i-001</b>	Blower Kit with Tungsten Emitter Points (includes fan unit, control box, DC power supply kit and all interface cables)*
<b>92-5822iC-001</b>	Blower Kit with Titanium Emitter Points (includes fan unit, control box, DC power supply kit and all interface cables)*
<b>Kit Contents (may be ordered separately)</b>	91-5822i Fan Unit with Tungsten Emitter Points
	91-5822iC Fan Unit with Titanium Emitter Points
	91-5822i-CTRL Control Box
	33-5820-01 5822i Accessory Kit (see below for contents)
<b>33-1440-01</b>	DC Power Supply Kit, 100-240 VAC to 24 VDC 1A, interconnect cable with RJ-9 4P/4C plug*
<b>33-5820-01</b>	5822i Accessories Kit (includes 33-1440-01 power supply kit, fan to control box cable and FMS out to Novx sensor cable)*
<b>33-25822i-10</b>	Ionizing Blower Mounting Stand
<b>33-25822i</b>	Tungsten Emitter Point Replacement Kit
<b>33-25822iC</b>	Titanium Emitter Point Replacement Kit

\* IEC power cord required, contact Sales Services for detail

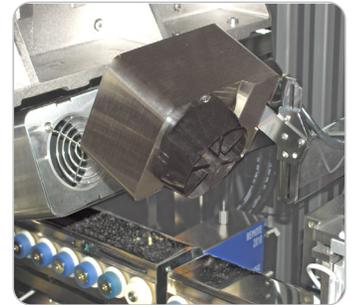
## $\pm 1V$ Balance Performance with Novx System

The Model 5822i ionizer's external feedback sensor operates with the Novx 7000 Process Monitor and with the Novx 3352 Passive or Novx 3362 Active Closed-loop Ionizer Controllers 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 7000 Process Monitor and with the Novx 3352 Passive or Novx 3362 Active Closed-loop Ionizer Controllers 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.



**SIMCO ION**<sup>TM</sup>  
An ITW Company

DS-5822i\_V13 - 1/23  
© 2023 Simco-Ion  
All rights reserved.

### Simco-Ion, Technology Group

1141 Harbor Bay Parkway, Suite 201  
Alameda, CA 94502

Tel: +1 (800) 367-2452 (in USA)  
Tel: +1 (510) 217-0460

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

w o r l d w i d e l e a d e r s i n s t a t i c c o n t r o l