



An ITW Company

IONIZATION SOLUTIONS



L A U N C H G U I D E

TargetBlower

Model 6202e

Channel Partners and Sales Team Document
Simco-Ion Confidential

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Introduction

The number of semiconductor devices with low ESD threshold levels is expected to increase with each new device generation, or technology node. The TargetBlower Model 6202e Ionizer specifically fits the protection requirements of devices that are Class 0 Charged Device Model-ESD sensitive. It is designed for point of use applications requiring near critical environment static control.

The TargetBlower is a compact ionizer designed to fit in applications with space constraints. With a self-cleaning ionization system combined with a directed stream of ionization, the TargetBlower is an easy to use, economical static control solution for in-tool applications.

Near-critical Environment Definition

- Electrostatic Discharge (ESD) protection to $\pm 5V$
- Cleanliness Control at ISO Class 5 (Fed Class 100)
- Discharge times under 4 seconds at 1 foot distance

About this Document

This product introduction guide has been prepared for you in conjunction with the product launch. The information in this document is intended to give you a solid introduction to this product with key selling points. This document is intended for Ion's sales and marketing teams and Channel Partners only. Please do not distribute it to customers!.

We encourage your feedback on any of the items in this launch package!

Customer Value Proposition

Near-critical environment protection

Balance control to $\pm 5V$ offers successful ESD device Class 0 protection as defined by the ESD Charged Device Model sensitivity classification.

Economical Ionization Operation

The continuous ionizer cleaner feature means customers can position the TargetBlower in a desired location and the product will perform with very little required maintenance.

Directed ion Output

The collimated chassis helps ensure fast, reliable static discharge. The TargetBlower is perfect for point-of-use applications found in most automatic process tools.

Enhanced Features

The following features are standard:

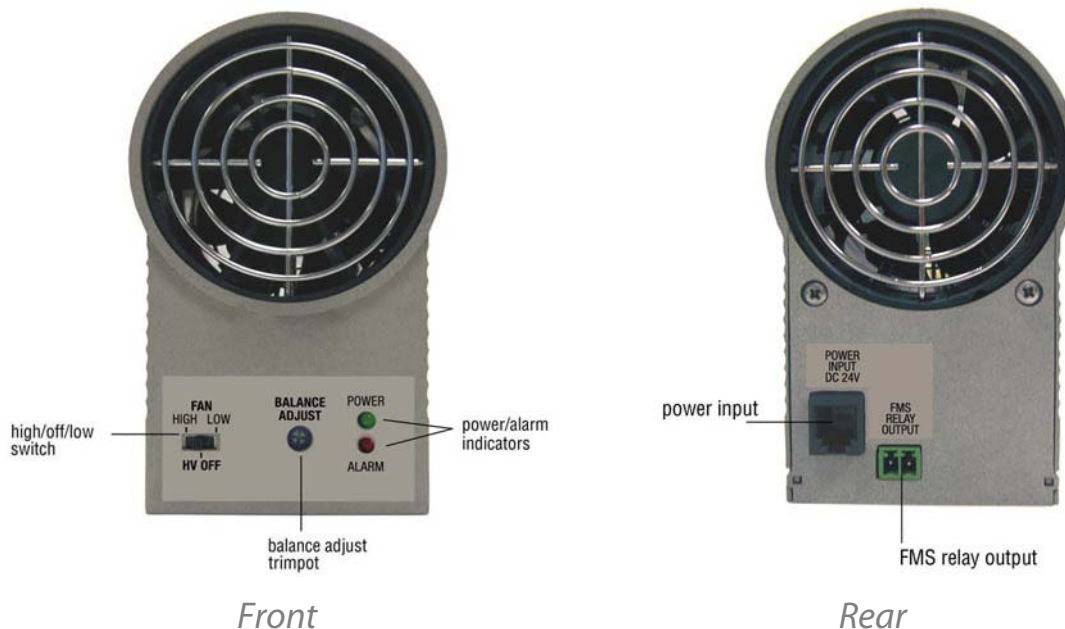
- Facility Monitoring System (FMS) output for remote monitoring of alarms at the tool or system level
- Alarm LED
- High/off/low fan speed control
- Balance control adjustment trimpot

Compact, Space-Saving Design

The Model 6202e is perfect for the space-limited applications found in many automated process tools.

Key Product Features

- **Thin Filament Emitter Wire:** The TargetBlower features a thin-filament emitter wire mounted in a circular configuration that generates a flowing stream of ions towards the application area.
- **Self-Cleaning Ionization System:** The TargetBlower's microprocessor automatically operates upon power on and every seven days when the ionizer is continuously turned on. The wire is cleaned with a swiping mechanism. Ionization is not stopped at this time.
- **Balance Adjust Trimpot:** The TargetBlower can be optimized as the environmental conditions change in the application area using the balance adjustment trimpot.
- **Unique Space-saving Design:** No other ionizing blower looks like the TargetBlower. The TargetBlower's collimated chassis directs the ions to the application area.
- **FMS Output:** Relay connector allows Facility Monitoring System (FMS) connection.
- **Alarm:** Indicates HVPS failure and loss of ionization.



Frequently Asked Questions

Q. Can I use an external sensor with the TargetBlower?

A. No, an external sensor is not required to achieve the specified balance of $\pm 5V$. Once the TargetBlower is balanced at initial setup, the ionizer will continue to maintain its balance control without an external sensor.

Q. How do I mount the TargetBlower?

A. Mounting the TargetBlower is application-specific. The TargetBlower has two 6-32 screw mounting holes on the underside of the chassis for mounting to a process tool rail or to a user-fabricated mounting bracket. The distance between the mounting holes is 1.75 in. (4.45 cm). There is no bracket currently available for sale.

Q. What is the recommended obstruction distance between the back of the TargetBlower and a tool wall where ionization performance will not be compromised?

A. Based upon our test results, optimal performance of the TargetBlower can be achieved with as little as 1 in. distance between the back face of the blower and an obstruction such as a tool wall.

Q. What are the TargetBlower's power requirements?

A. The TargetBlower has a separate orderable external power supply that converts 100-240 VAC, 50/60 Hz to 24 VDC. The TargetBlower can also be operated directly from 24 VDC power supplied by the process tool.

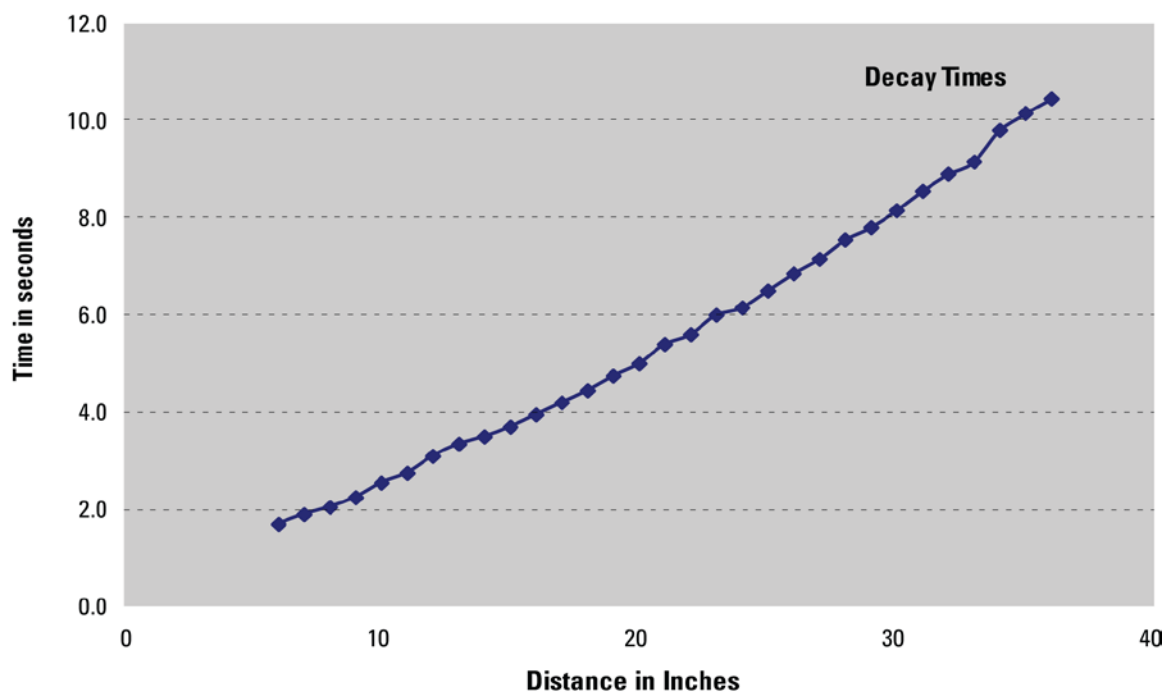
Q. Is the TargetBlower product certified?

A. Yes, the TargetBlower has a CE "Declarations of Conformity" for emissions and has been tested for safety by a Nationally Recognized Testing Laboratory. In addition, the TargetBlower is RoHS compliant.

Frequently Asked Questions

Q. What are typical discharge times for various front-center distances from the face of the TargetBlower?

A. Since the TargetBlower is best used as a Point-of-Use ionizer, typical discharge times will be optimal at the front-center location from the face of the blower. The following graph shows typical discharge times from varying distances from the TargetBlower face:



Results are for a static charge reduction of 1000v to 100v. Testing in accordance with ionization standard ANSI/ESD STM3 1-2006 of the ESD Association.

Q. Is the TargetBlower emitter wire user-replaceable?

A. No. With normal usage and operated within specified conditions, the TargetBlower's emitter wire should last the life of the ionizer.

If the emitter wire should require replacement, the product should be returned either to a Simco-Ion distributor or returned directly to Simco-Ion for the necessary repair.

Frequently Asked Questions

- Q.** What happens to the particulates from the self-cleaning ionization system?
- A.** The amount of particulates cleaned from the emitter wire is minimal and insufficient in quantity to cause a contamination problem in the area of application. Note that the self-cleaning ionization feature is programmed to operate upon power on and after seven days of continuous use.
- Q.** What are the exact dimensions of the TargetBlower?
- A.** CAD dimensional drawings are available for the TargetBlower by accessing the Simco-Ion PartnerLink.

Target Applications

Backend Semiconductor Manufacturing

We continue to see lower balance voltage thresholds in backend semiconductor applications. The applications include, but are not limited to wafer mounting, die attach, marking, packaging and final testing. Electronics and microelectronics are increasing their presence within the automobile industry and these devices are coming under Class 0 Charged Device Model ESD protection. Many backend semiconductor companies are now requesting balance control approaching, but not entering into, these “critical” levels of protection. We also see where space is at a premium within these automated process application areas. The TargetBlower is a perfect solution for those areas with tight space limitations.

Hard Disk Drive Manufacturing

Benchtop and overhead ionizers are prevalent in most manual disk drive processes. However, many disk drive manufacturing companies are now considering semi-automated processing as part of their operations. These larger ionizers pose a “size” problem when attempting to fit the ionizer within the semi-automated application area. The TargetBlower is the perfect solution for those companies who require up to $\pm 5V$ balance control and who are adding semi-automation into their disk drive operations.

Any other application where the ESD requirements are approaching a “critical” level, where space is a premium, and where static control needs to be directed into a small area are candidates for the TargetBlower.

Similar Simco-Ion Products



	Model 6422e	Model 6202e	Model 5822i
Balance performance	±20V or better	±5V or better	±3V or better; under ±1V with external closed-loop control sensor
Discharge time*	<4 sec @ 1 ft	<4 sec @ 1 ft	<2.5 sec @ 1 ft
Cleanroom compatibility	ISO Class 5 Fed Std Class 100	ISO Class 5 Fed Std Class 100	ISO Class 4 Fed Std Class 10
Dimensions	4.4H x 3.3W x 2.5D in. (11.2H x 8.4 x 6.3 cm)	4.2H x 2.6W x 3.4D in. (10.7H x 6.5W x 8.7D cm)	Fan unit :4.5H x 3.3W x 2.4D in. (11.5H x 8.3W x 6.1D cm) Control Box: 10H x 5.2W x 2.4D in. (2.5H x 13.2W x 6.0D cm)
Controls	None	<ul style="list-style-type: none"> • High/low/off switch • Balance adjust trimpot 	<ul style="list-style-type: none"> • Balance adjust • Sensor gain adjust • Fan speed on/off switch • Variable "slow" fan speed
Indicators	<ul style="list-style-type: none"> • Red alarm LED • Green power LED 	<ul style="list-style-type: none"> • Red alarm LED • Green power LED 	<ul style="list-style-type: none"> • Red alarm LED • Green power LED
Connectors	<ul style="list-style-type: none"> • 24 VAC/VDC power input, 8-pin terminal block with 24 VDC input from process equipment and 4-20 mA • FMS output 	<ul style="list-style-type: none"> • 24 VDC input • 2-pin FMS output 	<ul style="list-style-type: none"> • CAT-5 Fan Unit to Control Box • 4-pin handset Control Box to power • FMS output to Novx sensor • VAC power input • External closed loop sensor input

Primary Competitors

Keyence Model SJ-F010 Series Static Elimination Blower

Keyence offers a $\pm 5V$ balance control blower the size of a CD. The height and width are larger than our TargetBlower, however, the depth is thinner. Keyence markets this blower for overhead and benchtop use, so it has a wider static control spread than our TargetBlower. Its fit is more of an issue inside of process tools, making workstation application the focus for this blower versus the TargetBlower's focus inside automated process tools. The Keyence SJ-F010 advertises a static discharge time as low as 1 second. It does not have an automatic emitter point cleaner. Blower status and indicators are positioned with the separate controller box.

A key selling feature in favor for the TargetBlower versus the SJ-F010 is the list price. The list price for the SJ-F010 and its controller is as much as two times the TargetBlower.



	TargetBlower	Keyence SJ-F0101
Balance	$\pm 5V$ or better	$\pm 5V$ or better
Discharge time	<4 sec @ 1 ft (300 mm)	<2 sec @ 1 ft (300 mm)
Dimensions	4.2H x 2.6W x 3.0L (10.7H x 6.5 W x 7.6L)	Blower: 5.1H x 4.7W x 3.8D in. (13.0H x 12.0W x 3.8D cm) Controller: 4.7H x 2.0W x 3.3D in. (12.0H x 5.0W x 8.4D cm)
Weight	0.6 lb (260g)	Blower 0.77 lb (350g); Controller 0.55 lb (250g)
Intended applications	Inside process equipment	Workstation applications
Cleaning mechanism	Self-cleaning Ionization System maintains balance	Electrode cassette unit must be manually removed from blower when for required cleaning

Parts and Pricing

Parts

- TargetBlower Ionizer (p/n 91-6202e-01)
- Optional external 24 VDC power supply (p/n 14-21108)
- RJ cable for blower to external power supply (p/n 33-1720-8F)

Pricing

List price for the 91-level TargetBlower is \$525 USD.

Availability

Currently available for order. You can order the product via Simco-Ion eOrder.

Contact

Contact your local Simco-Ion sales representative or techsupport@simco-ion.com for further information regarding the TargetBlower Model 6202e.



An ITW Company

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

Tel: 800.367.2452 (in USA)

Tel: 510.217.0600

info@simco-ion.com

www.simco-ion.com

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