



# In-tool Micro Blower

## MODEL 5941

Simco-Ion's Micro Series Blowers are designed for advanced critical environment in-tool applications where space is a constraint. Model 5941 Micro Blower is compactly designed but exceptionally effective to meet current requirements for advanced automated process tools. Only 4.33" (110 mm) tall and 3.15" (80 mm) wide, this amazing compact in-tool blower offers outstanding performance in back-end semiconductor environments.

Model 5941 maintains a  $\pm 3V$  or better balance standard, safeguarded by an exclusive two-level notification feature allowing preventative adjustment time for continuous operations. An internal, automatic balance correction system ensures target devices are ionized accurately, presenting a significant reduction in calibration and maintenance time resulting in cost savings.

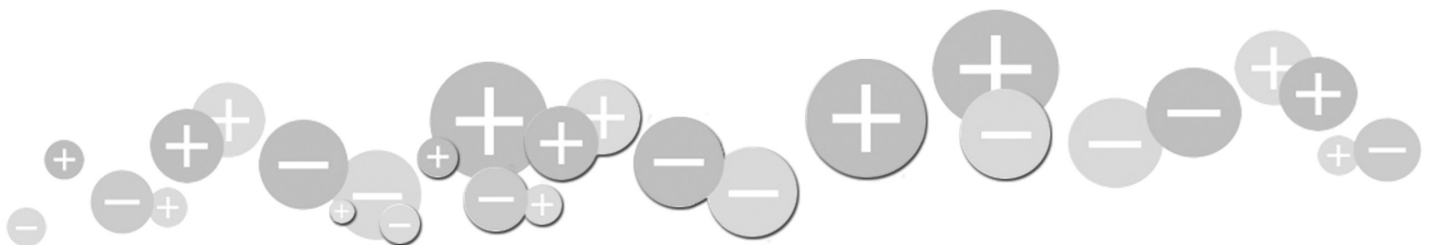
Model 5941, without Power ON/OFF switch, turns on at high fan speed when power is applied to the unit. Model 5941S comes with Power ON/OFF switch for low fan selection at power on.








### Features

- $\pm 3V$  or better balance
- Compact size
- Cleanliness rated at ISO 14644-1 Class 5
- Facility Monitoring System (FMS) connection
- Auto-clean System

### Benefits

- Provides the best corona-based ESD critical environment protection available for maximizing yields
- Exceptional for the limited-space in-tool applications
- Designed for use in an environment with a controlled level of contamination
- Faster response to ionization failure with notification through tool or FMS (FMS Simulator is available for checking tools in response to 5941 FMS alarms)
- Automates emitter point cleaning reducing maintenance costs and time



Model 5941	
<b>Input Voltage</b>	24 VDC (±10%), 6W max
<b>Discharge<sup>1</sup></b>	<4 sec @ 12" (typ); measured in-line from center of the fan (±1000V-100V)
<b>Balance</b>	±3V or better @ 12" (30.5 cm) away Warning Setpoint: +3.5V (±0.5V), -3.5V (±0.5V) Alarm Setpoint: +5.0V (±0.5V), -5.0V (±0.5V)
<b>Ion Emission</b>	Steady-state DC Technology
<b>Emitter</b>	Tungsten wire, 4 per blower
<b>Cleanroom Class</b>	ISO 14644-1 Class 5
<b>LED Indicator</b>	Green NORMAL; blink orange/green BALANCE WARNING; blink red BALANCE ALARM; blink alt green/red FAN STALL; blink orange EPC ACTIVE
<b>Control</b>	Trimpot balance control; Model 5941S: 3 position switch (up = hi-fan, center = off, down = low fan)
<b>Airflow</b>	17 cfm
<b>Audible Noise</b>	<36 dBA
<b>Connector</b>	2.0 mm barrel connector (24 VDC), RJ-9 for FMS
<b>FMS</b>	RJ-9 for fan fault and out of balance alarms
<b>Ozone</b>	<0.004 ppm (typ)
<b>Operating Env</b>	50-95°F (10-35°C); 30-70% RH, non-condensing
<b>Mounting</b>	U-bracket, factory installed
<b>Enclosure</b>	ABS
<b>Dimension</b>	4.33"H x 3.15"W x 1.6"D (11.0 x 8.0 x 4.06 cm) without bracket
<b>Weight</b>	0.55 lb (0.25 kg)
<b>Warranty</b>	Two year limited warranty
<b>Certification</b>	   
Power Adapter 14-21328	
<b>Input Voltage</b>	100-240 VAC 50/60 Hz
<b>Output Voltage</b>	24 VDC, 30W
<b>Dimension</b>	3.9"L x 1.4"H x 2.1"W (9.91 x 3.56 x 5.33 cm)
<b>Weight</b>	0.44 lb (0.20 kg)
<b>Certification</b>	  

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

## Ordering Information

<b>91-5941-01</b>	Model 5941 Micro Blower, NO-SWITCH, Auto-Clean, FMS (includes power adapter, mounting bracket)*
<b>91-5941S-01</b>	Model 5941 Micro Blower with SWITCH, Auto-Clean, FMS (includes power adapter, mounting bracket)*
<b>91-5941-NBX01</b>	Model 5941 Micro Blower, NO-SWITCH, Auto-Clean, FMS (does not include power adapter, mounting bracket)
<b>91-5941S-NBX01</b>	Model 5941 Micro Blower, with SWITCH, Auto-Clean, FMS (does not include power adapter, power cord, mounting bracket)
<b>91-5941-NX01</b>	Model 5941 Micro Blower, NO-SWITCH, Auto-Clean, FMS (does not include power adapter)
<b>91-5941S-NX01</b>	Model 5941 Micro Blower, with SWITCH, Auto-Clean, FMS (does not include power adapter)
<b>14-21328</b>	24 VDC Power Adapter*
<b>33-5900-01</b>	5900 FMS Simulator
<b>33-5941B-01</b>	Mounting Bracket Kit

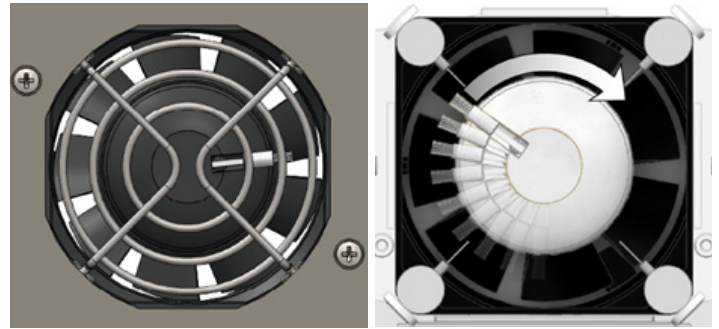
\*IEC power cord required, contact Sales Services for detail.

## ±3V Balance Performance

Model 5941 Micro Blower offers a ±3V superior balance performance. The front grill acts as feedback for internal automatic balance correction, ensuring a ±3V or better balance at all times, regardless of the environmental variables.

## Auto-Emitter Point Cleaning

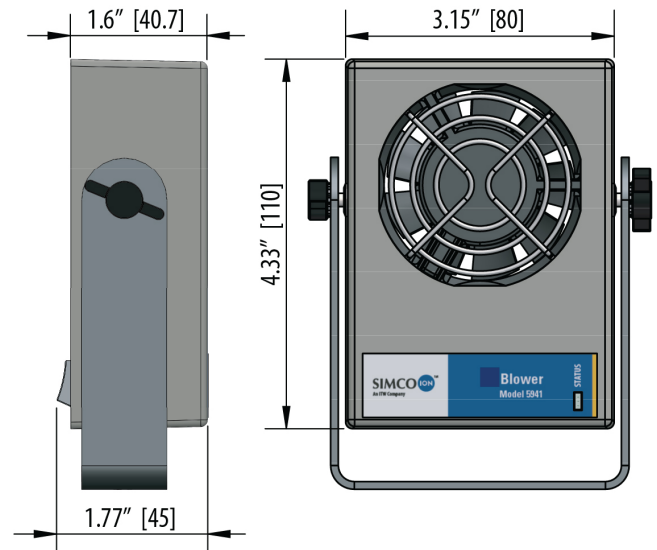
The default 5-day cleaning cycle will activate once the unit is power ON. Particulates typically accumulate on the emitter tip, up to a visible size in 3 to 6 months, depending on the operating environment. The cleaner sweeps through the emitter tips to remove the particulates from accumulating and contaminate the surroundings to protect the target.



## Compact Size

Only 4.33" (110 mm) tall and 3.15" (80 mm) wide, the Micro Blower's compact size is designed to fit into the latest advanced processing tools where space is limited but still requires superior electrostatic control to perform the process.

## Dimensional Drawing (inch/mm)



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