

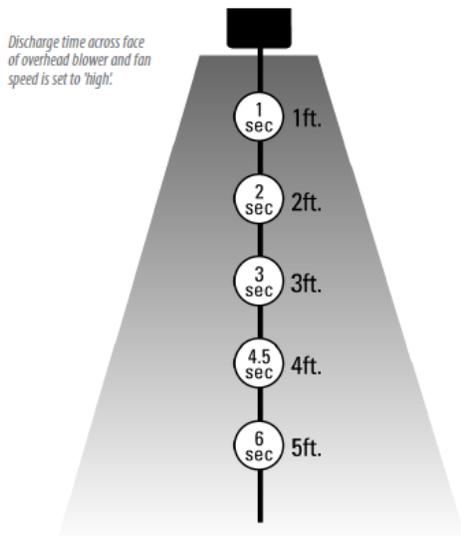
Aerostat[®] FPD Blower

Performance and Applications

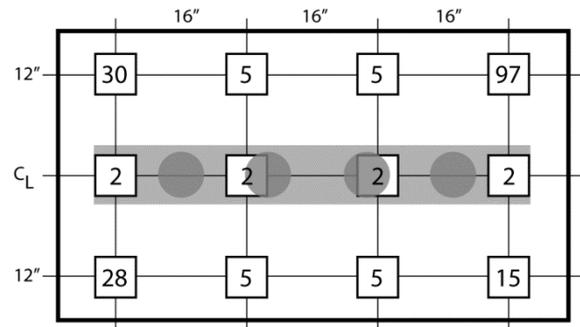
The Aerostat FPD Overhead Blower has been optimized to provide the maximum performance directly underneath the blower by using high-output fans, collimation and a high-power high-voltage AC ionization source. This provides extremely short decay times directly below the blower, at the expense of wider area coverage. This design is ideal for “air shower” applications, applications where high levels of charges are present on surfaces, or applications where the product is moving quickly through the coverage area.

Discharge Times Performance

The following graph shows the discharge time specification for an FPD Overhead Blower operating at the “high” fan speed setting. In all cases, measurements are made following the ANSI/ESD STM3.1-2006 standard; using a 20 μ F capacitance plate mounted 6” (150 mm) above the workbench surface.



The following 12-point test graphic shows typical discharge time performance (in seconds) with the FPD Blower mounted at 18” (46 cm) above the CPM plate (i.e., 24” (61 cm) above the workbench surface).

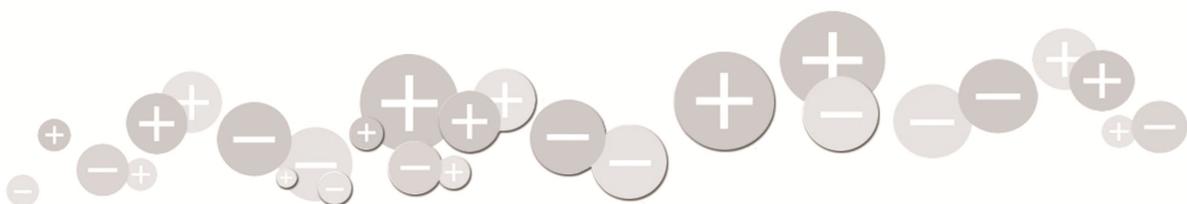


These results are obtained using an FPD Blower operating at 120 VAC, 60 Hz; discharge times will increase slightly for units operating at 220-240 VAC, 50 Hz.

Discharge times will be significantly longer if the optional fan filters are installed.

Balance

Simco-Ion uses two different methods for measuring the balance (also known as the offset voltage) of an ionizer. For general electronics blowers, such as the FPD Overhead Blower, balance is measured over a 30-day period, and a time



average balance is calculated and reported. There may be momentary peaks exceeding the specified balance during the measurement period.

FPD Blower balance: $\pm 10V$ (typical)

For critical environment blowers, Simco-Ion measures balance over a 30-day period, and reports the maximum absolute value of balance during that period (i.e., a does-not-exceed value).

Recommended Applications

The Aerostat FPD Overhead Blower excels at applications where an extremely fast discharge time is required, an extremely high surface charge exists on a product, or if a strong airflow to dislodge particles is of benefit.

- “Air Shower” applications, to remove charge and dislodge particles from people or products as they enter a cleanroom
- Flat-panel display manufacturing, where glass panels have very significant charge, often over 20 kV
- Plastic film handling, either rolling or unrolling films for further processing

Simco-Ion’s other overhead blowers include:

Model	Discharge	Balance	Cleanliness
FPD	Best	Good	Good
Guardian	Better	Better	Better
CR-2000	Better	Better	Best
5810i	Better	Best	Best

Please consult with your Simco-Ion salesperson or channel partner for additional assistance in choosing which model best meets your application requirements.



An ITW Company

Technology Group

1141 Harbor Bay Pkwy, Ste 201
Alameda, CA 94502

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

Tel: +1 (510) 217-0460

ioninfo@simco-ion.com

www.simco-ion.com

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