Cleanroom Ionization for Life Science Manufacturers

REDUCE YIELD LOSSES
IMPROVE PRODUCT QUALITY
IONIZATION FOR EVERY APPLICATION
TO CONTROL PARTICULATE CONTAMINATION

For Product Assembly or Packaging Areas
Simco-Ion's AirForce Model 6115 Blow-off Gun's substantial power makes the AirForce effective in removing particle contamination and ideal for use in clean process applications such as medical device assembly. The 6115 is the only gun product rated at ISO Class 4 cleanliness. Steady-state DC ion emission provides efficient ionization with an average discharge time of less than 1.0 second.

The AirForce's lightweight, flexible air hose—just 3/8” in diameter—moves with the operator and makes work easier. No high voltage cable means improved operator safety. The gun's ergonomic design—with a light touch trigger and easy-view LED—minimizes fatigue and eliminates wrist hyperextension.

For Cleanrooms
Simco-Ion's family of ceiling emitters & digital controllers are designed to provide uniform ionization throughout a gowning room and the open areas of a cleanroom. Mounted onto the ceiling surface or inside a flush mount channel, our ceiling emitters maintain aesthetics without disrupting cleanroom laminar airflow or compromising the integrity of operating ISO class 1 cleanrooms.

Moreover, our ceiling emitter room system has specifically proved its success in addressing Current Good Manufacturing Practices (CGMP) regarding contamination control by the FDA.
For Mini-Environment & Benchtop Areas

Simco-Ion’s Guardian CR2000 Blower is designed specifically for use in cleanroom applications. The Guardian CR2000 features a patented circuit that results in equal delivery of positive and negative ions, which ensures that the targeted area will maintain in a neutralized, stable voltage balance. The Guardian CR2000 is designed to be placed above tables in each step of your product assembly process in final packaging and in inspection areas.

The Guardian CR2000 ensures cleanroom compatibility using specially chosen components and materials. All fan and air bearing surfaces are manufactured free of silicones. Fan assemblies are particle tested to ISO 14644-1 Class 4 (Fed Std. 209E Class 10) particle limits.

Case Studies: Yield Improvements

**Catheter Manufacturer:** This is a 9 month case study for a major catheter manufacturer. Historically, their yield losses from particulate contamination were approximately 15%.

**Endoscope Manufacturer:** This is a 9-month case study for a major endoscope assembly manufacturer. Historically, their rejects from particulate contamination were approximately 5%.

**Results:** Yield losses reduced to 0.5% level.

**Results:** Yield losses reduced to 1.0% level.

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**Effect of Adding Ceiling Ionization**

Catheter manufactured before ionization installed

Catheter manufactured after ionization installed
Technical Audits

For qualified life science customers, Simco-Ion will conduct a no cost audit of the cleanrooms in your manufacturing operations and recommend an ionization solution to address your particulate contamination concerns. Ask your local regional sales manager for details and qualification. Call Sales Services at (510) 217-0460.

Since 1936 and as a division of ITW, Simco-Ion provides a global perspective with technical support and strategic manufacturing locations in the United States, China, the Netherlands and Japan. Simco-Ion has the ability to deliver years of research, applications engineering, and field experience that add up to a comprehensive understanding of ionization technology for your CGMP manufacturing operations.