## **CLEAN AIR INNOVATION IN THE AGE OF COVID-19**

For many organizations, it's not just a matter of when to bring employees back into the workplace, it's also a matter of how to do so as safely as possible and how to provide confidence to employees and visitors that effective measures are in place.

Used in large-scale ventilation systems worldwide, bipolar ionization is touted as a secret weapon in the war against COVID-19.

# From the Duct to the Workplace Environment

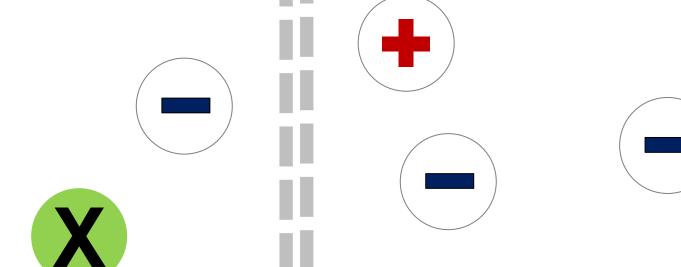


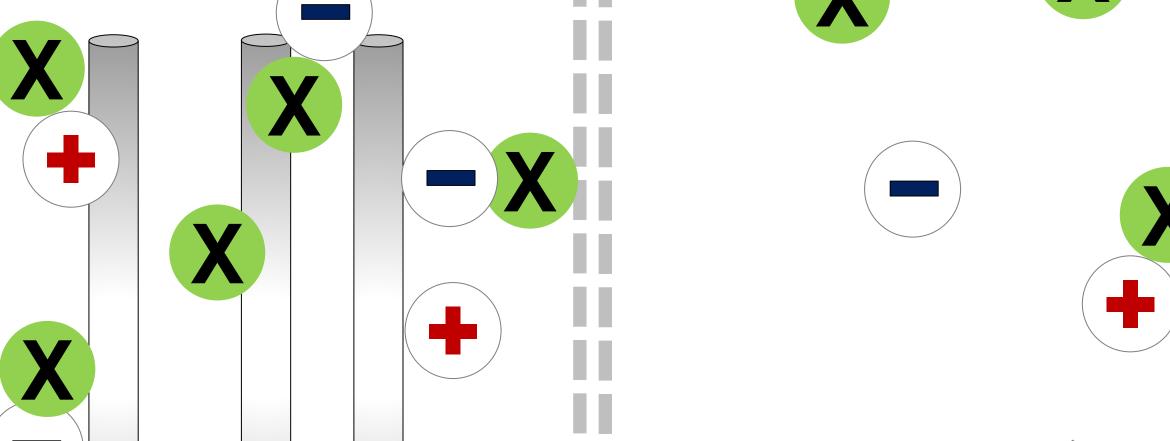
#### The NPBI Process:

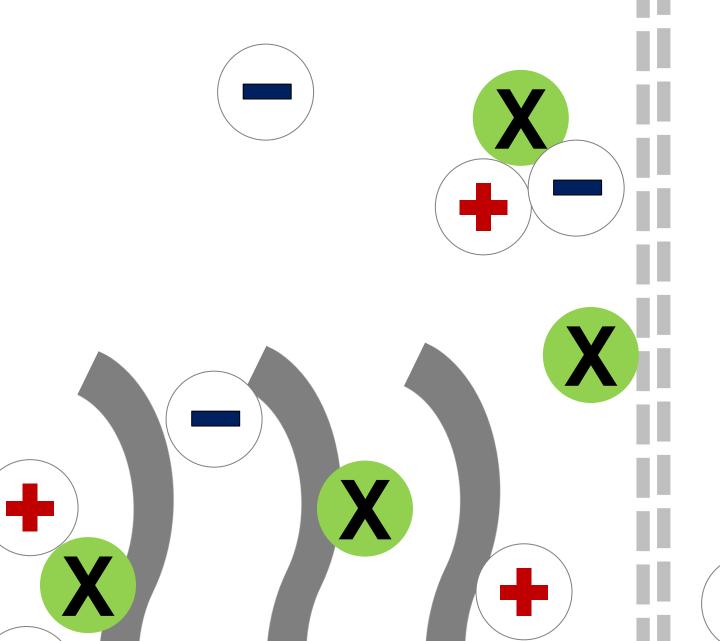
**Needlepoint Bipolar Ionization** technology releases charged atoms that attach to and deactivate harmful substances like bacteria, mold, allergens, viruses and VOCs.

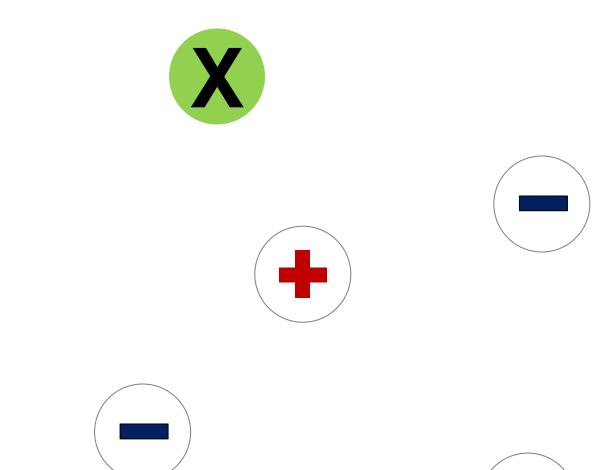


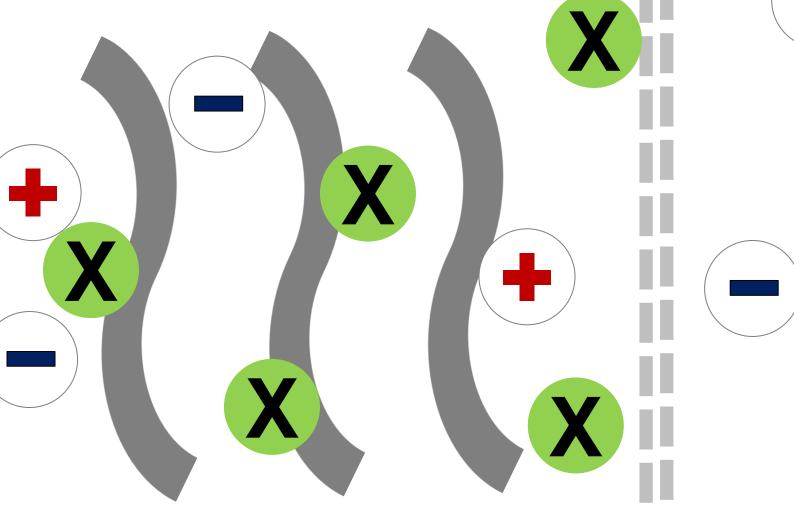
#### **45 Minutes Later**

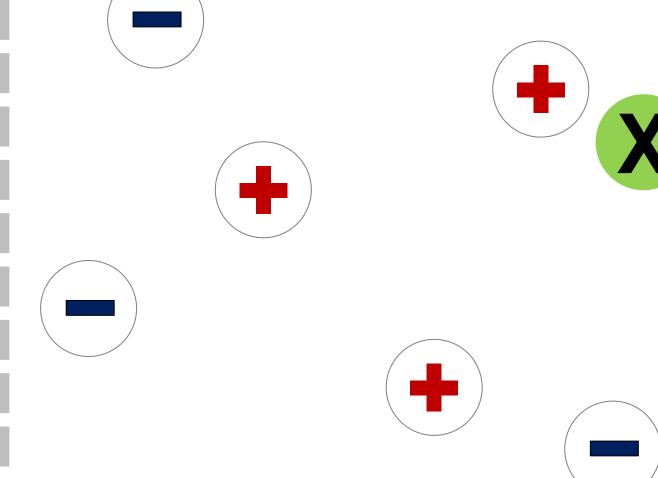














Inflow of Airborne Particles

Positive/Negative Ions Attach To Particles >

Particles, Odors and Pathogens Reduced >

Process Yields Safer, More Comfortable Air

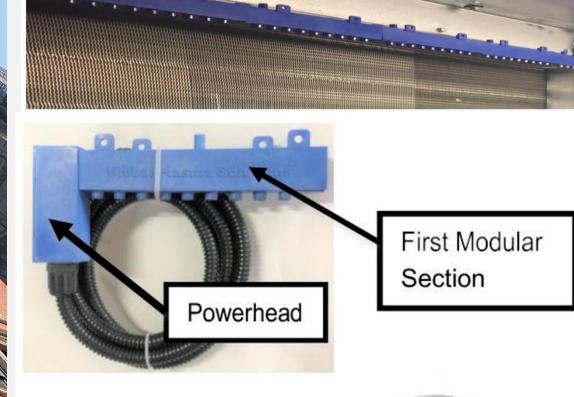
### **Polluted Air Entering Duct**

**Ionization** 

**Ion Neutralization** of Pollutants

**Clean/Fortified Air** 









The plan to improve indoor air quality at Mastercard's Headquarters in NYC included the installation of an O<sub>2</sub>Prime Needlepoint Bipolar Ionization. This provided the benefits of no retro-fit costs, less pressure drop, and less energy usage, without generating ozone.

#### **EASY AND LOW-COST**

Recent advances have made bipolar ionization units cheaper and easier to install. They can help actively and continuously clean, disinfect and decontaminate the indoor air without a substantial increase in a building's energy usage and avoiding costly upgrades to existing HVAC systems.

> **Needlepoint Bipolar Ionization at Mastercard Building** New York, NY

