Static Control Ionizer Specifically Designed to Ionize Nitrogen Gas Flow

ION Systems, an ITW Company, a leader in static charge neutralization and control products for high tech industries, announces the In-line Ultra Clean Nitrogen Ionizer, Model 4214, the first in-line ionizer specifically designed to ionize a nitrogen gas flow in ultra clean medical, semiconductor, or other high purity processes where static charge generation is an issue.

The Model 4214 In-line Ultra Clean Nitrogen Ionizer was developed to provide a solution to the problem of materials readily charging to 30 to 40 kV when handled in pure nitrogen environments. Many processes in the medical, semiconductor, and electronics industries are carried out in five 9s pure nitrogen environments (99.999% nitrogen). Nitrogen ensures a clean, non-oxidizing environment that enables critical processes to be carried out without contamination issues. The dry nitrogen environment, however, encourages static charge generation, which can cause particles contamination through electrostatic attraction, or damage from ESD events. The Model 4214 ionizer, by providing a stream of ionized nitrogen, can effectively remove static charge from products to minimize particle attraction and ESD events. Nitrogen cannot be ionized with standard ionization equipment designed for use in ambient air or CDA environments. The Model 4214 provides the user with the first small format ionizer that ionizes the actual nitrogen molecules instead of the trace impurity gases.

In addition to ionizing pure nitrogen, the Model 4214 is also the world's first corona ionizer that meets Extended ISO Class 1 cleanliness. Using formulas in the ISO 14644-1 standard, ION Systems has extrapolated the allowable particles down to 0.01 micron (10 nm) in size. These smaller particles which are not covered by ISO 14644-1 can be especially harmful to semiconductor devices with 32 nm or below technology nodes.

Source URL (retrieved on *07/12/2014 - 8:55am*):
http://www.mdtmag.com/product-releases/2011/01/static-control-ionizer-specifically-

designed-ionize-nitrogen-gas-flow?qt-video_of_the_day=0