

Eco-Snow Systems™ introduces new technology for cleaning image sensors

*CO2-based system removes up to twice as many small particles*

LIVERMORE, CALIFORNIA, U.S., January 26, 2009 – Eco-Snow Systems™, an affiliate of The Linde Group, has introduced a new, automated technology for cleaning image sensors.

Eco-Snow Systems is the leading supplier of automated, carbon dioxide (CO2) snow based cleaning tools and processes to the micro-electronics industry.

During the manufacturing process for these sensors, which are used in camera phones, PC cameras and, of course, video and still cameras, microscopic particles can settle on the lens, impacting picture quality. And as pixel size continues to decrease in order to achieve higher image resolution, the size of problematic particles on these lenses also continues to shrink.

The Eco-Snow Precision Clean 1000 uses CO2 snow to clean the sensors, removing up to twice as many small particles than competing technologies from the sensor or cover glass, without damaging delicate wire bonds. This efficiency results in significantly higher yield – a key consideration for manufacturers of high volume consumer products such as camera phones.

Joe Clark, general manager, Eco-Snow Systems, said, “Particle contamination is one of the biggest issues manufacturers face and is the biggest cause of yield loss. To ensure successful camera function, manufacturers now must remove particles as small as 1 micron in diameter. One way they can quickly and easily achieve this is by integrating the Eco-Snow Precision Clean technology into their production line.”

“Since installing the technology at their sites, our customers have realized yield improvement that is between 2 to 5 percent better than competing technologies, such as air blow, water and solvent-based cleaning. The Eco-Snow Systems process injects CO2 snow under high velocity and pressure onto the sensor’ surface, removing the particles more effectively and efficiently than alternate methods. Customers also value the more consistent yield rate the Precision Clean 1000 delivers,” Clark said.

Consumers around the globe are driving demand for imaging technology, demanding increasingly higher quality while expecting flat or even lower purchase prices.

The Precision Clean system offers manufacturers the flexibility of choosing an in-line module for continuous production or as a standalone tool for batch production. The standalone unit also offers load and unload capability for magazines, which reduces labor handling costs and contamination risk and delivering more consistent product yield. Both systems include CO2 delivery systems, high-purity CO2 supply, equipment commissioning and ongoing maintenance services.

As a leading innovator of dry CO2 technology, with over 100 tools installed, Eco-Snow Systems sets the standard for quality dry process cleaning solutions. Eco-Snow, based in Livermore, California, holds over 20 U.S. patents and has R&D clean room facilities to conduct process qualification and testing for customer application development.

For more information visit the Eco-Snow Systems’ website at [www.eco-snow.com](http://www.eco-snow.com)