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## United Air Specialists awarded a patent for its SFC Series of Cartridge Dust Collectors

*Industry's most efficient dust collector design  
means big cost savings for customers*

CINCINNATI, OH – June 13, 2005 – United Air Specialists Inc. has been awarded Patent No. 6,902,592 by the U.S. Patent and Trademark Office for the pulse-jet cleaning system in its SFC Series downward flow cartridge dust collectors. Introduced in 2003, the high-performance SFC removes harmful pollutants resulting from both process and nuisance manufacturing processes—metal working, woodworking, chemical processing—including grinding, welding, buffing, sanding, smelting and powder bulk handling. The result is a safer and cleaner environment for employees offering the lowest life cycle costs compared to all other competitive technologies and products.

The patent is formal recognition of UAS' industry-leading innovation in the field of industrial dust collection and pulse jet technology.

"The SFC Series is the most advanced cartridge dust collector available," said Steven Trame, Vice President of Sales & Marketing. "It's really a revolution in industrial air cleaning, and a tribute to the innovation of our company. By using our SFC unit, you're virtually eliminating air quality concerns in the workplace. Plus you're ensuring increased employee productivity, fewer absences and illnesses, more efficient cleaning, lower pressure drop, increased filter life and significantly lower operating costs."

Trame listed four primary benefits for customers:

- The UAS pulse jet technology requires fewer pulses to clean the cartridge filters, meaning less compressed air is used. This is a substantial cost savings for the customer over the life of the unit.
- Longer filter life. Fewer pulse cycles means less stress on the filter media and increased filter life. This equates to less frequent filter changes, which translates into significant reduction in operating costs.
- UAS engineers designed the filter for unobstructed airflow. This means there is more cleaning energy delivered to the filters to clean the entire length of the cartridge filter.
- Optimized cleaning (the heart of the patent) provides maximum filter efficiency with the lowest possible outlet emissions.

At the heart of the SFC Series is the industry's most advanced pulse cleaning system. Here is how it works: Utilizing an optimized "diverging isothermal flow (DIF)" nozzle and venturi, air is pulsed at a precisely calculated distance through an unobstructed filter airway. To accomplish this, UAS engineers used advanced Computational Fluid Dynamics to optimize the integrated design and to effectively "pulse off" dust from the filter – greatly improving the cartridge cleaning power.

With this patented technology, the SFC provides increased pulse cleaning energy, lower pressure drop and longer cartridge life. Unlike competitors, the SFC system uses external filter tracks to support the filters instead of internal filter supports "yokes" that interfere with cleaning. This allows for unobstructed airflow and increased cleaning power with less energy. At any point along the cartridge filter, the SFC unit provides 25 percent greater pulse cleaning energy than competitive designs.

The SFC is engineered with a variety of application-specific filter media. All SFC filters provide high filtration efficiency and long filter life. UAS/CLARCOR manufactures all of its own cartridge filters. The SFC is also designed for quick and easy maintenance. The SFC's "QuickSeal" door provides extremely fast filter removal with one simple movement of the handle. In addition, its modular design provides flexibility to increase unit capacity by adding modules at your facility.

Available standard options and accessories include:

- **Air Safety Filters.** Used when air is re-circulated into the plant or when collecting hazardous dusts, an air safety filter can be utilized to ensure that clean air is continuously discharged from the unit, returning conditioned air back into the plant.
- **Explosion Relief Vents.** Minimizes damage and provides a degree of personal protection in the unlikely event of an explosion that may result when collecting explosive dusts.

- **Abrasive Inlet Manifold.** Prevents filter media damage when collecting highly abrasive dusts.
- **Bag-In/Bag-Out Option.** Provides clean, safe, easy removal of fine, hazardous or difficult-to-handle dusts.
- **Blower Silencer Packages.** Duct-type silencer reduces unit noise level to 80 dBA or less under normal operating conditions.

The SFC Series is currently available through UAS' network of sales offices and authorized agents worldwide. For more information on UAS, the SFC Series and the air pollution control sales office closest to you, visit the UAS web site at [www.uasinc.com](http://www.uasinc.com).

### **About United Air Specialists**

For 40 years, United Air Specialists, Inc. has been the industry's leading manufacturer of technologically innovative, high-performance air filtration systems and equipment for a wide range of commercial and industrial environments and applications. UAS has manufacturing locations in China, England, Germany and the United States. United Air Specialists, Inc., [www.uasinc.com](http://www.uasinc.com), is a CLARCOR company.

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