

Purified Air trial innovative new emission control equipment

The emission of odours and particles from commercial kitchens, restaurants and fast food outlets is becoming an increasingly important environmental issue. As is the large number of industrial and commercial processes which produce noisome emissions as pollutants, such as paint spray booths, those manufacturing processes using solvents and glues, welding plants, and food and beverage processing applications.

It was in response to this issue that leading environmental control specialist **PURIFIED AIR** developed, with the aid of a DTI Smart Award, a new range of noisome emissions control equipment, which has been designed to fit into conventional ventilation and extraction systems. The equipment is currently undergoing an intensive trial period, which is proving very successful with the system meeting all its objectives including performance levels, prior to its launch later this year.

The Purified Air system combines minimal environmental impact with a superior performance, when compared to existing fume treatment systems. Current, more conventional emission control equipment generally uses cartridge or activated carbon filters, a combination of the two, or wet scrubbers. The main disadvantage associated with filtration equipment is that it can rapidly become clogged with organic waste materials, leading to a loss of performance. Whilst scrubbing systems, on the other hand, use large quantities of water, to provide the 100% humidity conditions that are necessary to induce condensation, which after it has been used is discharged as effluent into the water system.

The Purified Air unit is based around a revolutionary patented filtration technique, the rotating electrostatic condensing filter, and features a high speed, electrostatically charged rotating brush system. It operates using a combination of collection mechanisms comprising electrostatics, gas scrubbing, and inertial and diffusional separation, giving it a very efficient particle collection rate, even for solid or liquid particles of less than 10 microns in size.

Although these type of techniques are widely used in industry to remove particles and other gaseous pollutants they have not, until now been used together in a single gas cleaning unit. This new Purified Air system is also self cleaning, thereby avoiding the clogging problems associated with using conventional filters.

It is the use of a combination of pollutant collection mechanisms, making it highly efficient, coupled with its ability to self clean, so that it can be used for long periods without needing servicing or experiencing loss of performance, that make this odour and particle control system so innovative and so superior to existing equipment.

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