

TitanClean™

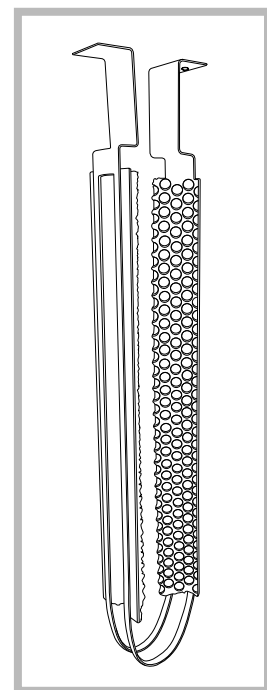
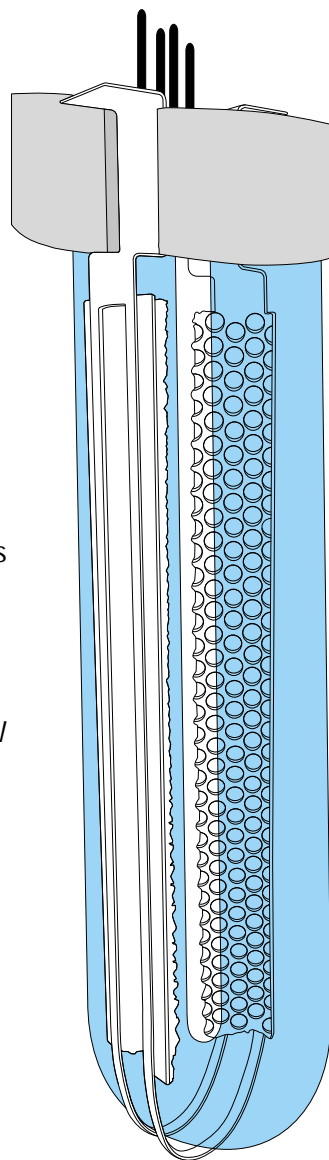
A QUANTUM LEAP forward in Air Purification

New space age air purification technology now available from Airpura Industries.

- **Titanium Dioxide Photocatalytic Oxidization**
Airpura's Titanium Dioxide Photo-Catalytic Oxidizer (PCO) dramatically increases the range of dangerous airborne chemicals that can be neutralized safely and effectively.
- **Nano-Technology Developed for the space Age**
The Airpura TitanClean™ uses the latest discoveries in nano-technology, developed by space research laboratories, to deliver a new and instantaneous airborne chemical abatement process.
- **Safely Breaks Down Harmful Chemicals and Odors**
TitanClean™'s titanium dioxide (TiO₂) coating in conjunction with the UV light, creates an oxidizing process that instantly breaks molecular bonds and reduces airborne chemicals to smaller safer compounds, until only carbon dioxide and water vapor are left.
- **No ozone**
Airpura strictly uses non-ozone generating UV lamps. When the UV lamps irradiate the (TiO₂), hydroxyl radicals and super-oxide ions, are produced to oxidize Volatile Organic Compounds (VOCs) and at the same time kill and decompose bio-aerosols.
- **The Airpura TitanClean™ reflector**
The TitanClean™ Reflector (patent pending) was created following Airpura's SPEC-A design principle:

Simple Powerful Effective Clean-Air

Airpura's design team have produced a simple powerful and effective design that maximizes the photocatalytic effect of the UV light on the titanium dioxide coating while at the same time allowing the full germicidal effect of the UV lamp.



Airpura
TitanClean™
Safely eliminates
harmful chemicals
and odors

Available in the new P600 air purifier

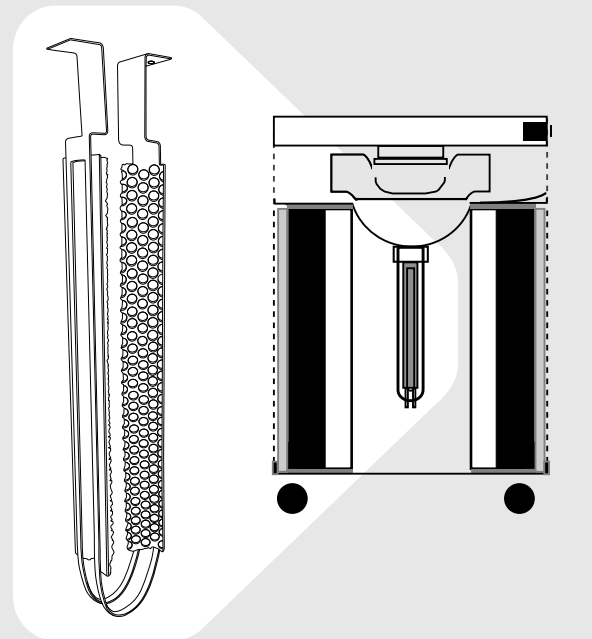
Natural Solutions Environmental, Inc - <http://www.naturalsolutions1.com>

Photocatalytic Oxidation (PCO)

- Developed and used in space technology laboratories for both air and water purification, the Photocatalytic Oxidation (PCO) process is simple and elegant.
- A metal surface coated with a metal oxide is irradiated with UV light to produce hydroxyl radicals and super-oxide ions.
- The hydroxyl radicals and super-oxide ions break the molecular bonds of chemicals they come into contact with and slice them into smaller compounds, that are further broken down until only carbon dioxide and water vapor are left.
- The specific type of metal oxide coating used is critical. Titanium dioxide (TiO₂) has proven to be the most effective, efficiently breaking down a wide range of chemicals without producing harmful byproducts (such as ozone).
- For maximum efficiency, the process requires a sufficient surface area of reflective metal coated with a metal oxide to be positioned at a critical distance from the UV lamp while still allowing a good flow of air to bring the airborne chemicals into contact with the resulting hydroxyl radicals and super-oxide ions.

The Airpura TitanClean™ Reflector

- The TitanClean™ Reflector provides a premium amount of TiO₂ coated surface area (115% of the width of the UV lamp).
- The angled reflector design maximizes the range of photo-catalytic oxidation within the filter chamber.
- The UV germicidal lamp maintains 98% of its antigen and pathogen destruction effect due to the interior position of the TitanClean™ reflector.
- The location of the TitanClean™ reflector and the UV light in the center of the filter chamber allows them to work in concert with the HEPA filter.
- Particulate pollution is stopped by the HEPA filter before reaching the reflector. This keeps the coated surface cleaner and more effective. Contact time of airborne chemicals is increased as they slow down passing through the HEPA. The diffusion of the germicidal dosage from the UV lamp is enhanced in the confined chamber.



Available in the new Airpura P600 model or retrofitted to an existing UV unit

The TitanClean™ reflector is offered as an integral part of the new P600 range of High Efficiency Air Purifiers from Airpura featuring a choice of HEPA and Carbon filtration or as an add on to your existing UV600 model.