

Factory Workers Breathe Easier Thanks to CosaTron



Application: Industrial & Manufacturing

Key Highlights

Problem: Industrial compounds, adhesive, and excessive ozone

Solution: CosaTron Series 1000 Units

Results: Entire 90,000 Sq. ft. facility cleared of smoke and haze in less than two hours

A reduction in the cost of filters

Suncruiser· Pontoon and Deck boats, Lebanon Missouri, a division of Lowes boats, manufactures Adventure. Adventure in the form of pontoons and deck boats. Quality in what they manufacture, and how they do it, comes first with Suncruiser Pontoons. Their boats are all first class. They offer a variety of color schemes, lengths, layouts, and accessories. Accessories you would not expect on a pontoon boat - propane barbecue grill, wet bar, pull out cooler, mounted trash receptacle, and a privacy enclosure for changing clothes. You can even add a toilet or shower to this enclosure. Definitely first class – and then some. Lowe Boats became the first full-line aluminum boat company to receive the International Organization of Standardization (ISO) 9001:2000 Certification for its approach to process improvement, product quality and customer satisfaction.

Kevin Hamby, Vice President, of Manufacturing and Engineering at Suncruiser, had a concern about the possibility of excessive ozone generation from all the welding activities at Suncruisers. Suncruisers had been in operation for approximately one year before they contacted Doug Hamilton, Air Quality, Inc., South Bend, to discuss their concerns. Suncruisers' 150 employees manufacture 250 pontoons per month. They were experiencing a problem with eye burning and irritation, not only on the floor, but on the mezzanine level where the leather coverings for the seats and panels are fabricated. Doug Hamilton visited their facility and made



a recommendation to install a CosaTron Series 1000 system which installs within new or existing air handling units. The electrodes are sized to fit the return air plenum between the filters and the heating and/or cooling coils. The power generator is located nearby, on the outside of the return air plenum.

CosaTron is a unique system of Indoor air quality control. The benefit of CosaTron In this type of installation is that CosaTron does not ionize the air and does not produce ozone. In fact, CosaTron controls the ozone produced in the space - in this case, from the heavy welding activity. During welding, both gases (including ozone, oxides of nitrogen, phosgene, carbon monoxide and carbon dioxide) and particulates can be generated.

Suncruisers has 15 MIG and TIG welders plus two automatic welders. One seam welder is twenty feet long. Suncruisers facility has 18' ceilings, 40,000 cfm and ten air changes per hour with high supply and low return. There is a twelve foot high plastic curtain which is used to cordon off the welding area from the main heating system. As part of their energy savings and payback program, they recycle the air rather than exhaust it.

CosaTron's patented process uses solid state electronic components to control the electrical forces of odorous gases, aerosols and other fine particles suspended

in the conditioned air, causing them to adhere to one another. These CosaTron treated particles enter the conditioned space and sweep up the particles produced in the manufacturing area. They then adsorb and absorb the various gases in the room and continue to grow even larger. These larger particles have sufficient cross sectional area to be seen by the air currents and can now be carried by the air currents to the returns. The airstream then passes through the filters. The larger particles, and those absorbed and adsorbed gases, are trapped in the filters. Suncruisers had the CosaTron system designed based on handling the welding area of their facility only. However, according to Kevin Hamby, on the very first day that the CosaTron system was turned on, the entire plant (90,000 sq. ft.) was cleared of the heavy haze and smoke in less than two hours.

The air actually became so clean that, for further operational savings, they reduced the efficiency of their final filters from 85% to 65%. These final filters are changed two to three times a year. The polyester pre-filters are blown out every two weeks and changed monthly. Over 30,000 CosaTron units have been installed in a variety of applications around the world over the past 50 years - wherever there is a concern for the air where you live, work, play and breathe, CosaTron has the solution.