“Integrated Ozone Technology based solution”

For

Hospital

Ozone is one of the most advance technologies and can be integrated with great advantage in treatment of Water, Waste Water and air treatment in hospital. Chemtronics has successfully designed and installed solution to integrate and retrofit with the present and conventional system with proven and time tested ozone based technology. Its technology integration gives buy back of CapEx in reasonably short period depending upon the application and customised solution.

Our Solutions for Hospitals

- Laundry Water Ozonation.
- Drinking Water Treatment.
- Ozone in Hospital HVAC System to improve Indoor Air Quality & Energy Efficiency.
- Operation Theatre Disinfection Solutions.
- Hospital Kitchen Odor.
- Cooling Tower Water Treatment Ozonation.
- Hospital Sewage Treatment Plant for Recycle & Reuse.
- Type II RO for Lab

Application Areas:-

IN HOSPITAL LAUNDRY WATER TREATMENT: -

- *Hospital laundries face great pressures to meet high standards of hygiene, quality, logistics, cost optimization and transparency.*
- *Textiles must be handled correctly to limit the transfer of dangerous bacteria amongst patients and healthcare staff and the right wash processes are vital for the desired result.*
- *As pressure grows on hospitals to cut costs, healthcare administrators are weighing the cost of outsourcing their linen services to textile rental companies against the cost-effectiveness of operating an on-premise laundry (OPL).*
- *A bad linen service is one of the most frequently heard complaints in a hospital. Attention to patients' personal needs and comforts are as important as the physician's medication and therefore adequate supply of clean linen becomes imperative. Besides helping in maintaining a clean environment, clean linen is a vital element in providing high-quality medical care. Also, pleasant employees in a fresh and neat uniform go a long way in creating a positive image of the hospital.*
- *The prevention of microbiological contamination is the most significant requirement for the hygienic processing of textiles.*
- *Hospital bed sheets, gowns, uniforms, towels and cleaning mops are potential tools for spreading infections.*
- *Properly controlled laundry processes can limit the spread of bacteria. Good practices start with appropriate washing techniques that will ensure decontamination of linen.*
- *The use of ozone in the laundry water reduces the requirement of detergents and also the wash can be achieved with lower temperatures.*
- *Ozone acts as a chemical enhancer. When applied properly ozone; Reduces water use, reduces fuel use in making hot water. Reduces chemical use, reduces waste water contamination. Ozone is also effective in Reducing fabric degradation .Extending linen life reducing formula run time (productive hours).extending equipment life*
- *Reduces energy cost of heating.*
- *Ozone destroys the residual alkali, eliminating the salt crystals left by the residual alkali and so eliminating the need for fabric softener. Once the fabric softener is removed, the drying time is substantially reduced which in turn results in additional energy savings.*

IN HOSPITAL DRINKING WATER TREATMENT: -

- *The Hospital Water Supply as a Source of Nosocomial Infections.*
- *Some of the most frequently isolated gram-negative bacteria, including Pseudomonas and Enterobacter, have been found to persist in hospital water for extended periods and have been responsible for nosocominal outbreaks.*
- *Contamination of the hospital water supply with potentially pathogenic organisms is very common,*
- *Impurities in potable water cases health disorders. In the hospitals patients generally take the drinking water directly from the supplies provided by the public health engineering. If this water becomes contaminated, the patient may suffer from some water borne disease.*
- *The drinking water distribution system of a hospital mainly obtained Legionella and Pseudomonas aeruginosa Moreover, several other opportunistic pathogenic bacteria, such as Escherichia albertii, Acinetobacter lwoffi and Corynebacterium tuberculostrearicum emphasizing that drinking water systems, especially those with stagnant water sections, could be the source of nosocomial infections.*
- *Ozone is both a strong oxidizing agent as well as a strong disinfectant*
- *Ozone interferes with the metabolism of bacterium cells most likely through inhibiting and blocking the operation of the enzymatic control system.*
- *A sufficient amount of ozone breaks through the cell membrane, and this leads to the destruction of the bacteria.*
- *Ozone destroys viruses by diffusing through the protein coat into nucleic acid core, resulting in damage of the viral RNA.*