

## Ozone In Hotels, Resorts & Hospitality:



- **Housekeeping - Odor free | Hygiene**
- **Kitchen - Sanitation | Disinfection**
- **Laundry - Whiter, Fresher & Hygienic**
- **STP - Recycle & Reuse | Odor Control**
- **Pool & Cooling Tower - Disinfection**

## **Air Disinfection & Odor Control:**

### **Housekeeping - Guest room, Corridor, Lifts Disinfection & Odor Control**

In hotels resorts & corporate there are multiple & diversified covers of odor. Mainly observed odors are food, cooking, misty, cigarette, garbage, dead animal/rodent, fire, VOC's paint cleaning chemicals synthetic material etc.

In hotel rooms, many times misty odor comes due to growth of fungi, mold, mildew etc. Many places it is impossible for housekeeping staff to reach to resolve the same. As these can be behind fixed, furniture's & below the carpets & within wallpapers false ceilings, air conditioning dusts. These issues are not generally not added by simply pest control & room perfumes & fresheners, this may not be a solution but due to residential & by-product generates can create none different & allergies. It is essential to disinfect the guest rooms, lobbies, corridors, elevators, without the use of any disinfectant & limited fresh air; it is very difficult to control indoor air quality.

In modern days most effective & safe method of removal of mold, fungi, Mildew, etc. in oxidizing them with respective on stock dose of air ozone. Ozone very quickly gets mixed in amtrient air & reaches everywhere in the room to oxidize. After reaction it does not leave any harmful resident on by product. Controlled ozone do in so optimized that residential unused ozone in minimum & even any truces due to its unstable nature reverts back to harmless oxygen.

When it comes to air treatment, ozone in the most powerful disinfectant known in the world. It is extremely fast & lethal on all kinds' pathogens, bacteria, vinorses. Regular dose keek micro insects, termite, bed bugs, spiders, cockroach, lizard etc away. It also keeps rodents flies & mosquito away.

Cigarette odor is very difficult for housekeeping staff eliminated, as it gets embedded in carpets, curtains, furniture's, wall, pillow & bed. Air ozone treatment can never easily oxidize the cigarette odor & toxics in the air. For smoking lounges ozone is the perhage only solution.

Hotels, corporate, building, has closed environment & limited supply of fresh air. Due to which there is a possibility of organic impurities & (VOCs) buildings. Ozone oxidizes them to extinction & greatly enhances indoor air quality & brings notifiable freshness.

## **STP Exhaust Air & Garbage room Odor Control**

Most of times in hotels & corporate buildings sewage treatment plants & garbage ulation rooms are in basement. These areas generate lot of foul odors in surroundings or to adjusting properties. These foul odors are chiefly due to organize H<sub>2</sub>S & ammonia generation. These foul odors are not only harmful but also create nuisances.

Strategically implementation of ozone treatment significantly oxidizes these foul odor covertly organic odors, ammonia & H<sub>2</sub>S into harmless odor free by product. These are many example where ozone technologies are integral part of building design & subsequent retro fillings.

## **Smoking Lounge Odor & toxic air control**

Phenol gases & typical characteristic odor is generated when tobacco is burnt during cigarette smoking. What is visible is only smoke but invisible phinolic gases & other toxic gases during smoking are also generated & spread all around. It can travel to long distance through air handling systems. These phinolic gases causes through air handling systems. These phinolic gases caused discomfort to eyes & breathing, to smokers & non smokers especially to infants, to pregnant ladies people suffering in asthma & allergies.

Most of the public places smokers are deprived of smoking or forced to smoke in a smoking in a smoking lounges. Unfortunately smoking lounges are at extreme level of odor & toxic gases. Higher level isolation & air handling system as per ASHER is not the recommended complete solution. These gases are continuously generated & get embedded while smoking. These are significantly oxidized by gases & odor and smoke dose of ozone without any side effects. There are many working examples where specifically sized & strategically implemented air Ozonators are installed in smoking lounges.

## **Food Court, Cafeteria, Bar, Discotheque, theater, lobby Odor Control**

Odor issues are originated from cooking, fire paces, alcohol, and cigarette smell etc. from food court, bar, theatres banquets hall, gym, & lobby it is vitally important to keep the air fresh & well oxygenated. Many times

air handling system design, limitation with over use can create discomfort & nuisance, when one enters from fresh areas.

A mild control dose of ozone relatively controls tooth residual & traversint odor due is food, cigarette smoking, perpination etc.

## **Enhance Indoor Air Quality [IAQ] - Conference Rooms, Gym, and Banquette Hall**

In hotel, resort, & corporate indoor air pollution & inadequate fresh air is a cause of sick building syndromes. In odor to make energy efficient design, modern day conference rooms, banquet hall & even corporate work places are thermally isolated from outside atmosphere in doiy so it also gets source of oxygen to balance eneutralise the air quality. This causes built up pollutants, contaminatins & VOCs. To solve these issues & enhance indoor air quality to some extend higher fresh airs are required. But higher fresh air can significantly increase load on air conditioning. To solve this condition of pollutants & limited fresh air supply, oxygen treatment becomes very useful in enhancing indoor air quality & brings back freshness. Compare to oxygen ozone has more oxidizing power, much loss quality of ozone is required.

## **AHU Duct Sanitation, Disinfection & Odor Control**

Unhealthy & contaminated air in air handling system is a very common in all hotels, resort & corporate building. Over the period of time air handling units, & duct becomes breeding ground for microorganisms, molds, fungi etc. without any disinfection this keep increasing & starts entering operational areas. It is very costly & time consuming to clean AHU & duct as a result most of the time they are unattended. When these fungi & mold delay, liberates. AHU duct can be easily be disinfected & sterilized integrating ozone in AHU ducts. The selection of technology & implementation are critical in AHU Ozonation. Industrial air ozone generators are capable of duct, sanitation & enhance IAQ.

## **Water Treatment:**

### **Raw Water From [Municipal / Tanker / Borehole] disinfection, odor & color control**

Due to shortage of water, hotel, resort & corporate gets their required quote from different sources, like municipal tank, bore well & recycled waste water. To make raw absolutely safe & disinfected chlorine in ban i.e. it is not allowed by many pollution control boards. Dosing ozone in a raw filtered water tank in the ideal place to keep water as well as tank sanitized & disinfected all the time. Unlike chlorine ozone work very fast & leaves no harmful by-product. Ozone is very effective on STP, treated water for reuse & laundry for fishing, gardening, & cooling Tower make-up.

## **Integrated Centralized Ozone Laundry System**

In hotels & resort use of liners is too high. Also guest expects clean, white & fresh pillow, bedsheets, towels, etc.

All across the world 3 star to 7 star hotels & resorts are using ozone laundry system. Conventional ozone laundry systems are not effective & safe. Latest trend into use integrated centralized ozone laundry system. This is very advance integrated system with high quality washing in shorter time less water chemical & no hot water. This veiwly developed integrated ozone system(IOS) in highly safe for staff & cloths. Return on investment in IOS laundry system is high. It does require hot water rise cycles are less, chemical consumption, is low, technologies environmental friendly & safe on operation & cloths wasted liners are whiter, odor free, fresher & fluffier with extend life

## **Fruits, Vegetables, Meat, Chicken, sea food etc washing & Rinsing**

Fruits, vegetables, meat, frozen food, sea food are generally not disinfected when they arrive hotels & resorts. Also during process, transport, & storage they get contaminated. Major issues are spoilage, cross contamination & pesticides.

Ozone in a very powerful & fast actiy oxidizer for all fresh, froze & sea foods. Meat, poke, beat has lot of toxing in & preventatives & disinfect them advance. All food processing industries across the world uses in fume washing & surface disinfection.

In year march 1975 USDA & FDA recognized ozone treatment to the good manufacturer Reactive (GMP) & in year june 1997 ozone was declared generally recognized of safe ( GRAs) & can directly come in contact with any food product, including sea food & meat.

## **Dinking Potable water, Ice Making & Beverages**

Ozone is proven, widely accepted and environmentally friendly means of sanitization used for drinking water and food related applications. It has the ability to rapidly kill virtually all of microorganisms including bacteria, viruses, fungi, yeast, algae, mold, parasites and other known sources of food borne illness. Ozone kills pathogens more broadly than chlorine or more chemical sanitizers and at the same time it completely eliminates odors. The use of ozone in the beverage industry can be attributed to process and downtime improvements more than cost savings. In the wine and beer industries, ozone is very attractive due to the sensitive nature of the final products. Ozone is very attractive as there is no residual left behind by the sanitation process to alter the flavor of the wine or beer.

**Ozonated water For Surface Cleaning & Sanitation**

**Swimming Pool Ozonation**

**Fish Pond / Aquarium Water Treatment**

**Cooling Tower Water Ozonation**

**Waste Water Ozonation:**

**STP tertiary treatment**

**Laundry Waste Water Treatment & Re use**

For more information please visit: <http://www.chemtronicsindia.com/>