

## **APPLICATIONS AND USES FOR OZONE:**

[Water Treatment](#)

[Medical Ozone](#)

[CLICK HERE!](#) to learn more about ozone in nature, and [ozone air treatment](#).

## **Applications for Surface Disinfection "Shock Treatments" and Air Purification:**

### **Remove or Control Household Odors:**

Ozone is very possibly the most powerful and effective eliminator of smoke and odors. Ozone Eliminates tobacco smoke, its impurities or Phenol gasses, and odors from cooking, pets, mold, mildew and often the sources of household odors. Disinfecting and purifying with ozone provides a much healthier home, atmosphere and environment. Popular units for general household uses include the [DC PRO 450](#), [DC PRO 970](#), [UV PRO 550](#), UV PRO 550AT, UV PRO 1100AT, [UV PRO 2800](#) ozone generators.

If you need an ozone generator with adjustable ozone output, two new models, the **UV PRO 550AT** or **UV PRO 1100AT** are ideal. The "AT" stands for Adjustable with 48 hour Timer. These models produce the cleanest and sweetest ozone ever possible - adjustable down to very low levels or high levels for shock treatments and are much more dependable than corona models on the market! Please call 866-225-3858 for information or to purchase.

Also See the **new! fully adjustable HVAC UV 560** Duct mounted ozone generator air purifier for permanent installation.

For serious conditions, we recommend shock treating with one of the following: [UV PRO 550](#), [PRO 5000](#), [PRO 9,000](#), [UV PRO 2800](#), [UV PRO 4000](#), [UV PRO 6800](#). Please call to size the ozone generator correctly if you are not sure.

866-225-3858 or direct line 330-497-6900

### **Hotels, Restaurants, Motels, Bed and Breakfast, Room Odor Removal:**

Ozone generators are particularly used by hotels and restaurants which have high standards of hygiene and health. Hotels and restaurants will find a portable ozone generator invaluable for performing deodorizing functions where nothing else would work. Ozone units are used for various areas in the hotel including the kitchen, lounge, bars, bathrooms, rest rooms, offices, bedrooms and garbage rooms. Customers that react negatively with chemical deodorizers will appreciate the "hypo-allergenic" non irritating environment ozone creates.

Clean-up time for a problem room is shortened with the use of an ozone generator. Turn a room with a bad odor into a fresh new smelling odor free room often in less than 20-60 minutes! This will allow rooms to be in service much faster. Rooms will stay fresh and customers will appreciate the fresh odor-free room that ozone creates. Also, use of an ozone generator, will disinfect the air and surfaces, reducing the risk of bacterial, viral and other infections. Ozone is proven to be an effective way to reduce room cancellations from odor complaints. The [UV PRO 550](#), UV PRO 550AT, UV PRO 1100AT, [UV PRO 2800](#), [UV PRO 4000](#), and [UV PRO 6800](#) are chosen for these tasks

based on how quick/ often the treatment is required, and how large the rooms / areas are.

See the **new! fully adjustable HVAC UV 560** Duct mounted ozone generator air purifier for permanent installation.

### **Pet and Animal odors, Kennels:**

In homes, veterinary Hospitals / clinics, offices and kennels, ozone can take care of odorous surfaces and make the presence of animals hardly noticeable. Using "shock treatments" ozone can remove offensive pet odors. Disinfecting pet areas with ozone kills mold & bacteria and this creates a healthier environment for pets, their owners, Hospitals, and Kennels. (Note that ozone shock treatments should not be done with pets or people in the room) Again, the UV ozone generator models are best - include [UV PRO 550](#), UV PRO 550AT, UV PRO 1100AT, [UV PRO 2800](#), [UV PRO 4000](#), and [UV PRO 6800](#) chosen for these tasks based on how quick/ often the treatment is required, and how large the rooms / areas are. These ozone generators are ideal for shock treatments.

See the **new! fully adjustable HVAC UV 560** Duct mounted ozone generator air purifier for permanent installation.

If you need an ozone generator with adjustable ozone output, two new models, the **UV PRO 550AT** or **UV PRO 1100AT** are ideal. The "AT" stands for Adjustable with 48 hour Timer. These models produce the cleanest and sweetest ozone ever possible - adjustable down to very low levels or high levels for shock treatments and are much more dependable than corona models on the market! Please call 866-225-3858 for information or to purchase.

### **Cigarette & Cigar Smoke Removal / Elimination:**

OZONE eliminates the irritation caused by phenol gasses, by oxidizing them. Phenol gasses are the invisible part of tobacco smoke that causes such discomfort to one's eyes and create the offensive odors. Ozone rids any environment of the effects of smoke completely, rather than merely filtering out some of the visible particles like an electronic air cleaner or air filter system. For restaurant, bar, or pool hall owners, these units have proven to be invaluable and help keep clientele coming back! Ozone Generators work better than "smoke eaters", [ionizers](#) or air filters for removing smoke & smoke odors. For Bar and pool room owners, we suggest the larger units - such as the [UV PRO 2800](#), [UV PRO 4000](#), or [UV PRO 6800](#) (includes standard output control switch set) - turning the ozone generator output down - this extends cleaning intervals significantly while giving [shock treatment](#) ability when needed. See the **new! fully adjustable HVAC UV 560** Duct mounted ozone generator air purifier for permanent installation.

### **Mold Decontamination, Control & Removal: [UV PRO 550](#), [PRO 5000](#), [PRO 9,000](#), [UV PRO 2800](#), [UV PRO 4000](#), [UV PRO 6800](#)**

Mold is a problem in today's damp or wet environments. Molds & mildew are the number one causes of allergic symptoms. Many harmful types of mold & fungus can be found worldwide. they grow in high-cellulose material, such as wood straw, hay, wet leaves, dry wall, carpets, wall papers, fiber-boards, some ceiling tiles, insulation, and more. This types are wet and may be slimy to the touch. This dangerous mold grows in medium to high humidity (55 % +). Even when dry, this type of mold can causes respiratory

problems. Using an ozone generator, you can help reduce, control and many times eliminate mold growth in your business and home. See our [mold page](#) for a better understanding of professional mold remediation and how ozone generators are properly used for mold remediation.

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**Fire and flood restoration: [UV PRO 550](#), [PRO 5000](#), [PRO 9,000](#), and the most powerful units; [UV PRO 2800](#), [UV PRO 4000](#), and [UV PRO 6800](#)**

Professional Fire restoration companies regularly use ozone generators for the removal of fire & flood odors. Fire and flood damage odors are the most difficult odors to remove. With a powerful ozone generator, these odors can be removed. Shock treating with high levels of ozone will remove the odor and allow the room to be habitable.

Due to the strong oxidizing power of ozone it is an extremely useful tool in the field of fire and flood restoration. In a smoke and fire damaged building ozone will eliminate smoke odors in the carpets, curtains, wood, cupboards, clothing, etc. In a flood damaged building ozone can be used once all the moisture has been removed. The ozone will eliminate musty odors and prevent growth of fungus, mold and mildew. Ozone is a much more economically viable option to restore fire and flood damaged buildings than any other conventional treatment method. See our [mold page](#) for a better understanding of professional mold (and smoke) remediation and how ozone generators are properly used for mold and smoke remediation.

### **Building cleaning services**

Ozone is effective for preventing the growth of bacteria and mildew in a bathroom, as well as neutralizing any unpleasant bathroom odors. Ozone generators can be fitted into public rest rooms to maintain a low level of bacteria and deodorize the area, creating the most sanitary conditions possible for clients and guests. Ozone generators can be used by cleaning personnel in an office area to deodorize and neutralize the smell of smoke, etc. The ozone generator can be left on in an empty room to sanitize and deodorize the room, getting rid of musty, stale smells and permeating the curtains and carpet killing bacteria and mildew. A portable unit can be used to deodorize rooms, offices or bathrooms or small permanent units can be installed in each room or bathroom. Many sized generators are used, but if you want an effective treatment quickly (in a couple hours or less) it is necessary to choose one of the larger machines, usually the [UV PRO 2800](#), [UV PRO 4000](#), or [UV PRO 6800](#).

### **Vehicle Restoration companies / USES:**

Ozone effectively deodorizes cars/automobiles, boats, trucks, vans, busses, and work vehicles. In addition to deodorization, ozone also kills germs that lurk on surfaces. Ozone permeates the fabric of the boat and car interior, neutralizing the bacteria responsible for unwanted smells. Therefore, ozone doesn't mask the odors, but oxidizes and kills the cause of the odor. Ozone generators can be used in the car or boat to prevent hay fever, and kill the smell of cigarette smoke and mustiness from damp upholstery. Car valet companies use ozone units to deodorize and disinfect cars. Portable

units can be used to perform a "shock treatment" to eliminate odors. Another large market for ozone generators is second hand car dealers as well as car rental agencies. Ozone will also stop and prevent the growth of mold, mildew and fungus. Ozone ruptures the cell membrane of organisms such as mold, mildew, spores, bacteria and fungus, thus killing them. The ozone shock treatment eliminates odors permanently, providing the contamination is not reintroduced. Ozone also oxidizes diesel, carbon monoxide and other chemical fumes.

Ozone proves to be invaluable for use in auto sales and restorations. With ozone shock treatments, vehicles smell fresh and clean. A fresh and clean smelling vehicle will sell faster and bring more profits after an [ozone shock treatment](#). While small ozone generators can shock treat cars, if you are in the [Auto Detail business](#), more ozone is required for super quick or thorough results. We suggest the [UV PRO 550](#), UV PRO 550AT, UV PRO 1100AT, or the [UV PRO 2800](#) for ultimate speed. The [UV PRO 550](#) can treat a vehicle within two hours for most contamination types; an excellent choice!

### **Crime Scene Clean-up/ Death Scene Biological Recovery services**

Critical professional applications such as animal, **death scene biological recovery/clean up** and odor removal companies choose a powerful ozone generator - the [PRO 9,000](#), [UV PRO 2800](#), [UV PRO 4000](#), and [UV PRO 6800](#) for this "extreme" odor and biological contamination removal. [See our Endorsement from a reputable bio-recovery training center.](#)

### **School buses and classrooms:**

One of the most inviting environment for the incubation of any kind of bacteria are those places where little ventilation exists, where the temperature is warm and a certain degree of humidity prevails. In classrooms and on school buses the combination of groups of people, the heating system and perspiration on bodies and in the atmosphere pave the way for the best conditions for bacteria and micro-organisms to multiply. The application of ozone in schools deodorizes the environment and regenerates oxygen resulting in a completely clean environment free of bacteria, micro-organisms and odors. We suggest the [PRO 5000](#), [PRO 9,000](#), [UV PRO 2800](#), [UV PRO 4000](#), [UV PRO 6800](#) machines.

### **Boat / Ship / Cruise line Odor:**

Boats often develop strong fish odors, bacterial, mold, and other odors. Ozone is excellent for removing and controlling these odors. Cruise ship companies can use ozone generators for room decontamination and odor removal just as hotels and motels.

### **Kill Dust Mites & Control Insects and Vermin:**

Dust mites are destroyed with ozone [shock treatments](#)! Insects and vermin are stay away from high levels of ozone. Ozone helps to remove their odors and keeps them from returning. Ozone is also used in attics to help keep rodents, birds, squirrels and other

insects out.

For example, a cockroach finds food and their home by the sense of smell. An [ozone shock treatment](#) can kill the odors of not only the food location, but of the cockroach's home. It is known that cockroaches will not leave their home if they cannot smell their way back. Also, if they smell no food, they're not interested!

### **Remove Indoor Air Pollution:**

Indoor air pollution, or "sick building syndrome," is now a foremost health concern for even newer buildings today. For newer buildings, the condition is created by the application of energy efficiency in the construction of buildings, and work places. Many of these buildings are sealed better than before and do not have enough ventilation to provide enough fresh air exchange. With an ozone generator, this condition and contamination can be reduced or eliminated which creates a safer, healthy indoor atmosphere. Hotels, Motels, Restaurants, Bars, lobbies, beauty shops, dry cleaners, and all enclosed public areas can be decontaminated from odors by destroying the odor source with ozone. Customers enjoy a healthier, odor free environment when in an establishment that uses ozone. See the **new! fully adjustable HVAC UV 560** Duct mounted ozone generator air purifier for permanent installation.

-Air conditioning duct sterilization

Unhealthy air in air-conditioned buildings and homes is an international issue that continues to worsen. Governments recognize that certain air contaminants cause wide spread discomfort, absenteeism and reduced productivity. Airborne microorganisms have been demonstrated to be the leading cause of problems such as BRI (Building Related Illness) and SBS (Sick Building Syndrome). Ozone has gained a rapid reputation for improving indoor air quality and preventing BRI. Ozone gas is widely used to treat ventilation ducts using two methods. Periodic duct cleaning and continuous duct dosing. It is ideal for air conditioning ducts and heating ducts, found throughout residential, commercial and industrial buildings. Ozone duct dosing is suitable for residential and office buildings, hotels, clubs, hospitals, animal holding facilities, etc. Dosing the air conditioning system will reduce odors and harmful micro-organisms in the space being ventilated, as well as preventing micro-organisms from growing and multiplying within the duct itself. The use of ozone can reduce power consumption and system costs by 30% due to less make up air required (cleaner re-circulated air) and lower pressure drop (due to less mold on filter and condenser coils). The equipment suggested are the adjustable generators such as the [DC PRO 450](#), [PRO 700](#), [DC PRO 970](#), and the two new UV ozone generator models, the **UV PRO 550AT** or **UV PRO 1100AT** are ideal. The "AT" stands for Adjustable with 48 hour Timer. These models produce the cleanest and sweetest ozone ever possible - adjustable down to very low levels or high levels for shock treatments and are much more dependable than corona models on the market! Please call 866-225-3858 for information or to purchase. Also see the **new! fully adjustable HVAC UV 560** Duct mounted ozone generator air purifier for permanent installation.

### **Travel and Vacation Uses:**

Just as Hotels and Motels use ozone, you can bring your own to suit your needs. If the room you are in is desired, and there is an odor issue - then no more having to change rooms from an odor problem! Popular units for travel uses include the [DC PRO](#)

[450](#), [PRO 700](#), [DC PRO 970](#), and the [3400 series](#) ozone generators.

### **Hydroponics or Greenhouse use:**

Hydroponics or greenhouse companies often use ozone to create a growing environment inhospitable to molds, viruses, bacteria, & bugs, resulting in better, healthier growth, and higher profits. Plants can grow faster and healthier with the correct application of ozone. Another significant effect is the reduction and elimination of the odors often associated with a hydroponics facility. See the **new! fully adjustable HVAC UV 560** Duct mounted ozone generator air purifier for permanent installation. Air purification with:

UV ozone generators with adjustable ozone output, two new models, the **UV PRO 550AT** or **UV PRO 1100AT** are ideal. The "AT" stands for Adjustable with 48 hour Timer. These models produce the cleanest and sweetest ozone ever possible - adjustable down to very low levels or high levels for shock treatments and are much more dependable than corona models on the market! Please call 866-225-3858 for information or to purchase.

Larger areas can use the [UV PRO 2800](#), [UV PRO 4000](#), or [UV PRO 6800](#) (includes standard output control switch set) with plenty of [shock treatment](#) ability when needed.

### **Food Packaging & Transportation - Extend Shelf Life:**

Ozone is now [approved by the FDA](#) for use in meat and vegetable food packaging / processing plants (and other foods) for more thorough cleansing of fruits, vegetables, other fresh produce, and meats.

Preservation, storage and transportation of fruit and vegetables

Ozone has a favorable effect on many refrigerated goods and is especially suitable for use in food packaging lines, ships and trucks. Ozone:

- Deodorizes and sterilizes refrigerating spaces and stores.
- Prevents transmission of odors.
- Controls the growth of mildew.
- Retards the ripening of fruit.

More information on the specifics of preservation and storage, effect on metabolism, disinfection, removal of odors, prevention of odor transmission, combating fungus, the effects of ozone on various refrigerated foods and operating costs is available on request.

See the **new! fully adjustable HVAC UV 560** Duct mounted ozone generator air purifier for permanent installation.

### **Painting contractors**

Due to the strong oxidizing power of ozone it is extremely useful for oxidizing and eliminating paint fumes and odors directly after a room or building has been painted. Ozone doesn't merely mask offensive odors, it oxidizes the cause of any odor problem. Because ozone is a gas, it can penetrate into small areas and onto surfaces which can't be treated as effectively with any other deodorizing agent. The advantage of this ozone treatment is that occupants of the building can occupy the building immediately after it has been painted without any discomfort due to the fumes and smells or any unnecessary delays. The larger output machines are suggested for this application; [PRO 5000](#), [PRO 9,000](#), [UV PRO 2800](#), [UV PRO 4000](#), [UV PRO 6800](#)

### **Aircraft odor and fungi control**

Airlines spend vast amounts of money on chemicals to disinfect aircraft. The sterilizing power of ozone is the strongest known element to be used against bacteria, micro-organisms, fungus and certain insect larvae and can therefore be used to eliminate or reduce the hazardous chemicals. The most appropriate environment for the incubation of any kind of bacteria are those places where little ventilation exists, where the temperature is warm and a certain degree of humidity prevails. In aircraft the combination of groups of people, the heating system and perspiration on bodies and in the atmosphere pave the way for the best conditions for bacteria and micro-organisms to multiply. The application of ozone in aircraft deodorizes the environment and regenerates oxygen resulting in a completely clean environment free of bacteria, micro-organisms and odors. Portable units can be used by aircraft cleaning personnel to easily deodorize and disinfect the aircraft. The efficiency of the ozone units can easily be demonstrated especially after long international flights.

### **Odor control for sewage plants**

Effective odor control and air purification requires that the odor or impurities be contained in either a ventilation stream or confined space. The odors and impurities can then be selectively treated. In most cases, those odors and contaminants generated by bacterial or organic action in either aerobic or anaerobic environments can be neutralized by oxidation using ozone. The resulting reaction compounds are innocuous and odorless. Properly controlled injection of ozone is an effective, inexpensive method of oxidizing hydrogen sulfide and methane. Each facility, with its unique problems with contaminants, environmental conditions, local requirements, and desired solution, must be addressed on an individual basis. All of these factors must be considered when designing a deodorizing/purification system.

### **Funeral parlors**

Ozone has a variety of uses for hygiene and sanitation, and is well suited to a funeral parlor. The use of ozone shows an important progression in the field of disinfecting, sterilization and deodorization because it is a natural oxidizing gas, which uses no chemicals and leaves no dangerous chemical residue, making it the most healthy and effective alternative to chemicals. Because ozone oxidizes bacteria and viruses, it kills the organisms, which are responsible for causing unpleasant odors. Ozone is very

effective for use in the mortuary for this reason, and also slows down the rate of decay and provides a more sanitary atmosphere in which the staff may work. All different sizes are used based on the desired use and odor control. Air purification is recommended with the [DC PRO 450](#), [PRO 700](#), [DC PRO 970](#), and the [3400 series](#) ozone generators. See the **new! fully adjustable HVAC UV 560** Duct mounted ozone generator air purifier for permanent installation.

### **Bowling alleys odor control**

Ozone can be used effectively in bowling alleys to accomplish several functions:

- Reduction of smoke and smoke odors
- Deodorization of stale alcohol odors
- Oxidizes all other unpleasant odors
- Deodorization and disinfection of bowling shoes
- Deodorization and disinfection of bathrooms and kitchen
- Eliminates bacteria, mold, mildew and fungus

### **Sanitizing and deodorizing washrooms**

Odors and bacteria are significantly reduced by ozone in washrooms. Noxious airborne chemicals and surface bacteria cause unpleasant and harmful odors. Ozone not only deodorizes washrooms effectively, it also kills the germs that can lurk on surfaces such as taps and toilets. Ozone should be used in conjunction with normal cleaning procedures to enhance the disinfecting process. Ozone being gaseous can penetrate even into the most inaccessible places. Due to ozone being a highly unstable molecule, it will react very easily when it comes into contact with an oxidizable substance. Unused ozone reverts back to oxygen leaving no residue. The generator is economical to run, it requires no chemical consumables and maintenance is minimal.

[CLICK HERE TO SELECT AN OZONE GENERATOR](#)

**More information is available on request.**

[330-497-6900](tel:330-497-6900)

Email us at: [info@o3ozone.com](mailto:info@o3ozone.com)

### **[BASIC GUIDE TO DEODORIZATION USING OZONE](#)**

The information on this page is a bit dated as it does not include most of the UV ozone generators or the fact that corona discharge ratings assume normal humidity levels of 40-50% which will reduce the output of corona discharge ozone generators by approx. 40-50%. A brief explanation of the difference between corona discharge ozone generators and UV ozone generators:

**[Why are UV ozone generators a better choice than corona discharge ozone generators?](#)**

(For all air or surface sterilization [Shock treatment](#) applications such as **MOLD, Smoke, Fire odors, musty smells, flood odor, protein decomposition odor, germ and virus remediation**, etc.)

The Biggest difference between **corona discharge** and **UV ozone generation** methods is that **UV ozone generators** have stable ozone output levels throughout humidity ranges, while the output of **corona discharge** ozone generators is significantly reduced by just moderate humidity levels such as 40–70% (ozone output is reduced by approx. 40-70% with 40-70% humidity). In addition, with UV ozone generators, the cleaning requirement is almost eliminated compared to corona discharge ozone generators. Also, the ozone produced from a UV ozone generator is cleaner (no nitric acids) and smells better than ozone produced from corona discharge machines, and is just as powerful and often more powerful as ozone produced by corona discharge [ozone generators](#). UV ozone generators include [UV PRO 550](#), UV PRO 550AT, UV PRO 1100AT, [UV PRO 2800](#), [UV PRO 4000](#), and [UV PRO 6800](#)

If you need an ozone generator with adjustable ozone output, two new models, the **UV PRO 550AT** or **UV PRO 1100AT** are ideal. The "AT" stands for Adjustable with 48 hour Timer. These models produce the cleanest and sweetest ozone ever possible - adjustable down to very low levels or high levels for shock treatments and are much more dependable than corona models on the market! Please call 866-225-3858 for information or to purchase.

With the above information in mind, the quantity of ozone required in the guide below can be cut in half when considering one of the UV ozone generators as the ozone output is not affected by humidity.

## **A BASIC GUIDE TO DEODORIZATION USING OZONE**

### **GENERAL OZONE SHOCK TREATMENT PROCEDURE :**

#### **Recommended equipment:**

**Commercial** PRO 3600-1, PRO 3600-5, PRO 5,000, PRO 9000, UV PRO 2800, or UV PRO 4000

**Residential** DC PRO 450, DC PRO 970, PRO 700, PRO 3400-1, or PRO 3600-1, or PRO 3600-5

The idea of an ozone shock treatment procedure is to eliminate the initial odors and contamination from the air and

surfaces and then provide continuous control over recurring contamination by way of ozone. First we must assess the

extent of the odor problem in order to determine the size of the ozone generator which would be required

to sufficiently eliminate the problem odor in a reasonable period of time. Once we have chosen the ideal size of ozone

generator for the particular treatment area, the ozone generator should be placed pointing in the direction of the

problem area. Strong fans must be placed throughout the area being treated to provide good ozone distribution.

Operate the ozone generator at it's highest capacity for as long as it takes to eliminate the odor problem. In most

cases it takes only a few minutes to do a shock treatment. If it is a type of odor that is absorbed in furniture, walls

and bedding, for example, cigarette smoke, takes only 30-120 minutes with the proper sized ozone generator. After

the shock treatment procedure is complete, air out the room , if the odor is expected to continue place a

ozone generator and monitor controller permanently in the area operating at a low level. Severe cases may require

a 24 + hour treatment. Milder cases may need a smaller unit or use lower output setting.

If your goal is to reduce or eliminate a toxic contamination, bacteria, etc. a test should be performed to ensure that

the application was successful.

*NOTE# while performing a shock treatment, make sure that all people, pets, plants and other animals are vacant from*

*the area to be treated. Also while using HIGH concentrations in a room, be sure that ozone does not leak into*

*connected or occupied rooms by way of furnace vents or wall cracks etc.*

## **HOTEL AND MOTEL ROOM DEODORIZING.**

### **Recommended equipment:**

DC PRO 450, DC PRO 970, PRO 700, or for larger rooms use a PRO 3400-1 or 3600-1

Odors left behind by guests can quickly and efficiently be eliminated by the use of ozone generators and

liquid deodorizers.

These rooms can generally be deodorized in 30 to 60 minutes for cigarette or alcohol etc., by using a DC PRO 450, DC PRO 970, PRO

700, PRO 3400-1, or PRO 3600-1. Air out room by opening windows for 2-4 hrs before re entering.

House keeper should also wet/dry vacuum the contaminated areas, (ex. vomit, spilled milk, spilled beer) with a good

detergent solution 24 hrs before deodorization procedure is performed.

### **Application procedure:**

After the room has been cleaned, place the ozone generator on a counter and turn on, allow to run approximately

30-60 min. Remove the generator and allow the room to sit unoccupied for about 2-4 hours. If there are any lingering

odors, retreat for 1 hour.

### **GROCERY STORE STORAGE AREAS:**

#### **Recommended equipment:**

**DC PRO 450, DC PRO 970, PRO 700, PRO 3400-1 or PRO 3600-1. PRO 3600-5, PRO 5000, PRO 9000, UV PRO 2800, or UV PRO 4000**

To reduce odors and reduce cross contamination of foods to other foods, install a ozone generator in an

out of the way place, with an additional fan to circulate the ozone efficiently throughout the entire area to be treated.

Next install an ozone generator monitor controller in the center of the treated area to ensure the levels of ozone do

not exceed the limits set by the Workers Compensation Board Of BC which are .08ppm. averaged over an eight hour

work period. The controller will cycle on and off as needed to maintain and control the ozone at the proper levels.

### **SMOKING LOUNGES:**

**Suggested Size: PRO-3600-1, PRO 3600-5, PRO 5000, PRO 10000. Dependent on the size of room and**

**contamination level.**

The ozone generator should be properly sized for the specific area and number of possible smokers. The

Ozone generator should be hooked into the air handling system in order to ensure proper distribution. ( Mounting

brackets are available for the PRO 3600, 5000, & 10000). An ozone controller should also be used in order to ensure

safe levels are not exceeded.

If a controller is not used adjust ozone generator so that can not detect the ozone or the problem odor.

Begin with the ozone generator on low setting and work your way up slowly. One person at the establishment should

be in charge of adjusting the ozone generator output as the number of smokers increase or decrease. If ozone is set

for 40 smokers and 30 vacate, then the ozone generator should be adjusted to lower setting, otherwise the air will

become excessively ozonated and possibly cause sore throat or headache.

## **OFFICES AND STORE FRONTS:**

### **Recommended equipment:**

**DC PRO 450, DC PRO 970,3400-1 Dependent on the size of room and contamination level.**

The same procedures are used here as in the smoking lounges with one exception, That usually there is no smoking

in offices and store fronts, therefore a smaller ozone generator may be required.

### **ITEM DEODORIZATION** (Mattress, couch, cloths, books, etc)

Most obnoxious odors such as mold, mildew, smoke, etc. can easily be removed from Mattress, couch, cloths, books,

etc etc.

You can easily make or utilize a room of proper size to accommodate all the articles to be deodorized. Place circulating

fans in the room to vigorously blow the ozone around the room to penetrate the porous materials. If possible route

fresh air into the ozone generator to reduce oxidation of the components. Place the items to be deodorized in the room

and operate the ozone generator on full. This procedure may go on for 1-72 hrs depending on the circumstances.

Recommended equipment: DC PRO 450, DC PRO 970, PRO 700, PRO 3400-1 or PRO 3600-1. PRO 3600-5, PRO 5000, PRO 9000, UV PRO 2800, or UV PRO 4000 &

C20 liquid deodorizer

For commercial restoration ozone rooms you should use .5-2 g/hr ozone for every 100

sq/ft, depending on how fast

the job needs to be done and how bad the problem is. With .5 g/hr / 100 sq/ft you should treat for 12-24 hours +,

with 2 g/hr / 100 sq/ft it should only take about 4-8 hours.

For the do-it-yourself home owner, the treatments can be done in a smaller room to allow the use of a much smaller

unit. Just calculate the size of your largest room to come up with the size of unit that you will require. Also most home

owners are not in as much of a rush to do the job, if this is so you can probably do the job with 1/4 of the above

recommended ozone production.

### **Application procedures:**

The DC PRO 450, DC PRO 970 and the PRO 700 are ideal for doing small shock treatments. Simply place the item in a room that will

not allow ozone to leak into occupied areas. Place an appropriately sized ozone generator in the room along with a

circulation fan and set the level control to full. Turn the generator on, close and lock the door. Allow to operate for

the above recommended times. Turn the ozone generator off and close the door once again for about 3-4 hours before

returning to the room to allow the remaining ozone to convert back to oxygen.

The PRO 3400-1 is functionally the same but has a higher output and is upgradeable.

The PRO 3600-1, PRO 3600-5, PRO 5000, and PRO 9000, UV PRO 2800, or UV PRO 4000 are the best units for commercial shock treating items

in a room. These units allow the use of a hose to rout the ozone into the ozone room or fresh air into the ozone

generator, this keeps the generator from oxidizing itself. The PRO 3600-1 is also upgradeable, if more ozone is needed

for a specific job or you need to do the treatment faster, just add an extra generator plate.

For this reason this is the best unit suited to a commercial application.

### **Important:**

-If the odor was caused by a liquid contamination such as musty odor from a leak, you

must first fix the leak or the problem will come back.

-If the odor was caused by a liquid contamination, the area needs treated with C20 to ensure that the odor will not come back.

## **DECOMPOSED PROTEIN:**

### **Recommended Equipment:**

PRO 3600-1, PRO 3600-5, PRO 5,000, PRO 9000, UV PRO 2800, or UV PRO 4000  
Depending on the size of room to be treated.

Protein contamination is the result of food products such as milk, fish, meat, eggs etc. Other sources are from human

or animal bodily discharge (like blood, urine, feces etc), decomposed meat, decomposed animal within a crawl space,

death scene (decomposed body). In all cases of decomposed protein, the source of the odor must be removed as the

first step to deodorization. (It is recommended that gloves and a respirator be worn to reduce the exposure to fleas

and deadly contamination). Next treat the contaminated surfaces of the floor or any other items the protein was

contacting with a liquid sanitizing solution to kill the contamination. Then a good liquid deodorizer like C20 or

equivalent should be applied to all contaminated surfaces. Once the liquid sanitizing and deodorizing has been applied

and has had time to dry 100%, the ozone generator may be placed in the treated area at a setting of

medium to high to eliminate the gaseous odor absorbed by the walls and furniture etc. Use a strong fan to help force

ozone into the pores of walls and furniture fabric. **Note # Ozone may be set on a low setting before the**

**technician enters the room to deodorize the air in order to make the environment more comfortable to**

**work in.**

## **FIRE AND FLOOD RESTORATION.**

Fire & flood odors are easily taken care of with a ozone generator & C20 liquid

deodorizer. C20 liquid

deodorizer is a non fragrance deodorizer ideal for use in fire & flood restoration prior to ozonating. All

Ozone generators utilize corona discharge technology, creating a reliable long lasting ozone generator that will last

for years to come. Click here to go to the Home Page for information on our ozone generators and liquid

deodorizers.

In cases of small fire and smoke damage (e.g.: Grease Fire on stove, Severe toaster fire, fire place back through,

mattress fire, electrical fire etc). With smoke fumes the premises should be thoroughly cleaned including the forced

air furnace system before deodorization begins. Place a ozone generator on each level of the building

accompanied with a good blower fan to force the ozone through the small pores of the walls, carpet, and furniture.

This process may take up to 24-72 hours for adequate results to be achieved. Furniture and mattresses may need

additional treatment by draping a sheet of plastic over them and placing an ozone generator underneath for approx.

1\_2 hours.

Note: Odors created in a hot environment are embedded deeper in the pores of the materials such as curtains,

furniture, wallboard etc. This is due to pores expanding when hot and closing when cold. A warm environment will

always produce better results than a cold one when deodorizing a gaseous odor.

**Recommended equipment:** PRO 3600-1, PRO 3600-5, PRO 5,000, PRO 9000, UV PRO 2800, or UV PRO 4000 & C20 liquid deodorizer

For commercial type restoration jobs you should use .5-2 g/hr ozone for every 100 sq/ft (.25-1.5 g/hr for UV ozone generation; due to the fact that UV ozone generation is not drastically affected by humidity as with corona discharge), depending on how fast the job needs to be done and how bad the problem is. With .5 g/hr / 100 sq/ft (approx. .25 g/hr for UV ozone generation) you should treat for 3-4 days +, with 2 g/hr / 100 sq/ft (approx. 1 g/hr for UV ozone generation) it should only take about 12-24 hours.

For the do-it-yourself home owner, the treatments can be done one room at a time to allow the use of a much smaller

unit. Just calculate the size of your largest room to come up with the size of unit that you will require. Also most home

owners are not in as much of a rush to do the job, if this is so you can probably do the job with 1/4 of the above

recommended ozone production.

### **Application Procedures:**

#### **Site preparation:**

1. All damaged items need to be removed from the area as well as any carpet, wall board, or other building materials

that are to be replaced.

2. Thoroughly clean all areas possible, and deodorize with C20 liquid deodorizer (4oz/gallon of water). Allow the C20

to completely dry, It does its job as it dries. The odor may actually seem to get worse until it dries due to the fact that

C20 is a true deodorizer and contains no fragrance to "cover" the odor.

**FIRE NOTES:** It will be much more difficult to deodorize if Inorganic items such as plastics etc. were burnt in the fire.

The C20 works mainly against organic odors, if the odor is from an inorganic item like plastic, repeated ozone

applications may eliminate it.

**FLOOD NOTES:** If it is a flood, a spill, or any damage from a liquid, do not miss this step. Also ensure that the area

is soaked in C20 to the same degree as the original flood or spill, this will ensure that the C20 penetrates to the same

depth as the damage is.

#### **Ozone application:**

Place the ozone generator in an area that will provide the best circulation and distribution of the ozone. Run an

extension cord from all generators to the receptacle closest to the exit door. Use auxiliary fans to help with circulation,

this will also help to drive the ozone into the pores of the materials. Turn the generator/s to full output and to the on

position. Leave the premises and lock all entrances. Allow the ozone application to

operate for the above

recommended time. If the problem is especially bad increase the amount of ozone used or the length of the

application accordingly. Upon returning to the premises, turn off the ozone generators by unplugging the extension

cord. Leave the premises and lock all entrances. Allow the building to sit for 4-8 hrs, this allows the remaining ozone

to convert back to oxygen and reduce ozone exposure.

## **MOLD AND MILDEW REDUCTION**

Mold, mildew, and fungus can be oxidized with ozone. ozone generators reduce or eliminate the ability for

the exposed mold, mildew and fungus to grow as well as oxidizing the existing mold. Mold and mildew grow in dark

and humid places where there is a lack of fresh oxygen. In all cases the moisture and humidity in the walls, floor etc.,

must first be removed or solved permanently to effectively eliminate the problem mold and odor. Once moisture is

removed, all visible mold and mildew should be removed, then a shock treatment procedure can be performed lasting

for 24-72 hrs. A small ozone generator can be used to help control continuous mildew problem odors if they persist.

### **Recommended equipment:**

#### **Commercial:**

PRO 3600-1, PRO 3600-5, PRO 5,000, or PRO 9000, UV PRO 2800, or UV PRO 4000

For commercial mold treatments jobs you should use .5-2 g/hr ozone for every 100 sq/ft, depending on how fast the

job needs to be done and how bad the problem is. With .5 g/hr / 100 sq/ft you should treat for 1-2 days +, with 2

g/hr / 100 sq/ft it should only take about 6-12 hours.

#### **For the home owner:**

DC PRO 450, DC PRO 970, PRO 700, PRO3400-1, PRO 3600-1, PRO 3600-5, PRO 5,000

For the do-it-yourself home owner, the treatments can be done one room at a time to allow the use of a much smaller

unit. Just calculate the size of your largest room to come up with the size of unit that you will require. Also most home

owners are not in as much of a rush to do the job, if this is so you can probably do the job with 1/4 of the above

recommended ozone production.

### **Application Procedures:**

#### **Site preparation:**

1. Mold usually occurs because of a leak or humidity problem. This leak or humidity problem must be fixed or solved

or the problem will continue to persist.

2. All damaged or rotten items should be removed from the area as well as any carpet, wall board, or other building

materials that are to be replaced.

3. Thoroughly clean all areas possible, remove any visible mold, mildew, etc.

#### **Ozone application:**

Place the ozone generator in an area that will provide the best circulation and distribution of the ozone. Run an

extension cord from all generators to the receptacle closest to the exit door. Use auxiliary fans to help with circulation,

this will also help to drive the ozone into the pores of the materials. Turn the generator/s to full output and to the on

position. Leave the premises and lock all entrances. Allow the ozone application to operate for the above

recommended time. If the problem is especially bad increase the amount of ozone used or the length of the

application accordingly. Upon returning to the premises, turn off the ozone generators by unplugging the extension

cord or use timers available at your local lumber store for less than \$20. Leave the premises and lock all entrances.

Allow the building to sit for 4-8 hrs, this allows the remaining ozone to convert back to oxygen and reduce ozone

exposure.

Special notes on mold, mildew, etc.

- ozone generators help to reduce or eliminate the ability for the exposed mold, mildew and fungus to

grow. However mold and mildew grow in dark and humid places where there is a lack of oxygen and is usually caused

by a leak, improper drainage, or high humidity. In all cases the moisture and humidity in the walls, floor etc., must

be removed permanently to effectively eliminate the problem.

- In all cases you must do a test to know the effectiveness of your ozone application. If you do not test before and

after the treatment you will not know whether it was effective. This test should be done on a regular schedule to

ensure that the contamination does not return.

### **MUSTY BOOKS: Suggested Size: PRO-3600-1, PRO-3600-5**

Books must be placed in a room and be opened as wide as possible. Arrange ozone generator and fan to

blow over the books. This process should take no more than one hour. Repeat if necessary.

### **PET ODORS!**

Pet odors are easily eliminated with the proper application of C20 and ozone. If you have a pet odor from urine on

the carpet, etc. has the only complete solution available. C20 deodorizer and an ozone generator will totally

eliminate the odor for good.

### **Recommended Equipment:**

#### **Commercial**

PRO 3600-1, PRO 3600-5, PRO 5,000, or PRO 9000, UV PRO 2800, or UV PRO 4000

For commercial pet odor treatment jobs you should use .5-2 g/hr ozone for every 100 sq/ft, depending on how fast

the job needs to be done and how bad the problem is. With .5 g/hr / 100 sq/ft you should treat for 1-2 days +, with

2 g/hr / 100 sq/ft it should only take about 6-12 hours.

#### **Residential**

DC PRO 450, DC PRO 970, PRO 700, PRO3400-1, PRO 3600-1, PRO 3600-5, PRO 5,000

For the do-it-yourself home owner, the treatments can be done one room at a time to allow the use of a much smaller

unit. Just calculate the size of your largest room to come up with the size of unit that you will require. Also most home

owners are not in as much of a rush to do the job, if this is so you can probably do the job with 1/4 of the above

recommended ozone production.

### **Application Procedures:**

#### **Site preparation:**

1. All damaged items need to be removed from the area as well as any carpet, pet beds, wall board, or other building

or pet bedding materials that are to be replaced.

2. Thoroughly clean all areas possible, and deodorize with C20 liquid deodorizer (4oz/gallon of water). Allow the C20

to completely dry, It does its job as it dries. The odor may actually seem to get worse until it dries due to the fact that

C20 is a true deodorizer and contains no fragrance to "cover" the odor.

#### **Important**

Ensure that the area is soaked in C20 to the same degree as the original pet urine, this will ensure that the C20

penetrates to the same depth as the damaging odor is.

#### **Ozone application:**

Place the ozone generator in an area that will provide the best circulation and distribution of the ozone. Run an

extension cord from all generators to the receptacle closest to the exit door. Use auxiliary fans to help with circulation,

this will also help to drive the ozone into the pores of the materials. Turn the generator/s to full output and to the on

position. Leave the premises and lock all entrances. Allow the ozone application to operate for the above

recommended time. If the problem is especially bad increase the amount of ozone used or the length of the

application accordingly. Upon returning to the premises, turn off the ozone generators by unplugging the extension

cord. Leave the premises and lock all entrances. Allow the building to sit for 4-8 hrs, this allows the remaining ozone

to convert back to oxygen and reduce ozone exposure.

### **Special notes on pet odors.**

1. If the odor originated from urine it is VERY important to treat with C20 first and make sure that it is soaked in well.

2. If the pet's bed is the source of the odor, or if the pet lived in the area for a long time all porous floor areas should

be treated with C20 prior to the ozone treatment. This will help in deodorizing the pet dander and body oils that have

fallen through the carpet to the floor board, if this step is not done the odor may come back and require re treatment.

### **GARBAGE ROOMS:**

#### **Recommended Equipment:**

***PRO Series 3600-1, 3600-5, Depending on the size of garbage room*** Place the ozone generator on

a shelf above the door entrance positioned so the air stream blows away from the sensitive entrance area. An

additional oscillating fan will greatly enhance the deodorization results by mixing all the contaminated air efficiently

with the generated ozone. A shock treatment procedure may be required as the first step to treatment in a garbage

room. (Refer to OZONE SHOCK TREATMENT PROCEDURE above), depending on the severity of odors prior to

placement of ozone generator. Humid rooms may need dry air routed to the ozone generator with a four

inch pipe or hose.

### **COMPACTOR BINS:**

#### **Recommended Equipment:**

***PRO 3600-1, 3600-5, 5000 Depending on severity of odor.***

PRO series ozone generator have a hose adapter as a standard feature and can be

ordered with secure SS

mounting brackets. The ozone generator should be securely mounted to the compactor in such an area that is

accessible for maintenance but not accessible to public or workers. Next cut a 4" hole in front of the ozone generator

for the ozone to be routed through. Using a 4" PVC sewer pipe elbow, route the ozone through the hole that was cut

out of the compactor in front of the ozone generator. Place an ozone controller in the compactor room to ensure that

the ozone concentration does not exceed the maximum safe levels.

### **AUTOMOBILE DEODORIZATION**

Most obnoxious odors such as mold, mildew, smoke, etc. can easily be removed from cars, trucks, RV's etc.

Cigarette smoke and most other organic odors can be removed from a car, truck, boat, motor home etc in 1-2 hours.

First you should clean the vehicle thoroughly. If the odor is known to be caused by a liquid such as milk or urine you

should first treat the area with a high quality non fragrance liquid deodorizer like C20. Ensure that the vehicle is

completely 100% dry prior to ozone application, failure to do so may cause damage to the interior components.

Place an ozone generator in car or truck, if the vehicle has air conditioning set the heater/AC to re-circulate

the air and adjust vent fan to full. Operate ozone at half to full for 1-2 hours. Open the doors and air out car or truck,

check for lingering odors a couple of hours later. Repeat the procedure if necessary.

Note: Caution in areas of treatment using high levels of ozone. Treat all exposed natural rubber with a silicone spray

or Vaseline in order to prevent cracking. This is not the case with fabric covered rubber cushions.

CAUTION: Some car and truck odors are a result of chemical fragrance deodorizers that are non ozone depleting and

therefore are very difficult to eliminate. Animal dander and oils embedded under the carpet, must sometimes be lifted

and cleaned with C20 or equivalent liquid deodorizer before treatment with ozone.

**Recommended equipment:**

DC PRO 450, DC PRO 970, PRO 700, PRO 3400-1, or PRO 3600-1. & C20 liquid deodorizer

**Application procedures:**

The DC PRO 450, DC PRO 970 runs on 12vdc for use where you can not get AC wall voltage or when you need it on the go. Smokers

can keep the unit on low 24 hours per day and always come back to a fresh smelling car. Turn it up to full for 1-2

hours and do a low level shock treatment. If you are a smoker or have a smoker in the family, you can't go without

one!

The DC PRO 450, DC PRO 970 and the PRO 700 are ideal for auto detailers and dealers that need to shock treat 1-2 cars per day. They

are the two lowest priced AC ozone generators that we offer yet they are powerful enough to deodorize a small RV.

The PRO 3400-1 is functionally the same but has a higher output and is upgradeable to a higher output.

The PRO 3600-1 Is the best unit for shock treating a car, truck, RV, etc.. The PRO 3600-1 allows the use of a hose

to rout the ozone into the vehicle or fresh air into the generator, this keeps the generator from oxidizing itself. The

PRO 3600-1 is also upgradeable, if m ore ozone is needed for a specific job or you need to do the treatm ent faster,

just add an extra generator plate.

For this reason it is the best unit suited to a detailer or auto dealer that is treating several auto's every day.

**Important:**

-If the odor was caused by a liquid contamination such as musty odor from a leak, you must first fix the leak or the

problem will come back.

-If the odor was caused by a liquid contamination such as pet urine, the area needs treated with C20 to ensure that

the odor will not come back.

## **BOAT AND YACHT DEODORIZATION**

Most obnoxious odors such as mold, mildew, smoke, bilge odors, etc. can easily be removed from boats and yachts.

Boat & yacht bilge odors are easily taken care of with a ozone generator & C20 liquid deodorizer. Just place

ozone generator in bilge or living quarters when at dock and operate on full for 24 hrs. Ensure that all plants pets and

people are removed for the duration of the deodorization process. Air out the living quarters of the boat or yacht

before re entering. For heavy boat & yacht bilge odors use C20 liquid deodorizer prior to ozone application.

### **Recommended Equipment:**

DC PRO 450, DC PRO 970, DC PRO 450, DC PRO 970, PRO 700, PRO 3400-1 or PRO 3600-1. & C20 liquid deodorizer

### **Application procedures:**

The DC PRO 450, DC PRO 970 runs on 12vdc for use where you can not get AC wall voltage or when you need it on the go. If you are away from dock for extended periods of time and/or do not have AC voltage on board, then the DC PRO 450, DC PRO 970 is the unit for you. ( 120VAC wall adapter also available).

The DC PRO 450, DC PRO 970 and the PRO 700 are ideal for shock treating boats and yachts at dock or away if you have AC power.

These are a few of the lowest priced AC ozone generators that we offer yet they are powerful enough to deodorize the bilge of a 40-50ft yacht.

The PRO 3400-1 is functionally the same but has a higher output and is upgradeable to a higher output.

The PRO 3600-1 Is the best unit for shock treating large boats and yacht at dock. The PRO 3600-1 allows the use of

a hose to rout the ozone into the bilge or other contaminated areas. The PRO 3600-1 is also upgradeable, if more

ozone is needed for a specific job or you need to do the treatment faster, just add an extra generator plate.

### **Important:**

-If the odor was caused by a liquid contamination such as musty odor from a leak, you may need to first fix the leak

or the problem will come back.

-If the odor was caused by a liquid contamination, the area needs treated with C20 to ensure that the odor will not

come back.

## **REDUCING CONTAMINATION IN OCCUPIED AREAS**

If you wish to use an ozone generator as an air purifier, cleaner, deodorizer, etc. in an occupied area you must

first realize that ozone will NOT completely sterilize any environment at a level that is safe for people, plants and

pets. It may however reduce the contamination when used properly, if you are trying to sterilize the surfaces of

an environment please refer to the shock treatment section.

**(Setting Ozone Level)** The right level is when all the generated ozone is being used up accomplishing its job.

However, this is difficult to obtain because it becomes a balancing act. Initially the machines output is set high for

a short time to get rid of the problem odor as quickly as possible. As this is accomplished less ozone is required

for the diminishing odors, thereby leaving some residual ozone in the air. If the machines output is not turned

down after a short while then more residual ozone will be left in the air. If there is a heavy smell of ozone, there is

more ozone present than is required to do the job. Simply turn the rheostat (output level control) on the ozone

generator down to reduce the ozone output. This is a case where more is not considered better. The levels of ozone

required to deodorize most environments are from .03ppm to .1ppm.

The ozone generator should be properly sized for the specific area and number of possible smokers or

other contaminants. The Ozone generator should be hooked into the air handling system in order to ensure proper

distribution. (The Ductzone is designed to be mounted on the ductwork or if higher output is required, mounting

brackets are available for the PRO 3600, 5000, & 10000). An ozone controller should

also be used in order to

ensure safe levels are not exceeded.

If a controller is not used (not recommended) adjust ozone generator so that the ozone or the problem

odor can not be detected. Begin with the ozone generator on low setting and work your way up slowly. One

person should be in charge of adjusting the ozone generator output as the contamination increases or decreases.

If ozone is set for 40 smokers and 30 vacate, then the ozone generator should be adjusted to lower setting,

otherwise the air will become excessively ozonated and possibly cause sore throat or headache.

### **Recommended equipment:**

An ozone generator capable of approximately 20 mg/hr / 100 sq/ft of space and an ozone controller to ensure that

the ozone is kept at a safe level. The amount of ozone needed is different for every installation due to several

factors:

1. High humidity reduces the output of the ozone generator. (not applicable to UV produced ozone generation)
2. The level of odor or other contamination. The stronger the problem the more ozone is needed.
3. Air exchange, if the room or building has an exhaust, air exchange, etc. this must be taken into account.

### **Application procedures:**

All ozone generators with the exception of the Ductzone are of a commercial design, the output is

higher than .05ppm

Wherever possible the ozone generator should be run through the air handling system to ensure that people are

not exposed to high concentrations from the ozone generator output.

**All procedures are basic. For more intense and extensive procedures, consult or refer to fire**

## **and flood manual for comprehensive procedures**

### **RULES OF THUMB:**

a. Odors created in a hot environment are embedded deeper in the pores of the materials such as curtains,

furniture, wallboard etc. This is due to pores expanding when hot and closing when cold. A warm environment will

always produce better results than a cold one when deodorizing a gaseous odor.

b. Humidity always enhances an odor. Existing odor causing contaminants like bacteria and fungus flourish in

warm and humid environments.

c. Overkill and persistence is the successful way to deodorizing.

d. An additional fan of high output is necessary in all ozone treatments for optimum results. The fan will force

the ozone into the small pores of the material to remove the odors absorbed.

e. In all decomposed protein, use a powerful sanitizer or bactericide and a powerful liquid deodorizer like C20

or equivalent.

f. Always use respirator and gloves when handling contaminated materials like rotten meats or dead animals.

g. Caution in areas of treatment using high levels of ozone. Treat all exposed natural rubber with a silicone

spray or Vaseline in order to prevent cracking. This is not the case with fabric covered rubber cushions

h. Humid air supplied to the ozone generator will result in less ozone production. Dry air supplied to a generator

will result in optimum ozone production.

**\*Caution:\***

*. The water in moist or wet surfaces of fabrics combined with high ozone may create Hydrogen Peroxide and result*

*in bleached material. Avoid high humidity situations combined with high ozone concentrations.*

### **COMMON ODORS ELIMINATED WITH OZONE**

Aged Books

Hospital odors

Alcohol Beverages (Bars, Lounges etc.)

All organic waste

Pet Odors

Auto Exhaust

Bacteria

Kitchen Smells

Oils and Greases

Bathroom Odors

Body Odors

Burned Hair

Burned Food

Carbon Monoxide

Methylmercaptan (Pet Urine)

Mildew

Mold

Cigarette Smoke

Rotting and Decaying Substances

Most Organic Chemicals

Paint Fumes

Diesel Fumes

Ripe or Rotten Foods

Sewer Odors

Fish Odors

Smoke

Stale or Stuffy Rooms or Buildings

**MARKETS FOR OZONE EQUIPMENT**

**OFFICE AND ENVIRONMENT** (*Unoccupied Areas*)

Garbage rooms

Cigarette Smoke

Mold odors

Pet odors

Mildew odors

Maintenance rooms

Damp basements

Storage rooms

Smoking lounges

Restrooms

Meeting rooms

**HOTELS & MOTELS**

Garbage compactors (Unoccupied areas)

Garbage areas

Linen rooms

Change rooms (Pool)

Kitchens

lounges

Health clubs (Weight rooms, locker rooms,  
dirty linen rooms)

Restaurant or commercial industrial exhaust  
stack and gas stream.

**SHOPPING MALLS**

Food court garbage areas

Garbage compactors

***AUTOMOBILES & RVs***

Cigarette Smoke

Pet odors

Mildew odors

***PROPERTY MANAGEMENT***

Rental houses (Unoccupied)

Apartments (Unoccupied)

Deodorizing between rentals for (tobacco,  
ethnic food cooking odors, pet odors)

Garbage rooms

Garbage compactor

Common recreation rooms