



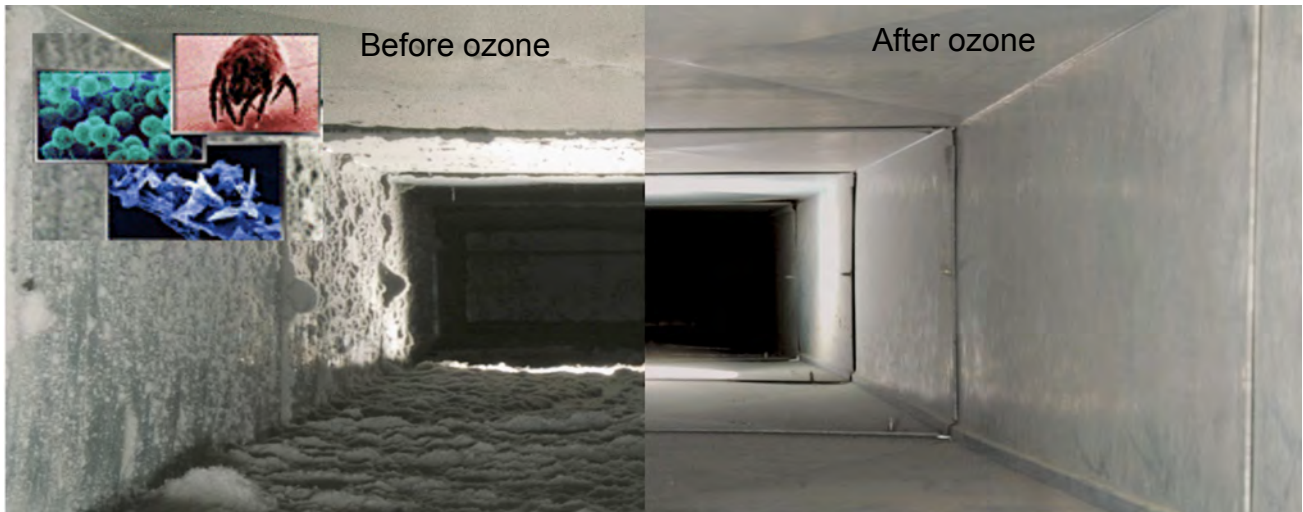
Exhaust Duct Ozone Systems

- **Commercial Kitchens**
- **Restaurants & Fast Food Outlets**
- **Commercial Building Ducts**

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COMMERCIAL KITCHEN EXHAUST DUCTS

GREASE AND ODOUR REMOVAL



Typical kitchen or commercial building exhaust duct

QUICKLY AND PERMANENTLY REMOVE GREASE, DIRT, MOLD AND BACTERIAL BUILD-UP

Commercial buildings and commercial kitchen exhaust ducts have unique issues:

- Serious grease buildup inside the ducts and exhaust hoods that can lead to dangerous fires
- Odours that can penetrate throughout the kitchen and adjacent spaces and buildings
- Dust, dirt and grease buildup that clogs your ducts reducing their efficiency and wasting energy
- Mold, germs and bacteria grow inside the dirt sticking to your duct walls causing increased illness, “sick building syndrome”, odours and other IAQ issues
- Ducts that need to be cleaned frequently – expensive, time consuming and inconvenient

THE SOLUTION: OZONE

Injecting the right amount of Ozone into your ducts will quickly oxidize the dirt and grease particles in the air flowing through your exhaust ducts, reducing the dirt and grease that sticks to the duct walls into a fine powder. Ozone will also eliminate the odours emanating from your kitchen quickly, safely and permanently.

Ozone is a very powerful oxidizing agent that has 3000 times more oxidation capability than chlorine. It occurs naturally in nature, especially after a thunderstorm, where a powerful lightning strike can cause 3 oxygen atoms (O_2) in the air to bond briefly together forming Ozone (O_3). That's why the air smells so fresh and clean after a thunderstorm. Ozone is also very reactive, and has a short half-life of about 20-30 minutes. When it decomposes, it simply reverts back again into pure oxygen.

ProMedUSA has developed a diverse range of Ozone Generators that are designed and engineered to produce and inject the correct amount of ozone into your building or kitchen ducts to eliminate the grease, dirt, and odours.

Unlike other systems that use ceramic or mica plates to produce ozone (these rapidly deteriorate because of the kitchen conditions), we utilize a proprietary sealed corona discharge ozone generating cell carefully made from silica-quartz glass and 316 Stainless Steel. This sealed cell is unaffected by the high temperature, humidity and grease found in the air within a kitchen and lasts years without maintenance.

Using our proprietary sealed cell technology, ProMedUSA ozone generators produce very pure ozone with a very high concentration by weight, which is essential to our success. This ozone is then injected into your duct through a specially designed stainless steel injection rod, designed to evenly inject the ozone stream across the duct and into the exhaust airstream. Our injector doesn't clog or deteriorate.

Our ozone generators operate quietly and require little maintenance, even when run 24/7. Unlike other systems, they do not generate a lot of heat, and are cool to the touch (whereas some other systems get extremely hot - +50 degrees and more). They are typically installed at a distance from the ducts being treated, with the ozone being fed to the injector through special flexible tubing.

Our systems are completely safe and easy to operate. They can be interlocked with the exhaust system allowing the ozone generator to automatically switch on and off during operating hours. A pressure switch can be installed to shut off the ozone generator should the exhaust fan shut down.

Design considerations:

- What is the purpose of using Ozone? Grease and fat reduction, fire safety, odour removal or all of these?
- Type of cooking – What is the source of the grease and odours?
- Air Flow- What is the airflow that we need to treat? (Either in CFM, CMH, LPS)
- Number of kitchen hoods and injection points
- Where is the exit point for the exhaust air?
- What is the size of the duct, and the length of the duct?
- Placement of the Ozone generator and distance from the injection point

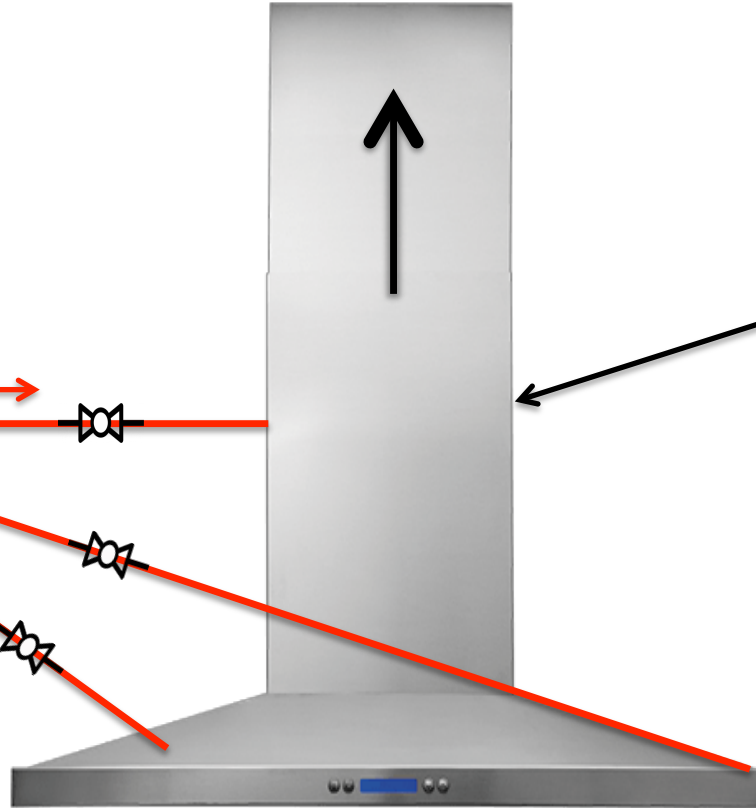
Ozone Generator considerations:

- Amount of Ozone Generated and the Concentration (% by weight)
- Maintenance Frequency and Cost and Warranty Period
- Replacement frequency of the Ozone Generating Cell or Plate
- Is the Ozone Generator affected by grease or oil in the air?
- Do high temperatures or humidity affect the unit?
- Physical operating temperature of the generator – does it get hot?
- Construction – external case durable and rustproof?
- Construction – are internal components Ozone rated (Teflon, stainless steel, etc.)?
- Spare parts availability
- Energy consumption
- Finally - Cost

ProMedUSA Single Kitchen Duct Exhaust Ozone System



Ozone →



ProMedUSA Multiple Kitchen Duct and Hood Injection Points

Our exclusive Ozone Duct Injection System assures 100% Ozone flow and distribution into your kitchen exhaust duct and hood. This enables the Ozone to remove all the odours and oxidize all of the grease in your duct and hood, eliminating grease and odour buildup.

Stainless steel valves allow our experts to precisely tune the amount of ozone injected at each point to obtain the maximum effectiveness.

Unlike all other units on the market, ProMedUSA's *exclusive range* of Ozone Generators are made for us in the United States and Canada using sealed Stainless Steel and Quartz Crystal Electrodes that are not affected by humidity or temperature. Our Ozone Generators, and the Ozone Cells inside will last for years without maintenance.

Only ProMedUSA Ozone Generators have this advanced ozone generating technology. Ozone output is only one consideration. The Ozone concentration by weight is the critical consideration in the final ability to remove the grease and odours in your duct.

By using our Stainless Steel and Quartz crystal sealed Ozone cells, we generate Ozone with a very high concentration of up to 8% by weight assuring you of effective grease and odour removal.

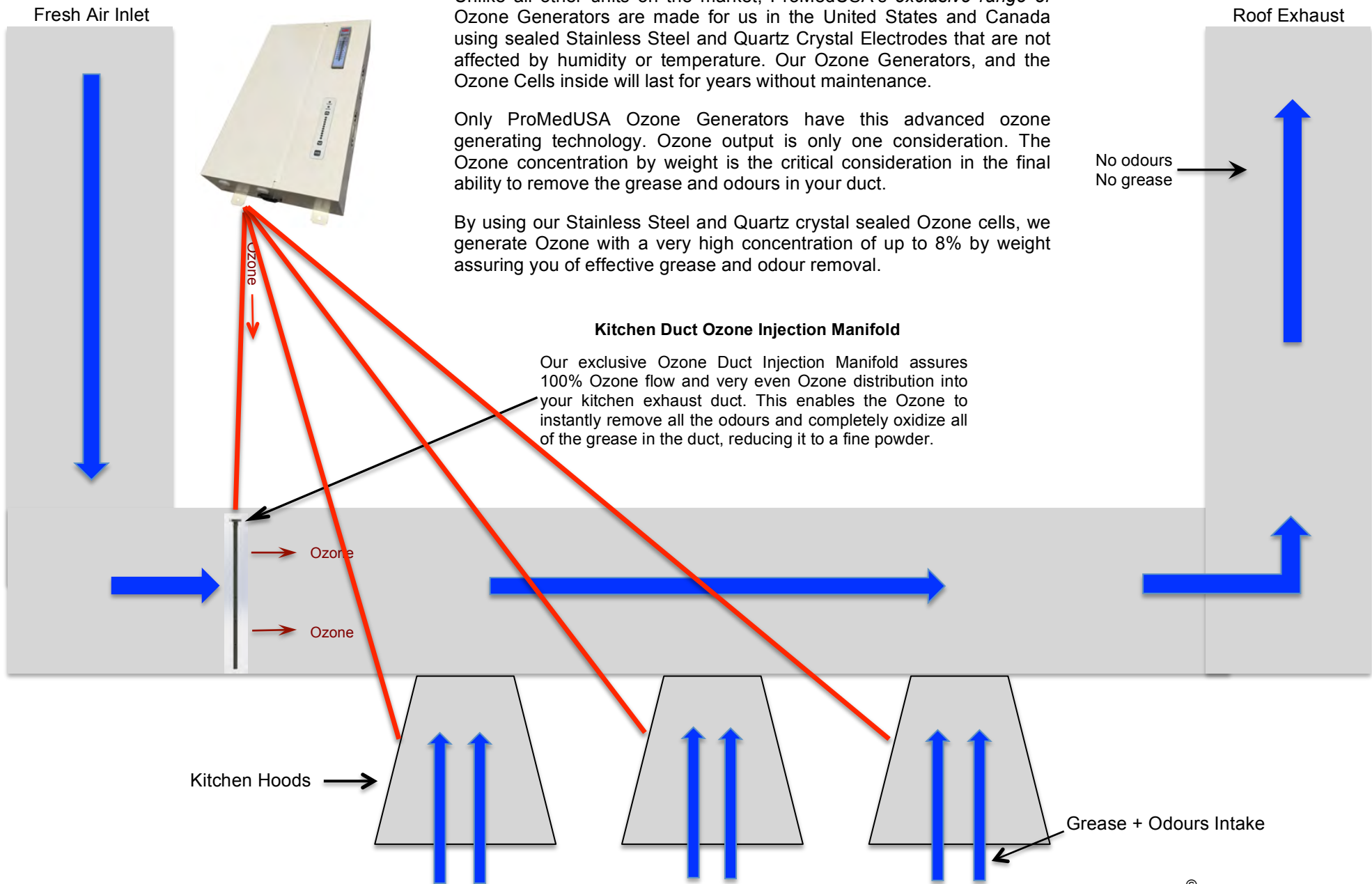


ProMedUSA Multiple Kitchen Duct Exhaust Ozone System

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For more information
or help...

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