WHAT IS OZONE

- OZONE IS TRI-ATOMIC FORM OF OXYGEN WHICH IS GENERATED BY PASSING DRY AIR OR OXYGEN WHICH IS FED THROUGH AN ELECTRICAL DISCHARGE CREATED BETWEEN TWO ELECTRODES.

- THESE ELECTRODES ARE SEPARATED BY THE DISCHARGE GAP & A SINGLE DIELECTRIC. THE DISCHARGE, KNOWN AS “CORONA DISCHARGE”, CAUSES THE DISSOCIATION OF SOME OF THE OXYGEN MOLECULES RESULTING IN THE FORMATION OF OZONE.

**Aqozone Industries**, DEEBRU OZONE generators produce the strong oxidizing power of ozone, and properties of ozone help it to be an ideal aerial disinfectant.

In contrast to UV radiation and HEPA filter, ozone is a gas that could penetrate to every corner of the room, thus it could disinfect the entire room effectively.

As ozone is unstable, it is readily converted back to oxygen, leaving no harmful residual ozone after disinfection.

**OZONE FACTS**

<table>
<thead>
<tr>
<th>CHEMICAL FORMULA</th>
<th>OZONE (O₃)</th>
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<tbody>
<tr>
<td>Molecular Weight</td>
<td>47.998 G/mol</td>
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<tr>
<td>Density, Gas (0°C, 101.3 KPa)</td>
<td>2.144 Kg/m³</td>
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<tr>
<td>Melting Point (101.3 KPa)</td>
<td>-192.5°C</td>
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<tr>
<td>Boiling Point (101.3 KPa)</td>
<td>-111.9°C</td>
</tr>
<tr>
<td>EU Hazard Classification</td>
<td>Oxidant (O)</td>
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OZONE FOR THE AIR DISINFECTION USED IN PHARMA/FOOD PROCESSING/CLINICS/HOSPITALS/LABS

OZONE is a Bactericide, Fungicide, and Virocide. This means it destroys completely without any resistance.

Ozone breaks down virtually all forms of organic and inorganic compounds, rapidly, efficiently and in most cases with no, or very few, by-products, except for water, CO2, and biodegradable dust/ash.

The main advantage of ozone compared to other treatment methods for air disinfection is that it is able to efficiently disinfect a large air volume.

Ozone has stronger oxidizing properties than any other form of disinfectant and is able to neutralize micro-organisms, including viruses. This makes it ideal for use in medical applications, for example in hospitals or doctors waiting rooms.

When you also take into consideration that ozone naturally decays to oxygen in a matter of minutes, hence no byproducts are produced, it is clear that ozone is an ideal product for air disinfection.
SCHEME 1:

CLEAN ROOM WITH AHU

[Diagram of clean room with AHU, ozone generator, and ozone monitor]
SCHEME 2:

LABS/CLINICS/ GENERAL ROOMS

LABORATORY

OZONE MONITOR

OZONE GENERATOR

AIR FLOW

OZONE FLOW IN THE ROOM

AXIAL CIRCULATION FAN
OZONE FOR THE AIR DISINFECTION USED IN PHARMA/FOOD PROCESSING/CLINICS/HOSPITALS/LABS

OZONE BENEFITS

1. Over 50% more efficient at breaking through bacteria membranes compared to chlorine.

2. Eliminates a wide range of bacteria over 3000 times faster than chlorine.

3. Potent disinfectant at low concentrations.

4. Decomposes into oxygen gas leaving no by-products.

5. FDA-approved for direct contact with food.

6. Extends the shelf life of most food products.

7. Efficient odor, taste and color remover.

8. Easily and economically produced at the point of use.

9. Easily detectable at low concentrations by humans, thereby safe to manage.

10. The regulatory framework in place for human exposure in most countries.

11. Assume the room immediately after disinfection.

12. No consumables used.