



Breakthrough Technology For Medical Waste Disposal



The Problem



Typical processes present strong challenges

Steam Sterilization (autoclaving)

- Energy intensive
- Dangerous and difficult to permit / does not meet HIPAA
- Boilers are required with some systems
- Not emission free
- Difficult to control odor and run off
- Hands on operation / high exposure for staff

Incineration (burning on or off-site)

- Energy intensive
- Toxic byproducts (fly ash, metals, dioxins, furans)
- Expensive to retrofit and maintain
- Public Opposition / costly to the environment

Chemical Treatment

- Caustic, dangerous process
- Byproduct must get EPA approval / usually must be disposed of as RCRA
- Limited effectiveness with some material

Changing Rules

Priority . . . Green

“Pollutants caused by processing Biohazardous waste will be at the top of the list”

This technology will help you maintain a leading edge on issues of

- **Sustainability**
- **Regulation Conformance**
- **Public Approval**



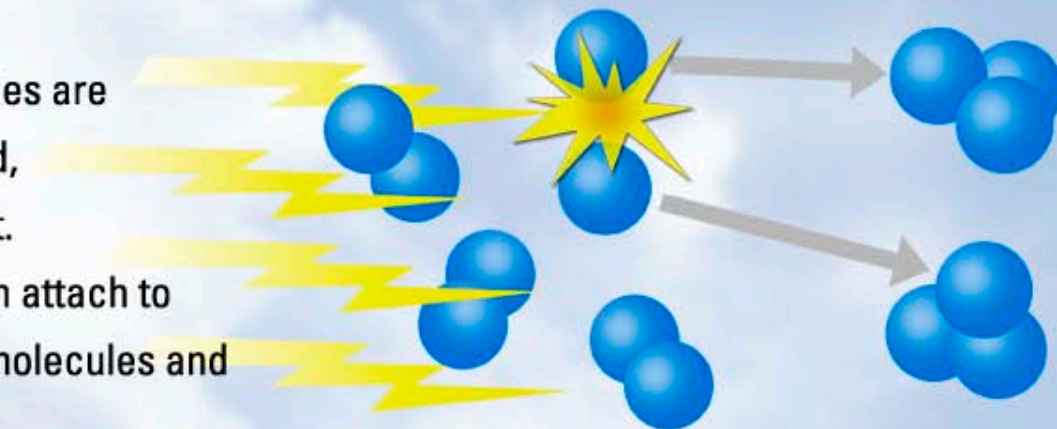
The Solution

Ozone . . . a marvel of nature

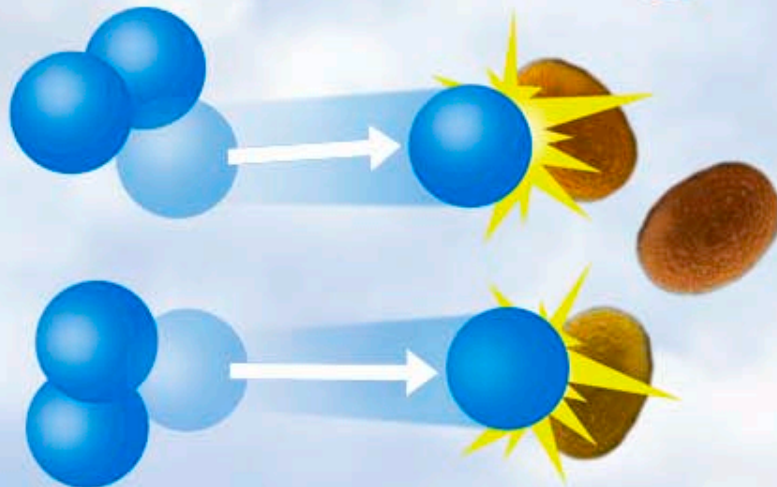
- Used for over 100 years!
- Form of oxygen
- Purifies, sanitizes, oxidizes
- Renders pathological & anatomical waste inert and unrecognizable

NO ODOR • NO EMISSIONS

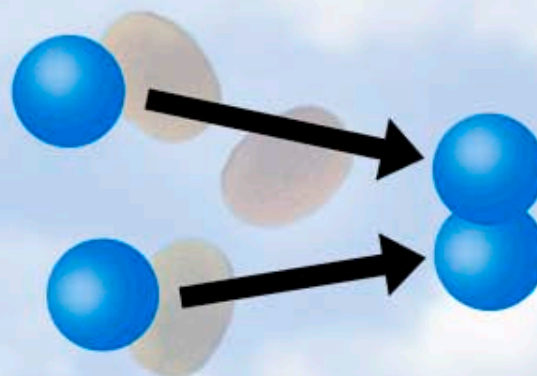
1. Oxygen molecules are electrically charged, splitting some apart. The split atoms then attach to remaining oxygen molecules and form OZONE.



2. An atom from the unstable OZONE then splits to attack and destroy pathogens.



3. After the pathogens cell walls are destroyed the rogue atoms re-attach themselves and revert back to OXYGEN.

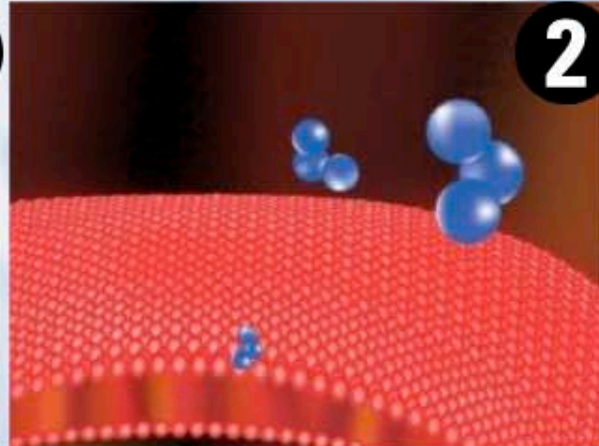


How Ozone Works

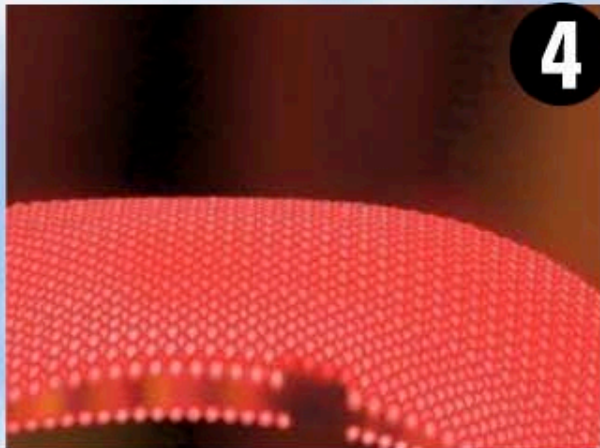
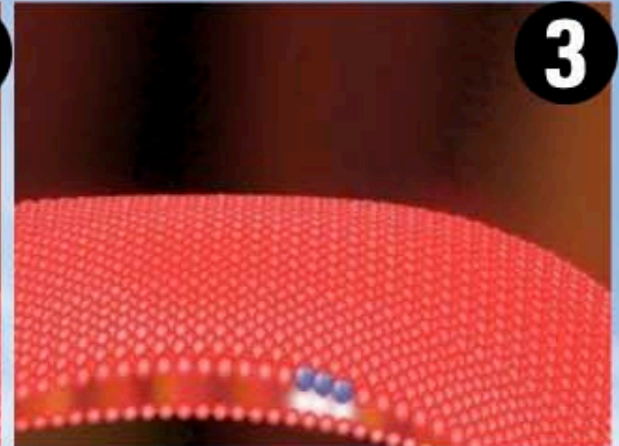
Healthy bacterial cell



Ozone molecule contacts the cell wall



Ozone molecules create holes in the cell wall



Newly created hole damages the bacterium



Bacterium begins to lose its shape



Within a few seconds the cell dies

How It Works



- Carts rolled directly to OMW-1000
- No special packing or refrigeration
- **LOWEST STAFF EXPOSURE** to handling waste of any other system

1



How It Works

2

Cart is automatically hoisted, weighed and dumped into system



How It Works

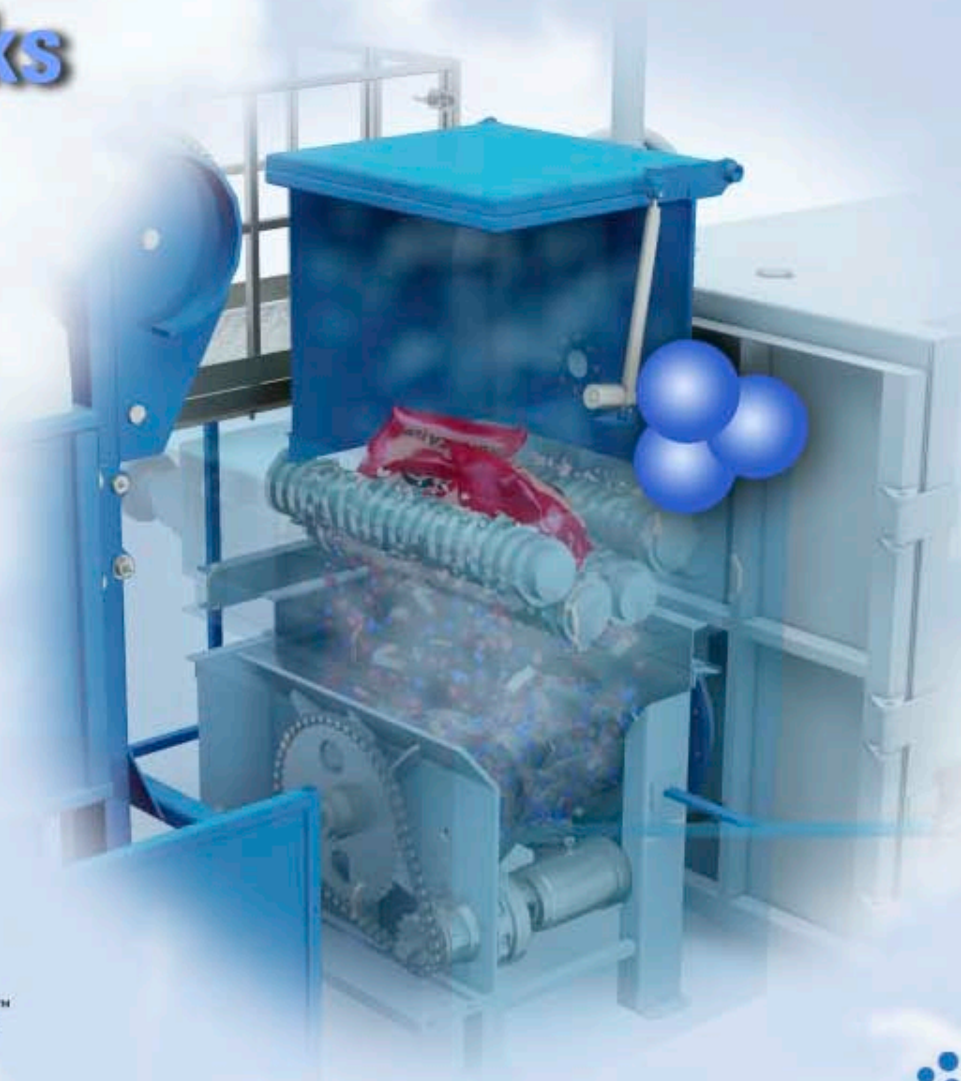
ALL containers, bags, suction canisters, etc. are shredded into small particles (reduced up to **90%** in size) to ensure exposure for treatment with ozone.

3



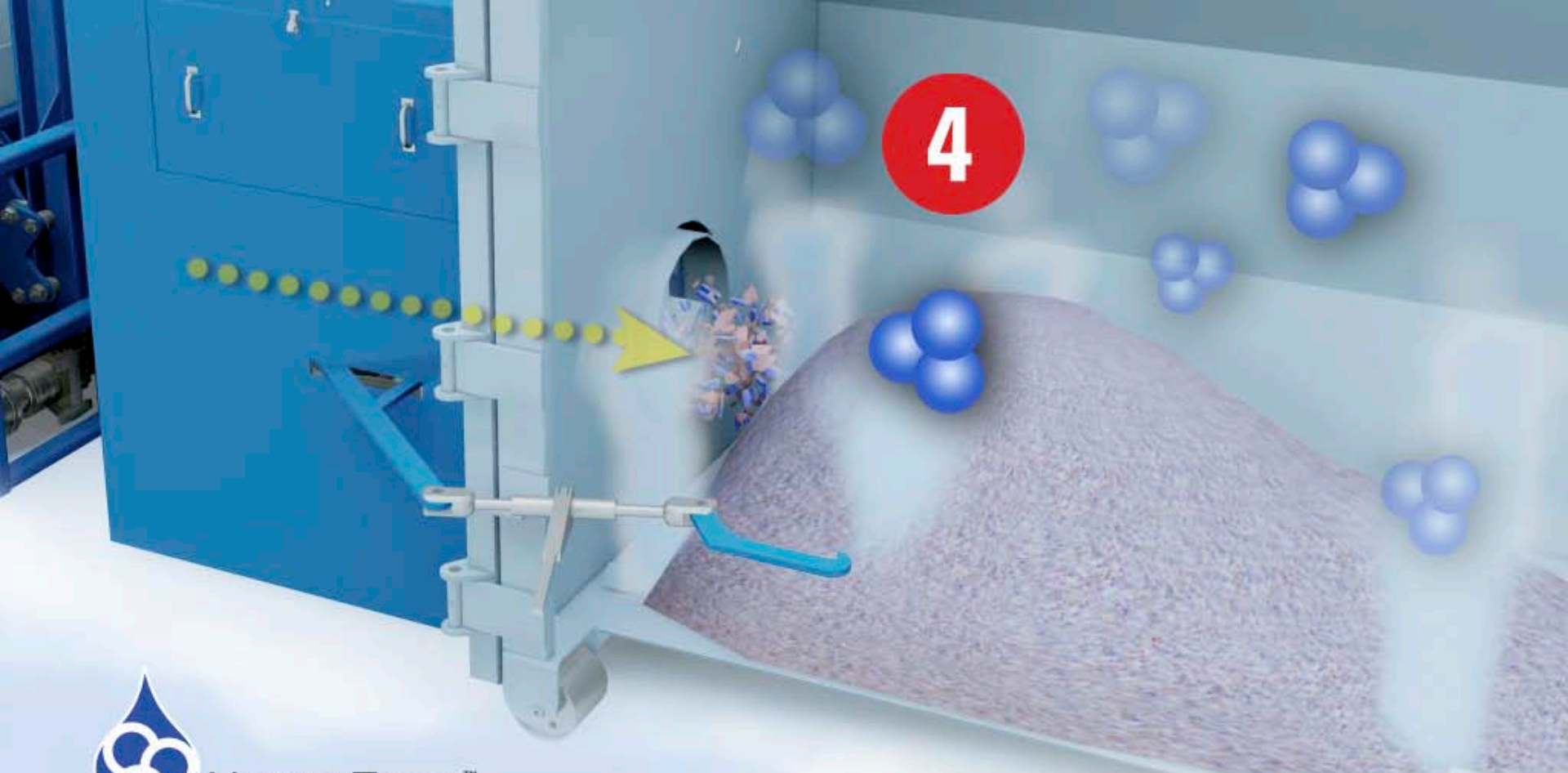
How It Works

A small amount of ozone gas is injected into the shredding chamber for odor control



HUMIDIZONE™


Clean **Waste**
SYSTEMS



HUMIDIZONE™

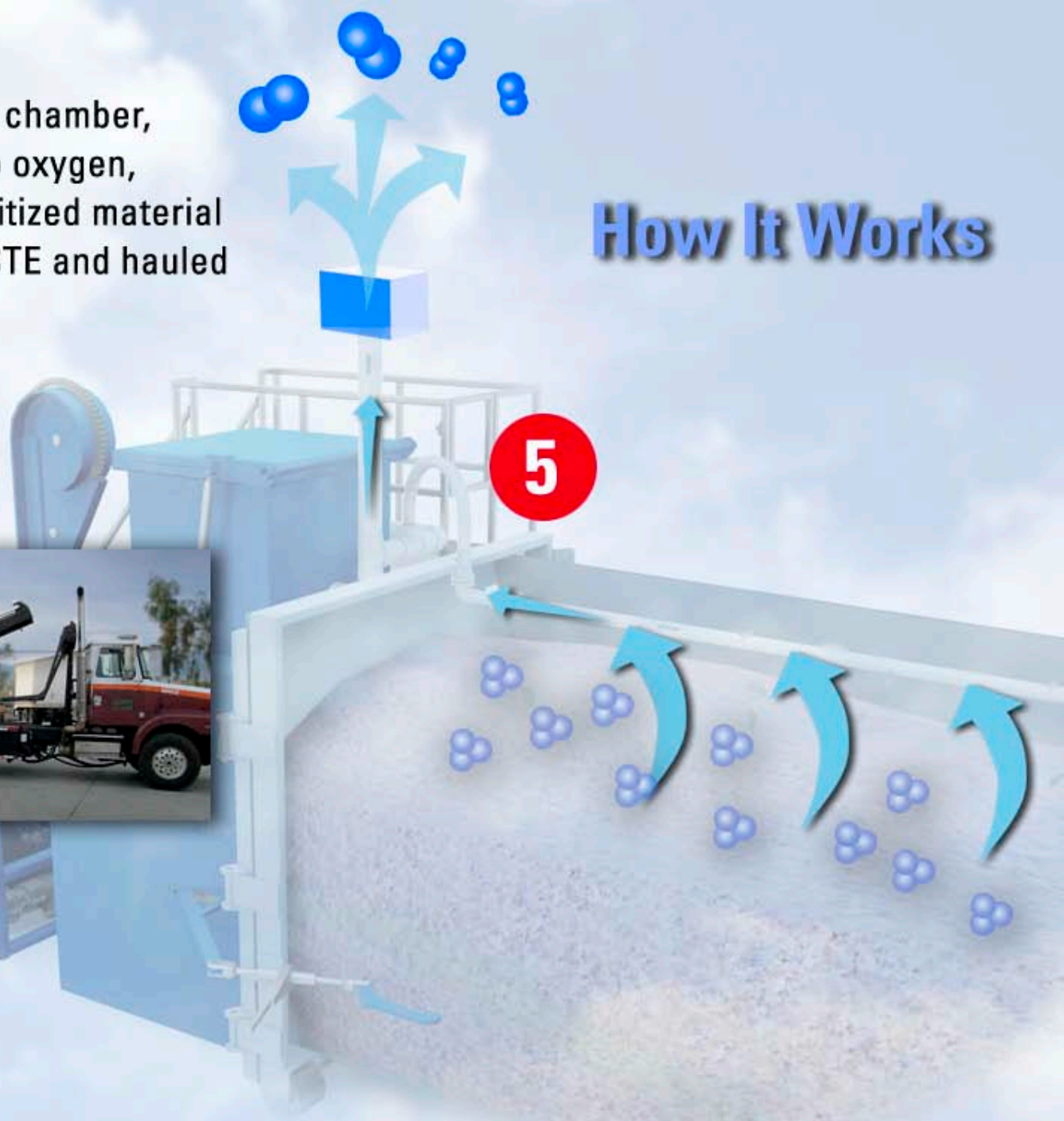
The shredded material is transferred into the **treatment bin / transport container** where the waste is exposed to **HIGHLY CONCENTRATED OZONE GAS**.



- Through a conversion chamber, the ozone is returned to oxygen, and the processed, sanitized material is rendered **SOLID WASTE** and hauled to a sanitary landfill.

- **SEALED SYSTEM** for safe operation.

How It Works



Safety

Protecting people.

- Greatly Reduced Handling
- No dangerous steam or heat
- No toxic chemicals
- No foul odors
- Automated system monitoring
- Quiet
- Reduces waste up to 90%



Economics

Immediate cost savings.

- **Extremely SIMPLE OPERATION**
- **Reduced staff and training requirements**
(utilize current household or maintenance staff)
- **Reduced maintenance costs**
- **Reduced risk to workers**
- **No special handling containers , boxes, liners etc.**
- **No expensive refrigeration systems required**



Predictable budgeting

Flexible acquisition Options

Clean Waste Systems - *Your Single Source Solution*

- **Financial Flexibility**
Purchase • Rent • Lease
- **Full or Partial Options for**
 - **Service**
 - **Operation**
 - **Management**
- **Complete Installation & Training Provided**





OZONE MEDICAL WASTE PROCESSOR

OMW-1000


Clean Waste
SYSTEMS



