



TOMI™ | **STERAMIST**
ENVIRONMENTAL SOLUTIONS | POWERED BY BINARY IONIZATION TECHNOLOGY®

Overview
Fall of 2021

**Developed by DARPA Powered by Nature
Mechanical Disinfection Technology**



TOMI Divisions

Hospital-Healthcare



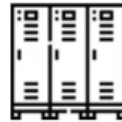
Hospital Rooms
Examination Rooms
Hospices
Medical Facilities
Orthopedics
Operating Rooms
Emergency Rooms
Intensive Care Units
Dentist Office
Veterinarian Hospitals
Ambulances

Life Sciences



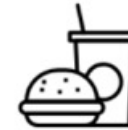
Vivarium
Pharmaceutical Facility
Biosafety Labs
BSC's
Laboratory Equipment
Military Labs
Tissue Banks
Universities and
Research labs

TOMI Service Network



Automobile
Hospitality
Locker Rooms
Fire Remediation
Health Club
Residential
Day Care Center
Recreational Vehicle
Crime Scene Clean-up
Schools
Mold

Food Safety



Food Manufacturing
Food Warehouse
Cafeteria
Restaurant
Food Processing
Food Transportation
Food Storage
Slaughterhouses
Grocery Stores
Packing Plants
Seeds

Commercial



Cruise Ships
Office Buildings
TV Stations
Athletic Facilities
Police & Fire
Education
Public Venues
Rental Cars
Mass Transit
Government
Aviation



Key Terms

Binary Ionization Technology® (BIT™) refers the patented technology that holds numerous amounts of intellectual property approvals and registrations worldwide.

SteraMist® refers to the equipment/machines platform (SteraMist Surface Unit & SteraMist Environment System).

Binary Ionization Technology® (BIT™) Solution is the exclusive solution used ONLY with SteraMist equipment/machines and is registered with the EPA - this is our Label.

ionized Hydrogen Peroxide (iHP™) is the mist/fog containing Reactive Oxygen Species (ROS) (specifically the hydroxyl radical) created by the BIT™ process.

The **industry standard** in the control and prevention of bacteria, viruses and mold along with the neutralization of biological and chemical warfare resistant agents in all verticals including the safeguard of our domestic and international borders.



*Our mission is to help create a healthier world through the implementation and integration of our state-of-the-art product line and set of services, remaining committed to our motto
Innovating for a Safer World®.*



Innovation, Science, and Development

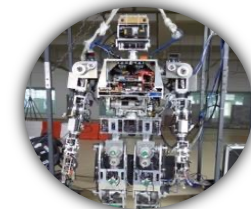
For sixty years, DARPA has held to a singular and enduring mission: to make pivotal investments in breakthrough technologies for national security.



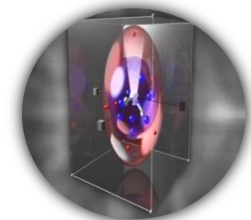
1. The Internet (ARPANET)
2. Global Positioning System (GPS)
3. Google Maps Technology
4. Stealth Fighters
5. SIRI (PAL) Personal Assistant that learns



Military



Robotics



Cyber



Binary Ionization Technology®



Quick Facts

2001: Responding to Amerithrax Attacks

DARPA and a U.S. Defense contractor developed BIT™ (Binary Ionization Technology) and its SteraMist platform to neutralize weaponized Anthrax spores.

2009: Declassified and Sold Commercially Across the Globe

TOMI™ and other companies sold BIT across the globe.


2013: TOMI Acquires the Technology and Proving Efficacy

TOMI won the rights and in 2015 the EPA granted the first ever solution and technology registration to TOMI using our 7.8% H₂O₂ solution.

2016 And Beyond

Many large recognized pharmaceutical companies and BSL3&4 facilities have successfully integrated SteraMist technology into their routine disinfection/decontamination protocols.

2020+



**MILESTONES
EMERGE**

An TOMI and SteraMist combatted the SARS-CoV-2 Coronavirus, SteraMist was registered with the Centers for Disease Control in China, the development of SteraMist was announced, the Commercial division was added to TOMI's operations, record-breaking revenue was achieved, and the TOMI brand achieved widespread recognition and continues to pursue success.

2019



**EXPANDED
PRODUCT LINE**

HP Plasma Decontamination Chamber was designed and implemented and the SteraMist Total Disinfection Cart was made available to Healthcare customers. HP Corporate Service complex their highest-grossing job, and registration from the Minister of Health of Israel and distribution rights were given to Israel-based CleanBit.

2018



**TOMI
CONTINUES TO EXPAND**

In the effort to expand its U.S. Operation headquarters, TOMI took ownership of its new office containing multiple individual offices and cubicles, two conference rooms, a large warehouse, training room, quality control room, and qualification laboratory in Frederick, MD. Installed TOMI's largest TOMI Custom Engineered System to date at Pfizer Missouri.

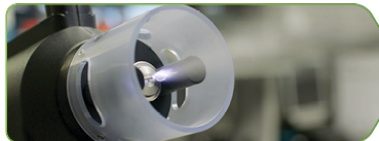


Our Technology - Ionized Low Grade Hydrogen Peroxide (iHP)

- Destroys proteins, carbohydrates and lipids on contact via oxidation, resulting in killing bacteria, bacteria spores, and mold spores including the inactivation of viruses
- Reacts with chemical agents by breaking their double bond. The same is true with weaponized biological agents as they are neutralized via oxidation
- The by-products of ionized hydrogen peroxide are oxygen and water in the form of humidity. These are far safer to handle than those left by conventional methods

The **ionized Hydrogen Peroxide** Process

1. COLD PLASMA



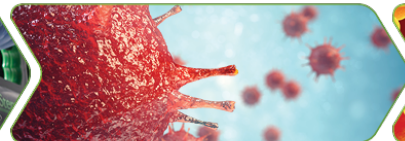
7.8% hydrogen peroxide BIT Solution converts to iHP after passing through a cold plasma arc.

2. DISPERSION



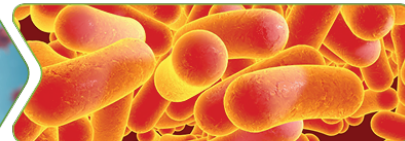
iHP is carried throughout the mist, moving like a gas throughout the treated area.

3. CONTACT



iHP damages pathogenic organisms through oxidation of proteins, carbohydrates, and lipids.

4. DISRUPTION

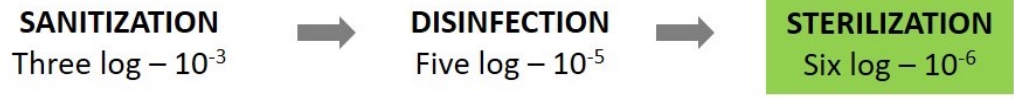
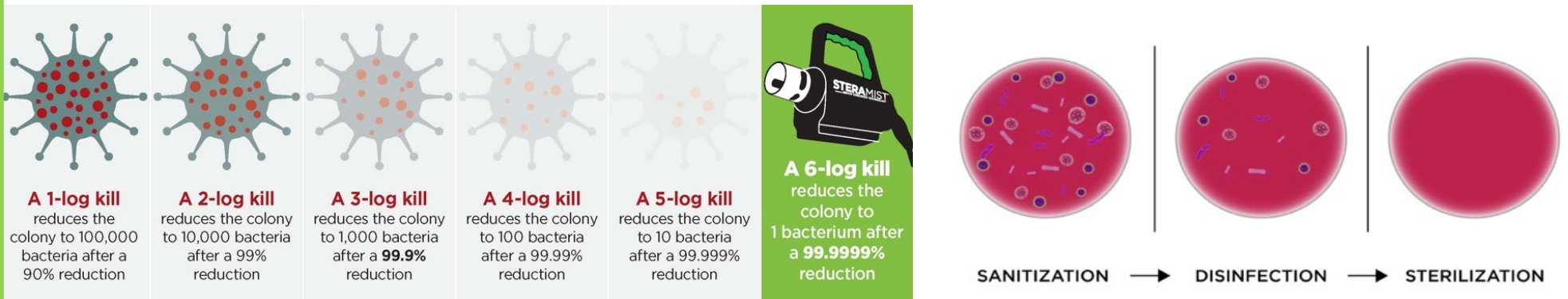


Cellular disruptions and/or dysfunctions occur and allows for disinfection & decontamination in the targeted area.



Automated Disinfection vs. Manual Cleaning

- Simple manual cleaning procedures are documented to leave behind 30%-60% of pathogens. Other product dwell times range from 5 minutes to 30 minutes.
- The SteraMist Surface is applied in 5 seconds per square foot with a 7-minute contact time and gets a **99.9999% six log kill**.
- Best used as a part of the final step of your cleaning protocol and applied to a dry surface.



Micron Droplet/Particle Size Comparison

- SteraMist's **move-like-a-gas approach and submicron size.**
- Microscopic particle sizes allow SteraMist to totally encompass the size of a virus and bacteria, **no matter where they hide.**
- Charged submicron droplets created by cold plasma technology **naturally attach to surfaces within the treated area.**
- Cold Plasma Technology naturally ionizes H_2O_2 compound, causing the fine aerosol to become charged and attach to all surfaces **with no outside kinetic interaction required.**



The Overall Competitive Advantage

	High-Log Efficacy	Compatible with Electronics	No-Touch Disinfection	Requires No Mixing	No Bleach, Chlorine, Acetic Acids, Dyes	Evenly Dispersed	Small Micron Size	Quick Application	Leaves No Residue
STERAMIST <small>BINARY IONIZATION TECHNOLOGY</small>	Green	Green	Green	Green	Green	Green	Green	Green	Green
BLEACH	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey	Grey
HYDROGEN PEROXIDE VAPOR	Green	Grey	Green	Green	Grey	Grey	Grey	Grey	Grey
ULTRAVIOLET	Grey	Green	Green	Green	Green	Grey	Grey	Grey	Green
ELECTROSTATIC SPRAYER	Grey	Grey	Green	Grey	Grey	Green	Grey	Green	Grey
MANUAL CLEANS	Grey	Green	Grey	Grey	Grey	Grey	Grey	Grey	Grey
QUATERNARY AMMONIUM COMPOUNDS	Grey	Grey	Grey	Grey	Green	Grey	Grey	Grey	Grey
CHLORINE DIOXIDE	Grey	Grey	Green	Grey	Grey	Grey	Grey	Grey	Grey

*VARIES WITH CHEMICALS USED AND METHOD OF APPLICATION

STERAMIST® ADVANTAGES

SIX-LOG OR HIGHER EFFICACY

FASTER ROOM TURNOVER TIME

NON-CORROSIVE APPLICATION

SUPERIOR MATERIAL COMPATIBILITY

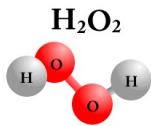
PRODUCES SUBMICRONS

MOVES LIKE A GAS

DISINFECT THE SMALLEST OF AREAS



The Overall Competitive Advantage



	7.8%	35%	30%	5% and Silver
	Non-Corrosive	Highly Corrosive and Dangerous Off Gassing	Highly Corrosive and Dangerous Off Gassing	Moderately Corrosive & Leaves silver residual in the Environment
	Application, injection, and dwell time under 45 minutes	8-12 hours with off gassing up to 72 hours	6-8 hours	Approximately 4 hours (maximum 8-foot ceilings) with a mandatory 1 hour wait time before re-entry
	Aerosolized ionized hydrogen peroxide creates hydroxyl radicals to produce kill	Nebulizes, uses hydrogen peroxide chemical to kill	Nebulizes, uses hydrogen peroxide chemical to kill	Nebulizes, uses hydrogen peroxide and silver chemical to kill



Material Compatibility

STERAMIST IHP KILLS THE HARDEST PATHOGENS WITHIN SECONDS RESULTING IN POWERFUL EFFICACY, REDUCED TREATMENT TIME AND NON-CORROSIVE DISINFECTION

As an EPA-registered disinfectant, SteraMist is subjected to many material compatibility tests to ensure that your facility is treated as effectively as possible. SteraMist contains no dyes, fragrances, chlorine, ammonium, bleach, or silver ions.

FABRICS

During a 10-day study, common fabrics found in healthcare environments were immersed in standing liquid BIT™ Solution consisting of 7.8% hydrogen peroxide per inactivated gallon. TOMI protocol is to spray for seconds or minutes, not for 10 days.

RESULTS:

After 10 days, the results indicated insignificant changes to mass, color, and texture over the duration of the test.

METALS

Another similar 10-day study submerged 33 different metals and 6 non-metals commonly used in aerospace industries. Each sample was pulled at 24-hour intervals for observation before being returned to the solution. TOMI protocol is to spray for seconds or minutes, not for 10 days.

RESULTS:

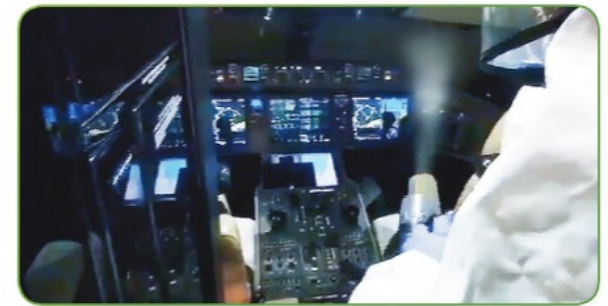
Brass, nickel, copper, and stainless steels indicated less than a 1% change in mass at the end of the test, with some having as little as a 0.1% reduction in weight.

CLEANROOM

A final test simulated a cleanroom containing PVC, doorknobs, light switches, and hanging material samples. The area was subjected to 160 hours and 1000 cycles of injection - an amount far in excess of the scope of recommended SteraMist® treatment intervals. TOMI protocol is to spray for seconds or minutes, not for 10 days.

RESULTS:

After uninterrupted intervals of 100 cycles, results consistently indicated negligible, primarily visual damage such as the development of white powdery film. The standard cycle for the room consisted of a 3-minute injection phase, a 5-minute dwell phase, and a 5-minute aeration phase.



SteraMist® is a perfect approach to general decontamination in **a wide variety of environments** with minimal effects on surfaces.

7.8% hydrogen peroxide BIT™ Solution is converted to a fine mist through cold plasma technology.

SteraMist® has a recommended application time of **five seconds per square foot** - well under 10 days of full submersion.

TSN Customer Case Study: COVID-19 and Electric Circuitry

OVERVIEW

When it comes to dangerous pathogens, more than just healthcare facilities and schools are at risk. When a possible infection strikes manufacturing facilities, production must stop, employees must vacate the facility, and the area must be treated immediately. When an employee tested positive for Coronavirus, California-based ABC Assembly, Inc. called in Pacific Sanitizing Services to treat their facility with SteraMist disinfection.

THE RESULT

In the effort to reduce disinfection turnaround time, SteraMist disinfection was applied to every facet of the 9,000ft² facility - including circuitry, surfaces, tools & equipment, shelving, and high-touch areas. In the span of only 3 hours on a Saturday, the facility was completely and thoroughly treated using a Surface Unit, two technicians, and two gallons of BIT™ Solution.



DID YOU KNOW?

SteraMist disinfection is uniquely equipped to treat sensitive electronics with a high-log kill through the use of non-corrosive, low-percentage hydrogen peroxide transformed by cold plasma technology.



EPA Registered: Solution + Equipment Combination

For use as a Healthcare-Hospital Disinfectant and General Use, Multiple Use Disinfectant

Binary Ionization Technology® (BIT™) Solution

(Alternate Brand Names:

SteraMist™ BIT™ Solution

Binary Ionization Technology (BIT™) Plus

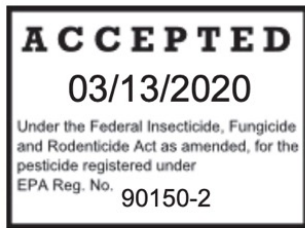
Binary Ionization Technology

BIT™

BIT™ Solution Ready-To-Use Hydrogen Peroxide

SteraMist™ BIT™)

{Begin Optional Front Panel Claims}



Disinfects against:

Staphylococcus aureus (Staphylococcus) (Staph) (ATTC #6538)

Pseudomonas aeruginosa (Pseudomonas) (ATTC #15442)

Methicillin Resistant *Staphylococcus aureus* (MSRA) (ATTC #33592)

Salmonella enterica (Salmonella) (ATTC #10708)

Influenza A virus (H1N1) (ATTC #VR-1469)

Clostridium difficile spores (*C. diff*) (ATTC #43598)

Norovirus (Feline Calicivirus) (FCV) (ATTC #VR-782)

Emerging Viral Pathogens Claims



BIT SOLUTION

Non-Hazardous and No Harmful Effects to the Health of Personnel

- Non-hazardous to ship and store (**7.8% hydrogen peroxide**).
- No toxic chemicals that are highly corrosive and hazardous.
- Intensive preparation is not required and if exposed, there are no harmful effects to the health of personnel, as long as eyes and mucus membranes are protected.
- SteraMist BIT leaves the environment with only oxygen and water (humidity) and no residue.
- Production Date is indicated on the bottle.
- 2-year storage stability study international.
- Certification of Analysis is provided if requested.
- Low concentration hydrogen peroxide allows for rapid aeration.



**BIT-400
Solution**
1 Gal Cartridge
(4 per case)



**BIT-100
Solution**
32 oz Cartridge
(8 per case)



TOMI Today

Holds EPA Registrations 90150-2 and 90150-1 with further amendments to to EPA label continue to be ongoing.

The SteraMist technology continues to be implemented in all corners of the globe as multiple registrations are secured both domestically and internationally; including a registration with the U.S. Food & Drug Administration as a disinfectant medical device. (REG# 3012117386)

Entered into a Cooperative Research and Development Agreement with the Agricultural Research Service for the United States Department of Agriculture.

Achieved full registration via Health Canada in November 2017 with DIN# 02469448, allowing TOMI and TOMI Service Network (TSN) expansion into Canada.

Organic Materials Review Institute (OMRI) Listed for the U.S. and Canada.

In addition to a long list, TOMI continues to pursue more international product registrations, including receiving China CDC registration in early 2020.



EFFICACY AGAINST 43 MOLDS AND FUNGI COMMONLY FOUND IN INFECTED BUILDINGS

The purpose of the testing was to determine if BIT™ would be an applicable technology for the remediation of mold infested homes and buildings. The results of the tests are summarized in the following list.

In the following list, spore loads for the referenced fungi were reduced from 107 spores/cm² to undetectable levels in 15 seconds

- Aspergillus expansum
- Aspergillus parasiticus
- Aspergillus restrictus
- Aspergillus sydowii
- Aspergillus tamarii
- Aspergillus terrusi
- Aspergillus ustus
- Aspergillus versicolor
- Aspergillus wentii
- Candida Auris
- Cladosporium cladoportiodes Type 1
- Cladosporium cladosporiodes
- Cladosporium herbarum
- Cladosporium sphaerospermen
- Eurotium arnstelodami
- Geotrichum candidum
- Memnoniella echinata
- Mucor racemosus
- Mycothecium verrucaria
- Paecilomyces lilacinus
- Paecilomyces varioti
- Penicillium atramentosu
- Penicillium cluysogenum
- Penicillium citrinum
- Penicillium corylophilum
- Penicillium crustosum
- Penicillium glandicola
- Penicillium griseofulvum
- Penicillium olsonii
- Penicillium roquefortii
- Penicillium verrucosum
- Penicillium brevicompactum
- Rhizopus stolonifer
- Scopulariopsis asperula
- Scopulariopsis brevicaulis
- Scopulariopsis brumptii
- Scopulariopsis chartarum
- Stachybotrys chartarum
- Trichoderma hamatum
- Trichoderma harzianum
- Trichoderma longibranchiatum
- Ulocladium chartarum
- Wallemia sebi

EFFICACY AGAINST MICROBIAL PATHOGENS

Organism	Classification	Log Reduction	Lab
Bacillus atrophaeus ¹	Bacterial Spore	>8.3	1
Geobacillus stearothermophilus	Bacterial Spore	>6.3	3/6
Bacillus subtilis	Bacterial Spore	>6.0	1
Clostridium difficile spores ^{3,4}	Bacterial Spore	>6.0	3/6
Escherichia coli	Gram Negative	>7.4	2
Pseudomonas aeruginosa ³	Gram Negative	>6.0	5/6
Serratia marcescens	Gram Negative	>6.0	3
Salmonella enterica ²	Gram Negative	>5.5	7
Staphylococcus aureus ³	Gram Positive	>7.4	2/6
Methicillin-resistant Staphylococcus aureus (MRSA) ²	Gram Positive	>5.9	6
Bacillus atrophaeus vegetative cells	Gram Positive	>9.0	1
Aspergillus Niger	Mold	>8.0	4
Aspergillus species	Mold	>7.0	2
Cladosporium species	Mold	>7.0	2
Penicillium Species	Mold	>7.0	2
Stachybotrys chartarum	Mold	>7.0	4
Trichophyton mentagrophytes	Mold	>6.0	4
Human rhinovirus 16 ²	Virus	>6.8	3
Influenza A (H1N1) ²	Virus	>10	6
Norovirus ⁵	Virus	>6.4	7
Adenovirus	Virus	>5.8	7

EPA Accepted OLP Studies / Internationally Accepted OLP Studies

TESTING LABS

- | | |
|---|---|
| 1. University of South Florida
Center for Biological Defense | 5. Beckman Coulter |
| 2. Microbial Insights | 6. Accuratus Labs (formerly ATG)
EPA Testing Lab |
| 3. L-3 Communications | 7. Microchem |
| 4. Microbiotest | |

NOTES

¹Bacillus atrophaeus is a surrogate for Bacillus anthracis (Anthrax) | ²Human influenza virus (Flu) surrogate | ³EPA Registered Accredited to the EPA and CDC • ⁴Standardized methods used to test for efficacy against Bacillus spore



Classes of Microorganisms

EPA REGISTERED LISTS

LIST G NOROVIRUS	LIST H MRSA	LIST K <i>C. difficile</i>
LIST L EBOLA	LIST M INFLUENZA A	LIST N SARS CoV-2 CORONAVIRUS

Hardest to Kill ▶

Moderate to Difficult

Easiest to Kill ▶

BACTERIAL SPORES & PROTOZOA

- **Bacillus**
- Clostridium
- Giardia
- Cryptosporidium

EPA states that if a product kills ***Bacillus subtilis***, it can claim "**Sporicide**" and "**Sterilant**" - the toughest category.

MYCOBACTERIUM

- ***Mycobacterium Tuberculosis***
- Tuberculosis

EPA states that kill data against ***Mycobacterium tuberculosis*** represents this entire class & is needed to claim "**Intermediate-Level Disinfectant**".

NON-ENVELOPED VIRUSES

- Rhinovirus
- Polio
- Herpes

The EPA does not recognize a particular virus as representative of this entire class and does not have a "**General Virucide**" claim.

FUNGI (Mold & Yeasts)

- **Trichophyton**
- Candida
- Aspergillus

The EPA recognizes ***Trichophyton*** as the toughest in this entire class; kill data against it is required to claim "**Fungicide**".

BACTERIA (Gram +ve & -ve)

- **Staph**
- **Salmonella**
- **Pseudomonas**
- Strep
- E. Coli
- MRSA

The EPA recognizes data against ***Staph & Salmonella*** as representative of this class and is required for a "**Low-Level Disinfectant**" claim plus ***Pseudomonas*** kill data for a "**Hospital Disinfectant**" claim.

ENVELOPED VIRUSES

- Influenzas
- Hepatitis B
- HIV

The EPA states that data against ***Polio*** covers this entire class as well, but specific virus claims are permitted without Polio.



SteraMist Products

STERAMIST SURFACE UNIT

- Fully portable, hand-held, point and spray disinfection/decontamination system
- Application time of only five (5) seconds per square foot and a seven (7) minute contact time
- Decontaminates high touch surfaces



STERAMIST ENVIRONMENT SYSTEM

- Transportable and provides complete room decontamination, deodorization and mold mitigation using multiple treatment applicators per unit
- Effective complete room treatment in just under forty-five (45) minutes for a room 3,663.7 ft³/104 m³



SteraPak



STERAMIST® STERAPAK®

The **SteraPak®** delivers innovative iHP technology wherever you go in the smallest SteraMist unit yet, providing you with a back-mounted, lightweight disinfection solution.

- Convenient, portable backpack unit
- Perfect for maneuvering crawlspaces and other tight areas
- Features rechargeable battery and direct power operation
- Designed to meet any budget



**NO MIXING, WIPING, OR RINSING REQUIRED,
LEAVING NO RESIDUE AFTER APPLICATION**

**COMFORTABLE TO USE, EASY TO OPERATE,
PERFECT FOR CONSTRAINED SPACES**

**UTILIZES PROPRIETARY STERAMIST® 7.8%
HYDROGEN PEROXIDE BIT™ SOLUTION**

**COLD PLASMA TECHNOLOGY KILLS WITHIN
SECONDS OF CONTACT**

**NON-CORROSIVE APPLICATION ALLOWS FOR
SUPERIOR MATERIAL COMPATIBILITY**

**AC AND DC POWER FUNCTIONALITY ENSURES
COMPATIBILITY IN ALL COUNTRIES**

JOIN THE PAK

PREMIUM, PORTABLE DISINFECTION



STERAPAK®
POWERED BY BINARY IONIZATION TECHNOLOGY

ORDER TODAY!

STERAMIST



SteraMist Mobile Product Comparison

CORDLESS PORTABILITY
STERAPAK
BINARY IONIZATION TECHNOLOGY

The all-in-one SteraPak places the power of SteraMist onto your back, delivering innovative disinfection that utilizes a rechargeable battery, cordless operation, and a new compact BIT solution bottle.



PRECISION CONTROL
STERAMIST
SURFACE UNIT

The SteraMist Surface Unit is the perfect solution for facility surface disinfection, bringing you handheld control with more movement and mobility around the treated area.



WHOLE ROOM TREATMENT
STERAMIST
ENVIRONMENT SYSTEM

As the most intelligent mobile unit, the SteraMist Environment System delivers disinfection and decontamination with unparalleled scalability. Features remote operation and hand-held modes.



PRODUCT FEATURES:

- Easily switch between battery and direct power
- Delivers ionized Hydrogen Peroxide (iHP™) in the most lightweight SteraMist system
- Perfect for maneuvering through small areas, such as attics and crawlspaces

- Portable and rugged design for easy storage
- 30' removable applicator cord helps you reach a wide radius
- Routine disinfection for large areas and surfaces with 1 gallon of BIT Solution

- Ideal for outbreaks and severe decontamination & deodorizing needs
- 3 removable 30' cords and applicator stands
- Intuitive HMI and custom cycle creation to meet all GMP requirements



Additional Portable Products

STERAMIST®

TOTAL DISINFECTION CART

- SteraMist Surface Unit
- Two Gallons of BIT™ Solution
- Dräger® X-am 5100 Portable H2O2 Monitor
- X-POWER 2580 Air Scrubber With Dual Carbon Filters
- MaxAir® System Helmet with a Positive Pressure Air Flow System
- Durable Shelved Stainless Transport Cart
- 45-minute Terminal Clean Protocol
- Storage Hooks For coiling power cords and helmet
- Sign notifying room is being treated

SELECT

STERAMIST®

SURFACE UNIT

- Customizable SteraMist Surface Unit for use in smaller enclosures for disinfection/ decontamination.
- Features the ability to alternate between low-flow and standard operation
- Standard SteraMist trigger applicator or a permanent/semi-permanent stainless steel 90-degree applicator



SteraMist Custom Engineered System (CES)



CUSTOM ENGINEERED SOLUTION - INTEGRATED FACILITY

- NEMA-enclosed Programmable Logic Control (PLC) can be integrated with facility HVAC systems for complete room isolation and aeration.
- Area doors can be automatically sealed, secured, and released via magnetic locks, allowing for vacuum to be drawn.
- Automated and programmable equipment for decontamination of any closed area.
- Downloadable disinfection and decontamination run data.
- Password protected with multi-level security.
- Real-time measurement of injection rates to ensure targeted injection volume.
- Entire system is flexible can be developed for multiple rooms and various specifications.
- Visual system status with accompanying audible notifications.

STERABOX™
POWERED BY BINARY IONIZATION TECHNOLOGY™

TOMIMIST.COM
800.525.1698

GAME-CHANGING DECONTAMINATION CHAMBER TREATMENT WITH STERAMIST® 7.8% IONIZED HYDROGEN PEROXIDE (IHP™)

With SteraMist IHP technology, decontamination is about 4x quicker than other H₂O₂-based decontamination methods. Our non-hazardous 7.8% solution gives you the ability to treat both the largest of areas to the smallest of chambers - including the **SteraMist SteraBox.**

Designed to work exclusively with the 90° Applicator and SteraMist Environment System or Select Surface Unit, you're able to remotely initiate a decontamination cycle and initiate the self-contained exhaust system without fear of hydrogen peroxide exposure to the surrounding area.

With cold plasma technology, you're able to experience speed, efficacy, and expansive material compatibility in a controlled, customizable cabinet. Our sub-micron to 3-micron particle size can reach the most difficult-to-treat areas on your equipment.



SAMPLE STERILIZATION CYCLE (EMPTY CHAMBER)*

Injection: 9ml Cycle (12ml/min.) x2
Total Injection Time (approx.): 1m30s
Dwell: >10 mins
Aeration: ~20 mins.

TOMI™ also provides validation services for a wide range of methods to ensure that you're receiving the powerful efficacy SteraMist is known for.

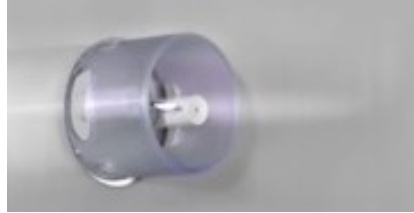
Contact us for a full list of available products & services.

ENHANCE YOUR FACILITY WITH THE INNOVATION OF
STERAMIST® DECONTAMINATION TODAY



The SteraMist® Versatility

TOMI™ works with their clients to provide customized service for their disinfection/ decontamination needs.



Life Sciences Customer Case Study: “How Pfizer Makes Its Covid-19 Vaccine”

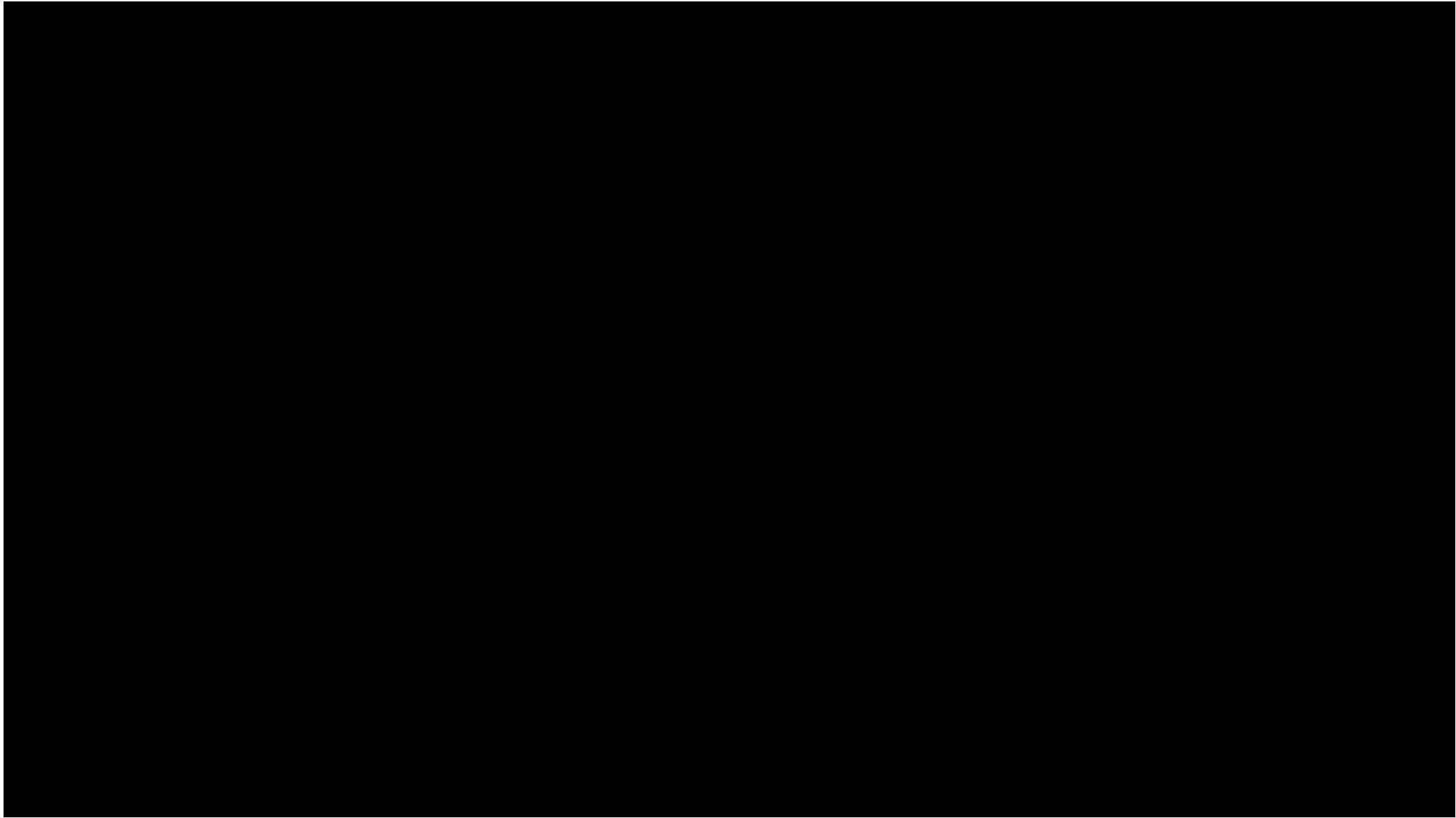
“How Pfizer Makes Its Covid-19 Vaccine” by The New York Times

SteraMist is implemented throughout Pfizer Chesterfield, Missouri facility where they are making their Pfizer-BioNTech vaccine.

Pfizer added twenty (20) permanently mounted SteraMist applicator decontamination system, CES, at the beginning of 2019 to decontaminate their facility.

SteraMist ionized Hydrogen Peroxide (iHP) technology disinfects and decontaminates four (4) cleanrooms at this facility.





Life Sciences Customer Case Study: Select Unit at Icahn School of Medicine at Mount Sinai

OVERVIEW:

During research performed at Icahn School of Medicine at Mount Sinai (IMSSM), a SteraMist Select Surface Unit was implemented within a small Coy Labs Vinyl Anaerobic Chamber passthrough unit in an effort to streamline equipment decontamination protocols.

RESULTS:

Using both SteraMist and the Vinyl Anaerobic Chamber, TOMI technicians were able to create a baseline decontamination protocol. To gauge efficacy, chemical indicators were placed throughout the chamber to measure hydrogen peroxide dispersion. In addition, biological indicators were placed in the following areas to confirm six-log efficacy against *Geobacillus stearothermophilus* after every consecutive injection:

- 4x on Top Corners of Chamber
- 4x on Bottom Corners of Chamber
- 2x within Midsection Chamber
- 1x Beneath Scale

The SteraMist Select Surface Unit and 7.8% hydrogen peroxide-based ionized hydrogen combination led to a 4x faster decontamination with a validated six-log reduction on each indicator.

SETUP SPECIFICATIONS:

- SteraMist Unit:** Select Surface Unit
- Applicator:** Standard Handheld
- Chamber Volume:** 27 cu. ft. (764 L)
- Injection Time:** 5 Minutes
- Dwell Time:** 7-10 Minutes
- Aeration Time:** 10 Minutes
- Pathogen Reduction:** 6-log Kill



iHP – Personal Protective Equipment (PPE)

During application it is recommended to wear, at minimum, the following:

- ▶ Long sleeved shirt and long pants or Tyvek suit
- ▶ Gloves
- ▶ Hair cap
- ▶ Protective eyewear such as goggles, face shield, or safety glasses
- ▶ Mask



Monitoring the Air – OSHA Requirements

It is required to monitor H₂O₂ levels with a Drager monitor or PortaSens monitor after each disinfection/decontamination treatment. If Hydrogen Peroxide concentrations exceed 0.2 ppm, the treated space must remain blocked off until the appropriate H₂O₂ levels have been achieved.

Drager Monitor:

- ▶ Sentry outside treatment area.
- ▶ Aeration verification inside treatment area.
- ▶ 0-20 ppm (parts per million)
- ▶ Alarms
- ▶ IPA



Model No. DRA-510

PortaSens Monitor:

- ▶ Samples air inside treatment area.
- ▶ 10/100 or 200/2000 ppm (parts per million)
- ▶ Batteries and sensors
- ▶ Saturation



Training and Support – the Value behind the buy



1. INITIAL ASSESSMENT

2. TRAINING

3. IMPLEMENTATION

4. ONGOING SUPPORT



1. INITIAL ASSESSMENT

- Pre-plan Meeting
- Identify Key Use Sites
- Protocol Observations
- Identify Core Users
- Identify Measurable Metrics
- Choose Type of Training (End User or Instructor Training)
- Initiate Protocol Development



2. TRAINING

- Training Material Developed (Basic troubleshooting technique package available)
- Scheduled Training
- In-House Workshop
- Competency Assessment
- SteraMist Equipment Certification



3. IMPLEMENTATION

- Completed Protocols are Reviewed Prior to Implementation
- Follow-Up Communication to Ensure Optimal Results
- TOMI Trainer Available to Refine and Assist Client, If Needed



4. ONGOING SUPPORT

- 24/7 Tech and Application Support (maintenance, troubleshooting, protocols, proper usage, etc...)
- Continuous Protocol Development
- Ongoing Communication with a Customer Experience Representative and Infection Preventionist
- One-Year Warranty with Option to Extend



iHP Corporate and Partner Service

TOMI offers room, equipment, full facility and emergency disinfection/decontamination. Single and routine service can be provided to coincide with maintenance or to control a specific threat.

Decontamination:

SteraMist has been successfully used to service:

- Clean Rooms and Research Labs
- Production Environments
- Service and Technical Areas (HEPA filters)
- Material pass through rooms
- Corridors and Thoroughfares

Whole Facility Decontamination:

When considering utilization of TOMI Service, you will receive the direct attention of a knowledgeable SteraMist Technician who will ask, listen and then execute. Along with personalized attention, whether you are a production or research facility, large or small, you will receive a:

- Complimentary Site Survey
- Technical Review
- Customized decontamination plan, including guidance on appropriate methods and practices which fit your unique facility.
- Final report provided after decontamination service.

Equipment Decontamination:

Non-caustic and silver free, SteraMist BIT mist visibly moves over the equipment, leaving behind a fully disinfected/decontaminated instrument ready for use:

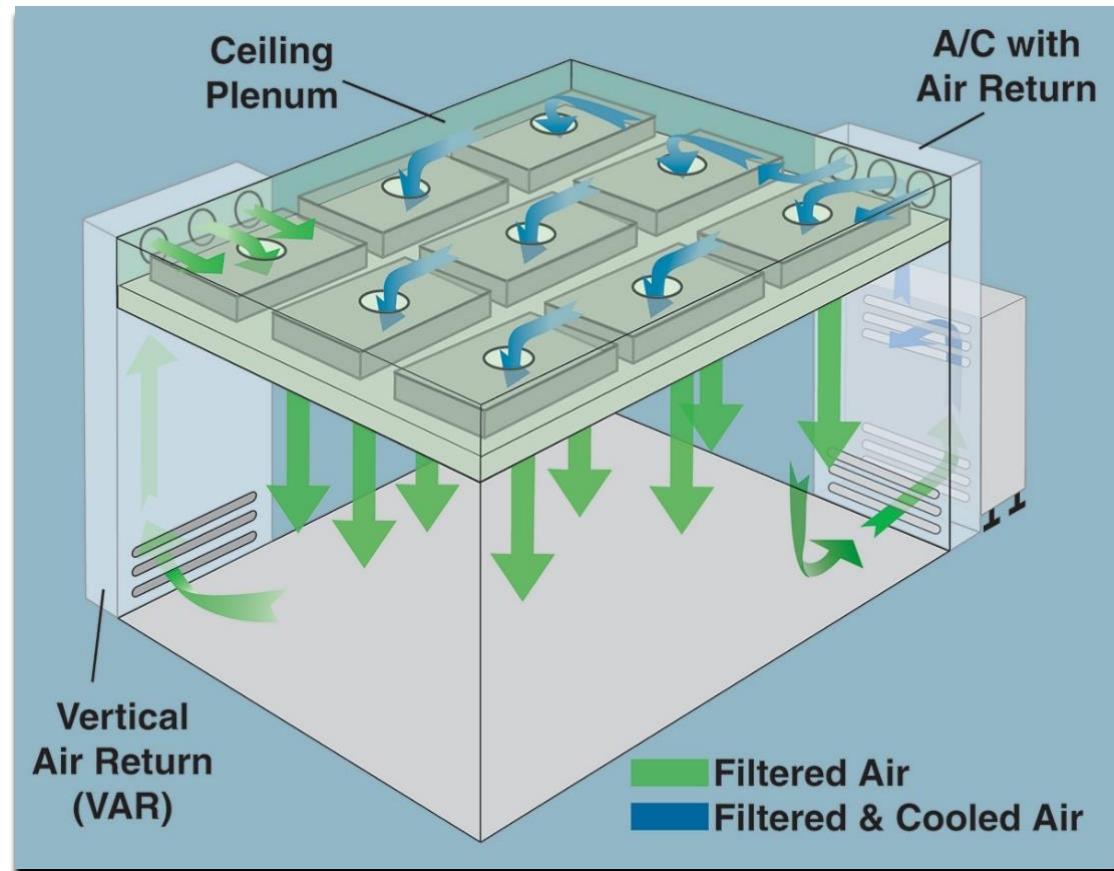
- Safety Cabinets
- General Lab Equipment
- Isolators
- HEPA filters
- Vivarium Caging
- Decommissioned Equipment



iHP to Decon HEPA Filters and Duct Work

Validation successful using BIs through 4" thick Camfil HEPA filters with a four-log reduction.

The small particle size of 2 microns or less allows penetration and decon of air ducts and HEPA filters.



Validation Methods

Chemical Indicators

CI measures homogenous distribution of Solution



Biological Indicators

Geobacillus Stearothermophilus with the lowest D-values, universally accepted as the “Gold Standard” for monitoring decontamination and sterilization protocols



Enzyme Indicators

FAST RESULTS IN LESS THAN 60 seconds



BIT Bacterial Burden Reduction Trial Using EnviroTest

should be incubated between 20N37° C for 48 hours and the number of colonies counted on each set of paddles.



Qualification Methods

DESIGN, INSTALLATION, OPERATIONAL, & PERFORMANCE QUALIFICATION

Validate by establishing documented evidence that shows a facility has a high degree of assurance that will consistently yield a product with predetermined quality standards.



TOMI ENVIRONMENTAL SOLUTIONS, INC SELECT CLIENT LIST

HOSPITAL -HEALTHCARE



LIFE SCIENCES



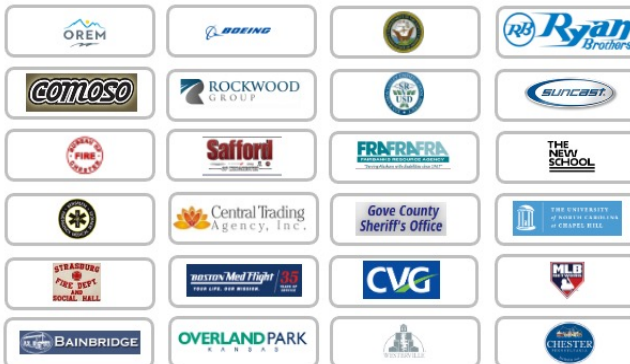
TOMI SERVICE NETWORK



FOOD SAFETY



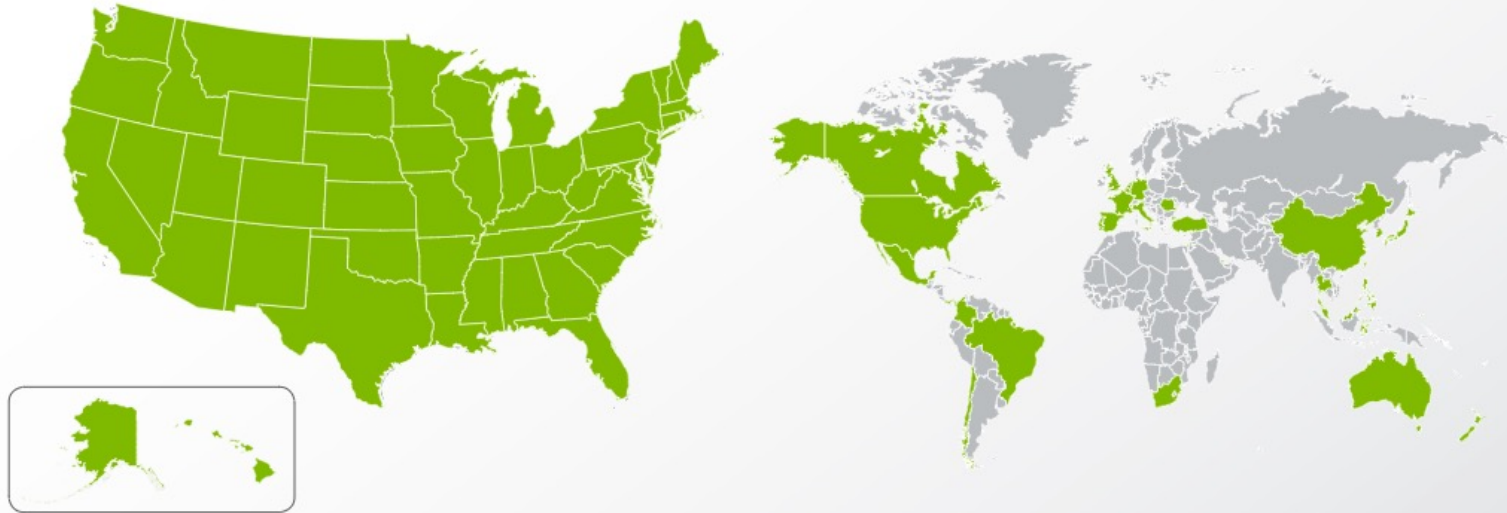
COMMERCIAL



INTERNATIONAL



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INNOVATING FOR A
SAFER WORLD



THANK YOU!

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