

# Scheld Aviation Service Unique Disinfection Performance





## Presentation - Aircraft disinfection with SteraMist



## Agenda

- Personal Information
- Key advantages
- The Binary Ionization Technology
- QRT Quick Response Team





Aviation related documents

Media response about SteraMist







## Scheld Aviation Service - The Company

Scheld Aviation Service brings disinfection to the next level. Using the only non-corrosive method for aircrafts also applicable for the cockpit, we support to keep your operations save and running during these difficult times. Our experts disinfect all kinds of aircrafts, Simulators (FFS) and also other highly sensible products e.g. server - or surgery rooms. Despite disinfection and consulting services, we offer buying and renting options for the unique technology including full service offers to meet the different needs of our customers.

Jonas Scheld – CEO

- Certified Flight Engineer / State Certified Disinfector -

Dr. Heiner Börger - CEO - Helicopter Pilot-

#### Personal Information – The founders



#### Jonas Scheld - CEO

- Licensed Aircraft Technician B1 for airline and business aviation with 13 years well-founded experience
- Started in 2013 as self-employed flight engineer/certifying staff B1 on BBJ's and Global 6000 under Scheld Aviation Service
- state certified disinfector acc IfsG §17 Abs . 3
- Worldwide experience in aircraft maintenance, completion, refurbishment and operations



**Dr. Heiner Börger - CEO** 

- · Studied advertising in Berlin
- Directed an event agency for over 15 years, realizing marketing and key account management events
- Aviation professional since 1999 as helicopter pilot in Germany, USA, South Africa in advertising/photo/film business and V.I.P. travel



## **Key Advantages**



#### Key Advantages of our disinfection solution

#### Cost efficient

- No long-term damage
- Easy to transport
- · Reduced manpower needed
- Less service from cleaning companies needed

#### Positive PR effect

- Crew (internally)
- Media, PR and others (externally)

#### Less ground time

- Time saving procedures available
- Service delivery during short turnarounds possible
- Ready to board 30 minutes after finished disinfection

#### elivery during short time saving compared to nor

 Faster solution with around 50% time saving compared to normal disinfection procedures

Increased efficiency

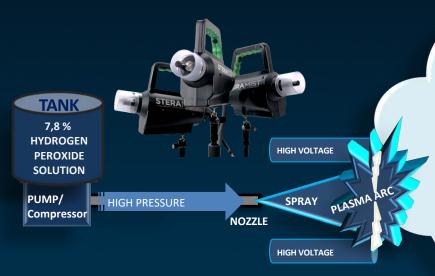
#### State of the art technology

- Helps to eliminate a wide range of microorganisms in seconds
- Environmental friendly

#### NO biohazard left behind

 The technology allows the disinfection without any contaminated waste left behind





#### **IONIZED FOG**

- Inactivates or kills pathogenic organisms through oxidation of proteins, carbohydrates and lipids
- log 6 reduction = 99,9999% (from 1 mio. pathogens only 1 remains)
- Leads to cellular disruption and/or dysfunction in just a few seconds
- Eliminates all bacteria, viruses, spores including Corona
- Also suitable for mold mitigation and remediation



#### The one and only solution for aviation

- ✓ EPA registered technology
- ✓ The fog moves like a gas
- ✓ Working very fast
- √ Not corrosive at all
- ✓ Harmless to any material
- ✓ Usable for the cockpit
- ✓ Only classified as irritant





#### **Technology is EPA registered**

- H<sub>2</sub>O<sub>2</sub> converts into ROS Reactive Oyxgen Species after passing an atmospheric cold plasma arc - highly effective against all known infectious microorganisms
- Does not contaminate the environment with any toxic by-products at all
- No wipe, no rinse leaves no residues!





#### The fog moves like a gas

- Even unreachable areas will be covered
- Easy to remove & ventilated via the airconditioning
- Will also decontaminate HEPA filters
- very low risk of application errors and missing out on areas compared to other methods





#### **Working very fast**

- All infectious microorganisms e.g.viruses or spores will be killed in only 5 seconds (SARS-CoV-2 in 3,5 seconds)
- Allows fast treatment of the complete aircraft including cockpit & cabin in approx. 1,5 hour, proven on a Boeing737-800 with one unit. (half the time with two units)
- Smaller Jets within only 30 min



#### Not corrosive at all

 Zero danger of corrosion for the aircraft aluminum structure, screws or other easy to corrode materials even when exposed due to scratches o.s.

 NO other H2O2 solution on the market is noncorrosive

Approved for airplane use





#### Harmless to any material

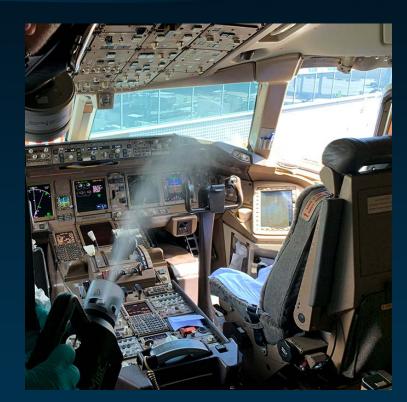
- Hard surfaces, soft surfaces, floors even the finest fabrics and textiles will not be damaged in any way
- Especial suitable for any Private/Business Jet like a small Citation or a Boeing Business Jet
- No mechanical wiping (no scratches)
- No need to apply strong disinfectants on fine or delicate materials/surfaces





#### **Usable for the cockpit**

 LRU's, screens, switches, cables, headsets, checklists - All that can be disinfected without any special caution





#### Classified only as irritant

- No mixing required, no special clean up or biohazard material disposal required, no rinse, no wipe, no residue
- No hazardous DOT restriction for world-wide transportation or special requirements for transportation
- The first-choice technology for missions anywhere away from home base



# Sterile SCHELD Aviation Service

## Different disinfection methods – Overview at a glance

	isinfection Method	Kill log-6 reduction of 99,9999%	No long-term damage due to corrosion	Suitable for cockpit	No harm to any material	No special atmosphere (P,V,T) needed	Air conditioning has positive/no impact	No residues	No biohazard materials left behind	Environmental friendly	Needed time for application	*Compatibility to materials
	IT™ Binary Ionization echnology	V	V	V	V	V	V	V	<b>~</b>	V	1 hour + ventiliation time (15 min)	Non corrosive, no wipe, no rinse, no damage to any material
á	couring wipe with Icohol based on olutions	×	V	×	<b>X</b> *	<b>~</b>	V	×	×	×	Depends on manpower 2 min, exposure time on surface plus time for rinse	Damage trough wiping (scratches)
	ogging with H2O2	×	×	×	<b>X</b> *	×	×	<b>~</b>	•	×	Entire volume of cabin has to be filled. 2-4 hours + ventilation time	Highly corrosive, may damage materials
	ogging with H2O2 & ilver	×	×	×	<b>X</b> *	×	×	×	<b>~</b>	×	Entire volume of cabin has to be filled. 2-4 hours + ventilation time	Moderately corrosive, may damage materials, residues of silver

### One solution combining all advantages



- ✓ The fog moves like a gas
- ✓ Not corrosive at all
- ✓ Harmless to any material including delicate and valuable fabrics
- ✓ Usable for the cockpit
- ✓ Only classified as irritant
- ✓ The only non-corrosive system for aviation industry suitable for electronics
- ✓ Time and cost-efficient solution preventing long-term damages due to corrosion
- ✓ EPA registered technology leader

- ✓ 50% faster treatment compared to competitors
- ✓ Ready to board only 20 minutes after disinfection
- ✓ No biohazard left behind
- ✓ OMRI listed For Organic Use
- ✓ Easy to transport and only classified as irritant
- ✓ Long-term aviation professionals with in-depth market knowledge
- ✓ Providing and developing procedures for aircraft disinfection
- ✓ Helping to prevent possible upcoming worldwide pandemic
- Giving support to get the aircraft traffic back to normal



## Quick Response Team



## QRT – Quick Response Team

#### Unique, fast and reliable support

- Our Quick Response Team is ready to start within minutes to support you anywhere
- Via helicopter we can reach even remote places 24/7
- We will be faster since we are not only relying on public transport or major airports to reach our destination

Helicopter flight time from FRA (in hrs):

Berlin-Tegel: 02:50 Bremen:

02:10 Brussels:

02:00 Dortmund: 01:10

Düsseldorf: 01:15 Eindhoven: 01:40

Hamburg: 02:40

Hannover: 01:50 Köln/Bonn: 00:55

Leipzig:

01:55 Mailand: 03:00

Osnabrück: 03:00 Nürnberg:

01:10 Paderborn: 01:10

Saarbrücken: 00:55 Stuttgart: 00:55



## Service Portfolio



#### Products and Services - We offer a holistic service approach

#### **Hardware**

Selling and rental of
SteraMist™ surface and
environmental units and
BIT solution as licensed
distributor in EU & Russia

#### Service

Time-flexible rental models with two service packages including maintenance, repair & 24/7 support (basic, premium)

#### Disinfection

Providing highly professional and exclusive disinfection mainly for Private/Business Jets with our team

#### **Training & Consulting**

Knowledge transfer as consulting for operators & airlines and training of external staff to deliver high-quality service standards

Customer centricity | Flexible solutions | Exclusive Distributor for Europe and Russia | In-depth industry knowledge | Training | State of the art technology



## FAQ's



## FAQ – What is the science behind the technology?

SteraMist™ produces a visible mist/fog, which is composed of the Reactive Oxygen Species (ROS), the Hydroxyl Radical.

These are created by mechanically altering the sole active ingredient, hydrogen peroxide, in TOMI's BIT™ solution, by passing through the cold plasma arc.



## FAQ – Difference SteraMist™ and manual cleaning disinfection?

- Manual cleaning can produce inconsistent results because the user can easily miss areas during the clean.
- Completing a disinfection cleaning protocol with SteraMist™ offers greater coverage, in less time
- Superior results with a 99.9999% (six log) reduction and depending on the clean product, a manual clean will only provide a 99.9% or 99.99% (3 or 4 log reduction)



## FAQ - Difference of SteraMist™ to Vaporized Hydrogen Peroxide?

- VHP requires all areas to be completely sealed and pretreated to specific humidity and temperature ranges. These products can be highly corrosive and leave residues that affect materials compatibility.
- SteraMist™ is much more flexible (Surface Unit does not require HVAC turned off)
- Non-hazardous to ship and store, and demonstrates superior compatibility with electronics since there is no need to wipe, and no residue is left behind



#### FAQ – Is SteraMist™ safe for electronics?

- Yes, SteraMist™ is ideal for electronics. The iHP™ process provides a dry mist/fog and a short contact time, leaving no residue
- SteraMist™ can quickly and easily treat electronics including delicate medical and scientific equipment



## Media Response about SteraMist



## Media Responses about SteraMist - Overview

- Media responses @: www.scheld-aviation.com
- Latest from SteraMist<sup>™</sup> the system we use:
  - https://www.cleanroomtechnology.com/news/article\_page/Halden\_Shane\_TOMI\_ Environmental\_Solutions/164743
  - https://yorkshiretimes.co.uk/article/York-Cleaning-Company-Invests-80000-In-New-Equipment-From-The-US



We hope we can support you fighting against the the spread of COVID-19 and any other communicable diseases.

## THANK YOU



Scheld Aviation Service Jonas Scheld CEO

**Address:** 

Phone:

Cargo City Süd

+49 160 55 68 862

Gebäude 639 B

Mail:

Website:

60549 Frankfurt am Main Germany

jonas@scheld-aviation.com

www.scheld-aviation.com