## Smart & Sophisticated Bio Decontamination











efficient. innovative. safe.



No matter where...

container public transport public transport hospital laboratories barmaceutical industry harmaceutical industry harmaceutical industry clinics



Staphylococcus aureus . Pseudomonas aeruginosa . KPC (Klebsiella pneumoniae Carbapenemase) . Enterococcus hirae . MRSA (Methicillin resistant s. aureus) . **BACTERIA**. Candida albicans . Aspergillus brasiliensis . Proteus mirabilis . Acinetobacter XDR (Extensively drug resistant) . Escherichia coli . **VIRUS.** Corona Virus (SARS-CoV-2), Human Norovirus (HNV) Feline calicivirus (FCV) . ESBL (Extended-Spectrum Beta-Lactamase) Aspergillus Niger . **SPORES** Geobacillus stearothermophilus. Clostridium difficile . VRE (Vancomycin resistant Enterococcus) **INSECTS** Bed Bugs (Cimex Lectularius)

# Quality controlled Hygiene can save billions

# Microorganisms could be dangerous and a cost factor

4.5+ million people get a nosocomial infection in a hospital in Europe and USA with more than 136.000 direct attributable deaths every year.<sup>1</sup> 600+ million people worldwide get food related infectionswith more than 420.000 deaths every year.<sup>2</sup> Contaminated vehicles and facilities must remain closed until proper decontamination while contaminated food must be treated as hazardous waste.

#### What if we prevent...



Using the latest technologies of DCX increases your hygiene measures and safety



# **DCX System Solution** for more safety

## DCX sets new hygiene standards

DCX creates micro-aerosols based on a patented technology. The systems vaporize a low concentrated special designed liquid with hydrogen peroxide at room temperature in order to decontaminate the air and all enclosed surfaces. The intelligent system improves hygiene standards by offering reproducible and quality controlled results. Viruses, bacteria, fungi and spores are reduced effectively.

### Proven activity: 99.9999% germ free in 30 minutes

Geobacillus stearothermophilus is a spore forming bacteria and recommended by the RKI for the validation of sterilization processes. Several tests with DCX technologies showed a log 6 reduction within 30 minutes.



## **DCX System** two powerful model sizes, for every application

## **DCXplus**

Compact, but what a performance. Easiest way for routine standard decontaminations even when space is very limited e.g. ambulances.

**Room volume:** 350 m<sup>3</sup> **Dimensions:** 410 x 610 x 915 mm **Weight:** approx. 22 kg **Voltage:** 80-230 V / 50Hz **Power:** max. 300 Watts

## DCXpro

Maximum power for maximum outcome. Validate your processes or plug in additional devices to make it perfectly suitable for your demands.

**Room volume:** up to 1.500 m<sup>3</sup> **Dimensions:** 950 x 450 x 920 mm **Weight:** approx. 50 kg **Voltage:** 80-230 V / 50Hz **Power:** max. 400 Watts

#### compact edition 2022





Different solutions especially designed to fit your needs for hygiene purposes, restaurants and food industry or pest control

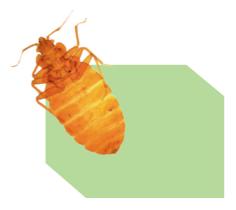


# Especially developed and tested fluid to save money and food

Two DCXpro systems can be used to decontaminate facilities of + 6.000m<sup>3</sup> for outbreak management. Quality controlled hygiene can be achieved with DCX to reduce production losses and reduce the related high costs for waste disposal.

# Sustainable pest control for optimal facility management

Bed bugs are a global pest problem and can be found almost everywhere and in higher numbers, e.g. hotels and public transport. The innovative DCX technology has a lasting effect and will save a lot of troubles, a lot of time and money while destroying bed bugs (cimex lectuarius ), their eggs and increase hygiene at the same time.



## Hygiene saves money, time and lives.



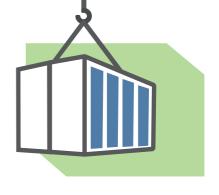
#### **DCX Profitability**

### Especially developed for food safety

The decontamination with hydrogen peroxide can reduce the chance to get a multi drug resistant organism by 64% and by 80% for Vancomycin resistant Enterococcus VRE. In contrast to former practices, the DCX decontamination provides a well-documented quality controlled process to complete your hygiene protocol.

DCX systems reduce costs at many different levels. Decontamination during changeover times could be kept shorter with DCX in comparison to time consuming manual cleaning. Pharma- and food production losses due to contamination could be minimized as well as the costs for hazardous waste disposal. Better hygiene measures can be used to create a positive public image and negative publicity could be prevented at the same time.

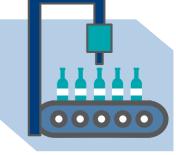
**References: Facility Management** public and private hygiene provider. **Food industry** animal shelters. **Healthcare** public and private hospitals, ambulances. **Laboratories**.



## Quality controlled DCX Decontamination with **Micro Aerosol**

1µm 10µ		um 100µm 300		μm 1000μm	
Vaporization	tiny	small	medium	large	very large
DCXF	• dry steam	mist	drizzle	light rain	heavy rain
(under 1µm)	(under 10µm +)	(10µm-100µm)	(100μm <del>-</del> 300μm)	(0,3 mm - 1mm)	(over 1mm)
quick spreading dry surfaces no corrosion	(10 µm +) condensatio	: s on market on, wet surfaces, n equipment		Г	1

Quality controlled hygiene is essential to increase safety where microorganisms may danger people, animals and products.



The 7.5% H<sub>2</sub>O<sub>2</sub>concentration is safely applicable, easy to store and biodegreable without any residues.



## **DCX Fluids**

Different fluids designed for your needs no matter where e.g. health care facilities, food industry, public transport or facility management.

#### Effective and residue-free bio-decontamination

DCX systems use a special designed liquid based on low concentraded hydrogen peroxide. During the bio-decontamination, hydrogen peroxide decomposes to water and oxygen. Based on your needs there are different fluids available to be used for infection control, food industry, mould or pest control (cimex lectuarius).

### How does the DCX decontamination work?

DCX systems such as DCXplus and DCXpro vaporize a special designed hydrogen peroxide liquid solution. Furthermore, micro-aerosols also offer excellent compatibility for a variety of materials, electronic devices and electrical systems, which means that electronically devices may remain inside the room.



# **DCX supplies** for maximum impact and your safety



#### **DCX Utility Box**

Additionally, also accessories, personal protective clothes, sensors and sealing materials have been developed and tested in order to offer not just the best technology, but also a complete fast solution for room, air and surface decontamination.

"The room disinfection with cold aerosolized hydrogen peroxide is a promising new approach to surface decontamination."

Univ.-Prof. Dr. Franz Allerberger\*

# Reproducible process according to plan

Standard hygiene measures are mostly carried out manually with hardly or even without any objective quality control. The DCX process runs fully automatic and regulates itself based on sensor measurements. DCXF-Fluid is certified as disinfectant and recommended by VAH (GER).

# verified & patented

\*Former head of the Austrian Agency for Health

and Food Safety (AGES), Dep Public









## DCX Systems

#### **Technical specifications**

Dimensions mm (L / W / H) Weight Voltage Power Room size Type of protection Insulation class Battery operation

#### H<sub>2</sub>O<sub>2</sub>-Steamgenerator

Atomizing Process Size of aerosol Operation temperature

#### DCXF-Fluid

H<sub>2</sub>O<sub>2</sub> –concentration Canister Volume Storage up to

#### DCXF-AP Fluid

H<sub>2</sub>O<sub>2</sub> -concentration Canister Volume Storage up to

We reserve the right to make technical changes in the course of further development

#### Certifications

CE compliant in accordance with relevant standards of the applicable EU. DCX technology certified according to EN 17272

#### **Certified Desinfectant**

DCX Fluids are listed as effective disinfectant and recommended by the following organizations: VAH, Association for Applied Hygiene, Germany. ÖGHMP, Austrian Society for Hygiene, Microbiology and Preventive Medicine. All Austrian manufacturers are ISO certified.

#### DCXplus

ultra-sonic

15 to 35°C

< 1 µm

7.5 %

10 L

30°C

610 x 410 x 915 approx. 22 kg 80-230 V / 50 Hz max. 300 Watts 500m<sup>3</sup> IP20 Class I 2 x Lithium-ion (48V: 14.4 AH)

#### DCXpro

950 x 450 x 920 approx. 50kg 230 V / 50 Hz max, 400 Watts up to 1500m<sup>3</sup> **IP10** Class I + Class II No



ultra-sonic < 1 µm 15 to 35°C

## DCX Technologies GmbH

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disinfection control

extended

#### 7.5 % & 0.32 % Natur Pyrethrum 10 L 30°C



