



# The New Way to Sterilize

O<sub>3</sub> low temperature technology



(logfive - O<sub>3</sub> Plug-in module prototype for sterilizers)



(logfive - O<sub>3</sub> Mobile Desinfector/Sterilizer Prototype 2.0)

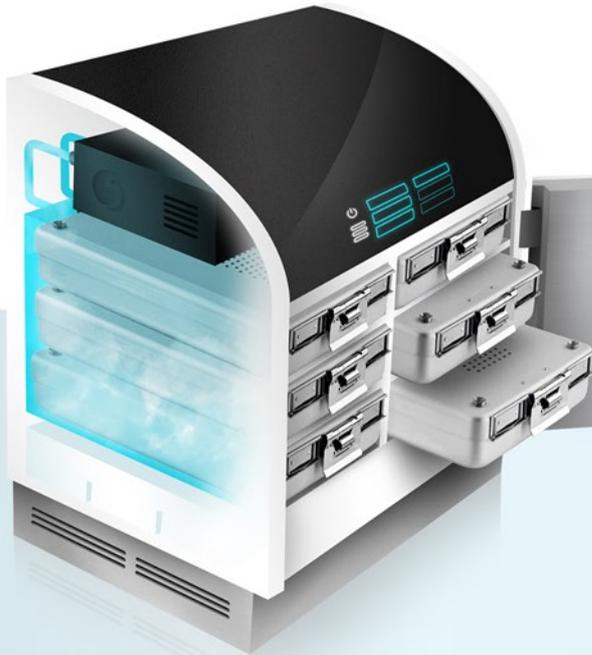
# Comparison of sterilization processes

	High Temperature (physical process)		Low Temperature (chemical process)	
Technology	Water + Steam	Steam (dry/moisture)	H <sub>2</sub> O <sub>2</sub> (+Plasma)	Ozon Gas (Plasma)
Device	Washer Desinfector	Autoclave	Plasma Sterilizer	logfive devices
Pressure	yes	yes	vacuum	low
Temperature	40°C -100 °C	110°C -140 °C	35°C -55 °C	21°C
Capacity	>10L	>10L	>10L	>1L - unlimited
Cleaning Function	yes	no	no	yes
Additives	Chemicals	no	H <sub>2</sub> O <sub>2</sub>	no
Process time	29 min - 2h	> 1h	30+ min	< 10min
Ressource consumption	high (water / electricity)	high (water / electricity)	high (electricity)	low (12V)
Total Costs	high	high	high	low
Penetration	Full penetration	Full penetration	Limited for hollow bodies	Penetration possible
Limitations	Not for heat and moisture sensitive goods	Not for heat and moisture sensitive goods	Better for heat sensitive goods, not for moisture sensitive goods	No limitations for heat and moisture sensitive goods
Felibility in use	Limited: Desktop and stationary devices	Limited: Desktop and stationary devices	Limited: Desktop and stationary devices	High: desktop, stationary, mobile devices possible
Waste	yes	yes	yes	no (reusable containers)
How to reduce process time	More chemical additives, more mechanical cleaning, higher temperature	Almost impossible	Almost impossible, higher H <sub>2</sub> O <sub>2</sub> concentration	Higher O <sub>3</sub> concentration (penetration time)

# Committed to empower smart sterilization solutions

Nowadays resource-saving, material-saving and sustainable new concepts are more important than ever. Existing processes challenged by FDA and other authorities e.g., ethylene oxide (ETO) sterilization.

Water and electricity becoming increasingly precious. **Currently, there is no smart and simple low temperature sterilizer available which can, within minute, safely and gentle all material and goods decontaminate.**



(logfive - O<sub>3</sub> Sterilizer Concept)

## Adaptive Smart Solutions



Mobile and modular Sterilizer



Plug-in module for sterilizers



Modified B-Autoclave



O<sub>3</sub> sterilizer



O<sub>3</sub> sterilization plants

# Benefits and Advantages of logfive O<sub>3</sub> low temperature technology



## Time Saving

Fast process (few minutes). Smart and simple process. Possible acceleration of existing sterilization processes.



## Modular and Flexible

Modular system possible. Integration of modules into other sterilization devices possible.



## Gentle and Safe

Alternative process for ETO sterilization. No limitations regarding materials and goods. Suitable for heat and moisture sensitive materials.



## Proof of Concept

Verified and scientific tested efficient process. First scientific publication.



## Cost Efficient

Reduction of process costs. Low energy consumption. No solvents and additives necessary.



## Ecologically Sustainable

No chemical additives. Resource saving process (energy, water). Reduction of waste, no garbage.



First cold plasma - O<sub>3</sub> gas sterilization process with unique & smart concept



Guarantees fast and safe **low temperature** decontamination of medical products and other goods **within only few minutes** time of exposure!



**Module concept** as plug & play solution possible for existing disinfectors and sterilizers



One-of-a kind modularity and mobility, perfect for use in different areas



O<sub>3</sub> gas = oxidation process = virucidal and bactericidal = sterilization **without chemical additives**



**Quick change container modules offer flexibility** to decontaminate numerous objects



User-friendly, fast, safe, flexible, gentle

