

## INNOVATIVE SOLUTION FOR BIOMEDICAL WASTE MANAGEMENT







# BIOMEDICAL WASTE: A WORLDWIDE ISSUE FOR PUBLIC HEALTH & ENVIRONMENT

Health care activities protect and save lives. But what about the waste and by-products that they generate? Biomedical waste management process can be expensive and difficult to set up for health care centers. An unsafe management can cause major issues:

## Health risks



Biomedical waste contains potentially harmful microorganisms which could infect people

### Sharpsrelated



The World Health Organization (WHO) estimates that 40% of hepatitis cases and 2,5% of HIV cases worldwide are caused by occupational exposure\*

## Environmental Impact



Treatment and disposal of healthcare waste may release pathogens and toxic pollutants

According to WHO's directives\*, infectious waste should be processed as close as possible to its generation place.

\*Sources: Health-care waste report, WHO 2002



## Sterilwave® is the alternative on-site solution

to reduce the risk of contamination in comparison with incineration and landfills.

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# STERILWAVE® EQUIPMENT & OFFER

### Compact solutions for on-site waste management:

3 different capacities to convert any biohazardous waste into municipal waste.











\*with a waste density of 1L=0.1kg

## A comprehensive offer of services:



Support for **installation** and waste management process optimization



Operators and maintenance **training** by certified experts



Maintenance and technical support: spare parts and consumables available / technical tutorials / after sales services

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## **EFFICIENT MICROWAVE TECHNOLOGY**



8log10 microbial inactivation



Efficient heating rise up to 110°C for 20' to obtain a full decontamination



No pressure during the process No irradiation risk



Adapted to any type of medical waste (sharps, glass, solid, liquid...) No segregation



No water consumption No steam generator No liquid effluent



**Easy maintenance** Equipment based on mechanical technologies

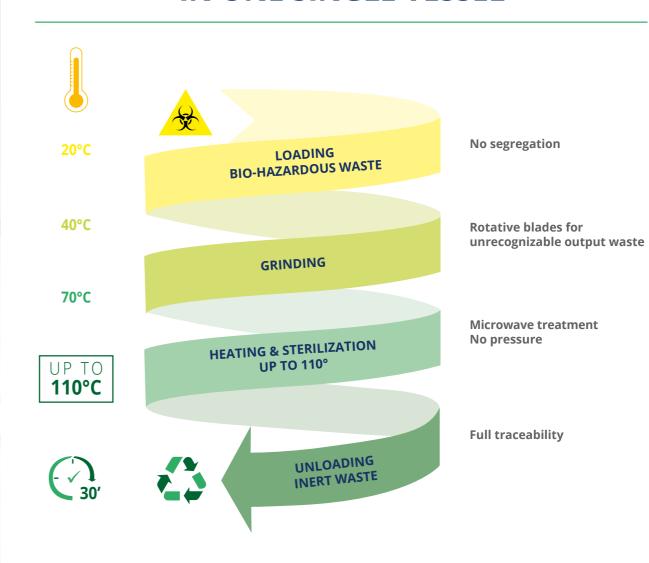


The uniqueness of Sterilwave® is linked to its innovative microwave technology and high level of treatment respecting both the environment and security processes.

Waste management method	Waste output  Dry Stable Sterilized			Weight Reduction	Volume Reduction	Immediate installation (no specific construction required)	Zero effluents (no polluting emissions)
<b>STERILWAVE®</b>	✓	✓	✓	✓	✓	✓	✓
Autoclave			✓		✓		
Incineration	✓	✓	✓	✓	✓		
Chemical treatment			✓		Some models		

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## **A 30 MINUTES AUTOMATIC PROCESS IN ONE SINGLE VESSEL**



## From infectious waste to municipal waste



\*Refuse-Derived Fuel

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## **TECHNICAL SPECIFICATIONS**



#### **SPECIFICATIONS** 500L/h 200L/h 880L/h Waste capacity Up to 50kg Up to 80kg /h \* Up to 20kg /h \* /h \* 440L 100L 250L **Vessel capacity** 30' Average cycle time 30' 32 - 35' 1,6 x 1,1 x Dimensions (LxWxD) 1.7 x 1.2 x 1.1 m 2 x 1,1 x 2 m 1,5 m Weight 1200 kg 1400 kg 700 kg 15-20 sq.m 10-12 sq.m Recommended 8 sq.m Ceiling height: 3m Ceiling (3.85m with automatic loading working area Ceiling height: 2m height: 2.2 m option) Electricity 400 V 3-Phase 40 A 400V/ 3-Phase, 63A Grinding by rotating blades and heating by microwaves **Technology OPERATING DATA** Spore up to 8log10 Microbial inactivation Virus up to 6log10 STAATT requirements and NFX30-503 compliant Volume reduction Up to 80% Weight reduction Up to 25% **Final Waste** Unrecognizable, inert, dry, stable

\*with a waste density of 1L=0.1kg

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Manual or Automatic (option)

**Loading Process** 

## **STERILWAVE® KEY BENEFITS**

## Eco-friendly, economic & safe solution

#### Safe

Microwave technology No pressure in comparison with the autoclave

#### Efficient

Exceed international regulatory standards Bacterial reduction up to 8log10



#### **Cost effective**

No more storage Robust equipment, easy maintenance

#### **Eco-friendly**

Zero environmental impact
On-site treatment – no transport
No liquid effluent to drain

#### Easy to use

"Plug and play" system No specific technical qualifications required

## Solution adapted to:

### ✓ Every medical waste producers



**CLINICS & HOSPITALS** 



RESEARCH LABORATORIES



COMMERCIAL WASTE SERVICES

## √ Any type of medical waste

- · Hospital and laboratory waste,
- · Solid and liquid medical waste,
- · Human and animal pathological waste,
- Sharps and prickly hospital waste with their containers,
- · Cultures and stocks,
- Any other waste listed in state and federal regulations as medical waste.





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BERTIN MEDICAL WASTE, a brand of CNIM Group, relies on its long history of innovative engineering to develop, produce and market innovative systems and equipment worldwide.

Its mother-company CNIM designs and builds turnkey high-tech industrial facilities and provides expertise, service and operations support in the Environment, Energy, Defence and Industrial sectors.



€634.9 million in revenues in 2017



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