

## 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 3% 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 repport, WHO 2015



### Sterilwave® is the alternative on-site solution

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

# 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

## EFFICIENT MICROWAVE TECHNOLOGY



8log10 microbial inactivation



**No pressure** during the process No irradiation risk



No water consumption No steam generator **No liquid effluent** 



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



Adapted to any type of medical waste (sharps, glass, solid, liquid...)

No segregation



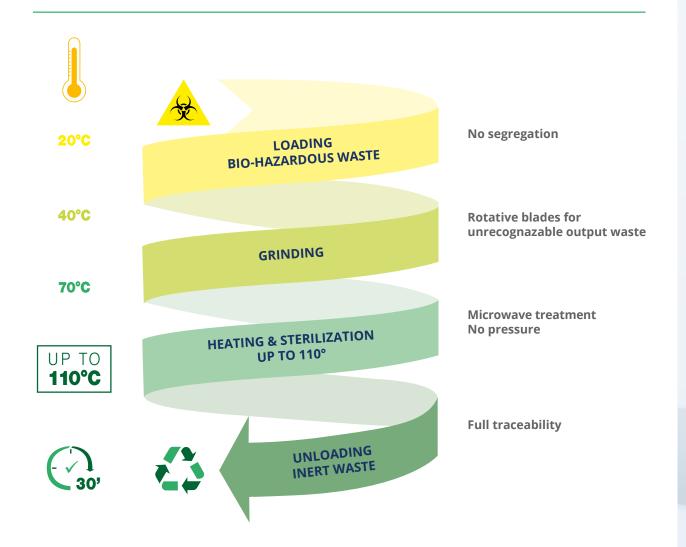
**Easy maintenance** Equipment based on mechanical technologies

Sterilwave® has been registered and approved by health & environmental ministries in Europe, Asia, Africa, Middle East and America.

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

# A 30 MINUTES AUTOMATIC PROCESS IN ONE SINGLE VESSEL

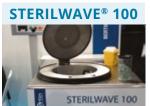


### From infectious waste to municipal waste



\*Refuse-Derived Fuel

### **TECHNICAL SPECIFICATIONS**







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SPECIFICATIONS						
Waste capacity	200L/h Up to 20kg /h *	500L/h Up to 50kg /h *	880L/h Up to 70kg /h *			
Vessel capacity	100L	250L	440L			
Average cycle time	30′	30′	30′			
Dimensions ( L x W x D )	1 x 1 x 1 m	1,6 x 1,1 x 1,5 m	2 x 1,1 x 2 m			
Weight	700 kg	1200 kg	1400 kg			
Recommended working area	8 sq.m Ceiling height: 2m	10-12 sq.m Ceiling height: 2.2 m	15-20 sq.m Ceiling height: 3m (3.85m with automatic loading option)			
Electricity	400V/ 3-Phase, 63A					
Technology	Grinding by rotating blades and heating by microwaves					
OPERATING DATA						
Microbial inactivation	Spore up to 8log10 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					
Loading Process	Manual or Automatic (option)					
Process management	Full traceability					





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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.



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