

INNOVATIVE SOLUTION FOR BIOMEDICAL WASTE MANAGEMENT





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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:



Biomedical waste contains potentially harmful microorganisms which could infect people



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





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.

STERILWAVE® EQUIPMENT & OFFER

Compact solutions for on-site waste management:

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



A comprehensive offer of services:





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

Operators and maintenance training by certified experts

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*with a waste density of 1L=0.1kg





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

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

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 Stable | tput Sterilized | Weight Reduction | Volume Reduction | X Immediate installation (no specific construction required) | Zero effluents (no polluting emissions) |
|-------------------------------|--------------|---------------------|---------------------------|---------------------|---------------------|--|--|
| STERILWAVE® | 1 | 1 | √ | 1 | 1 | \checkmark | √ |
| Autoclave | | | \checkmark | | \checkmark | | |
| Incineration | \checkmark | \checkmark | \checkmark | \checkmark | \checkmark | | |
| Chemical treatment | | | \checkmark | | Some models | | |

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A 30 MINUTES AUTOMATIC PROCESS IN ONE SINGLE VESSEL



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TECHNICAL SPECIFICATIONS

STERILWAVE® KEY BENEFITS



SPECIFICATIONS

Loading Process

| 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′ | 32 - 35' | |
| Dimensions (L x W x D) | 1.7 x 1.2 x 1.1 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 | 400 V 3-Phase 40 A | 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 | | log10 | |
| Volume reduction | Up to 80% | | | |

| | STAATTTEQUITETTES and NEXSO-SOS COmpliant |
|------------------|---|
| Volume reduction | Up to 80% |
| Weight reduction | Up to 25% |
| Final Waste | Unrecognizable, inert, dry, stable |
| | |

Manual or Automatic (option)

*with a waste density of 1L=0.1kg

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

Solution adapted to:

✓ Every medical waste producers





CLINICS & HOSPITALS

✓ 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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Eco-friendly

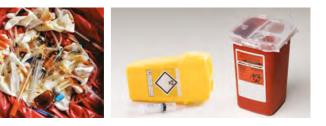
Zero environmental impact On-site treatment – no transport No liquid effluent to drain

Easy to use

"Plug and play" system No specific technical qualifications required

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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



A stable family

shareholding



3 000 Employees

1500 Engineers



Quoted on the stock

market since 1986



Global presence on 4 continents

A worldwide network of distribution





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