

celitron

WE THINK GREEN!

A photograph of three glass vaccine vials with silver caps and a syringe with a green plunger, all on a white surface. The vials have labels that partially read 'Vaccine For Health Protection' and '10 doses'.

# INNOVATION IN VACCINE PRODUCTION

Automated, efficient, fast Biological Waste Treatment

Celitron Medical Technologies Kft.

# Waste disposal

## The challenge for pharmaceutical companies

There are strict rules and regulations related to handling biohazardous waste. In institutions and manufacturing sites, where large amount of live viruses and bacteria are in use, the correct management and handling of hazardous waste is essential, as failure to comply generates risk for health and safety.

This requires not only proper attention from the employees in the biopharmaceutical production, but a complete system which gives effective, immediate and prompt solution for the biohazardous waste disposal. Celitron offers for this challenge complete automated system, wich gives efficient, prompt biological waste disposal.

**With our system the following materials/tools can be treated:**

- **Roller bottles and other cell culture dishes**
- **Petri dishes**
- **Specimen containers**
- **Cryoware and labware**
- **Outdated vaccines**



**Advanced Bio Waste Treatment  
& Sterilization Solutions**



celitron

WE THINK GREEN!

## Improve your manufacturing efficiency with automated waste disposal!

Celitron offers custom-made solutions for biological infectious waste disposal in vaccine production, with completely automated systems for infectious laboratory consumables treatment. This innovative technology supports faster vaccine production and simpler, more efficient laboratory waste disposal.

There is no need for a designated storage area for the biological infectious disposables (laboratory consumables e.g. the roller bottles). With our solution the waste is immediately removed and automatically transported into the sterilization chamber. It falls into the compactor and then into the Integrated Sterilizer and Shredder (ISS) for the treating and rendering process. After the process the waste is sterile, rendered, fragmented, non-toxic, largely solid and can be disposed of as regular municipal waste.



Advanced Bio Waste Treatment  
& Sterilization Solutions



Celitron Technologies Kft.

[www.celitron.com](http://www.celitron.com)

## How the System Works?

### The Integrated Sterilizer and Shredder (ISS) technology

The ISS is a large steam sterilizer with integrated shredder, designed for on-site conversion of biohazard waste in laboratories, hospitals, clinics and dialysis centers.

The system is complying with the EU and WHO recommendations.

NO CHEMICALS are involved in the sterilization process, the system uses only clean steam for sterilization.

The ISS performs both shredding and waste sterilization in a single vessel to preclude the possibility of any cross-contamination. The vessel is fitted with a motor-driven shaft, with powerful shredding/crushing blades which reduce the size and volume of the waste.



#### **Sterility Assurance Level (SAL): up to 8log10.**

- Capacity: 25 - 1200 liters.
- Sterilization cycles and parameters can be tailored to the specific waste generated at customer's site.

## Tailor-made units according to customer requirements

Celitron offers complete tailor-made sterilization solution for laboratory waste disposal to automate the old, slow, time-consuming procedures and replace with new, efficient GMP.

### The system includes:

1. Airtight connection to the clean room(s) – airlock
2. Automatic waste transportation through sliding system – pipeline transport
3. Compactor – for volume reduction
4. Treatment with the ISS – sterilizing and shredding within a single pressure vessel
5. Automatic unloading into municipal waste container – conveyor belt

SIP – System cleaning – sterilizing the whole system by steam (Sterilization In Place)



## Features of the system

### Easy to Operate

No need for special technician qualification - operation by laboratory staff.

### Environmentally Sound

Using only steam as sterilizing agent, while shredding the waste within a pressurized vessel. The treated waste is reduced to as little as 1/10 its original volume, giving further opportunity for immediate recycling.

### Cost-effective

Inexpensive operation and maintenance.

### No risk of cross-contamination

Fully automatic, closed system, complying with life science laboratory standards (B Class).

### Tailor made

Customizable, according to the customers' unique needs.



With the Celitron's pharmaceutical waste solution the following benefits can be achieved:

- More efficient, faster vaccine production
- Immediate and on-site decontamination of rolling bottles
- No more time-consuming autoclaving
- No more space-consuming storage
- No risk of cross-contamination
- No biohazard waste transport
- Significant reduction in associated labour costs
- Significant cost reduction can be achieved due to all of the above



Advanced Bio Waste Treatment  
& Sterilization Solutions



celitron

WE THINK GREEN!



**Celitron Medical Technologies Kft.**

**Address: 2600 Vác, Szent László út 36.**

**Phone: +36 27 412-610, Fax: +36 27 412-611**

**Web: [www.celitron.com](http://www.celitron.com)**

**Email: [info@celitron.com](mailto:info@celitron.com)**

**ISO 9001 and ISO 13485 certified company with CE certified products**