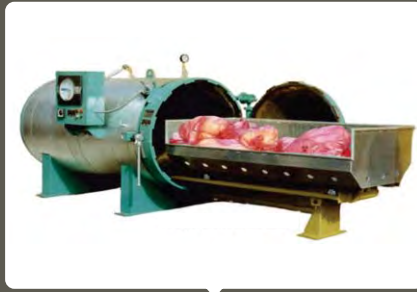


Waste Sterilizers

Mc



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**Waste Handling Equipment
for on site waste treatment**





Systems and Solutions Since 1956



Celebrating 59 years of providing solutions to the most complex situations that have made us the market place leader in Waste Handling Equipment.

The Mark-Costello Co. has been building high pressure medical waste autoclave sterilizers since 1973. We have been providing quality autoclaves to hospitals, commercial medical waste processors, flight kitchens, research laboratories and agricultural companies with to date over 700 units sold.

The Mark-Costello Co. Sterilizers use the basic principle of high temperature steam under pressure in an enclosed fully automatic steam retort. The sterilizer comes completely assembled and ready for simple final connections. All chamber vessels are built in accordance with requirements of the ASME Pressure Vessel Code. All Mark-Costello sterilizers are equipped with multiple safety features necessary when operating pressure vessels. The entire control panel for our standard sterilizers is U.L. listed and labeled.

Mark-Costello systems can be manufactured to utilize a variety of loading procedures including carts, pullout drawers or carriages. All systems employ state of the art technology in controls, information processing and material handling devices to provide effortless and safe processing of waste.

"We are committed to satisfying the needs of our clients, meeting all requirements for the execution of projects, promoting the health and safety of our workers and for the preservation of our environment. With competent staff and suppliers, under the valid legal framework and applicable international regulations, and with a continuous improvement of our processes, we benefit all interested parties."



What is medical waste?

Medical waste is all waste materials generated at health care facilities, such as hospitals, clinics, physician's offices, dental practices, blood banks, and veterinary hospitals/clinics, as well as medical research facilities and laboratories. Accordingly, medical waste is "any solid waste that is generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals."

What is regulated garbage?

All waste material that is derived in whole or in part from fruits, vegetables, meats, or other plant or animal material and other refuse of any character whatsoever that has been associated with any such material. Garbage on or removed from a means of conveyance is regulated garbage, if, when the garbage is on or removed from the means of conveyance that has been in any port outside the US within the previous two year period. Garbage containing or associated with plant or animal materials from foreign countries is a pathway of serious concern for the dissemination of foreign plant pests and diseases and animal diseases into the US.



What can Mark-Costello do for your organization or facility?

Combining applied engineering, our equipment, the machinery and the training provided by Mark-Costello, your operation can easily dispose of the wastes generated on a daily basis in an environmentally sound manner which is safe for human health. We help your facility meet local regulations, increase efficiency in waste management, and reduce cost. From design and engineering to installation and maintenance you can rely on us.

www.mark-costello.com

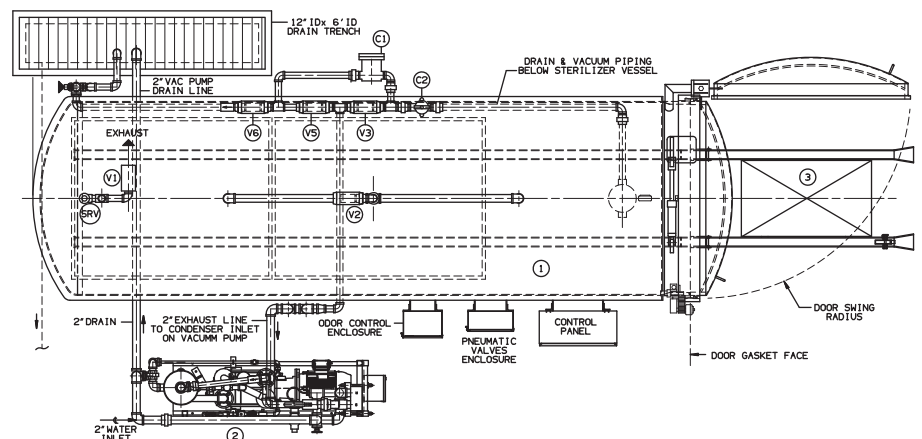
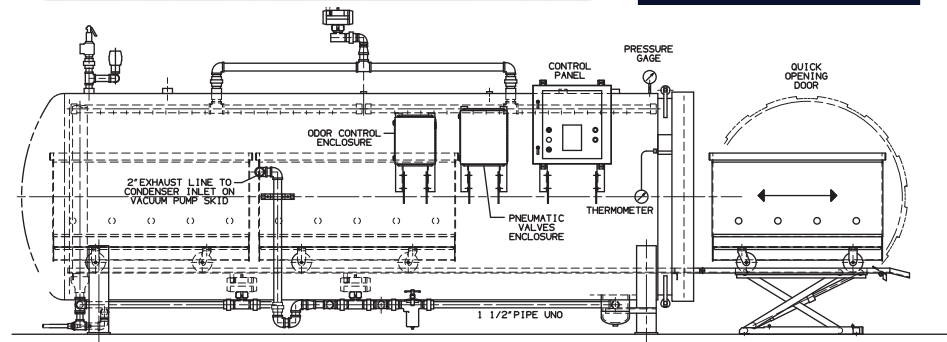


Advantages of The Mark-Costello System:

1. SAFE, ECONOMICAL, RELIABLE AND DURABLE.
2. LARGE RANGE OF CAPACITIES (THROUGHPUTS).
3. PATENTED DOOR DESIGN.
4. QUADRUPLE STERILIZER DOOR SAFETY INTERLOCK.
5. PLC DIGITAL TOUCH SCREEN CONTROLLER.
6. EXCLUSIVE MC CONDENSATE ASSEMBLY.
7. FRONT MOUNTED EASILY ACCESSIBLE SUMP DRAIN.
8. OPTIONAL STAINLESS STEEL VESSELS AVAILABLE.
9. TOTAL THERMAL INSULATION.
10. GRAVITY OR VACUUM SYSTEMS AVAILABLE.
11. LOW MAINTENANCE AND OPERATIONAL EXPENSE.
12. NO WASTE PRE-TREATMENT REQUIRED
13. EXCLUSIVE MC VAPOR MIST ODOR CONTROL SYSTEM.
14. OVER 700 UNITS SOLD!

Why Sterilize?

Incinerators emit toxic air pollutants. A waste incinerator releases into the air a wide variety of pollutants including dioxins and furans, metals (such as lead, mercury and cadmium), particulate matter, acid gases (hydrogen chloride and sulfur dioxide), carbon monoxide and nitrogen oxides. These emissions have serious adverse consequences on worker safety, public health and the environment.



Regulated Medical Waste Regulated Garbage

Safe and Reliable Autoclaves



Why invest in our system?

- ✓ The most reliable system on the market.
- ✓ Easy operation and maintenance.
- ✓ Our basic model is very competitively priced.
- ✓ We have had units operating 25 + years.
- ✓ Manufactured to meet clients needs.
- ✓ Many standard sized units-to meet various throughputs.
- ✓ Complete systems with shredders and compactors.
- ✓ MC Vapor Mist-Proven Odor Control Technology.
- ✓ Unlimited possibilities for plant layout and design.



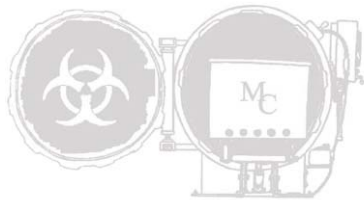
How it works-

A sterilizer (autoclave) consists of a steel chamber sealed by an access door. Inside, the variable pressure, time and temperature are specifically administered in order to eliminate the microorganisms that cause and spread disease. Mark-Costello has been manufacturing autoclaves since 1973.

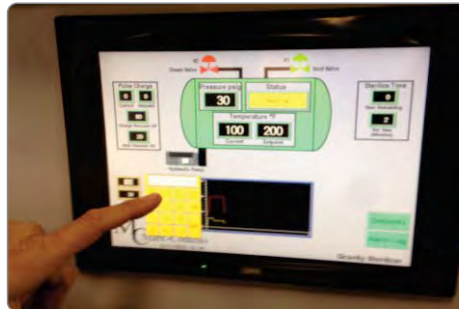
High pressure steam is introduced into the chamber, which is designed to withstand high pressures. Because air is an effective insulator, elimination of the air inside the chamber is important to ensure the penetration of the steam into the wastes. This is achieved by gravity displacement or by a vacuum system. A sterilizer operated by gravity benefits from the fact that steam is lighter than air; the steam is injected under pressure into the chamber, forcing the air downwards and outwards through a steam trap at the bottom of the vessel. Our autoclave is designed to use steam as the sterilizing agent. Our sterilizers that employ our vacuum system mechanically draws or "pulls" the air from the chamber prior to steam entrance via a liquid ring vacuum pump.

Under pressure, the pathogens are **destroyed within a few minutes** after contacting the energy transmitted through the steam. Once the waste is sterile, it can be treated as normal solid waste (municipal waste).

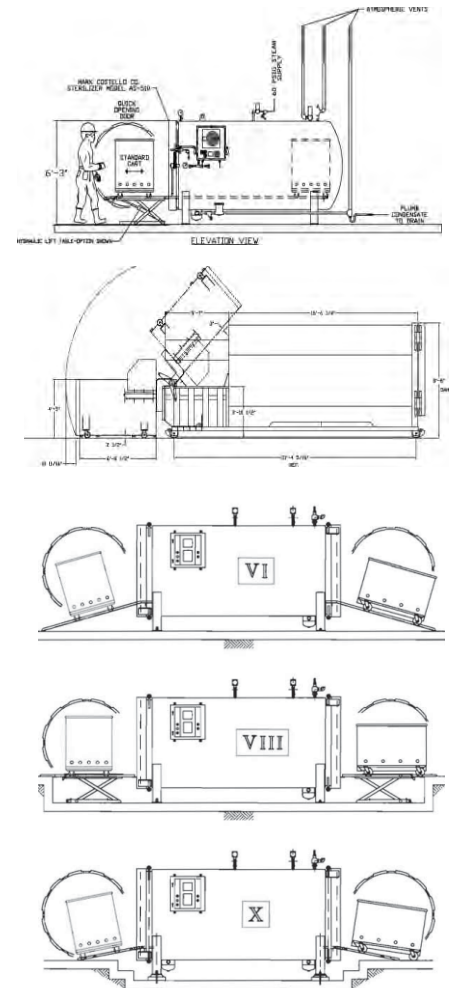
Together with medical service facilities, the list of applications includes international airports and ports, pharma companies, laboratories and regional waste commercial processing centers.



MARK-COSTELLO uses the basic principle of **steam under great pressure** in an automated retort system. The autoclave comes completely assembled and ready for the final connection. All pressure chambers are constructed in accordance with ASME standards (the highest in the world). All our autoclaves are equipped with

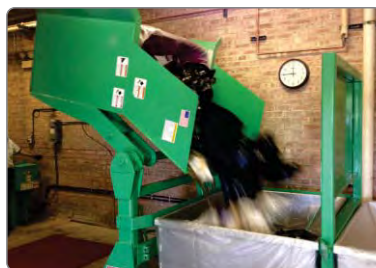


multiple safety features which are necessary when operating equipment under pressure.



System Components

Regulated Medical Waste Regulated Garbage



The **performance** of our equipment and throughput capacity are constantly tested: the **efficiency** of our systems exceeds all expectations as well as the expected ROI. With all things being equal the simplest solution tends to be the right one.



Select the model appropriate for your needs in accordance with the volume of wastes that will be treated at your facility: you will have a clean and streamlined operation.

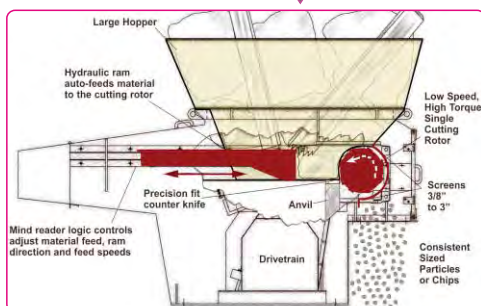


Ancillary Equipment:

- Compactors
- Cart Dumpers
- Shredders
- Conveyors
- Boilers
- Cart Washers
- Autoclave Carts
- Cart Liners



TURNKEY SYSTEMS AVAILABLE





.Mark-Costello provides a heavy duty cart dumper to transfer treated waste from sterilizer cart to waste compactor. Hydraulic cart dumpers can be stationary mounted adjacent or integral to the compactor. Depending on the sterilizer model and cart size-either a stationary or self-contained compactor will be utilized.

Effective Process

Medical Waste:

Mark-Costello provides tailored solutions for hospitals and medical centers in accordance with our client's needs. We have the know-how and experience for the sterilization of medical wastes in a safe cost effective and efficient manner.

Regulated Garbage:

We apply our technology at International Airports and Ports for their regulated garbage. Sterilization and disposal of food and other wastes from international flights, as well as other waste which might represent a vector for disease.

At laboratories: Our technology is applied in the sterilization and treatment of microbiological wastes.

.At treatment centers: Our equipment is a productive and profitable way for waste management and treatment companies to dispose of dangerous waste in a safe and efficient manner.

Always cost-effective: Is cost of acquisition the most important factor when deciding on which equipment to buy? **Not necessarily**, but our autoclave systems are the best and **least expensive**.

Flexibility in Design

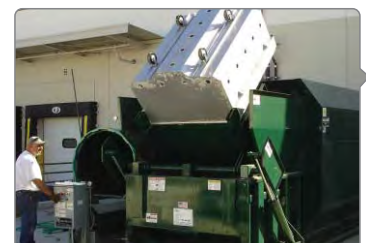
How much technology do you need or want? Mark-Costello allows you to choose the level of sophistication that is best suited for your needs. We offer a **basic system** which does not require any knowledge in computers, with a digital printer that registers the time and temperature of the cycle. However, for those who prefer high capacity digital platforms, we offer an **advanced system** which is a completely computerized PLC touch screen controller-with remote monitoring and trouble shooting capability.



- Design
- Engineering
- Equipment Layout
- Utility Interface
- Equipment Installation
- Start Up
- Employee Training

Track Record?

How long will your sterilizer last? Many of the systems that we have sold and installed have been in continuous operation for **over 20 years**. In the waste management world it doesn't get better than that. When comparing products and companies-remember with The Mark-Costello Co. you'll be working with a company that has been around for going on sixty years; aka..... a safe bet.





Design/Engineering/Equipment Layout/Employee Training



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MC THE MARK COSTELLO CO.
 Systems & Solutions Since 1956