



## “MEDICAL WASTE TREATMENT”

Shredding & Steam Sterilization of Medical Waste



Infection Control System



Infection Control System



# “THE CISA GROUP COMPANY”

## COMPANY PROFILE

CISA has been manufacturing and selling sterilization systems for over 60 years for both hospitals and industrial applications for all sterilization needs.

CISA is an Industrial Group which manufactures hospital and industrial machinery having integrated technological production systems with factories in different continents and its headquarters in Lucca, Italy.

Distributor coordination and technical service centres are managed through CISA branches, located in Joinville (Brazil) for Brazil and Latin America, in Amman (Jordan) for Middle East area, and Singapore for Asia,

as well as distributors and sales offices worldwide to ensure a constant presence and complete service in all countries in which CISA operates.

CISA takes part in a very important field, **sterilization**, that is in continuous development. For this reason it has focused its activity on a line of products that includes: infection control solutions, machinery for washing and disinfecting, machinery for high and low temperature sterilization, software systems for management control and medical waste treatments. All the products in the different lines are “made in CISA” from design to manufacture.

**Gabriele Pacini**  
CEO

Cisa - Infection Control System



# “MODELS: CISA P-MWT CONCEPT 150 & CISA P-MWT CONCEPT 300”

## MEDICAL WASTE TREATMENT



Medical waste is generated by nearly all health sectors including hospitals, medical clinics, forensic centres, diagnostic and research laboratories and veterinary hospitals. The scale of waste products changes every day according to the medical centre, the number of patients and the type of medical activity carried out within the centre.

In any case, the waste generated is considered potentially infectious, that is why proper disposal is often problematic and expensive, both, when managed internally by the centre and when managed by an external service. Medical waste, in general, because of its potential danger must be disposed through processes that inhibit the risk of contamination and infection.

The solution for medical waste treatment developed by CISA meets the needs of the community through safety materials and environmental safeguards for infectious diseases that can be brought by infectious and dangerous waste. In particular, the old method of combating this risk through incineration, which is still used, often causes dangerous gas emissions, such as dioxin, that are harmful to people and the environment. The use of wet thermal method for medical waste is growing and, combined with CISA's sterilization and disinfection know-how, a more secure system for managing has been developed. In addition to the standard MWT series and the waste treatment systems, CISA has introduced a compact system appropriate for clinics, small hospitals, veterinary hospitals, laboratories, mortuary establishments and small health assistance facilities for waste treatment that can be carried out internally at the facility.





# “AN INNOVATIVE SYSTEM THAT USES SATURATED STEAM AS A STERILIZATION AGENT TO KILL MICRO-ORGANISMS AND TREAT THE HOSPITAL MEDICAL WASTE”

CISA solution for infection control in medical waste. A new system of managing hospital and laboratory bio-hazard waste. With Aquazero pump integrated inside to reduce consumption at the lowest reachable level today.



# “INNOVATIVE SYSTEM”

The MWT system developed by CISA treats the hospital medical waste, which presents a high biological risk, using saturated steam as a sterilization agent which is able to kill micro organisms with a microbial reduction. It is an innovative system, totally automatic, that combines high technology and quality. It eliminates the contamination risks for people and the environment, reducing its volume and making a non-hazardous waste. After the treatment, the waste is not recognizable, it is clean and can be disposed as a household waste.

All medical waste, such as needles, syringes, bandages, gauze, blades, glass, catheters, blood and urine bags, tubes, cannula, cultures, placentas and others, can be treated by the system for waste management.

The reduction of volume at the end of the treatment process approximately equals to 60-80% of the input volume, minimizing the disposal costs and reducing the impact on the environment.



# “SYSTEM DESCRIPTION”

## TREATMENT OPERATIONS

The material is carried in the treatment chamber, in cardboard boxes or specific bags for waste transportation and then treated within the MWT system; at the end of the process it is thrown away like an urban waste. The system is composed by shredder and sterilizer. The wastes are collocated in cardboard boxes or bags that are carried through a window directly inside the shredder's hopper. After the loading operations, the shredding and sterilization cycle can start.

The treatment operations are:

1 The operator puts the material to be treated inside the loading window, placed above the system, directly inside the shredder's hopper, opening the loading door. If the automatic function is activated, after the door closing the system starts the shredding phase automatically. The wastes are processed by automatic shredding cutting them in small pieces (in order to ease the steam penetration inside the machine) and let them fall in the sterilization chamber, thanks to the gravity force. After the chamber achieves the complete loading (the waste volume is measured by a sensor), the shredder stops its activity and the sterilizer starts the sterilization cycle of pathogenic waste.

2 The operator starts the specific cycle, chosen on the touch screen of the control panel, placed on the machine on the frontal side. The monitor displays many useful information with various messages useful for the operator.

3 The system starts the sterilization cycle automatically. The waste is treated with high pressure saturated steam, 134°C or 138°C cycles.

4 Both cycles are pre-set up on 3 – 3,5 bar (absolute pressure) and sterilization phase time of 5-10 minutes.

5 When the cycle is over, the bottom door opens automatically and the sterilized waste falls down and is gathered inside a trolley. As an optional, sterilized waste can be pushed inside plastic bags. The operator starts the suction system with a start button. The suction hose takes away the waste from the bottom of the machine and puts them automatically inside specific bags.

6 The operator takes the sterilized materials and can manage the treated waste like urban waste, according to the laws of the country.



# “STERILIZATION CYCLE”

## FROM CONDITIONING TO AERATION

The waste is treated with high-pressure saturated steam and a cycle temperature of 134°C or 138 °C. Both cycles are pre-programmed with pressure at 3.1 - 3,5 bar (absolute pressure) and sterilization phase time from 5 - 10 minutes. It is possible to program other types of cycles using the touch-screen panel.

MWT cycle is consisted of:

- Conditioning
- Heating
- Sterilization
- Drying
- Aeration

# “INTERNAL DISINFECTION”

## SELF DECONTAMINATION

The machine is equipped with an internal system for steam disinfection of the parts that are in contact with the waste (such as the shredder).

The disinfection system is activated automatically during the cycle and will start automatically in case of alarms set-off and/or irregular termination of a cycle.

# “SHREDDER”

## WASTE VOLUME REDUCTION

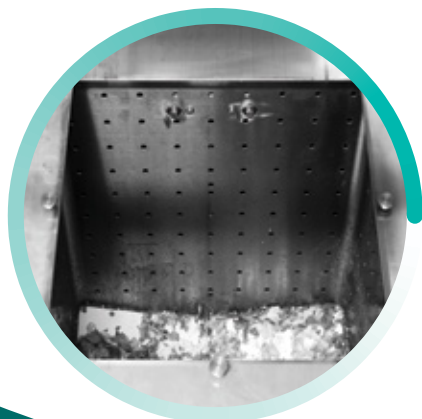
The single-shaft shredder is equipped with a rotor rotating blades and stator cutting counterblade.

A hydraulic cylinder pushes the material against the rotor and grinds it. The size of the treated material is determined by a perforated grid.

The material coming out from the shredder is mixed and becomes unrecognisable. In particular, the device can treat: hospital waste (bandages, gauze, cotton, syringes, boxes or plastic/glass bottles), small pieces of wood, plastic films, plastic in general, carpets, gloves and bones.

The waste is loaded from the top in bags or in special boxes. This system does not allow treatment of the following materials: metal pieces thicker than 1.5 mm, metal implants (titanium, aluminium, stainless steel or resin ) and metal cylinders.

To ensure effective treatment of the waste, the introduction of liquids in higher proportions of the one such as the solid wastes, is not recommended.







## “STERILIZER”

### SOLID AND DURABLE STRUCTURE

The sterilizer is composed of a vertical sterilization chamber made of AISI 316L highly polished stainless steel of a thickness adequate for pressure (-1 to 3.5 bar ) and for high working temperature (up to 148°C), resistant to corrosion and thermo-mechanical working cycles. The jacket is made of AISI 316L stainless steel. The structure guarantees that the chamber is robust and, at the same time, has an enhanced surface for thermal exchange. The welding is done with a completely automatic robotic system, that guarantees constant control of the results.

The chamber has two horizontal sliding doors, constructed of AISI 316L stainless steel, equipped with a system for automatic opening with an electronic system and a safety device.

The sealing of the chamber is guaranteed by a silicone door gasket resistant to high temperatures. The internal surfaces of the seal lots are machine-tooled to allow perfect adherence of the seal as well as the edges are perfectly rounded to avoid any deterioration of the seal.

## “STEAM GENERATOR-HEATING”

### HEATING VERSIONS

The machine can work on built-in steam generator (E) or external steam from hospital steam network (V), or combined between internal steam generator and domestic steam network (EV); Also steam to steam converter or heat exchanger is possible to be included (SV) or to be combined with integrated steam generator (ESV);

## “MICROPROCESSOR CONTROL SYSTEM”

### SERIAL PORT

PLC-Microprocessor control system with RS-232 serial port

## “MANAGEMENT SYSTEM”

### AUTOMATIC CONTROL

The equipment includes a PLC system for complete automatic control, that manages the entire treatment process and all of the system functions, from the execution of the automatic shredding phase to the execution of the sterilization cycles and the disposal of waste into the transport cart.

# “TOUCH SCREEN”

## SIMPLE USER INTERFACE

The display, size of 7 inches, is a colour touch screen. The screen enables the viewing of multiple pages, on which appears:

- The cycle program
- Cycle parameters
- Data related to the load (operator, batch)
- General system conditions for the cycle execution
- Real time diagram of the sterilization process variables
- Process check
- Status of the shredding system
- Programmed maintenance
- Maintenance instructions
- Alarms
- Date information
- Visualization of the temperature and FO
- Various messages (status conditions of the door, temperature, pressure, vacuum, etc.)
- Synoptic



# “PRINTER”

## ACCURATE REPORTING

The alphanumeric printer, installed on the control panel, has 24 columns for recording messages and parameters for the execution of the cycles. The data related to the main parameters of the sterilizations and each phase change, are documented, in addition to the date, time, results of the cycle, operator code, batch number, FO, etc.



# “MAINTENANCE”

## EASIER THAN BEFORE

The machine has a spacious interior, thanks to the well-researched positioning of the components, which allows easier maintenance.





## “HYDRAULIC SYSTEM” HIGH QUALITY COMPONENTS

The hydraulic system is made of stainless steel pipes and components (pneumatic valves, check valves, fittings, etc.). The main lines are made with Tri-Clamp connections for better and proper maintenance and to ensure a quick inspection of the ducts. The pipes are insulated with a special shielding to reduce the thermal dispersion into the environment. All of the main components of the system are identified by a code referring to the electrical, hydraulic and pneumatic schemes.



## “PANEL SYSTEM” SAFE ACCESS

The machine is covered by a panel system to prevent the operator getting in contact with the waste. The panels are made of brushed stainless steel; the front part and the upper part are removable for easy access for maintenance operations.



## “VACUUM PUMP SYSTEM WITH AQUAZERO®” INNOVATIVE SYSTEM

The innovative system designed by CISA for the production of vacuum, is made with a drying device that does not require water for its working. Inside the chamber, the vacuum system determines the removal of 99 % of the air. In such conditions, even the steam penetration tests conducted on hollow bodies registers excellent results. The device, if compared to traditional methods of liquid ring pump, presents considerable advantages, including:

1. ZERO CONSUMPTION OF WATER FOR THE PRODUCTION OF VACUUM
2. ZERO DOWNTIME OF MACHINE relating to the maintenance and repair and/or replacement of the vacuum pump liquid ring subject to aggression of calcareous water.



## “DRAIN COOLING DEVICE” DRAIN TEMPERATURE UNDER CONTROL

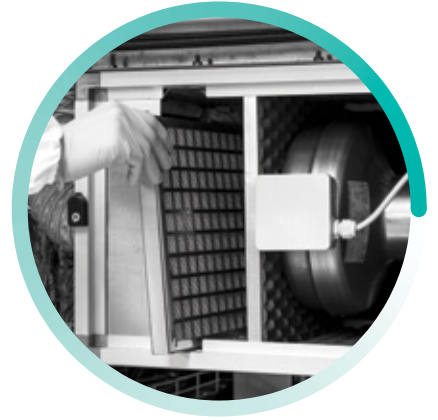
All discharges (vacuum pump, cooling device, condensate chamber) are conveyed in a stainless steel pipe with thermostatic system to control the temperature at the exhaust.



# “AIR FILTERING UNIT”

## REDUCING SMELLS

To reduce the smell of shredded materials, MWT is supplied with an extraction fan and the air is filtered through an active carbon cartridge.



# “STERILE FILTERS”

## HIGH EFFICIENCY

In the vacuum phase, the effluent removed from the chamber, contaminated by infective wastes, passes through a high efficiency filter.

This 0.2 micron filter that protects the vacuum pump from waste contamination is sterilized by steam before its removal.

There is another 0.2 micron filter inside the machine, used for the injection of sterile air and for recovery of atmospheric pressure within the sterilization chamber.



# “SAFETY BUTTONS”

## IMPORTANCE OF PROTECTION

Safety Closure for protection when the shredder is working.

- Main switch with locking device.
- Emergency button on the control panel for immediate shut down of the equipment functions.



# “GREEN ENVIRONMENT”

## ECOLOGICAL SYSTEM

The system is completely ecological, thanks to the reliable functioning and it does not release polluted air nor emits polluting substances. The system, while running is almost silent and produces low heat emissions thanks to the enhanced insulation steam generator and pipes.

# “SAFETY SYSTEMS & ELECTRONIC PROGRAMMABLE ALARMS”

## SAFETY ABOVE ALL

There are different levels of alarms and signals, which can be distinguished as follows:

Signal display during the execution of the cycle, before or after, which do not affect the running of the cycle

Alarm in case of non-serious abnormalities, both visual and acoustic, that attracts the operator's attention without intervening in the running cycle process

Visual and acoustic alarms that are set off in case of serious abnormalities which affect the cycle's functioning or cause interruption

Alarms that occur in case of an interruption of the program are shown and printed



# “OPTIONALS”

## SOMETHING FOR EVERYONE

### AUTOMATIC WASTE LOADING

The automatic loading system allows the waste to be brought at the entrance of the machine MWT instead of manual loading through appropriate scale. The load chamber is weighted to contain bags, boxes or both, of total external measures up to 370x300x580 mm.

The MWT system is available in two versions, with capacity of 150 and 300 litres respectively with a production capacity of 25/35 kg/h and 55/70 kg/h considering an average density of 0.3 kg/l, in manual and automatic functioning. All materials used are designed to ensure perfect functionality and durability; chamber and doors are made of stainless steel 316L and the jacket is made from stainless steel 304.

### KIT FOR MICROBIOLOGICAL TESTING

MWT chamber has a validation port for the positioning of the microbiological testing. It is possible to check the effective sterilization of the waste treated by steam using a biological indicator.

### SHREDDER CHEMICAL DISINFECTION KIT

It is possible to have an additional solution for the disinfection of the shredder, which is in total contact with the waste, using chemical disinfection instead of steam.

From a pressurized tank, filled with chemical disinfectant, liquid is sprayed over the shredding rotor and blades from the top and from the bottom.

### TOUCH SCREEN 10”

The MWT CISA system can be upgraded with a touch-screen display 10” for a better view of the commands and consequently for a greater usability of the technical characteristics of the machine.

### BAGS FILLING SYSTEM

After the discharge of the sterilized product, the operator can conveyed the material inside plastic bags or industrial trash by an aspiration unit. This equipment can be positioned on the rear of the MWT or in other room (clean room) up to 5 meters distance from the machine. Using a flexible pipe connected on a special suction arm, the operator can collect all the waste.







## AUTOMATIC ELEVATOR

The CISA MWT system is consisted of automatic elevator that drives the waste into the system, protected by closed compartment where the medical waste is loaded and will be transported and shredded into small and non-recognizable parts in the system.



BAGS FILLING SYSTEM

# “MODEL: CISA CONCEPT MWT CONTAINER”

## OVERVIEW

The MWT container system by CISA has been specially designed to treat waste in sterilization central field, emergency or disadvantaged areas, limited size hospitals, medical centres and pharmaceutical and biotechnology industries.

## “INNOVATIVE SYSTEM”

The MWT system can be installed, on demand, inside a 20 feet high cube container, approved for transportation and quick for installation.

From outside it looks like a transport container with access from both sides.

The container is realized in strong sheet metal and four corner blocks at the extremities.

The interior walls and the roof are covered with panels with a thermal insulator function. The floor is made in marine multilayer wood covered with PVC, easy to clean. There are two versions of habitable container, the first one for external temperatures up to 43° and a second one, tropical, for higher external temperatures. MWT inside Container is a PLUG&PLAY system. It is equipped with all utilities (water, compressed air and exhaust) which are situated on a connection plate located on the upper part of the roof. In the bottom part it is sufficient to connect the electrical cables and drainages to MWT and Container to turn the machine on. Container is provided with “through the floor” holes for cables. Two installations: stand alone or inside 20 feet high cube habitable container. CISA's, total solution for the infection control.

## “STRUCTURE”

The entire structure of the container is specially designed to assist in the performance of the MWT equipment 150/300 and the convenience of a self-propelled system able to find ample space and destination of use.

The basic structure is made from sheet metal bent sleepers of suitable section and four corner uprights suitably sized and shaped.

The floor is composed in marine plywood PVC coated, homogeneous glued and welded on the junctions in order to maintain excellent performance and an easy wash of the corners which might allow accumulation of dust or contaminant materials.

The side walls are made of corrugated Corten steel sheets with a thickness of 1.5 mm vertically supported by a bottom cantilever shaped sheet metal and kept stable by four corner blocks on the sides, which meet ISO standards, welded to the side members, cross members and uprights.

The roof, made of Corten sheet with a camber to facilitate the drainage of rainwater, is raised by about 70 cm to allow the installation of the shredding system MWT and is constructed by six removable panels with visual aluminium Wasistas in order to facilitate transport operations. During transport these modules are inserted into the container without taking any additional space.

The inner lining of the structure is formed by sandwich panels having on two sides repainted galvanized sheet focus micro ribbed white/ gray colour similar with an internal core of rigid polyurethane flame for a total thickness of 40 mm, the area can be further coated with a polystyrene panel having a thickness of 30 mm.

All the container is treated externally with metallic blasting and coated both internally and externally with one coat of premier with zinc phosphate.









Infection Control System

# “AIR CONDITIONING”

To meet the multitude of uses the innovative container MWT, also offers two air conditioning systems designed to make the internal temperature suitable for outdoor working in all weather conditions : the STANDARD container and TROPICAL container. The standard container, designed for outdoor temperature up to 43°C, is characterized by a heat pump air conditioner having a heating power of 2kW and cooling of 3kW.

The tropical container, designed by CISA to perform in warmer countries, has instead, an indoor autonomous air conditioner in free cooling version that allows to use the outdoor temperature to cool the internal environment and consists of :

- User terminal board machine
- Dirty filters sensor
- Filter EU4
- Board clock
- Double power supply 230V + 230V UPS
- Communication card
- 2kW electric heaters
- Temperature and humidity sensor
- Replacement filter

# “MODEL: CISA MWT SYSTEM”

## OVERVIEW

It is a Unique system used for the treatment of infectious waste by sterilization using special sterilizers (autoclaves) for removing all infectious risk and shredding it in such a way for making the waste unrecognisable as well accessible by steam for the second sterilization phase to reduce the final treated waste volume. It is equipped also with an odder system for smell removal.

The transportation between sterilizer and shredder is automatic, using automatic conveyor where all parts and components are housed, using stainless steel housing for compact design and easy cleaning.

# “BUILT-IN PRINTER & CHART RECORDER”

## CLEAR INFORMATION

On the panel there is a built-in printer for cycle documentation which includes: print out of the date and time with hospital name, lot number , operator name, selected cycle, parameters values in different cycle phases that can be programmed as per customer requirements, phase by phase display, total cycle time and cycle results (valid or invalid) as well as printing alarms during cycle execution. A chart recorder is optionally added with independent sensors with validation and comparison between printed and recorded data.



# “QUALITY & SAFETY”

## OUR CERTIFICATES

The sterilizer for MWT hospital waste is in compliance with the Machinery Directive 2006/42 / EC Directive and Directives 2004/108 / EC (EMC) and 2006/95 / EC (LVD). Also it complies with the following electrical codes IEC 61010-1: 2013, IEC 61010-2040: 2005, IEC 60204-1: 2010. The pressure vessels are in compliance with PED directive 2014/68 / EU.





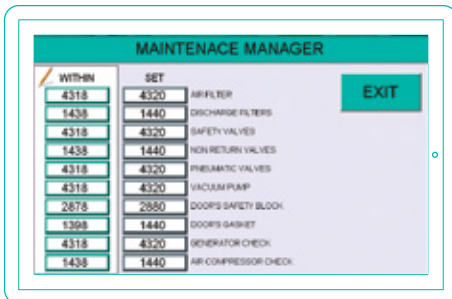


## “AIR DETECTOR”

The machine can be equipped with an air detector as an optional feature. This will improve the functionality of the machine using guaranteed steam concentration with less air bubbles.

## “START UP TIME & STAND BY”

The machine can be programmed for early start up and warming as well as an auto vacuum leak test cycle before early morning staff arrival. There is also the possibility to program an early morning B&D test cycle only if automatic loading is provided. As an advance it is considered the option for stand by and automatic shut off which can be programmed and no operator presence is necessary



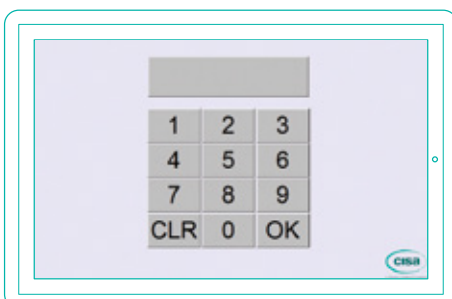
## “SERVICE & MAINTENANCE PROGRAM”

The touch screen is equipped with software pages for periodic preventive maintenance, enabling a safe functioning of the machine, and auto maintenance program for steam generator discharge with user acceptance; There are technical pages for calibration and parameter control. Easy and friendly troubleshooting pages are added for easy maintenance and service.



## “MULTI LANGUAGE TOUCH SCREEN”

Most world languages are pre-installed in the machine. Users can easily choose them from the touch screen, including: English, Italian, French, Spanish, Arabic, Russian, Portuguese, German, Turkish, Polish, Chinese, Greek, Romanian, Korean, Bulgarian and others.



## “OPERATORS ACCESS LEVEL CONTROL”

CISA system allows every operator to have its own identity code by using the pre defined password and access level to which it belongs. The levels can be customized for each operator with access to multiple functions. Operator name will be printed and kept in the system for external storage, or transferred to external supervision/traceability system software.





## “CONTROL PANEL”

### CLEAR IMAGE

The human interface is based on a modern industrial grade component designed by a smooth surface for hygiene and easy cleaning. The control panel is provided with standard 7” HMI touch screen upgradable to 10”, built-in dot matrix printer, optional chart recorder, emergency button, door control buttons, pressure gauges for chamber, jacket or steam generator, and is mounted at ergonomic level position to enable good view and easy control.

## CONTROL SYSTEM & USER INTERFACE

The touch screen gives control to the following functions:

- Selecting cycle and packing type
- Self-check display before starting the cycle and confirmation of the page chosen
- Display of status cycle, parameters (temperature, pressure and time)
- Pages for set-point cycle follow up and real time diagram display
- Audio/visual alarms display with alarm history
- FO Calculation
- Visualization of the last 50 cycles- graphical or value parameters
- Possibility of downloading the cycles on a external USB drive for storage and PC visualization

Maintenance program for preventative maintenance:

- Operators access level control (password protected)
- Calibration & technical pages (password protected)
- Programming of new cycles or modifying standard cycle (password protected)
- Type of steam heating selection
- Programmable automatic start up and shut off time
- Alarm Messages in clear text
- Door open/closure management
- Troubleshooting pages
- Stand by

ALARMS HISTORY		
15:47:52	19/03/15	MAX DISCHARGE TEMPER.
15:47:52	19/03/15	PROBE CHAMBER FAULT n.2
15:47:52	19/03/15	TRANSO CHAMBER FAULT n.2
15:47:52	19/03/15	MAX DISCHARGE TEMPER.
15:47:52	19/03/15	PROBE JACKET FAILURE
15:47:52	19/03/15	PROBE CHAMBER FAULT n.1
15:47:52	19/03/15	EMERGENCY TEMPERATURE
15:41:09	19/03/15	PROBE CHAMBER FAULT n.2
15:41:09	19/03/15	TRANSO CHAMBER FAULT n.2
15:41:09	19/03/15	MAX DISCHARGE TEMPER.
15:41:09	19/03/15	PROBE JACKET FAILURE
15:41:09	19/03/15	EMERGENCY TEMPERATURE

15:48:11 19/03/15 EXIT

## ALARMS

Audio and visual alarms are defined for operator warning; the alarms list includes multi-level alarms with clear message notification; alarm levels are configured based on the level of importance to stop the machine or the cycle as well as just warning notification without affecting the running cycle.

The alarm lists are complete for safe and perfect operation for the operators and the machines. The alarms history can display all the alarms that occurred in last 90 days. Alarms are also indicated on unloading side in case of double doors execution. The end of cycle alert is included for alerting the user for the finished cycle and unloading process.

# “OPTIONALS”

## SOMETHING FOR EVERYONE

### LOADING ACCESSORIES

Accessories for loading and unloading are available for each model with the selection of: internal trolley (shelving unit/transfer carriage), external trolley (loading/unloading), automatic loading device automatic unloading device, electric height-adjustable loading/unloading trolley.

Loading devices are manufactured in stainless steel with sizes and loading mechanisms that enable full use of chamber and smooth operation with less personnel activity. Chamber rails can be added as an optional.

### AUTOMATION

Automation of process is included as the converter between sterilizer and shredder but advanced automation is possible to be added for full automatic functioning

### EXTERNAL STEAM CONNECTING SET

External steam Connecting sets are optional and customizable to site steam quality, pressure and requirements

### REMOTE MAINTENANCE

The machine, through the Touch Screen, is equipped with an remote access system that allows to be connected to the CISA customer service by a simple Ethernet connection. This represent the fastest way for a CISA technician to do a check up of the problem and reduce the down time.

### REFRIGERATED STORAGE ROOM

As an optional we offer refrigerated room for waste storage until the moment of treatment, to prevent infectious integration specifically when storage temperature or ambient temperature is high. Different volume can be selected to meet operational and storage volume needed.



## COLLECTION CARTS

Collection Carts in stainless steel or colour painted steel is possible with door closure and environmental seal; the size of the trolley or cart is customizable but generally selected to guarantee smooth and safe movement inside the hospital corridors during collection. The trolley is equipped with Push handle and 4 revolving castors two of them with system brakes.

## DISPOSAL CARTS

Disposal Carts in Hard Plastic or galvanized steel are an optional that can be added for making final disposal of the treated waste. The size of the disposal trolley is compatible with international standard to meet waste collection cart.

## WEIGHTING SCALES

Weighting Scales for invoiced service in order to register the incoming waste; Digital with possibility to connect to account software for automatic invoicing as well as optional printer for documentation. Complete with digital display and large plate that accept large volume.

## SPECIAL SOFTWARE INVOICED SERVICES

For the invoiced services there are system for defining the volume of waste to be treated and to register that for account management and for issuing invoices.

## MOBILE SERVICE

The Medical waste treatment Plant can be a mobile service that move from one hospital or facility to another and run close to point of generation the waste Treatment; this solution will help to reduce risk of waste transportation and also helps to reduce treatment costs; but special parking and connecting facilities must be guaranteed and the carts used must be indoor washed and disinfected; the challenge of this treatment Plant is the volume that can not be large and limited to the container size; the system is driven by truck and is designed based on Aqua Zero technology with special components fixation tools to avoid disassembly during transportation.







# “MODELS MWT”

## IN LINE SHREDDING

All of the sizes and measurements below can be changed according to the different configurations and applications of the machines.

The measures are expressed in mm.

	CHAMBER DIM	OVERALL DIM	LT	TREATMENT CAPACITY	
MWT 150	452x452x820	2250x2655x3780	150	N°3 plastic bags of 60 LT	
	660x660x720	2250x2655x3780	300	N°6 plastic bags of 60 LT	MWT 300
MWT 150 AUT.	452x452x820	2250x3575x2300	150	N°3 boxes of 60 LT	
	660x660x720	2250x3575x2300	300	N°6 plastic bags of 60 LT	MWT 300 AUT.
MWT CONTAINER	C150/300 Depends of the concept model	2230x3690x6058			

# “MODELS L”

## INDEPENDENT SHREDDING AND COMPACTING SYSTEM

Other customized capacities are possible.  
Other customized design like two level plant or double area by double door sterilizers are possible.

### MODELS L

	CHAMBER DIM	OVERALL DIM	LT	TREATMENT CAPACITY	
MWT 3290 L	322x1000x322	3030x1450x1850	103	10-15 Kg/Hr	
	450x1280x450	3233x1558x1850	253	30-40 Kg/Hr	MWT 4212 L
MWT 6412 L	660x1280x660	3760x1558x1850	557	60-80 Kg/Hr	
	660x1600x1120	4330x2048x1850	1182	120-150 Kg/Hr	MWT 1115 L
MWT 4570 L	452x660x720	1100x1850x998	255	20-30 Kg/Hr	
	452x660x1000	1100x1850x1278	296	40-50 Kg/Hr	MWT 4510 L





Infection Control System

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