

BONDTECH MEDICAL WASTE & BIOLOGICAL CONTAMINATED WASTE TREATMENT SYSTEMS



FULLY AUTOMATED & SEMI AUTOMATED OPTIONS AVAILABLE



BONDTECH

TREATMENT TECHNOLOGY

Toll Free: 1 (800) 414-4231

Email: sales@bondtech.net

DESIGN • ENGINEERING • FABRICATION • CONTRACTING

BONDTECH TREATMENT TECHNOLOGY

Bondtech has been supplying high vacuum/high pressure autoclave systems to the waste treatment industry for over thirty (30) years.

Bondtech has made a total commitment to provide a reliable as well as a durable autoclave system.



Bondtech is the world's largest supplier of autoclave systems for the medical waste/biological waste industry. Our ability to provide high quality equipment at competitive prices has made us the proven leader in the autoclave/sterilization market and it has given us the respect of the industry.

Services We Offer:



Turnkey
Site Design

Engineering

Permitting

Environmental
Impact



Equipment

Autoclaves

Shredders

Compactors

Material Handling



Supplies

Waste Bins

Autoclavable (High
Temperature) Bags

Medical Waste Containers

Spare Parts



Technical Support

Preventative Maintenance

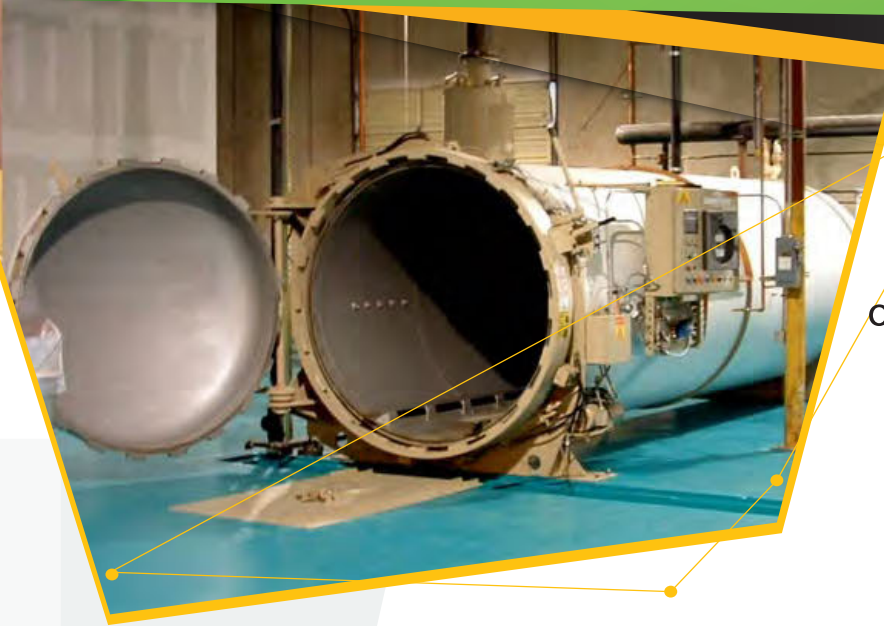
Calibration

Operator Certification
Training

Direct: (606) 677-2616 • Toll Free: (800) 414-4231
1278 Highway 461 • Somerset KY 42503

BONDTECH
TREATMENT TECHNOLOGY

THE BONDTECH DESIGN ABOUT US



Bondtech Corporation is the world leader in the design, engineering and manufacturing of high-tech autoclave systems for disinfection and sterilization of infectious wastes and biological wastes.

WASTE TYPES INCLUDE:

- Infectious
- Medical
- International/Foreign Origin
- Biological Contaminated
- USDA/APHIS
- Food

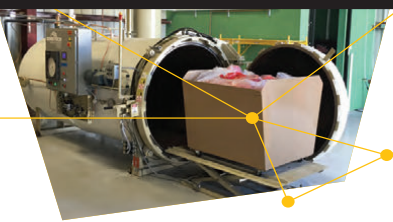
Process Description

Bondtech Treatment Technology Systems are designed for high vacuum and high pressure capability. Bondtech proprietary designed autoclaves are subject to a pre-vacuum cycle, saturated steam cycle and a post-vacuum cycle to facilitate faster and more uniform penetration of steam into the medical waste to be treated.

Bondtech autoclave's high vacuum is achieved by using a proven proprietary vacuum system design. Bondtech autoclaves are supplied with a locking ring, quick opening door which is used in the most sophisticated aerospace autoclaves, and designed with safety in mind. In this particular design, the door is stationary and the locking ring is mounted on the periphery of the vessel and is rotated through a short arc by hydraulic cylinders located on the side of the vessel.

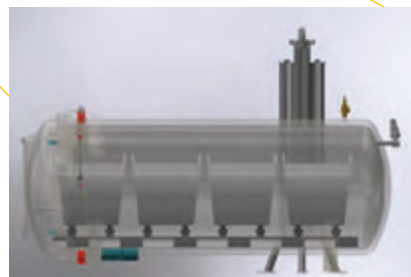
TREATMENT METHOD

PROCESS DESCRIPTION



Bin Loading: Autoclave bins are loaded with infectious waste and are transferred into the autoclave vessel for treatment. *This process can be performed by an automated or semi-automated conveying system.*

Treatment: The autoclave is controlled by the state-of-the-art programmable logic controller (PLC) with modem hook up capabilities for online support. The autoclave can be manufactured with an automatic or semi-automatic material handling system.



Record Keeping: Bondtech Autoclave Systems have an automated chart recorder and/or strip recorder, at the control panel which continuously records and generates the temperature, vacuum and pressure data. This information is maintained on permanent, hard copy records for each load of medical waste treated, further complying with quality control and satisfying environmental regulatory requirements. In addition Bondtech provides the capability to export digital data to provide historical record keeping.

Unloading: Once the cycle is completed, a green light will be illuminated indicating the door is ready to be opened. The operator will then unload the autoclave and the bin dumper will empty the bins into a compactor or a shredder.



Shredders: Bondtech shredders are heavy duty, single or double stage shredders to meet required particle size. Each knife configuration has been designed to suit the material for maximum throughputs and optimum size.

Advantages and Waste Volume Reduction:

After autoclaving and compaction the waste volume is reduced in excess of 75%. Further volume reduction can be realized with the installation of an optional post-treatment shredder. The major advantages of steam sterilization are the low costs associated with this process as well as the reliability of this well-known technology.

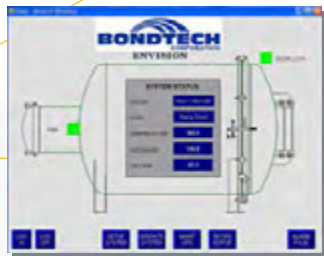
TECHNICAL BACKGROUND

"PROVEN AND RELIABLE MEDICAL WASTE TREATMENT SYSTEMS"

Bondtech has designed, supplied and installed over 1,500 autoclave systems worldwide for various applications. Today, **Bondtech Treatment Technology systems** are processing over 6 million pounds (3 million kg) per day (over 1 million+ tons per year) of medical waste.

BTT PLC Control System

Bondtech Corporation's high performance control and data acquisition systems have been thoroughly proven in high-tech aerospace manufacturing plants.



The BTT PLC control system is designed to provide maximum flexibility to address any site specific waste treatment requirements.

BTT systems can be configured with the following options:

- Color Graphics Display illustrating real time data and autoclave cycle conditions.
- Weight Scale Integration
- Hard Drive Data Acquisition

The Following Features Have Made Bondtech the Worldwide Leader in Biomedical Waste Autoclaves:



- Ruggedly Designed and Built for Commercial Use.
- Hydraulic Quick Opening Door/with Safety Pin Interlock.
- Vacuum Pump or Vacuum Ejector for High Vacuum Operation.
- Temperature Probes for Added Protection Assurance.
- Programmable Control Systems.
- Recorders.
- Packaged and Modularized for Easy Installation.
- Volume Reduction Achieved by the Vacuum Cycle and the Heat Cycle and Further Reduced by Shredding.
- Weight Reduction at Time of Final Disposal Achieved by Removal of Moisture.
- Built in Strict Accordance with the ASME Boiler and Pressure Vessel Code, Section VIII, Division 1.

World Wide Installations
Bondtech has installed autoclaves on all Continents.

IMPORTANT FACTORS TO CONSIDER

Today, landfills across the world, where medical waste is regulated, accept autoclaved medical waste. Medical waste that is properly autoclaved is rendered noninfectious and safe for disposal at sanitary landfills. The autoclaved medical waste does not generate any leachate characteristics (heavy metals, etc.), as found in ash generated by incinerators.

To maximize landfill space, autoclaved medical waste can be safely compacted to achieve over 75% volume reduction. Further reduction can be realized by installation of an optional shredder. The shredding process is performed only after the waste has been treated by the **Bondtech Autoclave System**. Today the bulk of the medical waste treatment capacity is by autoclave technology.

The steam autoclave is the most popular and effective medical waste treatment technology. Unlike the incinerator, the autoclave technology does not generate any hazardous combustion air pollutant emissions, such as hydrochloric acid, carbon monoxide, dioxin/furnans, metal (particulate matter), etc.

The autoclaved medical waste byproduct is sanitized and safe for landfill disposal. More than 90% of the newly permitted North American commercial medical waste facilities since 1990 employ state of the art autoclave technology by **Bondtech**.

Bondtech Corporation is the world's largest supplier of commercial medical and USDA waste autoclave treatment systems, we process more waste than any other technology world wide.



In an effort to assist our customers with the reliable equipment as well as a one-stop accountable supplier, **Bondtech** also offers the following auxiliary equipment and accessories.

- Shredders for biomedical waste, sharps and paper destruction
- Reusable medical waste containers
- Aluminum and stainless steel bins
- Red bags and Chemo bags
- Compactors and balers
- Bin Dumpers
- Autoclave bags
- Scissor lifts
- Boilers and more

Visit us on the Web!
WWW.BONDTECH.NET

BONDTECH AUTOCLAVE SERVICE, ENGINEERING & PERMITTING

- Control system repair or replacement, including complete redesigns and modernization with or without automation.
- Installation and Start-up of your new or existing autoclave system
- Trouble shooting control or equipment issues
- Testing and calibration
- Engineering services
- Complete system refurbishment services, in our shop or on your site
- Medical waste autoclave Engineering and Permitting

Support Service

There are various options for this service, and you may pick one that best suit your needs:

Standard

Service is provided Monday-Friday, 8:00am – 5:00pm EST. Our Service Technicians will work with you to provide technical and troubleshooting advice via telephone or remote desktop support (if available).

Preferred

One day on-site service support. This service is scheduled and can be provided outside working hours (additional charges may apply). Our Service Technicians will work directly with you to troubleshoot your issues. A Report of Findings and/or Inspection Report will be provided.

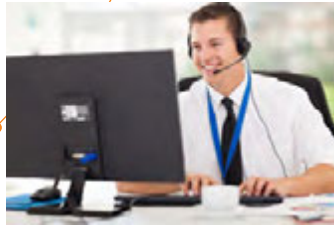
Exclusive

Three Day on-site startup and training. After purchase of a new or refurbished system, we can provide supervision during the installation of the system. Once the installation is complete, our technicians will train operators on the control systems and preventative maintenance. We will provide preventive maintenance service and operator's training once a year for 3-years from the time of commissioning.

Emergency

Required service with Less than 24-hour notice.

All Service Plans include Telephone Support



Field Installation and Repairs

Bondtech has been installing and repairing autoclaves for more than 30 years. We are able to work with any type of autoclave fast and effectively. We can supply you a new autoclave and field install it on a timely basis.

Bondtech field service is first class and covers, but is not limited to the following:

- New or Used Autoclave Installations
- New or Used Autoclave Start-up
- Autoclave shell code welding and repair
- Vessel integrity testing as per ASME requirements
- On-site inspections
- Misc. field work and modifications as per customer's requirements
- Field installation of Hodge or Harris Quick opening doors
- Hodge or Harris Quick opening door re-wedging, and roller replacement/repair
- Hodge or Harris Hydraulic cylinder repair or replacement
- On-Site Operations

Bondtech Field Service Features

- 24-48 hour emergency service
- Reduction of downtime
- Experienced and professional
- Extended service life
- Cost Effective
- Sole source responsibility

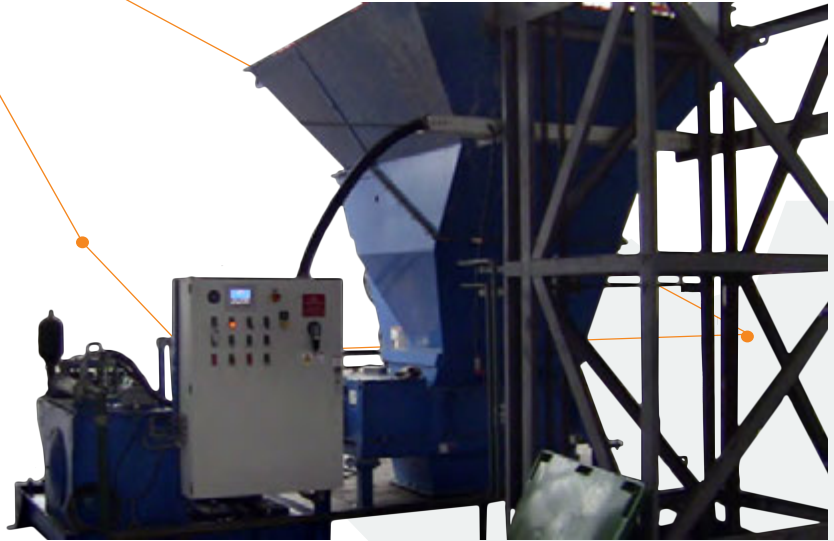
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HAZARDOUS & MEDICAL WASTESHREDDING

BONDTECH designs and manufactures shredders and size reduction systems for safe disposal of hazardous, medical and pharmaceutical waste.

Bondtech provides effective solutions to assist with the on-going problem of medical and hazardous waste disposal. With proven technology and over 30 years of experience, Bondtech provides 2-shaft and 4-shaft shredders that destroy and reduce medical waste, rendering it "unrecognizable".

The 2-shaft line of shredders are designed for volume reduction. The 4-shaft line of shredders are designed to deliver small, uniform particle size.

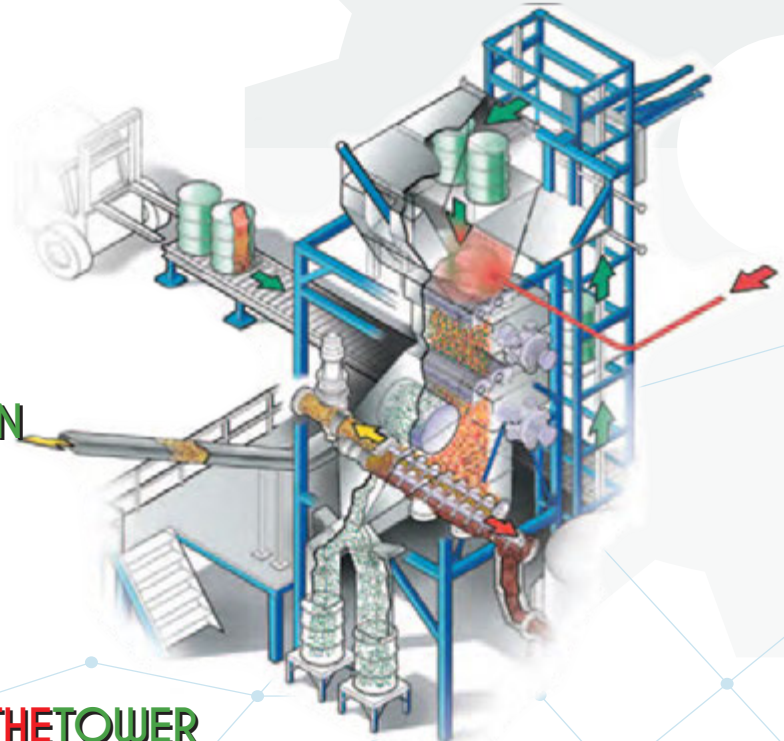


HAZARDOUS MATERIALS PROCESSED

- Red Bag Waste
- Boxed Medical Waste
- Sharps Containers
- General Hospital Waste
- Dry Solid Waste
- Drums With Contents
- Solids and Liquids
- Aerosols
- Household Hazardous Waste

SAFETY, EFFICIENCY & CUSTOMIZATION

- Class I, Divisions 1 & 2 Environments
- Inert gas purging
- Oxygen monitoring
- Fire detection and suppression
- Deflagration vents
- Double door airlocks
- Explosion-proof motors and controls
- Video monitoring
- Complete operator control system



THE TOWER

Bondtech's Dual Shaft technology has been employed to process full drums and extract liquid contents from solids and metals, then repack or contain certain materials depending on the application and customer need. These systems can include class 1, Div 1&2 environments, oxygen starved processing chambers, explosion proof motors and controls, double airlock systems, fire detection and suppression, deflagration vents and more. They are typically designed to meet specific customer requirements.



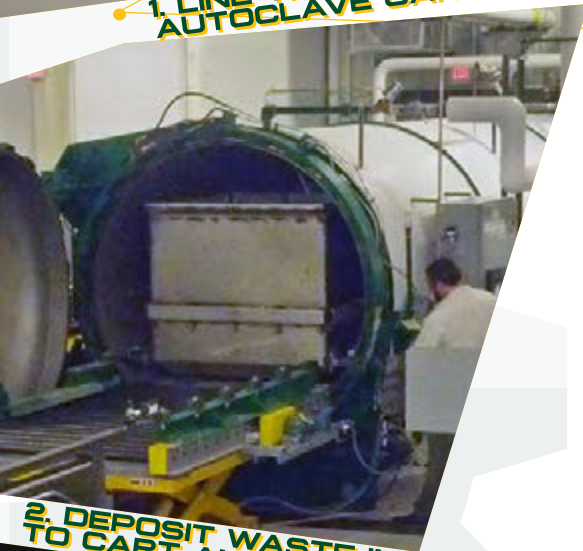
HIGH TEMP LINERS

"PROTECT YOUR INVESTMENT"

EASY AS 1...2...3...



1. LINE THE EMPTY AUTOCLAVE CART



2. DEPOSIT WASTE IN TO CART AND TREAT



3. DUMP THE TREATED WASTE

Ever melted those cheap liners and bags when autoclaving? Is cleaning your messy autoclave carts a bother? Protect your investment! Get **Bondtech's** high heat and easy to install "**PRO-TECH**" liners for your autoclave carts or other high temperature lining purpose.

The **Bondtech** "**PRO-TECH**" liners provide several advantages to enhance your operation:

- Utilizing will extend the life cycle of every cart
- Reduce wear and tear on your dumper by dumping the treated waste easily.
- Enhance perception of clean/safe operation: Maintain carts free of debris.
- Eliminate a potential source of nuisance odors.
- Eliminate labor required to periodically remove waste debris from carts.
- Consistent full capacity utilization, eliminating waste build-up inside carts.
- Reduce occupational exposure, potential injuries related to cleaning waste from carts.

Bondtech's "**PRO-TECH**" liners are custom made to meet our customer's specifications.

Optional customization options include:

- **Size**
- **Gauge**
- **Printed / Unprinted**
- **Temperature Strips**
- **Color**

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BONDTECH

PRE-SHRED AUTOCLAVES



Process

- Shredding prior to Sterilization

Application

- Hospitals
- Medical Waste Treatment Facilities

Capacities

- 100-2500 Liters/Cycle (26-660 Gallons)
- 12-300 Kgs/Cycle (26-661 Lbs./Cycle)
- Daily Disposal Capacity 0.2-5 Tons

FeaturesAdvantages

- Shredding and sterilization in a closed and compact system, built-in shredder easy to disassemble.
- Fully Automated Process
- Low Maintenance Cost: Patented technologies of easily dissembled shredder
- Low Operation Cost
- On-Site Treatment
- Patented Odor Control

Over
30
years
of
excellence
Since 1984

CE

ASME
SETTING THE STANDARD
Meet ASME STANDARDS - CE STANDARDS

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SINGLE DEPOSIT REUSABLE CONTAINERS

Single Deposit Containers(SDC)

Single Deposit Container is a versatile, "Point of Use", reusable medical-waste container. Its high volume capacity for needles, lab waste, IV bags, and tubing keeps waste collection costs at a minimum.



Locking Transport Lid

- FDA (501K) Certification
- US DOT Markings: Compliant with HM-200 regulations and state environmental health agencies
- OSHA Markings: Compliant with OSHA Exposure Control Plan

Single Deposit Container Dimensions (Tapered to nest and stack)

Capacity	Length	Width	Height	Weight w/lid
10 gal	18"	13"	16"	5.5 lbs
17 gal	18"	13"	24"	7 lbs



Single Dolly allows for quick and easy single container mobility.

Lids



Locking Transport Lid: Standard locking transport lid allows three full containers to be stacked.

Lab Lid: Two-piece lid allows easy waste disposal and is designed primarily for lab use.



MEDICAL WASTE

CONTAINERS

ALL CONTAINERS MEET ALL D.O.T. REGULATIONS



Med770 - 200 Gallon Red

- Leak-proof, Spill-Proof
- Useful for Large Volumes of Waste
- Tamper-Proof
- Ideal for using one container per floor
- Puncture Resistant
- Reinforced
- 4" Rubber Wheels Standard

Additional Sizes Available



Med360 - 96 Gallon Red

- Stackable
- Roto-Lock for Tamper Proofing
- Easy to Handle
- Dimension 24" W x 35" D x 43" H
- Slim Line Design
- 8" Rubber Wheels Standard

Additional Sizes Available

18-38 Gallon Containers

- Durable Design
- Snap fit lid
- Resistant to leaks and punctures
- Nesting bins and lids
- Stackable, Easy to Handle
- Injection molded handles for manual handling



Med18

- 18 Gallon Red
- 18.9" W x 18.9" D x 15.25" H



Med28

- 28 Gallon Red
- 18.9" W x 18.9" D x 22.9" H



Med38

- 38 Gallon Red
- 18.9" W x 18.9" D x 32.5" H

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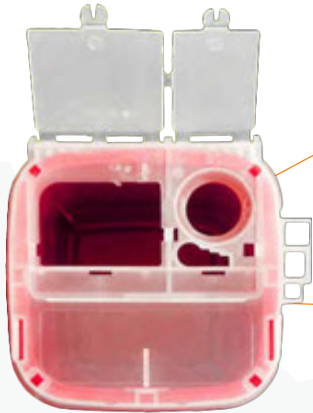
Direct: (606) 677-2616 • Toll Free: (800) 414-4231

1278 Highway 461 • Somerset KY 42503

DISPOSABLE SHARPS CONTAINERS

Model: MED-T-1B (Capacity: 1.0 L)

Product Size (cm)	pcs/ctn	Carton Dims (cm)
11x10x15.5	60	37x32x41



Model: MED-T-4.6A (Capacity: 4.6 L)

Product Size (cm)	pcs/ctn	Carton Dims (cm)
27x11.5x28	20	58x57x28



Model: MED-T-5 (Capacity: 5.0 L)

Product Size (cm)	pcs/ctn	Carton Dims (cm)
15.5x13x31	50	67x32x47.5

MEDT

- Novel quadrate shape
- Leak Proof and Puncture Resistant
- Wide, clear and practical opening for easy and safe disposal
- Counterbalanced door for hands-free disposal
- Built-in needle removal
- Ergonomically-designed handle on the side/lid
- Temporary closure & definite closure
- Secure perimeter lock for safe usage and transportation
- Easy manipulation
- Comprehensive label details
- Safe to human health and environment



PH: (606) 677-2616



MWCONTAINER@BONDTECH.NET



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MANUAL & AUTOMATIC CONTAINER WASHING SYSTEM

Manual Steam Clean

The Bondtech Steam Clean utilizes a heavy duty steam gun with the capability to mix detergent into the steam stream to help remove residual traces of oils and grease. The Bondtech Steam Clean features a mixing system and detergent tank to hold concentrated detergent. The detergent is then sent to the steam gun on demand to be mixed with the steam flow triggered by the operator. It flows thru the gun and is mixed with the steam and onto the item to be cleaned. The deluxe gun has several optional attachment brushes that can be utilized to power thru the grease and grime assisting in its removal. The Bondtech Steam Clean is equipped with a manual steam/water mixing station to feed clear tempered rinse water thru the gun to complete the cleaning of the item.

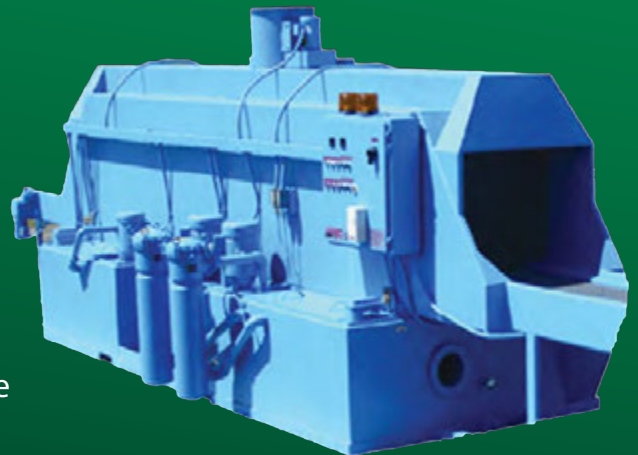


Cabinet Washer

- Cleans Container in Seconds!!
- High Volume low pressure cleaning
- Easy Operation and Maintenance
- Three Stage Filtration of Recirculated Water! Makes for easy cleaning of debris
- Environmentally safe chemicals
- Simple Design

FlowThru Washer

- Clean a 96 Gallon Container every 45 SECONDS!!!
- Designed with the operator in mind for ease of operation
- Removes grease and contaminants in seconds
- We offer "FAST" response to your need of parts and service
- All parts used are of the highest of quality
- Backed with our ONE YEAR Warranty



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REUSABLE SHARPS CONTAINERS

3 & 4 Gallon Reusable Sharps

- Twice as Thick as a disposable Container
- Fits in Competitors Wall Mounts
- Will fit in Competitors wall mounts!
- Has a slide on mechanism for lids

3 Gallon

- Holds 2.75 gallons of medical waste/sharps

*Custom Colors
available to suit
your needs*

4 Gallon

- Holds 3.75 gallons of medical waste/sharps

Available in Red or White

Reusable Sharps Wall Mount

Our new Wall Mount fits our MW Containers reusable container, regardless of whether you are using our Canteen Style Lid or our Mailbox Flipper Lid! It is sleek, attractive, and exceptionally strong!



Mailbox Style Lid

Our Mailbox Style Lid has a slide on mechanism and fits our MW Containers reusable container perfectly! It's stronger than other versions of this style of lid and is sturdy and flexible.

Canteen Style Lid

Our Canteen Style Lid is unique! With its slide on mechanism, it perfectly fits our MW Containers reusable container. It has a screw on cap that is the only one of its kind and is 8 times stronger than the industry standard for caps.



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SELF CONTAINED COMPACTORS

- ELECTRICAL FEATURES ON ALL MODELS
- UL LISTED CONTROL PANEL
- ONLY MAJOR BRAND ELECTRICAL COMPONENTS USED
- WEATHER TIGHT ELECTRICAL ENCLOSURE



RamGuide System

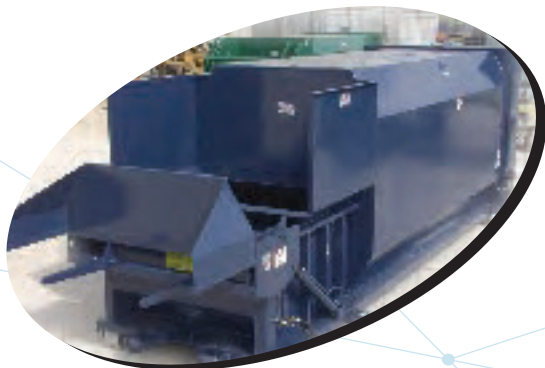
The Self-Contained cross cylinder ram features side mounted full length Ultra-High Molecular Weight (UHMW) guides to support the ram providing uncompromising longevity and reliability.

DoorProtector

Prevents roll-of hoist cable from contacting the door frame, preventing bend doors and leaking seals.

SubFloor Sump

Self-Contained Container Sub Floor is separated from the container floor to form a tunnel to allow liquids to drain from behind the ram when emptying.



ProgrammableRelay Controls

Self-Contained Container are designed to use a readily available non-proprietary programmable relay.

SinglePiece Side Sheet & Floor

Our manufacturing plant uses a 30 foot 500 ton press break to form sides and floors allowing no vertical seams.

RearGate Hinge & Seal

Self-Contained Compactors have a full door and a 3 point door latch that provides excellent compression and sealing properties.

RustInhibiting Primer

Self-Contained Compactors are primed with rust inhibiting red oxide primer to reduce corrosion.

LockableDoor Latch

Hopper door can be locked preventing unauthorized usage.



BONDTECHCORP



OUR 315,000 SQ. FT.
STATE OF THE ART
MANUFACTURING
FACILITY IN
SOMERSET, KY

OUR 100,000+ SQ. FT.
FACILITY IN
SALISBURY, NC



OUR PEOPLE MAKE
ALL THE DIFFERENCE!

Global Customer Support
(800) 414-4231 or +1 606 677-2616

BONDTECH TREATMENT

TECHNOLOGY OFFERS:

Control Systems

PLC or PC Control Systems
On-Line Troubleshooting - PLC Networking
External Data Link Integration Capabilities
One Network Connectivity
Window Programming
High Speed Processing

High Vacuum System

Proprietary Vacuum Technology
Effectively Controls Nuisance

High Pressure/Temperature

Ensures Effective Medical Waste Treatment
& USDA/APHIS Waste Treatment

Experience

Manufacturer of Autoclave Systems since 1983

BONDTECH
TREATMENT TECHNOLOGY

Direct: (606) 677-2616 • Toll Free: (800) 414-4231

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Service

Turn-Key Installation
Start-Up and Training
Testing and Calibration
Maintenance Services

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TREATMENT TECHNOLOGY



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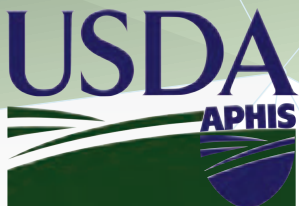
TREATMENT TECHNOLOGY
1 (800) 414-4231



Industries Served by Bondtech Include:

- Circuit Boards
- Infectious Waste
- Aerated Concrete
- USDA Waste
- Food Waste
- Textiles
- Biological Contaminated Waste
- Aerospace Composites
- Plastics
- Medical Waste
- Wood Treatment
- APHIS Waste
- Foreign Origin Waste
- Glass Lamination

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1 (800) 414-4231 or 1 (606) 677-2616

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