

BONDTECH COMPOSITE AUTOCLAVE SYSTEMS

SERVING THE FOLLOWING APPLICATIONS:

AEROSPACE, MOTORSPORTS, AUTOMOTIVE, SPORTING GOODS, CONSUMER
GOODS, BALLISTICS ARMOR, AERATED CONCRETE, LAMINATED GLASS, R&D



BONDTECH
CORPORATION

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Toll Free: (800) 414-4231

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www.bondtech.com
email: sales@bondtech.net

BONDTECH COMPOSITE TECHNOLOGY

About us



315,000 SQ. FT. LOCATED IN SOMERSET, KY

Formed in 1986, **Bondtech Corporation** has become a world leader in the engineering, design, manufacturing, and installation of advanced autoclave systems across all industrial sectors. **Bondtech Systems** are operating around the world in every industry which utilizes autoclaves as part of their process. Major industries served include Aerospace, Glass Lamination, Motorsports, Clean Room Epoxy Bonding, Acrylic panels, Protective Equipment, Sporting and Consumer goods, Textiles, Rubber Bonding and Vulcanization, all types of waste applications as well as advanced R&D requirements.



100,000+ SQ. FT. LOCATED IN SALISBURY, NC

Bondtech Corporation serves the world from our locations along with our industrial partners in Europe, Middle East and China. We pride ourselves in providing the total team commitment to all customers in all business sectors. The **Bondtech** Technical Team is comprised of respected experts in each industrial sector; whether your query involves a repair, equipment survey, control system upgrade, or a complete turn-key autoclave system anywhere in the world, our customers are our main priority. This commitment of exceeding the customer's expectations is what drives all of **Bondtech's** personnel in management, engineering, manufacturing, and service.

Recently **Bondtech** has developed an all new advanced autoclave control package which features our EnVision software package coupled with a PLC. The EnVision system can be configured per your requirements, from simple touch screen systems to advanced redundant PC computer control systems.

The **Bondtech** commitment to service is readily available to meet all of your autoclave service needs. Our expert service staff not only provides service, maintenance, and repairs of **Bondtech** autoclaves, but are the preferred choice by many to provide the same level of expertise on autoclaves from ALL manufacturers. Our in-house parts department stocks a wide variety of parts and components to accommodate the needs of our customers.

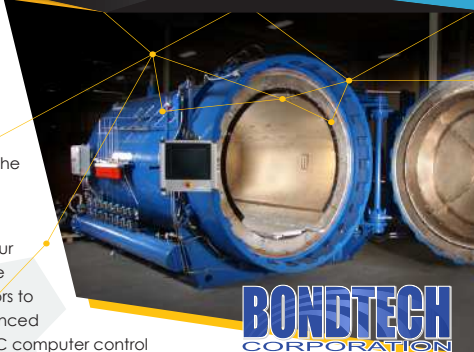
Bondtech Autoclaves : Reliable, Proven Technology

PROFESSIONAL QUALIFICATIONS & Services Offered

Bondtech Corporation

has been engineering, designing, and manufacturing custom industrial autoclave systems since 1986. Our engineering and technical staff work hand in hand, constantly striving to achieve continuous improvement in all designs based upon quantitative data. The result is the best built autoclave system available for all industrial applications.

For example, **Bondtech** has developed our new EnVision software program to suit the individual needs across all industrial sectors to provide simple PLC data entry with advanced touchscreen technology to redundant PC computer control packages that provide full encrypted data acquisition and reporting compliant with all aerospace process requirements.



SERVICES OFFERED

- Complete turnkey installation and maintenance service.
- Evaluation of equipment requirements to satisfy market conditions.
- Identification and specification of equipment for plant or business applications.
- Design, fabrication and supply of autoclaves and related auxiliary equipment.
- Development and performance of maintenance management and quality control.
- Creation of training programs to improve performance and/or acquaint company personnel to operate equipment properly and efficiently.

TECHNICAL BACKGROUND

RELIABLE PROVEN TECHNOLOGY:

- Established autoclave manufacturer since 1986
- Systems operating throughout North America and the world
- Environmentally sound
- Simple and safe system operation
- Minimal moving parts
- Single pushbutton automated systems to advanced control technology



Bondtech autoclaves will include a PLC (Programmable Logic Controller) with modem or network connectivity upon request. Our technicians are capable of troubleshooting your autoclave system remotely via the internet.

Bondtech autoclaves are tested to their fullest extent at our manufacturing facility prior to shipment to your location.

TECHNICAL BACKGROUND

Continued...



RUGGED DESIGN UTILIZING STATE OF THE ART ENGINEERING

Bondtech Design, Manufacturing and Quality Level of our systems are well controlled. Each system is firmly integrated to function as designed.

Bondtech supplied systems are fully tested prior to shipment. No surprises after delivery and ready to operate.

Customer training is offered at the factory, prior to shipment (free of charge), or after delivery and installation (service rates apply).

OUR AUTOCLAVES offer a variety of special features that are designed to keep your operation running profitably.

- Rugged construction designed for industrial use.
- Hydraulically operated quick opening door.
- Vacuum system designed for High Vacuum Operation
- Computer based control system
- Data acquisition and logging provided
- Packaged and built for easy installation and start-up
- All autoclave vessels engineered and built to the applicable pressure vessel code of the installation location.



HIGH QUALITY
VACUUM SYSTEMS

IE: ASME, Section VIII Div. 1 or 2; Europe: PED licensed, China; GB 150 within SELO/CSEL. Within these inspection bodies, Bondtech can supply advanced autoclave systems under license for operation within any place in the world.

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BONDTECH'S
HODGEDOOR
Design

Bondtech successful growth led to the acquisition of Hodge International, the pioneer developer of the autoclave quick opening access doors.

Today, **Bondtech** is a world leader in the mechanical engineering, design, and development of autoclave systems that exceed the minimum ASME Pressure Vessel Code requirements.



Over 100 years of engineering and experience are built into each **HODGE quick opening door**. Doors lock and unlock by the rotation of a locking ring only. Sealing flanges and o-ring gasket construction provides a leak-proof static seal. This static seal provides instantaneous sealing – Guaranteed!



Each rotating ring and head wedge assembly is custom matched in pairs for accuracy assuring equal gasket compression. Safety devices are installed to prevent door opening until pressure has been relieved and to prevent pressurization of the autoclave until proper door locking has been activated and achieved.

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BONDTECH CONTROL SYSTEM

System Overview



EnVision PLC Based Control Systems

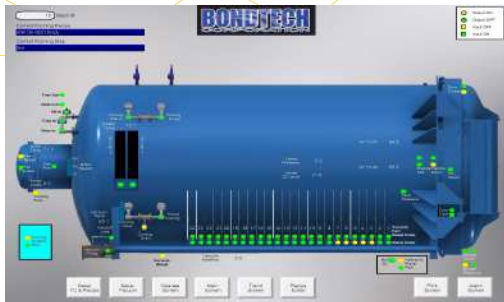
- Easy to use and understand graphical HMI / user interface
- Simple Point & Click programming
- Flexible selection of controlling inputs
 - Individual T/C record & control capability (leading, lagging, average, or specific)
- Simple visual real-time feedback shows system responses to the cure profile
- Data Logging of each processing run for external processing cure cycle for internal use and / or external analysis and process verification
- Complete reporting system with common and custom report formats (i.e. Tabular, graphical, quality, separate part reporting, and statistical reports to name a few)
- Full compliance with Boeing D6-49327 & D38558-2, Airbus AP-3222-E as well as all other OEM process equipment specifications
- Ensures highly repeatable results
- Automated vacuum control with automatic bag break safety switching
- Excellent temperature uniformity and control
- Full process recipe cycles with menus, no limits
- Complete encrypted data acquisition & reporting system
- Complete customer selected multiple level security with automatic log off via passwords or RFID card system
- Simple touch screen HMI to dual PC computer redundancy available

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BONDTECH CONTROL SYSTEM

Control Interfaces



Bondtech provides customized solutions to satisfy a wide range of data processing requirements. Our engineering controls software interface ranges from the basic PLC data entry to customized Windows based PC systems with advanced touch screen technology.

The Heart of the EnVision control system is the multitasking PLC.

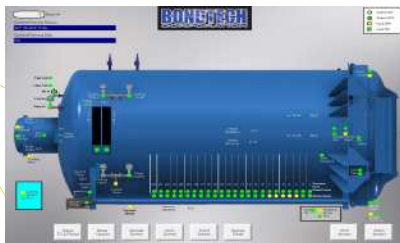
The process engineer selects the process conditions and sequence to be followed through a "Recipe", input into the EnVision control system with the graphical operator interface (OI) computer. The "Recipe" to be followed is selected by the operator during the setup period at loading.

All operator related input and functions are through the graphical operator interface (OI) computer. The OI acts as a window into the EnVision system and provides local data collection for the generation of graphical reports and trends. The PLC functions independently from the OI and in doing so, it is capable of completing an "In Process" run to recipe specifications without the OI being functional, only local data collection would be lost.

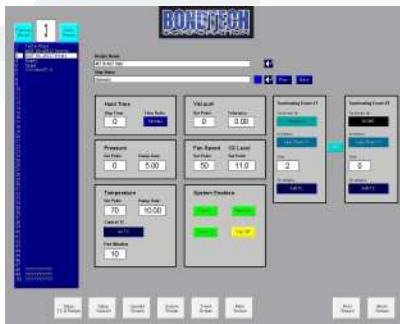
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Control Screens



The System Screen shows the status of the instrumentation and controls for each area of the autoclave system under the EnVision systems control. The status for each of these items is displayed as a graphical color or digital value as an indication of the condition or position of the device monitored.



The Trend Screen displays the historical data for the last several hours of system operation.

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PARTSERVICE

"When your Priority is Quality and Service"



PREVENTATIVE MAINTENANCE BONDTECH OFFERS ANNUAL PM SERVICES FOR ALL TYPES AND BRANDS OF AUTOCLAVE SYSTEMS

THESE SERVICES WILL INCLUDE VISITS ONCE PER YEAR
(OR AS NEEDED) FOR THE FOLLOWING:

· Overall vessel condition · *Safety inspection (Offering Training Programs)* · Calibration of controls and gauges (does not apply to some systems) · *Corrosion and build up* · Pressure relief systems · *Door closure (wedges)* · Door closure (alignment) · *Locking ring Inspection* · All gasket materials · *All interlocking systems* · Controls and operational procedures · *Annual Certification for Pressure relief and Rupture disk* · And more

In most cases · **THERE IS NO SHUT DOWN REQUIRED AND NO LOSS OF PRODUCTION**

SERVICES OFFERED

speed



- Turnkey Installations
- NDT Inspections
- Re-calibrations

location



- Relocations
- On Site Inspections
- Control Upgrades

support



- Autoclave Vessel Repair and Replacement
- Door Repair/Replacement

help 24/7



- Phone Support at no charge
- 48hr On Site Emergency Support



· **LARGE INVENTORY OF PARTS FOR MOST BRAND AUTOCLAVES ·**

Please contact us if you have any further questions or need additional information DIRECT: (606) 677-2616 OR TOLL FREE: (800) 414-4231

BONDTECHCORP

Bondtech doesn't just sell autoclaves, we custom manufacture to specifications, rebuild existing autoclaves and service and repair all brands of autoclaves, even our competitors.

USED INVENTORY



Call us with your requirements and we will provide an assessment of your needs. We will engineer a system for you!

1 (800) 414-4231



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DESIGN · ENGINEERING · FABRICATION · CONTRACTING