



**COMPREHENSIVE  
SPECTRUM OF INDUSTRIAL  
THERMAL PROCESSING  
EQUIPMENT**

*RELIABILITY, EXPERTISE,  
SERVICE & SELECTION*

# CONTINUOUS FURNACES



## ATMOSPHERE

Gasbarre Thermal Processing Systems manufactures, installs and commissions a wide range of continuous atmosphere products. These products are highly energy efficient, and can be gas-fired or electrically heated. They are available in standard configurations and sizes or can be custom designed. We can provide the ideal product to process your specific parts based upon your process, temperature, atmosphere, and throughput requirements.

### Types of Continuous Atmosphere Furnaces

- Humpback
- Mesh Belt
- Pusher
- Roller Hearth

### Processes supported by Continuous Atmosphere Furnaces

- Annealing
- Brazing
- Drying
- Glass-to-Metal Sealing
- Inert Atmosphere Processing
- Normalizing
- Sintering
- Steam Treating
- Stress Relieving
- Tempering



**Mesh Belt Furnace**  
for sintering, brazing, and annealing processes

## VACUUM

The continuous vacuum furnace essentially transforms the batch vacuum furnace into a straight through furnace. Work is no longer processed into and out from the same side – rather work is loaded into the entry side and unloaded from the exit side of the furnace. Modules consist of load/evacuation chambers, preheat and high heat chambers, multiple heat position chambers, and oil or pressurized gas quench chambers. Small batches are therefore indexed in a continuous fashion making this style furnace highly productive. With the continuous vacuum furnace, the heat chamber typically remains hot and under vacuum making for a highly efficient and pure system.

### Processes supported by Continuous Vacuum Furnaces

- Annealing
- Brazing
- Carburizing
- Carbonitriding
- Hardening
- Sintering



**Continuous Vacuum**  
for high volume vacuum applications



**Pusher Furnace**  
for high temperature applications up to 3000°F

# CONTINUOUS FURNACES

All equipment designed to AMS 2750 and CQI-9 specifications | ISO 17025 certified

# BATCH FURNACES

## ATMOSPHERE

Gasbarre Thermal Processing Systems manufactures, installs, and commissions a full range of batch atmosphere products. These products are highly energy efficient, and can be gas-fired or electrically heated. They are available in standard configurations and sizes or can be custom designed. We can provide the ideal product to process your specific parts based upon your loading method, process, temperature, and atmosphere requirements.

### Types of Batch Atmosphere Furnaces

- Bell
- Box
- Car Bottom
- Integral Quench
- Pit
- Retort
- Tip Up

### Processes supported by Batch Atmosphere Furnaces

- Annealing
- Carbonitriding
- Carburizing
- Hardening
- Inert Atmosphere Processing
- Nitrocarburizing
- Nitriding
- Normalizing
- Stress Relieving
- Steam Treating
- Tempering



**Atmosphere Furnace**  
*designed for precision nitriding, ferritic nitrocarburizing, and nitrogen tempering*



**Car Bottom Furnace**  
*for large load processing up to 100,000 pounds*

## VACUUM

Designed for many thermal processes, the electrically heated batch vacuum furnace is available in a multitude of configurations. The most basic configurations are the front and top loading single chamber styles where work is loaded into and out from the same door. These are designed for high temperature applications and are supplied with graphite or ceramic insulation packages. Evacuation systems include rough pumps, boosters, and diffusion pumps when required. Being modular in design, independent quench chambers may be added to the basic heating chamber. The quenching mediums may be oil or pressurized gas. Isolation of the modules (temperature and vacuum level) may be accomplished with an internal vacuum door.

### Types of Batch Vacuum Furnaces

- Single Chamber
- Multi Chamber

### Processes supported by Batch Vacuum Furnaces

- Annealing
- Brazing
- Carbonitriding
- Carburizing
- Hardening
- Sintering
- Tempering



**Batch Vacuum Furnace**  
*modular vacuum system offers unmatched versatility for a wide range of heat treatment processes*

# BATCH FURNACES

All equipment designed to AMS 2750 and CQI-9 specifications | ISO 17025 certified

# AUXILIARY PRODUCTS & SERVICES

*Gasbarre is the certified OEM of C.I. Hayes, J.L. Becker, and Sinterite brand equipment.*

Gasbarre Thermal Processing Systems designs and manufacturers a wide range of companion equipment for the thermal processing industry worldwide. We offers a full line of OEM parts and services to keep your operation running and to maximize the lifespan of your equipment.

Our facilities house an experienced team of engineers and customer service specialists, as well as a parts, service and equipment resale department. Our comprehensive offering and commitment to customer satisfaction make Gasbarre the perfect long-term partner for all your heat-treating equipment requirements. Our technicians, engineers and inside sales staff are trained and experienced in the installation and operation of thermal equipment. They offer prompt, courteous assistance to return and maintain your equipment to full operation and top efficiency.

## Product Listing

- Ammonia Dissociators
- Dryers
- Endothermic Generators
- Exothermic Generators
- HyperCooler
- Material Handling Systems
- Oil Impregnators
- Steam Treaters
- Quench Tanks
- Washers
- Water Cooling Systems

## Service Listing

- Burner tuning
- Controls and system upgrades
- Equipment troubleshooting
- ISO 17025 controller calibrations
- NFPA code evaluations
- Process troubleshooting
- Rebuilds and retrofits
- Refractory relines
- Temperature uniformity surveys
- Temperature profiles

## ALLOY FABRICATIONS

Gasbarre is a leading manufacturer of fabricated alloy and mild steel products. We provide a wide range of fabrication capabilities that can be customized to meet each customer's unique needs and applications.



### Endothermic Generator

*multi-tube endo generator creates production flexibility for both the production and maintenance departments*



### Washer

*our washers can be designed in both single and multi-chamber configurations and implemented into any heat treatment line*

# AUXILIARY PRODUCTS & SERVICES

All equipment designed to AMS 2750 and CQI-9 specifications | ISO 17025 certified

# PRODUCT LISTING

ALL EQUIPMENT DESIGNED TO  
AMS 2750 and CQI-9 specifications  
ISO 17025 certified

<b><i>Furnace Products</i></b>	<b><i>Atmosphere</i></b>	<b><i>Vacuum</i></b>	<b><i>Continuous</i></b>	<b><i>Batch</i></b>
Bell/Retort	■			■
Box	■			■
Car Bottom	■			■
Gas Quench	■	■	■	■
Humpback	■		■	
Mesh Belt	■		■	
Oil Quench	■	■	■	■
Pit	■			■
Pusher	■		■	■
Roller Hearth	■		■	■
Steam Treating	■		■	■
Tip Up	■			■
Tool Room	■	■	■	■
Tube	■		■	
<b><i>Processes</i></b>	<b><i>Atmosphere</i></b>	<b><i>Vacuum</i></b>	<b><i>Continuous</i></b>	<b><i>Batch</i></b>
Annealing	■	■	■	■
Brazing	■	■	■	■
Carbonitriding	■	■	■	■
Carburizing	■	■	■	■
Co-Firing	■		■	
Drying	■		■	
Enameling	■		■	
Ferritic Nitrocarburizing	■			■
Glass-to-Metal Sealing	■		■	
Hardening	■	■	■	■
Inert Atmosphere Processing	■	■	■	■
Nitriding	■			■
Normalizing	■		■	■
Quenching	■	■	■	■
Sintering	■	■	■	■
Soldering	■		■	■
Spheroidize Annealing	■			■
Steam Treating	■		■	■
Stress Relieving	■	■	■	■
Tempering	■	■	■	■
<b><i>Auxiliary Products</i></b>	<b><i>Atmosphere</i></b>	<b><i>Vacuum</i></b>	<b><i>Continuous</i></b>	<b><i>Batch</i></b>
Ammonia Dissociators	■			■
Atmosphere Dryers	■			■
Endothermic Generators	■			■
Exothermic Generators	■			■
Hyper-Cooler (Sinter-hardening)	■		■	
Material Handling Systems	■	■	■	■
Oil Impregnators	■		■	■
Parts Washers	■		■	■
Quench Systems	■	■	■	■
Water Systems	■	■	■	■

# EXPERTISE

The extensive product offerings and diverse experience and skill sets of our sales, engineering, and field service personnel allow us the insight and capability to solve any challenge of your unique thermal and material processing requirements.

# SUPPORT

Gasbarre's qualified technicians, trainers, and sales staff offer prompt and courteous assistance to help maintain your thermal processing equipment, and keep it running at peak performance. Consultation is available via telephone or email, or on-site through our worldwide network of factory trained technicians.

# SERVICE

Our customers require maximum up-time, and Gasbarre offers unmatched field service to deliver just that. In addition to emergency service, Gasbarre offers operation and maintenance training as well as custom designed maintenance programs performed by Gasbarre professionals. When our customers need help the most, we're only a phone call away.

## METALLURGICAL PROCESSES

Annealing ■ Brazing ■ Carbonitriding ■ Carburizing ■ Co-firing ■ Drying ■ Enameling ■ Ferritic Nitrocarburizing  
Glass-to-Metal Sealing ■ Hardening ■ Inert Atmosphere Processing ■ Nitriding ■ Normalizing ■ Quenching  
Sintering ■ Soldering ■ Spheroidize Annealing ■ Steam Treating ■ Stress Relieving ■ Tempering

## SPARE PARTS, REBUILDS & SERVICE

Replacement Parts ■ 24 Hour Service ■ Rebuilds ■ Preventative Maintenance Programs ■ Evaluations  
Temperature Profiling ■ Start-up Assistance ■ Turnkey Installation ■ Calibration Services ■ Repairs  
Upgrades ■ Training



*Powder Compaction  
Presses*

*Coining/Sizing Presses*

*Precision Tooling*

*Automation*



*Atmosphere & Vacuum  
Furnace Systems*

*Continuous & Batch  
Furnace Systems*

*Auxiliary Heat Treating  
Equipment*

*Automation*



*Engineering & Design*

*Custom Fabrication*

*Machining*

*Electrical Assembly*

*Integration*



**GASBARRE THERMAL PROCESSING SYSTEMS**

310 State Street ■ St. Marys, PA 15857  
furnace-sales@gasbarre.com ■ 814.834.2200

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



MEMBER

