



*Thermal Process
Furnaces and Systems*





Custom Engineered Test Furnace



Electric Recirculating Box Furnace



Bell Furnace



Roller Hearth - Stainless Steel Tube Annealing

Continuous Furnaces

SECO/WARWICK provides continuous furnaces for high volume production, which produce a noticeable return for your capital equipment investment. We are the leaders in the design and manufacture of custom engineered furnace systems specializing in pusher, roller hearth, cast link conveyor, rotary retort, mesh belt and walking beam configurations. These continuous furnaces not only satisfy your heat-treating requirements, but are also designed for a long life of process repeatability, accuracy and durability.



Batch Furnaces

SECO/WARWICK is a single source provider of batch furnaces in configurations of box, bell, car bottom, pit and rotary hearth. For batch and semi-continuous process requirements, SECO/WARWICK provides a selection of standard and custom designed furnaces tailored to your specific production needs. SECO/WARWICK can provide new material handling equipment, or our furnaces can be integrated into existing systems, creating an efficient production flow.

Applications

Batch furnace systems are suited for use in a wide variety of industries and applications. Ideal processes for batch furnace applications include:

- Hardening
- Annealing
- Carburizing
- Stress Relieving
- Brazing
- Normalizing
- Preheating for Hot Forming



Rotary Hearth Furnace

Applications

Continuous furnaces are more economical than batch furnaces where high volume and consistent results are required. These quality furnaces are ideal for a wide variety of operations including:

- Austempering
- Solution Heat Treatment
- Hardening
- Tempering
- Annealing
- Age Hardening
- Carburizing
- Normalizing
- Stress Relieving
- Copper/Silver Brazing
- Spheroidizing



Roller Hearth - Spheroidize Anneal



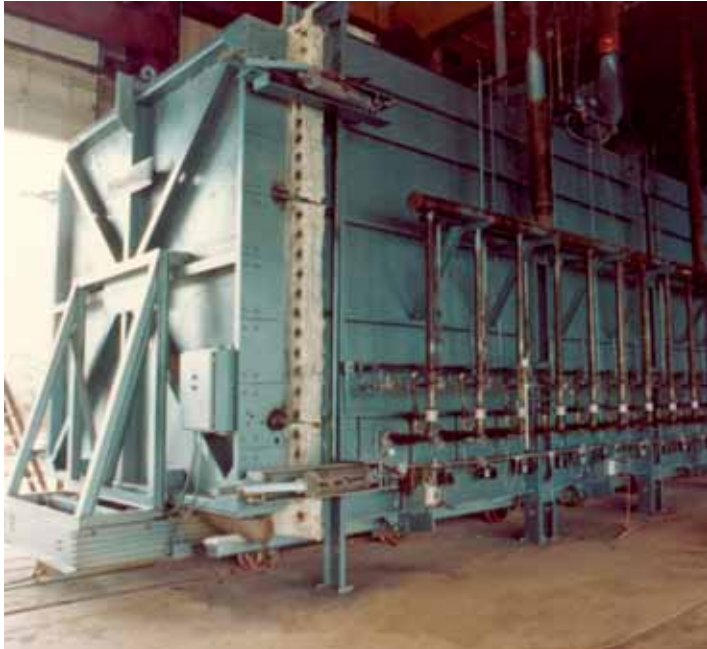
Mesh Belt Brazing Furnace



Rotary Retort Furnace with Whirl-A-Way® Quench



Roller Hearth – Lamination Annealing



Car Furnace



Pit Furnace



Roller Hearth – Transformer Core Annealing



Cast Link Conveyor



Roller Hearth - Copper Tube Annealing

Thermal Process furnaces frequently use reactive atmospheres as well as blanket or sweep gas to achieve optimum process results.

Atmosphere Generators

SECO/WARWICK manufactures three types of protective gas atmosphere generators: Endogas® (endothermic), Exogas® (exothermic), and Ammogas® (dissociated ammonia). These pre-engineered generators are built to combine precision and consistent control of the final gas produced with operating dependability. An atmosphere generator can provide significant savings compared with contracted gas suppliers.

Refrigerant Dryers

SECO/WARWICK Corporation provides Refrigerant Dryers to reduce the dewpoint of Endogas® and Exogas® Atmospheres for processes that are sensitive to atmosphere moisture in the system. These dryers reduce the dewpoint levels to -40°F.

Atmosphere Controls

SECO/WARWICK can provide the necessary piping and instrumentation for adding or controlling process gases, which ensures your furnace atmosphere requirements. Auxiliary equipment such as combustible and dewpoint analyzers, carbon potential controllers, atmosphere safety equipment and inert gas purge can help to provide safe, reliable atmosphere operation within your furnace.

System Controls

SECO/WARWICK analyzes each customer's operational needs, plant processing requirements, and energy requirements to develop a control system for peak operating efficiency. We offer a complete range of control systems, which include simple relay logic on-off systems, or we can provide total PC/PLC integration with graphic software packages and overtemperature control instrumentation.



Exogas® Direct Chill Generator for large volume production of exothermic gas, typically for aluminum furnace applications



Ammogas® produces Dissociated Ammonia



Pair of Exogas® Exothermic Generators working with Refrigerant Dryers



Endogas® Endothermic Generator



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The latest design, materials and equipment specifications should be obtained from the company before any reliance is placed on the enclosed because changes may occur due to product improvement.

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