SECO/VACUUM Technologies
The North American Vacuum Furnace Company

SECO/VACUUM Technologies (SVT) exclusively serves the vacuum heat treatment, brazing, sintering and metallurgy markets throughout North America by providing standard and custom equipment solutions. Our mission is to deliver, from a company close to home, the type of products and support you’ve come to expect from a world leader in vacuum technology.

Our commitment to present and future customers is to:

• Have sales and applications engineering experts always available to answer your questions
• Operate production sized vacuum furnaces for product demonstrations via partner facilities
• Equipment designed and built for the US market, can be serviced with standard American tools
• Provide local spare parts and service teams, including installation and maintenance support
• Offer innovative solutions with aggressive pricing and delivery programs to meet your specific project needs

Find out more by visiting www.SecoVacUSA.com or contacting us directly.

SECO/VACUUM Technologies is a technology-driven company that delivers the world’s finest furnace technology.
SECO/VACUUM Technologies Furnaces
Unparalleled Excellence in Thermal Processing

SECO/VACUUM Technologies manufactures a broad line of standard and custom vacuum furnaces targeting captive and commercial heat treatment; brazing and sintering, and gas nitriding for both primary and semi-finished component parts.

**CaseMaster Evolution (CMe):**
- Multi-chamber vacuum oil quench furnaces available in two (in-out) and three (straight-through) chamber configurations
- Used for hardening and case hardening; carburizing and/or carbonitriding; and normalizing and stress relieving
- Available with high pressure gas or oil quenching

Advantages of CMe systems include:
- Increased productivity
- Faster carburizing cycles
- Consistent processing of dense loads
- Uniform quenching with less distortion.

**Vector:**
- Single chamber high gas pressure quench vacuum furnaces, in horizontal and vertical configurations
- Performs multiple heat treatment operations across a range of process applications
- Wide array of sizes, workload capacities, temperature and vacuum ranges, and quench pressures
- Compact and easy to operate.
- Ideal for processes such as: annealing, brazing, carburizing, hardening, nitriding sintering, stress relieving, and tempering
VIP - Value Incentive Program

VIP is SECO/VACUUM Technologies’ high-value sales-and-service package. The Value Incentive Program is available on the most common sizes and configurations of the Vector™ vacuum furnace, bundled with incentives such as:

- Highly competitive pricing
- Configured for fast delivery
- Rapid service response
- Test parts at our facility to prove the process
- Locally available replacement components

VIP is available on SECO/VACUUM Technologies’ high efficiency Vector™ furnaces featuring high pressure gas quench, a compact design, 360° cooling, no rotary shaft seals, and carbon fiber composite insulation.

Two standard Vector sizes are eligible for the Value Incentive Program with the following features:

- Configured for fast delivery, as quickly as 15 weeks from date of order
- 24 x 24 x 36” workload size with 2 bar or 15 bar cooling pressure
- 36 x 36 x 48” workload size with 2 bar or 15 bar cooling pressure
- Options for convection fan, diffusion pump, FineCarb®, and PreNit®

UniCase Master:
- Advanced, in-line manufacturing solution for processing gears, bearings and similar components in a continuous single-piece flow vacuum heat treatment system
- Designed for hardening and low-pressure vacuum carburizing with PreNit® and FineCarb® – in combination with 4-D® high-pressure gas quenching
- Also for annealing/normalizing, brazing and specialty processes
- Every part is heat treated using the same process parameters and part movement for consistent, repeatable, high-quality results
SECO/VACUUM Technologies, together with the SECO/WARWICK Group, is fully supported by an extensive engineering team.

More than 100 engineers have helped design and master the intricacies of thermal processing technologies which have been successfully implemented in over 70 countries around the world and in a variety of different industries including automotive, energy, aerospace/aviation, medical, machine, and nuclear. The heart of our team consists of 11 specialists, three possessing PhDs in science. Moreover, there are key technologies where we excel and have earned global success in vacuum thermal processing: FineCarb®, PreNitLPC®, and ZeroFlow®.

Our engineering capabilities include:

• CFD & FEA simulation
• Industrial-size demonstration furnaces & metallographic laboratory analyses
• The ability to benchmark equipment performance and productivity with customer’s parts
• Partnerships with academic and scientific organizations
• Participation in domestic and international R&D projects
• Technological innovations, including low pressure carburizing, and oil and gas quench
Over the past 10 years, the SVT Research and Development team has implemented thousands of projects, secured numerous patents, and established cooperative relationships with various technical universities and scientific associations. Our R&D team continually seeks opportunities to fund innovation and development programs. Our team benefits from lessons learned over 30 years designing and building a wide variety of thermal processing systems.

SVT’s R&D Department is not only a highly qualified team of experts, but also has a well-equipped technological lab with full size furnaces for thermal processing and dedicated software for calculations using computational fluid dynamics software and mechanical modeling systems.
The service, support and spare parts teams at SVT have the technical knowledge and practical experience to manage all sizes and types of projects involving thermal processing equipment in a professional manner. We understand how equipment works and we can support your needs regardless of equipment manufacturer. We will help you increase up-time productivity and decrease the frequency of maintenance through techniques such as automated maintenance procedures. SVT carries out inspections and other preventive maintenance measures using advanced tools for monitoring and reporting the condition of your vacuum equipment. We can assist you in setting up a planned preventive maintenance program and support you with scheduled service visits.

We are your partners in ensuring your furnace’s long-term operation and performance. Our Professional Services include:

- Spare parts, equipment upgrades, relines, and installation
- Equipment start-up and repairs
- Sales and replacement of spare parts
- Planned preventive maintenance programs, service agreements
- Modernization, including upgrades to HMI and management reporting/communication systems
- Equipment relocation

As part of our Professional Services, we have three valued-added services to enhance your productivity:

SECONOMY: This combination of operational economies balanced with environmental issues allows us to reduce both production costs and emissions. Energy costs can be reduced by up to 50%.

SECOLUTION: This is a set of advanced tools for data analysis and system control enabling you to securely connect from anywhere.

SECOSITE: Our experts visit your site – no charge for their time. Call for details.
SECO/VACUUM Technologies LLC is a division of the SECO/WARWICK Group, a world-leading manufacturer of heat treatment furnaces and technology.

Through technological leadership and decades of experience, SECO/VACUUM Technologies offers unmatched vacuum furnace innovation and performance backed by a commitment to provide our customers with the best support in the industry and the lowest cost of ownership.

Contact SECO/VACUUM Technologies to discuss your next heat treating project!
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