

COMPANY PROFILE ///

GRUENBERG

A LEADING MANUFACTURER OF INDUSTRIAL OVENS AND STERILIZERS

Gruenberg industrial ovens and dry heat sterilizers – such as this batch oven – are designed with high quality materials.
(Courtesy: Gruenberg)

For more than 90 years, Gruenberg has offered standard and custom industrial drying ovens, pharmaceutical dryers, and sterilizers to a wide range of industries, including the automotive, aerospace, metallurgic, semiconductor, pharmaceutical, and medical sectors.

By **KENNETH CARTER**, Thermal Processing editor

Heat-treat drying processes are often a critically necessary step in many industries, including the automotive, aerospace, metallurgic, semiconductor, pharmaceutical, and medical sectors.

The products offered by Gruenberg ensure that important step in the manufacturing process is not only done efficiently, but economically.

Gruenberg is a leading industrial oven and sterilizer manufacturer. The company's standard and custom industrial drying ovens, pharmaceutical dryers, and sterilizers are used for a variety of applications including curing, drying, annealing, dry-heat sterilization, depyrogenation, and other heat-processing applications.

Gruenberg industrial ovens and dry heat sterilizers are designed with high quality materials and available in both batch and conveyor configurations with maximum temperature ratings up to 1,200°F. Batch oven configurations include reach-in or cabinet style, truck-in, batch, benchtop, and top-loading models. Many batch ovens can be configured in a stackable manner to save shop floor space. Conveyor ovens can be designed modularly with multiple zones of heat for maximum temperature control and uniformity during continuous process. Conveyor oven styles include belt, drag, spindle, overhead, and many other styles appropriate for the application and the products being processed.

'COMPREHENSIVE OFFERINGS'

"As a whole, Gruenberg's a big player in the medical, pharmaceutical, and lab animal science industry, and we have a comprehensive line of industrial heat treat ovens," said Mike Schneck, director of engineering and product manager at Gruenberg. "We offer cabinet, truck-in, top load and continuous ovens of all variations, as well as modifications that can be custom to any of those. That's just a few examples of what Gruenberg has provided to various industries that can perform a wide range of heat-treat drying processes. We have a very broad base and a comprehensive offering that we can usually fit a client into."

That includes working with composites, according to Schneck.

"We provide composite curing solutions for aerospace and automotive," he said. "We do heat treating. We work with the oil-and-gas industry with regards to designing and manufacturing ovens for their equipment that they send into the earth."

MEETING CUSTOMERS' NEEDS

With a history that goes back more than 90 years, Gruenberg has established itself to be able to immediately meet the needs of any customer from almost any industry, according to Schneck. That includes any custom work that may be needed.

"We have a lot of historical data," he said. "We're usually able to



A Gruenberg dual lane conveyor oven. (Courtesy: Gruenberg)

grab a data point and use it as a starting point for our customer base. We do have standard designs and base models, but as we've evolved to where we are right now, we have the tools and have put together enough engineering expertise that allows us to take what a customer wants and adapt it pretty seamlessly and quickly."

To that end, Gruenberg has positioned itself over the decades to partner and innovate with its customers to provide the highest quality of thermal-processing solutions in the world, according to Schneck.

"Gruenberg has uncompromising performance, and it has been that way since the early '30s," he said. "Technology has been at the forefront of evolution for many years. It has taken leaps and bounds by grand magnitudes in recent years. By utilizing component innovations built into our designs and new manufacturing techniques, we are able to lower our costs and pass that along to our customers."

THE CONCEPT STAGE

That one-on-one partnership with its customers begins at the concept stage, according to Schneck.

"We typically ask them to describe their process and, instead of a customer modifying their process, we work with them to design a



Gruenberg, a division of Thermal Product Solutions LLC, first opened its doors as the Gruenberg Electric Company in Brooklyn, New York, in 1932. (Courtesy: Gruenberg)

piece of equipment that perfectly meets their needs,” he said. “We come to some conclusions, and we propose that to them, and it’s like an ‘a-ha’ moment. We find the most success talking directly with process experts and the people who are most intimate with the process where they’re looking to add a piece of equipment.”

That collaboration could be in regards to performance or control capability or something as “simple” as the best way to take advantage of limited space used for that critical piece of equipment, according to Schneck.

“We definitely strive to provide them what they need,” he said.

In today’s technical age and the ability to search for a company to solve heat-treating or sterilization needs — perhaps someone is looking for a cure oven or sterilizer, for example — Gruenberg’s long history of expertise stands out to make it a go-to company for potential customers, according to Schneck.

“Once we’re able to get on a call with them, we are able to build a confidence level with the customer,” he said. “From there, it is just a conversation. We design a unit and thoroughly articulate within our proposals so they have a full understanding of what they’re getting. When we’re able to do that and they’re able to present that to their management, they can put together an ROI and also explain the advantages of Gruenberg vs. another supplier.”

Once the equipment is finalized, Gruenberg has an aftermarket service team that can provide a full line of services for a customer’s thermal processing equipment no matter the brand, including start-up and training, installation options, preventative maintenance, temperature uniformity, GAMP documentation, relocation services, and more. All aftermarket services are performed by Gruenberg’s factory-trained technicians.

PARTNERING WITH AALAS

Through its long history, Gruenberg has been able to offer its heat-treating expertise to many industries, but Schneck pointed out that



A Gruenberg batch oven. (Courtesy: Gruenberg)

it has recently found success in providing products to its partners in the Animal Lab Science Community or AALAS.

“It’s truly a niche community,” he said. “They have historically used autoclave-type equipment to do this process, and the solution we’re

A Gruenberg pharm oven.
(Courtesy: Gruenberg)



providing them gives them flexibility, cost savings, and it's energy friendly. It's just a win-win for them. It's becoming a big game changer in that community — it has the same effectiveness as a steam sterilizer with validated cycles."

Gruenberg provides equipment that sterilizes the cages the animals are kept in, according to Schneck.

"That's important just from the standpoint of mouse A could be the one that provides a cure for cancer," he said.

Autoclaves use pressurized steam for sterilization; however, Gruenberg's sterilizers use dry heat, which is more economical overall, according to Schneck.

"There are so many advantages to using dry heat from a facility standpoint; significantly lower infrastructure/construction costs, no water usage, modular designs, sterilization cycle costs at about 50 percent to that of an autoclave, and the fact is that it performs and each and every one is validated with biological spore strips," he said. "It's just a game changer."

90-PLUS YEARS OF EXPERTISE

Gruenberg, a division of Thermal Product Solutions LLC, first opened its doors as the Gruenberg Electric Company and then the Gruenberg Oven Company in Brooklyn, New York, in 1932, according to Schneck.

"It started with manufacturing industrial ovens, cabinet, bench and truck-in and eventually added sterilizers, dryers, and continuous process ovens to name a few," he said.

As the company grew, it became known industry wide for its performance and custom designs, according to Schneck.

"An old timer with the company who has since retired once compared Gruenberg's ovens to the strength and durability of a Sherman tank with the craftsmanship of a Swiss watch," he said with a chuckle. "We pride ourselves with that."

As Gruenberg continues to offer the best heat-treating and sterilization needs to a global network of industries, Schneck said the company is always striving to keep ahead of evolving technology.

"We are looking at newer, lighter materials," he said. "I think you're going to see processes migrate to cleaner requirements, maybe into an ISO-type environment requiring minimal particulate exposure just due to miniaturizing everything and micro-sizing things, and you're going to have Gruenberg still here providing solutions to that customer base. It's all bread-and-butter for Gruenberg. It's all an area where we want to serve our customer base." ❄



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