

## Vacuum Furnaces Find New Life

As one chapter closes another one opens. Solar Atmospheres of Michigan has recently received the first of eight vacuum furnaces from the former Vac-Met Inc.. From this latest Solar Atmospheres acquisition the relocation of vacuum furnaces, ranging from lab sized furnaces to 84" OD X 10' deep will join the two brand new Solar Manufacturing furnaces already in production in Chesterfield Michigan.

Bob Hill, President of Solar Atmospheres of Michigan states "it took us one year with much investment and hard work to get to this point. The final relocation process will last over the next three months, while maintaining our "continued, unparalleled vacuum thermal processing needs to our loyal customers."

Hill continued, "from being landlocked within the confines of two older manufacturing buildings and dealing with the many logistic inefficiencies associated with two plants, our employees are excited to move into our new home. In Chesterfield, we have four 'acres' to grow while adding new vacuum processes and equipment."



## Solar Atmospheres South Carolina Orders 10-Bar Vacuum Furnace

Solar Atmospheres is pleased to announce the order of a new 10-bar vacuum furnace for our Greenville, SC facility.

This new state-of-the-art 48" wide x 48" high x 96" deep horizontal vacuum furnace will be manufactured by sister company Solar Manufacturing. The furnace is capable of processing up to 12,000 pound loads and is scheduled to be installed in late 2024. This new vacuum furnace will feature a vacuum pumping system capable of achieving an ultimate vacuum of  $1 \times 10^{-6}$  Torr, which is crucial for processing titanium and other high grade alloys. Additionally, this furnace will apply newly developed designs for the uniform and rapid cooling of large workloads, allowing our Greenville facility the ability to continue bringing unique processing capabilities to the US Southeast.

Solar Atmospheres Southeast President Steve Prout states, "We are proud to be offering our customers another regional option for high pressure quenching of large components and workloads as well as the opportunity to leverage economies of scale to reduce their cost of thermal processing in the midst of the challenging economic environment we are all facing."



## Inside Sales Manager Joins Solar South Carolina Sales Team

We're pleased to introduce the newest addition to our dynamic sales team at Solar Atmospheres South Carolina. Please join us in extending a warm welcome to Derek Chastain, our accomplished Inside Sales Manager. With more than 30 years in the aerospace, defense & power generation industries, Derek's diverse experience enables him to understand the needs of our customers. In his short time here, Derek has already provided a positive and immediate impact to the Southeast. We are confident his contribution will be significant toward our continued success. You can reach Derek at [derek@solaratm.com](mailto:derek@solaratm.com) or 864-970-0111 x1403.



## NEO™ Proves to be Clean, Safe and Profitable

After one year in production within Solar Atmospheres of Western PA, the very first vacuum oil quench furnace ever built by Solar Manufacturing has far exceeded any and all expectations! The NEO™ with a consistent and repeatable engineered transfer mechanism, had zero "crashes" or "derailments" in the first year! Having a fully contained vacuum atmosphere with no burn offs or smoke effluent, the furnace and its environs remain spotless. In addition, customers demand aerospace pyrometry principles applied to their oil quenched alloys. Having the ability to measure and record a minimum of three work thermocouples within the work load adds a new level of repeatability of the highest quality. Finally, the NEO™ has proven to eliminate surface contamination concerns while providing bright, clean parts for the customer.

It is not by accident that the NEO™ is quickly becoming one of Solar Atmospheres of Western PA's most profitable vacuum furnace!

## Solar Atmospheres Eastern PA Commissions New State-of-the-Art Brazing Facility

Recently, Solar Atmospheres commissioned a new 25,000 square foot brazing facility aimed at high-volume, high-quality braze production. The facility boasts six vacuum furnaces dedicated to brazing, including a unique all-metal hot-zone furnace designed for brazing stainless steel to copper with silver and gold-based braze filler metal (BFM).

Solar specializes in the brazing of high-value components utilizing filler metals based on nickel, silver, gold, and copper. "Solar provides high-quality brazing services for numerous markets, as well as braze-

manufacturing services of turn-key components utilizing a large base of suppliers that are also customers" states Mike Moyer, Solar's Vice President of Sales. "Over the last 40 years of brazing and heat treating, we have developed valuable relationships with some of the best and most capable manufacturers in the United States. This translates into unique resources that few others have in the marketplace."

The new state-of-the-art production facility boasts 4,000 square feet of climate-controlled workspace where technicians assemble and inspect parts, ranging from tiny capillary-tube manifolds to large land-based gas turbine blades. The operation incorporates increased capacity for helium leak testing and pre-braze tack welding of braze assemblies. "With Nadcap accreditation and AS9100 registration, our new facility operates as one expects from the Solar brand" states Chip Lahneman, Solar's General Manager of Brazing. "The investment in our new facility demonstrates Solar's commitment to meeting our customers brazing needs, now, and in the future."



## Solar Atmospheres California Adds Airbus Approval

Solar Atmospheres of California is pleased to announce we are now Airbus approved for heat treating.

Frank Trujillo, Director of Sales for Solar Atmospheres of California, states, "Many Airbus suppliers were in need of a heat treater in the West that could process parts, plates and bars in support of increased Airbus production rates. SCA is proud to be a partner on the Airbus Team!"

With our wide range of furnaces, we are capable of processing very small pieces or loads of 50,000 pounds and up to 24 feet in length. This approval will translate into improved lead-times and greater efficiencies for all Airbus suppliers that require heat treat services in the Western Region.



## UPCOMING TRADE SHOWS



**Shot Show Supplier's Showcase**  
January 22-23, 2024  
Las Vegas, NV



**Power-Gen International**  
January 23-25, 2024  
New Orleans, LA



**MD&M West**  
February 6-8, 2024  
Anaheim, CA



**AMUG - Additive Manufacturing Users Group**  
March 10-14, 2024  
Chicago, IL



**Design 2 Part Atlanta**  
March 27-28, 2024  
Atlanta, GA



**Design 2 Part Atlanta**  
April 24-25, 2024  
Uncasville, CT



**Rapid+TCT**  
April 23-25, 2024  
Anaheim, CA



**Space Tech Expo**  
May 14-15, 2024  
Long Beach, CA

This newsletter is published by Solar Atmospheres, a leader in world-class vacuum heat treating services.

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# THE Spotlight

Winter 2024



Large furnace capacity with up to 20-bar quenching.

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