

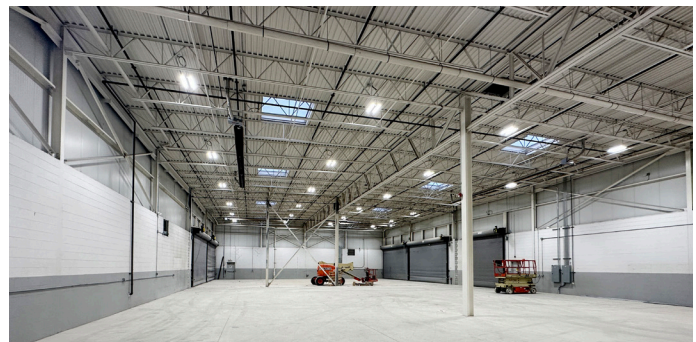
## Solar Atmospheres of Michigan's Future Home

Solar Atmospheres of Michigan, formerly Vac-Met, has recently purchased 18,000 square feet of plant space on four plus acres in Chesterfield Michigan. The new building is 20 miles Northeast of the two existing Vac-Met facilities which are currently located in Warren and Fraser Michigan.

Bob Hill, President of Solar Atmospheres of Michigan Inc states, "We are working feverishly in 2023 to prepare and equip this new facility to make it our fifth state of the art vacuum heat treating and brazing facility in the United States. Once all of the electrical, water cooling and specialty gas utilities are installed, we will strategically relocate the nine existing vacuum furnaces to their new home. Additionally, two new vacuum furnaces were purchased from Solar Manufacturing." Hill continues, "This investment of more than \$5 million gives Solar Atmospheres of Michigan the space to locate our valuable employees and equipment under one roof while continuing to grow the Michigan vacuum thermal processing needs."

### For Solar Atmospheres of Michigan customers:

Please contact our Quality Manager, Steve Choma at [stephenc@solaratm.com](mailto:stephenc@solaratm.com) or ext 1609 to discuss what we need to do to better align your company's quality system with our name and location change.



*Solar Atmospheres of Michigan will be fully operational at the new Chesterfield facility by the end of 2023.*

## Solar Atmospheres of California Installs Large Car Bottom Air Furnace

Solar Atmospheres of California (SCA) successfully installed a brand new 14 foot long car bottom Air Furnace with a total load capacity of up to 30,000 pounds. The furnace was surveyed in accordance with AMS2750 and is uniform within  $\pm 10^{\circ}\text{F}$  (Class 2). The furnace has a working zone that is 60-inches square by 168 inches long and handles a workload up to 30,000 pounds. With a maximum operating temperature of  $1450^{\circ}\text{F}$ , this furnace accommodates not only the tempering of large tool steel components but also age hardening of 15-5 PH, 17-4 PH, 13-8PH and nickel-based alloys, and the annealing of Titanium Forgings.

Solar is typically known around the world as a "vacuum only" heat treater. However, there is a great need for heat treating non finished parts and materials in accordance with the same specifications (AMS, MIL, Boeing and Airbus) within different atmospheres where surface oxidation is permissible. This new 14 foot Air Furnace allows the "raw material customer" an option, while being more price competitive than with a vacuum environment. This new investment will only complement the vast array of vacuum furnaces that Solar operates every day.

Derek Dennis, President of Solar Atmospheres of California states, "Solar Atmospheres of California is excited to be adding this new furnace and the added capability/capacity. SCA's customers have requested this additional capability and it's our responsibility to meet their needs in supporting the valuable partnerships that we share."





## Solar Atmospheres Obtains Nadcap and Boeing Approvals for Vacuum Oil Quenching

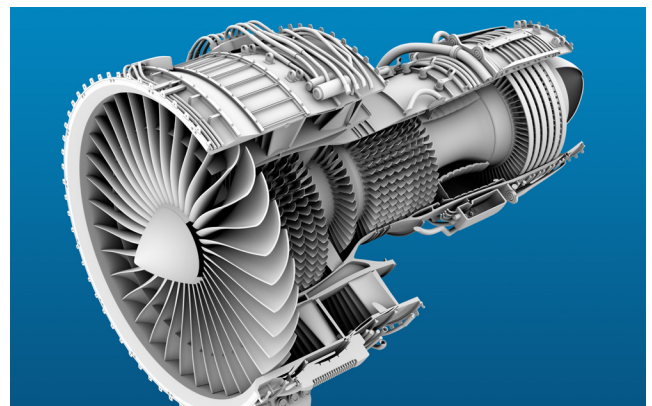
Solar Atmospheres of Western PA recently obtained two significant approvals for its new, fully integrated Vacuum Oil Quench furnace.

Commenting on the Nadcap approval, SAWPA Plant Metallurgist Greg Scheuring says: "I admit I was nervous the first time we ran low alloy steel parts for a military contract. I assumed there would be a minimal partially decarburized layer. But when the low alloy steel parts came out with no decarburization with zero intergranular oxidation (IGO) I knew the VOQ was going to open up a whole new market for SAWPA."

Also obtained was a critical Boeing specification for the oil quenching of alloy steels, in accordance with Boeing's specification BAC 5617.

Michael Johnson, Sales Director states, "We are honored to earn this accreditation from Boeing. The approval for our new vacuum oil quench furnace, the NEO, represents a massive addition to Solar's heat treat capabilities. The NEO's vacuum chamber is designed to thermally heat parts with the use of work thermocouples, transferring into a vacuum protected vestibule within 20 seconds, and finally immersing a maximum 2000 pound load into a hot agitated 3000 gallon oil quench bath. All of this processing is done without a single flame or a puff of smoke! Additionally, the inert processing and fast reliable transfer times provide our customers with superior metallurgical properties. Maximum through hardness is achieved and the surface contamination of flight critical components is totally eliminated. From landing gear to additive manufactured components, the NEO is unlocking an entirely new world of bright, clean, safe, and environmentally friendly oil quench processing for us! Now Solar can support additional Boeing programs including their extensive domestic supply base."

## Solar Atmospheres of California Obtains Honeywell and Sikorsky Approvals



Solar Atmospheres of California is now Honeywell approved to heat treat Austenitic Steels, Martensitic Steels, PH Steels, Tool Steels, Nickel Alloys, Cobalt Alloys, Titanium Alloys, and Magnetic Alloys. The complete list of over 160 specifications covered in this approval can be found on the Honeywell APSL.

Tim Barstow, Quality Manager for Solar Atmospheres of California, states, "We are honored to add this approval to support Honeywell and its supply base throughout the world."



Solar Atmospheres of California has also been awarded the approval to process parts for Lockheed Martin (LMCO) owned Sikorsky. The Sikorsky approval adds to the existing LMCO process specifications held for vacuum heat treatment of titanium, nickel alloys and stainless steel per AMS 2801, AMS 2774, AMS 2759/3 and various other specs.

Frank Trujillo, Director of Sales for Solar Atmospheres' California facility states, "We are proud and honored to once again provide our customers in the Western U.S. the best vacuum thermal process option for their flight-critical aerospace parts and assemblies."

**With our wide range of furnaces, we can process loads up to 50,000 pounds and measuring up to 24 feet in length, while reaching temperatures as high as 2400°F. These approvals translate into improved lead-times, greater efficiencies, and substantial cost savings for our customers.**

## Solar Atmospheres South Carolina Facility Awarded Northrop Grumman Approval

Solar Atmospheres Greenville, SC facility has been awarded Northrop Grumman approval. With this approval, now all five Solar Atmospheres facilities are an option for our customers with Northrop Grumman requirements for vacuum heat treating services.

Steve Prout, President of Solar Atmospheres' Greenville facility states: "We are proud to once again provide our customers in the Southeastern U.S. with another regional option for aerospace and defense vacuum thermal processes, saving them time and money while continuing to deliver the high level of quality required."

With the ability to support vacuum thermal processing needs ranging from development cycles to 50,000 pound loads at temperatures of up to 2400°F, Solar Atmospheres provides AS9100 and Nadcap quality accredited heat treatments, providing our customers with the confidence their product is being processed as specified.



## UPCOMING TRADE SHOWS



### Rapid+TCT

May 2-4, 2023  
Chicago, IL



### Design 2 Part Orlando

May 2-3, 2023  
Novi, MI



### Space Tech Expo

May 2-4, 2023  
Long Beach, CA



### Easttec

May 16-18, 2023  
West Springfield, MA



### OMTEC

June 13-15, 2023  
Rosemont, IL



### Paris Air Show

June 19-25, 2023  
Paris, France



### Design 2 Part Novi

June 14-15, 2023  
Novi, MI



### Investment Castings Expo

August 13-16, 2023  
Pittsburgh, PA

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

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The Spotlight | Solar Atmospheres Newsletter  
Spring 2023

If you no longer wish to receive *The Spotlight*, would like a co-worker to receive it, or need to update your address, please email us at [marketing@solaratm.com](mailto:marketing@solaratm.com)



# THE Spotlight

Spring 2023



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*Solar Atmospheres is dedicated to providing high quality vacuum thermal processing services and meeting the expectations of our customers.*