



Solar Atmospheres Climbs Aboard Boeing's 787 Dreamliner for a Private Tour



Solar Atmospheres representatives (from L): William R. Jones, Mike Johnson, Tim Steber, Jamie Jones, Trevor Jones, Susan Generalovich, Captain Mike Bryan, Bob Sandora, Roger Jones, Kevin Bekelja, Robert Hill

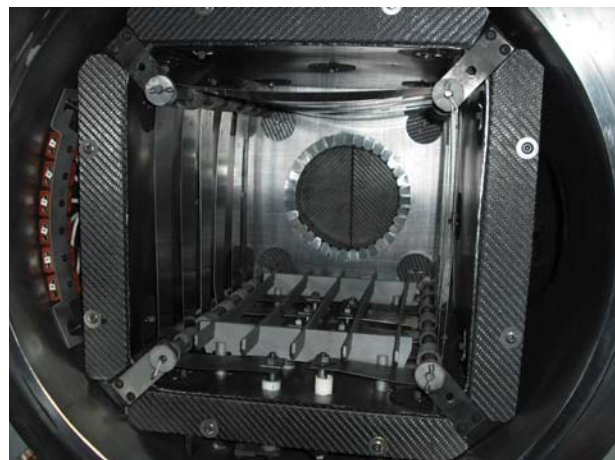
The first, all-new airliner of the 21st century, the Boeing 787 Dreamliner, landed at Philadelphia International Airport on June 27th for its first visit to the city. As a major supplier to this "game changing" new aircraft, Solar Atmospheres received a personal invitation from Boeing for a private tour.

Solar provided vacuum heat treating of flight critical components, that were made mostly of titanium. With the majority of the aircraft's weight made up of titanium and graphite composites, the Boeing 787 Dreamliner is the first mid-size airplane capable of flying long range with a 20% increase in fuel efficiency. The 787 allows airlines to open new, non-stop routes preferred by the traveling public. This airplane can leave PHL and fly non-stop to most any other airport in the world -up to 8,200 to 8,500 nautical miles. It was a momentous day for Solar Atmospheres and the heat treating world!

Solar Atmospheres of CA Increases Small Furnace Processing Capability

To accommodate growing customer demand, Solar Atmospheres of California recently added some new equipment. The two new furnaces and freezer will assist in processing small to medium lots of parts made from metals ranging from PH grade stainless to Titanium.

- 2 Bar Vacuum Furnace - working zone of 12"W x 12"H x 22"L, operating temperatures range from 900°F to 2200°F. Capable of 2 bar quenching with nitrogen, argon, and helium.
- Air Temper Furnace - working zone of 21"W x 23"H x 23"L, operating temperatures range from 900°F to 1200°F
- Cryogenic Treatment Freezer - working zone of 12"W x 9"H x 27"L, operating temperatures range from -100°F to -300°F



Hot zone of new 2-bar vacuum furnace at SCA

President Derek Dennis explains, "More than ever, our customers are committed to streamlining their manufacturing processes through aggressive lean principle based programs. Since lead-time and delivery commitments are a very important part of eliminating waste, Solar plays a critical role in helping our customers achieve their goals. As a partner, rather than simply just another vendor in the approved supplier list, we have invested in this new processing equipment to speed turn-around, meet our customer's evolving needs and contribute toward their success."

VACUUM HEAT TREATING • BRAZING • NITRIDING • CARBURIZING

THE METAL PROCESSING ADVANTAGE

Solar Atmospheres of Western PA Raises the Bar With a New 20 Bar Furnace



Hermitage's 20 bar furnace

Solar Atmospheres of Western PA added a custom-built horizontal 20 bar vacuum furnace (40"W x 36"H x 50"L, 3500 max load) to its Hermitage facility. Designed and built by sister company Solar Manufacturing, this new furnace is the fastest cooling furnace in the Solar fleet and one of only a few of its kind in the U.S.

The excessive pressure and high speed gas velocities of the 20 bar simulate the benefits of oil quenching. Using inert gas as an alternative to oil minimizes distortion and provides a much cleaner and greener process. Solar can better serve customers requiring vacuum carburizing by increasing core hardnesses of large cross-sections. This a particular benefit to those in the gear industry. President Bob Hill states, "By adding these unique capabilities of the 20 bar to our resources, we can now effectively process a wider range of materials and assist more customers than we could with our 10 bar furnaces."

The high-tech furnace was designed with many innovative features to improve cost-efficiency and results including an improved gas-flow system to minimize pressure drops and a radial heat exchange. State-of-the-technology is incorporated throughout that includes an interactive touch screen interface and a compact design.

New Equipment and Face-lift for Lab at Solar Atmospheres

Solar's Metallurgical laboratory work at the Souderton plant has increased considerably in support of our carburizing and nitriding customers. To keep up with production testing and R&D work, new lab equipment was recently added including a new cut-off saw, mounting press, polishing machine, and a microhardness tester. All of the new machines allow for custom or standard recipe control which is ideal for achieving consistent results time after time.

The lab also received a face-lift with a new acid cabinet and vented hood, an epoxy resin countertop, and a new floor. New electrical fixtures were also installed and the entire room was given a new coat of paint. The entire investment was about \$135,000. In an effort to keep costs down, most of the work was performed by Solar employees. The investment is proving to be an excellent one as the quality and quantity of the work produced in the lab are both exceptional.



Souderton plant lab addition

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