



Solar Manufacturing Ships Vacuum Annealing Furnace

Solar Manufacturing recently completed the shipment and installation of a horizontal vacuum heat treating furnace to a specialty medical tubing manufacturer in Eastern USA. With a maximum operating temperature of 2500°F and a weight capacity of 6,000 pounds, this furnace system is designed for high performance, low maintenance and energy efficient results.

“Being in the medical products business, our customer demands not only a reliable vacuum furnace for consistent production but high quality processing results as well.” said Peter Reh, vice president of sales.

The furnace was purchased for the heat treating and annealing of medical grade stainless steel tubing. The working dimensions of the round hot zone measures 12 feet deep X 5.5 feet diameter. The hot zone features a Flex Shield hot face of 0.0403 thick carbon fiber reinforced graphite foil and four layers of 1/32 thick graphite felt insulation. Thin, durable, graphite heating elements are mounted cylindrically in the hot zone and are divided into multiple trim zones.

The high alloy, stainless steel tubing coils will be supported on a unique, removable work fixture specifically designed for the customer’s coils. The fixture helps to retain the shape of the tubing coils without distortion or sticking while being processed at annealing temperatures.

The vacuum furnace consists of an external gas quenching system utilizing a high-capacity copper heat exchanger, 300 HP drive motor and a radial blade fan for high velocity gas quenching. The chamber’s front door uses a pneumatically operated autoclave locking ring closure to facilitate positive pressure quench to 15 psig (2 bar). A 353 Varian diffusion pump allows for high vacuum performance of 1×10^{-5} Torr.

Whether you need a vacuum furnace for heat treating, brazing, stress relieving, normalizing, annealing, tempering or sintering, Solar delivers a solution. To learn more about Solar’s diverse product line, contact Peter Reh, Vice President of Sales, at 267-384-5040 x509 or pkp@solarmfg.com

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