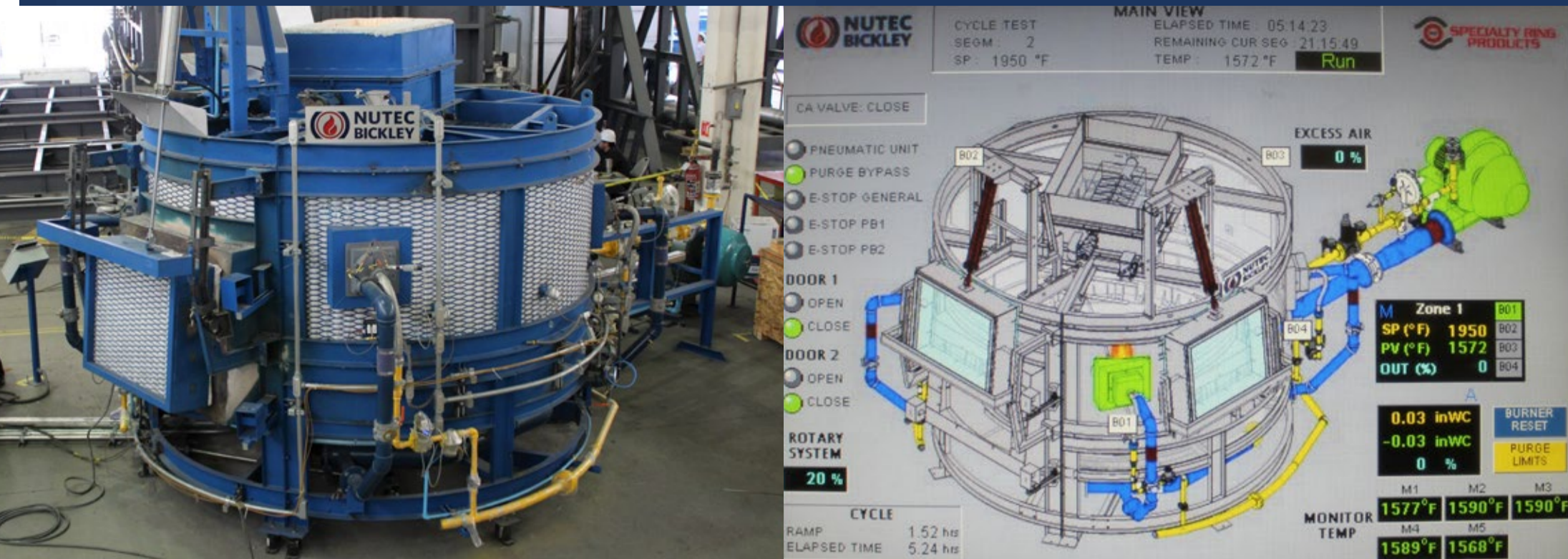


CASE OF SUCCESS

RINGS OF FIRE



Nutec Bickley has recently installed another new rotary furnace at the Bensalem, Philadelphia, USA plant operated by Specialty Ring Products (SRP), the leading provider of high performance quality forgings and machining to the aerospace, defense, energy, industrial and bearing industries. The furnace will be producing steel ingots weighing between 5kg and 15kg, used for the manufacture of alloy steel rings. These billets are vertically loaded on to the hearth at a rate of around 50 pieces per hour. SRP produces seamless rolled rings and sleeves, contoured rolled rings, and also forged discs.

Nutec Bickley's Metal Furnaces business unit was contracted by SRP to manufacture and install the rotary furnace complete with vertical lift doors, gas-fired combustion system, PLC controls complete with I/O units, and ancillary equipment. The furnace has a total diameter of 3.5m (11.5ft), with hearth diameter of 2.4m (8ft) and it operates in the range 815°C–1175°C (1500°F–2150°F).

The Nutec Bickley design integrates the latest concepts in order to provide this valued customer with one of the most modern furnaces available for the heat treating process, and one that can operate effectively over a very wide range of temperatures yet that can maintain the required levels of uniformity.

“Our line of supply to SRP goes back 25 years,” commented Arturo Arechavaleta, VP Metal Furnaces at Nutec Bickley, “and we are proud to have been chosen to design and manufacture this very latest furnace and play our part in the continued modernization program at the Bensalem facility. The efficiencies offered by every aspect of the furnace construction will, I am sure, contribute significantly to reduced operating costs at the same time as maintaining the high quality standards that SRP's customers expect.”

Both sidewall and roof hot face insulation is with Nutec's own proprietary, ceramic fiber HTZ MonsterModule system. HTZ grade insulation is an alumina-zirconia-silica blend and is suitable for continuous use up to 1325°C (2420°F) and has a maximum use limit of 1425°C (2600°F). High thermal efficiency MonsterModules allow for faster heating and cooling cycles.

Other notable features in the furnace's advanced design include:

- Variable excess air control technique for homogeneous and excellent temperature uniformity without the need for circulating fans.
- Superior quality high-velocity burners that produce high gas circulation and better heat transfer to product.
- PLC with Honeywell HC900 interface, giving precise automatic control of heating, outputs for control zones and temperature via paperless recorder.
- High limit temperature controller.
- Flame safety system with UV sensor for each burner.
- Automatic internal pressure control system to improve process stability (high temperature resistance multi-louver with silicon carbide shaft dampers).

The new furnace was manufactured and installed extremely quickly, thereby causing minimal disruption to operations at Bensalem.

SRP was founded back in 1890 and is a fourth generation, family-owned business that has remained a leader in the forging industry. As customers' requirements have become more exacting, SRP has extended its capabilities and expertise and – as evidenced by this latest furnace installation – is continually refining its processes to deliver the highest quality rings.



Are you planning the installation of a new, high-performance metallurgical furnace?

Contact us today to discuss how we can efficiently and cost effectively bring your next project to life:

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