PSNERGY
SAVING ENERGY – REDUCING EMISSIONS – WORLDWIDE

PSNergy Customer Testimonial

Continuous Strip Annealing Furnace Achieves 200° F Temperature Increase

Problem:

A large steel strip producer in Pennsylvania could not achieve target temperatures in the radiant tube zones of their continuous annealing furnace. Limited by available heat, line speeds were reduced to stay within process parameters. Consequently, the customer compromised on lower production output.

The customer's operations manager stated, "this was the bottleneck of our manufacturing operation and we could not maintain minimum operating temperatures in zone 1, which meant that we couldn't maintain production speeds we wanted."

Objective:

When PSNergy first met with the customer, the operations manager challenged, "just give me a 10°F increase in zone 1 and I'd be happy."

After evaluating the furnace configuration and application, PSNergy developed a custom product and service solution incorporating PSNergy radiant tube inserts and combustion tuning to maximize efficiency and heat transfer into the furnace.

Jeff Simmons, PSNergy Director of Sales & Marketing, highlighted, "With our directional insert technology, we were confident we could far exceed their expectations. In the end, we did just that, and a whole lot more. The customer is thrilled with their new zone temperatures and production output."

Result:

200°F Increase in Zone Temperature! Working with the customer's maintenance team, PSNergy was on-site to install their radiant tube inserts and tune combustion in the zone, delivering a turnkey product and service package. The results were immediate and significant. The zone temperature increased 200°F and the production bottleneck was eliminated. The improvement in available energy to the load with PSNergy's products and services allowed the customer to increase production output on their heaviest strip by over 40%!

The Operations Manager stated, "I've been here a long time and I can't remember ever making those kind of zone temperatures."

Chris Wyant, PSNergy VP of Technology and DOE Certified Process Heating Specialist, summarized, "What previously was a very inefficient system, is now operating correctly. The installation of the radiant tube inserts maximized tube efficiency by adding a heat transfer media that was previously not available in the exhaust portion of the radiant tube. After proper adjustments were made to the combustion system, burner efficiency was optimized. The outcome resulted in a substantial increase in load efficiency in the furnace."

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