Aerospace Manufacturer Orders Curing Oven

A manufacturer in the aerospace industry took shipment of an electrically heated curing oven with a maximum operating temperature of 400°F. The batch system, which was manufactured by Wisconsin Oven, has sufficient capacity to heat 8,000 lb of steel and 20,000 lb of soluble material from 80 to 350°F at an average rate of 0.1°F per minute.

To maximize heating rates and the temperature uniformity of the product, horizontal and vertical upward airflow are utilized in the mandrel oven. Guaranteed temperature uniformity of ±10°F at setpoints 150, 200, 250, 300, 350 and 400°F was documented with a 15-point temperature uniformity survey in an empty oven chamber under static operating conditions.

The oven also includes a digital temperature controller and a paperless digital recorder with 5.5" graphic touchscreen display.

Pulp Mill Replaces Three Boilers with Large Recovery Boiler

Valmet will deliver a recovery boiler and ash-leaching plant to ITC's Bhadrachalam pulp mill in India. The boiler, which will replace three existing boilers, has a capacity of 2,700 tDS/day and is scheduled for startup in late 2021.

The boiler includes high steam parameters, flue gas heat recovery, combustion air preheating, feed water preheating and vent gas heat recovery. This enables 20 percent higher steam production compared to conventional recovery boilers.

According to Valmet, the boiler is significantly larger than the boilers previously delivered to India and will enable the mill to increase its energy production.

Furnace to Test Fire Resistance for Vertical Elements of Building Structures

A European producer of an aluminum architectural system will utilize an industrial furnace to test the fire resistance for vertical elements of building structures (glazed walls and curtain walls). Seco/Warwick designed a laboratory furnace that will allow Aluprof to test new products like windows, doors and facade systems before launching.

The furnace, which has a maximum temperature of 2192°F (1200°C), has a specialized afterburning system to follow environmental protection requirements.

Dryer/Oven to Cure Magnetic Transformer Windings

A custom dryer/curing oven will be used to cure and heat magnetic windings for an electrical transformer manufacturer in Middlefield, Ohio.

Built and shipped by Benko Products, Sheffield Village, Ohio, the dryer/oven includes a proprietary airflow design, touchscreen display, fume-extracting fan and sensor-break recovery feature. In the event of a sensor failure, the temperature controller will switch instantaneously to the alternative thermocouple to allow the process to complete. The oven offers temperature uniformity of ±10°F, according to Benko.

The system will be used to make low noise transformers, on which the windings must be kept tight. On other designs, the metal windings expand during the curing process, and gaps are introduced that cause the transformers to be noisy. The transformer manufacturer eliminated this problem by applying a DC voltage to the transformer during the curing process. The magnetic field created by the DC voltage pulls the windings together and holds them in place until the curing cycle is complete. This allowed for the construction of significantly lower noise transformers.

HP, Siemens Team to Advance Industrial AM

HP and Siemens expanded their strategic alliance to help customers transform their businesses with industrial additive manufacturing (AM). Siemens and HP will incorporate systems and software innovations, including overall product lifecycle management (PLM), AM factory optimization, industrial 3D printing and data intelligence, manufacturing execution and performance analytics.

The expanded AM solution integrates hardware, software, data intelligence and services to optimize the efficiency of the entire manufacturing process, from design and simulation

through production planning, execution, quality and control.

The integration of HP's Jet Fusion 5200 Series 3D printing solution with Siemens' Digital Enterprise offerings enables industrial companies to bring 3D-printed parts to market faster, more cost-effectively, more sustainably and at higher volumes than before. The announcement was made at Siemens' Additive Manufacturing Experience Center in Erlangen, Germany.

Innovation Campus Includes Eight Application Centers

After a 20 months of construction, Bühler Group opened its Cubic innovation campus with eight Application Centers in Uzwil, Switzerland. The ideas of customers and prototypes are tested in the Application Centers, where they are refined to the point of market maturity.

In its Battery Laboratory, researchers are continuing their efforts to develop a new, continuous process for mixing electrode slurries applied in the manufacture of lithium-ion batteries. In its Grinding and Dispersing Application Center, Bühler is developing wet grinding and dispersion solutions. In its Die-Casting Application Center, five die-casting cells are installed for training operators and for conducting customer tests. Its Grain Technology Center is, according to Bühler, the world's largest grain milling application center at nearly 33,000 ft^2.

Its Nutrition Application Center develops textured vegetable proteins; its Bakery Innovation Center develops fresh bakery products; and its Chocolate Application Center tests flavors and processes for cocoa-based products; the latest pasta is being developed in its Pasta Application Center.

Composite Parts Manufacturer Orders Curing Oven

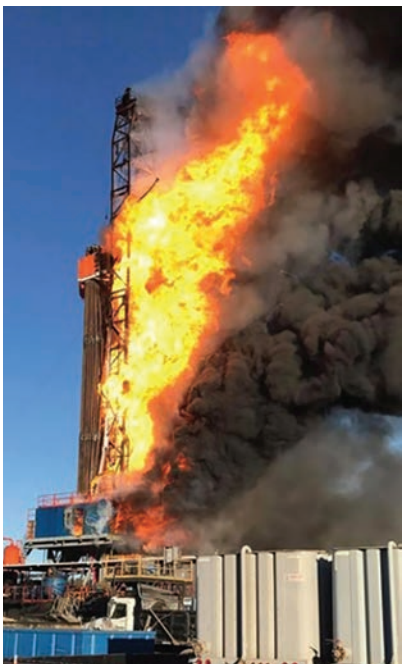
A supplier of composite structures will use a 500°F (260°C), vacuum-assisted composite curing oven to manufacture parts for the aerospace industry.

The electric walk-in oven, supplied by Lewco Inc., includes a top-mounted heater box with 144 kW of heat

capacity. It is equipped with two 20,000-cfm circulation fans delivering dual airflow and providing uniform heat throughout the workspace. The airflow volume of the oven is designed to meet strict temperature uniformity requirements. The oven achieves better than ±5°F at maximum temperature, according to Lewco.

Also included are six vacuum ports, six vacuum transducer ports, 12 Type J thermocouples and an integral vacuum pump. With flammable volatiles present in the workspace, the oven is designed to meet NFPA 86 Class A standards.

CSB Issues Final Report into Fatal Gas Well Blowout



A lack of regulations governing onshore drilling safety as well as shortcomings in safety management systems and industry standards utilized by the industry are among reasons cited for a fatal gas well blowout, says the U.S. Chemical Safety Board. In its final investigation report about the blowout that killed five workers at the Pryor Trust gas well on January 22, 2018, in Pittsburgh County, Okla., the CSB calls on regulators, industry groups, the state of Oklahoma and companies to address such gaps.

The cause of the blowout and rig fire was the failure of two preventive barriers that were intended to be in place to stop a blowout, says the CSB in its report. Those were the primary barrier (hydrostatic pressure in the well produced by drilling mud) and the secondary barrier (human detection of gas flowing into or expanding in the well and activation of the rig's blowout preventer). The report explains that unplanned underbalanced drilling and tripping operations allowed a large quantity of gas to enter the well, and safety-critical operations called "flow checks" — used to determine if gas is in the well — were not performed.

In addition, the CSB found that the drilling contractor failed to maintain an effective alarm system. Likely due

Strand Retires After 33 Years at Wisconsin Oven

After 33 years with the Midwestern oven maker, Dave Strand has retired from Wisconsin Oven, East Troy, Wis.

Strand was hired by Wisconsin Oven Corp. as a shop worker in 1986. In 2019, he retired as president and CEO of Thermal Product Solutions, the parent company of Wisconsin Oven. Strand dedicated his career to the continued growth of Wisconsin Oven, and his presence will be missed by employees, customers and community partners.

When Strand took over as president and CEO of Wisconsin Oven in 2005, he sought to develop a culture that embraced his employees and motivated them to "play like champions" every day. As a result, he created Wisconsin Oven's Work of Champions program and developed a mission statement to inspire and reward employees for going above and beyond.

During his time at Wisconsin Oven, Strand was active in giving back to East Troy and the surrounding communities. As honorary chairman of the United Way of Walworth County, he encouraged local businesses support the 2017 holiday giving campaign, which resulted in more than $15,000 donated. Strand also focused on developing the next generation of talent and promoting careers in manufacturing. He founded an annual scholarship awarded to an East Troy High School graduate going into skilled trades or engineering. He also created the Wisconsin Oven Universal Training Center (WOC-U) in 2018.

The employees of Wisconsin Oven held a retirement party for Strand on June 7 to celebrate his career and contributions to the company.

to excessive "nuisance" or unnecessary alarms, the entire alarm system was disabled by rig personnel. Ultimately, the lack of critical alarms contributed to workers being unaware that flammable gas was entering the well during operations before the incident.

At the time of the blowout, three workers were in the driller's cabin. Two other workers who were on the rig floor ran into the driller's cabin during the blowout and fire. All five were killed.

Learn more at www.csb.gov.

Manufacturing Facility Includes Industrial Oven

Solace Management Group Inc. completed construction of a 7,500 ft^2 manufacturing facility in Coquitlam, British Columbia, that will increase production capacity by up to tenfold. The facility, which will produce pet and consumer healthcare goods, includes an industrial oven.

It also will include advanced blending and mixing systems, rotary depositing, large-volume kettle blending, tincture bottling system and vertical-form-fill product packaging. Solace's research and development team will relocate to the new facility.

Polish Steelmaker Plans Furnace Renovations

A reheating pusher furnace, with an initial production capacity of 90 tons/hour, is integrated into a rolling mill producing merchant bars and rebars at Polish steelmaker Cognor's plant in Krakow. The company contracted Fives to improve the furnace's performance while sustaining production capacity at reduced operational costs.

To reach these goals, Fives will use its proprietary combustion system, AdvanTek technology, which separates the burner capacity control and the flame length control. It also is designed to operate the burners at the optimum capacity at any production rate and operating conditions. As a result, the pusher furnace capacity will be sustained at the designed level, and there will be a 25 percent reduction in fuel consumption.

Work is scheduled to start in March 2020, with the first hot product being produced in the second quarter of 2020.