

# Things are **HEATING UP** in 2015

In this special section, our editors have gathered recent news and information related to the heat treatment of gears. Here you'll find a comprehensive assortment of news and upcoming events that will help you understand the various heat treatment processes available for gears and choose the best option for your projects, whether you heat treat in-house or send your gears to a commercial heat treating provider.

## HEAT TREATING EVENTS

### Ipsen Offers Comprehensive Heat Treatment Course

Ipsen recently held its first Ipsen U class of 2015. The three-day course gives attendees a broad overview of furnace equipment, processes and maintenance. The course provides a hands-on approach to learning while receiving qualified tips and knowledge directly from the experts.

Participants in the February 2015 Ipsen U course came from across the country, including Colorado, Illinois, Michigan, Pennsylvania and Texas. Reflecting on the class, attendees found that it offered a "comprehensive overview of the general construction and mechanics of the furnace," as well as an in-depth look at "the furnace's hot zone and areas to focus on for preventive maintenance."

Throughout the course, attendees were able to:



- Learn about an extensive range of topics – from an introduction to vacuum furnaces and heat treating to furnace subsystems, maintenance and more
- View the different furnace components firsthand while learning how they affect other parts of the furnace and/or specific processes
- Take part in one-on-one discussions with Ipsen experts

- Participate in a leak detection demonstration
- Tour Ipsen's facility

Upcoming Ipsen U courses are scheduled for June 2-4, August 4-6 or October 6-8. Learn more at [IpsenUSA.com/IpsenU](http://IpsenUSA.com/IpsenU).

### ASM Introduction to Heat Treating

This course is designed as a basic introduction to the fundamentals of steel heat treatment and metallurgical processing. It is intended for technicians, sales professionals and managers who are new to heat treating or who need a state-of-the-art update.

Attendees will learn about time-temperature transformation diagrams and

the relationships between phase transformations and microstructure. They will also learn to predict the mechanical properties and microstructures that result from heat treatment. The course covers general aspects of heat treatment, steel mechanical properties, microstructure, austenite and its transformation, the classification of steels, and various

specific types of heat treatment processes, including annealing, normalizing, hardening, tempering and heat treatment of tool steels.

The course is taught by Jon L. Dossett, P.E., a process metallurgist and materials engineer with more than 42 years' experience in practical induction heat treating and who is an expert in thermal processing and other heat treatments.

The next course takes place June 15-17 at the ASM headquarters in Materials Park, OH. The cost is \$1,391 for non-members and \$1,228 for ASM members. For more information, visit [www.asminternational.org/learning/courses/classroom](http://www.asminternational.org/learning/courses/classroom).



## Wall Colmonoy Modern Furnace Brazing School

This hands-on brazing seminar preserves the tradition originated by the late Robert Peaslee, a brazing pioneer who invented the first nickel-based brazing filler metal.

Engineers, technicians, quality managers, production managers, and others will participate in "hands-on" practical applications while learning about brazing technology from leading brazing engineers.



This three-day seminar offers knowledge and practical application on brazing design, metallurgical aspects of brazing operations, brazing equipment, brazing material selection and applications and quality control.

Unlike other *classroom-only* seminars, Brazing School attendees will tour the facility and see the actual brazing application on the shop floor. They will also have the opportunity to apply different forms of filler metal to supplied samples, have them vacuum brazed and discuss the outcomes.

The spring session of Wall Colmonoy's Modern Furnace Brazing School takes place May 5-7, 2015 at Wall Colmonoy Aerobrazo in Cincinnati, Ohio. Cost is \$1,950. For seminar details and registration information, contact Jim Nicoll, Marketing Associate, at [brazingschool@wallcolmonoy.com](mailto:brazingschool@wallcolmonoy.com) or 248.585.6400, ext. 233.



## The Bright World of Metals 2015

The Bright World of Metals, which takes place June 16-20 in Düsseldorf, Germany, consists of four related technology trade fairs. GIFA is the international trade fair for foundry machinery, castings and foundry technology. METEC is the international trade fair for metallurgy, steel casting and steel production. THERMPROCESS is the international trade fair for thermoprocess technology and heat engineering. And NEWCAST is the international trade fair for precision castings.

For more information, visit [www.thermprocess-online.com](http://www.thermprocess-online.com)

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## COMINGS AND GOINGS

### Jason Ackerman Named COO of Seco/Warwick

**Jason Ackerman** has joined SECO/WARWICK Corp. as Chief Operating Officer at the Meadville, Pennsylvania engineering and manufacturing facility. As COO, Ackerman is responsible for the company's day-to-day operat-



ing activities, including project management, purchasing, quality, construction, and manufacturing operations for North America.

Ackerman previously spent 11 years with GE Transportation, serving in a variety of roles of progressing responsibility including Purchasing Manager, Master Black Belt of Lean Six Sigma, and Plant Manager. He graduated from Penn State

University with a degree in Industrial Engineering and an MBA.

### Ipsen Announces New VP of Sales, Patrick McKenna

Ipsen USA announced **Patrick McKenna** as Vice President of Sales. He has replaced Art Tsubaki, who is now Managing Director of Ipsen Japan. Reporting to Geoffrey Somary, CEO of Ipsen USA and COO of Ipsen Group, McKenna is responsible for all new equipment and after-market sales. He is also a member of the Ipsen USA Executive Team and the global Ipsen Group Management Committee.



McKenna earned his bachelor's degree in mechanical engineering (BSME) from the University of Illinois at Chicago and a master's degree in manufacturing engineering (MME) from Northwestern University. Previously, McKenna was Vice President of Nevada Heat Treating, Inc. (including California Brazing), which specializes in the heat treating and brazing of critical components found at the heart of complex machines. As an active member of the company's board of directors since 2002, McKenna was instrumental in their growth, helping the company increase revenues more than 15x.

McKenna has also served on the Metal Treating Institute (MTI) Board of Trustees since 2006 and has held the following positions: President Elect (2015), Treasurer (2014) and Membership Committee Chairperson (2008-2014). In addition, he was selected to serve on the MTI Furnaces North America Technical Program Committee in 2008 and 2010, during which he was chosen both years to be a moderator for their technical sessions. McKenna has received several awards from the MTI, including the President's Award (2014) and the Heat Treater of the Year/Master Craftsman award (2011).





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## Eric Buchanan Joins J.L. Becker as Sales Engineer

J.L. Becker Company has announced the hiring of Eric Buchanan for the position of Sales Engineer. Prior to joining J.L. Becker, Eric gained industry experience working with OEM automotive companies and its suppliers, in both account and quality management roles. He has managed large-scale projects from initial request through launch and serviced both international and domestic accounts.

Buchanan attended Schoolcraft College in Livonia, Michigan, earning multiple degrees along with concentrated coursework in the Applied Sciences of Metallurgy and Material Sciences. He has successfully completed Six Sigma Green Belt Training and Karras Development Courses.

## PRODUCTS

### Grieve Introduces Ovens for Preheating Gears, Job Shop Operations

Grieve Corporation introduces No. 815, a 500°F electric rotary hearth oven, currently in use for preheating gears at a customer's facility.

Workspace dimensions inside this unit measure 76" wide × 76" deep × 24" high. A 72" diameter rotary hearth is constructed from angle rings with 90 1 $\frac{3}{8}$ " wide × 7 $\frac{3}{8}$ " long × 3 $\frac{5}{8}$ " high slots to hold the workpieces on edge while processing. The hearth is driven by a ¼ HP motor through a gear reducer with torque limiting device. The hearth indexes one position each time the loading door is opened and closed.

Two 2,000 CFM, 2 HP recirculating blowers provide a vertical downward airflow over the workload. Special safe-



## MIRA ULTRA Continuous Generating Gear Grinding

TYROLIT's new MIRA Ultra bond system was developed to create superior profile holding properties and at the same time offer the user a decrease in shift from part to part. ULTRA's porous structure minimizes the risk of grinding burns commonly found in generating grinding. This powerful combination allows for decreases in cycle time as well as an increase in parts per dress.



### Benefits of MIRA ULTRA

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ty equipment for handling flammable solvents is featured on this Grieve rotary hearth oven, including a manual reset excess temperature controller, separate heating element control contactors, a 325 CFM powered exhauster, and a purge timer.

No. 815 features an aluminized steel interior and exterior, plus 4" insulated oven walls. The unit was entirely designed, engineered, built and full tested by Grieve.

The No. 979 is a 850°F (454°C), electrically-heated, universal style oven from Grieve, currently used for various machine shop heat treating operations at the customer's facility. Workspace dimensions of this oven measure 36" W x 36" D x 36" H in each of the two compartments. 24 kW (12kW per zone) are installed in Incoloy-sheathed tubular elements to heat the dual oven chambers, while a 600 CFM, ½-HP recirculating blower provides front-to-back universal airflow to the workload in each compartment.

This Grieve universal oven features 6" insulated walls, aluminized steel exterior with enamel finish, Type 304 stainless steel interior, double doors, three roller shelves rated for 200 lb. loading, five nickel plated, 100 lb. capacity shelves in the top chamber, three nickel plated, 100 lb. capacity shelves in the bottom chamber and an integral leg stand.



No. 979 controls include a digital indicating temperature controller for each compartment, recirculating blower airflow safety switches, a 10" diameter circular chart recorder for each compartment to record part temperature and manual reset excess temperature controllers with separate contactors. ⚙️

### For more information:

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Phone: (847) 546-8225  
Fax: (847) 546-9210  
sales@grievcorp.com  
www.grievcorp.com

## OTHER NEWS

### Solar Manufacturing to Provide Large Horizontal Vacuum Furnace to California Affiliate

In order to accommodate its increasing vacuum processing requirements, Solar Atmospheres of Fontana, California recently placed an order with affiliate Solar Manufacturing to supply a large capacity horizontal vacuum heat treating and brazing furnace. This Solar Manufacturing Model HFL-84144-2EQ has a work zone that measures 54" (1371 mm) high x 54" (1372 mm) wide x 144" (3658 mm) deep and is capable of pro-



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- **UNION**, 1984/2011, spindle 110 mm, table type, table 1600 x 1400 mm, latest DRO

### VTLS, DOUBLE COLUMN

- **TITAN**, 1983/2013, faceplate 2000 mm Ø, swing 2200 mm,
- **CNC TITAN**, 1983/2011, faceplate 2500 mm Ø, swing 2700 mm,
- **TITAN** 1987/2012, faceplate 4000 mm Ø, swing 5000 mm,

### GEAR GRINDING

- **CNC REISHAUER RZ 400**, 2002, in state-of-the art, gear-Ø/module 400/8 mm
- **CNC REISHAUER RZ 150**, 2004, gear-Ø/module 150/3 mm
- **CNC REISHAUER RZ 362**, 2000, tested + certified, gear-Ø/module 360/7 mm
- **CNC HÖFLER H 1250+1253**, 1996+1991, tested and certified, gear-Ø/module 1250/25 mm
- **CNC HÖFLER H 2500/3100**, 1994 retrofitted and upgraded with 10 axes CNC, tested and certified. gear-Ø/module 3100/32 mm

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cessing a work load of 30,000 pounds at 2200°F. It is expected that this furnace will increase plant processing capacity by more than 25%.

This furnace is being designed to not only satisfy the normal daily processing requirements, but to also handle larger loads at higher processing temperatures. The furnace will have an operating temperature of up to 2650°F and will be capable of achieving high vacuum. Temperature uniformity will be ±10°F (5°C) between 900°F (482°C) and 2200°F (1204°C).

### For more information:

Solar Manufacturing  
(267) 384-5040  
[pkrs@solarmfg.com](mailto:pkrs@solarmfg.com)  
[www.solarmfg.com](http://www.solarmfg.com)

### Automotive Supplier Invests In New AFC-Holcroft Pusher Equipment

A leading global automotive supplier has placed an order with AFC-Holcroft for a rebuild/retrofit of an existing Pusher Furnace line, along with contract additions for companion ancillary equipment, as part of a multi-phase project.

The first phase rebuild/retrofit portion involves restoration of an existing 3-Row pusher furnace line including: pusher furnace with quench, post washer, temper furnace, and transfers/conveyors, electrical control panels, and flowmeter panels. As part of the order, the existing equipment will receive a number of modifications and upgrades to meet current industrial, safety and supplier standards.

The equipment for rebuild/retrofit is already in storage at AFC-Holcroft's build partner, MATTSA, in San Luis Potosi, Mexico. MATTSA will rebuild/retrofit the existing pusher furnace line and provide the new companion ancillary equipment. Once completed, each piece will be cold-tested and shipped to the supplier's plant for installation, start-up, commissioning and formal operator training by MATTSA and AFC-Holcroft. Completion of the first phase is expected in 2015. ⚙️

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