Ipsen Inc., Cherry Valley, Ill., a manufacturer of custom thermal processing equipment servicing the medical, aerospace, tool & die, commercial heat treatment, energy, and automotive industries, introduced its new compact, high-performance Titan vacuum furnace system, which offers broad application versatility coupled with flexible financial options. Although the company has always offered a standard line of furnace sizes and general specifications, until now it was necessary to engineer and manufacture—one at a time—each vacuum furnace system to meet customer’s specific needs and performance requirements. In today’s economy, there are challenges to this business model:

- Customized manufacturing involves greater assembly cost.
- Customized heat treat equipment can involve long lead times.
- Large vacuum furnaces are inefficient for small loads, can delay processing for critical deliveries, and can compromise margins.
- Current purchase options leave few choices to meet a customer’s cyclical production demands and cash-flow requirements.

Ipsen’s new Titan vacuum furnace system can help make the heat treating process more profitable with improved lead times to end users, less work in process, the ability to customize process demands, and by providing a more energy efficient alternative to running large process loads. Market versatility, operation simplicity, and financial flexibility all add up to greater profitability for the heat treater in a struggling economy.

The Titan complements Ipsen’s existing specification-built equipment with an off-the-shelf vacuum heat treat system specifically designed to reduce lead times and costs for the customer. Titan was developed based on a common design platform. It features process versatility, operational simplicity, and financial flexibility together with excellent production efficiency. This new approach to common platform equipment is said to be significantly more affordable than a comparable custom furnace, and allows Ipsen to ship within 2 weeks after order placement to give the customer an edge on a special project. Titan is able to adapt to customers’ needs and budget. Titan features a total work zone area (less hearth) of 7.75 ft³, and is capable of multiple heat treat processes. With rapid utility hookups and installation within one day, Titan allows companies to quickly respond to short-term project demands. Titan is designed for ease of use, making it perfect for first-time heat treaters and experts alike.

Financial Flexibility
Titan is much less costly than a customized furnace and can be shipped within two weeks after order placement, allowing customers to get into production faster. Sample testing on customer-furnished material is also available. Ipsen offers three financial options to acquire Titan: rent, lease, or purchase. This allows customers to manage their budgets as well as their process requirements. www.ipsenusa.com/titan/99.

CRANKSHAFT INDUCTION HARDENING SYSTEM
Inductoheat Inc.’s (Madison Heights, Mich.) CrankPro system for heat treating crankshafts is a non-rotational induction hardening and tempering machine using its SHarP-C technology, which eliminates the rotation of the crankshaft and movement of the inductor during heating and quenching cycles. The method offers short heat up time (<3 s), low
part distortion, minimal part growth, reduced floor space, and production rates up to 120 parts/h. www.inductoheat.com.

VACUUM HEAT TREATMENT FURNACE
Linn High Therm GmbH, Eschenfelden, Germany, offers KS-480-S furnace with gas-tight muffle for heat treatment processes under protective gas atmosphere up to 1050°C. Applications include soldering and annealing, debinding and sintering and oxidation or reduction of surfaces under controlled atmosphere. Other features include three-zone control, fast cooling, gas quenching, and vacuum up to 800°C. www.linn.de.

IR THERMOMETER
Ircon Inc., Santa Cruz, Calif., introduces an enhanced version of its Modline 5R noncontact infrared thermometer with advanced signal detection and attenuation alarm capabilities. The sensors use a dual detector assembly that measures temperature by comparing infrared radiation levels in two wavelength bands (0.85 to 1.05 mm and 1.0 to 1.1 mm). The Modline 5 Series also provides a new attenuation alarming capability. Attenuation alarm settings are configurable from 5 to 95%. www.ircon.com.

VACUUM VALVES
Key High Vacuum Products Inc., Nesconset, N.Y., introduces a new line of aluminum high-vacuum valves. ISO-MONO valves are manufactured from a single piece of aluminum billet, featuring large bore ISO flanges, high surface finish, and extended duty form bellows assembly. The aluminum valves have excellent thermal properties. Valves are available in right angle and in-line mounting systems, featuring standard ISO flanges (NW16/50) and are available in manual and pneumatic operation. www.keyhigh.com.

EXTERNAL DATA LOGGING SYSTEM
Datapaq, a Fluke company, Wilmington, Mass., released its new XDL12 external data logging system for performing temperature uniformity surveys in batch and vacuum furnaces where external data collection is required. It is available in 12 channels with a combination of up to 3 thermocouple types. The portable system has a rechargeable battery that lasts up to 60 h. XDL12 can be combined with Datapaq’s Insight Survey analysis software to ensure fast, accurate temperature uniformity surveys required by AMS 2750D. www.datapaq.com.

FIRMWARE UPGRADE FOR FLOWMETERS
Waukee Engineering, Milwaukee, Wis., a member of United Process Controls, released a firmware upgrade for its family of Valve-Tronic flowmeters and SAV control valves, which provides improved functionality and control features such as three programmable alarm contacts, high- and low-flow alarms, and diagnostic error codes. The firmware’s programmable logic operation makes it possible to implement alarm functions for more points including Valve Open, Valve Closed, High Flow, Low Flow, Error, and Auto/Manual Mode. www.group-upc.com.

WIRE BRIGHT ANNEALING SYSTEM
Radyne Corp., Milwaukee, Wis., offers its inline oxygen-free copper wire bright annealing system, which maintains a high quality surface finish and interior strength for copper wire by eliminating traces of alkali, minimizing carbon deposition, and stress relieving. The system anneals copper wire in sizes ranging from 10 to 2 gage (0.102 in. to 0.258 in.) in diameter up to 700 ft/min or
faster. The power supply for this application is a TFN induction power source. www.radyne.com.

INTERMITTENT DRESS CONVENTIONAL GRINDING WHEELS
Huffman Corp., Clover, S.C., offers intermittent dress conventional grinding wheels on its standard grinding platforms in addition to plated and vitrified CBN wheels. The highly porous, glass bonded, ceramic wheels offer very aggressive material removal rates. Machines are equipped with static or rotary diamond dressing devices to intermittently touch up the wheel profile. The High Q’ ceramic wheels can be small enough to fit within a multiwheel pack, thereby enabling the system to machine a complete part in one cycle. www.huffmancorp.com.

DUAL CHAMBER FURNACES
Lucifer Furnaces Inc., Warrington, Pa., offers its Red Devil dual chamber furnaces as an economical choice for tool manufacturers wanting to bring their heat treating in-house, and R&D facilities. The hardening chamber situated above the drawing oven minimizes floor space. Chambers are designed to hold 25 lb/ft² of hearth area. The hardening and draw chambers are to 2200 and 1200°F, respectively. Furnaces are available in 4 standard sizes. www.luciferfurnaces.com.

MACHINABLE CARBON-GRAFITE BLANKS
Metallized Carbon Corp., Ossining, N.Y. offers machinable, resin-impregnated, carbon-graphite blanks for mechanical seal primary rings, radial bearings, thrust bearings, case wear rings, and pump vanes. The material has excellent lubricating qualities running in low viscosity liquids between -400 and 500°F. Nearly 50 standard cylinder sizes are available to cover mechanical seal ring and bearing sizes up to ~11 in. OD by 3.125 in. long. Block sizes of 4.625 in. wide by 8 in. long by up to 2 in. thick are also available. www.metcar.com.
LABORATORY INFORMATION MANAGEMENT SYSTEM
PerkinElmer Inc., Waltham, Mass., released its LabWorks LIMS version 6.1, a laboratory information management system (LIMS) with a zero footprint Web client. The system can be implemented with minimal user training and is designed to consistently perform on a wide variety of Web browsers. A workflow that can be configurable allows laboratories to focus on only those process steps that are relevant to a sample lifecycle, allowing greater control over resources without changing the way the laboratory operates. www.perkinelmer.com.

DUPLEX STAINLESS STEEL
Rolled Alloys, Temperance, Mich., added its ZERON 100 super duplex stainless steel (25Cr-7Ni-3.5 Mo plus W and Cu additions) to their North American inventory. Rolled Alloys will carry a full product line, including plate, sheet, bar, pipe, fittings, and welding products. With the addition of ZERON 100, the company now offers a complete line of duplex stainless steels. www.rolledalloys.com.

ELECTRIC CAR BOTTOM SHUTTLE FURNACE
HED International, Ringoes, N.J., introduces its heavy-duty UPK Series of energy saving electric car bottom shuttle/bogie hearth furnaces designed for debinding and sintering and other heat treatment applications. The furnaces use quick cooling and residual heat to provide faster firing and rapid recycling. The furnaces are available with one or more cars or bogie hearths, which are readily accessible. This allows the furnace to be firing one bogie while another is being loaded. The series includes 1000, 1340, and 1400°C (1830, 2445, and 2550°F) models. www.hed.com.

AUTOMATED AIRBLAST PEENING SYSTEM
Wheelabrator group, Burlington, Ontario, Canada, introduces its automated airblast, wheelblast and hybrid peening systems for use in aerospace applications. The system features easy-to-use operator interface and touch screen controls. Blast wheel and numerically controlled nozzle propulsion techniques allow for optimum peening in select areas. Landing gear peening can be accomplished with blast wheels for large external part areas and lance style nozzle (airblast) to target internal areas. www.wheelabratorgroup.com.

TECHNICAL RESOURCES

VACUUM FURNACES
ALD-Holcroft, Wixom, Mich., released an updated brochure detailing its DualTherm vacuum furnace system. The brochure expands the description of the product into a 4-page color format, targeting the aerospace, wind generation, automotive, bearing and tool markets. The DualTherm is a two chamber vacuum furnace with cold chamber high-pressure gas quenching (HPGQ) capabilities to 20 bar. In addition to the print version, the brochure is available for download on the company’s Web site at www.ald-holcroft.com/downloads.aspx.

GAS MASS FLOW CONTROLLER VIDEO
Sierra Instruments Inc., Monterey, Calif., released a new online animated video entitled “Precise Gas Flow Measurement: The Sierra Way.” The 3-minute educational video explains the operating principle of Sierra’s capillary thermal technology. The video is an inside-out description showing the flow path of gas molecules within the mass flow controller and illustrates key technology advantages of capillary thermal flow measurement technology. This and other videos from Sierra are available on Sierra’s Video Library at http://www.sierra-instruments.com/prnews/videos.html

VACUUM TECHNOLOGY BOOK
Pfeiffer Vacuum Inc., Nashua, N.H., a producer of vacuum products and services, released its new catalog, The Vacuum Technology Book. The 800-page, four-color, hardcover reference book and catalog covers the complete range of vacuum technology, including equipment for generating, controlling, and measuring vacuum, as well as accessories and components. A 150-page vacuum technology reference section provides an introduction to vacuum technology. There is also a section that helps with dimensioning questions. www.pfeiffer-vacuum.com.

ASM REFERENCE BOOK
Fatigue and Durability of Metals at High Temperatures
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Price: $237 / ASM Member: $190
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