TMS2007

136th Annual Meeting & Exhibition

Linking Science and Technology for Global Solutions

Exhibition Directory

Bringing you products and services from more than 140 companies!

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Join us for these features on the show floor:

- **Grand Opening Reception Monday 5 to 6 p.m.** Enjoy complimentary food and drinks!
- **Lunch Tuesday or Wednesday noon to 2 p.m.**Use your discount lunch coupons, compliments of Fluor Corporation!
- *Attendee Snack Wednesday noon to 2 p.m.

 Bring your coupon and receive a snack, compliments of

 Buss Chem Tech AG, innovatherm GmbH+Co.KG, and LAEIS GmbH!

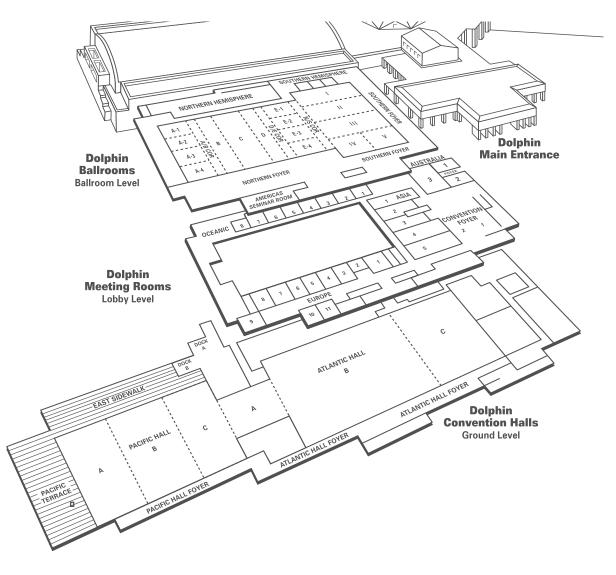
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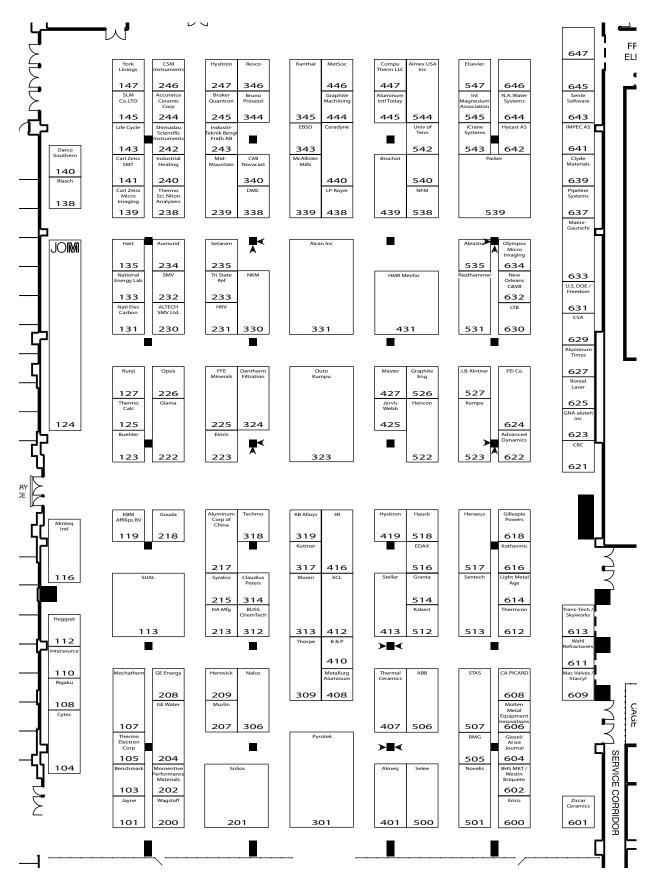


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Company Descriptions

ABB Inc.

See our ad on the back cover! #506 Quebec, Canada www.abb.com/analytical

ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. The ABB group of companies operates in more than 100 countries and employs about 115,000 people. ABB's Analytical and Advanced Solutions business unit designs, manufactures, and markets high-performance analytical system solutions and spectroradiometers for petroleum, chemical, life science, metallurgy, and remote sensing/aerospace markets. Building on its 30 years of experience in analytical instrumentation, the company, through a dedicated team of engineers, offers you the best solutions with its complete range of reliable analytical instruments for inclusions and dissolved hydrogen measurement: AISCAN, LiMCA II, Prefil®-Footprinter, PoDFA, and Metallographic Analysis Service.

Accuratus Ceramic Corporation #244

Phillipsburg, NJ www.accuratus.com

ESK and Accuratus are collaborating to bring the nonferrous and light metal industries high performance Mycrosint Boron Nitride and Boron Nitride composites. Lubricious and resistant to extreme temperatures, thermal shock, corrosion and wetting by molten metals, Boron Nitide is easily machined and can be supplied in stock sizes or finish machined components. Specialty hard ceramic components in a variety of materials will also be featured. Stop by booth 244 to see us. We can help you!

Advanced Dynamics Corporation #622

Quebec, Canada www.advanceddynamics.com

For over four decades, ADCL has supplied our global customer base with state-of-the-art material handling systems for carbon plants and cast houses. Aluminum smelting technology includes fully automated turn-key projects for anode handling and cleaning, ingot handling, sawing, and packaging. Other metals experience includes specialty systems for the magnesium, copper, zinc, steel, and lead industries. ADCL is a one-stop shop for your automated material handling needs including mechanical and controls engineering, fabrication, assembly, testing, and commissioning. Whether you need a new system or upgrades to existing systems or simply individual pieces of equipment, we can help improve your company's productivity.

Alcan Group

See our ad on page 8 of JOM! Montreal, Canada www.alcan.com

Alcan is a multinational, market-driven company and global leader in aluminum and packaging as well as aluminum recycling. With world-class operations in primary aluminum, fabricated aluminum, flexible and specialty packaging, aerospace applications, bauxite mining, and alumina processing, Alcan is positioned to meet and exceed customer needs for innovative solutions and service. Alcan employs 88,000 people with operating facilities in 58 countries and regions. The company owns or has an interest in 26 smelters in 13 countries; it has enhanced its position as a leading low-cost producer of primary metal and is the worldwide leader in smelting technology. Alcan's annual smelter capacity is approximately 3.5 million tons, giving the company the largest share of low-cost capacity in the world. Technological expertise positions Alcan as the global leader and supplier of choice to the aluminum industry.

Aleastur

#535 Aviles Asturias, Spain www.aleastur.com

Founded in the 1980s, Aleastur manufactures a range of grain refiners and master alloys for the aluminum industry. Aleastur concentrates mainly on the production of AITiB alloys in rod. In 2003 Aleastur established Aleastur of America LLC with offices and a central warehouse in Evansville, Indiana, to meet the growing demands of the Canadian and U.S. markets and to demonstrate our commitment by providing enhanced service for products. Aleastur of America LLC maintains local warehousing stock of aluminum grain refiners, master alloys and hardeners (tablets and briquettes) for primary and secondary aluminum smelters, integrated extruders and foundries. Canadian and U.S. sales functions are managed by Aleastur of America LLC having selected distribution points with strategically located warehouses throughout both countries.

Almeq Norway AS #401

Langhus, Norway www.almeg.com

Almeq Norway AS is an engineering, marketing, and production company for a wide range of equipment to the aluminum industry, in particular for smelters and foundries. The company is a leading supplier of its designed equipment as well as an export and marketing partner for other well accepted suppliers. Among machinery engineered and produced in Norway are crucible and tube clean-



ers, pot-liners, and various electric drying and preheating systems. In cooperation with partners in Norway and abroad, Almeq delivers anode and metal transporters, and various potroom equipment. At TMS 2007, Almeq will focus on a new product range for the cast house, which includes metal treatment systems and metal weighing systems. 'We will also show the results of our implementation of 3-D construction tools giving our equipment a new "look."

Almex USA Inc.

#544

Long Beach, California www.almexusa.com

Almex USA Inc. is a leading supplier of aerospace and hard alloy DC casting technology and equipment. The company offers integrated solutions for molten aluminum degassing and purification, casting machines, casting process control systems, and DC casting tooling. Billet casting capabilities range from 75 mm to 1,050 mm diameters and in all alloy groups. Almex, founded in 1990, serves the global light metals industry from Buena Park, California.

ALTECH SMV Ltd.

#230 Kópavogur, Iceland www.altech.is

ALTECH will present some new equipment and systems for the aluminum industry for improved environment, efficiency and economy for anode rodding shops, turnkey anode rodding shops, and special equipment such as: automatic stub straightening machines, rod straightening presses, stub equalizing machine, stub sawing and welding system, thimble removal press, stub protection system, semi-automatic casting machines, electric heaters for heating of ladles, crucibles, stubs and anode holes, and the ALTRACK anode and rod coding and tracking system. For cast house: PPM-purification of potroom metal by automatic skimmer and metal purification injection rotors. We welcome you to visit our booth (#230) at TMS 2007 in Orlando.

Aluminium International Today

Redhill Surrey, United Kingdom www.aluminiumtoday.com

Aluminium International Today is the aluminum industry's leading international publication reporting on aluminum production and processing worldwide. Founded in 1989, the journal has consistently provided a wealth of technical features aimed at equipping producers and processors with information on the latest development. Added to this is a regular digest of industry news, contracts, events, new technology, produce reviews, and conference reports. Supported by the Aluminium Federation in the U.K., Aluminium International Today publishes six times a year in English plus three Chinese language issues and two Russian language issues. It is the main sponsoring publica-

tion for the ALUMINIUM series of exhibitions and conferences in Essen, Chicago, and Shanghai. Truly, the professionals' choice! Aluminium International Today is a subscription magazine. For a specimen sample visit www.aluminiumtoday.com and click on the cover image.

Aluminium Times

#627

Shoreham by Sea, United Kingdom www.mmcpublications.co.uk

Aluminium Times circulates to over 65 countries in Europe and the Middle East with 4,200+ copies each issue; more than any other aluminum journal. Our market includes primary and secondary producers, rollers and extruders, plus other fabricators. From our booth at TMS 2007 and Aluminium Essen, we will distribute our world maps and directories of primary smelters, rolling mills and extruders. Aluminium Times is published five times a year, and its policy is to promote the equipment and supply sector to producers, rollers, and fabricators. Aluminium is freely received by managers involved in the purchase chain based in Europe and the Middle East. Our next show to attend with a booth is Arabal in Egypt.

Aluminum Corporation of China

#217

Beijing, China www.chalco.com.cn

Chinalco (Aluminum Corporation of China) is a backbone state-owned enterprise under the direct leadership of China's Central Government and is the only Chinese company among the world's top 30 nonferrous companies. Chalco (Aluminum Corporation of China Limited) is the subsidiary share-controlled by Chinalco. It is the PRC's largest and the world's second largest producer of alumina, as well as the largest producer of primary aluminum in the PRC. Ranging from mining, alumina refining, aluminum smelting, and downstream fabrication as well as other nonferrous metals such as molybdenum, titanium, and copper, Chinalco and Chalco are proud of their outstanding management teams and aim to be a world-class multi-national resources company in the non-ferrous metals industry with a core business in aluminum.

AUMUND Fördertechnik GmbH

#234

Venlo, The Netherlands www.aumund.de

The AUMUND Group is a worldwide leader and specialist in the design, manufacture and supply of material handling equipment and systems. At TMS 2007, AUMUND Fördertechnik cooling conveyors for hot and cooling lines for hot grabbed bath from the cells for the aluminum industry for improved environment, efficiency, and economy. We welcome you to visit our booth at TMS 2007 in Orlando.

TMS2007 136th Annual Meeting & Exhibition

B&P Process Equipment Systems LLC

See our ad on page 9 of *JOM*! #410

Saginaw, Michigan

www.bpprocess.com

B&P Process Equipment (manufacturers of Baker Perkins machinery) is a supplier of specialized process equipment for the production of carbon paste, energetic materials, plastics, industrial chemicals, and for chemical separation. Many built since the 1930s are still in service. In 1952, the aluminum industry production requirements grew, and the continuous kneader became the preferred method of manufacturing carbon paste. Today, our batch mixers and continuous kneaders are used worldwide in the production of carbon paste. B&P also offers a complete line of continuous pusher centrifuges for liquid/solid separation. B&P also has a joint venture with Battaggion S.R.L., headquartered in Bergamo, Italy, for a broad line of mixing equipment.

Benchmark Automation #103 Cleveland, Ohio

www.benchmarkautomation.com

Benchmark Automation will exhibit the newest version of the Video Capture System (VCS). The VCS stores camera images of your process on a full-featured network-based digital video monitoring and recording system. Designed from the latest technologies, VCS allows users to access live or archived camera images of a process from any PC, anytime. The VCS can be integrated within a process computer, marking each image to a product and length. Installed in manufacturing plants throughout the U.S. and Canada, the VCS has generated significant savings by increasing production, improving quality, and decreasing maintenance costs. Please stop by our booth to learn how the VCS can make your facility more profitable.

BHS Marketing/Western Briquette

See our ad on page 82 of JOM! #602 Salt Lake City, Utah www.bhsmarketing.com

As a producer of soda ash briquettes for the aluminum industry, safety is our main concern. The briquettes reduce the mini-explosions experienced with powder soda ash in the reduction potlines as well as reducing the pH levels. Reducing the potential of your employees getting burned with molten aluminum is a key factor for the briquettes. Better utilization is experienced when using the soda ash briquettes. Consumption levels of the powder is reduced 20–40% when switching over to the briquettes.

Blasch Precision Ceramics

#138

Albany, New York www.blaschceramics.com

Founded in 1979, Blasch Precision Ceramics manufactures complex refractory shapes via a patented injection-molding process. Parts manufactured using this proprietary process have unique qualities that offer distinct advantages such as precise tolerances without machining (± 0.5%), excellent thermal shock resistance, controlled porosity, sub-particle distribution control, and outstanding resistance to spalling, erosion, and metal penetration. Parts intended for aluminum applications are treated with a proprietary non-wetting agent. Whether you need low-pressure stalk tubes, rotary degassers, thermocouple protection tubes, porous plugs, or immersion heater tubes, Blasch can deliver. Our dedicated engineers are available to develop materials and design parts that satisfy customer needs.

Bloom Engineering Co. Inc.

See our ad on page 9 of *JOM*! #313

Pittsburgh, Pennsylvania
www.bloomeng.com

Bloom Engineering, a global combustion company, specializes in problem solving through custom engineering. Product lines include low NOx burner designs, combustion pipe train components, and control systems. Bloom Engineering optimizes the burner combustion pattern required for the application. Burner designs are based on extensive experience obtained in the ferrous and nonferrous industries, development laboratory tests, and computational fluid dynamics design techniques.

Boreal Laser

#625 Spruce Grove, AB, Canada www.boreal-laser.com

Boreal Laser of Canada is the leading supplier of HF monitors to primary aluminum smelters worldwide. GasFinder2 is a portable open path HF monitor used for HF emissions reduction studies and pot line roof monitoring. GasFinderFC is a portable stack or duct HF monitor. GasFinderMC is a fixed, multiple-channel system that monitors multiple open paths and/or ducts or stacks at the same time. Primary benefits of the GasFinder technology are self-calibration, robustness, ease of use, and industry-leading technical support. In the past five years, more than 100 GasFinder HF monitoring systems have been installed in over 30 smelters in 20 countries worldwide.



BROCHOT SA

#439

Tremblay en France, France www.brochot.fr

Active in the light metal industries, BROCHOT designs, manufactures, installs, provides after-sales services and spare parts of special machines—the complete plant. We also provide full turnkey solutions and integrated process solutions. With our three departments, BROCHOT, SYPRIM, BERGER, we propose the full range of equipment necessary for aluminum and magnesium smelters. BROCHOT is a world leader with potrooms—electric pot ramming machines, dross crucible skimming equipment (Ekumax), dross handling equipment (Ekumax); cast house—ingot casting and stacking lines, high throughput dross-free ingot casting wheel; and foundry. We resolve your nightmarish problems with our revolutionary process including full workshop supply or single-piece equipment delivery, among which we have developed a vacuum pressure pouring technology.

Bruker-Quantron

#245

Billerica, Massachusetts www.bruker-axs.com

Bruker-Quantron designs and manufactures optical emission spectrometers (OES) for the analysis of metals. Our range of high-end instruments allows our customers to elevate their business to new levels of quality and process control.

Bruno Presezzi, srl #344 *Milan, Italy* www.brunopresezzi.com

Bruno Presezzi srl, an engineering and manufacturing company established in 1954, located nearby Milan (Italy), will show its long term and extensive experience in the aluminum sector and its technology in twin-roll continuous casting for the production of aluminum strip. After the successful start-up in May 2003 of the first Presezzi caster at the Profilglass plant (Fano, Italy), another complete line was commissioned in AK Aluminium (Konya, Turkey) in October 2005. Two further casters have been commissioned in Profilglass in April/May 2006 and the excellent results achieved with full customer satisfaction which have led to another order from Profilglass for two more complete casting lines to be delivered in March 2007. Presezzi has also been a reliable supplier of CC roll cores and shells for more than 25 years, including a new patented type of rolls assembly. Please visit our booth #344 and visit our web site at www.brunopresezzi.com.

Buehler Ltd.

#123

Lake Bluff, Illinois www.buehler.com

For over half a century, Buehler has been the leading manufacturer of scientific instruments and supplies for cross-sectional analysis. Buehler products are used throughout the world by metallurgical laboratories, quality control departments, and failure analysis facilities for the analysis of all types of materials including ceramics, composites, semi-conductors, metals, rocks and minerals, and plastics. You can visit us in booth #123 or on our web site at www.buehler.com.

Buss ChemTech AG

#312

Switzerland www.buss-ct.com

Buss ChemTech AG is a Swiss-based engineering company offering technology to the primary aluminum producers by providing complete solutions from metering of the raw materials to forming the green anodes. The key equipment is the proprietary Buss Kneader for mixing of the green anode paste. Over the last 50 years some 250 units have been supplied and most of them are still in full operation. This means that more than 50% of the world's primary aluminum is made with anodes that are based on the highly accepted "High Shear Buss Kneader Technology" of Buss ChemTech AG. For more information please contact us directly or see us at our booth No. 312 at the TMS 2007. We are pleased to support you.

C.A. Picard Intl.

#608

Remscheid, Germany www.capicard.com

Carl Aug Picard specializes in manufacturing high quality wear parts for continuous kneaders for the manufacture of green anodes for the primary aluminum industry. Picard manufactures kneading teeth, wearing plates/liners, and screw flights out of different, highly wear-resistant qualities.

C

Carl Zeiss Microlmaging Inc.

See our ad on page 5 of *JOM*! #139

Thornwood, New York www.zeiss.com

Visit Zeiss' booth to experience the new Axio Imager upright digital microscope for routine and research. Highest optical performance is combined with maximum stability, exceptional ergonomy, and integrated intelligence for enhanced operating comfort. Also shown: Axiovert 200 MAT inverted high performance metallograph with brilliant optics, enhanced ergonomics, innovative optical techniques, unshakable stability, and ease of use; LSM 5 PASCAL laser confocal system for surface topography and roughness measurement as well as the new AxioVision 4.3 imaging software for grain size analysis, nodule evaluation/identification, multi-phase analysis, and measurement of dendritic arm spacing.

Carl Zeiss SMT Inc. #141

Thornwood, New York www.smt.zeiss.com/nts

Carl Zeiss SMT offers a complete range of leading-edge technology such as: ultra-high resolutoin GEMINI® FESEMs, multi-purpose and extended-pressure SEMS, energy filtering TEMS, and CrossBeam FIB systems. The ULTRA, based on the SUPRA™ GEMINI® FESM, comprises two high efficiency, high resolution in-column detectors which provides ultra-high resolution simultaneous SE and BSE imaging. In addition, the CrossBeam FIB workstations with the GEMINI® FESEM column enable precise and fast d-D analysis and TEM sample prep.

Ceradyne, Inc. #440 Costa Mesa, California www.ceradyne.com

Ceradyne, Inc. manufactures advanced technical ceramics for industrial, defense, automotive, and medical applications. Properties include light weight, thermal shock resistance, wear resistance, electrical insulating, and chemical inertness. ESK Ceramics, a Ceradyne subsidiary, is a world renown supplier of carbide, boride, and nitride materials and engineered ceramic components for severe environments.

Chongqing Runji Alloy Co. Ltd. #127

Chongqing, People's Republic of China www.runjico.com

We specialize in producing all kinds of alloying tablets. Our production capacity is 30,000MT which is the largest in all of the world. We have

our own manganese metal sources; state-of-art production management, technology, and facilities; and advanced inspection machines. We have the same very competitive prices and high quality as the western producers. We are looking forward to seeing our old customers, new customers, and potential customers at our booth during the exhibition!

Claudius Peters Projects GmbH #314

Buxtehude, Germany www.claudiuspeters.com

Claudius Peters Projects GmbH is headquartered in Buxtehude, Germany, near Hamburg, with regional offices in the Americas, Europe, China, and the Far East. Claudius Peters Projects offers technologies in the field of materials handling and processing, together with turnkey and semi-turnkey systems to a wide range of industries such as aluminum, cement, gypsum and other bulk industries and coal pulverizing and injection systems for the global steel industry. Claudius Peters Projects GmbH is a wholly owned subsidiary of Langley Holdings plc, a privately controlled U.K. engineering group.

Clyde Materials Handling, Inc.

#639 *Milford, Ohio* www.clydematerials.com

Clyde Materials Handling is a customer-driven solutions provider, which strives to transform its metals and minerals customers' production processes. Clyde works closely with its customers to understand their exact requirements and then utilizes its innovative pneumatic conveying and injections technologies with their extensive knowledge of industrial processes to create pioneering solutions which solve problems and generate value. We have developed solutions across the metals market for: Copper concentrate conveying and injection into bath smelting processes; platinum concentrate conveying from flash dryers to storage' conveying and injection of raw materials used in Flash Furnaces; and injection of pulverized coal to zinc fumers.

CMI Novacast, Inc.

#340

Elk Grove, Illinois
www.cminovacast.com

CMI Novacast provides electromagnetic pumps for non-turbulent, fully automated, metered molten-metal delivery to your casting line. Our pumps have no moving parts which cause the turbulence of typical pumps. Our PG-300 pump is utilized in gravity pouring lines where you can have minimal free fall of the molten metal into your molds. The pumps can be used for transfer and for the highest quality castings—our PG-450 pump is ideal for low pressure casting for aluminum and zinc, and will soon have magnesium casting capabilities.



CompuTherm LLC

See our ad on page 12 of *JOM*! #447 *Madison, Wisconsin*www.computherm.com

CompuTherm LLC, with expertise in the thermodynamics of multicomponent alloys, has been providing software, databases and consulting services for industrial and academic uses since 1998. Pandat, a versatile software package for calculating phase diagrams and thermodynamic properties of multi-component systems, has three major features—intelligence, reliability, and a friendly user interface. No initial values are required for any type of complex calculation. Pandat, combined with thermodynamic databases such as PanNi, PanTi, PanFe, PanMg, PanAl, Adamis solder, and Cu alloys (available at CompuTherm), is a powerful tool for alloy design and processing optimization of a variety of advanced materials. We also provide consulting services and develop special functions for customer needs. With Pandat, you know you are calculating the correct phase diagrams!

CSA

#629 Bethesda, Maryland www.csa.com

Named as an EContent top 100 company for 2005, CSA serves as a guide to discovery for researchers. CSA specializes in publishing and distributing more than 100 bibliographic and full-text databases and journals in four primary editorial areas: natural sciences, social sciences, arts & humanities, and technology. Databases are delivered through the CSA Illumina platform, featuring site-wide access with unlimited use of extensive linking capabilities. CSA also provides Ulrich's serials research resources, MultiSearch federated searching, Community of Scholars, and Papers Invited. Researchers in more than 4.000 institutions in 80 countries use CSA's information resources.

CSM Instruments

#246
Needham, Massachusetts
www.csm-instruments.com

CSM Instruments offers a wide range of instruments and testing services for surface mechanical properties characterization, including indentation (hardness and modulus), scratch testing (coating adhesion, fracture and deformation) and tribometers (friction and wear properties). 3D-imaging options are available with the ConScan or AFM objective. The new Open Platform allows several measurement modules to be combined on an automized sample stage for high throughput quality control (multi-sample) applications. Scratch testing is particularly suited to measuring the scratch resistance of automotive clearcoats and interior trim surfaces. Scratch testing allows the fracture mode and viscoelastic properties of the material to be quantitatively evaluated. CSM Instruments is proud to an-

nounce the launch of its new Revetest Xpress Scratch Tester which is designed for automotive quality control applications and meets the new ASTM C1624 standard for adhesion of hard coatings.

Cytec Industries Inc.

See our ad on page 74 of *JOM*! #104

West Patterson, New Jersey www.cytec.com

Cytec's alumina processing chemicals team has delivered breakthrough products for our Bayer Process customers—and there's more to come. From our recently renovated technology center in Stamford, Connecticut, some of the best surface and polymer chemists in the business are overcoming challenges to our customers' expansion and profitability plans. We can help our customers improve yield or production throughput, often without capital expenditures. Cytec is a leader in the development of innovative solutions for the global alumina and mineral processing industry. What can Cytec do for you?

Dantherm Filtration

#324

Thomasville, North Carolina www.danthermfiltration.com

Dantherm Filtration (formerly DISA Systems) specializes in complete, turn-key air filtration systems. We have provided solutions for the metals industry across the world, including: foundry, molding plants, sand plants, charging, iron melting, aluminum smelting, pouring, fettling, and shotblast. Dantherm Filtration utilizes state-of-the-art technology for filter construction, pre-assembly, and filter bag production and our equipment will fit smoothly with your existing equipment. Visit us at booth #324 to discuss how we can help provide for your air filtration needs.

DARCO Southern

#140
Independence, Virginia
www.darcosouthern.com

Darco Southern is a manufacturer/fabricator of high-temperature industrial textile gaskets. Tetraglas (1000F), Vermiculited Tetraglas (1500F) and Tetraglas 3000 (2300F) can be fabricated in a wide range of tadpoles, ropes, heat shields, gaskets, and blankets. The Tetraglas family is heavily used in the aluminum, steel, petrochemical, and power generation sectors.



D

DMC Clad Metal Division

#338

Boulder, Colorado

www.dynamicmaterials.com

DMC is the world's leading manufacturer of explosion welded products. DMC manufactures Detaclad® explosion clad at its Nobel-clad factory in France, it's Nitro Metall factory in Sweden and its Mt. Braddock Clad Metal factory in the U.S. Virtually any metal combination can be welded using the Detaclad® process. High quality clad plates are supplied for the manufacture of autoclaves, pressures vessels, heat exchangers, and tanks. DMC also supplies a large range of bimetal welding transition joints for making fully welded connections of aluminum-to-steel and aluminum-to-copper.

EBSD Analytical, Inc.

See our ad on page 5 of *JOM*! #343 *Lehi, Utah*www.ebsdanalytical.com

EBSD Analytical offers the very best in EBSD services to researchers worldwide. With over 10 years experience in EBSD technique and analysis, and using the very latest in EBSD hardware and software, we provide you with the highest quality data in a short turnaround time. Analysis includes texture, orientation maps, ODFs, grain size/shape, grain boundaries, pole/inverse pole figures, plus much more.

ECL #412 Ronchin, France www.ecl.fr

With more than 46 years experience, ECL is the only smelter equipment manufacturer to be 100% dedicated to the aluminum industry. ECL offers complete solutions for the smelter's reduction sector (PTM, transfer, and pot equipment), carbon sector (FTA cranes, anode handling, and rodding shop), and metal sector. From design to erection, through to maintenance and refurbishment, ECL provides products and services adapted to the needs and demands of its customers, whatever the reduction technology. With subsidiaries in Australia, China, South Africa, Mozambique, Bahrain, and the Netherlands, ECL is committed to providing the highest quality equipment and support to its customers.

EDAX Inc.

See our ad on page 61 of *JOM*! #516 *Mahwah, New Jersey*www.edax.com

EDAX raises the standard as the technical innovator with high performance and functionality that gives you confidence in your results. For many years EDAX has led the industry as the world's largest supplier of EDS, EBSD, and WDS systems and as the technical and performance leader. EDAX-TSL integrated products provide a powerful and unique combination of elemental information from EDS and structural information from EBSD in the EDAX Pegasus, while the EDAX Trident combines the EDS and EBSD capabilities with WDS to provide a complete solution. EDAX continues to raise the standard with advanced and innovative features in an easy-to-use format, providing the best results and tools that assure confidence in those results.

Eirich Machines Inc.

See our ad on page 38 of *JOM*! #223 *Gurnee, Illinois*www.eirichusa.com

Eirich Machines Inc. of Gurnee, Illinois, is a manufacturer of the Eirich Intensive Mixer, noted for the many advantages it provides the metallurgy industries. Eirich has been providing machines and complete plants to the carbon industry for more than 30 years. A constantly growing number of renowned manufacturers of carbon products all over the world are currently using EIRICH equipment. We offer the latest state-of-the-art technology for coke heating, mixing, and re-mixing/cooling of pre-bake and Söderberg anode paste. The capacities of our batchwise and continuous systems range from 10 to nearly 60 tons/hour in a single line. Our latest development is the Eirich Intensive Mixing Cascade (EMC) for the all-intensive preparation of anode paste at the lowest cost and the highest efficiency. For more information on our capabilities, please visit us in booth #223.

Elsevier #547 *New York, New York* www.elsevier.com

Elsevier is a world-leading publisher and information provider. We publish over 2,000 journals and almost 2,000 new books per year, in addition to offering a suite of innovative electronic products, such as ScienceDirect™ and Scopus. We work in partnership with many materials science and engineering societies worldwide, providing benefits which offer value to society members, and tools to help editors, contributors, readers, and members with the latest advances in online submissions, publications, and distribution of their research. Join us at the Elsevier booth for a Scopus demonstration and to receive your Scopus gifts.



Erico Inc. #600 Solon, Ohio www.erico.com

CADWELD® exothermic welding is a process for making large and complex welded electrical connections of aluminum-to-aluminum, copper-to-copper, or copper-to-steel in which no external source of heat, such as electricity or gas, is required. The process produces a permanent molecular bond. CADWELD connections assure that the current-carrying capacity of the connection is equal to or greater than the conductor's, will not loosen in service, prevent the increase of electrical resistance with age, require no maintenance, and can be made to any size or shape of conductors. CADWELD connections can be made in a highly magnetic environment.

FEI Company #624 Hillsboro, Oregon www.feicompany.com

FEI's Tools for Nanotech™, SEM, TEM, and DualBeam™ FIB/SEM instruments are ideal for studies of materials, metals, and minerals, enabling advanced characterization and analysis at nanoscale dimensions. New DualBeam EBSD provides 3-D crystallographic data. FEI SEMs offer imaging and analysis solutions for challenging samples such as powders, polymers, films, carbon nanotubes, nanoparticles, porous and organic materials. Quanta SEM series adds in-situ dynamic experiment capabilities for humidity cycling, stress testing, and high temperature studies. FEI TEMs, known for ease of use, deliver atomic resolution imaging and characterization of materials, with new Titan TEM supporting structural research at the sub-Å scale.

FFE Minerals

#225
Bethlehem, Pennsylvania
www.fls.com

The FLSmidth Group of companies is involved in many aspects of alumina refining and smelting and will present an overview of its technology at the 2007 TMS show. FFE Minerals provides sizing and grinding equipment for bauxite, gas suspension calcinations systems for alumina, and solid liquid calcination systems for liquid purification. FFE also provides complete coke calcinations systems for use in anode production. FLSmidth Airtech provides a wide line of environmental control equipment for particulate and SO2 control including electrostatic precipitators, fabric filters, and semidry scrubbing systems. Moeller Materials Handling provides dense phase conveying systems, direct pot feeding systems, dosing systems for fume treatment centers, and a wide line of bulk unloading and storage equipment.

GE Energy

#208

Kansas City, Missouri www.gepower.com

GE Energy's environmental services team serves minerals, metals, and materials producers worldwide with integrated and flexible emissions control technology and services for the entire system. GE Energy offers the BHA line of baghouse and precipitator air pollution control solutions, as well as CEMS, remote monitoring and diagnostics, ISO certified stack testing, and more. GE evaluates your whole process and applies the right technology to help improve the performance of your existing assets. This creates value by providing cost-effective alternatives to buying new equipment or systems. GE Energy's solutions are designed to minimize operating and maintenance costs, helping provide higher performance for longer periods of time. With GE Energy's offerings, you can simultaneously focus on emissions goals and improved performance to help meet production, maintenance, and profitability goals.

GE Water & Process Technologies #204

Trevose, Pennsylvania www.gewater.com

GE Water & Process Technologies is solving the world's most pressing water, wastewater, and process treatment challenges with advanced solutions for municipal, industrial, agricultural, commercial, and residential applications, while lessening our dependence on fresh water sources. GE's broad portfolio includes chemicals, membranes (RO, NF, UF, MF), membrane bioreactors, electrodialysis reversal, analytical instruments, mobile units, packaged plants, and ancillary equipment. These platforms are tied together with unique enabling technologies and financing. GE delivers value to customers by improving performance and product quality, reducing operating costs, and extending equipment life.

Giesel Verlag GmbH/Aluminium International Journal

#604 Isernhagen, Germany www.giesel.de

Aluminium—international journal for industry, research, and applications—has been the leading international journal (bilingual: German/English) for more than 80 years. It deals with everything concerning materials and their extraction, processing, recycling, and applications. Matters of economics and the ecological consequences of using aluminum are also considered. The scope of the month-by-month reporting includes scientific contributions and condensed information about new technologies and applications. The journal addresses aluminum producers, semis manufacturers, foundries, processors, metal and semis traders and, research institutes concerned with aluminum. Aluminium is circulated in over 40 countries—published in Germany, distributed to the world.

Gillespie & Powers, Inc. #618 St. Louis, Missouri www.gillespiepowers.com

Our special expertise in the furnishing of melting and process equipment is the total quantitative approach to all phases of the design. We take a comprehensive look at our clients' overall process and their end product(s); we listen and assess their needs, goals, concerns and expectations prior to designing a single item. We work closely with our clients to design the equipment that will work for their long-term goals without compromising flexibility in their process. We can offer custom solutions found nowhere in the industry. Let G&P help solve your problems.

GLAMA Maschinenbau GmbH #222 Gladbeck, Germany www.glama.de

GLAMA has designed and built heavy-duty mobile equipment for aluminum potrooms, cast houses, and anode rodding shops throughout the world for more than 40 years. The following types of mobile equipment are available: anode changing vehicles, hammer crust-breakers, tapping trucks, anode pallet transporters, furnace charging machines, furnace tending machines, molten metal carriers, ladle charging trucks, butt cleaning manipulators, and coil lift trucks.

GNA alutech inc.

#623 Saint-Laurent, Canada www.gna.ca

A designer of world-class furnaces and equipment for primary and secondary aluminum producers with offices in Canada and China.

Gouda Vuurvast N.V. #218

Gouda, The Netherlands www.goudavuurvast.nl

Gouda is an innovative refractory producer (bricks and monolithics) with global experience and a long track record of supplying superior quality refractories all over the world, combined with innovative installation technology for more than 100 years. Gouda creates, manufactures, sells, and installs top quality refractory linings. Gouda's solutions play an important role in aluminum, ferrous and non-ferrous metal, petrochemical, environmental, and energy industries. Based on an industry-oriented structure and highly competent employees, we guarantee an optimal support which results in efficiency and reduction of refractory cost. Also Gouda's R&D department is conducted in close co-operation with its customers and renowned research institutes. Gouda's quality assurance is based on the international ISO 9001 standard. Besides our head office in Gouda, we also have sales locations in Australia, Belgium, and Germany. Gouda offers a total care package: manufacturing (refractory bricks, castables, mortar, self-flowing castables, complex pre-cast shapes), engineering, research and development, and installation (several new techniques such as: pumping, shotcreting).

Granta Design, Ltd. #514 Cambridge, United Kingdom www.grantadesign.com

Granta Design helps engineering enterprises such as NASA, Rolls-Royce, Honeywell, and GE-Aviation to manage, analyze, and apply critical materials data, improving quality and efficiency, while reducing risk. As well as enabling you to control and use your own data, Granta offers an extensive range of materials reference data. Granta also supports materials and process education. CES EduPack, our inspirational teaching toolkit, is used at hundreds of universities and colleges. Professor Mike Ashby of Granta and Cambridge University is teaching a short course based on CES EduPack at the TMS 2007 Annual Meeting.



Graphite Engineering & Sales

#526

Greenville, Michigan www.graphite-eng.com

Graphite Engineering & Sales is a customer-oriented company specializing in cutting and machining graphite products. The level of excellence we demand of our quality and service have provided Graphite Engineering with continuing success and growth. Graphite Engineering will have on hand knowledgeable sales engineers to answer any questions you may have. Graphite Engineering specializes in machining graphite per your specifications. Graphite Engineering will be displaying nuts and bolts, brazing fixtures, degassing shaft and rotor, canister inserts, run-out plates, molds, secondary billet casting rings, heating elements, electrodes, crucibles, sintering trays, sintering boats.

Graphite Machining, Inc. #444

Topton, Pennsylvania www.graphicmachininginc.com

When your company needs quality machined graphite parts, put your trust in Graphite Machining, Inc. GMI is an independent machining company with facilities in Topton, PA, Reading, PA, and Metamora, MI. All plants offer state-of-the-art equipment ready to respond to your immediate graphite needs. In addition to machining, GMI offers in-house purification with less than 5 ppm total ash, custom manufactured carbon carbon parts, and pyrolytic graphite up to 5/8 thick. Gas injection nozzles, elements, connectors, feed thrus, hearth assemblies, shaft and rotors, etc. are our specialty. GMI can supply you with most grades of manufactured graphite.

Hamilton Research & Technology Pvt. Ltd.

#135

Kolkata, India www.hamiltonresearch.com

Hamilton Research & Technology Pvt. Ltd. (HART) provides process automation solutions for the aluminum industry. HART's cost-effective technology solutions are available for Söderberg and prebaked pots of various sizes. HART's distributed control system for aluminum smelters uses individual electronic pot controllers (EPC) as distributed control elements connected to a central computer system. Proprietary control algorithm, designed by internationally renowned aluminum experts and developed by Indian software experts, is customized to parameters of individual smelters leading to optimum current efficiency. Systems have been implemented in major aluminum smelters in India (INDAL, HINDALCO, MALCO) and in Russia (SaAZ, BrAZ). HART has implemented a third generation heating regulation system for carbon anode baking plants. Individual controllers control the air inlet, draught, and burner firing to provide accurate adherence to the ideal heating curve.

Hauck Manufacturing Co.

#518

Lebanon, Pennsylvania www.hauckburner.com

Hauck Manufacturing Co. designs, builds, and markets a wide range of combustion products. Hauck burners, blowers, and controls products are key components in industrial heat processing equipment used by most industries utilizing thermal energy. In business for over a century, Hauck has earned an outstanding reputation for its products, and the loyalty of customers nationally and in world markets.

Heggset Engineering AS

#112

Norway www.heggset.no

Heggset Engineering has supplied the aluminum industry with equipment and engineering services for more than 30 years. The company has built a good reputation in the market by providing innovative solutions that are built to last. Please visit www.heggset. no. Cinnova Inc. of Norway is representing Heggset Engineering in worldwide sales and marketing of their innovative technology for aluminum smelters and remelters. Please visit www.cinnova.no. The main focus is on cast-house and anode rodding plant technologies and services. A range of standard products can be supplied, as well as custom built versions. In addition special machines can be developed and supplied based on customer needs.

Hencon BV

#522

Ulft, The Netherlands www.hencon.nl

Backed by more than 50 years of experience, Hencon Holland is a worldwide supplier of Special Mobile Equipment for the aluminum industry. Besides the main plant in The Netherlands, Hencon has production and maintenance facilities in South Africa, Mozambique, and Russia. The delivery program covers the complete range for the potroom and the cast house, such as: furnace charging machines, furnace tending machines, hot metal transport and tilting vehicles, multipurpose vacuum cleaners, anode pallet transporters, tapping trucks, anode changing machines, alumina/fluoride/soda/bath feeding trucks, anode covering trucks, cavity cleaners, crust breakers, anode briquette feeders, rack raising trucks, manifold handling trucks, anode spading/ tamping trucks, side loading forklift trucks, and platform lifting trucks.

Heraeus Electro-Nite Co.

See our ad on page 39 of JOM! #517

Langhorne, Pennsylvania www.electro-nite.heraeus.com

Heraeus Electro-Nite Co., the market leader in molten-metal sensor technology, has introduced the 9 Box Control strategy to many smelters worldwide. This provides a total system for a more efficient cell operation with a stable bath temperature and chemistry control. The incorporation of the Cry-O-Therm superheat sensor, CV-Therm (bath temperature and CVD) and Positherm-AL© (bath temperature) in aluminum reduction cell control have given improved metal production, less energy consumption and longer expected pot life. The Cry-O-Therm system will be on show to demonstrate the measurement of superheat. Also, the Digilance IV AI, the latest technology for bath temperature/CVD measurement, combined with the latest data logging/IR downloading capabilities will be displayed.

Hertwich Engineering #209

Braunau, Austria www.hertwich.com

Based in Braunau, Austria, with an office in the U.S.A., this supplier of equipment to the aluminum industry will be showcasing its entire line of products, including: fully automatic inline and standalone ultrasonic inspection stations, continuous homogenizing and cooling systems ranging from 8,000 tpy up to 160,000 tpy, fully automatic billet sawing and stamping plants, briquetting presses, fully automated billet and log stacking systems complete with bundle manipulation. Newly introduced equipment will include ingot casting lines (water free), contaminated scrap melting furnaces, rotary tilting furnaces and complete compact remelt operations for the processing of extrusion scrap into fully homogenized extrusion billet.

HMR Group AS

Husnes, Norway www.hmr.no

For exactly 50 years HMR Group of 10 companies supplied products, equipment, and engineering advice to the aluminum industry. Our potroom vehicles, anode stud bars, and collector bars are used in all Hydro Aluminium's smelters in Norway. We obtained this position by continuous development of our competence, reliability, and competitiveness. Contact us for information regarding potroom vehicles and equipment, including: tapping, anode changing, pot tending, feeders, spading, crust, breakers, etc.; and pot construction and start-up, including: potshells, superstructures, busbars and flexibles installation, anode stud bars, collector bars, anode yoke and rod assemblies. During TMS 2007 we will feature an upgraded model of a tapping vehicle, which, together with the hot crucible cleaner, tube cleaner,

and siphon pre-heater, form the complete closed tapping system developed by HMR Hydeq together with the drivers and industrial health service to meet the future demand for mobile equipment.

HRV Engineering Group

#231

Reykjavik, Iceland www.hrv.is

HRV Engineering Group is an alliance of three of Iceland's largest and long-established engineering consultants—Hönnun, Rafhönnun, and VST. HRV Engineering Group has played a leading role in a range of local and international construction projects, including Iceland's three aluminum smelter plants. Drawing on extensive professional skills and technical expertise, acquired over decades of operating in some of the world's extreme climates and toughest geological conditions, HRV Engineering Group offers clients the portfolio of services, advice, and solutions required to take any project, regardless of size, from drawing board to completion. These range from prefeasibility and environmental impact assessment, to design, construction and project management. HRV is the EP engineer for the NORDURAL expansion project in Iceland and a partner to Bechtel regarding the new 322,000 ton Alcoa Fjardaal smelter.

Hycast AS

#642

Sunndalsora, Norway

Hycast with its multidiscipline competencies, Hydro Aluminum's research environent and casthouses, form a leading cluster within casthouse technology. Through this cluster, considerable synergies are released. The full-scale research casthouse, located close to Hycast, gives unique possibilities for development, testing and verification of in-line melt treatment and casting technologies.

Hysitron #419/247 *Minneapolis, Minnesota* www.hysitron.com

As the world leader in nanomechanical testing, Hysitron is solely dedicated to the development of testing solutions for nanoscale mechanical characterization. Known as the pioneers of scanning nanoindentation, Hysitron's instruments provide high-speed in-situ SPM imaging, as well as measurement of many mechanical properties, including modulus, hardness, fracture toughness, and wear resistance. Advanced techniques include acoustic emission sensing, dynamic testing (nanoDMA®) and a nanometer resolution Modulus Mapping technique. Higher force indentation and 3D scratch capabilities provide the ability to study micro- to nanoscale connectivity. Stop by and learn about our new products, such as nanoECRTM, which permits simultaneous measurements of current-voltage and force-displacement letting you correlate electrical and mechanical properties of



materials at the nanoscale and our nanoTensile™ 5000, which redefines nanoscale tensile and pull testing with an extended force and displacement range enabled by dual-mode and dynamic operation.

iCrane Systems Inc.

#543

Laval, Quebec, Canada www.iCraneSystems.ca

iCrane Systems Inc. offers custom engineering and fabrication for overhead traveling cranes, semi- and full-gantries, fixed, hoists, monorail cranes, and specialized handling systems.

IMPEC AS

#641 Sogn, Norway www.impec.com

IMPEC AS is a supplier of rodding equipment. The IMPEC group represents 30 years of experience in aluminum smelters. IMPEC has a license agreement with Hydro Aluimnium giving us the possibility to deliver equipment made for Hydro worldwide. IMPEC's rodding shop is characterized by: turn-key systems that ensure system interfaces, flexible capacity, fully scalable, customized and cost efficient. All equipment is field proven, with components chosen by experience. We will present some of our selected equipment, such as our patented stub straightening machine, our grinding machine, and our vision system for butt height measurement, tracking, and toe-in measurement. Improving process efficiency—the IMPEC way.

Industrial Heating Magazine

#240

Pittsburgh, Pennsylvania www.industrialheating.com

Industrial Heating is the leading thermal processing journal in the world. As the industry's largest and most preferred publication, Industrial Heating has over 23,000 monthly subscribers. Written for thermal process engineers, articles deal with nonferrous and ferrous thermal processing technologies and practices. Please come to our booth and take a FREE copy of our publication.

Industries 3R Inc.

#416
Quebec, Canada
www.industries3r.com

A leader in the designing and manufacturing of high-temperature industrial products, Industries 3R owes its fame to 28 years of expertise in research and development. Thanks to the many made-to-measure projects developed by our team, numerous companies protect and maximize the performance of their equipment and their manufactur-

ing processes. Our innovations and expertise enable us to occupy an enviable presence in foundries, aluminum plants, iron and steel manufacturers, pulp and paper mills, petrochemical industries and thermal plants. Over the past years, our products have also met the standards required by contractors specialized in plumbing, heating or insulation, as well as furnace, stove and fireplace manufacturers.

Industri-Teknik Bengt Fridh AB

#243

Skåne, Sweden www.industri-teknikbf.se

Preheating system for cells and bars

innovatherm GmbH+Co.KG

#312

Moers, Germany www.innovatherm.de

innovatherm is a specialized engineering company for firing and combustion technology. At our booth, innovatherm presents the latest products and services for the aluminum industry, mainly comprising: ProClean Optimized Fume Treatment Plants for the aluminum industry; ProBake advanced firing systems for anode baking furnaces; ProCast charging management, target alloy calculation, and melting optimization; and Supervisory Control Systems (SCADA) for primary and secondary Casthouses.

International Magnesium Association #545

Wauconda, Illinois www.intlmag.org

Founded in 1943, the mission of the International Magnesium Association (IMA) is to promote the use of the metal magnesium in material selection and encourage innovative applications of the versatile metal. IMA's members consist of primary producers of the metal, recyclers, foundries, fabricators, end-users and suppliers. The global voice of the magnesium industry, IMA serves the industry and the membership through its Annual World Magnesium Conference, seminars, statistical programs, research and publications. Through IMA's efforts, manufacturers and consumers are increasingly aware of the numerous options and benefits the metal magnesium provides.

InterSource USA, Inc. #110 East Brunswick, New Jersey www.intersourceusa.com

InterSource USA, Inc. is a unique supplier of refractory products. We supply help and sourcing materials for thermal insulation, packing and sealing, heat equipment lining and wrapping, as well as metallurgical applications. Typical products are ceramic fiber materials, graphite products, and refractory bricks. InterSource USA, Inc. is strongly committed to customers with: quality products, reliable services, competitive prices.

J.B. Kintner & Sons, Inc. #527 Pittsburgh, Pennsylvania www.jbkintner.com

Since 1945, J.B. Kintner & Sons has been a trusted source for high-temperature cast and fabricated components for the aluminum industry. A third-generation family business, J.B. Kintner can service immediate needs for remelt requirements such as; ingot molds, dross boxes, soaking pit grates, skim and stir blades, radiant tubes, tap plugs, high-temperature sills, jambs and lentils. Extruders worldwide rely on J.B. Kintner & Sons for the highest quality rollers and racks for gas-fired billet-heater furnaces. In 2005, we celebrated our 60th year in business by never forgetting the customer comes first. Contact us toll free at (800) 248-4280 or online at sales@jbkintner.com.

Jayne Industries

See our ad on page 9 of JOM! #101 Stoney Creek, Ontario, Canada www.jayneindustries.com

Jayne Industries manufactures the complete line of stainless steel V anchors, c clips, studs and threaded products for refractory and ceramic fiber linings. Jayne has provided products and services to the aluminum and other nonferrous and ferrous industries for over 30 years. Hexmesh and accessories, as well as Jayne large volume refractory pan and paddle mixers, are manufactured at our Stoney Creek, Ontario, Canada facility. Jayne also supplies cast alloy castings and Fibercon stainless steel fibers for refractories. Visit our booth (#101) to further discuss your anchor and hardware requirements.

Jervis B. Webb Company #425 Farmington Hills, Michigan www.jerviswebb.com

Jervis B. Webb Company is a recognized leader in the field of custom engineered material handling systems and equipment. Our

full line of integrated material handling products efficiently automates rod/anode assembly, and green or baked anode operations. Our product line includes: automatic guided vehicles, power and free conveyors, roller conveyors, heavy-duty chain conveyors, automated storage and retrieval systems, and custom designed automation equipment. From raw materials handling and transport to anode, molten metal, and cast ingot handling to automated storage of work-in-process and finished product Webb has nearly 50 years of material-handling experience in the aluminum industry.

JOM

Your free issue is included in this program! #124 Warrendale, Pennsylvania www.tms.org

JOM, the monthly technical journal of The Minerals, Metals & Materials Society (TMS), will feature the past, present and future at its booth! Take a glimpse into the past with the Top 10 Greatest Materials Moments in History. View JOM's new online page-turning edition, which brings the print version to life online. And get on board for the launch of Materials Technology@TMS, a new Web-based interface created by TMS to enable materials science and engineering professionals to network, share knowledge and utilize resources in technology-specific communities online. Also, guest speakers from the TMS 50th Anniversary Plenary Breakfast Series will be at the booth from 11 a.m. to 1 p.m. each day to discuss the Greatest Materials Moments and the future of materials science and engineering.

Kabert Industries, Inc.

#512 Villa Park, Illinois www.kabert.com

Since 1960, Kabert Industries, Inc. has been furnishing the aluminum industry with casting supplies. Fiberglass cloth, an inexpensive and effective method of nonferrous molten metal distribution and filtration, is specially woven for the aluminum industry. In addition to roll goods, the cloth can be cut and sewn into mini channel bags, trough socks, and other shapes. Other products available include gaskets, primarily used to seal and insulate troughs. Kabert also is a leading supplier of vacuum formed shapes and board. New product enhancements are routinely developed to improve the overall performance of the products we make. We are proud of our reputation in the aluminum industry. Our total commitment is focused on continuing to offer our customers across the world the latest technology and unparalleled service at competitive rates.



Kanthal #345 Amherst, New York www.kanthal.com

Kanthal is a world-leading producer of high quality electrical resistance heating materials and products. Our product range includes: Kanthal (FeCrAl) and Nikrothal (NiCr) resistance alloys and fabricated systems, Kanthal Super elements (MoSi2 family), Globar elements (SiC), high performance APM and APMT radiant and protection tubes for gas and electric furnaces, Tubothal radiant tube heating elements, Fibrothal and Superthal modular heating systems. For further information contact Chris Clowes (716) 691-4010 or visit www.kanthal.com.

KB Alloys Inc.

#319

Robesonia, Pennsylvania www.kballoys.com

KB Alloys Inc. produces aluminum-based master alloys including TIBOR, TITAL, and TICAR grain refiners, binary hardeners and special purpose alloys, including BORAL, strontium-aluminum, strontium-boron (STROBOR), and beryllium aluminum. The master alloys are available in a variety of convenient-to-use forms including coiled rod, cut rod, and ingot. With the use of statistical process control, KB Alloys controls its processes from alloy conception through all the manufacturing steps, including raw materials, process monitoring and product testing, to on-time delivery of quality products. Anglo Blackwells Ltd. produces strontium-aluminum and other specialty alloys. KB Alloys is the exclusive distributor for NGK Metals' beryllium-aluminum and Bostlan's compacted hardeners. KB Alloys recently announced a joint venture in China with plans to offer products into the Asian market from this operation.

KBM AFFILIPS B.V. #119

Oss, The Netherlands www.kbmaffilips.com

KBM AFFILIPS is dedicated to the development, manufacture, and marketing of specialty master alloys for the metallurgical industry. The company is backed by manufacturing facilities located in the Netherlands (KBM) and Belgium (AFFILIPS). Both KBM and AFFILIPS are fully ISO 9000-ISO 14001 approved and offer the most complete range of master alloys for the metallurgical industry. Products for the aluminum industry include AITiB, AITiC, AIB, AISr as well as a full range of hardeners, tablets, and briquettes (a.o. Cr, Fe, Mn, and Ti). The very complete product range for the copper industry includes products like CuB, CuCo, CuCr, CuFe, CuMg, CuSi, CuTi, and CuZr. KBM AFFIL-IPS is also the right address for NiMg (and complex FeNiMg) additives for super alloy production as well as Pb and Zn master alloys.

Kempe International

#523

Geelong, Victoria, Australia www.kempe.com.au

Kempe International is a leading service and equipment supplier providing turnkey facilities, specialized equipment, engineering consulting, and maintenance support to the worldwide aluminum smelting industry. Kempe offers products and services in a variety of areas including potrooms, cast house, anode handling and cleaning, rodding shop, and materials handling and processing. Kempe has extensive experience in the smelting industry with clients in Australasia, Europe, India, Middle East, North America, South America, and Southern Africa and is keen to work with new clients anywhere in the world. Kempe has permanent operations in Australia, Mozambique, and the United Arab Emirates.

Kuttner LLC

#317

Port Washington, Wisconsin www.kuttnerllc.com

Kuttner LLC is the North American office for Kuttner GmbH, Wuerz GmbH, and Luehr Filter GmbH—all recognized leaders in process controls, heat recovery, and gas cleaning systems for industries discharging hot crude and toxic gases, and particulate matter.

L.P. Royer Inc. #438

Lac-Drolet Quebec, Canada www.lprover.com

Since 1934, L.P. Royer has made and developed specialized safety footwear, even if it is for protection against molten metal infiltration, specialized chemical boots, for extreme cold or simply for general use, available for men or women. L.P. Royer Inc. has the solution to protect feet from injury. With the certification ISO 9001-2000, our products meet the Canadian (CSA), the American (ASTM), and the European (CE) standards. L.P. Royer Inc. is proud to supply potroom boots for all the aluminum companies in Canada and part of Alcoa's group in the United States. You can learn more about L.P. Royer Inc. in visiting our Web site at www.lproyer.com.

LAEIS GmbH

#312 Trier, Germany www.laeis-gmbh.com

LAEIS is a leading supplier of machines and plants for the ceramics and refractories industry, the building materials industry, the carbon industry, and others. The product range includes: Hydraulic high performance presses, kilns and dryers, and automation and handling systems. LAEIS has developed a new concept for a paste preparation and anode pressing plant based on a hydraulic high performance press for a capacity of up to about 50 t/h in a single line, matching the capacity of the best presently available paste preparation lines. The plant is based on a 1600 t vacuum press which is optimally adapted to the anode production requirements and is useful for practically all anode formats which are produced today and in the near future. The new anode pressing technology provides many advantages regarding production capacity, plant availability, anode quality and contributes to a remarkable reduction of the environmental impact.

Life Cycle Engineering #143 Charleston, South Carolina www.LCE.com

Life Cycle Engineering (LCE) is a leading provider of reliability consulting, engineering services, and applied technology solutions that help both government and private enterprises achieve their business goals. Widely recognized as the premier provider of innovative and successfully executed reliability and maintenance solutions worldwide, areas of focus for LCE include: design and engineering, logistics support, information technology applications, program management, change management, education, and holistic implementations of Reliability Excellence (Rx). Founded in 1976, LCE is head-quartered in Charleston, South Carolina with offices nationwide. For more information, please visit www.LCE.com or call 843-744-7110.

Light Metal Age Magazine #614

www.lightmetalage.com

Light Metal Age is the pre-eminent magazine of the light metals world. For over 64 years, Light Metal Age has covered primary production and semifabrication of light metals, primary aluminum, and associated nonferrous industries throughout the world. Circulation goes to smelters, rolling mills, extrusion plants, sheet, rod, and wire mills, foundries, and die casting, anodizing, roll coating, coil coating, and forging operations. Recipients are executives, general managers, plant managers, technicians, metallurgists, chemists, and engineers responsible for fabrication, production, and operation. Some of the editorial topics covered in Light Metal Age include: extrusion process control, aluminum automotive applications, potline technology, direct chill casting, secondary aluminum produc-

tion, casthouse metal quality, anodizing, and rolling mill technology.

LTB Lufttechnik Bayreuth GmbH & Co KG

#630 Goldkronach, Germany www.ltb.de

LTB, located in Bavaria/Germany, is a worldwide leading supplier in the field of turn-key air pollution control equipment for various industries. More than 3,000 installations have been designed, manufactured, and installed by LTB in the last 48 years. In the field of carbon industry LTB developed new solutions for the air purification, especially for VOC's and PAH. For anode and electrode baking furnaces LTB designed a new flue gas treatment system (FTS), consisting of RTO (regenerative thermal and catalytic oxidizer) with prefilter for VOC and condensates, and optional adsorber or scrubber for HF and SO2 removal. For green mill plants and mixers a new heated ductwork system avoids condensates by re-using the energy of the downstream RTO-system. LTB is your partner for fume treatment at anode and electrode manufacturing!

Mac Valves/Starcyl Cylinders Inc.

#609

Champlain, New York www.starcyl.com

Manufacturers of air cylinders and solenoid valves for the aluminum industry.

MAERZ-Gautschi Industrieofenanlagen GmbH

#633

Taegerwilen, Switzerland www.maerz-gautschi.ch

GautschiTM, the Aluminium Division of Maerz-Gautschi, is a leading supplier of equipment for primary aluminum casthouses and recycling plants. The product range includes: Melting and holding furnaces; horizontal D.C. casting plants; open mold ingot casting and stacking plants; vertical D.C. casters for extrusion billets; AIR GLIDE® and AIRSOL VEIL® mold technology; pusher-type furnaces for rolling slab; homogenizing furnaces for extrusion billet and rolling slab; multiple chamber furnaces for coil and foil annealing; and single coil annealing furnaces.



Master Alloys Co.

#427

Wabash, Indiana

www.wabashalloys.com

Master Alloys will be exhibiting its popular 100% pre-weighed hardeners. The elements are packaged in moisture-proof containers. The product is unique in that it is 100% element in powder form, which increases the surface area insuring fast dissolution. Because it is 100%, it reduces inventory and is more economical than other forms of hardeners. Because of the unique packaging, the product is also easy to use, easy to store, has minimum metal contamination, minimum oxidation of melt, and guaranteed composition. Master Alloys also supplies grain refiners and specialty alloys to the aluminum industry.

McAllister Mills, Inc. #339

Chicoutimi, Canada www.mcallistermills.com

Engineers the world over consider McAllister Mills as the premier manufacturer for high heat resistant materials. Several fibers are utilized including fiberglass, Maxsil silica, basalt, rock and our proprietary bio-soluble vitreous silicate fiber. A variety of product forms are available including fabrics, woven tape, braided and knitted rope, braided sleeving, knitted fabrics as well as needled blankets. It is our goal to help our customers provide the best solutions for their specialized high-temperature applications. McAllister Mills will provide unique solutions for your aluminum processes including furnace/oven door seals, coil pads for annealing furnaces, launder covers, port and peep sets, insulation kits, insulation pads, high temperature blanket cut to special shape, furnace curtains, and many more.

MECFOR Inc. #431

Chicoutimi, Quebec, Canada www.mecfor.com

MECFOR, a Canada-based corporation, designs, fabricates, and supports specialized vehicles and process equipment for the primary and secondary aluminum industry worldwide. Our understanding of the aluminum production processes makes us an excellent turnkey project partner as we can actively and effectively participate in the determination of the best global equipment solution with our client. Our focus being the aluminum industry, all of our personnel clearly understand the harsh working environment of smelters, and our equipment is designed accordingly. We specialize in multifunctional cast house vehicles, bath crucible handlers, anode and crucible haulers, underpot cleaning vehicles, as well as anode grooving machines and other custom process equipment.

Mechatherm International Ltd.

#107

Kingswinford, West Midlands, United Kingdom www.mechatherm.co.uk

Mechatherm, privately owned and formed in 1973, has developed a worldwide reputation specializing in furnaces for aluminum, copper, and brass industries. The product range: aluminum foundry–melting and holding, rotary, scrap charging machines, vertical d.c. casting machines, turnkey foundry installations; aluminum extrusion–log heaters and shears, ageing ovens, automatic ageing oven basket handling systems and die ovens; aluminum heat treatment–air recirculated furnaces; aluminum dross reclamation–a joint venture with Jesse Brough Metals, custom designed for the dross to be recycled—the full range of dross recycling plants include refining and separation into useable products and remelting of aluminum metallics; copper and brass extrusion–gas-fired billet heating furnaces, roller hearth, and walking beam.

Metallurg Aluminium

#408

Rotherham, South Yorkshire, United Kingdom www.MetallurgAl.com

Metallurg Aluminium, a dynamic, multilingual and multicultural organization, combines the strengths of its members, London & Scandinavian Metallurgical Co. Limited (LSM) and Companhia Industrial Fluminense (CIF). With its two manufacturing facilities located in the U.K. and Brazil, its professional worldwide sales force and global distribution network, Metallurg Aluminium provides global solutions that turn today's ideas into tomorrow's innovations. Its diversified product portfolio includes aluminum grain refiners, master alloys, metal treatment and modification alloys, hardeners (including compacted powder products), powders, and rod feeding and decoiling equipment. We invite you to visit the Metallurg Aluminium booth for the latest information on our products and services and how they can be used in your applications to improve yields and lower costs. Metallurg Aluminium - a long-time proud supporter of TMS!

Metallurgical Society of CIM (MetSoc) #446

Montreal, Canada www.cim.org

The Metallurgical Society (MetSoc) of the Canadian Institute of Mining, Metallurgy and Petroleum was formed in 1967 under the umbrella of CIM to serve the needs of all Canadian metallurgists working to transform ores to metals and other useful commercial products. MetSoc, 1,200 strong, provides an open forum for engineers, scientists and technical personnel, and students to exchange and share new knowledge. MetSoc also acts as a catalyst in enhancing the growth of its members who are engaged in all phases of the minerals, metals and materials industry. To enhance the exchange of information MetSoc publishes a number of proceedings that touch a number of topics including: copper, hydrometallurgy, pyrometallurgy, magnesium technology, mineral processing, nickel-cobalt, economics and markets, sustainable development, process control and optimization, fabrication and downstream applications, light metals, advanced steels, aerospace materials and manufacturing, and management in metallurgy. MetSoc would like to take this opportunity to invite you to visit booth #446.

Mid-Mountain Materials Inc. #239

Mercer Island, Washington www.mid-mountain.com

Mid-Mountain Materials Inc., dedicated to the aluminum industry for 30 years, provides industrial textiles that enable the industry to move toward energy efficiency and environmental compliance. Our engineered sealing systems use our proprietary ARMATEX® QF refractory coated textiles. We custom design systems for reduction cells that aid in energy conservation, contain unwanted pollutants, and maximize pollution control equipment. In addition to our ARMATEX® coated fabrics, other thermal barrier products in our high performance textile and insulation product lines include: thermal insulation materials, engineered fabricated components, leached silica cloth, and refractory specialties for use in carbon bake and cast house areas for fuel efficiency, safety and maintenance.

MINTEQ International Inc. #116

Slippery Rock, Pennsylvania www.minteq.com

MINTEQ International Inc. is one of the world's largest producers of monolithic and specialty refractory lining systems for the steel, aluminum, cement, glass, and power generation industries. MINTEQ is a resource- and technology-based company with manufacturing, and research and development facilities around the globe. An industry leader at developing and introducing new and innovative technologies to the aluminum industry, MINTEQ's OPTISHOT™ AL and FAST

FIRE™ AL shotcrete castable lining systems provide aluminum producers with the most durable refractory maintenance lining systems in the marketplace. The OPTISHOT™ AL and FAST FIRE™ AL lining systems also provide the fastest refractory installation method to rebuild and construct complete new furnaces without extensive engineering, complicated placement techniques, and extensive lead times.

Momentive Performance Materials (formerly GE Advanced Materials)

#202

Cleveland, Ohio www.momentive.com

Momentive Performance Materials (formerly GE Advanced Materials) is a leading producer of advanced ceramic (nonoxide) powders, and hot-pressed and chemically-vapor-deposited shapes. Momentive produces boron nitride powders, coatings, hot-pressed shapes, and composites for metallurgical and other applications. Boron nitride coatings are non-wetting and inert with aluminum, magnesium, and related alloys and drosses, and provide outstanding lubricity and refractory properties. Innovative boron nitride solids and composites possess unique properties including outstanding release, wear resistance, and inertness in aggressive environments, which make them broadly useful for metallurgical processes.

Murlin Chemical Inc.

#207

West Conshohocken, Pennsylvania www.murlinchemical.com

Bone ash is the premier instrument in providing consistent protection in its application to molds, refractory troughs, surfaces, dross bins, ladles, or any other tools that are exposed to the hostile properties of molten metals. Bone ash also acts as a thermal barrier to further protect against any damage caused by the intense temperatures found with molten metals. Bone ash may be applied as an aqueous slurry, dry powder, or any other method available to coat your exposed surfaces. Murlin Chemical Incorporated has partnered with the non-ferrous metals industry in the manufacture of the industry's premium mold release agents. Located in West Conshohocken, PA, we produce aluminum grade natural bone ash, natural bone ash, and synthetic bone ash. These products are accepted worldwide and have been universally accepted for more than 25 years. To learn more, please stop by and visit us at booth 207. We will be delighted to introduce ourselves.

Nalco Company

#306
Naperville, Illinois
www.nalco.com

Nalco Company is the world's largest water and process chemicals and services provider to industrial end markets. We serve compa-



nies across a broad spectrum of industries and offer a wide range of programs to help customers improve their efficiency and productivity in an environmentally responsible manner. Our products and services focus is on improving overall plant economics, optimizing equipment efficiency, addressing compliance issues, and increasing operator capabilities and effectiveness. To ensure that our approach to your business is comprehensive, we carefully monitor interactions between the mechanical, operational, and chemical aspects of your system. From mine to metals, Nalco is your total solution provider.

National Electrical Carbon #131

Fostoria, Ohio www.morgancarbon.com

Morgan Carbon's National Electrical Carbon Products site, located in Fostoria, OH, is a producer of one of the broadest ranges of carbon and graphite products in the world. A number of these products are widely used in the metallurgical industry, including flux/injection tubes, pump shafts, rotor heads, porous carbon and graphite for filters and gas diffusers, and electrical brush block. National's Greenville, SC facility uses the brush block to produce carbon brushes for a variety of process-critical electric motors. National has a long history of quality service to several major metallurgical accounts and various suppliers to the industry.

National Energy Technology Laboratory

#133 Albany, Oregon www.netl.doe.gov

The National Energy Technology Laboratory (NETL) is a national laboratory dedicated to fossil energy that is owned and operated by the U.S. Department of Energy. The four major research focus areas that comprise NETL's Office of Research and Development are: energy system dynamics, geological and environmental systems associated with fossil fuels, computational and basic sciences, and materials science which specializes in life cycle research of most metals, alloys, and ceramics. NETL's onsite research & development helps industrial and academic partners solve problems that would otherwise become barriers to commercializing power systems, fuels, and environmental and waste management technologies.

National Filter Media

#538 Salt Lake City, Utah www.nfm-filter.com

In 100 years, National Filter Media has become one of the world's largest filter media companies. NFM makes filtration products for vacuum filters, pressure filters, and dust collectors. NFM also provides OEM filter replacement parts and consulting services. Our filter

frames for the alumina industry have become the industry standard by dramatically increasing flow on the press floor. NFM has also developed new fabrics that are increasing filter life by 150%. Today's metals market is expanding and changing. Companies must get maximum output while maintaining quality. NFM's experts work to help their customers take advantage of today's newest technologies.

New Orleans Convention & Visitors Bureau

#632

New Orleans, Louisiana
www.neworleanscvb.com

Visit this booth to find out about the new New Orleans and all the great places to visit at the TMS 2008 Annual Meeting & Exhibition!

NKM Noell Special Cranes GmbH

#330

Wurzburg, Germany www.nkm.com

NKM Noell is a leading supplier of cranes and special equipment to the aluminum industry for reduction, carbon, and rodding. Our supply covers the complete engineering, detail design, manufacturing, start-up, and commissioning for individual equipment and turnkey projects. These may include items for aluminum reduction—pot tending cranes, anode jacking frames, transfer gantry systems, cathode crane, crucible heaters, crucible and pipe cleaning machines, anode clamps; aluminum carbon—furnace tending cranes, flue wall brushing and straightening machines, anode stacker cranes; and aluminum rodding—green and baked anode handling, casting and mating stations, stem and pin monitoring, stem brushing and repair, butt precleaning and stripper, butt handling/treatment, bath handling/treatment, loading/unloading stations.

North American Manufacturing Company Ltd.

#213 Cleveland, Ohio www.namfg.com

North American Manufacturing is a solution provider for combustion and process control systems. The company produces and sells combustion hardware as well as complete systems including installation drawings and complete control systems. North American has been providing systems for the aluminum industry for more than 40 years, specializing in energy savings, emissions reduction, and melt rate optimization.

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Novelis #501 Voreppe, France www.pae.novelis.com

Novelis PAE is recognized as an expert by aluminum professionals. This company supplies equipment for continuous strip casting (JUMBO 3C and JUMBO 3CM), in-line molten metal treatment (ALPUR, JETCLEANER, PDBF, CFF), automatic slab casting (DC casting machines, molds, automation system). NOVELIS PAE offers also extended after-sales services including sales of spares and consumables, and on-site technical support. Numerous cast houses have already placed their trust in its technology. From the engineering studies at the start of your project through successful completion including construction, supervision of installation, start-up, and staff training, you will benefit from Novelis PAE's experience and professionalism.

Olympus Micro-Imaging Division #634

Orangeburg, New York www.olympusmicroimaging.com

Olympus Industrial America offers a wide range of industrial microscopes and micro-imaging systems for advanced materials analysis, metallographic and other precision applications. Our high quality inverted metallurgical microscope, the GX71, is designed to allow for the simple and easy positioning of a sample. You can easily observe and measure the size of grains, the phase or state of formation by combining a digital imaging system such as the Olympus DP25 digital camera and the Olympus Discover Series Software. The new Olympus RX20 digital video microscope is designed with and all-inone display unit that contains all the necessary functions in a body measuring just 4 cm thick and weighing less than 4 kg. When combined with the versatile zoom optics and LED ring illuminator you have a simple system that can be used to image almost any surface.

Opsis AB #226 San Marcos, California www.opsis.se

Opsis Inc. is the North American supplier of open-path monitoring systems for air quality monitoring, continuous emissions monitoring (CEM), and process control. The ultraviolet DOAS technology, developed by Opsis, has received international approvals and provides customers with system solutions for several applications. All systems feature dynamic calibration capability and simple hardware configurations. The ambient system is an EPA approved equivalent method for SO2, NO2 and O3. Other Opsis benefits include DOAS system packages, automatic monitoring systems, multigas and multipath systems, fast and continuous measurements, modular construction and simple report generations. Opsis equipment applications include trend monitoring, street level air quality monitoring,

and fugitive emissions fence line monitoring among many others.

Outokumpu Technology Ltd.

See our ad on the inside front cover! #323

Burlington, Ontario, Canada

www.outokumputechnology.com

In 2001 Outokumpu, a leading global metals and technology group, expanded its offerings to the alumina and aluminum industries. Outokumpu Technology specializes in the design, engineering, and delivery of alumina calcining plants (Lurgi Metallurgie), paste plants (KHD Aluminium Technology), rodding shops (Aisco and KHD Aluminium Technology), and casting machines (Aisco). Outokumpu's long-term commitment to the metals industries, combined with the technologies of these three reputed suppliers, positions Outokumpu Technology to be the technology and service partner of choice for the aluminum industry. E-mail: aluminum.technology@outokumpu.com

Parker Hannifin

#539 Cleveland, Ohio www.parker.com

Parker is the world's leading diversified manufacturer of motion and control technologies and systems. Parker provides precision engineered solutions for a variety of commercial mobile, industrial and aerospace markets. We design and manufacture optimal systems using fluid connectors, hydraulics, pneumatics, instrumentation, refrigeration, filters, electromechanical components, and seals required in motion-control systems. Parker's experience in the aluminum industry spans more than 30 years. Parker has equipped machinery in all phases of aluminum production including smelters, casters, and extruders through grinders, rolling mills, and strip processing lines, etc.

Pipeline Systems Incorporated

See our ad on page 63 of *JOM*! #637

Concord, California
www.pipesys.com

Pipeline Systems Incorporated (PSI), established in 1979, is one of the world's leading engineering companies specializing in design of slurry transportation systems. Specialty services include laboratory analysis, steady state and transient hydraulic design, pipeline route selection, evaluation of the hydraulics for complex high pressure piping systems and/or non-Newtonian fluids, pipeline material selection, mainline pump design and selection, computer modeling, SCADA, telecommunications systems. PSI is a CSIA certified engineering company offering integration, implementation, maintenance, and support services for plant automation and control systems. PSI is able to provide total solutions that integrate control and informa-



tion systems using a broad spectrum of products and manufacturers including software, hardware, communications, and the internet.

Pyrotek Inc.

#301 Spokane, Washington www.pyrotek.info

From concept to casting, Pyrotek partners with you to improve process performance through enhanced melt quality and metal processing. Pyrotek's technical experts are experienced in every aspect of aluminum production, from primary and secondary smelting, to holding, degassing, filtration and casting. Pyrotek's Metaullics and EMP Technologies divisions provide products and services that improve productivity, reduce energy consumption, increase metal recovery, and improve product quality. As your supply partner, Pyrotek helps you utilize advancements in technologies and products to better your bottom line. Visit Pyrotek at TMS 2007 to discuss how Pyrotek's solutions can improve your aluminum process.

Resco Products

#346
Pittsburgh, Pennsylvania
www.rescoproducts.com

Resco Products manufactures pressed and monolithic refractories for the molten metals and mineral processing industries. These refractories are painstakingly engineered to deliver exactly what they promise: greater dependability, longer application life, easier installation, lower energy costs, lower maintenance costs, and reduced downtime. The focus at Resco is to increase our customers' productivity and profitability.

Rex Materials Inc.

#505
Fowlerville, Michigan
www.rexmaterials.com

Rex Materials has emerged as a world leader in helping our customers solve their heat containment problems. We specialize in developing and delivering products that solve specific customer needs utilizing our custom-engineered high-temperature material systems and refractory products. Our materials include Pyrolite® ceramic fiber, FUSIO2N™ fused silica and Pyroform™ refractory. Rex Materials has two manufacturing facilities along with a separate design, tooling, and prototype center. We have a team of engineers, designers, and material scientists ready to help you solve your heat dilemma. From high-temperature insulation to molten metal handling systems to specialty heaters, we deliver solutions.

Riedhammer GmbH

#531

Nuremberg, Germany www.riedhammer.de

Since 1925, Riedhammer GmbH has specialized in the design and construction of high productive, state-of-the-art ring pit furnaces for baking of high quality anodes and cathodes for the aluminum industry, as well as electrodes for the steel industry. More than 105 furnaces, in 25 different countries, have been built or modernized based on this concept. Riedhammer also supplies the pertinent equipment for the aforesaid furnaces like the Auto Firing System for a wide range of fuels, waste gas treatment systems, tending cranes, and conveyors, and provides outstanding product quality, maximum fuel efficiency, reliability, and world-class environmental friendliness in an affordable way.

Rigaku Americas Corp.

See our ad on page 28 of *JOM*! #108
The Woodlands, Texas

www.rigaku.com

Rigaku is the world's largest analytical x-ray instrument producer. Founded in 1951, the company manufactures analytical x-ray hardware and software, as well as performing contract research. Rigaku Americas acts as a distributor and manufacturer for all of Rigaku's product lines (including single crystal and general x-ray diffraction, x-ray fluorescence, crystallization automation, vacuum products, and semiconductor metrology) throughout the world. With a passion for quality, keen attention to details, and a constant striving for perfection, Rigaku has the technical strength and resources to continue providing innovative and reliable products for the crystallographic community far into the future.

SELEE Corporation

#500

Hendersonville, North Carolina www.selee.com

SELEE Corporation, born as a division of an international aluminum company, introduced ceramic foam filters of SELEE structure as a medium for filtering molten aluminum in the 1970s. SELEE immediately established a reputation as the world leader in aluminum melt treatment and filtration technology and for ceramic material development and innovation. SELEE Corporation is dedicated to new product development, continuous improvement, and innovation, always building on its strong background in the aluminum industry. In the aluminum industry, SELEE is key to achieving the highest levels of metal cleanliness and quality. SELEE is the only supplier of molten metal handling and treatment products in the world that is certified to ISO 9001 and ISO 14001 standards.

SenTech Precimeter Inc.

See our ad on page 20 of JOM! Gothenburg, Sweden www.precimeter.se

SenTech Precimeter Inc. develops, markets, and manufactures equipment for metal level control in non ferrous cast houses. These systems can be used in a variety of applications such as level control for mold and head box, level control for through and launder, and furnace tilt control. SenTech Precimeters digital camera level control system safeguards the quality of the casting and the purity of the alloy at every stage from smelting to final pouring. The sensor and actuators combined with a controller form a complete control system for your casting needs.

Setaram Engineering

#235 Caluire. France www.setaram.com

For more than 30 years, Setaram has been producing anode baking furnace firing and regulating systems for the aluminum industry. The Setaram Firing Systems are available for any type of ring furnace (open or closed type) and for any type of fuel (light or heavy fuel oil, natural gas, coal gas, or LPG). Setaram proposes a complete hardware and software package to control and monitor the whole anode baking process through the following functions: central regulation, real time supervision and data management. The heating programming and regulating techniques are operating in aluminum plants all over the world. Dedicated to constantly improving our technology, Setaram Firing Systems set the standards for the industry.

Shimadzu Scientific Instruments, Inc.

#242 Columbia, Maryland www.ssi.shimadzu.com

Shimadzu, one of the world's largest manufacturers of scientific, analytical and environmental testing equipment, will show a wide range of hardness testers and tensile testers for both static and dynamic testing. Shimadzu provides every type of instrument for destructive and nondestructive testing and composition analysis.

SLM Co. Ltd. #145 Incheon, Korea www.alalloys.com

SMV AS

#232 Norway www.smv.as

At TMS 2007, SMV AS will present new equipment and systems for the aluminum industry for improved environment, efficiency, and economy. Our line of products includes: for potrooms-special crushers and cooling lines for hot grabbed bath from the cells; special vehicles for transport of anode pallets, metal crucibles and potshells; vacuum cleaners, cell service wagons, spike removal machines, cell cavity cleaners, cell feeders, anode changers, etc.; for cathode service shops-semiautomatic potlining machines; and for the cast house-PPM-purification of potroom metal by automatic skimmers and metal purification stations. We welcome you to visit our booth, #232.

SOLIOS Group

#201

Saint Germain en Laye, France www.solios.com

SOLIOS is a group of engineering companies working together to develop new process and equipment for aluminum activity. We can introduce SOLIOS in three words: experience, innovation and service. SOLIOS is at the heart of the sustainable development of the aluminum industry.

Springer

Located in the lobby level sales area New York, New York www.springer.com

Springer is one of the most renowned scientific publishing companies in the world. Under the brand, "Springer," the worldwide publishing houses produce more than 3,500 new books and 1,250 journals each year. Our publications include top-quality journals, essential reference works, authoritative monographs and text books. As ever, we are committed to open communication and collaboration. Whether you are an established author or a promising newcomer, proposals, comments and ideas are always welcome.

STAS

#507

Chicoutimi, Quebec, Canada www.stas-unigec.com

STAS, based in Quebec, Canada, continues to develop degassers, filters, and flux injectors for the aluminum industry following 25 years of successful applications in more than 30 countries worldwide. STAS is well-known for its automated equipment used in metal treatment for both primary and secondary plants. For example, there continues to be a need to reduce alkalines in crucibles (TAC), to remove hydrogen and inclusions from molten metal in casting centers, with



or without chlorine. Available from STAS are automated hot and cold crucible cleaning machines, and automated siphon tube cleaners. A new development is to automate anode handling in the potroom.

ing frames (automatic, cold and hot frames), anode rod clamps, crucible cleaning machines, tube cleaning machines and more.

Stellar Materials Inc.

#413

Tarpon Springs, Florida www.stellarmaterials.com

Stellar Materials is the manufacturer of Thermbond® refractories and Phoscrete® concretes. Our refractory formulations are non-wetting and heat up rapidly. Both our concretes and refractories are fast setting and bond permanently to existing substrates, thanks to our patented binder technology.

SUAL Group

See our ad on the inside back cover! #113

Moscow, Russia
www.sual.com

SUAL Group is a fully vertically integrated aluminum company that ranks amongst the world's top ten aluminum producers. It comprises 20 businesses that are spread across nine regions of Russia and the city of Zaporozhye, Ukraine. Together they are involved in the production of bauxite, alumina, primary aluminum, silicon, and semi-finished and finished aluminum products. The Siberian-Ural Aluminium Company was formed in 1996 by a merger between the Irkutsk and Ural Aluminium smelters. Since then, SUAL has grown through a series of acquisitions that have improved its operating efficiency while ensuring that it produces enough raw materials to meet the Group's evolving production needs. Annually, SUAL Group mines over 5.4 million tonnes of bauxite (84% of Russian output), refines about 2.3 million tonnes of alumina (63% of Russian output), and manufactures over 1 million tonnes of primary aluminum (26% of Russian output).

SYRALCO

#215 Haarlem, Netherlands www.syralco.com

SYRALCO (formally Wienalco) is formed around a group of experts with decades of experience in the aluminum industry. SYRALCO serves the industry with a wide range of aluminum smelter, carbon baking, and graphitizing industry-dedicated machines. Modernization in existing smelters and baking furnaces is our special expertise. Improvement of labor working conditions, improvements on machines efficiencies—including adding new operation tools—are recognized to be most valuable. The scope of supply comprises: pot tending machines (prebake, Söderberg, radio, and cab control), anode baking furnace, tending machines (as well as stationary vacuum installations), crane transfer systems (gantry, lifting beams, retractable buffers), cathode removal cranes, anode jack-

Taylor & Francis Group/CRC Press #621

Boca Raton, Florida www.crcpress.com

Founded as the Chemical Rubber Company, CRC originally manufactured and distributed laboratory supplies for chemists. It first distributed its Handbook of Chemistry and Physics free as a bonus incentive to customers who purchased a rubber apron, one of the company's signature items. Ninety years later, CRC Press, a member of the Taylor & Francis Group, is a pre-eminent publisher of books, journals, and electronic databases in materials science, life science, food science, environmental science, forensic science, engineering, business, technology, mathematics and statistics. This year we will be featuring Steel Heat Treatment Handbook, Second Edition; Introduction to Materials Science and Engineering; Introduction to the Principles of Materials Evaluation; and much more. Please visit our booth to peruse our selection and take advantage of our meeting discounts.

Techmo Car s.p.a

Limena, Padova, Italy www.techmo.it

Over the last 41 years, Techmo has been devoted to the solution of technical problems connected with the aluminum industry. Among the most significant machines produced by Techmo are anode changers, tapping trucks, feeder vehicles, crust breakers, a wide range of heavy duty transporters, and the most up-to-date furnace tending vehicles. Techmo also supplies to aluminum companies fixed plants, such as anode butt cleaning stations and ladle cleaning stations, taylor-made equipment, and a wide range of services. All of Techmo's products and services propose new, environmentally friendly, and cost-effective solutions to aluminum producers.

Thermal Ceramics #407 Augusta, Georgia www.thermalceramics.com

Thermal Ceramics, a worldwide leader in refractory and high temperature insulation technology, offers solutions for the most demanding thermal management challenges. Our products for the aluminum industry include Superwool® 607® and Superwool 607® MAX®; Tri-Mor®Albond®, Alcast®, Kaocrete® and Kaolite® Castables; K® and JM™ insulating firebrick and mortars; TR-19®/TR-20® structural board insulation; Kaowool® blanket/ strip/bulk ceramic fibers; Kaowool® and vacuum formed boards and shapes; BTU-Block™ microporous insulation; Kaowool® paper and felts; Pyro-Bloc® weld-on and veneering modules.

Thermcon Ovens B.V. #612 Geldermalsen, The Netherlands www.thermcon.com

Thermcon Ovens B.V., a member of the Otto Junker Group of companies, is a supplier of the complete state-of-the-art cast house package for the production of aluminum extrusion billets, rolling slabs and foundry ingot. The delivery program for the cast house comprises: charging machines, skimming machines, melting and holding furnaces, launders, casting machines, homogenizing furnaces and billet sawing systems. Recycling furnaces for contaminated aluminum scrap are also available. Thermcon Ovens B.V., together with other members of the Otto Junker Group, supply pusher furnaces, heat treatment plants for aluminum strip, etc., and Elhaus equipment for around the extrusion press. Unique one-stop shopping is available to the aluminum industry.

Thermo-Calc Software

See our ad on page 16 of *JOM*! #125 *McMurray, Pennsylvania* www.thermocalc.com

Thermo-Calc Software is a leading developer of software and databases for calculations involving computational thermodynamics and diffusion controlled simulations. Thermo-Calc is a powerful tool for performing thermodynamic calculations for multicomponent systems. Calculations are based on thermodynamic databases produced by expert evaluation of experimental data. Databases are available for steels, Ti, Al, Ni-superalloys, and other materials. Programming interfaces are available which enable Thermo-Calc to be called directly from in-house developed software or MatLab. DICTRA is used for accurate simulations of diffusion in multicomponent alloys. Applications include: homogenization of alloys, microsegregation during solidification, coarsening of precipitates, and welding.

Thermo Electron Corporation

#105

Madison, Wisconsin www.thermo.com

Thermo Electron Corporation's NITON Analyzers unit is internationally recognized as the world's leading manufacturer of portable nondestructive alloy analysis instrumentation. Thermo NITON XRF alloy analyzers are ideal tools for QA/QC of alloy materials, NIST's traceable validation and positive material identification (PMI) of machined or fabricated components in various manufacturing industries. With the press of a trigger, the NITON analyzer provides positive grade identification and composition analysis of materials ranging from aluminum alloys to stainless steels, nickel-based alloys, titanium alloys and more in seconds. Since XRF technology is completely nondestructive, the analysis can be performed without concern on finished and installed components and raw materials. The NITON Analyzers unit is headquartered in Billerica, Massachusetts; with facilities in Bend, Oregon; Munich, Germany; Hong Kong; and Shanghai, China and sales and service centers throughout the world.

Thermo Scientific NITON Analyzers

(formerly Thermo Electron NITON Analyzers) #238

Billerica, Massachusetts www.thermo.com/niton

Niton Analyzers, manufactured by Thermo Scientific, are recognized as the world's leading portable nondestructive elemental analysis instruments. The new NITON XLt 898He is the first truly nondestructive portable analysis tool for light element content in alloy material. The XLt 898He can directly quantify Al, Si, and Mg levels in aluminum alloys, Si in steels, Al in nickel and titanium alloys, and a host of other chemical analyses previously unattainable using portable XRF technology. With the simple pull of a trigger, the NITON analyzer provides chemical analysis, grade identification of metal alloys, and much more in seconds.

Thorpe Technologies Inc.

See our ad on page 78 of *JOM*! #309

Whittier, California
www.thorpetech.com

Thorpe Technologies Inc. designs and builds custom industrial furnaces, delaquering systems, thermal oxidizers, and related thermal technology equipment. Thorpe's aluminum product line includes:
1) Apros-based technology delacquering systems, 2) scrap drying systems, 3) rectangular melting furnaces, 4) side-well melting furnaces, 5) dry hearth melting furnaces, 6) round, top charge melting furnaces, 7) tilting melting furnaces, 8) rotary melting furnaces, 9) stationary holding furnaces, 10) tilting holding furnaces, 11) batch homogenizing furnaces, 12) continuous homogenizing furnaces, 13) charging machines, 14) ladle preheaters, 15) ladle tilt



stations and transfer cars. Thorpe Technologies Inc. is headquartered in Whittier, California; telephone (562) 903-8230. Projects in Mexico are handled by Thorpe Technologies engineers who build mill-duty industrial furnaces and thermal processing equipment.

Trans-Tech/Skyworks #613 Adamstown, Maryland

www.trans-technic.com

With over 50 years of advanced ceramic expertise, Skyworks Solutions, with its Trans-Tech advanced materials product line, is the industry leader in technical ceramic materials. With our in-house manufacturing capability, we can deliver materials that range from custom particle size distributions for thermal barrier coatings and fuel cells to machined precision components. Because we are an independent material supplier, our customers can rest assured that their proprietary material compositions will be kept confidential.

Tri-State Refractories Corporation #233

Evansville, Indiana

Tri State Refractories is a full-service refractory contractor serving the aluminum industry. Our work includes melting furnaces, pot lining, carbon bake furnaces, rotary furnaces, and boilers.

TSL

See our ad on page 61 of *JOM*! #516 *Mahwah, New Jersey* www.edax.com

EDAX raises the standard as the technical innovator with high performance and functionality that gives you confidence in your results. For many years EDAX has led the industry as the world's largest supplier of EDS, EBSD, and WDS systems and as the technical and performance leader. EDAX-TSL integrated products provide a powerful and unique combination of elemental information from EDS and structural information from EBSD in the EDAX Pegasus, while the EDAX Trident combines the EDS and EBSD capabilities with WDS to provide a complete solution. EDAX continues to raise the standard with advanced and innovative features in an easy-to-use format, providing the best results and tools that assure confidence in those results.

University of Tennessee/ Materials Science Department#542

Knoxville, Tennessee http://answer.utk.edu/answer/answer

The Advanced Neutron Scattering netWork for Education and Research (ANSWER) is a program dedicated to providing educational and research opportunities to a wide community on neutron diffraction. We strongly support international collaborations in this important field. For information on educational and grant opportunities, please visit our booth.

USDOE/FreedomCAR and Vehicle Technologies Program

#631

Arlington, Virginia www1.eere.energy.gov/vehiclesandfuels/ index.html

The FreedomCAR and Vehicle Technologies Program supports the mission of the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, to strengthen America's energy security, environmental quality, and economic vitality in public-private partnerships that enhance energy efficiency and productivity; bring clean, reliable, and affordable energy technologies to the marketplace; and make a difference in the everyday lives of Americans by enhancing their energy choices and their quality of life.

Wagstaff Inc.

See our ad on page 79 of *JOM*! #200

Spokane, Washington
www.wagstaff.com

Since 1946, customers with exacting quality standards have turned to Wagstaff for aluminum solidification technology. Today, with customers in more than 52 countries, Wagstaff has earned international recognition as the aluminum industry's leader in direct chill casting equipment. For more details on Wagstaff, visit our booth (#200), contact us at info@wagstaff.com or visit www.wagstaff.com.

Wahl Refractories #611 Fremont, Ohio www.wahlref.com

Wahl Refractories has grown to be recognized throughout the world as an innovative supplier for engineering, manufacture, and installation of refractory specialties. Since 1921 Wahl has continued to expand our product line to service the aluminum, steel, cement, copper, foundry, iron and steel, lime, and mineral processing industries. Wahl is an industry leader by developing and introducing new and innovative products to the aluminum industry, such as: SIFCA®, Freedom3™. WalCrete, Wal-Cast, X-Cel Cast, Command, and UltraCommand. These products provide aluminum producers with the most durable refractory maintenance lining systems in the marketplace. Wahl refractories is the largest manufacturer of complete precast furnaces.

Xothermic Inc. #616 Apopka, Florida www.xothermicinc.com

Xothermic Inc. of Apopka, Florida, is an international combustion system provider. The company manufactures primarily oxygen combustion systems for the aluminum industry utilizing its patented QUADRAFLO Automatic Sweep Burner designs. The equipment supplied includes burner safety and flow control trains while a PLC is utilized for the flow train as well as other related operations connected to the process. This equipment is installed worldwide in secondary aluminum processors and in ingot, hot metal, extrusions, and casting facilities. During the last 5 years over 15 systems are operating with 5 more being built. Xothermic Inc. provides onsite startup assistance and recommendations.

York Linings International #147

North Yorkshire, United Kingdom www.yorklinings.com

York Linings International offers the design, engineering, and installation of refractory materials to both primary and secondary aluminum furnaces throughout the world. These include anode baking furnaces, reduction cells, melting and holding furnaces, and cathode sealing. Other major industries are also covered including iron & steel, incineration, cement, power generation, and petrochemicals.

ZIRCAR Ceramics Inc.

#601
Florida, New York
www.zircarceramics.com

ZIRCAR Ceramics Inc. is a manufacturing and international marketer of a wide range of casthouse consumables which include: castertips and nozzles for twin roll and belt continuous casters; ceramic foam and fiberglass cloth filters; vacuum-formed ceramic fiber and non-RCF fiber shapes; ceramic fiber textiles—rope, tape, cloth; ceramic fiber and non-RCF paper and blankets; precision CNC machined and precast refractory baffles, floats, dams; microporous insulation fabricator. Phone: (845) 651-6600; Fax: (845) 651-0441; E-mail: sales@zircarceramics.com.

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TMS2008

137th Annual Meeting & Exhibition



March 9-13, 2008 Ernest Morial Convention Center New Orleans, Louisiana

Details to come at www.tms.org/annualmeeting.html



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