Detailing Products and Services for the 160 Companies Taking Part in the TMS 2002 Exhibition

Washington State Convention & Trade Center - Hall 4A, 4B
Seattle, Washington
February 17–21, 2002

SHOW DATES AND TIMES:

Monday, February 18 ........................................... 12:00 Noon–6:00 PM
Tuesday, February 19 ................................................ 9:30 AM–5:30 PM
Wednesday, February 20 .......................................... 9:30 AM–3:00 PM

SPECIAL ATTRACTIONS DURING THE 2002 EXHIBITION:

MONDAY, 5:00–6:00 PM
Hosted Grand Opening Reception
Enjoy complimentary hors-de-oeuvres, music and cocktails while visiting the exhibits

TUESDAY, 11:45 AM–1:15 PM
Complimentary Lunch
Redeem the ticket in your registrants packet for a complimentary lunch item, hosted by the Exhibitors and TMS.

WEDNESDAY, 12:15–2:00 PM
Afternoon Snack
Join the exhibitors for a Seattle treat in the Exhibit Hall. A ticket can be found in registrants’ packet for a complimentary cappuccino or ice cream treat, redeemable at stations throughout the exhibit hall.

FIND UP-TO-THE-MINUTE DETAILS ON THE MEETING AND EXHIBITION AT:
http://www.tms.org/Meetings/Annual-02/AnnMtg02Home.html
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Refer to this convenient index to locate the exhibiting companies who supply the products and services you are looking for.

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- BHA Group, Inc.
- Bloom Engineering
- DISA Systems Inc.
- GMD Environmental Systems
- Mikropul
- Moltech
- OPSIS, Inc.
- Procedair Industries

**ALUMINUM INDUSTRY WEAR PARTS**
- Industrial Tip
- maerz-gautschi GmbH
- Saint Gobain Industrial Ceramics
- Zirarc Refractory Composites

**ALUMINUM PROCESSORS**
- Corus Aluminium Walzprodukte
- Loma Machine Mfg.

**ALUMINUM PRODUCTION TECHNOLOGY & EQUIPMENT**
- ABB Industrie AG
- ABB Inc, Metal Refining Systems
- Advanced Dynamics Corp., Ltd.
- Aisco Systems, Inc.
- Almeq Norway AS
- Altech
- Anter Corporation
- BetzDearborn
- Canadian Overhead Handling
- Davy Process Technology
- ECL
- Eirich Machines, Inc.
- Glama Maschinenbau GmbH
- Hencon B.V.
- Holton Machinery Ltd
- Jayne Industries
- Kempe International
- LAR
- LMI Selcom
- LOI, Inc.
- Loma Machine Mfg.
- MDN
- maerz-gautschi GmbH
- Megaquip Industries, Ltd.
- Moltech
- Murlin Chemical, Inc.
- Pechiney
- Pyrotek Inc
- Rex Roto Corp.
- Sermas Industrie
- SETARAM
- Silver Needle
- STAS, Ltd.
- Stein Atkinson Stordy, Ltd.
- Techno Car & Engineering
- Thermcron Ovens BV
- UES Software, Inc.
- VAW Aluminium-Technologie
- Vallee, Inc.
- Wagstaff, Inc.
- Wienalco

**ALUMINUM QUALITY**
- ABB Bomem, Inc.
- Cambridge Scientific Abstracts
- Leeman Laboratories, Inc.
- MagChem, Inc.
- Precimeter, Inc.

**ALUMINUM REFINING SYSTEMS**
- ABB Inc, Metal Refining Systems
- Hydro Aluminium Hycast
- Pyrotek, Inc.
- STAS, Ltd.

**ANODE: ASSEMBLY**
- Almeq Norway AS
- Altech
- ECL
- GNA Industrial Furnaces
- Jervis B. Webb Company
- Kempe International
- KHD Aluminium Technology GmbH
- SWS Scharf Westfalia
- SETARAM
- Sermas Industrie
- Universal Dynamics

**CLEANING**
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- Jervis B. Webb Company
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- SWS Scharf Westfalia
- TECHNOLOGY AND SUPPLIES
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- FCB aluminium
- Jervis B. Webb Company
- KHD Aluminium Technology GmbH
- Pechiney
- Wienalco
- TECHNOLOGY AND SUPPLIES
- anter Corporation
- FCB Aluminium
- KHD Aluminium Technology GmbH
- Davy Process Technology
- GNA Industrial Furnaces
- Innovatherm Company
- LVE Verfahrenselektronik
- R & D Carbon, Ltd.
- Sermas Industrie
- SETARAM
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**CASTING**
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- Holton Machinery Ltd
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- maerz-gautschi GmbH
- Murlin Chemical, Inc.
- Pechiney
- Pyrotek
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- Universal Dynamics
- VAW Aluminium-Technologie GmbH
- Vallee, Inc.
- Wagstaff, Inc.

**CHEMICALS AND ADDITIVES**
- AAPL LLC
- BetzDearborn
- MagChem, Inc.
- Master Alloys
- Metallurg Aluminium
- Murlin Chemical, Inc.
- Samri Company Ltd.

**CLEANING MACHINES SYSTEMS**
- MagChem, Inc.
- Vallee, Inc.

**CLOTHING – PROTECTIVE**
- L.P. Royer Inc.
- Pyrotek Inc
- Silver Needle Inc

**COMBUSTION TECHNOLOGY**
- Bloom Engineering Co., Inc.
- North American Manufacturing
- Thermcron Ovens BV
- Xothermic Inc.
- Zedtec Combustion Systems

**COMBUSTION TECHNOLOGY**
- Bloom Engineering Co., Inc.
- North American Manufacturing
- Thermcron Ovens BV
- Xothermic Inc.
- Zedtec Combustion Systems
PRODUCT/SERVICES INDEX

CORROSION/SURFACE TREATMENT
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CRANES
Canadian Overhead Handling
ECL
Universal Dynamics
Wienalco

DEGASSING
Hydro Aluminium Hycast
Metallics Systems
Molten Metal Equipment Innovations, Inc.
Pechiney
Pyrotek, Inc.
Saint-Gobain Industrial Ceramics
SELEE Corporation
STAS

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Advanced Dynamics Corp.
Aisco Systems Inc
Almeq Norway AS
Alu-Cut International, Inc.
Brochot SA
Glama Maschinenbau
Kempe International
Pibrico Company
Pyrotek, Inc.
Sermas Industrie
STAS
Vallee, Inc.

COOLING/REMOVAL
Alu-Cut International, Inc.
STAS

ENGINEERING AND CONSULTING SERVICES
ABB Industrie AG
Advanced Dynamics Corp., Ltd.
Almeq Norway a/s
Bloom Engineering
CALCOM SA
Gillespie+Powers Inc
GMD Environmental Systems
Hencon B.V.
Holton Machinery Ltd
Jervis B. Webb Company
Loma Machine Mfg.
mayer-gautschi GmbH
Mikropul
Pibrico Company
Pyrotek Inc
R & D Carbon, Ltd.

Filtration
BDH Industries
BHA Group, Inc.
Kabert Industries Inc
McAllister Mills, Inc.
Metallics Systems Co L.P.
Pechiney
Pyrotek, Inc.
Rex Roto Corp.
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SELEE Corporation
STAS
Zircar Ceramics, Inc.

FURNACES
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Gillespie+Powers, Inc.
GNA Industrial Furnaces, Inc.
Jayne Industries
LOI, Inc. Industrial Furnaces
maier-gautschi GmbH
Pibrico Company
Pyrotek Inc
R&D Carbon Ltd
SETARAM
Stein Atkinson Stordy, Ltd.
Thermcon Ovens BV
Thorpe Technologies
Xothermic Inc.

GRAPHITE PARTS
Graphite Engineering & Sales
Metallics Systems Co L.P.
Molten Metal Equipment Innovations, Inc.
Pyrotek, Inc.
Sermas Industrie
SETARAM

GRAIN REFINERS/HARDENERS
Aleastur
KB Amfilips B.V.
KB Alloys, Inc.
Master Alloys
Millward Alloys
Metallurg Aluminium

HF MEASUREMENT SYSTEMS
– POT ROOMS/STACKS
OPSIS, Inc.
STAS

INGOT & SOW CASTING HANDLING & STACKING
Advanced Dynamics Corp., Ltd.
Aisco Systems Inc
Alan Worswick (Engineering)
Alu-Cut International, Inc.
Canadian Overhead Handling
Jervis B Webb Co.
LOi, Inc. Industrial Furnaces
maier-gautschi GmbH
Megaquip Industries, Ltd.
Sermas Industrie
Thermcon Ovens B.V.
Wagstaff, Inc.

INSTRUMENTATION
ABB Bomem, Inc.
Anter Corporation
EDAX Inc./TSL
Hamilton Research & Technology, Ltd.
Heraeus Electro-Nite Co.
Hysitron, Inc.
Leeman Laboratories, Inc.
LMI Selcom
LOI, Inc. Industrial Furnaces
maier-gautschi GmbH
R&D Carbon
Raytek
SETARAM
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LUBRICANTS
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MATERIAL HANDLING
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Vallee, Inc.
Wienalco

MEASUREMENT/TESTING AND ANALYSIS
ABB Bomem Inc.
Anter Corporation
Buehler
CALCOM SA
EDAX Inc./TSL
Heraeus Electro-Nite
Hirox-USA, Inc.
Hysitron
Leco Corporation
Leeman Laboratories, Inc.
LMI Selcom
Niton Corporation
Opis
R & D Carbon, Ltd.
Thermo/ARL
Unisearch Associates

MOLTEN METAL PUMPS
ABB Inc, Metal Refining Systems
Alu-Cut International, Inc.
International Procurement
Metallics Systems Co L.P.
Molten Metal Equipment Innovations, Inc.
Pyrotek, Inc.
STAS

PORT AUTHORITY
Port of Longview

PROCESS EQUIPMENT

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MINI-SESSIONS

As a complement to the 2002 exhibition and technical program, TMS will feature exhibitor presentations of new technologies, equipment and process.

South Level 4, Room 401

SESSION I:
FURNACES, MELT TREATMENT, CASTING
Monday, February 18, 2002

11:40 AM
Aluminum Scrap Recycling And Heat Treatment Furnaces
Tom Zamanski, LOI/Schmitz+Apelt

12:00 PM
Electromagnetic Stirring (EMS) of Aluminum Melts
Olof Sjoden, ABB Inc, Metal Refining Systems

12:20 PM
Options For Light-Gauge Scrap Recycling
Richard C. Chandler, President, Metallics Systems Co., L.P.

12:40 PM
Which Method to Choose for Alkaline Reduction? Either in the Pot Room Crucible or in the Casthouse?
Pierre Bouchard, STAS

1:00 PM
The Pechiney Jetcleaner –New Equipment Technology for In-Line Treatment of Molten Aluminium Alloys
John V. GRIFFIN, Pechiney Aluminium Engineering Inc.

1:20 PM
StopCast
Craig Johnson, Wagstaff, Inc.

1:40 PM
Metal Delivery Systems Employing Insulating Refractory Result in Real Energy Savings for the Aluminum Industry
James W. Lee, Rex Roto Corporation

SESSION II:
MODELING, CASTING, MISCELLANEOUS
Tuesday, February 19, 2002

11:40 AM
Concept And Design Of A Modern Anode Press Center
Dr. Alfred Kaiser; Dr. Stefan Mähl, LAEIS BUCHER GMBH

12:00 Noon
Latest Developments for Two Main Types of Aluminium Casting Stations
Jean-Jacques Grunspan, Brochot

12:20 PM
Vallee Multi-Functional Vehicles Increase Productivity While Reducing Capital Costs
Charles R. Emond, Vallée Inc.

12:40 PM
Management, Molten Metal and Protective Clothing
Larry Stinson, Silver Needle Inc

1:00 PM
World Leading CFD Software
Aniruddha Mukhopadhyay and Yeong-Yan Perng, Fluent, Inc.

1:20 PM
Continuous Casting Simulation
Dr. Matthias Gaumann, CALCOM SA

1:40 PM
Advanced Anode Paste Preparation Plants
Dipl. –Ing. Berthold Hohl, Maschinentfabrik Gustav Eirich

NOTE: The complete presentation schedule, including abstracts, can be found on pages 131 and 132.
COMPANY PROFILES

**A**

**AAPL, LLC**

#832

Urbana, Illinois

http://www.sigma-aldrich.com/

AAPL, LLC, 1302 W Anthony Drive, Urbana, IL 61802. 217-398-2806; fax: 217-398-2944; email: mwills@sial.com. AAPL is a joint venture company between Aldrich Chemical Company, Inc and APL Engineered Materials. AAPL manufactures over 425 ultra pure inorganics and metals for high technology applications, including fuel cells, batteries, superconductors, medical imaging, and more.

Our products are among the best in the world in terms of metals purity, water content, and handling ease. AAPL uses proprietary techniques to produce anhydrous metal halides in beaded form, custom eutectic mixtures, distilled metals, and ultra pure salts from gram to ton quantities.

**ABB Bomem, Inc.**

#1117

Québec, Canada

Metallurgical Industry

http://www.bomem.com

ABB Bomem’s Metallurgical Instruments offer many effective solutions to the aluminium industry for inclusion and hydrogen measurement. Several measurement technologies are patented and licensed exclusively to ABB Bomem for worldwide distribution by Alcan International Limited and N-TEC. ABB Bomem also offers metallurgical technical support and metallurgical analysis service.

SEE OUR DISPLAY AD, COVER 4.

**ABB Industrie AG**

#720

Baden-Dättwil, Switzerland

www.abb.ch/industrie

Complete Project Management with Electrical Systems Integration

ABB is proud to deliver to the aluminium industry a truly comprehensive product and service portfolio for plant and project electrification.

We design and manufacture a range of electrical equipment renowned for its quality and designed to maximize end-to-end plant connectivity and automation efficiency. Then we install, optimize and service the equipment to ensure continuing and profitable results for our clients in aluminium.

We safeguard your investment in plant electro-technology through unmatched experience and a commitment to integration that defines the equipment we manufacture and how we put it to work for you. Our integrated, process-oriented approach to engineering, supply, construction and management (ESCM) allows us to tailor and optimize the right electrical solution for your project.

To meet and exceed your goals, look to ABB for a complete technology offering enhanced by the know-how and responsibility gained in hundreds of aluminium plants worldwide.

**ABB Inc., Metal Refining Systems**

#1025

Brewster, New York

http://www.abb.com/

ABB Inc is the worldwide leader for the design, manufacture and implementation of induction stirring systems, having delivered more than 1100 systems since 1947. The first ABB induction stirring system specifically designed for aluminium furnaces was delivered in 1969 and since then, more than 150 stirrers have been installed, worldwide, on both melting and holding furnaces.

Induction stirring is a proven and acceptable technology used to increase productivity, to reduce operating costs and to enhance overall aluminium quality.

Stirring systems are available for furnaces sized from 5 tons to 150 tons. Sales and service are available throughout North America.

**Advanced Dynamics Corp. Ltd.**

#531

St. Bruno, Quebec, Canada

http://www.advancedynamics.com/

Advanced Dynamics Corp. Ltd. designs and manufactures custom materials handling systems for primary aluminum smelters and secondary aluminum products producers.

PRIMARY PRODUCERS
- Carbon anode handling equipment for both green and baked anodes, rodding room and ring furnace maintenance equipment
- Aluminum ingot sawing and identification equipment for round logs, T ingots and sheet ingots
- Aluminum ingot handling systems including downwinders, billet stacking systems, transfer cars and rotary turntables
- Aluminum casting equipment including sow casting carousels and crucible tilters SECONDARY PRODUCERS
- Coil handling equipment including turnstiles, powered transfer cars, wrapping systems and upenders.
- Tube handling cooling systems for drawbench automation, extrusion handling systems including pullers and flying cutoff saws.

INTEGRATED CONTROL SYSTEMS
- Computer linked PLC controls with panelview access screens, programmable identification by pin of character stamp, ink jet or bar code.

Please call us at your convenience at: 450/653-7220 to discuss your equipment requirements and visit us at booth #531 at the 2002 TMS Show.

**AISCO Systems, Inc.**

#717

Burlington, Ontario, Canada

http://www.aiscosystems.com

Aisco Systems Inc. provides engineered machinery, systems and integrated process solutions for the non ferrous metals industry including aluminium rod shops and casthouses, zinc refineries and copper tankhouses.

RODDING ROOM: Aisco is a technical leader in supplying rodding room equipment, from anode loading/unloading, butt bath cleaning systems, butt and thimble presses and rod reconditioning equipment through to anode and rod mating stations and iron pouring systems.

CASTHOUSE: Aisco design and manufacture sow casting and foundry ingot casting systems, including stacking and strapping equipment for use in primary and secondary facilities. In addition, we provide sawlins with fully automated material handling for slab/t-bar and billets.

COPPER TANKHOUSE: Aisco produces copper anode preparation and tankhouse machinery and solutions to your tankhouse problems. Our unique carousel design provides high production rates and efficient use of plant space.

ZINC REFINING: Aisco has a licence with Asturiana de Zinc of Spain to manufacture zinc processing machinery for the cellhouse.

Please call Aisco to discuss your equipment requirements or visit us at booth #717 at the 2002 TMS Annual Meeting & Exhibition.

SEE OUR DISPLAY AD, PAGE COVER 3.

**Alan Worswick, Ltd.**

#527

Blackburn, England

http://www.worswick.com

For over 40 years Alan Worswick (Engineering) Ltd. has carried out a policy of continued innovative design and development of automated ingot production equipment for Al – Mg – Pb – Zn – primary & secondary ingot production, enabling them to offer the most comprehensive equipment range for all requirements from one source. Operation of it’s own design office and manufacturing plant in Blackburn – England, means complete quality control (ISO9001 certified) of all processes ‘in-house’ ensuring the highest quality product and complete customer satisfaction.

Over the years this ‘in-house expertise’ has resulted in the receipt of many enquiries and subsequent orders for specialised machines for the non-ferrous metal industry including; billet stackers, anode casters, jumbo ingot/sow casters, Pb refining pot dross removal machines and automated gravity die-casting machines, in fact casters to produce everything from Zn balls to Al engine blocks.

To date, “Worswick” has built more than 300 casters and 100 stackers of various types and
would be pleased to discuss your requirements from either our existing extensive range, or for custom designed – special purpose machines at our Booth # 527 at TMS 2002 Annual Meeting Exhibition in Seattle, via our website at www.worswick.com or by email at sales@worswick.com.

Alcan International, Ltd.
#1120
Montreal, Quebec, Canada
http://www.alcan.com/

Alleastur
#1200
Asturiana de Aleaciones, S.A.
Pol. Ind. de Maqua, s/n AVILES
E33400 SPAIN
Phone: +34 98 5129038
E-mail: aluminium@alleastur.com
http://www.alleastur.com

Alleastur manufactures a comprehensive range of Grain Refiners and Master Alloys. The major concentration of products are AITB alloys produced in rod form and other shapes. Additional master alloys that compliment and complete Alleastur’s range include AlSr, AlB, AlTi, AlZi, etc.

From receipt of orders to dispatch of goods, the dedication of Alleastur to quality and service is paramount. Since 1993 Alleastur has consistently maintained their Certificate of Approval for Quality Assurance (ISO 9002).

Alleastur is currently selling products in more than 50 countries and retains a global network of knowledgeable and experienced agents.

Almeq Norway AS
# 700
Langhus N-1405 NORWAY
www.almeq.com

ALMEQ Norway AS is an engineering and marketing company for a wide range of equipment and services to aluminium smelters. The company is a leading supplier of own equipment as well as an export and marketing partner for other well accepted manufacturers of machines and equipment for primary aluminium smelters worldwide.

Among own machinery engineered and produced in Norway are crucible and tube cleaners, potliners and various electric drying and preheating systems. In close co-operation with partners in Norway and abroad we deliver anode and metal transporters, hydraulic billet tongs, superstructures, potshells and cell hooding.

ALMEQ welcomes you to visit our exhibition stand at the TMS 2002 in Seattle. Mr. Jan D. Hansen and Mr. Knut Torgersen will be at the stand to answer any questions concerning our products and services.

Altech
#927
Lynglahs 10,
110 Reykjavik, Iceland
Phone: +354 5252300; Fax: +354 5252319
http://www.altech.is/

EQUIPMENT AND ENGINEERING FOR PRIMARY ALUMINIUM SMELTERS
ALTECH has supplied machines, robots and computer systems to the aluminium industry on all the five continents since 1987.

We kindly invite you to our booth number 927 for presentation of:
- ALTRACK - anode and rod tracking system
- ALVISION- visual inspection system for rods and anodes
- ALCODE-aluminium billet coding and tracking system
- Automatic Metal Skimmers for Crucibles
- Innovative equipment for Anode Rodding Shops:
  - Stub Protection System
  - Stub Straightening System
  - Casting Machines
  - Stub and Rod Repair Facilities
  - Complete Anode Rodding Shops

Alu-Cut International, Inc.
#604
Phone: 281/579-3377; Fax: 281/579-8819
E-mail: alucut@texas.net
21710 Moortown Circle
Katy, Texas 77450

Melting, holding, and homogenizing furnaces. Cooling chambers, charging machines, casting machines, saws, material handling, lubrication and briquetting systems.

Aluminium Times
#507
Shaveham-by-Sea, United Kingdom
http://www.mmc.dircon.co.uk/

“Aluminium Today” is the International English language journal dedicated exclusively to the aluminium production and processing industries.

Founded in 1988 and now published eight times a year, the journal consistently brings to its readers a wealth of technical features aimed at providing producers and processors with information on latest technologies and developments. Added to this is a regular digest of industry news, contracts, events, product reviews and conference coverage.

Aluminium Today’s editorial team has a firm background in the sector, and worldwide experience of the present day industry providing topical coverage of the most significant events and advances.

Alu-Cut International, Inc.
#1219
Redhill, Surrey, UNITED KINGDOM
www.aluminiumtoday.co.uk

“Aluminium Today” is the International English language journal dedicated exclusively to the aluminium production and processing industries.

Founded in 1988 and now published eight times a year, the journal consistently brings to its readers a wealth of technical features aimed at providing producers and processors with information on latest technologies and developments. Added to this is a regular digest of industry news, contracts, events, product reviews and conference coverage.

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Aluminium World
#941
London, United Kingdom
www.aluminiumworld.com

ALUMINIUM WORLD is the only international review on process and product technology covering the entire spectrum of aluminium production with focus on the latest technologies, recently introduced processes, product concepts and future trends.

ALUMINIUM WORLD is published twice per year and brings all participants into direct contact with 9,000 selectively addressed decision-making executives and senior technical managers operating all major processing plants throughout the world.

ALUMINIUM WORLD is the most cost-effective publication in which to promote your products and services directly to the entire international aluminium community - www.aluminiumworld.com
Contact: John Travis +44 20 7616 0800

Anter Corporation
#1030
Pittsburgh, Pennsylvania
http://www.anter.com/

Anter Corporation is a manufacturer of thermophysical properties measuring instruments and a provider of contract testing services. Products include a full range dilatometers for thermal expansion/shrinkage measurement, thermal conductivity meters and thermal diffusivity systems, covering temperatures from -180°C to +2800°C. A number of instruments are specifically designed for the aluminium industry and are in worldwide use, such as: unitherm model 1101 dilatometer for cored samples (50 mm diameter by up to 150 mm long) of carbon anodes; model 2022 thermal conductivity meter for 50mm diameter samples; model 9609 electrical resistivity meter for carbon and graphite; flashline-3000 thermal diffusivity system for coarse-grain refractories and highly conductive materials. ISO 9001 certified.

SEE OUR DISPLAY AD, PAGE 22.
B&P Process Equipment & Systems
#600
Saginaw, Michigan
http://www.bpprocess.com

B&P Process Equipment and Systems, llc. (manufacturers of Baker Perkins machinery) is a supplier of specialized process equipment for the production of carbon paste, energetic material, plastics, industrial chemicals, and for chemical separation. We have supplied batch anode and cathode paste mixers to the aluminum industry since 1903. Many built since the 1930’s are still in service. In 1952, the aluminum industry production requirements grew, and we offered the polykneader, which is a continuous carbon paste mixer. Today, our batch mixers and polykneaders are used worldwide in the production of carbon paste. B&P also offers a complete line of continuous pusher centrifuges for liquid/solids separation.

SEE OUR DISPLAY AD, PAGE 15.

Bahr Bros Mfg
#1033
Marion IN
www.bahrbros.com

Bekintex North America
#1123
Chicoutimi, Quebec, Canada
http://www.bdhtech.com/

BetzDearborn
#831
Trevose, Pennsylvania
www.betzdearborn.com

BetzDearborn is the worldwide leader in providing specialty chemical treatment programs for the aluminum industry, metal processing, mineral processing and for water systems such as boilers, cooling towers and influent and effluent systems.

Our industry specific chemical treatment programs help to reduce operating costs and meet environmental objectives that improve product quality for Influent Water - Boiler Systems - Cooling Towers - Wastewater Systems - Caster Systems - Dust Control - Scale Control - Corrosion Inhibitors - Finishing Treatment - Conversion Coatings - Cleaners - Passivation Treatments - Heavy Metals Removal - Legionella Control - Combustion Additives.

Call us at (800)775-7175 or visit our website at www.betzdearborn.com

BHA Group, Inc
#602
Kansas City, Missouri
http://www.bha.com

BHA Group, Inc. is a leading worldwide supplier of replacement parts and services for air pollution control equipment. BHA offers a wide range of innovative products, including Pulse Plead® Pleated Filter Elements, BHA-TEX® expanded PTFE membrane filters, and CPM® Particulate Detection Systems. Serving more than 50 industry groups across six continents, BHA is known globally for its quality products and troubleshooting expertise. With more than 25 years experience in the air pollution control business, there isn’t a problem or situation that we haven’t seen. Call your BHA representative at 1-800-821-2222 or visit our website at www.bha.com.

Bloom Engineering Co.
#830
Pittsburgh, Pennsylvania
http://www.bloomeng.com

Representatives from Bloom Engineering Company will be available to discuss Bloom’s complete line of Ultra Low NOx™ burners for the nonferrous industry. These will include 1500 Series Cold Air Burners, 1630 Series Recuperative Burners and 1150 Series Regenerative Burner designs, currently the lowest NOx producing burners in the industry.

Bloom specializes in optimizing the burner combustion pattern required for the application. Burner designs are based on extensive experience obtained in the ferrous and nonferrous industries, and computer aided design techniques, to provide uniform, efficient heating for the process.

BNZ Materials, Inc.
#730
Littleton, Colorado
http://www.bnzmaterilals.com

BNZ Materials, Inc. consists of two businesses which are appropriate to the metals industry. The Zelenopole, Pennsylvania plant manufactures/markets Insulating Firebrick and complementary refractory products such as mortars, aggregates, castables and calcium silicate block. Insulating Firebrick are used in a variety of applications in the metals industry, from carbon baking furnaces to melting and holding furnaces.

The Billerica, Massachusetts plant manufactures a line of calcium silicate boards under the Marinite trademark. They are machined into various parts for conveying, containing, and forming aluminum, lead, zinc, tin and other non-ferrous metals. These parts include spouts, floats, launderers, distribution plates, head boxes, baffles, headers, tips, rings, distribution boxes, stoppers, basins, snouts, orifice plates, hot top and ingot mold liners as well as parts in the metal handling and casting systems of many casting machines.

Borgestad Fabrikker AS
#625
Porsgrunn, Norway

Borgestad Fabrikker AS founded in 1887, started as brickworks but grew rapidly into a producer of quality refractories. In 1996, Höganäs Bjulf, with more than 200 years experience of manufacturing refractory bricks, became a part of Borgestad. Today Borgestad is truly international, exporting over half its production and is the largest supplier of non-basic refractories to furnace and kiln related industries.

Products that ensure long life and maximum performance are only one part of the Borgestad commitment to customer satisfaction. Projecting, project control, contracting, installation, repair and maintenance are services we offer to ensure that your furnaces run smoothly with downtime periods kept at a minimum.

Brochot SA
#393
Tremblay FRANCE

The BROCHOT company designs, manufactures, carries out the installation, provides after sales services, provides spare parts of special machines and complete plants for the primary aluminium and magnesium industries. With its three departments, Brochot -Syprim - Berger, BROCHOT proposes the full range of equipment necessary for aluminium smelters:

- Electric pot ramming machines
- Ingot casting & stacking lines
- Dross handling equipment (Ekumax)
- Syprim
- Anode cooling
- Anode handling and storage
- Anode rodding shop
- Berger
- Special vehicle for anode & molten metal transport
- Furnace charging & tending vehicles

Come to our booth #393 and find out more on our latest developments and discuss innovative solutions to your equipment.

Buehler, Ltd.
#610
Lake Bluff, Illinois
http://www.buehler.com/

BUEHLER, Ltd., of Lake Bluff Illinois, introduces the ISOMET 5000 Linear Precision Saw and the OMNIMET Modular Imaging System. The ISOMET 5000 is an automatic linear feed saw with sampling positioning to 2 um, LCD, touch pad controls, programmability, automatic serial sectioning, and speeds of 200-5000 rpm. The OMNIMET Modular Imaging System is modular system designed to fit your digital imaging needs.
and budget. Initially select between basic Image Capture and Report, Archiving, Simple Push Button Imaging, or Full Flexible Image Analysis. Upgrade later as your needs or applications change. See us at Booth #610 and at www.Buehler.com.

**CALCOM SA**

**#1234**

Lausanne, Switzerland
http://www.calcom.ch

Calcom is committed to developing and providing software and services to engineers that enable them to produce sound and cost-competitive metal components. This involvement has brought Calcom to being recognized as the reference partner on a global scale in foundries and metal forming plants.

At TMS, we will be exhibiting our software calcosoft, the only software on the market which is truly tailored for the needs of continuous and semi-continuous casting processes. This computer simulation package is fast, easy to use and accelerates the development of evolving industrial applications. This software gives a new perspective in finding solutions to novel casting processes, alloy selections and geometry changes.

**Cambridge Scientific Abstracts**

**#622**

Bethesda, Maryland
http://www.csa.com/

Cambridge Scientific Abstracts publishes a wide variety of databases covering all aspects of science and technology. Databases are delivered through the new Internet Database Service Version 5.0, featuring site-wide access with unlimited use. Databases offered through this service include METADEX, Sociological Abstracts, Aquatic Sciences & Fisheries Abstracts (ASFA), and the NTIS Database. Other features include the Web Resources Database, which provides searchable links to Internet information sources in the sciences; Recent References Related to Your Search, a citation-only current-awareness service; and full text document acquisition features including Links-to-Full text and Link-to-Holdings modules.

**Canadian Overhead Handling**

**#841**

Mississauga, Ontario, Canada
www.coh.ca

COH specializes in building custom overhead cranes for the most demanding conditions. The exhibit will feature video, photos and literature on some of our installations including powerhouse cranes, automotive (frame handling, frame turnover and body marriage), aluminum industry (automatic anode stacking, hot metal, ingot handling and pot shell transporting), steel mill, transfer cars, automatic bulk handling for the cement industry and aircraft maintenance teleplatforms.

**SEE OUR DISPLAY AD, PAGE 16.**

**Carl Zeiss, Inc.**

**MICROSCOPY & IMAGING SYSTEMS**

**#1306**

Thornwood, NY
http://www.zeiss.com/

Visit the Carl Zeiss booth to discuss the latest upright and inverted industrial microscopes for materials, QC/QA, metallography & research. All feature famous ICS infinity optics, & Zeiss quality. Ask about our new KS MAT automated image analysis & archiving software, microhardness, and confocal/topographic microscopy.

**Corus Aluminium Walzprodukte GmbH**

**#533**

Koblenz, Germany
http://www.corusgroup.com

The name Corus Aluminium Walzprodukte GmbH stands for one of the world’s leading providers of tailor-made, high-quality aluminium products. This is evidenced by our excellent position as one of the chief suppliers for the international aircraft and aerospace industry which also constitutes the most important market sector today. Plate and sheet of more than 100 various alloys are used by this industry, and we are involved in an ongoing process of further developing the special properties of these materials.

We also count among the market leaders in supplying the automotive and vehicle industry, machine tooling and mould sector, as well as the shipbuilding industry.

A great deal of what applies to the aircraft and aerospace industry also applies to shipbuilding. Here, aluminium is also increasingly gaining in importance thanks to its lightness and various features of performance that are demanded.

**Culimeta America Inc**

**#1310**

N Charleston SC
www.culimeta.com

**FLEXIPOR®** is manufactured by a brand new and patented process of production. Insulating materials Flexipor® shows further advantages in the field of microporous insulation. Flexipor® boards are ideal materials to insulate curved surfaces. Industry applications include Aluminum, Steel, Glass and other applications where refractory linings are essential for effective efficiency and energy savings. Our boards are available for temperatures up to 1922°F.

**Davy Process Technology Technology AG**

**#722**

Pratteln, Switzerland
http://www.kvaerner.com

Since Kvaerner acquired Buss CPS AG, it has since been known as Kvaerner Process Technology (Switzerland) AG or KPT and is still regarded as the world leader for carbon paste technology being the sole supplier to the aluminium Industry of the well known BUSS KNEADER for anode paste mixing.

Efficient processing of anode paste using mixing energy in the range of 7 to 10 kWh per ton of paste is vital for the economic production of anodes, being suitable for the high amperage smelting technology. The continuously operating Buss Kneader guarantees uniform paste quality for trouble free anode forming and baking and for smooth operation of the pot rooms.

Over 200 Buss Kneaders, with capacities up to 50 tonne/h in single units, are in operation worldwide. Our unsurpassed services include the supply of genuine spare parts from stock and revamping or upgrading of existing installations.

Additionally we are supplying complete paste plants and as well as our own technology and proprietary equipment for the continuous pitch melting and manufacture of aluminium fluoride.

**Deutsche Gesellschaft für Materialkunde e.v.**

**#1233**

Frankfurt, Germany
www.dgm.de

**DISA Systems Inc**

**#641**

North Carolina
www.disagroup.com

DISA with North American headquarters in North Carolina presents its air pollution abatement solutions for the Primary and Secondary Aluminium Industry. DISA is a worldwide organization with more than 30 years of experience in energy efficient and cost effective solutions to the ferrous and non-ferrous metal industry. DISA supplies individual units or complete solutions in the range from 5,000 to 300,000 CFM and has many solutions with emission levels below 0.0005 gr./dscf.
Ebner Furnaces  
#911  
Linz, Austria  
www.ebner.cc

Ebner Furnances, Inc and Ebner industrieofenbau will display the latest technology related to high performance furnaces for the aluminum industry. Of particular importance are the furnaces for solution heat treating aluminum plate and pusher type furnace for re-heating and homogenizing aluminum ingots. Ebner also supplies equipment for solution heat treating and aging of aluminum castings and extrusions and batch type annealing ovens for aluminum strip coils and aluminum foil.

ECL Company  
#1133  
Ronchin, France  
http://www.ecl.fr/

Worldwide market leaders in equipment for primary aluminum smelters, ECL is entirely dedicated to this industry and exports 97% of its turnover to all continents. Our highly skilled workforce and integrated design and manufacturing operations, allows us to complete successfully the most challenging projects.

With such a wide product range ECL is the only supplier to offer a complete package including conception, turnkey delivery, installation and maintenance in all the sectors of a smelter. ECL business strategy is to consolidate further technical support and after services capabilities globally. We are in the process of establishing fully owned subsidiaries on a worldwide basis in order to localize our know-how and reduce considerably our response time.

Address: 100 rue chalant - 59790 RONCHIN - FRANCE  
Phone: +33 3 20 88 70 70  
Fax: +33 3 20 88 70 99

EDAX INC/TSL  
#1203  
Mahwah, New Jersey  
www.edax.com/

EDAX/TSL has been at the forefront of research and development of the Electron Backscatter (EBSD) technique. Today, the product line includes OIM™, Delphi, ACT and Pegasus. OIM™ is a powerful tool for investigating key aspects of polycrystalline microstructures including local crystallographic textures and grain boundary analysis. Delphi is phase identification by electron diffraction. ACT, Automated Crystallography in the TME, brings OIM-type capabilities to the TEM, allowing fast and easy indexing of spot diffraction patterns, indexing Kikuchi diffraction patterns and determining grain size distributions and grain maps. The Pegasus system is the powerful combination of chemical and structural analysis provided by EDS and EBSD techniques within the single environment.

Eirich Machines, Inc.  
#1109  
Gurnee, Illinois  
http://www.eirichusa.com

Eirich Machines, Inc. of Gurnee, Illinois, are manufacturers of the Eirich Intensive Mixer noted for the many advantages it provides the metalurgy industries, including:
- Significantly reduced process times-pro-nounced vertical and horizontal movement, and high speed mixing pan rotation facilitate faster mixing and faster discharge
- Low maintenance, low wear-no lubrication points in the mix, large access doors, no contact between product and shaft seals, no material build up due to wall/bottom scraper
- Cost effective-75.6% of connected power available for mixing, lowest operating cost over lifetime of any mixer, minimum 20 years life expectancy, without rework.

SEE OUR DISPLAY AD, PAGE 16.

Elkem Materials  
#638  
Kristiansand, Norway  
www.elkem.no

Elkem is one of the world’s leading suppliers of metals and materials. Elkem’s main products are ferroalloys, silicon metal, aluminium, carbon and microsilica. The products are essential in the manufacturing of a wide range of products needed in today’s society. Elkem serves the steel, foundry, chemicals, electronics, and aluminium industries.

Elsevier Science  
#1130  
New York NY  
www.elsevier.com  
www.lightmetals.net

The Journal of Light Metals (JLM) is a new refereed archival journal to be published by Elsevier Science, which serves both the academic and industrial sectors by providing an enhanced web component as well as four printed issues per year. The journal publishes original work which advances the knowledge base of light metals in the domains of processing, microstructure development and resultant properties and performance. JLM gives light metals researchers access to the world’s light metals research in one comprehensive website. The web component consists of additional abstracts and full text links, patents, proceedings and relevant review papers from other journals. Visit the stand for a demonstration of this site and your free sample copy.

Also available on the stand are free copies of Materials Today, Elsevier Science’s leading magazine for the materials community. Sign up today!

Elsevier Science, the world’s largest publisher of scientific, technical and medical journals, is part of Reed Elsevier plc, a leading provider of information to the scientific, legal and business communities.

FCB Aluminium  
#611  
Givors Cedex, France  
http://www.fcb-group.com/

FCB Aluminium is the world leader in supplying complete green anode plants, with about 40 paste plants supplied all over the world. Depending on customer’s requirements, FCB Aluminium will supply either complete new green anode plants, or some particular process sections (crushing & screening, fines grinding, proportioning, preheating & mixing, vibrocompacting & anodes cooling...etc). FCB Aluminium is also able to upgrade any anode plant or Söderberg paste plant or to convert a Söderberg plant into a prebake green anodes plant while updating the technology and increasing the capacity if needed.

FCB Aluminium is also a major supplier of other units in smelter carbon plants which are:
- bath grinding with totally air swept autogenous mill
- anode butts crushing
- liquid pitch storage
- spent pot lining grinding

FCB Aluminium has developed a wide range of equipment to be incorporated in such plants.

Fluent Inc  
#1225  
Lebanon, NH  
http://www.fluent.com/

Fluent Inc. is the world’s leading vendor of Computational Fluid Dynamics (CFD) software and consulting services. CFD software is used to predict fluid flow, heat/mass transfer, chemical reactions, and related phenomena. It enables the materials engineer to visualize aspects of performance that cannot be seen/measured in physical prototypes. CFD provides many competitive advantages: shorter design cycles, fewer prototype and physical testing, troubleshooting/optimization of existing processes.

Typical applications include steelmaking, furnaces, degassing, casting/solidification, mold filling, aluminum production, extrusion, nanoparticle production, coatings, semiconductor manufacturing, chemical vapor deposition (CVD), deposition/etching, rapid thermal processing, aerosol transport, plasmas, and many others.

SEE OUR DISPLAY AD, PAGE 11.
Giesel Verlag GmbH  
Isernhagen, Germany  
www.giesel.de  

Giesel Verlag is the publisher of ALUMINIUM, an international journal for industry, research and applications. ALUMINIUM deals with everything that concerns the material, its extraction, processing, recycling and applications. Matters of economics and the ecological consequences of using aluminium are also considered. The scope of the monthly reporting includes scientific contributions and condensed information about new technologies and applications. The journal addresses aluminium producers, semi-manufacturers, foundries, processors, metal and semi-traders and, at least, research institutes concerned with aluminium. ALUMINIUM is circulated in over 40 countries worldwide.

Gillespie+Powers Inc  
St. Louis, Missouri  
www.gillespiepowers.com  
- Furnace upgrading and modification-improving efficiency, melt rate and pollution control.
- Sow preheating with our patented reverse flow melters.
- Decoating with our patented mass flow recirculation system, all types of scrap.
- Controlled variable scrap feed systems for conveying, submerging, and salt feed. Two styles of submerging devices.
- Unique designs to resolve specific problems—eliminate water cooling, sealed charging, flat removable roofs, low profile doors and others.
- In the recycling industry, systems include bale breaking, shredding, separation, decoating, vortex submerging, melting and holding furnaces including rotary furnaces, and transport ladles.

Glama Maschinenbau GmbH  
Gladbeck, Germany  
http://www.glama.de  

GLAMA has designed and built heavy-duty mobile equipment for aluminium pot rooms, cast houses and anode rodding shops throughout the world for almost 30 years. The following types of mobile equipment are available:
- Anode Changing Vehicles
- Hammer Crustbreakers
- Tapping Trucks
- Anode Pallet Transporters
- Furnace Charging Machines
- Furnace Tending Machines
- Molten Metal Carriers
- Ladle Charging Trucks
- Butt Cleaning Manipulators
- Coil Lift Trucks

GMD Environmental Systems Inc  
Fort Worth TX  
www.gmdenv.com  

GMD Environmental Systems, Inc., engineers, designs and manufactures Environmental Equipment and Systems for Air Pollution Control. Products include “Shaker” and Pulse Type Dust Collectors (Baghouses and/or Fabric Filters); Totally Enclosed Treatment Systems (TETS™) for the treatment of Acid Gases including Sulphur Dioxide (SO₂) Sulphur Trioxide (SO₃); Hydrogen Chloride (HCl) and Hydrogen Fluoride (HF); and Totally Enclosed Treatment Systems (TETS™) for Hazardous Dust Conditioning including Lead (Pb), Cadmium (Cd) and Chrome (CH).

Emphasis is on FURNACE EMISSION CONTROL SYSTEMS.

GNA ALUTECH, Inc.  
9495 Trans-Canada Hwy  
St-Laurent, QC H4S 1V3  
Phone: (514) 956-1776  
Fax: (514)956-0286  
http://www.gna.ca  

GNA Alutech Inc. is a supplier of furnaces and related material handling systems to the aluminum industry. Innovative engineering capability and process knowledge make GNA a superior quality supplier of casthouse furnaces and systems equipment for both primary and secondary producers. GNA also has strong capabilities in cathode and anode assembly systems with several installations in the carbon sector of modern aluminum smelters.

Gouda Vuurvast N.V.  
Gouda, Netherlands  
www.goudarefractories.com  

For more than 100 years Gouda Vuurvast is a manufacturer and supplier of high quality refractory materials. Gouda Vuurvast is a Dutch company with production plants in The Netherlands, close to the world’s largest harbour: Rotterdam.

Unlike other refractory manufacturers Gouda Vuurvast has specialised in the demands and needs of a few industries out of which the aluminium industry is the most important.

In addition to our products Gouda Vuurvast offers a complete range of services:
- Inspection and trouble shooting
- Refractory design and engineering
- Construction and construction supervision
- Project management
- Training

The full range of products and services give the opportunity to handle small and large projects and also to offer long-term full service maintenance contracts.

Our worldwide supply flexibility and expertise make Gouda Vuurvast the company for solving all your refractory problems.

Granutech-Saturn Systems Corp.  
#1031  
Phone: 972-790-7800; Toll Free: 877-582-7800  
Fax: 972-790-8733  
E-mail: size-reduction@mac-corp.com  
201 East Shady Grove Road  
Grand Prairie, TX 75050  
www.granutech.com  

Manufacturer of shredding, grinding and granulating equipment for size/volume reduction of waste/scrap materials including scrap metals and plastics, MSW, waste-to-energy and hazardous waste markets, drums, pallets, ferrous/non-ferrous scrap, as well as complete turnkey systems for processing crumb rubber from scrap tires. Our line also includes mobile, portable and stationary auto flatteners and baling equipment, including the “Big MAC” flattener which sets the industry standard for available features, durability, performance and reliability.

SEE OUR DISPLAY AD, PAGE 28.

Graphite Engineering & Sales  
#835  
Greenville, Michigan  
http://www.graphite-eng.com  

Graphite Engineering & Sales Co 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 the following items:
- 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

Visit Graphite Engineering & Sales Co atbooth #835 to discuss your graphite requirements.
COMPANY PROFILES

GVI
#1213
Chicoutimi, Quebec, Canada
www.gvi.qc.ca

GVI develops worldwide high performance "troubleshooting & training computer-based solutions" to the industrial and manufacturing market, specifically to the aluminium, plastic, pulp and paper industries. They are mainly designed to help organizations become more competitive by increasing the personnel's autonomy and knowledge while capitalizing on their competence. As a result, companies improve many of their fields of activities such as production, training, quality management and know-how management. Our "troubleshooting & training computer-based solutions" are great tools. User-friendliness and ease of use make them easy to learn.

H C Starck
#1227
Cleveland, Ohio
www.hcstarckus.com

H.G. Engineering Ltd
#933
Toronto, Ontario, Canada

Since the founding of H.G. Engineering Ltd. (H.G.E.) in 1973, we have focused on providing quality engineering and project management services to the metallurgical industry. We offer multidisciplinary services that include process, mechanical, piping, civil, structural, electrical and instrumentation engineering as well as project and construction management services, taking full advantage of numerous strategic alliances with selected technology providers. Our non-ferrous capabilities encompass both hydrometallurgical and pyrometallurgical systems that fully comply to environmental standards.

Hamilton Research & Technology Ltd
#1213
Calcutta, WB, India
http://www.hamiltonresearch.com

Hamilton Research & Technology Ltd. (HART) provides Process Automation for the Aluminium Industry. Specialized in retrofitting of modern Distributed Control Systems for existing Aluminum Smelters and Carbon Anode Baking Furnace.

HART’s distributed control system for Aluminium Smelters uses individual Electronic Pot Controllers (EPC) as Distributed control elements connected in a multi drop master slave mode to the Master Computer Syste. Proprietary control algorithm are customized to suit parameters of individual smelters for optimizing current efficiency. Systems has been implemented in major Aluminum smelters in India (Hindalco, Malco) and abroad (SaAz & BrAz in Russia).

HART has implemented a third generation Heating Regulation System for Carbon Anode baking plant. Individual controllers control the air inlet, draught as well as burner firing to provide accurate adherence to the ideal heating curve. Unique wireless infra red communication system designed for communication between field modules and master computer eliminates frequent maintenance.

Hauck Manufacturing Co.  
#1139
Lebanon, Pennsylvania
http://www.hauckburner.com/

Hauck Manufacturing Company 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.

Hencon B.V.
#1131
Ult, The Netherlands
E-mail: info@hencon.nl

SPECIAL VEHICLES FOR THE ALUMINIUM INDUSTRY
- Backed by more than 45 years experience, Hencon Holland is a main and worldwide supplier in the field of “Special Mobile Equipment” for the aluminium industry.
- The delivery program covers the complete range for potroom (Siöderberg and prebaked) and for the casthouse, 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
  - Pot Tilting Vehicles
  - Anode Spading / Tamping Trucks
  - Side Loading Forklift Trucks
  - Platform Lifting Trucks

At the TMS 2002 Exhibition, Hencon will be present at booth no. 1131, where the products of the delivery program will be shown. SPECIFIC NEW DEVELOPMENTS ARE:
- Combined Furnace Charging / Skimming Machine
- Compact Hot Metal Transport and Tilting Vehicle
- New type Multipurpose Vacuum Cleaner H-3000

Heraeus Electro-Nite Co.
#1205
Philadelphia, Pennsylvania
http://www.electro-nite.heraeus.com/

Heraeus Electro-Nite Co., the world’s largest developer and producer of sensors for the molten metal industry, will be exhibiting several sensors for the primary aluminum smelter.

The Cry-O-Therm™ “Superheat” sensor has been developed to provide the potline with an almost instantaneous reading of the bath and liquidus temperatures. It is being shown that direct measurements of the liquidus temperature in industrial cells by the Cry-O-Therm probe is clearly advantageous compared to the alternative methods for determining the liquidus temperature.

The Positherm-AL® Type “S” disposable thermocouple and DT280 digital temperature measuring system provide the potroom operator with a faster, more accurate, and more reliable temperature of the cryolite bath. The companion datalogger allows the operator to store all the information collected over the course of the day and download it directly into the computer at the end of his shift.

Stop by the HEN booth to learn more about our sensors for the primary aluminum smelter.

Hertwich Engineering
#738
Braunau, Austria

Based in Braunau, Austria and having an office in USA, this supplier of equipment to the aluminium industry will be showcasing their entire line of products. This will include: fully automatic in-line and stand alone ultrasonic inspection stations, continuous homogenizing and cooling systems ranging from 8,000 tpy up to 140,000 tpy, fully automatic billet sawing and stamping plants, billet pressing, fully automated billet and log stacking systems complete with bundle manipulation. Also featured will be the compact remelt facilities and horizontal casting systems Hertwich Engineering supply.

Hirox USA
#1210
www.hirox.com

3-D HI-SCOPE video microscope systems for quality inspection of microscopic objects. Dynamic 360 rotation with oblique angle viewing provides high resolution 3-D image with great depth-of-field available magnification range 1x – over 4000x. Video ready to color printer, VCR or PC for documentation, image analysis and measurement. The most advanced quality inspection system for process control, failure analysis and research development. Email: inquiry@hirox-usa.com.
Hydro Aluminium Hycast a.s. will present a new and revolutionary in-line melt-refining unit at TMS 2002 Annual Meeting and Exhibition in Seattle, Washington, USA.

Hydro has taken a step forward when it comes to in-line technology, compared to what has been available on the market up till now. Hydro Aluminium is recognized as one of the leading aluminium companies of the world, and has put technology development based on own experience and customer input in focus.

The new I-60 SIR unit has been developed by Hycast together with Hydro’s R&D centre at Sunndalsøra, Norway, and with input from the primary and secondary casthouses in Hydro.

Why develop a new in-line unit? Well, our customers listed up several features they were looking for, but there was not such unit available on the market. The major list of features our customers wanted and which is successfully offered are:

- New, unique, patented rotor and reactor technology.
- A unit with excellent metallurgical performance on all elements, even on particles and oxides, to avoid further down-stream filtering for most of the alloys. Comparing the results from the SIR with other published material on other degassing/ filter units, Hydro has never seen anything like it.
- Drain-free reactor, meaning that the metal is drained back to furnace, or can be drained to casting machine at the end of cast as a fully automatic operation.
- Simple installation and small foot-print. The SIR is a very compact unit, with all major components integrated in one machine. That means that we just need a few hook-ups to be up running in a few days.
- Low operation cost per tonne produced metal. Cost is of great importance in all business, regardless of good performance or other features. The SIR will absolutely give a very low operation cost compared to others.
- HSE aspects has definitely been put in focus when developing the SIR unit. You would probably know that Hydro has a very high standard when it comes to this, and we are happy to say that the SIR is meeting these standards.

In addition to above features, one of the most important messages that was given by several of the Cast-house Managers was: “I want a unit that is just sitting there, making me able to produce day after day with the same quality”.

After long term testing and verification in Hydro cast-houses, Hycast is happy to give the Cast-house Manager what he wants.

See us at booth 823 at TMS 2002.
See our display ad, page 5
COMPANY PROFILES

Holton Machinery Ltd
#725
Phone: +44 (0) 1202 581 881
Fax: +44 (0) 1202 581 789
E-mail: sales@holton-conform.com
Holton Machinery Ltd
Albany house, Elliott Road, West Howe Bournemouth, Dorset, BH11 8JH, England
www.holton-conform.com

Holton Machinery Limited manufactures the Holton Conform™ range of continuous rotary extrusion machines which are now in profitable production in 22 countries around the world. The company is a world leader in continuous rotary extrusion, with over 20 years experience and the backing of its multinational parent company, The Outokumpu Group.

Capitalising on its new Holton Conform™ 2000 machine, Holton has taken orders for 6 new Conform™ lines in the last nine months as well as for a number of major refurbishment projects. Holton continues to challenge the accepted norms in applications for Conform™ and is spearheading new technologies and metallurgical processes through partnerships with universities and industrial technical centres.

Hysitron, Inc.
#1334
Minneapolis, Minnesota
http://www.hysitron.com/

Hysitron is a leading manufacturer of nanomechanical test instruments for advanced materials characterization. Tests include hardness, fracture toughness, elastic modulus, friction, wear and scratch resistance of bulk materials, ultrathin films, nanostructures (MEMS) and nanocomposites. The TriboScope® interfaces to a commercial AFM or the Tribolndenter®, with SPM mode imaging, allowing pre and post indent in-situ imaging. Advanced features such as Acoustic Emission, Full Automation, Stiffness Mapping and Dynamic Stiffness Measurement are available. Sample testing and contract analysis are offered at our USA headquarters.

Industrial Heating Magazine
#733
Pittsburgh, Pennsylvania
http://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 22,100 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.

Industrial Tip
#934
Monroe, North Carolina
www.industrialtip.com

Industrial Tip Manufacturing (ITM) makes ceramic fiber casting tips and related parts for use in the continuous casting operation. Using unique manufacturing techniques, ITM has developed a superior casting tip that combines excellent compatibility with aluminum contact as well as exceptional thermal characteristics, making these boards the ideal choice for sheet casting.

Innovatherm Company
#734
Phone: 0049-6033-9696-0
Fax: 0049-6033-9696-9
E-mail: dmaiwald@innovatherm.de
Butzbach Germany
www.innovatherm.de/

Innovatherm GmbH & Co. KG is concerned with thermal processes and has specialized in tuning, reconstruction and optimization of existing furnaces. Especially in the field of the anode baking process, innovatherm has gained many years of experience in open and closed pit, single and triple baffle furnace technology. Innov-therm continues and improves the former Leisenberg technology for firing and control systems for anode baking furnaces.

Insulation & Machining Svcs Ltd
#739
Southport, Merseyside, United Kingdom
www.ims-insulation.com

Based in Southport, Merseyside, UK, and with offices over the country and strategically placed throughout the world, IMS is able to supply insulation materials on a truly world-wide basis.

IMS offers a vast product range, supported by experienced and trained personnel. IMS utilises its own in-house comprehensive machine shop fully equipped with the latest state of the art CNC machinery.

IMS works in conjunction with many of the world's leading suppliers of insulation materials, and with their support you can be assured that you will be receiving products of outstanding quality with full manufacturer's support.

Integran Technologies
#843
Toronto, Ontario, Canada
www.integran.com

Integran Technologies Inc is a metallurgical nano-technologies company, which provides customers a competitive edge in the marketplace through licensing of its proprietary advanced materials and coating technologies, (i.e. GBE™, Nanoplace™, Electrosleeve™). Through cost-effective metallurgical process modifications, Integran engineers materials and coatings on a near-atomic scale, to yield super materials which meet the demanding functional and structural requirements of tomorrow’s products. With a fully equipped laboratory for pilot scale synthesis and characterization of materials, Integran’s team of scientists, engineers, and technologists are dedicated to facilitating and accelerating the technology transfer process, and the widespread commercial application of its advanced metallurgical processes.

International Magnesium Association
# 1319
McLean VA
www.intlmag.org

The International Magnesium Association (IMA) is the global voice of the metal magnesium industry. IMA is a trade association for magnesium’s primary producers, recyclers, foundries, fabricators, end-users and suppliers. IMA’s leadership provides the global industry with services and information through its World Conference, seminars, sponsored research and publications. Founded in 1943, IMA’s mission is to enhance magnesium’s position in material selection and promote innovative applications of the metal. Today’s use of magnesium provides numerous options and benefits to manufacturers and consumers.

International Procurement Inc
#732
Wexford, PA

International Procurement Inc is in business to contract, manufacture and sell the ISIDOROV inductive stirring device. This technology is covered by a US Patent in ISIDOROV's name.

The equipment can be retrofit on existing melting or holding furnaces and will:
- reduce the energy to melt
- increase furnace production
- improve alloy distribution
- reduce melt loss

This system is mounted on the side of the furnace, is small, efficient and inexpensive compared to other inductive systems.

Visit our booth and let us explain how our system operates, and how it can reduce costs for you.
In the smelting plant, our full line of power and free conveyors and integrated material handling products are computer controlled to efficiently automate rod/anode assembly, and green or baked anode operations. **OUR PRODUCT LINE INCLUDES:**
- automated guided vehicles
- power and free conveyors
- roller and heavy-duty chain conveyors, automated storage and retrieval systems
- and custom designed automation equipment for butt removal and anode or slab handling

From raw materials handling and transport . . . to anode, molten metal, and cast ingot handling . . . to automated storage of work-in-process and finished product . . . The Jervis B. Webb Company has over 40 years of material handling and control experience in the Aluminum Industry.

**JOM**  
#1101  
Warrendale PA  
www.tms.org/pubs/journals/JOM/jom.html  
Published monthly by TMS, The Minerals, Metals & Materials Society. JOM is a technical journal devoted to exploring the many aspects of materials science and engineering. JOM reports scholarly work that explores the state-of-the-art processing, fabrication, design, and application of metals, ceramics, plastics, composites, and other materials. In pursuing this goal, JOM strives to balance the interests of the laboratory and the marketplace by reporting academic, industrial, and government-sponsored work from around the world.

**KB Alloys, Inc.**  
#724  
Reading, Pennsylvania  
http://www.kballoys.com  
KBAlloys, Inc. and Anglo Blackwells Ltd. produce 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, ingot and KORRECT BAR©. With the use of statistical process control, KBAlloys 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.

This traditional quality system is now even stronger with certification of all our facilities to ISO 9002 standard by the British Standard Institute. If consistency in product performance is important to your success, selecting KBAlloys or Anglo Blackwells as a vendor is your critical path to success. Our technical specialists and field sales engineers can assist you in creating the best master alloy for your needs, increasing your production, solving problems and improving the performance of your aluminum alloys. Please see us at our booth or contact us at www.kballoys.com.

**KBM Affilips B.V.**  
#1309  
Phone: +31 412 681311;  
Fax: +31 412 635594  
E-mail: info@kbmaffilips.com  
Oss, The Netherlands  
http://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 Aluminium industry include AITIB, AITIC, AIB, AlSi as well as a full range of hardeners, tablets and briquettes (a.o. Cr, Fe, Mn & Ti).  
The very complete product range for the Copper industry includes products like CuB, CuCo, CuCr, CuFe, CuMg, CuSi, CuTi & CuZr. KBM AFFILIPS is also the right address for NiMg (& complex FeNiMg), additives for super alloy production as well as Pb and Zn master alloys.

For further information please visit our booth 1309 or contact our office.

**KHD Aluminium Technology GmbH**  
# 717  
Cologne, Germany  
Effective April 1st, 2001 Outokumpu from Finland has acquired KHD Aluminium Technology GmbH from Deutz AG, Cologne / Germany  
KHD Aluminium Technology GmbH specialises on plant and equipment for the production of carbon anodes and electrodes required in the primary aluminium and other metals industries.

For the aluminium industry, KHD Aluminium Technology GmbH designs, supplies and installs green anode plants, anode handling systems, rodding plants, butt crushing plants, pol line equipment and is the world-leading supplier of vibrating compactors for forming of green anodes, cathode blocks and electrodes, with more than eighty units supplied to the aluminium and carbon products industries.
COMPANY PROFILES

Kabert Industries
#1022
Phone: (630) 833-2115;
Fax (630) 833-9298
Villa Park, Illinois
http://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 a variety of other shapes.

Other products available include gaskets, which are 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 in continuing to offer our customers across the world the latest technology and unparalleled service at competitive rates.

Kempe International
#1216
Geelong, VIC, Australia
http://www.kempe.com.au

Kempe International is a leading global engineering service-based company providing turnkey facilities, specialized equipment, engineering consulting and maintenance support services to the aluminum smelting industry.

Kempe’s services can be offered independently or as a package and include:
- Engineering Design & Project Management
- Manufacturing
- Equipment Supply
- Turnkey Project Work
- Site Project & Shutdown Coordination
- Maintenance Engineering
- Fluid Power Supply & Services

Our commitment to customer service is supported by an ever growing in-house branch network on a global basis.

Our clients include smelters in Australia, New Zealand, U.S.A., Brazil, South Africa, Mozambique and Dubai.

LAR
#1125
63 Road 169
Metabetchouan, Quebec G0W 2A0, CANADA

LOI, Inc.
#1031
Canonsburg, Pennsylvania
http://www.loi.de/en/indexsa.html

LOI, Inc. features the Twin-Chamber melting furnace, for melting contaminated aluminum scrap without using salt. This process is based on low-temperature carbonization and subsequent incineration of the contaminants, making it an environmentally compatible solution.

Aluminum Melting
Delivery of complete systems for melting/recycling of various Al materials and scrap, including flue gas purification, metal circulation using electromagnetic pumping, and charging equipment.

DESIGN AND MANUFACTURE OF:
- Round, top charge, melting furnaces
- Tilting, holding furnaces
- Twin-chamber melting furnace for contaminated scrap

HEAT TREATMENT
Heat treatment systems for structural Al parts (wheels, cylinder heads, axle guides, etc.) for continuous and non-continuous operation, for the following processes:
- Solution annealing
- Quenching
- Artificial aging systems for extruded Al profiles
- Coil Annealing systems for single or multiple coils

SEE OUR DISPLAY AD, PAGE 13

LMI Selcom
#1330
Partille, Sweden
http://www.lmi.com/cfm/index.cfm

LaserPour® Molten Metal Level Control Solutions
The LaserPour® Aluminum Level Control Systems from LMI Selcom are high-speed, closed-loop control systems that automatically and precisely regulate the level of molten metal in a mold, launder, headbox or trough.

Using real-time level measurements, the systems control the metal level from start-up through the filling stage to finished casting. Metal flow from the tilting or stationary furnace is also controlled to assure accurate and consistent fill rate to the desired level.

LMI Selcom’s products for aluminum level control provides automatic, easy-to-use, reliable and virtually maintenance free solutions and they offer proven benefits to the customer.

SEE OUR DISPLAY AD, PAGE 13

Leco Corporation
#1317
St. Joseph, Michigan
http://www.leco.com/

Leco offers you Image Analysis Systems, Microindentation Hardness Testers, Metallographs and other top quality instruments for all of your analytical and metallographic needs. Stop by our booth #1317 at the 2002 TMS Annual Meeting Exhibition and find out how LECO Corporation can provide you with the right solutions to all of your analytical and metallographic needs. Or visit us today at www.leco.com

L P Royer Inc
#1208
LAC-DROLET, QUEBEC, CANADA
http://www.iroyer.com/

Design and manufacturing of safety footwear, metalworking industry, chemical, electrical, forestry work.

LVE Verfahrenselektronik GmbH
#1031
Essen, Germany
http://www.lve-gmbh.de

LVE is specialised in the automation and optimization of thermal processes for the aluminum industry. Special knowledge and experiences are available in anode baking and casting technology. Products are ProBake advanced firing systems for anode baking furnaces and CMMS, an optimized charging calculation and melting management system for primary and secondary casthouses.

Lechler, Inc.
#735
445 Kautz Rd., St. Charles, IL 60174
(800) 777-2926; Fax (800) 444-7069;
E-mail: metals@lechlerusa.com
http://www.lechler.com

Lechler has specialized in the design, manufacture and maintenance of fluid application systems for both the ferrous and non-ferrous metals industries since it began in 1879. Lechler will exhibit a range of engineered fluid application systems, services and nozzles including roll cooling headers, roll wipers, SELECTOSPRAY systems for differential roll cooling, WHISPERBLAST Blow-off headers, gas conditioning nozzles and systems for pollution control and many other fluid application systems for cooling, coating, and cleaning.

L P Royer Inc
#1208
LAC-DROLET, QUEBEC, CANADA
http://www.iroyer.com/

Design and manufacturing of safety footwear, metalworking industry, chemical, electrical, forestry work.

LVE Verfahrenselektronik GmbH
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Leco Corporation
#1317
St. Joseph, Michigan
http://www.leco.com/

Leco offers you Image Analysis Systems, Microindentation Hardness Testers, Metallographs and other top quality instruments for all of your analytical and metallographic needs. Stop by our booth #1317 at the 2002 TMS Annual Meeting Exhibition and find out how LECO Corporation can provide you with the right solutions to all of your analytical and metallographic needs. Or visit us today at www.leco.com
Leeman Labs Inc  
#1025  
Hudson, NH  
www.LeemanLabs.com

Pulsar is a precise, accurate and cost-effective spectrometer for current and future material chemistry requirements. The pulsed sputtered technology offered by Leeman Labs Inc. (LLI), Hudson, NH, combines the attributes of the three conventional methods—spark emission, X-ray fluorescence (XRF) and combustion analysis—into one, easy-to-use system for ALL ANALYSES. All materials may be analyzed for seventy-one different elements from trace (ppm) to 100% concentration levels. Depth-profiling and solution analyse are also available with Pulsar. Cutting-edge inductively coupled plasma (ICP) and trace mercury analyzers are LLI fortes. For more information, visit our booth #1025, or visit our new website at www.LeemanLabs.com

Light Metal Age  
#727  
San Francisco, California  
http://www.lightmetalage.com

For almost 60 years, Light Metal Age magazine has covered primary production and semi-fabrication of light metals, primary aluminum and associated nonferrous industries throughout the world. Circulation goes to smelters, rolling mills, extrusion plants, sheet and wire mills, foundries and die casting, anodizing, roll casting, coil coating and forging operations.

Recipients are executives, general managers, plant managers, technicians, metallurgists, chemists and engineers responsible for fabrication, production and operations.

#1127  
Fax: (914) 636-0344  
New Rochelle, New York

The state of the art billet casting operation has been designed and built by LOMA Machine of New York. Our “Easycast” Hot Top System of aluminum was developed for the production of aluminum alloy extrusion billets. The unit is based on a closed Mold System patented, and simultaneously as many as over 100 multiple strands can be cast in one set-up. Less than 1 percent of the metal is lost in the form of “gate” on top of the billet, which is a great improvement compared to the scrap loss involved in conventionally cast billet.

Contact Loma by fax or visit us at Booth #1127

Maerz-Gautschi GmbH  
#1105  
Taegerwilen, Switzerland  
http://www.maerz-gautschi.ch

Maerz-Gautschi Industrial Furnaces / Aluminium Division in Taegerwilen, Switzerland, offers, as a result of the extensive experience gained in the aluminium industry worldwide, thoroughly developed and proven products ranging from individual items of equipment to complete casthouses.

Melting and Holding Furnaces for casting directly from smelter reduction cells or integrated in remelt lines; Ingot Casting and Stacking Machines for foundry ingots, Horizontal and Vertical Casting Machines for rolling slabs and extrusion billets to produce the universal feedstock for remelt, rolled and extruded products; Heat Treatment Furnaces - batch or continuous type - for further treatment are the main products of the company.

Collaboration with Technical Institutes, experienced companies such as HPI, SAG, VAW and ongoing relationships with our customers creates the inspiration for a prosperous future. Maerz-Gautschi’s use of the latest technology provides the aluminum industry with efficient installations according to latest standards.

MagChem, Inc.  
#932  
Boucherville, Quebec, Canada  
http://www.magchem.com/

Specialized Casting and Sawing Lubricants  
MagChem Inc. is a leader manufacturer and designer of high tech casting and sawing lubricants.

MagChem casting lubricants have been developed to provide the following properties:
- High flash point, low smoke formulations
- Ecological acceptance in the DC process
- High thermal stability
- Low volatility
- High lubricity
- Stable lubricant film at the molten metal-mold interface
- Low oxidation properties at high temperatures

MagChem sawing lubricants are critical to ensure the integrity of the surface and the quality of the cut. High heat extraction properties, elimination of staining in heat treat stages and high lubrication values are distinct advantages provided by MagChem sawing lubricants. These lubricants are formulated with anti-oxidation and lubrication additives.

MagChem has also developed a full line of quality products for aluminum wire drawing and strip rolling.
COMPANY PROFILES

Megaquip Ind., Ltd.
#1201
E-mail: sales@megaquip.com
Delta, British Columbia, Canada
http://www.megaquip.com/
MEGAQUIP INDUSTRIES LTD. specializes in the design and manufacture of unique heavy duty mobile and industrial equipment utilized in Aluminum Smelters and other industries.
- Our reputation as a “Key Supplier - Partner”, highlights our corporate strengths -
- The ability to define both the task and the required solution.
- The willingness to do whatever is needed for any particular design requirement.

After developing some 49 prototypes, we still hold a 100% success rate.

If you expect satisfaction through value analysis and project teams, we can assure your success - MEGAQUIP - part of your team!!!!

Messe Düsseldorf North America
#623
Chicago, Illinois
http://www.mdna.com/
At booth 623, Messe Düsseldorf North America will have visitor and exhibitor information available for:
- GIFA 2003, 10th International Foundry Trade Fair with WFO Technical Forum,
- METEC 2003, 6th International Exhibition for Metallurgical Technology with Congress and
- NEWCAST 2003, International Trade Fair for Casting Products—a new event exclusively for casting products which will be held concurrently to the already world renowned trade fair trio GIFA, METEC and THERMPROCESS from June 16–21, 2003 in Düsseldorf, Germany.

Over 2,000 exhibitors and 96,000 visitors from around the globe are expected to attend these trade fairs.

Metal Bulletin LLC
#1212
London, United Kingdom
http://www.metalbulletin.com/
For more than 80 years, Metal Bulletin has been reaching metals producers, semi-fabricators, traders, end users, recyclers and capital equipment suppliers in more than 100 countries. Metal Bulletin and its sister publication, Metal Bulletin Monthly, are more widely known and respected in the international metals markets than any other metals publications. In addition to MB and MBM, Metal Bulletin Journals publishes numerous research reports, directories and databooks for every segment of the ferrous and non-ferrous metals industries. Metal Bulletin also arranges metals conferences throughout the world and provides an on-line metals information service, www.metalbulletin.com.

Metallurgical Society of CIM
#1320
Phone: (514) 939-2710;
Fax: (514) 939-9160
3400 de Maisonneuve W. #1210
Montreal, QC H3Z 3B8 Canada
www.metsoc.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, 1,700 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:
- Hydrometallurgy of non-ferrous metals
- Light metals
- Pyrometallurgical operations, covering the smelting of sulphides and laterites
- Iron and steel developments
- Technology of zinc and lead processing
- Waste processing and environment issues
- Computer applications
- Mineral processing

MetSoc would like to take this opportunity to invite you to visit Booth 1320. See you in Seattle!

Metallurg aluminium
#1011
Burlington, Ontario, Canada
Rotherham - UK, Newfield - NJ,
São João Del Rei - Brazil,
Rjukan - Norway, Mungia - Spain
http://www.metallurgaluminium.com

Metallurgy Aluminium combines the strengths of its five members, London & Scandinavian Metallurgical Co Limited (LSM), Shieldalloy Metallurgical Corporation (SMC), Companhia Industrial Fluminense (CIF), Hyldeko AS and Bostlan SA to innovatively meet the highest quality requirements of the aluminum industry.

With its five manufacturing facilities, located in the UK, USA, Brazil, Norway and Spain, its professional worldwide sales force and global distribution network, Metallurgy Aluminium offers the aluminium industry the highest level of service in the supply of aluminium grain refiners, master alloys and hardeners.

Our wide range of compacted powder products includes Chrome, Copper, Iron, Manganese, Nickel and Titanium in our flagship ALTAB™ products and briquettes.

We continuously provide innovative products aimed at reducing costs in the cast house. Recent innovations include TiCAI 315™ & TiCAI 330™ grain refining rods, 8% Boron Al (8BAI™) rod & castcut™, Sr-Al & TiBAl Quicksol Bar™, Strobloy™, TiBAlloy™ and ALTAB™ 100% Ti.

Consistently high quality is secured through statistical process control and rigorous quality assurance programs. All Group members are registered to one or more of the following quality standards: QS 9000, ISO 9001, or ISO 9002.

We invite you to visit the Metallurgy 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.

Micro Photonics Inc.
#1300
Allentown Pennsylvania
www.microphotonics.com

Micro Photonics supplies nano-hardness testers, micro-scratch testers and tribometers for measuring thin film hardness, adhesion, and wear resistance; ellipsometers and reflectometers for measuring thin film thickness and optical properties; non-contact 2D and 3D profilometers for measuring surface topography; x-ray microtomographs for measuring material microstructure; and CCD cameras for x-ray imaging.

SEE OUR DISPLAY AD, PAGE 7.
Mid-Mountain Materials
#1324
Phone: 1-800-382-2208
Seattle, Washington
www.mid-mountainmaterials.com

Mid-Mountain Materials, Inc. is an international company specializing in the design and manufacture of advanced high temperature resistant industrial textiles, coated fabrics, custom sewn parts and technical insulation components. With an emphasis in problem solving, Mid-Mountain engineers sealing & thermal solutions for energy efficiency/environmental compliance in the Aluminum Industry.

Since its founding in 1976, Mid-Mountain Materials has experienced steady growth, rapidly expanding the manufacturing facility. Mid-Mountain sustains this growth through new product development, implementation of advanced manufacturing processes and strategic partnerships to meet the growing demand for specialty high temperature products.

“The Final Barrier Against Abrasion, Chemicals and Heat.”

MikroPul
#731
Pittsburgh, Pennsylvania
www.mikropul.com

MikroPul, a Beacon Industrial company, offers complete turnkey air quality system design and implementation capabilities including process analysis, system design, equipment supply, installation, start-up and testing.

MikroPul invented the pulse jet dust collector in 1956 but also has considerable experience and a proven line of products including cyclones, cartridge collectors, reverse air collectors, shaker collectors, wet and dry scrubbers, wet electrostatic precipitators and gas coolers.

As a world leader in dust control and product recovery systems, MikroPul has offices throughout North America and also in Australia, France, Germany, South Africa, South America and the United Kingdom. MikroPul is headquartered in Charlotte, North Carolina.

MikroPul Pittsburgh has been established specifically to serve the Metals Industries (steel, foundries and non-ferrous).

Milward Alloys, Inc.
#1311
Lockport, New York
http://www.milward.com

Milward Alloys, Inc. is a manufacturer of both copper and aluminum based master alloys. It produces a wide variety of grain refiners, hardeners, modifiers and degasifiers for the non-ferrous industry in the form of rod, waflle, ingot, shot, cut-cast and Acu-Stix.

Several unique alloys are available like 1% and 5% Beryllium Aluminum, 10% and 15% Strontium Aluminum and 8% and 15% Phosphorus Copper. Milward Alloys also possesses unique capabilities to manufacture specialty alloys upon request. We invite you to stop at our booth # 1311 to discuss your special needs.

Minteq International, Inc.
#1235
Slippery Rock, Pennsylvania
www.mineralitech.com

MINTEQ International Inc. is one of the world’s largest producers of monolithic and specialty refractory materials for the steel, cement, glass, and non-ferrous metals industries. MINTEQ is a resource and technology based company with R&D facilities in five locations around the globe.

One of our newest product lines is the proprietary STARFLOW family of products. STARFLOW products were developed for high temperature maintenance and repair of melting and holding furnaces, troughs, ladles, and molten metal containing vessels. STARFLOW products provide the following benefits:
- Furnished as a dry product that requires no addition of water
- No mixing required
- No dusting during application (safe, environment friendly application)
- Contains no pitch or other organic additives
- Wets out and flows upon exposure to heat
- Sets up within minutes
- Eliminates furnace shut down
- Eliminates costly downtime for maintenance and repair

Stop by our booth at the TMS in Seattle for a STARFLOW demonstration!

Modern Metals Magazine
#1322
Chicago, Illinois
www.modernmetals.com

For more than fifty years, Modern Metals has reported on the full range of metals and forming processes, reaching corporate executives, engineers and purchasing managers within the original equipment, service center and primary metal producing markets. Metalworking professionals read Modern Metals to find the most efficient and cost-effective materials and machinery, and to discover how trends in the global marketplace may effect their corporate objectives. Among metalworking magazines distributed to both service centers and OEMs, no other publication matches Modern Metals’ service center circulation.

Moltech
#632
Carouge, Geneva, Switzerland
MOLTECH PRODUCTS FOR ALUMINUM CELLS

In over twenty years of research, the MOLTECH Group has developed products and processes for aluminum electrowinning, including TINOR Aluminum-wettable Protective Cathode Coating, OPANOR Anode Oxidation Protection and EXCELNOR Side Wall Oxidation Protection, which have been tested extensively in laboratories and commercial Cells and are now available for commercial use.

The ultimate goal of MOLTECH research is the development of the NOVANOR non-carbon non-consumable anode to replace carbon anodes, thereby improving Cell performance, reducing pollution in their fabrication and use, and in residue disposal.

NOVANOR anode laboratory test results are very promising and pilot scale tests are now in process. MOLTECH invites everyone to visit its stand at TMS, which will feature innovative MOLTECH products including NOVANOR.

Molten Metal Equipment Innovations
#1038
Middlefield, Ohio
http://www.mmei-inc.com

Molten Metal Equipment Innovations, Inc. is a dynamic and innovative company that designs and manufactures people-friendly equipment for the aluminum industry. Products include molten metal circulation, transfer and gas injection pumps, scrap melting systems and rotary degassers. We specialize in the ability to customize any of our products to meet our customers’ unique needs. MMEI invests heavily into engineering, upgrading of existing equipment and new products. We are fully staffed to offer a variety of services to our customers. This includes on-site installation and start-up of the initial equipment. Contact us at 440-632-9119 and our web site at www.mmei-inc.com.

Multistat Inc
#606
http://www.multistat.com/

Multistat develops and markets Multistat Optimizer™ and Multistat ModelViewer™, the world’s leading software products for modeling, model visualization and optimization for both life and materials science research.

Our software is designed for scientists and engineers at R&D facilities to organize scientific data, share information, and develop, analyze, and simulate novel compounds and processes. Multistat is completely focused on visualization and optimization software and works in close partnership with its customers and partners, enabling them to get the best possible performance from our products Multistat Optimizer™ and Multistat ModelViewer™.

Our software is also designed to be embedded in different software products and solutions as a component, making leading edge visualization and optimization accessible to a wide range of customers and applications.
Niton Corporation
#1032
Billerica, Massachusetts
http://www.niton.com/

NITON® Corporation, headquartered in Billerica, MA, specializes in non-destructive alloy analysis instrumentation.

NITON’s portable alloy analyzers have led the industry in sales since their introduction in 1998. At just 2.5 lbs, the XL II-800 is the only truly handheld high-performance alloy analyzer in the world. It is the ideal choice for fast nondestructive analysis and rapid grade identification of ferrous, nonferrous and high-temp alloys.

In 2002, NITON will be introducing a number of exciting new products with capabilities and features never before seen in the industry. Stop by TMS Expo booth #1032 and witness the future of alloy analysis instrumentation.

SEE OUR DISPLAY AD, PAGE 18.

The Nonferrous Metals Society of China
# 1206
Beijing CHINA

Norsmelt
#931
Montreal, Quebec, Canada

Norsmelt is the newly formed agency administered by HGE for the marketing of the Noranda’s copper smelting technologies. Norsmelt’s objectives are to contact prospective clients, determine their business needs, and promote the technology to prospective green field and retrofit users. For all information relating to smelting with the Noranda Process Reactor and associated equipment such as concentrate injection, tuyere pyrometry, and automatic punching, or for information about Noranda’s new continuous converting process, Norsmelt is at your service.

North American Manufacturing
#601
Cleveland, Ohio
http://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 where applicable.

North American has been providing systems for the aluminum industry for better than forty years, specializing in energy savings and melt rate optimization.

OMBKE/Hungarian Mining and Metallurgical Society
# 1232
Budapest HUNGARY
http://www.tms.org/International/OMBKE.html

OMBKE was founded in 1892 at Selmecbánya. Its mission statement: Service of the universal interests of the Hungarian mining and metallurgy. Publications: Monthly periodicals: Mining and Metallurgical Transactions (since 1868), Fuel and Gas and conference proceedings. OMBKE counts more than 4000 members including coal, mineral and oil miners, ferrous and non-ferrous metallurgists as well as foundry-men. The booth introduces the 5th International Congress on European Perspectives in Mining and Metallurgy (Vienna, 29-31 May 2002) being organized by BVÖ (Austria), GDMB (Germany), OMBKE (Hungary) and ICSOBA (International) societies, co-sponsored by TMS and many other sister societies.

Oak Ridge National Lab.
#1305
Oak Ridge, Tennessee
www.ornl.gov

The US Department of Energy, Office of Industrial Technology, is managing a national effort to research, design, develop, engineer and test new and improved materials for industrial use as well as more profitable uses of existing materials. This effort, called the Industrial Materials of the Future Program, seeks partners who have material problems or solutions. The Oak Ridge National Laboratory exhibit displays current Program status, including successes.

Opsis, Inc
#1321
San Marcos, California
http://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 reliable system solutions for a number of applications. All systems feature dynamic calibration capability and simple hardware configurations. The ambient system is an EPA approved equivalent method for SO2, NOx and O3.

Other Opsis benefits include complete DOAS system packages, fully automatic monitoring systems, multi gas and multi path systems, fast, continuous measurements, modular construction which allows expanding or updating of existing installations and simple report generations.


SEE OUR DISPLAY AD, PAGE 14.

Outokumpu Aluminium Technology
#717

In 2001, Outokumpu, a leading global metals and technology group, expanded their offerings to the alumina and aluminum industries. The acquisition of German companies, KHD Aluminium Technology GmbH and Lurgi Metallurgie GmbH, complements the technologies of its Canadian subsidiary Aisco Systems Inc.

Outokumpu Aluminium 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 Aluminium Technology to be the technology and service partner of choice for the aluminum industry.

e-mail: aluminium.technology@outokumpu.com

CANADA: Aisco Systems Inc.
1551 Corporate Drive
Burlington, Ontario L7R 3Y5
Tel. +1 905 335 0002
Fax +1 905 335 9643

GERMANY:
Lurgi Metallurgie GmbH
Ludwig-Erhard-Strasse 21
We have an existing capability in machining, peripheral and longitudinal automatic welding, laser cutting technologies for use with sheet magnesiu m, and forging. Magnesium processing technologies of magnesiu m include: plastic processing technologies of Magnesium in the field of deep drawing, bending, rolling and forging. Laser cutting technologies for use with sheet Magnesium. Peripheral and longitudinal automatic welding, as well as manual welding of a wide variety of Magnesium alloys. We have an existing capability in machining Magnesium parts. Palbam carries out a combination of all of the above mentioned technologies in the fabrication of a variety of products.

**Palbam Metalworks**

1302 En harod Ihud, Israel

Palbam Metalworks is currently the major stainless steel equipment manufacturer in Israel with over 60 years of experience. The factory is well equipped with updated fabrication technologies. Regarding Magnesium, Palbam specializes in:

- Plastic processing technologies of Magnesium in the field of deep drawing, bending, rolling and forging.
- Laser cutting technologies for use with sheet Magnesium.
- Peripheral and longitudinal automatic welding, as well as manual welding of a wide variety of Magnesium alloys.
- We have an existing capability in machining Magnesium parts.

Palbam carries out a combination of all of the above mentioned technologies in the fabrication of a variety of products.

**Pechiney Group**

817 Mamaroneck, New York www.pechiney.com

With an annual alumina production of nearly 2 Mt. and aluminium production of 1 Mt., Pechiney is one of the major producers.

The Aluminium Pechiney Technology has always been very innovative and has set many records, particularly for power consumption, cathode performances and environmental protection (more than 2800 AP 18 cells and 2,000 AP-30 cells are operated around the world).

Pechiney Aluminium Engineering markets the Pechiney Group’s Technologies for casthouse equipment. They are specialists in the areas of degassing and filtration, including its recently improved Alpur TS system, automatic DC casters and continuous strip casters using the Jumbo 3C process. They are also suppliers of technical assistance in the manufacture of flat-rolled aluminium products, for rolling and finishing or basic engineering, and operating know-how for turnkey plants.

**Pechiney Company**


Pechiney Company celebrates its 87th year as an American owned and operated manufacturer and installer of monolithic refractories. Pechiney’s product line is composed of a wide range of plastics, castables and maintenance materials that can be installed through various methods, such as our patented HyRate and mini-HyRate plastic gunning, pumping, Plishot, gunning, etc.

Stop by our booth to discuss how Pechiney’s experience and “state of the art” consistent products, along with your local area representative can successfully solve your refractory problems in a timely fashion.

**Port of Longview**

1223 Phone: (360) 425-3305

Longview, Washington www.portoflongview.com

Port of Longview is a deep water port authority with full-service bulk and breakbulk terminal facilities and a 300-acre industrial park on the Columbia River.

Port Facilities: The Port of Longview’s import and export terminal facilities on the Columbia River in Washington state are capable of handling your bulk and breakbulk moves to and from the Pacific Northwest. Longview specializes in bulk handling with an emphasis on chemicals, minerals and fertilizers and breakbulk commodities such as steel.

Industrial Park: The Port’s 300-acre industrial park is a great site for expanding iron, aluminum and steel manufacturers and processors requiring excellent transportation connections. Dual rail service and tax advantages in General Purpose Foreign Trade Zone #120 offer companies a competitive edge.

Contact: For more information, stop by our booth #1223 or call (360) 425-3305.

**Precimeter, Inc.**

938 Birmingham, Michigan http://www.precimeter.com

Precimeter’s business idea is to be the leading manufacturer of non-contact measurement and control products for industrial applications with the highest total customer value. This will be achieved through quality, reliability and service mindedness.

**Procedair Industries**

611 Montreal, Quebec, Canada www.procedair.com

Supported by the experience of over 120 installations worldwide in the aluminum industry, PROCEDAIR provides technical and economical solutions for any environmental project, either for greenfield smelter or revamping of existing plants, so as to meet the most stringent air pollution regulations. Technologies on display will include alumina injection dry scrubbing systems for potline and anode bake furnaces, coke fines injection dry scrubber for carbon plants, SO₂ wet scrubber using soda ash or sea water, lime/sodium bicarbonate injection dry scrubber for delacquering kilns and melting furnaces.

**Pyrotek Inc.**


Our mission is to provide innovative solutions to customer needs utilizing our global resources. With extensive technological resources and experience, Pyrotek offers aluminium producers, casters and fabricators a comprehensive range of high temperature products, metal treatment systems and technical services.

Pyrotek provides a complete line of products and processing solutions for:

- Pot Rooms
- Carbon Bake
- Metal Treatment
- Centrifugal Casting
- Ingot Casting
- Pig Casting
- Wire Casting
- T-ingot Casting
- Strip Casting
- Billet Casting
- Rolling Mills
- Extrusion and Fabrication

Pyrotek has over 60 locations worldwide and an extensive team of sales engineers for in-plant consulting on melting, treating, transferring, filtering and casting processes. getinfo@pyrotek-inc.com

Pyrotek Inc., 9503 E. Montgomery, Spokane, WA 99206 USA
R&D Carbon, Ltd.  
#718  
Zurich, Switzerland  
http://www.rd-carbon.com/  
R&D Carbon Ltd. serves the petroleum coke, pitch and aluminum industries.  
- Research and Development: Basic research is carried out to better understand relationships between raw material properties and process parameters.  
- Technical Services: Raw material evaluations for anodes, cathodes, and other carbon products are performed in bench or pilot plant scale. Technology audits and in-plant process optimisation are carried out at customer's plants.  
- Laboratory Test Equipment: Easily operated and reliable test instruments have set worldwide standards for testing carbon products.  
- Bake Furnace Process Control: An integrated bake furnace firing and process control system guarantees high productivity, low energy consumption and consistent anode quality.  
- Training: Special training courses in the basics of anode manufacture are offered in our training centre or at customer's location.  
- Engineering: A new process for green anode manufacturing allows the reduction in investment and operating cost. In cooperation with leading engineering companies our patented anode technology is marketed worldwide.

Raytek  
#1204  
Santa Cruz, California  
www.raytek.com  
Raytek engineers fixed-mount sensors that are integrated into industrial processes to provide continuous temperature monitoring and control. The Raytek Automation Division produces the Compact®, Thermalert®, Marathon Series™ and Process Imager Series™ that provide temperature measurement for continuous web or discrete batch manufacturing processes. Using temperature measurement as a monitoring system can provide data needed to optimize throughput and minimize downtime. For further information, visit us at www.raytek.com.

REEL  
#538  
St-Cyr-au-Mont-d’Or FRANCE  
www.reel.fr  
Savoye Refractaires. Non-Ferrous Metals provides specialty refractories for molten metal containment and other critical metal contact applications. Refractory products for the aluminum industry include reduction cell sidewall bricks and blocks, melting/holding furnace ramp and hearth bricks, castables and mortars, immersion heater and thermocouple protection tubes for degassing equipment. Non-Ferrous Metals also supplies specialty and proprietary materials for critical areas in filter systems, molten metal pumps, troughs and dry vibration cements for coreless induction melting/holding furnaces. Non-Ferrous Metals products for the copper industry include shaft furnace liners, bricks, burner components, associated mortars and ramming cements, low moisture/high strength castables for launders, spoons and other critical metal contact applications.

Saint Gobain Industrial Ceramics  
#517  
Phone: (508) 795-4081  
Worcester, Massachusetts  
http://www.refractories.saint-gobain.com  
The Non-Ferrous Metals Group, a business unit of Metallurgy Solutions, Saint-Gobain Ceramics & Plastics, Inc. will exhibit at the 2002 TMS Annual Meeting Exhibition. The Non-Ferrous Metals Group represents the former AnnaWerk, Norton Company, Carborundum Company and Savoie Refractaires. Non-Ferrous Metals provides specialty refractories for molten metal containment and other critical metal contact applications. Refractory products for the aluminum industry include reduction cell sidewall bricks and blocks, melting/holding furnace ramp and hearth bricks, castables and mortars, immersion heater and thermocouple protection tubes for degassing equipment. Non-Ferrous Metals also supplies specialty and proprietary materials for critical areas in filter systems, molten metal pumps, troughs and dry vibration cements for coreless induction melting/holding furnaces. Non-Ferrous Metals products for the copper industry include shaft furnace liners, bricks, burner components, associated mortars and ramming cements, low moisture/high strength castables for launders, spoons and other critical metal contact applications.

Samri Company, Ltd  
# 639  
Kimpo-shi. Kyung Ki-Do. KOREA  
www.samri.co.kr  
SAMRI Company Ltd is one of the largest and oldest foundry suppliers in Korea with three sales offices and two manufacturing plants. For the non-ferrous metal industry, Samri produces various kinds of fluxes and ceramic foam filters. SAMRI also imports master alloys, SiC crucibles, and refractories.

You can check the outstanding quality of our ceramic foam filters displayed at our booth. Please visit our booth at TMS 2002 Exhibition, or check the website at http://www.samri.co.kr

Selee Corporation  
#701  
Hendersonville, North Carolina  
http://www.selee.com  
SELEE Corporation is the premier supplier of ceramic foam filters, advanced ceramic products and services for use in the metals industries. SELEE has maintained market and technical leadership by developing strong partnerships with customers. These partnerships allow customers to share SELEE resources to satisfy their quality and profitability goals.

SELEE Corporation is the only ceramic foam filter and refractories supplier in the world to achieve ISO 9001, QS-9000 and Ford Q1 quality certifications. This means SELEE Corporation will deliver to you on time the best quality products in the industry.

A partnership with SELEE provides our customers access to these resources:  
- Commitment to Innovative New Products  
- Advance Engineered Filter Bowls, Preheat Systems and Refractories  
- Applications Engineering Team  
- Fully Equipped Metallurgical Lab  
- Dedicated Customer Service Team  
- Global Direct Sales Force and Distribution Network  
- R&D Pilot Plant Facility for:  
  - Rapid Prototyping  
  - Innovative New Product Development  
  - TQM Programs that Provide:  
    - Continuous Improvement  
    - Full Product Certification  
    - Self Directed Work Teams  
    - On-site Customer Training Programs

Sermas Industrie  
#1121  
Saint Quentin Sur Isere, France  
http://www.sermas.com  
SERMAS INDUSTRIE is a customer-oriented company specializing in design, construction and commissioning of machines for the aluminum industry.

Complete sawing systems for slabs, T-bars and billets including:  
- Band Saw (cut rate up to 1100 sq. in/min)  
- Chips suction system  
- Handling equipment (downenders, conveyors, stop positioner, crops evacuation, etc.)  
- Packaging equipment (scale, stamping, ink marking stacking, strapping, etc.)

Typical output:  
- One cut T-bar every 57 seconds
- One slab (cut at both ends) every 8 minutes
- Ladle skimming and cleaning machines
- Cathodes machines
- Anode machines (cooling tunnel, handling systems and rodding show equipment)

Your contact at SERMAS: Jean-Christophe Garcia; Phone: 33 4 76 7 42 42; Fax: 33 4 76 93 67 76; Email: sermas@sermas.com

SETARAM
#523
Caluire, France
http://www.setaram.com

For more than 30 years, Setaram has been producing anode baking furnace firing and regulating systems for the aluminium 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
- data management

The heating programming and regulating techniques are operating in aluminium plants all over the world. Dedicated to constantly improving our technology, Setaram Firing Systems set the standards for the industry.

Silver Needle, Inc.
#1325
Toll Free 1-800-863-7733
Kellogg, Idaho
www.silverneedle.net

Aluminized and Vinex® Clothing: Protection From Molten Aluminum and Metal Splash

Our company started in a foundry: 14 years working and producing safe yet comfortable clothing. We listen because we know the frustrations of not being understood, of wearing clothing that doesn’t fit, rubs, scratches and confines. Give us the opportunity to work for you and see if Silver Needle can make a difference.

WE ARE YOUR SOURCE FOR:
- Technical briefs: Discover which fabric will protect the best
- MSDS for fabrics
- Test kits: Determine which fabric works best. Do your tests on site!
- Design requirements

Information Central - Call our toll free number: 1-800-863-7733
SEE OUR DISPLAY AD, PAGE 22.

Sinomag
#1222
Beijing, China
www.sinomag.com

Skamol Americas, Inc.
#1124
Nykobing Mors, Denmark
http://www.skamol.com

When it comes to insulating materials, knowing the right solution can make the difference in thermal efficiency, energy savings and lifetime of the lining. Skamol has an extensive know-how on optimizing insulation solutions in aluminium reduction cells, carbon baking furnaces and cast house furnaces. We offer a wide range of thermal insulating products for service temperatures up to 1150°C (2102°F) including bricks, blocks, slabs and special shape pot-set insulation to fit individual cell designs.

The paper “Aging of Refractory Pot Lining Materials in Aluminium Electrolysis Cells” will be presented by Rikke Weibel, R&D Manager, in the technical session, “Aluminium Reduction Technology: Cathode Materials—Joint Carbon Technology”, Wednesday, February 20, 2002 at 10:20 AM.

SMV—Sunnhordland Mek.
Verkedst AS
#1239
Skaanevik, Norway

STAS
#1116
Chicoutimi, Quebec, Canada
http://www.stas-unigec.com

LA SOCIETE DES TECHNOLOGIES DE L’ALUMINIUM S.T.A.S. LTÉE
STAS is a dynamic and entrepreneurial company specialising in the commercialisation of new technologically advanced equipment. Industry sectors include aluminium and mines serving a global market place on a custom-made basis through the service of representatives in the Americas, Europe, Asia, Australia and Africa.

STAS is located in Quebec, Canada. World-class R&D facilities provide a continuing flow of new equipment to be commercialized; they include the Alcan R&D Centre, the Noranda Technological Centre and the Hydro-Québec Research Centre at Shawinigan.

STAS is a recognized leader in its innovative abilities to develop and fabricate sophisticated equipment which lower costs for its customers as well as improving quality - using the latest in programmable automation controls. Examples include compact degassing equipment, rotary injectors, cross coolers, filters, crucible cleaners, automatic guidance systems, etc.

Stein Atkinson Stordy, Ltd.
#509
Wombourne, Wolverhampton, United Kingdom
http://www.s-a-s.co.uk

Stein Atkinson Stordy Ltd (SAS) has over 85 years of experience in supplying the Aluminium Industry with a variety of equipment including High Speed Coil Annealers, Foil Annealers, Melting Furnaces (Tilting, Static, Round Top, Side Well), Holding Furnaces (Tilting & Static), DC Casters, Shoe Pusher Furnaces & IDEX® Decoating/Drying Technology.

Projects can be totally installed, supplied only or even partial design. We can also advise on up-grading existing equipment. Our highly regarded In-house Systems Division, designs, tests and builds Control Systems (Instrument, PLC or SCADA) to meet the end user’s exact requirements.

Stellar Materials, Inc.
#1231
Northville, Michigan

Thermbond is a unique refractory technology with features and benefits unavailable in traditional refractories. Thermbond is completely and naturally non-wetting to aluminium. Thermbond bonds permanently to other refractories so existing linings may be veneered and repaired rather than replaced.

Thermbond may be cast, troweled, gunned, hot-gunned, pumped, or rammed for permanent repairs or new installations.

SWS Scharf-Westfalia Industrial Systems GmbH
#930
Hamm, Germany
http://www.scharf-westfalia.de

SWS Scharf-Westfalia has been in business in the aluminium industry since 1972.

Scharf Westfalia designs, develops, manufactures, and supplies turn key plants and systems as well as components for the Aluminium Industry.

The Aluminium division is responsible, amongst others, for state-of-the-art turn key AnodeRodding Shops, Anode Handling and Storage, as well But and Bath Treatment Plants for the Aluminium Industry.

The following systems are presenting our main product line:
Turn key plants, as well as individual equipment, for:
- Anode Rodding Shops
- Cleaning and handling of bath and butt material
- Baked and green anode handling and storage systems
- Cooling tunnel for anode butts and bath material
- Crucible cleaning
- Fully automated transport system for green and baked anodes
- Anode traverse beam for the handling of anodes in the electrolyte cell
COMPANY PROFILES

Techmo Car s.p.a.
#1209
Limen, Padova, Italy
www.techmo.it

Over the last 40 years, Techmo has been devoted to the solution of technical problems connected with the Aluminium 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 is also supplying to Aluminium Company fixed plants, such as Anode Butts 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 Aluminium producers.

Thermal Ceramics
#1004
Augusta, Georgia
http://www.thermalceramics.com

Thermal Ceramics, a worldwide leader in refractory and high-temperature insulation technology, offers solutions for the most demanding thermal management challenges.

Products include:
- Kaocrete® and Kaolite® Castables
- “K” Insulating Firebrick and Mortars
- Firebrick
- Cerox® Refractory Fired Shapes
- TR-19/TR-20® Structural Board Insulation
- Kaowool® Blanket/Strip/Bulk Ceramic Fibers
- Kao-Tex® Textiles
- Kaowool® and RPC® Boards and Shapes
- BTU-Block® Microporous Insulation
- Kaowool® Millboard
- Kaowool® Paper and Felts
- Pyro-Bloc® Weld-On and Veneering Modules

At the coming TMS Show in Seattle, among the products we will highlight are Superwool® 607™ and Superwool 607™ Max®, new high temperature non-ceramic fiber insulating materials available in various forms such as bulk, blanket, boards and modules.

Thermcon Ovens B.V.
#630
Geldermaalen, The Netherlands
http://www.thermcon.com

Thermcon Ovens B.V. is a leading specialist in the design and delivery of aluminium casthouse equipment such as charging machines, melting furnaces, holding furnaces, filter boxes, d.c. casting machines and homogenizing/cooling facilities. State of the art aluminium scrap recycling facilities capable of handling contaminated aluminium scrap in full compliance with the latest very strict European legalislation, are supplied to the recycling industry. These recycling facilities have time after time proven to meet or exceed the most stringent environmental regulations in the world.

Revamping and modernization of existing equipment is also undertaken.

Thermcon also undertakes the design and implementation of computer control systems at machine level, level 2 as well as the connection to plant wide computer networks.

All equipment is custom designed and exactly tailored to the requirements of the customer.

ThermoARL
#621
Dearborn, Michigan
www.thermoarl.com

For over 60 years, Thermo ARL has been a leading innovator in analytical instrumentation. Thermo ARL’s current product offering includes a series of optical emission (OE) spectrometers known for precision, accuracy and reliability. In addition, Thermo ARL manufactures sequential and simultaneous X-Ray fluorescence (XRF) instrumentation featuring: integrated XRD, fast gearless goniometer, small footprint and large X-Y sample changer. Both XRF and OE spectrometers are available as fully automated laboratories.

Thorpe Technologies, Inc
#607
Whittier, California
http://www.thorpetech.com/

Thorpe Technologies Inc, a professional engineering organization, focuses exclusively on the design, development, engineering, and construction of industrial furnaces, delacquering systems, thermal oxidizers, and related thermal technology.

Aluminum product line includes:
- Apos-based technology delacquering systems
- Rectangular Melting Furnaces
- Sidewell Melting Furnaces
- Dry Hearth Melting Furnaces
- Round Top Charge Melting Furnaces
- Tilting Melting Furnaces
- Rotary Melting Furnaces
- Stationary Holding Furnaces
- Tilting Holding Furnaces
- Batch Homogenizing Furnaces
- Continuous Homogenizing Furnaces

Thorpe Technologies Inc is headquartered in Whittier, CA; Tel: (562) 903-8230 with a branch office serving the eastern United States located in Gulf Shores, AL; Tel: (334) 968-6211.

Projects in Mexico are handled by Thorpe Mexico SA de CV; Tel: (52) (8) 335-2035. Projects in Brazil are handled by Thorpe do Brasil Ltda; Tel: (55) (11) 5579-0092.

For 86 years the Thorpe industrial furnace design group has provided industrial furnace design and engineering services to clients throughout the United States and abroad. The Thorpe Technologies Inc organization is one more step to do an even better job in the rapidly changing, and increasingly technical, furnace design marketplace.

UES Software, Inc.
#1312
Annapolis, Maryland
http://www.thorpetech.com/

UES Software Inc is a dynamic leader in providing material process simulation and design software. The software packages being displayed increase productivity, cut costs, improve quality performance, and control environmental hazards.

Demonstrations of the powerful thermo-chemical software for predicting phase behavior and properties, kinetic software for solving and modeling chemical reactions, and material specific databases for modeling processes will be available. Also being presented will be ProCAST®, an invaluable tool throughout the world, used to simulate the behavior of industrial casting applications.

U.S. Dept. of Energy/Office of Industrial Technologies
#1301
Washington, DC
www.oit.doe.gov

The U.S. Department of Energy’s Office of Industrial Technologies (DOE-OIT) has formed partnerships with the most energy intensive U.S. industries to accelerate the development of energy efficient technologies and processes. The DOE partnership with the Aluminum Industry will be highlighted. The DOE-OIT Aluminum Partnership funds R&D to address the research needs of the Aluminum industry as identified in the Aluminum Industry Technology Roadmap. The Aluminum Partnership supports and enhances the global competitiveness and ecological sustainability of the U.S. aluminum industry through strategic, leveraged investments in technologies that save energy, improve productivity, and reduce waste.

Unifrax Corporation
#639
Niagara Falls, New York
http://www.unifrax.com/

Unifrax Corporation, a global leader in the development and manufacture of high temperature ceramic fiber and soluble fiber products, introduces Foamfrax™ Insulation, an advanced high temperature technology for furnace lining applications. New Foamfrax Insulation offers exceptional energy savings, installation speed and lining performance for upgrades of existing fiber linings, lining over refractory, and furnace lining patches or reliefs.
Unifrax insulation products have been providing innovative heat management solutions for a broad range of industries, committed to solving high-temperature application problems and providing exceptional value to our customers. Unifrax Corporation corporate headquarters is located in Niagara Falls, NY. For more information contact Unifrax at 716-278-3800.

Unisearch Associates
#1010
Concord, Ontario, Canada
http://www.unisearch-associates.com

UNISEARCH ASSOCIATES INC. was founded in 1980, as an R&D and specialty Instrument Company. It pioneered and became world-leaders in the use of Unisearch introduced its LasIR system of instruments in 1994. These instruments extend our TDLAS technology to the use of telecommunication Tunable Diode Lasers. Applications include air quality measurements, fence-line monitoring, CEM and process control. Unisearch also offers FTIR systems.

UNISEARCH maintains a strong R&D focus to retain its leadership in existing products and to develop new product lines. The Company offers Measurement Services. Industrial and Government clients have used our well-equipped mobile laboratories, as well as air-born platforms, in a number of measurement programs.

UNISEARCH’s full staff of installation and service experts complements our worldwide sales representative network.

Vallee Inc.
# 1308
Saint-Alban QC Canada
vallee@vallee.qc.ca

Vallee Inc. has for mission to conceive, design, build and offer an innovative line of articulated lift trucks and adapted handling tools for fabrication, transformation, extraction and heavy handling services enterprises, including Aluminum plants, principally in the North East of North America and in the whole world.

We will become the leader in this field by offering complete solutions fulfilling demands with high efficiency.

Our project managers and technical teams are continually listening to our customers to keep on developing new tools and vehicles for their current and emerging needs—tools and vehicles that will help them to obtain better performance. We have to be sure that we are offering better solutions on a timely basis.

VAW Aluminium-Technologie GmbH
#1230
Bonn, Germany
http://www.vaw-atg.de

VAW Aluminium-Technologie GmbH (VAW-ATG), a subsidiary of VAW aluminium AG, is specialised in tailor-made modernisation projects for aluminium smelters. The core competencies of VAW-ATG comprise process modeling, process control, aluminium and carbon technology, casthouse technology as well as technical engineering.

The enhanced version of the proprietary VAW process control system ELAS will be presented, together with the “intelligent” crust breaker/feeder development. Significant improvements in the ELAS control algorithm together with the powerful breaker/feeder system are a step forward to a Zero-Anode-Effect operation of reduction cells. The window-oriented graphical user interface of the ELAS pot control system is an outstanding instrument for the retrieval of operational data and in-depth analysis of exception states of reduction cells.

SEE OUR DISPLAY AD, PAGE 22.

Vulcan Refractories Limited
#334
Cheadle, Staffordshire United Kingdom
http://www.vulcan-refractories.co.uk/

Vulcan Refractories have a long-term commitment to the supply of quality refractories and industrial ceramic materials. The company has over 30 years experience in the manufacture of high duty refractory materials for use in high temperature or aggressive atmosphere applications. The product range is based around 3 main material groups:

- Silicon Carbide
- Alumina and Mullite
- Zirconia

Major applications are:

- Primary aluminium-Silicon nitride bonded silicon carbide blocks for lining primary reduction cells
- Secondary aluminium-Silicon carbide, alumina and aluminum titanate shapes for flow control, launder and furnace tapping areas
- Copper-Silicon carbide linings for melting and holding furnaces
- Powder metallurgy-Zirconia, alumina and aluminum titanate flow control nozzles

Wagstaff, Inc.
#801
Spokane, Washington
info@wagstaff.com
www.wagstaff.com

Wagstaff, Incorporated, Spokane, Washington USA - established in 1946, and known worldwide for manufacturing customized equipment for direct chill aluminum casting of rolling ingot and extrusion billet. Wagstaff customers, located in over 44 countries around the world, have long known the benefits of high quality Wagstaff MaxiCast™ Hot Top Billet Casting Tables equipped with the Wagstaff AirSlip™ Air Casting Process. Also known for it’s leading technology in Wagstaff ShurCast™ Casting Machines, Wagstaff AutoCast™ Automated Casting Control System, and Wagstaff LHC™ Low Head Composite Casting System. Wagstaff quality innovations are invented, first built and tested at Wagstaff.

Western Industrial Ceramics
#1136
Tualatin, Oregon

Wienalco
#1039
Velsen-Noord, The Netherlands
http://www.wienalco.com

WIENALCO is formed around a group of experts with decades of experience in the aluminium smelter industry. WIENALCO serves the industry with a wide range of aluminium smelter, carbon baking and graphitizing industry dedicated machines.

Modernisation in existing smelters and baking furnaces is our special expertise. Improvement of labour working conditions, improvements on machine efficiencies including adding new operation tools are recognised to be most valuable. The scope of supply comprises:

- Pot Tending Machines (prebake, soderberg, 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 Jacking Frames (automatic, cold and hot frames)
- Anode Rod Clamps
- Crucible Cleaning Machines (including pre-heaters, dedusting)
- Tube Cleaning Machines
- Aluminium Unloading Facilities (including dust free conveying and storage systems)
- Machine power supplies
- Rails, clips, underlayment
- Storage silos.
COMPANY PROFILES

Xothermic Inc
# 619
Apopka FL
www.xothermicinc.com

Xothermic Inc. of Apopka Florida was established in 1992 as a product Research and Development company. The company now manufactures combustion equipment for Primary Industry utilizing its patented burner designs. The equipment supplied covers burner and flow control train, PLC, Siemens and Allen Bradley, for the flow train as well as other related operations connected to the process. This equipment is installed worldwide in glass, secondary aluminum and scrap lead processing facilities. Xothermic Inc. provides onsite startup assistance and recommendations. Principal systems provided cover oxy-fuel burners, hybrid oxygen-air burners, oxy-oil burners and the flow control equipment associated with each.

Zedtec Combustion Systems Inc
#1103
Dewsbury, West Yorkshire, United Kingdom
www.zedtec-usa.com

ZCSI provides combustion systems and services for both the primary and secondary aluminium industries:

- Full automatic reduction cell fuel bake-out systems, for improved heat distribution, smoother cell start-up, earlier cell stabilization and prolonged pot life;
- Modernization of melting/holding furnaces using E-Jet Ultra low NO, high velocity regenerative burners, for increased melt rates, improved fuel efficiency and reduced emissions;
- Turnkey supply of state-of-the-art Rotary Tilt-Furnaces capable of processing throughputs of up to 35,000 tpy whilst achieving high recovery rates. If required, ZCSI can operate and maintain the furnaces on behalf of customers.

Zircar Refractory Composites Inc
# 635
Florida NY
www.zrci.com

ZIRCAR Refractory Composites, Inc has developed a new family of Fused Silica Composites. Type RSLE-57 is a low expansion high strength reinforced silica matrix composite product. It exhibits exceptional non-wetting properties when used in contact with molten aluminum, zinc, lead, tin and other non-ferrous metals, making it useful in numerous casting, conveying, containing and forming applications. RSLE-57 is the ideal material for use as Dams, Spouts, Floats, Launders, Head Boxes, Baffles, Headers, Tips, Rings, Distribution Boxes, Stoppers, Basins, Snouts, Transition & Orifice Plates and Hot Top & Ingot Mold Liners. It is fully machinable with conventional tooling. It is also available in cylinder form as Type RSLE-501 and moldable form as Type RSLE-56 Moldable.

SEE OUR DISPLAY AD, PAGE 27.

Zircar Ceramics, Inc.
#1217
Florida, New York
Phone: (845) 651-600;
Fax: (845) 651-0441
E-mail sales@zircarceramics.com
http://www.zircarceramics.com

For more than a dozen years, ZIRCAR has been synonymous with high quality, soft castertips for use in the continuous casting of thin aluminum strip. We are now introducing several new high quality castertip products for use on just about every type of twin roll thin strip caster being used today. ZIRCAR Castertips are combinations of shot free fiber and inorganic binders and are used in the production of pin hole free foil. Castertip Type ASQ is our soft tip. Type Z-290 is a medium density tip. Z-450 is a high density, hard tip. All of these tip products are also produced in NON RCF compositions as well. Many other ZIRCAR Casthouse products are also available.