

Company /	Products	Products
Association, State		
Alliance Metals, FL	Scrap metal and iron trading	Scrap iron / steel / plastics
Almex USA Inc., CA	Leading supplier of aerospace and commercial aluminum billet and slab casting technology and equipment. The company specializes in complete turnkey "Furnace to Finish™" casthouse engineering, equipment supply, and a comprehensive technology and know-how training program. The well-rounded product line includes melting furnaces, degassing systems, DC casting machines, billet and slab casting systems, automated process control, and homogenization systems. Almex is engaged in equipment and processes involving green technology for efficient recycling of aluminum alloys.	Automotive industry, Building and construction, Design / interior design, Electronics / electrics, Aircraft and aerospace, Engineering, Commercial vehicle, Railway, Shipbuilding, Solar energy, Packaging and consumer durables
Ametek Surface	AMETEK Surface Vision (formerly Cognex Surface	Automotive industry, Building
<u>Vision</u> , CA	Inspection Systems Division) is the market leader with over 25 years of experience in automated online surface inspection solutions for continuous processes with a broad product portfolio optimized for surface inspection, monitoring and process surveillance applications. Surface Vision's product portfolio includes three distinct product lines: SmartView® systems, SmartAdvisor® systems and Slit Inspection enable manufacturers to meet their diverse and demanding surface material quality needs.	and construction, Iron / steel / plastics, Electronics / electrics, Engineering, Commercial vehicle, Solar energy, Packaging and consumer durables
Elementum 3D, CO	Elementum 3D is an advanced metal additive manufacturing (AM) materials development company. They will be showcasing the groundbreaking aluminum A6061-RAM2 product. 3D printing of Al6061 is made possible with Elementum 3D's novel reactive additive manufacturing (RAM) technology, which has enabled the printability of Al2024 and Al7075 as well. Elementum 3D's RAM aluminum products are compatible with commercial off the shelf 3D printers and achieve, for the first time in AM, properties comparable to equivalent wrought aluminum alloys. Their RAM technology combines materials freedom - the ability to customize AM materials and properties to benefit a unique need, with additive manufacturing's design freedom to lower production costs and increase part performance.	Automotive industry, Iron / steel / plastics, Electronics / electrics, Aircraft and aerospace, Engineering, Commercial vehicle, Railway, Shipbuilding, Packaging and consumer durables
FELLOM PUBLISHING LIGHT METAL AGE, CA	Light Metal Age (LMA) magazine has a long legacy in the aluminum industry with 75 years of experience covering primary and secondary production, extrusion, rolling and associated downstream fabrication, such as finishing, machining and joining. The bimonthly magazine provides vital technical, industrial, and market information to	Automotive industry, Building and construction, Aircraft and aerospace, Engineering, Railway, Shipbuilding, Solar energy



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	aluminum producers and processors around the world. The integration and optimization of aluminum products in final applications, such as automotive, aerospace, and building and construction, are also major topics. LMA also produces select article archive content on DVDs, including the Aluminum Extrusion Article Archive (July 1943 – June 2016) and the Magnesium Article Archive (May 1943 – August 2011). Light Metal Age also produces select article archive content on CDs, including the Aluminum Extrusion Article Archive (July 1943 – May/June 2012), as well as the Magnesium Article Archive (May 1943 – August 2011) and the Titanium Article Archive (November 1945 – August 2009).	
FIVES NORTH AMERICAN COMBUSTION, INC., OH	Fives North American provides high performance thermal process solutions, services, and equipment for the aluminum industry. The North American legacy spans decades in combustion system support for the most respected members of the aluminum community. Fives North American offers a wide range of products – from Combustion and Controls to complete Turnkey Combustion Retrofits of melting and holding furnaces. Fives North American is an experienced provider of engineered sustainable solutions that emphasize quality, reliability, productivity, energy efficiency and safety.	Automotive industry, Building and construction, Aircraft and aerospace, Commercial vehicle
Gillespie & Powers Inc., MO	Gillespie & Powers, Inc. has over 80 years of experience in the design, supply, and installation of high temperature furnace equipment for the non-ferrous melting and hazardous waste industries. Their special expertise in the furnishing of melting and process equipment is the total quantitative approach to all phases of the design. This has furnished them insight as to the modes of failure and allowed them to advance their product designs and to develop and design unique patented supplemental process equipment and patented processes that help to increase production and decrease energy and maintenance costs. In the design of a furnace the company carefully quantitates forces that will be generated by the heating of the furnace's two distinctly different refractory systems and provide for these forces with the addition of internal expansion and structural steel members placed in a systematic manner. Gillespie & Powers Inc. has also completed numerous water model studies and has a thorough understanding of molten metal circulation. This, coupled with their knowledge of	Installation of high temperature furnace equipment



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	refractory selection, burner placement, combustion systems and control sequences uniquely qualify Gillespie & Powers, Inc. to furnish the best equipment in the industry.	
Granco Clark Inc., MI	Founded in 1947, Granco Clark began manufacturing billet furnaces and has evolved into a worldwide, cutting-edge, single-source supplier and leading equipment manufacturer in the aluminum extrusion industry. With a proven track record of manufacturing the most dependable and durable equipment in the business, Granco Clark continually develops groundbreaking technology to improve its products − ranging from billet log furnaces, hot log saws, FusionBond™ to age ovens and stacking equipment. The company was the first to introduce the integrated control system technology that has since developed into SCSExtrude − the next-generation technology for optimizing automated extrusion line performance.	Automotive industry, Building and construction, Aircraft and aerospace, Engineering, Commercial vehicle, Solar energy
HarbisonWalker International, PA	HarbisonWalker International (HWI) has been serving the aluminum industry for over half a century, and today is one of the top refractory suppliers to the world's largest aluminum producers. HarbisonWalker International designs custom solutions, manage inventory, and offer dedicated testing. Their partnerships result in energy savings, increased campaign life, and efficiency within the plant. HarbisonWalker International stays at the forefront of emerging technology and offers training to all customers.	Refractory products
HARBOR Aluminium Intelligence LLC, TX	HARBOR Aluminum Intelligence Unit is an independent industry research firm that focuses exclusively on the global aluminum market. They serve all major aluminum players with comprehensive market data, industry intelligence, specialized consulting and detailed aluminum price (LME, SHFE, regional and conversion premiums) forecasts on the upstream (bauxite and alumina), midstream (P1020, purity, billet, foundry, slab, wire rod, and scrap) and downstream (flat rolled products, extrusions, and castings) markets. Harbor Aluminum Intelligence provides more aluminum market intelligence and price data points than any other consulting or journalist group. Their team has on average over 25 years of experience in the aluminum industry.	Automotive industry, Building and construction, Design / interior design, Electronics / electrics, Aircraft and aerospace, Engineering, Commercial vehicle, Railway, Shipbuilding, Solar energy, Packaging and consumer durables
Hazelett Corporation, VT	Hazelett Corporation designs, manufactures, installs, and services continuous casting equipment. Hazelett is the pioneer and world leader in twin-belt casting for flat and	Automotive industry, Building and construction, Design / interior design



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	long nonferrous products. Hazelett is a fourth-generation	
	family-owned company and the exclusive supplier of the	
	Hazelett® twin-belt continuous casting machine. The	
	company is fully integrated with complete in-house	
	engineering, manufacturing, R&D, and technical services.	
International	Founded in 1943, the mission of the International	Automotive industry, Iron /
Magnesium	Magnesium Association (IMA) is to promote the use of the	steel / plastics,
Association, MN	metal magnesium in material selection and encourage	Electronics / electrics, Aircraft
	innovative applications of the versatile metal. Through	and aerospace,
	IMA's efforts, manufacturers and consumers are increasingly	Commercial vehicle
	aware of the numerous options and benefits the metal	
	magnesium provides.	
International Thermal	ITS is an industry leader in thermal processing furnaces,	Automotive industry,
Systems, WI	from homogenizing and solution heat treating to ferritic	Electronics / electrics, Aircraft
	nitro carburizing and annealing. ITS offers a wide variety of	and aerospace,
	furnaces including car bottom, Box Furnace, drop bottom,	Engineering,
	homogenizing, tip-up, and air quench systems with	Commercial vehicle, Railway,
	manufacturing in America and China. Drop-bottom	Shipbuilding,
	aluminum heat treat furnaces are used to solution heat treat	Solar energy
	aluminum alloys.	
J.R. Schneider Co.,	J.R. Schneider Company continues to maintain its position	Engineering, Cold / Hot / Steel
<u>Inc.</u> , CA	as the leading innovator in filtration technology for mineral	Rolling
	oil and water-based rolling coolants. Specifically, the	
	benefits are extended coolant life, faster running speeds,	
	longer filter cycles, improved surface quality and a	
	significant reduction in waste. The J.R. Schneider Co., Inc.	
	engineered filter media are designed for use with today's	
	complex coolant packages and product mixes. Their	
	patented and environmentally friendly filter aids, ACTI-CEL	
	R, further improve the rolling process. In addition, their	
	paper media, cartridges, OEM spare parts and field	
	engineering support capabilities are combined to provide	
	optimum filter performance solutions.	
Magneco/Metrel, Inc.,	Magneco/Metrel, Inc. (MMI) has developed a line of	Automotive industry,
TX	refractory monolithic products referred to as "Metpump"	Building and construction,
	for Aluminum Furnace Applications. MMI's unique cement	Iron / steel / plastics,
	free colloidal silica (sol-gel) bonded monolithic refractory	Aircraft and aerospace,
	products offer superior performance compared to	Commercial vehicle
	traditional cement bonded refractory material and bricks. In	
	fact, MMI's aluminum contact products have been tested	
	and demonstrate excellent non-wetting characteristics,	
	resulting in less rejected finished aluminum. Metpump	
	Products can be used for Full Construction of the Furnace,	
	Major Repairs of the Furnace, Small Vessel Linings and	



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Association, State	Specialty Shapes. The MMI solution requires less material to be used for furnace repairs exercising the endless lining practice, thereby reduces land fill costs, waste, plant environmental impact, and safety concerns.	
Metal Pro Group, Inc., NJ	Metal Pro Group is a USA based importer and distributor of high-quality, competitively priced extruded aluminum products. With over 4 years of experience supplying large North American manufacturers, they provide aluminum extrusions for a wide range of applications – including windows, shower doors, commercial storefronts, mirror framing, fencing, curtain wall systems, industrial cladding systems, skylights, partitions, and solar panels – with the highest capabilities in extruding, finish, and fabrication. Metal Pro Group's aluminum is sourced from reliable extruders in Vietnam, Malaysia, Indonesia, Thailand and India.  Their customer service department located in New Jersey; USA is committed to providing their customers within 24 hours to any inquiries.  •Finishes available in a full range of types and colors, including but not limited to: Anodized (Clear & Bronze), Polish Brite Dip, Brushed Nickel, ORB, Powder Coat, etc.  •Fabrication of all kinds, including but not limited to: cut to length, precision cut, drilling, punching, slotting, tube drawing, etc.  •Accessories are supplied and installed, including vinyl, gasket, wool pile, etc.	Building and construction, Design / interior design, Solar energy
MetIsaw Systems Inc.,	MetlSaw Systems, Inc., a Northern California based manufacturer, have been designing and building saws for the non-ferrous market for over 37 years.  MetlSaw produces both Non-Ferrous Cut Off Saws (for the extrusion market) and Non-Ferrous Plate Saws. The Cut Off saws incorporate 2 ft., 3 ft., or a 1 Meter wide cutting window with sawing height capacity up to 12 inches (300 mm). The saw can be built to accommodate any length profile up to 100 ft. (30 Meters). Positioning tolerance is +/08mm. Their Plate saws start at 6 ft. wide with 12 ft., 14 ft., and 20 ft. widths available as standard. With a sawing height of also 12", this saw delivers precision cut aluminum plate with a beautiful surface finish.	Automotive industry, Building and construction, Iron / steel / plastics, Aircraft and aerospace, Engineering, Commercial vehicle, Railway, Shipbuilding, Solar energy



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Molten Metal Equipment Innovations, OH	Molten Metal Equipment Innovations (MMEI) is a leading manufacturer of equipment for the molten aluminum industry. Their offering includes:	Automotive industry, Building and construction, Aircraft and aerospace, Engineering, Commercial vehicle, Packaging and consumer durables
	•Launder Transfer Pumps for transferring metal quickly, safely and quiescently to minimize dross formation and improve metal quality.	
	•Advanced control systems to increase the productivity and reliability of their pumps.	
	•The ScrapEater light-weight scrap submergence system increases metal recovery rates and furnace productivity.	
	•A complete range of metal treatment equipment including ladle degassing stations with flux injection, in-line degassing systems, portable degassing systems	
	•Their unique QUAD-Zilla degassing rotors & shafts - designed to provide superior metal treatment. These can be retrofitted to existing degassing systems.	
PERMATECH INC., NC	Permatech aspires to be the world-class leader in the design, engineering, construction and service of molten metal handling systems and in the manufacture of high value-added engineered pre-cast refractory components.	Automotive industry, Building and construction, Aircraft and aerospace, Engineering
Pyrotek Inc., WA	Pyrotek is a global engineering leader and innovator of performance-improving technical solutions, integrated systems design, and consulting services for customers in the aluminum industry.	Automotive industry, Electronics / electrics, Aircraft and aerospace
	Pyrotek products can improve plant performance throughout the anode bake furnace to help operators successfully support pot room demand, produce high-quality anodes, minimize fuel consumption, maximize refractory life and maintain a safe work environment.	
	For cleaner metal and more efficient processing, Pyrotek's manufactures engineered systems, equipment, and consumables, from scrap charging to the melting furnace to the casting station.	
	Pyrotek helps aluminum foundries improve metal quality and overall performance with integrated systems for melting, metal holding, transfer, treatment and casting.	
Qualicoat Inc., NY	Qualicoat, one of the northeast's premiere industrial coating companies, offers coatings and graphic applications	Surface pretreatment, coatings, graphic applications



Company / Association, State	Products	Products
Association, State	to a diverse range of manufactures from sectors such as the military, transportation, medical, communications and consumer electronics.	
Quickdraft Inc., OH	Quickdraft manufactures Pneumatic Material Conveying Systems and Exhaust Systems for use in many industries.  Aluminum use in the automobile industry has created the need for recycled scrap conveying systems. Quickdraft creates small footprint systems that segregate alloys and move scrap from a press to its next stop. They also design and build systems that convey aluminum trim to ballers and scrap to remelt furnaces. Their systems are built for 24/7 operation, easy maintenance and reliability.	Conveying Systems
Remelt Scientific, Inc., FL	ReMelt Scientific specializes in providing engineered solutions for the chip processing needs of the metals industry. ReMelt Scientific takes metal chip processing/treatment and melt preparation to a new level, maximizing metal yield rates, minimizing energy consumption while providing reliable heavy-duty systems. With over 130 years of combined experience with engineering, supplying and installing metal chip processing/treatment systems, ReMelt combines solid experience with innovative processes and equipment such as our new 60" chip centrifuge, the largest commercially available.	Automotive industry, Aircraft and aerospace, Engineering, Commercial vehicle
Rex Materials Inc., MI	Rex Materials specializes in providing metal delivery solutions for aluminum, zinc, and other light metal processors. They have developed specialty formulations in their Pyroform™, Pyrolite®, and Fusion families of materials to optimize life, insulation, thermal and non-wetting properties.  Pyroform, a special material that gives a unique combination of thermal insulating properties and durability, is the only material that is approved by Wagstaff for use in their billet casting tables. It is also the best thermal insulating refractory you can get for your metal delivery systems, launders, filter bowls, and dams. In addition to its outstanding thermal insulation properties, Pyroform enables you to reduce your energy bills while improving your metal quality and employee safety.	Heat containment
	Rex Material, Inc. can provide a complete thermal analysis predicting heat loss in both steady state and dynamic	



Company /	Products	Products
Association, State	and thing. They are determined to the state of the state	
	conditions. They can determine if preheating is required, to	
	what temperature and the time will take to get to casting	
	temperature.	
Rigaku Analytical	Within seconds, the KT-100S handheld metal analyzer easily	Automotive industry,
<u>Devices</u> , MA	performs identification of the most difficult alloy grades. KT-	Building and construction,
	100S utilizes laser induced breakdown spectroscopy (LIBS)	Aircraft and aerospace
	for use in scrap metal sorting, quality assurance in metal	
	fabrication, and positive material identification (PMI) in	
	mission-critical operations, such as aerospace and	
	petrochemical. The KT-100S has successfully passed rigorous	
	durability tests proving its capabilities in the harshest	
Color Consensition NC	environments.	A language and the
Selee Corporation, NC	SELEE Corporation is the inventor of the ceramic foam filter	Automotive industry,
	for aluminum filtration. The SELEE product range includes	Building and construction,
	filter bowls, preheat systems, ceramic foam filters, and	Design / interior design, Electronics / electrics,
	metallurgical services. SELEE systems are used around the world in casting of aluminum alloys on vertical DC,	Aircraft and aerospace,
	horizontal DC, EMC and continuous casting	Commercial vehicle,
	equipment. Product applications include extrusion billet,	Packaging and consumer
	rolling ingot, foundry ingot, continuous casting of foil, strip,	durables
	wire and rod, and high-quality aluminum castings for	darables
	aerospace, automotive and engineering markets.	
Wagstaff, Inc., WA	Wagstaff, Inc. is a 72-year-old manufacturing company that	Automotive industry,
	provides customized, advanced aluminum direct-chill	Building and construction,
	solidification technology to rolling ingot and extrusion	Aircraft and aerospace,
	billet producers worldwide.	Engineering
	Wagstaff offers:	
	•casting machines	
	•mold tables	
	•process automation	
	•rolling ingot tooling	
	extrusion billet tooling	
	•aerospace alloy capabilities	
	•molten metal level control	
	•worldwide service and support	
	Beyond the hardware delivery, first-class customer service is	
	included with every purchase of genuine Wagstaff casting	
	equipment. From on-site start up and refresher training, to	
	workshops held in convenient locations around the world,	
	Wagstaff, Inc. is committed to delivering to the right tools at	
	the right time.	



Company /	Products	Products
Association, State Williamson Corp, MA	Williamson manufactures Infrared Pyrometers for industrial applications for the past 50 years.	Automotive industry, Building and construction, Iron / steel / plastics, Electronics / electrics, Aircraft and aerospace, Engineering, Commercial vehicle, Railway, Shipbuilding, Solar energy, Packaging and consumer durables
	Products are:	
	<ul> <li>Profiles at Extrusion Press Exit, Quenching and Run-Out Table</li> <li>Billet temperatures on the Side or Face for Extrusion or Forging</li> <li>Steel Die Pre-heat temperature for Extrusion</li> <li>Continuous Caster Strand</li> <li>Hot Rolling Mill for Strip or Plate</li> <li>Molten aluminum when pouring or stirring</li> <li>Anode Bake Furnace and Green Anode production</li> </ul>	
	Williamson Infrared Pyrometers offer High Accuracy & Repeatability as well as Long Term Stability and are constructed to survive in very harsh industrial conditions.	
	Williamson also offers a complete, temperature based closed loop control system. The TPC System works with your existing press and furnace PLCs to automatically adjust press speeds and billet temperatures to optimize the extrusion process.	
	Williamson's "TPC" system is offered today with a Performance Guarantee on extrusion time reduction and is modular with options that include Liquid Die Cooling, Management Module and/or Best Practices Modules can be initially installed or added at later time	
ZIRCAR Ceramics, Inc., NY	Castertips and Consumables for twin roll casters. Hard and soft castertips for all alloys and gauges are produced in widths up to 2450mm. Precision crafted castertip assemblies reduce tip shop costs. Ceramic fiber and soluble fiber compositions available. Graphite release agent, calcium silicate boards, HT papers, light weight tundishes, headboxes, filter boxes, troughs and nozzles are available worldwide.	Building and construction, Packaging and consumer durables
Zmag America, Ltd., OR	Zmag is a pioneer in the field of magnetic circuit design. One of many technologies the company's founder pioneered is Eddy Current Separation, which became the standard for the scrap sorting industry. Zmag has since broadened its business to molten metals, using its proprietary zPMC™ (Zmag Permanent Magnetic Circuit) technology for products which move molten metal. MagStir™ is used throughout the	Automotive industry, Aircraft and aerospace



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	industry for stirring aluminum to improve product quality, increase production and reduce energy costs. MagStir works with furnaces of all shapes, sizes (up to 200 tons), and configurations (dry hearth, continuous, etc.). Typhoon™, Zmag's European Aluminium Award winning chip submerging technology is widely adopted by automobile producers and helping them achieve a high recovery. Zmag's zPMC successfully differentiates itself from traditional technologies; the MagStir and Typhoon do not require electricity to generate magnetic fields, nor transformer, frequency converter, water pump and such complicated components necessary for traditional electromagnetic stirrers (EMS).	