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### About the Association

The International Titanium Association (ITA) is a nonprofit networking trade association for the titanium industry. Established in 1984, the Association’s mission is to connect the public interested in using titanium with titanium specialist all over the world who may offer technical and sales assistance. The ITA also offers titanium literature and sponsors a variety of events such as educational workshops, seminars, and the annual TITANIUM Conference and Exhibition. The Association currently has over 200 member companies worldwide.
Titanium News

RTI SIGNS LONG-TERM ENGINE SUPPLY AGREEMENT

Paris – RTI International Metals, Inc., (NYSE: RTI) is pleased to announce the signing of a long-term agreement with MTU Aero Engines in Munich, Germany. The agreement calls for RTI to supply rotor-quality titanium billet products through 2022. RTI’s material will be used exclusively in MTU compressor applications supplied to a wide variety of engine programs. These encompass the full range of aircraft types including business and regional jets and, most recently, for the Airbus New Engine Option (NEO) applications.

Forward Looking Statement - The statements in this release relating to matters that are not historical facts are forward-looking statements that may involve risks and uncertainties. These include, but are not limited to, the impact of global events on the commercial aerospace industry, actual build-rates, production schedules and titanium content per aircraft for commercial and military aerospace programs, military spending generally and in particular, demand from the Joint Strike Fighter program, the impact from Boeing 787 production delays, and uncertainties with respect to future U.S. and global economic conditions.

Ti expands with expertise and equipment in 2011 to improve product flow to the customer.

Titanium Industries (TI), the global leader in distribution of titanium mill products and high performance metals, experienced the following significant changes to facilitate its continued global expansion;

A growing capability to meet the demands of the aerospace market.

TI recently appointed Greg Himstead as Market Manager, Aerospace to improve global synergies within this market segment. Greg’s most recent experience was as General Manager, Aerospace for a major global producer of advanced aluminum alloys. He was also Chief Sales Officer for a high-performance copper alloys producer in the aerospace industry. A certified civilian pilot and retired USAF Officer, Greg received a BA in Physics from Hamilton College, a BS in Mechanical Engineering from Columbia University, an MBA from New York University, Sterns School of Business, and is multilingual.

Channeling more resources into expanding the non-

New President, General Manager, Sales & Marketing Management Team for Tico Titanium, Inc Announced

Wixom, Michigan and Houston, Texas-Tico Titanium, Inc (Tico) and its parent company Lawrence Holdings, Inc (LHI) announced a new executive team for Tico comprised of top talent from the existing LHI executive team and longstanding Titanium and High-Temperature Alloy industry veterans.

Jeffrey White, former Vice President of Tico has been appointed as the new President of Tico Titanium, Inc. Jeff has led the company’s Oak Ridge North (Houston) facility and fabricated products group since joining Tico in 2007. As President, Jeff, will work to support the Tico brand and drive customer, supplier, and employee engagement to ensure the company’s continued performance and growth. Jeff has a strong sales and managerial history including his 7 years serving as Regional manager of Haynes International, 5 years as regional manager of Special Metals, and 12 years as Technical and Product manager for Castle Metals.

Airbus, Goodrich and VSMPO-AVISMA reinforce their partnership on the A350 XWB program

August 16, 2011 - Airbus, the leading aircraft manufacturer, Goodrich Corporation, the global supplier of systems and services to the aerospace and defense markets and VSMPO-AVISMA Corporation, the Russian titanium manufacturer, have signed a long-term agreement for the supply of titanium forgings used for the manufacturing of the A350-1000’s main landing gears. The contract will cover supply until 2020.

Goodrich is to develop and provide the main landing gear, based on its experience in incorporating the latest technologies and materials, especially VSMPO’s high-strength titanium alloy. VSMPO has been awarded 100% share in the titanium forgings supplies.

VSMPO-AVISMA Corporation will potentially also machine the related titanium forging in the future in order to develop a vertically integrated titanium supply chain, starting from raw materials to finished products.

“This signature is the result of VSMPO’s long-term
ITA Board Members as of October 4, 2011

James M. Nathan, president of Sims Metal Management Aerospace, Hartford, CT, has been installed as the newest member of the board of directors for the International Titanium Association (ITA), Northglenn, CO (Web site: www.titanium.org).

Frank L. Perryman, president and chief executive officer of Perryman Co., Houston, PA, who serves as the nominating committee chair for the ITA, said Nathan would replace Edward J. Newman, executive vice president of Chicago-based Keywell LLC, whose term recently expired.

Nathan leads SIMS Metal Management Aerospace, a processor of aerospace scrap generated at aircraft engine, airframe and helicopter production facilities and other fabricators of high-temperature and titanium alloys.

Current ITA membership is comprised of 202 member organizations representing over 1,800 individual members from 23 different countries. Jennifer Simpson serves as the executive director of the ITA.

Executives of the ITA board include President Michael G. Metz, the president, VSMPO Tirus US, Highlands Ranch, CO; Secretary and Treasurer Dawne S. Hickton, the vice chair, president and chief executive officer of RTI International Metals, Inc., Pittsburgh; Vice President Brett S. Paddock, the president and chief executive officer of Titanium Industries Inc., Rockaway, NJ; and Past President Perryman.

Board directors for the ITA are James M. Buch, vice president, commercial, Titanium Metals Corp. (Timet), Dallas; Lawrence D Buhl III, chief executive officer of Lawrence Holdings Inc., Wallingford, CT; Daniel P Buwalda, general manager, Keywell; Hunter R. Dalton, president ATI Allvac, Monroe, NC (a unit of Allegheny Technologies); Markus Holz, managing director, ALD Vacuum Technologies, Germany; William B. Kent, vice president, Dynamet & CPP, Dynamet Inc., Reading, PA (a unit of Carpenter Technology Corp.); Jerry St. Clair, president, Vulcanium Metals Inc., Northbrook, IL.; and Graham P. Walker, vice president and general manager, Reading Alloys, Robesonia, PA (a unit of AMETEK Inc.).

Established in 1984, the ITA is a non-profit trade association that provides professional development for members of the titanium industry, fosters the development of new industrial and consumer applications for titanium, and recognizes outstanding technical achievements and business contributions of individuals and companies through prestigious awards.

For nearly three decades the ITA’s annual TITANIUM Conference and Exhibition series has served as the premier global forum for the exchange of ideas within the industry, offering a forum for noteworthy speakers and educational workshops. TITANIUM 2011, the international conference and exhibition, will be held Oct. 2-5 at the Sheraton San Diego Hotel and Marina, 1380 Harbor Island Drive, San Diego.

RTI SIGNS LONG-TERM ENGINE SUPPLY AGREEMENT

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global economic conditions, the competitive nature of the markets for specialty metals, the ability of the Company to obtain an adequate supply of raw materials, the successful completion of the Company’s capital expansion projects, and other risks and uncertainties included in the Company’s filings with the Securities and Exchange Commission. Actual results can differ materially from those forecasted or expected. The information contained in this release is qualified by and should be read in conjunction with the statements and notes filed with the Securities and Exchange Commission on Forms 10-K and 10-Q, as may be amended from time to time.

Company Descriptions

MTU Aero Engines is Germany’s leading engine manufacturer and an established global player in the industry. It engages in the development, manufacture, marketing and support of commercial and military aircraft engines in all thrust and power categories and industrial gas turbines. The German manufacturer employs approximately 7,900 people overall and with its various affiliates has a presence in all significant regions and markets worldwide.

RTI International Metals®, headquartered in Pittsburgh, Pennsylvania, is celebrating 60 years of providing titanium and other specialty metals to our customers around the world. RTI manufactures and distributes extruded shapes, formed parts and engineered systems for commercial aerospace, defense, energy, industrial, chemical, and consumer applications. Our Titanium, Distribution, and Fabrication Groups have locations in the United States, Canada, Europe, and Asia to better serve our global customers. We look forward to serving new and existing customers during the next 60 years and beyond!
Horie Corporation Creates Etched Panels for September 11th Memorial

Horie Corp., Tsubame City, Niigata Prefecture of Japan, has created four etched titanium panels for a Sept. 11 memorial installed at Holy Cross Cemetery, North Arlington, NJ, which is part of the Archdiocese of Newark. Archbishop John J. Myers celebrated a Mass at the cemetery on Sunday, Sept. 11—the 10th anniversary of the terrorist attack—and officially dedicated the memorial.

The outdoor installation features stainless steel beams, measuring 20 feet in height, which provide a scale-model version of the Twin Towers. The four titanium panels, each measuring 24 by 38 inches and depicting a montage of over 40 photo images of the attack and the heroism of first responders, are attached to the stainless steel beams.

Akemi Tanabe, a marketing executive with Horie, said the four panels are made of commercially pure (CP) titanium. Images on the panels were precisely etched via a proprietary process that includes a chemical wash, anodized coloring and masking. The result is that the four titanium panels, in effect, have been transformed into permanent photo-print art posters.

Artist Bronna A. Butler of Mountainside, NJ, the designer of the installation and the panel images, specified the titanium plates should have a sky-blue tint. This is symbolic, according to Butler, because many people remember the bright blue skies of New York City on the morning Sept. 11, 2001, prior to the terrorist attack.

Edward T. Czuba of South Orange, NJ, served as the architect and planner for the site, while Brennan Industrial Contractors Inc., Kearny, NJ, was the stainless steel metal fabricator. Andrew P. Schafer, the executive director of Catholic Cemeteries for the Archdiocese of Newark, coordinated the effort to raise funds to build the memorial.

The site is located in the New Jersey cemetery’s “9/11” section, where victims of the terrorist attack are interred, along with police officers, fire fighters and U.S. soldiers. The memorial site is situated on a hill that offers a view of the lower Manhattan skyline, where the World Trade Center Twin Towers once stood. According to government estimates, more than 740 New Jerseyans lost their lives at the Twin Towers. Many of the victims resided in the four counties of the Archdiocese of Newark.
California Titanium Announces
New Warehouse Facility

California Titanium LLC proudly announces that we are now carrying inventories of our best selling materials at the newly opened warehouse facility in the Port of Los Angeles, California. Our most popular items include Grade 5 titanium (Ti-6Al-4V) round bars with specification of ASTM B348 and AMS 4928. We also carry Grade 2 titanium (CP) round bars, tubing and sheets. We anticipate growth in inventory to include Grade 9 titanium (Ti-3Al-2.5V) tubing, Grade 2 titanium (CP) plate, and other varieties in the near future.

As we are now carrying inventory, our lead time has been significantly reduced from 4 weeks to 5 days within the US. Our facility is located at 430 Lecouvreur Ave, Wilmington, CA 90744. Contact us for your supply needs at sales@caltitanium.com or call (310) 683-8004.

Thermal processing leader Bodycote becomes first company in western U.S. to unveil heat treating option for titanium

Bodycote is the world’s largest provider of thermal processing services. Through heat treatment, metal joining, surface technology and Hot Isostatic Pressing (HIP), Bodycote improves the properties of metals and alloys, extending the life of vital components for a wide range of industries, including aerospace, defence, automotive, power generation, oil & gas, construction, medical and transportation. Customers in all of these industries have entrusted their products to Bodycote’s care for more than 30 years. For more information, visit www.bodycote.com.

DALLAS (U.S.A.) — At the 49th International Paris Air Show, worldwide thermal processing specialists Bodycote today announced it has developed an advanced cooling control process that optimizes the heat treatment of high-strength titanium components used in the aviation industry. Now, aerospace suppliers worldwide have the ability to use titanium alloys to build stronger, safer and more advanced structural and landing gear components.

Bodycote is also the first company in the western United States, and one of only two commercially approved sources worldwide, whose cooling process has earned BASCA approval from The Boeing Company. BASCA, an acronym of Beta Anneal Slow Cool Age, is a heat treatment process used to strengthen components manufactured from the titanium alloy, Ti 5-5-5-3.

A high tensile strength alloy, Ti 5-5-5-3 offers fatigue and fracture toughness in aircraft structural applications requiring superior mechanical properties. But, many aircraft machining suppliers have not been able to use this alloy before because they did not have access to an appropriate heat treating process.

Bodycote’s new process closely controls the thermal profile of the titanium part during cooling, which optimizes the mechanical properties of the alloy. This results in a stronger, safer product.

“The Western United States is home to a thriving aircraft machining supplier base that can now benefit from our new process and begin using Ti 5-5-5-3 and its derivatives in their parts,” said Tracy Glende, president of Bodycote’s Aerospace, Defence & Energy (ADE) division.

Glende added that similar suppliers along the Pacific Rim now have a more economical and geographically friendly resource for their titanium heat treating needs. Furthermore, the new process allows existing forge suppliers to continue using Bodycote as a single source for thermal processing services.

About Bodycote - With more than 170 accredited facilities

New process ushers in stronger, safer, more advanced aviation parts

Ti-6Al-4V: Description, Applications, and Processing

Ti-6Al-4V is a titanium alloy that is widely used in the aerospace industry for its high strength-to-weight ratio and corrosion resistance. It is also used in medical applications due to its biocompatibility. Processing methods for Ti-6Al-4V include casting, forging, and HIPping.
GfE celebrates its 100-year anniversary

Even as it marked its 100-year anniversary in September, GfE (Gesellschaft für Elektrometallurgie GmbH)—a global producer of specialty alloys for titanium and superalloys, coating materials and vanadium chemicals for the aerospace, energy and specialty metals industrial markets—has its eyes on the future.

Throughout its history, GfE has focused on metallurgical innovation as an essential factor in new-product development. GfE began as one of the first operators of electric arc furnaces in the early 1900s. The company traces its origins back to 1911 when it was founded as a producer of vanadium alloys and chemicals in Nürnberg, Germany. Today it operates as a business unit of the Advanced Materials Division of Amsterdam-based AMG Advanced Metallurgical Group N.V. (Web site: www.amg-nv.com).

During the last 100 years GfE has evolved to become a producer of custom master alloys and coatings serving the aerospace, energy and special metals industries throughout the world. Guido Löber, managing director of GfE Metalle und Materialien GmbH, said the company’s accomplishments during the last 100 years provide inspiration for that evolution to continue.

Looking ahead to the next five years, Löber said GfE has its sights set on growth in the highly competitive Asian market, especially China. As for its near-term material technology developments, Löber indicated GfE is focused on new generations of titanium aluminides for gas-turbine engine blades used in the new generations of commercial jetliners. Compared with existing materials, titanium aluminides offer the promise of enhancing the efficiency of jet engines, providing lower fuel consumption and reduce CO2 emissions, which the global aerospace industry demands.

The company’s product line encompasses 250 materials for a spectrum of applications that include coatings for thin-film technology to support the photovoltaic industry; catalyst materials for DeNOx-filter-systems to clean exhaust gas from coal-fired power stations; lightweight alloys for jet-engines; hydrogen-storage alloys; and specialty powders for the healthcare/medical sector used in the coating of human implants.

The expertise to create master alloys figures prominently in the GfE product portfolio, giving it the ability to meet customer specifications. Löber said many of GfE’s master alloys are produced by aluminothermic reduction. “This technology creates an alloy (vanadium/aluminum for example) by a chemical reaction,” he explained. “The chemical reaction is caused by mixing a metal-oxide (such as vanadium pentoxide) with aluminum and the ignition of that mixture. In special cases, an additional melt under vacuum is performed to homogenize and purify the products as well as add some metallic elements like chromium, tin or zirconium.”

In addition to the above-mentioned thrust in titanium aluminides, GfE’s master alloys target the development of superalloys for aerospace applications, especially high-performance engine components. In North American industry parlance, superalloys are metal alloys containing nickel, iron and cobalt. Löber concurred with this definition, saying that GfE is particularly interested in nickel-columbium and ferro-columbium superalloys.

Regarding its desire to pursue expanded business opportunities in China, Löber said the company’s liaison office in Shanghai spearheads its activities. “It’s important to be on the ground at the fastest-growing economy of the world,” he declared, referring to China. However, he confessed that penetrating the Chinese market is not an easy task. “On the one hand, we see a strong, increasing demand for special materials. On the other hand, it’s a challenge to be well positioned in this competitive environment.”

Aside from its interest in China, GfE also is monitoring business opportunities in other global markets. “We are already present worldwide, either by own employees or by using sales partners,” Löber pointed out. “We certainly watch market developments carefully. If necessary, we are able to adjust our strategy on short notice.”

Offering insights on the reasons behind the company’s longevity, Löber credited GfE’s collegial corporate culture and the ability of executive management to navigate the business during good times and bad. “It’s most important to learn from defeat and to always structure (a company’s) future by accepting challenges,” he said. “Our employees are proud of ‘their GfE’ and they are looking forward (to the 100th anniversary). We all feel part of the GfE family. Without such a sense of togetherness, GfE wouldn’t be as strong as it is today.”
SMP Offers Coil to Coil Polishing & Grinding

Specialty Metals Processing, centrally located in Stow, Ohio, is now offering Coil to Coil Polishing & Grinding services to the special metals industry. This custom made, state-of-the-art polish line can handle up to 62" wide and has a gauge range of .013-.145. We offer many protective tape and packaging options. With this newest addition to our Surface Finishing Services, there is not much that SMP can't handle in way of surface conditioning, grinding or polishing in sheet, plate, slab or coil! We welcome all inquiries.

Titanium News

Ti Expands with Expertise & Equipment

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titanium alloy customer base.

In 2009, TI appointed Gary Martin as Director of High Performance Metals (non-titanium alloys). In 2011, this department grew with the promotion of Matt Crawford as a Sales Representative to concentrate focus on the Oil and Gas market particularly in nickel alloys, and appointing Bill Puttick as a Sales Representative, who will be developing new accounts across all TI's products and market segments.

More in-house capabilities for value added services.

TI installed a Cosen SV-86110 Traversing Head Vertical Plate Saw in their Rockaway NJ facility in August. “This saw will allow us to cut metal parts from a 96” wide x 276” long plate with a maximum height of 32” allowing a broader, larger range of product offering. Many industrial plates are produced in 96” widths x 240” lengths and this saw can handle the very largest of these”, said Jeff Wise, VP, Sales & Marketing, Titanium Industries, Inc. “In order to ensure total flexibility for our aerospace, and particularly industrial customers, this saw in located at our corporate facility in Rockaway, NJ with Omax water-jet machines adjacent to it”, Jeff Wise added.

Continued global expansion, and improved disaster recovery

With 14 locations around the world, TI expanded their global network to include Sao Paulo, Brazil, and Shanghai, China this year. A new sales office in the US in Seattle Washington was also opened by Brian Saks, District Manager, NW.

On the 28th August 2011, Hurricane Irene hit TI’s headquarters in Rockaway NJ. Electricity was cut for over four days, but newly added disaster recovery systems were in place to minimize the impact to TI's global network and customers.

‘An organization is defined not only by how it operates during the normal course of business, but how it reacts during times of crisis. With some recently added disaster recovery systems, some well executed planning and an extraordinary effort by our dedicated employees, we were able to operate with minimal system interruption at our global facilities – and this was accomplished while many employees were dealing with personal effects from the storm’, said Brett S. Paddock, CEO, TI.

“All these changes we’re making are directed to improve our capacity and capabilities in getting products to our customers”, said Jeff Wise, VP, Sales & Marketing, TI.

“These changes reflect our strategy of maintaining the capabilities and sophistication of a large multinational entity, as well as the responsiveness and creativity of a smaller family business”, added Brett S. Paddock, CEO, TI.

About Titanium Industries - Titanium Industries, Inc. (TI) is the global leader in the distribution of titanium mill products and high performance metals. Operating in the Aerospace, Industrial, Oil & Gas, Consumer products, and Medical markets, TI has spent nearly 40 years focusing on providing solutions to our customers, with complete dedication to delivering exceptional quality. With 14 locations worldwide, TI is ideally placed to serve the global market place, and holds the specific customer and industrial approvals necessary to do so. To find out more, visit www.titanium.com.

Contact: Brett S. Paddock, CEO, Titanium Industries, Inc., phone: 973 983 6228, bpaddock@titanium.com or Jeff Wise, VP, Sales & Marketing, Titanium Industries, Inc., phone 201-572-3789, jwise@titanium.com
Titanium exhibits dramatic and highly useful characteristics as a reactive metal in today’s world. Consider its superior strength to weight ratio for use in military and commercial avionics, alloy advancements in the field of biomedical engineering, extensive use as “the” white-base pigment and its high desirability index in the power generation, chemical & industrial processing industries and other applications where both strength and corrosion resistance is required if not mandatory.

Notwithstanding today’s recognition of these unique characteristics, several utilities in the early 70’s took the unparalleled step of installing Grade 2 titanium in their surface condensers. These precedent setting events became arguably the first complete power plant surface condensers ever retubed using Grade 2 titanium.

Forty years & 600 million feet of installed Gr. 2 titanium condenser tubing later, these units and other worldwide fleet installations continue to operate successfully supplying electrical power to the grid without one reported corrosion event. This performance is unprecedented and continues unabated to current day.

Technology advancements and the 40 year corrosion-immunity performance of Gr. 2 titanium has fostered new applications that were not possible nor considered historically suitable even several years ago. These expanding applications coupled with current-day process stream improvements highlight continuing sustainability efforts to lower costs and expose new challenges that brings Gr. 2 titanium to the forefront of competitive desirability in today’s demanding markets. For more information visit their website at www.valtimet.com.

Sims Metal Management Aerospace Expands Globally

The completion of Sims Metal Management Aerospace’s state-of-the-art 425,000 square-foot recycling plant in Hartford, Conn., occurred at the same time as the uptick in titanium and the strengthening of international markets. “We built locally in a way that was sensitive to the requirements of our clients and to the environment. Now from that upgraded physical base we can grow globally,” said James M. Nathan, President Sims Metal Management Aerospace.

Indicative of that strategy, Sims Metal Management Aerospace has purchased FE Mottram, a ferro-titanium producer in Sheffield, UK, to which it had been a major supplier of titanium scrap. Incorporation occurred on August 8, 2011, and became active on September 1, 2011, at which time the name of the company was changed to Sims FE Mottram Ltd. Daniel Nix continues in his position as managing director.

“The physical expansion of our plant and now the purchase of FE Mottram increases our ability to serve our global clients with technologically advanced equipment and processes,” said Nathan.

Sims Metal Management is the world’s largest listed metal recycler with approximately 250 facilities and 6,200 employees globally. Sims’ core businesses are metal recycling and recycling solutions. Sims Metal Management generated approximately 85 percent of its revenue from operations in North America, the United Kingdom, Continental Europe, New Zealand and Asia in Fiscal 2011. The Company’s ordinary shares are listed on the Australian Securities Exchange (ASX:SGM) and its ADRs are listed on the New York Stock Exchange (NYSE.SMS).
Thermo Fisher Scientific Demonstrates Latest Handheld XRF Alloy Analyzers at TITANIUM 2011

Thermo Scientific Niton XL2 GOLDD and Niton XL3t GOLDD+ Analyzers Deliver Rapid, Reliable Metal Alloy Verification for Manufacturing Quality Assurance

Thermo Fisher Scientific Inc., the world leader in serving science, will demonstrate the Thermo Scientific Niton XL2 GOLDD Series and the Thermo Scientific Niton XL3t GOLDD+ Series, at TITANIUM 2011, booth #104.

These x-ray fluorescence (XRF) analyzers are the ideal tools for the verification of metal alloys – lightweight, ergonomically designed with a daylight readable display and large, intuitive icons, and ruggedized for harsh environments. All Thermo Scientific Niton XRF analyzers feature fast, nondestructive alloy grade identification and laboratory-quality composition analysis of metal alloys, with Thermo Scientific geometrically optimized large area drift detector (GOLDD™) technology delivering improvements in light element detection (magnesium, aluminum, silicon, phosphorus, sulfur), overall sensitivity, and measurement times, without helium or vacuum purge.

“With the Niton XL2 GOLDD and Niton XL3t GOLDD+, we offer a range of products to the aerospace, metal fabrication, foundry and related industries, which are engineered from the ground up to help eliminate any guesswork in verifying metal alloys for manufacturing quality assurance,” said Marc Tremblay, vice president/general manager for Thermo Scientific Niton Analyzers.

Tremblay continued, “We know that the potential for material mix-ups is very real and that the need for traceability is a priority. Our nondestructive analyzers provide a worry-free solution. They take control of material verification, recovery of lost traceability, isolation of finished welds to validate filler material and dilution rates, and confirmation of finished products – all without damaging samples in any way. This means users can save both time and additional testing expense.”

GOLDD Technology

Whether users choose the Niton XL2 GOLDD or the Niton XL3t GOLDD+, they will benefit from fast, accurate elemental analysis and positive material identification to ensure manufacturing QA/QC. Niton XL3t GOLDD+ analyzers also offer a helium purge option for ultra-low Mg analysis. Further, this analyzer allows users to identify free-machining stainless steels based on sulfur content. Additionally, the integrated CCD camera comes standard for accurate sample positioning and image capture, while the optional 3 mm small-spot feature isolates welds.

A Family of Handheld Thermo Scientific Niton XRF Analyzers -- Thermo Scientific Niton XRF analyzers are designed without compromise for taking measurements anywhere, anytime, with fast, accurate results, saving significant expense in comparison to traditional laboratory testing. They provide integrated storage of all test results, which are completely tamperproof. Multiple communication options are incorporated, including Bluetooth® wireless and USB communications.

They come standard with Thermo Scientific Niton Data Transfer (NDT™) software, allowing users to set operator permissions, print certificates of analysis to document results, export data into standard formats (*.csv or MS Excel), or operate the analyzer remotely from a PC. The NDT file format preserves and protects the original data from each sample analysis, ensuring that this data is not unintentionally or intentionally compromised.

For more information or to schedule an onsite demonstration, contact a local Niton Analyzers representative or Thermo Fisher Scientific directly at 800-875-1578 (toll-free U.S.), +1 978-670-7460, via email at niton@thermofisher.com or by visiting http://www.thermoscientific.com/niton.

*Bluetooth is a registered trademark of Bluetooth SIG, Inc. Excel is a registered trademark of Microsoft Corporation.
Evraz Worldwide Vanadium Business Rebranded

Hot Springs, Arkansas; October 1, 2011 – As part of the worldwide rebranding of its vanadium business, Evraz Group S.A. is changing the name of its Stratcor, Inc. subsidiary to Evraz Stratcor, Inc. The subsidiary is a major producer of specialty vanadium alloys and chemicals used by the chemical, titanium, and steel industries.

Evraz Stratcor has a major vanadium plant and technology center in Hot Springs, Arkansas and a technical-sales office in Pittsburgh, Pennsylvania. The company has extensive vanadium production and marketing expertise that is an integral part of Evraz’s worldwide vanadium operations, which are fully integrated from ore to finished product and can supply 35% of the world’s vanadium needs.

Evraz, a major steel producer, uses vanadium-bearing iron ore in its steel operations and generates vanadium-bearing slag as a by-product. This vanadium is recovered and used to produce downstream products.

“Our new name reflects Evraz’s long-term commitment to the vanadium business,” said Tim Scott, President of Evraz Stratcor, Inc. “That commitment will benefit our customers, our company, and the communities in which we operate.” For further information, contact: John Crane, phone +1.212.302.3344

EVRAZ GROUP S.A. (EVRAZ) is a vertically-integrated steel, mining and vanadium business with operations in the Russian Federation, Ukraine, USA, Canada, Czech Republic, Italy and South Africa. In 2010, the Company produced 16.3 million tonnes of crude steel and sold 15.5 million tonnes of steel-rolled products.

EVRAZ’s internal consumption of iron ore and coking coal is covered by its’ mining operations. EVRAZ’s consolidated revenues for the year ended 31 December 2010 were US$13,394 million, and consolidated adjusted EBITDA amounted to US$2,350 million.

Airbus, Goodrich & VSMPO-AVISMA reinforce partnership

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and stable activity with EADS/Airbus and Goodrich, including supplies of titanium products and research and development. It brings our relationship to the next level,” said Mikhail Voevodin, General Director of VSMPO-AVISMA Corporation. “Supply of the value added products for the A350 XWB aircraft will open more opportunities for our companies in the future.”

“This agreement represents a continuation of VSMPO’s and Goodrich’s growing relationship with EADS/Airbus as key suppliers of titanium and landing gears respectively. Building upon their successful experience on the A380 program, we are confident that this agreement will allow the Goodrich-VSMPO alliance to continue its success on A350 XWB program,” explained Christopher Buckley, Airbus’ Executive Vice President, Europe, Asia and Pacific.

Since the 1990s, VSMPO-AVISMA has become a major supplier for Airbus and its parent company EADS and today covers 60% of the group’s titanium needs in semifinished products or titanium forgings. Based on the strategic and increasing importance of titanium use in every new aircraft program and in the aeronautic industry as a whole, in April 2009, EADS/Airbus and VSMPO-AVISMA signed the biggest and longest-term frame contract for the supply of titanium for Airbus and other EADS divisions until 2020. In the scope of this 2009 agreement, Airbus manages the distribution to the whole EADS supply chain.

The A350 XWB Family consists of three passenger versions with true long-range capability. Offering three different sizes, airlines can best match their A350 XWB fleets to route capacity demands, guaranteeing optimum revenue potential. Airbus forecasts a demand over the next 20 years for around 5,800 new twin-aisle mid-size passenger aircraft.
Makino Offers the ADVANTiGE™ to Manufacturers of Titanium Parts

Makino’s ADVANTiGE machining technology provides four times the productivity and tool life in titanium milling

Mason, Ohio – September 2011 – Makino’s new ADVANTiGE™ machining technology is set to change the way manufacturers think about Titanium machining. This advanced process solution enables four times the productivity and tool life in titanium machining operations, dramatically reducing costs and lead times for titanium manufacturers.

“ADVANTiGE provides a degree of machining efficiency that no other Titanium technology has offered in the past,” says Mark Larson, Makino’s Titanium R&D Manager, who is located at Makino’s Global Titanium R&D Center in Mason, Ohio. “This technology overcomes the traditional challenges of low metal removal rates and limited tool life associated with Titanium machining by improving spindle performance, coolant delivery, vibration damping, machine rigidity and cutting strategies. By combining these improvements into one package, we’re able to break through the limitations of the past.”

ADVANTiGE is currently available on Makino’s T-series five-axis horizontal machining centers.

ADVANTiGE Machining Technologies

Makino’s ADVANTiGE is composed of several key machining technologies including a high power, high torque tilting spindle, Collision Safe Guard and Autonomic Spindle Technologies, high pressure, high flow coolant system, vibration damping system, and a rigid machine construction.

The ADVANTiGE high power, high torque tilting spindle (HSK-125; 4,000-rpm) is Makino’s most powerful spindle design to date, integrated with 1,100 ft lbs of duty rated torque (740 continuous) to handle the high tensile strength of titanium. Its advanced A-axis twin servo-drive tilting head provides the speed, torque and accuracy necessary to reliably perform full 5-axis roughing and contouring in titanium.

Some of the greatest risks to the titanium machining process are accidents and collisions that could result in costly material, tool or spindle damages. ADVANTiGE uses Makino’s Collision Safe Guard and Autonomic Spindle Technologies to monitor upcoming tool paths and cutting conditions to avoid collisions and adjust cutting forces for higher productivity and profitability.

The ADVANTiGE high pressure, high flow coolant system delivers large volumes of high pressure coolant directly to the cutting zone for increased chip evacuation from multi-flute tools. The coolant system includes overhead shower, spindle nozzle, and through-spindle coolant for improved cooling, lubrication, and chip evacuation in titanium parts.

By adjusting frictional forces based on low frequency vibration sensing, the ADVANTiGE vibration damping system avoids chatter and cutter damage resulting from structure resonance in real time. This vibration suppression enables deeper cuts, higher metal removal rates and reduced tool wear.

The rigid construction of ADVANTiGE enhanced T-series 5-axis horizontal machining centers provides a solid, reliable platform for all other technologies and further suppresses vibration for reduced tool chipping and improved metal-removal rates.

See for Yourself

ADVANTiGE technology is currently on display at Makino’s Global Titanium R&D Center on the T2 and T4 five-axis horizontal machining centers. Call 800-522-3288 to set up your appointment to see this technology in action. ADVANTiGE Video: YouTube

Visit www.makino.com/media for releases, images, and other media information.
BAHCO 3860 Multi-Chip Unset Carbide Tipped Bandsaw Blade

Bahco - the world leader in cutting exotic alloys

Bahco will feature a highly innovative bandsaw blade designed specifically to provide high speed and efficient cutting of all grades of Titanium at the TITANIUM 2011 Conference. The 3860 Multi-Chip Unset Carbide Tipped Bandsaw Blade uses “multi chip technology” to meet the growing demands and more complex cutting needs of the Industry. Our R & D department have carried many trials and studies into the process of cutting Titanium and worked closely with our production team to put theory into practice including special edge preparation technology and tailored carbide composition to suit the needs of this material. Unlike most materials, Titanium cutting requires a very sharp edge to cut and we have focussed a lot of attention on the grinding process in this area. In summary, we believe we have the best product available on the market today and we would like to support our colleagues at the show to ensure the highest precision and productivity in their facilities in North America and around the World.

BAHCO 3860 Multi-Chip Unset Carbide Tipped Bandsaw Blade

- Special tooth geometry designed for Titanium applications.
- Unset teeth provide a better surface finish and eliminate secondary operations.
- Special grade of carbide tooth material provides maximum life and cutting performance.
- Tooth tips are fine ground to give a sharp edge, essential for cutting Titanium.
- High heat resistance allows high speed cutting even in large solids.
- Special grade backing material give long life and excellent fatigue resistance.
- Available widths: 1-1/2”, 2”, 2-5/8”, 3-1/8”
- Available Teeth per inch: 1.4/2, 1/1.25, 2/3 and .7/1

Please join us at our Bahco Bandsaw Booth # 334 throughout the conference to discuss your cutting requirements.

SQC – Vietnam, a vigorous emergence

Since the end of 2010, the community of titanium slag export and import countries across the globe has witnessed the astonishing emergence of SQC-Vietnam - an enterprise and a country that were previously unidentified on the world map of titanium processing countries. What has made SQC – Vietnam rise up so powerfully?

It is definitely not the result of a big-scale and noisy PR campaign! The titanium slag plant of SQC was recently established and went into official operation at the end of July 2009. But in just over one year, the world has come to know SQC through continuous visits of its international partners to the titanium slag plant and incessant purchase orders from Japan, Germany, the United Kingdom, etc.

SQC simply appeared at the right time!

The world has come to a phase of raw material deficiency; There have been scores of companies in various countries well-known for providing titanium slag all over the world, however, this is a processing field where serious damages to the environment are to be expected, and not many titanium slag plants in the world have figured out their solutions or accepted to invest a considerable budget to solve this problem. The titanium slag plant of SQC is the first company in the region to spend on this a third of the total investment capital of its most advanced plant in Asia to help resolve problems that cause environment damage, while persisting to strictly comply with the principles of exhaust treatment and environmental friendliness.

In addition, SQC possesses a stable and long-lasting source of materials from coastal titanium ores in the central region of Vietnam, with consistent quality and abundant quantity. Moreover, SQC has its own electricity transformer station. The major products of SQC include: Raw ores exploited at mines with a TiO2 content of TiO2 30% - 40%; Zircon-sand, Rutile; refined ores with a TiO2 content of 52%; and the most special product is the titanium slag with a TiO2 content of 85 to 93%, which has amazed international customers by the consistency and reliability of the slag quality.
SQC – Vietnam
Continued From Page 11

Many Japanese sponge producing companies and European titanium dioxide producing companies who prefer the products of SQC have revealed that the slag products of SQC are not only compatible to be refined using the Sulfate method, but also the Chloride one. The answer may also be the high-quality source of materials acquired from SQC ore mines, the capabilities of the technical staff and the management...SQC is researching and looking for suitable partners to aim at such higher goals as the successful production of deep-processed products from titanium slag - titanium dioxide, sponge titanium alloy, etc. The Chairman of Saigon Invest Group (SGI) – of which SQC is a member – once disclosed: SQC looks forward to creating additional values for investors, while making more contributions to society, and most important of all, serving as the boosting factor for the science and technology development of Vietnam.

Cronimet Looks to the Future

Cronimet Holdings, Inc. announces the appointment of Paul Godown to the newly created position of General Manager, US Titanium Operations. Paul joins Cronimet with over 15 years experience in the Titanium industry encompassing raw material procurement, preparation, chemical analysis, melting, sales and commercial agreements.

In his new role, Paul will be responsible for all aspects of the titanium business for the United Alloys and Metals facility in CA and the Unico Alloys and Metals facility in OH. Paul will also help coordinate our global titanium business with his counterparts in Germany and the United Kingdom.

VSMPO-Avisma and Rolls-Royce sign long-term contracts for the supply of titanium products

August 16, 2011 –MOSCOW - VSMPO-Avisma Corporation have signed three long-term agreements with Rolls-Royce for the period 2011 to 2015. The terms of each contract vary but extend the cooperation between the two companies which was established in 2000 with the signing of the first four-year Agreement.

According to the terms of these new agreements VSMPO-Avisma will supply titanium mill-product and semi-finished products to Rolls-Royce, including disc forgings and ring forgings.

The expected revenues from these Agreements will potentially exceed $250 million.

ADMA PRODUCTS INC. to Establish the ADMA Hydrogenated Titanium Powder Production – Pilot Scale Unit - in 2011/2012

ADMA Products Inc. commenced work in June 2011 on the design and installation of its Hydrogenated Titanium Powder Production – Pilot Scale Unit in Hudson, Ohio. The ADMA Pilot Scale Unit will be operational before June of 2012 and will produce up to 250K lbs of ADMA Hydrogenated Titanium Powder per year. This project is being implemented through a US Congressional award and in cooperation with ARDEC Picatinny Arsenal.

ADMA has twenty six years of experience in the solid state (non melt) consolidation of titanium powder into components. The components produced from ADMA Hydrogenated Titanium Powder exceed AMS specifications and are characterized by high purity, refined microstructures, low oxygen content, “weldability”, low energy input, and low cost. With excellent “buy to fly” ratios, more than 98% of ADMA Hydrogenated Titanium Powder ends up as a finished “net shape” or “near net shape” component through ADMA’s proprietary and patented solid state consolidation processes.

In January 2011 ADMA completed its smaller Laboratory Scale Hydrogenated Titanium Powder Unit pursuant to prior US Congressional support in cooperation with the ARMY Research Laboratory (ARL). The ADMA TiH2 hydrogenated Titanium powders produced on this unit exhibited extremely low oxygen content (below 0.10%) and interstitials (below 10 ppm). ADMA has producing its Hydrogenated Titanium Powder, since 2007. The ADMA Pilot Scale Unit will result in a substantial increase in output and component production capability.

In order to adequately meet the demand for its high performance/lowest cost critical application titanium components, plans for two additional major “scale ups” are in development.
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New titanium cutting machine splitting hairs

SAMLESBURY, UK - BAE Systems has successfully commissioned a unique and brand-new titanium component manufacturing machine at its Samlesbury facility in Lancashire, England. The machine is the most advanced of its kind in the world and sets new standards for high-end manufacturing in the UK.

The machine, known as a StarragHeckert BTP 5000, is able to produce titanium components over three meters long to tolerances that equate to a third the thickness of a human hair. The components are used in the manufacture of the F-35 Joint Strike Fighter – the rear section of which is built at Samlesbury by BAE Systems before being shipped to Lockheed Martin in America.

The precise tolerances delivered by the new machine ensure that the outer shape of the F-35 matches up to the exacting standards needed to make an aircraft that meets the required low observability (stealth) performance capability demanded by Lockheed Martin.

The machine, which sits in a temperature and humidity controlled manufacturing facility which exactly matches that of the final assembly facility run by Lockheed Martin in America, is referred to as the Long Spar Longeron Machine, owing to the long spa and longeron sections it was built to machine. Featuring twin spindles the machine is capable of machining two parts at the same time meaning double the efficiency. At peak rate production aircraft sets will be produced at a rate of one a day.

The initial concept for the machine was born out of a discussion between BAE Systems and StarragHeckert machine tools which looked at ways to deliver a more accurate and effective machining method for long titanium parts. The machine has now been extensively tested and recently produced two components at the same time to exactly the same standard.

Frank Brinken, CEO of Starrag Group, specialists in precision milling machines who delivered the BTP 5000 said “We knew we were entering unchartered territory when we began this project. Through a true team working approach built on trust we worked closely with BAE Systems to make it a success. Much hard work has been injected into the project from both companies since 2006 when the idea was born. The result is the most advanced titanium cutting machine of it’s kind in the world, delivered safely, on time and within budget.”

Head of Machining Operations Simon Bee said:

“The BTP 5000 machine is a fantastic addition to the facility. Whilst the story from its inception to delivering parts is significant in its own right, it’s also part of a much bigger story too. We’re at the heart of establishing new standards for assembly precision and pace on the F35 program. We’ve hosted numerous visits to the facility since it opened just a year ago and each time it’s immediately visible for visitors that this facility is a real step up from what they have seen before.

“It’s a great example of BAE Systems remaining at the forefront of aerospace manufacturing. The BTP 5000 machine is another chapter in the story.” The Long Spars and Longerons machine is the first of two machines to be installed in the machining facility. The second is planned to begin installation in 2014.

For more information, please contact: Andrea Kay, BAE Systems, Tel: +44 (01772) 866249 Mob: +44 (0)7793 423647, Email: andrea.kay@baesystems.com or Kate Watcham, BAE Systems, Tel: +44 (0)1252 383550, Mob +44 (0)7793 2420731, Email: kate.watcham@baesystems.com
Solar Goes The Distance In Titanium

In support of the RTI’s role on the Boeing 787 Dreamliner project, Solar Atmospheres of Western PA has gone well beyond the extra mile. Solar has been successfully vacuum stress relieving and vacuum creep flattening a large amount of 32 foot seat tracks. This flight critical part is one of the longest titanium weldments Boeing has ever designed for a floor grid. If you were to place all of the tracks Solar has processed end to end, the total length of titanium would be over 26 miles! That distance is equivalent to running the RTI 10 K Fun Run at TITANIUM 2011 forwards and backwards twice or taking on an entire marathon.
New Management Team for TICO Titanium
Continued From Page 1

With his Bachelor of Science degree in Metallurgical Engineering from Virginia Tech, Jeff has a solid technical background in materials.

Lynn A. Brace has been appointed as the new General Manager of Tico’s Wixom Facility, which is the company’s largest, start-of-the-art, sales and production facility. For the past 23 years Lynn has served as the sales and purchasing manager for Tico, and has an impressive 35+ year tenure with the company. Lynn’s market and titanium product knowledge is unparalleled. Responsible for overseeing the daily operations, sales, and purchasing management of the Wixom facility, Lynn works closely with Jeff to maintain Tico’s high level of quality and service in order to provide increased value to customers and enhance the overall customer experience.

Stephen Patera has been appointed to the position of Sales Manager, with responsibility for overseeing all existing customer sales, service, and business development. Steve joined Tico in April of 2011 from his position as Titanium Product Manager for Corrosion Materials. Responsible for opening the regional office and service center for the Timet St. Louis operation in 1990, Mr. Patera brings 25 years of Titanium and metals industry product and management experience to the Tico team.

Dallas Quinton has been appointed as the Marketing Manager for the company’s Houston, TX location. Dallas joins Tico from high temperature alloy specialist Haynes International bringing years of experience in sales and customer service specializing in fabrication and contract business. Dallas will assume responsibilities which include marketing, new business development, contract order project management, and will oversee the Houston facility’s daily sales activity.

Christopher Combs has been appointed as the Marketing Manager for the company’s Wixom, MI location, with responsibility for marketing, project sales, new business development, and contact sales. He brings 16 years of sales and operational experience to his new position. He was previously the Operations Manager for the Tico Wixom facility.

“With his Bachelor of Science degree in Metallurgical Engineering from Virginia Tech, Jeff has a solid technical background in materials.” said Lawrence D. Buhl III, CEO of Lawrence Holdings, Inc.

Tico Titanium, Inc is widely recognized as a leading commercial grade Titanium distributor, with dynamic capabilities and knowledge base in the areas of fabrication, forgings and special projects. Dedicated to supplying the industrial titanium market segment, Tico has the capability of providing a full range of titanium products to complete any materials package.

Tico Titanium, Inc is a Lawrence Holdings, Inc Company. A leader in specialty metals distribution with locations across America, other LHI companies include: Alloy Metals, Inc; Snappy Materials, Inc; and Supra Alloys, Inc.

GfE Celebrates 100 Years
Continued From Page 5

“AMG is proud of GfE’s achievements. Through innovation and a commitment to developing advanced metallurgical solutions for challenging markets, GfE has reached a 100-year milestone,” Dr. Heinz Schimmelbusch, chairman of the management board and chief executive officer, said. “We recognize all of the people who have contributed to GfE’s success and we look forward to its second century of growth and innovation.”

With over 3,000 employees, AMG operates globally with production facilities in Germany, the United Kingdom, France, Czech Republic, the United States, China, Canada, Mexico, Brazil, Turkey, Poland, India and Sri Lanka. AMG also has sales and customer service offices in Belgium, Russia and Japan.
TITANIUM ACHIEVEMENT AWARD RECIPIENT: Dr. Harry Rosenberg, founder, owner and president of the Amargosa Group, received the award for contributions to the successful development of titanium in both aerospace and industrial markets

Harry Rosenberg, the founder, owner and president of the Amargosa Group, and Synthes Spine Inc., a West Chester, PA-based unit of Synthes International, are the respective winners of the prestigious International Titanium Association (ITA) 2011 Achievement Award and Applications Development Award.

The awards will be presented at TITANIUM 2011, the annual conference and exhibition sponsored by the ITA, which will be held Oct. 2-5 at the Sheraton San Diego Hotel and Marina, 1380 Harbor Island Drive, San Diego.

Jennifer Simpson, executive director of the ITA, which is based in Northglenn, CO (Web site: www.titanium.org), explained that the Titanium Achievement Award recognizes exceptional career contributions to technology and applications in the titanium industry, while the Applications Development Award cites individuals or groups that have demonstrated significant advances in the expanded use of titanium.

Stan R. Seagle, a past Achievement Award winner and consultant to the ITA, nominated Rosenberg. Jim Williams, a professor at the Materials Science and Engineering department of Ohio State University, Columbus, OH, submitted a letter in support of the nomination. Dan Buwalda, general manager, Keywell LLC, served as the committee chair of the ITA nominating committee.

Rosenberg, who resides in Pittsburgh, describes Amargosa, established in 1997, as a business venture “searching for exceptional, results-oriented innovations full of ideas for collaborations. We partner with inventors for the long term on a mutually agreeable basis.”

As a scientist, entrepreneur and a long-time executive in the titanium industry, Rosenberg has made major contributions to the successful use of titanium in the aerospace and industrial markets, Seagle stated in his nomination letter. “Harry Rosenberg’s contributions over the past 50 years to the development of titanium technology and markets make him qualified for this award,” Seagle said, noting Rosenberg has accumulated 18 titanium-related patents and 44 publications on titanium.

An executive at Titanium Metals Corp. (Timet), Dallas, for more than 25 years, Rosenberg was a leader in titanium alloy development, Seagle recalled. While at Timet Rosenberg pioneered the introduction of titanium beta alloys to the market place, including Ti10V-2Fe-3Al, used in airframe applications, and Ti-6242 and Ti-6246 for gas turbine engine applications. Seagle also noted that Rosenberg “was instrumental in developing a production strip process for the high-strength beta alloy Ti-15-333,” which is specified for airframe applications.

“The Ti10V-2Fe-3Al alloy was my pride and joy at Timet. I gave it birth right from the notebook,” Rosenberg said in a phone interview. He said the alloy bypassed the usual “military shakeout” and went straight to a commercial aerospace application. In the late 1980s it was specified for landing gear forgings used on the Boeing 777. “It was a near-beta material, a new class of alloys. It was a wonder to forge—just like butter,” he said.

“Yes, the ITA award is a major achievement for me,” he acknowledged, reflecting on his years in the titanium industry. Along with his efforts to create new alloys, Rosenberg also took stock of his managerial capabilities. “I learned how to hire good people along the way in my career.”

In the later stages of his career (1985-2000), Rosenberg left Timet, along with two associates, to form the Alta Group, which was based in Fombell, PA, in order to pursue the development of titanium for the burgeoning global electronics market. “The timing was right,” Seagle observed. “Computer chips became ubiquitous and extremely high-purity titanium was required for the manufacture of thin films.” The Alta Group was sold to Johnson Matthey in 1992 and later acquired by Honeywell.

Continued on Page 18
These days, in addition to his efforts with Amargosa and doing some titanium consulting, Rosenberg’s main interest is gathering information for a different Web site: http://roadtopeace.org. As the name suggests, it will serve as a hub to educate visitors on the ways to achieve peaceful coexistence—within societies and among nations. “Dialogue among people of different cultures, ethnicity, religion, and socioeconomic background is our immediate goal,” the site states in its “Who We Are” introduction. “Perspective and depth of insight are sought, for we cannot afford to be superficial. Providing secure channels for private or public communication is our primary goal.” His hope, he said, is that the Web site will help to inspire international movements for peace.

Brett Paddock, president and chief executive officer of Titanium Industries Inc., Rockaway, NJ, was the committee chair for the ITA’s Applications Development Award. Synthes, according to information found on its Web site (www.synthes.com), is a global medical device company that develops, produces and markets instruments, implants and biomaterials for the surgical fixation, correction and regeneration of the human skeleton and its soft tissues.

John Disegi, group manager materials development for the Synthes (USA) Tech Center, and Roberto Khatchadourian, group manager, Synthes Spine, both located in West Chester, cited the company’s work on the Vertical Expandable Prosthetic Titanium Rib (VEPTR), a medical implant that utilizes the alloy Ti-6Al-7Nb and commercially pure titanium components.

Khatchadourian, in his submission for the ITA award, wrote that prior to the design and release of VEPTR, “there was no known implant device that was indicated for the treatment of thoracic insufficiency syndrome (TIS) in skeletally immature patients.” The Children’s Hospital of Philadelphia, on its Web site for information on orthopaedic surgery, described TIS as an affliction where a child’s rib cage and spine does not keep pace with normal growth—a condition that results in deformity and breathing problems.

VEPTR mechanically stabilizes and “distracts” the thorax (the chest and rib cage) to correct three-dimensional thoracic deformities. The VEPTR system “allows distraction of the titanium rib prosthesis to accommodate a patient’s skeletal growth,” Khatchadourian wrote. “This implant design utilizes distraction principles, which will not interfere with normal skeletal growth.” In essence, the device supports and expands the chest wall, creating room for lung growth, and helps to maintain spinal alignment. VEPTR is “a wonderful humanitarian achievement,” Khatchadourian declared.

Last year Edward F. Sobota Sr., the late founder and president of TSI Titanium, Derry, PA, and Edward Rosenberg, the chief executive officer of Spectore Corp., Deerfield Beach, FL, were the respective winners of the ITA’s Achievement Award and Applications Development Award.

### ITA Accepting 2012 Nominations
The ITA is seeking nominations for the 2012 Titanium Achievement Award Recipient. Members may nominate an individual within the titanium industry who has exhibited outstanding qualities of leadership, and has been responsible for accomplishments that positively impact the titanium community.

### 2012 Titanium Applications Development Award
The ITA is seeking nominations for an individual, group of individuals or organization within the titanium industry who has shown significant achievement towards improving and expanding the use of titanium.

Complete details for both awards can be downloaded directly from the ITA website at www.titanium.org.
2011 New Members

ITA would like to welcome these new members:

Cool Clean Technologies

Machining Coolant systems utilizing Co2 called ChilAire. ChilAire is ideal for Titanium, as there is no oil-water, no mess, and increases throughput and extends cutting tool life.

GE Aviation

GE - Aviation is the world’s leading producer of large and small jet engines for commercial and military aircraft. We also supply aircraft-derived engines for marine applications and provide aviation services. GE – Aviation’s technological excellence, supported by continuing substantial investments in research and development, has been the foundation of growth, and helps to ensure quality products for customers.

Haynes International, Inc.

Haynes International, Inc., headquartered in Kokomo, Indiana, USA, is a leading developer, manufacturer and marketer of high-performance nickel- and cobalt-based alloys used in corrosion and high-temperature applications. Our highly-trained staff and technicians provide superior customer service, worldwide technical support and one-on-one consultation in selecting the proper alloy for the application. In addition to stocking our standard product forms, our global service centers offer value-added services to shorten your cycle time, reduce material waste and increase your operations' efficiency. Haynes International is a partner in your entire material management system and provides value far beyond the alloys themselves.

JL Becker / CI Hayes

The J. L. Becker Co. and C. I. Hayes are divisions of gasbarre products. The J. L. Becker Co. designs and manufactures custom furnaces for forging and heating; atmosphere gas generators and auxiliary equipment. C. I. Hayes product line includes vacuum and atmosphere furnaces for a wide range of processes.

KV-Titan LLC

KV-Titan Ltd. was founded in 2001. The main areas of operation include:

• raw titanium materials trade (titanium sponge and scrap)
• titanium ingots and slabs trade.
• electron beam equipment trade.

Founders of the company are graduates from Moscow Engineering and Physical Institute, experts in the field of General and Physical Metallurgy. The employees have the experience working in the titanium market since 1993. The company currently cooperates with Ukrainian companies Strategy BM and Design Office of Vacuum Metallurgical Equipment, focusing mainly on the manufacture and delivery of electron-beam equipment. In alliance with our Ukrainian partners, KV-Titan LLC is responsible for marketing, logistics and financial management.

Oakley X-METAL

X-Metal is a full service Titanium Investment Casting facility. We offer rapid prototyping, design liaison, engineering services, polishing, machining and assembly. We have the technology, equipment, and expertise to handle anything from small lot sizes to high volume production of commercial titanium castings.

If you have a project that can benefit from combining the high strength-to-weight ratio of titanium with the flexibility in design geometry of investment casting, contact us for additional information on any of our services. With leading-edge technology and innovative solutions, we can help

Continued on Page 20
your business reduce costs and improve quality. Broker and agent contacts are also welcome.

**Oak Ridge National Laboratory**

As we celebrate ORNL’s historical achievements, our challenge is to build on alvin Weinberg’s notion of a laboratory whose mission evolves and strengthens over time. To that end, we continue to build on ORNL’s historic competencies in energy, life sciences, neutron sciences and advanced materials, while adding new research missions in the areas of national security and high-performance computing.

**Shannxi Rongyang Industrial Development**

Shaanxi Rongyang Industrial Development Co., Ltd., is a leading processor and Exporter of titanium, service global aerospace, medical device and industrial markets. With our factory located in Baoji, the China titanium city, the range of our main products include ingot, bar and wire of CP, Ti-6Al-4V and Ti-6Al-4V Eli grades. As 9001:2000 certified company, we have exported to Germany, Italy, Middle East and India with a good reputation. In addition to titanium bar and wire, we also supply other titanium materials, such as titanium plate, tube, fastener, and parts, which are processed with our own materials in other factory. Supply OEM services as the client’s design and samples.

**Todays Metals LLC**

Todays Metals LLC is a strategic metals consultation firm. Todays Metals LLC specializes in the representation and promotion of titanium products throughout North America. Todays Metals LLC specializes in the preparation of market analysis, short and long term project work, sales and business development. Special emphasis is placed on the sale and development of rammed graphite casting applications for both the industrial market and for military applications. Contact William Budd via email at budd2006@gmail.com, wbudd@tmo.blackberry.net, budd.william351@gmail.com.

**Universal Technical Resource Services, Inc. (UTRS)**

Engineering services company, primarily focused on delivering services to the US Government. UTRS maintains a research and development facility working with material science projects, specifically with titanium and titanium alloys.

**Yunnan Titanium Industry Co., Ltd.**

Yunnan Titanium Industry Co., Ltd.(Yunti) is specialized in the production and processing of titanium strip and coil and dedicated to technology research of titanium industry in China, which has manufactured ability from titanium slab to cold rolled titanium strip and coil with minimum thickness of 0.5 mm. Yunti has rich technical resources and innovation ability, Yunti has established the standard quality management system, Occupational Health and Safety and Environment management and systems based upon international standards. Yunti has a production capacity of 5,000 tons titanium coils per year.

**Trans-Matic**

Trans-Matic is a global industry leader providing engineered components, mechanical assemblies and proprietary products to several markets. Our specialty is the design and manufacturing of deep drawn and stamped precision metal components and assemblies. We have full service product development and production facilities in the USA and China, with additional sales and technical support in Europe. Trans-Matic serves a broad range of global customers enabling unique access to diverse markets, products and technologies. Our financial strength enables a long term investment strategy with state of the art equipment and processes. Our value engineering and development capabilities create proprietary product features and functionality for our customers. Trans-Matic has a consistent record of world class quality, delivery and value. Facilities are certified ISO 9001, TS 16949 and ISO 14001. Trans-Matic was established in 1968 and is privately owned and operated. For more information go to www.transmatic.com.

*Interested in becoming a member? Contact the International Titanium Association for more details or visit the ITA website at www.titanium.org*
TITANIUM 2012 Exhibition Space Now Available

With word of mouth, vendor space has been getting popular and is available right now, so don’t miss your chance to connect with colleagues to let them know just who you are and what you can do for them!

TITANIUM 2011 exhibition was sold out within a month! Don’t delay – email or fax your application quickly!

All applications are considered for assignment according to the priority point system and the date and time they are received to ITA. Your booth space will not be considered final until an ITA representative has contacted you.

Exhibit space entitles you to many benefits and services such as:

Quality Leads
More decision makers attend the ITA’s TITANIUM Conference than any other meeting in the industry. These are the leads you want! These are the leads you keep!

Networking Opportunities
Everyone who’s anyone will be there. Network with colleagues, customers and even competitors- building these relationships can help your business grow. With a three-day exhibit, the ITA offers unlimited opportunity to re-establish old contacts and generate new ones. Where else can you network with so many industry-specific professionals at one time?

The Right Partners
As the titanium conference to attend, now in its 28th year, is the best attended titanium meeting in the world. We bring together a diverse group of organizations, each with their own unique strengths, to produce the best event in the industry. Where else can you reach this level of diversity within this industry at one time?

International Appeal
For exhibitors with international aspirations, TITANIUM 2012 captures that audience. The conference continues to generate foreign registrations. Participants from over 23 countries attend the show.

Be a part of something bigger
More than a conference, TITANIUM 2012 is where industry comes together to network, learn, and grow. Participate in vital discussions like our industry keynotes and interactive general session panels, update your knowledge through expert-led sessions and expand your reach.

Bottom Line
There is no other exhibition and conference that specifically targets this industry. If you want name recognition in this industry, you must exhibit at this show. It is the single-most cost-effective means by which to generate visibility and income-producing leads for your company.

Location
Atlanta, Georgia! See you there!

Where to sign up?
Visit the ITA website at www.titanium.org right now to download your exhibit booth application.
• **TITAL supplies Water Extractor for Aircraft A/C Systems**
• **Customer will equip Boeing 747-800 and A400M**
• **Investment Castings “Ready for Assembly”**
• **Become a System Supplier**

Bestwig. The investment casting specialist TITAL has established itself as a system supplier to Liebherr Toulouse, one of the leading manufacturers of air conditioning systems (Liebherr supplies the aviation industry with components for air conditioning systems). TITAL will produce two different air-water extractors at a total quantity of more than 1,000 units ready for assembly over the coming years. The aluminium investment castings are fundamental parts of Liebherr’s A/C systems to equip the Boeing 747-800 as well as the military transporter A400M. To date Liebherr’s water extractors were assembled and welded by hand from a large number of individual parts. However, the investment casting technology now allows Liebherr to reduce to four the number of individual parts and thus to make significant savings in terms of weight and costs.

Philipp Jerusalem, Director Sales & Marketing at TITAL, comments: „We have acquired a special unique selling proposition that clearly sets us apart from our competitors. This water extractor is a prime example of a successful vertical integration.“ This means that TITAL not only produces the four individual aluminium investment castings, but also does the machining, welding and the required pressure tests. Afterwards the functional surfaces of the water extractors undergo a special treatment. The parts receive surface protection, and finally the requested add-on parts such as screws, safety ropes, and identity plates will be assembled. Liebherr receives the water extractors ready for integration.

The water extractors that TITAL is going to supply to Liebherr’s air conditioning systems will help to extract excess humidity from the cabin air. First the passing air is cycled, so that the little water drops fly outside thanks to centrifugal forces. They stick to the walls of the extractor before flowing off via drainage channels.

About TITAL GmbH
TITAL supplies industry leading companies around the world in the field of aerospace with sophisticated aluminum and titanium investment casting products using the lost wax process. TITAL was founded in 1974 and in 2006 the management took over the company. Today the company employs more than 400 people with 2010 revenue of $63M.

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**Upcoming Fundamentals of Titanium Workshop**

**Pittsburgh, Pennsylvania**
**October 25, 2011**

For over ten years, the International Titanium Association (ITA) has presented the premier course on everything Titanium.

This comprehensive workshop has been presented all over the world and in several languages. Now, for the first time, this course is available online. This comprehensive workshop provides detailed information on the types, uses, and properties of common titanium alloys. You will gain an understanding of applied titanium metallurgy fundamentals.

**Course Objectives & Content:**
Fundamentals of Titanium will prepare you to present and work effectively with job-related functions that involve titanium. You will receive a complete overview of titanium and a thorough grounding in its metallurgy, characteristics, properties and uses.

The cost is $229 for ITA members
$349 for non-members
Online Fundamentals of Titanium Workshop

The Online Course Fundamentals of Titanium will prepare you to present and work effectively with job-related functions that involve titanium. This comprehensive workshop provides detailed information on the types, uses, and properties of common titanium alloys.

You will gain an understanding of applied titanium metallurgy fundamentals. The comprehensive titanium tutorial is broken out into 15 sessions. Students will have 16 weeks to complete the course at their own pace and leisure.

The online workshop features streaming video of Seagle delivering his lectures along with a series of coordinated text, graphics, images, charts and footage of industrial operations. Students receive a certificate of completion from the International Titanium Association.

This is the only course of its kind dedicated to titanium metal. Learn from one of the founding fathers in the titanium industry - Stanley Seagle. Mr. Seagle has been involved for 40 years in all aspects of titanium technology.

Course offered in:
- Chinese
- English
- German
- Spanish
- Russian

Course Agenda:
- Introduction And History
- Characteristics Of Titanium
- Raw Materials
- Melting
- Mill Products
- Alloys Heat Treatment
- Corrosion
- Designing With Titanium
- Joining
- Welding & Forming
- Finishing
- Cleaning
- Safety
- Applications Review And Summary

Visit the video wall by the ITA registration area or register online at the workshop section of the ITA website at www.titanium.org
Classified Ads

3860 Multi-Chip Unset Carbide Tipped Bandsaw Blade

Looking to increase your productivity? Visit the Bahco Bandsaw Booth # 334 Learn more about cutting Titanium efficiently.

Contact Bahco: 800-446-7404

Material For Sale:

California Titanium LLC currently has the following materials for sale:

Grade 5 titanium (Ti-6Al-4V), ASTM B348 round bar @
Dia. 2”         Dia. 2.25”
Dia. 2.50”      Dia. 2.75”
Dia. 3.00”

Please contact sales@caltitanium.com or call (310) 683-8004 to get a quote.

Trans World Alloys makes and stocks any size Titanium Plate Grade 5

Material: Titanium
Form: Plate
Grade: 6AL 4V, Grade 5
Thickness: .250” – 4.0”

Available sizes: Cut to size or full plate or oversized
Certs: Mill
Manufacture: Domestic
Specification: AMS 4911, MILT 9046, AMST 9046

*Short lead time*

Trans World Alloys is a full service ISO 9001:2008 & AS 9100 certified distributor of Titanium, aluminum and various other high-temperature alloys. We specialize in titanium 6-4, 6-6-2, 6-2-4-2, 15-3-3-3, 8-1-1, 8MN, and CP alloys in sheet, plate, bar, rod, tube and forgings. Our titanium forged-to-size billets, slabs and custom blocks can be made to order to your specific size requirements. We also carry hard-to-find, extra-wide and extra-long sheet and plate. We offer value added services such as “Resale Consignment” and “Scrap Buy-Back” Programs.

Trans World Alloys
Address 249 E. Gardena Blvd. Gardena CA, 90248
Phone: +310-217-8777 Fax: 310-217-0066
Website: http://twalloys.com Email: sales@twalloys.com

C.P. Titanium rod/wire, gr. 2 and gr. 3 FOR SALE
diam. 2 and 3 mm, rod of 1m each and on spools fully certified.
T.M.P. Titanium Mill Products Ltd., Sheffield
Fax +44 114 2308855, Tel. +44 114 2302832
www.timill.com Email: paul@timill.com

As ISO and PED Certified company, Jiangsu Hongbao Group Co., Ltd specializes in manufacturing titanium rod, tube, plate and wire. Our products are widely used in heat exchangers, petro-chemical industry, aviation industry and sports appliances.

Our manufacturing capability as follows:

2. Titanium and its alloy rods ASTM B 348, F 67 Diameter: 10-150mm
3. Titanium and its alloy sheets & plates ASTM B 265, F 67 Thickness: 0.7-50mm Width: <2500mm Length: <6000mm.
4. Titanium and its alloy wire according to ASTM B 863 Diameter: 0.4mm-10mm

David Dai, Jiangsu Hongbao Group Co. Ltd.
Phone: 86-512-58715259 Fax: 86-512-58715267
Email: foreigntrade@hongbao.com

We can offer you titanium products, nickel based alloy products and some other special stainless steel from the stock. Here is part of our stock list, please check and see whether there are some items which you need.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Diameter</th>
<th>Length</th>
<th>Material</th>
<th>Quantity</th>
<th>Stock Number</th>
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<tbody>
<tr>
<td>5</td>
<td>1.8<em>1000</em>2000mm</td>
<td>2195kgs/137pcs</td>
<td>ASNA 3200E</td>
<td>DMS1592F/ASTM B265</td>
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<tr>
<td>5</td>
<td>1.6<em>914.4</em>2438181kgs/11pcs</td>
<td>MIL-T-9046J/AMS 4911H/</td>
<td>DMS1592F/ASTM B265</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hailong Industry manufactures Seamless Titanium and Titanium Alloy tube and pipe as per SB338 and SB861, with the material of Gr.1, Gr.2, Gr.7, Gr.9, Gr.12, Nickel and Nickel Alloy tube and Pipe, Ni201, Monel400, Incoloy 600, 625, Inconel 800, 825, Stainless steel tube and pipe, duplex tube etc.. The company was ISO and PED certified by TUV.

Contact Information: www.hailongtitan.com
Tel: 0086-512-58986900, Fax: 0086-512-58183187,
Email Address: hailonggood@163.com

We can offer our customers a very competitive price and a very fast delivery.

Contact Information:
Celia Qi, the international business manager of Tianjin Hengtai Industry and Trade Co., Ltd
Add: No.21 Quanfa Road, Wuqing development zone, Tianjin, China
Tel:0086-22-82173366 Fax:0086-22-82101337
Email: timetals.qi@gmail.com Web: www.timetals.com

For more information, please visit our website www.timetas.com.
Classified Ads

RTI International Metals is a leading U.S. producer of titanium mill products and fabricated metal components for the global market. Through its various subsidiaries, RTI manufactures and distributes titanium and specialty metal mill products, extruded shapes, formed parts and engineered systems for aerospace, industrial, defense, energy, chemical and consumer applications for customers around the world.

**Director of Technology - Titanium Group, Niles, OH**

Responsible for integration and coordination of all technology services across manufacturing, financial, commercial, business unit and customer groups. Responsible for department organization, administration and growth. Fulfill all required and appropriate reporting to executive management, business units, customers and suppliers. In response to business needs, position may expand in the future to include greater responsibilities. To review the complete job description please visit the ITA website at www.titanium.org.

Email resume to emabie@rtiintl.com

**Quality Assurance Manager**

This position manages, plans, coordinates, and directs the quality assurance program within established standards to ensure the prevention and/or elimination of defects in new or existing products or processes by performing the following duties personally or through subordinate supervisors. To review the complete job description please visit the ITA website at www.titanium.org.

RTI International Metals, Inc. is opening a new facility in Martinsville, Virginia. This position will be part of the start-up team. A competitive salary and excellent benefits in a team environment await the successful applicant. Qualified candidates may submit their profile on-line at http://rtiintl.com/job-postings. html requisition # RPRD172. RTI International Metals, Inc. is an Equal Opportunity Employer (M/F/H/V)

**Conversion Manager**

Conversion Manager needed for VSMPO-Tirus, US to oversee conversion of slab to coil and welded tube. Duties include:
- Logistical coordination with parent company for slab supply and welded tube conversion, including import / export requirements
- Oversight of slab preparation, rolling, and scrap collection at several processors in the United States
- Responsible for inventory control, on-time delivery, quality and yield
- Activities include regular conference calls with parent company, negotiations and tracking with subcontract vendors, regular reporting of results, business planning and forecasting.
- Some international travel required.

Requirements: Bachelor’s degree in metallurgy, 10 – 15 years production experience in specialty metals, logistics experience in metals industry, purchasing experience in metals industry – preferably conversion services
Location: Pittsburgh, PA area.
Send Resume to: humanresources@vsmpo-tirus.com

**Director – Product Management position**

Expansion into wire product manufacturing creates opportunity for a Director – Product Management position at VSMPO – Tirus, US. The position is focused on developing marketing strategy for domestically manufactured titanium product used by VSMPO – Tirus sales and distribution to service customer needs. Product responsibilities will include bar, billet, and wire in coils and straight lengths for aerospace, medical, automotive, and other applications. Strategy includes pricing, inventory stock positions, and customer qualification procedures (where necessary) needed to achieve timely new product launch and target growth. In addition, price and volume forecasting and development of purchasing requirements are part of the position description. Negotiation of material price and delivery with third party vendors will also be required.

Requirements: 4 year college degree – technical degree preferred (graduate degree desirable). 10 - 15 years experience in sales /
marketing of specialty metal long products – titanium experience preferred. Location: Pittsburgh, PA area.
Contact: humanresources@vsmpo-tirus.com
*********************************************

Metallurgical Engineering & Technician Staff.

Expansion at Dynamet Technology in development and production of its advanced titanium powder metal materials and components is creating staff positions for additional metallurgical engineering and technician staff. A powder metal background and/or a titanium research and manufacturing background is desirable. Exceptional capability in writing technical reports and compelling research and development proposals is a requirement for engineering and science positions. Individual creativity with team work interest would be a good combination.

Send brief resume to: mabkowitz@dynamettechnology.com
*********************************************

Materials for Sale:

Titanium Industries is a global manufacturing distributor of most product forms of commercially pure and many alloyed grades of titanium and offers a variety of value added services including sawing, water-jet cutting, shearing, etc. Also, many other metals are inventoried such as nickel alloys, 316LVM, cobalt-chromium-moly, 15-5 and 13-8. Please visit us at www.titanium.com for contact information for the facility/office nearest you in Asia, Europe, North America or South America.

*********************************************

Materials Wanted:

TI 8-1-1 (Titanium Plate) AMS4916

.250” or thicker in plate or flat bar (very flexible with dimensions).
400 lbs.
Material must be DFARS.
Please contact Szollia Thomas, Purchasing Department, TransWorld Alloys
Email: sthomas@twalloys.com Tel: (800) 258-8180
*********************************************
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Michael G. Metz
President, Tirus US
VSMPO Tirus US

**ITA Secretary / Treasurer:**
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Vice Chair, President & CEO
RTI International Metals, Inc.,

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Brett S. Paddock
President & CEO
Titanium Industries, Incorporated

**ITA Past President:**
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President and Chief Executive Officer
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**ITA Director:**
Jerry St. Clair
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Vulcanium Metals Incorporated

**ITA Director:**
Graham P. Walker
Vice President, Sales and Marketing
Reading Alloys, An AMETEK Company
Thank you for your continued support. Every issue of the TITANIUM Update Newsletter will recognize members that have renewed their investment with the International Titanium Association.

20+ Years
Alcoa Power & Propulsion
Allegheny Technologies Incorporated
  ATI Allegheny Ludlum
  ATI Alvac
  ATI Engineered Products
  ATI Wah Chang
Dynamet Technology, Incorporated
Monico Alloys, Incorporated
Rolled Alloys
RTI International Metals, Inc.
  RTI Claro
  RTI Energy Systems
  RTI Fabrication
  RTI Niles
Lawrence Holdings, Inc.
  Alloy Metals Inc.
  Snappy Materials LLC
  Supra Alloys Incorporated
  TICO Titanium Incorporated
TIMET, Titanium Metals Corporation
  Loterios S.p.A
Titanium Fabrication Corporation
Titanium Industries, Incorporated
Ulbrich Stainless Steels & Special Metals, Inc.
United Titanium, Inc.
Vulcanium Metals Incorporated

15 - 19 Years
BIBUS METALS AG
Consarc Corporation
Dynamet Incorporated
Excelco Developments Incorporated
Keywell LLC
Osaka Titanium Technologies CO., Ltd.
Perryman Company
President Titanium Incorporated
Reading Alloys an AMETEK Company
Retech Systems LLC
Sumitomo Corporation of America
TODIZE Company, Inc.
Titanium Engineers, Inc.
Toho Titanium Company, Ltd.
Tricor Industrial, Inc.
TSI Titanium
VSMPO-AVISMA
  NF & M International Incorporated
  VSMPO - Tirus China Ltd.
  VSMPO TiRus GmbH
  VSMPO Tirus UK Ltd.
  VSMPO Titan Ukraine Ltd.
  VSMPO-Tirus, US

10 – 14 Years
Bodycote
Cristal USA Inc DBA International Titanium Powder
Corrosion Materials
FAE S.A. Fabricacion de Aleaciones Especiales S.A.
Fort Wayne Metals
GfE Metalle und Materialien GmbH
Grandis Titanium
HEMPEL SPECIAL METALS GmbH
Hi Tech Alloys
Luxembourg Company of Metals & Alloys S.A
Pacific Cast Technologies, Inc.
Plymouth Engineered Shapes
President Company, Ltd.
Sandinox Comércio, Importação e Exportação, Ltda
Shanghai Huaxia Industry Co., Ltd.
Sims Metal Management Aerospace
Solar Atmospheres, Inc.
Spectore Corporation
Spemet Company Limited
STRATCOR, Inc.
Strohecker Incorporated
ThyssenKrupp VDM GmbH
Tianjin Hengtai Industry and Trade Co, Ltd.
Tibrasil Titania Ltda
Titanium Finishing Company
Trans World Alloys Company
VALTIMET
  High Performance Tube Inc.
Wellmet International Inc
Zak, Incorporated

5-9 Years
Accushape Inc.
Aerodyne Alloys LLC
AlloyWorks, LLC
Avon Metals Ltd
Bahco
Baoji Titanium Industry Co Ltd
CEFIVAL
ELG Utica Alloys, Inc.
EURO-TITAN Handels AG
Form & Technik GmbH
FRIGGI s.r.l.
G&S Titanium, Inc.
Goodrich Corporation - Landing Gear Div.
HORIE Corporation
Jiangsu Hongbao Group Co., Ltd.
KASTO, Inc.
Medart Inc.
Nu-Tech Precision Metals, Inc.
Olympus Innov-X
R J Enterprise, Inc
Robert Zapp Werkstofftechnik GmbH
Current Membership Includes the Following Companies

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<th>New Members 2011</th>
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<td>Roskill Information Services</td>
<td>Materials and Electrochemical Research (MER) Corp.</td>
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<tr>
<td>S. Letvin &amp; Son, Inc.</td>
<td>MetalValue Ltd</td>
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<td>Sandvik Materials Technology</td>
<td>Metalysis Ltd</td>
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<td>Specialty Metals Company</td>
<td>MetCon, LLC</td>
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<td>Specialty Metals Processing Inc.</td>
<td>METRACO NV</td>
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<td>S-Tech Corp</td>
<td>Mid-West Machine</td>
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<td>T.M.P. Titanium Mill Products Ltd</td>
<td>Northern Illinois University</td>
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<tr>
<td>Thermo Scientific Niton Handheld XRF Analyzers</td>
<td>Parker, Messana &amp; Assoc. Inc.</td>
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<td>United Alloys &amp; Metals, Inc.</td>
<td>Qinghai Supower Titanium Co., Ltd.</td>
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<td>Uniti Titanium</td>
<td>Quad Engineering Inc</td>
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<td>Verichek Technical Services, Inc.</td>
<td>Quebec Metallurgy Center</td>
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<td>West Penn Testing Group Inc.</td>
<td>Reactive Metals Studio, Inc.</td>
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<td>Western Smelting &amp; Metals, Inc.</td>
<td>Realum Ind. Com. De Metais Puros E Ligas Ltda</td>
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<td>Westmoreland Mechanical Testing &amp; Research, Inc.</td>
<td>ReMelt Scientific Inc.</td>
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<td>1 – 5 Years</td>
<td>Rex Heat Treat</td>
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<td>ACNIS International</td>
<td>Rock Island Arsenal</td>
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<td>ADMA Products, Inc.</td>
<td>Roll Forming Corporation</td>
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<td>Aeromet International PLC</td>
<td>Saigon Quy Nhon Mining Corporation Vietnam</td>
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<td>Akrapovic D.D.</td>
<td>Schaffer Grinding Co., Inc.</td>
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<td>ALD Vacuum Technologies Inc.</td>
<td>Seacast, Inc</td>
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<td>AMADA Machine Tools America, Inc.</td>
<td>Service Steel Aerospace</td>
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<td>Architectural Titanium LLC</td>
<td>StarragHeckert, Incorporated</td>
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<td>TechSolve Inc</td>
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<td>Ti Squared Technologies, Inc.</td>
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<td>TIFAST s.r.l.</td>
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<td>Timesavers International BV</td>
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<td>BioRtechnologies of Brazil</td>
<td>TITAL GmbH</td>
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<td>Bluewater Thermal Solutions</td>
<td>Titanium Consulting &amp; Trading S.r.l.</td>
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<td>BRUKER</td>
<td>Titanium International Group SRL</td>
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<td>California Titanium, LLC</td>
<td>Titanium Processing Center</td>
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<td>Titanium Products and Consulting, Inc.</td>
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<td>Center for Advanced Mineral and Metallurgical Processing</td>
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<td>Chesapeake Industrial Cleaning Products, Inc.</td>
<td>Trepanning Specialties, Inc</td>
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<td>CSIR, The Council for Scientific and Industrial Research</td>
<td>Trulife</td>
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<td>University of Northern Iowa</td>
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<td>Webco Industries, Ameri-Ti Specialty Tube Division</td>
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<td>Xi’an Metals &amp; Minerals Import &amp; Export Co., Ltd.</td>
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<td>New Members 2011</td>
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<td>Jinhua Ruipu Titanium Industrial (Group) Co., Ltd.</td>
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